Full wwPDB X-ray Structure Validation Report ⓘ

Sep 14, 2023 – 04:50 AM EDT

PDB ID	:	4V9A
Title	:	Crystal Structure of the 70S ribosome with tetracycline.
Authors	:	Jenner, L.; Yusupov, M.; Yusupova, G.
Deposited on	:	2012-07-18
Resolution	:	3.30 Å(reported)

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

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/XrayValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

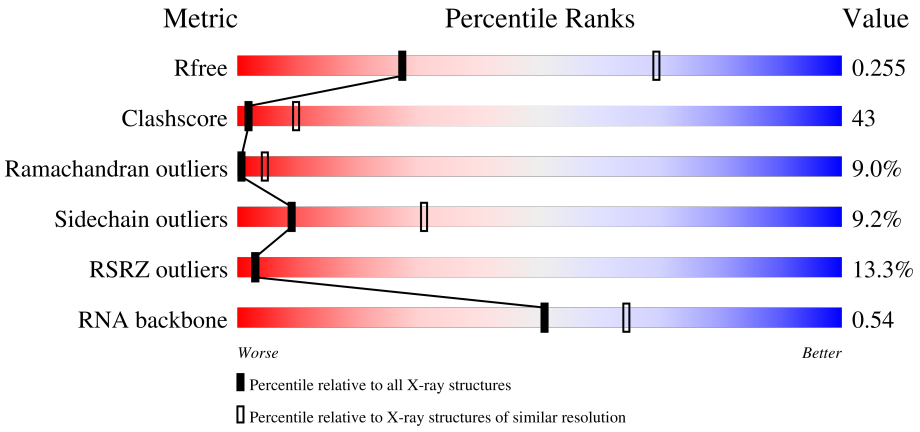
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.35.1
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & 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 3.30 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1149 (3.34-3.26)
Clashscore	141614	1205 (3.34-3.26)
Ramachandran outliers	138981	1183 (3.34-3.26)
Sidechain outliers	138945	1182 (3.34-3.26)
RSRZ outliers	127900	1115 (3.34-3.26)
RNA backbone	3102	1117 (3.70-2.90)

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	1506	25% 58% 17%
1	CA	1506	25% 59% 16%
2	AE	256	23% 22% 56% 14% 7%
2	CE	256	38% 20% 54% 18% 7%

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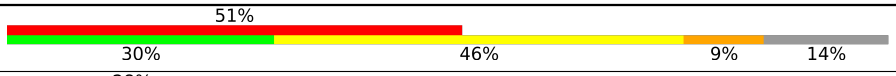
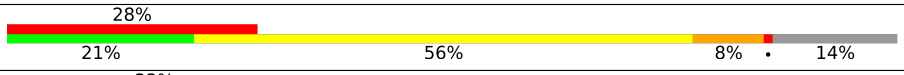
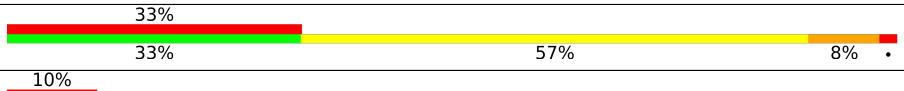
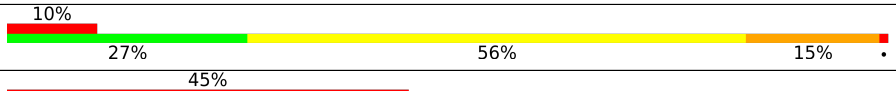
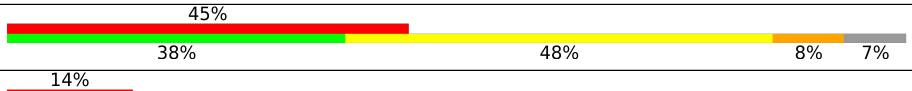
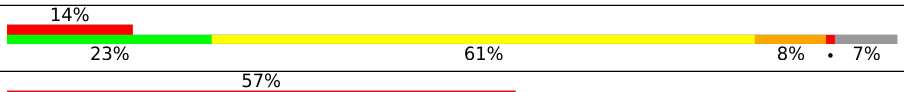
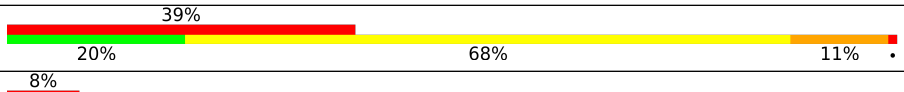
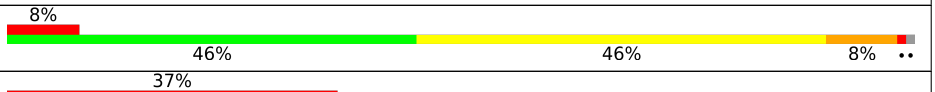
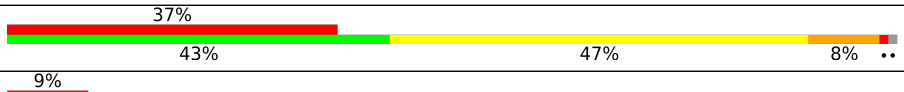
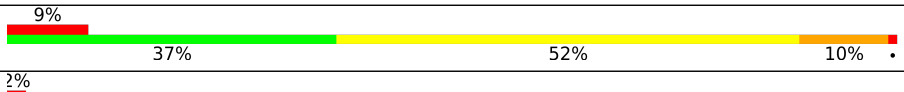
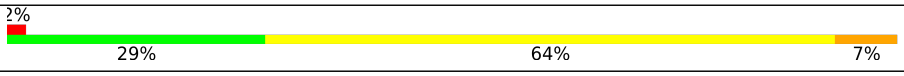
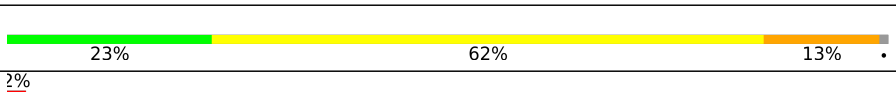
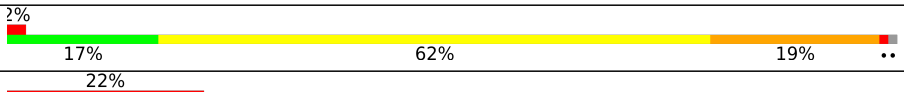
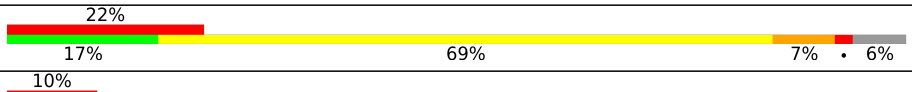
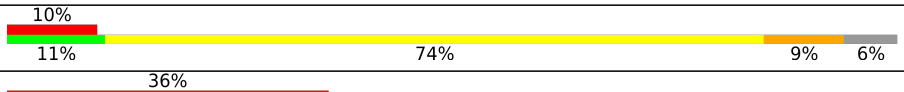
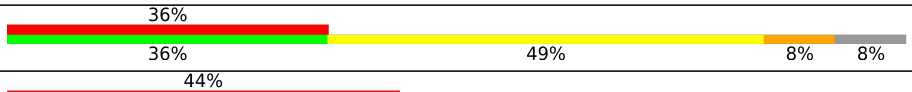
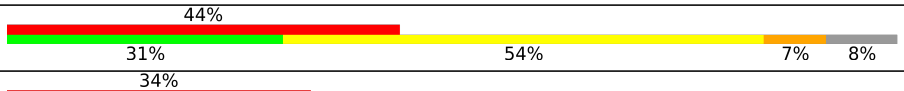
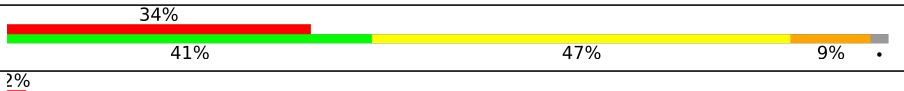
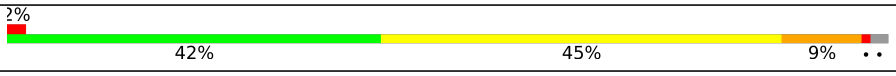
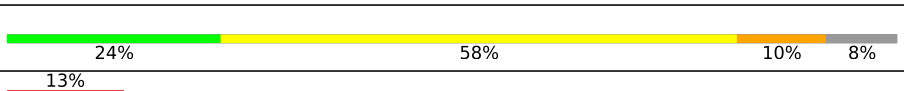
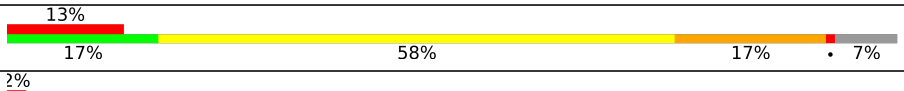
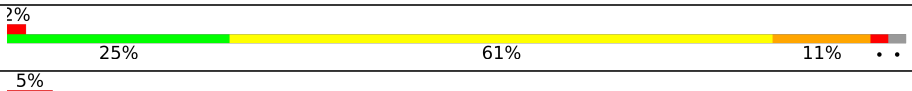
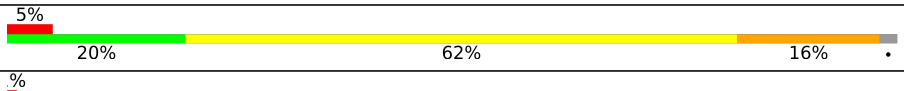
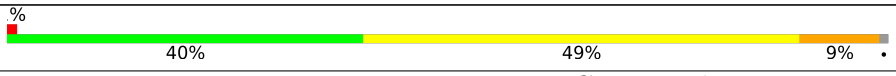
Mol	Chain	Length	Quality of chain
3	AF	239	
3	CF	239	
4	AG	208	
4	CG	208	
5	AH	162	
5	CH	162	
6	AI	101	
6	CI	101	
7	AJ	156	
7	CJ	156	
8	AK	138	
8	CK	138	
9	AL	128	
9	CL	128	
10	AM	105	
10	CM	105	
11	AN	129	
11	CN	129	
12	AO	128	
12	CO	128	
13	AP	126	
13	CP	126	
14	AQ	61	
14	CQ	61	
15	AR	89	

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Mol	Chain	Length	Quality of chain
15	CR	89	17% 43% 52%
16	AS	88	24% 59% 13% 5%
16	CS	88	32% 57% 6% 5%
17	AT	105	2% 34% 55% 6% 5%
17	CT	105	32% 42% 47% 6% 5%
18	AU	88	27% 38% 38% 7% 18%
18	CU	88	35% 20% 56% 5% 18%
19	AV	93	16% 58% 14% 11%
19	CV	93	12% 15% 52% 14% 16%
20	AW	106	20% 59% 13% 7%
20	CW	106	27% 53% 12% 7%
21	AX	27	37% 48% 7% 7%
21	CX	27	22% 56% 11% 7%
22	AC	77	53% 40% 6%
22	CC	77	12% 42% 43% 16%
23	A1	4	50% 50%
23	C1	4	50% 50%
24	BA	2912	3% 33% 52% 15%
24	DA	2912	3% 32% 52% 16%
25	BB	122	32% 55% 13%
25	DB	122	7% 20% 61% 19%
26	BD	276	13% 38% 51% 10%
26	DD	276	9% 41% 48% 9%
27	BE	206	26% 33% 52% 14%
27	DE	206	14% 26% 55% 16%

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Mol	Chain	Length	Quality of chain
28	BF	210	14% 46% 41% 9%
28	DF	210	31% 40% 50% 9%
29	BG	182	4% 32% 59% 8%
29	DG	182	76% 25% 61% 13%
30	BH	180	3% 31% 43% 16% 6% 6%
30	DH	180	33% 13% 59% 20% 6%
31	BK	148	6% 21% 64% 14%
31	DK	148	5% 26% 57% 15%
32	BM	140	8% 38% 51% 9%
32	DM	140	17% 39% 49% 10%
33	BN	122	2% 50% 46%
33	DN	122	11% 49% 45% 5%
34	BO	150	28% 37% 43% 19%
34	DO	150	31% 23% 53% 23%
35	BP	141	6% 38% 49% 12%
35	DP	141	17% 40% 45% 13%
36	B0	118	16% 32% 57% 11%
36	D0	118	6% 40% 50% 9%
37	BQ	112	21% 29% 57% 12%
37	DQ	112	21% 23% 57% 18%
38	BR	146	12% 31% 56% 6% 6%
38	DR	146	10% 27% 53% 13% 6%
39	B1	118	3% 45% 44% 10%
39	D1	118	14% 39% 53% 6%
40	B2	101	31% 38% 51% 11%

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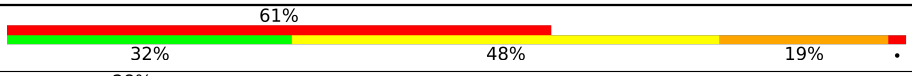
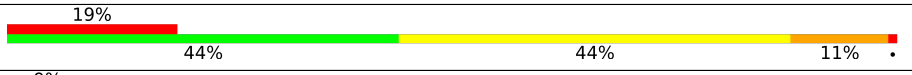
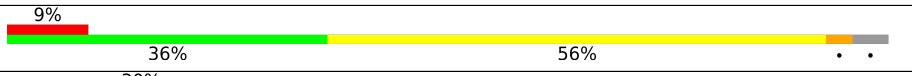
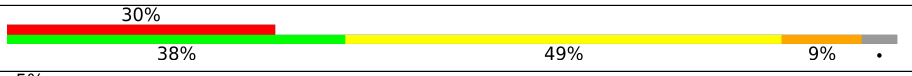
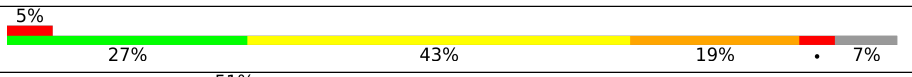
Mol	Chain	Length	Quality of chain
40	D2	101	
41	BS	113	
41	DS	113	
42	BT	96	
42	DT	96	
43	BU	110	
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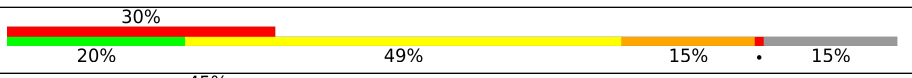
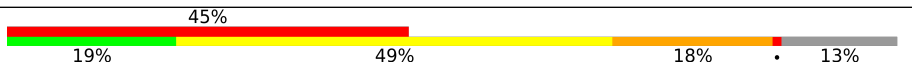
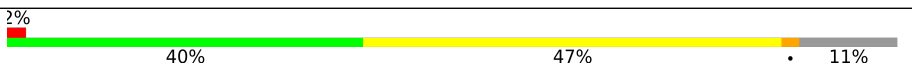
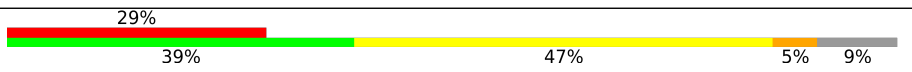
44	BV	206	
44	DV	206	
45	B3	85	
45	D3	85	
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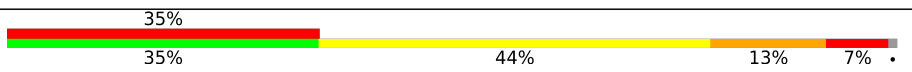
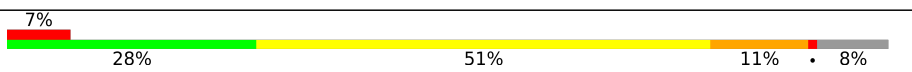
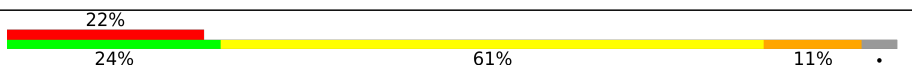
46	DZ	98	
47	BW	72	
47	DW	72	
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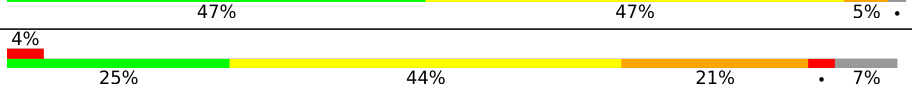
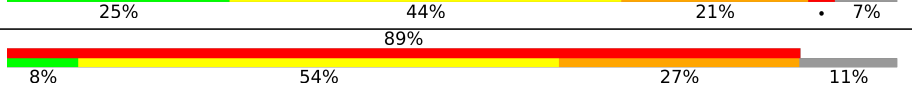
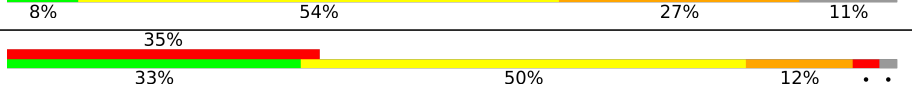
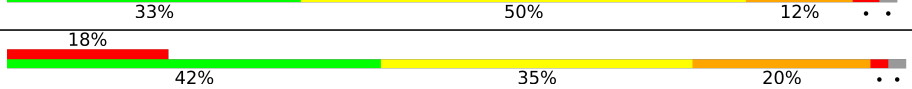
48	DX	60	
49	B4	71	
49	D4	71	
50	B5	60	
50	D5	60	
51	B6	54	
51	D6	54	
52	B7	49	
52	D7	49	

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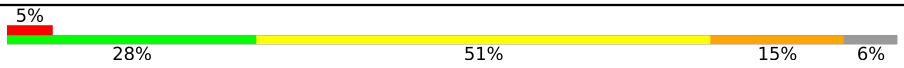
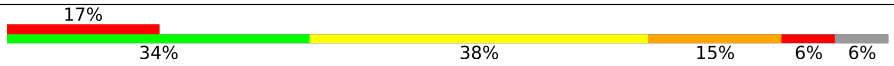
Mol	Chain	Length	Quality of chain
53	B8	65	
53	D8	65	

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
54	MG	AA	1662	-	-	-	X
54	MG	AA	1674	-	-	-	X
54	MG	AA	1676	-	-	-	X
54	MG	AA	1683	-	-	-	X
54	MG	AA	1694	-	-	-	X
54	MG	AA	1724	-	-	-	X
54	MG	AA	1730	-	-	-	X
54	MG	AA	1748	-	-	-	X
54	MG	AA	1750	-	-	-	X
54	MG	AA	1751	-	-	-	X
54	MG	AA	1752	-	-	-	X
54	MG	AA	1770	-	-	-	X
54	MG	AA	1773	-	-	-	X
54	MG	AA	1790	-	-	-	X
54	MG	AA	1805	-	-	-	X
54	MG	AA	1809	-	-	-	X
54	MG	AA	1810	-	-	-	X
54	MG	AA	1820	-	-	-	X
54	MG	AC	108	-	-	-	X
54	MG	B6	101	-	-	-	X
54	MG	BA	3056	-	-	-	X
54	MG	BA	3069	-	-	-	X
54	MG	BA	3075	-	-	-	X
54	MG	BA	3084	-	-	-	X
54	MG	BA	3095	-	-	-	X
54	MG	BA	3096	-	-	-	X
54	MG	BA	3119	-	-	-	X
54	MG	BA	3188	-	-	-	X
54	MG	BA	3191	-	-	-	X
54	MG	BA	3204	-	-	-	X
54	MG	BA	3212	-	-	-	X
54	MG	BA	3214	-	-	-	X
54	MG	BA	3228	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
54	MG	BA	3245	-	-	-	X
54	MG	BA	3251	-	-	-	X
54	MG	BA	3275	-	-	-	X
54	MG	BA	3285	-	-	-	X
54	MG	BA	3292	-	-	-	X
54	MG	BA	3296	-	-	-	X
54	MG	BA	3319	-	-	-	X
54	MG	BA	3329	-	-	-	X
54	MG	BA	3340	-	-	-	X
54	MG	BA	3357	-	-	-	X
54	MG	BA	3361	-	-	-	X
54	MG	BA	3365	-	-	-	X
54	MG	BA	3368	-	-	-	X
54	MG	BA	3369	-	-	-	X
54	MG	BA	3370	-	-	-	X
54	MG	BA	3376	-	-	-	X
54	MG	BA	3395	-	-	-	X
54	MG	BA	3396	-	-	-	X
54	MG	BA	3398	-	-	-	X
54	MG	BA	3406	-	-	-	X
54	MG	BA	3407	-	-	-	X
54	MG	BA	3411	-	-	-	X
54	MG	BA	3421	-	-	-	X
54	MG	BA	3424	-	-	-	X
54	MG	BA	3429	-	-	-	X
54	MG	BA	3431	-	-	-	X
54	MG	BA	3442	-	-	-	X
54	MG	BA	3443	-	-	-	X
54	MG	BA	3446	-	-	-	X
54	MG	BA	3449	-	-	-	X
54	MG	BA	3455	-	-	-	X
54	MG	BA	3458	-	-	-	X
54	MG	BA	3465	-	-	-	X
54	MG	BA	3493	-	-	-	X
54	MG	BA	3496	-	-	-	X
54	MG	BA	3505	-	-	-	X
54	MG	BA	3509	-	-	-	X
54	MG	BA	3526	-	-	-	X
54	MG	BA	3527	-	-	-	X
54	MG	BA	3534	-	-	-	X
54	MG	BA	3535	-	-	-	X
54	MG	BA	3539	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
54	MG	BA	3540	-	-	-	X
54	MG	BA	3541	-	-	-	X
54	MG	BA	3564	-	-	-	X
54	MG	BA	3576	-	-	-	X
54	MG	BA	3612	-	-	-	X
54	MG	BA	3618	-	-	-	X
54	MG	BA	3626	-	-	-	X
54	MG	BB	211	-	-	-	X
54	MG	BB	214	-	-	-	X
54	MG	BE	304	-	-	-	X
54	MG	CA	1602	-	-	-	X
54	MG	CA	1604	-	-	-	X
54	MG	CA	1622	-	-	-	X
54	MG	CA	1630	-	-	-	X
54	MG	CA	1644	-	-	-	X
54	MG	CA	1650	-	-	-	X
54	MG	CA	1695	-	-	-	X
54	MG	CA	1705	-	-	-	X
54	MG	CA	1707	-	-	-	X
54	MG	CA	1716	-	-	-	X
54	MG	CA	1723	-	-	-	X
54	MG	CA	1731	-	-	-	X
54	MG	CA	1747	-	-	-	X
54	MG	CA	1750	-	-	-	X
54	MG	CA	1751	-	-	-	X
54	MG	CA	1758	-	-	-	X
54	MG	CA	1778	-	-	-	X
54	MG	CA	1794	-	-	-	X
54	MG	DA	3002	-	-	-	X
54	MG	DA	3018	-	-	-	X
54	MG	DA	3037	-	-	-	X
54	MG	DA	3074	-	-	-	X
54	MG	DA	3104	-	-	-	X
54	MG	DA	3135	-	-	-	X
54	MG	DA	3158	-	-	-	X
54	MG	DA	3172	-	-	-	X
54	MG	DA	3239	-	-	-	X
54	MG	DA	3256	-	-	-	X
54	MG	DA	3291	-	-	-	X
54	MG	DA	3293	-	-	-	X
54	MG	DA	3295	-	-	-	X
54	MG	DA	3301	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
54	MG	DA	3310	-	-	-	X
54	MG	DA	3318	-	-	-	X
54	MG	DA	3320	-	-	-	X
54	MG	DA	3333	-	-	-	X
54	MG	DA	3339	-	-	-	X
54	MG	DA	3354	-	-	-	X
54	MG	DA	3367	-	-	-	X
54	MG	DA	3410	-	-	-	X
54	MG	DA	3424	-	-	-	X
54	MG	DA	3478	-	-	-	X
54	MG	DA	3486	-	-	-	X
54	MG	DA	3523	-	-	-	X
56	ZN	CG	303	-	-	X	-

2 Entry composition

There are 56 unique types of molecules in this entry. The entry contains 292440 atoms, of which 1 is hydrogen 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 ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AA	1506	Total	C	N	O	P	0	0	0
			32369	14408	5997	10459	1505			
1	CA	1506	Total	C	N	O	P	0	0	0
			32372	14408	5997	10461	1506			

- Molecule 2 is a protein called 30S RIBOSOMAL PROTEIN S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AE	237	Total	C	N	O	S	0	0	0
			1924	1228	344	347	5			
2	CE	237	Total	C	N	O	S	0	0	0
			1924	1228	344	347	5			

- Molecule 3 is a protein called 30S RIBOSOMAL PROTEIN S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	AF	205	Total	C	N	O	S	0	0	0
			1605	1011	313	280	1			
3	CF	206	Total	C	N	O	S	0	0	0
			1612	1016	314	281	1			

- Molecule 4 is a protein called 30S RIBOSOMAL PROTEIN S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	AG	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			
4	CG	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			

- Molecule 5 is a protein called 30S RIBOSOMAL PROTEIN S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	AH	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			
5	CH	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			

- Molecule 6 is a protein called 30S RIBOSOMAL PROTEIN S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AI	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			
6	CI	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			

- Molecule 7 is a protein called 30S RIBOSOMAL PROTEIN S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	AJ	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			
7	CJ	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			

- Molecule 8 is a protein called 30S RIBOSOMAL PROTEIN S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	AK	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			
8	CK	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			

- Molecule 9 is a protein called 30S RIBOSOMAL PROTEIN S9.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
9	AL	127	Total	C	N	O	0	0	0
			1010	639	197	174			
9	CL	127	Total	C	N	O	0	0	0
			1010	639	197	174			

- Molecule 10 is a protein called 30S RIBOSOMAL PROTEIN S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	AM	99	Total	C	N	O	S	0	0	0
			801	504	157	139	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	CM	99	Total	C	N	O	S	0	0	0
			801	504	157	139	1			

- Molecule 11 is a protein called 30S RIBOSOMAL PROTEIN S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	AN	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			
11	CN	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			

- Molecule 12 is a protein called 30S RIBOSOMAL PROTEIN S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	AO	125	Total	C	N	O	S	0	0	0
			975	614	196	164	1			
12	CO	125	Total	C	N	O	S	0	0	0
			975	614	196	164	1			

- Molecule 13 is a protein called 30S RIBOSOMAL PROTEIN S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	AP	116	Total	C	N	O	S	0	0	0
			928	574	191	161	2			
13	CP	117	Total	C	N	O	S	0	0	0
			933	577	192	162	2			

- Molecule 14 is a protein called 30S RIBOSOMAL PROTEIN S14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	AQ	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			
14	CQ	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			

- Molecule 15 is a protein called 30S RIBOSOMAL PROTEIN S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	AR	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			
15	CR	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			

- Molecule 16 is a protein called 30S RIBOSOMAL PROTEIN S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	AS	84	Total	C	N	O	S	0	0	0
			705	446	140	118	1			
16	CS	84	Total	C	N	O	S	0	0	0
			705	446	140	118	1			

- Molecule 17 is a protein called 30S RIBOSOMAL PROTEIN S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	AT	100	Total	C	N	O	S	0	0	0
			834	534	155	143	2			
17	CT	100	Total	C	N	O	S	0	0	0
			834	534	155	143	2			

- Molecule 18 is a protein called 30S RIBOSOMAL PROTEIN S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	AU	72	Total	C	N	O	0	0	0
			591	376	117	98			
18	CU	72	Total	C	N	O	0	0	0
			591	376	117	98			

- Molecule 19 is a protein called 30S RIBOSOMAL PROTEIN S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AV	83	Total	C	N	O	S	0	0	0
			665	424	124	115	2			
19	CV	78	Total	C	N	O	S	0	0	0
			624	398	115	109	2			

- Molecule 20 is a protein called 30S RIBOSOMAL PROTEIN S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AW	99	Total	C	N	O	S	0	0	0
			763	470	162	129	2			
20	CW	99	Total	C	N	O	S	0	0	0
			763	470	162	129	2			

- Molecule 21 is a protein called 30S RIBOSOMAL PROTEIN THX.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	AX	25	Total	C	N	O	0	0	0
			217	134	52	31			
21	CX	25	Total	C	N	O	0	0	0
			217	134	52	31			

- Molecule 22 is a RNA chain called TRNA-FMET.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	AC	77	Total	C	N	O	P	0	0	0
			1640	732	298	534	76			
22	CC	77	Total	C	N	O	P	0	0	0
			1640	732	298	534	76			

There are 8 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AC	17A	C	U	conflict	GB AP008226.1
AC	50	U	C	conflict	GB AP008226.1
AC	51	C	G	conflict	GB AP008226.1
AC	63	G	C	conflict	GB AP008226.1
CC	17A	C	U	conflict	GB AP008226.1
CC	50	U	C	conflict	GB AP008226.1
CC	51	C	G	conflict	GB AP008226.1
CC	63	G	C	conflict	GB AP008226.1

- Molecule 23 is a RNA chain called MRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	A1	4	Total	C	N	O	P	0	0	0
			85	38	14	29	4			
23	C1	4	Total	C	N	O	P	0	0	0
			85	38	14	29	4			

- Molecule 24 is a RNA chain called 23S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	BA	2912	Total	C	N	O	P	0	0	0
			62707	27911	11722	20163	2911			
24	DA	2909	Total	C	N	O	P	0	0	0
			62647	27884	11716	20139	2908			

There are 14 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
BA	161	U	-	insertion	GB AP008226.1
BA	654A	A	G	conflict	GB AP008226.1
BA	654E	C	G	conflict	GB AP008226.1
BA	654P	G	C	conflict	GB AP008226.1
BA	654T	A	C	conflict	GB AP008226.1
BA	1058	U	G	conflict	GB AP008226.1
BA	1080	A	C	conflict	GB AP008226.1
DA	158	U	-	insertion	GB AP008226.1
DA	654A	A	G	conflict	GB AP008226.1
DA	654E	C	G	conflict	GB AP008226.1
DA	654P	G	C	conflict	GB AP008226.1
DA	654T	A	C	conflict	GB AP008226.1
DA	1058	U	G	conflict	GB AP008226.1
DA	1080	A	C	conflict	GB AP008226.1

- Molecule 25 is a RNA chain called 5S RIBOSOMAL RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	BB	122	Total	C	N	O	P	0	0	0
			2617	1166	486	844	121			
25	DB	122	Total	C	N	O	P	0	0	0
			2617	1166	486	844	121			

- Molecule 26 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	BD	272	Total	C	N	O	S	0	0	0
			2115	1335	420	357	3			
26	DD	272	Total	C	N	O	S	0	0	0
			2115	1335	420	357	3			

- Molecule 27 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	BE	205	Total	C	N	O	S	0	0	0
			1568	991	300	271	6			
27	DE	205	Total	C	N	O	S	0	0	0
			1568	991	300	271	6			

- Molecule 28 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	BF	202	Total	C	N	O	S	0	0	0
			1585	1011	297	275	2			
28	DF	208	Total	C	N	O	S	0	0	0
			1627	1037	304	283	3			

- Molecule 29 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	BG	181	Total	C	N	O	S	0	0	0
			1474	942	268	260	4			
29	DG	181	Total	C	N	O	S	0	0	0
			1474	942	268	260	4			

- Molecule 30 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	BH	170	Total	C	N	O	S	0	0	0
			1307	829	245	232	1			
30	DH	170	Total	C	N	O	S	0	0	0
			1307	829	245	232	1			

- Molecule 31 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	BK	146	Total	C	N	O	S	0	0	0
			1136	726	201	208	1			
31	DK	146	Total	C	N	O	S	0	0	0
			1136	726	201	208	1			

- Molecule 32 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	BM	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			
32	DM	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			

- Molecule 33 is a protein called 50S ribosomal protein L14.

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

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

- Molecule 34 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	BO	150	Total	C	N	O	S	0	0	0
			1145	712	232	198	3			
34	DO	150	Total	C	N	O	S	0	0	0
			1145	712	232	198	3			

- Molecule 35 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	BP	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			
35	DP	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			

- Molecule 36 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	B0	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			
36	D0	117	Total	C	N	O		0	0	0
			960	599	202	159				

- Molecule 37 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
37	BQ	111	Total	C	N	O	0	0	0
			882	556	176	150			
37	DQ	111	Total	C	N	O	0	0	0
			882	556	176	150			

- Molecule 38 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	BR	137	Total	C	N	O	S	0	0	0
			1141	710	234	196	1			
38	DR	137	Total	C	N	O	S	0	0	0
			1141	710	234	196	1			

- Molecule 39 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	B1	117	Total	C	N	O	S	0	0	0
			964	610	202	151	1			
39	D1	117	Total	C	N	O	S	0	0	0
			964	610	202	151	1			

- Molecule 40 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	B2	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			
40	D2	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			

- Molecule 41 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	BS	113	Total	C	N	O	S	0	0	0
			900	566	177	155	2			
41	DS	113	Total	C	N	O	S	0	0	0
			900	566	177	155	2			

- Molecule 42 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
42	BT	92	Total	C	N	O	0	0	0
			725	471	131	123			
42	DT	92	Total	C	N	O	0	0	0
			725	471	131	123			

- Molecule 43 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	BU	102	Total	C	N	O	S	0	0	0
			785	505	150	125	5			
43	DU	102	Total	C	N	O	S	0	0	0
			785	505	150	125	5			

- Molecule 44 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	BV	175	Total	C	N	O	S	0	0	0
			1397	892	251	251	3			
44	DV	179	Total	C	N	O	S	0	0	0
			1428	911	255	259	3			

- Molecule 45 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	B3	76	Total	C	N	O	S	0	0	0
			607	376	128	102	1			
45	D3	77	Total	C	N	O	S	0	0	0
			613	379	129	104	1			

- Molecule 46 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	BZ	97	Total	C	N	O	S	0	0	0
			763	481	150	131	1			
46	DZ	97	Total	C	N	O	S	0	0	0
			763	481	150	131	1			

- Molecule 47 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	BW	66	Total	C	N	O	S	0	0	0
			558	346	113	98	1			
47	DW	69	Total	C	N	O	S	0	0	0
			581	358	118	104	1			

- Molecule 48 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
48	BX	59	Total	C	N	O	0	0	0
			469	298	90	81			
48	DX	59	Total	C	N	O	0	0	0
			469	298	90	81			

- Molecule 49 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	B4	66	Total	C	N	O	S	0	0	0
			533	335	96	97	5			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	D4	63	Total	C	N	O	S	0	0	0
			515	326	93	91	5			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	B5	59	Total	C	N	O	S	0	0	0
			459	288	90	76	5			
50	D5	59	Total	C	N	O	S	0	0	0
			459	288	90	76	5			

- Molecule 51 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	B6	45	Total	C	N	O	S	0	0	0
			389	241	79	65	4			
51	D6	45	Total	C	N	O	S	0	0	0
			389	241	79	65	4			

- Molecule 52 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	B7	49	Total	C	N	O	S	0	0	0
			430	263	108	57	2			
52	D7	49	Total	C	N	O	S	0	0	0
			430	263	108	57	2			

- Molecule 53 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	B8	61	Total	C	N	O	S	0	0	0
			488	312	99	75	2			
53	D8	61	Total	C	N	O	S	0	0	0
			488	312	99	75	2			

- Molecule 54 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
54	AA	232	Total	Mg	0	0
			232	232		
54	AG	2	Total	Mg	0	0
			2	2		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
54	AH	2	Total Mg 2 2	0	0
54	AJ	1	Total Mg 1 1	0	0
54	AQ	2	Total Mg 2 2	0	0
54	AR	1	Total Mg 1 1	0	0
54	AS	1	Total Mg 1 1	0	0
54	AC	9	Total Mg 9 9	0	0
54	A1	1	Total Mg 1 1	0	0
54	BA	627	Total Mg 627 627	0	0
54	BB	17	Total Mg 17 17	0	0
54	BE	5	Total Mg 5 5	0	0
54	BF	2	Total Mg 2 2	0	0
54	BO	3	Total Mg 3 3	0	0
54	BP	1	Total Mg 1 1	0	0
54	B1	2	Total Mg 2 2	0	0
54	B2	1	Total Mg 1 1	0	0
54	BU	2	Total Mg 2 2	0	0
54	B3	2	Total Mg 2 2	0	0
54	BZ	1	Total Mg 1 1	0	0
54	B5	2	Total Mg 2 2	0	0
54	B6	1	Total Mg 1 1	0	0
54	B7	3	Total Mg 3 3	0	0

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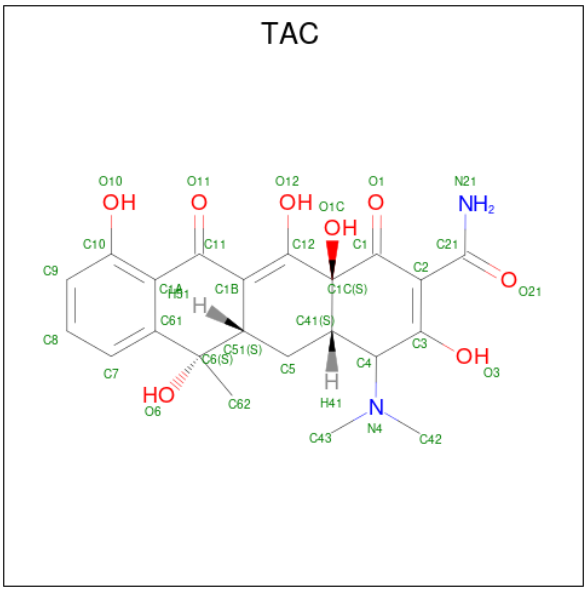
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
54	B8	1	Total Mg 1 1	0	0
54	CA	204	Total Mg 204 204	0	0
54	CG	2	Total Mg 2 2	0	0
54	CH	1	Total Mg 1 1	0	0
54	CS	1	Total Mg 1 1	0	0
54	CC	8	Total Mg 8 8	0	0
54	DA	525	Total Mg 525 525	0	0
54	DB	14	Total Mg 14 14	0	0
54	DD	1	Total Mg 1 1	0	0
54	DE	3	Total Mg 3 3	0	0
54	DP	1	Total Mg 1 1	0	0
54	DR	1	Total Mg 1 1	0	0
54	D1	1	Total Mg 1 1	0	0
54	DU	1	Total Mg 1 1	0	0
54	DZ	2	Total Mg 2 2	0	0
54	D5	1	Total Mg 1 1	0	0

- Molecule 55 is TETRACYCLINE (three-letter code: TAC) (formula: $C_{22}H_{24}N_2O_8$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	AA	1	Total C H N O 33 22 1 2 8	0	0
55	CA	1	Total C N O 32 22 2 8	0	0

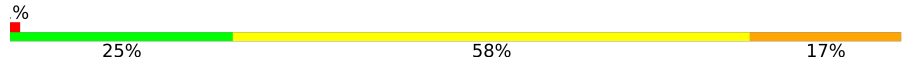
- Molecule 56 is ZINC ION (three-letter code: ZN) (formula: Zn).

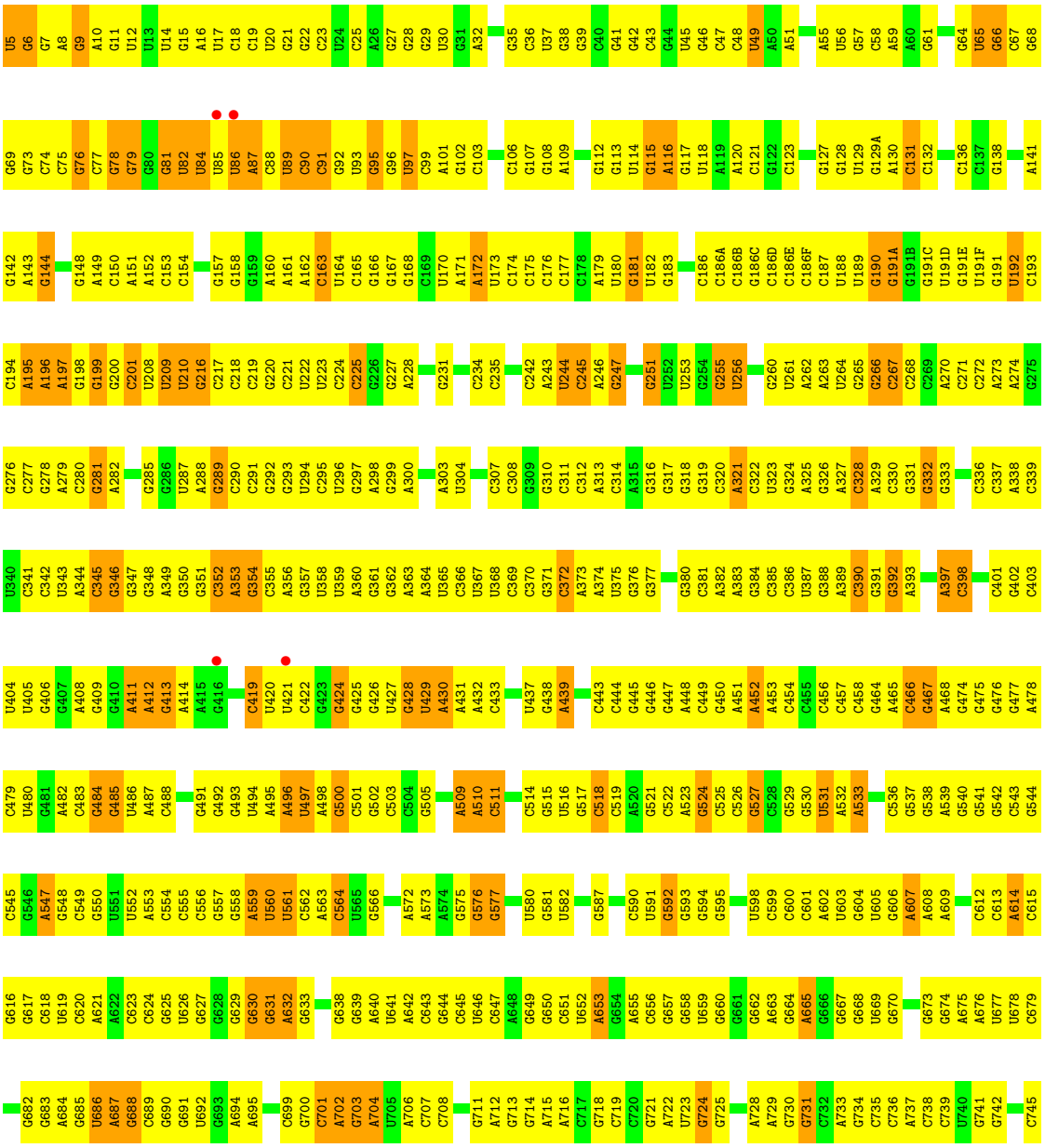
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	AG	1	Total Zn 1 1	0	0
56	AQ	1	Total Zn 1 1	0	0
56	CG	1	Total Zn 1 1	0	0
56	CQ	1	Total Zn 1 1	0	0

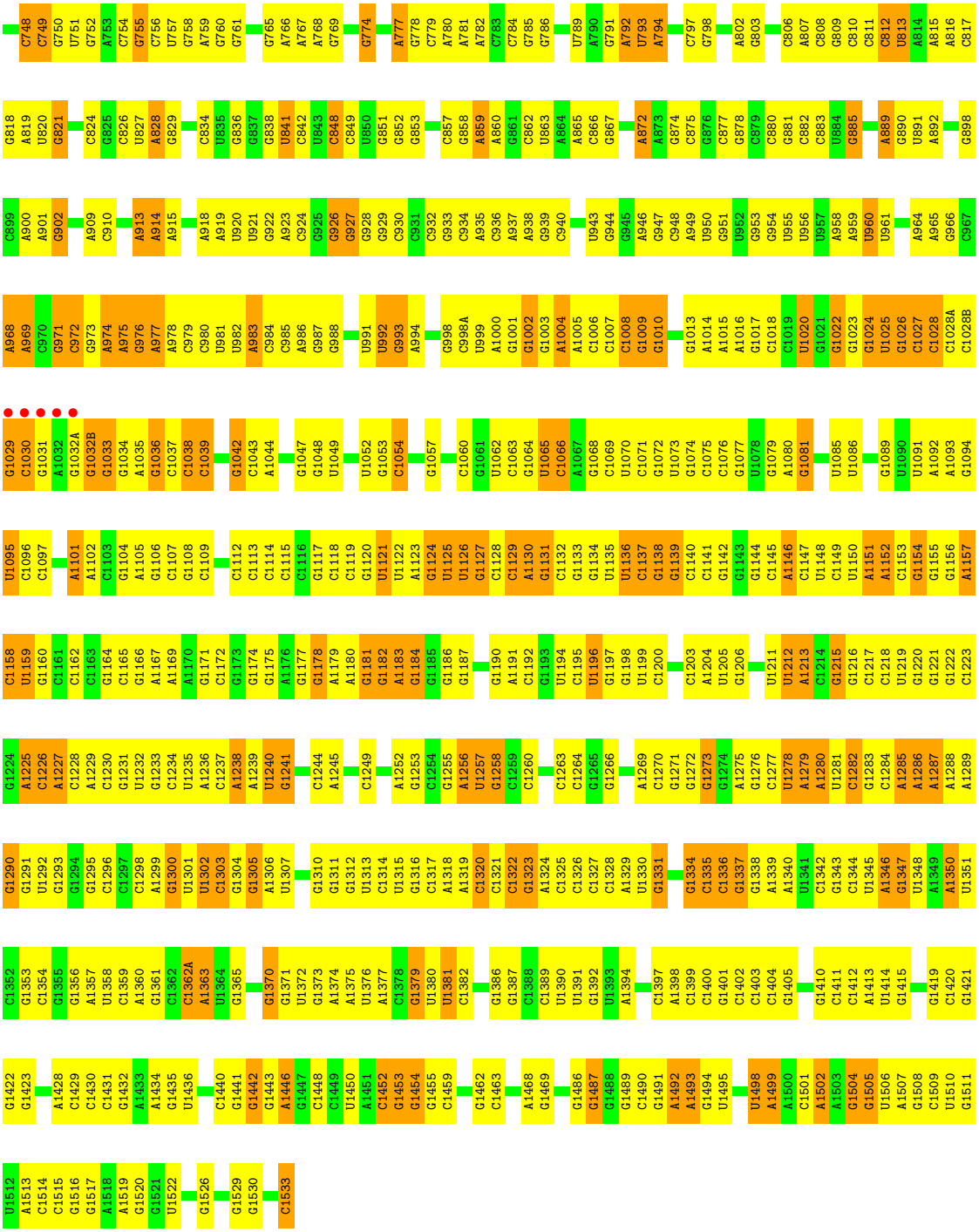
3 Residue-property plots (i)

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 ribosomal RNA

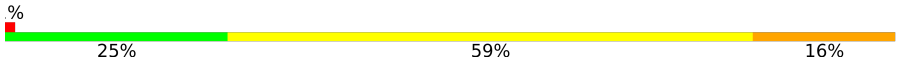
Chain AA: 

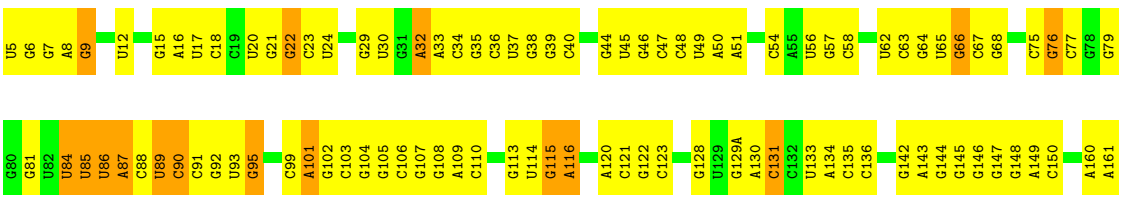


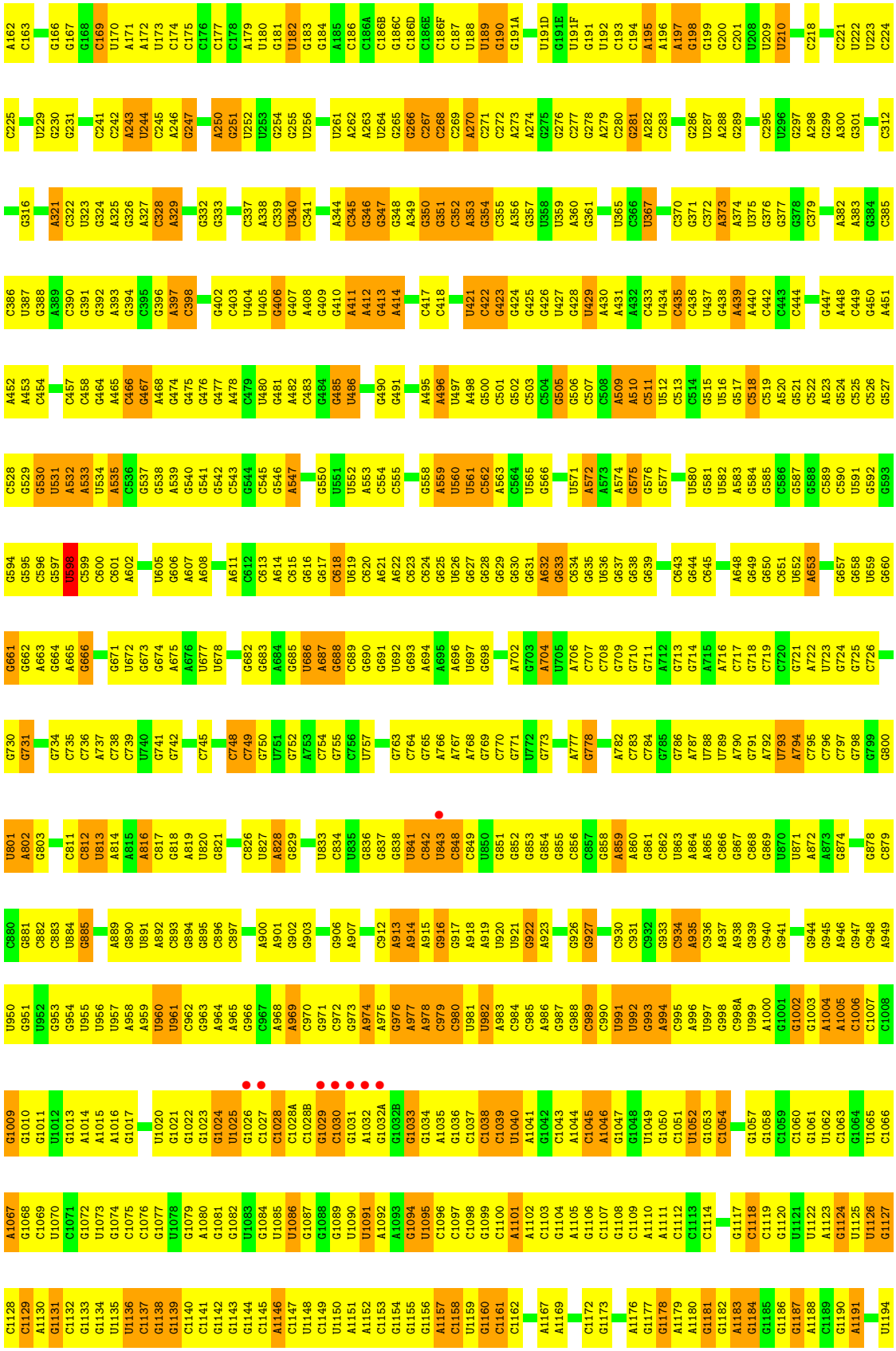


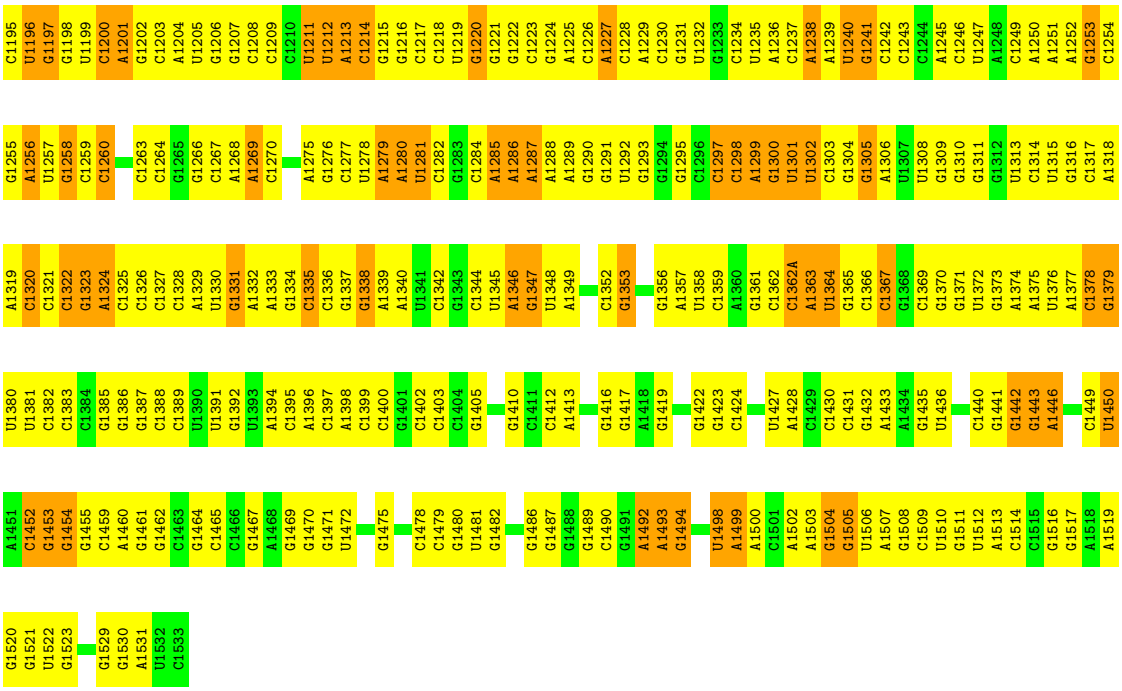
• Molecule 1: 16S ribosomal RNA

Chain CA:



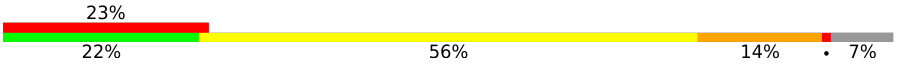


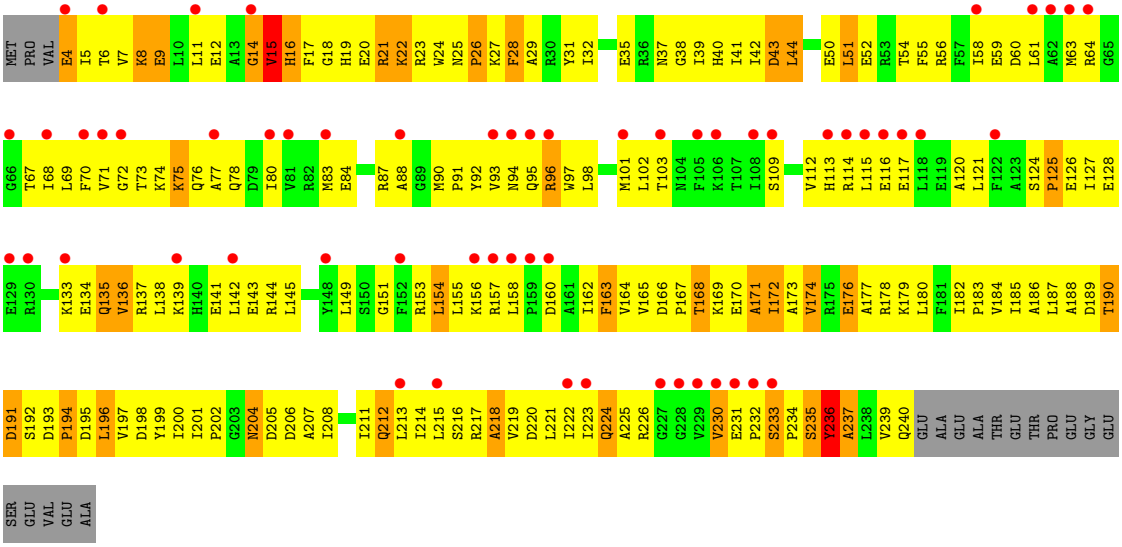




• Molecule 2: 30S RIBOSOMAL PROTEIN S2

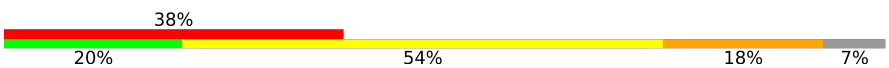
Chain AE:

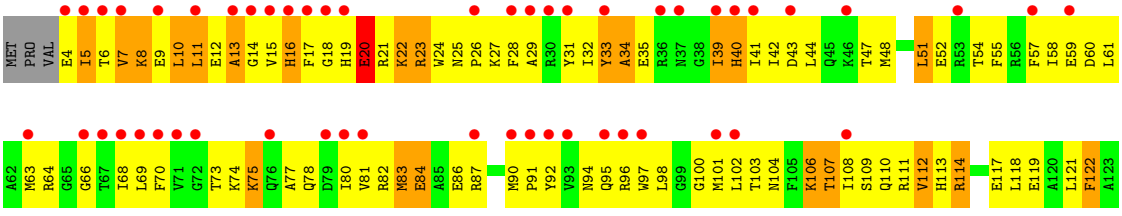


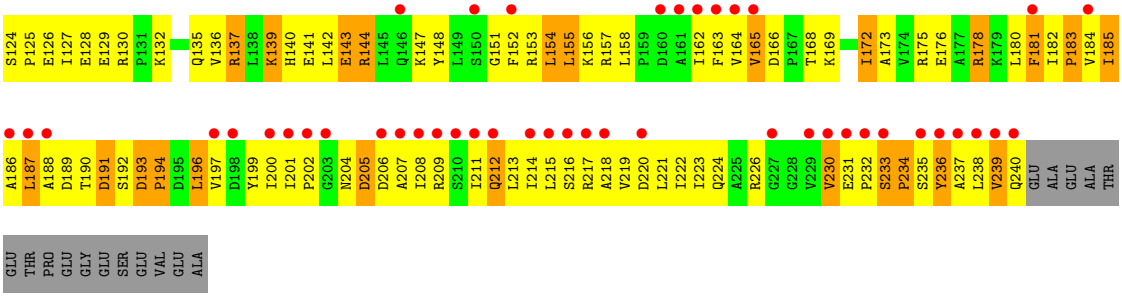


• Molecule 2: 30S RIBOSOMAL PROTEIN S2

Chain CE:

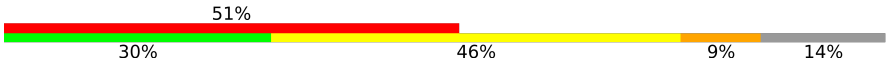


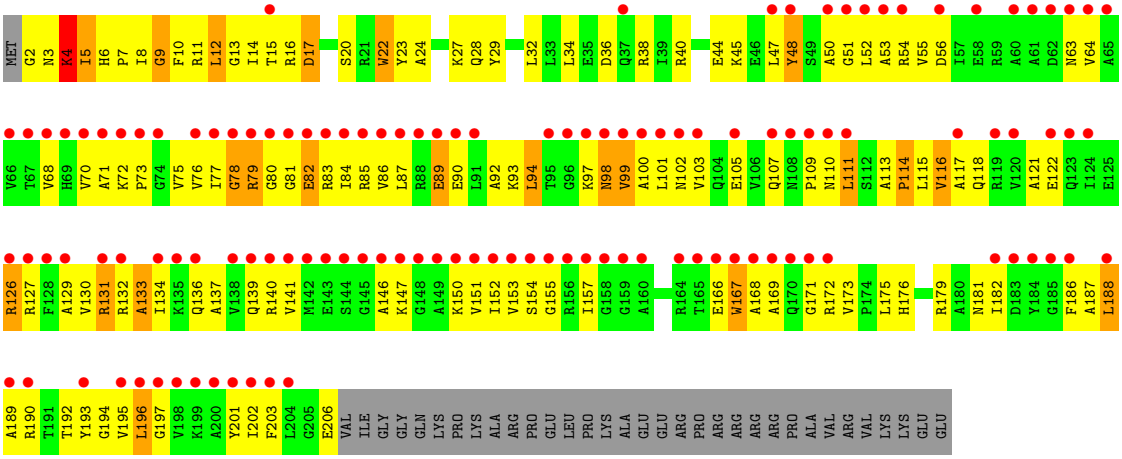




• Molecule 3: 30S RIBOSOMAL PROTEIN S3

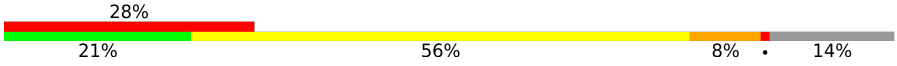
Chain AF:

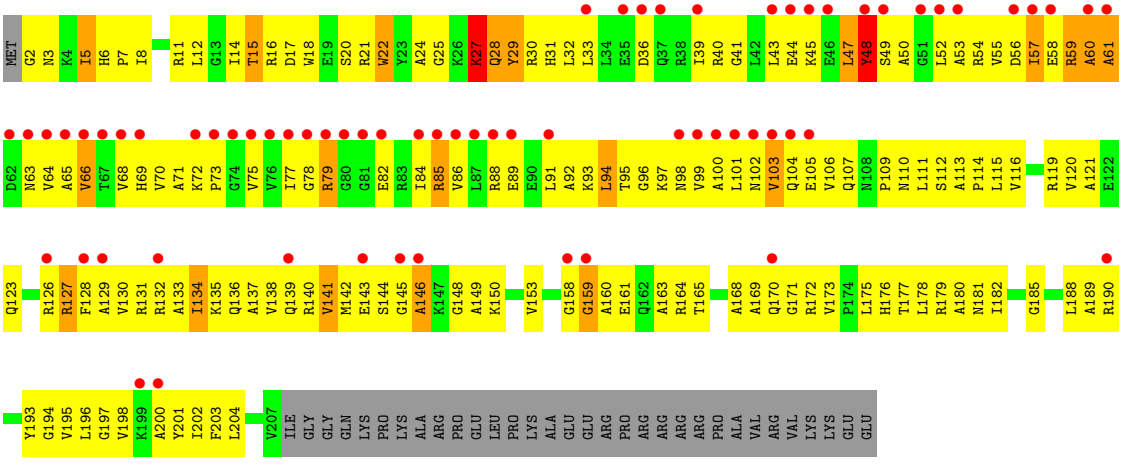




• Molecule 3: 30S RIBOSOMAL PROTEIN S3

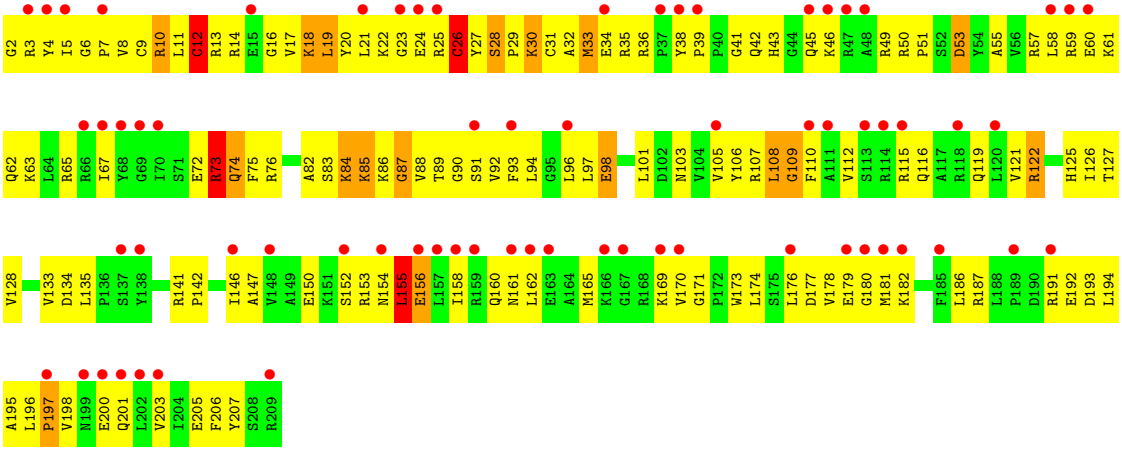
Chain CF:





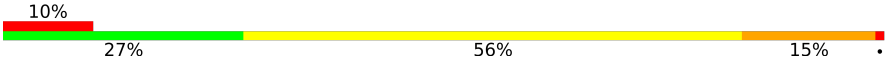
• Molecule 4: 30S RIBOSOMAL PROTEIN S4

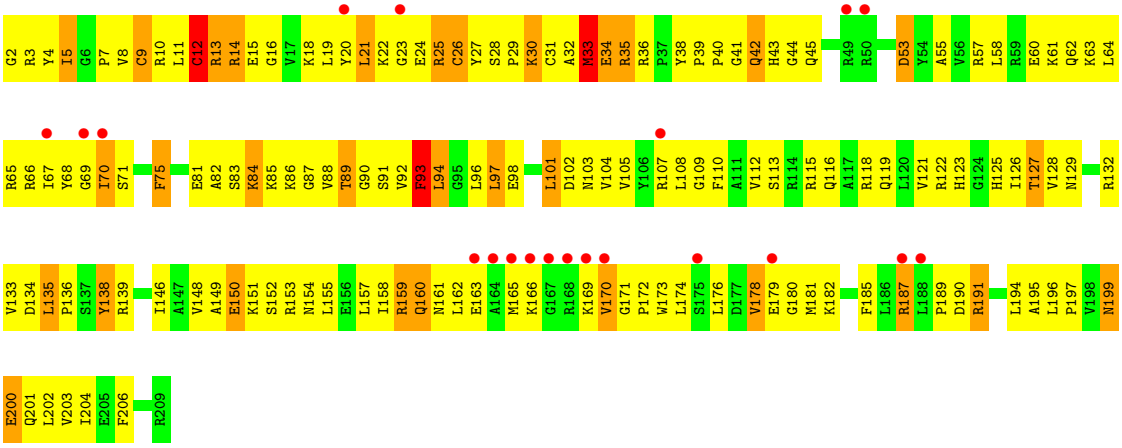
Chain AG:



• Molecule 4: 30S RIBOSOMAL PROTEIN S4

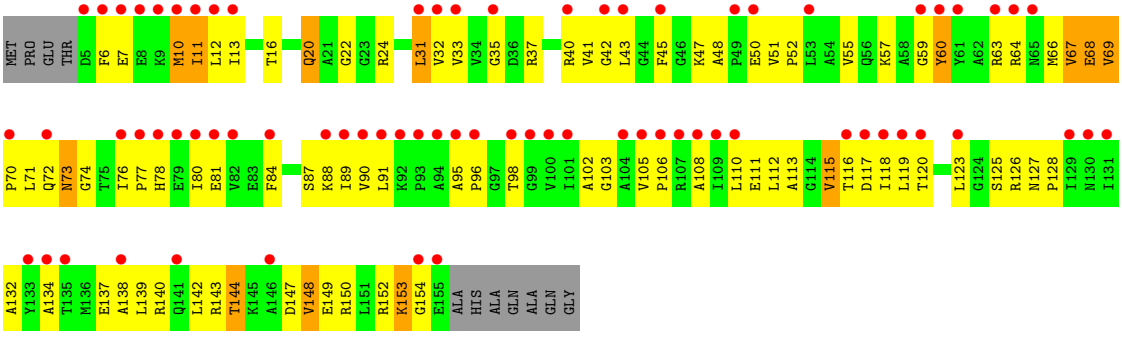
Chain CG:





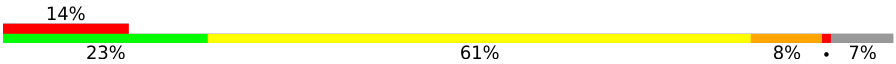
• Molecule 5: 30S RIBOSOMAL PROTEIN S5

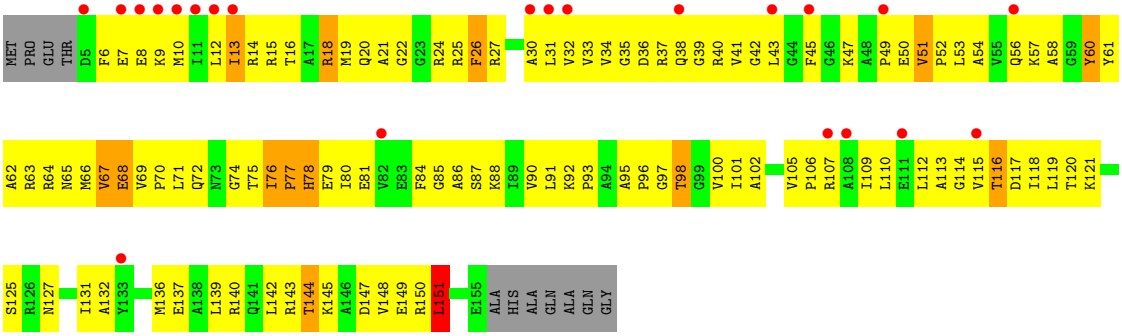
Chain AH:



• Molecule 5: 30S RIBOSOMAL PROTEIN S5

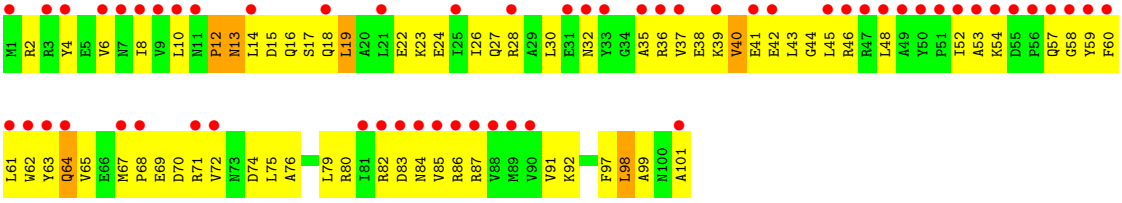
Chain CH:





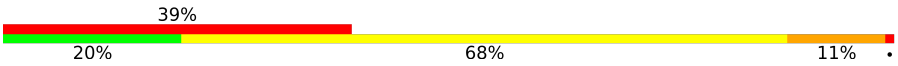
• Molecule 6: 30S RIBOSOMAL PROTEIN S6

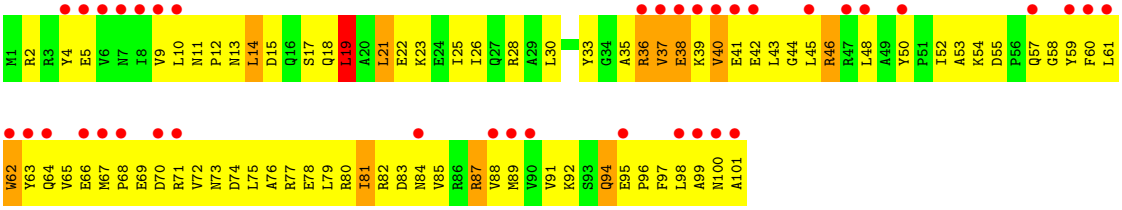
Chain AI:



• Molecule 6: 30S RIBOSOMAL PROTEIN S6

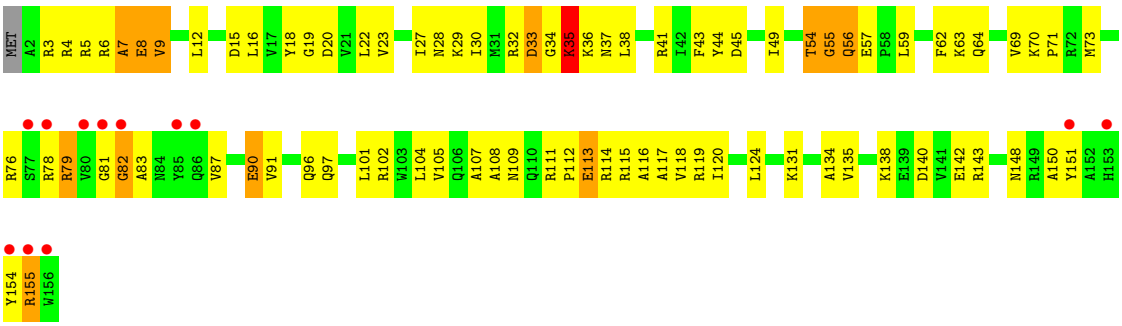
Chain CI:





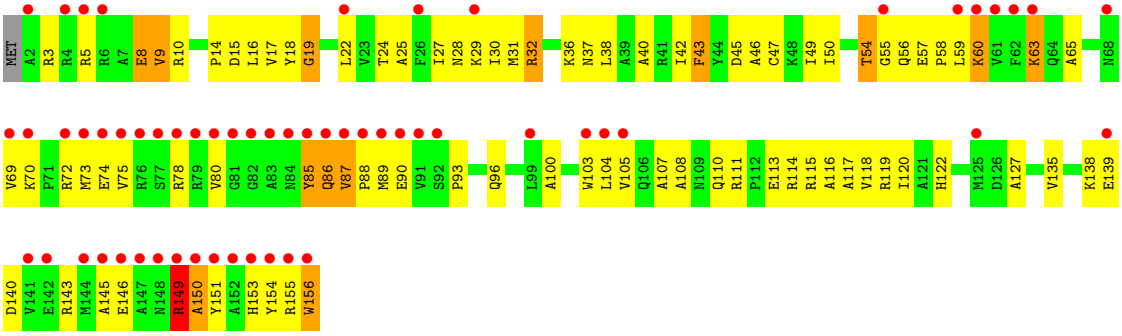
• Molecule 7: 30S RIBOSOMAL PROTEIN S7

Chain AJ:



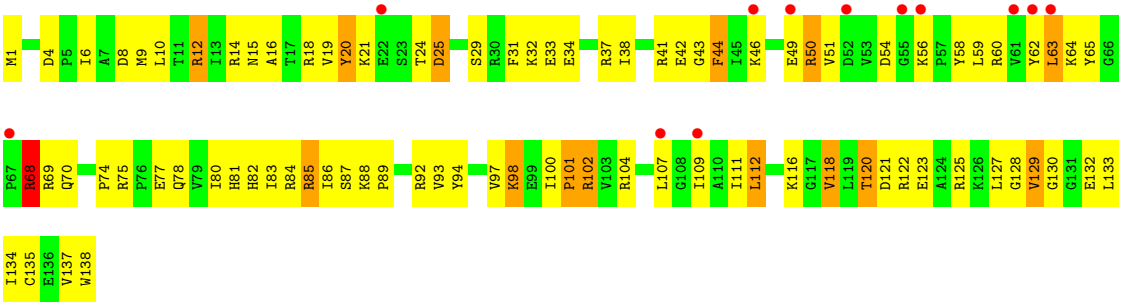
• Molecule 7: 30S RIBOSOMAL PROTEIN S7

Chain CJ:



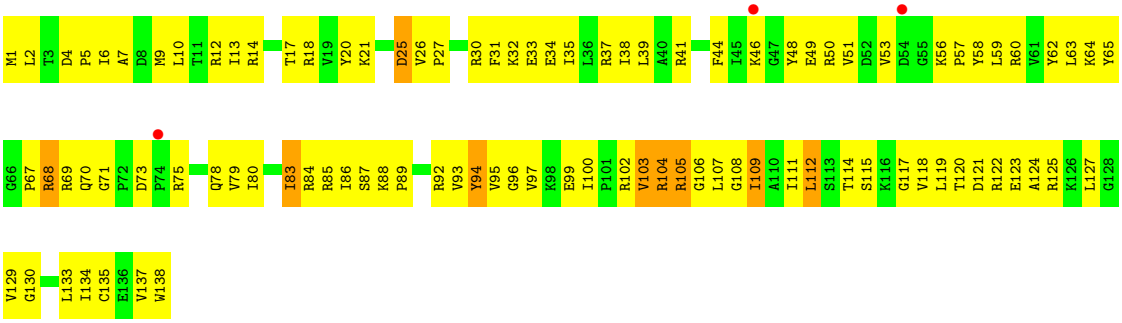
• Molecule 8: 30S RIBOSOMAL PROTEIN S8

Chain AK:



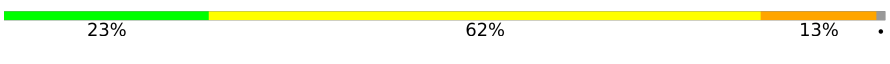
• Molecule 8: 30S RIBOSOMAL PROTEIN S8

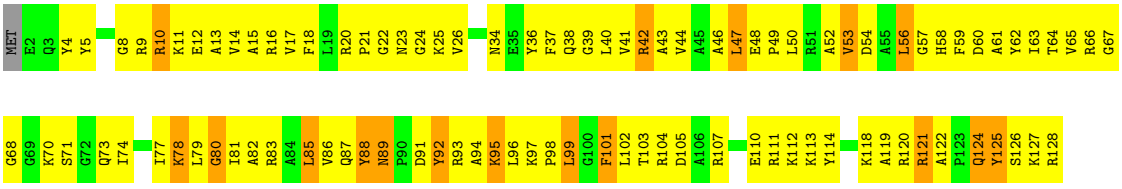
Chain CK:



• Molecule 9: 30S RIBOSOMAL PROTEIN S9

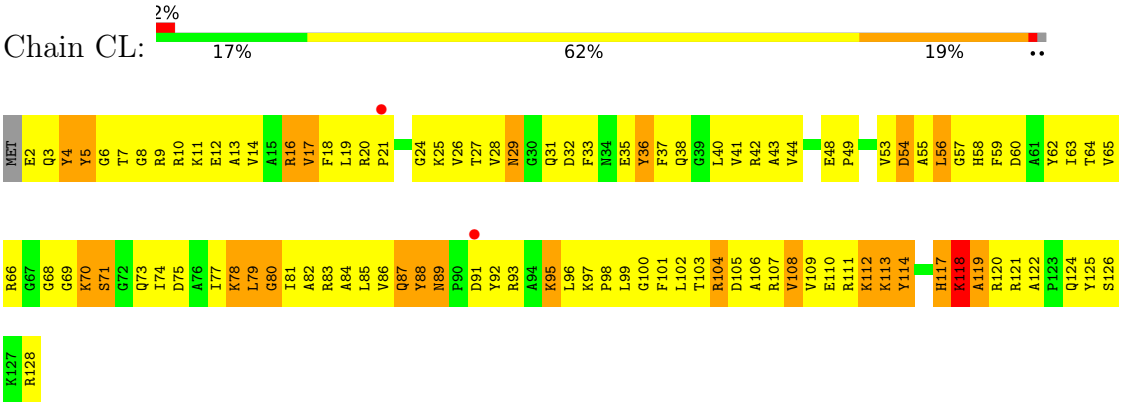
Chain AL:





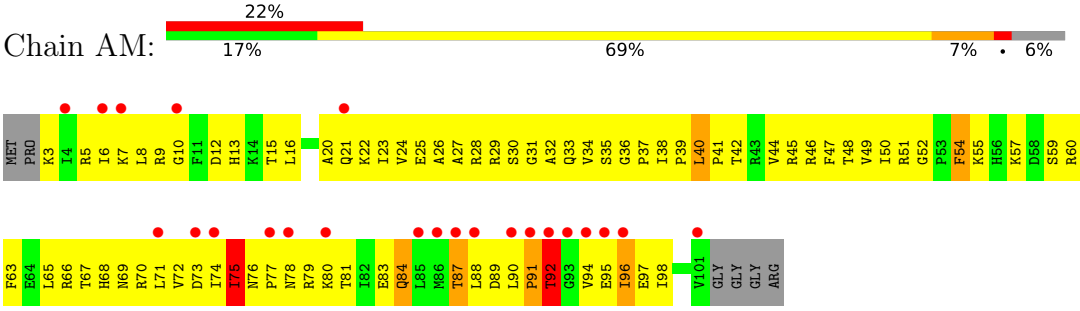
• Molecule 9: 30S RIBOSOMAL PROTEIN S9

Chain CL:



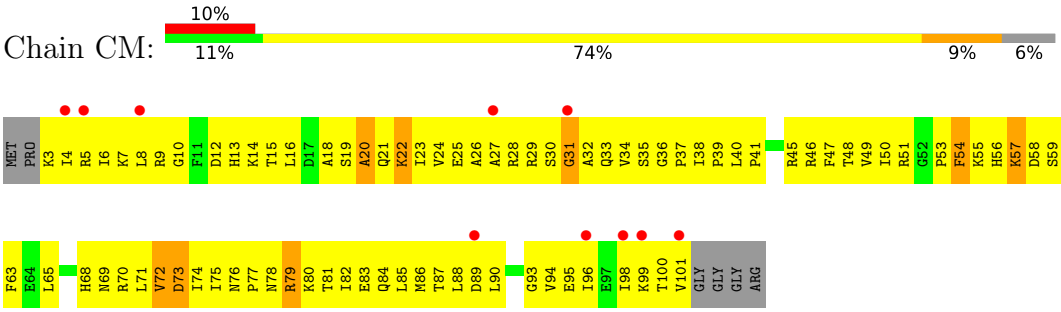
• Molecule 10: 30S RIBOSOMAL PROTEIN S10

Chain AM:



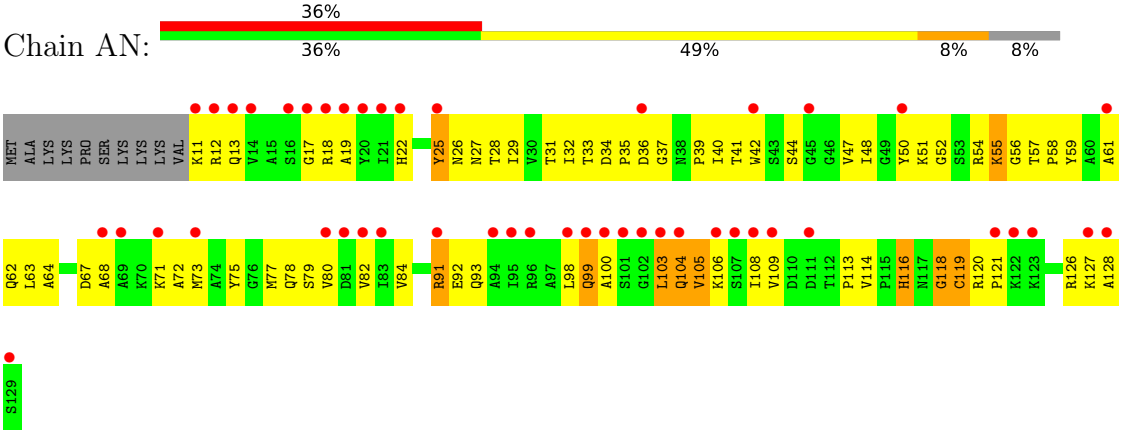
• Molecule 10: 30S RIBOSOMAL PROTEIN S10

Chain CM:

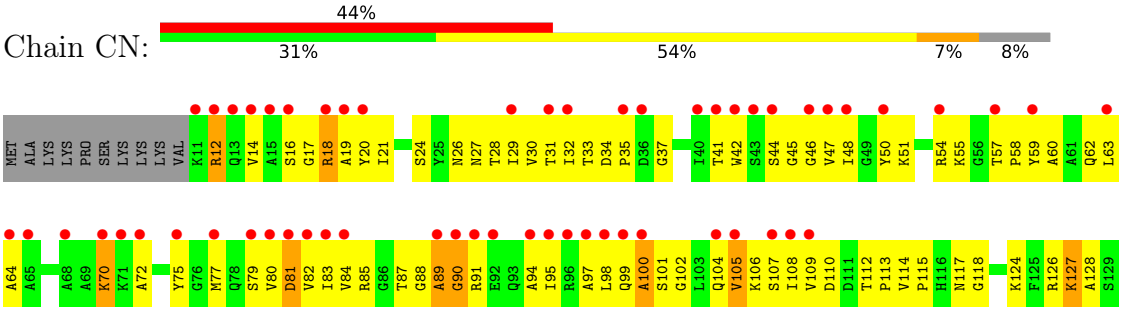


• Molecule 11: 30S RIBOSOMAL PROTEIN S11

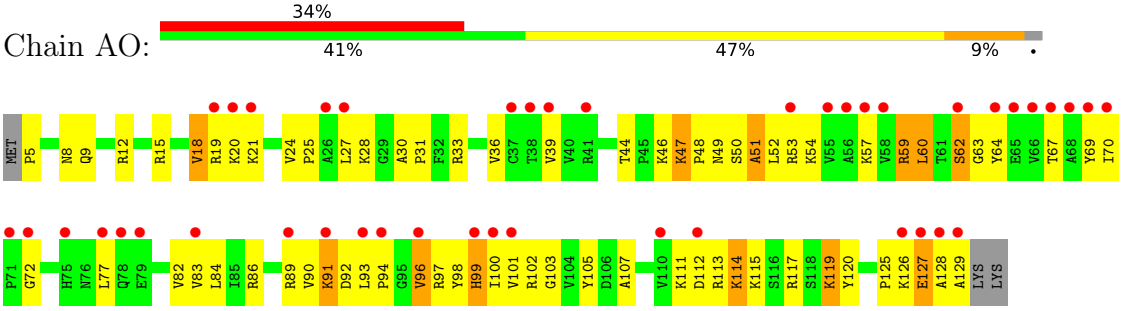
Chain AN:



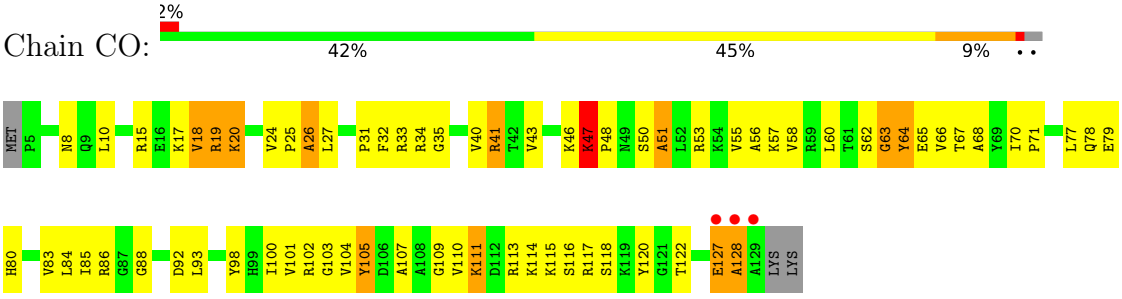
• Molecule 11: 30S RIBOSOMAL PROTEIN S11



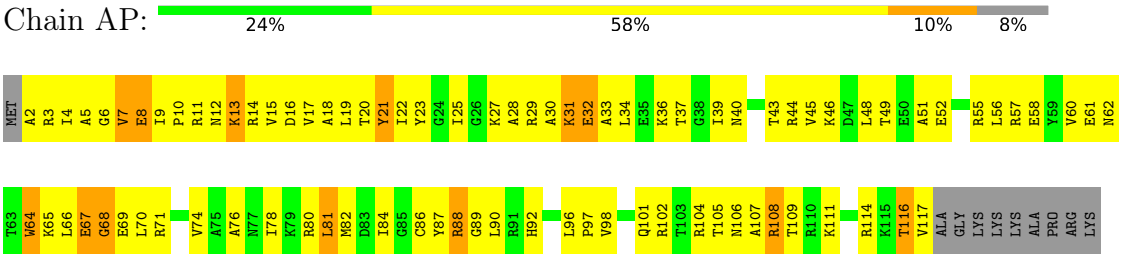
• Molecule 12: 30S RIBOSOMAL PROTEIN S12



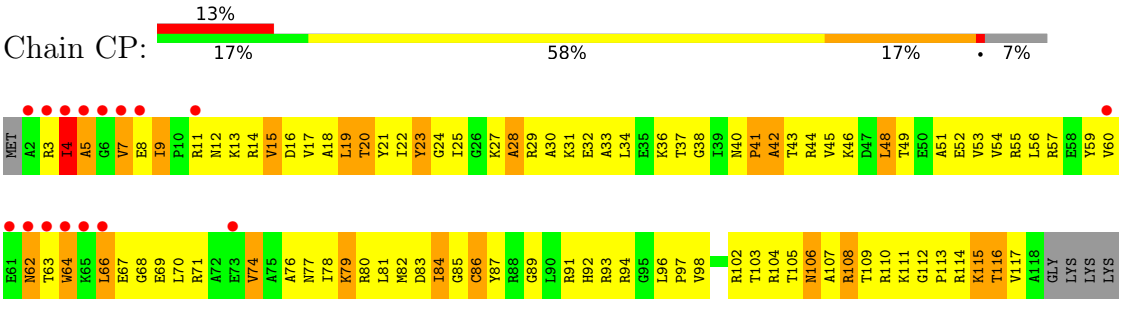
• Molecule 12: 30S RIBOSOMAL PROTEIN S12



• Molecule 13: 30S RIBOSOMAL PROTEIN S13

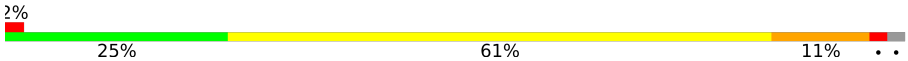


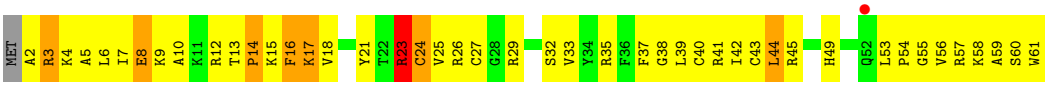
• Molecule 13: 30S RIBOSOMAL PROTEIN S13



• Molecule 14: 30S RIBOSOMAL PROTEIN S14

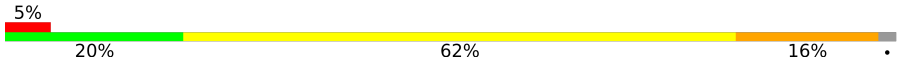
Chain AQ:

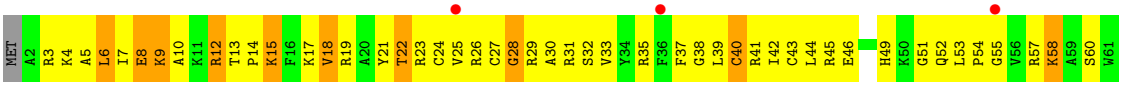




• Molecule 14: 30S RIBOSOMAL PROTEIN S14

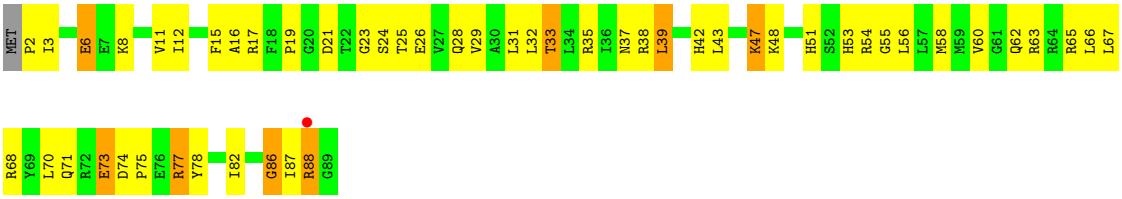
Chain CQ:





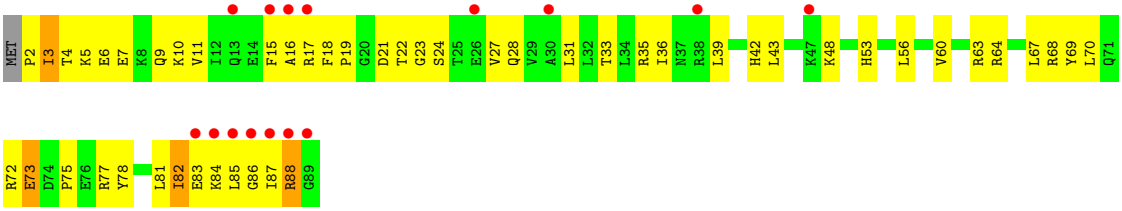
• Molecule 15: 30S RIBOSOMAL PROTEIN S15

Chain AR:



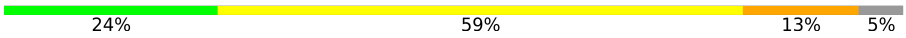
• Molecule 15: 30S RIBOSOMAL PROTEIN S15

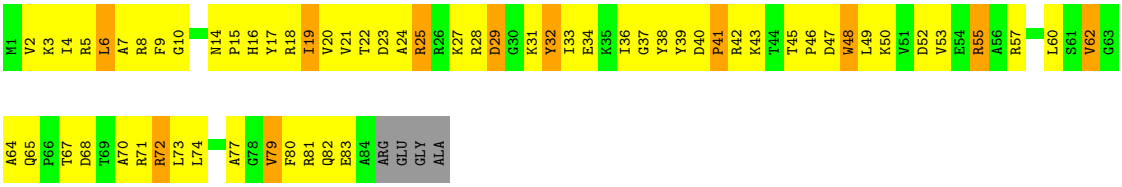
Chain CR:



• Molecule 16: 30S RIBOSOMAL PROTEIN S16

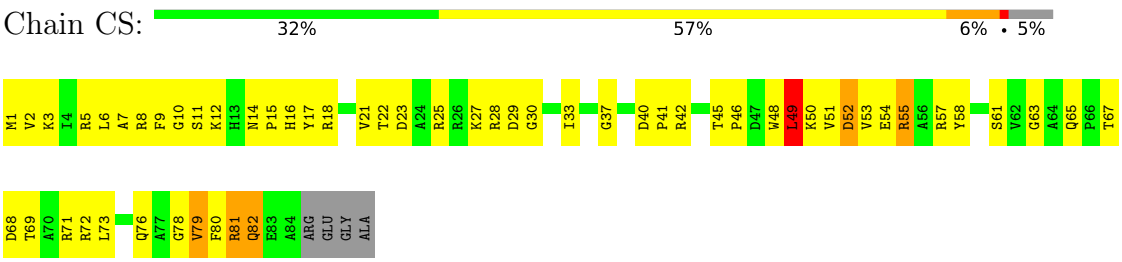
Chain AS:





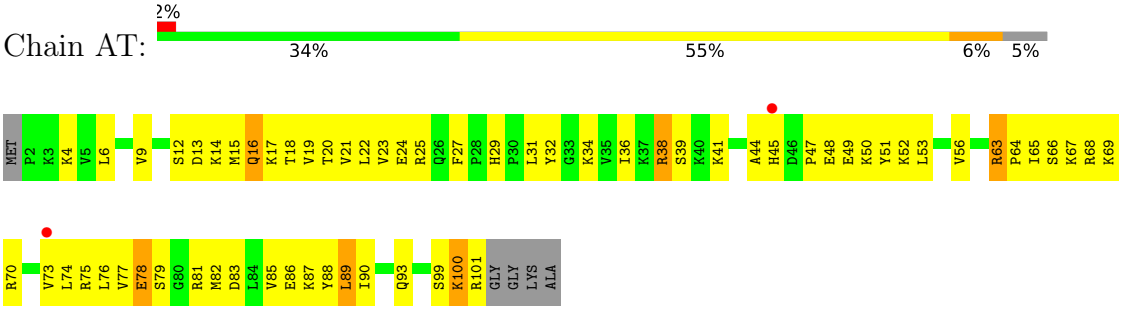
• Molecule 16: 30S RIBOSOMAL PROTEIN S16

Chain CS:



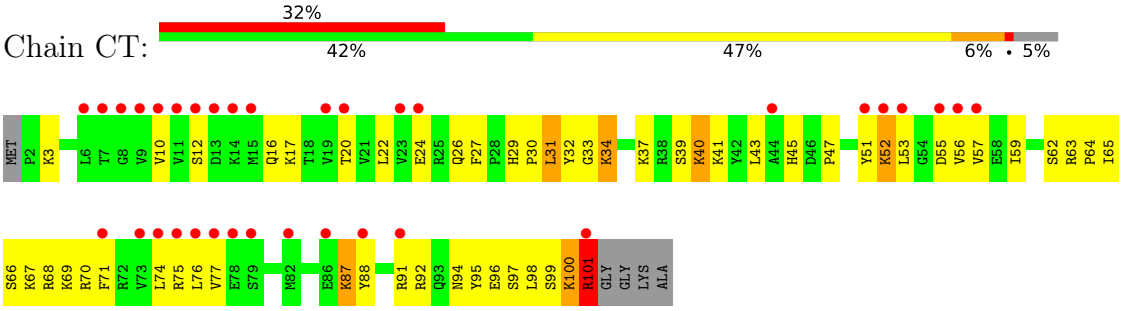
• Molecule 17: 30S RIBOSOMAL PROTEIN S17

Chain AT:



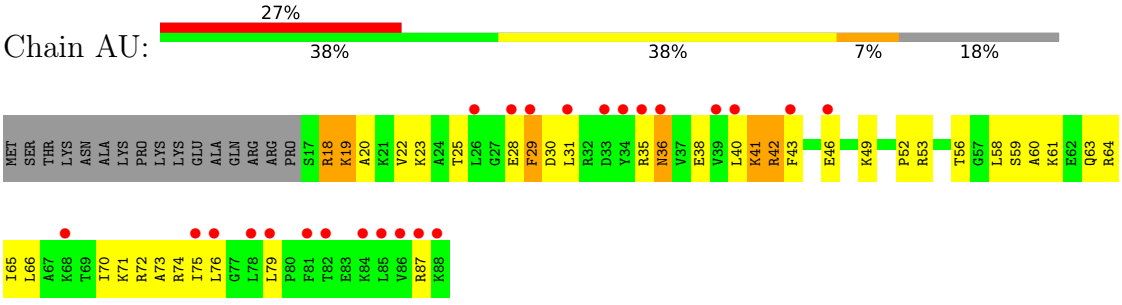
• Molecule 17: 30S RIBOSOMAL PROTEIN S17

Chain CT:



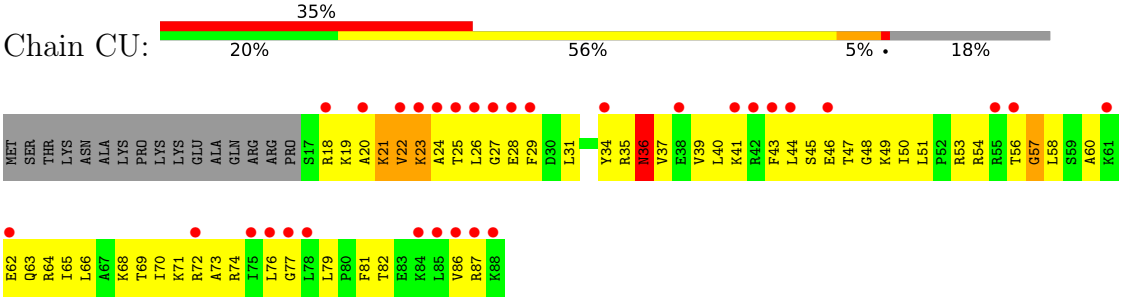
• Molecule 18: 30S RIBOSOMAL PROTEIN S18

Chain AU:



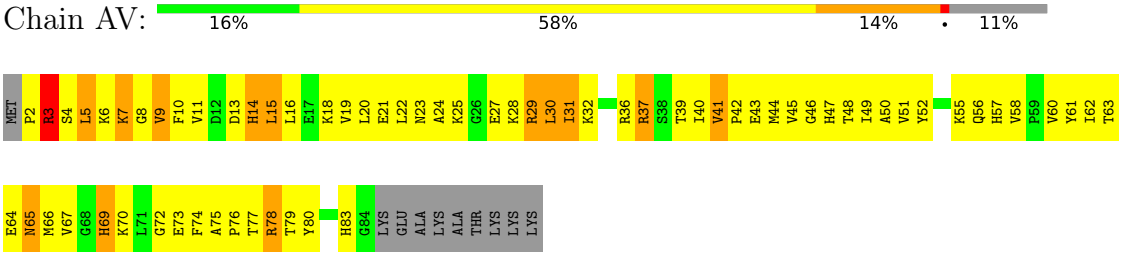
• Molecule 18: 30S RIBOSOMAL PROTEIN S18

Chain CU:



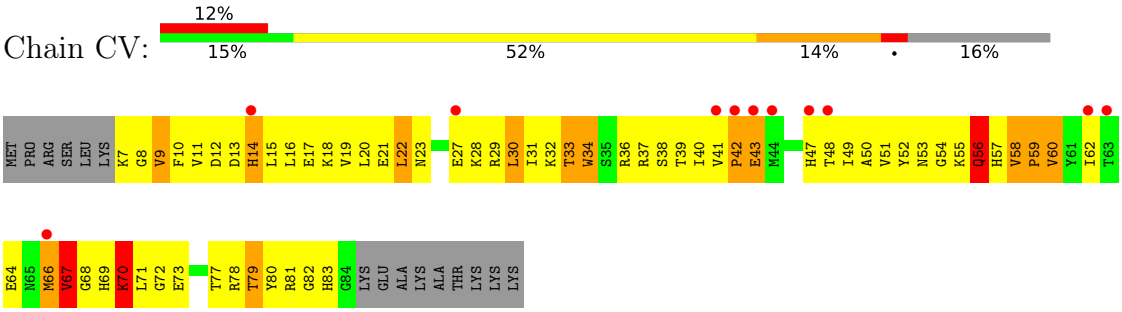
• Molecule 19: 30S RIBOSOMAL PROTEIN S19

Chain AV:



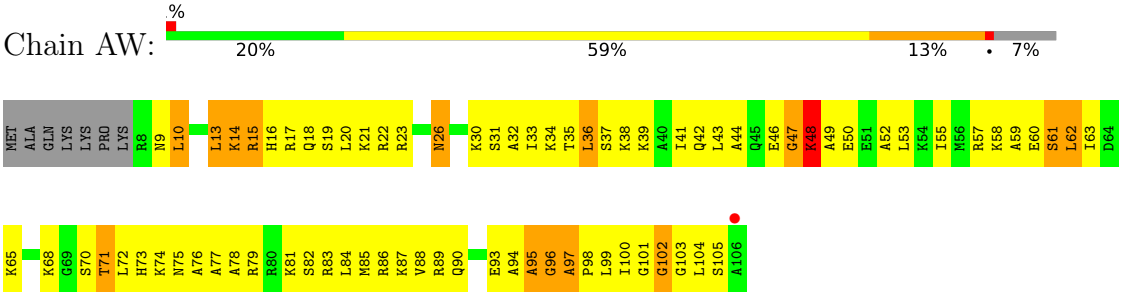
• Molecule 19: 30S RIBOSOMAL PROTEIN S19

Chain CV:



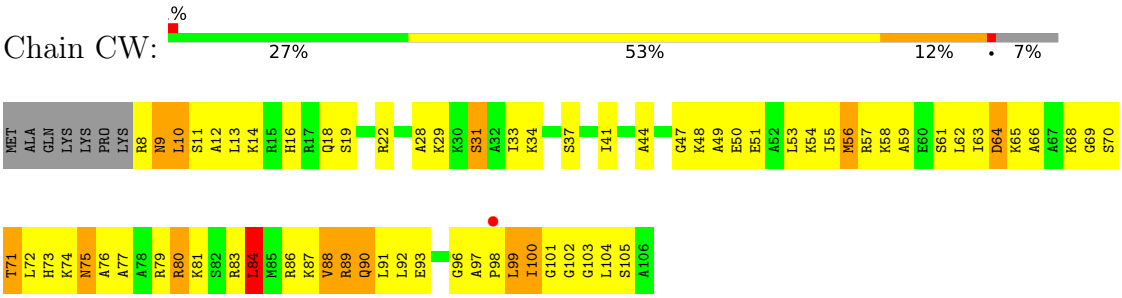
• Molecule 20: 30S RIBOSOMAL PROTEIN S20

Chain AW:



• Molecule 20: 30S RIBOSOMAL PROTEIN S20

Chain CW:

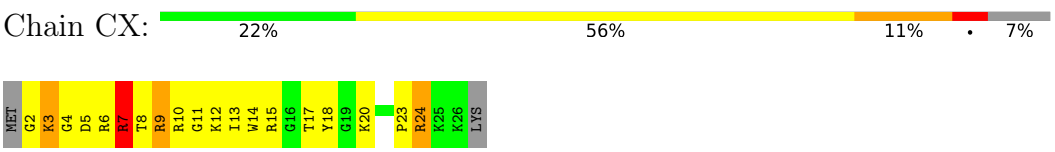


• Molecule 21: 30S RIBOSOMAL PROTEIN THX

Chain AX:

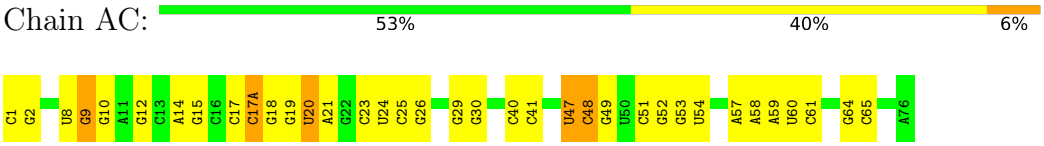
• Molecule 21: 30S RIBOSOMAL PROTEIN THX

Chain CX:



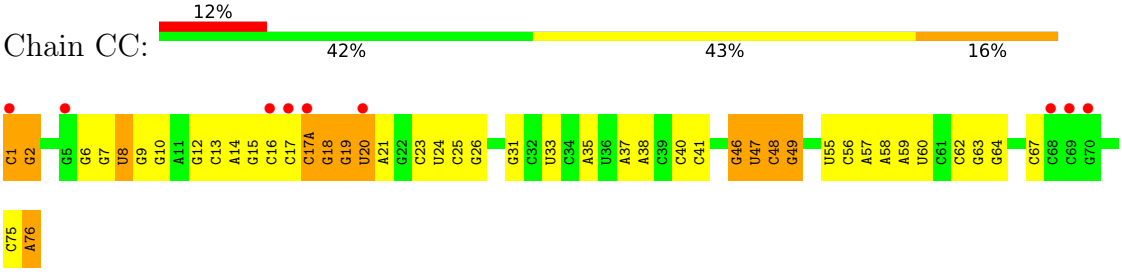
• Molecule 22: TRNA-FMET

Chain AC:



• Molecule 22: TRNA-FMET

Chain CC:



• Molecule 23: MRNA

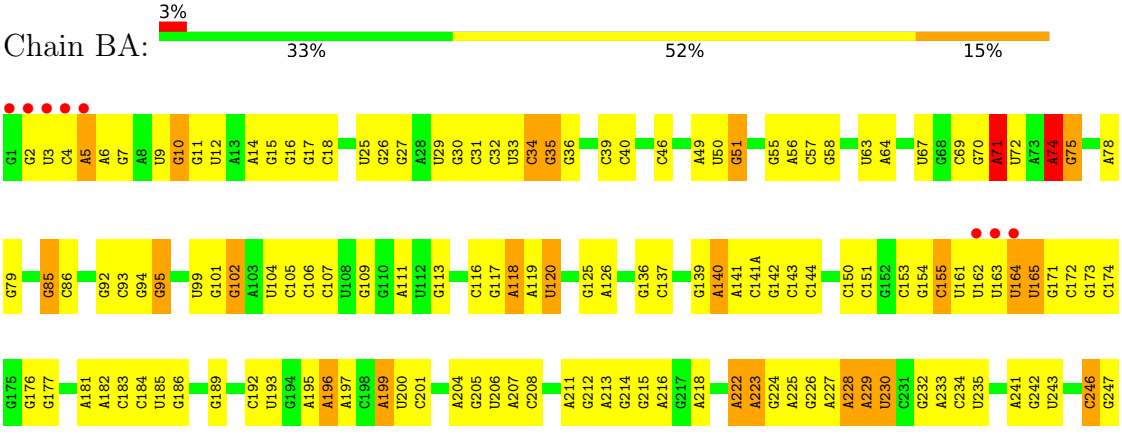
Chain A1:

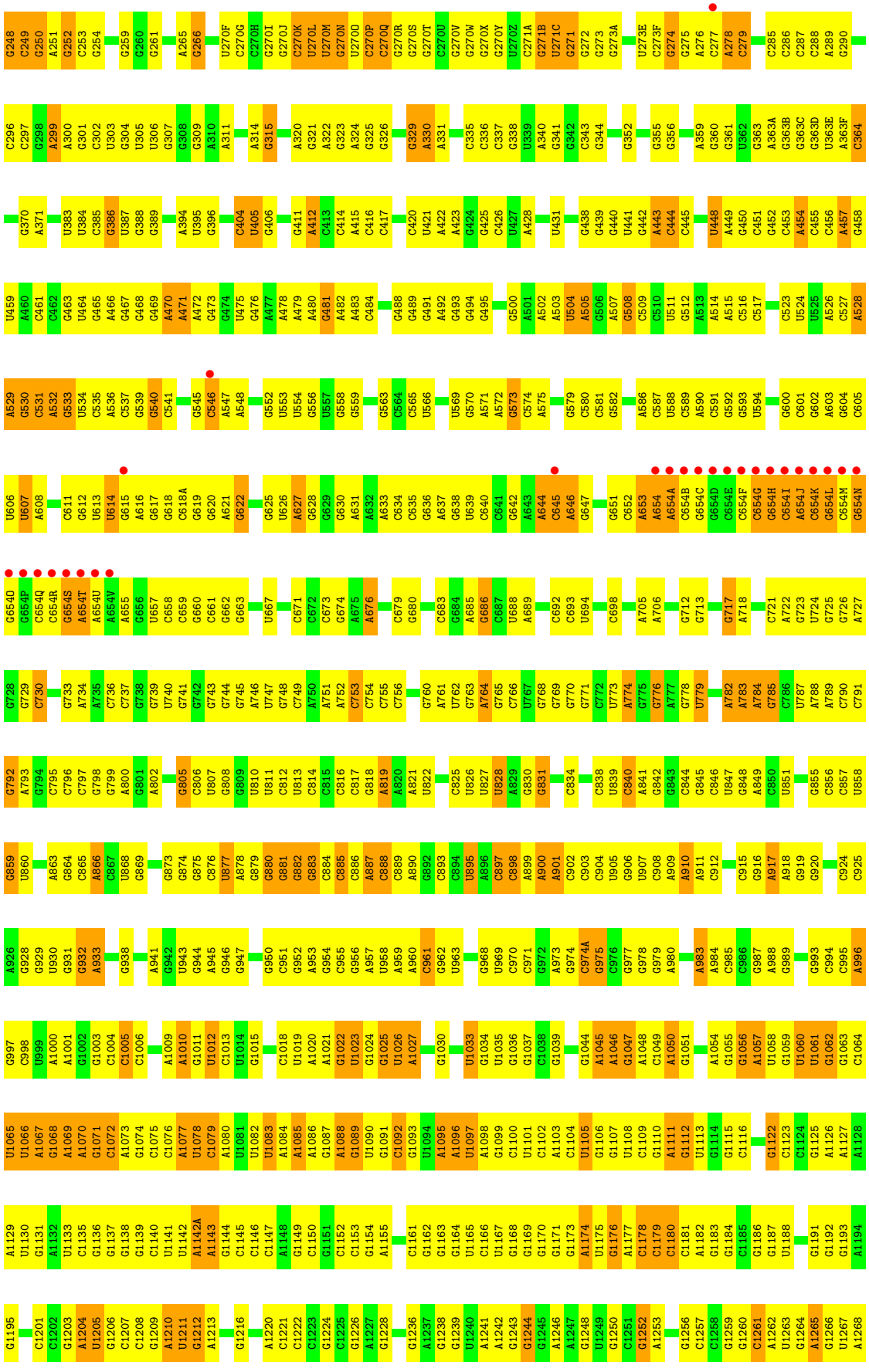
• Molecule 23: MRNA

Chain C1:

• Molecule 24: 23S ribosomal RNA

Chain BA:

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C296 C297 G298 A299 A300 G301 C302 U303 G304 U305 U306 G307 G308 G309 A310 A311 A314 G315 A320 G321 A322 G323 A324 G325 G326 G329 A330 A331 C335 C336 C337 G338 U339 A340 G341 G342 C343 G344 G352 G355 G356 A359 G360 G361 U362 G363 A363A G363B G363C G363D U363E A363F C364
G370 A371 U383 U384 C385 G386 U387 G388 G389 A394 U395 G396 C404 U405 G406 G411 A412 C413 C414 A415 C416 C417 C420 U421 A422 G423 G424 G425 C426 U427 A428 U431 G438 G439 G440 U441 G442 A443 C444 C445 U448 A449 G450 C451 G452 C453 A454 C455 C456 A457 G458
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A529 G530 C531 A532 G533 U534 C535 A536 C537 G539 G540 C541 G545 C546 A547 A548 G552 U553 U554 G556 U557 G558 G559 G563 C564 C565 U566 U569 G570 A571 A572 G573 C574 A575 G579 C580 C581 G582 A586 C587 U588 C589 A590 C591 G592 G593 U594 G600 C601 G602 A603 G604 C605
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G792 A793 G794 C795 C796 C797 G798 G799 A800 G801 A802 G805 C806 U807 G808 G809 U810 U811 C812 U813 C814 C815 C816 C817 G818 A819 A820 A821 U822 C825 U826 U827 U828 A829 G830 G831 C834 C838 U839 C840 A841 G842 G843 C844 G845 C846 U847 G848 A849 C850 U851 G855 C856 C857 U858
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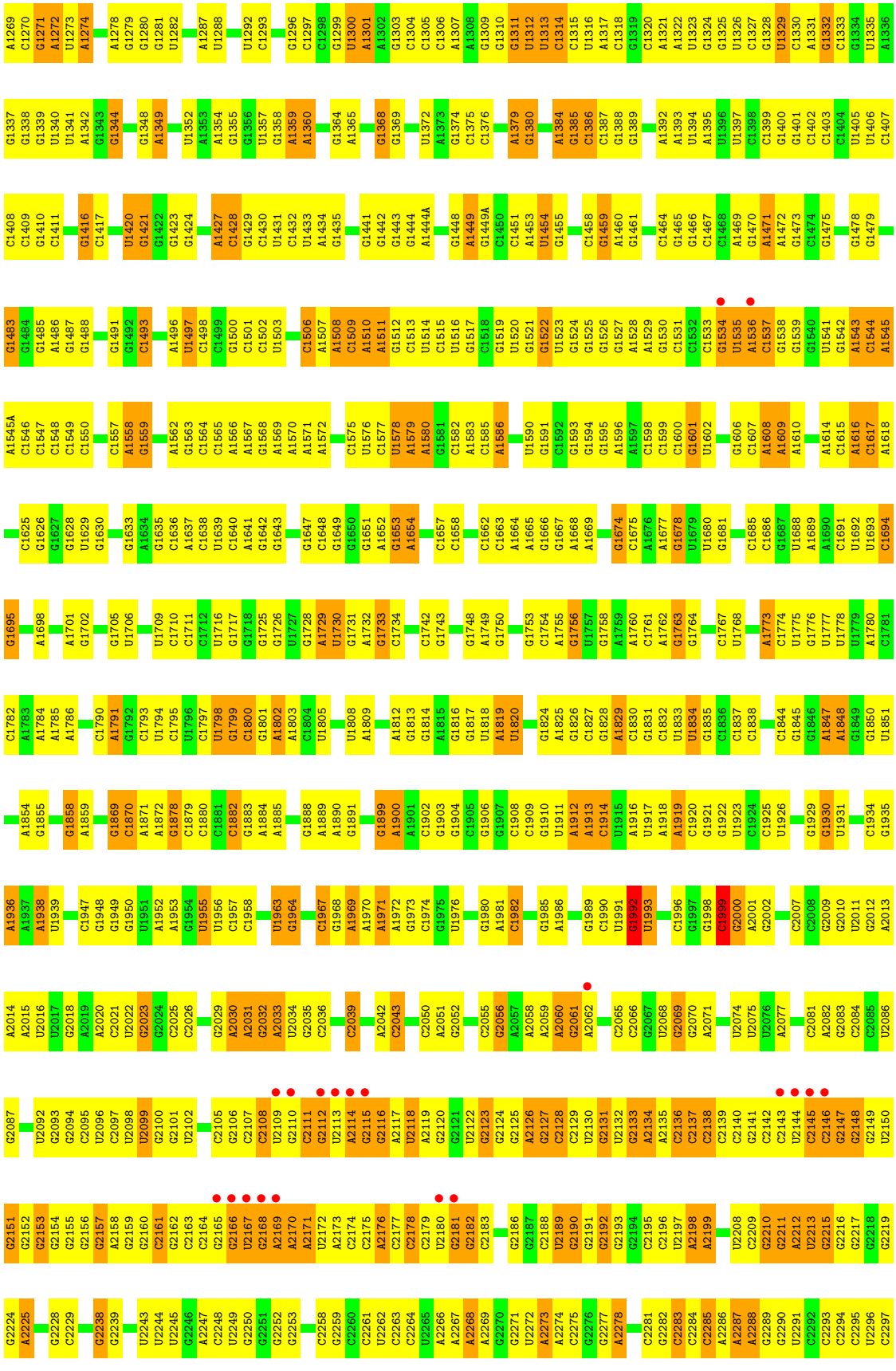
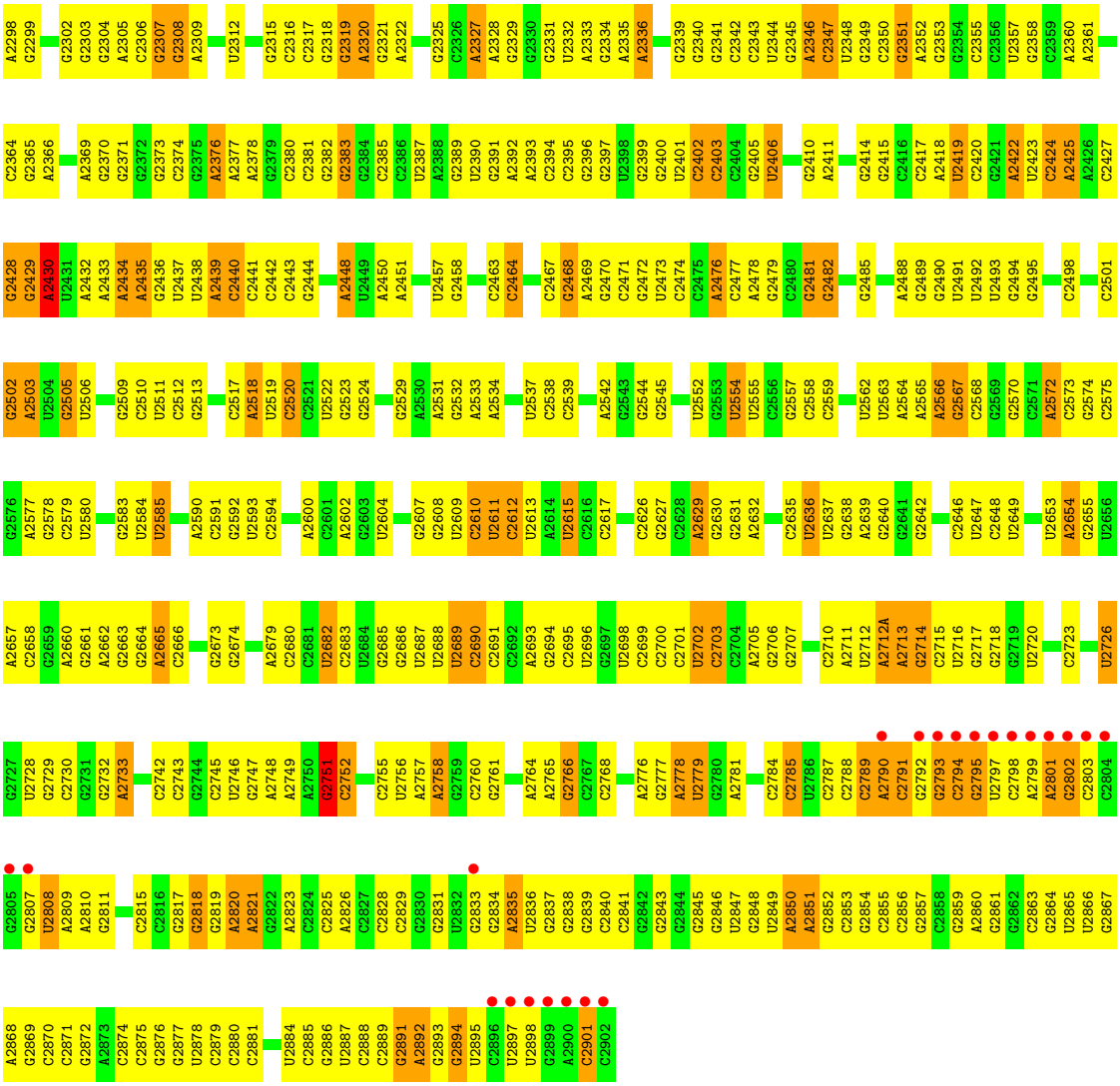
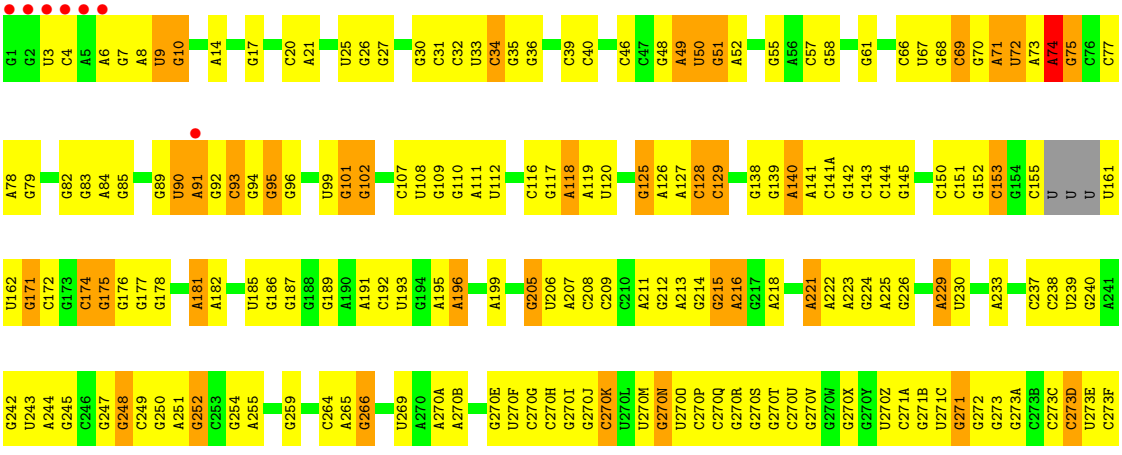
A1129 U1130 G1131 A1132 U1133 C1135 G1136 G1137 G1138 G1139 C1140 U1141 U1142 A1142A A1143 G1144 C1145 C1146 C1147 A1148 G1149 C1150 G1151 C1152 C1153 G1154 A1155 C1161 G1162 G1163 G1164 U1165 C1166 U1167 G1168 G1169 G1170 G1171 G1173 A1174 U1175 G1176 A1177 C1178 C1179 C1180 C1181 A1182 G1183 G1184 C1185 G1186 G1187 U1188 G1191 G1192 G1193 A1194
G1195 C1201 C1202 G1203 A1204 U1205 G1206 C1207 C1208 G1209 A1210 U1211 G1212 A1213 G1216 A1220 C1221 C1222 C1223 G1224 C1225 G1226 A1227 G1228 G1236 A1237 G1238 G1239 U1240 A1241 A1242 G1243 G1244 G1245 A1246 A1247 G1248 U1249 G1250 C1251 G1252 A1253 G1256 C1257 C1258 G1259 G1260 C1261 A1262 U1263 G1264 A1265 G1266 U1267 A1268

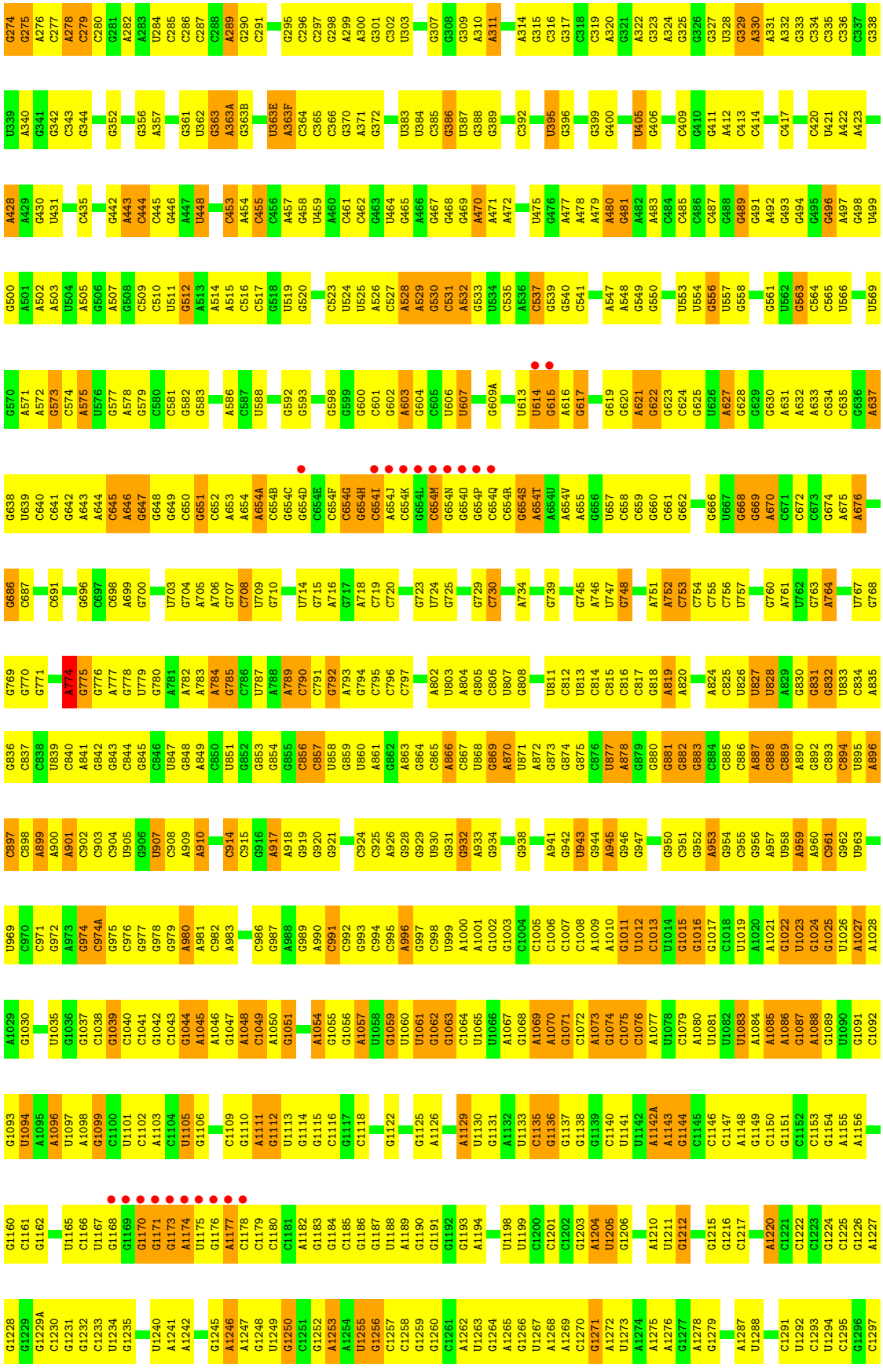


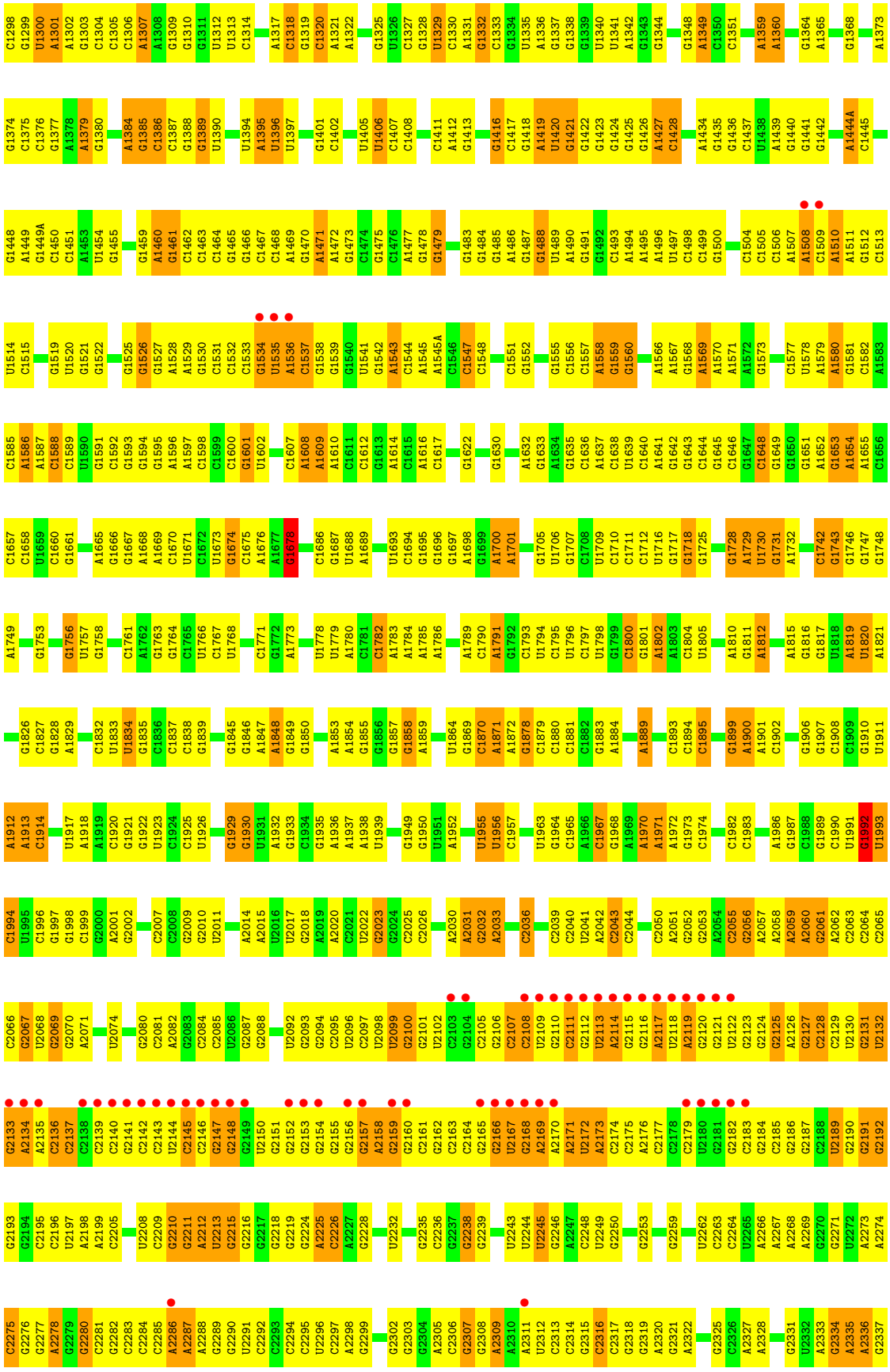


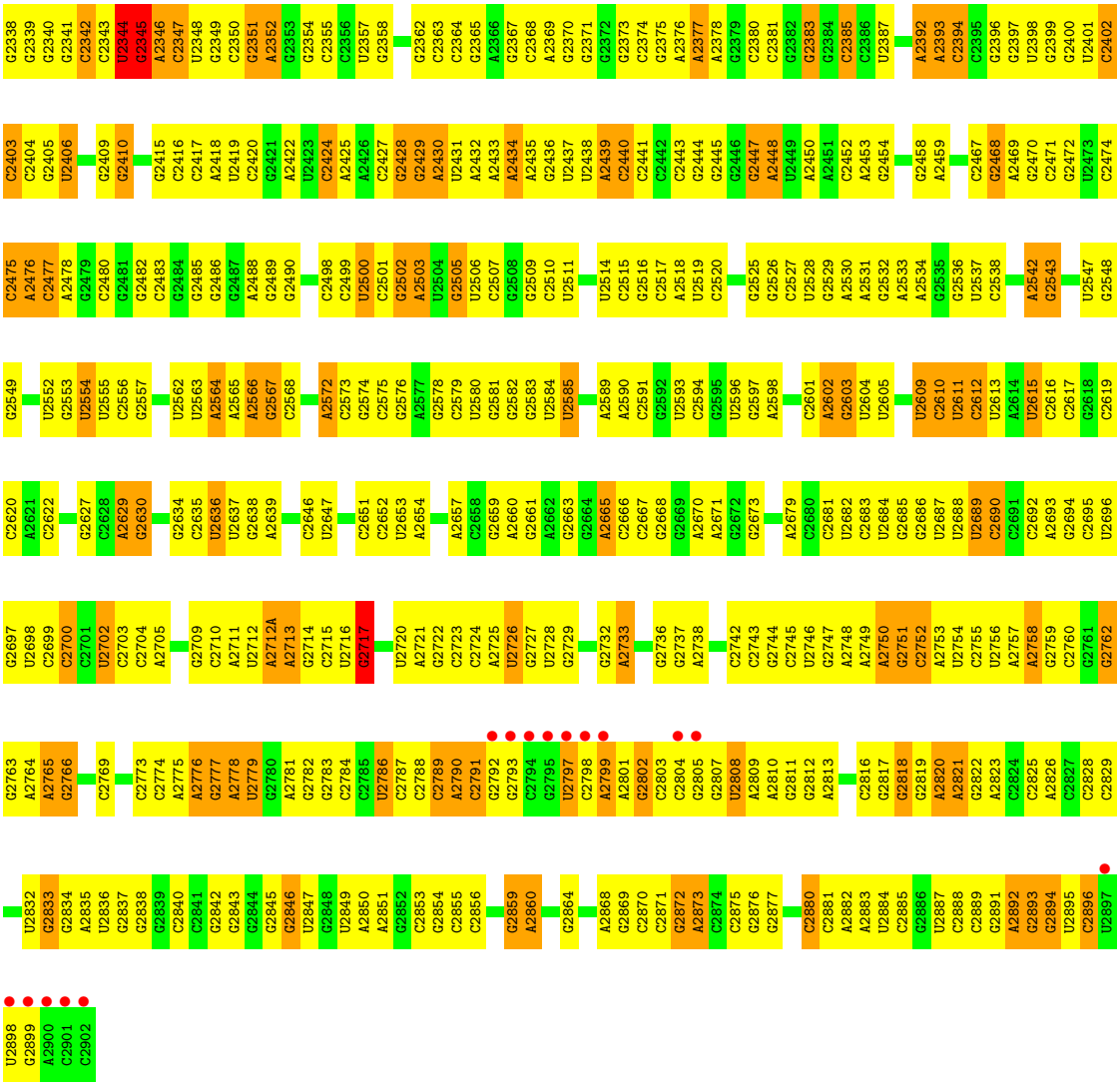
• Molecule 24: 23S ribosomal RNA

Chain DA:



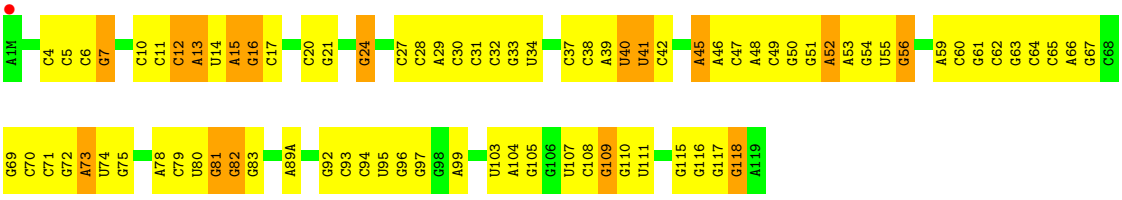






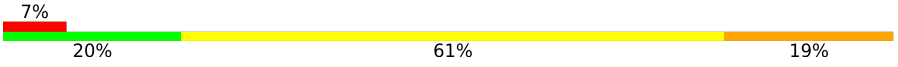
• Molecule 25: 5S RIBOSOMAL RNA

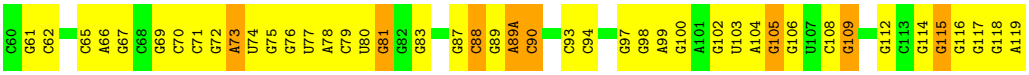
Chain BB:



• Molecule 25: 5S RIBOSOMAL RNA

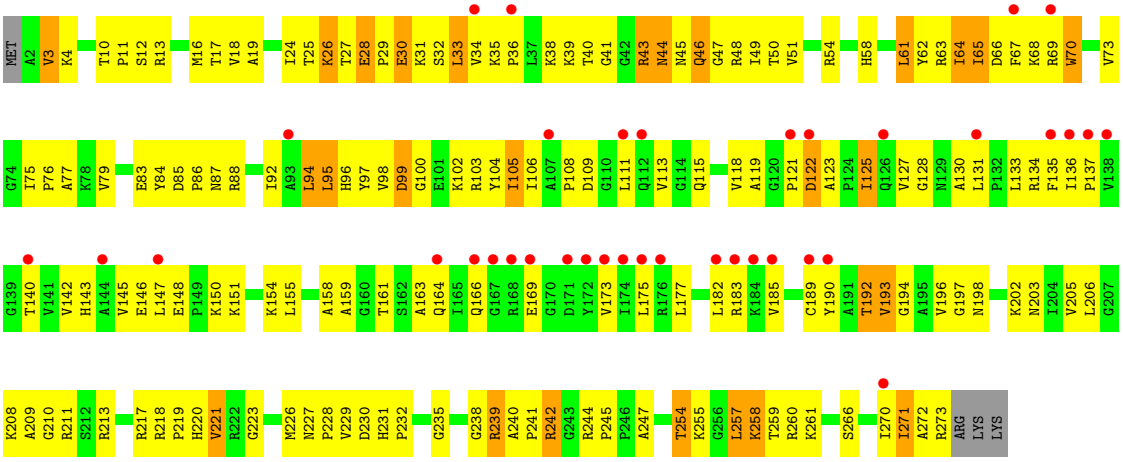
Chain DB:





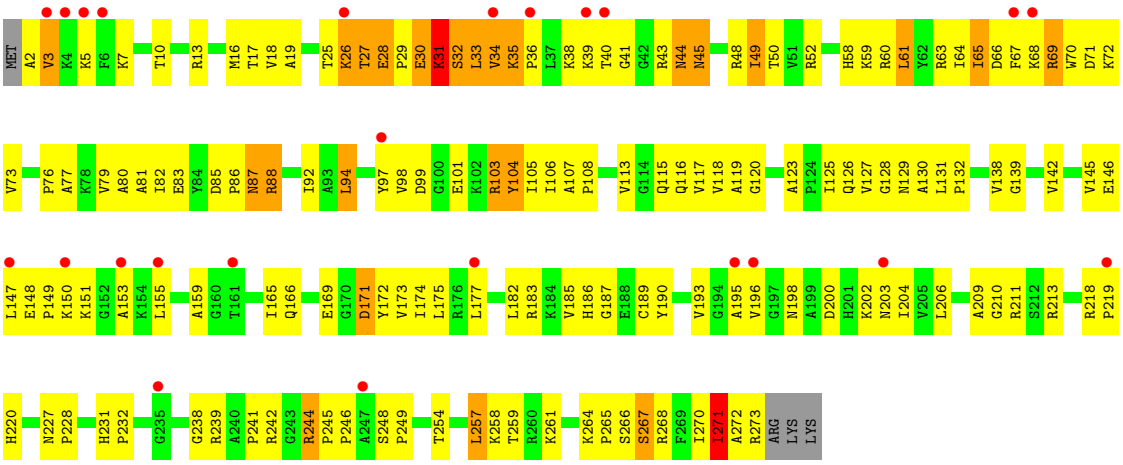
• Molecule 26: 50S ribosomal protein L2

Chain BD:



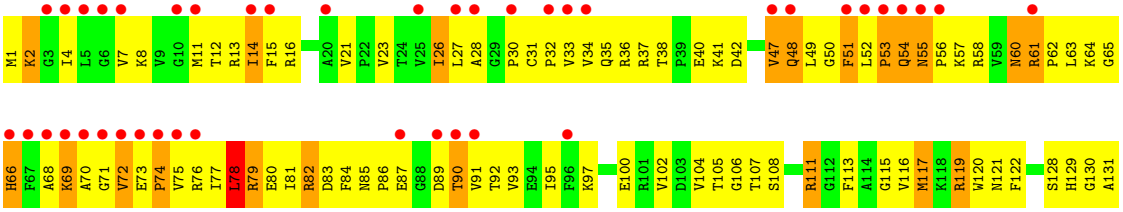
• Molecule 26: 50S ribosomal protein L2

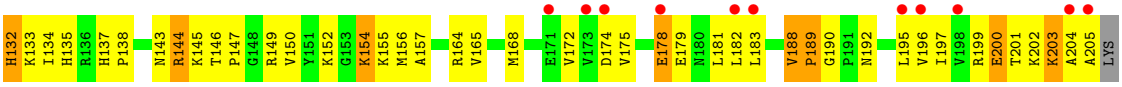
Chain DD:



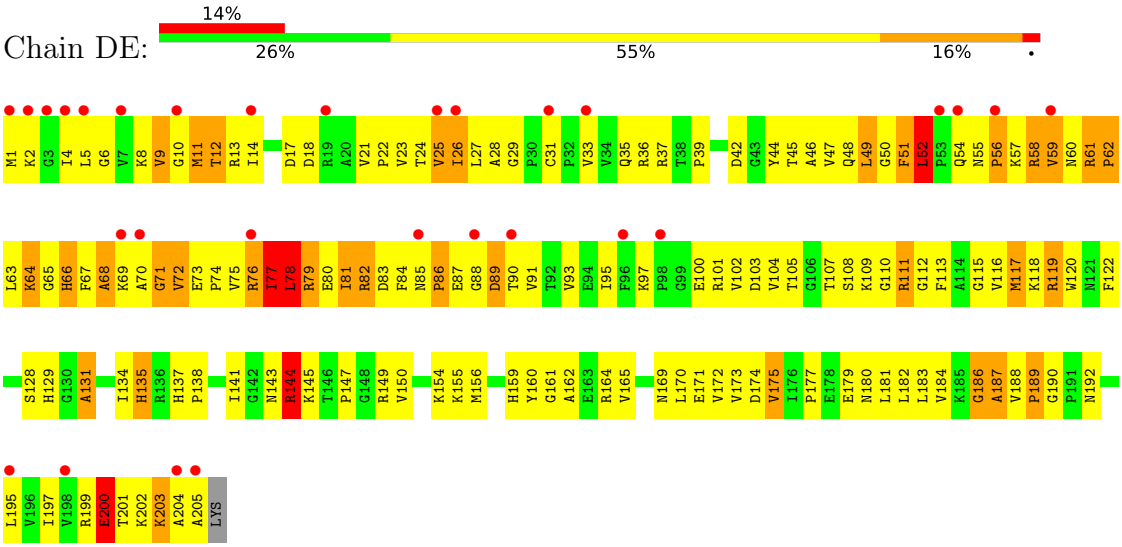
• Molecule 27: 50S ribosomal protein L3

Chain BE:

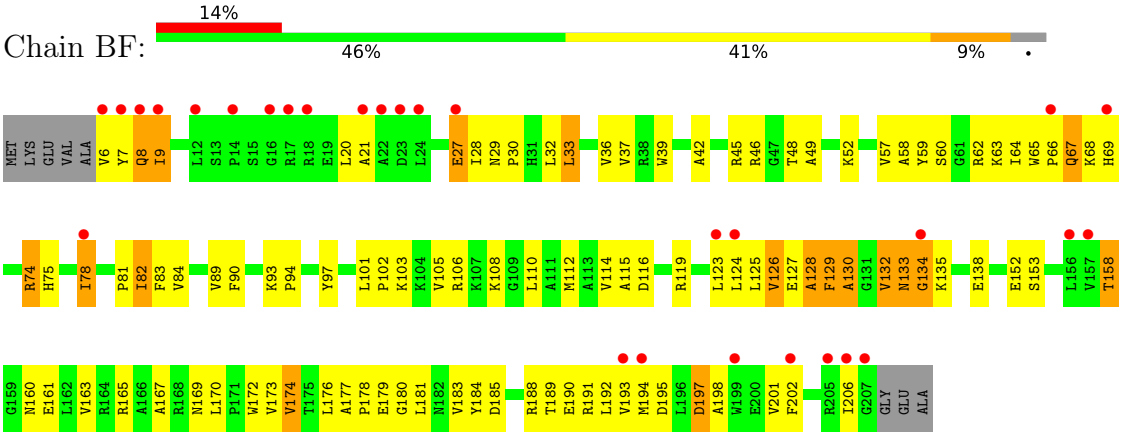




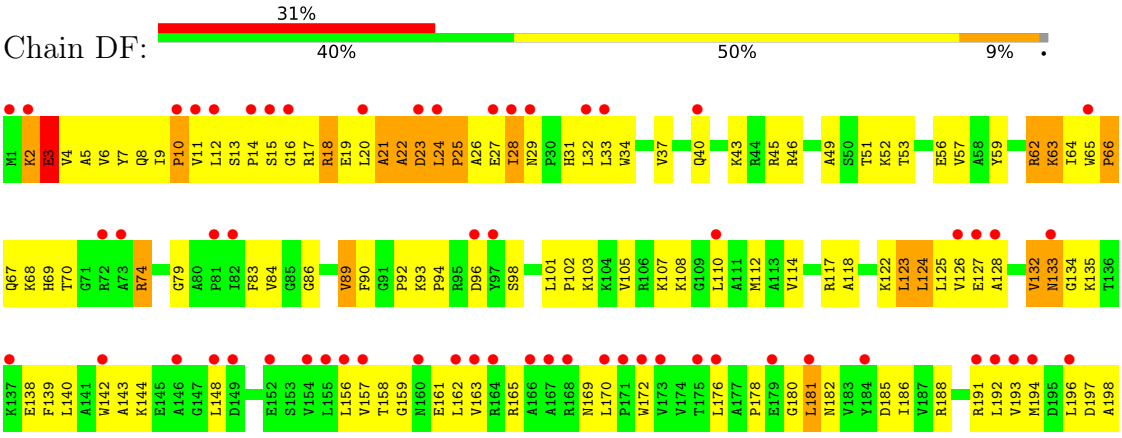
• Molecule 27: 50S ribosomal protein L3

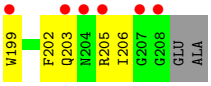


• Molecule 28: 50S ribosomal protein L4



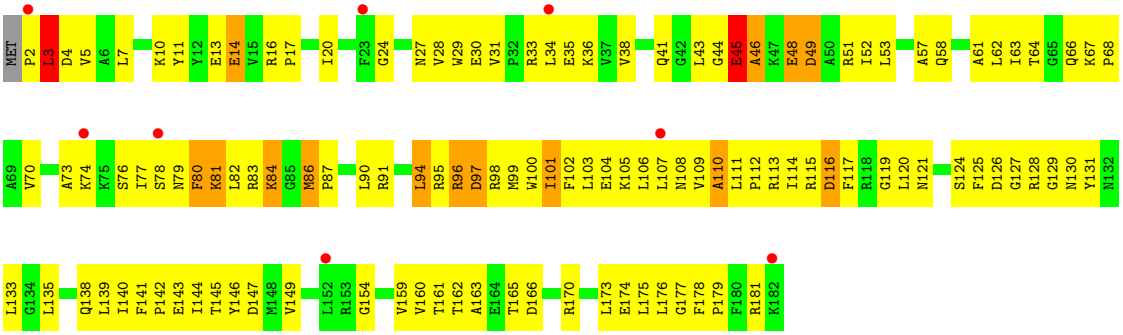
• Molecule 28: 50S ribosomal protein L4





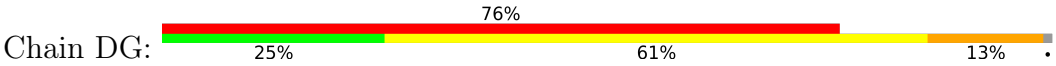
• Molecule 29: 50S ribosomal protein L5

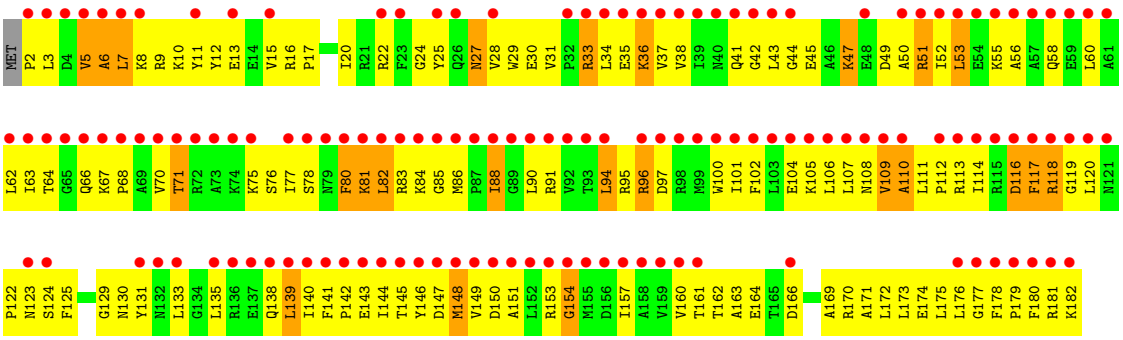
Chain BG:



• Molecule 29: 50S ribosomal protein L5

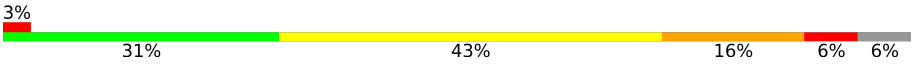
Chain DG:

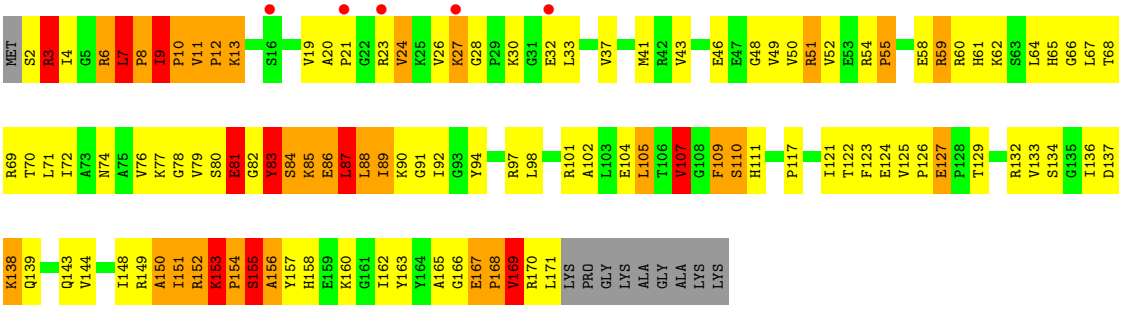




• Molecule 30: 50S ribosomal protein L6

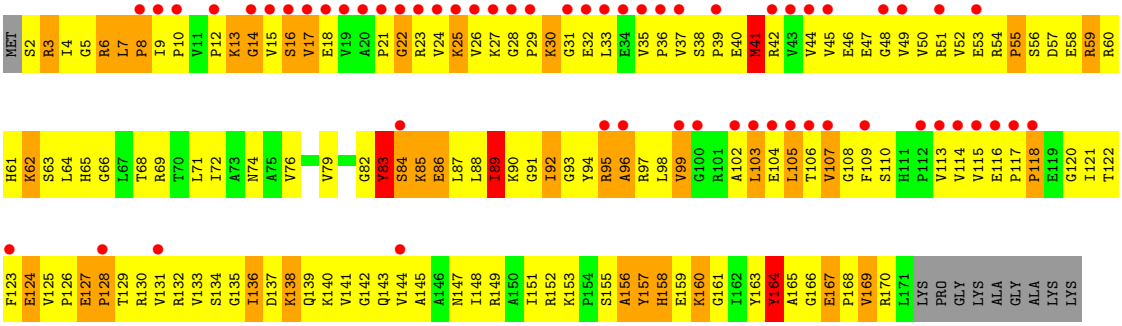
Chain BH:

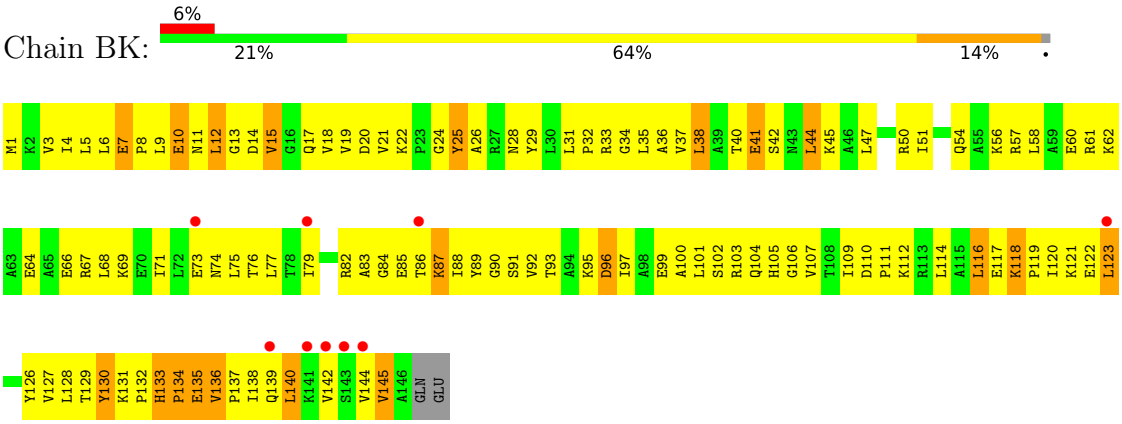




• Molecule 30: 50S ribosomal protein L6

Chain DH:



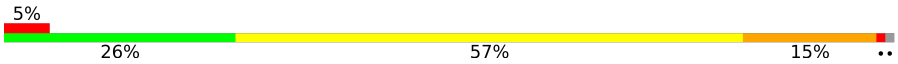


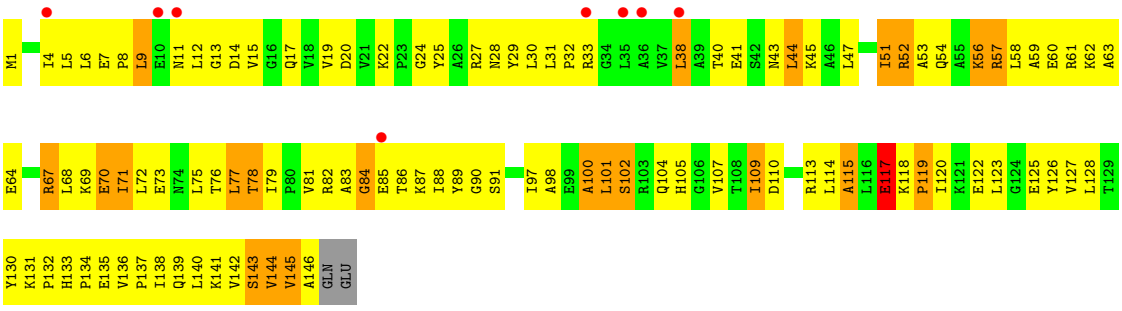
• Molecule 31: 50S ribosomal protein L9

Chain BK:

• Molecule 31: 50S ribosomal protein L9

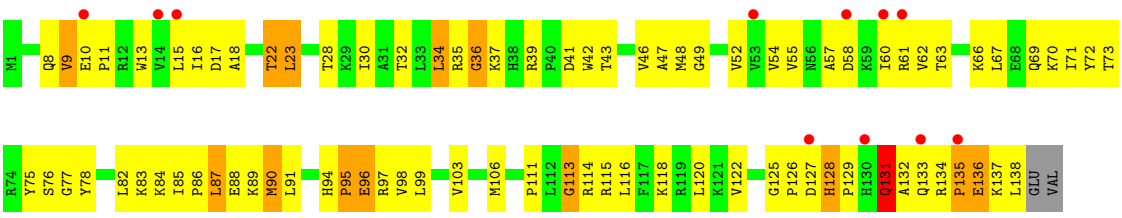
Chain DK:





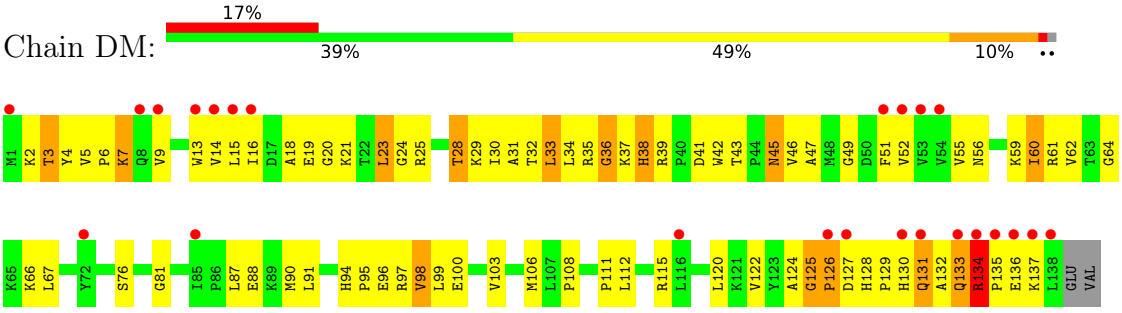
• Molecule 32: 50S ribosomal protein L13

Chain BM:



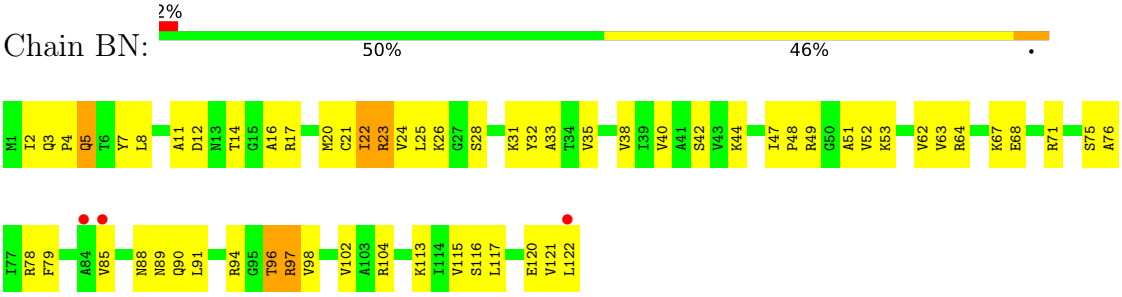
• Molecule 32: 50S ribosomal protein L13

Chain DM:



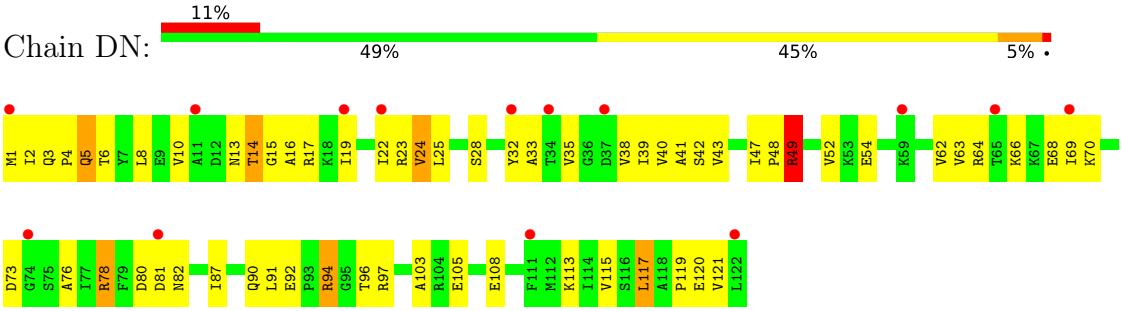
• Molecule 33: 50S ribosomal protein L14

Chain BN:



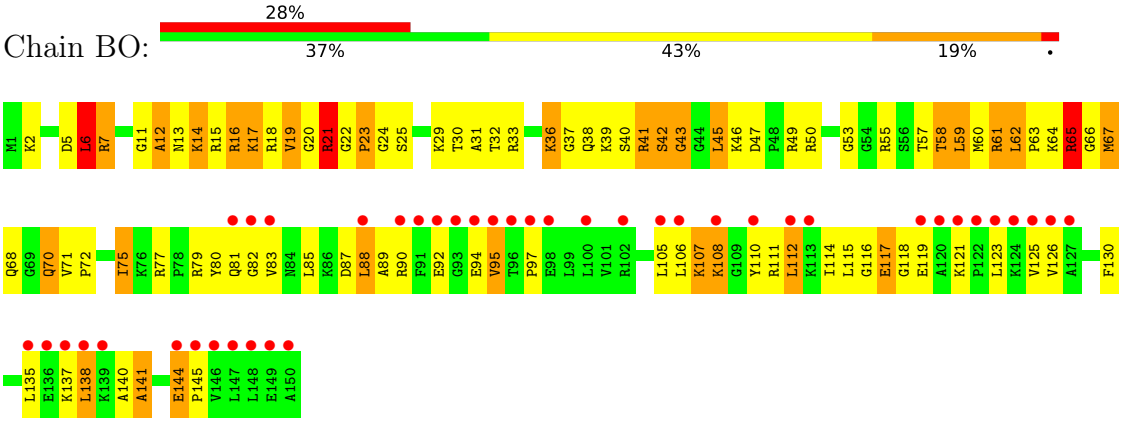
• Molecule 33: 50S ribosomal protein L14

Chain DN:



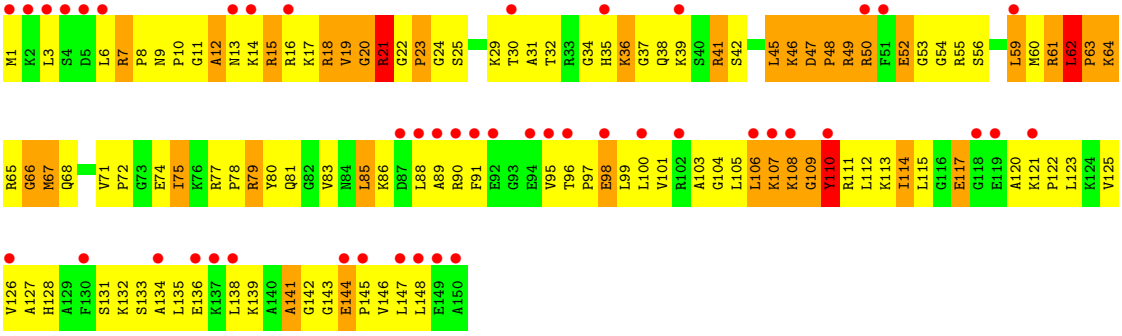
• Molecule 34: 50S ribosomal protein L15

Chain BO:



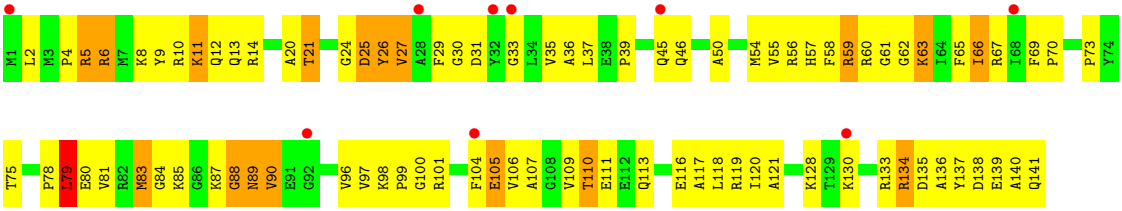
• Molecule 34: 50S ribosomal protein L15

Chain DO:



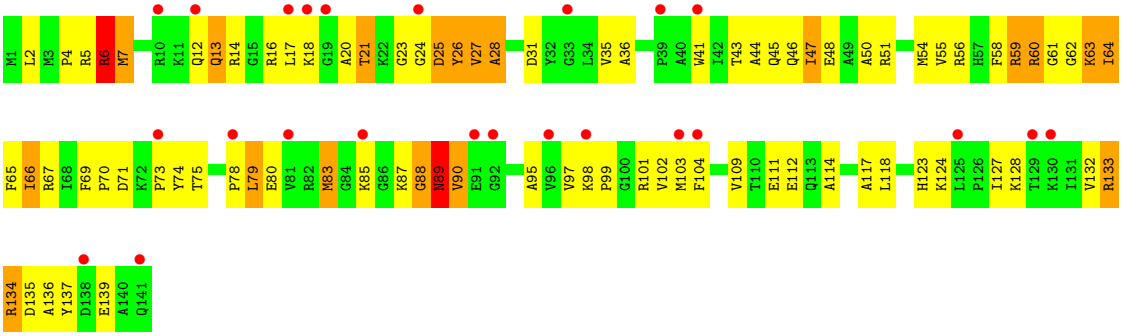
• Molecule 35: 50S ribosomal protein L16

Chain BP:



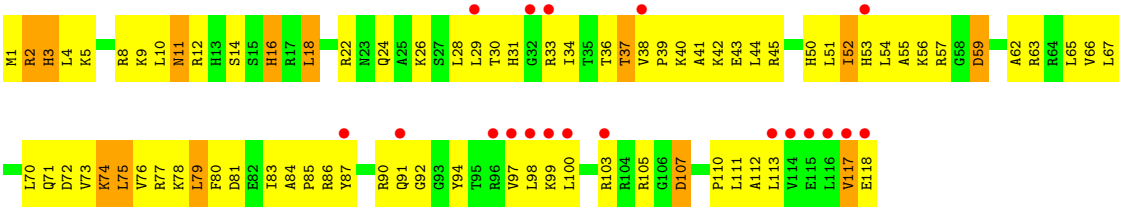
• Molecule 35: 50S ribosomal protein L16

Chain DP:



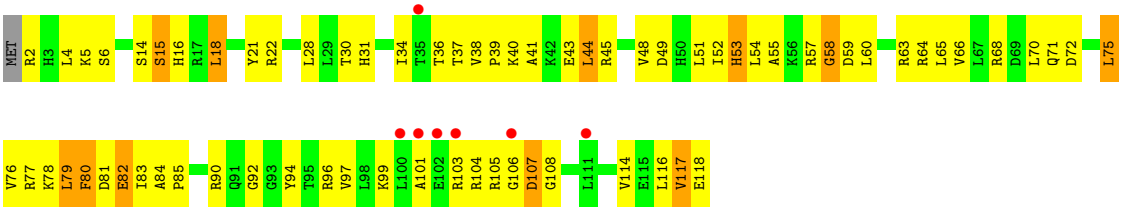
• Molecule 36: 50S ribosomal protein L17

Chain B0:

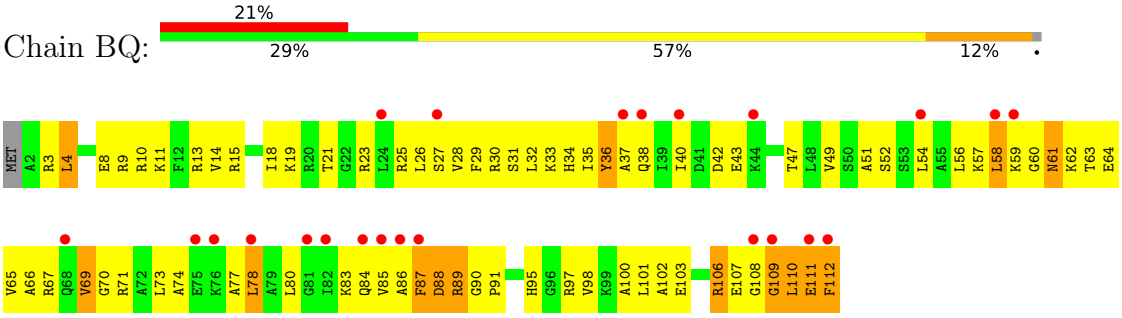


• Molecule 36: 50S ribosomal protein L17

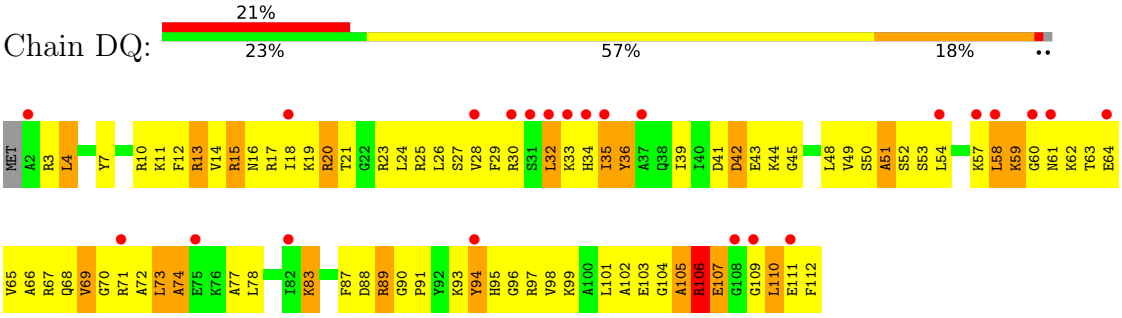
Chain D0:



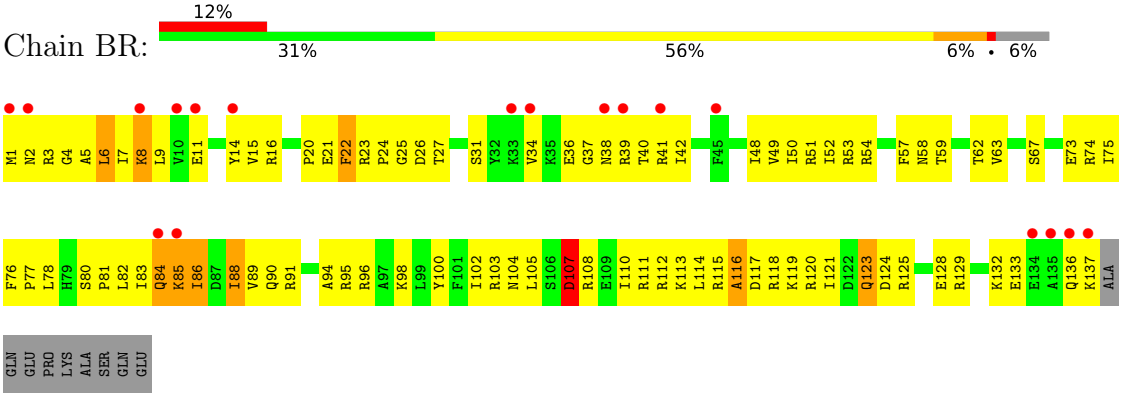
• Molecule 37: 50S ribosomal protein L18



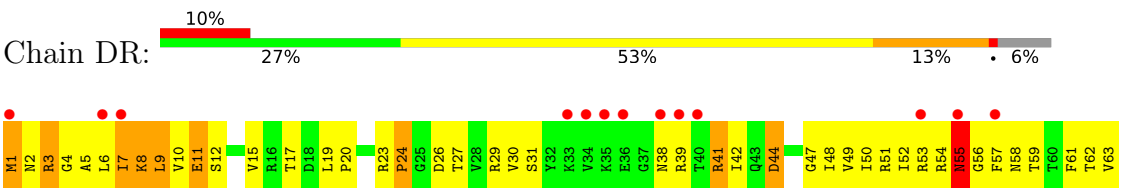
• Molecule 37: 50S ribosomal protein L18

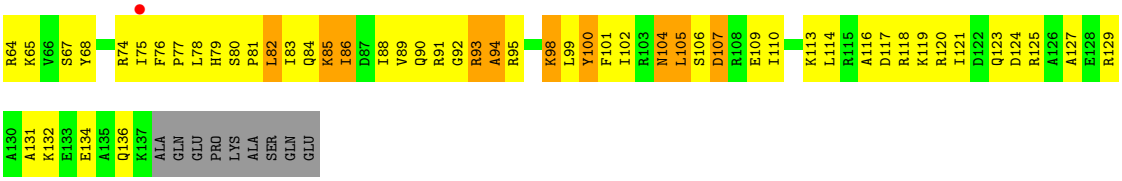


• Molecule 38: 50S ribosomal protein L19



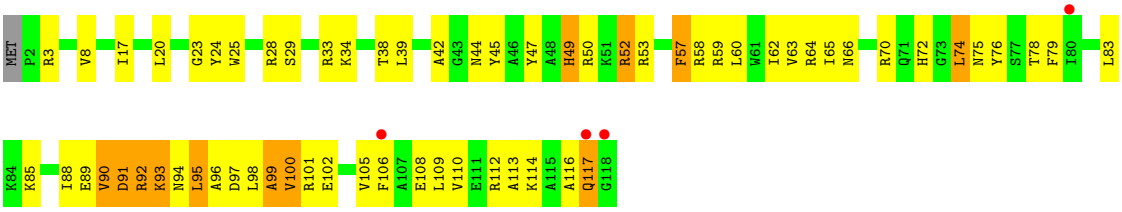
• Molecule 38: 50S ribosomal protein L19





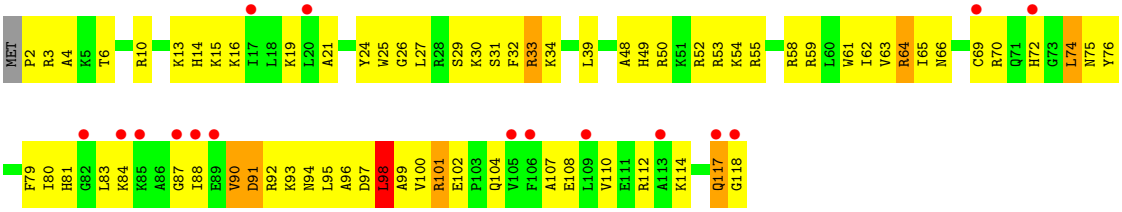
• Molecule 39: 50S ribosomal protein L20

Chain B1:



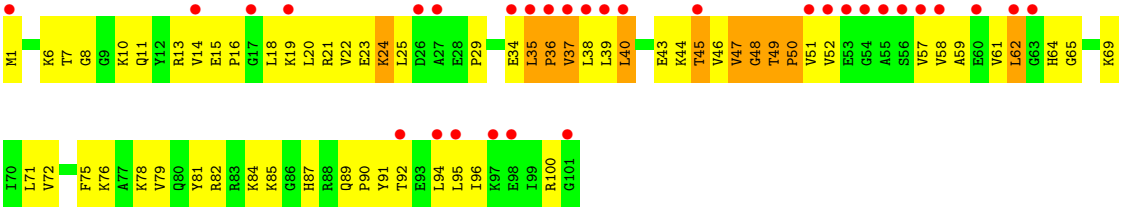
• Molecule 39: 50S ribosomal protein L20

Chain D1:



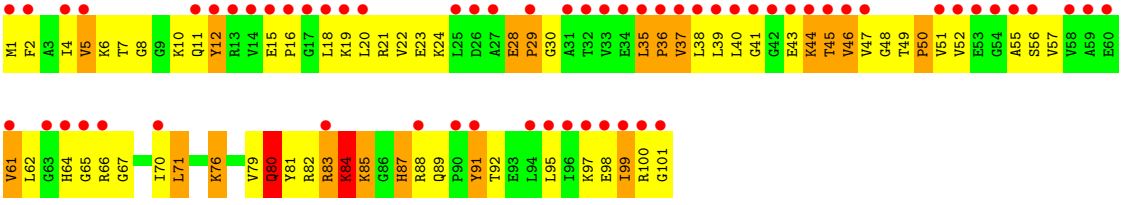
• Molecule 40: 50S ribosomal protein L21

Chain B2:



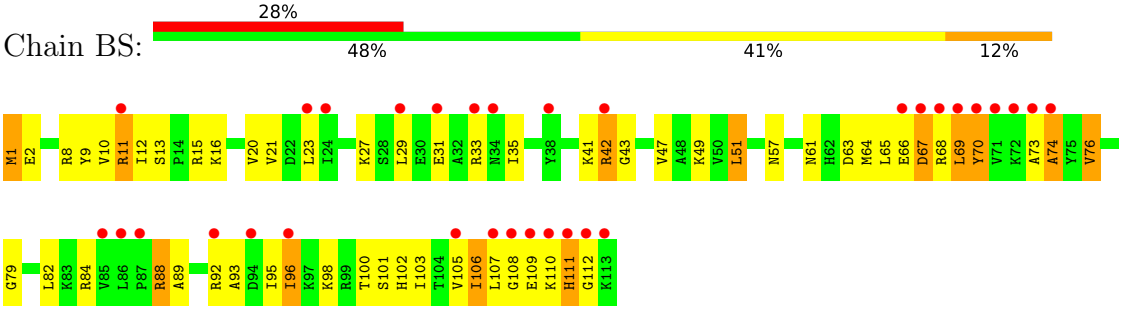
• Molecule 40: 50S ribosomal protein L21

Chain D2:



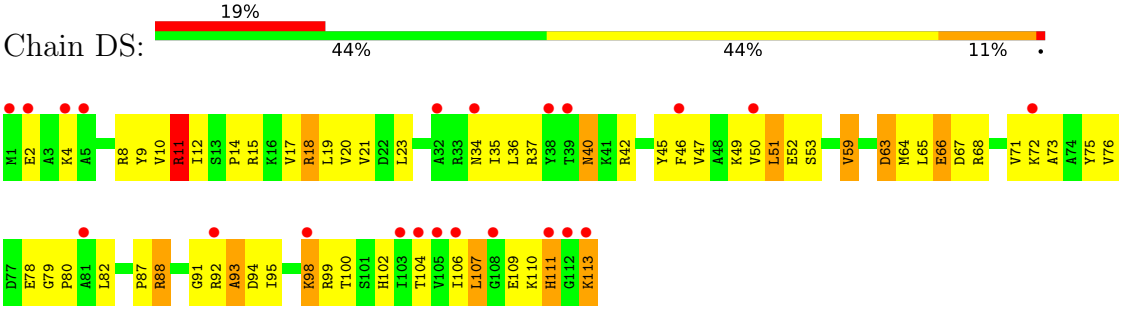
• Molecule 41: 50S ribosomal protein L22

Chain BS:



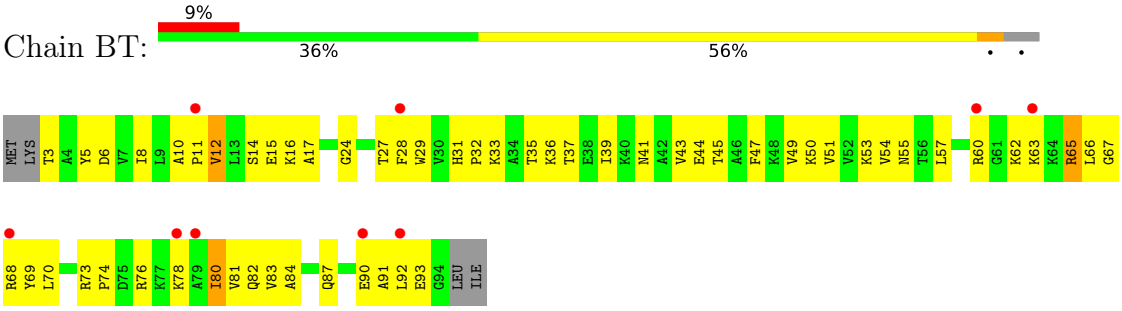
• Molecule 41: 50S ribosomal protein L22

Chain DS:



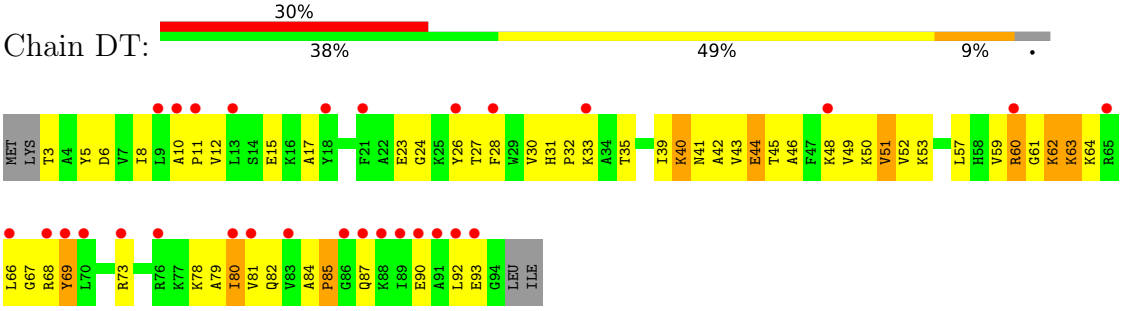
• Molecule 42: 50S ribosomal protein L23

Chain BT:



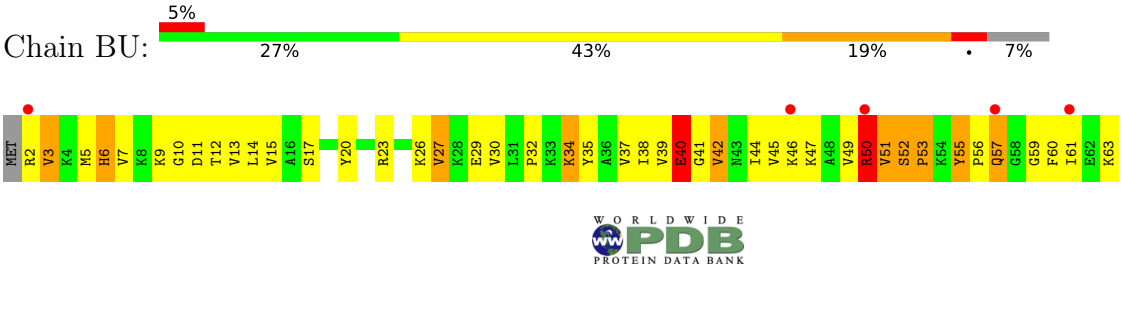
• Molecule 42: 50S ribosomal protein L23

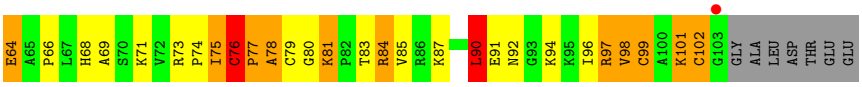
Chain DT:



• Molecule 43: 50S ribosomal protein L24

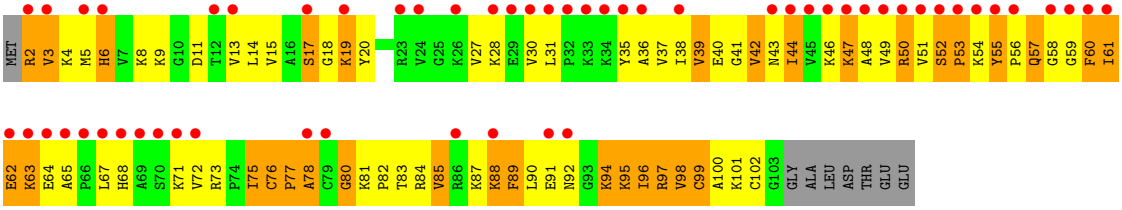
Chain BU:





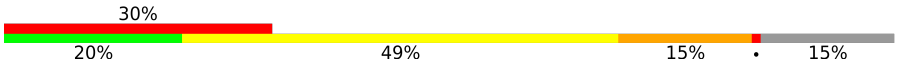
• Molecule 43: 50S ribosomal protein L24

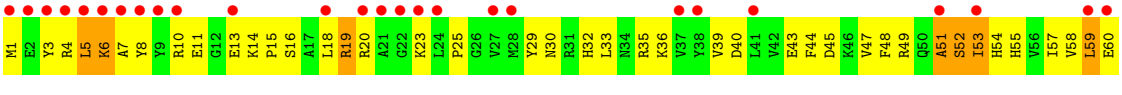
Chain DU:

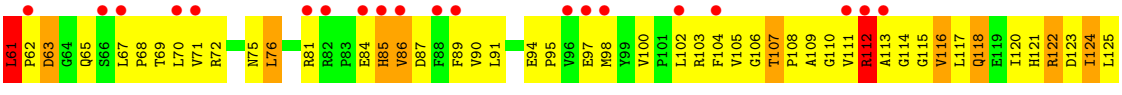


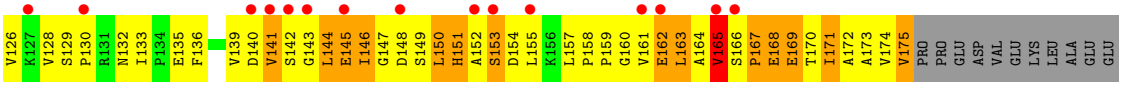
• Molecule 44: 50S ribosomal protein L25

Chain BV:



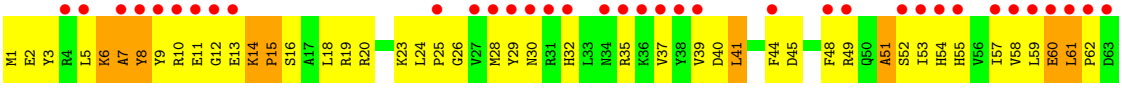


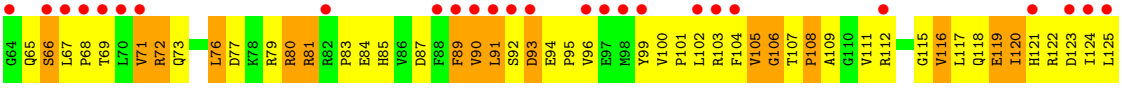


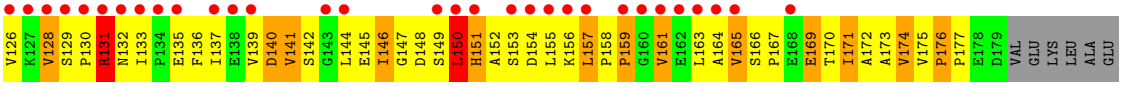


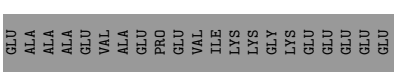
• Molecule 44: 50S ribosomal protein L25

Chain DV:



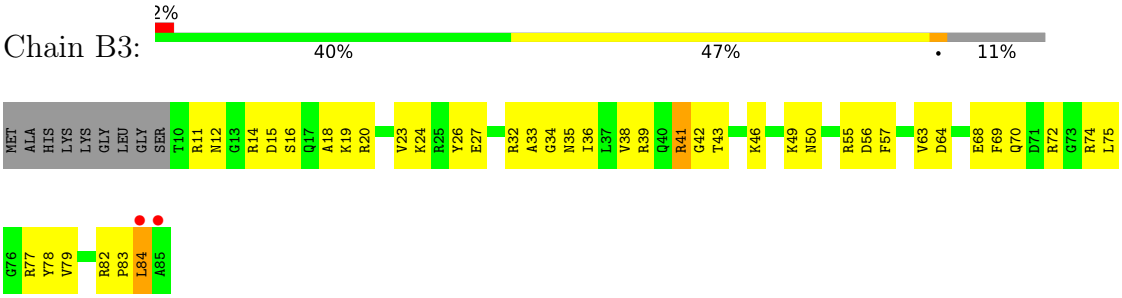






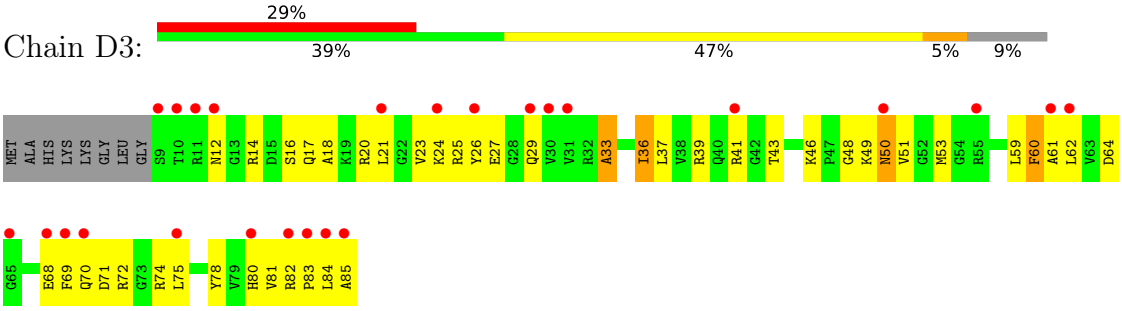
• Molecule 45: 50S ribosomal protein L27

Chain B3:



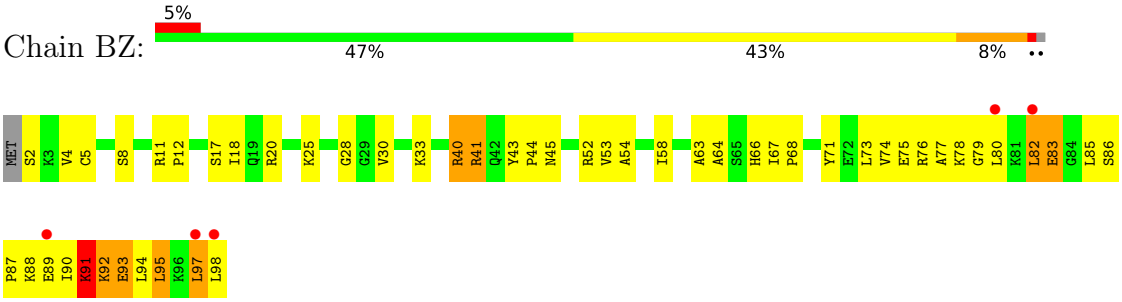
• Molecule 45: 50S ribosomal protein L27

Chain D3:



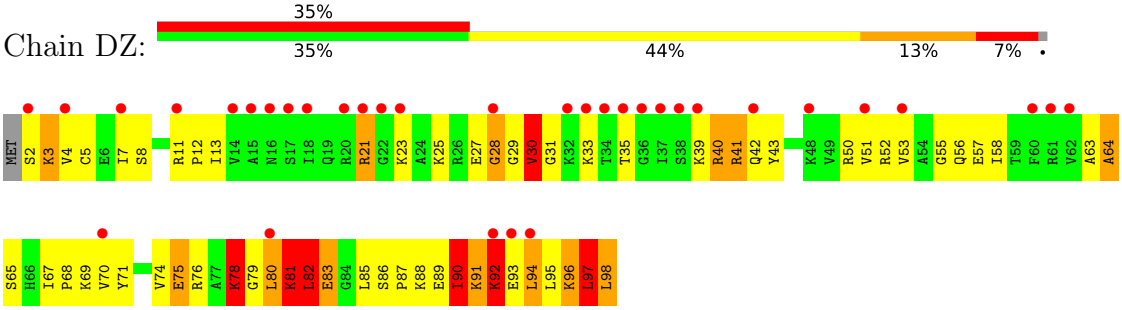
• Molecule 46: 50S ribosomal protein L28

Chain BZ:



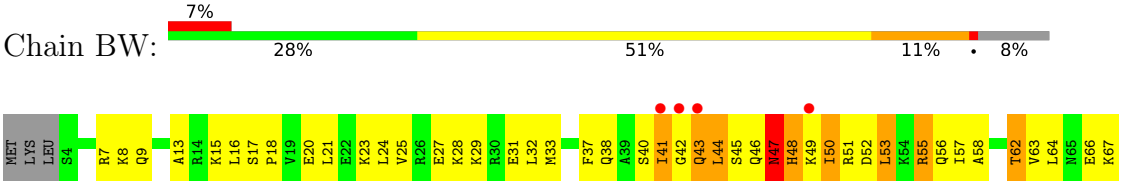
• Molecule 46: 50S ribosomal protein L28

Chain DZ:



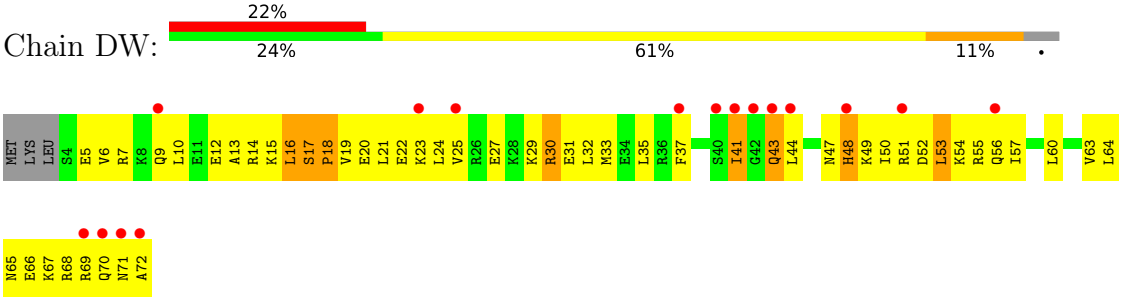
• Molecule 47: 50S ribosomal protein L29

Chain BW:



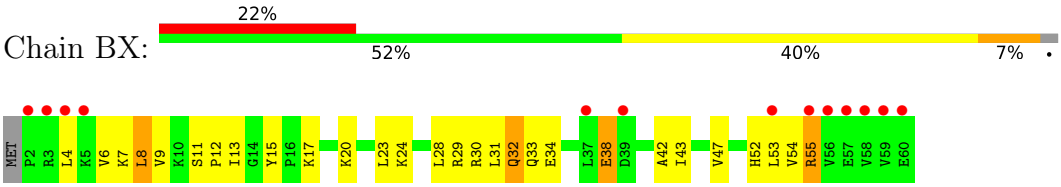
• Molecule 47: 50S ribosomal protein L29

Chain DW:



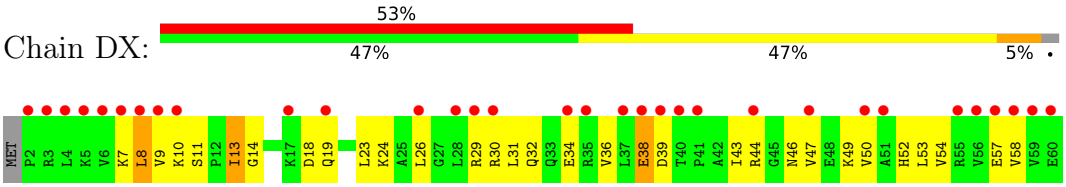
• Molecule 48: 50S ribosomal protein L30

Chain BX:



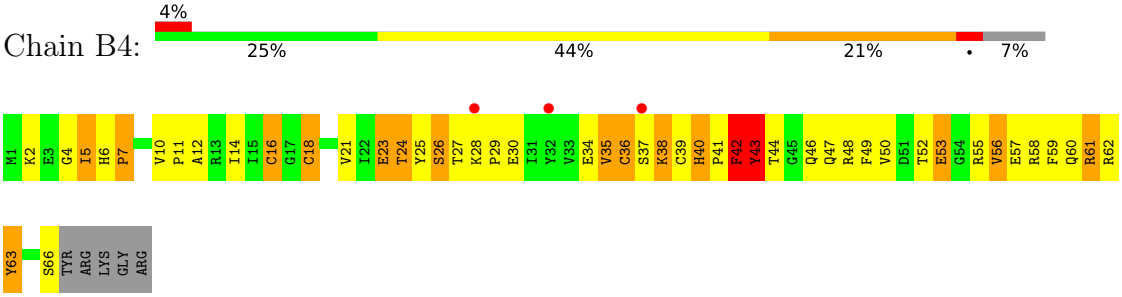
• Molecule 48: 50S ribosomal protein L30

Chain DX:



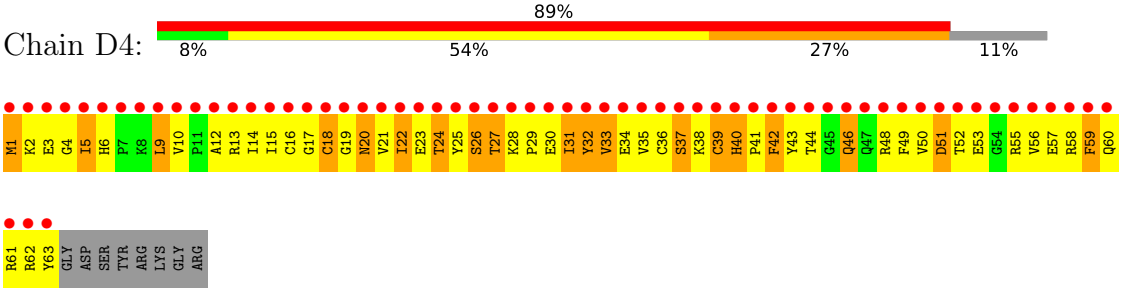
• Molecule 49: 50S ribosomal protein L31

Chain B4:



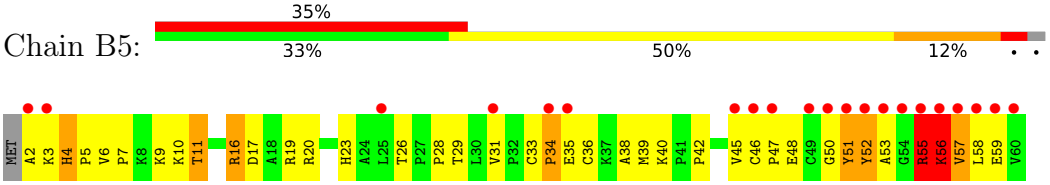
• Molecule 49: 50S ribosomal protein L31

Chain D4:



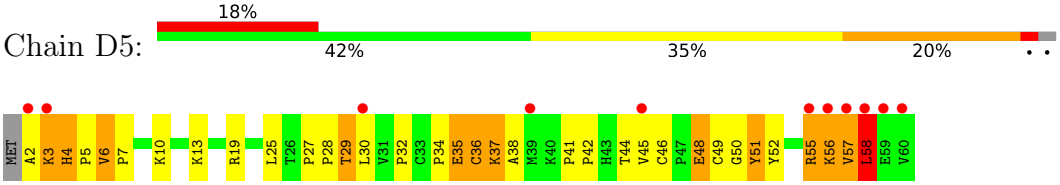
• Molecule 50: 50S ribosomal protein L32

Chain B5:



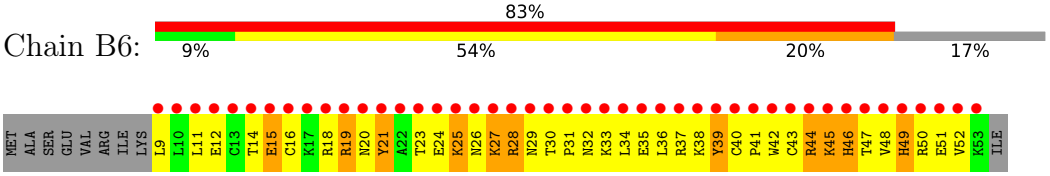
• Molecule 50: 50S ribosomal protein L32

Chain D5:



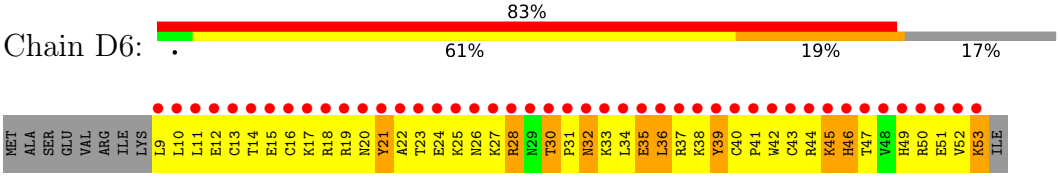
• Molecule 51: 50S ribosomal protein L33

Chain B6:



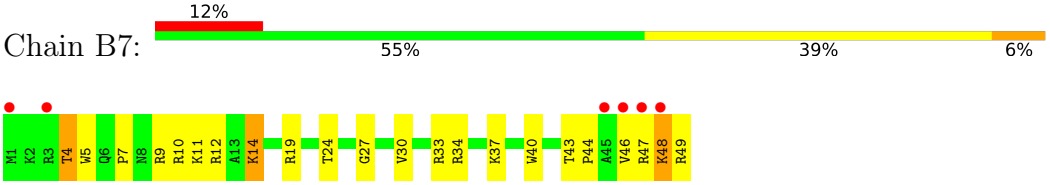
• Molecule 51: 50S ribosomal protein L33

Chain D6:



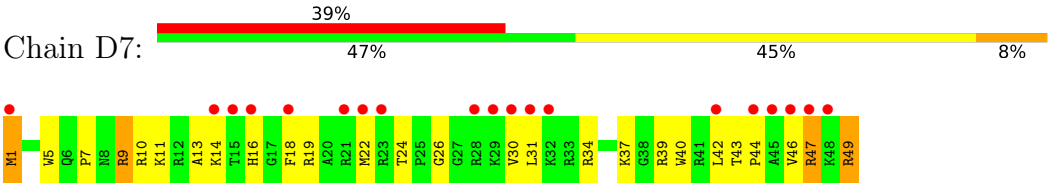
• Molecule 52: 50S ribosomal protein L34

Chain B7:



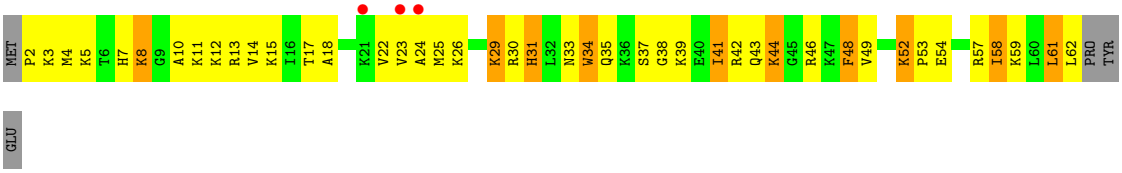
• Molecule 52: 50S ribosomal protein L34

Chain D7:



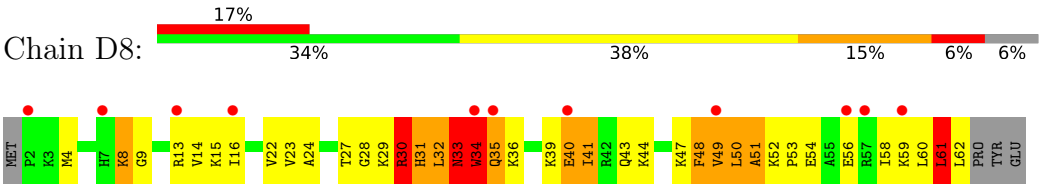
• Molecule 53: 50S ribosomal protein L35

Chain B8:



• Molecule 53: 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	209.27Å 448.54Å 615.75Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	173.07 – 3.30 224.27 – 3.30	Depositor EDS
% Data completeness (in resolution range)	100.0 (173.07-3.30) 93.5 (224.27-3.30)	Depositor EDS
R_{merge}	0.42	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.42 (at 3.33Å)	Xtriage
Refinement program	PHENIX dev_987	Depositor
R, R_{free}	0.202 , 0.254 0.197 , 0.255	Depositor DCC
R_{free} test set	2000 reflections (0.23%)	wwPDB-VP
Wilson B-factor (Å^2)	101.3	Xtriage
Anisotropy	0.267	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.24 , 83.2	EDS
L-test for twinning[2]	$< \|L\| > = 0.45$, $< L^2 > = 0.27$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.93	EDS
Total number of atoms	292440	wwPDB-VP
Average B, all atoms (Å^2)	135.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.59% 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: TAC, ZN, MG

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	AA	0.31	2/36234 (0.0%)	0.62	7/56554 (0.0%)
1	CA	0.30	0/36237	0.60	4/56558 (0.0%)
2	AE	0.28	0/1959	0.47	0/2642
2	CE	0.25	0/1959	0.43	0/2642
3	AF	0.25	0/1629	0.41	0/2195
3	CF	0.26	0/1636	0.42	0/2205
4	AG	0.40	2/1733 (0.1%)	0.49	0/2318
4	CG	0.36	1/1733 (0.1%)	0.50	1/2318 (0.0%)
5	AH	0.29	0/1171	0.46	0/1576
5	CH	0.28	0/1171	0.47	0/1576
6	AI	0.28	0/856	0.43	0/1154
6	CI	0.27	0/856	0.43	0/1154
7	AJ	0.28	0/1276	0.42	0/1709
7	CJ	0.32	0/1276	0.45	0/1709
8	AK	0.28	0/1136	0.46	0/1527
8	CK	0.68	4/1136 (0.4%)	0.57	1/1527 (0.1%)
9	AL	0.39	1/1029 (0.1%)	0.49	0/1379
9	CL	0.31	0/1029	0.46	0/1379
10	AM	0.25	0/814	0.44	0/1095
10	CM	0.28	0/814	0.47	0/1095
11	AN	0.27	0/900	0.46	0/1213
11	CN	0.25	0/900	0.43	0/1213
12	AO	0.29	0/991	0.47	0/1327
12	CO	0.31	0/991	0.47	0/1327
13	AP	0.30	0/938	0.47	0/1258
13	CP	0.26	0/943	0.44	0/1265
14	AQ	0.31	0/501	0.45	0/664
14	CQ	0.31	0/501	0.54	1/664 (0.2%)
15	AR	0.27	0/745	0.42	0/992
15	CR	0.26	0/745	0.38	0/992
16	AS	0.32	0/721	0.47	0/970
16	CS	0.27	0/721	0.44	0/970

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	AT	0.30	0/847	0.44	0/1131
17	CT	0.33	0/847	0.53	1/1131 (0.1%)
18	AU	0.26	0/596	0.44	0/790
18	CU	0.28	0/596	0.45	0/790
19	AV	0.34	0/680	0.58	0/915
19	CV	0.35	0/638	0.58	0/860
20	AW	0.41	0/765	0.54	0/1007
20	CW	0.27	0/765	0.44	0/1007
21	AX	0.28	0/221	0.43	0/288
21	CX	0.41	0/221	0.61	0/288
22	AC	0.47	2/1832 (0.1%)	0.82	5/2855 (0.2%)
22	CC	0.45	2/1832 (0.1%)	0.80	5/2855 (0.2%)
23	A1	0.33	0/94	0.62	0/144
23	C1	0.40	0/94	0.67	0/144
24	BA	0.43	1/70233 (0.0%)	0.77	36/109643 (0.0%)
24	DA	0.39	4/70167 (0.0%)	0.73	38/109541 (0.0%)
25	BB	0.37	0/2928	0.73	1/4568 (0.0%)
25	DB	0.34	0/2928	0.62	0/4568
26	BD	0.39	0/2165	0.57	0/2919
26	DD	0.59	5/2165 (0.2%)	0.55	0/2919
27	BE	0.32	0/1601	0.52	0/2160
27	DE	0.32	0/1601	0.55	0/2160
28	BF	0.32	0/1620	0.49	0/2194
28	DF	0.29	0/1662	0.49	0/2249
29	BG	0.30	0/1499	0.48	0/2016
29	DG	0.27	0/1499	0.46	0/2016
30	BH	0.38	0/1332	0.63	2/1802 (0.1%)
30	DH	0.25	0/1332	0.52	2/1802 (0.1%)
31	BK	0.28	0/1151	0.47	0/1558
31	DK	0.27	0/1151	0.48	0/1558
32	BM	0.28	0/1131	0.50	0/1525
32	DM	0.28	0/1131	0.46	0/1525
33	BN	0.30	0/943	0.48	0/1269
33	DN	0.30	0/943	0.47	0/1269
34	BO	0.39	0/1162	0.64	0/1544
34	DO	0.38	0/1162	0.57	0/1544
35	BP	0.35	0/1143	0.53	0/1527
35	DP	0.41	2/1143 (0.2%)	0.82	3/1527 (0.2%)
36	B0	0.35	0/982	0.53	1/1312 (0.1%)
36	D0	0.30	0/974	0.50	0/1302
37	BQ	0.32	0/892	0.54	0/1187
37	DQ	0.39	0/892	0.51	0/1187
38	BR	0.31	0/1155	0.47	0/1542

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	DR	0.34	0/1155	0.51	0/1542
39	B1	0.36	0/982	0.52	0/1306
39	D1	0.31	0/982	0.46	0/1306
40	B2	0.32	0/790	0.52	0/1057
40	D2	0.35	0/790	0.53	0/1057
41	BS	0.31	0/911	0.50	0/1220
41	DS	0.30	0/911	0.50	0/1220
42	BT	0.42	0/739	0.52	0/993
42	DT	0.36	0/739	0.50	0/993
43	BU	0.37	0/798	0.51	0/1064
43	DU	0.33	0/798	0.50	0/1064
44	BV	0.32	0/1427	0.50	0/1935
44	DV	0.27	0/1460	0.45	0/1982
45	B3	0.33	0/615	0.50	0/819
45	D3	0.32	0/621	0.48	0/827
46	BZ	0.37	0/770	0.56	0/1022
46	DZ	0.33	0/770	0.55	0/1022
47	BW	0.39	0/560	0.55	0/741
47	DW	0.29	0/583	0.48	0/771
48	BX	0.31	0/474	0.48	0/635
48	DX	0.26	0/474	0.45	0/635
49	B4	0.81	3/545 (0.6%)	0.65	2/733 (0.3%)
49	D4	0.44	1/527 (0.2%)	0.55	0/709
50	B5	0.33	0/473	0.54	0/639
50	D5	0.29	0/473	0.47	0/639
51	B6	0.44	0/396	0.70	2/529 (0.4%)
51	D6	0.44	0/396	0.62	0/529
52	B7	0.43	0/438	0.68	0/575
52	D7	0.31	0/438	0.53	0/575
53	B8	0.40	0/494	0.58	0/649
53	D8	0.49	0/494	0.84	3/649 (0.5%)
All	All	0.37	30/316019 (0.0%)	0.66	115/472742 (0.0%)

All (30) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
24	DA	2377	A	N9-C4	20.50	1.50	1.37
26	DD	104	TYR	CD1-CE1	13.75	1.59	1.39
8	CK	94	TYR	CD2-CE2	-13.18	1.19	1.39
49	B4	16	CYS	CB-SG	-12.84	1.60	1.82
26	DD	104	TYR	CD2-CE2	12.77	1.58	1.39
22	AC	17(A)	C	C4-N4	-11.86	1.23	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	CC	17(A)	C	C4-N4	-11.28	1.23	1.33
8	CK	94	TYR	CB-CG	-9.84	1.36	1.51
8	CK	94	TYR	CD1-CE1	-8.84	1.26	1.39
24	DA	2377	A	N3-C4	8.08	1.39	1.34
8	CK	94	TYR	CZ-OH	-7.51	1.25	1.37
4	AG	26	CYS	CB-SG	7.33	1.94	1.82
49	B4	18	CYS	CB-SG	6.99	1.94	1.82
24	BA	2751	G	N7-C5	-6.82	1.35	1.39
22	CC	17(A)	C	N3-C4	6.78	1.38	1.33
26	DD	104	TYR	CE1-CZ	6.64	1.47	1.38
26	DD	104	TYR	CE2-CZ	6.58	1.47	1.38
49	D4	39	CYS	CB-SG	-6.11	1.71	1.82
1	AA	192	U	O3'-P	6.05	1.68	1.61
22	AC	17(A)	C	N3-C4	6.05	1.38	1.33
35	DP	6	ARG	CZ-NH1	5.98	1.40	1.33
49	B4	43	TYR	CD2-CE2	5.94	1.48	1.39
9	AL	101	PHE	CD1-CE1	5.89	1.51	1.39
4	CG	12	CYS	CB-SG	-5.73	1.72	1.81
24	DA	2377	A	C5-C6	5.44	1.46	1.41
26	DD	104	TYR	CG-CD1	5.23	1.46	1.39
1	AA	192	U	C3'-O3'	5.22	1.49	1.42
24	DA	2393	A	N9-C4	5.21	1.41	1.37
4	AG	12	CYS	CB-SG	5.15	1.91	1.82
35	DP	6	ARG	NE-CZ	5.06	1.39	1.33

All (115) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	DA	2377	A	C2-N3-C4	28.76	124.98	110.60
24	BA	2751	G	N1-C6-O6	20.94	132.47	119.90
24	DA	2377	A	C8-N9-C4	-20.26	97.69	105.80
35	DP	6	ARG	NE-CZ-NH1	19.44	130.02	120.30
22	CC	17(A)	C	N3-C4-C5	-18.15	114.64	121.90
24	DA	2377	A	N3-C4-C5	-17.55	114.52	126.80
24	DA	2377	A	N9-C4-C5	17.51	112.80	105.80
22	AC	17(A)	C	N3-C4-C5	-17.35	114.96	121.90
24	DA	2344	U	N3-C4-C5	-15.11	105.53	114.60
24	DA	2344	U	C6-N1-C2	-14.55	112.27	121.00
22	CC	17(A)	C	C2-N3-C4	14.49	127.15	119.90
35	DP	6	ARG	NE-CZ-NH2	-14.42	113.09	120.30
22	AC	17(A)	C	C2-N3-C4	13.92	126.86	119.90
24	BA	2751	G	C5-C6-O6	-12.60	121.04	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	DA	2377	A	C4-C5-N7	-11.53	104.94	110.70
24	BA	2751	G	C4-C5-C6	11.07	125.44	118.80
24	DA	2377	A	N1-C2-N3	-10.93	123.83	129.30
24	DA	2377	A	C5-C6-N1	10.58	122.99	117.70
30	BH	3	ARG	NE-CZ-NH1	-10.53	115.04	120.30
1	AA	1381	U	N3-C2-O2	-10.39	114.93	122.20
24	BA	2751	G	C5-C6-N1	-10.37	106.32	111.50
24	BA	2751	G	C6-C5-N7	-10.30	124.22	130.40
24	BA	1999	C	C6-N1-C2	10.05	124.32	120.30
24	BA	2751	G	C8-N9-C4	-9.28	102.69	106.40
24	DA	2377	A	C5-N7-C8	8.83	108.32	103.90
24	DA	2344	U	N3-C2-O2	-8.79	116.05	122.20
24	DA	2344	U	C2-N3-C4	8.79	132.27	127.00
22	AC	17(A)	C	C5-C4-N4	8.78	126.34	120.20
1	AA	1381	U	C6-N1-C2	-8.55	115.87	121.00
30	DH	3	ARG	NE-CZ-NH2	-8.44	116.08	120.30
24	DA	2345	G	N3-C4-N9	-8.22	121.07	126.00
24	DA	2344	U	C4-C5-C6	8.03	124.52	119.70
22	CC	17(A)	C	C5-C4-N4	7.99	125.79	120.20
24	DA	1601	G	N7-C8-N9	7.78	116.99	113.10
22	CC	17(A)	C	N1-C2-O2	7.71	123.52	118.90
24	DA	1601	G	C8-N9-C4	-7.70	103.32	106.40
24	DA	2344	U	C5-C6-N1	7.70	126.55	122.70
35	DP	6	ARG	CD-NE-CZ	7.64	134.30	123.60
24	DA	2377	A	N1-C6-N6	-7.43	114.14	118.60
24	DA	2344	U	N3-C4-O4	7.22	124.46	119.40
24	BA	2285	C	C2-N1-C1'	-7.02	111.08	118.80
24	BA	676	A	C2-N3-C4	-6.98	107.11	110.60
24	BA	774	A	C2-N3-C4	-6.95	107.12	110.60
24	DA	2344	U	C5-C4-O4	6.85	130.01	125.90
1	AA	1381	U	C2-N1-C1'	6.84	125.90	117.70
53	D8	30	ARG	CG-CD-NE	6.81	126.10	111.80
24	BA	2430	A	C2-N3-C4	-6.65	107.27	110.60
1	CA	598	U	C2-N1-C1'	-6.64	109.73	117.70
22	CC	17(A)	C	N1-C2-N3	-6.64	114.55	119.20
24	BA	2285	C	C6-N1-C1'	6.60	128.72	120.80
24	DA	2377	A	N3-C4-N9	6.60	132.68	127.40
22	AC	17(A)	C	N1-C2-O2	6.56	122.84	118.90
24	DA	2377	A	O4'-C1'-N9	6.53	113.42	108.20
24	DA	2344	U	N1-C2-N3	6.52	118.81	114.90
51	B6	28	ARG	NE-CZ-NH1	6.47	123.54	120.30
24	DA	2377	A	C6-C5-N7	6.45	136.81	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	DA	1246	A	N9-C4-C5	6.43	108.37	105.80
53	D8	30	ARG	CB-CG-CD	6.29	127.97	111.60
24	BA	71	A	C5-N7-C8	-6.25	100.77	103.90
1	CA	598	U	N3-C2-O2	6.19	126.53	122.20
24	DA	2345	G	N9-C4-C5	6.17	107.87	105.40
53	D8	30	ARG	NE-CZ-NH1	6.16	123.38	120.30
24	BA	1992	G	C8-N9-C4	-6.15	103.94	106.40
8	CK	94	TYR	CD1-CE1-CZ	-6.11	114.30	119.80
22	AC	17(A)	C	N1-C2-N3	-5.87	115.09	119.20
24	DA	2393	A	C8-N9-C4	-5.84	103.47	105.80
4	CG	12	CYS	CA-CB-SG	5.81	124.47	114.00
24	DA	453	C	C6-N1-C2	5.78	122.61	120.30
30	BH	3	ARG	NH1-CZ-NH2	5.74	125.72	119.40
24	DA	774	A	C2-N3-C4	-5.74	107.73	110.60
1	AA	255	G	N3-C4-C5	5.73	131.47	128.60
24	BA	74	A	C2-N3-C4	-5.73	107.74	110.60
24	BA	246	C	C6-N1-C2	5.70	122.58	120.30
24	BA	2751	G	N3-C2-N2	-5.66	115.94	119.90
1	AA	1381	U	N1-C2-O2	5.63	126.74	122.80
1	AA	1381	U	N1-C2-N3	5.61	118.27	114.90
1	AA	192	U	N1-C2-O2	5.56	126.69	122.80
24	BA	2785	C	C6-N1-C2	-5.54	118.08	120.30
24	BA	1311	G	C5-N7-C8	5.52	107.06	104.30
24	BA	1311	G	N3-C4-C5	-5.51	125.85	128.60
24	BA	676	A	C5-N7-C8	-5.49	101.16	103.90
24	BA	840	C	C6-N1-C2	5.46	122.48	120.30
24	BA	783	A	C5-N7-C8	-5.42	101.19	103.90
1	CA	598	U	C6-N1-C2	5.42	124.25	121.00
24	BA	1992	G	N3-C4-C5	-5.41	125.89	128.60
1	CA	598	U	P-O3'-C3'	5.41	126.19	119.70
24	DA	74	A	N1-C6-N6	5.38	121.83	118.60
24	DA	870	A	N1-C6-N6	-5.37	115.38	118.60
24	DA	2377	A	C6-N1-C2	-5.37	115.38	118.60
24	DA	1678	G	N3-C4-C5	5.37	131.28	128.60
24	BA	71	A	C4-C5-N7	5.36	113.38	110.70
51	B6	28	ARG	NE-CZ-NH2	-5.35	117.62	120.30
25	BB	47	C	C6-N1-C2	5.34	122.44	120.30
24	BA	74	A	N1-C6-N6	5.34	121.80	118.60
17	CT	101	ARG	NE-CZ-NH1	-5.33	117.63	120.30
24	BA	783	A	C2-N3-C4	-5.30	107.95	110.60
30	DH	3	ARG	NE-CZ-NH1	5.30	122.95	120.30
24	BA	2751	G	N3-C4-C5	-5.30	125.95	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B0	2	ARG	NE-CZ-NH2	-5.29	117.65	120.30
49	B4	42	PHE	CB-CG-CD1	-5.29	117.10	120.80
24	BA	676	A	N3-C4-C5	5.25	130.48	126.80
24	DA	2717	G	C8-N9-C4	-5.23	104.31	106.40
24	BA	461	C	N1-C2-O2	-5.21	115.77	118.90
24	BA	2751	G	N1-C2-N2	5.20	120.88	116.20
24	DA	1992	G	C8-N9-C4	-5.12	104.35	106.40
14	CQ	22	THR	CB-CA-C	-5.12	97.78	111.60
24	BA	71	A	N1-C6-N6	5.11	121.67	118.60
24	DA	1899	G	N3-C4-C5	5.11	131.15	128.60
24	DA	676	A	C5-N7-C8	-5.10	101.35	103.90
24	BA	140	A	N1-C6-N6	5.08	121.65	118.60
49	B4	42	PHE	CB-CA-C	5.05	120.50	110.40
24	BA	1999	C	N3-C4-C5	5.04	123.92	121.90
24	DA	1761	C	C6-N1-C2	5.04	122.31	120.30
24	BA	2351	G	N3-C4-C5	-5.03	126.08	128.60
24	BA	1261	C	C6-N1-C2	5.00	122.30	120.30

There are no chirality outliers.

There are no planarity outliers.

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	32369	0	16335	1780	1
1	CA	32372	0	16338	2038	3
2	AE	1924	0	1975	321	0
2	CE	1924	0	1975	349	0
3	AF	1605	0	1668	210	0
3	CF	1612	0	1677	235	0
4	AG	1703	0	1764	273	0
4	CG	1703	0	1763	334	0
5	AH	1155	0	1213	125	0
5	CH	1155	0	1212	196	0
6	AI	843	0	857	100	0
6	CI	843	0	857	107	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
7	AJ	1257	0	1296	153	0
7	CJ	1257	0	1296	176	0
8	AK	1116	0	1177	120	0
8	CK	1116	0	1176	177	0
9	AL	1010	0	1037	267	0
9	CL	1010	0	1037	291	0
10	AM	801	0	849	149	0
10	CM	801	0	849	238	1
11	AN	885	0	904	79	0
11	CN	885	0	904	87	0
12	AO	975	0	1062	108	0
12	CO	975	0	1062	91	0
13	AP	928	0	987	157	0
13	CP	933	0	992	195	0
14	AQ	492	0	529	74	0
14	CQ	492	0	530	133	0
15	AR	734	0	771	54	0
15	CR	734	0	771	76	0
16	AS	705	0	725	116	0
16	CS	705	0	725	94	0
17	AT	834	0	904	96	0
17	CT	834	0	904	88	0
18	AU	591	0	662	60	0
18	CU	591	0	662	69	0
19	AV	665	0	686	181	0
19	CV	624	0	636	250	0
20	AW	763	0	861	140	0
20	CW	763	0	861	87	0
21	AX	217	0	234	26	0
21	CX	217	0	234	60	0
22	AC	1640	0	836	47	0
22	CC	1640	0	836	67	0
23	A1	85	0	43	1	0
23	C1	85	0	43	5	0
24	BA	62707	0	31611	2736	0
24	DA	62647	0	31583	2861	2
25	BB	2617	0	1328	127	0
25	DB	2617	0	1328	167	0
26	BD	2115	0	2195	286	0
26	DD	2115	0	2192	237	0
27	BE	1568	0	1634	180	0
27	DE	1568	0	1634	297	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
28	BF	1585	0	1632	147	0
28	DF	1627	0	1680	173	0
29	BG	1474	0	1535	213	0
29	DG	1474	0	1535	220	0
30	BH	1307	0	1382	220	0
30	DH	1307	0	1382	277	0
31	BK	1136	0	1223	174	1
31	DK	1136	0	1223	158	0
32	BM	1104	0	1180	105	0
32	DM	1104	0	1180	132	0
33	BN	933	0	996	66	0
33	DN	933	0	996	84	0
34	BO	1145	0	1228	187	0
34	DO	1145	0	1228	239	0
35	BP	1122	0	1179	127	0
35	DP	1122	0	1178	151	0
36	B0	968	0	1033	102	0
36	D0	960	0	1021	95	0
37	BQ	882	0	943	149	0
37	DQ	882	0	943	207	0
38	BR	1141	0	1202	135	0
38	DR	1141	0	1202	123	0
39	B1	964	0	1022	114	0
39	D1	964	0	1021	140	0
40	B2	779	0	852	103	0
40	D2	779	0	851	175	0
41	BS	900	0	964	66	0
41	DS	900	0	964	75	0
42	BT	725	0	778	72	0
42	DT	725	0	778	86	0
43	BU	785	0	878	136	0
43	DU	785	0	878	153	0
44	BV	1397	0	1430	209	0
44	DV	1428	0	1454	255	0
45	B3	607	0	628	43	0
45	D3	613	0	633	59	0
46	BZ	763	0	848	91	0
46	DZ	763	0	848	93	0
47	BW	558	0	610	62	0
47	DW	581	0	629	71	0
48	BX	469	0	518	31	0
48	DX	469	0	518	39	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
49	B4	533	0	522	132	0
49	D4	515	0	510	157	0
50	B5	459	0	480	67	0
50	D5	459	0	476	46	0
51	B6	389	0	404	142	0
51	D6	389	0	404	166	0
52	B7	430	0	480	55	0
52	D7	430	0	479	73	0
53	B8	488	0	560	110	0
53	D8	488	0	559	138	0
54	A1	1	0	0	0	0
54	AA	232	0	0	0	0
54	AC	9	0	0	0	0
54	AG	2	0	0	0	0
54	AH	2	0	0	0	0
54	AJ	1	0	0	0	0
54	AQ	2	0	0	0	0
54	AR	1	0	0	0	0
54	AS	1	0	0	0	0
54	B1	2	0	0	0	0
54	B2	1	0	0	0	0
54	B3	2	0	0	0	0
54	B5	2	0	0	0	0
54	B6	1	0	0	0	0
54	B7	3	0	0	0	0
54	B8	1	0	0	0	0
54	BA	627	0	0	0	0
54	BB	17	0	0	0	0
54	BE	5	0	0	0	0
54	BF	2	0	0	0	0
54	BO	3	0	0	0	0
54	BP	1	0	0	0	0
54	BU	2	0	0	0	0
54	BZ	1	0	0	0	0
54	CA	204	0	0	0	0
54	CC	8	0	0	0	0
54	CG	2	0	0	0	0
54	CH	1	0	0	0	0
54	CS	1	0	0	0	0
54	D1	1	0	0	0	0
54	D5	1	0	0	0	0
54	DA	525	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
54	DB	14	0	0	0	0
54	DD	1	0	0	0	0
54	DE	3	0	0	0	0
54	DP	1	0	0	0	0
54	DR	1	0	0	0	0
54	DU	1	0	0	0	0
54	DZ	2	0	0	0	0
55	AA	32	1	21	4	0
55	CA	32	0	22	3	0
56	AG	1	0	0	0	0
56	AQ	1	0	0	0	0
56	CG	1	0	0	2	0
56	CQ	1	0	0	0	0
All	All	292439	1	197340	20528	4

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 43.

All (20528) 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)
24:DA:1600:C:C2'	52:D7:49:ARG:HE	0.98	1.56
4:CG:31:CYS:SG	4:CG:33:MET:HE2	1.43	1.53
1:CA:598:U:O3'	8:CK:94:TYR:CE2	1.65	1.48
19:CV:70:LYS:CE	19:CV:73:GLU:HG3	1.44	1.48
7:CJ:78:ARG:NH1	7:CJ:85:TYR:HD1	1.15	1.43
24:DA:1600:C:H2'	52:D7:49:ARG:NE	1.12	1.43
24:DA:2377:A:H1'	37:DQ:112:PHE:CD1	1.54	1.42
3:AF:6:HIS:CD2	3:AF:8:ILE:HG22	1.56	1.40
1:CA:1118:C:H5'	9:CL:104:ARG:NE	1.32	1.40
51:D6:37:ARG:NH2	51:D6:38:LYS:HB2	1.12	1.40
24:BA:2000:G:H5"	36:B0:2:ARG:NH1	1.29	1.40
9:AL:49:PRO:HD3	9:AL:78:LYS:NZ	1.36	1.39
24:DA:2393:A:H5"	53:D8:30:ARG:NE	1.30	1.38
7:CJ:78:ARG:NH2	7:CJ:87:VAL:HG13	1.32	1.37
7:CJ:89:MET:HA	7:CJ:155:ARG:NH1	1.38	1.36
7:CJ:89:MET:CA	7:CJ:155:ARG:HH12	1.38	1.36
24:DA:2377:A:C1'	37:DQ:112:PHE:CD1	2.07	1.35
24:BA:2284:C:H5"	51:B6:28:ARG:NH2	1.35	1.34
1:CA:1118:C:C5'	9:CL:104:ARG:HE	1.40	1.34
40:D2:21:ARG:NH2	40:D2:65:GLY:O	1.60	1.33

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1199:U:H4'	10:AM:54:PHE:CE2	1.63	1.33
19:AV:28:LYS:CE	19:AV:47:HIS:HA	1.59	1.32
24:DA:870:A:H3'	35:DP:6:ARG:NH2	1.42	1.32
7:CJ:78:ARG:NH1	7:CJ:85:TYR:CD1	1.87	1.32
43:BU:81:LYS:NZ	43:BU:96:ILE:HD13	1.41	1.32
1:AA:1381:U:H2'	7:AJ:79:ARG:NE	1.40	1.31
4:CG:31:CYS:SG	4:CG:33:MET:CE	2.18	1.31
1:CA:1289:A:H5'	21:CX:10:ARG:NH2	1.46	1.30
9:AL:99:LEU:HB2	9:AL:101:PHE:CE2	1.64	1.30
7:CJ:88:PRO:O	7:CJ:155:ARG:NH1	1.64	1.30
1:AA:1381:U:H2'	7:AJ:79:ARG:CZ	1.59	1.30
24:BA:1998:G:C2'	24:BA:1999:C:H5'	1.61	1.30
24:DA:870:A:P	35:DP:6:ARG:NH1	2.02	1.30
12:CO:47:LYS:HB3	12:CO:48:PRO:CD	1.61	1.29
49:B4:37:SER:HB3	49:B4:43:TYR:OH	1.30	1.29
1:CA:1117:G:O2'	9:CL:104:ARG:HD2	1.31	1.29
7:CJ:78:ARG:NH2	7:CJ:87:VAL:CG1	1.96	1.29
29:BG:107:LEU:O	49:B4:38:LYS:HG2	1.28	1.28
24:BA:2399:G:H2'	51:B6:19:ARG:CZ	1.64	1.28
30:BH:4:ILE:HD11	30:BH:7:LEU:CG	1.64	1.28
24:DA:1600:C:H3'	52:D7:49:ARG:NH2	1.46	1.28
9:CL:16:ARG:NH1	9:CL:64:THR:HG21	1.46	1.27
24:BA:1601:G:OP1	52:B7:49:ARG:NH2	1.67	1.27
30:BH:4:ILE:CD1	30:BH:7:LEU:HG	1.64	1.26
24:BA:2285:C:OP1	51:B6:28:ARG:HD2	1.33	1.26
20:CW:70:SER:HA	20:CW:73:HIS:CE1	1.70	1.26
1:AA:1381:U:O2	7:AJ:79:ARG:NE	1.69	1.26
24:DA:2344:U:O2'	51:D6:39:TYR:CE1	1.90	1.25
4:AG:8:VAL:HG11	4:AG:115:ARG:NH2	1.49	1.24
24:BA:2000:G:C5'	36:B0:2:ARG:HH12	1.51	1.24
26:BD:35:LYS:HD2	26:BD:104:TYR:CD1	1.72	1.24
1:CA:1191:A:OP1	3:CF:3:ASN:ND2	1.70	1.24
47:BW:43:GLN:O	47:BW:45:SER:N	1.71	1.24
7:CJ:78:ARG:NH2	7:CJ:87:VAL:N	1.85	1.24
24:DA:528:A:C2	24:DA:2043:C:H5'	1.70	1.24
24:DA:2377:A:H2'	37:DQ:112:PHE:CE1	1.73	1.23
24:DA:2749:A:O4'	30:DH:6:ARG:NH2	1.71	1.23
24:DA:2377:A:C2'	37:DQ:112:PHE:CE1	2.23	1.22
24:DA:2393:A:H8	53:D8:30:ARG:CZ	1.51	1.22
51:D6:37:ARG:NH2	51:D6:38:LYS:CB	2.02	1.22
7:CJ:78:ARG:HH21	7:CJ:87:VAL:CB	1.52	1.22

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1320:C:OP2	19:AV:3:ARG:NH2	1.72	1.21
24:BA:1049:C:N3	30:BH:3:ARG:NH2	1.87	1.21
5:CH:51:VAL:HB	5:CH:52:PRO:HD3	1.22	1.21
24:DA:1601:G:C8	52:D7:49:ARG:NH1	2.08	1.21
1:AA:1382:C:O5'	7:AJ:79:ARG:NH1	1.73	1.21
1:CA:1322:C:OP2	19:CV:78:ARG:NH2	1.73	1.21
24:DA:1246:A:OP2	34:DO:15:ARG:NH1	1.72	1.21
25:BB:45:A:O4'	29:BG:95:ARG:NH1	1.72	1.20
29:BG:112:PRO:CB	49:B4:37:SER:HB2	1.69	1.20
30:BH:2:SER:O	30:BH:3:ARG:HD2	1.41	1.20
1:AA:193:C:C6	20:AW:57:ARG:NH1	2.08	1.19
24:DA:1600:C:C3'	52:D7:49:ARG:HH21	1.54	1.19
24:DA:2416:C:H5"	34:DO:64:LYS:NZ	1.54	1.19
1:CA:986:A:N3	19:CV:52:TYR:OH	1.73	1.19
43:DU:76:CYS:SG	43:DU:77:PRO:HD2	1.81	1.19
24:DA:2438:U:O3'	24:DA:2439:A:H3'	1.40	1.19
4:AG:8:VAL:CG1	4:AG:115:ARG:HH22	1.53	1.19
24:BA:631:A:OP2	53:B8:46:ARG:NH2	1.76	1.19
24:BA:2438:U:O3'	24:BA:2439:A:H3'	1.40	1.19
27:DE:60:ASN:ND2	27:DE:63:LEU:HG	1.56	1.18
12:AO:47:LYS:HB3	12:AO:48:PRO:CD	1.70	1.18
34:DO:101:VAL:HG23	34:DO:106:LEU:HD23	1.26	1.18
1:AA:192:U:O2'	20:AW:57:ARG:CD	1.85	1.17
24:BA:484:C:OP1	43:BU:51:VAL:HG11	1.43	1.17
29:BG:112:PRO:HG3	49:B4:38:LYS:HD3	1.21	1.17
24:DA:2801:A:H4'	24:DA:2895:U:H4'	1.20	1.17
31:BK:69:LYS:HA	31:BK:136:VAL:HG11	1.24	1.17
1:CA:1289:A:C5'	21:CX:10:ARG:NH2	2.05	1.17
24:DA:1899:G:N2	24:DA:1902:C:H41	1.42	1.17
43:BU:49:VAL:O	43:BU:51:VAL:N	1.75	1.17
24:BA:1601:G:C5'	52:B7:49:ARG:HH12	1.58	1.16
19:CV:70:LYS:HZ2	19:CV:72:GLY:C	1.47	1.16
53:B8:52:LYS:H	53:B8:53:PRO:HD2	1.05	1.16
7:CJ:113:GLU:HB2	7:CJ:119:ARG:HG2	1.27	1.16
7:AJ:16:LEU:HD11	9:AL:42:ARG:HA	1.25	1.16
26:BD:35:LYS:HG2	26:BD:64:ILE:N	1.61	1.16
40:B2:36:PRO:O	40:B2:37:VAL:HG13	1.46	1.16
1:CA:598:U:O3'	8:CK:94:TYR:CZ	1.98	1.16
19:CV:70:LYS:HE3	19:CV:73:GLU:CB	1.75	1.16
27:DE:4:ILE:HD11	27:DE:28:ALA:HB1	1.27	1.16
7:CJ:45:ASP:HB3	7:CJ:115:ARG:NH2	1.61	1.15

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BQ:110:LEU:HG	37:BQ:111:GLU:N	1.33	1.15
3:CF:36:ASP:O	3:CF:39:ILE:HG22	1.47	1.15
19:CV:31:ILE:HD11	19:CV:33:THR:HG22	1.27	1.15
2:AE:74:LYS:HZ1	2:AE:166:ASP:HB3	1.11	1.15
5:AH:10:MET:HB3	5:AH:32:VAL:HG22	1.25	1.15
19:AV:28:LYS:HE2	19:AV:47:HIS:CA	1.75	1.15
1:AA:193:C:H6	20:AW:57:ARG:NH1	1.41	1.15
43:BU:96:ILE:HG23	43:BU:101:LYS:HG3	1.20	1.15
12:CO:47:LYS:CB	12:CO:48:PRO:HD3	1.75	1.15
24:DA:2286:A:P	51:D6:28:ARG:HH11	1.69	1.15
24:BA:592:G:H21	53:B8:4:MET:HE1	1.07	1.14
24:BA:2610:C:H4'	24:BA:2611:U:OP2	1.41	1.14
24:DA:2345:G:OP2	51:D6:39:TYR:CE1	2.00	1.14
24:BA:1088:A:H5'	24:BA:1089:G:H5'	1.21	1.14
37:BQ:110:LEU:HD21	37:BQ:112:PHE:CG	1.82	1.14
49:B4:37:SER:HB3	49:B4:43:TYR:CZ	1.82	1.14
35:DP:24:GLY:HA3	35:DP:25:ASP:HB2	1.25	1.14
34:BO:71:VAL:HG13	34:BO:72:PRO:HD3	1.25	1.14
24:DA:2634:G:O3'	27:DE:77:ILE:HG21	1.44	1.14
21:CX:7:ARG:HG3	21:CX:7:ARG:HH11	1.00	1.14
40:D2:35:LEU:HD21	40:D2:57:VAL:HG13	1.24	1.14
19:CV:66:MET:N	19:CV:67:VAL:HG13	1.60	1.14
30:DH:3:ARG:HG3	30:DH:4:ILE:N	1.47	1.14
51:D6:9:LEU:HG	51:D6:27:LYS:HA	1.17	1.14
30:BH:4:ILE:HD12	30:BH:4:ILE:O	1.48	1.13
24:DA:1601:G:O4'	52:D7:49:ARG:HD2	1.46	1.13
39:B1:97:ASP:OD2	39:B1:101:ARG:NH1	1.81	1.13
46:BZ:92:LYS:O	46:BZ:94:LEU:N	1.82	1.13
24:DA:2393:A:C5'	53:D8:30:ARG:HE	1.61	1.13
2:AE:80:ILE:HD11	2:AE:212:GLN:HA	1.18	1.13
1:CA:957:U:H4'	19:CV:79:THR:HG23	1.13	1.13
13:CP:15:VAL:HG12	13:CP:45:VAL:HG22	1.24	1.13
30:DH:9:ILE:HG21	30:DH:51:ARG:HB3	1.27	1.13
13:AP:84:ILE:HD11	19:AV:66:MET:HG2	1.17	1.12
43:BU:96:ILE:HD12	43:BU:98:VAL:HG12	1.29	1.13
44:BV:51:ALA:HB1	44:BV:57:ILE:HD11	1.30	1.12
1:CA:957:U:H4'	19:CV:79:THR:CG2	1.79	1.12
1:CA:1127:G:H4'	9:CL:66:ARG:HH12	1.12	1.12
46:BZ:77:ALA:O	46:BZ:78:LYS:HD2	1.50	1.12
1:CA:1179:A:N3	9:CL:104:ARG:NH2	1.95	1.12
7:CJ:78:ARG:NH2	7:CJ:87:VAL:CA	2.11	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CV:28:LYS:HG2	19:CV:29:ARG:H	1.12	1.12
24:DA:2376:A:C2	37:DQ:112:PHE:HB3	1.84	1.12
26:DD:34:VAL:O	26:DD:35:LYS:HG2	1.47	1.12
26:DD:44:ASN:HB3	26:DD:49:ILE:HA	1.31	1.12
29:DG:111:LEU:HB2	29:DG:112:PRO:HD3	1.31	1.12
9:AL:48:GLU:HB2	9:AL:78:LYS:NZ	1.64	1.12
2:CE:8:LYS:HE3	2:CE:11:LEU:CD2	1.78	1.12
24:DA:1600:C:C2'	52:D7:49:ARG:NE	1.80	1.12
24:DA:2285:C:H2'	51:D6:28:ARG:CZ	1.79	1.12
29:DG:33:ARG:HD3	29:DG:162:THR:CG2	1.80	1.12
40:D2:84:LYS:HE3	40:D2:85:LYS:HG2	1.30	1.12
3:AF:8:ILE:HD11	3:AF:16:ARG:HG2	1.32	1.12
24:BA:1601:G:H5'	52:B7:49:ARG:NH2	1.62	1.12
13:CP:27:LYS:HE2	13:CP:31:LYS:HE3	1.27	1.12
32:DM:56:ASN:H	32:DM:125:GLY:HA3	1.04	1.12
4:AG:22:LYS:HB2	4:AG:26:CYS:HB2	1.19	1.12
19:CV:70:LYS:CE	19:CV:73:GLU:CG	2.27	1.12
4:CG:18:LYS:HG3	4:CG:33:MET:SD	1.89	1.11
28:DF:18:ARG:HH21	28:DF:20:LEU:HD12	1.14	1.11
28:DF:25:PRO:HB3	28:DF:28:ILE:HG13	1.20	1.11
8:AK:34:GLU:HB3	8:AK:118:VAL:HG21	1.32	1.11
43:BU:52:SER:HB2	43:BU:53:PRO:HD3	1.27	1.11
13:CP:91:ARG:HB2	13:CP:98:VAL:HG12	1.32	1.11
19:CV:36:ARG:HD2	19:CV:72:GLY:HA2	1.13	1.11
19:CV:70:LYS:HE3	19:CV:73:GLU:CG	1.80	1.11
38:DR:55:ASN:H	38:DR:59:THR:HG22	1.14	1.11
19:AV:39:THR:HG22	19:AV:40:ILE:H	1.12	1.11
24:DA:2286:A:C5'	51:D6:28:ARG:CG	2.28	1.11
27:BE:78:LEU:HD21	27:BE:79:ARG:HD2	1.33	1.11
1:CA:254:G:H21	17:CT:16:GLN:NE2	1.45	1.11
1:CA:1254:C:C5'	10:CM:45:ARG:HH12	1.63	1.11
7:CJ:78:ARG:NH2	7:CJ:87:VAL:CB	2.13	1.11
31:BK:92:VAL:HG13	31:BK:120:ILE:HG23	1.32	1.11
40:B2:49:THR:HB	40:B2:50:PRO:HD2	1.26	1.11
43:BU:96:ILE:HD11	43:BU:99:CYS:SG	1.90	1.11
1:CA:1080:A:H4'	5:CH:16:THR:OG1	1.51	1.11
1:AA:103:C:OP2	20:AW:14:LYS:NZ	1.85	1.10
4:AG:9:CYS:SG	4:AG:22:LYS:HE3	1.90	1.10
2:CE:8:LYS:CG	2:CE:11:LEU:HG	1.80	1.10
10:CM:81:THR:HA	10:CM:84:GLN:HG2	1.33	1.10
51:D6:23:THR:HG22	51:D6:24:GLU:H	1.12	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2286:A:H2'	51:B6:31:PRO:HD3	1.27	1.10
24:BA:2751:G:N7	30:BH:3:ARG:NH1	1.99	1.10
2:CE:236:TYR:HB2	2:CE:239:VAL:HB	1.12	1.10
38:BR:62:THR:HG22	38:BR:75:ILE:HG12	1.30	1.10
40:B2:35:LEU:HD21	40:B2:57:VAL:CG1	1.79	1.10
43:BU:76:CYS:HB3	43:BU:81:LYS:HZ1	1.06	1.10
24:DA:1601:G:H5'	52:D7:49:ARG:HG2	1.13	1.10
24:DA:2285:C:O3'	51:D6:28:ARG:NH1	1.84	1.10
24:DA:2343:C:C2'	24:DA:2344:U:H5'	1.81	1.10
1:CA:1220:G:H5'	19:CV:37:ARG:HH12	1.09	1.10
1:CA:1290:G:C2'	1:CA:1291:G:H5'	1.82	1.10
24:DA:2286:A:C5'	51:D6:28:ARG:HG2	1.82	1.10
28:DF:24:LEU:HD12	28:DF:25:PRO:HD3	1.26	1.10
1:AA:195:A:H4'	20:AW:68:LYS:CE	1.82	1.09
31:BK:101:LEU:HD21	31:BK:107:VAL:HG23	1.34	1.09
24:DA:1071:G:H1'	24:DA:1089:G:H2'	1.30	1.09
26:BD:31:LYS:HD2	26:BD:94:LEU:HD11	1.32	1.09
24:DA:511:U:H3'	24:DA:512:G:H5"	1.31	1.09
27:DE:60:ASN:O	27:DE:62:PRO:HD2	1.51	1.09
1:AA:192:U:C1'	20:AW:103:GLY:HA2	1.81	1.09
1:AA:975:A:H4'	1:AA:976:G:H5"	1.29	1.09
34:BO:75:ILE:H	34:BO:75:ILE:HD13	1.18	1.09
38:BR:5:ALA:HA	38:BR:8:LYS:HG2	1.34	1.09
1:CA:1320:C:H2'	1:CA:1321:C:O4'	1.53	1.09
9:CL:2:GLU:HG2	9:CL:3:GLN:H	1.12	1.09
26:DD:31:LYS:HE2	26:DD:33:LEU:HD11	1.33	1.09
34:DO:47:ASP:HB3	34:DO:48:PRO:O	1.52	1.09
43:DU:17:SER:HB2	43:DU:71:LYS:HD2	1.27	1.09
24:BA:1005:C:O2'	32:BM:28:THR:HG21	1.52	1.09
26:BD:35:LYS:NZ	26:BD:104:TYR:HB2	1.66	1.09
24:BA:1998:G:H2'	24:BA:1999:C:H5'	1.33	1.09
10:CM:34:VAL:HG12	10:CM:74:ILE:HA	1.25	1.09
30:DH:4:ILE:HD12	30:DH:5:GLY:N	1.67	1.09
46:DZ:87:PRO:HA	46:DZ:90:ILE:HG23	1.34	1.09
24:BA:1359:A:H2'	24:BA:1360:A:H5'	1.09	1.08
44:BV:150:LEU:HG	44:BV:154:ASP:CG	1.73	1.08
46:BZ:92:LYS:O	46:BZ:95:LEU:N	1.87	1.08
3:CF:137:ALA:HA	3:CF:140:ARG:CZ	1.82	1.08
4:CG:33:MET:HE3	56:CG:303:ZN:ZN	0.83	1.08
7:CJ:45:ASP:CB	7:CJ:115:ARG:HH22	1.65	1.08
17:CT:45:HIS:HB2	17:CT:65:ILE:HD13	1.27	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DH:6:ARG:HH12	30:DH:62:LYS:C	1.55	1.08
44:DV:153:SER:HB3	44:DV:167:PRO:HB3	1.26	1.08
10:CM:4:ILE:HB	10:CM:74:ILE:HD11	1.35	1.08
19:CV:58:VAL:HG22	19:CV:60:VAL:HG12	1.32	1.08
22:CC:75:C:H3'	22:CC:76:A:C5'	1.81	1.08
49:D4:61:ARG:HA	49:D4:61:ARG:NH1	1.66	1.08
10:AM:50:ILE:HA	10:AM:60:ARG:HG2	1.22	1.08
24:BA:2418:A:O2'	51:B6:21:TYR:CE2	2.05	1.08
34:BO:19:VAL:HG22	34:BO:20:GLY:H	0.97	1.08
3:CF:95:THR:HG22	3:CF:97:LYS:HG2	1.34	1.08
24:BA:2635:C:H5"	27:BE:78:LEU:HA	1.15	1.08
29:BG:112:PRO:HB3	49:B4:37:SER:HB2	1.11	1.08
34:BO:36:LYS:HB3	34:BO:40:SER:HB3	1.34	1.08
24:DA:2343:C:O2'	24:DA:2344:U:H5'	1.53	1.08
28:DF:101:LEU:HD12	28:DF:102:PRO:HD2	1.28	1.08
1:AA:1028(B):C:H3'	1:AA:1029:G:H5"	1.28	1.08
2:AE:67:THR:HG21	2:AE:155:LEU:HD11	1.11	1.08
1:CA:1203:C:H5"	14:CQ:3:ARG:HH21	1.15	1.08
1:CA:1254:C:H5"	10:CM:45:ARG:NH1	1.67	1.08
13:AP:12:ASN:HB2	13:AP:46:LYS:HZ3	1.15	1.07
24:DA:1601:G:H5'	52:D7:49:ARG:CG	1.83	1.07
43:DU:50:ARG:HG2	43:DU:53:PRO:HG3	1.13	1.07
24:BA:2015:A:H1'	50:B5:2:ALA:HA	1.33	1.07
40:B2:35:LEU:CD2	40:B2:57:VAL:HG13	1.83	1.07
22:CC:75:C:H3'	22:CC:76:A:H5"	1.36	1.07
24:DA:2286:A:OP2	51:D6:28:ARG:HD2	1.54	1.07
44:DV:24:LEU:HB3	44:DV:41:LEU:HD11	1.12	1.07
1:AA:103:C:P	20:AW:14:LYS:HZ1	1.75	1.07
24:BA:1601:G:H5'	52:B7:49:ARG:CZ	1.84	1.07
9:CL:16:ARG:HG2	9:CL:64:THR:HG22	1.12	1.07
29:DG:33:ARG:CD	29:DG:162:THR:HG21	1.83	1.07
43:DU:4:LYS:HE2	43:DU:4:LYS:HA	1.37	1.07
1:AA:1178:G:H5'	9:AL:93:ARG:HH22	1.11	1.07
30:BH:86:GLU:HG3	30:BH:165:ALA:H	0.97	1.07
43:BU:75:ILE:HG22	43:BU:80:GLY:HA2	1.32	1.07
43:BU:97:ARG:HH21	43:BU:98:VAL:HB	0.97	1.07
49:B4:37:SER:CB	49:B4:43:TYR:OH	2.02	1.07
1:CA:979:C:H42	14:CQ:18:VAL:HG13	1.15	1.07
4:CG:12:CYS:SG	4:CG:33:MET:HE2	1.94	1.07
7:CJ:78:ARG:HH21	7:CJ:87:VAL:CG1	1.59	1.07
19:CV:70:LYS:HE3	19:CV:73:GLU:HG3	1.36	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AE:103:THR:HG23	2:AE:176:GLU:HB2	1.10	1.07
10:CM:6:ILE:HD11	10:CM:72:VAL:HG12	1.33	1.07
18:CU:45:SER:HB3	18:CU:51:LEU:HD21	1.34	1.07
30:DH:92:ILE:HG23	30:DH:93:GLY:H	1.18	1.07
1:CA:1289:A:C5'	21:CX:10:ARG:HH22	1.63	1.06
27:DE:68:ALA:HB1	27:DE:71:GLY:HA3	1.07	1.06
35:DP:66:ILE:HD13	35:DP:66:ILE:H	1.16	1.06
40:D2:35:LEU:HG	40:D2:37:VAL:CG1	1.85	1.06
43:DU:96:ILE:HG23	43:DU:101:LYS:HD2	1.36	1.06
1:AA:1382:C:O4'	7:AJ:79:ARG:NH1	1.87	1.06
30:BH:4:ILE:HD13	30:BH:6:ARG:HE	1.15	1.06
36:B0:36:THR:HG22	36:B0:37:THR:H	1.15	1.06
43:BU:81:LYS:HZ2	43:BU:96:ILE:CD1	1.67	1.06
4:CG:108:LEU:HD23	4:CG:110:PHE:HE1	1.17	1.06
1:AA:1319:A:C3'	19:AV:3:ARG:HH21	1.68	1.06
4:AG:12:CYS:HA	4:AG:19:LEU:HD21	1.34	1.06
4:AG:31:CYS:HB2	4:AG:33:MET:SD	1.95	1.06
24:BA:270(I):G:N3	46:BZ:78:LYS:NZ	2.02	1.06
43:BU:76:CYS:CB	43:BU:81:LYS:HZ1	1.68	1.06
1:CA:1186:G:O3'	9:CL:113:LYS:NZ	1.89	1.06
10:CM:40:LEU:HD12	10:CM:41:PRO:HD2	1.36	1.06
19:CV:11:VAL:HG22	19:CV:39:THR:H	1.14	1.06
27:DE:68:ALA:CB	27:DE:71:GLY:HA3	1.86	1.06
34:DO:71:VAL:HG13	34:DO:72:PRO:HD3	1.38	1.06
40:D2:35:LEU:O	40:D2:37:VAL:HG22	1.54	1.06
1:AA:1319:A:H3'	19:AV:3:ARG:NH2	1.71	1.06
24:BA:1178:C:H2'	24:BA:1179:C:C6	1.91	1.06
24:BA:1899:G:N2	24:BA:1902:C:H41	1.52	1.06
29:BG:107:LEU:O	49:B4:38:LYS:CG	2.02	1.06
42:DT:63:LYS:O	42:DT:64:LYS:HG3	1.54	1.06
1:AA:1305:G:H22	1:AA:1331:G:H2'	1.10	1.06
12:AO:46:LYS:HG2	12:AO:47:LYS:N	1.71	1.06
26:BD:231:HIS:ND1	26:BD:232:PRO:HD2	1.71	1.06
7:CJ:90:GLU:H	7:CJ:155:ARG:NH2	1.52	1.06
10:CM:6:ILE:HD11	10:CM:72:VAL:CG1	1.86	1.06
24:DA:2777:G:H5"	24:DA:2778:A:H5'	1.36	1.06
31:DK:77:LEU:HD22	31:DK:141:LYS:HB3	1.07	1.06
33:DN:47:ILE:HG13	33:DN:48:PRO:HD2	1.31	1.06
45:D3:27:GLU:HG3	45:D3:68:GLU:HA	1.35	1.06
6:AI:43:LEU:HD11	18:AU:35:ARG:HH22	1.15	1.05
29:BG:161:THR:HG22	29:BG:163:ALA:H	1.14	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BH:4:ILE:HD13	30:BH:6:ARG:NE	1.70	1.05
30:BH:154:PRO:O	30:BH:156:ALA:N	1.88	1.05
38:BR:54:ARG:HA	38:BR:59:THR:HG23	1.38	1.05
9:CL:17:VAL:HG21	9:CL:80:GLY:C	1.76	1.05
37:DQ:3:ARG:HD2	37:DQ:4:LEU:H	1.21	1.05
5:AH:139:LEU:HA	5:AH:142:LEU:HD13	1.33	1.05
10:AM:48:THR:HG23	10:AM:62:HIS:CD2	1.91	1.05
2:CE:8:LYS:HE3	2:CE:11:LEU:HD21	1.08	1.05
24:DA:511:U:H3'	24:DA:512:G:C5'	1.85	1.05
24:DA:2393:A:C8	53:D8:30:ARG:CZ	2.38	1.05
12:AO:47:LYS:HB3	12:AO:48:PRO:HD2	1.33	1.05
44:BV:142:SER:HB3	44:BV:143:GLY:HA2	1.38	1.05
1:CA:976:G:H5'	14:CQ:31:ARG:HH11	1.20	1.05
2:CE:11:LEU:CD1	2:CE:213:LEU:HD11	1.85	1.05
7:CJ:78:ARG:HD2	7:CJ:85:TYR:CD1	1.91	1.05
1:CA:1106:G:H5"	3:CF:172:ARG:HG2	1.34	1.05
28:DF:24:LEU:CD1	28:DF:25:PRO:HD3	1.86	1.05
32:DM:47:ALA:HB2	32:DM:112:LEU:HD11	1.38	1.05
47:DW:17:SER:CB	47:DW:18:PRO:HA	1.87	1.05
2:AE:77:ALA:HB2	2:AE:211:ILE:HD13	1.38	1.05
5:CH:81:GLU:HG2	5:CH:90:VAL:HG13	1.30	1.05
24:DA:1111:A:O2'	24:DA:1112:G:H4'	1.55	1.05
24:DA:1601:G:H8	52:D7:49:ARG:NH1	1.44	1.05
29:DG:108:ASN:HA	49:D4:38:LYS:HG2	1.39	1.05
24:BA:1607:C:C4'	24:BA:1608:A:H5'	1.84	1.04
1:CA:632:A:H4'	1:CA:633:G:O5'	1.53	1.04
25:DB:45:A:H1'	29:DG:95:ARG:HH12	1.22	1.04
1:AA:192:U:H1'	20:AW:103:GLY:CA	1.86	1.04
13:AP:7:VAL:HG12	13:AP:8:GLU:H	1.18	1.04
19:AV:24:ALA:O	19:AV:25:LYS:HG3	1.53	1.04
24:BA:2701:C:H3'	24:BA:2702:U:H5"	1.35	1.04
30:BH:77:LYS:HE2	30:BH:138:LYS:HD2	1.39	1.04
24:DA:2286:A:H5"	51:D6:28:ARG:CZ	1.87	1.04
44:DV:53:ILE:CG2	44:DV:71:VAL:HG22	1.87	1.04
24:BA:2210:G:H3'	24:BA:2211:G:C8	1.92	1.04
31:BK:133:HIS:HB2	31:BK:134:PRO:CD	1.87	1.04
1:CA:1256:A:H62	1:CA:1277:C:H3'	1.20	1.04
1:CA:1330:U:H4'	13:CP:23:TYR:CE1	1.91	1.04
4:CG:22:LYS:HD3	4:CG:26:CYS:CB	1.87	1.04
5:CH:76:ILE:HD11	5:CH:142:LEU:HD11	1.40	1.04
7:CJ:78:ARG:HH21	7:CJ:87:VAL:CG2	1.71	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CU:22:VAL:HG22	18:CU:23:LYS:H	1.20	1.04
1:AA:559:A:C4'	1:AA:560:U:H3'	1.85	1.04
2:AE:44:LEU:HD12	2:AE:44:LEU:H	1.22	1.04
2:AE:96:ARG:H	2:AE:96:ARG:HD2	1.23	1.04
37:BQ:110:LEU:HD22	37:BQ:112:PHE:CZ	1.90	1.04
39:B1:95:LEU:HD12	39:B1:95:LEU:N	1.70	1.04
24:DA:1071:G:OP2	24:DA:1097:U:H4'	1.57	1.04
24:BA:2110:G:H3'	24:BA:2111:C:H5"	1.34	1.04
35:BP:111:GLU:OE1	35:BP:133:ARG:NH2	1.91	1.04
39:B1:90:VAL:O	39:B1:92:ARG:N	1.88	1.04
1:CA:279:A:OP2	17:CT:95:TYR:OH	1.76	1.04
2:CE:11:LEU:HD11	2:CE:213:LEU:CD1	1.88	1.04
1:AA:1381:U:C2	7:AJ:79:ARG:NE	2.17	1.03
9:AL:48:GLU:H	9:AL:78:LYS:NZ	1.56	1.03
13:AP:12:ASN:HB2	13:AP:46:LYS:NZ	1.72	1.03
24:BA:2418:A:OP2	53:B8:29:LYS:NZ	1.89	1.03
1:CA:1123:A:H4'	10:CM:37:PRO:HD2	1.40	1.03
9:CL:16:ARG:HG2	9:CL:64:THR:CG2	1.88	1.03
29:BG:112:PRO:HB3	49:B4:37:SER:CB	1.88	1.03
45:B3:27:GLU:HG3	45:B3:68:GLU:HA	1.36	1.03
27:DE:60:ASN:HD21	27:DE:63:LEU:HG	0.88	1.03
10:AM:94:VAL:HG12	10:AM:95:GLU:H	1.21	1.03
12:AO:46:LYS:HE2	12:AO:47:LYS:HG2	1.37	1.03
19:AV:36:ARG:HG2	19:AV:51:VAL:CG1	1.88	1.03
20:AW:22:ARG:O	20:AW:26:ASN:ND2	1.92	1.03
24:BA:1607:C:H4'	24:BA:1608:A:H5'	1.05	1.03
29:BG:3:LEU:HD12	29:BG:3:LEU:H	1.16	1.03
24:DA:2875:C:H4'	38:DR:5:ALA:HB2	1.39	1.03
34:DO:21:ARG:HA	34:DO:21:ARG:HE	1.19	1.03
38:DR:92:GLY:HA2	38:DR:116:ALA:HA	1.39	1.03
47:DW:17:SER:HB2	47:DW:18:PRO:HA	1.04	1.03
4:AG:22:LYS:HE2	4:AG:26:CYS:HB2	1.37	1.03
13:AP:17:VAL:O	13:AP:20:THR:HG22	1.57	1.03
29:BG:83:ARG:H	29:BG:86:MET:HG3	1.20	1.03
28:DF:132:VAL:HG22	28:DF:133:ASN:H	1.16	1.03
44:DV:67:LEU:HD22	44:DV:90:VAL:HG13	1.40	1.03
44:DV:150:LEU:HD13	44:DV:154:ASP:HB2	1.39	1.03
51:D6:37:ARG:HH22	51:D6:38:LYS:CB	1.68	1.03
2:AE:8:LYS:HE2	2:AE:8:LYS:H	1.20	1.03
4:AG:186:LEU:HD12	4:AG:187:ARG:HG2	1.37	1.03
19:AV:41:VAL:HG21	19:AV:45:VAL:HG13	1.40	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1050:A:C8	24:BA:2751:G:N7	2.27	1.03
37:BQ:87:PHE:HB2	37:BQ:112:PHE:CE2	1.93	1.03
43:BU:81:LYS:HD2	43:BU:96:ILE:HB	1.41	1.03
11:CN:70:LYS:HA	11:CN:70:LYS:HE3	1.40	1.03
24:DA:2286:A:H5"	51:D6:28:ARG:CG	1.89	1.03
29:DG:75:LYS:HE3	29:DG:77:ILE:HD11	1.34	1.03
1:AA:559:A:H4'	1:AA:560:U:H3'	1.02	1.02
5:AH:51:VAL:HB	5:AH:52:PRO:HD3	1.40	1.02
9:AL:49:PRO:CD	9:AL:78:LYS:NZ	2.20	1.02
24:BA:2418:A:O2'	51:B6:21:TYR:HE2	1.41	1.02
44:BV:108:PRO:HG2	44:BV:114:GLY:HA3	1.38	1.02
1:CA:1290:G:H2'	1:CA:1291:G:H5'	1.36	1.02
24:DA:2377:A:C1'	37:DQ:112:PHE:CE1	2.37	1.02
27:DE:68:ALA:HB1	27:DE:71:GLY:CA	1.88	1.02
1:AA:1285:A:H4'	1:AA:1286:A:O5'	1.56	1.02
9:AL:96:LEU:CA	9:AL:99:LEU:HD11	1.89	1.02
2:CE:185:ILE:HG22	2:CE:199:TYR:HB2	1.40	1.02
7:CJ:78:ARG:HD2	7:CJ:85:TYR:CE1	1.94	1.02
24:DA:870:A:H5"	35:DP:6:ARG:CG	1.89	1.02
40:D2:37:VAL:HG23	40:D2:38:LEU:CD1	1.89	1.02
44:DV:53:ILE:HG21	44:DV:71:VAL:HG22	1.40	1.02
51:D6:37:ARG:HG3	51:D6:39:TYR:CD1	1.94	1.02
35:BP:58:PHE:O	35:BP:59:ARG:HB3	1.56	1.02
44:BV:147:GLY:HA2	44:BV:175:VAL:HG13	1.41	1.02
53:B8:59:LYS:HB2	53:B8:59:LYS:NZ	1.72	1.02
1:CA:448:A:O5'	1:CA:485:G:N2	1.92	1.02
24:DA:2393:A:C5'	53:D8:30:ARG:NE	2.18	1.02
24:DA:2610:C:H4'	24:DA:2611:U:OP2	1.50	1.02
27:DE:55:ASN:ND2	27:DE:72:VAL:O	1.91	1.02
1:AA:1381:U:H2'	7:AJ:79:ARG:CD	1.89	1.02
24:BA:1601:G:C5'	52:B7:49:ARG:HH22	1.73	1.02
35:BP:24:GLY:HA3	35:BP:25:ASP:HB2	1.40	1.02
27:DE:9:VAL:HG23	27:DE:10:GLY:H	1.23	1.02
1:AA:1316:G:H1	19:AV:5:LEU:HD21	1.24	1.02
24:BA:860:U:H5	24:BA:917:A:C2	1.78	1.02
1:CA:1178:G:OP2	9:CL:97:LYS:NZ	1.90	1.02
1:CA:1366:C:O3'	10:CM:60:ARG:NH2	1.92	1.02
14:CQ:22:THR:HG21	14:CQ:33:VAL:CG1	1.90	1.02
1:AA:1023:G:H3'	1:AA:1024:G:H5"	1.38	1.01
43:BU:97:ARG:NH2	43:BU:98:VAL:HB	1.75	1.01
49:B4:34:GLU:HG2	49:B4:35:VAL:H	1.25	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CE:8:LYS:HG3	2:CE:11:LEU:CG	1.89	1.01
24:DA:2286:A:C5'	51:D6:28:ARG:NH1	2.23	1.01
27:DE:60:ASN:HD21	27:DE:63:LEU:CG	1.73	1.01
38:DR:107:ASP:OD1	38:DR:109:GLU:HB2	1.60	1.01
44:DV:175:VAL:HG22	44:DV:176:PRO:HD2	1.38	1.01
1:AA:193:C:H5'	20:AW:57:ARG:HD2	1.04	1.01
1:CA:1289:A:H5'	21:CX:10:ARG:HH22	0.96	1.01
2:CE:233:SER:HB3	2:CE:234:PRO:CD	1.90	1.01
24:DA:2286:A:H5'	51:D6:28:ARG:HG2	1.37	1.01
39:D1:90:VAL:O	39:D1:92:ARG:N	1.94	1.01
53:D8:60:LEU:O	53:D8:61:LEU:HD12	1.61	1.01
5:AH:68:GLU:O	5:AH:70:PRO:HD3	1.59	1.01
24:BA:2175:C:H3'	24:BA:2176:A:H5"	1.41	1.01
24:BA:2399:G:H2'	51:B6:19:ARG:NH2	1.74	1.01
34:BO:58:THR:HG22	34:BO:61:ARG:HH11	1.26	1.01
43:BU:97:ARG:HD3	43:BU:97:ARG:H	1.22	1.01
7:CJ:78:ARG:HH22	7:CJ:87:VAL:CA	1.70	1.01
17:CT:45:HIS:HB2	17:CT:65:ILE:CD1	1.90	1.01
24:DA:1601:G:O5'	52:D7:49:ARG:CZ	2.07	1.01
44:DV:157:LEU:HB3	44:DV:161:VAL:HG12	1.38	1.01
1:AA:1129:C:N4	1:AA:1142:G:O6	1.92	1.01
24:BA:1678:G:N2	24:BA:1989:G:H22	1.57	1.01
1:CA:599:C:P	8:CK:94:TYR:CE2	2.54	1.01
29:DG:33:ARG:HD3	29:DG:162:THR:HG21	1.01	1.01
31:DK:118:LYS:HG2	31:DK:119:PRO:HD2	1.40	1.01
1:AA:664:G:H22	1:AA:741:G:H1	1.06	1.01
31:BK:88:ILE:O	31:BK:121:LYS:HE3	1.61	1.01
9:CL:17:VAL:HG12	9:CL:63:ILE:HG12	1.43	1.01
19:CV:66:MET:H	19:CV:67:VAL:HG13	1.19	1.01
24:DA:528:A:H2	24:DA:2043:C:C5'	1.72	1.01
30:DH:3:ARG:NH1	30:DH:4:ILE:HG13	1.74	1.01
1:AA:1320:C:P	19:AV:3:ARG:NH2	2.33	1.00
5:AH:78:HIS:HB3	8:AK:107:LEU:HD12	1.43	1.00
9:AL:49:PRO:HD3	9:AL:78:LYS:HZ2	0.86	1.00
24:BA:654(M):C:H2'	24:BA:654(N):G:C8	1.94	1.00
24:BA:943:U:OP2	34:BO:36:LYS:HD2	1.59	1.00
24:BA:2427:C:H5"	24:BA:2428:G:OP1	1.61	1.00
34:BO:13:ASN:O	34:BO:15:ARG:N	1.94	1.00
34:BO:57:THR:HG23	34:BO:59:LEU:HB3	1.40	1.00
44:BV:150:LEU:HG	44:BV:154:ASP:OD1	1.60	1.00
7:CJ:90:GLU:N	7:CJ:155:ARG:HH22	1.56	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2286:A:H5'	51:D6:28:ARG:CG	1.89	1.00
1:AA:748:C:H4'	1:AA:749:C:O5'	1.59	1.00
2:AE:212:GLN:OE1	2:AE:216:SER:OG	1.77	1.00
4:AG:22:LYS:HE2	4:AG:26:CYS:CB	1.87	1.00
4:AG:173:TRP:HA	4:AG:186:LEU:HD11	1.43	1.00
34:BO:71:VAL:CG1	34:BO:72:PRO:HD3	1.91	1.00
1:CA:1443:G:H3'	1:CA:1446:A:H5"	1.40	1.00
30:DH:3:ARG:CG	30:DH:4:ILE:H	1.74	1.00
1:AA:192:U:O2'	20:AW:57:ARG:HD3	1.17	1.00
1:AA:491:G:H2'	1:AA:492:G:H8	1.26	1.00
24:BA:2371:G:H4'	51:B6:45:LYS:HG3	1.42	1.00
26:BD:28:GLU:HB3	26:BD:29:PRO:CD	1.91	1.00
36:B0:74:LYS:O	36:B0:76:VAL:N	1.95	1.00
39:B1:74:LEU:HD12	39:B1:79:PHE:HB2	1.43	1.00
14:CQ:24:CYS:CB	14:CQ:29:ARG:HD2	1.89	1.00
39:D1:90:VAL:HG12	39:D1:91:ASP:H	1.22	1.00
2:CE:12:GLU:HG2	2:CE:213:LEU:HD13	1.41	1.00
49:D4:2:LYS:HD2	49:D4:6:HIS:CD2	1.97	1.00
1:AA:193:C:O4'	20:AW:57:ARG:NH1	1.95	1.00
2:AE:74:LYS:NZ	2:AE:166:ASP:HB3	1.76	1.00
10:CM:79:ARG:NH1	10:CM:80:LYS:HG3	1.77	1.00
19:CV:31:ILE:CD1	19:CV:33:THR:HG22	1.92	1.00
1:AA:1381:U:C2'	7:AJ:79:ARG:CZ	2.38	1.00
27:BE:201:THR:HG22	27:BE:203:LYS:H	1.23	1.00
24:DA:1069:A:H1'	24:DA:1096:A:H4'	1.44	1.00
43:DU:75:ILE:HA	43:DU:80:GLY:HA2	1.40	1.00
24:DA:660:G:H21	34:DO:12:ALA:HA	1.23	1.00
24:DA:1600:C:C3'	52:D7:49:ARG:HE	1.74	1.00
24:DA:2657:A:O3'	30:DH:160:LYS:NZ	1.95	1.00
2:AE:235:SER:O	2:AE:237:ALA:N	1.93	0.99
24:BA:2123:G:H2'	24:BA:2124:G:H8	1.26	0.99
29:BG:131:TYR:O	29:BG:159:VAL:HG22	1.61	0.99
9:CL:9:ARG:HG2	9:CL:14:VAL:HG13	1.44	0.99
13:CP:53:VAL:HG23	13:CP:57:ARG:HH21	1.27	0.99
39:D1:34:LYS:HE2	39:D1:34:LYS:HA	1.43	0.99
2:CE:8:LYS:HG3	2:CE:11:LEU:HG	1.01	0.99
44:DV:24:LEU:HB3	44:DV:41:LEU:CD1	1.91	0.99
49:D4:14:ILE:HG23	49:D4:33:VAL:HG21	1.42	0.99
1:AA:992:U:H4'	1:AA:993:G:O5'	1.59	0.99
2:AE:32:ILE:HD11	2:AE:40:HIS:HB3	1.44	0.99
2:AE:91:PRO:HG3	2:AE:155:LEU:HG	1.42	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2286:A:C2'	51:B6:31:PRO:HD3	1.92	0.99
26:BD:43:ARG:NH1	26:BD:44:ASN:OD1	1.95	0.99
30:BH:86:GLU:HG3	30:BH:165:ALA:N	1.77	0.99
53:B8:52:LYS:H	53:B8:53:PRO:CD	1.75	0.99
14:CQ:19:ARG:HH11	14:CQ:19:ARG:HG3	1.26	0.99
37:DQ:66:ALA:O	37:DQ:69:VAL:HG13	1.62	0.99
39:D1:90:VAL:HG12	39:D1:91:ASP:N	1.78	0.99
1:AA:1381:U:C2'	7:AJ:79:ARG:NE	2.25	0.99
24:DA:511:U:C3'	24:DA:512:G:H5"	1.92	0.99
1:AA:1382:C:C5'	7:AJ:79:ARG:NH1	2.24	0.99
1:AA:1060:C:C5	3:AF:2:GLY:HA2	1.97	0.99
3:AF:188:LEU:HD21	3:AF:195:VAL:HB	1.43	0.99
4:CG:13:ARG:O	4:CG:15:GLU:N	1.96	0.99
1:CA:1330:U:H4'	13:CP:23:TYR:HE1	1.19	0.99
10:AM:22:LYS:HE3	10:AM:90:LEU:HD13	1.40	0.99
24:DA:2286:A:H5"	51:D6:28:ARG:CD	1.93	0.99
28:DF:4:VAL:HA	28:DF:19:GLU:HB3	1.45	0.99
2:CE:8:LYS:HD3	2:CE:217:ARG:HD2	1.44	0.99
24:DA:242:G:H5"	53:D8:62:LEU:HD13	1.45	0.99
2:AE:219:VAL:HA	2:AE:222:ILE:HD12	1.42	0.98
14:CQ:24:CYS:SG	14:CQ:29:ARG:NH1	2.36	0.98
1:AA:1035:A:H3'	1:AA:1036:G:H5"	1.42	0.98
1:AA:1199:U:C4'	10:AM:54:PHE:CE2	2.44	0.98
44:BV:76:LEU:HD23	44:BV:76:LEU:H	1.25	0.98
38:BR:26:ASP:HB3	38:BR:91:ARG:HA	1.45	0.98
13:CP:3:ARG:HG2	13:CP:9:ILE:HG21	1.43	0.98
1:AA:193:C:C5'	20:AW:57:ARG:HD2	1.92	0.98
5:CH:68:GLU:O	5:CH:70:PRO:HD3	1.62	0.98
14:CQ:22:THR:CG2	14:CQ:33:VAL:HG11	1.92	0.98
31:DK:101:LEU:HD23	31:DK:101:LEU:H	1.28	0.98
3:CF:120:VAL:HA	3:CF:123:GLN:HG3	1.45	0.98
13:AP:12:ASN:HB2	13:AP:46:LYS:CE	1.93	0.98
4:CG:26:CYS:HA	4:CG:31:CYS:CB	1.86	0.98
19:CV:70:LYS:HZ2	19:CV:73:GLU:N	1.59	0.98
34:DO:71:VAL:CG1	34:DO:72:PRO:HD3	1.93	0.98
35:DP:24:GLY:HA2	35:DP:101:ARG:HD2	1.46	0.98
44:DV:128:VAL:HG22	44:DV:129:SER:H	1.24	0.98
3:AF:190:ARG:HA	3:AF:195:VAL:HG12	1.46	0.98
13:AP:11:ARG:HE	13:AP:46:LYS:HE3	1.28	0.98
24:BA:592:G:N2	53:B8:4:MET:HE1	1.78	0.98
24:BA:2110:G:H3'	24:BA:2111:C:C5'	1.94	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DD:49:ILE:HD11	26:DD:52:ARG:HA	1.42	0.98
1:AA:1220:G:O3'	19:AV:36:ARG:NH2	1.96	0.98
24:BA:1359:A:C2'	24:BA:1360:A:H5'	1.94	0.98
31:BK:144:VAL:O	31:BK:145:VAL:HG22	1.60	0.98
2:CE:11:LEU:HD13	2:CE:12:GLU:N	1.78	0.98
37:BQ:15:ARG:HG3	37:BQ:19:LYS:HD2	1.43	0.98
24:DA:2417:C:P	34:DO:64:LYS:HE2	2.04	0.98
29:DG:80:PHE:HD2	29:DG:82:LEU:HD11	1.28	0.98
46:DZ:86:SER:N	46:DZ:87:PRO:HD2	1.78	0.98
1:AA:1286:A:H5"	21:AX:26:LYS:HD2	1.46	0.97
3:AF:6:HIS:CD2	3:AF:8:ILE:CG2	2.47	0.97
4:AG:28:SER:OG	4:AG:29:PRO:HD3	1.64	0.97
24:BA:2371:G:H4'	51:B6:45:LYS:CG	1.94	0.97
37:BQ:110:LEU:CG	37:BQ:111:GLU:N	2.24	0.97
4:CG:9:CYS:SG	4:CG:22:LYS:NZ	2.36	0.97
24:DA:910:A:C5	35:DP:13:GLN:HG3	1.99	0.97
24:DA:2286:A:H5"	51:D6:28:ARG:NH1	1.79	0.97
34:DO:19:VAL:HG22	34:DO:20:GLY:H	1.25	0.97
24:BA:1601:G:H5'	52:B7:49:ARG:NH1	1.77	0.97
34:BO:61:ARG:HD2	53:B8:24:ALA:HB1	1.45	0.97
9:AL:99:LEU:HB2	9:AL:101:PHE:CD2	1.99	0.97
24:BA:404:C:H1'	24:BA:405:U:OP2	1.65	0.97
19:CV:36:ARG:HH11	19:CV:72:GLY:CA	1.76	0.97
47:BW:50:ILE:HD12	47:BW:51:ARG:H	1.26	0.97
13:CP:40:ASN:HD22	13:CP:43:THR:HG23	1.27	0.97
1:AA:193:C:H5'	20:AW:57:ARG:CD	1.93	0.97
9:AL:96:LEU:HA	9:AL:99:LEU:HD11	1.44	0.97
24:BA:1753:G:OP1	38:BR:95:ARG:NH1	1.98	0.97
1:CA:1151:A:O2'	10:CM:70:ARG:NH2	1.97	0.97
1:CA:1450:U:O2'	1:CA:1452:C:N4	1.98	0.97
2:CE:25:ASN:HD21	2:CE:27:LYS:HD3	1.29	0.97
24:DA:1899:G:O2'	24:DA:1900:A:H5"	1.65	0.97
24:DA:2537:U:H2'	24:DA:2538:C:C6	2.00	0.97
53:D8:49:VAL:O	53:D8:50:LEU:HB2	1.63	0.97
16:AS:52:ASP:OD2	16:AS:55:ARG:HG3	1.65	0.97
24:BA:2419:U:O4'	51:B6:21:TYR:OH	1.83	0.97
26:BD:28:GLU:HB3	26:BD:29:PRO:HD3	1.45	0.97
19:CV:36:ARG:HH11	19:CV:72:GLY:HA3	1.28	0.97
9:AL:83:ARG:O	9:AL:86:VAL:HG12	1.65	0.97
24:BA:49:A:N7	24:BA:120:U:H5	1.61	0.97
24:BA:622:G:OP2	34:BO:108:LYS:HE2	1.65	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CM:4:ILE:CB	10:CM:74:ILE:HD11	1.93	0.97
24:BA:1601:G:C5'	52:B7:49:ARG:NH1	2.26	0.97
39:B1:95:LEU:HD12	39:B1:95:LEU:H	1.22	0.97
45:B3:49:LYS:HD2	45:B3:82:ARG:HH22	1.29	0.97
1:AA:193:C:O5'	20:AW:57:ARG:CZ	2.08	0.97
26:BD:39:LYS:NZ	26:BD:87:ASN:OD1	1.96	0.97
43:BU:96:ILE:CG2	43:BU:101:LYS:HG3	1.94	0.97
2:CE:92:TYR:CE1	2:CE:151:GLY:HA3	1.99	0.97
9:CL:78:LYS:HD3	9:CL:101:PHE:HE1	1.28	0.97
37:DQ:3:ARG:HD2	37:DQ:4:LEU:N	1.78	0.97
1:AA:559:A:H4'	1:AA:560:U:C3'	1.94	0.96
3:AF:6:HIS:HD2	3:AF:8:ILE:HG22	0.81	0.96
34:DO:126:VAL:HG22	34:DO:145:PRO:HG3	1.44	0.96
1:AA:8:A:H4'	1:AA:9:G:OP1	1.65	0.96
24:BA:1496:A:H8	24:BA:1577:C:HO2'	0.98	0.96
24:BA:2400:G:O4'	51:B6:19:ARG:NH2	1.96	0.96
1:CA:1435:G:H2'	1:CA:1436:U:C6	2.00	0.96
30:DH:122:THR:HG23	30:DH:134:SER:HB2	1.46	0.96
1:AA:1191:A:H5"	3:AF:4:LYS:NZ	1.79	0.96
19:CV:36:ARG:HD3	19:CV:51:VAL:HG11	1.45	0.96
13:AP:81:LEU:HD11	13:AP:86:CYS:HB3	1.45	0.96
47:DW:17:SER:HB2	47:DW:18:PRO:CA	1.96	0.96
1:AA:1192:C:OP2	3:AF:4:LYS:NZ	1.99	0.96
13:AP:81:LEU:CD1	13:AP:86:CYS:HB3	1.95	0.96
39:B1:92:ARG:HB3	39:B1:95:LEU:HD13	1.46	0.96
8:CK:109:ILE:HG23	8:CK:137:VAL:HG23	1.47	0.96
9:CL:16:ARG:HH11	9:CL:64:THR:HG21	1.14	0.96
24:DA:2285:C:C3'	51:D6:28:ARG:NH1	2.29	0.96
38:DR:88:ILE:HD11	38:DR:91:ARG:HG2	1.44	0.96
43:BU:97:ARG:HH21	43:BU:98:VAL:CB	1.79	0.96
1:CA:1133:G:H2'	1:CA:1134:G:H8	1.29	0.96
4:CG:22:LYS:CD	4:CG:26:CYS:HB2	1.93	0.96
19:CV:66:MET:N	19:CV:67:VAL:CG1	2.28	0.96
19:CV:70:LYS:HE2	19:CV:73:GLU:HG3	0.98	0.96
27:DE:55:ASN:HD22	27:DE:72:VAL:HG12	1.28	0.96
5:AH:150:ARG:O	5:AH:153:LYS:HG3	1.64	0.96
24:BA:620:G:H4'	24:BA:621:A:C5'	1.95	0.96
24:BA:2284:C:C5'	51:B6:28:ARG:NH2	2.29	0.96
1:CA:410:G:H3'	4:CG:25:ARG:HH21	1.29	0.96
4:CG:75:PHE:CE1	4:CG:93:PHE:HZ	1.84	0.96
5:CH:43:LEU:HD13	5:CH:136:MET:HG3	1.48	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CV:31:ILE:HD12	19:CV:32:LYS:H	1.28	0.96
9:AL:48:GLU:CB	9:AL:78:LYS:HZ3	1.78	0.96
28:BF:8:GLN:NE2	28:BF:8:GLN:O	1.99	0.96
42:BT:55:ASN:HB2	42:BT:80:ILE:HG23	1.45	0.96
1:CA:1080:A:H5'	5:CH:14:ARG:NH2	1.79	0.96
7:CJ:45:ASP:HB3	7:CJ:115:ARG:HH22	0.80	0.96
3:AF:77:ILE:O	3:AF:83:ARG:HB3	1.64	0.96
53:B8:52:LYS:N	53:B8:53:PRO:HD2	1.81	0.96
1:CA:1128:C:H4'	9:CL:16:ARG:NH1	1.81	0.96
34:DO:107:LYS:O	34:DO:109:GLY:N	1.98	0.96
1:AA:1316:G:O6	19:AV:5:LEU:HD11	1.66	0.95
3:AF:72:LYS:HD3	3:AF:75:VAL:HG21	1.46	0.95
9:AL:48:GLU:N	9:AL:78:LYS:NZ	2.14	0.95
10:AM:48:THR:HA	10:AM:62:HIS:CB	1.95	0.95
24:BA:2287:A:N6	24:BA:2344:U:H3	1.64	0.95
26:BD:121:PRO:HB3	26:BD:135:PHE:CE2	2.00	0.95
52:B7:47:ARG:CG	52:B7:48:LYS:N	2.27	0.95
1:CA:411:A:C5	1:CA:413:G:H1'	2.01	0.95
1:CA:963:G:N3	10:CM:55:LYS:NZ	2.13	0.95
1:AA:1065:U:H1'	1:AA:1066:C:OP2	1.64	0.95
1:AA:1305:G:N2	1:AA:1331:G:H2'	1.80	0.95
14:CQ:22:THR:HG21	14:CQ:33:VAL:HG11	1.47	0.95
24:DA:1070:A:C8	24:DA:1096:A:H1'	2.01	0.95
27:DE:64:LYS:HZ3	27:DE:68:ALA:HB3	1.29	0.95
36:D0:37:THR:HG22	36:D0:39:PRO:HD2	1.43	0.95
19:AV:13:ASP:O	19:AV:16:LEU:N	1.98	0.95
24:BA:270(R):G:H21	46:BZ:78:LYS:HE2	1.30	0.95
24:BA:796:C:H2'	24:BA:797:C:C6	2.01	0.95
24:BA:1113:U:H5'	30:BH:2:SER:HB3	1.47	0.95
6:CI:48:LEU:HD21	6:CI:60:PHE:HZ	1.30	0.95
10:CM:6:ILE:CD1	10:CM:72:VAL:HG12	1.97	0.95
4:AG:21:LEU:CD1	4:AG:22:LYS:HD3	1.96	0.95
13:CP:83:ASP:O	13:CP:84:ILE:HG22	1.66	0.95
19:CV:28:LYS:HZ1	19:CV:30:LEU:H	1.13	0.95
39:D1:91:ASP:O	39:D1:92:ARG:HG2	1.66	0.95
40:D2:35:LEU:HG	40:D2:37:VAL:HG11	1.46	0.95
1:AA:626:U:O3'	16:AS:38:TYR:OH	1.85	0.95
1:AA:980:C:HO2'	14:AQ:21:TYR:HE2	1.07	0.95
12:AO:47:LYS:HE2	12:AO:47:LYS:HA	1.48	0.95
4:CG:18:LYS:CG	4:CG:33:MET:SD	2.53	0.95
24:BA:270(N):G:H21	31:BK:50:ARG:NH2	1.64	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BF:32:LEU:HD11	28:BF:105:VAL:HG13	1.47	0.95
44:BV:151:HIS:CE1	44:BV:154:ASP:H	1.84	0.95
2:CE:11:LEU:CD1	2:CE:12:GLU:H	1.79	0.95
19:CV:11:VAL:CG2	19:CV:39:THR:HB	1.97	0.95
24:DA:1060:U:H5"	24:DA:1061:U:C5	2.01	0.95
1:AA:15:G:H4'	5:AH:24:ARG:HH12	1.32	0.95
1:AA:464:G:N2	1:AA:467:G:N7	2.15	0.95
1:AA:547:A:OP1	4:AG:73:ARG:NH2	2.00	0.95
4:AG:31:CYS:N	4:AG:33:MET:SD	2.38	0.95
22:AC:20:U:H2'	22:AC:21:A:H5'	1.47	0.95
46:BZ:53:VAL:HG22	46:BZ:74:VAL:HG23	1.45	0.95
2:CE:28:PHE:HD2	2:CE:32:ILE:HG23	1.30	0.95
53:D8:32:LEU:HD12	53:D8:33:ASN:H	1.26	0.95
1:AA:1191:A:H5"	3:AF:4:LYS:HZ3	1.29	0.95
24:BA:1021:A:H3'	24:BA:1022:G:H5"	1.47	0.95
24:BA:1050:A:C8	24:BA:2751:G:C8	2.55	0.95
1:CA:503:C:OP2	12:CO:116:SER:HB3	1.67	0.95
1:CA:1320:C:H1'	19:CV:70:LYS:NZ	1.82	0.95
26:DD:43:ARG:NH1	26:DD:44:ASN:ND2	2.15	0.95
27:DE:4:ILE:CD1	27:DE:28:ALA:HB1	1.95	0.95
1:AA:437:U:H5'	4:AG:155:LEU:CD2	1.97	0.95
9:AL:99:LEU:HD13	9:AL:101:PHE:CD2	2.01	0.95
13:AP:65:LYS:H	49:B4:50:VAL:HG11	1.31	0.95
24:BA:2162:G:H1'	24:BA:2173:A:H8	1.31	0.95
25:BB:40:U:O2	25:BB:45:A:N6	2.00	0.95
44:BV:51:ALA:CB	44:BV:57:ILE:HD11	1.96	0.95
49:D4:5:ILE:HG13	49:D4:6:HIS:H	1.29	0.95
1:AA:430:A:OP2	4:AG:8:VAL:HG22	1.67	0.95
1:AA:877:C:OP1	8:AK:88:LYS:NZ	1.99	0.95
10:AM:49:VAL:HG23	14:AQ:41:ARG:HB2	1.47	0.95
24:BA:2399:G:C2'	51:B6:19:ARG:CZ	2.44	0.95
38:BR:3:ARG:HB3	38:BR:6:LEU:HB2	1.49	0.95
4:CG:149:ALA:O	4:CG:153:ARG:HG3	1.66	0.95
14:CQ:26:ARG:NE	14:CQ:43:CYS:SG	2.39	0.95
24:DA:2377:A:H2'	37:DQ:112:PHE:CZ	2.01	0.95
49:D4:28:LYS:CE	49:D4:31:ILE:HD11	1.97	0.95
10:AM:48:THR:HA	10:AM:62:HIS:HB3	1.46	0.94
24:BA:774:A:H2	24:BA:787:U:HO2'	1.00	0.94
24:BA:1403:C:H5"	24:BA:1471:A:H1'	1.49	0.94
1:CA:1014:A:H5'	19:CV:15:LEU:HD11	1.47	0.94
1:AA:196:A:OP1	20:AW:68:LYS:NZ	2.00	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:860:U:C5	24:BA:917:A:C2	2.55	0.94
37:BQ:59:LYS:HD3	37:BQ:60:GLY:N	1.82	0.94
43:BU:81:LYS:HD2	43:BU:96:ILE:CB	1.97	0.94
24:DA:910:A:H62	35:DP:12:GLN:HA	1.32	0.94
27:DE:4:ILE:HD11	27:DE:28:ALA:CB	1.97	0.94
39:D1:66:ASN:HD21	39:D1:70:ARG:HE	0.99	0.94
45:D3:53:MET:HG3	45:D3:59:LEU:CD2	1.97	0.94
11:AN:33:THR:HG22	11:AN:39:PRO:HA	1.49	0.94
31:BK:69:LYS:HA	31:BK:136:VAL:CG1	1.97	0.94
34:BO:19:VAL:HG22	34:BO:20:GLY:N	1.80	0.94
40:B2:35:LEU:O	40:B2:35:LEU:HD23	1.67	0.94
9:CL:82:ALA:HB3	9:CL:101:PHE:CD2	2.01	0.94
5:AH:11:ILE:HD11	5:AH:31:LEU:HD13	1.47	0.94
24:BA:1409:C:O2'	24:BA:1410:G:H5'	1.67	0.94
26:BD:35:LYS:HE3	26:BD:64:ILE:C	1.88	0.94
49:B4:34:GLU:HG2	49:B4:35:VAL:N	1.79	0.94
24:DA:1071:G:H1'	24:DA:1089:G:C2'	1.97	0.94
1:AA:1347:G:N2	1:AA:1373:G:H2'	1.83	0.94
10:AM:28:ARG:HE	10:AM:34:VAL:HG22	1.32	0.94
52:B7:47:ARG:CG	52:B7:48:LYS:H	1.79	0.94
2:CE:25:ASN:OD1	2:CE:27:LYS:HG3	1.68	0.94
13:CP:3:ARG:HG2	13:CP:9:ILE:CG2	1.97	0.94
24:DA:871:U:P	35:DP:6:ARG:HH21	1.91	0.94
24:DA:1187:G:OP1	40:D2:82:ARG:NH1	1.99	0.94
24:DA:2393:A:OP1	53:D8:28:GLY:N	1.97	0.94
49:D4:28:LYS:HE2	49:D4:31:ILE:HD11	1.45	0.94
3:AF:8:ILE:HG23	3:AF:9:GLY:N	1.83	0.94
19:CV:49:ILE:HG23	19:CV:62:ILE:HD11	1.50	0.94
24:DA:654(O):G:H2'	24:DA:654(P):G:H8	1.29	0.94
24:DA:2343:C:O2'	24:DA:2373:G:O2'	1.75	0.94
24:DA:2749:A:H5'	30:DH:6:ARG:CZ	1.95	0.94
25:DB:66:A:H61	25:DB:108:C:H5"	1.32	0.94
2:AE:233:SER:HB2	2:AE:234:PRO:HD2	1.49	0.94
24:BA:1061:U:O2'	24:BA:1070:A:N3	1.99	0.94
24:BA:1797:C:H2'	24:BA:1798:U:H5'	1.50	0.94
4:CG:75:PHE:HE1	4:CG:93:PHE:HZ	0.97	0.94
19:CV:36:ARG:HD2	19:CV:72:GLY:CA	1.98	0.94
24:DA:2537:U:H2'	24:DA:2538:C:H6	1.29	0.94
25:DB:24:G:N2	25:DB:27:C:N3	2.16	0.94
28:DF:11:VAL:HG23	28:DF:12:LEU:H	1.31	0.94
1:AA:673:G:H2'	1:AA:674:G:C8	2.02	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1382:C:C6	7:AJ:79:ARG:CZ	2.51	0.94
2:AE:8:LYS:HE2	2:AE:8:LYS:N	1.83	0.94
2:AE:67:THR:HG21	2:AE:155:LEU:CD1	1.97	0.94
24:BA:1062:G:N1	24:BA:1076:C:N3	2.15	0.94
28:BF:184:TYR:O	28:BF:188:ARG:HG3	1.67	0.94
37:BQ:110:LEU:CD1	37:BQ:112:PHE:CD2	2.50	0.94
10:CM:6:ILE:HG22	10:CM:98:ILE:HG12	1.49	0.94
12:CO:111:LYS:HD3	12:CO:111:LYS:H	1.30	0.94
24:DA:1060:U:H5"	24:DA:1061:U:C6	2.01	0.94
24:DA:1077:A:HO2'	24:DA:1088:A:H61	1.07	0.94
24:DA:2689:U:H4'	24:DA:2690:C:O5'	1.67	0.94
50:D5:4:HIS:HB2	50:D5:5:PRO:HD3	1.49	0.94
3:AF:79:ARG:HB2	3:AF:82:GLU:HB2	1.48	0.94
9:AL:41:VAL:O	9:AL:43:ALA:N	2.01	0.94
13:AP:13:LYS:O	13:AP:44:ARG:NH1	2.01	0.94
22:AC:59:A:H2'	22:AC:60:U:H5'	1.50	0.94
24:BA:2580:U:H4'	27:BE:130:GLY:HA3	1.48	0.94
1:AA:267:C:OP1	17:AT:67:LYS:HD2	1.67	0.94
1:AA:517:G:N1	1:AA:533:A:OP2	2.00	0.94
3:AF:6:HIS:HD2	3:AF:8:ILE:CG2	1.78	0.94
30:BH:2:SER:O	30:BH:3:ARG:CD	2.16	0.94
44:BV:52:SER:O	44:BV:54:HIS:N	2.01	0.94
3:CF:136:GLN:O	3:CF:140:ARG:HG2	1.68	0.94
4:CG:33:MET:CE	56:CG:303:ZN:ZN	1.45	0.94
4:CG:75:PHE:HE1	4:CG:93:PHE:CZ	1.85	0.94
24:DA:1062:G:N2	24:DA:1077:A:N3	2.14	0.94
24:DA:1601:G:H8	52:D7:49:ARG:CZ	1.81	0.94
24:DA:2068:U:N3	24:DA:2430:A:H2	1.66	0.94
44:DV:139:VAL:HG12	44:DV:140:ASP:H	1.33	0.94
2:AE:12:GLU:HA	2:AE:16:HIS:HD2	1.32	0.93
24:BA:1607:C:H4'	24:BA:1608:A:C5'	1.96	0.93
24:DA:328:U:H4'	43:DU:68:HIS:ND1	1.83	0.93
42:DT:50:LYS:HB3	42:DT:84:ALA:HB2	1.46	0.93
53:D8:30:ARG:O	53:D8:30:ARG:HG2	1.67	0.93
1:AA:186(B):C:OP1	20:AW:86:ARG:NH1	2.01	0.93
1:AA:1286:A:C5'	21:AX:26:LYS:HD2	1.97	0.93
2:AE:44:LEU:H	2:AE:44:LEU:CD1	1.81	0.93
39:B1:92:ARG:HD3	39:B1:95:LEU:HD11	1.47	0.93
24:DA:1070:A:H5'	24:DA:1071:G:C5'	1.97	0.93
41:DS:64:MET:CE	41:DS:109:GLU:HG3	1.98	0.93
1:AA:1199:U:C4'	10:AM:54:PHE:HE2	1.78	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AE:103:THR:HG23	2:AE:176:GLU:CB	1.99	0.93
37:BQ:110:LEU:HD21	37:BQ:112:PHE:CD1	2.03	0.93
49:B4:38:LYS:HA	49:B4:44:THR:HG21	1.47	0.93
2:CE:119:GLU:HA	2:CE:122:PHE:HB2	1.49	0.93
24:DA:2681:C:H5	24:DA:2725:A:H62	1.04	0.93
32:DM:5:VAL:O	32:DM:7:LYS:NZ	2.02	0.93
1:AA:195:A:H4'	20:AW:68:LYS:HE3	1.48	0.93
24:BA:2287:A:H62	24:BA:2344:U:H3	0.93	0.93
34:BO:58:THR:HG22	34:BO:61:ARG:NH1	1.83	0.93
24:DA:273(E):U:H3	24:DA:363(A):A:H61	1.17	0.93
32:DM:18:ALA:HA	32:DM:21:LYS:HD2	1.49	0.93
4:AG:22:LYS:HB2	4:AG:26:CYS:CB	1.99	0.93
17:AT:38:ARG:HA	17:AT:38:ARG:HE	1.34	0.93
53:B8:54:GLU:HG2	53:B8:57:ARG:HH21	1.33	0.93
5:CH:67:VAL:HG22	5:CH:69:VAL:HG23	1.50	0.93
24:DA:1055:G:H1'	24:DA:1085:A:C2	2.04	0.93
24:DA:2415:G:H4'	34:DO:67:MET:H	1.31	0.93
1:AA:1382:C:C5'	7:AJ:79:ARG:HH11	1.79	0.93
1:AA:1382:C:C6	7:AJ:79:ARG:NH2	2.36	0.93
34:BO:19:VAL:CG2	34:BO:20:GLY:H	1.79	0.93
52:B7:47:ARG:HG2	52:B7:48:LYS:H	1.33	0.93
24:BA:270(R):G:N2	46:BZ:78:LYS:HE2	1.83	0.93
35:BP:65:PHE:O	35:BP:66:ILE:HG13	1.67	0.93
2:CE:7:VAL:HG22	2:CE:8:LYS:H	1.32	0.93
4:CG:22:LYS:HD3	4:CG:26:CYS:HB2	0.96	0.93
27:DE:47:VAL:HG22	27:DE:48:GLN:H	1.31	0.93
9:AL:99:LEU:HB2	9:AL:101:PHE:HE2	1.16	0.93
13:AP:10:PRO:HB2	13:AP:18:ALA:HB1	1.49	0.93
1:CA:452:A:N6	1:CA:480:U:O2	2.02	0.93
22:CC:1:C:O2'	22:CC:2:G:OP2	1.85	0.93
30:DH:89:ILE:CD1	30:DH:94:TYR:HB2	1.99	0.93
1:AA:1319:A:C5'	19:AV:5:LEU:HD23	1.99	0.93
29:DG:133:LEU:HD21	29:DG:157:ILE:HB	1.51	0.93
1:CA:812:C:H4'	1:CA:813:U:O5'	1.68	0.93
4:CG:8:VAL:CG1	4:CG:21:LEU:HD22	1.99	0.93
24:DA:2748:A:C2'	30:DH:6:ARG:HH21	1.82	0.93
24:BA:507:A:H5"	24:BA:508:G:H5'	1.49	0.92
28:BF:6:VAL:HG13	28:BF:119:ARG:HB2	1.49	0.92
28:BF:66:PRO:O	28:BF:67:GLN:HB3	1.69	0.92
24:DA:1070:A:H5'	24:DA:1071:G:H5"	1.48	0.92
24:DA:1600:C:H2'	52:D7:49:ARG:CZ	1.99	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DK:77:LEU:CD2	31:DK:141:LYS:HB3	1.98	0.92
49:D4:23:GLU:HG3	49:D4:24:THR:H	1.33	0.92
37:BQ:42:ASP:O	37:BQ:43:GLU:HG2	1.70	0.92
37:BQ:110:LEU:HD22	37:BQ:112:PHE:CE1	2.04	0.92
53:B8:59:LYS:HB2	53:B8:59:LYS:HZ2	1.28	0.92
24:DA:78:A:H2'	24:DA:79:G:H8	1.32	0.92
30:DH:13:LYS:O	30:DH:15:VAL:HG13	1.70	0.92
44:DV:105:VAL:HG13	44:DV:106:GLY:H	1.29	0.92
13:AP:11:ARG:HG2	13:AP:46:LYS:HD2	1.51	0.92
13:AP:81:LEU:HD12	13:AP:84:ILE:CG2	2.00	0.92
20:CW:10:LEU:HD21	20:CW:12:ALA:HB3	1.52	0.92
24:DA:2392:A:H3'	53:D8:30:ARG:NH1	1.84	0.92
1:AA:255:G:H2'	1:AA:256:U:C6	2.04	0.92
1:AA:928:G:O2'	1:AA:1533:C:OP1	1.86	0.92
24:BA:2131:G:H1'	24:BA:2158:A:H62	1.30	0.92
36:B0:117:VAL:HG22	36:B0:118:GLU:H	1.31	0.92
50:B5:16:ARG:HG3	50:B5:17:ASP:N	1.84	0.92
2:CE:83:MET:SD	2:CE:234:PRO:HB2	2.10	0.92
10:CM:28:ARG:HH12	10:CM:33:GLN:HA	1.34	0.92
24:DA:2502:G:H5'	24:DA:2503:A:H5"	1.52	0.92
38:DR:88:ILE:HD13	38:DR:91:ARG:NH1	1.85	0.92
40:D2:71:LEU:HD12	40:D2:71:LEU:O	1.68	0.92
1:AA:437:U:H5'	4:AG:155:LEU:HD21	1.51	0.92
3:AF:8:ILE:HD11	3:AF:16:ARG:CG	1.99	0.92
24:BA:2284:C:H5"	51:B6:28:ARG:HH22	1.24	0.92
29:BG:34:LEU:HB3	29:BG:99:MET:HE1	1.52	0.92
1:CA:1005:A:H3'	1:CA:1006:C:H5'	1.49	0.92
12:CO:47:LYS:HB3	12:CO:48:PRO:HD3	0.93	0.92
20:CW:70:SER:HA	20:CW:73:HIS:HE1	1.31	0.92
27:DE:77:ILE:HG22	27:DE:77:ILE:O	1.68	0.92
34:DO:48:PRO:O	34:DO:50:ARG:N	2.02	0.92
4:AG:84:LYS:HE3	4:AG:84:LYS:HA	1.51	0.92
24:BA:2415:G:H4'	34:BO:67:MET:H	1.33	0.92
1:CA:1220:G:H5'	19:CV:37:ARG:NH1	1.83	0.92
1:CA:1320:C:C2	19:CV:70:LYS:NZ	2.38	0.92
19:CV:37:ARG:HH11	19:CV:37:ARG:HG3	1.30	0.92
31:DK:72:LEU:HD21	31:DK:107:VAL:HG11	1.52	0.92
24:BA:2415:G:H4'	34:BO:67:MET:N	1.85	0.92
26:BD:30:GLU:HA	26:BD:30:GLU:OE2	1.68	0.92
30:BH:88:LEU:HD12	30:BH:89:ILE:N	1.84	0.92
40:B2:38:LEU:C	40:B2:39:LEU:HD12	1.90	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:192:U:H1'	20:AW:103:GLY:HA2	0.95	0.92
2:AE:67:THR:CG2	2:AE:155:LEU:HD11	1.97	0.92
4:AG:196:LEU:HG	4:AG:197:PRO:HD2	1.52	0.92
19:AV:41:VAL:CG2	19:AV:45:VAL:HG13	2.00	0.92
24:BA:1899:G:H22	24:BA:1902:C:N4	1.67	0.92
24:BA:2177:C:H3'	24:BA:2178:C:H5"	1.52	0.92
45:B3:24:LYS:HG3	45:B3:36:ILE:HD11	1.50	0.92
4:CG:178:VAL:HG12	4:CG:179:GLU:H	1.33	0.92
24:DA:273(D):C:N4	24:DA:363(B):G:O6	2.03	0.92
31:DK:131:LYS:HB3	31:DK:132:PRO:HA	1.48	0.92
1:AA:838:G:H2'	1:AA:841:U:H5"	1.50	0.92
1:AA:1117:G:H5"	9:AL:104:ARG:HH12	1.33	0.92
2:AE:24:TRP:CZ3	2:AE:26:PRO:HA	2.05	0.92
3:AF:8:ILE:HG23	3:AF:9:GLY:H	1.35	0.92
9:AL:14:VAL:O	9:AL:65:VAL:HG23	1.70	0.92
16:AS:4:ILE:HD12	16:AS:21:VAL:HG22	1.52	0.92
20:AW:72:LEU:HD21	20:AW:77:ALA:H	1.35	0.92
30:BH:152:ARG:O	30:BH:154:PRO:HD2	1.68	0.92
39:B1:92:ARG:NH2	40:B2:10:LYS:HB3	1.83	0.92
1:CA:542:G:P	4:CG:10:ARG:HH21	1.92	0.92
1:CA:1014:A:H5'	19:CV:15:LEU:CD1	2.00	0.92
13:CP:69:GLU:OE2	29:DG:118:ARG:NH2	2.01	0.92
24:DA:1600:C:C3'	52:D7:49:ARG:NH2	2.21	0.92
24:DA:2345:G:OP2	51:D6:39:TYR:CZ	2.22	0.92
49:D4:12:ALA:HB1	49:D4:29:PRO:HA	1.52	0.92
51:D6:37:ARG:HD2	51:D6:38:LYS:H	1.35	0.92
35:BP:30:GLY:HA2	35:BP:107:ALA:HB2	1.52	0.92
5:CH:10:MET:HG2	5:CH:32:VAL:HG22	1.51	0.92
24:DA:2877:G:OP1	38:DR:2:ASN:ND2	2.02	0.92
31:DK:98:ALA:HA	31:DK:109:ILE:HD11	1.50	0.92
49:D4:21:VAL:HG22	49:D4:22:ILE:H	1.35	0.92
2:AE:80:ILE:HD11	2:AE:212:GLN:CA	1.99	0.91
9:AL:48:GLU:N	9:AL:78:LYS:HZ3	1.64	0.91
24:BA:1359:A:N1	24:BA:1372:U:N3	2.15	0.91
24:BA:1998:G:O2'	24:BA:1999:C:H5'	1.67	0.91
24:DA:2602:A:H4'	24:DA:2603:G:O5'	1.68	0.91
24:DA:2801:A:H4'	24:DA:2895:U:C4'	2.00	0.91
35:DP:24:GLY:CA	35:DP:25:ASP:HB2	2.00	0.91
9:AL:97:LYS:HB3	9:AL:98:PRO:HD3	1.52	0.91
27:BE:65:GLY:HA2	27:BE:70:ALA:HB2	1.51	0.91
38:BR:1:MET:O	38:BR:3:ARG:N	2.03	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BW:47:ASN:O	47:BW:49:LYS:N	2.03	0.91
2:CE:8:LYS:CD	2:CE:217:ARG:HD2	2.00	0.91
2:CE:233:SER:HB3	2:CE:234:PRO:HD2	1.50	0.91
24:DA:2417:C:OP2	34:DO:64:LYS:HE2	1.69	0.91
46:DZ:82:LEU:HD23	46:DZ:82:LEU:H	1.34	0.91
9:AL:78:LYS:HE3	9:AL:101:PHE:CD1	2.05	0.91
30:BH:10:PRO:O	30:BH:11:VAL:HG13	1.69	0.91
40:B2:35:LEU:HD21	40:B2:57:VAL:HG13	0.92	0.91
1:CA:598:U:O3'	8:CK:94:TYR:HE2	1.31	0.91
5:CH:92:LYS:HB3	5:CH:119:LEU:HB2	1.51	0.91
7:CJ:90:GLU:HG2	7:CJ:155:ARG:NH2	1.85	0.91
5:AH:12:LEU:C	5:AH:13:ILE:HD12	1.89	0.91
43:BU:81:LYS:HD2	43:BU:96:ILE:CG2	2.01	0.91
1:AA:193:C:O5'	20:AW:57:ARG:NH1	2.03	0.91
4:AG:21:LEU:HD11	4:AG:22:LYS:HD3	1.48	0.91
27:BE:197:ILE:HD11	27:BE:199:ARG:HE	1.35	0.91
43:BU:81:LYS:HZ2	43:BU:96:ILE:HD13	0.79	0.91
30:DH:6:ARG:NH1	30:DH:62:LYS:O	2.03	0.91
40:D2:49:THR:O	40:D2:51:VAL:N	2.02	0.91
44:DV:151:HIS:HB3	44:DV:170:THR:HA	1.50	0.91
8:AK:51:VAL:HG21	8:AK:60:ARG:HG3	1.53	0.91
9:AL:49:PRO:CD	9:AL:78:LYS:HZ2	1.79	0.91
9:AL:96:LEU:O	9:AL:99:LEU:HD12	1.71	0.91
26:BD:182:LEU:H	26:BD:272:ALA:HB3	1.33	0.91
49:B4:52:THR:HG23	49:B4:53:GLU:H	1.35	0.91
51:B6:31:PRO:HB2	51:B6:35:GLU:HG2	1.53	0.91
1:CA:1127:G:H4'	9:CL:66:ARG:NH1	1.86	0.91
4:CG:12:CYS:HB3	4:CG:33:MET:HG2	1.52	0.91
22:CC:48:C:O2'	22:CC:49:G:OP2	1.87	0.91
24:DA:1077:A:HO2'	24:DA:1088:A:N6	1.68	0.91
29:DG:104:GLU:HG2	49:D4:23:GLU:HG2	1.50	0.91
40:D2:44:LYS:O	40:D2:46:VAL:N	2.04	0.91
42:DT:50:LYS:CB	42:DT:84:ALA:HB2	2.01	0.91
49:D4:9:LEU:HD22	49:D4:9:LEU:H	1.36	0.91
1:AA:103:C:P	20:AW:14:LYS:NZ	2.40	0.91
1:AA:1025:U:O2'	1:AA:1026:G:OP2	1.87	0.91
8:AK:85:ARG:HG3	8:AK:85:ARG:HH11	1.33	0.91
24:BA:943:U:OP2	34:BO:36:LYS:CD	2.18	0.91
24:BA:2285:C:OP1	51:B6:28:ARG:CD	2.19	0.91
24:BA:2679:A:H4'	27:BE:165:VAL:HG11	1.53	0.91
1:CA:560:U:O2'	1:CA:561:U:OP2	1.87	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CL:79:LEU:CD1	9:CL:104:ARG:HA	2.00	0.91
21:CX:7:ARG:HH11	21:CX:7:ARG:CG	1.84	0.91
44:DV:119:GLU:OE2	44:DV:119:GLU:N	2.02	0.91
8:AK:120:THR:HG23	8:AK:122:ARG:H	1.36	0.91
9:AL:40:LEU:CD2	9:AL:70:LYS:HD2	1.99	0.91
36:B0:54:LEU:HD21	36:B0:65:LEU:HD23	1.50	0.91
1:CA:250:A:H1'	1:CA:251:G:OP2	1.69	0.91
1:AA:1028:C:O2	1:AA:1033:G:N2	2.04	0.91
16:AS:22:THR:HA	16:AS:33:ILE:HG13	1.49	0.91
24:BA:1169:G:H1	24:BA:1180:C:H42	1.17	0.91
24:BA:2151:G:H2'	24:BA:2152:G:H8	1.34	0.91
1:CA:1117:G:O2'	9:CL:104:ARG:CD	2.18	0.91
1:CA:1123:A:O3'	10:CM:36:GLY:HA3	1.71	0.91
1:CA:1203:C:C5'	14:CQ:3:ARG:HH21	1.84	0.91
51:D6:9:LEU:CG	51:D6:27:LYS:HA	2.00	0.91
9:AL:4:TYR:CZ	9:AL:88:TYR:HB2	2.06	0.91
24:BA:242:G:H5"	53:B8:62:LEU:HD13	1.53	0.91
24:BA:1601:G:H5'	52:B7:49:ARG:HH22	1.25	0.91
24:BA:2689:U:H4'	24:BA:2690:C:O5'	1.70	0.91
28:BF:29:ASN:HB3	28:BF:112:MET:HE1	1.52	0.91
34:BO:31:ALA:O	34:BO:32:THR:HG22	1.71	0.91
9:CL:2:GLU:N	9:CL:88:TYR:HH	1.67	0.91
43:DU:50:ARG:CG	43:DU:53:PRO:HG3	2.00	0.91
47:DW:47:ASN:O	47:DW:49:LYS:N	2.02	0.91
24:BA:1174:A:H3'	24:BA:1175:U:H5"	1.53	0.90
26:BD:35:LYS:HG2	26:BD:64:ILE:H	1.31	0.90
37:BQ:110:LEU:HD11	37:BQ:112:PHE:CD2	2.05	0.90
40:B2:38:LEU:HD23	40:B2:39:LEU:N	1.85	0.90
42:BT:27:THR:CG2	42:BT:80:ILE:HB	2.01	0.90
1:CA:1254:C:H5"	10:CM:45:ARG:HH12	1.23	0.90
26:DD:92:ILE:HD12	26:DD:104:TYR:CD2	2.05	0.90
1:AA:686:U:H1'	11:AN:42:TRP:HE1	1.34	0.90
43:BU:79:CYS:SG	43:BU:80:GLY:N	2.41	0.90
1:CA:838:G:N2	1:CA:849:C:N3	2.19	0.90
24:BA:2635:C:OP1	27:BE:78:LEU:HB2	1.71	0.90
32:BM:46:VAL:HG11	32:BM:48:MET:HE3	1.50	0.90
39:B1:92:ARG:HB2	40:B2:11:GLN:NE2	1.85	0.90
7:CJ:113:GLU:CB	7:CJ:119:ARG:HG2	2.02	0.90
24:DA:90:U:O2	24:DA:90:U:H2'	1.72	0.90
24:DA:2816:C:O3'	36:D0:99:LYS:NZ	2.05	0.90
1:AA:1221:G:H5'	19:AV:36:ARG:NH2	1.86	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:976:G:OP1	14:CQ:32:SER:N	2.04	0.90
1:CA:1321:C:O2	19:CV:36:ARG:NH2	2.04	0.90
10:CM:81:THR:CA	10:CM:84:GLN:HG2	2.01	0.90
29:DG:161:THR:HG22	29:DG:163:ALA:H	1.35	0.90
34:DO:47:ASP:HB3	34:DO:48:PRO:C	1.92	0.90
10:AM:48:THR:HG23	10:AM:62:HIS:HD2	1.36	0.90
29:BG:2:PRO:O	29:BG:4:ASP:N	2.03	0.90
1:CA:1297:C:H4'	1:CA:1298:C:H5'	1.52	0.90
51:D6:25:LYS:HB3	53:D8:34:TRP:CZ3	2.05	0.90
3:AF:8:ILE:CD1	3:AF:16:ARG:HG2	2.00	0.90
3:AF:15:THR:CG2	3:AF:181:ASN:HA	2.02	0.90
24:BA:1088:A:H5'	24:BA:1089:G:C5'	2.01	0.90
24:DA:330:A:H2	24:DA:1210:A:HO2'	0.92	0.90
24:DA:1359:A:H2'	24:DA:1360:A:H5'	1.52	0.90
24:DA:2286:A:H5"	51:D6:28:ARG:NE	1.87	0.90
29:DG:64:THR:HG23	29:DG:66:GLN:H	1.36	0.90
43:DU:17:SER:CB	43:DU:71:LYS:HD2	2.00	0.90
4:AG:31:CYS:CB	4:AG:33:MET:SD	2.60	0.90
9:AL:96:LEU:HA	9:AL:99:LEU:CD1	2.01	0.90
42:BT:49:VAL:HG11	42:BT:83:VAL:HG22	1.53	0.90
1:CA:412:A:H4'	1:CA:413:G:H5'	1.54	0.90
1:CA:1239:A:H4'	1:CA:1240:U:H5"	1.54	0.90
27:DE:67:PHE:O	27:DE:69:LYS:N	2.03	0.90
44:DV:118:GLN:O	44:DV:118:GLN:HG3	1.68	0.90
1:AA:90:C:H3'	1:AA:91:C:H5"	1.54	0.90
1:AA:1319:A:H5"	19:AV:5:LEU:CD2	2.02	0.90
2:AE:163:PHE:HA	2:AE:185:ILE:HG23	1.52	0.90
4:AG:30:LYS:HB3	4:AG:34:GLU:HB2	1.53	0.90
5:AH:139:LEU:HA	5:AH:142:LEU:CD1	2.02	0.90
13:AP:81:LEU:HD11	13:AP:86:CYS:CB	2.02	0.90
16:AS:6:LEU:HB3	16:AS:17:TYR:CD2	2.07	0.90
32:BM:95:PRO:O	32:BM:97:ARG:N	2.05	0.90
4:CG:108:LEU:HD23	4:CG:110:PHE:CE1	2.07	0.90
24:DA:67:U:H3	24:DA:74:A:H2	1.02	0.90
24:DA:528:A:H2	24:DA:2043:C:H5'	0.78	0.90
1:AA:974:A:O2'	1:AA:975:A:OP2	1.90	0.90
1:AA:975:A:C4'	1:AA:976:G:H5"	2.02	0.90
2:CE:11:LEU:HD11	2:CE:213:LEU:HD11	0.93	0.90
3:CF:85:ARG:HD2	3:CF:85:ARG:H	1.37	0.90
24:DA:71:A:OP2	24:DA:71:A:H3'	1.71	0.90
24:DA:995:C:N4	32:DM:2:LYS:HG3	1.86	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DD:28:GLU:HB3	26:DD:29:PRO:HD3	1.52	0.90
19:AV:41:VAL:HG21	19:AV:45:VAL:CG1	2.01	0.90
24:BA:2751:G:C8	30:BH:3:ARG:HD3	2.05	0.90
24:BA:2807:G:N1	24:BA:2893:G:O6	2.04	0.90
1:CA:1128:C:N3	1:CA:1144:G:N2	2.20	0.90
1:CA:1211:U:O2'	1:CA:1213:A:N3	2.03	0.90
4:CG:173:TRP:CD1	4:CG:174:LEU:HG	2.06	0.90
30:DH:89:ILE:HG23	30:DH:90:LYS:H	1.36	0.90
31:DK:9:LEU:HD11	31:DK:12:LEU:HD22	1.53	0.90
51:B6:31:PRO:HB2	51:B6:35:GLU:CG	2.02	0.89
2:CE:25:ASN:HD21	2:CE:27:LYS:CD	1.85	0.89
29:DG:56:ALA:HB2	29:DG:153:ARG:NE	1.87	0.89
29:DG:113:ARG:HG2	29:DG:140:ILE:HA	1.54	0.89
34:DO:52:GLU:OE1	34:DO:54:GLY:N	2.05	0.89
38:BR:123:GLN:O	38:BR:125:ARG:N	2.06	0.89
1:CA:66:G:H4'	1:CA:173:U:H5	1.36	0.89
24:DA:94:G:OP2	43:DU:54:LYS:NZ	2.04	0.89
1:AA:739:C:P	6:AI:2:ARG:HH22	1.94	0.89
26:BD:35:LYS:HB3	26:BD:63:ARG:HA	1.54	0.89
40:B2:34:GLU:O	40:B2:36:PRO:HD3	1.71	0.89
1:CA:976:G:H5'	14:CQ:31:ARG:NH1	1.86	0.89
7:CJ:113:GLU:HB2	7:CJ:119:ARG:CG	2.02	0.89
24:DA:676:A:H8	24:DA:2069:G:N2	1.69	0.89
44:DV:175:VAL:CG2	44:DV:176:PRO:HD2	2.01	0.89
24:BA:34:C:OP2	24:BA:34:C:H6	1.56	0.89
25:BB:45:A:C1'	29:BG:95:ARG:HH12	1.85	0.89
26:BD:35:LYS:HD3	26:BD:63:ARG:HB3	1.53	0.89
1:CA:597:G:H2'	1:CA:598:U:H5'	1.52	0.89
1:CA:1097:C:O2'	1:CA:1169:A:N3	2.04	0.89
24:DA:1245:G:OP1	34:DO:13:ASN:ND2	2.06	0.89
24:DA:2790:A:H4'	24:DA:2791:C:O5'	1.71	0.89
1:AA:562:C:H4'	1:AA:563:A:H5'	1.52	0.89
1:AA:626:U:H5"	16:AS:38:TYR:CZ	2.07	0.89
1:AA:1382:C:H6	7:AJ:79:ARG:CZ	1.86	0.89
2:AE:124:SER:HB2	2:AE:125:PRO:HD2	1.54	0.89
24:BA:1021:A:C3'	24:BA:1022:G:H5"	2.02	0.89
32:BM:62:VAL:CG2	32:BM:66:LYS:HD2	2.02	0.89
2:CE:19:HIS:CD2	2:CE:20:GLU:HG2	2.07	0.89
9:CL:82:ALA:HB3	9:CL:101:PHE:HD2	1.38	0.89
21:CX:7:ARG:HG3	21:CX:7:ARG:NH1	1.80	0.89
24:DA:1899:G:N2	24:DA:1902:C:N4	2.21	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2376:A:H2	37:DQ:112:PHE:HB3	1.32	0.89
30:DH:4:ILE:HD13	30:DH:6:ARG:HG3	1.52	0.89
30:DH:9:ILE:HG21	30:DH:51:ARG:CB	2.03	0.89
40:D2:8:GLY:O	40:D2:10:LYS:HE3	1.72	0.89
1:AA:1129:C:N4	1:AA:1133:G:O6	2.05	0.89
30:BH:153:LYS:HB3	30:BH:162:ILE:H	1.37	0.89
38:DR:62:THR:HG22	38:DR:75:ILE:HG12	1.53	0.89
2:AE:103:THR:CG2	2:AE:176:GLU:HB2	2.00	0.89
24:BA:2213:U:C1'	46:BZ:52:ARG:HH12	1.84	0.89
24:BA:2415:G:O3'	34:BO:66:GLY:HA3	1.72	0.89
1:CA:254:G:H21	17:CT:16:GLN:HE21	1.11	0.89
1:CA:963:G:H21	10:CM:55:LYS:HE2	1.37	0.89
19:CV:78:ARG:O	19:CV:79:THR:HG22	1.73	0.89
24:BA:1068:G:H2'	24:BA:1069:A:C8	2.07	0.89
24:BA:1778:U:H2'	24:BA:1784:A:N6	1.87	0.89
31:BK:92:VAL:HG13	31:BK:120:ILE:CG2	2.03	0.89
2:CE:172:ILE:HD12	2:CE:173:ALA:H	1.37	0.89
8:CK:5:PRO:HG2	8:CK:6:ILE:HD12	1.53	0.89
24:DA:1448:G:O2'	24:DA:1529:A:N1	2.06	0.89
29:DG:67:LYS:HB3	49:D4:6:HIS:CE1	2.08	0.89
35:DP:97:VAL:HG11	35:DP:103:MET:HE1	1.54	0.89
1:AA:1286:A:C4'	21:AX:26:LYS:HD2	2.02	0.89
5:AH:41:VAL:CG2	5:AH:113:ALA:HB2	2.03	0.89
24:BA:325:G:O2'	24:BA:326:G:H5'	1.71	0.89
9:CL:28:VAL:HG13	9:CL:63:ILE:O	1.71	0.89
10:CM:21:GLN:O	10:CM:24:VAL:HG12	1.72	0.89
13:CP:29:ARG:HB3	13:CP:64:TRP:CH2	2.06	0.89
19:CV:28:LYS:HZ1	19:CV:29:ARG:HB2	1.38	0.89
24:DA:1653:G:H1'	24:DA:1654:A:OP2	1.71	0.89
9:AL:48:GLU:H	9:AL:78:LYS:HZ3	1.09	0.89
10:CM:4:ILE:CD1	10:CM:100:THR:HG22	2.03	0.89
24:DA:870:A:OP2	35:DP:6:ARG:NH1	2.06	0.89
1:AA:1240:U:O2'	7:AJ:38:LEU:HD23	1.73	0.88
2:AE:236:TYR:HA	2:AE:239:VAL:HG21	1.54	0.88
10:AM:28:ARG:NE	10:AM:34:VAL:HG22	1.88	0.88
27:BE:16:ARG:O	27:BE:16:ARG:HG3	1.74	0.88
4:CG:121:VAL:CG1	4:CG:126:ILE:HD12	2.04	0.88
5:CH:35:GLY:HA3	5:CH:112:LEU:HB3	1.55	0.88
10:CM:21:GLN:HE21	10:CM:24:VAL:HG11	1.38	0.88
22:CC:59:A:H2'	22:CC:60:U:H5'	1.55	0.88
24:DA:870:A:C3'	35:DP:6:ARG:NH2	2.34	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1460:A:H4'	24:DA:1461:G:OP2	1.71	0.88
35:DP:66:ILE:HD13	35:DP:66:ILE:N	1.89	0.88
1:AA:1028(B):C:H3'	1:AA:1029:G:C5'	2.03	0.88
2:AE:109:SER:O	2:AE:112:VAL:HG12	1.72	0.88
8:AK:120:THR:HG22	8:AK:123:GLU:HG3	1.55	0.88
1:CA:1191:A:P	3:CF:3:ASN:HD21	1.96	0.88
9:CL:3:GLN:HE21	9:CL:20:ARG:HH11	1.21	0.88
44:DV:118:GLN:O	44:DV:118:GLN:CG	2.19	0.88
9:AL:5:TYR:HE1	9:AL:16:ARG:HB2	1.38	0.88
14:AQ:13:THR:N	14:AQ:14:PRO:HD2	1.86	0.88
24:BA:2068:U:N3	24:BA:2430:A:H2	1.69	0.88
34:BO:114:ILE:HD11	34:BO:130:PHE:CD2	2.08	0.88
44:BV:141:VAL:HB	44:BV:144:LEU:HD21	1.55	0.88
4:CG:33:MET:O	4:CG:35:ARG:N	2.07	0.88
10:CM:32:ALA:HA	10:CM:76:ASN:HD22	1.36	0.88
48:DX:11:SER:HB3	48:DX:13:ILE:HD13	1.53	0.88
1:AA:1312:G:N7	19:AV:4:SER:HB2	1.89	0.88
19:AV:28:LYS:HE3	19:AV:46:GLY:O	1.74	0.88
24:BA:2162:G:H1'	24:BA:2173:A:C8	2.08	0.88
38:BR:11:GLU:N	38:BR:11:GLU:OE1	2.07	0.88
44:BV:108:PRO:HB2	44:BV:115:GLY:H	1.37	0.88
48:BX:8:LEU:HD13	48:BX:31:LEU:HD23	1.55	0.88
2:CE:17:PHE:CE2	2:CE:44:LEU:HD22	2.07	0.88
19:CV:28:LYS:HG2	19:CV:29:ARG:N	1.87	0.88
24:DA:2416:C:C5'	34:DO:64:LYS:NZ	2.35	0.88
28:DF:132:VAL:HG22	28:DF:133:ASN:N	1.89	0.88
2:AE:162:ILE:HD11	2:AE:184:VAL:HG22	1.55	0.88
3:AF:131:ARG:HA	3:AF:131:ARG:NH1	1.87	0.88
13:AP:81:LEU:HG	13:AP:89:GLY:CA	2.04	0.88
24:BA:2636:U:OP1	27:BE:79:ARG:HA	1.72	0.88
28:BF:9:ILE:HD13	28:BF:20:LEU:O	1.73	0.88
36:B0:84:ALA:HB3	36:B0:85:PRO:HD3	1.53	0.88
40:B2:44:LYS:O	40:B2:46:VAL:N	2.06	0.88
9:CL:9:ARG:HD2	9:CL:14:VAL:HG22	1.55	0.88
24:DA:1056:G:H5"	24:DA:1057:A:H5'	1.54	0.88
8:AK:68:ARG:NH1	8:AK:70:GLN:OE1	2.06	0.88
24:BA:1069:A:H4'	24:BA:1070:A:C5'	2.02	0.88
24:BA:2210:G:H3'	24:BA:2211:G:H8	1.34	0.88
24:BA:2685:G:HO2'	24:BA:2726:U:H5	1.17	0.88
5:CH:15:ARG:HD2	5:CH:26:PHE:CD2	2.09	0.88
10:CM:56:HIS:O	10:CM:58:ASP:N	2.07	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CP:108:ARG:HD3	13:CP:114:ARG:HG3	1.53	0.88
24:DA:2284:C:OP2	51:D6:27:LYS:NZ	2.05	0.88
24:DA:2355:C:H1'	45:D3:39:ARG:HH21	1.36	0.88
35:DP:75:THR:HB	35:DP:88:GLY:HA3	1.54	0.88
1:AA:1053:G:HO2'	1:AA:1199:U:H5	0.97	0.88
29:BG:94:LEU:H	29:BG:94:LEU:HD23	1.36	0.88
37:BQ:87:PHE:CE1	37:BQ:102:ALA:HB2	2.09	0.88
4:CG:86:LYS:HG3	4:CG:87:GLY:H	1.37	0.88
9:CL:78:LYS:HD3	9:CL:101:PHE:CE1	2.09	0.88
11:CN:89:ALA:O	11:CN:91:ARG:N	2.06	0.88
24:DA:592:G:H21	53:D8:4:MET:HE1	1.37	0.88
24:DA:870:A:H5"	35:DP:6:ARG:HG3	1.52	0.88
1:AA:964:A:O2'	10:AM:55:LYS:NZ	2.06	0.88
2:AE:176:GLU:N	2:AE:176:GLU:OE1	2.06	0.88
7:CJ:46:ALA:HB2	7:CJ:117:ALA:HB1	1.56	0.88
24:DA:1057:A:H62	24:DA:1087:G:H5"	1.38	0.88
32:DM:7:LYS:HA	32:DM:7:LYS:HE3	1.54	0.88
9:AL:48:GLU:CB	9:AL:78:LYS:NZ	2.34	0.88
24:BA:1088:A:C5'	24:BA:1089:G:H5'	2.04	0.88
29:BG:64:THR:HG23	29:BG:94:LEU:HD13	1.56	0.88
38:BR:25:GLY:H	38:BR:49:VAL:HG23	1.37	0.88
1:CA:599:C:P	8:CK:94:TYR:HE2	1.93	0.88
2:CE:11:LEU:CD1	2:CE:12:GLU:N	2.35	0.88
4:CG:121:VAL:HG12	4:CG:126:ILE:HD12	1.55	0.88
44:DV:151:HIS:CB	44:DV:170:THR:HA	2.04	0.88
1:AA:438:G:H2'	1:AA:494:U:O4	1.74	0.88
6:AI:43:LEU:HD11	18:AU:35:ARG:NH2	1.88	0.88
9:AL:48:GLU:HB2	9:AL:78:LYS:HZ3	1.34	0.88
24:BA:2751:G:C5	30:BH:3:ARG:HG3	2.08	0.88
1:CA:1179:A:H1'	9:CL:104:ARG:CZ	2.04	0.88
1:CA:1320:C:H1'	19:CV:70:LYS:HZ1	1.39	0.88
2:CE:236:TYR:CB	2:CE:239:VAL:HB	2.00	0.88
4:CG:8:VAL:O	4:CG:11:LEU:HG	1.74	0.88
19:CV:31:ILE:HD11	19:CV:33:THR:CG2	2.04	0.88
24:DA:34:C:H6	24:DA:34:C:OP2	1.55	0.88
24:DA:1601:G:O4'	52:D7:49:ARG:CD	2.20	0.88
24:BA:2751:G:O2'	24:BA:2752:C:O5'	1.91	0.87
31:BK:130:TYR:C	31:BK:131:LYS:HD2	1.94	0.87
5:CH:78:HIS:HB2	8:CK:104:ARG:HD2	1.52	0.87
7:CJ:149:ARG:O	7:CJ:151:TYR:N	2.07	0.87
12:CO:24:VAL:CG1	12:CO:26:ALA:HB2	2.04	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CP:78:ILE:HG23	13:CP:92:HIS:CD2	2.09	0.87
24:DA:888:C:H4'	24:DA:889:C:O5'	1.72	0.87
24:DA:1071:G:N3	24:DA:1089:G:O2'	2.06	0.87
24:DA:2427:C:H5"	24:DA:2428:G:OP1	1.73	0.87
24:DA:2542:A:O2'	24:DA:2543:G:O5'	1.92	0.87
35:DP:6:ARG:O	35:DP:7:MET:HG2	1.73	0.87
11:AN:22:HIS:HB3	11:AN:29:ILE:HG23	1.57	0.87
44:BV:117:LEU:O	44:BV:118:GLN:HB2	1.73	0.87
44:BV:143:GLY:HA3	44:BV:144:LEU:HG	1.55	0.87
5:CH:68:GLU:O	5:CH:68:GLU:HG3	1.74	0.87
19:CV:58:VAL:HG22	19:CV:60:VAL:CG1	2.03	0.87
46:DZ:23:LYS:HD2	46:DZ:28:GLY:HA3	1.57	0.87
53:D8:32:LEU:CD1	53:D8:33:ASN:H	1.85	0.87
1:AA:1319:A:C3'	19:AV:3:ARG:NH2	2.29	0.87
9:AL:96:LEU:HA	9:AL:99:LEU:CG	2.05	0.87
16:AS:20:VAL:HG21	16:AS:32:TYR:CG	2.09	0.87
24:BA:676:A:H8	24:BA:2069:G:N2	1.72	0.87
24:BA:1006:C:H1'	32:BM:106:MET:HE3	1.54	0.87
24:BA:1312:U:OP2	42:BT:63:LYS:NZ	2.07	0.87
26:BD:35:LYS:HD3	26:BD:63:ARG:CB	2.05	0.87
34:BO:64:LYS:O	34:BO:66:GLY:N	2.07	0.87
1:CA:686:U:H1'	11:CN:42:TRP:HE1	1.38	0.87
1:CA:977:A:OP2	14:CQ:31:ARG:NH2	2.06	0.87
3:CF:12:LEU:HD11	14:CQ:51:GLY:HA2	1.55	0.87
3:CF:47:LEU:O	3:CF:49:SER:N	2.08	0.87
24:DA:1601:G:O5'	52:D7:49:ARG:NH1	2.07	0.87
4:AG:9:CYS:SG	4:AG:22:LYS:CE	2.62	0.87
4:AG:28:SER:HB3	4:AG:29:PRO:CD	2.04	0.87
42:BT:83:VAL:CG1	42:BT:87:GLN:HB2	2.04	0.87
2:CE:12:GLU:HB2	2:CE:15:VAL:HB	1.54	0.87
10:CM:34:VAL:CG1	10:CM:74:ILE:HG22	2.05	0.87
24:DA:1225:C:O2'	40:D2:85:LYS:N	2.08	0.87
25:DB:40:U:H1'	25:DB:46:A:C2	2.10	0.87
24:BA:880:G:O6	24:BA:897:C:N4	2.06	0.87
30:BH:86:GLU:CG	30:BH:165:ALA:H	1.85	0.87
35:BP:66:ILE:HD12	35:BP:67:ARG:N	1.90	0.87
43:BU:76:CYS:HB3	43:BU:81:LYS:NZ	1.90	0.87
1:CA:582:U:OP1	15:CR:64:ARG:NH1	2.06	0.87
7:CJ:78:ARG:HH22	7:CJ:87:VAL:N	1.64	0.87
7:CJ:90:GLU:HG2	7:CJ:155:ARG:HH21	1.40	0.87
10:CM:34:VAL:HG12	10:CM:74:ILE:CA	2.04	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:870:A:OP1	35:DP:6:ARG:NH1	2.08	0.87
24:DA:2161:C:C2	24:DA:2173:A:H1'	2.09	0.87
34:DO:49:ARG:HG2	34:DO:49:ARG:O	1.75	0.87
41:DS:64:MET:HE2	41:DS:109:GLU:HG3	1.54	0.87
42:DT:63:LYS:O	42:DT:63:LYS:HD2	1.74	0.87
3:AF:8:ILE:CG2	3:AF:9:GLY:H	1.87	0.87
5:AH:12:LEU:O	5:AH:13:ILE:HD12	1.75	0.87
24:BA:1173:G:C2	24:BA:1175:U:H2'	2.10	0.87
24:BA:1535:U:C5	24:BA:1537:C:H1'	2.10	0.87
28:BF:133:ASN:O	28:BF:135:LYS:N	2.07	0.87
34:BO:123:LEU:CD1	34:BO:125:VAL:HG13	2.03	0.87
20:CW:97:ALA:HB1	20:CW:98:PRO:HD2	1.57	0.87
22:CC:15:G:H21	22:CC:21:A:H1'	1.40	0.87
24:DA:2130:U:H2'	24:DA:2158:A:C2	2.09	0.87
1:CA:15:G:H4'	5:CH:24:ARG:HH12	1.35	0.87
1:CA:1289:A:N1	9:CL:70:LYS:NZ	2.21	0.87
4:CG:31:CYS:HB3	4:CG:33:MET:HG3	1.55	0.87
25:DB:2:C:O2	25:DB:118:G:N2	2.07	0.87
27:DE:131:ALA:HB1	27:DE:135:HIS:CE1	2.09	0.87
37:DQ:107:GLU:O	37:DQ:110:LEU:HD23	1.73	0.87
1:AA:413:G:H2'	1:AA:428:G:N2	1.90	0.87
24:BA:212:G:C2'	24:BA:213:A:H5'	2.05	0.87
26:BD:35:LYS:HZ1	26:BD:104:TYR:HB2	1.34	0.87
49:B4:37:SER:HB3	49:B4:43:TYR:CE2	2.09	0.87
2:CE:82:ARG:HB2	2:CE:94:ASN:HD21	1.39	0.87
4:CG:26:CYS:HA	4:CG:31:CYS:HB2	1.53	0.87
25:DB:51:G:OP2	37:DQ:59:LYS:NZ	2.08	0.87
29:BG:36:LYS:HD2	29:BG:160:VAL:HG21	1.54	0.87
31:BK:133:HIS:HB2	31:BK:134:PRO:HD2	1.57	0.87
38:BR:98:LYS:HB3	38:BR:100:TYR:CE1	2.09	0.87
21:CX:9:ARG:O	21:CX:12:LYS:N	2.08	0.87
24:DA:779:U:OP1	26:DD:49:ILE:HG22	1.73	0.87
24:DA:888:C:H4'	24:DA:889:C:C5'	2.04	0.87
4:AG:28:SER:CB	4:AG:29:PRO:CD	2.52	0.86
24:BA:389:G:H1	34:BO:71:VAL:HG12	1.38	0.86
24:BA:2286:A:H2'	51:B6:31:PRO:CD	2.05	0.86
26:BD:109:ASP:HB2	26:BD:197:GLY:HA2	1.57	0.86
38:BR:50:ILE:HD11	38:BR:102:ILE:HD11	1.56	0.86
1:CA:1346:A:H1'	1:CA:1347:G:OP2	1.75	0.86
19:CV:28:LYS:CG	19:CV:29:ARG:H	1.85	0.86
31:DK:9:LEU:CD1	31:DK:12:LEU:HD22	2.05	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:D2:37:VAL:HG23	40:D2:38:LEU:HD12	1.55	0.86
1:AA:1199:U:H4'	10:AM:54:PHE:HE2	1.11	0.86
1:AA:1225:A:H5"	1:AA:1226:C:OP2	1.75	0.86
4:AG:8:VAL:HG11	4:AG:115:ARG:HH22	0.73	0.86
9:AL:49:PRO:HD3	9:AL:78:LYS:HZ1	1.38	0.86
2:CE:4:GLU:OE2	2:CE:4:GLU:N	2.08	0.86
19:CV:11:VAL:HG12	19:CV:12:ASP:O	1.74	0.86
24:DA:833:U:O2	34:DO:55:ARG:NH1	2.08	0.86
53:D8:32:LEU:HD12	53:D8:33:ASN:N	1.90	0.86
4:AG:22:LYS:CB	4:AG:26:CYS:HB2	2.05	0.86
19:AV:39:THR:HG22	19:AV:40:ILE:N	1.88	0.86
19:AV:40:ILE:HA	19:AV:44:MET:HE3	1.54	0.86
24:BA:2000:G:C5'	36:B0:2:ARG:NH1	2.18	0.86
24:BA:2211:G:H4'	24:BA:2212:A:OP2	1.74	0.86
24:BA:2683:C:O2'	27:BE:13:ARG:NH2	2.09	0.86
32:BM:99:LEU:HD12	32:BM:122:VAL:HG21	1.57	0.86
7:CJ:75:VAL:HG13	7:CJ:145:ALA:HA	1.58	0.86
20:CW:70:SER:HA	20:CW:73:HIS:ND1	1.89	0.86
24:DA:1187:G:OP1	40:D2:82:ARG:CZ	2.23	0.86
24:DA:2419:U:C5	53:D8:31:HIS:HD2	1.94	0.86
28:DF:102:PRO:HB2	28:DF:105:VAL:HG23	1.57	0.86
50:D5:37:LYS:NZ	50:D5:37:LYS:HB3	1.91	0.86
51:D6:23:THR:HG22	51:D6:24:GLU:N	1.90	0.86
1:CA:1221:G:H4'	19:CV:77:THR:HG21	1.57	0.86
7:CJ:89:MET:HG2	7:CJ:155:ARG:NH1	1.90	0.86
24:DA:2287:A:H62	24:DA:2344:U:H3	1.22	0.86
40:D2:79:VAL:O	40:D2:80:GLN:HB2	1.73	0.86
44:DV:24:LEU:CB	44:DV:41:LEU:HD11	2.03	0.86
49:D4:13:ARG:HD2	49:D4:22:ILE:HG22	1.58	0.86
1:AA:1304:G:OP1	21:AX:2:GLY:N	2.08	0.86
4:AG:12:CYS:HA	4:AG:19:LEU:CD2	2.06	0.86
18:AU:19:LYS:N	18:AU:19:LYS:HD2	1.89	0.86
24:BA:2212:A:H1'	24:BA:2215:G:C5	2.10	0.86
10:CM:81:THR:HA	10:CM:84:GLN:CG	2.06	0.86
22:CC:8:U:O2	22:CC:14:A:N6	2.08	0.86
25:DB:2:C:H2'	25:DB:3:C:C6	2.11	0.86
29:DG:67:LYS:HB3	49:D4:6:HIS:ND1	1.91	0.86
44:DV:45:ASP:O	44:DV:49:ARG:HG2	1.75	0.86
46:DZ:87:PRO:CA	46:DZ:90:ILE:HG23	2.05	0.86
4:AG:108:LEU:CD1	4:AG:174:LEU:HD13	2.05	0.86
27:BE:68:ALA:O	27:BE:70:ALA:N	2.07	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:B2:44:LYS:HG2	40:B2:45:THR:H	1.40	0.86
2:CE:28:PHE:HD2	2:CE:32:ILE:CG2	1.88	0.86
9:CL:17:VAL:HG12	9:CL:63:ILE:CG1	2.05	0.86
19:CV:70:LYS:HE2	19:CV:73:GLU:CG	1.95	0.86
24:BA:2015:A:N3	50:B5:2:ALA:N	2.23	0.86
43:BU:76:CYS:SG	43:BU:77:PRO:HD2	2.15	0.86
1:CA:963:G:N2	1:CA:972:C:N3	2.24	0.86
24:DA:2416:C:H5"	34:DO:64:LYS:HZ3	1.37	0.86
30:DH:109:PHE:CZ	30:DH:152:ARG:HD3	2.10	0.86
1:AA:1342:C:H4'	9:AL:125:TYR:HB3	1.57	0.86
10:AM:22:LYS:HE3	10:AM:90:LEU:CD1	2.06	0.86
24:BA:2400:G:H2'	24:BA:2401:U:H6	1.41	0.86
44:BV:44:PHE:CE2	44:BV:86:VAL:HG11	2.10	0.86
1:CA:1259:C:H3'	1:CA:1260:C:H5"	1.55	0.86
7:CJ:78:ARG:CZ	7:CJ:87:VAL:HG13	2.05	0.86
24:DA:2015:A:H1'	50:D5:2:ALA:HA	1.58	0.86
24:DA:2419:U:O4	53:D8:31:HIS:CD2	2.28	0.86
27:DE:6:GLY:HA2	27:DE:51:PHE:CZ	2.11	0.86
29:DG:133:LEU:CD2	29:DG:157:ILE:HB	2.05	0.86
32:DM:91:LEU:HA	32:DM:95:PRO:HB3	1.56	0.86
51:D6:25:LYS:HB3	53:D8:34:TRP:HZ3	1.38	0.86
24:BA:155:C:N4	24:BA:171:G:O6	2.08	0.86
24:BA:2400:G:H2'	24:BA:2401:U:C6	2.11	0.86
24:BA:2502:G:H5'	24:BA:2503:A:H5"	1.58	0.86
24:DA:2119:A:C6	24:DA:2171:A:H1'	2.10	0.86
24:DA:2285:C:C2'	51:D6:28:ARG:NH1	2.39	0.86
34:DO:112:LEU:HD23	34:DO:113:LYS:N	1.90	0.86
34:DO:126:VAL:HG22	34:DO:145:PRO:CG	2.05	0.86
37:DQ:39:ILE:HD12	37:DQ:73:LEU:HD11	1.57	0.86
43:DU:42:VAL:HG22	43:DU:65:ALA:HB3	1.58	0.86
1:AA:255:G:H2'	1:AA:256:U:H6	1.36	0.86
9:AL:23:ASN:HB3	9:AL:25:LYS:NZ	1.91	0.86
34:BO:50:ARG:HH21	53:B8:59:LYS:HD3	1.41	0.86
34:BO:64:LYS:HD2	53:B8:25:MET:CE	2.06	0.86
37:BQ:103:GLU:O	37:BQ:106:ARG:HG2	1.76	0.86
3:CF:84:ILE:HG23	3:CF:85:ARG:HD2	1.57	0.86
3:CF:137:ALA:HA	3:CF:140:ARG:NH1	1.90	0.86
4:CG:18:LYS:NZ	4:CG:33:MET:SD	2.48	0.86
20:CW:56:MET:CE	20:CW:88:VAL:HG21	2.05	0.86
10:AM:33:GLN:HB3	10:AM:75:ILE:HD11	1.58	0.85
13:AP:12:ASN:CB	13:AP:46:LYS:HZ3	1.88	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1952:A:C5	33:BN:22:ILE:HD11	2.11	0.85
2:CE:80:ILE:HD13	2:CE:211:ILE:HG22	1.57	0.85
4:CG:81:GLU:HG2	4:CG:85:LYS:HE2	1.55	0.85
24:DA:1024:G:H3'	24:DA:1025:G:H5"	1.58	0.85
30:DH:72:ILE:H	30:DH:72:ILE:HD12	1.41	0.85
9:CL:121:ARG:NH1	9:CL:122:ALA:O	2.08	0.85
24:DA:27:G:N2	24:DA:512:G:H1'	1.90	0.85
24:DA:2285:C:C2'	51:D6:28:ARG:CZ	2.54	0.85
46:DZ:53:VAL:HG22	46:DZ:74:VAL:HG13	1.58	0.85
2:AE:219:VAL:HA	2:AE:222:ILE:CD1	2.05	0.85
18:AU:18:ARG:HG2	18:AU:19:LYS:H	1.42	0.85
29:BG:83:ARG:N	29:BG:86:MET:HG3	1.89	0.85
40:B2:49:THR:CB	40:B2:50:PRO:HD2	2.05	0.85
1:CA:173:U:O2	1:CA:197:A:N6	2.10	0.85
1:CA:1326:C:OP1	21:CX:17:THR:OG1	1.94	0.85
24:DA:2344:U:O2'	51:D6:39:TYR:CZ	2.17	0.85
31:DK:77:LEU:O	31:DK:79:ILE:HG12	1.76	0.85
43:DU:18:GLY:O	43:DU:20:TYR:N	2.09	0.85
49:D4:2:LYS:HD2	49:D4:6:HIS:CG	2.11	0.85
1:CA:1086:U:H3	1:CA:1099:G:H22	1.21	0.85
3:CF:20:SER:HB2	3:CF:40:ARG:HH22	1.38	0.85
8:CK:119:LEU:HG	8:CK:123:GLU:HG3	1.56	0.85
24:DA:2877:G:P	38:DR:2:ASN:HD21	1.99	0.85
2:AE:194:PRO:O	2:AE:196:LEU:N	2.08	0.85
28:BF:185:ASP:HA	28:BF:188:ARG:HD3	1.57	0.85
29:BG:73:ALA:HB1	29:BG:82:LEU:HD11	1.58	0.85
34:BO:21:ARG:HA	34:BO:21:ARG:HE	1.42	0.85
34:BO:39:LYS:HB2	34:BO:45:LEU:HD21	1.57	0.85
1:CA:1227:A:H4'	13:CP:115:LYS:NZ	1.91	0.85
19:CV:42:PRO:O	19:CV:43:GLU:HG2	1.77	0.85
19:CV:58:VAL:CG2	19:CV:60:VAL:HG12	2.06	0.85
24:DA:108:U:H2'	24:DA:109:G:H8	1.42	0.85
24:DA:1171:G:O2'	24:DA:1173:G:O5'	1.95	0.85
33:DN:25:LEU:HB2	33:DN:38:VAL:HG23	1.56	0.85
36:D0:34:ILE:HG22	36:D0:114:VAL:HB	1.58	0.85
37:DQ:106:ARG:NH1	37:DQ:106:ARG:O	2.08	0.85
43:DU:76:CYS:SG	43:DU:77:PRO:CD	2.64	0.85
50:D5:4:HIS:CB	50:D5:5:PRO:HD3	2.07	0.85
20:AW:72:LEU:HD21	20:AW:77:ALA:N	1.90	0.85
31:BK:131:LYS:HB3	31:BK:132:PRO:HA	1.59	0.85
49:B4:12:ALA:HB1	49:B4:29:PRO:HA	1.58	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CL:53:VAL:HG23	9:CL:54:ASP:H	1.41	0.85
24:DA:1060:U:H4'	24:DA:1061:U:H5"	1.56	0.85
47:DW:41:ILE:HG13	47:DW:44:LEU:HD12	1.56	0.85
49:D4:18:CYS:H	49:D4:19:GLY:HA2	1.41	0.85
49:D4:23:GLU:HG3	49:D4:24:THR:N	1.90	0.85
1:AA:427:U:OP1	4:AG:13:ARG:NH2	2.09	0.85
1:AA:1286:A:H4'	21:AX:26:LYS:HD2	1.59	0.85
6:AI:98:LEU:HB3	18:AU:30:ASP:HA	1.58	0.85
13:AP:81:LEU:HD12	13:AP:84:ILE:HG21	1.56	0.85
15:AR:74:ASP:OD1	15:AR:77:ARG:HG2	1.77	0.85
24:BA:996:A:OP2	39:B1:92:ARG:NH2	2.09	0.85
24:BA:2137:C:N4	24:BA:2155:G:O6	2.09	0.85
1:CA:539:A:OP2	12:CO:115:LYS:NZ	2.08	0.85
4:CG:31:CYS:N	4:CG:34:GLU:OE2	2.10	0.85
12:CO:24:VAL:HG13	12:CO:98:TYR:HE1	1.42	0.85
24:DA:1055:G:H1'	24:DA:1085:A:H2	1.38	0.85
24:DA:1187:G:OP1	40:D2:82:ARG:NH2	2.10	0.85
24:DA:2807:G:N1	24:DA:2893:G:O6	2.09	0.85
24:BA:2315:G:H2'	24:BA:2316:C:C6	2.11	0.85
38:BR:129:ARG:O	38:BR:133:GLU:HG3	1.76	0.85
7:CJ:78:ARG:HH21	7:CJ:87:VAL:HG22	1.41	0.85
24:DA:1138:G:H21	32:DM:106:MET:HE3	1.40	0.85
24:DA:1313:U:H2'	24:DA:1610:A:C2	2.12	0.85
1:AA:1221:G:P	19:AV:36:ARG:HH22	2.00	0.85
29:BG:116:ASP:O	49:B4:42:PHE:HZ	1.60	0.85
44:BV:105:VAL:HG22	44:BV:106:GLY:H	1.39	0.85
1:CA:509:A:C5'	4:CG:55:ALA:HB2	2.06	0.85
3:CF:39:ILE:HD13	3:CF:57:ILE:HD11	1.56	0.85
6:CI:37:VAL:HG12	6:CI:38:GLU:H	1.41	0.85
9:CL:95:LYS:O	9:CL:95:LYS:NZ	2.09	0.85
19:CV:70:LYS:HE3	19:CV:73:GLU:CA	2.07	0.85
24:DA:602:G:HO2'	24:DA:604:G:HO2'	1.23	0.85
39:D1:98:LEU:C	39:D1:100:VAL:H	1.80	0.85
37:BQ:110:LEU:HG	37:BQ:111:GLU:H	1.40	0.85
1:CA:963:G:H1	1:CA:972:C:H42	1.24	0.85
7:CJ:89:MET:HA	7:CJ:155:ARG:CZ	2.06	0.85
17:CT:45:HIS:CB	17:CT:65:ILE:HD13	2.06	0.85
24:DA:2131:G:H5'	24:DA:2132:U:H5"	1.58	0.85
25:DB:80:U:H2'	25:DB:81:G:H21	1.40	0.85
1:AA:414:A:OP2	1:AA:428:G:N2	2.08	0.84
1:AA:1178:G:H5'	9:AL:93:ARG:NH2	1.91	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AP:81:LEU:CD1	13:AP:84:ILE:HG21	2.07	0.84
19:AV:24:ALA:O	19:AV:25:LYS:CG	2.25	0.84
24:BA:71:A:C2	42:BT:31:HIS:CE1	2.65	0.84
24:BA:1729:A:O2'	24:BA:1730:U:H5"	1.76	0.84
28:BF:29:ASN:H	28:BF:112:MET:HE3	1.42	0.84
3:CF:120:VAL:HG21	3:CF:137:ALA:HB2	1.57	0.84
42:DT:67:GLY:O	42:DT:69:TYR:N	2.09	0.84
44:DV:153:SER:HB3	44:DV:167:PRO:CB	2.06	0.84
49:D4:61:ARG:HA	49:D4:61:ARG:HH11	1.39	0.84
1:AA:1199:U:H4'	10:AM:54:PHE:CD2	2.11	0.84
1:AA:1296:C:O3'	13:AP:13:LYS:NZ	2.08	0.84
16:AS:8:ARG:HB3	16:AS:28:ARG:HH12	1.39	0.84
19:AV:23:ASN:OD1	19:AV:24:ALA:N	2.10	0.84
24:BA:1022:G:H22	24:BA:1142(A):A:H2	1.22	0.84
24:BA:1069:A:H4'	24:BA:1070:A:H5"	1.59	0.84
24:BA:1408:C:C2	24:BA:1595:G:N2	2.45	0.84
26:BD:28:GLU:N	26:BD:28:GLU:OE1	2.10	0.84
31:BK:40:THR:HG22	31:BK:42:SER:H	1.42	0.84
37:BQ:110:LEU:CD2	37:BQ:112:PHE:CD1	2.60	0.84
1:CA:452:A:N3	16:CS:72:ARG:NH2	2.25	0.84
4:CG:108:LEU:HD13	4:CG:174:LEU:HD22	1.58	0.84
5:CH:41:VAL:H	5:CH:67:VAL:HG13	1.41	0.84
24:DA:960:A:H61	35:DP:83:MET:CE	1.90	0.84
24:DA:2295:C:H41	37:DQ:13:ARG:NH2	1.75	0.84
37:DQ:107:GLU:N	37:DQ:110:LEU:CD2	2.41	0.84
24:DA:1171:G:O6	24:DA:1178:C:N4	2.10	0.84
34:DO:101:VAL:CG2	34:DO:106:LEU:HD23	2.08	0.84
38:DR:88:ILE:HD13	38:DR:91:ARG:CZ	2.07	0.84
19:AV:15:LEU:HD12	19:AV:16:LEU:N	1.92	0.84
24:BA:1093:G:H5'	30:BH:170:ARG:NH2	1.91	0.84
33:BN:25:LEU:HB2	33:BN:38:VAL:HG13	1.58	0.84
37:BQ:49:VAL:HG21	37:BQ:77:ALA:HB2	1.59	0.84
39:B1:95:LEU:H	39:B1:95:LEU:CD1	1.90	0.84
53:B8:29:LYS:CG	53:B8:44:LYS:HG2	2.07	0.84
1:CA:1183:A:O2'	1:CA:1184:G:OP1	1.94	0.84
24:DA:2130:U:H2'	24:DA:2158:A:N1	1.91	0.84
43:DU:13:VAL:HG21	43:DU:72:VAL:HB	1.59	0.84
52:D7:5:TRP:NE1	52:D7:7:PRO:HG3	1.92	0.84
1:AA:358:U:OP1	31:DK:87:LYS:NZ	2.10	0.84
12:AO:46:LYS:HE2	12:AO:47:LYS:CG	2.07	0.84
24:BA:259:G:O2'	24:BA:621:A:O2'	1.95	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2127:G:O6	24:BA:2161:C:N4	2.10	0.84
25:BB:30:C:H2'	25:BB:31:C:H5'	1.59	0.84
37:BQ:83:LYS:HG2	37:BQ:109:GLY:HA3	1.58	0.84
2:CE:11:LEU:HD12	2:CE:12:GLU:H	1.41	0.84
6:CI:46:ARG:HB2	6:CI:60:PHE:CE1	2.12	0.84
7:CJ:24:THR:O	7:CJ:27:ILE:HG22	1.78	0.84
7:CJ:90:GLU:H	7:CJ:155:ARG:HH22	0.86	0.84
27:DE:104:VAL:HG11	27:DE:188:VAL:CG2	2.08	0.84
2:AE:198:ASP:OD1	8:AK:70:GLN:NE2	2.10	0.84
4:AG:30:LYS:HD3	4:AG:30:LYS:O	1.78	0.84
6:AI:43:LEU:CD1	18:AU:35:ARG:HH22	1.91	0.84
20:AW:26:ASN:HD22	20:AW:26:ASN:H	1.21	0.84
24:BA:1102:C:H2'	24:BA:1103:A:C8	2.12	0.84
24:BA:2636:U:P	27:BE:79:ARG:HA	2.18	0.84
1:CA:444:C:O2	1:CA:490:G:N2	2.09	0.84
4:CG:199:ASN:O	4:CG:201:GLN:N	2.09	0.84
13:CP:49:THR:HG22	13:CP:51:ALA:H	1.43	0.84
24:DA:483:A:H4'	43:DU:49:VAL:HA	1.60	0.84
32:DM:133:GLN:O	32:DM:134:ARG:NE	2.10	0.84
35:DP:24:GLY:HA3	35:DP:25:ASP:CB	2.00	0.84
43:DU:88:LYS:O	43:DU:90:LEU:N	2.09	0.84
2:AE:204:ASN:HD22	2:AE:206:ASP:H	1.24	0.84
9:AL:9:ARG:CG	9:AL:14:VAL:HG23	2.08	0.84
24:BA:212:G:O2'	24:BA:213:A:H5'	1.78	0.84
28:BF:64:ILE:HG22	28:BF:65:TRP:CD1	2.12	0.84
34:BO:97:PRO:HD3	34:BO:126:VAL:O	1.76	0.84
53:B8:59:LYS:NZ	53:B8:59:LYS:CB	2.40	0.84
1:CA:689:C:H2'	1:CA:690:G:H5'	1.59	0.84
2:CE:164:VAL:HG12	2:CE:165:VAL:H	1.40	0.84
24:DA:1665:A:C2'	24:DA:1666:G:H5'	2.06	0.84
24:DA:2415:G:H4'	34:DO:67:MET:N	1.93	0.84
24:DA:2610:C:C4'	24:DA:2611:U:OP2	2.25	0.84
25:DB:20:C:O2'	25:DB:21:G:H5'	1.78	0.84
32:DM:97:ARG:O	32:DM:100:GLU:N	2.11	0.84
40:D2:35:LEU:HD21	40:D2:57:VAL:CG1	2.06	0.84
24:BA:1416:G:H2'	24:BA:1417:C:C6	2.11	0.84
37:BQ:110:LEU:CD2	37:BQ:112:PHE:CG	2.61	0.84
1:CA:1269:A:OP1	21:CX:18:TYR:HE1	1.61	0.84
3:CF:29:TYR:OH	14:CQ:54:PRO:HD2	1.76	0.84
4:CG:22:LYS:NZ	4:CG:26:CYS:SG	2.50	0.84
5:CH:78:HIS:HB2	8:CK:104:ARG:CD	2.06	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CM:28:ARG:HH11	10:CM:28:ARG:HG2	1.42	0.84
10:CM:45:ARG:HH11	10:CM:45:ARG:HG3	1.43	0.84
24:DA:1534:G:H2'	24:DA:1537:C:H42	1.43	0.84
34:DO:121:LYS:HB3	34:DO:123:LEU:HD22	1.59	0.84
1:AA:664:G:N2	1:AA:741:G:H1	1.74	0.84
2:AE:80:ILE:CD1	2:AE:212:GLN:HA	2.06	0.84
12:AO:47:LYS:CB	12:AO:48:PRO:CD	2.53	0.84
2:CE:28:PHE:CD2	2:CE:32:ILE:HG23	2.13	0.84
2:CE:33:TYR:HB3	2:CE:41:ILE:HG22	1.59	0.84
14:CQ:24:CYS:HB2	14:CQ:29:ARG:HD2	1.60	0.84
24:DA:1341:U:OP2	24:DA:1394:U:O2'	1.94	0.84
28:DF:125:LEU:HD23	28:DF:125:LEU:H	1.41	0.84
29:DG:113:ARG:NH1	29:DG:140:ILE:O	2.11	0.84
30:DH:153:LYS:HB3	30:DH:161:GLY:HA2	1.59	0.84
1:AA:491:G:H2'	1:AA:492:G:C8	2.12	0.84
1:AA:624:C:O3'	16:AS:10:GLY:HA2	1.77	0.84
3:AF:8:ILE:HD11	3:AF:16:ARG:NE	1.93	0.84
19:AV:13:ASP:O	19:AV:15:LEU:N	2.11	0.84
24:BA:71:A:C2	42:BT:31:HIS:HE1	1.96	0.84
24:BA:1310:G:OP2	52:B7:9:ARG:HD2	1.78	0.84
24:BA:1364:G:OP2	46:BZ:2:SER:OG	1.96	0.84
24:BA:2371:G:H4'	51:B6:45:LYS:CD	2.07	0.84
24:DA:75:G:H4'	47:DW:55:ARG:NH2	1.92	0.84
24:DA:2393:A:H5"	53:D8:30:ARG:HE	0.87	0.84
25:DB:43:C:P	49:D4:6:HIS:HE2	2.00	0.84
26:DD:31:LYS:CE	26:DD:33:LEU:HD11	2.08	0.84
26:DD:33:LEU:HD12	26:DD:34:VAL:HG12	1.60	0.84
41:DS:111:HIS:CE1	41:DS:113:LYS:HE3	2.12	0.84
1:AA:999:U:H2'	1:AA:1000:A:H8	1.41	0.83
24:BA:2166:G:O2'	24:BA:2167:U:OP1	1.95	0.83
24:DA:1600:C:C3'	52:D7:49:ARG:NE	2.39	0.83
40:D2:28:GLU:HG3	40:D2:29:PRO:HD2	1.58	0.83
1:AA:914:A:O2'	1:AA:915:A:H5'	1.78	0.83
11:AN:54:ARG:O	11:AN:56:GLY:N	2.11	0.83
24:BA:2150:U:H2'	24:BA:2151:G:C8	2.13	0.83
24:BA:2163:C:H5'	24:BA:2172:U:OP2	1.76	0.83
24:BA:2173:A:OP1	24:BA:2173:A:H3'	1.76	0.83
1:CA:393:A:OP2	16:CS:12:LYS:NZ	2.11	0.83
13:CP:33:ALA:O	13:CP:37:THR:OG1	1.94	0.83
24:DA:1174:A:N7	24:DA:1176:G:O2'	2.11	0.83
24:DA:2296:U:H4'	24:DA:2297:C:OP1	1.76	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DF:24:LEU:HB3	28:DF:25:PRO:CD	2.07	0.83
28:DF:53:THR:CG2	28:DF:56:GLU:HG3	2.07	0.83
37:DQ:19:LYS:O	37:DQ:20:ARG:HG2	1.79	0.83
44:DV:163:LEU:HD23	44:DV:163:LEU:H	1.43	0.83
24:BA:1912:A:H4'	24:BA:1913:A:OP1	1.75	0.83
2:CE:42:ILE:HG22	2:CE:190:THR:HG23	1.60	0.83
24:DA:1899:G:H22	24:DA:1902:C:H41	1.22	0.83
24:DA:2393:A:H8	53:D8:30:ARG:NH1	1.75	0.83
27:DE:47:VAL:HG22	27:DE:48:GLN:N	1.93	0.83
1:AA:1128:C:O2	1:AA:1144:G:N2	2.11	0.83
2:AE:8:LYS:NZ	2:AE:217:ARG:HH21	1.75	0.83
4:AG:23:GLY:HA2	4:AG:112:VAL:CG2	2.09	0.83
15:AR:6:GLU:OE2	15:AR:6:GLU:N	2.09	0.83
1:CA:1320:C:O2	19:CV:70:LYS:NZ	2.11	0.83
3:CF:40:ARG:HG2	3:CF:55:VAL:HG11	1.61	0.83
24:DA:2306:C:H3'	24:DA:2307:G:H5"	1.58	0.83
25:DB:39:A:N6	49:D4:1:MET:HB3	1.93	0.83
31:DK:118:LYS:CG	31:DK:119:PRO:HD2	2.08	0.83
34:DO:71:VAL:HG13	34:DO:72:PRO:CD	2.09	0.83
34:DO:89:ALA:HB1	34:DO:121:LYS:HD3	1.60	0.83
34:DO:128:HIS:HA	34:DO:147:LEU:HA	1.60	0.83
44:DV:170:THR:O	44:DV:172:ALA:N	2.11	0.83
1:AA:687:A:H1'	1:AA:688:G:OP2	1.78	0.83
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.14	0.83
2:AE:90:MET:HE2	2:AE:90:MET:HA	1.59	0.83
7:AJ:91:VAL:HG23	7:AJ:96:GLN:HG2	1.58	0.83
12:AO:24:VAL:HG13	12:AO:98:TYR:CE2	2.14	0.83
28:BF:6:VAL:CG1	28:BF:119:ARG:HB2	2.08	0.83
39:B1:92:ARG:HD2	40:B2:11:GLN:HB2	1.58	0.83
9:CL:79:LEU:HD11	9:CL:104:ARG:HA	1.60	0.83
14:CQ:24:CYS:HB3	14:CQ:29:ARG:HD2	1.60	0.83
24:DA:2377:A:N9	37:DQ:112:PHE:CD1	2.21	0.83
51:D6:37:ARG:CZ	51:D6:38:LYS:HB2	2.05	0.83
1:AA:998:G:N2	1:AA:1043:C:O2	2.11	0.83
3:AF:188:LEU:CD2	3:AF:195:VAL:HB	2.08	0.83
13:AP:84:ILE:HG23	13:AP:86:CYS:H	1.41	0.83
24:BA:1797:C:C2'	24:BA:1798:U:H5'	2.08	0.83
24:BA:1798:U:C5'	26:BD:259:THR:HG22	2.09	0.83
24:BA:2701:C:H3'	24:BA:2702:U:C5'	2.09	0.83
26:BD:31:LYS:HD2	26:BD:94:LEU:CD1	2.07	0.83
38:BR:7:ILE:O	38:BR:9:LEU:N	2.11	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CG:201:GLN:OE1	5:CH:116:THR:OG1	1.96	0.83
9:CL:85:LEU:HD12	9:CL:86:VAL:N	1.94	0.83
10:CM:70:ARG:HG3	10:CM:70:ARG:HH11	1.41	0.83
24:DA:2286:A:P	51:D6:28:ARG:NH1	2.51	0.83
30:DH:6:ARG:NH1	30:DH:62:LYS:C	2.31	0.83
30:DH:158:HIS:O	30:DH:158:HIS:ND1	2.12	0.83
44:DV:67:LEU:HD22	44:DV:90:VAL:CG1	2.08	0.83
1:AA:1453:G:O2'	20:AW:39:LYS:NZ	2.11	0.83
2:AE:113:HIS:HA	2:AE:116:GLU:OE1	1.79	0.83
7:AJ:115:ARG:HB3	7:AJ:118:VAL:HG12	1.57	0.83
24:BA:443:A:H5"	24:BA:444:C:OP1	1.79	0.83
24:BA:2135:A:N6	24:BA:2156:G:O2'	2.12	0.83
24:BA:2712:U:H1'	24:BA:2712(A):A:C8	2.14	0.83
26:BD:35:LYS:HD2	26:BD:104:TYR:CE1	2.14	0.83
26:BD:64:ILE:HG12	26:BD:64:ILE:O	1.77	0.83
29:BG:83:ARG:N	29:BG:86:MET:HE2	1.94	0.83
1:CA:1027:C:H3'	1:CA:1028:C:H5"	1.58	0.83
1:CA:1216:G:H2'	1:CA:1217:C:C6	2.13	0.83
1:CA:1253:G:OP1	10:CM:46:ARG:NH1	2.11	0.83
19:CV:70:LYS:NZ	19:CV:73:GLU:N	2.26	0.83
12:AO:46:LYS:HG2	12:AO:47:LYS:H	1.44	0.83
24:BA:2418:A:HO2'	51:B6:21:TYR:HE2	0.85	0.83
24:BA:2751:G:H1'	24:BA:2752:C:OP1	1.77	0.83
32:BM:46:VAL:CG1	32:BM:48:MET:HE3	2.08	0.83
34:BO:71:VAL:HG13	34:BO:72:PRO:CD	2.07	0.83
47:BW:31:GLU:HB2	47:BW:53:LEU:HD11	1.61	0.83
1:CA:328:C:H4'	1:CA:329:A:H5'	1.59	0.83
4:CG:173:TRP:HB3	4:CG:187:ARG:NH1	1.93	0.83
11:CN:94:ALA:O	11:CN:98:LEU:HG	1.77	0.83
13:CP:19:LEU:HD12	13:CP:20:THR:H	1.44	0.83
24:DA:870:A:H3'	35:DP:6:ARG:HH21	1.33	0.83
24:DA:1061:U:H4'	24:DA:1070:A:O2'	1.79	0.83
1:AA:558:G:H2'	1:AA:559:A:H2	1.42	0.83
24:BA:1567:A:H5'	26:BD:58:HIS:CD2	2.13	0.83
24:BA:2312:U:OP2	29:BG:74:LYS:HE2	1.78	0.83
26:BD:35:LYS:CD	26:BD:104:TYR:CD1	2.60	0.83
4:CG:18:LYS:HB2	4:CG:33:MET:SD	2.18	0.83
24:DA:2399:G:N2	24:DA:2417:C:O2	2.11	0.83
26:DD:79:VAL:HG12	26:DD:113:VAL:HA	1.59	0.83
4:AG:31:CYS:HB2	4:AG:33:MET:CE	2.09	0.83
9:AL:9:ARG:HG2	9:AL:14:VAL:HA	1.61	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BQ:110:LEU:HD13	37:BQ:112:PHE:CE2	2.14	0.83
24:DA:2166:G:N3	24:DA:2171:A:N6	2.26	0.83
24:DA:2355:C:C4'	45:D3:36:ILE:HD11	2.08	0.83
24:DA:2415:G:O3'	34:DO:66:GLY:HA3	1.78	0.83
1:AA:1077:G:N2	1:AA:1080:A:OP2	2.12	0.82
4:AG:30:LYS:HB2	4:AG:33:MET:H	1.44	0.82
11:AN:59:TYR:CE2	11:AN:63:LEU:HD11	2.14	0.82
9:CL:16:ARG:CG	9:CL:64:THR:HG22	2.05	0.82
24:DA:212:G:O2'	24:DA:213:A:H5'	1.79	0.82
24:DA:2157:G:O2'	24:DA:2158:A:H5'	1.76	0.82
24:DA:2377:A:C2'	37:DQ:112:PHE:CD1	2.58	0.82
24:DA:2416:C:H5"	34:DO:64:LYS:HZ1	1.41	0.82
27:DE:14:ILE:HD11	27:DE:173:VAL:HG11	1.58	0.82
33:DN:68:GLU:HB3	33:DN:78:ARG:NH1	1.94	0.82
45:D3:27:GLU:HB2	45:D3:69:PHE:HD2	1.42	0.82
30:BH:80:SER:O	30:BH:81:GLU:HG3	1.79	0.82
1:CA:736:C:H2'	1:CA:737:A:C8	2.14	0.82
20:CW:86:ARG:HB2	20:CW:86:ARG:NH1	1.93	0.82
24:DA:1060:U:O4'	24:DA:1062:G:H5'	1.79	0.82
24:DA:1653:G:C1'	24:DA:1654:A:OP2	2.27	0.82
24:DA:2100:G:O6	24:DA:2189:U:N3	2.12	0.82
26:DD:33:LEU:CD1	26:DD:34:VAL:HG12	2.09	0.82
27:DE:37:ARG:HD3	27:DE:42:ASP:HB3	1.61	0.82
32:DM:56:ASN:N	32:DM:125:GLY:HA3	1.90	0.82
3:AF:70:VAL:HG12	3:AF:72:LYS:H	1.43	0.82
9:AL:49:PRO:CD	9:AL:78:LYS:HZ1	1.89	0.82
35:BP:136:ALA:HB1	44:BV:52:SER:HB3	1.61	0.82
1:CA:542:G:OP1	4:CG:10:ARG:NH2	2.13	0.82
24:DA:273(D):C:N3	24:DA:363(B):G:N1	2.26	0.82
24:DA:974:G:O2'	24:DA:975:G:N7	2.12	0.82
24:DA:2393:A:C8	53:D8:30:ARG:NH2	2.47	0.82
44:DV:150:LEU:HD13	44:DV:154:ASP:CB	2.09	0.82
49:D4:36:CYS:O	49:D4:37:SER:OG	1.95	0.82
7:AJ:115:ARG:HD3	7:AJ:116:ALA:H	1.45	0.82
24:BA:330:A:HO2'	24:BA:331:A:H8	1.28	0.82
24:BA:1434:A:H61	24:BA:1558:A:N6	1.77	0.82
28:BF:64:ILE:HD11	28:BF:78:ILE:HG23	1.60	0.82
30:BH:8:PRO:O	30:BH:9:ILE:HG23	1.80	0.82
44:BV:169:GLU:OE2	44:BV:170:THR:N	2.10	0.82
1:CA:1081:G:N7	5:CH:47:LYS:NZ	2.27	0.82
1:CA:1443:G:H3'	1:CA:1446:A:C5'	2.09	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CE:7:VAL:HG22	2:CE:8:LYS:N	1.95	0.82
13:CP:76:ALA:O	13:CP:80:ARG:HG3	1.78	0.82
24:DA:2344:U:C2'	51:D6:37:ARG:HE	1.90	0.82
25:DB:24:G:N7	25:DB:56:G:O2'	2.13	0.82
32:DM:56:ASN:H	32:DM:125:GLY:CA	1.89	0.82
1:AA:345:C:O2'	1:AA:346:G:N2	2.12	0.82
9:AL:23:ASN:HB3	9:AL:25:LYS:HZ2	1.44	0.82
9:AL:40:LEU:HD23	9:AL:70:LYS:HD2	1.59	0.82
24:BA:594:U:H5'	53:B8:61:LEU:CD1	2.09	0.82
25:BB:117:G:H2'	25:BB:118:G:H5"	1.62	0.82
30:BH:70:THR:HG22	30:BH:74:ASN:HD21	1.41	0.82
20:CW:53:LEU:HB3	20:CW:102:GLY:HA3	1.60	0.82
22:CC:9:G:O4'	22:CC:46:G:H1'	1.78	0.82
51:D6:25:LYS:CB	53:D8:34:TRP:HZ3	1.93	0.82
4:AG:191:ARG:HH12	4:AG:195:ALA:HA	1.45	0.82
5:CH:51:VAL:CB	5:CH:52:PRO:HD3	2.07	0.82
6:CI:23:LYS:CE	6:CI:61:LEU:HD21	2.09	0.82
7:CJ:111:ARG:NH2	7:CJ:122:HIS:HB3	1.93	0.82
14:CQ:12:ARG:C	14:CQ:14:PRO:HD3	2.00	0.82
26:DD:28:GLU:CB	26:DD:29:PRO:HD3	2.09	0.82
30:DH:7:LEU:H	30:DH:8:PRO:HD2	1.45	0.82
2:AE:236:TYR:HA	2:AE:239:VAL:CG2	2.10	0.82
8:AK:51:VAL:HG11	8:AK:60:ARG:HD2	1.62	0.82
24:BA:1332:G:H21	24:BA:1610:A:H8	1.25	0.82
26:BD:65:ILE:HD11	26:BD:67:PHE:CE1	2.15	0.82
35:BP:12:GLN:HG2	35:BP:73:PRO:HD2	1.60	0.82
41:BS:84:ARG:HB2	41:BS:96:ILE:HD11	1.62	0.82
50:B5:4:HIS:HB2	50:B5:5:PRO:HD3	1.61	0.82
1:CA:1148:U:O2	9:CL:66:ARG:NH2	2.13	0.82
2:CE:19:HIS:HD2	2:CE:20:GLU:N	1.76	0.82
21:CX:12:LYS:HD2	21:CX:17:THR:O	1.80	0.82
24:DA:2111:C:O2	24:DA:2118:U:O2'	1.98	0.82
24:DA:2393:A:H5'	34:DO:62:LEU:HD22	1.59	0.82
24:DA:2749:A:C5'	30:DH:6:ARG:CZ	2.57	0.82
42:DT:24:GLY:O	42:DT:82:GLN:HA	1.78	0.82
5:AH:69:VAL:HG12	5:AH:71:LEU:HD21	1.60	0.82
17:AT:64:PRO:HA	17:AT:70:ARG:HG3	1.60	0.82
48:BX:38:GLU:N	48:BX:38:GLU:OE1	2.12	0.82
2:CE:84:GLU:HG3	2:CE:215:LEU:HB3	1.60	0.82
24:DA:1630:G:N2	24:DA:1636:C:O2	2.13	0.82
27:DE:11:MET:HA	27:DE:24:THR:HA	1.60	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AV:18:LYS:O	19:AV:22:LEU:HD13	1.80	0.82
40:B2:35:LEU:HD22	40:B2:35:LEU:H	1.44	0.82
44:BV:19:ARG:NH1	44:BV:84:GLU:HB2	1.95	0.82
2:CE:187:LEU:HD13	2:CE:205:ASP:HA	1.62	0.82
10:CM:48:THR:HG23	10:CM:62:HIS:HB3	1.61	0.82
21:CX:9:ARG:HG2	21:CX:10:ARG:N	1.95	0.82
24:DA:2344:U:OP1	51:D6:37:ARG:CZ	2.28	0.82
26:DD:25:THR:HG22	26:DD:82:ILE:H	1.44	0.82
28:DF:25:PRO:CB	28:DF:28:ILE:HG13	2.06	0.82
43:DU:39:VAL:HG23	43:DU:40:GLU:H	1.43	0.82
49:D4:16:CYS:HB3	49:D4:20:ASN:N	1.95	0.82
24:BA:1790:C:H5"	24:BA:1791:A:OP1	1.80	0.82
24:BA:2400:G:O4'	51:B6:19:ARG:CZ	2.27	0.82
24:BA:2470:G:H5'	35:BP:56:ARG:HH21	1.44	0.82
46:BZ:86:SER:O	46:BZ:90:ILE:HG13	1.80	0.82
2:CE:8:LYS:HB3	2:CE:217:ARG:NE	1.95	0.82
10:CM:54:PHE:CZ	10:CM:55:LYS:HE3	2.15	0.82
20:CW:29:LYS:O	20:CW:33:ILE:HG12	1.78	0.82
29:DG:139:LEU:HD12	29:DG:140:ILE:N	1.94	0.82
2:AE:217:ARG:O	2:AE:220:ASP:N	2.13	0.81
4:AG:29:PRO:O	4:AG:34:GLU:HG3	1.80	0.81
24:BA:2531:A:N6	24:BA:2661:G:O6	2.13	0.81
1:CA:429:U:P	4:CG:13:ARG:HH21	2.03	0.81
3:CF:85:ARG:HD2	3:CF:85:ARG:N	1.93	0.81
20:CW:10:LEU:HD21	20:CW:12:ALA:CB	2.10	0.81
24:DA:78:A:H2'	24:DA:79:G:C8	2.14	0.81
42:DT:6:ASP:OD2	47:DW:29:LYS:NZ	2.10	0.81
1:AA:224:C:H2'	1:AA:225:C:C6	2.13	0.81
1:AA:1296:C:OP1	13:AP:44:ARG:NH2	2.12	0.81
6:AI:14:LEU:HD21	6:AI:18:GLN:HB2	1.62	0.81
19:AV:36:ARG:CG	19:AV:51:VAL:CG1	2.57	0.81
24:BA:2849:U:H4'	24:BA:2868:A:C2	2.15	0.81
28:BF:178:PRO:HB2	28:BF:201:VAL:HG11	1.62	0.81
29:BG:77:ILE:HG21	29:BG:80:PHE:HE1	1.43	0.81
1:CA:1150:U:O2	10:CM:39:PRO:HG2	1.80	0.81
4:CG:18:LYS:CB	4:CG:33:MET:SD	2.68	0.81
7:CJ:69:VAL:HG22	7:CJ:135:VAL:HG22	1.60	0.81
12:CO:70:ILE:HD13	12:CO:77:LEU:HD12	1.60	0.81
26:DD:25:THR:HG21	26:DD:81:ALA:HA	1.61	0.81
26:DD:166:GLN:HB3	26:DD:174:ILE:HG22	1.60	0.81
29:DG:113:ARG:HB3	29:DG:140:ILE:HB	1.62	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:D1:66:ASN:HD21	39:D1:70:ARG:NE	1.78	0.81
1:AA:186(B):C:O4'	20:AW:89:ARG:NH2	2.13	0.81
5:AH:43:LEU:HD21	5:AH:132:ALA:HB1	1.60	0.81
17:AT:74:LEU:HD12	17:AT:75:ARG:HG2	1.62	0.81
18:AU:66:LEU:HD11	18:AU:70:ILE:HD11	1.59	0.81
24:BA:1057:A:H2'	24:BA:1058:U:C6	2.15	0.81
24:BA:1061:U:H4'	24:BA:1070:A:H1'	1.62	0.81
24:BA:1567:A:C5'	26:BD:58:HIS:CD2	2.62	0.81
40:B2:49:THR:HB	40:B2:50:PRO:CD	2.09	0.81
41:BS:68:ARG:O	41:BS:110:LYS:N	2.13	0.81
1:CA:597:G:C2'	1:CA:598:U:H5'	2.09	0.81
1:CA:979:C:H3'	1:CA:980:C:H5"	1.62	0.81
1:CA:1052:U:H5"	1:CA:1053:G:OP2	1.81	0.81
1:CA:1291:G:O3'	9:CL:38:GLN:HG2	1.80	0.81
2:CE:121:LEU:O	2:CE:121:LEU:HD23	1.79	0.81
11:CN:27:ASN:OD1	11:CN:28:THR:N	2.13	0.81
12:CO:71:PRO:O	12:CO:102:ARG:NH1	2.13	0.81
14:CQ:29:ARG:NH2	14:CQ:40:CYS:SG	2.54	0.81
24:DA:634:C:H2'	24:DA:635:C:C6	2.15	0.81
24:DA:1056:G:H5"	24:DA:1057:A:C5'	2.10	0.81
24:DA:2748:A:C2'	30:DH:6:ARG:NH2	2.42	0.81
24:DA:2748:A:O3'	30:DH:6:ARG:NE	2.13	0.81
34:DO:48:PRO:HG2	34:DO:49:ARG:H	1.44	0.81
10:AM:94:VAL:HG12	10:AM:95:GLU:N	1.96	0.81
25:BB:37:C:H2'	25:BB:38:C:H5'	1.61	0.81
32:BM:75:TYR:CE2	32:BM:77:GLY:HA2	2.14	0.81
43:BU:81:LYS:NZ	43:BU:96:ILE:CD1	2.34	0.81
49:B4:42:PHE:O	49:B4:43:TYR:CD2	2.34	0.81
24:DA:1434:A:H61	24:DA:1558:A:N6	1.79	0.81
4:AG:173:TRP:HA	4:AG:186:LEU:CD1	2.10	0.81
7:AJ:16:LEU:CD1	9:AL:42:ARG:HA	2.08	0.81
10:AM:26:ALA:HA	10:AM:29:ARG:HE	1.44	0.81
11:AN:27:ASN:OD1	11:AN:28:THR:N	2.12	0.81
24:BA:860:U:H5	24:BA:917:A:N1	1.77	0.81
24:BA:2074:U:H2'	24:BA:2075:U:C6	2.16	0.81
27:BE:105:THR:HB	27:BE:197:ILE:HG12	1.61	0.81
1:CA:1292:U:O4'	9:CL:38:GLN:OE1	1.99	0.81
5:CH:78:HIS:CG	8:CK:104:ARG:HD2	2.15	0.81
24:DA:270(K):C:O2	24:DA:270(N):G:N2	2.14	0.81
40:D2:70:ILE:O	40:D2:71:LEU:HG	1.80	0.81
43:DU:42:VAL:HG11	43:DU:67:LEU:HD13	1.61	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:606:U:H4'	24:BA:658:C:H4'	1.63	0.81
24:BA:784:A:C5	26:BD:229:VAL:HG21	2.16	0.81
27:BE:174:ASP:OD1	27:BE:175:VAL:N	2.13	0.81
1:CA:1127:G:C4'	9:CL:66:ARG:HH12	1.93	0.81
2:CE:10:LEU:HD12	2:CE:13:ALA:HB2	1.62	0.81
10:CM:9:ARG:HH21	10:CM:95:GLU:HB3	1.45	0.81
10:CM:68:HIS:HD2	10:CM:70:ARG:HH12	1.27	0.81
24:DA:1654:A:O5'	36:D0:2:ARG:CZ	2.29	0.81
24:DA:2344:U:O2'	51:D6:39:TYR:HE1	1.63	0.81
24:DA:2394:C:OP1	34:DO:63:PRO:HD2	1.81	0.81
24:DA:2470:G:H5'	35:DP:56:ARG:HH22	1.45	0.81
30:DH:3:ARG:NH2	30:DH:7:LEU:HD13	1.96	0.81
38:DR:6:LEU:HA	38:DR:9:LEU:HB2	1.62	0.81
26:BD:65:ILE:HD11	26:BD:67:PHE:CD1	2.15	0.81
34:BO:57:THR:HG23	34:BO:59:LEU:CB	2.11	0.81
13:CP:23:TYR:HB3	13:CP:67:GLU:HA	1.63	0.81
24:DA:1441:G:O2'	24:DA:1442:G:H5'	1.81	0.81
24:DA:1542:G:H3'	24:DA:1543:A:H5"	1.63	0.81
24:DA:2105:C:H2'	24:DA:2106:G:C8	2.15	0.81
24:DA:2346:A:H5"	24:DA:2383:G:H1'	1.62	0.81
3:AF:152:ILE:HG13	3:AF:167:TRP:HB2	1.63	0.81
6:AI:19:LEU:HD21	6:AI:23:LYS:HE2	1.62	0.81
13:AP:58:GLU:O	13:AP:62:ASN:ND2	2.11	0.81
20:AW:44:ALA:CB	20:AW:88:VAL:HG13	2.10	0.81
26:BD:35:LYS:CG	26:BD:64:ILE:N	2.42	0.81
29:BG:112:PRO:CA	49:B4:37:SER:HB2	2.11	0.81
44:BV:141:VAL:HB	44:BV:144:LEU:CD2	2.10	0.81
12:CO:27:LEU:HD11	12:CO:62:SER:OG	1.80	0.81
24:DA:2377:A:H1'	37:DQ:112:PHE:CG	2.16	0.81
37:DQ:36:TYR:HD1	37:DQ:36:TYR:H	1.25	0.81
1:AA:1128:C:H4'	9:AL:16:ARG:NH1	1.96	0.81
2:AE:74:LYS:NZ	2:AE:166:ASP:CB	2.44	0.81
9:AL:48:GLU:CA	9:AL:78:LYS:NZ	2.44	0.81
13:AP:7:VAL:HG12	13:AP:8:GLU:N	1.95	0.81
24:BA:1060:U:H1'	24:BA:1061:U:OP2	1.80	0.81
24:BA:1364:G:N7	46:BZ:2:SER:HB3	1.95	0.81
24:BA:2157:G:O2'	24:BA:2158:A:O4'	1.98	0.81
28:BF:57:VAL:CG1	28:BF:59:TYR:HD1	1.93	0.81
35:BP:79:LEU:C	35:BP:79:LEU:HD12	2.00	0.81
24:DA:1607:C:H5"	24:DA:1608:A:H5'	1.61	0.81
24:DA:2377:A:N9	37:DQ:112:PHE:HD1	1.79	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DZ:76:ARG:HD2	46:DZ:94:LEU:HD22	1.62	0.81
51:D6:9:LEU:HG	51:D6:27:LYS:CA	2.07	0.81
2:AE:55:PHE:HD1	2:AE:58:ILE:HD12	1.44	0.81
26:BD:28:GLU:CB	26:BD:29:PRO:CD	2.59	0.81
38:BR:42:ILE:HD12	38:BR:42:ILE:O	1.81	0.81
52:B7:9:ARG:HE	52:B7:48:LYS:HB2	1.46	0.81
9:CL:2:GLU:HG2	9:CL:3:GLN:N	1.94	0.81
9:CL:16:ARG:CZ	9:CL:64:THR:HG21	2.11	0.81
18:CU:41:LYS:O	18:CU:41:LYS:HD3	1.79	0.81
24:DA:621:A:H2'	24:DA:622:G:H5'	1.61	0.81
26:DD:147:LEU:HD13	26:DD:155:LEU:HD11	1.63	0.81
30:DH:127:GLU:HG2	30:DH:128:PRO:HD2	1.63	0.81
1:AA:1295:G:O2'	13:AP:14:ARG:NH1	2.14	0.80
3:AF:68:VAL:HG12	3:AF:70:VAL:HG23	1.61	0.80
24:BA:1091:G:H2'	24:BA:1092:C:C4'	2.11	0.80
34:BO:63:PRO:HB3	53:B8:12:LYS:O	1.81	0.80
37:BQ:110:LEU:HD11	37:BQ:111:GLU:O	1.81	0.80
47:BW:53:LEU:O	47:BW:57:ILE:HG13	1.79	0.80
53:B8:29:LYS:HG2	53:B8:44:LYS:HG2	1.62	0.80
1:CA:957:U:H1'	1:CA:960:U:H5	1.46	0.80
10:CM:4:ILE:HD12	10:CM:100:THR:HG22	1.61	0.80
19:CV:36:ARG:CD	19:CV:72:GLY:HA2	2.05	0.80
24:DA:2113:U:H3'	24:DA:2114:A:H8	1.45	0.80
24:DA:2376:A:N3	37:DQ:112:PHE:HB3	1.96	0.80
40:D2:38:LEU:HD11	40:D2:57:VAL:HG12	1.62	0.80
19:AV:80:TYR:OH	19:AV:83:HIS:HB2	1.80	0.80
20:AW:14:LYS:O	20:AW:17:ARG:N	2.14	0.80
29:BG:114:ILE:HD13	29:BG:140:ILE:HG21	1.61	0.80
1:CA:992:U:H1'	1:CA:993:G:OP2	1.80	0.80
2:CE:19:HIS:CE1	2:CE:205:ASP:OD1	2.34	0.80
5:CH:51:VAL:HB	5:CH:52:PRO:CD	2.08	0.80
9:CL:73:GLN:O	9:CL:77:ILE:HD12	1.82	0.80
10:CM:54:PHE:CE1	10:CM:55:LYS:HE3	2.16	0.80
19:CV:31:ILE:HG21	19:CV:49:ILE:HA	1.63	0.80
24:DA:1601:G:C8	52:D7:49:ARG:CZ	2.60	0.80
30:DH:4:ILE:CD1	30:DH:5:GLY:N	2.44	0.80
1:AA:102:G:O2'	1:AA:151:A:N3	2.12	0.80
1:AA:1319:A:H5"	19:AV:5:LEU:HD23	1.60	0.80
4:AG:8:VAL:HG23	4:AG:21:LEU:HD11	1.63	0.80
4:AG:23:GLY:HA2	4:AG:112:VAL:HG22	1.62	0.80
19:AV:39:THR:CG2	19:AV:40:ILE:H	1.93	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2635:C:C5'	27:BE:78:LEU:HA	2.05	0.80
7:CJ:54:THR:O	7:CJ:56:GLN:N	2.13	0.80
24:DA:1022:G:H1'	24:DA:1023:U:OP2	1.82	0.80
26:DD:146:GLU:HB2	26:DD:189:CYS:HB3	1.63	0.80
27:DE:60:ASN:ND2	27:DE:63:LEU:CG	2.39	0.80
1:AA:689:C:H2'	1:AA:690:G:H5'	1.63	0.80
24:BA:2316:C:O2'	29:BG:128:ARG:NH2	2.15	0.80
1:CA:254:G:N2	17:CT:16:GLN:NE2	2.27	0.80
1:CA:818:G:O2'	1:CA:819:A:H5'	1.80	0.80
2:CE:8:LYS:HB3	2:CE:217:ARG:CZ	2.12	0.80
24:DA:882:G:O6	24:DA:894:C:N4	2.14	0.80
24:DA:960:A:H61	35:DP:83:MET:HE3	1.46	0.80
24:DA:2712:U:H1'	24:DA:2712(A):A:C8	2.16	0.80
44:DV:118:GLN:NE2	44:DV:171:ILE:O	2.14	0.80
1:AA:1260:C:O5'	1:AA:1284:C:H4'	1.82	0.80
15:AR:39:LEU:HD13	15:AR:56:LEU:HD13	1.64	0.80
19:AV:36:ARG:HG2	19:AV:51:VAL:HG11	1.62	0.80
24:BA:1264:G:H5'	50:B5:11:THR:HG21	1.63	0.80
24:BA:2123:G:H2'	24:BA:2124:G:C8	2.16	0.80
24:BA:2701:C:C3'	24:BA:2702:U:H5"	2.11	0.80
32:BM:57:ALA:O	32:BM:60:ILE:HG12	1.82	0.80
37:BQ:108:GLY:O	37:BQ:110:LEU:N	2.13	0.80
43:BU:75:ILE:HG22	43:BU:80:GLY:CA	2.09	0.80
1:CA:1317:C:H42	14:CQ:19:ARG:HH22	1.29	0.80
2:CE:196:LEU:HD12	2:CE:197:VAL:HG23	1.64	0.80
6:CI:91:VAL:HG11	18:CU:72:ARG:NH1	1.97	0.80
29:DG:64:THR:OG1	29:DG:94:LEU:HD13	1.80	0.80
33:DN:4:PRO:O	33:DN:5:GLN:HB2	1.81	0.80
34:DO:64:LYS:O	34:DO:64:LYS:CG	2.28	0.80
35:DP:78:PRO:O	35:DP:79:LEU:HB3	1.81	0.80
44:DV:117:LEU:HD13	44:DV:118:GLN:N	1.96	0.80
1:AA:1319:A:OP1	19:AV:70:LYS:NZ	2.14	0.80
2:AE:69:LEU:HB3	2:AE:162:ILE:HG22	1.62	0.80
8:AK:87:SER:HA	8:AK:93:VAL:HG23	1.63	0.80
24:BA:621:A:H2'	24:BA:622:G:H5'	1.64	0.80
28:BF:57:VAL:HG13	28:BF:59:TYR:HD1	1.43	0.80
32:BM:62:VAL:HG22	32:BM:66:LYS:HD2	1.64	0.80
33:BN:120:GLU:HG2	33:BN:122:LEU:HD11	1.60	0.80
39:B1:95:LEU:N	39:B1:95:LEU:CD1	2.45	0.80
40:B2:15:GLU:CG	40:B2:16:PRO:HD2	2.12	0.80
44:BV:148:ASP:OD1	44:BV:173:ALA:HA	1.81	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CF:134:ILE:O	3:CF:137:ALA:N	2.14	0.80
14:CQ:29:ARG:CZ	14:CQ:40:CYS:HB3	2.10	0.80
24:DA:870:A:H3'	35:DP:6:ARG:CZ	2.10	0.80
24:DA:1607:C:H4'	24:DA:1608:A:O5'	1.80	0.80
30:DH:46:GLU:HG2	30:DH:47:GLU:H	1.44	0.80
32:DM:97:ARG:O	32:DM:99:LEU:N	2.13	0.80
39:D1:100:VAL:O	39:D1:102:GLU:N	2.15	0.80
40:D2:80:GLN:N	40:D2:80:GLN:HE21	1.78	0.80
1:AA:663:A:H5"	18:AU:61:LYS:HE3	1.64	0.80
5:AH:96:PRO:HA	5:AH:117:ASP:OD2	1.82	0.80
9:AL:10:ARG:HA	9:AL:104:ARG:HH21	1.45	0.80
10:AM:96:ILE:HD13	10:AM:96:ILE:H	1.47	0.80
24:BA:1535:U:O2	24:BA:1535:U:H2'	1.81	0.80
30:BH:153:LYS:HD2	30:BH:153:LYS:N	1.95	0.80
1:CA:1285:A:H4'	1:CA:1286:A:O5'	1.78	0.80
4:CG:94:LEU:HA	4:CG:97:LEU:HB2	1.62	0.80
7:CJ:45:ASP:CB	7:CJ:115:ARG:NH2	2.35	0.80
14:CQ:4:LYS:HA	14:CQ:7:ILE:HG12	1.63	0.80
30:DH:89:ILE:HD11	30:DH:94:TYR:HB2	1.62	0.80
1:AA:421:U:O4	3:AF:127:ARG:NH2	2.15	0.80
24:BA:1899:G:H22	24:BA:1902:C:H41	0.84	0.80
24:BA:2111:C:C2	24:BA:2118:U:H4'	2.16	0.80
24:BA:2785:C:O2	27:BE:64:LYS:NZ	2.12	0.80
30:BH:4:ILE:HG12	30:BH:6:ARG:CZ	2.11	0.80
43:BU:83:THR:HG22	43:BU:84:ARG:H	1.45	0.80
44:BV:108:PRO:CG	44:BV:114:GLY:HA3	2.12	0.80
51:B6:41:PRO:HD2	51:B6:46:HIS:N	1.96	0.80
1:CA:957:U:C4'	19:CV:79:THR:HG23	2.05	0.80
1:CA:993:G:O6	1:CA:1045:C:N4	2.15	0.80
24:DA:405:U:H3'	24:DA:405:U:O2	1.81	0.80
24:DA:2749:A:C4'	30:DH:6:ARG:NH2	2.45	0.80
27:DE:64:LYS:HZ1	27:DE:66:HIS:CG	2.00	0.80
51:D6:44:ARG:O	51:D6:45:LYS:HB2	1.79	0.80
1:AA:1382:C:H6	7:AJ:79:ARG:NH1	1.80	0.80
4:AG:170:VAL:HG22	4:AG:174:LEU:HB2	1.62	0.80
20:AW:50:GLU:HB2	20:AW:99:LEU:HD23	1.64	0.80
24:BA:2099:U:N3	24:BA:2190:G:O6	2.14	0.80
27:BE:115:GLY:HA2	27:BE:157:ALA:HB1	1.63	0.80
1:CA:1245:A:N6	1:CA:1291:G:O6	2.15	0.80
4:CG:173:TRP:HD1	4:CG:174:LEU:HG	1.45	0.80
5:CH:76:ILE:HG23	5:CH:77:PRO:HD2	1.63	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CV:80:TYR:CE2	19:CV:82:GLY:HA2	2.17	0.80
24:DA:676:A:H8	24:DA:2069:G:H21	0.87	0.80
24:DA:870:A:H5"	35:DP:6:ARG:HG2	1.63	0.80
24:DA:1007:C:OP1	32:DM:35:ARG:NH1	2.15	0.80
24:DA:2646:C:OP2	24:DA:2732:G:O2'	1.99	0.80
40:D2:84:LYS:HB2	40:D2:84:LYS:NZ	1.97	0.80
3:AF:73:PRO:HA	3:AF:76:VAL:HG22	1.63	0.80
9:AL:48:GLU:HB2	9:AL:78:LYS:CE	2.11	0.80
19:AV:19:VAL:CG1	19:AV:44:MET:HB3	2.11	0.80
20:AW:72:LEU:HD23	20:AW:73:HIS:N	1.96	0.80
24:BA:620:G:H4'	24:BA:621:A:H5"	1.64	0.80
25:BB:103:U:O2'	44:BV:72:ARG:HG2	1.82	0.80
38:BR:24:PRO:HD3	38:BR:52:ILE:HD12	1.64	0.80
44:BV:7:ALA:HB2	44:BV:59:LEU:CD2	2.11	0.80
44:BV:151:HIS:CE1	44:BV:154:ASP:N	2.49	0.80
52:B7:43:THR:HG23	52:B7:44:PRO:HD2	1.64	0.80
1:CA:410:G:H3'	4:CG:25:ARG:NH2	1.97	0.80
1:CA:558:G:H2'	1:CA:559:A:H2	1.47	0.80
1:CA:638:G:O2'	1:CA:639:G:H5'	1.82	0.80
5:CH:110:LEU:O	5:CH:115:VAL:HG22	1.82	0.80
24:DA:2099:U:H2'	24:DA:2100:G:H5"	1.64	0.80
26:DD:92:ILE:HD12	26:DD:104:TYR:CE2	2.17	0.80
27:DE:5:LEU:HD22	27:DE:197:ILE:HG22	1.63	0.80
43:DU:13:VAL:CG2	43:DU:72:VAL:HB	2.11	0.80
1:AA:1179:A:OP2	9:AL:93:ARG:NH2	2.16	0.79
12:AO:30:ALA:HB1	12:AO:31:PRO:HD2	1.64	0.79
20:AW:47:GLY:O	20:AW:49:ALA:N	2.14	0.79
24:BA:95:G:H4'	47:BW:46:GLN:CD	2.03	0.79
24:BA:1601:G:C5'	52:B7:49:ARG:NH2	2.37	0.79
45:B3:49:LYS:HD2	45:B3:82:ARG:NH2	1.97	0.79
17:CT:97:SER:HA	17:CT:101:ARG:NE	1.96	0.79
24:DA:71:A:H5"	24:DA:73:A:C8	2.17	0.79
24:DA:592:G:H21	53:D8:4:MET:CE	1.94	0.79
25:DB:55:U:O2'	25:DB:56:G:H5'	1.82	0.79
26:DD:30:GLU:OE1	26:DD:63:ARG:NE	2.13	0.79
27:DE:64:LYS:NZ	27:DE:68:ALA:HB3	1.97	0.79
41:DS:66:GLU:O	41:DS:68:ARG:N	2.12	0.79
45:D3:53:MET:HG3	45:D3:59:LEU:HD23	1.63	0.79
2:AE:215:LEU:HD22	2:AE:215:LEU:H	1.46	0.79
24:BA:176:G:C2'	24:BA:177:G:H5'	2.12	0.79
3:CF:14:ILE:HG12	3:CF:15:THR:H	1.47	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CK:119:LEU:CD2	8:CK:124:ALA:HA	2.11	0.79
24:DA:1019:U:HO2'	24:DA:1021:A:H2	1.29	0.79
24:DA:1085:A:OP2	24:DA:1085:A:H2'	1.82	0.79
28:DF:7:TYR:CD1	28:DF:18:ARG:HB2	2.18	0.79
38:DR:55:ASN:N	38:DR:59:THR:HG22	1.95	0.79
1:AA:626:U:H5"	16:AS:38:TYR:CE2	2.17	0.79
31:BK:38:LEU:H	31:BK:38:LEU:HD12	1.45	0.79
2:CE:180:LEU:O	2:CE:182:ILE:HG13	1.82	0.79
5:CH:150:ARG:O	5:CH:151:LEU:HB2	1.81	0.79
10:CM:79:ARG:HH12	10:CM:80:LYS:HG3	1.44	0.79
13:CP:62:ASN:HA	49:D4:49:PHE:HZ	1.47	0.79
24:DA:996:A:OP2	39:D1:92:ARG:NH2	2.15	0.79
24:DA:1336:A:P	42:DT:64:LYS:HE3	2.21	0.79
24:DA:2393:A:H5"	53:D8:30:ARG:CZ	2.11	0.79
29:DG:5:VAL:O	29:DG:7:LEU:N	2.16	0.79
34:DO:21:ARG:HE	34:DO:21:ARG:CA	1.95	0.79
40:D2:7:THR:HG23	40:D2:22:VAL:HG21	1.65	0.79
46:DZ:90:ILE:O	46:DZ:90:ILE:HG13	1.81	0.79
24:BA:1246:A:OP1	34:BO:15:ARG:NH2	2.15	0.79
26:BD:130:ALA:C	26:BD:131:LEU:HD12	2.03	0.79
42:BT:50:LYS:H	42:BT:87:GLN:HE22	1.29	0.79
1:CA:345:C:O2	1:CA:346:G:N2	2.15	0.79
1:CA:421:U:H2'	1:CA:421:U:O2	1.82	0.79
1:CA:452:A:H1'	16:CS:72:ARG:CZ	2.12	0.79
1:CA:716:A:N3	11:CN:118:GLY:HA2	1.96	0.79
20:CW:51:GLU:HA	20:CW:54:LYS:HE3	1.65	0.79
24:DA:2404:C:O3'	34:DO:77:ARG:NH2	2.15	0.79
29:DG:60:LEU:O	29:DG:64:THR:HG22	1.82	0.79
30:DH:104:GLU:HG2	30:DH:105:LEU:H	1.45	0.79
34:DO:126:VAL:HA	34:DO:145:PRO:HG2	1.63	0.79
40:D2:49:THR:HB	40:D2:50:PRO:HD2	1.64	0.79
4:AG:141:ARG:HB3	4:AG:142:PRO:HD2	1.64	0.79
6:AI:36:ARG:NH2	6:AI:38:GLU:OE2	2.14	0.79
24:BA:11:G:H2'	24:BA:12:U:H5'	1.64	0.79
24:BA:1728:G:H8	24:BA:1732:A:H62	1.27	0.79
38:BR:5:ALA:HB2	38:BR:8:LYS:HE2	1.64	0.79
49:B4:12:ALA:CB	49:B4:29:PRO:HA	2.12	0.79
1:CA:15:G:H4'	5:CH:24:ARG:NH1	1.97	0.79
1:CA:1289:A:H5"	21:CX:10:ARG:NH2	1.96	0.79
2:CE:19:HIS:NE2	2:CE:20:GLU:HG2	1.97	0.79
3:CF:190:ARG:N	3:CF:190:ARG:HD2	1.98	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CM:81:THR:HA	10:CM:84:GLN:HE21	1.48	0.79
28:DF:188:ARG:HA	34:DO:3:LEU:HD11	1.64	0.79
40:D2:37:VAL:HG23	40:D2:38:LEU:HD13	1.65	0.79
1:AA:1157:A:H62	1:AA:1178:G:N2	1.79	0.79
2:AE:97:TRP:CH2	2:AE:176:GLU:OE2	2.36	0.79
4:AG:28:SER:HB3	4:AG:29:PRO:HD2	1.62	0.79
14:AQ:13:THR:N	14:AQ:14:PRO:CD	2.46	0.79
16:AS:43:LYS:HG3	16:AS:48:TRP:CZ3	2.17	0.79
24:BA:602:G:N2	24:BA:655:A:N7	2.30	0.79
24:BA:661:C:O2'	34:BO:13:ASN:O	2.00	0.79
24:BA:1991:U:C2'	24:BA:1992:G:H5"	2.12	0.79
37:BQ:110:LEU:HD22	37:BQ:112:PHE:CE2	2.18	0.79
1:CA:673:G:H2'	1:CA:674:G:C8	2.18	0.79
1:CA:976:G:C8	1:CA:1358:U:H2'	2.18	0.79
7:CJ:78:ARG:NH2	7:CJ:87:VAL:H	1.77	0.79
19:CV:11:VAL:HG22	19:CV:39:THR:N	1.94	0.79
19:CV:49:ILE:HG23	19:CV:62:ILE:CD1	2.12	0.79
24:DA:598:G:H1'	34:DO:12:ALA:HB2	1.64	0.79
24:DA:1925:C:C2'	24:DA:1926:U:H5'	2.12	0.79
24:DA:2679:A:H4'	27:DE:165:VAL:HG11	1.64	0.79
25:DB:42:C:O2'	49:D4:6:HIS:HE1	1.66	0.79
1:AA:1158:C:O2	1:AA:1158:C:H2'	1.82	0.79
3:AF:150:LYS:HE3	3:AF:152:ILE:HD11	1.65	0.79
24:BA:1528:A:H2	24:BA:1542:G:C2	2.01	0.79
30:BH:109:PHE:O	30:BH:111:HIS:N	2.14	0.79
36:B0:38:VAL:HB	36:B0:39:PRO:HD3	1.65	0.79
49:B4:62:ARG:O	49:B4:66:SER:OG	2.00	0.79
1:CA:297:G:N2	1:CA:300:A:OP2	2.16	0.79
1:CA:409:G:H2'	1:CA:410:G:O4'	1.83	0.79
19:CV:49:ILE:CD1	19:CV:51:VAL:HG23	2.11	0.79
45:D3:72:ARG:HE	45:D3:75:LEU:HD12	1.47	0.79
1:AA:1382:C:C4'	7:AJ:79:ARG:HH11	1.96	0.79
2:AE:44:LEU:HD12	2:AE:44:LEU:N	1.98	0.79
9:AL:47:LEU:HD13	9:AL:47:LEU:H	1.45	0.79
10:AM:49:VAL:CG2	14:AQ:41:ARG:HB2	2.13	0.79
15:AR:33:THR:O	15:AR:37:ASN:ND2	2.15	0.79
16:AS:5:ARG:O	16:AS:19:ILE:HD13	1.82	0.79
19:AV:36:ARG:HG2	19:AV:51:VAL:HG13	1.64	0.79
31:BK:110:ASP:N	31:BK:130:TYR:OH	2.14	0.79
1:CA:951:G:OP2	13:CP:102:ARG:NH2	2.16	0.79
1:CA:1105:A:H5'	2:CE:111:ARG:HH22	1.48	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CE:44:LEU:O	2:CE:47:THR:N	2.13	0.79
24:DA:1105:U:H2'	24:DA:1106:G:H8	1.47	0.79
27:DE:63:LEU:O	27:DE:64:LYS:CD	2.31	0.79
27:DE:105:THR:OG1	27:DE:199:ARG:NH2	2.15	0.79
30:DH:92:ILE:HG23	30:DH:93:GLY:N	1.95	0.79
1:AA:1124:G:O2'	10:AM:38:ILE:HD12	1.81	0.79
4:AG:21:LEU:HD12	4:AG:22:LYS:N	1.98	0.79
9:AL:48:GLU:CA	9:AL:78:LYS:HZ3	1.94	0.79
24:BA:370:G:H4'	24:BA:371:A:OP2	1.82	0.79
24:BA:1092:C:O2'	30:BH:170:ARG:NH2	2.16	0.79
44:BV:108:PRO:HB2	44:BV:115:GLY:N	1.97	0.79
50:B5:39:MET:O	50:B5:40:LYS:HG3	1.83	0.79
1:CA:66:G:H4'	1:CA:173:U:C5	2.17	0.79
14:CQ:29:ARG:CZ	14:CQ:40:CYS:SG	2.71	0.79
24:DA:784:A:O2'	24:DA:785:G:H5"	1.82	0.79
24:DA:1069:A:O2'	24:DA:1072:C:OP2	2.01	0.79
24:DA:2749:A:P	30:DH:6:ARG:HE	2.06	0.79
27:DE:64:LYS:HE2	27:DE:73:GLU:OE2	1.83	0.79
45:D3:72:ARG:HH21	45:D3:75:LEU:CD1	1.96	0.79
1:AA:1320:C:P	19:AV:3:ARG:HH21	1.99	0.79
24:BA:558:G:P	32:BM:111:PRO:HG2	2.23	0.79
24:BA:2111:C:O2	24:BA:2118:U:O2'	1.98	0.79
24:BA:2147:G:H2'	24:BA:2148:G:O4'	1.83	0.79
39:B1:74:LEU:CD1	39:B1:79:PHE:HB2	2.11	0.79
40:B2:15:GLU:HG3	40:B2:16:PRO:HD2	1.63	0.79
43:BU:55:TYR:CE1	43:BU:61:ILE:HD11	2.18	0.79
43:BU:101:LYS:HB3	43:BU:101:LYS:HZ2	1.48	0.79
44:BV:51:ALA:HB1	44:BV:57:ILE:CD1	2.11	0.79
1:CA:983:A:H2	1:CA:984:C:C6	2.00	0.79
19:CV:41:VAL:HB	19:CV:42:PRO:HD2	1.65	0.79
24:DA:1065:U:O4	24:DA:1073:A:N6	2.15	0.79
24:DA:2343:C:HO2'	24:DA:2373:G:HO2'	0.96	0.79
25:DB:89(A):A:N7	25:DB:90:C:H1'	1.98	0.79
32:DM:15:LEU:HD13	32:DM:16:ILE:N	1.98	0.79
53:D8:30:ARG:O	53:D8:30:ARG:CG	2.30	0.79
53:D8:59:LYS:HZ2	53:D8:59:LYS:HB2	1.48	0.79
1:AA:1117:G:H4'	9:AL:104:ARG:NH1	1.99	0.78
2:AE:12:GLU:HA	2:AE:16:HIS:CD2	2.18	0.78
14:AQ:26:ARG:HH11	14:AQ:43:CYS:HB2	1.48	0.78
24:BA:805:G:O4'	34:BO:38:GLN:NE2	2.15	0.78
24:BA:1069:A:H4'	24:BA:1070:A:O5'	1.82	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BN:98:VAL:HG12	33:BN:117:LEU:HB2	1.65	0.78
35:BP:66:ILE:HD12	35:BP:67:ARG:H	1.47	0.78
7:CJ:89:MET:HA	7:CJ:155:ARG:HH12	0.65	0.78
18:CU:66:LEU:O	18:CU:70:ILE:HG13	1.81	0.78
24:DA:481:G:OP2	43:DU:47:LYS:HB2	1.83	0.78
24:DA:871:U:OP1	35:DP:4:PRO:HA	1.82	0.78
24:DA:971:C:C2'	24:DA:972:G:H5'	2.12	0.78
24:DA:1012:U:O4	32:DM:28:THR:HG21	1.82	0.78
24:DA:2343:C:H2'	24:DA:2344:U:H5'	1.63	0.78
24:DA:2355:C:H5'	45:D3:36:ILE:HD11	1.63	0.78
27:DE:63:LEU:O	27:DE:64:LYS:HD3	1.82	0.78
29:DG:161:THR:HG22	29:DG:163:ALA:N	1.97	0.78
18:AU:18:ARG:HG2	18:AU:19:LYS:N	1.98	0.78
34:BO:126:VAL:HG22	34:BO:145:PRO:CG	2.13	0.78
35:BP:110:THR:HG23	35:BP:113:GLN:OE1	1.83	0.78
47:BW:33:MET:HG3	47:BW:37:PHE:CE1	2.18	0.78
1:CA:659:U:H5"	15:CR:9:GLN:HE22	1.47	0.78
24:DA:328:U:H4'	43:DU:68:HIS:CE1	2.17	0.78
24:DA:654(H):G:H3'	24:DA:654(I):C:H5"	1.65	0.78
24:DA:1093:G:H22	24:DA:1097:U:H5"	1.48	0.78
24:DA:1405:U:H2'	24:DA:1406:U:C6	2.18	0.78
24:DA:2808:U:C2'	24:DA:2809:A:H5'	2.12	0.78
28:DF:67:GLN:HG3	28:DF:67:GLN:O	1.82	0.78
8:AK:49:GLU:O	8:AK:51:VAL:N	2.15	0.78
14:AQ:2:ALA:HB1	14:AQ:6:LEU:HD11	1.65	0.78
15:AR:71:GLN:HB3	15:AR:78:TYR:CD1	2.18	0.78
27:BE:106:GLY:HA3	27:BE:189:PRO:HB2	1.65	0.78
1:CA:706:A:O4'	11:CN:29:ILE:HD11	1.84	0.78
2:CE:185:ILE:CG2	2:CE:199:TYR:HB2	2.12	0.78
4:CG:196:LEU:HB3	4:CG:197:PRO:HD2	1.64	0.78
24:DA:660:G:H21	34:DO:12:ALA:CA	1.96	0.78
24:DA:871:U:H5'	35:DP:69:PHE:CE2	2.17	0.78
24:DA:1012:U:O2	32:DM:25:ARG:NH1	2.15	0.78
24:DA:1582:C:HO2'	24:DA:1586:A:H8	1.26	0.78
24:DA:2376:A:H3'	24:DA:2377:A:H8	1.46	0.78
30:DH:3:ARG:HH22	30:DH:7:LEU:HD13	1.47	0.78
42:DT:8:ILE:CD1	42:DT:43:VAL:HG12	2.13	0.78
45:D3:53:MET:HG3	45:D3:59:LEU:HD21	1.65	0.78
1:AA:15:G:H4'	5:AH:24:ARG:NH1	1.96	0.78
1:AA:612:C:O2	1:AA:629:G:N2	2.16	0.78
2:AE:5:ILE:HG22	2:AE:221:LEU:HD23	1.64	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AG:186:LEU:CD1	4:AG:187:ARG:HG2	2.13	0.78
12:AO:47:LYS:HB3	12:AO:48:PRO:HD3	1.65	0.78
24:BA:1093:G:H5'	30:BH:170:ARG:HH22	1.47	0.78
36:B0:36:THR:HG22	36:B0:37:THR:N	1.97	0.78
39:B1:92:ARG:HD3	39:B1:95:LEU:CD1	2.13	0.78
1:CA:428:G:OP2	4:CG:10:ARG:HD2	1.84	0.78
1:CA:750:G:H1'	15:CR:22:THR:OG1	1.82	0.78
1:CA:980:C:H3'	1:CA:981:U:H6	1.48	0.78
1:CA:1005:A:H3'	1:CA:1006:C:C5'	2.12	0.78
2:CE:17:PHE:CD2	2:CE:44:LEU:HD21	2.18	0.78
7:CJ:75:VAL:CG1	7:CJ:145:ALA:HA	2.12	0.78
20:CW:57:ARG:HH21	20:CW:102:GLY:HA2	1.48	0.78
24:DA:470:A:OP1	28:DF:59:TYR:HE1	1.64	0.78
24:DA:2378:A:H4'	37:DQ:23:ARG:NH1	1.98	0.78
1:AA:509:A:O2'	1:AA:510:A:OP1	2.01	0.78
1:AA:1179:A:H4'	9:AL:103:THR:HA	1.66	0.78
9:AL:95:LYS:HD3	9:AL:96:LEU:HD12	1.66	0.78
10:AM:34:VAL:HG12	10:AM:74:ILE:HG23	1.66	0.78
10:AM:83:GLU:O	10:AM:87:THR:HG23	1.83	0.78
24:BA:1076:C:H2'	24:BA:1077:A:H5"	1.65	0.78
24:BA:1833:U:H2'	24:BA:1834:U:H6	1.47	0.78
24:BA:2389:G:H5"	24:BA:2390:U:H5'	1.62	0.78
38:BR:54:ARG:HA	38:BR:59:THR:CG2	2.13	0.78
41:BS:79:GLY:HA3	41:BS:100:THR:HG22	1.63	0.78
13:CP:19:LEU:O	13:CP:22:ILE:HG13	1.82	0.78
24:DA:1488:G:H5'	24:DA:1489:U:OP2	1.82	0.78
24:DA:1600:C:H2'	52:D7:49:ARG:CD	2.14	0.78
24:DA:1601:G:P	52:D7:49:ARG:NH2	2.56	0.78
24:DA:2751:G:H1'	30:DH:4:ILE:O	1.84	0.78
27:DE:2:LYS:NZ	27:DE:95:ILE:O	2.15	0.78
47:DW:51:ARG:HA	47:DW:54:LYS:HG2	1.64	0.78
1:AA:1167:A:H2'	1:AA:1169:A:C8	2.19	0.78
8:AK:20:TYR:HE2	8:AK:75:ARG:HB3	1.48	0.78
22:AC:8:U:O2	22:AC:14:A:N6	2.17	0.78
24:BA:71:A:H2	42:BT:31:HIS:CE1	2.00	0.78
24:BA:242:G:C5'	53:B8:62:LEU:HD13	2.12	0.78
24:BA:1420:U:O2'	24:BA:1421:G:OP1	2.01	0.78
28:BF:29:ASN:H	28:BF:112:MET:CE	1.97	0.78
30:BH:168:PRO:O	30:BH:169:VAL:HG12	1.83	0.78
34:BO:75:ILE:H	34:BO:75:ILE:CD1	1.94	0.78
1:CA:1240:U:H3	7:CJ:32:ARG:HH21	1.32	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:870:A:OP1	35:DP:6:ARG:CD	2.31	0.78
24:DA:2748:A:O2'	30:DH:6:ARG:NH2	2.16	0.78
1:AA:82:U:O2'	1:AA:84:U:OP1	2.02	0.78
24:BA:273(F):C:H3'	24:BA:274:G:H5"	1.65	0.78
24:BA:1057:A:O2'	24:BA:1058:U:O4'	2.02	0.78
24:BA:2023:G:H5'	24:BA:2617:C:H4'	1.66	0.78
24:BA:2267:A:N6	24:BA:2272:U:O2	2.16	0.78
1:CA:1254:C:OP1	10:CM:45:ARG:NH1	2.16	0.78
2:CE:16:HIS:HB3	2:CE:209:ARG:HE	1.47	0.78
3:CF:121:ALA:HB2	3:CF:198:VAL:HG21	1.66	0.78
5:CH:78:HIS:CB	8:CK:104:ARG:HD2	2.13	0.78
39:D1:91:ASP:OD1	39:D1:96:ALA:N	2.17	0.78
50:D5:41:PRO:O	50:D5:44:THR:OG1	2.00	0.78
1:AA:93:U:H2'	1:AA:95:G:O4'	1.82	0.78
24:BA:2:G:H1	24:BA:2901:C:H42	1.30	0.78
40:B2:44:LYS:O	40:B2:46:VAL:HG12	1.82	0.78
42:BT:27:THR:HG22	42:BT:80:ILE:HB	1.66	0.78
44:BV:147:GLY:N	44:BV:174:VAL:O	2.13	0.78
49:B4:56:VAL:O	49:B4:60:GLN:HG2	1.84	0.78
1:CA:591:U:H2'	1:CA:592:G:H8	1.49	0.78
5:CH:110:LEU:HB3	5:CH:115:VAL:HG21	1.66	0.78
8:CK:33:GLU:HG3	8:CK:48:TYR:CE2	2.18	0.78
12:CO:117:ARG:HB3	12:CO:122:THR:HB	1.66	0.78
24:DA:1111:A:C2'	24:DA:1112:G:H4'	2.13	0.78
24:DA:1601:G:C5'	52:D7:49:ARG:CZ	2.60	0.78
38:DR:24:PRO:HA	38:DR:49:VAL:HG13	1.65	0.78
50:D5:45:VAL:HG11	50:D5:56:LYS:HG3	1.66	0.78
13:AP:11:ARG:HG2	13:AP:46:LYS:HZ2	1.49	0.78
17:AT:22:LEU:HD22	17:AT:88:TYR:CD2	2.19	0.78
28:BF:63:LYS:CE	28:BF:67:GLN:HB2	2.14	0.78
34:BO:6:LEU:O	34:BO:7:ARG:HG2	1.83	0.78
34:BO:60:MET:O	34:BO:61:ARG:NH2	2.17	0.78
36:B0:74:LYS:HE3	36:B0:77:ARG:HH21	1.49	0.78
48:BX:12:PRO:O	48:BX:20:LYS:NZ	2.16	0.78
1:CA:980:C:H3'	1:CA:981:U:C6	2.18	0.78
1:CA:1014:A:H1'	19:CV:34:TRP:HB2	1.65	0.78
1:CA:1118:C:C6	9:CL:104:ARG:NH2	2.51	0.78
1:CA:1280:A:H5"	10:CM:40:LEU:HD11	1.66	0.78
9:CL:78:LYS:HG2	9:CL:101:PHE:CZ	2.19	0.78
9:CL:118:LYS:O	9:CL:118:LYS:HD2	1.82	0.78
24:DA:2393:A:OP1	53:D8:27:THR:HA	1.84	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AK:44:PHE:HE2	8:AK:109:ILE:HG22	1.49	0.78
14:AQ:12:ARG:C	14:AQ:14:PRO:HD2	2.04	0.78
16:AS:45:THR:HG22	16:AS:47:ASP:H	1.48	0.78
24:BA:1557:C:H5"	24:BA:1558:A:OP2	1.83	0.78
24:BA:2306:C:H3'	24:BA:2307:G:H5'	1.66	0.78
24:BA:2306:C:H3'	24:BA:2307:G:C5'	2.14	0.78
2:CE:124:SER:HB2	2:CE:125:PRO:HD2	1.66	0.78
24:DA:443:A:H5"	24:DA:444:C:OP1	1.84	0.78
1:AA:677:U:H3	1:AA:713:G:H22	1.32	0.77
9:AL:89:ASN:HB3	9:AL:91:ASP:OD1	1.81	0.77
12:AO:59:ARG:HB2	12:AO:59:ARG:HH11	1.49	0.77
19:AV:19:VAL:HG13	19:AV:44:MET:HB3	1.65	0.77
24:BA:1171:G:H3'	24:BA:1174:A:H61	1.48	0.77
30:BH:77:LYS:CE	30:BH:138:LYS:HD2	2.12	0.77
34:BO:18:ARG:O	34:BO:19:VAL:HB	1.82	0.77
44:BV:150:LEU:HB3	44:BV:172:ALA:HB3	1.65	0.77
47:BW:43:GLN:C	47:BW:45:SER:H	1.87	0.77
53:B8:52:LYS:N	53:B8:53:PRO:CD	2.42	0.77
1:CA:448:A:P	1:CA:485:G:H22	2.06	0.77
1:CA:1014:A:H5'	19:CV:15:LEU:HD21	1.66	0.77
1:CA:1203:C:OP1	14:CQ:3:ARG:NE	2.16	0.77
1:CA:1206:G:O2'	3:CF:193:TYR:HA	1.84	0.77
4:CG:19:LEU:HB2	4:CG:21:LEU:HD11	1.65	0.77
10:CM:40:LEU:HD23	10:CM:69:ASN:HB3	1.66	0.77
12:CO:20:LYS:HD2	12:CO:20:LYS:N	1.99	0.77
12:CO:34:ARG:HG2	12:CO:35:GLY:H	1.47	0.77
24:DA:2165:G:OP2	24:DA:2166:G:N2	2.17	0.77
24:DA:2243:U:O2'	24:DA:2244:U:H5'	1.84	0.77
27:DE:104:VAL:HG11	27:DE:188:VAL:HG23	1.65	0.77
30:DH:44:VAL:HG13	30:DH:51:ARG:HG3	1.66	0.77
35:DP:74:TYR:O	35:DP:90:VAL:HA	1.84	0.77
38:DR:8:LYS:NZ	38:DR:8:LYS:HB3	1.97	0.77
53:D8:32:LEU:HD12	53:D8:33:ASN:C	2.05	0.77
1:AA:452:A:OP1	16:AS:72:ARG:NH2	2.17	0.77
1:AA:1320:C:N3	19:AV:36:ARG:NH1	2.31	0.77
1:AA:1381:U:O2	7:AJ:79:ARG:CD	2.32	0.77
3:AF:130:VAL:HA	3:AF:133:ALA:HB3	1.65	0.77
24:BA:2139:C:N4	24:BA:2152:G:O6	2.14	0.77
27:BE:50:GLY:HA2	27:BE:77:ILE:HA	1.66	0.77
46:BZ:91:LYS:N	46:BZ:93:GLU:OE2	2.16	0.77
1:CA:666:G:H5'	1:CA:726:C:H1'	1.66	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:748:C:H4'	1:CA:749:C:O5'	1.83	0.77
13:CP:4:ILE:CD1	13:CP:5:ALA:H	1.97	0.77
24:DA:389:G:H22	34:DO:72:PRO:CG	1.96	0.77
24:DA:2059:A:H5'	24:DA:2060:A:OP2	1.83	0.77
27:DE:77:ILE:O	27:DE:77:ILE:CG2	2.32	0.77
27:DE:116:VAL:HG22	27:DE:117:MET:H	1.49	0.77
30:DH:25:LYS:HE3	30:DH:27:LYS:H	1.48	0.77
24:BA:2400:G:O5'	51:B6:19:ARG:NE	2.16	0.77
37:BQ:11:LYS:HE3	37:BQ:15:ARG:HH21	1.47	0.77
41:BS:51:LEU:HD23	41:BS:105:VAL:HG11	1.67	0.77
43:BU:49:VAL:C	43:BU:51:VAL:H	1.88	0.77
43:BU:83:THR:HG22	43:BU:84:ARG:N	1.99	0.77
43:BU:96:ILE:HD12	43:BU:98:VAL:CG1	2.13	0.77
1:CA:632:A:H2'	1:CA:632:A:OP2	1.84	0.77
5:CH:76:ILE:HG12	5:CH:77:PRO:HD2	1.63	0.77
10:CM:81:THR:HA	10:CM:84:GLN:NE2	1.99	0.77
15:CR:3:ILE:HD13	15:CR:3:ILE:H	1.49	0.77
24:DA:2712(A):A:H5"	24:DA:2713:A:OP2	1.82	0.77
27:DE:9:VAL:HG21	27:DE:25:VAL:HB	1.65	0.77
29:DG:107:LEU:HD23	29:DG:111:LEU:HD11	1.63	0.77
31:DK:131:LYS:HA	31:DK:132:PRO:O	1.85	0.77
9:AL:96:LEU:O	9:AL:99:LEU:CD1	2.31	0.77
24:BA:1060:U:C4	24:BA:1062:G:H4'	2.19	0.77
42:BT:24:GLY:O	42:BT:82:GLN:HA	1.85	0.77
1:CA:1255:G:OP2	10:CM:45:ARG:NH2	2.17	0.77
1:CA:1329:A:H5'	13:CP:29:ARG:NE	2.00	0.77
4:CG:8:VAL:HG13	4:CG:21:LEU:HD22	1.65	0.77
8:CK:70:GLN:HG2	8:CK:71:GLY:H	1.49	0.77
13:CP:15:VAL:HG12	13:CP:45:VAL:CG2	2.11	0.77
24:DA:871:U:C5'	35:DP:69:PHE:CE2	2.68	0.77
41:DS:14:PRO:HB3	41:DS:18:ARG:NH2	2.00	0.77
41:DS:73:ALA:O	41:DS:106:ILE:HG12	1.83	0.77
42:DT:57:LEU:HD21	42:DT:78:LYS:HB2	1.67	0.77
46:DZ:7:ILE:HD11	46:DZ:70:VAL:HG22	1.65	0.77
1:AA:1178:G:P	9:AL:93:ARG:HH12	2.06	0.77
9:AL:99:LEU:CD1	9:AL:101:PHE:CD2	2.67	0.77
11:AN:84:VAL:HG22	11:AN:109:VAL:O	1.84	0.77
24:BA:1689:A:H62	24:BA:1698:A:H2	1.32	0.77
24:BA:1803:A:O2'	26:BD:259:THR:HG21	1.84	0.77
24:BA:2399:G:H2'	51:B6:19:ARG:NE	1.99	0.77
28:BF:133:ASN:ND2	28:BF:138:GLU:OE2	2.15	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:396:G:O2'	1:CA:398:C:OP1	2.01	0.77
13:CP:3:ARG:HG3	49:D4:32:TYR:CE1	2.19	0.77
15:CR:69:TYR:HD1	15:CR:72:ARG:HH21	1.30	0.77
19:CV:28:LYS:HZ1	19:CV:30:LEU:N	1.82	0.77
19:CV:70:LYS:CE	19:CV:73:GLU:N	2.48	0.77
24:DA:90:U:HO2'	24:DA:91:A:H8	1.32	0.77
24:DA:1600:C:H3'	52:D7:49:ARG:HH21	0.67	0.77
40:D2:55:ALA:HA	40:D2:101:GLY:HA3	1.65	0.77
43:DU:61:ILE:HG22	43:DU:62:GLU:HG3	1.67	0.77
1:AA:1226:C:O2'	13:AP:111:LYS:NZ	2.17	0.77
3:AF:175:LEU:HD21	3:AF:201:TYR:CE2	2.18	0.77
4:AG:177:ASP:HB3	4:AG:182:LYS:HG3	1.65	0.77
24:BA:1578:U:H2'	24:BA:1579:A:H5'	1.66	0.77
24:BA:2210:G:H5'	24:BA:2211:G:N7	2.00	0.77
40:B2:36:PRO:O	40:B2:37:VAL:CG1	2.28	0.77
44:BV:44:PHE:CZ	44:BV:86:VAL:HG11	2.20	0.77
44:BV:53:ILE:HG22	44:BV:71:VAL:O	1.85	0.77
19:CV:31:ILE:HD12	19:CV:32:LYS:N	1.99	0.77
24:DA:110:G:O2'	24:DA:111:A:H5'	1.84	0.77
24:DA:499:U:O4'	43:DU:47:LYS:NZ	2.16	0.77
24:DA:1485:G:O2'	24:DA:1486:A:H5'	1.85	0.77
24:DA:1665:A:H2'	24:DA:1666:G:H5'	1.66	0.77
24:DA:2213:U:H4'	46:DZ:52:ARG:HH12	1.50	0.77
25:DB:31:C:O2	25:DB:53:A:N6	2.17	0.77
26:DD:34:VAL:HG21	26:DD:103:ARG:HA	1.66	0.77
28:DF:157:VAL:HB	28:DF:194:MET:HG2	1.67	0.77
1:AA:999:U:H2'	1:AA:1000:A:C8	2.19	0.77
1:AA:1382:C:C4'	7:AJ:79:ARG:NH1	2.47	0.77
13:AP:11:ARG:CG	13:AP:46:LYS:HZ2	1.98	0.77
19:AV:15:LEU:O	19:AV:19:VAL:HG23	1.84	0.77
19:AV:41:VAL:H	19:AV:44:MET:CE	1.98	0.77
24:BA:1798:U:H5"	26:BD:259:THR:CG2	2.14	0.77
29:BG:83:ARG:H	29:BG:86:MET:HE2	1.47	0.77
34:BO:38:GLN:HG2	34:BO:45:LEU:HD13	1.66	0.77
37:BQ:71:ARG:HH21	37:BQ:106:ARG:HH21	1.33	0.77
1:CA:689:C:C2'	1:CA:690:G:H5'	2.15	0.77
2:CE:126:GLU:O	2:CE:130:ARG:NH1	2.18	0.77
15:CR:15:PHE:O	15:CR:27:VAL:HG22	1.85	0.77
24:DA:1859:A:N6	24:DA:1883:G:O2'	2.18	0.77
28:DF:22:ALA:C	28:DF:24:LEU:H	1.88	0.77
29:DG:139:LEU:HD12	29:DG:139:LEU:C	2.04	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DH:102:ALA:HB1	30:DH:115:VAL:O	1.85	0.77
1:AA:1448:C:O2	1:AA:1455:G:N2	2.18	0.77
6:AI:62:TRP:CH2	6:AI:64:GLN:HB2	2.20	0.77
24:BA:176:G:O2'	24:BA:177:G:H5'	1.85	0.77
24:BA:1798:U:H5"	26:BD:259:THR:HG22	1.65	0.77
24:BA:2210:G:C3'	24:BA:2211:G:C8	2.68	0.77
24:BA:2378:A:H2'	37:BQ:21:THR:HG21	1.67	0.77
50:B5:4:HIS:CB	50:B5:5:PRO:HD3	2.14	0.77
50:B5:40:LYS:HD3	50:B5:46:CYS:SG	2.23	0.77
1:CA:878:G:H5'	8:CK:89:PRO:HG2	1.66	0.77
1:CA:1213:A:N6	1:CA:1215:G:N3	2.33	0.77
1:CA:1295:G:O2'	13:CP:14:ARG:NH1	2.18	0.77
1:CA:1305:G:OP1	21:CX:2:GLY:N	2.18	0.77
4:CG:189:PRO:HB2	4:CG:194:LEU:HD21	1.66	0.77
13:CP:45:VAL:O	13:CP:48:LEU:HD22	1.85	0.77
22:CC:59:A:C2'	22:CC:60:U:H5'	2.15	0.77
24:DA:870:A:OP1	35:DP:6:ARG:HD2	1.84	0.77
24:DA:1600:C:C3'	52:D7:49:ARG:CZ	2.63	0.77
27:DE:12:THR:O	27:DE:23:VAL:HG22	1.85	0.77
28:DF:199:TRP:CZ3	28:DF:203:GLN:HG3	2.20	0.77
30:DH:104:GLU:HG2	30:DH:105:LEU:N	2.00	0.77
1:AA:626:U:H2'	1:AA:627:G:C8	2.19	0.77
3:AF:190:ARG:CA	3:AF:195:VAL:HG12	2.15	0.77
24:BA:2188:C:H2'	24:BA:2189:U:O4'	1.84	0.77
26:BD:125:ILE:HG22	26:BD:125:ILE:O	1.83	0.77
34:BO:57:THR:CG2	34:BO:59:LEU:HB3	2.13	0.77
34:BO:85:LEU:HA	34:BO:88:LEU:HD22	1.64	0.77
1:CA:559:A:H4'	1:CA:560:U:H5"	1.65	0.77
1:CA:1106:G:C5'	3:CF:172:ARG:HG2	2.14	0.77
1:CA:1149:C:P	9:CL:9:ARG:NH1	2.57	0.77
8:CK:119:LEU:HD21	8:CK:124:ALA:HA	1.67	0.77
24:DA:329:G:O6	43:DU:19:LYS:NZ	2.15	0.77
25:DB:21:G:H2'	25:DB:22:U:O4'	1.85	0.77
28:DF:122:LYS:O	28:DF:124:LEU:N	2.18	0.77
36:D0:28:LEU:HD21	36:D0:114:VAL:HG12	1.66	0.77
37:DQ:65:VAL:O	37:DQ:68:GLN:NE2	2.18	0.77
19:AV:40:ILE:O	19:AV:41:VAL:HG12	1.84	0.77
24:BA:270(N):G:N2	31:BK:50:ARG:NH2	2.32	0.77
24:BA:1601:G:P	52:B7:49:ARG:NH2	2.57	0.77
24:BA:2352:A:H2'	24:BA:2353:G:H5'	1.66	0.77
24:BA:2790:A:H2	24:BA:2894:G:H5"	1.50	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BG:83:ARG:H	29:BG:86:MET:CG	1.97	0.77
4:CG:9:CYS:CB	4:CG:22:LYS:NZ	2.47	0.77
5:CH:84:PHE:O	5:CH:86:ALA:N	2.17	0.77
6:CI:23:LYS:CD	6:CI:61:LEU:HD21	2.14	0.77
11:CN:95:ILE:HA	11:CN:98:LEU:HD12	1.65	0.77
13:CP:4:ILE:HD11	13:CP:8:GLU:HB2	1.67	0.77
19:CV:58:VAL:O	19:CV:60:VAL:HG13	1.85	0.77
24:DA:1162:G:H21	40:D2:89:GLN:HE22	1.30	0.77
25:DB:30:C:H2'	25:DB:31:C:H5'	1.66	0.77
45:D3:36:ILE:HD13	45:D3:36:ILE:O	1.85	0.77
4:AG:8:VAL:CG2	4:AG:21:LEU:HD11	2.14	0.76
5:AH:41:VAL:O	5:AH:67:VAL:HG12	1.84	0.76
6:AI:87:ARG:HH11	6:AI:87:ARG:HG3	1.50	0.76
26:BD:35:LYS:CE	26:BD:104:TYR:HB2	2.15	0.76
38:BR:7:ILE:C	38:BR:9:LEU:H	1.89	0.76
24:DA:2286:A:C5'	51:D6:28:ARG:HG3	2.14	0.76
24:DA:2294:C:H5	37:DQ:13:ARG:HH12	1.31	0.76
29:DG:16:ARG:NH1	29:DG:28:VAL:HG12	2.00	0.76
30:DH:6:ARG:NE	30:DH:66:GLY:HA3	2.00	0.76
30:DH:30:LYS:HG2	30:DH:136:ILE:HG21	1.66	0.76
31:DK:77:LEU:HD22	31:DK:141:LYS:CB	2.03	0.76
44:DV:93:ASP:HA	44:DV:130:PRO:HG2	1.65	0.76
8:AK:41:ARG:NH1	8:AK:123:GLU:OE1	2.17	0.76
13:AP:12:ASN:CA	13:AP:46:LYS:HD3	2.15	0.76
18:AU:72:ARG:O	18:AU:76:LEU:HD23	1.86	0.76
24:BA:1063:G:N2	24:BA:1076:C:H1'	2.00	0.76
24:BA:1600:C:O3'	52:B7:49:ARG:NH1	2.19	0.76
24:BA:1601:G:P	52:B7:49:ARG:CZ	2.73	0.76
24:BA:2068:U:H3	24:BA:2430:A:H2	0.86	0.76
30:BH:43:VAL:HG23	30:BH:52:VAL:HG22	1.67	0.76
38:BR:62:THR:CG2	38:BR:75:ILE:HG12	2.12	0.76
44:BV:150:LEU:CD1	44:BV:154:ASP:OD2	2.32	0.76
2:CE:28:PHE:CD2	2:CE:32:ILE:CG2	2.67	0.76
3:CF:95:THR:HG22	3:CF:97:LYS:CG	2.15	0.76
8:CK:37:ARG:HH11	8:CK:41:ARG:HH22	1.33	0.76
13:CP:96:LEU:HB3	13:CP:97:PRO:HD2	1.67	0.76
19:CV:9:VAL:HG21	49:D4:63:TYR:CD1	2.19	0.76
19:CV:22:LEU:CD1	19:CV:27:GLU:HA	2.15	0.76
24:DA:2416:C:C5'	34:DO:64:LYS:HZ3	1.96	0.76
28:DF:18:ARG:NH2	28:DF:20:LEU:HD12	1.98	0.76
28:DF:22:ALA:O	28:DF:24:LEU:N	2.18	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DM:98:VAL:HG23	32:DM:99:LEU:H	1.49	0.76
1:AA:1113:C:O2'	1:AA:1114:C:H5'	1.85	0.76
1:AA:1346:A:H5"	9:AL:120:ARG:HH12	1.50	0.76
8:AK:16:ALA:HB2	8:AK:24:THR:HG21	1.67	0.76
24:BA:529:A:H4'	24:BA:530:G:H5'	1.68	0.76
24:BA:633:A:H2'	24:BA:634:C:H5'	1.65	0.76
24:BA:1092:C:N4	24:BA:1099:G:O6	2.18	0.76
24:BA:2418:A:H1'	51:B6:21:TYR:CZ	2.20	0.76
37:BQ:11:LYS:HE3	37:BQ:15:ARG:NH2	2.00	0.76
5:CH:41:VAL:H	5:CH:67:VAL:CG1	1.98	0.76
8:CK:9:MET:HB2	8:CK:32:LYS:HZ3	1.50	0.76
8:CK:106:GLY:HA2	8:CK:122:ARG:NH2	2.00	0.76
17:CT:45:HIS:CE1	17:CT:47:PRO:HG3	2.20	0.76
19:CV:49:ILE:HD11	19:CV:51:VAL:HG23	1.66	0.76
24:DA:259:G:O2'	24:DA:621:A:O2'	2.01	0.76
24:DA:307:G:N2	24:DA:310:A:OP2	2.18	0.76
24:DA:1730:U:O2'	24:DA:1731:G:OP1	2.04	0.76
31:DK:51:ILE:HG22	31:DK:52:ARG:N	1.98	0.76
32:DM:120:LEU:HD21	32:DM:122:VAL:HG23	1.66	0.76
34:DO:79:ARG:NH2	34:DO:109:GLY:HA3	2.00	0.76
43:DU:87:LYS:HB3	43:DU:92:ASN:HB3	1.65	0.76
1:AA:390:C:O3'	16:AS:28:ARG:NH2	2.18	0.76
1:AA:1381:U:C2'	7:AJ:79:ARG:CD	2.62	0.76
18:AU:40:LEU:O	18:AU:42:ARG:N	2.18	0.76
24:BA:654(A):A:O2'	24:BA:654(B):C:H5'	1.85	0.76
24:BA:1062:G:N2	24:BA:1078:U:O4'	2.17	0.76
24:BA:1082:U:H2'	24:BA:1083:U:H4'	1.66	0.76
24:BA:2347:C:H4'	51:B6:39:TYR:CE2	2.20	0.76
27:BE:203:LYS:O	27:BE:203:LYS:HD2	1.84	0.76
36:B0:63:ARG:HB2	36:B0:80:PHE:HE2	1.47	0.76
44:BV:150:LEU:HG	44:BV:154:ASP:OD2	1.85	0.76
1:CA:485:G:H1'	1:CA:486:U:H5	1.49	0.76
1:CA:1301:U:O2'	1:CA:1302:U:OP1	2.03	0.76
5:CH:76:ILE:HD11	5:CH:142:LEU:CD1	2.13	0.76
18:CU:45:SER:HB3	18:CU:51:LEU:CD2	2.11	0.76
24:DA:500:G:N2	24:DA:502:A:H3'	2.01	0.76
24:DA:1111:A:H4'	30:DH:3:ARG:HB2	1.67	0.76
27:DE:9:VAL:HG21	27:DE:25:VAL:CG1	2.14	0.76
30:DH:3:ARG:NH2	30:DH:7:LEU:HB2	2.01	0.76
32:DM:128:HIS:HB2	32:DM:129:PRO:HD2	1.67	0.76
34:DO:9:ASN:HB3	34:DO:10:PRO:HD2	1.68	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DP:64:ILE:HD12	35:DP:64:ILE:N	2.00	0.76
37:DQ:26:LEU:HD22	37:DQ:87:PHE:CD1	2.20	0.76
46:DZ:7:ILE:CD1	46:DZ:70:VAL:HG22	2.14	0.76
1:AA:191(C):G:O2'	1:AA:191(D):U:H5'	1.85	0.76
1:AA:1256:A:O2'	1:AA:1257:U:OP2	2.03	0.76
10:AM:32:ALA:CB	10:AM:76:ASN:HB2	2.16	0.76
16:AS:57:ARG:HA	16:AS:60:LEU:HD12	1.68	0.76
24:BA:1829:A:N6	24:BA:1976:U:O2	2.18	0.76
24:BA:2370:G:N2	51:B6:40:CYS:SG	2.59	0.76
48:BX:7:LYS:O	48:BX:9:VAL:HG13	1.86	0.76
1:CA:1080:A:C4'	5:CH:16:THR:OG1	2.31	0.76
2:CE:19:HIS:CD2	2:CE:20:GLU:CG	2.69	0.76
24:DA:1043:C:H2'	24:DA:1044:G:H5'	1.66	0.76
24:DA:1043:C:O2	24:DA:1112:G:N2	2.17	0.76
24:DA:2392:A:H3'	53:D8:30:ARG:CZ	2.15	0.76
25:DB:45:A:H1'	29:DG:95:ARG:NH1	1.99	0.76
34:DO:15:ARG:HG3	34:DO:15:ARG:HH11	1.50	0.76
1:AA:244:U:H4'	1:AA:245:C:C5'	2.16	0.76
1:AA:1199:U:C5'	10:AM:54:PHE:HE2	1.98	0.76
2:AE:74:LYS:HE3	2:AE:169:LYS:CD	2.15	0.76
12:AO:46:LYS:CE	12:AO:47:LYS:HG2	2.15	0.76
20:AW:39:LYS:HB2	20:AW:55:ILE:HG21	1.67	0.76
24:BA:507:A:C5'	24:BA:508:G:H5'	2.15	0.76
24:BA:2688:U:C5	24:BA:2720:U:OP2	2.39	0.76
24:BA:2688:U:H5	24:BA:2720:U:OP2	1.67	0.76
30:BH:4:ILE:CD1	30:BH:6:ARG:NE	2.47	0.76
43:BU:96:ILE:CD1	43:BU:98:VAL:HG12	2.12	0.76
1:CA:914:A:O2'	1:CA:915:A:H5'	1.85	0.76
10:CM:28:ARG:CZ	10:CM:34:VAL:HG22	2.16	0.76
13:CP:53:VAL:HG23	13:CP:57:ARG:NH2	2.01	0.76
22:CC:75:C:C3'	22:CC:76:A:H5"	2.15	0.76
24:DA:1364:G:OP2	46:DZ:2:SER:N	2.18	0.76
24:DA:1688:U:O2	24:DA:1700:A:H5'	1.85	0.76
24:DA:1899:G:H22	24:DA:1902:C:N4	1.82	0.76
24:DA:2683:C:OP1	38:DR:53:ARG:NH2	2.19	0.76
25:DB:66:A:N6	25:DB:108:C:H5"	2.01	0.76
40:D2:45:THR:O	40:D2:47:VAL:N	2.17	0.76
53:D8:30:ARG:O	53:D8:32:LEU:N	2.19	0.76
8:AK:102:ARG:HG2	8:AK:102:ARG:O	1.85	0.76
27:BE:26:ILE:HD13	27:BE:27:LEU:N	2.01	0.76
37:BQ:110:LEU:CD2	37:BQ:112:PHE:CE1	2.69	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:574:A:H5”	1:CA:575:G:OP2	1.86	0.76
9:CL:75:ASP:OD1	9:CL:78:LYS:NZ	2.17	0.76
13:CP:3:ARG:HB2	49:D4:34:GLU:OE2	1.86	0.76
15:CR:82:ILE:HD13	15:CR:83:GLU:N	2.01	0.76
24:DA:2392:A:H3’	53:D8:30:ARG:HH12	1.50	0.76
25:DB:42:C:H4’	29:DG:67:LYS:HG2	1.66	0.76
29:DG:77:ILE:HB	29:DG:82:LEU:HD12	1.66	0.76
34:DO:21:ARG:HA	34:DO:21:ARG:NE	1.96	0.76
44:DV:119:GLU:HG2	44:DV:122:ARG:HH22	1.51	0.76
1:AA:1291:G:OP1	7:AJ:37:ASN:ND2	2.18	0.76
24:BA:67:U:H3	24:BA:74:A:H2	1.34	0.76
24:BA:389:G:N1	34:BO:71:VAL:HG12	2.01	0.76
24:BA:1113:U:H5’	30:BH:2:SER:CB	2.14	0.76
24:BA:1210:A:H5”	24:BA:1212:G:H5’	1.67	0.76
24:BA:1701:A:H2’	24:BA:1702:G:H5’	1.68	0.76
24:BA:2415:G:H4’	34:BO:66:GLY:CA	2.15	0.76
53:B8:29:LYS:HG2	53:B8:44:LYS:CG	2.16	0.76
1:CA:1288:A:H5’	21:CX:13:ILE:HD11	1.68	0.76
9:CL:6:GLY:O	9:CL:17:VAL:CG2	2.33	0.76
10:CM:21:GLN:HE21	10:CM:24:VAL:CG1	1.97	0.76
24:DA:616:A:C8	28:DF:176:LEU:HD11	2.21	0.76
24:DA:1074:G:OP1	24:DA:2474:C:O2’	2.03	0.76
26:DD:25:THR:O	26:DD:27:THR:HG22	1.86	0.76
53:D8:23:VAL:HG22	53:D8:47:LYS:HB3	1.67	0.76
1:AA:244:U:H4’	1:AA:245:C:O5’	1.85	0.76
1:AA:1239:A:O2’	7:AJ:114:ARG:O	2.03	0.76
1:AA:1292:U:P	7:AJ:41:ARG:HH22	2.08	0.76
2:AE:97:TRP:CZ3	2:AE:172:ILE:HG13	2.19	0.76
3:AF:22:TRP:HZ3	3:AF:24:ALA:HB2	1.51	0.76
3:AF:115:LEU:O	3:AF:118:GLN:N	2.18	0.76
9:AL:4:TYR:HH	9:AL:88:TYR:HD1	1.33	0.76
12:AO:60:LEU:HD23	12:AO:60:LEU:H	1.51	0.76
24:BA:1026:U:H1’	24:BA:1027:A:O5’	1.86	0.76
24:BA:2175:C:C3’	24:BA:2176:A:H5”	2.14	0.76
24:BA:2397:G:H5”	46:BZ:28:GLY:HA2	1.68	0.76
24:BA:2751:G:C6	30:BH:3:ARG:HG3	2.20	0.76
26:BD:34:VAL:HG21	26:BD:103:ARG:HA	1.68	0.76
26:BD:65:ILE:HD11	26:BD:67:PHE:CZ	2.21	0.76
37:BQ:14:VAL:O	37:BQ:18:ILE:HD13	1.86	0.76
39:B1:66:ASN:HA	39:B1:76:TYR:HB2	1.66	0.76
49:B4:38:LYS:NZ	49:B4:44:THR:OG1	2.18	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1128:C:H4'	9:CL:16:ARG:HH12	1.48	0.76
1:CA:1269:A:OP1	21:CX:18:TYR:CE1	2.37	0.76
1:CA:1320:C:C1'	19:CV:70:LYS:NZ	2.48	0.76
1:CA:1392:G:H21	1:CA:1502:A:H8	1.31	0.76
3:CF:72:LYS:HD2	3:CF:75:VAL:HG23	1.68	0.76
4:CG:11:LEU:O	4:CG:13:ARG:N	2.19	0.76
24:DA:870:A:P	35:DP:6:ARG:CZ	2.74	0.76
24:DA:1496:A:H8	24:DA:1577:C:HO2'	1.30	0.76
2:AE:158:LEU:O	2:AE:158:LEU:HD12	1.84	0.76
13:AP:12:ASN:HB2	13:AP:46:LYS:HE2	1.66	0.76
16:AS:6:LEU:HB3	16:AS:17:TYR:HD2	1.50	0.76
17:AT:67:LYS:O	17:AT:68:ARG:HB3	1.85	0.76
1:CA:17:U:H2'	1:CA:18:C:C6	2.21	0.76
24:DA:537:C:N4	24:DA:556:G:O6	2.19	0.76
24:DA:660:G:N2	34:DO:12:ALA:HA	2.00	0.76
24:DA:2285:C:H2'	51:D6:28:ARG:NH2	2.01	0.76
27:DE:76:ARG:O	27:DE:78:LEU:N	2.18	0.76
28:DF:24:LEU:HD12	28:DF:25:PRO:CD	2.12	0.76
38:DR:55:ASN:ND2	38:DR:55:ASN:O	2.19	0.76
44:DV:105:VAL:O	44:DV:108:PRO:HD3	1.85	0.76
45:D3:27:GLU:HB2	45:D3:69:PHE:CD2	2.21	0.76
1:AA:160:A:H61	1:AA:347:G:H1'	1.51	0.75
1:AA:1327:C:OP2	21:AX:12:LYS:NZ	2.18	0.75
20:AW:53:LEU:HB2	20:AW:100:ILE:HG23	1.66	0.75
24:BA:102:G:OP1	47:BW:7:ARG:NH2	2.19	0.75
31:BK:130:TYR:O	31:BK:131:LYS:HD2	1.86	0.75
49:B4:43:TYR:CG	49:B4:44:THR:N	2.53	0.75
24:DA:142:G:H2'	24:DA:143:C:C6	2.20	0.75
24:DA:1416:G:H2'	24:DA:1417:C:C6	2.21	0.75
24:DA:2394:C:OP1	34:DO:63:PRO:CD	2.33	0.75
27:DE:37:ARG:HD2	27:DE:44:TYR:OH	1.85	0.75
29:DG:56:ALA:HB2	29:DG:153:ARG:HE	1.51	0.75
31:DK:109:ILE:HD13	31:DK:109:ILE:H	1.48	0.75
39:D1:66:ASN:OD1	39:D1:76:TYR:N	2.18	0.75
44:DV:77:ASP:OD1	44:DV:80:ARG:HD2	1.86	0.75
44:DV:105:VAL:O	44:DV:107:THR:N	2.19	0.75
53:D8:59:LYS:HB2	53:D8:59:LYS:NZ	2.01	0.75
4:AG:121:VAL:O	4:AG:134:ASP:HA	1.86	0.75
6:AI:63:TYR:O	6:AI:65:VAL:HG13	1.85	0.75
9:AL:96:LEU:CB	9:AL:99:LEU:HD11	2.16	0.75
24:BA:1335:U:OP2	42:BT:65:ARG:NE	2.19	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BD:231:HIS:ND1	26:BD:232:PRO:CD	2.48	0.75
30:BH:41:MET:HE1	30:BH:64:LEU:HB2	1.66	0.75
37:BQ:54:LEU:HD13	37:BQ:54:LEU:O	1.86	0.75
41:BS:84:ARG:HB2	41:BS:96:ILE:CD1	2.16	0.75
44:BV:62:PRO:O	44:BV:63:ASP:HB2	1.85	0.75
1:CA:110:C:O2'	16:CS:25:ARG:O	2.04	0.75
2:CE:22:LYS:NZ	2:CE:35:GLU:OE1	2.14	0.75
9:CL:9:ARG:CD	9:CL:14:VAL:HG22	2.15	0.75
19:CV:11:VAL:HG23	19:CV:39:THR:HB	1.68	0.75
24:DA:2747:G:O6	24:DA:2755:C:H5"	1.85	0.75
29:DG:13:GLU:O	29:DG:17:PRO:HG3	1.86	0.75
37:DQ:110:LEU:HD12	37:DQ:111:GLU:N	2.01	0.75
1:AA:153:C:H42	1:AA:168:G:H1	1.33	0.75
1:AA:737:A:H2'	1:AA:738:C:C6	2.22	0.75
1:AA:974:A:O2'	1:AA:975:A:P	2.44	0.75
1:AA:1321:C:H3'	1:AA:1322:C:H5"	1.69	0.75
2:AE:204:ASN:ND2	2:AE:206:ASP:H	1.85	0.75
3:AF:73:PRO:O	3:AF:76:VAL:HG22	1.86	0.75
3:AF:76:VAL:HG21	3:AF:103:VAL:HG11	1.68	0.75
8:AK:34:GLU:CB	8:AK:118:VAL:HG21	2.16	0.75
19:AV:44:MET:O	19:AV:47:HIS:HB2	1.86	0.75
24:BA:910:A:C5	35:BP:13:GLN:HG3	2.20	0.75
24:BA:1312:U:H1'	24:BA:1313:U:OP2	1.86	0.75
28:BF:28:ILE:HG22	28:BF:112:MET:HB3	1.69	0.75
28:BF:192:LEU:HD21	28:BF:194:MET:CE	2.16	0.75
38:BR:77:PRO:HB2	38:BR:80:SER:HB2	1.67	0.75
7:CJ:24:THR:O	7:CJ:28:ASN:ND2	2.19	0.75
24:DA:270(R):G:H2'	24:DA:270(S):G:H8	1.51	0.75
24:DA:309:G:H4'	43:DU:18:GLY:HA3	1.68	0.75
24:DA:1569:A:O2'	26:DD:38:LYS:HG3	1.86	0.75
24:DA:2032:G:O2'	27:DE:145:LYS:NZ	2.19	0.75
24:DA:2471:C:N4	24:DA:2476:A:O2'	2.19	0.75
35:DP:98:LYS:HB3	35:DP:99:PRO:HD2	1.67	0.75
46:DZ:91:LYS:HB2	46:DZ:91:LYS:NZ	2.01	0.75
1:AA:115:G:H4'	1:AA:116:A:O5'	1.87	0.75
1:AA:266:G:H5"	1:AA:267:C:C5	2.21	0.75
1:AA:542:G:OP1	4:AG:10:ARG:NH2	2.19	0.75
24:BA:495:G:H1'	41:BS:57:ASN:ND2	2.02	0.75
24:BA:1087:G:C8	24:BA:1089:G:H1'	2.22	0.75
24:BA:1538:G:H2'	24:BA:1539:G:H8	1.51	0.75
24:BA:2785:C:H1'	27:BE:64:LYS:HE3	1.68	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2799:A:H3'	24:BA:2801:A:C8	2.21	0.75
28:BF:167:ALA:HA	28:BF:170:LEU:HD23	1.67	0.75
51:B6:29:ASN:HA	51:B6:32:ASN:HB3	1.68	0.75
1:CA:1077:G:N2	1:CA:1080:A:OP2	2.18	0.75
6:CI:22:GLU:O	6:CI:26:ILE:HG13	1.86	0.75
9:CL:106:ALA:O	9:CL:108:VAL:HG12	1.86	0.75
10:CM:8:LEU:HG	10:CM:96:ILE:CD1	2.16	0.75
11:CN:32:ILE:CD1	11:CN:72:ALA:HB2	2.14	0.75
13:CP:4:ILE:HD13	13:CP:5:ALA:H	1.51	0.75
24:DA:2092:U:H4'	24:DA:2093:G:O5'	1.85	0.75
15:AR:17:ARG:HD3	15:AR:26:GLU:HG3	1.68	0.75
24:BA:2751:G:C4	30:BH:3:ARG:HG3	2.22	0.75
1:CA:1014:A:H5'	19:CV:15:LEU:CD2	2.15	0.75
2:CE:12:GLU:HA	2:CE:15:VAL:HG23	1.68	0.75
3:CF:113:ALA:HB3	3:CF:114:PRO:HD3	1.68	0.75
10:CM:40:LEU:HB3	10:CM:69:ASN:O	1.85	0.75
24:DA:330:A:H2	24:DA:1210:A:O2'	1.66	0.75
24:DA:669:G:O2'	24:DA:670:A:O5'	2.02	0.75
24:DA:2733:A:H2	27:DE:204:ALA:H	1.35	0.75
31:DK:117:GLU:OE1	31:DK:118:LYS:N	2.20	0.75
39:D1:90:VAL:HG22	40:D2:39:LEU:HB3	1.67	0.75
47:DW:17:SER:HB3	47:DW:21:LEU:HD12	1.66	0.75
1:AA:448:A:O5'	1:AA:485:G:N2	2.17	0.75
4:AG:20:TYR:CE2	6:CI:15:ASP:HB3	2.21	0.75
5:AH:41:VAL:HG21	5:AH:113:ALA:HB2	1.66	0.75
24:BA:3:U:OP1	24:BA:2790:A:N6	2.18	0.75
24:BA:607:U:H3	24:BA:621:A:H2	1.35	0.75
24:BA:654:A:H3'	24:BA:654:A:N3	2.02	0.75
24:BA:2100:G:O2'	24:BA:2101:G:H5'	1.86	0.75
24:BA:2151:G:H2'	24:BA:2152:G:C8	2.21	0.75
24:BA:2469:A:H61	24:BA:2481:G:H1'	1.50	0.75
1:CA:123:C:OP1	1:CA:312:C:H5'	1.86	0.75
1:CA:411:A:C6	1:CA:413:G:H1'	2.21	0.75
2:CE:20:GLU:O	2:CE:40:HIS:N	2.19	0.75
11:CN:100:ALA:O	11:CN:102:GLY:N	2.19	0.75
13:CP:81:LEU:HD22	13:CP:86:CYS:SG	2.26	0.75
24:DA:2286:A:C5'	51:D6:28:ARG:CZ	2.62	0.75
24:DA:2840:C:H4'	36:D0:53:HIS:CD2	2.21	0.75
2:AE:31:TYR:O	2:AE:42:ILE:HD13	1.87	0.75
24:BA:74:A:H4'	24:BA:75:G:O5'	1.87	0.75
24:BA:2751:G:C4	30:BH:3:ARG:CG	2.69	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BP:26:TYR:O	35:BP:27:VAL:HB	1.85	0.75
44:BV:125:LEU:O	44:BV:164:ALA:HB3	1.85	0.75
1:CA:1203:C:H5"	14:CQ:3:ARG:NH2	1.96	0.75
2:CE:168:THR:HG21	2:CE:191:ASP:O	1.87	0.75
7:CJ:73:MET:HG2	7:CJ:90:GLU:HA	1.69	0.75
13:CP:84:ILE:HG23	13:CP:84:ILE:O	1.86	0.75
29:DG:16:ARG:NH1	29:DG:31:VAL:HG21	2.00	0.75
49:D4:5:ILE:HG13	49:D4:6:HIS:N	2.01	0.75
1:AA:1212:U:H5"	1:AA:1213:A:OP1	1.87	0.75
4:AG:30:LYS:HG2	4:AG:32:ALA:CA	2.17	0.75
13:AP:11:ARG:NE	13:AP:46:LYS:HE3	2.01	0.75
17:AT:14:LYS:HD2	17:AT:14:LYS:H	1.52	0.75
24:BA:1544:C:O2'	24:BA:1545:A:O5'	2.05	0.75
24:BA:1567:A:C5'	26:BD:58:HIS:HD2	1.98	0.75
26:BD:35:LYS:NZ	26:BD:65:ILE:HA	2.01	0.75
31:BK:41:GLU:OE2	31:BK:42:SER:N	2.20	0.75
31:BK:104:GLN:HG2	31:BK:105:HIS:CD2	2.22	0.75
37:BQ:83:LYS:CG	37:BQ:109:GLY:HA3	2.16	0.75
44:BV:151:HIS:HE1	44:BV:154:ASP:N	1.83	0.75
1:CA:589:C:O2	1:CA:650:G:N2	2.19	0.75
1:CA:841:U:H4'	1:CA:842:C:C5	2.22	0.75
5:CH:8:GLU:OE2	5:CH:63:ARG:NH2	2.20	0.75
24:DA:270(N):G:OP1	31:DK:57:ARG:NH2	2.19	0.75
24:DA:654(B):C:H2'	24:DA:654(C):G:C8	2.22	0.75
24:DA:2344:U:O3'	51:D6:39:TYR:OH	2.00	0.75
40:D2:35:LEU:HD21	40:D2:37:VAL:HG21	1.69	0.75
43:DU:39:VAL:HG23	43:DU:41:GLY:H	1.51	0.75
51:D6:37:ARG:HD2	51:D6:38:LYS:N	2.01	0.75
1:AA:1133:G:H2'	1:AA:1134:G:H8	1.52	0.75
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.21	0.75
24:BA:1024:G:H3'	24:BA:1025:G:H5"	1.68	0.75
24:BA:2419:U:O4	53:B8:30:ARG:NH2	2.19	0.75
53:B8:17:THR:CG2	53:B8:23:VAL:HG23	2.16	0.75
1:CA:957:U:O3'	19:CV:79:THR:HG21	1.86	0.75
1:CA:1399:C:C2	1:CA:1502:A:N6	2.54	0.75
5:CH:76:ILE:HG23	5:CH:77:PRO:CD	2.17	0.75
9:CL:78:LYS:CD	9:CL:101:PHE:CE1	2.69	0.75
10:CM:28:ARG:NH1	10:CM:33:GLN:HA	2.01	0.75
18:CU:73:ALA:HB3	18:CU:79:LEU:HD12	1.69	0.75
24:DA:494:G:OP1	41:DS:8:ARG:NH1	2.19	0.75
24:DA:971:C:H2'	24:DA:972:G:H5'	1.69	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2344:U:H2'	51:D6:37:ARG:HE	1.49	0.75
32:DM:120:LEU:HD23	32:DM:120:LEU:C	2.07	0.75
1:AA:154:C:H42	1:AA:167:G:H1	1.35	0.74
1:AA:1122:U:O4	1:AA:1123:A:N6	2.20	0.74
17:AT:77:VAL:O	17:AT:78:GLU:HB2	1.86	0.74
44:BV:60:GLU:O	44:BV:61:LEU:HG	1.86	0.74
49:B4:58:ARG:NH1	49:B4:62:ARG:HD2	2.02	0.74
1:CA:591:U:H2'	1:CA:592:G:C8	2.22	0.74
12:CO:83:VAL:HG22	12:CO:84:LEU:H	1.48	0.74
20:CW:10:LEU:CD2	20:CW:12:ALA:H	2.00	0.74
24:DA:1210:A:C5'	24:DA:1212:G:H5'	2.17	0.74
24:DA:1246:A:OP2	34:DO:15:ARG:CZ	2.34	0.74
24:DA:1396:U:O2	24:DA:1396:U:H2'	1.87	0.74
24:DA:2127:G:H5'	24:DA:2128:C:H5"	1.68	0.74
24:DA:2286:A:OP2	51:D6:28:ARG:CD	2.35	0.74
27:DE:81:ILE:O	27:DE:82:ARG:HB3	1.87	0.74
27:DE:107:THR:O	27:DE:190:GLY:HA2	1.87	0.74
44:DV:95:PRO:HA	44:DV:128:VAL:O	1.85	0.74
1:AA:1192:C:P	3:AF:4:LYS:HZ1	2.10	0.74
4:AG:22:LYS:CE	4:AG:26:CYS:HB2	2.14	0.74
12:AO:46:LYS:CG	12:AO:47:LYS:N	2.48	0.74
24:BA:213:A:O2'	24:BA:214:G:H5'	1.88	0.74
24:BA:1059:G:OP2	24:BA:1060:U:H3'	1.87	0.74
25:BB:42:C:OP2	49:B4:2:LYS:HE2	1.86	0.74
35:BP:59:ARG:HG2	35:BP:60:ARG:N	2.02	0.74
41:BS:64:MET:HA	41:BS:109:GLU:OE2	1.87	0.74
1:CA:266:G:H2'	1:CA:266:G:N3	2.01	0.74
24:DA:1601:G:C5'	52:D7:49:ARG:HG2	2.08	0.74
24:DA:2344:U:H2'	51:D6:37:ARG:NE	2.02	0.74
44:DV:146:ILE:HA	44:DV:176:PRO:HD3	1.68	0.74
1:AA:408:A:P	4:AG:115:ARG:HD2	2.27	0.74
4:AG:25:ARG:C	4:AG:27:TYR:H	1.87	0.74
16:AS:28:ARG:HG3	16:AS:29:ASP:OD1	1.86	0.74
38:BR:11:GLU:H	38:BR:11:GLU:CD	1.90	0.74
1:CA:1070:U:O5'	5:CH:25:ARG:NH1	2.20	0.74
24:DA:1047:G:H1'	24:DA:1110:G:H22	1.49	0.74
24:DA:1105:U:H2'	24:DA:1106:G:C8	2.22	0.74
24:DA:2213:U:H4'	46:DZ:52:ARG:NH1	2.03	0.74
30:DH:4:ILE:HD12	30:DH:5:GLY:CA	2.17	0.74
38:DR:88:ILE:CD1	38:DR:91:ARG:CZ	2.65	0.74
40:D2:84:LYS:HE3	40:D2:85:LYS:CG	2.12	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DV:119:GLU:HB3	44:DV:122:ARG:HH12	1.52	0.74
8:AK:44:PHE:HE2	8:AK:109:ILE:CG2	2.00	0.74
25:BB:24:G:N7	25:BB:56:G:H2'	2.01	0.74
41:BS:73:ALA:HB3	41:BS:106:ILE:HG23	1.69	0.74
45:B3:72:ARG:CB	45:B3:75:LEU:HB2	2.18	0.74
1:CA:599:C:OP1	8:CK:94:TYR:CE2	2.38	0.74
1:CA:1049:U:H4'	1:CA:1050:G:H5"	1.68	0.74
2:CE:8:LYS:CE	2:CE:11:LEU:CD2	2.62	0.74
6:CI:77:ARG:HB3	6:CI:77:ARG:NH1	2.03	0.74
7:CJ:151:TYR:HB3	7:CJ:154:TYR:HB2	1.69	0.74
9:CL:42:ARG:HH12	9:CL:71:SER:HA	1.52	0.74
12:CO:32:PHE:HB3	12:CO:84:LEU:HD11	1.69	0.74
24:DA:997:G:OP1	39:D1:93:LYS:HD3	1.88	0.74
24:DA:1087:G:O6	24:DA:1089:G:N2	2.18	0.74
24:DA:1210:A:H5'	24:DA:1212:G:H5'	1.69	0.74
24:DA:2355:C:C5'	45:D3:36:ILE:HD11	2.18	0.74
24:DA:2635:C:P	27:DE:77:ILE:HG21	2.28	0.74
25:DB:115:G:OP2	25:DB:115:G:H8	1.68	0.74
44:DV:148:ASP:HB3	44:DV:172:ALA:O	1.87	0.74
1:AA:598:U:H4'	8:AK:94:TYR:CD2	2.22	0.74
1:AA:1120:G:H2'	1:AA:1121:U:H6	1.52	0.74
1:AA:1504:G:OP1	1:AA:1507:A:H4'	1.87	0.74
9:AL:36:TYR:OH	9:AL:73:GLN:NE2	2.15	0.74
24:BA:2807:G:H3'	24:BA:2808:U:H5"	1.68	0.74
2:CE:237:ALA:H	2:CE:239:VAL:HG23	1.52	0.74
3:CF:82:GLU:H	3:CF:85:ARG:HD3	1.51	0.74
4:CG:12:CYS:SG	4:CG:33:MET:CE	2.70	0.74
4:CG:138:TYR:C	4:CG:138:TYR:HD1	1.91	0.74
5:CH:102:ALA:O	5:CH:107:ARG:NH1	2.21	0.74
7:CJ:28:ASN:O	7:CJ:31:MET:N	2.18	0.74
8:CK:129:VAL:HG22	8:CK:130:GLY:H	1.52	0.74
9:CL:37:PHE:HD2	9:CL:43:ALA:HB1	1.50	0.74
24:DA:90:U:O2	24:DA:90:U:C2'	2.34	0.74
24:DA:1614:A:H62	41:DS:93:ALA:HB2	1.52	0.74
24:DA:2591:C:OP1	26:DD:239:ARG:HD2	1.86	0.74
24:DA:2635:C:C5'	27:DE:77:ILE:HG22	2.18	0.74
24:DA:2749:A:H1'	30:DH:63:SER:HB3	1.69	0.74
37:DQ:41:ASP:OD2	37:DQ:44:LYS:NZ	2.19	0.74
44:DV:94:GLU:O	44:DV:96:VAL:HG23	1.86	0.74
1:AA:430:A:OP1	4:AG:9:CYS:HB2	1.87	0.74
24:BA:545:G:H2'	24:BA:546:C:H5"	1.68	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1309:G:H4'	52:B7:7:PRO:HB2	1.68	0.74
24:BA:2209:C:O2	24:BA:2216:G:C2	2.40	0.74
24:BA:2392:A:H8	34:BO:60:MET:HB3	1.52	0.74
26:BD:223:GLY:HA3	26:BD:231:HIS:CD2	2.22	0.74
31:BK:5:LEU:O	31:BK:6:LEU:HD12	1.87	0.74
43:BU:97:ARG:HD3	43:BU:97:ARG:N	2.01	0.74
1:CA:412:A:H1'	1:CA:413:G:OP2	1.87	0.74
1:CA:438:G:H4'	4:CG:123:HIS:ND1	2.03	0.74
1:CA:543:C:OP1	4:CG:14:ARG:NE	2.19	0.74
2:CE:19:HIS:CD2	2:CE:20:GLU:N	2.55	0.74
7:CJ:8:GLU:N	7:CJ:8:GLU:OE1	2.19	0.74
19:CV:66:MET:HA	19:CV:67:VAL:O	1.86	0.74
24:DA:108:U:H2'	24:DA:109:G:C8	2.22	0.74
24:DA:540:G:H2'	24:DA:541:C:H6	1.52	0.74
24:DA:654(O):G:H2'	24:DA:654(P):G:C8	2.18	0.74
31:DK:38:LEU:HD12	31:DK:38:LEU:H	1.51	0.74
37:DQ:107:GLU:C	37:DQ:110:LEU:HD23	2.08	0.74
44:DV:30:ASN:HB2	44:DV:89:PHE:CE1	2.23	0.74
9:AL:40:LEU:HD21	9:AL:70:LYS:HD2	1.69	0.74
13:AP:12:ASN:N	13:AP:46:LYS:HD3	2.01	0.74
20:AW:13:LEU:HD12	20:AW:14:LYS:N	2.03	0.74
24:BA:2018:G:O2'	39:B1:34:LYS:HE3	1.87	0.74
24:BA:2405:G:OP1	34:BO:77:ARG:NH2	2.21	0.74
26:BD:34:VAL:O	26:BD:34:VAL:HG13	1.86	0.74
26:BD:35:LYS:CG	26:BD:64:ILE:HG23	2.18	0.74
46:BZ:11:ARG:HB2	46:BZ:12:PRO:HD2	1.70	0.74
1:CA:537:G:H5"	12:CO:113:ARG:NH1	2.02	0.74
2:CE:55:PHE:CD1	2:CE:58:ILE:HD12	2.23	0.74
17:CT:101:ARG:HG2	17:CT:101:ARG:HH21	1.53	0.74
24:DA:1925:C:O2'	24:DA:1926:U:H5'	1.88	0.74
24:DA:2392:A:H2	24:DA:2424:C:H42	1.34	0.74
26:DD:26:LYS:HD2	26:DD:26:LYS:H	1.50	0.74
34:DO:11:GLY:O	34:DO:13:ASN:N	2.21	0.74
4:AG:21:LEU:HD12	4:AG:21:LEU:C	2.08	0.74
7:AJ:107:ALA:HB3	7:AJ:134:ALA:HB2	1.69	0.74
9:AL:53:VAL:HG13	9:AL:95:LYS:HD2	1.70	0.74
13:AP:81:LEU:HG	13:AP:89:GLY:HA3	1.70	0.74
24:BA:488:G:N2	24:BA:491:G:H5"	2.03	0.74
24:BA:602:G:HO2'	24:BA:604:G:HO2'	1.32	0.74
24:BA:2178:C:H2'	24:BA:2179:C:C6	2.23	0.74
31:BK:83:ALA:HB2	31:BK:88:ILE:HA	1.67	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BW:15:LYS:H	47:BW:67:LYS:NZ	1.85	0.74
1:CA:598:U:O3'	8:CK:94:TYR:OH	2.03	0.74
1:CA:1498:U:H1'	1:CA:1499:A:OP2	1.88	0.74
4:CG:172:PRO:HB2	4:CG:187:ARG:NH2	2.02	0.74
7:CJ:65:ALA:HB1	7:CJ:127:ALA:HB3	1.67	0.74
12:CO:103:GLY:N	12:CO:107:ALA:O	2.20	0.74
20:CW:56:MET:HE1	20:CW:88:VAL:HG21	1.68	0.74
20:CW:64:ASP:OD1	20:CW:81:LYS:HD2	1.86	0.74
27:DE:70:ALA:O	27:DE:72:VAL:N	2.21	0.74
40:D2:84:LYS:CE	40:D2:85:LYS:HG2	2.13	0.74
41:DS:2:GLU:OE1	41:DS:72:LYS:NZ	2.20	0.74
44:DV:158:PRO:O	44:DV:161:VAL:HG13	1.88	0.74
1:AA:1042:G:O2'	24:DA:2155:G:N2	2.20	0.74
1:AA:1221:G:C5'	19:AV:36:ARG:NH2	2.50	0.74
1:AA:1319:A:H5'	19:AV:5:LEU:HD23	1.70	0.74
9:AL:70:LYS:HG3	9:AL:71:SER:H	1.53	0.74
10:AM:22:LYS:CE	10:AM:90:LEU:HD13	2.18	0.74
12:AO:39:VAL:HG22	12:AO:57:LYS:HB3	1.70	0.74
13:AP:65:LYS:N	49:B4:50:VAL:HG11	2.02	0.74
14:AQ:59:ALA:HB1	14:AQ:61:TRP:HZ3	1.53	0.74
24:BA:1491:G:O4'	26:BD:99:ASP:HB3	1.87	0.74
24:BA:2406:U:O4	34:BO:70:GLN:HB2	1.88	0.74
39:B1:89:GLU:O	39:B1:89:GLU:HG3	1.85	0.74
40:B2:35:LEU:HD22	40:B2:57:VAL:O	1.88	0.74
2:CE:83:MET:CE	2:CE:234:PRO:HB2	2.18	0.74
3:CF:63:ASN:HA	3:CF:98:ASN:HB3	1.69	0.74
3:CF:175:LEU:HD11	3:CF:201:TYR:CE2	2.23	0.74
7:CJ:15:ASP:O	7:CJ:19:GLY:HA2	1.88	0.74
7:CJ:78:ARG:HH22	7:CJ:87:VAL:HA	1.52	0.74
8:CK:88:LYS:HB2	8:CK:89:PRO:HD2	1.68	0.74
9:CL:21:PRO:HA	9:CL:59:PHE:HA	1.70	0.74
24:DA:986:C:C2'	24:DA:987:G:H5'	2.18	0.74
24:DA:2419:U:C4	53:D8:31:HIS:HD2	2.04	0.74
29:DG:111:LEU:HB2	29:DG:112:PRO:CD	2.12	0.74
33:DN:64:ARG:NH1	33:DN:81:ASP:OD1	2.21	0.74
39:D1:90:VAL:CG1	39:D1:91:ASP:H	1.92	0.74
52:D7:1:MET:HA	52:D7:1:MET:HE3	1.69	0.74
1:AA:484:G:O2'	1:AA:485:G:OP2	2.05	0.74
2:AE:164:VAL:HG12	2:AE:166:ASP:H	1.53	0.74
5:AH:41:VAL:HG23	5:AH:113:ALA:HB2	1.69	0.74
24:BA:2418:A:H1'	51:B6:21:TYR:CE2	2.23	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BD:85:ASP:OD1	26:BD:87:ASN:ND2	2.20	0.74
35:BP:78:PRO:O	35:BP:79:LEU:HG	1.88	0.74
35:BP:79:LEU:HD12	35:BP:79:LEU:O	1.87	0.74
39:B1:44:ASN:HD21	40:B2:75:PHE:H	1.36	0.74
46:BZ:83:GLU:HG2	46:BZ:85:LEU:H	1.52	0.74
51:B6:18:ARG:O	51:B6:19:ARG:HG2	1.88	0.74
20:CW:57:ARG:NH2	20:CW:102:GLY:HA2	2.03	0.74
24:DA:2392:A:H3'	53:D8:30:ARG:NH2	2.03	0.74
24:DA:2444:G:OP2	28:DF:68:LYS:HE2	1.88	0.74
26:DD:44:ASN:HB2	26:DD:48:ARG:O	1.88	0.74
29:DG:29:TRP:HB3	29:DG:33:ARG:HH12	1.53	0.74
30:DH:54:ARG:NE	30:DH:57:ASP:OD1	2.18	0.74
1:AA:643:C:H5'	8:AK:31:PHE:CD1	2.23	0.73
1:AA:1382:C:C5	7:AJ:79:ARG:NH2	2.56	0.73
2:AE:17:PHE:HD1	2:AE:41:ILE:HG23	1.51	0.73
3:AF:83:ARG:O	3:AF:86:VAL:HG22	1.88	0.73
7:AJ:59:LEU:HD23	7:AJ:59:LEU:H	1.53	0.73
9:AL:47:LEU:HB2	9:AL:50:LEU:HD12	1.69	0.73
9:AL:78:LYS:HE3	9:AL:101:PHE:HD1	1.51	0.73
24:BA:993:G:OP1	39:B1:50:ARG:NH2	2.21	0.73
24:BA:1533:C:O2	24:BA:1538:G:N2	2.12	0.73
24:BA:2505:G:HO2'	24:BA:2506:U:H6	1.34	0.73
26:BD:30:GLU:OE2	26:BD:30:GLU:CA	2.36	0.73
26:BD:65:ILE:HD11	26:BD:67:PHE:CG	2.23	0.73
28:BF:160:ASN:OD1	28:BF:163:VAL:HG23	1.88	0.73
31:BK:133:HIS:HB2	31:BK:134:PRO:HD3	1.70	0.73
39:B1:90:VAL:HG12	39:B1:91:ASP:N	2.02	0.73
1:CA:572:A:H5"	1:CA:917:G:H4'	1.68	0.73
1:CA:920:U:H2'	1:CA:921:U:C6	2.23	0.73
1:CA:998:G:N2	1:CA:1043:C:O2	2.21	0.73
1:CA:1218:C:OP1	14:CQ:9:LYS:NZ	2.21	0.73
1:CA:1279:A:O2'	1:CA:1281:U:OP2	2.05	0.73
8:CK:12:ARG:NH1	8:CK:26:VAL:HA	2.03	0.73
10:CM:34:VAL:HG12	10:CM:74:ILE:CG2	2.18	0.73
10:CM:48:THR:HA	10:CM:62:HIS:HB3	1.70	0.73
1:AA:191:G:O2'	20:AW:103:GLY:N	2.20	0.73
6:AI:22:GLU:OE1	6:AI:84:ASN:ND2	2.21	0.73
24:BA:439:G:O2'	24:BA:440:G:H5'	1.88	0.73
24:BA:1583:A:H5'	24:BA:1585:C:C5'	2.19	0.73
24:BA:2562:U:H1'	33:BN:23:ARG:HH11	1.51	0.73
30:BH:4:ILE:HB	30:BH:6:ARG:CD	2.18	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BV:18:LEU:HD12	44:BV:18:LEU:H	1.53	0.73
44:BV:19:ARG:HH12	44:BV:84:GLU:HB2	1.53	0.73
1:CA:429:U:OP1	4:CG:13:ARG:NH2	2.19	0.73
1:CA:652:U:H1'	1:CA:653:A:H2	1.53	0.73
22:CC:1:C:H4'	22:CC:2:G:O5'	1.87	0.73
29:DG:75:LYS:HG3	29:DG:76:SER:H	1.53	0.73
29:DG:104:GLU:HG2	49:D4:23:GLU:CG	2.17	0.73
38:DR:2:ASN:O	38:DR:4:GLY:N	2.21	0.73
38:DR:127:ALA:O	38:DR:131:ALA:HB2	1.87	0.73
43:DU:28:LYS:HE3	43:DU:63:LYS:HZ3	1.53	0.73
1:AA:1023:G:H3'	1:AA:1024:G:C5'	2.17	0.73
3:AF:73:PRO:HG3	3:AF:105:GLU:HG3	1.71	0.73
9:AL:16:ARG:O	9:AL:63:ILE:HG23	1.88	0.73
11:AN:33:THR:HG22	11:AN:39:PRO:CA	2.17	0.73
24:BA:858:U:O2	24:BA:2268:A:H2'	1.88	0.73
24:BA:1359:A:C2	24:BA:1372:U:O4	2.41	0.73
24:BA:1408:C:O2	24:BA:1595:G:N2	2.22	0.73
29:BG:16:ARG:O	29:BG:20:ILE:HG13	1.88	0.73
39:B1:92:ARG:HB3	39:B1:95:LEU:CD1	2.18	0.73
42:BT:35:THR:O	42:BT:39:ILE:HG13	1.88	0.73
49:B4:57:GLU:HA	49:B4:60:GLN:CG	2.18	0.73
1:CA:1112:C:O2	3:CF:179:ARG:HG2	1.88	0.73
22:CC:56:C:O2	29:DG:78:SER:OG	2.06	0.73
24:DA:1313:U:H2'	24:DA:1610:A:N1	2.02	0.73
24:DA:1654:A:O5'	36:D0:2:ARG:NE	2.22	0.73
24:DA:2447:G:H1'	24:DA:2448:A:OP2	1.87	0.73
35:DP:134:ARG:NH2	44:DV:122:ARG:HD2	2.03	0.73
39:D1:91:ASP:C	39:D1:92:ARG:HG2	2.05	0.73
39:D1:92:ARG:HD2	40:D2:11:GLN:CD	2.08	0.73
40:D2:22:VAL:HG22	40:D2:23:GLU:N	2.03	0.73
40:D2:76:LYS:NZ	40:D2:82:ARG:HH21	1.85	0.73
1:AA:413:G:H2'	1:AA:428:G:H21	1.53	0.73
1:AA:439:A:OP2	1:AA:493:G:N1	2.21	0.73
6:AI:60:PHE:C	6:AI:61:LEU:HD12	2.09	0.73
9:AL:9:ARG:HG2	9:AL:14:VAL:CB	2.18	0.73
24:BA:314:A:C2'	24:BA:315:G:H5'	2.18	0.73
24:BA:2228:G:OP1	26:BD:261:LYS:NZ	2.21	0.73
28:BF:32:LEU:CD1	28:BF:105:VAL:HG13	2.19	0.73
31:BK:69:LYS:CA	31:BK:136:VAL:HG11	2.12	0.73
31:BK:110:ASP:HB3	31:BK:111:PRO:C	2.07	0.73
31:BK:133:HIS:CB	31:BK:134:PRO:CD	2.65	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1131:G:H2'	1:CA:1132:C:C6	2.24	0.73
1:CA:1268:A:H5"	21:CX:24:ARG:HH21	1.53	0.73
1:CA:1288:A:H4'	21:CX:13:ILE:CD1	2.18	0.73
4:CG:18:LYS:HD3	4:CG:20:TYR:CE1	2.23	0.73
24:DA:943:U:OP2	34:DO:36:LYS:HD2	1.88	0.73
24:DA:2836:U:H2'	24:DA:2837:G:C8	2.24	0.73
42:DT:8:ILE:HD13	42:DT:43:VAL:HG12	1.70	0.73
42:DT:50:LYS:HB3	42:DT:84:ALA:CB	2.17	0.73
43:DU:4:LYS:HA	43:DU:4:LYS:CE	2.17	0.73
51:D6:37:ARG:NH2	51:D6:38:LYS:H	1.86	0.73
1:AA:412:A:H1'	1:AA:413:G:OP2	1.88	0.73
1:AA:689:C:C2'	1:AA:690:G:H5'	2.18	0.73
9:AL:66:ARG:HG3	9:AL:66:ARG:HH11	1.53	0.73
10:AM:22:LYS:NZ	10:AM:88:LEU:O	2.20	0.73
24:BA:746:A:C5	24:BA:2611:U:H5"	2.24	0.73
24:BA:2248:C:H2'	24:BA:2249:U:H5'	1.70	0.73
27:BE:116:VAL:O	27:BE:117:MET:CB	2.36	0.73
29:BG:28:VAL:O	29:BG:31:VAL:HG12	1.89	0.73
33:BN:120:GLU:HG2	33:BN:122:LEU:CD1	2.19	0.73
35:BP:30:GLY:CA	35:BP:107:ALA:HB2	2.17	0.73
43:BU:52:SER:CB	43:BU:53:PRO:HD3	2.13	0.73
46:BZ:92:LYS:O	46:BZ:93:GLU:C	2.26	0.73
49:B4:35:VAL:O	49:B4:35:VAL:HG12	1.89	0.73
1:CA:1014:A:P	19:CV:15:LEU:HD11	2.29	0.73
1:CA:1240:U:H3	7:CJ:32:ARG:NH2	1.84	0.73
8:CK:30:ARG:O	8:CK:34:GLU:HG2	1.88	0.73
10:CM:82:ILE:HG22	10:CM:86:MET:HE1	1.71	0.73
24:DA:1654:A:O5'	36:D0:2:ARG:NH2	2.21	0.73
24:DA:2470:G:H5'	35:DP:56:ARG:NH2	2.04	0.73
24:DA:2634:G:O3'	27:DE:77:ILE:CG2	2.33	0.73
24:DA:2793:G:N2	24:DA:2803:C:N3	2.33	0.73
27:DE:33:VAL:HG23	27:DE:47:VAL:HG23	1.70	0.73
35:DP:97:VAL:HG11	35:DP:103:MET:CE	2.19	0.73
37:DQ:25:ARG:HD2	37:DQ:88:ASP:HB2	1.69	0.73
49:D4:57:GLU:H	49:D4:60:GLN:CD	1.92	0.73
1:AA:537:G:H5"	12:AO:113:ARG:NH1	2.04	0.73
1:AA:1003:G:N2	1:AA:1038:C:O2	2.21	0.73
1:AA:1221:G:P	19:AV:36:ARG:NH2	2.60	0.73
2:AE:75:LYS:O	2:AE:75:LYS:HD3	1.87	0.73
4:AG:186:LEU:HD12	4:AG:187:ARG:CG	2.17	0.73
9:AL:79:LEU:O	9:AL:82:ALA:N	2.22	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AW:13:LEU:HD12	20:AW:13:LEU:C	2.09	0.73
24:BA:2688:U:H3'	24:BA:2688:U:O2	1.88	0.73
29:BG:95:ARG:O	29:BG:99:MET:N	2.20	0.73
1:CA:501:C:H2'	1:CA:502:G:H8	1.51	0.73
1:CA:1213:A:N1	1:CA:1215:G:H1'	2.03	0.73
2:CE:127:ILE:O	2:CE:135:GLN:NE2	2.21	0.73
2:CE:230:VAL:HG13	2:CE:231:GLU:N	2.04	0.73
4:CG:31:CYS:SG	4:CG:33:MET:HE3	2.23	0.73
19:CV:36:ARG:HD3	19:CV:51:VAL:CG1	2.18	0.73
24:DA:1174:A:N6	24:DA:1176:G:H1'	2.04	0.73
38:DR:77:PRO:HB2	38:DR:80:SER:HB2	1.69	0.73
42:DT:57:LEU:CD2	42:DT:78:LYS:HB2	2.19	0.73
1:AA:486:U:H2'	1:AA:487:A:H8	1.54	0.73
1:AA:1277:C:O2'	1:AA:1279:A:H1'	1.88	0.73
1:AA:1422:G:O3'	33:BN:49:ARG:NH1	2.20	0.73
3:AF:50:ALA:HA	3:AF:72:LYS:HD2	1.70	0.73
4:AG:173:TRP:C	4:AG:186:LEU:HG	2.08	0.73
5:AH:102:ALA:HB2	5:AH:120:THR:OG1	1.89	0.73
19:AV:28:LYS:HE2	19:AV:47:HIS:HA	0.79	0.73
24:BA:34:C:OP2	24:BA:34:C:C6	2.41	0.73
24:BA:1310:G:OP2	52:B7:9:ARG:NH1	2.14	0.73
26:BD:35:LYS:HE3	26:BD:65:ILE:N	2.03	0.73
49:B4:42:PHE:C	49:B4:43:TYR:CD2	2.62	0.73
51:B6:32:ASN:CA	51:B6:35:GLU:OE2	2.36	0.73
1:CA:979:C:N4	14:CQ:18:VAL:HG13	1.99	0.73
1:CA:1279:A:H5"	1:CA:1280:A:OP1	1.89	0.73
4:CG:86:LYS:HG3	4:CG:87:GLY:N	2.03	0.73
6:CI:68:PRO:HG3	6:CI:71:ARG:NH2	2.03	0.73
24:DA:67:U:N3	24:DA:74:A:H2	1.83	0.73
24:DA:1012:U:C4	32:DM:28:THR:HG21	2.22	0.73
24:DA:1910:G:O2'	24:DA:1911:U:H5'	1.88	0.73
24:DA:2377:A:H1'	37:DQ:112:PHE:HD1	1.42	0.73
24:DA:2533:A:OP1	24:DA:2665:A:H1'	1.89	0.73
28:DF:25:PRO:HB3	28:DF:28:ILE:CG1	2.11	0.73
40:D2:38:LEU:CD1	40:D2:57:VAL:HG12	2.19	0.73
43:DU:97:ARG:NH2	43:DU:98:VAL:HB	2.03	0.73
53:D8:29:LYS:O	53:D8:31:HIS:N	2.22	0.73
1:AA:838:G:C2'	1:AA:841:U:H5"	2.18	0.73
1:AA:1348:U:C5	1:AA:1373:G:N2	2.57	0.73
24:BA:917:A:H2'	24:BA:918:A:H5'	1.69	0.73
24:BA:955:C:H2'	24:BA:956:G:H5'	1.69	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2284:C:H5”	51:B6:28:ARG:HH21	1.50	0.73
28:BF:192:LEU:HD21	28:BF:194:MET:HE2	1.70	0.73
30:BH:12:PRO:HD3	30:BH:48:GLY:O	1.87	0.73
39:B1:105:VAL:O	39:B1:109:LEU:HG	1.88	0.73
53:B8:49:VAL:HB	53:B8:53:PRO:HB3	1.71	0.73
9:CL:25:LYS:HE2	9:CL:32:ASP:OD1	1.88	0.73
9:CL:82:ALA:CB	9:CL:101:PHE:CD2	2.72	0.73
24:DA:870:A:C3’	35:DP:6:ARG:HH21	2.00	0.73
24:DA:2873:A:H8	36:D0:6:SER:H	1.37	0.73
34:DO:23:PRO:O	34:DO:25:SER:N	2.22	0.73
4:AG:152:SER:O	4:AG:154:ASN:N	2.22	0.73
6:AI:19:LEU:HD23	6:AI:19:LEU:O	1.89	0.73
13:AP:12:ASN:O	13:AP:14:ARG:N	2.22	0.73
19:AV:32:LYS:HA	19:AV:50:ALA:HB3	1.71	0.73
24:BA:274:G:H2’	24:BA:275:G:O4’	1.89	0.73
24:BA:2396:G:H5’	46:BZ:25:LYS:HE2	1.71	0.73
48:BX:43:ILE:O	48:BX:47:VAL:HG23	1.89	0.73
13:CP:86:CYS:O	13:CP:89:GLY:N	2.21	0.73
14:CQ:23:ARG:NH1	14:CQ:29:ARG:O	2.21	0.73
24:DA:90:U:H2’	24:DA:91:A:H5”	1.70	0.73
24:DA:2801:A:C4’	24:DA:2895:U:H4’	2.11	0.73
25:DB:38:C:O4’	37:DQ:95:HIS:NE2	2.22	0.73
31:DK:81:VAL:HG21	31:DK:123:LEU:HD21	1.69	0.73
37:DQ:66:ALA:HB1	37:DQ:101:LEU:HB2	1.71	0.73
1:AA:919:A:O2’	1:AA:920:U:H5’	1.89	0.73
1:AA:1498:U:H1’	1:AA:1499:A:OP2	1.89	0.73
2:AE:87:ARG:NH2	2:AE:216:SER:O	2.21	0.73
7:AJ:78:ARG:HH21	7:AJ:154:TYR:C	1.92	0.73
9:AL:70:LYS:HG3	9:AL:71:SER:N	2.03	0.73
14:AQ:3:ARG:HD3	14:AQ:3:ARG:C	2.09	0.73
24:BA:2110:G:H5”	24:BA:2145:C:N4	2.04	0.73
27:BE:92:THR:O	27:BE:95:ILE:HG12	1.89	0.73
43:BU:20:TYR:CE1	43:BU:42:VAL:HA	2.24	0.73
1:CA:12:U:H4’	1:CA:526:C:H4’	1.70	0.73
1:CA:1004:A:H2’	1:CA:1005:A:H5”	1.71	0.73
3:CF:15:THR:CG2	3:CF:181:ASN:HA	2.18	0.73
3:CF:71:ALA:CB	3:CF:109:PRO:HB3	2.19	0.73
24:DA:637:A:H4’	24:DA:638:G:O5’	1.87	0.73
24:DA:2855:C:H2’	24:DA:2856:C:H6	1.53	0.73
24:DA:2884:U:H2’	24:DA:2885:C:H5’	1.71	0.73
25:DB:39:A:H61	49:D4:1:MET:HB3	1.51	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:D1:110:VAL:HG12	39:D1:114:LYS:HD2	1.71	0.73
1:AA:79:G:N2	1:AA:90:C:N3	2.36	0.72
9:AL:96:LEU:CA	9:AL:99:LEU:CD1	2.63	0.72
35:BP:78:PRO:HG2	35:BP:81:VAL:HG11	1.71	0.72
37:BQ:110:LEU:CD2	37:BQ:112:PHE:CD2	2.71	0.72
48:BX:8:LEU:HD13	48:BX:31:LEU:CD2	2.18	0.72
1:CA:328:C:H4'	1:CA:329:A:C5'	2.19	0.72
1:CA:426:G:OP1	4:CG:38:TYR:OH	2.06	0.72
1:CA:530:G:H3'	1:CA:531:U:C5'	2.19	0.72
2:CE:168:THR:HG23	2:CE:192:SER:HA	1.69	0.72
3:CF:85:ARG:H	3:CF:85:ARG:CD	2.01	0.72
6:CI:23:LYS:HE2	6:CI:61:LEU:HD21	1.68	0.72
7:CJ:85:TYR:HH	7:CJ:154:TYR:HE2	1.36	0.72
24:DA:2439:A:H3'	24:DA:2439:A:P	2.28	0.72
24:DA:2776:A:H4'	24:DA:2777:G:O5'	1.87	0.72
29:DG:97:ASP:HA	29:DG:100:TRP:HD1	1.54	0.72
43:DU:75:ILE:HD12	43:DU:76:CYS:N	2.04	0.72
50:D5:6:VAL:HG22	50:D5:7:PRO:HD2	1.71	0.72
3:AF:53:ALA:HB2	3:AF:115:LEU:HD11	1.69	0.72
7:AJ:23:VAL:O	7:AJ:27:ILE:HG13	1.89	0.72
9:AL:10:ARG:HG3	9:AL:105:ASP:OD1	1.89	0.72
12:AO:18:VAL:HG23	12:AO:19:ARG:N	2.05	0.72
24:BA:908:C:O2'	24:BA:909:A:H5'	1.88	0.72
24:BA:2636:U:OP1	27:BE:80:GLU:N	2.21	0.72
26:BD:69:ARG:NH2	26:BD:128:GLY:O	2.22	0.72
26:BD:121:PRO:HB3	26:BD:135:PHE:HE2	1.53	0.72
37:BQ:34:HIS:HB2	37:BQ:36:TYR:HE1	1.51	0.72
44:BV:107:THR:HG21	44:BV:112:ARG:HA	1.71	0.72
44:BV:171:ILE:HD13	44:BV:171:ILE:N	2.04	0.72
46:BZ:53:VAL:CG2	46:BZ:74:VAL:HG23	2.17	0.72
47:BW:50:ILE:CD1	47:BW:51:ARG:H	2.01	0.72
1:CA:719:C:H42	18:CU:71:LYS:NZ	1.87	0.72
1:CA:979:C:O2	14:CQ:19:ARG:NH2	2.21	0.72
1:CA:1123:A:H4'	10:CM:37:PRO:CD	2.18	0.72
1:CA:1220:G:N3	19:CV:52:TYR:HE2	1.88	0.72
1:CA:1317:C:N4	14:CQ:19:ARG:HH12	1.86	0.72
6:CI:23:LYS:HE2	6:CI:61:LEU:HD11	1.71	0.72
8:CK:64:LYS:HG2	8:CK:79:VAL:HG21	1.70	0.72
13:CP:17:VAL:O	13:CP:20:THR:OG1	2.06	0.72
18:CU:22:VAL:HG22	18:CU:23:LYS:N	1.99	0.72
24:DA:26:G:OP1	41:DS:80:PRO:HB3	1.89	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:637:A:H2'	34:DO:117:GLU:OE2	1.88	0.72
24:DA:2365:G:N7	53:D8:39:LYS:NZ	2.34	0.72
27:DE:134:ILE:HA	27:DE:137:HIS:CD2	2.24	0.72
46:DZ:87:PRO:HA	46:DZ:90:ILE:CG2	2.17	0.72
52:D7:46:VAL:HG12	52:D7:47:ARG:H	1.54	0.72
1:AA:1005:A:O2'	1:AA:1037:C:O2'	2.07	0.72
6:AI:37:VAL:HG12	6:AI:38:GLU:N	2.04	0.72
9:AL:49:PRO:O	9:AL:53:VAL:HG23	1.88	0.72
24:BA:270(I):G:H1'	46:BZ:78:LYS:CE	2.18	0.72
24:BA:517:C:OP1	50:B5:16:ARG:NH2	2.21	0.72
32:BM:134:ARG:O	32:BM:136:GLU:N	2.22	0.72
1:CA:1060:C:C5	3:CF:2:GLY:HA3	2.24	0.72
1:CA:1149:C:OP2	9:CL:9:ARG:NH1	2.23	0.72
1:CA:1342:C:H4'	9:CL:125:TYR:HB3	1.71	0.72
5:CH:69:VAL:CG1	5:CH:71:LEU:HD11	2.19	0.72
9:CL:8:GLY:HA3	9:CL:80:GLY:H	1.52	0.72
19:CV:66:MET:CA	19:CV:67:VAL:HG13	2.18	0.72
24:DA:259:G:H21	24:DA:621:A:H8	1.36	0.72
24:DA:271:G:H2'	24:DA:272:G:C8	2.24	0.72
24:DA:631:A:OP2	53:D8:47:LYS:NZ	2.20	0.72
24:DA:2392:A:H8	34:DO:61:ARG:HD2	1.51	0.72
26:DD:28:GLU:HB3	26:DD:29:PRO:CD	2.19	0.72
32:DM:134:ARG:HG2	32:DM:134:ARG:O	1.88	0.72
35:DP:59:ARG:O	35:DP:60:ARG:HG2	1.89	0.72
40:D2:79:VAL:C	40:D2:80:GLN:HE21	1.91	0.72
43:DU:48:ALA:HB3	43:DU:59:GLY:C	2.09	0.72
3:AF:72:LYS:HB3	3:AF:75:VAL:CG2	2.19	0.72
4:AG:19:LEU:HD23	4:AG:19:LEU:H	1.54	0.72
8:AK:121:ASP:OD1	8:AK:125:ARG:NH2	2.21	0.72
24:BA:1593:G:H2'	24:BA:1594:G:C8	2.24	0.72
24:BA:2393:A:H4'	34:BO:61:ARG:H	1.54	0.72
24:BA:2419:U:H5'	51:B6:23:THR:HG21	1.72	0.72
24:BA:2422:A:N7	53:B8:31:HIS:HE1	1.88	0.72
29:BG:46:ALA:CB	29:BG:52:ILE:HG21	2.18	0.72
31:BK:69:LYS:CB	31:BK:136:VAL:HG13	2.19	0.72
34:BO:125:VAL:O	34:BO:145:PRO:HD2	1.89	0.72
1:CA:1118:C:O4'	9:CL:104:ARG:NH2	2.22	0.72
3:CF:70:VAL:HG12	3:CF:72:LYS:H	1.54	0.72
4:CG:108:LEU:CD1	4:CG:174:LEU:HB3	2.19	0.72
10:CM:34:VAL:HG12	10:CM:74:ILE:HG22	1.72	0.72
14:CQ:13:THR:N	14:CQ:14:PRO:HD3	2.04	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CQ:22:THR:HG23	14:CQ:33:VAL:HG11	1.71	0.72
19:CV:49:ILE:C	19:CV:49:ILE:HD12	2.09	0.72
24:DA:654(I):C:H2'	24:DA:654(I):C:O2	1.89	0.72
24:DA:828:U:H2'	24:DA:828:U:O2	1.90	0.72
24:DA:2219:G:OP1	26:DD:172:TYR:OH	2.06	0.72
24:DA:2286:A:H5"	51:D6:28:ARG:HG2	1.60	0.72
24:DA:2393:A:H8	53:D8:30:ARG:NH2	1.85	0.72
31:DK:52:ARG:HD2	31:DK:53:ALA:N	2.05	0.72
31:DK:130:TYR:HB3	31:DK:136:VAL:HG13	1.72	0.72
1:AA:1374:A:H2'	1:AA:1375:A:H5'	1.70	0.72
4:AG:105:VAL:HG13	4:AG:110:PHE:HB2	1.70	0.72
4:AG:194:LEU:HD12	4:AG:195:ALA:N	2.04	0.72
4:AG:196:LEU:CG	4:AG:197:PRO:HD2	2.19	0.72
22:AC:20:U:C2'	22:AC:21:A:H5'	2.19	0.72
24:BA:1601:G:P	52:B7:49:ARG:NH1	2.62	0.72
29:BG:109:VAL:O	29:BG:113:ARG:HG3	1.89	0.72
32:BM:15:LEU:HD13	32:BM:16:ILE:N	2.05	0.72
37:BQ:110:LEU:HG	37:BQ:111:GLU:CA	2.19	0.72
1:CA:1220:G:H21	19:CV:54:GLY:CA	2.01	0.72
1:CA:1297:C:O2'	1:CA:1298:C:OP2	2.06	0.72
1:CA:1352:C:OP1	21:CX:3:LYS:NZ	2.22	0.72
3:CF:130:VAL:O	3:CF:134:ILE:HG12	1.89	0.72
13:CP:22:ILE:HB	13:CP:25:ILE:HG13	1.71	0.72
13:CP:29:ARG:HD3	13:CP:64:TRP:CH2	2.25	0.72
24:DA:94:G:P	43:DU:54:LYS:NZ	2.63	0.72
24:DA:468:G:N7	52:D7:39:ARG:NH2	2.37	0.72
26:DD:67:PHE:HB3	26:DD:153:ALA:HB3	1.71	0.72
29:DG:35:GLU:O	29:DG:36:LYS:HB3	1.88	0.72
38:DR:88:ILE:CD1	38:DR:91:ARG:HG2	2.19	0.72
44:DV:101:PRO:C	44:DV:102:LEU:HD12	2.09	0.72
1:AA:1192:C:P	3:AF:4:LYS:NZ	2.63	0.72
11:AN:126:ARG:O	11:AN:128:ALA:N	2.22	0.72
13:AP:11:ARG:HG2	13:AP:46:LYS:CD	2.18	0.72
24:BA:1280:G:O2'	24:BA:1281:G:H5'	1.88	0.72
27:BE:72:VAL:O	27:BE:74:PRO:HD3	1.88	0.72
39:B1:108:GLU:CD	39:B1:112:ARG:HH12	1.93	0.72
1:CA:594:G:H2'	1:CA:595:G:H5'	1.70	0.72
1:CA:735:C:O2'	1:CA:736:C:H5'	1.89	0.72
1:CA:922:G:N3	1:CA:1398:A:H2	1.88	0.72
1:CA:1200:C:H5'	1:CA:1201:A:H5"	1.72	0.72
24:DA:2387:U:O2'	45:D3:41:ARG:NH1	2.23	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2801:A:H2'	24:DA:2802:G:O4'	1.89	0.72
33:DN:39:ILE:O	33:DN:39:ILE:HG13	1.86	0.72
4:AG:6:GLY:O	4:AG:8:VAL:HG13	1.89	0.72
24:BA:642:G:H21	24:BA:646:A:H2	1.36	0.72
24:BA:674:G:O2'	28:BF:74:ARG:HG3	1.90	0.72
24:BA:764:A:N3	26:BD:213:ARG:NH1	2.38	0.72
24:BA:907:U:O2'	35:BP:101:ARG:NH2	2.22	0.72
37:BQ:65:VAL:O	37:BQ:69:VAL:HG12	1.88	0.72
1:CA:1289:A:H5"	21:CX:10:ARG:HH21	1.54	0.72
3:CF:105:GLU:OE1	3:CF:107:GLN:HG2	1.89	0.72
4:CG:24:GLU:O	4:CG:27:TYR:HB3	1.90	0.72
4:CG:173:TRP:HB3	4:CG:187:ARG:HH11	1.55	0.72
8:CK:13:ILE:O	8:CK:17:THR:HG23	1.89	0.72
9:CL:10:ARG:NH1	9:CL:75:ASP:OD2	2.23	0.72
24:DA:470:A:OP1	28:DF:59:TYR:CE1	2.41	0.72
24:DA:2884:U:C2'	24:DA:2885:C:H5'	2.20	0.72
27:DE:76:ARG:HG2	27:DE:195:LEU:HD13	1.71	0.72
28:DF:132:VAL:O	28:DF:134:GLY:N	2.23	0.72
30:DH:38:SER:OG	30:DH:39:PRO:HD2	1.90	0.72
33:DN:10:VAL:CG2	33:DN:17:ARG:HA	2.19	0.72
38:DR:23:ARG:HG2	38:DR:120:ARG:HH12	1.55	0.72
38:DR:78:LEU:O	38:DR:78:LEU:HD23	1.88	0.72
42:DT:30:VAL:HG12	42:DT:31:HIS:N	2.04	0.72
46:DZ:86:SER:N	46:DZ:87:PRO:CD	2.53	0.72
1:AA:1126:U:H5	1:AA:1127:G:C4	2.07	0.72
2:AE:235:SER:C	2:AE:237:ALA:H	1.92	0.72
4:AG:24:GLU:O	4:AG:28:SER:N	2.22	0.72
4:AG:84:LYS:HE3	4:AG:84:LYS:CA	2.19	0.72
6:AI:67:MET:HB2	6:AI:68:PRO:HD2	1.71	0.72
9:AL:9:ARG:HG2	9:AL:14:VAL:CA	2.19	0.72
13:AP:14:ARG:HG2	13:AP:16:ASP:OD1	1.89	0.72
18:AU:29:PHE:HD1	18:AU:29:PHE:H	1.38	0.72
18:AU:36:ASN:HD22	18:AU:36:ASN:H	1.36	0.72
26:BD:118:VAL:HG22	26:BD:119:ALA:H	1.53	0.72
26:BD:142:VAL:HG23	26:BD:193:VAL:HA	1.72	0.72
33:BN:98:VAL:HG12	33:BN:117:LEU:CB	2.19	0.72
38:BR:5:ALA:CB	38:BR:8:LYS:HE2	2.20	0.72
43:BU:51:VAL:HG22	43:BU:51:VAL:O	1.90	0.72
1:CA:196:A:OP1	20:CW:68:LYS:NZ	2.21	0.72
1:CA:599:C:P	8:CK:94:TYR:CZ	2.69	0.72
6:CI:2:ARG:NH2	15:CR:2:PRO:HD2	2.05	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CK:37:ARG:NH1	8:CK:41:ARG:HH22	1.88	0.72
14:CQ:22:THR:HB	14:CQ:35:ARG:CZ	2.19	0.72
24:DA:796:C:H2'	24:DA:797:C:C6	2.25	0.72
24:DA:857:C:H4'	45:D3:23:VAL:HG21	1.70	0.72
27:DE:36:ARG:NH1	27:DE:85:ASN:OD1	2.22	0.72
30:DH:46:GLU:HB3	30:DH:49:VAL:HG23	1.72	0.72
30:DH:109:PHE:CE1	30:DH:152:ARG:HD3	2.23	0.72
32:DM:66:LYS:O	32:DM:87:LEU:HD12	1.89	0.72
2:AE:8:LYS:H	2:AE:8:LYS:CE	2.01	0.72
3:AF:22:TRP:CZ3	3:AF:24:ALA:HB2	2.24	0.72
16:AS:20:VAL:HG23	16:AS:34:GLU:O	1.88	0.72
24:BA:534:U:H5'	39:B1:42:ALA:HB1	1.70	0.72
24:BA:747:U:C6	50:B5:2:ALA:HB3	2.25	0.72
27:BE:181:LEU:HD21	38:BR:7:ILE:CG2	2.20	0.72
35:BP:59:ARG:O	35:BP:60:ARG:HG2	1.88	0.72
1:CA:977:A:N3	1:CA:977:A:H2'	2.05	0.72
1:CA:1124:G:H3'	1:CA:1145:C:N4	2.05	0.72
2:CE:8:LYS:CE	2:CE:217:ARG:HD2	2.18	0.72
5:CH:150:ARG:O	5:CH:151:LEU:CB	2.38	0.72
24:DA:2119:A:N6	24:DA:2170:A:N7	2.38	0.72
24:DA:2776:A:OP1	24:DA:2776:A:H3'	1.90	0.72
30:DH:35:VAL:HG13	30:DH:36:PRO:HD2	1.71	0.72
31:DK:68:LEU:HA	31:DK:71:ILE:HG22	1.72	0.72
41:DS:87:PRO:HA	41:DS:93:ALA:HA	1.71	0.72
47:DW:31:GLU:O	47:DW:35:LEU:HD23	1.89	0.72
1:AA:222:U:H2'	1:AA:223:U:C6	2.24	0.72
1:AA:431:A:H2'	1:AA:432:A:O4'	1.90	0.72
1:AA:1015:A:O2'	14:AQ:15:LYS:NZ	2.22	0.72
1:AA:1412:C:H2'	1:AA:1413:A:H8	1.52	0.72
24:BA:1998:G:H2'	24:BA:1999:C:C5'	2.16	0.72
24:BA:2123:G:H22	24:BA:2175:C:H42	1.38	0.72
24:BA:2210:G:H5'	24:BA:2211:G:C8	2.25	0.72
30:BH:12:PRO:O	30:BH:13:LYS:HB2	1.90	0.72
31:BK:101:LEU:HD21	31:BK:107:VAL:CG2	2.17	0.72
51:B6:47:THR:HG22	51:B6:48:VAL:N	2.05	0.72
8:CK:51:VAL:HG11	8:CK:60:ARG:HH11	1.55	0.72
9:CL:9:ARG:CG	9:CL:14:VAL:HG13	2.19	0.72
9:CL:17:VAL:HG12	9:CL:63:ILE:CD1	2.19	0.72
12:CO:27:LEU:HD11	12:CO:62:SER:CB	2.19	0.72
24:DA:1019:U:O2'	24:DA:1021:A:H2	1.73	0.72
24:DA:2262:U:H5	45:D3:16:SER:OG	1.73	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DG:108:ASN:CA	49:D4:38:LYS:HG2	2.18	0.72
46:DZ:91:LYS:O	46:DZ:93:GLU:N	2.22	0.72
1:AA:559:A:OP1	5:AH:126:ARG:NH2	2.23	0.71
4:AG:98:GLU:HG3	4:AG:103:ASN:HD21	1.54	0.71
6:AI:67:MET:CE	6:AI:75:LEU:HD12	2.19	0.71
12:AO:24:VAL:HG12	12:AO:27:LEU:HG	1.72	0.71
22:AC:59:A:C2'	22:AC:60:U:H5'	2.19	0.71
24:BA:602:G:N2	24:BA:655:A:C8	2.57	0.71
24:BA:1221:C:H2'	24:BA:1222:C:H6	1.55	0.71
24:BA:1716:U:O2'	24:BA:1717:G:H5'	1.90	0.71
24:BA:2056:G:N2	50:B5:4:HIS:O	2.22	0.71
24:BA:2168:G:H3'	24:BA:2168:G:N3	2.05	0.71
24:BA:2564:A:C2	24:BA:2647:U:H4'	2.25	0.71
24:BA:2591:C:H2'	24:BA:2592:G:C8	2.25	0.71
27:BE:115:GLY:HA2	27:BE:157:ALA:CB	2.20	0.71
44:BV:116:VAL:HG11	44:BV:175:VAL:O	1.89	0.71
44:BV:150:LEU:CG	44:BV:154:ASP:CG	2.56	0.71
47:BW:31:GLU:CB	47:BW:53:LEU:HD11	2.20	0.71
1:CA:57:G:H2'	1:CA:58:C:C6	2.24	0.71
2:CE:75:LYS:HE3	2:CE:75:LYS:N	2.06	0.71
5:CH:69:VAL:HG12	5:CH:71:LEU:CD1	2.19	0.71
7:CJ:88:PRO:C	7:CJ:155:ARG:NH1	2.42	0.71
17:CT:94:ASN:HA	17:CT:97:SER:OG	1.90	0.71
24:DA:634:C:H2'	24:DA:635:C:H6	1.55	0.71
24:DA:1174:A:C6	24:DA:1176:G:H1'	2.24	0.71
24:DA:2292:C:OP1	37:DQ:17:ARG:NH2	2.23	0.71
1:AA:177:C:OP1	20:AW:65:LYS:NZ	2.20	0.71
1:AA:684:A:H5"	11:AN:11:LYS:NZ	2.04	0.71
1:AA:1286:A:H5"	21:AX:26:LYS:CD	2.19	0.71
7:AJ:20:ASP:HB3	7:AJ:23:VAL:HG23	1.71	0.71
12:AO:24:VAL:HG11	12:AO:27:LEU:CD1	2.20	0.71
13:AP:32:GLU:O	13:AP:36:LYS:HG2	1.90	0.71
24:BA:1653:G:H1'	24:BA:1654:A:OP2	1.90	0.71
34:BO:144:GLU:OE2	34:BO:144:GLU:N	2.23	0.71
40:B2:24:LYS:HB3	40:B2:24:LYS:NZ	2.05	0.71
40:B2:44:LYS:HG2	40:B2:45:THR:N	2.05	0.71
44:BV:16:SER:O	44:BV:20:ARG:HD2	1.90	0.71
1:CA:913:A:H1'	1:CA:914:A:OP2	1.89	0.71
1:CA:1308:U:H5"	13:CP:98:VAL:HG22	1.71	0.71
2:CE:119:GLU:N	2:CE:119:GLU:OE2	2.22	0.71
3:CF:40:ARG:HG2	3:CF:55:VAL:CG1	2.20	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CF:78:GLY:HA2	3:CF:79:ARG:HH21	1.55	0.71
6:CI:11:ASN:ND2	6:CI:84:ASN:OD1	2.17	0.71
13:CP:41:PRO:O	13:CP:43:THR:N	2.23	0.71
21:CX:6:ARG:HH21	21:CX:15:ARG:HH22	1.37	0.71
24:DA:443:A:H1'	24:DA:1201:C:O4'	1.90	0.71
24:DA:1173:G:HO2'	24:DA:1174:A:H2	1.32	0.71
24:DA:2056:G:N2	50:D5:4:HIS:O	2.23	0.71
27:DE:9:VAL:HG21	27:DE:25:VAL:CB	2.19	0.71
40:D2:29:PRO:O	40:D2:61:VAL:HG13	1.90	0.71
51:D6:38:LYS:O	51:D6:46:HIS:HD2	1.73	0.71
4:AG:59:ARG:NH2	4:AG:62:GLN:HG3	2.05	0.71
24:BA:360:G:O2'	24:BA:361:G:H5'	1.90	0.71
24:BA:880:G:N1	24:BA:897:C:N3	2.38	0.71
24:BA:2340:G:O2'	24:BA:2341:G:H5'	1.90	0.71
28:BF:114:VAL:HG21	28:BF:202:PHE:CZ	2.25	0.71
1:CA:405:U:O4	4:CG:2:GLY:N	2.23	0.71
1:CA:410:G:N1	1:CA:429:U:O2	2.23	0.71
1:CA:1127:G:H21	1:CA:1146:A:H62	1.36	0.71
1:CA:1270:C:OP2	21:CX:18:TYR:OH	2.05	0.71
7:CJ:150:ALA:HB2	11:CN:50:TYR:OH	1.90	0.71
17:CT:97:SER:O	17:CT:98:LEU:HD23	1.91	0.71
24:DA:1600:C:C2'	52:D7:49:ARG:CZ	2.62	0.71
24:DA:1638:C:H4'	24:DA:2710:C:O2	1.89	0.71
29:DG:113:ARG:HA	49:D4:35:VAL:HG11	1.73	0.71
33:DN:87:ILE:HD11	33:DN:91:LEU:C	2.10	0.71
34:DO:62:LEU:CD1	34:DO:62:LEU:C	2.58	0.71
40:D2:62:LEU:H	40:D2:62:LEU:HD22	1.55	0.71
40:D2:64:HIS:CD2	40:D2:92:THR:HG23	2.24	0.71
40:D2:80:GLN:HE21	40:D2:80:GLN:CA	2.03	0.71
43:DU:42:VAL:HG11	43:DU:67:LEU:CD1	2.19	0.71
1:AA:1117:G:C5'	9:AL:104:ARG:HH12	2.02	0.71
4:AG:83:SER:HA	4:AG:89:THR:HG21	1.73	0.71
6:AI:24:GLU:HA	6:AI:27:GLN:CG	2.19	0.71
7:AJ:5:ARG:HD2	7:AJ:7:ALA:N	2.03	0.71
20:AW:95:ALA:O	20:AW:97:ALA:N	2.23	0.71
24:BA:95:G:H4'	47:BW:46:GLN:NE2	2.06	0.71
24:BA:1060:U:H5'	24:BA:1061:U:H5	1.55	0.71
24:BA:1359:A:H2'	24:BA:1360:A:C5'	2.04	0.71
26:BD:35:LYS:HD3	26:BD:63:ARG:CA	2.19	0.71
51:B6:20:ASN:O	51:B6:21:TYR:HB3	1.91	0.71
1:CA:279:A:H5"	1:CA:281:G:O4'	1.91	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:792:A:H4'	1:CA:793:U:O5'	1.90	0.71
1:CA:1504:G:OP1	1:CA:1507:A:H4'	1.91	0.71
2:CE:8:LYS:HE2	2:CE:217:ARG:CD	2.20	0.71
8:CK:84:ARG:O	8:CK:135:CYS:HB2	1.91	0.71
9:CL:78:LYS:HG2	9:CL:101:PHE:HZ	1.53	0.71
17:CT:10:VAL:HG12	17:CT:53:LEU:HA	1.73	0.71
24:DA:2219:G:H2'	24:DA:2224:G:H5'	1.72	0.71
27:DE:200:GLU:HG2	27:DE:201:THR:N	2.05	0.71
30:DH:42:ARG:O	30:DH:52:VAL:HG13	1.89	0.71
33:DN:47:ILE:HG13	33:DN:48:PRO:CD	2.15	0.71
37:DQ:29:PHE:O	37:DQ:35:ILE:HD12	1.90	0.71
46:DZ:23:LYS:CD	46:DZ:28:GLY:HA3	2.19	0.71
49:D4:1:MET:O	49:D4:2:LYS:HD3	1.90	0.71
1:AA:631:G:O2'	1:AA:632:A:O4'	2.08	0.71
9:AL:93:ARG:HE	9:AL:102:LEU:HD13	1.54	0.71
26:BD:35:LYS:HG2	26:BD:64:ILE:CA	2.20	0.71
1:CA:989:C:H1'	1:CA:1016:A:H2	1.56	0.71
1:CA:1061:G:H1'	10:CM:56:HIS:CE1	2.25	0.71
1:CA:1118:C:H5'	9:CL:104:ARG:CZ	2.19	0.71
1:CA:1139:G:H22	1:CA:1143:G:H22	1.36	0.71
1:CA:1305:G:N2	1:CA:1332:A:OP2	2.19	0.71
1:CA:1320:C:N3	19:CV:36:ARG:NH1	2.38	0.71
2:CE:7:VAL:CG2	2:CE:8:LYS:H	2.03	0.71
12:CO:83:VAL:HG21	12:CO:100:ILE:HD13	1.73	0.71
19:CV:70:LYS:NZ	19:CV:72:GLY:C	2.35	0.71
26:DD:35:LYS:CB	26:DD:64:ILE:HG22	2.21	0.71
40:D2:21:ARG:CZ	40:D2:91:TYR:HB3	2.20	0.71
40:D2:28:GLU:HG3	40:D2:29:PRO:CD	2.20	0.71
40:D2:35:LEU:CD2	40:D2:37:VAL:HG21	2.20	0.71
44:DV:151:HIS:HD2	44:DV:153:SER:OG	1.73	0.71
1:AA:151:A:H2'	1:AA:152:A:H5'	1.72	0.71
2:AE:76:GLN:OE1	2:AE:206:ASP:HB3	1.90	0.71
24:BA:330:A:O2'	24:BA:331:A:H8	1.74	0.71
24:BA:1050:A:N7	24:BA:2751:G:C5	2.59	0.71
24:BA:1069:A:H5"	24:BA:1070:A:OP1	1.90	0.71
24:BA:2502:G:C5'	24:BA:2503:A:H5"	2.20	0.71
1:CA:1096:C:O2'	1:CA:1097:C:H5'	1.89	0.71
3:CF:47:LEU:HG	3:CF:52:LEU:HB3	1.70	0.71
6:CI:23:LYS:HD2	6:CI:61:LEU:HD21	1.73	0.71
13:CP:3:ARG:NH2	13:CP:7:VAL:HB	2.06	0.71
13:CP:29:ARG:HB3	13:CP:64:TRP:HH2	1.53	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CV:17:GLU:O	19:CV:21:GLU:HG2	1.90	0.71
19:CV:49:ILE:CD1	19:CV:60:VAL:HG22	2.20	0.71
24:DA:882:G:N1	24:DA:894:C:N3	2.39	0.71
24:DA:1088:A:O3'	24:DA:1089:G:H8	1.74	0.71
24:DA:2287:A:OP1	51:D6:30:THR:CG2	2.38	0.71
24:DA:2887:U:O2'	24:DA:2888:C:H5'	1.90	0.71
29:DG:33:ARG:H	29:DG:162:THR:HG22	1.55	0.71
32:DM:34:LEU:O	32:DM:49:GLY:HA3	1.89	0.71
36:D0:38:VAL:HB	36:D0:39:PRO:HD3	1.72	0.71
37:DQ:27:SER:HA	37:DQ:88:ASP:HB3	1.71	0.71
1:AA:686:U:O2'	1:AA:687:A:O5'	2.08	0.71
1:AA:1159:U:O4'	1:AA:1182:G:N2	2.24	0.71
2:AE:221:LEU:HD13	2:AE:221:LEU:O	1.91	0.71
24:BA:49:A:N7	24:BA:120:U:C5	2.53	0.71
38:BR:37:GLY:O	38:BR:39:ARG:N	2.22	0.71
38:BR:51:ARG:HG3	38:BR:98:LYS:HE3	1.72	0.71
1:CA:1320:C:C4	1:CA:1321:C:C4	2.79	0.71
2:CE:7:VAL:O	2:CE:217:ARG:NH2	2.22	0.71
3:CF:39:ILE:HG21	3:CF:57:ILE:HD11	1.71	0.71
5:CH:151:LEU:HD11	8:CK:79:VAL:HG22	1.72	0.71
7:CJ:16:LEU:CD1	9:CL:42:ARG:HA	2.21	0.71
8:CK:17:THR:O	8:CK:78:GLN:NE2	2.24	0.71
9:CL:112:LYS:HE3	9:CL:118:LYS:HA	1.73	0.71
20:CW:89:ARG:NH1	20:CW:105:SER:O	2.23	0.71
24:DA:1101:U:H2'	24:DA:1102:C:C6	2.25	0.71
24:DA:2808:U:O2'	24:DA:2809:A:H5'	1.90	0.71
24:DA:2845:G:O2'	24:DA:2846:G:H5'	1.89	0.71
33:DN:10:VAL:HG21	33:DN:16:ALA:O	1.91	0.71
39:D1:66:ASN:ND2	39:D1:70:ARG:HE	1.84	0.71
39:D1:112:ARG:NH1	40:D2:47:VAL:HG11	2.06	0.71
42:DT:57:LEU:HD21	42:DT:78:LYS:CB	2.20	0.71
49:D4:22:ILE:HG13	49:D4:23:GLU:H	1.56	0.71
1:AA:5:U:O2'	1:AA:6:G:O5'	2.07	0.71
1:AA:162:A:H3'	1:AA:163:C:C5'	2.21	0.71
1:AA:689:C:H3'	1:AA:690:G:H21	1.54	0.71
1:AA:1104:G:OP1	2:AE:144:ARG:NH2	2.23	0.71
3:AF:8:ILE:HD11	3:AF:16:ARG:CD	2.20	0.71
7:AJ:78:ARG:HH21	7:AJ:154:TYR:CA	2.04	0.71
24:BA:1981:A:H5"	24:BA:1982:C:OP2	1.91	0.71
24:BA:2439:A:H3'	24:BA:2439:A:P	2.31	0.71
24:BA:2828:C:C2'	24:BA:2829:C:H5'	2.20	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BB:37:C:C2'	25:BB:38:C:H5'	2.21	0.71
29:BG:57:ALA:HB2	29:BG:90:LEU:HD21	1.71	0.71
43:BU:44:ILE:HG13	43:BU:45:VAL:H	1.55	0.71
44:BV:76:LEU:H	44:BV:76:LEU:CD2	2.03	0.71
1:CA:339:C:C2'	1:CA:340:U:H5'	2.21	0.71
1:CA:923:A:H5'	5:CH:21:ALA:HB2	1.71	0.71
1:CA:1328:C:O2'	13:CP:29:ARG:NH2	2.22	0.71
2:CE:17:PHE:CD2	2:CE:44:LEU:CD2	2.74	0.71
3:CF:27:LYS:NZ	3:CF:27:LYS:HB3	2.05	0.71
3:CF:82:GLU:N	3:CF:85:ARG:HD3	2.06	0.71
7:CJ:78:ARG:NH2	7:CJ:87:VAL:HG22	2.06	0.71
8:CK:6:ILE:HD12	8:CK:6:ILE:H	1.56	0.71
16:CS:49:LEU:HD12	16:CS:50:LYS:N	2.05	0.71
24:DA:643:A:N1	24:DA:2369:A:O2'	2.23	0.71
24:DA:1299:G:H5"	24:DA:1300:U:OP1	1.91	0.71
24:DA:2376:A:C2	37:DQ:112:PHE:CB	2.71	0.71
24:DA:2393:A:H4'	34:DO:62:LEU:N	2.05	0.71
26:DD:44:ASN:HB3	26:DD:49:ILE:CA	2.16	0.71
44:DV:119:GLU:HB3	44:DV:122:ARG:NH1	2.05	0.71
51:D6:37:ARG:HH21	51:D6:38:LYS:H	1.39	0.71
1:AA:1124:G:H3'	1:AA:1145:C:N4	2.04	0.71
1:AA:1330:U:H5"	1:AA:1331:G:OP2	1.91	0.71
5:AH:77:PRO:HD2	5:AH:142:LEU:HD23	1.73	0.71
6:AI:19:LEU:HD23	6:AI:19:LEU:C	2.11	0.71
24:BA:574:C:N3	27:BE:145:LYS:NZ	2.36	0.71
24:BA:1434:A:H61	24:BA:1558:A:H62	1.37	0.71
24:BA:2346:A:O3'	51:B6:39:TYR:OH	2.09	0.71
24:BA:2469:A:O2'	35:BP:56:ARG:NE	2.23	0.71
31:BK:6:LEU:HD13	31:BK:36:ALA:HA	1.71	0.71
32:BM:114:ARG:O	32:BM:115:ARG:HB3	1.90	0.71
35:BP:33:GLY:HA2	35:BP:105:GLU:HB2	1.73	0.71
1:CA:1003:G:N1	1:CA:1037:C:N3	2.36	0.71
1:CA:1324:A:C4'	1:CA:1362:C:H4'	2.21	0.71
14:CQ:29:ARG:NE	14:CQ:40:CYS:HB3	2.06	0.71
24:DA:877:U:H4'	24:DA:878:A:OP1	1.90	0.71
24:DA:1568:G:OP2	26:DD:63:ARG:NH2	2.23	0.71
27:DE:101:ARG:NH1	27:DE:171:GLU:HB2	2.06	0.71
29:DG:110:ALA:HB1	29:DG:140:ILE:CD1	2.21	0.71
30:DH:27:LYS:HB2	30:DH:32:GLU:HB3	1.72	0.71
31:DK:118:LYS:HG2	31:DK:119:PRO:CD	2.17	0.71
44:DV:150:LEU:O	44:DV:171:ILE:HB	1.91	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1199:U:C4'	10:AM:54:PHE:CD2	2.71	0.71
1:AA:1292:U:H2'	1:AA:1293:G:C8	2.25	0.71
24:BA:547:A:H2'	24:BA:548:A:C8	2.25	0.71
24:BA:620:G:H4'	24:BA:621:A:H5'	1.72	0.71
27:BE:55:ASN:O	27:BE:57:LYS:N	2.24	0.71
35:BP:24:GLY:CA	35:BP:25:ASP:HB2	2.18	0.71
49:B4:40:HIS:N	49:B4:41:PRO:CD	2.54	0.71
1:CA:987:G:N2	1:CA:1219:U:O2	2.24	0.71
1:CA:1148:U:C2'	9:CL:66:ARG:HH21	2.03	0.71
1:CA:1191:A:H8	1:CA:1191:A:OP2	1.74	0.71
1:CA:1300:G:O2'	1:CA:1301:U:O5'	2.08	0.71
9:CL:16:ARG:CG	9:CL:64:THR:CG2	2.64	0.71
24:DA:176:G:O2'	24:DA:177:G:H5'	1.90	0.71
24:DA:1225:C:O2	40:D2:84:LYS:NZ	2.24	0.71
24:DA:2801:A:C5'	24:DA:2895:U:H5"	2.21	0.71
30:DH:3:ARG:NH1	30:DH:7:LEU:HD13	2.06	0.71
44:DV:15:PRO:O	44:DV:19:ARG:NE	2.24	0.71
1:AA:913:A:H1'	1:AA:914:A:OP2	1.91	0.70
24:BA:956:G:OP2	35:BP:14:ARG:NH2	2.24	0.70
24:BA:2174:C:H2'	24:BA:2175:C:C5	2.26	0.70
29:BG:143:GLU:OE1	49:B4:26:SER:OG	2.05	0.70
33:BN:4:PRO:O	33:BN:5:GLN:HB2	1.91	0.70
40:B2:64:HIS:ND1	40:B2:92:THR:HG22	2.06	0.70
41:BS:12:ILE:HG13	41:BS:42:ARG:HH11	1.54	0.70
1:CA:1342:C:H1'	9:CL:124:GLN:HG3	1.72	0.70
1:CA:1378:C:H5	1:CA:1379:G:C8	2.09	0.70
2:CE:176:GLU:O	2:CE:180:LEU:HG	1.91	0.70
4:CG:65:ARG:HB2	4:CG:75:PHE:CE2	2.26	0.70
4:CG:138:TYR:C	4:CG:138:TYR:CD1	2.64	0.70
8:CK:49:GLU:O	8:CK:51:VAL:HG13	1.91	0.70
12:CO:24:VAL:HG13	12:CO:98:TYR:CE1	2.25	0.70
17:CT:97:SER:C	17:CT:101:ARG:HD2	2.12	0.70
24:DA:2355:C:H4'	45:D3:36:ILE:HD11	1.72	0.70
24:DA:2572:A:N7	27:DE:145:LYS:HB2	2.06	0.70
24:DA:2875:C:C4'	38:DR:5:ALA:HB2	2.18	0.70
30:DH:6:ARG:HG2	30:DH:66:GLY:HA2	1.73	0.70
38:DR:12:SER:O	38:DR:15:VAL:HG12	1.90	0.70
39:D1:66:ASN:HB2	39:D1:76:TYR:HB2	1.71	0.70
43:DU:42:VAL:CG2	43:DU:65:ALA:HB3	2.20	0.70
51:D6:9:LEU:CD1	51:D6:27:LYS:H	2.04	0.70
1:AA:90:C:C3'	1:AA:91:C:H5"	2.20	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:518:C:O2'	1:AA:530:G:N2	2.24	0.70
1:AA:1120:G:H2'	1:AA:1121:U:C6	2.26	0.70
1:AA:1152:A:H4'	10:AM:13:HIS:CD2	2.26	0.70
2:AE:97:TRP:HH2	2:AE:176:GLU:OE2	1.72	0.70
3:AF:8:ILE:CD1	3:AF:16:ARG:NE	2.53	0.70
9:AL:53:VAL:HG22	9:AL:95:LYS:HE3	1.73	0.70
24:BA:527:C:OP2	24:BA:2779:U:H5	1.73	0.70
24:BA:1085:A:H4'	24:BA:1086:A:OP1	1.91	0.70
24:BA:1326:U:O2'	24:BA:1327:C:H5'	1.91	0.70
24:BA:1338:G:N7	42:BT:62:LYS:NZ	2.36	0.70
26:BD:133:LEU:HD13	26:BD:173:VAL:CG2	2.21	0.70
30:BH:126:PRO:O	30:BH:127:GLU:HG2	1.90	0.70
41:BS:88:ARG:HB3	41:BS:92:ARG:HB2	1.74	0.70
49:B4:46:GLN:HE22	49:B4:48:ARG:HB2	1.54	0.70
1:CA:957:U:H1'	1:CA:960:U:C5	2.26	0.70
1:CA:1080:A:P	5:CH:14:ARG:HH22	2.14	0.70
1:CA:1142:G:H2'	1:CA:1143:G:O4'	1.91	0.70
1:CA:1252:A:H2'	1:CA:1253:G:O4'	1.91	0.70
5:CH:81:GLU:HG2	5:CH:90:VAL:CG1	2.15	0.70
24:DA:986:C:O2'	24:DA:987:G:H5'	1.91	0.70
24:DA:2797:U:H2'	24:DA:2798:C:H5'	1.74	0.70
26:DD:35:LYS:HB3	26:DD:64:ILE:CG2	2.21	0.70
27:DE:199:ARG:HB3	27:DE:200:GLU:OE1	1.90	0.70
1:AA:339:C:OP2	33:BN:97:ARG:NH1	2.23	0.70
4:AG:30:LYS:HG2	4:AG:32:ALA:HA	1.72	0.70
13:AP:7:VAL:HG21	29:BG:115:ARG:NH2	2.06	0.70
13:AP:65:LYS:O	13:AP:66:LEU:HD23	1.91	0.70
24:BA:1287:A:N7	36:B0:107:ASP:HB2	2.06	0.70
38:BR:27:THR:HG22	38:BR:48:ILE:HG12	1.73	0.70
38:BR:94:ALA:O	38:BR:95:ARG:HB2	1.91	0.70
43:BU:2:ARG:O	43:BU:2:ARG:HG2	1.91	0.70
52:B7:47:ARG:HG2	52:B7:48:LYS:N	1.98	0.70
1:CA:197:A:H1'	1:CA:198:G:OP2	1.89	0.70
1:CA:841:U:H4'	1:CA:842:C:C6	2.25	0.70
1:CA:1114:C:H5'	14:CQ:57:ARG:NH2	2.05	0.70
1:CA:1135:U:H4'	1:CA:1136:U:H5	1.55	0.70
1:CA:1313:U:OP2	19:CV:7:LYS:HE3	1.91	0.70
2:CE:5:ILE:HD11	2:CE:55:PHE:HB3	1.72	0.70
2:CE:98:LEU:HB2	2:CE:101:MET:SD	2.31	0.70
3:CF:120:VAL:CA	3:CF:123:GLN:HG3	2.21	0.70
5:CH:76:ILE:CD1	5:CH:142:LEU:HD11	2.20	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CL:85:LEU:O	9:CL:89:ASN:ND2	2.24	0.70
20:CW:86:ARG:HB2	20:CW:86:ARG:HH11	1.57	0.70
24:DA:2267:A:H5"	24:DA:2268:A:H5'	1.72	0.70
24:DA:2420:C:OP2	53:D8:33:ASN:HA	1.90	0.70
24:DA:2788:C:H5'	27:DE:61:ARG:NH1	2.06	0.70
24:DA:2808:U:H2'	24:DA:2809:A:H5'	1.73	0.70
26:DD:79:VAL:CG1	26:DD:113:VAL:HA	2.21	0.70
31:DK:76:THR:CG2	31:DK:140:LEU:HD13	2.21	0.70
31:DK:114:LEU:O	31:DK:114:LEU:HD23	1.91	0.70
44:DV:132:ASN:C	44:DV:133:ILE:HD12	2.11	0.70
49:D4:14:ILE:CG2	49:D4:33:VAL:HG11	2.22	0.70
53:D8:48:PHE:O	53:D8:49:VAL:O	2.08	0.70
4:AG:173:TRP:O	4:AG:186:LEU:HG	1.92	0.70
8:AK:134:ILE:HG22	8:AK:135:CYS:SG	2.32	0.70
9:AL:78:LYS:HE3	9:AL:101:PHE:CE1	2.27	0.70
24:BA:483:A:H5"	43:BU:49:VAL:HG22	1.72	0.70
24:BA:1767:C:C2'	24:BA:1768:U:H5'	2.21	0.70
29:BG:77:ILE:CG2	29:BG:80:PHE:HE1	2.03	0.70
36:B0:98:LEU:O	36:B0:113:LEU:N	2.23	0.70
49:B4:37:SER:CB	49:B4:43:TYR:CE2	2.74	0.70
53:B8:23:VAL:CG1	53:B8:46:ARG:HD3	2.21	0.70
53:B8:29:LYS:CB	53:B8:44:LYS:HG2	2.22	0.70
1:CA:413:G:O2'	1:CA:414:A:OP2	2.06	0.70
1:CA:1133:G:H2'	1:CA:1134:G:C8	2.20	0.70
4:CG:163:GLU:HA	4:CG:166:LYS:HE3	1.73	0.70
5:CH:67:VAL:HG22	5:CH:69:VAL:CG2	2.20	0.70
5:CH:68:GLU:O	5:CH:68:GLU:CG	2.39	0.70
5:CH:100:VAL:HA	5:CH:118:ILE:HG22	1.72	0.70
8:CK:31:PHE:O	8:CK:35:ILE:HG13	1.92	0.70
20:CW:63:ILE:HD13	20:CW:80:ARG:HB3	1.72	0.70
24:DA:479:A:H4'	24:DA:480:A:OP1	1.90	0.70
24:DA:2665:A:H2'	24:DA:2666:C:O4'	1.91	0.70
25:DB:39:A:C6	49:D4:1:MET:HB3	2.26	0.70
27:DE:203:LYS:O	27:DE:203:LYS:HD2	1.92	0.70
29:DG:104:GLU:CG	49:D4:23:GLU:HG2	2.20	0.70
30:DH:137:ASP:OD1	30:DH:139:GLN:N	2.24	0.70
35:DP:133:ARG:O	35:DP:134:ARG:HB3	1.91	0.70
47:DW:52:ASP:O	47:DW:56:GLN:HG3	1.92	0.70
1:AA:600:C:H4'	8:AK:128:GLY:O	1.92	0.70
1:AA:619:U:H3	4:AG:135:LEU:HD13	1.56	0.70
1:AA:1336:C:O2'	1:AA:1337:G:O5'	2.09	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AE:19:HIS:NE2	2:AE:20:GLU:OE2	2.25	0.70
2:AE:136:VAL:HG23	2:AE:137:ARG:H	1.57	0.70
10:AM:48:THR:HA	10:AM:62:HIS:HB2	1.71	0.70
13:AP:30:ALA:O	13:AP:32:GLU:N	2.25	0.70
24:BA:165:U:H3'	24:BA:165:U:O2	1.91	0.70
24:BA:1073:A:H2'	24:BA:1074:G:O4'	1.92	0.70
34:BO:114:ILE:HD11	34:BO:130:PHE:HD2	1.53	0.70
35:BP:54:MET:CE	35:BP:118:LEU:HD23	2.21	0.70
38:BR:5:ALA:HA	38:BR:8:LYS:CG	2.19	0.70
51:B6:29:ASN:CA	51:B6:32:ASN:HB3	2.22	0.70
1:CA:133:U:OP1	20:CW:74:LYS:NZ	2.23	0.70
9:CL:125:TYR:CD1	9:CL:126:SER:N	2.60	0.70
16:CS:9:PHE:HB2	16:CS:16:HIS:O	1.91	0.70
25:DB:89:G:C6	25:DB:89(A):A:N1	2.60	0.70
33:DN:108:GLU:N	33:DN:108:GLU:OE1	2.23	0.70
1:AA:376:G:OP1	16:AS:5:ARG:HB2	1.91	0.70
6:AI:41:GLU:O	6:AI:43:LEU:HD12	1.90	0.70
9:AL:49:PRO:N	9:AL:78:LYS:HZ1	1.90	0.70
12:AO:93:LEU:O	12:AO:96:VAL:HG12	1.92	0.70
16:AS:64:ALA:O	16:AS:65:GLN:HG2	1.91	0.70
26:BD:35:LYS:HG2	26:BD:64:ILE:HG23	1.74	0.70
34:BO:61:ARG:CZ	34:BO:61:ARG:HB2	2.20	0.70
37:BQ:111:GLU:O	37:BQ:112:PHE:HB3	1.91	0.70
1:CA:1080:A:H5"	5:CH:16:THR:HG21	1.74	0.70
1:CA:1288:A:N3	1:CA:1352:C:O2'	2.25	0.70
4:CG:150:GLU:N	4:CG:150:GLU:OE1	2.23	0.70
6:CI:67:MET:HB2	6:CI:68:PRO:HD2	1.73	0.70
13:CP:40:ASN:ND2	13:CP:43:THR:HG23	2.05	0.70
19:CV:79:THR:HG23	19:CV:79:THR:O	1.90	0.70
20:CW:84:LEU:O	20:CW:88:VAL:HG23	1.92	0.70
31:DK:68:LEU:HA	31:DK:71:ILE:CG2	2.21	0.70
34:DO:60:MET:C	34:DO:61:ARG:HG2	2.12	0.70
1:AA:1249:C:O2'	9:AL:73:GLN:OE1	2.08	0.70
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.26	0.70
24:BA:1076:C:C2'	24:BA:1077:A:H5"	2.21	0.70
24:BA:1568:G:H5"	26:BD:61:LEU:HD13	1.73	0.70
24:BA:2272:U:H5"	24:BA:2273:A:OP1	1.91	0.70
24:BA:2347:C:H2'	24:BA:2348:U:H6	1.57	0.70
30:BH:151:ILE:HG22	30:BH:151:ILE:O	1.91	0.70
31:BK:116:LEU:HD12	31:BK:117:GLU:N	2.06	0.70
41:BS:66:GLU:HG2	41:BS:66:GLU:O	1.90	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:B4:26:SER:OG	49:B4:27:THR:N	2.25	0.70
1:CA:923:A:C5'	5:CH:21:ALA:HB2	2.21	0.70
1:CA:1179:A:C4	9:CL:104:ARG:NH2	2.52	0.70
5:CH:80:ILE:HG22	8:CK:104:ARG:HE	1.55	0.70
6:CI:48:LEU:HD21	6:CI:60:PHE:CZ	2.20	0.70
16:CS:14:ASN:OD1	16:CS:42:ARG:NH2	2.24	0.70
19:CV:70:LYS:HE3	19:CV:73:GLU:N	2.06	0.70
25:DB:116:G:H4'	37:DQ:54:LEU:HG	1.72	0.70
27:DE:36:ARG:HH12	27:DE:86:PRO:HD2	1.57	0.70
28:DF:192:LEU:HD23	28:DF:193:VAL:N	2.07	0.70
29:DG:109:VAL:O	29:DG:113:ARG:HB2	1.90	0.70
31:DK:101:LEU:H	31:DK:101:LEU:CD2	2.03	0.70
34:DO:47:ASP:OD1	34:DO:49:ARG:HB3	1.91	0.70
37:DQ:7:TYR:CE2	37:DQ:91:PRO:HG2	2.27	0.70
1:AA:862:C:C2'	1:AA:863:U:H5'	2.21	0.70
2:AE:21:ARG:NH1	2:AE:39:ILE:HG12	2.07	0.70
24:BA:1441:G:H2'	24:BA:1442:G:H8	1.55	0.70
44:BV:146:ILE:HD13	44:BV:147:GLY:N	2.07	0.70
1:CA:1079:G:O3'	5:CH:14:ARG:NH2	2.24	0.70
1:CA:1256:A:N6	1:CA:1277:C:H3'	2.02	0.70
1:CA:1324:A:H4'	1:CA:1362:C:H4'	1.74	0.70
1:CA:1367:C:H5'	10:CM:60:ARG:NH2	2.07	0.70
2:CE:5:ILE:HD12	2:CE:221:LEU:HD21	1.73	0.70
3:CF:44:GLU:HG2	3:CF:52:LEU:CD1	2.22	0.70
5:CH:72:GLN:O	5:CH:75:THR:HG22	1.90	0.70
9:CL:125:TYR:HD1	9:CL:126:SER:H	1.39	0.70
19:CV:49:ILE:CG2	19:CV:62:ILE:HD11	2.20	0.70
24:DA:1005:C:O2'	32:DM:28:THR:OG1	2.03	0.70
24:DA:2195:C:O2'	24:DA:2196:C:H5'	1.92	0.70
26:DD:130:ALA:C	26:DD:131:LEU:HD12	2.12	0.70
27:DE:68:ALA:O	27:DE:70:ALA:N	2.20	0.70
30:DH:86:GLU:N	30:DH:86:GLU:OE1	2.24	0.70
30:DH:126:PRO:O	30:DH:127:GLU:HB2	1.91	0.70
40:D2:44:LYS:O	40:D2:46:VAL:HG12	1.91	0.70
48:DX:8:LEU:HD22	48:DX:31:LEU:HD12	1.72	0.70
49:D4:12:ALA:CB	49:D4:29:PRO:HA	2.21	0.70
1:AA:976:G:OP1	14:AQ:32:SER:N	2.19	0.70
1:AA:1329:A:N7	21:AX:7:ARG:NH2	2.40	0.70
2:AE:50:GLU:HG3	2:AE:200:ILE:O	1.92	0.70
9:AL:16:ARG:HG2	9:AL:64:THR:CG2	2.21	0.70
19:AV:41:VAL:H	19:AV:44:MET:HE2	1.56	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:448:U:H1'	28:BF:84:VAL:HG11	1.73	0.70
24:BA:875:G:H4'	44:BV:170:THR:HG23	1.72	0.70
24:BA:1812:A:H1'	26:BD:46:GLN:HE22	1.57	0.70
26:BD:127:VAL:HA	26:BD:193:VAL:CG2	2.21	0.70
27:BE:134:ILE:C	27:BE:134:ILE:HD12	2.11	0.70
43:BU:81:LYS:HB3	43:BU:97:ARG:CD	2.20	0.70
1:CA:719:C:N4	18:CU:71:LYS:HZ1	1.90	0.70
1:CA:853:G:H2'	1:CA:854:G:H8	1.57	0.70
1:CA:1372:U:OP2	9:CL:11:LYS:NZ	2.20	0.70
5:CH:102:ALA:HB2	5:CH:120:THR:OG1	1.91	0.70
24:DA:943:U:OP2	34:DO:36:LYS:CG	2.40	0.70
37:DQ:15:ARG:O	37:DQ:19:LYS:HG3	1.92	0.70
37:DQ:74:ALA:HB1	37:DQ:107:GLU:HG2	1.73	0.70
44:DV:24:LEU:HD23	44:DV:41:LEU:HD12	1.72	0.70
1:AA:276:G:O2'	17:AT:68:ARG:NH1	2.25	0.70
1:AA:277:C:H5"	17:AT:68:ARG:NH2	2.07	0.70
1:AA:650:G:O2'	1:AA:651:C:H5'	1.91	0.70
1:AA:1014:A:H5"	19:AV:14:HIS:HB2	1.74	0.70
3:AF:11:ARG:O	3:AF:13:GLY:N	2.25	0.70
10:AM:94:VAL:CG1	10:AM:95:GLU:H	2.02	0.70
11:AN:78:GLN:O	11:AN:103:LEU:HA	1.91	0.70
17:AT:100:LYS:HE3	17:AT:100:LYS:O	1.90	0.70
19:AV:47:HIS:O	19:AV:62:ILE:HG12	1.92	0.70
24:BA:270(I):G:C2'	46:BZ:78:LYS:HZ1	2.05	0.70
25:BB:16:G:H2'	25:BB:17:C:H6	1.56	0.70
25:BB:80:U:O2'	25:BB:81:G:H5"	1.91	0.70
35:BP:66:ILE:HA	35:BP:104:PHE:HD1	1.56	0.70
43:BU:81:LYS:HB3	43:BU:97:ARG:HD2	1.71	0.70
9:CL:29:ASN:O	9:CL:29:ASN:ND2	2.24	0.70
13:CP:48:LEU:HD11	13:CP:53:VAL:CG1	2.22	0.70
24:DA:229:A:HO2'	24:DA:230:U:H5	1.38	0.70
24:DA:1092:C:O2'	30:DH:170:ARG:NH2	2.25	0.70
24:DA:2344:U:C2'	51:D6:39:TYR:HE1	2.05	0.70
27:DE:105:THR:HG21	27:DE:164:ARG:HE	1.57	0.70
28:DF:3:GLU:HA	28:DF:24:LEU:HD23	1.74	0.70
35:DP:65:PHE:O	35:DP:104:PHE:HA	1.92	0.70
44:DV:80:ARG:O	44:DV:81:ARG:HG3	1.91	0.70
45:D3:37:LEU:HD12	45:D3:60:PHE:HA	1.73	0.70
1:AA:1178:G:P	9:AL:93:ARG:NH1	2.64	0.69
2:AE:77:ALA:HB2	2:AE:211:ILE:CD1	2.20	0.69
2:AE:212:GLN:CD	2:AE:235:SER:HG	1.95	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AK:100:ILE:CG2	8:AK:101:PRO:HD2	2.22	0.69
12:AO:102:ARG:HG3	12:AO:120:TYR:HA	1.72	0.69
13:AP:49:THR:HB	13:AP:52:GLU:HG3	1.73	0.69
24:BA:141:A:C8	24:BA:1408:C:H1'	2.27	0.69
24:BA:286:C:H2'	24:BA:287:C:C6	2.27	0.69
24:BA:1416:G:H1	24:BA:1582:C:H42	1.40	0.69
24:BA:1701:A:C2'	24:BA:1702:G:H5'	2.22	0.69
24:BA:1812:A:H1'	26:BD:46:GLN:NE2	2.07	0.69
30:BH:2:SER:OG	30:BH:3:ARG:CZ	2.39	0.69
1:CA:719:C:N4	18:CU:71:LYS:NZ	2.40	0.69
1:CA:1300:G:O2'	1:CA:1301:U:P	2.49	0.69
1:CA:1412:C:H2'	1:CA:1413:A:C8	2.26	0.69
3:CF:195:VAL:O	3:CF:196:LEU:HD22	1.92	0.69
9:CL:102:LEU:HD12	9:CL:102:LEU:H	1.57	0.69
20:CW:14:LYS:O	20:CW:18:GLN:HG3	1.92	0.69
29:DG:11:TYR:HA	29:DG:15:VAL:HB	1.72	0.69
32:DM:47:ALA:HB2	32:DM:112:LEU:CD1	2.21	0.69
33:DN:10:VAL:HG22	33:DN:17:ARG:HA	1.73	0.69
34:DO:125:VAL:O	34:DO:145:PRO:HD2	1.90	0.69
37:DQ:24:LEU:HD12	37:DQ:41:ASP:HA	1.74	0.69
1:AA:409:G:OP1	4:AG:24:GLU:N	2.25	0.69
1:AA:1157:A:H1'	1:AA:1158:C:C5	2.27	0.69
1:AA:1256:A:H5"	1:AA:1258:G:N3	2.07	0.69
7:AJ:38:LEU:H	7:AJ:38:LEU:HD12	1.57	0.69
9:AL:79:LEU:HD21	9:AL:83:ARG:HE	1.57	0.69
13:AP:49:THR:HG22	13:AP:51:ALA:H	1.57	0.69
19:AV:41:VAL:HG22	19:AV:42:PRO:C	2.12	0.69
24:BA:1416:G:H2'	24:BA:1417:C:C5	2.27	0.69
24:BA:1834:U:H2'	24:BA:1834:U:O2	1.92	0.69
28:BF:177:ALA:HB1	28:BF:178:PRO:HD2	1.73	0.69
37:BQ:77:ALA:O	37:BQ:80:LEU:N	2.24	0.69
43:BU:101:LYS:HB3	43:BU:101:LYS:NZ	2.07	0.69
49:B4:4:GLY:O	49:B4:6:HIS:N	2.25	0.69
1:CA:393:A:OP2	16:CS:12:LYS:CE	2.39	0.69
1:CA:501:C:H2'	1:CA:502:G:C8	2.27	0.69
1:CA:552:U:H1'	12:CO:32:PHE:CE1	2.27	0.69
1:CA:1106:G:H5"	3:CF:172:ARG:CG	2.17	0.69
3:CF:15:THR:HG23	3:CF:181:ASN:HA	1.73	0.69
9:CL:128:ARG:NH2	22:CC:33:U:OP2	2.25	0.69
13:CP:27:LYS:CE	13:CP:31:LYS:HE3	2.16	0.69
24:DA:2393:A:OP2	53:D8:30:ARG:CZ	2.40	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2467:C:H4'	35:DP:123:HIS:CD2	2.27	0.69
25:DB:1:U:H3	25:DB:119:A:H2	1.39	0.69
34:DO:65:ARG:O	34:DO:68:GLN:NE2	2.24	0.69
37:DQ:26:LEU:HD22	37:DQ:87:PHE:HD1	1.57	0.69
44:DV:61:LEU:HD11	44:DV:67:LEU:HD12	1.74	0.69
1:AA:498:A:H4'	1:AA:500:G:OP1	1.90	0.69
1:AA:1152:A:OP2	10:AM:68:HIS:NE2	2.24	0.69
2:AE:164:VAL:HB	2:AE:186:ALA:HB2	1.73	0.69
8:AK:88:LYS:HB3	8:AK:89:PRO:HD2	1.74	0.69
10:AM:6:ILE:CG1	10:AM:72:VAL:HG12	2.23	0.69
13:AP:11:ARG:HG2	13:AP:46:LYS:NZ	2.07	0.69
19:AV:40:ILE:HA	19:AV:44:MET:CE	2.22	0.69
24:BA:1328:G:H2'	24:BA:1330:C:C5	2.28	0.69
24:BA:2108:C:H2'	24:BA:2109:U:H5'	1.73	0.69
34:BO:39:LYS:HB2	34:BO:45:LEU:CD2	2.22	0.69
49:B4:42:PHE:C	49:B4:43:TYR:HD2	1.94	0.69
1:CA:66:G:C4'	1:CA:173:U:C5	2.75	0.69
4:CG:82:ALA:HA	4:CG:85:LYS:HD3	1.73	0.69
11:CN:45:GLY:O	11:CN:48:ILE:HG22	1.91	0.69
24:DA:389:G:N1	34:DO:71:VAL:HG12	2.07	0.69
24:DA:2286:A:H5'	51:D6:28:ARG:HG3	1.71	0.69
24:DA:2376:A:H3'	24:DA:2377:A:C8	2.26	0.69
24:DA:2777:G:C5'	24:DA:2778:A:H5'	2.17	0.69
29:DG:111:LEU:CB	29:DG:112:PRO:HD3	2.19	0.69
31:DK:58:LEU:HD23	31:DK:59:ALA:N	2.07	0.69
41:DS:15:ARG:O	41:DS:19:LEU:HD13	1.92	0.69
43:DU:81:LYS:HD3	43:DU:97:ARG:CZ	2.22	0.69
44:DV:139:VAL:HG12	44:DV:140:ASP:N	2.07	0.69
1:AA:1015:A:O3'	14:AQ:15:LYS:NZ	2.23	0.69
3:AF:64:VAL:HG23	3:AF:99:VAL:HA	1.74	0.69
10:AM:98:ILE:O	10:AM:98:ILE:HD12	1.92	0.69
13:AP:12:ASN:HA	13:AP:46:LYS:HD3	1.75	0.69
24:BA:92:G:H2'	24:BA:93:C:C6	2.27	0.69
24:BA:1062:G:O6	24:BA:1075:C:N4	2.24	0.69
24:BA:2108:C:C2'	24:BA:2109:U:H5'	2.22	0.69
24:BA:2320:A:H2'	24:BA:2320:A:N3	2.07	0.69
29:BG:76:SER:OG	29:BG:84:LYS:N	2.24	0.69
50:B5:40:LYS:CE	50:B5:46:CYS:HB3	2.23	0.69
1:CA:1118:C:O2'	1:CA:1119:C:H5'	1.92	0.69
6:CI:68:PRO:HB2	6:CI:70:ASP:OD1	1.92	0.69
11:CN:70:LYS:HA	11:CN:70:LYS:CE	2.18	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:CS:80:PHE:O	16:CS:82:GLN:NE2	2.24	0.69
19:CV:29:ARG:HD2	19:CV:48:THR:OG1	1.92	0.69
24:DA:2015:A:C2	50:D5:6:VAL:HG23	2.27	0.69
25:DB:14:U:H4'	25:DB:70:C:O2	1.92	0.69
36:D0:28:LEU:CD2	36:D0:114:VAL:HG12	2.21	0.69
45:D3:50:ASN:ND2	45:D3:81:VAL:O	2.25	0.69
1:AA:437:U:H2'	1:AA:438:G:O4'	1.92	0.69
1:AA:807:A:H2'	1:AA:808:C:C6	2.27	0.69
5:AH:139:LEU:CA	5:AH:142:LEU:HD13	2.19	0.69
9:AL:10:ARG:HA	9:AL:104:ARG:HE	1.55	0.69
10:AM:9:ARG:HG2	10:AM:69:ASN:HD22	1.57	0.69
13:AP:4:ILE:O	13:AP:6:GLY:N	2.25	0.69
14:AQ:44:LEU:HD12	14:AQ:44:LEU:C	2.11	0.69
24:BA:612:G:H2'	24:BA:613:U:O2	1.93	0.69
24:BA:880:G:O2'	24:BA:881:G:OP1	2.08	0.69
26:BD:65:ILE:HD11	26:BD:67:PHE:CD2	2.27	0.69
26:BD:67:PHE:HE1	26:BD:106:ILE:HD11	1.56	0.69
29:BG:113:ARG:HD3	29:BG:140:ILE:O	1.91	0.69
43:BU:55:TYR:CZ	43:BU:61:ILE:HD11	2.27	0.69
1:CA:958:A:N3	1:CA:985:C:O2'	2.23	0.69
1:CA:1014:A:C5'	19:CV:15:LEU:HD21	2.21	0.69
1:CA:1212:U:O2'	1:CA:1213:A:O4'	2.08	0.69
14:CQ:19:ARG:HG3	14:CQ:19:ARG:NH1	2.00	0.69
22:CC:9:G:O2'	22:CC:10:G:N7	2.24	0.69
24:DA:34:C:OP2	24:DA:34:C:C6	2.44	0.69
24:DA:2344:U:OP1	51:D6:37:ARG:NH2	2.25	0.69
29:DG:76:SER:C	29:DG:77:ILE:HD12	2.12	0.69
36:D0:58:GLY:HA2	36:D0:80:PHE:CE2	2.28	0.69
38:DR:93:ARG:HG2	38:DR:117:ASP:HB3	1.74	0.69
41:DS:64:MET:HE3	41:DS:109:GLU:HG3	1.73	0.69
42:DT:10:ALA:HB1	42:DT:11:PRO:HD2	1.74	0.69
46:DZ:89:GLU:O	46:DZ:91:LYS:N	2.26	0.69
1:AA:1053:G:C3'	1:AA:1054:C:H5'	2.23	0.69
1:AA:1121:U:H2'	1:AA:1122:U:C6	2.26	0.69
8:AK:100:ILE:HG23	8:AK:101:PRO:HD2	1.74	0.69
24:BA:1991:U:H2'	24:BA:1992:G:H5"	1.74	0.69
24:BA:2519:U:C6	24:BA:2542:A:N6	2.61	0.69
26:BD:32:SER:HA	26:BD:36:PRO:HD2	1.74	0.69
28:BF:116:ASP:OD1	28:BF:119:ARG:NH2	2.25	0.69
34:BO:23:PRO:O	34:BO:25:SER:N	2.26	0.69
34:BO:61:ARG:HD2	53:B8:24:ALA:CB	2.20	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:B0:53:HIS:HB2	36:B0:94:TYR:HE2	1.57	0.69
1:CA:1089:G:O2'	1:CA:1090:U:H5'	1.91	0.69
1:CA:1237:C:O4'	1:CA:1334:G:N2	2.25	0.69
1:CA:1502:A:H2	1:CA:1505:G:H1	1.40	0.69
2:CE:19:HIS:HE1	2:CE:205:ASP:OD1	1.74	0.69
5:CH:67:VAL:CG2	5:CH:69:VAL:CG2	2.70	0.69
7:CJ:78:ARG:O	7:CJ:78:ARG:HG3	1.92	0.69
7:CJ:150:ALA:HB2	11:CN:50:TYR:CZ	2.28	0.69
8:CK:38:ILE:HD11	8:CK:118:VAL:HG12	1.74	0.69
24:DA:247:G:H4'	24:DA:386:G:C5	2.27	0.69
24:DA:806:C:OP2	34:DO:41:ARG:NH2	2.24	0.69
37:DQ:103:GLU:O	37:DQ:106:ARG:HG2	1.92	0.69
38:DR:113:LYS:O	38:DR:114:LEU:HD23	1.93	0.69
51:D6:9:LEU:HD11	51:D6:27:LYS:H	1.56	0.69
52:D7:1:MET:HA	52:D7:1:MET:CE	2.22	0.69
1:AA:1179:A:O3'	9:AL:103:THR:HG23	1.92	0.69
1:AA:1221:G:H5'	19:AV:36:ARG:HH21	1.55	0.69
7:AJ:115:ARG:HB3	7:AJ:118:VAL:CG1	2.22	0.69
7:AJ:115:ARG:HG3	7:AJ:117:ALA:H	1.56	0.69
12:AO:90:VAL:O	12:AO:91:LYS:HB3	1.93	0.69
24:BA:1798:U:C5'	26:BD:259:THR:CG2	2.70	0.69
24:BA:2400:G:C1'	51:B6:19:ARG:NH2	2.56	0.69
37:BQ:49:VAL:HG21	37:BQ:77:ALA:CB	2.22	0.69
44:BV:165:VAL:O	44:BV:166:SER:OG	2.10	0.69
1:CA:518:C:O2'	1:CA:530:G:N2	2.26	0.69
1:CA:1227:A:H4'	13:CP:115:LYS:HZ2	1.56	0.69
1:CA:1378:C:H5"	1:CA:1379:G:OP2	1.92	0.69
2:CE:5:ILE:O	2:CE:5:ILE:HG23	1.92	0.69
3:CF:164:ARG:HG2	3:CF:165:THR:H	1.57	0.69
7:CJ:153:HIS:HB2	11:CN:58:PRO:HG2	1.74	0.69
9:CL:17:VAL:HG21	9:CL:80:GLY:O	1.90	0.69
24:DA:747:U:C4	50:D5:2:ALA:N	2.61	0.69
24:DA:910:A:N7	35:DP:13:GLN:HG3	2.07	0.69
24:DA:2099:U:C2'	24:DA:2100:G:H5"	2.21	0.69
24:DA:2345:G:P	51:D6:39:TYR:HH	2.15	0.69
35:DP:137:TYR:CE1	44:DV:83:PRO:HG3	2.26	0.69
53:D8:50:LEU:O	53:D8:51:ALA:CB	2.40	0.69
1:AA:56:U:H5'	31:DK:82:ARG:HH22	1.58	0.69
1:AA:157:G:H2'	1:AA:158:G:H8	1.57	0.69
1:AA:983:A:H2	1:AA:984:C:C6	2.10	0.69
1:AA:1002:G:H2'	1:AA:1003:G:C8	2.27	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1002:G:O6	1:AA:1037:C:N4	2.26	0.69
1:AA:1053:G:H3'	1:AA:1054:C:H5'	1.74	0.69
2:AE:42:ILE:O	2:AE:44:LEU:HD12	1.91	0.69
2:AE:178:ARG:NH1	2:AE:196:LEU:O	2.26	0.69
3:AF:20:SER:OG	3:AF:36:ASP:OD2	2.10	0.69
6:AI:37:VAL:HG12	6:AI:38:GLU:H	1.57	0.69
9:AL:53:VAL:HG22	9:AL:96:LEU:HD11	1.75	0.69
22:AC:19:G:H3'	22:AC:20:U:C5	2.28	0.69
24:BA:286:C:H2'	24:BA:287:C:H6	1.57	0.69
24:BA:297:C:H5"	43:BU:85:VAL:CG2	2.23	0.69
24:BA:860:U:C5	24:BA:917:A:N1	2.60	0.69
24:BA:1065:U:N3	24:BA:1069:A:OP2	2.18	0.69
24:BA:1427:A:H4'	24:BA:1428:C:O5'	1.92	0.69
24:BA:1826:G:H4'	26:BD:242:ARG:CZ	2.22	0.69
26:BD:65:ILE:HD11	26:BD:67:PHE:CE2	2.27	0.69
29:BG:46:ALA:HB1	29:BG:52:ILE:HG21	1.73	0.69
29:BG:70:VAL:HA	29:BG:90:LEU:HD12	1.73	0.69
38:BR:84:GLN:HG3	38:BR:85:LYS:HG3	1.75	0.69
42:BT:5:TYR:HD1	47:BW:33:MET:CE	2.04	0.69
43:BU:96:ILE:CD1	43:BU:99:CYS:SG	2.78	0.69
51:B6:12:GLU:HB2	51:B6:23:THR:HA	1.75	0.69
1:CA:1149:C:O2'	1:CA:1280:A:N1	2.22	0.69
2:CE:17:PHE:CE2	2:CE:44:LEU:CD2	2.74	0.69
4:CG:199:ASN:HB3	4:CG:202:LEU:HG	1.73	0.69
5:CH:41:VAL:CG2	5:CH:67:VAL:HG11	2.23	0.69
5:CH:100:VAL:O	5:CH:107:ARG:NH2	2.26	0.69
7:CJ:59:LEU:O	7:CJ:59:LEU:HD23	1.92	0.69
8:CK:12:ARG:HD2	8:CK:26:VAL:HG12	1.73	0.69
8:CK:20:TYR:HD1	8:CK:65:TYR:CD2	2.10	0.69
12:CO:83:VAL:HG22	12:CO:84:LEU:N	2.07	0.69
13:CP:66:LEU:HA	13:CP:70:LEU:HB2	1.75	0.69
24:DA:205:G:O6	46:DZ:39:LYS:NZ	2.20	0.69
24:DA:1162:G:N2	40:D2:89:GLN:HE22	1.90	0.69
24:DA:1301:A:C8	24:DA:1303:G:C8	2.81	0.69
24:DA:1534:G:H2'	24:DA:1537:C:N4	2.07	0.69
24:DA:2064:C:O2'	24:DA:2065:C:H5'	1.93	0.69
24:DA:2128:C:C1'	24:DA:2173:A:H61	2.05	0.69
24:DA:2331:G:O2'	45:D3:43:THR:HG22	1.92	0.69
24:DA:2688:U:H3'	24:DA:2688:U:O2	1.93	0.69
24:DA:2748:A:H2'	30:DH:6:ARG:HH21	1.58	0.69
29:DG:10:LYS:O	29:DG:15:VAL:HG23	1.93	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DN:47:ILE:CG1	33:DN:48:PRO:HD2	2.18	0.69
37:DQ:105:ALA:O	37:DQ:107:GLU:N	2.26	0.69
40:D2:24:LYS:HA	40:D2:92:THR:OG1	1.93	0.69
42:DT:5:TYR:CZ	47:DW:30:ARG:HG2	2.27	0.69
47:DW:54:LYS:HG3	47:DW:55:ARG:N	2.08	0.69
1:AA:437:U:H5'	4:AG:155:LEU:HD22	1.73	0.69
1:AA:1128:C:C4'	9:AL:16:ARG:HH12	2.06	0.69
2:AE:117:GLU:O	2:AE:121:LEU:HG	1.93	0.69
2:AE:221:LEU:HD13	2:AE:221:LEU:C	2.13	0.69
3:AF:50:ALA:HA	3:AF:72:LYS:CD	2.22	0.69
9:AL:9:ARG:HG2	9:AL:14:VAL:HG23	1.74	0.69
9:AL:79:LEU:CD2	9:AL:83:ARG:HG2	2.23	0.69
19:AV:50:ALA:HB1	19:AV:57:HIS:HB3	1.74	0.69
20:AW:81:LYS:O	20:AW:84:LEU:N	2.26	0.69
24:BA:500:G:N2	24:BA:502:A:H3'	2.08	0.69
24:BA:1320:C:C5	24:BA:1329:U:H5'	2.28	0.69
24:BA:1470:G:H5"	24:BA:1471:A:OP1	1.93	0.69
24:BA:2212:A:O2'	24:BA:2213:U:O5'	2.08	0.69
24:BA:2748:A:OP1	30:BH:70:THR:OG1	2.08	0.69
27:BE:12:THR:O	27:BE:23:VAL:HG22	1.93	0.69
31:BK:127:VAL:HG22	31:BK:139:GLN:HB3	1.75	0.69
35:BP:59:ARG:HG2	35:BP:60:ARG:H	1.57	0.69
38:BR:91:ARG:O	38:BR:116:ALA:HA	1.91	0.69
41:BS:79:GLY:HA3	41:BS:100:THR:CG2	2.22	0.69
1:CA:277:C:H5"	17:CT:68:ARG:NH2	2.08	0.69
1:CA:518:C:H4'	1:CA:519:C:H6	1.57	0.69
1:CA:1053:G:HO2'	1:CA:1199:U:H5	1.40	0.69
1:CA:1200:C:H5'	1:CA:1201:A:C5'	2.22	0.69
1:CA:1297:C:H4'	1:CA:1298:C:C5'	2.23	0.69
2:CE:25:ASN:O	2:CE:27:LYS:N	2.25	0.69
2:CE:97:TRP:HZ2	2:CE:102:LEU:HD13	1.58	0.69
4:CG:42:GLN:HG3	4:CG:43:HIS:CD2	2.28	0.69
4:CG:118:ARG:O	4:CG:121:VAL:HG22	1.92	0.69
24:DA:835:A:OP1	53:D8:52:LYS:HG2	1.93	0.69
24:DA:1826:G:H4'	26:DD:242:ARG:NH2	2.08	0.69
25:DB:38:C:O2'	37:DQ:93:LYS:NZ	2.26	0.69
27:DE:81:ILE:HG21	27:DE:84:PHE:HB3	1.73	0.69
27:DE:147:PRO:HB2	27:DE:149:ARG:HG2	1.75	0.69
27:DE:200:GLU:HG2	27:DE:201:THR:H	1.58	0.69
28:DF:32:LEU:O	28:DF:32:LEU:HD23	1.92	0.69
29:DG:107:LEU:HD23	29:DG:111:LEU:CD1	2.23	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:D1:100:VAL:O	39:D1:101:ARG:HG2	1.93	0.69
43:DU:17:SER:OG	43:DU:18:GLY:N	2.24	0.69
44:DV:128:VAL:HG22	44:DV:129:SER:N	2.03	0.69
1:AA:562:C:C4'	1:AA:563:A:H5'	2.23	0.69
24:BA:1050:A:H2'	24:BA:1051:G:O4'	1.93	0.69
24:BA:1798:U:H5'	26:BD:259:THR:HG22	1.75	0.69
24:BA:2213:U:O4'	46:BZ:52:ARG:NH1	2.25	0.69
24:BA:2828:C:O2'	24:BA:2829:C:H5'	1.93	0.69
31:BK:86:THR:O	31:BK:87:LYS:HB2	1.91	0.69
37:BQ:25:ARG:NH1	37:BQ:42:ASP:OD2	2.26	0.69
39:B1:92:ARG:NH1	40:B2:11:GLN:O	2.26	0.69
44:BV:53:ILE:H	44:BV:71:VAL:CG1	2.06	0.69
1:CA:411:A:C2'	1:CA:412:A:H5'	2.23	0.69
1:CA:532:A:H5'	3:CF:161:GLU:OE1	1.93	0.69
1:CA:674:G:H2'	1:CA:675:A:H8	1.58	0.69
1:CA:1128:C:H2'	1:CA:1139:G:O6	1.93	0.69
1:CA:1179:A:OP2	9:CL:93:ARG:NH2	2.25	0.69
5:CH:47:LYS:O	5:CH:57:LYS:HD2	1.92	0.69
8:CK:123:GLU:O	8:CK:127:LEU:HD23	1.93	0.69
17:CT:100:LYS:NZ	17:CT:100:LYS:HB3	2.08	0.69
24:DA:848:G:H2'	24:DA:849:A:C8	2.28	0.69
24:DA:1510:A:C8	24:DA:1511:A:C8	2.81	0.69
36:D0:78:LYS:O	36:D0:82:GLU:HB3	1.93	0.69
38:DR:3:ARG:HG2	38:DR:6:LEU:HB2	1.74	0.69
51:D6:37:ARG:CD	51:D6:38:LYS:H	2.06	0.69
1:AA:1145:C:H5"	1:AA:1146:A:OP1	1.93	0.68
4:AG:28:SER:CB	4:AG:29:PRO:HD3	2.19	0.68
12:AO:127:GLU:OE1	12:AO:127:GLU:N	2.25	0.68
15:AR:71:GLN:HB3	15:AR:78:TYR:CG	2.28	0.68
24:BA:74:A:H5'	24:BA:75:G:O4'	1.93	0.68
24:BA:900:A:H3'	24:BA:901:A:H8	1.57	0.68
24:BA:1021:A:H3'	24:BA:1022:G:C5'	2.23	0.68
24:BA:2580:U:H4'	27:BE:130:GLY:CA	2.20	0.68
29:BG:13:GLU:O	29:BG:14:GLU:HB2	1.92	0.68
30:BH:8:PRO:C	30:BH:9:ILE:HG13	2.11	0.68
30:BH:74:ASN:O	30:BH:77:LYS:HG2	1.93	0.68
35:BP:134:ARG:HA	35:BP:138:ASP:OD2	1.92	0.68
37:BQ:58:LEU:HD23	37:BQ:58:LEU:N	2.09	0.68
53:B8:23:VAL:HG11	53:B8:46:ARG:HD3	1.75	0.68
1:CA:1098:C:OP2	2:CE:144:ARG:NH1	2.27	0.68
9:CL:114:TYR:CE2	10:CM:60:ARG:O	2.47	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1062:G:H2'	24:DA:1063:G:N7	2.09	0.68
26:DD:147:LEU:CD1	26:DD:155:LEU:HD11	2.22	0.68
27:DE:46:ALA:HB2	27:DE:82:ARG:HA	1.74	0.68
30:DH:29:PRO:HG2	30:DH:79:VAL:C	2.14	0.68
32:DM:13:TRP:HB3	32:DM:134:ARG:HB2	1.75	0.68
34:DO:6:LEU:O	34:DO:7:ARG:HG2	1.93	0.68
40:D2:76:LYS:HZ3	40:D2:82:ARG:HH21	1.40	0.68
49:D4:23:GLU:CG	49:D4:24:THR:H	2.00	0.68
1:AA:537:G:H5"	12:AO:113:ARG:HH12	1.58	0.68
1:AA:966:G:O2'	9:AL:127:LYS:O	2.11	0.68
1:AA:1080:A:H5"	5:AH:16:THR:HG21	1.75	0.68
2:AE:171:ALA:HA	2:AE:174:VAL:CG1	2.23	0.68
24:BA:955:C:C2'	24:BA:956:G:H5'	2.23	0.68
24:BA:2277:G:H2'	24:BA:2278:A:H5"	1.75	0.68
31:BK:69:LYS:HG3	31:BK:136:VAL:HG13	1.75	0.68
46:BZ:92:LYS:HA	46:BZ:95:LEU:CG	2.22	0.68
1:CA:560:U:H4'	1:CA:561:U:O5'	1.93	0.68
1:CA:1014:A:C4'	19:CV:15:LEU:HD21	2.22	0.68
4:CG:86:LYS:CG	4:CG:87:GLY:H	2.06	0.68
4:CG:159:ARG:O	4:CG:162:LEU:N	2.26	0.68
10:CM:8:LEU:HG	10:CM:96:ILE:HD13	1.73	0.68
24:DA:669:G:H1'	24:DA:670:A:OP1	1.93	0.68
24:DA:675:A:OP1	28:DF:63:LYS:NZ	2.24	0.68
24:DA:1056:G:H4'	24:DA:1057:A:H8	1.56	0.68
24:DA:1085:A:C4'	24:DA:1086:A:OP1	2.40	0.68
24:DA:1935:G:H1'	24:DA:1964:G:N2	2.08	0.68
24:DA:2477:C:H1'	24:DA:2480:C:H41	1.58	0.68
24:DA:2751:G:C6	30:DH:2:SER:HB3	2.26	0.68
27:DE:116:VAL:O	27:DE:117:MET:HG2	1.92	0.68
27:DE:200:GLU:OE1	27:DE:200:GLU:N	2.26	0.68
1:AA:328:C:H4'	1:AA:329:A:H5'	1.76	0.68
1:AA:819:A:H4'	1:AA:820:U:OP2	1.92	0.68
2:AE:96:ARG:H	2:AE:96:ARG:CD	2.01	0.68
4:AG:19:LEU:HD23	4:AG:19:LEU:N	2.08	0.68
8:AK:8:ASP:OD1	8:AK:12:ARG:NH1	2.25	0.68
12:AO:83:VAL:HG22	12:AO:84:LEU:N	2.08	0.68
13:AP:82:MET:HE2	13:AP:92:HIS:HB3	1.74	0.68
17:AT:16:GLN:O	17:AT:17:LYS:HB2	1.94	0.68
26:BD:30:GLU:HG3	26:BD:63:ARG:CZ	2.24	0.68
26:BD:155:LEU:HD23	26:BD:177:LEU:CD2	2.23	0.68
44:BV:107:THR:HB	44:BV:108:PRO:HD2	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:322:C:H5	1:CA:328:C:H5	1.40	0.68
1:CA:437:U:H5"	4:CG:155:LEU:HD13	1.75	0.68
1:CA:1205:U:O2'	3:CF:194:GLY:HA2	1.92	0.68
1:CA:1305:G:HO2'	1:CA:1306:A:H8	1.38	0.68
4:CG:153:ARG:HG2	4:CG:181:MET:SD	2.33	0.68
10:CM:61:GLU:OE1	14:CQ:58:LYS:HE2	1.93	0.68
24:DA:863:A:O2'	24:DA:864:G:H5'	1.93	0.68
24:DA:1332:G:N2	24:DA:1610:A:C8	2.59	0.68
28:DF:18:ARG:HD3	28:DF:19:GLU:N	2.08	0.68
30:DH:147:ASN:O	30:DH:151:ILE:HG12	1.93	0.68
34:DO:52:GLU:OE1	34:DO:53:GLY:N	2.25	0.68
42:DT:15:GLU:CD	42:DT:15:GLU:H	1.95	0.68
43:DU:64:GLU:OE2	43:DU:64:GLU:N	2.26	0.68
44:DV:157:LEU:CB	44:DV:161:VAL:HG12	2.21	0.68
49:D4:13:ARG:HD2	49:D4:22:ILE:CG2	2.22	0.68
1:AA:200:G:N2	1:AA:218:C:O2	2.27	0.68
2:AE:231:GLU:CD	2:AE:232:PRO:HD2	2.13	0.68
10:AM:91:PRO:O	10:AM:92:THR:HG23	1.93	0.68
13:AP:11:ARG:CB	13:AP:46:LYS:HZ2	2.06	0.68
18:AU:66:LEU:O	18:AU:70:ILE:HG13	1.93	0.68
22:AC:47:U:O2'	22:AC:48:C:O5'	2.11	0.68
24:BA:438:G:O2'	24:BA:439:G:H5'	1.92	0.68
24:BA:1087:G:H5'	24:BA:1088:A:OP2	1.92	0.68
24:BA:2117:A:N6	24:BA:2172:U:O4	2.27	0.68
24:BA:2317:C:C2'	24:BA:2318:G:H5'	2.24	0.68
24:BA:2468:G:OP1	35:BP:119:ARG:NH2	2.24	0.68
1:CA:1216:G:H5"	14:CQ:5:ALA:HB2	1.74	0.68
1:CA:1329:A:H4'	13:CP:24:GLY:HA2	1.73	0.68
24:DA:2786:U:H4'	27:DE:64:LYS:C	2.14	0.68
24:DA:2786:U:H5'	27:DE:65:GLY:CA	2.23	0.68
24:DA:2887:U:H2'	24:DA:2888:C:H6	1.58	0.68
31:DK:27:ARG:HD2	46:DZ:71:TYR:CE2	2.28	0.68
36:D0:81:ASP:O	36:D0:82:GLU:HB2	1.93	0.68
39:D1:112:ARG:CZ	40:D2:47:VAL:HG11	2.23	0.68
40:D2:10:LYS:NZ	40:D2:23:GLU:OE2	2.26	0.68
44:DV:14:LYS:HZ3	44:DV:14:LYS:HB3	1.58	0.68
1:AA:1120:G:O2'	1:AA:1121:U:H5'	1.92	0.68
8:AK:120:THR:HG23	8:AK:122:ARG:N	2.09	0.68
24:BA:404:C:C1'	24:BA:405:U:OP2	2.40	0.68
24:BA:1113:U:OP1	30:BH:2:SER:N	2.26	0.68
26:BD:96:HIS:CD2	26:BD:102:LYS:HE2	2.29	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:B1:62:ILE:HG23	39:B1:76:TYR:CE2	2.29	0.68
42:BT:10:ALA:HB1	42:BT:11:PRO:HD2	1.76	0.68
43:BU:81:LYS:HZ3	43:BU:96:ILE:HD13	1.52	0.68
1:CA:354:G:N2	1:CA:388:G:O2'	2.21	0.68
1:CA:1290:G:H2'	1:CA:1291:G:C5'	2.19	0.68
4:CG:11:LEU:HD12	4:CG:12:CYS:N	2.09	0.68
4:CG:190:ASP:OD1	4:CG:191:ARG:N	2.26	0.68
7:CJ:74:GLU:N	7:CJ:89:MET:O	2.24	0.68
16:CS:22:THR:HA	16:CS:33:ILE:HG13	1.76	0.68
20:CW:70:SER:CA	20:CW:73:HIS:CE1	2.65	0.68
24:DA:981:A:H5"	24:DA:982:C:OP2	1.94	0.68
24:DA:1654:A:C4'	36:D0:2:ARG:HH21	2.07	0.68
24:DA:2348:U:C2'	24:DA:2349:G:H5'	2.22	0.68
24:DA:2602:A:H4'	24:DA:2603:G:C5'	2.23	0.68
49:D4:16:CYS:HB2	49:D4:20:ASN:HB2	1.75	0.68
53:D8:23:VAL:CG2	53:D8:48:PHE:H	2.07	0.68
1:AA:401:C:H2'	1:AA:402:G:C8	2.29	0.68
1:AA:668:G:H4'	15:AR:48:LYS:HB2	1.75	0.68
1:AA:826:C:H2'	1:AA:827:U:O2	1.94	0.68
1:AA:933:G:OP2	7:AJ:3:ARG:HB2	1.94	0.68
1:AA:1089:G:N2	1:AA:1096:C:O2	2.27	0.68
1:AA:1331:G:OP2	13:AP:23:TYR:HD1	1.75	0.68
4:AG:22:LYS:HB2	4:AG:26:CYS:H	1.57	0.68
5:AH:10:MET:SD	5:AH:13:ILE:CD1	2.81	0.68
13:AP:81:LEU:O	13:AP:84:ILE:HG22	1.94	0.68
24:BA:1678:G:H22	24:BA:1989:G:H22	1.41	0.68
29:BG:91:ARG:HD2	29:BG:91:ARG:C	2.14	0.68
29:BG:91:ARG:HD2	29:BG:91:ARG:O	1.93	0.68
51:B6:47:THR:HG22	51:B6:48:VAL:H	1.56	0.68
1:CA:115:G:H4'	1:CA:116:A:O5'	1.91	0.68
1:CA:347:G:O2'	1:CA:348:G:H5'	1.94	0.68
3:CF:92:ALA:HB2	3:CF:99:VAL:CG1	2.23	0.68
12:CO:24:VAL:O	12:CO:24:VAL:HG12	1.93	0.68
16:CS:54:GLU:OE1	16:CS:54:GLU:N	2.20	0.68
19:CV:52:TYR:CE2	19:CV:54:GLY:HA2	2.29	0.68
24:DA:1054:A:H2'	24:DA:1055:G:C8	2.29	0.68
24:DA:1418:G:OP1	24:DA:1588:C:O2'	2.11	0.68
24:DA:1602:U:OP2	42:DT:60:ARG:NH2	2.26	0.68
24:DA:1729:A:O2'	24:DA:1730:U:H5"	1.94	0.68
24:DA:2137:C:N4	24:DA:2154:G:O6	2.26	0.68
24:DA:2517:C:O2'	24:DA:2519:U:H5	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DD:76:PRO:O	26:DD:98:VAL:HG12	1.93	0.68
29:DG:145:THR:OG1	29:DG:148:MET:HB2	1.93	0.68
33:DN:87:ILE:HD12	33:DN:92:GLU:C	2.13	0.68
40:D2:79:VAL:C	40:D2:80:GLN:NE2	2.47	0.68
51:D6:34:LEU:HD12	51:D6:50:ARG:NH1	2.08	0.68
53:D8:49:VAL:HG12	53:D8:50:LEU:N	2.09	0.68
1:AA:22:G:H2'	1:AA:23:C:C6	2.29	0.68
1:AA:509:A:H5"	4:AG:55:ALA:HB2	1.76	0.68
1:AA:961:U:OP2	1:AA:1223:C:H1'	1.94	0.68
1:AA:1025:U:H4'	1:AA:1026:G:O5'	1.94	0.68
1:AA:1121:U:H2'	1:AA:1122:U:H6	1.58	0.68
2:AE:80:ILE:CD1	2:AE:212:GLN:CA	2.69	0.68
7:AJ:45:ASP:O	7:AJ:49:ILE:HG12	1.93	0.68
7:AJ:91:VAL:CG2	7:AJ:96:GLN:HG2	2.23	0.68
7:AJ:115:ARG:CD	7:AJ:116:ALA:H	2.06	0.68
24:BA:314:A:H2'	24:BA:315:G:H5'	1.75	0.68
24:BA:1049:C:H1'	24:BA:1113:U:O2'	1.94	0.68
24:BA:1188:U:H4'	40:B2:79:VAL:HG22	1.76	0.68
24:BA:1601:G:OP1	52:B7:49:ARG:CZ	2.39	0.68
24:BA:1967:C:H2'	24:BA:1968:G:H5'	1.75	0.68
26:BD:79:VAL:HG21	26:BD:111:LEU:HD11	1.76	0.68
32:BM:62:VAL:HG21	32:BM:66:LYS:HD2	1.73	0.68
37:BQ:10:ARG:O	37:BQ:14:VAL:HG12	1.94	0.68
37:BQ:106:ARG:HD2	37:BQ:107:GLU:OE1	1.94	0.68
15:CR:82:ILE:O	15:CR:86:GLY:N	2.25	0.68
24:DA:1332:G:H21	24:DA:1610:A:H8	1.37	0.68
24:DA:1601:G:C5'	52:D7:49:ARG:CG	2.68	0.68
24:DA:2286:A:C5'	51:D6:28:ARG:HH11	1.98	0.68
24:DA:2542:A:H1'	24:DA:2543:G:C8	2.29	0.68
28:DF:101:LEU:HD12	28:DF:102:PRO:CD	2.15	0.68
29:DG:16:ARG:N	29:DG:17:PRO:HD2	2.09	0.68
34:DO:13:ASN:O	34:DO:15:ARG:N	2.26	0.68
39:D1:34:LYS:HA	39:D1:34:LYS:CE	2.19	0.68
39:D1:72:HIS:CD2	39:D1:110:VAL:HG21	2.29	0.68
39:D1:100:VAL:C	39:D1:101:ARG:HG2	2.14	0.68
47:DW:68:ARG:HD3	47:DW:72:ALA:HB3	1.75	0.68
1:AA:401:C:H2'	1:AA:402:G:H8	1.59	0.68
1:AA:1351:U:O4'	7:AJ:33:ASP:HB3	1.94	0.68
8:AK:34:GLU:HB3	8:AK:118:VAL:CG2	2.18	0.68
9:AL:125:TYR:HD1	9:AL:126:SER:H	1.42	0.68
12:AO:59:ARG:HB2	12:AO:59:ARG:NH1	2.08	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AP:11:ARG:CG	13:AP:46:LYS:NZ	2.56	0.68
24:BA:1268:A:H2'	24:BA:1269:A:O4'	1.93	0.68
28:BF:28:ILE:HD12	28:BF:28:ILE:O	1.94	0.68
31:BK:131:LYS:HB3	31:BK:132:PRO:CA	2.23	0.68
38:BR:3:ARG:HA	38:BR:6:LEU:CD2	2.24	0.68
1:CA:425:G:O3'	4:CG:45:GLN:NE2	2.26	0.68
2:CE:185:ILE:HG22	2:CE:199:TYR:CB	2.21	0.68
2:CE:217:ARG:O	2:CE:220:ASP:HB2	1.93	0.68
9:CL:112:LYS:HD3	9:CL:112:LYS:C	2.13	0.68
16:CS:15:PRO:O	16:CS:16:HIS:ND1	2.27	0.68
24:DA:69:C:O2	24:DA:73:A:O2'	2.11	0.68
24:DA:1507:A:C4	24:DA:1508:A:H1'	2.29	0.68
24:DA:2287:A:N6	24:DA:2344:U:H3	1.91	0.68
24:DA:2445:G:OP1	28:DF:74:ARG:NH2	2.26	0.68
24:DA:2637:U:H5"	27:DE:82:ARG:HH21	1.59	0.68
28:DF:128:ALA:O	28:DF:142:TRP:NE1	2.27	0.68
29:DG:37:VAL:O	29:DG:94:LEU:HD23	1.94	0.68
33:DN:87:ILE:HD11	33:DN:92:GLU:N	2.09	0.68
34:DO:64:LYS:O	34:DO:64:LYS:HG2	1.93	0.68
50:D5:57:VAL:HG12	50:D5:58:LEU:H	1.59	0.68
1:AA:228:A:H4'	16:AS:62:VAL:HG11	1.76	0.68
2:AE:167:PRO:CD	2:AE:188:ALA:HB2	2.24	0.68
4:AG:146:ILE:HD12	4:AG:146:ILE:N	2.09	0.68
12:AO:24:VAL:CG1	12:AO:27:LEU:HG	2.23	0.68
15:AR:47:LYS:HD2	15:AR:47:LYS:H	1.59	0.68
17:AT:50:LYS:HE3	17:AT:51:TYR:CE1	2.29	0.68
24:BA:1812:A:C1'	26:BD:46:GLN:HE22	2.07	0.68
24:BA:2286:A:C8	51:B6:37:ARG:NH1	2.62	0.68
24:BA:2850:A:C2	24:BA:2851:A:C4	2.82	0.68
27:BE:36:ARG:NH2	27:BE:89:ASP:OD1	2.27	0.68
27:BE:40:GLU:N	27:BE:40:GLU:OE2	2.26	0.68
30:BH:6:ARG:CZ	30:BH:54:ARG:HH12	2.06	0.68
4:CG:189:PRO:CB	4:CG:194:LEU:HD21	2.23	0.68
11:CN:32:ILE:HD13	11:CN:72:ALA:HB2	1.74	0.68
19:CV:36:ARG:NH1	19:CV:72:GLY:HA3	2.04	0.68
24:DA:2749:A:C5'	30:DH:6:ARG:NH2	2.57	0.68
25:DB:50:G:OP1	37:DQ:63:THR:HG23	1.92	0.68
27:DE:9:VAL:HG23	27:DE:10:GLY:N	2.03	0.68
28:DF:24:LEU:CB	28:DF:25:PRO:HD3	2.24	0.68
30:DH:4:ILE:HD13	30:DH:6:ARG:CG	2.23	0.68
37:DQ:59:LYS:HD3	37:DQ:61:ASN:H	1.58	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DR:74:ARG:HD3	38:DR:76:PHE:CE1	2.29	0.68
39:D1:92:ARG:HD3	39:D1:95:LEU:HD12	1.75	0.68
41:DS:47:VAL:HA	41:DS:50:VAL:HG12	1.76	0.68
44:DV:125:LEU:HB3	44:DV:165:VAL:HG13	1.76	0.68
49:D4:57:GLU:N	49:D4:60:GLN:HG2	2.08	0.68
50:D5:37:LYS:HB3	50:D5:37:LYS:HZ3	1.55	0.68
50:D5:55:ARG:O	50:D5:56:LYS:HG2	1.94	0.68
1:AA:1239:A:H62	1:AA:1299:A:H62	1.42	0.68
2:AE:74:LYS:HE3	2:AE:169:LYS:HD3	1.75	0.68
3:AF:76:VAL:HG21	3:AF:103:VAL:CG1	2.24	0.68
11:AN:22:HIS:HB3	11:AN:29:ILE:CG2	2.23	0.68
12:AO:92:ASP:O	12:AO:94:PRO:HD3	1.94	0.68
20:AW:101:GLY:O	20:AW:103:GLY:N	2.27	0.68
24:BA:528:A:N1	24:BA:2043:C:O5'	2.27	0.68
24:BA:2306:C:O2	29:BG:45:GLU:OE2	2.12	0.68
26:BD:270:ILE:O	26:BD:271:ILE:HG23	1.91	0.68
31:BK:132:PRO:HG2	31:BK:133:HIS:CE1	2.29	0.68
44:BV:103:ARG:HG3	44:BV:136:PHE:CD1	2.29	0.68
47:BW:42:GLY:O	47:BW:44:LEU:N	2.27	0.68
49:B4:38:LYS:HA	49:B4:44:THR:CG2	2.22	0.68
1:CA:618:C:H5'	1:CA:619:U:H5"	1.76	0.68
1:CA:940:C:H2'	1:CA:941:G:C8	2.28	0.68
1:CA:1147:C:H4'	9:CL:5:TYR:HE2	1.58	0.68
2:CE:12:GLU:O	2:CE:14:GLY:N	2.27	0.68
3:CF:12:LEU:HD11	14:CQ:51:GLY:CA	2.24	0.68
5:CH:100:VAL:HG13	5:CH:118:ILE:CG2	2.24	0.68
8:CK:38:ILE:CD1	8:CK:118:VAL:HG12	2.23	0.68
17:CT:63:ARG:HG2	17:CT:64:PRO:HD2	1.75	0.68
24:DA:270(R):G:H2'	24:DA:270(S):G:C8	2.29	0.68
24:DA:1593:G:H2'	24:DA:1594:G:C8	2.29	0.68
24:DA:1790:C:H5"	24:DA:1791:A:OP1	1.93	0.68
24:DA:2141:G:H1	24:DA:2150:U:H3	1.42	0.68
28:DF:2:LYS:HG2	28:DF:24:LEU:HG	1.76	0.68
36:D0:97:VAL:HG22	36:D0:114:VAL:HG22	1.76	0.68
49:D4:22:ILE:O	49:D4:24:THR:HG23	1.92	0.68
1:AA:1281:U:H5"	1:AA:1282:C:OP2	1.93	0.67
1:AA:1288:A:N1	1:AA:1371:G:H1'	2.10	0.67
20:AW:86:ARG:O	20:AW:90:GLN:HG3	1.94	0.67
22:AC:1:C:H3'	22:AC:1:C:O2	1.94	0.67
22:AC:8:U:O4'	22:AC:48:C:O2'	2.12	0.67
24:BA:1022:G:H4'	24:BA:1023:U:O5'	1.92	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BV:5:LEU:O	44:BV:6:LYS:HB2	1.93	0.67
46:BZ:92:LYS:HA	46:BZ:95:LEU:HG	1.76	0.67
47:BW:15:LYS:H	47:BW:67:LYS:HZ1	1.42	0.67
51:B6:32:ASN:HA	51:B6:35:GLU:OE2	1.94	0.67
1:CA:1031:G:N7	1:CA:1032(A):G:N2	2.42	0.67
1:CA:1269:A:OP1	21:CX:24:ARG:CZ	2.42	0.67
4:CG:60:GLU:OE2	4:CG:199:ASN:N	2.17	0.67
5:CH:127:ASN:O	5:CH:131:ILE:HG12	1.93	0.67
10:CM:79:ARG:O	10:CM:83:GLU:HG3	1.93	0.67
24:DA:389:G:H22	34:DO:72:PRO:HG2	1.59	0.67
24:DA:445:C:OP1	39:D1:2:PRO:HA	1.95	0.67
24:DA:483:A:H5"	43:DU:49:VAL:HG13	1.74	0.67
24:DA:989:G:OP2	48:DX:11:SER:OG	2.09	0.67
24:DA:1088:A:H3'	24:DA:1088:A:N3	2.08	0.67
24:DA:1678:G:H22	24:DA:1989:G:H1	1.41	0.67
24:DA:2105:C:H2'	24:DA:2106:G:H8	1.59	0.67
24:DA:2542:A:H1'	24:DA:2543:G:N7	2.09	0.67
27:DE:197:ILE:HD11	27:DE:199:ARG:HE	1.59	0.67
30:DH:109:PHE:CZ	30:DH:152:ARG:HB2	2.29	0.67
37:DQ:36:TYR:N	37:DQ:36:TYR:CD1	2.62	0.67
44:DV:24:LEU:H	44:DV:41:LEU:HD13	1.58	0.67
5:AH:10:MET:HA	5:AH:32:VAL:HA	1.76	0.67
8:AK:97:VAL:HG13	8:AK:98:LYS:HD3	1.76	0.67
15:AR:56:LEU:O	15:AR:60:VAL:HG23	1.94	0.67
24:BA:75:G:H4'	47:BW:55:ARG:NH2	2.08	0.67
24:BA:654(M):C:C2'	24:BA:654(N):G:C8	2.74	0.67
24:BA:1678:G:N2	24:BA:1989:G:N2	2.38	0.67
24:BA:2296:U:OP2	37:BQ:9:ARG:NH1	2.27	0.67
24:BA:2537:U:H2'	24:BA:2538:C:C6	2.29	0.67
24:BA:2788:C:O2'	24:BA:2809:A:N3	2.25	0.67
30:BH:157:TYR:HA	30:BH:171:LEU:O	1.94	0.67
38:BR:24:PRO:HA	38:BR:49:VAL:HG23	1.77	0.67
45:B3:72:ARG:HB2	45:B3:75:LEU:HB2	1.75	0.67
51:B6:29:ASN:O	51:B6:32:ASN:ND2	2.27	0.67
1:CA:266:G:H1'	1:CA:267:C:OP2	1.95	0.67
1:CA:1199:U:H4'	10:CM:54:PHE:CE2	2.30	0.67
4:CG:36:ARG:HB2	4:CG:38:TYR:CE2	2.28	0.67
9:CL:16:ARG:NH1	9:CL:64:THR:CG2	2.41	0.67
10:CM:6:ILE:HD11	10:CM:72:VAL:HG13	1.74	0.67
18:CU:53:ARG:NH1	18:CU:60:ALA:HB2	2.09	0.67
20:CW:89:ARG:O	20:CW:92:LEU:N	2.27	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:592:G:N2	53:D8:4:MET:HE1	2.09	0.67
24:DA:1019:U:H3	24:DA:1142(A):A:H62	1.41	0.67
24:DA:1412:A:H2'	24:DA:1413:G:C8	2.30	0.67
24:DA:2161:C:O2	24:DA:2173:A:H1'	1.94	0.67
24:DA:2354:G:O2'	45:D3:36:ILE:HD12	1.94	0.67
26:DD:166:GLN:HB3	26:DD:174:ILE:CG2	2.24	0.67
27:DE:137:HIS:HB3	27:DE:138:PRO:HD2	1.76	0.67
30:DH:6:ARG:HH22	30:DH:63:SER:HA	1.60	0.67
30:DH:42:ARG:NH1	30:DH:42:ARG:HA	2.09	0.67
31:DK:123:LEU:HD22	31:DK:142:VAL:HG22	1.75	0.67
45:D3:70:GLN:HE21	45:D3:80:HIS:HE2	1.41	0.67
46:DZ:90:ILE:O	46:DZ:90:ILE:CG1	2.41	0.67
1:AA:728:A:H2'	1:AA:729:A:C8	2.29	0.67
4:AG:152:SER:C	4:AG:154:ASN:H	1.98	0.67
24:BA:960:A:H61	35:BP:83:MET:CE	2.08	0.67
24:BA:1060:U:C2	24:BA:1062:G:H5'	2.29	0.67
24:BA:1105:U:H2'	24:BA:1106:G:C8	2.29	0.67
26:BD:223:GLY:CA	26:BD:231:HIS:CD2	2.78	0.67
31:BK:69:LYS:CA	31:BK:136:VAL:CG1	2.71	0.67
31:BK:133:HIS:CD2	31:BK:134:PRO:HD2	2.29	0.67
36:B0:30:THR:HG22	36:B0:31:HIS:CE1	2.29	0.67
44:BV:107:THR:HB	44:BV:108:PRO:CD	2.24	0.67
1:CA:1347:G:N2	1:CA:1373:G:H2'	2.09	0.67
2:CE:132:LYS:O	2:CE:132:LYS:HD2	1.94	0.67
9:CL:95:LYS:HZ3	9:CL:95:LYS:HB2	1.59	0.67
17:CT:67:LYS:O	17:CT:69:LYS:N	2.27	0.67
17:CT:100:LYS:HB3	17:CT:100:LYS:HZ2	1.57	0.67
19:CV:52:TYR:HB2	19:CV:57:HIS:CE1	2.30	0.67
24:DA:2099:U:C3'	24:DA:2100:G:H5"	2.25	0.67
24:DA:2758:A:C2	24:DA:2759:G:H1'	2.29	0.67
25:DB:15:A:H5'	25:DB:16:G:C8	2.30	0.67
27:DE:1:MET:SD	27:DE:200:GLU:HG3	2.34	0.67
29:DG:80:PHE:CD2	29:DG:82:LEU:HD11	2.21	0.67
30:DH:26:VAL:HG21	30:DH:76:VAL:HG22	1.75	0.67
34:DO:39:LYS:CA	34:DO:45:LEU:HD11	2.25	0.67
36:D0:103:ARG:HD3	36:D0:108:GLY:O	1.93	0.67
37:DQ:7:TYR:HE1	37:DQ:11:LYS:HZ3	1.41	0.67
39:D1:69:CYS:HB3	39:D1:74:LEU:CD1	2.24	0.67
1:AA:673:G:H5"	6:AI:87:ARG:NH1	2.08	0.67
2:AE:29:ALA:O	2:AE:32:ILE:HG22	1.93	0.67
2:AE:170:GLU:O	2:AE:173:ALA:N	2.26	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AE:197:VAL:CG1	2:AE:200:ILE:HG13	2.25	0.67
24:BA:592:G:H21	53:B8:4:MET:CE	1.97	0.67
24:BA:1210:A:H5"	24:BA:1212:G:C5'	2.24	0.67
24:BA:1332:G:N2	24:BA:1610:A:C8	2.61	0.67
24:BA:1341:U:OP2	24:BA:1394:U:O2'	2.09	0.67
33:BN:76:ALA:HB3	38:BR:75:ILE:HB	1.75	0.67
35:BP:133:ARG:O	35:BP:134:ARG:CB	2.42	0.67
37:BQ:85:VAL:CG2	37:BQ:110:LEU:HB2	2.23	0.67
1:CA:192:U:H2'	1:CA:193:C:H6	1.58	0.67
1:CA:412:A:H4'	1:CA:413:G:C5'	2.23	0.67
1:CA:1002:G:H2'	1:CA:1003:G:C8	2.30	0.67
1:CA:1329:A:OP1	13:CP:28:ALA:HB3	1.93	0.67
1:CA:1366:C:OP1	9:CL:117:HIS:NE2	2.27	0.67
7:CJ:115:ARG:NH1	7:CJ:117:ALA:HB3	2.09	0.67
20:CW:53:LEU:CB	20:CW:102:GLY:HA3	2.25	0.67
24:DA:141:A:H8	24:DA:1595:G:H21	1.38	0.67
24:DA:792:G:H5"	24:DA:793:A:H5'	1.77	0.67
24:DA:856:C:H2'	24:DA:857:C:C6	2.29	0.67
24:DA:2262:U:H4'	24:DA:2328:A:C2	2.29	0.67
24:DA:2352:A:H2	45:D3:33:ALA:HB1	1.59	0.67
24:DA:2393:A:C5'	53:D8:30:ARG:CZ	2.65	0.67
26:DD:132:PRO:HD3	26:DD:190:TYR:CE2	2.29	0.67
29:DG:60:LEU:O	29:DG:60:LEU:HD23	1.95	0.67
43:DU:97:ARG:HD3	43:DU:97:ARG:H	1.59	0.67
1:AA:1014:A:H4'	19:AV:14:HIS:CE1	2.28	0.67
1:AA:1454:G:OP1	20:AW:39:LYS:NZ	2.24	0.67
2:AE:51:LEU:HD22	2:AE:55:PHE:CE2	2.30	0.67
16:AS:23:ASP:OD1	16:AS:25:ARG:HD3	1.94	0.67
24:BA:2751:G:C5	30:BH:3:ARG:CG	2.76	0.67
32:BM:115:ARG:O	32:BM:118:LYS:N	2.27	0.67
34:BO:94:GLU:O	34:BO:95:VAL:HB	1.94	0.67
36:B0:63:ARG:HB2	36:B0:80:PHE:CE2	2.29	0.67
1:CA:376:G:H5"	16:CS:5:ARG:HD3	1.77	0.67
3:CF:71:ALA:HB2	3:CF:106:VAL:HB	1.76	0.67
4:CG:11:LEU:C	4:CG:13:ARG:N	2.47	0.67
18:CU:22:VAL:O	18:CU:24:ALA:N	2.25	0.67
19:CV:70:LYS:CE	19:CV:73:GLU:CA	2.73	0.67
24:DA:1689:A:H62	24:DA:1698:A:H2	1.41	0.67
24:DA:2789:C:N3	24:DA:2790:A:N6	2.43	0.67
30:DH:137:ASP:OD1	30:DH:138:LYS:N	2.28	0.67
32:DM:94:HIS:HB2	32:DM:96:GLU:OE1	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DR:51:ARG:HG3	38:DR:98:LYS:HG3	1.75	0.67
40:D2:62:LEU:HD22	40:D2:62:LEU:N	2.10	0.67
1:AA:644:G:C2'	1:AA:645:C:H5'	2.25	0.67
24:BA:1510:A:OP1	24:BA:1511:A:H5'	1.94	0.67
24:BA:2661:G:H2'	24:BA:2662:A:O4'	1.94	0.67
30:BH:20:ALA:HB1	30:BH:21:PRO:HD2	1.76	0.67
35:BP:137:TYR:HE2	44:BV:49:ARG:HE	1.41	0.67
1:CA:188:U:O2'	1:CA:189:U:H5'	1.95	0.67
1:CA:339:C:OP2	33:DN:97:ARG:NH2	2.26	0.67
24:DA:756:C:C2'	24:DA:757:U:H5'	2.25	0.67
24:DA:895:U:H4'	24:DA:896:A:C5	2.28	0.67
24:DA:1155:A:OP1	39:D1:55:ARG:HD2	1.93	0.67
24:DA:1336:A:H2'	24:DA:1337:G:C8	2.30	0.67
24:DA:2345:G:H2'	24:DA:2345:G:O5'	1.95	0.67
24:DA:2346:A:H5"	24:DA:2383:G:C1'	2.25	0.67
24:DA:2393:A:C4'	53:D8:30:ARG:HE	2.08	0.67
24:DA:2542:A:O2'	24:DA:2543:G:P	2.53	0.67
24:DA:2801:A:H4'	24:DA:2895:U:C5'	2.23	0.67
27:DE:64:LYS:NZ	27:DE:68:ALA:CB	2.57	0.67
40:D2:35:LEU:HG	40:D2:37:VAL:HG13	1.76	0.67
40:D2:79:VAL:O	40:D2:80:GLN:CB	2.41	0.67
41:DS:4:LYS:HB3	41:DS:106:ILE:HG22	1.75	0.67
44:DV:120:ILE:CD1	44:DV:171:ILE:HA	2.25	0.67
44:DV:144:LEU:HD23	44:DV:148:ASP:HA	1.76	0.67
1:AA:404:U:N3	1:AA:497:U:O4	2.16	0.67
2:AE:73:THR:HG22	2:AE:95:GLN:O	1.95	0.67
4:AG:177:ASP:CB	4:AG:182:LYS:HG3	2.24	0.67
9:AL:16:ARG:HG2	9:AL:64:THR:HG23	1.75	0.67
10:AM:48:THR:CG2	10:AM:62:HIS:HD2	2.05	0.67
19:AV:63:THR:OG1	19:AV:66:MET:HG3	1.95	0.67
24:BA:881:G:H22	24:BA:895:U:H3	1.43	0.67
24:BA:889:C:H3'	24:BA:889:C:O2	1.94	0.67
24:BA:1141:U:H6	32:BM:63:THR:HG1	1.42	0.67
29:BG:11:TYR:O	29:BG:16:ARG:HG3	1.95	0.67
29:BG:105:LYS:CD	49:B4:26:SER:HB2	2.24	0.67
51:B6:11:LEU:HD21	51:B6:51:GLU:HG3	1.75	0.67
1:CA:328:C:H1'	1:CA:329:A:OP2	1.95	0.67
1:CA:811:C:O2'	1:CA:901:A:N1	2.27	0.67
1:CA:1086:U:H2'	1:CA:1087:G:O4'	1.95	0.67
2:CE:233:SER:CB	2:CE:234:PRO:CD	2.70	0.67
8:CK:129:VAL:HG22	8:CK:130:GLY:N	2.08	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:336:C:H4'	43:DU:6:HIS:CD2	2.30	0.67
27:DE:37:ARG:NH1	27:DE:80:GLU:OE2	2.28	0.67
34:DO:19:VAL:HG22	34:DO:20:GLY:N	2.05	0.67
41:DS:19:LEU:HB3	50:D5:25:LEU:HD12	1.75	0.67
43:DU:9:LYS:O	43:DU:27:VAL:HG13	1.95	0.67
43:DU:38:ILE:CG2	43:DU:64:GLU:HB2	2.25	0.67
1:AA:464:G:H1'	1:AA:468:A:H61	1.60	0.67
1:AA:1374:A:C2'	1:AA:1375:A:H5'	2.23	0.67
4:AG:101:LEU:HD23	4:AG:121:VAL:CG1	2.25	0.67
10:AM:87:THR:OG1	10:AM:88:LEU:N	2.25	0.67
13:AP:12:ASN:OD1	13:AP:13:LYS:N	2.26	0.67
19:AV:40:ILE:HG22	19:AV:69:HIS:O	1.95	0.67
20:AW:49:ALA:O	20:AW:53:LEU:HG	1.95	0.67
24:BA:1178:C:H2'	24:BA:1179:C:H6	1.55	0.67
24:BA:2001:A:H5"	24:BA:2689:U:O2'	1.95	0.67
28:BF:64:ILE:HG22	28:BF:65:TRP:NE1	2.09	0.67
32:BM:46:VAL:HG11	32:BM:48:MET:CE	2.23	0.67
1:CA:585:G:N3	1:CA:879:C:H4'	2.09	0.67
1:CA:1366:C:O2'	10:CM:60:ARG:NH1	2.27	0.67
2:CE:114:ARG:HA	2:CE:114:ARG:HE	1.59	0.67
3:CF:105:GLU:HG2	3:CF:106:VAL:N	2.09	0.67
4:CG:93:PHE:HD1	4:CG:93:PHE:C	1.98	0.67
11:CN:109:VAL:HG22	18:CU:86:VAL:HG12	1.75	0.67
20:CW:33:ILE:HD13	20:CW:62:LEU:HB3	1.77	0.67
24:DA:1337:G:H2'	24:DA:1338:G:H8	1.60	0.67
24:DA:1967:C:H2'	24:DA:1968:G:H5'	1.77	0.67
27:DE:203:LYS:HD2	27:DE:203:LYS:C	2.15	0.67
30:DH:4:ILE:CD1	30:DH:6:ARG:HG3	2.24	0.67
43:DU:28:LYS:HE3	43:DU:63:LYS:NZ	2.10	0.67
1:AA:501:C:H2'	1:AA:502:G:C8	2.29	0.67
1:AA:558:G:H2'	1:AA:559:A:C2	2.29	0.67
1:AA:1346:A:H5"	9:AL:120:ARG:NH1	2.10	0.67
2:AE:87:ARG:O	2:AE:87:ARG:HD2	1.95	0.67
9:AL:93:ARG:HE	9:AL:102:LEU:CD1	2.08	0.67
10:AM:48:THR:HG23	10:AM:62:HIS:CG	2.29	0.67
17:AT:56:VAL:O	17:AT:77:VAL:HB	1.95	0.67
24:BA:273(E):U:O2'	24:BA:273(F):C:H5'	1.94	0.67
24:BA:1022:G:H1'	24:BA:1023:U:OP2	1.94	0.67
35:BP:75:THR:HB	35:BP:88:GLY:HA3	1.77	0.67
39:B1:92:ARG:CD	39:B1:95:LEU:HD11	2.23	0.67
44:BV:4:ARG:CZ	44:BV:58:VAL:HG11	2.24	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BV:18:LEU:H	44:BV:18:LEU:CD1	2.07	0.67
1:CA:267:C:OP1	17:CT:67:LYS:HD2	1.95	0.67
1:CA:965:A:C2	1:CA:969:A:C2	2.82	0.67
1:CA:1062:U:H2'	1:CA:1063:C:C6	2.30	0.67
1:CA:1173:G:OP1	7:CJ:5:ARG:NH1	2.20	0.67
2:CE:106:LYS:O	2:CE:106:LYS:HD2	1.95	0.67
3:CF:39:ILE:CD1	3:CF:57:ILE:HD11	2.25	0.67
24:DA:1338:G:N7	42:DT:62:LYS:NZ	2.39	0.67
24:DA:2163:C:OP1	24:DA:2171:A:H2'	1.95	0.67
1:AA:87:A:H2'	1:AA:88:C:C6	2.29	0.67
1:AA:994:A:O2'	14:AQ:12:ARG:NH2	2.28	0.67
1:AA:1381:U:H2'	7:AJ:79:ARG:NH1	2.06	0.67
5:AH:138:ALA:O	5:AH:142:LEU:HD12	1.94	0.67
9:AL:79:LEU:HD21	9:AL:83:ARG:NE	2.09	0.67
12:AO:46:LYS:CG	12:AO:47:LYS:H	2.06	0.67
20:AW:58:LYS:O	20:AW:61:SER:HB3	1.94	0.67
24:BA:265:A:H1'	24:BA:266:G:O4'	1.95	0.67
24:BA:1077:A:H3'	24:BA:1078:U:C5'	2.25	0.67
24:BA:2789:C:H1'	24:BA:2892:A:H2	1.60	0.67
25:BB:15:A:H5'	25:BB:16:G:C8	2.30	0.67
30:BH:4:ILE:HB	30:BH:6:ARG:HD3	1.77	0.67
34:BO:75:ILE:HD13	34:BO:75:ILE:N	2.00	0.67
35:BP:26:TYR:CD2	35:BP:140:ALA:HB3	2.30	0.67
1:CA:277:C:H5"	17:CT:68:ARG:HH22	1.59	0.67
1:CA:1080:A:P	5:CH:14:ARG:NH2	2.68	0.67
2:CE:19:HIS:HE1	2:CE:205:ASP:CG	1.98	0.67
3:CF:121:ALA:CB	3:CF:198:VAL:HG21	2.24	0.67
4:CG:18:LYS:NZ	4:CG:34:GLU:OE1	2.27	0.67
4:CG:18:LYS:CD	4:CG:20:TYR:CE1	2.79	0.67
4:CG:163:GLU:HG2	4:CG:166:LYS:NZ	2.10	0.67
5:CH:43:LEU:HD13	5:CH:136:MET:CG	2.23	0.67
8:CK:5:PRO:HG2	8:CK:6:ILE:CD1	2.24	0.67
9:CL:79:LEU:HD22	9:CL:101:PHE:O	1.94	0.67
12:CO:24:VAL:HG13	12:CO:26:ALA:HB2	1.77	0.67
15:CR:22:THR:O	15:CR:27:VAL:HG11	1.95	0.67
21:CX:9:ARG:HG2	21:CX:10:ARG:H	1.60	0.67
24:DA:871:U:OP1	35:DP:5:ARG:N	2.26	0.67
24:DA:2344:U:C3'	51:D6:39:TYR:HE1	2.08	0.67
24:DA:2393:A:OP1	53:D8:27:THR:CA	2.42	0.67
30:DH:89:ILE:HG21	30:DH:129:THR:HG22	1.77	0.67
34:DO:47:ASP:HB3	34:DO:48:PRO:CA	2.24	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DO:106:LEU:O	34:DO:107:LYS:HB2	1.93	0.67
43:DU:39:VAL:HG23	43:DU:40:GLU:N	2.10	0.67
1:AA:501:C:H1'	1:AA:549:C:H1'	1.77	0.66
1:AA:626:U:H2'	1:AA:627:G:H8	1.57	0.66
2:AE:20:GLU:HB2	2:AE:190:THR:OG1	1.95	0.66
4:AG:109:GLY:HA3	4:AG:165:MET:SD	2.34	0.66
24:BA:222:A:H3'	24:BA:421:U:O5'	1.94	0.66
24:BA:270(O):U:H3'	24:BA:270(O):U:O2	1.95	0.66
24:BA:489:G:N7	41:BS:49:LYS:NZ	2.43	0.66
24:BA:594:U:H5'	53:B8:61:LEU:HD13	1.77	0.66
24:BA:1812:A:C1'	26:BD:46:GLN:NE2	2.58	0.66
29:BG:97:ASP:O	29:BG:101:ILE:HG23	1.95	0.66
30:BH:41:MET:CE	30:BH:64:LEU:HB2	2.24	0.66
31:BK:123:LEU:HB2	31:BK:142:VAL:HG23	1.77	0.66
34:BO:58:THR:CG2	34:BO:61:ARG:NH1	2.57	0.66
38:BR:26:ASP:CB	38:BR:91:ARG:HA	2.23	0.66
1:CA:545:C:OP1	4:CG:61:LYS:NZ	2.28	0.66
1:CA:1134:G:H2'	1:CA:1135:U:H5'	1.76	0.66
2:CE:40:HIS:HB3	2:CE:190:THR:HG21	1.78	0.66
2:CE:168:THR:CG2	2:CE:192:SER:HA	2.26	0.66
10:CM:28:ARG:HH12	10:CM:34:VAL:H	1.43	0.66
19:CV:31:ILE:HD11	19:CV:33:THR:N	2.10	0.66
19:CV:37:ARG:HH11	19:CV:37:ARG:CG	2.05	0.66
24:DA:270(F):U:H2'	24:DA:270(G):C:C6	2.30	0.66
24:DA:1665:A:O2'	24:DA:1666:G:H5'	1.95	0.66
24:DA:2419:U:C4	53:D8:31:HIS:CD2	2.81	0.66
24:DA:2702:U:H4'	24:DA:2703:C:OP1	1.95	0.66
25:DB:51:G:P	37:DQ:59:LYS:NZ	2.69	0.66
26:DD:31:LYS:O	26:DD:32:SER:O	2.13	0.66
31:DK:77:LEU:HD12	31:DK:78:THR:N	2.09	0.66
37:DQ:59:LYS:HD3	37:DQ:61:ASN:N	2.10	0.66
40:D2:38:LEU:HD22	40:D2:56:SER:N	2.10	0.66
44:DV:69:THR:HG22	44:DV:90:VAL:HA	1.77	0.66
48:DX:7:LYS:O	48:DX:54:VAL:HG13	1.95	0.66
48:DX:13:ILE:H	48:DX:13:ILE:HD12	1.60	0.66
48:DX:43:ILE:O	48:DX:47:VAL:HG23	1.95	0.66
49:D4:61:ARG:HA	49:D4:61:ARG:CZ	2.25	0.66
2:AE:160:ASP:O	2:AE:183:PRO:HD2	1.95	0.66
4:AG:21:LEU:HD12	4:AG:22:LYS:HD3	1.73	0.66
9:AL:99:LEU:CB	9:AL:101:PHE:HE2	2.02	0.66
10:AM:78:ASN:O	10:AM:81:THR:OG1	2.10	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:196:A:OP2	34:BO:46:LYS:NZ	2.28	0.66
24:BA:1292:U:H2'	24:BA:1293:C:C6	2.29	0.66
24:BA:1899:G:O2'	24:BA:1900:A:O5'	2.11	0.66
24:BA:2401:U:H2'	24:BA:2402:C:C6	2.29	0.66
24:BA:2491:U:O2'	24:BA:2570:G:OP1	2.12	0.66
30:BH:52:VAL:O	30:BH:65:HIS:NE2	2.26	0.66
30:BH:153:LYS:CB	30:BH:154:PRO:CD	2.73	0.66
31:BK:140:LEU:HD23	31:BK:140:LEU:H	1.59	0.66
53:B8:59:LYS:HB2	53:B8:59:LYS:HZ3	1.61	0.66
1:CA:316:G:OP2	1:CA:351:G:O2'	2.14	0.66
1:CA:436:C:O2'	4:CG:157:LEU:HD13	1.95	0.66
1:CA:594:G:C2'	1:CA:595:G:H5'	2.26	0.66
1:CA:947:G:H4'	13:CP:109:THR:CG2	2.26	0.66
1:CA:1190:G:P	3:CF:5:ILE:HD12	2.34	0.66
1:CA:1317:C:N4	14:CQ:19:ARG:HH22	1.92	0.66
4:CG:9:CYS:CB	4:CG:22:LYS:HZ3	2.08	0.66
5:CH:12:LEU:HD22	5:CH:13:ILE:H	1.58	0.66
10:CM:68:HIS:HD2	10:CM:70:ARG:NH1	1.91	0.66
13:CP:29:ARG:HD3	13:CP:64:TRP:CZ3	2.30	0.66
14:CQ:29:ARG:CZ	14:CQ:40:CYS:CB	2.72	0.66
24:DA:286:C:H2'	24:DA:287:C:C6	2.31	0.66
24:DA:489:G:N7	41:DS:49:LYS:NZ	2.42	0.66
24:DA:1079:C:N4	24:DA:1088:A:OP1	2.22	0.66
24:DA:2370:G:O2'	51:D6:45:LYS:NZ	2.28	0.66
40:D2:7:THR:CG2	40:D2:22:VAL:HG21	2.26	0.66
42:DT:27:THR:HG22	42:DT:80:ILE:HG22	1.77	0.66
44:DV:119:GLU:H	44:DV:119:GLU:CD	1.97	0.66
4:AG:65:ARG:HG3	4:AG:75:PHE:CD2	2.31	0.66
9:AL:9:ARG:O	9:AL:104:ARG:NE	2.28	0.66
9:AL:23:ASN:HD22	9:AL:25:LYS:NZ	1.93	0.66
11:AN:54:ARG:O	11:AN:57:THR:N	2.27	0.66
24:BA:559:G:H22	39:B1:49:HIS:CD2	2.12	0.66
24:BA:1496:A:H5'	24:BA:1497:U:OP1	1.94	0.66
24:BA:1899:G:N2	24:BA:1902:C:N4	2.34	0.66
26:BD:65:ILE:HD12	26:BD:65:ILE:C	2.15	0.66
26:BD:182:LEU:N	26:BD:272:ALA:HB3	2.08	0.66
37:BQ:85:VAL:HG22	37:BQ:110:LEU:HB2	1.76	0.66
38:BR:102:ILE:HA	38:BR:105:LEU:HD13	1.77	0.66
43:BU:5:MET:HE3	43:BU:32:PRO:HA	1.76	0.66
43:BU:76:CYS:N	43:BU:81:LYS:CE	2.59	0.66
1:CA:339:C:O2'	1:CA:340:U:H5'	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:793:U:O2	1:CA:1516:G:H4'	1.96	0.66
2:CE:132:LYS:O	2:CE:136:VAL:HG23	1.95	0.66
24:DA:828:U:O2	24:DA:828:U:C2'	2.42	0.66
24:DA:960:A:H5"	24:DA:961:C:OP1	1.95	0.66
24:DA:2170:A:C2'	24:DA:2171:A:H5'	2.26	0.66
24:DA:2345:G:P	51:D6:39:TYR:CZ	2.87	0.66
24:DA:2584:U:C6	24:DA:2585:U:C5	2.83	0.66
29:DG:170:ARG:HH22	29:DG:182:LYS:HA	1.60	0.66
33:DN:2:ILE:HD12	33:DN:6:THR:HG21	1.76	0.66
39:D1:92:ARG:CD	40:D2:11:GLN:HB2	2.26	0.66
43:DU:50:ARG:HG2	43:DU:53:PRO:CG	2.07	0.66
44:DV:13:GLU:HB3	44:DV:18:LEU:HD11	1.77	0.66
1:AA:542:G:H5'	4:AG:41:GLY:HA3	1.77	0.66
6:AI:91:VAL:HG11	18:AU:72:ARG:NH1	2.10	0.66
9:AL:17:VAL:HG11	9:AL:81:ILE:HD13	1.75	0.66
12:AO:25:PRO:HD2	12:AO:98:TYR:OH	1.95	0.66
13:AP:81:LEU:HD12	13:AP:86:CYS:HB3	1.76	0.66
19:AV:41:VAL:HG22	19:AV:42:PRO:HA	1.77	0.66
24:BA:1138:G:H21	32:BM:106:MET:CE	2.08	0.66
24:BA:1649:G:O2'	36:B0:107:ASP:OD1	2.05	0.66
24:BA:2823:A:OP1	27:BE:113:PHE:HB2	1.95	0.66
44:BV:30:ASN:OD1	44:BV:32:HIS:N	2.28	0.66
45:B3:68:GLU:OE2	45:B3:82:ARG:NH1	2.28	0.66
1:CA:631:G:H3'	1:CA:632:A:C8	2.30	0.66
1:CA:1098:C:OP2	2:CE:144:ARG:NH2	2.28	0.66
1:CA:1131:G:H1	1:CA:1143:G:H21	1.43	0.66
5:CH:69:VAL:HG12	5:CH:71:LEU:HD11	1.77	0.66
7:CJ:25:ALA:HA	7:CJ:28:ASN:ND2	2.10	0.66
9:CL:10:ARG:NE	9:CL:105:ASP:OD2	2.24	0.66
11:CN:59:TYR:CE2	11:CN:63:LEU:HD11	2.29	0.66
24:DA:2317:C:O2'	24:DA:2318:G:H5'	1.95	0.66
24:DA:2893:G:H4'	24:DA:2894:G:O5'	1.95	0.66
26:DD:26:LYS:O	26:DD:27:THR:HB	1.96	0.66
28:DF:181:LEU:HD11	28:DF:194:MET:HE1	1.77	0.66
30:DH:120:GLY:C	30:DH:121:ILE:HD13	2.16	0.66
31:DK:77:LEU:HD13	31:DK:141:LYS:O	1.95	0.66
37:DQ:93:LYS:O	37:DQ:95:HIS:N	2.28	0.66
42:DT:40:LYS:C	42:DT:42:ALA:H	1.98	0.66
43:DU:76:CYS:O	43:DU:78:ALA:N	2.29	0.66
1:AA:123:C:OP1	1:AA:312:C:H5'	1.95	0.66
1:AA:1029:G:C2'	1:AA:1030:C:H5"	2.26	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1167:A:H2'	1:AA:1169:A:H8	1.61	0.66
11:AN:79:SER:HB2	11:AN:106:LYS:HE3	1.78	0.66
13:AP:20:THR:HG23	13:AP:21:TYR:CD1	2.30	0.66
20:AW:48:LYS:H	20:AW:48:LYS:HD2	1.58	0.66
24:BA:249:C:H4'	24:BA:250:G:O5'	1.96	0.66
24:BA:297:C:H5"	43:BU:85:VAL:HG21	1.78	0.66
24:BA:593:G:O3'	53:B8:61:LEU:HD13	1.96	0.66
24:BA:1063:G:H22	24:BA:1076:C:H1'	1.59	0.66
24:BA:1068:G:H4'	24:BA:1070:A:N6	2.10	0.66
24:BA:1797:C:O2'	26:BD:259:THR:CG2	2.43	0.66
24:BA:1899:G:O2'	24:BA:1900:A:P	2.53	0.66
24:BA:2114:A:N6	24:BA:2115:G:O6	2.29	0.66
37:BQ:110:LEU:CD1	37:BQ:112:PHE:CE2	2.77	0.66
40:B2:76:LYS:HG2	40:B2:81:TYR:CD2	2.29	0.66
46:BZ:53:VAL:HG22	46:BZ:74:VAL:CG2	2.22	0.66
46:BZ:73:LEU:HB3	46:BZ:90:ILE:HG22	1.76	0.66
50:B5:3:LYS:O	50:B5:4:HIS:C	2.33	0.66
1:CA:1117:G:O3'	9:CL:104:ARG:HD3	1.95	0.66
1:CA:1179:A:H1'	9:CL:104:ARG:NH2	2.09	0.66
2:CE:68:ILE:H	2:CE:90:MET:HE2	1.60	0.66
2:CE:80:ILE:HG21	2:CE:208:ILE:HD11	1.78	0.66
15:CR:17:ARG:HH12	15:CR:77:ARG:CZ	2.09	0.66
15:CR:43:LEU:HD12	15:CR:56:LEU:HD22	1.75	0.66
19:CV:28:LYS:NZ	19:CV:29:ARG:HB2	2.10	0.66
24:DA:2681:C:H5	24:DA:2725:A:N6	1.87	0.66
26:DD:155:LEU:HD23	26:DD:177:LEU:HD22	1.77	0.66
26:DD:231:HIS:ND1	26:DD:232:PRO:HD2	2.11	0.66
28:DF:31:HIS:HB2	34:DO:9:ASN:ND2	2.10	0.66
30:DH:3:ARG:CZ	30:DH:7:LEU:HD13	2.24	0.66
32:DM:38:HIS:CE1	32:DM:39:ARG:HG3	2.30	0.66
35:DP:16:ARG:O	35:DP:17:LEU:HD23	1.94	0.66
45:D3:24:LYS:O	45:D3:25:ARG:NH1	2.26	0.66
51:D6:23:THR:CG2	51:D6:24:GLU:H	1.90	0.66
52:D7:34:ARG:HB3	52:D7:42:LEU:HD23	1.78	0.66
1:AA:123:C:OP1	1:AA:311:C:O2'	2.12	0.66
1:AA:793:U:O2	1:AA:1516:G:H4'	1.96	0.66
1:AA:956:U:C2	1:AA:1225:A:C2	2.83	0.66
2:AE:8:LYS:HZ2	2:AE:217:ARG:HH21	1.42	0.66
3:AF:8:ILE:O	3:AF:11:ARG:N	2.17	0.66
5:AH:78:HIS:HE1	5:AH:143:ARG:H	1.41	0.66
42:BT:5:TYR:HD1	47:BW:33:MET:HE1	1.60	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BU:76:CYS:O	43:BU:81:LYS:NZ	2.29	0.66
43:BU:81:LYS:CD	43:BU:96:ILE:HB	2.22	0.66
1:CA:475:G:H2'	1:CA:476:G:H8	1.61	0.66
1:CA:598:U:C3'	8:CK:94:TYR:CE2	2.75	0.66
1:CA:1238:A:N3	1:CA:1241:G:O2'	2.26	0.66
1:CA:1256:A:H5"	1:CA:1258:G:C2	2.30	0.66
4:CG:93:PHE:C	4:CG:93:PHE:CD1	2.67	0.66
24:DA:395:U:H2'	24:DA:396:G:N7	2.11	0.66
24:DA:1057:A:N6	24:DA:1087:G:H5"	2.09	0.66
24:DA:1693:U:H4'	24:DA:1694:C:OP2	1.96	0.66
24:DA:2113:U:H2'	24:DA:2114:A:H5'	1.76	0.66
26:DD:28:GLU:CG	26:DD:29:PRO:HD3	2.26	0.66
30:DH:135:GLY:HA3	30:DH:141:VAL:CG2	2.26	0.66
49:D4:18:CYS:SG	49:D4:19:GLY:HA2	2.36	0.66
1:AA:406:G:N3	4:AG:119:GLN:NE2	2.37	0.66
1:AA:411:A:C5	1:AA:413:G:H1'	2.31	0.66
1:AA:690:G:O2'	1:AA:691:G:H5'	1.95	0.66
3:AF:7:PRO:O	3:AF:11:ARG:NH1	2.29	0.66
3:AF:15:THR:HG23	3:AF:181:ASN:HA	1.77	0.66
5:AH:63:ARG:HA	5:AH:66:MET:CE	2.26	0.66
5:AH:87:SER:OG	5:AH:125:SER:HB3	1.96	0.66
7:AJ:18:TYR:CE2	7:AJ:59:LEU:HD22	2.31	0.66
9:AL:10:ARG:HA	9:AL:104:ARG:NH2	2.10	0.66
9:AL:89:ASN:O	9:AL:92:TYR:HB2	1.96	0.66
24:BA:875:G:OP1	44:BV:175:VAL:HG21	1.95	0.66
24:BA:2287:A:C2	24:BA:2289:G:C1'	2.79	0.66
1:CA:626:U:H2'	1:CA:627:G:H8	1.61	0.66
1:CA:1280:A:OP1	10:CM:7:LYS:NZ	2.26	0.66
1:CA:1366:C:C3'	10:CM:60:ARG:HH22	2.08	0.66
5:CH:41:VAL:O	5:CH:67:VAL:HG12	1.95	0.66
10:CM:40:LEU:CD1	10:CM:41:PRO:HD2	2.21	0.66
24:DA:962:G:O2'	24:DA:963:U:H5'	1.96	0.66
24:DA:2212:A:H1'	24:DA:2215:G:C5	2.31	0.66
25:DB:24:G:H4'	25:DB:25:A:H8	1.60	0.66
25:DB:40:U:H1'	25:DB:46:A:N1	2.11	0.66
27:DE:37:ARG:HD3	27:DE:42:ASP:CB	2.25	0.66
39:D1:96:ALA:HA	39:D1:98:LEU:CD1	2.26	0.66
40:D2:38:LEU:CD2	40:D2:55:ALA:HB1	2.25	0.66
49:D4:57:GLU:CA	49:D4:60:GLN:HG2	2.25	0.66
1:AA:162:A:H5"	1:AA:163:C:OP2	1.95	0.66
11:AN:73:MET:SD	11:AN:103:LEU:HD21	2.36	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AP:105:THR:OG1	13:AP:106:ASN:N	2.29	0.66
15:AR:8:LYS:O	15:AR:12:ILE:HG13	1.95	0.66
24:BA:1061:U:O2'	24:BA:1070:A:O4'	2.13	0.66
24:BA:1063:G:H2'	24:BA:1064:C:C6	2.30	0.66
24:BA:1310:G:N7	24:BA:1311:G:N7	2.43	0.66
24:BA:1317:A:O2'	24:BA:1318:C:H5'	1.96	0.66
24:BA:1583:A:H5'	24:BA:1585:C:O5'	1.96	0.66
24:BA:1819:A:H5"	26:BD:161:THR:HG21	1.78	0.66
24:BA:2115:G:H5"	24:BA:2116:G:OP2	1.96	0.66
24:BA:2287:A:C2	24:BA:2289:G:C8	2.83	0.66
24:BA:2415:G:C4'	34:BO:67:MET:H	2.05	0.66
24:BA:2758:A:C4	30:BH:67:LEU:HD21	2.30	0.66
28:BF:63:LYS:NZ	28:BF:75:HIS:O	2.29	0.66
29:BG:48:GLU:HG3	29:BG:49:ASP:H	1.61	0.66
37:BQ:34:HIS:CB	37:BQ:36:TYR:HE1	2.09	0.66
1:CA:328:C:H2'	1:CA:328:C:O2	1.95	0.66
1:CA:392:G:C5'	16:CS:12:LYS:NZ	2.59	0.66
1:CA:620:C:C6	4:CG:135:LEU:HD23	2.31	0.66
1:CA:1028(B):C:H3'	1:CA:1029:G:H5"	1.77	0.66
1:CA:1443:G:N2	38:DR:119:LYS:HG3	2.11	0.66
12:CO:24:VAL:HG12	12:CO:26:ALA:HB2	1.77	0.66
13:CP:14:ARG:HA	13:CP:43:THR:O	1.96	0.66
25:DB:24:G:N3	25:DB:27:C:N4	2.40	0.66
30:DH:89:ILE:CG2	30:DH:129:THR:HG22	2.25	0.66
39:D1:98:LEU:C	39:D1:100:VAL:N	2.49	0.66
41:DS:65:LEU:HD12	41:DS:68:ARG:HD2	1.77	0.66
43:DU:38:ILE:HG22	43:DU:64:GLU:HB2	1.77	0.66
44:DV:151:HIS:CA	44:DV:170:THR:HA	2.26	0.66
1:AA:224:C:H2'	1:AA:225:C:H6	1.56	0.66
1:AA:1347:G:H22	1:AA:1373:G:H2'	1.59	0.66
9:AL:42:ARG:NH1	9:AL:71:SER:OG	2.29	0.66
16:AS:22:THR:HA	16:AS:33:ILE:CG1	2.24	0.66
20:AW:33:ILE:HD12	20:AW:62:LEU:HB3	1.78	0.66
24:BA:249:C:O2	53:B8:12:LYS:NZ	2.28	0.66
24:BA:1174:A:C3'	24:BA:1175:U:H5"	2.25	0.66
30:BH:67:LEU:HD11	30:BH:71:LEU:HD22	1.77	0.66
31:BK:86:THR:HA	31:BK:123:LEU:HD21	1.76	0.66
32:BM:41:ASP:HA	39:B1:64:ARG:HH21	1.61	0.66
36:B0:117:VAL:HG22	36:B0:118:GLU:N	2.09	0.66
37:BQ:88:ASP:O	37:BQ:89:ARG:HG2	1.96	0.66
43:BU:97:ARG:H	43:BU:97:ARG:CD	2.04	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:392:G:H5"	16:CS:12:LYS:NZ	2.11	0.66
1:CA:1290:G:N2	1:CA:1291:G:H1'	2.11	0.66
7:CJ:87:VAL:HG11	7:CJ:154:TYR:O	1.96	0.66
8:CK:106:GLY:HA2	8:CK:122:ARG:HH22	1.60	0.66
9:CL:3:GLN:HG2	9:CL:20:ARG:CG	2.26	0.66
12:CO:79:GLU:HG3	12:CO:80:HIS:CD2	2.31	0.66
13:CP:3:ARG:HH22	13:CP:7:VAL:HB	1.61	0.66
17:CT:97:SER:HA	17:CT:101:ARG:CZ	2.26	0.66
24:DA:162:U:H4'	24:DA:171:G:C8	2.31	0.66
24:DA:229:A:N1	24:DA:417:C:O2'	2.28	0.66
24:DA:1068:G:H2'	24:DA:1069:A:O4'	1.95	0.66
24:DA:1427:A:H4'	24:DA:1428:C:O5'	1.94	0.66
24:DA:1956:U:H2'	24:DA:1957:C:H5'	1.76	0.66
24:DA:2248:C:H2'	24:DA:2249:U:H5'	1.77	0.66
24:DA:2798:C:H5"	24:DA:2799:A:OP2	1.96	0.66
44:DV:91:LEU:CD2	44:DV:96:VAL:HG21	2.26	0.66
48:DX:53:LEU:HD12	48:DX:54:VAL:HG23	1.78	0.66
1:AA:107:G:H3'	1:AA:108:G:H21	1.61	0.66
1:AA:195:A:H4'	20:AW:68:LYS:NZ	2.10	0.66
3:AF:73:PRO:HG3	3:AF:105:GLU:CG	2.26	0.66
9:AL:4:TYR:CE1	9:AL:88:TYR:HB2	2.29	0.66
13:AP:69:GLU:OE1	49:B4:48:ARG:NH2	2.27	0.66
20:AW:58:LYS:O	20:AW:61:SER:N	2.29	0.66
24:BA:860:U:C5	24:BA:917:A:H2	2.10	0.66
24:BA:1203:G:H3'	24:BA:1204:A:H5"	1.78	0.66
24:BA:1359:A:H2	24:BA:1372:U:O4	1.79	0.66
26:BD:136:ILE:CG2	26:BD:137:PRO:HD2	2.25	0.66
34:BO:65:ARG:O	34:BO:68:GLN:NE2	2.29	0.66
38:BR:42:ILE:HD12	38:BR:42:ILE:C	2.16	0.66
40:B2:24:LYS:HA	40:B2:92:THR:HG23	1.76	0.66
50:B5:16:ARG:HG3	50:B5:17:ASP:H	1.56	0.66
1:CA:664:G:H22	1:CA:741:G:H1	1.43	0.66
1:CA:1358:U:H5"	1:CA:1359:C:OP2	1.96	0.66
1:CA:1410:G:N2	1:CA:1490:C:O2	2.26	0.66
4:CG:146:ILE:HD12	4:CG:146:ILE:N	2.11	0.66
7:CJ:16:LEU:HD12	9:CL:42:ARG:HA	1.78	0.66
8:CK:9:MET:HB2	8:CK:32:LYS:NZ	2.10	0.66
10:CM:34:VAL:CG1	10:CM:74:ILE:CG2	2.72	0.66
24:DA:1204:A:O2'	24:DA:1205:U:OP2	2.12	0.66
24:DA:1421:G:N2	24:DA:1495:A:N1	2.43	0.66
24:DA:2111:C:C2	24:DA:2118:U:H1'	2.30	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2749:A:H5'	30:DH:6:ARG:NE	2.10	0.66
28:DF:34:TRP:CZ3	34:DO:8:PRO:HB3	2.31	0.66
35:DP:66:ILE:HG12	35:DP:67:ARG:H	1.60	0.66
36:D0:78:LYS:HE2	36:D0:83:ILE:HD11	1.76	0.66
37:DQ:69:VAL:HG22	37:DQ:101:LEU:HD21	1.78	0.66
39:D1:92:ARG:HD3	39:D1:95:LEU:CD1	2.26	0.66
40:D2:35:LEU:O	40:D2:35:LEU:HD23	1.95	0.66
47:DW:41:ILE:CG1	47:DW:44:LEU:HD12	2.25	0.66
51:D6:16:CYS:O	51:D6:44:ARG:NH2	2.28	0.66
1:AA:1034:G:H2'	1:AA:1035:A:C8	2.30	0.65
1:AA:1316:G:N1	19:AV:5:LEU:HD21	2.07	0.65
1:AA:1326:C:OP1	21:AX:12:LYS:HE3	1.97	0.65
3:AF:206:GLU:HG2	3:AF:206:GLU:O	1.96	0.65
9:AL:83:ARG:C	9:AL:86:VAL:HG12	2.17	0.65
13:AP:84:ILE:HD11	19:AV:66:MET:CG	2.10	0.65
24:BA:1252:G:N3	39:B1:33:ARG:HD2	2.10	0.65
24:BA:2213:U:C4'	46:BZ:52:ARG:NH1	2.59	0.65
24:BA:2401:U:H2'	24:BA:2402:C:H6	1.61	0.65
24:BA:2432:A:C4	46:BZ:33:LYS:HG2	2.30	0.65
24:BA:2751:G:N7	30:BH:3:ARG:HD3	2.11	0.65
26:BD:142:VAL:HG23	26:BD:192:THR:C	2.17	0.65
28:BF:67:GLN:O	28:BF:67:GLN:HG3	1.96	0.65
30:BH:150:ALA:C	30:BH:152:ARG:H	1.97	0.65
31:BK:131:LYS:HA	31:BK:135:GLU:HB3	1.78	0.65
38:BR:3:ARG:HA	38:BR:6:LEU:HD22	1.77	0.65
44:BV:4:ARG:HA	44:BV:58:VAL:HB	1.77	0.65
44:BV:100:VAL:O	44:BV:124:ILE:HG22	1.95	0.65
1:CA:450:G:H4'	16:CS:41:PRO:O	1.95	0.65
1:CA:1127:G:N2	1:CA:1146:A:H62	1.93	0.65
1:CA:1288:A:H4'	21:CX:10:ARG:HH12	1.59	0.65
4:CG:9:CYS:HB2	4:CG:22:LYS:NZ	2.09	0.65
5:CH:18:ARG:HH22	5:CH:25:ARG:HD2	1.61	0.65
7:CJ:78:ARG:O	7:CJ:78:ARG:CG	2.45	0.65
10:CM:28:ARG:NH1	10:CM:34:VAL:H	1.94	0.65
15:CR:39:LEU:HD12	15:CR:56:LEU:HD13	1.76	0.65
24:DA:90:U:C2'	24:DA:91:A:H5"	2.26	0.65
24:DA:479:A:N3	24:DA:481:G:H5"	2.11	0.65
24:DA:974:G:O2'	24:DA:974(A):C:P	2.53	0.65
24:DA:1601:G:P	52:D7:49:ARG:CZ	2.84	0.65
24:DA:1834:U:O2	24:DA:1834:U:H2'	1.97	0.65
24:DA:2094:G:C2'	24:DA:2095:C:H5'	2.26	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2377:A:H4'	37:DQ:111:GLU:HG2	1.77	0.65
24:DA:2547:U:O2	33:DN:23:ARG:NH2	2.30	0.65
27:DE:104:VAL:HG11	27:DE:188:VAL:HG21	1.77	0.65
36:D0:21:TYR:OH	36:D0:43:GLU:HG2	1.96	0.65
45:D3:48:GLY:HA3	45:D3:80:HIS:ND1	2.11	0.65
53:D8:50:LEU:HG	53:D8:51:ALA:H	1.60	0.65
1:AA:1014:A:H2	1:AA:1219:U:O2	1.78	0.65
15:AR:8:LYS:HG3	15:AR:31:LEU:HD11	1.78	0.65
20:AW:26:ASN:HD22	20:AW:26:ASN:N	1.94	0.65
24:BA:301:G:C4	24:BA:302:C:C5	2.83	0.65
24:BA:571:A:O2'	40:B2:78:LYS:NZ	2.27	0.65
24:BA:1113:U:H5'	30:BH:2:SER:N	2.12	0.65
24:BA:2639:A:H2'	24:BA:2640:G:H5'	1.77	0.65
31:BK:93:THR:HG22	31:BK:119:PRO:HB3	1.78	0.65
41:BS:13:SER:HB3	41:BS:16:LYS:CD	2.26	0.65
48:BX:31:LEU:O	48:BX:32:GLN:HB2	1.94	0.65
1:CA:920:U:H2'	1:CA:921:U:H6	1.61	0.65
1:CA:933:G:O6	7:CJ:3:ARG:NH2	2.30	0.65
1:CA:1306:A:N6	1:CA:1331:G:H1'	2.11	0.65
4:CG:62:GLN:O	4:CG:66:ARG:HD2	1.96	0.65
9:CL:4:TYR:HD2	9:CL:19:LEU:HD12	1.60	0.65
24:DA:2130:U:O2'	24:DA:2133:G:O2'	2.15	0.65
24:DA:2344:U:C2'	51:D6:39:TYR:CE1	2.77	0.65
24:DA:2502:G:H5'	24:DA:2503:A:C5'	2.26	0.65
25:DB:44:G:C2	25:DB:48:A:C2	2.84	0.65
28:DF:8:GLN:CG	28:DF:126:VAL:HG12	2.26	0.65
28:DF:53:THR:HG22	28:DF:56:GLU:CD	2.17	0.65
30:DH:21:PRO:O	30:DH:23:ARG:N	2.29	0.65
30:DH:30:LYS:HB2	30:DH:79:VAL:O	1.95	0.65
46:DZ:25:LYS:O	46:DZ:25:LYS:HD3	1.95	0.65
49:D4:2:LYS:CD	49:D4:6:HIS:CD2	2.78	0.65
49:D4:15:ILE:HD11	49:D4:31:ILE:O	1.96	0.65
51:D6:40:CYS:SG	51:D6:45:LYS:HD2	2.36	0.65
1:AA:336:C:O2'	1:AA:337:C:H5'	1.97	0.65
1:AA:1453:G:H3'	1:AA:1454:G:H5'	1.78	0.65
7:AJ:15:ASP:OD1	7:AJ:16:LEU:N	2.28	0.65
10:AM:50:ILE:HA	10:AM:60:ARG:CG	2.13	0.65
16:AS:43:LYS:CG	16:AS:48:TRP:CZ3	2.80	0.65
24:BA:212:G:H2'	24:BA:213:A:H5'	1.77	0.65
24:BA:1192:G:O2'	24:BA:1193:G:H5'	1.96	0.65
24:BA:1593:G:H2'	24:BA:1594:G:H8	1.61	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2291:U:H5”	24:BA:2380:C:O2’	1.96	0.65
26:BD:35:LYS:HG2	26:BD:64:ILE:CG2	2.25	0.65
31:BK:93:THR:O	31:BK:97:ILE:HG13	1.97	0.65
35:BP:39:PRO:HA	35:BP:97:VAL:O	1.96	0.65
42:BT:50:LYS:H	42:BT:87:GLN:NE2	1.94	0.65
44:BV:98:MET:O	44:BV:125:LEU:HD12	1.96	0.65
44:BV:117:LEU:O	44:BV:118:GLN:CB	2.44	0.65
44:BV:132:ASN:ND2	44:BV:160:GLY:HA2	2.12	0.65
1:CA:179:A:H2’	1:CA:180:U:H6	1.59	0.65
1:CA:1227:A:H4’	13:CP:115:LYS:HZ1	1.60	0.65
3:CF:70:VAL:C	3:CF:106:VAL:HG23	2.15	0.65
9:CL:36:TYR:CD2	9:CL:37:PHE:CE1	2.85	0.65
14:CQ:25:VAL:HG22	14:CQ:38:GLY:O	1.96	0.65
19:CV:9:VAL:HG11	49:D4:63:TYR:CE1	2.31	0.65
24:DA:1142(A):A:H4’	32:DM:25:ARG:HH22	1.59	0.65
24:DA:1967:C:C2’	24:DA:1968:G:H5’	2.26	0.65
25:DB:13:A:O2’	25:DB:14:U:H3’	1.95	0.65
27:DE:9:VAL:CG2	27:DE:25:VAL:HB	2.27	0.65
30:DH:144:VAL:O	30:DH:148:ILE:HG12	1.95	0.65
33:DN:3:GLN:HB2	33:DN:4:PRO:HD2	1.79	0.65
43:DU:81:LYS:HB3	43:DU:82:PRO:HD2	1.76	0.65
46:DZ:82:LEU:H	46:DZ:82:LEU:CD2	2.08	0.65
1:AA:55:A:C6	31:DK:89:TYR:CD1	2.84	0.65
1:AA:824:C:O2’	8:AK:1:MET:N	2.29	0.65
1:AA:922:G:H4’	5:AH:20:GLN:HA	1.78	0.65
7:AJ:57:GLU:N	7:AJ:57:GLU:OE1	2.29	0.65
8:AK:120:THR:HG22	8:AK:123:GLU:H	1.62	0.65
9:AL:8:GLY:O	9:AL:15:ALA:N	2.27	0.65
9:AL:13:ALA:HB2	9:AL:68:GLY:HA3	1.77	0.65
10:AM:34:VAL:CG1	10:AM:74:ILE:HG12	2.26	0.65
10:AM:83:GLU:HG2	10:AM:87:THR:HG21	1.79	0.65
24:BA:1558:A:H1’	24:BA:1559:G:OP2	1.97	0.65
24:BA:2789:C:H2’	24:BA:2790:A:H4’	1.78	0.65
31:BK:79:ILE:HD11	31:BK:100:ALA:HB1	1.76	0.65
44:BV:68:PRO:HB2	44:BV:91:LEU:HB2	1.78	0.65
1:CA:1015:A:N3	1:CA:1218:C:O2’	2.30	0.65
1:CA:1212:U:O2’	1:CA:1213:A:C8	2.50	0.65
1:CA:1288:A:C5’	21:CX:13:ILE:HD11	2.27	0.65
4:CG:65:ARG:HG3	4:CG:75:PHE:CD2	2.32	0.65
11:CN:48:ILE:HG12	11:CN:63:LEU:HB2	1.76	0.65
24:DA:389:G:H1	34:DO:71:VAL:HG12	1.60	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:893:C:O2'	24:DA:894:C:H5'	1.97	0.65
24:DA:1514:U:O2'	24:DA:1515:C:H5'	1.97	0.65
24:DA:2262:U:O2'	24:DA:2263:C:H5'	1.96	0.65
24:DA:2716:U:C2'	24:DA:2717:G:H5'	2.27	0.65
26:DD:25:THR:CG2	26:DD:82:ILE:H	2.07	0.65
29:DG:83:ARG:O	29:DG:85:GLY:N	2.30	0.65
30:DH:137:ASP:OD2	30:DH:140:LYS:HE2	1.97	0.65
34:DO:39:LYS:HA	34:DO:45:LEU:CD1	2.25	0.65
43:DU:81:LYS:HD3	43:DU:97:ARG:NH1	2.11	0.65
50:D5:57:VAL:C	50:D5:58:LEU:HD12	2.17	0.65
1:AA:862:C:H2'	1:AA:863:U:H5'	1.79	0.65
11:AN:79:SER:CB	11:AN:106:LYS:HE3	2.27	0.65
24:BA:27:G:N2	24:BA:512:G:H1'	2.11	0.65
24:BA:271(B):G:H1'	24:BA:271(C):U:OP2	1.96	0.65
24:BA:1191:G:OP1	34:BO:32:THR:OG1	2.14	0.65
28:BF:123:LEU:HD12	28:BF:124:LEU:H	1.61	0.65
31:BK:64:GLU:O	31:BK:68:LEU:N	2.24	0.65
33:BN:96:THR:O	33:BN:97:ARG:HB3	1.95	0.65
36:B0:79:LEU:HA	36:B0:83:ILE:HD12	1.77	0.65
38:BR:88:ILE:HD12	38:BR:90:GLN:H	1.61	0.65
40:B2:44:LYS:CG	40:B2:45:THR:H	2.02	0.65
1:CA:1173:G:P	7:CJ:5:ARG:HH12	2.20	0.65
1:CA:1346:A:C5'	9:CL:120:ARG:HH12	2.10	0.65
1:CA:1382:C:H2'	1:CA:1383:C:C6	2.31	0.65
2:CE:113:HIS:O	2:CE:117:GLU:HB2	1.96	0.65
3:CF:141:VAL:HG12	3:CF:141:VAL:O	1.96	0.65
19:CV:69:HIS:HB3	19:CV:73:GLU:OE1	1.97	0.65
21:CX:24:ARG:HH11	21:CX:24:ARG:HG3	1.62	0.65
24:DA:2695:C:H2'	24:DA:2696:U:C6	2.30	0.65
25:DB:24:G:O2'	25:DB:56:G:N7	2.22	0.65
25:DB:51:G:P	37:DQ:59:LYS:HZ1	2.20	0.65
26:DD:148:GLU:HB2	26:DD:151:LYS:HD2	1.76	0.65
29:DG:43:LEU:N	29:DG:88:ILE:HD13	2.11	0.65
30:DH:116:GLU:O	30:DH:118:PRO:HD3	1.96	0.65
43:DU:48:ALA:HB3	43:DU:59:GLY:O	1.96	0.65
9:AL:95:LYS:HB2	9:AL:95:LYS:NZ	2.11	0.65
27:BE:1:MET:N	27:BE:83:ASP:O	2.29	0.65
29:BG:67:LYS:H	49:B4:6:HIS:CE1	2.15	0.65
37:BQ:67:ARG:NH2	37:BQ:103:GLU:OE2	2.29	0.65
1:CA:129(A):G:C6	1:CA:188:U:H4'	2.32	0.65
1:CA:149:A:O2'	1:CA:150:C:H5'	1.97	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CE:8:LYS:HE2	2:CE:217:ARG:HD2	1.78	0.65
10:CM:50:ILE:HA	10:CM:60:ARG:HB3	1.79	0.65
24:DA:623:G:H2'	24:DA:624:C:C6	2.31	0.65
24:DA:870:A:O5'	35:DP:6:ARG:CZ	2.45	0.65
24:DA:1188:U:O2'	24:DA:1189:A:H5'	1.96	0.65
24:DA:1246:A:P	34:DO:15:ARG:NH2	2.69	0.65
25:DB:83:G:H4'	48:DX:52:HIS:CG	2.31	0.65
27:DE:169:ASN:OD1	27:DE:203:LYS:HG2	1.96	0.65
30:DH:30:LYS:HB2	30:DH:30:LYS:HZ3	1.61	0.65
37:DQ:29:PHE:HD1	37:DQ:30:ARG:N	1.94	0.65
38:DR:74:ARG:HD3	38:DR:76:PHE:CZ	2.32	0.65
46:DZ:53:VAL:HG21	46:DZ:74:VAL:HG22	1.77	0.65
24:BA:2347:C:P	51:B6:39:TYR:HH	2.19	0.65
27:BE:38:THR:HB	27:BE:40:GLU:OE2	1.97	0.65
30:BH:87:LEU:HD21	30:BH:162:ILE:CG2	2.26	0.65
31:BK:77:LEU:C	31:BK:77:LEU:HD12	2.17	0.65
24:DA:91:A:H2'	24:DA:92:G:O4'	1.96	0.65
24:DA:814:C:H5"	40:D2:84:LYS:HB3	1.79	0.65
24:DA:1536:A:C8	24:DA:1537:C:H1'	2.32	0.65
24:DA:2281:C:O2'	24:DA:2282:G:H5'	1.95	0.65
26:DD:68:LYS:HB3	26:DD:70:TRP:CH2	2.30	0.65
29:DG:88:ILE:HD13	29:DG:88:ILE:O	1.96	0.65
30:DH:7:LEU:N	30:DH:8:PRO:HD2	2.10	0.65
30:DH:44:VAL:CG1	30:DH:51:ARG:HG3	2.27	0.65
32:DM:14:VAL:HG23	32:DM:137:LYS:HG2	1.79	0.65
40:D2:35:LEU:CG	40:D2:37:VAL:HG11	2.22	0.65
1:AA:667:G:H4'	15:AR:51:HIS:CE1	2.32	0.65
1:AA:1152:A:H4'	10:AM:13:HIS:HD2	1.60	0.65
4:AG:84:LYS:HA	4:AG:84:LYS:CE	2.27	0.65
16:AS:40:ASP:O	16:AS:42:ARG:N	2.29	0.65
17:AT:68:ARG:H	17:AT:70:ARG:NH1	1.95	0.65
24:BA:654(N):G:H2'	24:BA:654(O):G:O4'	1.96	0.65
24:BA:654(S):G:H1'	24:BA:654(T):A:O5'	1.97	0.65
24:BA:1956:U:H2'	24:BA:1957:C:H5'	1.79	0.65
24:BA:1992:G:H1'	24:BA:1993:U:OP2	1.96	0.65
25:BB:117:G:C2'	25:BB:118:G:H5"	2.26	0.65
39:B1:108:GLU:OE1	40:B2:44:LYS:HG2	1.96	0.65
49:B4:57:GLU:HA	49:B4:60:GLN:HG2	1.79	0.65
1:CA:532:A:H3'	1:CA:533:A:C5'	2.27	0.65
1:CA:1014:A:H2'	1:CA:1015:A:C8	2.32	0.65
1:CA:1117:G:H2'	9:CL:104:ARG:CZ	2.27	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CE:178:ARG:NH2	8:CK:68:ARG:HH22	1.95	0.65
4:CG:9:CYS:HB2	4:CG:22:LYS:HZ1	1.60	0.65
6:CI:100:ASN:HB2	18:CU:23:LYS:HE2	1.79	0.65
10:CM:49:VAL:CG1	14:CQ:41:ARG:HB2	2.26	0.65
14:CQ:29:ARG:NH1	14:CQ:40:CYS:H	1.94	0.65
14:CQ:29:ARG:CD	14:CQ:40:CYS:HB3	2.26	0.65
17:CT:95:TYR:O	17:CT:96:GLU:C	2.33	0.65
24:DA:752:A:H4'	24:DA:753:C:O5'	1.96	0.65
24:DA:774:A:H2	24:DA:787:U:HO2'	1.45	0.65
24:DA:1728:G:N2	24:DA:1730:U:OP2	2.30	0.65
25:DB:88:C:H5	25:DB:89:G:C4	2.15	0.65
28:DF:24:LEU:CB	28:DF:25:PRO:CD	2.73	0.65
35:DP:132:VAL:CG2	44:DV:81:ARG:HH21	2.09	0.65
46:DZ:80:LEU:O	46:DZ:81:LYS:HB3	1.97	0.65
49:D4:28:LYS:HE3	49:D4:31:ILE:HD11	1.75	0.65
1:AA:748:C:C4'	1:AA:749:C:O5'	2.41	0.65
1:AA:1158:C:O2	1:AA:1158:C:C2'	2.45	0.65
1:AA:1336:C:O2'	1:AA:1337:G:P	2.55	0.65
55:AA:1833:TAC:C42	55:AA:1833:TAC:O1C	2.45	0.65
9:AL:16:ARG:CG	9:AL:64:THR:HG22	2.26	0.65
19:AV:36:ARG:CG	19:AV:51:VAL:HG13	2.22	0.65
24:BA:271(B):G:H4'	24:BA:271(C):U:C5'	2.27	0.65
24:BA:1486:A:H2'	24:BA:1487:G:H8	1.62	0.65
24:BA:2144:U:H4'	24:BA:2145:C:H5	1.59	0.65
24:BA:2371:G:H5'	51:B6:45:LYS:HD2	1.78	0.65
24:BA:2511:U:O2'	27:BE:138:PRO:O	2.13	0.65
33:BN:4:PRO:O	33:BN:5:GLN:CB	2.44	0.65
44:BV:111:VAL:C	44:BV:112:ARG:HD3	2.17	0.65
1:CA:393:A:OP2	16:CS:12:LYS:HE2	1.96	0.65
1:CA:452:A:O2'	1:CA:453:A:O5'	2.08	0.65
1:CA:708:C:OP1	11:CN:85:ARG:NH2	2.29	0.65
1:CA:1067:A:N1	1:CA:1108:G:O2'	2.30	0.65
5:CH:144:THR:HG23	5:CH:147:ASP:OD1	1.97	0.65
7:CJ:78:ARG:NH2	7:CJ:87:VAL:CG2	2.51	0.65
8:CK:120:THR:HG23	8:CK:123:GLU:OE1	1.97	0.65
17:CT:59:ILE:HG22	17:CT:71:PHE:CD1	2.32	0.65
24:DA:654(S):G:H1'	24:DA:654(T):A:OP1	1.97	0.65
26:DD:118:VAL:HG22	26:DD:119:ALA:H	1.62	0.65
34:DO:121:LYS:HB3	34:DO:123:LEU:CD2	2.26	0.65
42:DT:44:GLU:O	42:DT:46:ALA:N	2.28	0.65
44:DV:3:TYR:HE2	44:DV:55:HIS:CB	2.10	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:518:C:H5”	1:AA:519:C:C5	2.31	0.65
3:AF:130:VAL:O	3:AF:134:ILE:HG12	1.97	0.65
5:AH:10:MET:SD	5:AH:13:ILE:HD11	2.37	0.65
10:AM:40:LEU:HB3	10:AM:41:PRO:HD2	1.78	0.65
24:BA:469:G:C2’	24:BA:470:A:H5”	2.27	0.65
24:BA:1030:G:OP2	35:BP:128:LYS:NZ	2.30	0.65
24:BA:1111:A:O2’	24:BA:1112:G:H4’	1.97	0.65
24:BA:1409:C:C2’	24:BA:1410:G:H5’	2.27	0.65
24:BA:1795:C:O2	26:BD:255:LYS:HE2	1.97	0.65
24:BA:1914:C:O2	24:BA:1914:C:H3’	1.97	0.65
26:BD:35:LYS:NZ	26:BD:64:ILE:O	2.28	0.65
31:BK:120:ILE:HD11	31:BK:126:TYR:CE2	2.32	0.65
36:B0:33:ARG:HH11	36:B0:113:LEU:HD21	1.61	0.65
41:BS:27:LYS:O	41:BS:70:TYR:HB2	1.97	0.65
44:BV:140:ASP:O	44:BV:144:LEU:HD21	1.97	0.65
46:BZ:93:GLU:N	46:BZ:93:GLU:OE1	2.30	0.65
1:CA:1212:U:O2’	1:CA:1213:A:H8	1.79	0.65
15:CR:16:ALA:HB1	15:CR:21:ASP:HB3	1.77	0.65
15:CR:75:PRO:O	15:CR:78:TYR:HB3	1.97	0.65
24:DA:1085:A:H4’	24:DA:1086:A:OP1	1.96	0.65
24:DA:2749:A:H4’	30:DH:62:LYS:HB3	1.77	0.65
24:DA:2855:C:H2’	24:DA:2856:C:C6	2.31	0.65
25:DB:42:C:O2’	49:D4:6:HIS:CE1	2.50	0.65
29:DG:6:ALA:N	49:D4:23:GLU:OE2	2.30	0.65
31:DK:101:LEU:HD23	31:DK:101:LEU:N	2.08	0.65
47:DW:68:ARG:HD3	47:DW:72:ALA:CB	2.27	0.65
49:D4:48:ARG:HH22	49:D4:51:ASP:HB2	1.61	0.65
1:AA:113:G:H2’	1:AA:114:U:H6	1.61	0.64
1:AA:190:G:O2’	1:AA:191(A):G:OP2	2.12	0.64
1:AA:403:C:OP2	4:AG:74:GLN:NE2	2.29	0.64
1:AA:467:G:N2	16:AS:82:GLN:OE1	2.22	0.64
1:AA:1125:U:OP2	1:AA:1145:C:N4	2.30	0.64
1:AA:1348:U:H3	1:AA:1374:A:H2	1.44	0.64
1:AA:1374:A:O2’	7:AJ:28:ASN:HB3	1.96	0.64
2:AE:14:GLY:O	2:AE:15:VAL:HG22	1.97	0.64
3:AF:86:VAL:O	3:AF:90:GLU:HG2	1.97	0.64
5:AH:105:VAL:HB	5:AH:106:PRO:HD3	1.78	0.64
6:AI:69:GLU:O	6:AI:72:VAL:HG12	1.97	0.64
7:AJ:38:LEU:H	7:AJ:38:LEU:CD1	2.10	0.64
20:AW:98:PRO:O	20:AW:99:LEU:HD12	1.97	0.64
24:BA:234:C:H2’	24:BA:235:U:H6	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:270(V):G:H2'	24:BA:270(W):G:H8	1.61	0.64
24:BA:1082:U:N3	24:BA:1083:U:H1'	2.12	0.64
24:BA:2131:G:C1'	24:BA:2158:A:H62	2.07	0.64
30:BH:68:THR:O	30:BH:72:ILE:HG13	1.97	0.64
35:BP:11:LYS:HG2	35:BP:75:THR:HG21	1.78	0.64
39:B1:90:VAL:HG22	40:B2:39:LEU:HD23	1.80	0.64
46:BZ:86:SER:N	46:BZ:87:PRO:CD	2.60	0.64
50:B5:46:CYS:HB2	50:B5:50:GLY:HA2	1.78	0.64
1:CA:558:G:H5"	1:CA:559:A:OP2	1.97	0.64
1:CA:657:G:H21	15:CR:22:THR:HG1	1.44	0.64
1:CA:956:U:C2	1:CA:1225:A:C2	2.85	0.64
3:CF:111:LEU:HD11	3:CF:145:GLY:HA3	1.78	0.64
22:CC:48:C:C2'	22:CC:49:G:OP2	2.45	0.64
24:DA:273(E):U:H3	24:DA:363(A):A:N6	1.91	0.64
24:DA:635:C:O2'	24:DA:639:U:OP1	2.15	0.64
24:DA:1249:U:O4'	39:D1:4:ALA:HB3	1.97	0.64
24:DA:1472:A:H2'	24:DA:1473:G:O4'	1.97	0.64
26:DD:72:LYS:NZ	26:DD:99:ASP:OD2	2.31	0.64
30:DH:103:LEU:HG	30:DH:115:VAL:HB	1.77	0.64
42:DT:5:TYR:HB2	47:DW:29:LYS:HG2	1.80	0.64
45:D3:51:VAL:N	45:D3:62:LEU:HD12	2.11	0.64
1:AA:1047:G:O2'	1:AA:1048:G:H5'	1.97	0.64
4:AG:108:LEU:HD12	4:AG:174:LEU:HD13	1.77	0.64
9:AL:49:PRO:HA	9:AL:52:ALA:HB3	1.79	0.64
19:AV:21:GLU:O	19:AV:25:LYS:HD2	1.97	0.64
24:BA:11:G:C2'	24:BA:12:U:H5'	2.27	0.64
24:BA:443:A:H1'	24:BA:1201:C:O4'	1.96	0.64
24:BA:1754:C:H5"	38:BR:113:LYS:HE2	1.78	0.64
24:BA:2415:G:O3'	34:BO:66:GLY:CA	2.43	0.64
24:BA:2564:A:OP1	24:BA:2648:C:H4'	1.98	0.64
26:BD:18:VAL:HA	26:BD:211:ARG:HH22	1.61	0.64
26:BD:35:LYS:HZ1	26:BD:65:ILE:HA	1.62	0.64
31:BK:144:VAL:HG22	31:BK:145:VAL:N	2.12	0.64
43:BU:76:CYS:N	43:BU:81:LYS:HE3	2.12	0.64
44:BV:18:LEU:HD12	44:BV:18:LEU:N	2.12	0.64
49:B4:14:ILE:CD1	49:B4:24:THR:HG22	2.27	0.64
51:B6:31:PRO:HB2	51:B6:35:GLU:HG3	1.77	0.64
53:B8:59:LYS:CB	53:B8:59:LYS:HZ3	2.08	0.64
1:CA:32:A:H2'	1:CA:33:A:C8	2.32	0.64
1:CA:108:G:H5'	1:CA:109:A:H5"	1.78	0.64
1:CA:243:A:H1'	1:CA:244:U:OP2	1.98	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:485:G:O2'	1:CA:486:U:P	2.54	0.64
1:CA:1057:G:H2'	1:CA:1058:G:O4'	1.97	0.64
1:CA:1180:A:H5'	9:CL:103:THR:HG23	1.77	0.64
1:CA:1279:A:H5"	10:CM:7:LYS:HZ2	1.61	0.64
2:CE:106:LYS:HD2	2:CE:106:LYS:C	2.18	0.64
2:CE:236:TYR:HB2	2:CE:239:VAL:CB	2.08	0.64
3:CF:47:LEU:HD12	3:CF:48:TYR:N	2.12	0.64
7:CJ:46:ALA:HB2	7:CJ:117:ALA:CB	2.26	0.64
9:CL:6:GLY:O	9:CL:17:VAL:HG22	1.97	0.64
10:CM:27:ALA:HB2	10:CM:85:LEU:HD11	1.79	0.64
22:CC:12:G:H1'	24:DA:1923:U:O2'	1.96	0.64
24:DA:483:A:C4'	43:DU:49:VAL:HA	2.27	0.64
24:DA:511:U:C3'	24:DA:512:G:C5'	2.63	0.64
24:DA:1925:C:H2'	24:DA:1926:U:H5'	1.78	0.64
24:DA:2285:C:H3'	51:D6:28:ARG:HD2	1.79	0.64
24:DA:2378:A:O4'	37:DQ:112:PHE:CE2	2.51	0.64
24:DA:2712:U:OP1	24:DA:2714:G:H4'	1.98	0.64
25:DB:12:C:H6	25:DB:12:C:OP2	1.80	0.64
28:DF:18:ARG:HD3	28:DF:18:ARG:C	2.17	0.64
30:DH:3:ARG:HH12	30:DH:7:LEU:HD13	1.61	0.64
34:DO:97:PRO:O	34:DO:98:GLU:HB3	1.97	0.64
35:DP:16:ARG:HD3	35:DP:18:LYS:HZ3	1.60	0.64
37:DQ:107:GLU:N	37:DQ:110:LEU:HD21	2.11	0.64
1:AA:180:U:H5"	1:AA:181:G:OP2	1.98	0.64
2:AE:204:ASN:HD22	2:AE:206:ASP:N	1.95	0.64
3:AF:97:LYS:O	3:AF:99:VAL:N	2.31	0.64
6:AI:23:LYS:O	6:AI:27:GLN:HG2	1.97	0.64
18:AU:36:ASN:HD22	18:AU:36:ASN:N	1.96	0.64
24:BA:443:A:OP2	24:BA:615:G:N2	2.29	0.64
24:BA:1176:G:H3'	24:BA:1177:A:C8	2.32	0.64
24:BA:1416:G:N2	24:BA:1582:C:N3	2.35	0.64
24:BA:2196:C:O2'	24:BA:2197:U:H5'	1.96	0.64
24:BA:2389:G:C5'	24:BA:2390:U:H5'	2.27	0.64
24:BA:2399:G:C2'	51:B6:19:ARG:NE	2.59	0.64
30:BH:109:PHE:C	30:BH:111:HIS:H	2.00	0.64
30:BH:124:GLU:HB2	30:BH:132:ARG:HG2	1.78	0.64
31:BK:110:ASP:HB3	31:BK:111:PRO:CA	2.28	0.64
33:BN:90:GLN:N	33:BN:90:GLN:OE1	2.31	0.64
37:BQ:110:LEU:CD2	37:BQ:112:PHE:CE2	2.80	0.64
1:CA:1004:A:C3'	1:CA:1005:A:H5"	2.27	0.64
1:CA:1219:U:O2'	19:CV:34:TRP:HB3	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1452:C:H4’	1:CA:1453:G:H5’	1.79	0.64
2:CE:91:PRO:HG3	2:CE:154:LEU:HB2	1.78	0.64
11:CN:127:LYS:HZ3	11:CN:127:LYS:HB2	1.60	0.64
14:CQ:38:GLY:O	14:CQ:39:LEU:HD23	1.98	0.64
24:DA:979:G:H3’	24:DA:980:A:C5’	2.26	0.64
24:DA:1061:U:C4’	24:DA:1070:A:O2’	2.46	0.64
24:DA:2128:C:H1’	24:DA:2173:A:N1	2.13	0.64
25:DB:45:A:C1’	29:DG:95:ARG:HH12	2.05	0.64
28:DF:197:ASP:OD1	28:DF:198:ALA:N	2.30	0.64
39:D1:90:VAL:HG22	40:D2:39:LEU:CB	2.27	0.64
40:D2:35:LEU:HG	40:D2:37:VAL:CG2	2.28	0.64
40:D2:67:GLY:O	40:D2:88:ARG:HD2	1.97	0.64
46:DZ:57:GLU:O	46:DZ:58:ILE:HD13	1.97	0.64
1:AA:55:A:H2	31:DK:82:ARG:HE	1.45	0.64
1:AA:193:C:C4’	20:AW:57:ARG:HH11	2.09	0.64
1:AA:368:U:P	31:DK:91:SER:OG	2.55	0.64
1:AA:438:G:H5”	1:AA:439:A:OP1	1.98	0.64
1:AA:716:A:H1’	11:AN:118:GLY:HA2	1.80	0.64
1:AA:913:A:H4’	1:AA:914:A:O5’	1.97	0.64
1:AA:1022:G:H2’	1:AA:1023:G:C8	2.32	0.64
1:AA:1118:C:H1’	1:AA:1179:A:C5	2.32	0.64
2:AE:154:LEU:HD23	2:AE:154:LEU:H	1.62	0.64
3:AF:15:THR:HG21	3:AF:181:ASN:HA	1.79	0.64
4:AG:155:LEU:HD12	4:AG:156:GLU:N	2.11	0.64
5:AH:69:VAL:HG12	5:AH:71:LEU:CD2	2.27	0.64
8:AK:94:TYR:HE1	8:AK:132:GLU:HB2	1.61	0.64
12:AO:90:VAL:O	12:AO:91:LYS:CB	2.46	0.64
24:BA:633:A:C2’	24:BA:634:C:H5’	2.26	0.64
24:BA:1466:G:H2’	24:BA:1547:C:N4	2.12	0.64
24:BA:2345:G:N3	24:BA:2381:C:H2’	2.13	0.64
26:BD:24:ILE:HG22	26:BD:24:ILE:O	1.97	0.64
26:BD:63:ARG:HG2	26:BD:92:ILE:CD1	2.28	0.64
33:BN:47:ILE:HG23	33:BN:48:PRO:HD2	1.77	0.64
43:BU:52:SER:HB2	43:BU:53:PRO:CD	2.14	0.64
44:BV:59:LEU:HD12	44:BV:69:THR:HG21	1.78	0.64
47:BW:50:ILE:HD12	47:BW:51:ARG:N	2.05	0.64
1:CA:994:A:C5	1:CA:1216:G:H4’	2.33	0.64
1:CA:1347:G:H21	1:CA:1373:G:H2’	1.62	0.64
3:CF:21:ARG:HB3	3:CF:21:ARG:NH1	2.12	0.64
8:CK:119:LEU:HD23	8:CK:124:ALA:HB2	1.80	0.64
13:CP:3:ARG:HA	13:CP:9:ILE:HG23	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CV:9:VAL:HG12	19:CV:10:PHE:N	2.12	0.64
20:CW:96:GLY:O	20:CW:99:LEU:HD21	1.98	0.64
24:DA:1408:C:O2	24:DA:1595:G:N2	2.31	0.64
24:DA:2420:C:P	53:D8:33:ASN:HA	2.37	0.64
24:DA:2505:G:O6	24:DA:2576:G:H2'	1.97	0.64
24:DA:2797:U:C2'	24:DA:2798:C:H5'	2.27	0.64
27:DE:33:VAL:HG23	27:DE:47:VAL:CG2	2.27	0.64
30:DH:126:PRO:O	30:DH:127:GLU:CB	2.45	0.64
33:DN:43:VAL:HG12	33:DN:54:GLU:HA	1.80	0.64
1:AA:112:G:OP1	16:AS:27:LYS:HD2	1.97	0.64
1:AA:1157:A:H1'	1:AA:1158:C:C4	2.32	0.64
2:AE:149:LEU:O	2:AE:153:ARG:N	2.30	0.64
5:AH:33:VAL:HG12	5:AH:112:LEU:HD12	1.79	0.64
14:AQ:21:TYR:HE1	14:AQ:23:ARG:HH21	1.44	0.64
15:AR:55:GLY:HA2	15:AR:58:MET:HE2	1.79	0.64
19:AV:41:VAL:HG22	19:AV:42:PRO:CA	2.28	0.64
24:BA:185:U:H4'	24:BA:218:A:H4'	1.78	0.64
24:BA:526:A:N6	24:BA:2626:C:H4'	2.13	0.64
24:BA:811:U:O2'	34:BO:21:ARG:HG3	1.98	0.64
24:BA:996:A:H4'	39:B1:92:ARG:HE	1.62	0.64
24:BA:2213:U:C4'	46:BZ:52:ARG:HH12	2.11	0.64
33:BN:96:THR:O	33:BN:97:ARG:CB	2.45	0.64
34:BO:64:LYS:HD2	53:B8:25:MET:HE2	1.78	0.64
42:BT:49:VAL:HG13	42:BT:87:GLN:NE2	2.13	0.64
43:BU:30:VAL:HG13	43:BU:37:VAL:HG12	1.80	0.64
1:CA:269:C:H2'	1:CA:270:A:C8	2.33	0.64
1:CA:882:C:O2'	1:CA:883:C:H5'	1.97	0.64
1:CA:1117:G:C2'	9:CL:104:ARG:HD2	2.28	0.64
1:CA:1172:C:O3'	7:CJ:5:ARG:NH2	2.21	0.64
1:CA:1190:G:OP1	3:CF:5:ILE:HD12	1.97	0.64
1:CA:1376:U:H2'	1:CA:1377:A:C8	2.33	0.64
1:CA:1392:G:N2	1:CA:1502:A:H8	1.96	0.64
2:CE:55:PHE:HD1	2:CE:58:ILE:HD12	1.61	0.64
2:CE:178:ARG:HH21	8:CK:68:ARG:NH2	1.95	0.64
9:CL:128:ARG:NH1	22:CC:35:A:OP2	2.30	0.64
10:CM:9:ARG:NH2	10:CM:95:GLU:OE1	2.29	0.64
10:CM:50:ILE:HD11	14:CQ:41:ARG:NE	2.13	0.64
13:CP:19:LEU:CD1	13:CP:30:ALA:HB1	2.26	0.64
17:CT:66:SER:O	17:CT:70:ARG:NH1	2.30	0.64
24:DA:1061:U:H4'	24:DA:1070:A:H1'	1.80	0.64
24:DA:1779:U:C2'	24:DA:1783:A:H62	2.09	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DD:65:ILE:HG12	26:DD:67:PHE:CE2	2.31	0.64
29:DG:97:ASP:HA	29:DG:100:TRP:CD1	2.33	0.64
29:DG:107:LEU:HD11	29:DG:178:PHE:CE1	2.32	0.64
30:DH:86:GLU:C	30:DH:87:LEU:HD12	2.16	0.64
39:D1:83:LEU:HG	39:D1:88:ILE:HD11	1.78	0.64
1:AA:67:C:H2'	1:AA:68:G:C8	2.33	0.64
1:AA:1047:G:C2'	1:AA:1048:G:H5'	2.27	0.64
2:AE:21:ARG:HB3	2:AE:39:ILE:HA	1.80	0.64
2:AE:127:ILE:HG23	2:AE:128:GLU:H	1.63	0.64
4:AG:83:SER:HA	4:AG:89:THR:CG2	2.27	0.64
17:AT:63:ARG:O	17:AT:65:ILE:HD12	1.98	0.64
24:BA:876:C:H2'	24:BA:877:U:O4'	1.96	0.64
24:BA:1797:C:O2'	26:BD:259:THR:HG22	1.98	0.64
24:BA:2248:C:C2'	24:BA:2249:U:H5'	2.27	0.64
24:BA:2418:A:O2'	24:BA:2419:U:O5'	2.15	0.64
26:BD:109:ASP:HB2	26:BD:197:GLY:CA	2.26	0.64
30:BH:88:LEU:HD12	30:BH:89:ILE:H	1.62	0.64
34:BO:49:ARG:HD2	53:B8:58:ILE:HG21	1.78	0.64
1:CA:87:A:H2'	1:CA:87:A:N3	2.13	0.64
1:CA:616:G:C2	1:CA:617:G:C8	2.85	0.64
1:CA:1118:C:C5'	9:CL:104:ARG:NE	2.20	0.64
10:CM:4:ILE:HB	10:CM:74:ILE:CD1	2.18	0.64
10:CM:4:ILE:CG1	10:CM:74:ILE:HD11	2.26	0.64
10:CM:48:THR:CG2	10:CM:62:HIS:HB3	2.26	0.64
12:CO:110:VAL:HG23	12:CO:120:TYR:HB3	1.79	0.64
24:DA:211:A:O2'	24:DA:212:G:H5'	1.97	0.64
24:DA:771:G:OP1	52:D7:10:ARG:NH1	2.30	0.64
24:DA:931:G:O2'	48:DX:24:LYS:NZ	2.30	0.64
24:DA:1146:C:C2'	24:DA:1147:C:H5'	2.28	0.64
24:DA:1379:A:H4'	24:DA:1380:G:OP2	1.97	0.64
24:DA:1386:C:OP2	24:DA:1396:U:H5	1.80	0.64
24:DA:1534:G:H3'	24:DA:1535:U:C5'	2.27	0.64
27:DE:81:ILE:HG22	27:DE:82:ARG:N	2.12	0.64
27:DE:101:ARG:CZ	27:DE:171:GLU:HB2	2.27	0.64
28:DF:25:PRO:HB2	28:DF:27:GLU:H	1.63	0.64
30:DH:89:ILE:O	30:DH:90:LYS:HB2	1.96	0.64
47:DW:43:GLN:O	47:DW:44:LEU:HD23	1.97	0.64
1:AA:164:U:H2'	1:AA:165:C:C6	2.33	0.64
1:AA:193:C:C5'	20:AW:57:ARG:NH1	2.61	0.64
1:AA:914:A:C2'	1:AA:915:A:H5'	2.27	0.64
1:AA:1023:G:C6	1:AA:1024:G:H1'	2.32	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1106:G:H2'	1:AA:1107:C:H6	1.63	0.64
24:BA:1093:G:H1'	24:BA:1099:G:H1	1.63	0.64
24:BA:1171:G:C3'	24:BA:1174:A:H61	2.10	0.64
24:BA:1178:C:O2'	24:BA:1179:C:P	2.56	0.64
44:BV:142:SER:HB3	44:BV:143:GLY:CA	2.19	0.64
1:CA:192:U:H2'	1:CA:193:C:C6	2.33	0.64
1:CA:597:G:C3'	1:CA:598:U:H5'	2.27	0.64
1:CA:766:A:H2'	1:CA:767:A:O4'	1.97	0.64
1:CA:1227:A:O2'	13:CP:115:LYS:HG3	1.97	0.64
2:CE:172:ILE:HD12	2:CE:173:ALA:N	2.12	0.64
3:CF:58:GLU:HB2	3:CF:65:ALA:HB3	1.78	0.64
3:CF:89:GLU:OE2	3:CF:89:GLU:N	2.31	0.64
5:CH:92:LYS:HD3	5:CH:119:LEU:HD12	1.80	0.64
9:CL:82:ALA:HB3	9:CL:101:PHE:CE2	2.31	0.64
16:CS:45:THR:OG1	16:CS:46:PRO:HD2	1.98	0.64
24:DA:128:C:H4'	24:DA:129:C:OP1	1.97	0.64
24:DA:654(S):G:C1'	24:DA:654(T):A:OP1	2.46	0.64
24:DA:1083:U:O2'	24:DA:1086:A:N6	2.31	0.64
24:DA:1183:G:O3'	48:DX:29:ARG:NH2	2.31	0.64
26:DD:25:THR:HG21	26:DD:81:ALA:CA	2.26	0.64
26:DD:117:VAL:HG12	26:DD:118:VAL:N	2.13	0.64
27:DE:58:ARG:N	27:DE:58:ARG:HD2	2.11	0.64
28:DF:185:ASP:OD1	28:DF:188:ARG:NH2	2.31	0.64
29:DG:101:ILE:C	29:DG:101:ILE:HD12	2.17	0.64
32:DM:43:THR:HG22	32:DM:45:ASN:ND2	2.12	0.64
34:DO:62:LEU:HD13	34:DO:63:PRO:N	2.13	0.64
38:DR:1:MET:HE2	38:DR:1:MET:C	2.18	0.64
39:D1:92:ARG:HD3	40:D2:11:GLN:HB2	1.80	0.64
1:AA:86:U:O3'	1:AA:87:A:H4'	1.97	0.64
1:AA:1128:C:C4'	9:AL:16:ARG:NH1	2.60	0.64
1:AA:1211:U:H5'	1:AA:1212:U:OP1	1.98	0.64
2:AE:187:LEU:HD22	2:AE:205:ASP:HB3	1.79	0.64
4:AG:18:LYS:NZ	4:AG:31:CYS:SG	2.71	0.64
6:AI:16:GLN:HA	6:AI:19:LEU:HB3	1.79	0.64
8:AK:29:SER:HB3	8:AK:32:LYS:CB	2.28	0.64
12:AO:83:VAL:HG22	12:AO:84:LEU:H	1.61	0.64
24:BA:523:C:C2'	24:BA:524:U:H5'	2.28	0.64
24:BA:1050:A:C8	24:BA:2751:G:C5	2.85	0.64
24:BA:2210:G:H2'	24:BA:2210:G:N3	2.12	0.64
37:BQ:83:LYS:HG2	37:BQ:109:GLY:CA	2.28	0.64
38:BR:3:ARG:HB2	38:BR:7:ILE:HG13	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1004:A:C2'	1:CA:1005:A:H5"	2.28	0.64
1:CA:1347:G:C8	9:CL:107:ARG:HB3	2.33	0.64
3:CF:92:ALA:HB2	3:CF:99:VAL:HG11	1.80	0.64
5:CH:110:LEU:HB3	5:CH:115:VAL:CG2	2.27	0.64
7:CJ:46:ALA:CB	7:CJ:117:ALA:HB1	2.27	0.64
24:DA:322:A:H5'	24:DA:340:A:H1'	1.80	0.64
24:DA:1035:U:OP1	30:DH:59:ARG:NH1	2.29	0.64
24:DA:1098:A:H3'	24:DA:1099:G:H8	1.63	0.64
24:DA:1614:A:N1	41:DS:91:GLY:HA2	2.12	0.64
24:DA:2370:G:C2'	51:D6:45:LYS:NZ	2.61	0.64
26:DD:2:ALA:N	26:DD:200:ASP:OD2	2.31	0.64
27:DE:35:GLN:HB3	27:DE:48:GLN:NE2	2.12	0.64
28:DF:9:ILE:HG12	28:DF:13:SER:O	1.98	0.64
31:DK:7:GLU:HG3	31:DK:8:PRO:HD2	1.80	0.64
31:DK:31:LEU:N	31:DK:32:PRO:HD2	2.12	0.64
44:DV:175:VAL:HG22	44:DV:176:PRO:CD	2.20	0.64
47:DW:13:ALA:HA	47:DW:16:LEU:HD21	1.79	0.64
49:D4:9:LEU:HD22	49:D4:9:LEU:N	2.11	0.64
49:D4:16:CYS:HB3	49:D4:20:ASN:H	1.63	0.64
1:AA:1060:C:C5	3:AF:2:GLY:CA	2.79	0.64
2:AE:84:GLU:HB3	2:AE:219:VAL:HG21	1.80	0.64
4:AG:127:THR:HG22	4:AG:128:VAL:N	2.13	0.64
14:AQ:4:LYS:O	14:AQ:7:ILE:HG12	1.97	0.64
19:AV:15:LEU:HD12	19:AV:16:LEU:H	1.63	0.64
19:AV:21:GLU:OE2	19:AV:25:LYS:NZ	2.27	0.64
24:BA:252:G:OP2	34:BO:50:ARG:NH1	2.31	0.64
24:BA:1173:G:N2	24:BA:1175:U:H2'	2.12	0.64
24:BA:1210:A:H4'	24:BA:1211:U:OP2	1.97	0.64
24:BA:2105:C:H2'	24:BA:2106:G:H8	1.62	0.64
24:BA:2286:A:H8	51:B6:37:ARG:NH1	1.94	0.64
24:BA:2820:A:O2'	24:BA:2821:A:OP1	2.15	0.64
27:BE:47:VAL:HG11	27:BE:86:PRO:CD	2.28	0.64
43:BU:68:HIS:O	43:BU:71:LYS:HB2	1.98	0.64
1:CA:1080:A:C5'	5:CH:14:ARG:NH2	2.59	0.64
2:CE:104:ASN:OD1	2:CE:107:THR:OG1	2.11	0.64
3:CF:60:ALA:HB3	3:CF:63:ASN:HD21	1.62	0.64
3:CF:188:LEU:HD23	3:CF:190:ARG:NH2	2.13	0.64
5:CH:87:SER:OG	5:CH:125:SER:O	2.10	0.64
5:CH:93:PRO:O	8:CK:105:ARG:NH2	2.31	0.64
10:CM:6:ILE:HG22	10:CM:98:ILE:CG1	2.27	0.64
10:CM:9:ARG:NH2	10:CM:95:GLU:HB3	2.13	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CN:87:THR:HG22	11:CN:87:THR:O	1.98	0.64
12:CO:84:LEU:HD13	12:CO:85:ILE:N	2.12	0.64
19:CV:9:VAL:HG12	19:CV:10:PHE:H	1.61	0.64
24:DA:918:A:H5"	25:DB:97:G:O2'	1.98	0.64
24:DA:1336:A:H2'	24:DA:1337:G:H8	1.62	0.64
24:DA:2196:C:O2'	24:DA:2197:U:H5'	1.98	0.64
24:DA:2880:C:O3'	36:D0:90:ARG:NH1	2.31	0.64
25:DB:24:G:H4'	25:DB:25:A:C8	2.32	0.64
29:DG:16:ARG:HH11	29:DG:28:VAL:HG12	1.61	0.64
29:DG:118:ARG:HE	29:DG:118:ARG:N	1.94	0.64
34:DO:81:GLN:NE2	34:DO:106:LEU:O	2.31	0.64
37:DQ:110:LEU:HD12	37:DQ:111:GLU:C	2.18	0.64
44:DV:10:ARG:NH2	44:DV:26:GLY:O	2.30	0.64
45:D3:72:ARG:HG3	45:D3:75:LEU:HB2	1.79	0.64
51:D6:37:ARG:HH22	51:D6:38:LYS:HB2	0.82	0.64
1:AA:581:G:OP1	15:AR:65:ARG:NH1	2.31	0.64
1:AA:1301:U:H2'	1:AA:1302:U:H5'	1.79	0.64
1:AA:1348:U:H5	1:AA:1373:G:N2	1.95	0.64
3:AF:16:ARG:HG3	3:AF:17:ASP:H	1.63	0.64
17:AT:12:SER:HB3	17:AT:20:THR:HB	1.80	0.64
24:BA:2000:G:H5"	36:B0:2:ARG:HH12	0.62	0.64
25:BB:30:C:C2'	25:BB:31:C:H5'	2.26	0.64
27:BE:165:VAL:O	27:BE:189:PRO:HG2	1.99	0.64
33:BN:98:VAL:CG1	33:BN:117:LEU:HB2	2.28	0.64
37:BQ:71:ARG:HH21	37:BQ:106:ARG:NH2	1.95	0.64
1:CA:15:G:H1'	5:CH:19:MET:CE	2.28	0.64
1:CA:198:G:H2'	1:CA:199:G:H8	1.63	0.64
1:CA:345:C:O2'	1:CA:346:G:O5'	2.16	0.64
1:CA:1126:U:H4'	1:CA:1127:G:C8	2.33	0.64
2:CE:23:ARG:NE	2:CE:23:ARG:O	2.30	0.64
3:CF:137:ALA:HA	3:CF:140:ARG:NH2	2.12	0.64
7:CJ:146:GLU:O	7:CJ:149:ARG:HB2	1.97	0.64
8:CK:20:TYR:HE2	8:CK:75:ARG:HD2	1.63	0.64
8:CK:86:ILE:HG13	8:CK:133:LEU:CD2	2.28	0.64
15:CR:70:LEU:HG	15:CR:78:TYR:HB2	1.80	0.64
20:CW:33:ILE:CD1	20:CW:62:LEU:HB3	2.28	0.64
24:DA:270(G):C:H2'	24:DA:270(H):C:H6	1.63	0.64
24:DA:971:C:H2'	24:DA:972:G:C5'	2.28	0.64
24:DA:2120:G:H2'	24:DA:2121:G:H5'	1.80	0.64
25:DB:102:G:N2	44:DV:73:GLN:OE1	2.30	0.64
2:AE:55:PHE:CD1	2:AE:58:ILE:HD12	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AE:61:LEU:CD2	2:AE:68:ILE:HD11	2.27	0.63
24:BA:1827:C:C2'	24:BA:1828:G:H5'	2.28	0.63
24:BA:1998:G:O2'	24:BA:1999:C:C5'	2.46	0.63
24:BA:2505:G:O2'	24:BA:2506:U:H6	1.80	0.63
31:BK:92:VAL:O	31:BK:120:ILE:HG22	1.98	0.63
37:BQ:67:ARG:O	37:BQ:71:ARG:HG2	1.98	0.63
41:BS:9:TYR:HA	41:BS:100:THR:CG2	2.28	0.63
52:B7:47:ARG:HG3	52:B7:48:LYS:N	2.13	0.63
1:CA:266:G:C1'	1:CA:267:C:OP2	2.45	0.63
1:CA:345:C:H1'	1:CA:346:G:N1	2.12	0.63
1:CA:495:A:H4'	1:CA:496:A:OP1	1.97	0.63
1:CA:1147:C:O3'	9:CL:5:TYR:OH	2.16	0.63
1:CA:1247:U:H1'	1:CA:1291:G:N2	2.14	0.63
1:CA:1346:A:C1'	1:CA:1347:G:OP2	2.46	0.63
2:CE:155:LEU:HD12	2:CE:157:ARG:HB3	1.81	0.63
8:CK:6:ILE:HD12	8:CK:6:ILE:N	2.12	0.63
8:CK:119:LEU:CD2	8:CK:124:ALA:CA	2.76	0.63
18:CU:22:VAL:CG2	18:CU:23:LYS:H	2.04	0.63
24:DA:1602:U:P	42:DT:60:ARG:NH2	2.70	0.63
24:DA:2345:G:P	51:D6:39:TYR:CE1	2.91	0.63
24:DA:2710:C:OP1	36:D0:15:SER:HB2	1.98	0.63
24:DA:2749:A:P	30:DH:6:ARG:NE	2.71	0.63
29:DG:94:LEU:HD23	29:DG:94:LEU:H	1.63	0.63
29:DG:106:LEU:HA	29:DG:110:ALA:HB3	1.80	0.63
34:DO:112:LEU:HD23	34:DO:112:LEU:C	2.18	0.63
40:D2:1:MET:SD	40:D2:43:GLU:HB2	2.39	0.63
1:AA:1218:C:H2'	1:AA:1219:U:C6	2.33	0.63
2:AE:17:PHE:C	2:AE:42:ILE:HG22	2.17	0.63
16:AS:8:ARG:HB3	16:AS:28:ARG:NH1	2.11	0.63
22:AC:47:U:HO2'	22:AC:48:C:P	2.20	0.63
24:BA:271(B):G:H4'	24:BA:271(C):U:O5'	1.98	0.63
24:BA:1800:C:OP1	26:BD:266:SER:OG	2.05	0.63
24:BA:2317:C:H2'	24:BA:2318:G:H5'	1.80	0.63
31:BK:86:THR:HA	31:BK:123:LEU:CD2	2.29	0.63
31:BK:131:LYS:CB	31:BK:132:PRO:HA	2.28	0.63
32:BM:35:ARG:O	32:BM:37:LYS:N	2.31	0.63
43:BU:35:TYR:CD2	43:BU:69:ALA:HB3	2.32	0.63
43:BU:83:THR:CG2	43:BU:84:ARG:H	2.11	0.63
1:CA:187:C:H2'	1:CA:188:U:O4'	1.98	0.63
1:CA:345:C:H1'	1:CA:346:G:C2	2.33	0.63
1:CA:1081:G:OP1	5:CH:18:ARG:HG2	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1150:U:O3'	10:CM:41:PRO:HA	1.98	0.63
1:CA:1191:A:OP1	3:CF:3:ASN:CG	2.35	0.63
2:CE:112:VAL:HG12	2:CE:113:HIS:ND1	2.14	0.63
8:CK:6:ILE:H	8:CK:6:ILE:CD1	2.10	0.63
22:CC:18:G:H1'	22:CC:58:A:C2	2.32	0.63
24:DA:270(I):G:H1	24:DA:270(Q):C:H42	1.44	0.63
24:DA:540:G:H2'	24:DA:541:C:C6	2.33	0.63
24:DA:1593:G:H2'	24:DA:1594:G:H8	1.63	0.63
24:DA:1785:A:H4'	24:DA:1982:C:O2'	1.97	0.63
28:DF:132:VAL:HG13	28:DF:133:ASN:OD1	1.98	0.63
38:DR:11:GLU:N	38:DR:11:GLU:OE1	2.31	0.63
44:DV:19:ARG:HH12	44:DV:84:GLU:CA	2.11	0.63
53:D8:40:GLU:H	53:D8:43:GLN:CG	2.11	0.63
1:AA:49:U:C2	1:AA:361:G:N2	2.66	0.63
1:AA:1183:A:O2'	1:AA:1184:G:OP1	2.08	0.63
6:AI:26:ILE:O	6:AI:30:LEU:HG	1.98	0.63
24:BA:771:G:OP1	52:B7:10:ARG:NH1	2.31	0.63
24:BA:1486:A:H2'	24:BA:1487:G:C8	2.32	0.63
24:BA:2347:C:H2'	24:BA:2348:U:C6	2.33	0.63
24:BA:2396:G:H1'	46:BZ:30:VAL:HG12	1.79	0.63
29:BG:127:GLY:HA2	29:BG:166:ASP:OD2	1.98	0.63
34:BO:64:LYS:O	34:BO:65:ARG:C	2.36	0.63
41:BS:70:TYR:H	41:BS:70:TYR:HD1	1.46	0.63
49:B4:39:CYS:O	49:B4:40:HIS:HB2	1.99	0.63
1:CA:129(A):G:C2	1:CA:191(A):G:C8	2.86	0.63
1:CA:1154:G:H2'	1:CA:1155:G:H8	1.63	0.63
1:CA:1320:C:O4'	19:CV:70:LYS:HE2	1.98	0.63
6:CI:94:GLN:HA	6:CI:94:GLN:HE21	1.64	0.63
8:CK:86:ILE:CB	8:CK:133:LEU:HD22	2.29	0.63
19:CV:38:SER:HB2	19:CV:71:LEU:CD1	2.28	0.63
24:DA:1747:G:O2'	24:DA:1748:G:H5'	1.98	0.63
30:DH:26:VAL:CG2	30:DH:76:VAL:HG22	2.28	0.63
31:DK:38:LEU:HD12	31:DK:38:LEU:N	2.13	0.63
34:DO:52:GLU:OE1	34:DO:55:ARG:N	2.31	0.63
37:DQ:7:TYR:CZ	37:DQ:91:PRO:HG2	2.33	0.63
37:DQ:78:LEU:HD11	37:DQ:107:GLU:HB3	1.78	0.63
2:AE:61:LEU:HD23	2:AE:68:ILE:HD11	1.79	0.63
8:AK:37:ARG:HH21	8:AK:38:ILE:CD1	2.12	0.63
12:AO:60:LEU:HD23	12:AO:60:LEU:N	2.12	0.63
24:BA:654(A):A:C2'	24:BA:654(B):C:H5'	2.28	0.63
24:BA:1311:G:O6	52:B7:48:LYS:NZ	2.24	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1500:G:N2	26:BD:99:ASP:O	2.26	0.63
29:BG:61:ALA:HA	29:BG:66:GLN:O	1.97	0.63
29:BG:77:ILE:CG2	29:BG:80:PHE:CE1	2.81	0.63
45:B3:69:PHE:CE2	45:B3:79:VAL:HG22	2.34	0.63
45:B3:74:ARG:HB3	45:B3:74:ARG:NH1	2.13	0.63
47:BW:41:ILE:CD1	47:BW:44:LEU:HD12	2.28	0.63
1:CA:677:U:H3	1:CA:713:G:H22	1.45	0.63
2:CE:19:HIS:NE2	2:CE:20:GLU:OE2	2.32	0.63
4:CG:178:VAL:HG12	4:CG:179:GLU:N	2.10	0.63
6:CI:45:LEU:HD12	6:CI:59:TYR:CD1	2.33	0.63
24:DA:1071:G:C1'	24:DA:1089:G:H2'	2.20	0.63
24:DA:1310:G:OP2	52:D7:9:ARG:NH1	2.31	0.63
24:DA:1317:A:O2'	24:DA:1318:C:H5'	1.98	0.63
24:DA:1341:U:OP1	24:DA:1397:U:N3	2.22	0.63
24:DA:1537:C:H2'	24:DA:1538:G:O4'	1.99	0.63
24:DA:2123:G:O2'	24:DA:2124:G:H5'	1.98	0.63
33:DN:113:LYS:O	33:DN:117:LEU:HD23	1.97	0.63
37:DQ:14:VAL:HG22	37:DQ:18:ILE:CD1	2.29	0.63
37:DQ:107:GLU:H	37:DQ:110:LEU:CD2	2.10	0.63
38:DR:26:ASP:OD1	38:DR:120:ARG:NH2	2.31	0.63
42:DT:40:LYS:O	42:DT:42:ALA:N	2.32	0.63
44:DV:13:GLU:OE2	44:DV:13:GLU:N	2.31	0.63
1:AA:66:G:N2	1:AA:172:A:C2	2.67	0.63
2:AE:101:MET:C	2:AE:102:LEU:HD12	2.18	0.63
3:AF:8:ILE:HG23	14:AQ:49:HIS:O	1.99	0.63
4:AG:57:ARG:HB3	4:AG:206:PHE:HB2	1.79	0.63
4:AG:169:LYS:HG2	4:AG:170:VAL:N	2.14	0.63
9:AL:10:ARG:CZ	9:AL:105:ASP:OD2	2.46	0.63
17:AT:9:VAL:HG12	17:AT:56:VAL:HG22	1.81	0.63
20:AW:14:LYS:HG3	20:AW:18:GLN:HG3	1.78	0.63
24:BA:733:G:C8	24:BA:761:A:N6	2.66	0.63
24:BA:779:U:OP1	26:BD:49:ILE:HG13	1.99	0.63
24:BA:880:G:HO2'	24:BA:881:G:P	2.20	0.63
24:BA:1102:C:H2'	24:BA:1103:A:H8	1.63	0.63
27:BE:52:LEU:O	27:BE:74:PRO:HB3	1.98	0.63
27:BE:57:LYS:NZ	27:BE:57:LYS:HB3	2.14	0.63
31:BK:133:HIS:CB	31:BK:134:PRO:HD2	2.27	0.63
32:BM:17:ASP:O	32:BM:18:ALA:HB3	1.98	0.63
45:B3:42:GLY:O	45:B3:57:PHE:HD2	1.82	0.63
49:B4:10:VAL:HG13	49:B4:11:PRO:CD	2.29	0.63
50:B5:6:VAL:HG13	50:B5:7:PRO:HD2	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:659:U:H5”	15:CR:9:GLN:NE2	2.13	0.63
1:CA:1216:G:H5”	14:CQ:5:ALA:CB	2.28	0.63
7:CJ:78:ARG:CD	7:CJ:85:TYR:CE1	2.77	0.63
18:CU:31:LEU:HD23	18:CU:31:LEU:H	1.64	0.63
24:DA:646:A:H2’	24:DA:647:G:O4’	1.99	0.63
24:DA:1060:U:C4’	24:DA:1061:U:H5”	2.28	0.63
24:DA:2219:G:C2’	24:DA:2224:G:H5’	2.26	0.63
32:DM:60:ILE:HD13	32:DM:61:ARG:N	2.14	0.63
37:DQ:29:PHE:HD1	37:DQ:30:ARG:H	1.45	0.63
44:DV:120:ILE:HD12	44:DV:169:GLU:OE2	1.98	0.63
50:D5:57:VAL:HG12	50:D5:58:LEU:N	2.14	0.63
1:AA:1381:U:O2	7:AJ:79:ARG:HG2	1.99	0.63
1:AA:1442:G:C6	1:AA:1446:A:N6	2.67	0.63
18:AU:40:LEU:C	18:AU:42:ARG:H	2.01	0.63
20:AW:18:GLN:O	20:AW:20:LEU:N	2.32	0.63
24:BA:1078:U:H1’	24:BA:1088:A:C2	2.34	0.63
24:BA:2747:G:O6	24:BA:2755:C:H5”	1.98	0.63
27:BE:65:GLY:HA2	27:BE:70:ALA:CB	2.27	0.63
32:BM:35:ARG:HH21	32:BM:42:TRP:HZ2	1.47	0.63
38:BR:88:ILE:HD12	38:BR:90:GLN:N	2.14	0.63
42:BT:83:VAL:HG11	42:BT:87:GLN:HB2	1.79	0.63
1:CA:189:U:O4	17:CT:62:SER:HB3	1.97	0.63
1:CA:534:U:H5’	1:CA:535:A:OP2	1.98	0.63
1:CA:677:U:H2’	1:CA:678:U:C6	2.33	0.63
1:CA:1290:G:C2	1:CA:1291:G:H1’	2.34	0.63
1:CA:1297:C:H1’	1:CA:1298:C:OP2	1.98	0.63
1:CA:1298:C:H4’	1:CA:1299:A:C5	2.34	0.63
1:CA:1346:A:H5”	9:CL:120:ARG:HH12	1.61	0.63
5:CH:91:LEU:HD13	5:CH:120:THR:HG22	1.79	0.63
6:CI:77:ARG:HB3	6:CI:77:ARG:HH11	1.62	0.63
18:CU:73:ALA:CB	18:CU:79:LEU:HD12	2.27	0.63
24:DA:1070:A:H2’	24:DA:1096:A:N3	2.13	0.63
24:DA:2635:C:H5’	27:DE:77:ILE:CG2	2.28	0.63
24:DA:2751:G:H5’	24:DA:2752:C:OP2	1.97	0.63
25:DB:28:C:H2’	25:DB:29:A:O4’	1.99	0.63
25:DB:38:C:C1’	37:DQ:95:HIS:HE2	2.11	0.63
29:DG:133:LEU:HD21	29:DG:157:ILE:CB	2.25	0.63
30:DH:30:LYS:HB2	30:DH:30:LYS:NZ	2.14	0.63
38:DR:50:ILE:HD11	38:DR:102:ILE:HD11	1.79	0.63
40:D2:38:LEU:HD22	40:D2:55:ALA:HB1	1.80	0.63
41:DS:75:TYR:CE1	41:DS:104:THR:HB	2.33	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:D4:53:GLU:CD	49:D4:58:ARG:HG3	2.19	0.63
50:D5:4:HIS:CB	50:D5:5:PRO:CD	2.77	0.63
53:D8:14:VAL:HG21	53:D8:22:VAL:HG12	1.80	0.63
1:AA:1065:U:C1'	1:AA:1066:C:OP2	2.45	0.63
12:AO:70:ILE:HD13	12:AO:77:LEU:HD12	1.79	0.63
24:BA:325:G:C2'	24:BA:326:G:H5'	2.29	0.63
24:BA:1653:G:C1'	24:BA:1654:A:OP2	2.46	0.63
26:BD:17:THR:HB	26:BD:205:VAL:H	1.64	0.63
27:BE:26:ILE:HD13	27:BE:26:ILE:C	2.18	0.63
31:BK:33:ARG:O	31:BK:35:LEU:HD23	1.98	0.63
39:B1:59:ARG:O	39:B1:63:VAL:HG23	1.99	0.63
49:B4:59:PHE:O	49:B4:62:ARG:HG2	1.98	0.63
2:CE:95:GLN:CB	2:CE:148:TYR:HD2	2.12	0.63
4:CG:32:ALA:C	4:CG:33:MET:O	2.35	0.63
9:CL:27:THR:OG1	9:CL:32:ASP:HA	1.97	0.63
11:CN:32:ILE:HD12	11:CN:72:ALA:HB2	1.81	0.63
20:CW:44:ALA:HB3	20:CW:91:LEU:HD12	1.79	0.63
24:DA:943:U:OP2	34:DO:36:LYS:CD	2.47	0.63
24:DA:1060:U:H3	24:DA:1088:A:H8	1.45	0.63
24:DA:1069:A:C1'	24:DA:1096:A:H4'	2.26	0.63
24:DA:2267:A:H5"	24:DA:2268:A:C5'	2.29	0.63
24:DA:2762:G:H5'	24:DA:2763:G:OP2	1.98	0.63
27:DE:9:VAL:HG21	27:DE:25:VAL:HG12	1.79	0.63
29:DG:114:ILE:HD13	29:DG:140:ILE:HG21	1.80	0.63
36:D0:37:THR:CG2	36:D0:39:PRO:HD2	2.25	0.63
49:D4:23:GLU:C	49:D4:24:THR:HG1	2.02	0.63
3:AF:64:VAL:CG2	3:AF:99:VAL:HA	2.29	0.63
5:AH:67:VAL:HG22	5:AH:69:VAL:HG23	1.81	0.63
9:AL:18:PHE:HB2	9:AL:62:TYR:O	1.99	0.63
13:AP:88:ARG:HG2	13:AP:98:VAL:CG1	2.29	0.63
16:AS:14:ASN:ND2	16:AS:14:ASN:O	2.32	0.63
24:BA:1060:U:H5'	24:BA:1061:U:C5	2.34	0.63
24:BA:1748:G:H2'	24:BA:1749:A:H8	1.62	0.63
24:BA:2789:C:H3'	24:BA:2790:A:H5"	1.80	0.63
25:BB:50:G:OP1	37:BQ:63:THR:HG23	1.99	0.63
31:BK:109:ILE:HG22	31:BK:130:TYR:CE2	2.34	0.63
34:BO:62:LEU:HD23	34:BO:63:PRO:O	1.99	0.63
36:B0:103:ARG:HH21	36:B0:110:PRO:HD3	1.63	0.63
38:BR:112:ARG:HA	38:BR:115:ARG:HE	1.62	0.63
41:BS:64:MET:O	41:BS:65:LEU:HB2	1.97	0.63
45:B3:70:GLN:OE1	45:B3:72:ARG:HD3	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:878:G:C5'	8:CK:89:PRO:HG2	2.29	0.63
1:CA:1127:G:N1	1:CA:1145:C:H1'	2.14	0.63
1:CA:1135:U:H4'	1:CA:1136:U:C5	2.34	0.63
1:CA:1298:C:H41	7:CJ:114:ARG:HB3	1.64	0.63
3:CF:43:LEU:HD21	3:CF:47:LEU:HD23	1.81	0.63
6:CI:37:VAL:HG12	6:CI:38:GLU:N	2.13	0.63
24:DA:142:G:H2'	24:DA:143:C:H6	1.64	0.63
24:DA:212:G:C2'	24:DA:213:A:H5'	2.29	0.63
24:DA:1771:C:O2'	24:DA:1786:A:H8	1.82	0.63
28:DF:33:LEU:O	28:DF:37:VAL:HG23	1.98	0.63
28:DF:53:THR:HG22	28:DF:56:GLU:CG	2.29	0.63
32:DM:35:ARG:O	32:DM:37:LYS:N	2.29	0.63
36:D0:118:GLU:OE2	36:D0:118:GLU:HA	1.98	0.63
1:AA:875:C:H1'	8:AK:15:ASN:OD1	1.99	0.63
1:AA:1331:G:OP2	13:AP:23:TYR:CD1	2.51	0.63
4:AG:25:ARG:C	4:AG:27:TYR:N	2.52	0.63
17:AT:14:LYS:HD2	17:AT:14:LYS:N	2.13	0.63
24:BA:2125:G:N2	24:BA:2162:G:N3	2.47	0.63
30:BH:80:SER:C	30:BH:81:GLU:HG3	2.19	0.63
37:BQ:15:ARG:O	37:BQ:19:LYS:HG3	1.98	0.63
42:BT:28:PHE:CE2	42:BT:92:LEU:HD11	2.34	0.63
44:BV:4:ARG:NH1	44:BV:58:VAL:HG11	2.12	0.63
1:CA:254:G:OP1	17:CT:68:ARG:HB3	1.99	0.63
1:CA:1267:C:H2'	1:CA:1267:C:O2	1.98	0.63
6:CI:76:ALA:O	6:CI:80:ARG:HG3	1.99	0.63
9:CL:82:ALA:CB	9:CL:101:PHE:HD2	2.10	0.63
10:CM:78:ASN:ND2	10:CM:81:THR:HG23	2.14	0.63
24:DA:2378:A:C8	37:DQ:112:PHE:HZ	2.16	0.63
24:DA:2629:A:O2'	24:DA:2630:G:C5'	2.47	0.63
24:DA:2635:C:H5"	27:DE:77:ILE:HG22	1.80	0.63
26:DD:25:THR:CG2	26:DD:81:ALA:HB1	2.29	0.63
28:DF:43:LYS:HA	28:DF:98:SER:HB3	1.81	0.63
28:DF:53:THR:HG22	28:DF:56:GLU:HG3	1.81	0.63
28:DF:67:GLN:O	28:DF:67:GLN:CG	2.46	0.63
30:DH:6:ARG:CG	30:DH:66:GLY:HA2	2.28	0.63
37:DQ:74:ALA:HB1	37:DQ:107:GLU:CB	2.29	0.63
37:DQ:110:LEU:HD12	37:DQ:111:GLU:CA	2.29	0.63
43:DU:75:ILE:HG22	43:DU:80:GLY:HA3	1.80	0.63
44:DV:30:ASN:HB2	44:DV:89:PHE:HE1	1.63	0.63
49:D4:48:ARG:NH2	49:D4:51:ASP:HB2	2.13	0.63
51:D6:37:ARG:HG3	51:D6:39:TYR:CE1	2.32	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:448:A:P	1:AA:485:G:H22	2.21	0.62
1:AA:1004:A:O2'	1:AA:1036:G:O6	2.13	0.62
8:AK:58:TYR:O	8:AK:59:LEU:HD23	1.99	0.62
9:AL:10:ARG:CA	9:AL:104:ARG:HH21	2.12	0.62
22:AC:20:U:H2'	22:AC:21:A:C5'	2.25	0.62
22:AC:23:C:H2'	22:AC:24:U:C6	2.34	0.62
24:BA:141:A:H8	24:BA:1595:G:H21	1.46	0.62
24:BA:998:C:OP2	39:B1:58:ARG:NH1	2.31	0.62
24:BA:2315:G:H2'	24:BA:2316:C:H6	1.64	0.62
24:BA:2400:G:C2'	24:BA:2401:U:H6	2.11	0.62
25:BB:82:G:O2'	25:BB:83:G:H5'	1.98	0.62
26:BD:155:LEU:HD23	26:BD:177:LEU:HD22	1.81	0.62
40:B2:6:LYS:O	40:B2:37:VAL:HG21	1.98	0.62
43:BU:77:PRO:O	43:BU:78:ALA:HB2	1.99	0.62
44:BV:150:LEU:HD12	44:BV:154:ASP:OD2	2.00	0.62
1:CA:35:G:C2	1:CA:550:G:N3	2.67	0.62
1:CA:687:A:H1'	1:CA:688:G:OP2	1.99	0.62
4:CG:58:LEU:HD23	4:CG:62:GLN:CG	2.29	0.62
5:CH:74:GLY:O	5:CH:116:THR:N	2.26	0.62
5:CH:76:ILE:HG22	5:CH:93:PRO:HG3	1.80	0.62
12:CO:88:GLY:H	12:CO:98:TYR:HA	1.64	0.62
20:CW:70:SER:CA	20:CW:73:HIS:HE1	2.09	0.62
24:DA:84:A:N6	24:DA:102:G:O2'	2.28	0.62
24:DA:289:A:H2'	24:DA:289:A:N3	2.13	0.62
24:DA:2898:U:H2'	24:DA:2899:G:O4'	1.98	0.62
26:DD:30:GLU:HG3	26:DD:63:ARG:CZ	2.29	0.62
30:DH:152:ARG:HG3	30:DH:153:LYS:HG2	1.80	0.62
33:DN:68:GLU:OE2	33:DN:78:ARG:NH1	2.32	0.62
39:D1:72:HIS:HD2	39:D1:110:VAL:HG21	1.64	0.62
1:AA:246:A:P	17:AT:100:LYS:HD3	2.39	0.62
1:AA:450:G:H4'	16:AS:41:PRO:O	1.99	0.62
1:AA:620:C:C2	4:AG:135:LEU:HD23	2.35	0.62
1:AA:1014:A:H4'	19:AV:14:HIS:ND1	2.15	0.62
1:AA:1095:U:H5'	1:AA:1109:C:O2	1.99	0.62
1:AA:1148:U:H2'	1:AA:1149:C:O4'	1.98	0.62
1:AA:1221:G:H4'	19:AV:77:THR:HG21	1.81	0.62
2:AE:167:PRO:HG2	2:AE:192:SER:HB3	1.81	0.62
3:AF:173:VAL:HG12	3:AF:175:LEU:CD1	2.29	0.62
9:AL:73:GLN:O	9:AL:77:ILE:HG13	1.99	0.62
13:AP:10:PRO:CB	13:AP:18:ALA:HB1	2.26	0.62
24:BA:1091:G:H3'	24:BA:1092:C:H5"	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2285:C:H5'	24:BA:2288:A:N6	2.14	0.62
24:BA:2661:G:H2'	24:BA:2662:A:C8	2.34	0.62
26:BD:118:VAL:HG22	26:BD:119:ALA:N	2.14	0.62
27:BE:26:ILE:HG22	27:BE:182:LEU:O	1.99	0.62
28:BF:127:GLU:O	28:BF:129:PHE:N	2.32	0.62
29:BG:129:GLY:O	29:BG:161:THR:HB	2.00	0.62
35:BP:24:GLY:HA3	35:BP:25:ASP:CB	2.11	0.62
43:BU:14:LEU:HD12	43:BU:23:ARG:O	1.98	0.62
53:B8:14:VAL:HG21	53:B8:22:VAL:CG1	2.29	0.62
1:CA:63:C:H2'	1:CA:64:G:H5'	1.81	0.62
1:CA:405:U:OP2	4:CG:3:ARG:NH2	2.32	0.62
1:CA:433:C:H2'	1:CA:434:U:C6	2.34	0.62
1:CA:468:A:H4'	16:CS:82:GLN:HE22	1.63	0.62
1:CA:980:C:H5'	1:CA:981:U:H5	1.64	0.62
2:CE:16:HIS:HB3	2:CE:209:ARG:HB2	1.81	0.62
6:CI:18:GLN:HA	6:CI:21:LEU:HD22	1.80	0.62
9:CL:2:GLU:CG	9:CL:3:GLN:H	1.98	0.62
13:CP:91:ARG:HB2	13:CP:98:VAL:CG1	2.19	0.62
19:CV:39:THR:HG22	19:CV:40:ILE:N	2.14	0.62
24:DA:1388:G:O2'	24:DA:1389:G:H5'	1.99	0.62
24:DA:1439:A:C2'	24:DA:1440:G:H5'	2.29	0.62
24:DA:2355:C:H5'	45:D3:36:ILE:CD1	2.28	0.62
26:DD:27:THR:O	26:DD:27:THR:HG23	1.99	0.62
27:DE:80:GLU:O	27:DE:81:ILE:HB	1.97	0.62
28:DF:11:VAL:HG23	28:DF:12:LEU:N	2.10	0.62
29:DG:83:ARG:HB2	29:DG:86:MET:HG3	1.81	0.62
35:DP:75:THR:HA	35:DP:90:VAL:H	1.62	0.62
37:DQ:39:ILE:HD12	37:DQ:73:LEU:CD1	2.29	0.62
38:DR:57:PHE:HD1	38:DR:79:HIS:HD1	1.47	0.62
42:DT:23:GLU:HG2	42:DT:24:GLY:H	1.64	0.62
44:DV:24:LEU:H	44:DV:41:LEU:CD1	2.12	0.62
46:DZ:91:LYS:HB2	46:DZ:91:LYS:HZ3	1.64	0.62
1:AA:486:U:H2'	1:AA:487:A:C8	2.32	0.62
1:AA:601:C:H2'	1:AA:602:A:H8	1.64	0.62
1:AA:656:C:H4'	15:AR:62:GLN:HE22	1.63	0.62
1:AA:1115:C:H1'	14:AQ:61:TRP:HB2	1.80	0.62
1:AA:1381:U:O2'	7:AJ:79:ARG:HG3	2.00	0.62
7:AJ:115:ARG:HG3	7:AJ:117:ALA:N	2.14	0.62
10:AM:96:ILE:H	10:AM:96:ILE:CD1	2.11	0.62
20:AW:44:ALA:HB2	20:AW:88:VAL:HG13	1.79	0.62
24:BA:630:G:OP1	53:B8:46:ARG:NH1	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:634:C:H2'	24:BA:635:C:C6	2.34	0.62
24:BA:997:G:O2'	24:BA:998:C:H5'	1.99	0.62
24:BA:1091:G:H2'	24:BA:1092:C:O4'	2.00	0.62
24:BA:1252:G:O4'	39:B1:33:ARG:HD3	1.99	0.62
24:BA:1652:A:OP1	36:B0:8:ARG:NH1	2.32	0.62
24:BA:2298:A:H62	24:BA:2318:G:H8	1.46	0.62
27:BE:47:VAL:HG11	27:BE:86:PRO:HD3	1.81	0.62
27:BE:60:ASN:OD1	27:BE:62:PRO:HD2	1.99	0.62
27:BE:106:GLY:HA2	27:BE:196:VAL:HG12	1.81	0.62
27:BE:201:THR:HG22	27:BE:203:LYS:N	2.05	0.62
38:BR:136:GLN:HG3	38:BR:137:LYS:H	1.65	0.62
41:BS:1:MET:CE	41:BS:1:MET:HA	2.29	0.62
42:BT:36:LYS:HE2	42:BT:54:VAL:O	1.99	0.62
1:CA:447:G:O6	1:CA:485:G:H2'	1.98	0.62
1:CA:979:C:H3'	1:CA:980:C:C5'	2.27	0.62
1:CA:1298:C:H4'	1:CA:1299:A:C8	2.33	0.62
2:CE:8:LYS:O	2:CE:9:GLU:HB3	1.98	0.62
8:CK:107:LEU:H	8:CK:107:LEU:HD22	1.64	0.62
19:CV:68:GLY:HA3	49:D4:59:PHE:CZ	2.35	0.62
24:DA:1423:G:H2'	24:DA:1424:G:H8	1.63	0.62
24:DA:1907:G:O2'	24:DA:1908:C:H5'	1.99	0.62
24:DA:2199:A:C8	24:DA:2205:C:C5	2.87	0.62
24:DA:2401:U:H2'	24:DA:2402:C:H6	1.63	0.62
24:DA:2420:C:H41	53:D8:31:HIS:HB3	1.64	0.62
26:DD:186:HIS:HD2	26:DD:187:GLY:H	1.47	0.62
26:DD:264:LYS:HG2	26:DD:266:SER:HB3	1.80	0.62
28:DF:79:GLY:HA2	28:DF:86:GLY:HA2	1.81	0.62
28:DF:158:THR:O	28:DF:178:PRO:HD3	1.99	0.62
32:DM:14:VAL:CG1	32:DM:52:VAL:HA	2.29	0.62
34:DO:107:LYS:C	34:DO:109:GLY:H	1.97	0.62
35:DP:6:ARG:HG2	35:DP:7:MET:H	1.63	0.62
43:DU:17:SER:HB2	43:DU:71:LYS:CD	2.17	0.62
49:D4:39:CYS:O	49:D4:40:HIS:HB2	1.97	0.62
1:AA:321:A:C2	1:AA:333:G:C2	2.88	0.62
1:AA:1494:G:O2'	24:BA:1913:A:OP1	2.16	0.62
2:AE:127:ILE:HG23	2:AE:128:GLU:N	2.14	0.62
7:AJ:115:ARG:HG3	7:AJ:116:ALA:N	2.13	0.62
11:AN:32:ILE:HD12	11:AN:72:ALA:HB2	1.79	0.62
19:AV:40:ILE:HG12	19:AV:41:VAL:HB	1.81	0.62
24:BA:1057:A:N7	24:BA:1086:A:H2'	2.14	0.62
24:BA:1209:G:H21	24:BA:1210:A:H62	1.48	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1310:G:C5	24:BA:1311:G:N7	2.68	0.62
24:BA:2126:A:H4'	24:BA:2127:G:O5'	1.99	0.62
24:BA:2210:G:C5'	24:BA:2211:G:N7	2.62	0.62
29:BG:77:ILE:HG21	29:BG:80:PHE:CE1	2.32	0.62
34:BO:85:LEU:HA	34:BO:88:LEU:CD2	2.30	0.62
1:CA:38:G:C2	1:CA:397:A:C2	2.87	0.62
1:CA:194:C:H2'	1:CA:195:A:H5"	1.79	0.62
1:CA:1126:U:O4	1:CA:1281:U:C6	2.53	0.62
1:CA:1226:C:H4'	19:CV:80:TYR:OH	1.98	0.62
1:CA:1239:A:H4'	1:CA:1240:U:C5'	2.27	0.62
1:CA:1492:A:H5"	1:CA:1493:A:OP2	1.99	0.62
5:CH:10:MET:CG	5:CH:32:VAL:HG22	2.26	0.62
5:CH:57:LYS:O	5:CH:61:TYR:CD2	2.52	0.62
9:CL:97:LYS:HB3	9:CL:98:PRO:HD3	1.81	0.62
14:CQ:9:LYS:HA	14:CQ:12:ARG:CZ	2.30	0.62
24:DA:498:G:H21	43:DU:47:LYS:HZ1	1.48	0.62
24:DA:885:C:O2	24:DA:892:G:N2	2.32	0.62
24:DA:1217:C:OP1	39:D1:15:LYS:HE3	1.98	0.62
24:DA:1278:A:H5"	36:D0:36:THR:HG22	1.80	0.62
24:DA:1496:A:H8	24:DA:1577:C:O2'	1.82	0.62
24:DA:2746:U:H2'	24:DA:2747:G:H5'	1.82	0.62
32:DM:98:VAL:HG23	32:DM:99:LEU:N	2.12	0.62
34:DO:112:LEU:H	34:DO:128:HIS:CD2	2.17	0.62
37:DQ:14:VAL:HG21	37:DQ:89:ARG:HG3	1.80	0.62
40:D2:84:LYS:HG3	40:D2:85:LYS:N	2.14	0.62
51:D6:10:LEU:O	51:D6:11:LEU:HD13	1.99	0.62
4:AG:150:GLU:N	4:AG:150:GLU:OE2	2.31	0.62
16:AS:9:PHE:CZ	16:AS:18:ARG:HD2	2.33	0.62
17:AT:13:ASP:OD1	17:AT:14:LYS:NZ	2.31	0.62
24:BA:335:C:O5'	24:BA:335:C:H6	1.82	0.62
24:BA:627:A:H4'	24:BA:628:G:OP1	1.97	0.62
24:BA:1050:A:N7	24:BA:2751:G:N7	2.48	0.62
24:BA:1312:U:H4'	24:BA:1313:U:O5'	1.99	0.62
24:BA:1641:A:H2'	24:BA:1642:G:O4'	1.99	0.62
24:BA:2346:A:H4'	24:BA:2347:C:OP2	1.99	0.62
26:BD:68:LYS:HD2	26:BD:70:TRP:CH2	2.35	0.62
27:BE:197:ILE:CD1	27:BE:199:ARG:HE	2.09	0.62
30:BH:26:VAL:O	30:BH:27:LYS:HB3	1.99	0.62
31:BK:73:GLU:HB2	31:BK:136:VAL:HG12	1.81	0.62
34:BO:50:ARG:HH21	53:B8:59:LYS:CD	2.10	0.62
36:B0:41:ALA:O	36:B0:44:LEU:N	2.31	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BT:41:ASN:O	42:BT:45:THR:HG23	1.99	0.62
44:BV:125:LEU:HG	44:BV:164:ALA:CB	2.30	0.62
1:CA:191:G:H1'	20:CW:104:LEU:O	2.00	0.62
1:CA:382:A:H2'	1:CA:383:A:C8	2.34	0.62
1:CA:1277:C:O2'	1:CA:1279:A:H8	1.82	0.62
4:CG:138:TYR:HD1	4:CG:139:ARG:N	1.97	0.62
7:CJ:69:VAL:CG1	7:CJ:103:TRP:HE3	2.12	0.62
8:CK:49:GLU:HG3	8:CK:51:VAL:CG1	2.29	0.62
9:CL:24:GLY:HA3	9:CL:57:GLY:HA2	1.82	0.62
9:CL:24:GLY:N	9:CL:60:ASP:OD1	2.32	0.62
24:DA:324:A:N6	24:DA:338:G:O2'	2.32	0.62
24:DA:2884:U:H2'	24:DA:2885:C:C5'	2.30	0.62
27:DE:81:ILE:CG2	27:DE:84:PHE:HB3	2.30	0.62
33:DN:14:THR:HG22	33:DN:14:THR:O	1.99	0.62
36:D0:104:ARG:HD2	36:D0:107:ASP:OD2	1.98	0.62
39:D1:91:ASP:O	39:D1:92:ARG:CG	2.44	0.62
42:DT:30:VAL:HG12	42:DT:31:HIS:H	1.64	0.62
51:D6:34:LEU:O	51:D6:35:GLU:HB2	1.98	0.62
1:AA:607:A:O2'	1:AA:608:A:H5'	1.98	0.62
1:AA:685:G:N2	1:AA:686:U:C4	2.68	0.62
1:AA:827:U:H5	1:AA:872:A:H61	1.43	0.62
1:AA:1320:C:H2'	1:AA:1321:C:O4'	1.98	0.62
7:AJ:15:ASP:OD1	7:AJ:44:TYR:OH	2.17	0.62
13:AP:92:HIS:CE1	13:AP:98:VAL:HG21	2.35	0.62
16:AS:68:ASP:OD1	16:AS:71:ARG:NH2	2.33	0.62
20:AW:53:LEU:HB2	20:AW:100:ILE:CG2	2.29	0.62
24:BA:528:A:C2	24:BA:2043:C:H4'	2.35	0.62
24:BA:795:C:H2'	24:BA:796:C:C6	2.34	0.62
24:BA:796:C:H2'	24:BA:797:C:H6	1.61	0.62
24:BA:1065:U:H1'	24:BA:1074:G:N2	2.14	0.62
24:BA:1264:G:H5'	50:B5:11:THR:CG2	2.28	0.62
24:BA:2284:C:C5'	51:B6:28:ARG:HH22	2.05	0.62
24:BA:2402:C:OP1	24:BA:2402:C:H4'	1.98	0.62
29:BG:67:LYS:HD3	49:B4:5:ILE:HG12	1.81	0.62
32:BM:137:LYS:HG3	32:BM:138:LEU:N	2.14	0.62
34:BO:126:VAL:HG22	34:BO:145:PRO:HG2	1.80	0.62
43:BU:39:VAL:HG12	43:BU:40:GLU:N	2.15	0.62
1:CA:1254:C:C5'	10:CM:45:ARG:NH1	2.36	0.62
2:CE:20:GLU:CG	2:CE:191:ASP:HB2	2.29	0.62
2:CE:20:GLU:OE1	2:CE:20:GLU:HA	1.99	0.62
7:CJ:17:VAL:HG12	7:CJ:18:TYR:CD1	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CK:106:GLY:CA	8:CK:122:ARG:NH2	2.61	0.62
13:CP:19:LEU:HD13	13:CP:30:ALA:CB	2.30	0.62
19:CV:22:LEU:HD12	19:CV:27:GLU:HA	1.81	0.62
24:DA:1567:A:OP1	26:DD:60:ARG:NE	2.32	0.62
24:DA:2287:A:OP1	51:D6:30:THR:HG21	1.99	0.62
24:DA:2638:G:O2'	24:DA:2639:A:O5'	2.15	0.62
25:DB:18:G:H2'	25:DB:19:G:C8	2.34	0.62
25:DB:73:A:H2'	25:DB:74:U:H5'	1.80	0.62
39:D1:83:LEU:CD2	39:D1:88:ILE:HG13	2.29	0.62
46:DZ:53:VAL:HG22	46:DZ:74:VAL:CG1	2.30	0.62
52:D7:5:TRP:CD1	52:D7:7:PRO:HG3	2.35	0.62
1:AA:736:C:H2'	1:AA:737:A:C8	2.34	0.62
1:AA:954:G:H2'	1:AA:955:U:C6	2.34	0.62
1:AA:1434:A:H2'	1:AA:1435:G:O4'	1.99	0.62
2:AE:70:PHE:HE1	2:AE:163:PHE:HD2	1.45	0.62
2:AE:71:VAL:CG2	2:AE:164:VAL:HG22	2.30	0.62
2:AE:164:VAL:HB	2:AE:186:ALA:CB	2.29	0.62
10:AM:22:LYS:O	10:AM:22:LYS:HD3	2.00	0.62
19:AV:41:VAL:HA	19:AV:44:MET:HG2	1.82	0.62
19:AV:52:TYR:HA	19:AV:56:GLN:O	1.99	0.62
24:BA:448:U:H1'	28:BF:84:VAL:CG1	2.29	0.62
24:BA:660:G:H21	34:BO:12:ALA:HA	1.65	0.62
24:BA:1598:C:O2'	24:BA:1599:C:H5'	2.00	0.62
24:BA:2287:A:C2	24:BA:2289:G:N9	2.68	0.62
24:BA:2849:U:H1'	24:BA:2866:U:O2	1.99	0.62
32:BM:137:LYS:HG3	32:BM:138:LEU:H	1.63	0.62
35:BP:66:ILE:O	35:BP:104:PHE:N	2.28	0.62
39:B1:79:PHE:O	39:B1:83:LEU:HD13	2.00	0.62
41:BS:76:VAL:CG2	41:BS:101:SER:HB3	2.30	0.62
44:BV:7:ALA:HB2	44:BV:59:LEU:HD21	1.80	0.62
48:BX:6:VAL:HB	48:BX:54:VAL:HG21	1.81	0.62
1:CA:719:C:O2'	18:CU:49:LYS:HB3	1.99	0.62
1:CA:1316:G:N2	1:CA:1319:A:OP2	2.32	0.62
1:CA:1405:G:O4'	1:CA:1519:A:H4'	2.00	0.62
2:CE:6:THR:HB	2:CE:221:LEU:HD13	1.81	0.62
3:CF:106:VAL:O	3:CF:109:PRO:HD3	2.00	0.62
10:CM:28:ARG:HG2	10:CM:28:ARG:NH1	2.12	0.62
24:DA:125:G:H1'	52:D7:13:ALA:HB1	1.81	0.62
24:DA:2127:G:H1	24:DA:2162:G:H1'	1.65	0.62
24:DA:2787:C:O3'	27:DE:61:ARG:NH1	2.33	0.62
24:DA:2850:A:N7	24:DA:2868:A:O2'	2.26	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DF:57:VAL:HG11	28:DF:59:TYR:CD2	2.34	0.62
30:DH:6:ARG:HA	30:DH:69:ARG:HG2	1.81	0.62
34:DO:122:PRO:HB3	34:DO:141:ALA:HB1	1.80	0.62
36:D0:44:LEU:HD22	36:D0:48:VAL:HG23	1.80	0.62
44:DV:51:ALA:HB1	44:DV:57:ILE:HD11	1.82	0.62
49:D4:21:VAL:HG22	49:D4:22:ILE:N	2.10	0.62
1:AA:1118:C:H1'	1:AA:1179:A:C4	2.34	0.62
1:AA:1180:A:OP1	9:AL:103:THR:OG1	2.14	0.62
1:AA:1292:U:H2'	1:AA:1293:G:H8	1.62	0.62
1:AA:1319:A:C5'	19:AV:5:LEU:CD2	2.67	0.62
4:AG:22:LYS:CE	4:AG:26:CYS:CB	2.69	0.62
9:AL:95:LYS:O	9:AL:99:LEU:HD21	2.00	0.62
10:AM:34:VAL:HB	10:AM:73:ASP:O	2.00	0.62
14:AQ:37:PHE:CE1	14:AQ:53:LEU:HD13	2.35	0.62
15:AR:43:LEU:HD12	15:AR:56:LEU:HD22	1.82	0.62
24:BA:278:A:O2'	24:BA:279:C:O4'	2.16	0.62
24:BA:607:U:OP1	28:BF:102:PRO:HA	1.99	0.62
24:BA:654(L):G:OP1	24:BA:654(M):C:N4	2.32	0.62
24:BA:1063:G:H2'	24:BA:1064:C:H6	1.63	0.62
24:BA:2291:U:O2'	24:BA:2374:C:H1'	2.00	0.62
29:BG:112:PRO:CB	49:B4:37:SER:CB	2.61	0.62
30:BH:109:PHE:N	30:BH:109:PHE:CD1	2.67	0.62
49:B4:14:ILE:HG13	49:B4:24:THR:CG2	2.30	0.62
1:CA:1126:U:C4'	1:CA:1127:G:OP2	2.47	0.62
1:CA:1289:A:C5'	21:CX:10:ARG:HH21	2.04	0.62
4:CG:88:VAL:HG22	5:CH:96:PRO:HB2	1.81	0.62
4:CG:170:VAL:HG22	4:CG:171:GLY:H	1.64	0.62
6:CI:14:LEU:H	6:CI:14:LEU:HD12	1.65	0.62
7:CJ:105:VAL:O	7:CJ:108:ALA:HB3	1.99	0.62
7:CJ:111:ARG:HH21	7:CJ:122:HIS:HB3	1.64	0.62
8:CK:106:GLY:CA	8:CK:122:ARG:HH22	2.13	0.62
9:CL:95:LYS:NZ	9:CL:95:LYS:HB2	2.14	0.62
14:CQ:45:ARG:O	14:CQ:49:HIS:HD2	1.83	0.62
20:CW:13:LEU:HD12	20:CW:13:LEU:N	2.15	0.62
24:DA:33:U:H4'	24:DA:34:C:OP1	1.99	0.62
24:DA:265:A:H1'	24:DA:266:G:O4'	1.99	0.62
24:DA:270(K):C:N3	24:DA:270(N):G:N1	2.48	0.62
24:DA:769:G:O2'	24:DA:770:G:H5'	2.00	0.62
24:DA:1203:G:H3'	24:DA:1204:A:H5"	1.82	0.62
24:DA:1241:A:O2'	24:DA:1242:A:H5'	2.00	0.62
26:DD:25:THR:O	26:DD:26:LYS:C	2.38	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DE:55:ASN:C	27:DE:57:LYS:H	2.02	0.62
28:DF:117:ARG:HH12	34:DO:1:MET:H2	1.47	0.62
29:DG:31:VAL:O	29:DG:33:ARG:HG3	1.99	0.62
30:DH:89:ILE:HD12	30:DH:94:TYR:HB2	1.80	0.62
30:DH:155:SER:O	30:DH:156:ALA:HB2	2.00	0.62
35:DP:66:ILE:O	35:DP:67:ARG:HB2	2.00	0.62
1:AA:198:G:H2'	1:AA:199:G:H8	1.64	0.62
1:AA:1025:U:HO2'	1:AA:1026:G:P	2.18	0.62
1:AA:1510:U:H2'	1:AA:1511:G:C8	2.34	0.62
2:AE:22:LYS:HA	2:AE:24:TRP:CD1	2.35	0.62
8:AK:85:ARG:NE	8:AK:87:SER:O	2.33	0.62
13:AP:74:VAL:O	13:AP:78:ILE:HG12	2.00	0.62
24:BA:337:C:H2'	24:BA:338:G:O4'	1.99	0.62
24:BA:947:G:N2	24:BA:971:C:C2	2.67	0.62
24:BA:1045:A:H4'	24:BA:1046:A:H5'	1.81	0.62
24:BA:1070:A:N7	24:BA:1096:A:H2'	2.13	0.62
24:BA:1859:A:N6	24:BA:1883:G:O2'	2.33	0.62
24:BA:1871:A:H2'	24:BA:1872:A:C8	2.34	0.62
24:BA:2163:C:H5"	24:BA:2171:A:H8	1.65	0.62
24:BA:2335:A:O2'	24:BA:2336:A:OP2	2.13	0.62
24:BA:2818:G:O2'	24:BA:2819:G:H5'	2.00	0.62
38:BR:84:GLN:HG3	38:BR:85:LYS:N	2.13	0.62
40:B2:14:VAL:HB	40:B2:96:ILE:HG13	1.81	0.62
49:B4:36:CYS:O	49:B4:39:CYS:CB	2.48	0.62
1:CA:422:C:O2'	1:CA:423:G:C2	2.53	0.62
1:CA:975:A:H5'	1:CA:1363:A:N6	2.15	0.62
1:CA:1027:C:C3'	1:CA:1028:C:H5"	2.30	0.62
3:CF:52:LEU:HD23	3:CF:52:LEU:H	1.65	0.62
4:CG:108:LEU:CD1	4:CG:174:LEU:HD13	2.29	0.62
4:CG:149:ALA:C	4:CG:153:ARG:HG3	2.19	0.62
9:CL:3:GLN:NE2	9:CL:20:ARG:HD2	2.15	0.62
11:CN:95:ILE:HG21	11:CN:108:ILE:HD13	1.81	0.62
12:CO:34:ARG:HG2	12:CO:35:GLY:N	2.14	0.62
24:DA:1022:G:H22	24:DA:1142(A):A:H2	1.44	0.62
24:DA:1171:G:H1'	24:DA:1173:G:P	2.40	0.62
24:DA:1729:A:H1'	24:DA:1730:U:H5	1.65	0.62
24:DA:2439:A:O2'	24:DA:2440:C:OP2	2.16	0.62
27:DE:47:VAL:CG2	27:DE:48:GLN:H	2.08	0.62
29:DG:169:ALA:O	29:DG:173:LEU:HD23	1.99	0.62
34:DO:65:ARG:HB2	34:DO:65:ARG:HH11	1.64	0.62
36:D0:80:PHE:O	36:D0:85:PRO:HD3	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DV:111:VAL:HG13	44:DV:145:GLU:OE2	2.00	0.62
4:AG:31:CYS:CA	4:AG:33:MET:SD	2.88	0.62
5:AH:51:VAL:HB	5:AH:52:PRO:CD	2.20	0.62
8:AK:85:ARG:HH11	8:AK:85:ARG:CG	2.08	0.62
11:AN:91:ARG:NH2	11:AN:92:GLU:HB2	2.14	0.62
15:AR:39:LEU:HD13	15:AR:56:LEU:CD1	2.28	0.62
24:BA:762:U:H4'	24:BA:763:G:O5'	1.99	0.62
24:BA:1021:A:C2'	24:BA:1022:G:H5"	2.30	0.62
24:BA:1139:G:O2'	24:BA:1143:A:N1	2.29	0.62
24:BA:1263:U:O2'	50:B5:11:THR:HG23	2.00	0.62
24:BA:1607:C:C5'	24:BA:1608:A:H5'	2.29	0.62
24:BA:2751:G:C5	30:BH:3:ARG:CD	2.83	0.62
27:BE:2:LYS:HB2	27:BE:95:ILE:CG2	2.30	0.62
27:BE:201:THR:CG2	27:BE:203:LYS:HB3	2.30	0.62
29:BG:48:GLU:HG3	29:BG:49:ASP:N	2.15	0.62
45:B3:11:ARG:O	45:B3:14:ARG:NH2	2.32	0.62
45:B3:12:ASN:HA	45:B3:14:ARG:HH21	1.64	0.62
46:BZ:58:ILE:CD1	46:BZ:86:SER:HB2	2.29	0.62
1:CA:182:U:C4	1:CA:183:G:H1'	2.34	0.62
1:CA:828:A:H2'	1:CA:829:G:O4'	1.99	0.62
1:CA:851:G:H2'	1:CA:852:G:H8	1.65	0.62
1:CA:1118:C:C3'	9:CL:83:ARG:HH22	2.13	0.62
1:CA:1320:C:C1'	19:CV:70:LYS:HE2	2.29	0.62
1:CA:1422:G:O3'	33:DN:49:ARG:NH1	2.32	0.62
3:CF:120:VAL:HA	3:CF:123:GLN:CG	2.25	0.62
4:CG:96:LEU:HB3	4:CG:139:ARG:HH12	1.65	0.62
11:CN:46:GLY:HA2	11:CN:50:TYR:O	1.99	0.62
17:CT:32:TYR:O	17:CT:34:LYS:N	2.31	0.62
24:DA:1049:C:O2'	24:DA:1050:A:H5'	2.00	0.62
24:DA:1439:A:H2'	24:DA:1440:G:H5'	1.82	0.62
24:DA:2286:A:O5'	51:D6:28:ARG:NH1	2.33	0.62
24:DA:2636:U:H4'	27:DE:80:GLU:CD	2.20	0.62
24:DA:2849:U:H4'	24:DA:2868:A:C2	2.35	0.62
25:DB:16:G:H2'	25:DB:17:C:H6	1.65	0.62
27:DE:50:GLY:O	27:DE:51:PHE:HB3	2.00	0.62
30:DH:29:PRO:HG2	30:DH:79:VAL:O	2.00	0.62
31:DK:11:ASN:C	31:DK:12:LEU:HD12	2.20	0.62
51:D6:51:GLU:O	51:D6:52:VAL:HG23	1.98	0.62
1:AA:277:C:C5'	17:AT:68:ARG:HH22	2.13	0.61
1:AA:983:A:H5"	1:AA:984:C:OP2	2.00	0.61
1:AA:992:U:H3	1:AA:1044:A:H62	1.45	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AL:20:ARG:O	9:AL:60:ASP:N	2.19	0.61
13:AP:32:GLU:OE1	13:AP:36:LYS:HG3	2.00	0.61
13:AP:81:LEU:HD11	13:AP:86:CYS:SG	2.40	0.61
22:AC:12:G:H1'	24:BA:1923:U:O2'	1.99	0.61
22:AC:47:U:O2'	22:AC:48:C:P	2.58	0.61
24:BA:270(R):G:H2'	24:BA:270(S):G:C8	2.35	0.61
24:BA:931:G:O2'	48:BX:24:LYS:NZ	2.33	0.61
24:BA:1164:G:H2'	24:BA:1165:U:C6	2.34	0.61
24:BA:1171:G:H2'	24:BA:1174:A:N1	2.15	0.61
24:BA:1537:C:H2'	24:BA:1538:G:C8	2.35	0.61
24:BA:1799:G:O2'	24:BA:1800:C:OP2	2.13	0.61
26:BD:44:ASN:HB2	26:BD:48:ARG:O	1.99	0.61
31:BK:77:LEU:HD12	31:BK:77:LEU:O	2.00	0.61
33:BN:16:ALA:HB2	33:BN:52:VAL:HG21	1.82	0.61
33:BN:71:ARG:HH11	38:BR:74:ARG:NH2	1.97	0.61
36:B0:57:ARG:HB3	36:B0:59:ASP:OD1	1.99	0.61
42:BT:50:LYS:HB3	42:BT:87:GLN:OE1	2.00	0.61
43:BU:50:ARG:C	43:BU:52:SER:H	2.02	0.61
43:BU:101:LYS:HZ3	43:BU:102:CYS:H	1.47	0.61
44:BV:151:HIS:HB3	44:BV:168:GLU:HA	1.81	0.61
50:B5:33:CYS:SG	50:B5:40:LYS:NZ	2.63	0.61
6:CI:74:ASP:O	6:CI:77:ARG:NH1	2.31	0.61
9:CL:58:HIS:HB2	9:CL:59:PHE:CE2	2.34	0.61
9:CL:112:LYS:HD3	9:CL:113:LYS:N	2.15	0.61
12:CO:55:VAL:HG22	12:CO:56:ALA:N	2.14	0.61
24:DA:250:G:P	34:DO:60:MET:HE1	2.40	0.61
24:DA:1012:U:O2	24:DA:1143:A:H2	1.83	0.61
24:DA:2716:U:O2'	24:DA:2717:G:H5'	2.00	0.61
25:DB:66:A:H61	25:DB:108:C:C5'	2.11	0.61
27:DE:25:VAL:HG12	27:DE:26:ILE:N	2.14	0.61
28:DF:18:ARG:HH21	28:DF:20:LEU:CD1	2.03	0.61
28:DF:192:LEU:HD23	28:DF:193:VAL:H	1.65	0.61
29:DG:105:LYS:HE3	29:DG:143:GLU:OE1	2.00	0.61
31:DK:76:THR:HG21	31:DK:140:LEU:HD13	1.82	0.61
37:DQ:101:LEU:C	37:DQ:101:LEU:HD13	2.20	0.61
39:D1:49:HIS:HA	39:D1:52:ARG:HG3	1.82	0.61
41:DS:4:LYS:CB	41:DS:106:ILE:HG22	2.30	0.61
42:DT:50:LYS:CB	42:DT:84:ALA:CB	2.76	0.61
43:DU:17:SER:HB3	43:DU:71:LYS:HB3	1.82	0.61
1:AA:607:A:H2'	1:AA:608:A:O4'	2.00	0.61
1:AA:1126:U:C6	1:AA:1127:G:C8	2.88	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AE:21:ARG:HG2	2:AE:21:ARG:O	2.00	0.61
3:AF:8:ILE:CG2	3:AF:9:GLY:N	2.46	0.61
5:AH:37:ARG:HH12	5:AH:111:GLU:HB3	1.65	0.61
8:AK:104:ARG:HB3	8:AK:107:LEU:HB2	1.82	0.61
10:AM:30:SER:OG	10:AM:84:GLN:HG3	1.99	0.61
20:AW:46:GLU:O	20:AW:48:LYS:HD2	2.00	0.61
24:BA:1021:A:H3'	24:BA:1021:A:H8	1.65	0.61
24:BA:1729:A:H1'	24:BA:1730:U:C5	2.34	0.61
24:BA:1935:G:H1'	24:BA:1964:G:N2	2.14	0.61
24:BA:2097:C:O2'	24:BA:2098:U:H5'	2.00	0.61
24:BA:2401:U:H5'	51:B6:18:ARG:HD3	1.81	0.61
24:BA:2610:C:C4'	24:BA:2611:U:OP2	2.33	0.61
33:BN:71:ARG:HH11	38:BR:74:ARG:HH21	1.48	0.61
43:BU:46:LYS:HE3	43:BU:63:LYS:HG2	1.82	0.61
50:B5:33:CYS:HB2	50:B5:40:LYS:HD2	1.81	0.61
1:CA:969:A:O2'	1:CA:970:C:H5'	2.00	0.61
1:CA:1242:C:O2'	1:CA:1303:C:H5"	2.01	0.61
1:CA:1337:G:H5"	1:CA:1338:G:OP1	2.00	0.61
2:CE:42:ILE:CG2	2:CE:190:THR:HG23	2.28	0.61
3:CF:195:VAL:C	3:CF:196:LEU:HD22	2.20	0.61
4:CG:121:VAL:HG13	4:CG:126:ILE:HD12	1.81	0.61
11:CN:44:SER:H	11:CN:47:VAL:HB	1.65	0.61
19:CV:13:ASP:HA	19:CV:16:LEU:HD13	1.82	0.61
24:DA:128:C:H2'	24:DA:129:C:H6	1.65	0.61
24:DA:943:U:OP2	34:DO:36:LYS:HG3	2.00	0.61
24:DA:1601:G:H5'	52:D7:49:ARG:CD	2.31	0.61
24:DA:1880:C:O2'	24:DA:1881:C:H5'	2.00	0.61
24:DA:1949:G:O2'	24:DA:1950:G:H5'	2.00	0.61
24:DA:1952:A:C5	33:DN:22:ILE:HD12	2.34	0.61
24:DA:2135:A:H3'	24:DA:2136:C:C5	2.35	0.61
28:DF:2:LYS:HD3	28:DF:2:LYS:N	2.14	0.61
33:DN:4:PRO:O	33:DN:5:GLN:CB	2.48	0.61
33:DN:66:LYS:NZ	33:DN:80:ASP:O	2.33	0.61
47:DW:68:ARG:HA	47:DW:72:ALA:CB	2.30	0.61
49:D4:14:ILE:HG23	49:D4:33:VAL:CG2	2.26	0.61
1:AA:1256:A:H4'	1:AA:1257:U:O5'	2.00	0.61
2:AE:90:MET:HA	2:AE:90:MET:CE	2.30	0.61
3:AF:20:SER:HB2	3:AF:40:ARG:HH22	1.65	0.61
3:AF:82:GLU:O	3:AF:86:VAL:HG13	2.00	0.61
4:AG:25:ARG:O	4:AG:27:TYR:N	2.32	0.61
9:AL:9:ARG:HD3	9:AL:14:VAL:CG2	2.30	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AM:28:ARG:NH2	10:AM:34:VAL:O	2.33	0.61
13:AP:12:ASN:H	13:AP:46:LYS:HD3	1.63	0.61
24:BA:26:G:C6	24:BA:27:G:N1	2.68	0.61
24:BA:908:C:C2'	24:BA:909:A:H5'	2.29	0.61
24:BA:1146:C:O2'	24:BA:1147:C:H5'	2.00	0.61
24:BA:2133:G:H1'	24:BA:2158:A:H61	1.66	0.61
27:BE:63:LEU:HB2	27:BE:73:GLU:OE2	2.00	0.61
27:BE:134:ILE:C	27:BE:134:ILE:CD1	2.69	0.61
29:BG:94:LEU:HD23	29:BG:94:LEU:N	2.09	0.61
30:BH:153:LYS:CB	30:BH:154:PRO:HD3	2.30	0.61
31:BK:4:ILE:HD11	31:BK:44:LEU:HD12	1.82	0.61
31:BK:129:THR:HA	31:BK:137:PRO:HA	1.82	0.61
43:BU:77:PRO:O	43:BU:78:ALA:CB	2.49	0.61
44:BV:112:ARG:HG2	44:BV:112:ARG:O	2.00	0.61
47:BW:17:SER:HB2	47:BW:20:GLU:HG3	1.82	0.61
1:CA:438:G:H4'	4:CG:123:HIS:CG	2.34	0.61
1:CA:1367:C:H5'	10:CM:60:ARG:HH21	1.65	0.61
2:CE:12:GLU:HB2	2:CE:15:VAL:CB	2.27	0.61
13:CP:29:ARG:CB	13:CP:64:TRP:CH2	2.82	0.61
19:CV:31:ILE:CG1	19:CV:33:THR:HG22	2.30	0.61
19:CV:38:SER:HB2	19:CV:71:LEU:HD11	1.83	0.61
24:DA:1479:G:O2'	24:DA:1558:A:H5'	2.01	0.61
24:DA:1600:C:O2'	52:D7:49:ARG:HB3	2.00	0.61
24:DA:2286:A:O4'	51:D6:28:ARG:CZ	2.48	0.61
24:DA:2400:G:H2'	24:DA:2401:U:H6	1.62	0.61
26:DD:44:ASN:CB	26:DD:49:ILE:HA	2.19	0.61
26:DD:138:VAL:HA	26:DD:165:ILE:CG2	2.31	0.61
27:DE:11:MET:CA	27:DE:24:THR:HA	2.29	0.61
29:DG:29:TRP:HB3	29:DG:33:ARG:NH1	2.13	0.61
42:DT:8:ILE:HD11	42:DT:43:VAL:HG12	1.82	0.61
43:DU:84:ARG:HH21	43:DU:97:ARG:HB2	1.63	0.61
49:D4:55:ARG:CG	49:D4:56:VAL:H	2.13	0.61
1:AA:163:C:H2'	1:AA:164:U:C6	2.35	0.61
2:AE:135:GLN:O	2:AE:137:ARG:N	2.33	0.61
3:AF:22:TRP:HZ3	3:AF:24:ALA:CB	2.12	0.61
6:AI:28:ARG:O	6:AI:32:ASN:ND2	2.30	0.61
8:AK:9:MET:SD	8:AK:32:LYS:HG3	2.41	0.61
24:BA:662:G:H5'	34:BO:15:ARG:HA	1.82	0.61
24:BA:817:C:H4'	24:BA:932:G:C5	2.36	0.61
24:BA:1813:G:H1'	26:BD:50:THR:OG1	2.00	0.61
24:BA:2442:C:H2'	24:BA:2443:C:H6	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BM:58:ASP:OD1	32:BM:125:GLY:N	2.32	0.61
36:B0:1:MET:O	36:B0:2:ARG:HB2	2.00	0.61
44:BV:52:SER:C	44:BV:54:HIS:H	2.04	0.61
44:BV:150:LEU:CG	44:BV:154:ASP:OD2	2.47	0.61
1:CA:266:G:O3'	17:CT:67:LYS:HB2	2.01	0.61
2:CE:19:HIS:CD2	2:CE:19:HIS:C	2.73	0.61
2:CE:80:ILE:HG21	2:CE:208:ILE:CD1	2.29	0.61
10:CM:48:THR:CB	10:CM:62:HIS:HB3	2.30	0.61
15:CR:6:GLU:N	15:CR:6:GLU:OE1	2.32	0.61
20:CW:8:ARG:O	20:CW:9:ASN:HB2	2.00	0.61
24:DA:1173:G:O2'	24:DA:1174:A:C2	2.49	0.61
24:DA:1505:C:H2'	24:DA:1506:C:C6	2.35	0.61
24:DA:2131:G:H5'	24:DA:2132:U:C5'	2.29	0.61
24:DA:2262:U:H4'	24:DA:2328:A:H2	1.63	0.61
24:DA:2468:G:H8	24:DA:2468:G:OP2	1.82	0.61
24:DA:2532:G:O2'	24:DA:2657:A:N1	2.33	0.61
27:DE:134:ILE:HA	27:DE:137:HIS:HD2	1.64	0.61
30:DH:92:ILE:CG2	30:DH:93:GLY:H	2.02	0.61
32:DM:90:MET:HA	32:DM:90:MET:CE	2.30	0.61
36:D0:52:ILE:C	36:D0:54:LEU:H	2.04	0.61
44:DV:93:ASP:HB2	44:DV:131:ARG:NH1	2.15	0.61
1:AA:17:U:H2'	1:AA:18:C:C6	2.36	0.61
1:AA:193:C:H6	20:AW:57:ARG:HH12	0.68	0.61
1:AA:1113:C:C2'	1:AA:1114:C:H5'	2.31	0.61
3:AF:196:LEU:N	3:AF:196:LEU:HD23	2.16	0.61
4:AG:98:GLU:O	4:AG:103:ASN:ND2	2.33	0.61
5:AH:10:MET:SD	5:AH:13:ILE:HD13	2.40	0.61
7:AJ:113:GLU:HB2	7:AJ:119:ARG:HG3	1.83	0.61
9:AL:9:ARG:HG2	9:AL:14:VAL:CG2	2.30	0.61
16:AS:57:ARG:NH2	16:AS:79:VAL:HA	2.15	0.61
19:AV:28:LYS:CE	19:AV:47:HIS:CA	2.53	0.61
24:BA:2:G:H2'	24:BA:3:U:C6	2.35	0.61
24:BA:337:C:C2	24:BA:338:G:H1'	2.35	0.61
24:BA:1326:U:C2'	24:BA:1327:C:H5'	2.30	0.61
24:BA:1335:U:P	42:BT:65:ARG:HE	2.23	0.61
24:BA:1748:G:H2'	24:BA:1749:A:C8	2.35	0.61
24:BA:2331:G:H4'	45:B3:43:THR:H	1.65	0.61
24:BA:2563:U:H1'	24:BA:2566:A:N6	2.15	0.61
24:BA:2817:G:OP1	36:B0:99:LYS:NZ	2.29	0.61
28:BF:63:LYS:HE2	28:BF:67:GLN:HB2	1.80	0.61
29:BG:46:ALA:HB1	29:BG:52:ILE:CG2	2.28	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BQ:112:PHE:CD1	37:BQ:112:PHE:C	2.73	0.61
40:B2:38:LEU:HD22	40:B2:52:VAL:HG22	1.82	0.61
51:B6:20:ASN:O	51:B6:21:TYR:CB	2.49	0.61
1:CA:713:G:H2'	1:CA:714:G:C8	2.36	0.61
1:CA:1118:C:H2'	1:CA:1119:C:H6	1.65	0.61
4:CG:200:GLU:HG3	4:CG:201:GLN:N	2.16	0.61
5:CH:13:ILE:H	5:CH:13:ILE:HD13	1.65	0.61
8:CK:84:ARG:HG2	8:CK:85:ARG:N	2.15	0.61
12:CO:55:VAL:HG22	12:CO:56:ALA:H	1.65	0.61
22:CC:20:U:H3'	22:CC:21:A:H5'	1.83	0.61
24:DA:867:C:C5	24:DA:868:U:C5	2.89	0.61
24:DA:2166:G:O2'	24:DA:2167:U:OP1	2.10	0.61
24:DA:2864:G:OP1	38:DR:119:LYS:HD3	2.00	0.61
24:DA:2875:C:O2'	38:DR:5:ALA:HB3	2.00	0.61
26:DD:28:GLU:CB	26:DD:29:PRO:CD	2.76	0.61
26:DD:35:LYS:HB3	26:DD:64:ILE:HG22	1.81	0.61
36:D0:70:LEU:O	36:D0:72:ASP:N	2.32	0.61
37:DQ:65:VAL:HA	37:DQ:68:GLN:HE22	1.65	0.61
52:D7:10:ARG:O	52:D7:14:LYS:HG2	2.00	0.61
1:AA:277:C:H5"	17:AT:68:ARG:HH22	1.64	0.61
1:AA:592:G:H2'	1:AA:593:G:H8	1.64	0.61
1:AA:724:G:O2'	1:AA:725:G:H5'	2.01	0.61
1:AA:735:C:H5'	18:AU:71:LYS:HD3	1.83	0.61
1:AA:1381:U:O2	7:AJ:79:ARG:CG	2.48	0.61
2:AE:60:ASP:O	2:AE:64:ARG:HG2	2.01	0.61
3:AF:54:ARG:NH1	3:AF:56:ASP:OD1	2.33	0.61
6:AI:15:ASP:OD2	6:AI:17:SER:HB2	1.99	0.61
10:AM:25:GLU:O	10:AM:29:ARG:HG2	2.01	0.61
16:AS:49:LEU:HD12	16:AS:50:LYS:H	1.66	0.61
19:AV:16:LEU:HD11	19:AV:20:LEU:CD1	2.31	0.61
19:AV:30:LEU:HA	19:AV:48:THR:HB	1.81	0.61
24:BA:1049:C:C4	30:BH:3:ARG:NH2	2.58	0.61
24:BA:1728:G:N2	24:BA:1730:U:OP2	2.34	0.61
24:BA:2287:A:N6	24:BA:2344:U:N3	2.41	0.61
24:BA:2432:A:C5	46:BZ:33:LYS:HG2	2.35	0.61
24:BA:2566:A:H4'	24:BA:2567:G:O5'	1.99	0.61
36:B0:84:ALA:HB3	36:B0:85:PRO:CD	2.30	0.61
39:B1:92:ARG:C	39:B1:94:ASN:H	2.04	0.61
44:BV:120:ILE:HG22	44:BV:121:HIS:HB2	1.83	0.61
47:BW:25:VAL:HG13	47:BW:57:ILE:HG23	1.83	0.61
49:B4:10:VAL:HG13	49:B4:11:PRO:HD2	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:B6:44:ARG:HD3	51:B6:44:ARG:N	2.16	0.61
1:CA:559:A:N3	1:CA:559:A:H2'	2.15	0.61
1:CA:690:G:H2'	1:CA:691:G:O4'	2.01	0.61
1:CA:833:U:O2'	1:CA:834:C:H5'	2.01	0.61
1:CA:957:U:C4'	19:CV:79:THR:CG2	2.66	0.61
1:CA:1127:G:H2'	1:CA:1128:C:C6	2.36	0.61
1:CA:1320:C:O2'	1:CA:1321:C:H5'	2.00	0.61
3:CF:120:VAL:CG2	3:CF:140:ARG:HH22	2.13	0.61
4:CG:60:GLU:HG2	4:CG:202:LEU:HB2	1.82	0.61
7:CJ:69:VAL:HG12	7:CJ:103:TRP:HE3	1.65	0.61
7:CJ:115:ARG:O	7:CJ:119:ARG:HG3	2.01	0.61
8:CK:103:VAL:HG21	8:CK:109:ILE:CA	2.30	0.61
9:CL:6:GLY:O	9:CL:17:VAL:HG23	2.01	0.61
9:CL:17:VAL:HG21	9:CL:80:GLY:CA	2.29	0.61
10:CM:32:ALA:HA	10:CM:76:ASN:ND2	2.13	0.61
10:CM:82:ILE:CG2	10:CM:86:MET:HE1	2.30	0.61
13:CP:79:LYS:HE3	13:CP:83:ASP:OD2	2.01	0.61
24:DA:273(C):C:H3'	24:DA:273(D):C:H5"	1.83	0.61
24:DA:955:C:H2'	24:DA:956:G:H5'	1.82	0.61
24:DA:1140:C:H5'	32:DM:24:GLY:HA3	1.81	0.61
26:DD:27:THR:HG21	26:DD:83:GLU:HG2	1.81	0.61
29:DG:17:PRO:HA	29:DG:20:ILE:HD12	1.81	0.61
30:DH:35:VAL:CG1	30:DH:71:LEU:HD21	2.31	0.61
30:DH:103:LEU:HD23	30:DH:103:LEU:H	1.66	0.61
31:DK:131:LYS:HB3	31:DK:132:PRO:CA	2.26	0.61
37:DQ:74:ALA:CB	37:DQ:107:GLU:HB2	2.31	0.61
44:DV:151:HIS:HA	44:DV:170:THR:HA	1.82	0.61
46:DZ:96:LYS:O	46:DZ:97:LEU:HB2	1.99	0.61
53:D8:23:VAL:CG2	53:D8:48:PHE:N	2.64	0.61
1:AA:74:C:N3	1:AA:96:G:N2	2.46	0.61
1:AA:246:A:OP1	17:AT:100:LYS:HD3	2.01	0.61
1:AA:1027:C:C4'	1:AA:1028:C:OP1	2.48	0.61
2:AE:162:ILE:HD12	2:AE:162:ILE:O	2.00	0.61
19:AV:41:VAL:HG23	19:AV:44:MET:C	2.21	0.61
20:AW:63:ILE:HG22	20:AW:77:ALA:HB1	1.81	0.61
24:BA:688:U:H5'	24:BA:1780:A:C2	2.35	0.61
24:BA:994:C:O2	40:B2:10:LYS:HE2	2.00	0.61
24:BA:1045:A:C8	24:BA:1047:G:C2	2.89	0.61
30:BH:50:VAL:O	30:BH:50:VAL:HG12	1.99	0.61
36:B0:52:ILE:O	36:B0:55:ALA:N	2.32	0.61
37:BQ:36:TYR:N	37:BQ:36:TYR:CD1	2.68	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BT:50:LYS:N	42:BT:87:GLN:HE22	1.98	0.61
1:CA:40:C:H42	1:CA:402:G:H1	1.49	0.61
1:CA:256:U:OP1	17:CT:17:LYS:NZ	2.30	0.61
1:CA:392:G:C5'	16:CS:12:LYS:HZ1	2.13	0.61
1:CA:430:A:H2'	1:CA:431:A:O4'	2.01	0.61
1:CA:1027:C:H2'	1:CA:1028:C:C6	2.36	0.61
1:CA:1299:A:C6	1:CA:1301:U:C2	2.88	0.61
1:CA:1320:C:C1'	19:CV:70:LYS:CE	2.77	0.61
2:CE:78:GLN:O	2:CE:94:ASN:ND2	2.33	0.61
2:CE:91:PRO:HG3	2:CE:154:LEU:CB	2.31	0.61
2:CE:100:GLY:HA3	2:CE:104:ASN:HB2	1.82	0.61
2:CE:101:MET:HA	2:CE:108:ILE:HG13	1.81	0.61
5:CH:41:VAL:HG23	5:CH:67:VAL:HG11	1.82	0.61
19:CV:70:LYS:NZ	19:CV:73:GLU:CA	2.64	0.61
24:DA:71:A:N1	42:DT:31:HIS:HE1	1.98	0.61
24:DA:856:C:O2'	24:DA:857:C:OP1	2.18	0.61
24:DA:872:A:O2'	35:DP:66:ILE:HD11	2.00	0.61
24:DA:1027:A:C2	24:DA:2488:A:H5'	2.36	0.61
24:DA:1508:A:H4'	24:DA:1510:A:N1	2.15	0.61
25:DB:33:G:C6	25:DB:34:U:C4	2.88	0.61
26:DD:34:VAL:O	26:DD:35:LYS:CG	2.38	0.61
29:DG:15:VAL:HG21	29:DG:176:LEU:HD23	1.82	0.61
30:DH:95:ARG:O	30:DH:96:ALA:HB3	2.00	0.61
31:DK:56:LYS:O	31:DK:60:GLU:HG2	2.00	0.61
34:DO:64:LYS:O	34:DO:64:LYS:HG3	2.01	0.61
34:DO:65:ARG:HB2	34:DO:65:ARG:NH1	2.15	0.61
45:D3:81:VAL:O	45:D3:83:PRO:HD3	2.01	0.61
1:AA:1190:G:H5'	3:AF:176:HIS:CE1	2.36	0.61
1:AA:1195:C:O3'	55:AA:1833:TAC:N21	2.34	0.61
4:AG:161:ASN:O	4:AG:165:MET:HG2	2.01	0.61
24:BA:270(N):G:H21	31:BK:50:ARG:HH21	1.46	0.61
24:BA:1056:G:H21	24:BA:1103:A:H62	1.49	0.61
24:BA:1359:A:N1	24:BA:1372:U:C4	2.67	0.61
24:BA:1541:U:O2'	24:BA:1542:G:H5'	2.01	0.61
24:BA:1778:U:H2'	24:BA:1784:A:H62	1.66	0.61
24:BA:2163:C:OP2	24:BA:2164:C:N4	2.34	0.61
24:BA:2394:C:OP1	34:BO:62:LEU:HG	2.01	0.61
24:BA:2418:A:O2'	51:B6:21:TYR:OH	2.18	0.61
24:BA:2502:G:H5'	24:BA:2503:A:C5'	2.30	0.61
28:BF:176:LEU:HD21	28:BF:180:GLY:O	2.01	0.61
30:BH:58:GLU:HB2	30:BH:61:HIS:ND1	2.16	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:B1:91:ASP:C	39:B1:93:LYS:H	2.04	0.61
40:B2:38:LEU:HD23	40:B2:40:LEU:H	1.66	0.61
47:BW:28:LYS:HB3	47:BW:53:LEU:HD21	1.83	0.61
51:B6:18:ARG:O	51:B6:18:ARG:HD2	2.00	0.61
1:CA:6:G:H4'	1:CA:298:A:H4'	1.81	0.61
1:CA:1117:G:O3'	9:CL:104:ARG:CD	2.48	0.61
1:CA:1208:C:H2'	1:CA:1209:C:C6	2.36	0.61
2:CE:95:GLN:HB2	2:CE:148:TYR:HD2	1.65	0.61
3:CF:129:ALA:O	3:CF:133:ALA:N	2.29	0.61
4:CG:83:SER:HA	4:CG:89:THR:HG23	1.83	0.61
8:CK:119:LEU:HD21	8:CK:124:ALA:CA	2.31	0.61
9:CL:64:THR:HG23	9:CL:64:THR:O	2.00	0.61
10:CM:82:ILE:HG22	10:CM:86:MET:CE	2.31	0.61
12:CO:102:ARG:HB3	12:CO:109:GLY:HA2	1.82	0.61
13:CP:3:ARG:NH2	29:DG:139:LEU:HD11	2.15	0.61
13:CP:8:GLU:OE2	13:CP:22:ILE:HG23	2.01	0.61
13:CP:22:ILE:HB	13:CP:25:ILE:CG1	2.30	0.61
13:CP:48:LEU:HD11	13:CP:53:VAL:HG12	1.83	0.61
13:CP:79:LYS:HD3	13:CP:79:LYS:C	2.20	0.61
17:CT:53:LEU:H	17:CT:53:LEU:HD12	1.65	0.61
24:DA:322:A:H3'	28:DF:169:ASN:ND2	2.15	0.61
24:DA:1046:A:H3'	24:DA:1046:A:N3	2.16	0.61
24:DA:1319:G:C6	24:DA:1320:C:N4	2.69	0.61
24:DA:1654:A:C5'	36:D0:2:ARG:HH21	2.14	0.61
28:DF:21:ALA:C	28:DF:23:ASP:H	2.04	0.61
29:DG:161:THR:HG22	29:DG:162:THR:N	2.16	0.61
29:DG:172:LEU:O	29:DG:176:LEU:HG	1.99	0.61
36:D0:34:ILE:CG2	36:D0:114:VAL:HB	2.30	0.61
37:DQ:25:ARG:CG	37:DQ:88:ASP:HB2	2.30	0.61
41:DS:95:ILE:HG13	41:DS:95:ILE:O	1.98	0.61
43:DU:52:SER:OG	43:DU:56:PRO:HA	2.01	0.61
44:DV:135:GLU:HG3	44:DV:136:PHE:HD1	1.65	0.61
1:AA:332:G:OP2	20:AW:10:LEU:HD22	2.01	0.61
1:AA:501:C:H2'	1:AA:502:G:H8	1.66	0.61
1:AA:734:G:H21	18:AU:75:ILE:CD1	2.14	0.61
2:AE:5:ILE:CG2	2:AE:221:LEU:HD23	2.31	0.61
6:AI:48:LEU:HD21	6:AI:60:PHE:HZ	1.65	0.61
19:AV:41:VAL:HG23	19:AV:45:VAL:N	2.16	0.61
24:BA:442:G:O4'	28:BF:46:ARG:HD3	2.01	0.61
24:BA:533:G:N2	39:B1:45:TYR:CE2	2.69	0.61
24:BA:910:A:H62	35:BP:12:GLN:HA	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2751:G:C1'	24:BA:2752:C:OP1	2.47	0.61
24:BA:2829:C:H5"	27:BE:76:ARG:HH22	1.65	0.61
26:BD:148:GLU:HB2	26:BD:151:LYS:HD2	1.82	0.61
26:BD:218:ARG:HB3	26:BD:219:PRO:HD2	1.83	0.61
29:BG:36:LYS:HD2	29:BG:160:VAL:CG2	2.28	0.61
29:BG:82:LEU:H	29:BG:86:MET:HE3	1.65	0.61
36:B0:30:THR:HG22	36:B0:31:HIS:ND1	2.15	0.61
37:BQ:78:LEU:O	37:BQ:78:LEU:HD23	2.01	0.61
1:CA:250:A:H1'	1:CA:251:G:P	2.40	0.61
1:CA:447:G:C6	1:CA:485:G:H2'	2.35	0.61
1:CA:485:G:H1'	1:CA:486:U:C5	2.33	0.61
1:CA:1234:C:H1'	1:CA:1364:U:O2	2.01	0.61
2:CE:15:VAL:HG12	2:CE:16:HIS:CD2	2.35	0.61
4:CG:10:ARG:NH1	4:CG:10:ARG:HG2	2.15	0.61
5:CH:9:LYS:HB2	5:CH:112:LEU:HD21	1.82	0.61
5:CH:67:VAL:CG2	5:CH:69:VAL:HG23	2.25	0.61
13:CP:80:ARG:CD	49:D4:55:ARG:HD3	2.30	0.61
19:CV:28:LYS:NZ	19:CV:30:LEU:H	1.95	0.61
24:DA:1171:G:H1'	24:DA:1173:G:OP1	2.01	0.61
24:DA:1586:A:C2	24:DA:1587:A:C5	2.89	0.61
24:DA:1899:G:H2'	24:DA:1900:A:OP2	2.01	0.61
26:DD:30:GLU:O	26:DD:31:LYS:HB3	1.99	0.61
26:DD:40:THR:HG22	26:DD:41:GLY:O	2.01	0.61
27:DE:44:TYR:O	27:DE:45:THR:HB	2.01	0.61
27:DE:104:VAL:CG1	27:DE:188:VAL:HG23	2.30	0.61
28:DF:65:TRP:O	28:DF:67:GLN:N	2.33	0.61
30:DH:94:TYR:CE1	30:DH:107:VAL:HA	2.36	0.61
31:DK:56:LYS:C	31:DK:56:LYS:HD2	2.21	0.61
31:DK:109:ILE:HD13	31:DK:109:ILE:N	2.16	0.61
40:D2:22:VAL:HG22	40:D2:23:GLU:H	1.63	0.61
47:DW:24:LEU:HD22	47:DW:60:LEU:HD21	1.82	0.61
51:D6:36:LEU:O	51:D6:37:ARG:HB2	2.00	0.61
1:AA:595:G:O6	1:AA:641:U:O2'	2.16	0.61
1:AA:625:G:H4'	16:AS:16:HIS:CD2	2.36	0.61
1:AA:1133:G:H2'	1:AA:1134:G:C8	2.35	0.61
1:AA:1314:C:H41	19:AV:5:LEU:HA	1.65	0.61
2:AE:200:ILE:HD12	2:AE:200:ILE:N	2.16	0.61
4:AG:22:LYS:CB	4:AG:26:CYS:H	2.13	0.61
10:AM:7:LYS:HB2	10:AM:97:GLU:HB2	1.82	0.61
24:BA:274:G:N1	24:BA:276:A:N1	2.49	0.61
24:BA:1221:C:H2'	24:BA:1222:C:C6	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1265:A:OP1	24:BA:1265:A:H8	1.83	0.61
24:BA:2030:A:H5"	24:BA:2031:A:OP1	2.01	0.61
26:BD:18:VAL:CG1	26:BD:19:ALA:N	2.64	0.61
27:BE:37:ARG:HE	27:BE:37:ARG:N	1.99	0.61
30:BH:4:ILE:CG1	30:BH:6:ARG:CZ	2.78	0.61
30:BH:151:ILE:HG22	30:BH:153:LYS:HE2	1.83	0.61
43:BU:75:ILE:C	43:BU:81:LYS:HE3	2.20	0.61
43:BU:75:ILE:O	43:BU:76:CYS:HB2	1.99	0.61
44:BV:45:ASP:O	44:BV:49:ARG:HG2	2.01	0.61
46:BZ:89:GLU:C	46:BZ:93:GLU:OE2	2.39	0.61
1:CA:509:A:O2'	1:CA:510:A:OP1	2.18	0.61
1:CA:1188:A:H4'	14:CQ:58:LYS:NZ	2.16	0.61
1:CA:1320:C:N3	1:CA:1321:C:C2	2.69	0.61
1:CA:1322:C:O2'	1:CA:1323:G:O5'	2.12	0.61
3:CF:66:VAL:HB	3:CF:101:LEU:HD12	1.83	0.61
3:CF:102:ASN:O	3:CF:103:VAL:HG23	2.01	0.61
9:CL:93:ARG:HE	9:CL:102:LEU:CD2	2.13	0.61
22:CC:18:G:H1'	22:CC:58:A:H2	1.66	0.61
24:DA:909:A:O2'	24:DA:910:A:H5"	2.01	0.61
24:DA:2345:G:H5"	51:D6:39:TYR:CZ	2.36	0.61
24:DA:2401:U:H2'	24:DA:2402:C:C6	2.36	0.61
25:DB:12:C:O2'	45:D3:74:ARG:HG2	2.01	0.61
28:DF:127:GLU:HB2	28:DF:196:LEU:HD23	1.82	0.61
31:DK:79:ILE:CG2	31:DK:142:VAL:HG23	2.30	0.61
33:DN:96:THR:O	33:DN:117:LEU:HD11	2.01	0.61
41:DS:75:TYR:CZ	41:DS:104:THR:HG21	2.36	0.61
44:DV:54:HIS:CG	44:DV:101:PRO:HD3	2.36	0.61
1:AA:251:G:N2	1:AA:253:U:C5	2.69	0.60
1:AA:1033:G:C2'	1:AA:1034:G:H5'	2.31	0.60
1:AA:1287:A:P	21:AX:26:LYS:HZ2	2.24	0.60
1:AA:1336:C:HO2'	1:AA:1337:G:P	2.24	0.60
2:AE:21:ARG:HH11	2:AE:39:ILE:HG12	1.65	0.60
3:AF:11:ARG:HH11	3:AF:11:ARG:HG2	1.66	0.60
8:AK:20:TYR:CE2	8:AK:75:ARG:HB3	2.32	0.60
11:AN:103:LEU:N	11:AN:103:LEU:HD22	2.16	0.60
24:BA:978:G:C2'	24:BA:979:G:H5'	2.30	0.60
24:BA:1416:G:C2'	24:BA:1417:C:C6	2.82	0.60
24:BA:1590:U:H2'	24:BA:1591:G:C8	2.35	0.60
24:BA:2110:G:C3'	24:BA:2111:C:H5"	2.20	0.60
24:BA:2140:C:O2'	24:BA:2141:G:H5'	2.01	0.60
24:BA:2327:A:H2'	24:BA:2328:A:C8	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2472:G:H22	24:BA:2477:C:H5"	1.66	0.60
30:BH:109:PHE:N	30:BH:109:PHE:HD1	1.99	0.60
31:BK:79:ILE:HD11	31:BK:100:ALA:CB	2.31	0.60
36:B0:36:THR:CG2	36:B0:37:THR:H	1.97	0.60
37:BQ:23:ARG:NH2	37:BQ:84:GLN:OE1	2.34	0.60
39:B1:49:HIS:HA	39:B1:52:ARG:HG2	1.81	0.60
46:BZ:67:ILE:N	46:BZ:68:PRO:HD2	2.16	0.60
53:B8:14:VAL:HG21	53:B8:22:VAL:HG13	1.83	0.60
1:CA:255:G:H1'	17:CT:16:GLN:CD	2.21	0.60
1:CA:854:G:C2	1:CA:855:G:C8	2.89	0.60
1:CA:1028(A):C:N4	1:CA:1028(B):C:H41	1.99	0.60
3:CF:14:ILE:HG12	3:CF:15:THR:N	2.16	0.60
3:CF:73:PRO:HB2	3:CF:77:ILE:HD12	1.83	0.60
4:CG:105:VAL:HG13	4:CG:110:PHE:HB2	1.83	0.60
8:CK:14:ARG:O	8:CK:18:ARG:HG2	2.01	0.60
10:CM:81:THR:HG22	10:CM:84:GLN:NE2	2.16	0.60
13:CP:34:LEU:O	13:CP:38:GLY:N	2.34	0.60
21:CX:7:ARG:CG	21:CX:7:ARG:NH1	2.49	0.60
24:DA:191:A:H2'	24:DA:192:C:C6	2.36	0.60
24:DA:336:C:H5"	43:DU:6:HIS:HD2	1.66	0.60
24:DA:995:C:N4	32:DM:2:LYS:CG	2.62	0.60
24:DA:1176:G:H2'	24:DA:1177:A:OP2	2.00	0.60
24:DA:2321:G:H2'	24:DA:2321:G:N3	2.16	0.60
27:DE:116:VAL:HG22	27:DE:117:MET:N	2.16	0.60
28:DF:181:LEU:HD11	28:DF:194:MET:CE	2.31	0.60
33:DN:2:ILE:HD12	33:DN:8:LEU:HD11	1.82	0.60
44:DV:151:HIS:N	44:DV:154:ASP:OD2	2.34	0.60
49:D4:1:MET:HG2	49:D4:2:LYS:N	2.15	0.60
1:AA:644:G:O2'	1:AA:645:C:H5'	2.01	0.60
1:AA:947:G:H4'	13:AP:109:THR:HG23	1.82	0.60
4:AG:19:LEU:CD2	4:AG:19:LEU:N	2.64	0.60
4:AG:101:LEU:HD23	4:AG:121:VAL:HG11	1.82	0.60
9:AL:48:GLU:N	9:AL:49:PRO:CD	2.63	0.60
10:AM:24:VAL:HG23	10:AM:34:VAL:CG2	2.31	0.60
20:AW:72:LEU:CD2	20:AW:76:ALA:HB3	2.31	0.60
24:BA:1057:A:C2'	24:BA:1058:U:C6	2.83	0.60
24:BA:2133:G:H1'	24:BA:2158:A:N6	2.16	0.60
28:BF:201:VAL:HG13	28:BF:202:PHE:N	2.16	0.60
31:BK:144:VAL:O	31:BK:145:VAL:CG2	2.45	0.60
32:BM:114:ARG:O	32:BM:115:ARG:CB	2.49	0.60
37:BQ:27:SER:HA	37:BQ:88:ASP:HB2	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:B2:65:GLY:HA3	40:B2:91:TYR:CZ	2.36	0.60
43:BU:81:LYS:NZ	43:BU:96:ILE:HG21	2.16	0.60
48:BX:8:LEU:HD22	48:BX:31:LEU:HD22	1.83	0.60
53:B8:8:LYS:O	53:B8:12:LYS:HG3	2.00	0.60
1:CA:186(F):C:H2'	1:CA:187:C:O4'	2.01	0.60
1:CA:1095:U:OP2	1:CA:1108:G:N1	2.31	0.60
3:CF:140:ARG:HG3	3:CF:141:VAL:HG23	1.81	0.60
16:CS:1:MET:HE1	16:CS:65:GLN:HB2	1.82	0.60
24:DA:1519:G:C2'	24:DA:1520:U:H5'	2.31	0.60
26:DD:77:ALA:CB	26:DD:97:TYR:HA	2.31	0.60
29:DG:28:VAL:O	29:DG:31:VAL:HG22	2.01	0.60
30:DH:12:PRO:HB2	30:DH:15:VAL:HG22	1.82	0.60
31:DK:76:THR:HG23	31:DK:140:LEU:CD1	2.30	0.60
34:DO:105:LEU:HD12	34:DO:105:LEU:N	2.16	0.60
35:DP:132:VAL:HG21	44:DV:81:ARG:HH21	1.65	0.60
39:D1:30:LYS:HE3	50:D5:13:LYS:NZ	2.15	0.60
1:AA:669:U:O2'	1:AA:670:G:H5'	2.01	0.60
1:AA:974:A:P	14:AQ:41:ARG:HH12	2.23	0.60
1:AA:1190:G:OP1	3:AF:4:LYS:HA	2.01	0.60
4:AG:4:TYR:OH	4:AG:7:PRO:O	2.16	0.60
7:AJ:5:ARG:HD2	7:AJ:7:ALA:H	1.64	0.60
9:AL:17:VAL:CG1	9:AL:81:ILE:HD13	2.31	0.60
9:AL:66:ARG:HG3	9:AL:66:ARG:NH1	2.17	0.60
10:AM:16:LEU:HD12	10:AM:70:ARG:HE	1.65	0.60
24:BA:222:A:H3'	24:BA:421:U:C5'	2.31	0.60
24:BA:444:C:H4'	28:BF:49:ALA:HB2	1.82	0.60
24:BA:1068:G:H1'	24:BA:1096:A:H1'	1.82	0.60
24:BA:2160:G:H2'	24:BA:2161:C:O4'	2.00	0.60
24:BA:2537:U:H2'	24:BA:2538:C:H6	1.66	0.60
24:BA:2784:C:O2'	27:BE:37:ARG:NH1	2.34	0.60
26:BD:164:GLN:O	26:BD:175:LEU:HD23	2.02	0.60
30:BH:70:THR:O	30:BH:74:ASN:ND2	2.34	0.60
44:BV:170:THR:C	44:BV:171:ILE:HG12	2.22	0.60
1:CA:89:U:O2'	1:CA:90:C:O5'	2.20	0.60
1:CA:616:G:N3	1:CA:617:G:C8	2.69	0.60
1:CA:628:G:O2'	1:CA:629:G:H5'	2.00	0.60
1:CA:689:C:H2'	1:CA:690:G:C5'	2.31	0.60
1:CA:973:G:H3'	1:CA:974:A:H5"	1.83	0.60
1:CA:1014:A:H4'	19:CV:15:LEU:HD21	1.82	0.60
2:CE:68:ILE:H	2:CE:90:MET:CE	2.14	0.60
3:CF:180:ALA:O	3:CF:181:ASN:HB3	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CK:20:TYR:CZ	8:CK:75:ARG:HB3	2.36	0.60
10:CM:54:PHE:CZ	10:CM:55:LYS:CE	2.83	0.60
24:DA:895:U:H4'	24:DA:896:A:C4	2.36	0.60
26:DD:97:TYR:HB2	26:DD:101:GLU:O	2.01	0.60
28:DF:124:LEU:O	28:DF:124:LEU:HG	2.01	0.60
30:DH:3:ARG:CG	30:DH:4:ILE:N	2.39	0.60
30:DH:120:GLY:O	30:DH:121:ILE:HD13	2.02	0.60
37:DQ:74:ALA:HB1	37:DQ:107:GLU:CG	2.31	0.60
40:D2:64:HIS:HD2	40:D2:92:THR:HG23	1.66	0.60
1:AA:77:C:H2'	1:AA:78:G:C8	2.35	0.60
1:AA:162:A:H3'	1:AA:163:C:C4'	2.31	0.60
1:AA:1382:C:C6	7:AJ:79:ARG:NH1	2.64	0.60
3:AF:23:TYR:CD1	3:AF:24:ALA:N	2.69	0.60
7:AJ:115:ARG:CG	7:AJ:116:ALA:N	2.64	0.60
9:AL:26:VAL:HG13	9:AL:61:ALA:HB3	1.83	0.60
16:AS:49:LEU:O	16:AS:50:LYS:HG3	2.00	0.60
19:AV:67:VAL:HG12	49:B4:63:TYR:HE2	1.66	0.60
24:BA:78:A:H2'	24:BA:79:G:H8	1.66	0.60
24:BA:142:G:H1'	42:BT:37:THR:HG21	1.82	0.60
24:BA:1126:A:H4'	24:BA:1127:A:O5'	2.01	0.60
24:BA:1432:C:H2'	24:BA:1433:U:O4'	2.00	0.60
24:BA:1855:G:N1	24:BA:1888:G:C8	2.69	0.60
24:BA:2156:G:C6	24:BA:2157:G:N2	2.70	0.60
24:BA:2168:G:H2'	24:BA:2169:A:OP1	2.01	0.60
26:BD:70:TRP:O	26:BD:73:VAL:HG23	2.00	0.60
28:BF:161:GLU:O	28:BF:165:ARG:HG3	2.01	0.60
30:BH:94:TYR:CD1	30:BH:107:VAL:HA	2.37	0.60
33:BN:67:LYS:HE3	33:BN:68:GLU:OE1	2.00	0.60
35:BP:26:TYR:HD2	35:BP:140:ALA:HB3	1.65	0.60
50:B5:20:ARG:HG2	50:B5:23:HIS:CD2	2.37	0.60
1:CA:451:A:C6	1:CA:481:G:N7	2.70	0.60
1:CA:474:G:H5"	16:CS:81:ARG:CZ	2.32	0.60
1:CA:1034:G:H2'	1:CA:1035:A:H8	1.66	0.60
1:CA:1152:A:OP1	10:CM:68:HIS:NE2	2.31	0.60
2:CE:33:TYR:HB2	2:CE:43:ASP:CA	2.31	0.60
3:CF:18:TRP:NE1	14:CQ:53:LEU:O	2.33	0.60
8:CK:51:VAL:HG21	8:CK:60:ARG:NH1	2.16	0.60
24:DA:363(E):U:H5'	24:DA:363(F):A:OP2	2.01	0.60
24:DA:586:A:H5'	28:DF:89:VAL:HG21	1.83	0.60
24:DA:888:C:H1'	24:DA:889:C:OP2	2.00	0.60
24:DA:1042:G:H2'	24:DA:1043:C:C6	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1210:A:H5'	24:DA:1212:G:O4'	2.01	0.60
24:DA:2315:G:OP1	29:DG:36:LYS:NZ	2.32	0.60
24:DA:2335:A:C8	24:DA:2337:G:C5	2.88	0.60
24:DA:2532:G:N2	24:DA:2663:G:O2'	2.34	0.60
24:DA:2774:C:H2'	24:DA:2775:A:O4'	2.01	0.60
27:DE:102:VAL:HA	27:DE:200:GLU:O	2.01	0.60
34:DO:122:PRO:HA	34:DO:142:GLY:H	1.66	0.60
37:DQ:101:LEU:HD13	37:DQ:101:LEU:O	2.01	0.60
40:D2:41:GLY:HA3	40:D2:46:VAL:HG11	1.83	0.60
43:DU:14:LEU:HG	43:DU:15:VAL:N	2.15	0.60
1:AA:390:C:H2'	1:AA:391:G:C8	2.37	0.60
1:AA:560:U:H4'	1:AA:561:U:O5'	2.01	0.60
4:AG:8:VAL:CG2	4:AG:21:LEU:CD1	2.78	0.60
5:AH:89:ILE:HD12	5:AH:90:VAL:H	1.67	0.60
5:AH:110:LEU:HD13	5:AH:118:ILE:HG21	1.82	0.60
17:AT:38:ARG:HA	17:AT:38:ARG:NE	2.09	0.60
24:BA:588:U:H1'	28:BF:90:PHE:HB3	1.82	0.60
24:BA:1084:A:N6	24:BA:1085:A:C6	2.70	0.60
24:BA:1763:G:OP1	24:BA:1763:G:H4'	2.02	0.60
24:BA:1918:A:O2'	24:BA:1920:C:N4	2.33	0.60
34:BO:126:VAL:HG22	34:BO:145:PRO:HG3	1.83	0.60
52:B7:49:ARG:HH11	52:B7:49:ARG:HG3	1.67	0.60
1:CA:474:G:H5'	16:CS:81:ARG:HB3	1.83	0.60
1:CA:558:G:C4	1:CA:559:A:C2	2.89	0.60
1:CA:773:G:O3'	26:DD:202:LYS:NZ	2.35	0.60
1:CA:979:C:OP1	1:CA:1223:C:N4	2.34	0.60
1:CA:1021:G:H2'	1:CA:1022:G:C8	2.36	0.60
1:CA:1138:G:H3'	1:CA:1138:G:N3	2.17	0.60
1:CA:1148:U:H2'	1:CA:1149:C:O4'	2.02	0.60
1:CA:1288:A:H4'	21:CX:10:ARG:NH1	2.15	0.60
1:CA:1298:C:H4'	1:CA:1299:A:C4	2.35	0.60
2:CE:142:LEU:O	2:CE:142:LEU:HD23	2.00	0.60
2:CE:178:ARG:NH2	8:CK:68:ARG:NH2	2.49	0.60
3:CF:20:SER:HB2	3:CF:40:ARG:NH2	2.13	0.60
4:CG:11:LEU:HD12	4:CG:11:LEU:C	2.22	0.60
4:CG:26:CYS:CA	4:CG:31:CYS:HB2	2.30	0.60
10:CM:79:ARG:HD3	10:CM:79:ARG:H	1.66	0.60
11:CN:104:GLN:O	11:CN:106:LYS:N	2.34	0.60
12:CO:92:ASP:O	12:CO:93:LEU:HD23	2.01	0.60
13:CP:80:ARG:HD3	49:D4:55:ARG:HD3	1.83	0.60
24:DA:1601:G:C4'	52:D7:49:ARG:HD2	2.31	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1728:G:H8	24:DA:1732:A:H62	1.47	0.60
24:DA:2017:U:O2	50:D5:10:LYS:HB2	2.02	0.60
24:DA:2150:U:H2'	24:DA:2151:G:H8	1.66	0.60
24:DA:2748:A:H2'	30:DH:6:ARG:NH2	2.13	0.60
27:DE:64:LYS:NZ	27:DE:66:HIS:CG	2.68	0.60
30:DH:26:VAL:HG13	30:DH:79:VAL:HG11	1.82	0.60
32:DM:7:LYS:HE3	32:DM:7:LYS:CA	2.29	0.60
32:DM:136:GLU:C	32:DM:137:LYS:HE2	2.21	0.60
49:D4:9:LEU:H	49:D4:9:LEU:CD2	2.13	0.60
1:AA:1047:G:H1'	1:AA:1215:G:O2'	2.01	0.60
1:AA:1203:C:O2'	1:AA:1204:A:H5'	2.01	0.60
1:AA:1299:A:H2'	1:AA:1301:U:O4'	2.02	0.60
2:AE:215:LEU:O	2:AE:219:VAL:HG23	2.00	0.60
3:AF:29:TYR:OH	14:AQ:54:PRO:HD2	2.02	0.60
3:AF:50:ALA:HB1	3:AF:70:VAL:HG11	1.81	0.60
24:BA:273:G:H1	24:BA:364:C:H42	1.50	0.60
24:BA:902:C:O2'	24:BA:903:C:H5'	2.01	0.60
24:BA:1176:G:H2'	24:BA:1178:C:C5	2.36	0.60
24:BA:1431:U:O2'	24:BA:1432:C:H5'	2.02	0.60
24:BA:1827:C:O2'	24:BA:1828:G:H5'	2.01	0.60
24:BA:2177:C:H3'	24:BA:2178:C:C5'	2.29	0.60
24:BA:2789:C:O2'	24:BA:2893:G:N2	2.34	0.60
28:BF:178:PRO:HG2	28:BF:179:GLU:OE2	2.01	0.60
34:BO:119:GLU:OE2	34:BO:119:GLU:HA	2.01	0.60
39:B1:60:LEU:HD11	39:B1:64:ARG:HE	1.66	0.60
1:CA:600:C:H5"	8:CK:97:VAL:HG23	1.82	0.60
1:CA:1180:A:OP1	9:CL:103:THR:OG1	2.20	0.60
1:CA:1206:G:H1'	3:CF:193:TYR:O	2.02	0.60
4:CG:84:LYS:HE2	4:CG:84:LYS:HA	1.84	0.60
8:CK:69:ARG:HB2	8:CK:69:ARG:NH1	2.17	0.60
8:CK:120:THR:OG1	8:CK:123:GLU:HG2	2.02	0.60
10:CM:81:THR:CA	10:CM:84:GLN:HE21	2.15	0.60
24:DA:276:A:N1	24:DA:277:C:N4	2.50	0.60
24:DA:1184:G:H5'	48:DX:29:ARG:NH2	2.17	0.60
24:DA:2344:U:C3'	51:D6:37:ARG:HE	2.15	0.60
27:DE:61:ARG:O	27:DE:63:LEU:N	2.35	0.60
30:DH:89:ILE:HG23	30:DH:90:LYS:N	2.14	0.60
38:DR:50:ILE:CD1	38:DR:102:ILE:HD11	2.32	0.60
38:DR:106:SER:O	38:DR:107:ASP:CB	2.49	0.60
40:D2:35:LEU:CD2	40:D2:37:VAL:CG2	2.79	0.60
1:AA:784:C:H4'	24:BA:1837:C:OP1	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AI:46:ARG:HB3	6:AI:60:PHE:CE1	2.36	0.60
8:AK:37:ARG:HH21	8:AK:38:ILE:HD11	1.67	0.60
9:AL:16:ARG:CG	9:AL:64:THR:CG2	2.79	0.60
9:AL:65:VAL:HG21	9:AL:73:GLN:HB3	1.83	0.60
9:AL:118:LYS:O	9:AL:119:ALA:HB3	2.00	0.60
13:AP:57:ARG:HD2	49:B4:35:VAL:HG23	1.83	0.60
15:AR:24:SER:O	15:AR:28:GLN:HG3	2.01	0.60
19:AV:28:LYS:CE	19:AV:46:GLY:O	2.48	0.60
24:BA:278:A:H2'	24:BA:279:C:C6	2.36	0.60
24:BA:336:C:N3	24:BA:337:C:C5	2.70	0.60
24:BA:917:A:H2'	24:BA:918:A:C5'	2.31	0.60
24:BA:2629:A:C2'	24:BA:2630:G:H5"	2.31	0.60
32:BM:46:VAL:O	32:BM:47:ALA:HB3	2.00	0.60
37:BQ:37:ALA:HB2	37:BQ:101:LEU:HD21	1.84	0.60
53:B8:22:VAL:CG2	53:B8:53:PRO:HB2	2.32	0.60
1:CA:407:G:O4'	4:CG:119:GLN:NE2	2.34	0.60
1:CA:693:G:H2'	1:CA:694:A:C8	2.36	0.60
1:CA:1097:C:H1'	1:CA:1169:A:C2	2.37	0.60
1:CA:1140:C:O2'	1:CA:1141:C:H5'	2.02	0.60
1:CA:1226:C:H5'	19:CV:80:TYR:CE1	2.37	0.60
3:CF:6:HIS:HD2	3:CF:7:PRO:HD2	1.64	0.60
24:DA:1173:G:O2'	24:DA:1174:A:H2	1.83	0.60
24:DA:2348:U:H2'	24:DA:2349:G:H5'	1.82	0.60
30:DH:46:GLU:HG2	30:DH:47:GLU:N	2.17	0.60
30:DH:72:ILE:HD12	30:DH:72:ILE:N	2.14	0.60
30:DH:122:THR:HG23	30:DH:134:SER:CB	2.28	0.60
1:AA:383:A:OP1	1:AA:454:C:O2'	2.11	0.60
1:AA:1125:U:O4	10:AM:5:ARG:HD3	2.02	0.60
3:AF:186:PHE:HE1	3:AF:197:GLY:CA	2.15	0.60
4:AG:22:LYS:HE2	4:AG:26:CYS:CA	2.21	0.60
5:AH:35:GLY:HA3	5:AH:112:LEU:HB3	1.82	0.60
7:AJ:15:ASP:O	7:AJ:19:GLY:HA2	2.01	0.60
7:AJ:38:LEU:HD12	7:AJ:38:LEU:N	2.17	0.60
17:AT:38:ARG:HG3	17:AT:39:SER:H	1.67	0.60
18:AU:66:LEU:CD1	18:AU:70:ILE:HD11	2.32	0.60
24:BA:50:U:H3'	24:BA:51:G:H5'	1.84	0.60
24:BA:917:A:C2'	24:BA:918:A:H5'	2.30	0.60
24:BA:1062:G:H2'	24:BA:1063:G:C8	2.37	0.60
24:BA:1601:G:O5'	52:B7:49:ARG:NH1	2.27	0.60
24:BA:2123:G:C4	24:BA:2124:G:N7	2.70	0.60
24:BA:2210:G:C3'	24:BA:2211:G:H8	2.08	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BG:3:LEU:H	29:BG:3:LEU:CD1	1.94	0.60
30:BH:86:GLU:OE1	30:BH:86:GLU:N	2.30	0.60
30:BH:151:ILE:HB	30:BH:153:LYS:HD3	1.83	0.60
31:BK:69:LYS:CG	31:BK:136:VAL:HG13	2.31	0.60
34:BO:47:ASP:OD1	34:BO:49:ARG:HG2	2.02	0.60
38:BR:25:GLY:N	38:BR:49:VAL:HG23	2.13	0.60
43:BU:97:ARG:C	43:BU:97:ARG:HE	2.05	0.60
1:CA:865:A:H2	1:CA:918:A:H4'	1.67	0.60
1:CA:963:G:H21	10:CM:55:LYS:CE	2.13	0.60
1:CA:1132:C:H2'	1:CA:1133:G:C8	2.37	0.60
1:CA:1158:C:C2	1:CA:1160:G:C8	2.89	0.60
1:CA:1306:A:H62	1:CA:1331:G:H1'	1.67	0.60
4:CG:163:GLU:HA	4:CG:166:LYS:CE	2.32	0.60
19:CV:68:GLY:HA3	49:D4:59:PHE:HZ	1.67	0.60
24:DA:7:G:H2'	24:DA:8:A:O4'	2.00	0.60
24:DA:813:U:H2'	24:DA:814:C:C6	2.37	0.60
24:DA:1270:C:H5"	24:DA:1271:G:O5'	2.01	0.60
24:DA:1313:U:C2	24:DA:1610:A:H2	2.20	0.60
24:DA:1478:G:H2'	24:DA:1479:G:H8	1.65	0.60
24:DA:1878:G:H2'	24:DA:1879:C:C6	2.35	0.60
24:DA:2209:C:O2	24:DA:2216:G:C2	2.55	0.60
24:DA:2262:U:H2'	24:DA:2263:C:H6	1.67	0.60
24:DA:2416:C:C5'	34:DO:64:LYS:HZ1	2.09	0.60
26:DD:94:LEU:HG	26:DD:104:TYR:CE1	2.36	0.60
27:DE:50:GLY:HA3	27:DE:74:PRO:HG3	1.83	0.60
29:DG:146:TYR:O	29:DG:149:VAL:HG22	2.00	0.60
30:DH:26:VAL:HG21	30:DH:76:VAL:HA	1.83	0.60
35:DP:66:ILE:N	35:DP:66:ILE:CD1	2.61	0.60
39:D1:14:HIS:HA	39:D1:32:PHE:CE1	2.36	0.60
43:DU:13:VAL:HG21	43:DU:72:VAL:CB	2.32	0.60
43:DU:48:ALA:HB3	43:DU:59:GLY:CA	2.31	0.60
1:AA:66:G:C2	1:AA:67:C:C6	2.90	0.60
1:AA:81:G:N2	1:AA:82:U:O2	2.34	0.60
1:AA:1027:C:C2	1:AA:1028:C:C5	2.89	0.60
1:AA:1027:C:C6	1:AA:1028:C:H5	2.20	0.60
1:AA:1227:A:H5'	13:AP:111:LYS:HE2	1.84	0.60
1:AA:1312:G:C5	19:AV:4:SER:HB2	2.37	0.60
2:AE:54:THR:HG23	2:AE:199:TYR:HB3	1.84	0.60
3:AF:94:LEU:N	3:AF:94:LEU:HD23	2.16	0.60
3:AF:113:ALA:HB3	3:AF:114:PRO:HD3	1.82	0.60
4:AG:8:VAL:CB	4:AG:115:ARG:HH22	2.12	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AJ:22:LEU:HD22	7:AJ:62:PHE:CE2	2.36	0.60
7:AJ:97:GLN:O	7:AJ:101:LEU:HG	2.01	0.60
16:AS:20:VAL:CG2	16:AS:32:TYR:HB2	2.30	0.60
20:AW:48:LYS:H	20:AW:48:LYS:CD	2.15	0.60
24:BA:270(R):G:H2'	24:BA:270(S):G:H8	1.66	0.60
24:BA:340:A:C2'	24:BA:341:G:H5'	2.31	0.60
24:BA:1165:U:H2'	24:BA:1166:C:C6	2.36	0.60
24:BA:1899:G:HO2'	24:BA:1900:A:P	2.25	0.60
25:BB:65:C:N4	25:BB:108:C:H2'	2.17	0.60
28:BF:68:LYS:O	28:BF:69:HIS:HB2	2.02	0.60
36:B0:70:LEU:O	36:B0:72:ASP:N	2.34	0.60
40:B2:72:VAL:HG13	40:B2:85:LYS:HB3	1.84	0.60
44:BV:5:LEU:O	44:BV:6:LYS:CB	2.49	0.60
44:BV:70:LEU:HG	44:BV:91:LEU:HD21	1.82	0.60
44:BV:151:HIS:CE1	44:BV:154:ASP:CG	2.74	0.60
46:BZ:92:LYS:C	46:BZ:94:LEU:N	2.54	0.60
52:B7:9:ARG:NH2	52:B7:48:LYS:HD3	2.17	0.60
5:CH:12:LEU:HD22	5:CH:13:ILE:N	2.16	0.60
8:CK:85:ARG:NH1	8:CK:87:SER:O	2.35	0.60
9:CL:3:GLN:HA	9:CL:19:LEU:O	2.02	0.60
12:CO:84:LEU:HD23	12:CO:105:TYR:HE2	1.67	0.60
13:CP:23:TYR:CE2	13:CP:71:ARG:HB2	2.36	0.60
24:DA:278:A:O2'	24:DA:279:C:P	2.60	0.60
24:DA:280:C:C2	24:DA:361:G:N2	2.70	0.60
24:DA:1451:C:H42	24:DA:1459:G:H1	1.48	0.60
24:DA:1700:A:H2'	24:DA:1701:A:H5'	1.84	0.60
24:DA:2094:G:O2'	24:DA:2095:C:H5'	2.02	0.60
25:DB:83:G:C5'	48:DX:52:HIS:CD2	2.85	0.60
28:DF:34:TRP:CE3	34:DO:8:PRO:HB3	2.37	0.60
28:DF:132:VAL:CG2	28:DF:133:ASN:H	1.92	0.60
31:DK:113:ARG:O	31:DK:131:LYS:HD3	2.01	0.60
49:D4:33:VAL:HG12	49:D4:33:VAL:O	2.02	0.60
1:AA:601:C:H2'	1:AA:602:A:C8	2.37	0.60
1:AA:1260:C:H4'	1:AA:1284:C:H5'	1.83	0.60
1:AA:1347:G:C8	9:AL:107:ARG:HB3	2.37	0.60
4:AG:92:VAL:O	4:AG:96:LEU:HD22	2.02	0.60
17:AT:67:LYS:HA	17:AT:70:ARG:HH12	1.66	0.60
24:BA:1544:C:H2'	24:BA:1544:C:O2	2.02	0.60
24:BA:1858:G:C6	24:BA:1883:G:C6	2.90	0.60
24:BA:1909:C:O2'	24:BA:1910:G:H5'	2.01	0.60
24:BA:2155:G:H3'	24:BA:2156:G:H8	1.67	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BD:18:VAL:HG12	26:BD:19:ALA:N	2.17	0.60
29:BG:125:PHE:CZ	29:BG:170:ARG:HA	2.36	0.60
37:BQ:78:LEU:HD12	37:BQ:108:GLY:HA2	1.83	0.60
40:B2:35:LEU:HD22	40:B2:35:LEU:N	2.17	0.60
1:CA:179:A:H2'	1:CA:180:U:C6	2.36	0.60
1:CA:976:G:OP1	14:CQ:31:ARG:CD	2.49	0.60
1:CA:1060:C:H5	3:CF:2:GLY:CA	2.15	0.60
3:CF:22:TRP:CH2	3:CF:32:LEU:HB3	2.37	0.60
6:CI:26:ILE:O	6:CI:30:LEU:HG	2.02	0.60
9:CL:114:TYR:HD2	10:CM:60:ARG:HG3	1.67	0.60
13:CP:92:HIS:CE1	13:CP:98:VAL:HG11	2.37	0.60
16:CS:72:ARG:HG2	16:CS:72:ARG:O	2.02	0.60
17:CT:59:ILE:CG2	17:CT:71:PHE:CD1	2.85	0.60
24:DA:1653:G:H4'	36:D0:2:ARG:CZ	2.32	0.60
24:DA:2248:C:C2'	24:DA:2249:U:H5'	2.32	0.60
25:DB:80:U:H2'	25:DB:81:G:N2	2.14	0.60
26:DD:35:LYS:HB2	26:DD:36:PRO:HA	1.83	0.60
32:DM:14:VAL:HG22	32:DM:15:LEU:N	2.16	0.60
32:DM:60:ILE:HD13	32:DM:61:ARG:H	1.66	0.60
36:D0:52:ILE:O	36:D0:54:LEU:N	2.35	0.60
39:D1:90:VAL:CG2	40:D2:39:LEU:HB3	2.32	0.60
44:DV:92:SER:O	44:DV:94:GLU:N	2.31	0.60
46:DZ:79:GLY:C	46:DZ:80:LEU:HD22	2.22	0.60
1:AA:142:G:H2'	1:AA:143:A:C8	2.37	0.59
1:AA:210:U:O2'	1:AA:216:G:O5'	2.19	0.59
1:AA:406:G:H5"	4:AG:5:ILE:HD13	1.84	0.59
1:AA:929:G:C5	1:AA:930:C:C5	2.90	0.59
1:AA:1256:A:O2'	1:AA:1257:U:P	2.59	0.59
1:AA:1312:G:OP2	49:B4:62:ARG:NH2	2.35	0.59
1:AA:1318:A:H1'	19:AV:37:ARG:HH21	1.67	0.59
4:AG:23:GLY:CA	4:AG:112:VAL:HG21	2.32	0.59
7:AJ:22:LEU:HD22	7:AJ:62:PHE:HE2	1.67	0.59
8:AK:29:SER:HB3	8:AK:32:LYS:HB2	1.83	0.59
9:AL:96:LEU:HA	9:AL:99:LEU:HG	1.82	0.59
24:BA:616:A:C8	28:BF:176:LEU:HD11	2.37	0.59
24:BA:2208:U:O2'	24:BA:2209:C:H5'	2.02	0.59
24:BA:2563:U:O2	24:BA:2565:A:H8	1.85	0.59
24:BA:2760:C:O2'	24:BA:2761:G:H5'	2.02	0.59
29:BG:173:LEU:HD22	29:BG:178:PHE:CZ	2.37	0.59
31:BK:95:LYS:NZ	31:BK:99:GLU:HB2	2.17	0.59
35:BP:20:ALA:O	35:BP:21:THR:HG22	2.01	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BP:109:VAL:CG1	35:BP:113:GLN:HB3	2.32	0.59
37:BQ:61:ASN:HB3	37:BQ:64:GLU:OE2	2.02	0.59
40:B2:35:LEU:CD2	40:B2:35:LEU:N	2.65	0.59
44:BV:107:THR:CB	44:BV:108:PRO:CD	2.80	0.59
1:CA:947:G:H5"	13:CP:109:THR:HG23	1.83	0.59
1:CA:1137:C:H5'	1:CA:1138:G:C5	2.36	0.59
1:CA:1433:A:OP2	1:CA:1467:G:N1	2.28	0.59
1:CA:1521:G:H2'	1:CA:1522:U:C6	2.37	0.59
2:CE:8:LYS:HE2	2:CE:217:ARG:HD3	1.84	0.59
2:CE:121:LEU:HG	2:CE:126:GLU:HB2	1.83	0.59
4:CG:65:ARG:HB2	4:CG:75:PHE:HE2	1.67	0.59
5:CH:67:VAL:HG21	5:CH:69:VAL:HG22	1.83	0.59
7:CJ:113:GLU:CG	7:CJ:119:ARG:HG2	2.32	0.59
9:CL:85:LEU:HD12	9:CL:85:LEU:C	2.23	0.59
10:CM:47:PHE:HE1	10:CM:63:PHE:HB2	1.66	0.59
13:CP:49:THR:HB	13:CP:52:GLU:HG3	1.84	0.59
13:CP:84:ILE:O	13:CP:84:ILE:CG2	2.50	0.59
18:CU:22:VAL:HG12	18:CU:56:THR:HA	1.83	0.59
24:DA:1582:C:O2'	24:DA:1586:A:H8	1.84	0.59
24:DA:2818:G:O2'	24:DA:2819:G:H5'	2.01	0.59
31:DK:11:ASN:O	31:DK:12:LEU:HD12	2.01	0.59
34:DO:85:LEU:HD22	34:DO:85:LEU:H	1.67	0.59
38:DR:51:ARG:HG3	38:DR:98:LYS:CG	2.31	0.59
51:D6:15:GLU:HB3	51:D6:49:HIS:CE1	2.37	0.59
1:AA:1022:G:H2'	1:AA:1023:G:H8	1.67	0.59
2:AE:164:VAL:HG12	2:AE:166:ASP:N	2.17	0.59
2:AE:187:LEU:HA	2:AE:201:ILE:HB	1.82	0.59
4:AG:88:VAL:HG21	4:AG:91:SER:HB2	1.83	0.59
5:AH:68:GLU:O	5:AH:70:PRO:CD	2.42	0.59
7:AJ:73:MET:HA	7:AJ:90:GLU:HA	1.84	0.59
9:AL:53:VAL:HG13	9:AL:95:LYS:CE	2.31	0.59
9:AL:53:VAL:HG13	9:AL:95:LYS:CD	2.31	0.59
10:AM:9:ARG:HG2	10:AM:69:ASN:ND2	2.17	0.59
11:AN:79:SER:OG	11:AN:106:LYS:HE3	2.02	0.59
24:BA:469:G:O6	52:B7:37:LYS:HE2	2.03	0.59
24:BA:516:C:H2'	24:BA:517:C:H6	1.67	0.59
24:BA:1952:A:C2	33:BN:22:ILE:HG13	2.37	0.59
24:BA:2161:C:O2'	24:BA:2162:G:H5'	2.01	0.59
34:BO:114:ILE:HD11	34:BO:130:PHE:CE2	2.36	0.59
38:BR:53:ARG:CZ	38:BR:53:ARG:HB3	2.32	0.59
40:B2:35:LEU:CD2	40:B2:35:LEU:H	2.12	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BU:75:ILE:CG2	43:BU:80:GLY:HA2	2.22	0.59
44:BV:167:PRO:HB2	44:BV:168:GLU:OE2	2.02	0.59
1:CA:113:G:H2'	1:CA:114:U:H6	1.67	0.59
1:CA:583:A:H2'	1:CA:584:G:O4'	2.02	0.59
1:CA:993:G:O2'	1:CA:994:A:N7	2.34	0.59
1:CA:1157:A:H1'	1:CA:1181:G:N2	2.17	0.59
1:CA:1288:A:C2	1:CA:1289:A:C4	2.90	0.59
2:CE:12:GLU:HG2	2:CE:213:LEU:CD1	2.25	0.59
5:CH:34:VAL:O	5:CH:41:VAL:HA	2.02	0.59
8:CK:51:VAL:HG11	8:CK:60:ARG:NH1	2.17	0.59
20:CW:10:LEU:HD23	20:CW:12:ALA:H	1.67	0.59
24:DA:270(S):G:O4'	46:DZ:78:LYS:HG2	2.01	0.59
24:DA:289:A:H5'	24:DA:290:G:OP2	2.01	0.59
24:DA:993:G:H1'	40:D2:89:GLN:OE1	2.02	0.59
24:DA:1665:A:H2'	24:DA:1666:G:C5'	2.31	0.59
24:DA:2563:U:H4'	33:DN:28:SER:HA	1.83	0.59
24:DA:2748:A:C3'	30:DH:6:ARG:HH21	2.14	0.59
27:DE:135:HIS:N	27:DE:135:HIS:ND1	2.49	0.59
28:DF:57:VAL:CG1	28:DF:59:TYR:CD2	2.85	0.59
37:DQ:12:PHE:O	37:DQ:16:ASN:ND2	2.35	0.59
42:DT:28:PHE:CE2	42:DT:92:LEU:HD11	2.37	0.59
44:DV:140:ASP:CG	44:DV:141:VAL:H	2.06	0.59
50:D5:35:GLU:HG3	50:D5:50:GLY:O	2.01	0.59
1:AA:153:C:N4	1:AA:168:G:H1	1.98	0.59
1:AA:192:U:H2'	20:AW:57:ARG:NH1	1.72	0.59
1:AA:818:G:O2'	1:AA:819:A:H5'	2.02	0.59
1:AA:958:A:N3	1:AA:985:C:O2'	2.34	0.59
1:AA:992:U:H4'	1:AA:993:G:C5'	2.32	0.59
1:AA:1313:U:OP2	19:AV:6:LYS:HG2	2.00	0.59
3:AF:81:GLY:O	3:AF:85:ARG:HB2	2.02	0.59
7:AJ:5:ARG:NH1	7:AJ:7:ALA:HA	2.16	0.59
8:AK:20:TYR:HD1	8:AK:65:TYR:CE2	2.20	0.59
12:AO:111:LYS:O	12:AO:112:ASP:HB2	2.03	0.59
24:BA:1093:G:H5"	30:BH:170:ARG:HH12	1.66	0.59
24:BA:2331:G:O2'	45:B3:43:THR:HG22	2.01	0.59
24:BA:2513:G:N2	27:BE:143:ASN:HD21	2.01	0.59
24:BA:2785:C:OP1	27:BE:41:LYS:NZ	2.29	0.59
25:BB:42:C:P	29:BG:67:LYS:CE	2.90	0.59
26:BD:12:SER:HB2	26:BD:208:LYS:HB3	1.84	0.59
27:BE:78:LEU:HD23	27:BE:79:ARG:HB2	1.85	0.59
27:BE:181:LEU:HD21	38:BR:7:ILE:HG22	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BE:183:LEU:HD12	27:BE:183:LEU:N	2.17	0.59
30:BH:122:THR:HB	30:BH:134:SER:HB2	1.83	0.59
51:B6:15:GLU:HG2	51:B6:16:CYS:H	1.67	0.59
1:CA:868:C:H2'	1:CA:869:G:O4'	2.02	0.59
1:CA:1061:G:C1'	10:CM:56:HIS:CE1	2.85	0.59
1:CA:1137:C:H4'	1:CA:1138:G:C2	2.36	0.59
1:CA:1325:C:P	21:CX:15:ARG:HH21	2.26	0.59
5:CH:76:ILE:HG23	5:CH:77:PRO:N	2.17	0.59
5:CH:76:ILE:CG2	5:CH:77:PRO:HD2	2.32	0.59
8:CK:20:TYR:HA	8:CK:65:TYR:CE2	2.37	0.59
10:CM:3:LYS:NZ	10:CM:77:PRO:HD3	2.18	0.59
10:CM:80:LYS:O	10:CM:84:GLN:N	2.35	0.59
12:CO:41:ARG:NE	12:CO:43:VAL:HG12	2.17	0.59
24:DA:1444(A):A:H2'	24:DA:1444(A):A:N3	2.17	0.59
24:DA:1544:C:O2	24:DA:1544:C:H2'	2.01	0.59
24:DA:2001:A:H5"	24:DA:2689:U:O2'	2.01	0.59
24:DA:2401:U:H2'	24:DA:2402:C:H5"	1.84	0.59
25:DB:83:G:H4'	48:DX:52:HIS:CD2	2.37	0.59
28:DF:102:PRO:HB2	28:DF:105:VAL:CG2	2.31	0.59
34:DO:3:LEU:N	34:DO:3:LEU:HD12	2.17	0.59
38:DR:27:THR:CG2	38:DR:90:GLN:HB3	2.32	0.59
47:DW:54:LYS:HG3	47:DW:55:ARG:H	1.67	0.59
1:AA:983:A:H3'	1:AA:983:A:N3	2.17	0.59
2:AE:91:PRO:HG3	2:AE:155:LEU:CG	2.24	0.59
2:AE:178:ARG:HH21	8:AK:74:PRO:HB3	1.67	0.59
11:AN:51:LYS:HA	11:AN:55:LYS:NZ	2.17	0.59
15:AR:55:GLY:HA2	15:AR:58:MET:CE	2.32	0.59
16:AS:20:VAL:HG21	16:AS:32:TYR:CB	2.31	0.59
24:BA:142:G:H1'	42:BT:37:THR:CG2	2.32	0.59
24:BA:594:U:C5'	53:B8:61:LEU:CD1	2.79	0.59
24:BA:2705:A:O2'	24:BA:2852:G:OP1	2.14	0.59
27:BE:81:ILE:O	27:BE:82:ARG:HB3	2.02	0.59
28:BF:45:ARG:HD3	28:BF:97:TYR:CG	2.37	0.59
40:B2:46:VAL:HG22	40:B2:52:VAL:HG11	1.84	0.59
47:BW:33:MET:HG3	47:BW:37:PHE:HE1	1.64	0.59
1:CA:409:G:C2	1:CA:434:U:N3	2.70	0.59
1:CA:509:A:H5"	4:CG:55:ALA:HB2	1.83	0.59
1:CA:1002:G:O6	1:CA:1037:C:N4	2.34	0.59
1:CA:1103:C:H2'	1:CA:1104:G:O4'	2.02	0.59
1:CA:1347:G:N2	1:CA:1374:A:OP2	2.34	0.59
2:CE:25:ASN:ND2	2:CE:27:LYS:CD	2.62	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CF:20:SER:O	14:CQ:54:PRO:HG3	2.02	0.59
3:CF:44:GLU:HG2	3:CF:52:LEU:HD11	1.82	0.59
5:CH:33:VAL:HG21	5:CH:109:ILE:HG12	1.83	0.59
9:CL:114:TYR:CD2	10:CM:60:ARG:HG3	2.37	0.59
14:CQ:22:THR:OG1	14:CQ:23:ARG:N	2.34	0.59
17:CT:87:LYS:HB3	17:CT:91:ARG:NH2	2.16	0.59
24:DA:336:C:C5'	43:DU:6:HIS:HD2	2.14	0.59
32:DM:99:LEU:O	32:DM:103:VAL:HG23	2.01	0.59
34:DO:59:LEU:HD13	34:DO:59:LEU:O	2.03	0.59
43:DU:36:ALA:HA	43:DU:67:LEU:O	2.02	0.59
44:DV:144:LEU:CD2	44:DV:149:SER:H	2.16	0.59
51:D6:13:CYS:HA	51:D6:50:ARG:O	2.02	0.59
1:AA:151:A:C2'	1:AA:152:A:H5'	2.33	0.59
1:AA:686:U:C2'	1:AA:687:A:O5'	2.50	0.59
1:AA:1190:G:OP2	3:AF:5:ILE:HG23	2.02	0.59
3:AF:101:LEU:HD23	3:AF:102:ASN:N	2.16	0.59
7:AJ:16:LEU:HD12	9:AL:41:VAL:HG12	1.85	0.59
24:BA:165:U:N3	24:BA:171:G:N7	2.51	0.59
24:BA:747:U:O2	24:BA:2014:A:H1'	2.02	0.59
24:BA:1496:A:C8	24:BA:1577:C:O2'	2.48	0.59
24:BA:1528:A:O2'	24:BA:1529:A:H5'	2.03	0.59
24:BA:1805:U:O2	26:BD:50:THR:HB	2.03	0.59
24:BA:2655:G:N2	24:BA:2665:A:OP2	2.34	0.59
35:BP:79:LEU:HD12	35:BP:80:GLU:HB2	1.84	0.59
37:BQ:56:LEU:O	37:BQ:58:LEU:HD22	2.03	0.59
43:BU:42:VAL:O	43:BU:42:VAL:HG12	2.02	0.59
47:BW:33:MET:O	47:BW:37:PHE:HD1	1.84	0.59
49:B4:40:HIS:H	49:B4:41:PRO:CD	2.16	0.59
50:B5:31:VAL:HG13	50:B5:42:PRO:HG3	1.85	0.59
1:CA:144:G:C2'	1:CA:145:G:H5'	2.32	0.59
1:CA:197:A:OP2	1:CA:197:A:H3'	2.03	0.59
6:CI:75:LEU:O	6:CI:79:LEU:HG	2.03	0.59
7:CJ:115:ARG:HB3	7:CJ:118:VAL:HG12	1.83	0.59
9:CL:27:THR:HG23	9:CL:31:GLN:C	2.22	0.59
14:CQ:6:LEU:HD21	14:CQ:23:ARG:NH2	2.17	0.59
24:DA:93:C:H5'	43:DU:54:LYS:NZ	2.16	0.59
26:DD:33:LEU:HD12	26:DD:34:VAL:CG1	2.32	0.59
39:D1:81:HIS:HD2	39:D1:117:GLN:HE22	1.49	0.59
49:D4:58:ARG:O	49:D4:61:ARG:HB3	2.02	0.59
1:AA:703:G:C4'	1:AA:704:A:OP2	2.50	0.59
1:AA:859:A:H2'	1:AA:860:A:O4'	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:862:C:O2'	1:AA:863:U:H5'	2.02	0.59
1:AA:1232:U:OP1	9:AL:124:GLN:HG2	2.03	0.59
17:AT:86:GLU:O	17:AT:90:ILE:HG13	2.03	0.59
24:BA:456:C:O2'	24:BA:457:A:H5'	2.03	0.59
24:BA:1077:A:H3'	24:BA:1078:U:H5"	1.84	0.59
24:BA:1952:A:C6	33:BN:22:ILE:HD11	2.37	0.59
24:BA:2347:C:H4'	51:B6:39:TYR:HE2	1.66	0.59
24:BA:2639:A:C2'	24:BA:2640:G:H5'	2.31	0.59
24:BA:2687:U:C4	24:BA:2688:U:C5	2.90	0.59
26:BD:35:LYS:HA	26:BD:64:ILE:HG22	1.84	0.59
27:BE:2:LYS:HB2	27:BE:95:ILE:HG21	1.84	0.59
31:BK:56:LYS:O	31:BK:60:GLU:HB2	2.03	0.59
31:BK:103:ARG:HD2	31:BK:104:GLN:H	1.68	0.59
37:BQ:15:ARG:NH1	37:BQ:88:ASP:OD2	2.36	0.59
38:BR:3:ARG:HB3	38:BR:6:LEU:CB	2.28	0.59
38:BR:26:ASP:HB2	38:BR:90:GLN:O	2.02	0.59
42:BT:29:TRP:CZ3	42:BT:78:LYS:HG3	2.38	0.59
43:BU:96:ILE:CD1	43:BU:98:VAL:CG1	2.78	0.59
46:BZ:58:ILE:HD11	46:BZ:86:SER:HB2	1.84	0.59
46:BZ:75:GLU:C	46:BZ:76:ARG:HD2	2.23	0.59
49:B4:10:VAL:HG22	49:B4:11:PRO:HD2	1.85	0.59
51:B6:47:THR:CG2	51:B6:48:VAL:H	2.15	0.59
1:CA:509:A:O2'	1:CA:510:A:P	2.60	0.59
1:CA:1321:C:OP2	1:CA:1323:G:OP2	2.21	0.59
3:CF:21:ARG:HB3	3:CF:21:ARG:HH11	1.67	0.59
3:CF:47:LEU:CG	3:CF:52:LEU:HB3	2.33	0.59
7:CJ:87:VAL:HG11	7:CJ:154:TYR:HB3	1.84	0.59
7:CJ:135:VAL:O	7:CJ:139:GLU:HG3	2.02	0.59
14:CQ:22:THR:HG21	14:CQ:33:VAL:HG13	1.81	0.59
22:CC:46:G:H5'	22:CC:47:U:OP1	2.01	0.59
24:DA:637:A:OP1	34:DO:133:SER:OG	2.21	0.59
24:DA:955:C:C2'	24:DA:956:G:H5'	2.33	0.59
24:DA:1952:A:C6	33:DN:22:ILE:HD12	2.38	0.59
24:DA:2427:C:C5'	24:DA:2428:G:OP1	2.48	0.59
24:DA:2683:C:O2	33:DN:70:LYS:NZ	2.35	0.59
24:DA:2686:G:C2	24:DA:2724:C:O2	2.56	0.59
27:DE:50:GLY:O	27:DE:51:PHE:CB	2.50	0.59
35:DP:4:PRO:HD3	35:DP:70:PRO:O	2.02	0.59
40:D2:41:GLY:HA3	40:D2:46:VAL:CG1	2.32	0.59
46:DZ:78:LYS:O	46:DZ:78:LYS:HD2	2.02	0.59
51:D6:36:LEU:HD21	51:D6:50:ARG:NH2	2.18	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:627:G:P	16:AS:38:TYR:HH	2.22	0.59
1:AA:630:G:H2'	1:AA:631:G:C8	2.37	0.59
1:AA:1023:G:C3'	1:AA:1024:G:H5"	2.19	0.59
1:AA:1033:G:H2'	1:AA:1034:G:H5'	1.84	0.59
2:AE:163:PHE:CA	2:AE:185:ILE:HG23	2.31	0.59
3:AF:129:ALA:HB3	3:AF:132:ARG:NH2	2.18	0.59
4:AG:59:ARG:HH22	4:AG:62:GLN:HG3	1.67	0.59
6:AI:8:ILE:HD12	6:AI:26:ILE:HD13	1.84	0.59
17:AT:76:LEU:HD11	17:AT:79:SER:N	2.17	0.59
24:BA:271(B):G:C4'	24:BA:271(C):U:O5'	2.51	0.59
24:BA:1299:G:H5"	24:BA:1300:U:OP1	2.03	0.59
24:BA:1729:A:C8	24:BA:1730:U:H5	2.20	0.59
24:BA:1845:G:OP1	26:BD:258:LYS:NZ	2.31	0.59
24:BA:2199:A:H1'	31:BK:28:ASN:ND2	2.18	0.59
27:BE:119:ARG:NH1	27:BE:156:MET:O	2.36	0.59
28:BF:64:ILE:HG22	28:BF:65:TRP:CE2	2.38	0.59
28:BF:101:LEU:HD12	28:BF:102:PRO:HD2	1.85	0.59
29:BG:116:ASP:O	49:B4:42:PHE:CZ	2.50	0.59
32:BM:15:LEU:HD13	32:BM:15:LEU:C	2.23	0.59
34:BO:50:ARG:NH2	53:B8:59:LYS:HD3	2.14	0.59
46:BZ:75:GLU:O	46:BZ:76:ARG:HD2	2.02	0.59
1:CA:373:A:C2	1:CA:374:A:C8	2.90	0.59
1:CA:865:A:C2	1:CA:918:A:H4'	2.37	0.59
1:CA:936:C:O2'	1:CA:937:A:H5'	2.03	0.59
1:CA:1191:A:OP2	1:CA:1191:A:C8	2.56	0.59
1:CA:1288:A:O2'	21:CX:10:ARG:NH1	2.35	0.59
1:CA:1308:U:H5"	13:CP:98:VAL:CG2	2.32	0.59
2:CE:144:ARG:O	2:CE:147:LYS:HB3	2.02	0.59
3:CF:112:SER:O	3:CF:116:VAL:HG23	2.03	0.59
7:CJ:89:MET:N	7:CJ:155:ARG:HH12	1.97	0.59
13:CP:4:ILE:CD1	13:CP:8:GLU:HB2	2.32	0.59
19:CV:83:HIS:ND1	19:CV:83:HIS:O	2.34	0.59
24:DA:414:C:H4'	24:DA:1879:C:O2	2.02	0.59
24:DA:483:A:C5'	43:DU:49:VAL:HA	2.32	0.59
24:DA:654(V):A:H2	24:DA:655:A:C2	2.21	0.59
24:DA:1093:G:H1'	24:DA:1099:G:C2	2.38	0.59
24:DA:2087:G:O2'	24:DA:2088:G:H5'	2.03	0.59
27:DE:201:THR:HG22	27:DE:202:LYS:H	1.67	0.59
30:DH:35:VAL:HG11	30:DH:71:LEU:CD2	2.32	0.59
30:DH:41:MET:HE3	30:DH:55:PRO:HD3	1.84	0.59
34:DO:85:LEU:H	34:DO:85:LEU:CD2	2.16	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DO:85:LEU:HB3	34:DO:114:ILE:HD11	1.85	0.59
36:D0:78:LYS:O	36:D0:83:ILE:HG13	2.03	0.59
42:DT:63:LYS:O	42:DT:64:LYS:CG	2.42	0.59
1:AA:41:G:H2'	1:AA:42:G:H8	1.68	0.59
1:AA:392:G:H2'	1:AA:393:A:H8	1.67	0.59
1:AA:587:G:C2	1:AA:755:G:C5	2.91	0.59
1:AA:591:U:H2'	1:AA:592:G:H8	1.68	0.59
1:AA:1225:A:H2'	1:AA:1225:A:N3	2.17	0.59
7:AJ:108:ALA:O	7:AJ:119:ARG:HD2	2.03	0.59
8:AK:49:GLU:HG3	8:AK:51:VAL:HG13	1.85	0.59
24:BA:662:G:OP1	34:BO:15:ARG:NH1	2.35	0.59
24:BA:943:U:OP2	34:BO:36:LYS:HD3	2.03	0.59
24:BA:1105:U:H2'	24:BA:1106:G:H8	1.68	0.59
24:BA:1651:G:N2	24:BA:2007:C:C2	2.71	0.59
24:BA:1931:U:O4'	24:BA:1931:U:O2	2.21	0.59
24:BA:1991:U:H2'	24:BA:1992:G:C5'	2.32	0.59
24:BA:2287:A:N3	24:BA:2289:G:C8	2.70	0.59
24:BA:2392:A:H2	24:BA:2424:C:H42	1.49	0.59
24:BA:2712:U:H1'	24:BA:2712(A):A:H8	1.66	0.59
31:BK:95:LYS:HD3	31:BK:95:LYS:C	2.22	0.59
31:BK:101:LEU:CD2	31:BK:107:VAL:HG23	2.22	0.59
36:B0:3:HIS:O	36:B0:5:LYS:N	2.33	0.59
36:B0:79:LEU:HD23	36:B0:83:ILE:HB	1.85	0.59
38:BR:25:GLY:H	38:BR:49:VAL:CG2	2.12	0.59
39:B1:92:ARG:O	39:B1:94:ASN:N	2.35	0.59
43:BU:81:LYS:HZ2	43:BU:96:ILE:HG21	1.67	0.59
1:CA:56:U:H2'	1:CA:57:G:H8	1.67	0.59
1:CA:458:C:C4	1:CA:464:G:C5	2.90	0.59
1:CA:518:C:H4'	1:CA:519:C:C6	2.37	0.59
1:CA:674:G:H2'	1:CA:675:A:C8	2.38	0.59
1:CA:1198:G:H2'	1:CA:1199:U:C6	2.37	0.59
1:CA:1216:G:H2'	1:CA:1217:C:H6	1.66	0.59
1:CA:1254:C:P	10:CM:45:ARG:NH1	2.76	0.59
1:CA:1510:U:H2'	1:CA:1511:G:C8	2.36	0.59
4:CG:21:LEU:HD12	4:CG:21:LEU:N	2.17	0.59
6:CI:12:PRO:CG	6:CI:57:GLN:HG3	2.33	0.59
6:CI:72:VAL:HG13	6:CI:73:ASN:H	1.68	0.59
9:CL:3:GLN:HG2	9:CL:20:ARG:HG3	1.85	0.59
17:CT:45:HIS:NE2	17:CT:47:PRO:HG3	2.18	0.59
19:CV:70:LYS:HE3	19:CV:73:GLU:HB2	1.77	0.59
19:CV:79:THR:CG2	19:CV:79:THR:O	2.49	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1291:C:H2'	24:DA:1292:U:C6	2.38	0.59
28:DF:188:ARG:HA	34:DO:3:LEU:CD1	2.33	0.59
29:DG:145:THR:O	29:DG:147:ASP:N	2.34	0.59
35:DP:43:THR:OG1	35:DP:46:GLN:HG3	2.03	0.59
40:D2:76:LYS:HG3	40:D2:80:GLN:O	2.03	0.59
44:DV:99:TYR:HB3	44:DV:123:ASP:HB3	1.85	0.59
47:DW:12:GLU:O	47:DW:16:LEU:HD23	2.03	0.59
1:AA:975:A:H4'	1:AA:976:G:C5'	2.20	0.59
1:AA:1329:A:H5'	13:AP:29:ARG:HD2	1.84	0.59
10:AM:47:PHE:O	10:AM:62:HIS:HB2	2.03	0.59
11:AN:27:ASN:HA	11:AN:55:LYS:O	2.03	0.59
12:AO:46:LYS:HB3	12:AO:92:ASP:O	2.03	0.59
13:AP:15:VAL:HG23	13:AP:43:THR:O	2.01	0.59
15:AR:74:ASP:HB3	15:AR:77:ARG:HD3	1.84	0.59
15:AR:87:ILE:HG22	15:AR:88:ARG:N	2.17	0.59
19:AV:28:LYS:HE3	19:AV:46:GLY:C	2.23	0.59
24:BA:1026:U:H1'	24:BA:1027:A:P	2.42	0.59
24:BA:1999:C:H4'	24:BA:2686:G:N2	2.17	0.59
24:BA:2212:A:H1'	24:BA:2215:G:N7	2.17	0.59
25:BB:116:G:H4'	37:BQ:54:LEU:CD1	2.33	0.59
26:BD:67:PHE:CE1	26:BD:106:ILE:HD11	2.37	0.59
27:BE:14:ILE:O	27:BE:15:PHE:HB2	2.02	0.59
27:BE:116:VAL:O	27:BE:117:MET:HB2	2.03	0.59
30:BH:7:LEU:N	30:BH:8:PRO:CD	2.66	0.59
30:BH:117:PRO:HB3	30:BH:123:PHE:CE2	2.37	0.59
35:BP:35:VAL:HG13	35:BP:130:LYS:HB3	1.85	0.59
35:BP:54:MET:HE1	35:BP:118:LEU:CD2	2.33	0.59
37:BQ:67:ARG:HG2	37:BQ:71:ARG:NH2	2.18	0.59
41:BS:73:ALA:HB3	41:BS:106:ILE:CG2	2.32	0.59
45:B3:72:ARG:HB3	45:B3:75:LEU:HB2	1.83	0.59
1:CA:505:G:C6	1:CA:535:A:C2	2.91	0.59
1:CA:1145:C:H4'	1:CA:1146:A:C8	2.37	0.59
1:CA:1402:C:H2'	1:CA:1403:C:O4'	2.03	0.59
2:CE:69:LEU:HD11	2:CE:152:PHE:HE1	1.67	0.59
2:CE:178:ARG:HH21	8:CK:68:ARG:HH22	1.50	0.59
5:CH:67:VAL:CG2	5:CH:69:VAL:HG22	2.32	0.59
10:CM:12:ASP:HB3	10:CM:15:THR:HG23	1.85	0.59
11:CN:126:ARG:NH2	11:CN:127:LYS:HE3	2.18	0.59
17:CT:24:GLU:OE1	17:CT:37:LYS:HD3	2.03	0.59
19:CV:9:VAL:HG21	49:D4:63:TYR:CG	2.37	0.59
24:DA:499:U:C1'	43:DU:47:LYS:NZ	2.66	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:654(G):C:H3'	24:DA:654(H):G:H5"	1.84	0.59
24:DA:902:C:H2'	24:DA:903:C:H6	1.67	0.59
24:DA:1083:U:H2'	24:DA:1085:A:OP2	2.03	0.59
24:DA:1162:G:H21	40:D2:89:GLN:NE2	2.00	0.59
24:DA:1252:G:H4'	24:DA:1253:A:OP1	2.02	0.59
24:DA:2286:A:C4'	51:D6:28:ARG:NH1	2.64	0.59
24:DA:2611:U:O2	50:D5:3:LYS:HD2	2.03	0.59
25:DB:75:G:N1	25:DB:102:G:N2	2.51	0.59
39:D1:95:LEU:HD13	40:D2:4:ILE:HG23	1.84	0.59
40:D2:84:LYS:HB2	40:D2:84:LYS:HZ3	1.67	0.59
43:DU:48:ALA:HB3	43:DU:59:GLY:HA2	1.85	0.59
1:AA:376:G:O3'	16:AS:5:ARG:HD2	2.02	0.59
1:AA:483:C:OP2	1:AA:484:G:O2'	2.21	0.59
1:AA:960:U:O2'	1:AA:1223:C:H4'	2.03	0.59
1:AA:1128:C:H1'	1:AA:1146:A:H61	1.68	0.59
5:AH:6:PHE:HD2	5:AH:63:ARG:NH1	2.00	0.59
8:AK:86:ILE:HG12	8:AK:135:CYS:HA	1.84	0.59
12:AO:50:SER:O	12:AO:51:ALA:HB2	2.02	0.59
17:AT:82:MET:O	17:AT:86:GLU:HG2	2.03	0.59
24:BA:192:C:H2'	24:BA:193:U:H5'	1.85	0.59
24:BA:654(G):C:N4	24:BA:654(L):G:OP1	2.35	0.59
24:BA:2146:C:H4'	24:BA:2147:G:N3	2.17	0.59
24:BA:2352:A:C2'	24:BA:2353:G:H5'	2.33	0.59
24:BA:2893:G:H4'	24:BA:2894:G:O4'	2.03	0.59
37:BQ:110:LEU:HD21	37:BQ:112:PHE:CD2	2.30	0.59
44:BV:142:SER:CB	44:BV:143:GLY:HA2	2.24	0.59
51:B6:11:LEU:HD21	51:B6:51:GLU:CG	2.33	0.59
1:CA:539:A:H2'	1:CA:540:G:C8	2.38	0.59
1:CA:540:G:H2'	1:CA:541:G:O4'	2.02	0.59
1:CA:652:U:H1'	1:CA:653:A:C2	2.35	0.59
1:CA:770:C:O2'	1:CA:771:G:H5'	2.03	0.59
1:CA:986:A:H1'	19:CV:54:GLY:O	2.03	0.59
1:CA:1254:C:OP1	10:CM:45:ARG:HA	2.03	0.59
1:CA:1489:G:O2'	1:CA:1490:C:H5'	2.03	0.59
3:CF:137:ALA:CA	3:CF:140:ARG:CZ	2.71	0.59
4:CG:11:LEU:O	4:CG:12:CYS:C	2.41	0.59
5:CH:106:PRO:O	5:CH:110:LEU:HG	2.03	0.59
8:CK:86:ILE:O	8:CK:88:LYS:HD2	2.03	0.59
10:CM:34:VAL:CG1	10:CM:74:ILE:HA	2.16	0.59
15:CR:73:GLU:O	15:CR:75:PRO:HD3	2.02	0.59
24:DA:1329:U:H5"	24:DA:1330:C:H5	1.68	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2275:C:O2	35:DP:85:LYS:HG2	2.02	0.59
24:DA:2720:U:N3	24:DA:2873:A:C2	2.70	0.59
28:DF:8:GLN:HG2	28:DF:126:VAL:HG12	1.82	0.59
32:DM:30:ILE:HG23	32:DM:52:VAL:HG11	1.84	0.59
39:D1:91:ASP:OD1	39:D1:96:ALA:HB2	2.03	0.59
50:D5:32:PRO:O	50:D5:34:PRO:HD3	2.02	0.59
1:AA:41:G:H2'	1:AA:42:G:C8	2.37	0.58
1:AA:56:U:O4'	31:DK:82:ARG:NH2	2.36	0.58
1:AA:64:G:H4'	1:AA:65:U:H5'	1.85	0.58
1:AA:748:C:H1'	1:AA:749:C:OP2	2.02	0.58
55:AA:1833:TAC:O1C	55:AA:1833:TAC:H422	2.03	0.58
8:AK:123:GLU:O	8:AK:127:LEU:HD23	2.02	0.58
13:AP:88:ARG:HD3	13:AP:98:VAL:HG11	1.85	0.58
17:AT:48:GLU:O	17:AT:50:LYS:N	2.36	0.58
22:AC:53:G:H2'	22:AC:54:U:C6	2.38	0.58
24:BA:321:G:H5'	28:BF:134:GLY:O	2.03	0.58
24:BA:1170:G:N2	24:BA:1180:C:C2	2.71	0.58
24:BA:1500:G:O2'	26:BD:100:GLY:O	2.12	0.58
24:BA:2148:G:H2'	24:BA:2149:G:H8	1.67	0.58
29:BG:97:ASP:H	29:BG:100:TRP:HD1	1.51	0.58
32:BM:67:LEU:O	32:BM:88:GLU:HB2	2.03	0.58
34:BO:37:GLY:O	34:BO:40:SER:N	2.35	0.58
36:B0:33:ARG:HH22	50:B5:55:ARG:HG2	1.67	0.58
1:CA:407:G:O2'	4:CG:116:GLN:HB2	2.03	0.58
1:CA:1399:C:H4'	1:CA:1400:C:H5"	1.84	0.58
2:CE:15:VAL:O	2:CE:209:ARG:NH2	2.36	0.58
10:CM:68:HIS:CD2	10:CM:70:ARG:NH1	2.71	0.58
11:CN:58:PRO:HA	11:CN:90:GLY:HA3	1.84	0.58
19:CV:57:HIS:O	19:CV:59:PRO:HD3	2.03	0.58
21:CX:2:GLY:O	21:CX:4:GLY:N	2.35	0.58
24:DA:1465:G:H5'	24:DA:1528:A:O2'	2.03	0.58
24:DA:2141:G:C5	24:DA:2151:G:C6	2.91	0.58
24:DA:2788:C:H5"	24:DA:2789:C:OP2	2.02	0.58
26:DD:227:ASN:HB3	26:DD:228:PRO:HD2	1.85	0.58
27:DE:39:PRO:HD3	27:DE:45:THR:OG1	2.03	0.58
28:DF:31:HIS:HB2	34:DO:9:ASN:HD21	1.66	0.58
29:DG:9:ARG:HD3	29:DG:13:GLU:OE2	2.02	0.58
30:DH:53:GLU:OE2	30:DH:54:ARG:HG2	2.02	0.58
31:DK:122:GLU:O	31:DK:126:TYR:OH	2.13	0.58
53:D8:32:LEU:HD12	53:D8:33:ASN:CA	2.33	0.58
1:AA:1130:A:H62	1:AA:1144:G:H21	1.51	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1213:A:O2'	1:AA:1215:G:N7	2.25	0.58
2:AE:219:VAL:O	2:AE:223:ILE:HG12	2.03	0.58
5:AH:76:ILE:HB	5:AH:77:PRO:HD2	1.84	0.58
6:AI:62:TRP:CZ3	6:AI:64:GLN:HB2	2.37	0.58
9:AL:79:LEU:HD23	9:AL:79:LEU:C	2.24	0.58
16:AS:7:ALA:O	16:AS:9:PHE:HD1	1.86	0.58
17:AT:66:SER:OG	17:AT:69:LYS:HB3	2.02	0.58
24:BA:272:G:H2'	24:BA:273:G:C8	2.38	0.58
24:BA:1177:A:H4'	24:BA:1178:C:H6	1.68	0.58
24:BA:2399:G:O2'	51:B6:19:ARG:HD2	2.03	0.58
26:BD:111:LEU:HD22	26:BD:115:GLN:CD	2.23	0.58
30:BH:70:THR:HG22	30:BH:74:ASN:ND2	2.17	0.58
35:BP:54:MET:HE1	35:BP:118:LEU:HD23	1.85	0.58
43:BU:46:LYS:HE2	43:BU:63:LYS:HB3	1.85	0.58
43:BU:97:ARG:C	43:BU:97:ARG:NE	2.56	0.58
44:BV:147:GLY:CA	44:BV:175:VAL:HG13	2.26	0.58
49:B4:14:ILE:HG13	49:B4:24:THR:HG21	1.85	0.58
1:CA:509:A:H5'	4:CG:55:ALA:HB2	1.85	0.58
1:CA:580:U:H2'	1:CA:581:G:O4'	2.03	0.58
1:CA:1072:G:H2'	1:CA:1073:U:C6	2.38	0.58
1:CA:1179:A:H2'	1:CA:1180:A:O4'	2.03	0.58
4:CG:12:CYS:HB3	4:CG:33:MET:CG	2.30	0.58
4:CG:96:LEU:H	4:CG:96:LEU:HD22	1.66	0.58
7:CJ:89:MET:CE	7:CJ:156:TRP:O	2.51	0.58
19:CV:20:LEU:O	19:CV:23:ASN:HB3	2.03	0.58
24:DA:94:G:P	43:DU:54:LYS:HZ1	2.26	0.58
24:DA:1416:G:H2'	24:DA:1417:C:C5	2.38	0.58
24:DA:2392:A:C3'	53:D8:30:ARG:NH2	2.66	0.58
25:DB:78:A:C2	25:DB:99:A:C4	2.90	0.58
29:DG:5:VAL:HG13	49:D4:23:GLU:OE1	2.03	0.58
34:DO:62:LEU:C	34:DO:62:LEU:HD13	2.24	0.58
37:DQ:50:SER:O	37:DQ:51:ALA:HB2	2.03	0.58
37:DQ:67:ARG:HB2	37:DQ:67:ARG:NH1	2.18	0.58
44:DV:120:ILE:HG13	44:DV:121:HIS:N	2.17	0.58
51:D6:37:ARG:NH2	51:D6:38:LYS:N	2.51	0.58
1:AA:142:G:H2'	1:AA:143:A:H8	1.68	0.58
1:AA:739:C:P	6:AI:2:ARG:NH2	2.73	0.58
1:AA:1502:A:H2	1:AA:1505:G:H22	1.51	0.58
2:AE:96:ARG:HD2	2:AE:96:ARG:N	2.06	0.58
2:AE:219:VAL:CA	2:AE:222:ILE:HD12	2.27	0.58
3:AF:131:ARG:HA	3:AF:131:ARG:HH11	1.64	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AG:134:ASP:C	4:AG:135:LEU:HD12	2.23	0.58
5:AH:63:ARG:HA	5:AH:66:MET:HE2	1.84	0.58
19:AV:41:VAL:CG2	19:AV:45:VAL:N	2.66	0.58
20:AW:46:GLU:O	20:AW:48:LYS:CD	2.51	0.58
24:BA:449:A:C2'	24:BA:450:G:H5'	2.33	0.58
24:BA:859:G:O2'	24:BA:916:G:O6	2.20	0.58
25:BB:82:G:C2'	25:BB:83:G:H5'	2.32	0.58
26:BD:79:VAL:HG12	26:BD:113:VAL:HA	1.84	0.58
28:BF:129:PHE:O	28:BF:130:ALA:HB2	2.03	0.58
37:BQ:10:ARG:HG2	37:BQ:91:PRO:HA	1.85	0.58
44:BV:7:ALA:HB3	44:BV:61:LEU:CB	2.33	0.58
1:CA:1027:C:O2	1:CA:1035:A:N6	2.36	0.58
1:CA:1119:C:H2'	1:CA:1120:G:C8	2.38	0.58
1:CA:1128:C:H1'	1:CA:1146:A:H61	1.67	0.58
1:CA:1149:C:P	9:CL:9:ARG:HH11	2.27	0.58
1:CA:1151:A:O2'	1:CA:1152:A:O5'	2.20	0.58
1:CA:1277:C:O2'	1:CA:1279:A:C8	2.55	0.58
1:CA:1279:A:H5"	10:CM:7:LYS:NZ	2.18	0.58
3:CF:79:ARG:N	3:CF:79:ARG:HE	2.01	0.58
8:CK:21:LYS:O	8:CK:65:TYR:OH	2.16	0.58
10:CM:50:ILE:HD11	14:CQ:41:ARG:CZ	2.34	0.58
10:CM:87:THR:HG22	10:CM:87:THR:O	2.03	0.58
15:CR:39:LEU:HD22	15:CR:39:LEU:O	2.02	0.58
15:CR:70:LEU:HD21	15:CR:78:TYR:HA	1.84	0.58
24:DA:208:C:H2'	24:DA:209:C:C6	2.38	0.58
24:DA:270(K):C:C2	24:DA:270(N):G:N2	2.71	0.58
24:DA:370:G:H4'	24:DA:371:A:OP2	2.03	0.58
24:DA:858:U:O2	24:DA:2268:A:H2'	2.04	0.58
24:DA:870:A:C5'	35:DP:6:ARG:HG3	2.29	0.58
24:DA:1204:A:N1	24:DA:1241:A:N1	2.51	0.58
24:DA:1275:A:N1	24:DA:1295:C:O2'	2.28	0.58
24:DA:1336:A:OP2	42:DT:64:LYS:HE3	2.03	0.58
24:DA:1484:G:O2'	24:DA:1485:G:H5'	2.03	0.58
24:DA:1858:G:H1'	24:DA:1884:A:N6	2.18	0.58
24:DA:2060:A:OP1	28:DF:68:LYS:O	2.21	0.58
26:DD:7:LYS:NZ	26:DD:7:LYS:HB3	2.18	0.58
29:DG:55:LYS:HG2	29:DG:150:ASP:OD1	2.03	0.58
29:DG:160:VAL:HG12	29:DG:161:THR:N	2.18	0.58
49:D4:34:GLU:OE2	49:D4:35:VAL:HG23	2.03	0.58
1:AA:66:G:N2	1:AA:172:A:H2	2.01	0.58
1:AA:538:G:O2'	1:AA:539:A:H5'	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:976:G:C8	1:AA:1358:U:O2	2.56	0.58
1:AA:1455:G:OP1	20:AW:35:THR:OG1	2.17	0.58
5:AH:69:VAL:CG1	5:AH:71:LEU:HD21	2.31	0.58
18:AU:18:ARG:CG	18:AU:19:LYS:H	2.05	0.58
24:BA:196:A:N3	24:BA:196:A:H2'	2.19	0.58
24:BA:545:G:C2'	24:BA:546:C:H5"	2.32	0.58
24:BA:875:G:C4'	44:BV:170:THR:HG23	2.33	0.58
24:BA:1071:G:C8	24:BA:1089:G:C6	2.91	0.58
24:BA:1179:C:H2'	24:BA:1180:C:C6	2.38	0.58
24:BA:2182:G:H2'	24:BA:2183:C:C6	2.38	0.58
24:BA:2415:G:C3'	34:BO:66:GLY:HA3	2.32	0.58
24:BA:2531:A:H2	24:BA:2658:C:O2	1.86	0.58
24:BA:2751:G:N7	30:BH:3:ARG:CZ	2.66	0.58
24:BA:2843:G:H1	24:BA:2874:C:H42	1.50	0.58
26:BD:35:LYS:CE	26:BD:64:ILE:C	2.67	0.58
26:BD:206:LEU:HD12	26:BD:211:ARG:HG2	1.83	0.58
27:BE:81:ILE:O	27:BE:82:ARG:CB	2.50	0.58
31:BK:77:LEU:HA	31:BK:105:HIS:NE2	2.19	0.58
35:BP:54:MET:HE2	35:BP:118:LEU:HD23	1.85	0.58
37:BQ:88:ASP:O	37:BQ:89:ARG:CB	2.51	0.58
42:BT:3:THR:O	42:BT:6:ASP:HB2	2.03	0.58
44:BV:7:ALA:O	44:BV:62:PRO:HD2	2.04	0.58
51:B6:36:LEU:HB2	51:B6:49:HIS:O	2.02	0.58
1:CA:980:C:H5'	1:CA:981:U:C5	2.38	0.58
1:CA:1320:C:H1'	19:CV:70:LYS:CE	2.33	0.58
4:CG:11:LEU:C	4:CG:13:ARG:H	2.05	0.58
10:CM:45:ARG:NH1	10:CM:45:ARG:HG3	2.13	0.58
11:CN:32:ILE:HD13	11:CN:72:ALA:CB	2.32	0.58
14:CQ:44:LEU:C	14:CQ:44:LEU:HD12	2.24	0.58
15:CR:10:LYS:O	15:CR:10:LYS:HD2	2.02	0.58
15:CR:69:TYR:O	15:CR:73:GLU:HG2	2.04	0.58
17:CT:10:VAL:CG1	17:CT:53:LEU:HA	2.33	0.58
24:DA:162:U:H4'	24:DA:171:G:C5	2.38	0.58
24:DA:817:C:O2'	24:DA:839:U:H5"	2.04	0.58
24:DA:1131:G:OP2	24:DA:2515:C:H4'	2.04	0.58
24:DA:1342:A:N6	24:DA:1397:U:C5	2.71	0.58
24:DA:2517:C:HO2'	24:DA:2519:U:H5	1.51	0.58
24:DA:2749:A:C4'	30:DH:6:ARG:CZ	2.80	0.58
24:DA:2786:U:O2'	27:DE:63:LEU:N	2.37	0.58
26:DD:35:LYS:HB3	26:DD:64:ILE:HG23	1.84	0.58
27:DE:26:ILE:O	27:DE:27:LEU:HB3	2.02	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DF:63:LYS:HE2	28:DF:67:GLN:HB2	1.86	0.58
34:DO:79:ARG:CZ	34:DO:109:GLY:HA3	2.32	0.58
1:AA:143:A:H2	1:AA:220:G:H1	1.49	0.58
1:AA:186:C:H5'	20:AW:78:ALA:HB1	1.85	0.58
1:AA:1317:C:C2'	1:AA:1318:A:H5'	2.33	0.58
3:AF:73:PRO:CA	3:AF:76:VAL:HG22	2.33	0.58
12:AO:39:VAL:HG22	12:AO:57:LYS:CB	2.32	0.58
12:AO:83:VAL:HG21	12:AO:100:ILE:HD13	1.86	0.58
13:AP:11:ARG:C	13:AP:46:LYS:HZ2	2.07	0.58
13:AP:81:LEU:HD12	13:AP:84:ILE:HG22	1.85	0.58
19:AV:41:VAL:HG13	19:AV:42:PRO:HA	1.84	0.58
22:AC:53:G:H2'	22:AC:54:U:H6	1.67	0.58
24:BA:950:G:C6	24:BA:951:C:C4	2.91	0.58
24:BA:1055:G:O2'	24:BA:1085:A:N1	2.18	0.58
24:BA:1344:G:H4'	24:BA:1384:A:C6	2.37	0.58
24:BA:2262:U:O2'	24:BA:2263:C:H5'	2.03	0.58
24:BA:2632:A:HO2'	24:BA:2811:G:HO2'	1.47	0.58
28:BF:108:LYS:O	28:BF:112:MET:HG3	2.03	0.58
36:B0:12:ARG:HE	36:B0:16:HIS:CE1	2.21	0.58
39:B1:92:ARG:CZ	40:B2:11:GLN:H	2.17	0.58
1:CA:8:A:H5'	5:CH:101:ILE:HD12	1.84	0.58
1:CA:247:G:OP2	17:CT:100:LYS:NZ	2.36	0.58
1:CA:276:G:O2'	17:CT:68:ARG:NH1	2.36	0.58
1:CA:675:A:O2'	11:CN:114:VAL:O	2.19	0.58
1:CA:811:C:H4'	1:CA:900:A:N6	2.18	0.58
1:CA:1179:A:H4'	9:CL:102:LEU:O	2.03	0.58
1:CA:1291:G:H5"	7:CJ:37:ASN:OD1	2.03	0.58
1:CA:1369:C:H2'	1:CA:1370:G:O4'	2.03	0.58
7:CJ:69:VAL:HG22	7:CJ:135:VAL:CG2	2.32	0.58
8:CK:69:ARG:NH1	8:CK:75:ARG:O	2.37	0.58
10:CM:37:PRO:HA	10:CM:71:LEU:O	2.02	0.58
13:CP:19:LEU:HD13	13:CP:30:ALA:HB1	1.86	0.58
15:CR:48:LYS:HE2	15:CR:48:LYS:HA	1.85	0.58
19:CV:66:MET:H	19:CV:67:VAL:CG1	2.03	0.58
24:DA:1173:G:O2'	24:DA:1174:A:H5'	2.04	0.58
24:DA:1601:G:OP2	52:D7:49:ARG:NH2	2.36	0.58
24:DA:1899:G:HO2'	24:DA:1900:A:H5"	1.64	0.58
24:DA:2107:C:N3	24:DA:2182:G:N2	2.51	0.58
24:DA:2531:A:H5'	30:DH:157:TYR:CZ	2.39	0.58
25:DB:51:G:O6	37:DQ:32:LEU:HD22	2.03	0.58
30:DH:30:LYS:CG	30:DH:136:ILE:HG21	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DH:35:VAL:HG13	30:DH:71:LEU:HD21	1.86	0.58
31:DK:24:GLY:O	31:DK:28:ASN:HB2	2.02	0.58
34:DO:39:LYS:HB2	34:DO:45:LEU:HD11	1.86	0.58
38:DR:78:LEU:HD22	38:DR:79:HIS:CD2	2.37	0.58
40:D2:43:GLU:O	40:D2:44:LYS:HG2	2.03	0.58
44:DV:117:LEU:HD13	44:DV:118:GLN:H	1.67	0.58
49:D4:38:LYS:HE2	49:D4:38:LYS:HA	1.84	0.58
50:D5:46:CYS:HB3	50:D5:50:GLY:H	1.69	0.58
53:D8:23:VAL:HG23	53:D8:48:PHE:C	2.24	0.58
53:D8:29:LYS:O	53:D8:32:LEU:HD23	2.03	0.58
1:AA:107:G:C2'	1:AA:108:G:H5'	2.33	0.58
1:AA:406:G:C5'	4:AG:5:ILE:HD13	2.34	0.58
1:AA:614:A:O2'	1:AA:615:C:H5'	2.03	0.58
1:AA:1405:G:O4'	1:AA:1519:A:H4'	2.04	0.58
2:AE:215:LEU:H	2:AE:215:LEU:CD2	2.15	0.58
8:AK:94:TYR:CE1	8:AK:132:GLU:HB2	2.38	0.58
10:AM:21:GLN:HA	10:AM:24:VAL:HG12	1.85	0.58
13:AP:11:ARG:HG2	13:AP:46:LYS:CE	2.33	0.58
20:AW:13:LEU:C	20:AW:13:LEU:CD1	2.72	0.58
24:BA:573:G:O2'	24:BA:574:C:H3'	2.04	0.58
24:BA:654(F):C:O2	24:BA:654(O):G:N2	2.27	0.58
24:BA:2109:U:O4	24:BA:2179:C:N4	2.36	0.58
28:BF:42:ALA:O	28:BF:45:ARG:HB2	2.04	0.58
28:BF:62:ARG:HG2	28:BF:63:LYS:H	1.68	0.58
31:BK:21:VAL:HG21	31:BK:25:TYR:HD2	1.68	0.58
31:BK:62:LYS:O	31:BK:66:GLU:HG2	2.04	0.58
34:BO:89:ALA:HA	34:BO:121:LYS:HD3	1.84	0.58
36:B0:74:LYS:HE3	36:B0:77:ARG:NH2	2.19	0.58
37:BQ:26:LEU:HB3	37:BQ:87:PHE:HA	1.85	0.58
39:B1:44:ASN:HD21	40:B2:75:PHE:N	2.01	0.58
39:B1:58:ARG:HH11	39:B1:93:LYS:HE2	1.69	0.58
43:BU:83:THR:CG2	43:BU:84:ARG:N	2.66	0.58
45:B3:74:ARG:HG2	45:B3:74:ARG:O	2.02	0.58
49:B4:47:GLN:NE2	49:B4:49:PHE:HB3	2.19	0.58
53:B8:14:VAL:HG22	53:B8:15:LYS:N	2.19	0.58
1:CA:710:G:O2'	1:CA:711:G:H5'	2.04	0.58
1:CA:986:A:C2	19:CV:52:TYR:OH	2.33	0.58
1:CA:1147:C:N4	1:CA:1148:U:O4	2.37	0.58
1:CA:1346:A:H4'	1:CA:1347:G:O5'	2.04	0.58
4:CG:4:TYR:CD1	4:CG:5:ILE:N	2.71	0.58
5:CH:81:GLU:CG	5:CH:90:VAL:HG13	2.19	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CI:17:SER:O	6:CI:21:LEU:HD13	2.04	0.58
6:CI:41:GLU:O	6:CI:43:LEU:HD12	2.04	0.58
9:CL:17:VAL:CG1	9:CL:63:ILE:HD13	2.34	0.58
10:CM:15:THR:O	10:CM:19:SER:HB3	2.04	0.58
13:CP:8:GLU:OE1	13:CP:22:ILE:HA	2.04	0.58
15:CR:15:PHE:CE2	15:CR:84:LYS:HD2	2.38	0.58
16:CS:69:THR:O	16:CS:73:LEU:HG	2.04	0.58
19:CV:18:LYS:O	19:CV:22:LEU:HB2	2.03	0.58
24:DA:593:G:H4'	53:D8:61:LEU:HD22	1.84	0.58
24:DA:1077:A:O2'	24:DA:1088:A:N6	2.15	0.58
24:DA:2376:A:H2	37:DQ:112:PHE:CB	2.11	0.58
24:DA:2748:A:H2'	24:DA:2749:A:C8	2.38	0.58
24:DA:2749:A:O2'	30:DH:59:ARG:HD3	2.04	0.58
31:DK:14:ASP:OD1	31:DK:15:VAL:N	2.32	0.58
46:DZ:89:GLU:C	46:DZ:91:LYS:H	2.05	0.58
1:AA:1005:A:N1	1:AA:1024:G:O2'	2.34	0.58
3:AF:28:GLN:O	3:AF:32:LEU:HD23	2.03	0.58
4:AG:191:ARG:NH1	4:AG:195:ALA:HA	2.16	0.58
9:AL:10:ARG:HA	9:AL:104:ARG:NE	2.19	0.58
24:BA:579:G:H2'	24:BA:580:C:C6	2.38	0.58
24:BA:581:C:H2'	24:BA:582:G:C8	2.38	0.58
24:BA:1443:G:C2	24:BA:1549:C:N3	2.71	0.58
24:BA:1967:C:C2'	24:BA:1968:G:H5'	2.33	0.58
24:BA:2065:C:H2'	24:BA:2066:C:H6	1.69	0.58
24:BA:2297:C:O2'	24:BA:2298:A:H5'	2.04	0.58
24:BA:2791:C:H2'	24:BA:2792:G:H8	1.68	0.58
27:BE:91:VAL:HG13	27:BE:95:ILE:HD11	1.86	0.58
42:BT:57:LEU:HD23	42:BT:57:LEU:N	2.18	0.58
48:BX:23:LEU:HD22	48:BX:28:LEU:HD12	1.86	0.58
1:CA:405:U:H5"	1:CA:406:G:O4'	2.03	0.58
1:CA:468:A:O2'	16:CS:81:ARG:HA	2.03	0.58
1:CA:598:U:O2'	8:CK:94:TYR:CZ	2.45	0.58
1:CA:1179:A:N3	9:CL:104:ARG:CZ	2.64	0.58
1:CA:1289:A:N6	9:CL:70:LYS:HZ2	2.02	0.58
3:CF:14:ILE:O	3:CF:16:ARG:N	2.36	0.58
3:CF:195:VAL:HG23	3:CF:196:LEU:N	2.19	0.58
4:CG:29:PRO:C	4:CG:30:LYS:HG3	2.24	0.58
4:CG:138:TYR:CD1	4:CG:139:ARG:N	2.72	0.58
9:CL:2:GLU:N	9:CL:2:GLU:OE1	2.37	0.58
10:CM:30:SER:N	10:CM:84:GLN:OE1	2.36	0.58
24:DA:1071:G:OP2	24:DA:1071:G:C8	2.57	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1279:G:H4'	36:D0:31:HIS:CD2	2.39	0.58
24:DA:2692:C:H1'	24:DA:2847:U:O2'	2.04	0.58
24:DA:2712:U:O2'	24:DA:2712(A):A:P	2.62	0.58
25:DB:90:C:P	35:DP:16:ARG:HH21	2.27	0.58
40:D2:11:GLN:C	40:D2:12:TYR:CD1	2.76	0.58
40:D2:49:THR:O	40:D2:50:PRO:C	2.41	0.58
41:DS:79:GLY:HA3	41:DS:100:THR:HG22	1.84	0.58
45:D3:43:THR:HG23	45:D3:43:THR:O	2.04	0.58
49:D4:2:LYS:HA	49:D4:6:HIS:HD2	1.69	0.58
49:D4:62:ARG:HA	49:D4:62:ARG:NE	2.18	0.58
1:AA:193:C:C5'	20:AW:57:ARG:HH11	2.15	0.58
1:AA:196:A:P	20:AW:68:LYS:HZ3	2.26	0.58
1:AA:346:G:H2'	1:AA:346:G:N3	2.18	0.58
1:AA:1227:A:OP2	13:AP:111:LYS:HE3	2.04	0.58
2:AE:17:PHE:HB2	2:AE:42:ILE:CG2	2.33	0.58
3:AF:23:TYR:HD2	10:AM:10:GLY:HA2	1.67	0.58
4:AG:23:GLY:HA2	4:AG:112:VAL:HG21	1.82	0.58
4:AG:156:GLU:O	4:AG:160:GLN:HG3	2.04	0.58
9:AL:70:LYS:O	9:AL:74:ILE:HG13	2.02	0.58
17:AT:77:VAL:O	17:AT:78:GLU:CB	2.52	0.58
24:BA:442:G:H1'	28:BF:48:THR:HG21	1.85	0.58
24:BA:592:G:C2	53:B8:4:MET:HE1	2.37	0.58
24:BA:755:C:H2'	24:BA:756:C:C6	2.38	0.58
24:BA:1021:A:H62	24:BA:1141:U:H3	1.51	0.58
24:BA:1024:G:C3'	24:BA:1025:G:H5"	2.33	0.58
24:BA:1087:G:C5	24:BA:1089:G:H1'	2.38	0.58
24:BA:1098:A:H2'	24:BA:1099:G:O4'	2.02	0.58
24:BA:2523:G:C2'	24:BA:2524:G:H5'	2.34	0.58
26:BD:31:LYS:HE2	26:BD:102:LYS:HD3	1.85	0.58
38:BR:88:ILE:HD12	38:BR:89:VAL:N	2.18	0.58
38:BR:107:ASP:N	38:BR:107:ASP:OD1	2.35	0.58
39:B1:94:ASN:HB3	39:B1:95:LEU:HD12	1.86	0.58
42:BT:31:HIS:CD2	42:BT:33:LYS:H	2.22	0.58
49:B4:36:CYS:O	49:B4:39:CYS:HB2	2.04	0.58
1:CA:46:G:O2'	1:CA:365:U:H1'	2.04	0.58
1:CA:1050:G:O2'	1:CA:1051:C:H5'	2.04	0.58
1:CA:1148:U:OP1	9:CL:7:THR:HG21	2.04	0.58
1:CA:1157:A:H1'	1:CA:1181:G:H21	1.67	0.58
1:CA:1281:U:OP2	1:CA:1282:C:N4	2.26	0.58
4:CG:61:LYS:HD2	4:CG:206:PHE:HE2	1.69	0.58
9:CL:89:ASN:HB2	9:CL:92:TYR:CD2	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CV:28:LYS:HG2	19:CV:29:ARG:HG2	1.85	0.58
19:CV:52:TYR:OH	19:CV:54:GLY:O	2.21	0.58
24:DA:39:C:O2	28:DF:46:ARG:NH2	2.36	0.58
24:DA:844:C:C2'	24:DA:845:G:H5'	2.34	0.58
24:DA:944:G:H5"	24:DA:945:A:O5'	2.03	0.58
24:DA:979:G:H3'	24:DA:980:A:H5"	1.85	0.58
24:DA:1342:A:C6	24:DA:1397:U:C5	2.92	0.58
24:DA:2087:G:C2'	24:DA:2088:G:H5'	2.34	0.58
24:DA:2638:G:O2'	24:DA:2639:A:H8	1.86	0.58
25:DB:39:A:N1	49:D4:1:MET:HB3	2.19	0.58
32:DM:14:VAL:HG22	32:DM:15:LEU:H	1.69	0.58
37:DQ:14:VAL:HG22	37:DQ:18:ILE:HD12	1.86	0.58
38:DR:52:ILE:H	38:DR:98:LYS:NZ	2.02	0.58
39:D1:96:ALA:HA	39:D1:98:LEU:HD12	1.85	0.58
43:DU:46:LYS:HG2	43:DU:46:LYS:O	2.04	0.58
44:DV:151:HIS:CD2	44:DV:153:SER:OG	2.56	0.58
46:DZ:85:LEU:C	46:DZ:87:PRO:HD2	2.24	0.58
48:DX:13:ILE:H	48:DX:13:ILE:CD1	2.16	0.58
49:D4:13:ARG:O	49:D4:14:ILE:HG13	2.03	0.58
51:D6:40:CYS:HB2	51:D6:46:HIS:CE1	2.38	0.58
53:D8:23:VAL:HG23	53:D8:48:PHE:N	2.19	0.58
1:AA:458:C:H2'	1:AA:464:G:H8	1.69	0.58
1:AA:562:C:O4'	1:AA:563:A:C2	2.57	0.58
1:AA:792:A:H1'	1:AA:794:A:N7	2.19	0.58
1:AA:1280:A:O4'	10:AM:41:PRO:HG3	2.04	0.58
1:AA:1329:A:P	13:AP:28:ALA:HB3	2.44	0.58
2:AE:235:SER:HB2	2:AE:236:TYR:CD2	2.39	0.58
7:AJ:18:TYR:CD2	7:AJ:59:LEU:HD22	2.39	0.58
10:AM:24:VAL:HG23	10:AM:34:VAL:HG21	1.84	0.58
10:AM:33:GLN:O	10:AM:75:ILE:HG12	2.04	0.58
13:AP:20:THR:O	13:AP:22:ILE:N	2.31	0.58
13:AP:82:MET:CE	13:AP:92:HIS:HB3	2.34	0.58
18:AU:18:ARG:C	18:AU:19:LYS:HD2	2.24	0.58
24:BA:581:C:H2'	24:BA:582:G:H8	1.69	0.58
24:BA:717:G:H2'	24:BA:718:A:O4'	2.02	0.58
24:BA:919:G:N2	24:BA:2269:A:OP2	2.33	0.58
24:BA:1162:G:O2'	40:B2:90:PRO:HG2	2.04	0.58
24:BA:1600:C:O3'	52:B7:49:ARG:CZ	2.51	0.58
24:BA:1615:C:C6	24:BA:1617:C:C5	2.92	0.58
24:BA:1869:G:H5"	24:BA:1870:C:OP2	2.03	0.58
28:BF:57:VAL:HG13	28:BF:59:TYR:CD1	2.32	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BG:2:PRO:C	29:BG:4:ASP:H	2.04	0.58
29:BG:112:PRO:HB3	49:B4:37:SER:N	2.19	0.58
34:BO:39:LYS:CB	34:BO:45:LEU:CD2	2.82	0.58
35:BP:133:ARG:O	35:BP:134:ARG:HB2	2.04	0.58
42:BT:5:TYR:CD1	47:BW:33:MET:CE	2.86	0.58
51:B6:36:LEU:HD13	51:B6:50:ARG:NH1	2.18	0.58
1:CA:1188:A:H4'	14:CQ:58:LYS:HZ2	1.69	0.58
1:CA:1226:C:O2'	13:CP:111:LYS:NZ	2.36	0.58
1:CA:1324:A:OP1	1:CA:1362(A):C:H1'	2.04	0.58
1:CA:1366:C:P	9:CL:117:HIS:HE2	2.26	0.58
2:CE:20:GLU:O	2:CE:39:ILE:HA	2.04	0.58
2:CE:233:SER:HB3	2:CE:234:PRO:HD3	1.79	0.58
4:CG:178:VAL:O	4:CG:180:GLY:N	2.30	0.58
10:CM:28:ARG:NH2	10:CM:34:VAL:O	2.37	0.58
10:CM:48:THR:CA	10:CM:62:HIS:HB3	2.33	0.58
10:CM:63:PHE:CD1	14:CQ:58:LYS:HA	2.39	0.58
16:CS:55:ARG:HE	16:CS:55:ARG:HA	1.68	0.58
24:DA:861:A:N3	25:DB:79:C:O2'	2.35	0.58
24:DA:874:G:H2'	24:DA:875:G:H8	1.69	0.58
24:DA:1012:U:C2	24:DA:1143:A:H2	2.20	0.58
24:DA:1045:A:H2'	24:DA:1045:A:N3	2.19	0.58
24:DA:1047:G:H2'	24:DA:1109:C:H42	1.66	0.58
24:DA:1060:U:H4'	24:DA:1061:U:C5'	2.32	0.58
24:DA:1087:G:C6	24:DA:1089:G:N2	2.69	0.58
24:DA:1336:A:OP1	42:DT:64:LYS:HE3	2.03	0.58
24:DA:1337:G:H2'	24:DA:1338:G:C8	2.38	0.58
24:DA:2036:C:H5'	24:DA:2036:C:H6	1.68	0.58
24:DA:2213:U:O4'	46:DZ:52:ARG:NH2	2.36	0.58
27:DE:108:SER:HB3	27:DE:165:VAL:HG21	1.86	0.58
32:DM:62:VAL:CG2	32:DM:66:LYS:HD2	2.33	0.58
37:DQ:24:LEU:HD12	37:DQ:41:ASP:CB	2.34	0.58
42:DT:12:VAL:HG23	42:DT:17:ALA:HB2	1.86	0.58
43:DU:51:VAL:O	43:DU:52:SER:HB2	2.04	0.58
46:DZ:4:VAL:HG23	46:DZ:4:VAL:O	2.04	0.58
51:D6:10:LEU:O	51:D6:10:LEU:HD12	2.04	0.58
53:D8:49:VAL:CG1	53:D8:50:LEU:N	2.66	0.58
1:AA:97:U:H2'	1:AA:99:C:C6	2.38	0.58
1:AA:198:G:H2'	1:AA:199:G:C8	2.38	0.58
1:AA:321:A:N7	1:AA:328:C:C6	2.72	0.58
1:AA:999:U:H1'	24:DA:2137:C:H4'	1.86	0.58
1:AA:1138:G:H3'	1:AA:1138:G:N3	2.18	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AE:75:LYS:HA	2:AE:78:GLN:HB2	1.85	0.58
2:AE:196:LEU:HD12	2:AE:197:VAL:HG23	1.84	0.58
7:AJ:70:LYS:HE3	7:AJ:96:GLN:HB2	1.86	0.58
7:AJ:111:ARG:HB3	7:AJ:112:PRO:HD2	1.85	0.58
12:AO:33:ARG:HG2	12:AO:60:LEU:HD12	1.86	0.58
12:AO:46:LYS:HE2	12:AO:47:LYS:CD	2.33	0.58
14:AQ:10:ALA:HB2	14:AQ:23:ARG:HH21	1.68	0.58
19:AV:20:LEU:HG	19:AV:23:ASN:HD21	1.68	0.58
24:BA:932:G:OP1	48:BX:29:ARG:NH2	2.37	0.58
24:BA:1045:A:C2	24:BA:1111:A:N6	2.72	0.58
24:BA:1061:U:H4'	24:BA:1070:A:C1'	2.33	0.58
24:BA:1186:G:H2'	24:BA:1187:G:O4'	2.04	0.58
24:BA:1601:G:C4'	52:B7:49:ARG:HH12	2.15	0.58
24:BA:2593:U:H2'	24:BA:2594:C:H6	1.68	0.58
26:BD:69:ARG:HD3	26:BD:105:ILE:HD11	1.85	0.58
31:BK:5:LEU:C	31:BK:6:LEU:HD12	2.23	0.58
32:BM:34:LEU:O	32:BM:49:GLY:HA3	2.03	0.58
34:BO:123:LEU:HD13	34:BO:125:VAL:HG13	1.86	0.58
35:BP:109:VAL:HG12	35:BP:113:GLN:HB3	1.85	0.58
43:BU:38:ILE:HD11	43:BU:64:GLU:HG3	1.86	0.58
44:BV:167:PRO:O	44:BV:169:GLU:N	2.37	0.58
46:BZ:86:SER:N	46:BZ:87:PRO:HD3	2.19	0.58
51:B6:12:GLU:HB2	51:B6:23:THR:HG22	1.86	0.58
51:B6:40:CYS:HA	51:B6:46:HIS:HA	1.86	0.58
1:CA:171:A:H2'	1:CA:172:A:C8	2.39	0.58
1:CA:277:C:OP2	17:CT:41:LYS:NZ	2.31	0.58
1:CA:558:G:H2'	1:CA:559:A:C2	2.36	0.58
1:CA:960:U:N3	1:CA:1225:A:C4	2.71	0.58
2:CE:114:ARG:O	2:CE:118:LEU:HG	2.03	0.58
4:CG:138:TYR:HE1	4:CG:139:ARG:O	1.87	0.58
4:CG:161:ASN:O	4:CG:165:MET:HG2	2.03	0.58
7:CJ:16:LEU:HD12	9:CL:41:VAL:O	2.04	0.58
19:CV:62:ILE:HD12	19:CV:62:ILE:N	2.19	0.58
20:CW:83:ARG:O	20:CW:86:ARG:HB3	2.03	0.58
24:DA:815:C:H2'	24:DA:816:C:C6	2.38	0.58
24:DA:870:A:OP1	35:DP:6:ARG:CZ	2.52	0.58
24:DA:1131:G:O6	24:DA:2040:C:H1'	2.03	0.58
24:DA:1176:G:C2'	24:DA:1177:A:OP2	2.52	0.58
24:DA:1421:G:C2	24:DA:1422:G:C8	2.92	0.58
24:DA:1655:A:H4'	27:DE:115:GLY:N	2.19	0.58
24:DA:1899:G:C2'	24:DA:1900:A:OP2	2.51	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2335:A:O2'	24:DA:2336:A:H5"	2.04	0.58
26:DD:182:LEU:O	26:DD:271:ILE:HG13	2.04	0.58
27:DE:107:THR:O	27:DE:190:GLY:CA	2.51	0.58
27:DE:161:GLY:O	27:DE:162:ALA:HB3	2.03	0.58
29:DG:36:LYS:HA	29:DG:95:ARG:HG2	1.85	0.58
33:DN:13:ASN:C	33:DN:15:GLY:H	2.07	0.58
44:DV:25:PRO:O	44:DV:85:HIS:HA	2.03	0.58
1:AA:191(D):U:H2'	1:AA:191(E):G:C8	2.39	0.57
1:AA:450:G:H5"	16:AS:43:LYS:HZ2	1.69	0.57
1:AA:530:G:O2'	1:AA:531:U:OP1	2.21	0.57
1:AA:591:U:H2'	1:AA:592:G:C8	2.39	0.57
1:AA:1191:A:C5'	3:AF:4:LYS:HZ3	2.08	0.57
1:AA:1490:C:O2'	1:AA:1491:G:H5'	2.04	0.57
1:AA:1494:G:N2	24:BA:1912:A:C2	2.70	0.57
2:AE:135:GLN:O	2:AE:138:LEU:N	2.37	0.57
3:AF:150:LYS:HG3	3:AF:169:ALA:HB2	1.86	0.57
11:AN:19:ALA:HA	11:AN:32:ILE:HA	1.87	0.57
19:AV:28:LYS:CD	19:AV:47:HIS:CD2	2.86	0.57
24:BA:654(L):G:H5"	24:BA:654(M):C:C5	2.39	0.57
24:BA:901:A:H5'	24:BA:902:C:OP2	2.04	0.57
24:BA:1078:U:H1'	24:BA:1088:A:H2	1.69	0.57
24:BA:2418:A:C2'	24:BA:2419:U:O5'	2.52	0.57
26:BD:273:ARG:O	26:BD:273:ARG:HG3	2.04	0.57
29:BG:111:LEU:N	29:BG:112:PRO:HD2	2.18	0.57
29:BG:112:PRO:HA	49:B4:37:SER:CB	2.33	0.57
39:B1:91:ASP:O	39:B1:93:LYS:N	2.36	0.57
1:CA:411:A:O2'	1:CA:412:A:H5'	2.04	0.57
1:CA:659:U:OP1	15:CR:9:GLN:NE2	2.37	0.57
2:CE:9:GLU:HA	2:CE:213:LEU:HD21	1.86	0.57
2:CE:28:PHE:CD2	2:CE:32:ILE:HG22	2.39	0.57
2:CE:83:MET:O	2:CE:86:GLU:N	2.37	0.57
4:CG:29:PRO:HD2	4:CG:30:LYS:NZ	2.18	0.57
8:CK:119:LEU:HD23	8:CK:124:ALA:CB	2.33	0.57
9:CL:9:ARG:HD2	9:CL:14:VAL:CG2	2.32	0.57
14:CQ:41:ARG:HG3	14:CQ:42:ILE:HG12	1.86	0.57
18:CU:27:GLY:O	18:CU:29:PHE:HD1	1.86	0.57
19:CV:37:ARG:NH1	19:CV:37:ARG:HG3	2.09	0.57
24:DA:71:A:OP2	24:DA:71:A:C3'	2.50	0.57
24:DA:588:U:H1'	28:DF:90:PHE:CG	2.39	0.57
24:DA:756:C:O2'	24:DA:757:U:H5'	2.03	0.57
24:DA:889:C:N3	24:DA:890:A:O2'	2.36	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1288:U:C2	24:DA:1327:C:O2	2.57	0.57
24:DA:2287:A:OP1	51:D6:30:THR:HG22	2.04	0.57
37:DQ:42:ASP:O	37:DQ:43:GLU:HB2	2.04	0.57
39:D1:92:ARG:HH11	39:D1:95:LEU:HG	1.68	0.57
40:D2:55:ALA:HA	40:D2:101:GLY:CA	2.34	0.57
42:DT:50:LYS:O	42:DT:51:VAL:HB	2.04	0.57
51:D6:25:LYS:HB3	53:D8:34:TRP:CE3	2.39	0.57
53:D8:14:VAL:HG21	53:D8:22:VAL:CG1	2.34	0.57
1:AA:291:C:O2'	1:AA:292:G:H5'	2.05	0.57
1:AA:325:A:OP2	20:AW:70:SER:HB2	2.03	0.57
1:AA:922:G:N3	1:AA:1398:A:H2	2.02	0.57
1:AA:1310:G:O2'	1:AA:1311:G:H5'	2.04	0.57
3:AF:34:LEU:O	3:AF:34:LEU:HD23	2.04	0.57
3:AF:73:PRO:HG3	3:AF:105:GLU:HB2	1.85	0.57
4:AG:88:VAL:CG2	4:AG:91:SER:HB2	2.34	0.57
5:AH:51:VAL:CB	5:AH:52:PRO:HD3	2.25	0.57
9:AL:97:LYS:CB	9:AL:98:PRO:HD3	2.32	0.57
16:AS:43:LYS:HG3	16:AS:48:TRP:CE3	2.38	0.57
24:BA:888:C:H2'	24:BA:889:C:C6	2.39	0.57
24:BA:1021:A:H61	24:BA:1142(A):A:H61	1.52	0.57
24:BA:1348:G:H2'	24:BA:1349:A:H5"	1.85	0.57
26:BD:75:ILE:HG21	26:BD:99:ASP:OD1	2.04	0.57
31:BK:77:LEU:HD11	31:BK:140:LEU:HB2	1.86	0.57
31:BK:128:LEU:N	31:BK:138:ILE:O	2.33	0.57
36:B0:100:LEU:HD13	36:B0:112:ALA:HA	1.84	0.57
47:BW:64:LEU:CD2	47:BW:68:ARG:HD2	2.34	0.57
50:B5:51:TYR:O	50:B5:56:LYS:NZ	2.27	0.57
53:B8:17:THR:CG2	53:B8:23:VAL:CG2	2.81	0.57
1:CA:29:G:C5	1:CA:30:U:H5	2.22	0.57
1:CA:254:G:N2	17:CT:16:GLN:HE21	1.93	0.57
1:CA:563:A:H2'	1:CA:563:A:N3	2.18	0.57
1:CA:614:A:C5	1:CA:615:C:C5	2.92	0.57
1:CA:1004:A:C2	1:CA:1024:G:H1'	2.40	0.57
1:CA:1137:C:H5"	1:CA:1138:G:OP1	2.03	0.57
3:CF:164:ARG:HG2	3:CF:165:THR:N	2.19	0.57
4:CG:19:LEU:CB	4:CG:21:LEU:HD11	2.34	0.57
5:CH:101:ILE:HD12	5:CH:101:ILE:O	2.04	0.57
7:CJ:73:MET:HA	7:CJ:90:GLU:HA	1.85	0.57
13:CP:3:ARG:NH2	29:DG:139:LEU:HD21	2.19	0.57
13:CP:29:ARG:CB	13:CP:64:TRP:HH2	2.16	0.57
13:CP:40:ASN:HB3	13:CP:43:THR:HG23	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CQ:13:THR:N	14:CQ:14:PRO:CD	2.66	0.57
21:CX:9:ARG:CG	21:CX:10:ARG:N	2.65	0.57
24:DA:885:C:H1'	24:DA:892:G:H22	1.66	0.57
24:DA:902:C:H2'	24:DA:903:C:C6	2.39	0.57
24:DA:1729:A:H1'	24:DA:1730:U:C5	2.39	0.57
24:DA:2823:A:OP1	27:DE:113:PHE:HB2	2.04	0.57
30:DH:125:VAL:HG13	30:DH:126:PRO:HD2	1.85	0.57
37:DQ:68:GLN:OE1	37:DQ:68:GLN:N	2.27	0.57
38:DR:134:GLU:OE2	38:DR:134:GLU:N	2.37	0.57
40:D2:21:ARG:NE	40:D2:91:TYR:HB3	2.18	0.57
43:DU:47:LYS:N	43:DU:60:PHE:HB3	2.19	0.57
48:DX:18:ASP:OD1	48:DX:19:GLN:N	2.37	0.57
51:D6:36:LEU:HG	51:D6:50:ARG:NE	2.19	0.57
1:AA:130:A:C8	17:AT:63:ARG:HD3	2.39	0.57
1:AA:191:G:H2'	1:AA:192:U:O4'	2.04	0.57
1:AA:464:G:N2	1:AA:467:G:C8	2.73	0.57
1:AA:760:G:H2'	1:AA:761:G:H5'	1.86	0.57
3:AF:98:ASN:O	3:AF:100:ALA:N	2.34	0.57
4:AG:30:LYS:HD3	4:AG:30:LYS:C	2.23	0.57
6:AI:99:ALA:HB1	18:AU:23:LYS:NZ	2.18	0.57
7:AJ:16:LEU:HD13	9:AL:44:VAL:HG22	1.86	0.57
11:AN:31:THR:OG1	11:AN:42:TRP:HB3	2.04	0.57
14:AQ:21:TYR:HE1	14:AQ:23:ARG:NH2	2.01	0.57
17:AT:67:LYS:HA	17:AT:70:ARG:NH1	2.18	0.57
19:AV:16:LEU:CD1	19:AV:20:LEU:CD1	2.83	0.57
24:BA:2250:G:N2	35:BP:84:GLY:HA3	2.19	0.57
24:BA:2489:G:O2'	24:BA:2518:A:N6	2.38	0.57
24:BA:2629:A:O2'	24:BA:2630:G:H5"	2.03	0.57
26:BD:270:ILE:HG22	26:BD:271:ILE:N	2.19	0.57
33:BN:71:ARG:NH1	38:BR:74:ARG:HH21	2.02	0.57
44:BV:65:GLN:OE1	44:BV:67:LEU:HD21	2.04	0.57
47:BW:55:ARG:O	47:BW:58:ALA:HB3	2.04	0.57
50:B5:4:HIS:CB	50:B5:5:PRO:CD	2.82	0.57
1:CA:429:U:P	4:CG:13:ARG:NH2	2.77	0.57
1:CA:792:A:H1'	1:CA:794:A:N7	2.18	0.57
1:CA:994:A:N6	1:CA:1216:G:H5'	2.19	0.57
1:CA:1305:G:H2'	1:CA:1331:G:N2	2.20	0.57
1:CA:1423:G:H5'	33:DN:49:ARG:HH12	1.68	0.57
2:CE:97:TRP:CZ2	2:CE:102:LEU:HD13	2.37	0.57
4:CG:4:TYR:HD1	4:CG:5:ILE:N	2.03	0.57
4:CG:39:PRO:O	4:CG:44:GLY:HA3	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CK:46:LYS:HE3	8:CK:63:LEU:O	2.04	0.57
9:CL:48:GLU:N	9:CL:49:PRO:CD	2.68	0.57
10:CM:20:ALA:O	10:CM:23:ILE:HB	2.03	0.57
15:CR:63:ARG:O	15:CR:67:LEU:HD12	2.03	0.57
18:CU:53:ARG:O	18:CU:57:GLY:N	2.36	0.57
24:DA:89:G:H3'	24:DA:90:U:H5"	1.86	0.57
24:DA:511:U:C2'	24:DA:512:G:H5"	2.34	0.57
24:DA:783:A:H2'	24:DA:784:A:O3'	2.03	0.57
24:DA:889:C:H2'	24:DA:890:A:H4'	1.85	0.57
24:DA:924:C:H2'	24:DA:925:C:C6	2.40	0.57
24:DA:956:G:OP2	35:DP:14:ARG:NH2	2.37	0.57
24:DA:1224:G:N2	24:DA:1227:A:OP2	2.32	0.57
29:DG:125:PHE:HB3	29:DG:166:ASP:HB2	1.86	0.57
30:DH:124:GLU:CD	30:DH:124:GLU:H	2.07	0.57
31:DK:47:LEU:HG	31:DK:51:ILE:HD11	1.85	0.57
35:DP:58:PHE:C	35:DP:59:ARG:HE	2.08	0.57
37:DQ:43:GLU:O	37:DQ:44:LYS:HG3	2.04	0.57
37:DQ:49:VAL:HG11	37:DQ:73:LEU:HD13	1.84	0.57
39:D1:108:GLU:OE2	40:D2:45:THR:HA	2.04	0.57
40:D2:37:VAL:CG2	40:D2:38:LEU:HD12	2.33	0.57
53:D8:34:TRP:O	53:D8:36:LYS:N	2.37	0.57
1:AA:75:C:H2'	1:AA:76:G:O4'	2.05	0.57
1:AA:656:C:H4'	15:AR:62:GLN:NE2	2.19	0.57
1:AA:663:A:C5'	18:AU:61:LYS:HE3	2.33	0.57
1:AA:881:G:P	12:AO:12:ARG:HH22	2.27	0.57
1:AA:1381:U:H1'	7:AJ:79:ARG:HG2	1.87	0.57
4:AG:61:LYS:HD3	4:AG:62:GLN:N	2.20	0.57
4:AG:200:GLU:O	4:AG:203:VAL:N	2.38	0.57
11:AN:105:VAL:O	11:AN:105:VAL:HG23	2.05	0.57
12:AO:18:VAL:CG2	12:AO:19:ARG:N	2.68	0.57
20:AW:44:ALA:HB1	20:AW:88:VAL:HG13	1.84	0.57
21:AX:5:ASP:O	21:AX:11:GLY:HA3	2.03	0.57
24:BA:883:G:H2'	24:BA:884:C:O4'	2.04	0.57
24:BA:1458:C:H5"	24:BA:1459:G:H5'	1.86	0.57
24:BA:1541:U:C2'	24:BA:1542:G:H5'	2.34	0.57
24:BA:2427:C:C5'	24:BA:2428:G:OP1	2.45	0.57
25:BB:70:C:N3	25:BB:71:C:C5	2.72	0.57
27:BE:61:ARG:O	27:BE:63:LEU:HD23	2.04	0.57
30:BH:153:LYS:CB	30:BH:162:ILE:H	2.12	0.57
32:BM:90:MET:CE	32:BM:90:MET:HA	2.35	0.57
38:BR:7:ILE:C	38:BR:9:LEU:N	2.56	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BS:1:MET:C	41:BS:64:MET:HE1	2.25	0.57
44:BV:128:VAL:HG22	44:BV:129:SER:N	2.19	0.57
1:CA:200:G:O2'	1:CA:201:C:H5'	2.04	0.57
1:CA:243:A:H4'	1:CA:244:U:O5'	2.03	0.57
1:CA:485:G:HO2'	1:CA:486:U:P	2.27	0.57
1:CA:1126:U:H4'	1:CA:1127:G:H8	1.67	0.57
1:CA:1153:C:H2'	1:CA:1154:G:O4'	2.04	0.57
6:CI:23:LYS:O	6:CI:26:ILE:HB	2.04	0.57
7:CJ:38:LEU:O	7:CJ:42:ILE:HG13	2.04	0.57
9:CL:36:TYR:CD2	9:CL:37:PHE:HE1	2.20	0.57
11:CN:12:ARG:HA	11:CN:12:ARG:HE	1.69	0.57
11:CN:21:ILE:HG12	11:CN:30:VAL:HG12	1.85	0.57
12:CO:47:LYS:CG	12:CO:48:PRO:HD3	2.32	0.57
15:CR:24:SER:O	15:CR:28:GLN:HG3	2.05	0.57
17:CT:74:LEU:HD12	17:CT:75:ARG:HG2	1.85	0.57
24:DA:405:U:O2	24:DA:405:U:C3'	2.52	0.57
24:DA:978:G:C2	24:DA:986:C:C2	2.92	0.57
24:DA:2163:C:H5"	24:DA:2172:U:OP2	2.03	0.57
29:DG:113:ARG:HG2	29:DG:140:ILE:CA	2.32	0.57
33:DN:87:ILE:HD11	33:DN:92:GLU:CA	2.34	0.57
34:DO:63:PRO:HB3	53:D8:13:ARG:HG2	1.85	0.57
41:DS:18:ARG:HE	41:DS:76:VAL:HG13	1.70	0.57
41:DS:113:LYS:H	41:DS:113:LYS:HZ3	1.51	0.57
43:DU:11:ASP:O	43:DU:27:VAL:HG12	2.04	0.57
53:D8:24:ALA:H	53:D8:49:VAL:HG23	1.70	0.57
1:AA:501:C:OP1	12:AO:117:ARG:NH2	2.37	0.57
1:AA:724:G:C2	1:AA:725:G:C8	2.92	0.57
1:AA:1256:A:N6	1:AA:1278:U:OP2	2.38	0.57
2:AE:98:LEU:H	2:AE:101:MET:HE3	1.68	0.57
19:AV:21:GLU:HG3	19:AV:25:LYS:HD2	1.86	0.57
24:BA:205:G:O2'	24:BA:206:U:OP2	2.18	0.57
24:BA:674:G:H1'	28:BF:74:ARG:HD3	1.85	0.57
24:BA:958:U:OP2	35:BP:14:ARG:NH1	2.37	0.57
24:BA:1077:A:H3'	24:BA:1077:A:N3	2.20	0.57
24:BA:1304:C:O2'	24:BA:1305:C:H5'	2.05	0.57
24:BA:1833:U:H2'	24:BA:1834:U:C6	2.36	0.57
24:BA:2415:G:H4'	34:BO:66:GLY:C	2.25	0.57
24:BA:2418:A:C1'	51:B6:21:TYR:CE2	2.88	0.57
24:BA:2478:A:C2'	24:BA:2479:G:H5'	2.35	0.57
35:BP:138:ASP:OD1	44:BV:81:ARG:NH2	2.37	0.57
43:BU:6:HIS:HE1	43:BU:69:ALA:O	1.88	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BV:7:ALA:HB2	44:BV:59:LEU:HD22	1.86	0.57
1:CA:197:A:C8	1:CA:198:G:C1'	2.88	0.57
1:CA:498:A:H4'	1:CA:500:G:OP1	2.04	0.57
4:CG:27:TYR:O	4:CG:28:SER:HB2	2.05	0.57
4:CG:108:LEU:HD11	4:CG:174:LEU:HB3	1.85	0.57
5:CH:76:ILE:CD1	5:CH:142:LEU:CD1	2.80	0.57
14:CQ:6:LEU:O	14:CQ:6:LEU:HD23	2.04	0.57
18:CU:58:LEU:HB2	18:CU:62:GLU:OE1	2.04	0.57
19:CV:9:VAL:HG11	49:D4:63:TYR:CZ	2.38	0.57
22:CC:12:G:H4'	24:DA:1908:C:O2	2.04	0.57
24:DA:176:G:C2'	24:DA:177:G:H5'	2.34	0.57
24:DA:2142:C:H2'	24:DA:2143:C:C6	2.39	0.57
24:DA:2212:A:H1'	24:DA:2215:G:C4	2.40	0.57
24:DA:2634:G:H4'	27:DE:77:ILE:HD12	1.87	0.57
25:DB:18:G:H1	25:DB:65:C:H42	1.52	0.57
26:DD:26:LYS:H	26:DD:26:LYS:CD	2.16	0.57
36:D0:37:THR:HG22	36:D0:39:PRO:CD	2.25	0.57
38:DR:51:ARG:HG3	38:DR:98:LYS:HE3	1.86	0.57
46:DZ:87:PRO:O	46:DZ:91:LYS:HG2	2.04	0.57
1:AA:607:A:C2	16:AS:31:LYS:HG3	2.40	0.57
1:AA:1023:G:C5	1:AA:1024:G:H1'	2.39	0.57
2:AE:176:GLU:H	2:AE:176:GLU:CD	2.05	0.57
3:AF:121:ALA:HB1	3:AF:189:ALA:HB2	1.86	0.57
4:AG:29:PRO:O	4:AG:34:GLU:HB2	2.04	0.57
8:AK:44:PHE:CE2	8:AK:109:ILE:HG22	2.35	0.57
10:AM:6:ILE:CD1	10:AM:23:ILE:HG21	2.35	0.57
16:AS:53:VAL:HG12	16:AS:79:VAL:HG13	1.87	0.57
24:BA:192:C:O2'	24:BA:802:A:N3	2.34	0.57
24:BA:449:A:H2'	24:BA:450:G:H5'	1.86	0.57
24:BA:748:G:OP2	41:BS:88:ARG:HG3	2.04	0.57
24:BA:1310:G:C8	24:BA:1311:G:N7	2.73	0.57
24:BA:1991:U:O2'	24:BA:1992:G:H5"	2.05	0.57
24:BA:2320:A:C2	24:BA:2333:A:C8	2.92	0.57
29:BG:104:GLU:HG2	49:B4:23:GLU:CD	2.24	0.57
34:BO:140:ALA:O	34:BO:141:ALA:HB2	2.03	0.57
43:BU:5:MET:CE	43:BU:32:PRO:HA	2.34	0.57
43:BU:76:CYS:CA	43:BU:81:LYS:HZ1	2.17	0.57
50:B5:40:LYS:HD3	50:B5:46:CYS:CB	2.34	0.57
51:B6:11:LEU:HD21	51:B6:51:GLU:CD	2.25	0.57
51:B6:11:LEU:HG	51:B6:12:GLU:N	2.19	0.57
1:CA:866:C:O2'	1:CA:919:A:OP1	2.21	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:976:G:H3'	14:CQ:31:ARG:NH1	2.20	0.57
1:CA:1014:A:C5'	19:CV:15:LEU:HD11	2.29	0.57
1:CA:1124:G:O2'	1:CA:1145:C:N3	2.31	0.57
1:CA:1358:U:H3'	1:CA:1359:C:C6	2.39	0.57
4:CG:31:CYS:CB	4:CG:33:MET:HG3	2.30	0.57
4:CG:58:LEU:HD23	4:CG:62:GLN:HG2	1.87	0.57
5:CH:31:LEU:HG	5:CH:45:PHE:HB2	1.87	0.57
10:CM:21:GLN:NE2	10:CM:24:VAL:CG1	2.68	0.57
24:DA:1602:U:P	42:DT:60:ARG:HH22	2.27	0.57
24:DA:2127:G:N1	24:DA:2162:G:N3	2.53	0.57
24:DA:2565:A:H5"	24:DA:2566:A:OP2	2.05	0.57
27:DE:4:ILE:CG1	27:DE:28:ALA:HB1	2.34	0.57
27:DE:13:ARG:HA	27:DE:21:VAL:O	2.05	0.57
29:DG:80:PHE:HD2	29:DG:82:LEU:CD1	2.10	0.57
29:DG:112:PRO:HG2	49:D4:37:SER:HB2	1.86	0.57
39:D1:69:CYS:O	39:D1:74:LEU:HD12	2.03	0.57
47:DW:64:LEU:O	47:DW:64:LEU:HD23	2.05	0.57
1:AA:754:C:O2	1:AA:754:C:C2'	2.52	0.57
1:AA:1035:A:H3'	1:AA:1036:G:C5'	2.26	0.57
1:AA:1305:G:H5'	21:AX:4:GLY:HA3	1.86	0.57
1:AA:1316:G:H5"	14:AQ:17:LYS:NZ	2.20	0.57
2:AE:76:GLN:O	2:AE:208:ILE:HG12	2.04	0.57
3:AF:173:VAL:HG12	3:AF:175:LEU:HD11	1.85	0.57
4:AG:31:CYS:C	4:AG:33:MET:HG3	2.25	0.57
6:AI:22:GLU:O	6:AI:26:ILE:HG13	2.04	0.57
15:AR:82:ILE:O	15:AR:86:GLY:N	2.34	0.57
17:AT:22:LEU:HD22	17:AT:88:TYR:HD2	1.65	0.57
20:AW:33:ILE:CD1	20:AW:62:LEU:HB3	2.35	0.57
24:BA:271(C):U:O2'	24:BA:271:G:OP2	2.21	0.57
24:BA:1175:U:H1'	24:BA:1176:G:N3	2.20	0.57
24:BA:1210:A:C5'	24:BA:1212:G:H5'	2.32	0.57
24:BA:1921:G:O2'	24:BA:1922:G:H5'	2.04	0.57
26:BD:35:LYS:CE	26:BD:65:ILE:HA	2.34	0.57
28:BF:20:LEU:HD12	28:BF:21:ALA:H	1.70	0.57
29:BG:112:PRO:CA	49:B4:37:SER:CB	2.82	0.57
29:BG:131:TYR:HB3	29:BG:159:VAL:CG2	2.35	0.57
48:BX:54:VAL:HG22	48:BX:55:ARG:N	2.20	0.57
49:B4:52:THR:HG23	49:B4:53:GLU:N	2.15	0.57
52:B7:5:TRP:NE1	52:B7:7:PRO:HG3	2.19	0.57
1:CA:57:G:H2'	1:CA:58:C:H6	1.70	0.57
1:CA:408:A:C2	1:CA:435:C:N3	2.73	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:599:C:OP1	8:CK:94:TYR:HE2	1.81	0.57
2:CE:114:ARG:HG2	2:CE:141:GLU:OE2	2.05	0.57
6:CI:12:PRO:HG3	6:CI:57:GLN:HG3	1.87	0.57
19:CV:15:LEU:N	19:CV:15:LEU:HD22	2.20	0.57
19:CV:31:ILE:HD11	19:CV:33:THR:H	1.69	0.57
24:DA:90:U:O2'	24:DA:91:A:C8	2.57	0.57
24:DA:1616:A:H4'	24:DA:1617:C:OP2	2.04	0.57
24:DA:2370:G:H21	51:D6:45:LYS:HE2	1.68	0.57
24:DA:2526:G:H5'	24:DA:2742:C:O2'	2.05	0.57
24:DA:2859:G:O2'	24:DA:2860:A:C5'	2.52	0.57
24:DA:2872:G:C4	24:DA:2873:A:N1	2.73	0.57
26:DD:3:VAL:HG12	26:DD:17:THR:HB	1.86	0.57
26:DD:273:ARG:O	26:DD:273:ARG:HG2	2.03	0.57
31:DK:114:LEU:O	31:DK:115:ALA:HB3	2.05	0.57
40:D2:35:LEU:CD2	40:D2:57:VAL:HG13	2.16	0.57
52:D7:26:GLY:O	52:D7:30:VAL:HG23	2.05	0.57
1:AA:142:G:H1	1:AA:221:C:H42	1.53	0.57
1:AA:484:G:H1'	1:AA:485:G:OP2	2.04	0.57
2:AE:176:GLU:O	2:AE:179:LYS:N	2.37	0.57
4:AG:152:SER:C	4:AG:154:ASN:N	2.58	0.57
5:AH:98:THR:HB	5:AH:117:ASP:HB3	1.87	0.57
13:AP:20:THR:C	13:AP:22:ILE:H	2.08	0.57
24:BA:320:A:H5"	24:BA:321:G:OP1	2.05	0.57
24:BA:910:A:N7	35:BP:13:GLN:HG3	2.20	0.57
26:BD:44:ASN:HB3	26:BD:49:ILE:HA	1.87	0.57
38:BR:23:ARG:NH2	38:BR:120:ARG:HD3	2.20	0.57
44:BV:33:LEU:HD21	44:BV:90:VAL:HG21	1.86	0.57
45:B3:49:LYS:O	45:B3:50:ASN:HB2	2.05	0.57
48:BX:7:LYS:HB2	48:BX:34:GLU:HG2	1.85	0.57
1:CA:37:U:H2'	1:CA:38:G:H8	1.70	0.57
1:CA:626:U:H2'	1:CA:627:G:C8	2.40	0.57
1:CA:736:C:OP1	18:CU:72:ARG:NH2	2.30	0.57
1:CA:1321:C:P	1:CA:1322:C:H3'	2.45	0.57
1:CA:1387:G:O2'	1:CA:1388:C:H5'	2.03	0.57
3:CF:64:VAL:CG2	3:CF:66:VAL:HG23	2.35	0.57
3:CF:185:GLY:O	3:CF:200:ALA:N	2.38	0.57
4:CG:126:ILE:HG22	4:CG:127:THR:H	1.69	0.57
5:CH:76:ILE:CG1	5:CH:77:PRO:HD2	2.35	0.57
6:CI:14:LEU:HD12	6:CI:14:LEU:N	2.19	0.57
9:CL:106:ALA:O	9:CL:108:VAL:CG1	2.51	0.57
15:CR:39:LEU:HD13	15:CR:39:LEU:C	2.25	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CU:81:PHE:O	18:CU:82:THR:OG1	2.19	0.57
24:DA:1645:G:H5"	24:DA:1646:C:H5'	1.86	0.57
24:DA:2612:C:C5	24:DA:2613:U:H5	2.23	0.57
24:DA:2629:A:HO2'	24:DA:2630:G:C5'	2.17	0.57
25:DB:15:A:H5'	25:DB:16:G:H8	1.70	0.57
25:DB:33:G:C6	25:DB:34:U:N3	2.73	0.57
25:DB:45:A:C1'	29:DG:95:ARG:NH1	2.66	0.57
25:DB:104:A:O4'	44:DV:29:TYR:HE2	1.88	0.57
26:DD:218:ARG:HB3	26:DD:219:PRO:HD2	1.86	0.57
29:DG:140:ILE:CG1	29:DG:141:PHE:N	2.67	0.57
31:DK:62:LYS:HE3	31:DK:134:PRO:HD3	1.86	0.57
32:DM:39:ARG:C	32:DM:41:ASP:H	2.06	0.57
39:D1:27:LEU:HB3	39:D1:31:SER:HB3	1.86	0.57
39:D1:108:GLU:O	39:D1:112:ARG:HG2	2.04	0.57
53:D8:23:VAL:HG23	53:D8:48:PHE:H	1.70	0.57
1:AA:739:C:OP1	6:AI:2:ARG:NH2	2.38	0.57
1:AA:929:G:C6	1:AA:930:C:C4	2.92	0.57
1:AA:1360:A:OP2	14:AQ:35:ARG:NH2	2.38	0.57
2:AE:200:ILE:HD12	2:AE:200:ILE:H	1.70	0.57
7:AJ:115:ARG:CB	7:AJ:118:VAL:HG12	2.31	0.57
8:AK:112:LEU:HD23	8:AK:112:LEU:N	2.20	0.57
9:AL:121:ARG:NH1	9:AL:122:ALA:O	2.38	0.57
13:AP:57:ARG:NH1	13:AP:57:ARG:HB2	2.20	0.57
18:AU:29:PHE:HE2	18:AU:43:PHE:HZ	1.51	0.57
19:AV:50:ALA:O	19:AV:57:HIS:HB3	2.04	0.57
24:BA:78:A:H2'	24:BA:79:G:C8	2.39	0.57
24:BA:479:A:N3	24:BA:481:G:H5"	2.19	0.57
24:BA:1055:G:H1'	24:BA:1085:A:N6	2.20	0.57
24:BA:1192:G:C2'	24:BA:1193:G:H5'	2.34	0.57
24:BA:2199:A:H2'	24:BA:2199:A:N3	2.19	0.57
24:BA:2749:A:H4'	30:BH:62:LYS:HB3	1.87	0.57
26:BD:147:LEU:HD13	26:BD:155:LEU:HD11	1.87	0.57
40:B2:38:LEU:O	40:B2:51:VAL:HG13	2.04	0.57
1:CA:87:A:H2	1:CA:88:C:C6	2.21	0.57
1:CA:938:A:C6	1:CA:939:G:C5	2.93	0.57
1:CA:1098:C:OP2	2:CE:144:ARG:CZ	2.53	0.57
1:CA:1320:C:C4	1:CA:1321:C:N3	2.72	0.57
2:CE:21:ARG:O	2:CE:23:ARG:N	2.38	0.57
4:CG:29:PRO:O	4:CG:30:LYS:HG3	2.05	0.57
5:CH:151:LEU:CD1	8:CK:79:VAL:HG22	2.34	0.57
6:CI:61:LEU:O	6:CI:62:TRP:HB2	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CO:50:SER:O	12:CO:51:ALA:HB2	2.04	0.57
13:CP:3:ARG:HG2	13:CP:9:ILE:HG23	1.84	0.57
13:CP:3:ARG:HH21	29:DG:139:LEU:HD21	1.70	0.57
24:DA:780:G:OP1	26:DD:218:ARG:NH2	2.27	0.57
24:DA:2228:G:OP1	26:DD:261:LYS:NZ	2.27	0.57
30:DH:107:VAL:C	30:DH:109:PHE:H	2.08	0.57
30:DH:120:GLY:O	30:DH:135:GLY:HA2	2.04	0.57
37:DQ:25:ARG:CD	37:DQ:88:ASP:HB2	2.33	0.57
47:DW:10:LEU:O	47:DW:14:ARG:HG3	2.05	0.57
1:AA:56:U:H5'	31:DK:82:ARG:NH2	2.19	0.57
1:AA:543:C:C2'	1:AA:544:G:H5'	2.34	0.57
1:AA:559:A:C5'	1:AA:560:U:H3'	2.34	0.57
1:AA:638:G:H2'	1:AA:639:G:H8	1.69	0.57
1:AA:748:C:OP2	1:AA:748:C:H6	1.88	0.57
1:AA:974:A:C2'	1:AA:975:A:OP2	2.53	0.57
2:AE:8:LYS:HZ3	2:AE:217:ARG:HH21	1.53	0.57
7:AJ:22:LEU:HD23	7:AJ:22:LEU:O	2.04	0.57
7:AJ:155:ARG:HD3	7:AJ:155:ARG:H	1.70	0.57
14:AQ:8:GLU:OE2	14:AQ:8:GLU:HA	2.05	0.57
22:AC:18:G:N2	22:AC:58:A:C5	2.73	0.57
24:BA:189:G:H2'	24:BA:205:G:N2	2.20	0.57
24:BA:1021:A:H3'	24:BA:1021:A:C8	2.40	0.57
24:BA:1998:G:C3'	24:BA:1999:C:H5'	2.32	0.57
24:BA:2688:U:O2	24:BA:2688:U:C3'	2.53	0.57
25:BB:12:C:OP2	25:BB:12:C:H6	1.88	0.57
25:BB:42:C:OP2	49:B4:2:LYS:CE	2.51	0.57
26:BD:65:ILE:HD12	26:BD:66:ASP:N	2.19	0.57
26:BD:136:ILE:HG23	26:BD:137:PRO:HD2	1.87	0.57
31:BK:92:VAL:CG1	31:BK:120:ILE:HG23	2.21	0.57
34:BO:49:ARG:HG3	53:B8:59:LYS:HG3	1.85	0.57
36:B0:33:ARG:HH22	50:B5:55:ARG:HB3	1.69	0.57
36:B0:40:LYS:O	36:B0:44:LEU:HB2	2.04	0.57
37:BQ:70:GLY:HA2	37:BQ:101:LEU:CD1	2.35	0.57
38:BR:90:GLN:OE1	38:BR:121:ILE:HD11	2.04	0.57
39:B1:66:ASN:OD1	39:B1:76:TYR:HB3	2.05	0.57
43:BU:81:LYS:HD2	43:BU:96:ILE:HG21	1.85	0.57
44:BV:128:VAL:HG22	44:BV:129:SER:H	1.70	0.57
50:B5:40:LYS:NZ	50:B5:46:CYS:HB3	2.20	0.57
1:CA:1259:C:H3'	1:CA:1260:C:C5'	2.30	0.57
2:CE:33:TYR:HB2	2:CE:43:ASP:HA	1.87	0.57
3:CF:30:ARG:HG3	14:CQ:37:PHE:O	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CG:65:ARG:CG	4:CG:75:PHE:HD2	2.18	0.57
4:CG:92:VAL:HG12	4:CG:96:LEU:HD21	1.85	0.57
10:CM:28:ARG:HH12	10:CM:33:GLN:CA	2.13	0.57
14:CQ:8:GLU:O	14:CQ:10:ALA:N	2.38	0.57
14:CQ:24:CYS:CB	14:CQ:29:ARG:HH11	2.18	0.57
17:CT:57:VAL:HG12	17:CT:76:LEU:HA	1.85	0.57
19:CV:49:ILE:CD1	19:CV:51:VAL:CG2	2.81	0.57
19:CV:55:LYS:O	19:CV:56:GLN:HB3	2.04	0.57
21:CX:6:ARG:NE	21:CX:15:ARG:HH12	2.02	0.57
24:DA:299:A:H5"	43:DU:84:ARG:NH1	2.19	0.57
24:DA:322:A:OP2	28:DF:169:ASN:HB2	2.05	0.57
24:DA:550:G:O2'	24:DA:1220:A:N3	2.29	0.57
24:DA:776:G:H4'	24:DA:777:A:O5'	2.03	0.57
24:DA:942:G:H2'	24:DA:943:U:O5'	2.05	0.57
24:DA:1093:G:N2	24:DA:1097:U:H5"	2.18	0.57
24:DA:1133:U:H2'	24:DA:1137:G:OP1	2.05	0.57
24:DA:1225:C:HO2'	40:D2:85:LYS:N	2.01	0.57
24:DA:1889:A:H1'	24:DA:2087:G:H5'	1.87	0.57
24:DA:2096:U:H3	24:DA:2193:G:H1	1.51	0.57
24:DA:2191:G:C5	24:DA:2192:G:N7	2.72	0.57
24:DA:2502:G:C5'	24:DA:2503:A:H5"	2.32	0.57
24:DA:2820:A:C6	36:D0:4:LEU:HD11	2.39	0.57
29:DG:75:LYS:HG3	29:DG:76:SER:N	2.20	0.57
31:DK:138:ILE:O	31:DK:138:ILE:HG23	2.04	0.57
37:DQ:7:TYR:HE1	37:DQ:11:LYS:NZ	2.01	0.57
44:DV:107:THR:HG22	44:DV:107:THR:O	2.05	0.57
53:D8:34:TRP:C	53:D8:36:LYS:H	2.08	0.57
1:AA:162:A:H3'	1:AA:163:C:H4'	1.87	0.56
1:AA:162:A:H3'	1:AA:163:C:H5"	1.85	0.56
3:AF:73:PRO:HA	3:AF:76:VAL:CG2	2.34	0.56
4:AG:53:ASP:HB3	4:AG:57:ARG:HH12	1.70	0.56
24:BA:880:G:H22	24:BA:898:C:H1'	1.70	0.56
24:BA:901:A:H2'	24:BA:901:A:N3	2.20	0.56
24:BA:1063:G:H2'	24:BA:1064:C:O4'	2.05	0.56
24:BA:1079:C:H41	24:BA:1088:A:P	2.28	0.56
24:BA:1663:C:HO2'	24:BA:1664:A:H8	1.51	0.56
24:BA:1665:A:C2'	24:BA:1666:G:H5'	2.34	0.56
24:BA:2346:A:H5"	24:BA:2383:G:O4'	2.05	0.56
24:BA:2371:G:N3	51:B6:46:HIS:HE1	2.03	0.56
35:BP:33:GLY:HA2	35:BP:105:GLU:CB	2.33	0.56
44:BV:140:ASP:O	44:BV:141:VAL:HB	2.04	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:376:G:O3'	16:CS:5:ARG:NE	2.30	0.56
1:CA:836:G:C6	1:CA:851:G:C6	2.92	0.56
3:CF:140:ARG:HH11	3:CF:141:VAL:HG23	1.70	0.56
4:CG:10:ARG:HG2	4:CG:10:ARG:HH11	1.68	0.56
4:CG:134:ASP:O	4:CG:136:PRO:HD3	2.05	0.56
8:CK:64:LYS:CG	8:CK:79:VAL:HG21	2.35	0.56
10:CM:50:ILE:HA	10:CM:60:ARG:HA	1.86	0.56
19:CV:14:HIS:C	19:CV:15:LEU:HD22	2.26	0.56
24:DA:4:C:H42	24:DA:2899:G:H1	1.53	0.56
24:DA:207:A:H2'	24:DA:208:C:O4'	2.05	0.56
24:DA:511:U:H3'	24:DA:512:G:H5'	1.81	0.56
24:DA:1156:A:OP1	39:D1:55:ARG:NH1	2.37	0.56
24:DA:1210:A:H5"	24:DA:1212:G:H5'	1.87	0.56
24:DA:1536:A:H5"	24:DA:1537:C:C6	2.40	0.56
24:DA:1832:C:N4	24:DA:1833:U:C4	2.73	0.56
25:DB:7:G:H4'	37:DQ:29:PHE:CD2	2.40	0.56
26:DD:72:LYS:HD3	26:DD:97:TYR:CE2	2.39	0.56
30:DH:3:ARG:HH22	30:DH:7:LEU:CD1	2.17	0.56
30:DH:107:VAL:O	30:DH:109:PHE:N	2.37	0.56
30:DH:121:ILE:CG2	30:DH:133:VAL:HB	2.35	0.56
34:DO:146:VAL:HG22	34:DO:147:LEU:HG	1.86	0.56
36:D0:58:GLY:HA2	36:D0:80:PHE:CD2	2.40	0.56
48:DX:13:ILE:HD12	48:DX:13:ILE:N	2.20	0.56
51:D6:15:GLU:HB2	51:D6:47:THR:HG21	1.86	0.56
1:AA:131:C:H2'	1:AA:132:C:C6	2.40	0.56
1:AA:811:C:H4'	1:AA:900:A:N6	2.19	0.56
3:AF:115:LEU:N	3:AF:115:LEU:HD12	2.21	0.56
4:AG:180:GLY:O	4:AG:181:MET:HB2	2.03	0.56
5:AH:68:GLU:O	5:AH:68:GLU:HG3	2.05	0.56
9:AL:5:TYR:CE1	9:AL:16:ARG:HB2	2.29	0.56
9:AL:125:TYR:CD1	9:AL:126:SER:N	2.73	0.56
10:AM:83:GLU:OE2	10:AM:84:GLN:N	2.38	0.56
16:AS:82:GLN:HG3	16:AS:83:GLU:N	2.19	0.56
24:BA:247:G:H4'	24:BA:386:G:C5	2.40	0.56
24:BA:994:C:OP1	39:B1:53:ARG:NH2	2.38	0.56
24:BA:1026:U:C4'	24:BA:1027:A:OP1	2.52	0.56
24:BA:1416:G:H2'	24:BA:1417:C:H6	1.70	0.56
24:BA:2400:G:O4'	51:B6:19:ARG:NE	2.38	0.56
24:BA:2657:A:O3'	30:BH:160:LYS:NZ	2.34	0.56
24:BA:2790:A:H1'	24:BA:2893:G:O2'	2.05	0.56
26:BD:35:LYS:CG	26:BD:64:ILE:H	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BG:35:GLU:O	29:BG:36:LYS:HB3	2.05	0.56
37:BQ:25:ARG:NH2	37:BQ:40:ILE:HD12	2.20	0.56
44:BV:75:ASN:O	44:BV:84:GLU:HG2	2.05	0.56
52:B7:9:ARG:HH21	52:B7:48:LYS:HD3	1.70	0.56
1:CA:976:G:H3'	14:CQ:31:ARG:HH12	1.69	0.56
1:CA:1014:A:C5'	19:CV:15:LEU:CD2	2.83	0.56
1:CA:1225:A:H5"	1:CA:1226:C:OP2	2.05	0.56
1:CA:1305:G:O2'	1:CA:1306:A:H8	1.88	0.56
1:CA:1347:G:N7	9:CL:107:ARG:HB3	2.20	0.56
1:CA:1378:C:C5	1:CA:1379:G:C8	2.91	0.56
1:CA:1385:G:O2'	1:CA:1386:G:H5'	2.05	0.56
2:CE:193:ASP:O	2:CE:196:LEU:HG	2.05	0.56
4:CG:191:ARG:HE	4:CG:191:ARG:HA	1.69	0.56
10:CM:22:LYS:O	10:CM:22:LYS:HD2	2.05	0.56
11:CN:127:LYS:HB2	11:CN:127:LYS:NZ	2.20	0.56
24:DA:270(A):A:OP1	46:DZ:98:LEU:HD12	2.04	0.56
24:DA:815:C:H2'	24:DA:816:C:H6	1.70	0.56
24:DA:871:U:H4'	35:DP:69:PHE:CD2	2.40	0.56
24:DA:1292:U:H2'	24:DA:1293:C:C6	2.39	0.56
24:DA:1412:A:H2'	24:DA:1413:G:H8	1.68	0.56
24:DA:1568:G:P	26:DD:63:ARG:HH22	2.28	0.56
24:DA:2419:U:C5	53:D8:31:HIS:CD2	2.85	0.56
25:DB:20:C:C2'	25:DB:21:G:H5'	2.34	0.56
26:DD:117:VAL:CG1	26:DD:118:VAL:N	2.68	0.56
29:DG:118:ARG:HB3	29:DG:181:ARG:HD3	1.86	0.56
31:DK:97:ILE:O	31:DK:100:ALA:HB3	2.04	0.56
32:DM:14:VAL:HG11	32:DM:52:VAL:HG22	1.87	0.56
34:DO:95:VAL:HG13	34:DO:125:VAL:HA	1.86	0.56
37:DQ:39:ILE:HG22	37:DQ:39:ILE:O	2.03	0.56
41:DS:82:LEU:N	41:DS:82:LEU:HD23	2.20	0.56
43:DU:76:CYS:CB	43:DU:77:PRO:HD2	2.36	0.56
43:DU:81:LYS:HB3	43:DU:82:PRO:CD	2.35	0.56
50:D5:58:LEU:HD12	50:D5:58:LEU:N	2.19	0.56
52:D7:16:HIS:HB2	52:D7:44:PRO:HG2	1.86	0.56
1:AA:112:G:H21	1:AA:354:G:C4'	2.19	0.56
1:AA:438:G:O2'	1:AA:496:A:N6	2.38	0.56
1:AA:575:G:C4	1:AA:881:G:C2	2.94	0.56
1:AA:581:G:O2'	1:AA:582:U:H5'	2.06	0.56
1:AA:687:A:H4'	1:AA:688:G:O5'	2.05	0.56
1:AA:737:A:H2'	1:AA:738:C:H6	1.66	0.56
1:AA:958:A:C8	19:AV:55:LYS:HD2	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1007:C:H1'	1:AA:1023:G:N2	2.21	0.56
1:AA:1120:G:O6	1:AA:1152:A:N6	2.39	0.56
1:AA:1328:C:OP1	21:AX:21:TYR:OH	2.21	0.56
4:AG:170:VAL:CG2	4:AG:174:LEU:HB2	2.35	0.56
8:AK:97:VAL:CG1	8:AK:98:LYS:HD3	2.35	0.56
9:AL:95:LYS:O	9:AL:99:LEU:CD2	2.52	0.56
15:AR:78:TYR:CZ	15:AR:82:ILE:HD11	2.41	0.56
16:AS:37:GLY:HA3	16:AS:50:LYS:O	2.06	0.56
24:BA:141:A:H1'	24:BA:1408:C:O4'	2.04	0.56
24:BA:259:G:H21	24:BA:621:A:H8	1.54	0.56
24:BA:491:G:H8	24:BA:491:G:OP2	1.88	0.56
24:BA:654(Q):C:H2'	24:BA:654(R):C:C6	2.41	0.56
24:BA:768:G:H2'	24:BA:769:G:H8	1.70	0.56
24:BA:911:A:C5	35:BP:9:TYR:CD2	2.93	0.56
24:BA:1188:U:C4'	40:B2:79:VAL:HG22	2.35	0.56
24:BA:1340:U:H4'	24:BA:1341:U:OP2	2.06	0.56
24:BA:1528:A:C2	24:BA:1542:G:C2	2.88	0.56
24:BA:1819:A:H4'	24:BA:1820:U:O5'	2.05	0.56
24:BA:1992:G:C1'	24:BA:1993:U:OP2	2.52	0.56
24:BA:2378:A:C2'	37:BQ:21:THR:HG21	2.35	0.56
24:BA:2442:C:H2'	24:BA:2443:C:C6	2.40	0.56
25:BB:30:C:OP2	37:BQ:32:LEU:HD11	2.05	0.56
26:BD:51:VAL:HG12	26:BD:54:ARG:HG3	1.86	0.56
26:BD:133:LEU:HD13	26:BD:173:VAL:HG21	1.86	0.56
26:BD:182:LEU:H	26:BD:272:ALA:CB	2.14	0.56
27:BE:78:LEU:CD2	27:BE:79:ARG:HD2	2.22	0.56
27:BE:120:TRP:O	27:BE:121:ASN:HB2	2.05	0.56
29:BG:115:ARG:O	29:BG:116:ASP:HB2	2.05	0.56
31:BK:6:LEU:O	31:BK:7:GLU:HB2	2.05	0.56
33:BN:88:ASN:O	33:BN:91:LEU:N	2.37	0.56
35:BP:31:ASP:O	35:BP:133:ARG:O	2.22	0.56
35:BP:66:ILE:CD1	35:BP:67:ARG:H	2.16	0.56
35:BP:75:THR:HB	35:BP:89:ASN:H	1.69	0.56
50:B5:33:CYS:SG	50:B5:34:PRO:HD2	2.45	0.56
1:CA:85:U:H3'	1:CA:85:U:O2	2.06	0.56
1:CA:797:C:O2'	1:CA:798:G:H5'	2.05	0.56
1:CA:972:C:H4'	10:CM:57:LYS:HB2	1.86	0.56
1:CA:1104:G:O2'	2:CE:111:ARG:NH2	2.38	0.56
1:CA:1112:C:C4	3:CF:178:LEU:HD23	2.39	0.56
1:CA:1124:G:H1'	10:CM:38:ILE:HD11	1.87	0.56
1:CA:1366:C:O2'	10:CM:60:ARG:NH2	2.37	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1486:G:H2'	1:CA:1487:G:O4'	2.05	0.56
2:CE:8:LYS:CD	2:CE:217:ARG:CD	2.80	0.56
3:CF:110:ASN:O	3:CF:141:VAL:HG13	2.05	0.56
12:CO:55:VAL:HG23	12:CO:68:ALA:O	2.05	0.56
14:CQ:22:THR:HB	14:CQ:35:ARG:NE	2.20	0.56
21:CX:18:TYR:CD1	21:CX:24:ARG:HD2	2.40	0.56
24:DA:9:U:C2	24:DA:2629:A:N6	2.73	0.56
24:DA:242:G:C5'	53:D8:62:LEU:HD13	2.27	0.56
24:DA:669:G:C1'	24:DA:670:A:OP1	2.53	0.56
24:DA:1047:G:H1'	24:DA:1110:G:N2	2.20	0.56
24:DA:1060:U:C6	24:DA:1062:G:H4'	2.41	0.56
24:DA:1210:A:H5'	24:DA:1212:G:C5'	2.35	0.56
24:DA:1510:A:H8	24:DA:1511:A:C8	2.22	0.56
24:DA:1543:A:H1'	24:DA:1545:A:H1'	1.86	0.56
24:DA:1964:G:O2'	24:DA:1967:C:OP2	2.21	0.56
24:DA:2134:A:N3	24:DA:2134:A:H2'	2.20	0.56
24:DA:2191:G:C5	24:DA:2192:G:C8	2.92	0.56
24:DA:2376:A:OP1	24:DA:2376:A:H8	1.88	0.56
24:DA:2396:G:H4'	46:DZ:30:VAL:H	1.71	0.56
24:DA:2575:C:H5'	27:DE:144:ARG:HG2	1.87	0.56
24:DA:2850:A:C2	24:DA:2851:A:C4	2.93	0.56
26:DD:44:ASN:OD1	26:DD:44:ASN:N	2.38	0.56
26:DD:77:ALA:HB2	26:DD:97:TYR:CG	2.39	0.56
27:DE:33:VAL:HG12	27:DE:89:ASP:HA	1.87	0.56
29:DG:110:ALA:HB1	29:DG:140:ILE:HD12	1.85	0.56
29:DG:133:LEU:HD11	29:DG:157:ILE:HD12	1.87	0.56
30:DH:30:LYS:HG2	30:DH:136:ILE:CG2	2.35	0.56
30:DH:41:MET:SD	30:DH:64:LEU:HB3	2.46	0.56
30:DH:48:GLY:O	30:DH:49:VAL:HG13	2.05	0.56
31:DK:47:LEU:O	31:DK:51:ILE:HD12	2.06	0.56
32:DM:35:ARG:C	32:DM:37:LYS:H	2.08	0.56
37:DQ:99:LYS:HE2	37:DQ:103:GLU:OE1	2.05	0.56
38:DR:24:PRO:HD3	38:DR:52:ILE:HG13	1.87	0.56
39:D1:80:ILE:HG23	39:D1:84:LYS:HE2	1.87	0.56
40:D2:84:LYS:HB2	40:D2:84:LYS:HZ2	1.69	0.56
41:DS:113:LYS:H	41:DS:113:LYS:NZ	2.04	0.56
42:DT:50:LYS:CG	42:DT:84:ALA:HB2	2.35	0.56
44:DV:119:GLU:CG	44:DV:122:ARG:HH22	2.19	0.56
51:D6:40:CYS:SG	51:D6:45:LYS:CD	2.94	0.56
1:AA:401:C:O2'	1:AA:621:A:N3	2.37	0.56
1:AA:692:U:H2'	1:AA:694:A:OP2	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:792:A:H4'	1:AA:793:U:O5'	2.05	0.56
1:AA:1453:G:H3'	1:AA:1454:G:C5'	2.34	0.56
10:AM:65:LEU:HD12	14:AQ:55:GLY:O	2.05	0.56
11:AN:103:LEU:O	11:AN:105:VAL:N	2.38	0.56
12:AO:24:VAL:CG1	12:AO:27:LEU:CD1	2.83	0.56
22:AC:17:C:OP2	22:AC:17(A):C:O2'	2.19	0.56
24:BA:340:A:H2'	24:BA:341:G:H5'	1.88	0.56
24:BA:1993:U:H4'	27:BE:128:SER:HB3	1.87	0.56
24:BA:2025:C:H2'	24:BA:2026:C:C6	2.41	0.56
24:BA:2153:G:H2'	24:BA:2154:G:O4'	2.05	0.56
24:BA:2294:C:H2'	24:BA:2295:C:H6	1.70	0.56
25:BB:71:C:C2	25:BB:72:G:C8	2.93	0.56
28:BF:57:VAL:HG13	28:BF:58:ALA:N	2.20	0.56
30:BH:3:ARG:HD2	30:BH:3:ARG:O	2.04	0.56
30:BH:88:LEU:HD13	30:BH:129:THR:O	2.04	0.56
34:BO:15:ARG:HG3	34:BO:16:ARG:N	2.20	0.56
35:BP:21:THR:HG22	35:BP:99:PRO:O	2.06	0.56
44:BV:94:GLU:O	44:BV:130:PRO:HD3	2.06	0.56
1:CA:337:C:H2'	1:CA:338:A:H8	1.69	0.56
1:CA:658:G:H1'	15:CR:22:THR:HB	1.86	0.56
1:CA:718:G:H5'	11:CN:117:ASN:ND2	2.20	0.56
1:CA:1002:G:H2'	1:CA:1003:G:H8	1.69	0.56
1:CA:1344:C:C2'	1:CA:1345:U:H5'	2.35	0.56
2:CE:17:PHE:HE2	2:CE:44:LEU:HD22	1.68	0.56
6:CI:97:PHE:O	18:CU:31:LEU:HD23	2.04	0.56
8:CK:112:LEU:N	8:CK:112:LEU:HD23	2.20	0.56
10:CM:51:ARG:HG3	10:CM:59:SER:O	2.05	0.56
13:CP:27:LYS:O	13:CP:30:ALA:HB3	2.05	0.56
13:CP:49:THR:HG22	13:CP:51:ALA:N	2.17	0.56
24:DA:1012:U:O4	32:DM:28:THR:CG2	2.51	0.56
24:DA:1188:U:C2'	24:DA:1189:A:H5'	2.35	0.56
24:DA:1416:G:H1	24:DA:1582:C:H42	1.53	0.56
24:DA:1651:G:OP1	36:D0:40:LYS:HE3	2.05	0.56
24:DA:2343:C:O2'	24:DA:2344:U:C5'	2.43	0.56
25:DB:77:U:C5	25:DB:98:G:N2	2.73	0.56
26:DD:5:LYS:HB2	26:DD:5:LYS:NZ	2.19	0.56
26:DD:25:THR:HG22	26:DD:82:ILE:N	2.19	0.56
26:DD:270:ILE:HG22	26:DD:271:ILE:N	2.20	0.56
30:DH:113:VAL:HG22	30:DH:114:VAL:N	2.20	0.56
33:DN:13:ASN:O	33:DN:15:GLY:N	2.37	0.56
44:DV:77:ASP:CG	44:DV:80:ARG:HD2	2.26	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DV:118:GLN:OE1	44:DV:173:ALA:C	2.44	0.56
45:D3:72:ARG:HH21	45:D3:75:LEU:HD12	1.68	0.56
1:AA:93:U:H2'	1:AA:95:G:C1'	2.36	0.56
1:AA:812:C:H4'	1:AA:813:U:O5'	2.03	0.56
1:AA:993:G:H4'	1:AA:994:A:OP2	2.06	0.56
1:AA:1035:A:C3'	1:AA:1036:G:H5"	2.26	0.56
5:AH:41:VAL:HG12	5:AH:42:GLY:N	2.20	0.56
5:AH:153:LYS:HD3	5:AH:154:GLY:N	2.20	0.56
16:AS:67:THR:HG22	16:AS:68:ASP:H	1.70	0.56
24:BA:773:U:C5'	26:BD:47:GLY:HA2	2.35	0.56
24:BA:821:A:H5"	24:BA:822:U:H6	1.70	0.56
24:BA:873:G:N2	24:BA:905:U:C2	2.74	0.56
24:BA:1989:G:C2'	24:BA:1990:C:H5'	2.35	0.56
24:BA:2243:U:H2'	24:BA:2244:U:C6	2.40	0.56
24:BA:2261:C:O2'	24:BA:2262:U:H5'	2.06	0.56
24:BA:2376:A:C2	37:BQ:112:PHE:HB2	2.41	0.56
24:BA:2439:A:O2'	24:BA:2600:A:OP1	2.23	0.56
24:BA:2635:C:H5"	27:BE:78:LEU:CA	2.10	0.56
24:BA:2787:C:O3'	27:BE:61:ARG:NH1	2.38	0.56
30:BH:2:SER:HB2	30:BH:3:ARG:NH2	2.20	0.56
30:BH:55:PRO:HG2	30:BH:61:HIS:CD2	2.41	0.56
37:BQ:107:GLU:OE1	37:BQ:107:GLU:N	2.39	0.56
39:B1:98:LEU:O	39:B1:100:VAL:N	2.39	0.56
1:CA:186(B):C:H4'	20:CW:89:ARG:NH2	2.21	0.56
1:CA:410:G:C2	1:CA:429:U:O2	2.58	0.56
1:CA:1096:C:H2'	1:CA:1097:C:H6	1.70	0.56
1:CA:1212:U:C2'	1:CA:1213:A:OP2	2.52	0.56
1:CA:1254:C:OP1	10:CM:45:ARG:HG3	2.06	0.56
1:CA:1471:G:H2'	1:CA:1472:U:C6	2.40	0.56
9:CL:26:VAL:HG12	9:CL:27:THR:N	2.21	0.56
13:CP:48:LEU:O	13:CP:48:LEU:HD23	2.04	0.56
16:CS:58:TYR:O	16:CS:61:SER:OG	2.23	0.56
24:DA:27:G:H22	24:DA:512:G:H1'	1.66	0.56
24:DA:270(B):A:H62	24:DA:270(X):G:N2	2.04	0.56
24:DA:273(D):C:C4	24:DA:273(E):U:C4	2.93	0.56
24:DA:314:A:O2'	24:DA:315:G:H5'	2.04	0.56
24:DA:607:U:OP1	28:DF:102:PRO:HA	2.05	0.56
24:DA:1317:A:C2'	24:DA:1318:C:H5'	2.35	0.56
24:DA:1322:A:OP1	41:DS:11:ARG:HG3	2.05	0.56
24:DA:1653:G:H4'	36:D0:2:ARG:NH1	2.21	0.56
24:DA:1826:G:H4'	26:DD:242:ARG:HH21	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2134:A:H61	24:DA:2157:G:C2'	2.17	0.56
24:DA:2378:A:O4'	37:DQ:112:PHE:CZ	2.58	0.56
24:DA:2635:C:H5'	27:DE:77:ILE:HG22	1.88	0.56
27:DE:37:ARG:NE	27:DE:42:ASP:OD1	2.38	0.56
27:DE:181:LEU:HD11	38:DR:7:ILE:HD12	1.87	0.56
27:DE:201:THR:HG22	27:DE:203:LYS:H	1.70	0.56
28:DF:21:ALA:HB3	28:DF:23:ASP:OD2	2.06	0.56
28:DF:66:PRO:O	28:DF:67:GLN:HB3	2.04	0.56
30:DH:169:VAL:HG22	30:DH:170:ARG:N	2.20	0.56
1:AA:937:A:C2	1:AA:1379:G:C6	2.93	0.56
1:AA:1117:G:C4'	9:AL:104:ARG:NH1	2.67	0.56
1:AA:1353:G:H2'	1:AA:1354:C:H6	1.70	0.56
4:AG:108:LEU:HB3	4:AG:110:PHE:CD1	2.41	0.56
10:AM:50:ILE:CA	10:AM:60:ARG:HG2	2.16	0.56
14:AQ:3:ARG:HH11	14:AQ:3:ARG:HA	1.71	0.56
14:AQ:25:VAL:HG22	14:AQ:39:LEU:HD23	1.86	0.56
15:AR:29:VAL:CG1	15:AR:67:LEU:HD11	2.35	0.56
20:AW:72:LEU:HD21	20:AW:76:ALA:HB3	1.88	0.56
24:BA:469:G:H2'	24:BA:470:A:H5"	1.87	0.56
24:BA:746:A:C6	24:BA:2611:U:H5"	2.41	0.56
24:BA:1163:G:O2'	24:BA:1164:G:H5'	2.06	0.56
24:BA:1567:A:H5"	26:BD:58:HIS:HD2	1.68	0.56
24:BA:2010:G:H5"	41:BS:42:ARG:HB2	1.87	0.56
30:BH:4:ILE:HG12	30:BH:6:ARG:NH2	2.21	0.56
30:BH:155:SER:O	30:BH:156:ALA:O	2.24	0.56
37:BQ:101:LEU:O	37:BQ:101:LEU:HD12	2.06	0.56
37:BQ:110:LEU:HD13	37:BQ:112:PHE:CD2	2.29	0.56
44:BV:100:VAL:HG21	44:BV:126:VAL:HG21	1.88	0.56
49:B4:36:CYS:O	49:B4:39:CYS:N	2.34	0.56
1:CA:476:G:O2'	1:CA:477:G:H5'	2.05	0.56
1:CA:843:U:H3'	1:CA:848:C:C5'	2.35	0.56
1:CA:1251:A:H5'	9:CL:12:GLU:HB3	1.87	0.56
1:CA:1290:G:C2	1:CA:1291:G:C1'	2.89	0.56
2:CE:5:ILE:CD1	2:CE:221:LEU:HD21	2.34	0.56
2:CE:185:ILE:CG2	2:CE:199:TYR:HD2	2.19	0.56
4:CG:108:LEU:HD12	4:CG:174:LEU:HD13	1.88	0.56
5:CH:10:MET:SD	5:CH:13:ILE:HG23	2.46	0.56
5:CH:57:LYS:O	5:CH:61:TYR:HD2	1.88	0.56
7:CJ:69:VAL:HG12	7:CJ:103:TRP:CE3	2.40	0.56
9:CL:24:GLY:HA3	9:CL:57:GLY:CA	2.36	0.56
9:CL:27:THR:HG23	9:CL:31:GLN:O	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CO:27:LEU:HD21	12:CO:62:SER:CB	2.36	0.56
13:CP:19:LEU:HD12	13:CP:20:THR:N	2.17	0.56
24:DA:614:U:H4'	24:DA:615:G:OP1	2.05	0.56
24:DA:924:C:H2'	24:DA:925:C:H6	1.71	0.56
24:DA:1170:G:O6	24:DA:1179:C:N4	2.30	0.56
24:DA:1496:A:C8	24:DA:1577:C:O2'	2.57	0.56
24:DA:1796:U:H2'	24:DA:1797:C:C6	2.40	0.56
24:DA:2483:C:N3	35:DP:124:LYS:NZ	2.50	0.56
24:DA:2619:C:O2'	24:DA:2620:C:H5'	2.06	0.56
24:DA:2695:C:H2'	24:DA:2696:U:H6	1.70	0.56
24:DA:2859:G:O2'	24:DA:2860:A:O5'	2.24	0.56
26:DD:186:HIS:HD2	26:DD:187:GLY:N	2.03	0.56
27:DE:181:LEU:HD11	38:DR:7:ILE:CD1	2.36	0.56
29:DG:58:GLN:O	29:DG:62:LEU:HD13	2.05	0.56
29:DG:108:ASN:O	49:D4:37:SER:OG	2.24	0.56
29:DG:110:ALA:HA	29:DG:140:ILE:HG13	1.86	0.56
30:DH:122:THR:CG2	30:DH:134:SER:HB2	2.30	0.56
38:DR:106:SER:HA	38:DR:110:ILE:CD1	2.36	0.56
49:D4:57:GLU:H	49:D4:60:GLN:CG	2.19	0.56
1:AA:102:G:C6	1:AA:103:C:C4	2.94	0.56
1:AA:197:A:N7	1:AA:221:C:H4'	2.21	0.56
1:AA:376:G:H5"	16:AS:5:ARG:HB2	1.88	0.56
1:AA:495:A:C2	1:AA:496:A:C6	2.94	0.56
1:AA:575:G:C4	1:AA:881:G:N2	2.74	0.56
1:AA:703:G:H4'	1:AA:704:A:OP2	2.03	0.56
1:AA:828:A:H2'	1:AA:829:G:O4'	2.05	0.56
1:AA:1016:A:H5'	14:AQ:15:LYS:NZ	2.20	0.56
1:AA:1302:U:OP2	1:AA:1302:U:H4'	2.04	0.56
2:AE:167:PRO:HG2	2:AE:192:SER:CB	2.36	0.56
7:AJ:91:VAL:HG23	7:AJ:96:GLN:CG	2.35	0.56
9:AL:93:ARG:CG	9:AL:102:LEU:HD11	2.36	0.56
16:AS:38:TYR:O	16:AS:49:LEU:HD12	2.06	0.56
24:BA:524:U:H4'	24:BA:554:U:H4'	1.88	0.56
24:BA:1637:A:H4'	24:BA:2711:A:O2'	2.06	0.56
24:BA:2148:G:O2'	24:BA:2149:G:H5'	2.05	0.56
32:BM:96:GLU:HG2	32:BM:97:ARG:N	2.20	0.56
33:BN:3:GLN:HG2	33:BN:4:PRO:HD2	1.86	0.56
1:CA:273:A:O2'	1:CA:274:A:H5'	2.06	0.56
1:CA:475:G:H2'	1:CA:476:G:C8	2.40	0.56
1:CA:1057:G:O2'	1:CA:1058:G:H5'	2.05	0.56
1:CA:1218:C:H2'	1:CA:1219:U:C6	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1275:A:H2'	1:CA:1276:G:O4'	2.06	0.56
1:CA:1367:C:P	10:CM:60:ARG:HH21	2.28	0.56
2:CE:237:ALA:O	2:CE:238:LEU:HB3	2.05	0.56
9:CL:16:ARG:HH11	9:CL:64:THR:CG2	2.04	0.56
12:CO:70:ILE:CD1	12:CO:77:LEU:HD12	2.34	0.56
13:CP:23:TYR:HE2	13:CP:71:ARG:HB2	1.71	0.56
14:CQ:12:ARG:HB2	14:CQ:12:ARG:NH1	2.21	0.56
24:DA:17:G:H4'	39:D1:25:TRP:CH2	2.41	0.56
24:DA:221:A:C4	24:DA:266:G:N7	2.74	0.56
24:DA:1508:A:H4'	24:DA:1510:A:C2	2.40	0.56
24:DA:1666:G:C2'	24:DA:1667:G:H5'	2.35	0.56
24:DA:1678:G:N2	24:DA:1989:G:H22	2.03	0.56
24:DA:1932:A:H2'	24:DA:1933:G:H5'	1.87	0.56
25:DB:66:A:C2	25:DB:108:C:C4	2.93	0.56
26:DD:131:LEU:HD12	26:DD:131:LEU:N	2.21	0.56
28:DF:25:PRO:O	28:DF:26:ALA:HB3	2.06	0.56
34:DO:63:PRO:O	34:DO:65:ARG:N	2.35	0.56
35:DP:24:GLY:CA	35:DP:25:ASP:CB	2.68	0.56
37:DQ:19:LYS:O	37:DQ:21:THR:N	2.39	0.56
37:DQ:74:ALA:HB1	37:DQ:107:GLU:HB2	1.88	0.56
43:DU:13:VAL:HG22	43:DU:14:LEU:O	2.06	0.56
49:D4:18:CYS:N	49:D4:19:GLY:HA2	2.10	0.56
1:AA:263:A:OP1	20:AW:79:ARG:NH1	2.39	0.56
1:AA:377:G:OP1	16:AS:3:LYS:HD2	2.06	0.56
1:AA:1157:A:N6	1:AA:1180:A:C4	2.73	0.56
1:AA:1399:C:H4'	1:AA:1400:C:O5'	2.06	0.56
2:AE:95:GLN:HB3	2:AE:96:ARG:HD2	1.87	0.56
2:AE:136:VAL:HG23	2:AE:137:ARG:N	2.19	0.56
2:AE:178:ARG:HH12	2:AE:196:LEU:C	2.09	0.56
3:AF:15:THR:CG2	3:AF:181:ASN:CA	2.80	0.56
6:AI:35:ALA:HA	6:AI:67:MET:HB3	1.88	0.56
18:AU:23:LYS:HD2	18:AU:58:LEU:HD23	1.87	0.56
24:BA:75:G:H4'	47:BW:55:ARG:HH21	1.68	0.56
24:BA:1036:G:OP1	30:BH:59:ARG:HB2	2.06	0.56
24:BA:1113:U:P	30:BH:2:SER:N	2.79	0.56
24:BA:1141:U:P	32:BM:63:THR:HG21	2.45	0.56
24:BA:1710:C:H2'	24:BA:1711:C:H6	1.71	0.56
24:BA:2414:G:OP1	46:BZ:25:LYS:NZ	2.38	0.56
24:BA:2742:C:O2'	24:BA:2743:C:H5'	2.06	0.56
29:BG:145:THR:HG23	49:B4:28:LYS:NZ	2.21	0.56
31:BK:77:LEU:CD1	31:BK:140:LEU:HB2	2.36	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:B2:38:LEU:CD2	40:B2:40:LEU:H	2.19	0.56
51:B6:47:THR:CG2	51:B6:48:VAL:N	2.69	0.56
53:B8:22:VAL:HB	53:B8:53:PRO:HB2	1.86	0.56
1:CA:485:G:C2'	1:CA:486:U:OP2	2.53	0.56
1:CA:1005:A:O3'	1:CA:1037:C:O2'	2.24	0.56
1:CA:1028:C:N3	1:CA:1033:G:N2	2.41	0.56
1:CA:1237:C:O2'	1:CA:1300:G:N2	2.38	0.56
1:CA:1288:A:O3'	21:CX:10:ARG:NH2	2.38	0.56
1:CA:1321:C:H3'	1:CA:1322:C:H5"	1.88	0.56
1:CA:1370:G:H5"	9:CL:12:GLU:HG3	1.87	0.56
2:CE:12:GLU:CA	2:CE:15:VAL:HG23	2.34	0.56
2:CE:118:LEU:HD13	2:CE:142:LEU:HB2	1.86	0.56
2:CE:230:VAL:HG22	2:CE:231:GLU:H	1.70	0.56
3:CF:149:ALA:HA	3:CF:201:TYR:O	2.06	0.56
4:CG:126:ILE:HG22	4:CG:127:THR:N	2.20	0.56
5:CH:100:VAL:HG13	5:CH:118:ILE:HG21	1.86	0.56
7:CJ:78:ARG:NH1	7:CJ:86:GLN:H	2.02	0.56
8:CK:114:THR:HG23	8:CK:117:GLY:H	1.71	0.56
13:CP:68:GLY:HA3	29:DG:116:ASP:OD1	2.04	0.56
17:CT:39:SER:O	17:CT:40:LYS:HB2	2.06	0.56
20:CW:13:LEU:HD12	20:CW:13:LEU:H	1.70	0.56
24:DA:116:C:H2'	24:DA:117:G:O4'	2.05	0.56
24:DA:783:A:H8	24:DA:784:A:H4'	1.71	0.56
24:DA:853:G:H2'	24:DA:854:G:H8	1.71	0.56
24:DA:1047:G:C1'	24:DA:1110:G:H1	2.19	0.56
24:DA:1312:U:H3'	42:DT:63:LYS:HE2	1.87	0.56
24:DA:1389:G:H2'	24:DA:1390:U:C6	2.41	0.56
24:DA:2637:U:H5"	27:DE:82:ARG:NH2	2.21	0.56
27:DE:12:THR:HG22	27:DE:13:ARG:H	1.70	0.56
28:DF:22:ALA:C	28:DF:24:LEU:N	2.55	0.56
37:DQ:3:ARG:CD	37:DQ:4:LEU:N	2.64	0.56
1:AA:437:U:C5'	4:AG:155:LEU:CD2	2.81	0.56
1:AA:503:C:O2	1:AA:510:A:H2	1.89	0.56
1:AA:972:C:H4'	10:AM:57:LYS:CB	2.36	0.56
3:AF:78:GLY:O	3:AF:79:ARG:HB2	2.06	0.56
3:AF:117:ALA:HB1	3:AF:187:ALA:HB3	1.88	0.56
4:AG:176:LEU:HD12	4:AG:182:LYS:O	2.05	0.56
6:AI:14:LEU:HD21	6:AI:18:GLN:CB	2.33	0.56
6:AI:76:ALA:O	6:AI:80:ARG:HG3	2.06	0.56
9:AL:95:LYS:HD3	9:AL:96:LEU:CD1	2.34	0.56
11:AN:12:ARG:HG2	11:AN:13:GLN:N	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AS:67:THR:HG22	16:AS:68:ASP:N	2.21	0.56
20:AW:73:HIS:O	20:AW:76:ALA:HB3	2.06	0.56
24:BA:4:C:H2'	24:BA:5:A:C8	2.40	0.56
24:BA:86:C:H4'	24:BA:104:U:H1'	1.88	0.56
24:BA:1113:U:C5'	30:BH:2:SER:HB3	2.29	0.56
24:BA:1590:U:H2'	24:BA:1591:G:H8	1.67	0.56
24:BA:1728:G:O6	24:BA:1730:U:H5'	2.05	0.56
24:BA:2213:U:H4'	46:BZ:52:ARG:NH1	2.20	0.56
24:BA:2517:C:C5	24:BA:2542:A:C5	2.94	0.56
26:BD:217:ARG:HH11	26:BD:217:ARG:HG2	1.71	0.56
37:BQ:85:VAL:HG23	37:BQ:110:LEU:HD13	1.88	0.56
39:B1:58:ARG:HH11	39:B1:93:LYS:CE	2.19	0.56
47:BW:50:ILE:CD1	47:BW:51:ARG:N	2.68	0.56
1:CA:89:U:H1'	1:CA:90:C:OP1	2.05	0.56
1:CA:255:G:O2'	1:CA:256:U:H5'	2.06	0.56
1:CA:373:A:N3	1:CA:374:A:C8	2.74	0.56
1:CA:632:A:H4'	1:CA:633:G:C5'	2.34	0.56
1:CA:1016:A:H2'	1:CA:1017:G:O4'	2.06	0.56
1:CA:1046:A:H61	1:CA:1213:A:H2	1.48	0.56
1:CA:1386:G:O2'	1:CA:1387:G:H5'	2.06	0.56
2:CE:19:HIS:O	2:CE:190:THR:OG1	2.24	0.56
3:CF:14:ILE:CG1	3:CF:15:THR:H	2.18	0.56
3:CF:85:ARG:N	3:CF:85:ARG:CD	2.66	0.56
4:CG:104:VAL:O	4:CG:108:LEU:HB2	2.05	0.56
5:CH:16:THR:HG23	5:CH:16:THR:O	2.05	0.56
7:CJ:57:GLU:HB2	7:CJ:60:LYS:HB2	1.86	0.56
9:CL:112:LYS:HG2	9:CL:118:LYS:HA	1.88	0.56
10:CM:49:VAL:HB	14:CQ:41:ARG:HB2	1.88	0.56
14:CQ:29:ARG:NH1	14:CQ:40:CYS:N	2.53	0.56
24:DA:139:G:N2	24:DA:1596:A:H4'	2.21	0.56
24:DA:342:G:O2'	24:DA:343:C:H5'	2.06	0.56
24:DA:1111:A:O2'	24:DA:1112:G:C4'	2.43	0.56
24:DA:2117:A:HO2'	24:DA:2118:U:H5	1.50	0.56
24:DA:2344:U:O2'	51:D6:37:ARG:HG2	2.06	0.56
25:DB:41:U:O4	29:DG:70:VAL:HG23	2.06	0.56
25:DB:55:U:H4'	29:DG:27:ASN:OD1	2.05	0.56
25:DB:115:G:OP2	25:DB:115:G:C8	2.56	0.56
29:DG:122:PRO:HG3	29:DG:182:LYS:OXT	2.06	0.56
30:DH:41:MET:SD	30:DH:64:LEU:CB	2.94	0.56
31:DK:86:THR:HG22	31:DK:87:LYS:N	2.20	0.56
31:DK:125:GLU:HB2	31:DK:141:LYS:HD3	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:D2:98:GLU:O	40:D2:99:ILE:HB	2.05	0.56
42:DT:12:VAL:HG22	42:DT:27:THR:OG1	2.06	0.56
44:DV:91:LEU:HD21	44:DV:96:VAL:HG21	1.87	0.56
44:DV:105:VAL:HG13	44:DV:106:GLY:N	2.09	0.56
46:DZ:63:ALA:O	46:DZ:65:SER:N	2.38	0.56
47:DW:23:LYS:O	47:DW:23:LYS:HD3	2.06	0.56
48:DX:36:VAL:HG23	48:DX:36:VAL:O	2.06	0.56
53:D8:40:GLU:O	53:D8:41:ILE:HG13	2.05	0.56
1:AA:106:C:H2'	1:AA:107:G:C8	2.41	0.56
1:AA:197:A:C5	1:AA:221:C:H4'	2.40	0.56
1:AA:346:G:H5'	38:BR:39:ARG:HH22	1.71	0.56
1:AA:619:U:H3	4:AG:135:LEU:CD1	2.19	0.56
1:AA:639:G:H2'	1:AA:640:A:H8	1.71	0.56
1:AA:1330:U:H4'	13:AP:23:TYR:CE1	2.40	0.56
5:AH:78:HIS:CE1	5:AH:143:ARG:H	2.23	0.56
6:AI:48:LEU:HD21	6:AI:60:PHE:CZ	2.40	0.56
10:AM:34:VAL:HG11	10:AM:74:ILE:HG12	1.88	0.56
11:AN:33:THR:HA	11:AN:40:ILE:HG13	1.88	0.56
11:AN:41:THR:HG21	11:AN:71:LYS:HB3	1.88	0.56
13:AP:3:ARG:NE	13:AP:7:VAL:HG13	2.21	0.56
20:AW:57:ARG:O	20:AW:60:GLU:HB3	2.06	0.56
24:BA:572:A:H5"	24:BA:573:G:OP2	2.06	0.56
24:BA:589:C:O2'	24:BA:590:A:H5'	2.04	0.56
24:BA:594:U:C5'	53:B8:61:LEU:HD13	2.35	0.56
24:BA:978:G:O2'	24:BA:979:G:H5'	2.06	0.56
24:BA:1133:U:H2'	24:BA:1137:G:OP1	2.06	0.56
24:BA:1496:A:H2'	24:BA:1577:C:O2'	2.06	0.56
24:BA:2264:C:N4	45:B3:15:ASP:OD2	2.39	0.56
24:BA:2364:C:H2'	24:BA:2365:G:O4'	2.05	0.56
24:BA:2371:G:H21	51:B6:46:HIS:CE1	2.24	0.56
26:BD:228:PRO:HD3	26:BD:235:GLY:CA	2.36	0.56
31:BK:69:LYS:HG3	31:BK:136:VAL:CG1	2.35	0.56
31:BK:83:ALA:CB	31:BK:88:ILE:HA	2.34	0.56
32:BM:73:THR:HB	32:BM:82:LEU:HD11	1.87	0.56
39:B1:91:ASP:C	39:B1:93:LYS:N	2.59	0.56
44:BV:53:ILE:H	44:BV:71:VAL:HG13	1.71	0.56
1:CA:519:C:N4	1:CA:520:A:C6	2.74	0.56
1:CA:562:C:H1'	12:CO:15:ARG:HD2	1.88	0.56
1:CA:892:A:C2	1:CA:907:A:C4	2.93	0.56
1:CA:1301:U:C2'	1:CA:1302:U:OP1	2.53	0.56
4:CG:61:LYS:HD2	4:CG:206:PHE:CE2	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CN:112:THR:HG23	11:CN:113:PRO:HD2	1.88	0.56
16:CS:48:TRP:O	16:CS:49:LEU:HB2	2.05	0.56
17:CT:56:VAL:O	17:CT:77:VAL:HB	2.05	0.56
17:CT:59:ILE:HG23	17:CT:71:PHE:HB3	1.88	0.56
17:CT:67:LYS:C	17:CT:69:LYS:H	2.10	0.56
24:DA:229:A:O2'	24:DA:230:U:H5	1.88	0.56
24:DA:978:G:H2'	24:DA:979:G:O4'	2.06	0.56
24:DA:1069:A:H3'	24:DA:1073:A:H62	1.71	0.56
24:DA:1794:U:H1'	24:DA:1900:A:N3	2.21	0.56
24:DA:2370:G:N3	51:D6:45:LYS:NZ	2.53	0.56
24:DA:2849:U:O4	38:DR:23:ARG:NH2	2.33	0.56
30:DH:152:ARG:CZ	30:DH:153:LYS:HE2	2.36	0.56
31:DK:13:GLY:HA3	31:DK:17:GLN:OE1	2.06	0.56
38:DR:23:ARG:HG2	38:DR:120:ARG:NH1	2.21	0.56
49:D4:12:ALA:HB1	49:D4:29:PRO:CA	2.31	0.56
50:D5:37:LYS:HD2	50:D5:37:LYS:C	2.26	0.56
1:AA:186(C):G:O2'	1:AA:186(D):C:H5'	2.06	0.55
1:AA:392:G:H2'	1:AA:393:A:C8	2.41	0.55
1:AA:684:A:H5"	11:AN:11:LYS:HZ3	1.70	0.55
1:AA:881:G:OP2	12:AO:12:ARG:NH2	2.38	0.55
1:AA:1422:G:H5'	33:BN:48:PRO:HB3	1.88	0.55
1:AA:1452:C:HO2'	1:AA:1453:G:P	2.28	0.55
1:AA:1498:U:C1'	1:AA:1499:A:OP2	2.53	0.55
3:AF:134:ILE:HG22	3:AF:168:ALA:HB3	1.86	0.55
4:AG:108:LEU:HB3	4:AG:110:PHE:CE1	2.42	0.55
13:AP:64:TRP:CD1	13:AP:64:TRP:N	2.74	0.55
19:AV:67:VAL:HG21	49:B4:60:GLN:HE22	1.72	0.55
20:AW:63:ILE:CG2	20:AW:77:ALA:HB1	2.36	0.55
22:AC:12:G:H4'	24:BA:1908:C:O2	2.06	0.55
24:BA:527:C:H4'	24:BA:528:A:O5'	2.06	0.55
24:BA:1061:U:H1'	24:BA:1070:A:N3	2.21	0.55
24:BA:1502:C:O2'	24:BA:1503:U:H5'	2.06	0.55
24:BA:1794:U:H1'	24:BA:1900:A:N3	2.21	0.55
24:BA:2321:G:H5"	24:BA:2322:A:OP2	2.05	0.55
24:BA:2400:G:C2'	24:BA:2401:U:C6	2.88	0.55
24:BA:2428:G:H5"	24:BA:2429:G:OP1	2.06	0.55
24:BA:2471:C:N4	24:BA:2476:A:O2'	2.39	0.55
26:BD:11:PRO:O	26:BD:12:SER:OG	2.18	0.55
26:BD:35:LYS:HE2	26:BD:104:TYR:HB2	1.88	0.55
28:BF:36:VAL:HG11	28:BF:183:VAL:HG11	1.88	0.55
28:BF:64:ILE:CG2	28:BF:65:TRP:NE1	2.69	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BG:34:LEU:HB3	29:BG:99:MET:CE	2.30	0.55
30:BH:54:ARG:HB2	30:BH:55:PRO:HD2	1.87	0.55
30:BH:77:LYS:CG	30:BH:78:GLY:N	2.69	0.55
30:BH:98:LEU:HD12	30:BH:102:ALA:O	2.07	0.55
38:BR:31:SER:HB2	38:BR:84:GLN:HG2	1.88	0.55
40:B2:24:LYS:HB3	40:B2:24:LYS:HZ2	1.69	0.55
1:CA:322:C:C5	1:CA:328:C:H5	2.23	0.55
1:CA:464:G:C6	1:CA:466:C:H5'	2.41	0.55
1:CA:485:G:O2'	1:CA:486:U:O5'	2.23	0.55
1:CA:509:A:H4'	4:CG:55:ALA:HB2	1.87	0.55
1:CA:1154:G:C4	1:CA:1155:G:C8	2.94	0.55
1:CA:1157:A:N3	1:CA:1157:A:H2'	2.21	0.55
1:CA:1367:C:P	10:CM:60:ARG:NH2	2.79	0.55
1:CA:1379:G:O2'	1:CA:1380:U:H5'	2.06	0.55
2:CE:12:GLU:HA	2:CE:15:VAL:CG2	2.35	0.55
2:CE:112:VAL:CG1	2:CE:113:HIS:N	2.69	0.55
2:CE:166:ASP:HB3	2:CE:169:LYS:HB2	1.88	0.55
19:CV:49:ILE:HG13	19:CV:60:VAL:HG22	1.88	0.55
22:CC:25:C:H2'	22:CC:26:G:O4'	2.06	0.55
24:DA:1061:U:H4'	24:DA:1070:A:C1'	2.36	0.55
24:DA:1349:A:H3'	24:DA:1349:A:N3	2.21	0.55
24:DA:2717:G:C2'	38:DR:100:TYR:HH	2.16	0.55
25:DB:45:A:H2'	25:DB:46:A:H5'	1.87	0.55
25:DB:112:G:N2	37:DQ:45:GLY:O	2.39	0.55
27:DE:36:ARG:NH2	27:DE:87:GLU:O	2.39	0.55
27:DE:76:ARG:CG	27:DE:195:LEU:HD22	2.36	0.55
28:DF:118:ALA:HB2	28:DF:123:LEU:HD22	1.87	0.55
29:DG:113:ARG:HD2	49:D4:35:VAL:HB	1.88	0.55
30:DH:95:ARG:O	30:DH:96:ALA:CB	2.53	0.55
31:DK:40:THR:O	31:DK:44:LEU:HB2	2.06	0.55
38:DR:51:ARG:CG	38:DR:98:LYS:HE3	2.36	0.55
40:D2:62:LEU:H	40:D2:62:LEU:CD2	2.18	0.55
44:DV:30:ASN:HA	44:DV:89:PHE:CE1	2.41	0.55
46:DZ:11:ARG:HB2	46:DZ:12:PRO:HD2	1.87	0.55
53:D8:48:PHE:CG	53:D8:49:VAL:N	2.73	0.55
2:AE:91:PRO:HD3	2:AE:155:LEU:CD2	2.36	0.55
3:AF:8:ILE:HD11	3:AF:16:ARG:HE	1.67	0.55
3:AF:152:ILE:HG13	3:AF:167:TRP:CB	2.35	0.55
6:AI:16:GLN:CD	6:AI:16:GLN:H	2.10	0.55
9:AL:99:LEU:CB	9:AL:101:PHE:CD2	2.84	0.55
12:AO:24:VAL:HG13	12:AO:98:TYR:HE2	1.70	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AP:12:ASN:N	13:AP:46:LYS:CD	2.68	0.55
17:AT:15:MET:HB2	17:AT:18:THR:HB	1.88	0.55
19:AV:15:LEU:CD1	19:AV:16:LEU:N	2.68	0.55
24:BA:405:U:H2'	24:BA:405:U:O2	2.05	0.55
24:BA:743:G:O2'	24:BA:744:G:H5'	2.06	0.55
24:BA:819:A:OP2	24:BA:1187:G:N2	2.36	0.55
24:BA:1279:G:H4'	36:B0:31:HIS:CD2	2.42	0.55
24:BA:1281:G:H2'	24:BA:1282:U:H6	1.71	0.55
24:BA:2244:U:C2'	24:BA:2245:U:H5'	2.36	0.55
24:BA:2297:C:C2'	24:BA:2298:A:H5'	2.36	0.55
24:BA:2855:C:H2'	24:BA:2856:C:H6	1.71	0.55
27:BE:204:ALA:O	27:BE:205:ALA:HB3	2.06	0.55
29:BG:111:LEU:N	29:BG:112:PRO:CD	2.68	0.55
31:BK:8:PRO:O	31:BK:9:LEU:HD22	2.06	0.55
50:B5:55:ARG:O	50:B5:57:VAL:N	2.34	0.55
1:CA:87:A:OP2	1:CA:87:A:C8	2.60	0.55
1:CA:280:C:H3'	1:CA:281:G:H5'	1.88	0.55
1:CA:865:A:H2	1:CA:918:A:C4'	2.19	0.55
1:CA:1228:C:OP1	13:CP:115:LYS:HG2	2.07	0.55
1:CA:1240:U:H3	7:CJ:32:ARG:CZ	2.19	0.55
1:CA:1320:C:C5	1:CA:1321:C:C5	2.94	0.55
8:CK:12:ARG:HH11	8:CK:26:VAL:HA	1.69	0.55
9:CL:95:LYS:HZ2	9:CL:95:LYS:C	2.05	0.55
10:CM:68:HIS:CD2	10:CM:70:ARG:HH12	2.16	0.55
13:CP:62:ASN:HA	49:D4:49:PHE:CZ	2.37	0.55
14:CQ:12:ARG:CB	14:CQ:14:PRO:HD3	2.36	0.55
24:DA:445:C:O2'	24:DA:446:G:H5'	2.06	0.55
24:DA:524:U:H4'	24:DA:554:U:H4'	1.87	0.55
24:DA:1601:G:C4'	52:D7:49:ARG:CD	2.84	0.55
24:DA:2185:C:H2'	24:DA:2186:G:H8	1.71	0.55
24:DA:2345:G:H5"	51:D6:39:TYR:CE2	2.41	0.55
30:DH:9:ILE:CG2	30:DH:51:ARG:CB	2.81	0.55
41:DS:11:ARG:CZ	41:DS:98:LYS:HB3	2.36	0.55
43:DU:15:VAL:HG22	43:DU:72:VAL:HG12	1.88	0.55
44:DV:61:LEU:HB3	44:DV:62:PRO:HD2	1.88	0.55
4:AG:8:VAL:HG21	4:AG:21:LEU:CD1	2.36	0.55
5:AH:72:GLN:O	5:AH:73:ASN:HB3	2.05	0.55
9:AL:4:TYR:OH	9:AL:88:TYR:HD1	1.89	0.55
10:AM:6:ILE:HG13	10:AM:72:VAL:HG12	1.87	0.55
16:AS:20:VAL:HG21	16:AS:32:TYR:HB2	1.89	0.55
16:AS:20:VAL:HG22	16:AS:21:VAL:N	2.20	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AS:39:TYR:CD2	16:AS:73:LEU:HD11	2.41	0.55
24:BA:234:C:C2	24:BA:235:U:C6	2.94	0.55
24:BA:270(M):U:H4'	24:BA:270(N):G:C2	2.41	0.55
24:BA:1061:U:O3'	24:BA:1070:A:H4'	2.05	0.55
24:BA:2110:G:OP1	24:BA:2145:C:N4	2.39	0.55
24:BA:2124:G:C2	24:BA:2125:G:H1'	2.42	0.55
24:BA:2303:G:O2'	24:BA:2304:G:H5'	2.06	0.55
24:BA:2415:G:H4'	34:BO:66:GLY:HA3	1.88	0.55
27:BE:8:LYS:HE2	27:BE:192:ASN:OD1	2.05	0.55
29:BG:2:PRO:N	29:BG:3:LEU:HD12	2.21	0.55
29:BG:111:LEU:HD13	29:BG:120:LEU:HD21	1.87	0.55
34:BO:19:VAL:HG22	34:BO:21:ARG:N	2.21	0.55
36:B0:55:ALA:HA	36:B0:80:PHE:CE1	2.41	0.55
40:B2:18:LEU:HD13	40:B2:19:LYS:O	2.06	0.55
47:BW:41:ILE:HD12	47:BW:44:LEU:HD12	1.87	0.55
1:CA:200:G:N2	1:CA:218:C:C2	2.74	0.55
1:CA:386:C:C2'	1:CA:387:U:H5'	2.36	0.55
1:CA:393:A:P	16:CS:12:LYS:NZ	2.78	0.55
1:CA:411:A:N7	1:CA:413:G:N3	2.54	0.55
1:CA:853:G:H2'	1:CA:854:G:C8	2.41	0.55
1:CA:1097:C:H1'	1:CA:1169:A:H2	1.69	0.55
1:CA:1151:A:H2'	1:CA:1152:A:H8	1.71	0.55
1:CA:1279:A:H3'	1:CA:1279:A:N3	2.21	0.55
2:CE:215:LEU:O	2:CE:219:VAL:HG12	2.06	0.55
3:CF:126:ARG:C	3:CF:127:ARG:HD2	2.27	0.55
4:CG:32:ALA:O	4:CG:36:ARG:N	2.39	0.55
4:CG:101:LEU:O	4:CG:104:VAL:N	2.39	0.55
12:CO:18:VAL:O	12:CO:19:ARG:HB3	2.06	0.55
22:CC:63:G:C2	22:CC:64:G:C5	2.95	0.55
24:DA:830:G:H4'	24:DA:831:G:OP2	2.06	0.55
24:DA:993:G:OP1	39:D1:50:ARG:NH2	2.39	0.55
24:DA:1010:A:H1'	24:DA:1153:C:H1'	1.87	0.55
24:DA:1048:A:C2	24:DA:1112:G:N2	2.70	0.55
24:DA:1600:C:C2'	52:D7:49:ARG:CD	2.80	0.55
24:DA:1653:G:H4'	36:D0:2:ARG:NH2	2.21	0.55
24:DA:2334:G:H4'	24:DA:2335:A:OP2	2.06	0.55
24:DA:2696:U:H2'	24:DA:2697:G:H8	1.71	0.55
25:DB:55:U:HO2'	25:DB:56:G:H5'	1.72	0.55
27:DE:11:MET:HA	27:DE:24:THR:CA	2.34	0.55
27:DE:64:LYS:CE	27:DE:66:HIS:HA	2.36	0.55
28:DF:14:PRO:O	28:DF:16:GLY:N	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DG:77:ILE:HB	29:DG:82:LEU:CD1	2.34	0.55
30:DH:72:ILE:H	30:DH:72:ILE:CD1	2.16	0.55
34:DO:88:LEU:HD12	34:DO:91:PHE:CZ	2.42	0.55
38:DR:132:LYS:C	38:DR:136:GLN:HG3	2.26	0.55
40:D2:35:LEU:CD2	40:D2:35:LEU:H	2.20	0.55
45:D3:17:GLN:OE1	45:D3:17:GLN:HA	2.05	0.55
1:AA:67:C:H2'	1:AA:68:G:H8	1.71	0.55
1:AA:946:A:OP1	13:AP:114:ARG:NH1	2.40	0.55
1:AA:1178:G:C5'	9:AL:93:ARG:HH22	2.02	0.55
1:AA:1221:G:C2'	1:AA:1222:G:H5'	2.36	0.55
5:AH:51:VAL:O	5:AH:55:VAL:HG23	2.07	0.55
9:AL:21:PRO:HA	9:AL:58:HIS:O	2.06	0.55
9:AL:96:LEU:HA	9:AL:99:LEU:CD2	2.36	0.55
10:AM:22:LYS:HD3	10:AM:22:LYS:C	2.27	0.55
11:AN:34:ASP:HB2	11:AN:35:PRO:CD	2.37	0.55
12:AO:82:VAL:HG12	12:AO:83:VAL:N	2.21	0.55
16:AS:23:ASP:OD1	16:AS:25:ARG:CD	2.54	0.55
16:AS:45:THR:HG23	16:AS:46:PRO:HD2	1.89	0.55
24:BA:658:C:H2'	24:BA:659:C:C6	2.41	0.55
24:BA:1060:U:H1'	24:BA:1061:U:P	2.45	0.55
24:BA:1272:A:C2	24:BA:1618:A:C2	2.95	0.55
24:BA:1820:U:O2	26:BD:202:LYS:HB3	2.06	0.55
24:BA:2035:G:H4'	24:BA:2036:C:OP2	2.07	0.55
24:BA:2180:U:H5"	24:BA:2181:G:OP2	2.06	0.55
25:BB:16:G:H2'	25:BB:17:C:C6	2.39	0.55
26:BD:96:HIS:HD2	26:BD:102:LYS:HG2	1.70	0.55
26:BD:137:PRO:HG2	26:BD:140:THR:OG1	2.07	0.55
29:BG:20:ILE:O	29:BG:24:GLY:HA2	2.07	0.55
31:BK:116:LEU:HD12	31:BK:117:GLU:H	1.71	0.55
51:B6:31:PRO:CB	51:B6:35:GLU:HG3	2.36	0.55
1:CA:659:U:O2'	1:CA:660:G:H5'	2.06	0.55
1:CA:1060:C:H5	3:CF:2:GLY:HA3	1.68	0.55
1:CA:1118:C:H2'	1:CA:1119:C:C6	2.41	0.55
1:CA:1231:G:O2'	1:CA:1232:U:H5'	2.06	0.55
4:CG:65:ARG:CG	4:CG:75:PHE:CD2	2.89	0.55
4:CG:94:LEU:HD12	4:CG:94:LEU:N	2.22	0.55
4:CG:98:GLU:O	4:CG:103:ASN:ND2	2.38	0.55
9:CL:14:VAL:O	9:CL:65:VAL:HA	2.06	0.55
9:CL:117:HIS:O	9:CL:118:LYS:HB3	2.06	0.55
10:CM:28:ARG:HH12	10:CM:34:VAL:N	2.05	0.55
12:CO:27:LEU:HD21	12:CO:62:SER:OG	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CR:18:PHE:O	15:CR:21:ASP:HB2	2.07	0.55
20:CW:13:LEU:H	20:CW:13:LEU:CD1	2.19	0.55
20:CW:100:ILE:H	20:CW:100:ILE:HD12	1.71	0.55
24:DA:189:G:H2'	24:DA:205:G:N2	2.21	0.55
24:DA:290:G:H2'	24:DA:291:C:O4'	2.06	0.55
24:DA:860:U:O2'	24:DA:861:A:H5'	2.07	0.55
24:DA:997:G:O2'	24:DA:998:C:H5'	2.06	0.55
29:DG:129:GLY:HA2	29:DG:166:ASP:HA	1.89	0.55
34:DO:15:ARG:NH1	34:DO:15:ARG:HG3	2.19	0.55
34:DO:78:PRO:HB3	34:DO:111:ARG:NH2	2.21	0.55
36:D0:54:LEU:HD23	36:D0:66:VAL:CG2	2.37	0.55
44:DV:150:LEU:CD1	44:DV:154:ASP:CB	2.83	0.55
44:DV:173:ALA:O	44:DV:175:VAL:N	2.38	0.55
45:D3:72:ARG:NE	45:D3:75:LEU:HD12	2.20	0.55
1:AA:220:G:C2'	1:AA:221:C:H5'	2.36	0.55
1:AA:444:C:H2'	1:AA:445:G:H8	1.71	0.55
1:AA:444:C:H2'	1:AA:445:G:C8	2.41	0.55
1:AA:603:U:H2'	1:AA:604:G:H8	1.70	0.55
1:AA:1003:G:H2'	1:AA:1004:A:O3'	2.07	0.55
1:AA:1029:G:O2'	1:AA:1030:C:H5"	2.06	0.55
1:AA:1118:C:C1'	1:AA:1179:A:C4	2.90	0.55
1:AA:1287:A:OP2	21:AX:26:LYS:NZ	2.39	0.55
2:AE:59:GLU:O	2:AE:63:MET:HG2	2.06	0.55
3:AF:40:ARG:O	3:AF:44:GLU:HG2	2.06	0.55
7:AJ:138:LYS:HE2	7:AJ:142:GLU:OE1	2.07	0.55
9:AL:23:ASN:HB3	9:AL:25:LYS:HZ3	1.71	0.55
15:AR:25:THR:HG21	15:AR:70:LEU:HB2	1.89	0.55
17:AT:45:HIS:CE1	17:AT:47:PRO:HG3	2.42	0.55
24:BA:646:A:H2'	24:BA:647:G:O4'	2.06	0.55
24:BA:931:G:O3'	48:BX:24:LYS:NZ	2.39	0.55
24:BA:1174:A:H2'	24:BA:1176:G:H4'	1.89	0.55
24:BA:1375:C:H2'	24:BA:1376:C:H6	1.72	0.55
24:BA:2439:A:C8	24:BA:2439:A:H5'	2.42	0.55
24:BA:2875:C:O2'	38:BR:6:LEU:HD13	2.07	0.55
36:B0:29:LEU:HD22	36:B0:29:LEU:H	1.72	0.55
36:B0:85:PRO:O	36:B0:87:TYR:N	2.39	0.55
39:B1:106:PHE:O	39:B1:110:VAL:HG23	2.06	0.55
43:BU:81:LYS:CE	43:BU:96:ILE:HG21	2.36	0.55
51:B6:15:GLU:CD	51:B6:44:ARG:HH22	2.08	0.55
1:CA:89:U:C1'	1:CA:90:C:OP1	2.55	0.55
1:CA:1220:G:H21	19:CV:54:GLY:HA2	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1269:A:C5'	21:CX:18:TYR:CE1	2.89	0.55
2:CE:82:ARG:HB2	2:CE:94:ASN:ND2	2.15	0.55
3:CF:11:ARG:NE	3:CF:177:THR:O	2.36	0.55
6:CI:13:ASN:ND2	6:CI:55:ASP:OD2	2.36	0.55
6:CI:23:LYS:CE	6:CI:61:LEU:HD11	2.35	0.55
6:CI:36:ARG:O	6:CI:65:VAL:HG13	2.06	0.55
7:CJ:116:ALA:O	7:CJ:119:ARG:HB2	2.07	0.55
8:CK:20:TYR:CE2	8:CK:75:ARG:HB3	2.42	0.55
8:CK:86:ILE:HB	8:CK:133:LEU:HD22	1.88	0.55
19:CV:11:VAL:CG2	19:CV:39:THR:CB	2.77	0.55
22:CC:40:C:H2'	22:CC:41:C:H6	1.70	0.55
24:DA:285:C:O2'	24:DA:286:C:H5'	2.07	0.55
24:DA:2271:G:OP1	45:D3:18:ALA:HB1	2.06	0.55
24:DA:2635:C:C5'	27:DE:77:ILE:CG2	2.85	0.55
25:DB:88:C:H5	25:DB:89:G:N3	2.04	0.55
27:DE:14:ILE:CD1	27:DE:173:VAL:HG11	2.33	0.55
27:DE:24:THR:O	27:DE:25:VAL:HB	2.06	0.55
29:DG:106:LEU:O	29:DG:111:LEU:HG	2.07	0.55
29:DG:133:LEU:HD23	29:DG:133:LEU:N	2.22	0.55
32:DM:19:GLU:HG3	32:DM:59:LYS:HB3	1.87	0.55
34:DO:63:PRO:C	34:DO:65:ARG:H	2.10	0.55
37:DQ:104:GLY:C	37:DQ:106:ARG:H	2.10	0.55
38:DR:24:PRO:HD3	38:DR:52:ILE:CD1	2.37	0.55
39:D1:30:LYS:HE3	50:D5:13:LYS:HZ2	1.71	0.55
1:AA:191(F):U:O2	20:AW:105:SER:HB3	2.06	0.55
1:AA:412:A:OP2	4:AG:35:ARG:NH2	2.40	0.55
1:AA:594:G:H2'	1:AA:595:G:H5'	1.88	0.55
1:AA:872:A:C4	1:AA:874:G:C8	2.94	0.55
1:AA:1026:G:H1	1:AA:1035:A:H61	1.53	0.55
1:AA:1034:G:C2	1:AA:1035:A:N6	2.75	0.55
1:AA:1153:C:P	10:AM:13:HIS:HE2	2.29	0.55
1:AA:1213:A:C2	1:AA:1215:G:H1'	2.41	0.55
2:AE:71:VAL:HG21	2:AE:164:VAL:HG22	1.88	0.55
4:AG:30:LYS:HG2	4:AG:32:ALA:N	2.22	0.55
9:AL:48:GLU:HB2	9:AL:78:LYS:HZ1	1.63	0.55
9:AL:83:ARG:HA	9:AL:86:VAL:CG1	2.37	0.55
14:AQ:58:LYS:NZ	14:AQ:58:LYS:HB3	2.22	0.55
17:AT:67:LYS:O	17:AT:68:ARG:CB	2.52	0.55
24:BA:32:C:O2'	24:BA:33:U:H5'	2.07	0.55
24:BA:320:A:O2'	28:BF:169:ASN:OD1	2.21	0.55
24:BA:1057:A:H2'	24:BA:1058:U:C5	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1088:A:H3'	24:BA:1088:A:N3	2.22	0.55
24:BA:1266:G:O5'	41:BS:15:ARG:NH2	2.39	0.55
24:BA:1638:C:H4'	24:BA:2710:C:O2	2.06	0.55
24:BA:1767:C:O2'	24:BA:1768:U:H5'	2.07	0.55
24:BA:1925:C:O2'	24:BA:1926:U:H5'	2.06	0.55
24:BA:2096:U:H3	24:BA:2193:G:H1	1.53	0.55
24:BA:2119:A:N6	24:BA:2171:A:C2	2.75	0.55
30:BH:83:TYR:HD1	30:BH:84:SER:N	2.05	0.55
30:BH:153:LYS:HB2	30:BH:154:PRO:CD	2.36	0.55
32:BM:72:TYR:HB2	32:BM:85:ILE:HG13	1.88	0.55
41:BS:64:MET:CA	41:BS:109:GLU:OE2	2.54	0.55
42:BT:27:THR:HG23	42:BT:80:ILE:HB	1.86	0.55
44:BV:143:GLY:CA	44:BV:144:LEU:HG	2.31	0.55
1:CA:144:G:O2'	1:CA:145:G:H5'	2.06	0.55
1:CA:518:C:H5"	1:CA:519:C:C6	2.42	0.55
1:CA:590:C:OP1	8:CK:30:ARG:HG2	2.06	0.55
1:CA:784:C:H4'	24:DA:1837:C:OP1	2.06	0.55
1:CA:802:A:H5'	1:CA:803:G:OP2	2.06	0.55
1:CA:939:G:C6	1:CA:940:C:N4	2.75	0.55
1:CA:984:C:H2'	1:CA:985:C:C6	2.41	0.55
1:CA:1188:A:H5"	14:CQ:58:LYS:HZ1	1.71	0.55
1:CA:1236:A:O2'	1:CA:1304:G:H4'	2.06	0.55
1:CA:1313:U:P	19:CV:7:LYS:HE3	2.46	0.55
1:CA:1502:A:H2	1:CA:1505:G:N1	2.04	0.55
2:CE:8:LYS:CG	2:CE:11:LEU:CG	2.67	0.55
2:CE:20:GLU:HG3	2:CE:191:ASP:HB2	1.88	0.55
2:CE:69:LEU:HD23	2:CE:70:PHE:N	2.22	0.55
3:CF:39:ILE:HG21	3:CF:57:ILE:CD1	2.37	0.55
3:CF:82:GLU:H	3:CF:85:ARG:CD	2.20	0.55
3:CF:84:ILE:HG23	3:CF:85:ARG:NH1	2.22	0.55
4:CG:134:ASP:OD1	4:CG:135:LEU:HD13	2.06	0.55
7:CJ:59:LEU:HD23	7:CJ:59:LEU:C	2.26	0.55
9:CL:4:TYR:CD2	9:CL:19:LEU:HB2	2.41	0.55
13:CP:3:ARG:CZ	29:DG:139:LEU:HD11	2.37	0.55
13:CP:87:TYR:O	13:CP:91:ARG:HG2	2.06	0.55
15:CR:82:ILE:HD13	15:CR:82:ILE:C	2.27	0.55
24:DA:871:U:P	35:DP:6:ARG:NH2	2.63	0.55
24:DA:958:U:OP2	35:DP:14:ARG:NH1	2.40	0.55
24:DA:986:C:H2'	24:DA:987:G:H5'	1.86	0.55
24:DA:2344:U:C3'	51:D6:39:TYR:CE1	2.89	0.55
24:DA:2447:G:C1'	24:DA:2448:A:OP2	2.55	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DE:36:ARG:NH1	27:DE:86:PRO:HD2	2.21	0.55
27:DE:46:ALA:CB	27:DE:82:ARG:HA	2.36	0.55
27:DE:51:PHE:O	27:DE:74:PRO:HB2	2.06	0.55
30:DH:135:GLY:HA3	30:DH:141:VAL:HG21	1.89	0.55
31:DK:76:THR:HG23	31:DK:77:LEU:H	1.72	0.55
33:DN:24:VAL:CG2	33:DN:33:ALA:HB2	2.37	0.55
43:DU:13:VAL:HG23	43:DU:73:ARG:C	2.27	0.55
1:AA:272:C:H2'	1:AA:273:A:C8	2.41	0.55
1:AA:343:U:O2'	1:AA:346:G:O6	2.14	0.55
1:AA:719:C:O2'	18:AU:49:LYS:HB3	2.06	0.55
1:AA:1049:U:OP1	14:AQ:3:ARG:HG3	2.06	0.55
2:AE:142:LEU:O	2:AE:142:LEU:HD23	2.06	0.55
4:AG:29:PRO:O	4:AG:34:GLU:CG	2.51	0.55
7:AJ:70:LYS:CG	7:AJ:96:GLN:HB3	2.37	0.55
11:AN:40:ILE:HG22	11:AN:75:TYR:HD2	1.71	0.55
11:AN:108:ILE:O	18:AU:87:ARG:N	2.39	0.55
12:AO:53:ARG:HH12	12:AO:92:ASP:CB	2.20	0.55
16:AS:68:ASP:CG	16:AS:71:ARG:HH21	2.10	0.55
20:AW:20:LEU:O	20:AW:23:ARG:HB3	2.06	0.55
24:BA:140:A:C8	24:BA:1408:C:O2'	2.60	0.55
24:BA:172:C:O2'	24:BA:173:G:H5'	2.06	0.55
24:BA:592:G:N3	53:B8:4:MET:CE	2.69	0.55
24:BA:635:C:O2'	24:BA:639:U:OP1	2.25	0.55
24:BA:654(M):C:H5"	24:BA:654(N):G:N7	2.22	0.55
24:BA:1528:A:H2	24:BA:1542:G:N2	2.05	0.55
24:BA:1899:G:H21	24:BA:1902:C:H5	1.55	0.55
24:BA:1989:G:H2'	24:BA:1990:C:H5'	1.89	0.55
24:BA:1992:G:C2'	24:BA:1993:U:OP2	2.55	0.55
24:BA:2648:C:H2'	24:BA:2649:U:H6	1.72	0.55
24:BA:2789:C:H2'	24:BA:2790:A:C4'	2.37	0.55
24:BA:2815:C:H5'	50:B5:29:THR:HG21	1.88	0.55
24:BA:2864:G:H2'	24:BA:2865:U:C6	2.42	0.55
26:BD:96:HIS:CD2	26:BD:102:LYS:HG2	2.42	0.55
38:BR:78:LEU:HD13	38:BR:78:LEU:O	2.07	0.55
44:BV:81:ARG:O	44:BV:81:ARG:HG3	2.07	0.55
51:B6:32:ASN:N	51:B6:35:GLU:OE2	2.40	0.55
1:CA:169:C:C5	1:CA:170:U:C5	2.95	0.55
1:CA:281:G:H8	1:CA:281:G:OP2	1.88	0.55
1:CA:377:G:OP1	16:CS:3:LYS:HD2	2.07	0.55
1:CA:391:G:P	16:CS:28:ARG:HH22	2.30	0.55
1:CA:512:U:H2'	1:CA:513:C:C6	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:659:U:C2	1:CA:660:G:C8	2.95	0.55
1:CA:843:U:H3'	1:CA:848:C:H5'	1.88	0.55
1:CA:963:G:N2	10:CM:55:LYS:HE2	2.15	0.55
1:CA:1065:U:H6	1:CA:1190:G:H21	1.53	0.55
1:CA:1106:G:H4'	3:CF:171:GLY:O	2.07	0.55
1:CA:1172:C:H2'	1:CA:1173:G:H8	1.71	0.55
1:CA:1269:A:O2'	1:CA:1325:C:O2'	2.25	0.55
1:CA:1298:C:O2'	1:CA:1299:A:OP2	2.16	0.55
1:CA:1318:A:N6	14:CQ:18:VAL:HG21	2.22	0.55
1:CA:1399:C:H4'	1:CA:1400:C:C5'	2.36	0.55
1:CA:1446:A:OP1	1:CA:1446:A:H4'	2.06	0.55
2:CE:101:MET:C	2:CE:102:LEU:HD12	2.27	0.55
4:CG:24:GLU:N	4:CG:24:GLU:OE2	2.40	0.55
10:CM:5:ARG:O	10:CM:98:ILE:HA	2.07	0.55
10:CM:70:ARG:HG3	10:CM:70:ARG:NH1	2.18	0.55
12:CO:111:LYS:H	12:CO:111:LYS:CD	2.05	0.55
14:CQ:9:LYS:O	14:CQ:12:ARG:NH1	2.39	0.55
19:CV:36:ARG:CD	19:CV:72:GLY:CA	2.76	0.55
20:CW:75:ASN:OD1	20:CW:75:ASN:N	2.40	0.55
24:DA:78:A:C6	24:DA:109:G:C6	2.95	0.55
24:DA:768:G:H21	24:DA:1379:A:H2'	1.71	0.55
24:DA:1021:A:H62	24:DA:1141:U:H3	1.55	0.55
24:DA:1022:G:C1'	24:DA:1023:U:OP2	2.53	0.55
24:DA:1171:G:C1'	24:DA:1173:G:P	2.95	0.55
24:DA:1342:A:C6	24:DA:1397:U:C6	2.95	0.55
24:DA:1534:G:H3'	24:DA:1535:U:H5'	1.88	0.55
24:DA:1790:C:O2'	26:DD:209:ALA:HB2	2.07	0.55
24:DA:2338:G:C2	24:DA:2339:G:C8	2.95	0.55
24:DA:2347:C:H2'	24:DA:2348:U:C6	2.42	0.55
24:DA:2779:U:O4'	24:DA:2779:U:O2	2.23	0.55
24:DA:2808:U:H2'	24:DA:2809:A:C5'	2.36	0.55
25:DB:27:C:C4	25:DB:28:C:C4	2.95	0.55
26:DD:196:VAL:O	26:DD:196:VAL:HG12	2.07	0.55
27:DE:27:LEU:O	27:DE:27:LEU:HG	2.07	0.55
29:DG:91:ARG:HD2	29:DG:91:ARG:C	2.27	0.55
29:DG:123:ASN:O	29:DG:125:PHE:N	2.37	0.55
33:DN:90:GLN:O	33:DN:91:LEU:HB2	2.06	0.55
34:DO:112:LEU:H	34:DO:128:HIS:HD2	1.55	0.55
34:DO:125:VAL:HG12	34:DO:144:GLU:HB3	1.88	0.55
37:DQ:106:ARG:HA	37:DQ:110:LEU:HD21	1.88	0.55
42:DT:5:TYR:HB3	47:DW:33:MET:HB2	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DW:24:LEU:O	47:DW:24:LEU:HD23	2.07	0.55
1:AA:255:G:H4'	17:AT:17:LYS:HE3	1.89	0.55
1:AA:1106:G:H2'	1:AA:1107:C:C6	2.41	0.55
1:AA:1132:C:H42	1:AA:1142:G:H1	1.53	0.55
1:AA:1205:U:O2'	3:AF:194:GLY:HA2	2.07	0.55
1:AA:1238:A:N3	1:AA:1241:G:O2'	2.26	0.55
3:AF:63:ASN:CB	3:AF:98:ASN:HB2	2.37	0.55
3:AF:195:VAL:C	3:AF:196:LEU:HD23	2.28	0.55
9:AL:22:GLY:HA3	9:AL:60:ASP:OD2	2.06	0.55
24:BA:533:G:N2	39:B1:45:TYR:CD2	2.72	0.55
24:BA:784:A:H5'	24:BA:785:G:OP1	2.06	0.55
24:BA:1996:C:OP1	33:BN:31:LYS:HE3	2.06	0.55
24:BA:2128:C:OP2	24:BA:2128:C:H6	1.89	0.55
24:BA:2287:A:N1	24:BA:2289:G:H1'	2.22	0.55
24:BA:2405:G:P	34:BO:77:ARG:HH22	2.28	0.55
28:BF:46:ARG:HH11	28:BF:46:ARG:HG2	1.72	0.55
29:BG:159:VAL:O	29:BG:159:VAL:HG23	2.07	0.55
31:BK:11:ASN:O	31:BK:13:GLY:N	2.40	0.55
37:BQ:36:TYR:N	37:BQ:36:TYR:HD1	2.04	0.55
37:BQ:42:ASP:O	37:BQ:43:GLU:CG	2.51	0.55
51:B6:34:LEU:O	51:B6:51:GLU:HB3	2.07	0.55
2:CE:25:ASN:ND2	2:CE:27:LYS:HD3	2.10	0.55
2:CE:107:THR:HG22	2:CE:110:GLN:OE1	2.07	0.55
4:CG:185:PHE:HE1	4:CG:187:ARG:O	1.90	0.55
5:CH:53:LEU:O	5:CH:53:LEU:HD23	2.07	0.55
8:CK:119:LEU:HD23	8:CK:124:ALA:CA	2.36	0.55
9:CL:79:LEU:HD13	9:CL:104:ARG:HA	1.83	0.55
12:CO:84:LEU:HD23	12:CO:105:TYR:CE2	2.42	0.55
19:CV:58:VAL:O	19:CV:60:VAL:N	2.39	0.55
24:DA:527:C:H4'	24:DA:528:A:H5'	1.89	0.55
24:DA:896:A:H2'	24:DA:897:C:C6	2.42	0.55
24:DA:1070:A:H8	24:DA:1096:A:H1'	1.64	0.55
24:DA:1542:G:H3'	24:DA:1543:A:C5'	2.34	0.55
24:DA:2106:G:H3'	24:DA:2107:C:C6	2.42	0.55
24:DA:2335:A:C8	24:DA:2337:G:N7	2.74	0.55
24:DA:2402:C:H2'	24:DA:2403:C:H5'	1.89	0.55
25:DB:114:G:O2'	37:DQ:50:SER:OG	2.24	0.55
26:DD:70:TRP:CZ3	26:DD:146:GLU:OE2	2.60	0.55
29:DG:33:ARG:H	29:DG:162:THR:CG2	2.20	0.55
29:DG:139:LEU:C	29:DG:139:LEU:CD1	2.74	0.55
30:DH:169:VAL:HG22	30:DH:170:ARG:H	1.70	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DM:130:HIS:HB2	32:DM:134:ARG:HH12	1.71	0.55
37:DQ:24:LEU:HD12	37:DQ:41:ASP:CA	2.37	0.55
41:DS:47:VAL:HA	41:DS:50:VAL:CG1	2.37	0.55
43:DU:55:TYR:HB3	43:DU:56:PRO:HD2	1.89	0.55
44:DV:1:MET:HG2	44:DV:2:GLU:H	1.71	0.55
44:DV:117:LEU:HD22	44:DV:118:GLN:H	1.72	0.55
1:AA:624:C:H4'	16:AS:10:GLY:C	2.27	0.55
1:AA:938:A:N6	1:AA:939:G:C6	2.75	0.55
24:BA:71:A:OP2	24:BA:113:G:H5'	2.07	0.55
24:BA:205:G:HO2'	24:BA:206:U:P	2.28	0.55
24:BA:273(F):C:H3'	24:BA:274:G:C5'	2.35	0.55
24:BA:602:G:O2'	24:BA:604:G:O2'	2.07	0.55
24:BA:1161:C:O2'	40:B2:8:GLY:HA2	2.07	0.55
24:BA:1335:U:OP2	42:BT:65:ARG:NH2	2.40	0.55
24:BA:2100:G:C2'	24:BA:2101:G:H5'	2.37	0.55
24:BA:2215:G:O2'	24:BA:2216:G:H5'	2.07	0.55
24:BA:2389:G:H5"	24:BA:2390:U:C5'	2.33	0.55
24:BA:2653:U:O2'	30:BH:110:SER:HB2	2.07	0.55
25:BB:31:C:H4'	29:BG:29:TRP:CH2	2.41	0.55
25:BB:42:C:H5'	49:B4:2:LYS:HD2	1.88	0.55
26:BD:223:GLY:CA	26:BD:231:HIS:HD2	2.18	0.55
26:BD:223:GLY:HA2	26:BD:231:HIS:HD2	1.70	0.55
27:BE:73:GLU:O	27:BE:74:PRO:O	2.25	0.55
30:BH:149:ARG:O	30:BH:151:ILE:N	2.40	0.55
33:BN:24:VAL:HG23	33:BN:33:ALA:HB2	1.88	0.55
37:BQ:100:ALA:HA	37:BQ:103:GLU:HB2	1.89	0.55
38:BR:16:ARG:NH2	38:BR:83:ILE:O	2.39	0.55
40:B2:38:LEU:HD22	40:B2:52:VAL:CG2	2.36	0.55
44:BV:7:ALA:HB3	44:BV:61:LEU:HB3	1.89	0.55
1:CA:195:A:N7	1:CA:196:A:C6	2.75	0.55
1:CA:1320:C:N1	19:CV:70:LYS:NZ	2.52	0.55
2:CE:187:LEU:HD23	2:CE:201:ILE:O	2.06	0.55
6:CI:44:GLY:HA2	6:CI:59:TYR:CE2	2.41	0.55
7:CJ:73:MET:HG2	7:CJ:90:GLU:CA	2.36	0.55
8:CK:119:LEU:HD23	8:CK:124:ALA:HA	1.88	0.55
9:CL:4:TYR:N	9:CL:4:TYR:CD1	2.74	0.55
9:CL:6:GLY:HA3	9:CL:84:ALA:HB2	1.87	0.55
10:CM:49:VAL:HG11	14:CQ:41:ARG:HB2	1.87	0.55
11:CN:34:ASP:HB2	11:CN:35:PRO:HD2	1.89	0.55
13:CP:85:GLY:O	13:CP:86:CYS:HB3	2.07	0.55
19:CV:9:VAL:HG21	49:D4:63:TYR:CE1	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CV:36:ARG:HH11	19:CV:72:GLY:HA2	1.70	0.55
24:DA:270(I):G:O6	24:DA:270(Q):C:N4	2.40	0.55
24:DA:557:U:H2'	24:DA:558:G:H8	1.71	0.55
24:DA:723:G:H2'	24:DA:724:U:O4'	2.06	0.55
24:DA:1016:G:H2'	24:DA:1017:G:O4'	2.07	0.55
24:DA:1805:U:O2	26:DD:50:THR:HB	2.07	0.55
24:DA:2135:A:H3'	24:DA:2136:C:C6	2.41	0.55
26:DD:5:LYS:NZ	26:DD:5:LYS:CB	2.69	0.55
27:DE:201:THR:HG22	27:DE:202:LYS:N	2.22	0.55
28:DF:176:LEU:HD21	28:DF:180:GLY:O	2.07	0.55
30:DH:3:ARG:HG3	30:DH:4:ILE:H	0.77	0.55
44:DV:96:VAL:N	44:DV:128:VAL:O	2.33	0.55
44:DV:152:ALA:C	44:DV:154:ASP:H	2.10	0.55
46:DZ:92:LYS:HE2	46:DZ:93:GLU:N	2.21	0.55
51:D6:10:LEU:C	51:D6:11:LEU:HD22	2.26	0.55
53:D8:32:LEU:CG	53:D8:33:ASN:H	2.10	0.55
1:AA:1128:C:C2	1:AA:1144:G:N2	2.66	0.55
1:AA:1253:G:OP1	10:AM:46:ARG:NH2	2.40	0.55
1:AA:1323:G:H2'	1:AA:1324:A:C8	2.42	0.55
3:AF:113:ALA:O	3:AF:115:LEU:N	2.40	0.55
4:AG:8:VAL:HB	4:AG:21:LEU:HD22	1.89	0.55
5:AH:153:LYS:HD3	5:AH:153:LYS:C	2.28	0.55
8:AK:82:HIS:HE1	8:AK:84:ARG:HD3	1.71	0.55
12:AO:90:VAL:HG11	12:AO:93:LEU:HG	1.88	0.55
24:BA:94:G:H21	47:BW:47:ASN:HD22	1.54	0.55
24:BA:1069:A:C4'	24:BA:1070:A:O5'	2.54	0.55
24:BA:1071:G:C5	24:BA:1072:C:C4	2.95	0.55
26:BD:155:LEU:HD23	26:BD:177:LEU:HD21	1.89	0.55
27:BE:120:TRP:CD1	27:BE:155:LYS:HB3	2.41	0.55
28:BF:172:TRP:CE3	28:BF:173:VAL:HG23	2.42	0.55
30:BH:4:ILE:CD1	30:BH:7:LEU:H	2.20	0.55
31:BK:9:LEU:O	31:BK:10:GLU:HB3	2.07	0.55
34:BO:123:LEU:HD11	34:BO:125:VAL:HG13	1.89	0.55
41:BS:57:ASN:O	41:BS:61:ASN:HB2	2.06	0.55
51:B6:12:GLU:HA	51:B6:24:GLU:H	1.71	0.55
1:CA:250:A:C1'	1:CA:251:G:OP2	2.49	0.55
1:CA:1269:A:C2	1:CA:1313:U:O4'	2.60	0.55
2:CE:152:PHE:C	2:CE:154:LEU:H	2.11	0.55
2:CE:214:ILE:O	2:CE:218:ALA:N	2.31	0.55
3:CF:71:ALA:CB	3:CF:106:VAL:HB	2.37	0.55
4:CG:170:VAL:HG22	4:CG:171:GLY:N	2.22	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CP:32:GLU:OE1	13:CP:59:TYR:OH	2.24	0.55
19:CV:70:LYS:HZ2	19:CV:72:GLY:CA	2.19	0.55
24:DA:195:A:H4'	24:DA:251:A:O2'	2.07	0.55
24:DA:657:U:H2'	24:DA:658:C:C6	2.42	0.55
24:DA:1057:A:C2	24:DA:1081:U:N3	2.73	0.55
24:DA:1771:C:O2'	24:DA:1786:A:C8	2.58	0.55
24:DA:2127:G:O6	24:DA:2161:C:N4	2.40	0.55
24:DA:2314:C:H5"	29:DG:38:VAL:HG21	1.89	0.55
24:DA:2392:A:C2'	53:D8:30:ARG:HH22	2.21	0.55
25:DB:104:A:H2'	25:DB:105:G:O4'	2.07	0.55
26:DD:242:ARG:N	26:DD:242:ARG:CD	2.69	0.55
27:DE:17:ASP:O	27:DE:18:ASP:HB2	2.06	0.55
27:DE:60:ASN:ND2	27:DE:61:ARG:N	2.54	0.55
31:DK:81:VAL:HG21	31:DK:123:LEU:CD2	2.36	0.55
32:DM:120:LEU:CD2	32:DM:122:VAL:HG23	2.37	0.55
33:DN:8:LEU:N	33:DN:8:LEU:HD22	2.22	0.55
34:DO:59:LEU:HD13	34:DO:59:LEU:C	2.28	0.55
36:D0:54:LEU:HD23	36:D0:66:VAL:HG23	1.88	0.55
46:DZ:53:VAL:CG2	46:DZ:74:VAL:HG13	2.35	0.55
46:DZ:80:LEU:HD22	46:DZ:80:LEU:N	2.22	0.55
1:AA:17:U:O4'	1:AA:1080:A:H1'	2.08	0.54
1:AA:192:U:H4'	20:AW:102:GLY:C	2.27	0.54
1:AA:287:U:O2'	1:AA:288:A:H5'	2.06	0.54
1:AA:1157:A:C1'	1:AA:1158:C:C5	2.90	0.54
1:AA:1199:U:O4'	10:AM:54:PHE:HD2	1.91	0.54
1:AA:1381:U:C2'	7:AJ:79:ARG:CG	2.85	0.54
2:AE:17:PHE:CA	2:AE:42:ILE:CG2	2.85	0.54
2:AE:90:MET:HB3	2:AE:91:PRO:HD2	1.88	0.54
3:AF:47:LEU:HD12	3:AF:47:LEU:N	2.22	0.54
5:AH:68:GLU:O	5:AH:68:GLU:CG	2.55	0.54
8:AK:97:VAL:HB	8:AK:129:VAL:O	2.07	0.54
9:AL:124:GLN:HG3	9:AL:125:TYR:N	2.23	0.54
10:AM:26:ALA:HA	10:AM:29:ARG:NE	2.18	0.54
12:AO:46:LYS:HE2	12:AO:47:LYS:HE3	1.90	0.54
24:BA:154:G:H2'	24:BA:155:C:O4'	2.07	0.54
24:BA:600:G:N2	24:BA:605:C:O3'	2.40	0.54
24:BA:760:G:H2'	24:BA:761:A:H5'	1.88	0.54
24:BA:1998:G:C2'	24:BA:1999:C:C5'	2.58	0.54
24:BA:2418:A:H2'	24:BA:2419:U:C6	2.41	0.54
24:BA:2450:A:C2	24:BA:2451:A:C4	2.95	0.54
29:BG:130:ASN:OD1	29:BG:160:VAL:HA	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:66:G:C4'	1:CA:173:U:H5	2.08	0.54
1:CA:1299:A:C6	1:CA:1301:U:N3	2.75	0.54
1:CA:1371:G:OP1	9:CL:11:LYS:HG2	2.07	0.54
2:CE:39:ILE:O	2:CE:41:ILE:HD12	2.08	0.54
5:CH:137:GLU:HA	5:CH:140:ARG:NH1	2.22	0.54
6:CI:43:LEU:HD12	6:CI:43:LEU:N	2.22	0.54
8:CK:104:ARG:NH1	8:CK:104:ARG:HB2	2.22	0.54
13:CP:15:VAL:CG1	13:CP:45:VAL:HG22	2.16	0.54
20:CW:100:ILE:O	20:CW:102:GLY:N	2.37	0.54
24:DA:174:C:H5'	24:DA:175:G:OP2	2.07	0.54
24:DA:847:U:OP2	24:DA:929:G:O6	2.24	0.54
24:DA:995:C:H42	32:DM:2:LYS:CG	2.20	0.54
24:DA:1021:A:H3'	24:DA:1021:A:H8	1.72	0.54
24:DA:1771:C:H1'	24:DA:1786:A:C8	2.42	0.54
24:DA:1956:U:C2'	24:DA:1957:C:H5'	2.37	0.54
24:DA:2211:G:H1'	24:DA:2212:A:OP1	2.07	0.54
24:DA:2344:U:H3'	51:D6:37:ARG:HH11	1.71	0.54
28:DF:63:LYS:HE2	28:DF:67:GLN:CB	2.36	0.54
53:D8:49:VAL:O	53:D8:50:LEU:CB	2.43	0.54
1:AA:191:G:H2'	1:AA:192:U:C6	2.42	0.54
1:AA:677:U:H1'	11:AN:119:CYS:SG	2.47	0.54
3:AF:5:ILE:H	3:AF:5:ILE:HD13	1.72	0.54
9:AL:25:LYS:N	9:AL:25:LYS:CD	2.70	0.54
24:BA:2478:A:H2'	24:BA:2479:G:H5'	1.90	0.54
24:BA:2593:U:H2'	24:BA:2594:C:C6	2.42	0.54
24:BA:2790:A:C2	24:BA:2894:G:H5"	2.37	0.54
26:BD:121:PRO:HA	26:BD:135:PHE:HD2	1.71	0.54
27:BE:15:PHE:CD1	38:BR:81:PRO:CD	2.90	0.54
28:BF:37:VAL:HG21	34:BO:6:LEU:HD21	1.89	0.54
29:BG:28:VAL:O	29:BG:31:VAL:CG1	2.54	0.54
31:BK:40:THR:HG22	31:BK:41:GLU:OE2	2.08	0.54
31:BK:109:ILE:HG22	31:BK:130:TYR:HE2	1.73	0.54
35:BP:79:LEU:C	35:BP:79:LEU:CD1	2.72	0.54
37:BQ:62:LYS:HB2	37:BQ:97:ARG:HD3	1.89	0.54
51:B6:24:GLU:HG3	51:B6:25:LYS:H	1.71	0.54
1:CA:266:G:H5"	1:CA:268:C:H41	1.72	0.54
1:CA:947:G:C4'	13:CP:109:THR:HG23	2.37	0.54
1:CA:1372:U:H5'	9:CL:70:LYS:NZ	2.22	0.54
1:CA:1423:G:H2'	1:CA:1424:C:C6	2.42	0.54
2:CE:47:THR:O	2:CE:51:LEU:HB2	2.06	0.54
2:CE:100:GLY:O	2:CE:104:ASN:N	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CF:137:ALA:CA	3:CF:140:ARG:NH2	2.70	0.54
4:CG:14:ARG:HA	4:CG:39:PRO:HG3	1.89	0.54
7:CJ:78:ARG:CD	7:CJ:85:TYR:CD1	2.79	0.54
24:DA:110:G:C2	24:DA:111:A:C8	2.94	0.54
24:DA:529:A:H4'	24:DA:530:G:H5'	1.88	0.54
24:DA:1332:G:N2	24:DA:1610:A:N7	2.55	0.54
24:DA:1952:A:C2	33:DN:22:ILE:HG23	2.42	0.54
24:DA:2284:C:P	51:D6:27:LYS:NZ	2.81	0.54
24:DA:2295:C:OP2	37:DQ:10:ARG:HD3	2.07	0.54
24:DA:2393:A:OP2	53:D8:30:ARG:NE	2.41	0.54
24:DA:2528:U:O3'	24:DA:2529:G:N2	2.36	0.54
24:DA:2563:U:O2	24:DA:2565:A:C8	2.60	0.54
24:DA:2576:G:O2'	24:DA:2579:C:OP2	2.18	0.54
24:DA:2638:G:HO2'	24:DA:2639:A:H8	1.55	0.54
37:DQ:104:GLY:O	37:DQ:106:ARG:HG3	2.06	0.54
44:DV:24:LEU:C	44:DV:24:LEU:HD12	2.27	0.54
44:DV:129:SER:HB2	44:DV:130:PRO:HD2	1.89	0.54
44:DV:151:HIS:ND1	44:DV:170:THR:OG1	2.28	0.54
1:AA:429:U:H4'	1:AA:430:A:OP1	2.06	0.54
1:AA:986:A:H1'	19:AV:55:LYS:HA	1.88	0.54
1:AA:1120:G:C2'	1:AA:1121:U:H5'	2.37	0.54
1:AA:1279:A:H5"	1:AA:1280:A:OP1	2.07	0.54
4:AG:45:GLN:C	4:AG:46:LYS:HD3	2.27	0.54
11:AN:59:TYR:O	11:AN:62:GLN:HB3	2.07	0.54
11:AN:98:LEU:C	11:AN:100:ALA:H	2.11	0.54
20:AW:94:ALA:O	20:AW:95:ALA:HB3	2.06	0.54
24:BA:5:A:H61	24:BA:2898:U:H3	1.54	0.54
24:BA:211:A:O2'	24:BA:212:G:H5'	2.06	0.54
24:BA:514:A:H1'	24:BA:581:C:O2'	2.07	0.54
24:BA:1067:A:H5'	24:BA:1068:G:OP2	2.08	0.54
24:BA:1615:C:C5	24:BA:1617:C:C4	2.96	0.54
24:BA:1629:U:H2'	24:BA:1630:G:C8	2.41	0.54
24:BA:1884:A:C2	24:BA:1885:A:C8	2.95	0.54
24:BA:1980:G:O2'	24:BA:1982:C:OP2	2.22	0.54
24:BA:2163:C:C4	24:BA:2164:C:C2	2.95	0.54
24:BA:2418:A:O2'	51:B6:21:TYR:CZ	2.42	0.54
25:BB:51:G:H2'	25:BB:52:A:C1'	2.38	0.54
29:BG:146:TYR:O	29:BG:149:VAL:HG22	2.07	0.54
30:BH:4:ILE:CD1	30:BH:4:ILE:O	2.39	0.54
30:BH:157:TYR:C	30:BH:158:HIS:HD1	2.11	0.54
39:B1:95:LEU:O	39:B1:98:LEU:HD13	2.06	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:B5:40:LYS:HD3	50:B5:46:CYS:HB3	1.89	0.54
1:CA:87:A:C2	1:CA:88:C:C6	2.95	0.54
1:CA:585:G:H21	1:CA:879:C:C4'	2.20	0.54
1:CA:1148:U:C2'	9:CL:66:ARG:NH2	2.70	0.54
1:CA:1158:C:C2'	1:CA:1158:C:O2	2.53	0.54
5:CH:9:LYS:N	5:CH:33:VAL:O	2.40	0.54
12:CO:110:VAL:CG2	12:CO:120:TYR:HB3	2.38	0.54
18:CU:74:ARG:HD3	18:CU:81:PHE:HA	1.90	0.54
20:CW:97:ALA:HB1	20:CW:98:PRO:CD	2.33	0.54
21:CX:2:GLY:C	21:CX:4:GLY:H	2.10	0.54
24:DA:361:G:N2	24:DA:362:U:O2	2.40	0.54
24:DA:573:G:O2'	24:DA:574:C:H3'	2.07	0.54
24:DA:895:U:O2	24:DA:897:C:N4	2.40	0.54
24:DA:2127:G:C6	24:DA:2173:A:N7	2.75	0.54
24:DA:2286:A:C8	24:DA:2287:A:C6	2.95	0.54
24:DA:2646:C:O5'	24:DA:2646:C:H6	1.89	0.54
24:DA:2746:U:H4'	30:DH:138:LYS:HG3	1.89	0.54
26:DD:67:PHE:CD1	26:DD:153:ALA:HB3	2.41	0.54
27:DE:112:GLY:O	27:DE:159:HIS:HA	2.08	0.54
29:DG:11:TYR:OH	29:DG:16:ARG:NH2	2.41	0.54
33:DN:87:ILE:CD1	33:DN:92:GLU:C	2.76	0.54
39:D1:58:ARG:O	39:D1:62:ILE:HD13	2.07	0.54
39:D1:91:ASP:O	39:D1:95:LEU:N	2.40	0.54
49:D4:39:CYS:C	49:D4:41:PRO:HD3	2.27	0.54
1:AA:277:C:P	17:AT:68:ARG:HH22	2.30	0.54
1:AA:377:G:OP1	16:AS:5:ARG:NH1	2.33	0.54
1:AA:1301:U:O3'	13:AP:21:TYR:OH	2.23	0.54
1:AA:1374:A:H2'	1:AA:1375:A:C5'	2.37	0.54
2:AE:115:LEU:HD13	2:AE:145:LEU:HB2	1.90	0.54
3:AF:76:VAL:CG2	3:AF:103:VAL:HG11	2.36	0.54
6:AI:14:LEU:HD23	6:AI:15:ASP:N	2.22	0.54
9:AL:124:GLN:HG3	9:AL:125:TYR:H	1.72	0.54
12:AO:24:VAL:HG12	12:AO:27:LEU:CG	2.38	0.54
19:AV:30:LEU:HD12	19:AV:30:LEU:C	2.27	0.54
24:BA:484:C:OP1	43:BU:51:VAL:CG1	2.36	0.54
24:BA:507:A:H5"	24:BA:508:G:C5'	2.30	0.54
24:BA:587:C:N3	34:BO:33:ARG:NH1	2.55	0.54
24:BA:1060:U:H3	24:BA:1088:A:H8	1.54	0.54
24:BA:1074:G:O2'	24:BA:1075:C:H5'	2.07	0.54
24:BA:1817:G:C6	24:BA:1818:U:C4	2.96	0.54
24:BA:2133:G:N3	24:BA:2158:A:N6	2.55	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2287:A:C2	24:BA:2289:G:H1'	2.43	0.54
24:BA:2320:A:C2	24:BA:2333:A:N7	2.75	0.54
24:BA:2648:C:H2'	24:BA:2649:U:C6	2.42	0.54
26:BD:27:THR:HG21	26:BD:84:TYR:HB3	1.89	0.54
26:BD:108:PRO:HB3	26:BD:143:HIS:CE1	2.42	0.54
29:BG:44:GLY:C	29:BG:46:ALA:H	2.11	0.54
29:BG:121:ASN:HD22	29:BG:181:ARG:HH12	1.55	0.54
34:BO:83:VAL:CG1	34:BO:112:LEU:HD21	2.38	0.54
44:BV:69:THR:HA	44:BV:89:PHE:O	2.07	0.54
51:B6:29:ASN:O	51:B6:30:THR:OG1	2.19	0.54
1:CA:708:C:O2'	1:CA:709:G:H5'	2.06	0.54
1:CA:980:C:O2	14:CQ:21:TYR:HD1	1.91	0.54
1:CA:1027:C:O2'	1:CA:1034:G:N2	2.40	0.54
1:CA:1277:C:HO2'	1:CA:1279:A:H8	1.55	0.54
2:CE:178:ARG:HH22	2:CE:196:LEU:C	2.11	0.54
3:CF:58:GLU:HB2	3:CF:65:ALA:CB	2.38	0.54
3:CF:131:ARG:O	3:CF:134:ILE:HB	2.07	0.54
7:CJ:89:MET:CG	7:CJ:155:ARG:NH1	2.67	0.54
8:CK:114:THR:HG22	8:CK:117:GLY:O	2.07	0.54
11:CN:27:ASN:ND2	11:CN:55:LYS:HD2	2.22	0.54
19:CV:31:ILE:CD1	19:CV:33:THR:N	2.70	0.54
19:CV:80:TYR:CD2	19:CV:82:GLY:N	2.75	0.54
24:DA:264:C:O2'	24:DA:265:A:H2'	2.07	0.54
24:DA:322:A:H5'	24:DA:340:A:C1'	2.37	0.54
24:DA:330:A:O2'	24:DA:331:A:H2'	2.06	0.54
24:DA:1666:G:O2'	24:DA:1667:G:H5'	2.08	0.54
24:DA:1893:C:H2'	24:DA:1894:C:H5'	1.89	0.54
26:DD:166:GLN:CB	26:DD:174:ILE:HG22	2.32	0.54
30:DH:25:LYS:HZ1	30:DH:27:LYS:HB3	1.72	0.54
34:DO:62:LEU:C	34:DO:62:LEU:HD12	2.27	0.54
37:DQ:29:PHE:CD1	37:DQ:30:ARG:N	2.75	0.54
38:DR:8:LYS:HB3	38:DR:8:LYS:HZ1	1.70	0.54
40:D2:79:VAL:O	40:D2:80:GLN:NE2	2.40	0.54
43:DU:2:ARG:NH1	43:DU:2:ARG:HA	2.21	0.54
47:DW:22:GLU:O	47:DW:25:VAL:HG22	2.07	0.54
1:AA:76:G:C2	1:AA:95:G:C2	2.96	0.54
1:AA:193:C:C4'	20:AW:57:ARG:NH1	2.69	0.54
1:AA:265:G:H5'	17:AT:64:PRO:O	2.08	0.54
1:AA:599:C:H4'	8:AK:130:GLY:C	2.28	0.54
1:AA:700:G:H4'	1:AA:704:A:H1'	1.88	0.54
1:AA:807:A:H2'	1:AA:808:C:H6	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AE:176:GLU:O	2:AE:180:LEU:HG	2.08	0.54
3:AF:70:VAL:HG12	3:AF:71:ALA:N	2.22	0.54
19:AV:16:LEU:HD12	19:AV:20:LEU:HD12	1.90	0.54
24:BA:125:G:C6	52:B7:10:ARG:HG3	2.43	0.54
24:BA:769:G:O2'	24:BA:770:G:H5'	2.08	0.54
24:BA:951:C:O2'	24:BA:952:G:H5'	2.07	0.54
24:BA:1280:G:C2'	24:BA:1281:G:H5'	2.37	0.54
24:BA:1501:C:O4'	26:BD:100:GLY:HA2	2.07	0.54
24:BA:1578:U:C2'	24:BA:1579:A:H5'	2.35	0.54
24:BA:2197:U:H1'	24:BA:2198:A:C8	2.41	0.54
24:BA:2584:U:H2'	24:BA:2585:U:H2'	1.88	0.54
24:BA:2808:U:H5'	24:BA:2891:G:O6	2.08	0.54
34:BO:36:LYS:HG3	34:BO:37:GLY:H	1.72	0.54
44:BV:125:LEU:HG	44:BV:164:ALA:HB1	1.89	0.54
1:CA:142:G:O2'	1:CA:196:A:N1	2.35	0.54
1:CA:299:G:C6	1:CA:300:A:C6	2.96	0.54
1:CA:337:C:H2'	1:CA:338:A:C8	2.42	0.54
1:CA:421:U:H4'	1:CA:422:C:OP2	2.07	0.54
1:CA:474:G:C5'	16:CS:81:ARG:HB3	2.37	0.54
1:CA:636:U:H2'	1:CA:637:G:C8	2.42	0.54
1:CA:651:C:H2'	1:CA:652:U:O4'	2.07	0.54
1:CA:693:G:C6	1:CA:694:A:C6	2.96	0.54
1:CA:851:G:H2'	1:CA:852:G:C8	2.43	0.54
1:CA:977:A:H1'	1:CA:981:U:H3	1.72	0.54
1:CA:1152:A:P	10:CM:68:HIS:HE2	2.31	0.54
1:CA:1213:A:C6	1:CA:1215:G:C4	2.95	0.54
1:CA:1297:C:C4'	1:CA:1298:C:H5'	2.33	0.54
4:CG:57:ARG:NH2	5:CH:107:ARG:HD3	2.22	0.54
7:CJ:45:ASP:CG	7:CJ:115:ARG:NH2	2.59	0.54
11:CN:18:ARG:HH21	11:CN:37:GLY:CA	2.21	0.54
15:CR:43:LEU:CD1	15:CR:56:LEU:HD22	2.37	0.54
24:DA:856:C:O2'	24:DA:857:C:P	2.65	0.54
24:DA:1003:G:O2'	24:DA:1010:A:N1	2.25	0.54
24:DA:1050:A:C2	24:DA:2751:G:H3'	2.43	0.54
24:DA:1076:C:H2'	24:DA:1077:A:O4'	2.08	0.54
24:DA:2687:U:C4	24:DA:2688:U:C5	2.96	0.54
26:DD:172:TYR:CD1	26:DD:186:HIS:N	2.76	0.54
27:DE:55:ASN:O	27:DE:57:LYS:N	2.41	0.54
37:DQ:74:ALA:O	37:DQ:77:ALA:N	2.36	0.54
43:DU:47:LYS:HA	43:DU:60:PHE:HB3	1.89	0.54
44:DV:24:LEU:CB	44:DV:41:LEU:CD1	2.76	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:865:A:C2	1:AA:918:A:H4'	2.42	0.54
1:AA:1226:C:H4'	1:AA:1227:A:OP1	2.07	0.54
3:AF:68:VAL:CG1	3:AF:70:VAL:HG23	2.35	0.54
9:AL:99:LEU:CD1	9:AL:101:PHE:HD2	2.19	0.54
13:AP:45:VAL:O	13:AP:48:LEU:HD22	2.07	0.54
17:AT:50:LYS:HE3	17:AT:51:TYR:CZ	2.42	0.54
17:AT:68:ARG:O	17:AT:68:ARG:HG3	2.06	0.54
24:BA:185:U:H2'	24:BA:186:G:H8	1.72	0.54
24:BA:1070:A:N7	24:BA:1096:A:C8	2.76	0.54
24:BA:1171:G:C4	24:BA:1174:A:N6	2.76	0.54
24:BA:1312:U:C1'	24:BA:1313:U:OP2	2.53	0.54
24:BA:1756:G:H4'	24:BA:1758:G:O4'	2.08	0.54
24:BA:1793:C:H2'	24:BA:1794:U:H6	1.72	0.54
24:BA:2115:G:N1	24:BA:2119:A:N7	2.52	0.54
24:BA:2168:G:C2'	24:BA:2169:A:OP1	2.55	0.54
24:BA:2286:A:H4'	24:BA:2287:A:O4'	2.08	0.54
24:BA:2394:C:C2'	24:BA:2395:C:H5'	2.38	0.54
24:BA:2682:U:C6	27:BE:11:MET:HE2	2.42	0.54
29:BG:66:GLN:HA	49:B4:6:HIS:ND1	2.22	0.54
36:B0:53:HIS:HB2	36:B0:94:TYR:CE2	2.41	0.54
36:B0:117:VAL:CG2	36:B0:118:GLU:H	2.13	0.54
37:BQ:110:LEU:C	37:BQ:110:LEU:HD12	2.28	0.54
49:B4:40:HIS:H	49:B4:41:PRO:HD2	1.71	0.54
1:CA:353:A:H2'	1:CA:354:G:OP2	2.07	0.54
1:CA:827:U:H3	1:CA:872:A:H62	1.54	0.54
1:CA:1067:A:H1'	1:CA:1068:G:C1'	2.38	0.54
2:CE:20:GLU:HG2	2:CE:191:ASP:HB2	1.89	0.54
2:CE:112:VAL:HG11	2:CE:156:LYS:HE3	1.90	0.54
4:CG:29:PRO:N	4:CG:30:LYS:HZ2	2.06	0.54
4:CG:121:VAL:HG23	4:CG:122:ARG:N	2.23	0.54
5:CH:41:VAL:HG22	5:CH:67:VAL:HG11	1.88	0.54
15:CR:18:PHE:HD1	15:CR:19:PRO:O	1.91	0.54
15:CR:82:ILE:HB	15:CR:87:ILE:HB	1.90	0.54
24:DA:213:A:H2'	24:DA:214:G:O4'	2.08	0.54
24:DA:492:A:C2'	24:DA:493:G:H5'	2.37	0.54
24:DA:511:U:O4	24:DA:512:G:C2	2.61	0.54
24:DA:1009:A:OP1	32:DM:37:LYS:NZ	2.40	0.54
24:DA:1075:C:H2'	24:DA:1076:C:C6	2.42	0.54
24:DA:1246:A:P	34:DO:15:ARG:HH22	2.30	0.54
24:DA:2786:U:H5'	27:DE:65:GLY:N	2.23	0.54
24:DA:2873:A:H2'	24:DA:2873:A:N3	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DB:75:G:H1	25:DB:102:G:N2	2.06	0.54
27:DE:101:ARG:O	27:DE:201:THR:OG1	2.26	0.54
29:DG:41:GLN:NE2	29:DG:154:GLY:O	2.41	0.54
29:DG:110:ALA:HB1	29:DG:140:ILE:HD11	1.88	0.54
32:DM:20:GLY:HA2	32:DM:61:ARG:HG2	1.89	0.54
35:DP:134:ARG:NH2	44:DV:122:ARG:CD	2.71	0.54
53:D8:48:PHE:CD2	53:D8:49:VAL:HA	2.43	0.54
53:D8:59:LYS:NZ	53:D8:59:LYS:CB	2.68	0.54
1:AA:1060:C:H5"	10:AM:51:ARG:HG2	1.90	0.54
2:AE:17:PHE:CD1	2:AE:41:ILE:HG23	2.38	0.54
3:AF:109:PRO:C	3:AF:111:LEU:H	2.11	0.54
10:AM:32:ALA:HB3	10:AM:76:ASN:O	2.07	0.54
11:AN:57:THR:HG22	11:AN:59:TYR:H	1.71	0.54
13:AP:84:ILE:HG23	13:AP:86:CYS:N	2.18	0.54
24:BA:412:A:N7	24:BA:2411:A:H2	2.06	0.54
24:BA:533:G:N3	39:B1:45:TYR:CE2	2.76	0.54
24:BA:956:G:H4'	35:BP:83:MET:HE3	1.90	0.54
24:BA:1178:C:O2'	24:BA:1179:C:O5'	2.26	0.54
24:BA:2437:U:H2'	24:BA:2438:U:C6	2.43	0.54
24:BA:2870:C:H2'	24:BA:2871:C:O4'	2.07	0.54
26:BD:32:SER:O	26:BD:33:LEU:HB2	2.06	0.54
29:BG:16:ARG:N	29:BG:17:PRO:HD2	2.22	0.54
30:BH:46:GLU:HB2	30:BH:49:VAL:CG2	2.37	0.54
44:BV:4:ARG:HD3	44:BV:58:VAL:HG11	1.89	0.54
1:CA:89:U:H1'	1:CA:90:C:P	2.48	0.54
1:CA:632:A:H1'	1:CA:633:G:OP2	2.07	0.54
1:CA:956:U:H1'	1:CA:1225:A:H2	1.71	0.54
1:CA:1372:U:OP1	9:CL:71:SER:HB3	2.08	0.54
2:CE:178:ARG:NH1	2:CE:196:LEU:O	2.36	0.54
13:CP:89:GLY:O	13:CP:93:ARG:HG3	2.08	0.54
14:CQ:21:TYR:HE2	14:CQ:23:ARG:HH21	1.53	0.54
19:CV:67:VAL:CG2	19:CV:68:GLY:N	2.70	0.54
24:DA:620:G:H4'	24:DA:621:A:H5"	1.90	0.54
24:DA:644:A:C2'	24:DA:645:C:H5"	2.38	0.54
24:DA:764:A:O4'	26:DD:213:ARG:HG3	2.08	0.54
24:DA:1154:G:P	39:D1:58:ARG:HE	2.31	0.54
24:DA:2061:G:OP1	28:DF:68:LYS:NZ	2.36	0.54
29:DG:16:ARG:NH1	29:DG:31:VAL:CG2	2.70	0.54
30:DH:107:VAL:CG2	30:DH:152:ARG:HG2	2.37	0.54
30:DH:124:GLU:CD	30:DH:124:GLU:N	2.61	0.54
33:DN:10:VAL:HG21	33:DN:16:ALA:C	2.27	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DO:78:PRO:HG3	34:DO:111:ARG:NH2	2.22	0.54
36:D0:44:LEU:CD2	36:D0:48:VAL:HG23	2.37	0.54
37:DQ:15:ARG:NH1	37:DQ:90:GLY:HA2	2.22	0.54
44:DV:16:SER:O	44:DV:20:ARG:HG3	2.08	0.54
44:DV:39:VAL:HG23	44:DV:40:ASP:N	2.22	0.54
44:DV:71:VAL:HA	44:DV:87:ASP:O	2.07	0.54
44:DV:77:ASP:OD2	44:DV:80:ARG:NH1	2.41	0.54
53:D8:30:ARG:O	53:D8:31:HIS:C	2.46	0.54
1:AA:419:C:H5'	1:AA:420:U:OP2	2.08	0.54
1:AA:689:C:H2'	1:AA:690:G:C5'	2.35	0.54
1:AA:959:A:C2	1:AA:1222:G:O4'	2.61	0.54
1:AA:1032(B):G:H8	1:AA:1032(B):G:O5'	1.91	0.54
5:AH:84:PHE:HB3	5:AH:134:ALA:HB2	1.89	0.54
6:AI:99:ALA:HB1	18:AU:23:LYS:HZ3	1.72	0.54
9:AL:99:LEU:HD13	9:AL:101:PHE:CG	2.42	0.54
10:AM:6:ILE:HG12	10:AM:72:VAL:HG12	1.89	0.54
10:AM:16:LEU:C	10:AM:16:LEU:HD13	2.28	0.54
14:AQ:59:ALA:HB1	14:AQ:61:TRP:CZ3	2.38	0.54
19:AV:22:LEU:HG	19:AV:27:GLU:O	2.08	0.54
19:AV:41:VAL:HG11	19:AV:67:VAL:HG22	1.89	0.54
24:BA:307:G:H21	24:BA:330:A:H62	1.55	0.54
24:BA:330:A:O2'	24:BA:331:A:C8	2.56	0.54
24:BA:932:G:OP1	48:BX:29:ARG:NH1	2.41	0.54
24:BA:1939:U:OP1	24:BA:2604:U:O2'	2.25	0.54
24:BA:2344:U:H3'	51:B6:38:LYS:O	2.07	0.54
24:BA:2393:A:H4'	34:BO:61:ARG:N	2.21	0.54
24:BA:2544:G:H2'	24:BA:2545:G:O4'	2.08	0.54
29:BG:46:ALA:HB2	29:BG:52:ILE:HG21	1.90	0.54
31:BK:69:LYS:HB2	31:BK:136:VAL:HG13	1.90	0.54
35:BP:87:LYS:O	35:BP:88:GLY:O	2.25	0.54
38:BR:23:ARG:HB2	38:BR:120:ARG:HH12	1.71	0.54
40:B2:62:LEU:HD22	40:B2:95:LEU:HB2	1.89	0.54
44:BV:155:LEU:HB2	44:BV:157:LEU:CD1	2.37	0.54
44:BV:158:PRO:O	44:BV:160:GLY:N	2.36	0.54
46:BZ:92:LYS:NZ	46:BZ:97:LEU:O	2.41	0.54
1:CA:20:U:H2'	1:CA:21:G:O4'	2.08	0.54
1:CA:539:A:C6	1:CA:540:G:C6	2.96	0.54
1:CA:953:G:N7	13:CP:104:ARG:NH2	2.56	0.54
1:CA:978:A:H5"	1:CA:979:C:OP2	2.08	0.54
1:CA:1126:U:H4'	1:CA:1127:G:OP2	2.06	0.54
1:CA:1329:A:C2	1:CA:1330:U:H1'	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1478:C:H2'	1:CA:1479:C:H6	1.72	0.54
2:CE:69:LEU:HG	2:CE:91:PRO:HB2	1.89	0.54
3:CF:175:LEU:HD23	3:CF:182:ILE:HD12	1.90	0.54
4:CG:150:GLU:O	4:CG:152:SER:N	2.34	0.54
5:CH:58:ALA:O	5:CH:62:ALA:HB2	2.08	0.54
6:CI:46:ARG:HB2	6:CI:60:PHE:CD1	2.42	0.54
24:DA:185:U:H2'	24:DA:186:G:H8	1.73	0.54
24:DA:803:U:C2'	24:DA:804:A:H5'	2.38	0.54
24:DA:1059:G:C5	24:DA:1080:A:C2	2.95	0.54
24:DA:1246:A:H4'	28:DF:45:ARG:HH12	1.72	0.54
24:DA:1359:A:H2'	24:DA:1360:A:C5'	2.31	0.54
24:DA:1820:U:H4'	24:DA:1821:A:OP2	2.08	0.54
24:DA:2688:U:O2	24:DA:2688:U:C3'	2.56	0.54
24:DA:2747:G:H5"	30:DH:74:ASN:HD21	1.72	0.54
24:DA:2751:G:N1	30:DH:2:SER:HB3	2.23	0.54
24:DA:2787:C:O2'	24:DA:2810:A:O2'	2.18	0.54
27:DE:11:MET:H	38:DR:8:LYS:HE2	1.72	0.54
28:DF:140:LEU:O	28:DF:144:LYS:HB2	2.07	0.54
30:DH:97:ARG:HG2	30:DH:98:LEU:HD12	1.89	0.54
37:DQ:106:ARG:C	37:DQ:110:LEU:HD21	2.28	0.54
38:DR:78:LEU:HD23	38:DR:78:LEU:C	2.27	0.54
40:D2:70:ILE:O	40:D2:71:LEU:CG	2.55	0.54
42:DT:59:VAL:O	42:DT:61:GLY:N	2.41	0.54
43:DU:13:VAL:HG22	43:DU:72:VAL:HB	1.89	0.54
44:DV:14:LYS:O	44:DV:16:SER:N	2.39	0.54
1:AA:19:C:OP1	5:AH:125:SER:OG	2.14	0.54
1:AA:353:A:H2'	1:AA:354:G:OP2	2.08	0.54
1:AA:397:A:H5'	1:AA:398:C:OP1	2.08	0.54
1:AA:745:C:OP1	1:AA:851:G:O2'	2.25	0.54
1:AA:965:A:C2	1:AA:969:A:C2	2.96	0.54
1:AA:1126:U:C5	1:AA:1127:G:C4	2.94	0.54
5:AH:80:ILE:HG12	5:AH:81:GLU:N	2.22	0.54
6:AI:22:GLU:CD	6:AI:84:ASN:HD22	2.11	0.54
9:AL:96:LEU:HA	9:AL:99:LEU:HD21	1.89	0.54
13:AP:2:ALA:HA	13:AP:9:ILE:HG23	1.89	0.54
15:AR:3:ILE:HD11	15:AR:38:ARG:HG3	1.90	0.54
16:AS:40:ASP:C	16:AS:42:ARG:H	2.11	0.54
20:AW:43:LEU:CB	20:AW:52:ALA:HB2	2.37	0.54
24:BA:270(R):G:C2	46:BZ:78:LYS:HE2	2.43	0.54
24:BA:633:A:C3'	24:BA:634:C:H5'	2.37	0.54
24:BA:977:G:C6	24:BA:987:G:C6	2.96	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1882:C:H5'	24:BA:1883:G:OP2	2.07	0.54
24:BA:2128:C:H5'	24:BA:2129:C:OP2	2.07	0.54
24:BA:2142:C:N3	24:BA:2143:C:N4	2.55	0.54
24:BA:2789:C:H1'	24:BA:2892:A:C2	2.41	0.54
24:BA:2884:U:C2'	24:BA:2885:C:H5'	2.37	0.54
27:BE:15:PHE:CD1	38:BR:81:PRO:HD2	2.43	0.54
30:BH:27:LYS:HB2	30:BH:32:GLU:OE1	2.07	0.54
34:BO:87:ASP:O	34:BO:90:ARG:HG2	2.08	0.54
36:B0:81:ASP:O	36:B0:85:PRO:HG2	2.08	0.54
37:BQ:27:SER:HA	37:BQ:88:ASP:CB	2.38	0.54
40:B2:29:PRO:O	40:B2:61:VAL:HB	2.08	0.54
42:BT:49:VAL:HA	42:BT:87:GLN:HE22	1.73	0.54
47:BW:15:LYS:N	47:BW:67:LYS:NZ	2.54	0.54
1:CA:35:G:C2	1:CA:550:G:C2	2.95	0.54
1:CA:392:G:H5"	16:CS:12:LYS:HZ2	1.72	0.54
1:CA:591:U:OP2	8:CK:30:ARG:HD3	2.07	0.54
1:CA:988:G:C6	1:CA:989:C:N3	2.76	0.54
1:CA:1154:G:H2'	1:CA:1155:G:C8	2.42	0.54
1:CA:1277:C:O2'	1:CA:1279:A:H1'	2.08	0.54
1:CA:1323:G:H3'	1:CA:1324:A:C8	2.43	0.54
2:CE:61:LEU:HD11	2:CE:66:GLY:HA3	1.89	0.54
2:CE:207:ALA:O	2:CE:211:ILE:HD12	2.06	0.54
4:CG:61:LYS:HB2	4:CG:203:VAL:HG13	1.88	0.54
4:CG:86:LYS:CG	4:CG:87:GLY:N	2.69	0.54
6:CI:2:ARG:HH21	15:CR:2:PRO:HD2	1.73	0.54
7:CJ:89:MET:HA	7:CJ:155:ARG:NH2	2.22	0.54
10:CM:50:ILE:HG12	14:CQ:41:ARG:HD2	1.90	0.54
11:CN:34:ASP:HB2	11:CN:35:PRO:CD	2.38	0.54
19:CV:78:ARG:O	19:CV:79:THR:CG2	2.50	0.54
20:CW:89:ARG:O	20:CW:93:GLU:N	2.38	0.54
24:DA:94:G:H2'	24:DA:95:G:O4'	2.07	0.54
24:DA:698:C:O2'	24:DA:734:A:N6	2.41	0.54
24:DA:734:A:O2'	24:DA:1635:G:H5'	2.08	0.54
24:DA:791:C:H4'	24:DA:792:G:OP1	2.07	0.54
24:DA:1070:A:H5'	24:DA:1071:G:H5'	1.89	0.54
24:DA:1413:G:H1	24:DA:1589:C:H42	1.54	0.54
24:DA:1499:C:H2'	24:DA:1500:G:H8	1.73	0.54
24:DA:2286:A:C4'	51:D6:28:ARG:CZ	2.85	0.54
24:DA:2418:A:C6	24:DA:2419:U:C4	2.96	0.54
26:DD:83:GLU:OE1	26:DD:104:TYR:OH	2.21	0.54
28:DF:192:LEU:CD2	28:DF:194:MET:HG3	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DG:120:LEU:HG	29:DG:179:PRO:O	2.08	0.54
30:DH:3:ARG:HH22	30:DH:7:LEU:HB2	1.71	0.54
38:DR:78:LEU:CD2	38:DR:79:HIS:CD2	2.90	0.54
38:DR:132:LYS:O	38:DR:136:GLN:HG3	2.08	0.54
39:D1:81:HIS:CD2	39:D1:117:GLN:HE22	2.25	0.54
40:D2:55:ALA:CA	40:D2:101:GLY:HA3	2.37	0.54
50:D5:37:LYS:HB3	50:D5:37:LYS:HZ2	1.73	0.54
1:AA:74:C:H2'	1:AA:75:C:O4'	2.07	0.54
1:AA:447:G:H2'	1:AA:485:G:N2	2.23	0.54
1:AA:667:G:H4'	15:AR:51:HIS:ND1	2.23	0.54
7:AJ:6:ARG:HG2	7:AJ:6:ARG:O	2.07	0.54
9:AL:79:LEU:HD23	9:AL:83:ARG:HG2	1.88	0.54
16:AS:57:ARG:HH21	16:AS:79:VAL:HA	1.71	0.54
19:AV:58:VAL:HG21	19:AV:75:ALA:HA	1.90	0.54
24:BA:270(N):G:N2	31:BK:50:ARG:HH21	2.04	0.54
24:BA:729:G:OP2	26:BD:13:ARG:NH1	2.36	0.54
24:BA:760:G:C2'	24:BA:761:A:H5'	2.38	0.54
24:BA:1049:C:H42	30:BH:3:ARG:NH2	2.06	0.54
24:BA:1091:G:C3'	24:BA:1092:C:H5"	2.37	0.54
24:BA:1985:G:O2'	24:BA:1986:A:H5'	2.07	0.54
24:BA:2105:C:H2'	24:BA:2106:G:C8	2.42	0.54
24:BA:2389:G:H5"	24:BA:2390:U:O4'	2.07	0.54
24:BA:2660:A:C2	24:BA:2661:G:H1'	2.43	0.54
24:BA:2751:G:C5	30:BH:3:ARG:HD3	2.43	0.54
24:BA:2843:G:H1	24:BA:2874:C:N4	2.06	0.54
25:BB:6:C:H2'	25:BB:7:G:H5"	1.89	0.54
28:BF:29:ASN:CB	28:BF:112:MET:HE1	2.32	0.54
31:BK:110:ASP:HB3	31:BK:112:LYS:N	2.22	0.54
33:BN:89:ASN:O	33:BN:91:LEU:HD12	2.08	0.54
40:B2:38:LEU:C	40:B2:38:LEU:HD23	2.28	0.54
40:B2:69:LYS:HA	40:B2:87:HIS:O	2.08	0.54
43:BU:12:THR:HG22	43:BU:75:ILE:HD11	1.90	0.54
44:BV:58:VAL:O	44:BV:67:LEU:O	2.26	0.54
1:CA:408:A:H5'	4:CG:116:GLN:HE21	1.73	0.54
1:CA:517:G:H1	1:CA:533:A:P	2.31	0.54
1:CA:754:C:H3'	1:CA:754:C:O2	2.08	0.54
1:CA:862:C:H1'	1:CA:874:G:H5"	1.90	0.54
1:CA:934:C:O2'	1:CA:1344:C:OP2	2.24	0.54
2:CE:157:ARG:HG2	2:CE:158:LEU:N	2.23	0.54
3:CF:70:VAL:HG12	3:CF:72:LYS:N	2.20	0.54
5:CH:6:PHE:HB2	5:CH:34:VAL:CG2	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CK:86:ILE:HG13	8:CK:133:LEU:HD22	1.88	0.54
11:CN:20:TYR:CZ	11:CN:83:ILE:HD12	2.43	0.54
16:CS:21:VAL:HG22	16:CS:33:ILE:HD12	1.89	0.54
19:CV:31:ILE:CD1	19:CV:32:LYS:N	2.70	0.54
24:DA:1496:A:H1'	24:DA:1577:C:O2'	2.07	0.54
24:DA:1530:G:O6	24:DA:1542:G:N2	2.40	0.54
24:DA:1607:C:C5'	24:DA:1608:A:H5'	2.34	0.54
24:DA:1767:C:C2'	24:DA:1768:U:H5'	2.38	0.54
24:DA:2788:C:H5'	27:DE:61:ARG:HH12	1.73	0.54
26:DD:210:GLY:O	26:DD:213:ARG:HB2	2.08	0.54
29:DG:97:ASP:CA	29:DG:100:TRP:HD1	2.19	0.54
30:DH:35:VAL:CG1	30:DH:71:LEU:CD2	2.86	0.54
40:D2:22:VAL:CG2	40:D2:23:GLU:N	2.71	0.54
44:DV:163:LEU:H	44:DV:163:LEU:CD2	2.16	0.54
1:AA:713:G:H2'	1:AA:714:G:C8	2.43	0.53
1:AA:1145:C:H4'	1:AA:1146:A:H8	1.73	0.53
1:AA:1216:G:O2'	1:AA:1217:C:H5'	2.08	0.53
1:AA:1312:G:C5	19:AV:4:SER:CB	2.92	0.53
1:AA:1363:A:H1'	1:AA:1365:G:N7	2.23	0.53
1:AA:1381:U:C3'	7:AJ:79:ARG:CZ	2.85	0.53
2:AE:189:ASP:O	2:AE:191:ASP:N	2.41	0.53
2:AE:204:ASN:ND2	2:AE:206:ASP:O	2.41	0.53
3:AF:23:TYR:CD2	10:AM:10:GLY:HA2	2.42	0.53
6:AI:37:VAL:CG1	6:AI:38:GLU:H	2.21	0.53
9:AL:78:LYS:CD	9:AL:78:LYS:C	2.71	0.53
13:AP:12:ASN:CG	13:AP:13:LYS:H	2.08	0.53
14:AQ:25:VAL:HG23	14:AQ:26:ARG:N	2.23	0.53
14:AQ:41:ARG:HE	14:AQ:42:ILE:HD11	1.71	0.53
24:BA:444:C:C4'	28:BF:49:ALA:HB2	2.38	0.53
24:BA:1406:U:H2'	24:BA:1407:C:C6	2.42	0.53
24:BA:1710:C:H2'	24:BA:1711:C:C6	2.42	0.53
24:BA:2210:G:O2'	24:BA:2211:G:OP1	2.23	0.53
24:BA:2419:U:P	53:B8:41:ILE:HD12	2.48	0.53
25:BB:42:C:OP1	29:BG:67:LYS:HE2	2.08	0.53
26:BD:69:ARG:HE	26:BD:130:ALA:HB2	1.73	0.53
27:BE:116:VAL:HG11	27:BE:122:PHE:CD2	2.43	0.53
30:BH:83:TYR:CD1	30:BH:84:SER:N	2.77	0.53
30:BH:86:GLU:HG2	30:BH:87:LEU:H	1.74	0.53
38:BR:108:ARG:HA	38:BR:111:ARG:NH2	2.23	0.53
49:B4:24:THR:OG1	49:B4:25:TYR:N	2.41	0.53
53:B8:22:VAL:HB	53:B8:53:PRO:CB	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:22:G:H2'	1:CA:23:C:C6	2.43	0.53
1:CA:517:G:N1	1:CA:533:A:OP2	2.41	0.53
1:CA:1289:A:P	21:CX:10:ARG:HH22	2.32	0.53
1:CA:1471:G:H2'	1:CA:1472:U:H6	1.72	0.53
2:CE:69:LEU:HD11	2:CE:152:PHE:CE1	2.44	0.53
2:CE:221:LEU:HD12	2:CE:224:GLN:HG2	1.90	0.53
4:CG:112:VAL:HG13	4:CG:113:SER:H	1.74	0.53
4:CG:199:ASN:HB3	4:CG:202:LEU:CG	2.38	0.53
8:CK:119:LEU:HD11	8:CK:123:GLU:HB2	1.90	0.53
10:CM:25:GLU:O	10:CM:29:ARG:HG3	2.08	0.53
10:CM:81:THR:OG1	10:CM:82:ILE:N	2.41	0.53
10:CM:81:THR:O	10:CM:84:GLN:HG2	2.08	0.53
15:CR:7:GLU:O	15:CR:11:VAL:HG23	2.09	0.53
18:CU:53:ARG:HA	18:CU:56:THR:OG1	2.08	0.53
20:CW:87:LYS:O	20:CW:88:VAL:C	2.45	0.53
24:DA:141:A:H1'	24:DA:1408:C:C1'	2.38	0.53
24:DA:874:G:H2'	24:DA:875:G:C8	2.43	0.53
24:DA:1210:A:H4'	24:DA:1211:U:H5"	1.90	0.53
24:DA:1268:A:H2'	24:DA:1269:A:O4'	2.08	0.53
24:DA:1408:C:C2	24:DA:1595:G:N2	2.76	0.53
24:DA:1797:C:H4'	26:DD:257:LEU:O	2.08	0.53
24:DA:2080:G:O2'	24:DA:2081:C:H5'	2.08	0.53
24:DA:2245:U:H5'	24:DA:2246:G:H5'	1.90	0.53
25:DB:73:A:C2'	25:DB:74:U:H5'	2.38	0.53
26:DD:242:ARG:HD3	26:DD:242:ARG:H	1.72	0.53
27:DE:11:MET:CB	27:DE:24:THR:HA	2.38	0.53
27:DE:35:GLN:HB3	27:DE:48:GLN:HE21	1.73	0.53
29:DG:9:ARG:HG2	29:DG:13:GLU:CD	2.29	0.53
34:DO:9:ASN:HB3	34:DO:10:PRO:CD	2.37	0.53
34:DO:89:ALA:CB	34:DO:121:LYS:HD3	2.36	0.53
42:DT:44:GLU:C	42:DT:46:ALA:H	2.10	0.53
43:DU:20:TYR:CE2	43:DU:42:VAL:HA	2.43	0.53
49:D4:31:ILE:HG22	49:D4:32:TYR:N	2.23	0.53
1:AA:55:A:C6	31:DK:89:TYR:CG	2.96	0.53
1:AA:131:C:O2	1:AA:132:C:C5	2.61	0.53
1:AA:192:U:C1'	20:AW:103:GLY:CA	2.67	0.53
1:AA:617:G:O6	1:AA:623:C:N4	2.42	0.53
1:AA:1006:C:O2'	1:AA:1007:C:H5'	2.07	0.53
1:AA:1153:C:H2'	1:AA:1154:G:O4'	2.08	0.53
2:AE:134:GLU:O	2:AE:138:LEU:HG	2.07	0.53
2:AE:187:LEU:HD22	2:AE:205:ASP:CB	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AH:102:ALA:HB1	5:AH:106:PRO:HG2	1.90	0.53
8:AK:10:LEU:HD22	8:AK:83:ILE:HD11	1.90	0.53
8:AK:14:ARG:O	8:AK:18:ARG:HD3	2.08	0.53
19:AV:50:ALA:HB1	19:AV:57:HIS:CB	2.38	0.53
24:BA:246:C:C2'	24:BA:247:G:H5'	2.38	0.53
24:BA:270(N):G:C6	24:BA:270(P):C:C4	2.97	0.53
24:BA:644:A:H4'	24:BA:645:C:H5	1.73	0.53
24:BA:989:G:N7	48:BX:13:ILE:HD11	2.23	0.53
24:BA:1332:G:N2	24:BA:1609:A:O2'	2.41	0.53
24:BA:2665:A:H2'	24:BA:2666:C:O4'	2.07	0.53
26:BD:127:VAL:HA	26:BD:193:VAL:HG22	1.90	0.53
28:BF:64:ILE:HG22	28:BF:65:TRP:CG	2.41	0.53
32:BM:96:GLU:HG2	32:BM:97:ARG:H	1.73	0.53
39:B1:85:LYS:HD2	39:B1:117:GLN:HB2	1.90	0.53
1:CA:56:U:H2'	1:CA:57:G:C8	2.42	0.53
1:CA:1045:C:H3'	1:CA:1046:A:H5"	1.89	0.53
1:CA:1144:G:C2'	1:CA:1145:C:H5'	2.38	0.53
1:CA:1266:G:H1	21:CX:24:ARG:HH22	1.54	0.53
2:CE:75:LYS:HE3	2:CE:75:LYS:CA	2.38	0.53
4:CG:32:ALA:O	4:CG:33:MET:O	2.26	0.53
4:CG:70:ILE:CG2	4:CG:75:PHE:HB2	2.37	0.53
4:CG:89:THR:HG22	4:CG:90:GLY:N	2.23	0.53
22:CC:15:G:N2	22:CC:21:A:H1'	2.15	0.53
22:CC:75:C:C3'	22:CC:76:A:C5'	2.72	0.53
24:DA:660:G:O2'	24:DA:661:C:H5'	2.08	0.53
24:DA:875:G:O3'	44:DV:170:THR:HG21	2.08	0.53
24:DA:995:C:H42	32:DM:2:LYS:HG3	1.70	0.53
26:DD:270:ILE:HG22	26:DD:271:ILE:H	1.73	0.53
27:DE:1:MET:HB2	27:DE:200:GLU:HG3	1.90	0.53
31:DK:1:MET:O	31:DK:20:ASP:HA	2.08	0.53
32:DM:131:GLN:OE1	32:DM:132:ALA:N	2.41	0.53
37:DQ:58:LEU:O	37:DQ:59:LYS:HB2	2.07	0.53
43:DU:43:ASN:O	43:DU:44:ILE:O	2.25	0.53
53:D8:50:LEU:O	53:D8:51:ALA:HB2	2.08	0.53
1:AA:136:C:H42	1:AA:227:G:H1	1.57	0.53
1:AA:538:G:H5"	12:AO:114:LYS:HB2	1.89	0.53
1:AA:848:C:H2'	1:AA:849:C:C6	2.44	0.53
1:AA:1180:A:H5"	1:AA:1181:G:OP1	2.08	0.53
1:AA:1283:G:O2'	1:AA:1284:C:H5'	2.08	0.53
1:AA:1353:G:H2'	1:AA:1354:C:C6	2.44	0.53
2:AE:31:TYR:C	2:AE:42:ILE:HD13	2.28	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AE:74:LYS:CE	2:AE:169:LYS:HD3	2.38	0.53
2:AE:197:VAL:HG11	2:AE:200:ILE:HG13	1.89	0.53
9:AL:53:VAL:CG2	9:AL:96:LEU:HD11	2.37	0.53
24:BA:26:G:O2'	24:BA:514:A:N6	2.37	0.53
24:BA:213:A:H2'	24:BA:214:G:O4'	2.08	0.53
24:BA:692:C:H4'	26:BD:41:GLY:O	2.07	0.53
24:BA:873:G:N2	24:BA:905:U:O2	2.41	0.53
24:BA:1057:A:C6	24:BA:1086:A:C2	2.97	0.53
24:BA:1601:G:H5"	24:BA:1602:U:OP2	2.08	0.53
24:BA:2011:U:C2'	24:BA:2012:G:H5'	2.38	0.53
24:BA:2702:U:C6	24:BA:2702:U:OP1	2.61	0.53
26:BD:27:THR:C	26:BD:28:GLU:OE1	2.46	0.53
28:BF:153:SER:OG	28:BF:190:GLU:HG3	2.08	0.53
37:BQ:87:PHE:HD1	37:BQ:112:PHE:CZ	2.26	0.53
43:BU:50:ARG:HB2	43:BU:55:TYR:HD2	1.74	0.53
44:BV:145:GLU:O	44:BV:174:VAL:HB	2.08	0.53
47:BW:63:VAL:O	47:BW:66:GLU:HB2	2.08	0.53
1:CA:1010:G:H2'	1:CA:1011:G:H8	1.73	0.53
1:CA:1118:C:O2'	9:CL:83:ARG:NH2	2.40	0.53
2:CE:28:PHE:HE2	2:CE:32:ILE:HA	1.71	0.53
2:CE:208:ILE:O	2:CE:212:GLN:N	2.41	0.53
6:CI:9:VAL:HG22	6:CI:60:PHE:CD2	2.43	0.53
6:CI:94:GLN:HE21	6:CI:94:GLN:CA	2.20	0.53
9:CL:9:ARG:CD	9:CL:14:VAL:CG2	2.86	0.53
19:CV:49:ILE:HD12	19:CV:49:ILE:O	2.08	0.53
24:DA:140:A:C8	24:DA:1408:C:O2'	2.60	0.53
24:DA:528:A:C2	24:DA:2042:A:H2'	2.44	0.53
24:DA:816:C:O2'	24:DA:932:G:O6	2.25	0.53
24:DA:1789:A:H5"	26:DD:220:HIS:O	2.07	0.53
24:DA:1869:G:H5'	24:DA:1870:C:OP2	2.09	0.53
24:DA:2315:G:H2'	24:DA:2316:C:C6	2.44	0.53
24:DA:2392:A:H3'	53:D8:30:ARG:HH22	1.72	0.53
24:DA:2393:A:C8	53:D8:30:ARG:NH1	2.64	0.53
24:DA:2400:G:H2'	24:DA:2401:U:C6	2.43	0.53
25:DB:43:C:P	49:D4:6:HIS:NE2	2.79	0.53
25:DB:52:A:C5	37:DQ:33:LYS:HE2	2.43	0.53
26:DD:127:VAL:HA	26:DD:193:VAL:HG23	1.90	0.53
28:DF:117:ARG:HH12	34:DO:1:MET:N	2.06	0.53
29:DG:75:LYS:HE3	29:DG:77:ILE:CD1	2.24	0.53
35:DP:59:ARG:HE	35:DP:59:ARG:N	2.06	0.53
37:DQ:65:VAL:CA	37:DQ:68:GLN:HE22	2.21	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:D1:96:ALA:HA	39:D1:98:LEU:HD11	1.90	0.53
41:DS:17:VAL:O	41:DS:19:LEU:N	2.42	0.53
1:AA:542:G:H5'	4:AG:41:GLY:CA	2.37	0.53
1:AA:964:A:N3	1:AA:969:A:O2'	2.35	0.53
1:AA:1004:A:C8	1:AA:1026:G:C5	2.97	0.53
8:AK:120:THR:HG22	8:AK:123:GLU:CG	2.34	0.53
24:BA:322:A:H5'	24:BA:340:A:H1'	1.89	0.53
24:BA:639:U:H2'	24:BA:640:C:C6	2.43	0.53
24:BA:654(S):G:C4'	24:BA:654(T):A:OP1	2.57	0.53
24:BA:724:U:H2'	24:BA:725:G:O4'	2.08	0.53
24:BA:1509:C:H2'	24:BA:1510:A:OP1	2.08	0.53
24:BA:1688:U:H2'	24:BA:1698:A:N6	2.23	0.53
24:BA:2517:C:C6	24:BA:2542:A:N7	2.76	0.53
24:BA:2693:A:H2'	24:BA:2694:G:H8	1.74	0.53
24:BA:2728:U:H2'	24:BA:2729:G:C8	2.43	0.53
36:B0:54:LEU:O	36:B0:62:ALA:HB1	2.09	0.53
37:BQ:112:PHE:C	37:BQ:112:PHE:HD1	2.10	0.53
41:BS:13:SER:HB3	41:BS:16:LYS:HD2	1.90	0.53
41:BS:76:VAL:HG21	41:BS:101:SER:HB3	1.90	0.53
42:BT:27:THR:HG22	42:BT:80:ILE:CB	2.37	0.53
44:BV:6:LYS:HD3	44:BV:8:TYR:CE1	2.44	0.53
1:CA:198:G:H2'	1:CA:199:G:C8	2.41	0.53
1:CA:421:U:O2	1:CA:421:U:C2'	2.55	0.53
1:CA:439:A:N7	1:CA:440:A:H1'	2.23	0.53
1:CA:524:G:H2'	1:CA:525:C:C6	2.42	0.53
1:CA:794:A:H4'	1:CA:1521:G:O2'	2.09	0.53
1:CA:1190:G:H3'	3:CF:3:ASN:ND2	2.23	0.53
1:CA:1442:G:H1	1:CA:1461:G:H21	1.57	0.53
2:CE:18:GLY:O	2:CE:204:ASN:ND2	2.41	0.53
2:CE:19:HIS:HE2	2:CE:20:GLU:HG2	1.70	0.53
4:CG:10:ARG:O	4:CG:40:PRO:HG3	2.08	0.53
5:CH:33:VAL:HG12	5:CH:34:VAL:N	2.24	0.53
5:CH:36:ASP:OD1	5:CH:37:ARG:N	2.41	0.53
6:CI:44:GLY:HA2	6:CI:59:TYR:CZ	2.43	0.53
7:CJ:43:PHE:CD1	7:CJ:43:PHE:C	2.79	0.53
9:CL:37:PHE:CD2	9:CL:43:ALA:HB1	2.39	0.53
9:CL:114:TYR:HD2	10:CM:60:ARG:CG	2.21	0.53
10:CM:47:PHE:CE1	10:CM:63:PHE:HB2	2.43	0.53
10:CM:50:ILE:HA	10:CM:60:ARG:CB	2.38	0.53
12:CO:60:LEU:C	12:CO:62:SER:H	2.11	0.53
19:CV:50:ALA:HB1	19:CV:57:HIS:HB3	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CW:100:ILE:H	20:CW:100:ILE:CD1	2.21	0.53
22:CC:19:G:C4	22:CC:57:A:C2	2.96	0.53
24:DA:181:A:C2	24:DA:435:C:C5	2.96	0.53
24:DA:324:A:OP2	24:DA:1205:U:C4	2.61	0.53
24:DA:866:A:C6	24:DA:914:C:C6	2.96	0.53
24:DA:874:G:N2	24:DA:904:C:C2	2.77	0.53
24:DA:959:A:H62	35:DP:83:MET:HE1	1.73	0.53
24:DA:1071:G:OP2	24:DA:1071:G:H8	1.91	0.53
24:DA:1310:G:OP2	52:D7:9:ARG:HD2	2.09	0.53
24:DA:1558:A:H1'	24:DA:1559:G:OP2	2.08	0.53
24:DA:1653:G:C4'	36:D0:2:ARG:NH1	2.72	0.53
24:DA:1766:U:O2'	24:DA:1767:C:H5'	2.09	0.53
24:DA:2880:C:H1'	36:D0:92:GLY:HA3	1.89	0.53
25:DB:16:G:H2'	25:DB:17:C:C6	2.42	0.53
25:DB:72:G:N2	25:DB:103:U:C5	2.76	0.53
26:DD:68:LYS:CB	26:DD:70:TRP:CH2	2.92	0.53
27:DE:9:VAL:CG2	27:DE:10:GLY:H	2.06	0.53
29:DG:41:GLN:O	29:DG:43:LEU:HD13	2.08	0.53
29:DG:144:ILE:HG22	29:DG:146:TYR:H	1.74	0.53
35:DP:36:ALA:HB1	35:DP:127:ILE:HD12	1.89	0.53
40:D2:16:PRO:HD3	40:D2:99:ILE:HD12	1.90	0.53
46:DZ:63:ALA:O	46:DZ:64:ALA:C	2.46	0.53
1:AA:154:C:N4	1:AA:167:G:H1	2.03	0.53
1:AA:363:A:C6	12:AO:30:ALA:HB1	2.44	0.53
1:AA:827:U:H5	1:AA:872:A:N1	2.06	0.53
2:AE:67:THR:C	2:AE:68:ILE:HD12	2.29	0.53
7:AJ:69:VAL:HG22	7:AJ:135:VAL:HA	1.90	0.53
9:AL:25:LYS:N	9:AL:25:LYS:HD2	2.22	0.53
9:AL:53:VAL:HG11	9:AL:92:TYR:CE1	2.43	0.53
10:AM:5:ARG:HB2	10:AM:73:ASP:OD1	2.08	0.53
16:AS:43:LYS:HG3	16:AS:48:TRP:HZ3	1.72	0.53
22:AC:47:U:C2'	22:AC:48:C:OP2	2.56	0.53
24:BA:273:G:H1	24:BA:364:C:N4	2.06	0.53
24:BA:828:U:C2'	24:BA:828:U:O2	2.56	0.53
24:BA:874:G:O2'	44:BV:170:THR:HG21	2.08	0.53
24:BA:1910:G:O2'	24:BA:1911:U:H5'	2.09	0.53
24:BA:2612:C:C5	24:BA:2613:U:H5	2.27	0.53
24:BA:2626:C:H2'	24:BA:2627:G:C8	2.44	0.53
24:BA:2702:U:H4'	24:BA:2703:C:OP1	2.09	0.53
26:BD:121:PRO:HA	26:BD:135:PHE:CD2	2.44	0.53
29:BG:35:GLU:O	29:BG:35:GLU:HG3	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BG:177:GLY:O	29:BG:179:PRO:HD3	2.09	0.53
37:BQ:73:LEU:O	37:BQ:73:LEU:HD23	2.08	0.53
46:BZ:41:ARG:HG3	46:BZ:43:TYR:CE1	2.43	0.53
1:CA:197:A:C8	1:CA:198:G:H1'	2.44	0.53
1:CA:737:A:H2'	1:CA:738:C:C6	2.43	0.53
1:CA:1136:U:H5"	1:CA:1137:C:C5	2.43	0.53
1:CA:1256:A:O2'	1:CA:1278:U:O2	2.26	0.53
1:CA:1346:A:H5"	9:CL:120:ARG:NH1	2.23	0.53
1:CA:1370:G:O2'	1:CA:1371:G:H5'	2.08	0.53
4:CG:65:ARG:NH1	4:CG:70:ILE:O	2.41	0.53
4:CG:176:LEU:HB2	4:CG:182:LYS:O	2.08	0.53
5:CH:69:VAL:HG12	5:CH:71:LEU:HD12	1.89	0.53
7:CJ:63:LYS:O	7:CJ:63:LYS:HD2	2.08	0.53
9:CL:42:ARG:NH1	9:CL:71:SER:HA	2.21	0.53
9:CL:79:LEU:O	9:CL:82:ALA:N	2.41	0.53
11:CN:62:GLN:HG3	11:CN:97:ALA:HB2	1.90	0.53
13:CP:82:MET:HG3	13:CP:83:ASP:N	2.23	0.53
24:DA:78:A:N1	24:DA:109:G:C6	2.77	0.53
24:DA:485:C:C2	24:DA:496:G:N2	2.76	0.53
24:DA:885:C:H2'	24:DA:886:C:O4'	2.09	0.53
24:DA:1088:A:H5'	24:DA:1089:G:H5'	1.91	0.53
24:DA:1464:C:O2'	24:DA:1528:A:H2'	2.09	0.53
24:DA:2320:A:C6	24:DA:2333:A:C8	2.96	0.53
24:DA:2781:A:H5"	24:DA:2782:G:H5'	1.91	0.53
32:DM:28:THR:HG22	32:DM:29:LYS:HG3	1.90	0.53
34:DO:88:LEU:HD11	34:DO:95:VAL:HG21	1.88	0.53
35:DP:59:ARG:O	35:DP:60:ARG:CG	2.55	0.53
35:DP:134:ARG:HH22	44:DV:122:ARG:HD2	1.73	0.53
36:D0:52:ILE:C	36:D0:54:LEU:N	2.62	0.53
37:DQ:14:VAL:CG2	37:DQ:18:ILE:HD11	2.38	0.53
42:DT:12:VAL:HG23	42:DT:17:ALA:CB	2.37	0.53
44:DV:169:GLU:HG3	44:DV:171:ILE:HD12	1.89	0.53
47:DW:22:GLU:HG2	47:DW:64:LEU:HD11	1.89	0.53
49:D4:57:GLU:HA	49:D4:60:GLN:HG2	1.90	0.53
1:AA:103:C:OP1	20:AW:14:LYS:NZ	2.41	0.53
1:AA:141:A:H1'	1:AA:182:U:O2	2.09	0.53
1:AA:543:C:H2'	1:AA:544:G:H5'	1.90	0.53
1:AA:552:U:O2'	12:AO:86:ARG:O	2.26	0.53
1:AA:560:U:H5'	1:AA:566:G:N2	2.24	0.53
1:AA:691:G:H2'	1:AA:692:U:C6	2.44	0.53
1:AA:1179:A:H2'	1:AA:1180:A:O4'	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1276:G:N2	1:AA:1277:C:O2	2.42	0.53
1:AA:1490:C:C2'	1:AA:1491:G:H5'	2.38	0.53
3:AF:147:LYS:O	3:AF:203:PHE:HD2	1.91	0.53
4:AG:20:TYR:CZ	6:CI:15:ASP:HB3	2.44	0.53
8:AK:6:ILE:HD12	8:AK:6:ILE:H	1.74	0.53
9:AL:70:LYS:CG	9:AL:71:SER:H	2.21	0.53
10:AM:75:ILE:O	10:AM:77:PRO:HD3	2.09	0.53
11:AN:34:ASP:HB2	11:AN:35:PRO:HD2	1.91	0.53
17:AT:45:HIS:O	17:AT:73:VAL:HG23	2.09	0.53
19:AV:5:LEU:HD12	19:AV:5:LEU:O	2.09	0.53
22:AC:59:A:H2'	22:AC:60:U:C5'	2.33	0.53
24:BA:143:C:H2'	24:BA:144:C:H6	1.74	0.53
24:BA:481:G:OP1	43:BU:47:LYS:NZ	2.35	0.53
24:BA:776:G:N7	24:BA:793:A:O2'	2.38	0.53
24:BA:995:C:C5	39:B1:57:PHE:HE2	2.27	0.53
24:BA:1309:G:C6	24:BA:1310:G:C5	2.97	0.53
24:BA:1538:G:H2'	24:BA:1539:G:C8	2.40	0.53
24:BA:1767:C:H2'	24:BA:1768:U:H5'	1.90	0.53
24:BA:1992:G:O2'	24:BA:1993:U:OP2	2.24	0.53
24:BA:2317:C:O2'	24:BA:2318:G:H5'	2.08	0.53
25:BB:32:C:C2	25:BB:51:G:N2	2.76	0.53
25:BB:81:G:H2'	25:BB:82:G:H5'	1.90	0.53
26:BD:76:PRO:O	26:BD:98:VAL:HG23	2.08	0.53
28:BF:6:VAL:HG13	28:BF:119:ARG:CB	2.31	0.53
29:BG:103:LEU:O	29:BG:106:LEU:HB3	2.08	0.53
30:BH:166:GLY:O	30:BH:167:GLU:HG2	2.08	0.53
31:BK:135:GLU:CD	31:BK:135:GLU:H	2.12	0.53
34:BO:15:ARG:O	34:BO:16:ARG:C	2.47	0.53
34:BO:31:ALA:O	34:BO:32:THR:CG2	2.54	0.53
35:BP:134:ARG:HH21	44:BV:122:ARG:NE	2.07	0.53
1:CA:652:U:O2'	1:CA:653:A:O5'	2.27	0.53
1:CA:1129:C:N3	1:CA:1141:C:N4	2.55	0.53
1:CA:1435:G:H2'	1:CA:1436:U:C5	2.41	0.53
2:CE:12:GLU:CG	2:CE:213:LEU:HD13	2.26	0.53
2:CE:236:TYR:HD2	2:CE:239:VAL:O	1.91	0.53
10:CM:81:THR:HA	10:CM:84:GLN:CD	2.29	0.53
17:CT:94:ASN:CA	17:CT:97:SER:OG	2.56	0.53
24:DA:128:C:H2'	24:DA:129:C:C6	2.44	0.53
24:DA:962:G:C2'	24:DA:963:U:H5'	2.39	0.53
24:DA:978:G:N2	24:DA:986:C:C2	2.76	0.53
24:DA:1138:G:H21	32:DM:106:MET:CE	2.16	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1332:G:N2	24:DA:1609:A:O2'	2.42	0.53
24:DA:1388:G:C2'	24:DA:1389:G:H5'	2.38	0.53
24:DA:2299:G:N1	24:DA:2318:G:C8	2.77	0.53
24:DA:2377:A:C2'	37:DQ:112:PHE:CZ	2.73	0.53
24:DA:2685:G:O2'	24:DA:2726:U:H5	1.92	0.53
33:DN:80:ASP:OD2	38:DR:64:ARG:NH2	2.42	0.53
34:DO:15:ARG:NH1	34:DO:15:ARG:CG	2.67	0.53
34:DO:80:TYR:HA	34:DO:111:ARG:O	2.09	0.53
39:D1:74:LEU:HD13	39:D1:79:PHE:HB2	1.90	0.53
41:DS:95:ILE:O	41:DS:95:ILE:CG1	2.56	0.53
42:DT:35:THR:O	42:DT:39:ILE:HG13	2.09	0.53
44:DV:14:LYS:C	44:DV:16:SER:H	2.11	0.53
44:DV:153:SER:CB	44:DV:167:PRO:HB3	2.18	0.53
1:AA:22:G:H2'	1:AA:23:C:H6	1.73	0.53
1:AA:280:C:H3'	1:AA:281:G:H5'	1.90	0.53
1:AA:1336:C:H1'	1:AA:1337:G:C2	2.44	0.53
2:AE:215:LEU:HD22	2:AE:215:LEU:N	2.21	0.53
3:AF:73:PRO:HG3	3:AF:105:GLU:CB	2.38	0.53
8:AK:120:THR:CG2	8:AK:123:GLU:HG3	2.33	0.53
10:AM:12:ASP:OD2	10:AM:15:THR:HG23	2.09	0.53
11:AN:25:TYR:N	11:AN:25:TYR:CD1	2.73	0.53
11:AN:52:GLY:H	11:AN:55:LYS:NZ	2.07	0.53
17:AT:100:LYS:CE	17:AT:101:ARG:HH11	2.22	0.53
24:BA:118:A:OP2	24:BA:119:A:H2'	2.09	0.53
24:BA:150:C:H2'	24:BA:151:C:C6	2.44	0.53
24:BA:1103:A:H2'	24:BA:1104:C:H5'	1.91	0.53
24:BA:1443:G:O2'	24:BA:1444:G:H5'	2.09	0.53
24:BA:1657:C:H4'	27:BE:133:LYS:HB3	1.90	0.53
24:BA:2022:U:O2'	24:BA:2617:C:H5'	2.09	0.53
24:BA:2785:C:C2'	27:BE:64:LYS:HZ2	2.22	0.53
24:BA:2802:G:C6	24:BA:2803:C:C4	2.96	0.53
25:BB:61:G:O2'	25:BB:62:C:H5'	2.08	0.53
27:BE:34:VAL:HG22	27:BE:48:GLN:HB3	1.90	0.53
28:BF:20:LEU:HD12	28:BF:21:ALA:N	2.24	0.53
29:BG:27:ASN:HB3	29:BG:30:GLU:HG3	1.90	0.53
29:BG:73:ALA:CB	29:BG:82:LEU:HD11	2.34	0.53
29:BG:107:LEU:O	49:B4:38:LYS:HG3	2.06	0.53
33:BN:20:MET:HE3	33:BN:44:LYS:HE3	1.90	0.53
41:BS:12:ILE:HG13	41:BS:42:ARG:NH1	2.23	0.53
44:BV:13:GLU:HB3	44:BV:18:LEU:HD11	1.91	0.53
44:BV:52:SER:C	44:BV:54:HIS:N	2.61	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BV:148:ASP:OD1	44:BV:174:VAL:N	2.42	0.53
47:BW:48:HIS:O	47:BW:51:ARG:N	2.41	0.53
50:B5:57:VAL:O	50:B5:57:VAL:HG13	2.09	0.53
1:CA:1061:G:H1'	10:CM:56:HIS:HE1	1.71	0.53
1:CA:1118:C:O3'	9:CL:83:ARG:NH2	2.37	0.53
1:CA:1127:G:H1	1:CA:1145:C:H1'	1.73	0.53
1:CA:1133:G:C4	1:CA:1134:G:C8	2.97	0.53
2:CE:87:ARG:NH2	2:CE:233:SER:H	2.06	0.53
4:CG:34:GLU:HG2	4:CG:35:ARG:H	1.74	0.53
6:CI:10:LEU:HD12	6:CI:10:LEU:N	2.24	0.53
9:CL:40:LEU:HD13	9:CL:74:ILE:HD11	1.91	0.53
11:CN:48:ILE:HG12	11:CN:63:LEU:CB	2.39	0.53
13:CP:19:LEU:O	13:CP:21:TYR:N	2.41	0.53
22:CC:6:G:O2'	22:CC:7:G:H5'	2.08	0.53
24:DA:239:U:H2'	24:DA:240:G:O4'	2.08	0.53
24:DA:278:A:O2'	24:DA:279:C:OP1	2.22	0.53
24:DA:760:G:H2'	24:DA:761:A:O4'	2.08	0.53
24:DA:1146:C:O2'	24:DA:1147:C:H5'	2.09	0.53
24:DA:1342:A:C2	24:DA:1602:U:N3	2.76	0.53
24:DA:1794:U:H1'	24:DA:1900:A:C2	2.44	0.53
24:DA:1893:C:C2'	24:DA:1894:C:H5'	2.38	0.53
24:DA:1973:G:H2'	24:DA:1974:C:C6	2.43	0.53
24:DA:2343:C:C2'	24:DA:2344:U:C5'	2.72	0.53
26:DD:149:PRO:O	26:DD:150:LYS:HB2	2.09	0.53
28:DF:181:LEU:CD2	28:DF:186:ILE:HD11	2.39	0.53
35:DP:6:ARG:CG	35:DP:7:MET:H	2.19	0.53
40:D2:35:LEU:CD2	40:D2:35:LEU:N	2.71	0.53
42:DT:23:GLU:CG	42:DT:24:GLY:H	2.21	0.53
44:DV:126:VAL:HA	44:DV:163:LEU:HA	1.90	0.53
51:D6:40:CYS:SG	51:D6:45:LYS:HE2	2.49	0.53
1:AA:392:G:C4	1:AA:393:A:C8	2.96	0.53
1:AA:728:A:C5	15:AR:54:ARG:HD2	2.44	0.53
3:AF:72:LYS:HB3	3:AF:75:VAL:HG23	1.90	0.53
4:AG:30:LYS:HB2	4:AG:34:GLU:H	1.74	0.53
9:AL:81:ILE:O	9:AL:85:LEU:HG	2.08	0.53
10:AM:5:ARG:HB3	10:AM:73:ASP:CG	2.29	0.53
12:AO:53:ARG:HB3	12:AO:69:TYR:HE1	1.73	0.53
24:BA:30:G:H2'	24:BA:31:C:C6	2.44	0.53
24:BA:285:C:O2'	24:BA:286:C:H5'	2.08	0.53
24:BA:725:G:C6	24:BA:726:G:N1	2.77	0.53
30:BH:4:ILE:CG1	30:BH:6:ARG:NE	2.71	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BK:129:THR:HG22	31:BK:137:PRO:HB3	1.90	0.53
33:BN:47:ILE:HG23	33:BN:48:PRO:CD	2.39	0.53
1:CA:385:C:O2'	1:CA:386:C:H5'	2.09	0.53
1:CA:465:A:N7	1:CA:467:G:C6	2.76	0.53
1:CA:689:C:H3'	1:CA:690:G:H21	1.73	0.53
1:CA:838:G:N2	1:CA:849:C:C2	2.76	0.53
1:CA:914:A:C4	1:CA:915:A:C8	2.97	0.53
1:CA:947:G:H4'	13:CP:109:THR:HG23	1.91	0.53
1:CA:1342:C:O2'	9:CL:124:GLN:HA	2.09	0.53
2:CE:219:VAL:HG22	2:CE:219:VAL:O	2.08	0.53
3:CF:12:LEU:O	3:CF:12:LEU:HD23	2.09	0.53
3:CF:148:GLY:HA3	3:CF:172:ARG:O	2.07	0.53
4:CG:58:LEU:CD2	4:CG:62:GLN:HG3	2.38	0.53
4:CG:88:VAL:O	4:CG:92:VAL:HG23	2.09	0.53
4:CG:153:ARG:HA	4:CG:181:MET:HE1	1.91	0.53
11:CN:12:ARG:HA	11:CN:12:ARG:NE	2.24	0.53
14:CQ:29:ARG:HD3	14:CQ:40:CYS:HB3	1.90	0.53
24:DA:99:U:C2	24:DA:102:G:N2	2.77	0.53
24:DA:141:A:H1'	24:DA:1408:C:O4'	2.08	0.53
24:DA:901:A:H5'	24:DA:902:C:OP2	2.09	0.53
24:DA:919:G:N2	24:DA:2269:A:OP2	2.42	0.53
24:DA:1009:A:C4'	39:D1:59:ARG:HG3	2.38	0.53
24:DA:1771:C:HO2'	24:DA:1786:A:C1'	2.21	0.53
24:DA:2738:A:H2	24:DA:2766:G:H22	1.56	0.53
24:DA:2745:C:H4'	30:DH:142:GLY:O	2.09	0.53
24:DA:2805:G:C2	24:DA:2807:G:C4	2.97	0.53
26:DD:65:ILE:HG12	26:DD:67:PHE:CZ	2.44	0.53
26:DD:172:TYR:HD1	26:DD:186:HIS:N	2.07	0.53
29:DG:94:LEU:H	29:DG:94:LEU:CD2	2.21	0.53
29:DG:135:LEU:HD12	29:DG:135:LEU:N	2.24	0.53
30:DH:4:ILE:CD1	30:DH:5:GLY:H	2.20	0.53
30:DH:91:GLY:O	30:DH:93:GLY:N	2.42	0.53
31:DK:76:THR:HG21	31:DK:140:LEU:HB2	1.90	0.53
34:DO:39:LYS:CB	34:DO:45:LEU:HD11	2.39	0.53
35:DP:31:ASP:HA	35:DP:134:ARG:HD2	1.91	0.53
38:DR:47:GLY:O	38:DR:63:VAL:HG13	2.09	0.53
44:DV:140:ASP:CG	44:DV:141:VAL:N	2.61	0.53
47:DW:17:SER:OG	47:DW:67:LYS:HG2	2.09	0.53
53:D8:29:LYS:H	53:D8:44:LYS:HD3	1.74	0.53
1:AA:256:U:C6	1:AA:256:U:OP2	2.62	0.53
1:AA:321:A:O2'	1:AA:322:C:H5'	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:443:C:H42	1:AA:491:G:H1	1.56	0.53
1:AA:980:C:H2'	1:AA:981:U:O4'	2.08	0.53
1:AA:1316:G:H4'	14:AQ:18:VAL:HG11	1.91	0.53
2:AE:75:LYS:HD3	2:AE:75:LYS:C	2.29	0.53
3:AF:63:ASN:HB2	3:AF:98:ASN:HB2	1.91	0.53
3:AF:115:LEU:O	3:AF:117:ALA:N	2.42	0.53
12:AO:27:LEU:O	12:AO:28:LYS:HB3	2.09	0.53
13:AP:37:THR:HB	13:AP:55:ARG:HE	1.74	0.53
24:BA:483:A:H4'	43:BU:49:VAL:HA	1.91	0.53
24:BA:806:C:C2	24:BA:807:U:C5	2.97	0.53
24:BA:1069:A:H5"	24:BA:1070:A:P	2.48	0.53
24:BA:1080:A:N6	24:BA:1087:G:OP2	2.40	0.53
24:BA:2097:C:C2'	24:BA:2098:U:H5'	2.39	0.53
24:BA:2120:G:H8	24:BA:2120:G:P	2.32	0.53
24:BA:2629:A:OP1	24:BA:2629:A:H4'	2.09	0.53
24:BA:2881:C:H5"	36:B0:117:VAL:HG21	1.91	0.53
24:BA:2884:U:H2'	24:BA:2885:C:O4'	2.09	0.53
28:BF:64:ILE:CG2	28:BF:65:TRP:CE2	2.92	0.53
37:BQ:30:ARG:HG3	37:BQ:30:ARG:HH11	1.73	0.53
47:BW:9:GLN:OE1	47:BW:56:GLN:HG3	2.08	0.53
1:CA:404:U:O4	4:CG:2:GLY:N	2.41	0.53
1:CA:552:U:O4	1:CA:553:A:N6	2.41	0.53
1:CA:644:G:H5'	8:CK:92:ARG:NH2	2.24	0.53
1:CA:652:U:C4	1:CA:752:G:N3	2.77	0.53
1:CA:757:U:O2'	1:CA:879:C:H1'	2.09	0.53
1:CA:938:A:N6	1:CA:939:G:C6	2.77	0.53
1:CA:1052:U:C5'	1:CA:1053:G:OP2	2.53	0.53
1:CA:1068:G:N3	1:CA:1191:A:C2	2.77	0.53
1:CA:1223:C:P	1:CA:1224:G:H2'	2.48	0.53
1:CA:1290:G:C3'	1:CA:1291:G:H5'	2.39	0.53
1:CA:1335:C:H5"	1:CA:1336:C:H5'	1.90	0.53
1:CA:1440:C:H2'	1:CA:1441:G:O4'	2.08	0.53
3:CF:120:VAL:CG2	3:CF:137:ALA:HB2	2.34	0.53
8:CK:107:LEU:HD22	8:CK:107:LEU:N	2.23	0.53
9:CL:92:TYR:O	9:CL:96:LEU:HB2	2.09	0.53
15:CR:87:ILE:CG2	15:CR:88:ARG:N	2.71	0.53
24:DA:92:G:H2'	24:DA:93:C:C6	2.44	0.53
24:DA:270(T):G:C2	24:DA:270(U):C:C2	2.97	0.53
24:DA:857:C:O2'	24:DA:858:U:H5'	2.09	0.53
24:DA:1010:A:H5'	39:D1:62:ILE:HG21	1.91	0.53
24:DA:1434:A:H61	24:DA:1558:A:H62	1.53	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2124:G:N7	24:DA:2125:G:H1'	2.24	0.53
24:DA:2542:A:O2'	24:DA:2543:G:H8	1.92	0.53
24:DA:2681:C:OP2	27:DE:109:LYS:NZ	2.35	0.53
24:DA:2776:A:H1'	24:DA:2777:G:OP2	2.09	0.53
26:DD:35:LYS:CB	26:DD:64:ILE:CG2	2.83	0.53
30:DH:25:LYS:CE	30:DH:27:LYS:H	2.19	0.53
30:DH:41:MET:HE3	30:DH:55:PRO:CD	2.39	0.53
37:DQ:19:LYS:C	37:DQ:21:THR:H	2.11	0.53
37:DQ:28:VAL:O	37:DQ:28:VAL:HG12	2.09	0.53
40:D2:39:LEU:HD12	40:D2:39:LEU:N	2.23	0.53
1:AA:222:U:H2'	1:AA:223:U:C5	2.44	0.53
1:AA:626:U:C3'	16:AS:38:TYR:HH	2.13	0.53
1:AA:1452:C:O2'	1:AA:1453:G:O5'	2.21	0.53
2:AE:154:LEU:O	2:AE:155:LEU:HB2	2.09	0.53
4:AG:101:LEU:HD23	4:AG:121:VAL:HG13	1.91	0.53
10:AM:48:THR:HG23	10:AM:62:HIS:HB3	1.91	0.53
18:AU:40:LEU:C	18:AU:42:ARG:N	2.62	0.53
19:AV:36:ARG:NH1	19:AV:36:ARG:HB2	2.24	0.53
22:AC:25:C:H2'	22:AC:26:G:O4'	2.09	0.53
24:BA:14:A:N7	24:BA:15:G:C8	2.77	0.53
24:BA:646:A:C2'	24:BA:647:G:H5'	2.39	0.53
24:BA:1176:G:H5"	24:BA:1177:A:OP2	2.09	0.53
24:BA:1385:G:H1'	24:BA:1386:C:C6	2.44	0.53
24:BA:1642:G:C2'	24:BA:1643:G:H5'	2.39	0.53
24:BA:1760:A:H2'	24:BA:1761:C:C6	2.44	0.53
24:BA:2015:A:C2	50:B5:2:ALA:N	2.77	0.53
24:BA:2126:A:H2'	24:BA:2126:A:N3	2.24	0.53
24:BA:2357:U:OP1	45:B3:20:ARG:NH1	2.40	0.53
25:BB:61:G:C2'	25:BB:62:C:H5'	2.38	0.53
25:BB:116:G:H4'	37:BQ:54:LEU:HD13	1.90	0.53
27:BE:201:THR:HG22	27:BE:203:LYS:HB3	1.91	0.53
30:BH:8:PRO:HG2	30:BH:69:ARG:HE	1.74	0.53
31:BK:116:LEU:CG	31:BK:117:GLU:H	2.22	0.53
31:BK:127:VAL:HG22	31:BK:139:GLN:CB	2.39	0.53
37:BQ:59:LYS:HD3	37:BQ:60:GLY:H	1.71	0.53
52:B7:9:ARG:HH21	52:B7:48:LYS:CD	2.22	0.53
1:CA:15:G:H2'	1:CA:16:A:C8	2.44	0.53
1:CA:979:C:C5	1:CA:980:C:C6	2.96	0.53
1:CA:1026:G:H2'	1:CA:1027:C:H5'	1.91	0.53
1:CA:1118:C:C2'	1:CA:1119:C:H5'	2.39	0.53
1:CA:1250:A:C6	1:CA:1251:A:C6	2.97	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CF:24:ALA:HB1	3:CF:28:GLN:NE2	2.23	0.53
3:CF:110:ASN:HB3	3:CF:144:SER:OG	2.08	0.53
19:CV:37:ARG:NH1	19:CV:37:ARG:CG	2.67	0.53
20:CW:50:GLU:HA	20:CW:100:ILE:HB	1.90	0.53
24:DA:128:C:C6	24:DA:128:C:H3'	2.43	0.53
24:DA:491:G:H2'	24:DA:492:A:O4'	2.09	0.53
24:DA:780:G:H21	24:DA:783:A:H62	1.55	0.53
24:DA:1071:G:P	24:DA:1097:U:H4'	2.48	0.53
24:DA:1313:U:C2	24:DA:1610:A:C2	2.97	0.53
24:DA:1465:G:N3	24:DA:1545(A):A:H2	2.06	0.53
24:DA:1533:C:C5	24:DA:1534:G:H1'	2.45	0.53
24:DA:2312:U:O2	29:DG:42:GLY:HA3	2.08	0.53
24:DA:2344:U:H2'	24:DA:2344:U:O5'	2.09	0.53
24:DA:2516:G:C6	24:DA:2517:C:N4	2.77	0.53
24:DA:2584:U:C5	24:DA:2585:U:C5	2.97	0.53
24:DA:2666:C:C5	24:DA:2667:C:C5	2.97	0.53
25:DB:27:C:C5	25:DB:28:C:C5	2.97	0.53
28:DF:24:LEU:HB3	28:DF:25:PRO:HD2	1.89	0.53
28:DF:53:THR:HG23	28:DF:56:GLU:HG3	1.89	0.53
30:DH:129:THR:C	30:DH:130:ARG:HG2	2.30	0.53
35:DP:62:GLY:O	35:DP:63:LYS:HB2	2.09	0.53
53:D8:60:LEU:C	53:D8:61:LEU:HD12	2.27	0.53
1:AA:669:U:C2	1:AA:670:G:C8	2.97	0.52
1:AA:1381:U:H2'	7:AJ:79:ARG:HD2	1.85	0.52
2:AE:91:PRO:HD3	2:AE:155:LEU:HD21	1.91	0.52
2:AE:120:ALA:O	2:AE:121:LEU:HD23	2.08	0.52
2:AE:124:SER:HB2	2:AE:125:PRO:CD	2.35	0.52
3:AF:87:LEU:O	3:AF:90:GLU:N	2.42	0.52
4:AG:141:ARG:HB3	4:AG:142:PRO:CD	2.38	0.52
9:AL:16:ARG:CD	9:AL:64:THR:CG2	2.87	0.52
12:AO:119:LYS:CD	12:AO:119:LYS:H	2.20	0.52
19:AV:41:VAL:H	19:AV:44:MET:HE3	1.74	0.52
24:BA:125:G:H4'	24:BA:126:A:OP2	2.09	0.52
24:BA:165:U:C2	24:BA:171:G:C8	2.96	0.52
24:BA:1475:G:C2	24:BA:1519:G:C2	2.97	0.52
24:BA:2287:A:C6	24:BA:2289:G:C4	2.98	0.52
25:BB:42:C:P	29:BG:67:LYS:HE2	2.49	0.52
28:BF:62:ARG:HG2	28:BF:63:LYS:N	2.23	0.52
29:BG:49:ASP:OD2	29:BG:51:ARG:NE	2.41	0.52
30:BH:2:SER:O	30:BH:3:ARG:O	2.27	0.52
33:BN:122:LEU:HD12	33:BN:122:LEU:N	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:B2:72:VAL:HG13	40:B2:72:VAL:O	2.09	0.52
42:BT:49:VAL:HG13	42:BT:83:VAL:HG13	1.91	0.52
46:BZ:85:LEU:HA	46:BZ:87:PRO:HD2	1.91	0.52
49:B4:38:LYS:CD	49:B4:38:LYS:N	2.71	0.52
1:CA:423:G:N2	1:CA:424:G:C8	2.77	0.52
1:CA:763:G:H2'	1:CA:764:C:H6	1.74	0.52
1:CA:965:A:C2	1:CA:969:A:N1	2.76	0.52
1:CA:1237:C:C1'	1:CA:1334:G:H21	2.20	0.52
1:CA:1297:C:H1'	1:CA:1298:C:P	2.49	0.52
1:CA:1320:C:C2	19:CV:36:ARG:NH1	2.77	0.52
1:CA:1320:C:C5	1:CA:1321:C:C4	2.97	0.52
1:CA:1320:C:C2'	1:CA:1321:C:O4'	2.43	0.52
1:CA:1480:G:C5	1:CA:1481:U:C5	2.98	0.52
2:CE:80:ILE:HD11	2:CE:212:GLN:HA	1.90	0.52
3:CF:78:GLY:CA	3:CF:79:ARG:HH21	2.21	0.52
5:CH:70:PRO:HD2	5:CH:142:LEU:HB2	1.91	0.52
5:CH:70:PRO:C	5:CH:71:LEU:HD12	2.30	0.52
6:CI:23:LYS:HE2	6:CI:61:LEU:CD1	2.39	0.52
7:CJ:36:LYS:O	7:CJ:40:ALA:N	2.42	0.52
11:CN:50:TYR:HD2	11:CN:60:ALA:HB2	1.74	0.52
14:CQ:29:ARG:NH1	14:CQ:40:CYS:HB3	2.24	0.52
24:DA:270(N):G:O2'	24:DA:270(P):C:H5'	2.09	0.52
24:DA:662:G:OP1	34:DO:17:LYS:HE3	2.09	0.52
24:DA:875:G:H4'	44:DV:170:THR:HG22	1.91	0.52
24:DA:996:A:H4'	39:D1:92:ARG:NE	2.25	0.52
24:DA:1025:G:H8	24:DA:1025:G:OP1	1.92	0.52
24:DA:1753:G:N2	24:DA:1756:G:OP2	2.41	0.52
24:DA:1858:G:H1'	24:DA:1884:A:H61	1.73	0.52
24:DA:1992:G:C1'	24:DA:1993:U:OP2	2.57	0.52
24:DA:2118:U:H2'	24:DA:2119:A:OP2	2.09	0.52
24:DA:2141:G:N2	24:DA:2150:U:O2	2.34	0.52
24:DA:2262:U:C5	45:D3:16:SER:OG	2.59	0.52
24:DA:2417:C:P	34:DO:64:LYS:CE	2.89	0.52
24:DA:2429:G:N7	34:DO:56:SER:OG	2.33	0.52
24:DA:2584:U:O4'	24:DA:2584:U:O2	2.23	0.52
24:DA:2667:C:C2'	24:DA:2668:G:H5'	2.39	0.52
26:DD:43:ARG:HH11	26:DD:44:ASN:ND2	2.04	0.52
27:DE:64:LYS:CE	27:DE:73:GLU:OE2	2.56	0.52
28:DF:9:ILE:HG23	28:DF:12:LEU:CA	2.39	0.52
42:DT:30:VAL:CG1	42:DT:31:HIS:N	2.72	0.52
44:DV:24:LEU:N	44:DV:41:LEU:HD13	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DX:8:LEU:HD22	48:DX:31:LEU:CD1	2.37	0.52
53:D8:30:ARG:C	53:D8:32:LEU:H	2.13	0.52
1:AA:277:C:H5'	17:AT:68:ARG:HH12	1.75	0.52
1:AA:1171:G:O2'	1:AA:1172:C:H5'	2.08	0.52
2:AE:178:ARG:NH2	8:AK:74:PRO:HB3	2.23	0.52
8:AK:85:ARG:HG3	8:AK:85:ARG:NH1	2.11	0.52
9:AL:96:LEU:C	9:AL:99:LEU:CD1	2.77	0.52
13:AP:3:ARG:CZ	13:AP:7:VAL:HG22	2.39	0.52
16:AS:74:LEU:O	16:AS:79:VAL:HG23	2.09	0.52
17:AT:76:LEU:HD12	17:AT:77:VAL:H	1.72	0.52
20:AW:37:SER:O	20:AW:41:ILE:HG12	2.09	0.52
24:BA:176:G:H2'	24:BA:177:G:H5'	1.90	0.52
24:BA:270(F):U:H2'	24:BA:270(G):C:C6	2.44	0.52
24:BA:1112:G:O2'	30:BH:2:SER:HA	2.08	0.52
24:BA:1514:U:H2'	24:BA:1515:C:C6	2.44	0.52
24:BA:2101:G:H3'	24:BA:2102:U:C5	2.44	0.52
24:BA:2109:U:H3	24:BA:2180:U:H3	1.58	0.52
25:BB:6:C:C2	25:BB:115:G:N2	2.77	0.52
28:BF:132:VAL:O	28:BF:133:ASN:HB3	2.10	0.52
29:BG:135:LEU:HD23	29:BG:140:ILE:HD11	1.91	0.52
30:BH:2:SER:O	30:BH:3:ARG:NE	2.41	0.52
31:BK:101:LEU:HD23	31:BK:101:LEU:C	2.29	0.52
35:BP:75:THR:HA	35:BP:90:VAL:H	1.74	0.52
50:B5:55:ARG:C	50:B5:57:VAL:H	2.10	0.52
53:B8:14:VAL:CG2	53:B8:22:VAL:HG13	2.40	0.52
1:CA:108:G:H5'	1:CA:109:A:C5'	2.38	0.52
1:CA:273:A:C2'	1:CA:274:A:H5'	2.39	0.52
1:CA:393:A:P	16:CS:12:LYS:CE	2.98	0.52
1:CA:1117:G:C2'	9:CL:104:ARG:CD	2.85	0.52
1:CA:1215:G:N3	1:CA:1215:G:H2'	2.25	0.52
1:CA:1449:C:N4	1:CA:1452:C:N3	2.57	0.52
2:CE:8:LYS:CB	2:CE:217:ARG:NE	2.70	0.52
3:CF:58:GLU:O	3:CF:59:ARG:HD2	2.09	0.52
5:CH:49:PRO:O	5:CH:50:GLU:HG2	2.08	0.52
5:CH:100:VAL:HG13	5:CH:118:ILE:HG22	1.89	0.52
8:CK:25:ASP:OD1	8:CK:25:ASP:N	2.43	0.52
8:CK:94:TYR:CD1	8:CK:95:VAL:N	2.77	0.52
9:CL:17:VAL:CG2	9:CL:80:GLY:CA	2.88	0.52
13:CP:29:ARG:HB3	13:CP:64:TRP:CZ2	2.42	0.52
16:CS:28:ARG:HG2	16:CS:29:ASP:OD1	2.09	0.52
19:CV:29:ARG:HH11	19:CV:48:THR:H	1.57	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CV:31:ILE:O	19:CV:32:LYS:HD3	2.10	0.52
19:CV:51:VAL:O	19:CV:57:HIS:HA	2.08	0.52
24:DA:89:G:H3'	24:DA:90:U:C5'	2.38	0.52
24:DA:196:A:O4'	34:DO:46:LYS:HD2	2.09	0.52
24:DA:1006:C:H1'	32:DM:106:MET:HE3	1.91	0.52
24:DA:1331:A:H2'	24:DA:1333:C:C5	2.44	0.52
24:DA:1607:C:H4'	24:DA:1608:A:C5'	2.38	0.52
24:DA:2889:C:H3'	24:DA:2891:G:H8	1.74	0.52
25:DB:88:C:H41	25:DB:89:G:N2	2.07	0.52
26:DD:106:ILE:HD11	26:DD:196:VAL:HG13	1.91	0.52
29:DG:173:LEU:O	29:DG:178:PHE:HB2	2.09	0.52
30:DH:103:LEU:HD23	30:DH:103:LEU:N	2.24	0.52
31:DK:76:THR:CG2	31:DK:140:LEU:CD1	2.86	0.52
31:DK:77:LEU:HA	31:DK:141:LYS:O	2.10	0.52
31:DK:97:ILE:O	31:DK:101:LEU:HD23	2.09	0.52
34:DO:100:LEU:N	34:DO:100:LEU:HD22	2.24	0.52
35:DP:16:ARG:HD3	35:DP:18:LYS:NZ	2.25	0.52
37:DQ:64:GLU:O	37:DQ:68:GLN:OE1	2.27	0.52
39:D1:48:ALA:O	39:D1:52:ARG:HG3	2.09	0.52
43:DU:20:TYR:CZ	43:DU:42:VAL:HA	2.44	0.52
44:DV:154:ASP:O	44:DV:155:LEU:HD23	2.08	0.52
1:AA:106:C:H2'	1:AA:107:G:H8	1.74	0.52
1:AA:863:U:H2'	1:AA:865:A:OP2	2.10	0.52
1:AA:1016:A:H5'	14:AQ:15:LYS:HZ2	1.74	0.52
1:AA:1428:A:H2'	1:AA:1429:C:C6	2.45	0.52
2:AE:41:ILE:HD12	2:AE:41:ILE:N	2.24	0.52
6:AI:53:ALA:O	6:AI:54:LYS:HB2	2.09	0.52
9:AL:83:ARG:HA	9:AL:86:VAL:HG12	1.92	0.52
24:BA:580:C:H2'	24:BA:581:C:C6	2.44	0.52
24:BA:1010:A:O2'	24:BA:1152:C:O2'	2.21	0.52
24:BA:1141:U:H4'	24:BA:1142(A):A:O4'	2.09	0.52
24:BA:1625:C:H2'	24:BA:1626:G:O4'	2.10	0.52
24:BA:1705:G:O2'	24:BA:1706:U:H5'	2.09	0.52
24:BA:2029:G:H2'	24:BA:2031:A:OP1	2.09	0.52
24:BA:2333:A:N3	24:BA:2335:A:N6	2.56	0.52
24:BA:2481:G:H2'	24:BA:2482:G:OP2	2.09	0.52
24:BA:2791:C:N4	24:BA:2893:G:N7	2.57	0.52
27:BE:37:ARG:HE	27:BE:37:ARG:H	1.57	0.52
28:BF:127:GLU:C	28:BF:129:PHE:H	2.13	0.52
30:BH:46:GLU:OE1	30:BH:51:ARG:NH1	2.42	0.52
31:BK:102:SER:O	31:BK:106:GLY:HA2	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BP:37:LEU:HB2	35:BP:128:LYS:O	2.09	0.52
35:BP:66:ILE:HA	35:BP:104:PHE:HA	1.91	0.52
37:BQ:52:SER:O	37:BQ:56:LEU:HD23	2.09	0.52
49:B4:36:CYS:O	49:B4:39:CYS:SG	2.67	0.52
50:B5:56:LYS:NZ	50:B5:56:LYS:HB3	2.25	0.52
1:CA:409:G:OP1	4:CG:22:LYS:HB3	2.09	0.52
1:CA:458:C:N4	1:CA:464:G:C6	2.77	0.52
1:CA:914:A:H2'	1:CA:915:A:H8	1.75	0.52
1:CA:947:G:OP1	13:CP:108:ARG:HG2	2.09	0.52
1:CA:1123:A:C4'	10:CM:37:PRO:HD2	2.27	0.52
1:CA:1137:C:H4'	1:CA:1138:G:N3	2.24	0.52
1:CA:1240:U:H3	7:CJ:32:ARG:NE	2.07	0.52
1:CA:1292:U:C5'	9:CL:38:GLN:OE1	2.57	0.52
3:CF:33:LEU:HD21	14:CQ:53:LEU:HD21	1.92	0.52
3:CF:71:ALA:HA	3:CF:106:VAL:H	1.74	0.52
3:CF:92:ALA:HA	3:CF:95:THR:HB	1.91	0.52
3:CF:129:ALA:HB3	3:CF:132:ARG:HB3	1.92	0.52
4:CG:31:CYS:O	4:CG:33:MET:HG3	2.08	0.52
7:CJ:47:CYS:SG	7:CJ:58:PRO:CB	2.98	0.52
18:CU:43:PHE:O	18:CU:51:LEU:HD12	2.09	0.52
19:CV:16:LEU:O	19:CV:20:LEU:HD23	2.08	0.52
19:CV:66:MET:CA	19:CV:67:VAL:CG1	2.84	0.52
24:DA:581:C:OP1	39:D1:33:ARG:HG3	2.09	0.52
24:DA:880:G:H1	24:DA:897:C:N4	2.07	0.52
24:DA:1025:G:C5	24:DA:1135:C:H1'	2.45	0.52
24:DA:2065:C:H2'	24:DA:2066:C:H6	1.73	0.52
24:DA:2286:A:OP2	51:D6:28:ARG:HG3	2.09	0.52
24:DA:2836:U:C4	24:DA:2883:A:N6	2.77	0.52
25:DB:89(A):A:H5"	25:DB:90:C:OP2	2.09	0.52
26:DD:35:LYS:CA	26:DD:64:ILE:CG2	2.87	0.52
27:DE:88:GLY:O	27:DE:89:ASP:HB3	2.09	0.52
27:DE:169:ASN:CG	27:DE:203:LYS:HG2	2.30	0.52
29:DG:16:ARG:HH11	29:DG:28:VAL:CG1	2.23	0.52
29:DG:114:ILE:CD1	29:DG:140:ILE:HG21	2.38	0.52
32:DM:23:LEU:HD22	32:DM:60:ILE:HD12	1.91	0.52
34:DO:48:PRO:CG	34:DO:49:ARG:H	2.14	0.52
37:DQ:59:LYS:CD	37:DQ:60:GLY:H	2.22	0.52
39:D1:93:LYS:O	39:D1:96:ALA:HB3	2.09	0.52
40:D2:76:LYS:NZ	40:D2:82:ARG:NH2	2.56	0.52
44:DV:111:VAL:O	44:DV:112:ARG:HB2	2.09	0.52
44:DV:150:LEU:HA	44:DV:154:ASP:OD2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DZ:76:ARG:HD2	46:DZ:94:LEU:CD2	2.38	0.52
49:D4:4:GLY:O	49:D4:6:HIS:N	2.43	0.52
53:D8:33:ASN:C	53:D8:34:TRP:HD1	2.12	0.52
1:AA:222:U:H2'	1:AA:223:U:H6	1.73	0.52
1:AA:405:U:H3'	1:AA:406:G:H5'	1.91	0.52
1:AA:540:G:H2'	1:AA:541:G:O4'	2.10	0.52
1:AA:1003:G:H2'	1:AA:1004:A:H4'	1.92	0.52
3:AF:8:ILE:CD1	3:AF:16:ARG:CD	2.86	0.52
8:AK:42:GLU:HG3	8:AK:109:ILE:CD1	2.39	0.52
18:AU:29:PHE:CD1	18:AU:29:PHE:N	2.76	0.52
24:BA:882:G:O2'	24:BA:883:G:H8	1.92	0.52
24:BA:2401:U:C2'	24:BA:2402:C:C6	2.92	0.52
26:BD:35:LYS:HZ3	26:BD:104:TYR:HB2	1.64	0.52
26:BD:206:LEU:HA	26:BD:211:ARG:HD3	1.91	0.52
30:BH:91:GLY:HA3	30:BH:94:TYR:CD2	2.44	0.52
31:BK:29:TYR:O	31:BK:32:PRO:HD2	2.08	0.52
31:BK:93:THR:OG1	31:BK:96:ASP:OD1	2.28	0.52
31:BK:123:LEU:HD23	31:BK:123:LEU:N	2.24	0.52
36:B0:33:ARG:NH2	50:B5:55:ARG:HG2	2.24	0.52
37:BQ:66:ALA:HA	37:BQ:69:VAL:CG1	2.39	0.52
39:B1:98:LEU:HD12	39:B1:98:LEU:N	2.25	0.52
40:B2:76:LYS:O	40:B2:79:VAL:HG12	2.10	0.52
41:BS:1:MET:HA	41:BS:1:MET:HE3	1.91	0.52
41:BS:9:TYR:HA	41:BS:100:THR:HG21	1.91	0.52
51:B6:12:GLU:CB	51:B6:23:THR:HG22	2.40	0.52
1:CA:147:G:H1	1:CA:175:C:H42	1.57	0.52
1:CA:173:U:O2	1:CA:197:A:C6	2.62	0.52
1:CA:547:A:OP2	4:CG:2:GLY:HA3	2.08	0.52
1:CA:976:G:OP1	14:CQ:31:ARG:HD3	2.09	0.52
1:CA:992:U:H1'	1:CA:993:G:P	2.49	0.52
1:CA:1127:G:C5'	9:CL:66:ARG:HH12	2.22	0.52
1:CA:1213:A:C6	1:CA:1215:G:H1'	2.44	0.52
2:CE:219:VAL:C	2:CE:222:ILE:HG22	2.30	0.52
3:CF:189:ALA:C	3:CF:190:ARG:HD2	2.30	0.52
4:CG:90:GLY:O	4:CG:93:PHE:HB3	2.10	0.52
5:CH:80:ILE:HG22	8:CK:104:ARG:NE	2.23	0.52
6:CI:23:LYS:HE2	6:CI:61:LEU:CD2	2.37	0.52
7:CJ:78:ARG:NH1	7:CJ:86:GLN:N	2.56	0.52
10:CM:79:ARG:H	10:CM:79:ARG:CD	2.23	0.52
12:CO:57:LYS:HG3	12:CO:67:THR:HG22	1.90	0.52
13:CP:19:LEU:HD11	13:CP:30:ALA:HB1	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:CS:1:MET:HE3	16:CS:65:GLN:HG2	1.92	0.52
24:DA:270(I):G:H1	24:DA:270(Q):C:N4	2.06	0.52
24:DA:1069:A:C5'	24:DA:1070:A:OP1	2.57	0.52
24:DA:1084:A:C2	24:DA:1106:G:H1'	2.45	0.52
24:DA:1301:A:O2'	24:DA:1302:A:H3'	2.09	0.52
24:DA:1592:C:H2'	24:DA:1593:G:C8	2.44	0.52
24:DA:1716:U:O2'	24:DA:1717:G:H5'	2.09	0.52
24:DA:2067:G:O2'	24:DA:2069:G:H5"	2.10	0.52
24:DA:2433:A:H5"	24:DA:2434:A:OP1	2.10	0.52
27:DE:2:LYS:HA	27:DE:84:PHE:CD1	2.44	0.52
29:DG:7:LEU:O	29:DG:7:LEU:HD23	2.10	0.52
31:DK:145:VAL:O	31:DK:146:ALA:HB3	2.10	0.52
32:DM:14:VAL:CG2	32:DM:137:LYS:HG2	2.38	0.52
32:DM:21:LYS:O	32:DM:60:ILE:HD13	2.09	0.52
44:DV:115:GLY:O	44:DV:116:VAL:HB	2.09	0.52
46:DZ:51:VAL:O	46:DZ:51:VAL:HG23	2.09	0.52
1:AA:652:U:C4	1:AA:752:G:N3	2.77	0.52
1:AA:785:G:C2'	1:AA:786:G:H5'	2.38	0.52
1:AA:827:U:H5	1:AA:872:A:N6	2.07	0.52
1:AA:1060:C:C5'	10:AM:51:ARG:HG2	2.40	0.52
2:AE:135:GLN:O	2:AE:136:VAL:C	2.47	0.52
13:AP:81:LEU:HG	13:AP:89:GLY:HA2	1.89	0.52
20:AW:53:LEU:CB	20:AW:100:ILE:HG23	2.37	0.52
24:BA:636:G:C2	34:BO:115:LEU:HD11	2.44	0.52
24:BA:740:U:H2'	24:BA:741:G:C8	2.45	0.52
24:BA:897:C:H5"	24:BA:898:C:OP2	2.09	0.52
24:BA:1049:C:H2'	24:BA:1050:A:C5'	2.39	0.52
24:BA:1259:G:O2'	24:BA:1260:G:H5'	2.10	0.52
24:BA:1582:C:O2'	24:BA:1586:A:C8	2.62	0.52
24:BA:1691:C:O2'	24:BA:1692:U:H5'	2.10	0.52
24:BA:1728:G:H5"	24:BA:1728:G:N3	2.24	0.52
24:BA:1791:A:H4'	26:BD:206:LEU:HB2	1.91	0.52
24:BA:2061:G:H5"	24:BA:2503:A:C2	2.44	0.52
24:BA:2281:C:C2'	24:BA:2282:G:H5'	2.39	0.52
24:BA:2286:A:C3'	51:B6:31:PRO:HD3	2.40	0.52
24:BA:2533:A:OP1	24:BA:2665:A:H1'	2.09	0.52
26:BD:196:VAL:HG12	26:BD:196:VAL:O	2.09	0.52
29:BG:173:LEU:HD22	29:BG:178:PHE:CE1	2.44	0.52
31:BK:87:LYS:HE2	31:BK:121:LYS:HE2	1.92	0.52
35:BP:66:ILE:O	35:BP:67:ARG:HB2	2.10	0.52
36:B0:70:LEU:C	36:B0:72:ASP:H	2.13	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BQ:111:GLU:O	37:BQ:112:PHE:CB	2.57	0.52
39:B1:88:ILE:HG22	39:B1:88:ILE:O	2.08	0.52
41:BS:82:LEU:HB3	41:BS:98:LYS:HB2	1.91	0.52
43:BU:12:THR:O	43:BU:75:ILE:HD13	2.09	0.52
44:BV:109:ALA:CB	44:BV:174:VAL:HG21	2.40	0.52
44:BV:110:GLY:N	44:BV:144:LEU:H	2.08	0.52
49:B4:58:ARG:HH12	49:B4:62:ARG:HD2	1.75	0.52
51:B6:35:GLU:OE1	51:B6:51:GLU:OE1	2.28	0.52
1:CA:109:A:C6	1:CA:326:G:C6	2.97	0.52
1:CA:410:G:OP2	4:CG:25:ARG:HB2	2.10	0.52
1:CA:977:A:O2'	1:CA:979:C:OP2	2.21	0.52
1:CA:983:A:H3'	1:CA:983:A:N3	2.24	0.52
1:CA:1028(B):C:H3'	1:CA:1029:G:C5'	2.39	0.52
1:CA:1202:G:C2'	1:CA:1203:C:H5'	2.40	0.52
1:CA:1250:A:H4'	9:CL:68:GLY:O	2.10	0.52
1:CA:1387:G:C6	1:CA:1388:C:N4	2.78	0.52
2:CE:197:VAL:HB	2:CE:200:ILE:HG12	1.92	0.52
4:CG:108:LEU:O	4:CG:110:PHE:N	2.42	0.52
5:CH:13:ILE:HD13	5:CH:13:ILE:N	2.25	0.52
11:CN:59:TYR:O	11:CN:62:GLN:HB3	2.09	0.52
19:CV:20:LEU:N	19:CV:20:LEU:HD22	2.24	0.52
24:DA:224:G:N7	24:DA:420:C:H4'	2.25	0.52
24:DA:1533:C:N4	24:DA:1534:G:N3	2.58	0.52
24:DA:2094:G:H2'	24:DA:2095:C:H5'	1.92	0.52
24:DA:2507:C:H5"	24:DA:2573:C:N4	2.23	0.52
24:DA:2715:C:H2'	24:DA:2716:U:H6	1.74	0.52
25:DB:30:C:C2'	25:DB:31:C:H5'	2.35	0.52
26:DD:115:GLN:HG2	26:DD:116:GLN:H	1.75	0.52
27:DE:204:ALA:O	27:DE:205:ALA:HB3	2.10	0.52
28:DF:108:LYS:O	28:DF:112:MET:HG3	2.09	0.52
29:DG:11:TYR:O	29:DG:16:ARG:N	2.38	0.52
30:DH:105:LEU:N	30:DH:105:LEU:HD13	2.24	0.52
37:DQ:24:LEU:H	37:DQ:24:LEU:HD22	1.73	0.52
37:DQ:110:LEU:HG	37:DQ:111:GLU:H	1.75	0.52
38:DR:113:LYS:C	38:DR:114:LEU:HD23	2.30	0.52
40:D2:20:LEU:HD12	40:D2:21:ARG:N	2.24	0.52
41:DS:65:LEU:HD12	41:DS:68:ARG:CD	2.40	0.52
43:DU:68:HIS:H	43:DU:71:LYS:NZ	2.07	0.52
43:DU:94:LYS:O	43:DU:101:LYS:HB2	2.10	0.52
1:AA:220:G:O2'	1:AA:221:C:H5'	2.09	0.52
1:AA:447:G:O6	1:AA:485:G:O2'	2.18	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1191:A:C5'	3:AF:4:LYS:NZ	2.64	0.52
4:AG:155:LEU:HD12	4:AG:155:LEU:C	2.30	0.52
10:AM:48:THR:HG23	10:AM:62:HIS:CB	2.40	0.52
13:AP:70:LEU:O	13:AP:70:LEU:HD23	2.10	0.52
24:BA:139:G:N3	24:BA:141:A:N1	2.57	0.52
24:BA:199:A:C8	24:BA:2433:A:N6	2.78	0.52
24:BA:523:C:O2'	24:BA:524:U:H5'	2.10	0.52
24:BA:673:C:H5"	28:BF:81:PRO:HD2	1.90	0.52
24:BA:747:U:C4	50:B5:2:ALA:N	2.78	0.52
24:BA:783:A:H2'	24:BA:785:G:OP1	2.09	0.52
24:BA:863:A:O2'	24:BA:864:G:H5'	2.10	0.52
24:BA:1050:A:N9	24:BA:2751:G:N7	2.58	0.52
24:BA:1213:A:N3	24:BA:1238:G:O2'	2.27	0.52
24:BA:1949:G:O2'	24:BA:1950:G:H5'	2.10	0.52
24:BA:2467:C:N4	24:BA:2468:G:C6	2.78	0.52
25:BB:42:C:O5'	29:BG:67:LYS:HE3	2.09	0.52
26:BD:25:THR:O	26:BD:26:LYS:C	2.48	0.52
30:BH:4:ILE:HB	30:BH:6:ARG:HG3	1.91	0.52
30:BH:166:GLY:O	30:BH:167:GLU:CG	2.57	0.52
43:BU:50:ARG:O	43:BU:52:SER:N	2.39	0.52
44:BV:141:VAL:CB	44:BV:144:LEU:HD21	2.35	0.52
1:CA:532:A:H3'	1:CA:533:A:H5"	1.91	0.52
1:CA:1005:A:C2	1:CA:1006:C:H4'	2.45	0.52
1:CA:1069:C:N4	1:CA:1094:G:O6	2.42	0.52
1:CA:1299:A:N6	1:CA:1301:U:N3	2.58	0.52
3:CF:179:ARG:O	3:CF:179:ARG:HG3	2.10	0.52
5:CH:101:ILE:HA	5:CH:107:ARG:HH22	1.74	0.52
10:CM:90:LEU:HD12	10:CM:90:LEU:N	2.25	0.52
14:CQ:19:ARG:NH1	14:CQ:19:ARG:CG	2.67	0.52
24:DA:211:A:C2'	24:DA:212:G:H5'	2.40	0.52
24:DA:885:C:H1'	24:DA:892:G:N2	2.24	0.52
24:DA:2094:G:P	31:DK:22:LYS:HD2	2.50	0.52
24:DA:2378:A:O4'	37:DQ:112:PHE:HE2	1.93	0.52
24:DA:2681:C:C4	24:DA:2724:C:C5	2.98	0.52
26:DD:34:VAL:O	26:DD:34:VAL:HG13	2.10	0.52
29:DG:51:ARG:HD2	29:DG:51:ARG:C	2.29	0.52
41:DS:79:GLY:HA3	41:DS:100:THR:CG2	2.40	0.52
43:DU:81:LYS:CD	43:DU:97:ARG:CZ	2.88	0.52
46:DZ:7:ILE:HD12	46:DZ:70:VAL:HG22	1.91	0.52
49:D4:13:ARG:N	49:D4:29:PRO:O	2.39	0.52
1:AA:28:G:O2'	1:AA:296:U:OP1	2.26	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:373:A:C4	1:AA:374:A:C8	2.98	0.52
1:AA:1291:G:H4'	9:AL:39:GLY:HA3	1.92	0.52
1:AA:1382:C:H6	7:AJ:79:ARG:NH2	1.87	0.52
4:AG:22:LYS:H	4:AG:26:CYS:CB	2.22	0.52
6:AI:24:GLU:HG3	6:AI:27:GLN:HB2	1.90	0.52
11:AN:57:THR:HG22	11:AN:59:TYR:N	2.25	0.52
13:AP:87:TYR:HA	13:AP:90:LEU:HG	1.92	0.52
14:AQ:53:LEU:HB3	14:AQ:56:VAL:HG21	1.91	0.52
19:AV:5:LEU:O	19:AV:5:LEU:CG	2.57	0.52
22:AC:18:G:C2	22:AC:58:A:C5	2.98	0.52
24:BA:141(A):C:H2'	24:BA:142:G:O4'	2.09	0.52
24:BA:309:G:N3	24:BA:329:G:O2'	2.42	0.52
24:BA:1301:A:C8	24:BA:1303:G:C8	2.98	0.52
24:BA:1317:A:C2'	24:BA:1318:C:H5'	2.40	0.52
24:BA:1514:U:H2'	24:BA:1515:C:H6	1.75	0.52
24:BA:1930:G:N2	24:BA:1969:A:OP2	2.40	0.52
24:BA:2115:G:H4'	24:BA:2166:G:O2'	2.09	0.52
25:BB:15:A:H1'	25:BB:109:G:N9	2.25	0.52
26:BD:76:PRO:HG2	26:BD:98:VAL:HG21	1.91	0.52
27:BE:178:GLU:OE2	27:BE:178:GLU:N	2.31	0.52
34:BO:13:ASN:C	34:BO:15:ARG:N	2.63	0.52
37:BQ:110:LEU:HD11	37:BQ:112:PHE:HD2	1.68	0.52
41:BS:20:VAL:CG2	41:BS:47:VAL:HG21	2.39	0.52
53:B8:43:GLN:O	53:B8:44:LYS:HD2	2.09	0.52
1:CA:128:G:H4'	17:CT:3:LYS:HG2	1.92	0.52
1:CA:256:U:H5"	17:CT:17:LYS:HZ1	1.75	0.52
1:CA:662:G:O2'	1:CA:836:G:OP1	2.28	0.52
1:CA:953:G:H5'	1:CA:965:A:H61	1.75	0.52
1:CA:1043:C:H2'	1:CA:1044:A:H8	1.74	0.52
1:CA:1068:G:N3	1:CA:1191:A:H2	2.07	0.52
1:CA:1114:C:O2'	14:CQ:60:SER:O	2.24	0.52
1:CA:1139:G:N2	1:CA:1143:G:H1	2.07	0.52
1:CA:1195:C:O2	1:CA:1197:G:H1'	2.10	0.52
1:CA:1290:G:O2'	1:CA:1291:G:H5'	2.07	0.52
1:CA:1292:U:H2'	1:CA:1293:G:C8	2.45	0.52
1:CA:1330:U:C4'	13:CP:23:TYR:HE1	2.08	0.52
3:CF:92:ALA:HB2	3:CF:99:VAL:HG13	1.91	0.52
3:CF:127:ARG:HD2	3:CF:127:ARG:N	2.25	0.52
11:CN:24:SER:O	11:CN:88:GLY:HA3	2.10	0.52
12:CO:20:LYS:HD2	12:CO:20:LYS:H	1.75	0.52
13:CP:3:ARG:HB2	49:D4:34:GLU:CD	2.29	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CP:67:GLU:HG3	13:CP:68:GLY:H	1.74	0.52
15:CR:17:ARG:NH1	15:CR:77:ARG:NH1	2.57	0.52
16:CS:7:ALA:O	16:CS:17:TYR:HA	2.10	0.52
19:CV:31:ILE:CD1	19:CV:33:THR:H	2.22	0.52
20:CW:37:SER:O	20:CW:41:ILE:HG13	2.09	0.52
24:DA:479:A:O2'	24:DA:481:G:H5'	2.09	0.52
24:DA:813:U:H2'	24:DA:814:C:H6	1.75	0.52
24:DA:1043:C:C2'	24:DA:1044:G:H5'	2.36	0.52
24:DA:1340:U:H4'	24:DA:1394:U:O2'	2.10	0.52
24:DA:1511:A:C5	24:DA:1512:G:C5	2.97	0.52
24:DA:1894:C:C2'	24:DA:1895:C:H5'	2.39	0.52
24:DA:2213:U:C4'	46:DZ:52:ARG:HH22	2.22	0.52
24:DA:2489:G:C2'	24:DA:2490:G:H5'	2.39	0.52
24:DA:2635:C:P	27:DE:77:ILE:CG2	2.97	0.52
24:DA:2859:G:O2'	24:DA:2860:A:H5'	2.10	0.52
26:DD:106:ILE:HD11	26:DD:196:VAL:CG1	2.40	0.52
27:DE:64:LYS:NZ	27:DE:66:HIS:HA	2.24	0.52
29:DG:117:PHE:C	29:DG:118:ARG:HE	2.13	0.52
30:DH:4:ILE:HD11	30:DH:6:ARG:HB2	1.91	0.52
34:DO:96:THR:O	34:DO:100:LEU:CD2	2.58	0.52
34:DO:108:LYS:O	34:DO:110:TYR:N	2.43	0.52
41:DS:113:LYS:NZ	41:DS:113:LYS:N	2.58	0.52
44:DV:158:PRO:O	44:DV:161:VAL:N	2.42	0.52
49:D4:40:HIS:N	49:D4:41:PRO:CD	2.73	0.52
49:D4:48:ARG:NH1	49:D4:51:ASP:HB3	2.24	0.52
51:D6:15:GLU:OE2	51:D6:41:PRO:HG3	2.10	0.52
1:AA:45:U:O2'	1:AA:46:G:H5'	2.10	0.52
1:AA:450:G:C5'	16:AS:43:LYS:HZ2	2.23	0.52
1:AA:1002:G:C6	1:AA:1003:G:C6	2.97	0.52
1:AA:1057:G:H4'	3:AF:197:GLY:H	1.75	0.52
1:AA:1206:G:O4'	3:AF:194:GLY:N	2.43	0.52
1:AA:1381:U:C2	7:AJ:79:ARG:CZ	2.89	0.52
1:AA:1448:C:N3	1:AA:1455:G:N1	2.45	0.52
4:AG:92:VAL:O	4:AG:96:LEU:CD2	2.58	0.52
6:AI:68:PRO:HG2	6:AI:71:ARG:HE	1.75	0.52
8:AK:68:ARG:HG3	8:AK:68:ARG:O	2.10	0.52
10:AM:51:ARG:NH2	10:AM:61:GLU:HB2	2.25	0.52
24:BA:304:G:C4	24:BA:314:A:C2	2.98	0.52
24:BA:523:C:H2'	24:BA:524:U:H5'	1.92	0.52
24:BA:654(M):C:H3'	24:BA:654(N):G:H8	1.75	0.52
24:BA:958:U:O2	25:BB:89(A):A:O2'	2.27	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1171:G:C2'	24:BA:1174:A:H61	2.23	0.52
24:BA:1175:U:C1'	24:BA:1176:G:H1'	2.40	0.52
24:BA:1680:U:C2'	24:BA:1681:G:H5'	2.39	0.52
24:BA:2001:A:H4'	24:BA:2689:U:O2'	2.10	0.52
24:BA:2119:A:N6	24:BA:2170:A:N6	2.58	0.52
24:BA:2716:U:O2'	24:BA:2717:G:H5'	2.10	0.52
25:BB:95:U:C2	25:BB:96:G:C8	2.97	0.52
26:BD:12:SER:O	26:BD:16:MET:HB2	2.10	0.52
26:BD:183:ARG:HH11	26:BD:183:ARG:HG2	1.75	0.52
33:BN:75:SER:OG	38:BR:74:ARG:NH1	2.42	0.52
37:BQ:88:ASP:O	37:BQ:89:ARG:HB3	2.09	0.52
45:B3:23:VAL:HB	45:B3:26:TYR:HE1	1.74	0.52
1:CA:186(B):C:C4'	20:CW:89:ARG:NH2	2.73	0.52
1:CA:250:A:C1'	1:CA:251:G:P	2.98	0.52
1:CA:345:C:OP2	38:DR:39:ARG:NH1	2.43	0.52
1:CA:598:U:H4'	8:CK:94:TYR:CD2	2.45	0.52
1:CA:782:A:OP1	1:CA:1521:G:N2	2.32	0.52
1:CA:1147:C:C4	1:CA:1148:U:C4	2.98	0.52
1:CA:1172:C:C3'	7:CJ:5:ARG:HH22	2.22	0.52
1:CA:1396:A:C2	5:CH:19:MET:HG2	2.45	0.52
2:CE:95:GLN:HG3	2:CE:147:LYS:HZ2	1.74	0.52
2:CE:164:VAL:HB	2:CE:186:ALA:CB	2.40	0.52
8:CK:86:ILE:HG13	8:CK:133:LEU:HD21	1.90	0.52
8:CK:133:LEU:HD23	8:CK:133:LEU:C	2.30	0.52
11:CN:42:TRP:CZ3	11:CN:47:VAL:HG21	2.44	0.52
19:CV:50:ALA:HA	19:CV:58:VAL:O	2.10	0.52
24:DA:150:C:H2'	24:DA:151:C:C6	2.45	0.52
24:DA:270(G):C:H2'	24:DA:270(H):C:C6	2.44	0.52
24:DA:1845:G:O2'	24:DA:1846:G:H5'	2.09	0.52
24:DA:1992:G:H1'	24:DA:1993:U:OP2	2.09	0.52
24:DA:2402:C:H4'	24:DA:2402:C:OP1	2.09	0.52
24:DA:2748:A:C2	24:DA:2757:A:C5	2.98	0.52
24:DA:2784:C:O2	27:DE:37:ARG:NH2	2.43	0.52
24:DA:2877:G:P	38:DR:2:ASN:ND2	2.74	0.52
27:DE:8:LYS:O	27:DE:10:GLY:N	2.42	0.52
29:DG:2:PRO:O	29:DG:5:VAL:HG23	2.09	0.52
29:DG:53:LEU:O	29:DG:53:LEU:HG	2.08	0.52
30:DH:40:GLU:O	30:DH:41:MET:HB2	2.09	0.52
30:DH:54:ARG:HB2	30:DH:55:PRO:HD2	1.90	0.52
32:DM:46:VAL:O	32:DM:47:ALA:HB3	2.08	0.52
35:DP:63:LYS:HE3	35:DP:65:PHE:CE1	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DR:5:ALA:O	38:DR:8:LYS:HG2	2.10	0.52
43:DU:75:ILE:HD12	43:DU:76:CYS:CA	2.40	0.52
44:DV:11:GLU:HG2	44:DV:12:GLY:N	2.24	0.52
44:DV:76:LEU:CD2	44:DV:76:LEU:H	2.23	0.52
47:DW:51:ARG:HA	47:DW:54:LYS:HE3	1.91	0.52
48:DX:23:LEU:CD2	48:DX:50:VAL:HG11	2.40	0.52
49:D4:42:PHE:O	49:D4:44:THR:N	2.40	0.52
1:AA:336:C:C2'	1:AA:337:C:H5'	2.40	0.52
1:AA:619:U:N3	4:AG:135:LEU:HD13	2.23	0.52
1:AA:1191:A:OP2	3:AF:3:ASN:ND2	2.43	0.52
1:AA:1212:U:H5"	1:AA:1213:A:P	2.50	0.52
1:AA:1423:G:P	33:BN:49:ARG:HH12	2.32	0.52
1:AA:1432:G:OP1	38:BR:107:ASP:HB2	2.09	0.52
6:AI:87:ARG:HG3	6:AI:87:ARG:NH1	2.23	0.52
24:BA:847:U:C5	24:BA:933:A:N1	2.78	0.52
24:BA:1009:A:OP2	32:BM:37:LYS:NZ	2.42	0.52
24:BA:1100:C:H2'	24:BA:1101:U:C6	2.44	0.52
24:BA:1471:A:C2	24:BA:1472:A:C4	2.98	0.52
24:BA:1529:A:C8	24:BA:1530:G:C8	2.97	0.52
24:BA:1814:G:H4'	26:BD:51:VAL:HG21	1.91	0.52
24:BA:2557:G:H2'	24:BA:2558:C:C6	2.45	0.52
30:BH:154:PRO:C	30:BH:156:ALA:H	1.99	0.52
33:BN:64:ARG:HD3	33:BN:79:PHE:CD2	2.45	0.52
43:BU:49:VAL:O	43:BU:51:VAL:HG12	2.09	0.52
47:BW:38:GLN:HB3	47:BW:44:LEU:O	2.10	0.52
53:B8:7:HIS:CD2	53:B8:59:LYS:HD2	2.45	0.52
1:CA:560:U:HO2'	1:CA:561:U:P	2.23	0.52
1:CA:582:U:OP1	15:CR:68:ARG:NH2	2.43	0.52
1:CA:918:A:H2'	1:CA:919:A:O4'	2.10	0.52
1:CA:1027:C:H3'	1:CA:1028:C:C5'	2.35	0.52
1:CA:1104:G:C2	1:CA:1105:A:C4	2.98	0.52
1:CA:1152:A:H4'	10:CM:13:HIS:CD2	2.45	0.52
1:CA:1220:G:C5'	19:CV:37:ARG:HH12	2.01	0.52
1:CA:1269:A:HO2'	1:CA:1325:C:HO2'	1.57	0.52
1:CA:1314:C:O2'	1:CA:1315:U:H5'	2.09	0.52
3:CF:163:ALA:O	3:CF:164:ARG:HB2	2.10	0.52
5:CH:15:ARG:HG2	5:CH:15:ARG:O	2.09	0.52
5:CH:102:ALA:CB	5:CH:120:THR:OG1	2.57	0.52
6:CI:5:GLU:HG2	6:CI:64:GLN:HE22	1.74	0.52
8:CK:86:ILE:HG21	8:CK:133:LEU:HD13	1.92	0.52
9:CL:28:VAL:HG12	9:CL:29:ASN:N	2.23	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CP:14:ARG:HD2	13:CP:42:ALA:HA	1.92	0.52
16:CS:40:ASP:HB3	16:CS:48:TRP:HB3	1.90	0.52
20:CW:53:LEU:HD12	20:CW:100:ILE:O	2.09	0.52
24:DA:141:A:C8	24:DA:1408:C:H1'	2.45	0.52
24:DA:582:G:H2'	24:DA:583:G:C8	2.45	0.52
24:DA:625:G:O6	34:DO:107:LYS:HE2	2.10	0.52
24:DA:887:A:H2'	24:DA:887:A:N3	2.24	0.52
24:DA:978:G:C2	24:DA:986:C:N3	2.78	0.52
24:DA:1062:G:H2'	24:DA:1063:G:C8	2.44	0.52
24:DA:1171:G:C1'	24:DA:1173:G:OP1	2.58	0.52
24:DA:1233:C:H2'	24:DA:1234:U:H6	1.74	0.52
24:DA:1448:G:N2	24:DA:1463:C:O2	2.43	0.52
24:DA:1864:U:H5"	24:DA:2410:G:O2'	2.10	0.52
24:DA:2232:U:OP2	46:DZ:40:ARG:NH1	2.36	0.52
24:DA:2302:G:O2'	24:DA:2303:G:H5'	2.10	0.52
24:DA:2401:U:O2	24:DA:2402:C:C5	2.63	0.52
24:DA:2653:U:O2'	30:DH:110:SER:HB2	2.10	0.52
24:DA:2854:G:C2	24:DA:2864:G:C2	2.97	0.52
24:DA:2870:C:H2'	24:DA:2871:C:O4'	2.10	0.52
26:DD:39:LYS:NZ	26:DD:87:ASN:HB3	2.24	0.52
29:DG:75:LYS:O	29:DG:76:SER:HB2	2.08	0.52
32:DM:2:LYS:HG2	32:DM:2:LYS:O	2.09	0.52
35:DP:23:GLY:CA	35:DP:25:ASP:HB2	2.40	0.52
38:DR:56:GLY:O	38:DR:59:THR:HG23	2.10	0.52
51:D6:15:GLU:HB2	51:D6:47:THR:CG2	2.40	0.52
1:AA:129:U:O2'	1:AA:130:A:H2'	2.10	0.52
1:AA:359:U:H2'	1:AA:360:A:C8	2.44	0.52
1:AA:639:G:H2'	1:AA:640:A:C8	2.45	0.52
1:AA:728:A:C6	15:AR:54:ARG:HD2	2.45	0.52
1:AA:1092:A:C6	1:AA:1183:A:C2	2.98	0.52
1:AA:1123:A:O3'	10:AM:36:GLY:HA3	2.09	0.52
2:AE:17:PHE:HB2	2:AE:42:ILE:HG23	1.92	0.52
2:AE:163:PHE:CE1	2:AE:185:ILE:HG12	2.44	0.52
2:AE:223:ILE:C	2:AE:225:ALA:H	2.13	0.52
3:AF:89:GLU:O	3:AF:93:LYS:HB2	2.10	0.52
5:AH:73:ASN:ND2	5:AH:73:ASN:O	2.43	0.52
7:AJ:70:LYS:HG3	7:AJ:96:GLN:HB3	1.92	0.52
12:AO:54:LYS:N	12:AO:54:LYS:HD2	2.25	0.52
12:AO:93:LEU:O	12:AO:96:VAL:CG1	2.57	0.52
14:AQ:25:VAL:HG13	14:AQ:38:GLY:O	2.10	0.52
22:AC:19:G:C2	22:AC:57:A:N3	2.78	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:602:G:H2'	24:BA:655:A:N6	2.25	0.52
24:BA:613:U:O2	24:BA:613:U:O4'	2.28	0.52
24:BA:748:G:C8	41:BS:89:ALA:HB1	2.45	0.52
24:BA:800:A:OP1	24:BA:800:A:H8	1.93	0.52
24:BA:956:G:OP1	35:BP:88:GLY:N	2.42	0.52
24:BA:979:G:H3'	24:BA:980:A:H5"	1.91	0.52
24:BA:989:G:N7	48:BX:13:ILE:CD1	2.73	0.52
24:BA:1050:A:C6	24:BA:2751:G:O6	2.63	0.52
24:BA:1055:G:H1'	24:BA:1085:A:H61	1.74	0.52
24:BA:1288:U:C2	24:BA:1327:C:O2	2.63	0.52
24:BA:2287:A:C2	24:BA:2346:A:N1	2.77	0.52
24:BA:2371:G:H4'	51:B6:45:LYS:HD2	1.89	0.52
24:BA:2371:G:C4'	51:B6:45:LYS:HG3	2.29	0.52
24:BA:2371:G:C5'	51:B6:45:LYS:HD2	2.39	0.52
26:BD:34:VAL:O	26:BD:34:VAL:CG1	2.57	0.52
26:BD:70:TRP:CZ2	26:BD:150:LYS:HA	2.45	0.52
27:BE:116:VAL:O	27:BE:117:MET:HB3	2.10	0.52
29:BG:13:GLU:O	29:BG:13:GLU:HG3	2.10	0.52
30:BH:88:LEU:HD12	30:BH:88:LEU:C	2.30	0.52
33:BN:12:ASP:CG	33:BN:14:THR:HG23	2.30	0.52
34:BO:21:ARG:HA	34:BO:21:ARG:NE	2.16	0.52
39:B1:92:ARG:HD2	40:B2:11:GLN:CB	2.34	0.52
40:B2:35:LEU:CD2	40:B2:35:LEU:O	2.49	0.52
43:BU:3:VAL:HG12	43:BU:5:MET:HE2	1.91	0.52
44:BV:72:ARG:NH2	44:BV:97:GLU:O	2.43	0.52
46:BZ:71:TYR:HA	46:BZ:74:VAL:HG12	1.92	0.52
1:CA:392:G:H5'	16:CS:12:LYS:HZ1	1.75	0.52
1:CA:533:A:O2'	1:CA:534:U:H5'	2.10	0.52
1:CA:1072:G:O6	1:CA:1102:A:N6	2.43	0.52
1:CA:1443:G:H22	38:DR:119:LYS:HG3	1.73	0.52
2:CE:212:GLN:NE2	2:CE:235:SER:HA	2.25	0.52
3:CF:56:ASP:OD1	3:CF:57:ILE:N	2.42	0.52
15:CR:5:LYS:O	15:CR:9:GLN:HG2	2.10	0.52
18:CU:26:LEU:CD1	18:CU:29:PHE:CD1	2.93	0.52
19:CV:15:LEU:O	19:CV:19:VAL:HG23	2.10	0.52
21:CX:10:ARG:HA	21:CX:13:ILE:HG22	1.92	0.52
24:DA:270(N):G:H1'	24:DA:270(P):C:O4'	2.09	0.52
24:DA:530:G:C6	24:DA:2022:U:H5"	2.44	0.52
24:DA:686:G:OP1	52:D7:11:LYS:HE3	2.10	0.52
24:DA:714:U:O2	24:DA:716:A:C8	2.63	0.52
24:DA:1519:G:O2'	24:DA:1520:U:H5'	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1782:C:H1'	24:DA:2609:U:H5"	1.91	0.52
24:DA:2584:U:H6	24:DA:2585:U:C5	2.25	0.52
24:DA:2749:A:C6	24:DA:2750:A:N6	2.78	0.52
24:DA:2788:C:C5'	27:DE:61:ARG:HH12	2.22	0.52
25:DB:45:A:C2'	25:DB:46:A:H5'	2.40	0.52
26:DD:35:LYS:HA	26:DD:64:ILE:HG22	1.91	0.52
26:DD:118:VAL:HG22	26:DD:119:ALA:N	2.23	0.52
26:DD:132:PRO:HD3	26:DD:190:TYR:CZ	2.45	0.52
27:DE:101:ARG:HA	27:DE:170:LEU:O	2.09	0.52
28:DF:132:VAL:CG2	28:DF:133:ASN:N	2.59	0.52
31:DK:58:LEU:HD23	31:DK:58:LEU:C	2.29	0.52
32:DM:28:THR:CG2	32:DM:29:LYS:N	2.72	0.52
33:DN:2:ILE:CD1	33:DN:8:LEU:HD11	2.40	0.52
35:DP:4:PRO:CG	35:DP:71:ASP:HA	2.40	0.52
40:D2:37:VAL:HG21	40:D2:57:VAL:CG1	2.40	0.52
47:DW:23:LYS:NZ	47:DW:27:GLU:OE2	2.40	0.52
47:DW:32:LEU:O	47:DW:35:LEU:HB2	2.10	0.52
1:AA:95:G:C6	1:AA:96:G:C6	2.98	0.51
1:AA:160:A:H2'	1:AA:161:A:O4'	2.10	0.51
1:AA:376:G:H5"	16:AS:5:ARG:HD2	1.92	0.51
1:AA:606:G:N2	1:AA:631:G:N7	2.58	0.51
1:AA:754:C:O2	1:AA:754:C:H2'	2.09	0.51
1:AA:756:C:O2'	8:AK:1:MET:HE1	2.09	0.51
1:AA:872:A:C5	1:AA:874:G:C8	2.98	0.51
1:AA:1141:C:H2'	1:AA:1142:G:C8	2.45	0.51
1:AA:1198:G:O2'	10:AM:55:LYS:HD2	2.11	0.51
3:AF:7:PRO:O	3:AF:11:ARG:HG2	2.09	0.51
3:AF:8:ILE:CD1	3:AF:16:ARG:CG	2.76	0.51
4:AG:8:VAL:O	4:AG:21:LEU:HD21	2.10	0.51
4:AG:46:LYS:HD3	4:AG:46:LYS:N	2.25	0.51
13:AP:49:THR:HB	13:AP:52:GLU:CG	2.39	0.51
16:AS:15:PRO:O	16:AS:16:HIS:ND1	2.43	0.51
24:BA:658:C:H2'	24:BA:659:C:H6	1.74	0.51
24:BA:774:A:H2	24:BA:787:U:O2'	1.79	0.51
24:BA:1266:G:O2'	24:BA:2012:G:O6	2.18	0.51
24:BA:1315:C:H2'	24:BA:1316:U:H6	1.74	0.51
24:BA:1392:A:C6	24:BA:1393:A:N1	2.78	0.51
24:BA:1430:C:H2'	24:BA:1431:U:C6	2.45	0.51
24:BA:1639:U:H4'	24:BA:2699:C:H4'	1.91	0.51
24:BA:2422:A:N7	53:B8:31:HIS:CE1	2.75	0.51
24:BA:2502:G:C5'	24:BA:2503:A:C5'	2.86	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2853:C:H2'	24:BA:2854:G:H8	1.74	0.51
26:BD:27:THR:OG1	26:BD:83:GLU:HA	2.10	0.51
30:BH:153:LYS:HB2	30:BH:154:PRO:HD3	1.91	0.51
35:BP:136:ALA:HB1	44:BV:52:SER:CB	2.38	0.51
42:BT:15:GLU:CD	42:BT:15:GLU:H	2.12	0.51
43:BU:34:LYS:HG2	43:BU:34:LYS:O	2.10	0.51
44:BV:155:LEU:HB2	44:BV:157:LEU:HD12	1.91	0.51
53:B8:17:THR:HG23	53:B8:23:VAL:HG23	1.92	0.51
1:CA:57:G:C5	1:CA:58:C:C4	2.98	0.51
1:CA:1074:G:H4'	2:CE:103:THR:HG22	1.91	0.51
1:CA:1288:A:C4'	21:CX:13:ILE:HD11	2.40	0.51
2:CE:92:TYR:N	2:CE:151:GLY:O	2.37	0.51
2:CE:223:ILE:O	2:CE:226:ARG:N	2.43	0.51
3:CF:84:ILE:HG23	3:CF:85:ARG:CD	2.35	0.51
7:CJ:46:ALA:O	7:CJ:50:ILE:HG12	2.10	0.51
9:CL:102:LEU:HD12	9:CL:102:LEU:N	2.23	0.51
16:CS:48:TRP:O	16:CS:48:TRP:HE3	1.93	0.51
18:CU:41:LYS:HD3	18:CU:41:LYS:C	2.30	0.51
24:DA:498:G:H21	43:DU:47:LYS:NZ	2.07	0.51
24:DA:1093:G:N2	24:DA:1097:U:OP2	2.43	0.51
24:DA:1171:G:H1'	24:DA:1173:G:O5'	2.10	0.51
24:DA:1193:G:O2'	24:DA:1194:A:H5'	2.10	0.51
24:DA:1291:C:H2'	24:DA:1292:U:H6	1.75	0.51
24:DA:1348:G:H2'	24:DA:1349:A:C5'	2.40	0.51
24:DA:1543:A:H1'	24:DA:1545:A:C1'	2.40	0.51
24:DA:1791:A:H5'	26:DD:206:LEU:HD12	1.92	0.51
24:DA:1991:U:C2'	24:DA:1992:G:H5"	2.39	0.51
24:DA:2489:G:H2'	24:DA:2490:G:H5'	1.91	0.51
24:DA:2688:U:H5	24:DA:2720:U:OP2	1.92	0.51
24:DA:2751:G:H5'	24:DA:2752:C:P	2.49	0.51
26:DD:145:VAL:HG12	26:DD:146:GLU:O	2.10	0.51
26:DD:155:LEU:HD12	26:DD:155:LEU:N	2.24	0.51
29:DG:49:ASP:OD1	29:DG:50:ALA:N	2.43	0.51
29:DG:101:ILE:HD12	29:DG:102:PHE:N	2.25	0.51
30:DH:16:SER:O	30:DH:17:VAL:HB	2.10	0.51
34:DO:106:LEU:O	34:DO:107:LYS:CB	2.58	0.51
44:DV:144:LEU:HD23	44:DV:149:SER:H	1.74	0.51
50:D5:3:LYS:O	50:D5:4:HIS:C	2.47	0.51
53:D8:32:LEU:HD12	53:D8:34:TRP:N	2.24	0.51
1:AA:76:G:N3	1:AA:95:G:N2	2.58	0.51
1:AA:319:G:O2'	1:AA:320:C:H5'	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:509:A:C5’	4:AG:55:ALA:HB2	2.40	0.51
1:AA:617:G:N1	1:AA:618:C:C5	2.79	0.51
1:AA:684:A:H5”	11:AN:11:LYS:HZ2	1.75	0.51
1:AA:769:G:H4’	1:AA:1513:A:H4’	1.90	0.51
6:AI:64:GLN:HE21	6:AI:64:GLN:C	2.12	0.51
9:AL:46:ALA:O	9:AL:78:LYS:NZ	2.43	0.51
19:AV:28:LYS:HD2	19:AV:29:ARG:N	2.25	0.51
20:AW:14:LYS:O	20:AW:15:ARG:C	2.49	0.51
24:BA:234:C:H2’	24:BA:235:U:O4’	2.10	0.51
24:BA:274:G:OP1	24:BA:274:G:C8	2.64	0.51
24:BA:296:C:O2’	24:BA:297:C:H5’	2.10	0.51
24:BA:452:G:N3	24:BA:457:A:H2	2.08	0.51
24:BA:619:G:H5”	24:BA:620:G:OP2	2.11	0.51
24:BA:1416:G:HO2’	24:BA:1417:C:H6	1.56	0.51
24:BA:2011:U:H2’	24:BA:2012:G:H5’	1.90	0.51
24:BA:2400:G:C5’	51:B6:19:ARG:HE	2.21	0.51
24:BA:2756:U:H4’	24:BA:2757:A:OP1	2.08	0.51
25:BB:15:A:H3’	25:BB:16:G:H5’	1.91	0.51
25:BB:117:G:C3’	25:BB:118:G:H5”	2.39	0.51
26:BD:18:VAL:HG12	26:BD:19:ALA:O	2.11	0.51
27:BE:78:LEU:HD23	27:BE:78:LEU:C	2.31	0.51
29:BG:16:ARG:NH2	29:BG:31:VAL:CG1	2.73	0.51
29:BG:76:SER:HG	29:BG:84:LYS:H	1.55	0.51
29:BG:110:ALA:C	29:BG:112:PRO:HD2	2.30	0.51
29:BG:149:VAL:HG23	29:BG:149:VAL:O	2.10	0.51
31:BK:61:ARG:HA	31:BK:61:ARG:NE	2.25	0.51
31:BK:114:LEU:HG	31:BK:114:LEU:O	2.10	0.51
35:BP:109:VAL:HG13	35:BP:113:GLN:OE1	2.10	0.51
1:CA:105:G:C6	1:CA:106:C:C4	2.98	0.51
1:CA:1023:G:H2’	1:CA:1024:G:OP1	2.10	0.51
1:CA:1079:G:C6	1:CA:1080:A:N6	2.78	0.51
1:CA:1117:G:O3’	9:CL:104:ARG:NE	2.43	0.51
1:CA:1139:G:H22	1:CA:1143:G:N2	2.06	0.51
1:CA:1151:A:H2’	1:CA:1152:A:C8	2.45	0.51
4:CG:101:LEU:O	4:CG:103:ASN:N	2.43	0.51
4:CG:178:VAL:CG1	4:CG:179:GLU:H	2.16	0.51
10:CM:27:ALA:O	10:CM:84:GLN:NE2	2.42	0.51
14:CQ:6:LEU:CD2	14:CQ:23:ARG:NH2	2.74	0.51
18:CU:63:GLN:OE1	18:CU:66:LEU:HD23	2.10	0.51
24:DA:724:U:H2’	24:DA:725:G:O4’	2.10	0.51
24:DA:976:C:H5’	24:DA:1156:A:N6	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1146:C:H2'	24:DA:1147:C:H5'	1.93	0.51
24:DA:1231:G:H2'	24:DA:1232:G:H8	1.75	0.51
24:DA:1454:U:H5'	36:D0:63:ARG:NE	2.25	0.51
24:DA:1932:A:C2'	24:DA:1933:G:H5'	2.40	0.51
24:DA:2281:C:C2'	24:DA:2282:G:H5'	2.41	0.51
24:DA:2291:U:OP1	24:DA:2381:C:H5'	2.10	0.51
24:DA:2364:C:H2'	24:DA:2365:G:O4'	2.10	0.51
24:DA:2696:U:H2'	24:DA:2697:G:C8	2.45	0.51
24:DA:2752:C:H2'	24:DA:2753:A:H5'	1.92	0.51
24:DA:2809:A:H62	24:DA:2891:G:H2'	1.75	0.51
24:DA:2832:U:H5"	24:DA:2833:G:C8	2.45	0.51
27:DE:72:VAL:O	27:DE:73:GLU:C	2.48	0.51
28:DF:7:TYR:HD1	28:DF:18:ARG:N	2.09	0.51
31:DK:75:LEU:HD12	31:DK:76:THR:N	2.25	0.51
31:DK:120:ILE:HG21	31:DK:126:TYR:CE2	2.44	0.51
32:DM:130:HIS:HB2	32:DM:134:ARG:NH1	2.26	0.51
35:DP:78:PRO:O	35:DP:79:LEU:CB	2.54	0.51
44:DV:3:TYR:HE2	44:DV:55:HIS:HB3	1.74	0.51
44:DV:8:TYR:N	44:DV:8:TYR:HD1	2.08	0.51
44:DV:118:GLN:O	44:DV:120:ILE:N	2.43	0.51
44:DV:150:LEU:CD2	44:DV:154:ASP:HB3	2.41	0.51
44:DV:151:HIS:HA	44:DV:170:THR:C	2.30	0.51
50:D5:6:VAL:HG22	50:D5:7:PRO:CD	2.40	0.51
1:AA:218:C:O2'	1:AA:219:C:H5'	2.11	0.51
1:AA:652:U:O2'	1:AA:653:A:H5"	2.11	0.51
1:AA:1203:C:C2'	1:AA:1204:A:H5'	2.40	0.51
1:AA:1404:C:O5'	1:AA:1404:C:H6	1.93	0.51
2:AE:42:ILE:HD12	2:AE:43:ASP:N	2.25	0.51
2:AE:176:GLU:HG2	2:AE:177:ALA:H	1.75	0.51
5:AH:12:LEU:C	5:AH:12:LEU:HD13	2.31	0.51
18:AU:53:ARG:HE	18:AU:59:SER:C	2.14	0.51
19:AV:41:VAL:CG2	19:AV:42:PRO:HA	2.40	0.51
20:AW:42:GLN:O	20:AW:46:GLU:HG2	2.10	0.51
24:BA:654(A):A:C2	24:BA:654(T):A:N1	2.79	0.51
24:BA:960:A:H61	35:BP:83:MET:HE1	1.75	0.51
24:BA:1263:U:H1'	50:B5:10:LYS:HG3	1.91	0.51
24:BA:1729:A:C8	24:BA:1730:U:C5	2.97	0.51
24:BA:1902:C:N3	24:BA:1903:G:H1'	2.26	0.51
24:BA:2850:A:H2'	24:BA:2851:A:C8	2.46	0.51
26:BD:30:GLU:HG3	26:BD:63:ARG:NE	2.26	0.51
26:BD:35:LYS:HA	26:BD:64:ILE:CG2	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BE:84:PHE:CZ	27:BE:86:PRO:HG3	2.45	0.51
27:BE:102:VAL:HG12	27:BE:200:GLU:HA	1.91	0.51
30:BH:80:SER:O	30:BH:81:GLU:CG	2.54	0.51
33:BN:22:ILE:HG22	33:BN:40:VAL:HB	1.91	0.51
33:BN:120:GLU:CG	33:BN:122:LEU:HD11	2.37	0.51
37:BQ:110:LEU:O	37:BQ:111:GLU:CB	2.58	0.51
39:B1:76:TYR:C	39:B1:76:TYR:CD1	2.83	0.51
44:BV:84:GLU:O	44:BV:85:HIS:HB2	2.10	0.51
1:CA:187:C:O2	1:CA:191(A):G:N1	2.43	0.51
1:CA:367:U:C6	1:CA:394:G:N2	2.78	0.51
1:CA:650:G:O2'	1:CA:651:C:H5'	2.11	0.51
1:CA:979:C:H42	14:CQ:18:VAL:CG1	2.04	0.51
1:CA:1025:U:HO2'	1:CA:1026:G:H8	1.55	0.51
1:CA:1508:G:O2'	1:CA:1509:C:H5'	2.10	0.51
5:CH:43:LEU:CD1	5:CH:136:MET:HG3	2.31	0.51
6:CI:61:LEU:HD23	6:CI:63:TYR:OH	2.10	0.51
8:CK:119:LEU:CG	8:CK:123:GLU:HG3	2.35	0.51
14:CQ:7:ILE:HG21	14:CQ:28:GLY:HA2	1.92	0.51
16:CS:52:ASP:CG	16:CS:55:ARG:HG3	2.31	0.51
24:DA:328:U:C4'	43:DU:68:HIS:CE1	2.90	0.51
24:DA:1056:G:O2'	24:DA:1086:A:O2'	2.18	0.51
24:DA:1198:U:H2'	24:DA:1199:U:C6	2.46	0.51
24:DA:1231:G:H2'	24:DA:1232:G:C8	2.45	0.51
24:DA:2107:C:O2'	24:DA:2108:C:OP1	2.23	0.51
24:DA:2489:G:N7	24:DA:2490:G:C6	2.78	0.51
24:DA:2688:U:H1'	24:DA:2721:A:N6	2.25	0.51
25:DB:75:G:N2	44:DV:87:ASP:OD1	2.44	0.51
27:DE:64:LYS:HD3	27:DE:73:GLU:OE2	2.10	0.51
27:DE:137:HIS:HB3	27:DE:138:PRO:CD	2.40	0.51
29:DG:140:ILE:HG12	29:DG:141:PHE:H	1.76	0.51
30:DH:6:ARG:HH12	30:DH:62:LYS:CA	2.22	0.51
31:DK:128:LEU:O	31:DK:137:PRO:HA	2.10	0.51
36:D0:63:ARG:HH22	36:D0:77:ARG:HG2	1.74	0.51
37:DQ:110:LEU:CD1	37:DQ:111:GLU:N	2.72	0.51
39:D1:74:LEU:HD12	39:D1:74:LEU:O	2.11	0.51
40:D2:18:LEU:HD13	40:D2:19:LYS:N	2.26	0.51
40:D2:40:LEU:HD23	40:D2:41:GLY:O	2.09	0.51
44:DV:44:PHE:CE1	44:DV:48:PHE:HB2	2.45	0.51
44:DV:175:VAL:O	44:DV:177:PRO:HD3	2.11	0.51
45:D3:27:GLU:N	45:D3:69:PHE:HE2	2.08	0.51
1:AA:49:U:H3	1:AA:362:G:H1'	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:381:C:H2'	1:AA:382:A:O4'	2.11	0.51
1:AA:1119:C:O2'	1:AA:1120:G:H5'	2.11	0.51
1:AA:1227:A:H5'	13:AP:111:LYS:CE	2.41	0.51
1:AA:1288:A:H2'	1:AA:1289:A:C8	2.46	0.51
2:AE:102:LEU:HD12	2:AE:102:LEU:N	2.24	0.51
4:AG:61:LYS:HD3	4:AG:61:LYS:C	2.31	0.51
5:AH:144:THR:HG23	5:AH:147:ASP:H	1.76	0.51
6:AI:75:LEU:HD23	6:AI:79:LEU:HG	1.91	0.51
6:AI:86:ARG:O	6:AI:87:ARG:HB2	2.10	0.51
8:AK:29:SER:HB3	8:AK:32:LYS:HB3	1.92	0.51
9:AL:128:ARG:CZ	9:AL:128:ARG:HB2	2.41	0.51
10:AM:35:SER:HB2	10:AM:73:ASP:HB2	1.91	0.51
10:AM:83:GLU:HG2	10:AM:87:THR:CG2	2.39	0.51
12:AO:53:ARG:HG3	12:AO:93:LEU:HD21	1.93	0.51
17:AT:53:LEU:HD12	17:AT:53:LEU:N	2.25	0.51
18:AU:18:ARG:CG	18:AU:19:LYS:N	2.66	0.51
18:AU:60:ALA:O	18:AU:64:ARG:HG3	2.10	0.51
19:AV:15:LEU:O	19:AV:19:VAL:N	2.42	0.51
24:BA:34:C:O2'	24:BA:35:G:OP2	2.28	0.51
24:BA:947:G:N3	24:BA:984:A:H2	2.08	0.51
24:BA:1026:U:C1'	24:BA:1027:A:P	2.98	0.51
24:BA:1095:A:H3'	24:BA:1095:A:N3	2.26	0.51
24:BA:1175:U:H1'	24:BA:1176:G:C1'	2.40	0.51
24:BA:1205:U:H4'	24:BA:1206:G:OP2	2.10	0.51
24:BA:1535:U:H5"	24:BA:1537:C:N3	2.26	0.51
26:BD:94:LEU:HD22	26:BD:95:LEU:N	2.25	0.51
29:BG:78:SER:O	29:BG:80:PHE:N	2.44	0.51
32:BM:30:ILE:HG23	32:BM:52:VAL:HG11	1.92	0.51
35:BP:140:ALA:O	35:BP:141:GLN:HB2	2.10	0.51
43:BU:94:LYS:CD	43:BU:101:LYS:HZ2	2.23	0.51
1:CA:134:A:N6	16:CS:25:ARG:NH1	2.59	0.51
1:CA:327:A:O2'	1:CA:328:C:O4'	2.25	0.51
1:CA:622:A:H2'	1:CA:623:C:H5'	1.91	0.51
1:CA:690:G:O2'	1:CA:691:G:H5'	2.10	0.51
1:CA:1080:A:OP1	5:CH:14:ARG:NH2	2.43	0.51
1:CA:1090:U:H2'	1:CA:1091:U:C6	2.45	0.51
1:CA:1104:G:H2'	1:CA:1105:A:H8	1.76	0.51
1:CA:1176:A:H2'	1:CA:1177:G:O4'	2.10	0.51
1:CA:1256:A:H5"	1:CA:1258:G:N3	2.24	0.51
1:CA:1388:C:H2'	1:CA:1389:C:H6	1.75	0.51
3:CF:150:LYS:HG3	3:CF:169:ALA:HB2	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CG:92:VAL:HG12	4:CG:96:LEU:CD2	2.40	0.51
5:CH:34:VAL:HA	5:CH:112:LEU:HD23	1.92	0.51
5:CH:76:ILE:HG12	5:CH:77:PRO:CD	2.38	0.51
9:CL:40:LEU:CD1	9:CL:74:ILE:HD11	2.40	0.51
10:CM:16:LEU:O	10:CM:20:ALA:HB3	2.10	0.51
16:CS:67:THR:HG22	16:CS:68:ASP:H	1.76	0.51
20:CW:56:MET:HE3	20:CW:88:VAL:HG21	1.89	0.51
24:DA:61:G:H5'	47:DW:50:ILE:HD12	1.92	0.51
24:DA:71:A:H3'	24:DA:71:A:P	2.50	0.51
24:DA:186:G:O2'	24:DA:187:G:H5'	2.10	0.51
24:DA:270(S):G:C1'	46:DZ:78:LYS:HG2	2.40	0.51
24:DA:309:G:N3	24:DA:329:G:O2'	2.40	0.51
24:DA:540:G:C4	24:DA:541:C:C5	2.98	0.51
24:DA:654(S):G:C4'	24:DA:654(T):A:OP1	2.58	0.51
24:DA:971:C:O2'	24:DA:972:G:H5'	2.10	0.51
24:DA:1024:G:C3'	24:DA:1025:G:H5"	2.33	0.51
24:DA:1637:A:H4'	24:DA:2711:A:O2'	2.11	0.51
24:DA:2113:U:H3'	24:DA:2114:A:C8	2.36	0.51
25:DB:90:C:OP2	35:DP:16:ARG:NH2	2.39	0.51
26:DD:32:SER:C	26:DD:35:LYS:O	2.49	0.51
31:DK:67:ARG:O	31:DK:71:ILE:HG22	2.11	0.51
31:DK:69:LYS:O	31:DK:73:GLU:HG3	2.10	0.51
31:DK:76:THR:HG23	31:DK:77:LEU:N	2.26	0.51
33:DN:10:VAL:HG21	33:DN:17:ARG:HA	1.93	0.51
37:DQ:58:LEU:N	37:DQ:58:LEU:HD23	2.26	0.51
40:D2:10:LYS:HG3	40:D2:12:TYR:OH	2.11	0.51
44:DV:76:LEU:H	44:DV:76:LEU:HD23	1.75	0.51
45:D3:21:LEU:HD21	45:D3:41:ARG:NH2	2.24	0.51
51:D6:34:LEU:HB3	51:D6:50:ARG:HD2	1.91	0.51
1:AA:66:G:H2'	1:AA:66:G:N3	2.25	0.51
1:AA:117:G:O6	1:AA:289:G:H1'	2.11	0.51
1:AA:266:G:C5'	1:AA:267:C:C5	2.91	0.51
1:AA:385:C:H2'	1:AA:386:C:C6	2.46	0.51
1:AA:956:U:O2	1:AA:1225:A:C2	2.64	0.51
1:AA:1000:A:H1'	24:DA:2136:C:O2'	2.09	0.51
1:AA:1016:A:H2'	1:AA:1017:G:O4'	2.11	0.51
1:AA:1123:A:H4'	10:AM:36:GLY:HA3	1.92	0.51
1:AA:1392:G:O2'	1:AA:1502:A:H5"	2.10	0.51
2:AE:28:PHE:HE1	2:AE:192:SER:O	1.93	0.51
4:AG:27:TYR:CD1	4:AG:27:TYR:O	2.63	0.51
4:AG:206:PHE:HD2	4:AG:207:TYR:CE1	2.28	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AJ:8:GLU:O	7:AJ:8:GLU:HG3	2.10	0.51
10:AM:6:ILE:HG12	10:AM:72:VAL:CG1	2.40	0.51
11:AN:44:SER:OG	11:AN:47:VAL:HG23	2.11	0.51
12:AO:53:ARG:HB2	12:AO:93:LEU:HD11	1.93	0.51
20:AW:14:LYS:O	20:AW:16:HIS:N	2.44	0.51
24:BA:1044:G:H4'	24:BA:1048:A:H1'	1.92	0.51
24:BA:1385:G:H1'	24:BA:1386:C:C5	2.46	0.51
24:BA:1470:G:N2	24:BA:1522:G:OP2	2.37	0.51
24:BA:1478:G:C8	24:BA:1510:A:N6	2.79	0.51
24:BA:1675:C:N3	27:BE:128:SER:OG	2.44	0.51
24:BA:1729:A:H8	24:BA:1730:U:C5	2.29	0.51
24:BA:2108:C:H2'	24:BA:2109:U:C5'	2.40	0.51
29:BG:82:LEU:N	29:BG:86:MET:HE3	2.26	0.51
30:BH:137:ASP:OD1	30:BH:138:LYS:N	2.41	0.51
32:BM:115:ARG:O	32:BM:118:LYS:HB3	2.11	0.51
35:BP:50:ALA:HB1	35:BP:121:ALA:HB1	1.92	0.51
35:BP:110:THR:OG1	35:BP:113:GLN:HB2	2.10	0.51
43:BU:29:GLU:HB3	43:BU:38:ILE:CG2	2.41	0.51
43:BU:97:ARG:N	43:BU:97:ARG:CD	2.68	0.51
47:BW:33:MET:O	47:BW:37:PHE:CD1	2.63	0.51
52:B7:43:THR:HG22	52:B7:44:PRO:O	2.09	0.51
1:CA:790:A:C6	1:CA:791:G:C6	2.99	0.51
1:CA:1104:G:C4	1:CA:1105:A:C8	2.99	0.51
1:CA:1125:U:OP2	1:CA:1145:C:N4	2.43	0.51
1:CA:1237:C:OP1	1:CA:1238:A:H1'	2.11	0.51
1:CA:1305:G:N2	1:CA:1331:G:H2'	2.26	0.51
1:CA:1498:U:C1'	1:CA:1499:A:OP2	2.58	0.51
2:CE:80:ILE:O	2:CE:84:GLU:HG2	2.10	0.51
2:CE:144:ARG:O	2:CE:147:LYS:CB	2.59	0.51
3:CF:15:THR:HG21	3:CF:181:ASN:HA	1.93	0.51
3:CF:148:GLY:HA3	3:CF:172:ARG:H	1.75	0.51
5:CH:101:ILE:O	5:CH:120:THR:OG1	2.29	0.51
12:CO:83:VAL:CG2	12:CO:100:ILE:HG23	2.41	0.51
12:CO:83:VAL:CG2	12:CO:84:LEU:H	2.20	0.51
24:DA:75:G:O2'	47:DW:55:ARG:NH1	2.44	0.51
24:DA:89:G:O5'	24:DA:90:U:H5"	2.11	0.51
24:DA:530:G:C5	24:DA:2022:U:H5"	2.45	0.51
24:DA:654(G):C:C3'	24:DA:654(H):G:H5"	2.40	0.51
24:DA:654(R):C:N4	24:DA:654(S):G:O6	2.44	0.51
24:DA:1047:G:O2'	24:DA:1110:G:N2	2.43	0.51
24:DA:1287:A:C5	24:DA:1288:U:C4	2.99	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1434:A:H61	24:DA:1558:A:H61	1.57	0.51
24:DA:2790:A:N1	24:DA:2894:G:C6	2.78	0.51
25:DB:3:C:H42	25:DB:117:G:H1	1.59	0.51
27:DE:12:THR:HG23	38:DR:58:ASN:HD21	1.76	0.51
30:DH:109:PHE:CE1	30:DH:152:ARG:CD	2.93	0.51
30:DH:151:ILE:O	30:DH:152:ARG:HB3	2.09	0.51
32:DM:136:GLU:O	32:DM:137:LYS:HE2	2.10	0.51
34:DO:49:ARG:O	34:DO:50:ARG:HB2	2.10	0.51
34:DO:125:VAL:C	34:DO:145:PRO:HD2	2.31	0.51
36:D0:44:LEU:HD22	36:D0:48:VAL:CG2	2.40	0.51
38:DR:2:ASN:O	38:DR:3:ARG:C	2.48	0.51
49:D4:21:VAL:CG2	49:D4:22:ILE:H	2.16	0.51
49:D4:57:GLU:HG2	49:D4:60:GLN:NE2	2.26	0.51
1:AA:67:C:O2'	1:AA:171:A:H1'	2.11	0.51
1:AA:522:C:H2'	1:AA:523:A:O4'	2.11	0.51
1:AA:722:A:H3'	1:AA:722:A:N3	2.26	0.51
1:AA:1190:G:H5'	3:AF:176:HIS:HE1	1.74	0.51
1:AA:1420:C:O2'	1:AA:1421:G:H5'	2.11	0.51
2:AE:70:PHE:CD1	2:AE:163:PHE:HB3	2.46	0.51
3:AF:8:ILE:O	3:AF:10:PHE:N	2.44	0.51
3:AF:52:LEU:HD23	3:AF:52:LEU:H	1.75	0.51
4:AG:20:TYR:CE2	6:CI:15:ASP:CB	2.94	0.51
4:AG:206:PHE:HD2	4:AG:207:TYR:CD1	2.29	0.51
5:AH:6:PHE:HD2	5:AH:63:ARG:HH11	1.57	0.51
5:AH:12:LEU:HD22	5:AH:13:ILE:N	2.25	0.51
6:AI:24:GLU:HA	6:AI:27:GLN:HG2	1.92	0.51
6:AI:24:GLU:O	6:AI:27:GLN:HB2	2.10	0.51
8:AK:116:LYS:HD2	8:AK:129:VAL:HG11	1.93	0.51
10:AM:26:ALA:HB2	10:AM:29:ARG:HH21	1.76	0.51
24:BA:463:G:N1	24:BA:467:G:C6	2.78	0.51
24:BA:876:C:OP1	44:BV:149:SER:HB2	2.11	0.51
24:BA:1268:A:C2	24:BA:2013:A:C4	2.99	0.51
24:BA:1510:A:OP1	24:BA:1511:A:H8	1.94	0.51
24:BA:1824:G:C2'	24:BA:1825:A:H5'	2.41	0.51
24:BA:2402:C:H2'	24:BA:2403:C:H5'	1.93	0.51
24:BA:2485:G:H5"	35:BP:46:GLN:NE2	2.25	0.51
24:BA:2828:C:H2'	24:BA:2829:C:H5'	1.91	0.51
24:BA:2884:U:H2'	24:BA:2885:C:H5'	1.92	0.51
27:BE:14:ILE:HB	27:BE:21:VAL:HB	1.92	0.51
36:B0:30:THR:CG2	36:B0:31:HIS:CE1	2.93	0.51
37:BQ:87:PHE:HB2	37:BQ:112:PHE:CZ	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BV:69:THR:CA	44:BV:91:LEU:HD23	2.41	0.51
49:B4:37:SER:HB2	49:B4:43:TYR:OH	2.05	0.51
53:B8:52:LYS:O	53:B8:52:LYS:HG3	2.10	0.51
1:CA:412:A:H1'	1:CA:413:G:P	2.50	0.51
1:CA:509:A:C4'	4:CG:55:ALA:HB2	2.41	0.51
1:CA:691:G:H3'	11:CN:26:ASN:HD21	1.76	0.51
1:CA:1320:C:C2'	1:CA:1321:C:H5'	2.40	0.51
5:CH:77:PRO:HG2	5:CH:78:HIS:H	1.76	0.51
7:CJ:46:ALA:HB2	7:CJ:117:ALA:CA	2.41	0.51
10:CM:4:ILE:HG12	10:CM:74:ILE:HD11	1.92	0.51
11:CN:17:GLY:O	11:CN:80:VAL:HA	2.10	0.51
12:CO:24:VAL:HG12	12:CO:26:ALA:CB	2.41	0.51
12:CO:111:LYS:HB2	12:CO:111:LYS:NZ	2.26	0.51
17:CT:45:HIS:CG	17:CT:65:ILE:HD13	2.46	0.51
19:CV:28:LYS:CG	19:CV:29:ARG:N	2.58	0.51
20:CW:10:LEU:HD21	20:CW:12:ALA:H	1.73	0.51
24:DA:125:G:H1'	52:D7:13:ALA:CB	2.41	0.51
24:DA:774:A:O2'	24:DA:775:G:O5'	2.26	0.51
24:DA:1411:C:H2'	24:DA:1412:A:H8	1.76	0.51
24:DA:2562:U:O2'	33:DN:23:ARG:NH1	2.43	0.51
24:DA:2717:G:C2'	38:DR:100:TYR:OH	2.59	0.51
26:DD:31:LYS:O	26:DD:31:LYS:HG3	2.10	0.51
28:DF:51:THR:CG2	28:DF:92:PRO:HD2	2.41	0.51
29:DG:16:ARG:HG2	29:DG:20:ILE:HD11	1.93	0.51
29:DG:63:ILE:HG13	29:DG:64:THR:N	2.26	0.51
33:DN:1:MET:HB2	33:DN:32:TYR:HB3	1.93	0.51
37:DQ:93:LYS:CD	37:DQ:95:HIS:HB2	2.41	0.51
40:D2:62:LEU:HD21	40:D2:95:LEU:HB2	1.92	0.51
43:DU:73:ARG:HH21	43:DU:82:PRO:HD3	1.75	0.51
44:DV:133:ILE:HD12	44:DV:133:ILE:N	2.25	0.51
1:AA:113:G:O2'	1:AA:114:U:H5'	2.10	0.51
1:AA:266:G:O3'	17:AT:67:LYS:HB2	2.11	0.51
1:AA:976:G:C8	1:AA:1358:U:C2	2.98	0.51
1:AA:1010:G:N2	1:AA:1020:U:H1'	2.25	0.51
1:AA:1117:G:H4'	9:AL:104:ARG:HH12	1.76	0.51
1:AA:1263:C:H2'	1:AA:1264:C:C6	2.46	0.51
4:AG:33:MET:C	4:AG:35:ARG:N	2.63	0.51
6:AI:37:VAL:CG1	6:AI:38:GLU:N	2.72	0.51
9:AL:70:LYS:CG	9:AL:71:SER:N	2.73	0.51
10:AM:5:ARG:HA	10:AM:73:ASP:HA	1.93	0.51
10:AM:42:THR:HG23	10:AM:67:THR:C	2.30	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AU:25:THR:HB	18:AU:42:ARG:HH22	1.76	0.51
24:BA:165:U:O2	24:BA:165:U:C3'	2.59	0.51
24:BA:207:A:H2'	24:BA:208:C:O4'	2.09	0.51
24:BA:528:A:C2	24:BA:2043:C:C5'	2.93	0.51
24:BA:646:A:H2'	24:BA:647:G:H5'	1.91	0.51
24:BA:881:G:C6	24:BA:882:G:C5	2.99	0.51
24:BA:944:G:H5"	24:BA:945:A:C5'	2.40	0.51
24:BA:1049:C:N4	30:BH:3:ARG:NH2	2.57	0.51
24:BA:1441:G:H2'	24:BA:1442:G:C8	2.40	0.51
24:BA:1496:A:C2'	24:BA:1577:C:O2'	2.59	0.51
24:BA:1754:C:OP2	38:BR:113:LYS:HE3	2.11	0.51
24:BA:1798:U:H5"	26:BD:259:THR:HG23	1.92	0.51
24:BA:2532:G:H1'	24:BA:2663:G:N2	2.26	0.51
24:BA:2567:G:H2'	24:BA:2568:C:C6	2.46	0.51
24:BA:2846:G:P	38:BR:54:ARG:HB2	2.51	0.51
27:BE:2:LYS:NZ	27:BE:100:GLU:OE2	2.30	0.51
28:BF:9:ILE:HD13	28:BF:9:ILE:H	1.75	0.51
30:BH:151:ILE:O	30:BH:152:ARG:HB3	2.11	0.51
44:BV:163:LEU:HD22	44:BV:164:ALA:H	1.76	0.51
46:BZ:53:VAL:O	46:BZ:54:ALA:HB3	2.11	0.51
1:CA:35:G:N2	1:CA:550:G:H1'	2.26	0.51
1:CA:116:A:OP2	1:CA:116:A:C8	2.64	0.51
1:CA:130:A:C8	17:CT:63:ARG:HG3	2.45	0.51
1:CA:197:A:C6	1:CA:221:C:H4'	2.46	0.51
1:CA:229:U:O2'	1:CA:230:G:H5'	2.10	0.51
1:CA:437:U:C2'	1:CA:438:G:H5'	2.41	0.51
1:CA:545:C:H2'	1:CA:546:G:O4'	2.10	0.51
1:CA:826:C:H4'	8:CK:12:ARG:HG2	1.91	0.51
1:CA:1089:G:C2'	1:CA:1090:U:H5'	2.40	0.51
1:CA:1269:A:H5'	21:CX:18:TYR:CE1	2.46	0.51
1:CA:1319:A:H61	1:CA:1361:G:H21	1.58	0.51
1:CA:1344:C:O2'	1:CA:1345:U:H5'	2.11	0.51
2:CE:34:ALA:O	2:CE:41:ILE:N	2.44	0.51
3:CF:64:VAL:HG22	3:CF:65:ALA:N	2.26	0.51
4:CG:108:LEU:HD13	4:CG:174:LEU:CD2	2.37	0.51
7:CJ:46:ALA:N	7:CJ:117:ALA:HB1	2.26	0.51
8:CK:38:ILE:HD11	8:CK:118:VAL:CG1	2.40	0.51
10:CM:49:VAL:HG11	14:CQ:41:ARG:CB	2.40	0.51
11:CN:19:ALA:HB3	11:CN:82:VAL:HG22	1.92	0.51
24:DA:464:U:H4'	52:D7:5:TRP:CZ3	2.45	0.51
24:DA:669:G:O2'	24:DA:670:A:P	2.68	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:877:U:C4'	24:DA:878:A:OP1	2.58	0.51
24:DA:1069:A:H5"	24:DA:1070:A:OP1	2.10	0.51
24:DA:1225:C:H2'	24:DA:1226:G:O4'	2.11	0.51
24:DA:1667:G:O2'	24:DA:1991:U:O4	2.15	0.51
24:DA:1800:C:OP2	26:DD:183:ARG:NH2	2.44	0.51
24:DA:1871:A:H2'	24:DA:1872:A:H8	1.75	0.51
24:DA:2023:G:OP2	24:DA:2617:C:H4'	2.11	0.51
24:DA:2156:G:H2'	24:DA:2157:G:O4'	2.11	0.51
24:DA:2821:A:OP2	27:DE:110:GLY:N	2.43	0.51
25:DB:80:U:O2'	25:DB:81:G:H5"	2.11	0.51
26:DD:267:SER:O	26:DD:268:ARG:HB2	2.11	0.51
27:DE:61:ARG:CB	27:DE:62:PRO:CD	2.88	0.51
29:DG:119:GLY:O	29:DG:181:ARG:HG3	2.09	0.51
30:DH:3:ARG:HH11	30:DH:4:ILE:HG13	1.69	0.51
34:DO:121:LYS:O	34:DO:123:LEU:HD23	2.11	0.51
36:D0:57:ARG:C	36:D0:59:ASP:H	2.14	0.51
38:DR:42:ILE:HG12	38:DR:84:GLN:OE1	2.11	0.51
39:D1:69:CYS:HB3	39:D1:74:LEU:HD12	1.92	0.51
39:D1:92:ARG:C	39:D1:94:ASN:H	2.13	0.51
40:D2:20:LEU:HD12	40:D2:21:ARG:H	1.74	0.51
44:DV:8:TYR:N	44:DV:8:TYR:CD1	2.77	0.51
44:DV:118:GLN:HE22	44:DV:173:ALA:N	2.09	0.51
49:D4:62:ARG:O	49:D4:63:TYR:HB3	2.11	0.51
1:AA:862:C:H2'	1:AA:863:U:C5'	2.41	0.51
1:AA:929:G:C4	1:AA:930:C:C5	2.99	0.51
1:AA:976:G:OP2	1:AA:1358:U:O2'	2.29	0.51
1:AA:1157:A:N7	1:AA:1178:G:N2	2.55	0.51
2:AE:8:LYS:NZ	2:AE:217:ARG:NH2	2.52	0.51
4:AG:141:ARG:CB	4:AG:142:PRO:HD2	2.35	0.51
12:AO:114:LYS:HE2	12:AO:125:PRO:HG3	1.92	0.51
13:AP:22:ILE:HB	13:AP:25:ILE:HD12	1.91	0.51
18:AU:38:GLU:OE1	18:AU:41:LYS:HD3	2.11	0.51
24:BA:184:C:H2'	24:BA:185:U:C6	2.46	0.51
24:BA:242:G:O5'	53:B8:3:LYS:HE3	2.11	0.51
24:BA:1006:C:H5'	32:BM:28:THR:HG23	1.92	0.51
24:BA:1045:A:C6	24:BA:1111:A:N7	2.79	0.51
25:BB:30:C:H2'	25:BB:31:C:C5'	2.37	0.51
25:BB:110:G:C5	25:BB:111:U:C5	2.98	0.51
26:BD:35:LYS:N	26:BD:64:ILE:HG23	2.26	0.51
28:BF:36:VAL:HG11	28:BF:183:VAL:CG1	2.41	0.51
29:BG:105:LYS:HD3	49:B4:26:SER:HB2	1.90	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BG:128:ARG:HG2	29:BG:128:ARG:O	2.11	0.51
32:BM:96:GLU:HB2	32:BM:122:VAL:HG12	1.93	0.51
39:B1:47:TYR:C	39:B1:47:TYR:CD1	2.83	0.51
49:B4:60:GLN:O	49:B4:63:TYR:HB2	2.11	0.51
53:B8:49:VAL:HG12	53:B8:53:PRO:HD3	1.92	0.51
1:CA:663:A:C2'	1:CA:664:G:H5'	2.40	0.51
1:CA:986:A:O2'	19:CV:55:LYS:O	2.28	0.51
1:CA:1128:C:C4'	9:CL:16:ARG:HH12	2.20	0.51
1:CA:1206:G:C4	1:CA:1207:G:C8	2.98	0.51
1:CA:1227:A:OP1	19:CV:80:TYR:OH	2.15	0.51
1:CA:1374:A:O2'	7:CJ:28:ASN:HB3	2.10	0.51
2:CE:60:ASP:O	2:CE:64:ARG:HG3	2.10	0.51
3:CF:120:VAL:HG22	3:CF:123:GLN:NE2	2.26	0.51
9:CL:28:VAL:HG21	9:CL:63:ILE:HB	1.93	0.51
15:CR:22:THR:OG1	15:CR:23:GLY:N	2.44	0.51
16:CS:81:ARG:O	16:CS:81:ARG:HG3	2.11	0.51
17:CT:92:ARG:O	17:CT:95:TYR:HB2	2.10	0.51
22:CC:58:A:H4'	22:CC:59:A:OP1	2.10	0.51
24:DA:6:A:C6	24:DA:7:G:C6	2.99	0.51
24:DA:90:U:O2'	24:DA:91:A:H8	1.90	0.51
24:DA:909:A:O2'	24:DA:910:A:C5'	2.58	0.51
24:DA:1006:C:H5"	32:DM:32:THR:CG2	2.40	0.51
24:DA:1021:A:H3'	24:DA:1021:A:C8	2.45	0.51
24:DA:1198:U:H2'	24:DA:1199:U:H6	1.76	0.51
24:DA:1385:G:H4'	24:DA:1386:C:OP1	2.09	0.51
24:DA:1654:A:C5'	36:D0:2:ARG:NH2	2.74	0.51
24:DA:2060:A:O4'	24:DA:2502:G:H1'	2.10	0.51
24:DA:2320:A:C6	24:DA:2333:A:N7	2.79	0.51
24:DA:2791:C:H2'	24:DA:2792:G:H8	1.76	0.51
26:DD:159:ALA:HB1	26:DD:198:ASN:O	2.11	0.51
29:DG:161:THR:CG2	29:DG:162:THR:N	2.73	0.51
31:DK:9:LEU:HD12	31:DK:12:LEU:HD22	1.87	0.51
33:DN:119:PRO:HB2	38:DR:68:TYR:CE2	2.46	0.51
44:DV:1:MET:HG2	44:DV:2:GLU:N	2.26	0.51
44:DV:100:VAL:O	44:DV:124:ILE:HG22	2.11	0.51
53:D8:32:LEU:HB2	53:D8:36:LYS:HZ1	1.76	0.51
1:AA:66:G:H22	1:AA:172:A:H2	1.59	0.51
1:AA:113:G:H2'	1:AA:114:U:C6	2.45	0.51
1:AA:201:C:N4	1:AA:209:U:O2	2.44	0.51
1:AA:458:C:N4	1:AA:464:G:O6	2.44	0.51
1:AA:533:A:C2	1:AA:536:C:C5	2.99	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:736:C:H2'	1:AA:737:A:H8	1.73	0.51
1:AA:1053:G:O2'	1:AA:1199:U:H5	1.76	0.51
1:AA:1121:U:C2	1:AA:1122:U:C5	2.99	0.51
4:AG:107:ARG:C	4:AG:109:GLY:H	2.15	0.51
9:AL:24:GLY:HA3	9:AL:57:GLY:HA3	1.92	0.51
9:AL:48:GLU:H	9:AL:78:LYS:HZ2	1.48	0.51
11:AN:17:GLY:O	11:AN:80:VAL:HA	2.11	0.51
19:AV:20:LEU:HG	19:AV:23:ASN:ND2	2.26	0.51
24:BA:33:U:H4'	24:BA:34:C:OP1	2.10	0.51
24:BA:270(P):C:OP1	24:BA:270(P):C:H6	1.93	0.51
24:BA:270(Q):C:OP1	31:BK:45:LYS:NZ	2.42	0.51
24:BA:1063:G:H1'	24:BA:1077:A:H62	1.75	0.51
24:BA:1082:U:C4	24:BA:1083:U:H1'	2.46	0.51
24:BA:1144:G:C6	24:BA:1145:C:N4	2.79	0.51
24:BA:1993:U:H4'	27:BE:128:SER:CB	2.40	0.51
24:BA:2470:G:C5'	35:BP:56:ARG:HH21	2.17	0.51
24:BA:2563:U:H4'	33:BN:28:SER:HA	1.92	0.51
26:BD:142:VAL:HG23	26:BD:193:VAL:CA	2.40	0.51
28:BF:128:ALA:O	28:BF:129:PHE:HB2	2.11	0.51
29:BG:41:GLN:N	29:BG:90:LEU:O	2.40	0.51
31:BK:102:SER:HA	31:BK:107:VAL:O	2.11	0.51
31:BK:133:HIS:CG	31:BK:134:PRO:HD2	2.45	0.51
35:BP:136:ALA:O	35:BP:139:GLU:HB2	2.10	0.51
37:BQ:110:LEU:CD1	37:BQ:110:LEU:C	2.76	0.51
42:BT:44:GLU:HG2	42:BT:49:VAL:O	2.11	0.51
45:B3:42:GLY:O	45:B3:57:PHE:CD2	2.64	0.51
49:B4:12:ALA:HB2	49:B4:29:PRO:HA	1.92	0.51
1:CA:46:G:HO2'	1:CA:365:U:H1'	1.76	0.51
1:CA:458:C:H3'	1:CA:464:G:H8	1.75	0.51
1:CA:502:G:OP1	12:CO:118:SER:HB3	2.10	0.51
1:CA:969:A:H2'	1:CA:970:C:O4'	2.10	0.51
1:CA:1203:C:O3'	14:CQ:3:ARG:NH2	2.44	0.51
2:CE:17:PHE:HD2	2:CE:44:LEU:HD11	1.75	0.51
2:CE:112:VAL:HG12	2:CE:113:HIS:N	2.26	0.51
5:CH:57:LYS:O	5:CH:60:TYR:HB2	2.11	0.51
5:CH:107:ARG:NH1	5:CH:107:ARG:HB2	2.25	0.51
8:CK:94:TYR:CD1	8:CK:94:TYR:C	2.80	0.51
12:CO:127:GLU:O	12:CO:128:ALA:HB3	2.10	0.51
15:CR:3:ILE:H	15:CR:3:ILE:CD1	2.20	0.51
17:CT:88:TYR:HA	17:CT:91:ARG:HD2	1.93	0.51
24:DA:389:G:N2	34:DO:72:PRO:CG	2.72	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:746:A:O2'	24:DA:2611:U:O2'	2.25	0.51
24:DA:1534:G:O2'	24:DA:1538:G:N2	2.43	0.51
24:DA:2317:C:H2'	24:DA:2318:G:O4'	2.11	0.51
24:DA:2531:A:H5'	30:DH:157:TYR:CE1	2.45	0.51
24:DA:2786:U:H5'	27:DE:65:GLY:HA2	1.93	0.51
24:DA:2872:G:C8	24:DA:2873:A:C2	2.99	0.51
28:DF:132:VAL:HG13	28:DF:133:ASN:N	2.26	0.51
29:DG:2:PRO:HG2	49:D4:25:TYR:OH	2.11	0.51
32:DM:137:LYS:HE2	32:DM:137:LYS:HA	1.92	0.51
33:DN:105:GLU:N	33:DN:105:GLU:OE1	2.44	0.51
38:DR:91:ARG:HD2	38:DR:124:ASP:OD2	2.11	0.51
41:DS:75:TYR:CE1	41:DS:104:THR:CB	2.94	0.51
49:D4:16:CYS:HB3	49:D4:19:GLY:CA	2.41	0.51
53:D8:24:ALA:HB3	53:D8:49:VAL:HG21	1.93	0.51
1:AA:16:A:C2'	1:AA:17:U:H5'	2.41	0.51
1:AA:76:G:C2	1:AA:95:G:N3	2.79	0.51
1:AA:190:G:HO2'	1:AA:191(A):G:P	2.30	0.51
1:AA:280:C:H4'	1:AA:281:G:OP2	2.11	0.51
1:AA:354:G:N2	1:AA:388:G:O2'	2.38	0.51
1:AA:614:A:OP1	4:AG:85:LYS:NZ	2.44	0.51
1:AA:687:A:C1'	1:AA:688:G:OP2	2.55	0.51
1:AA:1221:G:H4'	19:AV:77:THR:CG2	2.40	0.51
2:AE:24:TRP:CE3	2:AE:26:PRO:HA	2.45	0.51
2:AE:28:PHE:CD1	2:AE:190:THR:HA	2.45	0.51
4:AG:21:LEU:HD11	4:AG:22:LYS:CD	2.31	0.51
7:AJ:5:ARG:HH11	7:AJ:7:ALA:H	1.60	0.51
9:AL:10:ARG:CG	9:AL:105:ASP:OD1	2.58	0.51
9:AL:53:VAL:HA	9:AL:95:LYS:HE2	1.92	0.51
12:AO:24:VAL:HG11	12:AO:27:LEU:HD12	1.91	0.51
17:AT:85:VAL:HG12	17:AT:85:VAL:O	2.11	0.51
19:AV:16:LEU:CD1	19:AV:20:LEU:HD12	2.41	0.51
24:BA:273(E):U:H3	24:BA:363(A):A:H61	1.58	0.51
24:BA:973:A:O4'	24:BA:1188:U:C6	2.64	0.51
24:BA:1175:U:HO2'	24:BA:1176:G:N2	2.09	0.51
24:BA:1177:A:H4'	24:BA:1178:C:H5"	1.91	0.51
24:BA:1331:A:O2'	24:BA:1332:G:H8	1.94	0.51
24:BA:1509:C:C2'	24:BA:1510:A:OP1	2.59	0.51
31:BK:133:HIS:O	31:BK:135:GLU:HG3	2.10	0.51
38:BR:111:ARG:O	38:BR:112:ARG:HB3	2.11	0.51
44:BV:139:VAL:HG12	44:BV:139:VAL:O	2.10	0.51
46:BZ:92:LYS:O	46:BZ:94:LEU:CA	2.57	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:29:G:O2'	1:CA:295:C:H4'	2.11	0.51
1:CA:197:A:H1'	1:CA:198:G:P	2.51	0.51
1:CA:912:C:O2'	1:CA:913:A:H5'	2.10	0.51
1:CA:1057:G:H4'	3:CF:196:LEU:O	2.11	0.51
1:CA:1074:G:N3	1:CA:1101:A:H2	2.09	0.51
1:CA:1207:G:C6	1:CA:1208:C:N4	2.79	0.51
2:CE:61:LEU:CD1	2:CE:66:GLY:HA3	2.41	0.51
3:CF:28:GLN:O	3:CF:31:HIS:N	2.43	0.51
7:CJ:138:LYS:HD3	7:CJ:138:LYS:C	2.31	0.51
9:CL:17:VAL:CG1	9:CL:63:ILE:CD1	2.88	0.51
13:CP:55:ARG:O	13:CP:59:TYR:HB3	2.11	0.51
18:CU:36:ASN:HB2	18:CU:39:VAL:HG23	1.93	0.51
19:CV:56:GLN:HE22	19:CV:58:VAL:HA	1.76	0.51
24:DA:96:G:H4'	47:DW:48:HIS:CD2	2.46	0.51
24:DA:196:A:OP2	34:DO:46:LYS:HE2	2.10	0.51
24:DA:803:U:O2'	24:DA:804:A:H5'	2.11	0.51
24:DA:971:C:H2'	24:DA:972:G:O4'	2.10	0.51
24:DA:1012:U:H5'	24:DA:1013:C:O5'	2.10	0.51
24:DA:2009:G:C2'	24:DA:2010:G:H5'	2.41	0.51
24:DA:2134:A:HO2'	24:DA:2159:G:N2	2.09	0.51
24:DA:2208:U:C1'	26:DD:151:LYS:HE2	2.40	0.51
24:DA:2348:U:O2'	24:DA:2349:G:H5'	2.10	0.51
37:DQ:59:LYS:HD3	37:DQ:60:GLY:N	2.26	0.51
38:DR:29:ARG:HD3	38:DR:44:ASP:OD2	2.10	0.51
41:DS:17:VAL:HG23	41:DS:18:ARG:N	2.26	0.51
1:AA:129(A):G:C2	1:AA:188:U:O2'	2.63	0.50
1:AA:277:C:C5'	17:AT:68:ARG:NH2	2.72	0.50
1:AA:287:U:C2'	1:AA:288:A:H5'	2.41	0.50
1:AA:316:G:C2	1:AA:338:A:C2	3.00	0.50
1:AA:448:A:OP2	1:AA:485:G:N1	2.27	0.50
1:AA:620:C:C4	4:AG:135:LEU:HD23	2.45	0.50
1:AA:652:U:C5	1:AA:752:G:N3	2.79	0.50
1:AA:857:C:H2'	1:AA:858:G:O4'	2.11	0.50
1:AA:1287:A:N6	1:AA:1288:A:N6	2.58	0.50
1:AA:1296:C:O3'	13:AP:13:LYS:CE	2.58	0.50
1:AA:1318:A:H5"	19:AV:10:PHE:CD2	2.46	0.50
1:AA:1515:C:O2'	1:AA:1516:G:H5'	2.11	0.50
2:AE:176:GLU:O	2:AE:177:ALA:C	2.50	0.50
3:AF:34:LEU:HD21	3:AF:38:ARG:HH11	1.76	0.50
8:AK:25:ASP:OD1	8:AK:25:ASP:N	2.44	0.50
11:AN:13:GLN:HA	11:AN:75:TYR:O	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AP:40:ASN:HB3	13:AP:43:THR:HG23	1.93	0.50
22:AC:20:U:C2'	22:AC:21:A:C5'	2.85	0.50
24:BA:611:C:H2'	24:BA:612:G:O4'	2.10	0.50
24:BA:1049:C:H2'	24:BA:1050:A:H5"	1.93	0.50
24:BA:1138:G:H21	32:BM:106:MET:HE3	1.73	0.50
24:BA:1527:G:H5"	24:BA:1528:A:OP1	2.09	0.50
26:BD:27:THR:N	26:BD:28:GLU:OE1	2.44	0.50
26:BD:35:LYS:CA	26:BD:64:ILE:CG2	2.89	0.50
30:BH:77:LYS:HG3	30:BH:78:GLY:N	2.26	0.50
32:BM:13:TRP:O	32:BM:135:PRO:HD2	2.11	0.50
36:B0:63:ARG:HG3	36:B0:76:VAL:HG11	1.92	0.50
47:BW:64:LEU:HD22	47:BW:68:ARG:HD2	1.93	0.50
51:B6:36:LEU:O	51:B6:37:ARG:HG3	2.10	0.50
1:CA:35:G:N2	1:CA:550:G:C4	2.79	0.50
1:CA:1276:G:H2'	1:CA:1277:C:C6	2.46	0.50
4:CG:108:LEU:HD13	4:CG:174:LEU:HD13	1.92	0.50
5:CH:35:GLY:CA	5:CH:112:LEU:HB3	2.33	0.50
13:CP:74:VAL:O	13:CP:78:ILE:HG13	2.11	0.50
13:CP:106:ASN:O	13:CP:107:ALA:HB3	2.11	0.50
20:CW:87:LYS:O	20:CW:89:ARG:N	2.43	0.50
24:DA:185:U:H2'	24:DA:186:G:C8	2.46	0.50
24:DA:309:G:H1'	24:DA:329:G:C4	2.45	0.50
24:DA:389:G:H22	34:DO:72:PRO:CD	2.25	0.50
24:DA:654(C):G:H2'	24:DA:654(D):G:O4'	2.11	0.50
24:DA:1003:G:N2	24:DA:1153:C:C2	2.79	0.50
24:DA:1246:A:OP2	34:DO:15:ARG:NH2	2.44	0.50
24:DA:1444(A):A:N3	24:DA:1444(A):A:C2'	2.74	0.50
24:DA:1496:A:O2'	24:DA:1497:U:H2'	2.11	0.50
24:DA:2101:G:H2'	24:DA:2102:U:O4'	2.11	0.50
24:DA:2345:G:O5'	24:DA:2345:G:C2'	2.54	0.50
24:DA:2355:C:O2	45:D3:39:ARG:NH2	2.44	0.50
24:DA:2567:G:H2'	24:DA:2568:C:C6	2.46	0.50
24:DA:2777:G:H5"	24:DA:2778:A:C5'	2.24	0.50
28:DF:133:ASN:O	28:DF:162:LEU:HD23	2.11	0.50
30:DH:6:ARG:NE	30:DH:66:GLY:CA	2.72	0.50
30:DH:10:PRO:HD2	30:DH:50:VAL:O	2.12	0.50
36:D0:51:LEU:HD22	36:D0:66:VAL:HG13	1.92	0.50
42:DT:40:LYS:C	42:DT:42:ALA:N	2.64	0.50
49:D4:5:ILE:CG1	49:D4:6:HIS:H	2.14	0.50
51:D6:35:GLU:O	51:D6:36:LEU:HB2	2.11	0.50
53:D8:29:LYS:HB2	53:D8:44:LYS:HB2	1.91	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:22:G:H4'	1:AA:885:G:C8	2.47	0.50
1:AA:102:G:C5	1:AA:103:C:C5	2.99	0.50
1:AA:107:G:O2'	1:AA:108:G:H5'	2.11	0.50
1:AA:193:C:C5'	20:AW:57:ARG:CD	2.72	0.50
1:AA:600:C:OP1	8:AK:98:LYS:HE3	2.11	0.50
1:AA:607:A:N1	16:AS:31:LYS:HG3	2.26	0.50
1:AA:688:G:N2	1:AA:699:C:O2	2.40	0.50
1:AA:978:A:C4	1:AA:1319:A:C2	2.99	0.50
1:AA:1053:G:O5'	1:AA:1054:C:H3'	2.12	0.50
1:AA:1272:G:C6	1:AA:1273:G:C5	3.00	0.50
2:AE:165:VAL:O	2:AE:205:ASP:HB2	2.11	0.50
3:AF:131:ARG:NH1	3:AF:166:GLU:OE2	2.43	0.50
4:AG:147:ALA:HA	4:AG:181:MET:O	2.11	0.50
5:AH:31:LEU:HD21	5:AH:43:LEU:HD11	1.94	0.50
9:AL:48:GLU:CA	9:AL:78:LYS:HZ1	2.23	0.50
24:BA:272:G:H2'	24:BA:273:G:H8	1.76	0.50
24:BA:621:A:H2'	24:BA:622:G:C5'	2.39	0.50
24:BA:676:A:H8	24:BA:2069:G:H21	0.87	0.50
24:BA:729:G:N3	24:BA:1775:U:H1'	2.26	0.50
24:BA:1087:G:N7	24:BA:1089:G:H1'	2.27	0.50
24:BA:1178:C:HO2'	24:BA:1179:C:P	2.33	0.50
24:BA:1270:C:H5"	24:BA:1271:G:O5'	2.11	0.50
24:BA:1278:A:H4'	36:B0:34:ILE:HD12	1.94	0.50
24:BA:1471:A:H2'	24:BA:1471:A:N3	2.26	0.50
24:BA:1483:G:O6	24:BA:1506:C:N4	2.41	0.50
24:BA:1580:A:H8	24:BA:1580:A:OP2	1.94	0.50
24:BA:2101:G:H3'	24:BA:2102:U:C6	2.45	0.50
24:BA:2864:G:H2'	24:BA:2865:U:H6	1.76	0.50
29:BG:7:LEU:HD11	29:BG:176:LEU:HD22	1.93	0.50
31:BK:88:ILE:HG22	31:BK:90:GLY:H	1.76	0.50
36:B0:33:ARG:HD3	36:B0:113:LEU:HD11	1.92	0.50
37:BQ:71:ARG:NH2	37:BQ:106:ARG:HH21	2.06	0.50
37:BQ:106:ARG:CD	37:BQ:107:GLU:OE1	2.60	0.50
43:BU:41:GLY:O	43:BU:42:VAL:C	2.50	0.50
43:BU:76:CYS:O	43:BU:81:LYS:HE2	2.10	0.50
47:BW:23:LYS:O	47:BW:27:GLU:HG3	2.11	0.50
1:CA:66:G:C6	1:CA:67:C:C5	2.99	0.50
1:CA:721:G:H4'	1:CA:722:A:O4'	2.10	0.50
1:CA:1003:G:N2	1:CA:1037:C:C2	2.74	0.50
1:CA:1107:C:OP1	3:CF:173:VAL:N	2.45	0.50
1:CA:1133:G:N2	1:CA:1142:G:N3	2.59	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1330:U:H3'	1:CA:1331:G:O4'	2.11	0.50
2:CE:16:HIS:CB	2:CE:209:ARG:HB2	2.41	0.50
2:CE:102:LEU:HD12	2:CE:102:LEU:N	2.26	0.50
5:CH:78:HIS:HB2	8:CK:104:ARG:CG	2.41	0.50
9:CL:18:PHE:O	9:CL:62:TYR:N	2.34	0.50
9:CL:53:VAL:HG13	9:CL:95:LYS:HE2	1.93	0.50
10:CM:28:ARG:NH2	10:CM:34:VAL:CG2	2.74	0.50
11:CN:12:ARG:O	11:CN:75:TYR:HD2	1.93	0.50
24:DA:527:C:OP2	24:DA:2779:U:H5	1.94	0.50
24:DA:1056:G:N2	24:DA:1103:A:C8	2.79	0.50
24:DA:1558:A:O2'	24:DA:1559:G:OP2	2.22	0.50
24:DA:1601:G:H8	52:D7:49:ARG:HH12	1.25	0.50
24:DA:1669:A:O2'	24:DA:2549:G:OP1	2.28	0.50
24:DA:2208:U:H1'	26:DD:151:LYS:HE2	1.93	0.50
24:DA:2760:C:H1'	30:DH:139:GLN:HE21	1.75	0.50
25:DB:56:G:H4'	25:DB:57:A:H8	1.74	0.50
26:DD:65:ILE:HD11	26:DD:67:PHE:CE1	2.47	0.50
26:DD:242:ARG:HG2	26:DD:246:PRO:HG3	1.93	0.50
32:DM:14:VAL:HG13	32:DM:52:VAL:HA	1.93	0.50
32:DM:137:LYS:HE2	32:DM:137:LYS:CA	2.41	0.50
34:DO:78:PRO:HG3	34:DO:111:ARG:HH22	1.75	0.50
34:DO:120:ALA:HB1	34:DO:138:LEU:HD23	1.94	0.50
35:DP:75:THR:HG21	35:DP:87:LYS:HE3	1.93	0.50
39:D1:80:ILE:O	39:D1:84:LYS:HG2	2.12	0.50
47:DW:15:LYS:O	47:DW:16:LEU:HB3	2.11	0.50
51:D6:17:LYS:O	51:D6:18:ARG:HB3	2.11	0.50
1:AA:7:G:H5'	1:AA:298:A:O4'	2.12	0.50
1:AA:16:A:O2'	1:AA:17:U:H5'	2.11	0.50
1:AA:626:U:C5'	16:AS:38:TYR:CZ	2.87	0.50
1:AA:944:G:C2	1:AA:1340:A:C6	3.00	0.50
1:AA:1005:A:HO2'	1:AA:1037:C:HO2'	1.36	0.50
2:AE:217:ARG:O	2:AE:218:ALA:C	2.49	0.50
4:AG:76:ARG:HG3	4:AG:207:TYR:CE2	2.46	0.50
4:AG:200:GLU:HG2	4:AG:201:GLN:H	1.76	0.50
7:AJ:5:ARG:CG	7:AJ:6:ARG:H	2.25	0.50
8:AK:46:LYS:HB2	8:AK:62:TYR:HB2	1.93	0.50
11:AN:17:GLY:HA3	11:AN:77:MET:SD	2.51	0.50
17:AT:74:LEU:HD12	17:AT:75:ARG:CG	2.37	0.50
19:AV:25:LYS:HD3	19:AV:27:GLU:OE1	2.10	0.50
21:AX:6:ARG:O	21:AX:8:THR:N	2.42	0.50
21:AX:11:GLY:O	21:AX:15:ARG:HG3	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:104:U:C5	24:BA:105:C:C5	2.99	0.50
24:BA:654(A):A:N6	24:BA:654(U):A:C2	2.77	0.50
24:BA:783:A:O2'	24:BA:785:G:OP1	2.24	0.50
24:BA:1101:U:O2'	24:BA:1102:C:H5'	2.11	0.50
24:BA:1164:G:H2'	24:BA:1165:U:H6	1.75	0.50
24:BA:1171:G:H2'	24:BA:1174:A:C6	2.46	0.50
24:BA:1470:G:O2'	24:BA:1522:G:O6	2.17	0.50
24:BA:1508:A:O2'	24:BA:1509:C:O5'	2.30	0.50
24:BA:1585:C:OP2	24:BA:1585:C:H4'	2.11	0.50
24:BA:2081:C:H2'	24:BA:2082:A:C8	2.46	0.50
24:BA:2538:C:O2'	24:BA:2539:C:H5'	2.11	0.50
28:BF:57:VAL:CG1	28:BF:58:ALA:N	2.74	0.50
29:BG:106:LEU:O	29:BG:110:ALA:HB3	2.11	0.50
31:BK:93:THR:HG22	31:BK:119:PRO:CB	2.41	0.50
33:BN:63:VAL:HG11	33:BN:85:VAL:HG23	1.92	0.50
46:BZ:82:LEU:N	46:BZ:82:LEU:HD22	2.27	0.50
50:B5:3:LYS:O	50:B5:4:HIS:O	2.28	0.50
1:CA:49:U:C2	1:CA:361:G:N2	2.79	0.50
1:CA:490:G:H2'	1:CA:491:G:H8	1.75	0.50
1:CA:691:G:H1'	1:CA:696:A:N6	2.27	0.50
1:CA:836:G:C4	1:CA:851:G:C2	2.99	0.50
1:CA:1144:G:H2'	1:CA:1145:C:H5'	1.93	0.50
1:CA:1399:C:N3	1:CA:1502:A:N6	2.59	0.50
3:CF:109:PRO:O	3:CF:112:SER:HB3	2.11	0.50
6:CI:98:LEU:HD12	6:CI:98:LEU:N	2.25	0.50
7:CJ:60:LYS:HB3	7:CJ:60:LYS:NZ	2.26	0.50
9:CL:14:VAL:O	9:CL:65:VAL:HG23	2.11	0.50
10:CM:14:LYS:O	10:CM:18:ALA:HB3	2.12	0.50
10:CM:65:LEU:HD13	14:CQ:55:GLY:O	2.11	0.50
11:CN:106:LYS:HG3	11:CN:107:SER:H	1.76	0.50
13:CP:40:ASN:HB3	13:CP:43:THR:CG2	2.41	0.50
17:CT:53:LEU:HD12	17:CT:53:LEU:N	2.27	0.50
24:DA:270(E):G:O2'	24:DA:270(F):U:H5'	2.11	0.50
24:DA:343:C:H2'	24:DA:344:G:H8	1.76	0.50
24:DA:588:U:C2	28:DF:90:PHE:CE1	2.99	0.50
24:DA:974:G:O2'	24:DA:974(A):C:OP2	2.28	0.50
24:DA:2100:G:H2'	24:DA:2101:G:O4'	2.12	0.50
24:DA:2128:C:O2'	24:DA:2129:C:O4'	2.29	0.50
24:DA:2144:U:H4'	24:DA:2145:C:H5	1.76	0.50
24:DA:2439:A:H5'	24:DA:2439:A:C8	2.46	0.50
24:DA:2477:C:H1'	24:DA:2480:C:N4	2.24	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2842:G:O2'	24:DA:2843:G:H5'	2.11	0.50
24:DA:2889:C:H2'	24:DA:2891:G:O4'	2.11	0.50
26:DD:32:SER:O	26:DD:35:LYS:O	2.29	0.50
27:DE:76:ARG:HG3	27:DE:195:LEU:HD22	1.92	0.50
27:DE:81:ILE:O	27:DE:82:ARG:CB	2.59	0.50
29:DG:130:ASN:OD1	29:DG:160:VAL:HA	2.11	0.50
29:DG:151:ALA:HB3	29:DG:153:ARG:NH1	2.26	0.50
34:DO:55:ARG:HG2	34:DO:56:SER:N	2.25	0.50
35:DP:2:LEU:HD22	35:DP:69:PHE:HE1	1.76	0.50
39:D1:95:LEU:HD11	40:D2:11:GLN:HB2	1.93	0.50
51:D6:18:ARG:HH11	51:D6:18:ARG:HG3	1.76	0.50
51:D6:53:LYS:HD2	51:D6:53:LYS:C	2.32	0.50
53:D8:32:LEU:CG	53:D8:33:ASN:N	2.73	0.50
1:AA:157:G:N2	1:AA:164:U:O2	2.40	0.50
1:AA:297:G:H4'	1:AA:557:G:H4'	1.93	0.50
1:AA:405:U:O4	4:AG:2:GLY:N	2.44	0.50
1:AA:426:G:OP1	4:AG:38:TYR:OH	2.18	0.50
1:AA:453:A:C6	1:AA:454:C:C4	2.99	0.50
1:AA:953:G:H2'	1:AA:954:G:O4'	2.12	0.50
1:AA:1190:G:C5'	3:AF:176:HIS:CE1	2.94	0.50
1:AA:1270:C:OP2	21:AX:24:ARG:NH2	2.44	0.50
1:AA:1318:A:H1'	19:AV:37:ARG:NH2	2.27	0.50
2:AE:74:LYS:HE3	2:AE:169:LYS:CG	2.41	0.50
2:AE:236:TYR:CD2	2:AE:236:TYR:N	2.69	0.50
5:AH:63:ARG:HA	5:AH:66:MET:HE1	1.93	0.50
7:AJ:15:ASP:HB3	7:AJ:20:ASP:H	1.76	0.50
7:AJ:35:LYS:HG2	7:AJ:38:LEU:HD22	1.93	0.50
12:AO:67:THR:O	12:AO:96:VAL:HG23	2.12	0.50
24:BA:654(G):C:O2	24:BA:654(N):G:N1	2.44	0.50
24:BA:654(I):C:H3'	24:BA:654(I):C:O2	2.12	0.50
24:BA:793:A:OP2	24:BA:2071:A:O2'	2.28	0.50
24:BA:1019:U:O2'	24:BA:1021:A:C2	2.59	0.50
24:BA:1170:G:N2	24:BA:1180:C:N3	2.60	0.50
24:BA:1537:C:H2'	24:BA:1538:G:O4'	2.12	0.50
24:BA:1582:C:O2'	24:BA:1586:A:H8	1.95	0.50
24:BA:2174:C:H2'	24:BA:2175:C:C6	2.46	0.50
24:BA:2637:U:C2'	24:BA:2638:G:H5'	2.41	0.50
25:BB:15:A:H5'	25:BB:16:G:H8	1.77	0.50
26:BD:35:LYS:CB	26:BD:63:ARG:HA	2.33	0.50
27:BE:134:ILE:HD12	27:BE:135:HIS:N	2.26	0.50
29:BG:112:PRO:CG	49:B4:37:SER:HB2	2.38	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BP:62:GLY:O	35:BP:63:LYS:HB2	2.10	0.50
38:BR:74:ARG:HD3	38:BR:76:PHE:CZ	2.47	0.50
44:BV:76:LEU:HD23	44:BV:76:LEU:N	2.06	0.50
1:CA:769:G:H4'	1:CA:1513:A:H4'	1.92	0.50
1:CA:796:C:O2'	1:CA:797:C:H5'	2.11	0.50
1:CA:939:G:O2'	1:CA:1375:A:N3	2.40	0.50
1:CA:1188:A:H4'	14:CQ:58:LYS:CE	2.42	0.50
1:CA:1430:C:H2'	1:CA:1431:C:C6	2.45	0.50
1:CA:1494:G:O2'	24:DA:1913:A:H5'	2.12	0.50
2:CE:25:ASN:CG	2:CE:27:LYS:HG3	2.31	0.50
4:CG:30:LYS:HZ2	4:CG:30:LYS:N	2.09	0.50
4:CG:204:ILE:HD13	5:CH:97:GLY:O	2.11	0.50
5:CH:76:ILE:HG12	5:CH:142:LEU:HD13	1.94	0.50
7:CJ:22:LEU:C	7:CJ:22:LEU:HD23	2.31	0.50
8:CK:39:LEU:HD12	8:CK:39:LEU:N	2.27	0.50
9:CL:16:ARG:CG	9:CL:16:ARG:O	2.59	0.50
13:CP:80:ARG:NH1	19:CV:66:MET:SD	2.82	0.50
20:CW:68:LYS:HG3	20:CW:69:GLY:H	1.75	0.50
24:DA:57:C:H2'	24:DA:58:G:O4'	2.11	0.50
24:DA:747:U:O2	24:DA:2014:A:H1'	2.11	0.50
24:DA:888:C:C1'	24:DA:889:C:OP2	2.58	0.50
24:DA:1462:C:C4	24:DA:1463:C:C5	2.99	0.50
24:DA:1504:C:H2'	24:DA:1505:C:C6	2.46	0.50
24:DA:1511:A:H2'	24:DA:1512:G:O4'	2.11	0.50
24:DA:1731:G:H2'	24:DA:1732:A:O4'	2.11	0.50
26:DD:72:LYS:HD3	26:DD:97:TYR:CD2	2.46	0.50
26:DD:83:GLU:OE1	26:DD:104:TYR:CZ	2.64	0.50
26:DD:115:GLN:HG2	26:DD:116:GLN:N	2.26	0.50
29:DG:118:ARG:CB	29:DG:181:ARG:HD3	2.41	0.50
30:DH:29:PRO:O	30:DH:30:LYS:HD3	2.11	0.50
36:D0:37:THR:HG22	36:D0:38:VAL:N	2.26	0.50
44:DV:120:ILE:HG21	44:DV:169:GLU:OE2	2.12	0.50
44:DV:148:ASP:OD2	44:DV:173:ALA:HA	2.12	0.50
1:AA:192:U:O4'	20:AW:103:GLY:N	2.44	0.50
1:AA:298:A:H2'	1:AA:299:G:O4'	2.12	0.50
1:AA:437:U:O2'	4:AG:125:HIS:HE1	1.95	0.50
1:AA:478:A:O2'	1:AA:479:C:H5'	2.12	0.50
1:AA:618:C:H5"	1:AA:619:U:H5"	1.94	0.50
1:AA:813:U:H6	1:AA:813:U:OP2	1.94	0.50
1:AA:1025:U:O2'	1:AA:1026:G:P	2.66	0.50
1:AA:1029:G:H2'	1:AA:1030:C:H5"	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1153:C:C2	1:AA:1154:G:C8	2.98	0.50
1:AA:1375:A:C6	1:AA:1376:U:C4	2.99	0.50
2:AE:70:PHE:CE1	2:AE:163:PHE:HD2	2.28	0.50
3:AF:122:GLU:O	3:AF:126:ARG:HD3	2.11	0.50
4:AG:22:LYS:HB2	4:AG:26:CYS:N	2.24	0.50
17:AT:23:VAL:HG12	17:AT:24:GLU:N	2.27	0.50
19:AV:28:LYS:HE2	19:AV:47:HIS:CD2	2.45	0.50
24:BA:246:C:H2'	24:BA:247:G:H5'	1.94	0.50
24:BA:270(W):G:C2	24:BA:270(X):G:H1'	2.46	0.50
24:BA:979:G:H3'	24:BA:980:A:C5'	2.42	0.50
24:BA:997:G:C2'	24:BA:998:C:H5'	2.42	0.50
24:BA:1074:G:H2'	24:BA:1075:C:H6	1.76	0.50
24:BA:1095:A:N3	24:BA:1095:A:C2'	2.74	0.50
24:BA:1729:A:H1'	24:BA:1730:U:C6	2.46	0.50
24:BA:1827:C:H2'	24:BA:1828:G:C5'	2.42	0.50
24:BA:2209:C:O2	24:BA:2216:G:N1	2.45	0.50
27:BE:36:ARG:NH1	27:BE:85:ASN:OD1	2.44	0.50
27:BE:68:ALA:O	27:BE:69:LYS:C	2.49	0.50
27:BE:168:MET:HE1	27:BE:202:LYS:HB3	1.93	0.50
31:BK:19:VAL:HG22	31:BK:20:ASP:N	2.27	0.50
36:B0:72:ASP:O	36:B0:76:VAL:HG23	2.12	0.50
38:BR:50:ILE:CD1	38:BR:102:ILE:HD11	2.34	0.50
39:B1:83:LEU:HD12	39:B1:83:LEU:N	2.25	0.50
42:BT:12:VAL:HG12	42:BT:27:THR:O	2.11	0.50
49:B4:61:ARG:HA	49:B4:61:ARG:HE	1.76	0.50
51:B6:51:GLU:HG2	51:B6:52:VAL:N	2.27	0.50
1:CA:34:C:H1'	12:CO:32:PHE:CE2	2.46	0.50
1:CA:453:A:H1'	16:CS:72:ARG:HH21	1.76	0.50
1:CA:453:A:H4'	16:CS:72:ARG:HB2	1.94	0.50
1:CA:977:A:N3	1:CA:977:A:C2'	2.74	0.50
1:CA:1076:C:C2	1:CA:1082:G:N2	2.79	0.50
1:CA:1220:G:OP1	19:CV:37:ARG:NH1	2.45	0.50
1:CA:1321:C:C4	1:CA:1322:C:N4	2.80	0.50
2:CE:77:ALA:O	2:CE:81:VAL:N	2.43	0.50
3:CF:84:ILE:HD11	3:CF:88:ARG:HH21	1.76	0.50
4:CG:138:TYR:CE1	4:CG:139:ARG:O	2.64	0.50
10:CM:81:THR:HG22	10:CM:84:GLN:HE21	1.76	0.50
19:CV:28:LYS:HE3	19:CV:29:ARG:N	2.27	0.50
24:DA:49:A:H4'	24:DA:50:U:O5'	2.11	0.50
24:DA:428:A:H8	24:DA:428:A:OP2	1.95	0.50
24:DA:1091:G:C2	24:DA:1101:U:C2	3.00	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1396:U:O2	24:DA:1396:U:C2'	2.57	0.50
24:DA:1601:G:H8	52:D7:49:ARG:NH2	2.07	0.50
24:DA:2468:G:H5"	24:DA:2476:A:N6	2.25	0.50
24:DA:2681:C:C6	24:DA:2724:C:N4	2.79	0.50
24:DA:2809:A:C2	24:DA:2892:A:C4	3.00	0.50
24:DA:2825:C:H2'	24:DA:2826:A:H5'	1.92	0.50
32:DM:43:THR:CG2	32:DM:45:ASN:ND2	2.75	0.50
40:D2:48:GLY:HA3	40:D2:52:VAL:HG23	1.92	0.50
41:DS:10:VAL:O	41:DS:12:ILE:N	2.45	0.50
45:D3:37:LEU:HD12	45:D3:60:PHE:CA	2.41	0.50
49:D4:57:GLU:HA	49:D4:60:GLN:HE21	1.76	0.50
49:D4:62:ARG:HA	49:D4:62:ARG:HE	1.75	0.50
51:D6:37:ARG:NH2	51:D6:38:LYS:CA	2.71	0.50
1:AA:255:G:C4	1:AA:256:U:C5	2.99	0.50
1:AA:271:C:H2'	1:AA:272:C:C6	2.47	0.50
1:AA:296:U:H2'	1:AA:297:G:C8	2.47	0.50
1:AA:1034:G:H2'	1:AA:1035:A:N7	2.26	0.50
1:AA:1135:U:O2'	1:AA:1136:U:H5	1.95	0.50
3:AF:5:ILE:H	3:AF:5:ILE:CD1	2.25	0.50
3:AF:52:LEU:H	3:AF:52:LEU:CD2	2.25	0.50
4:AG:63:LYS:O	4:AG:67:ILE:HG13	2.12	0.50
17:AT:34:LYS:O	17:AT:36:ILE:HG23	2.12	0.50
20:AW:43:LEU:HB2	20:AW:52:ALA:HB2	1.94	0.50
20:AW:100:ILE:HG13	20:AW:102:GLY:H	1.77	0.50
24:BA:36:G:N3	24:BA:450:G:O2'	2.45	0.50
24:BA:212:G:H2'	24:BA:213:A:C5'	2.41	0.50
24:BA:270(I):G:O2'	24:BA:270(J):G:H5'	2.11	0.50
24:BA:304:G:C2	24:BA:314:A:C2	3.00	0.50
24:BA:956:G:C4'	35:BP:83:MET:HE3	2.42	0.50
24:BA:1575:C:H2'	24:BA:1576:U:O4'	2.11	0.50
24:BA:1803:A:H4'	26:BD:259:THR:HG23	1.92	0.50
24:BA:2281:C:O2'	24:BA:2282:G:H5'	2.11	0.50
24:BA:2512:C:H2'	24:BA:2513:G:O4'	2.11	0.50
26:BD:27:THR:HG23	26:BD:30:GLU:OE1	2.12	0.50
26:BD:111:LEU:HD22	26:BD:115:GLN:OE1	2.11	0.50
27:BE:128:SER:OG	27:BE:129:HIS:N	2.44	0.50
29:BG:73:ALA:HB1	29:BG:82:LEU:CD1	2.37	0.50
29:BG:111:LEU:HB2	29:BG:112:PRO:HD3	1.92	0.50
29:BG:138:GLN:O	29:BG:144:ILE:HG13	2.12	0.50
29:BG:170:ARG:HE	29:BG:174:GLU:HG2	1.77	0.50
32:BM:69:GLN:O	32:BM:71:ILE:HD12	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BM:91:LEU:HD21	32:BM:98:VAL:HG11	1.92	0.50
36:B0:33:ARG:NH1	36:B0:113:LEU:HD21	2.25	0.50
44:BV:170:THR:O	44:BV:171:ILE:HG12	2.12	0.50
1:CA:147:G:O2'	1:CA:148:G:H5'	2.11	0.50
1:CA:271:C:H2'	1:CA:272:C:H6	1.77	0.50
1:CA:542:G:H5'	4:CG:41:GLY:CA	2.41	0.50
1:CA:634:C:H2'	1:CA:635:G:H8	1.76	0.50
1:CA:833:U:H2'	1:CA:834:C:H6	1.77	0.50
1:CA:1016:A:H5'	14:CQ:15:LYS:CE	2.41	0.50
1:CA:1054:C:C5	1:CA:1196:U:C4	2.99	0.50
1:CA:1075:C:H4'	2:CE:175:ARG:NH2	2.26	0.50
1:CA:1245:A:H2'	1:CA:1246:C:C6	2.46	0.50
1:CA:1251:A:H2'	1:CA:1252:A:C8	2.47	0.50
2:CE:188:ALA:HB1	2:CE:192:SER:OG	2.12	0.50
3:CF:11:ARG:HH22	3:CF:175:LEU:HA	1.76	0.50
3:CF:95:THR:O	3:CF:97:LYS:N	2.45	0.50
4:CG:9:CYS:CB	4:CG:22:LYS:HZ1	2.21	0.50
5:CH:35:GLY:HA3	5:CH:112:LEU:O	2.12	0.50
7:CJ:69:VAL:HG12	7:CJ:69:VAL:O	2.11	0.50
8:CK:86:ILE:HG12	8:CK:135:CYS:HA	1.94	0.50
9:CL:78:LYS:CG	9:CL:101:PHE:CZ	2.93	0.50
19:CV:14:HIS:CD2	19:CV:15:LEU:CD2	2.95	0.50
19:CV:39:THR:CG2	19:CV:40:ILE:N	2.75	0.50
22:CC:59:A:H2'	22:CC:60:U:C5'	2.36	0.50
24:DA:273(A):G:N2	24:DA:364:C:C2	2.79	0.50
24:DA:492:A:H2'	24:DA:493:G:H5'	1.94	0.50
24:DA:607:U:O2	24:DA:621:A:N1	2.45	0.50
24:DA:774:A:H2	24:DA:787:U:O2'	1.94	0.50
24:DA:1160:G:N2	40:D2:10:LYS:HE2	2.27	0.50
24:DA:2285:C:C3'	51:D6:28:ARG:CZ	2.89	0.50
24:DA:2393:A:P	53:D8:28:GLY:H	2.29	0.50
24:DA:2402:C:H2'	24:DA:2403:C:C5'	2.41	0.50
26:DD:172:TYR:CD1	26:DD:186:HIS:HA	2.46	0.50
29:DG:8:LYS:O	29:DG:11:TYR:HB3	2.12	0.50
29:DG:118:ARG:N	29:DG:118:ARG:NE	2.60	0.50
30:DH:167:GLU:HG2	30:DH:167:GLU:O	2.11	0.50
34:DO:96:THR:O	34:DO:100:LEU:HD23	2.12	0.50
34:DO:146:VAL:C	34:DO:147:LEU:HG	2.32	0.50
35:DP:6:ARG:O	35:DP:7:MET:CG	2.52	0.50
40:D2:22:VAL:CG2	40:D2:23:GLU:H	2.25	0.50
40:D2:35:LEU:CD2	40:D2:57:VAL:O	2.59	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DX:18:ASP:OD1	48:DX:19:GLN:HG3	2.11	0.50
1:AA:148:G:H2'	1:AA:149:A:H8	1.77	0.50
1:AA:437:U:O3'	4:AG:125:HIS:CE1	2.65	0.50
1:AA:1038:C:C2'	1:AA:1039:C:H5'	2.41	0.50
1:AA:1072:G:C5	1:AA:1073:U:C4	2.99	0.50
1:AA:1263:C:H2'	1:AA:1264:C:H6	1.75	0.50
1:AA:1328:C:O3'	13:AP:29:ARG:HG3	2.12	0.50
1:AA:1386:G:C2	1:AA:1387:G:N7	2.80	0.50
1:AA:1486:G:H2'	1:AA:1487:G:O4'	2.11	0.50
2:AE:4:GLU:HB3	2:AE:6:THR:HG22	1.93	0.50
2:AE:51:LEU:O	2:AE:54:THR:N	2.45	0.50
2:AE:215:LEU:HA	2:AE:218:ALA:HB3	1.93	0.50
4:AG:6:GLY:O	4:AG:8:VAL:CG1	2.58	0.50
12:AO:83:VAL:CG2	12:AO:84:LEU:H	2.25	0.50
13:AP:15:VAL:O	13:AP:19:LEU:HD23	2.12	0.50
17:AT:77:VAL:O	17:AT:77:VAL:HG12	2.11	0.50
21:AX:6:ARG:C	21:AX:8:THR:H	2.15	0.50
24:BA:527:C:N4	24:BA:2777:G:O2'	2.44	0.50
24:BA:1173:G:N3	24:BA:1175:U:H2'	2.25	0.50
24:BA:2838:G:N2	24:BA:2839:G:H1'	2.26	0.50
26:BD:85:ASP:OD2	26:BD:88:ARG:NH1	2.32	0.50
31:BK:29:TYR:C	31:BK:32:PRO:HD2	2.32	0.50
31:BK:73:GLU:HG2	31:BK:73:GLU:O	2.12	0.50
37:BQ:62:LYS:CB	37:BQ:97:ARG:HD3	2.42	0.50
38:BR:20:PRO:HG2	38:BR:86:ILE:O	2.12	0.50
41:BS:70:TYR:N	41:BS:70:TYR:CD1	2.79	0.50
42:BT:57:LEU:O	42:BT:57:LEU:HG	2.11	0.50
44:BV:105:VAL:HG22	44:BV:106:GLY:N	2.17	0.50
44:BV:106:GLY:O	44:BV:107:THR:OG1	2.23	0.50
44:BV:141:VAL:HB	44:BV:144:LEU:HD23	1.93	0.50
46:BZ:5:CYS:CB	46:BZ:8:SER:HG	2.24	0.50
52:B7:43:THR:CG2	52:B7:44:PRO:HD2	2.37	0.50
1:CA:451:A:C6	1:CA:481:G:C8	3.00	0.50
1:CA:571:U:O2'	1:CA:918:A:OP1	2.26	0.50
1:CA:613:C:H42	1:CA:627:G:H1	1.59	0.50
1:CA:991:U:HO2'	1:CA:992:U:P	2.34	0.50
1:CA:1034:G:O2'	1:CA:1035:A:O4'	2.25	0.50
1:CA:1046:A:N6	1:CA:1213:A:C2	2.69	0.50
1:CA:1089:G:H2'	1:CA:1090:U:O4'	2.12	0.50
1:CA:1118:C:H5"	9:CL:104:ARG:HB3	1.94	0.50
1:CA:1147:C:H4'	9:CL:5:TYR:CE2	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1344:C:H5"	9:CL:120:ARG:O	2.12	0.50
1:CA:1446:A:OP1	1:CA:1446:A:C4'	2.60	0.50
3:CF:64:VAL:HG21	3:CF:66:VAL:HG23	1.93	0.50
4:CG:8:VAL:O	4:CG:11:LEU:CG	2.55	0.50
4:CG:18:LYS:CE	4:CG:33:MET:SD	2.99	0.50
8:CK:20:TYR:CD1	8:CK:65:TYR:CD2	2.97	0.50
9:CL:82:ALA:CB	9:CL:101:PHE:CE2	2.95	0.50
12:CO:27:LEU:HB3	12:CO:33:ARG:HG2	1.94	0.50
13:CP:3:ARG:HE	13:CP:9:ILE:HD13	1.75	0.50
13:CP:29:ARG:CG	13:CP:64:TRP:CH2	2.95	0.50
22:CC:7:G:C2'	22:CC:8:U:OP1	2.60	0.50
22:CC:19:G:C2	22:CC:57:A:C2	3.00	0.50
24:DA:35:G:H2'	24:DA:36:G:O4'	2.12	0.50
24:DA:811:U:O2'	34:DO:21:ARG:HG3	2.12	0.50
24:DA:976:C:H42	24:DA:987:G:H1	1.60	0.50
24:DA:1142(A):A:C4	24:DA:1144:G:C8	3.00	0.50
24:DA:1450:C:N3	24:DA:1451:C:N4	2.60	0.50
24:DA:1498:C:O4'	24:DA:1577:C:H4'	2.11	0.50
24:DA:1657:C:H2'	24:DA:1658:C:C6	2.47	0.50
24:DA:2250:G:C2	35:DP:83:MET:HB3	2.46	0.50
24:DA:2341:G:H2'	24:DA:2342:C:O4'	2.11	0.50
24:DA:2392:A:H2'	53:D8:30:ARG:HH22	1.76	0.50
26:DD:35:LYS:HA	26:DD:64:ILE:CG2	2.42	0.50
26:DD:125:ILE:HG22	26:DD:125:ILE:O	2.10	0.50
28:DF:52:LYS:HA	28:DF:56:GLU:OE1	2.12	0.50
29:DG:35:GLU:O	29:DG:35:GLU:HG3	2.12	0.50
29:DG:106:LEU:O	29:DG:110:ALA:HB3	2.12	0.50
31:DK:76:THR:HG22	31:DK:139:GLN:O	2.11	0.50
31:DK:79:ILE:HB	31:DK:142:VAL:HA	1.93	0.50
35:DP:26:TYR:C	35:DP:26:TYR:HD1	2.15	0.50
38:DR:3:ARG:CG	38:DR:6:LEU:HB2	2.41	0.50
38:DR:106:SER:O	38:DR:107:ASP:HB3	2.10	0.50
44:DV:76:LEU:HD23	44:DV:76:LEU:O	2.11	0.50
46:DZ:57:GLU:C	46:DZ:58:ILE:HD13	2.32	0.50
49:D4:57:GLU:HA	49:D4:60:GLN:CG	2.42	0.50
1:AA:90:C:H2'	1:AA:91:C:O4'	2.12	0.50
1:AA:108:G:N2	1:AA:108:G:OP2	2.44	0.50
1:AA:319:G:H2'	1:AA:320:C:O4'	2.12	0.50
1:AA:564:C:OP1	12:AO:15:ARG:NE	2.41	0.50
1:AA:739:C:OP2	6:AI:2:ARG:NH2	2.39	0.50
1:AA:955:U:HO2'	19:AV:83:HIS:CD2	2.30	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:980:C:O2'	14:AQ:21:TYR:HE2	1.84	0.50
1:AA:1117:G:C4'	9:AL:104:ARG:HH12	2.24	0.50
1:AA:1186:G:H21	14:AQ:61:TRP:C	2.15	0.50
13:AP:81:LEU:HA	13:AP:84:ILE:HG22	1.94	0.50
15:AR:43:LEU:CD1	15:AR:56:LEU:HD22	2.42	0.50
16:AS:45:THR:HG22	16:AS:47:ASP:N	2.22	0.50
17:AT:78:GLU:OE2	17:AT:81:ARG:HD2	2.12	0.50
18:AU:63:GLN:HE22	18:AU:66:LEU:HD23	1.76	0.50
24:BA:16:G:C4	24:BA:17:G:C8	2.99	0.50
24:BA:71:A:N1	42:BT:31:HIS:HE1	2.08	0.50
24:BA:451:C:N4	24:BA:454:A:OP2	2.31	0.50
24:BA:534:U:H5'	39:B1:42:ALA:CB	2.38	0.50
24:BA:1006:C:H1'	32:BM:106:MET:CE	2.34	0.50
24:BA:1021:A:H2'	24:BA:1022:G:H5"	1.94	0.50
24:BA:1084:A:C6	24:BA:1085:A:C5	2.99	0.50
24:BA:2032:G:H21	27:BE:146:THR:HG23	1.77	0.50
24:BA:2345:G:H1'	24:BA:2382:G:H5'	1.92	0.50
24:BA:2401:U:O2	24:BA:2402:C:C5	2.65	0.50
24:BA:2636:U:P	27:BE:79:ARG:CA	2.97	0.50
24:BA:2702:U:OP1	24:BA:2702:U:H6	1.94	0.50
27:BE:195:LEU:C	27:BE:195:LEU:HD23	2.31	0.50
30:BH:9:ILE:HD12	30:BH:9:ILE:O	2.12	0.50
31:BK:114:LEU:HD12	31:BK:129:THR:O	2.11	0.50
32:BM:70:LYS:O	32:BM:86:PRO:HA	2.12	0.50
38:BR:98:LYS:CB	38:BR:100:TYR:CE1	2.92	0.50
40:B2:15:GLU:HG2	40:B2:16:PRO:HD2	1.91	0.50
44:BV:170:THR:C	44:BV:171:ILE:CG1	2.80	0.50
46:BZ:87:PRO:O	46:BZ:90:ILE:N	2.44	0.50
53:B8:7:HIS:HD2	53:B8:59:LYS:HD2	1.76	0.50
1:CA:5:U:C4	4:CG:86:LYS:HE3	2.47	0.50
1:CA:222:U:H2'	1:CA:223:U:C6	2.47	0.50
1:CA:254:G:H21	17:CT:16:GLN:HE22	1.46	0.50
1:CA:266:G:O5'	1:CA:267:C:H5	1.95	0.50
1:CA:421:U:O4	3:CF:127:ARG:NH1	2.44	0.50
1:CA:449:C:O2	1:CA:449:C:O4'	2.29	0.50
1:CA:515:G:H1'	1:CA:537:G:N2	2.26	0.50
1:CA:673:G:H5"	6:CI:87:ARG:NH2	2.26	0.50
1:CA:768:A:N3	1:CA:1512:U:O2'	2.43	0.50
1:CA:1111:A:N6	3:CF:176:HIS:O	2.44	0.50
1:CA:1122:U:N3	1:CA:1123:A:N7	2.60	0.50
1:CA:1226:C:OP2	13:CP:103:THR:OG1	2.14	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1479:C:C2	1:CA:1480:G:C8	3.00	0.50
55:CA:1805:TAC:H423	55:CA:1805:TAC:O1C	2.12	0.50
2:CE:87:ARG:NH1	2:CE:220:ASP:OD1	2.45	0.50
6:CI:23:LYS:HA	6:CI:26:ILE:HD12	1.92	0.50
8:CK:109:ILE:HG23	8:CK:137:VAL:CG2	2.33	0.50
9:CL:9:ARG:HD3	9:CL:14:VAL:CG1	2.41	0.50
10:CM:81:THR:CB	10:CM:84:GLN:HE21	2.24	0.50
17:CT:95:TYR:C	17:CT:97:SER:N	2.64	0.50
19:CV:49:ILE:HD11	19:CV:60:VAL:HG22	1.94	0.50
20:CW:16:HIS:O	20:CW:19:SER:OG	2.23	0.50
21:CX:13:ILE:CG2	21:CX:14:TRP:N	2.75	0.50
24:DA:196:A:H2'	24:DA:196:A:N3	2.27	0.50
24:DA:270(B):A:H62	24:DA:270(X):G:H21	1.59	0.50
24:DA:302:C:H2'	24:DA:303:U:C6	2.47	0.50
24:DA:387:U:H4'	24:DA:388:G:O5'	2.10	0.50
24:DA:1591:G:O2'	24:DA:1592:C:H5'	2.11	0.50
24:DA:2728:U:H5'	33:DN:70:LYS:NZ	2.26	0.50
30:DH:109:PHE:CZ	30:DH:152:ARG:CD	2.88	0.50
31:DK:47:LEU:HG	31:DK:51:ILE:CD1	2.42	0.50
31:DK:123:LEU:CD2	31:DK:142:VAL:HG22	2.40	0.50
32:DM:20:GLY:HA2	32:DM:61:ARG:CG	2.42	0.50
33:DN:87:ILE:HG12	33:DN:91:LEU:HA	1.94	0.50
35:DP:12:GLN:HG2	35:DP:73:PRO:HD2	1.94	0.50
35:DP:17:LEU:HD21	35:DP:41:TRP:HE1	1.77	0.50
35:DP:135:ASP:OD2	35:DP:137:TYR:HD2	1.95	0.50
42:DT:3:THR:HA	47:DW:29:LYS:HZ2	1.77	0.50
43:DU:54:LYS:HG2	43:DU:55:TYR:CD1	2.47	0.50
44:DV:151:HIS:HA	44:DV:170:THR:CA	2.42	0.50
1:AA:186(C):G:C6	1:AA:186(D):C:C4	3.00	0.50
1:AA:827:U:O2	1:AA:827:U:O4'	2.29	0.50
1:AA:1190:G:P	3:AF:5:ILE:HD12	2.52	0.50
5:AH:140:ARG:HG2	5:AH:140:ARG:O	2.11	0.50
7:AJ:113:GLU:CG	7:AJ:119:ARG:HG2	2.41	0.50
10:AM:50:ILE:HG12	10:AM:60:ARG:HD3	1.93	0.50
11:AN:40:ILE:HG22	11:AN:75:TYR:CD2	2.46	0.50
13:AP:12:ASN:H	13:AP:46:LYS:CD	2.25	0.50
13:AP:70:LEU:O	13:AP:74:VAL:HG23	2.12	0.50
17:AT:29:HIS:CE1	17:AT:32:TYR:CD2	3.00	0.50
20:AW:30:LYS:NZ	20:AW:34:LYS:HB2	2.27	0.50
24:BA:270(M):U:O2'	24:BA:270(N):G:O5'	2.27	0.50
24:BA:889:C:O2	24:BA:889:C:C3'	2.59	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:956:G:H2'	24:BA:957:A:H2'	1.92	0.50
24:BA:1316:U:H2'	24:BA:1317:A:C8	2.47	0.50
24:BA:1830:C:O2'	24:BA:1831:G:H5'	2.11	0.50
24:BA:2074:U:H2'	24:BA:2075:U:H6	1.72	0.50
24:BA:2154:G:H2'	24:BA:2155:G:H8	1.77	0.50
24:BA:2286:A:H8	24:BA:2287:A:N6	2.10	0.50
24:BA:2298:A:N6	24:BA:2318:G:C8	2.79	0.50
25:BB:16:G:C4	25:BB:17:C:C5	3.00	0.50
25:BB:95:U:N3	25:BB:96:G:N7	2.60	0.50
30:BH:4:ILE:HD11	30:BH:7:LEU:HG	0.71	0.50
31:BK:123:LEU:CB	31:BK:142:VAL:HG23	2.42	0.50
34:BO:36:LYS:CG	34:BO:37:GLY:H	2.25	0.50
35:BP:26:TYR:HD1	35:BP:27:VAL:N	2.10	0.50
40:B2:49:THR:CB	40:B2:50:PRO:CD	2.74	0.50
51:B6:36:LEU:HD12	51:B6:48:VAL:HG12	1.94	0.50
1:CA:346:G:N2	1:CA:347:G:C8	2.80	0.50
1:CA:376:G:H4'	16:CS:5:ARG:HD3	1.94	0.50
1:CA:838:G:N2	1:CA:849:C:C4	2.80	0.50
1:CA:1266:G:N2	1:CA:1270:C:N3	2.59	0.50
1:CA:1367:C:H5"	9:CL:114:TYR:CB	2.42	0.50
2:CE:57:PHE:CG	2:CE:199:TYR:CE2	3.00	0.50
5:CH:145:LYS:O	5:CH:149:GLU:N	2.29	0.50
6:CI:33:TYR:CD1	6:CI:75:LEU:HD13	2.47	0.50
10:CM:48:THR:HG23	10:CM:62:HIS:CB	2.37	0.50
11:CN:84:VAL:HG21	11:CN:95:ILE:HD11	1.94	0.50
18:CU:37:VAL:O	18:CU:41:LYS:HB2	2.12	0.50
24:DA:1313:U:C2'	24:DA:1610:A:C2	2.91	0.50
24:DA:1986:A:H2'	24:DA:1987:G:C8	2.46	0.50
24:DA:2061:G:N2	24:DA:2063:C:C6	2.80	0.50
24:DA:2873:A:H8	36:D0:5:LYS:HA	1.77	0.50
26:DD:244:ARG:HB2	26:DD:245:PRO:HD2	1.93	0.50
27:DE:186:GLY:O	27:DE:187:ALA:HB3	2.12	0.50
28:DF:125:LEU:H	28:DF:125:LEU:CD2	2.20	0.50
29:DG:106:LEU:HA	29:DG:110:ALA:CB	2.41	0.50
29:DG:114:ILE:HB	29:DG:117:PHE:HB2	1.94	0.50
30:DH:3:ARG:NH1	30:DH:4:ILE:CG1	2.60	0.50
31:DK:8:PRO:HD3	31:DK:15:VAL:CG2	2.41	0.50
33:DN:103:ALA:HB1	33:DN:105:GLU:OE1	2.12	0.50
36:D0:65:LEU:O	36:D0:68:ARG:HB3	2.11	0.50
46:DZ:64:ALA:HA	46:DZ:67:ILE:HG13	1.93	0.50
51:D6:18:ARG:HH21	51:D6:44:ARG:CZ	2.25	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:D7:1:MET:CE	52:D7:1:MET:CA	2.90	0.50
1:AA:102:G:C6	1:AA:103:C:C5	3.00	0.49
1:AA:1382:C:H5'	7:AJ:79:ARG:HH11	1.73	0.49
3:AF:13:GLY:HA2	14:AQ:57:ARG:CZ	2.42	0.49
5:AH:153:LYS:HB2	5:AH:153:LYS:NZ	2.26	0.49
6:AI:61:LEU:HB3	6:AI:63:TYR:HE1	1.77	0.49
8:AK:51:VAL:HG22	8:AK:60:ARG:H	1.77	0.49
9:AL:93:ARG:HG2	9:AL:102:LEU:HD11	1.94	0.49
12:AO:60:LEU:HD23	12:AO:64:TYR:O	2.11	0.49
17:AT:99:SER:C	17:AT:101:ARG:H	2.16	0.49
24:BA:32:C:C2'	24:BA:33:U:H5'	2.42	0.49
24:BA:547:A:C2'	24:BA:548:A:C8	2.93	0.49
24:BA:607:U:C2	24:BA:621:A:N1	2.80	0.49
24:BA:745:G:H2'	24:BA:746:A:H5'	1.94	0.49
24:BA:830:G:H4'	24:BA:831:G:OP2	2.11	0.49
24:BA:1060:U:C1'	24:BA:1061:U:P	3.00	0.49
24:BA:1557:C:OP2	24:BA:1558:A:O2'	2.26	0.49
24:BA:1786:A:H1'	24:BA:1938:A:N6	2.27	0.49
24:BA:1884:A:N1	24:BA:1885:A:C5	2.80	0.49
24:BA:2328:A:H2'	24:BA:2329:G:C8	2.47	0.49
30:BH:4:ILE:HB	30:BH:6:ARG:CG	2.41	0.49
34:BO:49:ARG:HE	53:B8:58:ILE:HG22	1.77	0.49
36:B0:8:ARG:HD2	36:B0:43:GLU:HB2	1.93	0.49
37:BQ:30:ARG:HA	37:BQ:35:ILE:HA	1.94	0.49
40:B2:22:VAL:HG12	40:B2:23:GLU:N	2.27	0.49
49:B4:14:ILE:HD12	49:B4:24:THR:HG22	1.93	0.49
49:B4:35:VAL:O	49:B4:35:VAL:CG1	2.56	0.49
1:CA:5:U:C5	4:CG:86:LYS:HE3	2.47	0.49
1:CA:115:G:H1'	1:CA:116:A:OP2	2.12	0.49
1:CA:197:A:H1'	1:CA:198:G:O4'	2.12	0.49
1:CA:512:U:O5'	4:CG:43:HIS:HE1	1.95	0.49
1:CA:1010:G:H2'	1:CA:1011:G:C8	2.47	0.49
1:CA:1399:C:H4'	1:CA:1400:C:O5'	2.12	0.49
6:CI:14:LEU:HD13	6:CI:19:LEU:HD22	1.94	0.49
10:CM:3:LYS:HE2	10:CM:77:PRO:HG3	1.93	0.49
10:CM:30:SER:OG	10:CM:84:GLN:NE2	2.45	0.49
17:CT:22:LEU:HD11	17:CT:39:SER:HB2	1.93	0.49
22:CC:35:A:C2	23:C1:18:G:C2	2.99	0.49
24:DA:572:A:C2	24:DA:2033:A:C2	3.00	0.49
24:DA:654(J):A:N3	24:DA:654(J):A:H2'	2.27	0.49
24:DA:674:G:O2'	28:DF:74:ARG:HG3	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:974(A):C:O2	24:DA:974(A):C:H2'	2.11	0.49
24:DA:1695:G:H2'	24:DA:1696:G:C4'	2.41	0.49
24:DA:1810:A:H2'	24:DA:1811:G:O4'	2.12	0.49
24:DA:1858:G:H8	24:DA:1858:G:OP2	1.95	0.49
24:DA:2245:U:C5'	24:DA:2246:G:H5'	2.42	0.49
24:DA:2266:A:H4'	24:DA:2267:A:C2	2.47	0.49
24:DA:2294:C:P	37:DQ:89:ARG:HH22	2.34	0.49
24:DA:2321:G:H5"	24:DA:2322:A:OP2	2.12	0.49
24:DA:2584:U:C6	24:DA:2585:U:C6	2.99	0.49
25:DB:44:G:H1'	25:DB:46:A:H62	1.77	0.49
26:DD:31:LYS:CD	26:DD:33:LEU:HD11	2.42	0.49
26:DD:85:ASP:OD1	26:DD:86:PRO:HD2	2.12	0.49
28:DF:188:ARG:CA	34:DO:3:LEU:HD11	2.39	0.49
29:DG:133:LEU:HD21	29:DG:157:ILE:CG2	2.42	0.49
29:DG:133:LEU:HD23	29:DG:133:LEU:H	1.76	0.49
34:DO:62:LEU:CD1	34:DO:63:PRO:N	2.75	0.49
35:DP:20:ALA:HB2	44:DV:79:ARG:NH2	2.26	0.49
37:DQ:83:LYS:HB3	37:DQ:109:GLY:H	1.77	0.49
38:DR:106:SER:O	38:DR:107:ASP:OD1	2.29	0.49
40:D2:35:LEU:CG	40:D2:37:VAL:HG21	2.41	0.49
40:D2:84:LYS:HG3	40:D2:85:LYS:CG	2.41	0.49
44:DV:54:HIS:HB3	44:DV:101:PRO:HD3	1.93	0.49
44:DV:118:GLN:NE2	44:DV:173:ALA:HB3	2.27	0.49
46:DZ:91:LYS:HB2	46:DZ:91:LYS:HZ2	1.76	0.49
49:D4:55:ARG:HG3	49:D4:56:VAL:N	2.27	0.49
1:AA:246:A:OP1	17:AT:100:LYS:CE	2.61	0.49
1:AA:341:C:O2'	1:AA:342:C:H5'	2.12	0.49
1:AA:377:G:P	16:AS:5:ARG:HH11	2.35	0.49
1:AA:412:A:H4'	1:AA:413:G:O5'	2.12	0.49
1:AA:620:C:C4	4:AG:135:LEU:CD2	2.96	0.49
1:AA:626:U:H4'	16:AS:38:TYR:OH	2.12	0.49
1:AA:632:A:N6	1:AA:633:G:C2	2.80	0.49
1:AA:1152:A:H5'	10:AM:13:HIS:CD2	2.47	0.49
2:AE:4:GLU:O	2:AE:217:ARG:HD3	2.12	0.49
2:AE:171:ALA:O	2:AE:174:VAL:HG13	2.13	0.49
8:AK:33:GLU:OE1	8:AK:50:ARG:NE	2.45	0.49
24:BA:184:C:C2	24:BA:185:U:C5	3.01	0.49
24:BA:416:C:H2'	24:BA:417:C:O4'	2.13	0.49
24:BA:481:G:OP2	43:BU:47:LYS:HG3	2.12	0.49
24:BA:483:A:C4	43:BU:60:PHE:CE1	3.01	0.49
24:BA:654(B):C:H2'	24:BA:654(C):G:C8	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:654(I):C:O2	24:BA:654(I):C:C2'	2.60	0.49
24:BA:847:U:C4	24:BA:933:A:N1	2.80	0.49
24:BA:1087:G:C4	24:BA:1089:G:H1'	2.47	0.49
24:BA:1530:G:O6	24:BA:1542:G:N2	2.44	0.49
24:BA:1947:C:O2'	24:BA:1948:G:H5'	2.12	0.49
24:BA:2457:U:C2'	24:BA:2458:G:H5'	2.42	0.49
24:BA:2579:C:H2'	24:BA:2580:U:O4'	2.12	0.49
31:BK:100:ALA:HA	31:BK:103:ARG:CZ	2.43	0.49
34:BO:50:ARG:HD2	53:B8:7:HIS:HE2	1.77	0.49
35:BP:20:ALA:O	35:BP:21:THR:CG2	2.59	0.49
36:B0:24:GLN:HE22	36:B0:36:THR:HG21	1.76	0.49
36:B0:100:LEU:HD13	36:B0:112:ALA:CA	2.42	0.49
37:BQ:58:LEU:N	37:BQ:58:LEU:CD2	2.74	0.49
37:BQ:108:GLY:C	37:BQ:110:LEU:H	2.10	0.49
38:BR:15:VAL:HG22	38:BR:16:ARG:N	2.27	0.49
39:B1:57:PHE:O	39:B1:60:LEU:HB3	2.12	0.49
39:B1:102:GLU:HA	39:B1:102:GLU:OE2	2.12	0.49
44:BV:98:MET:SD	44:BV:133:ILE:HD12	2.52	0.49
46:BZ:64:ALA:HA	46:BZ:67:ILE:CD1	2.41	0.49
48:BX:7:LYS:NZ	48:BX:32:GLN:HG3	2.27	0.49
50:B5:40:LYS:HG2	50:B5:47:PRO:HD2	1.92	0.49
51:B6:14:THR:OG1	51:B6:21:TYR:N	2.45	0.49
1:CA:197:A:H8	1:CA:198:G:N9	2.10	0.49
1:CA:411:A:C5	1:CA:413:G:C1'	2.85	0.49
1:CA:854:G:H3'	1:CA:871:U:O4	2.12	0.49
1:CA:859:A:H2'	1:CA:860:A:O4'	2.12	0.49
1:CA:940:C:H2'	1:CA:941:G:H8	1.74	0.49
1:CA:1292:U:H2'	1:CA:1293:G:H8	1.76	0.49
1:CA:1319:A:N6	1:CA:1361:G:H21	2.10	0.49
1:CA:1396:A:H2	5:CH:19:MET:HG2	1.77	0.49
2:CE:33:TYR:O	2:CE:33:TYR:HD1	1.95	0.49
2:CE:164:VAL:HG12	2:CE:165:VAL:N	2.18	0.49
3:CF:43:LEU:HD23	3:CF:43:LEU:C	2.32	0.49
4:CG:162:LEU:O	4:CG:166:LYS:HG3	2.11	0.49
8:CK:103:VAL:HG21	8:CK:109:ILE:HA	1.94	0.49
9:CL:79:LEU:O	9:CL:80:GLY:C	2.49	0.49
15:CR:56:LEU:O	15:CR:60:VAL:HG23	2.12	0.49
24:DA:1190:G:OP1	34:DO:32:THR:HA	2.12	0.49
24:DA:1210:A:H5'	24:DA:1212:G:C4'	2.42	0.49
24:DA:1210:A:H5"	24:DA:1211:U:H3'	1.94	0.49
24:DA:1215:G:O2'	24:DA:1216:G:H5'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1332:G:N2	24:DA:1609:A:HO2'	2.10	0.49
24:DA:1601:G:O5'	52:D7:49:ARG:NH2	2.43	0.49
24:DA:2468:G:OP2	24:DA:2468:G:C8	2.64	0.49
24:DA:2757:A:N3	24:DA:2757:A:H2'	2.27	0.49
24:DA:2801:A:H5'	24:DA:2895:U:H5"	1.94	0.49
26:DD:44:ASN:CB	26:DD:48:ARG:O	2.59	0.49
28:DF:110:LEU:O	28:DF:114:VAL:HG23	2.12	0.49
30:DH:22:GLY:O	30:DH:37:VAL:HG12	2.13	0.49
30:DH:26:VAL:HG13	30:DH:26:VAL:O	2.09	0.49
31:DK:52:ARG:HD2	31:DK:52:ARG:C	2.32	0.49
31:DK:57:ARG:HG3	31:DK:58:LEU:N	2.26	0.49
31:DK:61:ARG:HA	31:DK:64:GLU:HB2	1.93	0.49
44:DV:19:ARG:HH12	44:DV:84:GLU:HA	1.77	0.49
44:DV:19:ARG:NH1	44:DV:84:GLU:HA	2.26	0.49
50:D5:45:VAL:CG1	50:D5:56:LYS:HG3	2.39	0.49
53:D8:23:VAL:CG2	53:D8:47:LYS:HB3	2.39	0.49
1:AA:278:G:OP2	17:AT:41:LYS:HE2	2.13	0.49
1:AA:316:G:OP2	1:AA:351:G:O2'	2.30	0.49
1:AA:582:U:OP1	15:AR:68:ARG:NH2	2.45	0.49
1:AA:603:U:H2'	1:AA:604:G:C8	2.47	0.49
1:AA:638:G:O2'	1:AA:639:G:H5'	2.12	0.49
1:AA:676:A:H2'	1:AA:677:U:C6	2.47	0.49
1:AA:692:U:H1'	1:AA:695:A:N7	2.27	0.49
1:AA:785:G:O2'	1:AA:786:G:H5'	2.12	0.49
2:AE:77:ALA:CB	2:AE:165:VAL:HG21	2.42	0.49
4:AG:178:VAL:HG23	4:AG:179:GLU:N	2.27	0.49
7:AJ:115:ARG:CG	7:AJ:116:ALA:H	2.25	0.49
18:AU:61:LYS:O	18:AU:65:ILE:HG12	2.12	0.49
19:AV:41:VAL:N	19:AV:44:MET:HE3	2.27	0.49
24:BA:164:U:H5"	24:BA:165:U:C6	2.47	0.49
24:BA:213:A:C2'	24:BA:214:G:H5'	2.42	0.49
24:BA:882:G:O2'	24:BA:883:G:C8	2.63	0.49
24:BA:1045:A:H4'	24:BA:1045:A:OP1	2.11	0.49
24:BA:1175:U:H1'	24:BA:1176:G:H1'	1.94	0.49
24:BA:1914:C:O2	24:BA:1914:C:C3'	2.60	0.49
24:BA:2302:G:O2'	24:BA:2303:G:H5'	2.12	0.49
25:BB:24:G:C8	25:BB:56:G:C8	3.01	0.49
26:BD:228:PRO:HD3	26:BD:235:GLY:HA3	1.94	0.49
28:BF:101:LEU:HD12	28:BF:102:PRO:CD	2.41	0.49
28:BF:185:ASP:OD1	28:BF:188:ARG:NH1	2.27	0.49
31:BK:104:GLN:O	31:BK:105:HIS:HB2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BO:83:VAL:HG11	34:BO:112:LEU:HD21	1.93	0.49
38:BR:57:PHE:CG	38:BR:58:ASN:N	2.80	0.49
41:BS:105:VAL:HG12	41:BS:107:LEU:CD1	2.42	0.49
49:B4:37:SER:CB	49:B4:43:TYR:HE2	2.24	0.49
1:CA:8:A:H5'	5:CH:101:ILE:CD1	2.42	0.49
1:CA:224:C:H2'	1:CA:225:C:C6	2.47	0.49
1:CA:376:G:H5"	16:CS:5:ARG:HB2	1.93	0.49
1:CA:457:C:H2'	1:CA:458:C:H6	1.77	0.49
1:CA:585:G:H4'	12:CO:8:ASN:OD1	2.11	0.49
1:CA:598:U:H4'	8:CK:94:TYR:CE2	2.46	0.49
1:CA:625:G:H4'	16:CS:16:HIS:CD2	2.48	0.49
1:CA:913:A:H4'	1:CA:914:A:O5'	2.11	0.49
1:CA:1053:G:O2'	1:CA:1199:U:H5	1.94	0.49
1:CA:1304:G:C6	1:CA:1305:G:N1	2.80	0.49
2:CE:139:LYS:HD3	2:CE:139:LYS:C	2.33	0.49
4:CG:108:LEU:HB3	4:CG:110:PHE:CD1	2.47	0.49
10:CM:35:SER:N	10:CM:73:ASP:O	2.44	0.49
13:CP:78:ILE:CG2	13:CP:92:HIS:CD2	2.89	0.49
14:CQ:22:THR:HG23	14:CQ:23:ARG:N	2.23	0.49
19:CV:36:ARG:CD	19:CV:51:VAL:HG11	2.29	0.49
24:DA:26:G:C6	24:DA:27:G:N1	2.81	0.49
24:DA:413:C:O5'	24:DA:413:C:H6	1.95	0.49
24:DA:1306:C:C2'	24:DA:1307:A:H5'	2.42	0.49
24:DA:1499:C:H2'	24:DA:1500:G:C8	2.48	0.49
24:DA:1533:C:C6	24:DA:1534:G:H1'	2.47	0.49
24:DA:1653:G:H5"	36:D0:2:ARG:HH12	1.75	0.49
24:DA:1996:C:H5	33:DN:32:TYR:HH	1.59	0.49
24:DA:2392:A:H2'	53:D8:30:ARG:NH2	2.28	0.49
27:DE:8:LYS:O	27:DE:9:VAL:CG2	2.60	0.49
27:DE:60:ASN:O	27:DE:62:PRO:CD	2.43	0.49
33:DN:120:GLU:OE2	38:DR:67:SER:HB2	2.12	0.49
36:D0:84:ALA:N	36:D0:85:PRO:CD	2.74	0.49
40:D2:41:GLY:CA	40:D2:46:VAL:HG13	2.42	0.49
43:DU:95:LYS:HD3	43:DU:96:ILE:O	2.12	0.49
48:DX:7:LYS:HG3	48:DX:34:GLU:HG2	1.94	0.49
1:AA:295:C:H2'	1:AA:296:U:C6	2.47	0.49
1:AA:450:G:OP1	16:AS:43:LYS:NZ	2.45	0.49
1:AA:451:A:N6	1:AA:480:U:H2'	2.28	0.49
1:AA:939:G:C6	1:AA:940:C:N4	2.80	0.49
1:AA:1199:U:H5'	10:AM:54:PHE:HE2	1.74	0.49
3:AF:50:ALA:CA	3:AF:72:LYS:HD2	2.41	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AG:12:CYS:SG	4:AG:19:LEU:HD23	2.52	0.49
4:AG:169:LYS:HG2	4:AG:170:VAL:H	1.77	0.49
14:AQ:15:LYS:HB3	14:AQ:16:PHE:CD2	2.47	0.49
16:AS:23:ASP:CG	16:AS:25:ARG:HD3	2.32	0.49
17:AT:4:LYS:HE3	17:AT:6:LEU:HD21	1.93	0.49
17:AT:87:LYS:HD3	17:AT:90:ILE:HD12	1.94	0.49
24:BA:6:A:H61	24:BA:2897:U:H3	1.61	0.49
24:BA:278:A:H2'	24:BA:279:C:C5	2.47	0.49
24:BA:783:A:C2'	24:BA:785:G:OP1	2.61	0.49
24:BA:795:C:H2'	24:BA:796:C:H6	1.74	0.49
24:BA:1469:A:H2'	24:BA:1470:G:C8	2.47	0.49
24:BA:1642:G:O2'	24:BA:1643:G:H5'	2.12	0.49
24:BA:1820:U:C2	26:BD:202:LYS:HB3	2.48	0.49
24:BA:2146:C:H4'	24:BA:2147:G:C4	2.47	0.49
24:BA:2285:C:P	51:B6:28:ARG:NE	2.85	0.49
24:BA:2296:U:H4'	24:BA:2297:C:OP1	2.13	0.49
24:BA:2705:A:H2'	24:BA:2706:G:O4'	2.11	0.49
24:BA:2785:C:H1'	27:BE:64:LYS:CE	2.41	0.49
28:BF:6:VAL:HG12	28:BF:115:ALA:O	2.12	0.49
29:BG:125:PHE:C	29:BG:127:GLY:H	2.15	0.49
31:BK:116:LEU:CD1	31:BK:117:GLU:H	2.25	0.49
34:BO:92:GLU:OE2	34:BO:92:GLU:HA	2.12	0.49
36:B0:117:VAL:O	36:B0:118:GLU:HB2	2.13	0.49
38:BR:110:ILE:HG23	38:BR:111:ARG:H	1.77	0.49
42:BT:50:LYS:HB3	42:BT:84:ALA:CB	2.42	0.49
43:BU:76:CYS:O	43:BU:81:LYS:CE	2.61	0.49
45:B3:41:ARG:HA	45:B3:41:ARG:HE	1.76	0.49
1:CA:241:C:C2	1:CA:286:G:C2	3.01	0.49
1:CA:1002:G:N2	1:CA:1038:C:N3	2.60	0.49
1:CA:1015:A:O3'	14:CQ:15:LYS:NZ	2.35	0.49
1:CA:1196:U:O2'	1:CA:1197:G:OP2	2.28	0.49
1:CA:1291:G:C5	1:CA:1292:U:C4	3.00	0.49
5:CH:60:TYR:CG	5:CH:64:ARG:NH2	2.80	0.49
7:CJ:28:ASN:O	7:CJ:31:MET:HB3	2.11	0.49
7:CJ:65:ALA:HB1	7:CJ:127:ALA:CB	2.40	0.49
7:CJ:78:ARG:CZ	7:CJ:87:VAL:N	2.68	0.49
7:CJ:89:MET:CB	7:CJ:155:ARG:HH12	2.17	0.49
8:CK:49:GLU:OE2	8:CK:62:TYR:OH	2.24	0.49
8:CK:129:VAL:CG2	8:CK:130:GLY:H	2.24	0.49
11:CN:50:TYR:CD2	11:CN:60:ALA:HB2	2.47	0.49
19:CV:80:TYR:CE2	19:CV:82:GLY:CA	2.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:110:G:C2'	24:DA:111:A:H5'	2.42	0.49
24:DA:270(J):G:H1	24:DA:270(P):C:H42	1.59	0.49
24:DA:282:A:N6	24:DA:284:U:C2	2.80	0.49
24:DA:483:A:C5'	43:DU:49:VAL:HG13	2.43	0.49
24:DA:659:C:O2'	24:DA:660:G:H5'	2.13	0.49
24:DA:890:A:H2'	24:DA:892:G:C8	2.47	0.49
24:DA:1011:G:C6	24:DA:1013:C:C4	2.99	0.49
24:DA:1098:A:H3'	24:DA:1099:G:C8	2.46	0.49
24:DA:1114:G:H2'	24:DA:1115:G:H8	1.78	0.49
24:DA:1394:U:H3'	24:DA:1394:U:H6	1.77	0.49
24:DA:1423:G:H2'	24:DA:1424:G:C8	2.46	0.49
24:DA:1444(A):A:H5'	24:DA:1445:C:OP2	2.12	0.49
24:DA:2041:U:H2'	24:DA:2042:A:C8	2.47	0.49
24:DA:2218:G:H5"	26:DD:186:HIS:CE1	2.47	0.49
24:DA:2393:A:P	53:D8:30:ARG:CZ	3.00	0.49
24:DA:2583:G:H2'	24:DA:2584:U:O2	2.12	0.49
24:DA:2752:C:C2'	24:DA:2753:A:H5'	2.42	0.49
27:DE:73:GLU:OE1	27:DE:73:GLU:HA	2.12	0.49
31:DK:19:VAL:HG22	31:DK:20:ASP:N	2.27	0.49
34:DO:19:VAL:CG2	34:DO:20:GLY:H	2.07	0.49
38:DR:88:ILE:HD11	38:DR:91:ARG:CG	2.30	0.49
39:D1:98:LEU:O	39:D1:100:VAL:N	2.43	0.49
44:DV:30:ASN:CB	44:DV:89:PHE:CE1	2.95	0.49
46:DZ:67:ILE:HB	46:DZ:68:PRO:HD3	1.95	0.49
1:AA:446:G:H1	1:AA:488:C:H42	1.60	0.49
1:AA:890:G:O2'	1:AA:891:U:OP2	2.30	0.49
1:AA:1178:G:N2	1:AA:1181:G:N7	2.61	0.49
1:AA:1421:G:N2	1:AA:1422:G:H1'	2.28	0.49
2:AE:162:ILE:CD1	2:AE:184:VAL:HG13	2.43	0.49
3:AF:92:ALA:HB2	3:AF:99:VAL:CG1	2.43	0.49
5:AH:31:LEU:CD2	5:AH:43:LEU:HD11	2.42	0.49
7:AJ:29:LYS:O	7:AJ:105:VAL:HG21	2.11	0.49
13:AP:90:LEU:C	13:AP:90:LEU:HD12	2.33	0.49
19:AV:78:ARG:O	19:AV:79:THR:HB	2.12	0.49
24:BA:329:G:H4'	24:BA:330:A:OP2	2.12	0.49
24:BA:811:U:OP2	34:BO:21:ARG:O	2.30	0.49
24:BA:1060:U:C1'	24:BA:1061:U:OP2	2.57	0.49
24:BA:1511:A:H2'	24:BA:1512:G:O4'	2.11	0.49
24:BA:1916:A:H2'	24:BA:1917:U:O4'	2.13	0.49
24:BA:2418:A:P	53:B8:29:LYS:NZ	2.84	0.49
28:BF:135:LYS:HB3	28:BF:138:GLU:HG3	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BN:104:ARG:NH1	38:BR:36:GLU:OE1	2.45	0.49
37:BQ:87:PHE:CD1	37:BQ:112:PHE:CZ	3.01	0.49
44:BV:118:GLN:HG3	44:BV:173:ALA:HB3	1.94	0.49
44:BV:145:GLU:CD	44:BV:145:GLU:N	2.66	0.49
46:BZ:92:LYS:HA	46:BZ:95:LEU:HB2	1.93	0.49
50:B5:40:LYS:CD	50:B5:46:CYS:HB3	2.42	0.49
51:B6:19:ARG:O	51:B6:19:ARG:HG3	2.12	0.49
53:B8:30:ARG:O	53:B8:31:HIS:HB2	2.11	0.49
1:CA:194:C:C2'	1:CA:195:A:H5"	2.43	0.49
1:CA:409:G:N2	1:CA:434:U:N3	2.60	0.49
1:CA:660:G:H2'	1:CA:661:G:O4'	2.11	0.49
1:CA:1085:U:O4'	1:CA:1094:G:C2	2.66	0.49
1:CA:1289:A:H61	9:CL:70:LYS:HZ2	1.60	0.49
2:CE:16:HIS:HE1	2:CE:213:LEU:HD13	1.76	0.49
3:CF:126:ARG:HB2	3:CF:128:PHE:CD1	2.48	0.49
3:CF:136:GLN:O	3:CF:140:ARG:CG	2.50	0.49
15:CR:87:ILE:HG22	15:CR:88:ARG:N	2.27	0.49
17:CT:101:ARG:HG2	17:CT:101:ARG:NH2	2.23	0.49
19:CV:49:ILE:HD11	19:CV:60:VAL:CG2	2.43	0.49
21:CX:6:ARG:HE	21:CX:15:ARG:HH12	1.59	0.49
24:DA:485:C:C2	24:DA:496:G:C2	2.99	0.49
24:DA:620:G:H4'	24:DA:621:A:C5'	2.43	0.49
24:DA:623:G:H2'	24:DA:624:C:H6	1.76	0.49
24:DA:642:G:N2	24:DA:646:A:C2	2.79	0.49
24:DA:844:C:O2'	24:DA:845:G:H5'	2.12	0.49
24:DA:1176:G:O2'	24:DA:1177:A:O4'	2.30	0.49
24:DA:1416:G:C2'	24:DA:1417:C:C6	2.95	0.49
24:DA:1925:C:H2'	24:DA:1926:U:C5'	2.42	0.49
24:DA:2135:A:C4	24:DA:2159:G:O2'	2.65	0.49
24:DA:2153:G:C2	24:DA:2154:G:C8	3.01	0.49
24:DA:2176:A:O2'	24:DA:2177:C:H5'	2.12	0.49
24:DA:2352:A:C2	45:D3:33:ALA:HB1	2.44	0.49
24:DA:2590:A:OP2	26:DD:238:GLY:HA2	2.11	0.49
24:DA:2893:G:H5'	24:DA:2894:G:OP1	2.12	0.49
26:DD:77:ALA:HB2	26:DD:97:TYR:HA	1.93	0.49
26:DD:227:ASN:HB3	26:DD:228:PRO:CD	2.42	0.49
27:DE:64:LYS:HZ1	27:DE:66:HIS:HA	1.78	0.49
30:DH:4:ILE:HD12	30:DH:5:GLY:C	2.33	0.49
30:DH:12:PRO:HB2	30:DH:15:VAL:CG2	2.42	0.49
30:DH:50:VAL:O	30:DH:50:VAL:HG13	2.12	0.49
30:DH:149:ARG:NH1	30:DH:163:TYR:HA	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DP:26:TYR:C	35:DP:26:TYR:CD1	2.86	0.49
38:DR:51:ARG:HG2	38:DR:52:ILE:N	2.27	0.49
44:DV:171:ILE:HG22	44:DV:172:ALA:N	2.27	0.49
45:D3:68:GLU:OE1	45:D3:82:ARG:NH1	2.44	0.49
46:DZ:75:GLU:O	46:DZ:76:ARG:HG2	2.12	0.49
52:D7:16:HIS:CB	52:D7:44:PRO:HG2	2.42	0.49
1:AA:411:A:C4	1:AA:413:G:H1'	2.47	0.49
1:AA:475:G:H2'	1:AA:476:G:H8	1.77	0.49
1:AA:527:G:O6	12:AO:49:ASN:ND2	2.45	0.49
1:AA:662:G:H2'	1:AA:663:A:C8	2.47	0.49
1:AA:724:G:H21	1:AA:725:G:H1'	1.77	0.49
1:AA:1298:C:H4'	1:AA:1299:A:C4	2.47	0.49
1:AA:1306:A:N1	1:AA:1307:U:C2	2.81	0.49
2:AE:19:HIS:NE2	2:AE:206:ASP:OD2	2.34	0.49
3:AF:131:ARG:HA	3:AF:131:ARG:CZ	2.41	0.49
4:AG:29:PRO:O	4:AG:34:GLU:CB	2.60	0.49
6:AI:8:ILE:HG22	6:AI:10:LEU:CD1	2.43	0.49
6:AI:38:GLU:HB2	6:AI:64:GLN:O	2.13	0.49
8:AK:4:ASP:OD2	8:AK:89:PRO:HD3	2.11	0.49
12:AO:24:VAL:CG1	12:AO:27:LEU:CG	2.90	0.49
13:AP:33:ALA:HA	13:AP:36:LYS:HB2	1.94	0.49
16:AS:20:VAL:HG22	16:AS:32:TYR:HB2	1.95	0.49
18:AU:18:ARG:HH11	18:AU:18:ARG:HG3	1.78	0.49
24:BA:467:G:OP1	52:B7:33:ARG:NH1	2.46	0.49
24:BA:480:A:H2'	24:BA:481:G:OP1	2.13	0.49
24:BA:876:C:P	44:BV:149:SER:HB2	2.53	0.49
24:BA:950:G:C5	24:BA:951:C:C4	3.00	0.49
24:BA:1340:U:H4'	24:BA:1394:U:O2'	2.12	0.49
24:BA:2065:C:H2'	24:BA:2066:C:C6	2.46	0.49
24:BA:2277:G:C2'	24:BA:2278:A:H5"	2.41	0.49
26:BD:35:LYS:CE	26:BD:64:ILE:O	2.60	0.49
26:BD:159:ALA:HB1	26:BD:198:ASN:O	2.13	0.49
27:BE:165:VAL:HG12	27:BE:189:PRO:HG3	1.95	0.49
29:BG:104:GLU:HG2	49:B4:23:GLU:OE2	2.13	0.49
30:BH:150:ALA:C	30:BH:152:ARG:N	2.66	0.49
31:BK:37:VAL:HG22	31:BK:38:LEU:H	1.78	0.49
34:BO:118:GLY:O	34:BO:137:LYS:NZ	2.38	0.49
35:BP:35:VAL:CG1	35:BP:130:LYS:HB3	2.43	0.49
36:B0:10:LEU:O	36:B0:11:ASN:C	2.51	0.49
38:BR:48:ILE:O	38:BR:63:VAL:HA	2.13	0.49
40:B2:36:PRO:C	40:B2:37:VAL:HG22	2.33	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BT:5:TYR:CD1	47:BW:33:MET:HE1	2.43	0.49
44:BV:94:GLU:HB3	44:BV:95:PRO:HD2	1.93	0.49
1:CA:8:A:OP1	5:CH:121:LYS:HE2	2.11	0.49
1:CA:754:C:O5'	15:CR:72:ARG:NH2	2.36	0.49
1:CA:814:A:N7	1:CA:816:A:C4	2.80	0.49
5:CH:67:VAL:HG21	5:CH:69:VAL:CG2	2.41	0.49
15:CR:39:LEU:O	15:CR:39:LEU:HD13	2.12	0.49
18:CU:21:LYS:HD2	18:CU:21:LYS:N	2.28	0.49
24:DA:192:C:O2'	24:DA:802:A:N3	2.39	0.49
24:DA:748:G:O6	24:DA:751:A:H5'	2.13	0.49
24:DA:803:U:H2'	24:DA:804:A:H5'	1.94	0.49
24:DA:811:U:O2	24:DA:1250:G:H2'	2.11	0.49
24:DA:1478:G:H2'	24:DA:1479:G:C8	2.45	0.49
24:DA:1600:C:O2'	52:D7:49:ARG:NE	2.38	0.49
24:DA:1669:A:H2'	24:DA:1669:A:N3	2.26	0.49
24:DA:1753:G:N1	24:DA:1756:G:C2	2.81	0.49
24:DA:2111:C:C5	24:DA:2145:C:N4	2.80	0.49
24:DA:2369:A:H2'	24:DA:2370:G:C8	2.48	0.49
24:DA:2396:G:O2'	24:DA:2397:G:H5'	2.13	0.49
24:DA:2792:G:H2'	24:DA:2793:G:O4'	2.12	0.49
24:DA:2859:G:H2'	24:DA:2860:A:C8	2.48	0.49
25:DB:3:C:C2'	25:DB:4:C:H5'	2.41	0.49
26:DD:71:ASP:CG	26:DD:103:ARG:HH22	2.15	0.49
31:DK:83:ALA:HB2	31:DK:123:LEU:HD11	1.94	0.49
34:DO:85:LEU:CD2	34:DO:85:LEU:N	2.74	0.49
37:DQ:66:ALA:HB1	37:DQ:101:LEU:CB	2.40	0.49
43:DU:95:LYS:HB2	43:DU:100:ALA:HA	1.95	0.49
49:D4:53:GLU:OE2	49:D4:58:ARG:HB2	2.13	0.49
1:AA:21:G:H2'	1:AA:22:G:C8	2.48	0.49
1:AA:246:A:OP1	17:AT:100:LYS:NZ	2.45	0.49
1:AA:428:G:O3'	4:AG:36:ARG:NH2	2.45	0.49
1:AA:544:G:OP1	4:AG:62:GLN:HG3	2.12	0.49
1:AA:923:A:N6	1:AA:1392:G:O6	2.46	0.49
55:AA:1833:TAC:O1C	55:AA:1833:TAC:H423	2.12	0.49
2:AE:170:GLU:O	2:AE:172:ILE:N	2.46	0.49
2:AE:196:LEU:HD12	2:AE:197:VAL:CG2	2.41	0.49
3:AF:92:ALA:HB2	3:AF:99:VAL:HG11	1.95	0.49
5:AH:11:ILE:HD13	5:AH:11:ILE:H	1.78	0.49
7:AJ:78:ARG:NH2	7:AJ:154:TYR:C	2.63	0.49
10:AM:54:PHE:C	10:AM:54:PHE:CD1	2.86	0.49
10:AM:96:ILE:HD13	10:AM:96:ILE:N	2.21	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AR:16:ALA:HB1	15:AR:21:ASP:HB3	1.95	0.49
24:BA:241:A:H5'	24:BA:243:U:O4'	2.13	0.49
24:BA:270(L):U:C4	31:BK:50:ARG:NH1	2.81	0.49
24:BA:386:G:H4'	24:BA:387:U:OP2	2.13	0.49
24:BA:1025:G:OP1	24:BA:1025:G:H8	1.96	0.49
24:BA:1048:A:N3	24:BA:1048:A:H2'	2.28	0.49
24:BA:1408:C:C2	24:BA:1595:G:C2	3.00	0.49
24:BA:2523:G:H2'	24:BA:2524:G:H5'	1.95	0.49
24:BA:2685:G:O2'	24:BA:2726:U:H5	1.87	0.49
25:BB:13:A:HO2'	25:BB:15:A:C5'	2.26	0.49
25:BB:92:G:C2	25:BB:93:C:C5	3.01	0.49
27:BE:84:PHE:CE2	27:BE:86:PRO:HG3	2.47	0.49
34:BO:59:LEU:O	34:BO:59:LEU:HG	2.13	0.49
35:BP:58:PHE:O	35:BP:59:ARG:CB	2.42	0.49
37:BQ:34:HIS:NE2	37:BQ:54:LEU:HD23	2.28	0.49
42:BT:15:GLU:N	42:BT:15:GLU:OE1	2.46	0.49
50:B5:51:TYR:H	50:B5:56:LYS:HB2	1.78	0.49
52:B7:49:ARG:NH1	52:B7:49:ARG:CG	2.75	0.49
1:CA:87:A:OP2	1:CA:87:A:H8	1.94	0.49
1:CA:255:G:H1'	17:CT:16:GLN:OE1	2.13	0.49
1:CA:376:G:C5'	16:CS:5:ARG:HD3	2.43	0.49
1:CA:407:G:OP1	4:CG:115:ARG:NH2	2.45	0.49
1:CA:643:C:H2'	1:CA:644:G:H8	1.77	0.49
1:CA:657:G:N2	15:CR:22:THR:OG1	2.37	0.49
1:CA:838:G:C2	1:CA:849:C:N3	2.80	0.49
1:CA:1014:A:C4	19:CV:34:TRP:CD2	3.01	0.49
1:CA:1148:U:H2'	9:CL:66:ARG:HH21	1.76	0.49
1:CA:1240:U:N3	7:CJ:32:ARG:NE	2.60	0.49
1:CA:1348:U:C5	1:CA:1373:G:N2	2.81	0.49
2:CE:33:TYR:O	2:CE:34:ALA:HB2	2.12	0.49
2:CE:233:SER:O	2:CE:235:SER:N	2.45	0.49
3:CF:32:LEU:O	3:CF:36:ASP:HB2	2.13	0.49
3:CF:36:ASP:O	3:CF:39:ILE:CG2	2.39	0.49
4:CG:96:LEU:HD12	4:CG:139:ARG:NH1	2.27	0.49
11:CN:95:ILE:HA	11:CN:98:LEU:CD1	2.40	0.49
13:CP:108:ARG:HD3	13:CP:114:ARG:CG	2.34	0.49
23:C1:18:G:C2'	23:C1:19:U:OP2	2.61	0.49
24:DA:27:G:C2	24:DA:512:G:H1'	2.48	0.49
24:DA:453:C:H4'	24:DA:472:A:N6	2.27	0.49
24:DA:1374:G:H2'	24:DA:1375:C:C6	2.48	0.49
24:DA:1791:A:H4'	26:DD:206:LEU:HB2	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2289:G:N2	24:DA:2344:U:C2	2.80	0.49
24:DA:2584:U:C5'	24:DA:2585:U:OP2	2.61	0.49
24:DA:2636:U:H4'	27:DE:80:GLU:OE1	2.12	0.49
24:DA:2748:A:H2'	24:DA:2749:A:H8	1.77	0.49
25:DB:88:C:C5	25:DB:89:G:C4	2.99	0.49
27:DE:64:LYS:HZ3	27:DE:68:ALA:CB	2.07	0.49
27:DE:150:VAL:HG13	27:DE:154:LYS:HD2	1.93	0.49
29:DG:90:LEU:N	29:DG:90:LEU:HD22	2.27	0.49
30:DH:135:GLY:CA	30:DH:141:VAL:HG21	2.43	0.49
34:DO:131:SER:O	34:DO:134:ALA:HB3	2.12	0.49
36:D0:96:ARG:HH12	36:D0:118:GLU:H	1.61	0.49
37:DQ:14:VAL:HG21	37:DQ:89:ARG:CG	2.43	0.49
40:D2:37:VAL:O	40:D2:38:LEU:HB2	2.13	0.49
40:D2:46:VAL:HG22	40:D2:46:VAL:O	2.12	0.49
53:D8:39:LYS:O	53:D8:40:GLU:HB2	2.12	0.49
1:AA:95:G:H3'	1:AA:96:G:H8	1.78	0.49
1:AA:389:A:H2'	1:AA:390:C:C5'	2.42	0.49
1:AA:724:G:N2	1:AA:725:G:H1'	2.28	0.49
1:AA:1028:C:H2'	1:AA:1028(A):C:O4'	2.13	0.49
2:AE:168:THR:CB	2:AE:192:SER:HB2	2.43	0.49
6:AI:43:LEU:HD22	6:AI:46:ARG:HH12	1.77	0.49
24:BA:164:U:C5	24:BA:165:U:H1'	2.47	0.49
24:BA:222:A:C4'	24:BA:223:A:OP1	2.60	0.49
24:BA:463:G:C6	24:BA:467:G:C6	3.00	0.49
24:BA:813:U:H2'	24:BA:814:C:C6	2.48	0.49
24:BA:1092:C:H2'	24:BA:1093:G:O4'	2.13	0.49
24:BA:1095:A:N3	24:BA:1095:A:H2'	2.27	0.49
24:BA:1115:G:O2'	24:BA:1116:C:H5'	2.13	0.49
24:BA:1204:A:N1	24:BA:1241:A:N1	2.60	0.49
24:BA:1956:U:C2'	24:BA:1957:C:H5'	2.43	0.49
24:BA:2761:G:H1'	30:BH:143:GLN:NE2	2.27	0.49
26:BD:92:ILE:HD12	26:BD:104:TYR:CE2	2.48	0.49
27:BE:183:LEU:N	27:BE:183:LEU:CD1	2.75	0.49
28:BF:192:LEU:HD21	28:BF:194:MET:HE3	1.92	0.49
28:BF:197:ASP:OD1	28:BF:197:ASP:N	2.43	0.49
29:BG:58:GLN:OE1	29:BG:58:GLN:HA	2.13	0.49
29:BG:145:THR:O	29:BG:147:ASP:N	2.44	0.49
30:BH:4:ILE:CD1	30:BH:6:ARG:HE	2.03	0.49
31:BK:38:LEU:H	31:BK:38:LEU:CD1	2.21	0.49
34:BO:57:THR:CG2	34:BO:59:LEU:CB	2.84	0.49
36:B0:53:HIS:ND1	36:B0:94:TYR:OH	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BR:132:LYS:HD3	38:BR:132:LYS:C	2.33	0.49
39:B1:83:LEU:CD1	39:B1:83:LEU:H	2.26	0.49
41:BS:95:ILE:O	41:BS:95:ILE:HG13	2.12	0.49
42:BT:12:VAL:HG11	42:BT:27:THR:HB	1.93	0.49
49:B4:57:GLU:CA	49:B4:60:GLN:HG2	2.42	0.49
50:B5:52:TYR:HD1	50:B5:53:ALA:H	1.61	0.49
51:B6:11:LEU:HD11	51:B6:51:GLU:CG	2.43	0.49
52:B7:12:ARG:NH2	52:B7:44:PRO:HB3	2.28	0.49
1:CA:438:G:H4'	4:CG:123:HIS:CE1	2.47	0.49
1:CA:949:A:H2'	1:CA:950:U:O4'	2.13	0.49
1:CA:1158:C:O2	1:CA:1158:C:H3'	2.13	0.49
1:CA:1187:G:P	9:CL:113:LYS:NZ	2.85	0.49
1:CA:1254:C:P	10:CM:45:ARG:HH12	2.34	0.49
1:CA:1291:G:O2'	9:CL:38:GLN:HB3	2.13	0.49
1:CA:1513:A:H2'	1:CA:1514:C:C6	2.48	0.49
3:CF:68:VAL:HG12	3:CF:70:VAL:HG23	1.94	0.49
6:CI:72:VAL:HG13	6:CI:73:ASN:N	2.27	0.49
6:CI:95:GLU:HA	6:CI:95:GLU:OE1	2.12	0.49
6:CI:101:ALA:OXT	18:CU:28:GLU:HB2	2.13	0.49
9:CL:32:ASP:HB3	9:CL:35:GLU:HB2	1.94	0.49
24:DA:493:G:H2'	24:DA:494:G:O4'	2.13	0.49
24:DA:870:A:OP1	35:DP:6:ARG:HG3	2.12	0.49
24:DA:2057:A:H2'	24:DA:2058:A:O4'	2.13	0.49
24:DA:2619:C:H2'	24:DA:2620:C:H6	1.78	0.49
24:DA:2853:C:H2'	24:DA:2854:G:C8	2.47	0.49
25:DB:5:C:O2'	25:DB:27:C:O2	2.30	0.49
26:DD:30:GLU:HG3	26:DD:63:ARG:NE	2.28	0.49
26:DD:33:LEU:HD13	26:DD:34:VAL:HG12	1.93	0.49
27:DE:10:GLY:O	27:DE:11:MET:HB2	2.13	0.49
27:DE:119:ARG:CG	27:DE:160:TYR:HB2	2.42	0.49
31:DK:143:SER:OG	31:DK:144:VAL:N	2.44	0.49
34:DO:75:ILE:HD13	34:DO:75:ILE:N	2.28	0.49
39:D1:95:LEU:HD11	40:D2:11:GLN:CB	2.43	0.49
41:DS:45:TYR:HD2	41:DS:46:PHE:CD1	2.31	0.49
46:DZ:67:ILE:N	46:DZ:68:PRO:CD	2.76	0.49
47:DW:9:GLN:HE22	47:DW:56:GLN:HG2	1.76	0.49
1:AA:22:G:C6	1:AA:23:C:C4	3.00	0.49
1:AA:92:G:H2'	1:AA:93:U:C6	2.48	0.49
1:AA:160:A:H1'	1:AA:344:A:C5	2.48	0.49
1:AA:408:A:OP2	4:AG:115:ARG:HD2	2.13	0.49
1:AA:734:G:N2	18:AU:75:ILE:HD13	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:738:C:H5”	6:AI:2:ARG:NH1	2.28	0.49
1:AA:1127:G:N2	1:AA:1145:C:H1’	2.28	0.49
2:AE:204:ASN:HD22	2:AE:204:ASN:C	2.16	0.49
4:AG:22:LYS:H	4:AG:26:CYS:HB2	1.78	0.49
7:AJ:59:LEU:HD23	7:AJ:59:LEU:N	2.25	0.49
13:AP:84:ILE:HG13	19:AV:74:PHE:HE2	1.77	0.49
18:AU:29:PHE:HE2	18:AU:43:PHE:CZ	2.31	0.49
22:AC:18:G:O6	22:AC:57:A:N6	2.46	0.49
24:BA:49:A:H5”	24:BA:51:G:O4’	2.13	0.49
24:BA:95:G:C4’	47:BW:46:GLN:NE2	2.74	0.49
24:BA:230:U:H6	24:BA:230:U:OP2	1.96	0.49
24:BA:1005:C:O2’	32:BM:28:THR:CG2	2.42	0.49
24:BA:1048:A:N6	24:BA:1111:A:N3	2.60	0.49
24:BA:1048:A:C6	24:BA:1111:A:C2	3.00	0.49
24:BA:1141:U:H6	32:BM:63:THR:OG1	1.95	0.49
24:BA:1144:G:C6	24:BA:1145:C:C4	3.01	0.49
24:BA:1299:G:H5”	24:BA:1300:U:P	2.53	0.49
24:BA:1331:A:HO2’	24:BA:1332:G:H8	1.61	0.49
24:BA:1420:U:HO2’	24:BA:1421:G:P	2.32	0.49
24:BA:1442:G:C2	24:BA:1550:C:O2	2.66	0.49
24:BA:2157:G:N3	24:BA:2158:A:C2	2.81	0.49
24:BA:2400:G:N2	24:BA:2417:C:C2	2.80	0.49
24:BA:2544:G:H1’	24:BA:2646:C:H4’	1.93	0.49
24:BA:2629:A:H2’	24:BA:2630:G:H5”	1.93	0.49
24:BA:2863:C:H2’	24:BA:2864:G:H8	1.78	0.49
27:BE:168:MET:CE	27:BE:202:LYS:HB3	2.43	0.49
28:BF:110:LEU:HG	28:BF:202:PHE:HE1	1.78	0.49
29:BG:35:GLU:O	29:BG:160:VAL:HB	2.12	0.49
31:BK:144:VAL:CG2	31:BK:145:VAL:N	2.75	0.49
33:BN:113:LYS:O	33:BN:117:LEU:HG	2.12	0.49
34:BO:14:LYS:O	34:BO:15:ARG:C	2.50	0.49
35:BP:65:PHE:C	35:BP:66:ILE:HG13	2.33	0.49
36:B0:3:HIS:O	36:B0:5:LYS:HG3	2.13	0.49
41:BS:73:ALA:O	41:BS:74:ALA:HB2	2.13	0.49
44:BV:18:LEU:CD1	44:BV:18:LEU:N	2.74	0.49
44:BV:109:ALA:HB1	44:BV:174:VAL:HG21	1.94	0.49
45:B3:23:VAL:HG13	45:B3:38:VAL:HG22	1.94	0.49
50:B5:40:LYS:HE2	50:B5:48:GLU:OE1	2.13	0.49
1:CA:7:G:H5’	1:CA:298:A:O4’	2.12	0.49
1:CA:200:G:C2	1:CA:218:C:C2	3.00	0.49
1:CA:542:G:H5’	4:CG:41:GLY:HA3	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:614:A:C4	1:CA:615:C:C5	3.01	0.49
1:CA:1114:C:H5'	14:CQ:57:ARG:HH22	1.75	0.49
1:CA:1133:G:O2'	1:CA:1134:G:H5'	2.13	0.49
1:CA:1187:G:O2'	9:CL:111:ARG:NH1	2.46	0.49
1:CA:1254:C:H3'	10:CM:45:ARG:HH22	1.78	0.49
2:CE:163:PHE:HA	2:CE:185:ILE:O	2.13	0.49
3:CF:54:ARG:HB2	3:CF:69:HIS:CG	2.48	0.49
3:CF:102:ASN:O	3:CF:103:VAL:CG2	2.60	0.49
3:CF:126:ARG:HB2	3:CF:128:PHE:HD1	1.78	0.49
4:CG:191:ARG:HH21	4:CG:194:LEU:HB2	1.77	0.49
5:CH:15:ARG:HD2	5:CH:26:PHE:HD2	1.73	0.49
6:CI:4:TYR:HD1	6:CI:92:LYS:HA	1.78	0.49
6:CI:39:LYS:O	6:CI:40:VAL:HB	2.13	0.49
8:CK:12:ARG:HH12	8:CK:27:PRO:HD3	1.77	0.49
8:CK:103:VAL:HG21	8:CK:109:ILE:N	2.28	0.49
9:CL:17:VAL:CG2	9:CL:80:GLY:C	2.66	0.49
9:CL:20:ARG:O	9:CL:60:ASP:N	2.45	0.49
13:CP:83:ASP:O	13:CP:84:ILE:CG2	2.50	0.49
16:CS:27:LYS:HG2	16:CS:30:GLY:HA3	1.95	0.49
16:CS:51:VAL:O	16:CS:53:VAL:HG13	2.12	0.49
18:CU:63:GLN:OE1	18:CU:63:GLN:HA	2.12	0.49
24:DA:150:C:H2'	24:DA:151:C:H6	1.78	0.49
24:DA:648:G:O4'	24:DA:2351:G:H5"	2.13	0.49
24:DA:952:G:OP1	35:DP:16:ARG:NH1	2.46	0.49
24:DA:1838:C:H4'	24:DA:1839:G:C8	2.47	0.49
24:DA:2362:G:O2'	24:DA:2363:C:H5'	2.13	0.49
24:DA:2470:G:O2'	24:DA:2471:C:H5'	2.12	0.49
24:DA:2869:G:H2'	24:DA:2870:C:O4'	2.13	0.49
25:DB:88:C:C5	25:DB:89:G:N3	2.80	0.49
27:DE:27:LEU:CD2	38:DR:1:MET:HG2	2.43	0.49
27:DE:63:LEU:O	27:DE:64:LYS:CE	2.60	0.49
27:DE:119:ARG:HG3	27:DE:160:TYR:HB2	1.95	0.49
31:DK:5:LEU:HD12	31:DK:5:LEU:N	2.27	0.49
32:DM:45:ASN:N	32:DM:45:ASN:HD22	2.10	0.49
34:DO:15:ARG:HH11	34:DO:15:ARG:CG	2.16	0.49
34:DO:18:ARG:O	34:DO:19:VAL:HB	2.12	0.49
39:D1:26:GLY:O	39:D1:30:LYS:NZ	2.31	0.49
40:D2:12:TYR:CD1	40:D2:12:TYR:N	2.80	0.49
41:DS:21:VAL:C	41:DS:23:LEU:H	2.16	0.49
43:DU:98:VAL:O	43:DU:99:CYS:HB2	2.11	0.49
44:DV:118:GLN:HG3	44:DV:120:ILE:HG23	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DX:39:ASP:OD1	48:DX:44:ARG:NH2	2.46	0.49
49:D4:14:ILE:HG13	49:D4:24:THR:HG21	1.94	0.49
1:AA:256:U:P	17:AT:17:LYS:HZ1	2.35	0.49
1:AA:594:G:C2'	1:AA:595:G:H5'	2.43	0.49
1:AA:620:C:N3	4:AG:135:LEU:HD23	2.28	0.49
1:AA:741:G:H2'	1:AA:742:G:O4'	2.13	0.49
1:AA:872:A:H2'	1:AA:872:A:N3	2.27	0.49
1:AA:1009:G:H2'	1:AA:1009:G:N3	2.28	0.49
1:AA:1057:G:H5"	3:AF:154:SER:O	2.12	0.49
1:AA:1126:U:H6	1:AA:1127:G:C8	2.31	0.49
1:AA:1295:G:O2'	1:AA:1302:U:O4	2.20	0.49
2:AE:28:PHE:HZ	2:AE:188:ALA:O	1.96	0.49
2:AE:88:ALA:HB2	2:AE:219:VAL:HG13	1.95	0.49
3:AF:179:ARG:O	3:AF:179:ARG:HG3	2.13	0.49
15:AR:63:ARG:O	15:AR:67:LEU:HD13	2.12	0.49
17:AT:68:ARG:H	17:AT:70:ARG:HH11	1.59	0.49
18:AU:19:LYS:N	18:AU:19:LYS:CD	2.68	0.49
20:AW:83:ARG:O	20:AW:87:LYS:HB2	2.13	0.49
22:AC:9:G:O2'	22:AC:10:G:N7	2.37	0.49
24:BA:136:G:H2'	24:BA:137:C:H6	1.78	0.49
24:BA:581:C:OP1	39:B1:33:ARG:HG3	2.12	0.49
24:BA:654(S):G:H1'	24:BA:654(T):A:P	2.53	0.49
24:BA:828:U:O2	24:BA:828:U:H3'	2.13	0.49
24:BA:960:A:N6	35:BP:83:MET:CE	2.75	0.49
24:BA:1472:A:H2'	24:BA:1473:G:O4'	2.13	0.49
24:BA:1709:U:H1'	24:BA:2860:A:N3	2.27	0.49
24:BA:2293:C:H5"	37:BQ:89:ARG:HH12	1.78	0.49
26:BD:142:VAL:HA	26:BD:194:GLY:H	1.78	0.49
27:BE:116:VAL:CG1	27:BE:122:PHE:CD2	2.96	0.49
27:BE:137:HIS:HB3	27:BE:138:PRO:HD2	1.95	0.49
28:BF:198:ALA:O	28:BF:201:VAL:HG12	2.13	0.49
29:BG:101:ILE:HD13	29:BG:102:PHE:N	2.28	0.49
30:BH:4:ILE:HD12	30:BH:7:LEU:H	1.78	0.49
30:BH:19:VAL:HG12	30:BH:20:ALA:N	2.28	0.49
30:BH:30:LYS:HG3	30:BH:79:VAL:O	2.12	0.49
32:BM:115:ARG:O	32:BM:118:LYS:CB	2.61	0.49
38:BR:53:ARG:O	38:BR:54:ARG:HG3	2.13	0.49
47:BW:15:LYS:N	47:BW:67:LYS:HZ3	2.10	0.49
1:CA:99:C:H2'	1:CA:101:A:C8	2.48	0.49
1:CA:660:G:H2'	1:CA:661:G:C1'	2.43	0.49
1:CA:1092:A:C2	1:CA:1183:A:H2	2.31	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1211:U:O2'	1:CA:1213:A:C4	2.65	0.49
1:CA:1321:C:C5'	1:CA:1322:C:H5"	2.43	0.49
1:CA:1330:U:O4	1:CA:1331:G:C6	2.66	0.49
4:CG:101:LEU:HD23	4:CG:121:VAL:HG11	1.95	0.49
7:CJ:140:ASP:HA	7:CJ:143:ARG:NH1	2.27	0.49
9:CL:6:GLY:O	9:CL:80:GLY:HA2	2.12	0.49
12:CO:10:LEU:HB3	17:CT:32:TYR:CE2	2.48	0.49
16:CS:82:GLN:NE2	16:CS:82:GLN:H	2.11	0.49
24:DA:270(T):G:P	46:DZ:98:LEU:O	2.70	0.49
24:DA:748:G:O6	24:DA:751:A:C5'	2.61	0.49
24:DA:1062:G:O6	24:DA:1075:C:N4	2.46	0.49
24:DA:1257:C:O2	28:DF:84:VAL:HG23	2.13	0.49
24:DA:1336:A:P	42:DT:64:LYS:CE	2.99	0.49
24:DA:1921:G:H2'	24:DA:1922:G:H8	1.78	0.49
24:DA:2084:C:H2'	24:DA:2085:C:H6	1.77	0.49
24:DA:2162:G:O2'	24:DA:2173:A:OP2	2.30	0.49
24:DA:2211:G:H1'	24:DA:2212:A:P	2.52	0.49
24:DA:2638:G:HO2'	24:DA:2639:A:P	2.35	0.49
24:DA:2752:C:OP2	24:DA:2752:C:O4'	2.31	0.49
25:DB:81:G:H5'	25:DB:81:G:N3	2.28	0.49
26:DD:35:LYS:CA	26:DD:64:ILE:HG22	2.41	0.49
26:DD:270:ILE:C	26:DD:271:ILE:HG12	2.33	0.49
27:DE:11:MET:HG3	27:DE:24:THR:HA	1.93	0.49
28:DF:8:GLN:HG3	28:DF:126:VAL:HG12	1.95	0.49
29:DG:143:GLU:H	29:DG:143:GLU:CD	2.16	0.49
30:DH:4:ILE:CD1	30:DH:6:ARG:CG	2.89	0.49
32:DM:18:ALA:HA	32:DM:21:LYS:CD	2.32	0.49
32:DM:126:PRO:O	32:DM:127:ASP:HB2	2.13	0.49
32:DM:134:ARG:O	32:DM:134:ARG:CG	2.58	0.49
33:DN:8:LEU:CD1	33:DN:82:ASN:HB3	2.43	0.49
37:DQ:110:LEU:CG	37:DQ:111:GLU:N	2.76	0.49
43:DU:100:ALA:O	43:DU:101:LYS:HG3	2.13	0.49
53:D8:30:ARG:C	53:D8:32:LEU:N	2.65	0.49
1:AA:242:C:C2	1:AA:285:G:N2	2.81	0.48
1:AA:263:A:O2'	1:AA:264:U:H5'	2.14	0.48
1:AA:411:A:C6	1:AA:429:U:C4	3.01	0.48
1:AA:524:G:H2'	1:AA:525:C:C6	2.48	0.48
1:AA:972:C:OP2	10:AM:57:LYS:HG2	2.12	0.48
1:AA:1027:C:N1	1:AA:1028:C:H5	2.11	0.48
1:AA:1240:U:O2'	7:AJ:38:LEU:CD2	2.55	0.48
1:AA:1319:A:OP2	19:AV:5:LEU:HD21	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AN:54:ARG:C	11:AN:56:GLY:N	2.66	0.48
13:AP:12:ASN:CB	13:AP:46:LYS:NZ	2.56	0.48
20:AW:10:LEU:O	20:AW:10:LEU:HD23	2.13	0.48
22:AC:23:C:H2'	22:AC:24:U:H6	1.78	0.48
24:BA:72:U:H3	47:BW:62:THR:HG23	1.77	0.48
24:BA:126:A:O5'	52:B7:19:ARG:HG3	2.12	0.48
24:BA:547:A:C3'	24:BA:548:A:C8	2.95	0.48
24:BA:968:G:H5'	48:BX:17:LYS:HE2	1.94	0.48
24:BA:1091:G:H2'	24:BA:1092:C:H4'	1.92	0.48
24:BA:1093:G:N1	24:BA:1097:U:OP2	2.45	0.48
24:BA:1115:G:H2'	24:BA:1116:C:H6	1.79	0.48
24:BA:1243:G:O2'	34:BO:7:ARG:NH2	2.44	0.48
24:BA:1342:A:C6	24:BA:1397:U:C5	3.01	0.48
24:BA:1485:G:C2'	24:BA:1486:A:H5'	2.43	0.48
24:BA:2134:A:N7	24:BA:2157:G:H1'	2.27	0.48
26:BD:3:VAL:HG22	26:BD:17:THR:CG2	2.43	0.48
26:BD:65:ILE:CD1	26:BD:67:PHE:CZ	2.96	0.48
28:BF:27:GLU:OE2	28:BF:28:ILE:N	2.41	0.48
29:BG:108:ASN:HA	49:B4:38:LYS:HG2	1.94	0.48
32:BM:91:LEU:CD2	32:BM:98:VAL:HG11	2.43	0.48
34:BO:29:LYS:HG2	34:BO:30:THR:N	2.28	0.48
39:B1:83:LEU:HD12	39:B1:83:LEU:H	1.77	0.48
41:BS:13:SER:HB3	41:BS:16:LYS:HD3	1.94	0.48
43:BU:96:ILE:HG13	43:BU:99:CYS:H	1.76	0.48
44:BV:61:LEU:O	44:BV:61:LEU:HD12	2.12	0.48
44:BV:116:VAL:HG21	44:BV:175:VAL:O	2.13	0.48
44:BV:152:ALA:O	44:BV:155:LEU:HG	2.13	0.48
53:B8:17:THR:HG21	53:B8:23:VAL:HG23	1.93	0.48
1:CA:341:C:C2	1:CA:349:A:C2	3.01	0.48
1:CA:988:G:N2	1:CA:1218:C:H1'	2.27	0.48
1:CA:1151:A:O2'	1:CA:1152:A:O4'	2.20	0.48
1:CA:1288:A:C4'	21:CX:10:ARG:HH12	2.23	0.48
1:CA:1321:C:C3'	1:CA:1322:C:H5"	2.42	0.48
1:CA:1442:G:N7	1:CA:1446:A:N1	2.61	0.48
2:CE:8:LYS:HB3	2:CE:217:ARG:NH2	2.28	0.48
2:CE:83:MET:CE	2:CE:234:PRO:CB	2.90	0.48
7:CJ:88:PRO:C	7:CJ:155:ARG:HH12	2.12	0.48
8:CK:49:GLU:HG3	8:CK:51:VAL:HG13	1.94	0.48
10:CM:6:ILE:CG1	10:CM:72:VAL:O	2.61	0.48
12:CO:83:VAL:CG2	12:CO:84:LEU:N	2.76	0.48
24:DA:528:A:C2	24:DA:2043:C:C5'	2.63	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:709:U:H2'	24:DA:710:G:C8	2.48	0.48
24:DA:719:C:O2'	24:DA:720:C:H5'	2.12	0.48
24:DA:1601:G:C5'	52:D7:49:ARG:CD	2.91	0.48
24:DA:1837:C:N4	24:DA:1899:G:N7	2.61	0.48
24:DA:1845:G:OP1	26:DD:258:LYS:NZ	2.31	0.48
24:DA:2344:U:H5"	24:DA:2373:G:H4'	1.94	0.48
24:DA:2367:G:O2'	24:DA:2368:C:H5'	2.13	0.48
24:DA:2811:G:OP1	27:DE:61:ARG:HG2	2.13	0.48
26:DD:118:VAL:N	26:DD:129:ASN:OD1	2.46	0.48
26:DD:231:HIS:CE1	26:DD:232:PRO:HD2	2.47	0.48
29:DG:88:ILE:O	29:DG:88:ILE:CD1	2.61	0.48
33:DN:92:GLU:HG2	33:DN:113:LYS:HD2	1.94	0.48
33:DN:115:VAL:HG13	33:DN:121:VAL:HG21	1.94	0.48
34:DO:85:LEU:HD23	34:DO:86:LYS:N	2.28	0.48
39:D1:112:ARG:NH1	40:D2:47:VAL:CG1	2.73	0.48
40:D2:35:LEU:H	40:D2:35:LEU:HD22	1.77	0.48
40:D2:41:GLY:CA	40:D2:46:VAL:CG1	2.91	0.48
44:DV:120:ILE:CD1	44:DV:169:GLU:OE2	2.61	0.48
44:DV:157:LEU:HB3	44:DV:161:VAL:CG1	2.26	0.48
46:DZ:2:SER:O	46:DZ:4:VAL:HG13	2.13	0.48
48:DX:19:GLN:HE22	48:DX:52:HIS:CE1	2.31	0.48
49:D4:14:ILE:HG23	49:D4:33:VAL:HG11	1.95	0.48
49:D4:35:VAL:HG12	49:D4:35:VAL:O	2.13	0.48
1:AA:77:C:H2'	1:AA:78:G:N7	2.27	0.48
1:AA:270:A:C5	1:AA:271:C:C4	3.00	0.48
1:AA:643:C:H5'	8:AK:31:PHE:CE1	2.48	0.48
1:AA:692:U:H5	11:AN:26:ASN:OD1	1.96	0.48
1:AA:1279:A:O2'	1:AA:1281:U:OP2	2.22	0.48
3:AF:45:LYS:HB2	3:AF:45:LYS:NZ	2.29	0.48
4:AG:88:VAL:O	4:AG:90:GLY:N	2.45	0.48
4:AG:127:THR:CG2	4:AG:128:VAL:N	2.75	0.48
5:AH:110:LEU:CD1	5:AH:118:ILE:HG21	2.42	0.48
5:AH:144:THR:CG2	5:AH:147:ASP:OD1	2.61	0.48
6:AI:6:VAL:HG12	6:AI:8:ILE:HG13	1.95	0.48
6:AI:14:LEU:CD2	6:AI:18:GLN:HB2	2.38	0.48
8:AK:133:LEU:HD23	8:AK:133:LEU:C	2.33	0.48
9:AL:83:ARG:CA	9:AL:86:VAL:HG12	2.43	0.48
12:AO:18:VAL:O	12:AO:19:ARG:HB2	2.13	0.48
12:AO:51:ALA:O	12:AO:52:LEU:HD23	2.12	0.48
12:AO:97:ARG:C	12:AO:98:TYR:CD1	2.86	0.48
12:AO:126:LYS:HD2	12:AO:127:GLU:OE1	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AP:34:LEU:O	13:AP:39:ILE:N	2.24	0.48
16:AS:49:LEU:O	16:AS:50:LYS:CG	2.61	0.48
17:AT:38:ARG:O	17:AT:39:SER:OG	2.27	0.48
19:AV:40:ILE:HD11	19:AV:62:ILE:HG23	1.96	0.48
22:AC:1:C:C2'	22:AC:2:G:OP2	2.61	0.48
24:BA:511:U:O4	24:BA:512:G:C2	2.66	0.48
24:BA:540:G:H5'	24:BA:541:C:OP2	2.14	0.48
24:BA:1068:G:H4'	24:BA:1070:A:C6	2.49	0.48
24:BA:1469:A:H2'	24:BA:1470:G:H8	1.78	0.48
24:BA:2789:C:OP1	24:BA:2789:C:H4'	2.13	0.48
26:BD:4:LYS:O	26:BD:17:THR:HG23	2.14	0.48
26:BD:11:PRO:C	26:BD:13:ARG:H	2.16	0.48
26:BD:30:GLU:HG3	26:BD:63:ARG:NH2	2.27	0.48
26:BD:232:PRO:HB3	26:BD:244:ARG:NH1	2.27	0.48
27:BE:111:ARG:HD2	27:BE:111:ARG:N	2.28	0.48
30:BH:125:VAL:HG12	30:BH:125:VAL:O	2.11	0.48
33:BN:3:GLN:O	33:BN:21:CYS:HB3	2.14	0.48
33:BN:52:VAL:HG12	33:BN:94:ARG:NH2	2.28	0.48
38:BR:84:GLN:CG	38:BR:85:LYS:N	2.76	0.48
39:B1:98:LEU:O	39:B1:99:ALA:C	2.51	0.48
42:BT:14:SER:O	42:BT:17:ALA:N	2.45	0.48
43:BU:14:LEU:HD12	43:BU:15:VAL:H	1.78	0.48
46:BZ:73:LEU:HD22	46:BZ:90:ILE:O	2.13	0.48
1:CA:129(A):G:O3'	1:CA:189:U:H2'	2.13	0.48
1:CA:862:C:O2'	1:CA:863:U:H5'	2.12	0.48
1:CA:956:U:O2	1:CA:1225:A:C2	2.66	0.48
1:CA:1119:C:H2'	1:CA:1120:G:H8	1.78	0.48
1:CA:1291:G:C6	1:CA:1292:U:C4	3.01	0.48
1:CA:1344:C:H2'	1:CA:1345:U:H5'	1.95	0.48
2:CE:82:ARG:HG3	2:CE:92:TYR:OH	2.13	0.48
4:CG:89:THR:O	4:CG:92:VAL:N	2.46	0.48
4:CG:96:LEU:HB3	4:CG:139:ARG:NH1	2.28	0.48
4:CG:163:GLU:HA	4:CG:166:LYS:CD	2.43	0.48
11:CN:33:THR:OG1	11:CN:37:GLY:C	2.51	0.48
13:CP:62:ASN:CA	49:D4:49:PHE:HZ	2.23	0.48
20:CW:100:ILE:HD12	20:CW:100:ILE:N	2.27	0.48
24:DA:107:C:N3	24:DA:108:U:C5	2.82	0.48
24:DA:662:G:H5'	34:DO:15:ARG:HA	1.95	0.48
24:DA:784:A:OP2	24:DA:2589:A:OP1	2.31	0.48
24:DA:861:A:C2	24:DA:917:A:C4	3.01	0.48
24:DA:866:A:C2	24:DA:914:C:H5'	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:942:G:C2'	24:DA:943:U:O5'	2.61	0.48
24:DA:999:U:O2'	24:DA:1000:A:H5'	2.13	0.48
24:DA:1364:G:OP1	46:DZ:3:LYS:HG3	2.13	0.48
24:DA:1462:C:C5	24:DA:1463:C:C5	3.02	0.48
24:DA:1557:C:H5"	24:DA:1558:A:OP2	2.13	0.48
24:DA:1845:G:C2'	24:DA:1846:G:H5'	2.43	0.48
24:DA:2670:A:O2'	24:DA:2671:A:H5'	2.12	0.48
26:DD:25:THR:HG21	26:DD:81:ALA:CB	2.43	0.48
26:DD:202:LYS:HG3	26:DD:203:ASN:OD1	2.13	0.48
27:DE:101:ARG:C	27:DE:201:THR:OG1	2.51	0.48
37:DQ:41:ASP:HB3	37:DQ:48:LEU:HD11	1.96	0.48
43:DU:75:ILE:HA	43:DU:80:GLY:CA	2.28	0.48
44:DV:92:SER:C	44:DV:94:GLU:H	2.14	0.48
44:DV:150:LEU:HD22	44:DV:154:ASP:CB	2.43	0.48
49:D4:55:ARG:CG	49:D4:56:VAL:N	2.76	0.48
51:D6:37:ARG:HH22	51:D6:38:LYS:CG	2.25	0.48
53:D8:32:LEU:HB2	53:D8:36:LYS:NZ	2.27	0.48
53:D8:34:TRP:CG	53:D8:35:GLN:N	2.80	0.48
1:AA:20:U:H2'	1:AA:21:G:O4'	2.13	0.48
1:AA:116:A:H61	1:AA:313:A:H1'	1.77	0.48
1:AA:192:U:C6	20:AW:57:ARG:NH2	2.82	0.48
1:AA:1060:C:C6	3:AF:2:GLY:HA2	2.44	0.48
1:AA:1095:U:H2'	1:AA:1096:C:C6	2.49	0.48
1:AA:1299:A:O3'	1:AA:1300:G:H4'	2.14	0.48
2:AE:72:GLY:HA2	2:AE:165:VAL:CG1	2.43	0.48
2:AE:74:LYS:NZ	2:AE:165:VAL:HG13	2.28	0.48
2:AE:102:LEU:HB3	2:AE:180:LEU:CD1	2.43	0.48
3:AF:22:TRP:CE3	3:AF:22:TRP:O	2.66	0.48
4:AG:26:CYS:HA	4:AG:31:CYS:HA	1.94	0.48
6:AI:15:ASP:OD1	6:AI:18:GLN:NE2	2.47	0.48
7:AJ:116:ALA:HA	7:AJ:119:ARG:NH2	2.28	0.48
8:AK:69:ARG:NH2	8:AK:75:ARG:O	2.46	0.48
10:AM:33:GLN:CB	10:AM:75:ILE:HD11	2.37	0.48
13:AP:76:ALA:O	13:AP:80:ARG:HB2	2.13	0.48
20:AW:81:LYS:HA	20:AW:84:LEU:HB3	1.94	0.48
24:BA:222:A:H3'	24:BA:421:U:H5'	1.95	0.48
24:BA:404:C:C2'	24:BA:405:U:OP2	2.61	0.48
24:BA:667:U:O2	53:B8:2:PRO:HD2	2.14	0.48
24:BA:974(A):C:H4'	24:BA:975:G:O5'	2.13	0.48
24:BA:1026:U:H4'	24:BA:1027:A:OP1	2.13	0.48
24:BA:1127:A:N1	24:BA:2463:C:O2'	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2096:U:H2'	24:BA:2097:C:C6	2.48	0.48
24:BA:2376:A:H2	37:BQ:112:PHE:HB2	1.77	0.48
24:BA:2481:G:C2'	24:BA:2482:G:OP2	2.61	0.48
24:BA:2751:G:O2'	24:BA:2752:C:O4'	2.31	0.48
26:BD:44:ASN:ND2	26:BD:44:ASN:N	2.61	0.48
26:BD:145:VAL:HG12	26:BD:146:GLU:O	2.12	0.48
26:BD:208:LYS:HG3	26:BD:211:ARG:H	1.76	0.48
29:BG:108:ASN:HA	49:B4:38:LYS:CB	2.43	0.48
35:BP:59:ARG:CG	35:BP:60:ARG:N	2.74	0.48
37:BQ:56:LEU:C	37:BQ:58:LEU:HD22	2.33	0.48
44:BV:116:VAL:HG23	44:BV:174:VAL:HG12	1.95	0.48
53:B8:29:LYS:HB3	53:B8:44:LYS:HG2	1.95	0.48
1:CA:179:A:O2'	1:CA:180:U:H5'	2.13	0.48
1:CA:262:A:C6	1:CA:263:A:C6	3.01	0.48
1:CA:370:C:H2'	1:CA:371:G:C8	2.48	0.48
1:CA:503:C:H6	1:CA:503:C:O5'	1.96	0.48
1:CA:947:G:C5'	13:CP:109:THR:HG23	2.44	0.48
1:CA:961:U:C4	1:CA:962:C:C5	3.02	0.48
1:CA:977:A:H4'	1:CA:980:C:H41	1.78	0.48
1:CA:1347:G:O6	9:CL:10:ARG:NH2	2.43	0.48
2:CE:12:GLU:C	2:CE:14:GLY:N	2.65	0.48
6:CI:50:TYR:CE2	18:CU:81:PHE:CE2	3.02	0.48
7:CJ:150:ALA:HA	11:CN:59:TYR:HB3	1.93	0.48
8:CK:93:VAL:HG12	8:CK:94:TYR:N	2.28	0.48
8:CK:121:ASP:HB2	8:CK:125:ARG:NH2	2.28	0.48
14:CQ:7:ILE:CG2	14:CQ:28:GLY:HA2	2.42	0.48
21:CX:8:THR:HG22	21:CX:9:ARG:N	2.28	0.48
24:DA:9:U:OP2	24:DA:9:U:H6	1.96	0.48
24:DA:247:G:H4'	24:DA:386:G:C4	2.48	0.48
24:DA:606:U:H4'	24:DA:658:C:H4'	1.94	0.48
24:DA:654(F):C:O2	24:DA:654(P):G:N2	2.46	0.48
24:DA:1065:U:H3	24:DA:1073:A:N6	2.12	0.48
24:DA:1246:A:C2'	24:DA:1247:A:O5'	2.61	0.48
24:DA:1485:G:C2'	24:DA:1486:A:H5'	2.43	0.48
24:DA:2015:A:N3	50:D5:6:VAL:HG23	2.28	0.48
24:DA:2299:G:N1	24:DA:2318:G:H8	2.11	0.48
24:DA:2371:G:O4'	51:D6:45:LYS:HG2	2.14	0.48
24:DA:2438:U:O2'	24:DA:2439:A:O3'	2.27	0.48
24:DA:2753:A:C6	24:DA:2754:U:N3	2.81	0.48
24:DA:2872:G:C5	24:DA:2873:A:N1	2.81	0.48
27:DE:23:VAL:HA	27:DE:184:VAL:O	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DF:37:VAL:HG21	34:DO:6:LEU:HD21	1.96	0.48
29:DG:125:PHE:CZ	29:DG:131:TYR:CD1	3.02	0.48
30:DH:27:LYS:HA	30:DH:31:GLY:O	2.13	0.48
34:DO:71:VAL:HG12	34:DO:72:PRO:HD3	1.84	0.48
42:DT:57:LEU:N	42:DT:57:LEU:HD23	2.28	0.48
44:DV:139:VAL:CG1	44:DV:140:ASP:H	2.16	0.48
44:DV:146:ILE:HD12	44:DV:147:GLY:N	2.27	0.48
45:D3:60:PHE:N	45:D3:60:PHE:CD1	2.81	0.48
47:DW:43:GLN:O	47:DW:43:GLN:HG3	2.14	0.48
1:AA:592:G:H2'	1:AA:593:G:C8	2.47	0.48
1:AA:946:A:C2	1:AA:1236:A:C2	3.02	0.48
1:AA:971:G:N2	1:AA:1363:A:OP2	2.33	0.48
1:AA:1180:A:P	9:AL:103:THR:OG1	2.71	0.48
1:AA:1321:C:C3'	1:AA:1322:C:H5"	2.42	0.48
2:AE:19:HIS:HA	2:AE:39:ILE:HG21	1.95	0.48
3:AF:79:ARG:O	3:AF:81:GLY:N	2.45	0.48
7:AJ:23:VAL:HG13	7:AJ:43:PHE:CZ	2.48	0.48
8:AK:100:ILE:CG2	8:AK:101:PRO:CD	2.90	0.48
9:AL:85:LEU:C	9:AL:85:LEU:CD1	2.82	0.48
10:AM:44:VAL:HG22	10:AM:66:ARG:HG2	1.95	0.48
12:AO:53:ARG:HG3	12:AO:53:ARG:HH11	1.78	0.48
17:AT:13:ASP:H	17:AT:14:LYS:HD2	1.78	0.48
17:AT:19:VAL:HG23	17:AT:44:ALA:HB3	1.95	0.48
22:AC:18:G:N3	22:AC:58:A:C2	2.81	0.48
24:BA:111:A:H4'	47:BW:69:ARG:NH2	2.28	0.48
24:BA:192:C:C2'	24:BA:193:U:H5'	2.43	0.48
24:BA:363:G:N2	24:BA:363(A):A:C4	2.81	0.48
24:BA:528:A:H2	24:BA:2043:C:H5'	1.78	0.48
24:BA:788:A:N3	52:B7:4:THR:OG1	2.45	0.48
24:BA:950:G:C6	24:BA:951:C:N4	2.81	0.48
24:BA:1062:G:H3'	24:BA:1063:G:C8	2.48	0.48
24:BA:1274:A:N3	24:BA:1297:C:H1'	2.28	0.48
24:BA:1335:U:OP2	42:BT:65:ARG:CZ	2.61	0.48
24:BA:2119:A:C2	24:BA:2171:A:H1'	2.48	0.48
24:BA:2317:C:H2'	24:BA:2318:G:C5'	2.42	0.48
24:BA:2636:U:OP1	27:BE:79:ARG:CA	2.53	0.48
24:BA:2791:C:H2'	24:BA:2792:G:C8	2.47	0.48
26:BD:28:GLU:N	26:BD:28:GLU:CD	2.67	0.48
29:BG:81:LYS:HE2	29:BG:81:LYS:N	2.28	0.48
30:BH:28:GLY:HA3	30:BH:79:VAL:HB	1.95	0.48
30:BH:83:TYR:HB2	30:BH:134:SER:HA	1.93	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BO:140:ALA:O	34:BO:141:ALA:CB	2.61	0.48
35:BP:39:PRO:HD3	35:BP:99:PRO:HG3	1.94	0.48
37:BQ:88:ASP:OD1	37:BQ:90:GLY:N	2.36	0.48
38:BR:105:LEU:HD12	38:BR:105:LEU:N	2.29	0.48
40:B2:59:ALA:HB2	40:B2:96:ILE:HD13	1.94	0.48
46:BZ:8:SER:HB3	46:BZ:66:HIS:ND1	2.28	0.48
46:BZ:80:LEU:N	46:BZ:80:LEU:HD23	2.28	0.48
49:B4:38:LYS:N	49:B4:38:LYS:HD2	2.27	0.48
49:B4:59:PHE:HA	49:B4:62:ARG:HD3	1.95	0.48
53:B8:23:VAL:HG13	53:B8:46:ARG:HB3	1.96	0.48
1:CA:512:U:H2'	1:CA:513:C:H6	1.79	0.48
1:CA:542:G:P	4:CG:10:ARG:NH2	2.74	0.48
1:CA:791:G:C5	1:CA:792:A:N7	2.82	0.48
1:CA:921:U:O2	5:CH:19:MET:HB3	2.14	0.48
1:CA:1122:U:C2	1:CA:1123:A:N7	2.82	0.48
1:CA:1309:G:C6	1:CA:1329:A:C2	3.02	0.48
1:CA:1347:G:C6	9:CL:107:ARG:NH2	2.81	0.48
1:CA:1372:U:H5'	9:CL:70:LYS:HZ3	1.78	0.48
3:CF:175:LEU:HD21	3:CF:201:TYR:HE2	1.78	0.48
4:CG:22:LYS:HB2	4:CG:26:CYS:H	1.77	0.48
9:CL:63:ILE:HD13	9:CL:77:ILE:HG23	1.94	0.48
13:CP:3:ARG:CA	13:CP:9:ILE:HG23	2.43	0.48
13:CP:115:LYS:C	13:CP:117:VAL:H	2.17	0.48
14:CQ:12:ARG:HD3	14:CQ:12:ARG:H	1.78	0.48
16:CS:49:LEU:HD11	16:CS:51:VAL:HG23	1.95	0.48
18:CU:65:ILE:O	18:CU:69:THR:HG23	2.13	0.48
19:CV:49:ILE:CG1	19:CV:62:ILE:HD11	2.43	0.48
24:DA:139:G:N3	24:DA:141:A:N1	2.61	0.48
24:DA:270(T):G:OP2	46:DZ:98:LEU:OXT	2.31	0.48
24:DA:271:G:H2'	24:DA:272:G:H8	1.77	0.48
24:DA:510:C:H2'	24:DA:511:U:O4'	2.13	0.48
24:DA:511:U:H4'	24:DA:1235:G:H4'	1.95	0.48
24:DA:557:U:H2'	24:DA:558:G:C8	2.48	0.48
24:DA:819:A:OP2	24:DA:1187:G:N2	2.29	0.48
24:DA:871:U:H4'	35:DP:69:PHE:CE2	2.48	0.48
24:DA:1519:G:H2'	24:DA:1520:U:O4'	2.13	0.48
24:DA:1601:G:C5'	52:D7:49:ARG:NE	2.77	0.48
24:DA:1937:A:N7	24:DA:1939:U:O2'	2.28	0.48
24:DA:2159:G:O2'	24:DA:2160:G:O4'	2.31	0.48
24:DA:2250:G:C6	35:DP:83:MET:HB3	2.48	0.48
24:DA:2688:U:C5	24:DA:2720:U:OP2	2.65	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2712:U:O2'	24:DA:2712(A):A:O5'	2.30	0.48
24:DA:2751:G:C1'	30:DH:4:ILE:O	2.59	0.48
24:DA:2756:U:H4'	24:DA:2757:A:OP1	2.12	0.48
27:DE:45:THR:O	27:DE:46:ALA:HB2	2.12	0.48
28:DF:24:LEU:CG	28:DF:25:PRO:HD3	2.41	0.48
34:DO:38:GLN:O	34:DO:41:ARG:HB2	2.13	0.48
35:DP:54:MET:HE1	35:DP:118:LEU:CD2	2.43	0.48
41:DS:50:VAL:HG22	41:DS:50:VAL:O	2.13	0.48
44:DV:118:GLN:CD	44:DV:173:ALA:HB3	2.33	0.48
44:DV:165:VAL:HG23	44:DV:166:SER:N	2.28	0.48
46:DZ:25:LYS:HD3	46:DZ:25:LYS:C	2.34	0.48
49:D4:57:GLU:H	49:D4:60:GLN:HG2	1.75	0.48
1:AA:265:G:H5"	17:AT:65:ILE:O	2.13	0.48
1:AA:313:A:H2'	1:AA:314:C:C6	2.49	0.48
1:AA:1155:G:H2'	1:AA:1156:G:O4'	2.14	0.48
1:AA:1194:U:H2'	1:AA:1195:C:C6	2.48	0.48
6:AI:12:PRO:O	6:AI:14:LEU:N	2.46	0.48
6:AI:30:LEU:O	6:AI:35:ALA:HB3	2.13	0.48
7:AJ:57:GLU:HB3	7:AJ:59:LEU:CD2	2.44	0.48
9:AL:85:LEU:C	9:AL:85:LEU:HD12	2.34	0.48
16:AS:20:VAL:HG23	16:AS:34:GLU:C	2.34	0.48
20:AW:72:LEU:HD22	20:AW:77:ALA:HB2	1.96	0.48
24:BA:271(C):U:HO2'	24:BA:271:G:P	2.35	0.48
24:BA:528:A:N1	24:BA:2042:A:H2'	2.27	0.48
24:BA:611:C:C2	24:BA:612:G:C8	3.01	0.48
24:BA:726:G:O2'	24:BA:727:A:OP2	2.30	0.48
24:BA:753:C:O2'	24:BA:754:C:H5'	2.13	0.48
24:BA:834:C:H1'	24:BA:2358:G:N3	2.29	0.48
24:BA:1093:G:HO2'	24:BA:1099:G:N2	2.11	0.48
24:BA:1168:G:C2	24:BA:1182:A:C2	3.02	0.48
24:BA:1411:C:H42	24:BA:1591:G:H1	1.60	0.48
24:BA:1529:A:H8	24:BA:1530:G:C8	2.31	0.48
24:BA:1812:A:O4'	26:BD:46:GLN:NE2	2.47	0.48
24:BA:2119:A:N6	24:BA:2170:A:C6	2.82	0.48
24:BA:2139:C:C2	24:BA:2153:G:O6	2.66	0.48
24:BA:2680:C:OP2	27:BE:111:ARG:NH2	2.46	0.48
24:BA:2758:A:C5	30:BH:67:LEU:HD21	2.48	0.48
26:BD:155:LEU:HD12	26:BD:155:LEU:N	2.29	0.48
27:BE:89:ASP:O	27:BE:90:THR:HB	2.13	0.48
30:BH:157:TYR:C	30:BH:158:HIS:ND1	2.66	0.48
31:BK:121:LYS:HG3	31:BK:122:GLU:N	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BO:18:ARG:O	34:BO:19:VAL:CB	2.57	0.48
35:BP:21:THR:CG2	35:BP:99:PRO:O	2.60	0.48
37:BQ:88:ASP:O	37:BQ:89:ARG:CG	2.60	0.48
38:BR:22:PHE:HA	38:BR:91:ARG:HH12	1.77	0.48
39:B1:92:ARG:HH21	40:B2:10:LYS:HB3	1.74	0.48
42:BT:90:GLU:O	42:BT:92:LEU:N	2.46	0.48
44:BV:146:ILE:HG12	44:BV:174:VAL:O	2.12	0.48
48:BX:52:HIS:CD2	48:BX:52:HIS:H	2.30	0.48
1:CA:559:A:H4'	1:CA:560:U:C5'	2.38	0.48
1:CA:574:A:H1'	1:CA:883:C:O4'	2.13	0.48
1:CA:742:G:OP2	15:CR:35:ARG:NH2	2.46	0.48
1:CA:1366:C:C2'	10:CM:60:ARG:HH22	2.25	0.48
1:CA:1413:A:H2	1:CA:1487:G:H22	1.60	0.48
2:CE:127:ILE:HG13	2:CE:135:GLN:NE2	2.29	0.48
4:CG:92:VAL:O	4:CG:96:LEU:HD22	2.13	0.48
6:CI:18:GLN:O	6:CI:21:LEU:HB2	2.13	0.48
10:CM:49:VAL:CB	14:CQ:41:ARG:HB2	2.43	0.48
10:CM:79:ARG:HD3	10:CM:79:ARG:N	2.28	0.48
17:CT:53:LEU:H	17:CT:53:LEU:CD1	2.26	0.48
19:CV:49:ILE:CG1	19:CV:60:VAL:HG22	2.42	0.48
20:CW:103:GLY:O	20:CW:104:LEU:HD12	2.14	0.48
24:DA:454:A:H4'	24:DA:455:C:OP2	2.14	0.48
24:DA:686:G:H4'	24:DA:687:C:OP2	2.13	0.48
24:DA:1304:C:O2'	24:DA:1305:C:H5'	2.14	0.48
24:DA:1534:G:H5'	24:DA:1535:U:OP2	2.13	0.48
24:DA:1678:G:N2	24:DA:1989:G:H1	2.08	0.48
24:DA:1800:C:H3'	26:DD:147:LEU:HD22	1.94	0.48
24:DA:1826:G:C4'	26:DD:242:ARG:HH21	2.26	0.48
24:DA:2392:A:C3'	53:D8:30:ARG:HH22	2.25	0.48
24:DA:2584:U:H5"	24:DA:2585:U:OP2	2.14	0.48
24:DA:2845:G:C2'	24:DA:2846:G:H5'	2.43	0.48
25:DB:66:A:C6	25:DB:108:C:C6	3.01	0.48
27:DE:68:ALA:HB1	27:DE:71:GLY:N	2.29	0.48
32:DM:111:PRO:O	32:DM:115:ARG:HG3	2.13	0.48
34:DO:112:LEU:C	34:DO:112:LEU:CD2	2.82	0.48
35:DP:134:ARG:HH22	44:DV:122:ARG:CZ	2.27	0.48
39:D1:14:HIS:HA	39:D1:32:PHE:CD1	2.48	0.48
43:DU:68:HIS:H	43:DU:71:LYS:HZ3	1.61	0.48
49:D4:14:ILE:HD12	49:D4:24:THR:CG2	2.43	0.48
1:AA:386:C:C2'	1:AA:387:U:H5'	2.43	0.48
1:AA:412:A:N6	4:AG:35:ARG:HG2	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:607:A:C2'	1:AA:608:A:H5'	2.43	0.48
1:AA:644:G:H2'	1:AA:645:C:O4'	2.14	0.48
1:AA:1015:A:H2'	1:AA:1016:A:C8	2.48	0.48
1:AA:1157:A:H61	1:AA:1180:A:H2'	1.78	0.48
1:AA:1180:A:P	9:AL:103:THR:HG1	2.36	0.48
1:AA:1374:A:C4	1:AA:1375:A:C8	3.01	0.48
2:AE:21:ARG:CB	2:AE:39:ILE:HA	2.43	0.48
4:AG:59:ARG:HA	4:AG:59:ARG:NE	2.28	0.48
5:AH:6:PHE:HZ	5:AH:40:ARG:HH12	1.61	0.48
9:AL:9:ARG:CG	9:AL:14:VAL:CG2	2.83	0.48
9:AL:14:VAL:HG22	9:AL:15:ALA:N	2.28	0.48
11:AN:57:THR:HG23	11:AN:58:PRO:HD2	1.96	0.48
11:AN:62:GLN:HB2	11:AN:93:GLN:OE1	2.14	0.48
12:AO:24:VAL:HG11	12:AO:27:LEU:HD11	1.96	0.48
15:AR:75:PRO:O	15:AR:78:TYR:HB3	2.13	0.48
17:AT:4:LYS:HE3	17:AT:6:LEU:CD2	2.43	0.48
22:AC:1:C:H2'	22:AC:2:G:OP2	2.13	0.48
24:BA:17:G:H2'	24:BA:18:C:C6	2.48	0.48
24:BA:588:U:C2	28:BF:90:PHE:CE1	3.01	0.48
24:BA:898:C:C6	24:BA:899:A:C8	3.02	0.48
24:BA:1541:U:O4	24:BA:1542:G:N1	2.47	0.48
24:BA:1827:C:H2'	24:BA:1828:G:H5'	1.93	0.48
24:BA:2369:A:C2	24:BA:2370:G:C5	3.01	0.48
24:BA:2401:U:H2'	24:BA:2402:C:H5"	1.96	0.48
25:BB:66:A:H61	25:BB:107:U:H2'	1.78	0.48
29:BG:82:LEU:HA	29:BG:86:MET:CE	2.43	0.48
34:BO:65:ARG:HH21	53:B8:15:LYS:CB	2.27	0.48
35:BP:21:THR:H	35:BP:98:LYS:HB2	1.79	0.48
38:BR:96:ARG:HB2	38:BR:96:ARG:NH1	2.27	0.48
44:BV:29:TYR:HA	44:BV:33:LEU:O	2.13	0.48
46:BZ:94:LEU:HD23	46:BZ:94:LEU:HA	1.58	0.48
1:CA:64:G:N2	1:CA:67:C:C4	2.81	0.48
1:CA:853:G:N3	1:CA:854:G:C8	2.82	0.48
1:CA:930:C:C2'	1:CA:931:C:H5'	2.43	0.48
1:CA:992:U:C1'	1:CA:993:G:OP2	2.58	0.48
1:CA:1212:U:H2'	1:CA:1213:A:OP2	2.14	0.48
1:CA:1226:C:N4	13:CP:104:ARG:HB2	2.29	0.48
1:CA:1277:C:H1'	1:CA:1282:C:O2	2.14	0.48
1:CA:1320:C:N4	1:CA:1321:C:N3	2.61	0.48
4:CG:133:VAL:HG12	4:CG:133:VAL:O	2.14	0.48
4:CG:196:LEU:HB3	4:CG:197:PRO:CD	2.38	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CI:60:PHE:C	6:CI:61:LEU:HD12	2.34	0.48
8:CK:97:VAL:HG22	8:CK:129:VAL:N	2.28	0.48
17:CT:29:HIS:CG	17:CT:30:PRO:HD2	2.48	0.48
19:CV:49:ILE:CD1	19:CV:49:ILE:C	2.80	0.48
24:DA:192:C:H2'	24:DA:193:U:H5'	1.94	0.48
24:DA:654(B):C:C2	24:DA:654(T):A:N1	2.82	0.48
24:DA:869:G:H2'	24:DA:870:A:H5'	1.95	0.48
24:DA:1142(A):A:H4'	32:DM:25:ARG:NH2	2.25	0.48
24:DA:1441:G:H2'	24:DA:1442:G:H8	1.78	0.48
24:DA:2250:G:N1	35:DP:83:MET:HB3	2.28	0.48
24:DA:2344:U:H2'	51:D6:37:ARG:CD	2.44	0.48
24:DA:2420:C:OP1	53:D8:34:TRP:N	2.46	0.48
26:DD:66:ASP:OD1	26:DD:68:LYS:O	2.31	0.48
26:DD:238:GLY:O	26:DD:239:ARG:HB3	2.14	0.48
27:DE:60:ASN:ND2	27:DE:63:LEU:CD2	2.76	0.48
27:DE:77:ILE:O	27:DE:78:LEU:O	2.31	0.48
27:DE:116:VAL:HG21	27:DE:122:PHE:CD2	2.48	0.48
27:DE:119:ARG:HG2	27:DE:160:TYR:CG	2.48	0.48
28:DF:18:ARG:C	28:DF:18:ARG:CD	2.82	0.48
28:DF:32:LEU:HD23	28:DF:32:LEU:C	2.32	0.48
30:DH:6:ARG:CZ	30:DH:66:GLY:HA3	2.44	0.48
30:DH:13:LYS:O	30:DH:14:GLY:C	2.51	0.48
31:DK:51:ILE:O	31:DK:54:GLN:N	2.47	0.48
42:DT:10:ALA:HB1	42:DT:11:PRO:CD	2.41	0.48
43:DU:95:LYS:O	43:DU:95:LYS:HG3	2.13	0.48
47:DW:51:ARG:HG3	47:DW:52:ASP:N	2.29	0.48
1:AA:131:C:H2'	1:AA:132:C:H6	1.78	0.48
1:AA:465:A:H2'	1:AA:466:C:H5"	1.94	0.48
1:AA:577:G:H1'	1:AA:816:A:N3	2.28	0.48
1:AA:653:A:O4'	8:AK:56:LYS:HE3	2.13	0.48
1:AA:711:G:O2'	1:AA:712:A:H5'	2.13	0.48
1:AA:811:C:O2'	1:AA:901:A:N1	2.47	0.48
1:AA:1034:G:C2	1:AA:1035:A:C6	3.02	0.48
1:AA:1386:G:O2'	1:AA:1387:G:H5'	2.13	0.48
2:AE:21:ARG:C	2:AE:23:ARG:H	2.16	0.48
2:AE:31:TYR:N	2:AE:31:TYR:CD1	2.79	0.48
2:AE:196:LEU:HD12	2:AE:196:LEU:C	2.34	0.48
2:AE:236:TYR:O	2:AE:237:ALA:O	2.32	0.48
5:AH:105:VAL:HB	5:AH:106:PRO:CD	2.43	0.48
8:AK:6:ILE:HD12	8:AK:6:ILE:N	2.29	0.48
9:AL:21:PRO:HA	9:AL:59:PHE:HA	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AL:79:LEU:O	9:AL:80:GLY:C	2.51	0.48
13:AP:52:GLU:O	13:AP:56:LEU:HD23	2.14	0.48
16:AS:71:ARG:O	16:AS:72:ARG:C	2.51	0.48
19:AV:13:ASP:C	19:AV:15:LEU:N	2.67	0.48
19:AV:36:ARG:HB2	19:AV:36:ARG:CZ	2.43	0.48
22:AC:18:G:C6	22:AC:57:A:N6	2.82	0.48
24:BA:529:A:H8	24:BA:530:G:C6	2.31	0.48
24:BA:909:A:H2'	24:BA:912:C:H5	1.78	0.48
24:BA:1021:A:C3'	24:BA:1021:A:C8	2.97	0.48
24:BA:1048:A:C6	24:BA:1111:A:N3	2.81	0.48
24:BA:2394:C:H2'	24:BA:2395:C:H5'	1.95	0.48
26:BD:94:LEU:HD22	26:BD:94:LEU:C	2.33	0.48
27:BE:37:ARG:HA	27:BE:42:ASP:OD2	2.13	0.48
29:BG:83:ARG:H	29:BG:86:MET:CE	2.23	0.48
30:BH:84:SER:OG	30:BH:85:LYS:N	2.45	0.48
31:BK:116:LEU:HG	31:BK:117:GLU:H	1.79	0.48
34:BO:49:ARG:HE	53:B8:58:ILE:CG2	2.27	0.48
37:BQ:62:LYS:HB3	37:BQ:97:ARG:CD	2.43	0.48
43:BU:81:LYS:HB3	43:BU:97:ARG:HD3	1.94	0.48
44:BV:6:LYS:HD3	44:BV:8:TYR:OH	2.14	0.48
50:B5:36:CYS:HB2	50:B5:40:LYS:NZ	2.29	0.48
52:B7:10:ARG:O	52:B7:14:LYS:HB2	2.14	0.48
1:CA:89:U:C1'	1:CA:90:C:P	3.00	0.48
1:CA:160:A:H1'	1:CA:344:A:N7	2.28	0.48
1:CA:412:A:C1'	1:CA:413:G:P	3.02	0.48
1:CA:618:C:N3	1:CA:622:A:N6	2.61	0.48
1:CA:663:A:O2'	1:CA:664:G:H5'	2.14	0.48
1:CA:1104:G:H2'	1:CA:1105:A:C8	2.48	0.48
4:CG:200:GLU:HG3	4:CG:201:GLN:H	1.78	0.48
9:CL:9:ARG:HD3	9:CL:14:VAL:HG13	1.95	0.48
9:CL:36:TYR:CE2	9:CL:37:PHE:HE1	2.32	0.48
10:CM:49:VAL:O	10:CM:61:GLU:N	2.46	0.48
16:CS:68:ASP:O	16:CS:71:ARG:HB3	2.14	0.48
22:CC:15:G:H5"	22:CC:16:C:OP2	2.14	0.48
24:DA:94:G:H21	47:DW:47:ASN:HD22	1.62	0.48
24:DA:270(U):C:H2'	24:DA:270(V):G:H8	1.78	0.48
24:DA:385:C:O2	34:DO:71:VAL:HG21	2.14	0.48
24:DA:389:G:N2	34:DO:72:PRO:HG2	2.27	0.48
24:DA:547:A:C5	24:DA:548:A:C5	3.01	0.48
24:DA:601:C:H2'	24:DA:602:G:O4'	2.13	0.48
24:DA:675:A:C4	24:DA:804:A:C2	3.02	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:768:G:C6	24:DA:769:G:C5	3.02	0.48
24:DA:835:A:OP1	53:D8:52:LYS:CG	2.60	0.48
24:DA:1047:G:H1'	24:DA:1110:G:H1	1.78	0.48
24:DA:1171:G:C2'	24:DA:1173:G:O5'	2.62	0.48
24:DA:1386:C:H2'	24:DA:1387:C:H6	1.77	0.48
24:DA:2030:A:H4'	24:DA:2031:A:H8	1.79	0.48
24:DA:2439:A:H5'	24:DA:2439:A:H8	1.79	0.48
24:DA:2797:U:H2'	24:DA:2798:C:C5'	2.41	0.48
26:DD:67:PHE:HB3	26:DD:153:ALA:CB	2.41	0.48
28:DF:62:ARG:O	28:DF:62:ARG:HG2	2.14	0.48
31:DK:68:LEU:CA	31:DK:71:ILE:HG22	2.42	0.48
32:DM:62:VAL:HG22	32:DM:66:LYS:HD2	1.96	0.48
35:DP:58:PHE:O	35:DP:60:ARG:N	2.47	0.48
35:DP:61:GLY:HA2	35:DP:62:GLY:HA3	1.59	0.48
37:DQ:62:LYS:HB3	37:DQ:97:ARG:CD	2.42	0.48
44:DV:24:LEU:N	44:DV:41:LEU:CD1	2.76	0.48
44:DV:120:ILE:HG13	44:DV:121:HIS:H	1.77	0.48
49:D4:22:ILE:HG13	49:D4:23:GLU:N	2.25	0.48
51:D6:23:THR:CG2	51:D6:24:GLU:N	2.60	0.48
53:D8:49:VAL:CG1	53:D8:50:LEU:H	2.27	0.48
1:AA:6:G:C5	5:AH:119:LEU:HD11	2.49	0.48
1:AA:69:G:H1	1:AA:99:C:H42	1.61	0.48
1:AA:102:G:C6	1:AA:103:C:N4	2.81	0.48
1:AA:345:C:H5'	1:AA:346:G:O5'	2.13	0.48
1:AA:373:A:C2	1:AA:482:A:C6	3.02	0.48
1:AA:380:G:C2	1:AA:384:G:C6	3.01	0.48
1:AA:456:C:H2'	1:AA:457:C:C6	2.48	0.48
1:AA:626:U:C5'	16:AS:38:TYR:CE2	2.94	0.48
1:AA:929:G:H2'	1:AA:930:C:H6	1.79	0.48
1:AA:1287:A:P	21:AX:26:LYS:HE3	2.53	0.48
4:AG:21:LEU:CD1	4:AG:21:LEU:C	2.82	0.48
5:AH:90:VAL:O	5:AH:120:THR:HA	2.14	0.48
9:AL:95:LYS:HB2	9:AL:95:LYS:HZ2	1.79	0.48
10:AM:6:ILE:CG1	10:AM:72:VAL:CG1	2.90	0.48
11:AN:73:MET:SD	11:AN:103:LEU:CD2	3.00	0.48
17:AT:29:HIS:CE1	17:AT:32:TYR:HD2	2.32	0.48
19:AV:19:VAL:HG11	19:AV:44:MET:HB3	1.95	0.48
19:AV:21:GLU:O	19:AV:25:LYS:CD	2.62	0.48
19:AV:41:VAL:HG13	19:AV:42:PRO:CA	2.43	0.48
20:AW:30:LYS:HA	20:AW:33:ILE:HG12	1.95	0.48
24:BA:173:G:H2'	24:BA:174:C:C6	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:614:U:H3'	24:BA:616:A:OP1	2.14	0.48
24:BA:1054:A:C6	24:BA:1055:G:C6	3.02	0.48
24:BA:1354:A:H2'	24:BA:1355:G:O4'	2.14	0.48
24:BA:1403:C:C5'	24:BA:1471:A:H1'	2.33	0.48
24:BA:1677:A:C2'	24:BA:1678:G:O5'	2.62	0.48
24:BA:1890:A:C2'	24:BA:1891:G:H5'	2.44	0.48
24:BA:2401:U:O2	24:BA:2402:C:H5	1.96	0.48
24:BA:2437:U:H2'	24:BA:2438:U:H6	1.77	0.48
24:BA:2699:C:H2'	24:BA:2700:C:O4'	2.14	0.48
24:BA:2749:A:O3'	30:BH:62:LYS:HE2	2.14	0.48
25:BB:45:A:C1'	29:BG:95:ARG:NH1	2.60	0.48
25:BB:94:C:H2'	25:BB:95:U:H6	1.79	0.48
26:BD:92:ILE:HD12	26:BD:104:TYR:CD2	2.48	0.48
29:BG:63:ILE:O	29:BG:63:ILE:HG13	2.14	0.48
29:BG:97:ASP:O	29:BG:101:ILE:CG2	2.62	0.48
37:BQ:70:GLY:CA	37:BQ:101:LEU:HD12	2.43	0.48
43:BU:96:ILE:HG23	43:BU:101:LYS:CG	2.15	0.48
44:BV:1:MET:HA	44:BV:135:GLU:OE2	2.13	0.48
44:BV:14:LYS:O	44:BV:18:LEU:HD13	2.13	0.48
49:B4:58:ARG:HH12	49:B4:62:ARG:HB3	1.78	0.48
51:B6:11:LEU:HD11	51:B6:51:GLU:HG3	1.95	0.48
1:CA:36:C:O2'	1:CA:37:U:H5'	2.14	0.48
1:CA:505:G:OP2	1:CA:534:U:H2'	2.14	0.48
1:CA:692:U:H2'	1:CA:694:A:OP2	2.14	0.48
1:CA:745:C:H1'	1:CA:836:G:O2'	2.14	0.48
1:CA:837:G:H2'	1:CA:838:G:O4'	2.13	0.48
1:CA:990:C:H2'	1:CA:991:U:C1'	2.43	0.48
1:CA:1009:G:H1	1:CA:1020:U:H3	1.60	0.48
1:CA:1237:C:H3'	1:CA:1336:C:H41	1.78	0.48
1:CA:1469:G:H2'	1:CA:1470:G:C8	2.49	0.48
4:CG:18:LYS:HD2	4:CG:20:TYR:CE1	2.49	0.48
4:CG:65:ARG:HB2	4:CG:75:PHE:CD2	2.49	0.48
6:CI:35:ALA:HB1	6:CI:65:VAL:HG11	1.95	0.48
7:CJ:93:PRO:O	7:CJ:96:GLN:HB2	2.14	0.48
8:CK:9:MET:CB	8:CK:32:LYS:NZ	2.77	0.48
10:CM:81:THR:C	10:CM:84:GLN:HG2	2.33	0.48
10:CM:89:ASP:C	10:CM:90:LEU:HD12	2.33	0.48
13:CP:19:LEU:O	13:CP:20:THR:C	2.52	0.48
16:CS:52:ASP:O	16:CS:55:ARG:HB2	2.14	0.48
20:CW:10:LEU:O	20:CW:13:LEU:HD13	2.13	0.48
24:DA:270(U):C:H2'	24:DA:270(V):G:C8	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:540:G:C5	24:DA:541:C:C5	3.02	0.48
24:DA:1006:C:H1'	32:DM:106:MET:CE	2.44	0.48
24:DA:1336:A:OP1	42:DT:64:LYS:CE	2.61	0.48
24:DA:1491:G:O2'	26:DD:101:GLU:HB2	2.14	0.48
24:DA:1686:C:C2'	24:DA:1687:G:H5'	2.44	0.48
24:DA:2068:U:N3	24:DA:2430:A:C2	2.56	0.48
24:DA:2343:C:H2'	24:DA:2344:U:C5'	2.39	0.48
24:DA:2393:A:H5"	53:D8:30:ARG:CD	2.33	0.48
24:DA:2791:C:H2'	24:DA:2792:G:C8	2.49	0.48
25:DB:33:G:C2	25:DB:34:U:C2	3.01	0.48
25:DB:93:C:H2'	25:DB:94:C:H6	1.78	0.48
28:DF:4:VAL:HG13	28:DF:19:GLU:OE1	2.13	0.48
28:DF:51:THR:HG21	28:DF:92:PRO:HD2	1.96	0.48
29:DG:140:ILE:HG12	29:DG:141:PHE:N	2.29	0.48
30:DH:18:GLU:H	30:DH:25:LYS:HD2	1.77	0.48
31:DK:77:LEU:HD21	31:DK:141:LYS:HE3	1.96	0.48
31:DK:101:LEU:O	31:DK:102:SER:HB2	2.13	0.48
31:DK:123:LEU:HD13	31:DK:143:SER:HA	1.96	0.48
32:DM:95:PRO:O	32:DM:98:VAL:HG22	2.14	0.48
34:DO:29:LYS:HG2	34:DO:30:THR:N	2.28	0.48
37:DQ:48:LEU:O	37:DQ:49:VAL:HG23	2.14	0.48
37:DQ:83:LYS:HB2	37:DQ:83:LYS:HZ2	1.78	0.48
39:D1:110:VAL:O	39:D1:114:LYS:HG2	2.13	0.48
43:DU:47:LYS:H	43:DU:60:PHE:HB3	1.77	0.48
44:DV:13:GLU:HB3	44:DV:18:LEU:CD1	2.43	0.48
44:DV:29:TYR:HE1	44:DV:87:ASP:HB3	1.78	0.48
44:DV:93:ASP:HB2	44:DV:131:ARG:HH11	1.78	0.48
45:D3:49:LYS:HB2	45:D3:80:HIS:HB3	1.96	0.48
1:AA:756:C:H4'	8:AK:1:MET:HE2	1.96	0.48
1:AA:951:G:OP2	13:AP:102:ARG:NH2	2.47	0.48
1:AA:1080:A:C5'	5:AH:16:THR:HG21	2.43	0.48
1:AA:1128:C:H4'	9:AL:16:ARG:HH11	1.77	0.48
1:AA:1298:C:H5'	1:AA:1299:A:C8	2.48	0.48
2:AE:37:ASN:O	2:AE:39:ILE:N	2.47	0.48
2:AE:50:GLU:HA	2:AE:50:GLU:OE2	2.14	0.48
2:AE:97:TRP:CZ3	2:AE:172:ILE:CG1	2.94	0.48
2:AE:97:TRP:HZ3	2:AE:172:ILE:HG13	1.75	0.48
4:AG:162:LEU:CD1	4:AG:181:MET:HG2	2.44	0.48
4:AG:194:LEU:HD12	4:AG:194:LEU:C	2.34	0.48
19:AV:22:LEU:HD21	19:AV:29:ARG:HD3	1.96	0.48
19:AV:36:ARG:NH1	19:AV:36:ARG:CB	2.76	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AV:40:ILE:CA	19:AV:44:MET:HE3	2.35	0.48
24:BA:164:U:C6	24:BA:165:U:H6	2.30	0.48
24:BA:270(V):G:H2'	24:BA:270(W):G:C8	2.46	0.48
24:BA:878:A:C2	24:BA:879:G:C5	3.02	0.48
24:BA:1057:A:N6	24:BA:1086:A:C2	2.81	0.48
24:BA:1817:G:OP1	26:BD:88:ARG:NH2	2.43	0.48
24:BA:2418:A:C2'	51:B6:21:TYR:CE2	2.96	0.48
24:BA:2419:U:P	53:B8:41:ILE:CD1	3.02	0.48
27:BE:71:GLY:O	27:BE:72:VAL:HB	2.14	0.48
29:BG:104:GLU:CG	49:B4:23:GLU:OE2	2.62	0.48
40:B2:35:LEU:HD23	40:B2:35:LEU:C	2.29	0.48
43:BU:40:GLU:HA	43:BU:40:GLU:OE1	2.12	0.48
53:B8:39:LYS:HA	53:B8:42:ARG:NH2	2.29	0.48
1:CA:35:G:N2	1:CA:550:G:N3	2.62	0.48
1:CA:626:U:C2	1:CA:627:G:C8	3.02	0.48
1:CA:644:G:O2'	1:CA:645:C:H5'	2.14	0.48
1:CA:651:C:H2'	1:CA:652:U:C6	2.49	0.48
1:CA:927:G:N1	1:CA:1391:U:C2	2.82	0.48
1:CA:999:U:H2'	1:CA:1000:A:C8	2.48	0.48
1:CA:1157:A:N3	1:CA:1157:A:C2'	2.77	0.48
1:CA:1349:A:P	9:CL:118:LYS:HZ2	2.36	0.48
1:CA:1427:U:H2'	1:CA:1428:A:C8	2.49	0.48
2:CE:16:HIS:O	2:CE:17:PHE:CD1	2.67	0.48
2:CE:70:PHE:O	2:CE:92:TYR:HA	2.14	0.48
5:CH:69:VAL:O	5:CH:71:LEU:HD12	2.14	0.48
5:CH:151:LEU:HD11	8:CK:79:VAL:CG2	2.44	0.48
8:CK:58:TYR:O	8:CK:59:LEU:HD23	2.14	0.48
9:CL:65:VAL:HG21	9:CL:73:GLN:HB3	1.94	0.48
13:CP:56:LEU:O	13:CP:60:VAL:HG23	2.13	0.48
19:CV:66:MET:HA	19:CV:67:VAL:C	2.33	0.48
22:CC:7:G:H2'	22:CC:8:U:OP1	2.13	0.48
24:DA:243:U:OP2	53:D8:8:LYS:HE3	2.13	0.48
24:DA:640:C:N4	24:DA:641:C:N4	2.61	0.48
24:DA:853:G:H2'	24:DA:854:G:C8	2.48	0.48
24:DA:870:A:O5'	35:DP:6:ARG:NH1	2.44	0.48
24:DA:1063:G:H2'	24:DA:1063:G:N3	2.29	0.48
24:DA:1070:A:C5'	24:DA:1071:G:H5"	2.31	0.48
24:DA:1348:G:H2'	24:DA:1349:A:H5'	1.95	0.48
24:DA:1425:G:N2	24:DA:1573:G:N7	2.62	0.48
24:DA:1496:A:H2'	24:DA:1498:C:C5	2.49	0.48
24:DA:1812:A:O2'	26:DD:45:ASN:HB2	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2345:G:OP2	51:D6:39:TYR:CD1	2.59	0.48
24:DA:2788:C:P	27:DE:61:ARG:HH12	2.37	0.48
24:DA:2853:C:H2'	24:DA:2854:G:H8	1.79	0.48
24:DA:2873:A:H8	36:D0:6:SER:N	2.06	0.48
30:DH:5:GLY:C	30:DH:6:ARG:HG3	2.34	0.48
30:DH:166:GLY:O	30:DH:167:GLU:O	2.32	0.48
31:DK:7:GLU:CG	31:DK:8:PRO:HD2	2.43	0.48
34:DO:37:GLY:HA2	34:DO:41:ARG:NH2	2.28	0.48
41:DS:17:VAL:O	41:DS:20:VAL:HG22	2.14	0.48
47:DW:18:PRO:HG2	47:DW:19:VAL:H	1.79	0.48
49:D4:26:SER:O	49:D4:27:THR:HG23	2.13	0.48
49:D4:28:LYS:HE2	49:D4:31:ILE:CD1	2.33	0.48
1:AA:191:G:C2'	1:AA:192:U:O4'	2.62	0.48
1:AA:370:C:H2'	1:AA:371:G:O4'	2.14	0.48
1:AA:690:G:C2'	1:AA:691:G:H5'	2.44	0.48
1:AA:757:U:H2'	1:AA:758:G:O4'	2.14	0.48
1:AA:827:U:C5	1:AA:872:A:N6	2.79	0.48
1:AA:877:C:O2'	1:AA:878:G:H5'	2.14	0.48
1:AA:1431:C:H2'	1:AA:1432:G:O4'	2.14	0.48
2:AE:80:ILE:HD12	2:AE:212:GLN:HB2	1.95	0.48
3:AF:94:LEU:HD23	3:AF:94:LEU:H	1.77	0.48
3:AF:186:PHE:HZ	3:AF:188:LEU:HG	1.79	0.48
5:AH:105:VAL:N	5:AH:106:PRO:HD2	2.29	0.48
7:AJ:82:GLY:O	7:AJ:83:ALA:HB2	2.14	0.48
8:AK:87:SER:CA	8:AK:93:VAL:HG23	2.40	0.48
8:AK:112:LEU:HA	8:AK:134:ILE:HD13	1.94	0.48
9:AL:16:ARG:HD2	9:AL:64:THR:CG2	2.43	0.48
9:AL:17:VAL:HG21	9:AL:80:GLY:C	2.34	0.48
9:AL:112:LYS:HD3	9:AL:112:LYS:C	2.34	0.48
9:AL:126:SER:O	9:AL:127:LYS:HB3	2.14	0.48
13:AP:108:ARG:N	13:AP:108:ARG:HD2	2.28	0.48
24:BA:2:G:H1	24:BA:2901:C:N4	2.06	0.48
24:BA:270(I):G:H1'	46:BZ:78:LYS:NZ	2.29	0.48
24:BA:438:G:H2'	24:BA:439:G:H8	1.78	0.48
24:BA:618:G:H2'	24:BA:618(A):C:O4'	2.14	0.48
24:BA:721:C:H2'	24:BA:722:A:H8	1.79	0.48
24:BA:826:U:OP1	24:BA:2428:G:H3'	2.14	0.48
24:BA:1315:C:H2'	24:BA:1316:U:C6	2.49	0.48
24:BA:1331:A:H2'	24:BA:1333:C:C5	2.49	0.48
24:BA:1666:G:O2'	24:BA:1667:G:H5'	2.14	0.48
24:BA:2197:U:O2'	24:BA:2198:A:H2'	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2627:G:O2'	24:BA:2781:A:N1	2.31	0.48
24:BA:2866:U:C2	24:BA:2868:A:H1'	2.48	0.48
28:BF:152:GLU:OE1	28:BF:191:ARG:NE	2.44	0.48
29:BG:67:LYS:HD3	49:B4:5:ILE:CG1	2.43	0.48
29:BG:108:ASN:HA	49:B4:38:LYS:HB2	1.95	0.48
30:BH:153:LYS:HB3	30:BH:154:PRO:HD3	1.96	0.48
34:BO:116:GLY:O	34:BO:117:GLU:C	2.52	0.48
42:BT:10:ALA:HB1	42:BT:11:PRO:CD	2.43	0.48
43:BU:44:ILE:HG13	43:BU:45:VAL:N	2.25	0.48
44:BV:157:LEU:HD12	44:BV:157:LEU:N	2.29	0.48
1:CA:75:C:H2'	1:CA:76:G:O4'	2.14	0.48
1:CA:187:C:O2	1:CA:191(A):G:C6	2.67	0.48
1:CA:782:A:H2'	1:CA:783:C:H5'	1.96	0.48
1:CA:1026:G:C2'	1:CA:1027:C:H5'	2.43	0.48
1:CA:1049:U:H4'	1:CA:1050:G:C5'	2.42	0.48
1:CA:1118:C:H2'	1:CA:1119:C:O4'	2.14	0.48
1:CA:1220:G:H1'	19:CV:52:TYR:CD2	2.48	0.48
1:CA:1303:C:N4	1:CA:1304:G:C6	2.81	0.48
2:CE:21:ARG:HB3	2:CE:39:ILE:H	1.79	0.48
3:CF:119:ARG:NH2	3:CF:140:ARG:HD2	2.29	0.48
4:CG:96:LEU:HD12	4:CG:139:ARG:HH11	1.78	0.48
4:CG:163:GLU:HG2	4:CG:166:LYS:HZ1	1.79	0.48
5:CH:71:LEU:CD2	5:CH:114:GLY:O	2.62	0.48
8:CK:9:MET:HG3	8:CK:26:VAL:HG11	1.96	0.48
9:CL:108:VAL:HG23	9:CL:109:VAL:N	2.29	0.48
10:CM:9:ARG:HG2	10:CM:69:ASN:OD1	2.14	0.48
11:CN:84:VAL:HG11	11:CN:91:ARG:HE	1.78	0.48
20:CW:51:GLU:O	20:CW:55:ILE:HG12	2.13	0.48
24:DA:654(V):A:C2	24:DA:655:A:C2	3.02	0.48
24:DA:1384:A:N3	24:DA:1405:U:H1'	2.29	0.48
24:DA:1464:C:HO2'	24:DA:1528:A:H8	1.62	0.48
24:DA:1508:A:H2'	24:DA:1508:A:N3	2.28	0.48
24:DA:2263:C:O2'	24:DA:2264:C:H5'	2.14	0.48
24:DA:2286:A:C8	24:DA:2287:A:N6	2.82	0.48
26:DD:127:VAL:HA	26:DD:193:VAL:CG2	2.44	0.48
27:DE:64:LYS:CD	27:DE:73:GLU:OE2	2.62	0.48
27:DE:97:LYS:O	27:DE:100:GLU:HG3	2.14	0.48
27:DE:101:ARG:HH11	27:DE:171:GLU:N	2.12	0.48
27:DE:174:ASP:OD1	27:DE:175:VAL:N	2.44	0.48
30:DH:37:VAL:O	30:DH:37:VAL:HG13	2.14	0.48
31:DK:29:TYR:CD1	31:DK:33:ARG:HD2	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DM:55:VAL:HB	32:DM:126:PRO:HA	1.96	0.48
34:DO:75:ILE:HD13	34:DO:75:ILE:H	1.79	0.48
34:DO:97:PRO:O	34:DO:98:GLU:CB	2.60	0.48
39:D1:83:LEU:HG	39:D1:88:ILE:CD1	2.43	0.48
39:D1:110:VAL:HG12	39:D1:114:LYS:CD	2.43	0.48
40:D2:35:LEU:HG	40:D2:37:VAL:HG21	1.96	0.48
40:D2:35:LEU:HD22	40:D2:57:VAL:O	2.13	0.48
43:DU:99:CYS:SG	43:DU:100:ALA:N	2.84	0.48
48:DX:7:LYS:CG	48:DX:34:GLU:HG2	2.44	0.48
1:AA:25:C:H5'	1:AA:524:G:H1'	1.96	0.47
1:AA:200:G:H1	1:AA:217:C:H42	1.61	0.47
1:AA:521:G:H5'	12:AO:72:GLY:O	2.14	0.47
1:AA:603:U:O2'	1:AA:604:G:H5'	2.14	0.47
1:AA:638:G:H2'	1:AA:639:G:C8	2.47	0.47
1:AA:977:A:C8	1:AA:1223:C:C4	3.02	0.47
1:AA:979:C:H2'	1:AA:980:C:H5'	1.96	0.47
1:AA:1158:C:N3	1:AA:1160:G:C8	2.82	0.47
1:AA:1179:A:O3'	9:AL:103:THR:CG2	2.61	0.47
1:AA:1516:G:N1	1:AA:1519:A:OP2	2.47	0.47
2:AE:83:MET:HB3	2:AE:234:PRO:HG2	1.95	0.47
3:AF:73:PRO:C	3:AF:76:VAL:HG22	2.34	0.47
3:AF:175:LEU:HD12	3:AF:175:LEU:N	2.29	0.47
4:AG:112:VAL:HG12	4:AG:116:GLN:OE1	2.14	0.47
10:AM:31:GLY:HA3	10:AM:81:THR:CG2	2.43	0.47
12:AO:24:VAL:CG1	12:AO:27:LEU:HD12	2.44	0.47
12:AO:47:LYS:CB	12:AO:48:PRO:HD3	2.33	0.47
15:AR:12:ILE:O	15:AR:16:ALA:N	2.40	0.47
16:AS:22:THR:HA	16:AS:33:ILE:CD1	2.44	0.47
17:AT:9:VAL:O	17:AT:21:VAL:HA	2.14	0.47
19:AV:41:VAL:HG22	19:AV:45:VAL:HG13	1.89	0.47
24:BA:270(P):C:C2'	24:BA:270(Q):C:H5'	2.44	0.47
24:BA:479:A:HO2'	24:BA:481:G:H8	1.61	0.47
24:BA:749:C:H4'	24:BA:1271:G:N3	2.29	0.47
24:BA:960:A:H5"	24:BA:961:C:OP1	2.14	0.47
24:BA:1045:A:N3	24:BA:1111:A:N6	2.62	0.47
24:BA:1431:U:C2'	24:BA:1432:C:H5'	2.43	0.47
24:BA:2312:U:OP1	29:BG:74:LYS:N	2.34	0.47
24:BA:2481:G:HO2'	24:BA:2482:G:P	2.37	0.47
24:BA:2751:G:C2	30:BH:3:ARG:HG3	2.49	0.47
27:BE:15:PHE:CE1	38:BR:81:PRO:HD2	2.49	0.47
27:BE:52:LEU:HB2	27:BE:75:VAL:HG22	1.94	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BP:10:ARG:O	35:BP:11:LYS:HB2	2.12	0.47
36:B0:36:THR:CG2	36:B0:37:THR:N	2.66	0.47
36:B0:100:LEU:HD12	36:B0:100:LEU:N	2.29	0.47
40:B2:36:PRO:O	40:B2:37:VAL:HG22	2.14	0.47
42:BT:51:VAL:HG13	42:BT:81:VAL:HG23	1.95	0.47
46:BZ:91:LYS:O	46:BZ:95:LEU:HG	2.14	0.47
49:B4:11:PRO:HA	49:B4:25:TYR:HA	1.95	0.47
49:B4:37:SER:CB	49:B4:43:TYR:CZ	2.71	0.47
1:CA:485:G:O2'	1:CA:486:U:OP2	2.31	0.47
1:CA:707:C:H2'	1:CA:708:C:C6	2.48	0.47
1:CA:1014:A:C6	1:CA:1015:A:C6	3.02	0.47
1:CA:1016:A:H5'	14:CQ:15:LYS:HE3	1.94	0.47
1:CA:1120:G:C2	1:CA:1154:G:C2	3.02	0.47
1:CA:1342:C:HO2'	9:CL:124:GLN:HA	1.79	0.47
2:CE:19:HIS:HD2	2:CE:19:HIS:C	2.16	0.47
2:CE:73:THR:HA	2:CE:94:ASN:O	2.14	0.47
3:CF:27:LYS:HB3	3:CF:27:LYS:HZ3	1.74	0.47
3:CF:40:ARG:O	3:CF:44:GLU:HB2	2.13	0.47
5:CH:36:ASP:CG	5:CH:38:GLN:H	2.16	0.47
10:CM:56:HIS:C	10:CM:58:ASP:N	2.67	0.47
10:CM:82:ILE:O	10:CM:86:MET:HB2	2.14	0.47
11:CN:14:VAL:HG23	11:CN:77:MET:HE2	1.95	0.47
11:CN:16:SER:HA	11:CN:79:SER:O	2.14	0.47
18:CU:60:ALA:O	18:CU:64:ARG:HG3	2.14	0.47
24:DA:141:A:H1'	24:DA:1408:C:H1'	1.95	0.47
24:DA:239:U:O2'	24:DA:622:G:H4'	2.14	0.47
24:DA:299:A:N1	24:DA:322:A:O2'	2.37	0.47
24:DA:336:C:C5'	43:DU:6:HIS:CD2	2.96	0.47
24:DA:792:G:O2'	24:DA:2440:C:N3	2.36	0.47
24:DA:926:A:H2'	24:DA:928:G:H8	1.77	0.47
24:DA:931:G:O3'	48:DX:24:LYS:NZ	2.46	0.47
24:DA:1204:A:C2	24:DA:1206:G:C2	3.02	0.47
24:DA:1533:C:C4	24:DA:1534:G:H1'	2.48	0.47
24:DA:1730:U:HO2'	24:DA:1731:G:P	2.31	0.47
24:DA:1971:A:C4	26:DD:241:PRO:HD3	2.49	0.47
24:DA:2742:C:O2'	24:DA:2743:C:H5'	2.14	0.47
24:DA:2808:U:H5'	24:DA:2891:G:O6	2.14	0.47
26:DD:186:HIS:CD2	26:DD:187:GLY:N	2.81	0.47
27:DE:179:GLU:O	27:DE:180:ASN:HB2	2.13	0.47
28:DF:32:LEU:HB3	28:DF:112:MET:HE1	1.96	0.47
34:DO:78:PRO:CG	34:DO:111:ARG:NH2	2.77	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DO:126:VAL:CA	34:DO:145:PRO:HG2	2.41	0.47
39:D1:66:ASN:OD1	39:D1:76:TYR:CB	2.61	0.47
42:DT:26:TYR:HB3	42:DT:92:LEU:HD12	1.96	0.47
42:DT:64:LYS:NZ	42:DT:73:ARG:NH2	2.61	0.47
44:DV:91:LEU:HD22	44:DV:130:PRO:HG3	1.94	0.47
47:DW:68:ARG:HA	47:DW:72:ALA:HB2	1.96	0.47
51:D6:28:ARG:O	51:D6:32:ASN:ND2	2.46	0.47
1:AA:228:A:H4'	16:AS:62:VAL:CG1	2.44	0.47
1:AA:260:G:H2'	1:AA:261:U:C6	2.49	0.47
1:AA:362:G:H2'	1:AA:364:A:OP2	2.13	0.47
1:AA:476:G:O2'	1:AA:477:G:H5'	2.14	0.47
1:AA:739:C:OP1	15:AR:2:PRO:HD3	2.14	0.47
1:AA:1150:U:H1'	1:AA:1280:A:N6	2.29	0.47
1:AA:1317:C:H2'	1:AA:1318:A:O4'	2.14	0.47
1:AA:1350:A:H61	1:AA:1372:U:H3	1.61	0.47
3:AF:64:VAL:HG23	3:AF:64:VAL:O	2.13	0.47
6:AI:63:TYR:HB3	6:AI:65:VAL:CG1	2.44	0.47
8:AK:20:TYR:HE1	8:AK:78:GLN:NE2	2.11	0.47
11:AN:59:TYR:CZ	11:AN:63:LEU:HD21	2.48	0.47
12:AO:83:VAL:CG2	12:AO:84:LEU:N	2.75	0.47
13:AP:12:ASN:N	13:AP:46:LYS:HZ2	2.12	0.47
13:AP:37:THR:O	13:AP:55:ARG:NH2	2.46	0.47
19:AV:50:ALA:CB	19:AV:57:HIS:HB3	2.43	0.47
24:BA:388:G:H5'	24:BA:389:G:OP2	2.14	0.47
24:BA:1057:A:H62	24:BA:1086:A:H3'	1.79	0.47
24:BA:1146:C:C2'	24:BA:1147:C:H5'	2.44	0.47
24:BA:1173:G:N2	24:BA:1175:U:C2'	2.77	0.47
24:BA:1272:A:OP2	24:BA:1647:G:OP1	2.32	0.47
24:BA:1493:C:C4	24:BA:2210:G:C8	3.02	0.47
24:BA:1665:A:O2'	24:BA:1666:G:H5'	2.13	0.47
24:BA:1957:C:H2'	24:BA:1958:C:C6	2.49	0.47
24:BA:1973:G:H2'	24:BA:1974:C:C6	2.48	0.47
24:BA:2397:G:N2	24:BA:2420:C:H1'	2.30	0.47
24:BA:2522:U:O2'	24:BA:2647:U:H5"	2.15	0.47
24:BA:2713:A:H3'	24:BA:2714:G:H5"	1.96	0.47
24:BA:2860:A:N7	24:BA:2861:G:H1'	2.29	0.47
25:BB:42:C:OP2	49:B4:2:LYS:CD	2.62	0.47
25:BB:65:C:H41	25:BB:108:C:H2'	1.79	0.47
27:BE:116:VAL:H	27:BE:157:ALA:HB2	1.80	0.47
29:BG:96:ARG:O	29:BG:98:ARG:N	2.46	0.47
29:BG:112:PRO:HB3	49:B4:37:SER:H	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BG:116:ASP:O	29:BG:117:PHE:HB3	2.14	0.47
30:BH:11:VAL:O	30:BH:76:VAL:HG11	2.15	0.47
31:BK:64:GLU:O	31:BK:67:ARG:N	2.48	0.47
32:BM:22:THR:O	32:BM:23:LEU:HB2	2.14	0.47
34:BO:123:LEU:CD1	34:BO:125:VAL:CG1	2.87	0.47
38:BR:34:VAL:HG22	38:BR:41:ARG:HG3	1.95	0.47
41:BS:66:GLU:O	41:BS:66:GLU:CG	2.58	0.47
42:BT:84:ALA:HB3	42:BT:87:GLN:OE1	2.14	0.47
46:BZ:76:ARG:HB2	46:BZ:94:LEU:HD13	1.96	0.47
1:CA:451:A:C6	1:CA:481:G:C5	3.02	0.47
1:CA:620:C:H2'	1:CA:621:A:O4'	2.15	0.47
1:CA:768:A:O2'	1:CA:1523:G:N2	2.47	0.47
2:CE:233:SER:CB	2:CE:234:PRO:HD2	2.33	0.47
3:CF:50:ALA:O	3:CF:70:VAL:HG13	2.14	0.47
3:CF:134:ILE:O	3:CF:135:LYS:C	2.53	0.47
4:CG:91:SER:O	4:CG:94:LEU:CD1	2.62	0.47
5:CH:140:ARG:O	5:CH:143:ARG:NH2	2.47	0.47
7:CJ:22:LEU:HD23	7:CJ:22:LEU:O	2.14	0.47
9:CL:8:GLY:HA3	9:CL:79:LEU:HB2	1.94	0.47
22:CC:35:A:N3	23:C1:18:G:N2	2.62	0.47
24:DA:49:A:H2'	24:DA:49:A:N3	2.29	0.47
24:DA:302:C:H2'	24:DA:303:U:H6	1.80	0.47
24:DA:607:U:OP1	28:DF:103:LYS:N	2.36	0.47
24:DA:648:G:O2'	24:DA:649:G:H5'	2.13	0.47
24:DA:779:U:OP1	26:DD:49:ILE:CG2	2.56	0.47
24:DA:1434:A:O2'	24:DA:1435:G:H5'	2.14	0.47
24:DA:1436:G:H1'	24:DA:1477:A:O2'	2.14	0.47
24:DA:2118:U:C2'	24:DA:2119:A:OP2	2.62	0.47
24:DA:2235:G:H2'	24:DA:2236:C:C6	2.49	0.47
25:DB:10:C:N3	25:DB:11:C:C5	2.83	0.47
25:DB:89(A):A:C8	25:DB:90:C:H1'	2.49	0.47
26:DD:69:ARG:NH2	26:DD:128:GLY:O	2.47	0.47
26:DD:231:HIS:CG	26:DD:232:PRO:HD2	2.47	0.47
27:DE:54:GLN:O	27:DE:75:VAL:HG22	2.14	0.47
27:DE:55:ASN:ND2	27:DE:73:GLU:O	2.46	0.47
30:DH:169:VAL:O	30:DH:170:ARG:HD3	2.14	0.47
31:DK:144:VAL:HG12	31:DK:145:VAL:N	2.29	0.47
33:DN:8:LEU:HD12	33:DN:82:ASN:HB3	1.94	0.47
41:DS:34:ASN:O	41:DS:37:ARG:HB3	2.14	0.47
41:DS:92:ARG:NH1	41:DS:94:ASP:OD1	2.46	0.47
46:DZ:50:ARG:HA	46:DZ:58:ILE:O	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DX:7:LYS:HG3	48:DX:34:GLU:CG	2.45	0.47
51:D6:9:LEU:HD11	51:D6:26:ASN:OD1	2.14	0.47
52:D7:46:VAL:HG12	52:D7:47:ARG:N	2.26	0.47
1:AA:222:U:C2	1:AA:223:U:C5	3.02	0.47
1:AA:264:U:C2'	1:AA:265:G:H5'	2.45	0.47
1:AA:688:G:H2'	1:AA:689:C:H6	1.79	0.47
1:AA:834:C:OP1	18:AU:60:ALA:HB2	2.13	0.47
1:AA:1107:C:C4	1:AA:1108:G:C8	3.02	0.47
1:AA:1129:C:H42	1:AA:1132:C:N4	2.12	0.47
1:AA:1178:G:H5'	1:AA:1179:A:OP2	2.14	0.47
1:AA:1347:G:H22	1:AA:1374:A:P	2.36	0.47
2:AE:72:GLY:HA2	2:AE:165:VAL:HG12	1.97	0.47
2:AE:217:ARG:HA	2:AE:220:ASP:OD2	2.14	0.47
3:AF:186:PHE:HE1	3:AF:197:GLY:HA3	1.77	0.47
7:AJ:113:GLU:HB2	7:AJ:119:ARG:CG	2.45	0.47
7:AJ:151:TYR:OH	11:AN:54:ARG:NE	2.47	0.47
9:AL:34:ASN:O	9:AL:38:GLN:HB2	2.15	0.47
10:AM:3:LYS:HD2	10:AM:3:LYS:N	2.29	0.47
13:AP:86:CYS:HA	19:AV:73:GLU:O	2.14	0.47
20:AW:9:ASN:ND2	20:AW:13:LEU:HD23	2.29	0.47
24:BA:185:U:H2'	24:BA:186:G:C8	2.49	0.47
24:BA:588:U:H1'	28:BF:90:PHE:CD1	2.49	0.47
24:BA:654(J):A:H3'	24:BA:654(J):A:N3	2.30	0.47
24:BA:1018:C:C2'	24:BA:1019:U:H5'	2.45	0.47
24:BA:1141:U:OP2	32:BM:63:THR:CG2	2.62	0.47
24:BA:1478:G:H2'	24:BA:1479:G:H8	1.80	0.47
24:BA:2287:A:C4	24:BA:2289:G:C8	3.03	0.47
24:BA:2639:A:H1'	24:BA:2778:A:C2	2.49	0.47
24:BA:2646:C:H6	24:BA:2646:C:O5'	1.97	0.47
24:BA:2646:C:OP2	24:BA:2732:G:O2'	2.24	0.47
29:BG:111:LEU:CD1	29:BG:120:LEU:HD21	2.44	0.47
30:BH:43:VAL:O	30:BH:43:VAL:HG13	2.14	0.47
30:BH:121:ILE:HG13	30:BH:144:VAL:HG21	1.96	0.47
33:BN:98:VAL:HG12	33:BN:117:LEU:HB3	1.94	0.47
45:B3:56:ASP:O	45:B3:57:PHE:HB2	2.14	0.47
49:B4:29:PRO:O	49:B4:30:GLU:HB2	2.14	0.47
1:CA:287:U:O2'	1:CA:288:A:H5'	2.15	0.47
1:CA:452:A:O2'	1:CA:453:A:O4'	2.31	0.47
1:CA:848:C:H2'	1:CA:849:C:C6	2.49	0.47
1:CA:939:G:C4	1:CA:940:C:C5	3.03	0.47
1:CA:989:C:H1'	1:CA:1016:A:C2	2.43	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1040:U:O4	1:CA:1041:A:N6	2.47	0.47
1:CA:1117:G:H2'	9:CL:104:ARG:NH1	2.28	0.47
1:CA:1179:A:N3	9:CL:104:ARG:NH1	2.62	0.47
1:CA:1240:U:H3	7:CJ:32:ARG:HE	1.60	0.47
1:CA:1329:A:H5'	13:CP:29:ARG:HE	1.79	0.47
2:CE:8:LYS:HD3	2:CE:217:ARG:CD	2.29	0.47
3:CF:52:LEU:H	3:CF:52:LEU:CD2	2.26	0.47
10:CM:9:ARG:HH21	10:CM:95:GLU:CB	2.23	0.47
10:CM:22:LYS:HD2	10:CM:26:ALA:HB2	1.95	0.47
10:CM:79:ARG:HH12	10:CM:80:LYS:HE2	1.79	0.47
18:CU:26:LEU:HD13	18:CU:29:PHE:CD1	2.49	0.47
19:CV:28:LYS:NZ	19:CV:30:LEU:N	2.58	0.47
22:CC:17:C:OP2	22:CC:17(A):C:O2'	2.26	0.47
24:DA:4:C:N3	24:DA:2899:G:N2	2.41	0.47
24:DA:49:A:H5"	24:DA:50:U:H3'	1.94	0.47
24:DA:208:C:H2'	24:DA:209:C:H6	1.77	0.47
24:DA:748:G:OP2	41:DS:88:ARG:HG3	2.13	0.47
24:DA:851:U:OP1	48:DX:49:LYS:NZ	2.34	0.47
24:DA:869:G:C2'	24:DA:870:A:H5'	2.45	0.47
24:DA:987:G:O2'	24:DA:1000:A:N3	2.41	0.47
24:DA:996:A:N6	24:DA:1160:G:C6	2.83	0.47
24:DA:1543:A:C4'	24:DA:1543:A:OP1	2.63	0.47
24:DA:1999:C:H5"	24:DA:2723:C:O2'	2.14	0.47
24:DA:2061:G:N2	24:DA:2063:C:N1	2.62	0.47
24:DA:2344:U:H3'	51:D6:37:ARG:HE	1.79	0.47
24:DA:2355:C:H1'	45:D3:39:ARG:NH2	2.17	0.47
25:DB:97:G:C5	25:DB:98:G:C8	3.03	0.47
30:DH:95:ARG:CG	30:DH:96:ALA:H	2.26	0.47
32:DM:120:LEU:HD21	32:DM:122:VAL:CG2	2.41	0.47
34:DO:79:ARG:HH21	34:DO:109:GLY:HA3	1.78	0.47
35:DP:64:ILE:N	35:DP:64:ILE:CD1	2.70	0.47
37:DQ:106:ARG:HA	37:DQ:110:LEU:CD2	2.44	0.47
38:DR:104:ASN:O	38:DR:105:LEU:HG	2.14	0.47
47:DW:32:LEU:HA	47:DW:53:LEU:HD13	1.97	0.47
49:D4:49:PHE:C	49:D4:51:ASP:H	2.17	0.47
53:D8:29:LYS:O	53:D8:30:ARG:C	2.51	0.47
1:AA:15:G:C4'	5:AH:24:ARG:NH1	2.74	0.47
1:AA:260:G:N2	1:AA:265:G:N7	2.63	0.47
1:AA:292:G:N7	1:AA:293:G:H1'	2.30	0.47
1:AA:321:A:C2	1:AA:333:G:N2	2.83	0.47
1:AA:437:U:O3'	4:AG:125:HIS:HE1	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1141:C:H2'	1:AA:1142:G:H8	1.78	0.47
1:AA:1211:U:C5'	1:AA:1212:U:OP1	2.62	0.47
4:AG:73:ARG:HB3	4:AG:74:GLN:H	1.45	0.47
5:AH:43:LEU:CD2	5:AH:132:ALA:HB1	2.40	0.47
9:AL:79:LEU:CD2	9:AL:83:ARG:NE	2.76	0.47
19:AV:36:ARG:HD3	19:AV:52:TYR:O	2.14	0.47
24:BA:270(M):U:H4'	24:BA:270(N):G:N3	2.29	0.47
24:BA:572:A:C2	24:BA:2033:A:C2	3.02	0.47
24:BA:626:U:O4	34:BO:107:LYS:HE2	2.14	0.47
24:BA:825:C:O2	34:BO:55:ARG:NH2	2.47	0.47
24:BA:918:A:H5"	25:BB:97:G:O2'	2.15	0.47
24:BA:974(A):C:H4'	24:BA:975:G:C5'	2.44	0.47
24:BA:1394:U:H6	24:BA:1394:U:H3'	1.79	0.47
24:BA:1799:G:OP1	26:BD:260:ARG:NE	2.45	0.47
24:BA:2176:A:N7	24:BA:2177:C:C4	2.82	0.47
24:BA:2690:C:H5	36:B0:14:SER:HB2	1.80	0.47
26:BD:223:GLY:HA2	26:BD:231:HIS:CD2	2.46	0.47
27:BE:66:HIS:C	27:BE:68:ALA:H	2.18	0.47
30:BH:86:GLU:CG	30:BH:87:LEU:H	2.26	0.47
30:BH:87:LEU:HD23	30:BH:163:TYR:O	2.15	0.47
30:BH:109:PHE:CE1	30:BH:152:ARG:NH2	2.83	0.47
32:BM:35:ARG:HB2	32:BM:42:TRP:CH2	2.49	0.47
32:BM:39:ARG:HB3	32:BM:41:ASP:OD1	2.14	0.47
37:BQ:28:VAL:HG11	37:BQ:98:VAL:HG12	1.97	0.47
39:B1:92:ARG:HB2	40:B2:11:GLN:HE22	1.74	0.47
40:B2:29:PRO:HA	40:B2:61:VAL:CG1	2.44	0.47
40:B2:61:VAL:HA	40:B2:94:LEU:HD23	1.97	0.47
42:BT:8:ILE:HD11	42:BT:43:VAL:HG22	1.96	0.47
44:BV:107:THR:CB	44:BV:108:PRO:HD2	2.43	0.47
50:B5:36:CYS:HB2	50:B5:40:LYS:HZ1	1.80	0.47
1:CA:210:U:H4'	1:CA:210:U:OP1	2.15	0.47
1:CA:465:A:N6	1:CA:467:G:C2	2.83	0.47
1:CA:961:U:C2	1:CA:962:C:C6	3.02	0.47
1:CA:973:G:C5	1:CA:974:A:C2	3.02	0.47
1:CA:975:A:H5'	1:CA:1363:A:H61	1.78	0.47
1:CA:991:U:O2	1:CA:993:G:H8	1.97	0.47
1:CA:998(A):C:C4	1:CA:999:U:C4	3.02	0.47
1:CA:1267:C:N3	1:CA:1268:A:C2	2.82	0.47
1:CA:1314:C:H2'	1:CA:1315:U:H6	1.79	0.47
1:CA:1494:G:H5'	24:DA:1913:A:C2	2.49	0.47
2:CE:185:ILE:N	2:CE:185:ILE:HD13	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CF:8:ILE:HD12	3:CF:16:ARG:HG2	1.96	0.47
5:CH:78:HIS:HB2	8:CK:104:ARG:HG3	1.95	0.47
5:CH:139:LEU:HD23	5:CH:142:LEU:HD11	1.95	0.47
6:CI:62:TRP:CG	18:CU:35:ARG:NH1	2.82	0.47
7:CJ:46:ALA:CA	7:CJ:117:ALA:HB1	2.44	0.47
8:CK:10:LEU:HD22	8:CK:83:ILE:HD11	1.96	0.47
10:CM:5:ARG:HB3	10:CM:99:LYS:H	1.79	0.47
10:CM:9:ARG:O	10:CM:94:VAL:HG13	2.15	0.47
10:CM:84:GLN:O	10:CM:85:LEU:HD23	2.15	0.47
13:CP:108:ARG:HG3	13:CP:112:GLY:O	2.15	0.47
16:CS:49:LEU:HD12	16:CS:49:LEU:C	2.35	0.47
20:CW:13:LEU:N	20:CW:13:LEU:CD1	2.77	0.47
24:DA:273(E):U:O2'	24:DA:273(F):C:H5'	2.15	0.47
24:DA:581:C:OP1	39:D1:33:ARG:CG	2.62	0.47
24:DA:1009:A:H4'	39:D1:59:ARG:HG3	1.95	0.47
24:DA:1468:C:H2'	24:DA:1469:A:C8	2.50	0.47
24:DA:1533:C:H3'	24:DA:1534:G:O4'	2.14	0.47
24:DA:2127:G:H8	24:DA:2128:C:C6	2.32	0.47
24:DA:2259:G:C2	24:DA:2282:G:C6	3.03	0.47
24:DA:2298:A:H1'	24:DA:2321:G:N2	2.29	0.47
24:DA:2344:U:O3'	51:D6:39:TYR:CZ	2.68	0.47
24:DA:2773:C:H2'	24:DA:2774:C:H6	1.79	0.47
24:DA:2895:U:H2'	24:DA:2896:C:C1'	2.45	0.47
27:DE:141:ILE:O	27:DE:154:LYS:HE2	2.14	0.47
27:DE:200:GLU:CG	27:DE:201:THR:N	2.72	0.47
32:DM:25:ARG:O	32:DM:28:THR:HG22	2.14	0.47
34:DO:74:GLU:O	34:DO:74:GLU:HG3	2.14	0.47
34:DO:123:LEU:HD23	34:DO:123:LEU:N	2.29	0.47
35:DP:51:ARG:O	35:DP:54:MET:N	2.47	0.47
36:D0:103:ARG:NH1	41:DS:40:ASN:OD1	2.48	0.47
37:DQ:36:TYR:HA	37:DQ:52:SER:CB	2.44	0.47
37:DQ:61:ASN:O	37:DQ:65:VAL:CG2	2.63	0.47
48:DX:26:LEU:HD21	48:DX:46:ASN:HB2	1.94	0.47
50:D5:4:HIS:HB2	50:D5:5:PRO:CD	2.33	0.47
1:AA:129(A):G:N2	1:AA:188:U:O2'	2.48	0.47
1:AA:191:G:O2'	20:AW:101:GLY:O	2.30	0.47
1:AA:327:A:C2	1:AA:329:A:C4	3.02	0.47
1:AA:363:A:C5	12:AO:30:ALA:HB1	2.49	0.47
1:AA:408:A:OP1	4:AG:115:ARG:HD2	2.14	0.47
1:AA:429:U:OP2	4:AG:32:ALA:HB1	2.14	0.47
1:AA:920:U:H2'	1:AA:921:U:C6	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:933:G:O6	7:AJ:3:ARG:NH2	2.47	0.47
1:AA:1016:A:P	14:AQ:15:LYS:HZ1	2.37	0.47
1:AA:1151:A:H1'	10:AM:39:PRO:HB2	1.96	0.47
1:AA:1269:A:C2	1:AA:1313:U:O4'	2.68	0.47
1:AA:1277:C:H1'	1:AA:1282:C:H1'	1.97	0.47
1:AA:1446:A:H4'	1:AA:1446:A:OP1	2.14	0.47
2:AE:11:LEU:HB3	2:AE:213:LEU:HD11	1.96	0.47
2:AE:80:ILE:O	2:AE:84:GLU:HG2	2.14	0.47
2:AE:212:GLN:O	2:AE:213:LEU:C	2.52	0.47
4:AG:62:GLN:OE1	4:AG:62:GLN:HA	2.15	0.47
9:AL:97:LYS:HB3	9:AL:98:PRO:CD	2.34	0.47
11:AN:48:ILE:HD11	11:AN:64:ALA:HA	1.96	0.47
13:AP:7:VAL:CG1	13:AP:8:GLU:H	1.98	0.47
14:AQ:21:TYR:CE1	14:AQ:23:ARG:NH2	2.82	0.47
19:AV:24:ALA:C	19:AV:25:LYS:CG	2.82	0.47
19:AV:45:VAL:C	19:AV:47:HIS:H	2.17	0.47
24:BA:212:G:HO2'	24:BA:213:A:H5'	1.79	0.47
24:BA:337:C:O2	24:BA:338:G:H1'	2.14	0.47
24:BA:363(D):G:H2'	24:BA:363(E):U:O4'	2.14	0.47
24:BA:638:G:C5	24:BA:651:G:C2	3.02	0.47
24:BA:654(N):G:C2'	24:BA:654(O):G:O4'	2.62	0.47
24:BA:765:G:H2'	24:BA:766:C:H6	1.79	0.47
24:BA:1638:C:H5"	24:BA:2710:C:O2'	2.14	0.47
24:BA:2438:U:O2'	24:BA:2439:A:O3'	2.31	0.47
24:BA:2850:A:C5'	24:BA:2868:A:H2	2.28	0.47
25:BB:73:A:C2'	25:BB:74:U:H5'	2.44	0.47
28:BF:202:PHE:CE1	28:BF:206:ILE:HD11	2.49	0.47
30:BH:88:LEU:CD1	30:BH:129:THR:O	2.62	0.47
33:BN:14:THR:O	33:BN:51:ALA:HB3	2.14	0.47
35:BP:135:ASP:OD1	35:BP:137:TYR:HB2	2.15	0.47
37:BQ:110:LEU:O	37:BQ:111:GLU:HB2	2.14	0.47
44:BV:76:LEU:CD2	44:BV:76:LEU:N	2.72	0.47
44:BV:161:VAL:O	44:BV:162:GLU:HB3	2.14	0.47
46:BZ:92:LYS:HA	46:BZ:95:LEU:CB	2.44	0.47
47:BW:16:LEU:HD12	47:BW:17:SER:N	2.29	0.47
49:B4:37:SER:OG	49:B4:43:TYR:HE2	1.98	0.47
51:B6:41:PRO:HD2	51:B6:46:HIS:H	1.74	0.47
1:CA:44:G:H2'	1:CA:45:U:O4'	2.14	0.47
1:CA:552:U:H4'	12:CO:86:ARG:HG2	1.96	0.47
1:CA:659:U:C5'	15:CR:9:GLN:HE22	2.20	0.47
1:CA:687:A:N3	1:CA:688:G:H1'	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1085:U:H3'	1:CA:1086:U:C5	2.50	0.47
1:CA:1155:G:C6	1:CA:1156:G:C5	3.02	0.47
1:CA:1200:C:H4'	1:CA:1201:A:H5'	1.94	0.47
1:CA:1454:G:O2'	1:CA:1455:G:H5'	2.14	0.47
2:CE:6:THR:HG23	2:CE:7:VAL:N	2.29	0.47
2:CE:59:GLU:O	2:CE:63:MET:N	2.48	0.47
4:CG:70:ILE:HG23	4:CG:71:SER:O	2.14	0.47
6:CI:41:GLU:O	6:CI:43:LEU:CD1	2.63	0.47
8:CK:20:TYR:HA	8:CK:65:TYR:CZ	2.50	0.47
9:CL:95:LYS:C	9:CL:95:LYS:HD3	2.34	0.47
16:CS:37:GLY:HA3	16:CS:50:LYS:O	2.15	0.47
19:CV:28:LYS:HZ1	19:CV:29:ARG:CB	2.18	0.47
21:CX:6:ARG:HH21	21:CX:15:ARG:NH2	2.08	0.47
24:DA:102:G:OP1	47:DW:7:ARG:NH2	2.48	0.47
24:DA:271(A):C:O2'	24:DA:271(B):G:H5'	2.14	0.47
24:DA:953:A:C2	24:DA:954:G:C8	3.02	0.47
24:DA:1187:G:H8	24:DA:1187:G:O5'	1.96	0.47
24:DA:1668:A:N7	24:DA:1674:G:C6	2.82	0.47
24:DA:1718:G:N2	24:DA:1742:C:O2	2.48	0.47
24:DA:1837:C:N4	24:DA:1899:G:C5	2.82	0.47
24:DA:1857:G:C6	24:DA:1858:G:N1	2.83	0.47
24:DA:1913:A:H4'	24:DA:1914:C:OP2	2.12	0.47
24:DA:2131:G:C5'	24:DA:2132:U:H5"	2.36	0.47
24:DA:2286:A:O4'	51:D6:28:ARG:NH2	2.48	0.47
24:DA:2749:A:N6	24:DA:2750:A:H62	2.12	0.47
24:DA:2873:A:C8	36:D0:5:LYS:HA	2.49	0.47
25:DB:15:A:H1'	25:DB:109:G:N9	2.30	0.47
28:DF:199:TRP:CZ3	28:DF:203:GLN:CG	2.95	0.47
29:DG:125:PHE:CZ	29:DG:131:TYR:HD1	2.32	0.47
30:DH:16:SER:HB2	30:DH:27:LYS:O	2.14	0.47
30:DH:46:GLU:CG	30:DH:47:GLU:H	2.21	0.47
31:DK:76:THR:CG2	31:DK:140:LEU:HB2	2.44	0.47
31:DK:110:ASP:OD1	31:DK:130:TYR:OH	2.13	0.47
32:DM:38:HIS:ND1	32:DM:39:ARG:N	2.63	0.47
35:DP:95:ALA:O	35:DP:97:VAL:HG23	2.14	0.47
35:DP:133:ARG:O	35:DP:134:ARG:CB	2.61	0.47
37:DQ:59:LYS:CD	37:DQ:60:GLY:N	2.78	0.47
37:DQ:109:GLY:O	37:DQ:111:GLU:N	2.48	0.47
38:DR:1:MET:HA	38:DR:1:MET:CE	2.44	0.47
40:D2:38:LEU:HD23	40:D2:55:ALA:HB1	1.94	0.47
49:D4:1:MET:CG	49:D4:2:LYS:N	2.76	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:D4:16:CYS:HA	49:D4:33:VAL:HG12	1.95	0.47
51:D6:37:ARG:CD	51:D6:38:LYS:N	2.74	0.47
1:AA:57:G:H2'	1:AA:58:C:C6	2.49	0.47
1:AA:113:G:H1'	1:AA:354:G:H5'	1.97	0.47
1:AA:468:A:C2'	1:AA:474:G:H5'	2.44	0.47
1:AA:779:C:H2'	1:AA:780:A:O4'	2.13	0.47
1:AA:1028(B):C:N4	1:AA:1032(A):G:C2	2.83	0.47
1:AA:1334:G:H5"	1:AA:1335:C:OP2	2.14	0.47
1:AA:1376:U:H2'	1:AA:1377:A:H8	1.78	0.47
2:AE:168:THR:HG22	2:AE:169:LYS:N	2.29	0.47
3:AF:15:THR:HG21	3:AF:181:ASN:CA	2.43	0.47
8:AK:85:ARG:CG	8:AK:85:ARG:NH1	2.71	0.47
12:AO:103:GLY:N	12:AO:107:ALA:O	2.46	0.47
13:AP:78:ILE:O	13:AP:82:MET:HG3	2.14	0.47
24:BA:278:A:H8	24:BA:278:A:OP2	1.98	0.47
24:BA:325:G:HO2'	24:BA:326:G:H5'	1.75	0.47
24:BA:343:C:O2'	24:BA:344:G:H5'	2.15	0.47
24:BA:425:G:O2'	24:BA:426:C:H5'	2.15	0.47
24:BA:449:A:H2'	24:BA:450:G:C5'	2.44	0.47
24:BA:588:U:C2	28:BF:90:PHE:CD1	3.03	0.47
24:BA:642:G:N2	24:BA:646:A:H2	2.07	0.47
24:BA:856:C:H5'	45:B3:27:GLU:OE2	2.15	0.47
24:BA:960:A:N6	35:BP:83:MET:HE1	2.29	0.47
24:BA:996:A:H4'	39:B1:92:ARG:NE	2.29	0.47
24:BA:1140:C:OP1	32:BM:23:LEU:HB3	2.14	0.47
24:BA:2726:U:H6	33:BN:67:LYS:NZ	2.12	0.47
24:BA:2746:U:O4	24:BA:2755:C:H4'	2.14	0.47
26:BD:210:GLY:O	26:BD:213:ARG:N	2.48	0.47
27:BE:4:ILE:HD13	27:BE:28:ALA:HB1	1.96	0.47
30:BH:6:ARG:C	30:BH:8:PRO:HD2	2.34	0.47
31:BK:140:LEU:H	31:BK:140:LEU:CD2	2.26	0.47
32:BM:54:VAL:HB	32:BM:122:VAL:HG22	1.97	0.47
32:BM:131:GLN:HE21	32:BM:132:ALA:N	2.12	0.47
37:BQ:30:ARG:HG3	37:BQ:30:ARG:O	2.14	0.47
39:B1:116:ALA:O	39:B1:117:GLN:CB	2.63	0.47
46:BZ:98:LEU:O	46:BZ:98:LEU:HG	2.14	0.47
49:B4:37:SER:HG	49:B4:43:TYR:HE2	1.58	0.47
53:B8:22:VAL:CB	53:B8:53:PRO:HB2	2.45	0.47
1:CA:134:A:N6	16:CS:25:ARG:HH12	2.13	0.47
1:CA:144:G:H2'	1:CA:145:G:H5'	1.97	0.47
1:CA:146:G:C2	1:CA:177:C:C2	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:321:A:C2	1:CA:333:G:C2	3.03	0.47
1:CA:451:A:N1	1:CA:481:G:N7	2.62	0.47
1:CA:688:G:H2'	1:CA:689:C:H6	1.80	0.47
1:CA:922:G:H5'	5:CH:20:GLN:OE1	2.15	0.47
1:CA:991:U:H3'	1:CA:1212:U:H3	1.80	0.47
1:CA:1183:A:C2'	1:CA:1184:G:OP1	2.63	0.47
1:CA:1213:A:C5	1:CA:1215:G:C4	3.01	0.47
1:CA:1378:C:H5	1:CA:1379:G:N9	2.12	0.47
1:CA:1381:U:C5	1:CA:1382:C:C5	3.02	0.47
2:CE:19:HIS:HD2	2:CE:20:GLU:CB	2.27	0.47
7:CJ:78:ARG:HH22	7:CJ:87:VAL:CG1	2.14	0.47
7:CJ:89:MET:HE1	7:CJ:156:TRP:O	2.14	0.47
10:CM:50:ILE:HD11	14:CQ:41:ARG:NH2	2.30	0.47
12:CO:27:LEU:CD1	12:CO:62:SER:CB	2.91	0.47
13:CP:116:THR:HG22	13:CP:116:THR:O	2.15	0.47
15:CR:24:SER:OG	15:CR:27:VAL:HG23	2.13	0.47
17:CT:87:LYS:HB3	17:CT:91:ARG:CZ	2.44	0.47
19:CV:11:VAL:CG1	19:CV:12:ASP:N	2.77	0.47
24:DA:613:U:O2	24:DA:613:U:O4'	2.33	0.47
24:DA:842:G:H2'	24:DA:843:G:O4'	2.15	0.47
24:DA:1167:U:C2	24:DA:1183:G:N2	2.83	0.47
24:DA:1184:G:P	48:DX:29:ARG:HH21	2.38	0.47
24:DA:1486:A:H2'	24:DA:1487:G:H8	1.79	0.47
24:DA:1707:G:C5	24:DA:1756:G:C6	3.03	0.47
24:DA:1827:C:O2'	24:DA:1970:A:N3	2.44	0.47
24:DA:2335:A:N7	24:DA:2337:G:C5	2.83	0.47
24:DA:2472:G:C5	24:DA:2475:C:C4	3.02	0.47
24:DA:2537:U:C2	24:DA:2538:C:C5	3.03	0.47
24:DA:2629:A:O2'	24:DA:2630:G:H4'	2.13	0.47
24:DA:2693:A:H2'	24:DA:2694:G:C8	2.49	0.47
25:DB:61:G:O2'	25:DB:62:C:H5'	2.13	0.47
25:DB:66:A:N6	25:DB:108:C:C5'	2.74	0.47
27:DE:175:VAL:O	27:DE:177:PRO:HD3	2.14	0.47
30:DH:109:PHE:CE2	30:DH:152:ARG:HB2	2.48	0.47
31:DK:4:ILE:CD1	31:DK:43:ASN:O	2.62	0.47
31:DK:38:LEU:HB2	31:DK:40:THR:HG23	1.97	0.47
31:DK:88:ILE:HG22	31:DK:90:GLY:H	1.79	0.47
32:DM:39:ARG:NH1	32:DM:41:ASP:OD2	2.48	0.47
35:DP:103:MET:O	35:DP:104:PHE:HB2	2.14	0.47
44:DV:128:VAL:CG2	44:DV:129:SER:H	2.08	0.47
51:D6:34:LEU:CD1	51:D6:50:ARG:HH11	2.28	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:88:C:H5”	1:AA:89:U:OP1	2.15	0.47
1:AA:95:G:H3’	1:AA:96:G:C8	2.50	0.47
1:AA:173:U:C2	1:AA:197:A:C2	3.03	0.47
1:AA:518:C:H5”	1:AA:519:C:C6	2.49	0.47
1:AA:781:A:O2’	1:AA:1522:U:O2	2.28	0.47
1:AA:960:U:H4’	1:AA:961:U:H5”	1.96	0.47
1:AA:976:G:P	14:AQ:32:SER:H	2.35	0.47
1:AA:977:A:C8	1:AA:1223:C:N3	2.83	0.47
1:AA:1014:A:H5”	19:AV:14:HIS:CB	2.42	0.47
1:AA:1166:G:C4	1:AA:1169:A:OP2	2.68	0.47
1:AA:1296:C:C3’	13:AP:13:LYS:HZ1	2.24	0.47
1:AA:1381:U:N1	7:AJ:79:ARG:NE	2.61	0.47
2:AE:17:PHE:CB	2:AE:42:ILE:CG2	2.93	0.47
2:AE:176:GLU:HG2	2:AE:177:ALA:N	2.30	0.47
2:AE:204:ASN:ND2	2:AE:206:ASP:N	2.55	0.47
5:AH:12:LEU:HB3	5:AH:31:LEU:HB3	1.97	0.47
9:AL:4:TYR:HD1	9:AL:87:GLN:HB2	1.79	0.47
10:AM:89:ASP:HB3	10:AM:91:PRO:HD3	1.97	0.47
13:AP:27:LYS:HE2	13:AP:31:LYS:NZ	2.30	0.47
13:AP:96:LEU:HB3	13:AP:97:PRO:HD2	1.96	0.47
19:AV:25:LYS:HB2	19:AV:27:GLU:OE2	2.14	0.47
24:BA:218:A:C2	24:BA:235:U:H4’	2.50	0.47
24:BA:222:A:C1’	24:BA:223:A:OP1	2.62	0.47
24:BA:229:A:H1’	24:BA:230:U:P	2.55	0.47
24:BA:458:G:C8	52:B7:37:LYS:HG2	2.49	0.47
24:BA:503:A:H4’	24:BA:504:U:H5”	1.97	0.47
24:BA:768:G:H2’	24:BA:769:G:C8	2.48	0.47
24:BA:1033:U:H4’	24:BA:1034:G:OP1	2.13	0.47
24:BA:1054:A:H2’	24:BA:1055:G:C8	2.49	0.47
24:BA:1075:C:H2’	24:BA:1076:C:O4’	2.15	0.47
24:BA:1091:G:H2’	24:BA:1092:C:C5’	2.45	0.47
24:BA:1264:G:H3’	24:BA:1265:A:H5”	1.95	0.47
24:BA:1322:A:C5	24:BA:1323:U:C5	3.02	0.47
24:BA:1337:G:H2’	24:BA:1338:G:O4’	2.14	0.47
24:BA:1633:G:C6	24:BA:1635:G:C4	3.03	0.47
24:BA:1662:C:H1’	24:BA:2687:U:H5”	1.96	0.47
24:BA:1680:U:C4	24:BA:1681:G:C6	3.02	0.47
24:BA:2119:A:N6	24:BA:2171:A:H2	2.12	0.47
24:BA:2142:C:H2’	24:BA:2143:C:C6	2.50	0.47
24:BA:2144:U:H4’	24:BA:2145:C:C5	2.44	0.47
24:BA:2163:C:OP1	24:BA:2171:A:C8	2.68	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2298:A:H2'	24:BA:2299:G:O4'	2.13	0.47
24:BA:2371:G:N3	51:B6:46:HIS:CE1	2.82	0.47
24:BA:2472:G:N2	24:BA:2477:C:H5"	2.28	0.47
25:BB:116:G:H2'	25:BB:117:G:O4'	2.15	0.47
26:BD:35:LYS:HE2	26:BD:65:ILE:HG22	1.97	0.47
27:BE:107:THR:O	27:BE:190:GLY:HA2	2.15	0.47
29:BG:83:ARG:HB2	29:BG:86:MET:HG2	1.97	0.47
29:BG:117:PHE:CE1	29:BG:119:GLY:HA2	2.50	0.47
30:BH:86:GLU:HG3	30:BH:165:ALA:CB	2.44	0.47
31:BK:54:GLN:HA	31:BK:57:ARG:HG2	1.96	0.47
31:BK:58:LEU:C	31:BK:60:GLU:H	2.17	0.47
32:BM:95:PRO:O	32:BM:96:GLU:HG2	2.14	0.47
33:BN:16:ALA:HB2	33:BN:52:VAL:CG2	2.45	0.47
33:BN:52:VAL:HG12	33:BN:94:ARG:HH21	1.79	0.47
33:BN:120:GLU:OE1	38:BR:67:SER:OG	2.32	0.47
34:BO:19:VAL:HG22	34:BO:21:ARG:H	1.78	0.47
34:BO:81:GLN:NE2	34:BO:105:LEU:O	2.48	0.47
38:BR:24:PRO:HA	38:BR:49:VAL:CG2	2.42	0.47
43:BU:94:LYS:HD3	43:BU:101:LYS:HZ2	1.79	0.47
44:BV:3:TYR:O	44:BV:58:VAL:HG23	2.14	0.47
44:BV:116:VAL:H	44:BV:174:VAL:HG13	1.79	0.47
45:B3:14:ARG:O	45:B3:15:ASP:HB2	2.14	0.47
46:BZ:17:SER:HB2	46:BZ:40:ARG:HG2	1.96	0.47
47:BW:33:MET:CG	47:BW:37:PHE:CE1	2.95	0.47
51:B6:18:ARG:O	51:B6:19:ARG:CG	2.62	0.47
1:CA:114:U:O2'	1:CA:115:G:H5'	2.15	0.47
1:CA:160:A:H1'	1:CA:344:A:C5	2.50	0.47
1:CA:169:C:C4	1:CA:170:U:C4	3.03	0.47
1:CA:193:C:O2'	1:CA:194:C:H5'	2.15	0.47
1:CA:298:A:H3'	1:CA:299:G:C8	2.48	0.47
1:CA:468:A:H5"	16:CS:80:PHE:HB3	1.95	0.47
1:CA:575:G:C6	1:CA:821:G:N7	2.83	0.47
1:CA:673:G:C4	1:CA:734:G:C2	3.03	0.47
1:CA:673:G:O2'	18:CU:81:PHE:CZ	2.68	0.47
1:CA:754:C:P	15:CR:72:ARG:HH12	2.37	0.47
1:CA:763:G:H2'	1:CA:764:C:C6	2.50	0.47
1:CA:1060:C:C5	3:CF:2:GLY:CA	2.92	0.47
1:CA:1076:C:N3	1:CA:1082:G:C2	2.82	0.47
1:CA:1098:C:P	2:CE:144:ARG:NH1	2.88	0.47
1:CA:1118:C:C1'	9:CL:104:ARG:HH21	2.27	0.47
1:CA:1151:A:O4'	10:CM:39:PRO:HB2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1154:G:C5	1:CA:1155:G:N7	2.83	0.47
1:CA:1224:G:O2'	1:CA:1322:C:OP2	2.33	0.47
1:CA:1333:A:C8	1:CA:1334:G:C8	3.03	0.47
1:CA:1369:C:H2'	1:CA:1370:G:C8	2.50	0.47
1:CA:1375:A:H4'	7:CJ:29:LYS:NZ	2.30	0.47
2:CE:8:LYS:CG	2:CE:9:GLU:H	2.27	0.47
2:CE:19:HIS:NE2	2:CE:20:GLU:CG	2.72	0.47
3:CF:6:HIS:HD2	3:CF:7:PRO:CD	2.28	0.47
3:CF:111:LEU:HD21	3:CF:144:SER:O	2.15	0.47
4:CG:31:CYS:O	4:CG:32:ALA:HB3	2.15	0.47
4:CG:34:GLU:HG2	4:CG:35:ARG:N	2.29	0.47
4:CG:75:PHE:CE1	4:CG:93:PHE:CZ	2.76	0.47
4:CG:112:VAL:CG1	4:CG:116:GLN:NE2	2.77	0.47
6:CI:45:LEU:HD12	6:CI:59:TYR:HD1	1.80	0.47
8:CK:70:GLN:HG2	8:CK:71:GLY:N	2.24	0.47
10:CM:6:ILE:HG12	10:CM:72:VAL:O	2.14	0.47
10:CM:28:ARG:NH2	10:CM:34:VAL:HG22	2.30	0.47
13:CP:33:ALA:HB1	13:CP:56:LEU:HD22	1.97	0.47
13:CP:48:LEU:CD1	13:CP:53:VAL:CG1	2.93	0.47
14:CQ:4:LYS:HA	14:CQ:7:ILE:CG1	2.40	0.47
19:CV:66:MET:N	19:CV:67:VAL:HG12	2.22	0.47
22:CC:13:C:O2'	22:CC:14:A:H5'	2.14	0.47
22:CC:18:G:N3	22:CC:58:A:C2	2.83	0.47
24:DA:141:A:H8	24:DA:1595:G:N2	2.10	0.47
24:DA:225:A:H2'	24:DA:226:G:H5'	1.95	0.47
24:DA:324:A:H2'	24:DA:325:G:O4'	2.15	0.47
24:DA:523:C:O2	24:DA:553:U:O2'	2.32	0.47
24:DA:630:G:N2	24:DA:633:A:OP2	2.42	0.47
24:DA:654(O):G:C2	24:DA:654(P):G:C5	3.02	0.47
24:DA:856:C:H2'	24:DA:857:C:H6	1.77	0.47
24:DA:864:G:C6	24:DA:865:C:N4	2.83	0.47
24:DA:1006:C:C2	24:DA:1138:G:N2	2.82	0.47
24:DA:1171:G:HO2'	24:DA:1173:G:C5'	2.20	0.47
24:DA:1328:G:H2'	24:DA:1330:C:C5	2.50	0.47
24:DA:1531:C:O2'	24:DA:1532:C:H5'	2.15	0.47
24:DA:1804:C:O5'	24:DA:1804:C:H6	1.97	0.47
24:DA:1826:G:H4'	26:DD:242:ARG:CZ	2.44	0.47
24:DA:2061:G:N2	24:DA:2063:C:C2	2.82	0.47
24:DA:2162:G:H2'	24:DA:2163:C:H6	1.78	0.47
24:DA:2190:G:H2'	24:DA:2191:G:C1'	2.44	0.47
24:DA:2453:A:O2'	24:DA:2454:G:H5'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2629:A:O2'	24:DA:2630:G:O5'	2.29	0.47
24:DA:2789:C:HO2'	24:DA:2892:A:H2	1.60	0.47
26:DD:77:ALA:HB2	26:DD:97:TYR:CD1	2.50	0.47
27:DE:8:LYS:C	27:DE:9:VAL:HG22	2.35	0.47
27:DE:172:VAL:HG13	27:DE:182:LEU:HD11	1.96	0.47
28:DF:110:LEU:HD22	28:DF:202:PHE:CE1	2.49	0.47
29:DG:16:ARG:N	29:DG:17:PRO:CD	2.76	0.47
29:DG:112:PRO:O	49:D4:35:VAL:HG11	2.13	0.47
29:DG:177:GLY:O	29:DG:179:PRO:HD3	2.14	0.47
30:DH:83:TYR:HE1	30:DH:132:ARG:NE	2.13	0.47
30:DH:89:ILE:HD13	30:DH:91:GLY:N	2.29	0.47
31:DK:128:LEU:N	31:DK:128:LEU:HD22	2.30	0.47
32:DM:4:TYR:O	39:D1:64:ARG:NH1	2.44	0.47
33:DN:13:ASN:C	33:DN:15:GLY:N	2.68	0.47
34:DO:83:VAL:O	34:DO:83:VAL:HG13	2.14	0.47
37:DQ:24:LEU:HD12	37:DQ:41:ASP:HB2	1.97	0.47
37:DQ:34:HIS:CE1	37:DQ:54:LEU:HD13	2.49	0.47
37:DQ:66:ALA:C	37:DQ:69:VAL:HG13	2.34	0.47
38:DR:54:ARG:HA	38:DR:59:THR:HB	1.96	0.47
38:DR:81:PRO:C	38:DR:83:ILE:H	2.18	0.47
38:DR:86:ILE:O	38:DR:86:ILE:HG12	2.14	0.47
39:D1:90:VAL:CG1	39:D1:91:ASP:N	2.50	0.47
40:D2:37:VAL:HG21	40:D2:57:VAL:HG12	1.97	0.47
41:DS:9:TYR:HA	41:DS:100:THR:HG23	1.97	0.47
41:DS:17:VAL:C	41:DS:19:LEU:N	2.68	0.47
41:DS:64:MET:O	41:DS:65:LEU:HB3	2.14	0.47
44:DV:14:LYS:HE2	44:DV:14:LYS:H	1.79	0.47
44:DV:54:HIS:HB3	44:DV:101:PRO:CD	2.45	0.47
44:DV:169:GLU:HA	44:DV:169:GLU:OE1	2.14	0.47
45:D3:23:VAL:HB	45:D3:26:TYR:HE1	1.79	0.47
49:D4:17:GLY:N	49:D4:36:CYS:SG	2.88	0.47
51:D6:14:THR:OG1	51:D6:19:ARG:HA	2.14	0.47
1:AA:186(F):C:H2'	1:AA:187:C:O4'	2.15	0.47
1:AA:256:U:OP2	1:AA:256:U:C5	2.68	0.47
1:AA:412:A:C4'	1:AA:413:G:O5'	2.63	0.47
1:AA:602:A:C6	1:AA:603:U:C4	3.03	0.47
1:AA:824:C:H4'	8:AK:1:MET:H1	1.80	0.47
1:AA:938:A:C6	1:AA:939:G:C5	3.02	0.47
1:AA:968:A:H8	1:AA:968:A:OP1	1.98	0.47
1:AA:1028(A):C:N4	1:AA:1029:G:C6	2.83	0.47
1:AA:1306:A:C2	1:AA:1307:U:C1'	2.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1310:G:N2	1:AA:1328:C:C2	2.82	0.47
1:AA:1316:G:H22	1:AA:1319:A:C5'	2.28	0.47
1:AA:1399:C:C2	1:AA:1401:G:C5	3.02	0.47
2:AE:78:GLN:HG2	2:AE:94:ASN:OD1	2.14	0.47
2:AE:141:GLU:O	2:AE:144:ARG:HB3	2.15	0.47
5:AH:41:VAL:HG23	5:AH:113:ALA:CB	2.43	0.47
6:AI:10:LEU:HD12	6:AI:10:LEU:N	2.29	0.47
7:AJ:34:GLY:O	7:AJ:36:LYS:N	2.47	0.47
7:AJ:59:LEU:O	7:AJ:63:LYS:HB3	2.15	0.47
9:AL:93:ARG:O	9:AL:95:LYS:N	2.47	0.47
19:AV:41:VAL:CG1	19:AV:42:PRO:HA	2.45	0.47
19:AV:41:VAL:CG1	19:AV:67:VAL:HG13	2.44	0.47
22:AC:51:C:H2'	22:AC:52:G:C8	2.50	0.47
24:BA:232:G:H8	24:BA:232:G:OP2	1.98	0.47
24:BA:288:C:H2'	24:BA:289:A:H8	1.79	0.47
24:BA:431:U:O5'	24:BA:431:U:H6	1.98	0.47
24:BA:765:G:H2'	24:BA:766:C:C6	2.49	0.47
24:BA:1339:G:H5"	42:BT:16:LYS:HD3	1.96	0.47
24:BA:1344:G:H4'	24:BA:1384:A:C5	2.49	0.47
24:BA:1567:A:H4'	26:BD:58:HIS:CD2	2.50	0.47
24:BA:2023:G:H4'	24:BA:2617:C:O3'	2.13	0.47
24:BA:2156:G:C5	24:BA:2157:G:N2	2.83	0.47
24:BA:2405:G:P	34:BO:77:ARG:NH2	2.87	0.47
24:BA:2552:U:H2'	24:BA:2554:U:OP2	2.14	0.47
24:BA:2685:G:P	38:BR:51:ARG:HH22	2.37	0.47
29:BG:66:GLN:OE1	29:BG:98:ARG:NH1	2.48	0.47
29:BG:82:LEU:CA	29:BG:86:MET:HE3	2.45	0.47
29:BG:114:ILE:HD11	29:BG:140:ILE:CD1	2.45	0.47
31:BK:82:ARG:C	31:BK:89:TYR:HD2	2.18	0.47
35:BP:104:PHE:N	35:BP:104:PHE:CD1	2.82	0.47
36:B0:78:LYS:HG2	36:B0:83:ILE:HD11	1.96	0.47
44:BV:132:ASN:HD21	44:BV:160:GLY:HA2	1.80	0.47
51:B6:18:ARG:C	51:B6:19:ARG:HG2	2.34	0.47
1:CA:430:A:P	4:CG:9:CYS:H	2.37	0.47
1:CA:452:A:O2'	16:CS:72:ARG:NE	2.48	0.47
1:CA:1005:A:C2	1:CA:1006:C:C4'	2.97	0.47
1:CA:1039:C:H2'	1:CA:1040:U:O4'	2.14	0.47
1:CA:1069:C:N4	1:CA:1094:G:C6	2.82	0.47
1:CA:1145:C:H5"	1:CA:1146:A:OP1	2.14	0.47
1:CA:1158:C:O2	1:CA:1158:C:H2'	2.14	0.47
1:CA:1299:A:N6	1:CA:1301:U:H3	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1344:C:C5'	9:CL:120:ARG:O	2.63	0.47
1:CA:1494:G:O4'	24:DA:1913:A:C4	2.67	0.47
2:CE:19:HIS:HD2	2:CE:20:GLU:CG	2.23	0.47
4:CG:81:GLU:O	4:CG:85:LYS:HD2	2.15	0.47
4:CG:153:ARG:CG	4:CG:181:MET:SD	3.02	0.47
9:CL:89:ASN:HB2	9:CL:92:TYR:CE2	2.50	0.47
10:CM:13:HIS:HB3	10:CM:68:HIS:NE2	2.30	0.47
11:CN:21:ILE:HD12	11:CN:84:VAL:HG22	1.97	0.47
12:CO:27:LEU:CD2	12:CO:62:SER:HB2	2.45	0.47
13:CP:30:ALA:O	13:CP:33:ALA:N	2.48	0.47
16:CS:51:VAL:O	16:CS:53:VAL:N	2.47	0.47
19:CV:7:LYS:HA	19:CV:7:LYS:HD3	1.80	0.47
24:DA:581:C:H2'	24:DA:582:G:C8	2.49	0.47
24:DA:699:A:H2'	24:DA:700:G:O4'	2.15	0.47
24:DA:1138:G:O2'	32:DM:106:MET:HG3	2.15	0.47
24:DA:2498:C:O2'	24:DA:2499:C:H5'	2.14	0.47
24:DA:2638:G:H1'	24:DA:2778:A:N6	2.30	0.47
24:DA:2807:G:N1	24:DA:2808:U:C2	2.83	0.47
25:DB:5:C:H42	25:DB:115:G:H1	1.63	0.47
28:DF:133:ASN:HB2	28:DF:138:GLU:OE1	2.14	0.47
29:DG:160:VAL:CG1	29:DG:161:THR:N	2.78	0.47
34:DO:95:VAL:HG13	34:DO:125:VAL:HG23	1.97	0.47
37:DQ:94:TYR:CE2	37:DQ:99:LYS:HG3	2.49	0.47
39:D1:83:LEU:O	39:D1:83:LEU:HD23	2.14	0.47
43:DU:83:THR:HG22	43:DU:85:VAL:HG23	1.95	0.47
49:D4:22:ILE:CG1	49:D4:23:GLU:H	2.23	0.47
52:D7:22:MET:SD	52:D7:31:LEU:HD12	2.55	0.47
1:AA:227:G:H2'	1:AA:228:A:O4'	2.14	0.47
1:AA:324:G:N2	1:AA:327:A:C8	2.82	0.47
1:AA:390:C:H2'	1:AA:391:G:H8	1.77	0.47
1:AA:827:U:C5	1:AA:872:A:N1	2.82	0.47
1:AA:865:A:H2	1:AA:918:A:H4'	1.80	0.47
1:AA:1027:C:O4'	1:AA:1028:C:OP1	2.33	0.47
1:AA:1028:C:N3	1:AA:1033:G:N1	2.51	0.47
1:AA:1389:C:C5	1:AA:1390:U:C5	3.03	0.47
2:AE:17:PHE:HA	2:AE:42:ILE:CG2	2.45	0.47
5:AH:142:LEU:O	5:AH:143:ARG:HD3	2.15	0.47
8:AK:42:GLU:HG3	8:AK:109:ILE:HD12	1.97	0.47
9:AL:13:ALA:HA	9:AL:67:GLY:O	2.15	0.47
9:AL:79:LEU:CD2	9:AL:79:LEU:C	2.84	0.47
19:AV:2:PRO:O	19:AV:3:ARG:CB	2.63	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:422:A:C6	24:BA:423:A:C6	3.03	0.47
24:BA:745:G:C2'	24:BA:746:A:H5'	2.45	0.47
24:BA:1077:A:H2	24:BA:1088:A:H61	1.61	0.47
24:BA:1241:A:O2'	24:BA:1242:A:H5'	2.14	0.47
24:BA:1448:G:N2	24:BA:1449:A:N6	2.63	0.47
24:BA:1541:U:O4	24:BA:1542:G:C2	2.67	0.47
24:BA:1847:A:O2'	24:BA:1848:A:H5'	2.15	0.47
24:BA:1973:G:H2'	24:BA:1974:C:H6	1.79	0.47
24:BA:2120:G:N2	24:BA:2178:C:O2	2.47	0.47
24:BA:2133:G:C1'	24:BA:2158:A:H61	2.26	0.47
24:BA:2149:G:C6	24:BA:2150:U:C2	3.03	0.47
24:BA:2244:U:H2'	24:BA:2245:U:H5'	1.95	0.47
24:BA:2266:A:H1'	24:BA:2272:U:O4	2.15	0.47
24:BA:2343:C:HO2'	24:BA:2373:G:HO2'	1.63	0.47
24:BA:2373:G:H2'	24:BA:2374:C:C6	2.50	0.47
24:BA:2399:G:O2'	51:B6:19:ARG:CD	2.62	0.47
24:BA:2494:G:C4	24:BA:2495:G:C8	3.02	0.47
25:BB:7:G:H4'	37:BQ:29:PHE:CD2	2.50	0.47
25:BB:50:G:H5"	37:BQ:61:ASN:ND2	2.30	0.47
28:BF:158:THR:HB	28:BF:195:ASP:OD2	2.15	0.47
29:BG:82:LEU:HA	29:BG:86:MET:HE3	1.95	0.47
30:BH:167:GLU:HA	30:BH:168:PRO:HD3	1.74	0.47
38:BR:90:GLN:HG3	38:BR:91:ARG:N	2.29	0.47
39:B1:28:ARG:HD3	39:B1:38:THR:OG1	2.13	0.47
50:B5:38:ALA:HB3	50:B5:40:LYS:HE3	1.97	0.47
51:B6:34:LEU:O	51:B6:35:GLU:HB2	2.15	0.47
1:CA:123:C:OP1	1:CA:312:C:C5'	2.61	0.47
1:CA:457:C:N4	1:CA:458:C:H41	2.13	0.47
1:CA:474:G:H5"	16:CS:81:ARG:NH2	2.30	0.47
1:CA:474:G:H2'	1:CA:475:G:H8	1.79	0.47
1:CA:894:G:H2'	1:CA:895:G:H8	1.79	0.47
1:CA:983:A:H2	1:CA:984:C:C5	2.33	0.47
1:CA:995:C:O4'	14:CQ:8:GLU:OE1	2.33	0.47
1:CA:998:G:H2'	1:CA:998(A):C:C6	2.50	0.47
1:CA:1014:A:P	1:CA:1014:A:H8	2.38	0.47
1:CA:1085:U:H3'	1:CA:1086:U:H5	1.80	0.47
1:CA:1131:G:H1	1:CA:1143:G:N2	2.08	0.47
1:CA:1298:C:N4	7:CJ:114:ARG:HB3	2.29	0.47
1:CA:1311:G:N2	1:CA:1326:C:O2	2.45	0.47
3:CF:148:GLY:CA	3:CF:172:ARG:H	2.27	0.47
4:CG:108:LEU:O	4:CG:110:PHE:CD1	2.67	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CG:153:ARG:NH1	4:CG:181:MET:HB2	2.30	0.47
7:CJ:69:VAL:CG2	7:CJ:135:VAL:HG22	2.38	0.47
8:CK:133:LEU:CD2	8:CK:133:LEU:C	2.83	0.47
13:CP:4:ILE:CD1	13:CP:5:ALA:N	2.74	0.47
18:CU:23:LYS:C	18:CU:25:THR:H	2.18	0.47
20:CW:63:ILE:HG22	20:CW:77:ALA:HB1	1.96	0.47
24:DA:648:G:C4'	24:DA:2351:G:H5"	2.45	0.47
24:DA:1070:A:H5"	24:DA:1096:A:O2'	2.14	0.47
24:DA:1495:A:C2'	24:DA:1496:A:H5'	2.45	0.47
24:DA:1632:A:N6	24:DA:1633:G:N1	2.63	0.47
24:DA:2572:A:H62	27:DE:145:LYS:HD3	1.80	0.47
25:DB:29:A:C2	25:DB:30:C:C2	3.02	0.47
26:DD:246:PRO:O	26:DD:254:THR:HG22	2.15	0.47
27:DE:117:MET:HA	27:DE:122:PHE:N	2.30	0.47
34:DO:36:LYS:HB3	34:DO:37:GLY:H	1.31	0.47
34:DO:39:LYS:HA	34:DO:45:LEU:HD13	1.96	0.47
37:DQ:25:ARG:HD2	37:DQ:88:ASP:OD2	2.15	0.47
44:DV:104:PHE:O	44:DV:105:VAL:HB	2.15	0.47
44:DV:105:VAL:CG1	44:DV:106:GLY:H	2.11	0.47
46:DZ:51:VAL:CG2	46:DZ:58:ILE:HB	2.45	0.47
1:AA:95:G:C5	1:AA:96:G:C5	3.03	0.47
1:AA:102:G:N1	1:AA:103:C:C4	2.83	0.47
1:AA:323:U:H2'	1:AA:324:G:O4'	2.15	0.47
1:AA:532:A:H3'	1:AA:533:A:C5'	2.44	0.47
1:AA:575:G:N9	1:AA:881:G:N2	2.63	0.47
1:AA:986:A:N3	19:AV:52:TYR:OH	2.38	0.47
1:AA:1330:U:H3'	1:AA:1331:G:O4'	2.14	0.47
2:AE:12:GLU:CA	2:AE:16:HIS:CD2	2.96	0.47
2:AE:92:TYR:N	2:AE:151:GLY:O	2.41	0.47
4:AG:23:GLY:CA	4:AG:112:VAL:CG2	2.86	0.47
4:AG:31:CYS:C	4:AG:33:MET:CG	2.83	0.47
4:AG:173:TRP:HA	4:AG:186:LEU:CG	2.45	0.47
6:AI:26:ILE:HG22	6:AI:30:LEU:HD11	1.96	0.47
7:AJ:70:LYS:HE2	7:AJ:96:GLN:OE1	2.14	0.47
11:AN:32:ILE:HD12	11:AN:68:ALA:O	2.15	0.47
13:AP:116:THR:O	13:AP:117:VAL:CG1	2.62	0.47
16:AS:14:ASN:HD21	16:AS:16:HIS:CE1	2.33	0.47
20:AW:18:GLN:O	20:AW:21:LYS:N	2.48	0.47
24:BA:69:C:O2'	24:BA:70:G:H5'	2.15	0.47
24:BA:141(A):C:O5'	24:BA:141(A):C:H6	1.96	0.47
24:BA:511:U:H2'	24:BA:512:G:H5'	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1213:A:H1'	24:BA:1238:G:N3	2.30	0.47
24:BA:1509:C:N4	24:BA:1511:A:N1	2.63	0.47
24:BA:1668:A:H4'	24:BA:1669:A:O5'	2.14	0.47
24:BA:2070:G:H2'	24:BA:2071:A:C8	2.50	0.47
24:BA:2286:A:C8	24:BA:2287:A:N6	2.84	0.47
24:BA:2751:G:O2'	24:BA:2752:C:P	2.72	0.47
25:BB:70:C:C2	25:BB:71:C:C5	3.03	0.47
27:BE:49:LEU:HD12	27:BE:49:LEU:N	2.30	0.47
33:BN:102:VAL:CG2	33:BN:121:VAL:HG22	2.45	0.47
34:BO:19:VAL:HG21	34:BO:21:ARG:HB2	1.97	0.47
34:BO:64:LYS:HD2	53:B8:25:MET:SD	2.55	0.47
37:BQ:110:LEU:HG	37:BQ:111:GLU:C	2.34	0.47
43:BU:50:ARG:C	43:BU:52:SER:N	2.67	0.47
43:BU:57:GLN:N	43:BU:57:GLN:OE1	2.48	0.47
46:BZ:92:LYS:O	46:BZ:94:LEU:C	2.52	0.47
51:B6:36:LEU:HD13	51:B6:50:ARG:CZ	2.44	0.47
1:CA:181:G:N2	1:CA:183:G:N2	2.64	0.47
1:CA:192:U:C4'	20:CW:103:GLY:HA3	2.44	0.47
1:CA:243:A:C1'	1:CA:244:U:OP2	2.63	0.47
1:CA:246:A:H4'	1:CA:247:G:OP1	2.15	0.47
1:CA:429:U:H2'	4:CG:25:ARG:NH1	2.30	0.47
1:CA:449:C:H2'	1:CA:450:G:O4'	2.15	0.47
1:CA:574:A:C5'	1:CA:575:G:OP2	2.61	0.47
1:CA:745:C:OP1	1:CA:851:G:O2'	2.32	0.47
1:CA:854:G:N1	1:CA:855:G:N7	2.62	0.47
1:CA:881:G:H2'	1:CA:882:C:O4'	2.15	0.47
1:CA:961:U:C2'	1:CA:962:C:H5'	2.45	0.47
1:CA:1002:G:C6	1:CA:1003:G:C6	3.03	0.47
1:CA:1134:G:C2'	1:CA:1135:U:H5'	2.45	0.47
1:CA:1288:A:O2'	1:CA:1289:A:H5'	2.15	0.47
1:CA:1297:C:C2'	1:CA:1298:C:OP2	2.63	0.47
1:CA:1329:A:O2'	13:CP:24:GLY:HA2	2.15	0.47
2:CE:54:THR:HG23	2:CE:199:TYR:HB3	1.96	0.47
4:CG:12:CYS:CB	4:CG:33:MET:HE2	2.45	0.47
9:CL:4:TYR:CD2	9:CL:19:LEU:HD12	2.44	0.47
9:CL:9:ARG:CD	9:CL:14:VAL:HG13	2.43	0.47
9:CL:118:LYS:O	9:CL:119:ALA:HB3	2.15	0.47
10:CM:78:ASN:CG	10:CM:81:THR:HG23	2.35	0.47
13:CP:3:ARG:HG3	49:D4:32:TYR:HE1	1.77	0.47
16:CS:67:THR:HG22	16:CS:68:ASP:N	2.29	0.47
20:CW:63:ILE:HG21	20:CW:81:LYS:HG3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:85:G:OP1	43:DU:30:VAL:HG21	2.14	0.47
24:DA:248:G:O5'	24:DA:249:C:H5"	2.15	0.47
24:DA:548:A:C2	24:DA:549:G:H1'	2.49	0.47
24:DA:904:C:O2'	24:DA:905:U:H5'	2.15	0.47
24:DA:933:A:H2'	24:DA:934:G:H5'	1.97	0.47
24:DA:1530:G:O2'	24:DA:1531:C:H5'	2.14	0.47
24:DA:1710:C:H2'	24:DA:1711:C:H6	1.79	0.47
24:DA:2010:G:H5"	41:DS:42:ARG:HB2	1.97	0.47
24:DA:2065:C:H2'	24:DA:2066:C:C6	2.50	0.47
24:DA:2195:C:C2'	24:DA:2196:C:H5'	2.44	0.47
24:DA:2306:C:H3'	24:DA:2307:G:C5'	2.36	0.47
24:DA:2818:G:O2'	24:DA:2837:G:H5'	2.15	0.47
24:DA:2820:A:O2'	24:DA:2821:A:OP1	2.22	0.47
27:DE:8:LYS:HB3	27:DE:192:ASN:HA	1.97	0.47
27:DE:111:ARG:H	27:DE:111:ARG:HD2	1.80	0.47
28:DF:21:ALA:HB3	28:DF:23:ASP:CG	2.34	0.47
30:DH:152:ARG:NE	30:DH:153:LYS:HE2	2.30	0.47
32:DM:94:HIS:O	32:DM:97:ARG:HD2	2.15	0.47
33:DN:63:VAL:HG23	33:DN:64:ARG:HG3	1.96	0.47
33:DN:73:ASP:HB2	38:DR:82:LEU:HD22	1.97	0.47
37:DQ:104:GLY:C	37:DQ:106:ARG:N	2.67	0.47
38:DR:48:ILE:HG22	38:DR:49:VAL:N	2.28	0.47
40:D2:76:LYS:HB2	40:D2:79:VAL:CG2	2.45	0.47
43:DU:14:LEU:HD12	43:DU:15:VAL:H	1.80	0.47
44:DV:91:LEU:HD23	44:DV:96:VAL:HG21	1.95	0.47
45:D3:26:TYR:H	45:D3:29:GLN:NE2	2.13	0.47
47:DW:17:SER:CB	47:DW:18:PRO:CA	2.63	0.47
49:D4:32:TYR:HD1	49:D4:34:GLU:OE1	1.97	0.47
1:AA:11:G:C5	1:AA:12:U:C5	3.02	0.46
1:AA:264:U:O2	17:AT:64:PRO:HG2	2.15	0.46
1:AA:760:G:C2'	1:AA:761:G:H5'	2.46	0.46
1:AA:765:G:N1	1:AA:812:C:H1'	2.30	0.46
1:AA:909:A:H2'	1:AA:910:C:O4'	2.15	0.46
1:AA:1052:U:O4	1:AA:1200:C:O2'	2.18	0.46
1:AA:1252:A:H2'	1:AA:1253:G:O4'	2.15	0.46
1:AA:1336:C:O2	1:AA:1336:C:H2'	2.15	0.46
5:AH:41:VAL:H	5:AH:67:VAL:HG13	1.81	0.46
5:AH:150:ARG:O	5:AH:153:LYS:CG	2.51	0.46
9:AL:53:VAL:O	9:AL:54:ASP:HB2	2.14	0.46
9:AL:56:LEU:CD2	9:AL:57:GLY:N	2.78	0.46
9:AL:110:GLU:OE2	9:AL:113:LYS:NZ	2.39	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AL:111:ARG:HD2	14:AQ:61:TRP:OXT	2.15	0.46
10:AM:40:LEU:CB	10:AM:41:PRO:HD2	2.44	0.46
18:AU:73:ALA:HB3	18:AU:79:LEU:HD12	1.96	0.46
24:BA:139:G:N2	24:BA:1596:A:H4'	2.29	0.46
24:BA:478:A:C6	24:BA:480:A:C6	3.03	0.46
24:BA:528:A:H2	24:BA:2043:C:C5'	2.28	0.46
24:BA:608:A:C2	24:BA:621:A:C5	3.04	0.46
24:BA:816:C:O2'	24:BA:932:G:O6	2.33	0.46
24:BA:848:G:H2'	24:BA:849:A:C8	2.50	0.46
24:BA:879:G:C6	24:BA:880:G:C5	3.03	0.46
24:BA:880:G:N2	24:BA:898:C:C2	2.83	0.46
24:BA:1379:A:C4'	24:BA:1380:G:OP1	2.63	0.46
24:BA:1454:U:H5	36:B0:73:VAL:HG13	1.80	0.46
24:BA:2399:G:N3	51:B6:19:ARG:NH2	2.59	0.46
24:BA:2464:C:H2'	24:BA:2464:C:O2	2.15	0.46
25:BB:45:A:OP2	29:BG:96:ARG:NH2	2.48	0.46
26:BD:108:PRO:HG3	26:BD:143:HIS:CE1	2.49	0.46
27:BE:75:VAL:C	27:BE:76:ARG:HD2	2.35	0.46
29:BG:106:LEU:HD12	29:BG:110:ALA:CB	2.46	0.46
35:BP:5:ARG:O	35:BP:6:ARG:HB2	2.14	0.46
35:BP:11:LYS:HG2	35:BP:75:THR:CG2	2.42	0.46
38:BR:98:LYS:HB3	38:BR:100:TYR:HE1	1.70	0.46
43:BU:27:VAL:HG22	43:BU:27:VAL:O	2.15	0.46
44:BV:25:PRO:O	44:BV:86:VAL:HG23	2.15	0.46
45:B3:34:GLY:O	45:B3:35:ASN:C	2.51	0.46
52:B7:49:ARG:HH11	52:B7:49:ARG:CG	2.28	0.46
1:CA:84:U:O2	1:CA:84:U:H2'	2.15	0.46
1:CA:346:G:OP1	38:DR:41:ARG:NH2	2.48	0.46
1:CA:448:A:C8	1:CA:486:U:O4	2.69	0.46
1:CA:638:G:C2'	1:CA:639:G:H5'	2.45	0.46
1:CA:795:C:H5"	1:CA:796:C:OP2	2.15	0.46
1:CA:1154:G:C6	1:CA:1155:G:C5	3.04	0.46
1:CA:1203:C:O2'	1:CA:1204:A:H5'	2.15	0.46
2:CE:11:LEU:HD13	2:CE:12:GLU:CB	2.44	0.46
3:CF:52:LEU:HD23	3:CF:52:LEU:N	2.27	0.46
3:CF:120:VAL:HA	3:CF:123:GLN:NE2	2.30	0.46
4:CG:152:SER:O	4:CG:158:ILE:HG13	2.15	0.46
5:CH:39:GLY:C	5:CH:40:ARG:HG3	2.34	0.46
9:CL:87:GLN:OE1	9:CL:88:TYR:N	2.49	0.46
13:CP:41:PRO:C	13:CP:43:THR:H	2.18	0.46
16:CS:55:ARG:O	16:CS:58:TYR:N	2.42	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CV:14:HIS:CD2	19:CV:14:HIS:N	2.83	0.46
21:CX:5:ASP:O	21:CX:11:GLY:HA3	2.14	0.46
24:DA:162:U:H4'	24:DA:171:G:C4	2.50	0.46
24:DA:565:C:H4'	24:DA:1253:A:C6	2.50	0.46
24:DA:775:G:H4'	24:DA:776:G:H5'	1.98	0.46
24:DA:833:U:H2'	24:DA:834:C:C6	2.50	0.46
24:DA:871:U:OP1	35:DP:4:PRO:CA	2.60	0.46
24:DA:1794:U:C1'	24:DA:1900:A:C2	2.98	0.46
24:DA:2274:A:N1	24:DA:2276:G:H1'	2.29	0.46
24:DA:2341:G:H2'	24:DA:2342:C:C6	2.51	0.46
24:DA:2344:U:P	51:D6:37:ARG:CZ	3.03	0.46
24:DA:2748:A:H4'	30:DH:66:GLY:C	2.36	0.46
25:DB:17:C:H2'	25:DB:18:G:O4'	2.15	0.46
27:DE:77:ILE:C	27:DE:78:LEU:HG	2.35	0.46
29:DG:123:ASN:C	29:DG:125:PHE:H	2.19	0.46
30:DH:18:GLU:H	30:DH:25:LYS:CD	2.28	0.46
31:DK:25:TYR:HE1	31:DK:29:TYR:CD2	2.33	0.46
31:DK:52:ARG:O	31:DK:56:LYS:CG	2.63	0.46
33:DN:19:ILE:O	33:DN:19:ILE:HG13	2.15	0.46
36:D0:63:ARG:NH2	36:D0:77:ARG:HG2	2.30	0.46
37:DQ:11:LYS:O	37:DQ:15:ARG:HB2	2.15	0.46
38:DR:52:ILE:H	38:DR:98:LYS:HZ2	1.63	0.46
42:DT:57:LEU:HD21	42:DT:78:LYS:HB3	1.94	0.46
44:DV:3:TYR:O	44:DV:58:VAL:N	2.44	0.46
44:DV:9:TYR:CG	44:DV:35:ARG:NH1	2.83	0.46
44:DV:29:TYR:O	44:DV:89:PHE:HA	2.14	0.46
50:D5:57:VAL:CG1	50:D5:58:LEU:H	2.26	0.46
1:AA:373:A:O2'	1:AA:451:A:N7	2.47	0.46
1:AA:590:C:O2'	1:AA:591:U:H5'	2.15	0.46
1:AA:626:U:H4'	16:AS:38:TYR:CZ	2.49	0.46
1:AA:924:C:O2'	1:AA:1502:A:N6	2.49	0.46
1:AA:975:A:C5'	1:AA:976:G:H5"	2.43	0.46
1:AA:1014:A:N3	1:AA:1219:U:H1'	2.30	0.46
1:AA:1043:C:H5"	24:DA:2155:G:O2'	2.15	0.46
1:AA:1257:U:H5'	1:AA:1258:G:C8	2.50	0.46
1:AA:1316:G:H4'	14:AQ:18:VAL:CG1	2.46	0.46
1:AA:1346:A:OP1	9:AL:120:ARG:NH1	2.47	0.46
1:AA:1492:A:C6	24:BA:1913:A:N7	2.83	0.46
2:AE:233:SER:HB2	2:AE:234:PRO:CD	2.35	0.46
4:AG:192:GLU:O	4:AG:194:LEU:N	2.49	0.46
8:AK:122:ARG:O	8:AK:125:ARG:N	2.47	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AL:17:VAL:HA	9:AL:63:ILE:HG12	1.97	0.46
9:AL:79:LEU:O	9:AL:79:LEU:HD23	2.15	0.46
11:AN:44:SER:H	11:AN:47:VAL:HB	1.81	0.46
17:AT:65:ILE:HD12	17:AT:65:ILE:N	2.29	0.46
24:BA:270(K):C:O2	24:BA:270(N):G:N2	2.47	0.46
24:BA:466:A:N3	24:BA:683:C:H1'	2.30	0.46
24:BA:1050:A:N7	24:BA:2751:G:C6	2.83	0.46
24:BA:2195:C:O2'	24:BA:2196:C:H5'	2.15	0.46
24:BA:2298:A:N6	24:BA:2318:G:H8	2.10	0.46
24:BA:2393:A:O2'	24:BA:2394:C:H5'	2.16	0.46
24:BA:2468:G:H22	24:BA:2481:G:H2'	1.80	0.46
31:BK:31:LEU:HD12	31:BK:31:LEU:N	2.31	0.46
34:BO:64:LYS:HD2	53:B8:25:MET:HE1	1.96	0.46
37:BQ:51:ALA:HB3	37:BQ:73:LEU:HG	1.97	0.46
43:BU:97:ARG:HH21	43:BU:98:VAL:CG1	2.28	0.46
44:BV:23:LYS:HE2	44:BV:40:ASP:OD2	2.15	0.46
51:B6:28:ARG:HB2	51:B6:29:ASN:H	1.60	0.46
1:CA:63:C:H2'	1:CA:64:G:C5'	2.46	0.46
1:CA:244:U:H4'	1:CA:245:C:H5"	1.97	0.46
1:CA:386:C:O2'	1:CA:387:U:H5'	2.15	0.46
1:CA:412:A:O2'	1:CA:413:G:OP2	2.22	0.46
1:CA:439:A:C5	1:CA:440:A:H1'	2.50	0.46
1:CA:625:G:H4'	16:CS:16:HIS:HD2	1.80	0.46
1:CA:983:A:H2	1:CA:984:C:H6	1.60	0.46
1:CA:992:U:C1'	1:CA:993:G:P	3.03	0.46
1:CA:1161:C:H2'	1:CA:1162:C:H6	1.80	0.46
1:CA:1279:A:O2'	1:CA:1282:C:N4	2.48	0.46
1:CA:1284:C:H3'	1:CA:1285:A:H2'	1.97	0.46
2:CE:11:LEU:HD13	2:CE:12:GLU:HB3	1.97	0.46
3:CF:47:LEU:CD1	3:CF:48:TYR:N	2.77	0.46
3:CF:153:VAL:HA	3:CF:197:GLY:O	2.15	0.46
5:CH:107:ARG:HB2	5:CH:107:ARG:HH11	1.79	0.46
10:CM:13:HIS:HB3	10:CM:68:HIS:CE1	2.50	0.46
10:CM:56:HIS:C	10:CM:58:ASP:H	2.19	0.46
10:CM:79:ARG:HH11	10:CM:80:LYS:HG3	1.70	0.46
10:CM:81:THR:O	10:CM:84:GLN:N	2.48	0.46
14:CQ:52:GLN:O	14:CQ:53:LEU:HD23	2.15	0.46
16:CS:55:ARG:O	16:CS:58:TYR:HB3	2.16	0.46
22:CC:48:C:N4	22:CC:59:A:C8	2.83	0.46
24:DA:74:A:O5'	24:DA:74:A:C8	2.68	0.46
24:DA:127:A:H5"	24:DA:128:C:C6	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:128:C:C6	24:DA:128:C:C3'	2.98	0.46
24:DA:280:C:N3	24:DA:361:G:C2	2.84	0.46
24:DA:870:A:OP1	35:DP:6:ARG:CG	2.64	0.46
24:DA:871:U:H5'	35:DP:69:PHE:HE2	1.72	0.46
24:DA:1173:G:H21	24:DA:1176:G:H22	1.62	0.46
24:DA:1511:A:C4	24:DA:1512:G:C8	3.02	0.46
24:DA:1653:G:C3'	36:D0:2:ARG:NH1	2.79	0.46
24:DA:1743:G:C2	24:DA:1746:G:C8	3.04	0.46
24:DA:2053:G:H5'	27:DE:144:ARG:O	2.14	0.46
24:DA:2887:U:H2'	24:DA:2888:C:C6	2.43	0.46
25:DB:104:A:C4	25:DB:105:G:H1'	2.50	0.46
26:DD:18:VAL:HG22	26:DD:19:ALA:N	2.30	0.46
27:DE:78:LEU:N	27:DE:78:LEU:HD23	2.31	0.46
29:DG:174:GLU:HB2	29:DG:180:PHE:HE2	1.80	0.46
30:DH:41:MET:SD	30:DH:64:LEU:HB2	2.56	0.46
32:DM:28:THR:HG22	32:DM:29:LYS:N	2.31	0.46
36:D0:48:VAL:O	36:D0:49:ASP:C	2.52	0.46
36:D0:101:ALA:HB2	50:D5:44:THR:HB	1.98	0.46
38:DR:106:SER:O	38:DR:107:ASP:CG	2.53	0.46
41:DS:78:GLU:OE1	41:DS:99:ARG:HD2	2.15	0.46
43:DU:89:PHE:HD2	43:DU:90:LEU:HG	1.80	0.46
46:DZ:81:LYS:H	46:DZ:82:LEU:HD23	1.79	0.46
47:DW:70:GLN:O	47:DW:70:GLN:HG2	2.14	0.46
53:D8:33:ASN:N	53:D8:33:ASN:OD1	2.48	0.46
1:AA:227:G:O2'	16:AS:62:VAL:HG22	2.15	0.46
1:AA:802:A:H2'	1:AA:803:G:O4'	2.16	0.46
1:AA:939:G:H2'	1:AA:940:C:C6	2.51	0.46
1:AA:1276:G:C2	1:AA:1277:C:C2	3.03	0.46
1:AA:1382:C:P	7:AJ:79:ARG:NH1	2.85	0.46
2:AE:77:ALA:HB3	2:AE:165:VAL:HG21	1.98	0.46
2:AE:103:THR:CG2	2:AE:176:GLU:CB	2.77	0.46
10:AM:97:GLU:OE2	10:AM:97:GLU:HA	2.16	0.46
24:BA:39:C:O2'	24:BA:40:C:H5'	2.15	0.46
24:BA:270(W):G:H2'	24:BA:270(X):G:O4'	2.16	0.46
24:BA:421:U:H6	24:BA:421:U:OP2	1.98	0.46
24:BA:438:G:H2'	24:BA:439:G:C8	2.50	0.46
24:BA:533:G:N3	39:B1:45:TYR:CD2	2.84	0.46
24:BA:729:G:H5'	24:BA:730:C:H5"	1.97	0.46
24:BA:875:G:H5"	44:BV:173:ALA:CB	2.45	0.46
24:BA:1061:U:H1'	24:BA:1070:A:C2	2.50	0.46
24:BA:1208:C:C2	24:BA:1239:G:C2	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1257:C:H4'	28:BF:83:PHE:CD1	2.51	0.46
24:BA:2392:A:H8	34:BO:60:MET:CB	2.24	0.46
24:BA:2572:A:OP1	24:BA:2574:G:H4'	2.15	0.46
24:BA:2715:C:H2'	24:BA:2716:U:C6	2.50	0.46
24:BA:2751:G:N7	30:BH:3:ARG:CD	2.77	0.46
25:BB:78:A:C2	25:BB:99:A:C4	3.03	0.46
27:BE:78:LEU:HG	27:BE:79:ARG:N	2.31	0.46
38:BR:94:ALA:O	38:BR:95:ARG:CB	2.60	0.46
43:BU:79:CYS:HG	43:BU:80:GLY:N	2.12	0.46
46:BZ:58:ILE:CG2	46:BZ:87:PRO:HG3	2.44	0.46
48:BX:31:LEU:O	48:BX:32:GLN:CB	2.63	0.46
53:B8:14:VAL:HG22	53:B8:15:LYS:H	1.78	0.46
1:CA:66:G:O4'	1:CA:173:U:C5	2.68	0.46
1:CA:278:G:OP2	17:CT:41:LYS:HE2	2.16	0.46
1:CA:403:C:O2'	1:CA:404:U:H5'	2.16	0.46
1:CA:413:G:H2'	1:CA:428:G:H21	1.79	0.46
1:CA:709:G:H2'	1:CA:710:G:H8	1.80	0.46
1:CA:956:U:C2	1:CA:1225:A:H2	2.31	0.46
1:CA:1309:G:N2	1:CA:1329:A:H1'	2.29	0.46
1:CA:1320:C:H2'	1:CA:1321:C:C4'	2.44	0.46
1:CA:1353:G:N1	1:CA:1370:G:C2	2.84	0.46
1:CA:1357:A:C5	1:CA:1358:U:C4	3.03	0.46
2:CE:5:ILE:HG21	2:CE:52:GLU:HG3	1.98	0.46
2:CE:121:LEU:HG	2:CE:126:GLU:CB	2.45	0.46
2:CE:181:PHE:O	2:CE:183:PRO:HD3	2.16	0.46
3:CF:45:LYS:HD3	3:CF:45:LYS:O	2.14	0.46
3:CF:113:ALA:N	3:CF:202:ILE:HD12	2.31	0.46
3:CF:120:VAL:CG2	3:CF:140:ARG:NH2	2.78	0.46
4:CG:31:CYS:O	4:CG:33:MET:CG	2.63	0.46
4:CG:159:ARG:O	4:CG:160:GLN:C	2.53	0.46
4:CG:204:ILE:HG21	5:CH:98:THR:O	2.16	0.46
5:CH:18:ARG:NH2	5:CH:25:ARG:HD2	2.27	0.46
5:CH:100:VAL:CG2	5:CH:116:THR:HA	2.46	0.46
7:CJ:89:MET:CA	7:CJ:155:ARG:NH1	2.24	0.46
13:CP:97:PRO:CA	13:CP:110:ARG:HG2	2.45	0.46
15:CR:67:LEU:HB3	15:CR:78:TYR:HE2	1.80	0.46
24:DA:1042:G:H1	24:DA:1113:U:H3	1.62	0.46
24:DA:1168:G:C2	24:DA:1182:A:C2	3.04	0.46
24:DA:1342:A:H2	24:DA:1602:U:N3	2.13	0.46
24:DA:2564:A:H5"	24:DA:2565:A:OP2	2.16	0.46
24:DA:2821:A:H2'	24:DA:2822:G:O4'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DD:175:LEU:HD12	26:DD:185:VAL:HG21	1.97	0.46
27:DE:1:MET:HB2	27:DE:200:GLU:CG	2.45	0.46
28:DF:101:LEU:CD1	28:DF:102:PRO:HD2	2.21	0.46
30:DH:85:LYS:O	30:DH:132:ARG:HB2	2.14	0.46
31:DK:76:THR:CG2	31:DK:140:LEU:HA	2.45	0.46
33:DN:3:GLN:HB2	33:DN:4:PRO:CD	2.45	0.46
34:DO:105:LEU:O	34:DO:106:LEU:HB3	2.15	0.46
35:DP:63:LYS:C	35:DP:64:ILE:HD12	2.35	0.46
38:DR:98:LYS:N	38:DR:98:LYS:HD2	2.31	0.46
47:DW:65:ASN:O	47:DW:68:ARG:N	2.47	0.46
49:D4:2:LYS:HD2	49:D4:6:HIS:CB	2.45	0.46
51:D6:36:LEU:HG	51:D6:50:ARG:CZ	2.44	0.46
51:D6:37:ARG:HH21	51:D6:38:LYS:N	2.07	0.46
1:AA:815:A:N6	1:AA:1509:C:H1'	2.31	0.46
1:AA:1013:G:N2	1:AA:1016:A:OP2	2.46	0.46
1:AA:1272:G:O6	1:AA:1273:G:C6	2.69	0.46
1:AA:1298:C:C5	7:AJ:114:ARG:HD3	2.51	0.46
2:AE:17:PHE:CA	2:AE:42:ILE:HG22	2.46	0.46
2:AE:133:LYS:O	2:AE:133:LYS:HD3	2.15	0.46
2:AE:141:GLU:O	2:AE:145:LEU:HD23	2.14	0.46
3:AF:141:VAL:O	3:AF:146:ALA:CB	2.64	0.46
4:AG:30:LYS:CB	4:AG:33:MET:H	2.24	0.46
10:AM:20:ALA:C	10:AM:22:LYS:H	2.18	0.46
14:AQ:25:VAL:HG22	14:AQ:39:LEU:CD2	2.46	0.46
16:AS:82:GLN:HG3	16:AS:83:GLU:H	1.79	0.46
18:AU:46:GLU:HG2	18:AU:46:GLU:O	2.15	0.46
19:AV:5:LEU:O	19:AV:5:LEU:HG	2.15	0.46
19:AV:64:GLU:O	49:B4:56:VAL:HG13	2.15	0.46
19:AV:65:ASN:H	19:AV:65:ASN:HD22	1.64	0.46
19:AV:65:ASN:HD22	19:AV:65:ASN:N	2.14	0.46
24:BA:49:A:C8	24:BA:120:U:H5	2.30	0.46
24:BA:223:A:O4'	24:BA:422:A:H5'	2.16	0.46
24:BA:270(W):G:C6	24:BA:270(X):G:C4	3.04	0.46
24:BA:479:A:H4'	24:BA:480:A:OP1	2.14	0.46
24:BA:895:U:O2'	24:BA:897:C:OP2	2.21	0.46
24:BA:2117:A:N6	24:BA:2172:U:C4	2.83	0.46
24:BA:2399:G:O2'	51:B6:19:ARG:CZ	2.63	0.46
24:BA:2592:G:C6	24:BA:2593:U:C4	3.04	0.46
24:BA:2758:A:C2	30:BH:67:LEU:HD21	2.50	0.46
25:BB:20:C:O2'	25:BB:21:G:H5'	2.15	0.46
25:BB:63:G:C6	25:BB:64:C:C4	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BE:37:ARG:HD3	27:BE:42:ASP:OD1	2.16	0.46
30:BH:94:TYR:HE2	30:BH:160:LYS:HB3	1.80	0.46
37:BQ:66:ALA:O	37:BQ:69:VAL:HG13	2.15	0.46
37:BQ:70:GLY:CA	37:BQ:101:LEU:CD1	2.93	0.46
40:B2:71:LEU:HD23	40:B2:84:LYS:HE3	1.98	0.46
41:BS:110:LYS:C	41:BS:112:GLY:H	2.19	0.46
51:B6:25:LYS:HG3	53:B8:34:TRP:HE1	1.80	0.46
1:CA:347:G:C2'	1:CA:348:G:H5'	2.45	0.46
1:CA:652:U:O4	1:CA:752:G:O2'	2.32	0.46
1:CA:737:A:OP1	6:CI:91:VAL:HG13	2.15	0.46
1:CA:1249:C:O2'	9:CL:73:GLN:OE1	2.28	0.46
1:CA:1300:G:O2'	1:CA:1301:U:OP2	2.32	0.46
1:CA:1331:G:OP2	13:CP:23:TYR:CD1	2.68	0.46
4:CG:12:CYS:CB	4:CG:33:MET:CE	2.93	0.46
9:CL:53:VAL:HG23	9:CL:54:ASP:N	2.19	0.46
10:CM:37:PRO:HA	10:CM:72:VAL:HG23	1.98	0.46
10:CM:70:ARG:HH11	10:CM:70:ARG:CG	2.12	0.46
13:CP:108:ARG:HD2	13:CP:114:ARG:HE	1.80	0.46
22:CC:23:C:H2'	22:CC:24:U:C6	2.50	0.46
24:DA:71:A:C2	42:DT:31:HIS:CE1	3.04	0.46
24:DA:621:A:H2'	24:DA:622:G:C5'	2.39	0.46
24:DA:848:G:H2'	24:DA:849:A:H8	1.79	0.46
24:DA:1006:C:H5"	32:DM:32:THR:HG23	1.97	0.46
24:DA:1184:G:OP2	48:DX:30:ARG:NH2	2.48	0.46
24:DA:1240:U:O2'	24:DA:1241:A:H5'	2.16	0.46
24:DA:1794:U:H2'	24:DA:1795:C:H6	1.79	0.46
24:DA:2186:G:O2'	24:DA:2187:G:H5'	2.15	0.46
24:DA:2309:A:C8	24:DA:2309:A:OP1	2.69	0.46
24:DA:2490:G:H2'	24:DA:2490:G:N3	2.30	0.46
24:DA:2516:G:C6	24:DA:2517:C:C4	3.03	0.46
24:DA:2604:U:C2'	24:DA:2605:U:H5'	2.45	0.46
27:DE:63:LEU:O	27:DE:64:LYS:CG	2.64	0.46
27:DE:76:ARG:HG2	27:DE:195:LEU:HD22	1.98	0.46
30:DH:95:ARG:HG3	30:DH:96:ALA:H	1.81	0.46
31:DK:76:THR:HG23	31:DK:140:LEU:HA	1.96	0.46
33:DN:35:VAL:HA	33:DN:62:VAL:O	2.16	0.46
35:DP:47:ILE:O	35:DP:50:ALA:N	2.48	0.46
35:DP:89:ASN:O	35:DP:90:VAL:CG1	2.64	0.46
35:DP:134:ARG:HH22	44:DV:122:ARG:CD	2.27	0.46
37:DQ:104:GLY:O	37:DQ:106:ARG:N	2.47	0.46
39:D1:21:ALA:HA	39:D1:24:TYR:CE2	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:D1:79:PHE:O	39:D1:83:LEU:HB2	2.15	0.46
40:D2:98:GLU:OE1	40:D2:100:ARG:NH1	2.48	0.46
41:DS:45:TYR:HD2	41:DS:46:PHE:CE1	2.33	0.46
44:DV:44:PHE:C	44:DV:44:PHE:CD1	2.88	0.46
1:AA:186:C:H2'	1:AA:186(A):C:H6	1.81	0.46
1:AA:266:G:H5'	1:AA:268:C:H41	1.79	0.46
1:AA:272:C:H2'	1:AA:273:A:H8	1.79	0.46
1:AA:605:U:O2'	1:AA:606:G:H5'	2.16	0.46
1:AA:706:A:O4'	11:AN:29:ILE:HD13	2.16	0.46
1:AA:719:C:H1'	18:AU:49:LYS:HB3	1.97	0.46
1:AA:977:A:H3'	1:AA:977:A:N3	2.30	0.46
1:AA:1015:A:H2'	1:AA:1016:A:H8	1.81	0.46
1:AA:1157:A:N6	1:AA:1178:G:N2	2.58	0.46
1:AA:1181:G:O2'	1:AA:1184:G:H5'	2.15	0.46
1:AA:1279:A:H5"	1:AA:1280:A:P	2.56	0.46
1:AA:1382:C:O4'	7:AJ:79:ARG:CZ	2.60	0.46
1:AA:1414:U:H2'	1:AA:1415:G:H8	1.80	0.46
3:AF:92:ALA:N	3:AF:99:VAL:HG11	2.31	0.46
7:AJ:54:THR:O	7:AJ:54:THR:OG1	2.33	0.46
11:AN:18:ARG:HH21	11:AN:37:GLY:N	2.13	0.46
12:AO:126:LYS:HD2	12:AO:127:GLU:H	1.81	0.46
16:AS:48:TRP:O	16:AS:49:LEU:HB2	2.16	0.46
24:BA:67:U:N3	24:BA:74:A:H2	2.09	0.46
24:BA:464:U:H4'	52:B7:5:TRP:CZ3	2.51	0.46
24:BA:671:C:OP1	34:BO:42:SER:O	2.33	0.46
24:BA:908:C:H2'	24:BA:909:A:H5'	1.97	0.46
24:BA:1059:G:C6	24:BA:1080:A:C2	3.02	0.46
24:BA:1093:G:H5"	30:BH:170:ARG:NH1	2.30	0.46
24:BA:1244:G:OP1	34:BO:7:ARG:HD3	2.14	0.46
24:BA:1281:G:O2'	24:BA:1282:U:H5'	2.15	0.46
24:BA:1313:U:O2	24:BA:1313:U:C2'	2.64	0.46
24:BA:1685:C:O2'	24:BA:1686:C:H5'	2.14	0.46
24:BA:2031:A:C6	24:BA:2498:C:H1'	2.50	0.46
24:BA:2081:C:H2'	24:BA:2082:A:H8	1.81	0.46
24:BA:2139:C:C4	24:BA:2140:C:C5	3.04	0.46
24:BA:2212:A:O2'	24:BA:2215:G:C8	2.68	0.46
24:BA:2835:A:C6	24:BA:2879:C:C6	3.03	0.46
26:BD:133:LEU:O	26:BD:135:PHE:N	2.48	0.46
28:BF:93:LYS:HB3	28:BF:94:PRO:HD2	1.97	0.46
28:BF:192:LEU:HD23	28:BF:193:VAL:N	2.30	0.46
31:BK:68:LEU:O	31:BK:71:ILE:HG12	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:B0:37:THR:HG22	36:B0:39:PRO:HD2	1.98	0.46
36:B0:44:LEU:HD13	36:B0:44:LEU:C	2.36	0.46
38:BR:20:PRO:HD2	38:BR:86:ILE:HG23	1.98	0.46
39:B1:74:LEU:HD12	39:B1:79:PHE:CB	2.31	0.46
39:B1:110:VAL:O	39:B1:113:ALA:HB3	2.16	0.46
42:BT:60:ARG:HH22	52:B7:47:ARG:NH1	2.14	0.46
43:BU:7:VAL:HG12	43:BU:74:PRO:HG3	1.97	0.46
51:B6:21:TYR:O	51:B6:21:TYR:HD2	1.99	0.46
1:CA:537:G:H5"	12:CO:113:ARG:HH12	1.75	0.46
1:CA:689:C:OP1	11:CN:27:ASN:ND2	2.48	0.46
1:CA:927:G:N2	1:CA:1391:U:H1'	2.31	0.46
1:CA:1080:A:H5'	5:CH:14:ARG:HH22	1.74	0.46
1:CA:1269:A:OP1	21:CX:24:ARG:NE	2.47	0.46
1:CA:1280:A:P	10:CM:7:LYS:NZ	2.88	0.46
1:CA:1289:A:P	21:CX:10:ARG:NH2	2.88	0.46
1:CA:1346:A:H5"	1:CA:1348:U:H1'	1.96	0.46
2:CE:25:ASN:C	2:CE:27:LYS:H	2.18	0.46
2:CE:205:ASP:OD1	2:CE:206:ASP:N	2.49	0.46
3:CF:50:ALA:HB1	3:CF:70:VAL:HG11	1.98	0.46
4:CG:30:LYS:HE2	4:CG:30:LYS:HB2	1.69	0.46
6:CI:23:LYS:NZ	6:CI:42:GLU:OE1	2.49	0.46
8:CK:107:LEU:H	8:CK:107:LEU:CD2	2.27	0.46
9:CL:58:HIS:HB2	9:CL:59:PHE:CD2	2.51	0.46
9:CL:71:SER:O	9:CL:75:ASP:HB2	2.15	0.46
13:CP:64:TRP:CD1	13:CP:64:TRP:N	2.83	0.46
16:CS:9:PHE:CZ	16:CS:18:ARG:HD2	2.50	0.46
16:CS:11:SER:HB2	16:CS:14:ASN:HB3	1.98	0.46
17:CT:31:LEU:HD23	17:CT:32:TYR:CE1	2.50	0.46
19:CV:39:THR:HG22	19:CV:40:ILE:H	1.79	0.46
19:CV:67:VAL:HG23	19:CV:68:GLY:H	1.80	0.46
24:DA:817:C:C2	24:DA:818:G:C8	3.03	0.46
24:DA:870:A:C2	24:DA:908:C:N3	2.83	0.46
24:DA:1061:U:C5'	24:DA:1062:G:OP2	2.64	0.46
24:DA:1155:A:O3'	39:D1:55:ARG:NH1	2.48	0.46
24:DA:1569:A:O2'	26:DD:38:LYS:NZ	2.40	0.46
24:DA:1854:A:H2'	24:DA:1855:G:O4'	2.14	0.46
24:DA:2117:A:O2'	24:DA:2118:U:H5	1.99	0.46
24:DA:2531:A:C2	24:DA:2659:G:O4'	2.68	0.46
27:DE:64:LYS:HE3	27:DE:66:HIS:HA	1.97	0.46
27:DE:103:ASP:N	27:DE:200:GLU:O	2.49	0.46
27:DE:144:ARG:HB3	27:DE:145:LYS:H	1.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DE:188:VAL:HG23	27:DE:189:PRO:HD2	1.96	0.46
28:DF:65:TRP:HB3	28:DF:70:THR:HG21	1.97	0.46
30:DH:164:TYR:HB3	30:DH:165:ALA:H	1.58	0.46
33:DN:35:VAL:CG2	33:DN:69:ILE:HD13	2.44	0.46
34:DO:126:VAL:HG22	34:DO:145:PRO:HG2	1.90	0.46
34:DO:143:GLY:O	34:DO:144:GLU:HB3	2.16	0.46
39:D1:66:ASN:CB	39:D1:76:TYR:HB2	2.41	0.46
40:D2:21:ARG:CZ	40:D2:91:TYR:CB	2.93	0.46
40:D2:35:LEU:CD1	40:D2:37:VAL:HG11	2.45	0.46
43:DU:19:LYS:HG3	43:DU:20:TYR:CD2	2.51	0.46
43:DU:49:VAL:O	43:DU:50:ARG:C	2.54	0.46
43:DU:61:ILE:HG22	43:DU:62:GLU:OE2	2.16	0.46
1:AA:6:G:H3'	1:AA:6:G:N3	2.31	0.46
1:AA:328:C:H4'	1:AA:329:A:C5'	2.45	0.46
1:AA:652:U:C5	1:AA:752:G:C2	3.03	0.46
1:AA:724:G:N3	1:AA:725:G:C8	2.84	0.46
1:AA:750:G:N2	1:AA:751:U:C2	2.84	0.46
1:AA:756:C:H2'	1:AA:757:U:O4'	2.15	0.46
1:AA:926:G:H5'	1:AA:927:G:O5'	2.15	0.46
1:AA:1151:A:N6	1:AA:1152:A:C6	2.84	0.46
1:AA:1234:C:O2'	1:AA:1235:U:H5'	2.16	0.46
1:AA:1399:C:C2	1:AA:1502:A:N6	2.84	0.46
1:AA:1513:A:H2'	1:AA:1514:C:C6	2.51	0.46
2:AE:24:TRP:CH2	2:AE:26:PRO:HA	2.50	0.46
4:AG:28:SER:OG	4:AG:29:PRO:CD	2.45	0.46
4:AG:33:MET:O	4:AG:34:GLU:C	2.53	0.46
5:AH:74:GLY:O	5:AH:115:VAL:HA	2.15	0.46
6:AI:8:ILE:CD1	6:AI:26:ILE:HD13	2.46	0.46
7:AJ:109:ASN:HA	7:AJ:119:ARG:HD2	1.97	0.46
10:AM:42:THR:HG23	10:AM:67:THR:O	2.16	0.46
12:AO:89:ARG:HA	12:AO:97:ARG:HA	1.97	0.46
19:AV:5:LEU:HD12	19:AV:5:LEU:C	2.35	0.46
19:AV:22:LEU:HB3	19:AV:47:HIS:HE2	1.80	0.46
21:AX:9:ARG:O	21:AX:13:ILE:HG13	2.16	0.46
24:BA:16:G:C2	24:BA:17:G:C8	3.03	0.46
24:BA:35:G:H2'	24:BA:36:G:O4'	2.15	0.46
24:BA:228:A:C2'	24:BA:228:A:N3	2.78	0.46
24:BA:241:A:H4'	24:BA:242:G:OP1	2.15	0.46
24:BA:335:C:H4'	43:BU:73:ARG:NE	2.31	0.46
24:BA:580:C:H2'	24:BA:581:C:H6	1.79	0.46
24:BA:746:A:O2'	24:BA:2611:U:O2'	2.33	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:884:C:C2	24:BA:885:C:H1'	2.51	0.46
24:BA:1019:U:H3	24:BA:1142(A):A:H62	1.62	0.46
24:BA:1210:A:C4'	24:BA:1211:U:OP2	2.63	0.46
24:BA:1694:C:H4'	24:BA:1695:G:O5'	2.16	0.46
24:BA:1832:C:N4	24:BA:1833:U:C4	2.84	0.46
24:BA:2129:C:O2'	24:BA:2130:U:H5'	2.16	0.46
24:BA:2349:G:OP2	53:B8:42:ARG:HD3	2.16	0.46
24:BA:2371:G:C4'	51:B6:45:LYS:HD2	2.45	0.46
24:BA:2394:C:OP1	34:BO:63:PRO:HD2	2.16	0.46
24:BA:2419:U:OP2	53:B8:33:ASN:ND2	2.48	0.46
24:BA:2490:G:H2'	24:BA:2490:G:N3	2.30	0.46
24:BA:2558:C:H2'	24:BA:2559:C:H6	1.81	0.46
24:BA:2693:A:H2'	24:BA:2694:G:C8	2.51	0.46
24:BA:2801:A:OP1	24:BA:2895:U:O3'	2.33	0.46
26:BD:40:THR:HG22	26:BD:40:THR:O	2.16	0.46
28:BF:45:ARG:HD3	28:BF:97:TYR:CD2	2.51	0.46
30:BH:87:LEU:HD21	30:BH:162:ILE:HG22	1.98	0.46
32:BM:32:THR:HG23	32:BM:37:LYS:HB2	1.97	0.46
34:BO:2:LYS:O	34:BO:5:ASP:HB2	2.16	0.46
35:BP:5:ARG:O	35:BP:5:ARG:HG2	2.14	0.46
37:BQ:38:GLN:HG3	37:BQ:47:THR:HG21	1.97	0.46
38:BR:100:TYR:HD2	38:BR:103:ARG:NH2	2.14	0.46
40:B2:64:HIS:CE1	40:B2:92:THR:HG22	2.50	0.46
43:BU:81:LYS:CD	43:BU:96:ILE:HG21	2.45	0.46
44:BV:10:ARG:O	44:BV:36:LYS:HG3	2.16	0.46
46:BZ:90:ILE:N	46:BZ:93:GLU:OE2	2.48	0.46
1:CA:37:U:H2'	1:CA:38:G:C8	2.50	0.46
1:CA:327:A:C5	1:CA:329:A:C5	3.04	0.46
1:CA:350:G:C6	1:CA:351:G:O6	2.68	0.46
1:CA:563:A:O2'	1:CA:566:G:O3'	2.33	0.46
1:CA:730:G:C5	1:CA:731:G:H1'	2.50	0.46
1:CA:1072:G:C5	1:CA:1073:U:C4	3.04	0.46
1:CA:1081:G:O2'	1:CA:1082:G:H5'	2.15	0.46
1:CA:1381:U:C4	1:CA:1382:C:C5	3.03	0.46
1:CA:1521:G:H2'	1:CA:1522:U:H6	1.80	0.46
2:CE:28:PHE:CE1	2:CE:31:TYR:HB2	2.51	0.46
2:CE:128:GLU:HG3	2:CE:129:GLU:H	1.80	0.46
5:CH:58:ALA:O	5:CH:62:ALA:CB	2.63	0.46
5:CH:86:ALA:HB1	5:CH:125:SER:OG	2.14	0.46
6:CI:36:ARG:NH1	6:CI:66:GLU:OE1	2.48	0.46
7:CJ:107:ALA:O	7:CJ:110:GLN:HB2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CK:96:GLY:N	8:CK:99:GLU:OE2	2.35	0.46
11:CN:44:SER:O	11:CN:47:VAL:N	2.49	0.46
13:CP:82:MET:HG3	13:CP:83:ASP:H	1.78	0.46
17:CT:43:LEU:HD12	17:CT:68:ARG:HG2	1.98	0.46
24:DA:39:C:O2'	24:DA:40:C:H5'	2.15	0.46
24:DA:372:G:OP2	46:DZ:69:LYS:HE2	2.16	0.46
24:DA:389:G:C6	34:DO:71:VAL:HG12	2.50	0.46
24:DA:532:A:N3	24:DA:532:A:H2'	2.30	0.46
24:DA:627:A:H4'	24:DA:628:G:OP1	2.16	0.46
24:DA:1030:G:OP2	35:DP:128:LYS:NZ	2.42	0.46
24:DA:1125:G:C6	24:DA:1126:A:N6	2.84	0.46
24:DA:1263:U:C4	24:DA:1264:G:C6	3.03	0.46
24:DA:1412:A:C2	24:DA:1413:G:C4	3.04	0.46
24:DA:1767:C:O2'	24:DA:1768:U:H5'	2.16	0.46
24:DA:1833:U:H2'	24:DA:1834:U:H6	1.79	0.46
24:DA:2108:C:H2'	24:DA:2109:U:C5	2.51	0.46
24:DA:2117:A:O2'	24:DA:2118:U:C5	2.66	0.46
24:DA:2210:G:H5'	24:DA:2211:G:C6	2.51	0.46
24:DA:2514:U:H2'	24:DA:2515:C:C6	2.51	0.46
24:DA:2572:A:OP1	24:DA:2574:G:H4'	2.14	0.46
24:DA:2651:C:O2'	24:DA:2652:C:H5'	2.16	0.46
24:DA:2776:A:H2	24:DA:2778:A:HO2'	1.63	0.46
24:DA:2801:A:H5'	24:DA:2896:C:OP1	2.16	0.46
24:DA:2884:U:H2'	24:DA:2885:C:O4'	2.15	0.46
26:DD:5:LYS:HB2	26:DD:5:LYS:HZ2	1.79	0.46
26:DD:25:THR:CG2	26:DD:81:ALA:CB	2.93	0.46
26:DD:28:GLU:CD	26:DD:29:PRO:HD3	2.36	0.46
28:DF:25:PRO:C	28:DF:27:GLU:N	2.69	0.46
30:DH:30:LYS:NZ	30:DH:79:VAL:O	2.49	0.46
37:DQ:102:ALA:C	37:DQ:104:GLY:H	2.19	0.46
38:DR:3:ARG:CZ	38:DR:6:LEU:HD13	2.46	0.46
40:D2:70:ILE:C	40:D2:71:LEU:HG	2.35	0.46
43:DU:88:LYS:C	43:DU:90:LEU:H	2.10	0.46
44:DV:28:MET:HE2	44:DV:28:MET:HB3	1.79	0.46
51:D6:40:CYS:SG	51:D6:45:LYS:CE	3.03	0.46
1:AA:64:G:N2	1:AA:67:C:C4	2.84	0.46
1:AA:76:G:C6	1:AA:77:C:C2	3.04	0.46
1:AA:192:U:O4	1:AA:193:C:N4	2.49	0.46
1:AA:277:C:OP1	17:AT:68:ARG:NH2	2.47	0.46
1:AA:355:C:O4'	1:AA:388:G:O2'	2.33	0.46
1:AA:405:U:H5"	1:AA:406:G:O4'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:443:C:N3	1:AA:491:G:N2	2.52	0.46
1:AA:701:C:OP1	1:AA:702:A:O2'	2.28	0.46
1:AA:882:C:O2'	1:AA:883:C:H5'	2.15	0.46
1:AA:947:G:C6	1:AA:948:C:C4	3.04	0.46
1:AA:1005:A:H5"	1:AA:1006:C:C5	2.51	0.46
1:AA:1079:G:H2'	1:AA:1080:A:C8	2.51	0.46
1:AA:1257:U:H5	3:AF:27:LYS:HD2	1.81	0.46
2:AE:16:HIS:ND1	2:AE:16:HIS:N	2.63	0.46
2:AE:234:PRO:O	2:AE:235:SER:OG	2.34	0.46
3:AF:50:ALA:CA	3:AF:72:LYS:HB2	2.46	0.46
7:AJ:59:LEU:H	7:AJ:59:LEU:CD2	2.23	0.46
12:AO:53:ARG:HH12	12:AO:92:ASP:HB3	1.80	0.46
12:AO:83:VAL:CG2	12:AO:100:ILE:HG23	2.45	0.46
18:AU:74:ARG:HA	18:AU:79:LEU:O	2.15	0.46
24:BA:455:C:N3	24:BA:473:G:H5'	2.31	0.46
24:BA:535:C:O3'	39:B1:53:ARG:NH1	2.45	0.46
24:BA:764:A:H5'	26:BD:210:GLY:CA	2.46	0.46
24:BA:1448:G:N3	24:BA:1529:A:H2	2.14	0.46
24:BA:1524:G:O2'	24:BA:1525:G:H5'	2.15	0.46
24:BA:1733:G:C2'	24:BA:1734:C:H5'	2.46	0.46
24:BA:1879:C:C2'	24:BA:1880:C:H5'	2.46	0.46
24:BA:2001:A:C5'	24:BA:2689:U:O2'	2.63	0.46
24:BA:2574:G:O2'	27:BE:143:ASN:HB3	2.16	0.46
24:BA:2751:G:N1	30:BH:3:ARG:HG3	2.31	0.46
24:BA:2791:C:O2'	24:BA:2792:G:H5'	2.16	0.46
24:BA:2850:A:H5'	24:BA:2868:A:H2	1.79	0.46
26:BD:70:TRP:HD1	26:BD:190:TYR:CD1	2.34	0.46
26:BD:142:VAL:HG23	26:BD:193:VAL:N	2.31	0.46
30:BH:6:ARG:NH2	30:BH:54:ARG:HH12	2.14	0.46
30:BH:10:PRO:O	30:BH:11:VAL:CG1	2.52	0.46
32:BM:126:PRO:HG2	32:BM:127:ASP:OD2	2.15	0.46
33:BN:3:GLN:CG	33:BN:4:PRO:HD2	2.44	0.46
34:BO:50:ARG:HD3	53:B8:7:HIS:CD2	2.50	0.46
35:BP:31:ASP:N	35:BP:106:VAL:O	2.41	0.46
35:BP:116:GLU:O	35:BP:120:ILE:HG12	2.16	0.46
38:BR:3:ARG:HA	38:BR:6:LEU:HD23	1.94	0.46
39:B1:60:LEU:HD13	39:B1:60:LEU:C	2.36	0.46
40:B2:36:PRO:O	40:B2:37:VAL:CB	2.64	0.46
40:B2:52:VAL:O	40:B2:52:VAL:HG23	2.14	0.46
44:BV:3:TYR:O	44:BV:58:VAL:N	2.37	0.46
1:CA:76:G:C2	1:CA:95:G:C2	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:553:A:O4'	12:CO:31:PRO:HA	2.16	0.46
1:CA:563:A:H2	12:CO:15:ARG:CZ	2.28	0.46
1:CA:1006:C:H2'	1:CA:1007:C:C6	2.51	0.46
1:CA:1014:A:C5	19:CV:34:TRP:CE3	3.03	0.46
1:CA:1181:G:O3'	1:CA:1184:G:H4'	2.14	0.46
2:CE:8:LYS:CE	2:CE:217:ARG:CD	2.86	0.46
2:CE:19:HIS:CE1	2:CE:205:ASP:CG	2.81	0.46
2:CE:97:TRP:CH2	2:CE:173:ALA:HA	2.51	0.46
2:CE:196:LEU:HD12	2:CE:196:LEU:C	2.36	0.46
7:CJ:40:ALA:HB1	9:CL:41:VAL:HG21	1.98	0.46
9:CL:97:LYS:N	9:CL:98:PRO:CD	2.78	0.46
15:CR:4:THR:OG1	15:CR:7:GLU:HG3	2.16	0.46
22:CC:1:C:O2'	22:CC:2:G:P	2.72	0.46
24:DA:20:C:O2'	24:DA:21:A:H5'	2.15	0.46
24:DA:94:G:N3	47:DW:47:ASN:ND2	2.63	0.46
24:DA:487:C:H1'	41:DS:53:SER:HA	1.98	0.46
24:DA:836:G:C5	24:DA:837:C:C4	3.02	0.46
24:DA:926:A:H2'	24:DA:928:G:C8	2.51	0.46
24:DA:1062:G:N2	24:DA:1077:A:C2	2.82	0.46
24:DA:1351:C:O2'	24:DA:1571:A:H1'	2.16	0.46
24:DA:1387:C:H5'	24:DA:1469:A:H4'	1.97	0.46
24:DA:1441:G:C2'	24:DA:1442:G:H5'	2.46	0.46
24:DA:1651:G:N2	24:DA:2007:C:C2	2.84	0.46
24:DA:2166:G:C2	24:DA:2171:A:N6	2.83	0.46
24:DA:2286:A:OP2	51:D6:28:ARG:CG	2.63	0.46
24:DA:2327:A:H2'	24:DA:2328:A:O4'	2.16	0.46
24:DA:2580:U:C5	24:DA:2581:G:C6	3.04	0.46
24:DA:2825:C:C2'	24:DA:2826:A:H5'	2.46	0.46
25:DB:12:C:OP2	25:DB:12:C:C6	2.63	0.46
26:DD:70:TRP:CZ2	26:DD:150:LYS:HA	2.51	0.46
27:DE:82:ARG:HD2	27:DE:83:ASP:OD1	2.16	0.46
29:DG:88:ILE:O	29:DG:88:ILE:HG23	2.16	0.46
30:DH:152:ARG:CD	30:DH:153:LYS:HG2	2.46	0.46
30:DH:164:TYR:N	30:DH:167:GLU:OE2	2.48	0.46
32:DM:97:ARG:O	32:DM:98:VAL:C	2.53	0.46
34:DO:48:PRO:CG	34:DO:49:ARG:N	2.76	0.46
36:D0:76:VAL:O	36:D0:79:LEU:HB3	2.16	0.46
37:DQ:69:VAL:HG22	37:DQ:101:LEU:CD2	2.46	0.46
38:DR:119:LYS:O	38:DR:123:GLN:HG3	2.15	0.46
39:D1:52:ARG:O	39:D1:55:ARG:N	2.48	0.46
39:D1:97:ASP:O	39:D1:101:ARG:HD3	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:D2:23:GLU:OE1	40:D2:23:GLU:HA	2.16	0.46
42:DT:11:PRO:HB3	42:DT:92:LEU:CD2	2.45	0.46
42:DT:48:LYS:N	42:DT:48:LYS:HD3	2.30	0.46
44:DV:14:LYS:HZ3	44:DV:14:LYS:CB	2.26	0.46
1:AA:196:A:P	20:AW:68:LYS:NZ	2.88	0.46
1:AA:368:U:P	31:DK:91:SER:HG	2.38	0.46
1:AA:594:G:O6	1:AA:595:G:N1	2.48	0.46
1:AA:1162:C:C2	1:AA:1175:G:C2	3.03	0.46
1:AA:1494:G:N2	24:BA:1912:A:H2	2.14	0.46
2:AE:221:LEU:O	2:AE:221:LEU:HD22	2.16	0.46
9:AL:105:ASP:HB2	9:AL:107:ARG:HD3	1.98	0.46
15:AR:73:GLU:OE1	15:AR:73:GLU:HA	2.16	0.46
18:AU:18:ARG:HB3	18:AU:19:LYS:HD2	1.98	0.46
19:AV:18:LYS:HB3	19:AV:31:ILE:HD12	1.98	0.46
20:AW:34:LYS:O	20:AW:38:LYS:HG3	2.16	0.46
20:AW:84:LEU:HD23	20:AW:84:LEU:C	2.36	0.46
22:AC:58:A:H4'	22:AC:59:A:OP1	2.16	0.46
24:BA:492:A:H2'	24:BA:493:G:O4'	2.15	0.46
24:BA:607:U:O2	24:BA:621:A:N1	2.49	0.46
24:BA:831:G:N2	34:BO:53:GLY:O	2.48	0.46
24:BA:864:G:O2'	24:BA:865:C:H5'	2.16	0.46
24:BA:880:G:H2'	24:BA:881:G:H8	1.81	0.46
24:BA:987:G:H2'	24:BA:988:A:O4'	2.16	0.46
24:BA:1077:A:H5'	24:BA:1078:U:H5'	1.96	0.46
24:BA:1349:A:N6	24:BA:1598:C:N4	2.64	0.46
24:BA:1508:A:H4'	24:BA:1509:C:C1'	2.46	0.46
24:BA:1557:C:P	24:BA:1558:A:HO2'	2.39	0.46
24:BA:1558:A:C4'	24:BA:1559:G:O5'	2.63	0.46
24:BA:1858:G:O2'	24:BA:1884:A:N6	2.49	0.46
24:BA:2355:C:H1'	45:B3:39:ARG:HH21	1.81	0.46
24:BA:2371:G:H21	51:B6:46:HIS:HE1	1.63	0.46
24:BA:2653:U:H5"	24:BA:2654:A:OP2	2.15	0.46
24:BA:2841:C:H42	24:BA:2876:G:H1	1.62	0.46
24:BA:2846:G:H2'	24:BA:2847:U:O4'	2.15	0.46
25:BB:6:C:C2	25:BB:115:G:C2	3.03	0.46
25:BB:33:G:N2	25:BB:50:G:C4	2.84	0.46
25:BB:48:A:H2'	25:BB:49:C:C6	2.51	0.46
25:BB:70:C:C2	25:BB:71:C:C6	3.04	0.46
26:BD:31:LYS:O	26:BD:35:LYS:O	2.34	0.46
28:BF:172:TRP:CD2	28:BF:173:VAL:HG23	2.51	0.46
28:BF:192:LEU:HD23	28:BF:192:LEU:C	2.35	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BG:45:GLU:H	29:BG:45:GLU:HG2	1.32	0.46
32:BM:58:ASP:OD1	32:BM:58:ASP:N	2.43	0.46
35:BP:66:ILE:CA	35:BP:104:PHE:HA	2.46	0.46
44:BV:6:LYS:HD3	44:BV:8:TYR:HE1	1.80	0.46
44:BV:108:PRO:HG2	44:BV:113:ALA:HA	1.98	0.46
49:B4:43:TYR:CE1	49:B4:44:THR:OG1	2.63	0.46
53:B8:23:VAL:HG12	53:B8:46:ARG:HD3	1.98	0.46
1:CA:437:U:C5'	4:CG:155:LEU:HD13	2.45	0.46
1:CA:644:G:C4	1:CA:645:C:C6	3.04	0.46
1:CA:652:U:C5	1:CA:752:G:N3	2.83	0.46
1:CA:739:C:O2'	15:CR:42:HIS:ND1	2.47	0.46
1:CA:791:G:C6	1:CA:792:A:N7	2.83	0.46
1:CA:972:C:O3'	10:CM:57:LYS:CG	2.64	0.46
1:CA:1298:C:C2'	1:CA:1299:A:OP2	2.64	0.46
1:CA:1362:C:O2'	1:CA:1362(A):C:H5"	2.15	0.46
2:CE:16:HIS:CD2	2:CE:209:ARG:HB2	2.51	0.46
2:CE:83:MET:SD	2:CE:234:PRO:O	2.74	0.46
2:CE:217:ARG:HA	2:CE:220:ASP:CG	2.36	0.46
3:CF:47:LEU:HG	3:CF:52:LEU:HD13	1.97	0.46
3:CF:120:VAL:HA	3:CF:123:GLN:HE21	1.80	0.46
3:CF:131:ARG:HG2	3:CF:135:LYS:HE3	1.97	0.46
8:CK:20:TYR:HD1	8:CK:65:TYR:CE2	2.32	0.46
10:CM:13:HIS:CD2	10:CM:14:LYS:HG3	2.50	0.46
10:CM:28:ARG:CZ	10:CM:34:VAL:H	2.28	0.46
11:CN:29:ILE:HG22	11:CN:44:SER:HB2	1.97	0.46
12:CO:17:LYS:HD3	12:CO:17:LYS:HA	1.74	0.46
13:CP:19:LEU:HD13	13:CP:30:ALA:HB2	1.98	0.46
16:CS:76:GLN:HG2	16:CS:76:GLN:O	2.16	0.46
19:CV:12:ASP:O	19:CV:16:LEU:HD13	2.16	0.46
20:CW:76:ALA:O	20:CW:80:ARG:HB2	2.15	0.46
22:CC:40:C:C2	22:CC:41:C:C5	3.04	0.46
24:DA:93:C:H5'	24:DA:94:G:OP2	2.16	0.46
24:DA:191:A:H2'	24:DA:192:C:H6	1.79	0.46
24:DA:548:A:C6	24:DA:549:G:H1'	2.50	0.46
24:DA:553:U:O2'	24:DA:554:U:H5'	2.15	0.46
24:DA:574:C:H1'	24:DA:2055:C:C6	2.51	0.46
24:DA:577:G:C6	24:DA:578:A:N6	2.84	0.46
24:DA:651:G:N3	24:DA:651:G:H2'	2.30	0.46
24:DA:856:C:HO2'	24:DA:857:C:P	2.39	0.46
24:DA:1299:G:H3'	24:DA:1639:U:O4	2.15	0.46
26:DD:242:ARG:CD	26:DD:242:ARG:H	2.28	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DH:6:ARG:NH2	30:DH:63:SER:HA	2.29	0.46
31:DK:144:VAL:CG1	31:DK:145:VAL:N	2.79	0.46
34:DO:96:THR:O	34:DO:99:LEU:HB3	2.15	0.46
35:DP:54:MET:CE	35:DP:118:LEU:HD23	2.46	0.46
39:D1:117:GLN:HB3	39:D1:118:GLY:H	1.55	0.46
40:D2:84:LYS:HG3	40:D2:85:LYS:HG2	1.96	0.46
42:DT:60:ARG:HH11	42:DT:60:ARG:HG2	1.81	0.46
42:DT:63:LYS:HD2	42:DT:63:LYS:C	2.33	0.46
46:DZ:78:LYS:O	46:DZ:78:LYS:CD	2.63	0.46
49:D4:14:ILE:HD12	49:D4:24:THR:HG22	1.98	0.46
49:D4:37:SER:OG	49:D4:38:LYS:N	2.47	0.46
1:AA:264:U:H2'	1:AA:265:G:H5'	1.98	0.46
1:AA:277:C:H5'	17:AT:68:ARG:NH1	2.31	0.46
1:AA:484:G:C2'	1:AA:485:G:OP2	2.63	0.46
1:AA:516:U:C4	1:AA:517:G:C6	3.04	0.46
1:AA:609:A:OP1	16:AS:18:ARG:NH2	2.46	0.46
1:AA:721:G:C6	1:AA:733:A:C2	3.03	0.46
1:AA:987:G:N2	1:AA:1219:U:N3	2.63	0.46
1:AA:1091:U:O2	1:AA:1093:A:C8	2.68	0.46
1:AA:1108:G:H5'	3:AF:176:HIS:CD2	2.51	0.46
1:AA:1381:U:C1'	7:AJ:79:ARG:NE	2.79	0.46
3:AF:155:GLY:HA3	3:AF:196:LEU:HB3	1.98	0.46
4:AG:196:LEU:CD1	4:AG:197:PRO:HD2	2.45	0.46
5:AH:89:ILE:HD12	5:AH:90:VAL:N	2.29	0.46
7:AJ:140:ASP:HA	7:AJ:143:ARG:NH1	2.31	0.46
8:AK:109:ILE:HD11	8:AK:120:THR:OG1	2.16	0.46
15:AR:11:VAL:O	15:AR:15:PHE:HD1	1.99	0.46
20:AW:58:LYS:O	20:AW:59:ALA:C	2.53	0.46
24:BA:225:A:H2'	24:BA:226:G:H5'	1.98	0.46
24:BA:769:G:C2'	24:BA:770:G:H5'	2.45	0.46
24:BA:880:G:H2'	24:BA:881:G:O5'	2.16	0.46
24:BA:1357:U:C4	24:BA:1358:G:C5	3.04	0.46
24:BA:1649:G:C6	24:BA:2009:G:C6	3.04	0.46
24:BA:1930:G:N2	24:BA:1968:G:H2'	2.31	0.46
24:BA:2682:U:C5	27:BE:11:MET:CE	2.98	0.46
24:BA:2863:C:H2'	24:BA:2864:G:C8	2.50	0.46
25:BB:59:A:C4	25:BB:60:C:C6	3.04	0.46
26:BD:226:MET:HB3	26:BD:230:ASP:HB2	1.97	0.46
27:BE:105:THR:OG1	27:BE:199:ARG:NH2	2.35	0.46
29:BG:124:SER:HB2	29:BG:131:TYR:CE1	2.50	0.46
30:BH:152:ARG:HG2	30:BH:153:LYS:N	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BK:21:VAL:HG22	31:BK:22:LYS:N	2.31	0.46
31:BK:101:LEU:HD23	31:BK:101:LEU:O	2.16	0.46
39:B1:92:ARG:HD3	39:B1:94:ASN:HB3	1.96	0.46
44:BV:126:VAL:HA	44:BV:164:ALA:HB2	1.98	0.46
53:B8:43:GLN:C	53:B8:44:LYS:HD2	2.36	0.46
1:CA:62:U:H1'	1:CA:379:C:H1'	1.96	0.46
1:CA:255:G:OP1	17:CT:69:LYS:NZ	2.25	0.46
1:CA:353:A:C2'	1:CA:354:G:OP2	2.64	0.46
1:CA:664:G:P	18:CU:64:ARG:HH21	2.38	0.46
1:CA:955:U:H3	1:CA:1225:A:H61	1.62	0.46
1:CA:1077:G:N1	1:CA:1081:G:C6	2.83	0.46
1:CA:1316:G:H5"	14:CQ:17:LYS:HE3	1.98	0.46
4:CG:53:ASP:HB3	4:CG:57:ARG:HH12	1.81	0.46
4:CG:128:VAL:HG12	4:CG:129:ASN:OD1	2.16	0.46
4:CG:190:ASP:O	4:CG:194:LEU:CD2	2.64	0.46
6:CI:12:PRO:CB	6:CI:57:GLN:HG3	2.46	0.46
6:CI:12:PRO:HG2	6:CI:13:ASN:ND2	2.31	0.46
9:CL:42:ARG:HH12	9:CL:71:SER:CA	2.25	0.46
11:CN:51:LYS:HB3	11:CN:51:LYS:HE2	1.80	0.46
17:CT:96:GLU:O	17:CT:101:ARG:NH2	2.48	0.46
22:CC:37:A:H2'	22:CC:38:A:O4'	2.16	0.46
24:DA:93:C:H5'	43:DU:54:LYS:HZ2	1.79	0.46
24:DA:270(E):G:C5	24:DA:270(F):U:C5	3.04	0.46
24:DA:270(S):G:H5"	46:DZ:94:LEU:HD21	1.97	0.46
24:DA:296:C:O2'	24:DA:297:C:H5'	2.15	0.46
24:DA:535:C:O3'	39:D1:53:ARG:NH1	2.49	0.46
24:DA:957:A:N1	24:DA:2458:G:H4'	2.30	0.46
24:DA:1008:C:N4	24:DA:1136:G:N1	2.64	0.46
24:DA:1062:G:H5"	24:DA:1063:G:OP2	2.16	0.46
24:DA:1161:C:H2'	24:DA:1162:G:H8	1.81	0.46
24:DA:1385:G:O2'	24:DA:1396:U:C6	2.68	0.46
24:DA:2118:U:O4	24:DA:2148:G:H1'	2.15	0.46
24:DA:2128:C:H1'	24:DA:2173:A:H61	1.81	0.46
24:DA:2314:C:O2'	24:DA:2315:G:H5'	2.15	0.46
24:DA:2612:C:C5	24:DA:2613:U:C5	3.03	0.46
24:DA:2884:U:C2	50:D5:51:TYR:HE1	2.34	0.46
25:DB:15:A:O2'	25:DB:109:G:C8	2.57	0.46
26:DD:70:TRP:HZ3	26:DD:146:GLU:CD	2.19	0.46
28:DF:7:TYR:HD1	28:DF:18:ARG:HB2	1.79	0.46
34:DO:16:ARG:HA	34:DO:16:ARG:NE	2.31	0.46
37:DQ:35:ILE:HG23	37:DQ:35:ILE:O	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:D1:34:LYS:CE	39:D1:34:LYS:CA	2.93	0.46
39:D1:91:ASP:OD1	39:D1:96:ALA:CA	2.63	0.46
40:D2:48:GLY:C	40:D2:49:THR:O	2.55	0.46
42:DT:30:VAL:CG1	42:DT:31:HIS:H	2.28	0.46
46:DZ:13:ILE:HD11	46:DZ:42:GLN:OE1	2.16	0.46
47:DW:13:ALA:HA	47:DW:16:LEU:CD2	2.45	0.46
51:D6:37:ARG:NH2	51:D6:38:LYS:CG	2.75	0.46
1:AA:78:G:C8	1:AA:79:G:C8	3.04	0.46
1:AA:457:C:H2'	1:AA:458:C:C6	2.50	0.46
1:AA:530:G:H3'	1:AA:531:U:H5"	1.97	0.46
1:AA:553:A:H2'	1:AA:554:C:C6	2.51	0.46
1:AA:580:U:H5"	15:AR:58:MET:HG2	1.97	0.46
1:AA:619:U:N3	4:AG:134:ASP:OD1	2.48	0.46
1:AA:655:A:C2	1:AA:754:C:N4	2.83	0.46
1:AA:678:U:H2'	1:AA:679:C:C6	2.51	0.46
1:AA:1174:G:O2'	1:AA:1175:G:H5'	2.16	0.46
1:AA:1216:G:O3'	14:AQ:5:ALA:CB	2.64	0.46
1:AA:1338:G:C6	1:AA:1339:A:C6	3.04	0.46
1:AA:1489:G:H2'	1:AA:1490:C:O4'	2.16	0.46
5:AH:11:ILE:HG21	5:AH:108:ALA:CB	2.46	0.46
5:AH:138:ALA:O	5:AH:142:LEU:CD1	2.63	0.46
6:AI:8:ILE:HG22	6:AI:10:LEU:HD12	1.98	0.46
8:AK:9:MET:SD	8:AK:32:LYS:CG	3.04	0.46
9:AL:10:ARG:CA	9:AL:104:ARG:HE	2.26	0.46
9:AL:93:ARG:NE	9:AL:102:LEU:CD1	2.78	0.46
12:AO:46:LYS:HG2	12:AO:47:LYS:HG2	1.96	0.46
22:AC:1:C:O2	22:AC:1:C:C3'	2.62	0.46
24:BA:355:G:O2'	24:BA:356:G:H5'	2.16	0.46
24:BA:363(F):A:H4'	24:BA:364:C:H5'	1.97	0.46
24:BA:588:U:H1'	28:BF:90:PHE:CG	2.51	0.46
24:BA:817:C:H4'	24:BA:932:G:C6	2.51	0.46
24:BA:840:C:H42	24:BA:938:G:H1	1.63	0.46
24:BA:1106:G:H2'	24:BA:1107:G:C8	2.51	0.46
24:BA:1141:U:OP2	32:BM:63:THR:HG23	2.16	0.46
24:BA:1288:U:C2	24:BA:1327:C:C2	3.03	0.46
24:BA:1478:G:HO2'	24:BA:1558:A:H2	1.64	0.46
24:BA:1479:G:O2'	24:BA:1558:A:H5'	2.16	0.46
24:BA:1728:G:C6	24:BA:1730:U:H5'	2.50	0.46
24:BA:2100:G:C6	24:BA:2190:G:C6	3.03	0.46
24:BA:2197:U:C6	24:BA:2224:G:C6	3.04	0.46
24:BA:2211:G:C4'	24:BA:2212:A:OP2	2.55	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2319:G:H4'	24:BA:2320:A:OP1	2.15	0.46
24:BA:2788:C:H5"	24:BA:2789:C:OP2	2.15	0.46
25:BB:55:U:H2'	25:BB:56:G:O4'	2.15	0.46
26:BD:35:LYS:HB3	26:BD:36:PRO:HA	1.98	0.46
28:BF:174:VAL:CG1	28:BF:189:THR:HG21	2.46	0.46
28:BF:201:VAL:HG13	28:BF:202:PHE:H	1.79	0.46
29:BG:117:PHE:CE1	29:BG:119:GLY:CA	2.99	0.46
30:BH:8:PRO:HG2	30:BH:69:ARG:NE	2.31	0.46
30:BH:97:ARG:N	30:BH:104:GLU:O	2.47	0.46
39:B1:92:ARG:C	39:B1:94:ASN:N	2.69	0.46
1:CA:282:A:C6	1:CA:283:C:C2	3.04	0.46
1:CA:542:G:H2'	1:CA:543:C:H6	1.81	0.46
1:CA:659:U:N3	1:CA:660:G:N7	2.64	0.46
1:CA:1186:G:H4'	9:CL:110:GLU:OE2	2.15	0.46
1:CA:1366:C:O2'	10:CM:60:ARG:CZ	2.64	0.46
1:CA:1366:C:HO2'	10:CM:60:ARG:HH12	1.62	0.46
2:CE:8:LYS:CE	2:CE:11:LEU:HD23	2.42	0.46
2:CE:8:LYS:HG2	2:CE:9:GLU:H	1.80	0.46
5:CH:36:ASP:OD2	5:CH:40:ARG:HB2	2.16	0.46
8:CK:114:THR:CG2	8:CK:117:GLY:O	2.64	0.46
9:CL:19:LEU:O	9:CL:20:ARG:HG3	2.15	0.46
12:CO:101:VAL:HG12	12:CO:104:VAL:HG23	1.98	0.46
15:CR:70:LEU:CD2	15:CR:78:TYR:HA	2.44	0.46
16:CS:57:ARG:HH21	16:CS:79:VAL:HA	1.81	0.46
18:CU:27:GLY:O	18:CU:29:PHE:CD1	2.67	0.46
19:CV:49:ILE:HD11	19:CV:51:VAL:CG2	2.40	0.46
22:CC:75:C:H3'	22:CC:76:A:H5'	1.86	0.46
24:DA:215:G:O3'	24:DA:216:A:H4'	2.16	0.46
24:DA:243:U:C5	24:DA:254:G:N2	2.84	0.46
24:DA:273(A):G:C2	24:DA:364:C:N3	2.84	0.46
24:DA:329:G:O6	43:DU:19:LYS:HG2	2.16	0.46
24:DA:383:U:H2'	24:DA:385:C:H5	1.80	0.46
24:DA:705:A:H2'	24:DA:706:A:O4'	2.16	0.46
24:DA:819:A:C4	24:DA:1189:A:C2	3.04	0.46
24:DA:1344:G:H4'	24:DA:1384:A:C5	2.51	0.46
24:DA:1411:C:O2'	24:DA:1412:A:H5'	2.16	0.46
24:DA:2001:A:H2'	24:DA:2002:G:C8	2.50	0.46
24:DA:2327:A:H2'	24:DA:2328:A:C8	2.51	0.46
24:DA:2376:A:N1	37:DQ:87:PHE:HD2	2.14	0.46
24:DA:2565:A:C5'	24:DA:2566:A:OP2	2.63	0.46
27:DE:37:ARG:O	27:DE:45:THR:HA	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DE:48:GLN:O	27:DE:49:LEU:HD12	2.15	0.46
28:DF:181:LEU:HD22	28:DF:186:ILE:HD11	1.98	0.46
29:DG:171:ALA:O	29:DG:175:LEU:N	2.37	0.46
30:DH:46:GLU:HB3	30:DH:49:VAL:CG2	2.43	0.46
31:DK:25:TYR:O	31:DK:29:TYR:HB3	2.15	0.46
34:DO:48:PRO:C	34:DO:50:ARG:N	2.69	0.46
34:DO:135:LEU:O	34:DO:139:LYS:HG3	2.16	0.46
40:D2:37:VAL:CG2	40:D2:57:VAL:HG12	2.46	0.46
41:DS:9:TYR:HA	41:DS:100:THR:CG2	2.46	0.46
44:DV:19:ARG:NH1	44:DV:84:GLU:HB2	2.31	0.46
44:DV:29:TYR:CE1	44:DV:87:ASP:HB3	2.50	0.46
44:DV:175:VAL:O	44:DV:177:PRO:CD	2.64	0.46
46:DZ:5:CYS:CB	46:DZ:8:SER:HG	2.29	0.46
51:D6:15:GLU:OE1	51:D6:18:ARG:HD2	2.16	0.46
1:AA:310:G:OP2	16:AS:27:LYS:NZ	2.41	0.45
1:AA:344:A:H5"	1:AA:345:C:OP2	2.15	0.45
1:AA:497:U:O2	1:AA:497:U:H2'	2.15	0.45
1:AA:581:G:N2	1:AA:760:G:N7	2.64	0.45
1:AA:1004:A:H8	1:AA:1036:G:H1	1.62	0.45
1:AA:1137:C:O2	1:AA:1138:G:N1	2.49	0.45
1:AA:1442:G:N7	1:AA:1446:A:C6	2.84	0.45
2:AE:8:LYS:HZ2	2:AE:217:ARG:NH2	2.10	0.45
6:AI:30:LEU:O	6:AI:35:ALA:N	2.42	0.45
6:AI:97:PHE:O	18:AU:31:LEU:HD12	2.17	0.45
8:AK:102:ARG:O	8:AK:102:ARG:CG	2.58	0.45
19:AV:40:ILE:HG21	19:AV:66:MET:O	2.16	0.45
24:BA:736:C:C2'	24:BA:737:C:H5'	2.46	0.45
24:BA:778:G:C5	24:BA:779:U:C4	3.04	0.45
24:BA:1000:A:H62	24:BA:1154:G:H2'	1.81	0.45
24:BA:1068:G:H4'	24:BA:1070:A:H61	1.81	0.45
24:BA:1084:A:H3'	24:BA:1084:A:N3	2.31	0.45
24:BA:1281:G:C5	24:BA:1282:U:C5	3.04	0.45
24:BA:1773:A:N7	24:BA:1829:A:H1'	2.31	0.45
24:BA:1955:U:O2'	24:BA:2552:U:H4'	2.15	0.45
24:BA:2077:A:H1'	24:BA:2435:A:O4'	2.16	0.45
24:BA:2209:C:C2	24:BA:2216:G:N1	2.84	0.45
24:BA:2636:U:H2'	24:BA:2637:U:C6	2.51	0.45
24:BA:2888:C:O2'	24:BA:2889:C:H5'	2.16	0.45
27:BE:28:ALA:HB3	27:BE:93:VAL:HG12	1.98	0.45
27:BE:52:LEU:HB2	27:BE:75:VAL:CG2	2.46	0.45
27:BE:72:VAL:O	27:BE:74:PRO:CD	2.61	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BG:161:THR:HG22	29:BG:162:THR:N	2.31	0.45
30:BH:2:SER:C	30:BH:3:ARG:NE	2.70	0.45
30:BH:46:GLU:OE2	30:BH:51:ARG:HD2	2.15	0.45
31:BK:3:VAL:HG12	31:BK:38:LEU:HA	1.97	0.45
31:BK:104:GLN:O	31:BK:105:HIS:CB	2.63	0.45
32:BM:137:LYS:CG	32:BM:138:LEU:H	2.29	0.45
35:BP:104:PHE:O	35:BP:105:GLU:HG2	2.16	0.45
36:B0:1:MET:O	36:B0:2:ARG:CB	2.63	0.45
36:B0:92:GLY:N	36:B0:94:TYR:CE1	2.84	0.45
37:BQ:37:ALA:HB3	37:BQ:73:LEU:HD12	1.98	0.45
38:BR:53:ARG:O	38:BR:59:THR:CG2	2.64	0.45
38:BR:128:GLU:O	38:BR:132:LYS:N	2.42	0.45
40:B2:22:VAL:CG1	40:B2:23:GLU:N	2.78	0.45
43:BU:50:ARG:O	43:BU:53:PRO:HD2	2.16	0.45
50:B5:51:TYR:O	50:B5:56:LYS:HB3	2.16	0.45
51:B6:43:CYS:HB3	51:B6:44:ARG:HD3	1.97	0.45
1:CA:102:G:H2'	1:CA:103:C:H6	1.81	0.45
1:CA:324:G:N2	1:CA:327:A:C8	2.84	0.45
1:CA:523:A:H61	12:CO:53:ARG:NH1	2.14	0.45
1:CA:530:G:H3'	1:CA:531:U:H5"	1.95	0.45
1:CA:896:C:O2'	1:CA:897:C:H5'	2.15	0.45
1:CA:973:G:C4	1:CA:974:A:C2	3.03	0.45
1:CA:982:U:O2	1:CA:1222:G:N1	2.42	0.45
1:CA:1101:A:H4'	1:CA:1102:A:O5'	2.16	0.45
1:CA:1432:G:H8	1:CA:1432:G:O5'	1.99	0.45
2:CE:41:ILE:HD12	2:CE:41:ILE:N	2.31	0.45
2:CE:74:LYS:NZ	2:CE:205:ASP:O	2.44	0.45
2:CE:95:GLN:CG	2:CE:147:LYS:HZ2	2.28	0.45
2:CE:140:HIS:O	2:CE:140:HIS:ND1	2.37	0.45
3:CF:175:LEU:HD21	3:CF:201:TYR:CE2	2.51	0.45
4:CG:8:VAL:HG11	4:CG:21:LEU:HB2	1.97	0.45
7:CJ:47:CYS:SG	7:CJ:58:PRO:HB2	2.56	0.45
8:CK:12:ARG:NH1	8:CK:27:PRO:HD3	2.30	0.45
8:CK:17:THR:HG22	8:CK:63:LEU:HD12	1.98	0.45
9:CL:18:PHE:N	9:CL:62:TYR:O	2.44	0.45
20:CW:89:ARG:O	20:CW:90:GLN:C	2.54	0.45
24:DA:252:G:OP2	34:DO:50:ARG:NH2	2.49	0.45
24:DA:399:G:H2'	24:DA:400:G:O4'	2.15	0.45
24:DA:464:U:C4'	52:D7:5:TRP:CZ3	2.98	0.45
24:DA:516:C:O2'	24:DA:517:C:H5'	2.16	0.45
24:DA:564:C:C2'	24:DA:565:C:H5'	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:566:U:H5"	34:DO:29:LYS:HE3	1.97	0.45
24:DA:870:A:C2	24:DA:907:U:N3	2.83	0.45
24:DA:1003:G:N3	24:DA:1010:A:C2	2.84	0.45
24:DA:1507:A:H5"	24:DA:1508:A:OP2	2.17	0.45
24:DA:1712:C:H2'	24:DA:1716:U:H6	1.81	0.45
24:DA:1918:A:O2'	24:DA:1920:C:N4	2.49	0.45
24:DA:2134:A:N6	24:DA:2157:G:H2'	2.31	0.45
24:DA:2191:G:C4	24:DA:2192:G:C8	3.04	0.45
24:DA:2665:A:O2'	24:DA:2666:C:H5'	2.16	0.45
24:DA:2728:U:O2'	24:DA:2729:G:H5'	2.16	0.45
24:DA:2808:U:C2'	24:DA:2809:A:C5'	2.90	0.45
27:DE:25:VAL:CG1	27:DE:26:ILE:N	2.79	0.45
27:DE:55:ASN:ND2	27:DE:72:VAL:HG12	2.12	0.45
28:DF:4:VAL:O	28:DF:4:VAL:HG12	2.16	0.45
29:DG:22:ARG:NH2	29:DG:171:ALA:CB	2.78	0.45
30:DH:41:MET:CE	30:DH:55:PRO:HD2	2.46	0.45
32:DM:91:LEU:CA	32:DM:95:PRO:HB3	2.37	0.45
34:DO:48:PRO:HG2	34:DO:49:ARG:N	2.23	0.45
34:DO:127:ALA:O	34:DO:147:LEU:N	2.48	0.45
39:D1:24:TYR:HE2	39:D1:39:LEU:CD2	2.27	0.45
39:D1:76:TYR:O	39:D1:80:ILE:HG12	2.15	0.45
39:D1:95:LEU:C	39:D1:97:ASP:H	2.17	0.45
40:D2:5:VAL:CG1	40:D2:57:VAL:HG11	2.47	0.45
44:DV:121:HIS:ND1	44:DV:169:GLU:HG2	2.30	0.45
51:D6:51:GLU:O	51:D6:52:VAL:CG2	2.63	0.45
1:AA:266:G:C5'	1:AA:268:C:H41	2.28	0.45
1:AA:949:A:C4	1:AA:1233:G:N2	2.84	0.45
1:AA:1073:U:H2'	1:AA:1074:G:H8	1.80	0.45
1:AA:1079:G:C6	1:AA:1080:A:N6	2.85	0.45
1:AA:1288:A:H2'	1:AA:1289:A:O4'	2.16	0.45
1:AA:1325:C:H2'	1:AA:1326:C:H6	1.81	0.45
2:AE:224:GLN:HG2	2:AE:224:GLN:O	2.16	0.45
4:AG:20:TYR:HA	4:AG:26:CYS:HB3	1.98	0.45
5:AH:6:PHE:HB2	5:AH:63:ARG:HH12	1.82	0.45
5:AH:88:LYS:HB3	5:AH:123:LEU:HB2	1.99	0.45
7:AJ:107:ALA:CB	7:AJ:134:ALA:HB2	2.44	0.45
9:AL:79:LEU:CD2	9:AL:83:ARG:CG	2.93	0.45
12:AO:39:VAL:HG23	12:AO:39:VAL:O	2.16	0.45
13:AP:67:GLU:O	13:AP:68:GLY:C	2.55	0.45
13:AP:81:LEU:HA	13:AP:84:ILE:CG2	2.47	0.45
16:AS:7:ALA:O	16:AS:9:PHE:CD1	2.68	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AT:15:MET:CB	17:AT:18:THR:HB	2.46	0.45
20:AW:90:GLN:O	20:AW:93:GLU:HB3	2.16	0.45
24:BA:224:G:N7	24:BA:420:C:H4'	2.31	0.45
24:BA:810:U:H6	24:BA:810:U:O5'	1.99	0.45
24:BA:860:U:O2	24:BA:860:U:O4'	2.35	0.45
24:BA:956:G:O2'	35:BP:83:MET:CE	2.65	0.45
24:BA:1204:A:C2	24:BA:1206:G:C2	3.05	0.45
24:BA:1558:A:H4'	24:BA:1559:G:O5'	2.15	0.45
24:BA:1826:G:H4'	26:BD:242:ARG:NH2	2.31	0.45
24:BA:1949:G:C2'	24:BA:1950:G:H5'	2.46	0.45
24:BA:2099:U:H2'	24:BA:2100:G:H8	1.81	0.45
24:BA:2339:G:C2	24:BA:2340:G:C4	3.04	0.45
24:BA:2674:G:H5'	33:BN:26:LYS:HD3	1.98	0.45
26:BD:183:ARG:HH11	26:BD:183:ARG:CG	2.28	0.45
26:BD:221:VAL:HG22	26:BD:226:MET:CE	2.46	0.45
27:BE:102:VAL:HB	27:BE:199:ARG:O	2.16	0.45
27:BE:179:GLU:N	27:BE:179:GLU:OE1	2.49	0.45
29:BG:7:LEU:HB2	29:BG:104:GLU:CD	2.36	0.45
29:BG:112:PRO:HB3	49:B4:37:SER:CA	2.43	0.45
29:BG:112:PRO:HA	49:B4:37:SER:HB2	1.88	0.45
30:BH:86:GLU:HG2	30:BH:87:LEU:N	2.31	0.45
30:BH:149:ARG:C	30:BH:151:ILE:H	2.19	0.45
30:BH:151:ILE:O	30:BH:153:LYS:CD	2.65	0.45
31:BK:10:GLU:O	31:BK:11:ASN:HB3	2.16	0.45
31:BK:24:GLY:O	31:BK:28:ASN:HB2	2.15	0.45
31:BK:82:ARG:O	31:BK:89:TYR:HD2	1.99	0.45
32:BM:17:ASP:O	32:BM:18:ALA:CB	2.64	0.45
34:BO:85:LEU:O	34:BO:88:LEU:HD23	2.15	0.45
34:BO:114:ILE:CD1	34:BO:130:PHE:CD2	2.93	0.45
34:BO:130:PHE:CZ	34:BO:144:GLU:HB2	2.51	0.45
37:BQ:67:ARG:HG2	37:BQ:71:ARG:CZ	2.46	0.45
1:CA:390:C:O3'	16:CS:28:ARG:NH2	2.49	0.45
1:CA:890:G:O2'	1:CA:891:U:OP2	2.33	0.45
1:CA:935:A:H2'	1:CA:936:C:C6	2.51	0.45
1:CA:944:G:C2	1:CA:1340:A:C6	3.04	0.45
1:CA:988:G:C6	1:CA:989:C:C4	3.04	0.45
1:CA:1014:A:H8	1:CA:1014:A:OP1	1.99	0.45
1:CA:1118:C:H5'	9:CL:104:ARG:HE	0.48	0.45
1:CA:1200:C:H5'	1:CA:1201:A:H5'	1.97	0.45
2:CE:5:ILE:CD1	2:CE:55:PHE:HB3	2.43	0.45
2:CE:128:GLU:HG3	2:CE:129:GLU:N	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CH:34:VAL:CA	5:CH:112:LEU:HD23	2.47	0.45
9:CL:102:LEU:H	9:CL:102:LEU:CD1	2.25	0.45
10:CM:45:ARG:NH1	10:CM:45:ARG:CG	2.78	0.45
10:CM:56:HIS:O	10:CM:58:ASP:O	2.34	0.45
13:CP:79:LYS:HE3	13:CP:83:ASP:CG	2.36	0.45
15:CR:15:PHE:HZ	15:CR:84:LYS:HG2	1.82	0.45
16:CS:21:VAL:HG13	16:CS:33:ILE:HB	1.97	0.45
24:DA:35:G:C4	24:DA:454:A:C2	3.04	0.45
24:DA:66:C:H2'	24:DA:67:U:H6	1.80	0.45
24:DA:565:C:H4'	24:DA:1253:A:N6	2.31	0.45
24:DA:992:C:O2'	40:D2:87:HIS:CD2	2.69	0.45
24:DA:1048:A:C5	24:DA:1111:A:H2	2.35	0.45
24:DA:1114:G:H2'	24:DA:1115:G:C8	2.51	0.45
24:DA:1246:A:P	34:DO:15:ARG:CZ	3.04	0.45
24:DA:1299:G:H5"	24:DA:1300:U:P	2.56	0.45
24:DA:1465:G:H4'	24:DA:1528:A:H1'	1.99	0.45
24:DA:1660:C:O2'	24:DA:1661:G:H5'	2.16	0.45
24:DA:2502:G:C5'	24:DA:2503:A:C5'	2.94	0.45
24:DA:2579:C:O4'	27:DE:134:ILE:HD13	2.16	0.45
24:DA:2727:G:O3'	33:DN:70:LYS:HE2	2.16	0.45
25:DB:3:C:H2'	25:DB:4:C:H6	1.81	0.45
26:DD:242:ARG:N	26:DD:242:ARG:HD2	2.31	0.45
28:DF:57:VAL:HG11	28:DF:59:TYR:HD2	1.81	0.45
34:DO:75:ILE:H	34:DO:75:ILE:CD1	2.29	0.45
42:DT:31:HIS:ND1	42:DT:32:PRO:HD2	2.31	0.45
45:D3:37:LEU:HD11	45:D3:61:ALA:N	2.31	0.45
45:D3:46:LYS:O	45:D3:78:TYR:HA	2.17	0.45
45:D3:71:ASP:OD1	45:D3:72:ARG:N	2.49	0.45
1:AA:173:U:H5"	1:AA:197:A:O4'	2.16	0.45
1:AA:406:G:H21	4:AG:119:GLN:CD	2.20	0.45
1:AA:411:A:C5	1:AA:429:U:C5	3.04	0.45
1:AA:781:A:H4'	1:AA:1522:U:O2'	2.16	0.45
1:AA:828:A:OP1	8:AK:21:LYS:NZ	2.36	0.45
1:AA:1112:C:H1'	3:AF:179:ARG:NH1	2.31	0.45
1:AA:1221:G:H2'	1:AA:1222:G:H5'	1.98	0.45
1:AA:1286:A:O3'	21:AX:26:LYS:CE	2.65	0.45
2:AE:125:PRO:O	2:AE:127:ILE:N	2.49	0.45
3:AF:50:ALA:CB	3:AF:70:VAL:HG11	2.46	0.45
3:AF:79:ARG:HB2	3:AF:82:GLU:CB	2.35	0.45
5:AH:67:VAL:CG2	5:AH:69:VAL:HG23	2.43	0.45
11:AN:113:PRO:O	11:AN:114:VAL:HB	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AT:88:TYR:CD1	17:AT:88:TYR:C	2.90	0.45
20:AW:9:ASN:HD22	20:AW:13:LEU:HD23	1.81	0.45
24:BA:211:A:C2'	24:BA:212:G:H5'	2.46	0.45
24:BA:873:G:H1	24:BA:904:C:H42	1.63	0.45
24:BA:886:C:H2'	24:BA:887:A:H4'	1.97	0.45
24:BA:1270:C:H5"	24:BA:1271:G:C5'	2.47	0.45
24:BA:1543:A:H8	24:BA:1545:A:OP2	1.99	0.45
24:BA:1601:G:P	52:B7:49:ARG:HH22	2.33	0.45
24:BA:2163:C:H5"	24:BA:2171:A:C8	2.48	0.45
24:BA:2886:G:N2	24:BA:2887:U:C2	2.84	0.45
27:BE:105:THR:HG21	27:BE:164:ARG:CZ	2.46	0.45
29:BG:77:ILE:HG23	29:BG:80:PHE:CD1	2.52	0.45
29:BG:139:LEU:CD2	29:BG:149:VAL:HG11	2.47	0.45
30:BH:105:LEU:O	30:BH:105:LEU:HD23	2.17	0.45
31:BK:26:ALA:HB1	31:BK:31:LEU:HD13	1.98	0.45
31:BK:140:LEU:CD2	31:BK:140:LEU:N	2.79	0.45
37:BQ:70:GLY:HA2	37:BQ:101:LEU:HD12	1.97	0.45
38:BR:37:GLY:C	38:BR:39:ARG:H	2.16	0.45
48:BX:31:LEU:C	48:BX:33:GLN:H	2.20	0.45
51:B6:36:LEU:HD12	51:B6:48:VAL:CG1	2.46	0.45
1:CA:160:A:H2'	1:CA:161:A:O4'	2.16	0.45
1:CA:430:A:C2	1:CA:431:A:H1'	2.51	0.45
1:CA:457:C:C2	1:CA:458:C:C5	3.05	0.45
1:CA:515:G:C5	1:CA:516:U:C4	3.04	0.45
1:CA:538:G:H5"	12:CO:114:LYS:HB2	1.97	0.45
1:CA:560:U:O2'	1:CA:561:U:P	2.73	0.45
1:CA:930:C:O2'	1:CA:931:C:H5'	2.15	0.45
1:CA:1105:A:C2	1:CA:1106:G:C5	3.03	0.45
3:CF:41:GLY:O	3:CF:45:LYS:HB2	2.16	0.45
3:CF:134:ILE:HG21	3:CF:168:ALA:HB3	1.98	0.45
4:CG:58:LEU:HD23	4:CG:58:LEU:C	2.37	0.45
5:CH:41:VAL:O	5:CH:67:VAL:CG1	2.63	0.45
9:CL:18:PHE:HB2	9:CL:62:TYR:O	2.16	0.45
9:CL:32:ASP:O	9:CL:36:TYR:N	2.48	0.45
12:CO:62:SER:O	12:CO:64:TYR:N	2.50	0.45
13:CP:22:ILE:CB	13:CP:25:ILE:HG13	2.42	0.45
14:CQ:24:CYS:SG	14:CQ:39:LEU:HA	2.56	0.45
18:CU:18:ARG:O	18:CU:19:LYS:HB2	2.16	0.45
20:CW:61:SER:O	20:CW:65:LYS:HG2	2.15	0.45
20:CW:74:LYS:C	20:CW:76:ALA:H	2.19	0.45
24:DA:118:A:OP2	24:DA:119:A:H5"	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:273(E):U:C2'	24:DA:273(F):C:H5'	2.47	0.45
24:DA:514:A:H1'	24:DA:581:C:O2'	2.16	0.45
24:DA:638:G:H2'	24:DA:639:U:H6	1.81	0.45
24:DA:895:U:OP2	44:DV:146:ILE:HG12	2.16	0.45
24:DA:1259:G:O2'	24:DA:1260:G:H5'	2.15	0.45
24:DA:1491:G:H5'	26:DD:99:ASP:OD1	2.16	0.45
24:DA:1678:G:N2	24:DA:1989:G:N2	2.64	0.45
24:DA:1697:G:OP2	24:DA:1698:A:O2'	2.19	0.45
24:DA:1793:C:O2	24:DA:1900:A:H2	1.99	0.45
24:DA:1869:G:N1	24:DA:1872:A:OP2	2.44	0.45
24:DA:2101:G:H2'	24:DA:2102:U:C6	2.51	0.45
24:DA:2162:G:H2'	24:DA:2163:C:C6	2.51	0.45
24:DA:2182:G:H2'	24:DA:2183:C:C6	2.52	0.45
24:DA:2612:C:H2'	24:DA:2613:U:H5'	1.99	0.45
24:DA:2746:U:C2'	24:DA:2747:G:H5'	2.44	0.45
24:DA:2853:C:O2'	24:DA:2854:G:H5'	2.17	0.45
25:DB:13:A:H4'	25:DB:15:A:C6	2.50	0.45
25:DB:21:G:H2'	25:DB:22:U:C1'	2.47	0.45
25:DB:83:G:H5'	48:DX:52:HIS:CD2	2.51	0.45
29:DG:180:PHE:C	29:DG:182:LYS:H	2.18	0.45
30:DH:6:ARG:CD	30:DH:66:GLY:CA	2.94	0.45
31:DK:76:THR:HG23	31:DK:140:LEU:HD12	1.98	0.45
36:D0:57:ARG:O	36:D0:59:ASP:N	2.49	0.45
37:DQ:65:VAL:C	37:DQ:68:GLN:HE22	2.18	0.45
39:D1:95:LEU:O	39:D1:98:LEU:HG	2.16	0.45
42:DT:30:VAL:HG11	42:DT:39:ILE:HD11	1.99	0.45
44:DV:61:LEU:CD1	44:DV:67:LEU:HD12	2.46	0.45
46:DZ:85:LEU:HD12	46:DZ:85:LEU:O	2.16	0.45
1:AA:186(A):C:O2	20:AW:104:LEU:HD12	2.17	0.45
1:AA:266:G:H4'	1:AA:267:C:O5'	2.17	0.45
1:AA:376:G:H5"	16:AS:5:ARG:CG	2.46	0.45
1:AA:718:G:O6	18:AU:74:ARG:NH1	2.49	0.45
1:AA:977:A:H8	1:AA:1223:C:N3	2.15	0.45
1:AA:1132:C:O2'	1:AA:1133:G:H5'	2.16	0.45
2:AE:163:PHE:CD1	2:AE:185:ILE:HG12	2.52	0.45
3:AF:15:THR:HG23	3:AF:181:ASN:CA	2.42	0.45
4:AG:18:LYS:HE3	4:AG:18:LYS:HB3	1.37	0.45
5:AH:45:PHE:CD2	5:AH:47:LYS:HD2	2.51	0.45
7:AJ:70:LYS:CE	7:AJ:96:GLN:HB2	2.46	0.45
24:BA:270(O):U:O2	24:BA:270(O):U:C3'	2.61	0.45
24:BA:444:C:C2'	24:BA:445:C:O5'	2.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:723:G:H2'	24:BA:724:U:O4'	2.16	0.45
24:BA:807:U:O2'	24:BA:2060:A:N1	2.40	0.45
24:BA:879:G:H8	24:BA:879:G:OP2	2.00	0.45
24:BA:1022:G:N2	24:BA:1142(A):A:C2	2.66	0.45
24:BA:1313:U:O2	24:BA:1313:U:H2'	2.16	0.45
24:BA:1380:G:H2'	24:BA:1380:G:N3	2.31	0.45
24:BA:1522:G:OP2	24:BA:1523:U:C5	2.69	0.45
24:BA:1606:G:H5"	24:BA:1607:C:OP1	2.15	0.45
24:BA:2238:G:N3	24:BA:2238:G:H2'	2.31	0.45
24:BA:2391:G:O6	24:BA:2425:A:H8	1.98	0.45
24:BA:2419:U:OP1	53:B8:41:ILE:HD12	2.17	0.45
27:BE:53:PRO:HA	27:BE:74:PRO:HA	1.98	0.45
27:BE:116:VAL:HG13	27:BE:122:PHE:CG	2.52	0.45
32:BM:22:THR:O	32:BM:61:ARG:O	2.34	0.45
33:BN:7:TYR:CZ	33:BN:44:LYS:HG3	2.51	0.45
34:BO:65:ARG:HH21	53:B8:15:LYS:HB3	1.81	0.45
41:BS:84:ARG:O	41:BS:96:ILE:HD13	2.17	0.45
42:BT:73:ARG:HB3	42:BT:74:PRO:CD	2.47	0.45
46:BZ:58:ILE:HD13	46:BZ:86:SER:HB2	1.97	0.45
48:BX:7:LYS:HZ1	48:BX:32:GLN:HG3	1.82	0.45
1:CA:452:A:HO2'	1:CA:453:A:P	2.35	0.45
1:CA:819:A:H4'	1:CA:820:U:OP2	2.15	0.45
1:CA:961:U:H2'	1:CA:962:C:C5'	2.47	0.45
1:CA:1027:C:H2'	1:CA:1028:C:C5	2.51	0.45
1:CA:1101:A:N6	2:CE:176:GLU:OE2	2.49	0.45
1:CA:1226:C:H41	13:CP:104:ARG:HB2	1.82	0.45
1:CA:1263:C:C4	1:CA:1264:C:N4	2.85	0.45
2:CE:70:PHE:CD2	2:CE:163:PHE:HB3	2.52	0.45
3:CF:28:GLN:NE2	3:CF:29:TYR:H	2.15	0.45
8:CK:104:ARG:O	8:CK:106:GLY:N	2.50	0.45
8:CK:129:VAL:CG2	8:CK:130:GLY:N	2.77	0.45
13:CP:97:PRO:N	13:CP:110:ARG:HG2	2.31	0.45
22:CC:24:U:H2'	22:CC:25:C:C6	2.51	0.45
24:DA:237:C:H2'	24:DA:238:C:C6	2.52	0.45
24:DA:250:G:P	34:DO:60:MET:CE	3.04	0.45
24:DA:483:A:H5'	43:DU:49:VAL:HA	1.98	0.45
24:DA:1246:A:OP1	34:DO:15:ARG:NH2	2.49	0.45
24:DA:1279:G:C4'	36:D0:31:HIS:CD2	2.99	0.45
24:DA:1395:A:O2'	24:DA:1397:U:C6	2.70	0.45
24:DA:1794:U:C2	24:DA:1795:C:C5	3.04	0.45
24:DA:2210:G:C2'	24:DA:2210:G:N3	2.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2212:A:O2'	24:DA:2213:U:O5'	2.34	0.45
24:DA:2468:G:H5"	24:DA:2476:A:H61	1.82	0.45
25:DB:40:U:O4	25:DB:43:C:H5"	2.16	0.45
27:DE:55:ASN:C	27:DE:57:LYS:N	2.69	0.45
28:DF:156:LEU:HD21	28:DF:163:VAL:HG12	1.98	0.45
30:DH:82:GLY:O	30:DH:135:GLY:N	2.49	0.45
30:DH:90:LYS:O	30:DH:160:LYS:HA	2.16	0.45
30:DH:135:GLY:HA3	30:DH:141:VAL:HG22	1.96	0.45
32:DM:137:LYS:HE2	32:DM:137:LYS:N	2.31	0.45
33:DN:24:VAL:HG21	33:DN:33:ALA:HB2	1.97	0.45
34:DO:111:ARG:HG3	34:DO:128:HIS:CE1	2.52	0.45
37:DQ:14:VAL:O	37:DQ:18:ILE:HG13	2.17	0.45
37:DQ:62:LYS:O	37:DQ:65:VAL:HB	2.17	0.45
39:D1:97:ASP:CG	39:D1:101:ARG:HD3	2.35	0.45
42:DT:53:LYS:HB3	42:DT:82:GLN:HB3	1.99	0.45
43:DU:75:ILE:CA	43:DU:80:GLY:HA2	2.28	0.45
50:D5:36:CYS:SG	50:D5:48:GLU:HB2	2.56	0.45
51:D6:13:CYS:O	51:D6:22:ALA:N	2.50	0.45
53:D8:29:LYS:N	53:D8:44:LYS:HD3	2.31	0.45
1:AA:27:G:H2'	1:AA:28:G:C8	2.52	0.45
1:AA:130:A:N7	17:AT:63:ARG:HB2	2.31	0.45
1:AA:165:C:H2'	1:AA:166:G:H8	1.81	0.45
1:AA:369:C:H2'	1:AA:369:C:O2	2.15	0.45
1:AA:501:C:O2	1:AA:549:C:O2'	2.24	0.45
1:AA:675:A:N1	1:AA:716:A:C2	2.85	0.45
1:AA:1191:A:OP1	3:AF:4:LYS:NZ	2.48	0.45
1:AA:1206:G:O2'	3:AF:193:TYR:HA	2.17	0.45
1:AA:1379:G:C5	1:AA:1380:U:C5	3.05	0.45
2:AE:60:ASP:O	2:AE:64:ARG:NH1	2.49	0.45
2:AE:221:LEU:C	2:AE:221:LEU:CD1	2.85	0.45
3:AF:152:ILE:HD12	3:AF:152:ILE:N	2.32	0.45
5:AH:41:VAL:CG1	5:AH:42:GLY:N	2.80	0.45
6:AI:19:LEU:C	6:AI:19:LEU:CD2	2.82	0.45
6:AI:67:MET:HE3	6:AI:75:LEU:HD12	1.98	0.45
13:AP:20:THR:HG23	13:AP:21:TYR:N	2.32	0.45
22:AC:47:U:H2'	22:AC:48:C:OP2	2.16	0.45
24:BA:363:G:N2	24:BA:363(A):A:C5	2.85	0.45
24:BA:604:G:C6	24:BA:625:G:C2	3.04	0.45
24:BA:729:G:N7	26:BD:209:ALA:HB3	2.32	0.45
24:BA:909:A:H2'	24:BA:912:C:C5	2.51	0.45
24:BA:977:G:H5'	24:BA:1155:A:H4'	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1035:U:OP1	30:BH:59:ARG:HD2	2.16	0.45
24:BA:1085:A:N3	24:BA:1086:A:C5	2.85	0.45
24:BA:1386:C:H2'	24:BA:1387:C:H6	1.82	0.45
24:BA:1483:G:C2	24:BA:1507:A:C8	3.04	0.45
24:BA:1519:G:H2'	24:BA:1520:U:O4'	2.17	0.45
24:BA:1952:A:C6	24:BA:1953:A:C6	3.05	0.45
24:BA:2170:A:H2'	24:BA:2171:A:O4'	2.16	0.45
24:BA:2213:U:H1'	46:BZ:52:ARG:HH12	1.74	0.45
24:BA:2470:G:H5'	35:BP:56:ARG:NH2	2.21	0.45
24:BA:2533:A:H2'	24:BA:2534:A:O4'	2.15	0.45
24:BA:2626:C:H2'	24:BA:2627:G:H8	1.80	0.45
24:BA:2850:A:H5'	24:BA:2868:A:C2	2.51	0.45
25:BB:24:G:N7	25:BB:56:G:C2'	2.77	0.45
25:BB:38:C:C2	25:BB:39:A:C8	3.05	0.45
26:BD:136:ILE:HG22	26:BD:137:PRO:HD2	1.96	0.45
28:BF:59:TYR:CD2	28:BF:78:ILE:HD12	2.51	0.45
29:BG:80:PHE:C	29:BG:81:LYS:HE2	2.36	0.45
32:BM:120:LEU:HD11	32:BM:122:VAL:HG23	1.99	0.45
38:BR:22:PHE:N	38:BR:22:PHE:CD1	2.83	0.45
46:BZ:4:VAL:O	46:BZ:4:VAL:HG23	2.17	0.45
46:BZ:92:LYS:CA	46:BZ:95:LEU:HG	2.44	0.45
49:B4:23:GLU:OE1	49:B4:24:THR:N	2.49	0.45
1:CA:412:A:C1'	1:CA:413:G:OP2	2.61	0.45
1:CA:738:C:H5"	6:CI:69:GLU:HB2	1.99	0.45
1:CA:914:A:C2'	1:CA:915:A:H5'	2.45	0.45
1:CA:977:A:OP2	14:CQ:31:ARG:CZ	2.65	0.45
1:CA:1375:A:H4'	7:CJ:29:LYS:HZ3	1.81	0.45
1:CA:1446:A:C2	38:DR:118:ARG:NH2	2.85	0.45
2:CE:166:ASP:CG	2:CE:169:LYS:HB2	2.36	0.45
2:CE:219:VAL:O	2:CE:223:ILE:HG13	2.16	0.45
6:CI:50:TYR:CE2	18:CU:81:PHE:HE2	2.34	0.45
7:CJ:50:ILE:O	7:CJ:54:THR:CG2	2.64	0.45
7:CJ:90:GLU:CG	7:CJ:155:ARG:HH21	2.21	0.45
17:CT:96:GLU:O	17:CT:101:ARG:CZ	2.65	0.45
18:CU:23:LYS:HG3	18:CU:24:ALA:N	2.31	0.45
19:CV:47:HIS:O	19:CV:62:ILE:HD13	2.17	0.45
22:CC:19:G:N3	22:CC:57:A:C2	2.85	0.45
24:DA:223:A:C8	24:DA:422:A:O4'	2.70	0.45
24:DA:237:C:H2'	24:DA:238:C:H6	1.82	0.45
24:DA:270(N):G:H1'	24:DA:270(P):C:C1'	2.46	0.45
24:DA:747:U:C4	24:DA:2613:U:C4	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:756:C:H2'	24:DA:757:U:H5'	1.98	0.45
24:DA:848:G:N3	24:DA:933:A:H1'	2.32	0.45
24:DA:1073:A:OP1	24:DA:1073:A:H8	1.99	0.45
24:DA:1222:C:C2	24:DA:1229(A):G:C2	3.04	0.45
24:DA:2134:A:N6	24:DA:2158:A:O4'	2.49	0.45
24:DA:2170:A:O2'	24:DA:2171:A:H5'	2.16	0.45
24:DA:2208:U:O4'	26:DD:151:LYS:HE2	2.16	0.45
24:DA:2683:C:C5	24:DA:2684:U:C5	3.04	0.45
26:DD:83:GLU:HB2	26:DD:92:ILE:HG13	1.99	0.45
27:DE:31:CYS:HB2	27:DE:91:VAL:HG23	1.97	0.45
28:DF:162:LEU:HD12	28:DF:162:LEU:N	2.32	0.45
32:DM:45:ASN:HD22	32:DM:45:ASN:H	1.62	0.45
33:DN:87:ILE:CD1	33:DN:92:GLU:N	2.77	0.45
43:DU:13:VAL:HG21	43:DU:72:VAL:CG2	2.46	0.45
47:DW:63:VAL:O	47:DW:67:LYS:HB2	2.17	0.45
53:D8:40:GLU:HA	53:D8:43:GLN:HB2	1.97	0.45
1:AA:144:G:N2	1:AA:179:A:H1'	2.30	0.45
1:AA:358:U:H1'	31:DK:89:TYR:HE1	1.82	0.45
1:AA:437:U:O2'	4:AG:125:HIS:CE1	2.69	0.45
1:AA:491:G:C4	1:AA:492:G:C8	3.04	0.45
1:AA:684:A:C5	1:AA:685:G:N7	2.84	0.45
1:AA:754:C:O2	1:AA:754:C:H3'	2.17	0.45
1:AA:828:A:N7	1:AA:859:A:C8	2.85	0.45
1:AA:866:C:C4	1:AA:867:G:H1'	2.51	0.45
1:AA:1151:A:C6	1:AA:1152:A:C5	3.05	0.45
1:AA:1191:A:H5"	3:AF:4:LYS:HZ2	1.74	0.45
3:AF:15:THR:HG21	3:AF:181:ASN:H	1.82	0.45
4:AG:89:THR:O	4:AG:93:PHE:N	2.46	0.45
8:AK:100:ILE:HG22	8:AK:101:PRO:HD2	1.97	0.45
10:AM:6:ILE:HD11	10:AM:23:ILE:HG21	1.98	0.45
18:AU:63:GLN:NE2	18:AU:66:LEU:HD23	2.32	0.45
19:AV:21:GLU:OE2	19:AV:25:LYS:CE	2.65	0.45
24:BA:565:C:H2'	24:BA:566:U:O4'	2.17	0.45
24:BA:838:C:C2	24:BA:839:U:C6	3.04	0.45
24:BA:851:U:O2'	48:BX:42:ALA:O	2.28	0.45
24:BA:1022:G:C6	24:BA:1140:C:C4	3.04	0.45
24:BA:1093:G:H5'	30:BH:170:ARG:CZ	2.45	0.45
24:BA:1368:G:O2'	24:BA:1369:G:H5'	2.16	0.45
24:BA:1451:C:H4'	24:BA:1453:A:C8	2.52	0.45
24:BA:1530:G:H2'	24:BA:1531:C:O4'	2.17	0.45
24:BA:1808:U:H2'	24:BA:1809:A:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1878:G:H2'	24:BA:1879:C:C6	2.51	0.45
24:BA:2371:G:H4'	51:B6:45:LYS:CE	2.47	0.45
24:BA:2457:U:O4	24:BA:2458:G:C6	2.70	0.45
24:BA:2779:U:O2	24:BA:2779:U:O4'	2.35	0.45
38:BR:11:GLU:N	38:BR:11:GLU:CD	2.64	0.45
38:BR:54:ARG:CA	38:BR:59:THR:HG23	2.26	0.45
39:B1:66:ASN:O	39:B1:70:ARG:HB2	2.16	0.45
1:CA:23:C:H2'	1:CA:24:U:H6	1.82	0.45
1:CA:262:A:N6	1:CA:263:A:N6	2.64	0.45
1:CA:265:G:O3'	17:CT:66:SER:HA	2.16	0.45
1:CA:430:A:OP1	4:CG:9:CYS:N	2.50	0.45
1:CA:503:C:O2	1:CA:510:A:H2	1.99	0.45
1:CA:836:G:C5	1:CA:851:G:N1	2.85	0.45
1:CA:862:C:C2'	1:CA:863:U:H5'	2.46	0.45
1:CA:1004:A:H3'	1:CA:1005:A:H5"	1.96	0.45
1:CA:1061:G:O4'	10:CM:56:HIS:CE1	2.70	0.45
1:CA:1317:C:H41	14:CQ:19:ARG:HH12	1.63	0.45
1:CA:1417:G:C6	1:CA:1482:G:C6	3.05	0.45
1:CA:1489:G:H2'	1:CA:1490:C:O4'	2.17	0.45
1:CA:1502:A:C2	1:CA:1505:G:N2	2.83	0.45
2:CE:43:ASP:C	2:CE:44:LEU:HD23	2.37	0.45
3:CF:27:LYS:HB3	3:CF:27:LYS:HZ2	1.79	0.45
4:CG:41:GLY:O	4:CG:43:HIS:N	2.49	0.45
4:CG:94:LEU:O	4:CG:98:GLU:N	2.46	0.45
9:CL:17:VAL:HG13	9:CL:63:ILE:HG23	1.99	0.45
9:CL:78:LYS:CD	9:CL:101:PHE:HE1	2.06	0.45
11:CN:126:ARG:HH21	11:CN:127:LYS:HE3	1.82	0.45
12:CO:25:PRO:O	12:CO:26:ALA:C	2.53	0.45
13:CP:41:PRO:HG2	13:CP:42:ALA:H	1.81	0.45
16:CS:23:ASP:OD1	16:CS:25:ARG:HG3	2.16	0.45
18:CU:58:LEU:HD13	18:CU:62:GLU:HB2	1.98	0.45
19:CV:31:ILE:O	19:CV:32:LYS:HG2	2.17	0.45
19:CV:41:VAL:HB	19:CV:42:PRO:CD	2.43	0.45
19:CV:49:ILE:HG13	19:CV:62:ILE:HD11	1.98	0.45
20:CW:58:LYS:O	20:CW:58:LYS:HD3	2.17	0.45
24:DA:245:G:O2'	24:DA:384:U:O2	2.30	0.45
24:DA:276:A:H2'	24:DA:277:C:O4'	2.17	0.45
24:DA:280:C:N3	24:DA:361:G:N2	2.64	0.45
24:DA:745:G:H2'	24:DA:746:A:H5'	1.99	0.45
24:DA:814:C:OP1	40:D2:83:ARG:N	2.46	0.45
24:DA:873:G:N2	24:DA:905:U:C2	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:875:G:H4'	44:DV:170:THR:CG2	2.46	0.45
24:DA:954:G:O2'	24:DA:2274:A:N1	2.36	0.45
24:DA:995:C:O2	32:DM:3:THR:OG1	2.34	0.45
24:DA:1161:C:H2'	24:DA:1162:G:C8	2.51	0.45
24:DA:1757:U:H2'	24:DA:1758:G:OP1	2.17	0.45
24:DA:1827:C:C2'	24:DA:1828:G:H5'	2.47	0.45
24:DA:1853:A:N1	24:DA:2087:G:H1'	2.32	0.45
24:DA:1986:A:H2'	24:DA:1987:G:H8	1.81	0.45
24:DA:2344:U:O2'	51:D6:37:ARG:CG	2.64	0.45
24:DA:2377:A:O2'	37:DQ:111:GLU:HB3	2.17	0.45
24:DA:2402:C:H2'	24:DA:2403:C:O5'	2.16	0.45
24:DA:2405:G:O2'	24:DA:2406:U:OP1	2.27	0.45
24:DA:2419:U:H5	53:D8:31:HIS:HD2	1.57	0.45
24:DA:2820:A:C5	36:D0:4:LEU:HD11	2.51	0.45
26:DD:26:LYS:HD2	26:DD:26:LYS:N	2.22	0.45
26:DD:70:TRP:CZ3	26:DD:146:GLU:CD	2.90	0.45
27:DE:150:VAL:HG13	27:DE:154:LYS:CD	2.47	0.45
30:DH:89:ILE:CG2	30:DH:90:LYS:H	2.18	0.45
31:DK:41:GLU:O	31:DK:45:LYS:HG2	2.16	0.45
31:DK:144:VAL:HG12	31:DK:145:VAL:O	2.17	0.45
32:DM:7:LYS:CA	32:DM:7:LYS:CE	2.94	0.45
40:D2:76:LYS:HE3	40:D2:80:GLN:O	2.16	0.45
43:DU:61:ILE:HG22	43:DU:62:GLU:CG	2.42	0.45
44:DV:151:HIS:ND1	44:DV:170:THR:CB	2.79	0.45
46:DZ:3:LYS:O	46:DZ:12:PRO:HD3	2.16	0.45
46:DZ:29:GLY:C	46:DZ:30:VAL:HG23	2.37	0.45
46:DZ:83:GLU:OE2	46:DZ:85:LEU:N	2.50	0.45
47:DW:16:LEU:C	47:DW:16:LEU:HD12	2.37	0.45
48:DX:26:LEU:HD21	48:DX:46:ASN:CB	2.46	0.45
49:D4:16:CYS:HB3	49:D4:19:GLY:C	2.37	0.45
1:AA:91:C:N4	1:AA:92:G:O6	2.50	0.45
1:AA:201:C:H42	1:AA:216:G:H1	1.62	0.45
1:AA:357:G:H2'	1:AA:358:U:H6	1.81	0.45
1:AA:403:C:O2'	4:AG:122:ARG:NH1	2.50	0.45
1:AA:564:C:H2'	1:AA:564:C:O2	2.16	0.45
1:AA:1015:A:C3'	14:AQ:15:LYS:HZ1	2.26	0.45
1:AA:1017:G:H2'	1:AA:1018:C:O4'	2.17	0.45
2:AE:74:LYS:HE3	2:AE:169:LYS:CE	2.46	0.45
2:AE:236:TYR:C	2:AE:239:VAL:HG23	2.37	0.45
4:AG:8:VAL:HG21	4:AG:21:LEU:HD13	1.99	0.45
4:AG:150:GLU:C	4:AG:152:SER:H	2.20	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AL:24:GLY:N	9:AL:60:ASP:OD1	2.49	0.45
19:AV:8:GLY:O	19:AV:9:VAL:HB	2.17	0.45
24:BA:16:G:N3	24:BA:17:G:C8	2.85	0.45
24:BA:161:U:HO2'	24:BA:162:U:H5	1.62	0.45
24:BA:662:G:O2'	24:BA:663:G:H5'	2.16	0.45
24:BA:1528:A:C6	24:BA:1529:A:C6	3.04	0.45
24:BA:1601:G:C5	24:BA:1602:U:C4	3.05	0.45
24:BA:1654:A:OP1	36:B0:2:ARG:HG2	2.16	0.45
24:BA:2351:G:H2'	24:BA:2352:A:OP2	2.16	0.45
25:BB:52:A:H62	37:BQ:33:LYS:CG	2.29	0.45
29:BG:81:LYS:HB3	29:BG:82:LEU:H	1.63	0.45
34:BO:57:THR:OG1	34:BO:58:THR:N	2.49	0.45
34:BO:106:LEU:HD13	34:BO:106:LEU:O	2.17	0.45
43:BU:76:CYS:CB	43:BU:81:LYS:NZ	2.56	0.45
47:BW:16:LEU:H	47:BW:67:LYS:HE2	1.81	0.45
47:BW:47:ASN:OD1	47:BW:47:ASN:N	2.48	0.45
1:CA:197:A:H8	1:CA:198:G:C1'	2.28	0.45
1:CA:437:U:O3'	4:CG:125:HIS:NE2	2.50	0.45
1:CA:644:G:C2'	1:CA:645:C:H5'	2.47	0.45
1:CA:978:A:C6	1:CA:1318:A:C6	3.05	0.45
1:CA:1014:A:O3'	19:CV:14:HIS:ND1	2.49	0.45
1:CA:1028(B):C:O2'	1:CA:1030:C:N4	2.49	0.45
1:CA:1194:U:H4'	5:CH:22:GLY:O	2.17	0.45
1:CA:1237:C:C1'	1:CA:1334:G:N2	2.80	0.45
1:CA:1320:C:C4	1:CA:1321:C:C2	3.05	0.45
1:CA:1356:G:H2'	1:CA:1357:A:C8	2.52	0.45
2:CE:12:GLU:OE1	2:CE:15:VAL:N	2.49	0.45
4:CG:31:CYS:HB3	4:CG:33:MET:CG	2.38	0.45
4:CG:178:VAL:C	4:CG:180:GLY:H	2.14	0.45
7:CJ:138:LYS:HD3	7:CJ:138:LYS:O	2.16	0.45
10:CM:28:ARG:NH2	10:CM:34:VAL:H	2.15	0.45
11:CN:115:PRO:C	11:CN:117:ASN:H	2.20	0.45
14:CQ:24:CYS:HB2	14:CQ:29:ARG:HH11	1.82	0.45
15:CR:69:TYR:HD1	15:CR:72:ARG:NH2	2.08	0.45
19:CV:9:VAL:CG1	19:CV:10:PHE:H	2.29	0.45
19:CV:70:LYS:NZ	19:CV:73:GLU:HA	2.31	0.45
24:DA:224:G:H2'	24:DA:225:A:O4'	2.17	0.45
24:DA:309:G:O2'	24:DA:329:G:C8	2.69	0.45
24:DA:330:A:C2	24:DA:1210:A:O2'	2.54	0.45
24:DA:588:U:H1'	28:DF:90:PHE:CD1	2.50	0.45
24:DA:718:A:H2'	24:DA:719:C:H5'	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:956:G:H2'	24:DA:957:A:H2'	1.99	0.45
24:DA:1062:G:OP1	24:DA:1064:C:N4	2.50	0.45
24:DA:1297:C:H2'	24:DA:1298:C:H6	1.82	0.45
24:DA:1912:A:C8	24:DA:1918:A:C2	3.05	0.45
24:DA:2110:G:H1	24:DA:2179:C:H42	1.64	0.45
24:DA:2119:A:N1	24:DA:2170:A:C8	2.84	0.45
24:DA:2291:U:O2'	24:DA:2374:C:H1'	2.16	0.45
24:DA:2357:U:OP1	45:D3:20:ARG:NH1	2.49	0.45
24:DA:2500:U:H5"	24:DA:2501:C:OP2	2.17	0.45
24:DA:2716:U:HO2'	24:DA:2717:G:H5'	1.82	0.45
26:DD:31:LYS:HB2	26:DD:31:LYS:HE3	1.52	0.45
27:DE:78:LEU:C	27:DE:79:ARG:HD2	2.37	0.45
27:DE:101:ARG:HD3	27:DE:171:GLU:HA	1.99	0.45
30:DH:7:LEU:N	30:DH:7:LEU:HD12	2.31	0.45
34:DO:31:ALA:C	34:DO:32:THR:HG23	2.37	0.45
37:DQ:110:LEU:HD12	37:DQ:111:GLU:O	2.16	0.45
40:D2:35:LEU:HD23	40:D2:35:LEU:N	2.31	0.45
43:DU:14:LEU:CG	43:DU:15:VAL:N	2.78	0.45
43:DU:46:LYS:O	43:DU:47:LYS:C	2.54	0.45
44:DV:1:MET:CG	44:DV:2:GLU:H	2.27	0.45
44:DV:68:PRO:O	44:DV:91:LEU:HB2	2.16	0.45
49:D4:24:THR:O	49:D4:25:TYR:HB2	2.17	0.45
1:AA:543:C:OP2	4:AG:10:ARG:NH1	2.45	0.45
1:AA:560:U:C4'	1:AA:561:U:OP2	2.65	0.45
1:AA:652:U:O2'	1:AA:653:A:C5'	2.64	0.45
1:AA:686:U:O4	1:AA:703:G:H1'	2.17	0.45
1:AA:1228:C:P	13:AP:108:ARG:HH22	2.39	0.45
1:AA:1270:C:O2'	1:AA:1271:G:H5'	2.17	0.45
1:AA:1492:A:C3'	1:AA:1493:A:H5"	2.46	0.45
2:AE:87:ARG:NH1	2:AE:220:ASP:OD1	2.49	0.45
4:AG:14:ARG:O	4:AG:14:ARG:HD3	2.17	0.45
4:AG:31:CYS:HB2	4:AG:33:MET:CG	2.45	0.45
9:AL:53:VAL:HG11	9:AL:92:TYR:CD1	2.52	0.45
10:AM:5:ARG:CB	10:AM:73:ASP:OD1	2.65	0.45
10:AM:47:PHE:O	10:AM:63:PHE:N	2.50	0.45
10:AM:75:ILE:HG13	10:AM:76:ASN:H	1.82	0.45
11:AN:54:ARG:C	11:AN:56:GLY:H	2.20	0.45
12:AO:82:VAL:CG1	12:AO:105:TYR:HB3	2.47	0.45
13:AP:12:ASN:N	13:AP:46:LYS:NZ	2.65	0.45
14:AQ:2:ALA:O	14:AQ:6:LEU:HD12	2.17	0.45
15:AR:29:VAL:HG13	15:AR:67:LEU:HD11	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:271(A):C:HO2'	24:BA:271(B):G:C5'	2.30	0.45
24:BA:451:C:P	28:BF:52:LYS:HD2	2.57	0.45
24:BA:950:G:H2'	24:BA:951:C:C6	2.52	0.45
24:BA:1310:G:C5	24:BA:1311:G:C5	3.05	0.45
24:BA:1344:G:C4'	24:BA:1384:A:C6	3.00	0.45
24:BA:1444:G:N2	24:BA:1548:C:C2	2.84	0.45
24:BA:1475:G:C4	24:BA:1519:G:N2	2.85	0.45
24:BA:1754:C:H5"	38:BR:113:LYS:CE	2.46	0.45
24:BA:1844:C:OP1	26:BD:257:LEU:HD23	2.16	0.45
24:BA:2790:A:H2	24:BA:2894:G:C5'	2.23	0.45
25:BB:39:A:H2'	25:BB:39:A:N3	2.30	0.45
25:BB:42:C:O2'	29:BG:67:LYS:O	2.19	0.45
26:BD:97:TYR:CE1	26:BD:103:ARG:HD3	2.52	0.45
26:BD:142:VAL:HG23	26:BD:192:THR:O	2.16	0.45
30:BH:117:PRO:HD3	30:BH:123:PHE:CE2	2.52	0.45
31:BK:37:VAL:HG22	31:BK:38:LEU:N	2.32	0.45
34:BO:46:LYS:O	34:BO:47:ASP:C	2.54	0.45
38:BR:63:VAL:O	38:BR:73:GLU:HA	2.17	0.45
39:B1:110:VAL:O	39:B1:114:LYS:HG2	2.16	0.45
51:B6:24:GLU:HG3	51:B6:25:LYS:N	2.32	0.45
1:CA:256:U:C5'	17:CT:17:LYS:HZ1	2.29	0.45
1:CA:323:U:H2'	1:CA:324:G:O4'	2.16	0.45
1:CA:417:C:O2'	1:CA:418:C:H5'	2.16	0.45
1:CA:436:C:H1'	4:CG:157:LEU:HD11	1.99	0.45
1:CA:648:A:H2'	1:CA:649:G:H8	1.82	0.45
1:CA:666:G:OP2	1:CA:725:G:N2	2.32	0.45
1:CA:777:A:H2'	1:CA:778:G:H8	1.81	0.45
1:CA:1297:C:C1'	1:CA:1298:C:P	3.05	0.45
1:CA:1318:A:H5"	19:CV:10:PHE:HB3	1.99	0.45
1:CA:1321:C:C4	1:CA:1322:C:C5	3.04	0.45
1:CA:1348:U:H5	1:CA:1373:G:N2	2.14	0.45
1:CA:1440:C:C2	1:CA:1462:G:N2	2.85	0.45
2:CE:5:ILE:O	2:CE:6:THR:HG22	2.17	0.45
2:CE:80:ILE:CG2	2:CE:208:ILE:HD11	2.44	0.45
2:CE:221:LEU:HD12	2:CE:224:GLN:CG	2.47	0.45
4:CG:29:PRO:CD	4:CG:30:LYS:NZ	2.79	0.45
4:CG:149:ALA:HB1	4:CG:150:GLU:OE1	2.17	0.45
7:CJ:49:ILE:HG22	7:CJ:49:ILE:O	2.15	0.45
9:CL:4:TYR:CD1	9:CL:88:TYR:CD1	3.05	0.45
9:CL:33:PHE:CE2	9:CL:37:PHE:CE2	3.05	0.45
12:CO:40:VAL:HG21	12:CO:78:GLN:CA	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CR:17:ARG:NH1	15:CR:77:ARG:CZ	2.78	0.45
16:CS:27:LYS:O	16:CS:28:ARG:C	2.54	0.45
18:CU:22:VAL:CG1	18:CU:56:THR:HA	2.46	0.45
22:CC:19:G:H4'	22:CC:20:U:OP2	2.17	0.45
24:DA:675:A:N6	24:DA:676:A:N6	2.64	0.45
24:DA:696:G:C2	24:DA:767:U:O2	2.70	0.45
24:DA:1129:A:O2'	24:DA:2515:C:O2	2.35	0.45
24:DA:1229(A):G:C6	24:DA:1230:C:C4	3.05	0.45
24:DA:1419:A:N6	24:DA:1421:G:C2	2.85	0.45
24:DA:1469:A:H2'	24:DA:1470:G:O4'	2.17	0.45
24:DA:1488:G:N3	24:DA:1488:G:H2'	2.31	0.45
24:DA:1505:C:H2'	24:DA:1506:C:H6	1.81	0.45
24:DA:1668:A:C5	24:DA:1674:G:C5	3.04	0.45
24:DA:2467:C:H4'	35:DP:123:HIS:CG	2.51	0.45
25:DB:40:U:C4	25:DB:43:C:OP2	2.70	0.45
26:DD:61:LEU:O	26:DD:63:ARG:NH1	2.50	0.45
27:DE:70:ALA:O	27:DE:72:VAL:HG23	2.17	0.45
27:DE:128:SER:O	27:DE:129:HIS:HB2	2.17	0.45
29:DG:51:ARG:NH1	29:DG:52:ILE:HB	2.31	0.45
30:DH:25:LYS:NZ	30:DH:27:LYS:HB3	2.32	0.45
30:DH:45:VAL:O	30:DH:45:VAL:HG13	2.17	0.45
31:DK:61:ARG:HA	31:DK:61:ARG:HD3	1.86	0.45
31:DK:136:VAL:HG13	31:DK:136:VAL:O	2.17	0.45
37:DQ:107:GLU:H	37:DQ:110:LEU:HD22	1.79	0.45
39:D1:104:GLN:O	39:D1:107:ALA:HB3	2.16	0.45
39:D1:108:GLU:OE1	40:D2:45:THR:HA	2.16	0.45
41:DS:9:TYR:H	41:DS:102:HIS:CE1	2.35	0.45
41:DS:68:ARG:O	41:DS:110:LYS:HB2	2.17	0.45
43:DU:52:SER:CB	43:DU:57:GLN:H	2.30	0.45
43:DU:89:PHE:CD2	43:DU:90:LEU:HG	2.52	0.45
44:DV:120:ILE:CG1	44:DV:121:HIS:N	2.79	0.45
51:D6:11:LEU:HD12	51:D6:53:LYS:HA	1.99	0.45
53:D8:23:VAL:HG23	53:D8:48:PHE:CA	2.46	0.45
1:AA:55:A:H2'	31:DK:82:ARG:NH2	2.32	0.45
1:AA:346:G:C5'	38:BR:39:ARG:HH22	2.30	0.45
1:AA:676:A:H2'	1:AA:677:U:H6	1.81	0.45
1:AA:734:G:H21	18:AU:75:ILE:HD13	1.81	0.45
1:AA:1002:G:C2	1:AA:1003:G:C2	3.05	0.45
1:AA:1157:A:O2'	1:AA:1158:C:O4'	2.35	0.45
1:AA:1240:U:C4	7:AJ:32:ARG:HD2	2.52	0.45
1:AA:1381:U:C2	7:AJ:79:ARG:NH2	2.84	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1392:G:N2	1:AA:1502:A:C8	2.83	0.45
1:AA:1410:G:H2'	1:AA:1411:C:H6	1.82	0.45
3:AF:78:GLY:O	3:AF:79:ARG:CB	2.63	0.45
4:AG:171:GLY:C	4:AG:173:TRP:H	2.20	0.45
6:AI:4:TYR:HD1	6:AI:92:LYS:HA	1.82	0.45
8:AK:51:VAL:HG11	8:AK:60:ARG:CD	2.42	0.45
8:AK:80:ILE:HG23	8:AK:137:VAL:CG1	2.47	0.45
9:AL:23:ASN:HD22	9:AL:25:LYS:HZ1	1.61	0.45
13:AP:48:LEU:HD23	13:AP:48:LEU:N	2.32	0.45
15:AR:87:ILE:CG2	15:AR:88:ARG:N	2.80	0.45
16:AS:73:LEU:O	16:AS:77:ALA:HB2	2.17	0.45
24:BA:25:U:H2'	24:BA:26:G:O4'	2.17	0.45
24:BA:55:G:H2'	24:BA:56:A:H8	1.82	0.45
24:BA:250:G:C6	24:BA:251:A:C6	3.05	0.45
24:BA:1166:C:O2	24:BA:1184:G:C2	2.69	0.45
24:BA:1177:A:H4'	24:BA:1178:C:C6	2.48	0.45
24:BA:1465:G:C4	24:BA:1466:G:C8	3.04	0.45
24:BA:1784:A:H4'	24:BA:1785:A:O5'	2.16	0.45
24:BA:1890:A:H2'	24:BA:1891:G:H5'	1.99	0.45
24:BA:2050:C:C4	24:BA:2051:A:C6	3.05	0.45
24:BA:2118:U:C2	24:BA:2149:G:H5'	2.52	0.45
24:BA:2336:A:H61	45:B3:43:THR:CG2	2.30	0.45
26:BD:54:ARG:O	26:BD:218:ARG:HD3	2.16	0.45
28:BF:103:LYS:HG2	28:BF:106:ARG:HH21	1.82	0.45
28:BF:192:LEU:CD2	28:BF:194:MET:HE3	2.47	0.45
29:BG:106:LEU:HD12	29:BG:110:ALA:HB3	1.99	0.45
32:BM:41:ASP:HA	39:B1:64:ARG:NH2	2.28	0.45
32:BM:137:LYS:C	32:BM:138:LEU:HD22	2.37	0.45
37:BQ:4:LEU:HA	37:BQ:8:GLU:OE2	2.17	0.45
37:BQ:18:ILE:HD12	37:BQ:18:ILE:N	2.32	0.45
44:BV:11:GLU:O	44:BV:36:LYS:HE3	2.17	0.45
46:BZ:87:PRO:C	46:BZ:89:GLU:N	2.69	0.45
47:BW:43:GLN:C	47:BW:45:SER:N	2.52	0.45
49:B4:16:CYS:HB2	49:B4:36:CYS:HB2	1.07	0.45
49:B4:34:GLU:CG	49:B4:35:VAL:H	2.13	0.45
52:B7:27:GLY:O	52:B7:30:VAL:HB	2.17	0.45
1:CA:872:A:C4	1:CA:874:G:C8	3.05	0.45
1:CA:938:A:C5	1:CA:939:G:C8	3.05	0.45
1:CA:972:C:O3'	10:CM:57:LYS:HG2	2.17	0.45
1:CA:1004:A:H2	1:CA:1006:C:O2	2.00	0.45
1:CA:1128:C:C2	1:CA:1139:G:C6	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1190:G:H4'	3:CF:176:HIS:CE1	2.51	0.45
1:CA:1319:A:H4'	1:CA:1320:C:OP1	2.17	0.45
1:CA:1321:C:O5'	1:CA:1322:C:H5"	2.16	0.45
55:CA:1805:TAC:H422	55:CA:1805:TAC:H41	1.59	0.45
2:CE:239:VAL:O	2:CE:240:GLN:HB2	2.16	0.45
3:CF:64:VAL:O	3:CF:100:ALA:HB3	2.16	0.45
4:CG:29:PRO:N	4:CG:30:LYS:NZ	2.65	0.45
5:CH:76:ILE:CB	5:CH:77:PRO:HD2	2.47	0.45
7:CJ:113:GLU:OE2	7:CJ:122:HIS:ND1	2.50	0.45
8:CK:20:TYR:OH	8:CK:75:ARG:HB3	2.17	0.45
8:CK:63:LEU:N	8:CK:63:LEU:HD22	2.32	0.45
16:CS:52:ASP:OD2	16:CS:55:ARG:HG3	2.16	0.45
19:CV:70:LYS:HD2	19:CV:72:GLY:N	2.32	0.45
24:DA:307:G:H22	24:DA:310:A:P	2.39	0.45
24:DA:565:C:H2'	24:DA:566:U:O4'	2.17	0.45
24:DA:883:G:C6	24:DA:894:C:C4	3.04	0.45
24:DA:1057:A:H2	24:DA:1081:U:H3	1.58	0.45
24:DA:1093:G:C6	24:DA:1094:U:C2	3.05	0.45
24:DA:1257:C:H4'	28:DF:83:PHE:CD1	2.51	0.45
24:DA:1420:U:H3'	24:DA:1420:U:H6	1.82	0.45
24:DA:1601:G:H5'	52:D7:49:ARG:NE	2.32	0.45
24:DA:1757:U:C2'	24:DA:1758:G:OP1	2.65	0.45
24:DA:2139:C:C5	24:DA:2140:C:C5	3.04	0.45
24:DA:2199:A:N7	24:DA:2205:C:C5	2.85	0.45
24:DA:2225:A:H4'	24:DA:2226:C:O5'	2.15	0.45
24:DA:2287:A:C4	24:DA:2289:G:C8	3.05	0.45
24:DA:2749:A:H5"	24:DA:2750:A:O5'	2.17	0.45
26:DD:264:LYS:HE2	26:DD:266:SER:CB	2.47	0.45
27:DE:14:ILE:HD11	27:DE:173:VAL:CG1	2.40	0.45
27:DE:37:ARG:HD3	27:DE:42:ASP:CG	2.38	0.45
27:DE:48:GLN:O	27:DE:49:LEU:O	2.34	0.45
28:DF:93:LYS:HB3	28:DF:94:PRO:CD	2.47	0.45
29:DG:171:ALA:O	29:DG:175:LEU:HG	2.16	0.45
35:DP:16:ARG:CD	35:DP:18:LYS:HZ3	2.28	0.45
41:DS:68:ARG:NH1	41:DS:111:HIS:O	2.50	0.45
44:DV:118:GLN:O	44:DV:118:GLN:HG2	2.13	0.45
44:DV:150:LEU:HD22	44:DV:154:ASP:CG	2.36	0.45
47:DW:25:VAL:HG12	47:DW:60:LEU:HD23	1.98	0.45
47:DW:54:LYS:HD2	47:DW:55:ARG:NH1	2.32	0.45
49:D4:56:VAL:HG22	49:D4:57:GLU:HG3	1.98	0.45
1:AA:271:C:O2'	1:AA:272:C:H5'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:294:U:H2'	1:AA:295:C:C6	2.52	0.45
1:AA:625:G:H2'	1:AA:626:U:C6	2.52	0.45
1:AA:712:A:O2'	1:AA:713:G:H5'	2.17	0.45
1:AA:1075:C:O2'	1:AA:1076:C:H5'	2.17	0.45
1:AA:1106:G:H4'	3:AF:171:GLY:O	2.16	0.45
1:AA:1126:U:C5	1:AA:1127:G:C8	3.05	0.45
1:AA:1286:A:H4'	21:AX:26:LYS:CD	2.38	0.45
1:AA:1317:C:H2'	1:AA:1318:A:H5'	1.99	0.45
2:AE:74:LYS:CE	2:AE:166:ASP:HB3	2.47	0.45
2:AE:92:TYR:CD2	2:AE:151:GLY:HA3	2.52	0.45
2:AE:97:TRP:HZ2	2:AE:102:LEU:HD13	1.81	0.45
4:AG:4:TYR:HE2	4:AG:8:VAL:HG12	1.82	0.45
4:AG:206:PHE:CD2	4:AG:207:TYR:CE1	3.05	0.45
9:AL:128:ARG:HB2	9:AL:128:ARG:NH1	2.31	0.45
12:AO:18:VAL:HG23	12:AO:19:ARG:H	1.81	0.45
12:AO:86:ARG:HG3	12:AO:101:VAL:HG22	1.97	0.45
16:AS:14:ASN:N	16:AS:15:PRO:HD3	2.31	0.45
19:AV:6:LYS:O	19:AV:7:LYS:HB3	2.17	0.45
22:AC:18:G:C6	22:AC:57:A:C6	3.05	0.45
24:BA:274:G:C2	24:BA:276:A:C2	3.04	0.45
24:BA:422:A:N6	24:BA:423:A:N6	2.65	0.45
24:BA:444:C:H2'	24:BA:445:C:O5'	2.17	0.45
24:BA:951:C:C2'	24:BA:952:G:H5'	2.47	0.45
24:BA:1059:G:H2'	24:BA:1060:U:C5	2.51	0.45
24:BA:1265:A:H3'	50:B5:19:ARG:NH1	2.31	0.45
24:BA:1312:U:H6	24:BA:1312:U:O5'	2.00	0.45
24:BA:1348:G:C2'	24:BA:1349:A:H5"	2.46	0.45
24:BA:2016:U:H1'	50:B5:6:VAL:CG1	2.47	0.45
24:BA:2123:G:C5	24:BA:2124:G:N7	2.84	0.45
24:BA:2271:G:OP1	45:B3:18:ALA:HB1	2.17	0.45
24:BA:2285:C:H5'	24:BA:2288:A:C6	2.51	0.45
24:BA:2579:C:O5'	24:BA:2579:C:H6	2.00	0.45
24:BA:2590:A:O2'	24:BA:2591:C:H5'	2.17	0.45
24:BA:2682:U:C5	27:BE:11:MET:HE2	2.52	0.45
25:BB:104:A:OP1	44:BV:72:ARG:NH1	2.50	0.45
26:BD:35:LYS:HE3	26:BD:65:ILE:CA	2.46	0.45
26:BD:239:ARG:O	26:BD:240:ALA:HB2	2.17	0.45
27:BE:65:GLY:N	27:BE:73:GLU:OE1	2.50	0.45
27:BE:144:ARG:HB3	27:BE:145:LYS:H	1.40	0.45
28:BF:181:LEU:HD23	28:BF:181:LEU:HA	1.78	0.45
29:BG:48:GLU:O	29:BG:49:ASP:C	2.54	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BH:10:PRO:HD2	30:BH:50:VAL:H	1.81	0.45
38:BR:53:ARG:O	38:BR:59:THR:HG23	2.17	0.45
46:BZ:92:LYS:HA	46:BZ:95:LEU:HD12	1.99	0.45
49:B4:10:VAL:HG13	49:B4:11:PRO:N	2.31	0.45
49:B4:14:ILE:HG13	49:B4:24:THR:HG22	1.98	0.45
1:CA:255:G:H1'	17:CT:16:GLN:NE2	2.32	0.45
1:CA:300:A:H2'	1:CA:301:G:O4'	2.17	0.45
1:CA:1014:A:H5'	19:CV:15:LEU:CG	2.45	0.45
1:CA:1028:C:H42	1:CA:1033:G:H1	1.65	0.45
1:CA:1141:C:H2'	1:CA:1142:G:C8	2.52	0.45
1:CA:1241:G:H2'	1:CA:1242:C:C6	2.52	0.45
1:CA:1287:A:N6	1:CA:1371:G:O4'	2.50	0.45
2:CE:29:ALA:HA	2:CE:32:ILE:HG12	1.99	0.45
2:CE:189:ASP:OD2	2:CE:191:ASP:HB3	2.17	0.45
4:CG:14:ARG:HH11	4:CG:14:ARG:HG3	1.81	0.45
4:CG:53:ASP:HB3	4:CG:57:ARG:NH1	2.32	0.45
6:CI:80:ARG:HG2	6:CI:88:VAL:HG21	1.98	0.45
10:CM:23:ILE:HG22	10:CM:23:ILE:O	2.17	0.45
10:CM:50:ILE:HA	10:CM:60:ARG:CA	2.47	0.45
13:CP:29:ARG:CD	13:CP:64:TRP:CH2	2.97	0.45
13:CP:30:ALA:C	13:CP:32:GLU:N	2.69	0.45
13:CP:62:ASN:O	13:CP:64:TRP:N	2.50	0.45
24:DA:6:A:C6	24:DA:7:G:C5	3.04	0.45
24:DA:10:G:C2	24:DA:2629:A:N7	2.85	0.45
24:DA:162:U:H4'	24:DA:171:G:N7	2.31	0.45
24:DA:205:G:O2'	24:DA:206:U:OP2	2.35	0.45
24:DA:311:A:C8	24:DA:332:A:N7	2.85	0.45
24:DA:603:A:H3'	34:DO:90:ARG:NH1	2.32	0.45
24:DA:1062:G:C6	24:DA:1075:C:N4	2.85	0.45
24:DA:1228:G:OP2	39:D1:16:LYS:NZ	2.50	0.45
24:DA:1266:G:O5'	41:DS:15:ARG:NH2	2.50	0.45
24:DA:1306:C:H2'	24:DA:1307:A:H5'	1.98	0.45
24:DA:1419:A:C6	24:DA:1421:G:C4	3.05	0.45
24:DA:1614:A:C6	41:DS:91:GLY:HA2	2.52	0.45
24:DA:2095:C:H2'	24:DA:2096:U:O4'	2.17	0.45
24:DA:2211:G:C1'	24:DA:2212:A:P	3.05	0.45
24:DA:2224:G:H4'	24:DA:2226:C:C2	2.52	0.45
24:DA:2533:A:H2'	24:DA:2534:A:O4'	2.17	0.45
24:DA:2809:A:C2	24:DA:2892:A:C2	3.05	0.45
27:DE:8:LYS:HE3	27:DE:188:VAL:HG13	1.98	0.45
27:DE:64:LYS:O	27:DE:66:HIS:N	2.48	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DO:46:LYS:HE3	34:DO:46:LYS:HB3	1.89	0.45
37:DQ:83:LYS:HB2	37:DQ:83:LYS:NZ	2.31	0.45
40:D2:35:LEU:CG	40:D2:37:VAL:CG2	2.94	0.45
40:D2:48:GLY:HA3	40:D2:52:VAL:CG2	2.47	0.45
41:DS:14:PRO:HB3	41:DS:18:ARG:HH21	1.81	0.45
44:DV:152:ALA:N	44:DV:171:ILE:HD13	2.32	0.45
47:DW:16:LEU:O	47:DW:20:GLU:HB2	2.17	0.45
49:D4:16:CYS:C	49:D4:18:CYS:H	2.20	0.45
1:AA:587:G:N2	1:AA:755:G:C5	2.85	0.44
1:AA:1028(A):C:O2	1:AA:1032(B):G:O6	2.35	0.44
1:AA:1146:A:H2'	1:AA:1147:C:O4'	2.17	0.44
1:AA:1342:C:H1'	9:AL:124:GLN:NE2	2.31	0.44
1:AA:1430:C:H2'	1:AA:1431:C:C6	2.52	0.44
1:AA:1440:C:H2'	1:AA:1441:G:O4'	2.17	0.44
1:AA:1459:C:P	20:AW:31:SER:OG	2.75	0.44
4:AG:8:VAL:HB	4:AG:21:LEU:CD2	2.47	0.44
6:AI:52:ILE:O	6:AI:53:ALA:HB3	2.16	0.44
16:AS:20:VAL:CG2	16:AS:21:VAL:N	2.80	0.44
16:AS:22:THR:HB	16:AS:32:TYR:HA	1.99	0.44
17:AT:90:ILE:O	17:AT:93:GLN:HB3	2.16	0.44
20:AW:50:GLU:HB2	20:AW:99:LEU:CD2	2.42	0.44
24:BA:247:G:H4'	24:BA:386:G:C4	2.52	0.44
24:BA:271(A):C:O2'	24:BA:271(B):G:O5'	2.35	0.44
24:BA:370:G:C4'	24:BA:371:A:OP2	2.59	0.44
24:BA:383:U:H2'	24:BA:385:C:H5	1.82	0.44
24:BA:620:G:N3	24:BA:620:G:H2'	2.32	0.44
24:BA:654:A:C8	24:BA:654(A):A:N7	2.85	0.44
24:BA:654(S):G:H4'	24:BA:654(T):A:OP1	2.17	0.44
24:BA:844:C:H2'	24:BA:845:G:O4'	2.17	0.44
24:BA:868:U:C4	24:BA:869:G:N7	2.85	0.44
24:BA:888:C:C4	24:BA:889:C:H5	2.35	0.44
24:BA:1423:G:H2'	24:BA:1424:G:H8	1.82	0.44
24:BA:1535:U:C5'	24:BA:1537:C:C4	3.01	0.44
24:BA:2286:A:OP2	51:B6:27:LYS:NZ	2.44	0.44
24:BA:2419:U:C1'	51:B6:21:TYR:OH	2.64	0.44
24:BA:2751:G:C4	30:BH:3:ARG:HG2	2.52	0.44
26:BD:28:GLU:CB	26:BD:29:PRO:HD2	2.45	0.44
27:BE:200:GLU:CD	27:BE:200:GLU:H	2.19	0.44
28:BF:129:PHE:O	28:BF:130:ALA:CB	2.65	0.44
29:BG:48:GLU:CG	29:BG:49:ASP:N	2.74	0.44
30:BH:11:VAL:HA	30:BH:12:PRO:HD3	1.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BR:3:ARG:CB	38:BR:6:LEU:HB2	2.32	0.44
38:BR:42:ILE:C	38:BR:42:ILE:CD1	2.86	0.44
44:BV:6:LYS:CD	44:BV:8:TYR:HE1	2.30	0.44
46:BZ:71:TYR:O	46:BZ:74:VAL:HG12	2.17	0.44
50:B5:45:VAL:HG13	50:B5:50:GLY:HA3	1.98	0.44
1:CA:29:G:C5	1:CA:30:U:C5	3.03	0.44
1:CA:130:A:O2'	1:CA:131:C:O5'	2.31	0.44
1:CA:359:U:H2'	1:CA:360:A:C8	2.52	0.44
1:CA:522:C:H2'	1:CA:523:A:O4'	2.16	0.44
1:CA:574:A:N3	1:CA:883:C:H1'	2.32	0.44
1:CA:658:G:C1'	15:CR:22:THR:HB	2.47	0.44
1:CA:1135:U:O2'	1:CA:1138:G:O6	2.35	0.44
2:CE:152:PHE:O	2:CE:154:LEU:N	2.51	0.44
3:CF:148:GLY:HA2	3:CF:171:GLY:HA3	2.00	0.44
4:CG:41:GLY:C	4:CG:43:HIS:H	2.19	0.44
8:CK:44:PHE:CE2	8:CK:109:ILE:HG21	2.53	0.44
8:CK:86:ILE:CG1	8:CK:133:LEU:HD22	2.45	0.44
10:CM:54:PHE:CD1	10:CM:55:LYS:HG3	2.52	0.44
24:DA:93:C:O2	24:DA:93:C:H2'	2.16	0.44
24:DA:274:G:C5	24:DA:275:G:C6	3.05	0.44
24:DA:319:C:H2'	24:DA:320:A:O4'	2.17	0.44
24:DA:564:C:O2'	24:DA:565:C:H5'	2.17	0.44
24:DA:729:G:H5'	24:DA:730:C:H5"	1.98	0.44
24:DA:803:U:H2'	24:DA:804:A:C5'	2.47	0.44
24:DA:1113:U:H2'	24:DA:1114:G:C8	2.52	0.44
24:DA:2376:A:C2	37:DQ:112:PHE:CD1	3.05	0.44
24:DA:2436:G:C6	24:DA:2437:U:C4	3.05	0.44
24:DA:2751:G:O4'	24:DA:2751:G:N3	2.50	0.44
25:DB:6:C:H4'	25:DB:28:C:H5'	1.98	0.44
25:DB:30:C:C5	25:DB:31:C:C6	3.04	0.44
25:DB:69:G:C6	25:DB:70:C:C4	3.04	0.44
26:DD:169:GLU:OE1	26:DD:169:GLU:HA	2.17	0.44
27:DE:67:PHE:C	27:DE:69:LYS:H	2.16	0.44
29:DG:43:LEU:H	29:DG:88:ILE:HD13	1.82	0.44
30:DH:152:ARG:CG	30:DH:153:LYS:HG2	2.46	0.44
31:DK:7:GLU:C	31:DK:15:VAL:HG22	2.38	0.44
31:DK:133:HIS:ND1	31:DK:134:PRO:HD3	2.32	0.44
33:DN:68:GLU:HB3	33:DN:78:ARG:HH12	1.76	0.44
35:DP:20:ALA:O	35:DP:21:THR:HG22	2.17	0.44
35:DP:47:ILE:HG22	35:DP:48:GLU:N	2.31	0.44
36:D0:53:HIS:HB2	36:D0:94:TYR:HE2	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:D0:58:GLY:HA2	36:D0:80:PHE:HE2	1.81	0.44
43:DU:47:LYS:CA	43:DU:60:PHE:HB3	2.47	0.44
43:DU:88:LYS:HB3	43:DU:89:PHE:CD1	2.52	0.44
44:DV:125:LEU:HG	44:DV:164:ALA:HB3	1.99	0.44
44:DV:150:LEU:HD22	44:DV:154:ASP:HB3	1.97	0.44
51:D6:36:LEU:HD11	51:D6:50:ARG:NH1	2.32	0.44
1:AA:90:C:C4	1:AA:91:C:C5	3.04	0.44
1:AA:411:A:C6	1:AA:429:U:C5	3.05	0.44
1:AA:467:G:H3'	1:AA:467:G:OP2	2.16	0.44
1:AA:509:A:H2'	1:AA:510:A:C8	2.52	0.44
1:AA:514:C:H2'	1:AA:515:G:H8	1.82	0.44
1:AA:1115:C:C1'	14:AQ:61:TRP:HB2	2.46	0.44
1:AA:1177:G:O6	1:AA:1178:G:C6	2.70	0.44
1:AA:1226:C:N4	13:AP:104:ARG:HG3	2.33	0.44
1:AA:1226:C:O2	19:AV:83:HIS:HE1	2.01	0.44
1:AA:1337:G:H5"	1:AA:1338:G:OP1	2.17	0.44
1:AA:1353:G:O2'	1:AA:1354:C:H5'	2.17	0.44
1:AA:1376:U:H2'	1:AA:1377:A:C8	2.53	0.44
2:AE:35:GLU:HG2	2:AE:35:GLU:O	2.17	0.44
2:AE:67:THR:HG21	2:AE:155:LEU:HD21	2.00	0.44
2:AE:98:LEU:HG	2:AE:101:MET:HE3	1.99	0.44
9:AL:25:LYS:O	9:AL:61:ALA:N	2.36	0.44
17:AT:41:LYS:HD3	17:AT:88:TYR:OH	2.17	0.44
19:AV:41:VAL:HG13	19:AV:67:VAL:HG13	1.99	0.44
19:AV:51:VAL:O	19:AV:58:VAL:HG22	2.17	0.44
24:BA:278:A:O2'	24:BA:279:C:C6	2.69	0.44
24:BA:464:U:H2'	24:BA:465:G:O4'	2.17	0.44
24:BA:475:U:C4	24:BA:481:G:O6	2.70	0.44
24:BA:631:A:OP1	34:BO:64:LYS:CE	2.66	0.44
24:BA:654(G):C:H2'	24:BA:654(H):G:C8	2.53	0.44
24:BA:698:C:O2'	24:BA:734:A:N6	2.50	0.44
24:BA:1066:U:H2'	24:BA:1068:G:OP2	2.18	0.44
24:BA:1113:U:H5'	30:BH:2:SER:CA	2.48	0.44
24:BA:1206:G:C6	24:BA:1207:C:C4	3.05	0.44
24:BA:1478:G:H1'	24:BA:1557:C:O2'	2.16	0.44
24:BA:1535:U:O2'	24:BA:1536:A:OP1	2.24	0.44
24:BA:1541:U:H2'	24:BA:1542:G:C5'	2.46	0.44
24:BA:2093:G:C6	24:BA:2225:A:C8	3.05	0.44
24:BA:2100:G:O6	24:BA:2189:U:C4	2.70	0.44
24:BA:2141:G:H2'	24:BA:2142:C:O4'	2.18	0.44
24:BA:2197:U:C5	24:BA:2224:G:C6	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2250:G:N2	35:BP:84:GLY:CA	2.80	0.44
24:BA:2584:U:H2'	24:BA:2585:U:C6	2.52	0.44
25:BB:15:A:H2'	25:BB:16:G:OP1	2.17	0.44
26:BD:77:ALA:HB2	26:BD:97:TYR:CG	2.53	0.44
26:BD:95:LEU:HD13	26:BD:97:TYR:CE1	2.53	0.44
28:BF:124:LEU:HD12	28:BF:125:LEU:N	2.31	0.44
30:BH:41:MET:CE	30:BH:64:LEU:CB	2.94	0.44
30:BH:58:GLU:O	30:BH:60:ARG:N	2.51	0.44
32:BM:9:VAL:O	32:BM:11:PRO:HD3	2.17	0.44
32:BM:46:VAL:O	32:BM:47:ALA:CB	2.65	0.44
34:BO:17:LYS:HG2	34:BO:18:ARG:H	1.82	0.44
35:BP:57:HIS:O	35:BP:57:HIS:CG	2.70	0.44
35:BP:66:ILE:N	35:BP:104:PHE:HA	2.32	0.44
36:B0:74:LYS:O	36:B0:75:LEU:C	2.55	0.44
40:B2:39:LEU:HD12	40:B2:39:LEU:N	2.30	0.44
43:BU:76:CYS:O	43:BU:77:PRO:C	2.55	0.44
43:BU:76:CYS:C	43:BU:81:LYS:NZ	2.71	0.44
46:BZ:67:ILE:H	46:BZ:68:PRO:HD2	1.81	0.44
48:BX:54:VAL:HG22	48:BX:55:ARG:H	1.81	0.44
51:B6:15:GLU:HB2	51:B6:20:ASN:HB3	1.98	0.44
52:B7:49:ARG:NH1	52:B7:49:ARG:HG3	2.32	0.44
1:CA:764:C:H2'	1:CA:765:G:O4'	2.17	0.44
1:CA:854:G:C6	1:CA:855:G:N7	2.85	0.44
1:CA:1243:C:OP1	21:CX:8:THR:HG21	2.17	0.44
1:CA:1254:C:C4'	1:CA:1356:G:H5"	2.47	0.44
2:CE:144:ARG:H	2:CE:144:ARG:HG3	1.52	0.44
3:CF:6:HIS:CD2	3:CF:7:PRO:HD2	2.49	0.44
3:CF:131:ARG:O	3:CF:135:LYS:HG3	2.17	0.44
3:CF:182:ILE:HG12	3:CF:203:PHE:HA	1.99	0.44
6:CI:97:PHE:HD1	18:CU:31:LEU:HD21	1.83	0.44
8:CK:84:ARG:HG2	8:CK:85:ARG:H	1.80	0.44
9:CL:17:VAL:CG2	9:CL:80:GLY:O	2.63	0.44
9:CL:85:LEU:HD11	9:CL:96:LEU:HD21	1.98	0.44
13:CP:11:ARG:O	13:CP:13:LYS:N	2.50	0.44
16:CS:40:ASP:HB3	16:CS:48:TRP:CB	2.48	0.44
17:CT:63:ARG:HG2	17:CT:64:PRO:CD	2.45	0.44
24:DA:83:G:N2	24:DA:102:G:H2'	2.32	0.44
24:DA:322:A:H3'	28:DF:169:ASN:HD21	1.81	0.44
24:DA:1551:C:C2'	24:DA:1552:G:H5'	2.47	0.44
24:DA:1669:A:N3	24:DA:1669:A:C2'	2.79	0.44
24:DA:1889:A:C1'	24:DA:2087:G:H5'	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2280:G:C2'	24:DA:2281:C:H5'	2.48	0.44
24:DA:2596:U:H2'	24:DA:2597:G:O4'	2.17	0.44
24:DA:2836:U:H2'	24:DA:2837:G:H8	1.77	0.44
25:DB:37:C:H2'	25:DB:38:C:H5'	1.99	0.44
30:DH:94:TYR:CD2	30:DH:107:VAL:HG12	2.52	0.44
30:DH:116:GLU:HG2	30:DH:117:PRO:HD2	1.99	0.44
31:DK:70:GLU:O	31:DK:72:LEU:N	2.50	0.44
36:D0:30:THR:OG1	36:D0:75:LEU:HD21	2.17	0.44
36:D0:70:LEU:C	36:D0:72:ASP:H	2.18	0.44
37:DQ:34:HIS:HE1	37:DQ:54:LEU:HD13	1.82	0.44
38:DR:48:ILE:CG2	38:DR:49:VAL:N	2.80	0.44
49:D4:38:LYS:HA	49:D4:38:LYS:CE	2.44	0.44
49:D4:57:GLU:HA	49:D4:60:GLN:NE2	2.32	0.44
51:D6:25:LYS:CB	53:D8:34:TRP:CZ3	2.77	0.44
1:AA:217:C:O2'	1:AA:218:C:H5'	2.17	0.44
1:AA:348:G:O2'	1:AA:349:A:H5'	2.17	0.44
1:AA:599:C:H4'	8:AK:130:GLY:O	2.17	0.44
1:AA:644:G:H2'	1:AA:645:C:H5'	1.96	0.44
1:AA:724:G:C2	1:AA:725:G:N9	2.85	0.44
1:AA:848:C:H6	1:AA:848:C:O5'	2.00	0.44
1:AA:890:G:O2'	1:AA:891:U:P	2.76	0.44
1:AA:1126:U:C5	1:AA:1127:G:C5	3.06	0.44
1:AA:1187:G:H21	14:AQ:60:SER:HB3	1.82	0.44
1:AA:1195:C:H5"	1:AA:1196:U:OP2	2.16	0.44
1:AA:1428:A:H2'	1:AA:1429:C:H6	1.79	0.44
2:AE:74:LYS:HZ3	2:AE:165:VAL:HG13	1.82	0.44
2:AE:174:VAL:O	2:AE:178:ARG:HB2	2.17	0.44
2:AE:219:VAL:HA	2:AE:222:ILE:CG1	2.45	0.44
7:AJ:16:LEU:HD22	9:AL:44:VAL:CG2	2.46	0.44
8:AK:46:LYS:HD2	8:AK:62:TYR:HB3	1.98	0.44
9:AL:9:ARG:HG3	9:AL:14:VAL:HG23	1.95	0.44
10:AM:54:PHE:C	10:AM:54:PHE:HD1	2.19	0.44
13:AP:11:ARG:CB	13:AP:46:LYS:NZ	2.77	0.44
17:AT:83:ASP:HA	17:AT:86:GLU:HG2	1.99	0.44
18:AU:25:THR:HG22	18:AU:25:THR:O	2.18	0.44
24:BA:644:A:O3'	24:BA:645:C:H6	2.00	0.44
24:BA:764:A:H5'	26:BD:210:GLY:HA2	1.99	0.44
24:BA:1512:G:H2'	24:BA:1513:C:C6	2.53	0.44
24:BA:1797:C:H4'	26:BD:257:LEU:O	2.16	0.44
24:BA:2016:U:H1'	50:B5:6:VAL:HG13	1.98	0.44
24:BA:2110:G:H3'	24:BA:2111:C:C4'	2.43	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2143:C:C2	24:BA:2148:G:N2	2.84	0.44
24:BA:2162:G:P	24:BA:2164:C:H42	2.40	0.44
24:BA:2332:U:H5'	24:BA:2336:A:N6	2.32	0.44
24:BA:2346:A:H5"	24:BA:2383:G:C1'	2.47	0.44
26:BD:68:LYS:HB2	26:BD:70:TRP:CE2	2.52	0.44
27:BE:203:LYS:HD2	27:BE:203:LYS:C	2.38	0.44
29:BG:57:ALA:CB	29:BG:90:LEU:HD21	2.44	0.44
32:BM:10:GLU:OE1	32:BM:10:GLU:N	2.50	0.44
34:BO:15:ARG:HG3	34:BO:16:ARG:H	1.82	0.44
35:BP:79:LEU:HD12	35:BP:80:GLU:CB	2.47	0.44
36:B0:62:ALA:O	36:B0:66:VAL:HG23	2.16	0.44
38:BR:23:ARG:HB3	38:BR:24:PRO:HD2	1.98	0.44
42:BT:31:HIS:ND1	42:BT:32:PRO:HD2	2.32	0.44
43:BU:10:GLY:O	43:BU:26:LYS:HG3	2.18	0.44
47:BW:53:LEU:HD22	47:BW:57:ILE:HG13	1.99	0.44
1:CA:250:A:H5'	1:CA:252:U:C1'	2.47	0.44
1:CA:787:A:O2'	1:CA:788:U:H5'	2.18	0.44
1:CA:853:G:O2'	1:CA:854:G:H5'	2.17	0.44
1:CA:947:G:N2	1:CA:1235:U:C2	2.86	0.44
1:CA:1067:A:N3	1:CA:1068:G:H1'	2.31	0.44
1:CA:1124:G:H3'	1:CA:1145:C:C4	2.52	0.44
5:CH:71:LEU:HD23	5:CH:114:GLY:O	2.18	0.44
6:CI:37:VAL:CG1	6:CI:38:GLU:H	2.23	0.44
9:CL:114:TYR:HD1	9:CL:114:TYR:H	1.65	0.44
10:CM:27:ALA:HA	10:CM:84:GLN:CD	2.37	0.44
12:CO:25:PRO:O	12:CO:27:LEU:N	2.50	0.44
12:CO:111:LYS:HD3	12:CO:111:LYS:N	2.12	0.44
13:CP:44:ARG:HB3	13:CP:46:LYS:HG2	1.99	0.44
14:CQ:4:LYS:CA	14:CQ:7:ILE:HG12	2.43	0.44
15:CR:2:PRO:HB2	15:CR:3:ILE:H	1.62	0.44
22:CC:24:U:H2'	22:CC:25:C:H6	1.83	0.44
24:DA:269:U:C4	24:DA:270(Z):U:C2	3.05	0.44
24:DA:863:A:H2'	24:DA:864:G:C8	2.53	0.44
24:DA:1000:A:C6	24:DA:1001:A:C6	3.05	0.44
24:DA:1048:A:N6	24:DA:1112:G:O2'	2.51	0.44
24:DA:1154:G:H8	24:DA:1154:G:O5'	2.01	0.44
24:DA:1547:C:H2'	24:DA:1548:C:C6	2.53	0.44
24:DA:1642:G:C2'	24:DA:1643:G:H5'	2.47	0.44
24:DA:1838:C:H4'	24:DA:1839:G:H8	1.82	0.44
24:DA:2063:C:O2	24:DA:2450:A:N1	2.50	0.44
24:DA:2134:A:C6	24:DA:2158:A:O4'	2.70	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2211:G:C4'	24:DA:2212:A:OP2	2.66	0.44
24:DA:2320:A:O2'	24:DA:2321:G:C4	2.70	0.44
24:DA:2321:G:N3	24:DA:2321:G:C2'	2.79	0.44
24:DA:2392:A:H2	24:DA:2424:C:N4	2.08	0.44
24:DA:2556:C:C2'	24:DA:2557:G:H5'	2.47	0.44
24:DA:2563:U:O2	24:DA:2565:A:H8	1.98	0.44
24:DA:2574:G:O2'	27:DE:143:ASN:HB3	2.17	0.44
24:DA:2693:A:H2'	24:DA:2694:G:H8	1.82	0.44
24:DA:2749:A:N6	24:DA:2750:A:N6	2.66	0.44
25:DB:43:C:C4	25:DB:45:A:N6	2.85	0.44
25:DB:88:C:H3'	25:DB:88:C:H6	1.83	0.44
26:DD:123:ALA:O	26:DD:131:LEU:HD21	2.17	0.44
29:DG:108:ASN:CG	49:D4:38:LYS:HG3	2.38	0.44
29:DG:173:LEU:O	29:DG:178:PHE:CD1	2.70	0.44
30:DH:99:VAL:HG21	30:DH:104:GLU:OE2	2.18	0.44
31:DK:77:LEU:CD1	31:DK:78:THR:N	2.79	0.44
35:DP:6:ARG:C	35:DP:7:MET:HG2	2.38	0.44
35:DP:75:THR:HA	35:DP:90:VAL:N	2.32	0.44
38:DR:3:ARG:NE	38:DR:6:LEU:HD13	2.33	0.44
39:D1:90:VAL:HG22	40:D2:39:LEU:CD2	2.48	0.44
40:D2:36:PRO:C	40:D2:37:VAL:HG13	2.38	0.44
42:DT:26:TYR:HB3	42:DT:92:LEU:CD1	2.48	0.44
46:DZ:76:ARG:CD	46:DZ:94:LEU:HD22	2.40	0.44
51:D6:47:THR:HG23	51:D6:49:HIS:CE1	2.52	0.44
1:AA:96:G:H2'	1:AA:97:U:O4'	2.17	0.44
1:AA:131:C:O2	1:AA:132:C:C6	2.71	0.44
1:AA:370:C:H2'	1:AA:371:G:C8	2.53	0.44
1:AA:448:A:N1	1:AA:449:C:C4	2.86	0.44
1:AA:475:G:H2'	1:AA:476:G:C8	2.52	0.44
1:AA:521:G:O6	1:AA:529:G:C6	2.71	0.44
1:AA:645:C:C4	1:AA:646:U:C4	3.05	0.44
1:AA:658:G:C6	1:AA:659:U:C4	3.04	0.44
1:AA:1027:C:H4'	1:AA:1028:C:OP1	2.16	0.44
1:AA:1314:C:N4	19:AV:5:LEU:HA	2.31	0.44
3:AF:139:GLN:HA	3:AF:139:GLN:OE1	2.17	0.44
4:AG:8:VAL:CG1	4:AG:115:ARG:NH2	2.36	0.44
9:AL:5:TYR:HA	9:AL:17:VAL:O	2.18	0.44
9:AL:9:ARG:CD	9:AL:14:VAL:HG23	2.47	0.44
13:AP:69:GLU:CD	49:B4:48:ARG:HH22	2.20	0.44
13:AP:116:THR:C	13:AP:117:VAL:HG13	2.38	0.44
14:AQ:10:ALA:HB2	14:AQ:23:ARG:NH2	2.30	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AS:67:THR:HB	16:AS:70:ALA:H	1.82	0.44
20:AW:84:LEU:C	20:AW:86:ARG:H	2.20	0.44
24:BA:10:G:N1	24:BA:2629:A:N1	2.66	0.44
24:BA:164:U:P	24:BA:165:U:C4	3.11	0.44
24:BA:270(N):G:H2'	24:BA:270(P):C:OP2	2.18	0.44
24:BA:924:C:N4	24:BA:925:C:N4	2.65	0.44
24:BA:1000:A:C6	24:BA:1001:A:C6	3.05	0.44
24:BA:2745:C:C4	24:BA:2746:U:C4	3.06	0.44
24:BA:2789:C:C2'	24:BA:2790:A:H4'	2.45	0.44
24:BA:2877:G:H2'	24:BA:2878:U:O4'	2.17	0.44
25:BB:12:C:OP2	25:BB:12:C:C6	2.70	0.44
25:BB:33:G:C2'	25:BB:34:U:H5'	2.48	0.44
26:BD:30:GLU:CG	26:BD:63:ARG:NH2	2.80	0.44
27:BE:2:LYS:HD2	27:BE:95:ILE:HG22	1.99	0.44
29:BG:144:ILE:HG22	29:BG:146:TYR:H	1.83	0.44
31:BK:37:VAL:HG22	31:BK:38:LEU:HD12	2.00	0.44
31:BK:95:LYS:HZ1	31:BK:99:GLU:HB2	1.80	0.44
32:BM:42:TRP:HA	32:BM:48:MET:SD	2.58	0.44
40:B2:24:LYS:HB3	40:B2:24:LYS:HZ3	1.80	0.44
41:BS:41:LYS:O	41:BS:43:GLY:N	2.51	0.44
47:BW:13:ALA:O	47:BW:16:LEU:HB3	2.18	0.44
51:B6:15:GLU:OE2	51:B6:44:ARG:NH2	2.50	0.44
1:CA:392:G:P	16:CS:8:ARG:NH2	2.91	0.44
1:CA:505:G:H2'	1:CA:506:G:C8	2.53	0.44
1:CA:745:C:H4'	1:CA:836:G:H21	1.82	0.44
1:CA:1180:A:H5"	1:CA:1181:G:OP1	2.18	0.44
1:CA:1309:G:N1	1:CA:1329:A:C2	2.85	0.44
1:CA:1330:U:C4	1:CA:1331:G:C4	3.05	0.44
2:CE:28:PHE:CE2	2:CE:190:THR:HG22	2.52	0.44
3:CF:8:ILE:HG22	14:CQ:49:HIS:O	2.18	0.44
3:CF:64:VAL:HG22	3:CF:66:VAL:HG23	1.99	0.44
3:CF:71:ALA:CA	3:CF:106:VAL:HB	2.48	0.44
5:CH:66:MET:HB3	5:CH:67:VAL:H	1.61	0.44
5:CH:96:PRO:HA	5:CH:117:ASP:OD1	2.18	0.44
6:CI:2:ARG:NH2	15:CR:2:PRO:CD	2.78	0.44
6:CI:39:LYS:H	6:CI:64:GLN:HB3	1.81	0.44
7:CJ:25:ALA:HA	7:CJ:28:ASN:HD22	1.80	0.44
9:CL:3:GLN:HE21	9:CL:20:ARG:HD2	1.81	0.44
10:CM:47:PHE:HD1	10:CM:47:PHE:O	2.01	0.44
19:CV:22:LEU:HD13	19:CV:27:GLU:HA	1.97	0.44
24:DA:82:G:H5'	24:DA:295:G:O2'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:125:G:H4'	24:DA:126:A:OP2	2.17	0.44
24:DA:444:C:H4'	28:DF:49:ALA:HB2	1.99	0.44
24:DA:467:G:H2'	24:DA:468:G:O4'	2.18	0.44
24:DA:494:G:P	41:DS:8:ARG:HH11	2.40	0.44
24:DA:592:G:N2	53:D8:4:MET:CE	2.71	0.44
24:DA:607:U:C2	24:DA:621:A:N1	2.86	0.44
24:DA:718:A:C2'	24:DA:719:C:H5'	2.47	0.44
24:DA:729:G:O2'	24:DA:763:G:H4'	2.16	0.44
24:DA:1075:C:C4	24:DA:1076:C:N4	2.85	0.44
24:DA:1171:G:C8	24:DA:1173:G:N3	2.85	0.44
24:DA:1496:A:H1'	24:DA:1577:C:HO2'	1.81	0.44
24:DA:1541:U:H2'	24:DA:1542:G:O4'	2.17	0.44
24:DA:1644:C:H2'	24:DA:1644:C:O2	2.16	0.44
24:DA:2401:U:O2	24:DA:2402:C:H5	1.99	0.44
24:DA:2576:G:H3'	24:DA:2576:G:N3	2.32	0.44
25:DB:78:A:H2'	25:DB:79:C:O4'	2.18	0.44
26:DD:108:PRO:HA	26:DD:195:ALA:O	2.16	0.44
27:DE:48:GLN:C	27:DE:49:LEU:HG	2.36	0.44
29:DG:114:ILE:HD13	29:DG:140:ILE:CG2	2.48	0.44
30:DH:3:ARG:HH12	30:DH:4:ILE:HG13	1.75	0.44
31:DK:84:GLY:O	31:DK:85:GLU:HB3	2.17	0.44
33:DN:15:GLY:O	33:DN:47:ILE:HG22	2.18	0.44
33:DN:40:VAL:HG12	33:DN:41:ALA:N	2.33	0.44
33:DN:47:ILE:CG1	33:DN:48:PRO:CD	2.89	0.44
34:DO:52:GLU:OE1	34:DO:53:GLY:C	2.56	0.44
34:DO:56:SER:HB2	34:DO:61:ARG:NH2	2.32	0.44
38:DR:31:SER:OG	38:DR:85:LYS:HE2	2.17	0.44
39:D1:91:ASP:OD1	39:D1:96:ALA:CB	2.66	0.44
41:DS:59:VAL:O	41:DS:63:ASP:HA	2.18	0.44
41:DS:59:VAL:HA	41:DS:64:MET:H	1.82	0.44
47:DW:53:LEU:O	47:DW:57:ILE:HG13	2.17	0.44
49:D4:36:CYS:O	49:D4:37:SER:CB	2.65	0.44
52:D7:34:ARG:NH1	52:D7:39:ARG:HG3	2.33	0.44
53:D8:40:GLU:H	53:D8:43:GLN:HG2	1.83	0.44
1:AA:262:A:H2'	1:AA:263:A:C8	2.52	0.44
1:AA:408:A:H2'	1:AA:409:G:O4'	2.18	0.44
1:AA:652:U:H2'	1:AA:653:A:H5"	2.00	0.44
1:AA:977:A:H2'	1:AA:978:A:H5"	1.99	0.44
1:AA:1178:G:OP1	9:AL:93:ARG:NH1	2.51	0.44
1:AA:1353:G:C2	1:AA:1370:G:C2	3.06	0.44
1:AA:1381:U:C1'	7:AJ:79:ARG:HG2	2.45	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AE:74:LYS:CE	2:AE:166:ASP:CB	2.96	0.44
2:AE:149:LEU:O	2:AE:153:ARG:HB2	2.17	0.44
2:AE:212:GLN:CD	2:AE:216:SER:OG	2.53	0.44
3:AF:115:LEU:HD12	3:AF:115:LEU:H	1.82	0.44
4:AG:134:ASP:O	4:AG:135:LEU:HD12	2.17	0.44
6:AI:101:ALA:HB2	18:AU:28:GLU:HG3	1.98	0.44
7:AJ:36:LYS:HZ2	7:AJ:36:LYS:HB2	1.82	0.44
9:AL:9:ARG:O	9:AL:104:ARG:CD	2.64	0.44
9:AL:14:VAL:CG2	9:AL:15:ALA:N	2.79	0.44
9:AL:96:LEU:C	9:AL:99:LEU:HD11	2.36	0.44
10:AM:7:LYS:HG2	10:AM:71:LEU:HD13	2.00	0.44
10:AM:38:ILE:CG2	10:AM:71:LEU:HB3	2.47	0.44
19:AV:28:LYS:HD3	19:AV:47:HIS:CD2	2.53	0.44
24:BA:205:G:O2'	24:BA:206:U:P	2.75	0.44
24:BA:531:C:H4'	24:BA:532:A:H5"	1.99	0.44
24:BA:590:A:H2'	24:BA:591:C:O4'	2.18	0.44
24:BA:654(R):C:N4	24:BA:654(S):G:O6	2.51	0.44
24:BA:686:G:O5'	52:B7:11:LYS:NZ	2.51	0.44
24:BA:747:U:C4	24:BA:2613:U:C4	3.05	0.44
24:BA:910:A:C6	24:BA:911:A:C6	3.06	0.44
24:BA:944:G:H5"	24:BA:945:A:H5'	2.00	0.44
24:BA:1021:A:C8	24:BA:1022:G:H5"	2.52	0.44
24:BA:1060:U:C5	24:BA:1062:G:H4'	2.52	0.44
24:BA:1300:U:H4'	24:BA:1301:A:H5'	1.98	0.44
24:BA:1434:A:C6	24:BA:1435:G:C6	3.05	0.44
24:BA:1545(A):A:C2'	24:BA:1546:C:H5'	2.48	0.44
24:BA:2210:G:H5'	24:BA:2211:G:C5	2.53	0.44
24:BA:2511:U:O4	24:BA:2575:C:N3	2.50	0.44
24:BA:2715:C:H2'	24:BA:2716:U:H6	1.82	0.44
24:BA:2836:U:H2'	24:BA:2837:G:C8	2.53	0.44
24:BA:2870:C:H5"	36:B0:65:LEU:HD21	1.99	0.44
26:BD:32:SER:HA	26:BD:36:PRO:CD	2.45	0.44
27:BE:172:VAL:HG13	27:BE:182:LEU:HD11	1.98	0.44
30:BH:89:ILE:O	30:BH:89:ILE:HG12	2.17	0.44
33:BN:20:MET:CE	33:BN:44:LYS:HE3	2.48	0.44
38:BR:111:ARG:C	38:BR:113:LYS:H	2.21	0.44
43:BU:94:LYS:CD	43:BU:101:LYS:NZ	2.80	0.44
44:BV:112:ARG:O	44:BV:112:ARG:CG	2.66	0.44
44:BV:139:VAL:O	44:BV:144:LEU:HD11	2.18	0.44
44:BV:169:GLU:OE2	44:BV:171:ILE:HD11	2.18	0.44
46:BZ:45:ASN:O	46:BZ:63:ALA:HA	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BW:64:LEU:O	47:BW:64:LEU:HD23	2.18	0.44
50:B5:33:CYS:SG	50:B5:46:CYS:SG	3.00	0.44
51:B6:29:ASN:HB2	51:B6:32:ASN:HD22	1.83	0.44
1:CA:62:U:O2'	1:CA:379:C:H1'	2.16	0.44
1:CA:616:G:C2	1:CA:617:G:N7	2.86	0.44
1:CA:788:U:C5	1:CA:789:U:C5	3.04	0.44
1:CA:865:A:C2	1:CA:918:A:C4'	2.99	0.44
1:CA:994:A:N7	1:CA:1216:G:H4'	2.32	0.44
1:CA:1109:C:H2'	1:CA:1110:A:O4'	2.17	0.44
1:CA:1213:A:N6	1:CA:1215:G:C4	2.86	0.44
1:CA:1277:C:H1'	1:CA:1282:C:H1'	2.00	0.44
1:CA:1279:A:C2'	1:CA:1282:C:N4	2.80	0.44
1:CA:1299:A:N6	1:CA:1301:U:C2	2.86	0.44
1:CA:1319:A:H61	1:CA:1361:G:N2	2.15	0.44
1:CA:1327:C:H5"	21:CX:20:LYS:CB	2.47	0.44
1:CA:1430:C:H2'	1:CA:1431:C:H6	1.83	0.44
2:CE:54:THR:O	2:CE:58:ILE:HG13	2.17	0.44
3:CF:112:SER:OG	3:CF:115:LEU:HB2	2.18	0.44
5:CH:69:VAL:O	5:CH:71:LEU:CD1	2.66	0.44
8:CK:33:GLU:HG3	8:CK:48:TYR:HE2	1.75	0.44
22:CC:8:U:C4'	22:CC:48:C:O2'	2.66	0.44
24:DA:774:A:HO2'	24:DA:775:G:P	2.40	0.44
24:DA:828:U:H4'	24:DA:831:G:N1	2.33	0.44
24:DA:1050:A:H2	24:DA:2751:G:H3'	1.82	0.44
24:DA:1060:U:H4'	24:DA:1061:U:H3'	1.99	0.44
24:DA:1313:U:H3'	24:DA:1313:U:O2	2.18	0.44
24:DA:1416:G:N2	24:DA:1582:C:N3	2.48	0.44
24:DA:1507:A:N3	24:DA:1508:A:H1'	2.33	0.44
24:DA:2758:A:H2'	24:DA:2759:G:O4'	2.16	0.44
24:DA:2828:C:O2'	24:DA:2829:C:H5'	2.17	0.44
25:DB:13:A:H2'	25:DB:14:U:H5"	1.99	0.44
29:DG:105:LYS:HZ2	49:D4:26:SER:HB3	1.82	0.44
30:DH:9:ILE:CG2	30:DH:51:ARG:HA	2.47	0.44
30:DH:137:ASP:O	30:DH:138:LYS:HB2	2.17	0.44
32:DM:28:THR:HA	32:DM:106:MET:CE	2.47	0.44
32:DM:28:THR:HA	32:DM:106:MET:HE2	1.99	0.44
32:DM:35:ARG:C	32:DM:37:LYS:N	2.71	0.44
32:DM:39:ARG:HH11	32:DM:41:ASP:HB3	1.82	0.44
33:DN:69:ILE:O	33:DN:76:ALA:HA	2.17	0.44
39:D1:24:TYR:O	39:D1:29:SER:HB3	2.17	0.44
42:DT:84:ALA:O	42:DT:85:PRO:C	2.56	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DT:90:GLU:HA	42:DT:93:GLU:HB2	2.00	0.44
43:DU:8:LYS:HG2	43:DU:9:LYS:H	1.82	0.44
44:DV:3:TYR:HH	44:DV:55:HIS:CE1	2.30	0.44
47:DW:6:VAL:O	47:DW:7:ARG:C	2.56	0.44
47:DW:66:GLU:HA	47:DW:69:ARG:CZ	2.47	0.44
50:D5:57:VAL:CG1	50:D5:58:LEU:N	2.80	0.44
1:AA:143:A:H5"	1:AA:144:G:O5'	2.17	0.44
1:AA:176:C:H2'	1:AA:177:C:C6	2.52	0.44
1:AA:530:G:H3'	1:AA:531:U:C5'	2.48	0.44
1:AA:1106:G:H5"	3:AF:172:ARG:HG2	1.99	0.44
1:AA:1112:C:O2	3:AF:179:ARG:HG2	2.16	0.44
1:AA:1230:C:O2'	1:AA:1231:G:H5'	2.18	0.44
2:AE:31:TYR:C	2:AE:42:ILE:CD1	2.86	0.44
2:AE:139:LYS:O	2:AE:143:GLU:HG3	2.17	0.44
5:AH:13:ILE:HD12	5:AH:13:ILE:N	2.31	0.44
7:AJ:76:ARG:N	7:AJ:87:VAL:O	2.51	0.44
9:AL:125:TYR:HD1	9:AL:126:SER:N	2.05	0.44
12:AO:46:LYS:HD2	12:AO:94:PRO:HG3	1.99	0.44
13:AP:11:ARG:NE	13:AP:46:LYS:CE	2.75	0.44
18:AU:29:PHE:CD1	18:AU:29:PHE:O	2.70	0.44
24:BA:72:U:N3	47:BW:62:THR:HG23	2.32	0.44
24:BA:141:A:H8	24:BA:1408:C:H1'	1.79	0.44
24:BA:600:G:H2'	24:BA:601:C:C6	2.51	0.44
24:BA:1019:U:H2'	24:BA:1020:A:H8	1.82	0.44
24:BA:1063:G:C5	24:BA:1064:C:C4	3.06	0.44
24:BA:1176:G:H2'	24:BA:1178:C:C4	2.53	0.44
24:BA:1374:G:H2'	24:BA:1375:C:C6	2.52	0.44
24:BA:1728:G:H5'	24:BA:1729:A:OP2	2.17	0.44
24:BA:1838:C:C4	24:BA:1899:G:C6	3.06	0.44
24:BA:2303:G:C2'	24:BA:2304:G:H5'	2.48	0.44
24:BA:2399:G:O2'	51:B6:19:ARG:NE	2.50	0.44
24:BA:2728:U:H2'	24:BA:2729:G:H8	1.81	0.44
24:BA:2880:C:H1'	36:B0:91:GLN:O	2.17	0.44
26:BD:217:ARG:HG2	26:BD:217:ARG:NH1	2.32	0.44
27:BE:33:VAL:HG12	27:BE:90:THR:H	1.83	0.44
29:BG:135:LEU:HD23	29:BG:141:PHE:HE1	1.82	0.44
30:BH:30:LYS:CD	30:BH:81:GLU:H	2.30	0.44
31:BK:67:ARG:HH21	31:BK:68:LEU:HB2	1.83	0.44
31:BK:79:ILE:HD13	31:BK:79:ILE:HA	1.86	0.44
34:BO:6:LEU:HA	34:BO:6:LEU:HD12	1.69	0.44
34:BO:62:LEU:HD23	34:BO:63:PRO:C	2.38	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BO:81:GLN:HG3	34:BO:82:GLY:N	2.33	0.44
40:B2:95:LEU:HD13	40:B2:95:LEU:C	2.37	0.44
41:BS:66:GLU:O	41:BS:67:ASP:HB3	2.18	0.44
51:B6:9:LEU:HB3	51:B6:26:ASN:O	2.17	0.44
1:CA:528:C:O2'	1:CA:529:G:H5'	2.18	0.44
1:CA:686:U:H1'	11:CN:42:TRP:NE1	2.20	0.44
1:CA:689:C:O2'	1:CA:690:G:H5'	2.18	0.44
1:CA:977:A:H2	1:CA:1224:G:C6	2.35	0.44
1:CA:1023:G:C2'	1:CA:1024:G:OP1	2.66	0.44
1:CA:1148:U:O2'	9:CL:66:ARG:NH2	2.51	0.44
1:CA:1236:A:H4'	1:CA:1304:G:H5"	2.00	0.44
1:CA:1358:U:C5'	1:CA:1359:C:OP2	2.64	0.44
2:CE:140:HIS:O	2:CE:143:GLU:HB3	2.17	0.44
4:CG:93:PHE:CE1	4:CG:97:LEU:HD12	2.52	0.44
7:CJ:54:THR:O	7:CJ:54:THR:HG23	2.18	0.44
13:CP:25:ILE:HD11	13:CP:66:LEU:CD2	2.48	0.44
15:CR:53:HIS:O	15:CR:56:LEU:HB3	2.16	0.44
24:DA:866:A:N6	24:DA:914:C:C5	2.85	0.44
24:DA:875:G:H5'	44:DV:173:ALA:CB	2.48	0.44
24:DA:969:U:O3'	48:DX:14:GLY:HA2	2.17	0.44
24:DA:1050:A:H2'	24:DA:1051:G:O4'	2.17	0.44
24:DA:1348:G:C2'	24:DA:1349:A:H5"	2.48	0.44
24:DA:1494:A:C6	24:DA:1495:A:C6	3.06	0.44
24:DA:1815:A:C6	24:DA:1817:G:C6	3.06	0.44
24:DA:2151:G:C6	24:DA:2152:G:C5	3.06	0.44
24:DA:2273:A:O2'	24:DA:2274:A:H5'	2.18	0.44
24:DA:2286:A:H5"	51:D6:28:ARG:HH11	1.61	0.44
24:DA:2343:C:H4'	24:DA:2373:G:O3'	2.17	0.44
24:DA:2416:C:C4'	34:DO:64:LYS:HZ1	2.30	0.44
24:DA:2531:A:C5'	30:DH:157:TYR:CZ	3.01	0.44
24:DA:2578:G:OP2	24:DA:2578:G:H4'	2.16	0.44
24:DA:2652:C:H2'	24:DA:2653:U:O4'	2.17	0.44
26:DD:61:LEU:HD13	26:DD:61:LEU:HA	1.84	0.44
29:DG:60:LEU:O	29:DG:60:LEU:CD2	2.65	0.44
29:DG:143:GLU:OE2	29:DG:143:GLU:N	2.40	0.44
30:DH:127:GLU:HG2	30:DH:128:PRO:CD	2.41	0.44
31:DK:63:ALA:O	31:DK:67:ARG:NH1	2.50	0.44
32:DM:127:ASP:O	32:DM:128:HIS:HB3	2.18	0.44
39:D1:83:LEU:HD21	39:D1:88:ILE:HG13	1.99	0.44
39:D1:108:GLU:CD	40:D2:45:THR:HA	2.38	0.44
40:D2:15:GLU:HB3	40:D2:16:PRO:HD2	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DU:2:ARG:HA	43:DU:2:ARG:HH11	1.83	0.44
44:DV:124:ILE:HG23	44:DV:124:ILE:O	2.17	0.44
49:D4:39:CYS:O	49:D4:40:HIS:CB	2.65	0.44
1:AA:577:G:H1'	1:AA:816:A:C4	2.53	0.44
1:AA:950:U:H1'	1:AA:971:G:C5	2.53	0.44
1:AA:1381:U:O2'	7:AJ:79:ARG:CG	2.64	0.44
2:AE:92:TYR:CG	2:AE:151:GLY:HA3	2.53	0.44
2:AE:180:LEU:C	2:AE:182:ILE:H	2.21	0.44
4:AG:94:LEU:HA	4:AG:97:LEU:HD12	1.99	0.44
5:AH:59:GLY:O	5:AH:63:ARG:HG3	2.17	0.44
6:AI:87:ARG:HD3	18:AU:75:ILE:O	2.18	0.44
8:AK:87:SER:OG	8:AK:92:ARG:HA	2.17	0.44
13:AP:81:LEU:CD2	13:AP:88:ARG:HH11	2.30	0.44
13:AP:96:LEU:HB3	13:AP:97:PRO:CD	2.48	0.44
17:AT:25:ARG:NH1	17:AT:27:PHE:CE2	2.85	0.44
20:AW:43:LEU:HB3	20:AW:52:ALA:HB2	1.98	0.44
24:BA:1050:A:C5	24:BA:2751:G:N7	2.86	0.44
24:BA:1458:C:C4'	24:BA:1459:G:H5'	2.47	0.44
24:BA:1521:G:H5'	24:BA:1522:G:OP1	2.18	0.44
24:BA:1878:G:H2'	24:BA:1879:C:H6	1.83	0.44
24:BA:2212:A:H1'	24:BA:2215:G:C4	2.52	0.44
24:BA:2259:G:C2	24:BA:2282:G:C6	3.06	0.44
24:BA:2683:C:H4'	27:BE:13:ARG:HH21	1.83	0.44
24:BA:2732:G:H3'	24:BA:2733:A:O4'	2.18	0.44
25:BB:21:G:H1	25:BB:62:C:H42	1.65	0.44
26:BD:33:LEU:N	26:BD:35:LYS:O	2.48	0.44
26:BD:85:ASP:OD1	26:BD:86:PRO:HD2	2.18	0.44
28:BF:126:VAL:HG23	28:BF:127:GLU:N	2.32	0.44
31:BK:127:VAL:HA	31:BK:139:GLN:HA	2.00	0.44
31:BK:131:LYS:HA	31:BK:135:GLU:CB	2.44	0.44
32:BM:99:LEU:O	32:BM:103:VAL:HG23	2.18	0.44
34:BO:138:LEU:HD11	34:BO:144:GLU:HG2	2.00	0.44
35:BP:69:PHE:HA	35:BP:70:PRO:HD3	1.79	0.44
35:BP:79:LEU:CD1	35:BP:80:GLU:HB2	2.47	0.44
39:B1:24:TYR:HB2	39:B1:29:SER:HB3	1.98	0.44
39:B1:58:ARG:HH11	39:B1:93:LYS:NZ	2.14	0.44
43:BU:6:HIS:CE1	43:BU:7:VAL:HG13	2.53	0.44
48:BX:4:LEU:HD23	48:BX:4:LEU:HA	1.84	0.44
1:CA:34:C:H1'	12:CO:32:PHE:HE2	1.82	0.44
1:CA:188:U:O2'	1:CA:189:U:C5'	2.64	0.44
1:CA:255:G:O3'	17:CT:17:LYS:HD2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:554:C:H2'	1:CA:555:C:C6	2.52	0.44
1:CA:598:U:C4'	8:CK:94:TYR:CE2	3.00	0.44
1:CA:978:A:O2'	1:CA:1322:C:N4	2.47	0.44
1:CA:1057:G:C2'	1:CA:1058:G:H5'	2.48	0.44
1:CA:1237:C:C4'	1:CA:1334:G:N2	2.81	0.44
1:CA:1260:C:OP1	1:CA:1284:C:H4'	2.18	0.44
2:CE:28:PHE:CE2	2:CE:31:TYR:C	2.91	0.44
4:CG:39:PRO:HA	4:CG:40:PRO:HD3	1.81	0.44
4:CG:153:ARG:NH1	4:CG:181:MET:SD	2.90	0.44
6:CI:38:GLU:HB3	6:CI:64:GLN:O	2.18	0.44
6:CI:99:ALA:O	6:CI:100:ASN:HB3	2.17	0.44
9:CL:28:VAL:CG1	9:CL:29:ASN:N	2.81	0.44
13:CP:80:ARG:HD2	49:D4:55:ARG:HD3	1.97	0.44
17:CT:26:GLN:O	17:CT:27:PHE:HB3	2.17	0.44
24:DA:78:A:C4	24:DA:79:G:N7	2.86	0.44
24:DA:192:C:C2'	24:DA:193:U:H5'	2.47	0.44
24:DA:458:G:O2'	52:D7:39:ARG:HD3	2.17	0.44
24:DA:498:G:N2	43:DU:47:LYS:HZ1	2.14	0.44
24:DA:708:C:H5'	24:DA:709:U:OP2	2.17	0.44
24:DA:945:A:C4	24:DA:2448:A:C2	3.06	0.44
24:DA:1006:C:O2'	24:DA:1007:C:H5'	2.17	0.44
24:DA:1111:A:C2'	24:DA:1112:G:C4'	2.91	0.44
24:DA:1373:A:H2'	24:DA:1374:G:O4'	2.17	0.44
24:DA:2190:G:H2'	24:DA:2191:G:O4'	2.18	0.44
24:DA:2266:A:H4'	24:DA:2267:A:N3	2.33	0.44
24:DA:2287:A:N1	24:DA:2289:G:H1'	2.32	0.44
24:DA:2317:C:C2'	24:DA:2318:G:H5'	2.48	0.44
24:DA:2520:C:C6	24:DA:2567:G:H1'	2.53	0.44
24:DA:2638:G:P	27:DE:82:ARG:HH22	2.41	0.44
24:DA:2859:G:O2'	24:DA:2860:A:P	2.76	0.44
24:DA:2881:C:C4	24:DA:2882:A:N7	2.85	0.44
29:DG:9:ARG:O	29:DG:12:TYR:N	2.50	0.44
29:DG:135:LEU:O	29:DG:154:GLY:HA3	2.18	0.44
34:DO:15:ARG:HA	34:DO:15:ARG:HD3	1.63	0.44
34:DO:143:GLY:O	34:DO:144:GLU:CB	2.64	0.44
38:DR:99:LEU:C	38:DR:101:PHE:H	2.21	0.44
47:DW:16:LEU:HD12	47:DW:16:LEU:O	2.18	0.44
1:AA:43:C:O2'	1:AA:623:C:O2'	2.36	0.44
1:AA:46:G:O2'	1:AA:365:U:H1'	2.18	0.44
1:AA:246:A:H3'	17:AT:100:LYS:HB3	1.99	0.44
1:AA:264:U:O2'	17:AT:64:PRO:O	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:353:A:C2'	1:AA:354:G:OP2	2.64	0.44
1:AA:1125:U:H3	10:AM:5:ARG:NH1	2.16	0.44
1:AA:1151:A:H4'	1:AA:1151:A:OP1	2.18	0.44
1:AA:1452:C:H2'	1:AA:1453:G:OP2	2.18	0.44
2:AE:52:GLU:O	2:AE:56:ARG:HB2	2.17	0.44
4:AG:196:LEU:C	4:AG:198:VAL:H	2.20	0.44
5:AH:72:GLN:O	5:AH:73:ASN:CB	2.66	0.44
7:AJ:12:LEU:HD22	7:AJ:12:LEU:N	2.32	0.44
7:AJ:78:ARG:NH2	7:AJ:154:TYR:CA	2.79	0.44
9:AL:79:LEU:O	9:AL:81:ILE:N	2.51	0.44
9:AL:114:TYR:HE1	10:AM:59:SER:HA	1.83	0.44
16:AS:19:ILE:HD13	16:AS:19:ILE:HA	1.81	0.44
20:AW:48:LYS:HD2	20:AW:48:LYS:N	2.30	0.44
21:AX:10:ARG:HA	21:AX:13:ILE:HD12	2.00	0.44
24:BA:886:C:H3'	24:BA:887:A:H5"	1.99	0.44
24:BA:1027:A:N6	24:BA:1126:A:C4	2.85	0.44
24:BA:1060:U:N3	24:BA:1062:G:H4'	2.33	0.44
24:BA:1084:A:C5	24:BA:1085:A:N7	2.86	0.44
24:BA:1167:U:C2	24:BA:1183:G:N2	2.86	0.44
24:BA:1312:U:C4'	24:BA:1313:U:O5'	2.65	0.44
24:BA:1538:G:N3	24:BA:1539:G:C8	2.86	0.44
24:BA:1585:C:OP2	24:BA:1585:C:C4'	2.65	0.44
24:BA:1633:G:C5	24:BA:1635:G:C5	3.06	0.44
24:BA:1755:A:H2'	24:BA:1756:G:H5'	2.00	0.44
24:BA:1934:C:O2	24:BA:1934:C:H2'	2.18	0.44
24:BA:2283:C:C6	24:BA:2389:G:H2'	2.53	0.44
24:BA:2400:G:C8	51:B6:19:ARG:NH2	2.86	0.44
24:BA:2562:U:C2'	24:BA:2563:U:H5'	2.48	0.44
25:BB:92:G:C2	25:BB:93:C:C6	3.06	0.44
26:BD:35:LYS:HE2	26:BD:104:TYR:CB	2.48	0.44
26:BD:255:LYS:HD3	26:BD:255:LYS:HA	1.86	0.44
28:BF:185:ASP:HA	28:BF:188:ARG:CD	2.37	0.44
30:BH:148:ILE:O	30:BH:151:ILE:HG13	2.18	0.44
32:BM:71:ILE:HG21	32:BM:84:LYS:HB3	2.00	0.44
35:BP:58:PHE:CE1	35:BP:117:ALA:HB2	2.53	0.44
36:B0:63:ARG:O	36:B0:67:LEU:HD23	2.18	0.44
37:BQ:60:GLY:O	37:BQ:65:VAL:HG23	2.17	0.44
44:BV:48:PHE:HE1	44:BV:71:VAL:HG21	1.83	0.44
46:BZ:74:VAL:C	46:BZ:76:ARG:H	2.21	0.44
53:B8:23:VAL:CG1	53:B8:46:ARG:HB3	2.48	0.44
1:CA:54:C:H2'	1:CA:352:C:H41	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:184:G:N2	1:CA:194:C:C2	2.85	0.44
1:CA:355:C:C4	1:CA:356:A:N7	2.85	0.44
1:CA:511:C:C2	1:CA:512:U:C5	3.06	0.44
1:CA:672:U:H2'	1:CA:673:G:H8	1.83	0.44
1:CA:894:G:H2'	1:CA:895:G:C8	2.53	0.44
1:CA:923:A:H5"	5:CH:21:ALA:HB2	1.98	0.44
1:CA:987:G:N2	1:CA:1219:U:C2	2.85	0.44
1:CA:1013:G:OP1	19:CV:18:LYS:HE2	2.17	0.44
1:CA:1102:A:H2	2:CE:104:ASN:ND2	2.16	0.44
1:CA:1120:G:C2	1:CA:1154:G:N3	2.86	0.44
1:CA:1236:A:H2'	1:CA:1237:C:C6	2.52	0.44
1:CA:1326:C:H2'	1:CA:1327:C:C6	2.53	0.44
1:CA:1348:U:H5"	9:CL:119:ALA:HB1	2.00	0.44
1:CA:1387:G:C4	1:CA:1388:C:C5	3.06	0.44
4:CG:18:LYS:O	4:CG:19:LEU:HD23	2.17	0.44
6:CI:81:ILE:HG22	6:CI:82:ARG:N	2.33	0.44
13:CP:23:TYR:O	13:CP:66:LEU:HB2	2.18	0.44
13:CP:48:LEU:HB2	13:CP:52:GLU:OE1	2.17	0.44
19:CV:8:GLY:O	19:CV:9:VAL:HB	2.17	0.44
21:CX:6:ARG:O	21:CX:8:THR:N	2.51	0.44
24:DA:270(S):G:N1	24:DA:270(T):G:C5	2.85	0.44
24:DA:638:G:H2'	24:DA:639:U:C6	2.53	0.44
24:DA:920:G:H2'	24:DA:921:G:H8	1.82	0.44
24:DA:1171:G:N3	24:DA:1173:G:O4'	2.51	0.44
24:DA:1179:C:H2'	24:DA:1180:C:C6	2.52	0.44
24:DA:2123:G:O6	24:DA:2174:C:N4	2.51	0.44
24:DA:2378:A:H4'	37:DQ:23:ARG:CZ	2.48	0.44
24:DA:2563:U:H2'	24:DA:2565:A:OP2	2.18	0.44
24:DA:2876:G:O3'	38:DR:2:ASN:ND2	2.51	0.44
25:DB:6:C:H3'	25:DB:7:G:H5"	1.99	0.44
25:DB:70:C:H42	25:DB:106:G:H1	1.66	0.44
29:DG:105:LYS:CE	49:D4:26:SER:HB3	2.48	0.44
34:DO:125:VAL:O	34:DO:125:VAL:HG13	2.18	0.44
35:DP:26:TYR:O	35:DP:27:VAL:O	2.36	0.44
38:DR:24:PRO:HD3	38:DR:52:ILE:CG1	2.48	0.44
42:DT:17:ALA:HB1	42:DT:27:THR:OG1	2.18	0.44
42:DT:59:VAL:O	42:DT:60:ARG:C	2.56	0.44
43:DU:52:SER:HB2	43:DU:57:GLN:H	1.83	0.44
48:DX:10:LYS:HB3	48:DX:53:LEU:HB2	2.00	0.44
49:D4:46:GLN:O	49:D4:46:GLN:NE2	2.51	0.44
1:AA:89:U:O2'	1:AA:90:C:C6	2.67	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:102:G:C4	1:AA:103:C:C5	3.06	0.44
1:AA:186:C:H2'	1:AA:186(A):C:C6	2.53	0.44
1:AA:626:U:H5"	16:AS:38:TYR:CE1	2.49	0.44
1:AA:644:G:H2'	1:AA:645:C:C5'	2.48	0.44
1:AA:652:U:C2'	1:AA:653:A:H5"	2.48	0.44
1:AA:657:G:O2'	1:AA:658:G:H5'	2.18	0.44
1:AA:889:A:O3'	1:AA:890:G:H4'	2.18	0.44
1:AA:1128:C:HO2'	1:AA:1130:A:H8	1.65	0.44
1:AA:1178:G:C5'	9:AL:93:ARG:HH12	2.28	0.44
1:AA:1199:U:H5'	10:AM:54:PHE:CE2	2.52	0.44
1:AA:1306:A:C2	1:AA:1307:U:H1'	2.53	0.44
2:AE:7:VAL:O	2:AE:7:VAL:HG13	2.17	0.44
3:AF:45:LYS:NZ	3:AF:45:LYS:CB	2.81	0.44
9:AL:47:LEU:H	9:AL:47:LEU:CD1	2.23	0.44
13:AP:56:LEU:O	13:AP:60:VAL:HG23	2.17	0.44
15:AR:11:VAL:HG13	15:AR:15:PHE:CE1	2.53	0.44
15:AR:17:ARG:HG2	15:AR:21:ASP:OD2	2.18	0.44
16:AS:74:LEU:HB3	16:AS:80:PHE:HE1	1.82	0.44
20:AW:14:LYS:HD3	20:AW:17:ARG:HH21	1.83	0.44
24:BA:153:C:O2'	24:BA:154:G:H5'	2.18	0.44
24:BA:153:C:OP2	46:BZ:88:LYS:NZ	2.50	0.44
24:BA:164:U:H6	24:BA:165:U:C6	2.35	0.44
24:BA:594:U:C5'	53:B8:61:LEU:HD11	2.47	0.44
24:BA:627:A:C6	34:BO:115:LEU:HD13	2.53	0.44
24:BA:654(M):C:H2'	24:BA:654(N):G:N7	2.29	0.44
24:BA:880:G:O2'	24:BA:881:G:P	2.70	0.44
24:BA:954:G:O2'	24:BA:2274:A:N1	2.37	0.44
24:BA:1058:U:H2'	24:BA:1059:G:H8	1.82	0.44
24:BA:1756:G:H1'	24:BA:1758:G:C2	2.53	0.44
24:BA:1854:A:C2	24:BA:2087:G:N3	2.86	0.44
24:BA:2175:C:C3'	24:BA:2176:A:C5'	2.92	0.44
24:BA:2825:C:H2'	24:BA:2826:A:H5'	2.00	0.44
26:BD:34:VAL:C	26:BD:35:LYS:O	2.56	0.44
26:BD:175:LEU:HD12	26:BD:185:VAL:HG21	2.00	0.44
27:BE:14:ILE:HD12	38:BR:14:TYR:CZ	2.53	0.44
27:BE:78:LEU:O	27:BE:79:ARG:O	2.36	0.44
27:BE:134:ILE:HA	27:BE:137:HIS:CD2	2.53	0.44
27:BE:152:LYS:HG2	32:BM:78:TYR:CE1	2.53	0.44
30:BH:33:LEU:HD11	30:BH:136:ILE:O	2.18	0.44
30:BH:117:PRO:HD3	30:BH:123:PHE:HE2	1.82	0.44
32:BM:133:GLN:HG2	32:BM:135:PRO:HD3	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BO:49:ARG:HD2	53:B8:58:ILE:CG2	2.47	0.44
36:B0:94:TYR:CD1	36:B0:94:TYR:N	2.84	0.44
39:B1:17:ILE:HG23	39:B1:39:LEU:HD12	1.99	0.44
44:BV:7:ALA:HB3	44:BV:61:LEU:HB2	2.00	0.44
45:B3:42:GLY:C	45:B3:57:PHE:HD2	2.21	0.44
47:BW:31:GLU:HB3	47:BW:53:LEU:HD11	2.00	0.44
51:B6:30:THR:N	51:B6:31:PRO:O	2.50	0.44
1:CA:254:G:O2'	1:CA:255:G:H5'	2.17	0.44
1:CA:481:G:O2'	1:CA:483:C:N4	2.51	0.44
1:CA:673:G:H4'	6:CI:87:ARG:HH21	1.82	0.44
1:CA:1228:C:P	13:CP:115:LYS:HG2	2.58	0.44
1:CA:1330:U:O4	1:CA:1331:G:N1	2.51	0.44
2:CE:118:LEU:CD1	2:CE:142:LEU:HB2	2.47	0.44
2:CE:166:ASP:CB	2:CE:169:LYS:HB2	2.47	0.44
4:CG:30:LYS:NZ	4:CG:30:LYS:HB2	2.23	0.44
5:CH:132:ALA:O	5:CH:136:MET:HG2	2.18	0.44
6:CI:58:GLY:O	6:CI:60:PHE:CE1	2.71	0.44
8:CK:38:ILE:CD1	8:CK:118:VAL:CG1	2.94	0.44
9:CL:69:GLY:O	9:CL:73:GLN:HG3	2.17	0.44
9:CL:93:ARG:HG3	9:CL:102:LEU:HD21	1.99	0.44
13:CP:55:ARG:O	13:CP:59:TYR:N	2.51	0.44
14:CQ:27:CYS:O	14:CQ:28:GLY:C	2.57	0.44
16:CS:48:TRP:O	16:CS:48:TRP:CE3	2.71	0.44
22:CC:18:G:C2	22:CC:58:A:C4	3.06	0.44
22:CC:24:U:O2'	24:DA:1923:U:H5"	2.18	0.44
24:DA:250:G:O5'	34:DO:60:MET:HE2	2.18	0.44
24:DA:581:C:H2'	24:DA:582:G:H8	1.81	0.44
24:DA:620:G:H2'	24:DA:620:G:N3	2.33	0.44
24:DA:1047:G:O3'	24:DA:1048:A:O4'	2.35	0.44
24:DA:1071:G:C6	24:DA:1072:C:N4	2.86	0.44
24:DA:1228:G:OP1	39:D1:13:LYS:HG2	2.18	0.44
24:DA:1249:U:C4'	39:D1:4:ALA:HB3	2.48	0.44
24:DA:1255:U:H5"	24:DA:1256:G:H5"	2.00	0.44
24:DA:1309:G:H4'	52:D7:7:PRO:HB2	1.99	0.44
24:DA:1665:A:C2'	24:DA:1666:G:C5'	2.88	0.44
24:DA:2153:G:N2	24:DA:2154:G:C8	2.86	0.44
24:DA:2291:U:H5"	24:DA:2380:C:O2'	2.18	0.44
24:DA:2712:U:H1'	24:DA:2712(A):A:H8	1.75	0.44
24:DA:2817:G:P	36:D0:99:LYS:NZ	2.91	0.44
28:DF:157:VAL:HG12	28:DF:198:ALA:HB1	2.00	0.44
29:DG:25:TYR:CD1	29:DG:30:GLU:HB3	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DG:106:LEU:HD12	29:DG:110:ALA:HB3	2.00	0.44
30:DH:68:THR:O	30:DH:72:ILE:CD1	2.66	0.44
31:DK:83:ALA:CB	31:DK:123:LEU:HD11	2.48	0.44
32:DM:7:LYS:O	32:DM:9:VAL:N	2.51	0.44
35:DP:87:LYS:O	35:DP:88:GLY:O	2.36	0.44
39:D1:112:ARG:HH12	40:D2:47:VAL:CG1	2.30	0.44
41:DS:12:ILE:HD13	41:DS:17:VAL:CG1	2.48	0.44
41:DS:107:LEU:HD12	41:DS:107:LEU:HA	1.81	0.44
44:DV:148:ASP:HB3	44:DV:172:ALA:C	2.38	0.44
45:D3:72:ARG:HH21	45:D3:75:LEU:HD13	1.80	0.44
1:AA:191:G:HO2'	20:AW:103:GLY:H	1.53	0.43
1:AA:303:A:C5	1:AA:304:U:C5	3.05	0.43
1:AA:874:G:C6	1:AA:875:C:C4	3.06	0.43
1:AA:973:G:OP1	10:AM:57:LYS:HD3	2.18	0.43
1:AA:1015:A:C6	1:AA:1016:A:C5	3.06	0.43
1:AA:1199:U:O4'	10:AM:54:PHE:CD2	2.67	0.43
1:AA:1237:C:H4'	1:AA:1334:G:N2	2.33	0.43
7:AJ:5:ARG:HG2	7:AJ:6:ARG:H	1.82	0.43
15:AR:87:ILE:HG22	15:AR:88:ARG:H	1.82	0.43
19:AV:36:ARG:HD3	19:AV:51:VAL:HG12	2.00	0.43
19:AV:58:VAL:O	19:AV:58:VAL:HG23	2.18	0.43
24:BA:304:G:N3	24:BA:314:A:C2	2.85	0.43
24:BA:414:C:H2'	24:BA:415:A:C8	2.53	0.43
24:BA:470:A:H2'	24:BA:471:A:O4'	2.17	0.43
24:BA:514:A:O2'	24:BA:515:A:H5'	2.17	0.43
24:BA:547:A:C5	24:BA:548:A:N6	2.86	0.43
24:BA:613:U:H5'	24:BA:616:A:N6	2.33	0.43
24:BA:806:C:H2'	24:BA:807:U:H6	1.80	0.43
24:BA:889:C:O2	24:BA:889:C:C2'	2.66	0.43
24:BA:1010:A:N3	24:BA:1153:C:H1'	2.32	0.43
24:BA:1063:G:C2	24:BA:1064:C:C2	3.06	0.43
24:BA:1408:C:N3	24:BA:1595:G:C2	2.85	0.43
24:BA:1778:U:C4	24:BA:1784:A:C4	3.06	0.43
24:BA:2111:C:H5'	24:BA:2145:C:N3	2.33	0.43
24:BA:2712:U:O2'	24:BA:2712(A):A:P	2.76	0.43
25:BB:38:C:C4'	37:BQ:95:HIS:CE1	3.00	0.43
25:BB:45:A:H1'	29:BG:95:ARG:HH22	1.83	0.43
25:BB:94:C:H2'	25:BB:95:U:C6	2.53	0.43
26:BD:202:LYS:HG3	26:BD:203:ASN:OD1	2.17	0.43
29:BG:16:ARG:NH2	29:BG:31:VAL:HG11	2.32	0.43
29:BG:53:LEU:O	29:BG:57:ALA:N	2.38	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BK:64:GLU:N	31:BK:64:GLU:OE1	2.51	0.43
42:BT:12:VAL:CG1	42:BT:27:THR:O	2.66	0.43
1:CA:9:G:OP2	5:CH:121:LYS:HD2	2.18	0.43
1:CA:76:G:C6	1:CA:77:C:C4	3.06	0.43
1:CA:264:U:O2'	17:CT:63:ARG:HD3	2.18	0.43
1:CA:402:G:C6	1:CA:403:C:C4	3.06	0.43
1:CA:538:G:OP2	12:CO:115:LYS:HB2	2.19	0.43
1:CA:737:A:H2'	1:CA:738:C:H6	1.81	0.43
1:CA:947:G:O3'	13:CP:109:THR:HG23	2.19	0.43
1:CA:1131:G:H22	1:CA:1144:G:H1'	1.83	0.43
1:CA:1150:U:O2'	10:CM:39:PRO:O	2.26	0.43
1:CA:1214:C:OP1	1:CA:1214:C:H6	2.00	0.43
1:CA:1330:U:O4	1:CA:1331:G:C2	2.71	0.43
1:CA:1387:G:H2'	1:CA:1388:C:H6	1.83	0.43
1:CA:1471:G:O2'	1:CA:1472:U:H5'	2.17	0.43
3:CF:135:LYS:O	3:CF:139:GLN:N	2.39	0.43
3:CF:181:ASN:O	3:CF:204:LEU:HB2	2.17	0.43
4:CG:85:LYS:HD2	4:CG:85:LYS:N	2.33	0.43
4:CG:125:HIS:HA	4:CG:152:SER:OG	2.18	0.43
4:CG:154:ASN:ND2	4:CG:154:ASN:O	2.51	0.43
7:CJ:47:CYS:O	7:CJ:58:PRO:HG3	2.18	0.43
9:CL:78:LYS:HG2	9:CL:101:PHE:CE1	2.53	0.43
9:CL:79:LEU:O	9:CL:81:ILE:N	2.51	0.43
12:CO:20:LYS:N	12:CO:20:LYS:CD	2.72	0.43
24:DA:9:U:C4	24:DA:2629:A:N1	2.85	0.43
24:DA:84:A:OP2	43:DU:8:LYS:HE2	2.17	0.43
24:DA:557:U:C2	24:DA:558:G:C8	3.06	0.43
24:DA:796:C:H2'	24:DA:797:C:H6	1.75	0.43
24:DA:866:A:H2'	24:DA:866:A:N3	2.33	0.43
24:DA:977:G:N3	24:DA:1001:A:H2	2.16	0.43
24:DA:1011:G:C2	24:DA:1013:C:C2	3.06	0.43
24:DA:1085:A:H1'	24:DA:1086:A:O5'	2.18	0.43
24:DA:1778:U:H2'	24:DA:1784:A:N6	2.32	0.43
24:DA:2050:C:C2'	24:DA:2051:A:O5'	2.66	0.43
24:DA:2709:G:C6	24:DA:2710:C:C4	3.05	0.43
24:DA:2745:C:H1'	30:DH:143:GLN:HG2	2.00	0.43
24:DA:2816:C:O2	24:DA:2883:A:O2'	2.34	0.43
25:DB:7:G:H4'	37:DQ:29:PHE:CE2	2.53	0.43
25:DB:70:C:H2'	25:DB:71:C:H6	1.82	0.43
29:DG:101:ILE:C	29:DG:101:ILE:CD1	2.87	0.43
32:DM:103:VAL:HG11	32:DM:120:LEU:CD1	2.47	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DN:10:VAL:HG22	33:DN:17:ARG:O	2.18	0.43
34:DO:45:LEU:CD1	34:DO:45:LEU:N	2.81	0.43
39:D1:58:ARG:HA	39:D1:61:TRP:CE3	2.53	0.43
40:D2:83:ARG:HB3	40:D2:84:LYS:H	1.44	0.43
42:DT:44:GLU:HG2	42:DT:49:VAL:O	2.18	0.43
44:DV:150:LEU:CD1	44:DV:154:ASP:HB3	2.48	0.43
46:DZ:40:ARG:CZ	46:DZ:42:GLN:HG2	2.48	0.43
1:AA:403:C:H2'	1:AA:404:U:H6	1.84	0.43
1:AA:412:A:C1'	1:AA:413:G:OP2	2.64	0.43
1:AA:730:G:C5	1:AA:731:G:H1'	2.53	0.43
1:AA:781:A:C3'	1:AA:782:A:H5'	2.48	0.43
1:AA:789:U:O5'	1:AA:789:U:O2	2.36	0.43
1:AA:1000:A:H2'	1:AA:1001:G:O4'	2.18	0.43
1:AA:1007:C:N3	1:AA:1008:C:N4	2.65	0.43
2:AE:14:GLY:C	2:AE:15:VAL:CG2	2.86	0.43
2:AE:103:THR:HG22	2:AE:180:LEU:HD21	2.00	0.43
2:AE:114:ARG:HH11	2:AE:114:ARG:HG2	1.82	0.43
2:AE:156:LYS:O	2:AE:157:ARG:HB2	2.18	0.43
2:AE:167:PRO:HD2	2:AE:188:ALA:HB2	1.96	0.43
3:AF:134:ILE:HD11	3:AF:153:VAL:CG2	2.48	0.43
6:AI:19:LEU:CD2	6:AI:23:LYS:HE2	2.39	0.43
10:AM:7:LYS:O	10:AM:8:LEU:HD23	2.18	0.43
12:AO:113:ARG:O	12:AO:114:LYS:HD2	2.17	0.43
19:AV:30:LEU:C	19:AV:30:LEU:CD1	2.86	0.43
20:AW:32:ALA:O	20:AW:36:LEU:HB2	2.18	0.43
22:AC:29:G:H2'	22:AC:30:G:O4'	2.18	0.43
24:BA:569:U:C4	24:BA:570:G:C6	3.06	0.43
24:BA:1062:G:H2'	24:BA:1077:A:H61	1.82	0.43
24:BA:1063:G:C4	24:BA:1064:C:C6	3.06	0.43
24:BA:1131:G:C8	24:BA:2025:C:H4'	2.53	0.43
24:BA:1171:G:H2'	24:BA:1174:A:N6	2.33	0.43
24:BA:1281:G:C4	24:BA:1282:U:C5	3.06	0.43
24:BA:1301:A:N3	24:BA:1301:A:H2'	2.33	0.43
24:BA:1850:G:C6	24:BA:1851:U:C4	3.06	0.43
24:BA:2094:G:C2'	24:BA:2095:C:H5'	2.48	0.43
24:BA:2347:C:O2'	24:BA:2348:U:H5'	2.18	0.43
24:BA:2428:G:H5"	24:BA:2429:G:P	2.58	0.43
24:BA:2457:U:H2'	24:BA:2458:G:H5'	2.00	0.43
25:BB:42:C:OP1	29:BG:67:LYS:CE	2.66	0.43
25:BB:80:U:C2'	25:BB:81:G:H5"	2.47	0.43
29:BG:61:ALA:HB2	29:BG:68:PRO:HD3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BG:82:LEU:CA	29:BG:86:MET:CE	2.96	0.43
29:BG:98:ARG:HA	29:BG:101:ILE:HD12	1.99	0.43
37:BQ:106:ARG:C	37:BQ:107:GLU:CD	2.77	0.43
50:B5:58:LEU:HG	50:B5:59:GLU:N	2.33	0.43
1:CA:261:U:OP2	20:CW:79:ARG:NH2	2.51	0.43
1:CA:270:A:H2'	1:CA:271:C:C6	2.53	0.43
1:CA:407:G:H1	1:CA:435:C:N4	2.16	0.43
1:CA:860:A:H2'	1:CA:861:G:O4'	2.18	0.43
1:CA:1103:C:C4	1:CA:1104:G:N7	2.86	0.43
1:CA:1207:G:C6	1:CA:1208:C:C4	3.06	0.43
1:CA:1226:C:C6	13:CP:103:THR:O	2.71	0.43
1:CA:1321:C:C5	1:CA:1322:C:C5	3.06	0.43
1:CA:1339:A:H2	22:CC:31:G:O4'	2.01	0.43
2:CE:22:LYS:HD3	2:CE:22:LYS:HA	1.80	0.43
3:CF:143:GLU:HA	3:CF:143:GLU:OE1	2.18	0.43
4:CG:98:GLU:OE2	4:CG:107:ARG:HG3	2.17	0.43
5:CH:7:GLU:O	5:CH:34:VAL:HA	2.18	0.43
5:CH:50:GLU:HA	5:CH:50:GLU:OE2	2.17	0.43
6:CI:89:MET:HB3	18:CU:76:LEU:HD21	2.00	0.43
11:CN:32:ILE:HD12	11:CN:41:THR:CG2	2.49	0.43
14:CQ:46:GLU:CD	14:CQ:46:GLU:H	2.22	0.43
19:CV:39:THR:CG2	19:CV:40:ILE:H	2.29	0.43
22:CC:19:G:C4	22:CC:57:A:H2	2.36	0.43
24:DA:78:A:C4	24:DA:79:G:C8	3.06	0.43
24:DA:316:C:H2'	24:DA:317:G:O5'	2.18	0.43
24:DA:442:G:C2	24:DA:444:C:C5	3.06	0.43
24:DA:459:U:H5"	52:D7:40:TRP:CD2	2.53	0.43
24:DA:511:U:O4	24:DA:512:G:N1	2.50	0.43
24:DA:1057:A:OP2	24:DA:1089:G:N2	2.51	0.43
24:DA:1287:A:N7	36:D0:107:ASP:HB2	2.33	0.43
24:DA:1459:G:H2'	24:DA:1460:A:H5'	1.99	0.43
24:DA:1527:G:H5"	24:DA:1528:A:OP1	2.18	0.43
24:DA:1543:A:H2	24:DA:1545:A:C5	2.36	0.43
24:DA:1676:A:C2	24:DA:1993:U:H5'	2.53	0.43
24:DA:1686:C:O2'	24:DA:1687:G:H5'	2.19	0.43
24:DA:1766:U:H2'	24:DA:1767:C:H6	1.82	0.43
24:DA:2262:U:H2'	24:DA:2263:C:C6	2.49	0.43
24:DA:2732:G:H3'	24:DA:2733:A:O4'	2.18	0.43
24:DA:2820:A:O5'	36:D0:4:LEU:HD23	2.19	0.43
26:DD:172:TYR:CD1	26:DD:186:HIS:CA	3.02	0.43
27:DE:63:LEU:HA	27:DE:63:LEU:HD23	1.43	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DF:158:THR:OG1	28:DF:159:GLY:N	2.51	0.43
28:DF:170:LEU:HD13	28:DF:172:TRP:CZ2	2.53	0.43
29:DG:44:GLY:N	29:DG:88:ILE:HD11	2.33	0.43
29:DG:91:ARG:C	29:DG:91:ARG:CD	2.87	0.43
30:DH:35:VAL:HG13	30:DH:36:PRO:CD	2.44	0.43
30:DH:35:VAL:HG11	30:DH:71:LEU:HD23	1.99	0.43
1:AA:11:G:C6	1:AA:12:U:C4	3.06	0.43
1:AA:277:C:H2'	1:AA:278:G:H8	1.83	0.43
1:AA:317:G:C6	1:AA:318:G:C5	3.07	0.43
1:AA:468:A:H2'	1:AA:474:G:H5'	2.00	0.43
1:AA:690:G:H2'	1:AA:691:G:O4'	2.18	0.43
1:AA:734:G:H21	18:AU:75:ILE:HD11	1.81	0.43
1:AA:1027:C:C1'	1:AA:1028:C:OP1	2.66	0.43
1:AA:1036:G:H3'	1:AA:1037:C:C6	2.53	0.43
1:AA:1121:U:N3	1:AA:1122:U:C4	2.86	0.43
1:AA:1152:A:OP1	10:AM:70:ARG:NH2	2.42	0.43
2:AE:6:THR:O	2:AE:217:ARG:CZ	2.65	0.43
2:AE:59:GLU:OE1	2:AE:221:LEU:HD21	2.18	0.43
3:AF:8:ILE:C	3:AF:10:PHE:N	2.71	0.43
3:AF:99:VAL:O	3:AF:99:VAL:HG23	2.19	0.43
3:AF:137:ALA:HA	3:AF:140:ARG:CZ	2.48	0.43
4:AG:9:CYS:HA	4:AG:22:LYS:HZ2	1.83	0.43
4:AG:57:ARG:NE	4:AG:205:GLU:OE2	2.40	0.43
9:AL:9:ARG:CD	9:AL:14:VAL:HB	2.48	0.43
9:AL:10:ARG:HA	9:AL:104:ARG:CZ	2.47	0.43
10:AM:65:LEU:CD1	14:AQ:55:GLY:O	2.66	0.43
16:AS:19:ILE:HG22	16:AS:36:ILE:HG13	1.99	0.43
20:AW:26:ASN:ND2	20:AW:26:ASN:H	2.00	0.43
24:BA:242:G:H5'	53:B8:62:LEU:HD22	2.01	0.43
24:BA:449:A:O2'	24:BA:450:G:H5'	2.18	0.43
24:BA:761:A:H8	24:BA:761:A:O5'	2.01	0.43
24:BA:880:G:C2'	24:BA:881:G:O5'	2.66	0.43
24:BA:918:A:H1'	25:BB:80:U:H1'	2.00	0.43
24:BA:1065:U:O4	24:BA:1066:U:H6	2.01	0.43
24:BA:1465:G:O4'	24:BA:1528:A:H8	2.01	0.43
24:BA:1564:C:O2'	24:BA:1565:C:H5'	2.18	0.43
24:BA:1685:C:H2'	24:BA:1686:C:C6	2.53	0.43
24:BA:1999:C:H4'	24:BA:2723:C:O2	2.18	0.43
24:BA:2128:C:H1'	24:BA:2173:A:C2	2.53	0.43
24:BA:2168:G:N3	24:BA:2168:G:C3'	2.78	0.43
24:BA:2190:G:N3	24:BA:2190:G:H2'	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2219:G:H2'	24:BA:2224:G:H5'	1.99	0.43
24:BA:2294:C:C2	24:BA:2295:C:C6	3.06	0.43
24:BA:2305:A:N1	29:BG:154:GLY:N	2.59	0.43
24:BA:2308:G:H2'	24:BA:2308:G:N3	2.34	0.43
24:BA:2473:U:C4	24:BA:2474:C:C4	3.06	0.43
24:BA:2698:U:H2'	24:BA:2699:C:C6	2.53	0.43
24:BA:2785:C:C2'	27:BE:64:LYS:NZ	2.81	0.43
27:BE:30:PRO:O	27:BE:32:PRO:HD3	2.18	0.43
27:BE:104:VAL:HG11	27:BE:188:VAL:HB	2.00	0.43
29:BG:61:ALA:O	49:B4:7:PRO:HG3	2.17	0.43
31:BK:99:GLU:O	31:BK:102:SER:HB3	2.17	0.43
36:B0:75:LEU:O	36:B0:79:LEU:HB2	2.19	0.43
38:BR:16:ARG:NH2	38:BR:84:GLN:O	2.51	0.43
42:BT:31:HIS:HA	42:BT:32:PRO:HD3	1.85	0.43
49:B4:56:VAL:C	49:B4:60:GLN:HG2	2.38	0.43
1:CA:474:G:H2'	1:CA:475:G:C8	2.53	0.43
1:CA:1132:C:N4	1:CA:1133:G:O6	2.52	0.43
1:CA:1226:C:C5'	19:CV:80:TYR:CE1	3.01	0.43
1:CA:1240:U:H1'	7:CJ:38:LEU:HD21	2.01	0.43
1:CA:1309:G:C3'	13:CP:77:ASN:HD21	2.32	0.43
3:CF:140:ARG:HG3	3:CF:141:VAL:N	2.32	0.43
4:CG:169:LYS:HG3	4:CG:170:VAL:N	2.33	0.43
4:CG:185:PHE:CE1	4:CG:187:ARG:O	2.70	0.43
5:CH:75:THR:HB	5:CH:117:ASP:HB2	2.00	0.43
7:CJ:50:ILE:O	7:CJ:54:THR:HG22	2.17	0.43
7:CJ:75:VAL:HG13	7:CJ:145:ALA:CA	2.40	0.43
7:CJ:78:ARG:NH1	7:CJ:85:TYR:CE1	2.70	0.43
12:CO:47:LYS:HD2	12:CO:47:LYS:HA	1.77	0.43
13:CP:30:ALA:O	13:CP:32:GLU:N	2.51	0.43
20:CW:104:LEU:HB3	20:CW:105:SER:H	1.60	0.43
24:DA:185:U:H4'	24:DA:218:A:H4'	1.99	0.43
24:DA:524:U:H2'	24:DA:525:U:C6	2.53	0.43
24:DA:644:A:H2'	24:DA:645:C:H5"	2.00	0.43
24:DA:654(S):G:O4'	24:DA:654(T):A:OP1	2.35	0.43
24:DA:754:C:H2'	24:DA:755:C:H6	1.83	0.43
24:DA:870:A:C3'	35:DP:6:ARG:CZ	2.89	0.43
24:DA:881:G:H2'	24:DA:881:G:N3	2.32	0.43
24:DA:1083:U:C2	24:DA:1085:A:H3'	2.54	0.43
24:DA:1287:A:C6	24:DA:1288:U:C4	3.06	0.43
24:DA:1418:G:H8	24:DA:1418:G:O5'	2.01	0.43
24:DA:1712:C:C4	24:DA:1716:U:C5	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2069:G:C2'	24:DA:2070:G:H5'	2.48	0.43
24:DA:2185:C:O2'	24:DA:2186:G:H5'	2.19	0.43
24:DA:2393:A:C3'	53:D8:30:ARG:HE	2.31	0.43
24:DA:2509:G:C6	24:DA:2510:C:C5	3.07	0.43
24:DA:2604:U:H2'	24:DA:2605:U:H5'	2.01	0.43
24:DA:2622:C:H5"	27:DE:159:HIS:ND1	2.33	0.43
24:DA:2736:G:C4	24:DA:2737:G:C8	3.05	0.43
25:DB:50:G:P	37:DQ:62:LYS:HB2	2.58	0.43
26:DD:43:ARG:HH11	26:DD:49:ILE:HB	1.84	0.43
26:DD:171:ASP:OD1	26:DD:171:ASP:N	2.50	0.43
27:DE:52:LEU:O	27:DE:75:VAL:N	2.48	0.43
27:DE:65:GLY:O	27:DE:66:HIS:C	2.56	0.43
28:DF:68:LYS:HB3	28:DF:69:HIS:CD2	2.53	0.43
30:DH:26:VAL:O	30:DH:26:VAL:HG22	2.18	0.43
30:DH:94:TYR:CD1	30:DH:107:VAL:HA	2.54	0.43
32:DM:14:VAL:CG2	32:DM:15:LEU:H	2.32	0.43
37:DQ:26:LEU:HD22	37:DQ:87:PHE:CE1	2.51	0.43
41:DS:8:ARG:HA	41:DS:102:HIS:ND1	2.33	0.43
41:DS:21:VAL:C	41:DS:23:LEU:N	2.71	0.43
43:DU:19:LYS:HG3	43:DU:20:TYR:N	2.33	0.43
48:DX:23:LEU:HD23	48:DX:50:VAL:HG11	1.99	0.43
1:AA:148:G:C2	1:AA:175:C:C2	3.06	0.43
1:AA:194:C:H5"	1:AA:195:A:OP1	2.18	0.43
1:AA:689:C:H3'	1:AA:690:G:N2	2.26	0.43
1:AA:937:A:H2	1:AA:1377:A:HO2'	1.64	0.43
1:AA:937:A:H2	1:AA:1377:A:O2'	2.00	0.43
1:AA:974:A:OP2	14:AQ:29:ARG:NH2	2.51	0.43
1:AA:1106:G:C4	1:AA:1107:C:C5	3.07	0.43
1:AA:1130:A:H62	1:AA:1144:G:N2	2.15	0.43
1:AA:1179:A:O3'	9:AL:103:THR:OG1	2.35	0.43
1:AA:1316:G:C6	19:AV:5:LEU:HD11	2.47	0.43
1:AA:1317:C:C6	14:AQ:16:PHE:CD1	3.06	0.43
2:AE:97:TRP:HZ3	2:AE:172:ILE:CG1	2.31	0.43
3:AF:151:VAL:C	3:AF:152:ILE:HD12	2.38	0.43
4:AG:73:ARG:O	4:AG:75:PHE:N	2.51	0.43
4:AG:98:GLU:OE2	4:AG:107:ARG:NH2	2.49	0.43
4:AG:177:ASP:HB3	4:AG:182:LYS:CG	2.40	0.43
4:AG:200:GLU:HG2	4:AG:201:GLN:N	2.34	0.43
6:AI:58:GLY:O	6:AI:60:PHE:CD1	2.71	0.43
6:AI:64:GLN:HE21	6:AI:65:VAL:N	2.16	0.43
11:AN:37:GLY:O	11:AN:39:PRO:HD3	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:453:C:H4'	24:BA:472:A:N6	2.33	0.43
24:BA:1021:A:C3'	24:BA:1022:G:C5'	2.85	0.43
24:BA:1471:A:C2	24:BA:1472:A:N9	2.86	0.43
24:BA:1798:U:O2	24:BA:1802:A:H2	2.00	0.43
24:BA:1859:A:C6	24:BA:1884:A:C8	3.06	0.43
24:BA:2111:C:C6	24:BA:2145:C:N3	2.87	0.43
24:BA:2119:A:H61	24:BA:2171:A:H2	1.67	0.43
24:BA:2122:U:H2'	24:BA:2123:G:C8	2.53	0.43
24:BA:2140:C:C2'	24:BA:2141:G:H5'	2.49	0.43
24:BA:2244:U:O2'	24:BA:2245:U:H5'	2.18	0.43
24:BA:2611:U:O2	50:B5:3:LYS:HG3	2.19	0.43
28:BF:33:LEU:HD12	28:BF:33:LEU:HA	1.91	0.43
28:BF:63:LYS:HE3	28:BF:67:GLN:HB2	1.98	0.43
28:BF:101:LEU:CD1	28:BF:102:PRO:HD2	2.49	0.43
28:BF:170:LEU:HB2	28:BF:173:VAL:HB	2.01	0.43
29:BG:102:PHE:HE1	29:BG:141:PHE:HE2	1.66	0.43
31:BK:57:ARG:O	31:BK:61:ARG:HG2	2.17	0.43
31:BK:121:LYS:HG3	31:BK:122:GLU:H	1.82	0.43
34:BO:21:ARG:HB3	34:BO:22:GLY:H	1.64	0.43
34:BO:50:ARG:CD	53:B8:7:HIS:HE2	2.31	0.43
38:BR:15:VAL:HG22	38:BR:16:ARG:H	1.82	0.43
43:BU:90:LEU:HB2	43:BU:91:GLU:H	1.61	0.43
1:CA:57:G:C6	1:CA:58:C:C4	3.06	0.43
1:CA:190:G:H4'	1:CA:191(A):G:OP2	2.18	0.43
1:CA:617:G:N2	1:CA:618:C:C2	2.86	0.43
1:CA:864:A:H2'	1:CA:865:A:C8	2.54	0.43
1:CA:895:G:C6	1:CA:896:C:N4	2.86	0.43
1:CA:961:U:O2'	1:CA:962:C:H5'	2.18	0.43
1:CA:1070:U:P	5:CH:25:ARG:NH1	2.91	0.43
1:CA:1277:C:H2'	1:CA:1279:A:C8	2.54	0.43
1:CA:1314:C:OP2	19:CV:7:LYS:NZ	2.37	0.43
1:CA:1357:A:C8	1:CA:1358:U:C5	3.06	0.43
1:CA:1387:G:C5	1:CA:1388:C:C5	3.06	0.43
1:CA:1459:C:H2'	1:CA:1460:A:C8	2.53	0.43
2:CE:32:ILE:HG22	2:CE:190:THR:HG22	1.99	0.43
2:CE:113:HIS:O	2:CE:117:GLU:CB	2.65	0.43
3:CF:47:LEU:CD1	3:CF:47:LEU:C	2.87	0.43
3:CF:138:VAL:O	3:CF:142:MET:HB2	2.17	0.43
4:CG:18:LYS:CG	4:CG:19:LEU:N	2.78	0.43
4:CG:63:LYS:O	4:CG:67:ILE:HG13	2.18	0.43
5:CH:76:ILE:CG2	5:CH:77:PRO:N	2.81	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CN:29:ILE:HG22	11:CN:44:SER:CB	2.48	0.43
11:CN:32:ILE:HD12	11:CN:41:THR:HG23	2.00	0.43
19:CV:28:LYS:HE2	19:CV:30:LEU:HB2	2.00	0.43
24:DA:101:G:HO2'	24:DA:102:G:P	2.41	0.43
24:DA:824:A:H1'	24:DA:2358:G:N7	2.34	0.43
24:DA:953:A:OP2	35:DP:16:ARG:HD2	2.18	0.43
24:DA:997:G:C2	24:DA:998:C:C6	3.07	0.43
24:DA:1115:G:H2'	24:DA:1116:C:C6	2.53	0.43
24:DA:2001:A:C5'	24:DA:2689:U:O2'	2.65	0.43
24:DA:2030:A:H5"	24:DA:2031:A:OP1	2.18	0.43
24:DA:2287:A:C2	24:DA:2289:G:C8	3.07	0.43
25:DB:56:G:H4'	25:DB:57:A:C8	2.54	0.43
27:DE:84:PHE:CZ	27:DE:86:PRO:HB3	2.53	0.43
28:DF:11:VAL:CG2	28:DF:12:LEU:H	2.13	0.43
29:DG:25:TYR:CD1	29:DG:30:GLU:CB	3.02	0.43
35:DP:66:ILE:O	35:DP:67:ARG:CB	2.64	0.43
36:D0:96:ARG:NH2	36:D0:117:VAL:HG23	2.34	0.43
37:DQ:102:ALA:C	37:DQ:104:GLY:N	2.71	0.43
38:DR:89:VAL:O	38:DR:90:GLN:HB2	2.18	0.43
39:D1:102:GLU:HG3	40:D2:2:PHE:CE1	2.53	0.43
39:D1:112:ARG:NH2	40:D2:47:VAL:HG11	2.34	0.43
44:DV:30:ASN:CB	44:DV:89:PHE:HE1	2.30	0.43
44:DV:111:VAL:HG13	44:DV:145:GLU:CD	2.39	0.43
50:D5:27:PRO:HA	50:D5:28:PRO:HD3	1.90	0.43
50:D5:57:VAL:CA	50:D5:58:LEU:HD12	2.48	0.43
53:D8:52:LYS:O	53:D8:54:GLU:N	2.45	0.43
1:AA:37:U:O2'	1:AA:38:G:H5'	2.17	0.43
1:AA:82:U:HO2'	1:AA:84:U:P	2.37	0.43
1:AA:107:G:H2'	1:AA:108:G:H5'	1.99	0.43
1:AA:142:G:H1	1:AA:221:C:N4	2.17	0.43
1:AA:438:G:C5'	1:AA:439:A:OP1	2.65	0.43
1:AA:631:G:H2'	1:AA:632:A:H8	1.84	0.43
1:AA:659:U:H2'	1:AA:660:G:C8	2.53	0.43
1:AA:707:C:O2'	1:AA:708:C:H5'	2.17	0.43
1:AA:714:G:H2'	1:AA:715:A:C8	2.53	0.43
1:AA:806:C:O2'	1:AA:807:A:H5'	2.17	0.43
1:AA:972:C:O3'	10:AM:57:LYS:HB2	2.19	0.43
2:AE:185:ILE:HA	2:AE:199:TYR:O	2.18	0.43
3:AF:11:ARG:O	3:AF:12:LEU:C	2.56	0.43
4:AG:7:PRO:CB	4:AG:10:ARG:HG2	2.48	0.43
6:AI:69:GLU:HG2	6:AI:70:ASP:N	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AJ:55:GLY:O	7:AJ:56:GLN:NE2	2.50	0.43
8:AK:37:ARG:HH21	8:AK:38:ILE:HD13	1.84	0.43
8:AK:77:GLU:HG2	8:AK:78:GLN:N	2.33	0.43
8:AK:85:ARG:HD3	8:AK:86:ILE:N	2.34	0.43
10:AM:31:GLY:HA3	10:AM:81:THR:HG23	2.00	0.43
11:AN:51:LYS:HA	11:AN:55:LYS:HZ2	1.82	0.43
24:BA:189:G:H1	24:BA:205:G:HO2'	1.67	0.43
24:BA:248:G:H5'	24:BA:250:G:N7	2.33	0.43
24:BA:270(N):G:O6	24:BA:270(P):C:N4	2.51	0.43
24:BA:363(B):G:H2'	24:BA:363(C):G:H8	1.83	0.43
24:BA:673:C:C2'	24:BA:674:G:H5'	2.49	0.43
24:BA:984:A:O5'	24:BA:985:C:H5	2.01	0.43
24:BA:1071:G:H5'	24:BA:1088:A:O2'	2.18	0.43
24:BA:1359:A:C2'	24:BA:1360:A:C5'	2.81	0.43
24:BA:1545(A):A:H2'	24:BA:1546:C:H5'	2.00	0.43
24:BA:1653:G:C6	36:B0:9:LYS:HG3	2.54	0.43
24:BA:2320:A:N3	24:BA:2320:A:C2'	2.79	0.43
24:BA:2615:U:C2	50:B5:7:PRO:HA	2.54	0.43
24:BA:2646:C:H2'	24:BA:2647:U:O4'	2.18	0.43
25:BB:79:C:O5'	25:BB:79:C:H6	2.01	0.43
26:BD:3:VAL:O	26:BD:3:VAL:HG13	2.19	0.43
26:BD:247:ALA:HA	26:BD:254:THR:HG22	1.99	0.43
27:BE:7:VAL:O	27:BE:7:VAL:HG23	2.19	0.43
27:BE:106:GLY:CA	27:BE:189:PRO:HB2	2.42	0.43
29:BG:103:LEU:HA	29:BG:106:LEU:HB3	2.00	0.43
30:BH:58:GLU:C	30:BH:60:ARG:N	2.71	0.43
31:BK:133:HIS:HD2	31:BK:134:PRO:HD2	1.79	0.43
34:BO:39:LYS:HA	34:BO:45:LEU:HD22	2.00	0.43
34:BO:41:ARG:HD2	34:BO:41:ARG:N	2.32	0.43
35:BP:8:LYS:O	35:BP:9:TYR:CD1	2.72	0.43
35:BP:26:TYR:C	35:BP:26:TYR:CD1	2.92	0.43
38:BR:88:ILE:HD12	38:BR:88:ILE:C	2.38	0.43
41:BS:35:ILE:HG23	50:B5:28:PRO:HD3	2.00	0.43
45:B3:19:LYS:HD3	45:B3:19:LYS:HA	1.65	0.43
45:B3:74:ARG:HB3	45:B3:74:ARG:HH11	1.81	0.43
53:B8:39:LYS:O	53:B8:39:LYS:HG2	2.17	0.43
1:CA:191(F):U:H2'	1:CA:191:G:O4'	2.18	0.43
1:CA:195:A:C6	1:CA:196:A:N1	2.87	0.43
1:CA:327:A:H1'	1:CA:329:A:O4'	2.19	0.43
1:CA:814:A:H2'	1:CA:816:A:H5"	2.00	0.43
1:CA:937:A:C2	1:CA:1379:G:C6	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1197:G:H5”	55:CA:1805:TAC:O12	2.19	0.43
1:CA:1321:C:C4	1:CA:1322:C:C4	3.07	0.43
4:CG:12:CYS:HB3	4:CG:33:MET:CE	2.49	0.43
5:CH:71:LEU:HD21	5:CH:113:ALA:O	2.18	0.43
7:CJ:40:ALA:HB1	9:CL:41:VAL:CG2	2.49	0.43
11:CN:114:VAL:O	11:CN:114:VAL:HG13	2.18	0.43
13:CP:14:ARG:NH2	13:CP:16:ASP:OD2	2.51	0.43
19:CV:15:LEU:O	19:CV:18:LYS:N	2.51	0.43
19:CV:29:ARG:HB2	19:CV:30:LEU:H	1.56	0.43
22:CC:13:C:C2’	22:CC:14:A:H5’	2.48	0.43
24:DA:71:A:H4’	24:DA:72:U:O5’	2.18	0.43
24:DA:461:C:O2’	24:DA:462:C:H5’	2.18	0.43
24:DA:547:A:H2’	24:DA:548:A:C8	2.53	0.43
24:DA:579:G:N2	24:DA:1262:A:C4	2.86	0.43
24:DA:1069:A:O2’	24:DA:1096:A:O3’	2.36	0.43
24:DA:1126:A:OP1	24:DA:1126:A:H8	2.02	0.43
24:DA:1335:U:H2’	24:DA:1336:A:C8	2.53	0.43
24:DA:1999:C:H4’	24:DA:2723:C:O2	2.18	0.43
24:DA:2106:G:O6	24:DA:2183:C:N4	2.46	0.43
24:DA:2142:C:H2’	24:DA:2143:C:C5	2.54	0.43
24:DA:2287:A:N1	24:DA:2346:A:N1	2.67	0.43
24:DA:2398:U:O2’	24:DA:2399:G:H5’	2.19	0.43
24:DA:2485:G:O2’	24:DA:2486:G:H5’	2.18	0.43
24:DA:2553:G:C2	24:DA:2554:U:H1’	2.53	0.43
24:DA:2793:G:H1	24:DA:2803:C:H42	1.66	0.43
25:DB:102:G:H1’	44:DV:73:GLN:HE22	1.84	0.43
26:DD:31:LYS:O	26:DD:31:LYS:CG	2.66	0.43
27:DE:58:ARG:O	27:DE:59:VAL:C	2.57	0.43
27:DE:68:ALA:C	27:DE:71:GLY:H	2.20	0.43
28:DF:25:PRO:CG	28:DF:26:ALA:H	2.31	0.43
29:DG:47:LYS:HG3	29:DG:81:LYS:HB3	1.99	0.43
29:DG:63:ILE:HG13	29:DG:64:THR:H	1.83	0.43
30:DH:33:LEU:HD21	30:DH:136:ILE:HD13	1.99	0.43
32:DM:99:LEU:HD13	32:DM:103:VAL:HG23	2.00	0.43
35:DP:4:PRO:HG3	35:DP:71:ASP:HA	2.00	0.43
37:DQ:42:ASP:O	37:DQ:43:GLU:CB	2.66	0.43
38:DR:19:LEU:HA	38:DR:20:PRO:HD3	1.82	0.43
43:DU:97:ARG:HH21	43:DU:98:VAL:CG1	2.32	0.43
44:DV:28:MET:CE	44:DV:37:VAL:HG11	2.48	0.43
1:AA:186(D):C:O2’	1:AA:186(E):C:H5’	2.18	0.43
1:AA:716:A:N3	11:AN:118:GLY:HA2	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:983:A:C2	1:AA:984:C:C6	3.00	0.43
1:AA:1441:G:N2	1:AA:1459:C:C5	2.87	0.43
1:AA:1492:A:C5	24:BA:1913:A:C6	3.07	0.43
2:AE:88:ALA:HB2	2:AE:219:VAL:CG1	2.49	0.43
5:AH:91:LEU:HD13	5:AH:120:THR:HG22	2.01	0.43
6:AI:6:VAL:HB	6:AI:63:TYR:HB2	2.01	0.43
6:AI:14:LEU:HD23	6:AI:15:ASP:H	1.83	0.43
10:AM:35:SER:N	10:AM:73:ASP:O	2.50	0.43
24:BA:463:G:C6	24:BA:467:G:O6	2.71	0.43
24:BA:566:U:H5"	34:BO:29:LYS:HE3	2.00	0.43
24:BA:654(J):A:C8	24:BA:654(K):C:H5	2.37	0.43
24:BA:782:A:H5'	24:BA:783:A:C2	2.53	0.43
24:BA:1050:A:C5	24:BA:2751:G:O6	2.72	0.43
24:BA:1246:A:P	34:BO:15:ARG:HH21	2.40	0.43
24:BA:2109:U:H4'	24:BA:2143:C:H1'	2.00	0.43
24:BA:2262:U:H4'	24:BA:2328:A:C2	2.54	0.43
24:BA:2287:A:N1	24:BA:2346:A:C2	2.86	0.43
24:BA:2558:C:H2'	24:BA:2559:C:C6	2.54	0.43
29:BG:91:ARG:HG3	29:BG:91:ARG:HH11	1.82	0.43
31:BK:93:THR:HG22	31:BK:119:PRO:HG3	2.01	0.43
32:BM:28:THR:HA	32:BM:106:MET:HE2	2.00	0.43
32:BM:37:LYS:HB3	32:BM:37:LYS:HE2	1.87	0.43
32:BM:118:LYS:HE3	32:BM:118:LYS:HB2	1.84	0.43
33:BN:2:ILE:HG21	33:BN:8:LEU:HD21	2.00	0.43
34:BO:42:SER:O	34:BO:43:GLY:C	2.57	0.43
34:BO:79:ARG:HE	34:BO:110:TYR:HE1	1.65	0.43
40:B2:38:LEU:CA	40:B2:39:LEU:HD12	2.49	0.43
42:BT:12:VAL:CG1	42:BT:27:THR:HB	2.48	0.43
44:BV:53:ILE:HG13	44:BV:54:HIS:CD2	2.53	0.43
1:CA:392:G:H3'	16:CS:12:LYS:HZ3	1.83	0.43
1:CA:458:C:C4	1:CA:464:G:C6	3.07	0.43
1:CA:754:C:H1'	15:CR:69:TYR:CG	2.53	0.43
1:CA:957:U:C3'	19:CV:79:THR:HG21	2.49	0.43
1:CA:988:G:C5	1:CA:989:C:C4	3.06	0.43
1:CA:1038:C:H2'	1:CA:1039:C:C6	2.53	0.43
1:CA:1151:A:N6	1:CA:1152:A:N6	2.66	0.43
1:CA:1213:A:N7	1:CA:1215:G:C5	2.86	0.43
1:CA:1226:C:N4	13:CP:104:ARG:HD2	2.34	0.43
1:CA:1240:U:O3'	7:CJ:38:LEU:HD21	2.19	0.43
1:CA:1329:A:H4'	13:CP:24:GLY:CA	2.46	0.43
2:CE:25:ASN:OD1	2:CE:27:LYS:CG	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CE:84:GLU:OE1	2:CE:216:SER:HA	2.19	0.43
2:CE:137:ARG:NH1	2:CE:141:GLU:HB2	2.33	0.43
3:CF:150:LYS:HB3	3:CF:201:TYR:HB2	2.01	0.43
6:CI:58:GLY:O	6:CI:60:PHE:CD1	2.72	0.43
9:CL:5:TYR:HD1	9:CL:6:GLY:N	2.17	0.43
9:CL:112:LYS:HG2	9:CL:118:LYS:CA	2.47	0.43
10:CM:4:ILE:HD13	10:CM:100:THR:HG22	1.92	0.43
13:CP:96:LEU:HB3	13:CP:97:PRO:CD	2.45	0.43
14:CQ:6:LEU:CD2	14:CQ:6:LEU:C	2.86	0.43
14:CQ:24:CYS:HB2	14:CQ:29:ARG:CD	2.41	0.43
17:CT:12:SER:HB3	17:CT:20:THR:HB	2.00	0.43
19:CV:13:ASP:N	19:CV:13:ASP:OD1	2.52	0.43
19:CV:40:ILE:CG1	19:CV:71:LEU:HD23	2.47	0.43
22:CC:16:C:H4'	22:CC:60:U:O2	2.19	0.43
24:DA:26:G:C6	24:DA:27:G:C6	3.06	0.43
24:DA:108:U:C2	24:DA:109:G:C8	3.06	0.43
24:DA:244:A:C2	24:DA:255:A:C4	3.07	0.43
24:DA:475:U:C4	24:DA:481:G:O6	2.71	0.43
24:DA:511:U:H2'	24:DA:512:G:H5"	2.00	0.43
24:DA:539:G:H2'	24:DA:540:G:H8	1.82	0.43
24:DA:1008:C:N4	24:DA:1136:G:C6	2.87	0.43
24:DA:1055:G:O2'	24:DA:1086:A:N3	2.51	0.43
24:DA:1093:G:H1	24:DA:1097:U:P	2.42	0.43
24:DA:2074:U:H4'	24:DA:2598:A:O4'	2.18	0.43
24:DA:2115:G:H4'	24:DA:2166:G:O2'	2.18	0.43
24:DA:2619:C:H2'	24:DA:2620:C:C6	2.53	0.43
24:DA:2688:U:OP1	24:DA:2713:A:N6	2.50	0.43
25:DB:40:U:O4	25:DB:43:C:C5'	2.67	0.43
25:DB:49:C:OP1	37:DQ:97:ARG:CG	2.67	0.43
27:DE:52:LEU:O	27:DE:74:PRO:CB	2.66	0.43
27:DE:64:LYS:HZ1	27:DE:66:HIS:CA	2.31	0.43
28:DF:10:PRO:HD2	28:DF:13:SER:OG	2.18	0.43
28:DF:96:ASP:OD1	28:DF:98:SER:OG	2.35	0.43
29:DG:142:PRO:HG2	29:DG:143:GLU:OE2	2.19	0.43
31:DK:38:LEU:HB2	31:DK:40:THR:CG2	2.49	0.43
31:DK:54:GLN:O	31:DK:57:ARG:HG2	2.19	0.43
31:DK:77:LEU:O	31:DK:78:THR:C	2.57	0.43
33:DN:43:VAL:CG1	33:DN:54:GLU:HA	2.47	0.43
35:DP:27:VAL:HG12	35:DP:28:ALA:N	2.34	0.43
37:DQ:68:GLN:O	37:DQ:72:ALA:N	2.41	0.43
38:DR:8:LYS:C	38:DR:10:VAL:N	2.72	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DS:12:ILE:HD12	41:DS:46:PHE:CE2	2.53	0.43
44:DV:9:TYR:CD1	44:DV:35:ARG:NH1	2.86	0.43
44:DV:118:GLN:OE1	44:DV:173:ALA:HB3	2.19	0.43
46:DZ:86:SER:H	46:DZ:87:PRO:HD2	1.76	0.43
49:D4:1:MET:HG2	49:D4:3:GLU:HG2	2.01	0.43
49:D4:57:GLU:HG2	49:D4:60:GLN:HE21	1.84	0.43
51:D6:26:ASN:O	51:D6:27:LYS:HB3	2.19	0.43
1:AA:8:A:H5'	5:AH:120:THR:O	2.19	0.43
1:AA:616:G:C2	1:AA:617:G:C8	3.07	0.43
1:AA:797:C:O2'	1:AA:798:G:H5'	2.19	0.43
1:AA:834:C:C2	1:AA:853:G:C2	3.06	0.43
1:AA:1303:C:C2'	1:AA:1304:G:H5'	2.49	0.43
1:AA:1499:A:O2'	1:AA:1520:G:H5'	2.19	0.43
2:AE:172:ILE:O	2:AE:176:GLU:OE1	2.36	0.43
4:AG:86:LYS:O	4:AG:87:GLY:C	2.57	0.43
5:AH:148:VAL:HG12	5:AH:149:GLU:N	2.34	0.43
5:AH:152:ARG:HA	8:AK:64:LYS:NZ	2.33	0.43
12:AO:18:VAL:CG2	12:AO:19:ARG:H	2.31	0.43
12:AO:47:LYS:HA	12:AO:47:LYS:CE	2.30	0.43
12:AO:69:TYR:HB3	12:AO:99:HIS:ND1	2.34	0.43
16:AS:15:PRO:HB3	16:AS:17:TYR:CE1	2.54	0.43
24:BA:9:U:H2'	24:BA:10:G:C8	2.53	0.43
24:BA:27:G:H22	24:BA:512:G:H1'	1.80	0.43
24:BA:118:A:C8	24:BA:119:A:C8	3.07	0.43
24:BA:289:A:C4	24:BA:290:G:C8	3.06	0.43
24:BA:480:A:C2'	24:BA:481:G:OP1	2.67	0.43
24:BA:504:U:H5"	24:BA:505:A:OP1	2.18	0.43
24:BA:674:G:C1'	28:BF:74:ARG:HD3	2.49	0.43
24:BA:848:G:O6	24:BA:929:G:H2'	2.19	0.43
24:BA:932:G:OP1	48:BX:29:ARG:CZ	2.66	0.43
24:BA:1161:C:H1'	40:B2:8:GLY:O	2.19	0.43
24:BA:1296:G:C4	24:BA:1297:C:C5	3.07	0.43
24:BA:1311:G:C8	52:B7:47:ARG:NH2	2.87	0.43
24:BA:1402:C:H6	24:BA:1402:C:O5'	2.02	0.43
24:BA:1636:C:H2'	24:BA:1637:A:C8	2.53	0.43
24:BA:2133:G:O2'	24:BA:2158:A:C6	2.66	0.43
24:BA:2138:C:C4	24:BA:2139:C:C5	3.07	0.43
24:BA:2166:G:C2	24:BA:2171:A:N6	2.83	0.43
24:BA:2243:U:O2'	24:BA:2244:U:H5'	2.19	0.43
24:BA:2290:G:H2'	24:BA:2291:U:O4'	2.18	0.43
24:BA:2387:U:OP1	45:B3:55:ARG:NH1	2.50	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2419:U:C5'	51:B6:23:THR:HG21	2.45	0.43
24:BA:2419:U:H2'	24:BA:2420:C:H6	1.83	0.43
24:BA:2509:G:C5	24:BA:2510:C:C5	3.07	0.43
24:BA:2809:A:C6	24:BA:2810:A:C6	3.07	0.43
24:BA:2870:C:C2'	24:BA:2871:C:H5'	2.49	0.43
25:BB:32:C:C6	25:BB:51:G:N2	2.87	0.43
25:BB:37:C:H2'	25:BB:38:C:C5'	2.41	0.43
25:BB:54:G:H2'	25:BB:55:U:H6	1.84	0.43
26:BD:35:LYS:CE	26:BD:104:TYR:CD1	3.01	0.43
26:BD:68:LYS:HB2	26:BD:70:TRP:CZ2	2.53	0.43
27:BE:51:PHE:O	27:BE:74:PRO:HB3	2.19	0.43
31:BK:123:LEU:HA	31:BK:142:VAL:HG21	2.00	0.43
36:B0:111:LEU:HD12	36:B0:111:LEU:N	2.34	0.43
44:BV:105:VAL:CG2	44:BV:106:GLY:H	2.21	0.43
44:BV:108:PRO:CD	44:BV:113:ALA:HA	2.49	0.43
44:BV:108:PRO:CB	44:BV:114:GLY:HA3	2.49	0.43
46:BZ:92:LYS:HA	46:BZ:95:LEU:CD1	2.48	0.43
1:CA:250:A:H5'	1:CA:252:U:H1'	2.00	0.43
1:CA:263:A:OP2	20:CW:79:ARG:NH1	2.51	0.43
1:CA:658:G:C6	1:CA:659:U:C4	3.06	0.43
1:CA:777:A:H2'	1:CA:778:G:C8	2.53	0.43
1:CA:999:U:O4	1:CA:1000:A:N6	2.51	0.43
1:CA:1005:A:N7	1:CA:1026:G:N1	2.65	0.43
1:CA:1292:U:C4'	9:CL:38:GLN:OE1	2.67	0.43
1:CA:1492:A:C6	24:DA:1913:A:N7	2.87	0.43
3:CF:158:GLY:C	3:CF:160:ALA:H	2.20	0.43
4:CG:25:ARG:O	4:CG:31:CYS:HB2	2.18	0.43
4:CG:94:LEU:HD12	4:CG:94:LEU:H	1.84	0.43
4:CG:148:VAL:HG11	4:CG:152:SER:O	2.18	0.43
4:CG:199:ASN:O	4:CG:199:ASN:ND2	2.39	0.43
6:CI:12:PRO:HD2	6:CI:13:ASN:ND2	2.33	0.43
8:CK:46:LYS:HD2	8:CK:62:TYR:HB3	2.00	0.43
9:CL:5:TYR:CD1	9:CL:6:GLY:N	2.86	0.43
9:CL:108:VAL:CG2	9:CL:109:VAL:N	2.82	0.43
10:CM:50:ILE:HD11	14:CQ:41:ARG:HE	1.83	0.43
12:CO:101:VAL:HG12	12:CO:104:VAL:CG2	2.48	0.43
19:CV:9:VAL:CG1	19:CV:10:PHE:N	2.80	0.43
20:CW:53:LEU:HD22	20:CW:104:LEU:HD13	2.01	0.43
24:DA:25:U:C4	24:DA:26:G:C6	3.07	0.43
24:DA:270(E):G:C6	24:DA:270(F):U:C4	3.07	0.43
24:DA:270(S):G:OP1	46:DZ:76:ARG:NH1	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:654(J):A:N3	24:DA:654(J):A:C2'	2.82	0.43
24:DA:825:C:H2'	24:DA:826:U:O4'	2.19	0.43
24:DA:1037:G:H1	24:DA:1118:C:H42	1.65	0.43
24:DA:1151:G:H4'	39:D1:81:HIS:CG	2.54	0.43
24:DA:1204:A:N1	24:DA:1241:A:C2	2.86	0.43
24:DA:1278:A:H2'	24:DA:1279:G:C8	2.53	0.43
24:DA:1379:A:N3	24:DA:1379:A:O4'	2.51	0.43
24:DA:2362:G:C2'	24:DA:2363:C:H5'	2.49	0.43
26:DD:106:ILE:HG23	26:DD:106:ILE:O	2.18	0.43
26:DD:248:SER:HB2	26:DD:249:PRO:HD2	2.01	0.43
27:DE:102:VAL:HA	27:DE:201:THR:OG1	2.19	0.43
27:DE:116:VAL:O	27:DE:118:LYS:N	2.48	0.43
28:DF:192:LEU:HD11	28:DF:194:MET:HE3	1.99	0.43
30:DH:107:VAL:HG21	30:DH:152:ARG:HG2	1.99	0.43
31:DK:6:LEU:O	31:DK:7:GLU:HB2	2.19	0.43
31:DK:29:TYR:O	31:DK:32:PRO:HG2	2.18	0.43
31:DK:58:LEU:CD2	31:DK:59:ALA:N	2.80	0.43
36:D0:53:HIS:CD2	36:D0:94:TYR:OH	2.71	0.43
38:DR:94:ALA:O	38:DR:95:ARG:CB	2.65	0.43
39:D1:95:LEU:HD13	40:D2:4:ILE:CG2	2.48	0.43
41:DS:110:LYS:HA	41:DS:110:LYS:HD2	1.76	0.43
42:DT:3:THR:HA	47:DW:29:LYS:NZ	2.33	0.43
43:DU:97:ARG:HH21	43:DU:98:VAL:HB	1.82	0.43
44:DV:3:TYR:CD2	44:DV:3:TYR:N	2.87	0.43
44:DV:23:LYS:HD2	44:DV:40:ASP:HB2	2.01	0.43
44:DV:146:ILE:HD12	44:DV:147:GLY:H	1.83	0.43
45:D3:48:GLY:HA3	45:D3:80:HIS:CE1	2.54	0.43
45:D3:72:ARG:NH2	45:D3:75:LEU:CD1	2.73	0.43
47:DW:22:GLU:CG	47:DW:64:LEU:HD11	2.49	0.43
48:DX:23:LEU:CD2	48:DX:50:VAL:HG21	2.49	0.43
53:D8:50:LEU:O	53:D8:51:ALA:HB3	2.17	0.43
1:AA:12:U:H4'	1:AA:526:C:H4'	2.00	0.43
1:AA:97:U:H2'	1:AA:99:C:C5	2.54	0.43
1:AA:193:C:OP2	20:AW:57:ARG:NH2	2.52	0.43
1:AA:458:C:C4	1:AA:464:G:N7	2.86	0.43
1:AA:827:U:O2'	8:AK:19:VAL:HG11	2.19	0.43
1:AA:1057:G:H4'	3:AF:196:LEU:HA	2.01	0.43
1:AA:1057:G:C4	1:AA:1204:A:C2	3.07	0.43
1:AA:1221:G:O2'	1:AA:1222:G:H5'	2.18	0.43
1:AA:1286:A:O3'	21:AX:26:LYS:HE3	2.18	0.43
1:AA:1348:U:H4'	9:AL:120:ARG:HD2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1379:G:C6	1:AA:1380:U:O4	2.72	0.43
1:AA:1420:C:C2'	1:AA:1421:G:H5'	2.49	0.43
2:AE:17:PHE:HB2	2:AE:42:ILE:HG22	2.00	0.43
2:AE:127:ILE:CG2	2:AE:128:GLU:H	2.31	0.43
2:AE:178:ARG:HH12	2:AE:196:LEU:CA	2.32	0.43
2:AE:187:LEU:HD23	2:AE:188:ALA:N	2.34	0.43
3:AF:134:ILE:HD11	3:AF:153:VAL:HG21	2.00	0.43
10:AM:26:ALA:CA	10:AM:29:ARG:HE	2.23	0.43
12:AO:126:LYS:HE2	12:AO:129:ALA:O	2.18	0.43
13:AP:22:ILE:HG22	13:AP:23:TYR:N	2.33	0.43
18:AU:73:ALA:HB1	18:AU:79:LEU:HG	1.99	0.43
24:BA:18:C:O3'	39:B1:23:GLY:HA2	2.19	0.43
24:BA:242:G:H5'	53:B8:62:LEU:HD13	1.94	0.43
24:BA:533:G:C2	39:B1:45:TYR:CE2	3.07	0.43
24:BA:705:A:C2	24:BA:706:A:C4	3.06	0.43
24:BA:764:A:O4'	26:BD:213:ARG:HG3	2.18	0.43
24:BA:905:U:H2'	24:BA:906:G:H5'	2.00	0.43
24:BA:1049:C:C4	24:BA:1050:A:C2	3.07	0.43
24:BA:1101:U:H2'	24:BA:1102:C:H6	1.84	0.43
24:BA:1325:G:OP2	24:BA:1616:A:H2'	2.19	0.43
24:BA:1332:G:N2	24:BA:1610:A:N7	2.66	0.43
24:BA:1773:A:N7	24:BA:1829:A:C1'	2.82	0.43
24:BA:1776:G:C2	24:BA:1777:U:C6	3.06	0.43
24:BA:2294:C:C2	24:BA:2295:C:C5	3.07	0.43
24:BA:2469:A:N6	24:BA:2481:G:H1'	2.26	0.43
24:BA:2612:C:C4	24:BA:2613:U:C5	3.07	0.43
25:BB:69:G:C5	25:BB:70:C:C5	3.07	0.43
28:BF:57:VAL:CG1	28:BF:59:TYR:CD1	2.85	0.43
29:BG:48:GLU:HA	29:BG:48:GLU:OE1	2.18	0.43
32:BM:22:THR:O	32:BM:60:ILE:HG22	2.19	0.43
32:BM:73:THR:HA	32:BM:83:LYS:O	2.18	0.43
34:BO:80:TYR:CE1	34:BO:111:ARG:HD3	2.54	0.43
44:BV:35:ARG:HB3	44:BV:35:ARG:NH1	2.34	0.43
48:BX:11:SER:OG	48:BX:13:ILE:HG12	2.19	0.43
51:B6:12:GLU:CB	51:B6:23:THR:HA	2.47	0.43
1:CA:409:G:N2	1:CA:434:U:C2	2.86	0.43
1:CA:648:A:H2'	1:CA:649:G:C8	2.54	0.43
1:CA:991:U:H2'	1:CA:992:U:OP2	2.19	0.43
1:CA:1014:A:OP2	19:CV:15:LEU:CD1	2.67	0.43
1:CA:1033:G:C2	1:CA:1034:G:N7	2.87	0.43
1:CA:1154:G:C4	1:CA:1155:G:N7	2.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1197:G:H2'	1:CA:1197:G:N3	2.33	0.43
1:CA:1291:G:H2'	9:CL:38:GLN:OE1	2.19	0.43
1:CA:1499:A:OP1	1:CA:1500:A:OP2	2.37	0.43
4:CG:3:ARG:CZ	4:CG:118:ARG:HD3	2.49	0.43
4:CG:159:ARG:O	4:CG:161:ASN:N	2.52	0.43
9:CL:16:ARG:HG2	9:CL:16:ARG:O	2.18	0.43
10:CM:3:LYS:CE	10:CM:77:PRO:HG3	2.49	0.43
15:CR:78:TYR:O	15:CR:81:LEU:HB3	2.19	0.43
16:CS:5:ARG:NH1	16:CS:22:THR:HG23	2.34	0.43
19:CV:77:THR:O	19:CV:78:ARG:HD3	2.18	0.43
21:CX:24:ARG:HG3	21:CX:24:ARG:NH1	2.29	0.43
24:DA:214:G:H2'	24:DA:215:G:O4'	2.18	0.43
24:DA:332:A:C2	24:DA:335:C:C5	3.06	0.43
24:DA:1047:G:C1'	24:DA:1110:G:H22	2.24	0.43
24:DA:1142(A):A:C5	24:DA:1144:G:C5	3.07	0.43
24:DA:1654:A:OP1	36:D0:2:ARG:HG2	2.19	0.43
24:DA:2173:A:H2'	24:DA:2174:C:H5'	2.01	0.43
24:DA:2211:G:H4'	24:DA:2212:A:OP2	2.19	0.43
24:DA:2286:A:P	51:D6:28:ARG:HD2	2.55	0.43
24:DA:2313:C:O2'	24:DA:2314:C:H5'	2.18	0.43
24:DA:2542:A:O2'	24:DA:2543:G:C8	2.69	0.43
24:DA:2704:C:H2'	24:DA:2705:A:O4'	2.19	0.43
24:DA:2811:G:N2	24:DA:2891:G:H1'	2.34	0.43
24:DA:2842:G:C2'	24:DA:2843:G:H5'	2.48	0.43
24:DA:2859:G:H4'	24:DA:2860:A:OP1	2.19	0.43
25:DB:33:G:C2'	25:DB:34:U:H5'	2.48	0.43
26:DD:142:VAL:HG12	26:DD:193:VAL:HA	2.01	0.43
26:DD:257:LEU:C	26:DD:257:LEU:HD22	2.39	0.43
29:DG:107:LEU:CD2	29:DG:111:LEU:HD11	2.44	0.43
31:DK:68:LEU:O	31:DK:69:LYS:C	2.56	0.43
31:DK:83:ALA:O	31:DK:89:TYR:CE2	2.71	0.43
32:DM:36:GLY:O	32:DM:39:ARG:HB2	2.19	0.43
35:DP:16:ARG:HB2	35:DP:18:LYS:HZ3	1.84	0.43
40:D2:35:LEU:HA	40:D2:36:PRO:HD2	1.90	0.43
41:DS:17:VAL:C	41:DS:19:LEU:H	2.22	0.43
51:D6:38:LYS:O	51:D6:46:HIS:CD2	2.63	0.43
51:D6:44:ARG:O	51:D6:45:LYS:CB	2.58	0.43
53:D8:15:LYS:HG2	53:D8:16:ILE:N	2.32	0.43
1:AA:74:C:O2'	1:AA:75:C:H5'	2.18	0.43
1:AA:186(B):C:C1'	20:AW:89:ARG:HH22	2.32	0.43
1:AA:263:A:P	20:AW:79:ARG:NH1	2.92	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:438:G:C2'	1:AA:494:U:O4	2.58	0.43
1:AA:514:C:H2'	1:AA:515:G:C8	2.53	0.43
1:AA:1068:G:C5	1:AA:1069:C:C5	3.07	0.43
1:AA:1329:A:OP2	13:AP:28:ALA:HB3	2.19	0.43
1:AA:1356:G:H2'	1:AA:1357:A:C8	2.54	0.43
1:AA:1360:A:H2'	1:AA:1361:G:O4'	2.18	0.43
1:AA:1402:C:H2'	1:AA:1403:C:O4'	2.19	0.43
2:AE:173:ALA:O	2:AE:176:GLU:OE1	2.37	0.43
3:AF:17:ASP:O	3:AF:54:ARG:NH2	2.52	0.43
4:AG:72:GLU:O	4:AG:73:ARG:O	2.37	0.43
9:AL:56:LEU:HD23	9:AL:56:LEU:C	2.39	0.43
9:AL:85:LEU:HD12	9:AL:86:VAL:N	2.32	0.43
11:AN:40:ILE:CG2	11:AN:75:TYR:HD2	2.30	0.43
11:AN:104:GLN:O	11:AN:106:LYS:N	2.52	0.43
19:AV:13:ASP:C	19:AV:15:LEU:H	2.22	0.43
24:BA:363:G:C2	24:BA:363(A):A:N7	2.87	0.43
24:BA:483:A:O2'	43:BU:59:GLY:HA2	2.19	0.43
24:BA:528:A:O2'	24:BA:529:A:H5"	2.18	0.43
24:BA:606:U:H4'	24:BA:658:C:C4'	2.42	0.43
24:BA:651:G:H4'	53:B8:18:ALA:HB3	1.99	0.43
24:BA:924:C:H2'	24:BA:925:C:C6	2.53	0.43
24:BA:928:G:H2'	24:BA:929:G:O4'	2.18	0.43
24:BA:1109:C:N4	24:BA:1110:G:N1	2.66	0.43
24:BA:1408:C:O2	24:BA:1595:G:C2	2.72	0.43
24:BA:1955:U:H2'	24:BA:1955:U:O2	2.19	0.43
24:BA:2112:G:H22	24:BA:2169:A:H61	1.66	0.43
24:BA:2642:G:OP1	32:BM:76:SER:OG	2.23	0.43
31:BK:64:GLU:HA	31:BK:67:ARG:HB3	2.01	0.43
36:B0:33:ARG:HH22	50:B5:55:ARG:CG	2.32	0.43
39:B1:65:ILE:HD11	39:B1:96:ALA:HB2	2.01	0.43
39:B1:92:ARG:CD	39:B1:95:LEU:CD1	2.91	0.43
41:BS:51:LEU:HD23	41:BS:51:LEU:HA	1.67	0.43
43:BU:50:ARG:NE	43:BU:50:ARG:H	2.16	0.43
44:BV:109:ALA:C	44:BV:144:LEU:H	2.22	0.43
53:B8:34:TRP:CD2	53:B8:35:GLN:N	2.86	0.43
1:CA:325:A:N6	1:CA:326:G:N1	2.67	0.43
1:CA:427:U:OP1	4:CG:40:PRO:HB3	2.19	0.43
1:CA:616:G:H1'	1:CA:625:G:N2	2.34	0.43
1:CA:617:G:C2	1:CA:618:C:C5	3.07	0.43
1:CA:721:G:H8	1:CA:721:G:OP1	2.02	0.43
1:CA:1034:G:H2'	1:CA:1035:A:C8	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1188:A:O3'	14:CQ:58:LYS:HE3	2.19	0.43
2:CE:12:GLU:O	2:CE:13:ALA:C	2.57	0.43
3:CF:43:LEU:O	3:CF:47:LEU:HB2	2.18	0.43
4:CG:176:LEU:HD23	4:CG:176:LEU:N	2.34	0.43
8:CK:67:PRO:O	8:CK:69:ARG:N	2.52	0.43
14:CQ:6:LEU:HD22	14:CQ:23:ARG:CZ	2.49	0.43
15:CR:84:LYS:O	15:CR:85:LEU:HG	2.19	0.43
18:CU:44:LEU:HD12	18:CU:44:LEU:N	2.34	0.43
24:DA:26:G:H1'	24:DA:515:A:H61	1.83	0.43
24:DA:67:U:O2'	24:DA:68:G:H5'	2.19	0.43
24:DA:248:G:H5'	24:DA:250:G:N7	2.34	0.43
24:DA:1047:G:C4	24:DA:1110:G:N1	2.87	0.43
24:DA:1084:A:N6	24:DA:1085:A:H62	2.16	0.43
24:DA:1412:A:H2'	24:DA:1413:G:O4'	2.18	0.43
24:DA:1907:G:C2'	24:DA:1908:C:H5'	2.48	0.43
24:DA:2118:U:O4	24:DA:2147:G:O2'	2.33	0.43
24:DA:2127:G:C8	24:DA:2128:C:C6	3.06	0.43
24:DA:2351:G:H2'	24:DA:2352:A:OP2	2.19	0.43
24:DA:2516:G:C5	24:DA:2517:C:C4	3.05	0.43
24:DA:2801:A:H4'	24:DA:2895:U:H5"	1.98	0.43
26:DD:73:VAL:HA	26:DD:119:ALA:O	2.18	0.43
26:DD:265:PRO:O	26:DD:267:SER:O	2.37	0.43
28:DF:63:LYS:CE	28:DF:67:GLN:HB2	2.49	0.43
31:DK:110:ASP:OD1	31:DK:110:ASP:N	2.48	0.43
31:DK:110:ASP:OD1	31:DK:130:TYR:CE1	2.72	0.43
32:DM:135:PRO:HB2	32:DM:137:LYS:NZ	2.34	0.43
34:DO:47:ASP:CB	34:DO:48:PRO:O	2.43	0.43
34:DO:112:LEU:HD23	34:DO:113:LYS:CA	2.49	0.43
36:D0:48:VAL:O	36:D0:51:LEU:N	2.51	0.43
40:D2:5:VAL:HB	40:D2:37:VAL:HG11	2.01	0.43
40:D2:71:LEU:O	40:D2:71:LEU:CD1	2.54	0.43
40:D2:80:GLN:HE21	40:D2:80:GLN:HA	1.83	0.43
44:DV:139:VAL:O	44:DV:140:ASP:HB3	2.18	0.43
46:DZ:95:LEU:HD23	46:DZ:95:LEU:O	2.19	0.43
51:D6:41:PRO:HD2	51:D6:46:HIS:H	1.82	0.43
1:AA:349:A:O2'	1:AA:350:G:H5'	2.19	0.43
1:AA:624:C:C3'	16:AS:10:GLY:HA2	2.49	0.43
1:AA:626:U:C4'	16:AS:38:TYR:CZ	3.01	0.43
1:AA:791:G:H2'	1:AA:792:A:H5'	2.00	0.43
1:AA:1101:A:H4'	1:AA:1102:A:O5'	2.19	0.43
1:AA:1131:G:O2'	1:AA:1132:C:H5'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1336:C:C2'	1:AA:1337:G:OP2	2.66	0.43
1:AA:1462:G:H2'	1:AA:1463:C:C6	2.54	0.43
1:AA:1498:U:H4'	1:AA:1499:A:O5'	2.19	0.43
2:AE:25:ASN:O	2:AE:27:LYS:N	2.52	0.43
3:AF:50:ALA:HA	3:AF:72:LYS:HB2	2.01	0.43
4:AG:17:VAL:HG12	4:AG:18:LYS:O	2.19	0.43
4:AG:50:ARG:HH12	5:AH:10:MET:CE	2.32	0.43
6:AI:24:GLU:HA	6:AI:27:GLN:HG3	1.99	0.43
7:AJ:69:VAL:O	7:AJ:138:LYS:HB2	2.18	0.43
8:AK:20:TYR:CE1	8:AK:78:GLN:NE2	2.87	0.43
8:AK:81:HIS:HB2	8:AK:138:TRP:CE3	2.54	0.43
10:AM:35:SER:CB	10:AM:73:ASP:HB2	2.48	0.43
12:AO:82:VAL:CG1	12:AO:83:VAL:N	2.82	0.43
20:AW:26:ASN:ND2	20:AW:26:ASN:N	2.65	0.43
22:AC:40:C:O2'	22:AC:41:C:H5'	2.18	0.43
24:BA:92:G:H2'	24:BA:93:C:H6	1.78	0.43
24:BA:99:U:C6	24:BA:102:G:C2	3.07	0.43
24:BA:612:G:N2	24:BA:616:A:O2'	2.52	0.43
24:BA:654:A:N3	24:BA:654:A:C3'	2.79	0.43
24:BA:880:G:C2	24:BA:898:C:C2	3.06	0.43
24:BA:905:U:C2'	24:BA:906:G:H5'	2.48	0.43
24:BA:945:A:C4	24:BA:2448:A:C2	3.06	0.43
24:BA:1115:G:H2'	24:BA:1116:C:C6	2.54	0.43
24:BA:1137:G:O2'	24:BA:2039:C:H5'	2.19	0.43
24:BA:2156:G:H5"	24:BA:2157:G:OP2	2.19	0.43
24:BA:2175:C:H3'	24:BA:2176:A:C5'	2.29	0.43
24:BA:2287:A:OP1	51:B6:30:THR:HG22	2.18	0.43
25:BB:72:G:N2	25:BB:103:U:C5	2.87	0.43
26:BD:62:TYR:CE2	26:BD:64:ILE:HA	2.54	0.43
26:BD:79:VAL:HG12	26:BD:79:VAL:O	2.19	0.43
26:BD:227:ASN:HB3	26:BD:228:PRO:HD2	2.00	0.43
28:BF:29:ASN:HA	28:BF:30:PRO:HD2	1.94	0.43
28:BF:195:ASP:O	28:BF:198:ALA:N	2.49	0.43
29:BG:77:ILE:HG23	29:BG:77:ILE:O	2.19	0.43
30:BH:97:ARG:O	30:BH:125:VAL:HG21	2.19	0.43
30:BH:152:ARG:O	30:BH:153:LYS:HB2	2.18	0.43
35:BP:78:PRO:HG2	35:BP:81:VAL:CG1	2.45	0.43
36:B0:85:PRO:C	36:B0:87:TYR:N	2.73	0.43
38:BR:113:LYS:O	38:BR:114:LEU:HD23	2.19	0.43
39:B1:108:GLU:CD	39:B1:112:ARG:NH1	2.67	0.43
42:BT:47:PHE:O	42:BT:49:VAL:HG23	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:B8:17:THR:HG21	53:B8:23:VAL:CG2	2.48	0.43
1:CA:129(A):G:C2	1:CA:191(A):G:N7	2.87	0.43
1:CA:162:A:N3	1:CA:348:G:H4'	2.34	0.43
1:CA:186(B):C:C4'	20:CW:89:ARG:HH22	2.32	0.43
1:CA:250:A:OP1	1:CA:250:A:H3'	2.19	0.43
1:CA:271:C:H2'	1:CA:272:C:C6	2.54	0.43
1:CA:843:U:C3'	1:CA:848:C:H5'	2.49	0.43
1:CA:976:G:C5'	14:CQ:31:ARG:NH1	2.71	0.43
1:CA:998(A):C:H2'	1:CA:999:U:O4'	2.18	0.43
1:CA:1037:C:H5"	1:CA:1038:C:OP1	2.19	0.43
1:CA:1160:G:C2'	1:CA:1161:C:O5'	2.66	0.43
1:CA:1206:G:C5	1:CA:1207:G:C8	3.07	0.43
1:CA:1251:A:H1'	1:CA:1369:C:O2'	2.19	0.43
1:CA:1288:A:C4'	21:CX:13:ILE:CD1	2.90	0.43
1:CA:1494:G:HO2'	24:DA:1913:A:P	2.42	0.43
2:CE:7:VAL:O	2:CE:8:LYS:HB3	2.18	0.43
2:CE:233:SER:O	2:CE:234:PRO:C	2.56	0.43
3:CF:50:ALA:HA	3:CF:75:VAL:HG21	1.99	0.43
3:CF:60:ALA:O	3:CF:61:ALA:HB2	2.19	0.43
4:CG:53:ASP:N	4:CG:53:ASP:OD1	2.52	0.43
4:CG:146:ILE:N	4:CG:146:ILE:CD1	2.81	0.43
5:CH:51:VAL:O	5:CH:54:ALA:HB3	2.19	0.43
7:CJ:70:LYS:O	7:CJ:138:LYS:HE2	2.18	0.43
7:CJ:78:ARG:CZ	7:CJ:85:TYR:HD1	2.09	0.43
8:CK:56:LYS:HA	8:CK:57:PRO:HD2	1.88	0.43
8:CK:111:ILE:O	8:CK:134:ILE:HB	2.19	0.43
9:CL:20:ARG:O	9:CL:60:ASP:HB2	2.19	0.43
12:CO:62:SER:O	12:CO:63:GLY:C	2.57	0.43
14:CQ:12:ARG:HB2	14:CQ:14:PRO:HD3	2.00	0.43
18:CU:48:GLY:HA3	18:CU:82:THR:HA	2.01	0.43
24:DA:1184:G:H5'	48:DX:29:ARG:HH21	1.84	0.43
24:DA:1341:U:P	24:DA:1397:U:H3	2.38	0.43
24:DA:1434:A:C5	24:DA:1560:G:N2	2.87	0.43
24:DA:1600:C:C2'	52:D7:49:ARG:NH2	2.77	0.43
24:DA:1798:U:H5'	26:DD:259:THR:OG1	2.19	0.43
24:DA:1834:U:O2	24:DA:1834:U:C2'	2.65	0.43
24:DA:2172:U:H2'	24:DA:2173:A:C5'	2.49	0.43
24:DA:2172:U:H2'	24:DA:2173:A:H5'	2.00	0.43
24:DA:2627:G:N3	24:DA:2781:A:H2	2.17	0.43
24:DA:2748:A:C8	24:DA:2753:A:N6	2.86	0.43
24:DA:2786:U:O2'	27:DE:62:PRO:HA	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2817:G:O2'	24:DA:2836:U:O2	2.31	0.43
25:DB:87:G:H3'	25:DB:88:C:C5'	2.48	0.43
26:DD:231:HIS:ND1	26:DD:232:PRO:CD	2.81	0.43
27:DE:111:ARG:HH11	27:DE:111:ARG:HG2	1.84	0.43
30:DH:89:ILE:HD13	30:DH:91:GLY:H	1.84	0.43
31:DK:25:TYR:CE1	31:DK:29:TYR:CD2	3.07	0.43
32:DM:120:LEU:C	32:DM:120:LEU:CD2	2.80	0.43
37:DQ:106:ARG:CA	37:DQ:110:LEU:HD21	2.49	0.43
41:DS:75:TYR:CD1	41:DS:104:THR:HB	2.54	0.43
42:DT:12:VAL:HG22	42:DT:27:THR:CB	2.49	0.43
44:DV:125:LEU:HB3	44:DV:165:VAL:CG1	2.46	0.43
51:D6:17:LYS:O	51:D6:18:ARG:CB	2.67	0.43
1:AA:148:G:O2'	1:AA:149:A:H5'	2.19	0.42
1:AA:234:C:H2'	1:AA:235:C:H6	1.83	0.42
1:AA:297:G:N2	1:AA:300:A:OP2	2.52	0.42
1:AA:500:G:H1'	1:AA:547:A:N1	2.34	0.42
1:AA:704:A:OP2	1:AA:704:A:H8	2.01	0.42
1:AA:816:A:OP1	1:AA:1526:G:O2'	2.31	0.42
1:AA:972:C:H4'	10:AM:57:LYS:HB3	2.01	0.42
3:AF:206:GLU:O	3:AF:206:GLU:CG	2.66	0.42
5:AH:67:VAL:CG2	5:AH:69:VAL:CG2	2.97	0.42
9:AL:9:ARG:CD	9:AL:14:VAL:CG2	2.96	0.42
11:AN:54:ARG:O	11:AN:55:LYS:C	2.58	0.42
13:AP:11:ARG:HE	13:AP:46:LYS:CE	2.15	0.42
14:AQ:24:CYS:HB3	14:AQ:27:CYS:HB2	1.98	0.42
14:AQ:41:ARG:HG3	14:AQ:42:ILE:N	2.34	0.42
21:AX:4:GLY:O	21:AX:6:ARG:N	2.51	0.42
24:BA:818:G:H4'	24:BA:838:C:O3'	2.18	0.42
24:BA:860:U:C4	24:BA:917:A:H2	2.37	0.42
24:BA:1206:G:N2	24:BA:1207:C:H1'	2.34	0.42
24:BA:1265:A:C8	24:BA:1267:U:C2	3.07	0.42
24:BA:1443:G:N2	24:BA:1549:C:C2	2.86	0.42
24:BA:1471:A:N1	24:BA:1472:A:C4	2.87	0.42
24:BA:1541:U:H2'	24:BA:1542:G:O4'	2.18	0.42
24:BA:2092:U:H4'	24:BA:2093:G:O5'	2.19	0.42
24:BA:2348:U:H4'	51:B6:42:TRP:HE1	1.84	0.42
24:BA:2517:C:C6	24:BA:2542:A:C5	3.07	0.42
24:BA:2630:G:O2'	24:BA:2631:G:H5'	2.19	0.42
31:BK:11:ASN:HB3	31:BK:12:LEU:HD22	2.00	0.42
33:BN:68:GLU:H	33:BN:68:GLU:CD	2.22	0.42
34:BO:75:ILE:HG12	34:BO:75:ILE:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BO:126:VAL:HG13	34:BO:145:PRO:HG2	2.01	0.42
35:BP:87:LYS:O	35:BP:88:GLY:C	2.58	0.42
36:B0:53:HIS:HA	36:B0:56:LYS:HD3	2.01	0.42
38:BR:31:SER:CB	38:BR:84:GLN:HG2	2.47	0.42
44:BV:40:ASP:HB3	44:BV:43:GLU:HG2	1.99	0.42
46:BZ:64:ALA:HA	46:BZ:67:ILE:HD11	2.01	0.42
1:CA:528:C:C2'	1:CA:529:G:H5'	2.49	0.42
1:CA:978:A:C6	1:CA:1318:A:C5	3.07	0.42
1:CA:1014:A:OP2	19:CV:15:LEU:HD11	2.18	0.42
1:CA:1125:U:P	1:CA:1145:C:H42	2.42	0.42
1:CA:1167:A:H2'	1:CA:1169:A:C8	2.54	0.42
1:CA:1238:A:OP1	1:CA:1335:C:O2'	2.17	0.42
1:CA:1292:U:H5'	9:CL:38:GLN:CD	2.40	0.42
1:CA:1326:C:O2'	1:CA:1327:C:H5'	2.18	0.42
1:CA:1329:A:P	13:CP:28:ALA:HB3	2.58	0.42
1:CA:1367:C:C5'	10:CM:60:ARG:NH2	2.80	0.42
1:CA:1388:C:H2'	1:CA:1389:C:C6	2.52	0.42
2:CE:80:ILE:HG12	2:CE:215:LEU:HD12	2.00	0.42
2:CE:185:ILE:CG2	2:CE:199:TYR:CD2	3.01	0.42
15:CR:10:LYS:HD2	15:CR:10:LYS:C	2.40	0.42
18:CU:20:ALA:C	18:CU:21:LYS:HD2	2.39	0.42
20:CW:89:ARG:O	20:CW:91:LEU:N	2.52	0.42
24:DA:602:G:H2'	24:DA:655:A:N6	2.33	0.42
24:DA:820:A:N3	24:DA:943:U:H4'	2.34	0.42
24:DA:1023:U:H2'	24:DA:1024:G:H5'	2.00	0.42
24:DA:2405:G:P	34:DO:77:ARG:HH21	2.42	0.42
24:DA:2789:C:C4	24:DA:2790:A:N6	2.87	0.42
24:DA:2884:U:O2'	24:DA:2885:C:H5'	2.19	0.42
25:DB:71:C:O2	25:DB:71:C:H2'	2.19	0.42
26:DD:67:PHE:HD1	26:DD:153:ALA:HB3	1.82	0.42
28:DF:24:LEU:HB3	28:DF:25:PRO:HD3	1.85	0.42
29:DG:110:ALA:CB	29:DG:140:ILE:CD1	2.96	0.42
30:DH:104:GLU:C	30:DH:105:LEU:HD13	2.39	0.42
30:DH:152:ARG:NH2	30:DH:153:LYS:HE2	2.34	0.42
34:DO:63:PRO:HB3	53:D8:13:ARG:CG	2.49	0.42
37:DQ:109:GLY:O	37:DQ:110:LEU:C	2.57	0.42
39:D1:65:ILE:HD11	39:D1:96:ALA:HB2	2.01	0.42
41:DS:20:VAL:O	41:DS:23:LEU:CB	2.66	0.42
43:DU:42:VAL:HG22	43:DU:65:ALA:CB	2.39	0.42
44:DV:117:LEU:HB3	44:DV:119:GLU:OE1	2.19	0.42
45:D3:37:LEU:CD1	45:D3:60:PHE:HA	2.46	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:D4:55:ARG:HG3	49:D4:56:VAL:H	1.77	0.42
50:D5:56:LYS:HE3	50:D5:56:LYS:HB3	1.87	0.42
51:D6:18:ARG:NE	51:D6:43:CYS:HB2	2.34	0.42
1:AA:57:G:C5	1:AA:58:C:C4	3.07	0.42
1:AA:109:A:C6	1:AA:326:G:C6	3.07	0.42
1:AA:262:A:C6	1:AA:263:A:N6	2.87	0.42
1:AA:300:A:H2'	1:AA:564:C:H42	1.84	0.42
1:AA:509:A:H1'	1:AA:543:C:O2'	2.18	0.42
1:AA:559:A:H5"	1:AA:560:U:C3'	2.48	0.42
1:AA:739:C:O2'	15:AR:42:HIS:ND1	2.49	0.42
1:AA:960:U:C5	1:AA:1225:A:H1'	2.54	0.42
1:AA:1085:U:H3'	1:AA:1086:U:C5	2.54	0.42
1:AA:1198:G:H2'	1:AA:1199:U:O4'	2.19	0.42
1:AA:1468:A:H2'	1:AA:1469:G:O4'	2.18	0.42
2:AE:170:GLU:O	2:AE:171:ALA:C	2.57	0.42
4:AG:173:TRP:C	4:AG:186:LEU:CG	2.84	0.42
5:AH:47:LYS:HE2	5:AH:47:LYS:HB2	1.91	0.42
5:AH:103:GLY:C	5:AH:106:PRO:HD2	2.39	0.42
9:AL:24:GLY:CA	9:AL:57:GLY:HA3	2.49	0.42
9:AL:88:TYR:O	9:AL:89:ASN:HB2	2.19	0.42
11:AN:32:ILE:HD12	11:AN:72:ALA:CB	2.46	0.42
12:AO:5:PRO:HA	12:AO:9:GLN:OE1	2.19	0.42
13:AP:23:TYR:CZ	13:AP:71:ARG:HG3	2.54	0.42
13:AP:81:LEU:C	13:AP:84:ILE:HG22	2.39	0.42
17:AT:75:ARG:NH1	17:AT:76:LEU:O	2.52	0.42
20:AW:71:THR:HG22	20:AW:72:LEU:N	2.34	0.42
24:BA:106:C:H2'	24:BA:107:C:H6	1.83	0.42
24:BA:164:U:OP1	24:BA:165:U:N3	2.52	0.42
24:BA:299:A:N6	24:BA:300:A:N1	2.67	0.42
24:BA:439:G:HO2'	24:BA:440:G:H5'	1.84	0.42
24:BA:456:C:C4	42:BT:69:TYR:CE1	3.06	0.42
24:BA:654(S):G:C1'	24:BA:654(T):A:P	3.06	0.42
24:BA:919:G:H5'	25:BB:81:G:H1'	2.01	0.42
24:BA:1420:U:C5	24:BA:1420:U:OP1	2.72	0.42
24:BA:1443:G:C2'	24:BA:1444:G:H5'	2.49	0.42
24:BA:1535:U:C6	24:BA:1537:C:H1'	2.52	0.42
24:BA:1705:G:C2'	24:BA:1706:U:H5'	2.49	0.42
24:BA:2167:U:P	24:BA:2167:U:H6	2.43	0.42
24:BA:2488:A:H2'	24:BA:2489:G:O4'	2.18	0.42
24:BA:2695:C:H2'	24:BA:2696:U:C6	2.54	0.42
24:BA:2712:U:OP1	24:BA:2714:G:H4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BF:195:ASP:OD1	28:BF:197:ASP:HB2	2.18	0.42
31:BK:130:TYR:O	31:BK:135:GLU:HG2	2.18	0.42
32:BM:35:ARG:O	32:BM:37:LYS:HG3	2.19	0.42
32:BM:127:ASP:O	32:BM:128:HIS:HB3	2.19	0.42
37:BQ:74:ALA:HB1	37:BQ:107:GLU:O	2.19	0.42
39:B1:25:TRP:O	39:B1:28:ARG:HB2	2.19	0.42
39:B1:92:ARG:NE	40:B2:11:GLN:H	2.17	0.42
43:BU:50:ARG:H	43:BU:50:ARG:CD	2.31	0.42
44:BV:125:LEU:C	44:BV:164:ALA:HB3	2.38	0.42
44:BV:126:VAL:CA	44:BV:164:ALA:HB2	2.49	0.42
51:B6:48:VAL:O	51:B6:49:HIS:HB2	2.18	0.42
53:B8:34:TRP:CG	53:B8:35:GLN:N	2.88	0.42
1:CA:490:G:H2'	1:CA:491:G:C8	2.54	0.42
1:CA:611:A:H61	1:CA:629:G:H1	1.65	0.42
1:CA:697:U:H2'	1:CA:698:G:O4'	2.19	0.42
1:CA:902:G:H2'	1:CA:903:G:H8	1.84	0.42
1:CA:1120:G:O6	1:CA:1152:A:N6	2.52	0.42
1:CA:1240:U:O2'	1:CA:1241:G:H5'	2.19	0.42
1:CA:1320:C:C2'	1:CA:1321:C:C5'	2.97	0.42
1:CA:1327:C:O2'	1:CA:1328:C:H5'	2.19	0.42
1:CA:1423:G:H2'	1:CA:1424:C:H6	1.84	0.42
2:CE:44:LEU:HD23	2:CE:44:LEU:N	2.34	0.42
2:CE:57:PHE:CZ	2:CE:183:PRO:HG2	2.54	0.42
4:CG:31:CYS:O	4:CG:33:MET:N	2.49	0.42
4:CG:173:TRP:HA	4:CG:187:ARG:HD3	2.01	0.42
5:CH:88:LYS:HE2	5:CH:88:LYS:HB3	1.82	0.42
10:CM:24:VAL:HG13	10:CM:25:GLU:HG2	2.01	0.42
10:CM:70:ARG:NH1	10:CM:70:ARG:CG	2.73	0.42
14:CQ:8:GLU:C	14:CQ:10:ALA:N	2.73	0.42
16:CS:51:VAL:O	16:CS:51:VAL:HG12	2.19	0.42
19:CV:36:ARG:CG	19:CV:72:GLY:CA	2.97	0.42
20:CW:87:LYS:O	20:CW:90:GLN:N	2.52	0.42
22:CC:7:G:N2	22:CC:67:C:C2	2.87	0.42
24:DA:49:A:H5'	24:DA:51:G:O4'	2.19	0.42
24:DA:152:G:H2'	24:DA:153:C:O4'	2.20	0.42
24:DA:171:G:N2	24:DA:172:C:C2	2.87	0.42
24:DA:769:G:H5'	24:DA:1379:A:N6	2.34	0.42
24:DA:996:A:O3'	39:D1:92:ARG:HB2	2.18	0.42
24:DA:1348:G:H2'	24:DA:1349:A:H5"	2.01	0.42
24:DA:1380:G:N2	24:DA:1570:A:C2	2.87	0.42
24:DA:1465:G:C4	24:DA:1466:G:C8	3.06	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2061:G:H5”	24:DA:2503:A:C2	2.54	0.42
24:DA:2123:G:H1	24:DA:2174:C:H42	1.66	0.42
24:DA:2526:G:C5	24:DA:2527:C:C5	3.06	0.42
24:DA:2593:U:H2’	24:DA:2594:C:C6	2.54	0.42
24:DA:2660:A:H2’	24:DA:2661:G:O4’	2.19	0.42
25:DB:27:C:N4	25:DB:28:C:C4	2.87	0.42
25:DB:32:C:C4	25:DB:33:G:N7	2.87	0.42
25:DB:44:G:H1’	25:DB:47:C:N4	2.34	0.42
25:DB:89(A):A:H8	25:DB:90:C:O4’	2.03	0.42
27:DE:37:ARG:N	27:DE:46:ALA:O	2.52	0.42
27:DE:57:LYS:HA	27:DE:57:LYS:HD3	1.81	0.42
28:DF:2:LYS:N	28:DF:2:LYS:CD	2.82	0.42
28:DF:29:ASN:O	28:DF:33:LEU:HD23	2.19	0.42
28:DF:202:PHE:CE1	28:DF:206:ILE:HG21	2.54	0.42
29:DG:95:ARG:O	29:DG:96:ARG:C	2.57	0.42
30:DH:33:LEU:HD11	30:DH:136:ILE:O	2.19	0.42
30:DH:95:ARG:HG3	30:DH:96:ALA:N	2.34	0.42
32:DM:90:MET:HA	32:DM:90:MET:HE2	1.99	0.42
33:DN:52:VAL:HG12	33:DN:94:ARG:HH22	1.85	0.42
34:DO:86:LYS:HB2	34:DO:117:GLU:O	2.19	0.42
35:DP:79:LEU:O	35:DP:80:GLU:HB2	2.19	0.42
37:DQ:67:ARG:HH11	37:DQ:67:ARG:CB	2.32	0.42
43:DU:54:LYS:CD	43:DU:55:TYR:CZ	3.02	0.42
49:D4:49:PHE:O	49:D4:51:ASP:N	2.50	0.42
50:D5:57:VAL:HA	50:D5:58:LEU:HD12	2.01	0.42
1:AA:14:U:H2’	1:AA:16:A:OP2	2.19	0.42
1:AA:103:C:OP2	20:AW:14:LYS:CE	2.65	0.42
1:AA:292:G:C5	1:AA:293:G:H1’	2.54	0.42
1:AA:409:G:N2	1:AA:433:C:O2	2.52	0.42
1:AA:511:C:O3’	4:AG:43:HIS:NE2	2.52	0.42
1:AA:688:G:H2’	1:AA:689:C:C6	2.55	0.42
1:AA:707:C:H2’	1:AA:708:C:C6	2.54	0.42
1:AA:1080:A:H5”	1:AA:1081:G:OP2	2.20	0.42
1:AA:1290:G:H2’	1:AA:1290:G:N3	2.34	0.42
2:AE:51:LEU:HD22	2:AE:55:PHE:CD2	2.54	0.42
2:AE:74:LYS:O	2:AE:78:GLN:HB2	2.20	0.42
2:AE:97:TRP:CH2	2:AE:173:ALA:HA	2.55	0.42
4:AG:38:TYR:HB2	4:AG:39:PRO:CD	2.49	0.42
4:AG:94:LEU:H	4:AG:94:LEU:HD12	1.84	0.42
5:AH:60:TYR:C	5:AH:60:TYR:CD1	2.92	0.42
7:AJ:64:GLN:OE1	7:AJ:64:GLN:HA	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AK:97:VAL:HG21	8:AK:128:GLY:HA2	2.01	0.42
17:AT:89:LEU:O	17:AT:93:GLN:HB2	2.19	0.42
22:AC:14:A:H2'	22:AC:15:G:O4'	2.19	0.42
24:BA:394:A:C6	24:BA:395:U:N3	2.88	0.42
24:BA:1138:G:O2'	32:BM:106:MET:HG3	2.19	0.42
24:BA:1812:A:O2'	26:BD:45:ASN:HB2	2.19	0.42
24:BA:2021:C:H4'	24:BA:2022:U:OP2	2.19	0.42
25:BB:28:C:H2'	25:BB:29:A:O4'	2.19	0.42
27:BE:204:ALA:O	27:BE:205:ALA:CB	2.67	0.42
28:BF:126:VAL:HG22	28:BF:194:MET:O	2.19	0.42
29:BG:77:ILE:HG23	29:BG:80:PHE:CE1	2.53	0.42
29:BG:142:PRO:HG2	29:BG:143:GLU:OE2	2.20	0.42
30:BH:55:PRO:CG	30:BH:61:HIS:CD2	3.02	0.42
34:BO:6:LEU:HB3	34:BO:7:ARG:H	1.72	0.42
38:BR:95:ARG:HA	38:BR:95:ARG:HD2	1.52	0.42
40:B2:13:ARG:O	40:B2:13:ARG:HG2	2.19	0.42
40:B2:64:HIS:CE1	40:B2:92:THR:CG2	3.03	0.42
44:BV:111:VAL:O	44:BV:112:ARG:HD3	2.19	0.42
53:B8:33:ASN:O	53:B8:34:TRP:C	2.56	0.42
1:CA:36:C:C2'	1:CA:37:U:H5'	2.49	0.42
1:CA:490:G:C5	1:CA:491:G:N7	2.87	0.42
1:CA:515:G:N3	1:CA:537:G:C2	2.87	0.42
1:CA:1096:C:H2'	1:CA:1097:C:C6	2.53	0.42
1:CA:1281:U:H3'	1:CA:1282:C:H5	1.84	0.42
1:CA:1301:U:O2	1:CA:1301:U:H2'	2.18	0.42
1:CA:1324:A:O4'	1:CA:1362:C:H4'	2.19	0.42
2:CE:15:VAL:HG12	2:CE:15:VAL:O	2.19	0.42
3:CF:84:ILE:CG2	3:CF:85:ARG:NH1	2.82	0.42
3:CF:91:LEU:C	3:CF:93:LYS:H	2.22	0.42
3:CF:94:LEU:C	3:CF:94:LEU:HD12	2.40	0.42
4:CG:89:THR:H	5:CH:97:GLY:HA3	1.83	0.42
4:CG:187:ARG:O	4:CG:189:PRO:HD3	2.18	0.42
4:CG:195:ALA:O	4:CG:196:LEU:HD23	2.19	0.42
5:CH:66:MET:C	5:CH:67:VAL:HG12	2.40	0.42
5:CH:148:VAL:HG21	8:CK:107:LEU:HD12	2.00	0.42
6:CI:50:TYR:CZ	18:CU:77:GLY:HA2	2.55	0.42
9:CL:97:LYS:HB2	9:CL:97:LYS:HE3	1.79	0.42
9:CL:117:HIS:O	9:CL:118:LYS:CB	2.65	0.42
13:CP:67:GLU:HG3	13:CP:68:GLY:N	2.34	0.42
16:CS:58:TYR:CD2	16:CS:58:TYR:C	2.92	0.42
17:CT:52:LYS:HD3	17:CT:52:LYS:H	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:CT:59:ILE:HG22	17:CT:71:PHE:HD1	1.78	0.42
20:CW:89:ARG:HE	20:CW:104:LEU:HD23	1.84	0.42
24:DA:77:C:H42	24:DA:109:G:H1	1.67	0.42
24:DA:526:A:N3	24:DA:2044:C:H1'	2.34	0.42
24:DA:1091:G:C6	24:DA:1092:C:N4	2.88	0.42
24:DA:1527:G:C5'	24:DA:1528:A:OP1	2.67	0.42
24:DA:1642:G:O2'	24:DA:1643:G:H5'	2.20	0.42
24:DA:2340:G:O2'	24:DA:2341:G:H5'	2.18	0.42
24:DA:2392:A:C2'	53:D8:30:ARG:NH2	2.82	0.42
24:DA:2582:G:C2	24:DA:2583:G:C8	3.08	0.42
24:DA:2699:C:H2'	24:DA:2700:C:O4'	2.19	0.42
24:DA:2789:C:H5'	24:DA:2790:A:OP1	2.19	0.42
24:DA:2837:G:C4	24:DA:2838:G:C8	3.07	0.42
25:DB:15:A:H1'	25:DB:109:G:C4	2.53	0.42
25:DB:32:C:C2	25:DB:51:G:N2	2.87	0.42
27:DE:50:GLY:HA2	27:DE:78:LEU:HD22	2.01	0.42
28:DF:93:LYS:HB3	28:DF:94:PRO:HD2	2.01	0.42
29:DG:56:ALA:O	29:DG:60:LEU:HB2	2.19	0.42
29:DG:80:PHE:HB2	29:DG:81:LYS:H	1.63	0.42
29:DG:146:TYR:C	29:DG:148:MET:H	2.21	0.42
32:DM:14:VAL:CG2	32:DM:15:LEU:N	2.81	0.42
33:DN:17:ARG:HA	33:DN:17:ARG:HD3	1.85	0.42
34:DO:21:ARG:HB3	34:DO:22:GLY:H	1.65	0.42
36:D0:101:ALA:HB2	50:D5:44:THR:CB	2.50	0.42
39:D1:19:LYS:C	39:D1:21:ALA:H	2.22	0.42
44:DV:44:PHE:CE1	44:DV:48:PHE:CD2	3.07	0.42
47:DW:41:ILE:CD1	47:DW:44:LEU:HD12	2.48	0.42
47:DW:51:ARG:CA	47:DW:54:LYS:HG2	2.42	0.42
51:D6:30:THR:HA	51:D6:31:PRO:HA	1.79	0.42
1:AA:171:A:H2'	1:AA:172:A:N9	2.34	0.42
1:AA:619:U:N3	4:AG:135:LEU:CD1	2.82	0.42
1:AA:691:G:O2'	1:AA:692:U:H5'	2.19	0.42
1:AA:1073:U:H2'	1:AA:1074:G:C8	2.55	0.42
1:AA:1266:G:N2	1:AA:1270:C:C2	2.88	0.42
1:AA:1379:G:C4	1:AA:1380:U:C5	3.08	0.42
2:AE:102:LEU:HB3	2:AE:180:LEU:HD12	2.00	0.42
2:AE:139:LYS:N	2:AE:139:LYS:HD2	2.35	0.42
3:AF:72:LYS:HB3	3:AF:75:VAL:HB	2.01	0.42
3:AF:113:ALA:N	3:AF:114:PRO:CD	2.83	0.42
3:AF:190:ARG:CB	3:AF:195:VAL:HG12	2.49	0.42
7:AJ:69:VAL:O	7:AJ:69:VAL:HG12	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AK:43:GLY:O	8:AK:64:LYS:HE2	2.19	0.42
8:AK:83:ILE:HG13	8:AK:137:VAL:HG22	2.01	0.42
8:AK:121:ASP:OD1	8:AK:125:ARG:CZ	2.68	0.42
11:AN:67:ASP:OD1	11:AN:71:LYS:HE3	2.19	0.42
13:AP:11:ARG:HA	13:AP:45:VAL:CG1	2.48	0.42
17:AT:74:LEU:C	17:AT:74:LEU:HD13	2.40	0.42
24:BA:199:A:C8	24:BA:2433:A:C6	3.08	0.42
24:BA:225:A:C2'	24:BA:226:G:H5'	2.50	0.42
24:BA:301:G:H1'	24:BA:302:C:C6	2.54	0.42
24:BA:459:U:H5"	52:B7:40:TRP:CD2	2.55	0.42
24:BA:468:G:H5"	28:BF:60:SER:HB2	2.01	0.42
24:BA:545:G:C3'	24:BA:546:C:H5"	2.49	0.42
24:BA:604:G:C5	24:BA:625:G:C2	3.07	0.42
24:BA:606:U:C4'	24:BA:658:C:H4'	2.43	0.42
24:BA:662:G:H5'	34:BO:15:ARG:CA	2.48	0.42
24:BA:662:G:H4'	34:BO:15:ARG:O	2.19	0.42
24:BA:952:G:C6	24:BA:953:A:N7	2.87	0.42
24:BA:1069:A:C4'	24:BA:1070:A:H5"	2.42	0.42
24:BA:1379:A:H4'	24:BA:1380:G:OP1	2.14	0.42
24:BA:1507:A:N6	24:BA:1508:A:C6	2.87	0.42
24:BA:1657:C:H2'	24:BA:1658:C:C6	2.54	0.42
24:BA:1971:A:C5	26:BD:241:PRO:HD3	2.54	0.42
24:BA:2061:G:H2'	24:BA:2501:C:O2'	2.20	0.42
24:BA:2156:G:H5"	24:BA:2157:G:P	2.59	0.42
24:BA:2213:U:H2'	24:BA:2215:G:H5'	2.02	0.42
24:BA:2258:C:H4'	24:BA:2259:G:OP2	2.19	0.42
24:BA:2819:G:H2'	24:BA:2821:A:N7	2.33	0.42
24:BA:2867:G:O6	38:BR:23:ARG:HD2	2.19	0.42
25:BB:45:A:C4	25:BB:46:A:C8	3.08	0.42
26:BD:33:LEU:HD22	26:BD:34:VAL:N	2.35	0.42
26:BD:163:ALA:HB1	26:BD:175:LEU:HD22	2.01	0.42
26:BD:270:ILE:CG2	26:BD:271:ILE:N	2.82	0.42
27:BE:54:GLN:O	27:BE:72:VAL:HG11	2.18	0.42
27:BE:108:SER:HB3	27:BE:165:VAL:HG21	2.00	0.42
28:BF:201:VAL:CG1	28:BF:202:PHE:N	2.81	0.42
29:BG:16:ARG:NH2	29:BG:31:VAL:HG13	2.33	0.42
29:BG:44:GLY:C	29:BG:46:ALA:N	2.72	0.42
31:BK:90:GLY:O	31:BK:91:SER:HB3	2.19	0.42
34:BO:16:ARG:HA	34:BO:16:ARG:HD3	1.72	0.42
36:B0:34:ILE:HD13	36:B0:34:ILE:HA	1.90	0.42
39:B1:97:ASP:O	39:B1:100:VAL:HG23	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:B2:65:GLY:HA3	40:B2:91:TYR:CE1	2.54	0.42
41:BS:9:TYR:HA	41:BS:100:THR:HG23	2.00	0.42
43:BU:17:SER:OG	43:BU:71:LYS:HE2	2.19	0.42
44:BV:148:ASP:OD1	44:BV:173:ALA:CA	2.58	0.42
49:B4:37:SER:OG	49:B4:43:TYR:CE2	2.70	0.42
1:CA:572:A:O2'	1:CA:916:G:O2'	2.21	0.42
1:CA:738:C:OP2	6:CI:92:LYS:HE3	2.18	0.42
1:CA:945:G:H2'	1:CA:945:G:N3	2.35	0.42
1:CA:957:U:H2'	1:CA:959:A:OP2	2.19	0.42
1:CA:1123:A:N3	10:CM:39:PRO:HD2	2.34	0.42
1:CA:1124:G:C2'	1:CA:1145:C:N3	2.82	0.42
1:CA:1148:U:O2'	9:CL:66:ARG:NE	2.51	0.42
1:CA:1254:C:H5'	1:CA:1356:G:H4'	2.01	0.42
1:CA:1370:G:C2	1:CA:1371:G:N7	2.87	0.42
2:CE:111:ARG:HD3	2:CE:111:ARG:HA	1.60	0.42
5:CH:78:HIS:HA	8:CK:105:ARG:HG3	2.00	0.42
6:CI:94:GLN:HA	6:CI:94:GLN:NE2	2.31	0.42
7:CJ:149:ARG:HB3	7:CJ:150:ALA:H	1.55	0.42
8:CK:70:GLN:CG	8:CK:71:GLY:H	2.27	0.42
15:CR:22:THR:HG1	15:CR:23:GLY:N	2.17	0.42
16:CS:6:LEU:N	16:CS:6:LEU:HD22	2.34	0.42
18:CU:50:ILE:HG13	18:CU:74:ARG:NH2	2.34	0.42
19:CV:15:LEU:C	19:CV:17:GLU:N	2.70	0.42
19:CV:64:GLU:CD	19:CV:64:GLU:H	2.22	0.42
20:CW:56:MET:HA	20:CW:59:ALA:HB3	2.02	0.42
24:DA:363:G:H5'	24:DA:363(A):A:OP2	2.20	0.42
24:DA:483:A:N7	24:DA:497:A:H2	2.17	0.42
24:DA:892:G:C8	24:DA:893:C:C5	3.08	0.42
24:DA:953:A:N3	24:DA:954:G:C8	2.87	0.42
24:DA:1096:A:C5	24:DA:1097:U:C2	3.07	0.42
24:DA:1149:G:H2'	24:DA:1150:C:C6	2.54	0.42
24:DA:1688:U:H1'	24:DA:1701:A:C6	2.54	0.42
24:DA:1705:G:C2'	24:DA:1706:U:H5'	2.50	0.42
24:DA:2163:C:OP1	24:DA:2172:U:H5	2.01	0.42
24:DA:2170:A:H2'	24:DA:2171:A:H5'	2.00	0.42
24:DA:2294:C:OP1	37:DQ:89:ARG:NH2	2.49	0.42
24:DA:2393:A:O3'	34:DO:63:PRO:HD3	2.19	0.42
24:DA:2432:A:C8	46:DZ:33:LYS:HD2	2.54	0.42
24:DA:2615:U:H2'	24:DA:2616:C:C6	2.55	0.42
24:DA:2636:U:H1'	24:DA:2783:G:N2	2.34	0.42
26:DD:139:GLY:H	26:DD:165:ILE:HB	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DE:24:THR:O	27:DE:25:VAL:CB	2.68	0.42
28:DF:161:GLU:HG2	28:DF:165:ARG:HG3	2.01	0.42
29:DG:68:PRO:HB2	29:DG:90:LEU:HB3	2.01	0.42
30:DH:42:ARG:HA	30:DH:42:ARG:HH11	1.80	0.42
30:DH:117:PRO:CB	30:DH:123:PHE:CZ	3.02	0.42
31:DK:123:LEU:HA	31:DK:142:VAL:HG13	2.02	0.42
31:DK:142:VAL:O	31:DK:143:SER:HB2	2.18	0.42
32:DM:67:LEU:O	32:DM:88:GLU:HG3	2.19	0.42
34:DO:15:ARG:HB3	34:DO:16:ARG:H	1.44	0.42
40:D2:80:GLN:CA	40:D2:80:GLN:NE2	2.76	0.42
42:DT:28:PHE:CZ	42:DT:92:LEU:HD11	2.55	0.42
43:DU:42:VAL:O	43:DU:42:VAL:HG13	2.19	0.42
46:DZ:41:ARG:HG3	46:DZ:43:TYR:CE1	2.54	0.42
51:D6:31:PRO:HB2	51:D6:33:LYS:HG2	2.01	0.42
53:D8:23:VAL:HG22	53:D8:48:PHE:H	1.84	0.42
1:AA:16:A:N1	1:AA:919:A:H2	2.17	0.42
1:AA:223:U:H2'	1:AA:224:C:C6	2.54	0.42
1:AA:307:C:C5	1:AA:308:C:C5	3.07	0.42
1:AA:356:A:C2'	1:AA:368:U:O2'	2.67	0.42
1:AA:428:G:H4'	1:AA:429:U:OP1	2.17	0.42
1:AA:929:G:C6	1:AA:930:C:N4	2.87	0.42
1:AA:973:G:H3'	1:AA:974:A:H5"	2.00	0.42
1:AA:1187:G:P	9:AL:113:LYS:HZ3	2.42	0.42
1:AA:1253:G:P	10:AM:46:ARG:HH12	2.43	0.42
1:AA:1270:C:H4'	1:AA:1313:U:O2'	2.19	0.42
1:AA:1432:G:OP1	38:BR:108:ARG:N	2.53	0.42
2:AE:9:GLU:N	2:AE:9:GLU:OE1	2.53	0.42
2:AE:239:VAL:O	2:AE:240:GLN:CG	2.67	0.42
3:AF:14:ILE:HG13	3:AF:15:THR:N	2.33	0.42
3:AF:113:ALA:N	3:AF:114:PRO:HD2	2.34	0.42
3:AF:115:LEU:O	3:AF:116:VAL:C	2.57	0.42
5:AH:137:GLU:HA	5:AH:140:ARG:HH11	1.85	0.42
9:AL:4:TYR:CE1	9:AL:88:TYR:CA	3.02	0.42
9:AL:11:LYS:C	9:AL:13:ALA:H	2.22	0.42
9:AL:88:TYR:O	9:AL:89:ASN:CB	2.68	0.42
12:AO:46:LYS:HE2	12:AO:47:LYS:CE	2.48	0.42
18:AU:52:PRO:O	18:AU:56:THR:HG23	2.19	0.42
19:AV:6:LYS:HG3	19:AV:7:LYS:N	2.33	0.42
22:AC:24:U:O2'	24:BA:1923:U:OP1	2.35	0.42
24:BA:753:C:H2'	24:BA:754:C:C6	2.54	0.42
24:BA:880:G:C4	24:BA:881:G:C8	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:954:G:N3	24:BA:2274:A:C2	2.87	0.42
24:BA:1647:G:H3'	24:BA:1647:G:OP2	2.20	0.42
24:BA:2360:A:H2'	24:BA:2361:A:O4'	2.20	0.42
24:BA:2802:G:C5	24:BA:2803:C:C5	3.08	0.42
24:BA:2825:C:O5'	24:BA:2825:C:H6	2.02	0.42
26:BD:146:GLU:HB2	26:BD:189:CYS:HB3	2.02	0.42
29:BG:94:LEU:N	29:BG:94:LEU:CD2	2.80	0.42
29:BG:105:LYS:HD2	49:B4:26:SER:HB2	1.98	0.42
29:BG:125:PHE:HZ	29:BG:170:ARG:HA	1.83	0.42
30:BH:2:SER:CB	30:BH:3:ARG:CZ	2.97	0.42
30:BH:85:LYS:HD3	30:BH:85:LYS:HA	1.55	0.42
30:BH:153:LYS:HB3	30:BH:162:ILE:N	2.19	0.42
33:BN:17:ARG:HE	33:BN:47:ILE:HD11	1.84	0.42
33:BN:22:ILE:HD12	33:BN:22:ILE:HA	1.77	0.42
38:BR:22:PHE:HD2	38:BR:49:VAL:HG11	1.84	0.42
41:BS:10:VAL:O	41:BS:12:ILE:N	2.53	0.42
43:BU:6:HIS:CE1	43:BU:69:ALA:O	2.69	0.42
43:BU:38:ILE:HD11	43:BU:64:GLU:CG	2.49	0.42
44:BV:100:VAL:CG2	44:BV:126:VAL:CG2	2.98	0.42
46:BZ:64:ALA:HA	46:BZ:67:ILE:HG13	2.00	0.42
1:CA:383:A:OP1	1:CA:454:C:O2'	2.24	0.42
1:CA:458:C:H42	1:CA:474:G:H1	1.67	0.42
1:CA:465:A:N6	1:CA:467:G:N1	2.68	0.42
1:CA:531:U:OP2	1:CA:531:U:H6	2.02	0.42
1:CA:542:G:H2'	1:CA:543:C:C6	2.55	0.42
1:CA:890:G:O2'	1:CA:906:G:O6	2.37	0.42
1:CA:961:U:H2'	1:CA:962:C:H5'	2.01	0.42
1:CA:978:A:C5	1:CA:1318:A:C6	3.07	0.42
1:CA:1022:G:H2'	1:CA:1023:G:C8	2.54	0.42
1:CA:1238:A:H62	1:CA:1301:U:H3	1.64	0.42
1:CA:1320:C:C6	19:CV:70:LYS:HD3	2.54	0.42
1:CA:1339:A:C2	22:CC:31:G:O4'	2.72	0.42
1:CA:1367:C:H5"	9:CL:114:TYR:HA	2.00	0.42
2:CE:119:GLU:CA	2:CE:122:PHE:HB2	2.35	0.42
3:CF:111:LEU:HD22	3:CF:146:ALA:HB2	2.01	0.42
4:CG:75:PHE:CD1	4:CG:75:PHE:O	2.73	0.42
7:CJ:24:THR:O	7:CJ:27:ILE:CG2	2.57	0.42
7:CJ:104:LEU:O	7:CJ:108:ALA:HB2	2.19	0.42
9:CL:54:ASP:O	9:CL:56:LEU:N	2.46	0.42
11:CN:48:ILE:HD13	11:CN:64:ALA:HA	2.00	0.42
13:CP:78:ILE:HG23	13:CP:92:HIS:NE2	2.32	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CQ:21:TYR:HE2	14:CQ:23:ARG:NH2	2.14	0.42
15:CR:56:LEU:HD21	24:DA:715:G:C2	2.55	0.42
22:CC:7:G:N2	22:CC:67:C:O2	2.52	0.42
24:DA:229:A:C2	24:DA:417:C:O2'	2.66	0.42
24:DA:600:G:O3'	28:DF:108:LYS:NZ	2.53	0.42
24:DA:1028:A:H2	24:DA:2486:G:N3	2.17	0.42
24:DA:1538:G:H8	24:DA:1538:G:OP2	2.02	0.42
24:DA:1989:G:C2'	24:DA:1990:C:H5'	2.50	0.42
24:DA:2163:C:H3'	24:DA:2164:C:C6	2.54	0.42
24:DA:2296:U:C4'	24:DA:2297:C:OP1	2.57	0.42
26:DD:73:VAL:HG13	26:DD:120:GLY:CA	2.49	0.42
26:DD:104:TYR:O	26:DD:105:ILE:HD13	2.20	0.42
27:DE:28:ALA:O	27:DE:93:VAL:HG22	2.20	0.42
27:DE:31:CYS:HB2	27:DE:91:VAL:CG2	2.50	0.42
30:DH:46:GLU:N	30:DH:49:VAL:O	2.52	0.42
30:DH:55:PRO:HG2	30:DH:61:HIS:ND1	2.34	0.42
35:DP:31:ASP:OD1	35:DP:134:ARG:NH1	2.52	0.42
37:DQ:69:VAL:O	37:DQ:72:ALA:HB3	2.19	0.42
39:D1:87:GLY:HA3	40:D2:50:PRO:HD3	2.02	0.42
39:D1:92:ARG:O	39:D1:94:ASN:N	2.43	0.42
43:DU:37:VAL:O	43:DU:37:VAL:HG23	2.19	0.42
51:D6:12:GLU:HB2	51:D6:21:TYR:HB3	2.01	0.42
52:D7:18:PHE:CD1	52:D7:18:PHE:C	2.92	0.42
1:AA:5:U:O2'	1:AA:6:G:P	2.76	0.42
1:AA:10:A:H2'	1:AA:11:G:H8	1.85	0.42
1:AA:127:G:O2'	1:AA:128:G:H5'	2.19	0.42
1:AA:136:C:N4	1:AA:227:G:H1	2.17	0.42
1:AA:189:U:C2	17:AT:63:ARG:NH2	2.88	0.42
1:AA:649:G:H2'	1:AA:650:G:H8	1.84	0.42
1:AA:1245:A:C2	1:AA:1293:G:C2	3.07	0.42
2:AE:170:GLU:HA	2:AE:170:GLU:OE1	2.18	0.42
3:AF:132:ARG:O	3:AF:133:ALA:C	2.57	0.42
5:AH:91:LEU:HD13	5:AH:120:THR:CG2	2.49	0.42
6:AI:44:GLY:HA2	6:AI:59:TYR:CE1	2.55	0.42
9:AL:4:TYR:CE1	9:AL:88:TYR:N	2.87	0.42
9:AL:56:LEU:HD22	9:AL:57:GLY:N	2.35	0.42
10:AM:50:ILE:HG22	10:AM:52:GLY:H	1.84	0.42
12:AO:113:ARG:C	12:AO:114:LYS:HD2	2.40	0.42
16:AS:68:ASP:CG	16:AS:71:ARG:NH2	2.72	0.42
24:BA:305:U:H2'	24:BA:306:U:C6	2.54	0.42
24:BA:807:U:C2	24:BA:808:G:C8	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1122:G:C6	24:BA:1123:C:C5	3.08	0.42
24:BA:1149:G:H2'	24:BA:1150:C:C6	2.54	0.42
24:BA:1400:G:H2'	24:BA:1401:G:C8	2.55	0.42
24:BA:1871:A:H2'	24:BA:1872:A:H8	1.83	0.42
24:BA:2162:G:O2'	24:BA:2173:A:OP2	2.38	0.42
24:BA:2166:G:C2'	24:BA:2167:U:OP1	2.67	0.42
24:BA:2249:U:N3	24:BA:2253:G:OP2	2.43	0.42
27:BE:49:LEU:HD12	27:BE:49:LEU:H	1.84	0.42
28:BF:64:ILE:HA	28:BF:64:ILE:HD13	1.81	0.42
28:BF:67:GLN:O	28:BF:67:GLN:CG	2.66	0.42
29:BG:105:LYS:HE3	29:BG:105:LYS:HB2	1.87	0.42
29:BG:161:THR:HG22	29:BG:163:ALA:N	2.00	0.42
30:BH:86:GLU:CB	30:BH:165:ALA:HB2	2.49	0.42
32:BM:28:THR:HA	32:BM:106:MET:CE	2.50	0.42
39:B1:66:ASN:CA	39:B1:76:TYR:HB2	2.42	0.42
40:B2:35:LEU:O	40:B2:37:VAL:N	2.52	0.42
43:BU:87:LYS:HD2	43:BU:92:ASN:HB3	2.00	0.42
44:BV:146:ILE:HD13	44:BV:146:ILE:C	2.39	0.42
46:BZ:73:LEU:HD21	46:BZ:95:LEU:HD23	2.01	0.42
49:B4:38:LYS:HA	49:B4:38:LYS:HD2	1.88	0.42
49:B4:38:LYS:NZ	49:B4:43:TYR:HE1	2.18	0.42
1:CA:32:A:H3'	1:CA:33:A:H8	1.84	0.42
1:CA:106:C:O2'	1:CA:107:G:H5'	2.20	0.42
1:CA:563:A:N3	1:CA:563:A:C2'	2.82	0.42
1:CA:913:A:C1'	1:CA:914:A:OP2	2.63	0.42
1:CA:946:A:OP2	13:CP:114:ARG:NH1	2.50	0.42
1:CA:1053:G:N7	1:CA:1199:U:H3'	2.34	0.42
1:CA:1127:G:C2	1:CA:1145:C:H1'	2.54	0.42
1:CA:1128:C:C5'	9:CL:16:ARG:HH12	2.33	0.42
1:CA:1202:G:H2'	1:CA:1203:C:H5'	2.01	0.42
1:CA:1240:U:H3'	1:CA:1241:G:H8	1.85	0.42
1:CA:1327:C:H5"	21:CX:20:LYS:HB2	2.01	0.42
1:CA:1367:C:H5'	10:CM:60:ARG:CZ	2.49	0.42
1:CA:1460:A:H2'	1:CA:1461:G:H5'	2.01	0.42
4:CG:41:GLY:C	4:CG:43:HIS:N	2.73	0.42
5:CH:16:THR:HG22	5:CH:27:ARG:O	2.19	0.42
5:CH:75:THR:HG23	5:CH:76:ILE:N	2.34	0.42
6:CI:61:LEU:HD12	6:CI:61:LEU:N	2.35	0.42
8:CK:86:ILE:HG21	8:CK:133:LEU:HD22	2.01	0.42
16:CS:14:ASN:N	16:CS:15:PRO:HD3	2.34	0.42
19:CV:50:ALA:HB1	19:CV:57:HIS:CB	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CC:40:C:O2'	22:CC:41:C:H5'	2.19	0.42
24:DA:329:G:H4'	24:DA:330:A:OP2	2.19	0.42
24:DA:389:G:H1	34:DO:72:PRO:HD3	1.85	0.42
24:DA:392:C:H5"	24:DA:409:C:H5"	2.02	0.42
24:DA:448:U:H1'	28:DF:84:VAL:HG13	2.01	0.42
24:DA:609(A):G:N2	24:DA:619:G:H1'	2.34	0.42
24:DA:1021:A:C8	24:DA:1021:A:C3'	3.01	0.42
24:DA:1025:G:C4	24:DA:1135:C:H1'	2.54	0.42
24:DA:1061:U:H4'	24:DA:1070:A:C2'	2.49	0.42
24:DA:1184:G:C2'	24:DA:1185:C:H5'	2.49	0.42
24:DA:1655:A:H4'	27:DE:115:GLY:H	1.83	0.42
24:DA:1686:C:H2'	24:DA:1687:G:O4'	2.20	0.42
24:DA:1819:A:H4'	24:DA:1820:U:O5'	2.20	0.42
24:DA:2128:C:H1'	24:DA:2173:A:N6	2.35	0.42
24:DA:2134:A:O2'	24:DA:2159:G:N2	2.52	0.42
24:DA:2284:C:OP2	51:D6:27:LYS:CE	2.67	0.42
24:DA:2833:G:C8	24:DA:2833:G:OP1	2.72	0.42
29:DG:110:ALA:HA	29:DG:140:ILE:CG1	2.48	0.42
32:DM:6:PRO:HB3	32:DM:41:ASP:OD1	2.20	0.42
36:D0:44:LEU:O	36:D0:45:ARG:C	2.58	0.42
36:D0:105:ARG:O	36:D0:106:GLY:C	2.57	0.42
39:D1:92:ARG:HG3	39:D1:94:ASN:HB3	2.02	0.42
44:DV:24:LEU:HA	44:DV:25:PRO:HD3	1.88	0.42
44:DV:103:ARG:O	44:DV:104:PHE:HB2	2.19	0.42
49:D4:16:CYS:O	49:D4:19:GLY:HA3	2.19	0.42
1:AA:76:G:C4	1:AA:95:G:N2	2.87	0.42
1:AA:411:A:N7	1:AA:413:G:N3	2.67	0.42
1:AA:728:A:H2'	1:AA:729:A:H8	1.78	0.42
1:AA:778:G:O2'	11:AN:120:ARG:O	2.30	0.42
2:AE:28:PHE:CG	2:AE:190:THR:HA	2.54	0.42
2:AE:67:THR:HG21	2:AE:155:LEU:CG	2.48	0.42
4:AG:9:CYS:SG	4:AG:22:LYS:NZ	2.93	0.42
7:AJ:120:ILE:HG22	7:AJ:124:LEU:CD1	2.49	0.42
14:AQ:2:ALA:HB1	14:AQ:6:LEU:CD1	2.44	0.42
15:AR:39:LEU:HD22	15:AR:43:LEU:HG	2.02	0.42
15:AR:78:TYR:CZ	15:AR:82:ILE:CD1	3.03	0.42
17:AT:22:LEU:CD2	17:AT:88:TYR:HD2	2.32	0.42
24:BA:270(I):G:C1'	46:BZ:78:LYS:NZ	2.82	0.42
24:BA:273(A):G:C2	24:BA:364:C:C2	3.07	0.42
24:BA:289:A:C5	24:BA:290:G:C8	3.08	0.42
24:BA:504:U:H3'	24:BA:504:U:H6	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:693:C:O2'	24:BA:694:U:H5'	2.19	0.42
24:BA:1019:U:H2'	24:BA:1020:A:C8	2.54	0.42
24:BA:1060:U:N1	24:BA:1062:G:H5'	2.34	0.42
24:BA:1079:C:N3	24:BA:1088:A:C5	2.88	0.42
24:BA:1266:G:O4'	41:BS:15:ARG:NH2	2.51	0.42
24:BA:1324:G:C4	24:BA:1328:G:O6	2.72	0.42
24:BA:1409:C:C2'	24:BA:1410:G:C5'	2.96	0.42
24:BA:1665:A:H2'	24:BA:1666:G:O4'	2.20	0.42
24:BA:2136:C:N3	24:BA:2137:C:C4	2.87	0.42
24:BA:2371:G:C4'	51:B6:45:LYS:CD	2.89	0.42
24:BA:2591:C:H2'	24:BA:2592:G:H8	1.77	0.42
24:BA:2857:G:N2	24:BA:2859:G:H3'	2.34	0.42
28:BF:65:TRP:HB3	28:BF:66:PRO:HD2	2.01	0.42
28:BF:89:VAL:O	28:BF:90:PHE:C	2.58	0.42
29:BG:58:GLN:O	29:BG:62:LEU:HB2	2.19	0.42
29:BG:83:ARG:HA	29:BG:83:ARG:HD3	1.90	0.42
31:BK:8:PRO:HA	31:BK:14:ASP:HA	2.02	0.42
31:BK:58:LEU:C	31:BK:60:GLU:N	2.73	0.42
31:BK:85:GLU:HA	31:BK:85:GLU:OE2	2.20	0.42
32:BM:34:LEU:O	32:BM:116:LEU:HD22	2.20	0.42
35:BP:88:GLY:O	35:BP:89:ASN:HB2	2.18	0.42
37:BQ:83:LYS:O	37:BQ:110:LEU:HA	2.19	0.42
39:B1:57:PHE:HD1	39:B1:57:PHE:HA	1.69	0.42
39:B1:74:LEU:CD1	39:B1:79:PHE:CB	2.91	0.42
39:B1:78:THR:O	39:B1:79:PHE:C	2.58	0.42
41:BS:20:VAL:CG2	41:BS:21:VAL:N	2.82	0.42
42:BT:67:GLY:O	42:BT:68:ARG:HB3	2.20	0.42
43:BU:75:ILE:HD13	43:BU:75:ILE:N	2.35	0.42
44:BV:68:PRO:O	44:BV:91:LEU:HB2	2.19	0.42
44:BV:150:LEU:CB	44:BV:172:ALA:HB3	2.42	0.42
46:BZ:76:ARG:CB	46:BZ:94:LEU:HD13	2.48	0.42
47:BW:48:HIS:O	47:BW:52:ASP:N	2.42	0.42
47:BW:62:THR:O	47:BW:66:GLU:HG3	2.20	0.42
49:B4:43:TYR:CD1	49:B4:44:THR:N	2.83	0.42
1:CA:21:G:C2	1:CA:22:G:C5	3.07	0.42
1:CA:109:A:C6	1:CA:326:G:C5	3.07	0.42
1:CA:135:C:H2'	1:CA:136:C:H5'	2.02	0.42
1:CA:423:G:H3'	1:CA:423:G:N3	2.34	0.42
1:CA:467:G:C6	1:CA:468:A:C5	3.08	0.42
1:CA:574:A:H1'	1:CA:883:C:C1'	2.50	0.42
1:CA:601:C:H2'	1:CA:602:A:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:672:U:O2'	1:CA:673:G:H5'	2.20	0.42
1:CA:977:A:O2'	1:CA:981:U:N3	2.53	0.42
1:CA:977:A:C8	1:CA:982:U:O4	2.73	0.42
1:CA:1074:G:O3'	2:CE:103:THR:HG21	2.20	0.42
1:CA:1137:C:H5'	1:CA:1138:G:C4	2.55	0.42
1:CA:1416:G:C6	1:CA:1417:G:C5	3.08	0.42
1:CA:1502:A:N3	1:CA:1502:A:C2'	2.82	0.42
2:CE:87:ARG:NH2	2:CE:233:SER:N	2.67	0.42
2:CE:182:ILE:O	2:CE:184:VAL:N	2.53	0.42
2:CE:237:ALA:N	2:CE:239:VAL:HG23	2.28	0.42
4:CG:11:LEU:HG	4:CG:11:LEU:H	1.72	0.42
4:CG:18:LYS:HG3	4:CG:33:MET:CE	2.47	0.42
4:CG:33:MET:O	4:CG:34:GLU:HG2	2.20	0.42
5:CH:34:VAL:O	5:CH:42:GLY:N	2.50	0.42
5:CH:95:ALA:HB1	5:CH:96:PRO:HD2	2.01	0.42
8:CK:104:ARG:HB2	8:CK:104:ARG:HH11	1.83	0.42
9:CL:28:VAL:CG2	9:CL:63:ILE:HB	2.49	0.42
10:CM:28:ARG:NH1	10:CM:28:ARG:CG	2.76	0.42
15:CR:33:THR:O	15:CR:36:ILE:HB	2.20	0.42
18:CU:35:ARG:O	18:CU:37:VAL:N	2.52	0.42
20:CW:66:ALA:HB1	20:CW:71:THR:HB	2.01	0.42
24:DA:118:A:OP2	24:DA:119:A:H2'	2.19	0.42
24:DA:361:G:C2	24:DA:362:U:C2	3.08	0.42
24:DA:649:G:C5	24:DA:650:C:C4	3.08	0.42
24:DA:668:G:H3'	24:DA:669:G:H5"	2.02	0.42
24:DA:777:A:N3	24:DA:778:G:C8	2.87	0.42
24:DA:780:G:N2	24:DA:783:A:H62	2.17	0.42
24:DA:853:G:O2'	24:DA:854:G:H5'	2.19	0.42
24:DA:875:G:C5'	44:DV:173:ALA:CB	2.98	0.42
24:DA:1165:U:H2'	24:DA:1166:C:C6	2.55	0.42
24:DA:1376:C:H2'	24:DA:1377:G:O4'	2.19	0.42
24:DA:1401:G:H2'	24:DA:1402:C:C6	2.55	0.42
24:DA:2030:A:H4'	24:DA:2031:A:C8	2.54	0.42
24:DA:2154:G:C2	24:DA:2155:G:C8	3.08	0.42
24:DA:2312:U:O3'	29:DG:71:THR:HG21	2.20	0.42
24:DA:2751:G:C5'	24:DA:2752:C:OP2	2.65	0.42
24:DA:2788:C:P	27:DE:61:ARG:NH1	2.92	0.42
24:DA:2876:G:O5'	38:DR:3:ARG:HA	2.20	0.42
26:DD:210:GLY:HA2	26:DD:213:ARG:HG2	2.02	0.42
27:DE:120:TRP:HB3	27:DE:155:LYS:HD3	2.00	0.42
28:DF:25:PRO:C	28:DF:27:GLU:H	2.22	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DF:148:LEU:HD21	28:DF:191:ARG:HE	1.85	0.42
30:DH:121:ILE:HG22	30:DH:133:VAL:HB	2.02	0.42
30:DH:155:SER:O	30:DH:156:ALA:CB	2.65	0.42
34:DO:15:ARG:O	34:DO:16:ARG:C	2.57	0.42
35:DP:137:TYR:C	35:DP:139:GLU:H	2.23	0.42
36:D0:55:ALA:HB1	36:D0:80:PHE:CD1	2.55	0.42
37:DQ:78:LEU:HD21	37:DQ:107:GLU:HG3	2.01	0.42
38:DR:50:ILE:HG23	38:DR:99:LEU:HB2	2.02	0.42
40:D2:44:LYS:C	40:D2:46:VAL:N	2.71	0.42
45:D3:72:ARG:NH2	45:D3:75:LEU:HD12	2.33	0.42
49:D4:16:CYS:HA	49:D4:33:VAL:O	2.20	0.42
51:D6:37:ARG:HD2	51:D6:37:ARG:HA	1.67	0.42
1:AA:56:U:H2'	1:AA:57:G:C8	2.54	0.42
1:AA:186:C:O4'	20:AW:81:LYS:HE3	2.20	0.42
1:AA:465:A:N7	1:AA:467:G:C5	2.87	0.42
1:AA:954:G:C5	1:AA:955:U:C4	3.08	0.42
1:AA:1218:C:OP2	14:AQ:9:LYS:NZ	2.52	0.42
1:AA:1229:A:OP2	13:AP:114:ARG:HD3	2.20	0.42
1:AA:1257:U:C5	3:AF:27:LYS:HD2	2.55	0.42
2:AE:17:PHE:HA	2:AE:42:ILE:HG21	2.00	0.42
2:AE:187:LEU:HD22	2:AE:205:ASP:CA	2.50	0.42
4:AG:20:TYR:CD1	4:AG:26:CYS:O	2.72	0.42
4:AG:50:ARG:HH12	5:AH:10:MET:HE3	1.84	0.42
6:AI:12:PRO:HG2	6:AI:13:ASN:H	1.85	0.42
6:AI:14:LEU:HD22	6:AI:15:ASP:O	2.20	0.42
11:AN:50:TYR:CD2	11:AN:54:ARG:HB3	2.55	0.42
12:AO:36:VAL:N	12:AO:59:ARG:O	2.52	0.42
20:AW:30:LYS:HA	20:AW:30:LYS:HD2	1.93	0.42
20:AW:81:LYS:O	20:AW:82:SER:C	2.57	0.42
24:BA:57:C:H2'	24:BA:58:G:O4'	2.19	0.42
24:BA:195:A:H5"	34:BO:46:LYS:NZ	2.35	0.42
24:BA:494:G:H5'	41:BS:8:ARG:HD3	2.01	0.42
24:BA:654(J):A:H3'	24:BA:654(K):C:H5"	2.01	0.42
24:BA:846:C:C4	24:BA:930:U:C4	3.08	0.42
24:BA:857:C:H4'	45:B3:23:VAL:HG21	2.02	0.42
24:BA:1050:A:N9	24:BA:2751:G:C8	2.87	0.42
24:BA:1062:G:C3'	24:BA:1063:G:C8	3.03	0.42
24:BA:1063:G:H22	24:BA:1076:C:C1'	2.31	0.42
24:BA:1064:C:C5	24:BA:1065:U:C4	3.08	0.42
24:BA:1306:C:C2'	24:BA:1307:A:H5'	2.49	0.42
24:BA:1357:U:O4	24:BA:1358:G:C6	2.73	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1753:G:N1	24:BA:1756:G:C2	2.88	0.42
24:BA:2128:C:H3'	24:BA:2129:C:C6	2.55	0.42
24:BA:2853:C:H2'	24:BA:2854:G:C8	2.54	0.42
25:BB:59:A:H2'	25:BB:60:C:H6	1.85	0.42
25:BB:73:A:H2'	25:BB:74:U:H5'	2.01	0.42
26:BD:31:LYS:HE2	26:BD:102:LYS:CD	2.49	0.42
26:BD:31:LYS:CD	26:BD:94:LEU:HD11	2.24	0.42
27:BE:47:VAL:HG13	27:BE:84:PHE:O	2.20	0.42
30:BH:67:LEU:O	30:BH:71:LEU:HB2	2.19	0.42
36:B0:74:LYS:O	36:B0:77:ARG:N	2.48	0.42
38:BR:107:ASP:O	38:BR:110:ILE:HG22	2.20	0.42
40:B2:14:VAL:O	40:B2:15:GLU:HB2	2.20	0.42
40:B2:18:LEU:HD12	40:B2:20:LEU:HB2	2.02	0.42
40:B2:29:PRO:HA	40:B2:61:VAL:HG12	2.01	0.42
41:BS:82:LEU:HA	41:BS:82:LEU:HD12	1.72	0.42
42:BT:51:VAL:CG1	42:BT:81:VAL:HG23	2.49	0.42
53:B8:48:PHE:CD1	53:B8:48:PHE:N	2.87	0.42
1:CA:12:U:H4'	1:CA:526:C:C4'	2.46	0.42
1:CA:129(A):G:N2	1:CA:191(A):G:N7	2.67	0.42
1:CA:407:G:H4'	4:CG:115:ARG:O	2.20	0.42
1:CA:430:A:OP1	4:CG:9:CYS:HB2	2.19	0.42
1:CA:451:A:N6	1:CA:480:U:H2'	2.35	0.42
1:CA:452:A:H1'	16:CS:72:ARG:NH2	2.33	0.42
1:CA:598:U:O2'	8:CK:94:TYR:CE1	2.63	0.42
1:CA:964:A:N6	1:CA:965:A:N6	2.67	0.42
1:CA:1009:G:N2	1:CA:1020:U:O2	2.40	0.42
1:CA:1320:C:H2'	1:CA:1321:C:C5'	2.50	0.42
1:CA:1446:A:C6	38:DR:118:ARG:NH2	2.87	0.42
2:CE:83:MET:HG2	2:CE:234:PRO:HG2	2.01	0.42
5:CH:20:GLN:O	5:CH:21:ALA:C	2.58	0.42
7:CJ:30:ILE:HG22	7:CJ:30:ILE:O	2.19	0.42
7:CJ:45:ASP:O	7:CJ:49:ILE:HG12	2.19	0.42
7:CJ:78:ARG:CZ	7:CJ:85:TYR:CD1	2.84	0.42
8:CK:112:LEU:HB3	8:CK:133:LEU:HA	2.02	0.42
9:CL:95:LYS:O	9:CL:99:LEU:HD23	2.19	0.42
10:CM:25:GLU:HA	10:CM:28:ARG:HB2	2.02	0.42
17:CT:45:HIS:O	17:CT:47:PRO:HD3	2.20	0.42
17:CT:45:HIS:CD2	17:CT:47:PRO:HG3	2.55	0.42
19:CV:12:ASP:O	19:CV:16:LEU:CD1	2.68	0.42
19:CV:31:ILE:CG1	19:CV:32:LYS:N	2.83	0.42
22:CC:19:G:C2	22:CC:57:A:N3	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:270(T):G:OP2	46:DZ:98:LEU:C	2.58	0.42
24:DA:271(B):G:N7	24:DA:421:U:H2'	2.34	0.42
24:DA:458:G:H8	52:D7:37:LYS:O	2.03	0.42
24:DA:481:G:C4	24:DA:507:A:C2	3.07	0.42
24:DA:666:G:OP1	34:DO:47:ASP:O	2.37	0.42
24:DA:754:C:H2'	24:DA:755:C:C6	2.55	0.42
24:DA:924:C:C4	24:DA:925:C:N4	2.88	0.42
24:DA:1006:C:O2'	32:DM:106:MET:O	2.36	0.42
24:DA:1411:C:H2'	24:DA:1412:A:C8	2.54	0.42
24:DA:1519:G:H2'	24:DA:1520:U:H5'	2.02	0.42
24:DA:1543:A:H2'	24:DA:1544:C:H3'	2.02	0.42
24:DA:2141:G:C6	24:DA:2151:G:C6	3.08	0.42
24:DA:2154:G:O2'	24:DA:2155:G:H5'	2.20	0.42
24:DA:2212:A:O2'	24:DA:2215:G:C8	2.60	0.42
24:DA:2802:G:C6	24:DA:2803:C:C4	3.08	0.42
24:DA:2889:C:H3'	24:DA:2891:G:C8	2.55	0.42
25:DB:89(A):A:C8	25:DB:90:C:C1'	3.03	0.42
26:DD:16:MET:HE3	26:DD:16:MET:HB2	1.83	0.42
27:DE:64:LYS:HG2	27:DE:66:HIS:HA	2.01	0.42
27:DE:64:LYS:HZ2	27:DE:68:ALA:CB	2.32	0.42
28:DF:182:ASN:OD1	28:DF:185:ASP:HB2	2.20	0.42
29:DG:133:LEU:CG	29:DG:157:ILE:HB	2.49	0.42
31:DK:79:ILE:HG22	31:DK:142:VAL:HG23	2.00	0.42
37:DQ:34:HIS:ND1	37:DQ:53:SER:O	2.52	0.42
37:DQ:48:LEU:O	37:DQ:49:VAL:CG2	2.68	0.42
43:DU:54:LYS:HG2	43:DU:55:TYR:CE1	2.53	0.42
44:DV:102:LEU:HD12	44:DV:102:LEU:N	2.34	0.42
49:D4:48:ARG:NH1	49:D4:51:ASP:CB	2.83	0.42
51:D6:37:ARG:CG	51:D6:39:TYR:CE1	3.01	0.42
53:D8:31:HIS:O	53:D8:32:LEU:O	2.38	0.42
1:AA:46:G:H2'	1:AA:366:C:H5	1.85	0.42
1:AA:138:G:H1	1:AA:225:C:H42	1.68	0.42
1:AA:193:C:C1'	20:AW:57:ARG:NH1	2.82	0.42
1:AA:247:G:O6	1:AA:278:G:C6	2.73	0.42
1:AA:438:G:H5"	1:AA:439:A:P	2.60	0.42
1:AA:587:G:C2	1:AA:755:G:C6	3.07	0.42
1:AA:626:U:H2'	1:AA:627:G:O4'	2.20	0.42
1:AA:918:A:H2'	1:AA:919:A:C8	2.55	0.42
1:AA:943:U:H2'	1:AA:944:G:H5'	2.01	0.42
1:AA:1002:G:C2	1:AA:1003:G:C4	3.08	0.42
1:AA:1047:G:H2'	1:AA:1048:G:H5'	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1070:U:O2'	1:AA:1071:C:H5'	2.19	0.42
1:AA:1305:G:OP2	1:AA:1305:G:C8	2.73	0.42
1:AA:1492:A:N7	24:BA:1913:A:N6	2.67	0.42
2:AE:142:LEU:HD23	2:AE:142:LEU:C	2.40	0.42
2:AE:168:THR:OG1	2:AE:192:SER:CB	2.68	0.42
3:AF:132:ARG:O	3:AF:134:ILE:N	2.53	0.42
8:AK:86:ILE:HG22	8:AK:93:VAL:HG21	2.02	0.42
8:AK:111:ILE:O	8:AK:134:ILE:HB	2.19	0.42
9:AL:53:VAL:HA	9:AL:95:LYS:CE	2.50	0.42
14:AQ:29:ARG:HD3	14:AQ:40:CYS:HB2	2.02	0.42
16:AS:62:VAL:CG1	16:AS:62:VAL:O	2.68	0.42
19:AV:41:VAL:CG1	19:AV:67:VAL:HG22	2.49	0.42
20:AW:72:LEU:HG	20:AW:76:ALA:CB	2.50	0.42
24:BA:26:G:C6	24:BA:27:G:C6	3.08	0.42
24:BA:142:G:C1'	42:BT:37:THR:HG21	2.48	0.42
24:BA:229:A:C1'	24:BA:230:U:P	3.08	0.42
24:BA:270(Y):G:H4'	24:BA:273:G:O2'	2.20	0.42
24:BA:500:G:H22	24:BA:502:A:H3'	1.82	0.42
24:BA:588:U:H2'	24:BA:589:C:C6	2.55	0.42
24:BA:828:U:H3	24:BA:2247:A:H4'	1.85	0.42
24:BA:2243:U:O2	24:BA:2434:A:C2	2.73	0.42
24:BA:2607:G:H2'	24:BA:2608:G:O4'	2.20	0.42
24:BA:2870:C:C5	24:BA:2871:C:C5	3.08	0.42
25:BB:4:C:H2'	25:BB:5:C:O4'	2.19	0.42
25:BB:71:C:H2'	25:BB:72:G:C5'	2.49	0.42
27:BE:147:PRO:HB2	27:BE:149:ARG:HG2	2.02	0.42
30:BH:6:ARG:HB3	30:BH:66:GLY:N	2.34	0.42
31:BK:144:VAL:HG22	31:BK:145:VAL:H	1.85	0.42
34:BO:61:ARG:HB3	53:B8:13:ARG:HD3	2.00	0.42
36:B0:51:LEU:HD22	36:B0:66:VAL:HG13	2.02	0.42
39:B1:116:ALA:O	39:B1:117:GLN:HB3	2.19	0.42
40:B2:47:VAL:O	40:B2:48:GLY:O	2.38	0.42
41:BS:89:ALA:O	41:BS:92:ARG:HG3	2.20	0.42
47:BW:18:PRO:O	47:BW:21:LEU:HB2	2.18	0.42
48:BX:15:TYR:CZ	48:BX:53:LEU:HD21	2.55	0.42
53:B8:37:SER:O	53:B8:39:LYS:N	2.53	0.42
53:B8:37:SER:C	53:B8:39:LYS:N	2.73	0.42
1:CA:464:G:N1	1:CA:466:C:H5'	2.34	0.42
1:CA:782:A:C2'	1:CA:783:C:H5'	2.50	0.42
1:CA:853:G:C4	1:CA:854:G:C8	3.08	0.42
1:CA:855:G:C2	1:CA:856:C:C6	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:938:A:C2	1:CA:1376:U:H1'	2.55	0.42
1:CA:955:U:H3	1:CA:1225:A:N6	2.17	0.42
1:CA:1157:A:C2	1:CA:1180:A:C4	3.07	0.42
1:CA:1291:G:C5'	7:CJ:37:ASN:OD1	2.67	0.42
1:CA:1317:C:N4	14:CQ:19:ARG:NH1	2.61	0.42
2:CE:33:TYR:HB2	2:CE:43:ASP:N	2.34	0.42
4:CG:64:LEU:HD11	4:CG:68:TYR:HE2	1.85	0.42
4:CG:96:LEU:HD22	4:CG:96:LEU:N	2.34	0.42
9:CL:28:VAL:CG1	9:CL:63:ILE:O	2.56	0.42
9:CL:114:TYR:HE2	10:CM:60:ARG:N	2.17	0.42
10:CM:8:LEU:HG	10:CM:96:ILE:CG1	2.50	0.42
12:CO:24:VAL:CG1	12:CO:24:VAL:O	2.63	0.42
12:CO:85:ILE:N	12:CO:85:ILE:HD12	2.35	0.42
13:CP:8:GLU:OE1	13:CP:22:ILE:HG12	2.19	0.42
16:CS:82:GLN:H	16:CS:82:GLN:CD	2.23	0.42
18:CU:70:ILE:O	18:CU:74:ARG:HG3	2.19	0.42
24:DA:107:C:N3	24:DA:108:U:C4	2.87	0.42
24:DA:118:A:N3	24:DA:178:G:H1'	2.35	0.42
24:DA:583:G:OP2	39:D1:10:ARG:HD3	2.19	0.42
24:DA:637:A:OP2	34:DO:115:LEU:HB3	2.20	0.42
24:DA:654(I):C:O2	24:DA:654(I):C:C2'	2.60	0.42
24:DA:706:A:H2'	24:DA:707:G:O4'	2.19	0.42
24:DA:827:U:OP2	24:DA:828:U:C5	2.73	0.42
24:DA:901:A:H2'	24:DA:901:A:N3	2.34	0.42
24:DA:1002:G:H2'	24:DA:1003:G:O4'	2.20	0.42
24:DA:1057:A:H2'	24:DA:1057:A:N3	2.33	0.42
24:DA:1070:A:H2'	24:DA:1096:A:C2	2.55	0.42
24:DA:1167:U:O2	24:DA:1183:G:N2	2.53	0.42
24:DA:1336:A:P	42:DT:64:LYS:HZ1	2.43	0.42
24:DA:1472:A:N6	24:DA:1521:G:O2'	2.53	0.42
24:DA:1657:C:H2'	24:DA:1658:C:H6	1.85	0.42
24:DA:1669:A:OP2	24:DA:1670:C:OP2	2.38	0.42
24:DA:1670:C:C5	24:DA:1671:U:C4	3.07	0.42
24:DA:1798:U:O2	24:DA:1802:A:H2	2.03	0.42
24:DA:1952:A:C5	33:DN:22:ILE:CD1	3.02	0.42
24:DA:2099:U:H3'	24:DA:2100:G:H5"	1.98	0.42
24:DA:2106:G:O6	24:DA:2183:C:N3	2.53	0.42
24:DA:2344:U:C2'	24:DA:2344:U:O5'	2.68	0.42
24:DA:2697:G:H2'	24:DA:2698:U:O4'	2.20	0.42
24:DA:2821:A:OP2	27:DE:110:GLY:CA	2.68	0.42
25:DB:72:G:H1'	25:DB:104:A:H61	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DH:26:VAL:HG22	30:DH:79:VAL:HG21	2.02	0.42
37:DQ:95:HIS:ND1	37:DQ:96:GLY:N	2.67	0.42
37:DQ:107:GLU:N	37:DQ:110:LEU:HD23	2.33	0.42
44:DV:14:LYS:H	44:DV:14:LYS:CE	2.33	0.42
44:DV:76:LEU:CD2	44:DV:76:LEU:N	2.83	0.42
44:DV:89:PHE:O	44:DV:91:LEU:N	2.53	0.42
46:DZ:11:ARG:HB2	46:DZ:12:PRO:CD	2.49	0.42
47:DW:70:GLN:O	47:DW:72:ALA:N	2.53	0.42
1:AA:56:U:C4'	31:DK:82:ARG:NH2	2.83	0.42
1:AA:130:A:C8	17:AT:63:ARG:HB2	2.55	0.42
1:AA:191:G:O2'	1:AA:192:U:O4'	2.38	0.42
1:AA:412:A:H4'	1:AA:413:G:C5'	2.49	0.42
1:AA:607:A:C2	1:AA:608:A:H1'	2.55	0.42
1:AA:687:A:N3	1:AA:688:G:H1'	2.34	0.42
1:AA:689:C:O2'	1:AA:690:G:H5'	2.20	0.42
1:AA:731:G:OP1	1:AA:766:A:H1'	2.20	0.42
1:AA:820:U:H4'	1:AA:821:G:OP2	2.20	0.42
1:AA:851:G:O2'	1:AA:852:G:H5'	2.20	0.42
1:AA:972:C:H4'	10:AM:57:LYS:HB2	2.02	0.42
1:AA:983:A:H1'	1:AA:1049:U:O2	2.19	0.42
1:AA:1182:G:H8	1:AA:1182:G:OP2	2.02	0.42
1:AA:1291:G:P	7:AJ:37:ASN:ND2	2.93	0.42
1:AA:1314:C:H2'	1:AA:1315:U:H6	1.84	0.42
1:AA:1410:G:H2'	1:AA:1411:C:C6	2.54	0.42
3:AF:5:ILE:HD13	3:AF:5:ILE:N	2.34	0.42
4:AG:16:GLY:O	4:AG:17:VAL:HG23	2.20	0.42
6:AI:46:ARG:HB3	6:AI:60:PHE:CD1	2.55	0.42
7:AJ:57:GLU:HB3	7:AJ:59:LEU:HD23	2.02	0.42
12:AO:20:LYS:HB3	12:AO:20:LYS:HE2	1.86	0.42
19:AV:49:ILE:O	19:AV:60:VAL:HG12	2.19	0.42
24:BA:78:A:C2	24:BA:109:G:C2	3.07	0.42
24:BA:85:G:OP2	43:BU:9:LYS:HB2	2.19	0.42
24:BA:165:U:C4	24:BA:171:G:C5	3.08	0.42
24:BA:314:A:O2'	24:BA:315:G:H5'	2.20	0.42
24:BA:425:G:H2'	24:BA:426:C:H6	1.85	0.42
24:BA:547:A:H2'	24:BA:548:A:N9	2.35	0.42
24:BA:616:A:H8	28:BF:176:LEU:HD11	1.79	0.42
24:BA:679:C:O2'	24:BA:680:G:H5'	2.20	0.42
24:BA:712:G:C6	24:BA:713:G:C5	3.07	0.42
24:BA:828:U:O2	24:BA:828:U:H2'	2.18	0.42
24:BA:839:U:H1'	24:BA:1191:G:H1'	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1065:U:C4	24:BA:1066:U:H1'	2.54	0.42
24:BA:1899:G:HO2'	24:BA:1900:A:C5'	2.32	0.42
24:BA:1912:A:H8	24:BA:1917:U:O4	2.03	0.42
24:BA:2140:C:H2'	24:BA:2141:G:O4'	2.20	0.42
24:BA:2155:G:H3'	24:BA:2156:G:C8	2.51	0.42
24:BA:2180:U:O4	24:BA:2181:G:N1	2.53	0.42
24:BA:2252:G:H2'	24:BA:2253:G:O4'	2.19	0.42
24:BA:2263:C:H2'	24:BA:2264:C:C6	2.55	0.42
24:BA:2277:G:C3'	24:BA:2278:A:H5"	2.50	0.42
24:BA:2287:A:N6	24:BA:2344:U:C2	2.88	0.42
24:BA:2331:G:C4'	45:B3:42:GLY:HA3	2.50	0.42
24:BA:2392:A:H2	24:BA:2424:C:N4	2.18	0.42
24:BA:2439:A:O2'	24:BA:2440:C:OP2	2.30	0.42
24:BA:2443:C:O2'	24:BA:2444:G:H5'	2.19	0.42
24:BA:2520:C:C6	24:BA:2567:G:H1'	2.54	0.42
25:BB:10:C:C2'	25:BB:11:C:H5'	2.49	0.42
25:BB:10:C:O2'	25:BB:11:C:H5'	2.20	0.42
25:BB:40:U:H2'	25:BB:41:U:OP1	2.19	0.42
25:BB:52:A:H62	37:BQ:33:LYS:HG3	1.85	0.42
29:BG:10:LYS:HE2	29:BG:175:LEU:O	2.20	0.42
31:BK:33:ARG:O	31:BK:35:LEU:CD2	2.68	0.42
32:BM:94:HIS:O	32:BM:95:PRO:O	2.38	0.42
34:BO:66:GLY:O	34:BO:67:MET:O	2.38	0.42
35:BP:39:PRO:HD3	35:BP:99:PRO:CG	2.50	0.42
37:BQ:37:ALA:CB	37:BQ:73:LEU:HD12	2.50	0.42
37:BQ:62:LYS:CB	37:BQ:97:ARG:CD	2.98	0.42
37:BQ:86:ALA:O	37:BQ:87:PHE:HB3	2.20	0.42
37:BQ:106:ARG:O	37:BQ:107:GLU:C	2.57	0.42
40:B2:1:MET:SD	40:B2:43:GLU:HG2	2.60	0.42
44:BV:14:LYS:HA	44:BV:15:PRO:HD3	1.95	0.42
45:B3:33:ALA:HB2	45:B3:63:VAL:HA	2.01	0.42
1:CA:22:G:H4'	1:CA:885:G:C8	2.55	0.42
1:CA:181:G:H4'	1:CA:182:U:H5'	2.01	0.42
1:CA:186(B):C:H4'	20:CW:89:ARG:HH22	1.85	0.42
1:CA:339:C:H2'	1:CA:340:U:H5'	1.99	0.42
1:CA:391:G:O3'	16:CS:8:ARG:NH2	2.46	0.42
1:CA:406:G:C6	1:CA:495:A:C8	3.06	0.42
1:CA:532:A:O2'	1:CA:533:A:P	2.78	0.42
1:CA:644:G:C5	1:CA:645:C:C5	3.08	0.42
1:CA:841:U:O5'	1:CA:841:U:H6	2.02	0.42
1:CA:1067:A:H1'	1:CA:1068:G:H1'	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1216:G:C6	1:CA:1217:C:N4	2.88	0.42
2:CE:164:VAL:HB	2:CE:186:ALA:HB1	2.01	0.42
4:CG:90:GLY:HA2	4:CG:93:PHE:CB	2.50	0.42
4:CG:108:LEU:O	4:CG:110:PHE:HD1	2.02	0.42
8:CK:120:THR:N	8:CK:123:GLU:OE1	2.53	0.42
10:CM:31:GLY:O	10:CM:32:ALA:HB2	2.20	0.42
12:CO:27:LEU:CD1	12:CO:62:SER:HB2	2.50	0.42
13:CP:3:ARG:HH12	13:CP:7:VAL:HG12	1.85	0.42
13:CP:62:ASN:OD1	13:CP:62:ASN:N	2.52	0.42
13:CP:85:GLY:O	13:CP:86:CYS:CB	2.67	0.42
14:CQ:8:GLU:C	14:CQ:10:ALA:H	2.23	0.42
18:CU:31:LEU:H	18:CU:31:LEU:CD2	2.31	0.42
24:DA:10:G:N1	24:DA:2629:A:C5	2.88	0.42
24:DA:309:G:H1'	24:DA:329:G:N3	2.35	0.42
24:DA:330:A:HO2'	24:DA:331:A:H2'	1.85	0.42
24:DA:660:G:C2'	24:DA:661:C:H5'	2.50	0.42
24:DA:753:C:C6	24:DA:753:C:OP2	2.73	0.42
24:DA:979:G:N7	24:DA:981:A:OP1	2.53	0.42
24:DA:1068:G:C6	24:DA:1069:A:C5	3.08	0.42
24:DA:1114:G:OP1	24:DA:2750:A:O2'	2.35	0.42
24:DA:1182:A:H2'	24:DA:1183:G:O4'	2.20	0.42
24:DA:1320:C:C5	24:DA:1329:U:H5'	2.55	0.42
24:DA:1416:G:H2'	24:DA:1417:C:H6	1.79	0.42
24:DA:1555:G:C2	24:DA:1556:C:C6	3.08	0.42
24:DA:2183:C:H2'	24:DA:2184:G:H8	1.84	0.42
24:DA:2290:G:C2	24:DA:2343:C:O2	2.72	0.42
24:DA:2295:C:H41	37:DQ:13:ARG:HH22	1.62	0.42
24:DA:2320:A:H1'	24:DA:2321:G:C6	2.55	0.42
24:DA:2336:A:C2	24:DA:2385:C:H1'	2.55	0.42
24:DA:2528:U:H2'	24:DA:2530:A:O5'	2.20	0.42
24:DA:2630:G:H1'	24:DA:2894:G:N9	2.34	0.42
24:DA:2721:A:H2'	24:DA:2722:G:O4'	2.20	0.42
24:DA:2845:G:C2	24:DA:2846:G:C5	3.08	0.42
25:DB:93:C:H2'	25:DB:94:C:C6	2.55	0.42
26:DD:85:ASP:OD2	26:DD:88:ARG:HD2	2.20	0.42
29:DG:53:LEU:HD23	29:DG:53:LEU:C	2.40	0.42
30:DH:9:ILE:HB	30:DH:50:VAL:O	2.19	0.42
30:DH:106:THR:O	30:DH:107:VAL:HG13	2.20	0.42
32:DM:13:TRP:CB	32:DM:134:ARG:HB2	2.48	0.42
33:DN:35:VAL:HG22	33:DN:69:ILE:HD13	2.02	0.42
35:DP:89:ASN:C	35:DP:90:VAL:HG12	2.40	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DP:136:ALA:HB2	44:DV:52:SER:HB3	2.02	0.42
37:DQ:25:ARG:HD2	37:DQ:88:ASP:CB	2.44	0.42
37:DQ:61:ASN:O	37:DQ:65:VAL:HG23	2.20	0.42
37:DQ:64:GLU:O	37:DQ:64:GLU:HG2	2.20	0.42
37:DQ:67:ARG:HB2	37:DQ:67:ARG:HH11	1.84	0.42
39:D1:65:ILE:HD11	39:D1:93:LYS:HA	2.00	0.42
46:DZ:75:GLU:O	46:DZ:76:ARG:CG	2.67	0.42
53:D8:56:GLU:N	53:D8:56:GLU:OE1	2.53	0.42
1:AA:157:G:C4	1:AA:158:G:C8	3.08	0.41
1:AA:220:G:H2'	1:AA:221:C:H5'	2.01	0.41
1:AA:289:G:C6	1:AA:290:C:N4	2.88	0.41
1:AA:376:G:H5"	16:AS:5:ARG:CB	2.49	0.41
1:AA:397:A:H5'	1:AA:398:C:P	2.60	0.41
1:AA:619:U:O2	4:AG:133:VAL:HA	2.19	0.41
1:AA:980:C:C5	1:AA:981:U:C2	3.08	0.41
1:AA:981:U:H5	1:AA:982:U:HO2'	1.61	0.41
1:AA:1244:C:H2'	1:AA:1245:A:C8	2.55	0.41
1:AA:1255:G:OP1	10:AM:45:ARG:NH2	2.51	0.41
1:AA:1285:A:H1'	1:AA:1286:A:OP2	2.20	0.41
1:AA:1296:C:O3'	13:AP:13:LYS:HE2	2.20	0.41
1:AA:1299:A:H5'	1:AA:1300:G:OP1	2.20	0.41
2:AE:42:ILE:HD12	2:AE:43:ASP:H	1.84	0.41
2:AE:167:PRO:O	2:AE:171:ALA:N	2.53	0.41
5:AH:45:PHE:CE2	5:AH:47:LYS:HD2	2.55	0.41
6:AI:39:LYS:O	6:AI:40:VAL:HB	2.20	0.41
13:AP:57:ARG:HB2	13:AP:57:ARG:HH11	1.85	0.41
14:AQ:33:VAL:HA	14:AQ:39:LEU:O	2.20	0.41
17:AT:76:LEU:CD1	17:AT:78:GLU:H	2.33	0.41
19:AV:67:VAL:CG1	49:B4:63:TYR:CE2	3.03	0.41
24:BA:222:A:H1'	24:BA:223:A:OP1	2.20	0.41
24:BA:752:A:H4'	24:BA:753:C:O5'	2.20	0.41
24:BA:875:G:O3'	44:BV:149:SER:HB2	2.19	0.41
24:BA:978:G:H2'	24:BA:979:G:H5'	1.99	0.41
24:BA:1088:A:H4'	24:BA:1089:G:H8	1.85	0.41
24:BA:1206:G:C5	24:BA:1207:C:C5	3.07	0.41
24:BA:1329:U:H5"	24:BA:1330:C:H5	1.85	0.41
24:BA:1470:G:C6	24:BA:1521:G:N7	2.88	0.41
24:BA:1608:A:H1'	24:BA:1610:A:OP2	2.19	0.41
24:BA:1882:C:O2	24:BA:1882:C:H2'	2.20	0.41
24:BA:2181:G:C6	24:BA:2182:G:C6	3.08	0.41
24:BA:2189:U:H3'	24:BA:2190:G:H8	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2331:G:H4'	45:B3:43:THR:N	2.33	0.41
24:BA:2766:G:H2'	24:BA:2766:G:N3	2.33	0.41
25:BB:15:A:C2'	25:BB:16:G:OP1	2.68	0.41
26:BD:38:LYS:HE3	26:BD:38:LYS:HB2	1.90	0.41
26:BD:65:ILE:CD1	26:BD:67:PHE:CE1	2.95	0.41
27:BE:33:VAL:HG11	27:BE:89:ASP:OD1	2.20	0.41
30:BH:87:LEU:HD23	30:BH:87:LEU:HA	1.71	0.41
30:BH:97:ARG:HB3	30:BH:98:LEU:H	1.59	0.41
30:BH:149:ARG:C	30:BH:151:ILE:N	2.74	0.41
31:BK:68:LEU:C	31:BK:68:LEU:HD23	2.40	0.41
31:BK:86:THR:O	31:BK:86:THR:HG22	2.20	0.41
31:BK:117:GLU:O	31:BK:118:LYS:CB	2.67	0.41
36:B0:91:GLN:H	36:B0:91:GLN:HG2	1.76	0.41
40:B2:34:GLU:O	40:B2:36:PRO:CD	2.57	0.41
43:BU:76:CYS:CA	43:BU:81:LYS:NZ	2.82	0.41
1:CA:6:G:H3'	1:CA:6:G:N3	2.35	0.41
1:CA:197:A:C1'	1:CA:198:G:P	3.08	0.41
1:CA:690:G:C6	1:CA:691:G:C6	3.07	0.41
1:CA:883:C:N3	1:CA:884:U:C4	2.88	0.41
1:CA:948:C:OP1	13:CP:109:THR:OG1	2.33	0.41
1:CA:1224:G:C6	1:CA:1322:C:H1'	2.55	0.41
1:CA:1226:C:H4'	19:CV:80:TYR:CZ	2.54	0.41
1:CA:1299:A:C5	1:CA:1301:U:C2	3.07	0.41
1:CA:1394:A:H4'	1:CA:1395:C:OP2	2.20	0.41
2:CE:90:MET:SD	2:CE:222:ILE:HD11	2.60	0.41
3:CF:84:ILE:HD11	3:CF:88:ARG:HE	1.85	0.41
4:CG:154:ASN:O	4:CG:155:LEU:HD23	2.20	0.41
5:CH:105:VAL:N	5:CH:106:PRO:HD2	2.35	0.41
6:CI:95:GLU:HA	6:CI:96:PRO:HD3	1.96	0.41
9:CL:16:ARG:CD	9:CL:64:THR:CG2	2.98	0.41
10:CM:48:THR:HA	10:CM:62:HIS:CB	2.44	0.41
12:CO:55:VAL:CG2	12:CO:56:ALA:N	2.82	0.41
19:CV:31:ILE:HD11	19:CV:33:THR:CA	2.50	0.41
19:CV:66:MET:CA	19:CV:67:VAL:O	2.62	0.41
20:CW:10:LEU:HG	20:CW:11:SER:N	2.35	0.41
20:CW:31:SER:O	20:CW:34:LYS:HB2	2.20	0.41
24:DA:68:G:C2'	24:DA:69:C:O5'	2.68	0.41
24:DA:327:G:N2	24:DA:336:C:C2	2.87	0.41
24:DA:395:U:H2'	24:DA:396:G:C8	2.54	0.41
24:DA:676:A:C8	24:DA:2069:G:N2	2.57	0.41
24:DA:691:C:O5'	24:DA:691:C:H6	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:868:U:C4	24:DA:869:G:N7	2.89	0.41
24:DA:959:A:N6	35:DP:83:MET:HE1	2.35	0.41
24:DA:1198:U:C2	24:DA:1199:U:C5	3.07	0.41
24:DA:1511:A:N7	24:DA:1512:G:N7	2.68	0.41
24:DA:1569:A:O2'	26:DD:38:LYS:CG	2.63	0.41
24:DA:1648:C:H2'	24:DA:1649:G:O5'	2.20	0.41
24:DA:1955:U:O2'	24:DA:2552:U:H4'	2.19	0.41
24:DA:2168:G:H2'	24:DA:2169:A:C8	2.55	0.41
24:DA:2285:C:C3'	51:D6:28:ARG:HH11	2.12	0.41
24:DA:2393:A:OP1	53:D8:27:THR:C	2.56	0.41
27:DE:8:LYS:O	27:DE:8:LYS:HG2	2.20	0.41
27:DE:68:ALA:O	27:DE:71:GLY:N	2.47	0.41
28:DF:143:ALA:HB1	28:DF:148:LEU:HB2	2.02	0.41
30:DH:98:LEU:HD12	30:DH:98:LEU:H	1.85	0.41
31:DK:31:LEU:N	31:DK:32:PRO:CD	2.82	0.41
34:DO:144:GLU:OE2	34:DO:144:GLU:O	2.38	0.41
36:D0:81:ASP:O	36:D0:82:GLU:CB	2.64	0.41
37:DQ:15:ARG:HH11	37:DQ:90:GLY:HA2	1.84	0.41
37:DQ:57:LYS:C	37:DQ:58:LEU:HD23	2.41	0.41
38:DR:1:MET:CE	38:DR:1:MET:CA	2.98	0.41
42:DT:32:PRO:HB2	42:DT:33:LYS:HD2	2.01	0.41
43:DU:4:LYS:CE	43:DU:4:LYS:CA	2.92	0.41
43:DU:97:ARG:H	43:DU:97:ARG:CD	2.31	0.41
44:DV:7:ALA:C	44:DV:8:TYR:HD1	2.23	0.41
44:DV:121:HIS:CE1	44:DV:169:GLU:HG2	2.55	0.41
45:D3:49:LYS:HE3	45:D3:80:HIS:HB3	2.02	0.41
48:DX:8:LEU:O	48:DX:32:GLN:N	2.53	0.41
50:D5:41:PRO:HA	50:D5:42:PRO:HD3	1.97	0.41
51:D6:37:ARG:HE	51:D6:39:TYR:HE1	1.68	0.41
53:D8:58:ILE:HG22	53:D8:58:ILE:O	2.20	0.41
1:AA:73:G:H3'	1:AA:73:G:N3	2.34	0.41
1:AA:101:A:C4	1:AA:102:G:C8	3.08	0.41
1:AA:288:A:H2'	1:AA:289:G:H4'	2.01	0.41
1:AA:352:C:H4'	1:AA:354:G:OP1	2.20	0.41
1:AA:594:G:C6	1:AA:595:G:C2	3.09	0.41
1:AA:809:G:H2'	1:AA:810:C:O5'	2.20	0.41
1:AA:862:C:C2'	1:AA:863:U:C5'	2.97	0.41
1:AA:939:G:H5"	7:AJ:102:ARG:NH2	2.34	0.41
1:AA:1306:A:C2	1:AA:1307:U:N1	2.88	0.41
1:AA:1316:G:H5"	14:AQ:17:LYS:HZ1	1.85	0.41
1:AA:1351:U:C4'	7:AJ:33:ASP:HB3	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AG:60:GLU:HA	4:AG:60:GLU:OE1	2.20	0.41
5:AH:12:LEU:HB3	5:AH:31:LEU:CB	2.49	0.41
5:AH:103:GLY:O	5:AH:106:PRO:HD2	2.20	0.41
5:AH:127:ASN:HA	5:AH:128:PRO:HD2	1.91	0.41
6:AI:91:VAL:HG11	18:AU:72:ARG:HH12	1.85	0.41
7:AJ:22:LEU:HD23	7:AJ:22:LEU:C	2.40	0.41
9:AL:16:ARG:HD2	9:AL:64:THR:HG22	2.02	0.41
10:AM:33:GLN:HG2	10:AM:34:VAL:N	2.35	0.41
14:AQ:26:ARG:NH1	14:AQ:43:CYS:HB2	2.26	0.41
16:AS:42:ARG:C	16:AS:43:LYS:HD2	2.39	0.41
20:AW:78:ALA:O	20:AW:82:SER:HB2	2.20	0.41
24:BA:116:C:H2'	24:BA:117:G:C8	2.55	0.41
24:BA:754:C:H2'	24:BA:755:C:C6	2.55	0.41
24:BA:1039:G:H1	24:BA:1116:C:H42	1.67	0.41
24:BA:1957:C:H2'	24:BA:1958:C:H6	1.85	0.41
24:BA:2302:G:C2'	24:BA:2303:G:H5'	2.50	0.41
24:BA:2444:G:OP2	28:BF:68:LYS:HE2	2.20	0.41
24:BA:2855:C:H2'	24:BA:2856:C:C6	2.54	0.41
24:BA:2869:G:C2	24:BA:2870:C:C2	3.08	0.41
24:BA:2880:C:O3'	36:B0:90:ARG:NH1	2.53	0.41
25:BB:14:U:OP2	25:BB:71:C:H5'	2.20	0.41
28:BF:39:TRP:CZ2	28:BF:106:ARG:NH1	2.84	0.41
28:BF:45:ARG:CD	28:BF:97:TYR:CD2	3.03	0.41
29:BG:7:LEU:N	29:BG:104:GLU:OE1	2.40	0.41
30:BH:151:ILE:O	30:BH:151:ILE:CG2	2.62	0.41
31:BK:62:LYS:O	31:BK:66:GLU:CG	2.67	0.41
31:BK:95:LYS:HZ2	31:BK:99:GLU:HB2	1.84	0.41
35:BP:24:GLY:CA	35:BP:25:ASP:CB	2.84	0.41
35:BP:54:MET:HE2	35:BP:118:LEU:HA	2.02	0.41
38:BR:104:ASN:C	38:BR:105:LEU:HD12	2.40	0.41
39:B1:72:HIS:CD2	39:B1:72:HIS:N	2.88	0.41
40:B2:34:GLU:HA	40:B2:58:VAL:HA	2.02	0.41
41:BS:41:LYS:C	41:BS:43:GLY:N	2.72	0.41
42:BT:49:VAL:HA	42:BT:87:GLN:NE2	2.34	0.41
42:BT:66:LEU:C	42:BT:66:LEU:HD12	2.39	0.41
44:BV:3:TYR:HE2	44:BV:55:HIS:HD1	1.68	0.41
45:B3:32:ARG:O	45:B3:33:ALA:C	2.58	0.41
49:B4:36:CYS:O	49:B4:37:SER:C	2.58	0.41
50:B5:26:THR:O	50:B5:26:THR:HG23	2.20	0.41
51:B6:45:LYS:O	51:B6:45:LYS:HG2	2.20	0.41
1:CA:328:C:C1'	1:CA:329:A:OP2	2.67	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:354:G:H2'	1:CA:354:G:N3	2.34	0.41
1:CA:539:A:N6	1:CA:540:G:O6	2.52	0.41
1:CA:716:A:C2'	1:CA:717:C:O5'	2.68	0.41
1:CA:718:G:N2	18:CU:82:THR:OG1	2.53	0.41
1:CA:860:A:H3'	1:CA:861:G:H8	1.86	0.41
1:CA:862:C:H1'	1:CA:874:G:C5'	2.50	0.41
1:CA:996:A:H2'	1:CA:997:U:O4'	2.20	0.41
1:CA:1022:G:H2'	1:CA:1023:G:O4'	2.19	0.41
1:CA:1061:G:C5	1:CA:1062:U:C5	3.08	0.41
1:CA:1122:U:H2'	1:CA:1123:A:H8	1.86	0.41
1:CA:1160:G:O2'	1:CA:1161:C:O5'	2.38	0.41
1:CA:1213:A:H5'	1:CA:1214:C:OP2	2.20	0.41
1:CA:1288:A:H2'	1:CA:1289:A:C8	2.55	0.41
1:CA:1330:U:OP1	13:CP:22:ILE:O	2.37	0.41
2:CE:155:LEU:CD1	2:CE:157:ARG:HB3	2.48	0.41
4:CG:14:ARG:C	4:CG:16:GLY:H	2.24	0.41
4:CG:75:PHE:O	4:CG:75:PHE:HD1	2.02	0.41
6:CI:80:ARG:HA	6:CI:85:VAL:HG11	2.02	0.41
7:CJ:9:VAL:HB	7:CJ:10:ARG:H	1.71	0.41
10:CM:58:ASP:N	10:CM:58:ASP:OD1	2.53	0.41
10:CM:63:PHE:HD1	14:CQ:57:ARG:O	2.03	0.41
11:CN:17:GLY:HA3	11:CN:77:MET:SD	2.59	0.41
11:CN:109:VAL:HG12	11:CN:110:ASP:N	2.35	0.41
18:CU:31:LEU:HD23	18:CU:31:LEU:N	2.31	0.41
24:DA:78:A:N6	24:DA:109:G:O6	2.53	0.41
24:DA:225:A:C2'	24:DA:226:G:H5'	2.50	0.41
24:DA:270(R):G:C4	24:DA:270(S):G:C8	3.08	0.41
24:DA:654(A):A:C2	24:DA:654(T):A:N1	2.88	0.41
24:DA:675:A:N3	24:DA:2443:C:O2'	2.45	0.41
24:DA:719:C:H2'	24:DA:720:C:H6	1.85	0.41
24:DA:777:A:C2	24:DA:778:G:C8	3.08	0.41
24:DA:792:G:C5'	24:DA:793:A:H5'	2.48	0.41
24:DA:794:G:H2'	24:DA:795:C:C6	2.55	0.41
24:DA:1059:G:O6	24:DA:1079:C:N3	2.53	0.41
24:DA:1068:G:O2'	24:DA:1096:A:O4'	2.38	0.41
24:DA:1385:G:O2'	24:DA:1396:U:H6	2.01	0.41
24:DA:1568:G:H5'	26:DD:60:ARG:HA	2.01	0.41
24:DA:1700:A:H2'	24:DA:1701:A:C5'	2.47	0.41
24:DA:1929:G:H4'	24:DA:1930:G:OP1	2.20	0.41
24:DA:2128:C:H1'	24:DA:2173:A:C6	2.55	0.41
24:DA:2213:U:C4'	46:DZ:52:ARG:NH2	2.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2679:A:C4'	27:DE:165:VAL:HG11	2.42	0.41
24:DA:2716:U:H2'	24:DA:2717:G:H5'	2.01	0.41
24:DA:2809:A:C4	24:DA:2892:A:C6	3.08	0.41
24:DA:2846:G:H2'	24:DA:2847:U:C6	2.55	0.41
24:DA:2873:A:N3	24:DA:2873:A:C2'	2.83	0.41
25:DB:33:G:N1	25:DB:34:U:C2	2.87	0.41
25:DB:49:C:OP1	37:DQ:97:ARG:HG2	2.19	0.41
25:DB:76:G:H2'	25:DB:77:U:O4'	2.20	0.41
27:DE:73:GLU:OE1	27:DE:73:GLU:CA	2.67	0.41
30:DH:7:LEU:N	30:DH:8:PRO:CD	2.83	0.41
31:DK:38:LEU:C	31:DK:40:THR:H	2.23	0.41
32:DM:14:VAL:HG12	32:DM:52:VAL:HA	2.02	0.41
32:DM:31:ALA:C	32:DM:33:LEU:H	2.24	0.41
35:DP:109:VAL:HG23	35:DP:114:ALA:HB2	2.01	0.41
37:DQ:24:LEU:HD22	37:DQ:24:LEU:N	2.35	0.41
37:DQ:74:ALA:HB2	37:DQ:107:GLU:HB2	2.01	0.41
38:DR:30:VAL:O	38:DR:30:VAL:HG13	2.21	0.41
39:D1:25:TRP:CD1	39:D1:26:GLY:N	2.87	0.41
43:DU:54:LYS:CD	43:DU:55:TYR:CE1	3.03	0.41
1:AA:89:U:O2'	1:AA:90:C:O5'	2.38	0.41
1:AA:93:U:C4	1:AA:95:G:C8	3.09	0.41
1:AA:118:U:H3'	1:AA:288:A:H61	1.85	0.41
1:AA:166:G:C2	1:AA:167:G:C5	3.07	0.41
1:AA:191(C):G:C2'	1:AA:191(D):U:H5'	2.50	0.41
1:AA:223:U:O2	1:AA:224:C:C6	2.74	0.41
1:AA:406:G:H5'	4:AG:5:ILE:HD13	2.02	0.41
1:AA:493:G:H2'	1:AA:494:U:C5	2.55	0.41
1:AA:785:G:H2'	1:AA:786:G:H5'	2.01	0.41
1:AA:1095:U:C5'	1:AA:1109:C:O2	2.68	0.41
1:AA:1096:C:H2'	1:AA:1097:C:H6	1.85	0.41
1:AA:1386:G:H2'	1:AA:1387:G:H8	1.84	0.41
2:AE:98:LEU:HB2	2:AE:101:MET:HG3	2.02	0.41
3:AF:77:ILE:HA	3:AF:84:ILE:HB	2.03	0.41
4:AG:126:ILE:HG22	4:AG:127:THR:N	2.35	0.41
4:AG:162:LEU:O	4:AG:165:MET:HB2	2.20	0.41
8:AK:70:GLN:OE1	8:AK:70:GLN:HA	2.20	0.41
24:BA:143:C:C2	24:BA:144:C:C5	3.09	0.41
24:BA:253:C:H2'	24:BA:254:G:O4'	2.20	0.41
24:BA:569:U:O2'	24:BA:983:A:N1	2.43	0.41
24:BA:652:C:N4	24:BA:653:A:H61	2.19	0.41
24:BA:773:U:H5"	26:BD:47:GLY:HA2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:797:C:H2'	24:BA:798:G:O4'	2.21	0.41
24:BA:864:G:H21	24:BA:866:A:H61	1.68	0.41
24:BA:880:G:C4'	24:BA:880:G:OP1	2.68	0.41
24:BA:1071:G:H4'	24:BA:1088:A:O3'	2.21	0.41
24:BA:1077:A:N3	24:BA:1077:A:C2'	2.83	0.41
24:BA:1092:C:N4	24:BA:1099:G:C6	2.85	0.41
24:BA:1112:G:O3'	30:BH:2:SER:N	2.53	0.41
24:BA:1260:G:O2'	24:BA:1261:C:H5'	2.20	0.41
24:BA:1364:G:C8	46:BZ:2:SER:HB3	2.52	0.41
24:BA:1614:A:N7	41:BS:93:ALA:HB2	2.35	0.41
24:BA:2153:G:C2	24:BA:2154:G:H1'	2.55	0.41
24:BA:2169:A:C6	24:BA:2170:A:C2	3.09	0.41
24:BA:2196:C:C2'	24:BA:2197:U:H5'	2.51	0.41
24:BA:2415:G:C4'	34:BO:66:GLY:HA3	2.48	0.41
24:BA:2436:G:C6	24:BA:2437:U:C4	3.08	0.41
24:BA:2577:A:H5"	24:BA:2578:G:H5'	2.01	0.41
24:BA:2794:C:N3	24:BA:2795:G:N7	2.68	0.41
25:BB:54:G:O2'	25:BB:55:U:H5'	2.20	0.41
25:BB:65:C:C5	25:BB:108:C:C5	3.08	0.41
26:BD:94:LEU:C	26:BD:94:LEU:CD2	2.87	0.41
27:BE:55:ASN:C	27:BE:57:LYS:N	2.74	0.41
27:BE:111:ARG:HD2	27:BE:111:ARG:H	1.85	0.41
28:BF:29:ASN:N	28:BF:112:MET:HE3	2.23	0.41
32:BM:15:LEU:C	32:BM:15:LEU:CD1	2.88	0.41
33:BN:78:ARG:NH1	38:BR:73:GLU:OE1	2.49	0.41
35:BP:61:GLY:HA2	35:BP:62:GLY:HA3	1.87	0.41
36:B0:26:LYS:HG2	36:B0:70:LEU:HD22	2.00	0.41
38:BR:23:ARG:HH21	38:BR:120:ARG:HD3	1.84	0.41
39:B1:90:VAL:HG12	39:B1:91:ASP:H	1.83	0.41
41:BS:103:ILE:H	41:BS:103:ILE:HG13	1.69	0.41
42:BT:50:LYS:HB3	42:BT:84:ALA:HB3	2.02	0.41
44:BV:112:ARG:HD3	44:BV:112:ARG:N	2.34	0.41
44:BV:116:VAL:HG23	44:BV:174:VAL:CG1	2.50	0.41
49:B4:24:THR:O	49:B4:25:TYR:HB2	2.19	0.41
49:B4:42:PHE:CD2	49:B4:43:TYR:HD2	2.38	0.41
53:B8:62:LEU:HD23	53:B8:62:LEU:HA	1.96	0.41
1:CA:40:C:N4	1:CA:402:G:H1	2.16	0.41
1:CA:66:G:N2	1:CA:172:A:N3	2.66	0.41
1:CA:107:G:H2'	1:CA:108:G:O5'	2.19	0.41
1:CA:197:A:N6	1:CA:221:C:C4'	2.83	0.41
1:CA:437:U:O2'	1:CA:438:G:H5'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:475:G:C2	1:CA:476:G:C5	3.08	0.41
1:CA:865:A:H2'	1:CA:866:C:O4'	2.20	0.41
1:CA:867:G:N1	1:CA:868:C:C4	2.88	0.41
1:CA:946:A:C2	1:CA:1236:A:C2	3.08	0.41
1:CA:1009:G:C2	1:CA:1010:G:C8	3.08	0.41
1:CA:1014:A:H4'	19:CV:14:HIS:ND1	2.35	0.41
1:CA:1118:C:H4'	9:CL:83:ARG:NH2	2.34	0.41
1:CA:1158:C:O2	1:CA:1158:C:C3'	2.69	0.41
1:CA:1158:C:O2	1:CA:1160:G:C8	2.73	0.41
1:CA:1289:A:H8	1:CA:1289:A:O5'	2.02	0.41
1:CA:1362:C:C2'	1:CA:1362(A):C:H5"	2.50	0.41
2:CE:12:GLU:CD	2:CE:14:GLY:H	2.23	0.41
2:CE:16:HIS:CG	2:CE:209:ARG:HB2	2.55	0.41
4:CG:8:VAL:HG11	4:CG:21:LEU:CB	2.50	0.41
5:CH:13:ILE:HG22	5:CH:30:ALA:CB	2.50	0.41
6:CI:100:ASN:CB	18:CU:23:LYS:HE2	2.48	0.41
7:CJ:73:MET:HG2	7:CJ:90:GLU:HB3	2.01	0.41
8:CK:106:GLY:C	8:CK:122:ARG:HH22	2.23	0.41
8:CK:119:LEU:HD21	8:CK:124:ALA:N	2.35	0.41
8:CK:121:ASP:HB2	8:CK:125:ARG:HH21	1.85	0.41
12:CO:46:LYS:HE3	12:CO:46:LYS:HB2	1.81	0.41
12:CO:58:VAL:HG21	12:CO:83:VAL:HG11	2.03	0.41
13:CP:44:ARG:CB	13:CP:46:LYS:HG2	2.50	0.41
17:CT:67:LYS:HG2	17:CT:68:ARG:N	2.34	0.41
18:CU:46:GLU:O	18:CU:47:THR:HG23	2.19	0.41
19:CV:16:LEU:HA	19:CV:19:VAL:HB	2.02	0.41
22:CC:18:G:N2	22:CC:58:A:C4	2.87	0.41
24:DA:300:A:P	43:DU:84:ARG:HH12	2.43	0.41
24:DA:334:C:OP1	24:DA:335:C:N4	2.52	0.41
24:DA:672:C:H5	34:DO:42:SER:HB2	1.86	0.41
24:DA:841:A:C2	24:DA:938:G:C2	3.09	0.41
24:DA:1535:U:H6	24:DA:1535:U:OP1	2.03	0.41
24:DA:1538:G:H2'	24:DA:1539:G:H8	1.85	0.41
24:DA:1991:U:H2'	24:DA:1992:G:H5"	2.02	0.41
24:DA:2692:C:O2'	24:DA:2847:U:O2'	2.25	0.41
24:DA:2748:A:O3'	30:DH:6:ARG:NH2	2.53	0.41
26:DD:65:ILE:HG13	26:DD:66:ASP:N	2.35	0.41
26:DD:257:LEU:HD22	26:DD:258:LYS:N	2.35	0.41
30:DH:118:PRO:HD2	30:DH:121:ILE:HG13	2.02	0.41
31:DK:75:LEU:HD12	31:DK:139:GLN:O	2.20	0.41
32:DM:120:LEU:HD23	32:DM:120:LEU:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DQ:57:LYS:O	37:DQ:58:LEU:HB3	2.20	0.41
37:DQ:65:VAL:O	37:DQ:69:VAL:HG12	2.20	0.41
38:DR:99:LEU:C	38:DR:101:PHE:N	2.73	0.41
40:D2:6:LYS:H	40:D2:37:VAL:HG12	1.85	0.41
43:DU:51:VAL:O	43:DU:52:SER:CB	2.68	0.41
44:DV:2:GLU:C	44:DV:3:TYR:CD2	2.93	0.41
49:D4:55:ARG:O	49:D4:59:PHE:HD2	2.03	0.41
51:D6:11:LEU:HD23	51:D6:26:ASN:HB3	2.02	0.41
1:AA:59:A:H3'	1:AA:331:G:H22	1.85	0.41
1:AA:149:A:O2'	1:AA:150:C:H5'	2.21	0.41
1:AA:187:C:H2'	1:AA:188:U:O4'	2.20	0.41
1:AA:189:U:O2	17:AT:63:ARG:NH2	2.53	0.41
1:AA:545:C:O2'	1:AA:549:C:H5"	2.21	0.41
1:AA:587:G:N2	1:AA:755:G:C8	2.88	0.41
1:AA:599:C:H2'	1:AA:600:C:H6	1.85	0.41
1:AA:880:C:OP1	12:AO:8:ASN:ND2	2.51	0.41
1:AA:1133:G:C4	1:AA:1134:G:C8	3.08	0.41
2:AE:74:LYS:HZ3	2:AE:166:ASP:CB	2.29	0.41
2:AE:184:VAL:N	2:AE:198:ASP:OD2	2.47	0.41
4:AG:108:LEU:O	4:AG:110:PHE:N	2.53	0.41
6:AI:24:GLU:HA	6:AI:27:GLN:CB	2.51	0.41
8:AK:98:LYS:HD3	8:AK:98:LYS:N	2.35	0.41
11:AN:99:GLN:HG2	11:AN:105:VAL:HG11	2.02	0.41
16:AS:57:ARG:HH21	16:AS:79:VAL:CA	2.32	0.41
16:AS:71:ARG:O	16:AS:74:LEU:N	2.54	0.41
17:AT:63:ARG:HG3	17:AT:64:PRO:N	2.34	0.41
22:AC:17:C:H5'	22:AC:61:C:OP1	2.20	0.41
24:BA:439:G:C2'	24:BA:440:G:H5'	2.51	0.41
24:BA:673:C:O2'	28:BF:82:ILE:HD11	2.21	0.41
24:BA:686:G:N2	24:BA:788:A:H61	2.18	0.41
24:BA:898:C:C5	24:BA:899:A:C8	3.08	0.41
24:BA:969:U:H2'	24:BA:970:C:C6	2.56	0.41
24:BA:1024:G:H8	24:BA:1024:G:O5'	2.02	0.41
24:BA:1060:U:N3	24:BA:1062:G:C4'	2.83	0.41
24:BA:1066:U:H2'	24:BA:1068:G:P	2.60	0.41
24:BA:1085:A:O2'	24:BA:1086:A:N1	2.52	0.41
24:BA:1107:G:O2'	24:BA:1108:U:H5'	2.20	0.41
24:BA:1174:A:C2'	24:BA:1176:G:H4'	2.51	0.41
24:BA:1270:C:H5"	24:BA:1271:G:H5'	2.00	0.41
24:BA:1405:U:H2'	24:BA:1406:U:C6	2.54	0.41
24:BA:1528:A:N6	24:BA:1543:A:H2	2.18	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2123:G:C4	24:BA:2124:G:C8	3.09	0.41
24:BA:2146:C:H4'	24:BA:2147:G:C2	2.55	0.41
24:BA:2162:G:P	24:BA:2164:C:N4	2.93	0.41
24:BA:2346:A:O2'	51:B6:24:GLU:OE2	2.36	0.41
24:BA:2492:U:H2'	24:BA:2493:U:H6	1.84	0.41
24:BA:2663:G:C6	24:BA:2664:G:C4	3.09	0.41
24:BA:2864:G:OP1	38:BR:119:LYS:HD2	2.21	0.41
25:BB:51:G:H2'	25:BB:52:A:O4'	2.20	0.41
26:BD:231:HIS:CE1	26:BD:232:PRO:HD2	2.50	0.41
28:BF:170:LEU:HD12	28:BF:172:TRP:HE1	1.84	0.41
29:BG:10:LYS:HD3	29:BG:10:LYS:O	2.20	0.41
29:BG:63:ILE:HG22	29:BG:143:GLU:HB2	2.03	0.41
29:BG:108:ASN:HA	49:B4:38:LYS:CG	2.51	0.41
30:BH:58:GLU:C	30:BH:60:ARG:H	2.23	0.41
32:BM:55:VAL:HB	32:BM:126:PRO:HA	2.02	0.41
33:BN:102:VAL:HG23	33:BN:121:VAL:HG22	2.03	0.41
37:BQ:11:LYS:O	37:BQ:15:ARG:HB2	2.20	0.41
37:BQ:26:LEU:HD23	37:BQ:26:LEU:C	2.41	0.41
41:BS:1:MET:HG3	41:BS:2:GLU:N	2.35	0.41
41:BS:9:TYR:H	41:BS:102:HIS:CE1	2.38	0.41
41:BS:31:GLU:O	41:BS:35:ILE:HG13	2.20	0.41
51:B6:39:TYR:O	51:B6:46:HIS:HA	2.20	0.41
1:CA:143:A:O3'	1:CA:144:G:H8	2.02	0.41
1:CA:277:C:P	17:CT:41:LYS:HZ2	2.40	0.41
1:CA:386:C:H2'	1:CA:387:U:H5'	2.01	0.41
1:CA:682:G:C4	1:CA:683:G:C8	3.08	0.41
1:CA:736:C:OP1	18:CU:68:LYS:HD2	2.20	0.41
1:CA:953:G:H2'	1:CA:954:G:O4'	2.21	0.41
1:CA:1122:U:H2'	1:CA:1123:A:C8	2.55	0.41
1:CA:1238:A:H62	1:CA:1299:A:N6	2.18	0.41
1:CA:1281:U:H3'	1:CA:1282:C:C5	2.55	0.41
1:CA:1303:C:C4	1:CA:1304:G:C5	3.08	0.41
1:CA:1321:C:OP1	1:CA:1322:C:O3'	2.38	0.41
1:CA:1365:G:N2	1:CA:1366:C:H1'	2.36	0.41
1:CA:1371:G:O3'	9:CL:69:GLY:HA3	2.21	0.41
1:CA:1446:A:C6	38:DR:118:ARG:CZ	3.03	0.41
1:CA:1446:A:H3'	1:CA:1446:A:N3	2.35	0.41
1:CA:1475:G:H4'	24:DA:1689:A:H4'	2.02	0.41
2:CE:164:VAL:CG1	2:CE:165:VAL:H	2.16	0.41
4:CG:112:VAL:HG13	4:CG:113:SER:N	2.34	0.41
11:CN:31:THR:HG23	11:CN:31:THR:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CO:85:ILE:HG23	12:CO:98:TYR:HB3	2.01	0.41
14:CQ:40:CYS:SG	14:CQ:41:ARG:N	2.93	0.41
17:CT:100:LYS:HZ2	17:CT:100:LYS:CB	2.31	0.41
18:CU:19:LYS:HG3	18:CU:20:ALA:N	2.36	0.41
24:DA:58:G:N2	24:DA:70:G:C4	2.88	0.41
24:DA:125:G:H5"	52:D7:19:ARG:HD3	2.02	0.41
24:DA:141(A):C:H6	24:DA:141(A):C:O5'	2.03	0.41
24:DA:270(I):G:C4	24:DA:270(R):G:N2	2.88	0.41
24:DA:315:G:H2'	24:DA:316:C:C6	2.55	0.41
24:DA:464:U:H2'	24:DA:465:G:O4'	2.20	0.41
24:DA:569:U:H1'	24:DA:947:G:O4'	2.20	0.41
24:DA:869:G:C2	24:DA:909:A:C2	3.08	0.41
24:DA:910:A:N1	24:DA:2277:G:H1'	2.36	0.41
24:DA:930:U:O2	24:DA:930:U:O4'	2.37	0.41
24:DA:957:A:N6	24:DA:2459:A:C8	2.88	0.41
24:DA:1050:A:C6	24:DA:2751:G:C6	3.08	0.41
24:DA:1115:G:C2	24:DA:1116:C:C2	3.08	0.41
24:DA:1423:G:C4	24:DA:1424:G:C8	3.08	0.41
24:DA:1511:A:C6	24:DA:1512:G:C5	3.08	0.41
24:DA:1544:C:O2	24:DA:1544:C:C2'	2.68	0.41
24:DA:1580:A:OP2	24:DA:1580:A:H8	2.03	0.41
24:DA:2061:G:H2'	24:DA:2501:C:O2'	2.19	0.41
24:DA:2119:A:N6	24:DA:2171:A:H1'	2.33	0.41
24:DA:2190:G:H2'	24:DA:2191:G:H1'	2.02	0.41
26:DD:126:GLN:O	26:DD:193:VAL:CG2	2.68	0.41
26:DD:204:ILE:O	26:DD:204:ILE:HG13	2.21	0.41
27:DE:60:ASN:O	27:DE:61:ARG:HB2	2.20	0.41
27:DE:172:VAL:HG13	27:DE:182:LEU:CD1	2.51	0.41
28:DF:123:LEU:O	28:DF:192:LEU:O	2.37	0.41
30:DH:56:SER:HG	30:DH:61:HIS:CE1	2.38	0.41
30:DH:122:THR:CG2	30:DH:134:SER:CB	2.96	0.41
31:DK:52:ARG:O	31:DK:56:LYS:HB3	2.20	0.41
31:DK:77:LEU:HD12	31:DK:78:THR:H	1.83	0.41
34:DO:132:LYS:HE2	34:DO:136:GLU:OE1	2.19	0.41
35:DP:111:GLU:HG3	35:DP:112:GLU:N	2.35	0.41
35:DP:134:ARG:HH21	44:DV:122:ARG:HD2	1.81	0.41
36:D0:52:ILE:O	36:D0:55:ALA:N	2.52	0.41
38:DR:31:SER:HB2	38:DR:85:LYS:HG3	2.02	0.41
41:DS:113:LYS:N	41:DS:113:LYS:HZ2	2.19	0.41
42:DT:52:VAL:HG13	42:DT:53:LYS:H	1.85	0.41
43:DU:60:PHE:CD1	43:DU:60:PHE:N	2.87	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DZ:74:VAL:C	46:DZ:76:ARG:H	2.23	0.41
47:DW:5:GLU:CD	47:DW:5:GLU:H	2.23	0.41
49:D4:29:PRO:C	49:D4:30:GLU:HG3	2.40	0.41
1:AA:29:G:O2'	1:AA:30:U:H5'	2.20	0.41
1:AA:346:G:N3	1:AA:346:G:C2'	2.83	0.41
1:AA:675:A:N1	1:AA:716:A:H2	2.17	0.41
1:AA:981:U:H2'	1:AA:982:U:C5	2.56	0.41
1:AA:1049:U:OP1	14:AQ:3:ARG:CG	2.67	0.41
1:AA:1127:G:H21	1:AA:1146:A:H62	1.68	0.41
1:AA:1287:A:P	21:AX:26:LYS:NZ	2.91	0.41
1:AA:1351:U:C1'	7:AJ:33:ASP:HB3	2.50	0.41
1:AA:1375:A:C5	1:AA:1376:U:C5	3.09	0.41
2:AE:230:VAL:HB	2:AE:231:GLU:H	1.64	0.41
4:AG:63:LYS:HB2	4:AG:63:LYS:HE3	1.86	0.41
4:AG:82:ALA:C	4:AG:89:THR:HG23	2.40	0.41
4:AG:106:TYR:CE1	4:AG:112:VAL:O	2.72	0.41
4:AG:126:ILE:CG2	4:AG:127:THR:N	2.84	0.41
5:AH:95:ALA:HA	5:AH:96:PRO:HD3	1.89	0.41
5:AH:149:GLU:O	5:AH:150:ARG:C	2.57	0.41
9:AL:11:LYS:HE2	9:AL:11:LYS:HB3	1.80	0.41
9:AL:77:ILE:O	9:AL:78:LYS:C	2.58	0.41
10:AM:6:ILE:HG22	10:AM:98:ILE:HG22	2.01	0.41
13:AP:12:ASN:CB	13:AP:46:LYS:CE	2.82	0.41
13:AP:17:VAL:O	13:AP:20:THR:CG2	2.47	0.41
19:AV:21:GLU:O	19:AV:25:LYS:HG3	2.21	0.41
19:AV:22:LEU:HD21	19:AV:29:ARG:CD	2.49	0.41
24:BA:503:A:H4'	24:BA:504:U:C5'	2.50	0.41
24:BA:511:U:C3'	24:BA:512:G:H5'	2.51	0.41
24:BA:729:G:C2	24:BA:1775:U:H1'	2.56	0.41
24:BA:875:G:OP1	44:BV:175:VAL:CG2	2.64	0.41
24:BA:1069:A:C5	24:BA:1073:A:N7	2.89	0.41
24:BA:1098:A:H3'	24:BA:1099:G:H8	1.84	0.41
24:BA:1184:G:H5'	48:BX:29:ARG:HH21	1.86	0.41
24:BA:1328:G:H8	24:BA:1328:G:OP2	2.03	0.41
24:BA:1487:G:H2'	24:BA:1488:G:H8	1.85	0.41
24:BA:1535:U:C4	24:BA:1537:C:H1'	2.54	0.41
24:BA:1562:A:H2'	24:BA:1563:G:C8	2.56	0.41
24:BA:1615:C:C5	24:BA:1617:C:C5	3.09	0.41
24:BA:1668:A:O2'	24:BA:1674:G:N7	2.44	0.41
24:BA:1677:A:H2'	24:BA:1678:G:O5'	2.20	0.41
24:BA:1693:U:H4'	24:BA:1694:C:OP2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1936:A:N6	24:BA:1963:U:O2	2.54	0.41
24:BA:2162:G:C5	24:BA:2163:C:C4	3.08	0.41
24:BA:2192:G:H2'	24:BA:2192:G:N3	2.36	0.41
24:BA:2286:A:C8	24:BA:2287:A:C6	3.09	0.41
24:BA:2400:G:C4'	51:B6:19:ARG:NE	2.83	0.41
24:BA:2661:G:C6	24:BA:2662:A:C6	3.09	0.41
24:BA:2757:A:H2'	24:BA:2757:A:N3	2.35	0.41
29:BG:90:LEU:HD12	29:BG:90:LEU:HA	1.88	0.41
29:BG:131:TYR:HB3	29:BG:159:VAL:HG21	2.02	0.41
30:BH:24:VAL:HG12	30:BH:37:VAL:HG21	2.03	0.41
30:BH:86:GLU:O	30:BH:87:LEU:CB	2.68	0.41
31:BK:9:LEU:HD21	31:BK:35:LEU:HD12	2.03	0.41
31:BK:69:LYS:NZ	31:BK:73:GLU:OE2	2.33	0.41
32:BM:43:THR:HB	32:BM:48:MET:CE	2.49	0.41
36:B0:97:VAL:HA	36:B0:113:LEU:O	2.20	0.41
38:BR:24:PRO:O	38:BR:94:ALA:HB2	2.21	0.41
40:B2:89:GLN:HA	40:B2:90:PRO:HD2	1.95	0.41
44:BV:146:ILE:HA	44:BV:174:VAL:HB	2.03	0.41
47:BW:29:LYS:HD3	47:BW:57:ILE:HD13	2.02	0.41
49:B4:40:HIS:N	49:B4:41:PRO:HD2	2.30	0.41
50:B5:33:CYS:HB2	50:B5:38:ALA:O	2.21	0.41
53:B8:10:ALA:O	53:B8:12:LYS:N	2.54	0.41
1:CA:120:A:C6	1:CA:122:G:C2	3.08	0.41
1:CA:266:G:N3	1:CA:266:G:C2'	2.80	0.41
1:CA:513:C:N3	1:CA:539:A:C2	2.88	0.41
1:CA:652:U:O4	1:CA:752:G:H1'	2.20	0.41
1:CA:960:U:N3	1:CA:1225:A:N3	2.68	0.41
1:CA:1046:A:H2'	1:CA:1047:G:O4'	2.21	0.41
1:CA:1161:C:H2'	1:CA:1162:C:C6	2.55	0.41
1:CA:1223:C:OP2	1:CA:1224:G:H2'	2.21	0.41
1:CA:1469:G:H2'	1:CA:1470:G:H8	1.85	0.41
2:CE:208:ILE:HG23	2:CE:209:ARG:N	2.36	0.41
4:CG:13:ARG:HB2	4:CG:14:ARG:H	1.60	0.41
4:CG:65:ARG:CD	4:CG:75:PHE:HD2	2.33	0.41
4:CG:121:VAL:O	4:CG:134:ASP:HA	2.20	0.41
7:CJ:80:VAL:O	7:CJ:80:VAL:HG13	2.20	0.41
8:CK:4:ASP:OD2	8:CK:7:ALA:HB2	2.20	0.41
8:CK:97:VAL:HG22	8:CK:129:VAL:O	2.19	0.41
8:CK:104:ARG:HH11	8:CK:104:ARG:CB	2.33	0.41
9:CL:111:ARG:O	9:CL:113:LYS:HE2	2.21	0.41
17:CT:51:TYR:CD1	17:CT:57:VAL:HG11	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CV:49:ILE:HG13	19:CV:60:VAL:CG2	2.51	0.41
20:CW:72:LEU:HD23	20:CW:77:ALA:HB2	2.03	0.41
22:CC:62:C:H2'	22:CC:63:G:C8	2.55	0.41
24:DA:71:A:N1	42:DT:31:HIS:CE1	2.83	0.41
24:DA:144:C:H2'	24:DA:145:G:H8	1.85	0.41
24:DA:479:A:HO2'	24:DA:481:G:H8	1.68	0.41
24:DA:654(H):G:O6	24:DA:654(M):C:C6	2.73	0.41
24:DA:885:C:C4	24:DA:886:C:C4	3.08	0.41
24:DA:999:U:H5"	24:DA:1154:G:O6	2.20	0.41
24:DA:1057:A:H2	24:DA:1081:U:N3	2.16	0.41
24:DA:1179:C:H2'	24:DA:1180:C:H6	1.86	0.41
24:DA:1418:G:H2'	24:DA:1579:A:N6	2.35	0.41
24:DA:1419:A:C5	24:DA:1421:G:C5	3.08	0.41
24:DA:1484:G:C2'	24:DA:1485:G:H5'	2.51	0.41
24:DA:1513:C:C4	24:DA:1514:U:C5	3.09	0.41
24:DA:1600:C:O3'	52:D7:49:ARG:NE	2.52	0.41
24:DA:1695:G:H2'	24:DA:1696:G:O4'	2.21	0.41
24:DA:2134:A:N6	24:DA:2157:G:C2'	2.82	0.41
24:DA:2199:A:N7	24:DA:2205:C:C4	2.89	0.41
24:DA:2336:A:N3	24:DA:2385:C:H1'	2.35	0.41
24:DA:2348:U:H2'	24:DA:2349:G:C5'	2.50	0.41
24:DA:2393:A:OP2	53:D8:30:ARG:NH1	2.53	0.41
24:DA:2510:C:O2'	24:DA:2511:U:H5'	2.20	0.41
24:DA:2821:A:C2	24:DA:2822:G:C4	3.07	0.41
26:DD:5:LYS:CB	26:DD:5:LYS:HZ3	2.32	0.41
26:DD:257:LEU:C	26:DD:257:LEU:CD2	2.88	0.41
34:DO:16:ARG:HA	34:DO:16:ARG:HE	1.85	0.41
35:DP:54:MET:HE2	35:DP:118:LEU:HD23	2.01	0.41
35:DP:69:PHE:HA	35:DP:70:PRO:HD3	1.78	0.41
37:DQ:14:VAL:HG22	37:DQ:18:ILE:HD11	1.99	0.41
39:D1:100:VAL:O	39:D1:101:ARG:CG	2.67	0.41
44:DV:136:PHE:CD2	44:DV:137:ILE:N	2.89	0.41
44:DV:156:LYS:O	44:DV:157:LEU:HB2	2.20	0.41
46:DZ:88:LYS:HE2	46:DZ:88:LYS:HB3	1.84	0.41
1:AA:55:A:C5	1:AA:56:U:C5	3.09	0.41
1:AA:376:G:OP2	16:AS:67:THR:HG21	2.21	0.41
1:AA:652:U:O2'	1:AA:653:A:O5'	2.37	0.41
1:AA:715:A:H1'	1:AA:777:A:N1	2.36	0.41
1:AA:778:G:O5'	1:AA:778:G:H8	2.03	0.41
1:AA:1023:G:H2'	1:AA:1023:G:N3	2.35	0.41
1:AA:1042:G:O2'	24:DA:2155:G:C2	2.71	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1319:A:H3'	19:AV:3:ARG:HH22	1.74	0.41
1:AA:1342:C:H2'	1:AA:1343:G:H8	1.86	0.41
2:AE:6:THR:O	2:AE:217:ARG:NH1	2.54	0.41
2:AE:24:TRP:HD1	2:AE:24:TRP:H	1.67	0.41
2:AE:154:LEU:HD23	2:AE:154:LEU:N	2.31	0.41
4:AG:8:VAL:HG11	4:AG:115:ARG:CZ	2.35	0.41
4:AG:16:GLY:O	4:AG:17:VAL:CG2	2.68	0.41
6:AI:87:ARG:NH1	6:AI:87:ARG:CG	2.83	0.41
7:AJ:8:GLU:O	7:AJ:9:VAL:C	2.57	0.41
7:AJ:15:ASP:H	7:AJ:20:ASP:H	1.68	0.41
9:AL:36:TYR:CD2	9:AL:37:PHE:CE1	3.09	0.41
9:AL:48:GLU:O	9:AL:52:ALA:HB2	2.21	0.41
13:AP:70:LEU:HD23	13:AP:70:LEU:C	2.41	0.41
19:AV:51:VAL:HB	19:AV:75:ALA:HB2	2.01	0.41
20:AW:73:HIS:ND1	20:AW:74:LYS:HD3	2.35	0.41
22:AC:18:G:N2	22:AC:58:A:C8	2.88	0.41
24:BA:196:A:O4'	34:BO:46:LYS:HD2	2.20	0.41
24:BA:212:G:C2'	24:BA:213:A:C5'	2.87	0.41
24:BA:425:G:C2	24:BA:426:C:C6	3.08	0.41
24:BA:751:A:C6	24:BA:789:A:C5	3.08	0.41
24:BA:879:G:C6	24:BA:898:C:N4	2.89	0.41
24:BA:1065:U:C4	24:BA:1066:U:C6	3.09	0.41
24:BA:1516:U:C2	24:BA:1517:G:C8	3.09	0.41
24:BA:1534:G:O6	24:BA:1539:G:H1'	2.21	0.41
24:BA:1651:G:P	36:B0:37:THR:HG21	2.60	0.41
24:BA:1694:C:H1'	24:BA:1695:G:OP2	2.21	0.41
24:BA:1773:A:C5	24:BA:1829:A:H1'	2.56	0.41
24:BA:2216:G:O2'	24:BA:2217:G:H5'	2.21	0.41
25:BB:15:A:O2'	25:BB:109:G:C8	2.68	0.41
25:BB:29:A:OP2	37:BQ:31:SER:HB2	2.21	0.41
25:BB:51:G:H2'	25:BB:52:A:H1'	2.01	0.41
25:BB:69:G:C4	25:BB:70:C:C6	3.09	0.41
31:BK:11:ASN:CG	31:BK:12:LEU:H	2.24	0.41
32:BM:8:GLN:O	32:BM:9:VAL:HG22	2.20	0.41
32:BM:85:ILE:HG13	32:BM:85:ILE:O	2.20	0.41
32:BM:90:MET:HA	32:BM:90:MET:HE3	2.03	0.41
32:BM:99:LEU:HD13	32:BM:99:LEU:C	2.41	0.41
34:BO:36:LYS:HB3	34:BO:40:SER:CB	2.25	0.41
34:BO:125:VAL:HG23	34:BO:144:GLU:HB3	2.03	0.41
35:BP:35:VAL:HG22	35:BP:36:ALA:N	2.35	0.41
37:BQ:71:ARG:NH2	37:BQ:106:ARG:NH2	2.67	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:B2:25:LEU:H	40:B2:92:THR:HG21	1.85	0.41
40:B2:38:LEU:HD23	40:B2:39:LEU:H	1.77	0.41
42:BT:49:VAL:CA	42:BT:87:GLN:HE22	2.33	0.41
1:CA:102:G:H2'	1:CA:103:C:C6	2.55	0.41
1:CA:181:G:N2	1:CA:183:G:C2	2.89	0.41
1:CA:704:A:H2'	1:CA:704:A:N3	2.36	0.41
1:CA:843:U:H3'	1:CA:848:C:O4'	2.20	0.41
1:CA:1112:C:N4	3:CF:178:LEU:HD23	2.35	0.41
1:CA:1227:A:O3'	13:CP:115:LYS:HE3	2.20	0.41
1:CA:1277:C:C2'	1:CA:1279:A:H8	2.33	0.41
2:CE:92:TYR:CZ	2:CE:151:GLY:HA3	2.50	0.41
3:CF:159:GLY:HA2	3:CF:193:TYR:CZ	2.55	0.41
4:CG:10:ARG:HH11	4:CG:10:ARG:CG	2.33	0.41
4:CG:18:LYS:HD3	4:CG:20:TYR:CD1	2.56	0.41
4:CG:163:GLU:HG2	4:CG:166:LYS:HZ2	1.82	0.41
5:CH:139:LEU:CD2	5:CH:142:LEU:HD11	2.51	0.41
6:CI:12:PRO:HG2	6:CI:13:ASN:HD21	1.84	0.41
7:CJ:30:ILE:HG23	7:CJ:32:ARG:NH2	2.36	0.41
13:CP:112:GLY:HA3	13:CP:113:PRO:HD3	1.85	0.41
19:CV:49:ILE:HD13	19:CV:51:VAL:CG2	2.50	0.41
24:DA:111:A:H4'	47:DW:69:ARG:NH2	2.35	0.41
24:DA:221:A:C8	24:DA:266:G:C6	3.09	0.41
24:DA:323:G:O2'	24:DA:1205:U:N3	2.47	0.41
24:DA:527:C:N4	24:DA:2779:U:OP2	2.54	0.41
24:DA:839:U:H1'	24:DA:1191:G:H1'	2.02	0.41
24:DA:974:G:H1'	24:DA:975:G:N7	2.35	0.41
24:DA:1204:A:HO2'	24:DA:1205:U:P	2.43	0.41
24:DA:1270:C:H5"	24:DA:1271:G:C5'	2.50	0.41
24:DA:1406:U:N3	24:DA:1597:A:C2	2.88	0.41
24:DA:1910:G:C2'	24:DA:1911:U:H5'	2.49	0.41
24:DA:2063:C:N4	24:DA:2064:C:N4	2.68	0.41
24:DA:2064:C:C2'	24:DA:2065:C:H5'	2.50	0.41
24:DA:2070:G:H2'	24:DA:2071:A:O4'	2.20	0.41
24:DA:2137:C:N4	24:DA:2155:G:O6	2.51	0.41
24:DA:2295:C:OP2	37:DQ:10:ARG:CG	2.69	0.41
24:DA:2378:A:C8	37:DQ:112:PHE:CZ	3.04	0.41
24:DA:2393:A:H3'	53:D8:30:ARG:HE	1.84	0.41
24:DA:2396:G:C2'	24:DA:2397:G:H5'	2.50	0.41
24:DA:2503:A:O2'	24:DA:2505:G:OP1	2.38	0.41
24:DA:2547:U:O2'	24:DA:2548:G:H5'	2.20	0.41
24:DA:2579:C:H2'	24:DA:2580:U:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2765:A:H2	24:DA:2766:G:O4'	2.03	0.41
28:DF:3:GLU:O	28:DF:19:GLU:HA	2.19	0.41
29:DG:138:GLN:OE1	29:DG:138:GLN:N	2.48	0.41
30:DH:27:LYS:HD2	30:DH:28:GLY:N	2.35	0.41
31:DK:133:HIS:CG	31:DK:134:PRO:N	2.88	0.41
33:DN:19:ILE:HA	33:DN:42:SER:O	2.21	0.41
33:DN:35:VAL:O	33:DN:35:VAL:HG23	2.20	0.41
37:DQ:66:ALA:HA	37:DQ:69:VAL:CG1	2.50	0.41
40:D2:38:LEU:HD13	40:D2:56:SER:HA	2.01	0.41
43:DU:48:ALA:O	43:DU:59:GLY:HA2	2.21	0.41
44:DV:144:LEU:CD2	44:DV:148:ASP:HA	2.47	0.41
53:D8:50:LEU:HG	53:D8:51:ALA:N	2.33	0.41
1:AA:160:A:O2'	1:AA:344:A:C6	2.65	0.41
1:AA:165:C:O2'	1:AA:166:G:H5'	2.20	0.41
1:AA:175:C:O2'	1:AA:176:C:H5'	2.19	0.41
1:AA:246:A:C2	1:AA:282:A:C5	3.09	0.41
1:AA:484:G:H1'	1:AA:485:G:P	2.61	0.41
1:AA:547:A:N3	1:AA:548:G:H1'	2.36	0.41
1:AA:665:A:C5	1:AA:733:A:C5	3.09	0.41
1:AA:821:G:C2	1:AA:880:C:C2	3.08	0.41
1:AA:1288:A:C6	1:AA:1289:A:C6	3.08	0.41
2:AE:98:LEU:H	2:AE:101:MET:CE	2.32	0.41
8:AK:6:ILE:H	8:AK:6:ILE:CD1	2.33	0.41
8:AK:112:LEU:HB3	8:AK:133:LEU:HA	2.02	0.41
8:AK:120:THR:CG2	8:AK:122:ARG:HB2	2.51	0.41
9:AL:99:LEU:CB	9:AL:101:PHE:CE2	2.60	0.41
11:AN:121:PRO:HG2	11:AN:126:ARG:HG3	2.01	0.41
15:AR:37:ASN:HD22	15:AR:37:ASN:H	1.68	0.41
19:AV:72:GLY:C	19:AV:74:PHE:H	2.24	0.41
19:AV:74:PHE:O	19:AV:76:PRO:HD3	2.21	0.41
20:AW:18:GLN:C	20:AW:20:LEU:N	2.73	0.41
24:BA:184:C:H2'	24:BA:185:U:H6	1.84	0.41
24:BA:321:G:OP2	28:BF:135:LYS:HA	2.20	0.41
24:BA:337:C:C2	24:BA:338:G:C1'	3.03	0.41
24:BA:530:G:C5	24:BA:2022:U:H5"	2.56	0.41
24:BA:784:A:C8	24:BA:792:G:C5	3.09	0.41
24:BA:1022:G:C5	24:BA:1140:C:N4	2.89	0.41
24:BA:1262:A:N3	50:B5:10:LYS:HE3	2.35	0.41
24:BA:1420:U:O2'	24:BA:1421:G:P	2.79	0.41
24:BA:1498:C:O4'	24:BA:1577:C:H4'	2.20	0.41
24:BA:1535:U:H5'	24:BA:1537:C:C4	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:1652:A:H2'	24:BA:1653:G:H5'	2.03	0.41
24:BA:1774:C:O5'	24:BA:1774:C:H6	2.04	0.41
24:BA:1799:G:C2'	24:BA:1800:C:OP2	2.69	0.41
24:BA:1817:G:C5	24:BA:1818:U:C5	3.09	0.41
24:BA:1833:U:O2	24:BA:1969:A:H2	2.03	0.41
24:BA:1834:U:O2	24:BA:1834:U:C2'	2.62	0.41
24:BA:1952:A:C6	24:BA:1953:A:N1	2.88	0.41
24:BA:2000:G:O2'	24:BA:2001:A:H5'	2.21	0.41
24:BA:2134:A:C5	24:BA:2157:G:H1'	2.56	0.41
24:BA:2700:C:O2'	24:BA:2701:C:H5'	2.20	0.41
24:BA:2768:C:O2'	32:BM:89:LYS:NZ	2.49	0.41
26:BD:35:LYS:HZ3	26:BD:104:TYR:HD1	1.69	0.41
26:BD:96:HIS:NE2	26:BD:102:LYS:HE2	2.35	0.41
27:BE:31:CYS:HB3	27:BE:49:LEU:HB3	2.03	0.41
30:BH:77:LYS:HE2	30:BH:138:LYS:CD	2.28	0.41
31:BK:92:VAL:HG11	31:BK:142:VAL:HG11	2.03	0.41
33:BN:11:ALA:O	33:BN:98:VAL:HG23	2.21	0.41
34:BO:15:ARG:CG	34:BO:16:ARG:N	2.83	0.41
34:BO:94:GLU:O	34:BO:95:VAL:CB	2.62	0.41
38:BR:82:LEU:HD12	38:BR:82:LEU:N	2.35	0.41
43:BU:73:ARG:HA	43:BU:74:PRO:HD3	1.84	0.41
45:B3:15:ASP:OD1	45:B3:16:SER:N	2.51	0.41
45:B3:46:LYS:HD3	45:B3:78:TYR:CZ	2.56	0.41
1:CA:35:G:C5	1:CA:36:C:C4	3.09	0.41
1:CA:186(C):G:H2'	1:CA:186(D):C:C6	2.56	0.41
1:CA:412:A:C2'	1:CA:413:G:OP2	2.68	0.41
1:CA:572:A:C5'	1:CA:917:G:H4'	2.45	0.41
1:CA:614:A:C6	1:CA:615:C:C4	3.09	0.41
1:CA:659:U:C4	1:CA:660:G:N7	2.88	0.41
1:CA:691:G:P	11:CN:26:ASN:HD22	2.44	0.41
1:CA:754:C:P	15:CR:72:ARG:HH22	2.43	0.41
1:CA:786:G:C2	1:CA:797:C:C2	3.08	0.41
1:CA:1208:C:H2'	1:CA:1209:C:H6	1.82	0.41
2:CE:82:ARG:O	2:CE:86:GLU:HG3	2.19	0.41
3:CF:188:LEU:HD23	3:CF:190:ARG:HH21	1.85	0.41
4:CG:75:PHE:CD1	4:CG:75:PHE:C	2.92	0.41
4:CG:190:ASP:O	4:CG:194:LEU:HD23	2.20	0.41
8:CK:12:ARG:CD	8:CK:26:VAL:HG12	2.45	0.41
10:CM:21:GLN:NE2	10:CM:24:VAL:HG12	2.35	0.41
11:CN:54:ARG:HA	11:CN:57:THR:HG23	2.02	0.41
11:CN:105:VAL:HG12	11:CN:105:VAL:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CN:112:THR:CG2	11:CN:113:PRO:HD2	2.50	0.41
14:CQ:22:THR:CG2	14:CQ:33:VAL:CG1	2.64	0.41
20:CW:47:GLY:O	20:CW:49:ALA:N	2.54	0.41
24:DA:265:A:C2	24:DA:428:A:C2	3.09	0.41
24:DA:270(N):G:O2'	24:DA:270(P):C:O4'	2.36	0.41
24:DA:483:A:H4'	43:DU:49:VAL:CA	2.39	0.41
24:DA:547:A:C6	24:DA:548:A:C5	3.09	0.41
24:DA:651:G:C6	24:DA:652:C:C4	3.09	0.41
24:DA:789:A:H4'	24:DA:790:C:OP2	2.21	0.41
24:DA:807:U:O2'	24:DA:808:G:H5'	2.20	0.41
24:DA:871:U:H5"	35:DP:69:PHE:CZ	2.56	0.41
24:DA:1022:G:C2'	24:DA:1023:U:OP2	2.68	0.41
24:DA:1038:C:H2'	24:DA:1039:G:O4'	2.21	0.41
24:DA:1248:G:C2	39:D1:3:ARG:HD3	2.56	0.41
24:DA:1607:C:N4	24:DA:1622:G:OP2	2.50	0.41
24:DA:2056:G:N3	24:DA:2056:G:H2'	2.35	0.41
24:DA:2121:G:H2'	24:DA:2122:U:H5	1.86	0.41
24:DA:2129:C:C2	24:DA:2173:A:H2	2.39	0.41
24:DA:2192:G:C2	24:DA:2193:G:C5	3.08	0.41
24:DA:2277:G:H2'	24:DA:2278:A:H5"	2.01	0.41
24:DA:2375:G:H2'	24:DA:2377:A:N7	2.36	0.41
24:DA:2401:U:C2'	24:DA:2402:C:C6	3.03	0.41
24:DA:2532:G:N2	24:DA:2663:G:C2'	2.83	0.41
24:DA:2793:G:N2	24:DA:2804:C:C2	2.89	0.41
25:DB:66:A:N1	25:DB:108:C:C6	2.88	0.41
27:DE:56:PRO:O	27:DE:57:LYS:HB2	2.20	0.41
27:DE:56:PRO:HD2	27:DE:58:ARG:NH2	2.36	0.41
27:DE:155:LYS:O	27:DE:156:MET:HG3	2.20	0.41
30:DH:18:GLU:OE2	30:DH:25:LYS:HD2	2.21	0.41
30:DH:121:ILE:HG22	30:DH:122:THR:H	1.86	0.41
31:DK:101:LEU:O	31:DK:102:SER:CB	2.69	0.41
31:DK:109:ILE:N	31:DK:109:ILE:CD1	2.82	0.41
31:DK:127:VAL:CG1	31:DK:137:PRO:HB3	2.49	0.41
32:DM:39:ARG:C	32:DM:41:ASP:N	2.74	0.41
32:DM:42:TRP:CD1	39:D1:63:VAL:HG11	2.55	0.41
32:DM:42:TRP:O	39:D1:64:ARG:NH2	2.53	0.41
34:DO:148:LEU:C	34:DO:148:LEU:HD12	2.41	0.41
39:D1:83:LEU:HD23	39:D1:83:LEU:C	2.40	0.41
39:D1:95:LEU:CD1	40:D2:11:GLN:HB2	2.50	0.41
40:D2:87:HIS:CE1	40:D2:89:GLN:HB2	2.55	0.41
40:D2:87:HIS:HE1	40:D2:89:GLN:HB2	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DU:95:LYS:HB2	43:DU:95:LYS:HE2	1.78	0.41
44:DV:23:LYS:HB3	44:DV:39:VAL:O	2.21	0.41
44:DV:108:PRO:HB2	44:DV:109:ALA:H	1.71	0.41
45:D3:83:PRO:O	45:D3:85:ALA:N	2.53	0.41
49:D4:35:VAL:O	49:D4:36:CYS:C	2.59	0.41
50:D5:19:ARG:O	50:D5:19:ARG:HG2	2.21	0.41
1:AA:157:G:H1	1:AA:164:U:H3	1.69	0.41
1:AA:294:U:H2'	1:AA:295:C:H6	1.85	0.41
1:AA:371:G:N2	1:AA:372:C:N3	2.68	0.41
1:AA:380:G:N2	1:AA:384:G:C5	2.89	0.41
1:AA:555:C:H2'	1:AA:556:C:C6	2.55	0.41
1:AA:674:G:H2'	1:AA:675:A:C8	2.56	0.41
1:AA:677:U:H3	1:AA:713:G:N2	2.10	0.41
1:AA:774:G:H2'	1:AA:774:G:N3	2.36	0.41
1:AA:1216:G:O3'	14:AQ:5:ALA:HB1	2.20	0.41
1:AA:1298:C:H4'	1:AA:1299:A:O4'	2.20	0.41
1:AA:1330:U:H4'	13:AP:23:TYR:HE1	1.85	0.41
2:AE:115:LEU:HD13	2:AE:145:LEU:CB	2.50	0.41
2:AE:127:ILE:CG2	2:AE:128:GLU:N	2.82	0.41
2:AE:168:THR:OG1	2:AE:192:SER:HB2	2.20	0.41
4:AG:31:CYS:SG	4:AG:33:MET:HE3	2.61	0.41
4:AG:150:GLU:C	4:AG:152:SER:N	2.73	0.41
5:AH:67:VAL:HG22	5:AH:69:VAL:CG2	2.50	0.41
8:AK:63:LEU:HB2	8:AK:65:TYR:CE1	2.55	0.41
10:AM:51:ARG:CZ	10:AM:61:GLU:HB2	2.51	0.41
10:AM:83:GLU:O	10:AM:84:GLN:C	2.59	0.41
11:AN:28:THR:HG21	11:AN:61:ALA:HB1	2.03	0.41
12:AO:62:SER:O	12:AO:64:TYR:N	2.54	0.41
13:AP:39:ILE:HD12	13:AP:56:LEU:HD21	2.03	0.41
24:BA:898:C:H3'	24:BA:899:A:H8	1.86	0.41
24:BA:962:G:H2'	24:BA:963:U:O4'	2.21	0.41
24:BA:1005:C:H1'	24:BA:1012:U:N3	2.36	0.41
24:BA:1125:G:C6	24:BA:1126:A:N6	2.89	0.41
24:BA:1420:U:OP1	24:BA:1420:U:C6	2.74	0.41
24:BA:1441:G:H4'	24:BA:1628:G:OP1	2.20	0.41
24:BA:1543:A:O4'	24:BA:1545:A:H1'	2.20	0.41
24:BA:2061:G:OP1	28:BF:68:LYS:NZ	2.47	0.41
24:BA:2111:C:H5	24:BA:2147:G:N2	2.19	0.41
24:BA:2286:A:O2'	51:B6:37:ARG:NH2	2.53	0.41
24:BA:2583:G:C6	24:BA:2584:U:C4	3.08	0.41
24:BA:2729:G:H2'	24:BA:2730:C:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2831:G:P	27:BE:58:ARG:HH11	2.41	0.41
25:BB:82:G:H2'	25:BB:83:G:H5'	2.03	0.41
26:BD:35:LYS:CG	26:BD:64:ILE:CG2	2.90	0.41
27:BE:68:ALA:C	27:BE:70:ALA:N	2.74	0.41
27:BE:150:VAL:CG1	27:BE:154:LYS:HG3	2.51	0.41
29:BG:36:LYS:CG	29:BG:38:VAL:HG23	2.51	0.41
29:BG:81:LYS:O	29:BG:82:LEU:HB3	2.21	0.41
31:BK:1:MET:O	31:BK:20:ASP:HA	2.20	0.41
34:BO:80:TYR:CZ	34:BO:111:ARG:HD3	2.56	0.41
40:B2:15:GLU:O	40:B2:96:ILE:HB	2.21	0.41
41:BS:20:VAL:O	41:BS:23:LEU:HB3	2.20	0.41
41:BS:92:ARG:O	41:BS:93:ALA:HB3	2.21	0.41
43:BU:15:VAL:HG12	43:BU:17:SER:O	2.21	0.41
44:BV:4:ARG:CD	44:BV:58:VAL:HG11	2.50	0.41
46:BZ:58:ILE:HG23	46:BZ:87:PRO:HG3	2.03	0.41
46:BZ:83:GLU:OE2	46:BZ:83:GLU:N	2.46	0.41
47:BW:8:LYS:HE3	47:BW:8:LYS:HB2	1.83	0.41
49:B4:27:THR:HG22	49:B4:28:LYS:N	2.36	0.41
50:B5:31:VAL:CG1	50:B5:42:PRO:HG3	2.49	0.41
52:B7:30:VAL:O	52:B7:34:ARG:HG3	2.20	0.41
1:CA:29:G:C6	1:CA:30:U:C5	3.08	0.41
1:CA:35:G:C2	1:CA:550:G:C4	3.09	0.41
1:CA:261:U:N3	1:CA:264:U:OP2	2.43	0.41
1:CA:357:G:OP1	1:CA:367:U:H5"	2.21	0.41
1:CA:428:G:O4'	1:CA:430:A:C8	2.74	0.41
1:CA:833:U:C2	1:CA:834:C:C5	3.09	0.41
1:CA:959:A:H1'	1:CA:985:C:H1'	2.02	0.41
1:CA:983:A:O2'	1:CA:1050:G:OP2	2.29	0.41
1:CA:992:U:C4'	1:CA:993:G:O5'	2.69	0.41
1:CA:1014:A:C4	19:CV:34:TRP:CE3	3.08	0.41
1:CA:1129:C:OP2	9:CL:62:TYR:OH	2.27	0.41
1:CA:1144:G:H2'	1:CA:1145:C:C5'	2.50	0.41
2:CE:10:LEU:O	2:CE:13:ALA:HB2	2.20	0.41
2:CE:201:ILE:HA	2:CE:202:PRO:HD2	1.90	0.41
3:CF:39:ILE:HD11	3:CF:64:VAL:HG21	2.02	0.41
4:CG:132:ARG:HH11	4:CG:132:ARG:HB2	1.86	0.41
6:CI:65:VAL:HG12	6:CI:66:GLU:N	2.36	0.41
7:CJ:73:MET:CG	7:CJ:90:GLU:HA	2.46	0.41
7:CJ:100:ALA:O	7:CJ:104:LEU:CD2	2.68	0.41
10:CM:15:THR:O	10:CM:16:LEU:HD23	2.21	0.41
10:CM:88:LEU:HD12	10:CM:88:LEU:N	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CN:59:TYR:CZ	11:CN:63:LEU:HD11	2.56	0.41
11:CN:81:ASP:OD1	11:CN:81:ASP:N	2.54	0.41
13:CP:30:ALA:C	13:CP:32:GLU:H	2.24	0.41
14:CQ:12:ARG:HB2	14:CQ:12:ARG:HH11	1.84	0.41
16:CS:53:VAL:O	16:CS:57:ARG:HG3	2.21	0.41
21:CX:6:ARG:CZ	21:CX:15:ARG:HH12	2.34	0.41
21:CX:13:ILE:HG23	21:CX:14:TRP:N	2.35	0.41
22:CC:18:G:O6	22:CC:55:U:H1'	2.20	0.41
22:CC:35:A:C4	23:C1:18:G:N2	2.89	0.41
23:C1:18:G:O2'	23:C1:19:U:OP2	2.33	0.41
24:DA:32:C:O2'	24:DA:33:U:H5'	2.21	0.41
24:DA:422:A:C2	24:DA:423:A:C4	3.09	0.41
24:DA:479:A:H1'	24:DA:481:G:H5'	2.02	0.41
24:DA:553:U:C2'	24:DA:554:U:H5'	2.51	0.41
24:DA:563:G:C4	24:DA:2018:G:C2	3.09	0.41
24:DA:588:U:H1'	28:DF:90:PHE:HB3	2.03	0.41
24:DA:669:G:H2'	24:DA:670:A:C8	2.55	0.41
24:DA:1059:G:N7	24:DA:1080:A:C2	2.88	0.41
24:DA:1061:U:H5"	24:DA:1062:G:OP2	2.21	0.41
24:DA:1166:C:O2	24:DA:1184:G:C2	2.74	0.41
24:DA:1439:A:H2'	24:DA:1440:G:C5'	2.49	0.41
24:DA:1466:G:N2	24:DA:1547:C:N3	2.69	0.41
24:DA:1848:A:H2'	24:DA:1849:G:O4'	2.21	0.41
24:DA:1849:G:H2'	24:DA:1850:G:H8	1.85	0.41
24:DA:1869:G:C5'	24:DA:1870:C:OP2	2.69	0.41
24:DA:1914:C:O2	24:DA:1914:C:O4'	2.38	0.41
24:DA:2134:A:N1	24:DA:2156:G:N2	2.68	0.41
24:DA:2298:A:C2	24:DA:2299:G:H1'	2.56	0.41
24:DA:2393:A:C4'	53:D8:30:ARG:NE	2.76	0.41
25:DB:50:G:OP1	37:DQ:62:LYS:HB2	2.20	0.41
26:DD:270:ILE:O	26:DD:271:ILE:HG12	2.21	0.41
32:DM:2:LYS:CG	32:DM:2:LYS:O	2.69	0.41
34:DO:61:ARG:O	34:DO:62:LEU:CB	2.68	0.41
34:DO:147:LEU:HB2	34:DO:148:LEU:H	1.61	0.41
35:DP:23:GLY:HA2	35:DP:24:GLY:HA3	1.75	0.41
38:DR:90:GLN:HA	38:DR:90:GLN:OE1	2.21	0.41
44:DV:39:VAL:HG21	44:DV:44:PHE:HB2	2.02	0.41
44:DV:59:LEU:O	44:DV:60:GLU:HB2	2.21	0.41
44:DV:119:GLU:CB	44:DV:122:ARG:HH12	2.27	0.41
44:DV:145:GLU:OE1	44:DV:177:PRO:CD	2.69	0.41
53:D8:40:GLU:H	53:D8:43:GLN:HG3	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:16:A:H2'	1:AA:17:U:H5'	2.03	0.41
1:AA:27:G:H2'	1:AA:28:G:H8	1.86	0.41
1:AA:152:A:N6	1:AA:170:U:C2	2.89	0.41
1:AA:176:C:H2'	1:AA:177:C:H6	1.85	0.41
1:AA:193:C:C6	20:AW:57:ARG:CZ	2.96	0.41
1:AA:251:G:N2	1:AA:253:U:C4	2.88	0.41
1:AA:380:G:N2	1:AA:384:G:C6	2.89	0.41
1:AA:449:C:O2	1:AA:449:C:O4'	2.38	0.41
1:AA:556:C:C2	1:AA:557:G:C8	3.08	0.41
1:AA:613:C:N4	1:AA:614:A:H62	2.19	0.41
1:AA:617:G:N1	1:AA:618:C:C4	2.88	0.41
1:AA:625:G:H2'	1:AA:626:U:H6	1.86	0.41
1:AA:682:G:C2	1:AA:683:G:C4	3.09	0.41
1:AA:718:G:C8	11:AN:116:HIS:HB3	2.56	0.41
1:AA:1007:C:C4	1:AA:1008:C:N4	2.89	0.41
1:AA:1121:U:C2	1:AA:1122:U:C6	3.08	0.41
1:AA:1127:G:C2	1:AA:1145:C:O2	2.73	0.41
1:AA:1128:C:C4	1:AA:1139:G:C5	3.09	0.41
1:AA:1130:A:P	9:AL:20:ARG:HH22	2.44	0.41
1:AA:1394:A:C5	1:AA:1501:C:H4'	2.56	0.41
2:AE:28:PHE:CE1	2:AE:190:THR:HA	2.56	0.41
2:AE:51:LEU:CD2	2:AE:55:PHE:CZ	3.03	0.41
2:AE:93:VAL:HG11	2:AE:97:TRP:HD1	1.86	0.41
3:AF:16:ARG:HG3	3:AF:17:ASP:N	2.34	0.41
3:AF:79:ARG:HH21	11:CN:99:GLN:HG2	1.86	0.41
3:AF:182:ILE:HA	3:AF:202:ILE:O	2.21	0.41
4:AG:11:LEU:O	4:AG:12:CYS:C	2.59	0.41
4:AG:12:CYS:CA	4:AG:19:LEU:HD21	2.25	0.41
4:AG:25:ARG:NH1	4:AG:30:LYS:HE3	2.36	0.41
4:AG:88:VAL:HG21	4:AG:91:SER:CB	2.50	0.41
4:AG:146:ILE:N	4:AG:146:ILE:CD1	2.80	0.41
5:AH:69:VAL:O	5:AH:71:LEU:HG	2.21	0.41
6:AI:12:PRO:CB	6:AI:57:GLN:HG3	2.51	0.41
7:AJ:69:VAL:HG22	7:AJ:135:VAL:HG22	2.02	0.41
7:AJ:69:VAL:O	7:AJ:71:PRO:HD3	2.21	0.41
7:AJ:148:ASN:C	7:AJ:150:ALA:N	2.74	0.41
8:AK:63:LEU:HD22	8:AK:63:LEU:N	2.36	0.41
9:AL:9:ARG:HD3	9:AL:14:VAL:HG23	2.03	0.41
9:AL:16:ARG:O	9:AL:16:ARG:HG3	2.21	0.41
9:AL:48:GLU:N	9:AL:49:PRO:HD3	2.35	0.41
9:AL:49:PRO:HA	9:AL:52:ALA:CB	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AL:57:GLY:C	9:AL:59:PHE:N	2.72	0.41
10:AM:80:LYS:O	10:AM:80:LYS:HD2	2.21	0.41
11:AN:103:LEU:HD22	11:AN:103:LEU:H	1.84	0.41
12:AO:53:ARG:CB	12:AO:93:LEU:HD11	2.50	0.41
14:AQ:25:VAL:CG2	14:AQ:26:ARG:N	2.84	0.41
15:AR:32:LEU:O	15:AR:35:ARG:N	2.54	0.41
16:AS:19:ILE:HG22	16:AS:19:ILE:O	2.21	0.41
19:AV:2:PRO:O	19:AV:3:ARG:HB3	2.21	0.41
19:AV:48:THR:C	19:AV:49:ILE:HG13	2.41	0.41
19:AV:62:ILE:HG22	19:AV:63:THR:N	2.35	0.41
22:AC:20:U:H3'	22:AC:20:U:OP2	2.21	0.41
22:AC:64:G:C2	22:AC:65:C:C2	3.09	0.41
24:BA:6:A:H2'	24:BA:7:G:O4'	2.21	0.41
24:BA:29:U:H6	24:BA:29:U:O5'	2.04	0.41
24:BA:396:G:O3'	46:BZ:44:PRO:HA	2.21	0.41
24:BA:442:G:N3	28:BF:48:THR:HG21	2.35	0.41
24:BA:536:A:P	39:B1:53:ARG:HH11	2.43	0.41
24:BA:594:U:P	53:B8:61:LEU:HD13	2.60	0.41
24:BA:799:G:C6	24:BA:800:A:C6	3.09	0.41
24:BA:828:U:O2	24:BA:828:U:C3'	2.69	0.41
24:BA:880:G:N2	24:BA:898:C:O2	2.54	0.41
24:BA:1003:G:N2	24:BA:1004:C:C2	2.89	0.41
24:BA:1048:A:C5	24:BA:1049:C:C5	3.09	0.41
24:BA:1209:G:N2	24:BA:1210:A:H62	2.14	0.41
24:BA:1357:U:H2'	24:BA:1358:G:O4'	2.21	0.41
24:BA:1500:G:C6	24:BA:1501:C:C4	3.09	0.41
24:BA:1544:C:O2	24:BA:1544:C:C2'	2.67	0.41
24:BA:1567:A:C4'	26:BD:58:HIS:CD2	3.03	0.41
24:BA:1570:A:H2'	24:BA:1571:A:C8	2.54	0.41
24:BA:1798:U:HO2'	24:BA:1802:A:HO2'	1.67	0.41
24:BA:1952:A:OP1	33:BN:42:SER:OG	2.35	0.41
24:BA:2001:A:H2'	24:BA:2002:G:O4'	2.21	0.41
24:BA:2058:A:N6	24:BA:2059:A:N6	2.69	0.41
24:BA:2100:G:HO2'	24:BA:2101:G:H5'	1.81	0.41
24:BA:2212:A:H1'	24:BA:2215:G:C8	2.55	0.41
24:BA:2293:C:OP1	37:BQ:89:ARG:NH1	2.53	0.41
24:BA:2344:U:C4	51:B6:37:ARG:NH1	2.89	0.41
24:BA:2365:G:H2'	24:BA:2366:A:C8	2.55	0.41
24:BA:2376:A:C2	24:BA:2377:A:H1'	2.55	0.41
24:BA:2417:C:N4	24:BA:2418:A:N6	2.69	0.41
24:BA:2517:C:C2	24:BA:2542:A:N6	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2519:U:C4	24:BA:2542:A:C5	3.08	0.41
24:BA:2758:A:C4	30:BH:67:LEU:CD2	3.03	0.41
24:BA:2791:C:OP1	24:BA:2893:G:C2	2.74	0.41
24:BA:2817:G:O2'	24:BA:2836:U:O2	2.33	0.41
25:BB:42:C:P	29:BG:67:LYS:HE3	2.60	0.41
26:BD:25:THR:OG1	26:BD:113:VAL:HG21	2.21	0.41
26:BD:63:ARG:HG2	26:BD:92:ILE:HD13	2.01	0.41
26:BD:94:LEU:CD2	26:BD:95:LEU:N	2.84	0.41
26:BD:196:VAL:O	26:BD:196:VAL:CG1	2.69	0.41
27:BE:116:VAL:CG1	27:BE:122:PHE:CG	3.03	0.41
27:BE:131:ALA:O	27:BE:132:HIS:CB	2.68	0.41
30:BH:77:LYS:HE3	30:BH:138:LYS:HB2	2.03	0.41
30:BH:154:PRO:HB2	30:BH:155:SER:H	1.63	0.41
31:BK:132:PRO:O	31:BK:133:HIS:C	2.59	0.41
32:BM:70:LYS:HB3	32:BM:87:LEU:HB2	2.02	0.41
32:BM:87:LEU:HD21	32:BM:98:VAL:HG21	2.02	0.41
33:BN:35:VAL:HA	33:BN:62:VAL:HG12	2.02	0.41
34:BO:18:ARG:HB3	34:BO:19:VAL:H	1.65	0.41
34:BO:106:LEU:O	34:BO:107:LYS:HB2	2.21	0.41
35:BP:54:MET:HE3	35:BP:121:ALA:CB	2.51	0.41
36:B0:55:ALA:HB1	36:B0:80:PHE:CD1	2.56	0.41
38:BR:3:ARG:O	38:BR:6:LEU:HD22	2.21	0.41
40:B2:76:LYS:HG2	40:B2:81:TYR:HD2	1.84	0.41
44:BV:5:LEU:HD23	44:BV:47:VAL:HG11	2.03	0.41
44:BV:13:GLU:HB3	44:BV:14:LYS:H	1.75	0.41
44:BV:108:PRO:HB2	44:BV:114:GLY:CA	2.51	0.41
44:BV:123:ASP:O	44:BV:124:ILE:HB	2.21	0.41
44:BV:167:PRO:HB2	44:BV:168:GLU:H	1.66	0.41
50:B5:3:LYS:HB3	50:B5:4:HIS:H	1.71	0.41
50:B5:9:LYS:HD3	50:B5:9:LYS:HA	1.87	0.41
53:B8:22:VAL:HG21	53:B8:53:PRO:HB2	2.03	0.41
1:CA:67:C:H2'	1:CA:68:G:C8	2.56	0.41
1:CA:475:G:C4	1:CA:476:G:C8	3.08	0.41
1:CA:506:G:C6	1:CA:507:C:C4	3.09	0.41
1:CA:587:G:N2	1:CA:754:C:OP2	2.41	0.41
1:CA:651:C:H2'	1:CA:652:U:H6	1.85	0.41
1:CA:685:G:C2	1:CA:686:U:C4	3.09	0.41
1:CA:892:A:C6	1:CA:893:C:C4	3.09	0.41
1:CA:963:G:H1	1:CA:972:C:N4	2.04	0.41
1:CA:980:C:H2'	14:CQ:21:TYR:CE1	2.56	0.41
1:CA:990:C:C2	1:CA:1216:G:C2	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1057:G:C4	1:CA:1204:A:C2	3.09	0.41
1:CA:1128:C:C4'	9:CL:16:ARG:NH1	2.69	0.41
1:CA:1145:C:H4'	1:CA:1146:A:N7	2.36	0.41
1:CA:1217:C:O2'	1:CA:1218:C:H5'	2.20	0.41
1:CA:1309:G:O2'	13:CP:77:ASN:ND2	2.54	0.41
1:CA:1398:A:N6	5:CH:21:ALA:HA	2.35	0.41
1:CA:1498:U:C2'	1:CA:1499:A:OP2	2.69	0.41
2:CE:74:LYS:HZ3	2:CE:166:ASP:HB2	1.84	0.41
3:CF:116:VAL:HG13	3:CF:140:ARG:HH12	1.86	0.41
5:CH:43:LEU:HB3	5:CH:65:ASN:ND2	2.36	0.41
6:CI:53:ALA:O	6:CI:54:LYS:HB2	2.21	0.41
7:CJ:116:ALA:O	7:CJ:120:ILE:HG12	2.21	0.41
8:CK:103:VAL:HB	8:CK:108:GLY:HA3	2.03	0.41
9:CL:13:ALA:HB2	9:CL:68:GLY:HA3	2.02	0.41
9:CL:82:ALA:HA	9:CL:85:LEU:HG	2.03	0.41
13:CP:15:VAL:HA	13:CP:18:ALA:HB3	2.03	0.41
13:CP:25:ILE:O	13:CP:29:ARG:HB2	2.21	0.41
13:CP:67:GLU:CG	13:CP:68:GLY:H	2.33	0.41
13:CP:79:LYS:HD3	13:CP:80:ARG:N	2.36	0.41
18:CU:25:THR:O	18:CU:25:THR:HG22	2.21	0.41
19:CV:14:HIS:CD2	19:CV:14:HIS:H	2.37	0.41
19:CV:53:ASN:O	19:CV:77:THR:HG22	2.21	0.41
20:CW:72:LEU:HG	20:CW:76:ALA:HB3	2.03	0.41
22:CC:40:C:N3	22:CC:41:C:C5	2.89	0.41
24:DA:6:A:C2	24:DA:7:G:C4	3.08	0.41
24:DA:25:U:H2'	24:DA:26:G:O4'	2.21	0.41
24:DA:27:G:C2	24:DA:512:G:N3	2.89	0.41
24:DA:270(E):G:C2	24:DA:270(V):G:C2	3.09	0.41
24:DA:478:A:N1	24:DA:500:G:H4'	2.36	0.41
24:DA:617:G:OP1	28:DF:40:GLN:NE2	2.54	0.41
24:DA:769:G:H2'	24:DA:770:G:H8	1.86	0.41
24:DA:839:U:H2'	24:DA:840:C:C6	2.56	0.41
24:DA:881:G:O6	24:DA:882:G:C6	2.74	0.41
24:DA:1003:G:C2	24:DA:1153:C:C2	3.09	0.41
24:DA:1015:G:C2	24:DA:1148:A:C2	3.09	0.41
24:DA:1050:A:H2'	24:DA:1051:G:C1'	2.51	0.41
24:DA:1093:G:H1'	24:DA:1099:G:N2	2.36	0.41
24:DA:1171:G:C8	24:DA:1173:G:C2	3.09	0.41
24:DA:1177:A:H1'	24:DA:1178:C:C5	2.56	0.41
24:DA:1331:A:O2'	24:DA:1332:G:H8	2.03	0.41
24:DA:1471:A:OP2	24:DA:1521:G:N1	2.38	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:1488:G:C6	24:DA:1489:U:C2	3.08	0.41
24:DA:1592:C:H2'	24:DA:1593:G:H8	1.86	0.41
24:DA:1641:A:H2'	24:DA:1642:G:O4'	2.21	0.41
24:DA:1653:G:O3'	36:D0:2:ARG:CZ	2.69	0.41
24:DA:1748:G:H2'	24:DA:1749:A:H8	1.86	0.41
24:DA:1795:C:H2'	24:DA:1796:U:H6	1.84	0.41
24:DA:1955:U:O2	24:DA:1955:U:H2'	2.20	0.41
24:DA:1997:G:C2'	24:DA:1998:G:H5'	2.51	0.41
24:DA:2025:C:H2'	24:DA:2026:C:C6	2.56	0.41
24:DA:2097:C:H2'	24:DA:2098:U:H6	1.86	0.41
24:DA:2141:G:C2'	24:DA:2142:C:H5'	2.51	0.41
24:DA:2168:G:C6	24:DA:2170:A:H5"	2.55	0.41
24:DA:2318:G:N2	37:DQ:3:ARG:HB2	2.36	0.41
24:DA:2401:U:C2'	24:DA:2402:C:H5"	2.50	0.41
24:DA:2409:G:H2'	24:DA:2410:G:O4'	2.21	0.41
24:DA:2452:C:O2'	24:DA:2453:A:H5'	2.20	0.41
24:DA:2556:C:H2'	24:DA:2557:G:O4'	2.20	0.41
24:DA:2646:C:H2'	24:DA:2647:U:O4'	2.20	0.41
24:DA:2654:A:OP1	24:DA:2654:A:H8	2.04	0.41
24:DA:2728:U:H5'	33:DN:70:LYS:HZ3	1.85	0.41
24:DA:2733:A:H2	27:DE:204:ALA:N	2.12	0.41
24:DA:2749:A:H1'	30:DH:63:SER:CB	2.46	0.41
24:DA:2788:C:O2'	24:DA:2809:A:N3	2.42	0.41
24:DA:2801:A:H5"	24:DA:2895:U:H5"	1.99	0.41
25:DB:99:A:C6	25:DB:100:G:C5	3.09	0.41
27:DE:116:VAL:O	27:DE:117:MET:CG	2.66	0.41
28:DF:135:LYS:HD2	28:DF:135:LYS:HA	1.85	0.41
28:DF:139:PHE:CE1	28:DF:143:ALA:HB2	2.55	0.41
29:DG:28:VAL:HG12	29:DG:28:VAL:O	2.21	0.41
30:DH:12:PRO:O	30:DH:15:VAL:HG22	2.20	0.41
30:DH:83:TYR:HB3	30:DH:84:SER:H	1.57	0.41
30:DH:131:VAL:HG12	30:DH:132:ARG:N	2.36	0.41
30:DH:137:ASP:CG	30:DH:138:LYS:N	2.74	0.41
31:DK:70:GLU:O	31:DK:73:GLU:N	2.53	0.41
33:DN:87:ILE:HD12	33:DN:92:GLU:O	2.20	0.41
34:DO:105:LEU:O	34:DO:106:LEU:CB	2.68	0.41
35:DP:35:VAL:HG12	35:DP:102:VAL:HG22	2.02	0.41
36:D0:60:LEU:O	36:D0:64:ARG:HG3	2.21	0.41
37:DQ:70:GLY:O	37:DQ:105:ALA:HA	2.21	0.41
40:D2:51:VAL:HG12	40:D2:52:VAL:N	2.36	0.41
42:DT:60:ARG:HG2	42:DT:60:ARG:NH1	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DT:80:ILE:O	42:DT:80:ILE:CG1	2.69	0.41
44:DV:54:HIS:CB	44:DV:101:PRO:HD3	2.50	0.41
44:DV:151:HIS:C	44:DV:171:ILE:HD13	2.41	0.41
48:DX:57:GLU:HG2	48:DX:58:VAL:N	2.35	0.41
49:D4:14:ILE:CD1	49:D4:24:THR:CG2	2.99	0.41
51:D6:18:ARG:NH2	51:D6:44:ARG:NH1	2.68	0.41
51:D6:34:LEU:CD1	51:D6:50:ARG:NH1	2.79	0.41
1:AA:57:G:C6	1:AA:58:C:C4	3.09	0.41
1:AA:273:A:N6	1:AA:274:A:N6	2.69	0.41
1:AA:375:U:H5"	16:AS:6:LEU:HD23	2.02	0.41
1:AA:575:G:H4'	1:AA:576:G:H5"	2.02	0.41
1:AA:729:A:H2'	1:AA:730:G:H8	1.85	0.41
1:AA:738:C:H5"	6:AI:69:GLU:HB2	2.03	0.41
1:AA:978:A:OP2	1:AA:1362(A):C:N4	2.54	0.41
1:AA:1036:G:N7	1:AA:1037:C:C4	2.89	0.41
1:AA:1072:G:C6	1:AA:1073:U:C4	3.09	0.41
1:AA:1291:G:P	7:AJ:37:ASN:HD22	2.44	0.41
1:AA:1317:C:N1	14:AQ:16:PHE:CE1	2.89	0.41
1:AA:1494:G:H21	24:BA:1912:A:H2	1.64	0.41
2:AE:239:VAL:O	2:AE:240:GLN:HG2	2.21	0.41
3:AF:32:LEU:HD22	3:AF:32:LEU:N	2.36	0.41
4:AG:58:LEU:HD23	4:AG:58:LEU:O	2.21	0.41
4:AG:171:GLY:HA3	4:AG:173:TRP:CZ3	2.56	0.41
9:AL:53:VAL:CG1	9:AL:92:TYR:CE1	3.04	0.41
10:AM:27:ALA:O	10:AM:31:GLY:N	2.54	0.41
11:AN:50:TYR:HB3	11:AN:54:ARG:HB2	2.01	0.41
12:AO:30:ALA:HB1	12:AO:31:PRO:CD	2.45	0.41
13:AP:11:ARG:C	13:AP:46:LYS:NZ	2.72	0.41
22:AC:47:U:O2'	22:AC:48:C:H6	2.04	0.41
24:BA:182:A:C6	24:BA:183:C:C4	3.09	0.41
24:BA:248:G:H5"	24:BA:386:G:N2	2.35	0.41
24:BA:278:A:C2'	24:BA:279:C:C6	3.02	0.41
24:BA:303:U:C2	24:BA:315:G:N2	2.89	0.41
24:BA:336:C:C2	24:BA:337:C:C5	3.09	0.41
24:BA:841:A:H2'	24:BA:842:G:C8	2.57	0.41
24:BA:950:G:C5	24:BA:951:C:C5	3.09	0.41
24:BA:1056:G:H8	24:BA:1056:G:OP2	2.04	0.41
24:BA:1464:C:H2'	24:BA:1465:G:C8	2.56	0.41
24:BA:1571:A:H2'	24:BA:1572:A:C8	2.56	0.41
24:BA:1725:G:H2'	24:BA:1726:G:H8	1.85	0.41
24:BA:2341:G:H2'	24:BA:2342:C:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:2807:G:C6	24:BA:2808:U:C2	3.09	0.41
24:BA:2839:G:C5	24:BA:2840:C:C4	3.09	0.41
26:BD:35:LYS:CA	26:BD:64:ILE:HG23	2.51	0.41
26:BD:83:GLU:HB2	26:BD:92:ILE:HG13	2.03	0.41
26:BD:154:LYS:C	26:BD:155:LEU:HD12	2.41	0.41
27:BE:81:ILE:HG21	27:BE:84:PHE:CD2	2.56	0.41
28:BF:46:ARG:HG2	28:BF:46:ARG:NH1	2.36	0.41
30:BH:4:ILE:O	30:BH:6:ARG:N	2.45	0.41
31:BK:4:ILE:HD11	31:BK:44:LEU:CD1	2.49	0.41
32:BM:137:LYS:CG	32:BM:138:LEU:N	2.80	0.41
36:B0:18:LEU:HD22	36:B0:22:ARG:NE	2.36	0.41
37:BQ:87:PHE:CD2	37:BQ:88:ASP:O	2.74	0.41
38:BR:14:TYR:CD1	38:BR:14:TYR:N	2.88	0.41
41:BS:69:LEU:HA	41:BS:108:GLY:O	2.21	0.41
49:B4:12:ALA:O	49:B4:24:THR:OG1	2.33	0.41
49:B4:14:ILE:HB	49:B4:21:VAL:HB	2.03	0.41
49:B4:14:ILE:CG1	49:B4:24:THR:HG22	2.51	0.41
50:B5:4:HIS:HB3	50:B5:5:PRO:HD3	2.00	0.41
1:CA:474:G:H4'	16:CS:81:ARG:HH12	1.85	0.41
1:CA:616:G:C4	1:CA:617:G:C8	3.09	0.41
1:CA:672:U:H2'	1:CA:673:G:C8	2.55	0.41
1:CA:689:C:C1'	1:CA:704:A:H2	2.34	0.41
1:CA:797:C:OP1	11:CN:124:LYS:HG3	2.21	0.41
1:CA:836:G:C6	1:CA:851:G:C5	3.09	0.41
1:CA:989:C:HO2'	1:CA:1016:A:H2	1.65	0.41
1:CA:1005:A:OP2	1:CA:1006:C:C5	2.75	0.41
1:CA:1100:C:O2'	1:CA:1102:A:OP1	2.37	0.41
1:CA:1130:A:H5"	1:CA:1131:G:OP2	2.21	0.41
1:CA:1310:G:N2	1:CA:1328:C:C2	2.89	0.41
2:CE:121:LEU:HA	2:CE:124:SER:OG	2.21	0.41
2:CE:162:ILE:O	2:CE:185:ILE:HD13	2.20	0.41
2:CE:205:ASP:C	2:CE:211:ILE:HD11	2.41	0.41
6:CI:69:GLU:O	6:CI:72:VAL:HG12	2.21	0.41
7:CJ:100:ALA:O	7:CJ:104:LEU:HD23	2.21	0.41
8:CK:6:ILE:O	8:CK:10:LEU:HG	2.21	0.41
8:CK:119:LEU:HG	8:CK:120:THR:H	1.85	0.41
10:CM:3:LYS:NZ	10:CM:75:ILE:O	2.54	0.41
10:CM:35:SER:OG	10:CM:73:ASP:HB2	2.21	0.41
10:CM:84:GLN:HG3	10:CM:85:LEU:HG	2.03	0.41
12:CO:55:VAL:CG2	12:CO:56:ALA:H	2.32	0.41
13:CP:49:THR:O	13:CP:52:GLU:HB2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CV:13:ASP:O	19:CV:15:LEU:N	2.54	0.41
24:DA:48:G:H4'	24:DA:52:A:O4'	2.21	0.41
24:DA:107:C:C2	24:DA:108:U:C5	3.08	0.41
24:DA:386:G:H4'	24:DA:387:U:OP2	2.21	0.41
24:DA:529:A:N3	24:DA:529:A:C2'	2.84	0.41
24:DA:572:A:H5"	24:DA:573:G:OP2	2.21	0.41
24:DA:892:G:N7	24:DA:893:C:C5	2.88	0.41
24:DA:899:A:O2'	24:DA:900:A:H5'	2.21	0.41
24:DA:1276:A:H61	24:DA:1294:U:H3	1.69	0.41
24:DA:1297:C:H2'	24:DA:1298:C:C6	2.56	0.41
24:DA:1531:C:C2'	24:DA:1532:C:H5'	2.50	0.41
24:DA:1651:G:H2'	24:DA:1652:A:O4'	2.21	0.41
24:DA:1655:A:O2'	27:DE:115:GLY:HA2	2.20	0.41
24:DA:1967:C:H2'	24:DA:1968:G:C5'	2.48	0.41
24:DA:1993:U:C2'	24:DA:1994:C:O5'	2.69	0.41
24:DA:2139:C:C4	24:DA:2153:G:N2	2.89	0.41
24:DA:2345:G:H1'	24:DA:2381:C:H2'	2.02	0.41
24:DA:2715:C:H2'	24:DA:2716:U:C6	2.54	0.41
24:DA:2751:G:O6	30:DH:2:SER:HB3	2.21	0.41
24:DA:2760:C:H1'	30:DH:139:GLN:NE2	2.35	0.41
25:DB:4:C:H2'	25:DB:5:C:C6	2.56	0.41
25:DB:114:G:H2'	25:DB:115:G:C8	2.56	0.41
27:DE:61:ARG:HD3	27:DE:61:ARG:HA	1.92	0.41
27:DE:173:VAL:N	27:DE:183:LEU:O	2.53	0.41
30:DH:86:GLU:N	30:DH:86:GLU:CD	2.75	0.41
32:DM:43:THR:HG22	32:DM:45:ASN:HD22	1.85	0.41
34:DO:85:LEU:HA	34:DO:88:LEU:HB3	2.03	0.41
35:DP:58:PHE:CE1	35:DP:117:ALA:HB2	2.56	0.41
41:DS:36:LEU:HD12	41:DS:51:LEU:HD12	2.03	0.41
43:DU:48:ALA:CB	43:DU:59:GLY:O	2.66	0.41
43:DU:54:LYS:O	43:DU:55:TYR:CB	2.68	0.41
46:DZ:51:VAL:HG23	46:DZ:58:ILE:HB	2.03	0.41
49:D4:5:ILE:HG13	49:D4:6:HIS:CD2	2.56	0.41
49:D4:25:TYR:O	49:D4:27:THR:N	2.54	0.41
50:D5:29:THR:O	50:D5:30:LEU:HD23	2.21	0.41
51:D6:37:ARG:CZ	51:D6:38:LYS:H	2.33	0.41
53:D8:14:VAL:HG22	53:D8:15:LYS:N	2.36	0.41
53:D8:48:PHE:CD2	53:D8:49:VAL:N	2.89	0.41
1:AA:67:C:HO2'	1:AA:171:A:H1'	1.85	0.40
1:AA:279:A:OP1	1:AA:280:C:O2'	2.27	0.40
1:AA:370:C:H2'	1:AA:371:G:H8	1.85	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:549:C:H2'	1:AA:550:G:O5'	2.21	0.40
1:AA:691:G:O2'	1:AA:797:C:H4'	2.22	0.40
1:AA:767:A:H2'	1:AA:768:A:O4'	2.20	0.40
1:AA:898:G:N2	1:AA:901:A:OP2	2.53	0.40
1:AA:932:C:OP1	7:AJ:4:ARG:HG3	2.20	0.40
1:AA:998:G:C6	1:AA:998(A):C:N4	2.89	0.40
1:AA:1028(B):C:N4	1:AA:1032(A):G:N1	2.69	0.40
1:AA:1077:G:N1	1:AA:1081:G:C6	2.90	0.40
1:AA:1155:G:C6	1:AA:1156:G:C4	3.09	0.40
2:AE:74:LYS:NZ	2:AE:166:ASP:HB2	2.33	0.40
2:AE:212:GLN:NE2	2:AE:235:SER:HA	2.36	0.40
2:AE:218:ALA:O	2:AE:222:ILE:HG13	2.21	0.40
4:AG:158:ILE:O	4:AG:162:LEU:HG	2.19	0.40
6:AI:23:LYS:NZ	6:AI:42:GLU:OE1	2.54	0.40
9:AL:95:LYS:CD	9:AL:96:LEU:HD12	2.44	0.40
10:AM:48:THR:CG2	10:AM:62:HIS:HB3	2.51	0.40
13:AP:34:LEU:N	13:AP:34:LEU:HD22	2.36	0.40
15:AR:87:ILE:O	15:AR:88:ARG:HB2	2.20	0.40
17:AT:85:VAL:O	17:AT:89:LEU:HB2	2.21	0.40
20:AW:39:LYS:O	20:AW:43:LEU:HG	2.21	0.40
20:AW:73:HIS:HB3	20:AW:74:LYS:HE2	2.04	0.40
20:AW:96:GLY:O	20:AW:97:ALA:HB3	2.21	0.40
24:BA:200:U:H2'	24:BA:201:C:H5'	2.03	0.40
24:BA:273(F):C:O2	24:BA:273(F):C:H2'	2.20	0.40
24:BA:729:G:O2'	24:BA:763:G:H4'	2.21	0.40
24:BA:930:U:H4'	24:BA:931:G:O4'	2.21	0.40
24:BA:1187:G:H5"	40:B2:81:TYR:CE1	2.56	0.40
24:BA:1314:C:C6	24:BA:1314:C:OP2	2.74	0.40
24:BA:1335:U:OP1	42:BT:65:ARG:HG2	2.21	0.40
24:BA:2001:A:H2'	24:BA:2002:G:C8	2.56	0.40
24:BA:2083:G:H2'	24:BA:2084:C:C6	2.56	0.40
24:BA:2136:C:N3	24:BA:2137:C:N4	2.68	0.40
24:BA:2228:G:C6	24:BA:2229:C:C4	3.09	0.40
24:BA:2492:U:H2'	24:BA:2493:U:C6	2.57	0.40
24:BA:2718:G:O2'	24:BA:2847:U:OP1	2.31	0.40
24:BA:2760:C:C2'	24:BA:2761:G:H5'	2.51	0.40
24:BA:2791:C:C2	24:BA:2792:G:C8	3.08	0.40
24:BA:2801:A:O5'	24:BA:2895:U:H4'	2.20	0.40
26:BD:158:ALA:O	26:BD:159:ALA:C	2.59	0.40
26:BD:183:ARG:CG	26:BD:183:ARG:NH1	2.84	0.40
27:BE:57:LYS:HB3	27:BE:57:LYS:HZ3	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BE:81:ILE:HD13	27:BE:81:ILE:HA	1.94	0.40
28:BF:64:ILE:HG22	28:BF:65:TRP:CD2	2.56	0.40
29:BG:44:GLY:O	29:BG:46:ALA:N	2.48	0.40
29:BG:53:LEU:CD2	29:BG:87:PRO:HB2	2.51	0.40
32:BM:90:MET:HA	32:BM:90:MET:HE2	2.03	0.40
34:BO:46:LYS:HE2	34:BO:46:LYS:HB3	1.82	0.40
35:BP:134:ARG:HH21	44:BV:122:ARG:HE	1.68	0.40
36:B0:12:ARG:HG2	36:B0:16:HIS:CD2	2.56	0.40
36:B0:41:ALA:O	36:B0:42:LYS:C	2.59	0.40
39:B1:49:HIS:HA	39:B1:52:ARG:CG	2.47	0.40
39:B1:75:ASN:OD1	39:B1:78:THR:HG23	2.22	0.40
41:BS:65:LEU:HB3	41:BS:67:ASP:OD1	2.20	0.40
42:BT:70:LEU:HD12	42:BT:70:LEU:C	2.42	0.40
44:BV:61:LEU:HD12	44:BV:61:LEU:C	2.41	0.40
44:BV:106:GLY:C	44:BV:107:THR:HG23	2.41	0.40
46:BZ:18:ILE:HG22	46:BZ:20:ARG:HG3	2.04	0.40
1:CA:261:U:H2'	1:CA:263:A:OP2	2.20	0.40
1:CA:428:G:C5	1:CA:430:A:C6	3.09	0.40
1:CA:430:A:OP2	4:CG:8:VAL:N	2.45	0.40
1:CA:565:U:OP2	1:CA:566:G:O2'	2.28	0.40
1:CA:750:G:N2	15:CR:23:GLY:O	2.52	0.40
1:CA:978:A:HO2'	1:CA:1322:C:N4	2.19	0.40
1:CA:1007:C:C2	1:CA:1023:G:N2	2.89	0.40
1:CA:1187:G:P	9:CL:113:LYS:HZ2	2.43	0.40
1:CA:1297:C:C1'	1:CA:1298:C:OP2	2.68	0.40
1:CA:1318:A:H5"	19:CV:10:PHE:CB	2.51	0.40
1:CA:1321:C:N4	1:CA:1322:C:N4	2.69	0.40
2:CE:83:MET:O	2:CE:84:GLU:C	2.59	0.40
2:CE:152:PHE:C	2:CE:154:LEU:N	2.74	0.40
3:CF:109:PRO:O	3:CF:115:LEU:HD13	2.22	0.40
3:CF:171:GLY:O	3:CF:172:ARG:HG2	2.21	0.40
4:CG:23:GLY:HA3	4:CG:112:VAL:CG2	2.50	0.40
4:CG:65:ARG:HG3	4:CG:75:PHE:HD2	1.77	0.40
5:CH:15:ARG:O	5:CH:15:ARG:CG	2.69	0.40
10:CM:24:VAL:O	10:CM:28:ARG:HD2	2.21	0.40
13:CP:77:ASN:HA	13:CP:80:ARG:HE	1.85	0.40
15:CR:31:LEU:HD12	15:CR:31:LEU:HA	1.95	0.40
20:CW:86:ARG:HB2	20:CW:86:ARG:CZ	2.49	0.40
24:DA:99:U:C4'	24:DA:102:G:H1'	2.52	0.40
24:DA:138:G:O2'	24:DA:139:G:H5'	2.20	0.40
24:DA:499:U:C1'	43:DU:47:LYS:HZ1	2.33	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:519:U:H2'	24:DA:520:G:H8	1.84	0.40
24:DA:631:A:H2'	24:DA:632:A:O4'	2.21	0.40
24:DA:777:A:N7	24:DA:793:A:H2	2.19	0.40
24:DA:952:G:C6	24:DA:953:A:N7	2.89	0.40
24:DA:986:C:H2'	24:DA:987:G:C5'	2.50	0.40
24:DA:1054:A:O2'	24:DA:1055:G:O4'	2.30	0.40
24:DA:1088:A:O3'	24:DA:1089:G:C8	2.64	0.40
24:DA:1265:A:O4'	24:DA:1267:U:C6	2.74	0.40
24:DA:2525:G:N2	24:DA:2538:C:O2	2.54	0.40
24:DA:2584:U:C5	24:DA:2585:U:C6	3.08	0.40
24:DA:2898:U:O2'	24:DA:2899:G:H5'	2.20	0.40
26:DD:10:THR:OG1	26:DD:13:ARG:HB2	2.20	0.40
27:DE:25:VAL:HG12	27:DE:26:ILE:H	1.83	0.40
27:DE:61:ARG:HB2	27:DE:62:PRO:CD	2.52	0.40
27:DE:80:GLU:O	27:DE:81:ILE:CB	2.64	0.40
27:DE:161:GLY:O	27:DE:162:ALA:CB	2.69	0.40
29:DG:3:LEU:HD12	29:DG:3:LEU:N	2.36	0.40
30:DH:58:GLU:C	30:DH:60:ARG:N	2.75	0.40
34:DO:9:ASN:CB	34:DO:10:PRO:CD	2.98	0.40
36:D0:2:ARG:HD3	36:D0:2:ARG:HA	1.82	0.40
36:D0:18:LEU:HD22	36:D0:22:ARG:CD	2.51	0.40
36:D0:41:ALA:O	36:D0:44:LEU:N	2.54	0.40
38:DR:100:TYR:HD1	38:DR:101:PHE:N	2.19	0.40
43:DU:30:VAL:O	43:DU:31:LEU:HB2	2.20	0.40
44:DV:58:VAL:O	44:DV:59:LEU:HB2	2.20	0.40
44:DV:65:GLN:O	44:DV:66:SER:HB2	2.21	0.40
44:DV:72:ARG:HD2	44:DV:72:ARG:HA	1.79	0.40
46:DZ:21:ARG:HB2	46:DZ:35:THR:HG23	2.04	0.40
47:DW:47:ASN:C	47:DW:49:LYS:N	2.69	0.40
1:AA:35:G:H2'	1:AA:36:C:C6	2.56	0.40
1:AA:181:G:O6	1:AA:194:C:C2	2.74	0.40
1:AA:243:A:C2	1:AA:245:C:C2	3.10	0.40
1:AA:300:A:O2'	1:AA:564:C:N3	2.47	0.40
1:AA:424:G:H2'	1:AA:425:G:H8	1.86	0.40
1:AA:625:G:O2'	1:AA:626:U:H5'	2.20	0.40
1:AA:789:U:O2	1:AA:789:U:H3'	2.21	0.40
1:AA:892:A:O2'	1:AA:1415:G:H4'	2.21	0.40
1:AA:1133:G:N3	1:AA:1134:G:C8	2.89	0.40
1:AA:1137:C:O2'	1:AA:1138:G:H5"	2.21	0.40
1:AA:1381:U:H1'	7:AJ:79:ARG:CG	2.51	0.40
1:AA:1401:G:C2	1:AA:1402:C:H1'	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AE:22:LYS:C	2:AE:24:TRP:H	2.24	0.40
5:AH:74:GLY:O	5:AH:116:THR:N	2.54	0.40
13:AP:78:ILE:HG22	13:AP:82:MET:CE	2.52	0.40
13:AP:81:LEU:HD23	13:AP:88:ARG:HD2	2.03	0.40
13:AP:82:MET:HE2	13:AP:92:HIS:CB	2.46	0.40
24:BA:192:C:C5	24:BA:193:U:C6	3.09	0.40
24:BA:253:C:OP2	53:B8:5:LYS:NZ	2.47	0.40
24:BA:254:G:O2'	24:BA:384:U:H5'	2.22	0.40
24:BA:470:A:C2'	24:BA:471:A:O5'	2.70	0.40
24:BA:552:G:H2'	24:BA:553:U:O4'	2.20	0.40
24:BA:605:C:H1'	24:BA:657:U:H1'	2.03	0.40
24:BA:910:A:N1	24:BA:2277:G:H1'	2.36	0.40
24:BA:919:G:H2'	24:BA:920:G:O4'	2.22	0.40
24:BA:1389:G:N2	24:BA:1399:C:C2	2.90	0.40
24:BA:1392:A:N6	24:BA:1393:A:N1	2.69	0.40
24:BA:1534:G:HO2'	24:BA:1535:U:C4'	2.34	0.40
24:BA:2119:A:N1	24:BA:2170:A:C5	2.89	0.40
24:BA:2128:C:O2	24:BA:2173:A:C2	2.74	0.40
24:BA:2294:C:N3	24:BA:2295:C:C5	2.89	0.40
24:BA:2371:G:C5'	51:B6:45:LYS:CE	2.99	0.40
29:BG:113:ARG:NH2	49:B4:34:GLU:OE1	2.53	0.40
29:BG:173:LEU:O	29:BG:178:PHE:HD1	2.03	0.40
30:BH:13:LYS:HD3	30:BH:13:LYS:HA	1.91	0.40
31:BK:47:LEU:O	31:BK:51:ILE:HG13	2.22	0.40
35:BP:84:GLY:O	35:BP:85:LYS:HB3	2.20	0.40
36:B0:50:HIS:O	36:B0:54:LEU:HB2	2.21	0.40
39:B1:20:LEU:HD23	39:B1:20:LEU:HA	1.92	0.40
39:B1:74:LEU:HD11	39:B1:79:PHE:CA	2.51	0.40
41:BS:41:LYS:C	41:BS:43:GLY:H	2.25	0.40
44:BV:140:ASP:O	44:BV:144:LEU:CD2	2.67	0.40
45:B3:70:GLN:O	45:B3:77:ARG:HA	2.20	0.40
47:BW:40:SER:C	47:BW:42:GLY:H	2.24	0.40
51:B6:15:GLU:HB2	51:B6:20:ASN:CB	2.51	0.40
1:CA:92:G:H2'	1:CA:93:U:O4'	2.22	0.40
1:CA:115:G:C1'	1:CA:116:A:OP2	2.69	0.40
1:CA:179:A:C4	1:CA:180:U:C5	3.09	0.40
1:CA:197:A:C1'	1:CA:198:G:OP2	2.64	0.40
1:CA:241:C:O2'	1:CA:242:C:H5'	2.22	0.40
1:CA:554:C:H2'	1:CA:555:C:H6	1.87	0.40
1:CA:605:U:H2'	1:CA:606:G:O4'	2.21	0.40
1:CA:800:G:H2'	1:CA:801:U:C6	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1124:G:H8	1:CA:1124:G:OP2	2.05	0.40
1:CA:1277:C:C2'	1:CA:1279:A:C8	3.04	0.40
1:CA:1320:C:N4	1:CA:1321:C:C4	2.88	0.40
1:CA:1460:A:C2'	1:CA:1461:G:H5'	2.51	0.40
1:CA:1492:A:C3'	1:CA:1493:A:H5"	2.50	0.40
1:CA:1492:A:N7	24:DA:1913:A:N6	2.70	0.40
2:CE:109:SER:O	2:CE:112:VAL:HB	2.21	0.40
2:CE:193:ASP:HA	2:CE:194:PRO:HD2	1.79	0.40
2:CE:196:LEU:HD12	2:CE:197:VAL:CG2	2.42	0.40
3:CF:11:ARG:HB3	3:CF:15:THR:HB	2.03	0.40
3:CF:111:LEU:HD21	3:CF:146:ALA:H	1.86	0.40
4:CG:22:LYS:HB2	4:CG:26:CYS:HB2	2.02	0.40
4:CG:60:GLU:HG2	4:CG:202:LEU:CB	2.47	0.40
6:CI:25:ILE:HA	6:CI:28:ARG:HB2	2.03	0.40
6:CI:62:TRP:CH2	6:CI:64:GLN:HB2	2.56	0.40
7:CJ:59:LEU:C	7:CJ:59:LEU:CD2	2.89	0.40
8:CK:69:ARG:HB2	8:CK:69:ARG:HH11	1.86	0.40
17:CT:95:TYR:HD1	17:CT:95:TYR:HA	1.68	0.40
18:CU:34:TYR:HA	18:CU:40:LEU:HD11	2.03	0.40
24:DA:30:G:C5	24:DA:31:C:C4	3.09	0.40
24:DA:111:A:C2	24:DA:112:U:C2	3.10	0.40
24:DA:177:G:H2'	24:DA:177:G:N3	2.36	0.40
24:DA:250:G:C6	24:DA:251:A:C6	3.09	0.40
24:DA:298:G:OP1	43:DU:84:ARG:O	2.39	0.40
24:DA:414:C:H1'	24:DA:1864:U:H1'	2.03	0.40
24:DA:430:G:H5"	24:DA:431:U:OP2	2.20	0.40
24:DA:469:G:O6	52:D7:37:LYS:HE2	2.22	0.40
24:DA:471:A:H8	24:DA:471:A:O5'	2.03	0.40
24:DA:832:G:OP1	34:DO:38:GLN:HB3	2.21	0.40
24:DA:907:U:O2'	35:DP:101:ARG:NH2	2.33	0.40
24:DA:991:C:OP2	24:DA:1186:G:H5'	2.21	0.40
24:DA:1040:C:O2'	24:DA:1041:C:H5'	2.20	0.40
24:DA:1085:A:O4'	24:DA:1086:A:OP1	2.38	0.40
24:DA:1407:C:C2	24:DA:1596:A:C2	3.08	0.40
24:DA:1525:G:H2'	24:DA:1526:G:H8	1.87	0.40
24:DA:1666:G:H2'	24:DA:1667:G:H5'	2.03	0.40
24:DA:1901:A:O2'	24:DA:1902:C:H5'	2.21	0.40
24:DA:2010:G:C5	24:DA:2011:U:C5	3.10	0.40
24:DA:2226:C:OP2	24:DA:2226:C:H6	2.04	0.40
24:DA:2238:G:N3	24:DA:2238:G:H2'	2.36	0.40
24:DA:2376:A:C2	37:DQ:112:PHE:CG	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:2736:G:H2'	24:DA:2737:G:H8	1.86	0.40
24:DA:2755:C:O2'	24:DA:2756:U:H2'	2.22	0.40
24:DA:2788:C:H3'	24:DA:2789:C:O4'	2.20	0.40
24:DA:2812:G:H2'	24:DA:2813:A:O4'	2.21	0.40
25:DB:15:A:H3'	25:DB:16:G:H5'	2.02	0.40
25:DB:89(A):A:C8	25:DB:90:C:O4'	2.74	0.40
26:DD:173:VAL:HG23	26:DD:174:ILE:N	2.36	0.40
27:DE:37:ARG:HA	27:DE:42:ASP:OD2	2.21	0.40
28:DF:110:LEU:HD13	28:DF:205:ARG:HG2	2.04	0.40
29:DG:22:ARG:NH2	29:DG:171:ALA:HB2	2.36	0.40
29:DG:170:ARG:O	29:DG:174:GLU:HB2	2.21	0.40
32:DM:76:SER:HB3	32:DM:81:GLY:HA3	2.03	0.40
32:DM:124:ALA:O	32:DM:125:GLY:O	2.39	0.40
34:DO:100:LEU:CD2	34:DO:100:LEU:H	2.34	0.40
35:DP:87:LYS:O	35:DP:88:GLY:C	2.59	0.40
36:D0:101:ALA:HB1	50:D5:41:PRO:CG	2.51	0.40
36:D0:117:VAL:O	36:D0:118:GLU:HB2	2.21	0.40
37:DQ:10:ARG:O	37:DQ:14:VAL:HG12	2.21	0.40
37:DQ:88:ASP:OD1	37:DQ:90:GLY:N	2.37	0.40
37:DQ:98:VAL:HG23	37:DQ:99:LYS:N	2.36	0.40
40:D2:84:LYS:O	40:D2:85:LYS:O	2.39	0.40
42:DT:23:GLU:CG	42:DT:24:GLY:N	2.84	0.40
44:DV:159:PRO:O	44:DV:161:VAL:HG22	2.22	0.40
1:AA:55:A:N1	31:DK:89:TYR:CG	2.90	0.40
1:AA:217:C:H2'	1:AA:218:C:O4'	2.21	0.40
1:AA:296:U:H2'	1:AA:297:G:H8	1.85	0.40
1:AA:310:G:P	16:AS:27:LYS:NZ	2.94	0.40
1:AA:392:G:C5	1:AA:393:A:N7	2.90	0.40
1:AA:616:G:O2'	1:AA:617:G:H5'	2.22	0.40
1:AA:631:G:HO2'	1:AA:632:A:H8	1.69	0.40
1:AA:881:G:H2'	1:AA:882:C:O4'	2.21	0.40
1:AA:988:G:C1'	1:AA:1014:A:H61	2.35	0.40
1:AA:1015:A:C6	1:AA:1016:A:C6	3.09	0.40
1:AA:1071:C:C2	1:AA:1105:A:C2	3.09	0.40
1:AA:1315:U:H2'	1:AA:1316:G:O4'	2.22	0.40
1:AA:1344:C:O2'	1:AA:1345:U:H5'	2.22	0.40
1:AA:1344:C:C2'	1:AA:1345:U:H5'	2.52	0.40
1:AA:1508:G:O2'	1:AA:1509:C:H5'	2.22	0.40
2:AE:20:GLU:HG3	2:AE:191:ASP:OD1	2.20	0.40
3:AF:9:GLY:O	14:AQ:58:LYS:HD2	2.21	0.40
4:AG:12:CYS:HB3	4:AG:33:MET:CE	2.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AH:137:GLU:HA	5:AH:140:ARG:NH1	2.36	0.40
6:AI:82:ARG:HB2	6:AI:85:VAL:HG23	2.03	0.40
7:AJ:73:MET:HG2	7:AJ:90:GLU:HA	2.02	0.40
8:AK:133:LEU:C	8:AK:133:LEU:CD2	2.89	0.40
9:AL:16:ARG:CD	9:AL:64:THR:HG22	2.49	0.40
9:AL:105:ASP:OD1	9:AL:105:ASP:O	2.38	0.40
10:AM:36:GLY:O	10:AM:38:ILE:N	2.54	0.40
14:AQ:44:LEU:HD12	14:AQ:45:ARG:N	2.35	0.40
15:AR:29:VAL:HG11	15:AR:67:LEU:HD11	2.04	0.40
16:AS:23:ASP:OD1	16:AS:24:ALA:N	2.54	0.40
22:AC:19:G:C4	22:AC:57:A:C2	3.09	0.40
24:BA:197:A:N6	24:BA:2430:A:H2'	2.36	0.40
24:BA:242:G:H5"	53:B8:62:LEU:CD1	2.35	0.40
24:BA:359:A:H2'	24:BA:360:G:O4'	2.20	0.40
24:BA:618(A):C:N4	24:BA:619:G:C6	2.90	0.40
24:BA:860:U:C2	24:BA:2268:A:O4'	2.74	0.40
24:BA:880:G:N2	24:BA:898:C:H1'	2.34	0.40
24:BA:1018:C:H2'	24:BA:1019:U:H5'	2.03	0.40
24:BA:1034:G:C5	24:BA:1035:U:C5	3.10	0.40
24:BA:1050:A:N6	24:BA:2751:G:O6	2.55	0.40
24:BA:1106:G:H2'	24:BA:1107:G:H8	1.85	0.40
24:BA:1144:G:C5	24:BA:1145:C:C5	3.10	0.40
24:BA:1216:G:OP1	39:B1:8:VAL:HG23	2.22	0.40
24:BA:1224:G:C5	24:BA:1226:G:OP2	2.74	0.40
24:BA:1557:C:P	24:BA:1558:A:O2'	2.79	0.40
24:BA:1635:G:C6	24:BA:1636:C:C4	3.09	0.40
24:BA:2285:C:P	51:B6:28:ARG:CD	3.08	0.40
24:BA:2393:A:O3'	34:BO:62:LEU:HA	2.21	0.40
24:BA:2400:G:C8	24:BA:2401:U:C5	3.09	0.40
24:BA:2850:A:H2'	24:BA:2851:A:H8	1.84	0.40
25:BB:6:C:HO2'	37:BQ:29:PHE:HE2	1.68	0.40
25:BB:37:C:C5	25:BB:38:C:C5	3.09	0.40
25:BB:59:A:C5	25:BB:60:C:C5	3.09	0.40
26:BD:10:THR:HB	26:BD:11:PRO:HD2	2.03	0.40
26:BD:27:THR:CG2	26:BD:30:GLU:OE1	2.69	0.40
26:BD:244:ARG:HB2	26:BD:245:PRO:CD	2.52	0.40
27:BE:35:GLN:HB2	27:BE:48:GLN:HB2	2.03	0.40
28:BF:132:VAL:O	28:BF:138:GLU:OE1	2.39	0.40
29:BG:3:LEU:HD12	29:BG:3:LEU:N	2.02	0.40
29:BG:178:PHE:HA	29:BG:179:PRO:HD2	1.93	0.40
30:BH:90:LYS:HB3	30:BH:91:GLY:H	1.68	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BM:113:GLY:C	32:BM:114:ARG:O	2.57	0.40
32:BM:128:HIS:HB2	32:BM:129:PRO:CD	2.52	0.40
34:BO:38:GLN:O	34:BO:41:ARG:HB2	2.21	0.40
34:BO:106:LEU:HD13	34:BO:107:LYS:O	2.21	0.40
35:BP:21:THR:HG21	35:BP:100:GLY:HA3	2.02	0.40
38:BR:39:ARG:HG2	38:BR:40:THR:H	1.86	0.40
40:B2:35:LEU:O	40:B2:36:PRO:C	2.60	0.40
47:BW:9:GLN:O	47:BW:13:ALA:HB2	2.22	0.40
49:B4:58:ARG:CZ	49:B4:62:ARG:HD2	2.51	0.40
1:CA:166:G:H2'	1:CA:167:G:H8	1.87	0.40
1:CA:197:A:N6	1:CA:221:C:H4'	2.36	0.40
1:CA:277:C:OP1	17:CT:41:LYS:HE3	2.22	0.40
1:CA:430:A:OP1	4:CG:9:CYS:CB	2.69	0.40
1:CA:453:A:C5	1:CA:454:C:C4	3.09	0.40
1:CA:607:A:H2'	1:CA:608:A:O4'	2.20	0.40
1:CA:881:G:C5	1:CA:882:C:C5	3.09	0.40
1:CA:976:G:N7	1:CA:1358:U:H2'	2.36	0.40
1:CA:976:G:P	1:CA:1358:U:HO2'	2.44	0.40
1:CA:1229:A:H2'	1:CA:1230:C:C6	2.56	0.40
1:CA:1324:A:H4'	1:CA:1362:C:C4'	2.49	0.40
1:CA:1329:A:C4'	13:CP:24:GLY:HA2	2.48	0.40
1:CA:1464:G:O2'	1:CA:1465:C:H5'	2.22	0.40
3:CF:36:ASP:OD1	3:CF:57:ILE:HD13	2.21	0.40
3:CF:71:ALA:HB2	3:CF:109:PRO:HB3	1.98	0.40
3:CF:82:GLU:O	3:CF:86:VAL:HG13	2.21	0.40
3:CF:170:GLN:HG2	3:CF:171:GLY:N	2.37	0.40
6:CI:2:ARG:HH22	15:CR:2:PRO:CD	2.34	0.40
6:CI:52:ILE:HD13	6:CI:87:ARG:HD2	2.04	0.40
9:CL:78:LYS:CG	9:CL:101:PHE:CE1	3.04	0.40
9:CL:95:LYS:NZ	9:CL:95:LYS:CB	2.83	0.40
13:CP:3:ARG:CG	13:CP:9:ILE:CG2	2.85	0.40
14:CQ:26:ARG:CZ	14:CQ:43:CYS:SG	3.07	0.40
19:CV:62:ILE:CD1	19:CV:62:ILE:N	2.83	0.40
19:CV:78:ARG:O	19:CV:79:THR:CB	2.69	0.40
20:CW:18:GLN:O	20:CW:22:ARG:HG3	2.22	0.40
24:DA:270(T):G:C6	24:DA:270(U):C:C4	3.09	0.40
24:DA:298:G:O2'	24:DA:322:A:N1	2.43	0.40
24:DA:500:G:N1	24:DA:503:A:OP2	2.51	0.40
24:DA:531:C:OP1	24:DA:561:G:N2	2.54	0.40
24:DA:582:G:C6	24:DA:583:G:C6	3.08	0.40
24:DA:703:U:H2'	24:DA:704:G:H5'	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DA:869:G:N2	24:DA:870:A:H1'	2.37	0.40
24:DA:950:G:C5	24:DA:951:C:C4	3.09	0.40
24:DA:994:C:OP2	39:D1:54:LYS:NZ	2.43	0.40
24:DA:1011:G:H2'	24:DA:1013:C:O4'	2.21	0.40
24:DA:1258:C:H2'	24:DA:1259:G:C8	2.56	0.40
24:DA:1425:G:H2'	24:DA:1426:G:O4'	2.21	0.40
24:DA:1542:G:O5'	24:DA:1543:A:H5"	2.20	0.40
24:DA:1602:U:OP1	42:DT:60:ARG:NH2	2.54	0.40
24:DA:1709:U:H2'	24:DA:1710:C:C6	2.56	0.40
24:DA:1996:C:H5	33:DN:32:TYR:OH	2.04	0.40
24:DA:2110:G:O2'	24:DA:2120:G:OP1	2.23	0.40
24:DA:2119:A:C2	24:DA:2171:A:H4'	2.56	0.40
24:DA:2159:G:OP2	24:DA:2159:G:H8	2.05	0.40
24:DA:2287:A:HO2'	24:DA:2288:A:P	2.44	0.40
24:DA:2355:C:C4'	45:D3:36:ILE:CD1	2.91	0.40
24:DA:2376:A:N1	37:DQ:87:PHE:CD2	2.90	0.40
24:DA:2536:G:C6	24:DA:2537:U:C4	3.08	0.40
28:DF:63:LYS:HE3	28:DF:65:TRP:O	2.22	0.40
31:DK:38:LEU:H	31:DK:38:LEU:CD1	2.26	0.40
32:DM:55:VAL:HB	32:DM:125:GLY:HA3	2.03	0.40
38:DR:120:ARG:O	38:DR:124:ASP:OD1	2.40	0.40
39:D1:6:THR:HG21	39:D1:10:ARG:HB2	2.02	0.40
40:D2:5:VAL:HA	40:D2:37:VAL:HB	2.02	0.40
40:D2:29:PRO:HB2	40:D2:30:GLY:H	1.68	0.40
40:D2:98:GLU:O	40:D2:99:ILE:CB	2.68	0.40
44:DV:6:LYS:O	44:DV:7:ALA:HB3	2.21	0.40
44:DV:19:ARG:NH1	44:DV:84:GLU:CA	2.82	0.40
44:DV:30:ASN:ND2	44:DV:32:HIS:H	2.19	0.40
47:DW:33:MET:HE3	47:DW:37:PHE:HE1	1.87	0.40
1:AA:107:G:H2'	1:AA:108:G:C5'	2.51	0.40
1:AA:445:G:H2'	1:AA:446:G:H8	1.87	0.40
1:AA:975:A:H5"	1:AA:976:G:H5"	2.03	0.40
1:AA:1032(B):G:N1	1:AA:1033:G:C2	2.89	0.40
1:AA:1072:G:C6	1:AA:1073:U:N3	2.89	0.40
1:AA:1164:G:C6	1:AA:1165:C:C4	3.10	0.40
1:AA:1351:U:H5'	7:AJ:33:ASP:OD1	2.22	0.40
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.56	0.40
1:AA:1495:U:O2'	24:BA:1919:A:N1	2.41	0.40
2:AE:54:THR:O	2:AE:58:ILE:HG13	2.21	0.40
2:AE:141:GLU:O	2:AE:145:LEU:CD2	2.70	0.40
3:AF:48:TYR:O	3:AF:48:TYR:HD1	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AF:155:GLY:O	3:AF:157:ILE:N	2.54	0.40
4:AG:49:ARG:O	4:AG:51:PRO:HD3	2.21	0.40
4:AG:206:PHE:CD2	4:AG:207:TYR:CD1	3.09	0.40
5:AH:7:GLU:O	5:AH:112:LEU:HD13	2.21	0.40
5:AH:67:VAL:CG2	5:AH:68:GLU:N	2.81	0.40
7:AJ:32:ARG:O	7:AJ:33:ASP:HB2	2.22	0.40
11:AN:48:ILE:HG13	11:AN:63:LEU:HB2	2.04	0.40
13:AP:87:TYR:CD2	13:AP:88:ARG:N	2.90	0.40
16:AS:20:VAL:HG21	16:AS:32:TYR:CD2	2.53	0.40
19:AV:5:LEU:O	19:AV:5:LEU:CD1	2.69	0.40
24:BA:49:A:N6	24:BA:177:G:C4	2.89	0.40
24:BA:270(J):G:H1	24:BA:270(P):C:H42	1.68	0.40
24:BA:454:A:H4'	24:BA:455:C:OP2	2.20	0.40
24:BA:476:G:H4'	24:BA:502:A:N1	2.37	0.40
24:BA:588:U:H1'	28:BF:90:PHE:CB	2.51	0.40
24:BA:654(N):G:C6	24:BA:654(O):G:N1	2.89	0.40
24:BA:685:A:C2	24:BA:689:A:C6	3.09	0.40
24:BA:1022:G:C1'	24:BA:1023:U:OP2	2.66	0.40
24:BA:1045:A:C8	24:BA:1047:G:N1	2.89	0.40
24:BA:1093:G:O2'	24:BA:1099:G:N2	2.55	0.40
24:BA:1691:C:C2'	24:BA:1692:U:H5'	2.52	0.40
24:BA:1878:G:C6	24:BA:1879:C:C4	3.09	0.40
24:BA:2086:U:H2'	24:BA:2087:G:C8	2.57	0.40
24:BA:2244:U:H2'	24:BA:2245:U:C5'	2.50	0.40
24:BA:2793:G:H8	24:BA:2793:G:OP2	2.04	0.40
24:BA:2845:G:O2'	24:BA:2846:G:H5'	2.21	0.40
26:BD:77:ALA:HB2	26:BD:97:TYR:CD2	2.57	0.40
30:BH:54:ARG:NH1	30:BH:65:HIS:ND1	2.70	0.40
31:BK:116:LEU:CD1	31:BK:117:GLU:N	2.79	0.40
32:BM:36:GLY:H	32:BM:49:GLY:CA	2.34	0.40
34:BO:17:LYS:HB2	34:BO:17:LYS:HE2	1.91	0.40
35:BP:4:PRO:HD3	35:BP:70:PRO:O	2.22	0.40
38:BR:51:ARG:HD3	38:BR:100:TYR:OH	2.21	0.40
38:BR:85:LYS:HD2	38:BR:85:LYS:C	2.42	0.40
39:B1:34:LYS:HD3	39:B1:34:LYS:HA	1.77	0.40
41:BS:29:LEU:HD21	41:BS:33:ARG:NH2	2.36	0.40
44:BV:57:ILE:N	44:BV:57:ILE:HD12	2.37	0.40
44:BV:102:LEU:HB2	44:BV:104:PHE:CE1	2.56	0.40
46:BZ:80:LEU:HB2	46:BZ:82:LEU:CD2	2.51	0.40
51:B6:11:LEU:CD2	51:B6:51:GLU:CD	2.90	0.40
1:CA:62:U:O2'	1:CA:379:C:O2	2.27	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:374:A:C6	1:CA:375:U:C4	3.09	0.40
1:CA:451:A:N6	1:CA:481:G:C8	2.89	0.40
1:CA:644:G:H2'	1:CA:645:C:O4'	2.21	0.40
1:CA:671:G:H2'	1:CA:672:U:C6	2.56	0.40
1:CA:706:A:C1'	11:CN:29:ILE:HD11	2.52	0.40
1:CA:946:A:P	13:CP:114:ARG:NH1	2.94	0.40
1:CA:1015:A:C6	1:CA:1016:A:C5	3.10	0.40
1:CA:1069:C:C5	1:CA:1094:G:O6	2.74	0.40
1:CA:1084:G:H5'	1:CA:1102:A:OP2	2.22	0.40
1:CA:1154:G:N3	1:CA:1155:G:C8	2.89	0.40
2:CE:57:PHE:CZ	2:CE:183:PRO:HB2	2.55	0.40
4:CG:108:LEU:HB3	4:CG:110:PHE:HD1	1.85	0.40
4:CG:178:VAL:C	4:CG:180:GLY:N	2.75	0.40
5:CH:151:LEU:HD21	8:CK:79:VAL:HA	2.02	0.40
9:CL:4:TYR:CD1	9:CL:88:TYR:CE1	3.10	0.40
9:CL:28:VAL:HG22	9:CL:63:ILE:H	1.86	0.40
10:CM:81:THR:CG2	10:CM:84:GLN:HE21	2.34	0.40
15:CR:84:LYS:HG2	15:CR:84:LYS:O	2.21	0.40
19:CV:40:ILE:HG12	19:CV:71:LEU:HD23	2.04	0.40
20:CW:87:LYS:HD2	20:CW:87:LYS:HA	1.94	0.40
24:DA:14:A:C6	24:DA:526:A:C2	3.10	0.40
24:DA:455:C:N3	24:DA:472:A:H2'	2.36	0.40
24:DA:571:A:C6	24:DA:575:A:C8	3.10	0.40
24:DA:746:A:C5	24:DA:2611:U:H5"	2.56	0.40
24:DA:875:G:C5'	44:DV:173:ALA:HB1	2.51	0.40
24:DA:993:G:N3	40:D2:89:GLN:OE1	2.54	0.40
24:DA:1003:G:N3	24:DA:1010:A:H2	2.20	0.40
24:DA:1063:G:C2	24:DA:1076:C:C2	3.10	0.40
24:DA:1173:G:N2	24:DA:1176:G:H22	2.20	0.40
24:DA:1638:C:H1'	24:DA:2698:U:O2'	2.22	0.40
24:DA:1671:U:H2'	24:DA:1673:U:OP2	2.22	0.40
24:DA:1678:G:N2	24:DA:1989:G:N1	2.69	0.40
24:DA:2101:G:C6	24:DA:2102:U:N3	2.90	0.40
24:DA:2542:A:HO2'	24:DA:2543:G:P	2.37	0.40
26:DD:58:HIS:ND1	26:DD:59:LYS:N	2.70	0.40
26:DD:80:ALA:O	26:DD:81:ALA:HB2	2.22	0.40
26:DD:107:ALA:HA	26:DD:108:PRO:HD3	1.72	0.40
27:DE:21:VAL:HA	27:DE:22:PRO:HD2	1.96	0.40
27:DE:31:CYS:SG	27:DE:51:PHE:HB2	2.61	0.40
27:DE:116:VAL:C	27:DE:118:LYS:H	2.25	0.40
29:DG:135:LEU:N	29:DG:135:LEU:CD1	2.85	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DH:85:LYS:HD2	30:DH:145:ALA:HB1	2.04	0.40
34:DO:19:VAL:CG2	34:DO:20:GLY:N	2.75	0.40
37:DQ:110:LEU:CG	37:DQ:111:GLU:H	2.35	0.40
38:DR:61:PHE:N	38:DR:61:PHE:CD1	2.88	0.40
38:DR:121:ILE:O	38:DR:125:ARG:HG2	2.21	0.40
40:D2:2:PHE:HA	40:D2:15:GLU:HG2	2.04	0.40
42:DT:30:VAL:HG21	42:DT:79:ALA:CB	2.51	0.40
42:DT:46:ALA:O	47:DW:30:ARG:NH2	2.55	0.40
43:DU:2:ARG:O	43:DU:3:VAL:CG2	2.69	0.40
44:DV:41:LEU:HD12	44:DV:41:LEU:HA	1.88	0.40
46:DZ:67:ILE:N	46:DZ:68:PRO:HD2	2.36	0.40
51:D6:36:LEU:HD11	51:D6:50:ARG:CZ	2.52	0.40
53:D8:9:GLY:O	53:D8:13:ARG:HD2	2.21	0.40
1:AA:64:G:N7	1:AA:97:U:H5	2.19	0.40
1:AA:93:U:C2'	1:AA:95:G:O4'	2.64	0.40
1:AA:426:G:H2'	1:AA:427:U:C6	2.57	0.40
1:AA:464:G:C5	1:AA:466:C:OP2	2.75	0.40
1:AA:599:C:H2'	1:AA:600:C:C6	2.56	0.40
1:AA:604:G:C6	1:AA:605:U:C4	3.09	0.40
1:AA:617:G:C6	1:AA:618:C:C5	3.10	0.40
1:AA:646:U:H2'	1:AA:647:C:C6	2.56	0.40
1:AA:663:A:C2'	1:AA:664:G:H5'	2.51	0.40
1:AA:669:U:N3	1:AA:670:G:N7	2.69	0.40
1:AA:673:G:H5"	6:AI:87:ARG:HH12	1.82	0.40
1:AA:901:A:C5	1:AA:902:G:H1'	2.56	0.40
1:AA:955:U:O2'	19:AV:83:HIS:CD2	2.74	0.40
1:AA:1218:C:P	14:AQ:9:LYS:NZ	2.94	0.40
1:AA:1275:A:H2'	1:AA:1276:G:O4'	2.22	0.40
1:AA:1314:C:H2'	1:AA:1315:U:C6	2.56	0.40
1:AA:1350:A:OP1	9:AL:121:ARG:HG3	2.21	0.40
1:AA:1403:C:N4	23:A1:18:G:OP1	2.52	0.40
1:AA:1412:C:C2	1:AA:1489:G:N2	2.89	0.40
3:AF:55:VAL:O	3:AF:55:VAL:HG12	2.20	0.40
3:AF:136:GLN:HG3	3:AF:137:ALA:N	2.37	0.40
4:AG:45:GLN:H	4:AG:45:GLN:HG2	1.70	0.40
5:AH:48:ALA:HB2	5:AH:57:LYS:HD3	2.03	0.40
5:AH:102:ALA:CB	5:AH:120:THR:OG1	2.65	0.40
10:AM:79:ARG:HA	10:AM:79:ARG:HD3	1.78	0.40
15:AR:31:LEU:HA	15:AR:31:LEU:HD12	1.91	0.40
20:AW:14:LYS:HG3	20:AW:18:GLN:CG	2.47	0.40
20:AW:58:LYS:HD2	20:AW:58:LYS:HA	1.78	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BA:51:G:N2	24:BA:120:U:C6	2.85	0.40
24:BA:270(T):G:OP1	46:BZ:97:LEU:HD22	2.21	0.40
24:BA:287:C:H2'	24:BA:288:C:C6	2.56	0.40
24:BA:572:A:H3'	24:BA:573:G:O4'	2.22	0.40
24:BA:830:G:C4	24:BA:2448:A:C5	3.09	0.40
24:BA:924:C:H2'	24:BA:925:C:H6	1.87	0.40
24:BA:1021:A:C2	24:BA:1023:U:C2	3.09	0.40
24:BA:1248:G:C8	39:B1:3:ARG:HB2	2.56	0.40
24:BA:1403:C:H5"	24:BA:1471:A:C1'	2.36	0.40
24:BA:1485:G:O2'	24:BA:1486:A:H5'	2.22	0.40
24:BA:1663:C:O2'	24:BA:1664:A:H8	2.04	0.40
24:BA:1790:C:H6	24:BA:1790:C:O5'	2.04	0.40
24:BA:1790:C:C5'	24:BA:1791:A:OP1	2.62	0.40
24:BA:1882:C:N4	24:BA:1883:G:C6	2.89	0.40
24:BA:2000:G:P	36:B0:2:ARG:NH1	2.95	0.40
24:BA:2284:C:OP1	51:B6:28:ARG:NH2	2.55	0.40
24:BA:2285:C:C5	51:B6:27:LYS:HE2	2.56	0.40
24:BA:2419:U:H2'	24:BA:2420:C:C6	2.56	0.40
24:BA:2661:G:C5	24:BA:2662:A:C5	3.09	0.40
24:BA:2749:A:O2'	30:BH:59:ARG:HD3	2.21	0.40
24:BA:2776:A:O4'	24:BA:2778:A:C8	2.74	0.40
25:BB:20:C:C2'	25:BB:21:G:H5'	2.52	0.40
25:BB:66:A:C6	25:BB:108:C:C6	3.10	0.40
25:BB:71:C:C2'	25:BB:72:G:H5'	2.51	0.40
25:BB:71:C:N3	25:BB:72:G:C8	2.89	0.40
25:BB:71:C:O2'	25:BB:72:G:H5'	2.21	0.40
26:BD:79:VAL:CG2	26:BD:111:LEU:HD11	2.50	0.40
27:BE:97:LYS:O	27:BE:100:GLU:HG3	2.21	0.40
28:BF:68:LYS:HG2	28:BF:69:HIS:ND1	2.36	0.40
28:BF:198:ALA:C	28:BF:201:VAL:HG12	2.42	0.40
29:BG:7:LEU:HB2	29:BG:104:GLU:OE1	2.22	0.40
29:BG:97:ASP:N	29:BG:100:TRP:HD1	2.16	0.40
31:BK:75:LEU:HG	31:BK:76:THR:H	1.87	0.40
33:BN:115:VAL:HG23	33:BN:116:SER:N	2.36	0.40
35:BP:29:PHE:HB3	35:BP:65:PHE:CE1	2.56	0.40
36:B0:85:PRO:C	36:B0:87:TYR:H	2.24	0.40
37:BQ:83:LYS:HG3	37:BQ:109:GLY:HA3	1.97	0.40
43:BU:17:SER:OG	43:BU:71:LYS:CD	2.69	0.40
44:BV:100:VAL:HG23	44:BV:126:VAL:HG22	2.03	0.40
50:B5:56:LYS:O	50:B5:57:VAL:C	2.59	0.40
1:CA:89:U:H1'	1:CA:90:C:O5'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:104:G:N2	1:CA:105:G:C4	2.89	0.40
1:CA:382:A:H2'	1:CA:383:A:H8	1.86	0.40
1:CA:451:A:C5	1:CA:481:G:C5	3.10	0.40
1:CA:624:C:O2'	16:CS:10:GLY:HA2	2.20	0.40
1:CA:792:A:H4'	1:CA:793:U:C5'	2.50	0.40
1:CA:1173:G:H5'	7:CJ:5:ARG:NH2	2.37	0.40
1:CA:1309:G:N1	1:CA:1329:A:C4	2.88	0.40
1:CA:1349:A:P	9:CL:118:LYS:NZ	2.94	0.40
1:CA:1378:C:C5	1:CA:1379:G:N9	2.89	0.40
2:CE:19:HIS:HE2	2:CE:20:GLU:CG	2.32	0.40
2:CE:33:TYR:HB3	2:CE:41:ILE:CG2	2.42	0.40
2:CE:102:LEU:CD2	2:CE:162:ILE:HD11	2.52	0.40
2:CE:169:LYS:HB3	2:CE:169:LYS:HE3	1.84	0.40
3:CF:158:GLY:O	3:CF:160:ALA:N	2.54	0.40
10:CM:10:GLY:H	10:CM:16:LEU:HD11	1.87	0.40
11:CN:58:PRO:HA	11:CN:90:GLY:CA	2.50	0.40
24:DA:118:A:H1'	24:DA:178:G:O4'	2.22	0.40
24:DA:270(I):G:H2'	24:DA:270(J):G:H8	1.86	0.40
24:DA:301:G:C4	24:DA:302:C:C5	3.10	0.40
24:DA:365:C:O2'	24:DA:366:C:H5'	2.22	0.40
24:DA:924:C:N4	24:DA:925:C:N4	2.69	0.40
24:DA:1005:C:O2	24:DA:1143:A:C6	2.75	0.40
24:DA:1062:G:H1	24:DA:1076:C:H42	1.69	0.40
24:DA:1070:A:H3'	24:DA:1096:A:O2'	2.21	0.40
24:DA:1111:A:HO2'	24:DA:1112:G:H4'	1.74	0.40
24:DA:1451:C:N4	24:DA:1459:G:H1	2.18	0.40
24:DA:1729:A:N3	24:DA:1730:U:C5	2.90	0.40
24:DA:2213:U:H4'	46:DZ:52:ARG:CZ	2.50	0.40
24:DA:2249:U:N3	24:DA:2253:G:OP2	2.46	0.40
25:DB:23:G:O6	25:DB:59:A:N6	2.54	0.40
29:DG:42:GLY:HA2	29:DG:88:ILE:O	2.21	0.40
29:DG:77:ILE:HD12	29:DG:77:ILE:N	2.36	0.40
29:DG:173:LEU:C	29:DG:178:PHE:HB2	2.42	0.40
32:DM:90:MET:HA	32:DM:90:MET:HE3	2.02	0.40
34:DO:62:LEU:CD1	34:DO:64:LYS:H	2.35	0.40
35:DP:55:VAL:O	35:DP:55:VAL:HG12	2.20	0.40
36:D0:28:LEU:HD13	36:D0:116:LEU:HD21	2.03	0.40
37:DQ:59:LYS:HD2	37:DQ:60:GLY:H	1.86	0.40
37:DQ:66:ALA:HA	37:DQ:69:VAL:HG13	2.03	0.40
37:DQ:71:ARG:O	37:DQ:74:ALA:HB3	2.21	0.40
38:DR:49:VAL:HG13	38:DR:49:VAL:O	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DR:129:ARG:C	38:DR:131:ALA:H	2.25	0.40
39:D1:76:TYR:OH	39:D1:93:LYS:HE3	2.20	0.40
40:D2:37:VAL:HB	40:D2:38:LEU:H	1.75	0.40
42:DT:64:LYS:HZ2	42:DT:73:ARG:NH2	2.19	0.40
44:DV:148:ASP:OD2	44:DV:173:ALA:C	2.60	0.40
44:DV:174:VAL:O	44:DV:174:VAL:HG12	2.20	0.40
46:DZ:83:GLU:OE2	46:DZ:83:GLU:C	2.60	0.40
51:D6:15:GLU:OE1	51:D6:18:ARG:NE	2.52	0.40

All (4) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BK:89:TYR:O	1:CA:357:G:O2'[4_555]	2.01	0.19
1:CA:86:U:O2'	24:DA:276:A:OP2[3_545]	2.09	0.11
1:AA:1175:G:O2'	10:CM:80:LYS:NZ[4_555]	2.18	0.02
1:CA:84:U:O2'	24:DA:273:G:OP1[3_545]	2.19	0.01

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
2	AE	235/256 (92%)	162 (69%)	47 (20%)	26 (11%)	0 2
2	CE	235/256 (92%)	166 (71%)	44 (19%)	25 (11%)	0 3
3	AF	203/239 (85%)	150 (74%)	36 (18%)	17 (8%)	1 5
3	CF	204/239 (85%)	138 (68%)	51 (25%)	15 (7%)	1 7
4	AG	206/208 (99%)	157 (76%)	35 (17%)	14 (7%)	1 8
4	CG	206/208 (99%)	140 (68%)	44 (21%)	22 (11%)	0 3
5	AH	149/162 (92%)	127 (85%)	17 (11%)	5 (3%)	3 22

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
5	CH	149/162 (92%)	112 (75%)	31 (21%)	6 (4%)	3 18
6	AI	99/101 (98%)	81 (82%)	14 (14%)	4 (4%)	3 18
6	CI	99/101 (98%)	82 (83%)	11 (11%)	6 (6%)	1 10
7	AJ	153/156 (98%)	126 (82%)	17 (11%)	10 (6%)	1 9
7	CJ	153/156 (98%)	112 (73%)	33 (22%)	8 (5%)	2 13
8	AK	136/138 (99%)	103 (76%)	27 (20%)	6 (4%)	2 16
8	CK	136/138 (99%)	114 (84%)	15 (11%)	7 (5%)	2 13
9	AL	125/128 (98%)	93 (74%)	26 (21%)	6 (5%)	2 14
9	CL	125/128 (98%)	93 (74%)	21 (17%)	11 (9%)	1 5
10	AM	97/105 (92%)	75 (77%)	17 (18%)	5 (5%)	2 13
10	CM	97/105 (92%)	69 (71%)	23 (24%)	5 (5%)	2 13
11	AN	117/129 (91%)	88 (75%)	20 (17%)	9 (8%)	1 6
11	CN	117/129 (91%)	94 (80%)	17 (14%)	6 (5%)	2 13
12	AO	123/128 (96%)	96 (78%)	17 (14%)	10 (8%)	1 6
12	CO	123/128 (96%)	91 (74%)	23 (19%)	9 (7%)	1 7
13	AP	114/126 (90%)	87 (76%)	15 (13%)	12 (10%)	0 3
13	CP	115/126 (91%)	82 (71%)	19 (16%)	14 (12%)	0 1
14	AQ	58/61 (95%)	43 (74%)	11 (19%)	4 (7%)	1 8
14	CQ	58/61 (95%)	40 (69%)	12 (21%)	6 (10%)	0 3
15	AR	86/89 (97%)	71 (83%)	9 (10%)	6 (7%)	1 7
15	CR	86/89 (97%)	72 (84%)	13 (15%)	1 (1%)	13 42
16	AS	82/88 (93%)	61 (74%)	18 (22%)	3 (4%)	3 20
16	CS	82/88 (93%)	59 (72%)	17 (21%)	6 (7%)	1 7
17	AT	98/105 (93%)	78 (80%)	16 (16%)	4 (4%)	3 17
17	CT	98/105 (93%)	76 (78%)	15 (15%)	7 (7%)	1 7
18	AU	70/88 (80%)	58 (83%)	7 (10%)	5 (7%)	1 7
18	CU	70/88 (80%)	53 (76%)	13 (19%)	4 (6%)	1 11
19	AV	81/93 (87%)	53 (65%)	19 (24%)	9 (11%)	0 2
19	CV	76/93 (82%)	48 (63%)	19 (25%)	9 (12%)	0 2
20	AW	97/106 (92%)	67 (69%)	17 (18%)	13 (13%)	0 1
20	CW	97/106 (92%)	64 (66%)	22 (23%)	11 (11%)	0 2

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
21	AX	23/27 (85%)	17 (74%)	4 (17%)	2 (9%)	1 5
21	CX	23/27 (85%)	14 (61%)	5 (22%)	4 (17%)	0 1
26	BD	270/276 (98%)	227 (84%)	31 (12%)	12 (4%)	2 16
26	DD	270/276 (98%)	223 (83%)	35 (13%)	12 (4%)	2 16
27	BE	203/206 (98%)	151 (74%)	35 (17%)	17 (8%)	1 5
27	DE	203/206 (98%)	133 (66%)	40 (20%)	30 (15%)	0 1
28	BF	200/210 (95%)	171 (86%)	21 (10%)	8 (4%)	3 18
28	DF	206/210 (98%)	155 (75%)	33 (16%)	18 (9%)	1 5
29	BG	179/182 (98%)	132 (74%)	32 (18%)	15 (8%)	1 5
29	DG	179/182 (98%)	128 (72%)	35 (20%)	16 (9%)	1 4
30	BH	168/180 (93%)	107 (64%)	30 (18%)	31 (18%)	0 1
30	DH	168/180 (93%)	103 (61%)	30 (18%)	35 (21%)	0 0
31	BK	144/148 (97%)	102 (71%)	28 (19%)	14 (10%)	0 3
31	DK	144/148 (97%)	98 (68%)	31 (22%)	15 (10%)	0 3
32	BM	136/140 (97%)	101 (74%)	24 (18%)	11 (8%)	1 6
32	DM	136/140 (97%)	103 (76%)	22 (16%)	11 (8%)	1 6
33	BN	120/122 (98%)	106 (88%)	12 (10%)	2 (2%)	9 35
33	DN	120/122 (98%)	107 (89%)	10 (8%)	3 (2%)	5 27
34	BO	148/150 (99%)	99 (67%)	27 (18%)	22 (15%)	0 1
34	DO	148/150 (99%)	85 (57%)	31 (21%)	32 (22%)	0 0
35	BP	139/141 (99%)	104 (75%)	21 (15%)	14 (10%)	0 3
35	DP	139/141 (99%)	100 (72%)	24 (17%)	15 (11%)	0 2
36	B0	116/118 (98%)	91 (78%)	14 (12%)	11 (10%)	0 4
36	D0	115/118 (98%)	85 (74%)	21 (18%)	9 (8%)	1 6
37	BQ	109/112 (97%)	82 (75%)	15 (14%)	12 (11%)	0 2
37	DQ	109/112 (97%)	74 (68%)	22 (20%)	13 (12%)	0 2
38	BR	135/146 (92%)	101 (75%)	25 (18%)	9 (7%)	1 8
38	DR	135/146 (92%)	105 (78%)	19 (14%)	11 (8%)	1 6
39	B1	115/118 (98%)	92 (80%)	17 (15%)	6 (5%)	2 13
39	D1	115/118 (98%)	89 (77%)	20 (17%)	6 (5%)	2 13
40	B2	99/101 (98%)	74 (75%)	17 (17%)	8 (8%)	1 6

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
40	D2	99/101 (98%)	68 (69%)	16 (16%)	15 (15%)	0 1
41	BS	111/113 (98%)	91 (82%)	14 (13%)	6 (5%)	2 12
41	DS	111/113 (98%)	86 (78%)	17 (15%)	8 (7%)	1 7
42	BT	90/96 (94%)	75 (83%)	13 (14%)	2 (2%)	6 30
42	DT	90/96 (94%)	67 (74%)	13 (14%)	10 (11%)	0 2
43	BU	100/110 (91%)	64 (64%)	18 (18%)	18 (18%)	0 1
43	DU	100/110 (91%)	57 (57%)	18 (18%)	25 (25%)	0 0
44	BV	173/206 (84%)	105 (61%)	47 (27%)	21 (12%)	0 2
44	DV	177/206 (86%)	110 (62%)	37 (21%)	30 (17%)	0 1
45	B3	74/85 (87%)	57 (77%)	15 (20%)	2 (3%)	5 26
45	D3	75/85 (88%)	63 (84%)	9 (12%)	3 (4%)	3 18
46	BZ	95/98 (97%)	72 (76%)	17 (18%)	6 (6%)	1 9
46	DZ	95/98 (97%)	69 (73%)	12 (13%)	14 (15%)	0 1
47	BW	64/72 (89%)	54 (84%)	5 (8%)	5 (8%)	1 6
47	DW	67/72 (93%)	51 (76%)	9 (13%)	7 (10%)	0 3
48	BX	57/60 (95%)	51 (90%)	5 (9%)	1 (2%)	8 35
48	DX	57/60 (95%)	46 (81%)	9 (16%)	2 (4%)	3 21
49	B4	64/71 (90%)	33 (52%)	21 (33%)	10 (16%)	0 1
49	D4	61/71 (86%)	22 (36%)	23 (38%)	16 (26%)	0 0
50	B5	57/60 (95%)	42 (74%)	10 (18%)	5 (9%)	1 5
50	D5	57/60 (95%)	41 (72%)	6 (10%)	10 (18%)	0 1
51	B6	43/54 (80%)	24 (56%)	12 (28%)	7 (16%)	0 1
51	D6	43/54 (80%)	24 (56%)	13 (30%)	6 (14%)	0 1
52	B7	47/49 (96%)	42 (89%)	4 (8%)	1 (2%)	7 31
52	D7	47/49 (96%)	42 (89%)	5 (11%)	0	100 100
53	B8	59/65 (91%)	44 (75%)	10 (17%)	5 (8%)	1 5
53	D8	59/65 (91%)	38 (64%)	8 (14%)	13 (22%)	0 0
All	All	11341/12044 (94%)	8378 (74%)	1945 (17%)	1018 (9%)	1 4

All (1018) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AE	135	GLN

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Mol	Chain	Res	Type
2	AE	136	VAL
2	AE	194	PRO
2	AE	195	ASP
2	AE	214	ILE
2	AE	236	TYR
2	AE	237	ALA
3	AF	12	LEU
3	AF	98	ASN
4	AG	28	SER
4	AG	73	ARG
4	AG	74	GLN
4	AG	85	LYS
4	AG	87	GLY
4	AG	153	ARG
4	AG	155	LEU
6	AI	40	VAL
8	AK	50	ARG
9	AL	42	ARG
9	AL	56	LEU
9	AL	94	ALA
10	AM	75	ILE
10	AM	92	THR
11	AN	55	LYS
11	AN	104	GLN
11	AN	105	VAL
11	AN	127	LYS
12	AO	51	ALA
12	AO	91	LYS
13	AP	5	ALA
13	AP	13	LYS
13	AP	31	LYS
14	AQ	14	PRO
17	AT	49	GLU
17	AT	78	GLU
18	AU	18	ARG
18	AU	22	VAL
18	AU	41	LYS
19	AV	14	HIS
19	AV	31	ILE
19	AV	41	VAL
20	AW	15	ARG
20	AW	19	SER

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Mol	Chain	Res	Type
20	AW	48	LYS
20	AW	71	THR
20	AW	96	GLY
20	AW	102	GLY
26	BD	28	GLU
26	BD	33	LEU
27	BE	54	GLN
27	BE	60	ASN
27	BE	69	LYS
27	BE	74	PRO
27	BE	79	ARG
27	BE	117	MET
27	BE	132	HIS
28	BF	130	ALA
28	BF	134	GLY
29	BG	3	LEU
29	BG	46	ALA
30	BH	3	ARG
30	BH	12	PRO
30	BH	83	TYR
30	BH	86	GLU
30	BH	110	SER
30	BH	153	LYS
30	BH	154	PRO
30	BH	155	SER
30	BH	156	ALA
30	BH	169	VAL
31	BK	87	LYS
31	BK	133	HIS
31	BK	145	VAL
32	BM	9	VAL
32	BM	22	THR
32	BM	36	GLY
32	BM	95	PRO
32	BM	96	GLU
32	BM	135	PRO
33	BN	97	ARG
34	BO	14	LYS
34	BO	19	VAL
34	BO	21	ARG
34	BO	42	SER
34	BO	65	ARG

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Mol	Chain	Res	Type
34	BO	141	ALA
35	BP	89	ASN
35	BP	134	ARG
36	B0	74	LYS
36	B0	75	LEU
37	BQ	3	ARG
37	BQ	4	LEU
37	BQ	13	ARG
37	BQ	88	ASP
37	BQ	89	ARG
37	BQ	106	ARG
37	BQ	109	GLY
37	BQ	111	GLU
38	BR	2	ASN
38	BR	8	LYS
38	BR	38	ASN
38	BR	124	ASP
39	B1	91	ASP
39	B1	99	ALA
40	B2	37	VAL
40	B2	45	THR
40	B2	47	VAL
40	B2	48	GLY
40	B2	49	THR
42	BT	91	ALA
43	BU	42	VAL
43	BU	50	ARG
43	BU	53	PRO
43	BU	77	PRO
43	BU	78	ALA
44	BV	6	LYS
44	BV	53	ILE
44	BV	63	ASP
44	BV	107	THR
44	BV	118	GLN
44	BV	150	LEU
44	BV	151	HIS
44	BV	165	VAL
44	BV	167	PRO
44	BV	168	GLU
46	BZ	91	LYS
46	BZ	93	GLU

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Mol	Chain	Res	Type
46	BZ	95	LEU
47	BW	43	GLN
47	BW	44	LEU
47	BW	48	HIS
49	B4	5	ILE
49	B4	7	PRO
49	B4	40	HIS
49	B4	43	TYR
50	B5	4	HIS
50	B5	57	VAL
51	B6	46	HIS
53	B8	52	LYS
2	CE	13	ALA
2	CE	39	ILE
2	CE	83	MET
2	CE	154	LEU
2	CE	233	SER
3	CF	48	TYR
3	CF	66	VAL
4	CG	12	CYS
4	CG	14	ARG
4	CG	33	MET
4	CG	34	GLU
4	CG	101	LEU
4	CG	200	GLU
5	CH	85	GLY
5	CH	151	LEU
6	CI	40	VAL
7	CJ	54	THR
7	CJ	149	ARG
7	CJ	150	ALA
9	CL	54	ASP
9	CL	70	LYS
9	CL	118	LYS
10	CM	57	LYS
11	CN	89	ALA
11	CN	90	GLY
11	CN	100	ALA
11	CN	101	SER
12	CO	47	LYS
13	CP	5	ALA
13	CP	42	ALA

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Mol	Chain	Res	Type
14	CQ	30	ALA
19	CV	9	VAL
19	CV	67	VAL
20	CW	9	ASN
20	CW	88	VAL
20	CW	99	LEU
21	CX	3	LYS
21	CX	9	ARG
26	DD	27	THR
26	DD	32	SER
27	DE	25	VAL
27	DE	49	LEU
27	DE	51	PHE
27	DE	61	ARG
27	DE	66	HIS
27	DE	68	ALA
27	DE	71	GLY
27	DE	77	ILE
27	DE	131	ALA
27	DE	200	GLU
28	DF	3	GLU
28	DF	5	ALA
28	DF	6	VAL
28	DF	23	ASP
28	DF	25	PRO
28	DF	66	PRO
28	DF	123	LEU
28	DF	132	VAL
28	DF	133	ASN
29	DG	6	ALA
29	DG	84	LYS
30	DH	16	SER
30	DH	22	GLY
30	DH	83	TYR
30	DH	89	ILE
30	DH	92	ILE
30	DH	127	GLU
30	DH	167	GLU
31	DK	102	SER
31	DK	117	GLU
31	DK	144	VAL
32	DM	98	VAL

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Mol	Chain	Res	Type
32	DM	133	GLN
34	DO	14	LYS
34	DO	19	VAL
34	DO	21	ARG
34	DO	49	ARG
34	DO	50	ARG
34	DO	62	LEU
34	DO	63	PRO
34	DO	103	ALA
34	DO	108	LYS
35	DP	7	MET
35	DP	13	GLN
35	DP	21	THR
35	DP	25	ASP
35	DP	27	VAL
35	DP	89	ASN
36	D0	82	GLU
37	DQ	4	LEU
37	DQ	58	LEU
37	DQ	59	LYS
37	DQ	74	ALA
37	DQ	94	TYR
37	DQ	106	ARG
37	DQ	110	LEU
38	DR	3	ARG
38	DR	94	ALA
38	DR	105	LEU
38	DR	107	ASP
39	D1	91	ASP
40	D2	29	PRO
40	D2	45	THR
40	D2	46	VAL
40	D2	50	PRO
40	D2	80	GLN
41	DS	11	ARG
41	DS	66	GLU
41	DS	67	ASP
42	DT	41	ASN
42	DT	45	THR
42	DT	68	ARG
43	DU	17	SER
43	DU	19	LYS

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Mol	Chain	Res	Type
43	DU	44	ILE
43	DU	57	GLN
43	DU	61	ILE
43	DU	77	PRO
43	DU	78	ALA
43	DU	89	PHE
44	DV	105	VAL
44	DV	106	GLY
44	DV	108	PRO
44	DV	119	GLU
44	DV	120	ILE
44	DV	128	VAL
44	DV	140	ASP
44	DV	141	VAL
44	DV	161	VAL
44	DV	171	ILE
45	D3	84	LEU
46	DZ	3	LYS
46	DZ	27	GLU
46	DZ	81	LYS
46	DZ	90	ILE
46	DZ	92	LYS
47	DW	16	LEU
47	DW	48	HIS
49	D4	5	ILE
49	D4	22	ILE
49	D4	31	ILE
49	D4	32	TYR
49	D4	40	HIS
50	D5	4	HIS
51	D6	21	TYR
51	D6	45	LYS
53	D8	30	ARG
53	D8	31	HIS
53	D8	32	LEU
53	D8	34	TRP
53	D8	49	VAL
53	D8	50	LEU
53	D8	51	ALA
2	AE	15	VAL
2	AE	18	GLY
2	AE	38	GLY

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Mol	Chain	Res	Type
2	AE	171	ALA
2	AE	190	THR
2	AE	218	ALA
2	AE	235	SER
3	AF	4	LYS
3	AF	78	GLY
3	AF	79	ARG
3	AF	99	VAL
3	AF	110	ASN
3	AF	116	VAL
4	AG	26	CYS
4	AG	108	LEU
5	AH	69	VAL
5	AH	73	ASN
6	AI	13	ASN
7	AJ	7	ALA
7	AJ	8	GLU
7	AJ	9	VAL
7	AJ	35	LYS
7	AJ	81	GLY
8	AK	68	ARG
8	AK	101	PRO
8	AK	102	ARG
11	AN	82	VAL
11	AN	91	ARG
11	AN	99	GLN
11	AN	103	LEU
12	AO	47	LYS
12	AO	96	VAL
12	AO	127	GLU
12	AO	128	ALA
13	AP	21	TYR
13	AP	67	GLU
15	AR	23	GLY
16	AS	81	ARG
19	AV	5	LEU
19	AV	7	LYS
20	AW	61	SER
21	AX	5	ASP
21	AX	7	ARG
26	BD	26	LYS
26	BD	122	ASP

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Mol	Chain	Res	Type
26	BD	271	ILE
27	BE	78	LEU
29	BG	5	VAL
29	BG	14	GLU
29	BG	48	GLU
29	BG	79	ASN
30	BH	8	PRO
30	BH	55	PRO
30	BH	81	GLU
30	BH	84	SER
30	BH	92	ILE
30	BH	138	LYS
30	BH	150	ALA
30	BH	151	ILE
30	BH	152	ARG
30	BH	167	GLU
31	BK	12	LEU
31	BK	15	VAL
32	BM	23	LEU
35	BP	21	THR
35	BP	25	ASP
35	BP	27	VAL
35	BP	59	ARG
35	BP	63	LYS
35	BP	88	GLY
36	B0	11	ASN
36	B0	45	ARG
36	B0	86	ARG
36	B0	107	ASP
37	BQ	61	ASN
38	BR	117	ASP
38	BR	123	GLN
40	B2	50	PRO
41	BS	67	ASP
43	BU	34	LYS
43	BU	51	VAL
43	BU	98	VAL
43	BU	99	CYS
44	BV	51	ALA
44	BV	52	SER
44	BV	112	ARG
44	BV	153	SER

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Mol	Chain	Res	Type
45	B3	84	LEU
46	BZ	79	GLY
46	BZ	92	LYS
47	BW	47	ASN
48	BX	38	GLU
49	B4	26	SER
50	B5	55	ARG
50	B5	56	LYS
51	B6	21	TYR
52	B7	48	LYS
53	B8	11	LYS
53	B8	31	HIS
2	CE	7	VAL
2	CE	22	LYS
2	CE	26	PRO
2	CE	48	MET
2	CE	153	ARG
2	CE	183	PRO
2	CE	191	ASP
2	CE	239	VAL
3	CF	15	THR
3	CF	61	ALA
3	CF	96	GLY
3	CF	134	ILE
3	CF	146	ALA
4	CG	89	THR
4	CG	102	ASP
4	CG	109	GLY
4	CG	178	VAL
5	CH	98	THR
6	CI	38	GLU
6	CI	81	ILE
7	CJ	9	VAL
7	CJ	55	GLY
8	CK	50	ARG
8	CK	68	ARG
9	CL	80	GLY
9	CL	100	GLY
10	CM	20	ALA
10	CM	31	GLY
10	CM	93	GLY
11	CN	105	VAL

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Mol	Chain	Res	Type
12	CO	26	ALA
13	CP	4	ILE
13	CP	12	ASN
13	CP	20	THR
13	CP	41	PRO
13	CP	116	THR
14	CQ	9	LYS
14	CQ	15	LYS
14	CQ	28	GLY
16	CS	52	ASP
16	CS	78	GLY
16	CS	81	ARG
18	CU	22	VAL
19	CV	30	LEU
19	CV	70	LYS
20	CW	71	THR
20	CW	90	GLN
20	CW	101	GLY
21	CX	7	ARG
26	DD	31	LYS
26	DD	34	VAL
26	DD	45	ASN
26	DD	271	ILE
27	DE	9	VAL
27	DE	62	PRO
27	DE	78	LEU
27	DE	186	GLY
28	DF	17	ARG
28	DF	62	ARG
28	DF	89	VAL
28	DF	124	LEU
29	DG	80	PHE
29	DG	124	SER
30	DH	14	GLY
30	DH	55	PRO
30	DH	88	LEU
30	DH	96	ALA
30	DH	99	VAL
30	DH	138	LYS
30	DH	164	TYR
31	DK	51	ILE
31	DK	71	ILE

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Mol	Chain	Res	Type
31	DK	100	ALA
32	DM	51	PHE
32	DM	125	GLY
33	DN	5	GLN
33	DN	14	THR
33	DN	49	ARG
34	DO	18	ARG
34	DO	24	GLY
34	DO	36	LYS
34	DO	64	LYS
34	DO	107	LYS
34	DO	109	GLY
34	DO	110	TYR
34	DO	141	ALA
35	DP	28	ALA
35	DP	88	GLY
36	D0	53	HIS
37	DQ	35	ILE
37	DQ	51	ALA
39	D1	98	LEU
39	D1	99	ALA
39	D1	101	ARG
39	D1	117	GLN
40	D2	37	VAL
40	D2	85	LYS
40	D2	87	HIS
41	DS	63	ASP
42	DT	44	GLU
42	DT	62	LYS
43	DU	42	VAL
43	DU	53	PRO
43	DU	58	GLY
43	DU	80	GLY
43	DU	85	VAL
43	DU	91	GLU
43	DU	98	VAL
44	DV	60	GLU
44	DV	90	VAL
44	DV	93	ASP
44	DV	142	SER
44	DV	150	LEU
44	DV	174	VAL

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Mol	Chain	Res	Type
46	DZ	28	GLY
46	DZ	55	GLY
46	DZ	82	LEU
46	DZ	97	LEU
49	D4	33	VAL
49	D4	37	SER
49	D4	50	VAL
50	D5	36	CYS
50	D5	38	ALA
50	D5	55	ARG
51	D6	42	TRP
51	D6	46	HIS
53	D8	33	ASN
53	D8	48	PHE
2	AE	14	GLY
2	AE	126	GLU
2	AE	191	ASP
2	AE	207	ALA
3	AF	107	GLN
3	AF	131	ARG
3	AF	133	ALA
4	AG	193	ASP
5	AH	115	VAL
10	AM	37	PRO
12	AO	115	LYS
13	AP	101	GLN
16	AS	41	PRO
18	AU	19	LYS
19	AV	3	ARG
19	AV	11	VAL
20	AW	14	LYS
20	AW	95	ALA
20	AW	97	ALA
26	BD	123	ALA
26	BD	134	ARG
26	BD	239	ARG
27	BE	2	LYS
27	BE	53	PRO
27	BE	82	ARG
28	BF	128	ALA
29	BG	49	ASP
29	BG	84	LYS

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Mol	Chain	Res	Type
29	BG	96	ARG
29	BG	110	ALA
30	BH	10	PRO
30	BH	87	LEU
30	BH	168	PRO
31	BK	116	LEU
32	BM	136	GLU
33	BN	5	GLN
34	BO	24	GLY
34	BO	67	MET
34	BO	95	VAL
34	BO	107	LYS
34	BO	117	GLU
35	BP	6	ARG
35	BP	90	VAL
36	B0	4	LEU
38	BR	107	ASP
40	B2	100	ARG
41	BS	42	ARG
41	BS	111	HIS
43	BU	52	SER
43	BU	56	PRO
43	BU	84	ARG
43	BU	90	LEU
44	BV	162	GLU
49	B4	24	THR
49	B4	55	ARG
50	B5	34	PRO
51	B6	15	GLU
51	B6	49	HIS
53	B8	61	LEU
2	CE	5	ILE
2	CE	20	GLU
2	CE	143	GLU
2	CE	181	PHE
2	CE	234	PRO
3	CF	22	TRP
3	CF	25	GLY
3	CF	53	ALA
3	CF	60	ALA
4	CG	93	PHE
4	CG	159	ARG

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Mol	Chain	Res	Type
6	CI	62	TRP
8	CK	2	LEU
9	CL	44	VAL
9	CL	56	LEU
9	CL	79	LEU
12	CO	63	GLY
12	CO	105	TYR
13	CP	7	VAL
13	CP	86	CYS
16	CS	49	LEU
17	CT	33	GLY
17	CT	55	ASP
18	CU	36	ASN
18	CU	87	ARG
19	CV	59	PRO
19	CV	66	MET
19	CV	79	THR
20	CW	28	ALA
20	CW	48	LYS
20	CW	84	LEU
26	DD	30	GLU
26	DD	267	SER
27	DE	59	VAL
27	DE	86	PRO
27	DE	90	THR
27	DE	117	MET
27	DE	144	ARG
28	DF	10	PRO
28	DF	15	SER
29	DG	7	LEU
29	DG	96	ARG
30	DH	13	LYS
30	DH	62	LYS
30	DH	84	SER
30	DH	128	PRO
30	DH	136	ILE
30	DH	159	GLU
30	DH	168	PRO
31	DK	119	PRO
31	DK	135	GLU
32	DM	23	LEU
32	DM	108	PRO

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Mol	Chain	Res	Type
34	DO	47	ASP
34	DO	67	MET
34	DO	106	LEU
35	DP	63	LYS
35	DP	79	LEU
36	D0	71	GLN
36	D0	80	PHE
36	D0	107	ASP
37	DQ	20	ARG
38	DR	17	THR
40	D2	44	LYS
40	D2	84	LYS
41	DS	18	ARG
42	DT	60	ARG
43	DU	47	LYS
43	DU	50	ARG
43	DU	52	SER
44	DV	6	LYS
44	DV	51	ALA
44	DV	146	ILE
46	DZ	64	ALA
46	DZ	78	LYS
47	DW	41	ILE
47	DW	71	ASN
49	D4	26	SER
49	D4	43	TYR
53	D8	41	ILE
53	D8	61	LEU
2	AE	43	ASP
2	AE	224	GLN
3	AF	80	GLY
7	AJ	33	ASP
8	AK	20	TYR
9	AL	80	GLY
13	AP	107	ALA
14	AQ	24	CYS
15	AR	19	PRO
15	AR	33	THR
16	AS	72	ARG
18	AU	20	ALA
20	AW	62	LEU
20	AW	85	MET

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Mol	Chain	Res	Type
27	BE	72	VAL
27	BE	189	PRO
29	BG	45	GLU
29	BG	86	MET
30	BH	51	ARG
30	BH	82	GLY
31	BK	10	GLU
31	BK	74	ASN
34	BO	12	ALA
34	BO	62	LEU
34	BO	70	GLN
35	BP	11	LYS
36	B0	3	HIS
36	B0	71	GLN
37	BQ	78	LEU
37	BQ	87	PHE
38	BR	4	GLY
38	BR	116	ALA
39	B1	92	ARG
39	B1	93	LYS
41	BS	11	ARG
41	BS	63	ASP
42	BT	93	GLU
43	BU	40	GLU
44	BV	61	LEU
44	BV	85	HIS
46	BZ	97	LEU
49	B4	18	CYS
49	B4	42	PHE
51	B6	19	ARG
51	B6	33	LYS
2	CE	34	ALA
2	CE	84	GLU
2	CE	205	ASP
4	CG	25	ARG
4	CG	42	GLN
4	CG	150	GLU
4	CG	160	GLN
5	CH	51	VAL
5	CH	60	TYR
8	CK	105	ARG
9	CL	55	ALA

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Mol	Chain	Res	Type
9	CL	119	ALA
11	CN	128	ALA
12	CO	18	VAL
12	CO	65	GLU
13	CP	28	ALA
13	CP	106	ASN
14	CQ	58	LYS
17	CT	31	LEU
17	CT	99	SER
20	CW	100	ILE
26	DD	272	ALA
27	DE	175	VAL
28	DF	22	ALA
29	DG	24	GLY
29	DG	82	LEU
29	DG	109	VAL
29	DG	116	ASP
30	DH	6	ARG
30	DH	8	PRO
30	DH	85	LYS
30	DH	107	VAL
30	DH	118	PRO
30	DH	156	ALA
31	DK	30	LEU
31	DK	78	THR
31	DK	84	GLY
31	DK	104	GLN
31	DK	115	ALA
32	DM	3	THR
32	DM	36	GLY
34	DO	12	ALA
34	DO	23	PRO
34	DO	35	HIS
34	DO	48	PRO
34	DO	59	LEU
34	DO	104	GLY
35	DP	90	VAL
35	DP	134	ARG
36	D0	14	SER
36	D0	58	GLY
37	DQ	13	ARG
37	DQ	42	ASP

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Mol	Chain	Res	Type
38	DR	82	LEU
39	D1	90	VAL
40	D2	99	ILE
41	DS	93	ALA
42	DT	87	GLN
43	DU	94	LYS
43	DU	96	ILE
43	DU	99	CYS
43	DU	102	CYS
44	DV	15	PRO
44	DV	116	VAL
44	DV	131	ARG
44	DV	176	PRO
45	D3	33	ALA
45	D3	64	ASP
46	DZ	30	VAL
47	DW	17	SER
47	DW	43	GLN
48	DX	13	ILE
48	DX	38	GLU
49	D4	10	VAL
49	D4	51	ASP
50	D5	3	LYS
50	D5	49	CYS
50	D5	51	TYR
51	D6	35	GLU
53	D8	35	GLN
2	AE	125	PRO
2	AE	202	PRO
3	AF	22	TRP
3	AF	82	GLU
3	AF	114	PRO
4	AG	42	GLN
4	AG	109	GLY
4	AG	156	GLU
5	AH	22	GLY
6	AI	19	LEU
7	AJ	55	GLY
7	AJ	131	LYS
8	AK	129	VAL
9	AL	88	TYR
9	AL	89	ASN

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Mol	Chain	Res	Type
10	AM	84	GLN
10	AM	91	PRO
12	AO	18	VAL
12	AO	62	SER
13	AP	8	GLU
13	AP	32	GLU
13	AP	116	THR
15	AR	73	GLU
17	AT	16	GLN
17	AT	100	LYS
19	AV	78	ARG
20	AW	47	GLY
26	BD	125	ILE
26	BD	169	GLU
27	BE	56	PRO
27	BE	178	GLU
28	BF	78	ILE
28	BF	126	VAL
28	BF	129	PHE
28	BF	132	VAL
28	BF	133	ASN
29	BG	116	ASP
30	BH	13	LYS
30	BH	27	LYS
30	BH	107	VAL
30	BH	127	GLU
31	BK	34	GLY
31	BK	118	LYS
31	BK	134	PRO
32	BM	131	GLN
34	BO	11	GLY
34	BO	23	PRO
35	BP	2	LEU
36	B0	52	ILE
37	BQ	57	LYS
39	B1	117	GLN
43	BU	11	ASP
43	BU	76	CYS
45	B3	83	PRO
51	B6	25	LYS
2	CE	8	LYS
3	CF	27	LYS

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Mol	Chain	Res	Type
3	CF	141	VAL
3	CF	159	GLY
4	CG	35	ARG
4	CG	151	LYS
5	CH	77	PRO
6	CI	19	LEU
7	CJ	86	GLN
8	CK	73	ASP
8	CK	100	ILE
9	CL	71	SER
12	CO	51	ALA
12	CO	128	ALA
13	CP	63	THR
13	CP	84	ILE
15	CR	73	GLU
16	CS	63	GLY
17	CT	34	LYS
17	CT	40	LYS
19	CV	56	GLN
20	CW	89	ARG
26	DD	3	VAL
26	DD	26	LYS
27	DE	11	MET
27	DE	52	LEU
27	DE	56	PRO
27	DE	82	ARG
27	DE	89	ASP
27	DE	187	ALA
27	DE	189	PRO
28	DF	28	ILE
29	DG	5	VAL
29	DG	36	LYS
29	DG	110	ALA
30	DH	17	VAL
30	DH	41	MET
30	DH	160	LYS
31	DK	70	GLU
31	DK	143	SER
32	DM	134	ARG
34	DO	117	GLU
35	DP	44	ALA
35	DP	47	ILE

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Mol	Chain	Res	Type
35	DP	60	ARG
36	D0	15	SER
37	DQ	105	ALA
38	DR	9	LEU
38	DR	11	GLU
38	DR	55	ASN
40	D2	71	LEU
40	D2	83	ARG
42	DT	40	LYS
42	DT	51	VAL
42	DT	85	PRO
43	DU	63	LYS
44	DV	7	ALA
44	DV	165	VAL
44	DV	169	GLU
46	DZ	96	LYS
47	DW	18	PRO
49	D4	24	THR
49	D4	27	THR
49	D4	52	THR
50	D5	56	LYS
50	D5	57	VAL
50	D5	58	LEU
51	D6	36	LEU
53	D8	53	PRO
2	AE	22	LYS
2	AE	233	SER
3	AF	9	GLY
3	AF	51	GLY
5	AH	148	VAL
7	AJ	30	ILE
11	AN	118	GLY
13	AP	7	VAL
13	AP	68	GLY
14	AQ	16	PHE
14	AQ	23	ARG
15	AR	88	ARG
19	AV	9	VAL
27	BE	90	THR
29	BG	97	ASP
29	BG	126	ASP
31	BK	7	GLU

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Mol	Chain	Res	Type
31	BK	17	GLN
32	BM	128	HIS
34	BO	6	LEU
34	BO	16	ARG
34	BO	17	LYS
34	BO	43	GLY
34	BO	108	LYS
35	BP	79	LEU
41	BS	74	ALA
43	BU	3	VAL
43	BU	66	PRO
44	BV	124	ILE
53	B8	38	GLY
4	CG	5	ILE
12	CO	19	ARG
14	CQ	8	GLU
17	CT	87	LYS
28	DF	21	ALA
29	DG	81	LYS
29	DG	117	PHE
29	DG	154	GLY
30	DH	95	ARG
30	DH	108	GLY
32	DM	64	GLY
34	DO	34	GLY
34	DO	144	GLU
36	D0	117	VAL
38	DR	104	ASN
40	D2	36	PRO
44	DV	66	SER
44	DV	157	LEU
49	D4	42	PHE
2	AE	26	PRO
7	AJ	82	GLY
27	BE	55	ASN
30	BH	7	LEU
35	BP	66	ILE
44	BV	141	VAL
44	BV	159	PRO
4	CG	7	PRO
6	CI	37	VAL
10	CM	53	PRO

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Mol	Chain	Res	Type
27	DE	72	VAL
30	DH	24	VAL
2	AE	230	VAL
39	B1	90	VAL
44	BV	39	VAL
49	B4	56	VAL
13	CP	15	VAL
16	CS	79	VAL
18	CU	57	GLY
26	DD	28	GLU
34	DO	66	GLY
43	DU	39	VAL
44	DV	61	LEU
44	DV	159	PRO
46	DZ	31	GLY
4	AG	197	PRO
15	AR	86	GLY
2	CE	194	PRO
7	CJ	19	GLY
19	CV	42	PRO
27	DE	26	ILE
30	DH	7	LEU
30	DH	169	VAL
34	DO	7	ARG
38	DR	24	PRO
40	D2	5	VAL
43	DU	3	VAL
6	AI	12	PRO
12	AO	63	GLY
26	BD	3	VAL
26	BD	238	GLY
30	BH	9	ILE
31	BK	84	GLY
34	BO	7	ARG
36	B0	117	VAL
40	B2	36	PRO
2	CE	165	VAL
2	CE	232	PRO
3	CF	103	VAL
4	CG	69	GLY
4	CG	170	VAL
7	CJ	14	PRO

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Mol	Chain	Res	Type
8	CK	53	VAL
34	DO	20	GLY
41	DS	35	ILE
32	BM	113	GLY
47	BW	41	ILE
21	CX	23	PRO
27	DE	29	GLY
41	DS	71	VAL
32	DM	126	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
2	AE	205/220 (93%)	182 (89%)	23 (11%)	6 23
2	CE	205/220 (93%)	176 (86%)	29 (14%)	3 16
3	AF	159/188 (85%)	147 (92%)	12 (8%)	13 39
3	CF	160/188 (85%)	146 (91%)	14 (9%)	10 33
4	AG	180/180 (100%)	166 (92%)	14 (8%)	12 38
4	CG	180/180 (100%)	161 (89%)	19 (11%)	6 25
5	AH	116/123 (94%)	105 (90%)	11 (10%)	8 29
5	CH	116/123 (94%)	104 (90%)	12 (10%)	7 26
6	AI	90/90 (100%)	85 (94%)	5 (6%)	21 52
6	CI	90/90 (100%)	81 (90%)	9 (10%)	7 27
7	AJ	126/127 (99%)	118 (94%)	8 (6%)	18 47
7	CJ	126/127 (99%)	116 (92%)	10 (8%)	12 37
8	AK	119/119 (100%)	108 (91%)	11 (9%)	9 31
8	CK	119/119 (100%)	108 (91%)	11 (9%)	9 31
9	AL	98/99 (99%)	86 (88%)	12 (12%)	5 20
9	CL	98/99 (99%)	79 (81%)	19 (19%)	1 5
10	AM	89/92 (97%)	82 (92%)	7 (8%)	12 37

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
10	CM	89/92 (97%)	82 (92%)	7 (8%)	12 37
11	AN	90/99 (91%)	86 (96%)	4 (4%)	28 59
11	CN	90/99 (91%)	85 (94%)	5 (6%)	21 52
12	AO	104/107 (97%)	97 (93%)	7 (7%)	16 45
12	CO	104/107 (97%)	97 (93%)	7 (7%)	16 45
13	AP	94/101 (93%)	89 (95%)	5 (5%)	22 53
13	CP	94/101 (93%)	78 (83%)	16 (17%)	2 9
14	AQ	49/50 (98%)	44 (90%)	5 (10%)	7 27
14	CQ	49/50 (98%)	45 (92%)	4 (8%)	11 36
15	AR	79/80 (99%)	73 (92%)	6 (8%)	13 39
15	CR	79/80 (99%)	76 (96%)	3 (4%)	33 62
16	AS	72/74 (97%)	62 (86%)	10 (14%)	3 16
16	CS	72/74 (97%)	68 (94%)	4 (6%)	21 52
17	AT	95/97 (98%)	90 (95%)	5 (5%)	22 53
17	CT	95/97 (98%)	92 (97%)	3 (3%)	39 67
18	AU	63/77 (82%)	60 (95%)	3 (5%)	25 56
18	CU	63/77 (82%)	59 (94%)	4 (6%)	18 47
19	AV	72/80 (90%)	63 (88%)	9 (12%)	4 19
19	CV	67/80 (84%)	56 (84%)	11 (16%)	2 10
20	AW	76/82 (93%)	70 (92%)	6 (8%)	12 37
20	CW	76/82 (93%)	69 (91%)	7 (9%)	9 31
21	AX	20/22 (91%)	20 (100%)	0	100 100
21	CX	20/22 (91%)	18 (90%)	2 (10%)	7 27
26	BD	214/218 (98%)	192 (90%)	22 (10%)	7 26
26	DD	214/218 (98%)	197 (92%)	17 (8%)	12 37
27	BE	165/166 (99%)	149 (90%)	16 (10%)	8 29
27	DE	165/166 (99%)	150 (91%)	15 (9%)	9 31
28	BF	161/166 (97%)	150 (93%)	11 (7%)	16 44
28	DF	165/166 (99%)	156 (94%)	9 (6%)	21 52
29	BG	155/156 (99%)	145 (94%)	10 (6%)	17 46
29	DG	155/156 (99%)	141 (91%)	14 (9%)	9 32

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
30	BH	142/148 (96%)	119 (84%)	23 (16%)	2 10
30	DH	142/148 (96%)	128 (90%)	14 (10%)	8 28
31	BK	122/124 (98%)	110 (90%)	12 (10%)	8 29
31	DK	122/124 (98%)	109 (89%)	13 (11%)	6 25
32	BM	117/119 (98%)	113 (97%)	4 (3%)	37 65
32	DM	117/119 (98%)	109 (93%)	8 (7%)	16 44
33	BN	100/100 (100%)	95 (95%)	5 (5%)	24 55
33	DN	100/100 (100%)	95 (95%)	5 (5%)	24 55
34	BO	116/116 (100%)	101 (87%)	15 (13%)	4 18
34	DO	116/116 (100%)	102 (88%)	14 (12%)	5 20
35	BP	111/111 (100%)	102 (92%)	9 (8%)	11 36
35	DP	111/111 (100%)	102 (92%)	9 (8%)	11 36
36	B0	101/101 (100%)	94 (93%)	7 (7%)	15 44
36	D0	100/101 (99%)	95 (95%)	5 (5%)	24 55
37	BQ	87/88 (99%)	82 (94%)	5 (6%)	20 51
37	DQ	87/88 (99%)	78 (90%)	9 (10%)	7 26
38	BR	120/127 (94%)	111 (92%)	9 (8%)	13 39
38	DR	120/127 (94%)	107 (89%)	13 (11%)	6 24
39	B1	93/94 (99%)	87 (94%)	6 (6%)	17 46
39	D1	93/94 (99%)	88 (95%)	5 (5%)	22 53
40	B2	82/82 (100%)	75 (92%)	7 (8%)	10 35
40	D2	82/82 (100%)	71 (87%)	11 (13%)	4 16
41	BS	92/92 (100%)	82 (89%)	10 (11%)	6 24
41	DS	92/92 (100%)	82 (89%)	10 (11%)	6 24
42	BT	74/78 (95%)	69 (93%)	5 (7%)	16 44
42	DT	74/78 (95%)	69 (93%)	5 (7%)	16 44
43	BU	85/91 (93%)	70 (82%)	15 (18%)	2 8
43	DU	85/91 (93%)	73 (86%)	12 (14%)	3 16
44	BV	154/179 (86%)	135 (88%)	19 (12%)	4 20
44	DV	158/179 (88%)	144 (91%)	14 (9%)	9 32
45	B3	61/67 (91%)	58 (95%)	3 (5%)	25 56

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
45	D3	62/67 (92%)	57 (92%)	5 (8%)	11 36
46	BZ	82/83 (99%)	77 (94%)	5 (6%)	18 48
46	DZ	82/83 (99%)	65 (79%)	17 (21%)	1 4
47	BW	62/67 (92%)	55 (89%)	7 (11%)	6 22
47	DW	64/67 (96%)	62 (97%)	2 (3%)	40 67
48	BX	51/52 (98%)	47 (92%)	4 (8%)	12 38
48	DX	51/52 (98%)	48 (94%)	3 (6%)	19 49
49	B4	59/63 (94%)	51 (86%)	8 (14%)	3 16
49	D4	57/63 (90%)	51 (90%)	6 (10%)	7 25
50	B5	51/52 (98%)	44 (86%)	7 (14%)	3 16
50	D5	51/52 (98%)	44 (86%)	7 (14%)	3 16
51	B6	44/52 (85%)	40 (91%)	4 (9%)	9 31
51	D6	44/52 (85%)	38 (86%)	6 (14%)	3 16
52	B7	42/42 (100%)	38 (90%)	4 (10%)	8 29
52	D7	42/42 (100%)	36 (86%)	6 (14%)	3 15
53	B8	51/55 (93%)	43 (84%)	8 (16%)	2 12
53	D8	51/55 (93%)	45 (88%)	6 (12%)	5 21
All	All	9584/9992 (96%)	8705 (91%)	879 (9%)	9 31

All (879) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AE	4	GLU
2	AE	8	LYS
2	AE	9	GLU
2	AE	15	VAL
2	AE	16	HIS
2	AE	21	ARG
2	AE	28	PHE
2	AE	44	LEU
2	AE	51	LEU
2	AE	75	LYS
2	AE	96	ARG
2	AE	154	LEU
2	AE	163	PHE
2	AE	168	THR

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Mol	Chain	Res	Type
2	AE	172	ILE
2	AE	174	VAL
2	AE	176	GLU
2	AE	193	ASP
2	AE	196	LEU
2	AE	204	ASN
2	AE	212	GLN
2	AE	226	ARG
2	AE	236	TYR
3	AF	4	LYS
3	AF	5	ILE
3	AF	17	ASP
3	AF	48	TYR
3	AF	89	GLU
3	AF	94	LEU
3	AF	111	LEU
3	AF	126	ARG
3	AF	167	TRP
3	AF	188	LEU
3	AF	192	THR
3	AF	196	LEU
4	AG	3	ARG
4	AG	10	ARG
4	AG	12	CYS
4	AG	18	LYS
4	AG	19	LEU
4	AG	26	CYS
4	AG	30	LYS
4	AG	33	MET
4	AG	53	ASP
4	AG	73	ARG
4	AG	84	LYS
4	AG	98	GLU
4	AG	122	ARG
4	AG	155	LEU
5	AH	10	MET
5	AH	11	ILE
5	AH	20	GLN
5	AH	31	LEU
5	AH	50	GLU
5	AH	60	TYR
5	AH	64	ARG

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Mol	Chain	Res	Type
5	AH	67	VAL
5	AH	68	GLU
5	AH	144	THR
5	AH	153	LYS
6	AI	45	LEU
6	AI	64	GLN
6	AI	74	ASP
6	AI	83	ASP
6	AI	98	LEU
7	AJ	35	LYS
7	AJ	54	THR
7	AJ	56	GLN
7	AJ	79	ARG
7	AJ	90	GLU
7	AJ	104	LEU
7	AJ	113	GLU
7	AJ	155	ARG
8	AK	12	ARG
8	AK	25	ASP
8	AK	44	PHE
8	AK	54	ASP
8	AK	63	LEU
8	AK	68	ARG
8	AK	85	ARG
8	AK	98	LYS
8	AK	112	LEU
8	AK	118	VAL
8	AK	120	THR
9	AL	10	ARG
9	AL	12	GLU
9	AL	47	LEU
9	AL	53	VAL
9	AL	78	LYS
9	AL	85	LEU
9	AL	92	TYR
9	AL	95	LYS
9	AL	99	LEU
9	AL	121	ARG
9	AL	124	GLN
9	AL	125	TYR
10	AM	40	LEU
10	AM	54	PHE

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Mol	Chain	Res	Type
10	AM	62	HIS
10	AM	75	ILE
10	AM	87	THR
10	AM	92	THR
10	AM	96	ILE
11	AN	25	TYR
11	AN	36	ASP
11	AN	116	HIS
11	AN	119	CYS
12	AO	21	LYS
12	AO	44	THR
12	AO	59	ARG
12	AO	60	LEU
12	AO	99	HIS
12	AO	114	LYS
12	AO	119	LYS
13	AP	61	GLU
13	AP	64	TRP
13	AP	81	LEU
13	AP	88	ARG
13	AP	108	ARG
14	AQ	3	ARG
14	AQ	8	GLU
14	AQ	17	LYS
14	AQ	23	ARG
14	AQ	44	LEU
15	AR	6	GLU
15	AR	39	LEU
15	AR	47	LYS
15	AR	53	HIS
15	AR	66	LEU
15	AR	77	ARG
16	AS	2	VAL
16	AS	6	LEU
16	AS	19	ILE
16	AS	25	ARG
16	AS	29	ASP
16	AS	32	TYR
16	AS	48	TRP
16	AS	55	ARG
16	AS	62	VAL
16	AS	79	VAL

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Mol	Chain	Res	Type
17	AT	31	LEU
17	AT	38	ARG
17	AT	52	LYS
17	AT	63	ARG
17	AT	89	LEU
18	AU	29	PHE
18	AU	36	ASN
18	AU	42	ARG
19	AV	3	ARG
19	AV	15	LEU
19	AV	29	ARG
19	AV	30	LEU
19	AV	37	ARG
19	AV	43	GLU
19	AV	61	TYR
19	AV	65	ASN
19	AV	69	HIS
20	AW	10	LEU
20	AW	13	LEU
20	AW	26	ASN
20	AW	36	LEU
20	AW	48	LYS
20	AW	75	ASN
26	BD	30	GLU
26	BD	43	ARG
26	BD	44	ASN
26	BD	46	GLN
26	BD	61	LEU
26	BD	64	ILE
26	BD	65	ILE
26	BD	70	TRP
26	BD	94	LEU
26	BD	95	LEU
26	BD	99	ASP
26	BD	105	ILE
26	BD	122	ASP
26	BD	166	GLN
26	BD	192	THR
26	BD	193	VAL
26	BD	220	HIS
26	BD	221	VAL
26	BD	242	ARG

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Mol	Chain	Res	Type
26	BD	254	THR
26	BD	257	LEU
26	BD	258	LYS
27	BE	14	ILE
27	BE	26	ILE
27	BE	47	VAL
27	BE	48	GLN
27	BE	51	PHE
27	BE	61	ARG
27	BE	66	HIS
27	BE	78	LEU
27	BE	87	GLU
27	BE	111	ARG
27	BE	119	ARG
27	BE	144	ARG
27	BE	154	LYS
27	BE	188	VAL
27	BE	200	GLU
27	BE	203	LYS
28	BF	7	TYR
28	BF	8	GLN
28	BF	9	ILE
28	BF	27	GLU
28	BF	33	LEU
28	BF	67	GLN
28	BF	74	ARG
28	BF	82	ILE
28	BF	158	THR
28	BF	174	VAL
28	BF	197	ASP
29	BG	3	LEU
29	BG	33	ARG
29	BG	43	LEU
29	BG	45	GLU
29	BG	80	PHE
29	BG	81	LYS
29	BG	94	LEU
29	BG	101	ILE
29	BG	133	LEU
29	BG	165	THR
30	BH	3	ARG
30	BH	6	ARG

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Mol	Chain	Res	Type
30	BH	7	LEU
30	BH	9	ILE
30	BH	11	VAL
30	BH	23	ARG
30	BH	24	VAL
30	BH	59	ARG
30	BH	81	GLU
30	BH	83	TYR
30	BH	85	LYS
30	BH	87	LEU
30	BH	88	LEU
30	BH	89	ILE
30	BH	101	ARG
30	BH	105	LEU
30	BH	107	VAL
30	BH	109	PHE
30	BH	133	VAL
30	BH	139	GLN
30	BH	153	LYS
30	BH	155	SER
30	BH	169	VAL
31	BK	15	VAL
31	BK	18	VAL
31	BK	25	TYR
31	BK	38	LEU
31	BK	41	GLU
31	BK	44	LEU
31	BK	96	ASP
31	BK	123	LEU
31	BK	130	TYR
31	BK	135	GLU
31	BK	136	VAL
31	BK	140	LEU
32	BM	34	LEU
32	BM	87	LEU
32	BM	90	MET
32	BM	131	GLN
33	BN	22	ILE
33	BN	23	ARG
33	BN	32	TYR
33	BN	53	LYS
33	BN	96	THR

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Mol	Chain	Res	Type
34	BO	6	LEU
34	BO	21	ARG
34	BO	36	LYS
34	BO	41	ARG
34	BO	45	LEU
34	BO	58	THR
34	BO	59	LEU
34	BO	61	ARG
34	BO	65	ARG
34	BO	75	ILE
34	BO	88	LEU
34	BO	112	LEU
34	BO	135	LEU
34	BO	138	LEU
34	BO	144	GLU
35	BP	5	ARG
35	BP	26	TYR
35	BP	45	GLN
35	BP	55	VAL
35	BP	79	LEU
35	BP	83	MET
35	BP	96	VAL
35	BP	105	GLU
35	BP	110	THR
36	B0	16	HIS
36	B0	18	LEU
36	B0	28	LEU
36	B0	37	THR
36	B0	59	ASP
36	B0	79	LEU
36	B0	105	ARG
37	BQ	36	TYR
37	BQ	58	LEU
37	BQ	69	VAL
37	BQ	110	LEU
37	BQ	112	PHE
38	BR	6	LEU
38	BR	21	GLU
38	BR	22	PHE
38	BR	84	GLN
38	BR	85	LYS
38	BR	86	ILE

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Mol	Chain	Res	Type
38	BR	88	ILE
38	BR	107	ASP
38	BR	118	ARG
39	B1	49	HIS
39	B1	52	ARG
39	B1	57	PHE
39	B1	74	LEU
39	B1	95	LEU
39	B1	100	VAL
40	B2	7	THR
40	B2	21	ARG
40	B2	24	LYS
40	B2	35	LEU
40	B2	40	LEU
40	B2	62	LEU
40	B2	82	ARG
41	BS	1	MET
41	BS	11	ARG
41	BS	51	LEU
41	BS	69	LEU
41	BS	70	TYR
41	BS	76	VAL
41	BS	88	ARG
41	BS	96	ILE
41	BS	106	ILE
41	BS	111	HIS
42	BT	12	VAL
42	BT	53	LYS
42	BT	65	ARG
42	BT	76	ARG
42	BT	80	ILE
43	BU	6	HIS
43	BU	13	VAL
43	BU	27	VAL
43	BU	40	GLU
43	BU	50	ARG
43	BU	55	TYR
43	BU	57	GLN
43	BU	64	GLU
43	BU	75	ILE
43	BU	76	CYS
43	BU	81	LYS

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Mol	Chain	Res	Type
43	BU	90	LEU
43	BU	97	ARG
43	BU	101	LYS
43	BU	102	CYS
44	BV	5	LEU
44	BV	19	ARG
44	BV	59	LEU
44	BV	61	LEU
44	BV	76	LEU
44	BV	86	VAL
44	BV	87	ASP
44	BV	112	ARG
44	BV	116	VAL
44	BV	122	ARG
44	BV	144	LEU
44	BV	145	GLU
44	BV	146	ILE
44	BV	153	SER
44	BV	163	LEU
44	BV	165	VAL
44	BV	169	GLU
44	BV	171	ILE
44	BV	175	VAL
45	B3	41	ARG
45	B3	64	ASP
45	B3	84	LEU
46	BZ	40	ARG
46	BZ	41	ARG
46	BZ	82	LEU
46	BZ	83	GLU
46	BZ	91	LYS
47	BW	24	LEU
47	BW	32	LEU
47	BW	47	ASN
47	BW	50	ILE
47	BW	53	LEU
47	BW	55	ARG
47	BW	62	THR
48	BX	8	LEU
48	BX	30	ARG
48	BX	32	GLN
48	BX	55	ARG

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Mol	Chain	Res	Type
49	B4	23	GLU
49	B4	35	VAL
49	B4	36	CYS
49	B4	38	LYS
49	B4	42	PHE
49	B4	53	GLU
49	B4	61	ARG
49	B4	63	TYR
50	B5	11	THR
50	B5	16	ARG
50	B5	35	GLU
50	B5	51	TYR
50	B5	52	TYR
50	B5	55	ARG
50	B5	56	LYS
51	B6	27	LYS
51	B6	39	TYR
51	B6	44	ARG
51	B6	45	LYS
52	B7	4	THR
52	B7	14	LYS
52	B7	24	THR
52	B7	46	VAL
53	B8	8	LYS
53	B8	26	LYS
53	B8	29	LYS
53	B8	34	TRP
53	B8	41	ILE
53	B8	44	LYS
53	B8	48	PHE
53	B8	58	ILE
2	CE	10	LEU
2	CE	11	LEU
2	CE	16	HIS
2	CE	20	GLU
2	CE	23	ARG
2	CE	24	TRP
2	CE	33	TYR
2	CE	40	HIS
2	CE	51	LEU
2	CE	75	LYS
2	CE	96	ARG

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Mol	Chain	Res	Type
2	CE	106	LYS
2	CE	107	THR
2	CE	112	VAL
2	CE	114	ARG
2	CE	122	PHE
2	CE	137	ARG
2	CE	139	LYS
2	CE	144	ARG
2	CE	155	LEU
2	CE	172	ILE
2	CE	178	ARG
2	CE	185	ILE
2	CE	187	LEU
2	CE	193	ASP
2	CE	196	LEU
2	CE	212	GLN
2	CE	230	VAL
2	CE	236	TYR
3	CF	5	ILE
3	CF	17	ASP
3	CF	27	LYS
3	CF	28	GLN
3	CF	29	TYR
3	CF	47	LEU
3	CF	48	TYR
3	CF	57	ILE
3	CF	59	ARG
3	CF	79	ARG
3	CF	85	ARG
3	CF	94	LEU
3	CF	104	GLN
3	CF	127	ARG
4	CG	9	CYS
4	CG	13	ARG
4	CG	21	LEU
4	CG	26	CYS
4	CG	30	LYS
4	CG	33	MET
4	CG	53	ASP
4	CG	70	ILE
4	CG	75	PHE
4	CG	84	LYS

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Mol	Chain	Res	Type
4	CG	93	PHE
4	CG	94	LEU
4	CG	97	LEU
4	CG	127	THR
4	CG	135	LEU
4	CG	138	TYR
4	CG	187	ARG
4	CG	191	ARG
4	CG	199	ASN
5	CH	13	ILE
5	CH	18	ARG
5	CH	26	PHE
5	CH	56	GLN
5	CH	67	VAL
5	CH	68	GLU
5	CH	76	ILE
5	CH	78	HIS
5	CH	79	GLU
5	CH	116	THR
5	CH	144	THR
5	CH	151	LEU
6	CI	14	LEU
6	CI	19	LEU
6	CI	21	LEU
6	CI	36	ARG
6	CI	46	ARG
6	CI	78	GLU
6	CI	83	ASP
6	CI	87	ARG
6	CI	94	GLN
7	CJ	8	GLU
7	CJ	32	ARG
7	CJ	43	PHE
7	CJ	60	LYS
7	CJ	63	LYS
7	CJ	72	ARG
7	CJ	85	TYR
7	CJ	87	VAL
7	CJ	149	ARG
7	CJ	156	TRP
8	CK	1	MET
8	CK	25	ASP

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Mol	Chain	Res	Type
8	CK	80	ILE
8	CK	83	ILE
8	CK	102	ARG
8	CK	103	VAL
8	CK	104	ARG
8	CK	109	ILE
8	CK	112	LEU
8	CK	115	SER
8	CK	138	TRP
9	CL	4	TYR
9	CL	5	TYR
9	CL	16	ARG
9	CL	17	VAL
9	CL	29	ASN
9	CL	36	TYR
9	CL	78	LYS
9	CL	87	GLN
9	CL	88	TYR
9	CL	89	ASN
9	CL	91	ASP
9	CL	95	LYS
9	CL	104	ARG
9	CL	108	VAL
9	CL	112	LYS
9	CL	113	LYS
9	CL	114	TYR
9	CL	117	HIS
9	CL	118	LYS
10	CM	22	LYS
10	CM	54	PHE
10	CM	62	HIS
10	CM	72	VAL
10	CM	73	ASP
10	CM	79	ARG
10	CM	101	VAL
11	CN	12	ARG
11	CN	18	ARG
11	CN	70	LYS
11	CN	81	ASP
11	CN	127	LYS
12	CO	20	LYS
12	CO	41	ARG

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Mol	Chain	Res	Type
12	CO	47	LYS
12	CO	64	TYR
12	CO	66	VAL
12	CO	111	LYS
12	CO	127	GLU
13	CP	4	ILE
13	CP	9	ILE
13	CP	19	LEU
13	CP	23	TYR
13	CP	36	LYS
13	CP	48	LEU
13	CP	54	VAL
13	CP	62	ASN
13	CP	64	TRP
13	CP	66	LEU
13	CP	74	VAL
13	CP	79	LYS
13	CP	94	ARG
13	CP	105	THR
13	CP	108	ARG
13	CP	115	LYS
14	CQ	6	LEU
14	CQ	12	ARG
14	CQ	18	VAL
14	CQ	40	CYS
15	CR	3	ILE
15	CR	82	ILE
15	CR	88	ARG
16	CS	2	VAL
16	CS	49	LEU
16	CS	55	ARG
16	CS	82	GLN
17	CT	52	LYS
17	CT	100	LYS
17	CT	101	ARG
18	CU	21	LYS
18	CU	23	LYS
18	CU	36	ASN
18	CU	54	ARG
19	CV	14	HIS
19	CV	22	LEU
19	CV	33	THR

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Mol	Chain	Res	Type
19	CV	34	TRP
19	CV	43	GLU
19	CV	56	GLN
19	CV	58	VAL
19	CV	60	VAL
19	CV	67	VAL
19	CV	70	LYS
19	CV	81	ARG
20	CW	10	LEU
20	CW	31	SER
20	CW	56	MET
20	CW	64	ASP
20	CW	75	ASN
20	CW	80	ARG
20	CW	84	LEU
21	CX	7	ARG
21	CX	24	ARG
26	DD	31	LYS
26	DD	33	LEU
26	DD	35	LYS
26	DD	44	ASN
26	DD	49	ILE
26	DD	61	LEU
26	DD	65	ILE
26	DD	69	ARG
26	DD	87	ASN
26	DD	88	ARG
26	DD	94	LEU
26	DD	103	ARG
26	DD	171	ASP
26	DD	211	ARG
26	DD	244	ARG
26	DD	257	LEU
26	DD	271	ILE
27	DE	12	THR
27	DE	52	LEU
27	DE	58	ARG
27	DE	64	LYS
27	DE	76	ARG
27	DE	77	ILE
27	DE	78	LEU
27	DE	79	ARG

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Mol	Chain	Res	Type
27	DE	81	ILE
27	DE	111	ARG
27	DE	119	ARG
27	DE	135	HIS
27	DE	144	ARG
27	DE	200	GLU
27	DE	203	LYS
28	DF	2	LYS
28	DF	3	GLU
28	DF	18	ARG
28	DF	24	LEU
28	DF	63	LYS
28	DF	64	ILE
28	DF	74	ARG
28	DF	107	LYS
28	DF	181	LEU
29	DG	27	ASN
29	DG	33	ARG
29	DG	34	LEU
29	DG	45	GLU
29	DG	47	LYS
29	DG	51	ARG
29	DG	53	LEU
29	DG	71	THR
29	DG	88	ILE
29	DG	94	LEU
29	DG	118	ARG
29	DG	139	LEU
29	DG	148	MET
29	DG	164	GLU
30	DH	25	LYS
30	DH	30	LYS
30	DH	41	MET
30	DH	59	ARG
30	DH	65	HIS
30	DH	83	TYR
30	DH	86	GLU
30	DH	89	ILE
30	DH	103	LEU
30	DH	105	LEU
30	DH	124	GLU
30	DH	157	TYR

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Mol	Chain	Res	Type
30	DH	158	HIS
30	DH	164	TYR
31	DK	9	LEU
31	DK	38	LEU
31	DK	44	LEU
31	DK	52	ARG
31	DK	56	LYS
31	DK	57	ARG
31	DK	67	ARG
31	DK	77	LEU
31	DK	101	LEU
31	DK	105	HIS
31	DK	109	ILE
31	DK	117	GLU
31	DK	145	VAL
32	DM	7	LYS
32	DM	28	THR
32	DM	33	LEU
32	DM	38	HIS
32	DM	45	ASN
32	DM	60	ILE
32	DM	131	GLN
32	DM	134	ARG
33	DN	24	VAL
33	DN	49	ARG
33	DN	78	ARG
33	DN	94	ARG
33	DN	117	LEU
34	DO	15	ARG
34	DO	21	ARG
34	DO	41	ARG
34	DO	45	LEU
34	DO	46	LYS
34	DO	52	GLU
34	DO	61	ARG
34	DO	62	LEU
34	DO	75	ILE
34	DO	79	ARG
34	DO	85	LEU
34	DO	98	GLU
34	DO	110	TYR
34	DO	114	ILE

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Mol	Chain	Res	Type
35	DP	6	ARG
35	DP	26	TYR
35	DP	45	GLN
35	DP	59	ARG
35	DP	64	ILE
35	DP	66	ILE
35	DP	83	MET
35	DP	89	ASN
35	DP	133	ARG
36	D0	16	HIS
36	D0	18	LEU
36	D0	44	LEU
36	D0	75	LEU
36	D0	79	LEU
37	DQ	15	ARG
37	DQ	32	LEU
37	DQ	36	TYR
37	DQ	69	VAL
37	DQ	73	LEU
37	DQ	83	LYS
37	DQ	89	ARG
37	DQ	106	ARG
37	DQ	107	GLU
38	DR	1	MET
38	DR	7	ILE
38	DR	8	LYS
38	DR	38	ASN
38	DR	41	ARG
38	DR	44	ASP
38	DR	55	ASN
38	DR	65	LYS
38	DR	85	LYS
38	DR	86	ILE
38	DR	93	ARG
38	DR	98	LYS
38	DR	100	TYR
39	D1	33	ARG
39	D1	64	ARG
39	D1	74	LEU
39	D1	75	ASN
39	D1	98	LEU
40	D2	12	TYR

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Mol	Chain	Res	Type
40	D2	28	GLU
40	D2	35	LEU
40	D2	61	VAL
40	D2	66	ARG
40	D2	76	LYS
40	D2	80	GLN
40	D2	81	TYR
40	D2	84	LYS
40	D2	91	TYR
40	D2	97	LYS
41	DS	11	ARG
41	DS	40	ASN
41	DS	51	LEU
41	DS	52	GLU
41	DS	59	VAL
41	DS	88	ARG
41	DS	98	LYS
41	DS	107	LEU
41	DS	111	HIS
41	DS	113	LYS
42	DT	63	LYS
42	DT	66	LEU
42	DT	69	TYR
42	DT	80	ILE
42	DT	81	VAL
43	DU	2	ARG
43	DU	5	MET
43	DU	6	HIS
43	DU	35	TYR
43	DU	55	TYR
43	DU	60	PHE
43	DU	62	GLU
43	DU	75	ILE
43	DU	76	CYS
43	DU	88	LYS
43	DU	95	LYS
43	DU	97	ARG
44	DV	5	LEU
44	DV	8	TYR
44	DV	14	LYS
44	DV	41	LEU
44	DV	71	VAL

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Mol	Chain	Res	Type
44	DV	72	ARG
44	DV	76	LEU
44	DV	80	ARG
44	DV	81	ARG
44	DV	89	PHE
44	DV	91	LEU
44	DV	131	ARG
44	DV	150	LEU
44	DV	151	HIS
45	D3	12	ASN
45	D3	14	ARG
45	D3	36	ILE
45	D3	50	ASN
45	D3	60	PHE
46	DZ	21	ARG
46	DZ	30	VAL
46	DZ	40	ARG
46	DZ	41	ARG
46	DZ	56	GLN
46	DZ	75	GLU
46	DZ	78	LYS
46	DZ	80	LEU
46	DZ	81	LYS
46	DZ	82	LEU
46	DZ	83	GLU
46	DZ	90	ILE
46	DZ	91	LYS
46	DZ	92	LYS
46	DZ	94	LEU
46	DZ	97	LEU
46	DZ	98	LEU
47	DW	30	ARG
47	DW	53	LEU
48	DX	8	LEU
48	DX	9	VAL
48	DX	38	GLU
49	D4	1	MET
49	D4	9	LEU
49	D4	18	CYS
49	D4	20	ASN
49	D4	46	GLN
49	D4	59	PHE

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Mol	Chain	Res	Type
50	D5	6	VAL
50	D5	29	THR
50	D5	35	GLU
50	D5	37	LYS
50	D5	48	GLU
50	D5	52	TYR
50	D5	58	LEU
51	D6	20	ASN
51	D6	28	ARG
51	D6	30	THR
51	D6	32	ASN
51	D6	39	TYR
51	D6	53	LYS
52	D7	1	MET
52	D7	9	ARG
52	D7	24	THR
52	D7	43	THR
52	D7	47	ARG
52	D7	49	ARG
53	D8	8	LYS
53	D8	30	ARG
53	D8	33	ASN
53	D8	34	TRP
53	D8	40	GLU
53	D8	61	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (125) such sidechains are listed below:

Mol	Chain	Res	Type
2	AE	204	ASN
3	AF	6	HIS
3	AF	123	GLN
3	AF	136	GLN
3	AF	176	HIS
4	AG	103	ASN
4	AG	123	HIS
4	AG	125	HIS
5	AH	20	GLN
5	AH	78	HIS
6	AI	64	GLN
6	AI	84	ASN
7	AJ	37	ASN

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Mol	Chain	Res	Type
7	AJ	56	GLN
8	AK	78	GLN
8	AK	82	HIS
9	AL	23	ASN
10	AM	69	ASN
16	AS	14	ASN
18	AU	36	ASN
19	AV	47	HIS
19	AV	65	ASN
20	AW	26	ASN
26	BD	46	GLN
26	BD	58	HIS
26	BD	96	HIS
26	BD	143	HIS
27	BE	35	GLN
27	BE	143	ASN
28	BF	8	GLN
28	BF	67	GLN
30	BH	74	ASN
31	BK	133	HIS
32	BM	131	GLN
33	BN	3	GLN
34	BO	9	ASN
35	BP	13	GLN
36	B0	16	HIS
36	B0	24	GLN
37	BQ	95	HIS
38	BR	84	GLN
39	B1	44	ASN
40	B2	11	GLN
41	BS	57	ASN
42	BT	31	HIS
42	BT	87	GLN
44	BV	151	HIS
47	BW	46	GLN
48	BX	19	GLN
48	BX	52	HIS
49	B4	46	GLN
50	B5	22	HIS
50	B5	23	HIS
51	B6	32	ASN
2	CE	16	HIS

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Mol	Chain	Res	Type
2	CE	19	HIS
2	CE	25	ASN
2	CE	78	GLN
2	CE	94	ASN
2	CE	135	GLN
3	CF	6	HIS
3	CF	123	GLN
4	CG	42	GLN
4	CG	43	HIS
4	CG	116	GLN
5	CH	20	GLN
6	CI	32	ASN
6	CI	94	GLN
7	CJ	28	ASN
8	CK	82	HIS
9	CL	3	GLN
9	CL	89	ASN
10	CM	21	GLN
10	CM	56	HIS
10	CM	76	ASN
10	CM	84	GLN
11	CN	117	ASN
13	CP	40	ASN
13	CP	77	ASN
13	CP	92	HIS
14	CQ	49	HIS
15	CR	9	GLN
16	CS	82	GLN
17	CT	16	GLN
19	CV	47	HIS
19	CV	56	GLN
19	CV	57	HIS
26	DD	116	GLN
26	DD	186	HIS
27	DE	48	GLN
27	DE	60	ASN
27	DE	137	HIS
28	DF	75	HIS
28	DF	169	ASN
29	DG	132	ASN
30	DH	139	GLN
30	DH	143	GLN

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Mol	Chain	Res	Type
32	DM	45	ASN
34	DO	9	ASN
34	DO	13	ASN
34	DO	128	HIS
36	D0	16	HIS
36	D0	31	HIS
36	D0	53	HIS
38	DR	2	ASN
39	D1	72	HIS
39	D1	81	HIS
39	D1	117	GLN
40	D2	64	HIS
40	D2	80	GLN
40	D2	87	HIS
40	D2	89	GLN
41	DS	57	ASN
41	DS	61	ASN
42	DT	31	HIS
43	DU	6	HIS
45	D3	50	ASN
45	D3	70	GLN
47	DW	9	GLN
48	DX	19	GLN
48	DX	52	HIS
49	D4	6	HIS
49	D4	47	GLN
49	D4	60	GLN
53	D8	31	HIS

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1506/1506 (100%)	279 (18%)	29 (1%)
1	CA	1505/1506 (99%)	284 (18%)	32 (2%)
22	AC	76/77 (98%)	5 (6%)	1 (1%)
22	CC	77/77 (100%)	9 (11%)	2 (2%)
23	A1	3/4 (75%)	1 (33%)	0
23	C1	3/4 (75%)	0	0
24	BA	2911/2912 (99%)	552 (18%)	37 (1%)
24	DA	2908/2912 (99%)	571 (19%)	43 (1%)
25	BB	121/122 (99%)	21 (17%)	0

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
25	DB	121/122 (99%)	25 (20%)	0
All	All	9231/9242 (99%)	1747 (18%)	144 (1%)

All (1747) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	6	G
1	AA	9	G
1	AA	32	A
1	AA	39	G
1	AA	47	C
1	AA	48	C
1	AA	49	U
1	AA	51	A
1	AA	61	G
1	AA	65	U
1	AA	66	G
1	AA	76	G
1	AA	78	G
1	AA	79	G
1	AA	81	G
1	AA	84	U
1	AA	85	U
1	AA	86	U
1	AA	87	A
1	AA	89	U
1	AA	90	C
1	AA	91	C
1	AA	95	G
1	AA	97	U
1	AA	116	A
1	AA	120	A
1	AA	121	C
1	AA	131	C
1	AA	144	G
1	AA	163	C
1	AA	172	A
1	AA	174	C
1	AA	181	G
1	AA	183	G
1	AA	190	G
1	AA	191(A)	G

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Mol	Chain	Res	Type
1	AA	195	A
1	AA	196	A
1	AA	197	A
1	AA	199	G
1	AA	201	C
1	AA	208	U
1	AA	209	U
1	AA	210	U
1	AA	216	G
1	AA	225	C
1	AA	231	G
1	AA	245	C
1	AA	247	G
1	AA	251	G
1	AA	256	U
1	AA	266	G
1	AA	267	C
1	AA	281	G
1	AA	289	G
1	AA	321	A
1	AA	328	C
1	AA	330	C
1	AA	332	G
1	AA	345	C
1	AA	346	G
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	367	U
1	AA	372	C
1	AA	390	C
1	AA	392	G
1	AA	397	A
1	AA	398	C
1	AA	411	A
1	AA	412	A
1	AA	413	G
1	AA	419	C
1	AA	422	C
1	AA	424	G
1	AA	429	U
1	AA	430	A

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Mol	Chain	Res	Type
1	AA	439	A
1	AA	452	A
1	AA	466	C
1	AA	467	G
1	AA	485	G
1	AA	496	A
1	AA	497	U
1	AA	500	G
1	AA	505	G
1	AA	509	A
1	AA	510	A
1	AA	511	C
1	AA	518	C
1	AA	524	G
1	AA	527	G
1	AA	531	U
1	AA	533	A
1	AA	547	A
1	AA	559	A
1	AA	561	U
1	AA	564	C
1	AA	572	A
1	AA	573	A
1	AA	576	G
1	AA	577	G
1	AA	592	G
1	AA	607	A
1	AA	614	A
1	AA	630	G
1	AA	631	G
1	AA	632	A
1	AA	642	A
1	AA	653	A
1	AA	665	A
1	AA	686	U
1	AA	687	A
1	AA	688	G
1	AA	701	C
1	AA	702	A
1	AA	704	A
1	AA	723	U
1	AA	724	G

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Mol	Chain	Res	Type
1	AA	731	G
1	AA	748	C
1	AA	749	C
1	AA	755	G
1	AA	759	A
1	AA	774	G
1	AA	777	A
1	AA	792	A
1	AA	793	U
1	AA	794	A
1	AA	812	C
1	AA	813	U
1	AA	817	C
1	AA	821	G
1	AA	828	A
1	AA	836	G
1	AA	841	U
1	AA	842	C
1	AA	848	C
1	AA	859	A
1	AA	872	A
1	AA	885	G
1	AA	889	A
1	AA	902	G
1	AA	914	A
1	AA	926	G
1	AA	927	G
1	AA	934	C
1	AA	935	A
1	AA	936	C
1	AA	960	U
1	AA	968	A
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	983	A
1	AA	991	U
1	AA	992	U

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Mol	Chain	Res	Type
1	AA	993	G
1	AA	1002	G
1	AA	1004	A
1	AA	1008	C
1	AA	1009	G
1	AA	1010	G
1	AA	1020	U
1	AA	1022	G
1	AA	1024	G
1	AA	1025	U
1	AA	1026	G
1	AA	1027	C
1	AA	1028	C
1	AA	1029	G
1	AA	1030	C
1	AA	1031	G
1	AA	1032(B)	G
1	AA	1033	G
1	AA	1036	G
1	AA	1038	C
1	AA	1039	C
1	AA	1042	G
1	AA	1054	C
1	AA	1064	G
1	AA	1065	U
1	AA	1066	C
1	AA	1081	G
1	AA	1094	G
1	AA	1095	U
1	AA	1101	A
1	AA	1121	U
1	AA	1124	G
1	AA	1125	U
1	AA	1126	U
1	AA	1127	G
1	AA	1129	C
1	AA	1130	A
1	AA	1131	G
1	AA	1136	U
1	AA	1137	C
1	AA	1138	G
1	AA	1139	G

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Mol	Chain	Res	Type
1	AA	1140	C
1	AA	1146	A
1	AA	1151	A
1	AA	1152	A
1	AA	1154	G
1	AA	1157	A
1	AA	1158	C
1	AA	1159	U
1	AA	1178	G
1	AA	1181	G
1	AA	1182	G
1	AA	1184	G
1	AA	1196	U
1	AA	1197	G
1	AA	1212	U
1	AA	1213	A
1	AA	1215	G
1	AA	1225	A
1	AA	1226	C
1	AA	1227	A
1	AA	1238	A
1	AA	1240	U
1	AA	1241	G
1	AA	1256	A
1	AA	1257	U
1	AA	1258	G
1	AA	1273	G
1	AA	1278	U
1	AA	1279	A
1	AA	1280	A
1	AA	1282	C
1	AA	1286	A
1	AA	1287	A
1	AA	1290	G
1	AA	1300	G
1	AA	1302	U
1	AA	1303	C
1	AA	1305	G
1	AA	1320	C
1	AA	1322	C
1	AA	1323	G
1	AA	1331	G

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Mol	Chain	Res	Type
1	AA	1334	G
1	AA	1335	C
1	AA	1336	C
1	AA	1337	G
1	AA	1346	A
1	AA	1347	G
1	AA	1350	A
1	AA	1359	C
1	AA	1362(A)	C
1	AA	1363	A
1	AA	1370	G
1	AA	1379	G
1	AA	1397	C
1	AA	1419	G
1	AA	1442	G
1	AA	1443	G
1	AA	1446	A
1	AA	1450	U
1	AA	1452	C
1	AA	1453	G
1	AA	1454	G
1	AA	1487	G
1	AA	1492	A
1	AA	1493	A
1	AA	1499	A
1	AA	1502	A
1	AA	1504	G
1	AA	1505	G
1	AA	1506	U
1	AA	1517	G
1	AA	1529	G
1	AA	1530	G
1	AA	1533	C
22	AC	9	G
22	AC	20	U
22	AC	47	U
22	AC	48	C
22	AC	49	G
23	A1	19	U
24	BA	5	A
24	BA	10	G
24	BA	34	C

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Mol	Chain	Res	Type
24	BA	35	G
24	BA	46	C
24	BA	51	G
24	BA	63	U
24	BA	64	A
24	BA	71	A
24	BA	74	A
24	BA	75	G
24	BA	85	G
24	BA	95	G
24	BA	101	G
24	BA	102	G
24	BA	118	A
24	BA	120	U
24	BA	155	C
24	BA	163	U
24	BA	164	U
24	BA	165	U
24	BA	181	A
24	BA	196	A
24	BA	199	A
24	BA	204	A
24	BA	215	G
24	BA	216	A
24	BA	222	A
24	BA	223	A
24	BA	227	A
24	BA	228	A
24	BA	229	A
24	BA	230	U
24	BA	233	A
24	BA	248	G
24	BA	249	C
24	BA	250	G
24	BA	252	G
24	BA	261	G
24	BA	266	G
24	BA	270(K)	C
24	BA	270(L)	U
24	BA	270(M)	U
24	BA	270(N)	G
24	BA	270(P)	C

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Mol	Chain	Res	Type
24	BA	270(Q)	C
24	BA	271(C)	U
24	BA	271	G
24	BA	274	G
24	BA	277	C
24	BA	278	A
24	BA	279	C
24	BA	299	A
24	BA	311	A
24	BA	315	G
24	BA	323	G
24	BA	324	A
24	BA	329	G
24	BA	330	A
24	BA	352	G
24	BA	364	C
24	BA	386	G
24	BA	405	U
24	BA	406	G
24	BA	411	G
24	BA	412	A
24	BA	428	A
24	BA	441	U
24	BA	443	A
24	BA	444	C
24	BA	448	U
24	BA	454	A
24	BA	457	A
24	BA	470	A
24	BA	471	A
24	BA	481	G
24	BA	482	A
24	BA	504	U
24	BA	505	A
24	BA	508	G
24	BA	509	C
24	BA	528	A
24	BA	529	A
24	BA	530	G
24	BA	531	C
24	BA	532	A
24	BA	533	G

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Mol	Chain	Res	Type
24	BA	537	C
24	BA	539	G
24	BA	540	G
24	BA	546	C
24	BA	556	G
24	BA	563	G
24	BA	573	G
24	BA	575	A
24	BA	586	A
24	BA	603	A
24	BA	607	U
24	BA	614	U
24	BA	617	G
24	BA	622	G
24	BA	627	A
24	BA	637	A
24	BA	644	A
24	BA	645	C
24	BA	646	A
24	BA	653	A
24	BA	654	A
24	BA	654(A)	A
24	BA	654(G)	C
24	BA	654(H)	G
24	BA	654(I)	C
24	BA	654(J)	A
24	BA	654(K)	C
24	BA	654(L)	G
24	BA	654(N)	G
24	BA	654(T)	A
24	BA	686	G
24	BA	717	G
24	BA	730	C
24	BA	739	G
24	BA	753	C
24	BA	764	A
24	BA	776	G
24	BA	779	U
24	BA	782	A
24	BA	784	A
24	BA	785	G
24	BA	790	C

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Mol	Chain	Res	Type
24	BA	791	C
24	BA	792	G
24	BA	805	G
24	BA	812	C
24	BA	819	A
24	BA	827	U
24	BA	828	U
24	BA	831	G
24	BA	855	G
24	BA	859	G
24	BA	866	A
24	BA	877	U
24	BA	880	G
24	BA	881	G
24	BA	882	G
24	BA	883	G
24	BA	885	C
24	BA	887	A
24	BA	888	C
24	BA	890	A
24	BA	893	C
24	BA	895	U
24	BA	897	C
24	BA	898	C
24	BA	900	A
24	BA	901	A
24	BA	910	A
24	BA	915	C
24	BA	917	A
24	BA	932	G
24	BA	933	A
24	BA	941	A
24	BA	946	G
24	BA	959	A
24	BA	961	C
24	BA	974	G
24	BA	974(A)	C
24	BA	975	G
24	BA	983	A
24	BA	996	A
24	BA	1005	C
24	BA	1010	A

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Mol	Chain	Res	Type
24	BA	1011	G
24	BA	1012	U
24	BA	1013	C
24	BA	1015	G
24	BA	1022	G
24	BA	1023	U
24	BA	1025	G
24	BA	1026	U
24	BA	1027	A
24	BA	1033	U
24	BA	1037	G
24	BA	1045	A
24	BA	1046	A
24	BA	1047	G
24	BA	1050	A
24	BA	1056	G
24	BA	1057	A
24	BA	1060	U
24	BA	1061	U
24	BA	1062	G
24	BA	1065	U
24	BA	1066	U
24	BA	1067	A
24	BA	1068	G
24	BA	1070	A
24	BA	1071	G
24	BA	1072	C
24	BA	1077	A
24	BA	1078	U
24	BA	1079	C
24	BA	1083	U
24	BA	1085	A
24	BA	1088	A
24	BA	1089	G
24	BA	1090	U
24	BA	1092	C
24	BA	1095	A
24	BA	1096	A
24	BA	1097	U
24	BA	1105	U
24	BA	1111	A
24	BA	1112	G

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Mol	Chain	Res	Type
24	BA	1122	G
24	BA	1129	A
24	BA	1130	U
24	BA	1135	C
24	BA	1136	G
24	BA	1142	U
24	BA	1142(A)	A
24	BA	1143	A
24	BA	1174	A
24	BA	1176	G
24	BA	1178	C
24	BA	1179	C
24	BA	1180	C
24	BA	1181	C
24	BA	1195	G
24	BA	1204	A
24	BA	1205	U
24	BA	1210	A
24	BA	1211	U
24	BA	1212	G
24	BA	1220	A
24	BA	1228	G
24	BA	1236	G
24	BA	1244	G
24	BA	1250	G
24	BA	1252	G
24	BA	1253	A
24	BA	1256	G
24	BA	1265	A
24	BA	1271	G
24	BA	1272	A
24	BA	1273	U
24	BA	1274	A
24	BA	1300	U
24	BA	1301	A
24	BA	1313	U
24	BA	1314	C
24	BA	1321	A
24	BA	1329	U
24	BA	1332	G
24	BA	1344	G
24	BA	1349	A

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Mol	Chain	Res	Type
24	BA	1352	U
24	BA	1359	A
24	BA	1360	A
24	BA	1365	A
24	BA	1368	G
24	BA	1380	G
24	BA	1384	A
24	BA	1385	G
24	BA	1386	C
24	BA	1388	G
24	BA	1395	A
24	BA	1416	G
24	BA	1420	U
24	BA	1421	G
24	BA	1428	C
24	BA	1429	G
24	BA	1444(A)	A
24	BA	1449	A
24	BA	1449(A)	G
24	BA	1454	U
24	BA	1455	G
24	BA	1459	G
24	BA	1460	A
24	BA	1461	G
24	BA	1467	C
24	BA	1471	A
24	BA	1483	G
24	BA	1493	C
24	BA	1497	U
24	BA	1506	C
24	BA	1508	A
24	BA	1509	C
24	BA	1510	A
24	BA	1511	A
24	BA	1522	G
24	BA	1526	G
24	BA	1534	G
24	BA	1535	U
24	BA	1536	A
24	BA	1537	C
24	BA	1543	A
24	BA	1544	C

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Mol	Chain	Res	Type
24	BA	1545	A
24	BA	1558	A
24	BA	1559	G
24	BA	1566	A
24	BA	1569	A
24	BA	1578	U
24	BA	1579	A
24	BA	1580	A
24	BA	1586	A
24	BA	1601	G
24	BA	1608	A
24	BA	1609	A
24	BA	1616	A
24	BA	1617	C
24	BA	1640	C
24	BA	1648	C
24	BA	1654	A
24	BA	1674	G
24	BA	1678	G
24	BA	1695	G
24	BA	1729	A
24	BA	1730	U
24	BA	1731	G
24	BA	1733	G
24	BA	1742	C
24	BA	1743	G
24	BA	1750	G
24	BA	1756	G
24	BA	1762	A
24	BA	1763	G
24	BA	1764	G
24	BA	1773	A
24	BA	1782	C
24	BA	1791	A
24	BA	1798	U
24	BA	1799	G
24	BA	1800	C
24	BA	1801	G
24	BA	1802	A
24	BA	1816	G
24	BA	1820	U
24	BA	1829	A

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Mol	Chain	Res	Type
24	BA	1834	U
24	BA	1835	G
24	BA	1847	A
24	BA	1848	A
24	BA	1858	G
24	BA	1869	G
24	BA	1870	C
24	BA	1878	G
24	BA	1882	C
24	BA	1889	A
24	BA	1900	A
24	BA	1904	G
24	BA	1906	G
24	BA	1913	A
24	BA	1914	C
24	BA	1919	A
24	BA	1929	G
24	BA	1930	G
24	BA	1936	A
24	BA	1938	A
24	BA	1955	U
24	BA	1963	U
24	BA	1964	G
24	BA	1967	C
24	BA	1969	A
24	BA	1970	A
24	BA	1971	A
24	BA	1972	A
24	BA	1982	C
24	BA	1993	U
24	BA	1999	C
24	BA	2000	G
24	BA	2020	A
24	BA	2023	G
24	BA	2030	A
24	BA	2031	A
24	BA	2032	G
24	BA	2033	A
24	BA	2034	U
24	BA	2039	C
24	BA	2043	C
24	BA	2052	G

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Mol	Chain	Res	Type
24	BA	2055	C
24	BA	2056	G
24	BA	2060	A
24	BA	2061	G
24	BA	2062	A
24	BA	2069	G
24	BA	2099	U
24	BA	2107	C
24	BA	2108	C
24	BA	2111	C
24	BA	2112	G
24	BA	2113	U
24	BA	2114	A
24	BA	2115	G
24	BA	2116	G
24	BA	2118	U
24	BA	2123	G
24	BA	2126	A
24	BA	2127	G
24	BA	2128	C
24	BA	2131	G
24	BA	2132	U
24	BA	2133	G
24	BA	2134	A
24	BA	2136	C
24	BA	2137	C
24	BA	2138	C
24	BA	2145	C
24	BA	2146	C
24	BA	2147	G
24	BA	2148	G
24	BA	2151	G
24	BA	2153	G
24	BA	2157	G
24	BA	2159	G
24	BA	2161	C
24	BA	2165	G
24	BA	2167	U
24	BA	2168	G
24	BA	2169	A
24	BA	2170	A
24	BA	2171	A

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Mol	Chain	Res	Type
24	BA	2176	A
24	BA	2178	C
24	BA	2181	G
24	BA	2182	G
24	BA	2186	G
24	BA	2189	U
24	BA	2190	G
24	BA	2191	G
24	BA	2192	G
24	BA	2198	A
24	BA	2199	A
24	BA	2210	G
24	BA	2211	G
24	BA	2212	A
24	BA	2213	U
24	BA	2215	G
24	BA	2225	A
24	BA	2238	G
24	BA	2239	G
24	BA	2268	A
24	BA	2273	A
24	BA	2275	C
24	BA	2278	A
24	BA	2283	C
24	BA	2287	A
24	BA	2288	A
24	BA	2307	G
24	BA	2308	G
24	BA	2309	A
24	BA	2319	G
24	BA	2320	A
24	BA	2325	G
24	BA	2327	A
24	BA	2334	G
24	BA	2336	A
24	BA	2346	A
24	BA	2347	C
24	BA	2350	C
24	BA	2376	A
24	BA	2383	G
24	BA	2385	C
24	BA	2402	C

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Mol	Chain	Res	Type
24	BA	2403	C
24	BA	2406	U
24	BA	2410	G
24	BA	2419	U
24	BA	2422	A
24	BA	2423	U
24	BA	2424	C
24	BA	2425	A
24	BA	2428	G
24	BA	2429	G
24	BA	2430	A
24	BA	2434	A
24	BA	2435	A
24	BA	2439	A
24	BA	2440	C
24	BA	2441	C
24	BA	2448	A
24	BA	2464	C
24	BA	2468	G
24	BA	2476	A
24	BA	2482	G
24	BA	2502	G
24	BA	2503	A
24	BA	2505	G
24	BA	2518	A
24	BA	2520	C
24	BA	2529	G
24	BA	2554	U
24	BA	2555	U
24	BA	2567	G
24	BA	2572	A
24	BA	2573	C
24	BA	2585	U
24	BA	2602	A
24	BA	2609	U
24	BA	2611	U
24	BA	2612	C
24	BA	2615	U
24	BA	2629	A
24	BA	2636	U
24	BA	2654	A
24	BA	2665	A

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Mol	Chain	Res	Type
24	BA	2673	G
24	BA	2682	U
24	BA	2689	U
24	BA	2690	C
24	BA	2691	C
24	BA	2702	U
24	BA	2703	C
24	BA	2707	G
24	BA	2712(A)	A
24	BA	2713	A
24	BA	2714	G
24	BA	2726	U
24	BA	2733	A
24	BA	2752	C
24	BA	2758	A
24	BA	2764	A
24	BA	2765	A
24	BA	2766	G
24	BA	2778	A
24	BA	2779	U
24	BA	2789	C
24	BA	2790	A
24	BA	2791	C
24	BA	2793	G
24	BA	2794	C
24	BA	2795	G
24	BA	2797	U
24	BA	2798	C
24	BA	2801	A
24	BA	2802	G
24	BA	2808	U
24	BA	2818	G
24	BA	2820	A
24	BA	2821	A
24	BA	2833	G
24	BA	2834	G
24	BA	2835	A
24	BA	2848	G
24	BA	2850	A
24	BA	2851	A
24	BA	2872	G
24	BA	2891	G

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Mol	Chain	Res	Type
24	BA	2892	A
24	BA	2894	G
24	BA	2901	C
25	BB	7	G
25	BB	12	C
25	BB	13	A
25	BB	15	A
25	BB	16	G
25	BB	24	G
25	BB	27	C
25	BB	40	U
25	BB	41	U
25	BB	45	A
25	BB	52	A
25	BB	53	A
25	BB	56	G
25	BB	67	G
25	BB	73	A
25	BB	75	G
25	BB	81	G
25	BB	82	G
25	BB	105	G
25	BB	109	G
25	BB	118	G
1	CA	9	G
1	CA	22	G
1	CA	32	A
1	CA	39	G
1	CA	47	C
1	CA	48	C
1	CA	50	A
1	CA	51	A
1	CA	65	U
1	CA	66	G
1	CA	76	G
1	CA	79	G
1	CA	81	G
1	CA	84	U
1	CA	85	U
1	CA	86	U
1	CA	87	A
1	CA	90	C

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Mol	Chain	Res	Type
1	CA	91	C
1	CA	95	G
1	CA	101	A
1	CA	116	A
1	CA	121	C
1	CA	131	C
1	CA	163	C
1	CA	169	C
1	CA	174	C
1	CA	182	U
1	CA	186	C
1	CA	189	U
1	CA	190	G
1	CA	191(D)	U
1	CA	195	A
1	CA	197	A
1	CA	198	G
1	CA	209	U
1	CA	210	U
1	CA	231	G
1	CA	244	U
1	CA	247	G
1	CA	250	A
1	CA	251	G
1	CA	266	G
1	CA	267	C
1	CA	268	C
1	CA	270	A
1	CA	281	G
1	CA	289	G
1	CA	321	A
1	CA	328	C
1	CA	329	A
1	CA	332	G
1	CA	340	U
1	CA	345	C
1	CA	346	G
1	CA	347	G
1	CA	350	G
1	CA	351	G
1	CA	352	C
1	CA	353	A

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Mol	Chain	Res	Type
1	CA	354	G
1	CA	367	U
1	CA	372	C
1	CA	373	A
1	CA	397	A
1	CA	398	C
1	CA	406	G
1	CA	411	A
1	CA	412	A
1	CA	413	G
1	CA	414	A
1	CA	422	C
1	CA	423	G
1	CA	429	U
1	CA	435	C
1	CA	439	A
1	CA	442	C
1	CA	466	C
1	CA	467	G
1	CA	478	A
1	CA	482	A
1	CA	485	G
1	CA	486	U
1	CA	496	A
1	CA	497	U
1	CA	505	G
1	CA	509	A
1	CA	510	A
1	CA	511	C
1	CA	518	C
1	CA	521	G
1	CA	527	G
1	CA	530	G
1	CA	531	U
1	CA	532	A
1	CA	533	A
1	CA	535	A
1	CA	547	A
1	CA	559	A
1	CA	561	U
1	CA	562	C
1	CA	572	A

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Mol	Chain	Res	Type
1	CA	575	G
1	CA	576	G
1	CA	577	G
1	CA	596	C
1	CA	598	U
1	CA	618	C
1	CA	630	G
1	CA	632	A
1	CA	633	G
1	CA	653	A
1	CA	661	G
1	CA	665	A
1	CA	666	G
1	CA	686	U
1	CA	688	G
1	CA	702	A
1	CA	704	A
1	CA	723	U
1	CA	724	G
1	CA	731	G
1	CA	749	C
1	CA	755	G
1	CA	778	G
1	CA	793	U
1	CA	794	A
1	CA	801	U
1	CA	802	A
1	CA	813	U
1	CA	816	A
1	CA	817	C
1	CA	828	A
1	CA	841	U
1	CA	842	C
1	CA	843	U
1	CA	848	C
1	CA	858	G
1	CA	859	A
1	CA	885	G
1	CA	889	A
1	CA	914	A
1	CA	916	G
1	CA	922	G

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Mol	Chain	Res	Type
1	CA	926	G
1	CA	927	G
1	CA	934	C
1	CA	935	A
1	CA	960	U
1	CA	961	U
1	CA	966	G
1	CA	968	A
1	CA	969	A
1	CA	971	G
1	CA	974	A
1	CA	976	G
1	CA	977	A
1	CA	978	A
1	CA	979	C
1	CA	980	C
1	CA	982	U
1	CA	989	C
1	CA	991	U
1	CA	992	U
1	CA	993	G
1	CA	994	A
1	CA	1002	G
1	CA	1004	A
1	CA	1005	A
1	CA	1006	C
1	CA	1009	G
1	CA	1024	G
1	CA	1025	U
1	CA	1028	C
1	CA	1029	G
1	CA	1030	C
1	CA	1032	A
1	CA	1033	G
1	CA	1036	G
1	CA	1038	C
1	CA	1039	C
1	CA	1040	U
1	CA	1045	C
1	CA	1046	A
1	CA	1052	U
1	CA	1054	C

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Mol	Chain	Res	Type
1	CA	1066	C
1	CA	1067	A
1	CA	1086	U
1	CA	1091	U
1	CA	1094	G
1	CA	1095	U
1	CA	1101	A
1	CA	1118	C
1	CA	1124	G
1	CA	1127	G
1	CA	1129	C
1	CA	1131	G
1	CA	1136	U
1	CA	1137	C
1	CA	1138	G
1	CA	1139	G
1	CA	1146	A
1	CA	1157	A
1	CA	1158	C
1	CA	1159	U
1	CA	1160	G
1	CA	1161	C
1	CA	1178	G
1	CA	1181	G
1	CA	1182	G
1	CA	1184	G
1	CA	1187	G
1	CA	1191	A
1	CA	1196	U
1	CA	1197	G
1	CA	1200	C
1	CA	1201	A
1	CA	1211	U
1	CA	1212	U
1	CA	1213	A
1	CA	1214	C
1	CA	1220	G
1	CA	1227	A
1	CA	1238	A
1	CA	1240	U
1	CA	1241	G
1	CA	1253	G

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Mol	Chain	Res	Type
1	CA	1256	A
1	CA	1257	U
1	CA	1258	G
1	CA	1260	C
1	CA	1269	A
1	CA	1279	A
1	CA	1280	A
1	CA	1281	U
1	CA	1285	A
1	CA	1286	A
1	CA	1287	A
1	CA	1297	C
1	CA	1298	C
1	CA	1299	A
1	CA	1300	G
1	CA	1301	U
1	CA	1302	U
1	CA	1305	G
1	CA	1320	C
1	CA	1322	C
1	CA	1323	G
1	CA	1324	A
1	CA	1331	G
1	CA	1335	C
1	CA	1338	G
1	CA	1346	A
1	CA	1347	G
1	CA	1353	G
1	CA	1362(A)	C
1	CA	1363	A
1	CA	1364	U
1	CA	1367	C
1	CA	1378	C
1	CA	1379	G
1	CA	1397	C
1	CA	1419	G
1	CA	1442	G
1	CA	1443	G
1	CA	1446	A
1	CA	1450	U
1	CA	1452	C
1	CA	1453	G

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Mol	Chain	Res	Type
1	CA	1454	G
1	CA	1492	A
1	CA	1493	A
1	CA	1494	G
1	CA	1499	A
1	CA	1503	A
1	CA	1504	G
1	CA	1505	G
1	CA	1506	U
1	CA	1517	G
1	CA	1520	G
1	CA	1529	G
1	CA	1530	G
1	CA	1531	A
22	CC	2	G
22	CC	8	U
22	CC	18	G
22	CC	19	G
22	CC	20	U
22	CC	46	G
22	CC	47	U
22	CC	49	G
22	CC	76	A
24	DA	3	U
24	DA	9	U
24	DA	10	G
24	DA	34	C
24	DA	46	C
24	DA	49	A
24	DA	50	U
24	DA	51	G
24	DA	55	G
24	DA	69	C
24	DA	71	A
24	DA	72	U
24	DA	74	A
24	DA	75	G
24	DA	90	U
24	DA	91	A
24	DA	93	C
24	DA	95	G
24	DA	102	G

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Mol	Chain	Res	Type
24	DA	118	A
24	DA	120	U
24	DA	125	G
24	DA	129	C
24	DA	140	A
24	DA	153	C
24	DA	155	C
24	DA	161	U
24	DA	171	G
24	DA	174	C
24	DA	175	G
24	DA	181	A
24	DA	182	A
24	DA	196	A
24	DA	199	A
24	DA	205	G
24	DA	215	G
24	DA	216	A
24	DA	221	A
24	DA	222	A
24	DA	229	A
24	DA	233	A
24	DA	248	G
24	DA	252	G
24	DA	266	G
24	DA	270(K)	C
24	DA	270(M)	U
24	DA	270(N)	G
24	DA	270(O)	U
24	DA	271(C)	U
24	DA	271	G
24	DA	273(D)	C
24	DA	274	G
24	DA	275	G
24	DA	278	A
24	DA	279	C
24	DA	289	A
24	DA	311	A
24	DA	329	G
24	DA	330	A
24	DA	333	G
24	DA	352	G

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Mol	Chain	Res	Type
24	DA	356	G
24	DA	357	A
24	DA	363	G
24	DA	363(A)	A
24	DA	363(E)	U
24	DA	363(F)	A
24	DA	386	G
24	DA	395	U
24	DA	405	U
24	DA	406	G
24	DA	411	G
24	DA	412	A
24	DA	428	A
24	DA	443	A
24	DA	444	C
24	DA	448	U
24	DA	455	C
24	DA	457	A
24	DA	470	A
24	DA	477	A
24	DA	480	A
24	DA	481	G
24	DA	489	G
24	DA	496	G
24	DA	505	A
24	DA	509	C
24	DA	512	G
24	DA	528	A
24	DA	529	A
24	DA	530	G
24	DA	531	C
24	DA	532	A
24	DA	533	G
24	DA	537	C
24	DA	556	G
24	DA	563	G
24	DA	573	G
24	DA	575	A
24	DA	603	A
24	DA	607	U
24	DA	614	U
24	DA	615	G

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Mol	Chain	Res	Type
24	DA	617	G
24	DA	621	A
24	DA	622	G
24	DA	627	A
24	DA	637	A
24	DA	645	C
24	DA	646	A
24	DA	647	G
24	DA	651	G
24	DA	654	A
24	DA	654(A)	A
24	DA	654(G)	C
24	DA	654(H)	G
24	DA	654(I)	C
24	DA	654(K)	C
24	DA	654(M)	C
24	DA	654(N)	G
24	DA	654(Q)	C
24	DA	654(T)	A
24	DA	668	G
24	DA	669	G
24	DA	670	A
24	DA	686	G
24	DA	708	C
24	DA	730	C
24	DA	739	G
24	DA	748	G
24	DA	753	C
24	DA	764	A
24	DA	775	G
24	DA	782	A
24	DA	784	A
24	DA	785	G
24	DA	789	A
24	DA	790	C
24	DA	792	G
24	DA	805	G
24	DA	812	C
24	DA	819	A
24	DA	827	U
24	DA	828	U
24	DA	831	G

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Mol	Chain	Res	Type
24	DA	832	G
24	DA	857	C
24	DA	859	G
24	DA	866	A
24	DA	869	G
24	DA	878	A
24	DA	881	G
24	DA	882	G
24	DA	883	G
24	DA	887	A
24	DA	888	C
24	DA	889	C
24	DA	894	C
24	DA	896	A
24	DA	897	C
24	DA	898	C
24	DA	899	A
24	DA	901	A
24	DA	907	U
24	DA	910	A
24	DA	914	C
24	DA	915	C
24	DA	917	A
24	DA	932	G
24	DA	941	A
24	DA	943	U
24	DA	945	A
24	DA	946	G
24	DA	953	A
24	DA	959	A
24	DA	961	C
24	DA	974	G
24	DA	974(A)	C
24	DA	980	A
24	DA	983	A
24	DA	990	A
24	DA	991	C
24	DA	996	A
24	DA	1011	G
24	DA	1012	U
24	DA	1013	C
24	DA	1015	G

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Mol	Chain	Res	Type
24	DA	1016	G
24	DA	1022	G
24	DA	1023	U
24	DA	1024	G
24	DA	1025	G
24	DA	1026	U
24	DA	1027	A
24	DA	1039	G
24	DA	1044	G
24	DA	1045	A
24	DA	1048	A
24	DA	1049	C
24	DA	1051	G
24	DA	1054	A
24	DA	1057	A
24	DA	1059	G
24	DA	1061	U
24	DA	1062	G
24	DA	1063	G
24	DA	1067	A
24	DA	1069	A
24	DA	1070	A
24	DA	1071	G
24	DA	1073	A
24	DA	1074	G
24	DA	1075	C
24	DA	1076	C
24	DA	1083	U
24	DA	1085	A
24	DA	1086	A
24	DA	1087	G
24	DA	1088	A
24	DA	1094	U
24	DA	1096	A
24	DA	1099	G
24	DA	1105	U
24	DA	1111	A
24	DA	1112	G
24	DA	1122	G
24	DA	1129	A
24	DA	1130	U
24	DA	1135	C

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Mol	Chain	Res	Type
24	DA	1136	G
24	DA	1142(A)	A
24	DA	1143	A
24	DA	1144	G
24	DA	1170	G
24	DA	1173	G
24	DA	1174	A
24	DA	1175	U
24	DA	1177	A
24	DA	1204	A
24	DA	1205	U
24	DA	1212	G
24	DA	1220	A
24	DA	1250	G
24	DA	1253	A
24	DA	1255	U
24	DA	1256	G
24	DA	1271	G
24	DA	1272	A
24	DA	1273	U
24	DA	1300	U
24	DA	1301	A
24	DA	1307	A
24	DA	1314	C
24	DA	1318	C
24	DA	1320	C
24	DA	1321	A
24	DA	1325	G
24	DA	1329	U
24	DA	1332	G
24	DA	1349	A
24	DA	1359	A
24	DA	1360	A
24	DA	1365	A
24	DA	1368	G
24	DA	1379	A
24	DA	1384	A
24	DA	1385	G
24	DA	1386	C
24	DA	1389	G
24	DA	1395	A
24	DA	1396	U

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Mol	Chain	Res	Type
24	DA	1406	U
24	DA	1416	G
24	DA	1419	A
24	DA	1420	U
24	DA	1421	G
24	DA	1428	C
24	DA	1437	C
24	DA	1444(A)	A
24	DA	1449	A
24	DA	1449(A)	G
24	DA	1455	G
24	DA	1460	A
24	DA	1461	G
24	DA	1467	C
24	DA	1471	A
24	DA	1475	G
24	DA	1479	G
24	DA	1483	G
24	DA	1488	G
24	DA	1490	A
24	DA	1493	C
24	DA	1508	A
24	DA	1509	C
24	DA	1510	A
24	DA	1522	G
24	DA	1526	G
24	DA	1534	G
24	DA	1535	U
24	DA	1536	A
24	DA	1537	C
24	DA	1543	A
24	DA	1547	C
24	DA	1558	A
24	DA	1559	G
24	DA	1560	G
24	DA	1566	A
24	DA	1569	A
24	DA	1578	U
24	DA	1580	A
24	DA	1581	G
24	DA	1585	C
24	DA	1586	A

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Mol	Chain	Res	Type
24	DA	1588	C
24	DA	1598	C
24	DA	1608	A
24	DA	1609	A
24	DA	1612	C
24	DA	1640	C
24	DA	1648	C
24	DA	1654	A
24	DA	1674	G
24	DA	1675	C
24	DA	1678	G
24	DA	1700	A
24	DA	1701	A
24	DA	1718	G
24	DA	1725	G
24	DA	1728	G
24	DA	1729	A
24	DA	1730	U
24	DA	1731	G
24	DA	1742	C
24	DA	1743	G
24	DA	1756	G
24	DA	1763	G
24	DA	1764	G
24	DA	1773	A
24	DA	1780	A
24	DA	1782	C
24	DA	1791	A
24	DA	1800	C
24	DA	1801	G
24	DA	1802	A
24	DA	1812	A
24	DA	1816	G
24	DA	1820	U
24	DA	1829	A
24	DA	1834	U
24	DA	1835	G
24	DA	1847	A
24	DA	1848	A
24	DA	1858	G
24	DA	1870	C
24	DA	1871	A

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Mol	Chain	Res	Type
24	DA	1878	G
24	DA	1889	A
24	DA	1895	C
24	DA	1900	A
24	DA	1906	G
24	DA	1912	A
24	DA	1913	A
24	DA	1914	C
24	DA	1917	U
24	DA	1929	G
24	DA	1930	G
24	DA	1936	A
24	DA	1938	A
24	DA	1955	U
24	DA	1956	U
24	DA	1963	U
24	DA	1965	C
24	DA	1967	C
24	DA	1970	A
24	DA	1971	A
24	DA	1972	A
24	DA	1983	C
24	DA	1992	G
24	DA	1993	U
24	DA	1994	C
24	DA	2020	A
24	DA	2023	G
24	DA	2031	A
24	DA	2032	G
24	DA	2033	A
24	DA	2036	C
24	DA	2039	C
24	DA	2043	C
24	DA	2052	G
24	DA	2055	C
24	DA	2056	G
24	DA	2059	A
24	DA	2060	A
24	DA	2061	G
24	DA	2062	A
24	DA	2067	G
24	DA	2069	G

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Mol	Chain	Res	Type
24	DA	2082	A
24	DA	2099	U
24	DA	2100	G
24	DA	2108	C
24	DA	2111	C
24	DA	2112	G
24	DA	2113	U
24	DA	2114	A
24	DA	2116	G
24	DA	2117	A
24	DA	2119	A
24	DA	2125	G
24	DA	2126	A
24	DA	2127	G
24	DA	2128	C
24	DA	2131	G
24	DA	2132	U
24	DA	2133	G
24	DA	2134	A
24	DA	2136	C
24	DA	2137	C
24	DA	2145	C
24	DA	2146	C
24	DA	2147	G
24	DA	2148	G
24	DA	2157	G
24	DA	2158	A
24	DA	2159	G
24	DA	2166	G
24	DA	2167	U
24	DA	2168	G
24	DA	2169	A
24	DA	2171	A
24	DA	2172	U
24	DA	2173	A
24	DA	2175	C
24	DA	2189	U
24	DA	2191	G
24	DA	2192	G
24	DA	2198	A
24	DA	2210	G
24	DA	2211	G

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Mol	Chain	Res	Type
24	DA	2212	A
24	DA	2213	U
24	DA	2215	G
24	DA	2225	A
24	DA	2226	C
24	DA	2238	G
24	DA	2239	G
24	DA	2245	U
24	DA	2275	C
24	DA	2278	A
24	DA	2280	G
24	DA	2283	C
24	DA	2286	A
24	DA	2287	A
24	DA	2305	A
24	DA	2307	G
24	DA	2308	G
24	DA	2309	A
24	DA	2311	A
24	DA	2316	C
24	DA	2319	G
24	DA	2325	G
24	DA	2334	G
24	DA	2335	A
24	DA	2336	A
24	DA	2342	C
24	DA	2345	G
24	DA	2346	A
24	DA	2347	C
24	DA	2350	C
24	DA	2352	A
24	DA	2383	G
24	DA	2385	C
24	DA	2392	A
24	DA	2394	C
24	DA	2402	C
24	DA	2403	C
24	DA	2406	U
24	DA	2410	G
24	DA	2422	A
24	DA	2424	C
24	DA	2425	A

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Mol	Chain	Res	Type
24	DA	2428	G
24	DA	2429	G
24	DA	2430	A
24	DA	2431	U
24	DA	2434	A
24	DA	2435	A
24	DA	2439	A
24	DA	2440	C
24	DA	2441	C
24	DA	2448	A
24	DA	2468	G
24	DA	2469	A
24	DA	2475	C
24	DA	2476	A
24	DA	2477	C
24	DA	2478	A
24	DA	2482	G
24	DA	2500	U
24	DA	2502	G
24	DA	2503	A
24	DA	2505	G
24	DA	2506	U
24	DA	2518	A
24	DA	2542	A
24	DA	2543	G
24	DA	2554	U
24	DA	2555	U
24	DA	2564	A
24	DA	2566	A
24	DA	2567	G
24	DA	2572	A
24	DA	2585	U
24	DA	2601	C
24	DA	2602	A
24	DA	2603	G
24	DA	2609	U
24	DA	2611	U
24	DA	2612	C
24	DA	2615	U
24	DA	2629	A
24	DA	2630	G
24	DA	2636	U

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Mol	Chain	Res	Type
24	DA	2665	A
24	DA	2673	G
24	DA	2682	U
24	DA	2689	U
24	DA	2690	C
24	DA	2700	C
24	DA	2702	U
24	DA	2712(A)	A
24	DA	2713	A
24	DA	2717	G
24	DA	2726	U
24	DA	2733	A
24	DA	2744	G
24	DA	2750	A
24	DA	2751	G
24	DA	2752	C
24	DA	2758	A
24	DA	2762	G
24	DA	2764	A
24	DA	2765	A
24	DA	2766	G
24	DA	2769	C
24	DA	2777	G
24	DA	2778	A
24	DA	2779	U
24	DA	2786	U
24	DA	2789	C
24	DA	2790	A
24	DA	2791	C
24	DA	2797	U
24	DA	2799	A
24	DA	2802	G
24	DA	2808	U
24	DA	2818	G
24	DA	2820	A
24	DA	2821	A
24	DA	2833	G
24	DA	2834	G
24	DA	2835	A
24	DA	2846	G
24	DA	2860	A
24	DA	2872	G

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Mol	Chain	Res	Type
24	DA	2873	A
24	DA	2880	C
24	DA	2892	A
24	DA	2893	G
24	DA	2894	G
24	DA	2896	C
25	DB	0	A
25	DB	3	C
25	DB	4	C
25	DB	7	G
25	DB	14	U
25	DB	15	A
25	DB	16	G
25	DB	22	U
25	DB	25	A
25	DB	30	C
25	DB	40	U
25	DB	41	U
25	DB	42	C
25	DB	44	G
25	DB	45	A
25	DB	47	C
25	DB	67	G
25	DB	73	A
25	DB	81	G
25	DB	88	C
25	DB	89(A)	A
25	DB	90	C
25	DB	105	G
25	DB	109	G
25	DB	115	G

All (144) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	5	U
1	AA	82	U
1	AA	115	G
1	AA	190	G
1	AA	210	U
1	AA	244	U
1	AA	266	G

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Mol	Chain	Res	Type
1	AA	412	A
1	AA	428	G
1	AA	429	U
1	AA	484	G
1	AA	509	A
1	AA	560	U
1	AA	687	A
1	AA	703	G
1	AA	748	C
1	AA	812	C
1	AA	913	A
1	AA	974	A
1	AA	992	U
1	AA	1025	U
1	AA	1027	C
1	AA	1065	U
1	AA	1183	A
1	AA	1256	A
1	AA	1285	A
1	AA	1336	C
1	AA	1452	C
1	AA	1498	U
22	AC	47	U
24	BA	222	A
24	BA	229	A
24	BA	271(B)	G
24	BA	271(C)	U
24	BA	404	C
24	BA	654(S)	G
24	BA	880	G
24	BA	974(A)	C
24	BA	1022	G
24	BA	1026	U
24	BA	1060	U
24	BA	1069	A
24	BA	1178	C
24	BA	1210	A
24	BA	1312	U
24	BA	1379	A
24	BA	1420	U
24	BA	1427	A
24	BA	1508	A

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Mol	Chain	Res	Type
24	BA	1509	C
24	BA	1558	A
24	BA	1653	G
24	BA	1694	C
24	BA	1799	G
24	BA	1819	A
24	BA	1899	G
24	BA	1912	A
24	BA	1992	G
24	BA	2166	G
24	BA	2211	G
24	BA	2212	A
24	BA	2439	A
24	BA	2481	G
24	BA	2566	A
24	BA	2610	C
24	BA	2689	U
24	BA	2751	G
1	CA	89	U
1	CA	115	G
1	CA	197	A
1	CA	243	A
1	CA	250	A
1	CA	266	G
1	CA	328	C
1	CA	345	C
1	CA	412	A
1	CA	413	G
1	CA	421	U
1	CA	485	G
1	CA	509	A
1	CA	560	U
1	CA	632	A
1	CA	687	A
1	CA	748	C
1	CA	812	C
1	CA	913	A
1	CA	991	U
1	CA	992	U
1	CA	1126	U
1	CA	1183	A
1	CA	1196	U

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Mol	Chain	Res	Type
1	CA	1285	A
1	CA	1297	C
1	CA	1300	G
1	CA	1301	U
1	CA	1322	C
1	CA	1346	A
1	CA	1453	G
1	CA	1498	U
22	CC	1	C
22	CC	48	C
24	DA	49	A
24	DA	71	A
24	DA	101	G
24	DA	128	C
24	DA	278	A
24	DA	653	A
24	DA	654(S)	G
24	DA	669	G
24	DA	752	A
24	DA	774	A
24	DA	856	C
24	DA	877	U
24	DA	888	C
24	DA	974	G
24	DA	1022	G
24	DA	1085	A
24	DA	1171	G
24	DA	1427	A
24	DA	1460	A
24	DA	1558	A
24	DA	1653	G
24	DA	1730	U
24	DA	1819	A
24	DA	1913	A
24	DA	1992	G
24	DA	2107	C
24	DA	2166	G
24	DA	2211	G
24	DA	2225	A
24	DA	2344	U
24	DA	2345	G
24	DA	2351	G

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Mol	Chain	Res	Type
24	DA	2439	A
24	DA	2447	G
24	DA	2542	A
24	DA	2602	A
24	DA	2610	C
24	DA	2689	U
24	DA	2751	G
24	DA	2776	A
24	DA	2790	A
24	DA	2859	G
24	DA	2893	G

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 1693 ligands modelled in this entry, 1691 are monoatomic - leaving 2 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
55	TAC	CA	1805	54	33,35,35	1.49	5 (15%)	42,58,58	1.61	7 (16%)
55	TAC	AA	1833	54	33,35,35	1.53	5 (15%)	42,58,58	1.60	6 (14%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
55	TAC	CA	1805	54	-	8/8/74/74	0/4/4/4
55	TAC	AA	1833	54	-	4/8/74/74	0/4/4/4

All (10) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	AA	1833	TAC	C1A-C10	4.93	1.49	1.41
55	CA	1805	TAC	C1A-C10	4.61	1.48	1.41
55	AA	1833	TAC	C1A-C61	3.96	1.49	1.41
55	CA	1805	TAC	C1A-C61	3.72	1.48	1.41
55	CA	1805	TAC	C6-C61	-3.56	1.50	1.53
55	AA	1833	TAC	C1C-C1	-3.40	1.50	1.55
55	CA	1805	TAC	C1C-C1	-3.06	1.51	1.55
55	AA	1833	TAC	C6-C61	-2.98	1.50	1.53
55	AA	1833	TAC	C2-C3	-2.32	1.34	1.40
55	CA	1805	TAC	C2-C3	-2.30	1.34	1.40

All (13) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
55	AA	1833	TAC	C41-C1C-C1	-5.06	105.24	111.05
55	CA	1805	TAC	C41-C1C-C1	-4.84	105.49	111.05
55	AA	1833	TAC	O12-C12-C1C	4.60	120.03	113.37
55	CA	1805	TAC	O12-C12-C1C	4.22	119.48	113.37
55	AA	1833	TAC	O12-C12-C1B	-4.04	118.37	123.90
55	CA	1805	TAC	O12-C12-C1B	-3.83	118.66	123.90
55	CA	1805	TAC	C1-C1C-C12	3.10	113.51	109.88
55	CA	1805	TAC	C43-N4-C4	-2.35	108.58	114.09
55	CA	1805	TAC	O3-C3-C2	-2.19	119.12	122.96
55	AA	1833	TAC	C61-C1A-C11	-2.12	118.01	120.97
55	AA	1833	TAC	C43-N4-C4	-2.11	109.13	114.09
55	AA	1833	TAC	O3-C3-C2	-2.11	119.26	122.96
55	CA	1805	TAC	C42-N4-C4	-2.08	109.20	114.09

There are no chirality outliers.

All (12) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
55	CA	1805	TAC	C1-C2-C21-O21
55	CA	1805	TAC	C1-C2-C21-N21
55	CA	1805	TAC	C3-C2-C21-O21
55	CA	1805	TAC	C3-C2-C21-N21

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Mol	Chain	Res	Type	Atoms
55	CA	1805	TAC	C3-C4-N4-C42
55	CA	1805	TAC	C3-C4-N4-C43
55	CA	1805	TAC	C41-C4-N4-C42
55	CA	1805	TAC	C41-C4-N4-C43
55	AA	1833	TAC	C3-C2-C21-N21
55	AA	1833	TAC	C3-C2-C21-O21
55	AA	1833	TAC	C1-C2-C21-N21
55	AA	1833	TAC	C41-C4-N4-C42

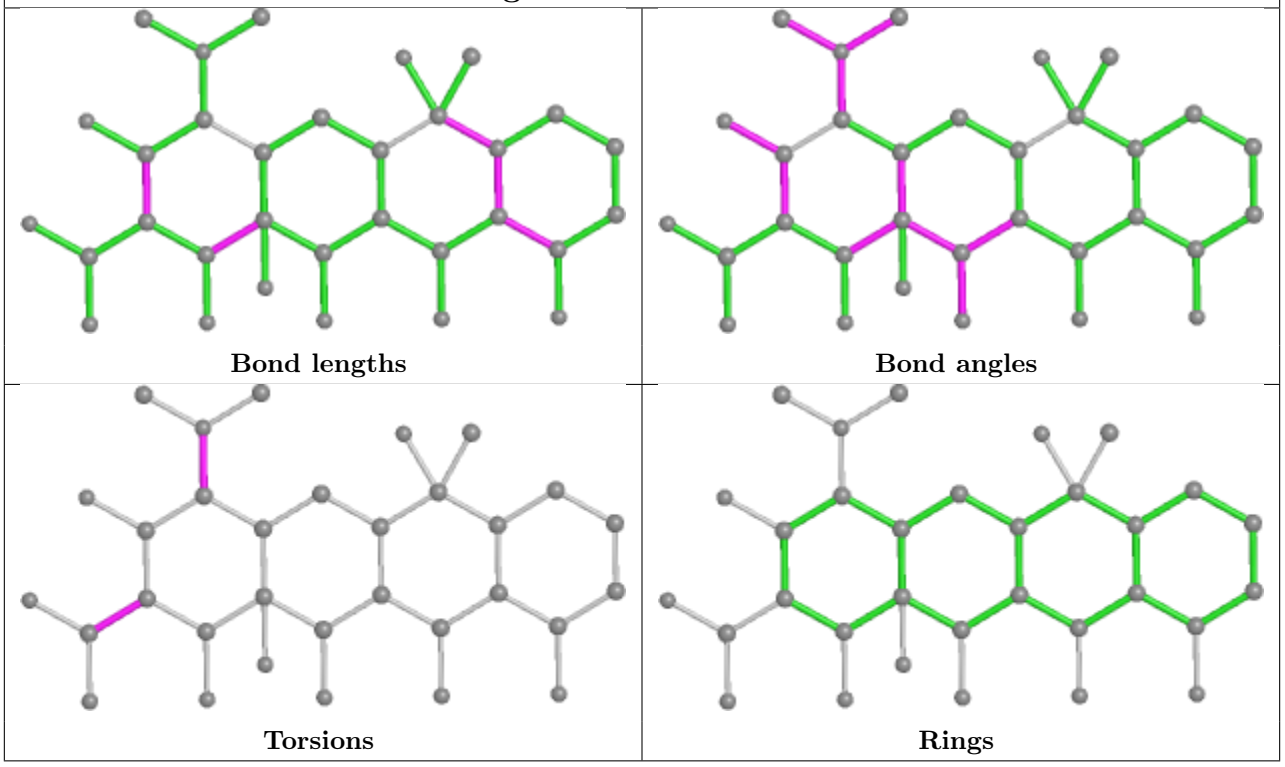
There are no ring outliers.

2 monomers are involved in 7 short contacts:

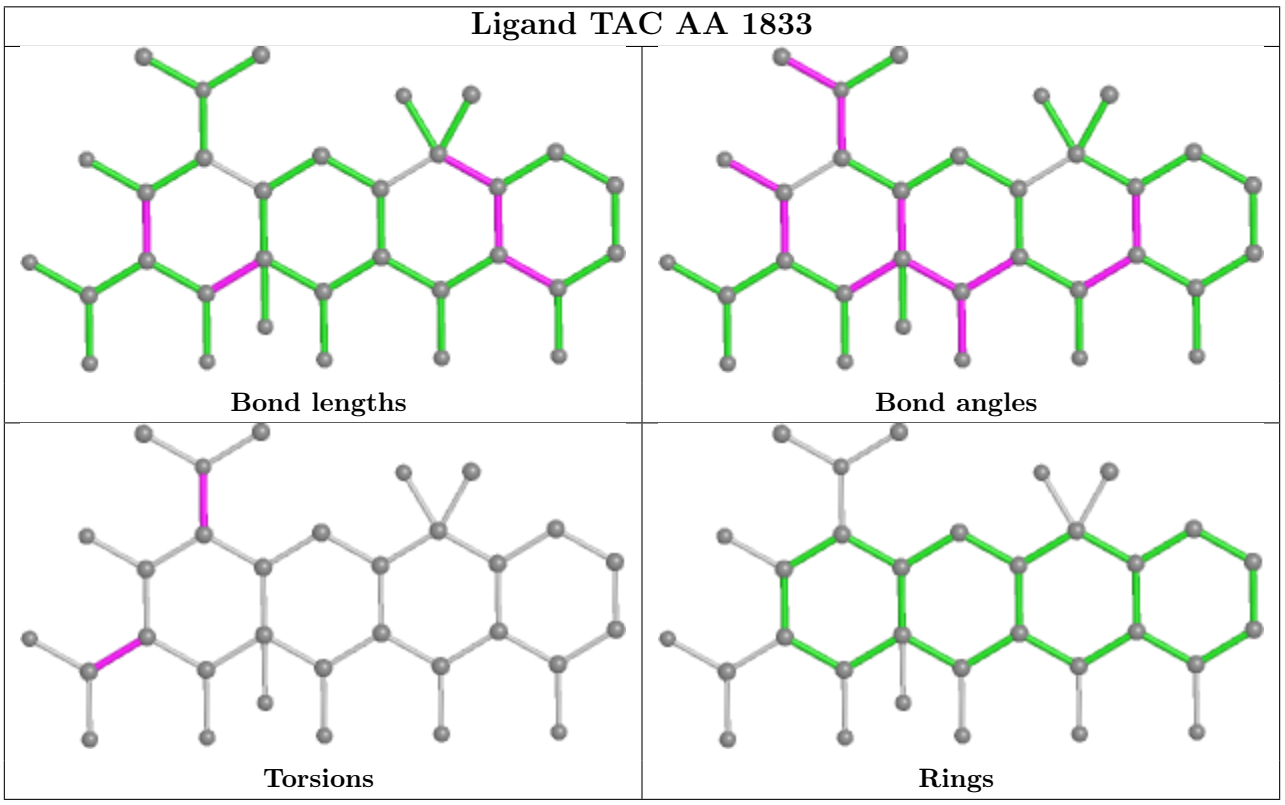
Mol	Chain	Res	Type	Clashes	Symm-Clashes
55	CA	1805	TAC	3	0
55	AA	1833	TAC	4	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

Ligand TAC CA 1805



Ligand TAC AA 1833



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	1506/1506 (100%)	-0.58	9 (0%) 89 90	89, 141, 216, 277	0
1	CA	1506/1506 (100%)	-0.67	8 (0%) 91 91	103, 152, 218, 275	0
2	AE	237/256 (92%)	1.01	59 (24%) 0 0	139, 172, 204, 216	0
2	CE	237/256 (92%)	1.81	97 (40%) 0 0	160, 191, 219, 228	0
3	AF	205/239 (85%)	2.59	123 (60%) 0 0	116, 151, 183, 201	0
3	CF	206/239 (86%)	1.43	67 (32%) 0 0	148, 179, 201, 211	0
4	AG	208/208 (100%)	1.43	68 (32%) 0 0	112, 149, 172, 183	0
4	CG	208/208 (100%)	0.41	20 (9%) 8 8	128, 153, 171, 180	0
5	AH	151/162 (93%)	2.15	73 (48%) 0 0	111, 139, 161, 195	0
5	CH	151/162 (93%)	0.67	22 (14%) 2 2	129, 154, 177, 196	0
6	AI	101/101 (100%)	2.63	58 (57%) 0 0	116, 141, 162, 167	0
6	CI	101/101 (100%)	1.68	39 (38%) 0 0	128, 149, 163, 178	0
7	AJ	155/156 (99%)	-0.05	12 (7%) 13 12	129, 151, 187, 211	0
7	CJ	155/156 (99%)	1.95	58 (37%) 0 0	146, 167, 195, 204	0
8	AK	138/138 (100%)	0.39	12 (8%) 10 10	118, 148, 162, 170	0
8	CK	138/138 (100%)	0.19	3 (2%) 62 60	131, 159, 174, 180	0
9	AL	127/128 (99%)	-0.74	0 100 100	119, 168, 186, 192	0
9	CL	127/128 (99%)	-0.29	2 (1%) 72 70	133, 185, 199, 208	0
10	AM	99/105 (94%)	0.72	23 (23%) 0 1	119, 170, 197, 210	0
10	CM	99/105 (94%)	0.07	10 (10%) 7 6	149, 191, 204, 209	0
11	AN	119/129 (92%)	2.04	47 (39%) 0 0	115, 137, 170, 198	0
11	CN	119/129 (92%)	2.01	57 (47%) 0 0	124, 149, 178, 196	0
12	AO	125/128 (97%)	1.58	43 (34%) 0 0	106, 128, 150, 192	0
12	CO	125/128 (97%)	0.23	3 (2%) 59 56	111, 134, 159, 205	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	AP	116/126 (92%)	-0.71	0 100 100	103, 153, 174, 184	0
13	CP	117/126 (92%)	0.31	16 (13%) 3 2	143, 179, 196, 205	0
14	AQ	60/61 (98%)	-0.19	1 (1%) 70 68	123, 143, 159, 161	0
14	CQ	60/61 (98%)	-0.19	3 (5%) 28 27	148, 176, 188, 191	0
15	AR	88/89 (98%)	-0.06	1 (1%) 80 81	109, 136, 155, 162	0
15	CR	88/89 (98%)	0.88	15 (17%) 1 1	121, 151, 168, 172	0
16	AS	84/88 (95%)	-0.95	0 100 100	135, 156, 179, 198	0
16	CS	84/88 (95%)	-0.69	0 100 100	121, 143, 167, 203	0
17	AT	100/105 (95%)	-0.04	2 (2%) 65 64	123, 147, 162, 173	0
17	CT	100/105 (95%)	1.27	34 (34%) 0 0	122, 145, 159, 182	0
18	AU	72/88 (81%)	1.19	24 (33%) 0 0	118, 142, 168, 195	0
18	CU	72/88 (81%)	1.99	31 (43%) 0 0	134, 157, 181, 199	0
19	AV	83/93 (89%)	-0.33	0 100 100	133, 158, 180, 191	0
19	CV	78/93 (83%)	0.48	11 (14%) 2 2	169, 195, 210, 221	0
20	AW	99/106 (93%)	-0.44	1 (1%) 82 82	137, 159, 187, 196	0
20	CW	99/106 (93%)	-0.30	1 (1%) 82 82	112, 142, 177, 194	0
21	AX	25/27 (92%)	-0.75	0 100 100	120, 150, 170, 187	0
21	CX	25/27 (92%)	-0.98	0 100 100	144, 171, 192, 209	0
22	AC	77/77 (100%)	-0.37	0 100 100	102, 125, 153, 175	0
22	CC	77/77 (100%)	0.19	9 (11%) 4 4	106, 145, 175, 205	0
23	A1	4/4 (100%)	-0.39	0 100 100	106, 109, 114, 165	0
23	C1	4/4 (100%)	-0.26	0 100 100	127, 131, 143, 184	0
24	BA	2912/2912 (100%)	-0.18	77 (2%) 56 53	68, 102, 240, 278	0
24	DA	2909/2912 (99%)	-0.26	101 (3%) 44 42	79, 114, 258, 279	0
25	BB	122/122 (100%)	-0.57	1 (0%) 86 86	92, 122, 145, 211	0
25	DB	122/122 (100%)	-0.16	9 (7%) 14 14	115, 152, 178, 226	0
26	BD	272/276 (98%)	0.66	37 (13%) 3 2	69, 96, 117, 140	0
26	DD	272/276 (98%)	0.70	24 (8%) 10 10	72, 106, 130, 155	0
27	BE	205/206 (99%)	1.25	53 (25%) 0 0	73, 117, 163, 177	0
27	DE	205/206 (99%)	0.71	29 (14%) 2 2	79, 122, 168, 196	0
28	BF	202/210 (96%)	0.61	29 (14%) 2 2	74, 108, 149, 175	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	DF	208/210 (99%)	1.58	66 (31%) 0 0	82, 125, 187, 213	0
29	BG	181/182 (99%)	0.04	8 (4%) 34 33	105, 127, 167, 186	0
29	DG	181/182 (99%)	3.57	138 (76%) 0 0	136, 166, 194, 204	0
30	BH	170/180 (94%)	-0.12	5 (2%) 51 50	103, 135, 159, 175	0
30	DH	170/180 (94%)	1.65	59 (34%) 0 0	154, 222, 249, 262	0
31	BK	146/148 (98%)	-0.09	9 (6%) 20 20	103, 151, 170, 178	0
31	DK	146/148 (98%)	-0.20	8 (5%) 25 23	111, 159, 178, 185	0
32	BM	138/140 (98%)	0.54	11 (7%) 12 11	90, 115, 153, 183	0
32	DM	138/140 (98%)	0.91	24 (17%) 1 1	93, 129, 168, 189	0
33	BN	122/122 (100%)	0.06	3 (2%) 57 54	83, 111, 132, 139	0
33	DN	122/122 (100%)	0.77	14 (11%) 4 4	86, 116, 130, 140	0
34	BO	150/150 (100%)	1.08	42 (28%) 0 0	70, 113, 143, 207	0
34	DO	150/150 (100%)	1.51	46 (30%) 0 0	85, 129, 167, 206	0
35	BP	141/141 (100%)	0.34	9 (6%) 19 19	85, 107, 132, 163	0
35	DP	141/141 (100%)	0.93	24 (17%) 1 1	95, 126, 152, 177	0
36	B0	118/118 (100%)	0.96	19 (16%) 1 2	90, 110, 131, 148	0
36	D0	117/118 (99%)	0.20	7 (5%) 21 21	88, 111, 135, 146	0
37	BQ	111/112 (99%)	0.93	23 (20%) 1 1	90, 119, 148, 164	0
37	DQ	111/112 (99%)	0.98	23 (20%) 1 1	114, 146, 168, 190	0
38	BR	137/146 (93%)	0.48	18 (13%) 3 3	104, 125, 173, 202	0
38	DR	137/146 (93%)	0.61	14 (10%) 6 6	103, 121, 177, 212	0
39	B1	117/118 (99%)	0.04	4 (3%) 45 43	77, 106, 141, 168	0
39	D1	117/118 (99%)	0.76	16 (13%) 3 2	90, 122, 155, 178	0
40	B2	101/101 (100%)	1.23	31 (30%) 0 0	79, 122, 154, 181	0
40	D2	101/101 (100%)	2.78	62 (61%) 0 0	95, 149, 165, 181	0
41	BS	113/113 (100%)	1.54	32 (28%) 0 0	81, 102, 141, 191	0
41	DS	113/113 (100%)	1.18	22 (19%) 1 1	83, 107, 140, 194	0
42	BT	92/96 (95%)	0.73	9 (9%) 7 7	81, 98, 126, 145	0
42	DT	92/96 (95%)	1.32	29 (31%) 0 0	96, 117, 140, 159	0
43	BU	102/110 (92%)	0.32	6 (5%) 22 22	95, 123, 171, 190	0
43	DU	102/110 (92%)	2.70	56 (54%) 0 0	104, 142, 195, 212	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	BV	175/206 (84%)	1.84	61 (34%) 0 0	104, 142, 218, 229	0
44	DV	179/206 (86%)	2.09	93 (51%) 0 0	132, 174, 237, 251	0
45	B3	76/85 (89%)	0.21	2 (2%) 56 53	85, 101, 121, 163	0
45	D3	77/85 (90%)	1.90	25 (32%) 0 0	98, 117, 141, 175	0
46	BZ	97/98 (98%)	0.36	5 (5%) 27 25	83, 106, 149, 195	0
46	DZ	97/98 (98%)	1.54	34 (35%) 0 0	87, 116, 159, 191	0
47	BW	66/72 (91%)	0.63	5 (7%) 13 13	80, 108, 133, 171	0
47	DW	69/72 (95%)	1.29	16 (23%) 0 1	106, 138, 163, 196	0
48	BX	59/60 (98%)	1.29	13 (22%) 0 1	85, 106, 148, 160	0
48	DX	59/60 (98%)	2.22	32 (54%) 0 0	97, 126, 159, 194	0
49	B4	66/71 (92%)	0.19	3 (4%) 33 32	127, 176, 209, 219	0
49	D4	63/71 (88%)	7.92	63 (100%) 0 0	181, 212, 226, 235	0
50	B5	59/60 (98%)	2.43	21 (35%) 0 0	78, 115, 194, 210	0
50	D5	59/60 (98%)	1.34	11 (18%) 1 1	87, 114, 191, 218	0
51	B6	45/54 (83%)	8.93	45 (100%) 0 0	149, 184, 197, 201	0
51	D6	45/54 (83%)	12.81	45 (100%) 0 0	158, 195, 212, 215	0
52	B7	49/49 (100%)	0.50	6 (12%) 4 3	73, 83, 124, 154	0
52	D7	49/49 (100%)	2.03	19 (38%) 0 0	78, 91, 134, 156	0
53	B8	61/65 (93%)	0.23	3 (4%) 29 27	81, 96, 116, 145	0
53	D8	61/65 (93%)	1.28	11 (18%) 1 1	94, 109, 131, 161	0
All	All	20772/21286 (97%)	0.42	2772 (13%) 3 3	68, 133, 207, 279	0

All (2772) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
51	D6	13	CYS	29.8
51	D6	22	ALA	26.4
51	D6	52	VAL	23.5
51	D6	49	HIS	23.3
50	D5	59	GLU	23.2
51	D6	23	THR	22.6
51	D6	14	THR	22.4
51	D6	26	ASN	22.2
24	BA	1	G	22.1
51	D6	9	LEU	21.8

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Mol	Chain	Res	Type	RSRZ
51	B6	15	GLU	21.2
51	D6	12	GLU	20.9
51	B6	16	CYS	20.8
51	D6	50	ARG	19.6
24	BA	654(K)	C	19.3
51	D6	11	LEU	19.1
51	D6	31	PRO	18.9
51	B6	20	ASN	18.9
51	D6	51	GLU	18.6
49	D4	47	GLN	18.4
51	D6	53	LYS	17.9
24	BA	2901	C	17.4
51	D6	10	LEU	16.9
24	BA	2	G	16.5
24	DA	2901	C	16.2
24	DA	2146	C	16.2
24	BA	2902	C	15.9
50	D5	60	VAL	15.8
24	BA	2900	A	15.7
34	BO	149	GLU	15.7
51	B6	17	LYS	15.0
51	D6	32	ASN	14.8
24	BA	654(H)	G	14.7
24	BA	4	C	14.7
51	B6	50	ARG	14.7
51	D6	21	TYR	14.7
51	B6	49	HIS	14.4
51	D6	36	LEU	14.2
51	D6	35	GLU	14.0
28	DF	208	GLY	14.0
24	BA	654(J)	A	14.0
24	BA	3	U	14.0
51	D6	25	LYS	13.8
51	D6	33	LYS	13.6
49	D4	28	LYS	13.5
51	B6	42	TRP	13.5
51	D6	24	GLU	13.5
51	B6	13	CYS	13.5
49	D4	5	ILE	13.4
49	D4	42	PHE	13.3
24	DA	2900	A	13.3
51	B6	51	GLU	13.2

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Mol	Chain	Res	Type	RSRZ
49	D4	50	VAL	13.2
12	AO	129	ALA	13.1
49	D4	8	LYS	12.8
29	DG	138	GLN	12.8
50	B5	59	GLU	12.7
49	D4	24	THR	12.6
51	B6	26	ASN	12.4
49	D4	46	GLN	12.4
24	BA	2899	G	12.4
7	CJ	80	VAL	12.3
51	D6	30	THR	12.3
49	D4	7	PRO	12.2
2	CE	240	GLN	12.1
24	BA	654(I)	C	12.1
24	DA	2147	G	12.1
51	B6	53	LYS	12.1
11	CN	11	LYS	11.9
49	D4	29	PRO	11.8
51	B6	23	THR	11.8
45	B3	85	ALA	11.7
51	D6	34	LEU	11.7
24	BA	654(L)	G	11.6
41	DS	112	GLY	11.6
51	B6	14	THR	11.5
51	B6	18	ARG	11.5
49	D4	31	ILE	11.4
5	AH	155	GLU	11.2
41	DS	113	LYS	11.1
24	DA	2109	U	11.0
29	DG	137	GLU	10.9
51	B6	22	ALA	10.9
7	CJ	78	ARG	10.8
24	DA	2144	U	10.8
24	BA	2112	G	10.8
24	DA	654(J)	A	10.7
51	B6	36	LEU	10.7
48	DX	60	GLU	10.7
49	D4	4	GLY	10.6
51	B6	12	GLU	10.5
24	DA	2797	U	10.5
49	D4	9	LEU	10.4
49	D4	13	ARG	10.4

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Mol	Chain	Res	Type	RSRZ
51	B6	52	VAL	10.4
30	DH	19	VAL	10.4
51	D6	27	LYS	10.4
3	CF	80	GLY	10.3
3	CF	79	ARG	10.3
51	D6	29	ASN	10.2
49	D4	48	ARG	10.2
24	DA	2902	C	10.1
50	B5	60	VAL	10.0
49	D4	10	VAL	10.0
51	B6	34	LEU	9.8
24	DA	2899	G	9.8
24	BA	2169	A	9.8
50	D5	58	LEU	9.8
34	BO	94	GLU	9.8
49	D4	32	TYR	9.8
51	D6	48	VAL	9.8
24	DA	1177	A	9.6
24	DA	2112	G	9.6
49	D4	40	HIS	9.6
43	DU	58	GLY	9.6
24	DA	2145	C	9.5
41	BS	112	GLY	9.5
41	BS	113	LYS	9.5
29	DG	39	ILE	9.4
49	D4	3	GLU	9.4
51	B6	43	CYS	9.4
11	AN	129	SER	9.3
51	B6	48	VAL	9.2
43	DU	50	ARG	9.2
41	BS	111	HIS	9.2
24	BA	654(R)	C	9.1
50	B5	55	ARG	9.1
49	D4	41	PRO	9.1
3	AF	201	TYR	9.1
44	DV	9	TYR	9.1
29	DG	139	LEU	9.0
51	B6	41	PRO	9.0
50	B5	54	GLY	9.0
45	D3	85	ALA	9.0
45	D3	9	SER	9.0
40	D2	1	MET	8.9

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Mol	Chain	Res	Type	RSRZ
29	DG	41	GLN	8.9
49	D4	45	GLY	8.8
30	DH	103	LEU	8.8
24	BA	654(P)	G	8.7
30	DH	99	VAL	8.7
2	CE	231	GLU	8.7
51	D6	47	THR	8.7
51	B6	47	THR	8.6
24	BA	2113	U	8.6
49	D4	22	ILE	8.6
7	CJ	79	ARG	8.6
49	D4	19	GLY	8.6
24	DA	2168	G	8.5
24	DA	2169	A	8.5
29	DG	155	MET	8.5
7	CJ	77	SER	8.5
43	DU	53	PRO	8.5
49	D4	52	THR	8.5
49	D4	60	GLN	8.5
2	CE	68	ILE	8.5
51	D6	42	TRP	8.4
50	B5	2	ALA	8.4
12	AO	128	ALA	8.4
49	D4	30	GLU	8.4
51	D6	20	ASN	8.3
7	CJ	85	TYR	8.3
51	B6	40	CYS	8.3
3	AF	168	ALA	8.3
24	BA	654(N)	G	8.3
29	DG	142	PRO	8.3
6	CI	101	ALA	8.3
24	BA	654(O)	G	8.3
30	DH	34	GLU	8.3
50	B5	53	ALA	8.2
7	CJ	81	GLY	8.2
2	AE	229	VAL	8.2
47	DW	43	GLN	8.1
30	DH	33	LEU	8.1
24	DA	654(K)	C	8.1
29	DG	34	LEU	8.1
28	DF	1	MET	8.1
24	DA	2898	U	8.1

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Mol	Chain	Res	Type	RSRZ
3	CF	78	GLY	8.1
29	DG	108	ASN	8.1
24	DA	654(L)	G	8.0
49	D4	18	CYS	8.0
24	BA	163	U	8.0
44	BV	140	ASP	8.0
52	D7	48	LYS	8.0
45	D3	84	LEU	8.0
29	DG	35	GLU	8.0
29	DG	104	GLU	8.0
51	D6	43	CYS	7.9
7	CJ	86	GLN	7.9
3	CF	103	VAL	7.9
51	B6	9	LEU	7.8
17	CT	101	ARG	7.8
49	D4	55	ARG	7.8
49	D4	20	ASN	7.8
51	B6	44	ARG	7.8
40	D2	34	GLU	7.8
51	B6	10	LEU	7.7
24	DA	2795	G	7.7
2	CE	232	PRO	7.7
7	CJ	82	GLY	7.7
24	DA	1509	C	7.7
18	CU	88	LYS	7.7
49	D4	63	TYR	7.7
43	DU	79	CYS	7.6
24	DA	2143	C	7.6
7	CJ	83	ALA	7.6
49	D4	49	PHE	7.6
44	BV	142	SER	7.6
18	CU	28	GLU	7.6
30	DH	114	VAL	7.6
24	DA	2166	G	7.6
2	AE	228	GLY	7.5
24	DA	2798	C	7.5
7	CJ	156	TRP	7.5
29	DG	2	PRO	7.5
24	DA	2110	G	7.5
11	AN	12	ARG	7.5
49	D4	21	VAL	7.5
30	DH	96	ALA	7.5

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Mol	Chain	Res	Type	RSRZ
11	AN	82	VAL	7.5
49	D4	51	ASP	7.5
50	B5	58	LEU	7.4
29	DG	92	VAL	7.4
6	CI	39	LYS	7.4
11	AN	11	LYS	7.4
49	D4	2	LYS	7.4
7	CJ	152	ALA	7.4
24	BA	654(Q)	C	7.4
43	DU	59	GLY	7.4
5	AH	9	LYS	7.4
7	CJ	153	HIS	7.3
27	BE	69	LYS	7.3
7	CJ	76	ARG	7.3
24	BA	5	A	7.3
49	D4	11	PRO	7.3
3	AF	169	ALA	7.3
34	DO	150	ALA	7.3
49	D4	56	VAL	7.3
7	AJ	77	SER	7.3
44	DV	70	LEU	7.3
40	D2	101	GLY	7.2
49	D4	25	TYR	7.2
7	AJ	78	ARG	7.2
7	CJ	88	PRO	7.2
40	B2	45	THR	7.2
11	AN	81	ASP	7.2
11	CN	12	ARG	7.2
37	DQ	108	GLY	7.2
13	CP	6	GLY	7.2
43	DU	49	VAL	7.2
43	DU	29	GLU	7.1
24	BA	654(F)	C	7.1
3	AF	128	PHE	7.1
51	D6	19	ARG	7.1
38	DR	1	MET	7.1
29	DG	32	PRO	7.1
49	D4	37	SER	7.0
24	BA	2168	G	7.0
30	DH	20	ALA	7.0
24	BA	2146	C	6.9
49	D4	6	HIS	6.9

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Mol	Chain	Res	Type	RSRZ
29	DG	58	GLN	6.9
3	AF	79	ARG	6.8
18	CU	87	ARG	6.8
6	AI	84	ASN	6.8
40	D2	45	THR	6.8
12	AO	127	GLU	6.8
48	BX	2	PRO	6.8
5	AH	100	VAL	6.8
27	DE	205	ALA	6.7
2	CE	4	GLU	6.7
3	CF	82	GLU	6.7
51	D6	41	PRO	6.7
7	CJ	155	ARG	6.6
29	DG	182	LYS	6.6
24	BA	2898	U	6.6
51	B6	35	GLU	6.6
29	DG	40	ASN	6.6
34	DO	1	MET	6.6
49	D4	14	ILE	6.6
24	DA	2114	A	6.6
51	D6	16	CYS	6.6
3	CF	39	ILE	6.6
49	D4	23	GLU	6.6
4	CG	167	GLY	6.6
5	AH	6	PHE	6.6
5	AH	77	PRO	6.6
34	BO	124	LYS	6.6
2	CE	5	ILE	6.5
3	AF	100	ALA	6.5
3	AF	53	ALA	6.5
11	CN	13	GLN	6.5
13	CP	5	ALA	6.5
30	DH	23	ARG	6.5
46	DZ	22	GLY	6.5
29	DG	59	GLU	6.5
40	D2	36	PRO	6.5
6	AI	83	ASP	6.5
13	CP	7	VAL	6.4
11	CN	96	ARG	6.4
39	B1	117	GLN	6.4
24	BA	654(G)	C	6.4
40	D2	98	GLU	6.4

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Mol	Chain	Res	Type	RSRZ
29	DG	159	VAL	6.4
50	B5	49	CYS	6.4
30	DH	115	VAL	6.4
13	CP	63	THR	6.4
51	D6	40	CYS	6.4
2	CE	202	PRO	6.3
7	CJ	73	MET	6.3
29	DG	37	VAL	6.3
40	D2	96	ILE	6.3
49	D4	1	MET	6.3
42	DT	92	LEU	6.3
34	BO	150	ALA	6.3
30	DH	21	PRO	6.3
3	AF	60	ALA	6.3
11	AN	19	ALA	6.3
40	B2	36	PRO	6.2
3	AF	200	ALA	6.2
44	DV	155	LEU	6.2
44	DV	63	ASP	6.2
3	AF	78	GLY	6.2
29	DG	143	GLU	6.2
24	DA	2139	C	6.2
49	D4	12	ALA	6.2
37	BQ	108	GLY	6.2
51	B6	11	LEU	6.2
49	D4	27	THR	6.2
29	DG	90	LEU	6.2
49	D4	43	TYR	6.2
6	AI	47	ARG	6.2
51	B6	25	LYS	6.2
43	DU	55	TYR	6.1
38	BR	1	MET	6.1
2	AE	231	GLU	6.1
24	BA	654	A	6.1
24	DA	2179	C	6.1
24	DA	2180	U	6.0
18	CU	26	LEU	6.0
48	DX	2	PRO	6.0
29	DG	97	ASP	6.0
51	B6	21	TYR	6.0
6	AI	57	GLN	6.0
34	DO	2	LYS	6.0

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Mol	Chain	Res	Type	RSRZ
51	D6	15	GLU	6.0
6	CI	8	ILE	6.0
28	DF	133	ASN	6.0
11	CN	95	ILE	6.0
43	DU	51	VAL	6.0
18	CU	42	ARG	6.0
27	BE	55	ASN	6.0
24	BA	2799	A	6.0
34	DO	95	VAL	5.9
24	DA	2121	G	5.9
49	D4	44	THR	5.9
11	AN	98	LEU	5.9
29	DG	94	LEU	5.9
49	D4	53	GLU	5.9
29	DG	67	LYS	5.9
40	D2	38	LEU	5.9
2	AE	232	PRO	5.9
3	AF	110	ASN	5.8
24	DA	2181	G	5.8
30	DH	24	VAL	5.8
3	CF	87	LEU	5.8
24	BA	654(M)	C	5.8
44	BV	161	VAL	5.8
38	BR	38	ASN	5.8
11	AN	18	ARG	5.8
43	DU	46	LYS	5.8
24	DA	1176	G	5.8
30	DH	25	LYS	5.8
29	DG	93	THR	5.8
29	DG	141	PHE	5.8
3	AF	151	VAL	5.8
50	B5	51	TYR	5.8
24	DA	2120	G	5.7
3	AF	149	ALA	5.7
29	DG	89	GLY	5.7
11	AN	107	SER	5.7
7	AJ	156	TRP	5.7
2	CE	163	PHE	5.7
24	BA	1536	A	5.7
49	D4	36	CYS	5.7
28	BF	17	ARG	5.7
3	AF	170	GLN	5.7

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Mol	Chain	Res	Type	RSRZ
27	BE	10	GLY	5.7
29	DG	28	VAL	5.6
44	DV	8	TYR	5.6
3	CF	62	ASP	5.6
44	DV	7	ALA	5.6
29	DG	68	PRO	5.6
24	DA	2170	A	5.6
38	DR	40	THR	5.6
3	AF	85	ARG	5.6
4	CG	168	ARG	5.6
18	CU	22	VAL	5.6
40	B2	56	SER	5.6
29	DG	63	ILE	5.6
10	AM	80	LYS	5.6
24	BA	2790	A	5.6
5	AH	43	LEU	5.6
51	D6	37	ARG	5.6
52	D7	47	ARG	5.6
46	BZ	97	LEU	5.5
28	DF	23	ASP	5.5
3	AF	84	ILE	5.5
43	DU	61	ILE	5.5
30	DH	32	GLU	5.5
52	D7	45	ALA	5.5
24	DA	2799	A	5.5
24	DA	2804	C	5.5
2	CE	165	VAL	5.5
24	BA	2795	G	5.5
44	DV	149	SER	5.5
46	BZ	98	LEU	5.5
29	DG	161	THR	5.5
29	DG	179	PRO	5.5
44	BV	141	VAL	5.4
29	DG	62	LEU	5.4
43	DU	45	VAL	5.4
44	DV	97	GLU	5.4
5	AH	118	ILE	5.4
18	CU	23	LYS	5.4
44	DV	162	GLU	5.4
37	DQ	60	GLY	5.4
6	AI	46	ARG	5.4
44	DV	68	PRO	5.4

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Mol	Chain	Res	Type	RSRZ
48	BX	60	GLU	5.4
24	DA	2113	U	5.4
49	D4	33	VAL	5.4
48	BX	56	VAL	5.4
6	CI	6	VAL	5.3
2	AE	227	GLY	5.3
1	CA	1031	G	5.3
24	DA	2138	C	5.3
28	DF	10	PRO	5.3
34	BO	138	LEU	5.3
40	B2	97	LYS	5.3
40	B2	57	VAL	5.3
5	AH	7	GLU	5.3
2	CE	70	PHE	5.3
29	DG	86	MET	5.3
6	AI	88	VAL	5.3
3	CF	81	GLY	5.3
24	DA	2148	G	5.3
4	CG	166	LYS	5.3
3	AF	166	GLU	5.3
11	AN	99	GLN	5.3
40	D2	26	ASP	5.3
49	D4	35	VAL	5.3
7	CJ	75	VAL	5.3
3	AF	123	GLN	5.3
27	BE	72	VAL	5.3
40	D2	40	LEU	5.3
3	CF	102	ASN	5.3
17	CT	12	SER	5.3
24	DA	2165	G	5.3
3	AF	135	LYS	5.2
32	DM	136	GLU	5.2
5	AH	91	LEU	5.2
37	DQ	34	HIS	5.2
47	DW	70	GLN	5.2
30	DH	43	VAL	5.2
47	BW	43	GLN	5.2
6	AI	7	ASN	5.2
51	B6	31	PRO	5.2
2	CE	239	VAL	5.2
22	CC	1	C	5.2
37	DQ	2	ALA	5.2

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Mol	Chain	Res	Type	RSRZ
29	DG	102	PHE	5.2
6	AI	55	ASP	5.2
44	DV	91	LEU	5.2
24	DA	91	A	5.2
3	CF	101	LEU	5.2
44	DV	64	GLY	5.2
24	DA	654(M)	C	5.2
3	AF	91	LEU	5.1
3	CF	64	VAL	5.1
48	DX	59	VAL	5.1
6	AI	89	MET	5.1
49	D4	26	SER	5.1
49	D4	57	GLU	5.1
6	CI	63	TYR	5.1
30	DH	37	VAL	5.1
2	AE	157	ARG	5.1
49	D4	34	GLU	5.1
3	AF	122	GLU	5.1
24	DA	2115	G	5.1
3	AF	98	ASN	5.1
7	CJ	103	TRP	5.1
3	CF	139	GLN	5.1
44	BV	88	PHE	5.1
3	AF	80	GLY	5.1
48	BX	3	ARG	5.1
2	CE	164	VAL	5.1
11	AN	109	VAL	5.1
34	DO	118	GLY	5.1
6	CI	61	LEU	5.0
30	DH	112	PRO	5.0
49	D4	58	ARG	5.0
40	D2	32	THR	5.0
24	BA	2798	C	5.0
3	AF	199	LYS	5.0
11	AN	83	ILE	5.0
24	BA	654(D)	G	5.0
6	AI	82	ARG	5.0
2	CE	230	VAL	5.0
2	CE	37	ASN	5.0
11	CN	99	GLN	5.0
35	DP	91	GLU	5.0
40	D2	60	GLU	5.0

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Mol	Chain	Res	Type	RSRZ
4	AG	69	GLY	5.0
40	D2	95	LEU	5.0
24	DA	2167	U	5.0
15	CR	88	ARG	5.0
44	DV	88	PHE	5.0
13	CP	66	LEU	5.0
6	AI	1	MET	5.0
52	B7	1	MET	5.0
24	DA	4	C	5.0
38	BR	2	ASN	5.0
44	DV	38	TYR	5.0
2	CE	237	ALA	5.0
30	DH	106	THR	5.0
32	DM	13	TRP	5.0
24	DA	2111	C	5.0
24	DA	1	G	5.0
6	CI	89	MET	5.0
2	CE	67	THR	5.0
51	B6	29	ASN	5.0
5	AH	32	VAL	5.0
13	CP	4	ILE	5.0
43	DU	33	LYS	5.0
29	DG	109	VAL	4.9
24	BA	2897	U	4.9
29	DG	160	VAL	4.9
3	AF	52	LEU	4.9
52	D7	46	VAL	4.9
1	CA	1029	G	4.9
24	DA	2142	C	4.9
15	CR	87	ILE	4.9
27	DE	56	PRO	4.9
2	CE	18	GLY	4.9
6	AI	41	GLU	4.9
3	AF	142	MET	4.9
5	CH	12	LEU	4.9
29	DG	152	LEU	4.9
40	D2	18	LEU	4.9
29	DG	91	ARG	4.9
11	AN	108	ILE	4.9
24	BA	615	G	4.9
36	B0	118	GLU	4.9
24	BA	2114	A	4.9

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Mol	Chain	Res	Type	RSRZ
1	CA	1030	C	4.9
29	DG	133	LEU	4.9
51	D6	46	HIS	4.9
11	AN	16	SER	4.9
53	D8	34	TRP	4.9
43	DU	35	TYR	4.9
44	DV	138	GLU	4.9
6	CI	40	VAL	4.9
34	BO	125	VAL	4.9
11	CN	47	VAL	4.9
47	DW	41	ILE	4.9
34	BO	145	PRO	4.9
40	D2	35	LEU	4.8
24	DA	2159	G	4.8
32	DM	14	VAL	4.8
24	BA	2793	G	4.8
34	BO	95	VAL	4.8
40	D2	94	LEU	4.8
24	DA	1175	U	4.8
44	BV	127	LYS	4.8
44	DV	27	VAL	4.8
44	BV	113	ALA	4.8
17	CT	75	ARG	4.8
5	AH	88	LYS	4.8
5	AH	10	MET	4.8
5	CH	8	GLU	4.8
6	AI	53	ALA	4.8
29	DG	177	GLY	4.8
2	AE	230	VAL	4.8
3	CF	126	ARG	4.8
6	AI	87	ARG	4.8
5	AH	93	PRO	4.8
24	BA	654(E)	C	4.8
3	AF	126	ARG	4.8
26	BD	167	GLY	4.8
29	DG	136	ARG	4.8
42	DT	68	ARG	4.8
22	CC	5	G	4.8
24	DA	2	G	4.8
24	DA	2135	A	4.8
6	AI	59	TYR	4.8
44	BV	38	TYR	4.8

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Mol	Chain	Res	Type	RSRZ
52	D7	15	THR	4.8
28	DF	205	ARG	4.7
11	CN	108	ILE	4.7
44	DV	159	PRO	4.7
2	CE	201	ILE	4.7
45	D3	82	ARG	4.7
3	AF	158	GLY	4.7
29	DG	103	LEU	4.7
43	DU	60	PHE	4.7
38	DR	39	ARG	4.7
4	AG	201	GLN	4.7
5	AH	94	ALA	4.7
24	DA	2118	U	4.7
47	DW	71	ASN	4.7
50	D5	2	ALA	4.7
50	B5	35	GLU	4.7
3	AF	185	GLY	4.7
27	DE	54	GLN	4.7
47	DW	72	ALA	4.7
3	AF	132	ARG	4.7
44	BV	2	GLU	4.7
9	CL	21	PRO	4.7
40	D2	39	LEU	4.7
6	AI	6	VAL	4.7
2	AE	96	ARG	4.7
40	D2	97	LYS	4.7
3	AF	103	VAL	4.7
44	DV	93	ASP	4.7
24	BA	654(S)	G	4.7
24	DA	2153	G	4.7
2	CE	152	PHE	4.7
29	DG	158	ALA	4.7
4	AG	110	PHE	4.7
27	BE	56	PRO	4.7
11	CN	98	LEU	4.6
3	AF	167	TRP	4.6
6	AI	85	VAL	4.6
12	CO	129	ALA	4.6
18	CU	18	ARG	4.6
24	DA	654(P)	G	4.6
28	BF	207	GLY	4.6
12	AO	67	THR	4.6

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Mol	Chain	Res	Type	RSRZ
44	DV	150	LEU	4.6
44	BV	112	ARG	4.6
12	AO	68	ALA	4.6
2	CE	216	SER	4.6
7	AJ	81	GLY	4.6
44	BV	9	TYR	4.6
24	DA	5	A	4.6
24	DA	2156	G	4.6
29	DG	69	ALA	4.6
6	AI	54	LYS	4.6
29	DG	80	PHE	4.6
30	DH	113	VAL	4.6
26	BD	168	ARG	4.6
2	AE	63	MET	4.6
3	AF	150	LYS	4.6
29	DG	36	LYS	4.6
52	D7	1	MET	4.6
24	BA	2804	C	4.6
7	CJ	87	VAL	4.6
27	BE	54	GLN	4.6
44	DV	90	VAL	4.6
44	DV	143	GLY	4.6
29	DG	48	GLU	4.6
3	CF	77	ILE	4.6
27	BE	67	PHE	4.6
18	AU	85	LEU	4.6
43	DU	52	SER	4.5
3	CF	104	GLN	4.5
29	DG	107	LEU	4.5
2	CE	229	VAL	4.5
34	DO	119	GLU	4.5
2	AE	4	GLU	4.5
43	DU	62	GLU	4.5
3	AF	186	PHE	4.5
51	B6	45	LYS	4.5
41	DS	111	HIS	4.5
17	CT	73	VAL	4.5
44	BV	70	LEU	4.5
5	AH	89	ILE	4.5
2	CE	90	MET	4.5
29	DG	145	THR	4.5
50	B5	57	VAL	4.5

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Mol	Chain	Res	Type	RSRZ
24	DA	1174	A	4.5
28	DF	204	ASN	4.5
45	D3	12	ASN	4.5
34	DO	149	GLU	4.5
10	AM	87	THR	4.5
30	DH	105	LEU	4.5
3	CF	63	ASN	4.5
5	AH	101	ILE	4.5
3	AF	198	VAL	4.5
6	AI	10	LEU	4.5
6	AI	48	LEU	4.5
48	DX	35	ARG	4.5
44	DV	99	TYR	4.5
34	BO	98	GLU	4.5
38	BR	135	ALA	4.5
5	AH	11	ILE	4.5
30	DH	28	GLY	4.5
39	D1	88	ILE	4.5
34	BO	97	PRO	4.5
28	DF	28	ILE	4.5
27	BE	173	VAL	4.5
34	BO	126	VAL	4.5
29	DG	38	VAL	4.4
27	BE	204	ALA	4.4
40	D2	4	ILE	4.4
18	AU	86	VAL	4.4
13	CP	2	ALA	4.4
3	AF	119	ARG	4.4
41	BS	109	GLU	4.4
11	CN	31	THR	4.4
39	B1	118	GLY	4.4
43	DU	70	SER	4.4
42	DT	87	GLN	4.4
11	CN	42	TRP	4.4
44	BV	60	GLU	4.4
3	AF	101	LEU	4.4
44	DV	5	LEU	4.4
43	DU	92	ASN	4.4
15	CR	84	LYS	4.4
11	AN	95	ILE	4.4
28	DF	172	TRP	4.4
30	DH	45	VAL	4.4

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Mol	Chain	Res	Type	RSRZ
6	AI	32	ASN	4.4
40	D2	99	ILE	4.4
11	CN	83	ILE	4.4
3	AF	72	LYS	4.4
27	BE	90	THR	4.4
49	D4	39	CYS	4.4
40	D2	15	GLU	4.4
43	DU	2	ARG	4.4
27	BE	75	VAL	4.4
11	AN	128	ALA	4.4
24	DA	2154	G	4.4
11	AN	13	GLN	4.4
30	DH	22	GLY	4.4
24	DA	2897	U	4.3
24	BA	2145	C	4.3
3	AF	202	ILE	4.3
27	BE	14	ILE	4.3
29	DG	52	ILE	4.3
29	DG	157	ILE	4.3
41	BS	69	LEU	4.3
18	CU	43	PHE	4.3
48	DX	39	ASP	4.3
7	CJ	151	TYR	4.3
26	BD	173	VAL	4.3
46	DZ	18	ILE	4.3
46	DZ	28	GLY	4.3
47	DW	56	GLN	4.3
34	DO	51	PHE	4.3
43	DU	47	LYS	4.3
46	DZ	92	LYS	4.3
11	CN	72	ALA	4.3
15	CR	85	LEU	4.3
41	BS	108	GLY	4.3
3	AF	184	TYR	4.3
7	CJ	154	TYR	4.3
29	DG	105	LYS	4.3
44	BV	166	SER	4.3
38	BR	136	GLN	4.3
18	CU	25	THR	4.3
29	DG	75	LYS	4.3
42	DT	69	TYR	4.3
36	D0	102	GLU	4.3

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Mol	Chain	Res	Type	RSRZ
24	DA	1535	U	4.3
27	BE	48	GLN	4.3
27	BE	74	PRO	4.3
27	BE	96	PHE	4.3
48	DX	57	GLU	4.3
51	B6	24	GLU	4.3
51	B6	33	LYS	4.3
3	AF	73	PRO	4.3
29	DG	113	ARG	4.3
51	B6	19	ARG	4.3
17	CT	14	LYS	4.3
11	CN	90	GLY	4.3
44	DV	39	VAL	4.3
11	CN	104	GLN	4.3
43	DU	66	PRO	4.3
32	DM	127	ASP	4.3
51	D6	28	ARG	4.3
3	AF	146	ALA	4.3
29	DG	178	PHE	4.2
24	BA	2794	C	4.2
18	CU	76	LEU	4.2
18	CU	78	LEU	4.2
41	BS	110	LYS	4.2
28	DF	175	THR	4.2
6	AI	63	TYR	4.2
29	DG	82	LEU	4.2
12	AO	55	VAL	4.2
6	CI	38	GLU	4.2
3	CF	159	GLY	4.2
29	DG	72	ARG	4.2
41	BS	68	ARG	4.2
2	CE	236	TYR	4.2
11	CN	75	TYR	4.2
24	BA	2166	G	4.2
42	BT	92	LEU	4.2
2	CE	96	ARG	4.2
24	BA	654(T)	A	4.2
24	DA	2134	A	4.2
40	D2	53	GLU	4.2
11	AN	101	SER	4.2
6	CI	9	VAL	4.2
49	D4	17	GLY	4.2

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Mol	Chain	Res	Type	RSRZ
6	CI	7	ASN	4.2
44	BV	1	MET	4.2
12	AO	64	TYR	4.2
34	DO	110	TYR	4.2
46	DZ	11	ARG	4.2
24	DA	3	U	4.2
29	DG	149	VAL	4.2
6	AI	49	ALA	4.2
28	DF	194	MET	4.2
27	BE	27	LEU	4.2
44	DV	69	THR	4.2
12	AO	26	ALA	4.2
29	DG	98	ARG	4.2
32	BM	135	PRO	4.2
3	AF	77	ILE	4.2
4	AG	179	GLU	4.2
44	BV	153	SER	4.2
4	AG	157	LEU	4.1
29	DG	3	LEU	4.1
29	DG	6	ALA	4.1
6	AI	90	VAL	4.1
29	DG	70	VAL	4.1
41	DS	38	TYR	4.1
43	DU	56	PRO	4.1
44	DV	131	ARG	4.1
27	BE	25	VAL	4.1
29	DG	181	ARG	4.1
44	DV	161	VAL	4.1
2	CE	214	ILE	4.1
3	CF	128	PHE	4.1
32	DM	51	PHE	4.1
3	AF	145	GLY	4.1
40	D2	5	VAL	4.1
2	CE	39	ILE	4.1
24	DA	654(I)	C	4.1
5	CH	10	MET	4.1
29	DG	120	LEU	4.1
40	D2	55	ALA	4.1
4	AG	167	GLY	4.1
11	AN	20	TYR	4.1
44	DV	36	LYS	4.1
44	DV	127	LYS	4.1

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Mol	Chain	Res	Type	RSRZ
30	DH	18	GLU	4.1
6	CI	48	LEU	4.1
8	AK	46	LYS	4.1
13	CP	65	LYS	4.1
24	DA	2140	C	4.1
51	D6	18	ARG	4.1
28	DF	27	GLU	4.1
13	CP	3	ARG	4.1
4	CG	169	LYS	4.1
32	DM	137	LYS	4.1
2	AE	122	PHE	4.1
15	CR	15	PHE	4.1
29	DG	131	TYR	4.1
29	DG	83	ARG	4.1
30	DH	35	VAL	4.1
18	AU	31	LEU	4.1
5	AH	90	VAL	4.1
40	D2	58	VAL	4.1
46	DZ	21	ARG	4.1
3	AF	102	ASN	4.1
3	AF	182	ILE	4.1
25	BB	1(M)	A	4.1
7	AJ	80	VAL	4.0
13	CP	61	GLU	4.0
40	B2	1	MET	4.0
48	DX	10	LYS	4.0
29	DG	65	GLY	4.0
29	DG	140	ILE	4.0
43	DU	86	ARG	4.0
2	AE	77	ALA	4.0
19	CV	63	THR	4.0
29	DG	166	ASP	4.0
44	BV	162	GLU	4.0
51	B6	46	HIS	4.0
2	CE	7	VAL	4.0
15	CR	86	GLY	4.0
44	DV	11	GLU	4.0
37	DQ	33	LYS	4.0
50	B5	56	LYS	4.0
44	BV	27	VAL	4.0
6	AI	61	LEU	4.0
41	BS	86	LEU	4.0

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Mol	Chain	Res	Type	RSRZ
43	DU	48	ALA	4.0
44	BV	28	MET	4.0
3	AF	152	ILE	4.0
5	CH	11	ILE	4.0
32	DM	133	GLN	4.0
27	BE	34	VAL	4.0
28	BF	8	GLN	4.0
4	CG	170	VAL	4.0
28	DF	11	VAL	4.0
40	D2	61	VAL	4.0
37	DQ	32	LEU	4.0
45	D3	70	GLN	4.0
12	AO	57	LYS	4.0
6	CI	90	VAL	4.0
3	AF	87	LEU	4.0
6	CI	100	ASN	4.0
40	D2	16	PRO	4.0
37	BQ	109	GLY	4.0
39	D1	118	GLY	4.0
7	CJ	89	MET	4.0
5	AH	40	ARG	4.0
11	CN	59	TYR	4.0
35	DP	141	GLN	4.0
19	CV	62	ILE	4.0
28	BF	22	ALA	4.0
29	DG	88	ILE	4.0
43	DU	44	ILE	4.0
29	DG	148	MET	3.9
29	DG	150	ASP	3.9
3	AF	81	GLY	3.9
7	CJ	62	PHE	3.9
3	CF	56	ASP	3.9
40	D2	56	SER	3.9
53	D8	57	ARG	3.9
3	CF	85	ARG	3.9
27	DE	59	VAL	3.9
29	DG	66	GLN	3.9
27	DE	1	MET	3.9
17	CT	10	VAL	3.9
48	DX	29	ARG	3.9
6	CI	45	LEU	3.9
43	DU	5	MET	3.9

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Mol	Chain	Res	Type	RSRZ
3	AF	83	ARG	3.9
30	DH	104	GLU	3.9
41	BS	66	GLU	3.9
3	CF	48	TYR	3.9
13	CP	62	ASN	3.9
6	AI	60	PHE	3.9
27	BE	68	ALA	3.9
46	DZ	38	SER	3.9
6	CI	59	TYR	3.9
32	DM	15	LEU	3.9
28	DF	164	ARG	3.9
7	CJ	74	GLU	3.9
29	DG	84	LYS	3.9
35	DP	92	GLY	3.9
38	DR	35	LYS	3.9
1	AA	85	U	3.9
3	AF	143	GLU	3.9
19	CV	44	MET	3.9
5	AH	60	TYR	3.9
3	AF	147	LYS	3.9
5	AH	138	ALA	3.9
24	BA	2144	U	3.9
24	BA	2167	U	3.9
3	CF	67	THR	3.9
5	CH	31	LEU	3.9
17	CT	11	VAL	3.9
40	B2	94	LEU	3.8
31	BK	143	SER	3.8
45	D3	69	PHE	3.8
49	D4	59	PHE	3.8
44	BV	145	GLU	3.8
6	AI	67	MET	3.8
29	DG	26	GLN	3.8
3	AF	71	ALA	3.8
44	BV	20	ARG	3.8
34	BO	146	VAL	3.8
18	CU	27	GLY	3.8
45	D3	65	GLY	3.8
37	BQ	112	PHE	3.8
24	BA	654(C)	G	3.8
39	D1	85	LYS	3.8
6	AI	8	ILE	3.8

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Mol	Chain	Res	Type	RSRZ
40	D2	20	LEU	3.8
3	CF	65	ALA	3.8
2	CE	14	GLY	3.8
27	BE	51	PHE	3.8
34	DO	91	PHE	3.8
27	BE	73	GLU	3.8
43	DU	91	GLU	3.8
47	BW	41	ILE	3.8
29	DG	106	LEU	3.8
13	CP	64	TRP	3.8
4	AG	47	ARG	3.8
24	DA	2117	A	3.8
40	D2	52	VAL	3.8
3	CF	145	GLY	3.8
12	CO	128	ALA	3.8
28	BF	23	ASP	3.8
37	DQ	61	ASN	3.8
32	DM	135	PRO	3.8
40	D2	42	GLY	3.8
41	BS	38	TYR	3.8
2	AE	233	SER	3.8
27	DE	14	ILE	3.8
32	DM	138	LEU	3.8
32	BM	53	VAL	3.8
29	DG	85	GLY	3.8
37	BQ	38	GLN	3.8
3	CF	49	SER	3.8
3	CF	84	ILE	3.8
34	DO	96	THR	3.8
17	CT	19	VAL	3.8
34	DO	108	LYS	3.8
34	DO	94	GLU	3.8
34	DO	3	LEU	3.8
43	DU	63	LYS	3.7
40	B2	98	GLU	3.7
11	AN	21	ILE	3.7
11	CN	107	SER	3.7
18	CU	29	PHE	3.7
44	BV	6	LYS	3.7
4	CG	23	GLY	3.7
6	AI	86	ARG	3.7
12	AO	56	ALA	3.7

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Mol	Chain	Res	Type	RSRZ
26	BD	171	ASP	3.7
49	D4	16	CYS	3.7
2	AE	118	LEU	3.7
17	CT	74	LEU	3.7
37	DQ	35	ILE	3.7
50	B5	3	LYS	3.7
2	CE	200	ILE	3.7
4	AG	5	ILE	3.7
3	AF	203	PHE	3.7
50	B5	50	GLY	3.7
3	AF	139	GLN	3.7
34	DO	148	LEU	3.7
30	DH	8	PRO	3.7
34	BO	122	PRO	3.7
28	DF	128	ALA	3.7
6	AI	14	LEU	3.7
6	CI	10	LEU	3.7
5	AH	8	GLU	3.7
11	CN	71	LYS	3.7
24	DA	2157	G	3.7
34	BO	96	THR	3.7
27	BE	32	PRO	3.7
1	AA	86	U	3.7
24	DA	2108	C	3.7
40	D2	66	ARG	3.7
45	D3	29	GLN	3.7
48	BX	59	VAL	3.7
5	AH	154	GLY	3.7
44	BV	10	ARG	3.7
40	B2	37	VAL	3.7
4	AG	91	SER	3.7
34	BO	119	GLU	3.7
51	D6	38	LYS	3.7
28	DF	203	GLN	3.7
44	BV	111	VAL	3.7
4	CG	179	GLU	3.7
10	CM	89	ASP	3.7
35	BP	1	MET	3.7
40	B2	35	LEU	3.7
4	AG	68	TYR	3.7
3	CF	46	GLU	3.7
29	DG	176	LEU	3.7

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Mol	Chain	Res	Type	RSRZ
24	DA	1178	C	3.7
2	AE	81	VAL	3.7
44	BV	165	VAL	3.7
45	D3	68	GLU	3.7
52	D7	14	LYS	3.6
6	AI	52	ILE	3.6
46	DZ	32	LYS	3.6
29	DG	54	GLU	3.6
40	D2	19	LYS	3.6
3	AF	63	ASN	3.6
29	BG	34	LEU	3.6
30	DH	123	PHE	3.6
2	CE	235	SER	3.6
3	AF	193	TYR	3.6
18	AU	84	LYS	3.6
18	CU	46	GLU	3.6
24	BA	2803	C	3.6
11	CN	97	ALA	3.6
41	BS	85	VAL	3.6
29	DG	7	LEU	3.6
34	BO	144	GLU	3.6
2	CE	6	THR	3.6
27	BE	174	ASP	3.6
4	AG	67	ILE	3.6
29	DG	101	ILE	3.6
2	CE	33	TYR	3.6
4	AG	154	ASN	3.6
3	AF	131	ARG	3.6
7	AJ	85	TYR	3.6
43	DU	34	LYS	3.6
4	CG	175	SER	3.6
2	CE	63	MET	3.6
5	AH	33	VAL	3.6
34	BO	136	GLU	3.6
36	B0	115	GLU	3.6
28	DF	148	LEU	3.6
35	DP	130	LYS	3.6
35	DP	12	GLN	3.6
3	AF	82	GLU	3.6
5	AH	92	LYS	3.6
40	D2	44	LYS	3.6
15	CR	89	GLY	3.6

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Mol	Chain	Res	Type	RSRZ
24	DA	654(N)	G	3.6
29	DG	118	ARG	3.6
2	AE	116	GLU	3.6
3	CF	143	GLU	3.6
5	AH	76	ILE	3.6
30	DH	17	VAL	3.6
3	CF	60	ALA	3.6
29	DG	43	LEU	3.6
3	AF	88	ARG	3.6
44	BV	62	PRO	3.6
19	CV	43	GLU	3.6
38	BR	84	GLN	3.6
41	BS	34	ASN	3.6
3	AF	111	LEU	3.6
37	BQ	27	SER	3.6
44	DV	10	ARG	3.5
45	D3	11	ARG	3.5
10	AM	77	PRO	3.5
44	DV	130	PRO	3.5
6	AI	9	VAL	3.5
6	AI	31	GLU	3.5
11	CN	80	VAL	3.5
32	DM	8	GLN	3.5
4	AG	21	LEU	3.5
41	BS	67	ASP	3.5
6	CI	88	VAL	3.5
11	AN	80	VAL	3.5
12	AO	71	PRO	3.5
30	DH	29	PRO	3.5
3	AF	196	LEU	3.5
18	AU	79	LEU	3.5
24	DA	654(Q)	C	3.5
29	DG	53	LEU	3.5
27	BE	66	HIS	3.5
29	DG	74	LYS	3.5
28	BF	199	TRP	3.5
2	CE	161	ALA	3.5
6	AI	11	ASN	3.5
4	AG	38	TYR	3.5
12	AO	20	LYS	3.5
3	AF	144	SER	3.5
40	D2	37	VAL	3.5

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Mol	Chain	Res	Type	RSRZ
28	DF	191	ARG	3.5
5	CH	43	LEU	3.5
34	DO	106	LEU	3.5
7	CJ	84	ASN	3.5
24	DA	1173	G	3.5
2	CE	217	ARG	3.5
17	CT	57	VAL	3.5
51	D6	44	ARG	3.5
34	BO	148	LEU	3.5
12	AO	89	ARG	3.5
32	DM	134	ARG	3.5
39	D1	89	GLU	3.5
29	DG	112	PRO	3.5
4	AG	159	ARG	3.5
28	DF	152	GLU	3.5
11	AN	122	LYS	3.5
18	AU	76	LEU	3.5
3	AF	153	VAL	3.5
50	D5	57	VAL	3.5
38	DR	6	LEU	3.5
2	AE	156	LYS	3.5
48	DX	58	VAL	3.5
4	CG	163	GLU	3.5
5	AH	135	THR	3.5
26	BD	184	LYS	3.5
26	DD	196	VAL	3.5
3	AF	51	GLY	3.5
44	BV	8	TYR	3.5
28	DF	181	LEU	3.5
29	DG	33	ARG	3.5
17	CT	8	GLY	3.5
34	DO	35	HIS	3.5
39	D1	82	GLY	3.5
44	DV	156	LYS	3.5
46	DZ	23	LYS	3.5
44	DV	28	MET	3.5
3	CF	100	ALA	3.5
27	BE	205	ALA	3.5
31	BK	123	LEU	3.4
35	DP	104	PHE	3.4
37	BQ	111	GLU	3.4
7	CJ	149	ARG	3.4

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Mol	Chain	Res	Type	RSRZ
11	CN	50	TYR	3.4
41	BS	92	ARG	3.4
26	DD	67	PHE	3.4
15	CR	83	GLU	3.4
43	BU	103	GLY	3.4
18	CU	44	LEU	3.4
24	DA	654(D)	G	3.4
27	BE	195	LEU	3.4
45	D3	55	ARG	3.4
40	D2	27	ALA	3.4
3	AF	107	GLN	3.4
10	CM	8	LEU	3.4
43	DU	72	VAL	3.4
44	BV	86	VAL	3.4
2	AE	160	ASP	3.4
51	B6	32	ASN	3.4
24	DA	2182	G	3.4
3	CF	53	ALA	3.4
5	AH	98	THR	3.4
29	DG	144	ILE	3.4
3	AF	109	PRO	3.4
7	AJ	155	ARG	3.4
40	D2	100	ARG	3.4
2	AE	71	VAL	3.4
2	CE	210	SER	3.4
26	DD	34	VAL	3.4
34	DO	126	VAL	3.4
52	D7	42	LEU	3.4
34	BO	90	ARG	3.4
44	BV	4	ARG	3.4
6	AI	42	GLU	3.4
13	CP	8	GLU	3.4
11	CN	14	VAL	3.4
44	BV	59	LEU	3.4
4	AG	115	ARG	3.4
44	DV	92	SER	3.4
26	DD	26	LYS	3.4
37	BQ	76	LYS	3.4
39	D1	117	GLN	3.4
24	DA	2160	G	3.4
30	DH	27	LYS	3.4
2	CE	57	PHE	3.4

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Mol	Chain	Res	Type	RSRZ
6	AI	71	ARG	3.4
18	CU	86	VAL	3.4
34	DO	50	ARG	3.4
48	DX	6	VAL	3.4
4	AG	58	LEU	3.4
5	AH	63	ARG	3.4
12	AO	83	VAL	3.4
18	CU	85	LEU	3.4
2	CE	188	ALA	3.4
34	BO	120	ALA	3.4
14	CQ	36	PHE	3.4
29	DG	146	TYR	3.4
14	CQ	55	GLY	3.4
3	AF	140	ARG	3.4
3	AF	188	LEU	3.3
42	DT	9	LEU	3.3
48	DX	56	VAL	3.3
53	D8	2	PRO	3.3
53	D8	59	LYS	3.3
43	DU	31	LEU	3.3
6	AI	56	PRO	3.3
17	CT	51	TYR	3.3
3	AF	74	GLY	3.3
40	D2	54	GLY	3.3
5	AH	72	GLN	3.3
3	AF	67	THR	3.3
11	CN	43	SER	3.3
2	AE	105	PHE	3.3
7	CJ	150	ALA	3.3
4	AG	209	ARG	3.3
43	BU	2	ARG	3.3
51	B6	39	TYR	3.3
24	DA	2793	G	3.3
28	DF	20	LEU	3.3
48	DX	28	LEU	3.3
27	DE	69	LYS	3.3
43	DU	3	VAL	3.3
26	BD	172	TYR	3.3
27	DE	4	ILE	3.3
24	BA	2797	U	3.3
37	BQ	75	GLU	3.3
6	AI	62	TRP	3.3

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Mol	Chain	Res	Type	RSRZ
18	CU	55	ARG	3.3
29	DG	23	PHE	3.3
41	BS	94	ASP	3.3
11	CN	20	TYR	3.3
34	BO	137	LYS	3.3
34	DO	107	LYS	3.3
4	AG	176	LEU	3.3
2	CE	212	GLN	3.3
2	CE	16	HIS	3.3
44	DV	55	HIS	3.3
44	BV	24	LEU	3.3
10	CM	98	ILE	3.3
44	BV	84	GLU	3.3
24	BA	2807	G	3.3
30	DH	95	ARG	3.3
44	DV	103	ARG	3.3
5	AH	110	LEU	3.3
34	BO	100	LEU	3.3
30	DH	36	PRO	3.3
44	DV	58	VAL	3.3
3	AF	129	ALA	3.3
12	AO	41	ARG	3.3
3	CF	91	LEU	3.3
10	AM	90	LEU	3.3
26	DD	6	PHE	3.3
24	DA	2122	U	3.3
2	CE	41	ILE	3.3
3	CF	57	ILE	3.3
5	AH	81	GLU	3.3
17	CT	20	THR	3.3
34	BO	102	ARG	3.3
17	AT	45	HIS	3.3
5	CH	7	GLU	3.2
48	DX	44	ARG	3.2
52	D7	44	PRO	3.2
3	AF	15	THR	3.2
24	DA	1171	G	3.2
32	BM	127	ASP	3.2
42	DT	81	VAL	3.2
4	AG	200	GLU	3.2
20	CW	98	PRO	3.2
30	DH	31	GLY	3.2

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Mol	Chain	Res	Type	RSRZ
43	DU	6	HIS	3.2
3	AF	171	GLY	3.2
3	CF	74	GLY	3.2
32	DM	16	ILE	3.2
40	D2	17	GLY	3.2
49	D4	15	ILE	3.2
3	CF	61	ALA	3.2
37	BQ	59	LYS	3.2
44	BV	23	LYS	3.2
50	D5	56	LYS	3.2
12	AO	69	TYR	3.2
27	DE	96	PHE	3.2
29	DG	51	ARG	3.2
5	AH	123	LEU	3.2
35	DP	17	LEU	3.2
26	DD	40	THR	3.2
44	DV	96	VAL	3.2
24	DA	614	U	3.2
25	DB	1(M)	A	3.2
27	BE	11	MET	3.2
44	DV	151	HIS	3.2
2	AE	93	VAL	3.2
11	AN	91	ARG	3.2
25	DB	52	A	3.2
4	CG	20	TYR	3.2
6	AI	33	TYR	3.2
34	DO	121	LYS	3.2
5	AH	64	ARG	3.2
2	CE	206	ASP	3.2
9	CL	91	ASP	3.2
24	BA	2180	U	3.2
34	BO	147	LEU	3.2
3	AF	48	TYR	3.2
30	BH	21	PRO	3.2
1	AA	1032	A	3.2
34	DO	30	THR	3.2
27	DE	204	ALA	3.2
30	DH	26	VAL	3.2
24	BA	2181	G	3.2
25	DB	51	G	3.2
44	DV	35	ARG	3.2
44	DV	112	ARG	3.2

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Mol	Chain	Res	Type	RSRZ
2	AE	11	LEU	3.2
11	CN	48	ILE	3.2
24	DA	6	A	3.2
5	AH	5	ASP	3.2
28	DF	149	ASP	3.2
26	DD	36	PRO	3.2
27	BE	61	ARG	3.2
40	D2	14	VAL	3.2
8	AK	107	LEU	3.2
48	BX	53	LEU	3.2
11	CN	36	ASP	3.2
30	DH	144	VAL	3.2
40	B2	26	ASP	3.2
44	DV	4	ARG	3.2
53	D8	40	GLU	3.2
5	CH	13	ILE	3.2
11	CN	32	ILE	3.2
18	AU	26	LEU	3.2
46	DZ	36	GLY	3.2
28	DF	173	VAL	3.2
24	DA	2116	G	3.2
26	BD	190	TYR	3.2
28	BF	66	PRO	3.1
5	AH	80	ILE	3.1
40	B2	95	LEU	3.1
29	DG	153	ARG	3.1
46	DZ	60	PHE	3.1
7	AJ	86	GLN	3.1
11	AN	68	ALA	3.1
17	CT	9	VAL	3.1
32	DM	53	VAL	3.1
36	B0	91	GLN	3.1
40	D2	33	VAL	3.1
8	AK	62	TYR	3.1
44	BV	13	GLU	3.1
18	AU	88	LYS	3.1
6	CI	62	TRP	3.1
34	DO	16	ARG	3.1
22	CC	20	U	3.1
7	CJ	146	GLU	3.1
41	BS	31	GLU	3.1
46	DZ	70	VAL	3.1

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Mol	Chain	Res	Type	RSRZ
12	AO	126	LYS	3.1
2	CE	238	LEU	3.1
2	AE	108	ILE	3.1
3	AF	155	GLY	3.1
3	CF	89	GLU	3.1
26	DD	5	LYS	3.1
48	DX	34	GLU	3.1
24	BA	2805	G	3.1
37	BQ	58	LEU	3.1
42	DT	76	ARG	3.1
48	BX	4	LEU	3.1
3	AF	62	ASP	3.1
27	DE	3	GLY	3.1
33	DN	11	ALA	3.1
2	CE	76	GLN	3.1
3	AF	136	GLN	3.1
43	BU	57	GLN	3.1
2	CE	211	ILE	3.1
10	AM	4	ILE	3.1
40	D2	90	PRO	3.1
51	B6	30	THR	3.1
11	AN	17	GLY	3.1
44	BV	104	PHE	3.1
6	AI	68	PRO	3.1
26	BD	169	GLU	3.1
29	DG	151	ALA	3.1
6	AI	50	TYR	3.1
26	BD	111	LEU	3.1
27	BE	52	LEU	3.1
2	AE	113	HIS	3.1
24	BA	164	U	3.1
44	DV	30	ASN	3.1
44	DV	153	SER	3.1
2	AE	115	LEU	3.1
34	BO	123	LEU	3.1
34	DO	89	ALA	3.1
5	AH	35	GLY	3.1
3	AF	134	ILE	3.1
40	D2	65	GLY	3.1
28	DF	12	LEU	3.1
30	DH	118	PRO	3.1
37	BQ	37	ALA	3.1

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Mol	Chain	Res	Type	RSRZ
44	BV	155	LEU	3.1
11	AN	42	TRP	3.1
18	CU	77	GLY	3.1
18	CU	38	GLU	3.1
39	D1	72	HIS	3.1
5	AH	45	PHE	3.1
5	CH	5	ASP	3.1
7	CJ	68	ASN	3.1
12	AO	19	ARG	3.1
2	CE	80	ILE	3.1
30	DH	48	GLY	3.1
42	DT	21	PHE	3.1
11	AN	104	GLN	3.1
3	AF	141	VAL	3.1
28	DF	163	VAL	3.1
29	DG	55	LYS	3.1
44	DV	61	LEU	3.1
30	DH	84	SER	3.0
28	BF	156	LEU	3.0
18	AU	81	PHE	3.0
43	DU	69	ALA	3.0
2	CE	97	TRP	3.0
26	BD	174	ILE	3.0
37	BQ	82	ILE	3.0
46	DZ	37	ILE	3.0
7	CJ	6	ARG	3.0
11	AN	96	ARG	3.0
36	D0	111	LEU	3.0
44	DV	157	LEU	3.0
45	B3	84	LEU	3.0
24	DA	2141	G	3.0
24	BA	654(U)	A	3.0
44	BV	96	VAL	3.0
31	DK	35	LEU	3.0
4	AG	182	LYS	3.0
11	CN	70	LYS	3.0
41	DS	4	LYS	3.0
40	D2	64	HIS	3.0
38	DR	34	VAL	3.0
2	AE	148	TYR	3.0
28	BF	16	GLY	3.0
37	DQ	37	ALA	3.0

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Mol	Chain	Res	Type	RSRZ
11	CN	84	VAL	3.0
40	D2	46	VAL	3.0
12	AO	78	GLN	3.0
26	DD	4	LYS	3.0
29	DG	132	ASN	3.0
2	CE	209	ARG	3.0
3	AF	127	ARG	3.0
3	AF	172	ARG	3.0
36	B0	96	ARG	3.0
45	D3	10	THR	3.0
1	AA	1032(A)	G	3.0
24	BA	654(A)	A	3.0
24	DA	1508	A	3.0
27	DE	195	LEU	3.0
29	DG	87	PRO	3.0
2	CE	66	GLY	3.0
44	BV	53	ILE	3.0
2	AE	95	GLN	3.0
44	DV	67	LEU	3.0
28	BF	194	MET	3.0
6	CI	42	GLU	3.0
18	CU	62	GLU	3.0
29	BG	78	SER	3.0
40	D2	59	ALA	3.0
3	AF	138	VAL	3.0
30	DH	131	VAL	3.0
3	CF	33	LEU	3.0
7	CJ	4	ARG	3.0
15	CR	17	ARG	3.0
29	DG	96	ARG	3.0
33	DN	1	MET	3.0
34	DO	137	LYS	3.0
49	D4	38	LYS	3.0
24	DA	654(O)	G	3.0
27	BE	4	ILE	3.0
27	DE	26	ILE	3.0
30	DH	116	GLU	3.0
3	AF	97	LYS	3.0
4	AG	37	PRO	3.0
7	CJ	63	LYS	3.0
41	BS	72	LYS	3.0
29	DG	100	TRP	3.0

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Mol	Chain	Res	Type	RSRZ
44	DV	135	GLU	3.0
1	CA	1032	A	3.0
45	D3	31	VAL	3.0
32	BM	15	LEU	3.0
42	DT	13	LEU	3.0
3	AF	90	GLU	3.0
3	AF	148	GLY	3.0
24	DA	2794	C	3.0
28	DF	184	TYR	3.0
41	DS	105	VAL	3.0
37	BQ	44	LYS	3.0
44	BV	130	PRO	3.0
4	AG	191	ARG	2.9
2	AE	61	LEU	2.9
2	CE	93	VAL	2.9
2	CE	187	LEU	2.9
7	CJ	60	LYS	2.9
51	D6	39	TYR	2.9
24	BA	2896	C	2.9
11	AN	73	MET	2.9
44	DV	98	MET	2.9
51	B6	28	ARG	2.9
5	AH	129	ILE	2.9
12	AO	27	LEU	2.9
30	DH	15	VAL	2.9
30	DH	49	VAL	2.9
34	BO	106	LEU	2.9
48	DX	9	VAL	2.9
42	BT	28	PHE	2.9
37	BQ	68	GLN	2.9
44	DV	31	ARG	2.9
5	AH	131	ILE	2.9
37	BQ	40	ILE	2.9
50	D5	3	LYS	2.9
5	AH	31	LEU	2.9
17	CT	56	VAL	2.9
19	CV	41	VAL	2.9
43	DU	24	VAL	2.9
40	D2	2	PHE	2.9
4	CG	187	ARG	2.9
2	AE	139	LYS	2.9
3	CF	44	GLU	2.9

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Mol	Chain	Res	Type	RSRZ
4	AG	46	LYS	2.9
7	CJ	29	LYS	2.9
42	DT	88	LYS	2.9
10	AM	94	VAL	2.9
28	BF	6	VAL	2.9
30	DH	117	PRO	2.9
37	BQ	86	ALA	2.9
44	DV	82	ARG	2.9
29	DG	8	LYS	2.9
27	BE	6	GLY	2.9
40	B2	54	GLY	2.9
44	BV	22	GLY	2.9
2	CE	29	ALA	2.9
4	AG	202	LEU	2.9
5	AH	61	TYR	2.9
11	CN	65	ALA	2.9
33	BN	122	LEU	2.9
44	DV	134	PRO	2.9
22	CC	17	C	2.9
17	CT	55	ASP	2.9
8	AK	61	VAL	2.9
38	DR	7	ILE	2.9
44	DV	163	LEU	2.9
7	CJ	72	ARG	2.9
35	DP	73	PRO	2.9
43	BU	50	ARG	2.9
49	B4	37	SER	2.9
7	CJ	91	VAL	2.9
28	BF	206	ILE	2.9
30	DH	9	ILE	2.9
30	DH	107	VAL	2.9
26	DD	68	LYS	2.9
29	DG	25	TYR	2.9
30	DH	128	PRO	2.9
3	CF	35	GLU	2.9
2	AE	83	MET	2.9
4	AG	181	MET	2.9
4	CG	70	ILE	2.9
6	AI	64	GLN	2.9
29	DG	56	ALA	2.9
29	DG	116	ASP	2.9
40	B2	55	ALA	2.9

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Mol	Chain	Res	Type	RSRZ
44	DV	154	ASP	2.9
46	DZ	39	LYS	2.9
7	AJ	153	HIS	2.9
12	AO	99	HIS	2.9
12	AO	39	VAL	2.9
31	BK	144	VAL	2.9
2	AE	70	PHE	2.9
35	BP	32	TYR	2.9
2	CE	59	GLU	2.9
6	CI	41	GLU	2.9
1	CA	843	U	2.9
10	AM	86	MET	2.9
12	AO	91	LYS	2.9
29	DG	71	THR	2.9
34	BO	139	LYS	2.9
44	BV	7	ALA	2.9
7	CJ	139	GLU	2.9
27	BE	171	GLU	2.9
40	B2	53	GLU	2.9
2	CE	227	GLY	2.9
17	CT	52	LYS	2.9
38	BR	137	LYS	2.9
5	AH	82	VAL	2.9
26	BD	270	ILE	2.9
39	D1	20	LEU	2.9
39	D1	105	VAL	2.9
41	BS	29	LEU	2.9
53	B8	23	VAL	2.9
3	CF	190	ARG	2.9
24	DA	1169	G	2.9
25	DB	53	A	2.9
51	B6	38	LYS	2.9
47	BW	42	GLY	2.9
28	BF	193	VAL	2.8
10	AM	78	ASN	2.8
39	D1	106	PHE	2.8
3	AF	54	ARG	2.8
3	AF	95	THR	2.8
4	AG	66	ARG	2.8
6	CI	47	ARG	2.8
29	DG	57	ALA	2.8
44	BV	152	ALA	2.8

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Mol	Chain	Res	Type	RSRZ
48	DX	5	LYS	2.8
24	DA	1536	A	2.8
28	DF	162	LEU	2.8
31	BK	79	ILE	2.8
27	BE	178	GLU	2.8
2	AE	68	ILE	2.8
10	AM	101	VAL	2.8
12	AO	66	VAL	2.8
28	BF	14	PRO	2.8
44	DV	54	HIS	2.8
6	AI	101	ALA	2.8
48	BX	57	GLU	2.8
44	BV	5	LEU	2.8
14	CQ	25	VAL	2.8
5	AH	96	PRO	2.8
6	CI	5	GLU	2.8
28	BF	7	TYR	2.8
42	DT	26	TYR	2.8
1	AA	416	G	2.8
2	AE	72	GLY	2.8
3	CF	43	LEU	2.8
2	CE	181	PHE	2.8
3	AF	76	VAL	2.8
24	DA	615	G	2.8
24	DA	1170	G	2.8
34	DO	138	LEU	2.8
39	D1	87	GLY	2.8
48	DX	30	ARG	2.8
32	BM	130	HIS	2.8
7	CJ	145	ALA	2.8
3	CF	51	GLY	2.8
3	CF	88	ARG	2.8
6	CI	36	ARG	2.8
11	CN	63	LEU	2.8
32	BM	133	GLN	2.8
3	CF	99	VAL	2.8
4	CG	165	MET	2.8
33	DN	81	ASP	2.8
44	BV	85	HIS	2.8
33	BN	84	ALA	2.8
51	B6	37	ARG	2.8
11	CN	46	GLY	2.8

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Mol	Chain	Res	Type	RSRZ
18	AU	78	LEU	2.8
35	DP	24	GLY	2.8
13	CP	60	VAL	2.8
12	AO	38	THR	2.8
48	DX	38	GLU	2.8
53	D8	56	GLU	2.8
2	CE	220	ASP	2.8
30	DH	39	PRO	2.8
11	AN	69	ALA	2.8
40	D2	25	LEU	2.8
1	AA	1030	C	2.8
43	DU	17	SER	2.8
43	DU	30	VAL	2.8
53	D8	16	ILE	2.8
41	DS	92	ARG	2.8
46	DZ	35	THR	2.8
50	D5	39	MET	2.8
30	DH	10	PRO	2.8
5	AH	119	LEU	2.8
28	DF	156	LEU	2.8
29	DG	42	GLY	2.8
30	DH	14	GLY	2.8
44	BV	41	LEU	2.8
48	DX	26	LEU	2.8
3	AF	195	VAL	2.8
17	AT	73	VAL	2.8
26	BD	136	ILE	2.8
44	DV	133	ILE	2.8
5	AH	130	ASN	2.8
18	CU	41	LYS	2.8
24	DA	2103	C	2.8
30	BH	27	LYS	2.8
43	BU	46	LYS	2.8
4	AG	120	LEU	2.8
11	AN	100	ALA	2.8
34	BO	105	LEU	2.8
44	BV	3	TYR	2.8
46	BZ	80	LEU	2.8
27	BE	71	GLY	2.8
3	AF	37	GLN	2.8
32	DM	54	VAL	2.8
44	BV	89	PHE	2.8

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Mol	Chain	Res	Type	RSRZ
46	DZ	20	ARG	2.8
7	CJ	125	MET	2.8
7	CJ	144	MET	2.8
12	AO	62	SER	2.8
2	CE	91	PRO	2.8
36	D0	101	ALA	2.8
34	DO	88	LEU	2.8
7	AJ	82	GLY	2.8
36	D0	106	GLY	2.8
2	CE	43	ASP	2.8
3	AF	86	VAL	2.8
12	AO	94	PRO	2.8
19	CV	47	HIS	2.8
44	DV	62	PRO	2.8
53	D8	35	GLN	2.7
2	AE	158	LEU	2.7
3	CF	52	LEU	2.7
6	AI	21	LEU	2.7
3	AF	190	ARG	2.7
8	CK	74	PRO	2.7
42	DT	83	VAL	2.7
50	B5	34	PRO	2.7
34	DO	144	GLU	2.7
40	B2	34	GLU	2.7
3	CF	45	LYS	2.7
6	AI	3	ARG	2.7
18	CU	84	LYS	2.7
26	DD	155	LEU	2.7
45	D3	21	LEU	2.7
45	D3	41	ARG	2.7
52	B7	3	ARG	2.7
3	CF	66	VAL	2.7
4	AG	152	SER	2.7
36	B0	87	TYR	2.7
44	DV	129	SER	2.7
3	AF	58	GLU	2.7
6	CI	66	GLU	2.7
30	DH	12	PRO	2.7
41	BS	96	ILE	2.7
10	AM	85	LEU	2.7
44	BV	67	LEU	2.7
48	BX	55	ARG	2.7

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Mol	Chain	Res	Type	RSRZ
6	AI	58	GLY	2.7
37	BQ	87	PHE	2.7
39	D1	113	ALA	2.7
3	CF	98	ASN	2.7
24	DA	2133	G	2.7
27	DE	2	LYS	2.7
45	D3	80	HIS	2.7
12	AO	77	LEU	2.7
29	DG	22	ARG	2.7
44	DV	144	LEU	2.7
3	CF	68	VAL	2.7
5	AH	105	VAL	2.7
40	D2	12	TYR	2.7
44	DV	29	TYR	2.7
5	CH	56	GLN	2.7
34	BO	108	LYS	2.7
27	BE	5	LEU	2.7
27	BE	183	LEU	2.7
28	BF	24	LEU	2.7
28	BF	124	LEU	2.7
34	DO	5	ASP	2.7
40	D2	63	GLY	2.7
2	CE	53	ARG	2.7
4	AG	3	ARG	2.7
40	B2	60	GLU	2.7
2	AE	215	LEU	2.7
7	CJ	92	SER	2.7
34	DO	6	LEU	2.7
50	B5	47	PRO	2.7
29	DG	79	ASN	2.7
3	AF	65	ALA	2.7
15	CR	30	ALA	2.7
17	CT	77	VAL	2.7
18	AU	34	TYR	2.7
28	BF	27	GLU	2.7
29	DG	11	TYR	2.7
39	D1	84	LYS	2.7
40	D2	31	ALA	2.7
6	AI	51	PRO	2.7
11	CN	41	THR	2.7
29	DG	81	LYS	2.7
11	CN	89	ALA	2.7

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Mol	Chain	Res	Type	RSRZ
48	DX	3	ARG	2.7
3	AF	157	ILE	2.7
18	AU	75	ILE	2.7
48	DX	4	LEU	2.7
28	DF	171	PRO	2.7
2	AE	66	GLY	2.7
18	AU	39	VAL	2.7
11	CN	15	ALA	2.7
28	DF	127	GLU	2.7
28	DF	160	ASN	2.7
11	CN	18	ARG	2.7
11	CN	77	MET	2.7
11	CN	91	ARG	2.7
27	DE	76	ARG	2.7
28	DF	14	PRO	2.7
2	CE	233	SER	2.7
27	BE	91	VAL	2.7
1	CA	1032(A)	G	2.7
17	CT	7	THR	2.7
22	CC	17(A)	C	2.7
49	B4	28	LYS	2.7
2	CE	101	MET	2.7
6	CI	64	GLN	2.7
27	BE	15	PHE	2.7
42	DT	86	GLY	2.7
28	DF	179	GLU	2.7
38	BR	134	GLU	2.7
50	B5	45	VAL	2.7
20	AW	106	ALA	2.7
5	CH	9	LYS	2.7
46	DZ	48	LYS	2.7
33	DN	34	THR	2.7
47	DW	44	LEU	2.7
2	AE	152	PHE	2.7
2	CE	9	GLU	2.7
12	AO	96	VAL	2.7
27	BE	7	VAL	2.7
34	BO	93	GLY	2.7
27	DE	98	PRO	2.7
5	AH	95	ALA	2.7
30	DH	102	ALA	2.7
44	DV	52	SER	2.6

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Mol	Chain	Res	Type	RSRZ
50	B5	52	TYR	2.6
7	CJ	104	LEU	2.6
46	DZ	61	ARG	2.6
29	DG	121	ASN	2.6
44	DV	132	ASN	2.6
2	CE	146	GLN	2.6
3	CF	58	GLU	2.6
3	CF	86	VAL	2.6
11	AN	45	GLY	2.6
32	DM	131	GLN	2.6
40	D2	47	VAL	2.6
43	DU	64	GLU	2.6
3	AF	183	ASP	2.6
31	BK	86	THR	2.6
48	DX	7	LYS	2.6
10	AM	96	ILE	2.6
32	BM	60	ILE	2.6
43	DU	36	ALA	2.6
24	BA	546	C	2.6
4	AG	24	GLU	2.6
40	B2	17	GLY	2.6
44	BV	37	VAL	2.6
6	AI	36	ARG	2.6
3	AF	117	ALA	2.6
11	AN	103	LEU	2.6
3	AF	120	VAL	2.6
4	AG	25	ARG	2.6
11	AN	102	GLY	2.6
22	CC	69	C	2.6
34	DO	14	LYS	2.6
44	DV	160	GLY	2.6
52	D7	23	ARG	2.6
27	DE	85	ASN	2.6
38	DR	55	ASN	2.6
5	AH	53	LEU	2.6
10	CM	4	ILE	2.6
29	BG	152	LEU	2.6
24	DA	2152	G	2.6
41	BS	70	TYR	2.6
41	DS	81	ALA	2.6
6	AI	39	LYS	2.6
10	AM	93	GLY	2.6

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Mol	Chain	Res	Type	RSRZ
28	DF	154	VAL	2.6
36	B0	38	VAL	2.6
44	BV	66	SER	2.6
53	D8	49	VAL	2.6
3	CF	37	GLN	2.6
2	CE	108	ILE	2.6
24	BA	2143	C	2.6
28	DF	33	LEU	2.6
28	DF	176	LEU	2.6
32	DM	116	LEU	2.6
34	BO	135	LEU	2.6
40	B2	38	LEU	2.6
48	BX	37	LEU	2.6
2	CE	31	TYR	2.6
6	CI	4	TYR	2.6
18	AU	29	PHE	2.6
24	BA	162	U	2.6
24	BA	1534	G	2.6
46	DZ	2	SER	2.6
5	AH	12	LEU	2.6
28	BF	123	LEU	2.6
29	DG	156	ASP	2.6
48	DX	8	LEU	2.6
43	DU	43	ASN	2.6
25	DB	42	C	2.6
24	BA	2109	U	2.6
48	DX	50	VAL	2.6
41	DS	106	ILE	2.6
42	DT	89	ILE	2.6
2	CE	218	ALA	2.6
18	CU	24	ALA	2.6
31	DK	33	ARG	2.6
29	BG	182	LYS	2.6
26	DD	147	LEU	2.6
28	DF	155	LEU	2.6
2	CE	160	ASP	2.6
5	CH	30	ALA	2.6
8	AK	52	ASP	2.6
11	AN	36	ASP	2.6
11	CN	64	ALA	2.6
27	BE	89	ASP	2.6
38	BR	45	PHE	2.6

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Mol	Chain	Res	Type	RSRZ
47	DW	37	PHE	2.6
10	AM	91	PRO	2.6
19	CV	48	THR	2.6
26	DD	150	LYS	2.6
7	CJ	99	LEU	2.6
19	CV	66	MET	2.6
6	CI	70	ASP	2.6
18	AU	68	LYS	2.6
37	DQ	64	GLU	2.6
44	BV	97	GLU	2.6
44	DV	165	VAL	2.6
46	DZ	33	LYS	2.6
5	AH	70	PRO	2.6
6	AI	28	ARG	2.6
50	D5	30	LEU	2.6
34	BO	91	PHE	2.6
3	AF	189	ALA	2.6
4	AG	48	ALA	2.6
27	DE	70	ALA	2.6
52	B7	48	LYS	2.6
40	D2	13	ARG	2.6
40	D2	51	VAL	2.6
44	BV	148	ASP	2.6
39	D1	109	LEU	2.6
4	CG	67	ILE	2.6
5	AH	78	HIS	2.6
52	D7	16	HIS	2.6
5	CH	45	PHE	2.5
11	CN	100	ALA	2.5
28	DF	166	ALA	2.5
2	CE	30	ARG	2.5
3	AF	96	GLY	2.5
2	AE	109	SER	2.5
3	AF	154	SER	2.5
4	AG	170	VAL	2.5
8	AK	55	GLY	2.5
11	AN	106	LYS	2.5
2	CE	87	ARG	2.5
4	AG	138	TYR	2.5
17	CT	78	GLU	2.5
26	BD	126	GLN	2.5
37	DQ	71	ARG	2.5

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Mol	Chain	Res	Type	RSRZ
47	DW	69	ARG	2.5
52	D7	21	ARG	2.5
36	B0	97	VAL	2.5
49	D4	54	GLY	2.5
4	AG	113	SER	2.5
18	AU	40	LEU	2.5
34	BO	112	LEU	2.5
30	DH	109	PHE	2.5
4	AG	111	ALA	2.5
7	CJ	90	GLU	2.5
18	AU	82	THR	2.5
29	DG	50	ALA	2.5
44	DV	164	ALA	2.5
46	DZ	93	GLU	2.5
30	DH	44	VAL	2.5
7	CJ	70	LYS	2.5
42	DT	66	LEU	2.5
5	AH	109	ILE	2.5
35	DP	103	MET	2.5
36	D0	103	ARG	2.5
2	AE	117	GLU	2.5
2	CE	186	ALA	2.5
5	AH	50	GLU	2.5
38	BR	14	TYR	2.5
44	DV	34	ASN	2.5
5	CH	32	VAL	2.5
27	DE	88	GLY	2.5
28	BF	157	VAL	2.5
35	DP	81	VAL	2.5
27	DE	31	CYS	2.5
37	BQ	78	LEU	2.5
5	AH	106	PRO	2.5
3	AF	160	ALA	2.5
3	CF	146	ALA	2.5
12	AO	101	VAL	2.5
40	D2	11	GLN	2.5
46	DZ	16	ASN	2.5
6	CI	98	LEU	2.5
18	CU	75	ILE	2.5
15	CR	26	GLU	2.5
35	DP	138	ASP	2.5
43	DU	78	ALA	2.5

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Mol	Chain	Res	Type	RSRZ
44	DV	71	VAL	2.5
34	BO	88	LEU	2.5
24	BA	2801	A	2.5
30	BH	32	GLU	2.5
33	DN	59	LYS	2.5
3	AF	64	VAL	2.5
6	CI	68	PRO	2.5
11	CN	19	ALA	2.5
18	CU	20	ALA	2.5
10	AM	88	LEU	2.5
24	BA	2802	G	2.5
25	DB	54	G	2.5
26	DD	3	VAL	2.5
35	DP	39	PRO	2.5
4	CG	107	ARG	2.5
46	BZ	82	LEU	2.5
2	AE	133	LYS	2.5
5	CH	115	VAL	2.5
6	AI	45	LEU	2.5
12	AO	93	LEU	2.5
34	BO	110	TYR	2.5
36	B0	98	LEU	2.5
37	DQ	109	GLY	2.5
42	DT	11	PRO	2.5
45	D3	75	LEU	2.5
46	DZ	42	GLN	2.5
46	DZ	94	LEU	2.5
11	AN	71	LYS	2.5
32	DM	1	MET	2.5
37	DQ	111	GLU	2.5
41	DS	39	THR	2.5
2	CE	15	VAL	2.5
7	CJ	141	VAL	2.5
28	DF	126	VAL	2.5
44	DV	139	VAL	2.5
19	CV	42	PRO	2.5
47	DW	9	GLN	2.5
3	AF	69	HIS	2.5
28	BF	202	PHE	2.5
41	DS	46	PHE	2.5
47	DW	23	LYS	2.5
18	AU	46	GLU	2.5

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Mol	Chain	Res	Type	RSRZ
29	DG	123	ASN	2.5
3	CF	75	VAL	2.5
22	CC	70	G	2.5
28	DF	170	LEU	2.5
29	DG	5	VAL	2.5
29	DG	15	VAL	2.5
44	DV	126	VAL	2.5
46	DZ	51	VAL	2.5
28	DF	96	ASP	2.5
52	D7	18	PHE	2.5
2	AE	114	ARG	2.5
3	AF	66	VAL	2.5
28	DF	157	VAL	2.5
35	DP	33	GLY	2.5
4	AG	4	TYR	2.5
46	DZ	15	ALA	2.5
6	AI	18	GLN	2.5
35	BP	104	PHE	2.5
31	DK	10	GLU	2.5
41	DS	2	GLU	2.5
44	DV	12	GLY	2.4
50	B5	25	LEU	2.4
51	D6	45	LYS	2.4
5	AH	116	THR	2.4
2	CE	28	PHE	2.4
4	AG	39	PRO	2.4
15	AR	88	ARG	2.4
36	B0	33	ARG	2.4
2	CE	19	HIS	2.4
8	CK	54	ASP	2.4
34	BO	83	VAL	2.4
37	DQ	54	LEU	2.4
41	DS	108	GLY	2.4
26	DD	153	ALA	2.4
42	DT	91	ALA	2.4
31	DK	4	ILE	2.4
32	BM	10	GLU	2.4
41	BS	24	ILE	2.4
8	AK	63	LEU	2.4
10	CM	101	VAL	2.4
26	BD	147	LEU	2.4
47	DW	40	SER	2.4

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Mol	Chain	Res	Type	RSRZ
2	AE	62	ALA	2.4
26	BD	176	ARG	2.4
28	DF	72	ARG	2.4
31	DK	36	ALA	2.4
33	DN	32	TYR	2.4
41	BS	73	ALA	2.4
6	CI	95	GLU	2.4
10	CM	96	ILE	2.4
17	CT	24	GLU	2.4
24	DA	2792	G	2.4
48	DX	40	THR	2.4
34	DO	145	PRO	2.4
38	BR	33	LYS	2.4
29	DG	135	LEU	2.4
32	DM	52	VAL	2.4
36	B0	116	LEU	2.4
44	DV	121	HIS	2.4
48	BX	58	VAL	2.4
30	DH	16	SER	2.4
30	DH	42	ARG	2.4
6	CI	99	ALA	2.4
27	BE	20	ALA	2.4
12	AO	65	GLU	2.4
12	AO	100	ILE	2.4
32	DM	85	ILE	2.4
41	DS	34	ASN	2.4
47	BW	49	LYS	2.4
43	DU	12	THR	2.4
2	AE	130	ARG	2.4
4	CG	188	LEU	2.4
22	CC	16	C	2.4
26	BD	183	ARG	2.4
27	BE	196	VAL	2.4
35	BP	33	GLY	2.4
37	BQ	54	LEU	2.4
41	BS	71	VAL	2.4
44	BV	82	ARG	2.4
2	CE	198	ASP	2.4
27	BE	28	ALA	2.4
34	BO	121	LYS	2.4
31	BK	73	GLU	2.4
35	BP	68	ILE	2.4

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Mol	Chain	Res	Type	RSRZ
44	DV	60	GLU	2.4
7	CJ	148	ASN	2.4
2	CE	81	VAL	2.4
11	CN	54	ARG	2.4
33	BN	85	VAL	2.4
33	DN	65	THR	2.4
42	BT	11	PRO	2.4
2	AE	106	LYS	2.4
11	AN	127	LYS	2.4
7	CJ	147	ALA	2.4
12	AO	79	GLU	2.4
24	BA	2165	G	2.4
34	BO	92	GLU	2.4
2	AE	6	THR	2.4
3	AF	68	VAL	2.4
34	DO	100	LEU	2.4
46	DZ	14	VAL	2.4
45	D3	24	LYS	2.4
48	DX	41	PRO	2.4
11	AN	50	TYR	2.4
27	BE	70	ALA	2.4
40	B2	27	ALA	2.4
41	DS	5	ALA	2.4
30	DH	51	ARG	2.4
25	DB	0	A	2.4
28	DF	192	LEU	2.4
2	AE	94	ASN	2.4
3	AF	108	ASN	2.4
27	BE	3	GLY	2.4
29	DG	154	GLY	2.4
7	CJ	26	PHE	2.4
2	CE	40	HIS	2.4
6	AI	35	ALA	2.4
41	BS	74	ALA	2.4
1	AA	421	U	2.4
28	DF	199	TRP	2.4
4	AG	148	VAL	2.4
7	CJ	59	LEU	2.4
5	AH	42	GLY	2.4
7	CJ	105	VAL	2.4
22	CC	68	C	2.4
24	DA	2183	C	2.4

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Mol	Chain	Res	Type	RSRZ
26	DD	235	GLY	2.4
27	BE	33	VAL	2.4
29	DG	124	SER	2.4
40	B2	39	LEU	2.4
44	DV	125	LEU	2.4
27	DE	10	GLY	2.4
24	BA	2062	A	2.4
26	DD	203	ASN	2.4
2	CE	207	ALA	2.4
28	BF	205	ARG	2.4
43	DU	65	ALA	2.4
45	D3	26	TYR	2.4
49	D4	61	ARG	2.4
12	AO	112	ASP	2.4
17	CT	13	ASP	2.4
24	BA	2115	G	2.4
33	DN	22	ILE	2.4
2	CE	69	LEU	2.4
2	AE	14	GLY	2.4
28	DF	193	VAL	2.4
44	BV	98	MET	2.4
44	DV	48	PHE	2.4
27	DE	90	THR	2.4
44	BV	21	ALA	2.4
11	AN	22	HIS	2.4
28	DF	110	LEU	2.4
29	DG	147	ASP	2.4
34	DO	87	ASP	2.4
35	DP	125	LEU	2.4
2	AE	101	MET	2.4
50	D5	55	ARG	2.4
4	AG	189	PRO	2.4
17	CT	86	GLU	2.4
42	DT	80	ILE	2.4
43	DU	68	HIS	2.4
2	CE	72	GLY	2.3
6	CI	37	VAL	2.3
27	DE	25	VAL	2.3
27	DE	198	VAL	2.3
18	CU	61	LYS	2.3
11	CN	94	ALA	2.3
3	AF	47	LEU	2.3

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Mol	Chain	Res	Type	RSRZ
29	DG	60	LEU	2.3
31	DK	11	ASN	2.3
40	B2	40	LEU	2.3
3	AF	165	THR	2.3
6	AI	72	VAL	2.3
27	BE	76	ARG	2.3
32	DM	130	HIS	2.3
42	DT	60	ARG	2.3
50	D5	45	VAL	2.3
29	DG	117	PHE	2.3
42	DT	48	LYS	2.3
2	CE	13	ALA	2.3
5	AH	49	PRO	2.3
7	CJ	2	ALA	2.3
10	AM	71	LEU	2.3
26	BD	107	ALA	2.3
26	DD	177	LEU	2.3
29	DG	114	ILE	2.3
40	B2	62	LEU	2.3
46	DZ	62	VAL	2.3
52	B7	46	VAL	2.3
28	DF	2	LYS	2.3
29	DG	64	THR	2.3
40	B2	19	LYS	2.3
52	D7	32	LYS	2.3
3	AF	61	ALA	2.3
5	AH	107	ARG	2.3
17	CT	88	TYR	2.3
24	DA	2311	A	2.3
39	D1	17	ILE	2.3
41	BS	33	ARG	2.3
43	DU	67	LEU	2.3
47	DW	51	ARG	2.3
11	AN	14	VAL	2.3
28	BF	134	GLY	2.3
35	DP	19	GLY	2.3
40	B2	101	GLY	2.3
42	BT	78	LYS	2.3
12	AO	75	HIS	2.3
3	CF	170	GLN	2.3
32	BM	58	ASP	2.3
2	AE	213	LEU	2.3

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Mol	Chain	Res	Type	RSRZ
2	CE	215	LEU	2.3
4	AG	158	ILE	2.3
33	DN	19	ILE	2.3
46	DZ	7	ILE	2.3
46	DZ	80	LEU	2.3
3	AF	70	VAL	2.3
4	AG	7	PRO	2.3
17	CT	79	SER	2.3
36	B0	117	VAL	2.3
43	DU	54	LYS	2.3
44	BV	71	VAL	2.3
44	DV	66	SER	2.3
44	BV	143	GLY	2.3
4	AG	163	GLU	2.3
5	AH	79	GLU	2.3
12	AO	53	ARG	2.3
18	CU	56	THR	2.3
34	BO	81	GLN	2.3
35	BP	45	GLN	2.3
2	AE	80	ILE	2.3
11	CN	40	ILE	2.3
26	BD	182	LEU	2.3
28	BF	12	LEU	2.3
43	BU	61	ILE	2.3
3	AF	89	GLU	2.3
32	BM	61	ARG	2.3
42	DT	93	GLU	2.3
44	DV	49	ARG	2.3
44	DV	102	LEU	2.3
53	B8	21	LYS	2.3
5	AH	13	ILE	2.3
7	CJ	69	VAL	2.3
29	BG	23	PHE	2.3
32	DM	126	PRO	2.3
40	D2	41	GLY	2.3
3	AF	105	GLU	2.3
4	AG	59	ARG	2.3
27	BE	87	GLU	2.3
46	DZ	17	SER	2.3
3	CF	69	HIS	2.3
26	DD	39	LYS	2.3
34	DO	39	LYS	2.3

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Mol	Chain	Res	Type	RSRZ
47	DW	48	HIS	2.3
28	DF	29	ASN	2.3
33	DN	122	LEU	2.3
34	DO	59	LEU	2.3
2	CE	79	ASP	2.3
5	AH	108	ALA	2.3
11	AN	94	ALA	2.3
27	BE	47	VAL	2.3
3	AF	164	ARG	2.3
18	AU	35	ARG	2.3
12	AO	21	LYS	2.3
13	CP	73	GLU	2.3
19	CV	27	GLU	2.3
41	DS	72	LYS	2.3
28	DF	40	GLN	2.3
37	BQ	84	GLN	2.3
44	BV	18	LEU	2.3
10	AM	6	ILE	2.3
44	DV	32	HIS	2.3
3	AF	99	VAL	2.3
17	CT	71	PHE	2.3
29	DG	110	ALA	2.3
26	DD	161	THR	2.3
4	AG	34	GLU	2.3
24	DA	2119	A	2.3
35	BP	130	LYS	2.3
27	BE	30	PRO	2.3
41	BS	107	LEU	2.3
10	AM	21	GLN	2.3
7	CJ	61	VAL	2.3
27	DE	19	ARG	2.3
29	DG	77	ILE	2.3
29	DG	73	ALA	2.3
31	BK	142	VAL	2.3
44	DV	44	PHE	2.3
5	CH	49	PRO	2.3
24	DA	2286	A	2.3
2	AE	223	ILE	2.3
40	D2	83	ARG	2.3
48	DX	55	ARG	2.3
5	AH	84	PHE	2.3
7	AJ	151	TYR	2.3

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Mol	Chain	Res	Type	RSRZ
26	BD	138	VAL	2.3
32	DM	9	VAL	2.3
35	DP	98	LYS	2.3
3	AF	197	GLY	2.3
4	AG	15	GLU	2.3
29	DG	44	GLY	2.3
34	DO	92	GLU	2.3
5	AH	65	ASN	2.3
2	CE	102	LEU	2.3
37	DQ	31	SER	2.3
38	DR	57	PHE	2.3
43	DU	38	ILE	2.3
44	DV	57	ILE	2.3
44	DV	124	ILE	2.3
5	AH	133	TYR	2.3
44	DV	37	VAL	2.3
3	CF	36	ASP	2.2
4	AG	118	ARG	2.2
44	BV	81	ARG	2.2
33	DN	69	ILE	2.2
42	BT	63	LYS	2.2
4	AG	93	PHE	2.2
11	CN	105	VAL	2.2
27	BE	198	VAL	2.2
46	DZ	53	VAL	2.2
26	BD	144	ALA	2.2
33	DN	74	GLY	2.2
47	DW	42	GLY	2.2
2	CE	11	LEU	2.2
10	AM	73	ASP	2.2
18	AU	33	ASP	2.2
24	DA	2805	G	2.2
8	AK	109	ILE	2.2
2	CE	197	VAL	2.2
5	CH	82	VAL	2.2
11	CN	82	VAL	2.2
34	DO	130	PHE	2.2
40	B2	52	VAL	2.2
41	BS	105	VAL	2.2
2	AE	88	ALA	2.2
15	CR	13	GLN	2.2
26	DD	195	ALA	2.2

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Mol	Chain	Res	Type	RSRZ
44	DV	168	GLU	2.2
4	AG	96	LEU	2.2
8	AK	56	LYS	2.2
34	BO	113	LYS	2.2
4	AG	199	ASN	2.2
10	AM	74	ILE	2.2
26	BD	122	ASP	2.2
2	AE	159	PRO	2.2
26	BD	189	CYS	2.2
29	BG	2	PRO	2.2
35	DP	129	THR	2.2
38	DR	38	ASN	2.2
45	D3	50	ASN	2.2
3	AF	50	ALA	2.2
3	CF	129	ALA	2.2
7	CJ	5	ARG	2.2
24	DA	1168	G	2.2
28	BF	18	ARG	2.2
28	BF	21	ALA	2.2
11	CN	79	SER	2.2
36	B0	29	LEU	2.2
2	CE	71	VAL	2.2
2	CE	162	ILE	2.2
11	AN	111	ASP	2.2
36	B0	114	VAL	2.2
47	DW	25	VAL	2.2
2	AE	129	GLU	2.2
3	AF	159	GLY	2.2
5	AH	104	ALA	2.2
5	AH	134	ALA	2.2
10	AM	92	THR	2.2
15	CR	16	ALA	2.2
27	BE	53	PRO	2.2
28	DF	167	ALA	2.2
30	DH	100	GLY	2.2
31	BK	139	GLN	2.2
25	DB	35	U	2.2
2	AE	142	LEU	2.2
29	BG	107	LEU	2.2
2	AE	64	ARG	2.2
28	DF	82	ILE	2.2
41	DS	50	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
43	DU	13	VAL	2.2
44	DV	53	ILE	2.2
4	AG	156	GLU	2.2
42	DT	90	GLU	2.2
27	DE	53	PRO	2.2
34	DO	134	ALA	2.2
48	DX	37	LEU	2.2
30	BH	16	SER	2.2
44	DV	104	PHE	2.2
11	CN	109	VAL	2.2
50	B5	31	VAL	2.2
4	AG	60	GLU	2.2
5	CH	111	GLU	2.2
1	AA	1031	G	2.2
4	AG	45	GLN	2.2
4	CG	164	ALA	2.2
5	AH	117	ASP	2.2
37	DQ	94	TYR	2.2
40	D2	29	PRO	2.2
4	CG	50	ARG	2.2
19	CV	14	HIS	2.2
26	BD	67	PHE	2.2
28	DF	137	LYS	2.2
35	DP	85	LYS	2.2
41	DS	1	MET	2.2
41	DS	98	LYS	2.2
42	DT	28	PHE	2.2
4	AG	146	ILE	2.2
7	CJ	142	GLU	2.2
8	AK	49	GLU	2.2
38	BR	10	VAL	2.2
46	DZ	4	VAL	2.2
18	CU	34	TYR	2.2
29	DG	61	ALA	2.2
24	BA	645	C	2.2
26	BD	121	PRO	2.2
45	D3	62	LEU	2.2
48	BX	39	ASP	2.2
36	B0	103	ARG	2.2
36	D0	35	THR	2.2
37	DQ	57	LYS	2.2
38	BR	39	ARG	2.2

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Mol	Chain	Res	Type	RSRZ
42	BT	68	ARG	2.2
46	DZ	34	THR	2.2
51	B6	27	LYS	2.2
28	DF	65	TRP	2.2
37	DQ	82	ILE	2.2
38	DR	36	GLU	2.2
10	AM	10	GLY	2.2
11	CN	16	SER	2.2
34	BO	82	GLY	2.2
50	B5	46	CYS	2.2
27	DE	5	LEU	2.2
48	DX	51	ALA	2.2
30	BH	23	ARG	2.2
33	DN	37	ASP	2.2
41	BS	42	ARG	2.2
2	CE	17	PHE	2.2
18	AU	43	PHE	2.2
39	B1	106	PHE	2.2
3	CF	76	VAL	2.2
6	AI	81	ILE	2.2
6	CI	67	MET	2.2
10	AM	95	GLU	2.2
11	CN	92	GLU	2.2
28	DF	142	TRP	2.2
28	DF	207	GLY	2.2
44	DV	59	LEU	2.2
48	DX	19	GLN	2.2
11	CN	29	ILE	2.2
18	AU	28	GLU	2.2
29	DG	99	MET	2.2
40	B2	14	VAL	2.2
44	DV	128	VAL	2.2
28	DF	16	GLY	2.2
29	DG	119	GLY	2.2
11	AN	25	TYR	2.2
40	D2	91	TYR	2.2
42	BT	60	ARG	2.2
43	DU	23	ARG	2.2
43	DU	26	LYS	2.2
29	DG	78	SER	2.2
27	DE	33	VAL	2.2
34	DO	136	GLU	2.2

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Mol	Chain	Res	Type	RSRZ
40	D2	43	GLU	2.2
40	D2	70	ILE	2.2
34	DO	13	ASN	2.2
40	B2	92	THR	2.2
44	BV	102	LEU	2.1
41	DS	32	ALA	2.1
44	BV	51	ALA	2.1
28	DF	81	PRO	2.1
41	BS	87	PRO	2.1
2	CE	46	LYS	2.1
11	AN	123	LYS	2.1
18	CU	72	ARG	2.1
38	BR	41	ARG	2.1
4	AG	161	ASN	2.1
2	CE	92	TYR	2.1
11	CN	57	THR	2.1
26	BD	140	THR	2.1
52	D7	31	LEU	2.1
11	CN	68	ALA	2.1
42	DT	10	ALA	2.1
2	CE	150	SER	2.1
11	CN	35	PRO	2.1
15	CR	38	ARG	2.1
26	DD	219	PRO	2.1
27	DE	7	VAL	2.1
44	DV	25	PRO	2.1
52	D7	28	ARG	2.1
12	AO	72	GLY	2.1
17	CT	6	LEU	2.1
17	CT	53	LEU	2.1
12	AO	37	CYS	2.1
26	DD	97	TYR	2.1
1	AA	1029	G	2.1
3	CF	72	LYS	2.1
37	DQ	30	ARG	2.1
42	DT	33	LYS	2.1
49	D4	62	ARG	2.1
2	CE	203	GLY	2.1
3	CF	158	GLY	2.1
4	AG	137	SER	2.1
4	AG	180	GLY	2.1
4	AG	197	PRO	2.1

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Mol	Chain	Res	Type	RSRZ
52	D7	22	MET	2.1
17	CT	76	LEU	2.1
6	AI	4	TYR	2.1
2	CE	36	ARG	2.1
4	CG	49	ARG	2.1
26	BD	93	ALA	2.1
29	DG	115	ARG	2.1
29	DG	180	PHE	2.1
39	D1	69	CYS	2.1
12	CO	127	GLU	2.1
32	BM	14	VAL	2.1
1	CA	1026	G	2.1
4	AG	162	LEU	2.1
24	BA	654(V)	A	2.1
24	DA	2104	G	2.1
28	DF	168	ARG	2.1
48	BX	5	LYS	2.1
51	D6	17	LYS	2.1
35	DP	41	TRP	2.1
6	AI	37	VAL	2.1
37	DQ	28	VAL	2.1
38	BR	11	GLU	2.1
6	CI	57	GLN	2.1
17	CT	15	MET	2.1
8	AK	67	PRO	2.1
27	BE	182	LEU	2.1
28	DF	24	LEU	2.1
3	CF	132	ARG	2.1
34	DO	90	ARG	2.1
34	DO	102	ARG	2.1
11	AN	61	ALA	2.1
17	CT	44	ALA	2.1
44	DV	123	ASP	2.1
30	DH	53	GLU	2.1
35	DP	96	VAL	2.1
44	DV	13	GLU	2.1
4	AG	70	ILE	2.1
5	AH	141	GLN	2.1
31	DK	38	LEU	2.1
34	DO	147	LEU	2.1
36	B0	32	GLY	2.1
37	BQ	24	LEU	2.1

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Mol	Chain	Res	Type	RSRZ
37	BQ	81	GLY	2.1
10	CM	5	ARG	2.1
38	BR	8	LYS	2.1
4	AG	185	PHE	2.1
6	CI	60	PHE	2.1
43	DU	32	PRO	2.1
44	DV	89	PHE	2.1
29	DG	13	GLU	2.1
53	B8	24	ALA	2.1
12	AO	58	VAL	2.1
28	BF	9	ILE	2.1
3	AF	156	ARG	2.1
24	BA	654(B)	C	2.1
26	BD	131	LEU	2.1
35	DP	18	LYS	2.1
36	B0	100	LEU	2.1
37	DQ	58	LEU	2.1
38	BR	85	LYS	2.1
38	DR	53	ARG	2.1
26	BD	135	PHE	2.1
5	AH	146	ALA	2.1
6	CI	50	TYR	2.1
28	DF	97	TYR	2.1
32	DM	72	TYR	2.1
8	AK	22	GLU	2.1
34	BO	127	ALA	2.1
34	DO	98	GLU	2.1
37	DQ	75	GLU	2.1
2	CE	208	ILE	2.1
26	BD	185	VAL	2.1
36	B0	99	LYS	2.1
45	D3	30	VAL	2.1
13	CP	11	ARG	2.1
42	DT	65	ARG	2.1
53	D8	7	HIS	2.1
26	BD	175	LEU	2.1
3	CF	73	PRO	2.1
24	BA	277	C	2.1
24	BA	2833	G	2.1
29	BG	74	LYS	2.1
43	DU	88	LYS	2.1
45	D3	61	ALA	2.1

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Mol	Chain	Res	Type	RSRZ
2	AE	222	ILE	2.1
28	BF	78	ILE	2.1
38	DR	75	ILE	2.1
28	DF	32	LEU	2.1
29	DG	4	ASP	2.1
52	B7	47	ARG	2.1
5	AH	99	GLY	2.1
36	B0	113	LEU	2.1
26	BD	166	GLN	2.1
40	B2	63	GLY	2.1
41	DS	104	THR	2.1
5	CH	108	ALA	2.1
7	AJ	154	TYR	2.1
15	CR	47	LYS	2.1
26	BD	36	PRO	2.1
52	D7	29	LYS	2.1
40	B2	51	VAL	2.1
3	AF	56	ASP	2.1
24	BA	2110	G	2.1
17	CT	91	ARG	2.1
43	DU	28	LYS	2.1
26	BD	137	PRO	2.1
35	DP	78	PRO	2.1
42	BT	79	ALA	2.1
42	DT	18	TYR	2.1
37	BQ	85	VAL	2.1
48	DX	47	VAL	2.1
4	CG	69	GLY	2.1
28	DF	196	LEU	2.1
1	CA	1027	C	2.1
2	CE	95	GLN	2.0
10	AM	7	LYS	2.0
17	CT	82	MET	2.1
26	BD	164	GLN	2.0
3	CF	105	GLU	2.0
4	AG	114	ARG	2.0
35	DP	10	ARG	2.0
38	DR	33	LYS	2.0
42	DT	73	ARG	2.0
3	CF	200	ALA	2.0
4	AG	105	VAL	2.0
4	AG	203	VAL	2.0

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Mol	Chain	Res	Type	RSRZ
5	CH	133	TYR	2.0
24	BA	2792	G	2.0
2	CE	26	PRO	2.0
6	AI	25	ILE	2.0
11	AN	121	PRO	2.0
35	BP	28	ALA	2.0
45	D3	83	PRO	2.0
52	B7	45	ALA	2.0
8	CK	46	LYS	2.0
5	CH	38	GLN	2.0
11	CN	44	SER	2.0
14	AQ	52	GLN	2.0
36	B0	53	HIS	2.0
41	BS	11	ARG	2.0
47	BW	69	ARG	2.0
3	AF	124	ILE	2.0
6	CI	84	ASN	2.0
39	B1	80	ILE	2.0
41	BS	23	LEU	2.0
44	DV	137	ILE	2.0
4	AG	169	LYS	2.0
26	BD	69	ARG	2.0
53	D8	13	ARG	2.0
11	CN	81	ASP	2.0
28	BF	69	HIS	2.0
28	DF	15	SER	2.0
42	BT	90	GLU	2.0
46	BZ	89	GLU	2.0
2	CE	184	VAL	2.0
40	B2	58	VAL	2.0
49	B4	32	TYR	2.0
2	AE	58	ILE	2.0
36	D0	100	LEU	2.0
2	AE	103	THR	2.0
5	AH	59	GLY	2.0
6	CI	71	ARG	2.0
7	CJ	55	GLY	2.0
43	DU	71	LYS	2.0
33	DN	111	PHE	2.0
34	DO	4	SER	2.0
3	AF	204	LEU	2.0
3	CF	199	LYS	2.0

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Mol	Chain	Res	Type	RSRZ
4	AG	166	LYS	2.0
38	BR	34	VAL	2.0
10	CM	27	ALA	2.0
12	AO	70	ILE	2.0
28	DF	73	ALA	2.0
28	DF	146	ALA	2.0
43	DU	19	LYS	2.0
48	DX	17	LYS	2.0
4	AG	23	GLY	2.0
10	CM	31	GLY	2.0
35	BP	92	GLY	2.0
40	D2	88	ARG	2.0
5	AH	120	THR	2.0
26	BD	112	GLN	2.0
26	BD	34	VAL	2.0
31	BK	141	LYS	2.0
52	D7	30	VAL	2.0
5	CH	107	ARG	2.0
7	CJ	22	LEU	2.0
18	AU	87	ARG	2.0
26	DD	247	ALA	2.0
37	DQ	18	ILE	2.0
41	DS	103	ILE	2.0
42	DT	70	LEU	2.0
24	DA	1534	G	2.0
24	DA	2149	G	2.0
25	DB	39	A	2.0
10	CM	99	LYS	2.0
18	AU	36	ASN	2.0
31	DK	85	GLU	2.0
12	AO	110	VAL	2.0
17	CT	23	VAL	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
54	MG	CA	1644	1/1	-0.07	0.46	133,133,133,133	0
54	MG	CA	1738	1/1	-0.03	0.23	114,114,114,114	0
54	MG	AA	1726	1/1	-0.01	0.28	132,132,132,132	0
54	MG	BA	3395	1/1	0.00	0.56	105,105,105,105	0
54	MG	AC	102	1/1	0.04	0.30	123,123,123,123	0
54	MG	AA	1734	1/1	0.04	0.36	146,146,146,146	0
54	MG	DA	3296	1/1	0.04	0.34	114,114,114,114	0
54	MG	BA	3447	1/1	0.12	0.32	116,116,116,116	0
54	MG	BA	3339	1/1	0.12	0.31	115,115,115,115	0
54	MG	AA	1730	1/1	0.14	2.08	116,116,116,116	0
54	MG	BB	211	1/1	0.23	0.42	102,102,102,102	0
54	MG	CA	1650	1/1	0.24	0.80	151,151,151,151	0
54	MG	BA	3411	1/1	0.24	0.46	110,110,110,110	0
54	MG	DA	3041	1/1	0.24	0.26	142,142,142,142	0
54	MG	BA	3237	1/1	0.24	0.38	117,117,117,117	0
54	MG	CA	1605	1/1	0.27	0.36	131,131,131,131	0
54	MG	BA	3093	1/1	0.29	0.31	154,154,154,154	0
54	MG	BA	3429	1/1	0.30	0.54	129,129,129,129	0
54	MG	DB	207	1/1	0.30	0.16	114,114,114,114	0
54	MG	AA	1776	1/1	0.35	0.21	116,116,116,116	0
54	MG	DA	3038	1/1	0.36	0.27	122,122,122,122	0
54	MG	BA	3095	1/1	0.36	0.42	92,92,92,92	0
54	MG	BA	3536	1/1	0.37	0.40	96,96,96,96	0
54	MG	DA	3158	1/1	0.37	0.61	113,113,113,113	0
54	MG	DA	3081	1/1	0.38	0.39	116,116,116,116	0
54	MG	DA	3163	1/1	0.38	0.14	120,120,120,120	0
54	MG	BA	3551	1/1	0.39	0.34	105,105,105,105	0
54	MG	DA	3279	1/1	0.39	0.24	125,125,125,125	0
54	MG	CA	1793	1/1	0.40	0.37	115,115,115,115	0
54	MG	BA	3100	1/1	0.40	0.39	100,100,100,100	0
54	MG	AA	1683	1/1	0.40	0.41	116,116,116,116	0
54	MG	DA	3333	1/1	0.41	0.46	128,128,128,128	0
54	MG	BE	304	1/1	0.41	0.68	112,112,112,112	0
54	MG	DA	3074	1/1	0.42	0.43	109,109,109,109	0
54	MG	BA	3527	1/1	0.42	0.42	109,109,109,109	0
54	MG	AA	1686	1/1	0.42	0.20	120,120,120,120	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3386	1/1	0.42	0.35	102,102,102,102	0
54	MG	CA	1631	1/1	0.42	0.26	134,134,134,134	0
54	MG	DB	206	1/1	0.43	0.37	142,142,142,142	0
54	MG	BA	3052	1/1	0.43	0.25	107,107,107,107	0
54	MG	DA	3293	1/1	0.44	1.77	112,112,112,112	0
54	MG	AA	1810	1/1	0.45	0.58	126,126,126,126	0
54	MG	CA	1602	1/1	0.45	0.56	115,115,115,115	0
54	MG	DA	3367	1/1	0.45	1.02	125,125,125,125	0
54	MG	AA	1769	1/1	0.46	0.23	124,124,124,124	0
54	MG	B6	101	1/1	0.47	0.64	128,128,128,128	0
54	MG	DA	3032	1/1	0.47	0.38	127,127,127,127	0
54	MG	DA	3016	1/1	0.48	0.37	123,123,123,123	0
54	MG	BA	3472	1/1	0.48	0.29	114,114,114,114	0
54	MG	DA	3002	1/1	0.48	0.41	109,109,109,109	0
54	MG	DA	3011	1/1	0.48	0.26	128,128,128,128	0
54	MG	BA	3084	1/1	0.49	0.80	110,110,110,110	0
54	MG	AA	1763	1/1	0.49	0.36	110,110,110,110	0
54	MG	CA	1727	1/1	0.50	0.18	113,113,113,113	0
54	MG	CA	1747	1/1	0.51	0.53	122,122,122,122	0
54	MG	BA	3521	1/1	0.51	0.22	123,123,123,123	0
54	MG	AA	1816	1/1	0.52	0.28	115,115,115,115	0
54	MG	BA	3285	1/1	0.52	0.51	114,114,114,114	0
54	MG	CA	1713	1/1	0.53	0.12	137,137,137,137	0
54	MG	AA	1790	1/1	0.53	0.50	115,115,115,115	0
54	MG	BA	3509	1/1	0.53	0.42	104,104,104,104	0
54	MG	BA	3455	1/1	0.53	0.52	107,107,107,107	0
54	MG	CA	1766	1/1	0.53	0.28	107,107,107,107	0
54	MG	BA	3618	1/1	0.53	0.74	107,107,107,107	0
54	MG	BA	3191	1/1	0.54	0.67	111,111,111,111	0
54	MG	BA	3505	1/1	0.54	0.48	108,108,108,108	0
54	MG	DA	3478	1/1	0.54	0.42	114,114,114,114	0
54	MG	AA	1696	1/1	0.54	0.23	104,104,104,104	0
54	MG	AA	1625	1/1	0.54	0.26	110,110,110,110	0
54	MG	AA	1671	1/1	0.55	0.27	110,110,110,110	0
54	MG	CA	1711	1/1	0.55	0.24	119,119,119,119	0
54	MG	DA	3396	1/1	0.55	0.21	95,95,95,95	0
54	MG	AA	1685	1/1	0.56	0.38	95,95,95,95	0
54	MG	BA	3506	1/1	0.56	0.22	92,92,92,92	0
54	MG	AA	1690	1/1	0.56	0.26	128,128,128,128	0
54	MG	DA	3104	1/1	0.56	0.48	107,107,107,107	0
54	MG	BA	3446	1/1	0.56	0.52	127,127,127,127	0
54	MG	BA	3116	1/1	0.56	0.27	137,137,137,137	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3523	1/1	0.56	0.43	100,100,100,100	0
54	MG	BA	3367	1/1	0.56	0.20	124,124,124,124	0
54	MG	AA	1802	1/1	0.56	0.29	136,136,136,136	0
54	MG	BO	202	1/1	0.57	0.29	98,98,98,98	0
54	MG	BA	3612	1/1	0.57	0.41	99,99,99,99	0
54	MG	BA	3096	1/1	0.57	0.52	129,129,129,129	0
54	MG	DA	3178	1/1	0.58	0.26	100,100,100,100	0
54	MG	AA	1710	1/1	0.58	0.28	116,116,116,116	0
54	MG	DA	3424	1/1	0.58	0.60	115,115,115,115	0
54	MG	BA	3493	1/1	0.58	0.41	116,116,116,116	0
54	MG	CA	1626	1/1	0.58	0.19	117,117,117,117	0
54	MG	BA	3324	1/1	0.58	0.33	101,101,101,101	0
54	MG	CA	1642	1/1	0.58	0.14	105,105,105,105	0
54	MG	DA	3295	1/1	0.59	0.44	105,105,105,105	0
54	MG	AC	108	1/1	0.59	2.21	112,112,112,112	0
54	MG	AA	1628	1/1	0.59	0.36	142,142,142,142	0
54	MG	CA	1773	1/1	0.59	0.21	114,114,114,114	0
54	MG	CA	1787	1/1	0.59	0.25	129,129,129,129	0
54	MG	BA	3539	1/1	0.59	0.49	99,99,99,99	0
54	MG	DA	3412	1/1	0.59	0.15	110,110,110,110	0
54	MG	CA	1799	1/1	0.59	0.21	150,150,150,150	0
54	MG	BA	3384	1/1	0.59	0.23	107,107,107,107	0
54	MG	AA	1751	1/1	0.59	0.56	102,102,102,102	0
54	MG	BA	3403	1/1	0.59	0.36	114,114,114,114	0
54	MG	BA	3470	1/1	0.59	0.37	117,117,117,117	0
54	MG	BA	3370	1/1	0.60	0.41	111,111,111,111	0
54	MG	CA	1662	1/1	0.60	0.34	120,120,120,120	0
54	MG	DA	3164	1/1	0.60	0.39	136,136,136,136	0
54	MG	BA	3530	1/1	0.60	0.40	110,110,110,110	0
54	MG	AA	1820	1/1	0.60	1.32	130,130,130,130	0
54	MG	DA	3449	1/1	0.60	0.39	106,106,106,106	0
54	MG	AA	1758	1/1	0.60	0.28	111,111,111,111	0
54	MG	DA	3485	1/1	0.60	0.19	104,104,104,104	0
54	MG	BA	3543	1/1	0.60	0.30	90,90,90,90	0
54	MG	DA	3087	1/1	0.60	0.14	111,111,111,111	0
54	MG	BA	3075	1/1	0.60	0.53	97,97,97,97	0
54	MG	DA	3397	1/1	0.61	0.24	96,96,96,96	0
54	MG	BA	3457	1/1	0.61	0.31	112,112,112,112	0
54	MG	DA	3419	1/1	0.61	0.27	100,100,100,100	0
54	MG	BA	3149	1/1	0.61	0.29	110,110,110,110	0
54	MG	CA	1684	1/1	0.61	0.25	115,115,115,115	0
54	MG	BB	214	1/1	0.61	0.44	108,108,108,108	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	AA	1738	1/1	0.61	0.32	117,117,117,117	0
54	MG	DA	3374	1/1	0.61	0.20	106,106,106,106	0
54	MG	AS	101	1/1	0.61	0.30	106,106,106,106	0
54	MG	AA	1693	1/1	0.61	0.37	123,123,123,123	0
54	MG	BA	3230	1/1	0.62	0.34	97,97,97,97	0
54	MG	AA	1687	1/1	0.62	0.40	99,99,99,99	0
54	MG	BA	3424	1/1	0.62	0.58	111,111,111,111	0
54	MG	BA	3154	1/1	0.62	0.38	104,104,104,104	0
54	MG	DA	3487	1/1	0.62	0.27	108,108,108,108	0
54	MG	BA	3291	1/1	0.62	0.40	99,99,99,99	0
54	MG	BA	3119	1/1	0.62	0.41	78,78,78,78	0
54	MG	DA	3341	1/1	0.62	0.38	107,107,107,107	0
54	MG	BA	3319	1/1	0.63	0.56	129,129,129,129	0
54	MG	AA	1749	1/1	0.63	0.23	112,112,112,112	0
54	MG	BA	3480	1/1	0.63	0.17	187,187,187,187	0
54	MG	BA	3481	1/1	0.63	0.37	99,99,99,99	0
54	MG	CA	1792	1/1	0.63	0.14	160,160,160,160	0
54	MG	AA	1752	1/1	0.63	0.50	121,121,121,121	0
54	MG	DA	3402	1/1	0.64	0.36	105,105,105,105	0
54	MG	DA	3017	1/1	0.64	0.27	111,111,111,111	0
54	MG	BA	3102	1/1	0.64	0.26	98,98,98,98	0
54	MG	BA	3245	1/1	0.64	0.48	120,120,120,120	0
54	MG	BA	3365	1/1	0.64	0.57	104,104,104,104	0
54	MG	DA	3450	1/1	0.64	0.29	130,130,130,130	0
54	MG	DA	3455	1/1	0.64	0.25	147,147,147,147	0
54	MG	DA	3463	1/1	0.64	0.36	109,109,109,109	0
54	MG	DA	3371	1/1	0.64	0.30	111,111,111,111	0
54	MG	AA	1807	1/1	0.64	0.24	101,101,101,101	0
54	MG	DA	3486	1/1	0.64	1.05	112,112,112,112	0
54	MG	DA	3377	1/1	0.64	0.36	102,102,102,102	0
54	MG	AA	1672	1/1	0.64	0.26	112,112,112,112	0
54	MG	BA	3124	1/1	0.64	0.30	110,110,110,110	0
54	MG	DA	3093	1/1	0.64	0.21	106,106,106,106	0
54	MG	AA	1676	1/1	0.65	0.45	132,132,132,132	0
54	MG	DA	3430	1/1	0.65	0.21	105,105,105,105	0
54	MG	AQ	102	1/1	0.65	0.34	118,118,118,118	0
54	MG	DA	3162	1/1	0.65	0.38	108,108,108,108	0
54	MG	BA	3056	1/1	0.65	0.53	101,101,101,101	0
54	MG	AA	1724	1/1	0.65	0.42	115,115,115,115	0
54	MG	DA	3051	1/1	0.65	0.28	81,81,81,81	0
54	MG	DA	3256	1/1	0.65	1.67	103,103,103,103	0
54	MG	AA	1636	1/1	0.65	0.32	92,92,92,92	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3448	1/1	0.65	0.25	95,95,95,95	0
54	MG	DA	3517	1/1	0.65	0.32	106,106,106,106	0
54	MG	CA	1765	1/1	0.65	0.25	126,126,126,126	0
54	MG	BA	3617	1/1	0.65	0.38	134,134,134,134	0
54	MG	DA	3304	1/1	0.65	0.24	83,83,83,83	0
54	MG	DA	3098	1/1	0.66	0.16	139,139,139,139	0
54	MG	DA	3252	1/1	0.66	0.22	108,108,108,108	0
54	MG	CA	1751	1/1	0.66	0.59	118,118,118,118	0
54	MG	BA	3314	1/1	0.66	0.17	104,104,104,104	0
54	MG	DA	3177	1/1	0.66	0.25	99,99,99,99	0
54	MG	DA	3343	1/1	0.66	0.34	95,95,95,95	0
54	MG	CA	1745	1/1	0.67	0.24	132,132,132,132	0
54	MG	BA	3443	1/1	0.67	0.45	124,124,124,124	0
54	MG	AA	1611	1/1	0.67	0.17	138,138,138,138	0
54	MG	DA	3280	1/1	0.67	0.21	94,94,94,94	0
54	MG	AA	1688	1/1	0.67	0.10	146,146,146,146	0
54	MG	AA	1787	1/1	0.67	0.18	115,115,115,115	0
54	MG	AA	1745	1/1	0.67	0.26	128,128,128,128	0
54	MG	DA	3398	1/1	0.67	0.29	130,130,130,130	0
54	MG	BA	3369	1/1	0.67	0.44	94,94,94,94	0
54	MG	DA	3410	1/1	0.67	0.44	118,118,118,118	0
54	MG	AA	1719	1/1	0.67	0.26	110,110,110,110	0
54	MG	BA	3437	1/1	0.67	0.27	81,81,81,81	0
54	MG	BB	206	1/1	0.67	0.27	97,97,97,97	0
54	MG	DA	3407	1/1	0.68	0.21	114,114,114,114	0
54	MG	BA	3212	1/1	0.68	0.47	124,124,124,124	0
54	MG	CA	1716	1/1	0.68	0.47	126,126,126,126	0
54	MG	DA	3310	1/1	0.68	0.50	111,111,111,111	0
54	MG	DA	3321	1/1	0.68	0.19	89,89,89,89	0
54	MG	BA	3477	1/1	0.68	0.38	93,93,93,93	0
54	MG	CA	1731	1/1	0.68	0.51	110,110,110,110	0
54	MG	BA	3398	1/1	0.68	0.60	105,105,105,105	0
54	MG	DA	3359	1/1	0.68	0.30	102,102,102,102	0
54	MG	AG	301	1/1	0.68	0.14	114,114,114,114	0
54	MG	BA	3122	1/1	0.68	0.26	114,114,114,114	0
54	MG	CA	1749	1/1	0.68	0.20	120,120,120,120	0
54	MG	BA	3188	1/1	0.68	0.61	120,120,120,120	0
54	MG	BA	3374	1/1	0.68	0.16	104,104,104,104	0
54	MG	CA	1663	1/1	0.68	0.13	105,105,105,105	0
54	MG	BA	3566	1/1	0.68	0.40	100,100,100,100	0
54	MG	CA	1700	1/1	0.68	0.34	92,92,92,92	0
54	MG	BA	3066	1/1	0.68	0.38	97,97,97,97	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	AA	1750	1/1	0.69	0.61	110,110,110,110	0
54	MG	BA	3357	1/1	0.69	0.78	119,119,119,119	0
54	MG	DA	3080	1/1	0.69	0.20	114,114,114,114	0
54	MG	CA	1622	1/1	0.69	0.47	122,122,122,122	0
54	MG	AA	1670	1/1	0.69	0.28	83,83,83,83	0
54	MG	BA	3442	1/1	0.69	0.49	112,112,112,112	0
54	MG	BA	3278	1/1	0.69	0.34	101,101,101,101	0
54	MG	DA	3018	1/1	0.69	0.45	83,83,83,83	0
54	MG	AA	1773	1/1	0.69	0.54	137,137,137,137	0
54	MG	BA	3576	1/1	0.69	0.41	120,120,120,120	0
54	MG	BA	3329	1/1	0.69	0.45	106,106,106,106	0
54	MG	DE	302	1/1	0.69	0.27	97,97,97,97	0
54	MG	AA	1809	1/1	0.70	0.43	108,108,108,108	0
54	MG	BA	3407	1/1	0.70	0.42	105,105,105,105	0
54	MG	AA	1772	1/1	0.70	0.32	155,155,155,155	0
54	MG	BA	3564	1/1	0.70	0.58	116,116,116,116	0
54	MG	AA	1778	1/1	0.70	0.21	136,136,136,136	0
54	MG	CA	1698	1/1	0.70	0.23	96,96,96,96	0
54	MG	CG	301	1/1	0.70	0.37	115,115,115,115	0
54	MG	DA	3427	1/1	0.70	0.27	114,114,114,114	0
54	MG	CA	1630	1/1	0.70	0.42	120,120,120,120	0
54	MG	BA	3494	1/1	0.70	0.23	97,97,97,97	0
54	MG	BA	3069	1/1	0.70	0.54	115,115,115,115	0
54	MG	BA	3537	1/1	0.71	0.38	124,124,124,124	0
54	MG	CA	1604	1/1	0.71	0.47	105,105,105,105	0
54	MG	BA	3137	1/1	0.71	0.25	105,105,105,105	0
54	MG	DA	3022	1/1	0.71	0.22	86,86,86,86	0
54	MG	CA	1616	1/1	0.71	0.28	108,108,108,108	0
54	MG	DA	3149	1/1	0.71	0.15	112,112,112,112	0
54	MG	DA	3468	1/1	0.71	0.29	126,126,126,126	0
54	MG	DA	3239	1/1	0.71	0.67	105,105,105,105	0
54	MG	CA	1688	1/1	0.72	0.38	101,101,101,101	0
54	MG	DA	3475	1/1	0.72	0.32	121,121,121,121	0
54	MG	CA	1784	1/1	0.72	0.18	94,94,94,94	0
54	MG	DA	3481	1/1	0.72	0.38	101,101,101,101	0
54	MG	DA	3421	1/1	0.72	0.24	141,141,141,141	0
54	MG	DA	3004	1/1	0.72	0.34	120,120,120,120	0
54	MG	BA	3535	1/1	0.72	0.45	116,116,116,116	0
54	MG	BA	3383	1/1	0.72	0.38	95,95,95,95	0
54	MG	BA	3214	1/1	0.72	0.74	93,93,93,93	0
54	MG	CA	1794	1/1	0.72	0.42	109,109,109,109	0
54	MG	DA	3085	1/1	0.72	0.37	113,113,113,113	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DB	208	1/1	0.72	0.11	105,105,105,105	0
54	MG	BA	3205	1/1	0.72	0.27	88,88,88,88	0
54	MG	DA	3461	1/1	0.73	0.18	102,102,102,102	0
54	MG	BA	3440	1/1	0.73	0.33	79,79,79,79	0
54	MG	CA	1756	1/1	0.73	0.33	111,111,111,111	0
54	MG	BA	3228	1/1	0.73	0.54	85,85,85,85	0
54	MG	BA	3269	1/1	0.73	0.23	85,85,85,85	0
54	MG	DA	3352	1/1	0.73	0.35	81,81,81,81	0
54	MG	AA	1765	1/1	0.73	0.15	137,137,137,137	0
54	MG	CA	1723	1/1	0.73	0.46	111,111,111,111	0
54	MG	BA	3235	1/1	0.73	0.37	128,128,128,128	0
54	MG	BA	3615	1/1	0.73	0.21	92,92,92,92	0
54	MG	AA	1829	1/1	0.73	0.27	112,112,112,112	0
54	MG	BA	3292	1/1	0.73	0.48	113,113,113,113	0
54	MG	BA	3300	1/1	0.73	0.34	102,102,102,102	0
54	MG	DA	3453	1/1	0.73	0.23	104,104,104,104	0
54	MG	DB	209	1/1	0.73	0.28	131,131,131,131	0
54	MG	DD	301	1/1	0.73	0.39	119,119,119,119	0
54	MG	BA	3465	1/1	0.73	0.64	107,107,107,107	0
54	MG	CC	108	1/1	0.74	0.33	129,129,129,129	0
54	MG	BA	3496	1/1	0.74	0.47	108,108,108,108	0
54	MG	BA	3541	1/1	0.74	0.51	120,120,120,120	0
54	MG	DA	3168	1/1	0.74	0.16	95,95,95,95	0
54	MG	DA	3320	1/1	0.74	0.70	110,110,110,110	0
54	MG	CA	1774	1/1	0.74	0.33	110,110,110,110	0
54	MG	DA	3482	1/1	0.74	0.14	120,120,120,120	0
54	MG	CA	1695	1/1	0.74	0.44	111,111,111,111	0
54	MG	DA	3195	1/1	0.74	0.22	104,104,104,104	0
54	MG	DA	3203	1/1	0.74	0.26	90,90,90,90	0
54	MG	BA	3459	1/1	0.74	0.37	91,91,91,91	0
54	MG	BA	3548	1/1	0.74	0.36	96,96,96,96	0
54	MG	BA	3484	1/1	0.74	0.33	116,116,116,116	0
54	MG	DA	3434	1/1	0.74	0.36	110,110,110,110	0
54	MG	DA	3272	1/1	0.74	0.24	92,92,92,92	0
54	MG	BA	3562	1/1	0.74	0.33	97,97,97,97	0
54	MG	DB	210	1/1	0.74	0.20	73,73,73,73	0
54	MG	BA	3196	1/1	0.74	0.28	109,109,109,109	0
54	MG	BA	3275	1/1	0.74	0.52	111,111,111,111	0
54	MG	DA	3318	1/1	0.75	0.43	91,91,91,91	0
54	MG	CA	1803	1/1	0.75	0.37	123,123,123,123	0
54	MG	DA	3125	1/1	0.75	0.18	105,105,105,105	0
54	MG	DA	3324	1/1	0.75	0.23	109,109,109,109	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	AA	1674	1/1	0.75	0.47	119,119,119,119	0
54	MG	BA	3320	1/1	0.75	0.35	104,104,104,104	0
54	MG	BA	3534	1/1	0.75	0.41	95,95,95,95	0
54	MG	CA	1638	1/1	0.75	0.28	128,128,128,128	0
54	MG	BA	3376	1/1	0.75	0.52	96,96,96,96	0
54	MG	DA	3474	1/1	0.75	0.34	107,107,107,107	0
54	MG	BA	3127	1/1	0.75	0.26	109,109,109,109	0
54	MG	AA	1643	1/1	0.75	0.12	112,112,112,112	0
54	MG	AA	1796	1/1	0.75	0.26	109,109,109,109	0
54	MG	CA	1755	1/1	0.75	0.17	97,97,97,97	0
54	MG	DA	3027	1/1	0.75	0.11	115,115,115,115	0
54	MG	BA	3485	1/1	0.75	0.25	90,90,90,90	0
54	MG	CA	1679	1/1	0.75	0.15	94,94,94,94	0
54	MG	DA	3512	1/1	0.75	0.39	81,81,81,81	0
54	MG	BA	3396	1/1	0.75	0.49	101,101,101,101	0
54	MG	BA	3071	1/1	0.75	0.29	103,103,103,103	0
54	MG	CA	1601	1/1	0.75	0.20	108,108,108,108	0
54	MG	AA	1801	1/1	0.75	0.21	97,97,97,97	0
54	MG	AA	1782	1/1	0.75	0.14	168,168,168,168	0
54	MG	CA	1707	1/1	0.75	0.45	109,109,109,109	0
54	MG	BA	3458	1/1	0.75	0.47	96,96,96,96	0
54	MG	BA	3368	1/1	0.75	0.43	93,93,93,93	0
54	MG	AA	1805	1/1	0.75	0.80	108,108,108,108	0
54	MG	BA	3251	1/1	0.76	0.56	109,109,109,109	0
54	MG	CA	1728	1/1	0.76	0.26	144,144,144,144	0
54	MG	BA	3340	1/1	0.76	0.62	95,95,95,95	0
54	MG	BA	3296	1/1	0.76	0.45	93,93,93,93	0
54	MG	CA	1778	1/1	0.76	0.43	118,118,118,118	0
54	MG	BA	3513	1/1	0.76	0.20	112,112,112,112	0
54	MG	BA	3090	1/1	0.76	0.18	78,78,78,78	0
54	MG	DA	3348	1/1	0.76	0.18	108,108,108,108	0
54	MG	DA	3260	1/1	0.76	0.38	128,128,128,128	0
54	MG	CA	1712	1/1	0.76	0.23	105,105,105,105	0
54	MG	BA	3204	1/1	0.76	0.50	98,98,98,98	0
54	MG	DA	3519	1/1	0.76	0.21	94,94,94,94	0
54	MG	CA	1753	1/1	0.76	0.20	95,95,95,95	0
54	MG	DB	204	1/1	0.76	0.13	111,111,111,111	0
54	MG	DA	3037	1/1	0.76	1.07	117,117,117,117	0
54	MG	BA	3452	1/1	0.76	0.29	131,131,131,131	0
54	MG	BA	3379	1/1	0.76	0.37	106,106,106,106	0
54	MG	DA	3460	1/1	0.76	0.19	96,96,96,96	0
54	MG	DA	3042	1/1	0.76	0.23	111,111,111,111	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	CA	1761	1/1	0.76	0.20	170,170,170,170	0
54	MG	DA	3464	1/1	0.76	0.20	101,101,101,101	0
54	MG	DA	3385	1/1	0.77	0.19	95,95,95,95	0
54	MG	BA	3390	1/1	0.77	0.26	81,81,81,81	0
54	MG	AA	1692	1/1	0.77	0.24	108,108,108,108	0
54	MG	BA	3265	1/1	0.77	0.28	96,96,96,96	0
54	MG	BA	3110	1/1	0.77	0.35	92,92,92,92	0
54	MG	CA	1608	1/1	0.77	0.21	103,103,103,103	0
54	MG	BB	207	1/1	0.77	0.34	131,131,131,131	0
54	MG	BA	3132	1/1	0.77	0.34	127,127,127,127	0
54	MG	AA	1748	1/1	0.77	0.66	130,130,130,130	0
54	MG	DA	3416	1/1	0.77	0.32	100,100,100,100	0
54	MG	AA	1770	1/1	0.77	0.53	98,98,98,98	0
54	MG	DA	3370	1/1	0.77	0.16	96,96,96,96	0
54	MG	DA	3103	1/1	0.77	0.12	117,117,117,117	0
54	MG	BA	3414	1/1	0.77	0.20	98,98,98,98	0
54	MG	AH	202	1/1	0.77	0.13	108,108,108,108	0
54	MG	CA	1705	1/1	0.78	0.49	114,114,114,114	0
54	MG	BA	3354	1/1	0.78	0.39	113,113,113,113	0
54	MG	DA	3172	1/1	0.78	0.64	110,110,110,110	0
54	MG	CC	106	1/1	0.78	0.17	112,112,112,112	0
54	MG	AA	1699	1/1	0.78	0.20	122,122,122,122	0
54	MG	BA	3393	1/1	0.78	0.20	108,108,108,108	0
54	MG	BA	3421	1/1	0.78	0.86	106,106,106,106	0
54	MG	BA	3450	1/1	0.78	0.32	99,99,99,99	0
54	MG	DA	3417	1/1	0.78	0.17	110,110,110,110	0
54	MG	BA	3565	1/1	0.78	0.22	86,86,86,86	0
54	MG	BA	3360	1/1	0.78	0.29	110,110,110,110	0
54	MG	AA	1694	1/1	0.78	0.79	105,105,105,105	0
54	MG	BA	3598	1/1	0.78	0.36	84,84,84,84	0
54	MG	DA	3362	1/1	0.78	0.17	120,120,120,120	0
54	MG	DA	3366	1/1	0.78	0.37	103,103,103,103	0
54	MG	BA	3489	1/1	0.78	0.29	104,104,104,104	0
54	MG	BA	3431	1/1	0.78	0.41	96,96,96,96	0
54	MG	DA	3291	1/1	0.78	0.41	85,85,85,85	0
54	MG	BA	3183	1/1	0.78	0.20	110,110,110,110	0
54	MG	BA	3400	1/1	0.78	0.25	101,101,101,101	0
54	MG	AA	1664	1/1	0.78	0.30	96,96,96,96	0
54	MG	DA	3301	1/1	0.78	1.06	124,124,124,124	0
54	MG	DZ	101	1/1	0.78	0.26	113,113,113,113	0
54	MG	AA	1812	1/1	0.79	0.22	124,124,124,124	0
54	MG	CA	1699	1/1	0.79	0.24	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	AA	1740	1/1	0.79	0.38	75,75,75,75	0
54	MG	DA	3372	1/1	0.79	0.24	101,101,101,101	0
54	MG	DA	3096	1/1	0.79	0.25	125,125,125,125	0
54	MG	BA	3626	1/1	0.79	0.47	103,103,103,103	0
54	MG	BA	3401	1/1	0.79	0.36	91,91,91,91	0
54	MG	BA	3011	1/1	0.79	0.36	72,72,72,72	0
54	MG	DA	3123	1/1	0.79	0.16	106,106,106,106	0
54	MG	AA	1680	1/1	0.79	0.39	104,104,104,104	0
54	MG	DA	3135	1/1	0.79	0.44	99,99,99,99	0
54	MG	AA	1786	1/1	0.79	0.29	131,131,131,131	0
54	MG	BA	3361	1/1	0.79	0.57	123,123,123,123	0
54	MG	BA	3526	1/1	0.79	0.51	115,115,115,115	0
54	MG	CA	1781	1/1	0.79	0.24	126,126,126,126	0
54	MG	BA	3449	1/1	0.79	0.48	118,118,118,118	0
54	MG	AA	1649	1/1	0.79	0.15	90,90,90,90	0
54	MG	CA	1666	1/1	0.79	0.35	120,120,120,120	0
54	MG	BA	3532	1/1	0.79	0.33	100,100,100,100	0
54	MG	DA	3045	1/1	0.79	0.17	67,67,67,67	0
54	MG	AA	1722	1/1	0.79	0.14	109,109,109,109	0
54	MG	AA	1662	1/1	0.79	1.48	111,111,111,111	0
54	MG	DA	3354	1/1	0.79	0.70	105,105,105,105	0
54	MG	DA	3437	1/1	0.79	0.22	96,96,96,96	0
54	MG	DB	214	1/1	0.79	0.09	118,118,118,118	0
54	MG	DA	3207	1/1	0.79	0.22	86,86,86,86	0
54	MG	AA	1811	1/1	0.79	0.14	154,154,154,154	0
54	MG	CA	1750	1/1	0.79	0.47	122,122,122,122	0
54	MG	DA	3346	1/1	0.80	0.24	93,93,93,93	0
54	MG	BA	3406	1/1	0.80	0.51	86,86,86,86	0
54	MG	DA	3008	1/1	0.80	0.47	93,93,93,93	0
54	MG	BA	3595	1/1	0.80	0.36	105,105,105,105	0
54	MG	AA	1618	1/1	0.80	0.23	98,98,98,98	0
54	MG	CA	1790	1/1	0.80	0.41	118,118,118,118	0
54	MG	BF	301	1/1	0.80	0.86	100,100,100,100	0
54	MG	AA	1759	1/1	0.80	0.32	87,87,87,87	0
54	MG	DA	3425	1/1	0.80	0.23	122,122,122,122	0
54	MG	CA	1758	1/1	0.80	0.47	110,110,110,110	0
54	MG	DA	3428	1/1	0.80	0.15	89,89,89,89	0
54	MG	AA	1658	1/1	0.80	0.22	79,79,79,79	0
54	MG	DA	3522	1/1	0.80	0.23	113,113,113,113	0
54	MG	DA	3033	1/1	0.80	0.20	89,89,89,89	0
54	MG	BA	3554	1/1	0.80	0.30	99,99,99,99	0
54	MG	DA	3441	1/1	0.80	0.19	116,116,116,116	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	AA	1741	1/1	0.80	0.24	130,130,130,130	0
54	MG	DA	3250	1/1	0.80	0.87	105,105,105,105	0
54	MG	BA	3538	1/1	0.80	0.67	111,111,111,111	0
54	MG	BA	3242	1/1	0.80	0.52	115,115,115,115	0
54	MG	DA	3339	1/1	0.80	0.40	152,152,152,152	0
54	MG	BA	3540	1/1	0.80	0.47	122,122,122,122	0
54	MG	DA	3400	1/1	0.80	0.29	105,105,105,105	0
54	MG	DA	3265	1/1	0.80	0.37	115,115,115,115	0
54	MG	CA	1681	1/1	0.81	0.28	96,96,96,96	0
54	MG	DA	3057	1/1	0.81	0.16	104,104,104,104	0
54	MG	DA	3067	1/1	0.81	0.18	97,97,97,97	0
54	MG	DA	3071	1/1	0.81	0.67	123,123,123,123	0
54	MG	AA	1708	1/1	0.81	0.33	104,104,104,104	0
54	MG	DA	3300	1/1	0.81	0.47	107,107,107,107	0
54	MG	BE	305	1/1	0.81	0.43	111,111,111,111	0
54	MG	AA	1754	1/1	0.81	0.15	85,85,85,85	0
54	MG	DA	3435	1/1	0.81	0.23	99,99,99,99	0
54	MG	BA	3160	1/1	0.81	0.55	109,109,109,109	0
54	MG	BA	3561	1/1	0.81	0.24	86,86,86,86	0
54	MG	DA	3088	1/1	0.81	0.13	99,99,99,99	0
54	MG	BA	3380	1/1	0.81	0.26	91,91,91,91	0
54	MG	BA	3345	1/1	0.81	0.16	95,95,95,95	0
54	MG	BA	3522	1/1	0.81	0.12	106,106,106,106	0
54	MG	BA	3460	1/1	0.81	0.22	90,90,90,90	0
54	MG	BA	3169	1/1	0.81	0.36	104,104,104,104	0
54	MG	CA	1609	1/1	0.81	0.33	119,119,119,119	0
54	MG	CA	1611	1/1	0.81	0.42	114,114,114,114	0
54	MG	BA	3355	1/1	0.81	0.52	90,90,90,90	0
54	MG	DA	3148	1/1	0.81	0.22	70,70,70,70	0
54	MG	BA	3091	1/1	0.81	0.30	103,103,103,103	0
54	MG	BA	3185	1/1	0.81	0.93	112,112,112,112	0
54	MG	CA	1627	1/1	0.81	0.47	112,112,112,112	0
54	MG	BA	3441	1/1	0.81	0.23	95,95,95,95	0
54	MG	AA	1634	1/1	0.81	0.31	97,97,97,97	0
54	MG	CA	1633	1/1	0.81	0.39	107,107,107,107	0
54	MG	CA	1636	1/1	0.81	0.22	91,91,91,91	0
54	MG	DA	3509	1/1	0.81	0.17	93,93,93,93	0
54	MG	BA	3303	1/1	0.81	0.12	119,119,119,119	0
54	MG	AA	1684	1/1	0.81	0.39	123,123,123,123	0
54	MG	DA	3518	1/1	0.81	0.50	94,94,94,94	0
54	MG	DA	3024	1/1	0.81	0.11	112,112,112,112	0
54	MG	BB	201	1/1	0.81	0.37	99,99,99,99	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3029	1/1	0.81	0.25	87,87,87,87	0
54	MG	DA	3233	1/1	0.81	0.29	79,79,79,79	0
54	MG	DA	3235	1/1	0.81	0.26	89,89,89,89	0
54	MG	CA	1645	1/1	0.81	0.12	103,103,103,103	0
54	MG	AA	1669	1/1	0.81	0.23	79,79,79,79	0
54	MG	AA	1789	1/1	0.81	0.24	79,79,79,79	0
54	MG	BA	3404	1/1	0.81	0.29	93,93,93,93	0
54	MG	AA	1825	1/1	0.81	0.27	93,93,93,93	0
54	MG	BE	303	1/1	0.81	0.28	72,72,72,72	0
54	MG	CA	1772	1/1	0.81	0.23	109,109,109,109	0
54	MG	DR	201	1/1	0.81	0.67	86,86,86,86	0
54	MG	DU	201	1/1	0.81	0.17	103,103,103,103	0
54	MG	DA	3048	1/1	0.81	0.17	84,84,84,84	0
54	MG	B3	101	1/1	0.82	0.34	77,77,77,77	0
54	MG	DA	3299	1/1	0.82	1.67	105,105,105,105	0
54	MG	AA	1652	1/1	0.82	0.35	91,91,91,91	0
54	MG	AA	1727	1/1	0.82	0.12	110,110,110,110	0
54	MG	BA	3486	1/1	0.82	0.22	108,108,108,108	0
54	MG	DA	3305	1/1	0.82	0.35	91,91,91,91	0
54	MG	BA	3312	1/1	0.82	0.43	98,98,98,98	0
54	MG	DA	3436	1/1	0.82	0.14	120,120,120,120	0
54	MG	CA	1706	1/1	0.82	0.32	126,126,126,126	0
54	MG	BA	3129	1/1	0.82	0.16	92,92,92,92	0
54	MG	DA	3444	1/1	0.82	0.29	100,100,100,100	0
54	MG	BA	3088	1/1	0.82	0.40	97,97,97,97	0
54	MG	AA	1728	1/1	0.82	0.14	85,85,85,85	0
54	MG	DA	3332	1/1	0.82	0.25	120,120,120,120	0
54	MG	DA	3454	1/1	0.82	0.17	94,94,94,94	0
54	MG	CC	104	1/1	0.82	0.37	95,95,95,95	0
54	MG	BA	3323	1/1	0.82	0.40	116,116,116,116	0
54	MG	CC	107	1/1	0.82	0.92	120,120,120,120	0
54	MG	BA	3571	1/1	0.82	0.43	85,85,85,85	0
54	MG	CA	1717	1/1	0.82	0.25	135,135,135,135	0
54	MG	DA	3465	1/1	0.82	0.53	111,111,111,111	0
54	MG	AA	1766	1/1	0.82	0.11	94,94,94,94	0
54	MG	BA	3392	1/1	0.82	0.35	110,110,110,110	0
54	MG	BA	3092	1/1	0.82	0.44	111,111,111,111	0
54	MG	DA	3355	1/1	0.82	0.15	89,89,89,89	0
54	MG	DA	3012	1/1	0.82	0.71	129,129,129,129	0
54	MG	AA	1689	1/1	0.82	0.22	153,153,153,153	0
54	MG	DA	3484	1/1	0.82	0.18	81,81,81,81	0
54	MG	AC	107	1/1	0.82	0.20	111,111,111,111	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3177	1/1	0.82	1.63	101,101,101,101	0
54	MG	DA	3368	1/1	0.82	0.87	95,95,95,95	0
54	MG	BA	3351	1/1	0.82	0.55	84,84,84,84	0
54	MG	BA	3619	1/1	0.82	0.23	88,88,88,88	0
54	MG	AA	1715	1/1	0.82	0.31	115,115,115,115	0
54	MG	AA	1815	1/1	0.82	0.49	88,88,88,88	0
54	MG	AA	1792	1/1	0.82	0.47	93,93,93,93	0
54	MG	CA	1754	1/1	0.82	0.44	97,97,97,97	0
54	MG	CA	1647	1/1	0.82	0.31	83,83,83,83	0
54	MG	DA	3525	1/1	0.82	0.35	103,103,103,103	0
54	MG	AA	1675	1/1	0.82	0.12	93,93,93,93	0
54	MG	DA	3040	1/1	0.82	0.14	98,98,98,98	0
54	MG	BA	3286	1/1	0.82	0.22	98,98,98,98	0
54	MG	BA	3289	1/1	0.82	0.25	83,83,83,83	0
54	MG	DA	3044	1/1	0.82	0.11	96,96,96,96	0
54	MG	AA	1668	1/1	0.82	0.24	105,105,105,105	0
54	MG	DB	213	1/1	0.82	0.14	91,91,91,91	0
54	MG	AA	1828	1/1	0.82	0.34	94,94,94,94	0
54	MG	AA	1704	1/1	0.82	0.41	112,112,112,112	0
54	MG	BA	3428	1/1	0.82	0.38	80,80,80,80	0
54	MG	BA	3482	1/1	0.82	0.40	88,88,88,88	0
54	MG	CA	1693	1/1	0.82	0.42	117,117,117,117	0
54	MG	CA	1694	1/1	0.82	0.23	108,108,108,108	0
54	MG	CA	1757	1/1	0.83	0.11	149,149,149,149	0
54	MG	DA	3456	1/1	0.83	0.26	138,138,138,138	0
54	MG	DA	3092	1/1	0.83	0.31	80,80,80,80	0
54	MG	AA	1647	1/1	0.83	0.35	96,96,96,96	0
54	MG	BA	3467	1/1	0.83	0.20	102,102,102,102	0
54	MG	CA	1762	1/1	0.83	0.38	116,116,116,116	0
54	MG	DA	3283	1/1	0.83	0.22	114,114,114,114	0
54	MG	BA	3107	1/1	0.83	0.52	76,76,76,76	0
54	MG	BA	3560	1/1	0.83	0.51	91,91,91,91	0
54	MG	DA	3106	1/1	0.83	1.48	122,122,122,122	0
54	MG	BB	212	1/1	0.83	0.42	103,103,103,103	0
54	MG	BA	3108	1/1	0.83	0.46	82,82,82,82	0
54	MG	DA	3399	1/1	0.83	0.36	126,126,126,126	0
54	MG	BA	3233	1/1	0.83	0.29	106,106,106,106	0
54	MG	DA	3144	1/1	0.83	0.43	85,85,85,85	0
54	MG	BA	3287	1/1	0.83	0.25	95,95,95,95	0
54	MG	BA	3528	1/1	0.83	0.56	104,104,104,104	0
54	MG	DA	3307	1/1	0.83	0.51	102,102,102,102	0
54	MG	DA	3157	1/1	0.83	0.18	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3513	1/1	0.83	0.28	95,95,95,95	0
54	MG	BA	3334	1/1	0.83	0.20	115,115,115,115	0
54	MG	CA	1718	1/1	0.83	0.60	114,114,114,114	0
54	MG	BA	3568	1/1	0.83	0.91	105,105,105,105	0
54	MG	DA	3422	1/1	0.83	0.28	93,93,93,93	0
54	MG	AA	1637	1/1	0.83	0.55	115,115,115,115	0
54	MG	BA	3236	1/1	0.83	0.35	97,97,97,97	0
54	MG	B7	101	1/1	0.83	0.38	67,67,67,67	0
54	MG	AA	1723	1/1	0.83	0.28	92,92,92,92	0
54	MG	BA	3413	1/1	0.83	0.39	120,120,120,120	0
54	MG	DA	3191	1/1	0.83	0.27	103,103,103,103	0
54	MG	BA	3294	1/1	0.83	0.49	79,79,79,79	0
54	MG	CC	101	1/1	0.83	0.29	130,130,130,130	0
54	MG	DB	211	1/1	0.83	0.26	107,107,107,107	0
54	MG	BA	3150	1/1	0.83	0.17	90,90,90,90	0
54	MG	CA	1687	1/1	0.83	0.41	106,106,106,106	0
54	MG	BA	3085	1/1	0.83	0.48	95,95,95,95	0
54	MG	AA	1735	1/1	0.83	0.45	91,91,91,91	0
54	MG	BA	3207	1/1	0.83	0.78	116,116,116,116	0
54	MG	BA	3625	1/1	0.83	0.32	99,99,99,99	0
54	MG	AQ	101	1/1	0.83	0.34	84,84,84,84	0
54	MG	CA	1775	1/1	0.84	0.14	90,90,90,90	0
54	MG	CA	1776	1/1	0.84	0.40	125,125,125,125	0
54	MG	CA	1701	1/1	0.84	0.55	92,92,92,92	0
54	MG	DA	3215	1/1	0.84	0.21	80,80,80,80	0
54	MG	BA	3247	1/1	0.84	0.45	80,80,80,80	0
54	MG	BA	3600	1/1	0.84	0.54	97,97,97,97	0
54	MG	BA	3606	1/1	0.84	0.36	84,84,84,84	0
54	MG	CA	1710	1/1	0.84	0.36	104,104,104,104	0
54	MG	CA	1618	1/1	0.84	0.56	123,123,123,123	0
54	MG	BA	3301	1/1	0.84	0.25	85,85,85,85	0
54	MG	BA	3302	1/1	0.84	0.34	101,101,101,101	0
54	MG	BA	3249	1/1	0.84	0.32	84,84,84,84	0
54	MG	BA	3307	1/1	0.84	0.18	90,90,90,90	0
54	MG	BA	3310	1/1	0.84	0.28	103,103,103,103	0
54	MG	DA	3391	1/1	0.84	0.14	94,94,94,94	0
54	MG	DA	3483	1/1	0.84	0.27	88,88,88,88	0
54	MG	BA	3250	1/1	0.84	0.41	87,87,87,87	0
54	MG	CC	103	1/1	0.84	0.16	150,150,150,150	0
54	MG	BA	3112	1/1	0.84	0.31	97,97,97,97	0
54	MG	AA	1757	1/1	0.84	0.11	118,118,118,118	0
54	MG	BB	204	1/1	0.84	0.48	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3070	1/1	0.84	0.37	119,119,119,119	0
54	MG	BA	3217	1/1	0.84	0.19	92,92,92,92	0
54	MG	AA	1701	1/1	0.84	0.40	115,115,115,115	0
54	MG	AA	1617	1/1	0.84	0.37	91,91,91,91	0
54	MG	BA	3332	1/1	0.84	0.34	83,83,83,83	0
54	MG	DA	3520	1/1	0.84	0.16	100,100,100,100	0
54	MG	BA	3388	1/1	0.84	0.53	100,100,100,100	0
54	MG	BA	3389	1/1	0.84	0.25	102,102,102,102	0
54	MG	BA	3490	1/1	0.84	0.41	100,100,100,100	0
54	MG	DA	3315	1/1	0.84	0.19	125,125,125,125	0
54	MG	BA	3231	1/1	0.84	0.47	93,93,93,93	0
54	MG	BA	3097	1/1	0.84	0.40	83,83,83,83	0
54	MG	CA	1685	1/1	0.84	0.11	121,121,121,121	0
54	MG	AA	1832	1/1	0.84	0.23	102,102,102,102	0
54	MG	BA	3344	1/1	0.84	0.23	93,93,93,93	0
54	MG	AA	1651	1/1	0.84	0.19	108,108,108,108	0
54	MG	AA	1803	1/1	0.84	0.17	133,133,133,133	0
54	MG	AA	1764	1/1	0.84	0.11	118,118,118,118	0
54	MG	BA	3514	1/1	0.84	0.54	90,90,90,90	0
54	MG	BA	3453	1/1	0.84	0.40	85,85,85,85	0
54	MG	DA	3183	1/1	0.84	0.37	92,92,92,92	0
54	MG	DA	3351	1/1	0.84	0.37	90,90,90,90	0
54	MG	AA	1725	1/1	0.84	0.32	111,111,111,111	0
54	MG	BA	3034	1/1	0.85	0.37	69,69,69,69	0
54	MG	DA	3205	1/1	0.85	0.18	106,106,106,106	0
54	MG	BA	3525	1/1	0.85	0.26	96,96,96,96	0
54	MG	DA	3209	1/1	0.85	0.23	100,100,100,100	0
54	MG	CA	1796	1/1	0.85	0.24	115,115,115,115	0
54	MG	BA	3475	1/1	0.85	0.07	270,270,270,270	0
54	MG	B2	201	1/1	0.85	0.12	90,90,90,90	0
54	MG	BA	3046	1/1	0.85	0.42	86,86,86,86	0
54	MG	AA	1743	1/1	0.85	0.21	136,136,136,136	0
54	MG	BA	3336	1/1	0.85	0.30	109,109,109,109	0
54	MG	AA	1779	1/1	0.85	0.43	88,88,88,88	0
54	MG	CA	1752	1/1	0.85	0.37	106,106,106,106	0
54	MG	AA	1795	1/1	0.85	0.12	102,102,102,102	0
54	MG	BA	3607	1/1	0.85	0.30	94,94,94,94	0
54	MG	BA	3611	1/1	0.85	0.38	101,101,101,101	0
54	MG	DA	3095	1/1	0.85	0.09	121,121,121,121	0
54	MG	AA	1716	1/1	0.85	0.45	107,107,107,107	0
54	MG	AA	1623	1/1	0.85	0.34	81,81,81,81	0
54	MG	DA	3292	1/1	0.85	0.16	129,129,129,129	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3100	1/1	0.85	0.36	100,100,100,100	0
54	MG	BA	3412	1/1	0.85	0.28	94,94,94,94	0
54	MG	CA	1613	1/1	0.85	0.37	94,94,94,94	0
54	MG	BA	3279	1/1	0.85	0.46	74,74,74,74	0
54	MG	CA	1763	1/1	0.85	0.28	94,94,94,94	0
54	MG	BA	3311	1/1	0.85	0.25	100,100,100,100	0
54	MG	DA	3129	1/1	0.85	0.21	115,115,115,115	0
54	MG	DA	3021	1/1	0.85	0.14	77,77,77,77	0
54	MG	BA	3415	1/1	0.85	0.53	90,90,90,90	0
54	MG	BA	3189	1/1	0.85	0.25	88,88,88,88	0
54	MG	BA	3503	1/1	0.85	0.19	105,105,105,105	0
54	MG	DA	3028	1/1	0.85	0.32	122,122,122,122	0
54	MG	BA	3504	1/1	0.85	0.40	88,88,88,88	0
54	MG	AA	1831	1/1	0.85	0.17	124,124,124,124	0
54	MG	AA	1721	1/1	0.85	0.23	115,115,115,115	0
54	MG	BB	208	1/1	0.85	0.41	90,90,90,90	0
54	MG	AC	109	1/1	0.85	0.23	105,105,105,105	0
54	MG	BA	3511	1/1	0.85	0.25	80,80,80,80	0
54	MG	DA	3173	1/1	0.85	0.15	92,92,92,92	0
54	MG	AA	1709	1/1	0.85	0.07	155,155,155,155	0
54	MG	CA	1789	1/1	0.85	0.26	121,121,121,121	0
54	MG	DP	201	1/1	0.85	0.24	102,102,102,102	0
54	MG	BA	3432	1/1	0.85	0.18	126,126,126,126	0
54	MG	BA	3086	1/1	0.85	0.27	88,88,88,88	0
54	MG	DA	3046	1/1	0.85	0.13	82,82,82,82	0
54	MG	DA	3253	1/1	0.86	0.15	103,103,103,103	0
54	MG	CA	1702	1/1	0.86	0.25	156,156,156,156	0
54	MG	CA	1704	1/1	0.86	0.57	95,95,95,95	0
54	MG	BA	3559	1/1	0.86	0.67	105,105,105,105	0
54	MG	CA	1770	1/1	0.86	0.12	106,106,106,106	0
54	MG	BA	3508	1/1	0.86	0.45	85,85,85,85	0
54	MG	AA	1614	1/1	0.86	0.37	114,114,114,114	0
54	MG	BA	3358	1/1	0.86	0.41	108,108,108,108	0
54	MG	DA	3472	1/1	0.86	0.56	102,102,102,102	0
54	MG	BA	3466	1/1	0.86	0.32	92,92,92,92	0
54	MG	DA	3390	1/1	0.86	0.21	144,144,144,144	0
54	MG	BE	302	1/1	0.86	0.79	104,104,104,104	0
54	MG	DA	3392	1/1	0.86	1.13	97,97,97,97	0
54	MG	CA	1641	1/1	0.86	0.20	135,135,135,135	0
54	MG	AA	1793	1/1	0.86	0.37	103,103,103,103	0
54	MG	AA	1729	1/1	0.86	0.39	108,108,108,108	0
54	MG	AJ	201	1/1	0.86	0.52	108,108,108,108	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3439	1/1	0.86	0.41	109,109,109,109	0
54	MG	CA	1725	1/1	0.86	0.35	106,106,106,106	0
54	MG	DA	3492	1/1	0.86	0.17	111,111,111,111	0
54	MG	DA	3405	1/1	0.86	0.27	121,121,121,121	0
54	MG	AA	1691	1/1	0.86	0.36	105,105,105,105	0
54	MG	BA	3399	1/1	0.86	0.27	90,90,90,90	0
54	MG	AA	1733	1/1	0.86	0.22	120,120,120,120	0
54	MG	AR	101	1/1	0.86	0.39	98,98,98,98	0
54	MG	CA	1676	1/1	0.86	0.32	102,102,102,102	0
54	MG	BA	3483	1/1	0.86	0.18	89,89,89,89	0
54	MG	BA	3194	1/1	0.86	0.26	113,113,113,113	0
54	MG	CS	101	1/1	0.86	0.44	115,115,115,115	0
54	MG	BA	3043	1/1	0.86	0.33	83,83,83,83	0
54	MG	BA	3342	1/1	0.86	0.52	95,95,95,95	0
54	MG	DA	3196	1/1	0.86	0.17	101,101,101,101	0
54	MG	BA	3377	1/1	0.86	0.13	109,109,109,109	0
54	MG	BA	3282	1/1	0.86	0.53	107,107,107,107	0
54	MG	BA	3451	1/1	0.86	0.24	102,102,102,102	0
54	MG	BA	3094	1/1	0.86	0.43	97,97,97,97	0
54	MG	BA	3348	1/1	0.86	0.39	90,90,90,90	0
54	MG	DA	3089	1/1	0.86	0.19	117,117,117,117	0
54	MG	BA	3156	1/1	0.86	0.78	108,108,108,108	0
54	MG	BA	3385	1/1	0.86	0.43	72,72,72,72	0
54	MG	DA	3240	1/1	0.86	0.21	89,89,89,89	0
54	MG	DA	3247	1/1	0.86	0.21	89,89,89,89	0
54	MG	DA	3452	1/1	0.86	0.70	91,91,91,91	0
54	MG	BA	3077	1/1	0.86	0.34	77,77,77,77	0
54	MG	BA	3246	1/1	0.86	0.39	78,78,78,78	0
54	MG	BA	3454	1/1	0.87	0.29	103,103,103,103	0
54	MG	DA	3432	1/1	0.87	0.42	91,91,91,91	0
54	MG	DA	3151	1/1	0.87	0.25	113,113,113,113	0
54	MG	BA	3337	1/1	0.87	0.13	75,75,75,75	0
54	MG	BA	3507	1/1	0.87	0.57	127,127,127,127	0
54	MG	DA	3322	1/1	0.87	0.26	110,110,110,110	0
54	MG	BA	3563	1/1	0.87	0.41	96,96,96,96	0
54	MG	BA	3378	1/1	0.87	0.30	129,129,129,129	0
54	MG	DA	3447	1/1	0.87	0.12	87,87,87,87	0
54	MG	CA	1683	1/1	0.87	0.21	113,113,113,113	0
54	MG	DA	3335	1/1	0.87	0.21	78,78,78,78	0
54	MG	DA	3451	1/1	0.87	0.21	90,90,90,90	0
54	MG	BP	201	1/1	0.87	1.34	115,115,115,115	0
54	MG	AA	1794	1/1	0.87	0.17	116,116,116,116	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	AA	1824	1/1	0.87	0.13	120,120,120,120	0
54	MG	DA	3031	1/1	0.87	0.56	70,70,70,70	0
54	MG	B3	102	1/1	0.87	0.42	93,93,93,93	0
54	MG	DA	3349	1/1	0.87	0.20	88,88,88,88	0
54	MG	BA	3418	1/1	0.87	0.29	98,98,98,98	0
54	MG	CA	1769	1/1	0.87	0.17	136,136,136,136	0
54	MG	BA	3419	1/1	0.87	0.19	129,129,129,129	0
54	MG	B8	101	1/1	0.87	0.29	101,101,101,101	0
54	MG	AA	1718	1/1	0.87	0.33	124,124,124,124	0
54	MG	BA	3073	1/1	0.87	0.93	108,108,108,108	0
54	MG	BA	3306	1/1	0.87	0.28	81,81,81,81	0
54	MG	BA	3271	1/1	0.87	0.37	96,96,96,96	0
54	MG	BA	3024	1/1	0.87	0.20	81,81,81,81	0
54	MG	CA	1779	1/1	0.87	0.22	112,112,112,112	0
54	MG	CA	1780	1/1	0.87	0.10	137,137,137,137	0
54	MG	AA	1622	1/1	0.87	0.40	96,96,96,96	0
54	MG	BA	3082	1/1	0.87	0.38	109,109,109,109	0
54	MG	CA	1786	1/1	0.87	0.07	192,192,192,192	0
54	MG	AA	1678	1/1	0.87	0.40	108,108,108,108	0
54	MG	BA	3317	1/1	0.87	0.39	99,99,99,99	0
54	MG	DA	3387	1/1	0.87	0.24	106,106,106,106	0
54	MG	BA	3135	1/1	0.87	0.17	90,90,90,90	0
54	MG	AA	1639	1/1	0.87	0.42	91,91,91,91	0
54	MG	BA	3321	1/1	0.87	0.23	71,71,71,71	0
54	MG	DA	3394	1/1	0.87	1.01	106,106,106,106	0
54	MG	DA	3395	1/1	0.87	0.27	87,87,87,87	0
54	MG	BA	3622	1/1	0.87	0.17	120,120,120,120	0
54	MG	CA	1628	1/1	0.87	0.04	149,149,149,149	0
54	MG	BA	3624	1/1	0.87	0.50	92,92,92,92	0
54	MG	BA	3241	1/1	0.87	0.37	91,91,91,91	0
54	MG	CA	1632	1/1	0.87	0.43	111,111,111,111	0
54	MG	DA	3285	1/1	0.87	0.12	67,67,67,67	0
54	MG	AA	1641	1/1	0.87	0.17	90,90,90,90	0
54	MG	AC	105	1/1	0.87	0.08	107,107,107,107	0
54	MG	AA	1771	1/1	0.87	0.20	117,117,117,117	0
54	MG	BA	3405	1/1	0.87	0.25	73,73,73,73	0
54	MG	DA	3415	1/1	0.87	0.11	84,84,84,84	0
54	MG	CA	1736	1/1	0.87	0.53	85,85,85,85	0
54	MG	BA	3372	1/1	0.87	0.66	99,99,99,99	0
54	MG	BA	3498	1/1	0.87	0.54	107,107,107,107	0
54	MG	BA	3552	1/1	0.87	0.17	98,98,98,98	0
54	MG	BA	3206	1/1	0.87	0.30	99,99,99,99	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3558	1/1	0.87	0.37	118,118,118,118	0
54	MG	CA	1658	1/1	0.87	0.45	120,120,120,120	0
54	MG	BA	3155	1/1	0.87	0.30	113,113,113,113	0
54	MG	DA	3314	1/1	0.87	0.21	83,83,83,83	0
54	MG	BA	3134	1/1	0.88	0.39	130,130,130,130	0
54	MG	DA	3381	1/1	0.88	0.24	97,97,97,97	0
54	MG	DA	3382	1/1	0.88	0.37	80,80,80,80	0
54	MG	DA	3047	1/1	0.88	0.08	124,124,124,124	0
54	MG	AA	1753	1/1	0.88	0.09	143,143,143,143	0
54	MG	BA	3614	1/1	0.88	1.59	109,109,109,109	0
54	MG	BA	3079	1/1	0.88	0.51	99,99,99,99	0
54	MG	BA	3148	1/1	0.88	0.20	59,59,59,59	0
54	MG	BA	3030	1/1	0.88	0.29	66,66,66,66	0
54	MG	AA	1791	1/1	0.88	0.25	104,104,104,104	0
54	MG	BA	3153	1/1	0.88	0.31	89,89,89,89	0
54	MG	DA	3194	1/1	0.88	0.23	91,91,91,91	0
54	MG	BA	3208	1/1	0.88	0.37	91,91,91,91	0
54	MG	DA	3007	1/1	0.88	0.23	116,116,116,116	0
54	MG	DA	3479	1/1	0.88	0.31	106,106,106,106	0
54	MG	DA	3480	1/1	0.88	0.20	84,84,84,84	0
54	MG	BA	3518	1/1	0.88	0.19	86,86,86,86	0
54	MG	DA	3010	1/1	0.88	0.20	103,103,103,103	0
54	MG	BA	3519	1/1	0.88	0.40	75,75,75,75	0
54	MG	BA	3410	1/1	0.88	0.25	120,120,120,120	0
54	MG	DA	3329	1/1	0.88	0.28	110,110,110,110	0
54	MG	DA	3330	1/1	0.88	0.20	82,82,82,82	0
54	MG	DA	3411	1/1	0.88	0.17	68,68,68,68	0
54	MG	CA	1680	1/1	0.88	0.26	94,94,94,94	0
54	MG	AA	1712	1/1	0.88	0.32	97,97,97,97	0
54	MG	CA	1612	1/1	0.88	0.12	122,122,122,122	0
54	MG	AA	1642	1/1	0.88	0.15	103,103,103,103	0
54	MG	DA	3516	1/1	0.88	0.17	92,92,92,92	0
54	MG	AA	1784	1/1	0.88	0.37	91,91,91,91	0
54	MG	CA	1740	1/1	0.88	0.17	109,109,109,109	0
54	MG	DA	3345	1/1	0.88	0.35	107,107,107,107	0
54	MG	DA	3423	1/1	0.88	0.12	123,123,123,123	0
54	MG	DA	3248	1/1	0.88	0.40	112,112,112,112	0
54	MG	AA	1629	1/1	0.88	0.09	186,186,186,186	0
54	MG	BA	3166	1/1	0.88	0.24	86,86,86,86	0
54	MG	DA	3113	1/1	0.88	0.27	105,105,105,105	0
54	MG	BA	3567	1/1	0.88	0.54	114,114,114,114	0
54	MG	AA	1830	1/1	0.88	0.09	135,135,135,135	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3283	1/1	0.88	0.19	108,108,108,108	0
54	MG	AA	1775	1/1	0.88	0.28	80,80,80,80	0
54	MG	DA	3273	1/1	0.88	0.31	83,83,83,83	0
54	MG	DA	3365	1/1	0.88	0.17	100,100,100,100	0
54	MG	AA	1800	1/1	0.88	0.41	92,92,92,92	0
54	MG	DA	3443	1/1	0.88	0.14	103,103,103,103	0
54	MG	AA	1813	1/1	0.88	0.15	131,131,131,131	0
54	MG	CA	1798	1/1	0.88	0.34	84,84,84,84	0
54	MG	BA	3001	1/1	0.88	0.44	53,53,53,53	0
54	MG	AA	1711	1/1	0.88	0.28	118,118,118,118	0
54	MG	CA	1804	1/1	0.88	0.23	119,119,119,119	0
54	MG	BA	3464	1/1	0.88	0.42	80,80,80,80	0
54	MG	BA	3299	1/1	0.89	0.50	78,78,78,78	0
54	MG	BA	3545	1/1	0.89	0.23	108,108,108,108	0
54	MG	BA	3546	1/1	0.89	0.26	97,97,97,97	0
54	MG	CA	1764	1/1	0.89	0.31	110,110,110,110	0
54	MG	DA	3258	1/1	0.89	0.24	98,98,98,98	0
54	MG	BA	3547	1/1	0.89	0.33	108,108,108,108	0
54	MG	BA	3353	1/1	0.89	0.37	93,93,93,93	0
54	MG	DA	3101	1/1	0.89	0.40	94,94,94,94	0
54	MG	BA	3608	1/1	0.89	0.16	108,108,108,108	0
54	MG	B1	202	1/1	0.89	0.28	100,100,100,100	0
54	MG	DA	3462	1/1	0.89	0.13	102,102,102,102	0
54	MG	DA	3378	1/1	0.89	0.23	100,100,100,100	0
54	MG	BA	3266	1/1	0.89	0.30	77,77,77,77	0
54	MG	BA	3468	1/1	0.89	0.17	84,84,84,84	0
54	MG	BA	3553	1/1	0.89	0.48	99,99,99,99	0
54	MG	DA	3289	1/1	0.89	0.21	83,83,83,83	0
54	MG	AA	1612	1/1	0.89	0.22	135,135,135,135	0
54	MG	BA	3557	1/1	0.89	0.14	92,92,92,92	0
54	MG	B7	102	1/1	0.89	0.29	75,75,75,75	0
54	MG	DA	3138	1/1	0.89	0.20	79,79,79,79	0
54	MG	BA	3010	1/1	0.89	0.23	128,128,128,128	0
54	MG	CA	1659	1/1	0.89	0.13	158,158,158,158	0
54	MG	AA	1732	1/1	0.89	0.39	112,112,112,112	0
54	MG	CA	1724	1/1	0.89	0.14	98,98,98,98	0
54	MG	BA	3359	1/1	0.89	0.15	92,92,92,92	0
54	MG	DA	3034	1/1	0.89	0.17	91,91,91,91	0
54	MG	DA	3161	1/1	0.89	0.25	77,77,77,77	0
54	MG	CA	1664	1/1	0.89	0.30	110,110,110,110	0
54	MG	DA	3313	1/1	0.89	0.29	122,122,122,122	0
54	MG	BA	3397	1/1	0.89	0.39	92,92,92,92	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	CA	1671	1/1	0.89	0.38	75,75,75,75	0
54	MG	CA	1672	1/1	0.89	0.22	101,101,101,101	0
54	MG	BA	3014	1/1	0.89	0.37	68,68,68,68	0
54	MG	AA	1742	1/1	0.89	0.24	108,108,108,108	0
54	MG	BA	3255	1/1	0.89	0.53	110,110,110,110	0
54	MG	CA	1797	1/1	0.89	0.15	127,127,127,127	0
54	MG	BA	3325	1/1	0.89	0.14	89,89,89,89	0
54	MG	CA	1748	1/1	0.89	0.12	81,81,81,81	0
54	MG	BA	3510	1/1	0.89	0.45	118,118,118,118	0
54	MG	BA	3461	1/1	0.89	0.27	79,79,79,79	0
54	MG	DA	3066	1/1	0.89	0.22	79,79,79,79	0
54	MG	DA	3338	1/1	0.89	0.35	95,95,95,95	0
54	MG	DA	3198	1/1	0.89	0.26	95,95,95,95	0
54	MG	AC	104	1/1	0.89	0.27	107,107,107,107	0
54	MG	CH	201	1/1	0.89	0.30	114,114,114,114	0
54	MG	BA	3488	1/1	0.89	0.51	109,109,109,109	0
54	MG	CA	1619	1/1	0.89	0.15	111,111,111,111	0
54	MG	CA	1621	1/1	0.89	0.31	84,84,84,84	0
54	MG	DA	3083	1/1	0.89	0.49	117,117,117,117	0
54	MG	BA	3575	1/1	0.89	0.13	109,109,109,109	0
54	MG	DA	3086	1/1	0.89	0.11	84,84,84,84	0
54	MG	BA	3517	1/1	0.89	0.20	121,121,121,121	0
54	MG	CA	1696	1/1	0.89	0.34	98,98,98,98	0
54	MG	DA	3446	1/1	0.89	0.24	92,92,92,92	0
54	MG	BA	3594	1/1	0.89	0.69	94,94,94,94	0
55	TAC	CA	1805	32/32	0.89	0.11	126,153,170,174	0
54	MG	DA	3068	1/1	0.90	0.40	122,122,122,122	0
54	MG	DA	3438	1/1	0.90	0.21	134,134,134,134	0
54	MG	DA	3069	1/1	0.90	0.29	101,101,101,101	0
54	MG	AG	302	1/1	0.90	0.32	162,162,162,162	0
54	MG	DA	3212	1/1	0.90	0.32	59,59,59,59	0
54	MG	DA	3445	1/1	0.90	0.31	89,89,89,89	0
54	MG	CA	1667	1/1	0.90	0.23	139,139,139,139	0
54	MG	BA	3371	1/1	0.90	0.41	81,81,81,81	0
54	MG	BA	3167	1/1	0.90	0.37	95,95,95,95	0
54	MG	BA	3373	1/1	0.90	0.11	131,131,131,131	0
54	MG	BA	3139	1/1	0.90	0.31	66,66,66,66	0
54	MG	DA	3360	1/1	0.90	0.25	85,85,85,85	0
54	MG	BA	3140	1/1	0.90	0.33	84,84,84,84	0
54	MG	BA	3178	1/1	0.90	0.48	78,78,78,78	0
54	MG	CA	1682	1/1	0.90	0.26	101,101,101,101	0
54	MG	BA	3497	1/1	0.90	0.39	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3544	1/1	0.90	0.37	77,77,77,77	0
54	MG	DA	3369	1/1	0.90	0.36	76,76,76,76	0
54	MG	DA	3255	1/1	0.90	0.14	87,87,87,87	0
54	MG	BA	3226	1/1	0.90	0.45	87,87,87,87	0
54	MG	CA	1610	1/1	0.90	0.18	147,147,147,147	0
54	MG	BA	3456	1/1	0.90	0.29	108,108,108,108	0
54	MG	DA	3466	1/1	0.90	0.24	94,94,94,94	0
54	MG	CA	1760	1/1	0.90	0.21	135,135,135,135	0
54	MG	DA	3469	1/1	0.90	0.20	107,107,107,107	0
54	MG	DA	3471	1/1	0.90	0.16	102,102,102,102	0
54	MG	DA	3269	1/1	0.90	0.20	78,78,78,78	0
54	MG	DA	3380	1/1	0.90	0.32	94,94,94,94	0
54	MG	BA	3182	1/1	0.90	0.23	101,101,101,101	0
54	MG	BA	3343	1/1	0.90	0.23	86,86,86,86	0
54	MG	AA	1645	1/1	0.90	0.26	93,93,93,93	0
54	MG	AA	1707	1/1	0.90	0.13	94,94,94,94	0
54	MG	BA	3063	1/1	0.90	0.21	121,121,121,121	0
54	MG	CA	1620	1/1	0.90	0.24	73,73,73,73	0
54	MG	DA	3121	1/1	0.90	0.17	68,68,68,68	0
54	MG	BA	3422	1/1	0.90	0.18	120,120,120,120	0
54	MG	BA	3234	1/1	0.90	0.48	84,84,84,84	0
54	MG	BB	205	1/1	0.90	0.46	93,93,93,93	0
54	MG	BA	3425	1/1	0.90	0.10	137,137,137,137	0
54	MG	BA	3152	1/1	0.90	0.55	90,90,90,90	0
54	MG	BA	3190	1/1	0.90	0.34	93,93,93,93	0
54	MG	DA	3511	1/1	0.90	0.78	111,111,111,111	0
54	MG	BB	209	1/1	0.90	0.26	116,116,116,116	0
54	MG	BA	3515	1/1	0.90	0.52	112,112,112,112	0
54	MG	DA	3401	1/1	0.90	0.26	103,103,103,103	0
54	MG	BA	3469	1/1	0.90	0.52	125,125,125,125	0
54	MG	BB	213	1/1	0.90	0.41	72,72,72,72	0
54	MG	DA	3036	1/1	0.90	0.23	108,108,108,108	0
54	MG	BA	3318	1/1	0.90	0.30	88,88,88,88	0
54	MG	AA	1739	1/1	0.90	0.54	99,99,99,99	0
54	MG	CA	1785	1/1	0.90	0.28	83,83,83,83	0
54	MG	AA	1821	1/1	0.90	0.16	110,110,110,110	0
54	MG	BA	3133	1/1	0.90	0.40	92,92,92,92	0
54	MG	BA	3478	1/1	0.90	0.13	155,155,155,155	0
54	MG	BA	3322	1/1	0.90	0.27	78,78,78,78	0
54	MG	DA	3176	1/1	0.90	0.21	112,112,112,112	0
54	MG	BA	3570	1/1	0.90	0.22	82,82,82,82	0
54	MG	DA	3325	1/1	0.90	0.39	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	AA	1797	1/1	0.90	0.33	82,82,82,82	0
54	MG	AA	1646	1/1	0.90	0.07	150,150,150,150	0
54	MG	BA	3161	1/1	0.90	0.16	101,101,101,101	0
54	MG	CA	1735	1/1	0.90	0.10	103,103,103,103	0
54	MG	DE	301	1/1	0.90	0.17	73,73,73,73	0
54	MG	DA	3058	1/1	0.90	0.56	109,109,109,109	0
54	MG	DA	3431	1/1	0.90	0.56	101,101,101,101	0
54	MG	DA	3060	1/1	0.90	0.15	101,101,101,101	0
54	MG	BA	3326	1/1	0.90	0.36	89,89,89,89	0
54	MG	DA	3200	1/1	0.90	0.14	112,112,112,112	0
54	MG	BA	3248	1/1	0.90	0.41	74,74,74,74	0
54	MG	BA	3164	1/1	0.91	0.43	80,80,80,80	0
54	MG	CA	1637	1/1	0.91	0.19	121,121,121,121	0
54	MG	BA	3550	1/1	0.91	0.31	99,99,99,99	0
54	MG	BA	3333	1/1	0.91	0.42	99,99,99,99	0
54	MG	AA	1631	1/1	0.91	0.45	96,96,96,96	0
54	MG	DA	3175	1/1	0.91	0.16	101,101,101,101	0
54	MG	AA	1744	1/1	0.91	0.20	180,180,180,180	0
54	MG	DA	3303	1/1	0.91	0.36	140,140,140,140	0
54	MG	AA	1761	1/1	0.91	0.08	152,152,152,152	0
54	MG	BA	3523	1/1	0.91	0.20	64,64,64,64	0
54	MG	DA	3180	1/1	0.91	0.31	82,82,82,82	0
54	MG	CA	1768	1/1	0.91	0.11	106,106,106,106	0
54	MG	DA	3470	1/1	0.91	0.25	124,124,124,124	0
54	MG	DA	3311	1/1	0.91	0.16	92,92,92,92	0
54	MG	BA	3616	1/1	0.91	0.39	92,92,92,92	0
54	MG	BA	3309	1/1	0.91	0.36	84,84,84,84	0
54	MG	BA	3031	1/1	0.91	0.33	63,63,63,63	0
54	MG	AC	106	1/1	0.91	0.19	119,119,119,119	0
54	MG	BA	3436	1/1	0.91	0.26	118,118,118,118	0
54	MG	BA	3211	1/1	0.91	0.41	77,77,77,77	0
54	MG	AA	1621	1/1	0.91	0.44	147,147,147,147	0
54	MG	DA	3404	1/1	0.91	0.14	66,66,66,66	0
54	MG	DA	3323	1/1	0.91	0.12	79,79,79,79	0
54	MG	AA	1826	1/1	0.91	0.14	94,94,94,94	0
54	MG	CA	1726	1/1	0.91	0.27	111,111,111,111	0
54	MG	BA	3627	1/1	0.91	0.44	89,89,89,89	0
54	MG	BA	3216	1/1	0.91	0.19	95,95,95,95	0
54	MG	DA	3488	1/1	0.91	0.52	105,105,105,105	0
54	MG	CA	1729	1/1	0.91	0.33	115,115,115,115	0
54	MG	CA	1730	1/1	0.91	0.41	121,121,121,121	0
54	MG	DA	3510	1/1	0.91	0.20	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3234	1/1	0.91	0.30	92,92,92,92	0
54	MG	DA	3336	1/1	0.91	0.16	115,115,115,115	0
54	MG	AA	1747	1/1	0.91	0.11	159,159,159,159	0
54	MG	BA	3131	1/1	0.91	0.23	101,101,101,101	0
54	MG	BA	3445	1/1	0.91	0.17	156,156,156,156	0
54	MG	DA	3245	1/1	0.91	0.35	83,83,83,83	0
54	MG	CA	1615	1/1	0.91	0.25	106,106,106,106	0
54	MG	AA	1705	1/1	0.91	0.28	98,98,98,98	0
54	MG	DA	3521	1/1	0.91	0.08	111,111,111,111	0
54	MG	DA	3347	1/1	0.91	0.35	116,116,116,116	0
54	MG	BA	3474	1/1	0.91	0.31	102,102,102,102	0
54	MG	BA	3572	1/1	0.91	0.17	113,113,113,113	0
54	MG	DB	203	1/1	0.91	0.21	95,95,95,95	0
54	MG	BB	210	1/1	0.91	0.40	78,78,78,78	0
54	MG	DA	3131	1/1	0.91	0.17	94,94,94,94	0
54	MG	BA	3573	1/1	0.91	0.37	96,96,96,96	0
54	MG	DA	3257	1/1	0.91	0.32	88,88,88,88	0
54	MG	BA	3060	1/1	0.91	0.26	105,105,105,105	0
54	MG	DA	3141	1/1	0.91	0.22	85,85,85,85	0
54	MG	DA	3142	1/1	0.91	0.13	99,99,99,99	0
54	MG	DB	212	1/1	0.91	0.65	102,102,102,102	0
54	MG	BA	3256	1/1	0.91	0.28	68,68,68,68	0
54	MG	BA	3298	1/1	0.91	0.34	73,73,73,73	0
54	MG	BA	3261	1/1	0.91	0.14	90,90,90,90	0
54	MG	BA	3597	1/1	0.91	0.27	69,69,69,69	0
54	MG	DA	3155	1/1	0.91	0.13	80,80,80,80	0
54	MG	AA	1654	1/1	0.91	0.41	113,113,113,113	0
54	MG	DA	3052	1/1	0.91	0.35	120,120,120,120	0
54	MG	D1	201	1/1	0.91	0.19	87,87,87,87	0
54	MG	BA	3599	1/1	0.91	0.38	115,115,115,115	0
54	MG	AA	1819	1/1	0.91	0.23	81,81,81,81	0
55	TAC	AA	1833	32/32	0.91	0.18	99,129,142,143	0
54	MG	DA	3376	1/1	0.91	0.28	87,87,87,87	0
54	MG	AA	1697	1/1	0.92	0.45	143,143,143,143	0
54	MG	AA	1785	1/1	0.92	0.16	131,131,131,131	0
54	MG	AA	1756	1/1	0.92	0.25	86,86,86,86	0
54	MG	CA	1668	1/1	0.92	0.35	145,145,145,145	0
54	MG	BA	3111	1/1	0.92	0.18	68,68,68,68	0
54	MG	BA	3288	1/1	0.92	0.61	100,100,100,100	0
54	MG	DA	3458	1/1	0.92	0.09	115,115,115,115	0
54	MG	DA	3459	1/1	0.92	0.24	108,108,108,108	0
54	MG	BA	3163	1/1	0.92	0.21	104,104,104,104	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	CA	1677	1/1	0.92	0.17	114,114,114,114	0
54	MG	DA	3373	1/1	0.92	0.21	112,112,112,112	0
54	MG	DA	3152	1/1	0.92	0.18	112,112,112,112	0
54	MG	DA	3154	1/1	0.92	0.24	111,111,111,111	0
54	MG	BA	3290	1/1	0.92	0.26	78,78,78,78	0
54	MG	BA	3492	1/1	0.92	0.42	76,76,76,76	0
54	MG	BA	3533	1/1	0.92	0.62	106,106,106,106	0
54	MG	CA	1741	1/1	0.92	0.20	136,136,136,136	0
54	MG	BA	3356	1/1	0.92	0.22	128,128,128,128	0
54	MG	CA	1746	1/1	0.92	0.38	92,92,92,92	0
54	MG	BA	3423	1/1	0.92	0.59	89,89,89,89	0
54	MG	BA	3253	1/1	0.92	0.14	89,89,89,89	0
54	MG	BA	3048	1/1	0.92	0.13	70,70,70,70	0
54	MG	BA	3426	1/1	0.92	0.34	77,77,77,77	0
54	MG	DA	3063	1/1	0.92	0.23	76,76,76,76	0
54	MG	DA	3306	1/1	0.92	0.20	92,92,92,92	0
54	MG	BA	3499	1/1	0.92	0.14	103,103,103,103	0
54	MG	CA	1691	1/1	0.92	0.35	95,95,95,95	0
54	MG	BA	3586	1/1	0.92	0.39	62,62,62,62	0
54	MG	DA	3312	1/1	0.92	0.19	87,87,87,87	0
54	MG	BA	3293	1/1	0.92	0.39	77,77,77,77	0
54	MG	BA	3232	1/1	0.92	0.20	93,93,93,93	0
54	MG	DA	3188	1/1	0.92	0.38	69,69,69,69	0
54	MG	DA	3316	1/1	0.92	0.75	124,124,124,124	0
54	MG	DA	3489	1/1	0.92	0.24	98,98,98,98	0
54	MG	BA	3430	1/1	0.92	0.13	87,87,87,87	0
54	MG	DA	3193	1/1	0.92	0.16	69,69,69,69	0
54	MG	DA	3079	1/1	0.92	0.22	97,97,97,97	0
54	MG	BA	3050	1/1	0.92	0.47	75,75,75,75	0
54	MG	BA	3363	1/1	0.92	0.34	73,73,73,73	0
54	MG	BA	3264	1/1	0.92	0.43	75,75,75,75	0
54	MG	DA	3414	1/1	0.92	0.09	95,95,95,95	0
54	MG	CA	1634	1/1	0.92	0.14	110,110,110,110	0
54	MG	DA	3326	1/1	0.92	0.29	82,82,82,82	0
54	MG	DA	3005	1/1	0.92	0.23	86,86,86,86	0
54	MG	BA	3117	1/1	0.92	0.27	102,102,102,102	0
54	MG	DA	3420	1/1	0.92	0.11	108,108,108,108	0
54	MG	AA	1665	1/1	0.92	0.26	84,84,84,84	0
54	MG	DA	3208	1/1	0.92	0.24	94,94,94,94	0
54	MG	DA	3524	1/1	0.92	0.50	86,86,86,86	0
54	MG	DA	3334	1/1	0.92	0.09	136,136,136,136	0
54	MG	DB	201	1/1	0.92	0.14	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	AA	1788	1/1	0.92	0.29	124,124,124,124	0
54	MG	BA	3609	1/1	0.92	0.22	102,102,102,102	0
54	MG	DB	205	1/1	0.92	0.18	85,85,85,85	0
54	MG	AA	1615	1/1	0.92	0.21	95,95,95,95	0
54	MG	BA	3209	1/1	0.92	0.37	79,79,79,79	0
54	MG	DA	3429	1/1	0.92	0.24	97,97,97,97	0
54	MG	DA	3340	1/1	0.92	0.13	89,89,89,89	0
54	MG	B5	102	1/1	0.92	0.11	92,92,92,92	0
54	MG	BA	3304	1/1	0.92	0.27	90,90,90,90	0
54	MG	DA	3099	1/1	0.92	0.30	74,74,74,74	0
54	MG	DA	3020	1/1	0.92	0.10	62,62,62,62	0
54	MG	CA	1771	1/1	0.92	0.31	92,92,92,92	0
54	MG	BA	3277	1/1	0.92	0.15	97,97,97,97	0
54	MG	CA	1714	1/1	0.92	0.31	94,94,94,94	0
54	MG	DA	3025	1/1	0.92	0.35	88,88,88,88	0
54	MG	DA	3026	1/1	0.92	0.13	122,122,122,122	0
54	MG	BA	3556	1/1	0.92	0.14	91,91,91,91	0
54	MG	AA	1817	1/1	0.92	0.50	101,101,101,101	0
54	MG	DA	3357	1/1	0.92	0.19	105,105,105,105	0
54	MG	CA	1661	1/1	0.92	0.35	98,98,98,98	0
54	MG	DZ	102	1/1	0.92	0.14	88,88,88,88	0
54	MG	BA	3065	1/1	0.92	0.17	135,135,135,135	0
54	MG	AA	1630	1/1	0.92	0.26	105,105,105,105	0
54	MG	DA	3137	1/1	0.93	0.18	74,74,74,74	0
54	MG	BA	3284	1/1	0.93	0.12	121,121,121,121	0
54	MG	BA	3170	1/1	0.93	0.33	90,90,90,90	0
54	MG	DA	3457	1/1	0.93	0.14	102,102,102,102	0
54	MG	CA	1777	1/1	0.93	0.29	133,133,133,133	0
54	MG	BA	3114	1/1	0.93	0.44	83,83,83,83	0
54	MG	CA	1715	1/1	0.93	0.37	128,128,128,128	0
54	MG	CA	1655	1/1	0.93	0.43	125,125,125,125	0
54	MG	CA	1656	1/1	0.93	0.18	129,129,129,129	0
54	MG	CA	1782	1/1	0.93	0.38	98,98,98,98	0
54	MG	CA	1657	1/1	0.93	0.16	142,142,142,142	0
54	MG	BA	3350	1/1	0.93	1.22	115,115,115,115	0
54	MG	DA	3156	1/1	0.93	0.82	113,113,113,113	0
54	MG	A1	101	1/1	0.93	0.29	72,72,72,72	0
54	MG	BA	3215	1/1	0.93	0.28	119,119,119,119	0
54	MG	DA	3160	1/1	0.93	0.44	84,84,84,84	0
54	MG	DA	3302	1/1	0.93	0.32	79,79,79,79	0
54	MG	CA	1788	1/1	0.93	0.37	87,87,87,87	0
54	MG	B7	103	1/1	0.93	0.16	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3393	1/1	0.93	0.23	76,76,76,76	0
54	MG	AA	1822	1/1	0.93	0.10	144,144,144,144	0
54	MG	BA	3387	1/1	0.93	0.08	135,135,135,135	0
54	MG	AA	1661	1/1	0.93	0.36	94,94,94,94	0
54	MG	DA	3054	1/1	0.93	0.37	88,88,88,88	0
54	MG	BA	3621	1/1	0.93	0.32	66,66,66,66	0
54	MG	AA	1806	1/1	0.93	0.43	100,100,100,100	0
54	MG	CA	1732	1/1	0.93	0.28	144,144,144,144	0
54	MG	DA	3061	1/1	0.93	0.25	64,64,64,64	0
54	MG	BA	3623	1/1	0.93	0.21	86,86,86,86	0
54	MG	DA	3403	1/1	0.93	0.21	84,84,84,84	0
54	MG	BA	3123	1/1	0.93	0.34	73,73,73,73	0
54	MG	CA	1673	1/1	0.93	0.14	89,89,89,89	0
54	MG	AA	1767	1/1	0.93	0.37	100,100,100,100	0
54	MG	DA	3502	1/1	0.93	0.25	64,64,64,64	0
54	MG	DA	3503	1/1	0.93	0.76	105,105,105,105	0
54	MG	DA	3408	1/1	0.93	0.23	107,107,107,107	0
54	MG	DA	3409	1/1	0.93	0.33	132,132,132,132	0
54	MG	BA	3126	1/1	0.93	0.14	89,89,89,89	0
54	MG	DA	3070	1/1	0.93	0.31	76,76,76,76	0
54	MG	BA	3053	1/1	0.93	0.49	92,92,92,92	0
54	MG	DA	3413	1/1	0.93	0.63	115,115,115,115	0
54	MG	BA	3463	1/1	0.93	0.28	77,77,77,77	0
54	MG	BA	3020	1/1	0.93	0.22	109,109,109,109	0
54	MG	DA	3197	1/1	0.93	0.28	103,103,103,103	0
54	MG	BA	3268	1/1	0.93	0.28	87,87,87,87	0
54	MG	AA	1635	1/1	0.93	0.33	122,122,122,122	0
54	MG	BA	3574	1/1	0.93	0.36	60,60,60,60	0
54	MG	DA	3204	1/1	0.93	0.19	126,126,126,126	0
54	MG	BA	3433	1/1	0.93	0.15	107,107,107,107	0
54	MG	BA	3542	1/1	0.93	0.48	100,100,100,100	0
54	MG	DA	3001	1/1	0.93	0.23	83,83,83,83	0
54	MG	BA	3366	1/1	0.93	0.34	95,95,95,95	0
54	MG	CA	1689	1/1	0.93	0.42	122,122,122,122	0
54	MG	CA	1623	1/1	0.93	0.07	180,180,180,180	0
54	MG	CA	1692	1/1	0.93	0.22	104,104,104,104	0
54	MG	BA	3587	1/1	0.93	0.35	102,102,102,102	0
54	MG	BA	3588	1/1	0.93	0.41	109,109,109,109	0
54	MG	BA	3592	1/1	0.93	0.28	112,112,112,112	0
54	MG	CA	1629	1/1	0.93	0.07	164,164,164,164	0
54	MG	BA	3203	1/1	0.93	0.39	86,86,86,86	0
54	MG	BB	216	1/1	0.93	0.24	111,111,111,111	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3273	1/1	0.93	0.36	70,70,70,70	0
54	MG	DA	3249	1/1	0.93	0.33	65,65,65,65	0
54	MG	BA	3335	1/1	0.93	0.28	96,96,96,96	0
54	MG	BA	3027	1/1	0.93	0.25	69,69,69,69	0
54	MG	DA	3356	1/1	0.93	0.29	64,64,64,64	0
54	MG	AA	1632	1/1	0.93	0.34	116,116,116,116	0
54	MG	AA	1605	1/1	0.93	0.20	108,108,108,108	0
54	MG	BA	3604	1/1	0.93	0.23	97,97,97,97	0
54	MG	BA	3067	1/1	0.93	1.00	108,108,108,108	0
54	MG	CA	1708	1/1	0.93	0.26	143,143,143,143	0
54	MG	BA	3136	1/1	0.93	0.31	62,62,62,62	0
54	MG	DA	3134	1/1	0.93	0.11	105,105,105,105	0
54	MG	AA	1659	1/1	0.93	0.15	71,71,71,71	0
54	MG	CA	1722	1/1	0.94	0.10	109,109,109,109	0
54	MG	BU	202	1/1	0.94	0.20	80,80,80,80	0
54	MG	DA	3433	1/1	0.94	0.21	66,66,66,66	0
54	MG	BA	3603	1/1	0.94	1.34	113,113,113,113	0
54	MG	DA	3056	1/1	0.94	0.16	86,86,86,86	0
54	MG	AA	1781	1/1	0.94	0.47	120,120,120,120	0
54	MG	BA	3605	1/1	0.94	0.17	82,82,82,82	0
54	MG	AA	1619	1/1	0.94	0.18	96,96,96,96	0
54	MG	AA	1700	1/1	0.94	0.14	123,123,123,123	0
54	MG	DA	3062	1/1	0.94	0.32	112,112,112,112	0
54	MG	AA	1799	1/1	0.94	0.42	79,79,79,79	0
54	MG	DA	3065	1/1	0.94	0.28	103,103,103,103	0
54	MG	BA	3128	1/1	0.94	0.57	99,99,99,99	0
54	MG	DA	3337	1/1	0.94	0.16	88,88,88,88	0
54	MG	DA	3448	1/1	0.94	0.15	89,89,89,89	0
54	MG	BA	3416	1/1	0.94	0.18	70,70,70,70	0
54	MG	BA	3055	1/1	0.94	0.50	69,69,69,69	0
54	MG	AA	1679	1/1	0.94	0.28	105,105,105,105	0
54	MG	BA	3420	1/1	0.94	0.43	70,70,70,70	0
54	MG	CA	1737	1/1	0.94	0.38	97,97,97,97	0
54	MG	BA	3005	1/1	0.94	0.22	61,61,61,61	0
54	MG	DA	3202	1/1	0.94	0.26	88,88,88,88	0
54	MG	DA	3077	1/1	0.94	0.13	96,96,96,96	0
54	MG	DA	3078	1/1	0.94	0.10	97,97,97,97	0
54	MG	CA	1739	1/1	0.94	0.24	112,112,112,112	0
54	MG	DA	3206	1/1	0.94	0.40	58,58,58,58	0
54	MG	CA	1674	1/1	0.94	0.68	117,117,117,117	0
54	MG	CA	1675	1/1	0.94	0.08	111,111,111,111	0
54	MG	CA	1606	1/1	0.94	0.39	100,100,100,100	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3084	1/1	0.94	0.11	98,98,98,98	0
54	MG	AA	1702	1/1	0.94	0.35	77,77,77,77	0
54	MG	DA	3216	1/1	0.94	0.19	77,77,77,77	0
54	MG	AA	1746	1/1	0.94	0.16	92,92,92,92	0
54	MG	AA	1714	1/1	0.94	0.18	115,115,115,115	0
54	MG	BA	3512	1/1	0.94	0.23	97,97,97,97	0
54	MG	BA	3018	1/1	0.94	0.31	53,53,53,53	0
54	MG	BA	3270	1/1	0.94	0.20	87,87,87,87	0
54	MG	CA	1614	1/1	0.94	0.16	121,121,121,121	0
54	MG	DA	3246	1/1	0.94	0.09	103,103,103,103	0
54	MG	DA	3006	1/1	0.94	0.42	69,69,69,69	0
54	MG	DA	3476	1/1	0.94	0.44	99,99,99,99	0
54	MG	BA	3427	1/1	0.94	0.44	91,91,91,91	0
54	MG	CA	1686	1/1	0.94	0.41	79,79,79,79	0
54	MG	BA	3516	1/1	0.94	0.24	80,80,80,80	0
54	MG	DA	3251	1/1	0.94	0.16	91,91,91,91	0
54	MG	DA	3375	1/1	0.94	0.22	127,127,127,127	0
54	MG	AA	1610	1/1	0.94	0.31	71,71,71,71	0
54	MG	BA	3347	1/1	0.94	0.28	72,72,72,72	0
54	MG	DA	3254	1/1	0.94	0.40	74,74,74,74	0
54	MG	DA	3015	1/1	0.94	0.18	98,98,98,98	0
54	MG	BA	3272	1/1	0.94	0.29	52,52,52,52	0
54	MG	BA	3023	1/1	0.94	0.20	66,66,66,66	0
54	MG	DA	3107	1/1	0.94	0.23	100,100,100,100	0
54	MG	DA	3110	1/1	0.94	0.27	75,75,75,75	0
54	MG	DA	3498	1/1	0.94	0.10	106,106,106,106	0
54	MG	BA	3308	1/1	0.94	0.38	110,110,110,110	0
54	MG	DA	3388	1/1	0.94	0.08	152,152,152,152	0
54	MG	DA	3116	1/1	0.94	0.26	77,77,77,77	0
54	MG	DA	3019	1/1	0.94	0.24	84,84,84,84	0
54	MG	BA	3476	1/1	0.94	0.45	59,59,59,59	0
54	MG	DA	3274	1/1	0.94	0.22	83,83,83,83	0
54	MG	DA	3275	1/1	0.94	0.20	93,93,93,93	0
54	MG	DA	3514	1/1	0.94	0.13	71,71,71,71	0
54	MG	DA	3276	1/1	0.94	0.17	97,97,97,97	0
54	MG	CA	1624	1/1	0.94	0.32	129,129,129,129	0
54	MG	DA	3128	1/1	0.94	0.27	65,65,65,65	0
54	MG	BA	3569	1/1	0.94	0.45	79,79,79,79	0
54	MG	DA	3284	1/1	0.94	0.28	100,100,100,100	0
54	MG	BA	3524	1/1	0.94	0.46	90,90,90,90	0
54	MG	DA	3133	1/1	0.94	0.18	74,74,74,74	0
54	MG	DA	3290	1/1	0.94	0.21	107,107,107,107	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3274	1/1	0.94	0.47	93,93,93,93	0
54	MG	CA	1767	1/1	0.94	0.37	90,90,90,90	0
54	MG	AA	1760	1/1	0.94	0.20	122,122,122,122	0
54	MG	DA	3406	1/1	0.94	0.17	103,103,103,103	0
54	MG	AA	1681	1/1	0.94	0.11	146,146,146,146	0
54	MG	AA	1762	1/1	0.94	0.15	124,124,124,124	0
54	MG	CA	1703	1/1	0.94	0.11	93,93,93,93	0
54	MG	AC	103	1/1	0.94	0.41	75,75,75,75	0
54	MG	DA	3145	1/1	0.94	0.17	110,110,110,110	0
54	MG	DA	3146	1/1	0.94	0.51	87,87,87,87	0
54	MG	BA	3280	1/1	0.94	0.30	106,106,106,106	0
54	MG	BB	215	1/1	0.94	0.17	129,129,129,129	0
54	MG	DA	3150	1/1	0.94	0.42	96,96,96,96	0
54	MG	BA	3281	1/1	0.94	0.71	106,106,106,106	0
54	MG	BA	3238	1/1	0.94	0.38	112,112,112,112	0
54	MG	DA	3308	1/1	0.94	0.25	94,94,94,94	0
54	MG	BA	3151	1/1	0.94	0.28	103,103,103,103	0
54	MG	BA	3362	1/1	0.94	0.59	70,70,70,70	0
54	MG	BA	3078	1/1	0.94	0.32	106,106,106,106	0
54	MG	BA	3033	1/1	0.94	0.32	75,75,75,75	0
54	MG	DA	3043	1/1	0.94	0.21	106,106,106,106	0
54	MG	BA	3491	1/1	0.94	0.37	84,84,84,84	0
54	MG	BO	203	1/1	0.94	0.17	70,70,70,70	0
54	MG	AA	1827	1/1	0.94	0.17	82,82,82,82	0
54	MG	AA	1633	1/1	0.94	0.41	80,80,80,80	0
54	MG	AA	1667	1/1	0.94	0.37	88,88,88,88	0
54	MG	DA	3009	1/1	0.95	0.30	74,74,74,74	0
54	MG	BA	3047	1/1	0.95	0.23	64,64,64,64	0
54	MG	CA	1625	1/1	0.95	0.35	142,142,142,142	0
54	MG	AA	1703	1/1	0.95	0.23	87,87,87,87	0
54	MG	DA	3090	1/1	0.95	0.24	90,90,90,90	0
54	MG	DA	3091	1/1	0.95	0.15	87,87,87,87	0
54	MG	AA	1804	1/1	0.95	0.11	130,130,130,130	0
54	MG	DA	3442	1/1	0.95	0.13	112,112,112,112	0
54	MG	BA	3120	1/1	0.95	0.51	97,97,97,97	0
54	MG	BA	3529	1/1	0.95	0.29	89,89,89,89	0
54	MG	BA	3580	1/1	0.95	0.34	64,64,64,64	0
54	MG	DA	3210	1/1	0.95	0.24	63,63,63,63	0
54	MG	DA	3342	1/1	0.95	0.26	114,114,114,114	0
54	MG	BA	3051	1/1	0.95	0.22	72,72,72,72	0
54	MG	DA	3213	1/1	0.95	0.26	67,67,67,67	0
54	MG	BE	301	1/1	0.95	0.29	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3391	1/1	0.95	0.22	103,103,103,103	0
54	MG	DA	3227	1/1	0.95	0.23	83,83,83,83	0
54	MG	BA	3435	1/1	0.95	0.10	109,109,109,109	0
54	MG	DA	3350	1/1	0.95	0.30	82,82,82,82	0
54	MG	DA	3023	1/1	0.95	0.27	86,86,86,86	0
54	MG	AA	1648	1/1	0.95	0.28	123,123,123,123	0
54	MG	DA	3353	1/1	0.95	0.43	108,108,108,108	0
54	MG	DA	3105	1/1	0.95	0.16	110,110,110,110	0
54	MG	BA	3019	1/1	0.95	0.29	49,49,49,49	0
54	MG	BA	3394	1/1	0.95	0.45	85,85,85,85	0
54	MG	BA	3596	1/1	0.95	0.38	88,88,88,88	0
54	MG	DA	3112	1/1	0.95	0.26	71,71,71,71	0
54	MG	CA	1709	1/1	0.95	0.35	110,110,110,110	0
54	MG	AA	1818	1/1	0.95	0.21	156,156,156,156	0
54	MG	DA	3364	1/1	0.95	0.16	112,112,112,112	0
54	MG	BA	3021	1/1	0.95	0.43	72,72,72,72	0
54	MG	DA	3467	1/1	0.95	0.10	159,159,159,159	0
54	MG	B1	201	1/1	0.95	0.28	61,61,61,61	0
54	MG	AA	1655	1/1	0.95	0.46	106,106,106,106	0
54	MG	AA	1626	1/1	0.95	0.22	80,80,80,80	0
54	MG	DA	3035	1/1	0.95	0.13	93,93,93,93	0
54	MG	BU	201	1/1	0.95	0.12	105,105,105,105	0
54	MG	BA	3444	1/1	0.95	0.07	186,186,186,186	0
54	MG	BA	3064	1/1	0.95	0.24	113,113,113,113	0
54	MG	BA	3316	1/1	0.95	0.30	82,82,82,82	0
54	MG	DA	3259	1/1	0.95	0.38	76,76,76,76	0
54	MG	DA	3136	1/1	0.95	0.26	64,64,64,64	0
54	MG	CA	1783	1/1	0.95	0.41	97,97,97,97	0
54	MG	CA	1720	1/1	0.95	0.30	98,98,98,98	0
54	MG	DA	3271	1/1	0.95	0.26	62,62,62,62	0
54	MG	DA	3140	1/1	0.95	0.14	74,74,74,74	0
54	MG	BZ	101	1/1	0.95	0.22	69,69,69,69	0
54	MG	BA	3025	1/1	0.95	0.38	65,65,65,65	0
54	MG	DA	3384	1/1	0.95	0.09	77,77,77,77	0
54	MG	BA	3402	1/1	0.95	0.18	81,81,81,81	0
54	MG	AA	1607	1/1	0.95	0.39	99,99,99,99	0
54	MG	BA	3179	1/1	0.95	0.66	108,108,108,108	0
54	MG	DA	3490	1/1	0.95	0.09	120,120,120,120	0
54	MG	CA	1665	1/1	0.95	0.46	103,103,103,103	0
54	MG	DA	3493	1/1	0.95	0.14	64,64,64,64	0
54	MG	DA	3389	1/1	0.95	0.19	94,94,94,94	0
54	MG	DA	3282	1/1	0.95	0.18	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3049	1/1	0.95	0.10	105,105,105,105	0
54	MG	DA	3050	1/1	0.95	0.12	108,108,108,108	0
54	MG	AH	201	1/1	0.95	0.15	118,118,118,118	0
54	MG	DA	3286	1/1	0.95	0.50	115,115,115,115	0
54	MG	DA	3288	1/1	0.95	0.24	95,95,95,95	0
54	MG	BA	3364	1/1	0.95	0.25	137,137,137,137	0
54	MG	AA	1673	1/1	0.95	0.16	133,133,133,133	0
54	MG	DA	3515	1/1	0.95	0.12	94,94,94,94	0
54	MG	CA	1670	1/1	0.95	0.22	91,91,91,91	0
54	MG	BA	3409	1/1	0.95	0.44	86,86,86,86	0
54	MG	BA	3032	1/1	0.95	0.29	69,69,69,69	0
54	MG	DA	3294	1/1	0.95	0.33	64,64,64,64	0
54	MG	BA	3186	1/1	0.95	0.28	62,62,62,62	0
54	MG	BA	3240	1/1	0.95	0.52	93,93,93,93	0
54	MG	CA	1607	1/1	0.95	0.43	83,83,83,83	0
54	MG	BA	3106	1/1	0.95	0.27	52,52,52,52	0
54	MG	CG	302	1/1	0.95	0.40	180,180,180,180	0
54	MG	BA	3138	1/1	0.95	0.22	81,81,81,81	0
54	MG	DA	3165	1/1	0.95	0.20	59,59,59,59	0
54	MG	AA	1780	1/1	0.95	0.08	154,154,154,154	0
54	MG	CA	1743	1/1	0.95	0.36	117,117,117,117	0
54	MG	BA	3072	1/1	0.95	0.42	87,87,87,87	0
54	MG	BA	3462	1/1	0.95	0.43	113,113,113,113	0
54	MG	BA	3142	1/1	0.95	0.47	48,48,48,48	0
54	MG	BA	3145	1/1	0.95	0.40	83,83,83,83	0
54	MG	DA	3076	1/1	0.95	0.28	75,75,75,75	0
54	MG	BA	3199	1/1	0.95	0.08	78,78,78,78	0
54	MG	BA	3202	1/1	0.95	0.27	65,65,65,65	0
54	MG	DA	3185	1/1	0.95	0.21	66,66,66,66	0
54	MG	DA	3186	1/1	0.95	0.15	60,60,60,60	0
54	MG	DA	3187	1/1	0.95	0.21	70,70,70,70	0
54	MG	AA	1608	1/1	0.95	0.14	111,111,111,111	0
54	MG	DA	3319	1/1	0.95	0.17	77,77,77,77	0
54	MG	DA	3190	1/1	0.95	0.38	80,80,80,80	0
54	MG	DE	303	1/1	0.95	0.19	70,70,70,70	0
54	MG	BA	3042	1/1	0.95	0.17	94,94,94,94	0
54	MG	DA	3426	1/1	0.95	0.15	159,159,159,159	0
54	MG	DA	3192	1/1	0.95	0.22	64,64,64,64	0
54	MG	AA	1736	1/1	0.95	0.12	122,122,122,122	0
54	MG	DA	3082	1/1	0.95	0.12	99,99,99,99	0
54	MG	BA	3381	1/1	0.95	0.53	65,65,65,65	0
54	MG	AA	1814	1/1	0.95	0.11	152,152,152,152	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3115	1/1	0.95	0.37	68,68,68,68	0
56	ZN	CG	303	1/1	0.95	0.18	161,161,161,161	0
56	ZN	CQ	101	1/1	0.95	0.07	188,188,188,188	0
54	MG	BA	3555	1/1	0.96	0.20	67,67,67,67	0
54	MG	DA	3102	1/1	0.96	0.11	150,150,150,150	0
54	MG	DA	3439	1/1	0.96	0.07	84,84,84,84	0
54	MG	BA	3113	1/1	0.96	0.14	72,72,72,72	0
54	MG	BA	3146	1/1	0.96	0.47	82,82,82,82	0
54	MG	DA	3211	1/1	0.96	0.23	71,71,71,71	0
54	MG	BA	3080	1/1	0.96	0.19	125,125,125,125	0
54	MG	AA	1677	1/1	0.96	0.30	125,125,125,125	0
54	MG	BA	3193	1/1	0.96	0.45	76,76,76,76	0
54	MG	AA	1613	1/1	0.96	0.17	144,144,144,144	0
54	MG	DA	3217	1/1	0.96	0.23	89,89,89,89	0
54	MG	DA	3223	1/1	0.96	0.26	54,54,54,54	0
54	MG	DA	3224	1/1	0.96	0.16	61,61,61,61	0
54	MG	DA	3226	1/1	0.96	0.26	81,81,81,81	0
54	MG	BB	202	1/1	0.96	0.24	92,92,92,92	0
54	MG	DA	3229	1/1	0.96	0.27	94,94,94,94	0
54	MG	DA	3230	1/1	0.96	0.30	65,65,65,65	0
54	MG	AA	1627	1/1	0.96	0.32	87,87,87,87	0
54	MG	DA	3115	1/1	0.96	0.23	75,75,75,75	0
54	MG	AA	1606	1/1	0.96	0.09	155,155,155,155	0
54	MG	DA	3238	1/1	0.96	0.12	117,117,117,117	0
54	MG	DA	3117	1/1	0.96	0.27	72,72,72,72	0
54	MG	DA	3118	1/1	0.96	0.21	61,61,61,61	0
54	MG	DA	3241	1/1	0.96	0.24	69,69,69,69	0
54	MG	DA	3244	1/1	0.96	0.19	84,84,84,84	0
54	MG	DA	3119	1/1	0.96	0.32	65,65,65,65	0
54	MG	CA	1697	1/1	0.96	0.17	185,185,185,185	0
54	MG	DA	3122	1/1	0.96	0.28	67,67,67,67	0
54	MG	AA	1638	1/1	0.96	0.38	104,104,104,104	0
54	MG	BA	3061	1/1	0.96	0.42	64,64,64,64	0
54	MG	BA	3417	1/1	0.96	0.23	78,78,78,78	0
54	MG	AC	101	1/1	0.96	0.16	78,78,78,78	0
54	MG	DA	3130	1/1	0.96	0.32	92,92,92,92	0
54	MG	BA	3375	1/1	0.96	0.50	80,80,80,80	0
54	MG	BA	3013	1/1	0.96	0.24	63,63,63,63	0
54	MG	DA	3473	1/1	0.96	0.13	157,157,157,157	0
54	MG	BA	3037	1/1	0.96	0.44	71,71,71,71	0
54	MG	BA	3520	1/1	0.96	0.41	129,129,129,129	0
54	MG	BA	3039	1/1	0.96	0.37	98,98,98,98	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3338	1/1	0.96	0.26	103,103,103,103	0
54	MG	CA	1635	1/1	0.96	0.29	78,78,78,78	0
54	MG	BA	3040	1/1	0.96	0.25	88,88,88,88	0
54	MG	BA	3260	1/1	0.96	0.20	126,126,126,126	0
54	MG	DA	3268	1/1	0.96	0.14	63,63,63,63	0
54	MG	DA	3379	1/1	0.96	0.46	64,64,64,64	0
54	MG	BA	3382	1/1	0.96	0.48	78,78,78,78	0
54	MG	CA	1640	1/1	0.96	0.29	92,92,92,92	0
54	MG	BA	3578	1/1	0.96	0.17	88,88,88,88	0
54	MG	BA	3579	1/1	0.96	0.45	85,85,85,85	0
54	MG	CA	1643	1/1	0.96	0.07	148,148,148,148	0
54	MG	BA	3341	1/1	0.96	0.36	71,71,71,71	0
54	MG	BA	3583	1/1	0.96	0.28	59,59,59,59	0
54	MG	BO	201	1/1	0.96	0.15	90,90,90,90	0
54	MG	CA	1719	1/1	0.96	0.12	116,116,116,116	0
54	MG	DA	3494	1/1	0.96	0.33	45,45,45,45	0
54	MG	DA	3153	1/1	0.96	0.12	145,145,145,145	0
54	MG	CA	1648	1/1	0.96	0.13	96,96,96,96	0
54	MG	BA	3068	1/1	0.96	0.19	71,71,71,71	0
54	MG	DA	3508	1/1	0.96	0.26	68,68,68,68	0
54	MG	DA	3059	1/1	0.96	0.22	68,68,68,68	0
54	MG	CA	1795	1/1	0.96	0.23	112,112,112,112	0
54	MG	DA	3287	1/1	0.96	0.23	67,67,67,67	0
54	MG	CA	1652	1/1	0.96	0.41	120,120,120,120	0
54	MG	CA	1654	1/1	0.96	0.18	128,128,128,128	0
54	MG	BA	3165	1/1	0.96	0.17	119,119,119,119	0
54	MG	DA	3064	1/1	0.96	0.28	79,79,79,79	0
54	MG	BA	3386	1/1	0.96	0.15	117,117,117,117	0
54	MG	CA	1800	1/1	0.96	0.12	145,145,145,145	0
54	MG	CA	1801	1/1	0.96	0.23	139,139,139,139	0
54	MG	AA	1755	1/1	0.96	0.20	143,143,143,143	0
54	MG	BA	3531	1/1	0.96	0.38	101,101,101,101	0
54	MG	AA	1808	1/1	0.96	0.15	139,139,139,139	0
54	MG	CA	1660	1/1	0.96	0.14	118,118,118,118	0
54	MG	BA	3168	1/1	0.96	0.34	52,52,52,52	0
54	MG	BA	3434	1/1	0.96	0.62	107,107,107,107	0
54	MG	BA	3305	1/1	0.96	0.32	80,80,80,80	0
54	MG	DA	3179	1/1	0.96	0.18	85,85,85,85	0
54	MG	BA	3349	1/1	0.96	0.48	69,69,69,69	0
54	MG	BA	3044	1/1	0.96	0.16	58,58,58,58	0
54	MG	BA	3602	1/1	0.96	0.50	66,66,66,66	0
54	MG	BA	3438	1/1	0.96	0.43	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3309	1/1	0.96	0.07	145,145,145,145	0
54	MG	BA	3487	1/1	0.96	0.06	116,116,116,116	0
54	MG	BA	3103	1/1	0.96	0.21	93,93,93,93	0
54	MG	DA	3418	1/1	0.96	0.35	61,61,61,61	0
54	MG	BA	3352	1/1	0.96	0.35	87,87,87,87	0
54	MG	CA	1744	1/1	0.96	0.33	97,97,97,97	0
54	MG	BA	3223	1/1	0.96	0.46	84,84,84,84	0
54	MG	BA	3171	1/1	0.96	0.26	87,87,87,87	0
54	MG	BA	3172	1/1	0.96	0.24	93,93,93,93	0
54	MG	DA	3317	1/1	0.96	0.46	131,131,131,131	0
54	MG	BA	3610	1/1	0.96	0.14	85,85,85,85	0
54	MG	BA	3105	1/1	0.96	0.23	68,68,68,68	0
54	MG	BA	3045	1/1	0.96	0.43	66,66,66,66	0
54	MG	BA	3313	1/1	0.96	0.26	61,61,61,61	0
54	MG	DA	3199	1/1	0.96	0.14	77,77,77,77	0
54	MG	AA	1644	1/1	0.96	0.26	72,72,72,72	0
54	MG	DA	3201	1/1	0.96	0.29	73,73,73,73	0
54	MG	AA	1777	1/1	0.96	0.05	141,141,141,141	0
54	MG	AA	1650	1/1	0.96	0.26	85,85,85,85	0
54	MG	BA	3500	1/1	0.96	0.19	129,129,129,129	0
56	ZN	AG	303	1/1	0.96	0.25	153,153,153,153	0
54	MG	AA	1823	1/1	0.96	0.11	138,138,138,138	0
54	MG	AA	1660	1/1	0.96	0.14	126,126,126,126	0
54	MG	BA	3257	1/1	0.97	0.30	70,70,70,70	0
54	MG	BA	3258	1/1	0.97	0.45	74,74,74,74	0
54	MG	DA	3228	1/1	0.97	0.08	80,80,80,80	0
54	MG	BA	3408	1/1	0.97	0.13	109,109,109,109	0
54	MG	BA	3015	1/1	0.97	0.25	61,61,61,61	0
54	MG	DA	3231	1/1	0.97	0.23	74,74,74,74	0
54	MG	DA	3232	1/1	0.97	0.24	78,78,78,78	0
54	MG	BA	3035	1/1	0.97	0.26	70,70,70,70	0
54	MG	BA	3263	1/1	0.97	0.35	50,50,50,50	0
54	MG	BA	3141	1/1	0.97	0.23	63,63,63,63	0
54	MG	DA	3236	1/1	0.97	0.28	60,60,60,60	0
54	MG	DA	3132	1/1	0.97	0.22	78,78,78,78	0
54	MG	BA	3057	1/1	0.97	0.35	93,93,93,93	0
54	MG	BA	3058	1/1	0.97	0.26	103,103,103,103	0
54	MG	BA	3036	1/1	0.97	0.25	63,63,63,63	0
54	MG	BA	3218	1/1	0.97	0.36	75,75,75,75	0
54	MG	BA	3577	1/1	0.97	0.31	61,61,61,61	0
54	MG	BA	3220	1/1	0.97	0.23	76,76,76,76	0
54	MG	DA	3139	1/1	0.97	0.27	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3181	1/1	0.97	0.26	79,79,79,79	0
54	MG	BA	3225	1/1	0.97	0.54	92,92,92,92	0
54	MG	BA	3581	1/1	0.97	0.32	82,82,82,82	0
54	MG	DA	3143	1/1	0.97	0.10	117,117,117,117	0
54	MG	DA	3053	1/1	0.97	0.31	100,100,100,100	0
54	MG	BA	3016	1/1	0.97	0.06	143,143,143,143	0
54	MG	BA	3584	1/1	0.97	0.36	100,100,100,100	0
54	MG	BA	3585	1/1	0.97	0.21	62,62,62,62	0
54	MG	BA	3471	1/1	0.97	0.46	91,91,91,91	0
54	MG	CA	1651	1/1	0.97	0.22	116,116,116,116	0
54	MG	BA	3227	1/1	0.97	0.31	82,82,82,82	0
54	MG	BA	3473	1/1	0.97	0.41	82,82,82,82	0
54	MG	BA	3590	1/1	0.97	0.52	116,116,116,116	0
54	MG	DA	3261	1/1	0.97	0.15	78,78,78,78	0
54	MG	BA	3038	1/1	0.97	0.30	67,67,67,67	0
54	MG	BA	3593	1/1	0.97	0.37	57,57,57,57	0
54	MG	DA	3477	1/1	0.97	0.23	93,93,93,93	0
54	MG	BA	3229	1/1	0.97	0.32	89,89,89,89	0
54	MG	AA	1713	1/1	0.97	0.14	107,107,107,107	0
54	MG	AA	1720	1/1	0.97	0.17	101,101,101,101	0
54	MG	DA	3159	1/1	0.97	0.10	128,128,128,128	0
54	MG	BA	3187	1/1	0.97	0.34	56,56,56,56	0
54	MG	BA	3327	1/1	0.97	0.21	117,117,117,117	0
54	MG	DA	3383	1/1	0.97	0.37	84,84,84,84	0
54	MG	B5	101	1/1	0.97	0.16	61,61,61,61	0
54	MG	DA	3277	1/1	0.97	0.34	77,77,77,77	0
54	MG	DA	3278	1/1	0.97	0.10	80,80,80,80	0
54	MG	CA	1733	1/1	0.97	0.35	124,124,124,124	0
54	MG	DA	3072	1/1	0.97	0.31	94,94,94,94	0
54	MG	DA	3073	1/1	0.97	0.11	102,102,102,102	0
54	MG	DA	3491	1/1	0.97	0.32	65,65,65,65	0
54	MG	BA	3041	1/1	0.97	0.07	142,142,142,142	0
54	MG	DA	3170	1/1	0.97	0.29	80,80,80,80	0
54	MG	DA	3171	1/1	0.97	0.35	87,87,87,87	0
54	MG	DA	3496	1/1	0.97	0.14	72,72,72,72	0
54	MG	BA	3330	1/1	0.97	0.21	102,102,102,102	0
54	MG	BA	3331	1/1	0.97	0.43	74,74,74,74	0
54	MG	DA	3174	1/1	0.97	0.16	81,81,81,81	0
54	MG	DA	3505	1/1	0.97	0.13	72,72,72,72	0
54	MG	DA	3506	1/1	0.97	0.28	61,61,61,61	0
54	MG	DA	3507	1/1	0.97	0.19	79,79,79,79	0
54	MG	AA	1695	1/1	0.97	0.07	152,152,152,152	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	AA	1774	1/1	0.97	0.20	72,72,72,72	0
54	MG	CA	1669	1/1	0.97	0.14	130,130,130,130	0
54	MG	AA	1737	1/1	0.97	0.39	132,132,132,132	0
54	MG	CA	1742	1/1	0.97	0.35	98,98,98,98	0
54	MG	BA	3098	1/1	0.97	0.43	75,75,75,75	0
54	MG	BA	3158	1/1	0.97	0.52	67,67,67,67	0
54	MG	CA	1603	1/1	0.97	0.56	93,93,93,93	0
54	MG	BA	3239	1/1	0.97	0.39	82,82,82,82	0
54	MG	AA	1620	1/1	0.97	0.24	105,105,105,105	0
54	MG	AA	1798	1/1	0.97	0.42	100,100,100,100	0
54	MG	BA	3200	1/1	0.97	0.12	149,149,149,149	0
54	MG	CA	1678	1/1	0.97	0.07	140,140,140,140	0
54	MG	BA	3244	1/1	0.97	0.10	112,112,112,112	0
54	MG	BA	3613	1/1	0.97	0.09	111,111,111,111	0
54	MG	DA	3014	1/1	0.97	0.39	69,69,69,69	0
54	MG	BA	3201	1/1	0.97	0.18	122,122,122,122	0
54	MG	BA	3162	1/1	0.97	0.27	72,72,72,72	0
54	MG	AA	1609	1/1	0.97	0.39	87,87,87,87	0
54	MG	DB	202	1/1	0.97	0.11	113,113,113,113	0
54	MG	BA	3295	1/1	0.97	0.43	70,70,70,70	0
54	MG	BA	3346	1/1	0.97	0.28	112,112,112,112	0
54	MG	BA	3028	1/1	0.97	0.36	57,57,57,57	0
54	MG	CA	1759	1/1	0.97	0.09	157,157,157,157	0
54	MG	BA	3620	1/1	0.97	0.14	72,72,72,72	0
54	MG	CA	1617	1/1	0.97	0.23	140,140,140,140	0
54	MG	BA	3502	1/1	0.97	0.52	90,90,90,90	0
54	MG	CA	1690	1/1	0.97	0.22	102,102,102,102	0
54	MG	BA	3297	1/1	0.97	0.40	78,78,78,78	0
54	MG	DA	3108	1/1	0.97	0.26	67,67,67,67	0
54	MG	DA	3109	1/1	0.97	0.26	63,63,63,63	0
54	MG	AA	1731	1/1	0.97	0.54	90,90,90,90	0
54	MG	BA	3012	1/1	0.97	0.21	70,70,70,70	0
54	MG	AA	1717	1/1	0.97	0.07	137,137,137,137	0
54	MG	DA	3030	1/1	0.97	0.28	89,89,89,89	0
54	MG	BA	3252	1/1	0.97	0.28	70,70,70,70	0
54	MG	DA	3214	1/1	0.97	0.22	63,63,63,63	0
54	MG	DA	3328	1/1	0.97	0.04	138,138,138,138	0
54	MG	AA	1666	1/1	0.97	0.09	123,123,123,123	0
54	MG	BA	3254	1/1	0.97	0.31	70,70,70,70	0
54	MG	BA	3054	1/1	0.97	0.41	91,91,91,91	0
54	MG	DA	3218	1/1	0.97	0.35	77,77,77,77	0
54	MG	D5	101	1/1	0.97	0.10	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3219	1/1	0.97	0.28	71,71,71,71	0
54	MG	DA	3221	1/1	0.97	0.27	61,61,61,61	0
54	MG	DA	3120	1/1	0.97	0.15	75,75,75,75	0
54	MG	DA	3440	1/1	0.97	0.42	83,83,83,83	0
54	MG	BA	3210	1/1	0.97	0.52	78,78,78,78	0
54	MG	CA	1653	1/1	0.98	0.28	122,122,122,122	0
54	MG	DA	3281	1/1	0.98	0.24	74,74,74,74	0
54	MG	AA	1768	1/1	0.98	0.13	126,126,126,126	0
54	MG	BA	3081	1/1	0.98	0.26	88,88,88,88	0
54	MG	AA	1624	1/1	0.98	0.12	98,98,98,98	0
54	MG	BA	3083	1/1	0.98	0.29	108,108,108,108	0
54	MG	BA	3243	1/1	0.98	0.49	122,122,122,122	0
54	MG	BA	3017	1/1	0.98	0.27	67,67,67,67	0
54	MG	DA	3039	1/1	0.98	0.48	116,116,116,116	0
54	MG	BA	3501	1/1	0.98	0.40	99,99,99,99	0
54	MG	BA	3197	1/1	0.98	0.20	66,66,66,66	0
54	MG	BA	3059	1/1	0.98	0.09	144,144,144,144	0
54	MG	AA	1706	1/1	0.98	0.06	134,134,134,134	0
54	MG	BA	3087	1/1	0.98	0.05	142,142,142,142	0
54	MG	CA	1791	1/1	0.98	0.30	78,78,78,78	0
54	MG	BA	3121	1/1	0.98	0.29	87,87,87,87	0
54	MG	BA	3157	1/1	0.98	0.36	74,74,74,74	0
54	MG	DA	3297	1/1	0.98	0.14	71,71,71,71	0
54	MG	DA	3298	1/1	0.98	0.07	96,96,96,96	0
54	MG	AA	1698	1/1	0.98	0.33	132,132,132,132	0
54	MG	DA	3126	1/1	0.98	0.09	58,58,58,58	0
54	MG	DA	3127	1/1	0.98	0.23	66,66,66,66	0
54	MG	BA	3159	1/1	0.98	0.23	101,101,101,101	0
54	MG	BA	3062	1/1	0.98	0.27	70,70,70,70	0
54	MG	BA	3002	1/1	0.98	0.39	63,63,63,63	0
54	MG	CA	1734	1/1	0.98	0.09	93,93,93,93	0
54	MG	BA	3125	1/1	0.98	0.32	88,88,88,88	0
54	MG	BA	3003	1/1	0.98	0.30	78,78,78,78	0
54	MG	BA	3022	1/1	0.98	0.43	65,65,65,65	0
54	MG	CA	1802	1/1	0.98	0.39	136,136,136,136	0
54	MG	BA	3004	1/1	0.98	0.30	79,79,79,79	0
54	MG	BA	3259	1/1	0.98	0.29	53,53,53,53	0
54	MG	AA	1653	1/1	0.98	0.21	91,91,91,91	0
54	MG	DA	3220	1/1	0.98	0.24	70,70,70,70	0
54	MG	BA	3213	1/1	0.98	0.26	69,69,69,69	0
54	MG	DA	3222	1/1	0.98	0.27	62,62,62,62	0
54	MG	DA	3500	1/1	0.98	0.12	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3501	1/1	0.98	0.24	73,73,73,73	0
54	MG	BA	3262	1/1	0.98	0.37	63,63,63,63	0
54	MG	BA	3130	1/1	0.98	0.09	92,92,92,92	0
54	MG	DA	3225	1/1	0.98	0.12	89,89,89,89	0
54	MG	BB	203	1/1	0.98	0.41	73,73,73,73	0
54	MG	CC	102	1/1	0.98	0.18	83,83,83,83	0
54	MG	BA	3006	1/1	0.98	0.22	50,50,50,50	0
54	MG	BA	3315	1/1	0.98	0.34	91,91,91,91	0
54	MG	CC	105	1/1	0.98	0.21	125,125,125,125	0
54	MG	BA	3026	1/1	0.98	0.21	66,66,66,66	0
54	MG	BA	3007	1/1	0.98	0.20	63,63,63,63	0
54	MG	BA	3009	1/1	0.98	0.24	53,53,53,53	0
54	MG	BA	3101	1/1	0.98	0.42	58,58,58,58	0
54	MG	BA	3221	1/1	0.98	0.34	89,89,89,89	0
54	MG	DA	3003	1/1	0.98	0.32	130,130,130,130	0
54	MG	BA	3222	1/1	0.98	0.36	57,57,57,57	0
54	MG	BA	3582	1/1	0.98	0.25	68,68,68,68	0
54	MG	BA	3173	1/1	0.98	0.31	62,62,62,62	0
54	MG	BA	3224	1/1	0.98	0.31	101,101,101,101	0
54	MG	DA	3242	1/1	0.98	0.34	64,64,64,64	0
54	MG	DA	3243	1/1	0.98	0.18	86,86,86,86	0
54	MG	BA	3174	1/1	0.98	0.18	61,61,61,61	0
54	MG	BA	3029	1/1	0.98	0.29	74,74,74,74	0
54	MG	BB	217	1/1	0.98	0.10	132,132,132,132	0
54	MG	BA	3276	1/1	0.98	0.27	90,90,90,90	0
54	MG	AA	1602	1/1	0.98	0.24	95,95,95,95	0
54	MG	DA	3013	1/1	0.98	0.25	69,69,69,69	0
54	MG	BA	3589	1/1	0.98	0.31	77,77,77,77	0
54	MG	BA	3328	1/1	0.98	0.22	119,119,119,119	0
54	MG	DA	3166	1/1	0.98	0.29	65,65,65,65	0
54	MG	BA	3074	1/1	0.98	0.12	142,142,142,142	0
54	MG	DA	3169	1/1	0.98	0.36	76,76,76,76	0
54	MG	BA	3180	1/1	0.98	0.53	73,73,73,73	0
54	MG	CA	1639	1/1	0.98	0.34	129,129,129,129	0
54	MG	BF	302	1/1	0.98	0.40	127,127,127,127	0
54	MG	AA	1604	1/1	0.98	0.11	135,135,135,135	0
54	MG	BA	3076	1/1	0.98	0.09	74,74,74,74	0
54	MG	AA	1656	1/1	0.98	0.24	71,71,71,71	0
54	MG	BA	3184	1/1	0.98	0.21	70,70,70,70	0
54	MG	DA	3097	1/1	0.98	0.39	74,74,74,74	0
54	MG	DA	3358	1/1	0.98	0.37	73,73,73,73	0
54	MG	BA	3109	1/1	0.98	0.46	94,94,94,94	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	CA	1646	1/1	0.98	0.22	101,101,101,101	0
54	MG	DA	3361	1/1	0.98	0.27	93,93,93,93	0
54	MG	BA	3143	1/1	0.98	0.41	52,52,52,52	0
54	MG	DA	3363	1/1	0.98	0.05	125,125,125,125	0
54	MG	DA	3181	1/1	0.98	0.18	74,74,74,74	0
54	MG	DA	3182	1/1	0.98	0.28	62,62,62,62	0
54	MG	BA	3144	1/1	0.98	0.41	73,73,73,73	0
54	MG	CA	1649	1/1	0.98	0.22	113,113,113,113	0
54	MG	BA	3601	1/1	0.98	0.49	52,52,52,52	0
54	MG	AA	1663	1/1	0.98	0.13	76,76,76,76	0
56	ZN	AQ	103	1/1	0.98	0.09	186,186,186,186	0
54	MG	AA	1682	1/1	0.98	0.12	113,113,113,113	0
54	MG	DA	3189	1/1	0.98	0.27	65,65,65,65	0
54	MG	DA	3263	1/1	0.99	0.14	129,129,129,129	0
54	MG	DA	3264	1/1	0.99	0.28	80,80,80,80	0
54	MG	DA	3055	1/1	0.99	0.28	59,59,59,59	0
54	MG	DA	3266	1/1	0.99	0.13	110,110,110,110	0
54	MG	DA	3267	1/1	0.99	0.14	79,79,79,79	0
54	MG	AA	1657	1/1	0.99	0.43	63,63,63,63	0
54	MG	DA	3167	1/1	0.99	0.07	75,75,75,75	0
54	MG	DA	3270	1/1	0.99	0.20	63,63,63,63	0
54	MG	BA	3147	1/1	0.99	0.36	64,64,64,64	0
54	MG	BA	3198	1/1	0.99	0.36	70,70,70,70	0
54	MG	BA	3099	1/1	0.99	0.42	74,74,74,74	0
54	MG	DA	3111	1/1	0.99	0.18	64,64,64,64	0
54	MG	BA	3267	1/1	0.99	0.07	126,126,126,126	0
54	MG	DA	3237	1/1	0.99	0.11	63,63,63,63	0
54	MG	BA	3118	1/1	0.99	0.41	90,90,90,90	0
54	MG	DA	3114	1/1	0.99	0.21	82,82,82,82	0
54	MG	AA	1601	1/1	0.99	0.27	80,80,80,80	0
54	MG	AA	1783	1/1	0.99	0.13	125,125,125,125	0
54	MG	BA	3219	1/1	0.99	0.13	123,123,123,123	0
54	MG	DA	3147	1/1	0.99	0.33	82,82,82,82	0
54	MG	BA	3591	1/1	0.99	0.46	57,57,57,57	0
54	MG	BA	3549	1/1	0.99	0.10	140,140,140,140	0
54	MG	CA	1721	1/1	0.99	0.12	128,128,128,128	0
54	MG	BA	3008	1/1	0.99	0.49	58,58,58,58	0
54	MG	DA	3094	1/1	0.99	0.13	85,85,85,85	0
54	MG	DA	3327	1/1	0.99	0.32	70,70,70,70	0
54	MG	DA	3184	1/1	0.99	0.23	68,68,68,68	0
54	MG	BA	3175	1/1	0.99	0.10	80,80,80,80	0
54	MG	DA	3495	1/1	0.99	0.32	78,78,78,78	0

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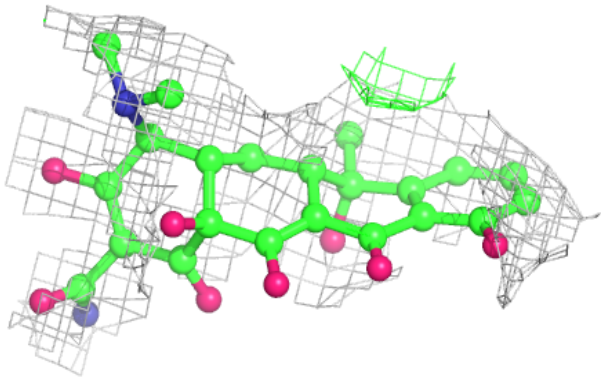
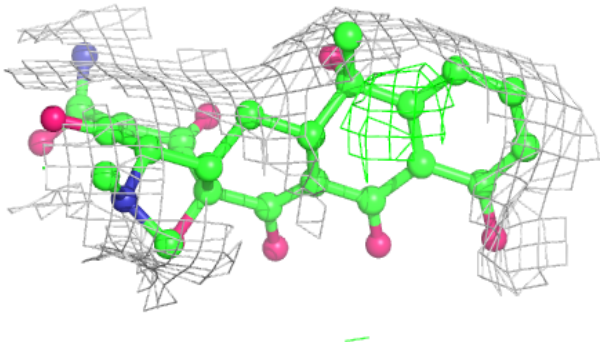
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3124	1/1	0.99	0.25	69,69,69,69	0
54	MG	DA	3497	1/1	0.99	0.21	50,50,50,50	0
54	MG	DA	3331	1/1	0.99	0.09	116,116,116,116	0
54	MG	DA	3499	1/1	0.99	0.14	103,103,103,103	0
54	MG	BA	3176	1/1	0.99	0.08	89,89,89,89	0
54	MG	AA	1640	1/1	0.99	0.22	82,82,82,82	0
54	MG	BA	3104	1/1	0.99	0.35	70,70,70,70	0
54	MG	BA	3192	1/1	0.99	0.29	67,67,67,67	0
54	MG	DA	3504	1/1	0.99	0.46	67,67,67,67	0
54	MG	BA	3495	1/1	0.99	0.32	73,73,73,73	0
54	MG	DA	3075	1/1	0.99	0.29	105,105,105,105	0
54	MG	BA	3089	1/1	0.99	0.51	77,77,77,77	0
54	MG	AA	1603	1/1	0.99	0.25	109,109,109,109	0
54	MG	BA	3195	1/1	0.99	0.13	82,82,82,82	0
54	MG	BA	3479	1/1	0.99	0.38	72,72,72,72	0
54	MG	DA	3262	1/1	0.99	0.13	112,112,112,112	0
54	MG	DA	3344	1/1	1.00	0.11	124,124,124,124	0
54	MG	AA	1616	1/1	1.00	0.28	158,158,158,158	0
54	MG	BA	3049	1/1	1.00	0.29	88,88,88,88	0

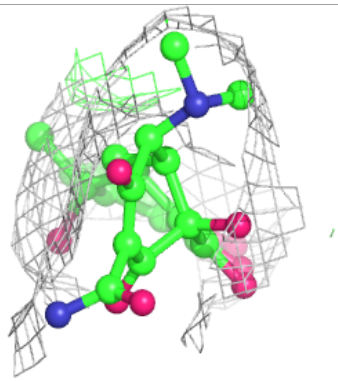
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

Electron density around TAC CA 1805:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

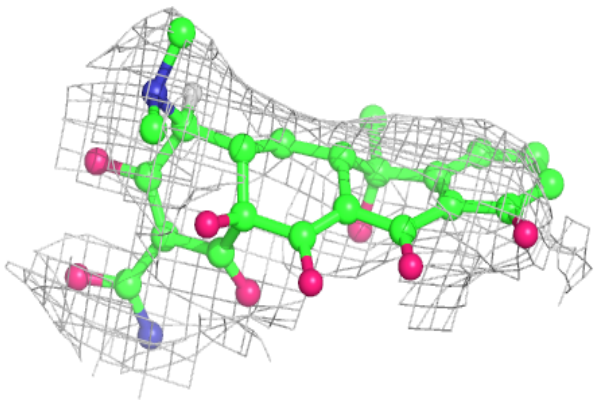


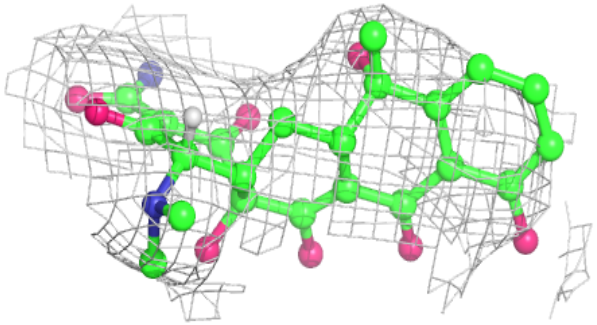


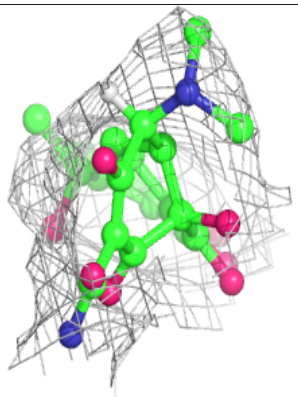


Electron density around TAC AA 1833:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)







6.5 Other polymers (i)

There are no such residues in this entry.