



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 8, 2026 – 04:49 AM UTC

PDB ID : 4V8J / pdb_00004v8j
Title : Crystal structure of the bacterial ribosome ram mutation G347U.
Authors : Fagan, C.E.; Dunkle, J.A.; Maehigashi, T.; Dunham, C.M.
Deposited on : 2011-12-20
Resolution : 3.90 Å(reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

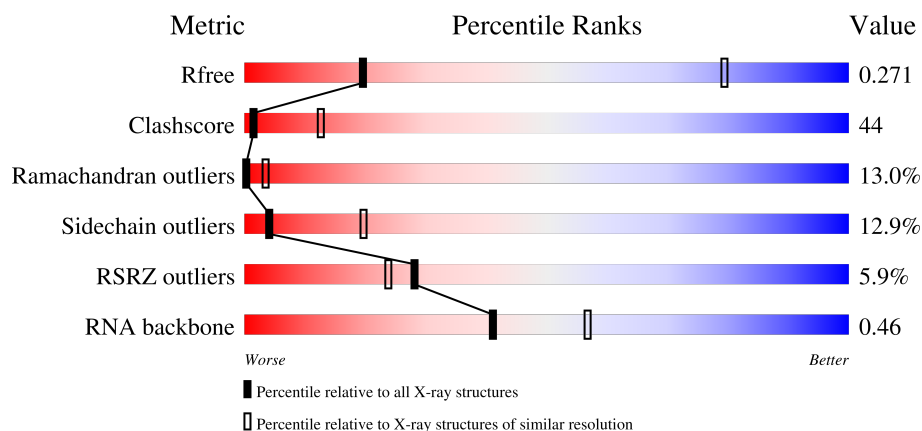
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.90 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	1270 (4.10-3.70)
Clashscore	190562	1034 (4.08-3.72)
Ramachandran outliers	187476	1251 (4.10-3.70)
Sidechain outliers	187428	1243 (4.10-3.70)
RSRZ outliers	180081	1269 (4.10-3.70)
RNA backbone	3983	1014 (4.70-3.10)

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

Mol	Chain	Length	Quality of chain
1	AA	1522	2% 35% 52% 12%
1	CA	1522	2% 35% 51% 13%
2	AB	256	4% 16% 59% 14% 8%
2	CB	256	2% 14% 61% 14% 8%

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Mol	Chain	Length	Quality of chain
3	AC	239	
3	CC	239	
4	AD	209	
4	CD	209	
5	AE	162	
5	CE	162	
6	AF	101	
6	CF	101	
7	AG	156	
7	CG	156	
8	AH	138	
8	CH	138	
9	AI	128	
9	CI	128	
10	AJ	105	
10	CJ	105	
11	AK	129	
11	CK	129	
12	AL	132	
12	CL	132	
13	AM	126	
13	CM	126	
14	AN	61	
14	CN	61	
15	AO	89	

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Mol	Chain	Length	Quality of chain
15	CO	89	
16	AP	88	
16	CP	88	
17	AQ	105	
17	CQ	105	
18	AR	88	
18	CR	88	
19	AS	93	
19	CS	93	
20	AT	106	
20	CT	106	
21	AU	27	
21	CU	27	
22	AW	76	
22	AY	76	
22	CW	76	
22	CY	76	
23	AV	77	
23	CV	77	
24	AX	24	
24	CX	24	
25	BA	2916	
25	DA	2916	
26	BB	122	
26	DB	122	

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Mol	Chain	Length	Quality of chain
27	BC	229	
27	DC	229	
28	BD	276	
28	DD	276	
29	BE	206	
29	DE	206	
30	BF	210	
30	DF	210	
31	BG	182	
31	DG	182	
32	BH	180	
32	DH	180	
33	BI	148	
33	DI	148	
34	BN	140	
34	DN	140	
35	BO	122	
35	DO	122	
36	BP	150	
36	DP	150	
37	BQ	141	
37	DQ	141	
38	BR	118	
38	DR	118	
39	BS	112	

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Mol	Chain	Length	Quality of chain
39	DS	112	
40	BT	146	
40	DT	146	
41	BU	118	
41	DU	118	
42	BV	101	
42	DV	101	
43	BW	113	
43	DW	113	
44	BX	96	
44	DX	96	
45	BY	110	
45	DY	110	
46	BZ	206	
46	DZ	206	
47	B0	85	
47	D0	85	
48	B1	98	
48	D1	98	
49	B2	72	
49	D2	72	
50	B3	60	
50	D3	60	
51	B4	71	
51	D4	71	

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Mol	Chain	Length	Quality of chain
52	B5	60	
52	D5	60	
53	B6	54	
53	D6	54	
54	B7	49	
54	D7	49	
55	B8	65	
55	D8	65	
56	B9	37	
56	D9	37	

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
57	MG	AA	1610	-	-	-	X
57	MG	AA	1624	-	-	-	X
57	MG	AA	1626	-	-	-	X
57	MG	AA	1640	-	-	-	X
57	MG	AA	1651	-	-	-	X
57	MG	AA	1652	-	-	-	X
57	MG	AA	1669	-	-	-	X
57	MG	AA	1671	-	-	-	X
57	MG	AA	1673	-	-	-	X
57	MG	AA	1675	-	-	-	X
57	MG	AA	1679	-	-	-	X
57	MG	AA	1688	-	-	-	X
57	MG	B3	101	-	-	-	X
57	MG	B5	102	-	-	-	X
57	MG	BA	3001	-	-	-	X
57	MG	BA	3003	-	-	-	X
57	MG	BA	3011	-	-	-	X
57	MG	BA	3019	-	-	-	X
57	MG	BA	3035	-	-	-	X
57	MG	BA	3036	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
57	MG	BA	3037	-	-	-	X
57	MG	BA	3042	-	-	-	X
57	MG	BA	3045	-	-	-	X
57	MG	BA	3046	-	-	-	X
57	MG	BA	3048	-	-	-	X
57	MG	BA	3051	-	-	-	X
57	MG	BA	3054	-	-	-	X
57	MG	BA	3059	-	-	-	X
57	MG	BA	3061	-	-	X	-
57	MG	BA	3062	-	-	X	-
57	MG	BA	3067	-	-	-	X
57	MG	BA	3068	-	-	-	X
57	MG	BA	3074	-	-	-	X
57	MG	BA	3075	-	-	-	X
57	MG	BA	3077	-	-	-	X
57	MG	BA	3079	-	-	-	X
57	MG	BA	3084	-	-	-	X
57	MG	BA	3090	-	-	-	X
57	MG	BA	3091	-	-	-	X
57	MG	BA	3093	-	-	-	X
57	MG	BA	3094	-	-	-	X
57	MG	BA	3095	-	-	-	X
57	MG	BA	3104	-	-	-	X
57	MG	BA	3105	-	-	-	X
57	MG	BA	3110	-	-	-	X
57	MG	BA	3115	-	-	-	X
57	MG	BA	3117	-	-	-	X
57	MG	BA	3120	-	-	-	X
57	MG	BA	3134	-	-	-	X
57	MG	BA	3142	-	-	-	X
57	MG	BA	3155	-	-	-	X
57	MG	BA	3157	-	-	-	X
57	MG	BA	3161	-	-	-	X
57	MG	BA	3163	-	-	-	X
57	MG	BA	3169	-	-	-	X
57	MG	BA	3174	-	-	-	X
57	MG	BA	3180	-	-	-	X
57	MG	BA	3191	-	-	-	X
57	MG	BA	3214	-	-	-	X
57	MG	BA	3221	-	-	X	-
57	MG	BA	3225	-	-	-	X
57	MG	BA	3227	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
57	MG	BA	3233	-	-	-	X
57	MG	BA	3249	-	-	-	X
57	MG	BA	3250	-	-	-	X
57	MG	BA	3256	-	-	-	X
57	MG	CA	1610	-	-	-	X
57	MG	CA	1613	-	-	-	X
57	MG	CA	1622	-	-	-	X
57	MG	CA	1624	-	-	-	X
57	MG	CA	1625	-	-	-	X
57	MG	CA	1626	-	-	-	X
57	MG	CA	1629	-	-	-	X
57	MG	CA	1630	-	-	-	X
57	MG	CA	1632	-	-	-	X
57	MG	CA	1640	-	-	-	X
57	MG	CA	1645	-	-	-	X
57	MG	CA	1647	-	-	-	X
57	MG	CA	1653	-	-	-	X
57	MG	CA	1666	-	-	-	X
57	MG	CA	1670	-	-	-	X
57	MG	CA	1677	-	-	-	X
57	MG	CA	1682	-	-	-	X
57	MG	CA	1687	-	-	-	X
57	MG	CA	1689	-	-	-	X
57	MG	D0	101	-	-	-	X
57	MG	DA	3004	-	-	-	X
57	MG	DA	3005	-	-	-	X
57	MG	DA	3010	-	-	-	X
57	MG	DA	3017	-	-	-	X
57	MG	DA	3018	-	-	-	X
57	MG	DA	3033	-	-	-	X
57	MG	DA	3040	-	-	-	X
57	MG	DA	3043	-	-	-	X
57	MG	DA	3047	-	-	-	X
57	MG	DA	3053	-	-	-	X
57	MG	DA	3054	-	-	-	X
57	MG	DA	3062	-	-	-	X
57	MG	DA	3063	-	-	-	X
57	MG	DA	3067	-	-	-	X
57	MG	DA	3072	-	-	-	X
57	MG	DA	3073	-	-	-	X
57	MG	DA	3083	-	-	-	X
57	MG	DA	3085	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
57	MG	DA	3087	-	-	-	X
57	MG	DA	3088	-	-	-	X
57	MG	DA	3091	-	-	-	X
57	MG	DA	3093	-	-	-	X
57	MG	DA	3094	-	-	-	X
57	MG	DA	3095	-	-	-	X
57	MG	DA	3099	-	-	-	X
57	MG	DA	3100	-	-	-	X
57	MG	DA	3102	-	-	-	X
57	MG	DA	3103	-	-	-	X
57	MG	DA	3104	-	-	-	X
57	MG	DA	3107	-	-	-	X
57	MG	DA	3112	-	-	-	X
57	MG	DA	3113	-	-	-	X
57	MG	DA	3117	-	-	-	X
57	MG	DA	3118	-	-	-	X
57	MG	DA	3119	-	-	-	X
57	MG	DA	3120	-	-	-	X
57	MG	DA	3121	-	-	-	X
57	MG	DA	3123	-	-	-	X
57	MG	DA	3126	-	-	-	X
57	MG	DA	3127	-	-	-	X
57	MG	DA	3128	-	-	-	X
57	MG	DA	3129	-	-	-	X
57	MG	DA	3132	-	-	-	X
57	MG	DA	3138	-	-	-	X
57	MG	DA	3145	-	-	-	X
57	MG	DA	3149	-	-	-	X
57	MG	DA	3155	-	-	-	X
57	MG	DA	3159	-	-	-	X
57	MG	DA	3162	-	-	-	X
57	MG	DA	3163	-	-	-	X
57	MG	DA	3169	-	-	-	X
57	MG	DA	3175	-	-	-	X
57	MG	DA	3181	-	-	-	X
57	MG	DA	3183	-	-	-	X
57	MG	DA	3184	-	-	-	X
57	MG	DA	3188	-	-	-	X
57	MG	DA	3189	-	-	-	X
57	MG	DA	3197	-	-	-	X
57	MG	DA	3198	-	-	-	X
57	MG	DA	3203	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
57	MG	DA	3207	-	-	-	X
57	MG	DA	3209	-	-	-	X
57	MG	DA	3216	-	-	-	X
57	MG	DA	3218	-	-	-	X
57	MG	DA	3220	-	-	-	X
57	MG	DA	3221	-	-	-	X
57	MG	DA	3222	-	-	-	X
57	MG	DA	3225	-	-	-	X
57	MG	DA	3229	-	-	-	X
57	MG	DA	3235	-	-	-	X
57	MG	DA	3236	-	-	-	X
57	MG	DA	3242	-	-	-	X
57	MG	DA	3243	-	-	-	X
57	MG	DA	3244	-	-	-	X
57	MG	DA	3245	-	-	-	X
57	MG	DA	3254	-	-	-	X
57	MG	DA	3256	-	-	-	X
57	MG	DA	3260	-	-	-	X
57	MG	DA	3268	-	-	-	X
57	MG	DD	301	-	-	-	X
59	ZN	AN	101	-	-	X	-

2 Entry composition

There are 59 unique types of molecules in this entry. The entry contains 292667 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a RNA chain called 16S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AA	1504	Total	C	N	O	P	0	0	0
			32326	14389	5989	10445	1503			
1	CA	1503	Total	C	N	O	P	0	0	0
			32304	14379	5984	10439	1502			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AA	342	U	G	engineered mutation	GB AP008226.1
CA	342	U	G	engineered mutation	GB AP008226.1

- Molecule 2 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AB	235	Total	C	N	O	S	0	0	1
			1901	1213	342	341	5			
2	CB	235	Total	C	N	O	S	0	0	1
			1901	1213	342	341	5			

- Molecule 3 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	AC	207	Total	C	N	O	S	0	0	1
			1613	1016	315	281	1			
3	CC	207	Total	C	N	O	S	0	0	1
			1613	1016	315	281	1			

- Molecule 4 is a protein called 30S ribosomal protein S4.

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

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	CD	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	AE	151	Total	C	N	O	S	0	0	1
			1147	724	218	201	4			
5	CE	151	Total	C	N	O	S	0	0	1
			1147	724	218	201	4			

- Molecule 6 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AF	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			
6	CF	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	AG	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			
7	CG	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	AH	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			
8	CH	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	AI	127	Total	C	N	O	0	0	0
			1010	639	197	174			
9	CI	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	AJ	99	Total	C	N	O	S	0	0	1
			795	499	157	138	1			
10	CJ	99	Total	C	N	O	S	0	0	1
			795	499	157	138	1			

- Molecule 11 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	AK	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			
11	CK	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	AL	125	Total	C	N	O	S	0	0	1
			971	611	196	163	1			
12	CL	125	Total	C	N	O	S	0	0	1
			971	611	196	163	1			

- Molecule 13 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	AM	125	Total	C	N	O	S	0	0	1
			988	611	206	169	2			
13	CM	125	Total	C	N	O	S	0	0	1
			988	611	206	169	2			

- Molecule 14 is a protein called 30S ribosomal protein S14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	AN	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			
14	CN	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	AO	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			
15	CO	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	AP	84	Total	C	N	O	S	0	0	1
			701	443	140	117	1			
16	CP	84	Total	C	N	O	S	0	0	1
			701	443	140	117	1			

- Molecule 17 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	AQ	100	Total	C	N	O	S	0	0	1
			824	528	152	142	2			
17	CQ	100	Total	C	N	O	S	0	0	1
			824	528	152	142	2			

- Molecule 18 is a protein called 30S ribosomal protein S18.

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

- Molecule 19 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AS	79	Total	C	N	O	S	0	0	1
			630	403	115	110	2			
19	CS	79	Total	C	N	O	S	0	0	1
			630	403	115	110	2			

- Molecule 20 is a protein called 30S ribosomal protein S20.

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

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	CT	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	AU	25	Total	C	N	O	0	0	1
			209	128	51	30			
21	CU	25	Total	C	N	O	0	0	1
			209	128	51	30			

- Molecule 22 is a RNA chain called tRNA-Phe.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	AW	76	Total	C	N	O	P	0	0	0
			1619	723	290	531	75			
22	AY	17	Total	C	N	O	P	0	0	0
			365	163	68	117	17			
22	CW	76	Total	C	N	O	P	0	0	0
			1619	723	290	531	75			
22	CY	17	Total	C	N	O	P	0	0	0
			365	163	68	117	17			

- Molecule 23 is a RNA chain called tRNA-fMet.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	AV	77	Total	C	N	O	P	0	0	0
			1644	732	297	538	77			
23	CV	77	Total	C	N	O	P	0	0	0
			1644	732	297	538	77			

- Molecule 24 is a RNA chain called messenger RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	AX	8	Total	C	N	O	P	0	0	0
			169	76	29	56	8			
24	CX	10	Total	C	N	O	P	0	0	0
			210	96	39	66	9			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	BA	2803	Total 60378	C 26870	N 11297	O 19409	P 2802	0	0	0
25	DA	2803	Total 60378	C 26870	N 11297	O 19409	P 2802	0	0	0

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

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

- Molecule 27 is a protein called 50S ribosomal protein L1.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
27	BC	191	Total 1142	C 691	N 221	O 230	0	0	1
27	DC	191	Total 1142	C 691	N 221	O 230	0	0	1

- Molecule 28 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	BD	272	Total 2105	C 1329	N 417	O 356	S 3	0	0	1
28	DD	272	Total 2105	C 1329	N 417	O 356	S 3	0	0	1

- Molecule 29 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	BE	205	Total 1564	C 988	N 300	O 270	S 6	0	0	1
29	DE	205	Total 1564	C 988	N 300	O 270	S 6	0	0	1

- Molecule 30 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	BF	208	Total 1624	C 1035	N 304	O 282	S 3	0	0	1

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	DF	208	Total	C	N	O	S	0	0	1
			1624	1035	304	282	3			

- Molecule 31 is a protein called 50S ribosomal protein L5.

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

- Molecule 32 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	BH	160	Total	C	N	O	S	0	0	1
			1223	773	229	220	1			
32	DH	160	Total	C	N	O	S	0	0	1
			1223	773	229	220	1			

- Molecule 33 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	BI	146	Total	C	N	O	S	0	0	1
			1132	723	201	207	1			
33	DI	146	Total	C	N	O	S	0	0	1
			1132	723	201	207	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	BN	139	Total	C	N	O	S	0	0	1
			1105	712	207	182	4			
34	DN	139	Total	C	N	O	S	0	0	1
			1105	712	207	182	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	BO	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			
35	DO	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	BQ	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			
37	DQ	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			

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

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

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
39	BS	99	Total	C	N	O	0	0	1
			771	486	155	130			
39	DS	99	Total	C	N	O	0	0	1
			771	486	155	130			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	BT	138	Total	C	N	O	S	0	0	1
			1142	710	235	196	1			
40	DT	138	Total	C	N	O	S	0	0	1
			1142	710	235	196	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	BU	117	Total	C	N	O	S	0	0	0
			958	604	202	151	1			
41	DU	117	Total	C	N	O	S	0	0	0
			958	604	202	151	1			

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	BW	113	Total	C	N	O	S	0	0	0
			896	563	176	155	2			
43	DW	113	Total	C	N	O	S	0	0	0
			896	563	176	155	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	BX	93	Total	C	N	O		0	0	1
			726	471	132	123				
44	DX	93	Total	C	N	O		0	0	1
			726	471	132	123				

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	BY	101	Total	C	N	O	S	0	0	1
			776	500	149	123	4			
45	DY	101	Total	C	N	O	S	0	0	1
			776	500	149	123	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	BZ	177	Total	C	N	O	S	0	0	1
			1404	897	253	252	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	DZ	177	Total	C	N	O	S	0	0	1
			1404	897	253	252	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	B0	84	Total	C	N	O	S	0	0	0
			662	410	140	111	1			
47	D0	84	Total	C	N	O	S	0	0	0
			662	410	140	111	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	B1	94	Total	C	N	O	S	0	0	1
			732	460	146	125	1			
48	D1	94	Total	C	N	O	S	0	0	1
			732	460	146	125	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	B2	71	Total	C	N	O	S	0	0	0
			598	370	121	106	1			
49	D2	71	Total	C	N	O	S	0	0	0
			598	370	121	106	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	B3	60	Total	C	N	O	S	0	0	1
			468	298	91	78	1			
50	D3	60	Total	C	N	O	S	0	0	1
			468	298	91	78	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	B4	31	Total	C	N	O	S	0	0	1
			226	142	37	43	4			
51	D4	31	Total	C	N	O	S	0	0	1
			226	142	37	43	4			

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	B6	45	Total	C	N	O	S	0	0	1
			381	235	78	64	4			
53	D6	45	Total	C	N	O	S	0	0	1
			381	235	78	64	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	B7	49	Total	C	N	O	S	0	0	1
			419	257	105	55	2			
54	D7	49	Total	C	N	O	S	0	0	1
			419	257	105	55	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	B8	64	Total	C	N	O	S	0	0	1
			508	326	102	78	2			
55	D8	64	Total	C	N	O	S	0	0	1
			508	326	102	78	2			

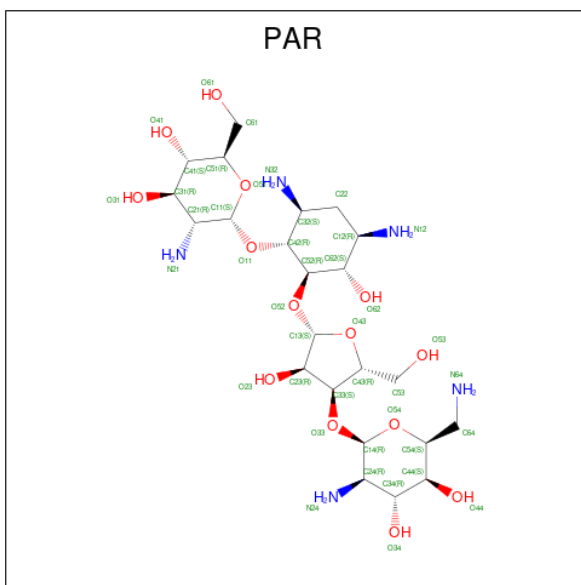
- Molecule 56 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
56	B9	36	Total	C	N	O	S	0	0	0
			299	183	67	46	3			
56	D9	36	Total	C	N	O	S	0	0	0
			299	183	67	46	3			

- Molecule 57 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	AA	93	Total 93 Mg 93	0	0
57	AX	2	Total 2 Mg 2	0	0
57	BA	261	Total 261 Mg 261	0	0
57	BB	4	Total 4 Mg 4	0	0
57	BE	1	Total 1 Mg 1	0	0
57	BF	2	Total 2 Mg 2	0	0
57	BO	1	Total 1 Mg 1	0	0
57	BU	1	Total 1 Mg 1	0	0
57	B1	1	Total 1 Mg 1	0	0
57	B3	1	Total 1 Mg 1	0	0
57	B5	2	Total 2 Mg 2	0	0
57	CA	94	Total 94 Mg 94	0	0
57	CV	2	Total 2 Mg 2	0	0
57	DA	268	Total 268 Mg 268	0	0
57	DB	2	Total 2 Mg 2	0	0
57	DD	1	Total 1 Mg 1	0	0
57	DE	1	Total 1 Mg 1	0	0
57	D0	1	Total 1 Mg 1	0	0
57	D5	2	Total 2 Mg 2	0	0

- Molecule 58 is PAROMOMYCIN (CCD ID: PAR) (formula: $C_{23}H_{45}N_5O_{14}$).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
58	AA	1	Total 42	C 23	N 5	O 14	0	0
58	CA	1	Total 42	C 23	N 5	O 14	0	0

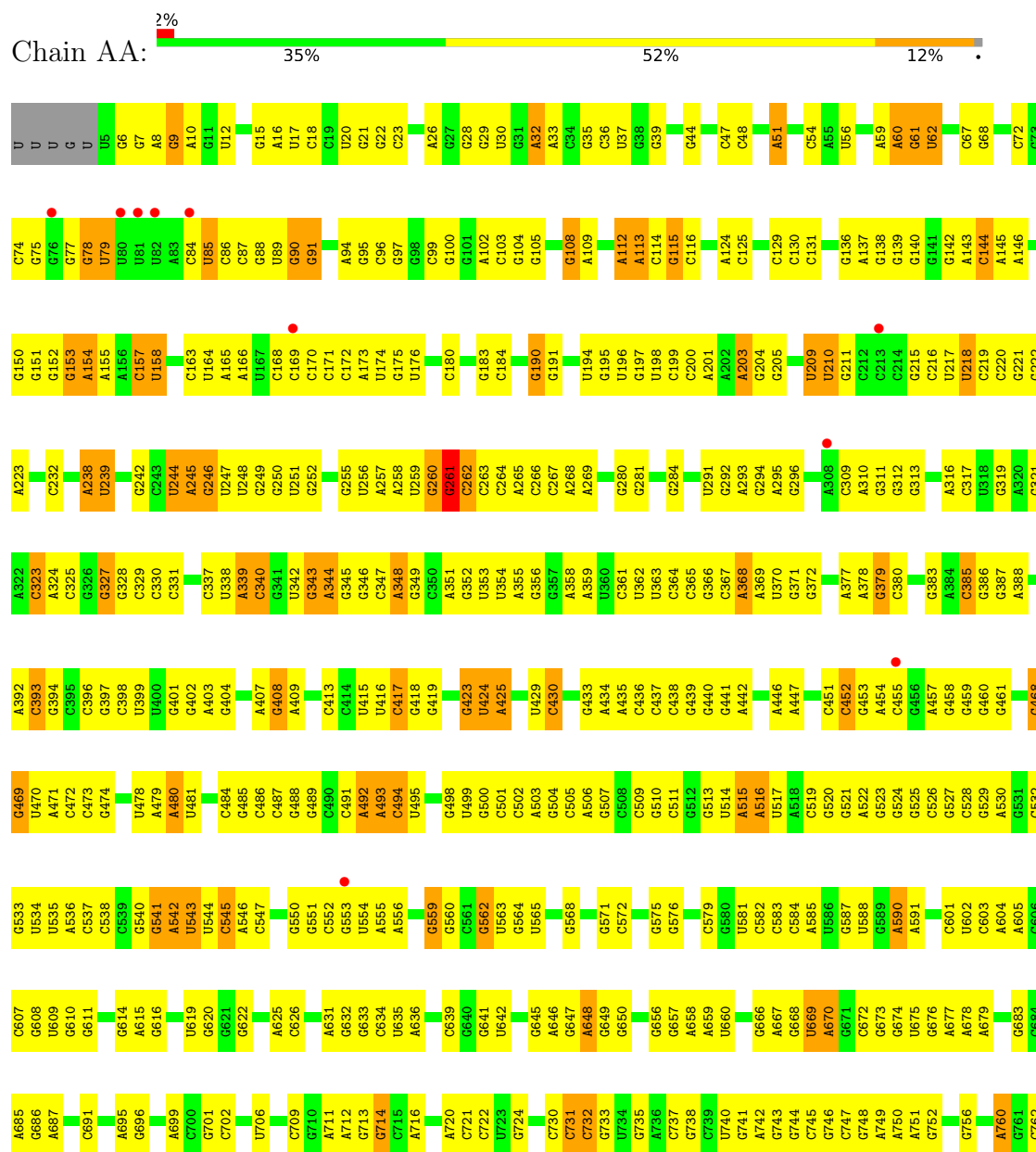
- Molecule 59 is ZINC ION (CCD ID: ZN) (formula: Zn).

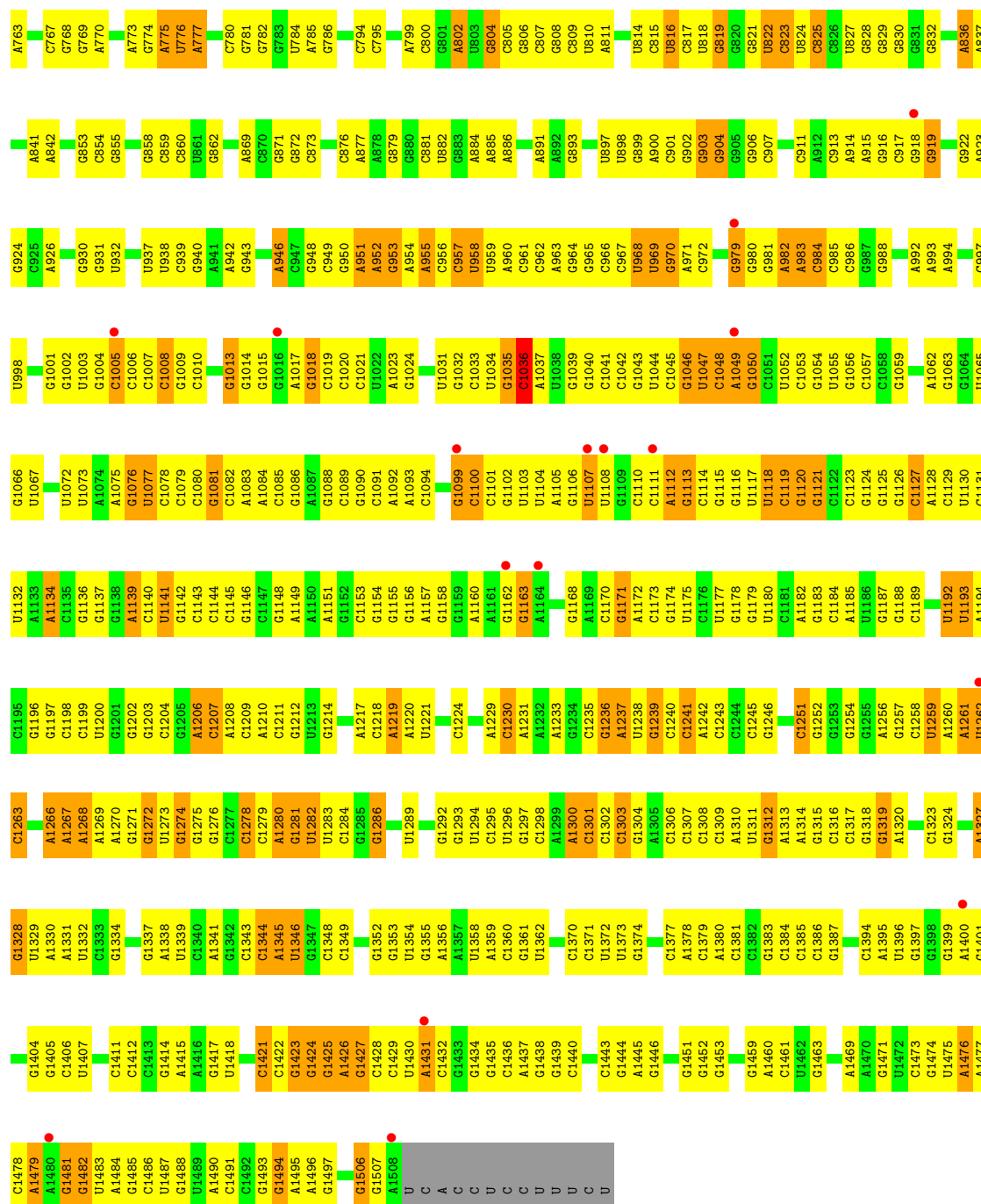
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	AD	1	Total Zn 1 1	0	0
59	AN	1	Total Zn 1 1	0	0
59	CD	1	Total Zn 1 1	0	0
59	CN	1	Total Zn 1 1	0	0

3 Residue-property plots

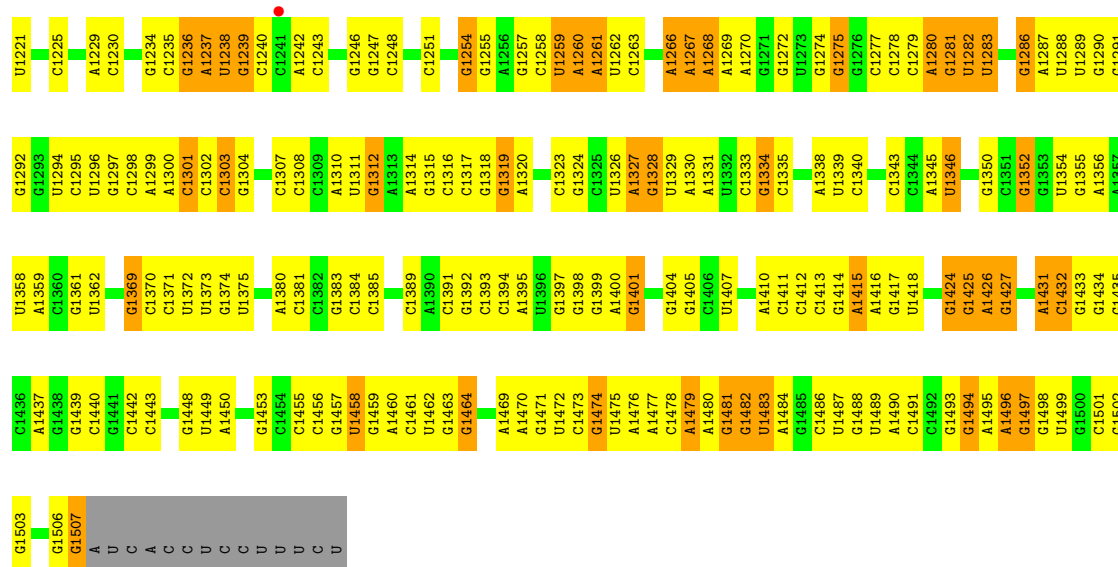
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density.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

• Molecule 1: 16S rRNA

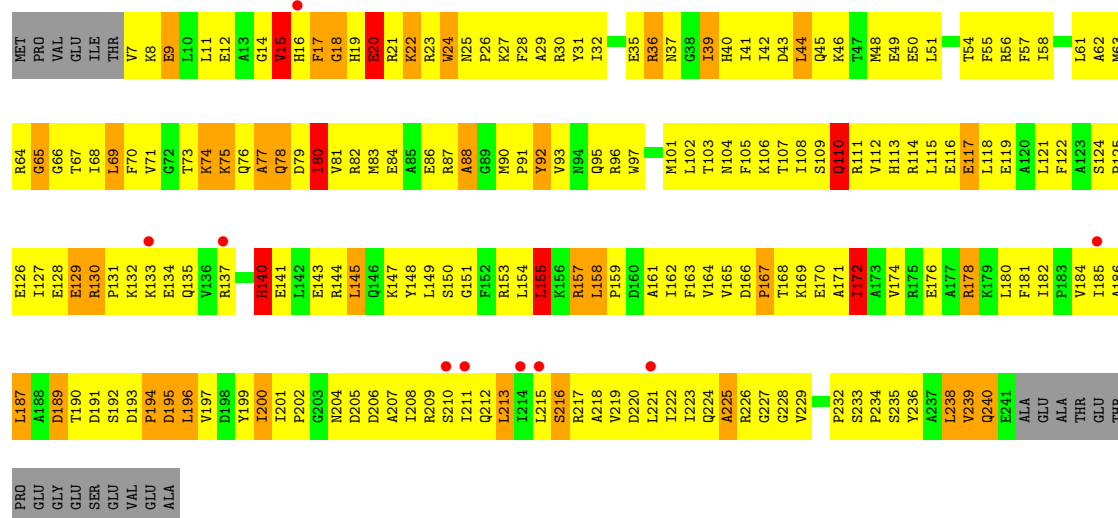
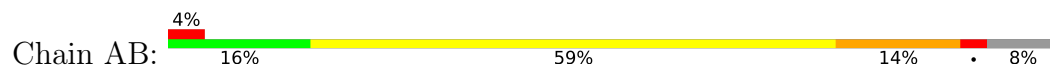




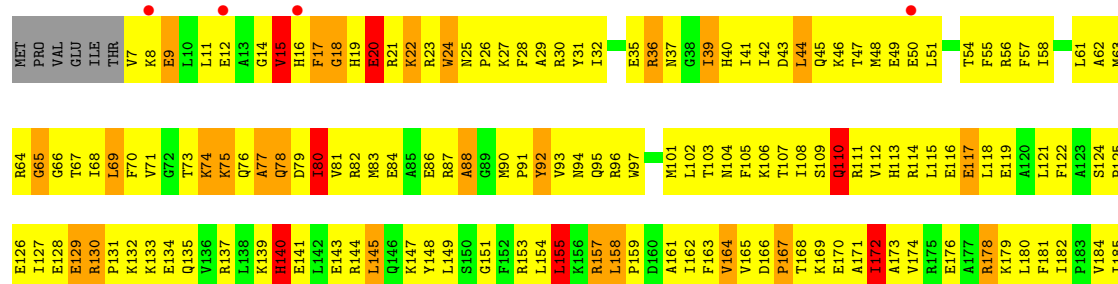
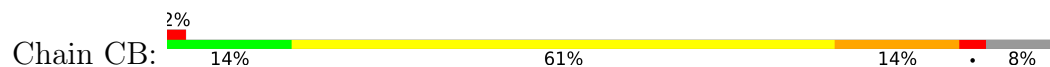
G1154	G1089	C1021	G953	A891	C817	A742	A670	G589	U517	A446	G375	G300	G231	G153
G1159	G1090	U1022	A954	A892	U818	G743	G671	A590	A518	A447	C376	G304	C232	A154
A1160	C1095	A1023	A955	G893	G819	G744	G672	A597	C519	C451	A377	G305	G233	A155
A1161	C1096	G1024	C956	G894	G820	C745	G673	C598	C520	C451	A378	G306	C237	A156
G1162	C1025	C1025	C957	A895	G821	G746	G674	C598	A521	C453	C380	C307	C238	C157
G1163	G1099	A1026	U958	A896	U822	C747	U675	C601	A522	C454	C380	A308	U239	U158
A1164	U1031	U1031	U959	U897	C823	G748	G676	U602	C523	A454	C387	C309	C240	A166
G1165	G1032	G1032	C961	U898	U824	A749	A677	C607	C524	C455	G386	A310	U241	U167
G1166	C1032	C1032	C962	A900	C825	A750	A685	C607	C525	C456	G387	G311	G242	C241
G1167	G1035	G1035	A963	G899	G828	G752	A687	G608	C526	C457	G387	G312	G245	C169
G1168	C1036	C1036	G964	G902	G829	G752	U688	U609	C527	C458	G391	G313	A245	G170
A1169	A1037	A1037	C965	G903	G830	G756	U688	G610	C528	C459	A392	G314	G246	C171
C1170	U1038	U1038	C966	G904	G831	G757	A689	G611	C529	C460	C393	G315	U247	U171
G1171	G1108	G1108	C967	G905	G835	G758	C690	G614	C533	A466	C394	C316	U248	U174
A1172	G1040	G1040	U968	C909	G836	A764	C691	A615	C536	C467	G395	A317	U248	G175
C1173	C1041	C1041	U969	G910	A837	A760	G692	G616	A536	C468	C396	G318	G250	U176
G1174	G1042	G1042	C970	C911	G838	G762	G696	C617	C537	C469	C397	G319	G254	C180
U1175	G1043	G1043	A971	C912	G838	A763	G697	G618	C538	C470	C398	A320	G255	C181
C1176	U1044	U1044	C972	C913	G844	A765	G698	G619	C539	C471	U400	G321	G256	C182
G1177	C1045	C1045	G975	C914	C945	A766	A699	G620	C540	C472	C401	C323	U257	G183
G1178	U1046	U1046	C976	A915	G946	G766	C700	G621	C541	C473	C402	C324	A258	C184
G1179	U1047	U1047	U977	G916	U947	C767	G701	A625	C542	C474	C403	C325	U259	C185
U1180	C1048	C1048	U978	C917	U948	G768	G701	C626	C543	C475	C404	G326	G260	C186
C1181	A1049	A1049	G979	C918	A849	G769	A705	G627	C544	C476	C405	G327	G261	C187
A1182	G1050	G1050	G980	G919	A850	G770	U706	C628	C545	C477	C406	C328	C262	G190
G1183	U1051	U1051	C981	U920	G851	A773	G707	U629	C546	C478	A407	C329	C263	G191
C1184	C1052	C1052	A982	G921	G852	G774	G708	C630	C547	C479	C408	C334	A264	C188
A1185	G1054	G1054	A983	G922	G853	A775	A711	U635	C548	C480	C409	U335	A265	U194
G1186	U1055	U1055	C984	A923	C854	U776	A712	A636	C551	C481	C413	C336	A269	G195
G1187	G1056	G1056	C985	G924	C855	A777	G713	A637	C552	C482	C414	C337	G270	U196
C1188	C1057	C1057	C986	C925	C856	A778	G714	G638	C553	C483	C415	U338	G271	G197
U1192	U1060	U1060	G989	U927	G857	U784	C715	A639	C554	C484	C417	A339	G272	U198
U1193	G1061	G1061	U990	G928	C858	A785	A716	A555	C555	C485	C417	C340	G273	C199
G1196	A1062	A1062	G991	U929	C859	G786	G717	A556	C556	C486	C417	G341	A274	C200
G1197	G1063	G1063	A992	G930	U861	U787	C718	A557	C557	C487	C417	U342	G275	A201
C1198	U1066	U1066	U998	G931	G864	A790	C719	G643	C558	C488	C417	U343	G276	A202
C1199	U1067	U1067	G999	U932	G865	G791	A720	G644	C559	C489	C417	U344	A277	A203
U1200	U1068	U1068	G1000	U933	G866	G792	C721	G645	C560	C490	C417	G345	G278	G206
G1201	G1069	G1069	G1001	A935	A869	C793	G722	A648	C561	C491	C417	G346	G279	C207
G1202	U1070	U1070	G1002	A936	C870	C794	U723	G649	C562	C492	C417	C347	G280	U208
G1203	G1071	G1071	U1003	U937	C871	C795	G724	G650	C563	C493	C417	A348	G281	U209
G1204	U1072	U1072	G1004	U938	G872	C796	G725	G651	C564	C494	C417	G349	A283	U210
A1205	U1073	U1073	C1005	C939	G873	U797	U726	U652	C565	C495	C417	C350	G284	G211
C1207	A1074	A1074	C1006	G940	G874	A799	C727	U653	C566	C496	C417	A351	A285	C212
A1208	U1075	U1075	C1007	G941	G875	A799	C728	G654	C567	C497	C417	U360	G287	G215
C1209	G1076	G1076	C1008	A942	A878	C800	C731	G655	C568	C498	C417	C361	G288	G216
U1212	U1077	U1077	G1009	G943	G879	C801	C732	G656	C569	C499	C417	U362	U289	G217
C1213	C1078	C1078	G944	G944	G880	A802	G733	G657	C570	C500	C417	U363	C290	G222
G1214	U1079	U1079	A945	U945	G881	U803	C734	G658	C571	C501	C417	C365	G292	A223
C1215	A1083	A1083	G1014	A946	A884	G804	G735	A659	C572	C502	C417	C366	G293	U224
G1216	G1015	G1015	G1016	C947	A885	C805	U736	G660	C573	C503	C417	C367	G294	G225
U1217	A1084	A1084	A886	G948	A886	U810	C737	U661	C574	C504	C417	C368	G295	G226
A1217	C1085	C1085	A1017	C949	C887	A811	G738	G665	C575	C505	C417	A369	G296	G227
G1218	G1086	G1086	G1018	C950	U888	G812	G739	G666	C576	C506	C417	U370	G297	C228
A1219	U1087	U1087	C1019	A951	C889	G813	U740	G667	C577	C507	C417	G371	A298	C229
A1220	C1153	C1153	A952	G952	A890	U816	G741	U669	C578	C508	C417	A516	U299	C230

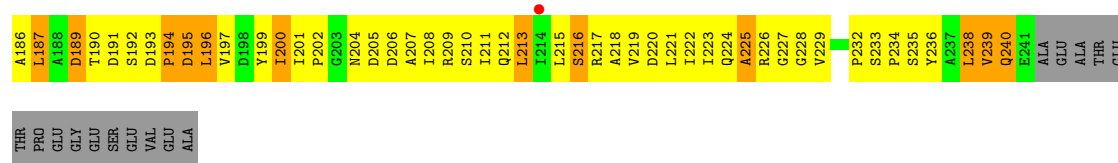


• Molecule 2: 30S ribosomal protein S2

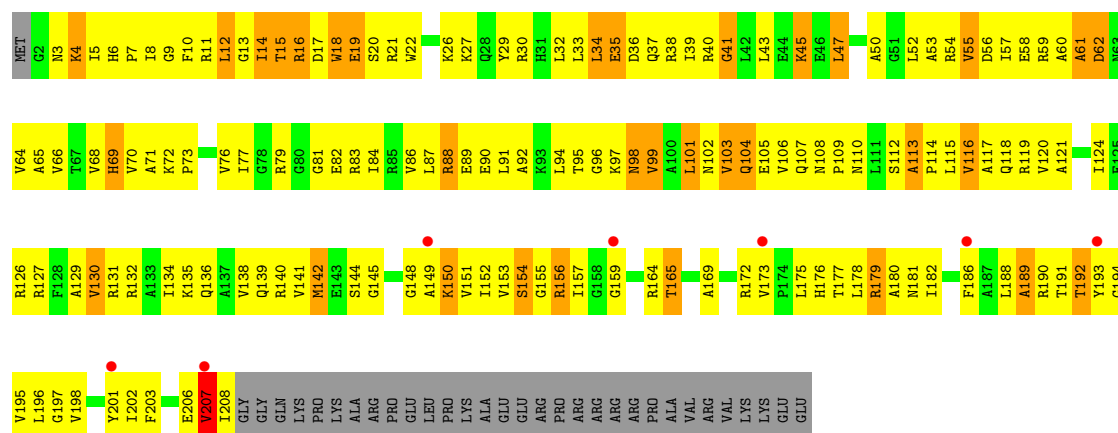


• Molecule 2: 30S ribosomal protein S2

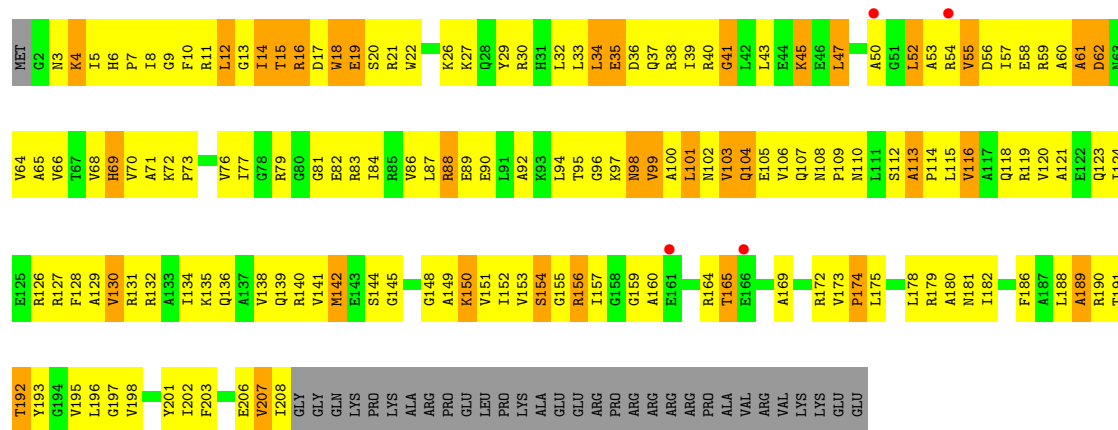




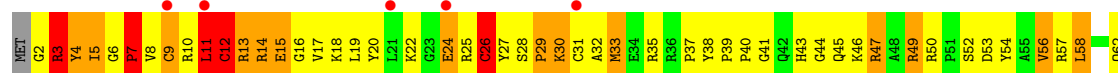
• Molecule 3: 30S ribosomal protein S3

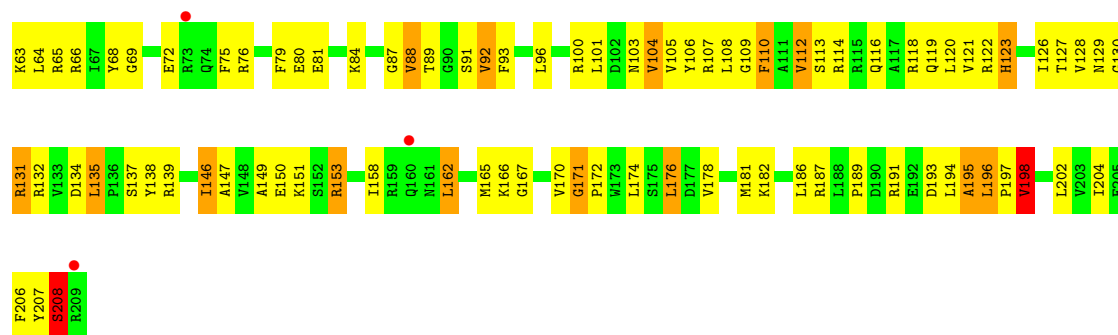


• Molecule 3: 30S ribosomal protein S3

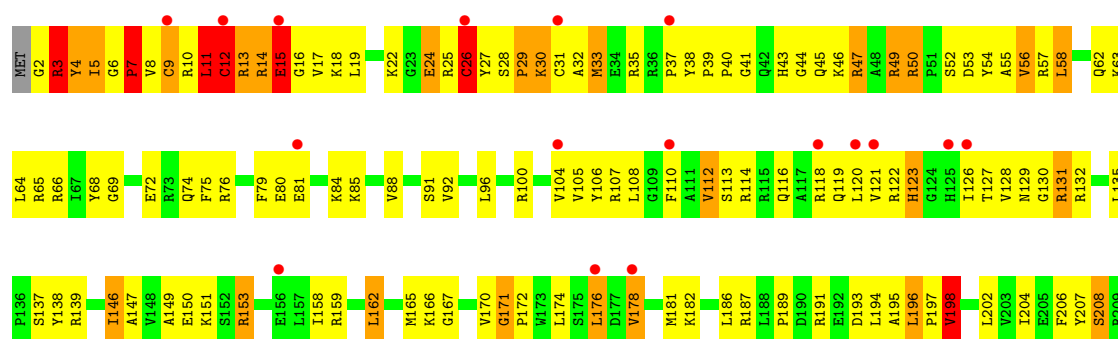


• Molecule 4: 30S ribosomal protein S4

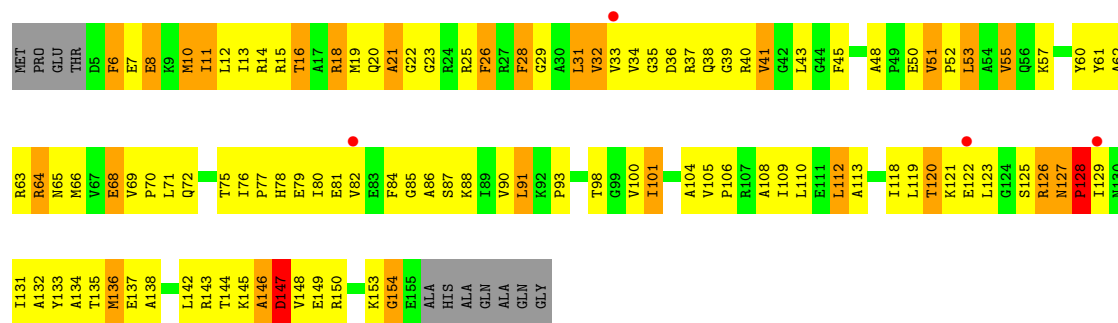




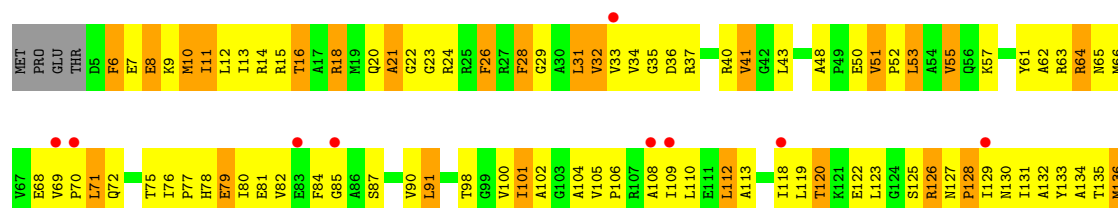
• Molecule 4: 30S ribosomal protein S4



• Molecule 5: 30S ribosomal protein S5

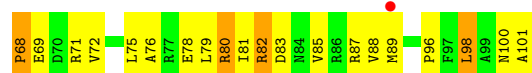


• Molecule 5: 30S ribosomal protein S5

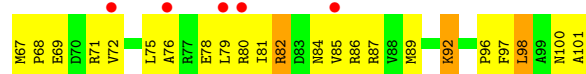




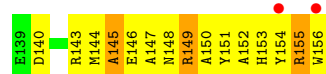
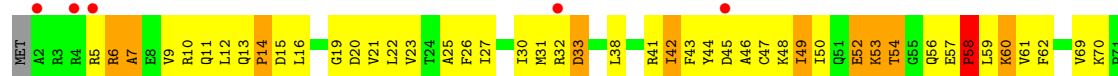
• Molecule 6: 30S ribosomal protein S6



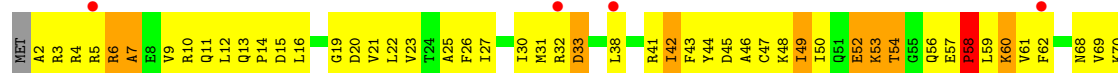
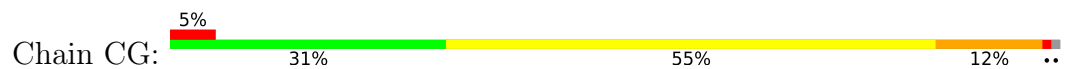
• Molecule 6: 30S ribosomal protein S6

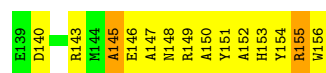


• Molecule 7: 30S ribosomal protein S7

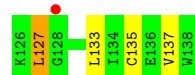
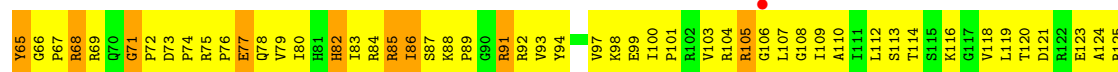
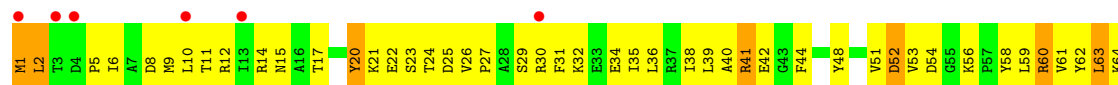


• Molecule 7: 30S ribosomal protein S7

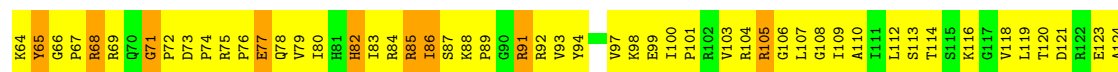
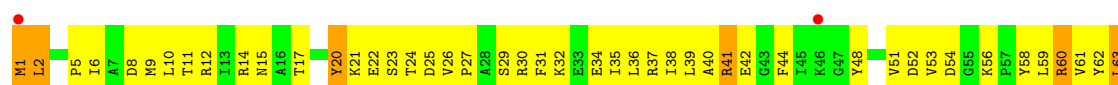




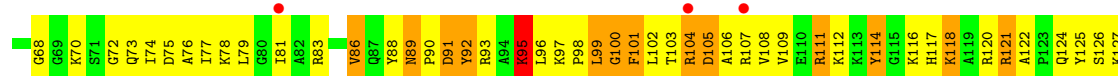
• Molecule 8: 30S ribosomal protein S8



• Molecule 8: 30S ribosomal protein S8

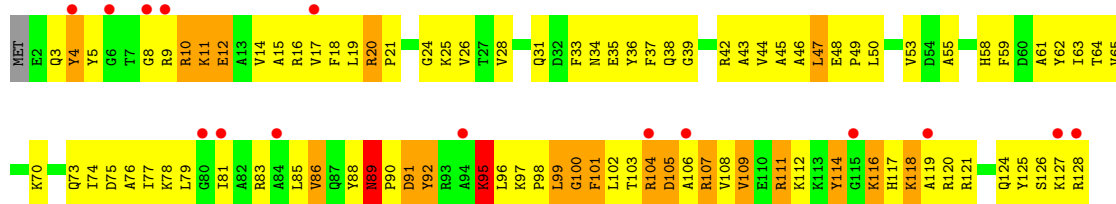


• Molecule 9: 30S ribosomal protein S9

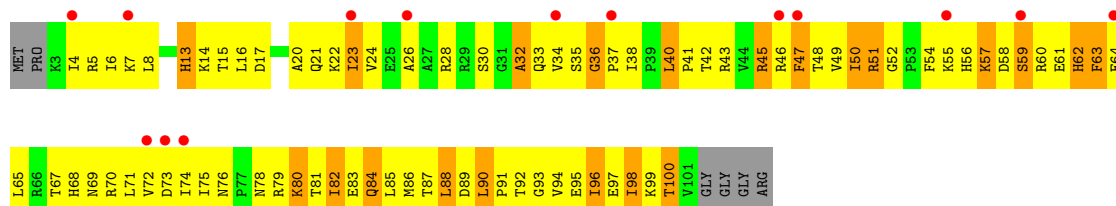
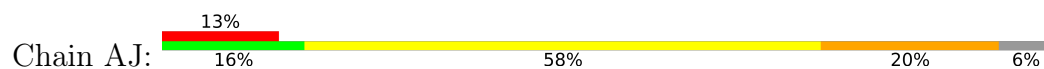


• Molecule 9: 30S ribosomal protein S9

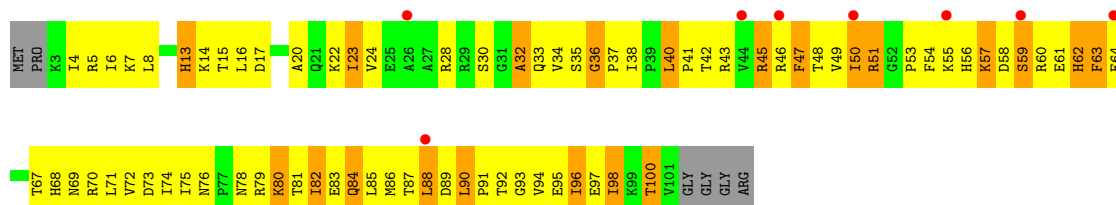




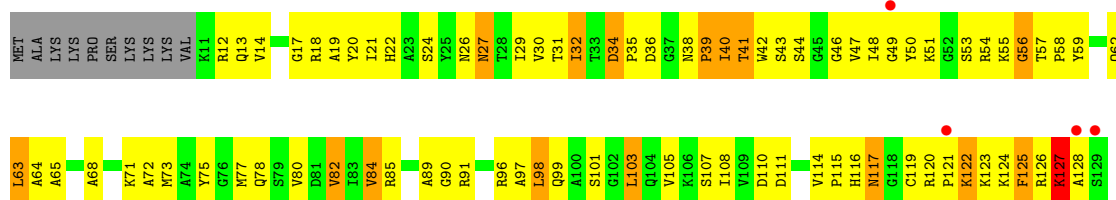
• Molecule 10: 30S ribosomal protein S10



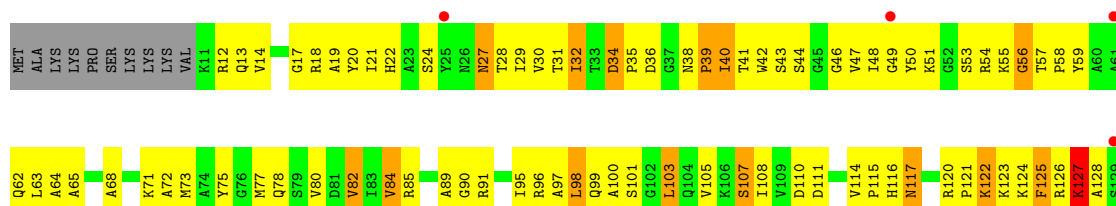
• Molecule 10: 30S ribosomal protein S10



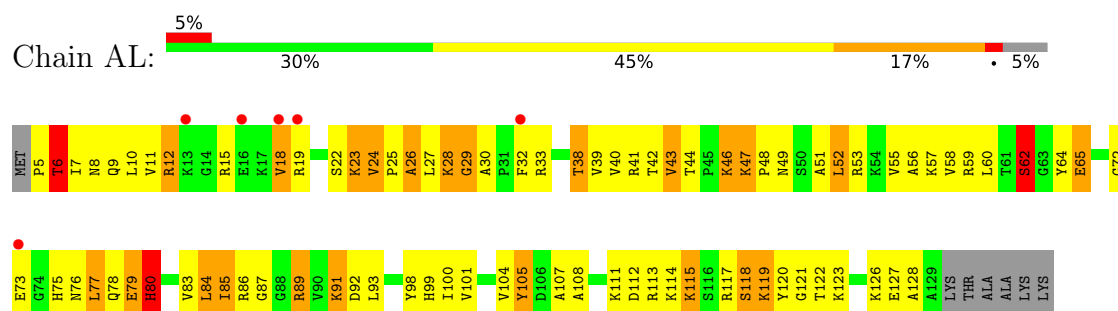
• Molecule 11: 30S ribosomal protein S11



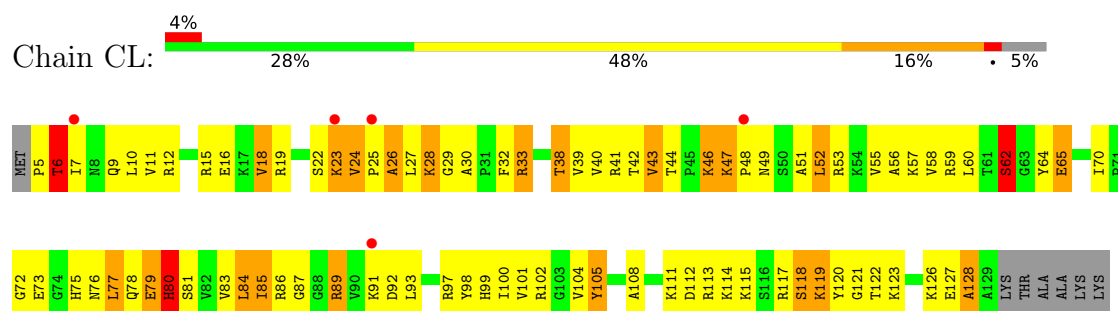
• Molecule 11: 30S ribosomal protein S11



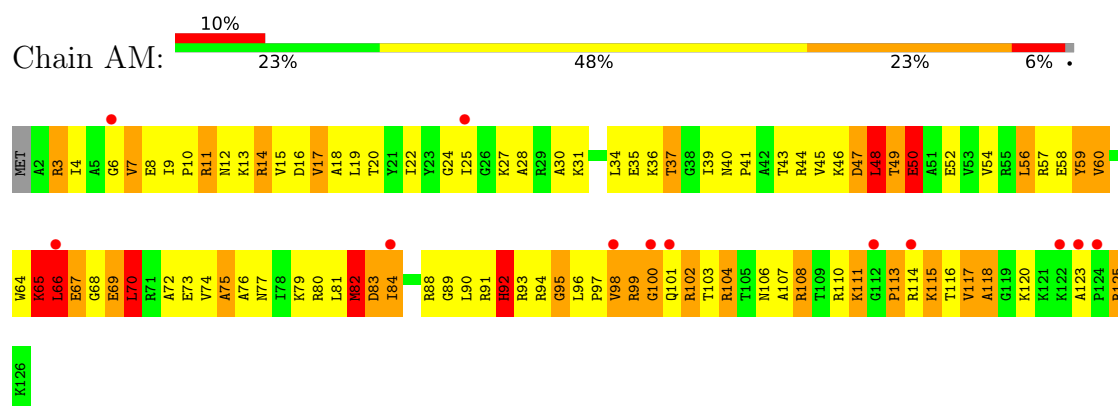
- Molecule 12: 30S ribosomal protein S12



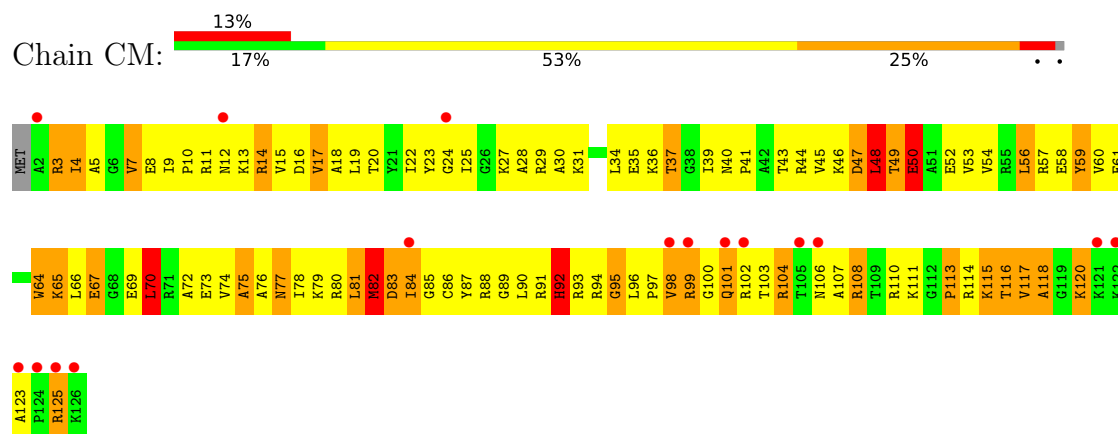
- Molecule 12: 30S ribosomal protein S12



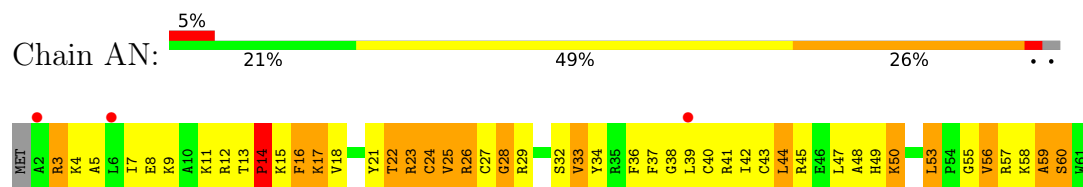
- Molecule 13: 30S ribosomal protein S13



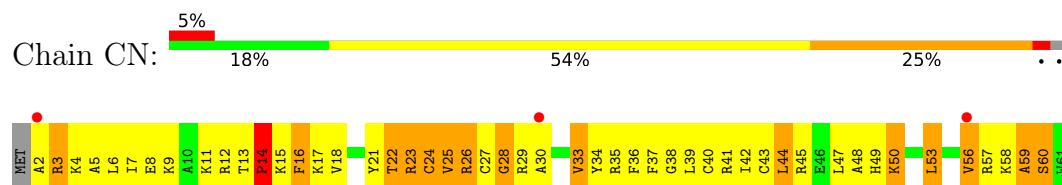
- Molecule 13: 30S ribosomal protein S13



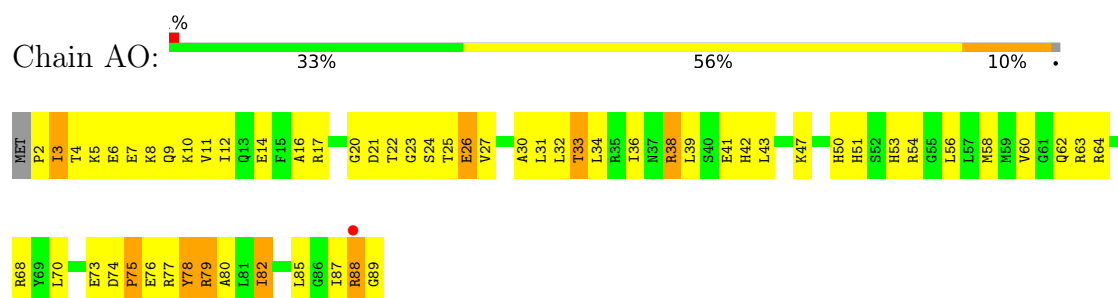
- Molecule 14: 30S ribosomal protein S14



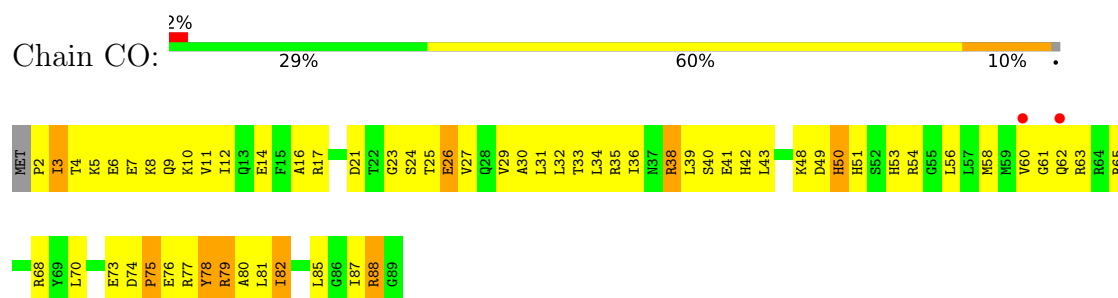
- Molecule 14: 30S ribosomal protein S14



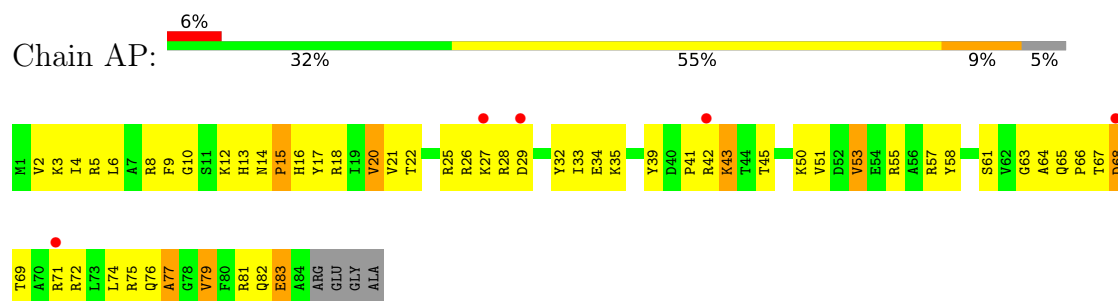
- Molecule 15: 30S ribosomal protein S15



- Molecule 15: 30S ribosomal protein S15

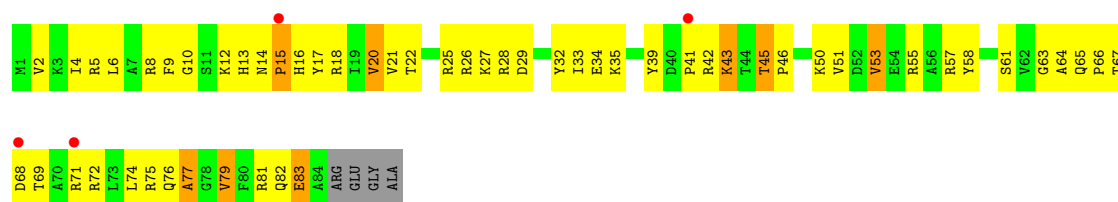


- Molecule 16: 30S ribosomal protein S16

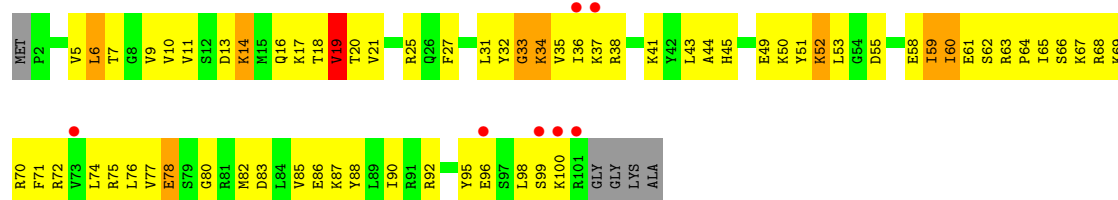


- Molecule 16: 30S ribosomal protein S16

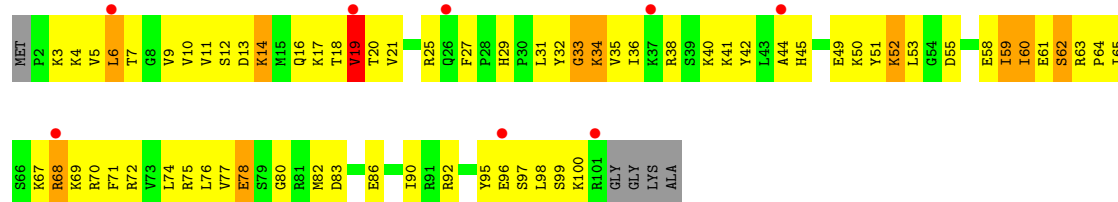




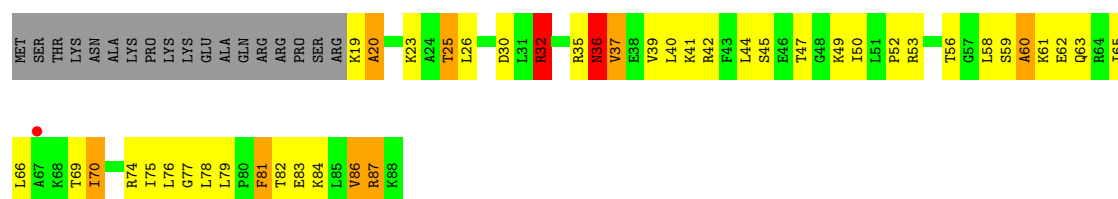
• Molecule 17: 30S ribosomal protein S17



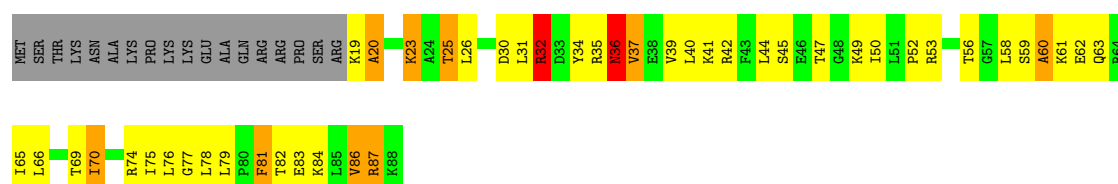
• Molecule 17: 30S ribosomal protein S17



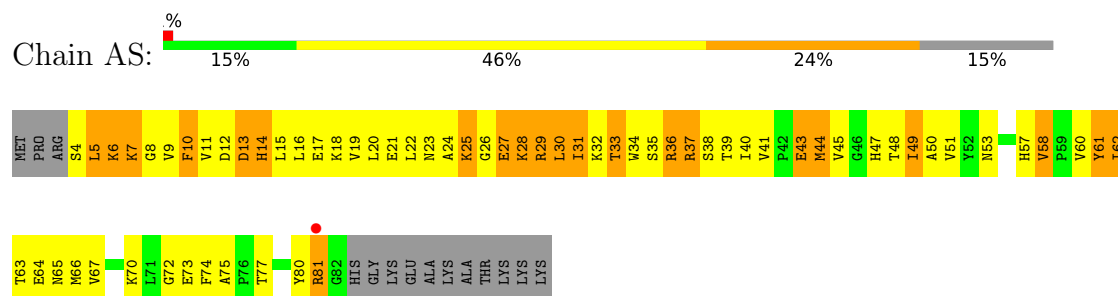
• Molecule 18: 30S ribosomal protein S18



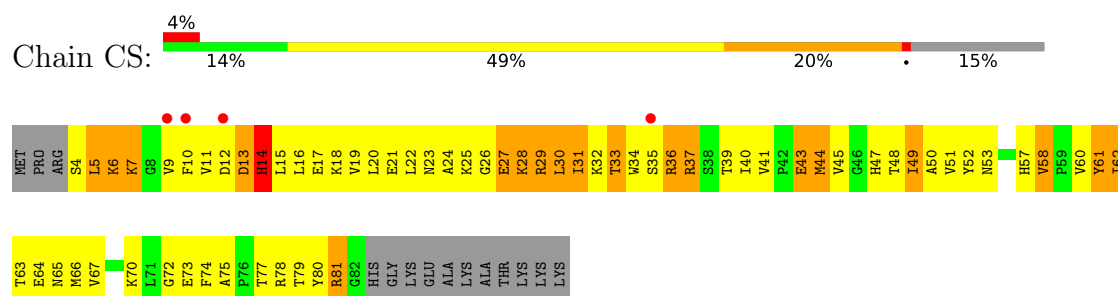
• Molecule 18: 30S ribosomal protein S18



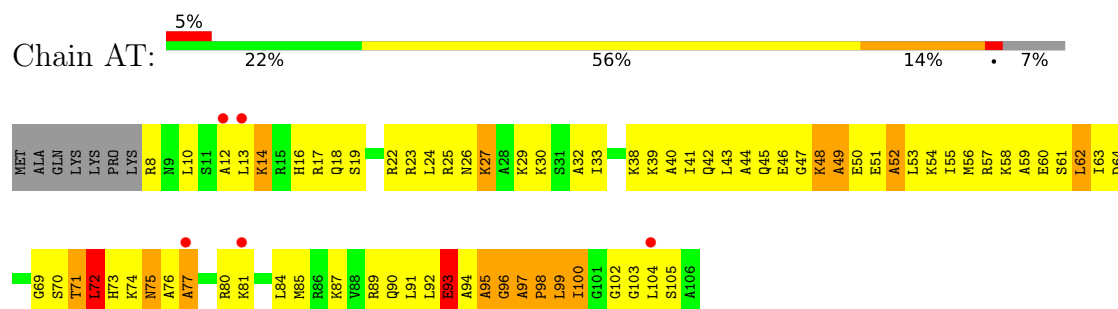
- Molecule 19: 30S ribosomal protein S19



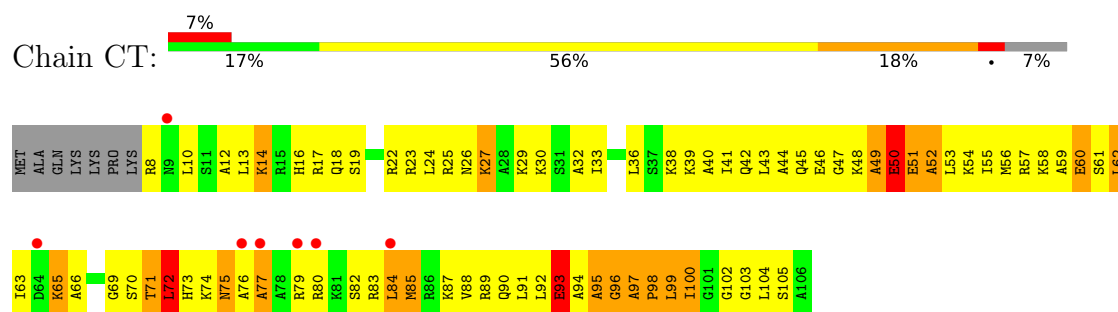
- Molecule 19: 30S ribosomal protein S19



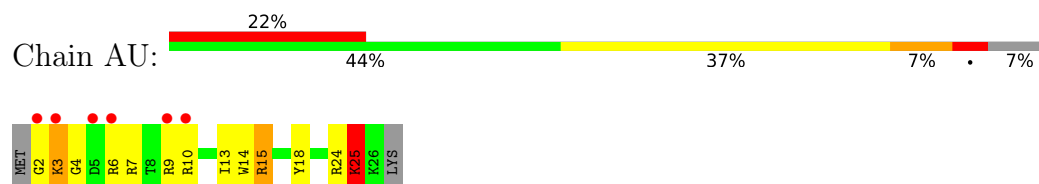
- Molecule 20: 30S ribosomal protein S20



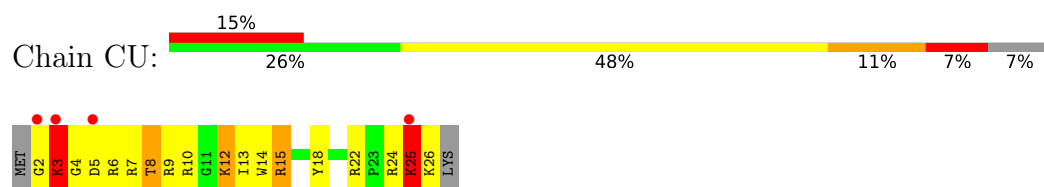
- Molecule 20: 30S ribosomal protein S20



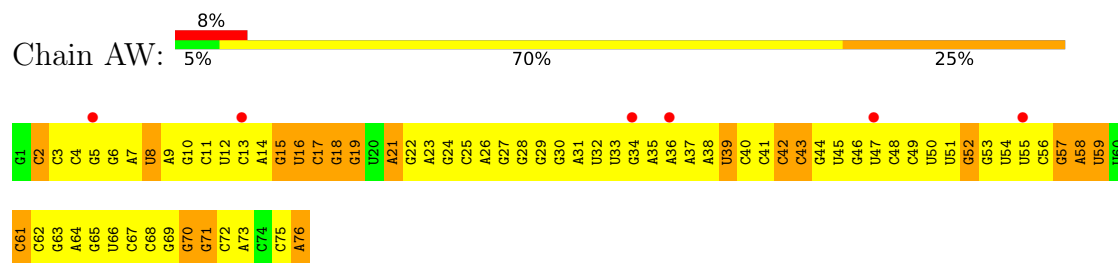
- Molecule 21: 30S ribosomal protein THX



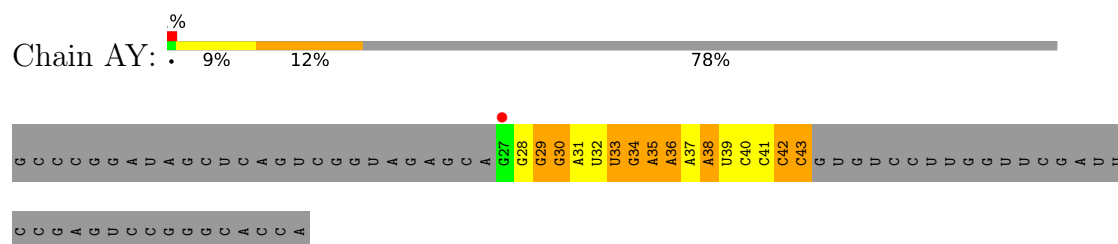
- Molecule 21: 30S ribosomal protein THX



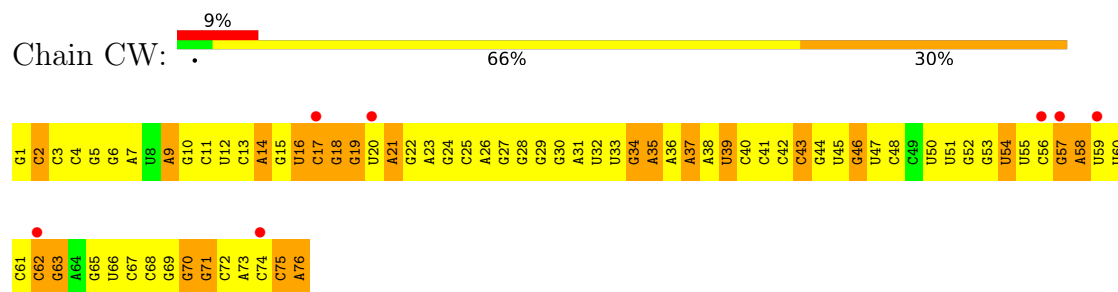
- Molecule 22: tRNA-Phe



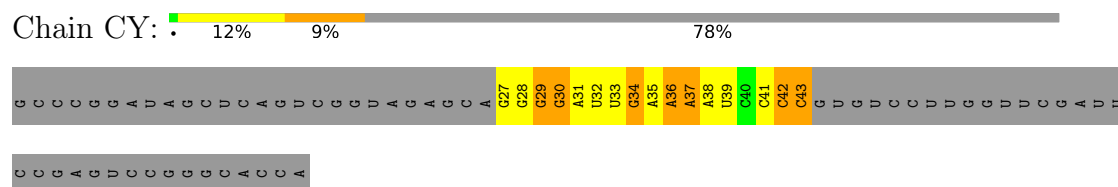
- Molecule 22: tRNA-Phe



- Molecule 22: tRNA-Phe

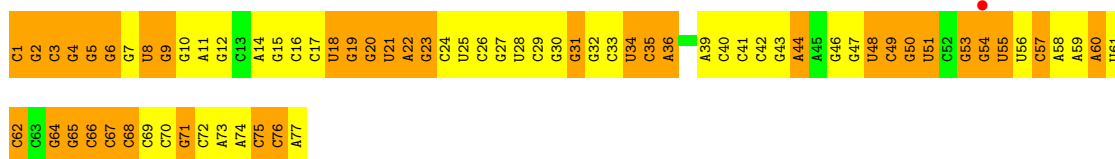


- Molecule 22: tRNA-Phe



- Molecule 23: tRNA-fMet





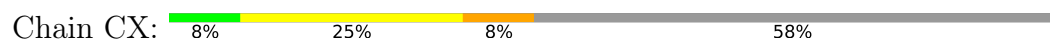
• Molecule 23: tRNA-fMet



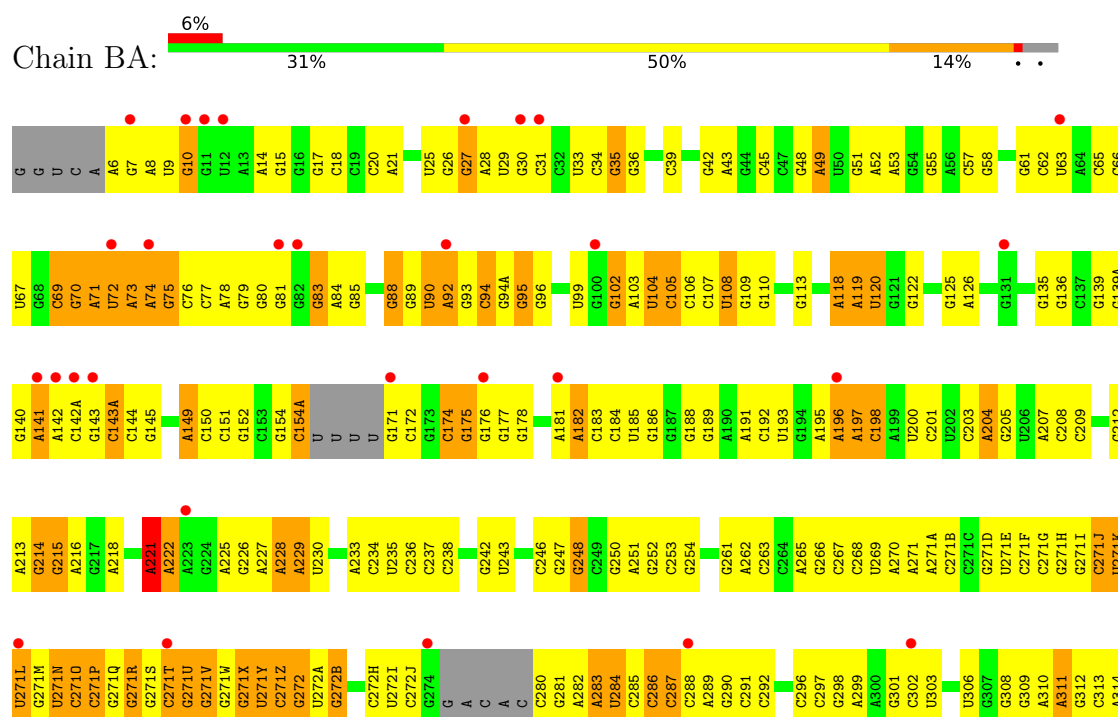
• Molecule 24: messenger RNA



• Molecule 24: messenger RNA

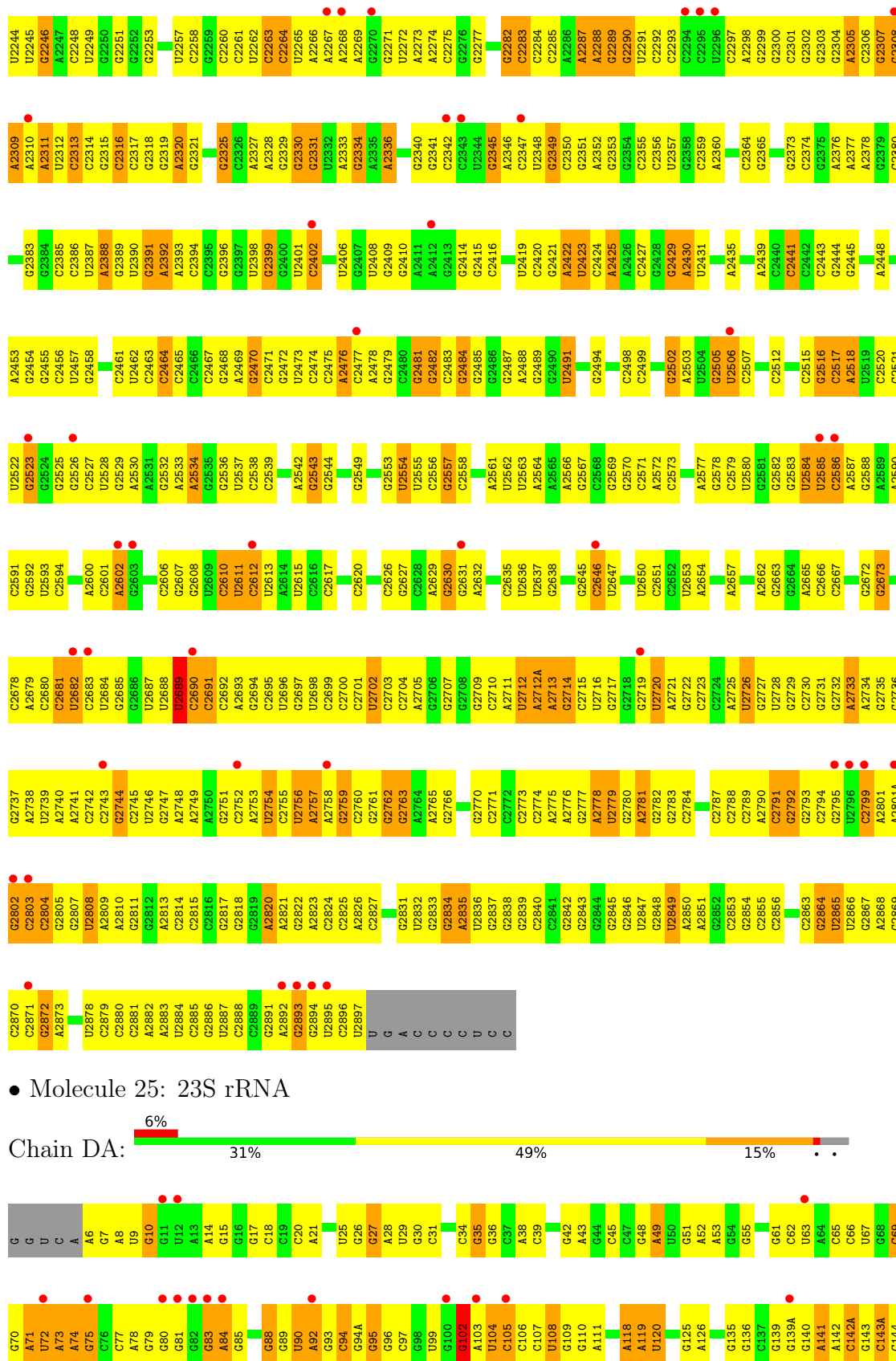


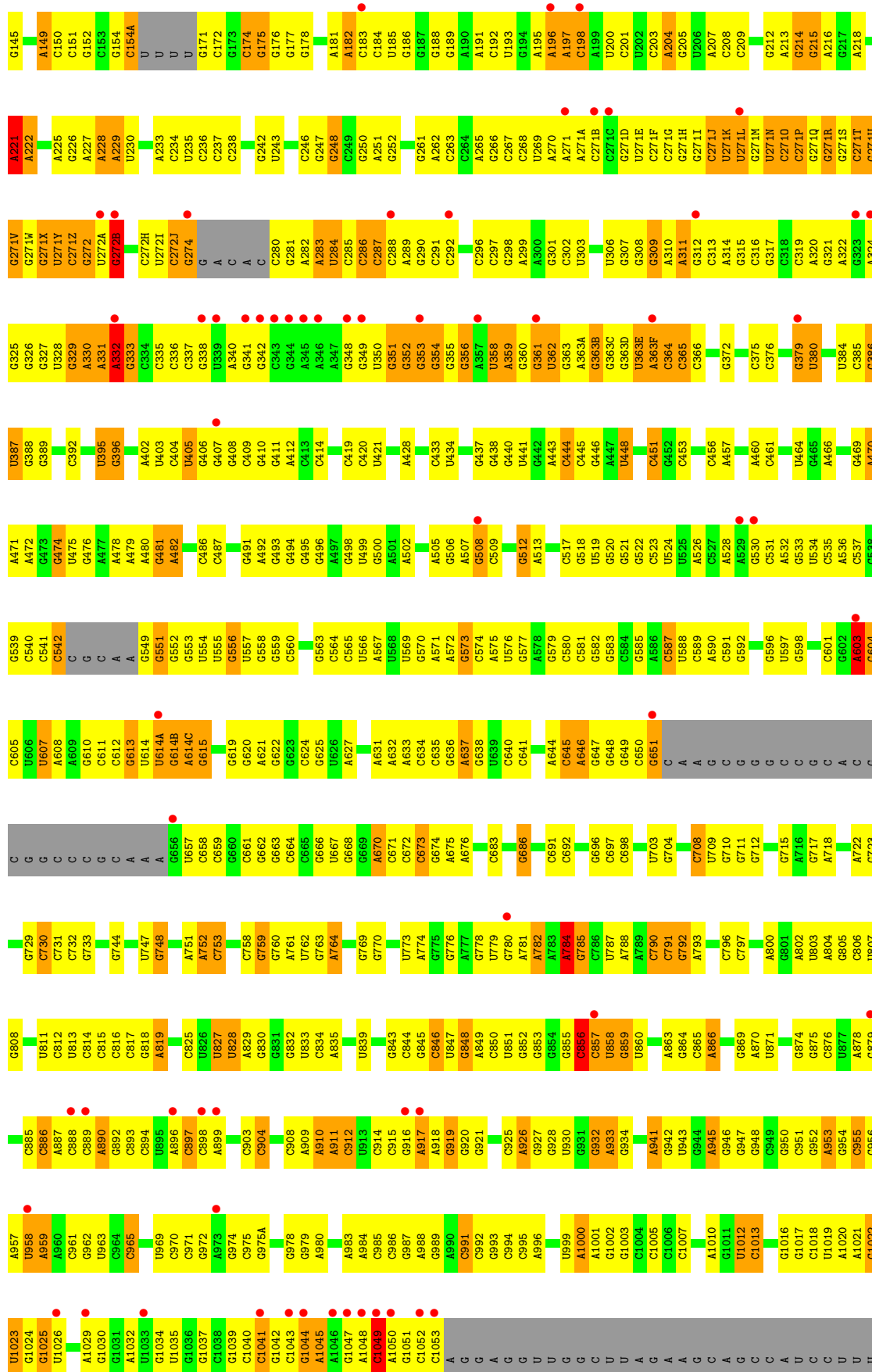
• Molecule 25: 23S rRNA



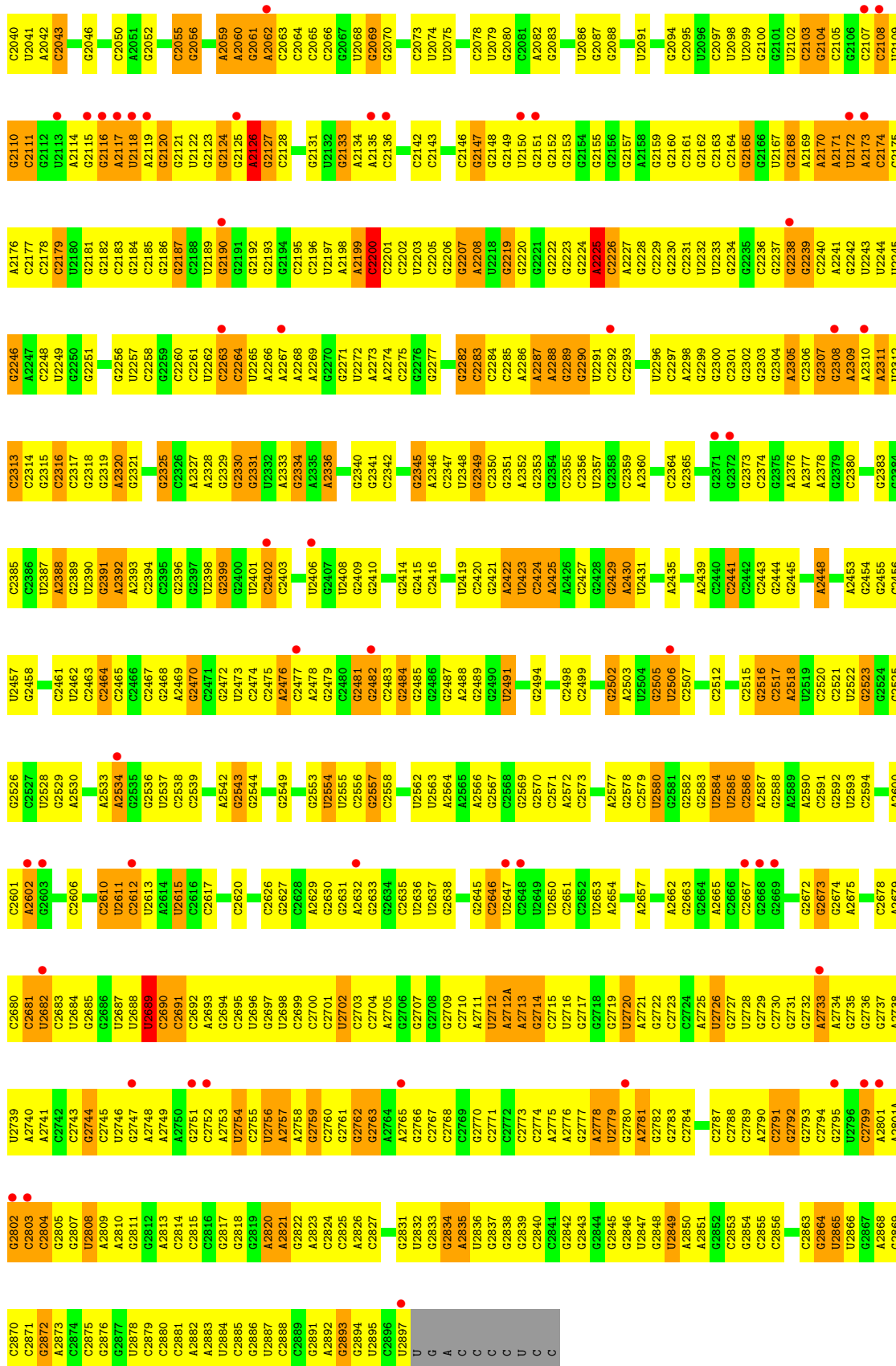








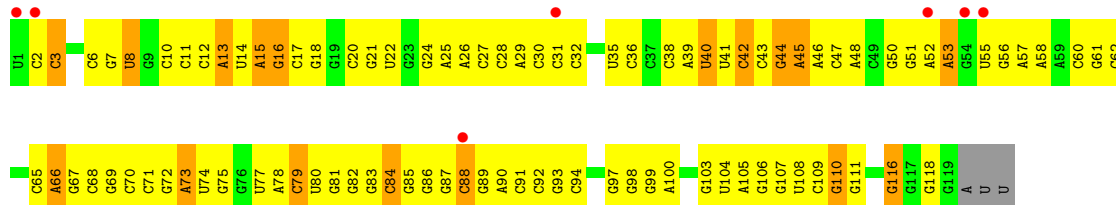




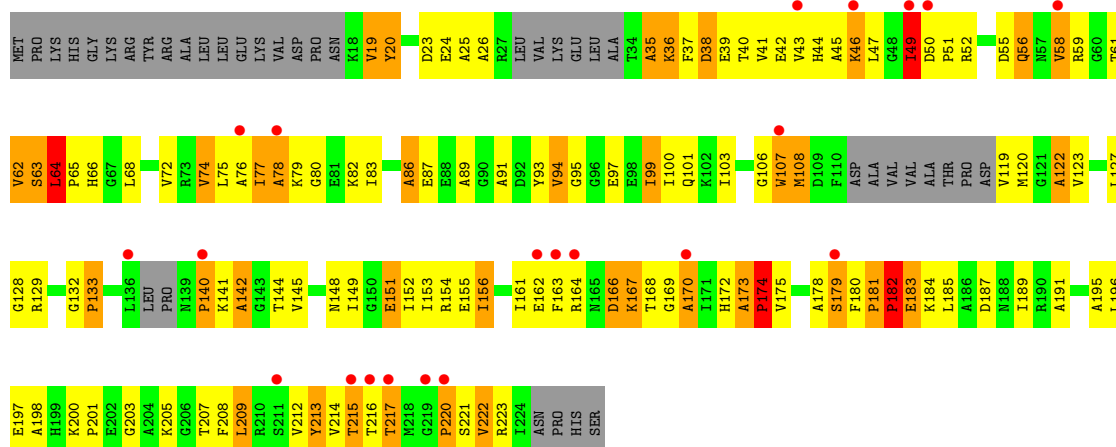
- Molecule 26: 5S rRNA



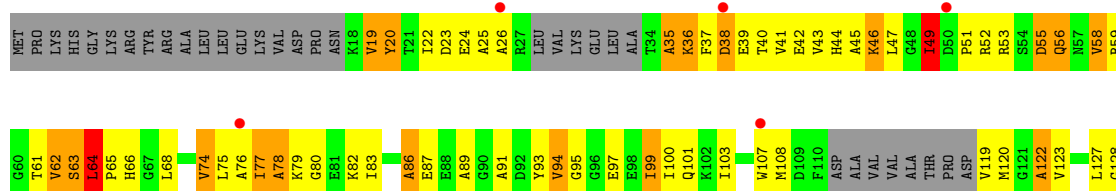
• Molecule 26: 5S rRNA

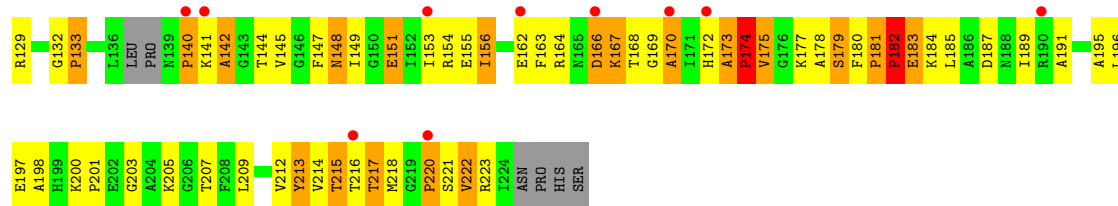


• Molecule 27: 50S ribosomal protein L1

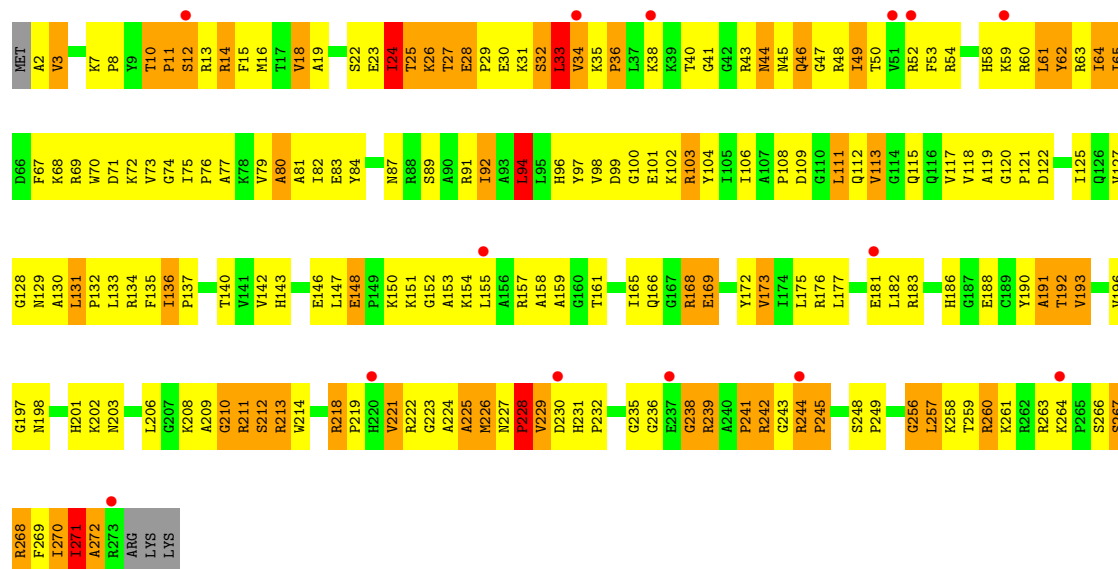


• Molecule 27: 50S ribosomal protein L1

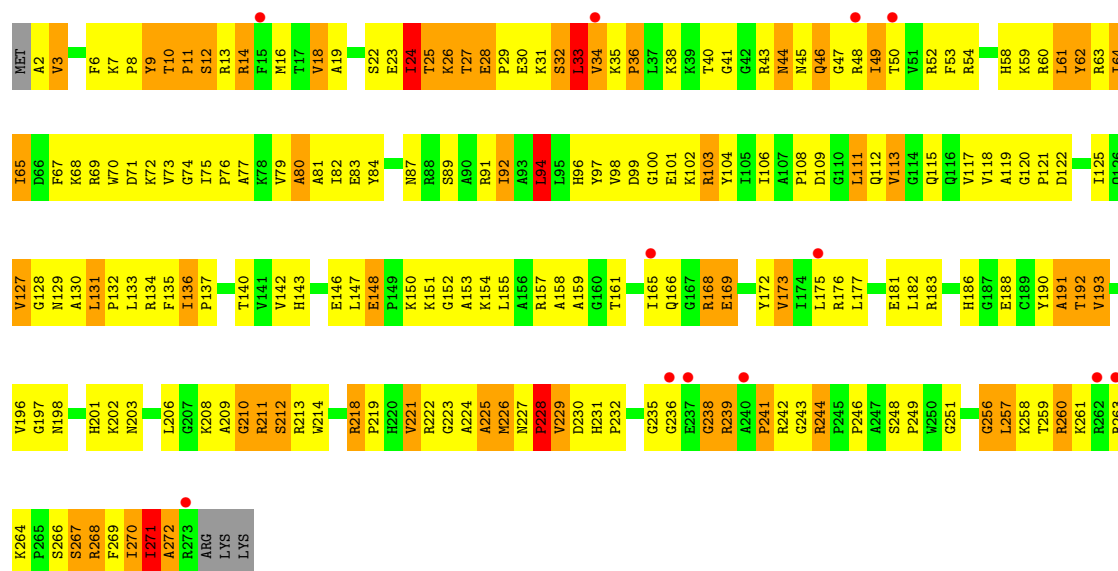




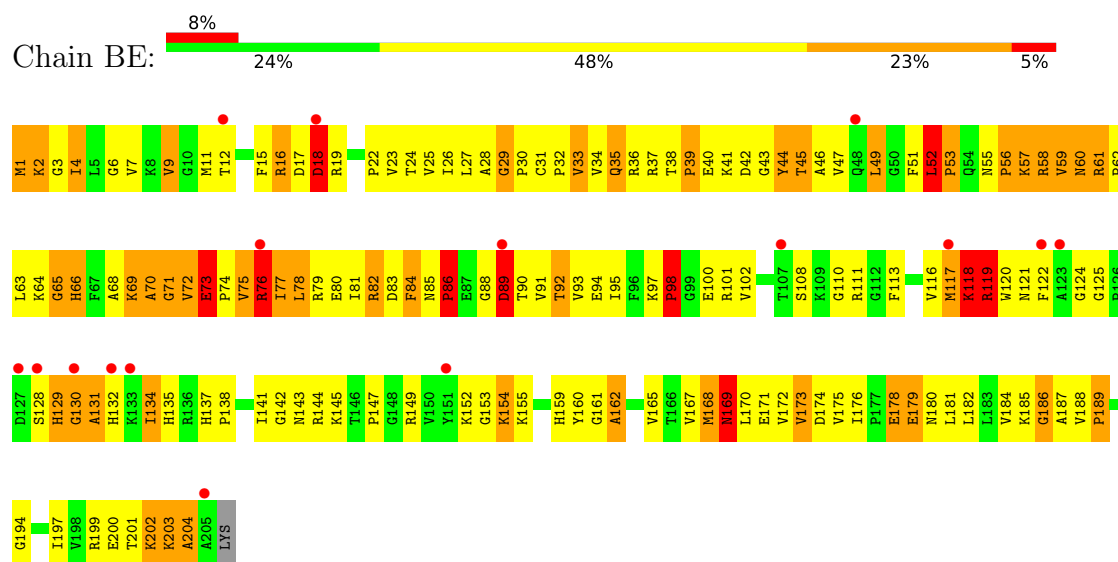
• Molecule 28: 50S ribosomal protein L2



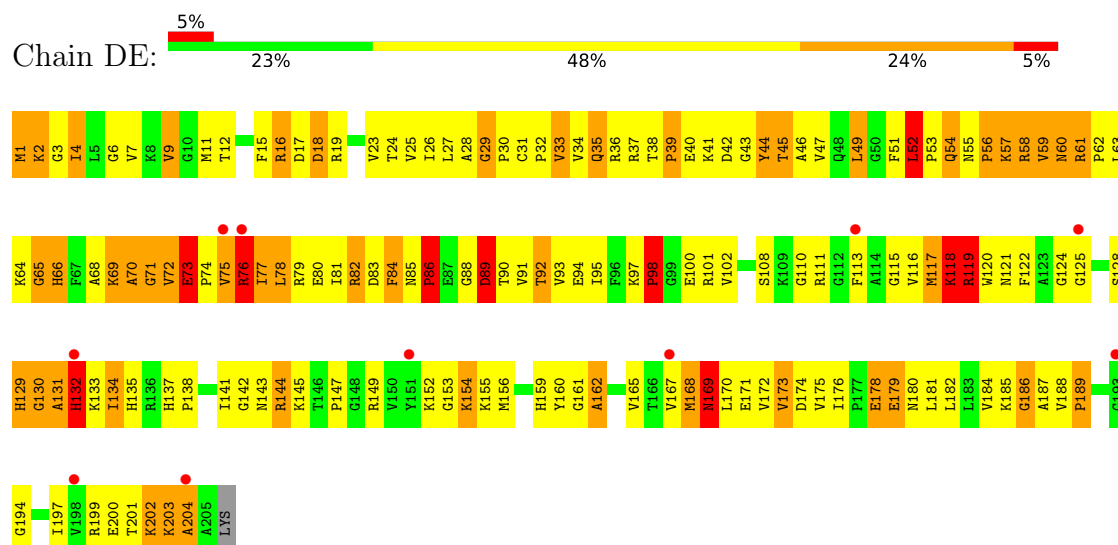
• Molecule 28: 50S ribosomal protein L2



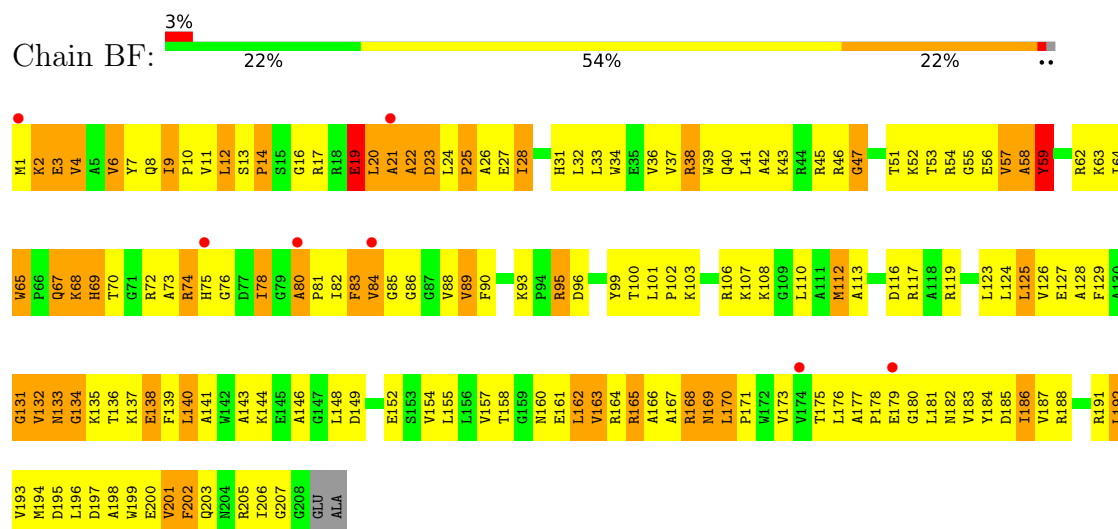
• Molecule 29: 50S ribosomal protein L3



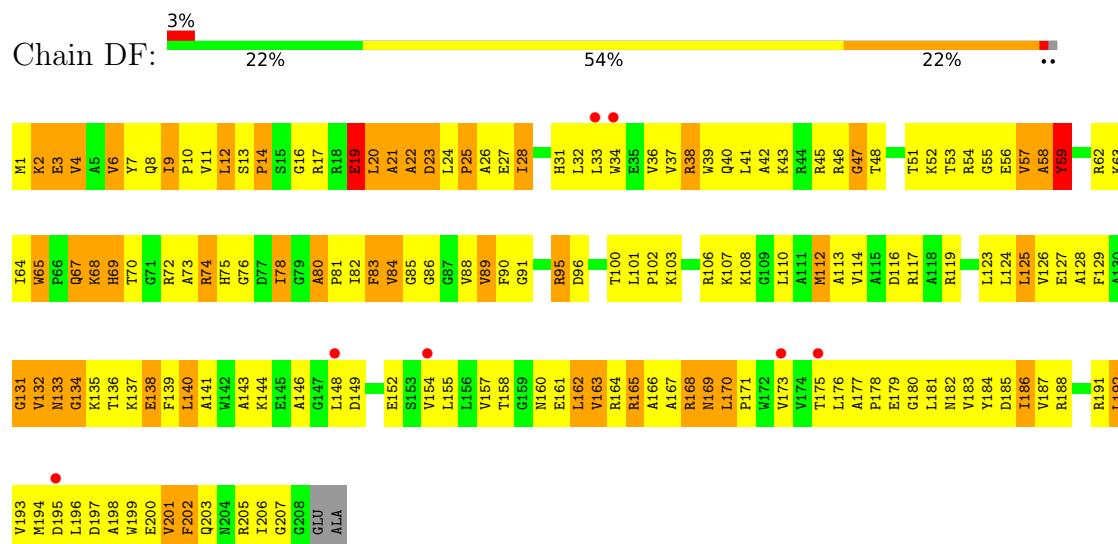
• Molecule 29: 50S ribosomal protein L3



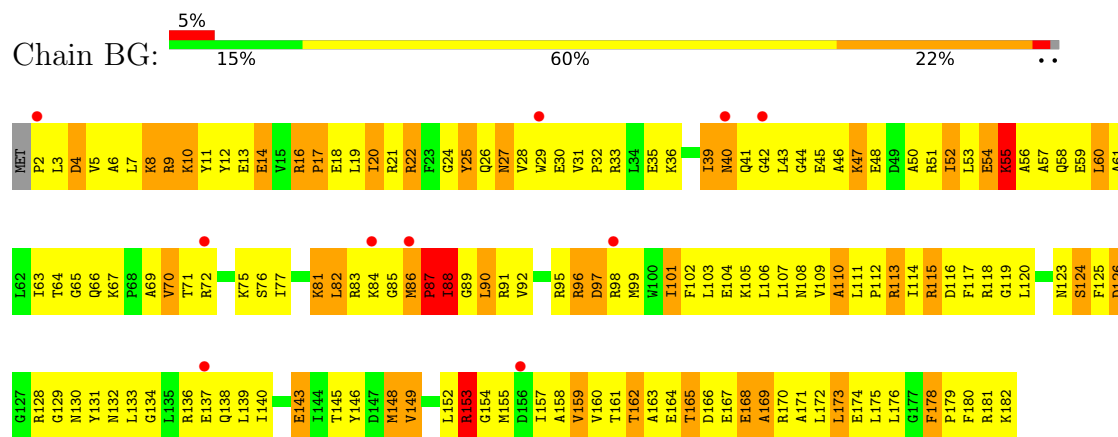
• Molecule 30: 50S ribosomal protein L4



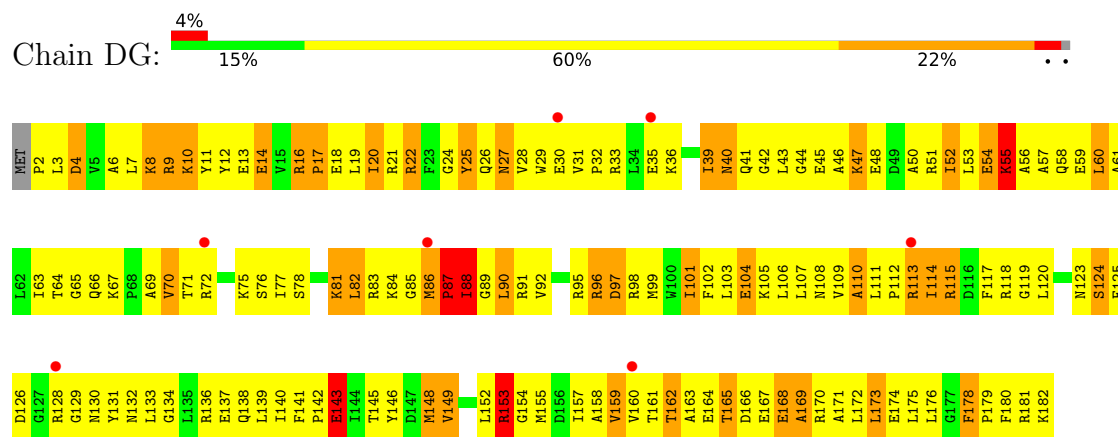
- Molecule 30: 50S ribosomal protein L4



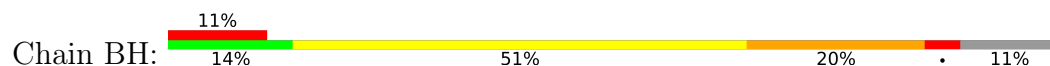
- Molecule 31: 50S ribosomal protein L5

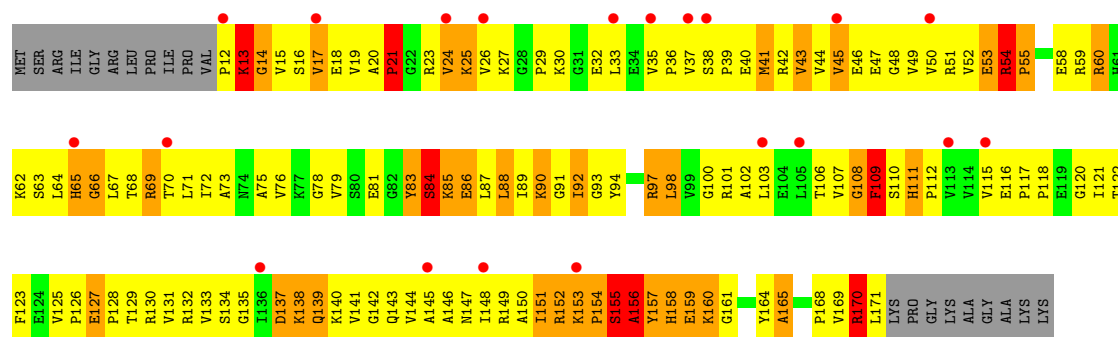


- Molecule 31: 50S ribosomal protein L5

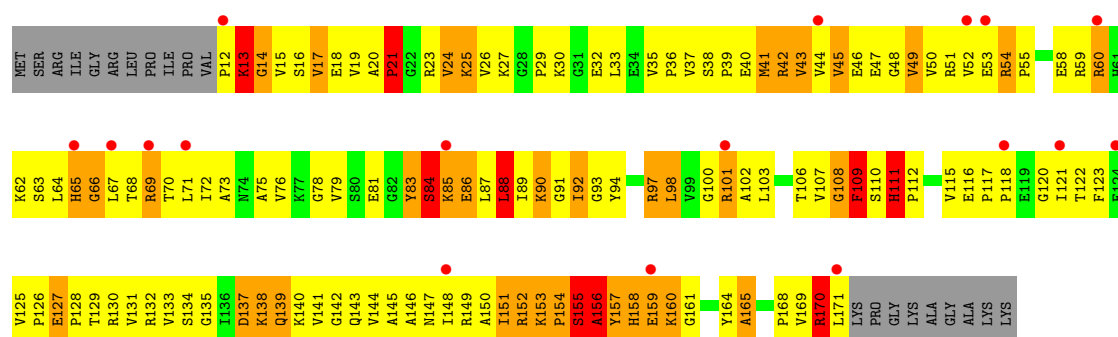
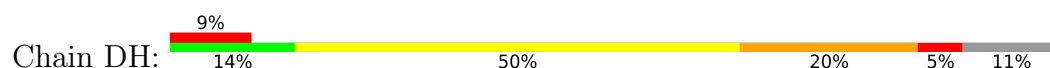


- Molecule 32: 50S ribosomal protein L6

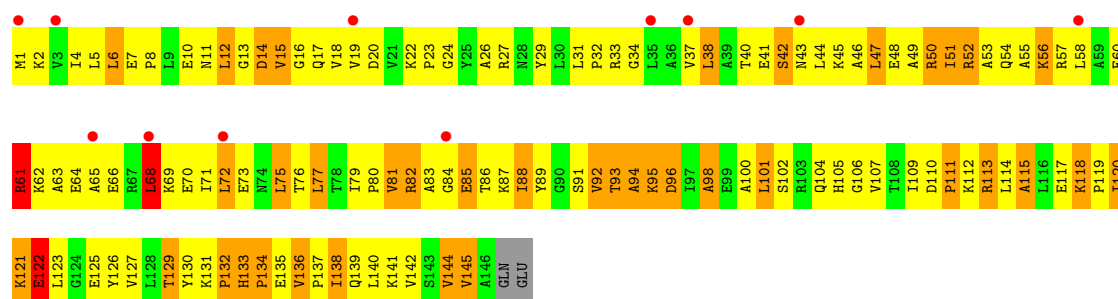
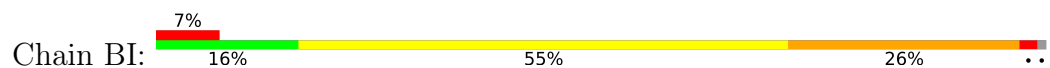




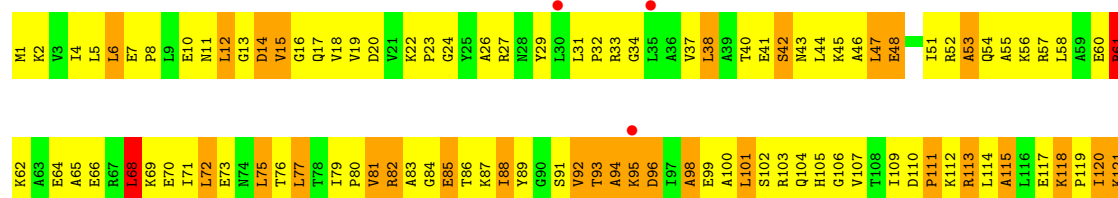
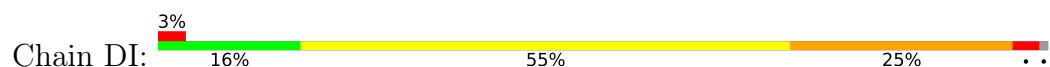
• Molecule 32: 50S ribosomal protein L6



• Molecule 33: 50S ribosomal protein L9

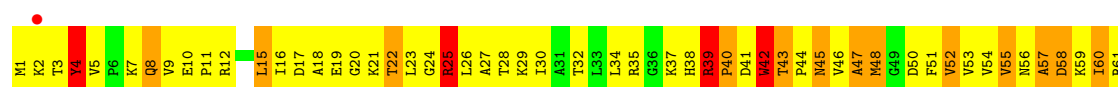
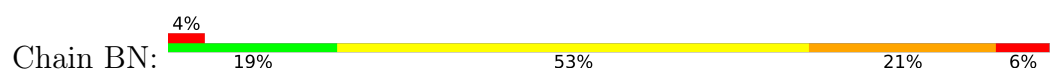


• Molecule 33: 50S ribosomal protein L9

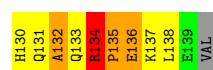
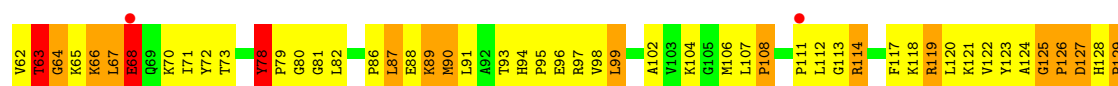
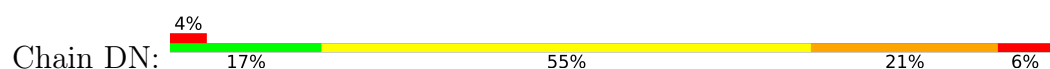




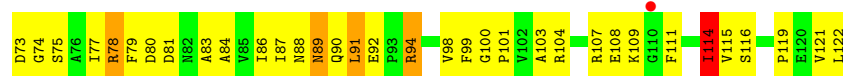
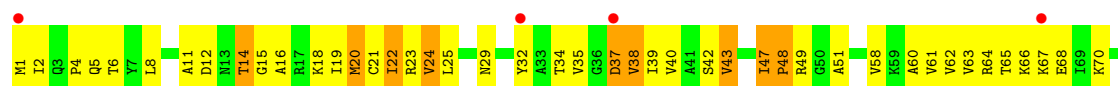
• Molecule 34: 50S ribosomal protein L13



• Molecule 34: 50S ribosomal protein L13



• Molecule 35: 50S ribosomal protein L14

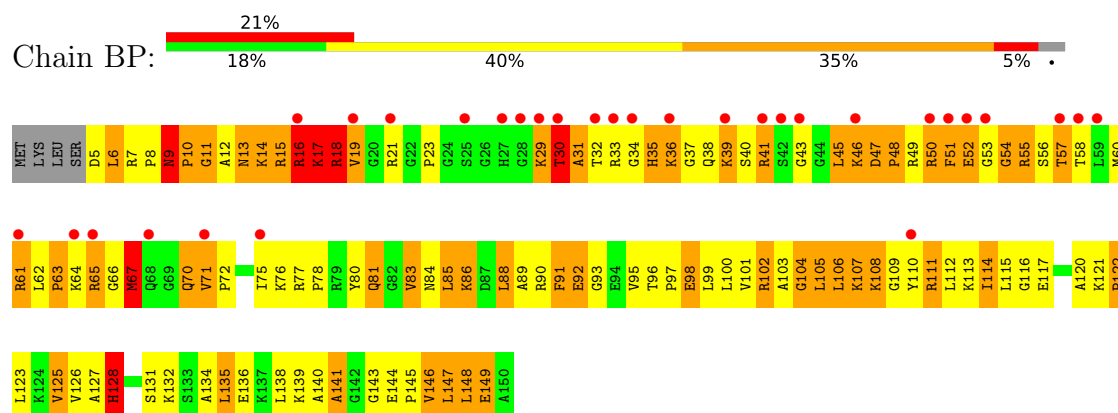


• Molecule 35: 50S ribosomal protein L14

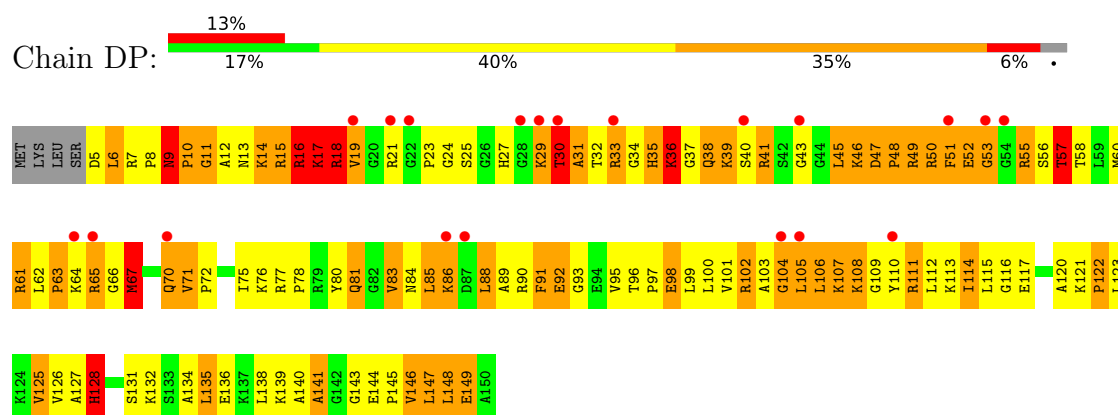




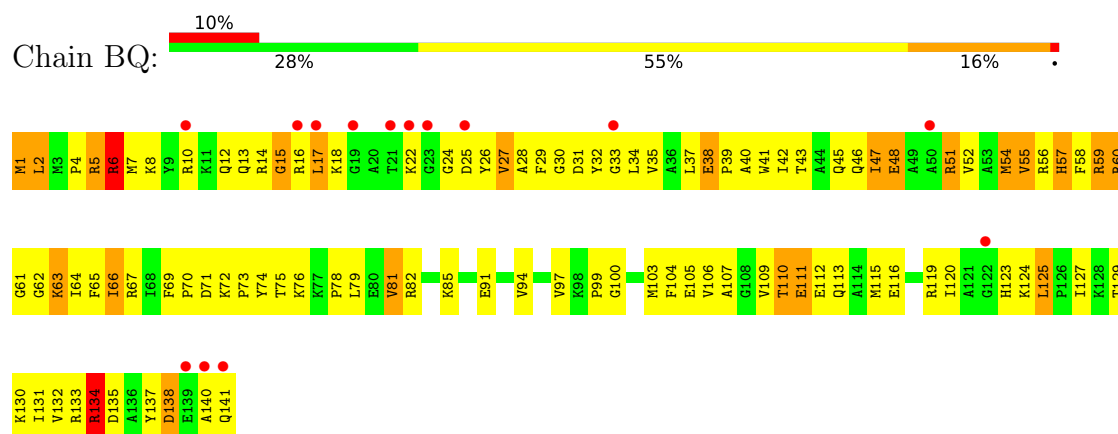
• Molecule 36: 50S ribosomal protein L15



• Molecule 36: 50S ribosomal protein L15

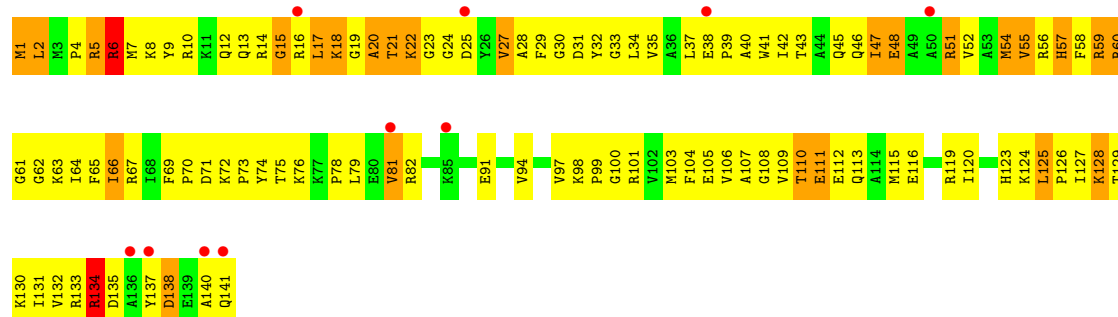


• Molecule 37: 50S ribosomal protein L16



• Molecule 37: 50S ribosomal protein L16

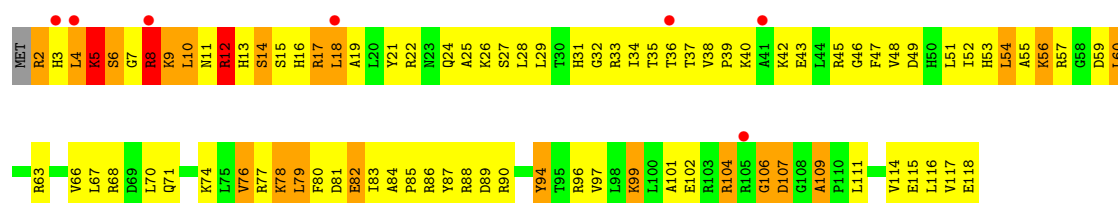




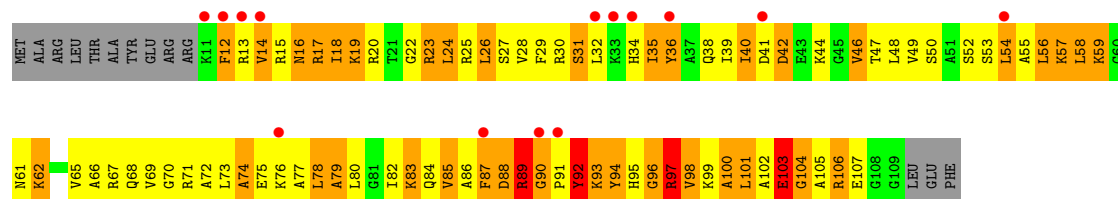
• Molecule 38: 50S ribosomal protein L17



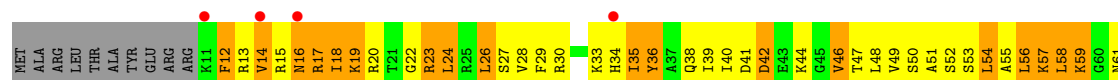
• Molecule 38: 50S ribosomal protein L17



• Molecule 39: 50S ribosomal protein L18

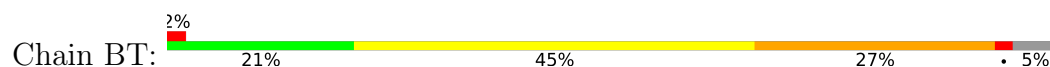


• Molecule 39: 50S ribosomal protein L18

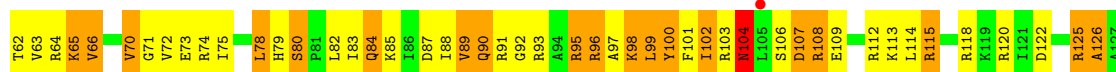
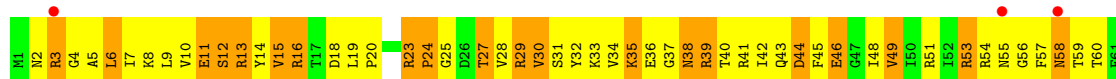
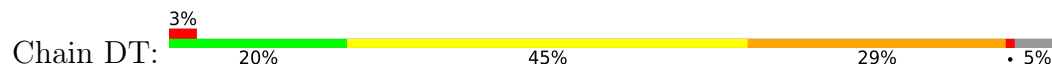




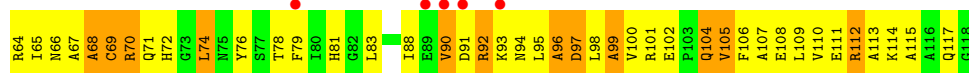
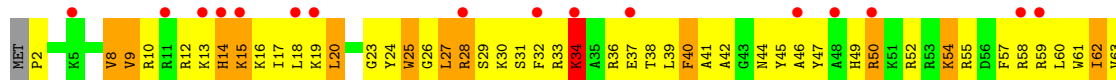
- Molecule 40: 50S ribosomal protein L19



- Molecule 40: 50S ribosomal protein L19

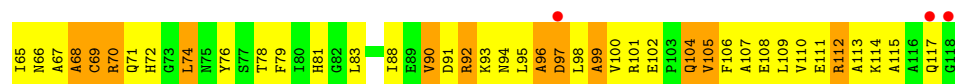


- Molecule 41: 50S ribosomal protein L20

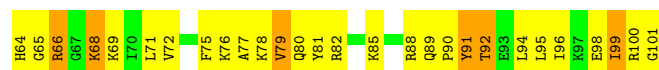
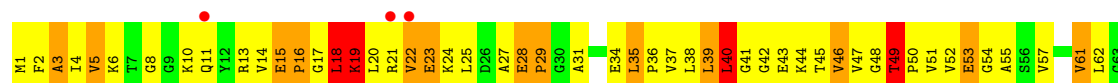


- Molecule 41: 50S ribosomal protein L20

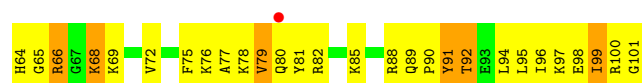
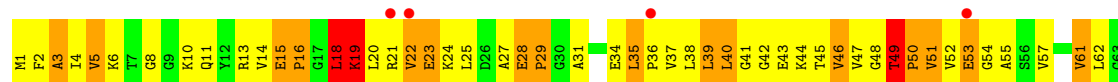




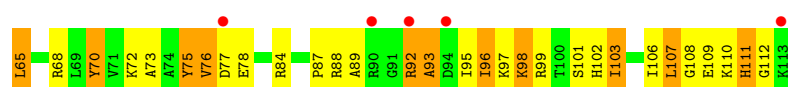
- Molecule 42: 50S ribosomal protein L21



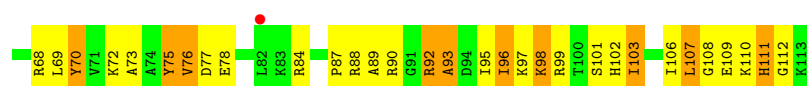
- Molecule 42: 50S ribosomal protein L21



- Molecule 43: 50S ribosomal protein L22



- Molecule 43: 50S ribosomal protein L22



- Molecule 44: 50S ribosomal protein L23

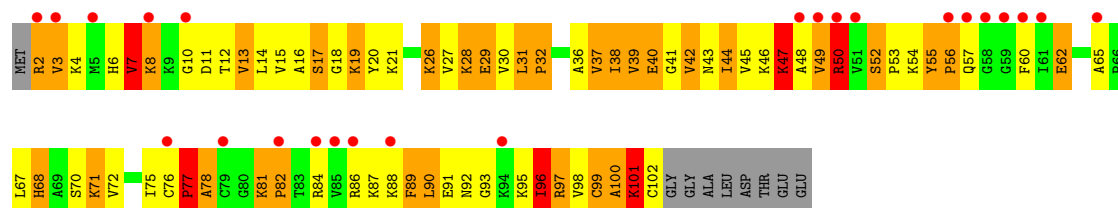
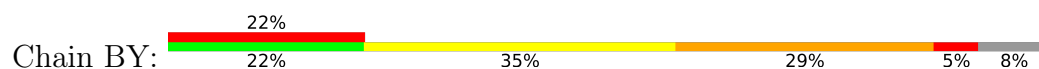




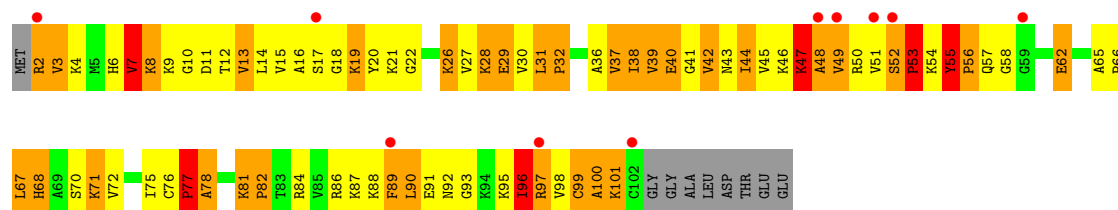
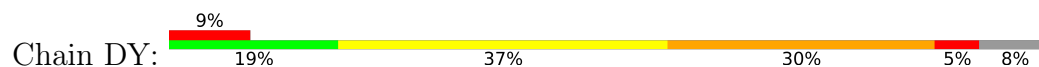
• Molecule 44: 50S ribosomal protein L23



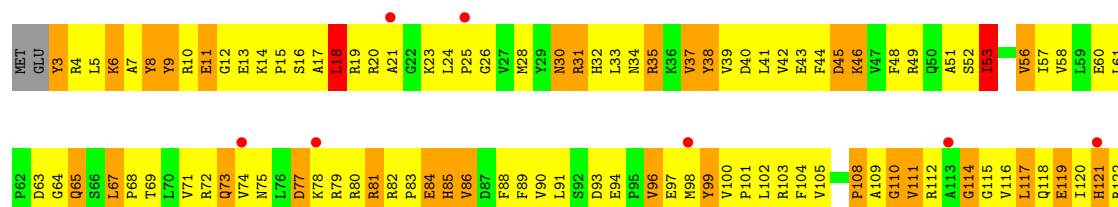
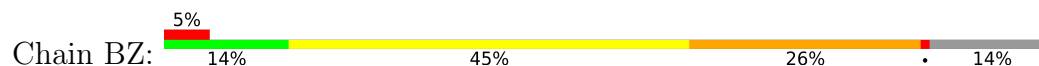
• Molecule 45: 50S ribosomal protein L24

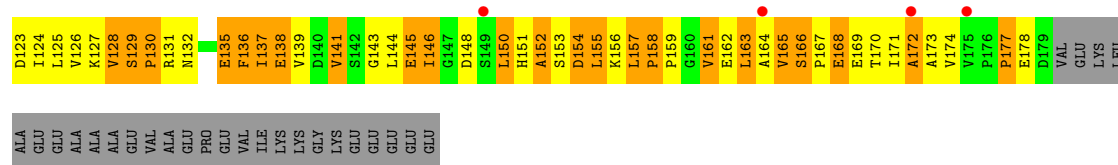


• Molecule 45: 50S ribosomal protein L24

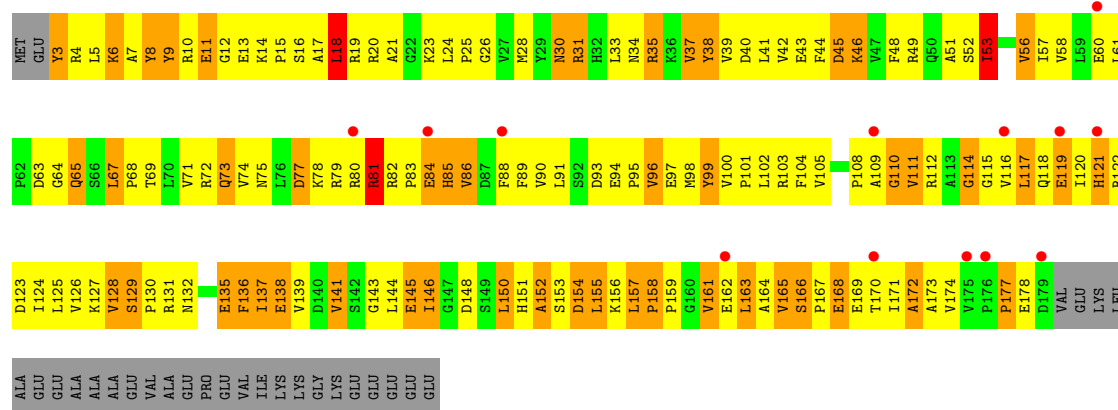
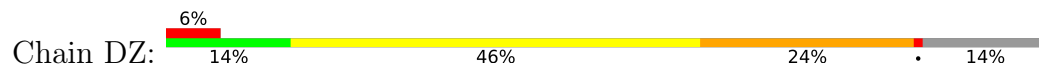


• Molecule 46: 50S ribosomal protein L25

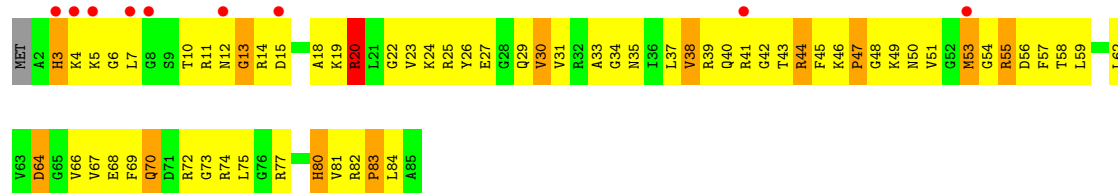




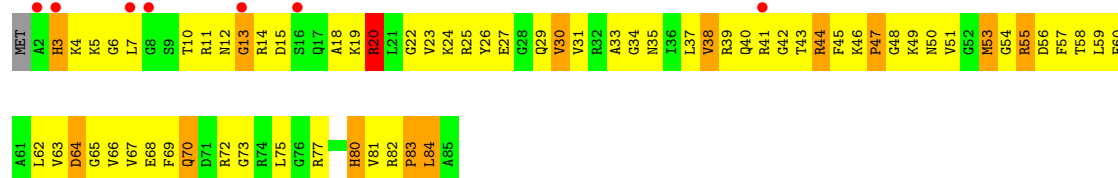
• Molecule 46: 50S ribosomal protein L25



• Molecule 47: 50S ribosomal protein L27

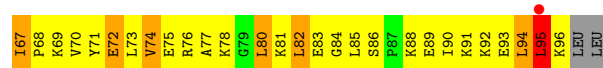


• Molecule 47: 50S ribosomal protein L27

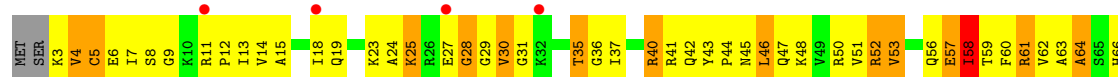


• Molecule 48: 50S ribosomal protein L28

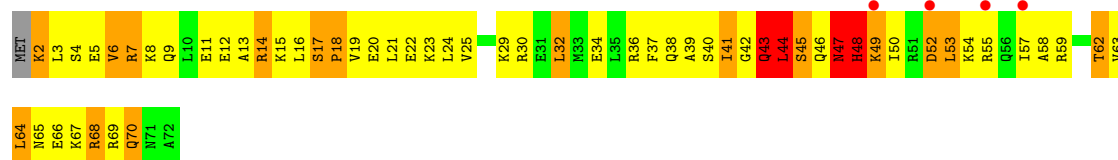
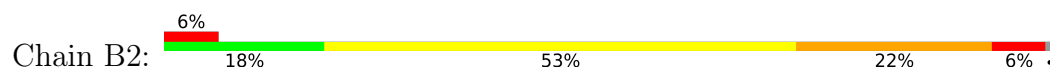




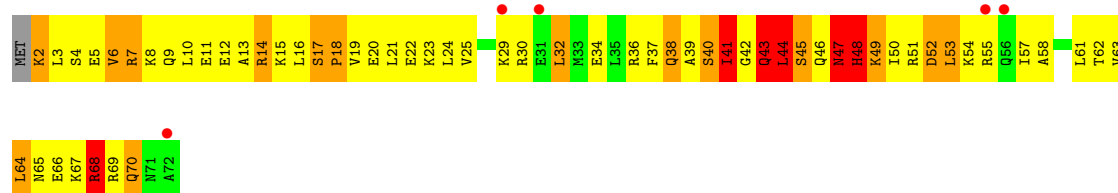
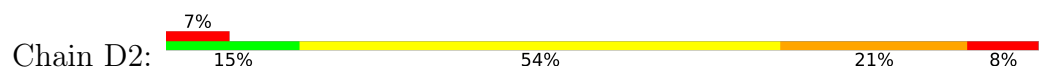
• Molecule 48: 50S ribosomal protein L28



• Molecule 49: 50S ribosomal protein L29



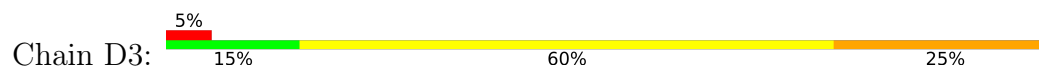
• Molecule 49: 50S ribosomal protein L29



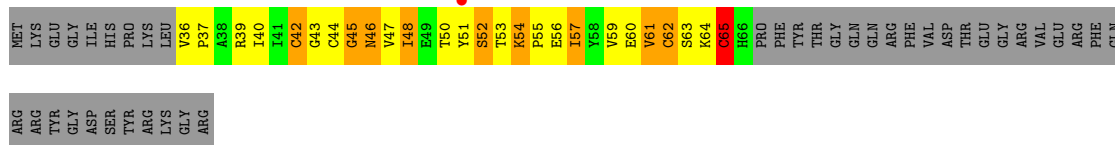
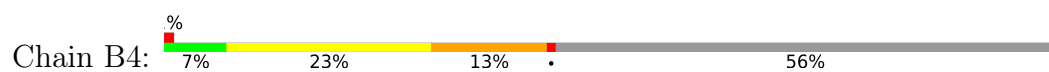
• Molecule 50: 50S ribosomal protein L30



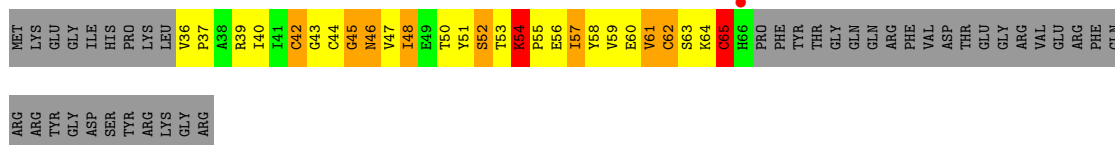
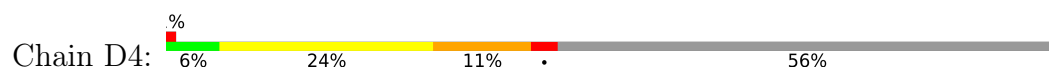
• Molecule 50: 50S ribosomal protein L30



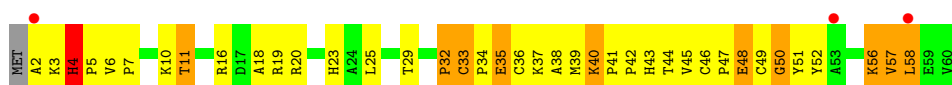
• Molecule 51: 50S ribosomal protein L31



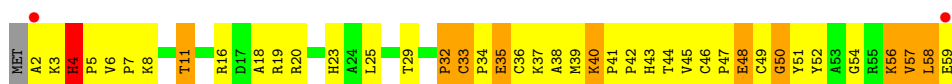
- Molecule 51: 50S ribosomal protein L31



- Molecule 52: 50S ribosomal protein L32



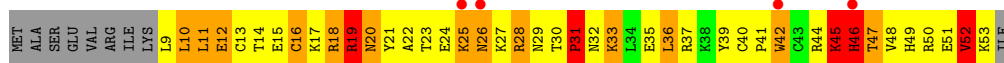
- Molecule 52: 50S ribosomal protein L32



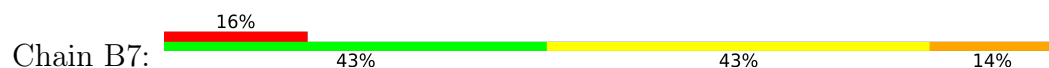
- Molecule 53: 50S ribosomal protein L33

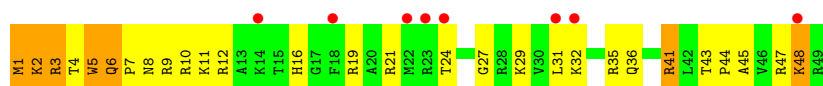


- Molecule 53: 50S ribosomal protein L33

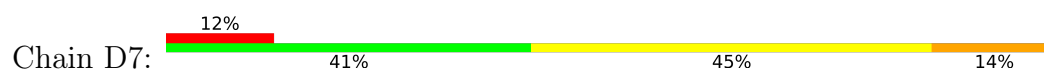


- Molecule 54: 50S ribosomal protein L34

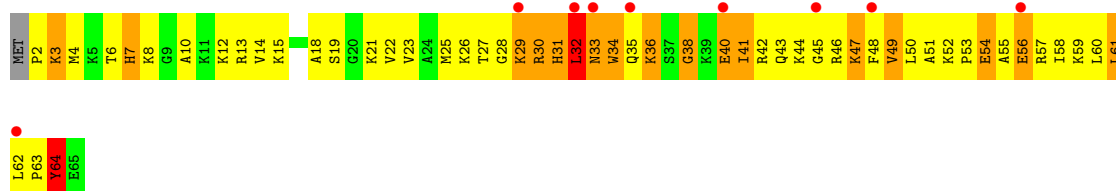
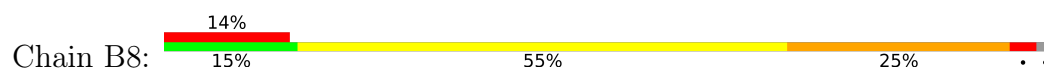




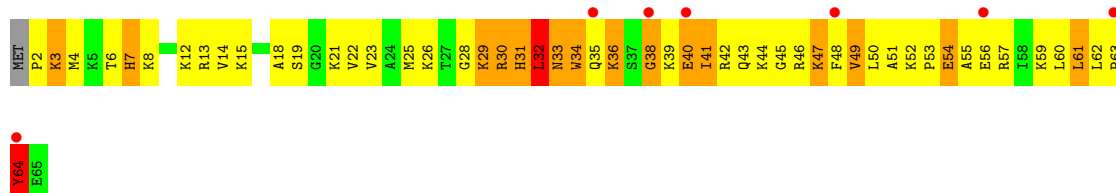
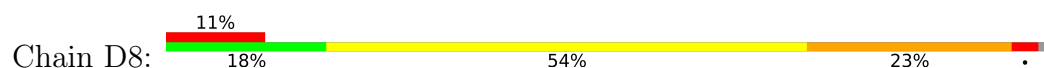
- Molecule 54: 50S ribosomal protein L34



- Molecule 55: 50S ribosomal protein L35



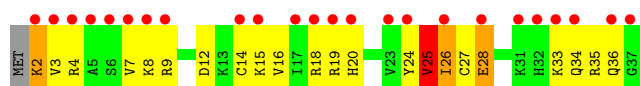
- Molecule 55: 50S ribosomal protein L35



- Molecule 56: 50S ribosomal protein L36



- Molecule 56: 50S ribosomal protein L36



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	210.20Å 446.16Å 620.95Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	50.00 – 3.90 50.00 – 4.00	Depositor EDS
% Data completeness (in resolution range)	94.3 (50.00-3.90) 95.0 (50.00-4.00)	Depositor EDS
R_{merge}	0.35	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.17 (at 3.99Å)	Xtriage
Refinement program	PHENIX (phenix.refine: 1.8.1_1168), REFMAC	Depositor
R, R_{free}	0.242 , 0.269 0.245 , 0.271	Depositor DCC
R_{free} test set	20475 reflections (4.41%)	wwPDB-VP
Wilson B-factor (Å ²)	115.4	Xtriage
Anisotropy	0.219	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.27 , 37.4	EDS
L-test for twinning ²	$\langle L \rangle = 0.42$, $\langle L^2 \rangle = 0.25$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.89	EDS
Total number of atoms	292667	wwPDB-VP
Average B, all atoms (Å ²)	51.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.56% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

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

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	AA	0.31	0/36186	0.53	2/56479 (0.0%)
1	CA	0.32	0/36161	0.55	2/56440 (0.0%)
2	AB	0.44	1/1936 (0.1%)	1.00	12/2611 (0.5%)
2	CB	0.43	1/1936 (0.1%)	1.00	13/2611 (0.5%)
3	AC	0.45	1/1637 (0.1%)	0.96	8/2207 (0.4%)
3	CC	0.43	1/1637 (0.1%)	0.95	8/2207 (0.4%)
4	AD	0.48	0/1733	1.00	6/2318 (0.3%)
4	CD	0.45	0/1733	1.00	8/2318 (0.3%)
5	AE	0.53	1/1163 (0.1%)	1.04	6/1566 (0.4%)
5	CE	0.50	1/1163 (0.1%)	1.03	8/1566 (0.5%)
6	AF	0.45	0/856	0.93	1/1154 (0.1%)
6	CF	0.47	0/856	0.92	0/1154
7	AG	0.42	0/1276	1.02	7/1709 (0.4%)
7	CG	0.41	0/1276	1.01	5/1709 (0.3%)
8	AH	0.45	0/1136	0.98	2/1527 (0.1%)
8	CH	0.43	0/1136	0.98	2/1527 (0.1%)
9	AI	0.44	0/1029	0.99	4/1379 (0.3%)
9	CI	0.44	0/1029	1.01	5/1379 (0.4%)
10	AJ	0.48	1/808 (0.1%)	0.93	1/1087 (0.1%)
10	CJ	0.49	1/808 (0.1%)	0.92	0/1087
11	AK	0.47	0/900	1.07	7/1213 (0.6%)
11	CK	0.45	0/900	1.07	7/1213 (0.6%)
12	AL	0.58	1/987 (0.1%)	1.18	8/1322 (0.6%)
12	CL	0.55	1/987 (0.1%)	1.17	7/1322 (0.5%)
13	AM	0.60	1/999 (0.1%)	1.17	11/1338 (0.8%)
13	CM	0.46	1/999 (0.1%)	1.12	10/1338 (0.7%)
14	AN	0.43	0/501	0.91	2/664 (0.3%)
14	CN	0.41	0/501	0.90	2/664 (0.3%)
15	AO	0.47	0/745	0.88	2/992 (0.2%)
15	CO	0.45	0/745	0.89	3/992 (0.3%)
16	AP	0.50	1/717 (0.1%)	1.03	4/965 (0.4%)
16	CP	0.51	1/717 (0.1%)	1.01	3/965 (0.3%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	AQ	0.51	1/837 (0.1%)	0.96	1/1119 (0.1%)
17	CQ	0.44	1/837 (0.1%)	0.89	2/1119 (0.2%)
18	AR	0.47	0/579	1.13	6/768 (0.8%)
18	CR	0.46	0/579	1.12	6/768 (0.8%)
19	AS	0.46	1/643 (0.2%)	1.07	5/867 (0.6%)
19	CS	0.45	1/643 (0.2%)	0.98	3/867 (0.3%)
20	AT	0.48	0/765	1.13	8/1007 (0.8%)
20	CT	0.48	1/765 (0.1%)	1.18	10/1007 (1.0%)
21	AU	0.83	0/213	1.04	1/279 (0.4%)
21	CU	0.85	0/213	1.03	0/279
22	AW	0.33	0/1809	0.42	0/2819
22	AY	0.41	0/408	0.55	0/634
22	CW	0.32	0/1809	0.45	0/2819
22	CY	0.51	0/408	0.55	0/634
23	AV	0.47	1/1836 (0.1%)	0.57	0/2859
23	CV	0.51	1/1836 (0.1%)	0.58	0/2859
24	AX	0.44	0/188	0.64	0/290
24	CX	0.51	0/235	0.54	0/364
25	BA	0.44	1/67620 (0.0%)	0.69	39/105555 (0.0%)
25	DA	0.44	1/67620 (0.0%)	0.69	43/105555 (0.0%)
26	BB	0.41	0/2853	0.69	4/4451 (0.1%)
26	DB	0.40	0/2853	0.69	4/4451 (0.1%)
27	BC	0.55	1/1145 (0.1%)	1.04	10/1556 (0.6%)
27	DC	0.55	1/1145 (0.1%)	1.04	10/1556 (0.6%)
28	BD	0.67	0/2155	1.24	18/2907 (0.6%)
28	DD	0.67	0/2155	1.23	16/2907 (0.6%)
29	BE	0.57	1/1597 (0.1%)	1.18	14/2155 (0.6%)
29	DE	0.58	1/1597 (0.1%)	1.20	14/2155 (0.6%)
30	BF	0.54	1/1659 (0.1%)	1.15	17/2246 (0.8%)
30	DF	0.55	1/1659 (0.1%)	1.14	17/2246 (0.8%)
31	BG	0.50	0/1499	1.12	10/2016 (0.5%)
31	DG	0.50	0/1499	1.13	11/2016 (0.5%)
32	BH	0.48	1/1246 (0.1%)	1.12	11/1684 (0.7%)
32	DH	0.48	1/1246 (0.1%)	1.13	12/1684 (0.7%)
33	BI	0.48	0/1147	1.12	9/1553 (0.6%)
33	DI	0.51	1/1147 (0.1%)	1.14	8/1553 (0.5%)
34	BN	0.50	1/1132 (0.1%)	1.14	9/1527 (0.6%)
34	DN	0.49	1/1132 (0.1%)	1.14	9/1527 (0.6%)
35	BO	0.95	0/943	1.07	3/1269 (0.2%)
35	DO	1.15	1/943 (0.1%)	1.12	8/1269 (0.6%)
36	BP	0.61	0/1131	1.27	15/1504 (1.0%)
36	DP	0.59	0/1131	1.27	19/1504 (1.3%)
37	BQ	0.51	0/1143	1.10	6/1527 (0.4%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
37	DQ	0.51	0/1143	1.09	4/1527 (0.3%)
38	BR	0.52	0/974	1.09	12/1302 (0.9%)
38	DR	0.53	0/974	1.09	12/1302 (0.9%)
39	BS	0.49	0/779	1.03	5/1038 (0.5%)
39	DS	0.46	0/779	1.02	5/1038 (0.5%)
40	BT	0.81	0/1156	0.99	6/1544 (0.4%)
40	DT	0.91	0/1156	1.10	8/1544 (0.5%)
41	BU	0.49	0/975	1.18	10/1297 (0.8%)
41	DU	0.49	0/975	1.18	10/1297 (0.8%)
42	BV	0.49	0/790	0.95	1/1057 (0.1%)
42	DV	0.50	0/790	0.97	3/1057 (0.3%)
43	BW	0.56	0/907	1.04	2/1216 (0.2%)
43	DW	0.56	0/907	1.04	2/1216 (0.2%)
44	BX	0.61	1/740 (0.1%)	1.04	4/995 (0.4%)
44	DX	0.61	1/740 (0.1%)	1.05	4/995 (0.4%)
45	BY	0.66	1/789 (0.1%)	1.23	9/1053 (0.9%)
45	DY	0.61	0/789	1.16	5/1053 (0.5%)
46	BZ	0.49	0/1436	1.01	12/1951 (0.6%)
46	DZ	0.49	0/1436	1.01	11/1951 (0.6%)
47	B0	0.45	0/671	1.01	4/892 (0.4%)
47	D0	0.46	0/671	1.01	4/892 (0.4%)
48	B1	0.62	1/739 (0.1%)	1.21	5/983 (0.5%)
48	D1	0.61	1/739 (0.1%)	1.21	5/983 (0.5%)
49	B2	0.57	0/600	1.04	4/793 (0.5%)
49	D2	0.57	0/600	1.10	6/793 (0.8%)
50	B3	0.53	1/473 (0.2%)	1.16	6/636 (0.9%)
50	D3	0.53	1/473 (0.2%)	1.16	7/636 (1.1%)
51	B4	0.61	1/229 (0.4%)	1.12	4/311 (1.3%)
51	D4	0.61	1/229 (0.4%)	1.12	4/311 (1.3%)
52	B5	0.50	0/473	1.06	2/639 (0.3%)
52	D5	0.50	0/473	1.06	2/639 (0.3%)
53	B6	0.71	1/388 (0.3%)	0.93	2/520 (0.4%)
53	D6	0.72	1/388 (0.3%)	0.93	2/520 (0.4%)
54	B7	0.74	1/427 (0.2%)	1.15	4/563 (0.7%)
54	D7	0.74	1/427 (0.2%)	1.15	4/563 (0.7%)
55	B8	0.66	1/516 (0.2%)	1.24	8/681 (1.2%)
55	D8	0.66	1/516 (0.2%)	1.24	7/681 (1.0%)
56	B9	0.42	0/302	0.94	1/397 (0.3%)
56	D9	0.42	0/302	0.94	1/397 (0.3%)
All	All	0.45	50/317064 (0.0%)	0.78	751/474017 (0.2%)

All (50) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
30	BF	207	GLY	C-N	-6.13	1.24	1.33
30	DF	207	GLY	C-N	-6.10	1.24	1.33
2	AB	240	GLN	C-N	-5.96	1.25	1.33
3	CC	207	VAL	C-N	-5.94	1.25	1.33
17	AQ	100	LYS	C-N	-5.87	1.25	1.33
23	AV	1	C	OP3-P	5.83	1.60	1.48
34	BN	138	LEU	C-N	-5.80	1.25	1.33
17	CQ	100	LYS	C-N	-5.79	1.25	1.33
32	DH	170	ARG	C-N	-5.79	1.25	1.33
13	AM	125	ARG	C-N	-5.79	1.25	1.33
23	CV	1	C	OP3-P	5.78	1.60	1.48
20	CT	50	GLU	C-N	5.78	1.42	1.33
55	D8	64	TYR	C-N	-5.75	1.25	1.33
5	CE	154	GLY	C-N	-5.75	1.25	1.33
55	B8	64	TYR	C-N	-5.74	1.25	1.33
16	AP	83	GLU	C-N	-5.72	1.25	1.33
32	BH	170	ARG	C-N	-5.70	1.25	1.33
53	D6	52	VAL	C-N	-5.70	1.25	1.33
29	BE	204	ALA	C-N	-5.68	1.25	1.33
10	AJ	100	THR	C-N	-5.68	1.25	1.33
16	CP	83	GLU	C-N	-5.66	1.25	1.33
54	B7	48	LYS	C-N	-5.66	1.25	1.33
53	B6	52	VAL	C-N	-5.64	1.25	1.33
29	DE	204	ALA	C-N	-5.63	1.25	1.33
34	DN	138	LEU	C-N	-5.63	1.25	1.33
54	D7	48	LYS	C-N	-5.62	1.25	1.33
2	CB	240	GLN	C-N	-5.61	1.25	1.33
45	BY	101	LYS	C-N	-5.59	1.25	1.33
51	D4	65	CYS	C-N	-5.59	1.25	1.33
3	AC	207	VAL	C-N	-5.58	1.25	1.33
27	DC	223	ARG	C-N	-5.57	1.25	1.33
27	BC	223	ARG	C-N	-5.57	1.25	1.33
51	B4	65	CYS	C-N	-5.56	1.25	1.33
19	CS	81	ARG	C-N	-5.54	1.25	1.33
10	CJ	100	THR	C-N	-5.54	1.25	1.33
50	B3	59	VAL	C-N	-5.49	1.25	1.33
12	CL	128	ALA	C-N	-5.48	1.25	1.33
5	AE	154	GLY	C-N	-5.47	1.25	1.33
50	D3	59	VAL	C-N	-5.44	1.25	1.33
33	DI	145	VAL	C-N	-5.42	1.25	1.33
13	CM	125	ARG	C-N	-5.41	1.25	1.33
19	AS	81	ARG	C-N	-5.33	1.25	1.33
44	BX	94	GLY	C-N	-5.28	1.25	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
12	AL	28	LYS	C-N	5.28	1.41	1.33
25	BA	271(U)	G	O3'-P	5.17	1.67	1.61
44	DX	94	GLY	C-N	-5.14	1.26	1.33
25	DA	271(U)	G	O3'-P	5.13	1.67	1.61
48	B1	95	LEU	C-N	-5.12	1.26	1.33
48	D1	95	LEU	C-N	-5.12	1.26	1.33
35	DO	40	VAL	CA-CB	-5.09	1.47	1.54

All (751) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	BH	157	TYR	N-CA-C	-13.09	96.89	112.86
32	DH	157	TYR	N-CA-C	-13.04	96.95	112.86
28	DD	212	SER	N-CA-C	-12.27	97.67	112.89
28	BD	212	SER	N-CA-C	-12.26	97.69	112.89
31	DG	54	GLU	N-CA-C	-11.79	99.00	113.50
31	BG	54	GLU	N-CA-C	-11.69	99.12	113.50
41	BU	97	ASP	N-CA-C	-11.27	99.78	113.19
41	DU	97	ASP	N-CA-C	-11.25	99.80	113.19
37	BQ	27	VAL	N-CA-C	10.77	121.67	110.36
37	DQ	27	VAL	N-CA-C	10.75	121.65	110.36
36	DP	51	PHE	N-CA-C	10.65	124.59	110.53
12	AL	26	ALA	N-CA-C	-10.38	100.64	113.20
12	CL	26	ALA	N-CA-C	-10.37	100.81	113.15
45	DY	49	VAL	N-CA-C	-10.22	101.05	112.80
45	BY	49	VAL	N-CA-C	-10.20	101.07	112.80
41	DU	96	ALA	N-CA-C	-10.20	101.51	112.93
4	AD	12	CYS	N-CA-C	-10.19	98.70	111.75
41	BU	96	ALA	N-CA-C	-10.16	101.56	112.93
4	CD	12	CYS	N-CA-C	-10.10	98.82	111.75
41	DU	70	ARG	N-CA-C	-10.00	101.08	113.28
41	BU	70	ARG	N-CA-C	-9.97	101.12	113.28
40	DT	90	GLN	N-CA-C	-9.84	95.13	109.59
36	BP	50	ARG	N-CA-C	9.73	121.89	111.28
1	CA	1239	G	C2'-C3'-O3'	-9.68	99.18	113.70
28	DD	14	ARG	N-CA-C	-9.56	101.29	113.72
28	BD	14	ARG	N-CA-C	-9.53	101.34	113.72
25	BA	1779	U	C2'-C3'-O3'	-9.47	99.49	113.70
25	DA	1779	U	C2'-C3'-O3'	-9.46	99.51	113.70
9	CI	105	ASP	N-CA-C	-9.45	98.35	111.39
20	AT	12	ALA	N-CA-C	-9.30	101.44	113.17
39	BS	16	ASN	N-CA-C	-9.04	102.16	113.01

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
39	DS	16	ASN	N-CA-C	-8.99	102.23	113.01
36	BP	51	PHE	N-CA-C	8.97	122.37	110.53
25	DA	2225	A	C2'-C3'-O3'	8.97	122.96	109.50
25	BA	2225	A	C2'-C3'-O3'	8.96	122.94	109.50
20	CT	12	ALA	N-CA-C	-8.96	101.88	113.17
7	AG	49	ILE	N-CA-C	-8.87	104.83	113.53
31	BG	88	ILE	N-CA-C	8.86	121.91	108.71
52	B5	4	HIS	CA-C-N	-8.83	110.93	119.76
52	B5	4	HIS	C-N-CA	-8.83	110.93	119.76
31	DG	88	ILE	N-CA-C	8.81	121.84	108.71
52	D5	4	HIS	CA-C-N	-8.81	110.95	119.76
52	D5	4	HIS	C-N-CA	-8.81	110.95	119.76
40	DT	37	GLY	N-CA-C	-8.78	102.32	115.32
18	CR	70	ILE	N-CA-C	-8.75	101.81	110.30
29	BE	168	MET	N-CA-C	8.68	121.09	108.86
25	DA	387	U	C2'-C3'-O3'	8.68	122.51	109.50
13	AM	92	HIS	N-CA-C	-8.66	101.92	111.36
25	BA	387	U	C2'-C3'-O3'	8.65	122.48	109.50
56	D9	12	ASP	N-CA-C	-8.61	103.20	114.31
56	B9	12	ASP	N-CA-C	-8.61	103.21	114.31
18	AR	32	ARG	N-CA-C	-8.60	103.37	114.04
29	DE	168	MET	N-CA-C	8.57	120.94	108.86
13	CM	92	HIS	N-CA-C	-8.53	102.06	111.36
18	CR	32	ARG	N-CA-C	-8.53	103.46	114.04
30	DF	163	VAL	N-CA-C	-8.52	100.44	111.09
30	BF	163	VAL	N-CA-C	-8.48	100.49	111.09
18	AR	70	ILE	N-CA-C	-8.46	102.09	110.30
29	BE	58	ARG	N-CA-C	-8.43	103.49	112.93
20	CT	60	GLU	N-CA-C	-8.39	102.06	111.71
29	DE	58	ARG	N-CA-C	-8.38	103.54	112.93
29	DE	65	GLY	N-CA-C	-8.38	101.03	115.61
29	BE	65	GLY	N-CA-C	-8.37	101.04	115.61
38	DR	6	SER	N-CA-C	8.36	121.60	109.14
33	DI	53	ALA	N-CA-C	8.36	120.01	111.07
38	BR	6	SER	N-CA-C	8.36	121.59	109.14
3	AC	88	ARG	N-CA-C	-8.34	101.08	111.75
7	CG	49	ILE	N-CA-C	-8.31	105.38	113.53
2	AB	24	TRP	N-CA-C	8.29	116.70	108.75
9	AI	105	ASP	N-CA-C	-8.20	100.08	111.39
25	BA	1378	A	C2'-C3'-O3'	8.16	121.74	109.50
3	CC	88	ARG	N-CA-C	-8.15	101.31	111.75
25	DA	1378	A	C2'-C3'-O3'	8.15	121.72	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	BT	37	GLY	N-CA-C	-7.98	104.51	114.16
41	BU	34	LYS	N-CA-C	-7.95	102.69	111.36
41	DU	34	LYS	N-CA-C	-7.95	102.69	111.36
2	CB	24	TRP	N-CA-C	7.95	116.38	108.75
19	AS	9	VAL	N-CA-C	-7.93	98.42	108.89
13	AM	118	ALA	N-CA-C	7.92	120.75	110.53
25	DA	1558	A	C2'-C3'-O3'	7.88	121.32	109.50
25	BA	1558	A	C2'-C3'-O3'	7.88	121.31	109.50
33	DI	135	GLU	N-CA-C	7.86	123.16	109.96
36	DP	53	GLY	N-CA-C	-7.85	104.39	115.30
33	BI	135	GLU	N-CA-C	7.83	123.11	109.96
55	B8	60	LEU	N-CA-C	-7.83	100.79	110.65
55	D8	60	LEU	N-CA-C	-7.79	100.83	110.65
13	AM	66	LEU	N-CA-C	7.69	119.83	108.60
2	AB	225	ALA	N-CA-C	-7.68	104.83	112.97
2	CB	225	ALA	N-CA-C	-7.67	104.84	112.97
28	BD	53	PHE	N-CA-C	7.64	122.19	112.86
28	DD	53	PHE	N-CA-C	7.59	122.12	112.86
20	AT	72	LEU	N-CA-C	-7.59	99.25	110.48
1	CA	262	C	C2'-C3'-O3'	-7.58	102.33	113.70
12	CL	118	SER	N-CA-C	-7.58	103.02	111.28
32	DH	65	HIS	N-CA-C	-7.58	102.90	113.20
32	BH	65	HIS	N-CA-C	-7.50	103.00	113.20
29	BE	125	GLY	CA-C-N	7.49	127.42	119.85
29	BE	125	GLY	C-N-CA	7.49	127.42	119.85
13	CM	37	THR	N-CA-C	-7.46	104.78	114.04
35	DO	51	ALA	N-CA-C	-7.43	103.68	112.89
34	DN	67	LEU	N-CA-C	-7.42	96.81	108.90
30	BF	162	LEU	N-CA-C	-7.42	104.08	113.43
30	DF	162	LEU	N-CA-C	-7.41	104.10	113.43
29	DE	125	GLY	CA-C-N	7.38	127.31	119.85
29	DE	125	GLY	C-N-CA	7.38	127.31	119.85
34	BN	67	LEU	N-CA-C	-7.38	96.87	108.90
40	BT	130	ALA	N-CA-C	-7.38	101.46	111.87
13	CM	50	GLU	N-CA-C	-7.33	103.60	112.54
13	AM	50	GLU	N-CA-C	-7.33	103.60	112.54
13	CM	118	ALA	N-CA-C	7.32	121.21	110.59
45	DY	13	VAL	N-CA-C	7.32	117.46	108.53
36	DP	104	GLY	N-CA-C	7.30	122.70	114.67
45	BY	13	VAL	N-CA-C	7.30	117.44	108.53
27	BC	181	PRO	N-CA-CB	7.29	110.16	103.08
25	BA	1378	A	C4'-C3'-O3'	7.29	120.33	109.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	DC	181	PRO	N-CA-CB	7.28	110.14	103.08
28	DD	19	ALA	N-CA-C	7.28	120.25	110.35
28	BD	19	ALA	N-CA-C	7.28	120.25	110.35
20	CT	72	LEU	N-CA-C	-7.27	99.72	110.48
3	AC	19	GLU	N-CA-C	-7.26	104.44	112.72
36	BP	104	GLY	N-CA-C	7.26	122.65	114.67
25	DA	1378	A	C4'-C3'-O3'	7.25	120.27	109.40
3	CC	19	GLU	N-CA-C	-7.23	104.47	112.72
12	AL	119	LYS	N-CA-C	-7.23	100.79	110.55
27	DC	99	ILE	N-CA-C	-7.20	105.70	112.83
27	BC	99	ILE	N-CA-C	-7.20	105.71	112.83
4	AD	11	LEU	N-CA-C	-7.18	104.67	113.50
4	CD	11	LEU	N-CA-C	-7.16	104.69	113.50
18	AR	25	THR	N-CA-C	-7.15	102.36	113.02
49	D2	41	ILE	N-CA-C	-7.15	103.70	113.00
12	CL	119	LYS	N-CA-C	-7.15	100.90	110.55
25	BA	2116	G	C2'-C3'-O3'	7.14	120.22	109.50
25	DA	2116	G	C2'-C3'-O3'	7.13	120.20	109.50
13	AM	37	THR	N-CA-C	-7.12	105.21	114.04
11	AK	127	LYS	N-CA-C	-7.12	105.03	113.21
48	B1	4	VAL	N-CA-C	7.11	118.97	108.45
34	DN	25	ARG	N-CA-C	-7.10	103.88	112.54
33	DI	48	GLU	N-CA-C	-7.10	103.54	111.28
46	DZ	18	LEU	N-CA-C	-7.09	103.48	111.07
34	BN	25	ARG	N-CA-C	-7.08	103.90	112.54
48	D1	4	VAL	N-CA-C	7.08	118.92	108.45
46	BZ	18	LEU	N-CA-C	-7.07	103.51	111.07
16	AP	20	VAL	N-CA-C	7.06	118.52	108.42
38	BR	4	LEU	N-CA-C	7.06	124.44	113.72
1	AA	261	G	O3'-P-O5'	7.04	114.56	104.00
38	DR	4	LEU	N-CA-C	7.01	124.38	113.72
48	D1	5	CYS	N-CA-C	7.01	119.89	109.59
48	B1	5	CYS	N-CA-C	7.01	119.89	109.59
2	CB	200	ILE	N-CA-C	7.00	118.67	108.58
13	AM	82	MET	N-CA-C	-7.00	104.74	112.72
30	BF	6	VAL	N-CA-C	7.00	119.00	107.24
32	BH	156	ALA	N-CA-C	-6.98	95.93	110.80
30	DF	6	VAL	N-CA-C	6.98	118.97	107.24
32	DH	156	ALA	N-CA-C	-6.97	95.95	110.80
11	CK	127	LYS	N-CA-C	-6.97	105.20	113.21
54	B7	6	GLN	CA-C-N	6.96	127.38	119.93
54	B7	6	GLN	C-N-CA	6.96	127.38	119.93

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
50	D3	11	SER	CA-C-N	6.95	127.55	120.04
50	D3	11	SER	C-N-CA	6.95	127.55	120.04
54	D7	6	GLN	CA-C-N	6.95	127.36	119.93
54	D7	6	GLN	C-N-CA	6.95	127.36	119.93
3	CC	130	VAL	N-CA-C	6.95	117.09	110.42
42	DV	51	VAL	N-CA-C	6.93	117.62	107.37
46	DZ	96	VAL	N-CA-C	6.93	119.01	109.80
2	AB	200	ILE	N-CA-C	6.92	118.54	108.58
16	AP	79	VAL	N-CA-C	-6.92	106.04	112.96
46	DZ	157	LEU	CA-C-N	6.91	127.50	120.38
46	DZ	157	LEU	C-N-CA	6.91	127.50	120.38
50	B3	11	SER	CA-C-N	6.91	127.50	120.04
50	B3	11	SER	C-N-CA	6.91	127.50	120.04
32	BH	69	ARG	N-CA-C	-6.90	104.59	112.87
46	BZ	96	VAL	N-CA-C	6.89	117.56	110.05
30	BF	186	ILE	N-CA-C	-6.88	103.81	110.42
54	B7	3	ARG	N-CA-C	6.88	119.41	110.53
45	DY	7	VAL	N-CA-C	6.87	123.64	109.34
45	BY	17	SER	N-CA-C	6.87	118.42	111.07
28	BD	100	GLY	N-CA-C	-6.87	105.72	114.37
41	DU	27	LEU	N-CA-C	-6.87	104.89	113.20
16	CP	20	VAL	N-CA-C	6.86	118.24	108.42
18	CR	25	THR	N-CA-C	-6.86	102.79	113.02
45	BY	7	VAL	N-CA-C	6.86	123.61	109.34
40	BT	13	ARG	N-CA-C	-6.84	105.08	113.50
55	B8	38	GLY	N-CA-C	-6.84	104.28	113.24
41	BU	27	LEU	N-CA-C	-6.84	104.93	113.20
54	D7	3	ARG	N-CA-C	6.83	119.34	110.53
55	D8	38	GLY	N-CA-C	-6.83	104.30	113.24
13	AM	65	LYS	N-CA-C	6.83	120.10	109.52
30	DF	186	ILE	N-CA-C	-6.83	103.87	110.42
32	DH	69	ARG	N-CA-C	-6.82	104.68	112.87
16	CP	79	VAL	N-CA-C	-6.82	106.14	112.96
53	D6	45	LYS	N-CA-C	6.80	120.09	110.23
19	AS	10	PHE	N-CA-C	-6.79	104.87	113.02
53	B6	45	LYS	N-CA-C	6.79	120.08	110.23
28	DD	100	GLY	N-CA-C	-6.79	105.81	114.37
4	CD	198	VAL	N-CA-C	6.78	118.07	108.17
4	AD	198	VAL	N-CA-C	6.78	118.06	108.17
46	BZ	157	LEU	CA-C-N	6.78	127.36	120.38
46	BZ	157	LEU	C-N-CA	6.78	127.36	120.38
41	DU	69	CYS	N-CA-C	-6.77	104.77	113.16

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	CT	51	GLU	N-CA-C	-6.76	103.37	111.69
41	BU	69	CYS	N-CA-C	-6.76	104.78	113.16
20	AT	27	LYS	N-CA-C	-6.72	103.95	111.28
25	BA	474	G	C2'-C3'-O3'	6.72	119.58	109.50
18	CR	81	PHE	N-CA-C	-6.70	104.99	113.43
25	DA	474	G	C2'-C3'-O3'	6.67	119.51	109.50
40	DT	125	ARG	N-CA-C	-6.66	104.91	113.16
12	AL	28	LYS	N-CA-C	-6.65	104.75	112.86
38	BR	70	LEU	N-CA-C	-6.63	98.42	108.96
43	DW	96	ILE	N-CA-C	-6.62	102.73	110.21
43	BW	96	ILE	N-CA-C	-6.62	102.73	110.21
13	CM	82	MET	N-CA-C	-6.62	105.52	112.93
16	CP	77	ALA	N-CA-C	-6.59	103.85	112.41
50	B3	44	ARG	N-CA-C	-6.59	102.56	112.04
3	AC	130	VAL	N-CA-C	6.58	116.74	110.42
19	CS	58	VAL	N-CA-C	6.58	115.14	107.77
38	DR	57	ARG	N-CA-C	-6.58	101.81	110.43
16	AP	77	ALA	N-CA-C	-6.58	103.86	112.41
51	B4	57	ILE	N-CA-C	6.58	116.35	106.42
50	D3	44	ARG	N-CA-C	-6.56	102.59	112.04
36	BP	16	ARG	N-CA-C	-6.56	105.17	113.43
36	DP	16	ARG	N-CA-C	-6.54	105.18	113.43
51	D4	57	ILE	N-CA-C	6.54	116.30	106.42
38	DR	70	LEU	N-CA-C	-6.54	98.57	108.96
25	DA	1427	A	C2'-C3'-O3'	6.53	119.29	109.50
40	DT	130	ALA	N-CA-C	-6.52	104.64	112.59
2	AB	24	TRP	CA-C-O	6.52	122.44	118.33
11	AK	38	ASN	CA-C-N	6.51	127.98	119.84
11	AK	38	ASN	C-N-CA	6.51	127.98	119.84
38	BR	57	ARG	N-CA-C	-6.51	101.90	110.43
20	CT	75	ASN	N-CA-C	-6.51	105.34	113.28
34	BN	71	ILE	N-CA-C	6.50	117.48	108.12
25	BA	1427	A	C2'-C3'-O3'	6.50	119.25	109.50
34	DN	71	ILE	N-CA-C	6.50	117.48	108.12
20	AT	75	ASN	N-CA-C	-6.49	105.36	113.28
30	DF	83	PHE	N-CA-C	6.49	122.08	112.94
33	BI	61	ARG	N-CA-C	-6.48	105.36	113.20
13	CM	116	THR	CB-CA-C	-6.48	109.11	116.63
33	DI	61	ARG	N-CA-C	-6.48	105.36	113.20
30	BF	59	TYR	N-CA-C	6.47	119.00	109.69
31	DG	87	PRO	N-CA-C	6.45	125.76	112.47
36	DP	15	ARG	N-CA-C	6.45	121.17	107.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1210	A	C2'-C3'-O3'	6.44	119.17	109.50
31	BG	87	PRO	N-CA-C	6.44	125.73	112.47
30	DF	59	TYR	N-CA-C	6.44	118.96	109.69
11	CK	38	ASN	CA-C-N	6.44	127.89	119.84
11	CK	38	ASN	C-N-CA	6.44	127.89	119.84
36	BP	15	ARG	N-CA-C	6.43	121.15	107.70
27	BC	174	PRO	N-CA-CB	6.43	110.00	103.25
30	BF	38	ARG	N-CA-C	-6.42	104.20	111.07
7	CG	145	ALA	N-CA-C	-6.42	101.88	110.55
30	BF	83	PHE	N-CA-C	6.41	121.98	112.94
31	BG	178	PHE	CA-C-N	6.41	127.85	119.84
31	BG	178	PHE	C-N-CA	6.41	127.85	119.84
18	AR	81	PHE	N-CA-C	-6.40	105.37	113.43
19	AS	58	VAL	N-CA-C	6.40	114.94	107.77
31	DG	178	PHE	CA-C-N	6.39	127.83	119.84
31	DG	178	PHE	C-N-CA	6.39	127.83	119.84
25	DA	1210	A	C2'-C3'-O3'	6.38	119.07	109.50
27	DC	174	PRO	N-CA-CB	6.38	109.95	103.25
20	CT	27	LYS	N-CA-C	-6.38	104.33	111.28
5	AE	127	ASN	CA-C-N	6.37	127.80	119.84
5	AE	127	ASN	C-N-CA	6.37	127.80	119.84
28	BD	148	GLU	N-CA-C	-6.37	101.29	110.40
28	DD	148	GLU	N-CA-C	-6.37	101.29	110.40
27	DC	220	PRO	N-CA-CB	6.36	109.93	103.25
25	DA	1300	U	C2'-C3'-O3'	6.36	119.04	109.50
27	DC	140	PRO	N-CA-CB	6.35	109.92	103.25
30	DF	38	ARG	N-CA-C	-6.34	104.28	111.07
30	DF	70	THR	N-CA-C	-6.34	106.13	114.31
46	BZ	84	GLU	N-CA-C	6.34	119.14	111.40
27	BC	182	PRO	N-CA-CB	6.33	109.89	103.25
30	BF	58	ALA	N-CA-C	6.33	124.27	110.80
27	BC	140	PRO	N-CA-CB	6.32	109.89	103.25
49	B2	45	SER	N-CA-C	6.32	118.68	109.07
25	BA	1300	U	C2'-C3'-O3'	6.32	118.97	109.50
46	DZ	84	GLU	N-CA-C	6.31	119.10	111.40
27	DC	182	PRO	N-CA-CB	6.30	109.87	103.25
30	BF	70	THR	N-CA-C	-6.29	106.19	114.31
30	DF	58	ALA	N-CA-C	6.29	124.20	110.80
33	DI	68	LEU	N-CA-C	-6.29	103.25	113.19
28	BD	38	LYS	N-CA-C	-6.27	100.76	110.10
37	DQ	125	LEU	CA-C-N	6.27	127.22	120.83
37	DQ	125	LEU	C-N-CA	6.27	127.22	120.83

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
28	DD	38	LYS	N-CA-C	-6.26	100.77	110.10
29	DE	119	ARG	N-CA-C	-6.26	105.50	113.01
36	BP	54	GLY	N-CA-C	-6.25	106.31	115.63
27	BC	220	PRO	N-CA-CB	6.25	109.81	103.25
27	BC	201	PRO	N-CA-CB	6.25	109.81	103.25
55	B8	54	GLU	N-CA-C	-6.25	104.76	112.38
44	DX	47	PHE	N-CA-C	-6.25	104.82	112.88
7	AG	145	ALA	N-CA-C	-6.24	102.12	110.55
44	BX	47	PHE	N-CA-C	-6.24	104.83	112.88
55	D8	54	GLU	N-CA-C	-6.23	104.77	112.38
29	DE	132	HIS	N-CA-C	-6.23	99.86	109.52
5	AE	26	PHE	N-CA-C	6.23	120.01	110.36
26	DB	40	U	C4'-C3'-O3'	-6.22	103.67	113.00
45	BY	52	SER	CA-C-N	6.22	127.61	119.84
45	BY	52	SER	C-N-CA	6.22	127.61	119.84
26	BB	40	U	C4'-C3'-O3'	-6.22	103.67	113.00
29	BE	92	THR	N-CA-C	6.21	118.21	108.96
55	D8	45	GLY	N-CA-C	-6.21	103.81	112.13
33	BI	68	LEU	N-CA-C	-6.21	103.39	113.19
20	AT	77	ALA	N-CA-C	-6.20	104.44	111.14
25	BA	332	A	C2'-C3'-O3'	6.20	118.79	109.50
39	DS	19	LYS	N-CA-C	-6.20	103.02	112.99
38	BR	54	LEU	N-CA-C	-6.19	105.21	112.89
55	B8	45	GLY	N-CA-C	-6.19	103.83	112.13
30	BF	201	VAL	N-CA-C	-6.19	104.47	110.72
12	CL	38	THR	N-CA-C	-6.18	106.37	114.04
25	DA	332	A	C2'-C3'-O3'	6.18	118.77	109.50
27	DC	185	LEU	N-CA-C	-6.18	105.67	112.72
27	DC	201	PRO	N-CA-CB	6.18	109.74	103.25
29	DE	92	THR	N-CA-C	6.17	118.16	108.96
38	DR	54	LEU	N-CA-C	-6.17	105.24	112.89
29	BE	119	ARG	N-CA-C	-6.16	105.61	113.01
36	BP	46	LYS	N-CA-C	6.16	117.66	111.07
17	AQ	13	ASP	N-CA-C	-6.15	104.17	113.89
39	BS	19	LYS	N-CA-C	-6.15	103.09	112.99
36	DP	46	LYS	N-CA-C	6.15	117.65	111.07
20	AT	60	GLU	N-CA-C	-6.15	105.50	112.87
35	DO	69	ILE	CB-CA-C	-6.14	103.10	111.33
37	BQ	125	LEU	CA-C-N	6.12	127.07	120.83
37	BQ	125	LEU	C-N-CA	6.12	127.07	120.83
33	BI	47	LEU	CA-C-N	6.12	128.98	120.29
33	BI	47	LEU	C-N-CA	6.12	128.98	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	BU	28	ARG	N-CA-C	-6.12	105.08	112.54
25	BA	784	A	C2'-C3'-O3'	-6.10	104.55	113.70
27	BC	185	LEU	N-CA-C	-6.10	105.77	112.72
5	CE	26	PHE	N-CA-C	6.10	119.81	110.36
47	B0	67	VAL	N-CA-C	6.09	116.94	108.89
35	BO	47	ILE	CA-C-N	6.08	127.45	119.84
35	BO	47	ILE	C-N-CA	6.08	127.45	119.84
25	BA	2689	U	C2'-C3'-O3'	6.08	118.62	109.50
46	BZ	81	ARG	N-CA-C	6.08	123.76	110.80
25	DA	784	A	C2'-C3'-O3'	-6.08	104.58	113.70
26	DB	40	U	N1-C1'-C2'	6.08	121.12	112.00
26	BB	40	U	N1-C1'-C2'	6.07	121.11	112.00
30	DF	201	VAL	N-CA-C	-6.07	104.59	110.72
1	AA	1036	C	N1-C1'-C2'	6.06	121.09	112.00
47	D0	67	VAL	N-CA-C	6.06	116.89	108.89
25	DA	2689	U	C2'-C3'-O3'	6.06	118.58	109.50
12	AL	38	THR	N-CA-C	-6.04	106.54	114.04
28	DD	136	ILE	CA-C-N	6.04	126.98	119.98
28	DD	136	ILE	C-N-CA	6.04	126.98	119.98
33	BI	47	LEU	O-C-N	6.04	128.61	122.09
28	BD	136	ILE	CA-C-N	6.02	126.97	119.98
28	BD	136	ILE	C-N-CA	6.02	126.97	119.98
41	DU	28	ARG	N-CA-C	-6.02	105.19	112.54
46	DZ	81	ARG	N-CA-C	6.02	123.62	110.80
55	B8	29	LYS	N-CA-C	6.01	119.77	111.71
36	DP	135	LEU	N-CA-C	-6.01	104.81	111.36
5	CE	127	ASN	CA-C-N	6.00	127.34	119.84
5	CE	127	ASN	C-N-CA	6.00	127.34	119.84
2	CB	24	TRP	CA-C-O	6.00	122.11	118.33
4	AD	208	SER	N-CA-C	-5.99	98.05	110.80
55	D8	29	LYS	N-CA-C	5.99	119.73	111.71
11	AK	40	ILE	N-CA-C	-5.97	106.42	111.56
27	BC	133	PRO	N-CA-CB	5.97	109.52	103.25
36	BP	135	LEU	N-CA-C	-5.97	104.86	111.36
28	BD	210	GLY	N-CA-C	-5.96	102.26	111.98
28	DD	210	GLY	N-CA-C	-5.95	102.29	111.98
20	CT	77	ALA	N-CA-C	-5.95	104.72	111.14
18	AR	60	ALA	N-CA-C	-5.94	104.81	111.28
36	DP	55	ARG	CB-CA-C	-5.93	109.75	116.63
55	B8	32	LEU	N-CA-C	-5.93	104.16	111.33
17	CQ	13	ASP	N-CA-C	-5.92	104.53	113.89
44	BX	29	TRP	N-CA-C	-5.92	99.49	108.67

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
44	DX	29	TRP	N-CA-C	-5.91	99.51	108.67
55	D8	32	LEU	N-CA-C	-5.91	104.18	111.33
12	CL	72	GLY	N-CA-C	5.91	119.26	111.70
25	DA	272(B)	G	P-O3'-C3'	-5.90	112.62	119.70
36	DP	57	THR	CB-CA-C	-5.90	109.76	116.54
44	DX	13	LEU	N-CA-C	5.90	119.24	111.28
15	CO	38	ARG	N-CA-C	-5.89	103.64	111.24
11	CK	40	ILE	N-CA-C	-5.89	106.49	111.56
25	BA	221	A	C2'-C3'-O3'	5.88	118.33	109.50
32	DH	152	ARG	N-CA-C	5.88	117.19	107.20
18	CR	60	ALA	N-CA-C	-5.87	104.88	111.28
29	BE	38	THR	CA-C-N	5.87	127.18	119.84
29	BE	38	THR	C-N-CA	5.87	127.18	119.84
21	AU	13	ILE	CB-CA-C	-5.86	104.38	111.88
25	DA	221	A	C2'-C3'-O3'	5.86	118.29	109.50
29	DE	38	THR	CA-C-N	5.85	127.15	119.84
29	DE	38	THR	C-N-CA	5.85	127.15	119.84
27	DC	133	PRO	N-CA-CB	5.85	109.39	103.25
25	DA	2117	A	N9-C1'-C2'	5.85	120.77	112.00
36	DP	128	HIS	N-CA-C	-5.84	105.47	113.30
32	BH	152	ARG	N-CA-C	5.83	117.11	107.20
44	BX	13	LEU	N-CA-C	5.83	119.15	111.28
25	BA	2117	A	N9-C1'-C2'	5.82	120.72	112.00
31	BG	173	LEU	N-CA-C	5.82	117.31	110.97
40	DT	126	ALA	N-CA-C	-5.80	106.16	113.18
15	AO	38	ARG	N-CA-C	-5.80	103.76	111.24
2	CB	80	ILE	N-CA-C	5.80	117.23	110.62
13	CM	84	ILE	N-CA-C	-5.78	105.48	113.00
34	BN	39	ARG	CA-C-N	5.78	127.06	119.84
34	BN	39	ARG	C-N-CA	5.78	127.06	119.84
36	BP	128	HIS	N-CA-C	-5.78	105.56	113.30
4	CD	208	SER	N-CA-C	-5.75	98.54	110.80
36	DP	36	LYS	CB-CA-C	-5.75	109.96	116.63
7	AG	13	GLN	CA-C-N	5.75	127.03	119.84
7	AG	13	GLN	C-N-CA	5.75	127.03	119.84
31	DG	173	LEU	N-CA-C	5.75	117.24	110.97
2	CB	56	ARG	N-CA-C	-5.74	105.11	111.71
34	DN	39	ARG	CA-C-N	5.74	127.01	119.84
34	DN	39	ARG	C-N-CA	5.74	127.01	119.84
2	AB	24	TRP	CB-CA-C	-5.73	108.10	116.53
46	DZ	129	SER	CA-C-N	5.73	127.00	119.84
46	DZ	129	SER	C-N-CA	5.73	127.00	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	AG	149	ARG	N-CA-C	-5.72	106.00	112.87
43	BW	103	ILE	N-CA-C	5.72	116.62	107.98
2	CB	24	TRP	CB-CA-C	-5.72	108.12	116.53
12	AL	72	GLY	N-CA-C	5.72	119.02	111.70
39	DS	106	ARG	N-CA-C	-5.72	106.06	113.16
46	BZ	135	GLU	N-CA-C	-5.72	106.65	113.97
25	DA	74	A	C2'-C3'-O3'	5.72	118.08	109.50
41	DU	50	ARG	N-CA-C	-5.71	105.13	111.36
35	DO	29	ASN	N-CA-C	-5.71	101.59	110.10
39	BS	106	ARG	N-CA-C	-5.71	106.08	113.16
25	BA	74	A	C2'-C3'-O3'	5.70	118.05	109.50
5	CE	120	THR	N-CA-C	5.70	117.94	108.99
20	CT	93	GLU	N-CA-C	-5.69	104.91	112.94
32	BH	155	SER	N-CA-C	5.69	122.91	110.80
14	AN	53	LEU	CA-C-N	5.69	126.01	119.93
14	AN	53	LEU	C-N-CA	5.69	126.01	119.93
13	CM	70	LEU	N-CA-C	5.68	117.56	111.36
25	DA	2827	C	C5'-C4'-C3'	-5.68	107.48	116.00
25	DA	2557	G	C5'-C4'-C3'	-5.67	107.49	116.00
32	DH	155	SER	N-CA-C	5.67	122.89	110.80
43	DW	103	ILE	N-CA-C	5.67	116.55	107.98
38	BR	8	ARG	N-CA-C	5.67	122.88	110.80
49	D2	45	SER	N-CA-C	5.67	117.47	108.79
38	DR	8	ARG	N-CA-C	5.67	122.87	110.80
27	DC	86	ALA	N-CA-C	-5.66	106.14	113.16
34	DN	78	TYR	N-CA-C	5.65	118.06	109.41
25	BA	2557	G	C5'-C4'-C3'	-5.65	107.52	116.00
3	AC	99	VAL	N-CA-C	5.65	114.74	106.55
3	CC	99	VAL	N-CA-C	5.65	114.74	106.55
20	AT	93	GLU	N-CA-C	-5.64	104.98	112.94
25	BA	2827	C	C5'-C4'-C3'	-5.64	107.53	116.00
38	BR	101	ALA	N-CA-C	-5.64	102.11	110.46
25	BA	1324	G	C2'-C3'-O3'	-5.64	101.04	109.50
25	BA	856	C	C2'-C3'-O3'	5.64	122.16	113.70
34	BN	78	TYR	N-CA-C	5.64	118.04	109.41
50	D3	43	ILE	N-CA-C	-5.64	108.35	113.71
48	B1	64	ALA	N-CA-C	-5.63	105.04	111.07
31	DG	169	ALA	N-CA-C	-5.63	106.08	113.12
11	AK	56	GLY	N-CA-C	-5.63	107.94	115.32
25	DA	1324	G	C2'-C3'-O3'	-5.63	101.05	109.50
41	BU	50	ARG	N-CA-C	-5.63	105.23	111.36
18	AR	86	VAL	N-CA-C	5.62	115.98	108.11

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	CD	50	ARG	CA-C-N	5.62	125.38	119.76
4	CD	50	ARG	C-N-CA	5.62	125.38	119.76
25	DA	856	C	C2'-C3'-O3'	5.62	122.13	113.70
46	BZ	129	SER	CA-C-N	5.61	126.86	119.84
46	BZ	129	SER	C-N-CA	5.61	126.86	119.84
2	CB	140	HIS	N-CA-C	-5.61	105.26	111.71
46	DZ	135	GLU	N-CA-C	-5.61	106.79	113.97
9	AI	91	ASP	N-CA-C	-5.61	106.57	113.41
38	DR	101	ALA	N-CA-C	-5.60	102.17	110.46
9	CI	91	ASP	N-CA-C	-5.59	106.59	113.41
29	DE	186	GLY	N-CA-C	5.58	126.41	113.18
19	AS	36	ARG	N-CA-C	-5.58	106.55	113.19
45	DY	8	LYS	N-CA-C	5.58	118.14	109.60
48	D1	64	ALA	N-CA-C	-5.58	105.10	111.07
2	AB	56	ARG	N-CA-C	-5.57	105.30	111.71
27	BC	86	ALA	N-CA-C	-5.57	106.25	113.16
29	BE	186	GLY	N-CA-C	5.57	126.38	113.18
31	BG	169	ALA	N-CA-C	-5.57	106.16	113.12
15	CO	78	TYR	N-CA-C	-5.57	104.11	111.96
36	DP	35	HIS	CB-CA-C	-5.57	110.17	116.63
11	CK	56	GLY	N-CA-C	-5.56	108.03	115.32
41	DU	40	PHE	N-CA-C	-5.56	105.37	111.82
2	AB	80	ILE	N-CA-C	5.56	116.96	110.62
29	DE	73	GLU	CA-C-N	5.56	126.03	120.14
29	DE	73	GLU	C-N-CA	5.56	126.03	120.14
3	CC	142	MET	N-CA-C	-5.56	105.62	112.90
45	BY	8	LYS	N-CA-C	5.55	118.10	109.60
28	BD	245	PRO	N-CA-C	-5.55	103.92	110.70
40	BT	11	GLU	N-CA-C	-5.55	104.45	111.11
5	CE	48	ALA	N-CA-C	5.55	113.21	108.22
13	AM	70	LEU	N-CA-C	5.54	117.40	111.36
50	B3	43	ILE	N-CA-C	-5.54	108.45	113.71
29	BE	73	GLU	CA-C-N	5.54	126.01	120.14
29	BE	73	GLU	C-N-CA	5.54	126.01	120.14
8	CH	101	PRO	N-CA-C	5.54	118.97	111.22
45	BY	56	PRO	N-CA-C	5.53	121.38	113.47
3	AC	35	GLU	N-CA-C	-5.52	105.34	111.36
19	CS	36	ARG	N-CA-C	-5.52	106.62	113.19
2	AB	140	HIS	N-CA-C	-5.52	105.26	111.28
30	DF	80	ALA	CA-C-N	5.52	125.23	119.82
30	DF	80	ALA	C-N-CA	5.52	125.23	119.82
25	BA	748	G	N9-C1'-C2'	5.52	120.28	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
50	B3	15	TYR	CA-C-N	5.52	126.74	119.84
50	B3	15	TYR	C-N-CA	5.52	126.74	119.84
25	BA	603	A	C2'-C3'-O3'	5.52	117.78	109.50
29	BE	52	LEU	C-N-CD	-5.51	102.41	125.00
25	DA	748	G	N9-C1'-C2'	5.51	120.27	112.00
35	DO	105	GLU	N-CA-C	-5.51	106.51	113.18
5	AE	32	VAL	N-CA-C	5.51	115.88	108.17
3	AC	142	MET	N-CA-C	-5.51	105.69	112.90
50	D3	15	TYR	CA-C-N	5.50	126.72	119.84
50	D3	15	TYR	C-N-CA	5.50	126.72	119.84
41	BU	40	PHE	N-CA-C	-5.50	105.36	111.36
2	AB	194	PRO	N-CA-C	5.50	123.80	112.47
13	AM	84	ILE	N-CA-C	-5.50	105.85	113.00
25	DA	603	A	C2'-C3'-O3'	5.50	117.75	109.50
9	CI	99	LEU	N-CA-C	-5.49	106.43	113.01
5	AE	120	THR	N-CA-C	5.48	117.59	108.99
12	CL	105	TYR	CB-CA-C	-5.47	110.28	116.63
38	DR	109	ALA	CA-C-N	5.47	125.64	119.90
38	DR	109	ALA	C-N-CA	5.47	125.64	119.90
19	CS	31	ILE	N-CA-C	5.47	116.34	106.61
36	DP	17	LYS	N-CA-C	5.47	122.45	110.80
30	BF	80	ALA	CA-C-N	5.47	125.18	119.82
30	BF	80	ALA	C-N-CA	5.47	125.18	119.82
48	B1	67	ILE	CB-CA-C	-5.47	108.56	114.35
9	AI	99	LEU	N-CA-C	-5.46	106.45	113.01
49	B2	39	ALA	N-CA-C	-5.46	105.43	111.71
12	AL	118	SER	N-CA-C	-5.46	104.56	111.11
48	B1	57	GLU	N-CA-C	5.45	119.99	113.23
48	D1	67	ILE	CB-CA-C	-5.45	108.57	114.35
5	CE	32	VAL	N-CA-C	5.45	115.79	108.17
18	CR	86	VAL	N-CA-C	5.44	115.73	108.11
2	AB	117	GLU	N-CA-C	-5.44	106.14	112.89
36	BP	17	LYS	N-CA-C	5.44	122.39	110.80
2	CB	194	PRO	N-CA-C	5.44	123.67	112.47
48	D1	57	GLU	N-CA-C	5.44	119.97	113.23
9	CI	104	ARG	N-CA-C	-5.44	105.46	111.71
5	AE	48	ALA	N-CA-C	5.43	113.11	108.22
41	BU	14	HIS	N-CA-C	5.43	118.24	111.24
41	DU	14	HIS	N-CA-C	5.39	118.20	111.24
30	DF	65	TRP	CA-C-N	5.38	126.57	119.84
30	DF	65	TRP	C-N-CA	5.38	126.57	119.84
29	DE	70	ALA	N-CA-C	-5.38	104.82	111.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	BF	65	TRP	CA-C-N	5.38	126.56	119.84
30	BF	65	TRP	C-N-CA	5.38	126.56	119.84
13	CM	74	VAL	N-CA-C	-5.38	105.03	112.50
45	BY	70	SER	N-CA-C	-5.37	106.73	113.72
28	DD	256	GLY	N-CA-C	5.37	121.47	115.08
38	BR	109	ALA	CA-C-N	5.37	125.54	119.90
38	BR	109	ALA	C-N-CA	5.37	125.54	119.90
35	DO	47	ILE	CA-C-N	5.37	126.56	119.84
35	DO	47	ILE	C-N-CA	5.37	126.56	119.84
2	AB	155	LEU	N-CA-C	5.37	118.01	109.96
25	DA	1835	G	C5'-C4'-C3'	-5.37	107.95	116.00
25	BA	651	G	C5'-C4'-C3'	5.36	123.25	115.20
28	BD	256	GLY	N-CA-C	5.36	121.46	115.08
49	D2	40	SER	N-CA-C	5.36	116.81	111.07
17	CQ	62	SER	N-CA-C	5.36	116.41	108.86
45	DY	70	SER	N-CA-C	-5.36	106.76	113.72
25	BA	1835	G	C5'-C4'-C3'	-5.35	107.97	116.00
49	D2	39	ALA	N-CA-C	-5.34	105.45	111.28
2	CB	117	GLU	N-CA-C	-5.34	106.27	112.89
25	BA	1049	C	N1-C1'-C2'	5.34	120.01	112.00
32	DH	137	ASP	CA-C-O	5.33	121.03	117.94
20	CT	14	LYS	N-CA-C	-5.33	105.64	111.82
49	B2	6	VAL	N-CA-C	5.33	115.54	110.53
25	DA	2126	A	C2'-C3'-O3'	5.33	117.49	109.50
25	BA	2126	A	C2'-C3'-O3'	5.33	117.49	109.50
15	AO	78	TYR	N-CA-C	-5.32	104.45	111.96
4	CD	176	LEU	N-CA-C	5.32	117.40	109.25
14	CN	53	LEU	CA-C-N	5.32	125.63	119.93
14	CN	53	LEU	C-N-CA	5.32	125.63	119.93
25	DA	651	G	C5'-C4'-C3'	5.32	123.18	115.20
35	BO	94	ARG	N-CA-C	-5.32	107.81	114.56
25	DA	1049	C	N1-C1'-C2'	5.32	119.97	112.00
29	BE	70	ALA	N-CA-C	-5.31	104.90	111.33
36	BP	71	VAL	N-CA-C	5.31	120.35	108.88
36	DP	71	VAL	N-CA-C	5.31	120.36	108.88
12	AL	29	GLY	N-CA-C	-5.31	100.60	113.18
2	CB	155	LEU	N-CA-C	5.31	117.92	109.96
30	DF	23	ASP	N-CA-C	-5.30	106.88	113.19
36	DP	45	LEU	N-CA-C	-5.30	101.02	109.07
32	BH	137	ASP	CA-C-O	5.30	121.01	117.94
36	BP	45	LEU	N-CA-C	-5.30	101.02	109.07
25	DA	1960	A	C5'-C4'-C3'	-5.30	108.05	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	BF	23	ASP	N-CA-C	-5.29	106.89	113.19
2	AB	172	ILE	N-CA-C	-5.29	104.43	111.05
25	BA	1960	A	C5'-C4'-C3'	-5.29	108.06	116.00
25	BA	955	C	C5'-C4'-C3'	-5.29	108.06	116.00
19	AS	31	ILE	N-CA-C	5.29	116.03	106.61
38	BR	3	HIS	CB-CA-C	-5.28	107.80	114.40
49	D2	6	VAL	N-CA-C	5.27	115.49	110.53
25	BA	27	G	N9-C1'-C2'	5.27	119.90	112.00
25	BA	1909	C	C5'-C4'-C3'	-5.27	108.10	116.00
55	B8	56	GLU	N-CA-C	-5.26	105.54	111.28
53	D6	47	THR	N-CA-C	5.26	116.14	108.14
25	DA	955	C	C5'-C4'-C3'	-5.26	108.11	116.00
51	D4	54	LYS	CA-C-N	5.26	124.97	119.82
51	D4	54	LYS	C-N-CA	5.26	124.97	119.82
33	BI	96	ASP	N-CA-C	-5.26	105.14	112.45
12	AL	105	TYR	CB-CA-C	-5.26	110.08	117.23
26	BB	44	G	N9-C1'-C2'	5.26	119.88	112.00
44	BX	36	LYS	N-CA-C	-5.26	105.55	111.28
51	B4	54	LYS	CA-C-N	5.25	124.97	119.82
51	B4	54	LYS	C-N-CA	5.25	124.97	119.82
8	AH	101	PRO	N-CA-C	5.25	118.57	111.22
47	B0	22	GLY	N-CA-C	5.25	118.40	111.52
53	B6	47	THR	N-CA-C	5.25	116.12	108.14
7	AG	99	LEU	N-CA-C	-5.25	105.45	111.07
7	CG	13	GLN	CA-C-N	5.25	126.40	119.84
7	CG	13	GLN	C-N-CA	5.25	126.40	119.84
7	CG	133	GLY	N-CA-C	-5.25	106.34	113.37
25	DA	2200	C	C5'-C4'-C3'	-5.25	108.13	116.00
25	DA	1909	C	C5'-C4'-C3'	-5.24	108.14	116.00
36	DP	57	THR	N-CA-C	-5.24	100.34	108.31
28	DD	62	TYR	N-CA-C	5.24	117.27	108.73
44	DX	36	LYS	N-CA-C	-5.24	105.57	111.28
34	BN	43	THR	CA-C-N	5.24	126.39	119.84
34	BN	43	THR	C-N-CA	5.24	126.39	119.84
38	DR	3	HIS	CB-CA-C	-5.24	107.86	114.40
25	BA	2200	C	C5'-C4'-C3'	-5.23	108.15	116.00
11	CK	107	SER	N-CA-C	5.23	115.26	107.88
25	DA	193	U	C5'-C4'-C3'	-5.23	108.15	116.00
28	DD	60	ARG	N-CA-C	5.23	117.95	108.69
32	DH	60	ARG	N-CA-C	-5.23	107.56	114.31
28	DD	94	LEU	CA-C-N	-5.23	115.62	122.99
28	DD	94	LEU	C-N-CA	-5.23	115.62	122.99

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
51	B4	42	CYS	N-CA-C	5.23	116.84	110.41
26	DB	44	G	N9-C1'-C2'	5.23	119.84	112.00
25	DA	27	G	N9-C1'-C2'	5.22	119.84	112.00
34	DN	43	THR	CA-C-N	5.22	126.36	119.84
34	DN	43	THR	C-N-CA	5.22	126.36	119.84
51	D4	42	CYS	N-CA-C	5.21	116.82	110.41
55	D8	36	LYS	N-CA-C	-5.21	100.20	109.06
25	BA	193	U	C5'-C4'-C3'	-5.21	108.19	116.00
28	DD	80	ALA	N-CA-C	5.21	116.64	111.07
28	BD	60	ARG	N-CA-C	5.20	117.90	108.69
2	CB	172	ILE	N-CA-C	-5.20	104.55	111.05
33	DI	96	ASP	N-CA-C	-5.20	105.22	112.45
40	BT	110	ILE	CB-CA-C	-5.20	105.31	111.81
5	CE	48	ALA	CA-C-N	5.20	126.34	119.84
5	CE	48	ALA	C-N-CA	5.20	126.34	119.84
8	CH	77	GLU	N-CA-C	-5.20	103.17	110.35
3	AC	108	ASN	CA-C-N	5.20	124.52	118.85
3	AC	108	ASN	C-N-CA	5.20	124.52	118.85
46	BZ	35	ARG	N-CA-C	5.20	117.63	110.35
55	B8	36	LYS	N-CA-C	-5.20	100.22	109.06
46	DZ	35	ARG	N-CA-C	5.20	117.63	110.35
28	BD	94	LEU	CA-C-N	-5.19	115.67	122.99
28	BD	94	LEU	C-N-CA	-5.19	115.67	122.99
47	D0	22	GLY	N-CA-C	5.19	118.32	111.52
40	DT	98	LYS	N-CA-C	-5.19	102.37	110.10
28	BD	62	TYR	N-CA-C	5.18	117.18	108.73
25	DA	1301	A	C1'-C2'-O2'	-5.18	104.02	111.80
13	AM	11	ARG	N-CA-C	5.18	116.16	108.60
20	AT	14	LYS	N-CA-C	-5.18	105.81	111.82
25	DA	2198	A	C2'-C3'-O3'	-5.18	105.93	113.70
31	DG	143	GLU	N-CA-C	5.18	116.92	111.28
6	AF	80	ARG	N-CA-C	5.17	119.58	113.16
25	BA	1301	A	C1'-C2'-O2'	-5.17	104.05	111.80
25	BA	2198	A	C2'-C3'-O3'	-5.17	105.95	113.70
39	BS	40	ILE	N-CA-C	5.17	116.73	108.87
40	BT	125	ARG	N-CA-C	-5.17	105.83	111.82
28	BD	80	ALA	N-CA-C	5.17	116.60	111.07
2	CB	164	VAL	N-CA-C	5.17	115.56	108.12
8	AH	77	GLU	N-CA-C	-5.15	103.25	110.35
36	DP	88	LEU	N-CA-C	-5.15	105.74	112.23
39	DS	40	ILE	N-CA-C	5.15	116.69	108.87
3	CC	35	GLU	N-CA-C	-5.14	105.75	111.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
47	D0	38	VAL	N-CA-C	5.14	116.05	108.45
32	BH	60	ARG	N-CA-C	-5.13	107.69	114.31
47	B0	38	VAL	N-CA-C	5.13	116.05	108.45
38	BR	12	ARG	N-CA-C	-5.13	99.87	110.80
38	BR	31	HIS	N-CA-C	5.13	119.39	113.18
46	BZ	6	LYS	N-CA-C	5.13	118.00	110.30
20	CT	84	LEU	N-CA-C	5.13	116.95	111.36
31	DG	8	LYS	N-CA-C	-5.13	105.38	110.97
47	D0	44	ARG	N-CA-C	-5.13	105.58	111.07
42	DV	49	THR	N-CA-C	-5.12	98.49	109.81
11	AK	63	LEU	N-CA-C	-5.12	106.87	113.01
47	B0	44	ARG	N-CA-C	-5.12	105.59	111.07
39	BS	17	ARG	N-CA-C	-5.12	99.90	110.80
36	DP	86	LYS	N-CA-C	-5.12	106.89	113.23
30	BF	9	ILE	CA-C-N	5.11	124.61	119.19
30	BF	9	ILE	C-N-CA	5.11	124.61	119.19
36	BP	86	LYS	N-CA-C	-5.11	106.89	113.23
30	DF	9	ILE	CA-C-N	5.11	124.61	119.19
30	DF	9	ILE	C-N-CA	5.11	124.61	119.19
38	DR	12	ARG	N-CA-C	-5.11	99.91	110.80
39	DS	17	ARG	N-CA-C	-5.11	99.91	110.80
4	AD	33	MET	N-CA-C	-5.11	105.62	111.14
13	CM	73	GLU	N-CA-C	-5.11	105.79	112.23
35	DO	46	ALA	N-CA-C	5.11	114.78	108.19
25	BA	1294	U	C5'-C4'-C3'	-5.10	108.35	116.00
36	BP	88	LEU	N-CA-C	-5.10	105.81	112.23
38	DR	31	HIS	N-CA-C	5.10	119.35	113.18
42	BV	49	THR	N-CA-C	-5.09	98.55	109.81
25	DA	1294	U	C5'-C4'-C3'	-5.09	108.36	116.00
9	CI	86	VAL	N-CA-C	-5.09	105.57	113.16
33	DI	6	LEU	N-CA-C	-5.09	100.86	108.34
32	BH	111	HIS	CA-C-N	5.09	125.00	119.76
32	BH	111	HIS	C-N-CA	5.09	125.00	119.76
32	DH	137	ASP	CB-CA-C	-5.09	109.74	117.07
46	DZ	6	LYS	N-CA-C	5.09	117.93	110.30
10	AJ	26	ALA	N-CA-C	-5.09	106.92	112.72
13	AM	74	VAL	N-CA-C	-5.09	105.43	112.50
32	BH	137	ASP	CB-CA-C	-5.09	109.75	117.07
34	DN	52	VAL	N-CA-C	5.08	115.90	108.58
4	CD	33	MET	N-CA-C	-5.08	105.65	111.14
15	CO	50	HIS	N-CA-C	5.08	116.63	111.14
36	BP	14	LYS	N-CA-C	5.08	121.62	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	CK	98	LEU	N-CA-C	-5.08	107.22	113.41
26	DB	44	G	C4'-C3'-O3'	-5.08	105.39	113.00
26	BB	44	G	C4'-C3'-O3'	-5.07	105.39	113.00
28	BD	7	LYS	N-CA-C	-5.06	102.91	110.20
32	DH	88	LEU	N-CA-C	-5.06	101.44	109.59
31	DG	20	ILE	N-CA-C	-5.05	104.73	111.05
3	CC	108	ASN	CA-C-N	5.05	124.36	118.85
3	CC	108	ASN	C-N-CA	5.05	124.36	118.85
32	DH	111	HIS	CA-C-N	5.05	124.96	119.76
32	DH	111	HIS	C-N-CA	5.05	124.96	119.76
49	B2	47	ASN	N-CA-C	5.05	121.56	110.80
36	DP	14	LYS	N-CA-C	5.05	121.56	110.80
37	DQ	132	VAL	N-CA-C	5.05	115.97	108.65
9	AI	86	VAL	N-CA-C	-5.05	105.64	113.16
31	BG	8	LYS	N-CA-C	-5.05	105.47	110.97
49	D2	38	GLN	N-CA-C	-5.05	107.07	113.43
25	BA	1499	C	C5'-C4'-C3'	-5.04	108.43	116.00
31	BG	20	ILE	N-CA-C	-5.04	104.74	111.05
33	BI	6	LEU	N-CA-C	-5.04	100.92	108.34
54	B7	5	TRP	N-CA-C	5.04	116.53	108.41
25	DA	1301	A	N9-C1'-C2'	5.04	121.56	114.00
54	D7	5	TRP	N-CA-C	5.04	116.52	108.41
25	BA	1301	A	N9-C1'-C2'	5.04	121.56	114.00
16	AP	68	ASP	N-CA-C	-5.04	105.44	111.03
46	BZ	32	HIS	N-CA-C	-5.04	105.50	111.69
25	DA	1786	A	N9-C1'-C2'	5.04	121.55	114.00
4	AD	176	LEU	N-CA-C	5.03	116.95	109.25
33	DI	126	TYR	N-CA-C	5.03	116.59	108.34
37	BQ	132	VAL	N-CA-C	5.03	115.94	108.65
7	AG	82	GLY	N-CA-C	-5.03	108.07	114.85
12	CL	81	SER	N-CA-C	5.03	117.52	110.23
25	DA	2580	U	N1-C1'-C2'	5.03	119.54	112.00
40	DT	30	VAL	CB-CA-C	-5.03	104.24	112.03
34	BN	52	VAL	N-CA-C	5.02	115.81	108.58
40	DT	14	TYR	N-CA-C	-5.02	106.37	113.20
31	BG	59	GLU	N-CA-C	-5.02	104.90	111.02
35	DO	62	VAL	CB-CA-C	-5.02	105.83	111.45
37	BQ	38	GLU	CA-C-N	5.01	125.45	120.14
37	BQ	38	GLU	C-N-CA	5.01	125.45	120.14
25	DA	1493	C	N1-C1'-C2'	5.01	121.52	114.00
25	BA	271(U)	G	O3'-P-O5'	-5.01	94.48	104.00
31	DG	59	GLU	N-CA-C	-5.01	104.91	111.02

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	BI	63	ALA	N-CA-C	-5.01	107.01	113.02
25	DA	102	G	N9-C1'-C2'	5.01	119.51	112.00
42	DV	50	PRO	N-CA-C	5.01	122.79	112.47
25	DA	1499	C	C5'-C4'-C3'	-5.01	108.49	116.00
50	D3	22	ALA	N-CA-C	-5.00	107.35	113.50
11	AK	98	LEU	N-CA-C	-5.00	107.31	113.41

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	32326	0	16316	983	0
1	CA	32304	0	16306	980	0
2	AB	1901	0	1951	309	0
2	CB	1901	0	1951	313	0
3	AC	1613	0	1677	224	0
3	CC	1613	0	1677	210	1
4	AD	1703	0	1765	221	0
4	CD	1703	0	1764	169	4
5	AE	1147	0	1207	152	0
5	CE	1147	0	1207	163	0
6	AF	843	0	857	86	0
6	CF	843	0	856	111	0
7	AG	1257	0	1296	147	0
7	CG	1257	0	1296	148	0
8	AH	1116	0	1177	159	0
8	CH	1116	0	1177	177	0
9	AI	1010	0	1037	174	0
9	CI	1010	0	1037	142	0
10	AJ	795	0	840	148	0
10	CJ	795	0	840	141	0
11	AK	885	0	904	111	1
11	CK	885	0	904	125	0
12	AL	971	0	1057	133	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
12	CL	971	0	1057	137	0
13	AM	988	0	1059	206	0
13	CM	988	0	1059	214	0
14	AN	492	0	531	89	0
14	CN	492	0	532	96	0
15	AO	734	0	771	74	0
15	CO	734	0	771	76	0
16	AP	701	0	720	58	0
16	CP	701	0	720	61	0
17	AQ	824	0	891	81	0
17	CQ	824	0	891	79	0
18	AR	574	0	644	64	0
18	CR	574	0	644	65	0
19	AS	630	0	652	107	0
19	CS	630	0	652	125	0
20	AT	763	0	861	119	0
20	CT	763	0	861	162	0
21	AU	209	0	221	10	0
21	CU	209	0	221	19	0
22	AW	1619	0	822	157	0
22	AY	365	0	185	55	0
22	CW	1619	0	822	203	0
22	CY	365	0	185	46	0
23	AV	1644	0	836	169	0
23	CV	1644	0	836	172	0
24	AX	169	0	86	17	0
24	CX	210	0	109	24	0
25	BA	60378	0	30440	2706	3
25	DA	60378	0	30441	2817	12
26	BB	2551	0	1295	142	1
26	DB	2551	0	1295	192	1
27	BC	1142	0	865	105	0
27	DC	1142	0	865	137	0
28	BD	2105	0	2182	302	4
28	DD	2105	0	2182	336	0
29	BE	1564	0	1629	279	0
29	DE	1564	0	1629	292	0
30	BF	1624	0	1677	251	0
30	DF	1624	0	1677	246	0
31	BG	1474	0	1535	334	0
31	DG	1474	0	1535	309	0
32	BH	1223	0	1282	205	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
32	DH	1223	0	1282	243	2
33	BI	1132	0	1218	227	0
33	DI	1132	0	1218	223	0
34	BN	1105	0	1180	185	0
34	DN	1105	0	1180	187	0
35	BO	933	0	995	86	0
35	DO	933	0	996	79	0
36	BP	1114	0	1187	321	0
36	DP	1114	0	1187	305	8
37	BQ	1122	0	1179	156	0
37	DQ	1122	0	1179	186	0
38	BR	960	0	1021	150	0
38	DR	960	0	1021	151	0
39	BS	771	0	832	203	0
39	DS	771	0	832	204	0
40	BT	1142	0	1202	149	0
40	DT	1142	0	1202	227	0
41	BU	958	0	1015	176	0
41	DU	958	0	1015	181	0
42	BV	779	0	852	177	0
42	DV	779	0	852	178	3
43	BW	896	0	953	108	1
43	DW	896	0	953	117	0
44	BX	726	0	778	73	0
44	DX	726	0	778	73	0
45	BY	776	0	870	166	11
45	DY	776	0	870	193	2
46	BZ	1404	0	1432	232	0
46	DZ	1404	0	1432	242	0
47	B0	662	0	688	83	0
47	D0	662	0	688	80	0
48	B1	732	0	808	105	0
48	D1	732	0	808	99	0
49	B2	598	0	653	78	0
49	D2	598	0	653	94	1
50	B3	468	0	523	66	8
50	D3	468	0	523	72	0
51	B4	226	0	229	47	0
51	D4	226	0	229	39	0
52	B5	459	0	480	64	0
52	D5	459	0	480	63	3
53	B6	381	0	391	77	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
53	D6	381	0	391	79	0
54	B7	419	0	467	43	0
54	D7	419	0	467	46	0
55	B8	508	0	576	116	0
55	D8	508	0	576	109	0
56	B9	299	0	326	24	0
56	D9	299	0	326	21	0
57	AA	93	0	0	0	0
57	AX	2	0	0	0	0
57	B1	1	0	0	0	0
57	B3	1	0	0	0	0
57	B5	2	0	0	0	0
57	BA	261	0	0	7	0
57	BB	4	0	0	0	0
57	BE	1	0	0	0	0
57	BF	2	0	0	0	0
57	BO	1	0	0	0	0
57	BU	1	0	0	0	0
57	CA	94	0	0	0	0
57	CV	2	0	0	0	0
57	D0	1	0	0	0	0
57	D5	2	0	0	0	0
57	DA	268	0	0	0	0
57	DB	2	0	0	0	0
57	DD	1	0	0	0	0
57	DE	1	0	0	0	0
58	AA	42	0	45	3	0
58	CA	42	0	45	1	0
59	AD	1	0	0	1	0
59	AN	1	0	0	2	0
59	CD	1	0	0	0	0
59	CN	1	0	0	0	0
All	All	292667	0	198350	21157	33

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 44.

All (21157) 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)
13:CM:93:ARG:CD	25:DA:888:C:H5'	1.15	1.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:167:GLY:CA	28:DD:135:PHE:CE2	1.85	1.56
25:BA:2584:U:C2'	25:BA:2585:U:H5''	1.38	1.54
25:DA:2584:U:C2'	25:DA:2585:U:H5''	1.38	1.54
4:AD:167:GLY:HA3	28:DD:135:PHE:CE2	1.43	1.50
4:AD:197:PRO:CD	6:CF:16:GLN:HG3	1.41	1.49
23:CV:57:C:C5	31:DG:84:LYS:NZ	1.79	1.48
23:CV:35:C:H2'	23:CV:36:A:C8	1.48	1.47
23:CV:57:C:H5	31:DG:84:LYS:NZ	1.00	1.46
40:DT:28:VAL:CG2	40:DT:46:GLU:HA	1.46	1.45
29:BE:52:LEU:CD2	29:BE:76:ARG:HB2	1.46	1.45
32:DH:17:VAL:CG1	32:DH:45:VAL:HG22	1.49	1.43
13:AM:93:ARG:CD	25:BA:888:C:H5'	1.47	1.43
13:AM:94:ARG:NH2	25:BA:887:A:C2'	1.82	1.42
4:AD:195:ALA:CB	6:CF:20:ALA:HB2	1.51	1.41
25:BA:271(U):G:C2'	25:BA:271(V):G:H5'	1.51	1.41
13:AM:108:ARG:NH1	13:AM:111:LYS:HG3	1.31	1.41
13:CM:94:ARG:NH2	25:DA:887:A:H2'	1.21	1.41
23:CV:57:C:N4	31:DG:83:ARG:NH2	1.69	1.40
40:DT:28:VAL:HG22	40:DT:46:GLU:CA	1.50	1.40
13:CM:94:ARG:NH2	25:DA:887:A:C2'	1.85	1.39
29:DE:51:PHE:CE1	29:DE:52:LEU:HD23	1.57	1.39
25:DA:271(U):G:C2'	25:DA:271(V):G:H5'	1.51	1.38
40:DT:29:ARG:HD3	40:DT:85:LYS:CA	1.52	1.37
45:DY:54:LYS:HG2	45:DY:55:TYR:CD2	1.60	1.36
13:AM:94:ARG:NH2	25:BA:887:A:C3'	1.83	1.36
4:AD:197:PRO:HD3	6:CF:16:GLN:CG	1.26	1.35
32:DH:17:VAL:HB	32:DH:45:VAL:CG2	1.55	1.35
40:DT:29:ARG:CD	40:DT:85:LYS:HA	1.57	1.34
13:AM:94:ARG:HH22	25:BA:887:A:C2'	1.36	1.34
13:CM:93:ARG:CD	25:DA:888:C:C5'	2.07	1.33
25:DA:2516:G:C2'	25:DA:2517:C:H5'	1.58	1.32
25:DA:2584:U:H2'	25:DA:2585:U:C5'	1.58	1.31
13:CM:93:ARG:HD3	25:DA:888:C:C5'	1.59	1.31
25:BA:2516:G:C2'	25:BA:2517:C:H5'	1.58	1.30
20:CT:26:ASN:HB2	20:CT:71:THR:CG2	1.59	1.30
25:BA:2584:U:H2'	25:BA:2585:U:C5'	1.58	1.29
25:BA:1819:A:H1'	25:BA:1821:A:C6	1.65	1.29
20:CT:26:ASN:CB	20:CT:71:THR:HG23	1.61	1.29
13:AM:93:ARG:HG2	25:BA:888:C:OP1	1.28	1.29
13:AM:94:ARG:NH2	25:BA:887:A:H3'	1.40	1.28
13:AM:108:ARG:HH12	13:AM:111:LYS:CG	1.44	1.28

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:911:A:H5''	25:BA:912:C:C5'	1.61	1.28
25:DA:911:A:H5''	25:DA:912:C:C5'	1.61	1.28
20:CT:53:LEU:CD1	20:CT:102:GLY:HA3	1.63	1.28
25:DA:1819:A:H1'	25:DA:1821:A:C6	1.68	1.28
9:AI:104:ARG:HG2	9:AI:106:ALA:CB	1.63	1.26
25:DA:108:U:O2'	25:DA:109:G:H5'	1.33	1.26
25:BA:108:U:O2'	25:BA:109:G:H5'	1.33	1.26
20:CT:50:GLU:CA	20:CT:100:ILE:HG12	1.65	1.26
45:DY:54:LYS:CD	45:DY:55:TYR:HE2	1.49	1.26
32:DH:17:VAL:CB	32:DH:45:VAL:HG22	1.65	1.25
25:BA:2585:U:OP2	57:BA:3061:MG:MG	0.65	1.25
13:AM:108:ARG:NH1	13:AM:111:LYS:CG	2.00	1.24
13:CM:93:ARG:HG2	25:DA:888:C:OP1	1.30	1.24
13:AM:108:ARG:HH12	13:AM:111:LYS:CB	1.49	1.24
40:DT:55:ASN:N	40:DT:59:THR:HG22	1.54	1.23
23:AV:3:C:C2'	23:AV:4:G:H5'	1.69	1.23
28:BD:244:ARG:HG3	28:BD:245:PRO:CD	1.69	1.23
13:AM:96:LEU:C	13:AM:110:ARG:HD3	1.62	1.22
42:BV:49:THR:HG22	42:BV:50:PRO:CD	1.69	1.22
25:DA:1158:C:O2'	50:D3:32:GLN:HG3	1.40	1.22
32:DH:41:MET:HA	32:DH:53:GLU:O	1.34	1.22
6:AF:67:MET:HB2	6:AF:68:PRO:CD	1.70	1.22
13:CM:94:ARG:CZ	25:DA:888:C:OP2	1.87	1.22
20:CT:49:ALA:HB1	20:CT:100:ILE:CD1	1.68	1.22
31:BG:2:PRO:HG2	51:B4:51:TYR:CE2	1.75	1.20
22:CW:68:C:H2'	22:CW:69:G:H8	1.06	1.20
25:BA:314:A:O2'	25:BA:315:G:H5'	1.41	1.20
1:AA:1302:C:H5''	1:AA:1303:C:C5'	1.72	1.20
23:AV:3:C:H2'	23:AV:4:G:C5'	1.73	1.19
25:BA:1879:C:H2'	25:BA:1880:C:H5''	1.23	1.18
22:CW:60:U:H2'	22:CW:61:C:H5	1.04	1.18
1:AA:1425:G:H3'	1:AA:1426:A:H5''	1.20	1.18
44:BX:27:THR:HG22	44:BX:80:ILE:HB	1.25	1.18
25:DA:271(S):G:H2'	25:DA:271(T):C:H5''	1.25	1.18
23:CV:18:U:H4'	23:CV:19:G:OP2	1.42	1.18
25:DA:1590:U:H2'	25:DA:1591:G:H5''	1.25	1.17
45:DY:67:LEU:O	45:DY:67:LEU:HD12	1.43	1.17
4:AD:195:ALA:CB	6:CF:20:ALA:CB	2.23	1.16
26:DB:83:G:O2'	26:DB:84:C:H5'	1.44	1.16
25:DA:314:A:O2'	25:DA:315:G:H5'	1.41	1.16
20:CT:49:ALA:HB1	20:CT:100:ILE:HD11	1.18	1.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:359:A:H2'	25:DA:360:G:H5'	1.28	1.16
25:DA:1981:A:H5''	25:DA:1982:C:OP2	1.44	1.16
1:AA:1302:C:H5''	1:AA:1303:C:H5''	1.22	1.16
26:DB:92:C:O2'	26:DB:93:G:H5'	1.45	1.16
20:AT:50:GLU:CA	20:AT:100:ILE:HG12	1.76	1.15
25:BA:1981:A:H5''	25:BA:1982:C:OP2	1.44	1.15
4:AD:195:ALA:HB3	6:CF:20:ALA:HB2	1.25	1.15
25:BA:242:G:H5''	55:B8:62:LEU:HD13	1.21	1.15
45:DY:54:LYS:HG2	45:DY:55:TYR:CE2	1.81	1.15
4:AD:20:TYR:CE1	6:CF:15:ASP:HB3	1.80	1.15
36:BP:50:ARG:O	36:BP:57:THR:HG21	1.46	1.15
45:DY:54:LYS:CG	45:DY:55:TYR:CE2	2.30	1.15
5:CE:100:VAL:HG13	5:CE:118:ILE:CG2	1.77	1.15
25:DA:2801(A):A:H4'	25:DA:2802:G:H5'	1.27	1.15
9:AI:104:ARG:CG	9:AI:106:ALA:HA	1.76	1.15
19:AS:48:THR:HG22	19:AS:61:TYR:HA	1.20	1.15
19:AS:6:LYS:HD3	19:AS:7:LYS:HE3	1.27	1.14
25:BA:272:G:C2	25:BA:421:U:C4	2.35	1.14
23:CV:17:C:H3'	23:CV:18:U:C5'	1.77	1.14
5:CE:101:ILE:HD11	5:CE:119:LEU:HD23	1.22	1.14
32:DH:17:VAL:CB	32:DH:45:VAL:CG2	2.22	1.14
25:BA:2701:C:H3'	25:BA:2702:U:H5''	1.15	1.14
25:DA:2476:A:H2'	25:DA:2477:C:H5''	1.28	1.14
25:BA:2172:U:H1'	25:BA:2173:A:OP1	1.49	1.13
3:AC:79:ARG:NH1	11:CK:99:GLN:HB3	1.62	1.13
40:DT:56:GLY:O	40:DT:59:THR:HG23	1.44	1.13
31:BG:22:ARG:HB3	31:BG:22:ARG:NH1	1.64	1.13
25:DA:2172:U:H1'	25:DA:2173:A:OP1	1.49	1.13
25:BA:1158:C:O2'	50:B3:32:GLN:HG3	1.48	1.13
25:BA:2476:A:H2'	25:BA:2477:C:H5''	1.27	1.13
45:BY:17:SER:HB3	45:BY:71:LYS:HB3	1.29	1.13
11:CK:127:LYS:HE2	11:CK:127:LYS:HA	1.31	1.13
31:BG:114:ILE:HG12	31:BG:140:ILE:HD13	1.20	1.13
25:BA:2491:U:H5'	25:BA:2570:G:H5''	1.27	1.12
31:DG:22:ARG:HH11	31:DG:22:ARG:HB3	0.98	1.12
13:CM:88:ARG:HG3	13:CM:98:VAL:HG12	1.17	1.12
45:DY:54:LYS:CD	45:DY:55:TYR:CE2	2.30	1.12
25:BA:103:A:H2'	25:BA:104:U:H5'	1.16	1.12
42:BV:72:VAL:HG23	42:BV:85:LYS:HB3	1.20	1.12
23:CV:35:C:C2'	23:CV:36:A:H8	1.61	1.12
25:DA:271(U):G:H2'	25:DA:271(V):G:H5'	1.12	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:101:ILE:CD1	5:CE:119:LEU:HD23	1.80	1.12
25:DA:911:A:H5''	25:DA:912:C:H5''	1.21	1.12
25:DA:2348:U:H2'	25:DA:2349:G:H5''	1.30	1.12
27:BC:58:VAL:HG21	27:BC:166:ASP:H	1.15	1.11
13:CM:94:ARG:NE	25:DA:888:C:OP2	1.81	1.11
25:DA:242:G:H5''	55:D8:62:LEU:HD13	1.27	1.11
13:AM:94:ARG:NH2	25:BA:887:A:H2'	1.47	1.11
42:DV:72:VAL:HG23	42:DV:85:LYS:HB3	1.20	1.11
44:DX:12:VAL:HB	44:DX:17:ALA:HB1	1.31	1.11
4:AD:167:GLY:N	28:DD:135:PHE:CZ	2.19	1.11
1:CA:1280:A:H4'	1:CA:1281:G:OP1	1.43	1.11
25:DA:612:C:H2'	25:DA:613:G:H5''	1.29	1.11
25:DA:2126:A:H5''	27:DC:36:LYS:HG2	1.33	1.11
25:DA:2701:C:H3'	25:DA:2702:U:H5''	1.15	1.11
31:DG:22:ARG:HB3	31:DG:22:ARG:NH1	1.64	1.11
32:DH:17:VAL:HG12	32:DH:45:VAL:HG22	1.16	1.10
25:BA:1884:A:H2'	25:BA:1885:A:H5''	1.23	1.10
25:BA:2312:U:H2'	25:BA:2313:C:H5''	1.34	1.10
36:BP:64:LYS:HB3	55:B8:25:MET:HG3	1.27	1.10
26:DB:20:C:H2'	26:DB:21:G:H5''	1.24	1.10
45:DY:54:LYS:HD3	45:DY:55:TYR:CE2	1.87	1.10
11:AK:127:LYS:HE2	11:AK:127:LYS:HA	1.30	1.10
26:BB:20:C:H2'	26:BB:21:G:H5''	1.24	1.10
42:DV:49:THR:HG22	42:DV:50:PRO:HD3	1.21	1.10
9:AI:104:ARG:HG2	9:AI:106:ALA:HB2	1.12	1.10
25:BA:1798:U:H5'	28:BD:259:THR:HG22	1.33	1.10
19:CS:48:THR:HG22	19:CS:61:TYR:HA	1.20	1.10
25:DA:2491:U:H5'	25:DA:2570:G:H5''	1.27	1.10
1:AA:1302:C:C5'	1:AA:1303:C:H5''	1.82	1.09
25:BA:359:A:H2'	25:BA:360:G:H5'	1.28	1.09
36:BP:55:ARG:HG2	36:BP:56:SER:H	1.16	1.09
39:BS:97:ARG:HH21	39:BS:98:VAL:HA	1.00	1.09
41:BU:106:PHE:O	41:BU:110:VAL:HG23	1.51	1.09
13:CM:117:VAL:HG12	13:CM:118:ALA:H	1.16	1.09
25:DA:612:C:C2'	25:DA:613:G:H5''	1.82	1.09
25:DA:1798:U:H5'	28:DD:259:THR:HG22	1.30	1.09
13:AM:93:ARG:CG	25:BA:888:C:OP1	1.99	1.09
20:AT:50:GLU:HA	20:AT:100:ILE:HG12	1.34	1.09
25:BA:612:C:H2'	25:BA:613:G:H5''	1.29	1.09
25:BA:1590:U:H2'	25:BA:1591:G:H5''	1.25	1.09
29:BE:15:PHE:CE2	40:BT:80:SER:HB2	1.85	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BE:52:LEU:HD23	29:BE:76:ARG:CB	1.82	1.09
45:BY:55:TYR:HB3	45:BY:56:PRO:HD2	1.27	1.09
13:CM:5:ALA:CB	13:CM:66:LEU:HD13	1.81	1.09
25:DA:1884:A:H2'	25:DA:1885:A:H5''	1.23	1.09
25:DA:2171:A:H4'	25:DA:2172:U:OP1	1.46	1.09
37:DQ:54:MET:HB3	37:DQ:64:ILE:HD13	1.32	1.09
41:DU:106:PHE:O	41:DU:110:VAL:HG23	1.51	1.09
42:DV:49:THR:HG22	42:DV:50:PRO:CD	1.79	1.09
26:BB:107:G:C2'	26:BB:108:U:H5'	1.83	1.09
29:BE:15:PHE:CD2	40:BT:80:SER:HB2	1.87	1.09
17:AQ:68:ARG:H	17:AQ:70:ARG:NH1	1.48	1.09
25:BA:109:G:O2'	25:BA:110:G:H5'	1.51	1.09
25:BA:2348:U:H2'	25:BA:2349:G:H5''	1.30	1.09
7:CG:113:GLU:HB2	7:CG:119:ARG:HG2	1.34	1.09
25:DA:103:A:H2'	25:DA:104:U:H5'	1.16	1.09
9:AI:28:VAL:HG22	9:AI:63:ILE:HB	1.35	1.09
9:AI:104:ARG:CG	9:AI:106:ALA:CA	2.30	1.09
13:AM:93:ARG:NE	25:BA:888:C:H5'	1.66	1.09
25:BA:2801(A):A:H4'	25:BA:2802:G:H5'	1.27	1.09
31:BG:113:ARG:HH11	31:BG:113:ARG:CG	1.66	1.09
42:BV:19:LYS:HG2	42:BV:94:LEU:HB2	1.35	1.08
44:BX:12:VAL:HB	44:BX:17:ALA:HB1	1.31	1.08
3:CC:14:ILE:HG12	3:CC:15:THR:H	1.17	1.08
25:DA:109:G:O2'	25:DA:110:G:H5'	1.51	1.08
25:DA:2515:C:O2'	25:DA:2516:G:H5'	1.52	1.08
32:DH:19:VAL:HG21	32:DH:44:VAL:HA	1.24	1.08
40:DT:29:ARG:HG2	40:DT:85:LYS:HG3	1.12	1.08
19:AS:41:VAL:HB	19:AS:44:MET:HG2	1.35	1.08
5:CE:69:VAL:HG12	5:CE:71:LEU:HD23	1.29	1.08
13:CM:57:ARG:NH2	51:D4:60:GLU:HG3	1.67	1.08
31:DG:52:ILE:HG22	31:DG:54:GLU:HG2	1.36	1.08
25:BA:92:A:H2'	25:BA:93:G:H8	1.19	1.08
26:BB:7:G:H3'	26:BB:8:U:H5''	1.34	1.08
28:BD:244:ARG:CG	28:BD:245:PRO:HD2	1.82	1.08
31:BG:22:ARG:HB3	31:BG:22:ARG:HH11	0.97	1.08
31:BG:113:ARG:HH11	31:BG:113:ARG:HG2	1.18	1.08
25:DA:1879:C:H2'	25:DA:1880:C:H5''	1.23	1.08
25:DA:2758:A:H2'	25:DA:2759:G:H5''	1.35	1.08
31:DG:113:ARG:CG	31:DG:113:ARG:HH11	1.66	1.08
3:AC:79:ARG:NH1	11:CK:99:GLN:CB	2.16	1.08
10:CJ:49:VAL:HG23	14:CN:41:ARG:HB2	1.34	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:41:ARG:HG2	12:CL:42:THR:H	1.16	1.08
13:CM:108:ARG:HH11	13:CM:108:ARG:HA	1.15	1.08
39:DS:97:ARG:HH21	39:DS:98:VAL:HA	1.00	1.08
1:AA:1302:C:C5'	1:AA:1303:C:C5'	2.30	1.08
23:AV:3:C:C2'	23:AV:4:G:C5'	2.30	1.08
25:BA:612:C:C2'	25:BA:613:G:H5''	1.82	1.07
25:BA:1658:C:H2'	25:BA:1659:U:C6	1.89	1.07
44:BX:12:VAL:HG23	44:BX:13:LEU:H	1.17	1.07
13:CM:70:LEU:O	13:CM:70:LEU:HD23	1.55	1.07
19:CS:6:LYS:HD3	19:CS:7:LYS:HE3	1.30	1.07
40:DT:29:ARG:HH21	40:DT:30:VAL:HG22	1.18	1.07
6:AF:67:MET:CB	6:AF:68:PRO:HD2	1.83	1.07
25:BA:2171:A:H4'	25:BA:2172:U:OP1	1.46	1.07
20:CT:50:GLU:N	20:CT:100:ILE:HG12	1.67	1.07
28:DD:24:ILE:HG12	28:DD:25:THR:H	1.17	1.07
25:BA:271(S):G:H2'	25:BA:271(T):C:H5''	1.25	1.07
25:DA:2312:U:H2'	25:DA:2313:C:H5''	1.33	1.07
25:BA:271(U):G:H2'	25:BA:271(V):G:H5'	1.12	1.07
25:BA:2515:C:O2'	25:BA:2516:G:H5'	1.52	1.07
4:CD:33:MET:HE2	4:CD:37:PRO:HA	1.36	1.07
25:DA:2348:U:C2'	25:DA:2349:G:H5''	1.85	1.07
4:AD:20:TYR:CE1	6:CF:15:ASP:CB	2.37	1.06
4:AD:167:GLY:HA2	28:DD:135:PHE:CE2	1.75	1.06
5:AE:101:ILE:HD11	5:AE:119:LEU:HD23	1.34	1.06
7:AG:113:GLU:HB2	7:AG:119:ARG:HG2	1.37	1.06
13:AM:57:ARG:NH2	51:B4:60:GLU:HG3	1.69	1.06
13:AM:108:ARG:NH1	13:AM:108:ARG:HA	1.69	1.06
25:BA:914:C:H2'	25:BA:915:C:H5'	1.37	1.06
25:BA:2348:U:C2'	25:BA:2349:G:H5''	1.85	1.06
9:CI:28:VAL:HG22	9:CI:63:ILE:HB	1.36	1.06
45:DY:76:CYS:SG	45:DY:77:PRO:HD2	1.95	1.06
4:AD:167:GLY:CA	28:DD:135:PHE:CZ	2.37	1.06
8:AH:10:LEU:HD23	8:AH:83:ILE:HD11	1.36	1.06
13:AM:97:PRO:N	13:AM:110:ARG:HD3	1.69	1.06
25:BA:2300:G:N2	25:BA:2317:C:H1'	1.70	1.06
10:CJ:40:LEU:HB2	10:CJ:41:PRO:HD2	1.36	1.06
25:DA:2068:U:N3	25:DA:2430:A:H2	1.53	1.06
25:BA:2758:A:H2'	25:BA:2759:G:H5''	1.35	1.06
44:DX:27:THR:HG22	44:DX:80:ILE:HB	1.25	1.06
9:AI:104:ARG:HG3	9:AI:106:ALA:HA	1.38	1.06
25:BA:2282:G:OP2	57:BA:3062:MG:MG	0.96	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BB:107:G:H2'	26:BB:108:U:H5'	1.06	1.06
25:DA:2516:G:H2'	25:DA:2517:C:H5'	1.07	1.06
36:DP:63:PRO:HB3	55:D8:13:ARG:HB3	1.37	1.06
28:BD:31:LYS:HG3	28:BD:33:LEU:HD13	1.37	1.06
12:CL:28:LYS:CG	12:CL:33:ARG:HH12	1.68	1.06
25:DA:92:A:H2'	25:DA:93:G:H8	1.19	1.06
25:DA:1658:C:H2'	25:DA:1659:U:C6	1.89	1.06
25:DA:2584:U:C3'	25:DA:2585:U:H5''	1.86	1.06
10:AJ:49:VAL:HG23	14:AN:41:ARG:HB2	1.37	1.05
14:AN:26:ARG:HG3	14:AN:27:CYS:H	1.18	1.05
37:BQ:54:MET:HB3	37:BQ:64:ILE:HD13	1.32	1.05
45:BY:76:CYS:SG	45:BY:77:PRO:HD2	1.95	1.05
5:CE:76:ILE:HD11	5:CE:142:LEU:CD2	1.85	1.05
8:CH:10:LEU:HD23	8:CH:83:ILE:HD11	1.37	1.05
23:CV:17:C:H3'	23:CV:18:U:H5'	1.34	1.05
28:BD:24:ILE:HG12	28:BD:25:THR:H	1.17	1.05
31:BG:113:ARG:CZ	31:BG:113:ARG:HA	1.86	1.05
33:BI:58:LEU:HA	33:BI:61:ARG:HE	1.21	1.05
50:B3:56:VAL:HG12	50:B3:57:GLU:H	1.17	1.05
13:CM:5:ALA:HB1	13:CM:66:LEU:CD1	1.85	1.05
28:DD:31:LYS:HG3	28:DD:33:LEU:HD13	1.37	1.05
23:AV:19:G:H22	23:AV:58:A:H2'	1.19	1.05
25:BA:911:A:H5''	25:BA:912:C:H5''	1.14	1.05
22:CW:39:U:OP1	22:CW:39:U:H4'	1.47	1.05
1:AA:1050:G:OP2	1:AA:1076:G:H5'	1.54	1.05
13:AM:93:ARG:HD3	25:BA:888:C:H5'	1.07	1.05
13:AM:117:VAL:HG12	13:AM:118:ALA:H	1.20	1.05
25:DA:914:C:H2'	25:DA:915:C:H5'	1.37	1.05
31:DG:113:ARG:HH11	31:DG:113:ARG:HG2	1.10	1.05
3:AC:14:ILE:HG12	3:AC:15:THR:H	1.17	1.05
12:AL:41:ARG:HG2	12:AL:42:THR:H	1.16	1.05
13:AM:88:ARG:HG3	13:AM:98:VAL:HG12	1.38	1.05
25:BA:1884:A:C2'	25:BA:1885:A:H5''	1.86	1.05
25:BA:2068:U:N3	25:BA:2430:A:H2	1.53	1.05
25:BA:2584:U:C3'	25:BA:2585:U:H5''	1.86	1.05
29:BE:36:ARG:NH2	29:BE:88:GLY:HA3	1.70	1.05
25:DA:1590:U:C2'	25:DA:1591:G:H5''	1.87	1.05
29:DE:36:ARG:NH2	29:DE:88:GLY:HA3	1.70	1.05
25:BA:1590:U:C2'	25:BA:1591:G:H5''	1.87	1.04
39:BS:78:LEU:HD11	39:BS:103:GLU:HB3	1.38	1.04
45:BY:17:SER:CB	45:BY:71:LYS:HD2	1.86	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DC:58:VAL:HG21	27:DC:166:ASP:H	1.15	1.04
22:AW:38:A:H2'	22:AW:39:U:H5''	1.39	1.04
32:BH:13:LYS:HE2	32:BH:13:LYS:HA	1.39	1.04
2:CB:18:GLY:H	2:CB:42:ILE:HG22	1.22	1.04
5:CE:50:GLU:HB3	5:CE:53:LEU:HD13	1.36	1.04
5:AE:50:GLU:HB3	5:AE:53:LEU:HD13	1.38	1.04
53:B6:41:PRO:HD2	53:B6:46:HIS:H	1.23	1.04
17:CQ:68:ARG:H	17:CQ:70:ARG:NH1	1.54	1.04
26:DB:7:G:H3'	26:DB:8:U:H5''	1.34	1.04
29:DE:52:LEU:HD13	29:DE:53:PRO:HD2	1.37	1.04
42:DV:19:LYS:HG2	42:DV:94:LEU:HB2	1.35	1.04
25:BA:1952:A:C2	35:BO:22:ILE:HD12	1.93	1.04
25:DA:1884:A:C2'	25:DA:1885:A:H5''	1.86	1.04
40:DT:89:VAL:HB	40:DT:91:ARG:CG	1.86	1.04
4:AD:33:MET:HE2	4:AD:37:PRO:HA	1.41	1.03
25:BA:925:C:H2'	25:BA:926:A:H5''	1.35	1.03
25:BA:2305:A:H5''	31:BG:134:GLY:HA3	1.08	1.03
34:BN:56:ASN:HA	34:BN:125:GLY:H	1.18	1.03
44:BX:63:LYS:HE3	44:BX:72:LYS:HE3	1.40	1.03
53:B6:47:THR:HB	53:B6:49:HIS:CE1	1.93	1.03
22:CW:76:A:N6	25:DA:2421:G:H2'	1.72	1.03
3:AC:16:ARG:HB2	3:AC:16:ARG:HH11	1.21	1.03
4:AD:150:GLU:HA	4:AD:153:ARG:HD2	1.37	1.03
25:BA:2516:G:H2'	25:BA:2517:C:H5'	1.07	1.03
28:BD:79:VAL:HG21	28:BD:111:LEU:HD11	1.40	1.03
41:BU:92:ARG:HD2	42:BV:11:GLN:NE2	1.74	1.03
5:CE:76:ILE:HD11	5:CE:142:LEU:HD21	1.07	1.03
13:CM:93:ARG:CG	25:DA:888:C:H5'	1.86	1.03
40:DT:89:VAL:HB	40:DT:91:ARG:HG3	1.07	1.03
44:DX:12:VAL:HG23	44:DX:13:LEU:H	1.17	1.03
13:AM:70:LEU:HD23	13:AM:70:LEU:O	1.56	1.03
31:BG:52:ILE:HG22	31:BG:54:GLU:HG2	1.36	1.03
2:CB:61:LEU:HD21	2:CB:68:ILE:HD11	1.40	1.03
4:CD:150:GLU:HA	4:CD:153:ARG:HD2	1.35	1.03
25:DA:871:U:OP1	37:DQ:5:ARG:HG3	1.59	1.03
25:DA:925:C:H2'	25:DA:926:A:H5''	1.34	1.03
1:AA:153:G:H5'	1:AA:154:A:OP2	1.59	1.03
29:BE:77:ILE:HG22	29:BE:78:LEU:H	1.20	1.03
14:CN:26:ARG:HG3	14:CN:27:CYS:H	1.21	1.03
22:CW:60:U:C2'	22:CW:61:C:H5	1.72	1.03
28:DD:79:VAL:HG21	28:DD:111:LEU:HD11	1.40	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DE:77:ILE:HG22	29:DE:78:LEU:H	1.20	1.03
10:AJ:40:LEU:HB2	10:AJ:41:PRO:HD2	1.38	1.03
25:BA:71:A:H5''	25:BA:73:A:C8	1.93	1.03
29:DE:36:ARG:HH22	29:DE:88:GLY:HA3	1.22	1.03
1:AA:323:C:O2	1:AA:323:C:H2'	1.56	1.02
5:AE:76:ILE:HD11	5:AE:142:LEU:HD21	1.40	1.02
19:AS:6:LYS:CD	19:AS:7:LYS:HE3	1.89	1.02
33:DI:38:LEU:HD12	33:DI:38:LEU:H	1.22	1.02
34:DN:56:ASN:HA	34:DN:125:GLY:H	1.18	1.02
39:DS:78:LEU:HD11	39:DS:103:GLU:HB3	1.38	1.02
45:DY:66:PRO:O	45:DY:67:LEU:HG	1.54	1.02
2:AB:61:LEU:HD21	2:AB:68:ILE:HD11	1.42	1.02
9:AI:104:ARG:HG3	9:AI:106:ALA:CA	1.89	1.02
13:CM:5:ALA:HB1	13:CM:66:LEU:HD13	1.03	1.02
26:DB:92:C:H2'	26:DB:93:G:H8	1.19	1.02
32:DH:13:LYS:HE2	32:DH:13:LYS:HA	1.39	1.02
53:D6:47:THR:HB	53:D6:49:HIS:CE1	1.94	1.02
25:BA:2712:U:O2'	25:BA:2712(A):A:H5''	1.58	1.02
38:BR:55:ALA:HA	38:BR:80:PHE:HE1	1.22	1.02
42:BV:49:THR:HG22	42:BV:50:PRO:HD3	1.02	1.02
12:CL:47:LYS:HB3	12:CL:48:PRO:HD2	1.40	1.02
19:CS:41:VAL:HB	19:CS:44:MET:HG2	1.37	1.02
25:DA:1879:C:C2'	25:DA:1880:C:H5''	1.89	1.02
53:D6:41:PRO:HD2	53:D6:46:HIS:H	1.22	1.02
20:CT:26:ASN:HD22	20:CT:71:THR:HA	1.22	1.02
20:CT:53:LEU:HD13	20:CT:102:GLY:HA3	1.03	1.02
33:DI:58:LEU:HA	33:DI:61:ARG:HE	1.19	1.02
41:DU:92:ARG:HD2	42:DV:11:GLN:NE2	1.74	1.02
25:BA:1186:G:OP2	57:BA:3221:MG:MG	1.01	1.02
32:DH:17:VAL:HG21	32:DH:45:VAL:HG13	1.39	1.02
33:BI:92:VAL:HG11	33:BI:120:ILE:HD12	1.41	1.01
20:AT:89:ARG:HD2	20:AT:104:LEU:HD11	1.42	1.01
25:BA:2586:C:H6	25:BA:2586:C:O5'	1.43	1.01
33:BI:77:LEU:HB3	33:BI:140:LEU:HD13	1.38	1.01
50:D3:56:VAL:HG12	50:D3:57:GLU:H	1.17	1.01
13:AM:108:ARG:HA	13:AM:108:ARG:HH11	0.88	1.01
42:BV:39:LEU:HB3	42:BV:47:VAL:HG11	1.43	1.01
13:CM:27:LYS:HE3	13:CM:31:LYS:HE3	1.42	1.01
25:DA:271(S):G:C2'	25:DA:271(T):C:H5''	1.90	1.01
25:DA:1685:C:H2'	25:DA:1686:C:H5''	1.43	1.01
25:DA:2712:U:O2'	25:DA:2712(A):A:H5''	1.58	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BG:111:LEU:HD23	31:BG:114:ILE:HD11	1.40	1.01
42:BV:49:THR:CG2	42:BV:50:PRO:HD3	1.89	1.01
20:CT:53:LEU:HD13	20:CT:102:GLY:CA	1.89	1.01
20:CT:89:ARG:HD2	20:CT:104:LEU:HD11	1.41	1.01
25:DA:560:C:H4'	41:DU:52:ARG:HH22	1.22	1.01
29:DE:132:HIS:O	29:DE:133:LYS:HB2	1.59	1.01
39:DS:46:VAL:HG12	39:DS:47:THR:H	1.22	1.01
6:AF:67:MET:HB2	6:AF:68:PRO:HD2	1.02	1.01
33:DI:77:LEU:HB3	33:DI:140:LEU:HD13	1.38	1.01
38:DR:55:ALA:HA	38:DR:80:PHE:HE1	1.22	1.01
45:DY:54:LYS:HD3	45:DY:55:TYR:HE2	1.16	1.01
1:AA:1425:G:H3'	1:AA:1426:A:C5'	1.89	1.00
13:AM:96:LEU:C	13:AM:110:ARG:CD	2.34	1.00
25:BA:271(S):G:C2'	25:BA:271(T):C:H5''	1.90	1.00
39:BS:46:VAL:HG12	39:BS:47:THR:H	1.22	1.00
12:CL:89:ARG:HH11	12:CL:89:ARG:HB2	1.26	1.00
25:DA:103:A:H2'	25:DA:104:U:C5'	1.90	1.00
32:DH:17:VAL:HB	32:DH:45:VAL:HG21	1.36	1.00
20:AT:50:GLU:CB	20:AT:100:ILE:HG12	1.92	1.00
33:BI:38:LEU:H	33:BI:38:LEU:HD12	1.22	1.00
5:CE:41:VAL:HG13	5:CE:113:ALA:HA	1.43	1.00
25:DA:2126:A:C5'	27:DC:36:LYS:HG2	1.90	1.00
25:BA:847:U:H2'	25:BA:848:G:H5''	1.43	1.00
25:BA:925:C:C2'	25:BA:926:A:H5''	1.91	1.00
32:DH:43:VAL:HG11	32:DH:52:VAL:HA	1.42	1.00
40:DT:55:ASN:HB3	40:DT:58:ASN:OD1	1.61	1.00
12:AL:89:ARG:HB2	12:AL:89:ARG:HH11	1.22	1.00
25:BA:103:A:H2'	25:BA:104:U:C5'	1.90	1.00
45:BY:8:LYS:HD2	45:BY:8:LYS:H	1.23	1.00
36:DP:6:LEU:HG	36:DP:9:ASN:HD22	1.26	1.00
23:CV:69:C:H2'	23:CV:70:C:C6	1.96	1.00
40:DT:16:ARG:HH11	40:DT:16:ARG:HB3	1.27	1.00
45:DY:8:LYS:H	45:DY:8:LYS:HD2	1.23	1.00
36:DP:23:PRO:HB2	36:DP:33:ARG:CD	1.90	1.00
13:AM:27:LYS:HE3	13:AM:31:LYS:HE3	1.42	1.00
22:CW:60:U:H2'	22:CW:61:C:C5	1.96	1.00
22:CW:68:C:H2'	22:CW:69:G:C8	1.97	1.00
32:DH:17:VAL:CG1	32:DH:45:VAL:CG2	2.39	1.00
15:AO:60:VAL:HG11	25:BA:715:G:O4'	1.62	0.99
22:AW:30:G:H2'	22:AW:31:A:H8	1.21	0.99
25:BA:359:A:C2'	25:BA:360:G:H5'	1.92	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:50:GLU:HA	20:CT:100:ILE:HG12	1.41	0.99
25:DA:925:C:C2'	25:DA:926:A:H5''	1.91	0.99
25:DA:2586:C:O5'	25:DA:2586:C:H6	1.43	0.99
25:BA:1879:C:C2'	25:BA:1880:C:H5''	1.89	0.99
26:BB:117:G:H4'	39:BS:55:ALA:HB1	1.44	0.99
31:BG:2:PRO:HD3	51:B4:51:TYR:CG	1.96	0.99
13:CM:116:THR:HG22	13:CM:117:VAL:H	1.24	0.99
25:DA:1030:G:OP2	37:DQ:128:LYS:HD3	1.62	0.99
25:DA:1658:C:H2'	25:DA:1659:U:H6	1.28	0.99
22:AW:38:A:H2'	22:AW:39:U:C5'	1.92	0.99
25:BA:1396:U:H2'	25:BA:1396:U:O2	1.62	0.99
5:CE:100:VAL:HG13	5:CE:118:ILE:HG23	1.40	0.99
29:DE:59:VAL:HG22	29:DE:60:ASN:H	1.27	0.99
36:BP:64:LYS:HB3	55:B8:25:MET:CG	1.93	0.99
13:CM:93:ARG:CZ	25:DA:888:C:H4'	1.92	0.99
36:BP:55:ARG:HG2	36:BP:56:SER:N	1.64	0.99
3:CC:16:ARG:HB2	3:CC:16:ARG:HH11	1.25	0.99
2:AB:18:GLY:H	2:AB:42:ILE:HG22	1.22	0.99
31:BG:113:ARG:HA	31:BG:113:ARG:NH1	1.77	0.99
13:CM:40:ASN:HD22	13:CM:43:THR:HG23	1.27	0.99
44:DX:12:VAL:HG12	44:DX:27:THR:OG1	1.63	0.99
25:BA:1658:C:H2'	25:BA:1659:U:H6	1.28	0.99
25:DA:1140:C:H5''	34:DN:66:LYS:NZ	1.77	0.99
25:DA:2103:C:C3'	25:DA:2104:G:H5''	1.93	0.99
42:BV:25:LEU:H	42:BV:92:THR:HG21	1.27	0.98
25:DA:1697:G:H3'	25:DA:1698:A:H5''	1.44	0.98
13:AM:125:ARG:HG3	22:AY:38:A:O2'	1.61	0.98
30:BF:2:LYS:HD3	30:BF:2:LYS:H	1.27	0.98
33:BI:58:LEU:HA	33:BI:61:ARG:NE	1.76	0.98
12:AL:47:LYS:HB3	12:AL:48:PRO:HD2	1.41	0.98
29:BE:59:VAL:HG22	29:BE:60:ASN:H	1.27	0.98
10:CJ:34:VAL:HG22	10:CJ:74:ILE:HG22	1.45	0.98
23:AV:66:C:H6	23:AV:66:C:H5''	1.23	0.98
25:BA:2075:U:C4	25:BA:2238:G:C6	2.50	0.98
25:DA:847:U:H2'	25:DA:848:G:H5''	1.44	0.98
44:DX:63:LYS:HE3	44:DX:72:LYS:HE3	1.40	0.98
44:BX:12:VAL:HG12	44:BX:27:THR:OG1	1.63	0.98
25:BA:1270:C:H5''	25:BA:1271:G:H5'	1.43	0.98
25:DA:359:A:C2'	25:DA:360:G:H5'	1.92	0.98
5:AE:69:VAL:HG21	5:AE:113:ALA:HB1	1.46	0.98
25:DA:2469:A:O2'	37:DQ:56:ARG:HD3	1.63	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:9:ARG:HG3	9:AI:14:VAL:HG22	1.44	0.98
25:BA:2762:G:H2'	25:BA:2763:G:H5''	1.46	0.98
25:BA:108:U:C2'	25:BA:109:G:H5'	1.94	0.98
25:DA:1819:A:C1'	25:DA:1821:A:C6	2.47	0.98
25:BA:1697:G:H3'	25:BA:1698:A:H5''	1.44	0.98
25:BA:2463:C:H2'	25:BA:2464:C:H5'	1.46	0.98
29:BE:51:PHE:O	29:BE:52:LEU:HB2	1.63	0.98
32:BH:43:VAL:HG11	32:BH:52:VAL:HA	1.42	0.98
13:CM:94:ARG:NH2	25:DA:887:A:C3'	2.26	0.98
28:DD:9:TYR:HD1	28:DD:9:TYR:H	1.01	0.98
13:AM:93:ARG:CD	25:BA:888:C:C5'	2.41	0.97
25:BA:560:C:H4'	41:BU:52:ARG:HH22	1.29	0.97
25:DA:1270:C:H5''	25:DA:1271:G:H5'	1.43	0.97
27:BC:49:ILE:HD12	27:BC:49:ILE:H	1.28	0.97
36:BP:6:LEU:HG	36:BP:9:ASN:HD22	1.26	0.97
25:DA:1902:C:O2'	28:DD:244:ARG:HB2	1.63	0.97
13:AM:94:ARG:CZ	25:BA:887:A:H3'	1.95	0.97
14:AN:26:ARG:HH22	14:AN:47:LEU:HD21	1.27	0.97
26:DB:107:G:O2'	26:DB:108:U:H5'	1.62	0.97
36:DP:64:LYS:HB3	55:D8:25:MET:HG3	1.42	0.97
40:BT:80:SER:OG	40:BT:81:PRO:HD3	1.62	0.97
19:CS:63:THR:HG22	19:CS:66:MET:HE3	1.46	0.97
1:AA:1422:C:C2'	1:AA:1423:G:H5'	1.94	0.97
4:AD:195:ALA:HB3	6:CF:20:ALA:CB	1.89	0.97
25:BA:271(U):G:C2'	25:BA:271(V):G:C5'	2.42	0.97
33:DI:92:VAL:HG11	33:DI:120:ILE:HD12	1.40	0.97
25:BA:1819:A:C1'	25:BA:1821:A:C6	2.46	0.97
14:AN:13:THR:N	14:AN:14:PRO:HD2	1.76	0.97
1:CA:261:G:H5''	1:CA:262:C:H5	1.27	0.97
11:CK:111:ASP:HA	18:CR:84:LYS:HG3	1.45	0.97
29:DE:184:VAL:HG12	29:DE:185:LYS:H	1.30	0.97
30:DF:2:LYS:HD3	30:DF:2:LYS:H	1.27	0.97
30:DF:67:GLN:HG3	30:DF:67:GLN:O	1.62	0.97
25:BA:2103:C:C3'	25:BA:2104:G:H5''	1.93	0.97
25:BA:2469:A:O2'	37:BQ:56:ARG:HD3	1.63	0.97
25:DA:271(U):G:C2'	25:DA:271(V):G:C5'	2.41	0.97
42:BV:39:LEU:HD12	42:BV:50:PRO:O	1.64	0.97
25:BA:103:A:C2'	25:BA:104:U:H5'	1.94	0.97
25:BA:271(Q):G:C4	25:BA:271(R):G:N7	2.33	0.97
20:CT:30:LYS:HZ1	20:CT:80:ARG:NE	1.63	0.97
25:DA:2853:C:H2'	25:DA:2854:G:H8	1.30	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:87:ARG:O	6:AF:88:VAL:HG23	1.63	0.96
29:BE:184:VAL:HG12	29:BE:185:LYS:H	1.30	0.96
19:CS:6:LYS:CD	19:CS:7:LYS:HE3	1.94	0.96
25:DA:281:G:N2	25:DA:358:U:C5	2.33	0.96
11:AK:111:ASP:HA	18:AR:84:LYS:HG3	1.43	0.96
25:BA:281:G:N2	25:BA:358:U:C5	2.33	0.96
46:BZ:4:ARG:HG3	46:BZ:58:VAL:O	1.64	0.96
25:BA:2853:C:H2'	25:BA:2854:G:H8	1.30	0.96
27:BC:59:ARG:HB2	27:BC:62:VAL:HG22	1.46	0.96
5:CE:33:VAL:HG11	5:CE:109:ILE:HA	1.48	0.96
25:DA:404:C:H4'	25:DA:405:U:H5'	1.45	0.96
25:DA:2300:G:N2	25:DA:2317:C:H1'	1.80	0.96
25:DA:2463:C:H2'	25:DA:2464:C:H5'	1.46	0.96
13:AM:40:ASN:HD22	13:AM:43:THR:HG23	1.26	0.96
22:AW:38:A:C2'	22:AW:39:U:H5''	1.95	0.96
25:BA:1685:C:H2'	25:BA:1686:C:H5''	1.43	0.96
5:CE:70:PRO:HG2	5:CE:142:LEU:HB2	1.47	0.96
7:CG:102:ARG:HG2	7:CG:106:GLN:HE21	1.29	0.96
46:DZ:4:ARG:HG3	46:DZ:58:VAL:O	1.64	0.96
25:BA:404:C:H4'	25:BA:405:U:H5'	1.45	0.96
32:BH:159:GLU:HG3	32:BH:160:LYS:H	1.30	0.96
25:DA:103:A:C2'	25:DA:104:U:H5'	1.94	0.96
26:DB:92:C:OP1	37:DQ:19:GLY:HA3	1.62	0.96
7:AG:102:ARG:HG2	7:AG:106:GLN:HE21	1.28	0.96
46:BZ:5:LEU:HD21	46:BZ:43:GLU:HB3	1.47	0.96
9:CI:9:ARG:HG3	9:CI:14:VAL:HG22	1.46	0.96
46:DZ:5:LEU:HD21	46:DZ:43:GLU:HB3	1.46	0.96
10:AJ:34:VAL:HG22	10:AJ:74:ILE:HG22	1.46	0.96
32:BH:44:VAL:HG12	32:BH:45:VAL:H	1.31	0.96
41:BU:90:VAL:HG12	41:BU:91:ASP:H	1.30	0.96
36:DP:23:PRO:HB2	36:DP:33:ARG:HD2	1.48	0.96
3:AC:16:ARG:HB2	3:AC:16:ARG:NH1	1.80	0.96
25:BA:2562:U:H1'	35:BO:23:ARG:NH1	1.80	0.96
13:CM:13:LYS:HA	13:CM:44:ARG:NH1	1.80	0.96
25:DA:108:U:C2'	25:DA:109:G:H5'	1.94	0.96
20:CT:26:ASN:CB	20:CT:71:THR:CG2	2.29	0.96
27:DC:59:ARG:HB2	27:DC:62:VAL:HG22	1.46	0.96
28:DD:28:GLU:H	28:DD:29:PRO:HD2	1.29	0.96
13:AM:93:ARG:NE	25:BA:888:C:C5'	2.28	0.96
28:BD:28:GLU:H	28:BD:29:PRO:HD2	1.29	0.96
36:BP:23:PRO:HB2	36:BP:33:ARG:CD	1.95	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:53:ASP:HB3	4:CD:57:ARG:HH12	1.30	0.96
12:CL:47:LYS:HB3	12:CL:48:PRO:CD	1.96	0.96
36:DP:38:GLN:HG3	36:DP:39:LYS:H	1.29	0.96
13:AM:108:ARG:HH12	13:AM:111:LYS:HB2	1.27	0.95
25:BA:389:G:H1	36:BP:71:VAL:HG12	1.30	0.95
45:BY:76:CYS:HB3	45:BY:96:ILE:HD11	1.48	0.95
30:DF:132:VAL:HG22	30:DF:133:ASN:H	1.29	0.95
32:DH:44:VAL:HG12	32:DH:45:VAL:H	1.31	0.95
45:DY:42:VAL:HB	45:DY:65:ALA:HB3	1.48	0.95
25:BA:1652:A:H62	38:BR:11:ASN:HD22	1.07	0.95
25:BA:1798:U:H5'	28:BD:259:THR:CG2	1.96	0.95
27:DC:49:ILE:H	27:DC:49:ILE:HD12	1.28	0.95
29:DE:51:PHE:CE1	29:DE:52:LEU:CD2	2.49	0.95
1:AA:1328:G:H5''	9:AI:107:ARG:HG2	1.48	0.95
2:AB:48:MET:HA	2:AB:51:LEU:HD12	1.48	0.95
25:BA:541:C:O2'	25:BA:542:C:H5'	1.66	0.95
5:CE:78:HIS:CD2	8:CH:104:ARG:NE	2.34	0.95
13:CM:94:ARG:HH21	25:DA:887:A:C2'	1.75	0.95
40:DT:55:ASN:H	40:DT:59:THR:HG22	1.05	0.95
42:DV:25:LEU:H	42:DV:92:THR:HG21	1.27	0.95
25:BA:1140:C:H5''	34:BN:66:LYS:HZ3	1.31	0.95
41:BU:62:ILE:HD11	41:BU:93:LYS:HG2	1.49	0.95
25:DA:297:C:C2'	25:DA:298:G:H5'	1.96	0.95
25:DA:1385:G:OP1	25:DA:1385:G:H4'	1.63	0.95
32:DH:159:GLU:HG3	32:DH:160:LYS:H	1.31	0.95
2:AB:236:TYR:HA	2:AB:239:VAL:HG23	1.49	0.95
4:AD:49:ARG:HD3	4:AD:50:ARG:H	1.30	0.95
25:BA:2526:G:H21	56:B9:2:LYS:HG3	1.31	0.95
25:DA:1652:A:H62	38:DR:11:ASN:HD22	1.14	0.95
39:DS:74:ALA:HB1	39:DS:103:GLU:HB2	1.48	0.95
22:AW:67:C:H2'	22:AW:68:C:H6	1.27	0.95
33:BI:57:ARG:O	33:BI:60:GLU:HB3	1.67	0.95
25:DA:2515:C:C2'	25:DA:2516:G:H5'	1.96	0.95
1:AA:451:C:C2'	1:AA:452:C:H5'	1.97	0.95
25:BA:729:G:H3'	25:BA:729:G:N3	1.82	0.95
45:BY:17:SER:HB2	45:BY:71:LYS:CE	1.97	0.95
4:CD:49:ARG:HD3	4:CD:50:ARG:H	1.29	0.95
14:CN:13:THR:N	14:CN:14:PRO:HD2	1.79	0.95
25:DA:729:G:H3'	25:DA:729:G:N3	1.81	0.95
25:DA:2584:U:C2'	25:DA:2585:U:C5'	2.30	0.95
41:DU:62:ILE:HD11	41:DU:93:LYS:HG2	1.48	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2681:C:H5	25:BA:2725:A:H62	0.95	0.95
31:BG:113:ARG:NH1	31:BG:113:ARG:CA	2.30	0.95
36:BP:38:GLN:HG3	36:BP:39:LYS:H	1.29	0.95
39:BS:74:ALA:HB1	39:BS:103:GLU:HB2	1.48	0.95
14:CN:26:ARG:HH22	14:CN:47:LEU:HD21	1.31	0.95
25:DA:1798:U:H5'	28:DD:259:THR:CG2	1.96	0.95
41:DU:90:VAL:HG12	41:DU:91:ASP:H	1.30	0.95
12:AL:46:LYS:HG2	12:AL:47:LYS:H	1.28	0.95
25:BA:314:A:HO2'	25:BA:315:G:H5'	1.25	0.95
29:BE:36:ARG:HH22	29:BE:88:GLY:HA3	1.22	0.95
29:BE:52:LEU:CD2	29:BE:76:ARG:CB	2.43	0.95
30:BF:67:GLN:O	30:BF:67:GLN:HG3	1.62	0.95
29:DE:51:PHE:HE1	29:DE:52:LEU:HD23	1.28	0.95
33:DI:58:LEU:HA	33:DI:61:ARG:NE	1.82	0.95
33:DI:87:LYS:HA	33:DI:122:GLU:HG2	1.48	0.95
3:AC:79:ARG:HH12	11:CK:99:GLN:CB	1.76	0.95
45:BY:27:VAL:HA	45:BY:28:LYS:NZ	1.82	0.95
1:CA:319:G:H5''	20:CT:70:SER:HB3	1.49	0.95
25:DA:2762:G:H2'	25:DA:2763:G:H5''	1.46	0.95
7:CG:73:MET:HG2	7:CG:90:GLU:HA	1.49	0.94
25:DA:1952:A:C6	35:DO:22:ILE:HD11	2.02	0.94
1:AA:822:U:O2	1:AA:822:U:H3'	1.66	0.94
1:AA:960:A:H5'	1:AA:961:C:OP2	1.66	0.94
25:BA:2515:C:C2'	25:BA:2516:G:H5'	1.97	0.94
45:BY:17:SER:HB2	45:BY:71:LYS:HD2	1.48	0.94
13:CM:93:ARG:NE	25:DA:888:C:C5'	2.30	0.94
7:AG:60:LYS:HA	7:AG:60:LYS:NZ	1.82	0.94
30:BF:132:VAL:HG22	30:BF:133:ASN:H	1.29	0.94
45:DY:27:VAL:HA	45:DY:28:LYS:NZ	1.82	0.94
25:BA:292:C:H42	25:BA:348:G:H1	1.02	0.94
25:BA:353:G:C2	25:BA:354:G:C8	2.55	0.94
25:BA:1464:C:O2'	25:BA:1528:A:H8	1.49	0.94
12:CL:46:LYS:HG2	12:CL:47:LYS:H	1.31	0.94
40:DT:55:ASN:H	40:DT:59:THR:CG2	1.80	0.94
32:BH:159:GLU:HG3	32:BH:160:LYS:HG3	1.48	0.94
38:BR:10:LEU:HD22	38:BR:17:ARG:HD2	1.50	0.94
4:AD:167:GLY:HA2	28:DD:135:PHE:CD2	2.03	0.94
5:AE:33:VAL:HG11	5:AE:109:ILE:HA	1.49	0.94
17:AQ:68:ARG:H	17:AQ:70:ARG:HH11	0.99	0.94
25:BA:571:A:H5'	25:BA:2030:A:H62	1.33	0.94
42:BV:49:THR:CG2	42:BV:50:PRO:CD	2.44	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:23:TYR:HB3	13:CM:67:GLU:HB2	1.48	0.94
20:CT:26:ASN:HB3	20:CT:71:THR:OG1	1.66	0.94
25:DA:353:G:C2	25:DA:354:G:C8	2.55	0.94
25:DA:480:A:OP2	45:DY:46:LYS:HE2	1.67	0.94
25:DA:541:C:O2'	25:DA:542:C:H5'	1.66	0.94
25:DA:1287:A:C5	25:DA:1288:U:C4	2.56	0.94
25:DA:1446:C:H2'	25:DA:1447:G:H5''	1.46	0.94
25:DA:1747(A):G:H2'	25:DA:1748:G:H5''	1.50	0.94
25:DA:2075:U:C4	25:DA:2238:G:C6	2.56	0.94
40:DT:53:ARG:NH1	40:DT:55:ASN:HB2	1.82	0.94
25:BA:297:C:C2'	25:BA:298:G:H5'	1.96	0.94
25:BA:1287:A:C5	25:BA:1288:U:C4	2.56	0.94
1:CA:1110:C:H1'	1:CA:1128:A:H61	1.31	0.94
25:DA:17:G:H4'	41:DU:25:TRP:CZ3	2.02	0.94
4:AD:195:ALA:O	6:CF:16:GLN:HB2	1.66	0.94
5:AE:43:LEU:HD21	5:AE:132:ALA:HB1	1.50	0.94
14:AN:12:ARG:C	14:AN:14:PRO:HD2	1.92	0.94
25:DA:292:C:H42	25:DA:348:G:H1	1.02	0.94
4:AD:53:ASP:HB3	4:AD:57:ARG:HH12	1.31	0.93
10:AJ:80:LYS:NZ	1:CA:1144:C:O2'	2.01	0.93
31:BG:104:GLU:OE2	51:B4:50:THR:HG22	1.67	0.93
1:CA:261:G:H5''	1:CA:262:C:C5	2.02	0.93
20:CT:49:ALA:CB	20:CT:100:ILE:HD11	1.98	0.93
23:CV:3:C:H2'	23:CV:4:G:H5'	1.50	0.93
25:DA:2015:A:H1'	52:D5:2:ALA:HA	1.49	0.93
4:AD:167:GLY:CA	28:DD:135:PHE:CD2	2.51	0.93
25:BA:1140:C:H5''	34:BN:66:LYS:NZ	1.83	0.93
2:CB:48:MET:HA	2:CB:51:LEU:HD12	1.48	0.93
32:DH:159:GLU:HG3	32:DH:160:LYS:HG3	1.48	0.93
36:DP:50:ARG:HB3	55:D8:59:LYS:HD3	1.50	0.93
2:CB:236:TYR:HA	2:CB:239:VAL:HG23	1.50	0.93
25:DA:825:C:H1'	36:DP:55:ARG:HD3	1.48	0.93
45:DY:28:LYS:HB2	45:DY:37:VAL:HB	1.50	0.93
1:CA:261:G:C5'	1:CA:262:C:H5	1.80	0.93
40:DT:29:ARG:HG2	40:DT:85:LYS:CG	1.99	0.93
17:AQ:7:THR:HG22	17:AQ:58:GLU:HG2	1.49	0.93
53:B6:19:ARG:HG2	53:B6:20:ASN:H	1.33	0.93
23:CV:3:C:C2'	23:CV:4:G:H5'	1.98	0.93
23:CV:22:A:N7	23:CV:47:G:C6	2.37	0.93
25:BA:911:A:C5'	25:BA:912:C:H5''	1.98	0.93
31:BG:161:THR:HG22	31:BG:163:ALA:H	1.33	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:D6:19:ARG:HG2	53:D6:20:ASN:H	1.33	0.93
33:BI:87:LYS:HA	33:BI:122:GLU:HG2	1.48	0.93
13:CM:88:ARG:HG3	13:CM:98:VAL:CG1	1.98	0.93
14:CN:12:ARG:C	14:CN:14:PRO:HD2	1.94	0.93
25:DA:481:G:OP2	45:DY:47:LYS:HE3	1.69	0.93
25:DA:2392:A:OP1	55:D8:32:LEU:HD13	1.69	0.93
9:AI:10:ARG:HD2	9:AI:105:ASP:OD2	1.69	0.93
5:CE:41:VAL:CG1	5:CE:113:ALA:HA	1.98	0.93
20:CT:53:LEU:CD1	20:CT:102:GLY:CA	2.44	0.93
19:AS:63:THR:HG22	19:AS:66:MET:HE3	1.50	0.93
26:BB:13:A:OP2	47:B0:74:ARG:HG2	1.68	0.93
9:CI:106:ALA:O	9:CI:108:VAL:HG13	1.67	0.93
45:DY:76:CYS:HB3	45:DY:96:ILE:HD11	1.48	0.93
1:AA:1439:G:O3'	40:BT:115:ARG:NH1	2.01	0.92
36:BP:64:LYS:CB	55:B8:25:MET:HG3	1.98	0.92
7:CG:60:LYS:HA	7:CG:60:LYS:NZ	1.83	0.92
17:CQ:7:THR:HG22	17:CQ:58:GLU:HG2	1.51	0.92
25:BA:747:U:C5	52:B5:3:LYS:HB2	2.04	0.92
45:BY:28:LYS:HB2	45:BY:37:VAL:HB	1.50	0.92
3:CC:16:ARG:HB2	3:CC:16:ARG:NH1	1.84	0.92
7:AG:73:MET:HG2	7:AG:90:GLU:HA	1.51	0.92
26:BB:6:C:O2'	39:BS:29:PHE:HE1	1.51	0.92
22:CW:2:C:H42	22:CW:72:C:H42	1.17	0.92
25:DA:1685:C:C2'	25:DA:1686:C:H5''	2.00	0.92
39:DS:97:ARG:NH2	39:DS:98:VAL:HA	1.83	0.92
25:BA:471:A:O2'	25:BA:472:A:H5'	1.69	0.92
13:CM:5:ALA:CB	13:CM:66:LEU:CD1	2.45	0.92
38:DR:97:VAL:HG22	38:DR:114:VAL:HG22	1.49	0.92
25:BA:1880:C:H5'	25:BA:1880:C:H6	1.35	0.92
27:DC:68:LEU:HD11	27:DC:179:SER:HA	1.52	0.92
1:AA:1302:C:C5'	1:AA:1303:C:H5'	1.99	0.92
13:AM:108:ARG:HH11	13:AM:111:LYS:HG3	1.34	0.92
25:BA:2645:G:H3'	25:BA:2646:C:H5'	1.51	0.92
38:BR:97:VAL:HG22	38:BR:114:VAL:HG22	1.49	0.92
9:CI:114:TYR:HD2	9:CI:114:TYR:H	1.17	0.92
25:DA:1365:A:H5''	48:D1:41:ARG:HH12	1.34	0.92
25:DA:2645:G:H3'	25:DA:2646:C:H5'	1.51	0.92
25:DA:2892:A:H3'	25:DA:2893:G:H5''	1.50	0.92
1:AA:259:U:C2'	1:AA:260:G:H5'	1.99	0.92
14:AN:43:CYS:HG	59:AN:101:ZN:ZN	0.77	0.92
25:BA:2864:G:H8	25:BA:2864:G:H5'	1.35	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:271(U):G:O2'	25:DA:271(V):G:H5'	1.70	0.92
25:DA:2873:A:C2	38:DR:6:SER:HB2	2.05	0.92
22:AY:33:U:H5''	22:AY:34:G:OP2	1.70	0.92
25:BA:2302:G:H21	31:BG:128:ARG:HG3	1.32	0.92
25:BA:1652:A:H62	38:BR:11:ASN:ND2	1.68	0.92
1:CA:290:C:H2'	1:CA:291:U:C6	2.05	0.92
1:CA:1280:A:C4'	1:CA:1281:G:OP1	2.17	0.92
25:DA:1819:A:O4'	25:DA:1821:A:C5	2.23	0.92
29:BE:52:LEU:HD23	29:BE:76:ARG:HB2	0.94	0.91
25:DA:1140:C:H5''	34:DN:66:LYS:HZ3	1.30	0.91
39:DS:89:ARG:HB3	39:DS:92:TYR:HB3	1.52	0.91
25:BA:2712:U:H1'	25:BA:2712(A):A:C8	2.06	0.91
39:BS:89:ARG:HB3	39:BS:92:TYR:HB3	1.52	0.91
21:CU:6:ARG:HE	21:CU:15:ARG:HH22	1.11	0.91
2:CB:91:PRO:HG2	2:CB:155:LEU:HD23	1.53	0.91
5:CE:126:ARG:HH11	5:CE:126:ARG:HG3	1.35	0.91
16:CP:71:ARG:HA	16:CP:74:LEU:HD12	1.51	0.91
31:DG:22:ARG:HH11	31:DG:22:ARG:CB	1.82	0.91
39:DS:19:LYS:HB3	39:DS:20:ARG:HH12	1.35	0.91
13:AM:57:ARG:HH22	51:B4:60:GLU:HG3	1.29	0.91
25:BA:2584:U:C2'	25:BA:2585:U:C5'	2.30	0.91
33:BI:48:GLU:HA	33:BI:51:ILE:HG13	1.52	0.91
13:CM:13:LYS:O	13:CM:45:VAL:HG23	1.69	0.91
31:DG:161:THR:HG22	31:DG:163:ALA:H	1.33	0.91
25:BA:1952:A:N1	35:BO:22:ILE:HD12	1.84	0.91
31:BG:22:ARG:HH11	31:BG:22:ARG:CB	1.82	0.91
31:BG:111:LEU:HA	31:BG:114:ILE:CD1	2.00	0.91
25:DA:471:A:O2'	25:DA:472:A:H5'	1.69	0.91
25:DA:571:A:H5'	25:DA:2030:A:H62	1.33	0.91
25:DA:2036:C:H5'	25:DA:2036:C:H6	1.36	0.91
5:AE:101:ILE:H	5:AE:101:ILE:HD13	1.33	0.91
25:BA:313:C:O2'	25:BA:314:A:H5'	1.69	0.91
25:BA:2892:A:H3'	25:BA:2893:G:H5''	1.50	0.91
31:DG:133:LEU:HD11	31:DG:157:ILE:HD11	1.53	0.91
38:DR:10:LEU:HD22	38:DR:17:ARG:HD2	1.50	0.91
45:DY:67:LEU:O	45:DY:68:HIS:O	1.87	0.91
2:AB:91:PRO:HG2	2:AB:155:LEU:HD23	1.49	0.91
25:BA:2305:A:C2	31:BG:154:GLY:N	2.37	0.91
1:CA:180:C:H4'	20:CT:82:SER:HB3	1.53	0.91
13:CM:117:VAL:HG12	13:CM:118:ALA:N	1.83	0.91
25:DA:313:C:O2'	25:DA:314:A:H5'	1.69	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1992:G:H4'	25:DA:1993:U:OP1	1.70	0.91
26:DB:20:C:C2'	26:DB:21:G:H5''	2.01	0.91
31:DG:128:ARG:C	31:DG:130:ASN:H	1.77	0.91
32:DH:17:VAL:CG2	32:DH:45:VAL:HG13	2.01	0.91
32:DH:17:VAL:O	32:DH:45:VAL:CG2	2.19	0.91
43:DW:59:VAL:HG12	43:DW:60:ASN:HD22	1.34	0.91
25:BA:1378:A:H4'	25:BA:1379:A:OP1	1.71	0.91
25:BA:2103:C:H3'	25:BA:2104:G:H5''	1.53	0.91
25:DA:2712:U:H1'	25:DA:2712(A):A:C8	2.06	0.91
46:DZ:150:LEU:HD23	46:DZ:171:ILE:HG13	1.53	0.91
12:AL:47:LYS:HB3	12:AL:48:PRO:CD	1.96	0.91
25:BA:2331:G:O2'	47:B0:43:THR:HG22	1.71	0.91
35:BO:4:PRO:HA	35:BO:21:CYS:SG	2.10	0.91
25:DA:2849:U:OP2	40:DT:95:ARG:HD2	1.69	0.91
37:DQ:134:ARG:HE	46:DZ:122:ARG:NH1	1.69	0.91
1:AA:939:C:H2'	1:AA:940:G:H8	1.35	0.91
25:BA:92:A:H2'	25:BA:93:G:C8	2.06	0.91
25:BA:1747(A):G:H2'	25:BA:1748:G:H5''	1.50	0.91
31:BG:111:LEU:HD23	31:BG:114:ILE:CD1	2.00	0.91
25:DA:1157:G:O2'	50:D3:31:LEU:HD12	1.71	0.91
25:DA:2103:C:H3'	25:DA:2104:G:H5''	1.53	0.91
26:DB:82:G:O2'	26:DB:83:G:H5'	1.71	0.91
40:DT:28:VAL:HG21	40:DT:46:GLU:CD	1.95	0.91
36:BP:21:ARG:HD3	36:BP:29:LYS:HE3	1.53	0.90
39:BS:97:ARG:NH2	39:BS:98:VAL:HA	1.83	0.90
23:CV:57:C:H1'	31:DG:76:SER:O	1.71	0.90
25:DA:2394:C:OP1	36:DP:63:PRO:HD2	1.71	0.90
43:DW:5:ALA:HB2	43:DW:54:ALA:HB2	1.53	0.90
49:D2:48:HIS:O	49:D2:52:ASP:HB2	1.71	0.90
8:CH:6:ILE:H	8:CH:6:ILE:HD12	1.34	0.90
25:DA:310:A:OP1	45:DY:18:GLY:HA2	1.70	0.90
40:DT:23:ARG:HG3	40:DT:120:ARG:NH1	1.86	0.90
8:AH:6:ILE:H	8:AH:6:ILE:HD12	1.36	0.90
9:AI:104:ARG:HG2	9:AI:106:ALA:CA	1.94	0.90
25:BA:2701:C:H3'	25:BA:2702:U:C5'	2.02	0.90
46:BZ:150:LEU:HD23	46:BZ:171:ILE:HG13	1.53	0.90
1:CA:822:U:O2	1:CA:822:U:H2'	1.70	0.90
2:CB:178:ARG:HB2	2:CB:178:ARG:HH11	1.36	0.90
23:CV:19:G:H5''	23:CV:19:G:H8	1.35	0.90
25:DA:1378:A:H4'	25:DA:1379:A:OP1	1.71	0.90
25:DA:2864:G:H8	25:DA:2864:G:H5'	1.35	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DT:66:VAL:HA	40:DT:71:GLY:HA2	1.53	0.90
25:BA:1685:C:C2'	25:BA:1686:C:H5''	2.00	0.90
25:BA:2394:C:OP1	36:BP:63:PRO:HD2	1.70	0.90
2:CB:87:ARG:HE	2:CB:233:SER:HB2	1.36	0.90
42:DV:21:ARG:HB3	42:DV:91:TYR:HB2	1.53	0.90
4:AD:197:PRO:CD	6:CF:16:GLN:CG	2.16	0.90
7:AG:60:LYS:HA	7:AG:60:LYS:HZ2	1.35	0.90
15:AO:87:ILE:HG22	15:AO:88:ARG:H	1.36	0.90
25:BA:1747(A):G:C2'	25:BA:1748:G:H5''	2.02	0.90
40:DT:89:VAL:CB	40:DT:91:ARG:HG3	2.00	0.90
5:AE:10:MET:HB2	5:AE:32:VAL:HG22	1.54	0.90
37:BQ:134:ARG:HE	46:BZ:122:ARG:NH1	1.69	0.90
43:BW:59:VAL:HG12	43:BW:60:ASN:HD22	1.34	0.90
45:BY:55:TYR:HB3	45:BY:56:PRO:CD	2.02	0.90
49:B2:48:HIS:O	49:B2:52:ASP:HB2	1.72	0.90
22:CW:16:U:H3'	22:CW:17:C:H5'	1.52	0.90
25:DA:676:A:H8	25:DA:2069:G:H21	1.19	0.90
5:AE:126:ARG:HG3	5:AE:126:ARG:HH11	1.34	0.90
13:AM:93:ARG:HD3	25:BA:888:C:C5'	1.97	0.90
5:CE:100:VAL:HG22	5:CE:118:ILE:HG22	1.51	0.90
20:AT:44:ALA:HA	20:AT:92:LEU:HD21	1.52	0.90
32:BH:85:LYS:HD2	32:BH:141:VAL:HG13	1.53	0.90
45:DY:17:SER:OG	45:DY:71:LYS:HB3	1.72	0.90
47:D0:41:ARG:H	47:D0:41:ARG:HD2	1.37	0.90
9:AI:114:TYR:HD2	9:AI:114:TYR:H	1.16	0.90
25:BA:1819:A:H1'	25:BA:1821:A:N6	1.87	0.90
26:BB:107:G:H2'	26:BB:108:U:C5'	1.99	0.90
44:BX:60:ARG:HH12	54:B7:47:ARG:NH2	1.68	0.90
45:BY:26:LYS:HG2	45:BY:27:VAL:H	1.37	0.90
32:DH:41:MET:CA	32:DH:53:GLU:O	2.20	0.90
53:D6:47:THR:HB	53:D6:49:HIS:ND1	1.87	0.90
25:BA:2693:A:H2'	25:BA:2694:G:H8	1.36	0.90
29:BE:11:MET:N	40:BT:8:LYS:NZ	2.20	0.90
38:BR:55:ALA:HA	38:BR:80:PHE:CE1	2.07	0.90
42:BV:72:VAL:CG2	42:BV:85:LYS:HB3	2.01	0.90
25:DA:911:A:C5'	25:DA:912:C:H5''	2.01	0.90
16:AP:71:ARG:HA	16:AP:74:LEU:HD12	1.54	0.89
25:BA:2305:A:C2	31:BG:154:GLY:HA3	2.07	0.89
25:DA:1880:C:H5'	25:DA:1880:C:H6	1.35	0.89
2:AB:178:ARG:HB2	2:AB:178:ARG:HH11	1.34	0.89
29:BE:101:ARG:NH2	29:BE:171:GLU:HB2	1.88	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BW:5:ALA:HB2	43:BW:54:ALA:HB2	1.53	0.89
49:B2:43:GLN:O	49:B2:44:LEU:HB2	1.70	0.89
13:CM:88:ARG:CG	13:CM:98:VAL:HG12	2.01	0.89
25:DA:271(T):C:H6	25:DA:271(T):C:H5'	1.36	0.89
39:BS:19:LYS:HB3	39:BS:20:ARG:HH12	1.35	0.89
45:BY:17:SER:HB2	45:BY:71:LYS:CD	2.01	0.89
46:BZ:153:SER:HB2	46:BZ:167:PRO:HB3	1.52	0.89
9:CI:15:ALA:HB2	9:CI:65:VAL:HG23	1.52	0.89
13:CM:93:ARG:NE	25:DA:888:C:H5'	1.86	0.89
20:CT:50:GLU:HA	20:CT:100:ILE:HG21	1.52	0.89
25:DA:858:U:O2'	25:DA:859:G:C4	2.24	0.89
26:DB:92:C:H2'	26:DB:93:G:C8	2.07	0.89
29:DE:51:PHE:O	29:DE:52:LEU:HB2	1.71	0.89
36:DP:21:ARG:HD3	36:DP:29:LYS:HE3	1.53	0.89
7:AG:102:ARG:HG2	7:AG:106:GLN:NE2	1.86	0.89
25:BA:17:G:H4'	41:BU:25:TRP:CZ3	2.07	0.89
25:BA:676:A:H8	25:BA:2069:G:H21	1.19	0.89
26:BB:20:C:C2'	26:BB:21:G:H5''	2.01	0.89
25:DA:2701:C:H3'	25:DA:2702:U:C5'	2.02	0.89
36:DP:7:ARG:O	36:DP:10:PRO:HD2	1.72	0.89
38:DR:51:LEU:HD23	38:DR:66:VAL:HG13	1.55	0.89
1:AA:748:G:H1	1:AA:795:C:HO2'	0.93	0.89
1:AA:950:G:H1'	10:AJ:55:LYS:HE2	1.53	0.89
1:AA:1039:G:H5''	3:AC:154:SER:HB2	1.55	0.89
12:AL:46:LYS:HG2	12:AL:47:LYS:N	1.87	0.89
22:AW:68:C:H2'	22:AW:69:G:H8	1.37	0.89
25:BA:541:C:C2'	25:BA:542:C:H5'	2.01	0.89
25:BA:1301:A:O2'	25:BA:1302:A:H2'	1.71	0.89
31:BG:111:LEU:HA	31:BG:114:ILE:HD11	1.55	0.89
17:CQ:68:ARG:H	17:CQ:70:ARG:HH11	1.17	0.89
20:CT:30:LYS:HZ1	20:CT:80:ARG:HE	1.15	0.89
25:DA:1301:A:O2'	25:DA:1302:A:H2'	1.71	0.89
25:DA:1747(A):G:C2'	25:DA:1748:G:H5''	2.01	0.89
40:DT:29:ARG:HD3	40:DT:85:LYS:HA	0.91	0.89
9:AI:15:ALA:HB2	9:AI:65:VAL:HG23	1.53	0.89
25:BA:271(M):G:H2'	25:BA:271(N):U:H5''	1.55	0.89
27:BC:68:LEU:HD11	27:BC:179:SER:HA	1.52	0.89
28:BD:181:GLU:HA	28:BD:272:ALA:HB3	1.54	0.89
25:DA:560:C:H4'	41:DU:52:ARG:NH2	1.87	0.89
25:DA:1819:A:H1'	25:DA:1821:A:N6	1.87	0.89
4:AD:166:LYS:C	28:DD:135:PHE:CZ	2.49	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:271(T):C:H5'	25:BA:271(T):C:H6	1.36	0.89
45:BY:28:LYS:HZ2	45:BY:28:LYS:H	1.21	0.89
14:CN:4:LYS:HD2	14:CN:7:ILE:HD11	1.55	0.89
28:DD:181:GLU:HA	28:DD:272:ALA:HB3	1.54	0.89
40:DT:51:ARG:HB2	40:DT:98:LYS:HG3	1.52	0.89
42:DV:72:VAL:CG2	42:DV:85:LYS:HB3	2.01	0.89
25:BA:297:C:H2'	25:BA:298:G:H5'	1.54	0.89
31:BG:128:ARG:C	31:BG:130:ASN:H	1.77	0.89
25:DA:942:G:OP1	36:DP:35:HIS:HB3	1.71	0.89
25:DA:2331:G:O2'	47:D0:43:THR:HG22	1.72	0.89
28:DD:35:LYS:HZ1	28:DD:103:ARG:HA	1.38	0.89
1:AA:1422:C:H2'	1:AA:1423:G:H5'	1.53	0.89
4:AD:195:ALA:HB2	6:CF:20:ALA:CB	2.00	0.89
29:BE:11:MET:CA	40:BT:8:LYS:HZ1	1.86	0.89
33:BI:47:LEU:O	33:BI:51:ILE:HG12	1.72	0.89
25:DA:2206:G:N2	25:DA:2207:G:H5'	1.88	0.89
42:DV:38:LEU:C	42:DV:39:LEU:HD13	1.98	0.89
48:D1:86:SER:HB2	48:D1:89:GLU:HB2	1.55	0.89
9:AI:104:ARG:CG	9:AI:106:ALA:CB	2.51	0.89
25:BA:271(U):G:O2'	25:BA:271(V):G:C5'	2.21	0.89
25:BA:858:U:O2'	25:BA:859:G:C4	2.24	0.89
25:BA:2392:A:OP1	55:B8:32:LEU:HD13	1.70	0.89
25:DA:1447:G:C5'	25:DA:1447:G:H8	1.86	0.89
32:DH:17:VAL:HB	32:DH:45:VAL:CG1	2.03	0.89
8:AH:110:ALA:HB3	8:AH:121:ASP:HB3	1.54	0.88
15:AO:2:PRO:HB2	15:AO:3:ILE:HD13	1.54	0.88
23:AV:14:A:H1'	23:AV:23:G:N2	1.87	0.88
25:BA:271(U):G:O2'	25:BA:271(V):G:H5'	1.70	0.88
28:BD:244:ARG:HG3	28:BD:245:PRO:HD2	0.89	0.88
25:DA:297:C:H2'	25:DA:298:G:H5'	1.54	0.88
28:DD:35:LYS:NZ	28:DD:103:ARG:HA	1.88	0.88
40:DT:29:ARG:HD3	40:DT:85:LYS:CB	2.02	0.88
1:AA:919:G:H21	9:AI:124:GLN:HE22	1.16	0.88
7:AG:79:ARG:HG2	7:AG:84:ASN:OD1	1.72	0.88
25:BA:104:U:H2'	25:BA:105:C:O4'	1.73	0.88
25:BA:2516:G:C2'	25:BA:2517:C:C5'	2.50	0.88
31:BG:133:LEU:HD11	31:BG:157:ILE:HD11	1.53	0.88
36:BP:7:ARG:O	36:BP:10:PRO:HD2	1.72	0.88
25:DA:1447:G:H5'	25:DA:1447:G:C8	2.09	0.88
25:DA:2134:A:N6	25:DA:2157:G:H1'	1.88	0.88
25:DA:2693:A:H2'	25:DA:2694:G:H8	1.36	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DH:85:LYS:HD2	32:DH:141:VAL:HG13	1.53	0.88
2:AB:87:ARG:HE	2:AB:233:SER:HB2	1.35	0.88
14:AN:4:LYS:HD2	14:AN:7:ILE:HD11	1.56	0.88
5:CE:78:HIS:HD2	8:CH:104:ARG:NE	1.70	0.88
29:DE:101:ARG:NH2	29:DE:171:GLU:HB2	1.87	0.88
33:DI:83:ALA:HB2	33:DI:88:ILE:HG23	1.56	0.88
46:DZ:153:SER:HB2	46:DZ:167:PRO:HB3	1.52	0.88
2:AB:42:ILE:HD11	2:AB:202:PRO:HB2	1.55	0.88
20:AT:72:LEU:HD23	20:AT:73:HIS:N	1.89	0.88
23:AV:3:C:H2'	23:AV:4:G:H5'	0.88	0.88
25:BA:2392:A:OP1	55:B8:32:LEU:CD1	2.21	0.88
7:CG:102:ARG:HG2	7:CG:106:GLN:NE2	1.88	0.88
25:DA:389:G:H1	36:DP:71:VAL:HG12	1.37	0.88
25:DA:541:C:C2'	25:DA:542:C:H5'	2.02	0.88
7:AG:23:VAL:HG13	7:AG:43:PHE:CE2	2.09	0.88
25:BA:953:A:O2'	25:BA:954:G:H5'	1.73	0.88
42:BV:21:ARG:HB3	42:BV:91:TYR:HB2	1.53	0.88
42:BV:64:HIS:ND1	42:BV:92:THR:HG22	1.88	0.88
25:DA:953:A:O2'	25:DA:954:G:H5'	1.73	0.88
34:DN:67:LEU:O	34:DN:68:GLU:HB2	1.73	0.88
36:DP:47:ASP:HB3	36:DP:48:PRO:C	1.98	0.88
40:DT:54:ARG:HA	40:DT:59:THR:HB	1.54	0.88
50:D3:56:VAL:HG12	50:D3:57:GLU:N	1.89	0.88
25:BA:1313:U:H2'	25:BA:1313:U:O2	1.74	0.88
25:BA:2036:C:H5'	25:BA:2036:C:H6	1.36	0.88
7:CG:79:ARG:HG2	7:CG:84:ASN:OD1	1.73	0.88
25:DA:271(U):G:O2'	25:DA:271(V):G:C5'	2.21	0.88
13:AM:88:ARG:HG3	13:AM:98:VAL:CG1	2.03	0.88
42:BV:39:LEU:HD12	42:BV:51:VAL:HA	1.56	0.88
15:CO:2:PRO:HB2	15:CO:3:ILE:HD13	1.55	0.88
1:AA:1327:A:H5''	9:AI:120:ARG:HH12	1.39	0.88
3:AC:79:ARG:HH12	11:CK:99:GLN:HB2	1.37	0.88
25:BA:272:G:N1	25:BA:421:U:C4	2.42	0.88
25:BA:744:G:OP1	29:BE:132:HIS:HB3	1.74	0.88
25:BA:1819:A:O4'	25:BA:1821:A:C5	2.27	0.88
2:CB:204:ASN:HD21	2:CB:207:ALA:H	1.20	0.88
25:DA:2758:A:C2'	25:DA:2759:G:H5''	2.04	0.88
48:D1:52:ARG:HG3	48:D1:53:VAL:H	1.38	0.88
25:DA:2584:U:C3'	25:DA:2585:U:C5'	2.52	0.88
45:DY:81:LYS:HD3	45:DY:97:ARG:HB3	1.56	0.88
1:AA:1140:C:N3	1:AA:1162:G:N2	2.22	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1302:C:C3'	1:AA:1303:C:H5''	2.04	0.88
5:AE:101:ILE:CD1	5:AE:119:LEU:HD23	2.04	0.88
25:BA:272:G:N1	25:BA:421:U:N3	2.22	0.88
25:BA:1170:G:H1	25:BA:1179:C:H42	1.19	0.88
25:BA:1378:A:O2'	25:BA:1379:A:H5'	1.74	0.88
25:BA:2463:C:H2'	25:BA:2464:C:C5'	2.03	0.88
25:BA:2758:A:C2'	25:BA:2759:G:H5''	2.04	0.88
28:BD:35:LYS:NZ	28:BD:103:ARG:HA	1.88	0.88
40:BT:55:ASN:H	40:BT:59:THR:HG22	1.38	0.88
25:DA:379:G:H2'	25:DA:380:U:C5'	2.04	0.88
40:DT:92:GLY:O	40:DT:114:LEU:HD22	1.73	0.88
45:DY:37:VAL:O	45:DY:66:PRO:HB3	1.74	0.88
12:AL:28:LYS:HE2	12:AL:33:ARG:HH22	1.39	0.87
25:BA:2206:G:N2	25:BA:2207:G:H5'	1.88	0.87
36:BP:49:ARG:NH2	36:BP:50:ARG:HH22	1.72	0.87
41:BU:34:LYS:HE2	41:BU:34:LYS:HA	1.55	0.87
8:CH:110:ALA:HB3	8:CH:121:ASP:HB3	1.53	0.87
13:CM:93:ARG:CG	25:DA:888:C:OP1	2.18	0.87
25:DA:17:G:H4'	41:DU:25:TRP:CH2	2.09	0.87
25:DA:1447:G:H8	25:DA:1447:G:H5'	1.36	0.87
25:DA:1378:A:O2'	25:DA:1379:A:H5'	1.74	0.87
40:DT:29:ARG:CG	40:DT:85:LYS:HG3	2.01	0.87
42:DV:64:HIS:ND1	42:DV:92:THR:HG22	1.88	0.87
1:AA:1302:C:H3'	1:AA:1303:C:H5''	1.54	0.87
13:AM:15:VAL:O	13:AM:19:LEU:HD23	1.74	0.87
13:AM:60:VAL:HG12	13:AM:66:LEU:HD21	1.55	0.87
31:BG:2:PRO:HG2	51:B4:51:TYR:CZ	2.09	0.87
31:BG:75:LYS:HE3	31:BG:77:ILE:HD11	1.55	0.87
33:BI:133:HIS:HB2	33:BI:134:PRO:CD	2.04	0.87
15:CO:87:ILE:HG22	15:CO:88:ARG:H	1.38	0.87
45:DY:26:LYS:HG2	45:DY:27:VAL:H	1.37	0.87
2:AB:21:ARG:HB3	2:AB:39:ILE:HA	1.54	0.87
30:BF:11:VAL:HG12	30:BF:12:LEU:H	1.39	0.87
38:BR:51:LEU:HD23	38:BR:66:VAL:HG13	1.55	0.87
25:DA:92:A:H2'	25:DA:93:G:C8	2.06	0.87
31:DG:75:LYS:HE3	31:DG:77:ILE:HD11	1.55	0.87
13:AM:93:ARG:CZ	25:BA:888:C:H4'	2.04	0.87
23:AV:4:G:C4	23:AV:5:G:C8	2.62	0.87
25:BA:528:A:C2	25:BA:2043:C:H4'	2.10	0.87
25:BA:2134:A:N6	25:BA:2157:G:H1'	1.88	0.87
25:BA:2681:C:H5	25:BA:2725:A:N6	1.73	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BF:178:PRO:HG2	30:BF:179:GLU:OE2	1.74	0.87
31:BG:113:ARG:HH11	31:BG:113:ARG:CB	1.87	0.87
33:DI:133:HIS:HB2	33:DI:134:PRO:CD	2.04	0.87
38:DR:55:ALA:HA	38:DR:80:PHE:CE1	2.07	0.87
46:DZ:144:LEU:HG	46:DZ:150:LEU:HD12	1.57	0.87
47:D0:25:ARG:HD2	47:D0:29:GLN:NE2	1.90	0.87
13:AM:94:ARG:HH21	25:BA:887:A:C3'	1.67	0.87
25:BA:379:G:H2'	25:BA:380:U:C5'	2.05	0.87
41:BU:79:PHE:O	41:BU:83:LEU:HD13	1.75	0.87
25:DA:2463:C:H2'	25:DA:2464:C:C5'	2.03	0.87
25:DA:2516:G:C2'	25:DA:2517:C:C5'	2.50	0.87
28:DD:11:PRO:C	28:DD:13:ARG:H	1.82	0.87
36:BP:47:ASP:HB3	36:BP:48:PRO:C	1.98	0.87
53:B6:47:THR:HB	53:B6:49:HIS:ND1	1.88	0.87
20:CT:41:ILE:CG2	20:CT:84:LEU:HD21	2.05	0.87
25:DA:315:G:H2'	25:DA:316:C:C6	2.10	0.87
25:DA:2681:C:H5	25:DA:2725:A:H62	0.95	0.87
26:DB:3:C:H42	26:DB:118:G:H1	1.22	0.87
28:DD:33:LEU:H	28:DD:33:LEU:HD12	1.38	0.87
41:DU:34:LYS:HA	41:DU:34:LYS:HE2	1.55	0.87
41:DU:62:ILE:CD1	41:DU:93:LYS:HG2	2.05	0.87
25:BA:283:A:H4'	25:BA:284:U:OP2	1.73	0.87
25:BA:1689:A:H62	25:BA:1698:A:H2	1.21	0.87
25:BA:2199:A:H5''	25:BA:2200:C:H5	1.39	0.87
47:B0:41:ARG:HD2	47:B0:41:ARG:H	1.37	0.87
1:CA:262:C:H5'	1:CA:262:C:C6	2.08	0.87
2:CB:172:ILE:HD12	2:CB:172:ILE:H	1.40	0.87
25:DA:283:A:H4'	25:DA:284:U:OP2	1.73	0.87
36:DP:64:LYS:C	36:DP:66:GLY:H	1.82	0.87
45:DY:27:VAL:HG12	45:DY:29:GLU:H	1.40	0.87
1:AA:1220:A:H62	1:AA:1280:A:H62	1.23	0.87
13:AM:94:ARG:HH21	25:BA:887:A:H3'	1.17	0.87
25:BA:271(Q):G:N3	25:BA:271(R):G:C8	2.43	0.87
28:BD:33:LEU:HD12	28:BD:33:LEU:H	1.38	0.87
41:BU:62:ILE:CD1	41:BU:93:LYS:HG2	2.05	0.87
2:CB:21:ARG:HB3	2:CB:39:ILE:HA	1.56	0.87
4:CD:189:PRO:HB2	4:CD:194:LEU:HD21	1.57	0.87
25:DA:271(M):G:H2'	25:DA:271(N):U:H5''	1.55	0.87
36:DP:46:LYS:HB3	36:DP:52:GLU:HG2	1.57	0.87
2:AB:219:VAL:HA	2:AB:222:ILE:HD12	1.55	0.86
25:BA:2873:A:C2	38:BR:6:SER:HB2	2.08	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BR:38:VAL:HB	38:BR:39:PRO:HD3	1.57	0.86
13:CM:70:LEU:HD23	13:CM:70:LEU:C	2.00	0.86
23:CV:57:C:N4	31:DG:83:ARG:HH22	1.70	0.86
25:DA:104:U:H2'	25:DA:105:C:O4'	1.73	0.86
25:DA:1171:G:H3'	25:DA:1173:G:H4'	1.57	0.86
29:DE:132:HIS:CD2	29:DE:135:HIS:CE1	2.63	0.86
39:DS:89:ARG:HD2	39:DS:92:TYR:HA	1.57	0.86
1:AA:250:G:H1'	17:AQ:16:GLN:HE21	1.40	0.86
2:AB:162:ILE:HD11	2:AB:184:VAL:HG22	1.57	0.86
45:BY:28:LYS:HB2	45:BY:38:ILE:H	1.39	0.86
36:DP:71:VAL:HG13	36:DP:72:PRO:HD3	1.56	0.86
46:DZ:151:HIS:HB3	46:DZ:170:THR:HG22	1.57	0.86
31:BG:111:LEU:O	31:BG:117:PHE:CD2	2.28	0.86
45:BY:67:LEU:O	45:BY:68:HIS:O	1.92	0.86
46:BZ:144:LEU:HG	46:BZ:150:LEU:HD12	1.57	0.86
46:BZ:151:HIS:HB3	46:BZ:170:THR:HG22	1.57	0.86
33:DI:5:LEU:HD11	33:DI:19:VAL:HG12	1.58	0.86
33:DI:53:ALA:O	33:DI:57:ARG:HG2	1.74	0.86
25:BA:2585:U:P	57:BA:3061:MG:MG	1.57	0.86
26:BB:11:C:OP1	47:B0:72:ARG:HD2	1.76	0.86
34:BN:67:LEU:O	34:BN:68:GLU:HB2	1.73	0.86
36:BP:71:VAL:CG1	36:BP:72:PRO:HD3	2.05	0.86
38:BR:4:LEU:HD21	38:BR:8:ARG:NH2	1.91	0.86
39:BS:89:ARG:HD2	39:BS:92:TYR:HA	1.58	0.86
47:B0:25:ARG:HD2	47:B0:29:GLN:NE2	1.90	0.86
48:B1:52:ARG:HG3	48:B1:53:VAL:H	1.38	0.86
48:B1:86:SER:HB2	48:B1:89:GLU:HB2	1.56	0.86
2:CB:42:ILE:HD11	2:CB:202:PRO:HB2	1.56	0.86
10:CJ:50:ILE:HG12	14:CN:41:ARG:HD3	1.55	0.86
13:CM:116:THR:HG22	13:CM:117:VAL:N	1.84	0.86
13:CM:117:VAL:CG1	13:CM:118:ALA:H	1.87	0.86
20:CT:49:ALA:HB1	20:CT:100:ILE:HD13	1.56	0.86
23:AV:3:C:O2'	23:AV:4:G:H5''	1.75	0.86
28:BD:24:ILE:CG1	28:BD:25:THR:N	2.39	0.86
25:DA:1170:G:H1	25:DA:1179:C:H42	1.19	0.86
31:DG:60:LEU:O	31:DG:63:ILE:HG12	1.76	0.86
41:DU:79:PHE:O	41:DU:83:LEU:HD13	1.75	0.86
25:BA:358:U:H2'	25:BA:359:A:H5'	1.57	0.86
25:BA:1365:A:H5''	48:B1:41:ARG:HH12	1.41	0.86
33:BI:5:LEU:HD11	33:BI:19:VAL:HG12	1.58	0.86
36:BP:71:VAL:HG13	36:BP:72:PRO:HD3	1.56	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:23:VAL:HG13	7:CG:43:PHE:CE2	2.10	0.86
13:CM:57:ARG:HH12	51:D4:60:GLU:HA	1.39	0.86
15:CO:3:ILE:HD13	15:CO:3:ILE:H	1.40	0.86
23:CV:40:C:O2'	23:CV:41:C:H5'	1.75	0.86
30:DF:178:PRO:HG2	30:DF:179:GLU:OE2	1.74	0.86
25:BA:27:G:HO2'	25:BA:28:A:H8	1.19	0.86
25:BA:90:U:O2'	25:BA:92:A:H5''	1.76	0.86
25:BA:613:G:H8	25:BA:613:G:H5'	1.41	0.86
25:DA:358:U:H2'	25:DA:359:A:H5'	1.57	0.86
25:DA:528:A:C2	25:DA:2043:C:H4'	2.10	0.86
36:DP:71:VAL:CG1	36:DP:72:PRO:HD3	2.05	0.86
39:DS:30:ARG:HH22	39:DS:62:LYS:HD2	1.40	0.86
25:BA:315:G:H2'	25:BA:316:C:C6	2.10	0.86
25:BA:2302:G:H21	31:BG:128:ARG:CG	1.88	0.86
32:BH:25:LYS:HD3	32:BH:25:LYS:H	1.41	0.86
31:DG:113:ARG:HG2	31:DG:113:ARG:NH1	1.77	0.86
22:AW:29:G:H2'	22:AW:30:G:H8	1.38	0.86
25:BA:335:C:H2'	25:BA:336:C:H6	1.40	0.86
25:BA:2584:U:C3'	25:BA:2585:U:C5'	2.52	0.86
39:BS:67:ARG:NH1	39:BS:100:ALA:HB3	1.90	0.86
5:CE:57:LYS:HG2	5:CE:61:TYR:HE2	1.41	0.86
15:CO:56:LEU:HD21	25:DA:715:G:C2	2.10	0.86
22:CW:60:U:C2'	22:CW:61:C:C5	2.57	0.86
25:DA:2681:C:H5	25:DA:2725:A:N6	1.73	0.86
39:DS:67:ARG:NH1	39:DS:100:ALA:HB3	1.90	0.86
45:DY:54:LYS:HG2	45:DY:55:TYR:HD2	1.41	0.86
22:AW:2:C:H42	22:AW:71:G:H1	1.23	0.86
25:BA:365:C:H5'	25:BA:365:C:H6	1.40	0.86
25:BA:2134:A:C2	25:BA:2159:G:H1'	2.11	0.86
33:BI:98:ALA:HA	33:BI:109:ILE:HG12	1.58	0.86
26:DB:107:G:C6	26:DB:108:U:C5	2.64	0.86
33:DI:98:ALA:HA	33:DI:109:ILE:HG12	1.58	0.86
34:DN:57:ALA:H	34:DN:124:ALA:HA	1.40	0.86
42:DV:39:LEU:HB3	42:DV:47:VAL:HG11	1.55	0.86
25:BA:2554:U:H2'	25:BA:2555:U:C6	2.11	0.85
34:BN:57:ALA:H	34:BN:124:ALA:HA	1.40	0.85
5:CE:69:VAL:HG12	5:CE:71:LEU:CD2	2.06	0.85
9:CI:65:VAL:HG21	9:CI:73:GLN:HB3	1.58	0.85
25:DA:90:U:O2'	25:DA:92:A:H5''	1.76	0.85
19:AS:5:LEU:HD12	19:AS:10:PHE:HD1	1.38	0.85
13:CM:96:LEU:C	13:CM:110:ARG:HD3	2.00	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DE:49:LEU:H	29:DE:49:LEU:HD12	1.42	0.85
32:DH:54:ARG:HH11	32:DH:54:ARG:HG2	1.41	0.85
45:DY:54:LYS:CG	45:DY:55:TYR:CD2	2.51	0.85
11:AK:32:ILE:HD12	11:AK:72:ALA:HB2	1.57	0.85
25:BA:2848:G:OP2	40:BT:97:ALA:HB2	1.76	0.85
13:CM:15:VAL:O	13:CM:19:LEU:HD23	1.76	0.85
25:DA:2176:A:O5'	27:DC:217:THR:HA	1.74	0.85
25:DA:2199:A:H5''	25:DA:2200:C:H5	1.39	0.85
8:AH:60:ARG:HH11	8:AH:60:ARG:HG3	1.41	0.85
36:BP:23:PRO:HB2	36:BP:33:ARG:HD2	1.57	0.85
36:BP:64:LYS:C	36:BP:66:GLY:H	1.82	0.85
45:BY:27:VAL:HG12	45:BY:29:GLU:H	1.40	0.85
2:CB:162:ILE:HD11	2:CB:184:VAL:HG22	1.58	0.85
5:CE:10:MET:HB2	5:CE:32:VAL:HG22	1.56	0.85
7:CG:50:ILE:HB	7:CG:58:PRO:HG3	1.59	0.85
12:CL:28:LYS:HG3	12:CL:33:ARG:HH12	1.40	0.85
30:DF:8:GLN:HB3	30:DF:126:VAL:HA	1.58	0.85
30:DF:11:VAL:HG12	30:DF:12:LEU:H	1.39	0.85
37:DQ:43:THR:OG1	37:DQ:46:GLN:HG3	1.76	0.85
25:BA:2300:G:H22	25:BA:2317:C:H1'	1.39	0.85
29:BE:49:LEU:H	29:BE:49:LEU:HD12	1.42	0.85
31:BG:88:ILE:HD12	31:BG:89:GLY:H	1.40	0.85
45:BY:81:LYS:HD3	45:BY:97:ARG:HB3	1.56	0.85
25:DA:271(P):C:C2'	25:DA:271(Q):G:H5'	2.07	0.85
25:DA:2312:U:C2'	25:DA:2313:C:H5''	2.07	0.85
28:DD:25:THR:HG22	28:DD:26:LYS:H	1.42	0.85
38:DR:4:LEU:HD21	38:DR:8:ARG:NH2	1.90	0.85
3:AC:79:ARG:HH22	11:CK:100:ALA:HB2	1.42	0.85
25:BA:560:C:H4'	41:BU:52:ARG:NH2	1.90	0.85
33:BI:58:LEU:CA	33:BI:61:ARG:HE	1.89	0.85
36:BP:65:ARG:NH1	55:B8:15:LYS:HB2	1.92	0.85
31:DG:39:ILE:HD11	31:DG:155:MET:HB2	1.58	0.85
33:DI:81:VAL:HG21	33:DI:142:VAL:HG13	1.59	0.85
36:DP:45:LEU:HD23	36:DP:46:LYS:H	1.40	0.85
50:D3:8:LEU:HA	50:D3:54:VAL:HG22	1.58	0.85
1:AA:1426:A:OP1	1:AA:1426:A:H4'	1.76	0.85
25:BA:549:G:H2'	25:BA:551:G:O4'	1.77	0.85
25:BA:2305:A:N3	31:BG:154:GLY:HA3	1.92	0.85
26:BB:57:A:H5'	31:BG:27:ASN:HD22	1.40	0.85
28:BD:25:THR:HG22	28:BD:26:LYS:H	1.42	0.85
29:BE:3:GLY:HA3	29:BE:81:ILE:HG21	1.59	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BG:88:ILE:HD12	31:BG:89:GLY:N	1.90	0.85
23:CV:57:C:C6	31:DG:84:LYS:NZ	2.45	0.85
25:DA:1771:C:C2'	25:DA:1772:G:H5'	2.07	0.85
31:DG:88:ILE:HD12	31:DG:89:GLY:H	1.41	0.85
45:DY:28:LYS:HB2	45:DY:38:ILE:H	1.39	0.85
13:AM:25:ILE:HD11	13:AM:66:LEU:HD23	1.57	0.85
25:BA:2305:A:C2	31:BG:154:GLY:CA	2.60	0.85
26:BB:3:C:H42	26:BB:118:G:H1	1.22	0.85
45:BY:31:LEU:HB2	45:BY:32:PRO:HA	1.59	0.85
19:CS:9:VAL:O	19:CS:10:PHE:CD1	2.30	0.85
25:DA:107:C:C2'	25:DA:108:U:H5'	2.07	0.85
25:DA:365:C:H5'	25:DA:365:C:H6	1.40	0.85
28:DD:24:ILE:HG12	28:DD:25:THR:N	1.90	0.85
28:DD:43:ARG:HB3	28:DD:54:ARG:HB2	1.59	0.85
46:DZ:163:LEU:H	46:DZ:163:LEU:HD12	1.42	0.85
4:AD:197:PRO:HD3	6:CF:16:GLN:HG3	0.85	0.85
33:BI:83:ALA:HB2	33:BI:88:ILE:HG23	1.56	0.85
12:CL:28:LYS:O	12:CL:29:GLY:C	2.19	0.85
12:CL:41:ARG:HH11	12:CL:41:ARG:HB3	1.42	0.85
25:DA:2863:C:C2'	25:DA:2864:G:H5''	2.06	0.85
28:DD:223:GLY:O	28:DD:226:MET:HG3	1.77	0.85
31:DG:88:ILE:HD12	31:DG:89:GLY:N	1.91	0.85
31:DG:113:ARG:CZ	31:DG:113:ARG:HA	2.06	0.85
38:DR:38:VAL:HB	38:DR:39:PRO:HD3	1.57	0.85
25:BA:107:C:C2'	25:BA:108:U:H5'	2.07	0.85
25:BA:1171:G:H3'	25:BA:1173:G:H4'	1.57	0.85
30:BF:8:GLN:HB3	30:BF:126:VAL:HA	1.57	0.85
40:BT:24:PRO:HA	40:BT:49:VAL:HG13	1.59	0.85
2:CB:219:VAL:HA	2:CB:222:ILE:HD12	1.59	0.85
5:CE:101:ILE:HD11	5:CE:119:LEU:HA	1.58	0.85
25:DA:845:G:H21	25:DA:933:A:H61	1.25	0.85
25:DA:1652:A:H62	38:DR:11:ASN:ND2	1.75	0.85
25:DA:2554:U:H2'	25:DA:2555:U:C6	2.12	0.85
28:DD:24:ILE:CG1	28:DD:25:THR:N	2.39	0.85
32:DH:40:GLU:O	32:DH:41:MET:HB2	1.74	0.85
18:AR:86:VAL:O	18:AR:87:ARG:HD3	1.77	0.84
25:BA:242:G:H5''	55:B8:62:LEU:CD1	2.05	0.84
25:BA:2863:C:C2'	25:BA:2864:G:H5''	2.06	0.84
52:B5:32:PRO:O	52:B5:33:CYS:HB3	1.76	0.84
53:B6:45:LYS:O	53:B6:46:HIS:CG	2.30	0.84
19:CS:9:VAL:O	19:CS:10:PHE:CG	2.30	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2206:G:H21	25:DA:2207:G:H5'	1.41	0.84
31:DG:113:ARG:NH1	31:DG:113:ARG:HA	1.92	0.84
48:D1:5:CYS:SG	48:D1:62:VAL:HG23	2.17	0.84
49:D2:16:LEU:O	49:D2:20:GLU:HB3	1.77	0.84
12:AL:28:LYS:CE	12:AL:33:ARG:HH22	1.90	0.84
13:AM:117:VAL:CG1	13:AM:118:ALA:H	1.90	0.84
17:AQ:67:LYS:HA	17:AQ:70:ARG:HH12	1.42	0.84
25:BA:1593:G:C2'	25:BA:1594:G:H5''	2.07	0.84
25:BA:2312:U:C2'	25:BA:2313:C:H5''	2.07	0.84
25:BA:2347:C:H2'	25:BA:2348:U:H6	1.42	0.84
28:BD:45:ASN:CG	28:BD:46:GLN:H	1.85	0.84
5:CE:69:VAL:CG1	5:CE:71:LEU:HD23	2.07	0.84
25:DA:549:G:H2'	25:DA:551:G:O4'	1.77	0.84
31:DG:111:LEU:HB3	31:DG:117:PHE:CE2	2.12	0.84
25:BA:1819:A:C1'	25:BA:1821:A:C5	2.60	0.84
28:BD:26:LYS:NZ	28:BD:82:ILE:H	1.75	0.84
31:BG:2:PRO:CD	51:B4:51:TYR:CG	2.59	0.84
31:BG:111:LEU:N	31:BG:112:PRO:HD2	1.91	0.84
17:CQ:67:LYS:O	17:CQ:68:ARG:HB3	1.76	0.84
19:CS:10:PHE:O	19:CS:10:PHE:CD2	2.30	0.84
23:CV:35:C:C2'	23:CV:36:A:C8	2.43	0.84
25:DA:1819:A:C1'	25:DA:1821:A:C5	2.60	0.84
25:DA:2124:G:O2'	27:DC:40:THR:HA	1.77	0.84
25:DA:2175:C:H1'	27:DC:215:THR:H	1.41	0.84
41:DU:88:ILE:O	41:DU:88:ILE:HG13	1.78	0.84
18:AR:66:LEU:HD11	18:AR:70:ILE:HD11	1.59	0.84
25:BA:1290:C:H2'	25:BA:1291:C:H6	1.42	0.84
25:BA:1771:C:C2'	25:BA:1772:G:H5'	2.07	0.84
31:BG:39:ILE:HD11	31:BG:155:MET:HB2	1.58	0.84
36:BP:45:LEU:HD23	36:BP:46:LYS:H	1.40	0.84
45:BY:28:LYS:HA	45:BY:39:VAL:H	1.42	0.84
12:CL:28:LYS:CG	12:CL:33:ARG:NH1	2.40	0.84
25:DA:2476:A:C2'	25:DA:2477:C:H5''	2.08	0.84
45:DY:28:LYS:H	45:DY:28:LYS:HZ2	1.21	0.84
28:BD:24:ILE:HG12	28:BD:25:THR:N	1.90	0.84
48:B1:5:CYS:SG	48:B1:62:VAL:HG23	2.17	0.84
1:CA:1323:C:H1'	9:CI:124:GLN:HE21	1.42	0.84
13:CM:93:ARG:NH1	25:DA:888:C:H4'	1.93	0.84
14:CN:26:ARG:HD2	14:CN:43:CYS:SG	2.17	0.84
25:DA:651:G:H5''	55:D8:18:ALA:HB3	1.59	0.84
25:DA:1446:C:C2'	25:DA:1447:G:H5''	2.08	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2866:U:C6	25:DA:2868:A:H1'	2.13	0.84
29:DE:199:ARG:HH11	29:DE:199:ARG:HB2	1.43	0.84
37:DQ:140:ALA:C	46:DZ:53:ILE:HD13	2.01	0.84
4:AD:195:ALA:HB1	6:CF:20:ALA:HB2	1.58	0.84
28:BD:223:GLY:O	28:BD:226:MET:HG3	1.77	0.84
36:BP:13:ASN:C	36:BP:13:ASN:HD22	1.86	0.84
46:BZ:163:LEU:H	46:BZ:163:LEU:HD12	1.42	0.84
23:CV:57:C:H41	31:DG:83:ARG:NH2	1.72	0.84
25:DA:2850:A:H2'	25:DA:2851:A:H8	1.42	0.84
52:D5:32:PRO:O	52:D5:33:CYS:HB3	1.76	0.84
1:AA:854:C:H5''	8:AH:88:LYS:HD3	1.59	0.84
2:AB:172:ILE:H	2:AB:172:ILE:HD12	1.39	0.84
7:AG:50:ILE:HB	7:AG:58:PRO:HG3	1.58	0.84
25:BA:2263:C:H5'	25:BA:2263:C:H6	1.43	0.84
25:BA:2420:C:OP1	55:B8:34:TRP:HA	1.78	0.84
41:BU:91:ASP:C	41:BU:92:ARG:HD3	2.03	0.84
25:DA:335:C:H2'	25:DA:336:C:H6	1.40	0.84
9:AI:65:VAL:HG21	9:AI:73:GLN:HB3	1.60	0.84
10:AJ:37:PRO:HA	10:AJ:72:VAL:HG22	1.57	0.84
25:BA:2227:A:H5'	28:BD:263:ARG:HH11	1.42	0.84
25:BA:2853:C:H2'	25:BA:2854:G:C8	2.12	0.84
25:BA:2866:U:C6	25:BA:2868:A:H1'	2.13	0.84
31:BG:43:LEU:HB2	31:BG:88:ILE:HG12	1.59	0.84
38:BR:8:ARG:HE	38:BR:8:ARG:HA	1.42	0.84
49:B2:16:LEU:O	49:B2:20:GLU:HB3	1.77	0.84
50:B3:8:LEU:HA	50:B3:54:VAL:HG22	1.58	0.84
25:DA:1290:C:H2'	25:DA:1291:C:H6	1.41	0.84
45:DY:54:LYS:O	45:DY:55:TYR:CD1	2.30	0.84
45:DY:54:LYS:O	45:DY:55:TYR:CG	2.30	0.84
1:AA:1302:C:H5''	1:AA:1303:C:H5'	1.58	0.84
13:AM:108:ARG:NH1	13:AM:111:LYS:CB	2.33	0.84
25:BA:1231:G:H2'	25:BA:1232:G:H8	1.42	0.84
3:CC:189:ALA:HB3	3:CC:196:LEU:HB2	1.60	0.84
12:CL:46:LYS:HG2	12:CL:47:LYS:N	1.89	0.84
25:DA:1689:A:H62	25:DA:1698:A:H2	1.21	0.84
41:DU:91:ASP:C	41:DU:92:ARG:HD3	2.03	0.84
5:AE:57:LYS:HG2	5:AE:61:TYR:HE2	1.40	0.84
6:AF:21:LEU:O	6:AF:24:GLU:HG2	1.77	0.84
31:BG:2:PRO:CG	51:B4:51:TYR:CE2	2.58	0.84
37:BQ:43:THR:OG1	37:BQ:46:GLN:HG3	1.76	0.84
25:DA:1231:G:H2'	25:DA:1232:G:H8	1.42	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1593:G:H2'	25:DA:1594:G:H5''	1.59	0.84
25:DA:2849:U:OP2	40:DT:95:ARG:CD	2.26	0.84
42:DV:49:THR:CG2	42:DV:50:PRO:CD	2.56	0.84
2:AB:204:ASN:HD21	2:AB:207:ALA:H	1.21	0.83
4:AD:189:PRO:HB2	4:AD:194:LEU:HD21	1.58	0.83
25:BA:845:G:H21	25:BA:933:A:H61	1.25	0.83
25:BA:2302:G:N2	31:BG:128:ARG:HD2	1.92	0.83
25:BA:2320:A:C2	25:BA:2333:A:N7	2.46	0.83
25:BA:2850:A:H2'	25:BA:2851:A:H8	1.42	0.83
31:BG:60:LEU:O	31:BG:63:ILE:HG12	1.76	0.83
31:BG:110:ALA:C	31:BG:112:PRO:HD2	2.03	0.83
13:CM:70:LEU:C	13:CM:70:LEU:CD2	2.51	0.83
20:CT:26:ASN:HB2	20:CT:71:THR:HG23	0.84	0.83
25:DA:1464:C:O2'	25:DA:1528:A:H8	1.58	0.83
25:DA:2502:G:H5''	25:DA:2503:A:H5''	1.60	0.83
25:DA:2853:C:H2'	25:DA:2854:G:C8	2.12	0.83
1:AA:545:C:H1'	12:AL:15:ARG:HB3	1.59	0.83
4:AD:30:LYS:C	4:AD:32:ALA:H	1.82	0.83
14:AN:37:PHE:HZ	14:AN:56:VAL:HG21	1.43	0.83
19:AS:36:ARG:HH12	19:AS:75:ALA:HB3	1.43	0.83
20:AT:100:ILE:HD12	20:AT:100:ILE:N	1.93	0.83
28:BD:11:PRO:C	28:BD:13:ARG:H	1.81	0.83
28:BD:24:ILE:CG1	28:BD:25:THR:H	1.91	0.83
23:CV:53:G:H8	23:CV:53:G:H5''	1.43	0.83
23:CV:57:C:N4	31:DG:83:ARG:CZ	2.40	0.83
38:DR:8:ARG:HA	38:DR:8:ARG:HE	1.42	0.83
10:AJ:7:LYS:HB2	10:AJ:97:GLU:HB2	1.60	0.83
22:AW:14:A:C6	22:AW:15:G:H1'	2.12	0.83
43:BW:34:ASN:OD1	52:B5:39:MET:HE3	1.77	0.83
4:CD:15:GLU:HG2	4:CD:63:LYS:HG3	1.60	0.83
25:DA:395:U:O2'	48:D1:13:ILE:HD13	1.79	0.83
25:DA:613:G:H5'	25:DA:613:G:H8	1.41	0.83
25:DA:2134:A:C2	25:DA:2159:G:H1'	2.11	0.83
40:DT:104:ASN:N	40:DT:104:ASN:OD1	2.11	0.83
13:AM:117:VAL:HG12	13:AM:118:ALA:N	1.86	0.83
28:BD:35:LYS:HZ1	28:BD:103:ARG:HA	1.40	0.83
33:BI:81:VAL:HG21	33:BI:142:VAL:HG13	1.59	0.83
42:BV:46:VAL:HG22	42:BV:47:VAL:H	1.41	0.83
10:CJ:4:ILE:HB	10:CJ:74:ILE:HD11	1.60	0.83
25:DA:1846:G:H5'	25:DA:1847:A:OP2	1.78	0.83
20:AT:26:ASN:HA	20:AT:29:LYS:HG2	1.61	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2206:G:H21	25:BA:2207:G:H5'	1.41	0.83
14:CN:37:PHE:HZ	14:CN:56:VAL:HG21	1.43	0.83
25:DA:2537:U:H2'	25:DA:2538:C:H6	1.43	0.83
28:DD:26:LYS:NZ	28:DD:82:ILE:H	1.75	0.83
41:DU:92:ARG:HD2	42:DV:11:GLN:CD	2.03	0.83
13:AM:70:LEU:HD23	13:AM:70:LEU:C	2.03	0.83
15:AO:60:VAL:CG1	25:BA:715:G:O4'	2.26	0.83
29:BE:52:LEU:HD22	29:BE:76:ARG:HB2	1.57	0.83
1:CA:290:C:H2'	1:CA:291:U:H6	1.39	0.83
18:CR:86:VAL:O	18:CR:87:ARG:HD3	1.78	0.83
20:CT:72:LEU:HD23	20:CT:73:HIS:N	1.92	0.83
25:DA:2100:G:H1	25:DA:2189:U:H3	1.26	0.83
25:DA:2347:C:H2'	25:DA:2348:U:H6	1.42	0.83
11:AK:24:SER:HB3	11:AK:27:ASN:O	1.78	0.83
25:BA:1024:G:H3'	25:BA:1025:G:H5''	1.60	0.83
25:BA:2302:G:H21	31:BG:128:ARG:CD	1.92	0.83
25:BA:2537:U:H2'	25:BA:2538:C:H6	1.43	0.83
28:BD:43:ARG:HB3	28:BD:54:ARG:HB2	1.59	0.83
29:DE:3:GLY:HA3	29:DE:81:ILE:HG21	1.58	0.83
29:DE:53:PRO:O	29:DE:54:GLN:O	1.95	0.83
32:DH:17:VAL:CB	32:DH:45:VAL:CG1	2.57	0.83
32:DH:25:LYS:HD3	32:DH:25:LYS:H	1.41	0.83
40:DT:55:ASN:C	40:DT:59:THR:HG22	2.04	0.83
25:BA:71:A:H8	25:BA:71:A:OP2	1.60	0.83
25:BA:2302:G:H21	31:BG:128:ARG:HD2	1.41	0.83
26:BB:48:A:H4'	39:BS:95:HIS:HD2	1.42	0.83
36:BP:85:LEU:HD23	36:BP:85:LEU:H	1.42	0.83
5:CE:69:VAL:HB	5:CE:71:LEU:HD21	1.60	0.83
25:DA:2263:C:H5'	25:DA:2263:C:H6	1.43	0.83
31:DG:43:LEU:HB2	31:DG:88:ILE:HG12	1.59	0.83
38:DR:4:LEU:HD21	38:DR:8:ARG:HH21	1.43	0.83
13:AM:10:PRO:HB2	13:AM:18:ALA:HB1	1.60	0.83
23:AV:66:C:H2'	23:AV:67:C:H5'	1.59	0.83
25:BA:17:G:H4'	41:BU:25:TRP:CH2	2.14	0.83
25:BA:1614:A:H62	43:BW:93:ALA:HB2	1.43	0.83
36:DP:85:LEU:HD23	36:DP:85:LEU:H	1.42	0.83
53:D6:45:LYS:O	53:D6:46:HIS:CG	2.31	0.83
2:AB:15:VAL:HG21	2:AB:209:ARG:HH21	1.44	0.83
4:AD:162:LEU:HD13	4:AD:181:MET:HG2	1.61	0.83
8:AH:109:ILE:HG12	8:AH:110:ALA:H	1.42	0.83
13:AM:97:PRO:CD	13:AM:110:ARG:HD3	2.09	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:729:G:O2'	25:BA:763:G:H4'	1.78	0.83
18:CR:66:LEU:HD11	18:CR:70:ILE:HD11	1.59	0.83
22:CW:5:G:C2	22:CW:69:G:C2	2.67	0.83
30:DF:53:THR:HG23	30:DF:55:GLY:H	1.44	0.83
31:DG:76:SER:CB	31:DG:83:ARG:HB2	2.09	0.83
25:BA:1846:G:H5'	25:BA:1847:A:OP2	1.78	0.82
32:BH:30:LYS:NZ	32:BH:81:GLU:HG2	1.94	0.82
41:BU:88:ILE:O	41:BU:88:ILE:HG13	1.77	0.82
41:BU:92:ARG:HD2	42:BV:11:GLN:CD	2.03	0.82
11:CK:32:ILE:HD12	11:CK:72:ALA:HB2	1.60	0.82
25:DA:729:G:O2'	25:DA:763:G:H4'	1.78	0.82
42:DV:49:THR:CG2	42:DV:50:PRO:HD3	2.06	0.82
1:AA:1479:A:H2	1:AA:1482:G:H1	1.23	0.82
4:AD:167:GLY:HA3	28:DD:135:PHE:HE2	1.08	0.82
10:AJ:50:ILE:HG12	14:AN:41:ARG:HD3	1.61	0.82
25:BA:2502:G:H5''	25:BA:2503:A:H5''	1.60	0.82
8:CH:12:ARG:HH12	8:CH:27:PRO:HD3	1.44	0.82
23:CV:53:G:H5''	23:CV:53:G:C8	2.14	0.82
25:DA:27:G:HO2'	25:DA:28:A:H8	1.27	0.82
45:DY:28:LYS:HA	45:DY:39:VAL:H	1.42	0.82
7:AG:50:ILE:HG21	7:AG:58:PRO:HA	1.61	0.82
25:BA:2762:G:C2'	25:BA:2763:G:H5''	2.10	0.82
42:BV:76:LYS:HB2	42:BV:81:TYR:HB3	1.61	0.82
50:B3:56:VAL:HG12	50:B3:57:GLU:N	1.89	0.82
1:CA:239:U:C6	1:CA:871:G:N2	2.47	0.82
19:CS:10:PHE:O	19:CS:10:PHE:HD2	1.60	0.82
15:AO:3:ILE:HD13	15:AO:3:ILE:H	1.41	0.82
25:BA:2584:U:H2'	25:BA:2585:U:H5''	0.84	0.82
1:CA:1171:G:H3'	3:CC:3:ASN:ND2	1.94	0.82
13:CM:10:PRO:HB2	13:CM:18:ALA:HB1	1.60	0.82
25:DA:2762:G:C2'	25:DA:2763:G:H5''	2.10	0.82
26:DB:14:U:OP2	26:DB:71:C:H5'	1.79	0.82
32:DH:47:GLU:HG2	32:DH:48:GLY:H	1.44	0.82
34:DN:73:THR:HG23	34:DN:82:LEU:HD11	1.61	0.82
39:DS:85:VAL:HG23	39:DS:106:ARG:HG3	1.62	0.82
48:D1:3:LYS:HG3	48:D1:4:VAL:H	1.43	0.82
23:AV:20:G:C2	23:AV:58:A:N3	2.48	0.82
25:BA:2512:C:H4'	29:BE:122:PHE:CE2	2.13	0.82
30:BF:53:THR:HG23	30:BF:55:GLY:H	1.44	0.82
31:BG:76:SER:CB	31:BG:83:ARG:HB2	2.09	0.82
38:BR:11:ASN:O	38:BR:12:ARG:HG3	1.79	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:30:LYS:C	4:CD:32:ALA:H	1.82	0.82
25:DA:1593:G:C2'	25:DA:1594:G:H5''	2.07	0.82
25:DA:2334:G:C2	39:DS:15:ARG:NH1	2.48	0.82
3:AC:189:ALA:HB3	3:AC:196:LEU:HB2	1.59	0.82
12:AL:53:ARG:HH12	12:AL:92:ASP:HB2	1.45	0.82
13:AM:13:LYS:HA	13:AM:44:ARG:NH1	1.93	0.82
13:AM:94:ARG:HH22	25:BA:887:A:H2'	0.67	0.82
25:BA:1157:G:O2'	50:B3:31:LEU:HD12	1.79	0.82
47:B0:40:GLN:NE2	47:B0:43:THR:HA	1.95	0.82
8:CH:109:ILE:HG12	8:CH:110:ALA:H	1.43	0.82
13:CM:93:ARG:CG	25:DA:888:C:P	2.68	0.82
42:DV:46:VAL:HG22	42:DV:47:VAL:H	1.41	0.82
1:AA:584:C:H2'	1:AA:585:A:H8	1.45	0.82
25:BA:1721:G:C6	25:BA:1739:U:H5'	2.15	0.82
1:CA:289:U:H2'	1:CA:290:C:H5'	1.61	0.82
22:CW:16:U:C5	22:CW:18:G:H3'	2.14	0.82
12:AL:41:ARG:HH11	12:AL:41:ARG:HB3	1.42	0.82
25:BA:1593:G:H2'	25:BA:1594:G:H5''	1.59	0.82
32:BH:47:GLU:HG2	32:BH:48:GLY:H	1.44	0.82
25:DA:292:C:N4	25:DA:348:G:H1	1.78	0.82
25:DA:1721:G:C6	25:DA:1739:U:H5'	2.15	0.82
30:DF:20:LEU:HG	30:DF:21:ALA:H	1.45	0.82
25:BA:27:G:H22	25:BA:512:G:H2'	1.45	0.82
25:BA:71:A:OP2	25:BA:71:A:H3'	1.79	0.82
25:BA:272:G:C6	25:BA:421:U:C2	2.68	0.82
25:BA:1899:G:N2	25:BA:1902:C:H41	1.77	0.82
9:CI:63:ILE:HD11	9:CI:81:ILE:HD11	1.60	0.82
11:CK:24:SER:HB3	11:CK:27:ASN:O	1.79	0.82
13:CM:65:LYS:HG3	13:CM:70:LEU:CB	2.10	0.82
25:DA:911:A:C5'	25:DA:912:C:C5'	2.53	0.82
26:DB:69:G:C2	26:DB:70:C:C2	2.68	0.82
32:DH:17:VAL:CB	32:DH:45:VAL:HG13	2.10	0.82
12:AL:89:ARG:HB2	12:AL:89:ARG:NH1	1.95	0.82
25:DA:2390:U:H2'	25:DA:2391:G:H5'	1.62	0.82
25:DA:2392:A:OP1	55:D8:32:LEU:CD1	2.28	0.82
38:DR:11:ASN:O	38:DR:12:ARG:HG3	1.79	0.82
40:BT:100:TYR:O	40:BT:102:ILE:HD12	1.79	0.81
2:CB:91:PRO:HG3	2:CB:154:LEU:HB2	1.61	0.81
10:CJ:7:LYS:HB2	10:CJ:97:GLU:HB2	1.61	0.81
23:CV:19:G:H5''	23:CV:19:G:C8	2.14	0.81
25:DA:686:G:H5''	54:D7:11:LYS:HE2	1.62	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DE:33:VAL:HG13	29:DE:69:LYS:HE3	1.61	0.81
37:DQ:29:PHE:HB2	37:DQ:105:GLU:OE2	1.80	0.81
3:AC:20:SER:HB2	3:AC:40:ARG:HH22	1.45	0.81
13:AM:97:PRO:N	13:AM:110:ARG:CD	2.40	0.81
31:BG:2:PRO:CG	51:B4:51:TYR:CD2	2.63	0.81
3:CC:52:LEU:HD23	3:CC:52:LEU:H	1.45	0.81
13:CM:65:LYS:HG3	13:CM:70:LEU:HB2	1.61	0.81
25:DA:27:G:N2	25:DA:512:G:H2'	1.95	0.81
25:DA:1021:A:H3'	25:DA:1021:A:H8	1.46	0.81
45:DY:31:LEU:HB2	45:DY:32:PRO:HA	1.59	0.81
1:AA:250:G:H1'	17:AQ:16:GLN:NE2	1.94	0.81
4:AD:167:GLY:N	28:DD:135:PHE:CE2	2.40	0.81
10:AJ:7:LYS:HD3	10:AJ:71:LEU:HD13	1.60	0.81
13:AM:70:LEU:C	13:AM:70:LEU:CD2	2.53	0.81
13:AM:108:ARG:NH1	13:AM:111:LYS:HB2	1.93	0.81
23:AV:18:U:H4'	23:AV:19:G:OP2	1.77	0.81
25:BA:1021:A:H3'	25:BA:1021:A:H8	1.46	0.81
25:BA:1914:C:H2'	25:BA:1915:U:O4'	1.80	0.81
25:BA:2390:U:H2'	25:BA:2391:G:H5'	1.62	0.81
31:BG:114:ILE:CG1	31:BG:140:ILE:HD13	2.09	0.81
36:BP:47:ASP:HB3	36:BP:48:PRO:CA	2.10	0.81
37:BQ:12:GLN:HG2	37:BQ:73:PRO:HD2	1.62	0.81
45:BY:49:VAL:O	45:BY:50:ARG:HB2	1.79	0.81
48:B1:3:LYS:HG3	48:B1:4:VAL:H	1.43	0.81
7:CG:54:THR:OG1	7:CG:56:GLN:HG2	1.80	0.81
10:CJ:7:LYS:HD3	10:CJ:71:LEU:HD13	1.61	0.81
25:DA:612:C:H2'	25:DA:613:G:C5'	2.10	0.81
25:DA:1899:G:N2	25:DA:1902:C:H41	1.77	0.81
25:DA:1914:C:H2'	25:DA:1915:U:O4'	1.80	0.81
26:DB:107:G:C2'	26:DB:108:U:H5'	2.09	0.81
30:DF:132:VAL:HG22	30:DF:133:ASN:N	1.95	0.81
32:DH:85:LYS:HD3	32:DH:133:VAL:HB	1.62	0.81
42:DV:76:LYS:HB2	42:DV:81:TYR:HB3	1.61	0.81
48:D1:67:ILE:N	48:D1:68:PRO:HD2	1.96	0.81
7:AG:54:THR:OG1	7:AG:56:GLN:HG2	1.81	0.81
25:BA:2586:C:O5'	25:BA:2586:C:C6	2.33	0.81
32:BH:41:MET:HE3	32:BH:55:PRO:HD2	1.63	0.81
34:BN:15:LEU:HD13	34:BN:16:ILE:H	1.46	0.81
38:BR:4:LEU:HD21	38:BR:8:ARG:HH21	1.44	0.81
1:CA:238:A:H4'	1:CA:239:U:H5''	1.60	0.81
1:CA:1192:U:H4'	1:CA:1193:U:OP1	1.78	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2199:A:H5'	25:DA:2200:C:OP2	1.81	0.81
28:DD:9:TYR:CD1	28:DD:9:TYR:N	2.49	0.81
32:DH:30:LYS:NZ	32:DH:81:GLU:HG2	1.94	0.81
34:DN:15:LEU:HD13	34:DN:16:ILE:H	1.46	0.81
46:DZ:98:MET:HE2	46:DZ:100:VAL:HG22	1.63	0.81
47:D0:40:GLN:NE2	47:D0:43:THR:HA	1.95	0.81
1:AA:1209:C:H2'	1:AA:1210:A:H8	1.44	0.81
3:AC:16:ARG:HH11	3:AC:16:ARG:CB	1.94	0.81
30:BF:132:VAL:HG22	30:BF:133:ASN:N	1.95	0.81
32:BH:85:LYS:HD3	32:BH:133:VAL:HB	1.62	0.81
34:BN:9:VAL:HG12	34:BN:10:GLU:H	1.46	0.81
34:BN:131:GLN:HE22	34:BN:134:ARG:HD2	1.44	0.81
2:CB:14:GLY:O	2:CB:15:VAL:HG13	1.80	0.81
2:CB:15:VAL:HG21	2:CB:209:ARG:HH21	1.45	0.81
22:CW:28:G:N2	22:CW:43:C:C2	2.49	0.81
25:DA:1819:A:OP1	28:DD:158:ALA:CB	2.29	0.81
25:DA:2584:U:H2'	25:DA:2585:U:H5''	0.83	0.81
34:DN:131:GLN:HE22	34:DN:134:ARG:HD2	1.45	0.81
22:AW:72:C:O2'	22:AW:73:A:H5'	1.79	0.81
25:BA:364:C:H2'	25:BA:365:C:H5''	1.62	0.81
25:BA:1639:U:H2'	25:BA:1640:C:H5''	1.62	0.81
41:BU:20:LEU:HD13	41:BU:20:LEU:O	1.81	0.81
16:CP:22:THR:HA	16:CP:33:ILE:HG12	1.63	0.81
19:CS:5:LEU:HD12	19:CS:10:PHE:HD1	1.45	0.81
20:CT:41:ILE:HG23	20:CT:84:LEU:HD21	1.62	0.81
22:CW:21:A:N6	22:CW:46:G:C4	2.48	0.81
25:DA:27:G:H22	25:DA:512:G:H2'	1.45	0.81
25:DA:1024:G:H3'	25:DA:1025:G:H5''	1.60	0.81
26:DB:91:C:H2'	26:DB:92:C:C6	2.16	0.81
51:D4:48:ILE:HD12	51:D4:48:ILE:H	1.46	0.81
25:BA:27:G:N2	25:BA:512:G:H2'	1.95	0.81
25:BA:2015:A:H1'	52:B5:2:ALA:HA	1.62	0.81
25:BA:2245:U:H5'	25:BA:2246:G:H5'	1.62	0.81
29:BE:33:VAL:HG13	29:BE:69:LYS:HE3	1.61	0.81
39:BS:85:VAL:HG23	39:BS:106:ARG:HG3	1.62	0.81
11:CK:62:GLN:HG3	11:CK:97:ALA:HB2	1.63	0.81
31:DG:113:ARG:NH1	31:DG:113:ARG:CA	2.44	0.81
36:DP:47:ASP:HB3	36:DP:48:PRO:CA	2.10	0.81
10:AJ:4:ILE:HB	10:AJ:74:ILE:HD11	1.60	0.81
33:BI:88:ILE:HD11	33:BI:123:LEU:HG	1.63	0.81
13:CM:94:ARG:CD	25:DA:888:C:OP2	2.28	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1639:U:C2'	25:DA:1640:C:H5''	2.11	0.81
25:DA:1902:C:H4'	28:DD:244:ARG:HA	1.63	0.81
25:DA:1996:C:H5	35:DO:32:TYR:HH	1.26	0.81
38:DR:56:LYS:HE2	38:DR:94:TYR:HE2	1.46	0.81
45:DY:30:VAL:HG22	45:DY:37:VAL:HG12	1.62	0.81
1:AA:733:G:N3	15:AO:23:GLY:HA3	1.95	0.81
1:AA:1131:C:H2'	1:AA:1132:U:H6	1.46	0.81
25:BA:480:A:OP2	45:BY:46:LYS:HE2	1.80	0.81
25:BA:1020:A:N1	25:BA:1141:U:H2'	1.96	0.81
25:BA:1523:U:H2'	25:BA:1524:G:H8	1.46	0.81
45:BY:30:VAL:HG22	45:BY:37:VAL:HG12	1.63	0.81
46:BZ:102:LEU:HD13	46:BZ:123:ASP:HA	1.63	0.81
48:B1:44:PRO:O	48:B1:46:LEU:HD13	1.80	0.81
7:CG:60:LYS:HA	7:CG:60:LYS:HZ2	1.45	0.81
13:CM:94:ARG:HH22	25:DA:887:A:H2'	0.74	0.81
20:CT:100:ILE:HD12	20:CT:100:ILE:N	1.95	0.81
25:DA:2781:A:H5''	25:DA:2782:G:H5'	1.62	0.81
28:DD:31:LYS:HE3	28:DD:94:LEU:HD11	1.63	0.81
29:DE:176:ILE:HG22	29:DE:179:GLU:H	1.45	0.81
41:DU:20:LEU:HD13	41:DU:20:LEU:O	1.81	0.81
48:D1:44:PRO:O	48:D1:46:LEU:HD13	1.81	0.81
8:AH:12:ARG:HH12	8:AH:27:PRO:HD3	1.46	0.81
22:AW:29:G:H2'	22:AW:30:G:C8	2.16	0.81
25:BA:2476:A:C2'	25:BA:2477:C:H5''	2.08	0.81
7:CG:50:ILE:HG21	7:CG:58:PRO:HA	1.60	0.81
7:CG:73:MET:HA	7:CG:91:VAL:HG23	1.63	0.81
8:CH:60:ARG:HH11	8:CH:60:ARG:HG3	1.46	0.81
25:DA:271(P):C:H2'	25:DA:271(Q):G:H5'	1.63	0.81
25:DA:1523:U:H2'	25:DA:1524:G:H8	1.46	0.81
25:DA:2645:G:H3'	25:DA:2646:C:C5'	2.10	0.81
28:DD:44:ASN:HB3	28:DD:49:ILE:HA	1.62	0.81
49:D2:65:ASN:HB3	49:D2:69:ARG:NH2	1.96	0.81
20:AT:33:ILE:HD13	20:AT:62:LEU:HB3	1.62	0.80
25:BA:2850:A:H2'	25:BA:2851:A:C8	2.16	0.80
28:BD:44:ASN:HB3	28:BD:49:ILE:HA	1.62	0.80
30:DF:198:ALA:O	30:DF:201:VAL:HG12	1.81	0.80
25:BA:2392:A:H8	36:BP:60:MET:HB3	1.47	0.80
30:BF:3:GLU:HB2	30:BF:24:LEU:HG	1.63	0.80
35:BO:21:CYS:SG	35:BO:22:ILE:N	2.54	0.80
42:BV:21:ARG:HG2	42:BV:91:TYR:CD2	2.17	0.80
46:BZ:98:MET:HE2	46:BZ:100:VAL:HG22	1.63	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:69:VAL:CG1	5:CE:71:LEU:CD2	2.59	0.80
28:DD:45:ASN:CG	28:DD:46:GLN:H	1.85	0.80
30:DF:3:GLU:HB2	30:DF:24:LEU:HG	1.64	0.80
1:AA:1487:U:H2'	1:AA:1488:G:C8	2.16	0.80
20:AT:26:ASN:HB2	20:AT:71:THR:CG2	2.11	0.80
20:AT:50:GLU:HB3	20:AT:100:ILE:HG12	1.63	0.80
22:AY:39:U:C2	22:AY:40:C:H5	1.99	0.80
25:BA:302:C:O2'	25:BA:303:U:H5'	1.81	0.80
30:BF:78:ILE:HD13	30:BF:78:ILE:H	1.46	0.80
31:BG:76:SER:HB2	31:BG:83:ARG:HB2	1.63	0.80
38:BR:10:LEU:CD2	38:BR:17:ARG:HD2	2.11	0.80
1:CA:262:C:H5'	1:CA:262:C:H6	1.46	0.80
25:DA:1639:U:H2'	25:DA:1640:C:H5''	1.62	0.80
25:DA:2391:G:H1'	25:DA:2429:G:N2	1.96	0.80
25:DA:2850:A:H2'	25:DA:2851:A:C8	2.16	0.80
37:DQ:12:GLN:HG2	37:DQ:73:PRO:HD2	1.62	0.80
40:DT:12:SER:HB3	40:DT:57:PHE:CD1	2.16	0.80
10:AJ:45:ARG:HG3	10:AJ:45:ARG:HH11	1.47	0.80
23:AV:24:C:H2'	23:AV:25:U:H6	1.45	0.80
48:B1:67:ILE:N	48:B1:68:PRO:HD2	1.96	0.80
5:CE:76:ILE:CD1	5:CE:142:LEU:HD21	2.03	0.80
25:DA:322:A:H3'	30:DF:169:ASN:ND2	1.96	0.80
25:DA:2227:A:H5'	28:DD:263:ARG:HH11	1.46	0.80
25:DA:2516:G:H2'	25:DA:2517:C:C5'	2.03	0.80
26:DB:91:C:O2'	26:DB:92:C:H5'	1.82	0.80
31:DG:115:ARG:NH1	31:DG:136:ARG:HD3	1.96	0.80
4:AD:197:PRO:N	6:CF:16:GLN:HG3	1.96	0.80
19:AS:6:LYS:HD2	19:AS:7:LYS:N	1.96	0.80
22:AW:18:G:N1	22:AW:55:U:H1'	1.97	0.80
22:AW:51:U:H2'	22:AW:52:G:H8	1.47	0.80
36:BP:58:THR:O	36:BP:61:ARG:HG3	1.81	0.80
37:BQ:29:PHE:HB2	37:BQ:105:GLU:OE2	1.80	0.80
5:CE:101:ILE:HD11	5:CE:119:LEU:CD2	2.10	0.80
7:CG:83:ALA:HA	22:CW:37:A:H61	1.45	0.80
13:CM:57:ARG:HH22	51:D4:60:GLU:HG3	1.45	0.80
21:CU:6:ARG:HE	21:CU:15:ARG:NH2	1.78	0.80
55:D8:50:LEU:HD12	55:D8:51:ALA:H	1.46	0.80
17:AQ:67:LYS:HA	17:AQ:70:ARG:NH1	1.97	0.80
22:AY:28:G:H1	22:AY:42:C:H42	1.27	0.80
25:BA:1639:U:C2'	25:BA:1640:C:H5''	2.11	0.80
29:BE:59:VAL:HG22	29:BE:60:ASN:N	1.97	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:113:ALA:HB3	3:CC:114:PRO:HD3	1.63	0.80
6:CF:21:LEU:O	6:CF:24:GLU:HG2	1.80	0.80
19:CS:15:LEU:HD11	19:CS:33:THR:HB	1.64	0.80
20:CT:26:ASN:HA	20:CT:29:LYS:HG2	1.61	0.80
1:AA:822:U:O2	1:AA:822:U:C3'	2.30	0.80
5:AE:100:VAL:HG13	5:AE:118:ILE:CG2	2.11	0.80
17:AQ:68:ARG:N	17:AQ:70:ARG:NH1	2.28	0.80
25:BA:481:G:H1'	25:BA:506:G:H21	1.47	0.80
25:BA:910:A:C5	37:BQ:13:GLN:HG3	2.16	0.80
31:BG:104:GLU:HG2	51:B4:50:THR:HG21	1.64	0.80
3:CC:34:LEU:HD21	3:CC:38:ARG:CZ	2.11	0.80
25:DA:1614:A:H62	43:DW:93:ALA:HB2	1.45	0.80
25:DA:2128:C:P	27:DC:35:ALA:HB1	2.22	0.80
29:DE:51:PHE:CD1	29:DE:52:LEU:HD23	2.15	0.80
1:AA:1302:C:H5'	1:AA:1303:C:H5'	1.64	0.80
7:AG:146:GLU:HA	7:AG:149:ARG:HB2	1.63	0.80
25:BA:285:C:H2'	25:BA:286:C:O4'	1.81	0.80
25:BA:612:C:H2'	25:BA:613:G:C5'	2.10	0.80
10:CJ:4:ILE:HA	10:CJ:100:THR:HG22	1.64	0.80
10:CJ:45:ARG:HH11	10:CJ:45:ARG:HG3	1.47	0.80
25:DA:1221:C:OP1	42:DV:68:LYS:HE3	1.82	0.80
25:DA:2512:C:H4'	29:DE:122:PHE:CE2	2.17	0.80
29:DE:36:ARG:HH22	29:DE:88:GLY:CA	1.95	0.80
42:DV:21:ARG:HG2	42:DV:91:TYR:CD2	2.17	0.80
1:AA:209:U:O2'	1:AA:211:G:C6	2.34	0.80
11:AK:29:ILE:HD12	11:AK:43:SER:O	1.81	0.80
22:AY:28:G:H22	22:AY:42:C:N4	1.79	0.80
25:BA:349:G:C2	25:BA:350:U:C2	2.70	0.80
25:BA:359:A:H2'	25:BA:360:G:C5'	2.10	0.80
25:BA:2483:C:N3	37:BQ:124:LYS:NZ	2.30	0.80
44:BX:12:VAL:HG23	44:BX:13:LEU:N	1.97	0.80
10:CJ:37:PRO:HA	10:CJ:72:VAL:HG22	1.62	0.80
15:CO:70:LEU:HD11	15:CO:77:ARG:HG3	1.64	0.80
17:CQ:59:ILE:HG22	17:CQ:71:PHE:HB3	1.64	0.80
25:DA:359:A:H2'	25:DA:360:G:C5'	2.10	0.80
25:DA:1385:G:OP1	25:DA:1385:G:C4'	2.30	0.80
25:DA:1771:C:O2'	25:DA:1772:G:H5'	1.82	0.80
25:DA:2189:U:C3'	25:DA:2190:G:H5''	2.11	0.80
39:DS:83:LYS:HG3	39:DS:105:ALA:HB3	1.64	0.80
45:DY:50:ARG:CZ	45:DY:55:TYR:HE1	1.94	0.80
25:BA:1403:C:H5''	25:BA:1471:A:H1'	1.64	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2189:U:H3'	25:BA:2190:G:H5''	1.62	0.80
25:BA:2391:G:H1'	25:BA:2429:G:N2	1.96	0.80
29:BE:77:ILE:HG22	29:BE:78:LEU:N	1.97	0.80
31:BG:2:PRO:CD	51:B4:51:TYR:CD1	2.64	0.80
2:CB:165:VAL:HG23	2:CB:166:ASP:H	1.47	0.80
9:CI:70:LYS:O	9:CI:74:ILE:HG13	1.81	0.80
19:CS:36:ARG:HH12	19:CS:75:ALA:HB3	1.44	0.80
20:CT:84:LEU:C	20:CT:84:LEU:HD13	2.07	0.80
25:DA:109:G:O2'	25:DA:110:G:C5'	2.30	0.80
25:DA:481:G:H1'	25:DA:506:G:H21	1.47	0.80
25:DA:2171:A:C4'	25:DA:2172:U:OP1	2.30	0.80
29:DE:39:PRO:HA	29:DE:43:GLY:HA2	1.64	0.80
1:AA:338:U:O3'	1:AA:339:A:H8	1.63	0.79
3:AC:34:LEU:HD21	3:AC:38:ARG:CZ	2.12	0.79
25:BA:2171:A:O2'	25:BA:2172:U:C5'	2.30	0.79
25:BA:2189:U:C3'	25:BA:2190:G:H5''	2.11	0.79
25:BA:2781:A:H5''	25:BA:2782:G:H5'	1.63	0.79
29:BE:199:ARG:HB2	29:BE:199:ARG:HH11	1.43	0.79
38:BR:56:LYS:HE2	38:BR:94:TYR:HE2	1.46	0.79
44:BX:12:VAL:HB	44:BX:17:ALA:CB	2.12	0.79
3:CC:43:LEU:O	3:CC:47:LEU:HB3	1.82	0.79
13:CM:94:ARG:NH2	25:DA:887:A:H3'	1.97	0.79
25:DA:349:G:C2	25:DA:350:U:C2	2.70	0.79
25:DA:1464:C:H4'	25:DA:1528(A):A:H1'	1.64	0.79
25:DA:2307:G:H3'	25:DA:2307:G:N3	1.97	0.79
36:DP:18:ARG:HH11	36:DP:18:ARG:HB3	1.46	0.79
38:DR:47:PHE:O	38:DR:51:LEU:HD12	1.82	0.79
9:AI:63:ILE:HD11	9:AI:81:ILE:HD11	1.63	0.79
13:AM:3:ARG:HA	13:AM:9:ILE:HG13	1.64	0.79
19:AS:15:LEU:HD11	19:AS:33:THR:HB	1.62	0.79
22:AY:28:G:N2	22:AY:43:C:N3	2.29	0.79
25:BA:353:G:N3	25:BA:354:G:C8	2.51	0.79
25:BA:2307:G:H3'	25:BA:2307:G:N3	1.97	0.79
26:BB:13:A:OP2	47:B0:74:ARG:CG	2.30	0.79
5:CE:70:PRO:HG2	5:CE:142:LEU:CB	2.11	0.79
12:CL:41:ARG:HG2	12:CL:42:THR:N	1.97	0.79
40:DT:29:ARG:NH2	40:DT:30:VAL:HG22	1.96	0.79
40:DT:53:ARG:HH11	40:DT:55:ASN:HB2	1.45	0.79
2:AB:14:GLY:O	2:AB:15:VAL:HG13	1.82	0.79
3:AC:52:LEU:H	3:AC:52:LEU:HD23	1.47	0.79
8:AH:1:MET:HE2	8:AH:2:LEU:N	1.98	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AW:57:G:H2'	22:AW:58:A:H5'	1.63	0.79
25:BA:747:U:C2	52:B5:2:ALA:N	2.51	0.79
25:BA:1464:C:O2'	25:BA:1528:A:C8	2.30	0.79
25:BA:1652:A:N6	38:BR:11:ASN:ND2	2.28	0.79
28:BD:172:TYR:CD1	28:BD:186:HIS:HA	2.17	0.79
29:BE:39:PRO:HA	29:BE:43:GLY:HA2	1.64	0.79
36:BP:18:ARG:HH11	36:BP:18:ARG:HB3	1.46	0.79
38:BR:10:LEU:HB3	38:BR:17:ARG:NE	1.98	0.79
7:CG:146:GLU:HA	7:CG:149:ARG:HB2	1.63	0.79
25:DA:302:C:O2'	25:DA:303:U:H5'	1.81	0.79
25:DA:353:G:N3	25:DA:354:G:C8	2.51	0.79
25:DA:1020:A:N1	25:DA:1141:U:H2'	1.96	0.79
25:DA:2302:G:H21	31:DG:128:ARG:HG3	1.45	0.79
29:DE:59:VAL:HG22	29:DE:60:ASN:N	1.97	0.79
33:DI:48:GLU:O	33:DI:52:ARG:HG2	1.82	0.79
46:DZ:102:LEU:HD13	46:DZ:123:ASP:HA	1.63	0.79
2:AB:131:PRO:HG2	2:AB:134:GLU:HB2	1.65	0.79
20:AT:14:LYS:HA	20:AT:17:ARG:HE	1.47	0.79
25:BA:2645:G:H3'	25:BA:2646:C:C5'	2.10	0.79
29:BE:176:ILE:HG22	29:BE:179:GLU:H	1.45	0.79
31:BG:43:LEU:HD23	31:BG:88:ILE:HD11	1.63	0.79
10:CJ:40:LEU:HD23	10:CJ:40:LEU:H	1.47	0.79
25:DA:285:C:H2'	25:DA:286:C:O4'	1.81	0.79
25:DA:1158:C:HO2'	50:D3:32:GLN:HG3	1.44	0.79
29:DE:34:VAL:O	29:DE:35:GLN:HB2	1.82	0.79
29:DE:77:ILE:HG22	29:DE:78:LEU:N	1.97	0.79
33:DI:88:ILE:HD11	33:DI:123:LEU:HG	1.63	0.79
40:DT:29:ARG:HH21	40:DT:30:VAL:CG2	1.94	0.79
1:AA:259:U:H2'	1:AA:260:G:H5'	1.63	0.79
7:AG:73:MET:HA	7:AG:91:VAL:HG23	1.63	0.79
22:AW:33:U:H2'	22:AW:35:A:OP2	1.82	0.79
22:AW:67:C:H2'	22:AW:68:C:C6	2.14	0.79
25:BA:911:A:C5'	25:BA:912:C:C5'	2.53	0.79
30:BF:198:ALA:O	30:BF:201:VAL:HG12	1.81	0.79
31:BG:115:ARG:NH1	31:BG:136:ARG:HD3	1.96	0.79
41:BU:52:ARG:HD3	41:BU:55:ARG:HE	1.47	0.79
20:CT:30:LYS:NZ	20:CT:80:ARG:NE	2.29	0.79
25:DA:1981:A:C5'	25:DA:1982:C:OP2	2.30	0.79
28:DD:172:TYR:CD1	28:DD:186:HIS:HA	2.17	0.79
38:DR:10:LEU:CD2	38:DR:17:ARG:HD2	2.12	0.79
1:AA:323:C:O2	1:AA:323:C:C2'	2.30	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:219:VAL:HA	2:AB:222:ILE:CD1	2.12	0.79
25:BA:1952:A:C6	35:BO:22:ILE:CD1	2.66	0.79
39:BS:83:LYS:HG3	39:BS:105:ALA:HB3	1.64	0.79
25:DA:109:G:C4	25:DA:110:G:C8	2.71	0.79
25:DA:2682:U:O4	25:DA:2728:U:H1'	1.83	0.79
29:DE:60:ASN:OD1	29:DE:62:PRO:HD2	1.82	0.79
2:AB:18:GLY:H	2:AB:42:ILE:CG2	1.96	0.79
10:AJ:4:ILE:HA	10:AJ:100:THR:HG22	1.63	0.79
22:AW:30:G:H2'	22:AW:31:A:C8	2.13	0.79
28:BD:31:LYS:HE3	28:BD:94:LEU:HD11	1.63	0.79
2:CB:178:ARG:HD2	8:CH:71:GLY:C	2.07	0.79
5:CE:150:ARG:HA	5:CE:153:LYS:HE2	1.64	0.79
13:CM:93:ARG:HG2	25:DA:888:C:P	2.23	0.79
25:DA:2189:U:H3'	25:DA:2190:G:H5''	1.63	0.79
26:DB:85:G:C6	26:DB:93:G:C6	2.71	0.79
31:DG:76:SER:HB2	31:DG:83:ARG:HB2	1.63	0.79
34:DN:47:ALA:HB2	34:DN:112:LEU:HD11	1.64	0.79
43:DW:50:VAL:HG13	43:DW:51:LEU:H	1.48	0.79
9:AI:104:ARG:HG3	9:AI:106:ALA:N	1.97	0.79
22:AW:38:A:C2'	22:AW:39:U:C5'	2.57	0.79
25:BA:1771:C:O2'	25:BA:1772:G:H5'	1.82	0.79
25:BA:2199:A:H5'	25:BA:2200:C:OP2	1.81	0.79
29:BE:11:MET:N	40:BT:8:LYS:HZ2	1.81	0.79
29:BE:34:VAL:O	29:BE:35:GLN:HB2	1.82	0.79
39:BS:30:ARG:HH22	39:BS:62:LYS:HD2	1.46	0.79
40:BT:109:GLU:HA	40:BT:112:ARG:HD3	1.63	0.79
25:DA:242:G:H5''	55:D8:62:LEU:CD1	2.12	0.79
25:DA:1952:A:C2	35:DO:22:ILE:HG13	2.18	0.79
31:DG:43:LEU:HD23	31:DG:88:ILE:HD11	1.63	0.79
2:AB:91:PRO:HG3	2:AB:154:LEU:HB2	1.63	0.79
4:AD:166:LYS:C	28:DD:135:PHE:HZ	1.88	0.79
5:AE:41:VAL:HG13	5:AE:113:ALA:HA	1.64	0.79
16:AP:22:THR:HA	16:AP:33:ILE:HG12	1.63	0.79
25:BA:109:G:C4	25:BA:110:G:C8	2.71	0.79
46:BZ:6:LYS:HE2	46:BZ:8:TYR:OH	1.83	0.79
51:B4:44:CYS:SG	51:B4:64:LYS:HB2	2.23	0.79
13:CM:61:GLU:HG3	13:CM:66:LEU:HD11	1.65	0.79
34:DN:4:TYR:HB2	41:DU:64:ARG:HH22	1.48	0.79
34:DN:9:VAL:HG12	34:DN:10:GLU:H	1.46	0.79
41:DU:52:ARG:HD3	41:DU:55:ARG:HE	1.46	0.79
3:AC:43:LEU:O	3:AC:47:LEU:HB3	1.83	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:16:LEU:O	19:AS:20:LEU:HG	1.83	0.79
25:BA:271(Q):G:N3	25:BA:271(R):G:N7	2.30	0.79
25:BA:292:C:N4	25:BA:348:G:H1	1.78	0.79
29:BE:36:ARG:HH22	29:BE:88:GLY:CA	1.95	0.79
30:BF:20:LEU:HG	30:BF:21:ALA:H	1.45	0.79
25:DA:747:U:C5	52:D5:3:LYS:HB2	2.16	0.79
25:DA:857:C:H5'	47:D0:77:ARG:HH22	1.47	0.79
36:DP:16:ARG:HB2	36:DP:16:ARG:NH1	1.98	0.79
42:DV:39:LEU:HD13	42:DV:39:LEU:N	1.98	0.79
4:AD:195:ALA:HB2	6:CF:20:ALA:HB1	1.65	0.78
8:AH:84:ARG:HG3	8:AH:85:ARG:N	1.97	0.78
13:AM:113:PRO:O	13:AM:115:LYS:HE2	1.83	0.78
14:AN:26:ARG:NH2	14:AN:47:LEU:HD21	1.97	0.78
25:BA:2171:A:C4'	25:BA:2172:U:OP1	2.30	0.78
25:BA:2682:U:O4	25:BA:2728:U:H1'	1.83	0.78
29:BE:60:ASN:OD1	29:BE:62:PRO:HD2	1.82	0.78
31:BG:104:GLU:OE2	51:B4:50:THR:CG2	2.31	0.78
34:BN:4:TYR:HB2	41:BU:64:ARG:HH22	1.48	0.78
34:BN:73:THR:HG23	34:BN:82:LEU:HD11	1.61	0.78
3:CC:20:SER:HB2	3:CC:40:ARG:HH22	1.47	0.78
13:CM:94:ARG:HH22	25:DA:887:A:C2'	1.67	0.78
22:CY:41:C:H2'	22:CY:42:C:H6	1.48	0.78
25:DA:2015:A:C1'	52:D5:2:ALA:HA	2.12	0.78
25:DA:2171:A:O2'	25:DA:2172:U:C5'	2.30	0.78
33:DI:79:ILE:CG2	33:DI:81:VAL:HG23	2.13	0.78
3:AC:73:PRO:O	3:AC:76:VAL:HG22	1.83	0.78
23:AV:1:C:H5'	23:AV:2:G:OP2	1.84	0.78
25:BA:2172:U:C1'	25:BA:2173:A:OP1	2.30	0.78
26:BB:56:G:H5''	31:BG:27:ASN:CG	2.08	0.78
36:BP:16:ARG:NH1	36:BP:16:ARG:HB2	1.98	0.78
38:BR:56:LYS:HE2	38:BR:94:TYR:CE2	2.17	0.78
42:BV:25:LEU:N	42:BV:92:THR:HG21	1.98	0.78
45:BY:27:VAL:HA	45:BY:28:LYS:HZ1	1.45	0.78
13:CM:3:ARG:HB2	51:D4:60:GLU:HG2	1.63	0.78
25:DA:364:C:H2'	25:DA:365:C:H5''	1.62	0.78
25:DA:2586:C:O5'	25:DA:2586:C:C6	2.33	0.78
35:DO:34:THR:OG1	35:DO:35:VAL:N	2.16	0.78
36:DP:64:LYS:HB3	55:D8:25:MET:CG	2.12	0.78
38:DR:56:LYS:HE2	38:DR:94:TYR:CE2	2.17	0.78
43:DW:65:LEU:HD22	43:DW:68:ARG:H	1.49	0.78
3:AC:79:ARG:NH1	11:CK:99:GLN:HB2	1.94	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:68:ARG:N	17:AQ:70:ARG:HH11	1.78	0.78
22:AW:18:G:H1	22:AW:55:U:H1'	1.47	0.78
22:AY:38:A:H2'	22:AY:38:A:N3	1.97	0.78
34:BN:58:ASP:C	34:BN:60:ILE:H	1.91	0.78
45:BY:67:LEU:O	45:BY:67:LEU:HD12	1.81	0.78
5:CE:78:HIS:HD2	8:CH:104:ARG:CZ	1.96	0.78
9:CI:28:VAL:HA	9:CI:63:ILE:O	1.83	0.78
12:CL:89:ARG:HB2	12:CL:89:ARG:NH1	1.98	0.78
23:CV:57:C:H42	31:DG:83:ARG:NH2	1.75	0.78
25:DA:1819:A:H4'	25:DA:1820:U:O5'	1.81	0.78
25:DA:2290:G:H5'	25:DA:2290:G:H8	1.48	0.78
32:DH:41:MET:HG3	32:DH:53:GLU:O	1.84	0.78
42:DV:25:LEU:N	42:DV:92:THR:HG21	1.98	0.78
19:AS:11:VAL:HG23	19:AS:38:SER:HB2	1.65	0.78
25:BA:2801(A):A:C4'	25:BA:2802:G:H5'	2.12	0.78
13:CM:88:ARG:CG	13:CM:98:VAL:CG1	2.60	0.78
19:CS:29:ARG:O	19:CS:31:ILE:HG22	1.83	0.78
25:DA:272(J):C:H2'	25:DA:272(J):C:O2	1.83	0.78
25:DA:2300:G:H22	25:DA:2317:C:H1'	1.48	0.78
9:AI:53:VAL:HG12	9:AI:92:TYR:CD2	2.18	0.78
25:BA:272:G:N2	25:BA:421:U:O4	2.15	0.78
28:BD:76:PRO:HG2	28:BD:98:VAL:HG21	1.66	0.78
50:B3:1:MET:HE2	50:B3:44:ARG:HH22	1.49	0.78
1:CA:6:G:H4'	1:CA:293:A:H4'	1.63	0.78
22:CW:67:C:H2'	22:CW:68:C:C6	2.19	0.78
33:DI:88:ILE:HD11	33:DI:123:LEU:H	1.49	0.78
38:DR:10:LEU:HB3	38:DR:17:ARG:NE	1.97	0.78
25:BA:2845:G:O2'	25:BA:2846:G:H5'	1.84	0.78
36:BP:101:VAL:HB	36:BP:107:LYS:HA	1.65	0.78
20:CT:14:LYS:HA	20:CT:17:ARG:HE	1.47	0.78
13:AM:93:ARG:HG3	25:BA:888:C:P	2.24	0.78
25:BA:14:A:N6	25:BA:15:G:C2	2.52	0.78
25:BA:857:C:H2'	25:BA:858:U:H5'	1.66	0.78
25:BA:2290:G:H8	25:BA:2290:G:H5'	1.48	0.78
29:BE:81:ILE:HG22	29:BE:81:ILE:O	1.83	0.78
33:BI:79:ILE:CG2	33:BI:81:VAL:HG23	2.13	0.78
38:BR:47:PHE:O	38:BR:51:LEU:HD12	1.82	0.78
43:BW:65:LEU:HD22	43:BW:68:ARG:H	1.48	0.78
25:DA:1464:C:HO2'	25:DA:1528:A:H8	0.80	0.78
25:DA:2863:C:H2'	25:DA:2864:G:H5''	1.66	0.78
29:DE:4:ILE:HG12	29:DE:28:ALA:HB1	1.66	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:59:ILE:HG22	17:AQ:71:PHE:HB3	1.64	0.78
23:AV:4:G:C2	23:AV:5:G:C4	2.72	0.78
23:AV:19:G:N2	23:AV:58:A:H2'	1.98	0.78
25:BA:389:G:N1	36:BP:71:VAL:HG12	1.98	0.78
42:BV:19:LYS:NZ	42:BV:20:LEU:H	1.82	0.78
3:CC:15:THR:HG21	3:CC:181:ASN:HA	1.65	0.78
15:CO:26:GLU:OE2	15:CO:77:ARG:HD2	1.84	0.78
19:CS:16:LEU:O	19:CS:20:LEU:HG	1.84	0.78
25:DA:1403:C:H5''	25:DA:1471:A:H1'	1.64	0.78
25:DA:1464:C:O2'	25:DA:1528:A:C8	2.34	0.78
25:DA:2245:U:H5'	25:DA:2246:G:H5'	1.62	0.78
25:DA:2347:C:H2'	25:DA:2348:U:C6	2.19	0.78
26:DB:83:G:O2'	26:DB:84:C:C5'	2.30	0.78
39:DS:83:LYS:CG	39:DS:105:ALA:HB3	2.14	0.78
1:AA:217:U:H2'	1:AA:218:U:C6	2.18	0.78
9:AI:70:LYS:O	9:AI:74:ILE:HG13	1.82	0.78
25:BA:322:A:H3'	30:BF:169:ASN:ND2	1.99	0.78
25:BA:614(C):A:H4'	25:BA:615:G:OP1	1.82	0.78
25:BA:2199:A:H3'	25:BA:2200:C:H6	1.49	0.78
34:BN:47:ALA:HB2	34:BN:112:LEU:HD11	1.64	0.78
20:CT:49:ALA:O	20:CT:52:ALA:HB3	1.83	0.78
25:DA:614(C):A:H4'	25:DA:615:G:OP1	1.82	0.78
25:DA:1290:C:H2'	25:DA:1291:C:C6	2.19	0.78
25:DA:2516:G:O2'	25:DA:2517:C:H5'	1.84	0.78
28:DD:24:ILE:CG1	28:DD:25:THR:H	1.91	0.78
28:DD:172:TYR:HD1	28:DD:186:HIS:HA	1.48	0.78
29:DE:132:HIS:CD2	29:DE:135:HIS:NE2	2.51	0.78
32:DH:17:VAL:HG21	32:DH:45:VAL:CG1	2.13	0.78
36:DP:18:ARG:HB3	36:DP:18:ARG:NH1	1.99	0.78
4:AD:20:TYR:CZ	6:CF:15:ASP:HB3	2.18	0.78
13:AM:93:ARG:CG	25:BA:888:C:P	2.72	0.78
25:BA:2537:U:H2'	25:BA:2538:C:C6	2.19	0.78
30:BF:2:LYS:HD3	30:BF:2:LYS:N	1.98	0.78
10:CJ:50:ILE:HD13	10:CJ:50:ILE:N	1.98	0.78
11:CK:48:ILE:HD11	11:CK:64:ALA:HA	1.66	0.78
16:CP:8:ARG:NH2	16:CP:15:PRO:HG3	1.98	0.78
16:CP:50:LYS:HD3	16:CP:51:VAL:N	1.98	0.78
23:CV:57:C:O2	31:DG:78:SER:HB2	1.84	0.78
25:DA:1278:A:H5''	38:DR:36:THR:HG22	1.65	0.78
25:DA:2537:U:H2'	25:DA:2538:C:C6	2.19	0.78
31:DG:31:VAL:HG22	31:DG:32:PRO:HD2	1.66	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DI:101:LEU:HB3	33:DI:109:ILE:HD11	1.65	0.78
34:DN:58:ASP:C	34:DN:60:ILE:H	1.91	0.78
34:DN:125:GLY:HA3	34:DN:126:PRO:O	1.84	0.78
35:DO:28:SER:OG	35:DO:29:ASN:N	2.12	0.78
42:DV:29:PRO:O	42:DV:61:VAL:HG22	1.83	0.78
2:AB:165:VAL:HG23	2:AB:166:ASP:H	1.48	0.77
3:AC:15:THR:HG21	3:AC:181:ASN:HA	1.66	0.77
9:AI:28:VAL:HA	9:AI:63:ILE:O	1.85	0.77
11:AK:124:LYS:HD2	11:AK:125:PHE:HE1	1.49	0.77
25:BA:645:C:O2	25:BA:645:C:H2'	1.84	0.77
25:BA:863:A:O2'	25:BA:864:G:H5'	1.84	0.77
25:BA:1396:U:O2	25:BA:1396:U:C2'	2.32	0.77
25:BA:1819:A:H1'	25:BA:1821:A:C5	2.19	0.77
25:BA:2863:C:H2'	25:BA:2864:G:H5''	1.66	0.77
31:BG:113:ARG:CG	31:BG:113:ARG:NH1	2.38	0.77
34:BN:120:LEU:CD1	34:BN:122:VAL:HG23	2.14	0.77
36:BP:47:ASP:HB3	36:BP:48:PRO:O	1.84	0.77
39:BS:24:LEU:HB3	39:BS:85:VAL:HG12	1.66	0.77
43:BW:50:VAL:HG13	43:BW:51:LEU:H	1.48	0.77
8:CH:1:MET:HE2	8:CH:2:LEU:N	1.98	0.77
23:CV:57:C:C4	31:DG:83:ARG:NH2	2.52	0.77
25:DA:863:A:O2'	25:DA:864:G:H5'	1.83	0.77
25:DA:2172:U:C1'	25:DA:2173:A:OP1	2.30	0.77
26:DB:13:A:H2'	26:DB:70:C:O2'	1.83	0.77
29:DE:116:VAL:O	29:DE:117:MET:HB3	1.83	0.77
36:DP:7:ARG:NE	36:DP:7:ARG:HA	1.99	0.77
40:DT:109:GLU:HA	40:DT:112:ARG:HD3	1.66	0.77
1:AA:956:C:H3'	1:AA:957:C:H5''	1.66	0.77
4:AD:31:CYS:C	4:AD:33:MET:H	1.92	0.77
11:AK:62:GLN:HG3	11:AK:97:ALA:HB2	1.65	0.77
25:BA:1523:U:H2'	25:BA:1524:G:C8	2.19	0.77
25:BA:2075:U:C4	25:BA:2238:G:C5	2.72	0.77
25:BA:2681:C:H4'	25:BA:2682:U:OP1	1.82	0.77
1:CA:1361:G:O6	7:CG:2:ALA:N	2.17	0.77
4:CD:31:CYS:C	4:CD:33:MET:H	1.91	0.77
12:CL:24:VAL:HG13	12:CL:98:TYR:CE2	2.19	0.77
25:DA:6:A:O2'	34:DN:130:HIS:HB3	1.84	0.77
25:DA:2778:A:H4'	25:DA:2779:U:OP2	1.82	0.77
46:DZ:6:LYS:HE2	46:DZ:8:TYR:OH	1.83	0.77
5:AE:150:ARG:HA	5:AE:153:LYS:HE2	1.65	0.77
13:AM:65:LYS:HD2	13:AM:69:GLU:HG3	1.66	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AW:15:G:N2	22:AW:59:U:H1'	1.98	0.77
23:AV:66:C:H2'	23:AV:67:C:C5'	2.14	0.77
25:BA:2583:G:C2'	25:BA:2584:U:H5'	2.14	0.77
25:BA:2848:G:OP2	40:BT:97:ALA:CB	2.32	0.77
28:BD:28:GLU:N	28:BD:29:PRO:HD2	1.99	0.77
31:BG:2:PRO:HD2	51:B4:51:TYR:CD1	2.20	0.77
36:BP:84:ASN:HA	36:BP:115:LEU:O	1.84	0.77
41:BU:91:ASP:OD2	41:BU:96:ALA:HB2	1.85	0.77
25:DA:2305:A:H5''	31:DG:134:GLY:HA3	1.67	0.77
28:DD:49:ILE:HD11	28:DD:52:ARG:HA	1.66	0.77
28:DD:155:LEU:HD23	28:DD:177:LEU:CD2	2.15	0.77
30:DF:2:LYS:HD3	30:DF:2:LYS:N	1.98	0.77
31:DG:76:SER:HB3	31:DG:84:LYS:N	1.99	0.77
33:DI:8:PRO:HD3	33:DI:15:VAL:HG12	1.67	0.77
40:DT:89:VAL:HG21	40:DT:91:ARG:NE	1.99	0.77
45:DY:54:LYS:CE	45:DY:55:TYR:HE2	1.96	0.77
50:D3:1:MET:HE2	50:D3:44:ARG:HH22	1.49	0.77
3:AC:68:VAL:HG12	3:AC:70:VAL:HG23	1.67	0.77
31:BG:76:SER:HB3	31:BG:84:LYS:N	1.99	0.77
31:BG:113:ARG:HG2	31:BG:113:ARG:NH1	1.85	0.77
33:BI:88:ILE:HD11	33:BI:123:LEU:H	1.48	0.77
34:BN:125:GLY:HA3	34:BN:126:PRO:O	1.84	0.77
36:BP:18:ARG:HB3	36:BP:18:ARG:NH1	1.99	0.77
45:BY:10:GLY:HA2	45:BY:27:VAL:HG13	1.67	0.77
13:CM:3:ARG:HA	13:CM:9:ILE:HG13	1.65	0.77
20:CT:84:LEU:HD13	20:CT:84:LEU:O	1.84	0.77
25:DA:857:C:H2'	25:DA:858:U:H5'	1.66	0.77
28:DD:76:PRO:HG2	28:DD:98:VAL:HG21	1.65	0.77
28:DD:210:GLY:O	28:DD:211:ARG:HB3	1.85	0.77
32:DH:12:PRO:HG2	32:DH:49:VAL:HA	1.65	0.77
36:DP:84:ASN:HA	36:DP:115:LEU:O	1.84	0.77
45:DY:7:VAL:HB	45:DY:8:LYS:HZ2	1.49	0.77
9:AI:26:VAL:HG13	9:AI:61:ALA:HB3	1.67	0.77
14:AN:26:ARG:HG3	14:AN:27:CYS:N	1.97	0.77
25:BA:103:A:C2'	25:BA:104:U:C5'	2.58	0.77
25:BA:271(Q):G:C2	25:BA:271(R):G:C5	2.72	0.77
25:BA:395:U:O2'	48:B1:13:ILE:HD13	1.83	0.77
25:BA:2778:A:H4'	25:BA:2779:U:OP2	1.82	0.77
51:B4:48:ILE:H	51:B4:48:ILE:HD12	1.46	0.77
55:B8:50:LEU:HD12	55:B8:51:ALA:H	1.46	0.77
1:CA:916:G:H5''	7:CG:102:ARG:NH2	1.99	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CO:17:ARG:HH11	15:CO:17:ARG:HG3	1.49	0.77
25:DA:2681:C:H4'	25:DA:2682:U:OP1	1.83	0.77
25:DA:2701:C:C3'	25:DA:2702:U:H5''	2.08	0.77
31:DG:110:ALA:C	31:DG:112:PRO:HD2	2.10	0.77
32:DH:17:VAL:HG12	32:DH:45:VAL:CG2	2.07	0.77
40:DT:56:GLY:O	40:DT:59:THR:CG2	2.30	0.77
51:D4:44:CYS:SG	51:D4:64:LYS:HB2	2.23	0.77
3:AC:113:ALA:HB3	3:AC:114:PRO:HD3	1.65	0.77
25:BA:379:G:N7	25:BA:380:U:C5	2.53	0.77
28:BD:49:ILE:HD11	28:BD:52:ARG:HA	1.67	0.77
28:BD:172:TYR:HD1	28:BD:186:HIS:HA	1.48	0.77
12:CL:27:LEU:HD11	12:CL:64:TYR:CZ	2.20	0.77
12:CL:28:LYS:HG3	12:CL:33:ARG:HH22	1.50	0.77
13:CM:84:ILE:HG12	19:CS:66:MET:HE1	1.67	0.77
25:DA:631:A:OP1	36:DP:64:LYS:HE2	1.83	0.77
29:DE:52:LEU:HG	29:DE:76:ARG:HB2	1.65	0.77
29:DE:81:ILE:HG22	29:DE:81:ILE:O	1.83	0.77
44:DX:12:VAL:HG23	44:DX:13:LEU:N	1.97	0.77
46:DZ:158:PRO:HB2	46:DZ:159:PRO:CD	2.15	0.77
25:BA:1187:G:H5''	42:BV:81:TYR:CE2	2.20	0.77
25:BA:2476:A:H2'	25:BA:2477:C:C5'	2.12	0.77
55:B8:52:LYS:N	55:B8:53:PRO:HD2	2.00	0.77
1:CA:1110:C:O2'	1:CA:1128:A:N1	2.17	0.77
1:CA:1425:G:H3'	1:CA:1426:A:H5''	1.66	0.77
9:CI:4:TYR:HB2	9:CI:19:LEU:HB2	1.67	0.77
25:DA:2109:U:H6	25:DA:2109:U:O5'	1.66	0.77
27:DC:41:VAL:HA	27:DC:213:TYR:HA	1.67	0.77
31:DG:171:ALA:O	31:DG:175:LEU:HD13	1.85	0.77
34:DN:120:LEU:CD1	34:DN:122:VAL:HG23	2.14	0.77
37:DQ:18:LYS:NZ	37:DQ:18:LYS:HB3	1.98	0.77
41:DU:91:ASP:OD2	41:DU:96:ALA:HB2	1.85	0.77
3:AC:14:ILE:HG12	3:AC:15:THR:N	1.97	0.77
6:AF:69:GLU:O	6:AF:72:VAL:HG12	1.84	0.77
14:AN:26:ARG:HD2	14:AN:43:CYS:SG	2.25	0.77
19:AS:41:VAL:HB	19:AS:44:MET:CG	2.15	0.77
25:BA:2227:A:H5'	28:BD:263:ARG:NH1	1.99	0.77
25:BA:2347:C:H2'	25:BA:2348:U:C6	2.19	0.77
25:BA:2516:G:H2'	25:BA:2517:C:C5'	2.03	0.77
29:BE:4:ILE:HG12	29:BE:28:ALA:HB1	1.66	0.77
33:BI:92:VAL:HG11	33:BI:120:ILE:CD1	2.15	0.77
33:BI:101:LEU:HB3	33:BI:109:ILE:HD11	1.65	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BS:49:VAL:HG12	39:BS:50:SER:H	1.49	0.77
49:B2:40:SER:C	49:B2:42:GLY:H	1.92	0.77
1:CA:402:G:H1	1:CA:430:C:H42	1.32	0.77
23:CV:57:C:O2	23:CV:57:C:H2'	1.85	0.77
25:DA:14:A:N6	25:DA:15:G:C2	2.52	0.77
25:DA:2468:G:H5'	37:DQ:120:ILE:HD12	1.65	0.77
37:DQ:81:VAL:HG23	47:D0:7:LEU:HD21	1.66	0.77
39:DS:24:LEU:HB3	39:DS:85:VAL:HG12	1.66	0.77
2:AB:70:PHE:O	2:AB:93:VAL:HG22	1.85	0.77
4:AD:12:CYS:SG	59:AD:801:ZN:ZN	1.72	0.77
23:AV:4:G:N3	23:AV:5:G:C8	2.53	0.77
25:BA:2701:C:C3'	25:BA:2702:U:H5''	2.08	0.77
31:BG:106:LEU:HA	31:BG:110:ALA:HB3	1.65	0.77
31:BG:161:THR:HG22	31:BG:163:ALA:N	2.00	0.77
36:BP:30:THR:HG22	36:BP:31:ALA:H	1.49	0.77
46:BZ:158:PRO:HB2	46:BZ:159:PRO:CD	2.15	0.77
11:CK:124:LYS:HD2	11:CK:125:PHE:HE1	1.49	0.77
25:DA:2171:A:O2'	25:DA:2172:U:H5'	1.85	0.77
25:DA:2476:A:H2'	25:DA:2477:C:C5'	2.12	0.77
28:DD:28:GLU:N	28:DD:29:PRO:HD2	1.99	0.77
4:AD:167:GLY:HA3	28:DD:135:PHE:CD2	2.14	0.77
10:AJ:50:ILE:N	10:AJ:50:ILE:HD13	1.99	0.77
25:BA:2171:A:O2'	25:BA:2172:U:H5'	1.85	0.77
30:BF:192:LEU:HD21	30:BF:194:MET:HE2	1.66	0.77
5:CE:12:LEU:HD22	5:CE:13:ILE:H	1.47	0.77
11:CK:29:ILE:HD12	11:CK:43:SER:O	1.84	0.77
12:CL:53:ARG:HH12	12:CL:92:ASP:HB2	1.49	0.77
25:DA:2586:C:C2'	25:DA:2587:A:H5'	2.14	0.77
32:DH:17:VAL:O	32:DH:45:VAL:HG22	1.83	0.77
36:DP:61:ARG:HH11	55:D8:13:ARG:CD	1.97	0.77
43:DW:60:ASN:HD22	43:DW:60:ASN:N	1.83	0.77
4:AD:15:GLU:HG2	4:AD:63:LYS:HG3	1.65	0.76
19:AS:6:LYS:HD3	19:AS:7:LYS:CE	2.11	0.76
25:BA:363(E):U:H2'	25:BA:363(F):A:H1'	1.67	0.76
25:BA:1722:A:O2'	25:BA:1739:U:H5''	1.84	0.76
39:BS:83:LYS:CG	39:BS:105:ALA:HB3	2.14	0.76
53:B6:36:LEU:HD13	53:B6:50:ARG:NH1	2.00	0.76
7:CG:113:GLU:CB	7:CG:119:ARG:HG2	2.13	0.76
25:DA:322:A:H3'	30:DF:169:ASN:HD21	1.47	0.76
25:DA:379:G:N7	25:DA:380:U:C5	2.53	0.76
31:DG:106:LEU:HA	31:DG:110:ALA:HB3	1.65	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DH:17:VAL:HB	32:DH:45:VAL:CB	2.15	0.76
50:D3:8:LEU:CD1	50:D3:31:LEU:HD23	2.15	0.76
55:D8:6:THR:HG22	55:D8:63:PRO:HD3	1.67	0.76
15:AO:56:LEU:HD21	25:BA:715:G:C2	2.21	0.76
23:AV:20:G:N2	23:AV:58:A:H1'	1.99	0.76
25:BA:1290:C:H2'	25:BA:1291:C:C6	2.19	0.76
29:BE:116:VAL:O	29:BE:117:MET:HB3	1.83	0.76
40:BT:35:LYS:HE2	40:BT:41:ARG:HH21	1.50	0.76
50:B3:8:LEU:CD1	50:B3:31:LEU:HD23	2.15	0.76
55:B8:46:ARG:O	55:B8:47:LYS:HB3	1.86	0.76
1:CA:238:A:H4'	1:CA:239:U:C5'	2.16	0.76
4:CD:196:LEU:H	4:CD:196:LEU:HD12	1.50	0.76
25:DA:1114:G:H3'	25:DA:1115:G:H5''	1.68	0.76
25:DA:2583:G:C2'	25:DA:2584:U:H5'	2.14	0.76
25:DA:2801(A):A:C4'	25:DA:2802:G:H5'	2.12	0.76
30:DF:78:ILE:H	30:DF:78:ILE:HD13	1.46	0.76
40:DT:27:THR:OG1	40:DT:28:VAL:N	2.15	0.76
31:BG:44:GLY:HA2	31:BG:88:ILE:HG21	1.67	0.76
34:BN:48:MET:H	34:BN:48:MET:HE3	1.50	0.76
14:CN:26:ARG:HG3	14:CN:27:CYS:N	1.99	0.76
14:CN:26:ARG:NH2	14:CN:47:LEU:HD21	2.00	0.76
25:DA:614:U:H5''	25:DA:614:U:O2	1.86	0.76
31:DG:105:LYS:HE2	51:D4:52:SER:HB3	1.67	0.76
37:DQ:16:ARG:HG2	37:DQ:17:LEU:H	1.50	0.76
42:DV:19:LYS:NZ	42:DV:20:LEU:H	1.82	0.76
5:AE:12:LEU:HD22	5:AE:13:ILE:H	1.50	0.76
9:AI:95:LYS:HD3	9:AI:96:LEU:N	2.01	0.76
25:BA:27:G:O2'	25:BA:28:A:H8	1.69	0.76
25:BA:271(S):G:H2'	25:BA:271(T):C:C5'	2.12	0.76
32:BH:41:MET:CE	32:BH:55:PRO:HD2	2.16	0.76
33:BI:8:PRO:HD3	33:BI:15:VAL:HG12	1.67	0.76
36:BP:7:ARG:HA	36:BP:7:ARG:NE	1.99	0.76
37:BQ:39:PRO:HB3	37:BQ:99:PRO:HD3	1.67	0.76
53:B6:41:PRO:HD2	53:B6:46:HIS:N	2.00	0.76
2:CB:131:PRO:HG2	2:CB:134:GLU:HB2	1.66	0.76
3:CC:73:PRO:O	3:CC:76:VAL:HG22	1.83	0.76
5:CE:53:LEU:H	5:CE:53:LEU:HD12	1.49	0.76
7:CG:113:GLU:O	7:CG:119:ARG:HD3	1.85	0.76
9:CI:26:VAL:HG13	9:CI:61:ALA:HB3	1.67	0.76
25:DA:943:U:OP2	36:DP:38:GLN:CD	2.27	0.76
25:DA:1190:G:H5''	36:DP:35:HIS:HA	1.67	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1523:U:H2'	25:DA:1524:G:C8	2.19	0.76
29:DE:77:ILE:CG2	29:DE:78:LEU:H	1.96	0.76
1:AA:955:A:O2'	1:AA:1303:C:N3	2.19	0.76
1:AA:960:A:H2	1:AA:961:C:C6	2.04	0.76
7:AG:47:CYS:HA	7:AG:50:ILE:HG12	1.67	0.76
25:BA:109:G:O2'	25:BA:110:G:C5'	2.30	0.76
40:BT:89:VAL:HG22	40:BT:91:ARG:HG3	1.67	0.76
45:BY:17:SER:CB	45:BY:71:LYS:CD	2.61	0.76
2:CB:116:GLU:HA	2:CB:119:GLU:HB2	1.67	0.76
13:CM:94:ARG:HH21	25:DA:887:A:C3'	1.96	0.76
25:DA:1722:A:O2'	25:DA:1739:U:H5''	1.84	0.76
26:DB:52:A:C8	39:DS:33:LYS:HE3	2.21	0.76
31:DG:111:LEU:HB3	31:DG:117:PHE:HE2	1.51	0.76
36:DP:30:THR:HG22	36:DP:31:ALA:H	1.50	0.76
36:DP:63:PRO:HB3	55:D8:13:ARG:CB	2.15	0.76
41:DU:92:ARG:HH11	41:DU:92:ARG:HG2	1.50	0.76
47:D0:41:ARG:H	47:D0:41:ARG:CD	1.99	0.76
51:D4:46:ASN:HD22	51:D4:47:VAL:N	1.84	0.76
53:D6:15:GLU:HG2	53:D6:15:GLU:O	1.86	0.76
42:BV:29:PRO:O	42:BV:61:VAL:HG22	1.84	0.76
2:CB:219:VAL:HA	2:CB:222:ILE:CD1	2.15	0.76
25:DA:2834:G:H5'	25:DA:2835:A:OP2	1.85	0.76
25:DA:2873:A:N3	38:DR:6:SER:HB2	2.01	0.76
33:DI:52:ARG:O	33:DI:55:ALA:HB3	1.85	0.76
36:DP:71:VAL:HG13	36:DP:72:PRO:CD	2.16	0.76
56:D9:9:ARG:NH1	56:D9:9:ARG:HB3	2.00	0.76
22:AW:38:A:C3'	22:AW:39:U:C5'	2.63	0.76
30:BF:177:ALA:HB1	30:BF:178:PRO:HD2	1.67	0.76
41:BU:92:ARG:HH11	41:BU:92:ARG:HG2	1.50	0.76
42:BV:39:LEU:CD1	42:BV:50:PRO:O	2.34	0.76
51:B4:46:ASN:HD22	51:B4:47:VAL:N	1.84	0.76
2:CB:75:LYS:HG2	2:CB:78:GLN:NE2	2.01	0.76
22:CW:18:G:H1	22:CW:55:U:H1'	1.49	0.76
25:DA:307:G:H8	25:DA:307:G:O5'	1.69	0.76
25:DA:521:G:H2'	25:DA:522:G:C8	2.21	0.76
25:DA:1952:A:C6	35:DO:22:ILE:CD1	2.68	0.76
25:DA:1986:A:C3'	25:DA:1987:G:H5''	2.16	0.76
31:DG:161:THR:HG22	31:DG:163:ALA:N	2.01	0.76
33:DI:92:VAL:HG11	33:DI:120:ILE:CD1	2.15	0.76
36:DP:101:VAL:HB	36:DP:107:LYS:HA	1.65	0.76
42:DV:52:VAL:HG13	42:DV:55:ALA:HB3	1.68	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:49:ARG:HD3	4:AD:50:ARG:N	2.01	0.76
25:BA:471:A:C2'	25:BA:472:A:H5'	2.16	0.76
25:BA:521:G:H2'	25:BA:522:G:C8	2.21	0.76
25:BA:2515:C:O2'	25:BA:2516:G:C5'	2.32	0.76
28:BD:155:LEU:HD23	28:BD:177:LEU:CD2	2.15	0.76
29:BE:181:LEU:HD21	40:BT:7:ILE:CG2	2.16	0.76
35:BO:64:ARG:HB2	35:BO:83:ALA:HB3	1.68	0.76
37:BQ:110:THR:HG23	37:BQ:113:GLN:OE1	1.86	0.76
43:BW:60:ASN:HD22	43:BW:60:ASN:N	1.83	0.76
49:B2:45:SER:O	49:B2:46:GLN:NE2	2.19	0.76
55:B8:6:THR:HG22	55:B8:63:PRO:HD3	1.67	0.76
25:DA:2845:G:O2'	25:DA:2846:G:H5'	1.84	0.76
41:DU:91:ASP:CG	41:DU:96:ALA:HB2	2.10	0.76
53:D6:36:LEU:HD13	53:D6:50:ARG:NH1	2.00	0.76
1:AA:919:G:H21	9:AI:124:GLN:NE2	1.84	0.76
1:AA:1329:U:H4'	9:AI:120:ARG:HD2	1.66	0.76
2:AB:116:GLU:HA	2:AB:119:GLU:HB2	1.68	0.76
25:BA:135:G:O2'	25:BA:136:G:H5'	1.86	0.76
25:BA:491:G:H2'	25:BA:492:A:H8	1.51	0.76
25:BA:2586:C:C2'	25:BA:2587:A:H5'	2.14	0.76
36:BP:23:PRO:O	36:BP:33:ARG:HD2	1.85	0.76
2:CB:68:ILE:HD12	2:CB:161:ALA:HB3	1.68	0.76
3:CC:83:ARG:O	3:CC:86:VAL:HG22	1.86	0.76
19:CS:31:ILE:HG23	19:CS:49:ILE:HA	1.67	0.76
25:DA:103:A:C2'	25:DA:104:U:C5'	2.58	0.76
36:DP:47:ASP:HB3	36:DP:48:PRO:O	1.84	0.76
44:DX:12:VAL:HB	44:DX:17:ALA:CB	2.12	0.76
1:AA:1115:G:N3	1:AA:1124:G:N2	2.34	0.76
5:AE:53:LEU:H	5:AE:53:LEU:HD12	1.51	0.76
25:BA:925:C:H2'	25:BA:926:A:C5'	2.13	0.76
25:BA:2516:G:O2'	25:BA:2517:C:H5'	1.84	0.76
11:CK:122:LYS:O	11:CK:126:ARG:HG3	1.85	0.76
17:CQ:68:ARG:N	17:CQ:70:ARG:NH1	2.34	0.76
30:DF:192:LEU:HD21	30:DF:194:MET:HE2	1.66	0.76
37:DQ:65:PHE:HB2	37:DQ:105:GLU:HG3	1.68	0.76
39:DS:46:VAL:HG12	39:DS:47:THR:N	2.01	0.76
40:DT:16:ARG:HB3	40:DT:16:ARG:NH1	2.01	0.76
45:DY:28:LYS:HZ2	45:DY:28:LYS:N	1.84	0.76
1:AA:451:C:O2'	1:AA:452:C:H5'	1.85	0.75
2:AB:9:GLU:HA	2:AB:12:GLU:OE1	1.86	0.75
11:AK:48:ILE:HD11	11:AK:64:ALA:HA	1.67	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1884:A:H2'	25:BA:1885:A:C5'	2.12	0.75
25:BA:2562:U:H1'	35:BO:23:ARG:HH11	1.46	0.75
25:BA:2864:G:H5'	25:BA:2864:G:C8	2.21	0.75
27:BC:41:VAL:HA	27:BC:213:TYR:HA	1.67	0.75
31:BG:31:VAL:HG22	31:BG:32:PRO:HD2	1.66	0.75
36:BP:52:GLU:CD	36:BP:54:GLY:H	1.94	0.75
40:BT:65:LYS:NZ	40:BT:66:VAL:O	2.19	0.75
50:B3:56:VAL:CG1	50:B3:57:GLU:H	1.98	0.75
1:CA:423:G:H4'	1:CA:424:U:OP1	1.85	0.75
7:CG:150:ALA:HB2	11:CK:50:TYR:OH	1.87	0.75
8:CH:73:ASP:OD2	8:CH:75:ARG:HD3	1.86	0.75
22:CW:18:G:N1	22:CW:55:U:H1'	2.01	0.75
26:DB:83:G:C6	26:DB:84:C:C4	2.75	0.75
27:DC:49:ILE:H	27:DC:49:ILE:CD1	1.99	0.75
30:DF:101:LEU:HD12	30:DF:102:PRO:HD2	1.68	0.75
30:DF:177:ALA:HB1	30:DF:178:PRO:HD2	1.67	0.75
36:DP:125:VAL:O	36:DP:145:PRO:HD2	1.86	0.75
40:DT:25:GLY:N	40:DT:49:VAL:HG13	2.01	0.75
45:DY:27:VAL:HA	45:DY:28:LYS:HZ1	1.48	0.75
3:AC:79:ARG:HH11	11:CK:99:GLN:HB3	1.49	0.75
9:AI:104:ARG:CG	9:AI:106:ALA:HB2	2.05	0.75
10:AJ:40:LEU:HD23	10:AJ:40:LEU:H	1.48	0.75
16:AP:50:LYS:HD3	16:AP:51:VAL:N	2.01	0.75
20:AT:84:LEU:HD13	20:AT:84:LEU:O	1.87	0.75
22:AY:34:G:H2'	22:AY:34:G:N3	2.00	0.75
25:BA:197:A:H8	25:BA:197:A:H5'	1.51	0.75
25:BA:322:A:H3'	30:BF:169:ASN:HD21	1.51	0.75
25:BA:614:U:O2	25:BA:614:U:H5''	1.86	0.75
25:BA:952:G:C6	25:BA:953:A:N7	2.54	0.75
25:BA:2834:G:H5'	25:BA:2835:A:OP2	1.85	0.75
26:BB:68:C:H2'	26:BB:69:G:H8	1.51	0.75
31:BG:171:ALA:O	31:BG:175:LEU:HD13	1.85	0.75
41:BU:91:ASP:CG	41:BU:96:ALA:HB2	2.11	0.75
46:BZ:37:VAL:O	46:BZ:38:TYR:HB3	1.85	0.75
47:B0:49:LYS:H	47:B0:80:HIS:HB3	1.51	0.75
6:CF:62:TRP:CH2	6:CF:64:GLN:HB2	2.22	0.75
7:CG:78:ARG:HD2	7:CG:79:ARG:H	1.50	0.75
8:CH:89:PRO:HA	8:CH:92:ARG:NH1	2.01	0.75
19:CS:6:LYS:HD2	19:CS:7:LYS:N	2.01	0.75
25:DA:491:G:H2'	25:DA:492:A:H8	1.51	0.75
25:DA:2199:A:H3'	25:DA:2200:C:H6	1.49	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2390:U:H2'	25:DA:2391:G:C5'	2.16	0.75
25:DA:2483:C:N3	37:DQ:124:LYS:NZ	2.33	0.75
29:DE:11:MET:N	40:DT:8:LYS:NZ	2.34	0.75
54:D7:41:ARG:HD3	54:D7:45:ALA:HB2	1.68	0.75
1:AA:451:C:H2'	1:AA:452:C:H5'	1.66	0.75
1:AA:953:G:N2	1:AA:1343:C:H2'	2.02	0.75
2:AB:178:ARG:HD2	8:AH:71:GLY:C	2.12	0.75
9:AI:10:ARG:HD3	9:AI:75:ASP:HB3	1.68	0.75
19:AS:6:LYS:HD2	19:AS:7:LYS:H	1.50	0.75
19:AS:29:ARG:O	19:AS:31:ILE:HG22	1.84	0.75
25:BA:760:G:H5''	25:BA:760:G:H8	1.52	0.75
25:BA:2186:G:C3'	25:BA:2187:G:H5''	2.16	0.75
26:BB:14:U:OP2	26:BB:71:C:H5'	1.86	0.75
36:BP:125:VAL:O	36:BP:145:PRO:HD2	1.86	0.75
37:BQ:16:ARG:HG2	37:BQ:17:LEU:H	1.50	0.75
39:BS:46:VAL:HG12	39:BS:47:THR:N	2.01	0.75
48:B1:40:ARG:HD3	48:B1:40:ARG:C	2.12	0.75
2:CB:18:GLY:H	2:CB:42:ILE:CG2	1.96	0.75
4:CD:49:ARG:HD3	4:CD:50:ARG:N	2.00	0.75
8:CH:11:THR:HG22	8:CH:15:ASN:HD21	1.52	0.75
8:CH:86:ILE:HG22	8:CH:87:SER:H	1.51	0.75
22:CW:4:C:H2'	22:CW:5:G:H8	1.51	0.75
25:DA:645:C:H2'	25:DA:645:C:O2	1.84	0.75
25:DA:871:U:H4'	37:DQ:69:PHE:CE2	2.21	0.75
25:DA:1755:A:P	40:DT:113:LYS:NZ	2.58	0.75
33:DI:38:LEU:H	33:DI:38:LEU:CD1	1.99	0.75
39:DS:49:VAL:HG12	39:DS:50:SER:H	1.49	0.75
1:AA:1110:C:H42	1:AA:1125:G:H1	1.31	0.75
1:AA:1139:A:H4'	1:AA:1140:C:O5'	1.86	0.75
25:BA:2873:A:N3	38:BR:6:SER:HB2	2.01	0.75
31:BG:146:TYR:O	31:BG:149:VAL:HG22	1.87	0.75
33:BI:84:GLY:O	33:BI:85:GLU:HB2	1.86	0.75
42:BV:52:VAL:HG13	42:BV:55:ALA:HB3	1.68	0.75
37:DQ:39:PRO:HB3	37:DQ:99:PRO:HD3	1.67	0.75
45:DY:10:GLY:HA2	45:DY:27:VAL:HG13	1.67	0.75
1:AA:153:G:C5'	1:AA:154:A:OP2	2.34	0.75
1:AA:1115:G:H22	1:AA:1125:G:H1'	1.50	0.75
7:AG:113:GLU:CB	7:AG:119:ARG:HG2	2.16	0.75
20:AT:26:ASN:HB2	20:AT:71:THR:HG23	1.66	0.75
33:BI:8:PRO:HD3	33:BI:15:VAL:CG1	2.16	0.75
12:CL:28:LYS:HB2	12:CL:33:ARG:NH1	2.01	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CS:41:VAL:HB	19:CS:44:MET:CG	2.16	0.75
22:CW:5:G:C2	22:CW:6:G:C8	2.74	0.75
25:DA:760:G:H8	25:DA:760:G:H5''	1.52	0.75
36:DP:64:LYS:CB	55:D8:25:MET:HG3	2.16	0.75
4:AD:33:MET:HE3	4:AD:33:MET:HA	1.69	0.75
4:AD:196:LEU:H	4:AD:196:LEU:HD12	1.52	0.75
25:BA:1925:C:O2'	25:BA:1926:U:H5'	1.87	0.75
36:BP:71:VAL:HG13	36:BP:72:PRO:CD	2.16	0.75
40:BT:80:SER:CB	40:BT:81:PRO:CD	2.65	0.75
49:B2:64:LEU:O	49:B2:68:ARG:HG2	1.85	0.75
3:CC:14:ILE:HG12	3:CC:15:THR:N	1.97	0.75
3:CC:68:VAL:HG12	3:CC:70:VAL:HG23	1.66	0.75
25:DA:314:A:C2'	25:DA:315:G:H5'	2.16	0.75
25:DA:1652:A:N6	38:DR:11:ASN:ND2	2.34	0.75
25:DA:2121:G:H21	27:DC:172:HIS:CB	1.99	0.75
25:DA:2171:A:O2'	25:DA:2172:U:C6	2.40	0.75
37:DQ:21:THR:C	37:DQ:23:GLY:H	1.92	0.75
1:AA:1302:C:H5'	1:AA:1303:C:C5'	2.17	0.75
13:AM:96:LEU:CA	13:AM:110:ARG:HD3	2.16	0.75
19:AS:10:PHE:HZ	19:AS:70:LYS:HE2	1.52	0.75
25:BA:297:C:O2'	25:BA:298:G:H5'	1.87	0.75
25:BA:1986:A:C3'	25:BA:1987:G:H5''	2.16	0.75
25:BA:2390:U:H2'	25:BA:2391:G:C5'	2.16	0.75
2:CB:215:LEU:O	2:CB:219:VAL:HG23	1.87	0.75
3:CC:16:ARG:HH11	3:CC:16:ARG:CB	1.97	0.75
5:CE:50:GLU:OE2	5:CE:51:VAL:HG23	1.85	0.75
12:CL:28:LYS:HG2	12:CL:33:ARG:HH12	1.52	0.75
25:DA:27:G:O2'	25:DA:28:A:H8	1.69	0.75
26:DB:83:G:C2'	26:DB:84:C:H5'	2.16	0.75
33:DI:68:LEU:HD23	33:DI:136:VAL:HG11	1.69	0.75
45:DY:18:GLY:CA	45:DY:21:LYS:HB2	2.17	0.75
46:DZ:37:VAL:O	46:DZ:38:TYR:HB3	1.85	0.75
48:D1:40:ARG:HD3	48:D1:40:ARG:C	2.12	0.75
53:D6:41:PRO:HD2	53:D6:46:HIS:N	2.00	0.75
55:D8:52:LYS:N	55:D8:53:PRO:HD2	2.00	0.75
1:AA:817:C:O2	1:AA:829:G:N2	2.18	0.75
2:AB:24:TRP:CZ3	2:AB:26:PRO:HA	2.20	0.75
19:AS:43:GLU:C	19:AS:45:VAL:H	1.93	0.75
25:BA:1042:G:H1'	25:BA:1114:G:N2	2.02	0.75
25:BA:2171:A:O2'	25:BA:2172:U:C6	2.40	0.75
28:BD:210:GLY:O	28:BD:211:ARG:HB3	1.85	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:105:LEU:HD23	36:BP:105:LEU:N	2.02	0.75
42:BV:18:LEU:HD22	42:BV:19:LYS:H	1.50	0.75
1:CA:712:A:H2'	1:CA:713:G:H8	1.52	0.75
2:CB:9:GLU:HA	2:CB:12:GLU:OE1	1.87	0.75
20:CT:30:LYS:NZ	20:CT:80:ARG:CZ	2.50	0.75
26:DB:92:C:C2	26:DB:93:G:N7	2.55	0.75
36:DP:6:LEU:HG	36:DP:9:ASN:ND2	2.01	0.75
40:DT:58:ASN:OD1	40:DT:58:ASN:C	2.30	0.75
4:AD:167:GLY:HA2	28:DD:135:PHE:CZ	2.12	0.75
13:AM:3:ARG:HB2	51:B4:60:GLU:HG2	1.69	0.75
13:AM:11:ARG:O	13:AM:13:LYS:N	2.20	0.75
25:BA:631:A:OP1	36:BP:64:LYS:HE2	1.87	0.75
25:BA:1348:G:H2'	25:BA:1349:A:H5''	1.68	0.75
25:BA:2348:U:H2'	25:BA:2349:G:C5'	2.15	0.75
28:BD:108:PRO:HB3	28:BD:143:HIS:CE1	2.22	0.75
29:BE:11:MET:C	40:BT:8:LYS:HZ1	1.94	0.75
30:BF:34:TRP:CZ2	36:BP:12:ALA:HB2	2.22	0.75
3:CC:70:VAL:HG12	3:CC:72:LYS:H	1.52	0.75
7:CG:47:CYS:HA	7:CG:50:ILE:HG12	1.69	0.75
8:CH:84:ARG:HG3	8:CH:85:ARG:N	2.01	0.75
23:CV:57:C:C4	31:DG:83:ARG:CZ	2.70	0.75
25:DA:77:C:O3'	49:D2:14:ARG:NH2	2.20	0.75
25:DA:1411:C:H2'	25:DA:1412:A:C8	2.22	0.75
25:DA:2515:C:O2'	25:DA:2516:G:C5'	2.32	0.75
25:DA:2732:G:O2'	25:DA:2733:A:H5'	1.87	0.75
26:DB:92:C:O2'	26:DB:93:G:C5'	2.30	0.75
28:DD:108:PRO:HB3	28:DD:143:HIS:CE1	2.22	0.75
2:AB:215:LEU:O	2:AB:219:VAL:HG23	1.87	0.74
7:AG:113:GLU:O	7:AG:119:ARG:HD3	1.86	0.74
8:AH:89:PRO:HA	8:AH:92:ARG:NH1	2.02	0.74
15:AO:70:LEU:HD11	15:AO:77:ARG:HG3	1.68	0.74
25:BA:1665:A:H4'	35:BO:67:LYS:HB2	1.69	0.74
56:B9:9:ARG:HB3	56:B9:9:ARG:NH1	2.00	0.74
5:CE:12:LEU:HD13	5:CE:13:ILE:N	2.02	0.74
19:CS:43:GLU:C	19:CS:45:VAL:H	1.94	0.74
25:DA:107:C:H2'	25:DA:108:U:H5'	1.69	0.74
27:DC:41:VAL:HG23	27:DC:178:ALA:HB3	1.68	0.74
31:DG:44:GLY:HA2	31:DG:88:ILE:HG21	1.67	0.74
49:D2:64:LEU:O	49:D2:68:ARG:HG2	1.85	0.74
11:AK:85:ARG:HG2	11:AK:111:ASP:O	1.88	0.74
15:AO:82:ILE:O	15:AO:82:ILE:HD13	1.87	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:28:ARG:HG2	16:AP:29:ASP:OD2	1.86	0.74
25:BA:1464:C:H4'	25:BA:1528(A):A:H1'	1.69	0.74
25:BA:2693:A:H2'	25:BA:2694:G:C8	2.22	0.74
27:BC:49:ILE:H	27:BC:49:ILE:CD1	1.99	0.74
29:BE:77:ILE:CG2	29:BE:78:LEU:H	1.96	0.74
31:BG:96:ARG:H	31:BG:99:MET:HE2	1.51	0.74
32:BH:41:MET:HE2	32:BH:54:ARG:HA	1.69	0.74
37:BQ:30:GLY:HA2	37:BQ:107:ALA:HB2	1.69	0.74
39:BS:26:LEU:HG	39:BS:39:ILE:HD11	1.69	0.74
42:BV:49:THR:CB	42:BV:50:PRO:CD	2.64	0.74
49:B2:65:ASN:HB3	49:B2:69:ARG:NH2	2.01	0.74
53:B6:10:LEU:HD12	55:B8:34:TRP:CD1	2.22	0.74
4:CD:146:ILE:HD12	4:CD:146:ILE:N	2.02	0.74
13:CM:13:LYS:HA	13:CM:44:ARG:HH11	1.50	0.74
13:CM:100:GLY:O	13:CM:101:GLN:NE2	2.21	0.74
14:CN:40:CYS:O	14:CN:44:LEU:HB3	1.86	0.74
25:DA:1114:G:C3'	25:DA:1115:G:H5''	2.17	0.74
30:DF:34:TRP:CZ2	36:DP:12:ALA:HB2	2.22	0.74
33:DI:84:GLY:O	33:DI:85:GLU:HB2	1.85	0.74
38:DR:28:LEU:HD13	38:DR:28:LEU:C	2.12	0.74
40:DT:29:ARG:HD2	40:DT:85:LYS:HA	1.66	0.74
40:DT:89:VAL:HG21	40:DT:91:ARG:CZ	2.17	0.74
53:D6:10:LEU:HD12	55:D8:34:TRP:CD1	2.22	0.74
1:AA:660:U:H3	1:AA:696:G:H22	1.33	0.74
12:AL:41:ARG:CG	12:AL:42:THR:H	1.99	0.74
25:BA:1755:A:P	40:BT:113:LYS:HZ1	2.10	0.74
29:BE:134:ILE:HG12	29:BE:134:ILE:O	1.87	0.74
38:BR:28:LEU:C	38:BR:28:LEU:HD13	2.12	0.74
39:BS:15:ARG:HB3	39:BS:18:ILE:HG21	1.69	0.74
7:CG:49:ILE:HG23	7:CG:53:LYS:HD2	1.69	0.74
23:CV:55:U:H2'	23:CV:56:U:O4'	1.87	0.74
25:DA:271(P):C:O2'	25:DA:271(Q):G:H5'	1.86	0.74
25:DA:528:A:H2	25:DA:2043:C:H4'	1.51	0.74
34:DN:48:MET:HE3	34:DN:48:MET:H	1.51	0.74
38:DR:28:LEU:HD11	38:DR:116:LEU:HD21	1.69	0.74
48:D1:8:SER:HB3	48:D1:66:HIS:CD2	2.22	0.74
49:D2:45:SER:O	49:D2:46:GLN:NE2	2.21	0.74
1:AA:451:C:H2'	1:AA:452:C:H6	1.51	0.74
5:AE:57:LYS:HG2	5:AE:61:TYR:CE2	2.21	0.74
6:AF:87:ARG:O	6:AF:88:VAL:CG2	2.36	0.74
9:AI:4:TYR:HB2	9:AI:19:LEU:HB2	1.67	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:46:LYS:CG	12:AL:47:LYS:H	1.92	0.74
25:BA:379:G:N2	48:B1:42:GLN:OE1	2.21	0.74
25:BA:541:C:H2'	25:BA:542:C:H5'	1.67	0.74
30:BF:101:LEU:HD12	30:BF:102:PRO:HD2	1.68	0.74
38:BR:45:ARG:HG3	38:BR:46:GLY:N	2.02	0.74
39:BS:92:TYR:O	39:BS:93:LYS:HB3	1.88	0.74
42:BV:15:GLU:HB3	42:BV:16:PRO:CD	2.17	0.74
53:B6:15:GLU:O	53:B6:15:GLU:HG2	1.86	0.74
1:CA:1268:A:H2'	1:CA:1269:A:C8	2.22	0.74
5:CE:41:VAL:CG1	5:CE:113:ALA:CA	2.65	0.74
9:CI:118:LYS:HB2	9:CI:118:LYS:NZ	2.01	0.74
13:CM:93:ARG:CG	25:DA:888:C:C5'	2.55	0.74
33:DI:8:PRO:HD3	33:DI:15:VAL:CG1	2.16	0.74
39:DS:15:ARG:HB3	39:DS:18:ILE:HG21	1.69	0.74
42:DV:18:LEU:HD22	42:DV:19:LYS:H	1.50	0.74
55:D8:46:ARG:O	55:D8:47:LYS:HB3	1.86	0.74
4:AD:63:LYS:HD2	4:AD:198:VAL:HG23	1.68	0.74
19:AS:31:ILE:HG23	19:AS:49:ILE:HA	1.68	0.74
23:AV:22:A:H61	23:AV:47:G:H2'	1.49	0.74
25:BA:1652:A:H2'	25:BA:1653:G:C5'	2.17	0.74
25:BA:1981:A:C5'	25:BA:1982:C:OP2	2.30	0.74
25:BA:2732:G:O2'	25:BA:2733:A:H5'	1.87	0.74
40:BT:23:ARG:O	40:BT:90:GLN:NE2	2.20	0.74
41:BU:92:ARG:NH2	41:BU:94:ASN:HD22	1.85	0.74
1:CA:932:U:H1'	1:CA:1208:A:H61	1.51	0.74
25:DA:1925:C:O2'	25:DA:1926:U:H5'	1.87	0.74
31:DG:40:ASN:HB2	31:DG:91:ARG:HB2	1.70	0.74
37:DQ:30:GLY:HA2	37:DQ:107:ALA:HB2	1.69	0.74
38:DR:45:ARG:HG3	38:DR:46:GLY:N	2.02	0.74
39:DS:26:LEU:HG	39:DS:39:ILE:HD11	1.69	0.74
40:DT:23:ARG:HG3	40:DT:120:ARG:HH12	1.53	0.74
13:AM:88:ARG:O	13:AM:98:VAL:CG1	2.35	0.74
25:BA:243:U:OP1	55:B8:6:THR:HG21	1.87	0.74
25:BA:1114:G:H3'	25:BA:1115:G:H5''	1.68	0.74
25:BA:1411:C:H2'	25:BA:1412:A:C8	2.22	0.74
37:BQ:140:ALA:C	46:BZ:53:ILE:HD13	2.12	0.74
45:BY:28:LYS:HZ2	45:BY:28:LYS:N	1.85	0.74
47:B0:25:ARG:HA	47:B0:29:GLN:HE22	1.52	0.74
47:B0:41:ARG:H	47:B0:41:ARG:CD	1.98	0.74
47:B0:49:LYS:N	47:B0:80:HIS:HB3	2.03	0.74
1:CA:1323:C:H1'	9:CI:124:GLN:NE2	2.01	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:614:U:H4'	25:DA:614(C):A:N6	2.03	0.74
29:DE:53:PRO:O	29:DE:75:VAL:HG23	1.86	0.74
1:AA:737:C:H2'	1:AA:737:C:O2	1.86	0.74
2:AB:44:LEU:H	2:AB:44:LEU:HD12	1.51	0.74
3:AC:83:ARG:O	3:AC:86:VAL:HG22	1.87	0.74
25:BA:314:A:C2'	25:BA:315:G:H5'	2.15	0.74
25:BA:790:C:H4'	25:BA:791:C:OP1	1.88	0.74
25:BA:1019:U:H3	25:BA:1142(A):A:H62	1.35	0.74
25:BA:1021:A:H3'	25:BA:1021:A:C8	2.21	0.74
25:BA:1819:A:H4'	25:BA:1820:U:O5'	1.88	0.74
31:BG:46:ALA:C	31:BG:82:LEU:HD11	2.13	0.74
49:B2:67:LYS:O	49:B2:70:GLN:HG2	1.87	0.74
54:B7:41:ARG:HD3	54:B7:45:ALA:HB2	1.68	0.74
1:CA:1036:C:O2	1:CA:1036:C:H2'	1.86	0.74
5:CE:57:LYS:HG2	5:CE:61:TYR:CE2	2.22	0.74
22:CW:21:A:C5	22:CW:46:G:C5	2.75	0.74
25:DA:1021:A:H3'	25:DA:1021:A:C8	2.21	0.74
25:DA:2186:G:C3'	25:DA:2187:G:H5''	2.16	0.74
25:DA:2693:A:H2'	25:DA:2694:G:C8	2.22	0.74
29:DE:11:MET:C	40:DT:8:LYS:HZ1	1.95	0.74
31:DG:113:ARG:HH11	31:DG:113:ARG:CB	1.99	0.74
45:DY:54:LYS:C	45:DY:55:TYR:CG	2.64	0.74
45:DY:67:LEU:O	45:DY:67:LEU:CD1	2.30	0.74
15:AO:17:ARG:HG3	15:AO:17:ARG:HH11	1.51	0.74
22:AY:33:U:C3'	22:AY:34:G:H5''	2.17	0.74
25:BA:2391:G:O2'	25:BA:2424:C:N4	2.19	0.74
19:CS:6:LYS:HD3	19:CS:7:LYS:CE	2.15	0.74
25:DA:541:C:H2'	25:DA:542:C:H5'	1.67	0.74
26:DB:65:C:H41	26:DB:109:C:H2'	1.53	0.74
29:DE:134:ILE:HG12	29:DE:134:ILE:O	1.87	0.74
32:DH:17:VAL:CG2	32:DH:45:VAL:CG1	2.66	0.74
36:DP:105:LEU:N	36:DP:105:LEU:HD23	2.02	0.74
41:DU:92:ARG:NH2	41:DU:94:ASN:HD22	1.86	0.74
7:AG:78:ARG:HD2	7:AG:79:ARG:H	1.52	0.74
10:AJ:8:LEU:HB3	10:AJ:16:LEU:HD21	1.69	0.74
25:BA:481:G:H1'	25:BA:506:G:N2	2.01	0.74
25:BA:915:C:H2'	25:BA:916:G:C8	2.23	0.74
25:BA:1018:C:O2'	25:BA:1019:U:H5'	1.88	0.74
25:BA:1045:A:H2'	25:BA:1045:A:N3	2.03	0.74
25:BA:1484:G:H3'	25:BA:1485:G:H5''	1.69	0.74
13:CM:54:VAL:O	13:CM:58:GLU:HG2	1.87	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CW:6:G:N2	22:CW:68:C:C2	2.56	0.74
25:DA:952:G:C6	25:DA:953:A:N7	2.56	0.74
25:DA:1826:G:H4'	28:DD:242:ARG:NH2	2.03	0.74
30:DF:168:ARG:HA	30:DF:175:THR:HG21	1.69	0.74
31:DG:39:ILE:HD13	31:DG:157:ILE:HG23	1.70	0.74
33:DI:75:LEU:HD21	33:DI:105:HIS:CE1	2.23	0.74
7:AG:79:ARG:HH11	7:AG:79:ARG:HG3	1.53	0.74
10:AJ:33:GLN:O	10:AJ:75:ILE:HG12	1.88	0.74
20:AT:50:GLU:HB3	20:AT:100:ILE:CG1	2.18	0.74
23:AV:3:C:C2'	23:AV:4:G:H5''	2.12	0.74
28:BD:112:GLN:HB2	28:BD:115:GLN:HE21	1.51	0.74
30:BF:168:ARG:HA	30:BF:175:THR:HG21	1.69	0.74
32:BH:53:GLU:O	32:BH:54:ARG:HB3	1.87	0.74
1:CA:748:G:H1	1:CA:795:C:HO2'	1.36	0.74
1:CA:1327:A:H5''	9:CI:120:ARG:HH12	1.52	0.74
2:CB:24:TRP:CZ3	2:CB:26:PRO:HA	2.22	0.74
4:CD:9:CYS:SG	4:CD:31:CYS:O	2.45	0.74
10:CJ:8:LEU:HB3	10:CJ:16:LEU:HD21	1.69	0.74
22:CY:30:G:H5'	22:CY:31:A:OP2	1.88	0.74
25:DA:135:G:O2'	25:DA:136:G:H5'	1.86	0.74
25:DA:363(E):U:H2'	25:DA:363(F):A:H1'	1.67	0.74
25:DA:910:A:C5	37:DQ:13:GLN:HG3	2.23	0.74
33:DI:66:GLU:O	33:DI:70:GLU:HG2	1.88	0.74
40:DT:29:ARG:CZ	40:DT:29:ARG:HA	2.17	0.74
47:D0:49:LYS:N	47:D0:80:HIS:HB3	2.03	0.74
1:AA:338:U:O3'	1:AA:339:A:C8	2.40	0.73
19:AS:10:PHE:CZ	19:AS:39:THR:OG1	2.40	0.73
25:BA:1114:G:C3'	25:BA:1115:G:H5''	2.17	0.73
25:BA:2305:A:H5''	31:BG:134:GLY:CA	2.04	0.73
27:BC:41:VAL:HG23	27:BC:178:ALA:HB3	1.69	0.73
20:CT:50:GLU:CB	20:CT:100:ILE:HG12	2.18	0.73
22:CW:30:G:C2	22:CW:41:C:N3	2.56	0.73
22:CY:41:C:H2'	22:CY:42:C:C6	2.22	0.73
25:DA:96:G:H4'	49:D2:48:HIS:CD2	2.22	0.73
25:DA:481:G:H1'	25:DA:506:G:N2	2.01	0.73
25:DA:1042:G:H1'	25:DA:1114:G:N2	2.02	0.73
25:DA:2526:G:H21	56:D9:2:LYS:HG3	1.50	0.73
34:DN:133:GLN:HG2	34:DN:135:PRO:HD3	1.70	0.73
41:DU:66:ASN:HB2	41:DU:76:TYR:HB2	1.70	0.73
4:AD:162:LEU:HD12	4:AD:181:MET:HE2	1.70	0.73
5:AE:76:ILE:HD11	5:AE:142:LEU:CD2	2.18	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AW:25:C:O2'	22:AW:26:A:H5'	1.89	0.73
22:AW:27:G:H2'	22:AW:28:G:H8	1.53	0.73
25:BA:914:C:C2'	25:BA:915:C:H5'	2.15	0.73
32:BH:76:VAL:O	32:BH:79:VAL:HG22	1.88	0.73
48:B1:7:ILE:HG22	48:B1:8:SER:N	2.03	0.73
6:CF:11:ASN:O	6:CF:14:LEU:HG	1.88	0.73
16:CP:28:ARG:HG2	16:CP:29:ASP:OD2	1.88	0.73
25:DA:111:A:O3'	49:D2:69:ARG:NH2	2.21	0.73
25:DA:197:A:H8	25:DA:197:A:H5'	1.51	0.73
25:DA:471:A:C2'	25:DA:472:A:H5'	2.16	0.73
25:DA:925:C:H2'	25:DA:926:A:C5'	2.13	0.73
25:DA:1668:A:OP1	35:DO:5:GLN:HG2	1.88	0.73
25:DA:1884:A:H2'	25:DA:1885:A:C5'	2.11	0.73
28:DD:112:GLN:HB2	28:DD:115:GLN:HE21	1.51	0.73
31:DG:11:TYR:O	31:DG:16:ARG:HB2	1.88	0.73
32:DH:76:VAL:O	32:DH:79:VAL:HG22	1.88	0.73
37:DQ:110:THR:HG23	37:DQ:113:GLN:OE1	1.86	0.73
44:DX:60:ARG:HH12	54:D7:47:ARG:NH2	1.86	0.73
46:DZ:53:ILE:CG2	46:DZ:71:VAL:HB	2.18	0.73
47:D0:25:ARG:HA	47:D0:29:GLN:HE22	1.52	0.73
25:BA:528:A:N1	25:BA:2042:A:H2'	2.03	0.73
25:BA:1686:C:H5'	25:BA:1686:C:H6	1.52	0.73
37:BQ:65:PHE:HB2	37:BQ:105:GLU:HG3	1.68	0.73
48:B1:8:SER:HB3	48:B1:66:HIS:CD2	2.22	0.73
4:CD:162:LEU:HD13	4:CD:181:MET:HG2	1.67	0.73
22:CW:32:U:H2'	22:CW:33:U:H5'	1.68	0.73
25:DA:1652:A:H2'	25:DA:1653:G:C5'	2.17	0.73
25:DA:2469:A:O2'	37:DQ:56:ARG:CD	2.37	0.73
26:DB:52:A:N7	39:DS:33:LYS:HE3	2.02	0.73
26:DB:91:C:H2'	26:DB:92:C:H6	1.52	0.73
30:DF:28:ILE:HG21	30:DF:116:ASP:HB2	1.70	0.73
36:DP:112:LEU:HD22	36:DP:113:LYS:N	2.03	0.73
40:DT:53:ARG:NH1	40:DT:55:ASN:CB	2.51	0.73
20:AT:56:MET:HG3	20:AT:84:LEU:HD12	1.69	0.73
25:BA:549:G:H8	25:BA:549:G:O5'	1.72	0.73
31:BG:39:ILE:HD13	31:BG:157:ILE:HG23	1.70	0.73
13:CM:96:LEU:CA	13:CM:110:ARG:HD3	2.18	0.73
22:CW:39:U:OP1	22:CW:39:U:C4'	2.30	0.73
23:CV:15:G:H22	23:CV:49:C:H41	1.37	0.73
25:DA:2679:A:H4'	29:DE:165:VAL:HG11	1.70	0.73
26:DB:69:G:N2	26:DB:70:C:C2	2.57	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DF:9:ILE:HA	30:DF:13:SER:O	1.88	0.73
36:DP:96:THR:HG22	36:DP:126:VAL:HB	1.70	0.73
49:D2:67:LYS:O	49:D2:70:GLN:HG2	1.87	0.73
25:BA:528:A:H2	25:BA:2043:C:C5'	2.02	0.73
26:BB:60:C:H2'	26:BB:61:G:H8	1.53	0.73
29:BE:1:MET:HB2	29:BE:83:ASP:O	1.87	0.73
32:BH:89:ILE:HD12	32:BH:90:LYS:O	1.88	0.73
33:BI:68:LEU:HD23	33:BI:136:VAL:HG11	1.69	0.73
1:CA:659:A:H1'	11:CK:115:PRO:HB3	1.70	0.73
11:CK:85:ARG:HG2	11:CK:111:ASP:O	1.87	0.73
20:CT:50:GLU:CA	20:CT:100:ILE:CG1	2.57	0.73
25:DA:1018:C:O2'	25:DA:1019:U:H5'	1.88	0.73
25:DA:1348:G:H2'	25:DA:1349:A:H5''	1.68	0.73
25:DA:1484:G:H3'	25:DA:1485:G:H5''	1.70	0.73
25:DA:1879:C:H2'	25:DA:1880:C:C5'	2.13	0.73
25:DA:2128:C:O5'	27:DC:35:ALA:HB1	1.86	0.73
28:DD:31:LYS:NZ	28:DD:102:LYS:HZ2	1.87	0.73
29:DE:199:ARG:HB2	29:DE:199:ARG:NH1	2.04	0.73
36:DP:46:LYS:HG2	36:DP:52:GLU:OE2	1.87	0.73
41:DU:31:SER:HB3	41:DU:34:LYS:HB2	1.70	0.73
1:AA:59:A:H5'	1:AA:60:A:H5''	1.70	0.73
1:AA:601:C:N3	1:AA:605:A:N6	2.36	0.73
1:AA:1105:A:H4'	10:AJ:36:GLY:HA3	1.70	0.73
5:AE:50:GLU:OE2	5:AE:51:VAL:HG23	1.88	0.73
16:AP:8:ARG:NH2	16:AP:15:PRO:HG3	2.03	0.73
25:BA:2299:G:C6	25:BA:2318:G:C8	2.75	0.73
30:BF:7:TYR:HB3	30:BF:16:GLY:H	1.54	0.73
30:BF:9:ILE:HA	30:BF:13:SER:O	1.88	0.73
36:BP:96:THR:HG22	36:BP:126:VAL:HB	1.71	0.73
41:BU:31:SER:HB3	41:BU:34:LYS:HB2	1.70	0.73
53:B6:32:ASN:CG	53:B6:33:LYS:H	1.97	0.73
1:CA:1140:C:N3	1:CA:1162:G:N2	2.36	0.73
6:CF:67:MET:HB2	6:CF:68:PRO:HD2	1.70	0.73
10:CJ:33:GLN:O	10:CJ:75:ILE:HG12	1.87	0.73
19:CS:18:LYS:O	19:CS:22:LEU:HD23	1.87	0.73
21:CU:25:LYS:HG2	21:CU:26:LYS:N	2.04	0.73
25:DA:528:A:N1	25:DA:2042:A:H2'	2.03	0.73
25:DA:1286:A:H2'	25:DA:1288:U:OP2	1.88	0.73
26:DB:60:C:H2'	26:DB:61:G:H8	1.53	0.73
30:DF:7:TYR:HB3	30:DF:16:GLY:H	1.54	0.73
32:DH:102:ALA:HB2	32:DH:117:PRO:HD3	1.71	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DV:15:GLU:HB3	42:DV:16:PRO:CD	2.17	0.73
42:DV:19:LYS:HB3	42:DV:94:LEU:O	1.89	0.73
1:AA:377:A:H2'	1:AA:378:A:C8	2.24	0.73
1:AA:656:G:H2'	1:AA:657:G:C8	2.24	0.73
3:AC:70:VAL:HG12	3:AC:71:ALA:N	2.04	0.73
11:AK:12:ARG:HH21	11:AK:14:VAL:HG12	1.54	0.73
20:AT:33:ILE:HD13	20:AT:62:LEU:CB	2.17	0.73
22:AW:15:G:H21	22:AW:59:U:H1'	1.51	0.73
23:AV:30:G:O2'	23:AV:31:G:H5'	1.89	0.73
25:BA:141:A:H8	25:BA:1408:C:HO2'	1.31	0.73
25:BA:1446:C:O2'	25:BA:1447:G:H5'	1.88	0.73
27:BC:36:LYS:HD3	27:BC:37:PHE:H	1.54	0.73
46:BZ:53:ILE:CG2	46:BZ:71:VAL:HB	2.19	0.73
2:CB:44:LEU:H	2:CB:44:LEU:HD12	1.52	0.73
2:CB:178:ARG:O	8:CH:71:GLY:HA2	1.89	0.73
19:CS:10:PHE:HZ	19:CS:70:LYS:HE2	1.53	0.73
25:DA:549:G:H8	25:DA:549:G:O5'	1.72	0.73
25:DA:2583:G:H2'	25:DA:2584:U:H5'	1.71	0.73
25:DA:2864:G:H5'	25:DA:2864:G:C8	2.21	0.73
32:DH:109:PHE:HD1	32:DH:109:PHE:H	1.37	0.73
40:DT:89:VAL:HG11	40:DT:91:ARG:NE	2.03	0.73
43:DW:59:VAL:HG12	43:DW:60:ASN:N	2.03	0.73
1:AA:1202:G:OP1	1:AA:1301:C:N4	2.20	0.73
1:AA:1262:U:H5'	1:AA:1263:C:OP2	1.89	0.73
1:AA:1318:G:H5''	1:AA:1319:G:OP1	1.88	0.73
8:AH:82:HIS:CD2	8:AH:82:HIS:C	2.66	0.73
11:AK:48:ILE:HG22	11:AK:49:GLY:H	1.54	0.73
25:BA:2463:C:C2'	25:BA:2464:C:C5'	2.66	0.73
31:BG:11:TYR:O	31:BG:16:ARG:HB2	1.88	0.73
32:BH:102:ALA:HB2	32:BH:117:PRO:HD3	1.71	0.73
37:BQ:64:ILE:HG23	37:BQ:106:VAL:HG12	1.70	0.73
45:BY:7:VAL:HB	45:BY:8:LYS:HZ3	1.54	0.73
1:CA:261:G:C5'	1:CA:262:C:C5	2.65	0.73
4:CD:8:VAL:C	4:CD:10:ARG:H	1.96	0.73
23:CV:70:C:H2'	23:CV:71:G:C8	2.23	0.73
25:DA:297:C:O2'	25:DA:298:G:H5'	1.87	0.73
25:DA:472:A:O2'	25:DA:508:G:N1	2.22	0.73
25:DA:914:C:C2'	25:DA:915:C:H5'	2.15	0.73
25:DA:1019:U:H3	25:DA:1142(A):A:H62	1.34	0.73
25:DA:2814:C:O2'	52:D5:29:THR:HG21	1.89	0.73
31:DG:46:ALA:C	31:DG:82:LEU:HD11	2.13	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DP:23:PRO:O	36:DP:33:ARG:NH1	2.21	0.73
40:DT:55:ASN:CB	40:DT:58:ASN:OD1	2.36	0.73
47:D0:49:LYS:H	47:D0:80:HIS:HB3	1.51	0.73
14:AN:40:CYS:O	14:AN:44:LEU:HB3	1.89	0.73
25:BA:2419:U:OP1	55:B8:41:ILE:HD13	1.89	0.73
29:BE:30:PRO:HD3	29:BE:180:ASN:ND2	2.04	0.73
32:BH:109:PHE:H	32:BH:109:PHE:HD1	1.37	0.73
5:CE:80:ILE:HG22	8:CH:104:ARG:NH2	2.04	0.73
17:CQ:82:MET:O	17:CQ:86:GLU:HG2	1.89	0.73
22:CW:60:U:O2'	22:CW:61:C:C5	2.41	0.73
25:DA:358:U:C2'	25:DA:359:A:H5'	2.19	0.73
25:DA:1447:G:C5'	25:DA:1447:G:C8	2.68	0.73
25:DA:1717:G:C3'	25:DA:1718:G:H5''	2.19	0.73
29:DE:30:PRO:HD3	29:DE:180:ASN:ND2	2.04	0.73
31:DG:96:ARG:H	31:DG:99:MET:HE2	1.51	0.73
9:AI:116:LYS:O	9:AI:118:LYS:N	2.21	0.73
13:AM:65:LYS:C	13:AM:66:LEU:HG	2.14	0.73
13:AM:88:ARG:CG	13:AM:98:VAL:HG12	2.19	0.73
25:BA:614:U:H4'	25:BA:614(C):A:N6	2.03	0.73
25:BA:651:G:H5''	55:B8:18:ALA:HB3	1.70	0.73
26:BB:65:C:H41	26:BB:109:C:H2'	1.52	0.73
34:BN:55:VAL:HG22	34:BN:126:PRO:HA	1.71	0.73
39:BS:48:LEU:HD22	39:BS:82:ILE:HD11	1.71	0.73
41:BU:66:ASN:HB2	41:BU:76:TYR:HB2	1.70	0.73
2:CB:77:ALA:HB2	2:CB:211:ILE:HD12	1.71	0.73
3:CC:173:VAL:O	3:CC:175:LEU:HD12	1.89	0.73
5:CE:14:ARG:NH1	5:CE:129:ILE:HD11	2.03	0.73
5:CE:51:VAL:O	5:CE:55:VAL:HG23	1.89	0.73
5:CE:144:THR:O	5:CE:148:VAL:HG23	1.89	0.73
8:CH:6:ILE:O	8:CH:10:LEU:HD12	1.89	0.73
22:CW:67:C:H2'	22:CW:68:C:H6	1.53	0.73
25:DA:1158:C:O2'	50:D3:32:GLN:CG	2.30	0.73
25:DA:1686:C:H5'	25:DA:1686:C:H6	1.52	0.73
25:DA:1952:A:N6	35:DO:22:ILE:HD11	2.04	0.73
25:DA:2585:U:O2'	25:DA:2586:C:H5'	1.89	0.73
29:DE:1:MET:HB2	29:DE:83:ASP:O	1.87	0.73
33:DI:68:LEU:CD2	33:DI:136:VAL:HG11	2.19	0.73
1:AA:1036:C:N3	22:AY:34:G:H1'	2.02	0.72
4:AD:146:ILE:HD12	4:AD:146:ILE:N	2.03	0.72
8:AH:11:THR:HG22	8:AH:15:ASN:HD21	1.53	0.72
22:AW:63:G:H2'	22:AW:64:A:O4'	1.89	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:528:A:H2	25:BA:2043:C:H4'	1.51	0.72
25:BA:613:G:H5'	25:BA:613:G:C8	2.24	0.72
25:BA:871:U:OP1	37:BQ:5:ARG:HG3	1.89	0.72
25:BA:1993:U:H4'	29:BE:128:SER:OG	1.88	0.72
43:BW:59:VAL:HG12	43:BW:60:ASN:N	2.03	0.72
8:CH:86:ILE:HG21	8:CH:133:LEU:HD22	1.72	0.72
22:CW:20:U:H2'	22:CW:21:A:H4'	1.71	0.72
25:DA:528:A:H2	25:DA:2043:C:C5'	2.02	0.72
25:DA:613:G:H5'	25:DA:613:G:C8	2.24	0.72
34:DN:120:LEU:HD11	34:DN:122:VAL:HG23	1.71	0.72
37:DQ:64:ILE:HG23	37:DQ:106:VAL:HG12	1.71	0.72
40:DT:89:VAL:HG21	40:DT:91:ARG:CD	2.19	0.72
42:DV:49:THR:HG22	42:DV:50:PRO:HD2	1.69	0.72
1:AA:901:C:N4	1:AA:902:G:O6	2.22	0.72
2:AB:61:LEU:CD2	2:AB:68:ILE:HD11	2.19	0.72
21:AU:2:GLY:C	21:AU:4:GLY:H	1.96	0.72
22:AW:51:U:H2'	22:AW:52:G:C8	2.23	0.72
25:BA:587:C:H5''	36:BP:33:ARG:NH2	2.04	0.72
25:BA:1286:A:H2'	25:BA:1288:U:OP2	1.89	0.72
29:BE:92:THR:O	29:BE:95:ILE:HD13	1.89	0.72
29:BE:154:LYS:HA	29:BE:154:LYS:HE3	1.71	0.72
37:BQ:81:VAL:HG23	47:B0:7:LEU:HD21	1.70	0.72
45:BY:54:LYS:O	45:BY:55:TYR:HB2	1.89	0.72
2:CB:61:LEU:CD2	2:CB:68:ILE:HD11	2.17	0.72
9:CI:111:ARG:HG2	9:CI:112:LYS:N	2.04	0.72
22:CY:36:A:C2	24:CX:20:U:N3	2.57	0.72
25:DA:271(S):G:H2'	25:DA:271(T):C:C5'	2.12	0.72
25:DA:1231:G:H2'	25:DA:1232:G:C8	2.25	0.72
25:DA:2463:C:C2'	25:DA:2464:C:C5'	2.66	0.72
32:DH:19:VAL:HB	32:DH:44:VAL:HG13	1.71	0.72
48:D1:3:LYS:HG3	48:D1:4:VAL:N	2.01	0.72
7:AG:49:ILE:HG23	7:AG:53:LYS:HD2	1.70	0.72
8:AH:86:ILE:HG22	8:AH:87:SER:H	1.55	0.72
25:BA:1119:C:H2'	25:BA:1120:G:H8	1.54	0.72
25:BA:2305:A:N1	31:BG:154:GLY:N	2.37	0.72
31:BG:2:PRO:HG2	51:B4:51:TYR:CD2	2.22	0.72
1:CA:87:C:H2'	1:CA:88:G:H8	1.52	0.72
3:CC:70:VAL:HG12	3:CC:71:ALA:N	2.04	0.72
9:CI:10:ARG:HD3	9:CI:75:ASP:HB3	1.69	0.72
13:CM:93:ARG:HD3	25:DA:888:C:H5'	0.73	0.72
15:CO:82:ILE:HD13	15:CO:82:ILE:O	1.89	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CW:4:C:H2'	22:CW:5:G:C8	2.24	0.72
22:CW:34:G:O6	24:CX:13:A:N1	2.22	0.72
25:DA:314:A:HO2'	25:DA:315:G:H5'	1.53	0.72
25:DA:1719:G:O2'	25:DA:1720:U:H5'	1.89	0.72
25:DA:2134:A:H62	25:DA:2157:G:H1'	1.54	0.72
28:DD:26:LYS:CE	28:DD:82:ILE:H	2.02	0.72
31:DG:146:TYR:O	31:DG:149:VAL:HG22	1.87	0.72
33:DI:145:VAL:HG12	33:DI:146:ALA:N	2.04	0.72
49:D2:63:VAL:O	49:D2:66:GLU:HG2	1.89	0.72
10:AJ:78:ASN:O	10:AJ:82:ILE:HG12	1.89	0.72
23:AV:55:U:H2'	23:AV:56:U:O4'	1.89	0.72
25:BA:1658:C:C2	25:BA:1659:U:C5	2.77	0.72
25:BA:1748:G:H8	25:BA:1748:G:H5'	1.54	0.72
25:BA:2308:G:H2'	25:BA:2309:A:C8	2.25	0.72
25:BA:2691:C:H5'	25:BA:2691:C:H6	1.55	0.72
31:BG:40:ASN:HB2	31:BG:91:ARG:HB2	1.69	0.72
33:BI:47:LEU:O	33:BI:50:ARG:HG3	1.90	0.72
36:BP:112:LEU:HD22	36:BP:113:LYS:N	2.04	0.72
38:BR:28:LEU:HD11	38:BR:116:LEU:HD21	1.69	0.72
12:CL:102:ARG:NE	12:CL:108:ALA:O	2.21	0.72
19:CS:40:ILE:HB	19:CS:67:VAL:O	1.88	0.72
24:CX:17:U:H6	24:CX:17:U:O5'	1.72	0.72
25:DA:395:U:H2'	25:DA:396:G:C8	2.24	0.72
25:DA:1658:C:C2	25:DA:1659:U:C5	2.77	0.72
28:DD:181:GLU:HA	28:DD:272:ALA:CB	2.20	0.72
29:DE:11:MET:N	40:DT:8:LYS:HZ2	1.87	0.72
5:AE:78:HIS:CD2	8:AH:104:ARG:NE	2.57	0.72
5:AE:144:THR:O	5:AE:148:VAL:HG23	1.89	0.72
7:AG:150:ALA:HB2	11:AK:50:TYR:OH	1.89	0.72
22:AW:72:C:C2'	22:AW:73:A:H5'	2.18	0.72
22:AY:31:A:N1	22:AY:40:C:N4	2.36	0.72
25:BA:1719:G:O2'	25:BA:1720:U:H5'	1.88	0.72
25:BA:2463:C:C2'	25:BA:2464:C:H5''	2.20	0.72
28:BD:11:PRO:O	28:BD:13:ARG:N	2.21	0.72
33:BI:66:GLU:O	33:BI:70:GLU:HG2	1.88	0.72
33:BI:68:LEU:CD2	33:BI:136:VAL:HG11	2.19	0.72
42:BV:19:LYS:HB3	42:BV:94:LEU:O	1.88	0.72
1:CA:1327:A:N1	1:CA:1356:A:H5''	2.05	0.72
22:CW:33:U:O2'	22:CW:34:G:H5''	1.89	0.72
25:DA:1045:A:H2'	25:DA:1045:A:N3	2.03	0.72
25:DA:1748:G:H5'	25:DA:1748:G:H8	1.54	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2306:C:H5'	25:DA:2307:G:O5'	1.90	0.72
25:DA:2308:G:H2'	25:DA:2309:A:C8	2.25	0.72
26:DB:92:C:OP1	37:DQ:19:GLY:CA	2.37	0.72
28:DD:7:LYS:O	28:DD:9:TYR:CD1	2.42	0.72
32:DH:18:GLU:HB2	32:DH:25:LYS:HG2	1.70	0.72
48:D1:7:ILE:HG22	48:D1:8:SER:N	2.03	0.72
1:AA:1207:C:N4	13:AM:104:ARG:HD2	2.05	0.72
4:AD:8:VAL:C	4:AD:10:ARG:H	1.96	0.72
13:AM:84:ILE:HG12	19:AS:66:MET:HE1	1.69	0.72
25:BA:2134:A:H62	25:BA:2157:G:H1'	1.54	0.72
29:BE:199:ARG:HB2	29:BE:199:ARG:NH1	2.04	0.72
31:BG:64:THR:HG23	31:BG:65:GLY:H	1.55	0.72
33:BI:75:LEU:HD21	33:BI:105:HIS:CE1	2.23	0.72
34:BN:133:GLN:HG2	34:BN:135:PRO:HD3	1.70	0.72
35:BO:64:ARG:NH1	35:BO:81:ASP:OD2	2.21	0.72
48:B1:3:LYS:HG3	48:B1:4:VAL:N	2.01	0.72
49:B2:63:VAL:O	49:B2:66:GLU:HG2	1.89	0.72
5:CE:41:VAL:HG11	5:CE:113:ALA:N	2.05	0.72
7:CG:115:ARG:O	7:CG:118:VAL:HG22	1.88	0.72
9:CI:95:LYS:HD3	9:CI:96:LEU:N	2.04	0.72
13:CM:125:ARG:HG3	22:CY:38:A:O2'	1.89	0.72
20:CT:79:ARG:HG2	20:CT:83:ARG:HD2	1.71	0.72
23:CV:15:G:N2	23:CV:22:A:N3	2.38	0.72
25:DA:1651:G:H2'	25:DA:1652:A:C8	2.25	0.72
25:DA:2330:G:H2'	25:DA:2331:G:C5'	2.19	0.72
5:AE:39:GLY:O	5:AE:69:VAL:N	2.20	0.72
13:AM:123:ALA:HB2	22:AY:39:U:O4'	1.89	0.72
17:AQ:82:MET:O	17:AQ:86:GLU:HG2	1.89	0.72
25:BA:472:A:O2'	25:BA:508:G:N1	2.22	0.72
28:BD:31:LYS:NZ	28:BD:102:LYS:HZ2	1.86	0.72
29:BE:110:GLY:HA2	29:BE:161:GLY:HA3	1.72	0.72
32:BH:18:GLU:HB2	32:BH:25:LYS:HG2	1.70	0.72
33:BI:87:LYS:CA	33:BI:122:GLU:HG2	2.19	0.72
36:BP:112:LEU:HD22	36:BP:113:LYS:H	1.54	0.72
36:BP:126:VAL:HG12	36:BP:148:LEU:HD11	1.71	0.72
40:BT:128:GLU:O	40:BT:130:ALA:N	2.23	0.72
2:CB:19:HIS:ND1	2:CB:20:GLU:HG2	2.05	0.72
5:CE:100:VAL:CG1	5:CE:118:ILE:CG2	2.64	0.72
7:CG:113:GLU:HB2	7:CG:119:ARG:CG	2.17	0.72
12:CL:28:LYS:HB2	12:CL:33:ARG:CZ	2.20	0.72
22:CW:3:C:H1'	22:CW:71:G:N2	2.05	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1287:A:C5	25:DA:1288:U:O4	2.42	0.72
25:DA:1754:C:OP1	40:DT:96:ARG:NH1	2.23	0.72
25:DA:2320:A:C2	25:DA:2333:A:N7	2.57	0.72
25:DA:2348:U:H2'	25:DA:2349:G:C5'	2.15	0.72
25:DA:2675:A:O4'	35:DO:29:ASN:ND2	2.22	0.72
28:DD:11:PRO:O	28:DD:13:ARG:N	2.21	0.72
38:DR:74:LYS:HD2	38:DR:77:ARG:HH21	1.55	0.72
2:AB:87:ARG:O	2:AB:87:ARG:HD2	1.89	0.72
2:AB:91:PRO:CG	2:AB:155:LEU:HD23	2.19	0.72
8:AH:6:ILE:O	8:AH:10:LEU:HD12	1.89	0.72
13:AM:54:VAL:O	13:AM:58:GLU:HG2	1.90	0.72
15:AO:26:GLU:OE2	15:AO:77:ARG:HD2	1.89	0.72
19:AS:18:LYS:O	19:AS:22:LEU:HD23	1.89	0.72
23:AV:66:C:H6	23:AV:66:C:C5'	2.00	0.72
25:BA:358:U:C2'	25:BA:359:A:H5'	2.19	0.72
25:BA:857:C:H5'	47:B0:77:ARG:HH22	1.55	0.72
25:BA:1717:G:C3'	25:BA:1718:G:H5''	2.19	0.72
25:BA:2300:G:H22	25:BA:2317:C:C1'	2.02	0.72
28:BD:26:LYS:CE	28:BD:82:ILE:H	2.02	0.72
32:BH:13:LYS:HE2	32:BH:13:LYS:CA	2.19	0.72
11:CK:29:ILE:HD13	11:CK:44:SER:HB3	1.72	0.72
20:CT:26:ASN:HD22	20:CT:71:THR:CA	2.01	0.72
25:DA:1566:A:OP1	28:DD:211:ARG:NH1	2.23	0.72
25:DA:1713:U:O2'	25:DA:1714:G:H5'	1.90	0.72
29:DE:92:THR:O	29:DE:95:ILE:HD13	1.89	0.72
53:D6:32:ASN:CG	53:D6:33:LYS:H	1.97	0.72
1:AA:451:C:H2'	1:AA:452:C:C6	2.24	0.72
1:AA:953:G:N2	1:AA:1344:C:OP2	2.23	0.72
2:AB:19:HIS:ND1	2:AB:20:GLU:HG2	2.05	0.72
2:AB:233:SER:OG	2:AB:234:PRO:HD2	1.90	0.72
22:AW:24:G:H2'	22:AW:25:C:H6	1.53	0.72
25:BA:610:G:N2	25:BA:619:G:H1'	2.05	0.72
25:BA:1287:A:C5	25:BA:1288:U:O4	2.42	0.72
25:BA:1651:G:H2'	25:BA:1652:A:C8	2.25	0.72
25:BA:2391:G:H1'	25:BA:2429:G:H21	1.53	0.72
31:BG:51:ARG:HA	31:BG:51:ARG:NE	2.05	0.72
33:BI:50:ARG:O	33:BI:54:GLN:HB2	1.90	0.72
35:BO:34:THR:N	35:BO:37:ASP:OD2	2.23	0.72
43:BW:95:ILE:O	43:BW:95:ILE:HG13	1.90	0.72
45:BY:42:VAL:HB	45:BY:65:ALA:HB3	1.72	0.72
1:CA:319:G:C5'	20:CT:70:SER:HB3	2.18	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1425:G:O2'	40:DT:122:ASP:OD2	2.08	0.72
8:CH:109:ILE:HG12	8:CH:110:ALA:N	2.05	0.72
25:DA:379:G:N2	48:D1:42:GLN:OE1	2.22	0.72
25:DA:2463:C:C2'	25:DA:2464:C:H5''	2.20	0.72
31:DG:85:GLY:C	31:DG:87:PRO:HD2	2.15	0.72
32:DH:89:ILE:HD12	32:DH:90:LYS:O	1.88	0.72
37:DQ:66:ILE:HG22	37:DQ:104:PHE:CE2	2.25	0.72
44:DX:12:VAL:CB	44:DX:17:ALA:HB1	2.17	0.72
53:D6:19:ARG:HG2	53:D6:20:ASN:N	2.03	0.72
2:AB:75:LYS:HG2	2:AB:78:GLN:NE2	2.03	0.72
2:AB:144:ARG:HA	2:AB:147:LYS:HB3	1.72	0.72
10:AJ:48:THR:HA	10:AJ:62:HIS:HB3	1.71	0.72
35:BO:75:SER:OG	40:BT:74:ARG:NH1	2.23	0.72
2:CB:87:ARG:O	2:CB:87:ARG:HD2	1.89	0.72
9:CI:16:ARG:O	9:CI:63:ILE:HG23	1.90	0.72
10:CJ:78:ASN:O	10:CJ:82:ILE:HG12	1.90	0.72
19:CS:20:LEU:O	19:CS:23:ASN:HB3	1.90	0.72
25:DA:915:C:H2'	25:DA:916:G:C8	2.23	0.72
29:DE:44:TYR:O	29:DE:45:THR:HB	1.90	0.72
32:DH:54:ARG:HG2	32:DH:54:ARG:NH1	2.05	0.72
32:DH:65:HIS:O	32:DH:69:ARG:HD3	1.90	0.72
32:DH:159:GLU:HG3	32:DH:160:LYS:N	2.04	0.72
35:DO:105:GLU:OE1	35:DO:105:GLU:N	2.23	0.72
2:AB:68:ILE:HD12	2:AB:161:ALA:HB3	1.71	0.71
8:AH:109:ILE:HG12	8:AH:110:ALA:N	2.05	0.71
12:AL:18:VAL:HG23	12:AL:19:ARG:H	1.55	0.71
22:AW:36:A:C6	22:AW:37:A:N7	2.57	0.71
25:BA:107:C:H2'	25:BA:108:U:H5'	1.69	0.71
25:BA:191:A:O2'	25:BA:192:C:H5'	1.90	0.71
25:BA:1713:U:O2'	25:BA:1714:G:H5'	1.90	0.71
31:BG:47:LYS:HE3	31:BG:81:LYS:HB2	1.72	0.71
31:BG:85:GLY:C	31:BG:87:PRO:HD2	2.15	0.71
49:B2:42:GLY:O	49:B2:43:GLN:C	2.33	0.71
1:CA:977:U:H2'	1:CA:978:A:C8	2.25	0.71
4:CD:170:VAL:CG1	4:CD:174:LEU:HB2	2.20	0.71
19:CS:6:LYS:HD2	19:CS:7:LYS:H	1.53	0.71
19:CS:45:VAL:C	19:CS:47:HIS:H	1.96	0.71
25:DA:2102:U:O2	25:DA:2187:G:N1	2.15	0.71
25:DA:2263:C:O2'	25:DA:2264:C:H5'	1.90	0.71
32:DH:159:GLU:HG3	32:DH:160:LYS:CG	2.20	0.71
33:DI:87:LYS:CA	33:DI:122:GLU:HG2	2.19	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DS:74:ALA:HB1	39:DS:103:GLU:CB	2.20	0.71
1:AA:584:C:H2'	1:AA:585:A:C8	2.24	0.71
5:AE:70:PRO:HG2	5:AE:142:LEU:HB2	1.72	0.71
19:AS:45:VAL:C	19:AS:47:HIS:H	1.96	0.71
25:BA:2863:C:H2'	25:BA:2864:G:C5'	2.20	0.71
30:BF:28:ILE:HG21	30:BF:116:ASP:HB2	1.70	0.71
37:BQ:66:ILE:HG22	37:BQ:104:PHE:CE2	2.25	0.71
1:CA:950:G:H3'	1:CA:951:A:H5''	1.72	0.71
2:CB:70:PHE:O	2:CB:93:VAL:HG22	1.88	0.71
4:CD:162:LEU:HD12	4:CD:181:MET:HE2	1.71	0.71
20:CT:30:LYS:HZ2	20:CT:80:ARG:CZ	2.03	0.71
25:DA:941:A:H4'	36:DP:35:HIS:CE1	2.25	0.71
25:DA:1666:G:O3'	35:DO:6:THR:HG23	1.89	0.71
25:DA:1799:G:N2	25:DA:1818:U:O2'	2.22	0.71
25:DA:2680:C:H5'	29:DE:189:PRO:HA	1.72	0.71
34:DN:55:VAL:HG22	34:DN:126:PRO:HA	1.71	0.71
36:DP:46:LYS:CB	36:DP:52:GLU:HG2	2.19	0.71
36:DP:112:LEU:HD22	36:DP:113:LYS:H	1.54	0.71
55:D8:6:THR:CG2	55:D8:63:PRO:HD3	2.21	0.71
4:AD:170:VAL:CG1	4:AD:174:LEU:HB2	2.20	0.71
7:AG:116:ALA:O	7:AG:120:ILE:HG12	1.90	0.71
11:AK:22:HIS:HB3	11:AK:29:ILE:HG23	1.73	0.71
19:AS:40:ILE:HB	19:AS:67:VAL:O	1.90	0.71
25:BA:395:U:H2'	25:BA:396:G:C8	2.24	0.71
25:BA:1879:C:H2'	25:BA:1880:C:C5'	2.13	0.71
25:BA:2107:C:N4	25:BA:2108:C:N4	2.38	0.71
36:BP:50:ARG:O	36:BP:57:THR:CG2	2.32	0.71
40:BT:51:ARG:HG3	40:BT:98:LYS:HD3	1.72	0.71
52:B5:4:HIS:HB3	52:B5:5:PRO:HD3	1.72	0.71
23:CV:35:C:O2'	23:CV:36:A:H5'	1.90	0.71
25:DA:84:A:H5''	45:DY:9:LYS:HE3	1.72	0.71
25:DA:389:G:N1	36:DP:71:VAL:HG12	2.04	0.71
25:DA:2691:C:H5'	25:DA:2691:C:H6	1.55	0.71
28:DD:9:TYR:CZ	28:DD:13:ARG:HD3	2.26	0.71
30:DF:46:ARG:HG3	30:DF:46:ARG:HH11	1.55	0.71
36:DP:99:LEU:HA	36:DP:102:ARG:HH22	1.54	0.71
47:D0:10:THR:HG22	47:D0:12:ASN:H	1.56	0.71
1:AA:1134:A:H5''	10:AJ:13:HIS:CD2	2.25	0.71
1:AA:1156:G:H2'	1:AA:1157:A:C8	2.26	0.71
8:AH:1:MET:HE2	8:AH:2:LEU:H	1.54	0.71
16:AP:26:ARG:HH11	16:AP:26:ARG:HB3	1.55	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:664:C:H4'	25:BA:941:A:OP1	1.89	0.71
25:BA:2306:C:H5'	25:BA:2307:G:O5'	1.90	0.71
28:BD:181:GLU:HA	28:BD:272:ALA:CB	2.19	0.71
33:BI:58:LEU:HA	33:BI:61:ARG:CD	2.19	0.71
4:CD:108:LEU:HB3	4:CD:110:PHE:CE1	2.26	0.71
4:CD:153:ARG:HH11	4:CD:153:ARG:HB3	1.54	0.71
25:DA:191:A:O2'	25:DA:192:C:H5'	1.90	0.71
25:DA:1484:G:C3'	25:DA:1485:G:H5''	2.21	0.71
25:DA:1826:G:H4'	28:DD:242:ARG:HH21	1.53	0.71
25:DA:2107:C:N4	25:DA:2108:C:N4	2.38	0.71
27:DC:36:LYS:HD3	27:DC:37:PHE:H	1.54	0.71
40:DT:87:ASP:OD2	40:DT:90:GLN:NE2	2.23	0.71
45:DY:31:LEU:N	45:DY:31:LEU:HD22	2.05	0.71
1:AA:807:C:H2'	1:AA:808:G:H8	1.55	0.71
3:AC:9:GLY:HA2	3:AC:12:LEU:HD23	1.72	0.71
3:AC:15:THR:HG22	3:AC:16:ARG:N	2.06	0.71
8:AH:73:ASP:OD2	8:AH:75:ARG:HD3	1.90	0.71
9:AI:111:ARG:HG2	9:AI:112:LYS:N	2.06	0.71
21:AU:2:GLY:O	21:AU:4:GLY:N	2.23	0.71
25:BA:75:G:H4'	49:B2:55:ARG:HH11	1.55	0.71
25:BA:1464:C:HO2'	25:BA:1528:A:H8	0.75	0.71
25:BA:2109:U:O5'	25:BA:2109:U:H6	1.72	0.71
25:BA:2239:G:P	28:BD:244:ARG:HH12	2.14	0.71
25:BA:2679:A:H4'	29:BE:165:VAL:HG11	1.71	0.71
29:BE:184:VAL:HG12	29:BE:185:LYS:N	2.03	0.71
36:BP:84:ASN:C	36:BP:86:LYS:H	1.97	0.71
5:CE:69:VAL:HG21	5:CE:113:ALA:HB1	1.73	0.71
17:CQ:67:LYS:HA	17:CQ:70:ARG:HH12	1.54	0.71
25:DA:790:C:H4'	25:DA:791:C:OP1	1.88	0.71
25:DA:1876:A:H2'	25:DA:1877:A:C8	2.26	0.71
28:DD:7:LYS:O	28:DD:9:TYR:CE1	2.43	0.71
39:DS:92:TYR:O	39:DS:93:LYS:HB3	1.88	0.71
5:AE:50:GLU:HG3	5:AE:52:PRO:HD2	1.72	0.71
10:AJ:49:VAL:O	10:AJ:60:ARG:HB3	1.91	0.71
13:AM:16:ASP:HB2	13:AM:27:LYS:NZ	2.06	0.71
25:BA:1484:G:C3'	25:BA:1485:G:H5''	2.21	0.71
25:BA:2415:G:O3'	36:BP:66:GLY:HA3	1.90	0.71
30:BF:46:ARG:HH11	30:BF:46:ARG:HG3	1.55	0.71
4:CD:33:MET:HA	4:CD:33:MET:HE3	1.71	0.71
5:CE:8:GLU:HA	5:CE:34:VAL:HG22	1.73	0.71
11:CK:12:ARG:HH21	11:CK:14:VAL:HG12	1.55	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:50:GLU:HA	20:CT:100:ILE:CG2	2.21	0.71
23:CV:34:U:H2'	23:CV:35:C:H3'	1.72	0.71
25:DA:1419:A:O2'	25:DA:1420:U:H5''	1.91	0.71
25:DA:2056:G:N2	52:D5:4:HIS:O	2.24	0.71
25:DA:2884:U:H1'	52:D5:52:TYR:OH	1.90	0.71
4:AD:108:LEU:HB3	4:AD:110:PHE:CE1	2.25	0.71
12:AL:84:LEU:HB2	12:AL:104:VAL:HG11	1.73	0.71
25:BA:483:A:HO2'	45:BY:60:PHE:HZ	1.39	0.71
25:BA:903:C:H2'	25:BA:904:C:C6	2.25	0.71
25:BA:1665:A:O2'	35:BO:1:MET:N	2.24	0.71
25:BA:1876:A:H2'	25:BA:1877:A:C8	2.26	0.71
25:BA:2390:U:C2'	25:BA:2391:G:C5'	2.69	0.71
25:BA:2583:G:H2'	25:BA:2584:U:H5'	1.71	0.71
36:BP:13:ASN:C	36:BP:13:ASN:ND2	2.47	0.71
38:BR:74:LYS:HD2	38:BR:77:ARG:HH21	1.55	0.71
1:CA:672:C:OP1	11:CK:27:ASN:ND2	2.23	0.71
5:CE:101:ILE:HD13	5:CE:101:ILE:H	1.54	0.71
9:CI:53:VAL:HG21	9:CI:85:LEU:HD22	1.73	0.71
25:DA:1899:G:O2'	25:DA:1900:A:H5''	1.91	0.71
25:DA:2127:G:P	27:DC:36:LYS:HE2	2.31	0.71
31:DG:51:ARG:NE	31:DG:51:ARG:HA	2.05	0.71
49:D2:43:GLN:O	49:D2:44:LEU:HD23	1.90	0.71
7:AG:11:GLN:NE2	7:AG:12:LEU:H	1.88	0.71
20:AT:43:LEU:HD13	20:AT:51:GLU:HG3	1.72	0.71
25:BA:2062:A:O2'	25:BA:2063:C:H5'	1.91	0.71
25:BA:2516:G:O2'	25:BA:2517:C:C5'	2.39	0.71
25:BA:2585:U:O2'	25:BA:2586:C:H5'	1.89	0.71
36:BP:6:LEU:HG	36:BP:9:ASN:ND2	2.01	0.71
42:BV:49:THR:HG22	42:BV:50:PRO:HD2	1.71	0.71
43:BW:61:ASN:N	43:BW:61:ASN:HD22	1.89	0.71
55:B8:30:ARG:HA	55:B8:30:ARG:HE	1.56	0.71
2:CB:233:SER:OG	2:CB:234:PRO:HD2	1.91	0.71
25:DA:286:C:H2'	25:DA:287:C:H5''	1.72	0.71
25:DA:349:G:N2	25:DA:350:U:O2	2.23	0.71
25:DA:2863:C:H2'	25:DA:2864:G:C5'	2.20	0.71
33:DI:2:LYS:HD2	33:DI:20:ASP:HB3	1.72	0.71
36:DP:84:ASN:C	36:DP:86:LYS:H	1.97	0.71
23:AV:30:G:H22	23:AV:43:G:H1'	1.56	0.71
25:BA:1278:A:H5''	38:BR:36:THR:HG22	1.73	0.71
25:BA:1436:G:H3'	25:BA:1437:C:H5''	1.73	0.71
25:BA:1658:C:OP1	29:BE:132:HIS:ND1	2.24	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2015:A:C1'	52:B5:2:ALA:HA	2.21	0.71
33:BI:56:LYS:HG3	33:BI:57:ARG:N	2.06	0.71
37:BQ:39:PRO:HA	37:BQ:97:VAL:O	1.91	0.71
37:BQ:47:ILE:HG22	37:BQ:48:GLU:N	2.05	0.71
42:BV:38:LEU:C	42:BV:39:LEU:HD13	2.16	0.71
47:B0:46:LYS:HB3	47:B0:47:PRO:HD2	1.73	0.71
55:B8:6:THR:CG2	55:B8:63:PRO:HD3	2.21	0.71
5:CE:50:GLU:HG3	5:CE:52:PRO:HD2	1.73	0.71
10:CJ:32:ALA:H	10:CJ:76:ASN:HB3	1.56	0.71
16:CP:26:ARG:HB3	16:CP:26:ARG:HH11	1.55	0.71
25:DA:2518:A:H5'	25:DA:2518:A:C8	2.26	0.71
28:DD:71:ASP:HB2	28:DD:103:ARG:HH22	1.56	0.71
37:DQ:47:ILE:HG22	37:DQ:48:GLU:N	2.06	0.71
44:DX:25:LYS:HZ2	44:DX:80:ILE:HD11	1.56	0.71
45:DY:95:LYS:HG2	45:DY:100:ALA:HA	1.72	0.71
49:D2:7:ARG:HH11	49:D2:7:ARG:HG2	1.55	0.71
9:AI:16:ARG:O	9:AI:63:ILE:HG23	1.91	0.71
13:AM:57:ARG:HH12	51:B4:60:GLU:HA	1.56	0.71
13:AM:69:GLU:HA	13:AM:69:GLU:OE1	1.90	0.71
25:BA:349:G:N2	25:BA:350:U:O2	2.23	0.71
25:BA:1230:C:H2'	25:BA:1231:G:H8	1.56	0.71
25:BA:1952:A:C6	35:BO:22:ILE:HD12	2.25	0.71
34:BN:120:LEU:HD11	34:BN:122:VAL:HG23	1.71	0.71
39:BS:13:ARG:O	39:BS:15:ARG:HG2	1.91	0.71
25:DA:1803:A:O2'	28:DD:259:THR:HG21	1.90	0.71
34:DN:10:GLU:CD	34:DN:11:PRO:HD2	2.16	0.71
41:DU:91:ASP:OD1	41:DU:96:ALA:HB2	1.91	0.71
54:D7:43:THR:HG23	54:D7:44:PRO:HD2	1.72	0.71
2:AB:24:TRP:CD1	2:AB:24:TRP:H	2.09	0.70
5:AE:69:VAL:CG2	5:AE:113:ALA:HB1	2.21	0.70
13:AM:88:ARG:CG	13:AM:98:VAL:CG1	2.69	0.70
25:BA:1231:G:H2'	25:BA:1232:G:C8	2.25	0.70
33:BI:2:LYS:HD2	33:BI:20:ASP:HB3	1.72	0.70
35:BO:88:ASN:HD21	35:BO:90:GLN:HB2	1.56	0.70
50:B3:4:LEU:HD12	50:B3:39:ASP:OD1	1.91	0.70
52:B5:4:HIS:HB3	52:B5:5:PRO:CD	2.21	0.70
53:B6:47:THR:CB	53:B6:49:HIS:CE1	2.74	0.70
54:B7:43:THR:HG23	54:B7:44:PRO:HD2	1.72	0.70
1:CA:342:U:H2'	1:CA:343:G:O4'	1.91	0.70
10:CJ:40:LEU:HG	10:CJ:69:ASN:HB3	1.71	0.70
10:CJ:48:THR:HA	10:CJ:62:HIS:HB3	1.72	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CS:10:PHE:CZ	19:CS:39:THR:OG1	2.44	0.70
25:DA:97:C:H5''	49:D2:2:LYS:CB	2.20	0.70
25:DA:903:C:H2'	25:DA:904:C:C6	2.25	0.70
25:DA:1119:C:H2'	25:DA:1120:G:H8	1.54	0.70
31:DG:161:THR:CG2	31:DG:163:ALA:H	2.04	0.70
33:DI:72:LEU:HD12	33:DI:138:ILE:HD13	1.73	0.70
42:DV:64:HIS:HD1	42:DV:92:THR:HG22	1.54	0.70
52:D5:4:HIS:HB3	52:D5:5:PRO:HD3	1.72	0.70
1:AA:855:G:H5'	8:AH:89:PRO:HG2	1.71	0.70
3:AC:206:GLU:O	3:AC:208:ILE:N	2.24	0.70
5:AE:12:LEU:HD13	5:AE:13:ILE:N	2.06	0.70
10:AJ:32:ALA:H	10:AJ:76:ASN:HB3	1.56	0.70
13:AM:70:LEU:O	13:AM:70:LEU:CD2	2.37	0.70
13:AM:93:ARG:NH1	25:BA:888:C:H4'	2.07	0.70
23:AV:66:C:H5''	23:AV:66:C:C6	2.15	0.70
25:BA:1419:A:O2'	25:BA:1420:U:H5''	1.91	0.70
25:BA:1717:G:H3'	25:BA:1718:G:H5''	1.73	0.70
32:BH:65:HIS:O	32:BH:69:ARG:HD3	1.90	0.70
33:BI:129:THR:HA	33:BI:137:PRO:HA	1.73	0.70
49:B2:14:ARG:HG3	49:B2:14:ARG:HH11	1.55	0.70
2:CB:144:ARG:HA	2:CB:147:LYS:HB3	1.71	0.70
4:CD:63:LYS:HD2	4:CD:198:VAL:HG23	1.71	0.70
8:CH:1:MET:HE2	8:CH:2:LEU:H	1.54	0.70
23:CV:57:C:N4	31:DG:83:ARG:HH21	1.87	0.70
25:DA:2468:G:HO2'	25:DA:2476:A:H8	1.38	0.70
29:DE:110:GLY:HA2	29:DE:161:GLY:HA3	1.72	0.70
33:DI:54:GLN:O	33:DI:57:ARG:N	2.24	0.70
34:DN:58:ASP:O	34:DN:60:ILE:N	2.23	0.70
37:DQ:27:VAL:H	37:DQ:137:TYR:HE1	1.39	0.70
40:DT:89:VAL:CG2	40:DT:91:ARG:CD	2.68	0.70
4:AD:28:SER:O	4:AD:30:LYS:N	2.25	0.70
4:AD:153:ARG:HH11	4:AD:153:ARG:HB3	1.55	0.70
26:BB:41:U:C2	31:BG:70:VAL:HG23	2.26	0.70
33:BI:13:GLY:O	33:BI:17:GLN:NE2	2.21	0.70
33:BI:57:ARG:O	33:BI:60:GLU:CB	2.38	0.70
34:BN:10:GLU:CD	34:BN:11:PRO:HD2	2.16	0.70
36:BP:144:GLU:N	36:BP:145:PRO:HD3	2.06	0.70
39:BS:28:VAL:HB	39:BS:89:ARG:HG2	1.74	0.70
44:BX:27:THR:CG2	44:BX:80:ILE:HB	2.15	0.70
2:CB:95:GLN:HE21	2:CB:147:LYS:HG2	1.56	0.70
5:CE:100:VAL:HG13	5:CE:118:ILE:HG22	1.71	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:93:ARG:HG3	25:DA:888:C:P	2.30	0.70
20:CT:50:GLU:HA	20:CT:100:ILE:CG1	2.17	0.70
25:DA:2062:A:O2'	25:DA:2063:C:H5'	1.90	0.70
25:DA:2390:U:C2'	25:DA:2391:G:C5'	2.69	0.70
25:DA:2516:G:O2'	25:DA:2517:C:C5'	2.39	0.70
31:DG:47:LYS:HE3	31:DG:81:LYS:HB2	1.72	0.70
50:D3:4:LEU:HD21	50:D3:56:VAL:CG1	2.22	0.70
56:D9:2:LYS:HD2	56:D9:3:VAL:HG23	1.72	0.70
7:AG:23:VAL:HG13	7:AG:43:PHE:HE2	1.55	0.70
22:AW:9:A:C8	22:AW:46:G:N2	2.59	0.70
22:AW:55:U:H5	22:AW:58:A:OP2	1.74	0.70
25:BA:286:C:H2'	25:BA:287:C:H5''	1.72	0.70
25:BA:2263:C:O2'	25:BA:2264:C:H5'	1.90	0.70
25:BA:2892:A:H2'	25:BA:2893:G:H4'	1.74	0.70
35:BO:11:ALA:O	35:BO:99:PHE:N	2.24	0.70
36:BP:48:PRO:HG2	36:BP:49:ARG:H	1.56	0.70
45:BY:31:LEU:N	45:BY:31:LEU:HD22	2.05	0.70
4:CD:9:CYS:SG	4:CD:22:LYS:HD2	2.32	0.70
5:CE:100:VAL:CG2	5:CE:118:ILE:HG22	2.22	0.70
11:CK:21:ILE:HG13	11:CK:30:VAL:HG12	1.74	0.70
13:CM:123:ALA:HB2	22:CY:39:U:O4'	1.90	0.70
25:DA:2753:A:O2'	25:DA:2754:U:H5'	1.92	0.70
31:DG:64:THR:HG23	31:DG:65:GLY:H	1.55	0.70
31:DG:113:ARG:HH22	51:D4:61:VAL:HG12	1.57	0.70
33:DI:54:GLN:O	33:DI:58:LEU:N	2.23	0.70
33:DI:79:ILE:HG21	33:DI:81:VAL:HG23	1.73	0.70
36:DP:144:GLU:N	36:DP:145:PRO:HD3	2.06	0.70
1:AA:1425:G:H2'	40:BT:118:ARG:HD2	1.73	0.70
4:AD:9:CYS:SG	4:AD:22:LYS:HD2	2.31	0.70
4:AD:25:ARG:C	4:AD:27:TYR:H	1.99	0.70
5:AE:8:GLU:HA	5:AE:34:VAL:HG22	1.73	0.70
23:AV:34:U:H2'	23:AV:35:C:H3'	1.72	0.70
25:BA:1221:C:OP1	42:BV:68:LYS:HE3	1.91	0.70
25:BA:1755:A:P	40:BT:113:LYS:NZ	2.64	0.70
31:BG:161:THR:CG2	31:BG:163:ALA:H	2.04	0.70
32:BH:30:LYS:HZ2	32:BH:81:GLU:HG2	1.57	0.70
33:BI:47:LEU:HA	33:BI:50:ARG:HE	1.56	0.70
41:BU:92:ARG:HH22	41:BU:94:ASN:HD22	1.39	0.70
42:BV:69:LYS:HA	42:BV:88:ARG:HG2	1.73	0.70
43:BW:50:VAL:HG13	43:BW:51:LEU:N	2.06	0.70
45:BY:95:LYS:HE2	45:BY:100:ALA:HB2	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:206:GLU:O	3:CC:208:ILE:N	2.24	0.70
7:CG:79:ARG:HG3	7:CG:79:ARG:HH11	1.55	0.70
15:CO:16:ALA:HB1	15:CO:21:ASP:HB3	1.73	0.70
28:DD:31:LYS:O	28:DD:35:LYS:HB2	1.92	0.70
31:DG:113:ARG:NH2	51:D4:61:VAL:HG12	2.05	0.70
33:DI:58:LEU:HD12	33:DI:61:ARG:NE	2.06	0.70
34:DN:58:ASP:O	34:DN:60:ILE:HG13	1.92	0.70
36:DP:126:VAL:HG12	36:DP:148:LEU:HD11	1.71	0.70
36:DP:146:VAL:O	36:DP:148:LEU:HG	1.92	0.70
40:DT:89:VAL:HG21	40:DT:91:ARG:HD2	1.72	0.70
43:DW:95:ILE:O	43:DW:95:ILE:HG13	1.90	0.70
6:AF:17:SER:O	6:AF:21:LEU:HD23	1.92	0.70
16:AP:20:VAL:HG21	16:AP:32:TYR:CB	2.21	0.70
25:BA:614(C):A:O2'	25:BA:615:G:C5'	2.40	0.70
25:BA:2753:A:O2'	25:BA:2754:U:H5'	1.92	0.70
28:BD:31:LYS:O	28:BD:35:LYS:HB2	1.92	0.70
33:BI:72:LEU:HD12	33:BI:138:ILE:HD13	1.73	0.70
39:BS:106:ARG:HD2	39:BS:107:GLU:O	1.92	0.70
42:BV:64:HIS:HD1	42:BV:92:THR:HG22	1.54	0.70
49:B2:43:GLN:O	49:B2:44:LEU:CB	2.37	0.70
1:CA:290:C:C2'	1:CA:291:U:O5'	2.40	0.70
1:CA:822:U:O2	1:CA:822:U:C2'	2.39	0.70
3:CC:7:PRO:O	3:CC:11:ARG:HG2	1.92	0.70
7:CG:148:ASN:C	7:CG:150:ALA:H	1.98	0.70
11:CK:22:HIS:HB3	11:CK:29:ILE:HG23	1.72	0.70
22:CW:5:G:N2	22:CW:69:G:C2	2.59	0.70
25:DA:310:A:OP1	45:DY:18:GLY:CA	2.38	0.70
25:DA:610:G:N2	25:DA:619:G:H1'	2.05	0.70
25:DA:858:U:O2'	25:DA:859:G:C5	2.44	0.70
25:DA:1436:G:H3'	25:DA:1437:C:H5''	1.73	0.70
25:DA:2685:G:H5'	35:DO:68:GLU:HG3	1.74	0.70
31:DG:43:LEU:HB2	31:DG:88:ILE:CG1	2.21	0.70
32:DH:156:ALA:C	32:DH:158:HIS:N	2.48	0.70
36:DP:45:LEU:HD23	36:DP:46:LYS:N	2.06	0.70
40:DT:89:VAL:CG2	40:DT:91:ARG:HD2	2.20	0.70
1:AA:1323:C:H1'	9:AI:124:GLN:HE21	1.55	0.70
5:AE:45:PHE:HE2	5:AE:129:ILE:HD13	1.55	0.70
6:AF:35:ALA:HA	6:AF:67:MET:HB3	1.73	0.70
7:AG:115:ARG:O	7:AG:118:VAL:HG22	1.91	0.70
13:AM:10:PRO:CB	13:AM:18:ALA:HB1	2.22	0.70
14:AN:13:THR:N	14:AN:14:PRO:CD	2.53	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:863:A:H2'	25:BA:864:G:H8	1.56	0.70
25:BA:1025:G:OP1	25:BA:1025:G:H8	1.75	0.70
25:BA:1771:C:H2'	25:BA:1772:G:H5'	1.74	0.70
25:BA:2126:A:H5''	27:BC:36:LYS:HG2	1.73	0.70
25:BA:2518:A:C8	25:BA:2518:A:H5'	2.26	0.70
31:BG:43:LEU:HB2	31:BG:88:ILE:CG1	2.20	0.70
33:BI:79:ILE:HG21	33:BI:81:VAL:HG23	1.73	0.70
36:BP:146:VAL:O	36:BP:148:LEU:HG	1.92	0.70
1:CA:453:G:O6	1:CA:455:C:H5''	1.91	0.70
1:CA:1088:G:H5''	3:CC:172:ARG:HG2	1.73	0.70
7:CG:76:ARG:HH11	7:CG:76:ARG:HG2	1.57	0.70
8:CH:86:ILE:HG22	8:CH:87:SER:N	2.05	0.70
25:DA:195:A:OP1	36:DP:46:LYS:HE2	1.92	0.70
25:DA:760:G:H5''	25:DA:760:G:C8	2.27	0.70
25:DA:2468:G:OP1	37:DQ:119:ARG:NH2	2.25	0.70
25:DA:2892:A:H2'	25:DA:2893:G:H4'	1.74	0.70
29:DE:101:ARG:HH21	29:DE:171:GLU:CA	2.05	0.70
33:DI:88:ILE:N	33:DI:88:ILE:HD13	2.06	0.70
47:D0:46:LYS:HB3	47:D0:47:PRO:HD2	1.73	0.70
49:D2:14:ARG:HH11	49:D2:14:ARG:HG3	1.55	0.70
3:AC:70:VAL:HG12	3:AC:72:LYS:H	1.56	0.70
3:AC:79:ARG:HH11	11:CK:99:GLN:CB	2.02	0.70
8:AH:23:SER:HA	8:AH:63:LEU:HD22	1.73	0.70
16:AP:74:LEU:O	16:AP:79:VAL:HG23	1.92	0.70
20:AT:50:GLU:HA	20:AT:100:ILE:CG1	2.19	0.70
25:BA:608:A:OP1	30:BF:100:THR:HG21	1.91	0.70
25:BA:943:U:OP2	36:BP:38:GLN:CD	2.35	0.70
25:BA:1952:A:N6	25:BA:1953:A:N6	2.40	0.70
25:BA:2196:C:O2'	25:BA:2197:U:H5'	1.92	0.70
25:BA:2579:C:O3'	29:BE:131:ALA:HB2	1.92	0.70
28:BD:27:THR:HG21	28:BD:83:GLU:HG2	1.74	0.70
32:BH:159:GLU:HG3	32:BH:160:LYS:CG	2.20	0.70
34:BN:24:GLY:HA2	34:BN:106:MET:HE1	1.74	0.70
1:CA:721:C:H5''	6:CF:69:GLU:HB2	1.72	0.70
8:CH:86:ILE:HG12	8:CH:135:CYS:HA	1.74	0.70
22:CW:58:A:C2	22:CW:61:C:N3	2.60	0.70
25:DA:614(C):A:O2'	25:DA:615:G:C5'	2.40	0.70
25:DA:1025:G:H8	25:DA:1025:G:OP1	1.75	0.70
29:DE:154:LYS:HE3	29:DE:154:LYS:HA	1.71	0.70
34:DN:17:ASP:OD1	34:DN:56:ASN:HB3	1.91	0.70
36:DP:61:ARG:HH11	55:D8:13:ARG:HD2	1.56	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DS:48:LEU:HD22	39:DS:82:ILE:HD11	1.71	0.70
46:DZ:166:SER:HB2	46:DZ:167:PRO:C	2.17	0.70
52:D5:4:HIS:HB3	52:D5:5:PRO:CD	2.21	0.70
1:AA:6:G:H4'	1:AA:293:A:H4'	1.74	0.70
1:AA:338:U:H5''	1:AA:339:A:N7	2.06	0.70
1:AA:1050:G:H8	1:AA:1050:G:O5'	1.74	0.70
1:AA:1156:G:H2'	1:AA:1157:A:H8	1.55	0.70
2:AB:77:ALA:HB2	2:AB:211:ILE:HD12	1.74	0.70
3:AC:150:LYS:HA	3:AC:169:ALA:HB2	1.74	0.70
4:AD:196:LEU:HA	6:CF:16:GLN:HG3	1.74	0.70
15:AO:7:GLU:O	15:AO:10:LYS:HG3	1.92	0.70
25:BA:2100:G:H1	25:BA:2189:U:H3	1.38	0.70
25:BA:2122:U:H2'	25:BA:2123:G:C8	2.27	0.70
25:BA:2680:C:H5'	29:BE:189:PRO:HA	1.74	0.70
28:BD:71:ASP:HB2	28:BD:103:ARG:HH22	1.56	0.70
29:BE:45:THR:HG22	29:BE:83:ASP:HA	1.73	0.70
42:BV:49:THR:CG2	42:BV:50:PRO:HD2	2.20	0.70
53:B6:19:ARG:HG2	53:B6:20:ASN:N	2.03	0.70
1:CA:319:G:OP1	20:CT:70:SER:HB2	1.92	0.70
2:CB:90:MET:HE2	2:CB:90:MET:HA	1.74	0.70
7:CG:11:GLN:NE2	7:CG:12:LEU:H	1.90	0.70
9:CI:118:LYS:NZ	9:CI:118:LYS:CB	2.54	0.70
10:CJ:49:VAL:CG2	14:CN:41:ARG:HB2	2.16	0.70
14:CN:13:THR:N	14:CN:14:PRO:CD	2.55	0.70
20:CT:26:ASN:ND2	20:CT:71:THR:HA	2.02	0.70
22:CW:21:A:C6	22:CW:46:G:C4	2.80	0.70
25:DA:1129:A:H4'	25:DA:2516:G:H5''	1.73	0.70
25:DA:2897:U:H2'	25:DA:2897:U:O2	1.92	0.70
37:DQ:19:GLY:O	37:DQ:20:ALA:HB3	1.90	0.70
1:AA:78:G:H22	1:AA:85:U:H4'	1.57	0.70
1:AA:626:C:H5'	8:AH:31:PHE:CD1	2.27	0.70
1:AA:960:A:C2	1:AA:961:C:C6	2.79	0.70
1:AA:1148:G:N2	1:AA:1151:A:OP2	2.23	0.70
25:BA:174:C:H3'	25:BA:175:G:H5''	1.74	0.70
25:BA:1171:G:H5''	25:BA:1173:G:H4'	1.74	0.70
25:BA:2103:C:C2'	25:BA:2104:G:H5''	2.22	0.70
25:BA:2320:A:C2	25:BA:2333:A:C8	2.80	0.70
28:BD:28:GLU:H	28:BD:29:PRO:CD	2.05	0.70
31:BG:128:ARG:C	31:BG:130:ASN:N	2.47	0.70
33:BI:94:ALA:HB1	33:BI:111:PRO:CB	2.22	0.70
34:BN:17:ASP:OD1	34:BN:56:ASN:HB3	1.91	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:6:LEU:HD23	36:BP:6:LEU:H	1.57	0.70
45:BY:8:LYS:HD2	45:BY:8:LYS:N	2.04	0.70
45:BY:16:ALA:HB1	45:BY:21:LYS:HZ3	1.54	0.70
46:BZ:166:SER:HB2	46:BZ:167:PRO:C	2.17	0.70
52:B5:45:VAL:HG13	52:B5:50:GLY:HA2	1.73	0.70
56:B9:2:LYS:HD2	56:B9:3:VAL:HG23	1.72	0.70
1:CA:1302:C:H5''	1:CA:1303:C:H5''	1.74	0.70
6:CF:17:SER:O	6:CF:21:LEU:HD23	1.92	0.70
6:CF:82:ARG:HH11	6:CF:82:ARG:HB3	1.57	0.70
7:CG:23:VAL:HG13	7:CG:43:PHE:HE2	1.56	0.70
9:CI:97:LYS:HB3	9:CI:98:PRO:HD3	1.74	0.70
25:DA:2391:G:H1'	25:DA:2429:G:H21	1.53	0.70
39:DS:67:ARG:HH12	39:DS:100:ALA:HB3	1.57	0.70
39:DS:97:ARG:HH21	39:DS:98:VAL:CA	1.93	0.70
46:DZ:11:GLU:CD	46:DZ:11:GLU:H	2.00	0.70
55:D8:30:ARG:HE	55:D8:30:ARG:HA	1.56	0.70
5:AE:126:ARG:HG3	5:AE:126:ARG:NH1	2.06	0.69
20:AT:33:ILE:CD1	20:AT:62:LEU:HB3	2.21	0.69
25:BA:521:G:H2'	25:BA:522:G:H8	1.57	0.69
25:BA:2303:G:N3	31:BG:132:ASN:ND2	2.40	0.69
29:BE:44:TYR:O	29:BE:45:THR:HB	1.90	0.69
37:BQ:109:VAL:HG13	37:BQ:113:GLN:OE1	1.92	0.69
38:BR:4:LEU:HD13	38:BR:4:LEU:O	1.91	0.69
41:BU:92:ARG:HH21	41:BU:95:LEU:HG	1.56	0.69
46:BZ:166:SER:HB2	46:BZ:168:GLU:N	2.07	0.69
1:CA:733:G:N3	15:CO:23:GLY:HA3	2.07	0.69
2:CB:24:TRP:H	2:CB:24:TRP:CD1	2.08	0.69
8:CH:89:PRO:HA	8:CH:92:ARG:HH11	1.57	0.69
13:CM:100:GLY:O	13:CM:101:GLN:CG	2.40	0.69
25:DA:1819:A:H4'	25:DA:1820:U:C5'	2.22	0.69
25:DA:1952:A:N6	25:DA:1953:A:N6	2.40	0.69
25:DA:2103:C:C2'	25:DA:2104:G:H5''	2.22	0.69
25:DA:2415:G:O3'	36:DP:66:GLY:HA3	1.91	0.69
30:DF:24:LEU:O	30:DF:26:ALA:N	2.25	0.69
33:DI:13:GLY:O	33:DI:17:GLN:NE2	2.21	0.69
37:DQ:14:ARG:HG2	37:DQ:41:TRP:HH2	1.57	0.69
46:DZ:177:PRO:O	46:DZ:178:GLU:HG2	1.92	0.69
47:D0:53:MET:HB3	47:D0:59:LEU:HD23	1.73	0.69
5:AE:68:GLU:O	5:AE:70:PRO:HD3	1.92	0.69
25:BA:1899:G:O2'	25:BA:1900:A:H5''	1.91	0.69
25:BA:2392:A:OP1	55:B8:32:LEU:CD2	2.40	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BG:9:ARG:HH11	31:BG:9:ARG:HG2	1.57	0.69
33:BI:130:TYR:HB3	33:BI:136:VAL:HG13	1.73	0.69
36:BP:58:THR:HG21	55:B8:56:GLU:OE1	1.92	0.69
39:BS:27:SER:HA	39:BS:88:ASP:HB3	1.74	0.69
46:BZ:137:ILE:HD13	46:BZ:156:LYS:O	1.92	0.69
1:CA:954:A:O2'	1:CA:958:U:N3	2.23	0.69
1:CA:1404:G:O3'	35:DO:49:ARG:NH1	2.25	0.69
8:CH:11:THR:HG22	8:CH:15:ASN:ND2	2.07	0.69
12:CL:18:VAL:HG23	12:CL:19:ARG:H	1.57	0.69
25:DA:1187:G:H5''	42:DV:81:TYR:CE2	2.27	0.69
25:DA:1615:C:O2'	25:DA:1616:A:H5''	1.91	0.69
29:DE:32:PRO:HB3	29:DE:69:LYS:HB3	1.74	0.69
32:DH:13:LYS:HA	32:DH:13:LYS:CE	2.20	0.69
39:DS:28:VAL:HB	39:DS:89:ARG:HG2	1.73	0.69
1:AA:672:C:OP1	11:AK:27:ASN:ND2	2.25	0.69
1:AA:939:C:H2'	1:AA:940:G:C8	2.24	0.69
1:AA:1414:G:OP2	40:BT:108:ARG:NH2	2.24	0.69
8:AH:20:TYR:HA	8:AH:65:TYR:CE2	2.27	0.69
10:AJ:40:LEU:HG	10:AJ:69:ASN:HB3	1.72	0.69
13:AM:108:ARG:N	13:AM:108:ARG:HD2	2.06	0.69
23:AV:30:G:N2	23:AV:43:G:H1'	2.07	0.69
25:BA:71:A:OP2	25:BA:71:A:C8	2.44	0.69
25:BA:1805:U:O2	28:BD:50:THR:HB	1.92	0.69
27:BC:86:ALA:HB1	27:BC:94:VAL:HG11	1.74	0.69
39:BS:74:ALA:HB1	39:BS:103:GLU:CB	2.20	0.69
39:BS:93:LYS:O	39:BS:93:LYS:HG3	1.91	0.69
45:BY:95:LYS:HG2	45:BY:100:ALA:HA	1.72	0.69
47:B0:10:THR:HG22	47:B0:12:ASN:H	1.56	0.69
4:CD:25:ARG:C	4:CD:27:TYR:H	1.99	0.69
5:CE:31:LEU:CD1	5:CE:43:LEU:HD11	2.22	0.69
25:DA:1344:G:C4	25:DA:1385:G:C8	2.79	0.69
26:DB:83:G:C6	26:DB:84:C:N4	2.60	0.69
28:DD:147:LEU:HD13	28:DD:155:LEU:HD11	1.73	0.69
37:DQ:21:THR:O	37:DQ:23:GLY:N	2.25	0.69
37:DQ:54:MET:HG2	37:DQ:64:ILE:HG21	1.75	0.69
39:DS:13:ARG:O	39:DS:15:ARG:HG2	1.91	0.69
40:DT:29:ARG:HA	40:DT:29:ARG:NE	2.06	0.69
43:DW:88:ARG:HB2	43:DW:92:ARG:HB3	1.74	0.69
50:D3:56:VAL:CG1	50:D3:57:GLU:H	1.98	0.69
2:AB:95:GLN:HE21	2:AB:147:LYS:HG2	1.55	0.69
8:AH:86:ILE:HG21	8:AH:133:LEU:HD22	1.73	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:67:THR:O	10:AJ:67:THR:HG23	1.91	0.69
29:BE:101:ARG:HD3	29:BE:169:ASN:ND2	2.08	0.69
33:BI:38:LEU:H	33:BI:38:LEU:CD1	1.99	0.69
44:BX:25:LYS:NZ	44:BX:80:ILE:HD11	2.08	0.69
45:BY:87:LYS:HG3	45:BY:88:LYS:N	2.06	0.69
49:B2:7:ARG:HG2	49:B2:7:ARG:HH11	1.55	0.69
53:B6:41:PRO:CD	53:B6:46:HIS:H	2.03	0.69
1:CA:439:G:H2'	1:CA:440:G:H8	1.56	0.69
27:DC:86:ALA:HB1	27:DC:94:VAL:HG11	1.74	0.69
43:DW:50:VAL:HG13	43:DW:51:LEU:N	2.07	0.69
1:AA:919:G:N2	9:AI:124:GLN:HE22	1.90	0.69
3:AC:7:PRO:O	3:AC:11:ARG:HG2	1.92	0.69
24:AX:19:U:H2'	24:AX:20:U:H6	1.58	0.69
25:BA:1826:G:H4'	28:BD:242:ARG:HH21	1.58	0.69
32:BH:121:ILE:CG2	32:BH:133:VAL:HG12	2.22	0.69
33:BI:83:ALA:CB	33:BI:88:ILE:HD12	2.23	0.69
36:BP:45:LEU:HD23	36:BP:46:LYS:N	2.06	0.69
37:BQ:14:ARG:HG2	37:BQ:41:TRP:HH2	1.57	0.69
37:BQ:54:MET:HG2	37:BQ:64:ILE:HG21	1.75	0.69
1:CA:1105:A:H4'	10:CJ:36:GLY:HA3	1.72	0.69
2:CB:57:PHE:CD2	2:CB:185:ILE:HD11	2.28	0.69
17:CQ:59:ILE:CG2	17:CQ:71:PHE:HB3	2.22	0.69
25:DA:2586:C:O2'	25:DA:2587:A:H5'	1.92	0.69
31:DG:9:ARG:HH11	31:DG:9:ARG:HG2	1.57	0.69
31:DG:107:LEU:HD11	31:DG:178:PHE:CE1	2.28	0.69
31:DG:113:ARG:CG	31:DG:113:ARG:NH1	2.38	0.69
32:DH:121:ILE:CG2	32:DH:133:VAL:HG12	2.22	0.69
37:DQ:133:ARG:HH11	37:DQ:133:ARG:HG3	1.58	0.69
39:DS:14:VAL:HG12	39:DS:15:ARG:N	2.08	0.69
45:DY:87:LYS:HG3	45:DY:88:LYS:N	2.06	0.69
49:D2:42:GLY:O	49:D2:43:GLN:C	2.35	0.69
5:AE:51:VAL:O	5:AE:55:VAL:HG23	1.92	0.69
12:AL:24:VAL:HG12	12:AL:24:VAL:O	1.93	0.69
13:AM:93:ARG:CZ	25:BA:888:C:C5'	2.70	0.69
25:BA:871:U:H4'	37:BQ:69:PHE:CE2	2.27	0.69
25:BA:2586:C:O2'	25:BA:2587:A:H5'	1.92	0.69
30:BF:24:LEU:O	30:BF:26:ALA:N	2.25	0.69
36:BP:99:LEU:HA	36:BP:102:ARG:HH22	1.55	0.69
47:B0:53:MET:HB3	47:B0:59:LEU:HD23	1.73	0.69
1:CA:948:G:N2	1:CA:1345:A:OP2	2.22	0.69
1:CA:992:A:H4'	19:CS:14:HIS:CD2	2.28	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:82:HIS:C	8:CH:82:HIS:CD2	2.70	0.69
9:CI:77:ILE:O	9:CI:81:ILE:HG12	1.92	0.69
14:CN:3:ARG:HG2	14:CN:3:ARG:O	1.92	0.69
23:CV:53:G:C2'	23:CV:54:G:O5'	2.40	0.69
25:DA:272(I):U:H2'	25:DA:272(J):C:H6	1.58	0.69
25:DA:307:G:N1	25:DA:310:A:OP2	2.25	0.69
25:DA:863:A:H2'	25:DA:864:G:H8	1.56	0.69
25:DA:1230:C:H2'	25:DA:1231:G:H8	1.56	0.69
25:DA:1819:A:OP1	28:DD:158:ALA:HB2	1.92	0.69
25:DA:2122:U:H2'	25:DA:2123:G:C8	2.27	0.69
26:DB:69:G:H2'	26:DB:70:C:C6	2.28	0.69
33:DI:58:LEU:CA	33:DI:61:ARG:HE	2.02	0.69
33:DI:98:ALA:HA	33:DI:109:ILE:CG1	2.23	0.69
33:DI:130:TYR:HB3	33:DI:136:VAL:HG13	1.73	0.69
37:DQ:62:GLY:O	46:DZ:178:GLU:HG3	1.93	0.69
1:AA:402:G:H1	1:AA:430:C:H42	1.41	0.69
4:AD:189:PRO:HB2	4:AD:194:LEU:CD2	2.22	0.69
5:AE:31:LEU:CD1	5:AE:43:LEU:HD11	2.23	0.69
6:AF:33:TYR:CE1	6:AF:75:LEU:HA	2.27	0.69
36:BP:64:LYS:C	36:BP:66:GLY:N	2.51	0.69
41:BU:47:TYR:HA	41:BU:50:ARG:NH2	2.07	0.69
46:BZ:14:LYS:HD3	46:BZ:17:ALA:HB3	1.74	0.69
8:CH:23:SER:HA	8:CH:63:LEU:HD22	1.75	0.69
25:DA:1805:U:O2	28:DD:50:THR:HB	1.91	0.69
31:DG:6:ALA:HB3	31:DG:104:GLU:OE1	1.91	0.69
36:DP:6:LEU:HD23	36:DP:6:LEU:H	1.57	0.69
42:DV:19:LYS:HG2	42:DV:94:LEU:CB	2.17	0.69
1:AA:816:U:H3	1:AA:830:G:H1	1.38	0.69
1:AA:1404:G:O3'	35:BO:49:ARG:NH1	2.26	0.69
12:AL:47:LYS:CB	12:AL:48:PRO:CD	2.71	0.69
15:AO:7:GLU:O	15:AO:11:VAL:HG23	1.93	0.69
18:AR:35:ARG:O	18:AR:37:VAL:N	2.26	0.69
25:BA:1119:C:H2'	25:BA:1120:G:C8	2.27	0.69
25:BA:2314:C:H2'	25:BA:2315:G:H8	1.58	0.69
25:BA:2390:U:O2'	25:BA:2391:G:H5''	1.93	0.69
25:BA:2712:U:H1'	25:BA:2712(A):A:H8	1.58	0.69
25:BA:2897:U:O2	25:BA:2897:U:H2'	1.91	0.69
28:BD:33:LEU:HD22	28:BD:102:LYS:HD2	1.74	0.69
28:BD:147:LEU:HD13	28:BD:155:LEU:HD11	1.73	0.69
30:BF:167:ALA:HB1	30:BF:173:VAL:HG11	1.75	0.69
31:BG:111:LEU:N	31:BG:112:PRO:CD	2.55	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BI:88:ILE:HD13	33:BI:88:ILE:N	2.06	0.69
34:BN:58:ASP:O	34:BN:60:ILE:HG13	1.92	0.69
36:BP:122:PRO:HG3	36:BP:141:ALA:HB3	1.74	0.69
49:B2:40:SER:C	49:B2:42:GLY:N	2.50	0.69
1:CA:261:G:H4'	1:CA:262:C:O5'	1.92	0.69
1:CA:581:U:H4'	8:CH:94:TYR:CG	2.28	0.69
2:CB:91:PRO:CG	2:CB:155:LEU:HD23	2.23	0.69
2:CB:165:VAL:HG23	2:CB:166:ASP:N	2.07	0.69
7:CG:116:ALA:O	7:CG:120:ILE:HG12	1.93	0.69
8:CH:17:THR:HG22	8:CH:63:LEU:HG	1.74	0.69
12:CL:28:LYS:HG3	12:CL:33:ARG:NH1	2.06	0.69
15:CO:7:GLU:O	15:CO:11:VAL:HG23	1.92	0.69
15:CO:30:ALA:HA	15:CO:85:LEU:HD11	1.75	0.69
15:CO:51:HIS:O	15:CO:54:ARG:HB3	1.92	0.69
22:CY:35:A:H2'	22:CY:36:A:H5''	1.74	0.69
22:CY:36:A:C2	24:CX:20:U:C4	2.81	0.69
25:DA:144:C:H2'	25:DA:145:G:H8	1.58	0.69
25:DA:227:A:H5''	36:DP:76:LYS:HE2	1.72	0.69
25:DA:272:G:C2	25:DA:421:U:C4	2.81	0.69
25:DA:2196:C:O2'	25:DA:2197:U:H5'	1.92	0.69
28:DD:27:THR:HG21	28:DD:83:GLU:HG2	1.74	0.69
28:DD:48:ARG:HH11	28:DD:48:ARG:HG3	1.58	0.69
29:DE:45:THR:HG22	29:DE:83:ASP:HA	1.73	0.69
31:DG:69:ALA:CB	31:DG:91:ARG:HH21	2.06	0.69
31:DG:82:LEU:HD22	31:DG:87:PRO:HG3	1.74	0.69
32:DH:52:VAL:HG11	32:DH:68:THR:HB	1.75	0.69
34:DN:15:LEU:HD13	34:DN:16:ILE:N	2.07	0.69
34:DN:24:GLY:HA2	34:DN:106:MET:HE1	1.74	0.69
36:DP:64:LYS:C	36:DP:66:GLY:N	2.51	0.69
37:DQ:109:VAL:HG13	37:DQ:113:GLN:OE1	1.92	0.69
41:DU:92:ARG:HH21	41:DU:95:LEU:HG	1.56	0.69
46:DZ:94:GLU:O	46:DZ:96:VAL:HG23	1.92	0.69
52:D5:45:VAL:HG13	52:D5:50:GLY:HA2	1.73	0.69
8:AH:11:THR:HG22	8:AH:15:ASN:ND2	2.07	0.69
19:AS:20:LEU:O	19:AS:23:ASN:HB3	1.92	0.69
22:AW:44:G:H5''	22:AW:45:U:OP2	1.93	0.69
25:BA:1615:C:O2'	25:BA:1616:A:H5''	1.91	0.69
25:BA:2523:G:H8	25:BA:2523:G:H5'	1.58	0.69
33:BI:98:ALA:HA	33:BI:109:ILE:CG1	2.23	0.69
33:BI:133:HIS:HB2	33:BI:134:PRO:HD3	1.75	0.69
46:BZ:44:PHE:CE2	46:BZ:86:VAL:HG21	2.28	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:153:G:N2	1:CA:156:A:OP2	2.26	0.69
1:CA:1165:G:H2'	1:CA:1166:G:H8	1.58	0.69
1:CA:1427:G:N2	1:CA:1437:A:H1'	2.08	0.69
16:CP:20:VAL:HG21	16:CP:32:TYR:CB	2.23	0.69
18:CR:35:ARG:O	18:CR:37:VAL:N	2.26	0.69
25:DA:309:G:H21	25:DA:330:A:P	2.15	0.69
25:DA:1044:G:H1'	25:DA:1111:A:N1	2.08	0.69
25:DA:1119:C:H2'	25:DA:1120:G:C8	2.27	0.69
30:DF:108:LYS:O	30:DF:112:MET:HB2	1.93	0.69
31:DG:47:LYS:NZ	31:DG:82:LEU:HD12	2.08	0.69
39:DS:27:SER:HA	39:DS:88:ASP:HB3	1.74	0.69
42:DV:69:LYS:HA	42:DV:88:ARG:HG2	1.73	0.69
43:DW:68:ARG:HD2	43:DW:110:LYS:CB	2.23	0.69
50:D3:4:LEU:HD12	50:D3:39:ASP:OD1	1.91	0.69
2:AB:90:MET:HE2	2:AB:90:MET:HA	1.75	0.69
9:AI:77:ILE:O	9:AI:81:ILE:HG12	1.93	0.69
13:AM:88:ARG:O	13:AM:98:VAL:HG11	1.93	0.69
25:BA:108:U:C2'	25:BA:109:G:C5'	2.71	0.69
25:BA:760:G:H5''	25:BA:760:G:C8	2.27	0.69
25:BA:2682:U:H5'	25:BA:2682:U:H6	1.58	0.69
31:BG:82:LEU:HD22	31:BG:87:PRO:HG3	1.74	0.69
41:BU:91:ASP:OD1	41:BU:96:ALA:HB2	1.91	0.69
41:BU:92:ARG:CZ	42:BV:11:GLN:HB2	2.24	0.69
45:BY:26:LYS:HG2	45:BY:27:VAL:N	2.08	0.69
1:CA:737:C:H5'	1:CA:738:G:H8	1.58	0.69
3:CC:84:ILE:O	3:CC:88:ARG:HG3	1.93	0.69
8:CH:20:TYR:HA	8:CH:65:TYR:CE2	2.27	0.69
11:CK:126:ARG:C	11:CK:128:ALA:H	2.01	0.69
13:CM:16:ASP:HB2	13:CM:27:LYS:NZ	2.07	0.69
23:CV:25:U:H2'	23:CV:26:C:O4'	1.93	0.69
25:DA:2168:G:N1	25:DA:2171:A:OP2	2.26	0.69
28:DD:28:GLU:H	28:DD:29:PRO:CD	2.05	0.69
43:DW:22:ASP:HA	43:DW:25:ARG:HH12	1.58	0.69
45:DY:26:LYS:HG2	45:DY:27:VAL:N	2.07	0.69
46:DZ:44:PHE:CE2	46:DZ:86:VAL:HG21	2.28	0.69
53:D6:10:LEU:HD12	55:D8:34:TRP:NE1	2.08	0.69
1:AA:822:U:O2	1:AA:822:U:C2'	2.40	0.68
4:AD:33:MET:CE	4:AD:37:PRO:HA	2.21	0.68
10:AJ:30:SER:OG	10:AJ:81:THR:HG22	1.93	0.68
25:BA:71:A:C5'	25:BA:73:A:C8	2.74	0.68
25:BA:1313:U:H5''	25:BA:1333:C:OP2	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1803:A:O2'	28:BD:259:THR:HG21	1.93	0.68
25:BA:2168:G:N1	25:BA:2171:A:OP2	2.26	0.68
28:BD:158:ALA:HB3	28:BD:161:THR:HG21	1.74	0.68
30:BF:157:VAL:HB	30:BF:194:MET:HB3	1.75	0.68
31:BG:69:ALA:CB	31:BG:91:ARG:HH21	2.05	0.68
31:BG:107:LEU:HD11	31:BG:178:PHE:CE1	2.28	0.68
36:BP:38:GLN:HG3	36:BP:39:LYS:N	2.06	0.68
38:BR:18:LEU:HD11	38:BR:22:ARG:CZ	2.23	0.68
4:CD:28:SER:O	4:CD:30:LYS:N	2.25	0.68
6:CF:60:PHE:O	6:CF:61:LEU:HD12	1.93	0.68
22:CW:16:U:H5	22:CW:18:G:O5'	1.77	0.68
25:DA:2227:A:H5'	28:DD:263:ARG:NH1	2.08	0.68
36:DP:122:PRO:HG3	36:DP:141:ALA:HB3	1.74	0.68
37:DQ:39:PRO:HA	37:DQ:97:VAL:O	1.92	0.68
38:DR:18:LEU:HD11	38:DR:22:ARG:CZ	2.23	0.68
44:DX:25:LYS:NZ	44:DX:80:ILE:HD11	2.08	0.68
50:D3:4:LEU:HB2	50:D3:39:ASP:HB2	1.74	0.68
4:AD:166:LYS:C	28:DD:135:PHE:CE2	2.71	0.68
5:AE:43:LEU:CD2	5:AE:132:ALA:HB1	2.23	0.68
11:AK:122:LYS:O	11:AK:126:ARG:HG3	1.93	0.68
13:AM:3:ARG:HG2	13:AM:9:ILE:CG1	2.22	0.68
14:AN:3:ARG:HG2	14:AN:3:ARG:O	1.92	0.68
25:BA:686:G:H5''	54:B7:11:LYS:HE2	1.74	0.68
25:BA:1997:G:O2'	25:BA:1998:G:H5'	1.93	0.68
32:BH:107:VAL:O	32:BH:109:PHE:N	2.26	0.68
35:BO:34:THR:OG1	35:BO:35:VAL:N	2.26	0.68
36:BP:56:SER:HB3	36:BP:60:MET:HG2	1.74	0.68
39:BS:67:ARG:HH12	39:BS:100:ALA:HB3	1.57	0.68
45:BY:47:LYS:N	45:BY:47:LYS:HD2	2.08	0.68
3:CC:9:GLY:HA2	3:CC:12:LEU:HD23	1.75	0.68
10:CJ:67:THR:O	10:CJ:67:THR:HG23	1.93	0.68
13:CM:94:ARG:HD3	25:DA:888:C:OP2	1.93	0.68
28:DD:6:PHE:CD2	28:DD:9:TYR:OH	2.45	0.68
31:DG:39:ILE:HD13	31:DG:157:ILE:CG2	2.23	0.68
45:DY:27:VAL:HA	45:DY:28:LYS:HZ2	1.56	0.68
46:DZ:14:LYS:HD3	46:DZ:17:ALA:HB3	1.74	0.68
46:DZ:166:SER:HB2	46:DZ:168:GLU:N	2.07	0.68
2:AB:165:VAL:HG23	2:AB:166:ASP:N	2.08	0.68
3:AC:84:ILE:O	3:AC:88:ARG:HG3	1.93	0.68
6:AF:60:PHE:O	6:AF:61:LEU:HD12	1.93	0.68
6:AF:60:PHE:C	6:AF:61:LEU:HD12	2.19	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:82:ARG:HH11	6:AF:82:ARG:HB3	1.58	0.68
25:BA:309:G:H21	25:BA:330:A:P	2.15	0.68
25:BA:1044:G:H1'	25:BA:1111:A:N1	2.08	0.68
25:BA:1652:A:H2'	25:BA:1653:G:H5''	1.76	0.68
25:BA:2327:A:H2'	25:BA:2328:A:C8	2.28	0.68
27:BC:59:ARG:HB2	27:BC:62:VAL:CG2	2.23	0.68
32:BH:159:GLU:HG3	32:BH:160:LYS:N	2.04	0.68
34:BN:15:LEU:HD13	34:BN:16:ILE:N	2.07	0.68
42:BV:41:GLY:HA3	42:BV:45:THR:OG1	1.93	0.68
44:BX:25:LYS:HZ2	44:BX:80:ILE:HD11	1.58	0.68
13:CM:94:ARG:NH1	25:DA:888:C:OP2	2.26	0.68
18:CR:50:ILE:CD1	18:CR:70:ILE:HG21	2.23	0.68
19:CS:64:GLU:O	19:CS:67:VAL:HG23	1.93	0.68
25:DA:521:G:H2'	25:DA:522:G:H8	1.57	0.68
25:DA:1171:G:H5''	25:DA:1173:G:H4'	1.74	0.68
25:DA:1771:C:H2'	25:DA:1772:G:H5'	1.74	0.68
25:DA:2327:A:H2'	25:DA:2328:A:C8	2.28	0.68
29:DE:73:GLU:HG3	29:DE:74:PRO:HD2	1.75	0.68
32:DH:121:ILE:HG22	32:DH:133:VAL:HG12	1.75	0.68
33:DI:83:ALA:CB	33:DI:88:ILE:HD12	2.22	0.68
42:DV:19:LYS:HG3	42:DV:20:LEU:N	2.07	0.68
42:DV:39:LEU:CB	42:DV:47:VAL:HG11	2.23	0.68
1:AA:1245:C:O2	1:AA:1252:G:N2	2.22	0.68
1:AA:1269:A:N1	1:AA:1353:G:H1'	2.08	0.68
17:AQ:59:ILE:CG2	17:AQ:71:PHE:HB3	2.23	0.68
23:AV:8:U:O2	23:AV:49:C:H6	1.76	0.68
25:BA:576:U:H2'	25:BA:577:G:C8	2.28	0.68
25:BA:858:U:O2'	25:BA:859:G:C5	2.44	0.68
29:BE:101:ARG:HH21	29:BE:171:GLU:CA	2.05	0.68
30:BF:134:GLY:H	30:BF:162:LEU:HG	1.59	0.68
43:BW:88:ARG:HB2	43:BW:92:ARG:HB3	1.74	0.68
43:BW:111:HIS:CG	43:BW:112:GLY:H	2.11	0.68
45:BY:88:LYS:HZ1	45:BY:93:GLY:HA3	1.59	0.68
46:BZ:146:ILE:HG22	46:BZ:174:VAL:HG12	1.76	0.68
50:B3:4:LEU:HD21	50:B3:56:VAL:CG1	2.22	0.68
1:CA:338:U:O3'	1:CA:339:A:H2'	1.92	0.68
1:CA:956:C:H42	14:CN:18:VAL:HG12	1.58	0.68
3:CC:76:VAL:HG23	3:CC:77:ILE:N	2.09	0.68
5:CE:78:HIS:CD2	8:CH:104:ARG:CZ	2.75	0.68
6:CF:39:LYS:HG2	6:CF:40:VAL:H	1.58	0.68
10:CJ:16:LEU:HD13	10:CJ:16:LEU:O	1.92	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:48:ILE:HG22	11:CK:49:GLY:H	1.56	0.68
25:DA:280:C:O2	25:DA:361:G:C2	2.46	0.68
25:DA:576:U:H2'	25:DA:577:G:C8	2.28	0.68
25:DA:1658:C:C4	25:DA:1659:U:O4	2.47	0.68
25:DA:1997:G:O2'	25:DA:1998:G:H5'	1.93	0.68
25:DA:2579:C:O3'	29:DE:131:ALA:HB2	1.93	0.68
29:DE:101:ARG:HD3	29:DE:169:ASN:ND2	2.08	0.68
32:DH:107:VAL:O	32:DH:109:PHE:N	2.26	0.68
32:DH:121:ILE:HG23	32:DH:134:SER:O	1.93	0.68
38:DR:4:LEU:O	38:DR:4:LEU:HD13	1.92	0.68
41:DU:47:TYR:HA	41:DU:50:ARG:NH2	2.07	0.68
1:AA:385:C:O3'	16:AP:28:ARG:NH2	2.26	0.68
5:AE:87:SER:HB3	5:AE:131:ILE:CD1	2.23	0.68
10:AJ:8:LEU:CD2	10:AJ:96:ILE:HG22	2.23	0.68
22:AW:38:A:H2'	22:AW:39:U:H5'	1.75	0.68
25:BA:280:C:O2	25:BA:361:G:C2	2.46	0.68
25:BA:297:C:H2'	25:BA:298:G:C5'	2.24	0.68
25:BA:1129:A:H4'	25:BA:2516:G:H5''	1.73	0.68
26:BB:11:C:OP1	47:B0:72:ARG:CD	2.42	0.68
28:BD:25:THR:O	28:BD:26:LYS:HG2	1.94	0.68
31:BG:39:ILE:HD13	31:BG:157:ILE:CG2	2.23	0.68
34:BN:12:ARG:HB3	34:BN:50:ASP:OD1	1.94	0.68
44:BX:64:LYS:HD3	44:BX:73:ARG:NE	2.09	0.68
9:CI:17:VAL:HG11	9:CI:81:ILE:HD13	1.76	0.68
25:DA:598:G:H5'	36:DP:15:ARG:HD2	1.74	0.68
25:DA:813:U:H2'	25:DA:814:C:C6	2.29	0.68
29:DE:184:VAL:HG12	29:DE:185:LYS:N	2.03	0.68
30:DF:143:ALA:HB1	30:DF:148:LEU:HB2	1.75	0.68
31:DG:28:VAL:O	31:DG:31:VAL:HG12	1.92	0.68
32:DH:144:VAL:O	32:DH:148:ILE:HG12	1.94	0.68
39:DS:19:LYS:C	39:DS:20:ARG:HH11	2.01	0.68
1:AA:1050:G:N2	1:AA:1172:A:N3	2.41	0.68
1:AA:1239:G:H2'	1:AA:1240:C:H6	1.59	0.68
2:AB:218:ALA:O	2:AB:222:ILE:HG13	1.94	0.68
4:AD:170:VAL:HG12	4:AD:174:LEU:HB2	1.76	0.68
22:AW:12:U:H3	22:AW:23:A:H61	1.42	0.68
25:BA:78:A:H2'	25:BA:79:G:H8	1.57	0.68
25:BA:109:G:HO2'	25:BA:110:G:H5'	1.57	0.68
25:BA:747:U:N3	52:B5:2:ALA:N	2.41	0.68
25:BA:1590:U:H2'	25:BA:1591:G:C5'	2.16	0.68
25:BA:1658:C:C4	25:BA:1659:U:O4	2.47	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BE:73:GLU:HG3	29:BE:74:PRO:HD2	1.75	0.68
30:BF:17:ARG:HH11	30:BF:17:ARG:HG3	1.59	0.68
30:BF:143:ALA:HB1	30:BF:148:LEU:HB2	1.75	0.68
31:BG:10:LYS:HE3	31:BG:14:GLU:OE1	1.94	0.68
32:BH:13:LYS:HA	32:BH:13:LYS:CE	2.20	0.68
48:B1:23:LYS:HE2	48:B1:28:GLY:HA3	1.76	0.68
8:CH:104:ARG:HB3	8:CH:107:LEU:HB2	1.75	0.68
15:CO:7:GLU:O	15:CO:10:LYS:HG3	1.93	0.68
23:CV:35:C:O2'	23:CV:36:A:C5'	2.42	0.68
25:DA:1230:C:H2'	25:DA:1231:G:C8	2.29	0.68
25:DA:2390:U:O2'	25:DA:2391:G:H5''	1.92	0.68
25:DA:2682:U:H2'	25:DA:2683:C:O4'	1.94	0.68
33:DI:38:LEU:HD12	33:DI:38:LEU:N	2.04	0.68
39:DS:46:VAL:CG1	39:DS:47:THR:H	2.05	0.68
39:DS:54:LEU:HD22	39:DS:54:LEU:H	1.58	0.68
39:DS:99:LYS:O	39:DS:101:LEU:N	2.26	0.68
46:DZ:128:VAL:HG21	46:DZ:132:ASN:O	1.94	0.68
46:DZ:137:ILE:HD13	46:DZ:156:LYS:O	1.92	0.68
48:D1:50:ARG:HG2	48:D1:50:ARG:NH1	2.09	0.68
50:D3:1:MET:HE2	50:D3:44:ARG:NH2	2.09	0.68
1:AA:608:G:H2'	1:AA:609:U:H6	1.59	0.68
1:AA:767:C:H4'	25:BA:1837:C:OP1	1.94	0.68
25:BA:813:U:H2'	25:BA:814:C:C6	2.29	0.68
25:BA:2282:G:P	57:BA:3062:MG:MG	1.76	0.68
26:BB:9:G:OP1	39:BS:17:ARG:HD3	1.93	0.68
26:BB:71:C:H2'	26:BB:72:G:H8	1.58	0.68
33:BI:38:LEU:HD12	33:BI:38:LEU:N	2.04	0.68
37:BQ:133:ARG:HH11	37:BQ:133:ARG:HG3	1.58	0.68
44:BX:12:VAL:CB	44:BX:17:ALA:HB1	2.17	0.68
1:CA:743:G:N2	17:CQ:97:SER:OG	2.27	0.68
1:CA:981:G:N2	1:CA:1020:C:N3	2.42	0.68
1:CA:1237:A:OP2	3:CC:26:LYS:NZ	2.20	0.68
6:CF:69:GLU:O	6:CF:72:VAL:HG12	1.93	0.68
10:CJ:49:VAL:O	10:CJ:60:ARG:HB3	1.94	0.68
13:CM:94:ARG:NH2	25:DA:887:A:C4	2.61	0.68
17:CQ:50:LYS:HE3	17:CQ:51:TYR:CE1	2.29	0.68
23:CV:53:G:H2'	23:CV:54:G:O5'	1.94	0.68
25:DA:1717:G:H3'	25:DA:1718:G:H5''	1.73	0.68
25:DA:2175:C:H1'	27:DC:215:THR:N	2.09	0.68
30:DF:89:VAL:HG12	30:DF:90:PHE:N	2.09	0.68
30:DF:167:ALA:HB1	30:DF:173:VAL:HG11	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DG:41:GLN:HE22	31:DG:153:ARG:HG2	1.58	0.68
32:DH:38:SER:C	32:DH:40:GLU:H	2.02	0.68
32:DH:156:ALA:H	32:DH:158:HIS:H	1.42	0.68
39:DS:93:LYS:HG3	39:DS:93:LYS:O	1.91	0.68
41:DU:92:ARG:CZ	42:DV:11:GLN:HB2	2.23	0.68
45:DY:47:LYS:HD2	45:DY:47:LYS:N	2.08	0.68
45:DY:95:LYS:HE2	45:DY:100:ALA:HB2	1.74	0.68
47:D0:48:GLY:HA3	47:D0:80:HIS:ND1	2.09	0.68
1:AA:154:A:H2'	1:AA:154:A:N3	2.09	0.68
1:AA:354:U:H2'	1:AA:355:A:C8	2.28	0.68
1:AA:902:G:H1	1:AA:1373:U:H3	1.42	0.68
3:AC:138:VAL:HG23	3:AC:151:VAL:HG23	1.76	0.68
7:AG:76:ARG:HH11	7:AG:76:ARG:HG2	1.59	0.68
12:AL:23:LYS:O	12:AL:24:VAL:HG23	1.93	0.68
17:AQ:7:THR:CG2	17:AQ:58:GLU:HG2	2.24	0.68
19:AS:41:VAL:O	19:AS:44:MET:HB2	1.94	0.68
25:BA:614:U:C4'	25:BA:614(C):A:N6	2.56	0.68
30:BF:108:LYS:O	30:BF:112:MET:HB2	1.93	0.68
32:BH:121:ILE:HG23	32:BH:134:SER:O	1.93	0.68
42:BV:99:ILE:HD13	42:BV:99:ILE:H	1.59	0.68
55:B8:43:GLN:C	55:B8:44:LYS:HD2	2.18	0.68
3:CC:35:GLU:HA	3:CC:38:ARG:HD2	1.76	0.68
22:CW:1:G:N2	22:CW:2:C:C2	2.62	0.68
25:DA:614:U:C4'	25:DA:614(C):A:N6	2.56	0.68
25:DA:857:C:C2'	25:DA:858:U:H5'	2.24	0.68
26:DB:92:C:O2	26:DB:93:G:C8	2.47	0.68
28:DD:33:LEU:HD22	28:DD:102:LYS:HD2	1.74	0.68
29:DE:59:VAL:O	29:DE:60:ASN:HB3	1.93	0.68
33:DI:129:THR:HA	33:DI:137:PRO:HA	1.74	0.68
35:DO:88:ASN:HD21	35:DO:90:GLN:HB2	1.59	0.68
50:D3:29:ARG:HH11	50:D3:29:ARG:HG3	1.58	0.68
55:D8:43:GLN:C	55:D8:44:LYS:HD2	2.18	0.68
1:AA:453:G:O6	1:AA:455:C:H5''	1.93	0.68
6:AF:39:LYS:HG2	6:AF:40:VAL:H	1.58	0.68
8:AH:48:TYR:HA	8:AH:60:ARG:O	1.94	0.68
16:AP:20:VAL:HG21	16:AP:32:TYR:CG	2.29	0.68
25:BA:144:C:H2'	25:BA:145:G:H8	1.58	0.68
25:BA:203:C:H3'	25:BA:204:A:H5''	1.76	0.68
25:BA:492:A:H2'	25:BA:493:G:O4'	1.94	0.68
25:BA:857:C:C2'	25:BA:858:U:H5'	2.24	0.68
25:BA:1987:G:H5'	25:BA:1987:G:H8	1.59	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:66:GLY:O	36:BP:67:MET:HB3	1.94	0.68
44:BX:60:ARG:HH22	54:B7:47:ARG:NE	1.92	0.68
44:BX:64:LYS:NZ	44:BX:73:ARG:HH21	1.92	0.68
48:B1:50:ARG:NH1	48:B1:50:ARG:HG2	2.09	0.68
55:B8:50:LEU:HD12	55:B8:54:GLU:OE2	1.93	0.68
1:CA:1487:U:H2'	1:CA:1488:G:C8	2.28	0.68
3:CC:15:THR:HG22	3:CC:16:ARG:N	2.09	0.68
4:CD:170:VAL:HG12	4:CD:174:LEU:HB2	1.75	0.68
13:CM:95:GLY:O	13:CM:96:LEU:HG	1.94	0.68
28:DD:25:THR:O	28:DD:26:LYS:HG2	1.93	0.68
30:DF:83:PHE:O	30:DF:84:VAL:HB	1.92	0.68
32:DH:18:GLU:HB3	32:DH:25:LYS:NZ	2.09	0.68
33:DI:133:HIS:HB2	33:DI:134:PRO:HD3	1.75	0.68
40:DT:128:GLU:O	40:DT:130:ALA:N	2.24	0.68
41:DU:46:ALA:O	41:DU:50:ARG:HG3	1.94	0.68
43:DW:61:ASN:HD22	43:DW:61:ASN:N	1.89	0.68
2:AB:67:THR:HB	2:AB:155:LEU:HD21	1.75	0.68
3:AC:76:VAL:HG23	3:AC:77:ILE:N	2.08	0.68
9:AI:97:LYS:HB3	9:AI:98:PRO:HD3	1.75	0.68
25:BA:1510:G:O2'	25:BA:1511:C:H5'	1.94	0.68
25:BA:2186:G:N1	25:BA:2187:G:C6	2.62	0.68
28:BD:267:SER:C	28:BD:269:PHE:H	2.02	0.68
31:BG:28:VAL:O	31:BG:31:VAL:HG12	1.93	0.68
45:BY:27:VAL:HA	45:BY:28:LYS:HZ2	1.59	0.68
48:B1:84:GLY:O	48:B1:86:SER:N	2.27	0.68
50:B3:4:LEU:HB2	50:B3:39:ASP:HB2	1.74	0.68
52:B5:49:CYS:O	52:B5:56:LYS:HB3	1.94	0.68
1:CA:720:A:H2'	1:CA:721:C:C6	2.29	0.68
5:CE:101:ILE:CD1	5:CE:119:LEU:HA	2.22	0.68
20:CT:46:GLU:CD	20:CT:48:LYS:HE2	2.18	0.68
22:CW:21:A:N7	22:CW:46:G:N7	2.42	0.68
23:CV:24:C:H2'	23:CV:25:U:C6	2.29	0.68
25:DA:78:A:H2'	25:DA:79:G:H8	1.57	0.68
25:DA:608:A:OP1	30:DF:100:THR:HG21	1.94	0.68
25:DA:1029:A:OP1	37:DQ:128:LYS:NZ	2.24	0.68
26:DB:107:G:C5	26:DB:108:U:C5	2.82	0.68
30:DF:157:VAL:HB	30:DF:194:MET:HB3	1.75	0.68
33:DI:94:ALA:HB1	33:DI:111:PRO:CB	2.22	0.68
36:DP:91:PHE:CE2	36:DP:95:VAL:HG12	2.29	0.68
1:AA:1374:G:H21	1:AA:1479:A:H8	1.43	0.67
2:AB:213:LEU:HD23	2:AB:213:LEU:C	2.19	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:165:THR:HG22	3:AC:165:THR:O	1.92	0.67
3:AC:173:VAL:O	3:AC:175:LEU:HD12	1.94	0.67
22:AW:24:G:H2'	22:AW:25:C:C6	2.29	0.67
25:BA:283:A:H5'	25:BA:284:U:H5	1.58	0.67
28:BD:48:ARG:HG3	28:BD:48:ARG:HH11	1.58	0.67
28:BD:76:PRO:O	28:BD:98:VAL:HG23	1.94	0.67
29:BE:32:PRO:HB3	29:BE:69:LYS:HB3	1.73	0.67
30:BF:8:GLN:HG2	30:BF:126:VAL:HG12	1.74	0.67
30:BF:89:VAL:HG12	30:BF:90:PHE:N	2.09	0.67
32:BH:144:VAL:O	32:BH:148:ILE:HG12	1.94	0.67
36:BP:18:ARG:HH11	36:BP:18:ARG:CB	2.07	0.67
36:BP:91:PHE:CE2	36:BP:95:VAL:HG12	2.30	0.67
37:BQ:59:ARG:O	37:BQ:60:ARG:HB2	1.93	0.67
43:BW:68:ARG:HD2	43:BW:110:LYS:CB	2.23	0.67
53:B6:10:LEU:HD12	55:B8:34:TRP:NE1	2.08	0.67
3:CC:116:VAL:O	3:CC:119:ARG:HB3	1.93	0.67
4:CD:189:PRO:HB2	4:CD:194:LEU:CD2	2.23	0.67
8:CH:88:LYS:HB3	8:CH:89:PRO:HD2	1.76	0.67
19:CS:41:VAL:O	19:CS:44:MET:HB2	1.94	0.67
25:DA:174:C:H3'	25:DA:175:G:H5''	1.74	0.67
25:DA:733:G:O6	25:DA:761:A:C8	2.47	0.67
25:DA:1447:G:O4'	25:DA:1545:A:O2'	2.12	0.67
25:DA:2186:G:N1	25:DA:2187:G:C6	2.62	0.67
25:DA:2314:C:H2'	25:DA:2315:G:H8	1.58	0.67
25:DA:2523:G:H5'	25:DA:2523:G:H8	1.59	0.67
25:DA:2784:C:H4'	29:DE:41:LYS:O	1.95	0.67
30:DF:11:VAL:C	30:DF:13:SER:H	2.01	0.67
30:DF:17:ARG:HG3	30:DF:17:ARG:HH11	1.59	0.67
34:DN:23:LEU:HB3	34:DN:60:ILE:HG21	1.76	0.67
34:DN:40:PRO:HB3	41:DU:68:ALA:HB2	1.76	0.67
41:DU:31:SER:C	41:DU:33:ARG:H	2.02	0.67
55:D8:50:LEU:HD12	55:D8:54:GLU:OE2	1.93	0.67
1:AA:338:U:O3'	1:AA:339:A:H2'	1.95	0.67
2:AB:57:PHE:CD2	2:AB:185:ILE:HD11	2.29	0.67
20:AT:72:LEU:HD23	20:AT:73:HIS:H	1.58	0.67
20:AT:89:ARG:CD	20:AT:104:LEU:HD11	2.22	0.67
25:BA:1165:U:H2'	25:BA:1166:C:C6	2.29	0.67
25:BA:1192:G:O2'	25:BA:1193:G:H5'	1.94	0.67
25:BA:1230:C:H2'	25:BA:1231:G:C8	2.29	0.67
25:BA:2172:U:H1'	25:BA:2173:A:P	2.34	0.67
25:BA:2195:C:O2'	25:BA:2196:C:H5'	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2684:U:OP1	40:BT:60:THR:HG21	1.94	0.67
29:BE:52:LEU:HD23	29:BE:76:ARG:H	1.59	0.67
32:BH:121:ILE:HG22	32:BH:133:VAL:HG12	1.75	0.67
33:BI:54:GLN:O	33:BI:58:LEU:HB2	1.94	0.67
33:BI:109:ILE:HG22	33:BI:111:PRO:HD3	1.76	0.67
39:BS:19:LYS:C	39:BS:20:ARG:HH11	2.01	0.67
42:BV:15:GLU:HB3	42:BV:16:PRO:HD2	1.76	0.67
42:BV:19:LYS:HG3	42:BV:20:LEU:N	2.07	0.67
42:BV:62:LEU:HD21	42:BV:95:LEU:HB2	1.76	0.67
44:BX:54:VAL:HG22	44:BX:81:VAL:HG12	1.75	0.67
46:BZ:102:LEU:HD11	46:BZ:124:ILE:HG22	1.77	0.67
46:BZ:128:VAL:HG21	46:BZ:132:ASN:O	1.94	0.67
1:CA:656:G:H2'	1:CA:657:G:C8	2.29	0.67
1:CA:855:G:H5'	8:CH:89:PRO:HG2	1.76	0.67
4:CD:33:MET:CE	4:CD:37:PRO:HA	2.18	0.67
13:CM:108:ARG:HH12	13:CM:111:LYS:HB2	1.58	0.67
25:DA:492:A:H2'	25:DA:493:G:O4'	1.94	0.67
25:DA:1510:G:O2'	25:DA:1511:C:H5'	1.94	0.67
25:DA:1593:G:C3'	25:DA:1594:G:H5''	2.25	0.67
25:DA:2126:A:H5''	27:DC:36:LYS:CG	2.19	0.67
26:DB:41:U:C4	31:DG:69:ALA:HB1	2.29	0.67
26:DB:71:C:H2'	26:DB:72:G:H8	1.58	0.67
30:DF:34:TRP:CH2	36:DP:12:ALA:HB2	2.29	0.67
31:DG:109:VAL:CG1	31:DG:142:PRO:HG3	2.23	0.67
32:DH:64:LEU:C	32:DH:66:GLY:H	2.01	0.67
32:DH:107:VAL:HG21	32:DH:152:ARG:HG3	1.76	0.67
36:DP:101:VAL:C	36:DP:103:ALA:H	2.03	0.67
43:DW:111:HIS:CG	43:DW:112:GLY:H	2.11	0.67
1:AA:982:A:C5'	1:AA:1003:U:H3	2.08	0.67
9:AI:53:VAL:HG12	9:AI:92:TYR:HD2	1.56	0.67
25:BA:2682:U:O2'	25:BA:2683:C:H5'	1.94	0.67
26:BB:107:G:C2'	26:BB:108:U:C5'	2.65	0.67
31:BG:47:LYS:NZ	31:BG:82:LEU:HD12	2.08	0.67
39:BS:26:LEU:HG	39:BS:39:ILE:CD1	2.24	0.67
41:BU:46:ALA:O	41:BU:50:ARG:HG3	1.94	0.67
46:BZ:17:ALA:O	46:BZ:20:ARG:HB2	1.95	0.67
46:BZ:158:PRO:HB2	46:BZ:159:PRO:HD2	1.75	0.67
1:CA:854:C:H5''	8:CH:88:LYS:HD3	1.76	0.67
1:CA:1414:G:OP1	40:DT:107:ASP:HB2	1.93	0.67
8:CH:48:TYR:HA	8:CH:60:ARG:O	1.93	0.67
25:DA:353:G:C2	25:DA:354:G:N7	2.63	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:528:A:C2	25:DA:2042:A:H2'	2.30	0.67
25:DA:769:G:O2'	25:DA:770:G:H5'	1.94	0.67
48:D1:64:ALA:HA	48:D1:67:ILE:HD11	1.76	0.67
1:AA:1229:A:N3	9:AI:70:LYS:HE3	2.10	0.67
2:AB:178:ARG:HH11	2:AB:178:ARG:CB	2.07	0.67
8:AH:86:ILE:HG12	8:AH:135:CYS:HA	1.74	0.67
25:BA:1578:U:H2'	25:BA:1579:A:C5'	2.24	0.67
25:BA:1593:G:C3'	25:BA:1594:G:H5''	2.25	0.67
25:BA:2320:A:C6	25:BA:2333:A:C5	2.82	0.67
30:BF:34:TRP:CH2	36:BP:12:ALA:HB2	2.29	0.67
33:BI:144:VAL:O	33:BI:145:VAL:HB	1.94	0.67
36:BP:64:LYS:O	36:BP:66:GLY:N	2.27	0.67
2:CB:134:GLU:HA	2:CB:137:ARG:HB3	1.77	0.67
4:CD:30:LYS:C	4:CD:32:ALA:N	2.53	0.67
7:CG:148:ASN:C	7:CG:150:ALA:N	2.52	0.67
13:CM:108:ARG:HA	13:CM:108:ARG:NH1	1.99	0.67
23:CV:69:C:H2'	23:CV:70:C:H6	1.54	0.67
25:DA:1819:A:H1'	25:DA:1821:A:C5	2.22	0.67
25:DA:2682:U:H5'	25:DA:2682:U:H6	1.59	0.67
25:DA:2682:U:O2'	25:DA:2683:C:H5'	1.94	0.67
26:DB:93:G:N2	26:DB:94:C:N3	2.43	0.67
44:DX:54:VAL:HG22	44:DX:81:VAL:HG12	1.75	0.67
46:DZ:102:LEU:HD11	46:DZ:124:ILE:HG22	1.77	0.67
48:D1:84:GLY:O	48:D1:86:SER:N	2.27	0.67
55:D8:53:PRO:HA	55:D8:56:GLU:HB2	1.75	0.67
3:AC:116:VAL:O	3:AC:119:ARG:HB3	1.93	0.67
7:AG:100:ALA:O	7:AG:104:LEU:HD23	1.94	0.67
25:BA:287:C:H5'	25:BA:287:C:H6	1.59	0.67
25:BA:733:G:O6	25:BA:761:A:C8	2.47	0.67
25:BA:1247:A:OP1	30:BF:95:ARG:NH2	2.27	0.67
25:BA:1287:A:N7	25:BA:1288:U:O4	2.27	0.67
26:BB:83:G:H4'	50:B3:52:HIS:CD2	2.29	0.67
28:BD:129:ASN:O	28:BD:193:VAL:HG12	1.95	0.67
28:BD:176:ARG:HH11	28:BD:176:ARG:HG2	1.60	0.67
29:BE:3:GLY:O	29:BE:4:ILE:HB	1.94	0.67
30:BF:83:PHE:O	30:BF:84:VAL:HB	1.92	0.67
31:BG:41:GLN:HE22	31:BG:153:ARG:HG2	1.58	0.67
34:BN:40:PRO:HB3	41:BU:68:ALA:HB2	1.76	0.67
34:BN:58:ASP:O	34:BN:60:ILE:N	2.23	0.67
36:BP:18:ARG:HH11	36:BP:18:ARG:C	2.02	0.67
9:CI:106:ALA:O	9:CI:108:VAL:CG1	2.41	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:56:HIS:O	10:CJ:58:ASP:N	2.26	0.67
17:CQ:67:LYS:O	17:CQ:68:ARG:CB	2.42	0.67
25:DA:350:U:H3'	25:DA:351:G:C8	2.30	0.67
25:DA:747:U:O2	25:DA:2014:A:H1'	1.95	0.67
25:DA:2468:G:H2'	25:DA:2476:A:N7	2.09	0.67
27:DC:76:ALA:C	27:DC:78:ALA:H	2.02	0.67
30:DF:8:GLN:HG2	30:DF:126:VAL:HG12	1.74	0.67
32:DH:17:VAL:HG11	32:DH:45:VAL:HA	1.74	0.67
34:DN:10:GLU:OE2	34:DN:11:PRO:HD2	1.95	0.67
36:DP:122:PRO:HA	36:DP:141:ALA:O	1.95	0.67
45:DY:37:VAL:O	45:DY:66:PRO:CB	2.42	0.67
46:DZ:146:ILE:HG22	46:DZ:174:VAL:HG12	1.76	0.67
48:D1:6:GLU:HG3	48:D1:61:ARG:O	1.95	0.67
1:AA:952:A:H4'	1:AA:953:G:H5''	1.76	0.67
2:AB:134:GLU:HA	2:AB:137:ARG:HB3	1.77	0.67
11:AK:29:ILE:HD13	11:AK:44:SER:HB3	1.76	0.67
13:AM:94:ARG:NH2	25:BA:887:A:C1'	2.57	0.67
15:AO:3:ILE:HD13	15:AO:3:ILE:N	2.09	0.67
19:AS:24:ALA:O	19:AS:25:LYS:HB2	1.95	0.67
25:BA:151:C:O2'	25:BA:152:G:H5'	1.95	0.67
25:BA:747:U:O2	25:BA:2014:A:H1'	1.95	0.67
25:BA:806:C:OP2	36:BP:39:LYS:HD3	1.94	0.67
25:BA:1434:A:H61	25:BA:1558:A:H62	1.41	0.67
25:BA:2199:A:H5''	25:BA:2200:C:C5	2.28	0.67
25:BA:2468:G:H5'	37:BQ:120:ILE:HD12	1.76	0.67
36:BP:52:GLU:HG2	36:BP:55:ARG:O	1.93	0.67
48:B1:41:ARG:HD3	48:B1:43:TYR:CE2	2.30	0.67
51:B4:36:VAL:HB	51:B4:37:PRO:HD2	1.76	0.67
1:CA:1036:C:O2	1:CA:1036:C:C2'	2.41	0.67
25:DA:28:A:N6	25:DA:512:G:H1'	2.09	0.67
25:DA:283:A:H5'	25:DA:284:U:H5	1.58	0.67
44:DX:64:LYS:NZ	44:DX:73:ARG:HH21	1.92	0.67
52:D5:49:CYS:O	52:D5:56:LYS:HB3	1.94	0.67
1:AA:1039:G:H5''	3:AC:154:SER:CB	2.23	0.67
4:AD:150:GLU:HA	4:AD:153:ARG:CD	2.21	0.67
7:AG:148:ASN:C	7:AG:150:ALA:H	2.01	0.67
23:AV:68:C:H2'	23:AV:69:C:H5'	1.77	0.67
25:BA:769:G:O2'	25:BA:770:G:H5'	1.94	0.67
25:BA:2302:G:N2	31:BG:128:ARG:HG3	2.06	0.67
25:BA:2682:U:H2'	25:BA:2683:C:O4'	1.94	0.67
36:BP:122:PRO:HA	36:BP:141:ALA:O	1.95	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BQ:55:VAL:O	37:BQ:59:ARG:HA	1.95	0.67
46:BZ:11:GLU:CD	46:BZ:11:GLU:H	2.00	0.67
50:B3:1:MET:HE2	50:B3:44:ARG:NH2	2.09	0.67
2:CB:24:TRP:H	2:CB:24:TRP:HD1	1.43	0.67
2:CB:213:LEU:HD23	2:CB:213:LEU:C	2.20	0.67
6:CF:60:PHE:C	6:CF:61:LEU:HD12	2.20	0.67
12:CL:23:LYS:O	12:CL:24:VAL:HG23	1.93	0.67
12:CL:47:LYS:CB	12:CL:48:PRO:CD	2.72	0.67
13:CM:22:ILE:CG2	13:CM:25:ILE:HD13	2.25	0.67
16:CP:74:LEU:O	16:CP:79:VAL:HG23	1.95	0.67
20:CT:26:ASN:HB3	20:CT:71:THR:CG2	2.22	0.67
20:CT:50:GLU:HB3	20:CT:100:ILE:CG1	2.25	0.67
25:DA:108:U:C2'	25:DA:109:G:C5'	2.71	0.67
25:DA:1165:U:H2'	25:DA:1166:C:C6	2.29	0.67
25:DA:2111:C:H1'	25:DA:2118:U:O4'	1.95	0.67
26:DB:93:G:O2'	26:DB:94:C:H5'	1.94	0.67
30:DF:47:GLY:HA3	30:DF:95:ARG:O	1.95	0.67
34:DN:12:ARG:HB3	34:DN:50:ASP:OD1	1.94	0.67
37:DQ:59:ARG:O	37:DQ:60:ARG:HB2	1.93	0.67
41:DU:92:ARG:HH22	41:DU:94:ASN:HD22	1.39	0.67
42:DV:99:ILE:H	42:DV:99:ILE:HD13	1.59	0.67
44:DX:27:THR:CG2	44:DX:80:ILE:HB	2.15	0.67
46:DZ:158:PRO:HB2	46:DZ:159:PRO:HD2	1.75	0.67
2:AB:84:GLU:HB3	2:AB:219:VAL:HG21	1.77	0.67
16:AP:4:ILE:HB	16:AP:66:PRO:HB3	1.76	0.67
25:BA:350:U:H3'	25:BA:351:G:C8	2.30	0.67
25:BA:1887:C:H2'	25:BA:1888:G:H5''	1.76	0.67
25:BA:2468:G:H2'	25:BA:2476:A:N7	2.10	0.67
29:BE:49:LEU:HD12	29:BE:49:LEU:N	2.09	0.67
29:BE:59:VAL:O	29:BE:60:ASN:HB3	1.93	0.67
30:BF:32:LEU:O	30:BF:32:LEU:HD23	1.94	0.67
31:BG:47:LYS:HZ2	31:BG:82:LEU:HD12	1.58	0.67
31:BG:64:THR:HG23	31:BG:65:GLY:N	2.10	0.67
32:BH:18:GLU:HB3	32:BH:25:LYS:NZ	2.09	0.67
33:BI:72:LEU:CD1	33:BI:138:ILE:HD13	2.25	0.67
33:BI:79:ILE:HG12	33:BI:140:LEU:HD11	1.77	0.67
38:BR:9:LYS:O	38:BR:10:LEU:HG	1.95	0.67
39:BS:14:VAL:HG12	39:BS:15:ARG:N	2.08	0.67
39:BS:54:LEU:H	39:BS:54:LEU:HD22	1.58	0.67
1:CA:1327:A:H61	1:CA:1356:A:H3'	1.60	0.67
1:CA:1427:G:H22	1:CA:1437:A:H1'	1.60	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:5:ILE:C	3:CC:5:ILE:HD12	2.20	0.67
10:CJ:16:LEU:HD23	10:CJ:94:VAL:HG13	1.77	0.67
10:CJ:50:ILE:HG12	14:CN:41:ARG:CD	2.25	0.67
17:CQ:68:ARG:N	17:CQ:70:ARG:HH11	1.92	0.67
25:DA:614:U:H4'	25:DA:614(C):A:H62	1.60	0.67
25:DA:1287:A:N7	25:DA:1288:U:O4	2.27	0.67
25:DA:1578:U:H2'	25:DA:1579:A:C5'	2.24	0.67
25:DA:1652:A:H2'	25:DA:1653:G:H5''	1.76	0.67
25:DA:2199:A:H3'	25:DA:2200:C:C6	2.30	0.67
31:DG:76:SER:CA	31:DG:83:ARG:HB2	2.25	0.67
36:DP:66:GLY:O	36:DP:67:MET:HB3	1.94	0.67
36:DP:80:TYR:CE1	36:DP:111:ARG:HD3	2.29	0.67
39:DS:106:ARG:NH1	39:DS:107:GLU:O	2.28	0.67
42:DV:15:GLU:HB3	42:DV:16:PRO:HD2	1.76	0.67
54:D7:41:ARG:HD3	54:D7:45:ALA:CB	2.25	0.67
2:AB:63:MET:HG3	2:AB:64:ARG:N	2.10	0.67
5:AE:100:VAL:HG22	5:AE:118:ILE:HG22	1.77	0.67
19:AS:39:THR:HG22	19:AS:40:ILE:N	2.10	0.67
25:BA:576:U:H2'	25:BA:577:G:H8	1.59	0.67
34:BN:10:GLU:OE2	34:BN:11:PRO:HD2	1.95	0.67
36:BP:107:LYS:C	36:BP:109:GLY:H	2.03	0.67
37:BQ:27:VAL:H	37:BQ:137:TYR:HE1	1.39	0.67
47:B0:48:GLY:HA3	47:B0:80:HIS:ND1	2.09	0.67
48:B1:80:LEU:HD13	48:B1:82:LEU:HD11	1.77	0.67
50:B3:29:ARG:HH11	50:B3:29:ARG:HG3	1.59	0.67
1:CA:1171:G:H3'	3:CC:3:ASN:HD21	1.60	0.67
2:CB:217:ARG:O	2:CB:221:LEU:HD23	1.95	0.67
23:CV:22:A:N6	23:CV:47:G:C4	2.62	0.67
25:DA:747:U:C2	52:D5:2:ALA:N	2.62	0.67
25:DA:1192:G:O2'	25:DA:1193:G:H5'	1.94	0.67
25:DA:1246:A:OP2	36:DP:18:ARG:HG3	1.95	0.67
25:DA:1987:G:H8	25:DA:1987:G:H5'	1.59	0.67
29:DE:61:ARG:HB3	29:DE:62:PRO:CD	2.24	0.67
32:DH:156:ALA:HB3	32:DH:159:GLU:HB3	1.77	0.67
37:DQ:27:VAL:HG23	37:DQ:137:TYR:HE1	1.60	0.67
42:DV:19:LYS:HG3	42:DV:20:LEU:O	1.94	0.67
1:AA:1088:G:H2'	1:AA:1089:C:H6	1.60	0.67
23:AV:30:G:C2'	23:AV:31:G:H5'	2.25	0.67
25:BA:790:C:O2'	25:BA:791:C:P	2.53	0.67
25:BA:952:G:C5	25:BA:953:A:N7	2.63	0.67
25:BA:984:A:H5''	25:BA:985:C:H5	1.60	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BE:61:ARG:HB3	29:BE:62:PRO:CD	2.24	0.67
35:BO:37:ASP:OD1	35:BO:37:ASP:N	2.25	0.67
36:BP:16:ARG:C	36:BP:16:ARG:HH11	2.03	0.67
39:BS:85:VAL:CG2	39:BS:106:ARG:HG3	2.25	0.67
39:BS:99:LYS:O	39:BS:101:LEU:N	2.26	0.67
42:BV:19:LYS:HG2	42:BV:94:LEU:CB	2.17	0.67
55:B8:50:LEU:C	55:B8:53:PRO:HD2	2.20	0.67
1:CA:59:A:H1'	1:CA:349:G:N2	2.10	0.67
1:CA:262:C:H6	1:CA:262:C:C5'	2.08	0.67
1:CA:1424:G:N7	1:CA:1426:A:H8	1.93	0.67
3:CC:165:THR:HG22	3:CC:165:THR:O	1.94	0.67
10:CJ:8:LEU:CD2	10:CJ:96:ILE:HG22	2.25	0.67
13:CM:10:PRO:CB	13:CM:18:ALA:HB1	2.23	0.67
22:CW:14:A:N1	22:CW:15:G:H1'	2.10	0.67
25:DA:581:C:OP1	41:DU:33:ARG:HG2	1.95	0.67
25:DA:1430:C:H2'	25:DA:1431:U:C6	2.30	0.67
28:DD:10:THR:OG1	28:DD:11:PRO:HD2	1.94	0.67
29:DE:49:LEU:HD12	29:DE:49:LEU:N	2.09	0.67
47:D0:25:ARG:HD2	47:D0:29:GLN:HE22	1.57	0.67
48:D1:41:ARG:HD3	48:D1:43:TYR:CE2	2.30	0.67
48:D1:80:LEU:HD13	48:D1:82:LEU:HD11	1.77	0.67
53:D6:33:LYS:HE2	53:D6:33:LYS:HA	1.77	0.67
1:AA:377:A:H2'	1:AA:378:A:H8	1.57	0.66
2:AB:67:THR:O	2:AB:68:ILE:HD13	1.95	0.66
2:AB:217:ARG:O	2:AB:221:LEU:HD23	1.94	0.66
8:AH:86:ILE:HG22	8:AH:87:SER:N	2.09	0.66
15:AO:51:HIS:O	15:AO:54:ARG:HB3	1.95	0.66
22:AW:7:A:O2'	22:AW:49:C:H5'	1.95	0.66
22:AW:16:U:H3'	22:AW:17:C:H5'	1.77	0.66
25:BA:271(R):G:H2'	25:BA:271(S):G:H8	1.58	0.66
25:BA:528:A:C2	25:BA:2042:A:H2'	2.30	0.66
25:BA:2111:C:H1'	25:BA:2118:U:O4'	1.95	0.66
25:BA:2199:A:H3'	25:BA:2200:C:C6	2.30	0.66
32:BH:64:LEU:C	32:BH:66:GLY:H	2.01	0.66
53:B6:33:LYS:HE2	53:B6:33:LYS:HA	1.77	0.66
1:CA:951:A:P	14:CN:41:ARG:HH12	2.18	0.66
2:CB:67:THR:HB	2:CB:155:LEU:HD21	1.76	0.66
2:CB:79:ASP:O	2:CB:82:ARG:HB3	1.95	0.66
3:CC:50:ALA:HB1	3:CC:70:VAL:HG11	1.77	0.66
11:CK:12:ARG:HG2	11:CK:13:GLN:N	2.10	0.66
12:CL:24:VAL:O	12:CL:24:VAL:HG12	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CW:76:A:O2'	25:DA:2394:C:O2	2.13	0.66
25:DA:151:C:O2'	25:DA:152:G:H5'	1.95	0.66
25:DA:664:C:H4'	25:DA:941:A:OP1	1.95	0.66
26:DB:66:A:H61	26:DB:108:U:H2'	1.61	0.66
26:DB:93:G:N2	26:DB:94:C:C4	2.63	0.66
28:DD:31:LYS:HZ2	28:DD:102:LYS:HZ2	1.44	0.66
31:DG:10:LYS:HE3	31:DG:14:GLU:OE1	1.94	0.66
33:DI:73:GLU:HA	33:DI:138:ILE:HG23	1.78	0.66
33:DI:109:ILE:HG22	33:DI:111:PRO:HD3	1.76	0.66
36:DP:18:ARG:HH11	36:DP:18:ARG:CB	2.07	0.66
42:DV:41:GLY:HA3	42:DV:45:THR:OG1	1.93	0.66
45:DY:14:LEU:HD12	45:DY:15:VAL:H	1.60	0.66
8:AH:89:PRO:HA	8:AH:92:ARG:HH11	1.58	0.66
9:AI:10:ARG:HD2	9:AI:105:ASP:CG	2.20	0.66
11:AK:126:ARG:C	11:AK:128:ALA:H	2.01	0.66
18:AR:50:ILE:CD1	18:AR:70:ILE:HG21	2.25	0.66
23:AV:30:G:N1	23:AV:43:G:C2	2.63	0.66
25:BA:28:A:N6	25:BA:512:G:H1'	2.09	0.66
25:BA:335:C:H2'	25:BA:336:C:C6	2.28	0.66
27:BC:76:ALA:C	27:BC:78:ALA:H	2.02	0.66
32:BH:107:VAL:HG21	32:BH:152:ARG:HG3	1.76	0.66
33:BI:11:ASN:O	33:BI:12:LEU:HB3	1.95	0.66
35:BO:119:PRO:HB2	40:BT:68:TYR:CE1	2.30	0.66
36:BP:80:TYR:CE1	36:BP:111:ARG:HD3	2.29	0.66
37:BQ:37:LEU:HD21	37:BQ:130:LYS:HB2	1.77	0.66
40:BT:91:ARG:HA	40:BT:117:ASP:H	1.60	0.66
41:BU:17:ILE:HG23	41:BU:39:LEU:HD12	1.77	0.66
42:BV:19:LYS:HG3	42:BV:20:LEU:O	1.94	0.66
43:BW:59:VAL:O	43:BW:63:ASP:N	2.26	0.66
51:B4:46:ASN:HD22	51:B4:47:VAL:H	1.42	0.66
1:CA:130:C:H42	1:CA:222:G:H1	1.43	0.66
2:CB:84:GLU:HB3	2:CB:219:VAL:HG21	1.76	0.66
2:CB:92:TYR:CE1	2:CB:151:GLY:HA3	2.30	0.66
16:CP:4:ILE:HB	16:CP:66:PRO:HB3	1.77	0.66
18:CR:19:LYS:O	18:CR:20:ALA:CB	2.44	0.66
25:DA:297:C:H2'	25:DA:298:G:C5'	2.24	0.66
25:DA:651:G:C5'	55:D8:18:ALA:HB3	2.24	0.66
25:DA:1112:G:N2	25:DA:1113:U:C2	2.64	0.66
25:DA:2127:G:O5'	27:DC:36:LYS:HE2	1.95	0.66
25:DA:2712:U:H1'	25:DA:2712(A):A:H8	1.58	0.66
25:DA:2777:G:H4'	25:DA:2778:A:H5'	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DD:267:SER:C	28:DD:269:PHE:H	2.02	0.66
29:DE:167:VAL:HG22	29:DE:170:LEU:HD11	1.77	0.66
30:DF:32:LEU:O	30:DF:32:LEU:HD23	1.94	0.66
34:DN:25:ARG:HH11	34:DN:25:ARG:HG3	1.61	0.66
36:DP:18:ARG:HH11	36:DP:18:ARG:C	2.02	0.66
41:DU:112:ARG:HH21	42:DV:46:VAL:HG11	1.60	0.66
42:DV:39:LEU:H	42:DV:39:LEU:HD22	1.59	0.66
46:DZ:17:ALA:O	46:DZ:20:ARG:HB2	1.94	0.66
1:AA:1386:C:H2'	1:AA:1387:G:C8	2.30	0.66
9:AI:48:GLU:N	9:AI:49:PRO:HD2	2.10	0.66
15:AO:16:ALA:HB1	15:AO:21:ASP:HB3	1.77	0.66
22:AW:52:G:H1	22:AW:62:C:N4	1.94	0.66
22:AY:28:G:H1	22:AY:42:C:N4	1.93	0.66
25:BA:1190:G:H5''	36:BP:35:HIS:HA	1.77	0.66
25:BA:2126:A:H4'	25:BA:2127:G:O5'	1.95	0.66
25:BA:2777:G:H4'	25:BA:2778:A:H5'	1.77	0.66
36:BP:63:PRO:HB3	55:B8:13:ARG:HB3	1.77	0.66
36:BP:122:PRO:HB3	36:BP:141:ALA:HB1	1.77	0.66
1:CA:229:C:H2'	1:CA:230:C:C6	2.29	0.66
6:CF:45:LEU:HD12	6:CF:46:ARG:H	1.59	0.66
25:DA:576:U:H2'	25:DA:577:G:H8	1.59	0.66
25:DA:1991:U:O2'	25:DA:1992:G:C5'	2.43	0.66
25:DA:2062:A:O2'	25:DA:2063:C:C5'	2.44	0.66
25:DA:2172:U:H1'	25:DA:2173:A:P	2.35	0.66
29:DE:3:GLY:O	29:DE:4:ILE:HB	1.94	0.66
43:DW:27:LYS:HE3	43:DW:31:GLU:HG2	1.78	0.66
15:AO:5:LYS:O	15:AO:9:GLN:HG2	1.96	0.66
19:AS:15:LEU:O	19:AS:19:VAL:HG23	1.95	0.66
25:BA:1604:C:C5'	57:BA:3100:MG:MG	1.49	0.66
25:BA:1826:G:H4'	28:BD:242:ARG:NH2	2.09	0.66
25:BA:2808:U:O2'	25:BA:2809:A:H5'	1.96	0.66
30:BF:65:TRP:HZ3	30:BF:73:ALA:O	1.79	0.66
31:BG:4:ASP:HA	31:BG:8:LYS:HD2	1.77	0.66
32:BH:85:LYS:HD2	32:BH:141:VAL:CG1	2.26	0.66
33:BI:73:GLU:HA	33:BI:138:ILE:HG23	1.77	0.66
39:BS:53:SER:OG	39:BS:54:LEU:HD22	1.96	0.66
1:CA:80:U:H2'	1:CA:81:U:H5	1.59	0.66
12:CL:25:PRO:C	12:CL:27:LEU:H	2.03	0.66
23:CV:17:C:C3'	23:CV:18:U:C5'	2.67	0.66
25:DA:729:G:N3	25:DA:729:G:C3'	2.59	0.66
25:DA:1019:U:HO2'	25:DA:1021:A:H2	1.42	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2126:A:H4'	25:DA:2127:G:O5'	1.95	0.66
25:DA:2712:U:HO2'	25:DA:2712(A):A:H5''	1.57	0.66
26:DB:107:G:C2	26:DB:108:U:C6	2.84	0.66
37:DQ:12:GLN:HE21	37:DQ:72:LYS:HA	1.60	0.66
37:DQ:18:LYS:HB3	37:DQ:18:LYS:HZ3	1.60	0.66
42:DV:2:PHE:HB2	42:DV:42:GLY:HA2	1.78	0.66
44:DX:64:LYS:HD3	44:DX:73:ARG:NE	2.09	0.66
46:DZ:69:THR:HG22	46:DZ:90:VAL:HG22	1.77	0.66
1:AA:647:G:H22	1:AA:724:G:H1	1.41	0.66
1:AA:988:G:N2	1:AA:998:U:H1'	2.11	0.66
1:AA:1294:U:O5'	1:AA:1294:U:H6	1.76	0.66
4:AD:9:CYS:SG	4:AD:31:CYS:O	2.53	0.66
9:AI:17:VAL:HG11	9:AI:81:ILE:HD13	1.77	0.66
25:BA:1430:C:H2'	25:BA:1431:U:C6	2.30	0.66
25:BA:2302:G:C6	25:BA:2315:G:C6	2.84	0.66
28:BD:241:PRO:O	28:BD:243:GLY:N	2.28	0.66
29:BE:11:MET:C	40:BT:8:LYS:NZ	2.54	0.66
32:BH:156:ALA:H	32:BH:158:HIS:H	1.42	0.66
42:BV:46:VAL:HG22	42:BV:47:VAL:N	2.11	0.66
45:BY:14:LEU:HD12	45:BY:15:VAL:H	1.60	0.66
3:CC:182:ILE:HG23	3:CC:202:ILE:C	2.20	0.66
12:CL:46:LYS:CG	12:CL:47:LYS:H	1.92	0.66
13:CM:3:ARG:HG2	13:CM:9:ILE:CG1	2.25	0.66
19:CS:32:LYS:HA	19:CS:50:ALA:HB3	1.76	0.66
21:CU:18:TYR:CD2	21:CU:22:ARG:HD3	2.31	0.66
23:CV:54:G:O2'	23:CV:55:U:P	2.54	0.66
25:DA:335:C:H2'	25:DA:336:C:C6	2.28	0.66
25:DA:1434:A:H61	25:DA:1558:A:H62	1.41	0.66
25:DA:2195:C:O2'	25:DA:2196:C:H5'	1.94	0.66
25:DA:2467:C:H4'	37:DQ:123:HIS:CD2	2.30	0.66
26:DB:15:A:H3'	26:DB:16:G:H5'	1.78	0.66
28:DD:129:ASN:O	28:DD:193:VAL:HG12	1.95	0.66
29:DE:76:ARG:O	29:DE:77:ILE:O	2.13	0.66
32:DH:52:VAL:O	32:DH:65:HIS:CD2	2.48	0.66
39:DS:26:LEU:HG	39:DS:39:ILE:CD1	2.24	0.66
45:DY:18:GLY:HA2	45:DY:21:LYS:HB2	1.76	0.66
46:DZ:24:LEU:HB2	46:DZ:41:LEU:HD23	1.78	0.66
51:D4:36:VAL:HB	51:D4:37:PRO:HD2	1.77	0.66
53:D6:47:THR:CB	53:D6:49:HIS:CE1	2.74	0.66
1:AA:899:G:H4'	5:AE:20:GLN:HA	1.76	0.66
1:AA:1220:A:H2'	1:AA:1279:C:H42	1.61	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:35:GLU:HA	3:AC:38:ARG:HD2	1.77	0.66
3:AC:50:ALA:HB1	3:AC:70:VAL:HG11	1.76	0.66
15:AO:30:ALA:HA	15:AO:85:LEU:HD11	1.76	0.66
25:BA:528:A:H2	25:BA:2043:C:C4'	2.08	0.66
25:BA:969:U:H2'	25:BA:970:C:C6	2.31	0.66
25:BA:1042:G:H1'	25:BA:1114:G:H22	1.61	0.66
25:BA:1578:U:H2'	25:BA:1579:A:H5''	1.78	0.66
25:BA:2075:U:OP1	28:BD:244:ARG:NH2	2.29	0.66
25:BA:2305:A:C4	31:BG:154:GLY:HA3	2.31	0.66
29:BE:76:ARG:O	29:BE:77:ILE:O	2.13	0.66
30:BF:11:VAL:C	30:BF:13:SER:H	2.01	0.66
34:BN:133:GLN:C	34:BN:134:ARG:HG3	2.21	0.66
37:BQ:62:GLY:O	46:BZ:178:GLU:HG3	1.94	0.66
43:BW:27:LYS:HE3	43:BW:31:GLU:HG2	1.78	0.66
54:B7:41:ARG:HD3	54:B7:45:ALA:CB	2.25	0.66
3:CC:82:GLU:O	3:CC:86:VAL:HG13	1.96	0.66
20:CT:53:LEU:HD12	20:CT:102:GLY:H	1.60	0.66
23:CV:30:G:C2'	23:CV:31:G:H5'	2.25	0.66
25:DA:109:G:H2'	25:DA:110:G:H8	1.60	0.66
26:DB:42:C:H4'	31:DG:67:LYS:O	1.95	0.66
29:DE:120:TRP:CD2	29:DE:155:LYS:HD3	2.31	0.66
31:DG:64:THR:HG23	31:DG:65:GLY:N	2.10	0.66
36:DP:107:LYS:C	36:DP:109:GLY:H	2.03	0.66
40:DT:89:VAL:HG11	40:DT:91:ARG:HE	1.60	0.66
55:D8:30:ARG:HA	55:D8:30:ARG:NE	2.09	0.66
55:D8:50:LEU:C	55:D8:53:PRO:HD2	2.20	0.66
1:AA:1425:G:N2	40:BT:119:LYS:HB2	2.11	0.66
10:AJ:16:LEU:HD23	10:AJ:94:VAL:HG13	1.76	0.66
12:AL:12:ARG:HH11	12:AL:12:ARG:HG2	1.61	0.66
14:AN:44:LEU:C	14:AN:44:LEU:HD12	2.21	0.66
19:AS:64:GLU:O	19:AS:67:VAL:HG23	1.96	0.66
25:BA:2062:A:O2'	25:BA:2063:C:C5'	2.44	0.66
25:BA:2415:G:H4'	36:BP:67:MET:N	2.11	0.66
25:BA:2469:A:O2'	37:BQ:56:ARG:CD	2.40	0.66
26:BB:7:G:C3'	26:BB:8:U:H5''	2.21	0.66
30:BF:2:LYS:H	30:BF:2:LYS:CD	2.06	0.66
32:BH:85:LYS:CD	32:BH:133:VAL:HB	2.26	0.66
33:BI:77:LEU:HB3	33:BI:140:LEU:CD1	2.21	0.66
34:BN:23:LEU:HB3	34:BN:60:ILE:HG21	1.76	0.66
37:BQ:27:VAL:HG23	37:BQ:137:TYR:HE1	1.60	0.66
41:BU:31:SER:C	41:BU:33:ARG:H	2.02	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BW:22:ASP:HA	43:BW:25:ARG:HH12	1.59	0.66
55:B8:28:GLY:O	55:B8:32:LEU:HG	1.96	0.66
55:B8:30:ARG:HA	55:B8:30:ARG:NE	2.09	0.66
1:CA:1280:A:H3'	1:CA:1280:A:N3	2.11	0.66
3:CC:182:ILE:HG23	3:CC:202:ILE:O	1.96	0.66
20:CT:72:LEU:HD23	20:CT:73:HIS:H	1.59	0.66
25:DA:395:U:H2'	25:DA:395:U:O2	1.96	0.66
25:DA:1668:A:OP1	35:DO:5:GLN:CG	2.42	0.66
25:DA:2152:G:H2'	25:DA:2153:G:H8	1.61	0.66
25:DA:2313:C:OP1	31:DG:71:THR:HG21	1.96	0.66
31:DG:108:ASN:O	31:DG:112:PRO:HG3	1.95	0.66
36:DP:16:ARG:HH11	36:DP:16:ARG:C	2.03	0.66
36:DP:122:PRO:HB3	36:DP:141:ALA:HB1	1.77	0.66
44:DX:12:VAL:HG13	44:DX:27:THR:O	1.96	0.66
48:D1:23:LYS:HE2	48:D1:28:GLY:HA3	1.76	0.66
1:AA:756:G:O3'	28:BD:202:LYS:NZ	2.29	0.66
12:AL:7:ILE:HA	12:AL:10:LEU:HD12	1.77	0.66
15:AO:54:ARG:HH11	15:AO:54:ARG:HG2	1.60	0.66
25:BA:353:G:C2	25:BA:354:G:N7	2.63	0.66
25:BA:1112:G:N2	25:BA:1113:U:C2	2.64	0.66
25:BA:2392:A:C8	36:BP:60:MET:HB3	2.30	0.66
27:BC:86:ALA:HB3	27:BC:94:VAL:HG21	1.78	0.66
29:BE:167:VAL:HG22	29:BE:170:LEU:HD11	1.77	0.66
30:BF:9:ILE:HG23	30:BF:11:VAL:O	1.95	0.66
31:BG:76:SER:CA	31:BG:83:ARG:HB2	2.25	0.66
48:B1:64:ALA:HA	48:B1:67:ILE:HD11	1.76	0.66
2:CB:71:VAL:HA	2:CB:93:VAL:CG2	2.26	0.66
4:CD:76:ARG:O	4:CD:80:GLU:HG2	1.96	0.66
9:CI:3:GLN:HG2	9:CI:20:ARG:NH1	2.11	0.66
9:CI:48:GLU:N	9:CI:49:PRO:HD2	2.10	0.66
20:CT:63:ILE:HD13	20:CT:80:ARG:HB2	1.76	0.66
22:CW:16:U:C4	22:CW:18:G:H3'	2.30	0.66
22:CW:58:A:C2	22:CW:61:C:C4	2.83	0.66
25:DA:250:G:OP2	55:D8:13:ARG:NH2	2.29	0.66
25:DA:790:C:O2'	25:DA:791:C:P	2.53	0.66
25:DA:1887:C:H2'	25:DA:1888:G:H5''	1.76	0.66
25:DA:2863:C:OP1	40:DT:93:ARG:NH2	2.29	0.66
28:DD:36:PRO:HB2	28:DD:61:LEU:HD12	1.78	0.66
28:DD:76:PRO:O	28:DD:98:VAL:HG23	1.94	0.66
29:DE:203:LYS:HE2	29:DE:204:ALA:HB2	1.78	0.66
30:DF:9:ILE:HG23	30:DF:11:VAL:O	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DF:123:LEU:HD12	30:DF:124:LEU:H	1.59	0.66
31:DG:104:GLU:HG2	51:D4:50:THR:HG21	1.77	0.66
32:DH:85:LYS:CD	32:DH:133:VAL:HB	2.26	0.66
32:DH:102:ALA:HB1	32:DH:115:VAL:O	1.96	0.66
33:DI:123:LEU:HD11	33:DI:144:VAL:CG1	2.26	0.66
45:DY:49:VAL:O	45:DY:53:PRO:HG3	1.95	0.66
46:DZ:33:LEU:HD12	46:DZ:34:ASN:H	1.61	0.66
1:AA:1102:G:H2'	1:AA:1103:U:C6	2.30	0.66
4:AD:22:LYS:HB2	4:AD:26:CYS:HB2	1.77	0.66
6:AF:83:ASP:OD1	28:BD:168:ARG:NH2	2.28	0.66
9:AI:3:GLN:HG2	9:AI:20:ARG:NH1	2.11	0.66
20:AT:44:ALA:HA	20:AT:92:LEU:CD2	2.26	0.66
23:AV:20:G:H3'	23:AV:21:U:O2	1.95	0.66
25:BA:792:G:H5''	25:BA:793:A:H5'	1.78	0.66
25:BA:910:A:C4	37:BQ:13:GLN:OE1	2.49	0.66
25:BA:2075:U:O4	25:BA:2238:G:C6	2.48	0.66
25:BA:2392:A:OP1	55:B8:32:LEU:HD22	1.96	0.66
25:BA:2554:U:H2'	25:BA:2555:U:H6	1.61	0.66
28:BD:36:PRO:HB2	28:BD:61:LEU:HD12	1.78	0.66
34:BN:1:MET:HG2	34:BN:2:LYS:N	2.10	0.66
39:BS:32:LEU:O	39:BS:62:LYS:HE2	1.96	0.66
50:B3:15:TYR:O	50:B3:20:LYS:HE2	1.96	0.66
13:CM:92:HIS:CD2	13:CM:98:VAL:CG2	2.78	0.66
19:CS:24:ALA:O	19:CS:25:LYS:HB2	1.94	0.66
19:CS:63:THR:HG22	19:CS:66:MET:CE	2.24	0.66
20:CT:26:ASN:O	20:CT:30:LYS:HB2	1.95	0.66
22:CY:28:G:H2'	22:CY:29:G:C8	2.31	0.66
34:DN:133:GLN:C	34:DN:134:ARG:HG3	2.21	0.66
38:DR:5:LYS:HD2	38:DR:5:LYS:H	1.61	0.66
1:AA:196:U:H2'	1:AA:197:G:C8	2.31	0.66
1:AA:1310:A:P	13:AM:28:ALA:HB3	2.36	0.66
8:AH:104:ARG:HB3	8:AH:107:LEU:HB2	1.77	0.66
22:AW:68:C:H2'	22:AW:69:G:C8	2.25	0.66
23:AV:54:G:O2'	23:AV:55:U:P	2.54	0.66
22:AY:38:A:N1	22:AY:39:U:C2	2.64	0.66
25:BA:1722:A:C2	25:BA:1740:G:H8	2.14	0.66
25:BA:1986:A:C2'	25:BA:1987:G:H5''	2.26	0.66
27:BC:36:LYS:HZ3	27:BC:36:LYS:HB2	1.61	0.66
29:BE:4:ILE:CG1	29:BE:28:ALA:HB1	2.26	0.66
33:BI:123:LEU:HD11	33:BI:144:VAL:HG13	1.78	0.66
46:BZ:33:LEU:HD11	46:BZ:35:ARG:HB2	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BZ:82:ARG:HG2	46:BZ:83:PRO:HD2	1.78	0.66
48:B1:64:ALA:O	48:B1:67:ILE:HG13	1.96	0.66
53:B6:35:GLU:HB3	53:B6:51:GLU:CG	2.26	0.66
1:CA:80:U:H2'	1:CA:81:U:C5	2.30	0.66
1:CA:307:C:H2'	1:CA:308:A:C8	2.31	0.66
2:CB:178:ARG:HH22	2:CB:196:LEU:C	2.04	0.66
23:CV:58:A:O2'	23:CV:59:A:H5'	1.96	0.66
25:DA:952:G:C5	25:DA:953:A:N7	2.64	0.66
25:DA:1722:A:C2	25:DA:1740:G:H8	2.14	0.66
25:DA:2199:A:H5''	25:DA:2200:C:C5	2.28	0.66
28:DD:176:ARG:HH11	28:DD:176:ARG:HG2	1.60	0.66
29:DE:4:ILE:CG1	29:DE:28:ALA:HB1	2.26	0.66
30:DF:67:GLN:O	30:DF:67:GLN:CG	2.41	0.66
33:DI:6:LEU:O	33:DI:7:GLU:C	2.39	0.66
36:DP:48:PRO:HG2	36:DP:49:ARG:H	1.60	0.66
53:D6:41:PRO:CD	53:D6:46:HIS:H	2.03	0.66
1:AA:1046:G:N2	1:AA:1171:G:H2'	2.11	0.65
1:AA:1302:C:C4'	1:AA:1303:C:H5''	2.25	0.65
7:AG:113:GLU:HB2	7:AG:119:ARG:CG	2.20	0.65
8:AH:17:THR:HG22	8:AH:63:LEU:HG	1.78	0.65
10:AJ:6:ILE:HA	10:AJ:97:GLU:O	1.97	0.65
11:AK:21:ILE:HG13	11:AK:30:VAL:HG12	1.77	0.65
25:BA:747:U:OP2	52:B5:3:LYS:HD3	1.96	0.65
28:BD:154:LYS:C	28:BD:155:LEU:HD12	2.21	0.65
31:BG:106:LEU:HA	31:BG:110:ALA:CB	2.26	0.65
33:BI:123:LEU:HD11	33:BI:144:VAL:CG1	2.26	0.65
43:BW:92:ARG:HH11	43:BW:92:ARG:HG2	1.61	0.65
1:CA:736:A:H4'	1:CA:737:C:O4'	1.96	0.65
2:CB:178:ARG:HG3	8:CH:72:PRO:N	2.11	0.65
2:CB:218:ALA:O	2:CB:222:ILE:HG13	1.96	0.65
5:CE:41:VAL:HG11	5:CE:113:ALA:CA	2.25	0.65
12:CL:28:LYS:O	12:CL:30:ALA:N	2.28	0.65
23:CV:41:C:O2'	23:CV:42:C:H5'	1.97	0.65
25:DA:203:C:H3'	25:DA:204:A:H5''	1.76	0.65
25:DA:528:A:H2	25:DA:2043:C:C4'	2.08	0.65
25:DA:911:A:H5''	25:DA:912:C:O5'	1.96	0.65
25:DA:1035:U:H5'	32:DH:59:ARG:HD3	1.77	0.65
25:DA:1625:C:H2'	25:DA:1626:G:O4'	1.96	0.65
27:DC:86:ALA:HB3	27:DC:94:VAL:HG21	1.78	0.65
28:DD:45:ASN:CG	28:DD:46:GLN:N	2.54	0.65
31:DG:4:ASP:HA	31:DG:8:LYS:HD2	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DH:135:GLY:HA3	32:DH:141:VAL:HG21	1.78	0.65
35:DO:88:ASN:ND2	35:DO:90:GLN:OE1	2.29	0.65
36:DP:64:LYS:O	36:DP:66:GLY:N	2.28	0.65
37:DQ:55:VAL:O	37:DQ:59:ARG:HA	1.95	0.65
39:DS:62:LYS:H	39:DS:65:VAL:HG23	1.61	0.65
46:DZ:135:GLU:O	46:DZ:136:PHE:HB3	1.95	0.65
47:D0:40:GLN:HE21	47:D0:43:THR:HA	1.60	0.65
1:AA:7:G:H21	5:AE:121:LYS:HG2	1.61	0.65
1:AA:639:C:H4'	15:AO:62:GLN:NE2	2.10	0.65
1:AA:773:A:N6	1:AA:774:G:C6	2.64	0.65
1:AA:1119:C:H4'	1:AA:1120:G:C2	2.32	0.65
1:AA:1379:C:H42	24:AX:22:A:H3'	1.61	0.65
2:AB:114:ARG:HH11	2:AB:114:ARG:HG3	1.61	0.65
8:AH:88:LYS:HB3	8:AH:89:PRO:HD2	1.76	0.65
10:AJ:6:ILE:O	10:AJ:71:LEU:HD12	1.96	0.65
25:BA:90:U:HO2'	25:BA:92:A:H5''	1.59	0.65
25:BA:1162:G:H4'	42:BV:24:LYS:HB2	1.78	0.65
25:BA:2863:C:OP1	40:BT:93:ARG:NH2	2.29	0.65
37:BQ:34:LEU:HD11	37:BQ:129:THR:HB	1.78	0.65
37:BQ:69:PHE:CD1	37:BQ:70:PRO:HD2	2.31	0.65
41:BU:112:ARG:HH21	42:BV:46:VAL:HG11	1.60	0.65
43:BW:59:VAL:HG12	43:BW:60:ASN:ND2	2.10	0.65
46:BZ:135:GLU:O	46:BZ:136:PHE:HB3	1.96	0.65
1:CA:1036:C:N3	22:CY:34:G:H1'	2.11	0.65
1:CA:1310:A:P	13:CM:28:ALA:HB3	2.36	0.65
3:CC:69:HIS:HA	3:CC:104:GLN:O	1.97	0.65
5:CE:43:LEU:HD21	5:CE:132:ALA:HB1	1.78	0.65
13:CM:93:ARG:NE	25:DA:888:C:H5''	2.11	0.65
16:CP:14:ASN:N	16:CP:15:PRO:HD3	2.11	0.65
20:CT:49:ALA:CB	20:CT:100:ILE:CD1	2.60	0.65
25:DA:2307:G:N3	25:DA:2307:G:H5''	2.12	0.65
45:DY:38:ILE:HG22	45:DY:39:VAL:N	2.11	0.65
53:D6:35:GLU:HB3	53:D6:51:GLU:HG3	1.77	0.65
1:AA:981:G:N2	1:AA:1020:C:N3	2.44	0.65
4:AD:20:TYR:CE1	6:CF:15:ASP:HB2	2.27	0.65
10:AJ:51:ARG:HG3	10:AJ:60:ARG:HA	1.79	0.65
20:AT:14:LYS:HB2	20:AT:17:ARG:HH21	1.62	0.65
25:BA:109:G:H2'	25:BA:110:G:H8	1.61	0.65
25:BA:1264:G:H5'	52:B5:11:THR:OG1	1.96	0.65
25:BA:2310:A:O2'	25:BA:2311:A:H5'	1.97	0.65
25:BA:2317:C:O2'	25:BA:2318:G:H5'	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BB:117:G:C4'	39:BS:55:ALA:HB1	2.24	0.65
28:BD:108:PRO:HG2	28:BD:111:LEU:HB2	1.78	0.65
28:BD:264:LYS:HG2	28:BD:266:SER:HB3	1.79	0.65
31:BG:111:LEU:HB3	31:BG:117:PHE:CE2	2.30	0.65
33:BI:6:LEU:O	33:BI:7:GLU:C	2.39	0.65
36:BP:23:PRO:HB2	36:BP:33:ARG:CG	2.26	0.65
1:CA:660:U:H3	1:CA:696:G:H22	1.45	0.65
1:CA:912:A:H2'	1:CA:913:C:H6	1.61	0.65
1:CA:1107:U:O4	10:CJ:5:ARG:HD3	1.97	0.65
1:CA:1165:G:H2'	1:CA:1166:G:C8	2.30	0.65
2:CB:8:LYS:O	2:CB:12:GLU:HG3	1.96	0.65
6:CF:82:ARG:HB2	6:CF:85:VAL:HG23	1.79	0.65
12:CL:28:LYS:CB	12:CL:33:ARG:NH1	2.59	0.65
20:CT:53:LEU:HD12	20:CT:102:GLY:N	2.11	0.65
25:DA:2881:C:H2'	25:DA:2882:A:C8	2.31	0.65
29:DE:52:LEU:HD13	29:DE:53:PRO:CD	2.21	0.65
30:DF:134:GLY:H	30:DF:162:LEU:HG	1.59	0.65
33:DI:72:LEU:CD1	33:DI:138:ILE:HD13	2.25	0.65
33:DI:123:LEU:HD11	33:DI:144:VAL:HG13	1.78	0.65
42:DV:55:ALA:HA	42:DV:101:GLY:HA2	1.78	0.65
42:DV:62:LEU:HD21	42:DV:95:LEU:HB2	1.76	0.65
46:DZ:56:VAL:HG12	46:DZ:57:ILE:N	2.12	0.65
1:AA:262:C:OP2	17:AQ:67:LYS:HD2	1.96	0.65
1:AA:343:G:O2'	1:AA:344:A:H5'	1.97	0.65
1:AA:1490:A:H2'	1:AA:1491:C:C6	2.32	0.65
3:AC:150:LYS:HA	3:AC:169:ALA:CB	2.26	0.65
5:AE:51:VAL:HB	5:AE:52:PRO:HD3	1.76	0.65
7:AG:62:PHE:HA	7:AG:124:LEU:CD2	2.27	0.65
16:AP:14:ASN:N	16:AP:15:PRO:HD3	2.11	0.65
18:AR:70:ILE:O	18:AR:74:ARG:HG3	1.95	0.65
21:AU:25:LYS:HB2	21:AU:25:LYS:NZ	2.12	0.65
26:BB:70:C:O5'	26:BB:70:C:H6	1.80	0.65
27:BC:78:ALA:CB	27:BC:82:LYS:HB2	2.26	0.65
30:BF:123:LEU:HD12	30:BF:124:LEU:H	1.59	0.65
31:BG:109:VAL:O	31:BG:113:ARG:HB2	1.97	0.65
36:BP:101:VAL:C	36:BP:103:ALA:H	2.02	0.65
39:BS:62:LYS:H	39:BS:65:VAL:HG23	1.61	0.65
40:BT:11:GLU:O	40:BT:13:ARG:N	2.23	0.65
45:BY:67:LEU:O	45:BY:68:HIS:C	2.39	0.65
46:BZ:33:LEU:HD12	46:BZ:34:ASN:H	1.61	0.65
47:B0:40:GLN:HE21	47:B0:43:THR:HA	1.60	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:B6:35:GLU:HB3	53:B6:51:GLU:HG3	1.77	0.65
1:CA:784:U:H2'	1:CA:785:A:C8	2.31	0.65
13:CM:92:HIS:CD2	13:CM:98:VAL:HG21	2.31	0.65
22:CW:28:G:H8	22:CW:28:G:O5'	1.78	0.65
22:CW:35:A:N1	24:CX:13:A:N1	2.44	0.65
25:DA:78:A:H2'	25:DA:79:G:C8	2.31	0.65
25:DA:942:G:H5'	36:DP:35:HIS:HB3	1.79	0.65
25:DA:2317:C:O2'	25:DA:2318:G:H5'	1.96	0.65
36:DP:38:GLN:HG3	36:DP:39:LYS:N	2.06	0.65
38:DR:18:LEU:HD11	38:DR:22:ARG:NH2	2.11	0.65
55:D8:4:MET:SD	55:D8:61:LEU:HD22	2.36	0.65
1:AA:657:G:H2'	1:AA:658:A:C8	2.31	0.65
1:AA:781:G:OP1	11:AK:122:LYS:NZ	2.28	0.65
1:AA:1049:A:O2'	1:AA:1075:A:O3'	2.15	0.65
1:AA:1281:G:O2'	1:AA:1282:U:P	2.54	0.65
2:AB:96:ARG:H	2:AB:96:ARG:HD2	1.62	0.65
4:AD:30:LYS:C	4:AD:32:ALA:N	2.53	0.65
13:AM:22:ILE:CG2	13:AM:25:ILE:HD13	2.27	0.65
20:AT:46:GLU:CD	20:AT:48:LYS:HE2	2.20	0.65
22:AW:67:C:C2	22:AW:68:C:C5	2.85	0.65
23:AV:8:U:H1'	23:AV:49:C:H1'	1.78	0.65
23:AV:72:C:H2'	23:AV:73:A:C8	2.31	0.65
25:BA:1313:U:O2	25:BA:1313:U:C2'	2.45	0.65
25:BA:1590:U:C3'	25:BA:1591:G:H5''	2.27	0.65
31:BG:139:LEU:HD23	31:BG:139:LEU:H	1.61	0.65
32:BH:98:LEU:HB2	32:BH:125:VAL:HG21	1.78	0.65
35:BO:12:ASP:HA	35:BO:98:VAL:HA	1.79	0.65
37:BQ:43:THR:HA	37:BQ:94:VAL:HG12	1.79	0.65
39:BS:92:TYR:CD1	39:BS:93:LYS:N	2.64	0.65
41:BU:95:LEU:C	41:BU:97:ASP:H	2.03	0.65
1:CA:719:C:H2'	1:CA:720:A:C8	2.31	0.65
2:CB:63:MET:HG3	2:CB:64:ARG:N	2.10	0.65
14:CN:15:LYS:HD2	14:CN:16:PHE:CE2	2.31	0.65
15:CO:3:ILE:HD13	15:CO:3:ILE:N	2.10	0.65
16:CP:20:VAL:HG21	16:CP:32:TYR:CG	2.31	0.65
18:CR:56:THR:HB	18:CR:58:LEU:CD1	2.27	0.65
22:CW:14:A:N3	22:CW:14:A:H2'	2.10	0.65
27:DC:78:ALA:CB	27:DC:82:LYS:HB2	2.26	0.65
28:DD:264:LYS:HG2	28:DD:266:SER:HB3	1.79	0.65
29:DE:120:TRP:CE3	29:DE:155:LYS:HD3	2.32	0.65
31:DG:139:LEU:HD23	31:DG:139:LEU:H	1.61	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DI:71:ILE:HG13	33:DI:72:LEU:N	2.12	0.65
38:DR:9:LYS:O	38:DR:10:LEU:HG	1.95	0.65
9:AI:104:ARG:CD	9:AI:106:ALA:HA	2.27	0.65
11:AK:32:ILE:CD1	11:AK:72:ALA:HB2	2.27	0.65
22:AW:4:C:H2'	22:AW:4:C:O2	1.96	0.65
25:BA:286:C:C2'	25:BA:287:C:H5''	2.27	0.65
25:BA:614:U:H4'	25:BA:614(C):A:H62	1.60	0.65
25:BA:979:G:H3'	25:BA:980:A:H5''	1.78	0.65
25:BA:1625:C:H2'	25:BA:1626:G:O4'	1.96	0.65
25:BA:2712:U:HO2'	25:BA:2712(A):A:H5''	1.60	0.65
25:BA:2881:C:H2'	25:BA:2882:A:C8	2.31	0.65
29:BE:120:TRP:CD2	29:BE:155:LYS:HD3	2.31	0.65
37:BQ:16:ARG:HG2	37:BQ:17:LEU:N	2.12	0.65
40:BT:16:ARG:NH1	40:BT:18:ASP:OD2	2.29	0.65
46:BZ:69:THR:HG22	46:BZ:90:VAL:HG22	1.77	0.65
46:BZ:99:TYR:HA	46:BZ:124:ILE:O	1.97	0.65
1:CA:1281:G:O2'	1:CA:1282:U:P	2.55	0.65
9:CI:16:ARG:HB2	9:CI:64:THR:CG2	2.27	0.65
10:CJ:30:SER:OG	10:CJ:81:THR:HG22	1.97	0.65
19:CS:15:LEU:O	19:CS:19:VAL:HG23	1.96	0.65
22:CW:57:G:H2'	22:CW:58:A:H5'	1.79	0.65
23:CV:55:U:H3'	23:CV:55:U:H6	1.60	0.65
25:DA:322:A:OP2	30:DF:169:ASN:HB2	1.97	0.65
25:DA:668:G:C2	25:DA:670:A:C6	2.85	0.65
25:DA:792:G:H5''	25:DA:793:A:H5'	1.77	0.65
25:DA:984:A:H5''	25:DA:985:C:H5	1.60	0.65
25:DA:1286:A:C2'	25:DA:1288:U:OP2	2.45	0.65
25:DA:2808:U:O2'	25:DA:2809:A:H5'	1.95	0.65
27:DC:93:TYR:O	27:DC:94:VAL:HG13	1.96	0.65
31:DG:106:LEU:HA	31:DG:110:ALA:CB	2.26	0.65
32:DH:30:LYS:HZ2	32:DH:81:GLU:HG2	1.58	0.65
33:DI:11:ASN:O	33:DI:12:LEU:HB3	1.95	0.65
35:DO:1:MET:HG3	35:DO:32:TYR:HB3	1.79	0.65
41:DU:17:ILE:HG23	41:DU:39:LEU:HD12	1.77	0.65
46:DZ:24:LEU:HB2	46:DZ:41:LEU:CD2	2.27	0.65
46:DZ:99:TYR:HA	46:DZ:124:ILE:O	1.97	0.65
1:AA:809:C:H2'	1:AA:810:U:C6	2.31	0.65
1:AA:1327:A:H61	1:AA:1356:A:H3'	1.62	0.65
2:AB:63:MET:HG3	2:AB:64:ARG:H	1.62	0.65
2:AB:71:VAL:HA	2:AB:93:VAL:CG2	2.26	0.65
4:AD:76:ARG:O	4:AD:80:GLU:HG2	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:106:ALA:O	9:AI:108:VAL:HG13	1.97	0.65
11:AK:12:ARG:HG2	11:AK:13:GLN:N	2.11	0.65
11:AK:84:VAL:HG23	11:AK:110:ASP:HA	1.79	0.65
20:AT:26:ASN:O	20:AT:30:LYS:HB2	1.96	0.65
22:AY:40:C:H2'	22:AY:40:C:O2	1.97	0.65
25:BA:2401:U:H2'	25:BA:2402:C:H5''	1.79	0.65
25:BA:2632:A:N3	29:BE:61:ARG:HD3	2.12	0.65
31:BG:91:ARG:HD2	31:BG:92:VAL:N	2.12	0.65
37:BQ:60:ARG:HA	46:BZ:178:GLU:C	2.22	0.65
38:BR:18:LEU:HD11	38:BR:22:ARG:NH2	2.11	0.65
40:BT:32:TYR:CE1	40:BT:81:PRO:HG2	2.32	0.65
45:BY:38:ILE:HG22	45:BY:39:VAL:N	2.11	0.65
48:B1:6:GLU:HG3	48:B1:61:ARG:O	1.95	0.65
55:B8:4:MET:SD	55:B8:61:LEU:HD22	2.36	0.65
1:CA:197:G:C4	20:CT:105:SER:HB3	2.31	0.65
1:CA:290:C:H2'	1:CA:291:U:O5'	1.97	0.65
1:CA:902:G:H1	1:CA:1373:U:H3	1.43	0.65
1:CA:1172:A:P	3:CC:3:ASN:HD21	2.20	0.65
10:CJ:6:ILE:O	10:CJ:71:LEU:HD12	1.97	0.65
10:CJ:48:THR:HG23	10:CJ:62:HIS:HB3	1.77	0.65
22:CW:14:A:C5	22:CW:22:G:N2	2.64	0.65
23:CV:53:G:HO2'	23:CV:54:G:P	2.20	0.65
25:DA:296:C:O2'	25:DA:297:C:H5'	1.97	0.65
25:DA:2036:C:H5'	25:DA:2036:C:C6	2.27	0.65
31:DG:113:ARG:NH2	51:D4:61:VAL:CG1	2.59	0.65
32:DH:98:LEU:HB2	32:DH:125:VAL:HG21	1.77	0.65
33:DI:5:LEU:H	33:DI:5:LEU:HD12	1.61	0.65
34:DN:16:ILE:HG23	34:DN:54:VAL:HG22	1.79	0.65
34:DN:39:ARG:HH11	34:DN:39:ARG:HG2	1.61	0.65
43:DW:59:VAL:O	43:DW:63:ASP:N	2.26	0.65
51:D4:46:ASN:HD22	51:D4:47:VAL:H	1.42	0.65
53:D6:11:LEU:HG	53:D6:26:ASN:ND2	2.11	0.65
1:AA:519:C:N4	1:AA:520:G:O6	2.30	0.65
3:AC:195:VAL:HG12	3:AC:196:LEU:N	2.12	0.65
13:AM:60:VAL:HG12	13:AM:66:LEU:CD2	2.27	0.65
25:BA:1140:C:H5'	25:BA:1141:U:OP2	1.97	0.65
25:BA:1566:A:OP1	28:BD:211:ARG:NH1	2.29	0.65
26:BB:44:G:H1'	26:BB:47:C:H42	1.62	0.65
27:BC:93:TYR:O	27:BC:94:VAL:HG13	1.96	0.65
31:BG:46:ALA:O	31:BG:82:LEU:HD21	1.96	0.65
33:BI:47:LEU:O	33:BI:51:ILE:CG1	2.43	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BO:73:ASP:OD1	35:BO:75:SER:N	2.29	0.65
35:BO:90:GLN:N	35:BO:90:GLN:OE1	2.30	0.65
36:BP:96:THR:O	36:BP:100:LEU:HD23	1.97	0.65
36:BP:146:VAL:HG13	36:BP:147:LEU:H	1.62	0.65
43:BW:19:LEU:O	52:B5:25:LEU:HD12	1.97	0.65
1:CA:289:U:O4	1:CA:290:C:N4	2.30	0.65
2:CB:18:GLY:N	2:CB:42:ILE:HG22	2.06	0.65
15:CO:54:ARG:HH11	15:CO:54:ARG:HG2	1.61	0.65
17:CQ:7:THR:CG2	17:CQ:58:GLU:HG2	2.26	0.65
25:DA:197:A:H5'	25:DA:197:A:C8	2.31	0.65
25:DA:806:C:OP2	36:DP:39:LYS:HD3	1.97	0.65
25:DA:2075:U:C4	25:DA:2238:G:C5	2.85	0.65
25:DA:2376:A:C4	39:DS:94:TYR:CE1	2.85	0.65
25:DA:2562:U:H1'	35:DO:23:ARG:NH1	2.12	0.65
25:DA:2580:U:H4'	29:DE:130:GLY:HA2	1.78	0.65
29:DE:132:HIS:CG	29:DE:135:HIS:NE2	2.65	0.65
36:DP:96:THR:O	36:DP:100:LEU:HD23	1.96	0.65
45:DY:81:LYS:CD	45:DY:97:ARG:HB3	2.27	0.65
46:DZ:97:GLU:HB3	46:DZ:125:LEU:HD11	1.79	0.65
48:D1:64:ALA:O	48:D1:67:ILE:HG13	1.96	0.65
53:D6:35:GLU:HB3	53:D6:51:GLU:CG	2.26	0.65
1:AA:124:A:C8	17:AQ:63:ARG:HG3	2.32	0.65
1:AA:639:C:H4'	15:AO:62:GLN:HE22	1.61	0.65
10:AJ:56:HIS:O	10:AJ:58:ASP:N	2.29	0.65
13:AM:3:ARG:CA	13:AM:9:ILE:HG13	2.27	0.65
25:BA:379:G:C5	25:BA:380:U:C6	2.85	0.65
25:BA:395:U:O2	25:BA:396:G:N7	2.30	0.65
25:BA:1286:A:C2'	25:BA:1288:U:OP2	2.45	0.65
28:BD:48:ARG:HG3	28:BD:48:ARG:NH1	2.11	0.65
33:BI:5:LEU:H	33:BI:5:LEU:HD12	1.61	0.65
37:BQ:4:PRO:HG3	37:BQ:71:ASP:HA	1.79	0.65
38:BR:2:ARG:NH2	38:BR:5:LYS:NZ	2.45	0.65
39:BS:30:ARG:HB3	39:BS:89:ARG:NH2	2.12	0.65
44:BX:12:VAL:HG13	44:BX:27:THR:O	1.96	0.65
47:B0:25:ARG:HD2	47:B0:29:GLN:HE22	1.57	0.65
1:CA:290:C:O2'	1:CA:291:U:C5'	2.45	0.65
1:CA:720:A:H2'	1:CA:721:C:H6	1.61	0.65
1:CA:1119:C:H4'	1:CA:1120:G:C2	2.31	0.65
1:CA:1173:C:OP2	3:CC:4:LYS:NZ	2.25	0.65
2:CB:96:ARG:HD2	2:CB:96:ARG:H	1.61	0.65
14:CN:9:LYS:HA	14:CN:12:ARG:CZ	2.27	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:94(A):G:N3	49:D2:47:ASN:ND2	2.45	0.65
25:DA:649:G:H2'	25:DA:650:C:C6	2.32	0.65
25:DA:779:U:H2'	25:DA:780:G:C8	2.31	0.65
25:DA:969:U:H2'	25:DA:970:C:C6	2.31	0.65
25:DA:1140:C:H5'	25:DA:1141:U:OP2	1.97	0.65
25:DA:1652:A:H8	25:DA:1652:A:O5'	1.80	0.65
25:DA:1986:A:C2'	25:DA:1987:G:H5''	2.26	0.65
26:DB:55:U:H2'	26:DB:56:G:C8	2.32	0.65
28:DD:76:PRO:HG2	28:DD:98:VAL:CG2	2.27	0.65
30:DF:65:TRP:HZ3	30:DF:73:ALA:O	1.79	0.65
31:DG:46:ALA:O	31:DG:82:LEU:HD21	1.96	0.65
32:DH:126:PRO:O	32:DH:127:GLU:HB2	1.97	0.65
34:DN:1:MET:HG2	34:DN:2:LYS:N	2.10	0.65
38:DR:2:ARG:NH2	38:DR:5:LYS:NZ	2.45	0.65
46:DZ:5:LEU:CD2	46:DZ:43:GLU:HB3	2.26	0.65
50:D3:15:TYR:O	50:D3:20:LYS:HE2	1.96	0.65
1:AA:931:G:N2	1:AA:1209:C:N3	2.45	0.65
3:AC:5:ILE:C	3:AC:5:ILE:HD12	2.22	0.65
25:BA:71:A:H4'	25:BA:72:U:OP2	1.97	0.65
25:BA:197:A:H5'	25:BA:197:A:C8	2.31	0.65
25:BA:227:A:H5''	36:BP:76:LYS:HE2	1.79	0.65
25:BA:612:C:O2'	25:BA:613:G:H5''	1.96	0.65
25:BA:1755:A:OP1	40:BT:113:LYS:NZ	2.25	0.65
25:BA:1794:U:H2'	25:BA:1795:C:H6	1.62	0.65
25:BA:2672:G:H2'	25:BA:2673:G:H5''	1.79	0.65
25:BA:2787:C:H1'	29:BE:61:ARG:CG	2.27	0.65
34:BN:57:ALA:O	34:BN:58:ASP:O	2.15	0.65
39:BS:49:VAL:HG12	39:BS:50:SER:N	2.13	0.65
46:BZ:97:GLU:HB3	46:BZ:125:LEU:HD11	1.79	0.65
8:CH:34:GLU:HB3	8:CH:118:VAL:HG21	1.79	0.65
13:CM:8:GLU:C	13:CM:9:ILE:HD12	2.22	0.65
15:CO:5:LYS:O	15:CO:9:GLN:HG2	1.96	0.65
25:DA:271(A):A:H5'	25:DA:271(B):C:OP2	1.97	0.65
25:DA:287:C:H5'	25:DA:287:C:H6	1.60	0.65
25:DA:395:U:O2	25:DA:396:G:N7	2.30	0.65
26:DB:91:C:OP1	37:DQ:16:ARG:CG	2.45	0.65
31:DG:129:GLY:O	31:DG:161:THR:HB	1.97	0.65
34:DN:134:ARG:N	34:DN:135:PRO:HD3	2.12	0.65
36:DP:65:ARG:NH1	55:D8:15:LYS:HB2	2.12	0.65
36:DP:85:LEU:H	36:DP:85:LEU:CD2	2.10	0.65
36:DP:146:VAL:HG13	36:DP:147:LEU:H	1.62	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DQ:60:ARG:HA	46:DZ:178:GLU:C	2.22	0.65
39:DS:53:SER:OG	39:DS:54:LEU:HD22	1.96	0.65
41:DU:95:LEU:C	41:DU:97:ASP:H	2.03	0.65
41:DU:96:ALA:C	41:DU:98:LEU:H	2.05	0.65
43:DW:59:VAL:HG12	43:DW:60:ASN:ND2	2.10	0.65
9:AI:16:ARG:HB2	9:AI:64:THR:CG2	2.27	0.64
10:AJ:48:THR:HG23	10:AJ:62:HIS:HB3	1.79	0.64
22:AW:75:C:O2'	22:AW:76:A:N7	2.30	0.64
22:AY:39:U:C2	22:AY:40:C:C5	2.84	0.64
25:BA:78:A:H2'	25:BA:79:G:C8	2.31	0.64
25:BA:195:A:OP1	36:BP:46:LYS:HE2	1.98	0.64
25:BA:646:A:H2'	25:BA:647:G:O4'	1.97	0.64
26:BB:75:G:H21	46:BZ:85:HIS:CE1	2.15	0.64
26:BB:107:G:C6	26:BB:108:U:C5	2.85	0.64
37:BQ:12:GLN:HE21	37:BQ:72:LYS:HA	1.60	0.64
42:BV:2:PHE:CE1	42:BV:13:ARG:HD2	2.32	0.64
52:B5:41:PRO:HG2	52:B5:44:THR:HG21	1.79	0.64
1:CA:375:G:N2	1:CA:378:A:OP2	2.26	0.64
8:CH:12:ARG:NH1	8:CH:27:PRO:HD3	2.12	0.64
15:CO:74:ASP:C	15:CO:76:GLU:H	2.05	0.64
23:CV:4:G:C2	23:CV:5:G:C4	2.85	0.64
25:DA:363(E):U:H3'	25:DA:363(F):A:O4'	1.97	0.64
25:DA:464:U:H4'	54:D7:5:TRP:CZ3	2.31	0.64
25:DA:614(C):A:O2'	25:DA:615:G:P	2.55	0.64
25:DA:954:G:H4'	37:DQ:13:GLN:NE2	2.12	0.64
25:DA:2123:G:H2'	25:DA:2124:G:C8	2.32	0.64
25:DA:2401:U:H2'	25:DA:2402:C:H5''	1.79	0.64
26:DB:75:G:H21	46:DZ:85:HIS:CE1	2.15	0.64
28:DD:48:ARG:HG3	28:DD:48:ARG:NH1	2.11	0.64
29:DE:23:VAL:HA	29:DE:184:VAL:O	1.97	0.64
32:DH:12:PRO:HD3	32:DH:49:VAL:HG12	1.78	0.64
34:DN:57:ALA:O	34:DN:58:ASP:O	2.15	0.64
39:DS:38:GLN:OE1	39:DS:47:THR:HG21	1.97	0.64
40:DT:23:ARG:O	40:DT:25:GLY:N	2.29	0.64
43:DW:77:ASP:O	43:DW:102:HIS:HB2	1.96	0.64
46:DZ:33:LEU:HD11	46:DZ:35:ARG:HB2	1.78	0.64
53:D6:37:ARG:HH11	53:D6:37:ARG:HG3	1.62	0.64
1:AA:67:C:H2'	1:AA:68:G:C8	2.32	0.64
1:AA:817:C:H2'	1:AA:818:U:H6	1.62	0.64
1:AA:950:G:Cl'	10:AJ:55:LYS:HE2	2.26	0.64
19:AS:6:LYS:H	19:AS:6:LYS:HE3	1.61	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AY:37:A:C8	22:AY:38:A:C8	2.85	0.64
25:BA:143(A):C:H2'	25:BA:143(A):C:O2	1.97	0.64
25:BA:272:G:C2	25:BA:421:U:O4	2.47	0.64
25:BA:649:G:H2'	25:BA:650:C:C6	2.32	0.64
26:BB:55:U:H2'	26:BB:56:G:C8	2.32	0.64
28:BD:45:ASN:CG	28:BD:46:GLN:N	2.54	0.64
32:BH:156:ALA:HB3	32:BH:159:GLU:HB3	1.77	0.64
34:BN:39:ARG:HH11	34:BN:39:ARG:HG2	1.61	0.64
35:BO:107:ARG:HE	40:BT:35:LYS:HZ2	1.45	0.64
36:BP:56:SER:HB3	36:BP:60:MET:CG	2.27	0.64
40:BT:67:SER:O	40:BT:69:GLY:N	2.30	0.64
42:BV:2:PHE:HB2	42:BV:42:GLY:HA2	1.78	0.64
46:BZ:24:LEU:HB2	46:BZ:41:LEU:HD23	1.78	0.64
1:CA:1294:U:C4	19:CS:4:SER:N	2.65	0.64
2:CB:114:ARG:HG3	2:CB:114:ARG:HH11	1.63	0.64
11:CK:56:GLY:O	11:CK:89:ALA:HB3	1.98	0.64
17:CQ:63:ARG:HG2	17:CQ:64:PRO:HD2	1.79	0.64
18:CR:70:ILE:O	18:CR:74:ARG:HG3	1.97	0.64
20:CT:30:LYS:NZ	20:CT:80:ARG:NH2	2.46	0.64
23:CV:51:U:N3	23:CV:52:C:C5	2.65	0.64
25:DA:379:G:C5	25:DA:380:U:C6	2.85	0.64
25:DA:1365:A:OP1	48:D1:41:ARG:NH1	2.29	0.64
25:DA:2124:G:O2'	27:DC:40:THR:CA	2.44	0.64
25:DA:2310:A:O2'	25:DA:2311:A:H5'	1.96	0.64
26:DB:92:C:C2	26:DB:93:G:C8	2.84	0.64
32:DH:13:LYS:HE2	32:DH:13:LYS:CA	2.19	0.64
32:DH:20:ALA:HB1	32:DH:21:PRO:HD2	1.79	0.64
33:DI:79:ILE:HG12	33:DI:140:LEU:HD11	1.77	0.64
33:DI:110:ASP:O	33:DI:112:LYS:N	2.28	0.64
36:DP:23:PRO:HB2	36:DP:33:ARG:NE	2.12	0.64
1:AA:438:C:H2'	1:AA:439:G:H8	1.62	0.64
1:AA:1171:G:H8	3:AC:3:ASN:HD22	1.46	0.64
1:AA:1373:U:H2'	1:AA:1374:G:C8	2.33	0.64
2:AB:96:ARG:HH11	2:AB:148:TYR:HE1	1.45	0.64
2:AB:114:ARG:HA	2:AB:117:GLU:OE1	1.97	0.64
18:AR:56:THR:HB	18:AR:58:LEU:CD1	2.27	0.64
25:BA:779:U:H2'	25:BA:780:G:C8	2.31	0.64
25:BA:2387:U:H5'	25:BA:2388:A:OP2	1.97	0.64
26:BB:6:C:HO2'	39:BS:29:PHE:HE1	0.71	0.64
28:BD:267:SER:O	28:BD:269:PHE:N	2.31	0.64
29:BE:11:MET:N	40:BT:8:LYS:HZ1	1.88	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BE:23:VAL:HA	29:BE:184:VAL:O	1.98	0.64
42:BV:55:ALA:HA	42:BV:101:GLY:HA2	1.78	0.64
43:BW:77:ASP:O	43:BW:102:HIS:HB2	1.96	0.64
46:BZ:24:LEU:HB2	46:BZ:41:LEU:CD2	2.27	0.64
1:CA:1036:C:O2'	1:CA:1037:A:H5''	1.97	0.64
1:CA:1424:G:N7	1:CA:1426:A:C8	2.65	0.64
2:CB:63:MET:HG3	2:CB:64:ARG:H	1.61	0.64
7:CG:140:ASP:HA	7:CG:143:ARG:NH1	2.11	0.64
25:DA:106:C:H2'	25:DA:107:C:C6	2.33	0.64
25:DA:274:G:O4'	25:DA:363:G:N2	2.30	0.64
25:DA:329:G:OP2	45:DY:71:LYS:HD3	1.96	0.64
25:DA:1221:C:O2'	25:DA:1221(A):C:H5'	1.97	0.64
25:DA:2653:U:O2'	32:DH:110:SER:HB2	1.98	0.64
27:DC:58:VAL:HG21	27:DC:166:ASP:N	2.01	0.64
27:DC:59:ARG:HB2	27:DC:62:VAL:CG2	2.23	0.64
30:DF:181:LEU:HD11	30:DF:186:ILE:HD11	1.79	0.64
32:DH:19:VAL:HG21	32:DH:44:VAL:CA	2.14	0.64
37:DQ:134:ARG:HH21	46:DZ:122:ARG:CZ	2.11	0.64
39:DS:92:TYR:CD1	39:DS:93:LYS:N	2.64	0.64
42:DV:49:THR:CB	42:DV:50:PRO:CD	2.75	0.64
52:D5:37:LYS:HG3	52:D5:38:ALA:N	2.13	0.64
1:AA:97:G:O6	20:AT:14:LYS:NZ	2.30	0.64
2:AB:236:TYR:HA	2:AB:239:VAL:CG2	2.26	0.64
3:AC:14:ILE:CG1	3:AC:15:THR:H	2.03	0.64
3:AC:92:ALA:HB2	3:AC:99:VAL:CG2	2.27	0.64
7:AG:148:ASN:C	7:AG:150:ALA:N	2.55	0.64
20:AT:63:ILE:HD13	20:AT:80:ARG:HB2	1.79	0.64
23:AV:4:G:N3	23:AV:5:G:N9	2.46	0.64
25:BA:349:G:C2	25:BA:350:U:O2	2.50	0.64
25:BA:471:A:H2'	25:BA:472:A:O4'	1.98	0.64
25:BA:2580:U:H4'	29:BE:130:GLY:HA2	1.79	0.64
28:BD:26:LYS:HZ3	28:BD:82:ILE:H	1.45	0.64
29:BE:15:PHE:CE2	40:BT:80:SER:CB	2.72	0.64
31:BG:31:VAL:HG22	31:BG:32:PRO:CD	2.28	0.64
32:BH:98:LEU:HD22	32:BH:125:VAL:HG23	1.80	0.64
33:BI:110:ASP:O	33:BI:112:LYS:N	2.28	0.64
34:BN:16:ILE:HG23	34:BN:54:VAL:HG22	1.79	0.64
38:BR:5:LYS:HD2	38:BR:5:LYS:H	1.62	0.64
39:BS:36:TYR:HA	39:BS:52:SER:HA	1.79	0.64
1:CA:743:G:O2'	17:CQ:98:LEU:HD23	1.97	0.64
15:CO:43:LEU:HD11	15:CO:53:HIS:HA	1.77	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:46:GLU:HG2	20:CT:46:GLU:O	1.96	0.64
25:DA:349:G:C2	25:DA:350:U:O2	2.50	0.64
25:DA:379:G:H2'	25:DA:380:U:O4'	1.98	0.64
25:DA:1287:A:C6	25:DA:1288:U:N3	2.66	0.64
25:DA:1292:U:H2'	25:DA:1293:C:C6	2.33	0.64
25:DA:1819:A:OP1	28:DD:158:ALA:HB3	1.97	0.64
25:DA:2377:A:C4'	39:DS:108:GLY:HA2	2.27	0.64
25:DA:2387:U:H5'	25:DA:2388:A:OP2	1.97	0.64
29:DE:79:ARG:HH11	29:DE:79:ARG:HG2	1.63	0.64
33:DI:140:LEU:HD12	33:DI:141:LYS:N	2.13	0.64
37:DQ:43:THR:HA	37:DQ:94:VAL:HG12	1.79	0.64
38:DR:5:LYS:HD2	38:DR:5:LYS:N	2.13	0.64
39:DS:49:VAL:HG12	39:DS:50:SER:N	2.12	0.64
45:DY:8:LYS:HD2	45:DY:8:LYS:N	2.04	0.64
45:DY:31:LEU:HB2	45:DY:32:PRO:CA	2.27	0.64
2:AB:25:ASN:ND2	2:AB:193:ASP:HB3	2.11	0.64
2:AB:102:LEU:O	2:AB:105:PHE:HB2	1.97	0.64
13:AM:8:GLU:C	13:AM:9:ILE:HD12	2.22	0.64
13:AM:13:LYS:O	13:AM:45:VAL:HG23	1.98	0.64
13:AM:39:ILE:HD12	13:AM:56:LEU:HD23	1.80	0.64
22:AW:12:U:C2	22:AW:24:G:N2	2.65	0.64
22:AW:14:A:N1	22:AW:15:G:H1'	2.13	0.64
25:BA:271(U):G:C3'	25:BA:271(V):G:H5'	2.26	0.64
25:BA:869:G:H2'	25:BA:870:A:H8	1.61	0.64
26:BB:15:A:H3'	26:BB:16:G:H5'	1.78	0.64
28:BD:31:LYS:HZ1	28:BD:102:LYS:NZ	1.95	0.64
30:BF:132:VAL:CG2	30:BF:133:ASN:H	2.03	0.64
32:BH:54:ARG:O	32:BH:54:ARG:HG3	1.97	0.64
32:BH:102:ALA:HB1	32:BH:115:VAL:O	1.96	0.64
32:BH:135:GLY:HA3	32:BH:141:VAL:HG21	1.78	0.64
36:BP:80:TYR:CZ	36:BP:111:ARG:HD3	2.31	0.64
39:BS:38:GLN:OE1	39:BS:47:THR:HG21	1.97	0.64
41:BU:104:GLN:HB3	42:BV:44:LYS:HZ1	1.63	0.64
41:BU:112:ARG:NE	42:BV:46:VAL:HG21	2.13	0.64
44:BX:60:ARG:HH22	54:B7:47:ARG:CZ	2.10	0.64
46:BZ:56:VAL:HG12	46:BZ:57:ILE:N	2.12	0.64
5:CE:126:ARG:HG3	5:CE:126:ARG:NH1	2.08	0.64
8:CH:11:THR:HG23	8:CH:14:ARG:NH1	2.12	0.64
10:CJ:80:LYS:HE3	10:CJ:80:LYS:O	1.98	0.64
11:CK:34:ASP:HB3	11:CK:40:ILE:HD11	1.80	0.64
12:CL:28:LYS:HG3	12:CL:33:ARG:NH2	2.12	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:CP:53:VAL:O	16:CP:57:ARG:HG2	1.98	0.64
22:CW:39:U:H2'	22:CW:40:C:H5'	1.80	0.64
25:DA:2389:G:H5''	25:DA:2390:U:O4'	1.97	0.64
25:DA:2787:C:O2'	29:DE:61:ARG:HG3	1.97	0.64
26:DB:79:C:C2'	26:DB:80:U:H5'	2.27	0.64
28:DD:154:LYS:C	28:DD:155:LEU:HD12	2.22	0.64
31:DG:45:GLU:HA	31:DG:45:GLU:OE1	1.97	0.64
31:DG:52:ILE:CG2	31:DG:54:GLU:HG2	2.21	0.64
36:DP:80:TYR:CZ	36:DP:111:ARG:HD3	2.31	0.64
37:DQ:16:ARG:HG2	37:DQ:17:LEU:N	2.12	0.64
42:DV:46:VAL:HG22	42:DV:47:VAL:N	2.11	0.64
46:DZ:128:VAL:HG22	46:DZ:132:ASN:HB2	1.79	0.64
1:AA:319:G:OP1	20:AT:22:ARG:HD3	1.98	0.64
1:AA:486:C:OP1	12:AL:119:LYS:NZ	2.29	0.64
1:AA:1110:C:H5'	9:AI:16:ARG:HH22	1.63	0.64
1:AA:1130:U:H2'	1:AA:1131:C:O4'	1.98	0.64
3:AC:82:GLU:O	3:AC:86:VAL:HG13	1.96	0.64
3:AC:132:ARG:O	3:AC:136:GLN:HB2	1.97	0.64
7:AG:129:GLU:OE2	7:AG:131:LYS:HE3	1.98	0.64
7:AG:140:ASP:HA	7:AG:143:ARG:NH1	2.13	0.64
9:AI:79:LEU:HD21	9:AI:102:LEU:HD22	1.78	0.64
11:AK:124:LYS:HD2	11:AK:125:PHE:CE1	2.32	0.64
12:AL:43:VAL:HG23	12:AL:44:THR:N	2.12	0.64
15:AO:43:LEU:HD11	15:AO:53:HIS:HA	1.79	0.64
22:AY:33:U:H3'	22:AY:34:G:H5''	1.79	0.64
25:BA:969:U:OP1	50:B3:17:LYS:HD3	1.97	0.64
25:BA:1607:C:H4'	25:BA:1608:A:O5'	1.98	0.64
25:BA:1686:C:H5'	25:BA:1686:C:C6	2.33	0.64
25:BA:2123:G:H2'	25:BA:2124:G:C8	2.32	0.64
25:BA:2161:C:H2'	25:BA:2162:G:C8	2.32	0.64
31:BG:129:GLY:O	31:BG:161:THR:HB	1.97	0.64
34:BN:134:ARG:N	34:BN:135:PRO:HD3	2.12	0.64
36:BP:50:ARG:HG2	36:BP:50:ARG:HH21	1.62	0.64
36:BP:114:ILE:HG22	36:BP:127:ALA:HB2	1.79	0.64
53:B6:37:ARG:HG3	53:B6:37:ARG:HH11	1.62	0.64
1:CA:1042:C:OP1	14:CN:45:ARG:NH2	2.30	0.64
1:CA:1307:C:OP1	21:CU:12:LYS:HD2	1.98	0.64
2:CB:25:ASN:ND2	2:CB:193:ASP:HB3	2.11	0.64
3:CC:64:VAL:CG2	3:CC:99:VAL:HA	2.27	0.64
12:CL:117:ARG:HB3	12:CL:122:THR:HB	1.79	0.64
22:CW:19:G:H4'	22:CW:20:U:OP2	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:72:U:O4'	49:D2:61:LEU:HD12	1.97	0.64
25:DA:143(A):C:O2	25:DA:143(A):C:H2'	1.97	0.64
25:DA:587:C:N3	36:DP:33:ARG:HG2	2.13	0.64
25:DA:646:A:H2'	25:DA:647:G:O4'	1.97	0.64
25:DA:2522:U:O2'	25:DA:2647:U:H5''	1.98	0.64
25:DA:2685:G:OP1	35:DO:78:ARG:NH2	2.30	0.64
26:DB:44:G:H1'	26:DB:47:C:H42	1.62	0.64
27:DC:77:ILE:HD11	27:DC:100:ILE:HD11	1.80	0.64
32:DH:159:GLU:CG	32:DH:160:LYS:H	2.00	0.64
34:DN:9:VAL:HG12	34:DN:10:GLU:N	2.13	0.64
40:DT:89:VAL:CB	40:DT:91:ARG:NE	2.61	0.64
46:DZ:98:MET:O	46:DZ:126:VAL:HG22	1.97	0.64
3:AC:11:ARG:HG2	3:AC:11:ARG:HH11	1.61	0.64
3:AC:64:VAL:CG2	3:AC:99:VAL:HA	2.28	0.64
9:AI:17:VAL:HA	9:AI:63:ILE:HG12	1.80	0.64
17:AQ:67:LYS:O	17:AQ:68:ARG:HB3	1.95	0.64
23:AV:28:U:H3	23:AV:44:A:H61	1.45	0.64
25:BA:910:A:N7	37:BQ:13:GLN:HG3	2.13	0.64
25:BA:1158:C:O2'	50:B3:32:GLN:CG	2.37	0.64
25:BA:2186:G:C5	25:BA:2187:G:N7	2.65	0.64
25:BA:2307:G:N3	25:BA:2307:G:H5''	2.12	0.64
31:BG:44:GLY:CA	31:BG:88:ILE:HG21	2.27	0.64
32:BH:17:VAL:HB	32:BH:45:VAL:HG22	1.79	0.64
32:BH:38:SER:C	32:BH:40:GLU:H	2.06	0.64
33:BI:71:ILE:HG13	33:BI:72:LEU:N	2.12	0.64
33:BI:79:ILE:HG22	33:BI:81:VAL:H	1.63	0.64
42:BV:18:LEU:HD13	42:BV:19:LYS:H	1.62	0.64
44:BX:28:PHE:CE2	44:BX:92:LEU:HD11	2.33	0.64
46:BZ:128:VAL:HG22	46:BZ:132:ASN:HB2	1.79	0.64
53:B6:11:LEU:HG	53:B6:26:ASN:ND2	2.11	0.64
1:CA:17:U:H2'	1:CA:18:C:C6	2.33	0.64
1:CA:125:C:H2'	1:CA:126:C:C6	2.33	0.64
1:CA:1143:C:H2'	1:CA:1144:C:C6	2.32	0.64
3:CC:138:VAL:HG23	3:CC:151:VAL:HG23	1.79	0.64
4:CD:22:LYS:HD3	4:CD:26:CYS:SG	2.37	0.64
11:CK:32:ILE:CD1	11:CK:72:ALA:HB2	2.27	0.64
12:CL:28:LYS:HB3	12:CL:30:ALA:HB2	1.80	0.64
14:CN:44:LEU:C	14:CN:44:LEU:HD12	2.22	0.64
25:DA:271(U):G:C3'	25:DA:271(V):G:H5'	2.26	0.64
25:DA:286:C:C2'	25:DA:287:C:H5''	2.27	0.64
25:DA:404:C:C4'	25:DA:405:U:H5'	2.25	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:979:G:H3'	25:DA:980:A:C5'	2.28	0.64
25:DA:1434:A:H61	25:DA:1558:A:N6	1.96	0.64
25:DA:2161:C:H2'	25:DA:2162:G:C8	2.32	0.64
25:DA:2672:G:H2'	25:DA:2673:G:H5''	1.79	0.64
31:DG:113:ARG:NH1	51:D4:61:VAL:O	2.31	0.64
34:DN:18:ALA:HB1	34:DN:21:LYS:HB2	1.80	0.64
37:DQ:21:THR:HG21	37:DQ:101:ARG:HB2	1.80	0.64
37:DQ:37:LEU:HD21	37:DQ:130:LYS:HB2	1.77	0.64
39:DS:36:TYR:HA	39:DS:52:SER:HA	1.79	0.64
42:DV:2:PHE:CE1	42:DV:13:ARG:HD2	2.32	0.64
44:DX:28:PHE:CE2	44:DX:92:LEU:HD11	2.33	0.64
45:DY:52:SER:O	45:DY:54:LYS:N	2.30	0.64
1:AA:1417:G:H2'	1:AA:1418:U:C6	2.31	0.64
2:AB:97:TRP:HH2	2:AB:176:GLU:CD	2.06	0.64
5:AE:28:PHE:N	5:AE:28:PHE:CD1	2.66	0.64
18:AR:40:LEU:HD22	18:AR:70:ILE:HD13	1.80	0.64
25:BA:363(E):U:H3'	25:BA:363(F):A:O4'	1.97	0.64
25:BA:668:G:C2	25:BA:670:A:C6	2.85	0.64
25:BA:979:G:H3'	25:BA:980:A:C5'	2.28	0.64
25:BA:1652:A:H8	25:BA:1652:A:O5'	1.80	0.64
25:BA:2080:G:O5'	48:B1:35:THR:HG21	1.98	0.64
25:BA:2302:G:C2	31:BG:128:ARG:HD2	2.32	0.64
32:BH:17:VAL:HG11	32:BH:50:VAL:CG2	2.28	0.64
32:BH:20:ALA:HB1	32:BH:21:PRO:HD2	1.79	0.64
45:BY:17:SER:HB3	45:BY:71:LYS:HD2	1.77	0.64
45:BY:81:LYS:CD	45:BY:97:ARG:HB3	2.27	0.64
46:BZ:144:LEU:HG	46:BZ:150:LEU:CD1	2.28	0.64
1:CA:125:C:H2'	1:CA:126:C:H6	1.61	0.64
1:CA:858:G:OP2	12:CL:12:ARG:NH2	2.31	0.64
7:CG:62:PHE:HA	7:CG:124:LEU:CD2	2.27	0.64
13:CM:88:ARG:O	13:CM:98:VAL:HG13	1.98	0.64
13:CM:116:THR:O	13:CM:117:VAL:CB	2.45	0.64
18:CR:61:LYS:HG2	18:CR:65:ILE:HD11	1.80	0.64
19:CS:39:THR:HG22	19:CS:40:ILE:N	2.13	0.64
25:DA:2186:G:C5	25:DA:2187:G:N7	2.65	0.64
25:DA:2515:C:H2'	25:DA:2516:G:H8	1.63	0.64
32:DH:98:LEU:HD22	32:DH:125:VAL:HG23	1.79	0.64
33:DI:4:ILE:HG12	33:DI:18:VAL:HG22	1.79	0.64
37:DQ:4:PRO:HG3	37:DQ:71:ASP:HA	1.79	0.64
49:D2:2:LYS:HA	49:D2:5:GLU:OE1	1.98	0.64
50:D3:5:LYS:HG3	50:D3:36:VAL:HG12	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:387:G:H2'	1:AA:388:A:C8	2.32	0.64
1:AA:1171:G:OP2	3:AC:5:ILE:HG23	1.97	0.64
12:AL:41:ARG:HB3	12:AL:41:ARG:NH1	2.12	0.64
22:AY:38:A:H5''	22:AY:39:U:OP2	1.97	0.64
25:BA:296:C:O2'	25:BA:297:C:H5'	1.97	0.64
25:BA:729:G:N3	25:BA:729:G:C3'	2.59	0.64
25:BA:747:U:P	52:B5:3:LYS:HD3	2.38	0.64
25:BA:1300:U:H1'	25:BA:1626:G:C2	2.33	0.64
25:BA:2075:U:O4	25:BA:2238:G:C5	2.49	0.64
25:BA:2389:G:H5''	25:BA:2390:U:O4'	1.97	0.64
25:BA:2787:C:O2'	29:BE:61:ARG:HG3	1.98	0.64
38:BR:5:LYS:HD2	38:BR:5:LYS:N	2.13	0.64
45:BY:45:VAL:HA	45:BY:62:GLU:HG2	1.80	0.64
50:B3:5:LYS:HG3	50:B3:36:VAL:HG12	1.79	0.64
50:B3:11:SER:OG	50:B3:13:ILE:HD13	1.98	0.64
2:CB:67:THR:O	2:CB:68:ILE:HD13	1.98	0.64
2:CB:126:GLU:C	2:CB:128:GLU:H	2.03	0.64
4:CD:150:GLU:HA	4:CD:153:ARG:CD	2.19	0.64
6:CF:61:LEU:O	6:CF:62:TRP:HB2	1.97	0.64
12:CL:126:LYS:HE2	12:CL:127:GLU:HB2	1.79	0.64
13:CM:57:ARG:NH1	51:D4:60:GLU:HA	2.11	0.64
13:CM:94:ARG:HH21	25:DA:887:A:H3'	1.61	0.64
22:CW:60:U:OP2	22:CW:61:C:N4	2.30	0.64
23:CV:30:G:O5'	23:CV:30:G:H8	1.81	0.64
23:CV:30:G:O2'	23:CV:31:G:H5'	1.98	0.64
24:CX:17:U:H2'	24:CX:18:G:C8	2.33	0.64
25:DA:1607:C:H4'	25:DA:1608:A:O5'	1.98	0.64
25:DA:2406:U:O4	36:DP:70:GLN:HB3	1.98	0.64
25:DA:2464:C:H2'	25:DA:2465:C:H6	1.63	0.64
25:DA:2554:U:H2'	25:DA:2555:U:H6	1.62	0.64
26:DB:107:G:H2'	26:DB:108:U:H5'	1.79	0.64
28:DD:43:ARG:HD2	28:DD:44:ASN:OD1	1.98	0.64
28:DD:108:PRO:HG2	28:DD:111:LEU:HB2	1.78	0.64
32:DH:85:LYS:HD2	32:DH:141:VAL:CG1	2.26	0.64
33:DI:83:ALA:HA	33:DI:89:TYR:CE1	2.33	0.64
33:DI:102:SER:OG	33:DI:109:ILE:HD13	1.98	0.64
39:DS:15:ARG:HB3	39:DS:18:ILE:CG2	2.28	0.64
39:DS:85:VAL:CG2	39:DS:106:ARG:HG3	2.26	0.64
40:DT:55:ASN:ND2	40:DT:58:ASN:OD1	2.30	0.64
41:DU:104:GLN:HB3	42:DV:44:LYS:HZ1	1.63	0.64
2:AB:92:TYR:CE1	2:AB:151:GLY:HA3	2.33	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:76:VAL:HG21	3:AC:103:VAL:HG11	1.80	0.64
8:AH:34:GLU:HB3	8:AH:118:VAL:HG21	1.79	0.64
13:AM:93:ARG:CZ	25:BA:888:C:C4'	2.76	0.64
20:AT:46:GLU:HG2	20:AT:46:GLU:O	1.97	0.64
23:AV:26:C:H2'	23:AV:27:G:O4'	1.98	0.64
25:BA:104:U:H3'	25:BA:105:C:H6	1.62	0.64
25:BA:587:C:N3	36:BP:33:ARG:HG2	2.13	0.64
25:BA:1287:A:C6	25:BA:1288:U:N3	2.66	0.64
29:BE:120:TRP:CE3	29:BE:155:LYS:HD3	2.32	0.64
29:BE:203:LYS:HE2	29:BE:204:ALA:HB2	1.78	0.64
30:BF:3:GLU:HB2	30:BF:19:GLU:HB2	1.80	0.64
31:BG:107:LEU:HD11	31:BG:178:PHE:HE1	1.63	0.64
33:BI:44:LEU:O	33:BI:47:LEU:HB3	1.96	0.64
33:BI:83:ALA:HA	33:BI:89:TYR:CE1	2.33	0.64
37:BQ:54:MET:HB3	37:BQ:64:ILE:CD1	2.21	0.64
37:BQ:81:VAL:CG2	47:B0:7:LEU:HD21	2.28	0.64
45:BY:11:ASP:OD1	45:BY:12:THR:N	2.32	0.64
47:B0:53:MET:CB	47:B0:59:LEU:HD23	2.28	0.64
1:CA:1110:C:H42	1:CA:1125:G:H1	1.45	0.64
1:CA:1221:U:H3	7:CG:30:ILE:HG22	1.63	0.64
2:CB:236:TYR:HA	2:CB:239:VAL:CG2	2.27	0.64
5:CE:28:PHE:CD1	5:CE:28:PHE:N	2.64	0.64
11:CK:84:VAL:HG23	11:CK:110:ASP:HA	1.79	0.64
13:CM:116:THR:C	13:CM:117:VAL:HG23	2.22	0.64
25:DA:444:C:OP2	41:DU:2:PRO:HD3	1.97	0.64
25:DA:979:G:H3'	25:DA:980:A:H5''	1.78	0.64
25:DA:1590:U:C3'	25:DA:1591:G:H5''	2.27	0.64
25:DA:1652:A:H2'	25:DA:1653:G:H5'	1.79	0.64
25:DA:2356:C:O3'	47:D0:20:ARG:HD3	1.97	0.64
25:DA:2398:U:H5'	25:DA:2399:G:OP2	1.98	0.64
25:DA:2502:G:H5''	25:DA:2503:A:C5'	2.29	0.64
26:DB:14:U:OP2	26:DB:71:C:C5'	2.46	0.64
30:DF:185:ASP:HA	30:DF:188:ARG:HB3	1.79	0.64
31:DG:31:VAL:HG22	31:DG:32:PRO:CD	2.27	0.64
36:DP:81:GLN:HG2	36:DP:106:LEU:HD12	1.80	0.64
36:DP:114:ILE:HG22	36:DP:127:ALA:HB2	1.78	0.64
37:DQ:69:PHE:CD1	37:DQ:70:PRO:HD2	2.31	0.64
46:DZ:82:ARG:HG2	46:DZ:83:PRO:HD2	1.78	0.64
48:D1:50:ARG:HG2	48:D1:50:ARG:HH11	1.61	0.64
1:AA:1173:C:OP2	3:AC:4:LYS:NZ	2.22	0.63
6:AF:82:ARG:HB2	6:AF:85:VAL:HG23	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:16:LEU:HD13	10:AJ:16:LEU:O	1.97	0.63
13:AM:97:PRO:HD3	13:AM:110:ARG:HD3	1.80	0.63
17:AQ:19:VAL:HG23	17:AQ:44:ALA:HB3	1.80	0.63
17:AQ:50:LYS:HE3	17:AQ:51:TYR:CE1	2.33	0.63
25:BA:395:U:H2'	25:BA:395:U:O2	1.96	0.63
28:BD:125:ILE:HG22	28:BD:125:ILE:O	1.97	0.63
29:BE:79:ARG:HH11	29:BE:79:ARG:HG2	1.63	0.63
33:BI:140:LEU:HD12	33:BI:141:LYS:N	2.13	0.63
43:BW:60:ASN:HD22	43:BW:60:ASN:H	1.44	0.63
1:CA:1394:C:H2'	1:CA:1395:A:C8	2.33	0.63
2:CB:178:ARG:HH11	2:CB:178:ARG:CB	2.07	0.63
3:CC:76:VAL:HG21	3:CC:103:VAL:HG11	1.80	0.63
4:CD:187:ARG:HH11	4:CD:187:ARG:HG2	1.64	0.63
9:CI:114:TYR:HD2	9:CI:114:TYR:N	1.94	0.63
13:CM:92:HIS:NE2	13:CM:98:VAL:HG21	2.13	0.63
25:DA:1578:U:H2'	25:DA:1579:A:H5''	1.78	0.63
25:DA:1762:A:H8	25:DA:1762:A:O5'	1.81	0.63
25:DA:2348:U:C3'	25:DA:2349:G:H5''	2.27	0.63
32:DH:44:VAL:HG12	32:DH:45:VAL:N	2.10	0.63
33:DI:111:PRO:O	33:DI:112:LYS:HG3	1.98	0.63
36:DP:16:ARG:HD3	36:DP:17:LYS:N	2.12	0.63
1:AA:1236:G:H3'	3:AC:26:LYS:NZ	2.13	0.63
2:AB:71:VAL:HA	2:AB:93:VAL:HG23	1.80	0.63
4:AD:30:LYS:CB	4:AD:35:ARG:HD2	2.27	0.63
7:AG:62:PHE:CD1	7:AG:124:LEU:HD21	2.33	0.63
13:AM:94:ARG:CZ	25:BA:887:A:C3'	2.65	0.63
16:AP:53:VAL:O	16:AP:57:ARG:HG2	1.98	0.63
18:AR:19:LYS:O	18:AR:20:ALA:CB	2.45	0.63
19:AS:6:LYS:H	19:AS:6:LYS:CE	2.11	0.63
25:BA:557:U:H2'	25:BA:558:G:H8	1.64	0.63
25:BA:926:A:H5'	25:BA:926:A:H8	1.62	0.63
25:BA:2025:C:H2'	25:BA:2026:C:C6	2.33	0.63
25:BA:2152:G:H2'	25:BA:2153:G:H8	1.61	0.63
33:BI:4:ILE:HG12	33:BI:18:VAL:HG22	1.79	0.63
33:BI:102:SER:OG	33:BI:109:ILE:HD13	1.98	0.63
36:BP:81:GLN:HG2	36:BP:106:LEU:HD12	1.80	0.63
45:BY:16:ALA:HA	45:BY:21:LYS:HD2	1.79	0.63
46:BZ:98:MET:O	46:BZ:126:VAL:HG22	1.98	0.63
46:BZ:144:LEU:O	46:BZ:174:VAL:HG21	1.98	0.63
49:B2:40:SER:O	49:B2:42:GLY:N	2.31	0.63
50:B3:59:VAL:HG12	50:B3:60:GLU:N	2.14	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:919:G:H21	9:CI:124:GLN:HE22	1.44	0.63
3:CC:109:PRO:HB3	3:CC:115:LEU:HD13	1.81	0.63
4:CD:30:LYS:CB	4:CD:35:ARG:HD2	2.29	0.63
5:CE:51:VAL:HB	5:CE:52:PRO:HD3	1.80	0.63
9:CI:118:LYS:O	9:CI:120:ARG:N	2.30	0.63
25:DA:869:G:H2'	25:DA:870:A:H8	1.61	0.63
25:DA:1987:G:H5'	25:DA:1987:G:C8	2.33	0.63
25:DA:2320:A:C2	25:DA:2333:A:C8	2.86	0.63
31:DG:44:GLY:CA	31:DG:88:ILE:HG21	2.27	0.63
42:DV:6:LYS:O	42:DV:37:VAL:HG21	1.98	0.63
43:DW:34:ASN:OD1	52:D5:39:MET:HE3	1.98	0.63
45:DY:87:LYS:O	45:DY:88:LYS:HB2	1.99	0.63
49:D2:42:GLY:O	49:D2:44:LEU:N	2.31	0.63
50:D3:59:VAL:HG12	50:D3:60:GLU:N	2.14	0.63
2:AB:79:ASP:O	2:AB:82:ARG:HB3	1.96	0.63
2:AB:80:ILE:C	2:AB:82:ARG:H	2.06	0.63
4:AD:187:ARG:HH11	4:AD:187:ARG:HG2	1.64	0.63
5:AE:75:THR:HG23	5:AE:76:ILE:N	2.13	0.63
8:AH:6:ILE:H	8:AH:6:ILE:CD1	2.11	0.63
22:AW:38:A:C3'	22:AW:39:U:H5''	2.28	0.63
25:BA:271(A):A:H5'	25:BA:271(B):C:OP2	1.97	0.63
34:BN:63:THR:HG22	34:BN:64:GLY:H	1.63	0.63
36:BP:97:PRO:C	36:BP:99:LEU:H	2.06	0.63
39:BS:15:ARG:HB3	39:BS:18:ILE:CG2	2.28	0.63
40:BT:27:THR:OG1	40:BT:28:VAL:N	2.25	0.63
1:CA:844:G:H2'	1:CA:845:C:H6	1.62	0.63
1:CA:1022:U:H2'	1:CA:1023:A:C8	2.32	0.63
3:CC:55:VAL:HG12	3:CC:55:VAL:O	1.98	0.63
22:CW:72:C:H2'	22:CW:73:A:O4'	1.98	0.63
25:DA:104:U:H3'	25:DA:105:C:H6	1.62	0.63
25:DA:999:U:H2'	25:DA:1000:A:H5''	1.80	0.63
25:DA:1675:C:C2	29:DE:129:HIS:CD2	2.86	0.63
25:DA:2584:U:H3'	25:DA:2585:U:C5'	2.29	0.63
26:DB:11:C:H3'	26:DB:12:C:H6	1.64	0.63
28:DD:267:SER:O	28:DD:269:PHE:N	2.31	0.63
33:DI:79:ILE:HG22	33:DI:81:VAL:H	1.63	0.63
39:DS:101:LEU:CD2	39:DS:104:GLY:H	2.11	0.63
43:DW:92:ARG:HH11	43:DW:92:ARG:HG2	1.61	0.63
47:D0:72:ARG:HB3	47:D0:75:LEU:HB3	1.79	0.63
2:AB:8:LYS:O	2:AB:12:GLU:HG3	1.97	0.63
12:AL:41:ARG:HG2	12:AL:42:THR:N	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:6:A:O2'	34:BN:130:HIS:HB3	1.98	0.63
25:BA:614(C):A:O2'	25:BA:615:G:P	2.55	0.63
25:BA:1111:A:O2'	25:BA:1112:G:H4'	1.98	0.63
25:BA:1292:U:H2'	25:BA:1293:C:C6	2.33	0.63
25:BA:1987:G:H5'	25:BA:1987:G:C8	2.33	0.63
25:BA:2150:U:H2'	25:BA:2151:G:C8	2.34	0.63
25:BA:2206:G:C2	25:BA:2207:G:H5'	2.33	0.63
25:BA:2653:U:O2'	32:BH:110:SER:HB2	1.98	0.63
26:BB:11:C:H3'	26:BB:12:C:H6	1.64	0.63
30:BF:181:LEU:HD11	30:BF:186:ILE:HD11	1.79	0.63
34:BN:25:ARG:HG3	34:BN:25:ARG:HH11	1.61	0.63
36:BP:23:PRO:HD2	36:BP:33:ARG:NE	2.14	0.63
36:BP:92:GLU:HG3	36:BP:93:GLY:H	1.64	0.63
40:BT:80:SER:CB	40:BT:81:PRO:HD3	2.28	0.63
42:BV:39:LEU:CD1	42:BV:51:VAL:HA	2.27	0.63
44:BX:29:TRP:CZ3	44:BX:78:LYS:HB3	2.33	0.63
1:CA:262:C:OP2	17:CQ:67:LYS:HD2	1.98	0.63
1:CA:347:C:O2	1:CA:351:A:N6	2.30	0.63
1:CA:1471:G:N2	25:DA:1912:A:N3	2.47	0.63
2:CB:141:GLU:O	2:CB:145:LEU:HB2	1.97	0.63
3:CC:132:ARG:O	3:CC:136:GLN:HB2	1.99	0.63
7:CG:97:GLN:O	7:CG:100:ALA:HB3	1.98	0.63
9:CI:17:VAL:HA	9:CI:63:ILE:HG12	1.79	0.63
11:CK:48:ILE:CG2	11:CK:63:LEU:HD22	2.29	0.63
20:CT:50:GLU:HB3	20:CT:100:ILE:HG13	1.79	0.63
22:CW:11:C:O5'	22:CW:11:C:H6	1.81	0.63
25:DA:325:G:H2'	25:DA:326:G:H8	1.63	0.63
25:DA:614:U:O2'	25:DA:614(C):A:N7	2.31	0.63
25:DA:1300:U:H1'	25:DA:1626:G:C2	2.33	0.63
25:DA:1772:G:N1	25:DA:1980:G:C6	2.66	0.63
25:DA:2611:U:O2'	52:D5:3:LYS:HE2	1.98	0.63
27:DC:49:ILE:HD12	27:DC:49:ILE:N	2.07	0.63
30:DF:33:LEU:O	30:DF:37:VAL:HG23	1.99	0.63
31:DG:91:ARG:HD2	31:DG:92:VAL:N	2.12	0.63
36:DP:97:PRO:C	36:DP:99:LEU:H	2.06	0.63
37:DQ:34:LEU:HD11	37:DQ:129:THR:HB	1.78	0.63
42:DV:18:LEU:HD13	42:DV:19:LYS:H	1.62	0.63
42:DV:19:LYS:CE	42:DV:20:LEU:H	2.12	0.63
2:AB:126:GLU:C	2:AB:128:GLU:H	2.03	0.63
8:AH:12:ARG:NH1	8:AH:27:PRO:HD3	2.12	0.63
25:BA:1652:A:H2'	25:BA:1653:G:H5'	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2178:C:H2'	25:BA:2179:C:C6	2.33	0.63
25:BA:2398:U:H5'	25:BA:2399:G:OP2	1.98	0.63
27:BC:49:ILE:HD12	27:BC:49:ILE:N	2.07	0.63
30:BF:33:LEU:O	30:BF:37:VAL:HG23	1.99	0.63
32:BH:85:LYS:HB3	32:BH:133:VAL:O	1.99	0.63
32:BH:126:PRO:O	32:BH:127:GLU:HB2	1.97	0.63
45:BY:31:LEU:HB2	45:BY:32:PRO:CA	2.28	0.63
49:B2:2:LYS:O	49:B2:6:VAL:HG23	1.99	0.63
1:CA:439:G:H2'	1:CA:440:G:C8	2.34	0.63
1:CA:1035:G:C3'	1:CA:1036:C:H5'	2.29	0.63
4:CD:22:LYS:HB2	4:CD:26:CYS:HB2	1.81	0.63
11:CK:17:GLY:HA3	11:CK:77:MET:SD	2.39	0.63
22:CW:76:A:O2'	25:DA:2394:C:C2	2.51	0.63
23:CV:32:G:H2'	23:CV:33:C:H6	1.62	0.63
25:DA:1590:U:H2'	25:DA:1591:G:C5'	2.16	0.63
25:DA:2150:U:H2'	25:DA:2151:G:C8	2.34	0.63
25:DA:2415:G:H4'	36:DP:67:MET:N	2.13	0.63
26:DB:20:C:H2'	26:DB:21:G:C5'	2.16	0.63
26:DB:61:G:H2'	26:DB:62:C:C6	2.34	0.63
36:DP:92:GLU:HG3	36:DP:93:GLY:H	1.64	0.63
39:DS:56:LEU:O	39:DS:57:LYS:HB2	1.98	0.63
40:DT:29:ARG:NH2	40:DT:30:VAL:HG13	2.14	0.63
48:D1:51:VAL:HG21	48:D1:74:VAL:HG21	1.81	0.63
1:AA:1292:G:N2	1:AA:1308:C:C2	2.65	0.63
1:AA:1425:G:C3'	1:AA:1426:A:H5''	2.13	0.63
14:AN:9:LYS:HA	14:AN:12:ARG:CZ	2.28	0.63
17:AQ:63:ARG:HG2	17:AQ:64:PRO:HD2	1.80	0.63
19:AS:49:ILE:H	19:AS:49:ILE:HD12	1.64	0.63
22:AW:6:G:O2'	22:AW:7:A:H5'	1.98	0.63
22:AW:16:U:C4	22:AW:18:G:H3'	2.34	0.63
23:AV:2:G:C6	23:AV:73:A:C2	2.87	0.63
25:BA:1221:C:O2'	25:BA:1221(A):C:H5'	1.97	0.63
25:BA:1686:C:H6	25:BA:1686:C:C5'	2.12	0.63
25:BA:1772:G:N1	25:BA:1980:G:C6	2.66	0.63
25:BA:2515:C:H2'	25:BA:2516:G:H8	1.63	0.63
28:BD:26:LYS:O	28:BD:27:THR:HB	1.98	0.63
33:BI:88:ILE:HD11	33:BI:123:LEU:N	2.13	0.63
33:BI:133:HIS:ND1	33:BI:134:PRO:HD2	2.13	0.63
42:BV:19:LYS:CE	42:BV:20:LEU:H	2.12	0.63
46:BZ:28:MET:HG3	46:BZ:33:LEU:HD21	1.81	0.63
1:CA:1148:G:H2'	1:CA:1150:A:OP2	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:57:THR:HG22	11:CK:59:TYR:H	1.64	0.63
12:CL:87:GLY:HA2	12:CL:98:TYR:HA	1.81	0.63
19:CS:10:PHE:HZ	19:CS:70:LYS:CE	2.11	0.63
20:CT:53:LEU:HD12	20:CT:102:GLY:CA	2.24	0.63
20:CT:89:ARG:CD	20:CT:104:LEU:HD11	2.21	0.63
25:DA:125:G:H21	54:D7:48:LYS:HD2	1.63	0.63
25:DA:587:C:H5''	36:DP:33:ARG:NH2	2.13	0.63
25:DA:674:G:O2'	30:DF:74:ARG:HD3	1.98	0.63
25:DA:1772:G:H2'	25:DA:1773:A:C5'	2.29	0.63
25:DA:2178:C:H2'	25:DA:2179:C:C6	2.33	0.63
28:DD:121:PRO:HB3	28:DD:135:PHE:CE1	2.34	0.63
28:DD:182:LEU:O	28:DD:271:ILE:HG13	1.99	0.63
33:DI:123:LEU:CD2	33:DI:142:VAL:HG12	2.29	0.63
43:DW:76:VAL:HG23	43:DW:103:ILE:HA	1.81	0.63
1:AA:1035:G:N7	1:AA:1180:U:H3'	2.13	0.63
1:AA:1281:G:C2'	1:AA:1282:U:OP2	2.47	0.63
5:AE:90:VAL:CG2	5:AE:121:LYS:HB3	2.28	0.63
6:AF:9:VAL:HB	6:AF:87:ARG:HB2	1.79	0.63
12:AL:101:VAL:HG12	12:AL:104:VAL:HG23	1.81	0.63
15:AO:89:GLY:OXT	25:BA:714:U:C5	2.52	0.63
16:AP:21:VAL:HG12	16:AP:34:GLU:O	1.99	0.63
19:AS:6:LYS:CD	19:AS:6:LYS:H	2.12	0.63
25:BA:379:G:H2'	25:BA:380:U:O4'	1.98	0.63
25:BA:2814:C:O2'	52:B5:29:THR:HG21	1.98	0.63
28:BD:30:GLU:CD	28:BD:63:ARG:HE	2.06	0.63
28:BD:121:PRO:HB3	28:BD:135:PHE:CE1	2.34	0.63
33:BI:123:LEU:CD2	33:BI:142:VAL:HG12	2.29	0.63
36:BP:115:LEU:HA	36:BP:134:ALA:HB2	1.81	0.63
37:BQ:54:MET:CB	37:BQ:64:ILE:HD13	2.21	0.63
38:BR:4:LEU:O	38:BR:4:LEU:HD22	1.99	0.63
39:BS:97:ARG:HH21	39:BS:98:VAL:CA	1.94	0.63
41:BU:108:GLU:OE2	42:BV:44:LYS:HD3	1.99	0.63
43:BW:14:PRO:O	43:BW:15:ARG:C	2.41	0.63
46:BZ:5:LEU:CD2	46:BZ:43:GLU:HB3	2.26	0.63
48:B1:50:ARG:HG2	48:B1:50:ARG:HH11	1.62	0.63
1:CA:1328:G:H5''	9:CI:107:ARG:HB3	1.80	0.63
5:CE:76:ILE:CD1	5:CE:142:LEU:CD2	2.70	0.63
7:CG:129:GLU:OE2	7:CG:131:LYS:HE3	1.98	0.63
13:CM:93:ARG:HG3	25:DA:888:C:C5'	2.28	0.63
17:CQ:19:VAL:HG23	17:CQ:44:ALA:HB3	1.81	0.63
25:DA:612:C:O2'	25:DA:613:G:H5''	1.97	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:926:A:H8	25:DA:926:A:H5'	1.62	0.63
25:DA:1794:U:H2'	25:DA:1795:C:H6	1.62	0.63
27:DC:51:PRO:HB2	27:DC:203:GLY:O	1.98	0.63
28:DD:125:ILE:HG22	28:DD:125:ILE:O	1.97	0.63
30:DF:2:LYS:H	30:DF:2:LYS:CD	2.06	0.63
30:DF:3:GLU:HB2	30:DF:19:GLU:HB2	1.80	0.63
42:DV:99:ILE:HD13	42:DV:99:ILE:N	2.14	0.63
48:D1:18:ILE:HG13	48:D1:37:ILE:HG12	1.81	0.63
50:D3:11:SER:OG	50:D3:13:ILE:HD13	1.98	0.63
5:AE:31:LEU:HD13	5:AE:43:LEU:HD11	1.81	0.63
11:AK:17:GLY:HA3	11:AK:77:MET:SD	2.39	0.63
20:AT:99:LEU:C	20:AT:100:ILE:HD12	2.23	0.63
22:AW:76:A:N6	25:BA:2421:G:H2'	2.14	0.63
25:BA:106:C:H2'	25:BA:107:C:C6	2.33	0.63
25:BA:364:C:C2'	25:BA:365:C:H5''	2.28	0.63
25:BA:1348:G:C2'	25:BA:1349:A:H5''	2.29	0.63
25:BA:1772:G:H2'	25:BA:1773:A:C5'	2.29	0.63
25:BA:2271:G:OP1	47:B0:18:ALA:HB1	1.98	0.63
27:BC:51:PRO:HB2	27:BC:203:GLY:O	1.98	0.63
28:BD:43:ARG:HD2	28:BD:44:ASN:OD1	1.98	0.63
33:BI:50:ARG:O	33:BI:54:GLN:N	2.31	0.63
35:BO:66:LYS:NZ	35:BO:80:ASP:OD1	2.32	0.63
36:BP:16:ARG:HD3	36:BP:17:LYS:N	2.13	0.63
39:BS:97:ARG:NH2	39:BS:99:LYS:H	1.96	0.63
1:CA:545:C:H1'	12:CL:15:ARG:HB3	1.80	0.63
1:CA:1175:U:H4'	5:CE:22:GLY:HA2	1.79	0.63
2:CB:75:LYS:HA	2:CB:78:GLN:HG3	1.80	0.63
9:CI:121:ARG:HD3	9:CI:121:ARG:C	2.24	0.63
25:DA:72:U:C1'	49:D2:58:ALA:HA	2.27	0.63
25:DA:1042:G:H1'	25:DA:1114:G:H22	1.61	0.63
25:DA:2025:C:H2'	25:DA:2026:C:C6	2.33	0.63
25:DA:2310:A:O2'	25:DA:2311:A:C5'	2.47	0.63
30:DF:83:PHE:O	30:DF:85:GLY:N	2.32	0.63
31:DG:108:ASN:C	31:DG:112:PRO:HG3	2.24	0.63
32:DH:151:ILE:O	32:DH:152:ARG:HG2	1.99	0.63
41:DU:108:GLU:OE2	42:DV:44:LYS:HD3	1.99	0.63
41:DU:112:ARG:NE	42:DV:46:VAL:HG21	2.13	0.63
43:DW:64:MET:O	43:DW:65:LEU:HB3	1.97	0.63
45:DY:11:ASP:OD1	45:DY:12:THR:N	2.32	0.63
45:DY:45:VAL:HA	45:DY:62:GLU:HG2	1.80	0.63
46:DZ:144:LEU:HG	46:DZ:150:LEU:CD1	2.28	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DZ:144:LEU:O	46:DZ:174:VAL:HG21	1.98	0.63
2:AB:24:TRP:H	2:AB:24:TRP:HD1	1.44	0.63
6:AF:61:LEU:HB3	6:AF:63:TYR:HE2	1.63	0.63
9:AI:114:TYR:HD2	9:AI:114:TYR:N	1.93	0.63
19:AS:63:THR:HG22	19:AS:66:MET:CE	2.27	0.63
25:BA:76:C:H5'	49:B2:55:ARG:HG2	1.81	0.63
25:BA:267:C:H2'	25:BA:268:C:H6	1.63	0.63
25:BA:614:U:O2'	25:BA:614(C):A:N7	2.31	0.63
25:BA:1323:U:OP1	43:BW:84:ARG:NE	2.32	0.63
25:BA:1434:A:H61	25:BA:1558:A:N6	1.96	0.63
25:BA:2310:A:O2'	25:BA:2311:A:C5'	2.47	0.63
25:BA:2348:U:C3'	25:BA:2349:G:H5''	2.27	0.63
25:BA:2709:G:O2'	25:BA:2710:C:H5'	1.99	0.63
30:BF:178:PRO:HB2	30:BF:201:VAL:HG11	1.81	0.63
30:BF:185:ASP:HA	30:BF:188:ARG:HB3	1.80	0.63
31:BG:111:LEU:O	31:BG:114:ILE:HD12	1.98	0.63
32:BH:44:VAL:HG12	32:BH:45:VAL:N	2.10	0.63
33:BI:111:PRO:O	33:BI:112:LYS:HG3	1.98	0.63
35:BO:78:ARG:HG2	40:BT:73:GLU:HB2	1.81	0.63
39:BS:56:LEU:O	39:BS:57:LYS:HB2	1.98	0.63
42:BV:53:GLU:O	42:BV:55:ALA:N	2.30	0.63
43:BW:64:MET:O	43:BW:65:LEU:HB3	1.98	0.63
54:B7:19:ARG:HH11	54:B7:19:ARG:HG2	1.64	0.63
1:CA:1297:G:O6	19:CS:5:LEU:HD23	1.99	0.63
2:CB:23:ARG:HH11	2:CB:23:ARG:HG2	1.64	0.63
2:CB:102:LEU:O	2:CB:105:PHE:HB2	1.99	0.63
5:CE:68:GLU:O	5:CE:70:PRO:HD3	1.98	0.63
10:CJ:45:ARG:HG3	10:CJ:45:ARG:NH1	2.14	0.63
25:DA:557:U:H2'	25:DA:558:G:H8	1.64	0.63
25:DA:1658:C:OP1	29:DE:132:HIS:ND1	2.31	0.63
26:DB:44:G:H1'	26:DB:47:C:N4	2.14	0.63
34:DN:63:THR:HG22	34:DN:64:GLY:H	1.63	0.63
36:DP:23:PRO:HD2	36:DP:33:ARG:NH2	2.12	0.63
36:DP:115:LEU:HA	36:DP:134:ALA:CB	2.29	0.63
38:DR:4:LEU:O	38:DR:4:LEU:HD22	1.98	0.63
43:DW:60:ASN:HD22	43:DW:60:ASN:H	1.44	0.63
1:AA:960:A:C5'	1:AA:961:C:OP2	2.44	0.62
10:AJ:22:LYS:HD2	10:AJ:22:LYS:C	2.23	0.62
10:AJ:49:VAL:CG2	14:AN:41:ARG:HB2	2.20	0.62
15:AO:74:ASP:C	15:AO:76:GLU:H	2.07	0.62
22:AW:38:A:N6	22:AW:39:U:C5	2.67	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AV:30:G:C2	23:AV:43:G:N3	2.67	0.62
22:AY:31:A:C6	22:AY:40:C:N4	2.67	0.62
25:BA:2464:C:H2'	25:BA:2465:C:H6	1.62	0.62
25:BA:2881:C:H2'	25:BA:2882:A:H8	1.64	0.62
26:BB:61:G:H2'	26:BB:62:C:C6	2.34	0.62
28:BD:76:PRO:HG2	28:BD:98:VAL:CG2	2.27	0.62
31:BG:25:TYR:CD2	31:BG:31:VAL:HG23	2.34	0.62
46:BZ:114:GLY:HA3	46:BZ:177:PRO:HD3	1.81	0.62
49:B2:2:LYS:HA	49:B2:5:GLU:OE1	1.98	0.62
1:CA:1405:G:H5'	35:DO:49:ARG:HH22	1.64	0.62
6:CF:61:LEU:HB3	6:CF:63:TYR:HE2	1.64	0.62
7:CG:50:ILE:O	7:CG:54:THR:HG23	1.99	0.62
9:CI:79:LEU:HD21	9:CI:102:LEU:HD22	1.81	0.62
13:CM:3:ARG:CA	13:CM:9:ILE:HG13	2.29	0.62
18:CR:47:THR:HB	18:CR:49:LYS:HG2	1.80	0.62
25:DA:271(F):C:H2'	25:DA:271(G):C:H6	1.63	0.62
25:DA:309:G:O3'	45:DY:18:GLY:HA3	1.99	0.62
25:DA:321:G:OP2	30:DF:136:THR:HG22	1.99	0.62
25:DA:471:A:H2'	25:DA:472:A:O4'	1.98	0.62
25:DA:2206:G:C2	25:DA:2207:G:H5'	2.33	0.62
25:DA:2391:G:O2'	25:DA:2424:C:N4	2.32	0.62
27:DC:196:LEU:C	27:DC:198:ALA:H	2.07	0.62
28:DD:26:LYS:O	28:DD:27:THR:HB	1.98	0.62
31:DG:25:TYR:CD2	31:DG:31:VAL:HG23	2.34	0.62
37:DQ:134:ARG:HE	46:DZ:122:ARG:HH11	1.47	0.62
40:DT:10:VAL:C	40:DT:13:ARG:HH21	2.05	0.62
18:AR:47:THR:HB	18:AR:49:LYS:HG2	1.81	0.62
23:AV:30:G:C6	23:AV:43:G:C2	2.86	0.62
25:BA:271(U):G:H2'	25:BA:271(V):G:C5'	2.08	0.62
25:BA:847:U:C2'	25:BA:848:G:H5''	2.25	0.62
25:BA:919:G:N2	25:BA:2269:A:OP2	2.32	0.62
25:BA:2171:A:C2'	25:BA:2172:U:C6	2.83	0.62
25:BA:2522:U:O2'	25:BA:2647:U:H5''	1.98	0.62
27:BC:77:ILE:HD11	27:BC:100:ILE:HD11	1.80	0.62
29:BE:52:LEU:HD12	29:BE:53:PRO:HD2	1.81	0.62
30:BF:83:PHE:O	30:BF:85:GLY:N	2.32	0.62
31:BG:45:GLU:HA	31:BG:45:GLU:OE1	1.97	0.62
32:BH:151:ILE:O	32:BH:152:ARG:HG2	1.99	0.62
32:BH:156:ALA:C	32:BH:158:HIS:N	2.48	0.62
36:BP:61:ARG:NH1	55:B8:13:ARG:HG3	2.14	0.62
37:BQ:35:VAL:CG1	37:BQ:130:LYS:HB3	2.29	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BY:88:LYS:HZ1	45:BY:93:GLY:CA	2.11	0.62
1:CA:1184:C:H6	1:CA:1184:C:O5'	1.82	0.62
1:CA:1260:A:H61	3:CC:26:LYS:NZ	1.97	0.62
58:CA:1695:PAR:HN61	58:CA:1695:PAR:H34	1.64	0.62
5:CE:53:LEU:H	5:CE:53:LEU:CD1	2.12	0.62
7:CG:62:PHE:CD1	7:CG:124:LEU:HD21	2.34	0.62
7:CG:100:ALA:O	7:CG:104:LEU:HD23	1.99	0.62
10:CJ:6:ILE:HA	10:CJ:97:GLU:O	1.99	0.62
25:DA:364:C:C2'	25:DA:365:C:H5''	2.28	0.62
25:DA:747:U:N3	52:D5:2:ALA:N	2.47	0.62
25:DA:2124:G:H5''	27:DC:177:LYS:CB	2.29	0.62
25:DA:2515:C:H2'	25:DA:2516:G:H5'	1.81	0.62
25:DA:2748:A:O2'	32:DH:66:GLY:HA3	1.98	0.62
25:DA:2863:C:O2'	25:DA:2864:G:H5''	1.98	0.62
25:DA:2881:C:H2'	25:DA:2882:A:H8	1.64	0.62
28:DD:148:GLU:HB2	28:DD:151:LYS:HD2	1.81	0.62
31:DG:2:PRO:O	31:DG:3:LEU:HB3	1.98	0.62
33:DI:72:LEU:CD2	33:DI:107:VAL:HG21	2.29	0.62
40:DT:92:GLY:O	40:DT:93:ARG:HB3	1.99	0.62
46:DZ:18:LEU:HD23	46:DZ:25:PRO:HG3	1.81	0.62
1:AA:343:G:O2'	1:AA:344:A:P	2.56	0.62
2:AB:204:ASN:ND2	2:AB:207:ALA:H	1.96	0.62
15:AO:17:ARG:NH1	15:AO:77:ARG:NH1	2.47	0.62
25:BA:472:A:HO2'	25:BA:508:G:H1	1.46	0.62
25:BA:747:U:H1'	52:B5:2:ALA:HB3	1.82	0.62
25:BA:999:U:H2'	25:BA:1000:A:H5''	1.80	0.62
25:BA:1762:A:H8	25:BA:1762:A:O5'	1.81	0.62
31:BG:2:PRO:O	31:BG:3:LEU:HB3	1.98	0.62
36:BP:85:LEU:H	36:BP:85:LEU:CD2	2.10	0.62
41:BU:101:ARG:C	41:BU:102:GLU:HG2	2.24	0.62
46:BZ:177:PRO:O	46:BZ:178:GLU:HG2	1.98	0.62
52:B5:37:LYS:HG3	52:B5:38:ALA:N	2.13	0.62
1:CA:377:A:H2'	1:CA:378:A:C8	2.34	0.62
1:CA:1450:A:H4'	25:DA:1702:G:H4'	1.80	0.62
5:CE:14:ARG:HH12	5:CE:129:ILE:HD11	1.63	0.62
13:CM:27:LYS:CE	13:CM:31:LYS:HE3	2.25	0.62
13:CM:93:ARG:HD3	25:DA:888:C:C4'	2.27	0.62
14:CN:37:PHE:CZ	14:CN:56:VAL:HG21	2.30	0.62
22:CW:3:C:H2'	22:CW:3:C:O2	1.99	0.62
22:CW:34:G:N7	24:CX:13:A:N6	2.48	0.62
23:CV:35:C:O2'	23:CV:36:A:P	2.57	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:271(U):G:O2'	25:DA:271(V):G:H5''	1.98	0.62
25:DA:2172:U:C1'	25:DA:2173:A:P	2.87	0.62
26:DB:83:G:C4	26:DB:84:C:C5	2.87	0.62
28:DD:30:GLU:CD	28:DD:63:ARG:HE	2.06	0.62
32:DH:85:LYS:HB3	32:DH:133:VAL:O	1.99	0.62
33:DI:133:HIS:ND1	33:DI:134:PRO:HD2	2.13	0.62
36:DP:146:VAL:HG22	36:DP:147:LEU:H	1.64	0.62
37:DQ:18:LYS:O	37:DQ:98:LYS:HD3	1.99	0.62
37:DQ:21:THR:C	37:DQ:23:GLY:N	2.50	0.62
41:DU:36:ARG:HE	41:DU:40:PHE:HZ	1.47	0.62
43:DW:1:MET:HA	43:DW:1:MET:HE3	1.82	0.62
43:DW:14:PRO:O	43:DW:15:ARG:C	2.41	0.62
47:D0:53:MET:CB	47:D0:59:LEU:HD23	2.29	0.62
1:AA:1424:G:H2'	1:AA:1425:G:C5'	2.29	0.62
13:AM:100:GLY:C	13:AM:101:GLN:HG3	2.24	0.62
23:AV:32:G:H1	23:AV:40:C:H42	1.46	0.62
25:BA:747:U:C1'	52:B5:2:ALA:HB3	2.29	0.62
25:BA:1022:G:H4'	25:BA:1023:U:O5'	1.99	0.62
25:BA:1186:G:P	57:BA:3221:MG:MG	1.81	0.62
25:BA:2584:U:H3'	25:BA:2585:U:C5'	2.29	0.62
25:BA:2795:G:N2	25:BA:2799:C:H5'	2.14	0.62
29:BE:55:ASN:O	29:BE:57:LYS:N	2.33	0.62
37:BQ:134:ARG:HH21	46:BZ:122:ARG:CZ	2.11	0.62
42:BV:28:GLU:HB3	42:BV:29:PRO:HD2	1.81	0.62
1:CA:433:G:N1	1:CA:479:A:OP2	2.23	0.62
1:CA:597:A:OP1	4:CD:85:LYS:NZ	2.28	0.62
1:CA:745:C:H2'	1:CA:746:G:H8	1.64	0.62
1:CA:923:A:H2'	1:CA:924:G:C8	2.34	0.62
5:CE:82:VAL:HG21	5:CE:138:ALA:HA	1.80	0.62
22:CY:32:U:O2	22:CY:32:U:H2'	1.99	0.62
22:CY:33:U:H3'	22:CY:34:G:H5''	1.80	0.62
25:DA:72:U:H1'	49:D2:58:ALA:HA	1.79	0.62
25:DA:1111:A:O2'	25:DA:1112:G:H4'	1.98	0.62
25:DA:2285:C:H5	53:D6:27:LYS:HE3	1.64	0.62
25:DA:2299:G:C6	25:DA:2318:G:C8	2.86	0.62
25:DA:2300:G:H22	25:DA:2317:C:C1'	2.11	0.62
25:DA:2745:C:H2'	25:DA:2746:U:C6	2.35	0.62
25:DA:2876:G:H4'	40:DT:3:ARG:HD3	1.81	0.62
32:DH:17:VAL:C	32:DH:45:VAL:CG2	2.72	0.62
37:DQ:141:GLN:HE22	46:DZ:72:ARG:HA	1.65	0.62
44:DX:29:TRP:CZ3	44:DX:78:LYS:HB3	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DY:2:ARG:HH11	45:DY:2:ARG:HA	1.63	0.62
46:DZ:6:LYS:HE2	46:DZ:8:TYR:HH	1.63	0.62
46:DZ:57:ILE:HG22	46:DZ:58:VAL:N	2.14	0.62
52:D5:41:PRO:HG2	52:D5:44:THR:HG21	1.79	0.62
1:AA:1188:G:H2'	1:AA:1189:C:C6	2.34	0.62
2:AB:194:PRO:HB3	2:AB:200:ILE:HD13	1.80	0.62
13:AM:65:LYS:HD2	13:AM:69:GLU:CG	2.29	0.62
25:BA:271(F):C:H2'	25:BA:271(G):C:H6	1.63	0.62
25:BA:379:G:C2'	25:BA:380:U:O5'	2.48	0.62
25:BA:769:G:H4'	25:BA:1379:A:N1	2.15	0.62
25:BA:1242:A:N1	36:BP:8:PRO:HG3	2.15	0.62
25:BA:2172:U:C1'	25:BA:2173:A:P	2.87	0.62
25:BA:2393:A:H4'	36:BP:60:MET:O	2.00	0.62
25:BA:2522:U:H2'	25:BA:2523:G:H5''	1.82	0.62
25:BA:2863:C:O2'	25:BA:2864:G:H5''	1.98	0.62
29:BE:116:VAL:O	29:BE:117:MET:CB	2.47	0.62
34:BN:18:ALA:HB1	34:BN:21:LYS:HB2	1.80	0.62
2:CB:114:ARG:HA	2:CB:117:GLU:OE1	1.99	0.62
10:CJ:5:ARG:HA	10:CJ:73:ASP:OD1	1.99	0.62
25:DA:1686:C:H5'	25:DA:1686:C:C6	2.33	0.62
26:DB:92:C:HO2'	26:DB:93:G:H5'	1.63	0.62
28:DD:8:PRO:HB3	28:DD:14:ARG:HB2	1.81	0.62
29:DE:43:GLY:O	29:DE:44:TYR:HB3	1.99	0.62
36:DP:115:LEU:HA	36:DP:134:ALA:HB2	1.81	0.62
42:DV:19:LYS:HE2	42:DV:19:LYS:HA	1.82	0.62
49:D2:2:LYS:O	49:D2:6:VAL:HG23	1.98	0.62
53:D6:40:CYS:SG	53:D6:45:LYS:HE3	2.40	0.62
1:AA:1427:G:C6	1:AA:1437:A:C2	2.88	0.62
6:AF:61:LEU:O	6:AF:62:TRP:HB2	1.98	0.62
13:AM:90:LEU:O	13:AM:91:ARG:HB2	1.98	0.62
25:BA:325:G:H2'	25:BA:326:G:H8	1.64	0.62
29:BE:2:LYS:HE2	29:BE:95:ILE:CG2	2.30	0.62
34:BN:46:VAL:O	34:BN:47:ALA:HB3	1.99	0.62
38:BR:63:ARG:HA	38:BR:80:PHE:CE2	2.35	0.62
55:B8:49:VAL:O	55:B8:53:PRO:HG3	1.99	0.62
1:CA:712:A:H2'	1:CA:713:G:C8	2.34	0.62
2:CB:96:ARG:HH12	2:CB:147:LYS:HE2	1.64	0.62
3:CC:70:VAL:HG12	3:CC:71:ALA:H	1.63	0.62
4:CD:13:ARG:O	4:CD:15:GLU:N	2.33	0.62
6:CF:71:ARG:HH11	6:CF:71:ARG:HG3	1.65	0.62
10:CJ:51:ARG:HG3	10:CJ:60:ARG:HA	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:65:LYS:HG3	13:CM:70:LEU:CA	2.29	0.62
19:CS:12:ASP:O	19:CS:16:LEU:HD13	1.99	0.62
25:DA:141:A:H8	25:DA:1408:C:O2'	1.83	0.62
25:DA:267:C:H2'	25:DA:268:C:H6	1.63	0.62
25:DA:2208:A:H1'	25:DA:2219:G:C2	2.35	0.62
25:DA:2376:A:N6	39:DS:92:TYR:HE2	1.96	0.62
28:DD:25:THR:HG22	28:DD:26:LYS:N	2.14	0.62
29:DE:55:ASN:O	29:DE:57:LYS:N	2.33	0.62
33:DI:54:GLN:HA	33:DI:57:ARG:HB2	1.81	0.62
41:DU:101:ARG:C	41:DU:102:GLU:HG2	2.24	0.62
42:DV:28:GLU:HB3	42:DV:29:PRO:HD2	1.81	0.62
42:DV:53:GLU:O	42:DV:55:ALA:N	2.30	0.62
1:AA:261:G:O2'	1:AA:262:C:P	2.57	0.62
2:AB:75:LYS:HA	2:AB:78:GLN:HG3	1.82	0.62
2:AB:141:GLU:O	2:AB:145:LEU:HB2	2.00	0.62
2:AB:178:ARG:HH22	2:AB:196:LEU:C	2.06	0.62
3:AC:70:VAL:HG12	3:AC:71:ALA:H	1.62	0.62
4:AD:112:VAL:HG13	4:AD:116:GLN:OE1	2.00	0.62
10:AJ:83:GLU:C	10:AJ:85:LEU:H	2.07	0.62
22:AW:16:U:N3	22:AW:19:G:OP2	2.32	0.62
25:BA:272:G:O6	25:BA:421:U:C2	2.52	0.62
25:BA:866:A:N1	25:BA:914:C:C5	2.67	0.62
25:BA:1312:U:O4'	25:BA:1313:U:N3	2.33	0.62
25:BA:2264:C:H2'	25:BA:2265:U:C6	2.35	0.62
28:BD:109:ASP:HB2	28:BD:197:GLY:HA2	1.82	0.62
28:BD:148:GLU:HB2	28:BD:151:LYS:HD2	1.81	0.62
28:BD:172:TYR:CE2	28:BD:269:PHE:HE1	2.18	0.62
36:BP:33:ARG:O	36:BP:34:GLY:C	2.41	0.62
44:BX:32:PRO:HA	44:BX:77:LYS:CB	2.29	0.62
45:BY:42:VAL:HG23	45:BY:67:LEU:HD23	1.81	0.62
47:B0:82:ARG:O	47:B0:82:ARG:HG3	2.00	0.62
53:B6:30:THR:HB	53:B6:31:PRO:HD2	1.82	0.62
1:CA:956:C:OP1	1:CA:1204:C:N4	2.33	0.62
1:CA:958:U:H2'	1:CA:959:U:C5	2.34	0.62
1:CA:1025:C:H2'	1:CA:1026:A:C8	2.35	0.62
1:CA:1141:U:OP1	2:CB:133:LYS:NZ	2.33	0.62
20:CT:14:LYS:HB2	20:CT:17:ARG:HH21	1.65	0.62
25:DA:910:A:N7	37:DQ:13:GLN:HG3	2.14	0.62
25:DA:2108:C:C2	25:DA:2182:G:N2	2.68	0.62
25:DA:2376:A:C5	39:DS:94:TYR:CD1	2.87	0.62
25:DA:2847:U:OP1	40:DT:98:LYS:NZ	2.31	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DD:211:ARG:HA	28:DD:214:TRP:CD2	2.35	0.62
37:DQ:35:VAL:CG1	37:DQ:130:LYS:HB3	2.29	0.62
46:DZ:5:LEU:HD21	46:DZ:43:GLU:CB	2.26	0.62
1:AA:513:G:N3	22:AY:35:A:O2'	2.27	0.62
10:AJ:24:VAL:HG22	10:AJ:72:VAL:HG11	1.82	0.62
10:AJ:80:LYS:HE3	10:AJ:80:LYS:O	1.99	0.62
11:AK:126:ARG:HB3	11:AK:126:ARG:NH1	2.15	0.62
25:BA:2402:C:H5	25:BA:2415:G:H22	1.48	0.62
30:BF:2:LYS:O	30:BF:25:PRO:HD2	2.00	0.62
33:BI:72:LEU:CD2	33:BI:107:VAL:HG21	2.29	0.62
34:BN:4:TYR:HB2	41:BU:64:ARG:NH2	2.15	0.62
39:BS:101:LEU:CD2	39:BS:104:GLY:H	2.11	0.62
42:BV:6:LYS:HG3	42:BV:11:GLN:HG2	1.80	0.62
42:BV:18:LEU:CD2	42:BV:19:LYS:H	2.13	0.62
47:B0:72:ARG:HB3	47:B0:75:LEU:HB3	1.79	0.62
1:CA:629:U:H2'	1:CA:630:C:C6	2.34	0.62
2:CB:76:GLN:HB3	2:CB:206:ASP:O	1.99	0.62
2:CB:194:PRO:HB3	2:CB:200:ILE:HD13	1.81	0.62
7:CG:151:TYR:OH	11:CK:54:ARG:HD3	1.99	0.62
8:CH:5:PRO:O	8:CH:8:ASP:HB3	1.99	0.62
10:CJ:94:VAL:HG12	10:CJ:95:GLU:N	2.15	0.62
12:CL:24:VAL:HG13	12:CL:98:TYR:HE2	1.60	0.62
13:CM:94:ARG:CZ	25:DA:888:C:P	2.88	0.62
16:CP:42:ARG:O	16:CP:43:LYS:C	2.43	0.62
22:CY:30:G:C2	22:CY:31:A:C8	2.88	0.62
25:DA:212:G:O2'	25:DA:213:A:H5'	2.00	0.62
25:DA:614:U:O2	25:DA:614:U:C5'	2.47	0.62
25:DA:1175:U:H4'	25:DA:1176:G:H2'	1.82	0.62
25:DA:1348:G:C2'	25:DA:1349:A:H5''	2.29	0.62
25:DA:2175:C:O4'	27:DC:215:THR:HA	1.99	0.62
26:DB:82:G:C2'	26:DB:83:G:H5'	2.29	0.62
27:DC:56:GLN:NE2	27:DC:173:ALA:HB1	2.15	0.62
28:DD:92:ILE:H	28:DD:92:ILE:HD13	1.64	0.62
33:DI:77:LEU:HB3	33:DI:140:LEU:CD1	2.21	0.62
33:DI:88:ILE:HD11	33:DI:123:LEU:CG	2.30	0.62
46:DZ:143:GLY:C	46:DZ:144:LEU:HD22	2.25	0.62
2:AB:96:ARG:HH12	2:AB:147:LYS:HE2	1.64	0.62
3:AC:182:ILE:HG23	3:AC:202:ILE:C	2.25	0.62
20:AT:57:ARG:HH11	20:AT:57:ARG:HB2	1.65	0.62
25:BA:212:G:O2'	25:BA:213:A:H5'	2.00	0.62
25:BA:2080:G:O5'	48:B1:35:THR:CG2	2.48	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BB:15:A:H3'	26:BB:16:G:C5'	2.30	0.62
27:BC:196:LEU:C	27:BC:198:ALA:H	2.07	0.62
28:BD:221:VAL:HG22	28:BD:226:MET:HE3	1.81	0.62
29:BE:75:VAL:O	29:BE:77:ILE:N	2.33	0.62
30:BF:152:GLU:OE1	30:BF:191:ARG:HD2	2.00	0.62
33:BI:95:LYS:HA	33:BI:98:ALA:HB3	1.82	0.62
9:CI:3:GLN:HG2	9:CI:20:ARG:HH12	1.65	0.62
13:CM:116:THR:O	13:CM:117:VAL:HG23	1.99	0.62
18:CR:82:THR:HG22	18:CR:83:GLU:N	2.15	0.62
25:DA:271(U):G:H2'	25:DA:271(V):G:H8	1.65	0.62
25:DA:1032:A:OP1	56:D9:8:LYS:HE3	2.00	0.62
25:DA:1666:G:C2'	25:DA:1667:G:H5'	2.30	0.62
25:DA:1810:A:H2'	25:DA:1811:G:O4'	2.00	0.62
25:DA:2795:G:N2	25:DA:2799:C:H5'	2.14	0.62
29:DE:11:MET:H	40:DT:8:LYS:HZ2	1.46	0.62
34:DN:46:VAL:O	34:DN:47:ALA:HB3	1.99	0.62
39:DS:14:VAL:HG12	39:DS:15:ARG:H	1.64	0.62
40:DT:55:ASN:CA	40:DT:59:THR:HG22	2.30	0.62
40:DT:89:VAL:HB	40:DT:91:ARG:CD	2.29	0.62
48:D1:23:LYS:CE	48:D1:28:GLY:HA3	2.29	0.62
5:AE:53:LEU:H	5:AE:53:LEU:CD1	2.13	0.62
9:AI:47:LEU:C	9:AI:49:PRO:HD2	2.25	0.62
22:AW:18:G:H1	22:AW:55:U:C1'	2.11	0.62
25:BA:271(U):G:O2'	25:BA:271(V):G:H5''	1.98	0.62
25:BA:1316:U:O2'	25:BA:1317:A:H5'	2.00	0.62
25:BA:1494:A:N3	25:BA:1494:A:H5'	2.15	0.62
25:BA:2469:A:H3'	25:BA:2470:G:O4'	2.00	0.62
25:BA:2790:A:H2'	25:BA:2791:C:H5'	1.82	0.62
28:BD:165:ILE:HD13	28:BD:175:LEU:HD21	1.82	0.62
34:BN:11:PRO:HB3	34:BN:51:PHE:CE1	2.35	0.62
37:BQ:27:VAL:HG11	37:BQ:30:GLY:O	2.00	0.62
42:BV:99:ILE:HD13	42:BV:99:ILE:N	2.14	0.62
44:BX:60:ARG:HH22	54:B7:47:ARG:NH2	1.97	0.62
46:BZ:143:GLY:C	46:BZ:144:LEU:HD22	2.25	0.62
48:B1:23:LYS:CE	48:B1:28:GLY:HA3	2.29	0.62
48:B1:51:VAL:HG21	48:B1:74:VAL:HG21	1.81	0.62
53:B6:20:ASN:ND2	53:B6:21:TYR:H	1.98	0.62
55:B8:43:GLN:O	55:B8:44:LYS:HD2	2.00	0.62
1:CA:78:G:H22	1:CA:85:U:H4'	1.64	0.62
3:CC:92:ALA:HB2	3:CC:99:VAL:CG2	2.29	0.62
3:CC:182:ILE:HG12	3:CC:203:PHE:HA	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:69:VAL:CB	5:CE:71:LEU:HD21	2.29	0.62
11:CK:124:LYS:HD2	11:CK:125:PHE:CE1	2.33	0.62
12:CL:7:ILE:HA	12:CL:10:LEU:HD12	1.82	0.62
20:CT:44:ALA:HA	20:CT:92:LEU:HD21	1.82	0.62
22:CW:65:G:H2'	22:CW:66:U:C6	2.35	0.62
25:DA:1022:G:H4'	25:DA:1023:U:O5'	2.00	0.62
25:DA:1242:A:N1	36:DP:8:PRO:HG3	2.15	0.62
25:DA:2075:U:O4	25:DA:2238:G:C6	2.53	0.62
25:DA:2148:G:O2'	25:DA:2149:G:H5'	2.00	0.62
28:DD:44:ASN:OD1	28:DD:44:ASN:N	2.33	0.62
29:DE:97:LYS:HE2	29:DE:98:PRO:HD2	1.82	0.62
32:DH:89:ILE:HD12	32:DH:90:LYS:N	2.15	0.62
33:DI:140:LEU:HD12	33:DI:141:LYS:H	1.65	0.62
36:DP:96:THR:O	36:DP:99:LEU:HB3	2.00	0.62
36:DP:146:VAL:HG22	36:DP:147:LEU:N	2.15	0.62
46:DZ:28:MET:SD	46:DZ:37:VAL:HG11	2.39	0.62
46:DZ:114:GLY:HA3	46:DZ:177:PRO:HD3	1.81	0.62
1:AA:1404:G:O2'	35:BO:49:ARG:NH2	2.32	0.61
3:AC:69:HIS:HA	3:AC:104:GLN:O	2.00	0.61
6:AF:78:GLU:O	6:AF:81:ILE:HG13	1.99	0.61
9:AI:53:VAL:O	9:AI:54:ASP:HB2	2.00	0.61
25:BA:71:A:O2'	25:BA:72:U:P	2.58	0.61
25:BA:575:A:O2'	25:BA:576:U:H5'	2.00	0.61
25:BA:1141:U:OP1	34:BN:25:ARG:NH1	2.32	0.61
25:BA:2315:G:H2'	25:BA:2316:C:C6	2.35	0.61
25:BA:2320:A:C5	25:BA:2333:A:C6	2.88	0.61
25:BA:2745:C:H2'	25:BA:2746:U:C6	2.35	0.61
25:BA:2789:C:H1'	25:BA:2892:A:H2	1.65	0.61
28:BD:182:LEU:O	28:BD:271:ILE:HG13	1.99	0.61
29:BE:97:LYS:HE2	29:BE:98:PRO:HD2	1.82	0.61
36:BP:78:PRO:HB2	36:BP:111:ARG:HD2	1.82	0.61
38:BR:10:LEU:HD22	38:BR:17:ARG:CD	2.29	0.61
38:BR:18:LEU:HD13	38:BR:18:LEU:C	2.25	0.61
41:BU:104:GLN:H	41:BU:104:GLN:CD	2.08	0.61
46:BZ:18:LEU:HD23	46:BZ:25:PRO:HG3	1.81	0.61
46:BZ:28:MET:SD	46:BZ:37:VAL:HG11	2.39	0.61
48:B1:18:ILE:HG13	48:B1:37:ILE:HG12	1.81	0.61
13:CM:116:THR:O	13:CM:117:VAL:HB	1.98	0.61
16:CP:26:ARG:HB3	16:CP:26:ARG:NH1	2.15	0.61
17:CQ:6:LEU:HD12	17:CQ:6:LEU:N	2.15	0.61
17:CQ:14:LYS:HB2	17:CQ:14:LYS:NZ	2.15	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CV:4:G:O2'	23:CV:5:G:H8	1.82	0.61
25:DA:103:A:H4'	49:D2:3:LEU:HD11	1.82	0.61
25:DA:1686:C:H6	25:DA:1686:C:C5'	2.12	0.61
25:DA:2103:C:H2'	25:DA:2104:G:H5''	1.81	0.61
25:DA:2152:G:H2'	25:DA:2153:G:C8	2.35	0.61
25:DA:2345:G:H5''	25:DA:2347:C:O4'	2.00	0.61
25:DA:2420:C:OP1	55:D8:34:TRP:HA	2.00	0.61
28:DD:155:LEU:HD23	28:DD:177:LEU:HD21	1.80	0.61
29:DE:75:VAL:O	29:DE:77:ILE:N	2.33	0.61
30:DF:152:GLU:OE1	30:DF:191:ARG:HD2	2.00	0.61
30:DF:178:PRO:HB2	30:DF:201:VAL:HG11	1.81	0.61
31:DG:47:LYS:HZ2	31:DG:82:LEU:HD12	1.65	0.61
31:DG:107:LEU:HD11	31:DG:178:PHE:HE1	1.62	0.61
33:DI:76:THR:O	33:DI:77:LEU:O	2.18	0.61
39:DS:30:ARG:HH22	39:DS:62:LYS:CD	2.13	0.61
39:DS:97:ARG:NH2	39:DS:99:LYS:H	1.96	0.61
42:DV:4:ILE:HG22	42:DV:39:LEU:CD2	2.30	0.61
42:DV:49:THR:CG2	42:DV:50:PRO:HD2	2.26	0.61
44:DX:32:PRO:HA	44:DX:77:LYS:CB	2.29	0.61
54:D7:19:ARG:HH11	54:D7:19:ARG:HG2	1.64	0.61
55:D8:49:VAL:O	55:D8:53:PRO:HG3	1.99	0.61
1:AA:28:G:N2	1:AA:538:C:O2	2.29	0.61
1:AA:261:G:H5''	1:AA:263:C:H41	1.64	0.61
1:AA:1187:G:H4'	3:AC:192:THR:O	2.00	0.61
6:AF:30:LEU:HB3	6:AF:35:ALA:HB3	1.83	0.61
6:AF:98:LEU:H	6:AF:98:LEU:HD12	1.65	0.61
10:AJ:5:ARG:HA	10:AJ:73:ASP:OD1	1.98	0.61
10:AJ:48:THR:HA	10:AJ:62:HIS:CB	2.30	0.61
25:BA:651:G:C5'	55:B8:18:ALA:HB3	2.30	0.61
25:BA:2208:A:H1'	25:BA:2219:G:C2	2.35	0.61
26:BB:7:G:H3'	26:BB:8:U:C5'	2.22	0.61
26:BB:44:G:H1'	26:BB:47:C:N4	2.14	0.61
28:BD:92:ILE:HD13	28:BD:92:ILE:H	1.64	0.61
40:BT:78:LEU:O	40:BT:79:HIS:ND1	2.33	0.61
45:BY:19:LYS:HG2	45:BY:19:LYS:O	2.00	0.61
48:B1:89:GLU:HA	48:B1:92:LYS:HB3	1.82	0.61
56:B9:9:ARG:HB3	56:B9:9:ARG:HH11	1.64	0.61
4:CD:8:VAL:C	4:CD:10:ARG:N	2.57	0.61
20:CT:57:ARG:HB2	20:CT:57:ARG:HH11	1.64	0.61
25:DA:847:U:C2'	25:DA:848:G:H5''	2.25	0.61
25:DA:942:G:OP1	36:DP:35:HIS:CB	2.47	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1316:U:O2'	25:DA:1317:A:H5'	2.00	0.61
25:DA:1495:A:N3	25:DA:1496:A:C2	2.69	0.61
25:DA:2033:A:H4'	25:DA:2034:U:OP1	2.00	0.61
25:DA:2171:A:C2'	25:DA:2172:U:C6	2.83	0.61
25:DA:2709:G:O2'	25:DA:2710:C:H5'	2.00	0.61
25:DA:2728:U:O2'	25:DA:2729:G:H5'	2.00	0.61
28:DD:109:ASP:HB2	28:DD:197:GLY:HA2	1.82	0.61
34:DN:11:PRO:HB3	34:DN:51:PHE:CE1	2.35	0.61
37:DQ:37:LEU:HG	37:DQ:128:LYS:O	2.00	0.61
41:DU:106:PHE:HA	41:DU:109:LEU:HD12	1.82	0.61
45:DY:13:VAL:HA	45:DY:75:ILE:HG22	1.81	0.61
47:D0:3:HIS:ND1	47:D0:3:HIS:N	2.48	0.61
51:D4:62:CYS:SG	51:D4:63:SER:N	2.73	0.61
1:AA:737:C:O2	1:AA:737:C:C2'	2.47	0.61
1:AA:1086:G:O5'	2:AB:111:ARG:HD2	2.00	0.61
4:AD:8:VAL:C	4:AD:10:ARG:N	2.57	0.61
4:AD:195:ALA:O	6:CF:16:GLN:C	2.43	0.61
5:AE:148:VAL:HG21	8:AH:107:LEU:HD22	1.81	0.61
9:AI:3:GLN:HG2	9:AI:20:ARG:HH12	1.64	0.61
11:AK:34:ASP:HB3	11:AK:40:ILE:HD11	1.81	0.61
17:AQ:18:THR:HG23	17:AQ:69:LYS:HD2	1.80	0.61
20:AT:43:LEU:HD13	20:AT:51:GLU:CG	2.31	0.61
25:BA:528:A:H3'	25:BA:528:A:H8	1.65	0.61
25:BA:598:G:H5'	36:BP:15:ARG:HD2	1.82	0.61
25:BA:2685:G:OP2	40:BT:51:ARG:NH1	2.32	0.61
25:BA:2892:A:H3'	25:BA:2893:G:C5'	2.26	0.61
27:BC:56:GLN:NE2	27:BC:173:ALA:HB1	2.15	0.61
31:BG:13:GLU:O	31:BG:14:GLU:HB2	2.00	0.61
33:BI:76:THR:O	33:BI:77:LEU:O	2.18	0.61
33:BI:88:ILE:HD11	33:BI:123:LEU:CG	2.30	0.61
35:BO:1:MET:HG3	35:BO:32:TYR:CD1	2.35	0.61
36:BP:115:LEU:HA	36:BP:134:ALA:CB	2.29	0.61
36:BP:146:VAL:HG22	36:BP:147:LEU:H	1.65	0.61
41:BU:105:VAL:HG11	42:BV:40:LEU:HD12	1.82	0.61
45:BY:95:LYS:HG2	45:BY:100:ALA:CA	2.29	0.61
51:B4:62:CYS:SG	51:B4:63:SER:N	2.73	0.61
1:CA:980:G:H3'	1:CA:981:G:C8	2.36	0.61
1:CA:1184:C:OP1	14:CN:3:ARG:HD3	2.00	0.61
1:CA:1458:U:H2'	1:CA:1458:U:O2	2.00	0.61
1:CA:1501:C:OP1	11:CK:120:ARG:NH1	2.33	0.61
2:CB:104:ASN:OD1	2:CB:107:THR:HB	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:94:LEU:HD12	3:CC:95:THR:N	2.15	0.61
7:CG:84:ASN:ND2	22:CW:33:U:H4'	2.15	0.61
16:CP:21:VAL:HG12	16:CP:34:GLU:O	1.99	0.61
19:CS:49:ILE:H	19:CS:49:ILE:HD12	1.65	0.61
25:DA:914:C:H2'	25:DA:915:C:C5'	2.24	0.61
25:DA:2186:G:H3'	25:DA:2187:G:H5''	1.81	0.61
25:DA:2315:G:H2'	25:DA:2316:C:C6	2.35	0.61
25:DA:2740:A:H2'	25:DA:2741:A:C8	2.35	0.61
26:DB:93:G:N2	26:DB:94:C:C2	2.68	0.61
28:DD:27:THR:CG2	28:DD:83:GLU:HG2	2.31	0.61
28:DD:165:ILE:HD13	28:DD:175:LEU:HD21	1.82	0.61
28:DD:221:VAL:HG22	28:DD:226:MET:HE3	1.81	0.61
37:DQ:27:VAL:HG11	37:DQ:30:GLY:O	2.00	0.61
47:D0:82:ARG:HG3	47:D0:82:ARG:O	2.00	0.61
3:AC:92:ALA:HB2	3:AC:99:VAL:HG21	1.81	0.61
11:AK:116:HIS:O	11:AK:117:ASN:HB2	2.00	0.61
19:AS:12:ASP:O	19:AS:16:LEU:HD13	2.00	0.61
25:BA:271(U):G:H2'	25:BA:271(V):G:H8	1.65	0.61
25:BA:614:U:O2	25:BA:614:U:C5'	2.47	0.61
25:BA:633:A:H2'	25:BA:634:C:H5'	1.82	0.61
25:BA:933:A:H2'	25:BA:934:G:O4'	2.00	0.61
25:BA:1175:U:H4'	25:BA:1176:G:H2'	1.82	0.61
25:BA:1754:C:H5'	40:BT:101:PHE:CZ	2.35	0.61
25:BA:2728:U:O2'	25:BA:2729:G:H5'	2.00	0.61
27:BC:58:VAL:HG21	27:BC:166:ASP:N	2.01	0.61
28:BD:8:PRO:HB3	28:BD:14:ARG:HB2	1.81	0.61
28:BD:36:PRO:HA	28:BD:62:TYR:O	2.01	0.61
34:BN:9:VAL:HG12	34:BN:10:GLU:N	2.12	0.61
36:BP:96:THR:O	36:BP:99:LEU:HB3	2.00	0.61
42:BV:47:VAL:O	42:BV:47:VAL:HG23	2.00	0.61
1:CA:847:U:H4'	1:CA:848:U:H5''	1.82	0.61
2:CB:112:VAL:HG11	2:CB:153:ARG:HA	1.83	0.61
7:CG:23:VAL:O	7:CG:27:ILE:HG13	2.00	0.61
20:CT:50:GLU:N	20:CT:100:ILE:CG1	2.56	0.61
22:CW:50:U:H6	22:CW:50:U:O5'	1.84	0.61
25:DA:107:C:O2'	25:DA:108:U:H5'	1.99	0.61
25:DA:379:G:H2'	25:DA:380:U:O5'	2.01	0.61
25:DA:827:U:H5'	25:DA:828:U:O5'	2.00	0.61
25:DA:915:C:H2'	25:DA:916:G:H8	1.65	0.61
25:DA:1030:G:OP2	37:DQ:128:LYS:CD	2.45	0.61
25:DA:1541:G:O6	25:DA:1542:A:N6	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2632:A:N3	29:DE:61:ARG:HD3	2.16	0.61
29:DE:132:HIS:O	29:DE:133:LYS:CB	2.38	0.61
31:DG:120:LEU:N	31:DG:179:PRO:O	2.33	0.61
35:DO:106:LEU:O	35:DO:110:GLY:N	2.33	0.61
36:DP:78:PRO:HB2	36:DP:111:ARG:HD2	1.82	0.61
37:DQ:10:ARG:HG3	37:DQ:10:ARG:HH11	1.65	0.61
40:DT:57:PHE:O	40:DT:58:ASN:HB3	2.01	0.61
45:DY:50:ARG:NE	45:DY:55:TYR:HE1	1.97	0.61
1:AA:102:A:C6	1:AA:321:G:C6	2.89	0.61
4:AD:9:CYS:HA	4:AD:12:CYS:HB2	1.82	0.61
8:AH:11:THR:HG23	8:AH:14:ARG:NH1	2.15	0.61
10:AJ:32:ALA:HB3	10:AJ:75:ILE:HG13	1.82	0.61
14:AN:15:LYS:HD2	14:AN:16:PHE:CE2	2.35	0.61
16:AP:20:VAL:HG21	16:AP:32:TYR:HB2	1.83	0.61
23:AV:35:C:O2'	23:AV:36:A:P	2.59	0.61
25:BA:141:A:C8	25:BA:1408:C:O2'	2.52	0.61
25:BA:320:A:H4'	25:BA:322:A:C8	2.36	0.61
25:BA:491:G:H2'	25:BA:492:A:C8	2.35	0.61
25:BA:827:U:H5'	25:BA:828:U:O5'	2.01	0.61
25:BA:2484:G:N3	25:BA:2485:G:C8	2.68	0.61
32:BH:158:HIS:O	32:BH:159:GLU:HB2	2.01	0.61
36:BP:146:VAL:HG22	36:BP:147:LEU:N	2.15	0.61
41:BU:66:ASN:CB	41:BU:76:TYR:HB2	2.30	0.61
41:BU:69:CYS:CB	41:BU:79:PHE:HD1	2.14	0.61
41:BU:96:ALA:C	41:BU:98:LEU:H	2.05	0.61
46:BZ:57:ILE:HG22	46:BZ:58:VAL:N	2.14	0.61
1:CA:1302:C:C5'	1:CA:1303:C:H5''	2.30	0.61
1:CA:1302:C:H4'	13:CM:87:TYR:CE2	2.35	0.61
2:CB:7:VAL:O	2:CB:11:LEU:HD12	2.00	0.61
2:CB:75:LYS:HG2	2:CB:78:GLN:HE21	1.65	0.61
2:CB:121:LEU:O	2:CB:121:LEU:HD23	2.01	0.61
10:CJ:24:VAL:HG22	10:CJ:72:VAL:HG11	1.83	0.61
11:CK:116:HIS:O	11:CK:117:ASN:HB2	1.99	0.61
25:DA:84:A:H5''	45:DY:9:LYS:CE	2.31	0.61
25:DA:379:G:C2'	25:DA:380:U:O5'	2.48	0.61
25:DA:870:A:OP1	37:DQ:6:ARG:NH2	2.31	0.61
25:DA:2287:A:N1	25:DA:2346:A:H2	1.98	0.61
25:DA:2402:C:H5	25:DA:2415:G:H22	1.48	0.61
25:DA:2790:A:H2'	25:DA:2791:C:H5'	1.82	0.61
31:DG:128:ARG:C	31:DG:130:ASN:N	2.47	0.61
33:DI:88:ILE:HD11	33:DI:123:LEU:N	2.13	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:D9:9:ARG:HB3	56:D9:9:ARG:HH11	1.64	0.61
1:AA:251:U:H2'	1:AA:252:G:H8	1.63	0.61
1:AA:773:A:C6	1:AA:774:G:C6	2.88	0.61
1:AA:1241:C:H3'	1:AA:1241:C:H6	1.66	0.61
3:AC:71:ALA:HB2	3:AC:106:VAL:HB	1.83	0.61
4:AD:13:ARG:O	4:AD:15:GLU:N	2.34	0.61
10:AJ:45:ARG:HG3	10:AJ:45:ARG:NH1	2.13	0.61
20:AT:14:LYS:HB2	20:AT:17:ARG:NH2	2.16	0.61
23:AV:4:G:O2'	23:AV:5:G:P	2.58	0.61
23:AV:70:C:H2'	23:AV:71:G:O4'	2.00	0.61
25:BA:142:A:H5'	25:BA:142(A):C:OP2	2.01	0.61
25:BA:1403:C:H5''	25:BA:1471:A:C1'	2.31	0.61
35:BO:104:ARG:N	35:BO:122:LEU:O	2.34	0.61
38:BR:67:LEU:HD13	38:BR:76:VAL:HG21	1.83	0.61
40:BT:25:GLY:HA3	40:BT:90:GLN:HB2	1.81	0.61
42:BV:1:MET:HE1	42:BV:43:GLU:HG2	1.83	0.61
42:BV:6:LYS:O	42:BV:37:VAL:HG21	2.01	0.61
43:BW:76:VAL:HG23	43:BW:103:ILE:HA	1.81	0.61
45:BY:87:LYS:O	45:BY:88:LYS:HB2	1.99	0.61
3:CC:11:ARG:HG2	3:CC:11:ARG:HH11	1.65	0.61
8:CH:51:VAL:HG11	8:CH:60:ARG:HG3	1.82	0.61
10:CJ:22:LYS:C	10:CJ:22:LYS:HD2	2.25	0.61
12:CL:41:ARG:HB3	12:CL:41:ARG:NH1	2.13	0.61
13:CM:94:ARG:HH21	25:DA:887:A:C1'	2.13	0.61
15:CO:17:ARG:NH1	15:CO:77:ARG:NH1	2.48	0.61
15:CO:23:GLY:O	15:CO:24:SER:HB3	2.01	0.61
25:DA:221:A:H4'	25:DA:222:A:O5'	2.01	0.61
25:DA:271(P):C:H5'	33:DI:46:ALA:HB2	1.81	0.61
25:DA:686:G:O6	54:D7:12:ARG:HG3	2.00	0.61
25:DA:933:A:H2'	25:DA:934:G:O4'	2.00	0.61
25:DA:1658:C:N3	25:DA:1659:U:C4	2.69	0.61
25:DA:1858:G:H2'	25:DA:1883:G:H22	1.66	0.61
25:DA:2586:C:H2'	25:DA:2587:A:H5'	1.81	0.61
25:DA:2892:A:H3'	25:DA:2893:G:C5'	2.26	0.61
26:DB:83:G:C2'	26:DB:84:C:C5'	2.78	0.61
30:DF:39:TRP:O	30:DF:43:LYS:HG2	2.01	0.61
34:DN:66:LYS:O	34:DN:87:LEU:HD12	2.00	0.61
42:DV:19:LYS:HZ3	42:DV:20:LEU:H	1.48	0.61
53:D6:20:ASN:HD22	53:D6:21:TYR:H	1.48	0.61
2:AB:76:GLN:HB3	2:AB:206:ASP:O	2.01	0.61
3:AC:195:VAL:C	3:AC:196:LEU:HD22	2.25	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:9:MET:HB2	8:AH:26:VAL:HG21	1.83	0.61
10:AJ:94:VAL:HG12	10:AJ:95:GLU:N	2.16	0.61
14:AN:37:PHE:CZ	14:AN:56:VAL:HG21	2.30	0.61
17:AQ:76:LEU:HD12	17:AQ:77:VAL:H	1.65	0.61
18:AR:61:LYS:HG2	18:AR:65:ILE:HD11	1.83	0.61
18:AR:82:THR:HG22	18:AR:83:GLU:N	2.14	0.61
22:AW:27:G:H2'	22:AW:28:G:C8	2.35	0.61
25:BA:107:C:O2'	25:BA:108:U:H5'	1.99	0.61
25:BA:272:G:N2	25:BA:421:U:C4	2.65	0.61
25:BA:1495:A:N3	25:BA:1496:A:C2	2.69	0.61
25:BA:1658:C:N3	25:BA:1659:U:C4	2.69	0.61
25:BA:1666:G:C2'	25:BA:1667:G:H5'	2.30	0.61
25:BA:1810:A:H2'	25:BA:1811:G:O4'	2.00	0.61
25:BA:2033:A:H4'	25:BA:2034:U:OP1	2.00	0.61
25:BA:2103:C:H2'	25:BA:2104:G:H5''	1.81	0.61
25:BA:2186:G:H3'	25:BA:2187:G:H5''	1.81	0.61
25:BA:2345:G:H5''	25:BA:2347:C:O4'	2.00	0.61
25:BA:2502:G:H5''	25:BA:2503:A:C5'	2.29	0.61
25:BA:2884:U:H1'	52:B5:52:TYR:OH	2.01	0.61
28:BD:25:THR:HG22	28:BD:26:LYS:N	2.14	0.61
28:BD:44:ASN:OD1	28:BD:44:ASN:N	2.33	0.61
30:BF:67:GLN:O	30:BF:68:LYS:HB2	2.00	0.61
31:BG:56:ALA:HB2	31:BG:153:ARG:NE	2.16	0.61
32:BH:89:ILE:HD12	32:BH:90:LYS:N	2.15	0.61
41:BU:105:VAL:HG11	42:BV:40:LEU:CD1	2.31	0.61
9:CI:95:LYS:O	9:CI:99:LEU:HB3	2.01	0.61
13:CM:39:ILE:HD12	13:CM:56:LEU:HD23	1.82	0.61
25:DA:141:A:C8	25:DA:1408:C:O2'	2.52	0.61
25:DA:769:G:H4'	25:DA:1379:A:N1	2.15	0.61
25:DA:1021:A:C8	25:DA:1021:A:C3'	2.84	0.61
25:DA:1313:U:H2'	25:DA:1313:U:O2	2.00	0.61
25:DA:2469:A:H3'	25:DA:2470:G:O4'	2.00	0.61
28:DD:172:TYR:CE2	28:DD:269:PHE:HE1	2.18	0.61
29:DE:116:VAL:O	29:DE:117:MET:CB	2.47	0.61
32:DH:158:HIS:O	32:DH:159:GLU:HB2	2.01	0.61
34:DN:4:TYR:HB2	41:DU:64:ARG:NH2	2.15	0.61
42:DV:47:VAL:HG23	42:DV:47:VAL:O	2.00	0.61
45:DY:95:LYS:HG2	45:DY:100:ALA:CA	2.29	0.61
55:D8:28:GLY:O	55:D8:32:LEU:HG	2.00	0.61
1:AA:217:U:H2'	1:AA:218:U:H6	1.62	0.61
1:AA:1188:G:H2'	1:AA:1189:C:H6	1.66	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:94:LEU:HD12	3:AC:95:THR:N	2.16	0.61
4:AD:19:LEU:HD12	4:AD:19:LEU:N	2.15	0.61
7:AG:50:ILE:O	7:AG:54:THR:HG23	2.00	0.61
11:AK:56:GLY:O	11:AK:89:ALA:HB3	2.00	0.61
11:AK:57:THR:HG22	11:AK:59:TYR:H	1.66	0.61
11:AK:114:VAL:O	11:AK:114:VAL:HG13	2.00	0.61
15:AO:11:VAL:O	15:AO:14:GLU:HB3	2.01	0.61
16:AP:26:ARG:HB3	16:AP:26:ARG:NH1	2.16	0.61
25:BA:528:A:C2	25:BA:2043:C:C5'	2.84	0.61
25:BA:2287:A:N1	25:BA:2346:A:H2	1.98	0.61
26:BB:20:C:H2'	26:BB:21:G:C5'	2.16	0.61
31:BG:46:ALA:HB3	31:BG:82:LEU:CD1	2.30	0.61
35:BO:68:GLU:OE2	35:BO:78:ARG:NH1	2.34	0.61
37:BQ:10:ARG:HH11	37:BQ:10:ARG:HG3	1.65	0.61
1:CA:212:C:O2'	1:CA:455:C:N4	2.33	0.61
1:CA:1414:G:OP2	40:DT:108:ARG:NH2	2.34	0.61
2:CB:80:ILE:C	2:CB:82:ARG:H	2.08	0.61
3:CC:195:VAL:HG12	3:CC:196:LEU:N	2.15	0.61
6:CF:52:ILE:O	6:CF:53:ALA:HB3	2.01	0.61
6:CF:75:LEU:HD23	6:CF:79:LEU:HG	1.83	0.61
23:CV:17:C:C3'	23:CV:18:U:H5'	2.18	0.61
25:DA:71:A:H4'	25:DA:72:U:OP2	2.01	0.61
25:DA:1403:C:H5''	25:DA:1471:A:C1'	2.31	0.61
25:DA:2264:C:H2'	25:DA:2265:U:C6	2.35	0.61
25:DA:2359:C:H2'	25:DA:2360:A:O4'	2.01	0.61
25:DA:2789:C:H1'	25:DA:2892:A:H2	1.66	0.61
26:DB:107:G:H2'	26:DB:108:U:C5'	2.31	0.61
27:DC:38:ASP:HB2	27:DC:181:PRO:CB	2.31	0.61
28:DD:9:TYR:CE2	28:DD:13:ARG:HD3	2.36	0.61
30:DF:9:ILE:HG12	30:DF:14:PRO:HA	1.83	0.61
31:DG:56:ALA:HB2	31:DG:153:ARG:NE	2.16	0.61
41:DU:105:VAL:HG11	42:DV:40:LEU:HD12	1.82	0.61
42:DV:18:LEU:CD2	42:DV:19:LYS:H	2.13	0.61
42:DV:45:THR:O	42:DV:46:VAL:HG12	2.01	0.61
46:DZ:28:MET:HG3	46:DZ:33:LEU:HD21	1.81	0.61
46:DZ:30:ASN:OD1	46:DZ:33:LEU:HB3	2.01	0.61
48:D1:19:GLN:HB2	48:D1:35:THR:HG22	1.82	0.61
2:AB:7:VAL:O	2:AB:11:LEU:HD12	2.01	0.61
4:AD:162:LEU:CD1	4:AD:181:MET:HE2	2.31	0.61
5:AE:41:VAL:CG1	5:AE:113:ALA:HA	2.30	0.61
9:AI:4:TYR:N	9:AI:4:TYR:CD1	2.69	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:444:C:O2'	25:BA:445:C:H5'	2.01	0.61
25:BA:1697:G:C3'	25:BA:1698:A:H5''	2.27	0.61
25:BA:1961:C:O2'	25:BA:1962:C:H5'	2.01	0.61
25:BA:2023:G:H5'	25:BA:2617:C:H4'	1.82	0.61
25:BA:2555:U:H2'	25:BA:2556:C:H5'	1.83	0.61
25:BA:2740:A:H2'	25:BA:2741:A:C8	2.35	0.61
25:BA:2880:C:O2'	38:BR:90:ARG:HD3	2.01	0.61
26:BB:42:C:H4'	31:BG:67:LYS:O	2.01	0.61
28:BD:155:LEU:HD23	28:BD:177:LEU:HD21	1.81	0.61
28:BD:211:ARG:HA	28:BD:214:TRP:CD2	2.35	0.61
30:BF:9:ILE:HG12	30:BF:14:PRO:HA	1.83	0.61
34:BN:66:LYS:O	34:BN:87:LEU:HD12	2.00	0.61
36:BP:85:LEU:HB3	36:BP:114:ILE:HD11	1.83	0.61
37:BQ:39:PRO:HD3	37:BQ:99:PRO:HG3	1.83	0.61
38:BR:78:LYS:O	38:BR:83:ILE:HG12	2.01	0.61
42:BV:19:LYS:HE2	42:BV:19:LYS:HA	1.82	0.61
46:BZ:30:ASN:OD1	46:BZ:33:LEU:HB3	2.01	0.61
1:CA:1280:A:C5'	1:CA:1281:G:OP1	2.49	0.61
3:CC:62:ASP:HA	3:CC:97:LYS:HE2	1.83	0.61
6:CF:78:GLU:O	6:CF:81:ILE:HG13	2.00	0.61
25:DA:320:A:H4'	25:DA:322:A:C8	2.36	0.61
25:DA:1019:U:O2'	25:DA:1021:A:H2	1.84	0.61
30:DF:2:LYS:O	30:DF:25:PRO:HD2	2.00	0.61
37:DQ:66:ILE:HG22	37:DQ:104:PHE:HE2	1.65	0.61
43:DW:10:VAL:O	43:DW:11:ARG:HB2	2.01	0.61
48:D1:89:GLU:HA	48:D1:92:LYS:HB3	1.82	0.61
55:D8:43:GLN:O	55:D8:44:LYS:HD2	2.00	0.61
5:AE:78:HIS:HD2	8:AH:104:ARG:NE	1.96	0.61
6:AF:45:LEU:HD11	6:AF:57:GLN:OE1	2.01	0.61
7:AG:151:TYR:OH	11:AK:54:ARG:HD3	2.01	0.61
23:AV:5:G:C2	23:AV:70:C:O2	2.54	0.61
25:BA:141:A:H8	25:BA:1408:C:O2'	1.83	0.61
25:BA:1198:U:H2'	25:BA:1199:U:C6	2.36	0.61
25:BA:1926:U:H2'	25:BA:1928:A:OP2	2.01	0.61
25:BA:2152:G:H2'	25:BA:2153:G:C8	2.35	0.61
25:BA:2359:C:H2'	25:BA:2360:A:O4'	2.01	0.61
25:BA:2720:U:H5'	25:BA:2721:A:OP2	2.01	0.61
27:BC:38:ASP:HB2	27:BC:181:PRO:CB	2.31	0.61
32:BH:17:VAL:O	32:BH:17:VAL:HG12	2.01	0.61
33:BI:140:LEU:HD12	33:BI:141:LYS:H	1.65	0.61
33:BI:144:VAL:O	33:BI:145:VAL:CB	2.48	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BO:25:LEU:HD12	35:BO:38:VAL:HB	1.81	0.61
36:BP:63:PRO:C	36:BP:65:ARG:N	2.57	0.61
37:BQ:133:ARG:HG3	37:BQ:133:ARG:NH1	2.16	0.61
39:BS:76:LYS:O	39:BS:80:LEU:HD13	2.01	0.61
47:B0:3:HIS:N	47:B0:3:HIS:ND1	2.48	0.61
1:CA:422:U:OP2	1:CA:423:G:O2'	2.18	0.61
1:CA:639:C:H4'	15:CO:62:GLN:HE22	1.64	0.61
1:CA:811:A:H5''	1:CA:836:A:C2	2.36	0.61
1:CA:916:G:H5''	7:CG:102:ARG:CZ	2.31	0.61
2:CB:96:ARG:HH11	2:CB:148:TYR:HE1	1.48	0.61
5:CE:75:THR:HG23	5:CE:76:ILE:N	2.15	0.61
22:CW:18:G:H1	22:CW:55:U:C1'	2.14	0.61
24:CX:17:U:H2'	24:CX:18:G:H8	1.66	0.61
25:DA:142:A:H5'	25:DA:142(A):C:OP2	2.01	0.61
25:DA:1198:U:H2'	25:DA:1199:U:C6	2.36	0.61
25:DA:1827:C:C2'	25:DA:1828:G:H5'	2.31	0.61
25:DA:2484:G:N3	25:DA:2485:G:C8	2.68	0.61
25:DA:2522:U:H2'	25:DA:2523:G:H5''	1.82	0.61
27:DC:77:ILE:HB	27:DC:122:ALA:HA	1.82	0.61
31:DG:46:ALA:HB3	31:DG:82:LEU:CD1	2.30	0.61
31:DG:114:ILE:HG12	31:DG:140:ILE:HD13	1.81	0.61
32:DH:17:VAL:HG12	32:DH:17:VAL:O	2.01	0.61
38:DR:18:LEU:C	38:DR:18:LEU:HD13	2.25	0.61
40:DT:25:GLY:N	40:DT:49:VAL:CG1	2.64	0.61
41:DU:96:ALA:C	41:DU:98:LEU:N	2.59	0.61
45:DY:50:ARG:NE	45:DY:55:TYR:CE1	2.69	0.61
46:DZ:40:ASP:OD1	46:DZ:42:VAL:HG12	2.01	0.61
1:AA:1246:G:H22	1:AA:1252:G:H1'	1.64	0.60
1:AA:1440:C:P	40:BT:115:ARG:HH12	2.24	0.60
2:AB:18:GLY:N	2:AB:42:ILE:HG22	2.06	0.60
4:AD:79:PHE:CE1	4:AD:204:ILE:HD13	2.36	0.60
9:AI:4:TYR:H	9:AI:4:TYR:HD1	1.49	0.60
15:AO:78:TYR:C	15:AO:80:ALA:H	2.08	0.60
20:AT:29:LYS:O	20:AT:33:ILE:HG12	2.02	0.60
22:AW:5:G:H2'	22:AW:6:G:O4'	2.01	0.60
22:AW:57:G:H2'	22:AW:58:A:C5'	2.29	0.60
25:BA:1365:A:OP1	48:B1:41:ARG:NH1	2.34	0.60
25:BA:1880:C:H6	25:BA:1880:C:C5'	2.11	0.60
25:BA:2024:G:H2'	25:BA:2025:C:H6	1.66	0.60
25:BA:2148:G:O2'	25:BA:2149:G:H5'	1.99	0.60
25:BA:2571:C:C5'	25:BA:2572:A:H5''	2.31	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2689:U:H4'	25:BA:2690:C:H6	1.66	0.60
29:BE:28:ALA:HB3	29:BE:93:VAL:HG22	1.83	0.60
29:BE:59:VAL:O	29:BE:60:ASN:CB	2.49	0.60
30:BF:39:TRP:O	30:BF:43:LYS:HG2	2.01	0.60
31:BG:120:LEU:N	31:BG:179:PRO:O	2.33	0.60
36:BP:52:GLU:C	36:BP:52:GLU:OE1	2.43	0.60
39:BS:14:VAL:HG12	39:BS:15:ARG:H	1.64	0.60
46:BZ:10:ARG:HH21	46:BZ:26:GLY:H	1.49	0.60
49:B2:29:LYS:HD3	49:B2:57:ILE:HG21	1.83	0.60
1:CA:459:G:H2'	1:CA:460:G:H8	1.66	0.60
1:CA:589:G:N2	1:CA:614:G:H2'	2.16	0.60
1:CA:912:A:H2'	1:CA:913:C:C6	2.35	0.60
3:CC:36:ASP:OD2	3:CC:57:ILE:HG21	2.00	0.60
10:CJ:46:ARG:HG2	10:CJ:64:GLU:HB3	1.84	0.60
13:CM:34:LEU:HD13	13:CM:41:PRO:HA	1.83	0.60
25:DA:528:A:H2	25:DA:2043:C:H5'	1.64	0.60
25:DA:2147:G:H2'	25:DA:2148:G:O4'	2.01	0.60
28:DD:267:SER:HA	28:DD:270:ILE:HG13	1.82	0.60
30:DF:167:ALA:O	30:DF:170:LEU:HB2	2.01	0.60
31:DG:13:GLU:O	31:DG:14:GLU:HB2	2.00	0.60
34:DN:28:THR:HG23	34:DN:29:LYS:HG3	1.83	0.60
36:DP:23:PRO:HD2	36:DP:33:ARG:CZ	2.31	0.60
36:DP:63:PRO:C	36:DP:65:ARG:H	2.09	0.60
36:DP:85:LEU:HB3	36:DP:114:ILE:HD11	1.83	0.60
37:DQ:103:MET:HE1	37:DQ:125:LEU:HD13	1.83	0.60
39:DS:76:LYS:O	39:DS:80:LEU:HD13	2.01	0.60
41:DU:66:ASN:CB	41:DU:76:TYR:HB2	2.31	0.60
46:DZ:53:ILE:HG23	46:DZ:71:VAL:HB	1.82	0.60
1:AA:916:G:H5''	7:AG:102:ARG:NH2	2.16	0.60
4:AD:63:LYS:HD2	4:AD:198:VAL:CG2	2.29	0.60
12:AL:126:LYS:HE2	12:AL:127:GLU:HB2	1.82	0.60
22:AW:16:U:H3'	22:AW:17:C:C5'	2.31	0.60
23:AV:48:U:C5	23:AV:51:U:OP1	2.54	0.60
25:BA:887:A:H1'	25:BA:889:C:N4	2.16	0.60
25:BA:907:U:OP1	37:BQ:24:GLY:N	2.33	0.60
25:BA:2737:G:H2'	25:BA:2738:A:H8	1.65	0.60
28:BD:77:ALA:CB	28:BD:97:TYR:HA	2.31	0.60
28:BD:267:SER:HA	28:BD:270:ILE:HG13	1.82	0.60
29:BE:43:GLY:O	29:BE:44:TYR:HB3	1.99	0.60
48:B1:19:GLN:HB2	48:B1:35:THR:HG22	1.82	0.60
1:CA:12:U:H3	1:CA:22:G:H1	1.49	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:858:G:P	12:CL:12:ARG:HH22	2.24	0.60
1:CA:1440:C:H5'	40:DT:115:ARG:HH22	1.65	0.60
3:CC:34:LEU:HD21	3:CC:38:ARG:NH2	2.16	0.60
5:CE:31:LEU:HD13	5:CE:43:LEU:HD11	1.81	0.60
6:CF:30:LEU:HB3	6:CF:35:ALA:HB3	1.83	0.60
9:CI:18:PHE:HD1	9:CI:62:TYR:HD2	1.48	0.60
9:CI:24:GLY:HA2	9:CI:59:PHE:O	2.00	0.60
15:CO:11:VAL:O	15:CO:14:GLU:HB3	2.01	0.60
23:CV:53:G:O2'	23:CV:54:G:P	2.58	0.60
25:DA:363(E):U:H2'	25:DA:363(F):A:C1'	2.31	0.60
25:DA:528:A:C2	25:DA:2043:C:C5'	2.84	0.60
25:DA:575:A:O2'	25:DA:576:U:H5'	2.00	0.60
25:DA:607:U:OP1	30:DF:102:PRO:HA	2.01	0.60
25:DA:633:A:H2'	25:DA:634:C:H5'	1.82	0.60
25:DA:1140:C:H5''	34:DN:66:LYS:HZ1	1.66	0.60
25:DA:1490:A:H5'	25:DA:1491:G:OP2	2.01	0.60
25:DA:1494:A:H5'	25:DA:1494:A:N3	2.15	0.60
25:DA:1755:A:OP1	40:DT:113:LYS:NZ	2.33	0.60
25:DA:2264:C:H2'	25:DA:2265:U:H6	1.66	0.60
25:DA:2468:G:H5'	37:DQ:120:ILE:CD1	2.32	0.60
25:DA:2675:A:C4'	35:DO:29:ASN:HD22	2.14	0.60
25:DA:2730:C:O2'	25:DA:2731:G:H5'	2.01	0.60
26:DB:7:G:H3'	26:DB:8:U:C5'	2.22	0.60
29:DE:28:ALA:HB3	29:DE:93:VAL:HG22	1.84	0.60
32:DH:41:MET:O	32:DH:42:ARG:C	2.43	0.60
32:DH:84:SER:O	32:DH:85:LYS:HB3	2.01	0.60
36:DP:93:GLY:O	36:DP:123:LEU:HB2	2.00	0.60
36:DP:107:LYS:O	36:DP:109:GLY:N	2.35	0.60
37:DQ:39:PRO:HD3	37:DQ:99:PRO:HG3	1.83	0.60
38:DR:45:ARG:HG3	38:DR:46:GLY:H	1.66	0.60
40:DT:29:ARG:CD	40:DT:84:GLN:O	2.49	0.60
44:DX:57:LEU:HD22	44:DX:57:LEU:O	2.02	0.60
45:DY:88:LYS:HZ1	45:DY:93:GLY:HA3	1.66	0.60
46:DZ:5:LEU:HD12	46:DZ:6:LYS:H	1.67	0.60
47:D0:27:GLU:HB2	47:D0:69:PHE:HD1	1.66	0.60
53:D6:20:ASN:ND2	53:D6:21:TYR:H	1.98	0.60
1:AA:204:G:H2'	1:AA:205:G:H8	1.66	0.60
1:AA:251:U:H2'	1:AA:252:G:C8	2.36	0.60
1:AA:956:C:OP1	1:AA:1204:C:N4	2.35	0.60
1:AA:982:A:H5'	1:AA:1003:U:H3	1.66	0.60
2:AB:77:ALA:O	2:AB:81:VAL:HG23	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:164:VAL:HB	2:AB:186:ALA:CB	2.32	0.60
6:AF:71:ARG:HG3	6:AF:71:ARG:HH11	1.66	0.60
9:AI:10:ARG:HD2	9:AI:105:ASP:CB	2.31	0.60
12:AL:27:LEU:HD11	12:AL:64:TYR:CZ	2.36	0.60
13:AM:93:ARG:CZ	25:BA:888:C:H5'	2.30	0.60
15:AO:23:GLY:O	15:AO:24:SER:HB3	1.98	0.60
25:BA:673:C:O2'	30:BF:82:ILE:HD13	2.00	0.60
25:BA:1490:A:H5'	25:BA:1491:G:OP2	2.01	0.60
25:BA:1827:C:C2'	25:BA:1828:G:H5'	2.31	0.60
25:BA:1952:A:C5	35:BO:22:ILE:HD11	2.35	0.60
25:BA:2147:G:H2'	25:BA:2148:G:O4'	2.01	0.60
25:BA:2304:G:C2	25:BA:2313:C:N3	2.69	0.60
27:BC:77:ILE:HB	27:BC:122:ALA:HA	1.82	0.60
29:BE:199:ARG:HH11	29:BE:199:ARG:CB	2.14	0.60
42:BV:39:LEU:HD11	42:BV:51:VAL:HG22	1.83	0.60
43:BW:1:MET:HA	43:BW:1:MET:HE3	1.82	0.60
49:B2:18:PRO:HG2	49:B2:19:VAL:H	1.66	0.60
1:CA:516:A:O2'	1:CA:517:U:H5''	2.01	0.60
9:CI:4:TYR:N	9:CI:4:TYR:CD1	2.69	0.60
11:CK:12:ARG:CG	11:CK:13:GLN:N	2.64	0.60
12:CL:28:LYS:C	12:CL:30:ALA:N	2.55	0.60
14:CN:26:ARG:HH22	14:CN:47:LEU:CD2	2.11	0.60
22:CW:69:G:C2	22:CW:70:G:C8	2.89	0.60
23:CV:51:U:H2'	23:CV:51:U:O2	2.01	0.60
25:DA:2024:G:H2'	25:DA:2025:C:H6	1.66	0.60
25:DA:2168:G:C2	25:DA:2171:A:OP2	2.54	0.60
25:DA:2571:C:C5'	25:DA:2572:A:H5''	2.31	0.60
25:DA:2662:A:H2'	25:DA:2663:G:O4'	2.01	0.60
26:DB:7:G:C3'	26:DB:8:U:H5''	2.21	0.60
31:DG:61:ALA:HA	31:DG:64:THR:CG2	2.30	0.60
39:DS:69:VAL:O	39:DS:72:ALA:HB3	2.02	0.60
40:DT:24:PRO:HA	40:DT:49:VAL:HG13	1.83	0.60
49:D2:29:LYS:HD3	49:D2:57:ILE:HG21	1.83	0.60
53:D6:46:HIS:O	53:D6:46:HIS:HD2	1.84	0.60
3:AC:55:VAL:HG12	3:AC:55:VAL:O	2.00	0.60
5:AE:101:ILE:HD13	5:AE:101:ILE:N	2.12	0.60
9:AI:95:LYS:O	9:AI:99:LEU:HB3	2.01	0.60
9:AI:114:TYR:N	9:AI:114:TYR:CD2	2.58	0.60
10:AJ:13:HIS:HD1	10:AJ:14:LYS:HG3	1.67	0.60
10:AJ:40:LEU:HB2	10:AJ:41:PRO:CD	2.23	0.60
13:AM:7:VAL:CG2	31:BG:115:ARG:HA	2.31	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AR:44:LEU:HD11	18:AR:79:LEU:HD22	1.84	0.60
25:BA:99:U:H4'	25:BA:102:G:H1'	1.83	0.60
25:BA:228:A:H5'	25:BA:229:A:OP2	2.01	0.60
25:BA:2168:G:C2	25:BA:2171:A:OP2	2.54	0.60
32:BH:84:SER:O	32:BH:85:LYS:HB3	2.01	0.60
33:BI:88:ILE:CD1	33:BI:123:LEU:HG	2.32	0.60
34:BN:57:ALA:N	34:BN:124:ALA:HA	2.15	0.60
36:BP:93:GLY:O	36:BP:123:LEU:HB2	2.00	0.60
1:CA:249:G:OP1	17:CQ:67:LYS:O	2.19	0.60
2:CB:71:VAL:HA	2:CB:93:VAL:HG23	1.81	0.60
2:CB:80:ILE:HD13	2:CB:211:ILE:HG22	1.82	0.60
3:CC:150:LYS:HA	3:CC:169:ALA:HB2	1.83	0.60
5:CE:147:ASP:N	5:CE:147:ASP:OD2	2.35	0.60
6:CF:98:LEU:H	6:CF:98:LEU:HD12	1.65	0.60
25:DA:271(U):G:C4	25:DA:271(V):G:C8	2.89	0.60
25:DA:999:U:C2'	25:DA:1000:A:H5''	2.32	0.60
25:DA:2285:C:OP2	53:D6:27:LYS:HD2	2.01	0.60
26:DB:50:G:OP2	39:DS:62:LYS:HB3	2.02	0.60
29:DE:2:LYS:HE2	29:DE:95:ILE:CG2	2.30	0.60
34:DN:57:ALA:N	34:DN:124:ALA:HA	2.15	0.60
37:DQ:82:ARG:NH1	47:D0:4:LYS:HE2	2.16	0.60
40:DT:23:ARG:HB2	40:DT:24:PRO:HD2	1.83	0.60
41:DU:69:CYS:CB	41:DU:79:PHE:HD1	2.14	0.60
49:D2:18:PRO:HG2	49:D2:19:VAL:H	1.66	0.60
52:D5:32:PRO:O	52:D5:33:CYS:CB	2.47	0.60
2:AB:16:HIS:HD2	2:AB:210:SER:HA	1.66	0.60
2:AB:77:ALA:HB2	2:AB:211:ILE:CD1	2.32	0.60
3:AC:34:LEU:HD21	3:AC:38:ARG:NH2	2.16	0.60
10:AJ:49:VAL:HG21	14:AN:41:ARG:O	2.02	0.60
11:AK:125:PHE:N	11:AK:125:PHE:HD1	1.99	0.60
14:AN:43:CYS:SG	59:AN:101:ZN:ZN	1.88	0.60
18:AR:70:ILE:HG22	18:AR:74:ARG:HD2	1.84	0.60
19:AS:32:LYS:HA	19:AS:50:ALA:HB3	1.82	0.60
25:BA:243:U:OP1	55:B8:6:THR:CG2	2.49	0.60
25:BA:528:A:H2	25:BA:2043:C:H5'	1.65	0.60
25:BA:994:C:H2'	41:BU:54:LYS:HE3	1.82	0.60
25:BA:1339:G:N2	25:BA:1603:A:H1'	2.16	0.60
25:BA:2330:G:C2'	25:BA:2331:G:O5'	2.50	0.60
28:BD:43:ARG:NH1	28:BD:44:ASN:ND2	2.50	0.60
31:BG:61:ALA:HA	31:BG:64:THR:CG2	2.30	0.60
32:BH:159:GLU:CG	32:BH:160:LYS:H	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BI:65:ALA:HA	33:BI:131:LYS:HE2	1.84	0.60
38:BR:12:ARG:HD3	38:BR:16:HIS:ND1	2.17	0.60
41:BU:92:ARG:O	41:BU:94:ASN:N	2.30	0.60
41:BU:96:ALA:C	41:BU:98:LEU:N	2.59	0.60
43:BW:24:ILE:CG2	43:BW:36:LEU:HD21	2.32	0.60
46:BZ:40:ASP:OD1	46:BZ:42:VAL:HG12	2.02	0.60
48:B1:88:LYS:HD3	48:B1:88:LYS:C	2.26	0.60
52:B5:32:PRO:O	52:B5:33:CYS:CB	2.47	0.60
4:CD:63:LYS:HD2	4:CD:198:VAL:CG2	2.32	0.60
22:CW:34:G:C6	24:CX:14:A:N1	2.70	0.60
25:DA:94(A):G:H2'	25:DA:95:G:O4'	2.02	0.60
25:DA:243:U:OP1	55:D8:6:THR:HG21	2.01	0.60
25:DA:307:G:C2	25:DA:310:A:OP2	2.54	0.60
25:DA:307:G:N2	25:DA:310:A:OP2	2.34	0.60
25:DA:528:A:H8	25:DA:528:A:H3'	1.65	0.60
25:DA:1396:U:O2	25:DA:1396:U:H2'	2.00	0.60
25:DA:1996:C:H5	35:DO:32:TYR:OH	1.83	0.60
25:DA:2491:U:H4'	25:DA:2570:G:OP1	2.02	0.60
25:DA:2533:A:H3'	25:DA:2534:A:H5''	1.83	0.60
25:DA:2720:U:H5'	25:DA:2721:A:OP2	2.01	0.60
25:DA:2807:G:H3'	25:DA:2808:U:H5''	1.82	0.60
30:DF:67:GLN:O	30:DF:68:LYS:HB2	2.00	0.60
37:DQ:19:GLY:O	37:DQ:20:ALA:CB	2.49	0.60
38:DR:78:LYS:O	38:DR:83:ILE:HG12	2.01	0.60
39:DS:19:LYS:HB3	39:DS:20:ARG:NH1	2.13	0.60
40:DT:29:ARG:HD3	40:DT:84:GLN:O	2.02	0.60
40:DT:65:LYS:O	40:DT:72:VAL:N	2.34	0.60
53:D6:30:THR:HB	53:D6:31:PRO:HD2	1.82	0.60
1:AA:1171:G:H3'	3:AC:3:ASN:HD21	1.67	0.60
2:AB:30:ARG:HG3	2:AB:31:TYR:CD2	2.37	0.60
3:AC:41:GLY:O	3:AC:45:LYS:HG3	2.02	0.60
3:AC:155:GLY:O	3:AC:156:ARG:HB2	2.01	0.60
3:AC:178:LEU:C	3:AC:180:ALA:H	2.10	0.60
7:AG:15:ASP:HB3	7:AG:20:ASP:H	1.65	0.60
20:AT:13:LEU:C	20:AT:13:LEU:HD12	2.26	0.60
22:AW:9:A:OP2	22:AW:13:C:N4	2.35	0.60
23:AV:66:C:H2'	23:AV:67:C:O5'	2.02	0.60
25:BA:1887:C:C3'	25:BA:1888:G:H5''	2.32	0.60
25:BA:2299:G:C6	25:BA:2318:G:H8	2.20	0.60
25:BA:2419:U:O4	55:B8:30:ARG:CZ	2.50	0.60
30:BF:167:ALA:O	30:BF:170:LEU:HB2	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:23:PRO:HD2	36:BP:33:ARG:CZ	2.31	0.60
41:BU:92:ARG:C	41:BU:94:ASN:H	2.08	0.60
44:BX:57:LEU:HD22	44:BX:57:LEU:O	2.02	0.60
45:BY:13:VAL:HA	45:BY:75:ILE:HG22	1.81	0.60
55:B8:7:HIS:CG	55:B8:59:LYS:HZ1	2.19	0.60
3:CC:6:HIS:ND1	14:CN:49:HIS:HB3	2.17	0.60
3:CC:178:LEU:C	3:CC:180:ALA:H	2.10	0.60
5:CE:41:VAL:HG13	5:CE:113:ALA:CA	2.24	0.60
12:CL:49:ASN:ND2	12:CL:92:ASP:OD2	2.35	0.60
18:CR:36:ASN:HD22	18:CR:39:VAL:CG2	2.14	0.60
19:CS:6:LYS:CD	19:CS:6:LYS:H	2.14	0.60
19:CS:6:LYS:HD2	19:CS:6:LYS:H	1.67	0.60
22:CW:60:U:O2'	22:CW:61:C:C6	2.50	0.60
25:DA:99:U:H4'	25:DA:102:G:H1'	1.83	0.60
25:DA:104:U:H3'	25:DA:105:C:C6	2.37	0.60
25:DA:904:C:O2'	46:DZ:169:GLU:CD	2.45	0.60
25:DA:2023:G:H5'	25:DA:2617:C:H4'	1.82	0.60
25:DA:2080:G:O5'	48:D1:35:THR:HG21	2.00	0.60
27:DC:36:LYS:HB2	27:DC:36:LYS:HZ3	1.65	0.60
28:DD:27:THR:O	28:DD:27:THR:HG23	2.02	0.60
33:DI:104:GLN:O	33:DI:105:HIS:HD2	1.84	0.60
38:DR:67:LEU:HD13	38:DR:76:VAL:HG21	1.83	0.60
39:DS:30:ARG:NH2	39:DS:62:LYS:HD2	2.13	0.60
45:DY:54:LYS:C	45:DY:55:TYR:CD2	2.79	0.60
46:DZ:10:ARG:HH21	46:DZ:26:GLY:H	1.49	0.60
48:D1:68:PRO:HG2	48:D1:69:LYS:H	1.66	0.60
48:D1:88:LYS:HD3	48:D1:88:LYS:C	2.26	0.60
1:AA:10:A:OP2	5:AE:126:ARG:HD3	2.01	0.60
1:AA:343:G:H2'	1:AA:344:A:H8	1.67	0.60
1:AA:470:U:H2'	1:AA:471:A:C8	2.37	0.60
1:AA:1425:G:H2'	40:BT:118:ARG:CD	2.30	0.60
8:AH:51:VAL:HG11	8:AH:60:ARG:HG3	1.84	0.60
11:AK:12:ARG:CG	11:AK:13:GLN:N	2.65	0.60
17:AQ:14:LYS:HB2	17:AQ:14:LYS:NZ	2.16	0.60
22:AY:39:U:N3	22:AY:40:C:H5	2.00	0.60
25:BA:221:A:H4'	25:BA:222:A:O5'	2.01	0.60
25:BA:674:G:O2'	30:BF:74:ARG:HD3	2.02	0.60
25:BA:1246:A:OP2	36:BP:18:ARG:HG3	2.01	0.60
25:BA:1482:G:N2	25:BA:1507:A:H1'	2.17	0.60
25:BA:2593:U:H2'	25:BA:2594:C:C6	2.37	0.60
25:BA:2807:G:H3'	25:BA:2808:U:H5''	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BB:56:G:H5''	31:BG:27:ASN:ND2	2.16	0.60
27:BC:40:THR:HG21	27:BC:215:THR:CB	2.32	0.60
28:BD:27:THR:CG2	28:BD:83:GLU:HG2	2.31	0.60
30:BF:93:LYS:O	30:BF:95:ARG:HG2	2.01	0.60
33:BI:104:GLN:O	33:BI:105:HIS:HD2	1.84	0.60
34:BN:28:THR:HG23	34:BN:29:LYS:HG3	1.83	0.60
37:BQ:141:GLN:C	46:BZ:53:ILE:O	2.45	0.60
1:CA:1009:G:H1'	1:CA:1013:G:H22	1.67	0.60
2:CB:97:TRP:HH2	2:CB:176:GLU:CD	2.10	0.60
4:CD:31:CYS:O	4:CD:31:CYS:SG	2.60	0.60
4:CD:162:LEU:CD1	4:CD:181:MET:HE2	2.31	0.60
10:CJ:13:HIS:HD1	10:CJ:14:LYS:HG3	1.67	0.60
10:CJ:34:VAL:CG2	10:CJ:74:ILE:HG22	2.26	0.60
11:CK:48:ILE:HG23	11:CK:63:LEU:HD22	1.84	0.60
12:CL:43:VAL:HG23	12:CL:44:THR:N	2.15	0.60
15:CO:50:HIS:O	15:CO:53:HIS:HB3	2.02	0.60
22:CW:34:G:C6	24:CX:14:A:C2	2.90	0.60
25:DA:379:G:H2'	25:DA:380:U:C4'	2.32	0.60
25:DA:491:G:H2'	25:DA:492:A:C8	2.35	0.60
25:DA:614(C):A:C4	30:DF:180:GLY:HA2	2.36	0.60
25:DA:1170:G:H1	25:DA:1179:C:N4	1.96	0.60
25:DA:1639:U:O2'	25:DA:1640:C:H5''	2.00	0.60
25:DA:1926:U:H2'	25:DA:1928:A:OP2	2.01	0.60
25:DA:2469:A:N6	25:DA:2481:G:H1'	2.17	0.60
25:DA:2737:G:H2'	25:DA:2738:A:H8	1.65	0.60
34:DN:102:ALA:O	34:DN:106:MET:HE3	2.02	0.60
36:DP:89:ALA:HA	36:DP:121:LYS:HD3	1.83	0.60
45:DY:67:LEU:HD12	45:DY:67:LEU:C	2.25	0.60
1:AA:657:G:H2'	1:AA:658:A:H8	1.66	0.60
1:AA:784:U:H2'	1:AA:785:A:C8	2.37	0.60
1:AA:1482:G:O5'	1:AA:1482:G:C8	2.54	0.60
2:AB:23:ARG:HG2	2:AB:23:ARG:HH11	1.67	0.60
9:AI:99:LEU:HD13	9:AI:99:LEU:O	2.02	0.60
25:BA:174:C:C3'	25:BA:175:G:H5''	2.31	0.60
25:BA:271(R):G:H2'	25:BA:271(S):G:C8	2.37	0.60
25:BA:282:A:C4	25:BA:359:A:C2	2.90	0.60
25:BA:379:G:H2'	25:BA:380:U:O5'	2.01	0.60
25:BA:517:C:OP1	52:B5:16:ARG:NH2	2.34	0.60
25:BA:559:G:H22	41:BU:49:HIS:CD2	2.20	0.60
25:BA:1202:C:H2'	25:BA:1203:G:H5'	1.82	0.60
31:BG:52:ILE:CG2	31:BG:54:GLU:HG2	2.21	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BN:48:MET:H	34:BN:48:MET:CE	2.15	0.60
34:BN:102:ALA:O	34:BN:106:MET:HE3	2.02	0.60
36:BP:107:LYS:O	36:BP:109:GLY:N	2.35	0.60
37:BQ:54:MET:HG2	37:BQ:64:ILE:CG2	2.32	0.60
39:BS:12:PHE:HD1	39:BS:12:PHE:O	1.85	0.60
42:BV:68:LYS:HB2	42:BV:68:LYS:NZ	2.17	0.60
3:CC:195:VAL:C	3:CC:196:LEU:HD22	2.26	0.60
13:CM:90:LEU:O	13:CM:91:ARG:HB2	2.01	0.60
23:CV:11:A:H8	23:CV:11:A:O5'	1.84	0.60
25:DA:174:C:C3'	25:DA:175:G:H5''	2.31	0.60
25:DA:313:C:C2'	25:DA:314:A:H5'	2.32	0.60
25:DA:336:C:H5''	45:DY:7:VAL:CG1	2.31	0.60
25:DA:444:C:O2'	25:DA:445:C:H5'	2.01	0.60
25:DA:814:C:O2'	25:DA:815:C:H5'	2.02	0.60
25:DA:887:A:H1'	25:DA:889:C:N4	2.16	0.60
25:DA:994:C:H2'	41:DU:54:LYS:HE3	1.82	0.60
25:DA:1745(A):C:H5'	25:DA:1746:G:OP2	2.02	0.60
25:DA:2390:U:O2'	25:DA:2391:G:C5'	2.50	0.60
26:DB:41:U:O2	31:DG:70:VAL:HG23	2.02	0.60
27:DC:40:THR:HG21	27:DC:215:THR:CB	2.32	0.60
28:DD:142:VAL:HG23	28:DD:192:THR:O	2.02	0.60
29:DE:173:VAL:HG12	29:DE:174:ASP:H	1.67	0.60
34:DN:54:VAL:HB	34:DN:122:VAL:HG22	1.83	0.60
37:DQ:54:MET:HG2	37:DQ:64:ILE:CG2	2.32	0.60
38:DR:63:ARG:HA	38:DR:80:PHE:CE2	2.35	0.60
39:DS:30:ARG:HB3	39:DS:89:ARG:NH2	2.17	0.60
46:DZ:11:GLU:HB2	46:DZ:13:GLU:OE2	2.01	0.60
48:D1:46:LEU:HB3	48:D1:63:ALA:HA	1.84	0.60
1:AA:563:U:H2'	1:AA:564:G:O4'	2.01	0.60
1:AA:1042:C:OP1	14:AN:45:ARG:NH2	2.34	0.60
2:AB:74:LYS:C	2:AB:76:GLN:H	2.09	0.60
5:AE:91:LEU:HD12	5:AE:120:THR:HG22	1.83	0.60
13:AM:35:GLU:HG3	13:AM:36:LYS:N	2.17	0.60
20:AT:64:ASP:OD1	20:AT:81:LYS:HD2	2.02	0.60
25:BA:1639:U:O2'	25:BA:1640:C:H5''	2.00	0.60
25:BA:2320:A:N1	25:BA:2333:A:C8	2.70	0.60
25:BA:2420:C:OP1	55:B8:34:TRP:CA	2.49	0.60
25:BA:2730:C:O2'	25:BA:2731:G:H5'	2.01	0.60
26:BB:57:A:H5'	31:BG:27:ASN:ND2	2.14	0.60
28:BD:26:LYS:NZ	28:BD:82:ILE:O	2.35	0.60
28:BD:161:THR:O	28:BD:196:VAL:HG23	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BH:12:PRO:O	32:BH:13:LYS:HB2	2.02	0.60
37:BQ:134:ARG:HE	46:BZ:122:ARG:HH11	1.47	0.60
39:BS:69:VAL:O	39:BS:72:ALA:HB3	2.01	0.60
41:BU:36:ARG:HE	41:BU:40:PHE:HZ	1.47	0.60
45:BY:43:ASN:O	45:BY:44:ILE:O	2.20	0.60
48:B1:46:LEU:HB3	48:B1:63:ALA:HA	1.83	0.60
1:CA:311:G:H2'	1:CA:312:G:H8	1.66	0.60
2:CB:144:ARG:HA	2:CB:147:LYS:CB	2.31	0.60
3:CC:173:VAL:O	3:CC:173:VAL:HG12	2.02	0.60
9:CI:47:LEU:C	9:CI:49:PRO:HD2	2.26	0.60
10:CJ:83:GLU:C	10:CJ:85:LEU:H	2.09	0.60
13:CM:23:TYR:CB	13:CM:67:GLU:HB2	2.27	0.60
13:CM:90:LEU:HA	13:CM:93:ARG:CB	2.32	0.60
14:CN:48:ALA:HB2	14:CN:53:LEU:HD12	1.84	0.60
25:DA:850:C:O3'	50:D3:49:LYS:NZ	2.34	0.60
25:DA:1887:C:C3'	25:DA:1888:G:H5''	2.32	0.60
25:DA:1986:A:H2'	25:DA:1987:G:H5''	1.83	0.60
25:DA:2302:G:C6	25:DA:2315:G:C6	2.90	0.60
26:DB:48:A:H4'	39:DS:95:HIS:HD2	1.66	0.60
26:DB:79:C:H2'	26:DB:80:U:H5'	1.82	0.60
29:DE:199:ARG:HH11	29:DE:199:ARG:CB	2.14	0.60
31:DG:14:GLU:C	31:DG:17:PRO:HD2	2.27	0.60
32:DH:17:VAL:HG11	32:DH:45:VAL:HG13	1.83	0.60
37:DQ:34:LEU:HD11	37:DQ:129:THR:CB	2.32	0.60
44:DX:35:THR:HG22	44:DX:37:THR:H	1.67	0.60
46:DZ:41:LEU:HD11	46:DZ:82:ARG:NH1	2.17	0.60
1:AA:855:G:C5'	8:AH:89:PRO:HG2	2.31	0.60
6:AF:10:LEU:HD12	6:AF:10:LEU:N	2.16	0.60
11:AK:91:ARG:HD2	11:AK:91:ARG:C	2.27	0.60
13:AM:34:LEU:HD13	13:AM:41:PRO:HA	1.83	0.60
19:AS:5:LEU:HD12	19:AS:10:PHE:CD1	2.29	0.60
25:BA:104:U:H3'	25:BA:105:C:C6	2.36	0.60
25:BA:999:U:C2'	25:BA:1000:A:H5''	2.32	0.60
25:BA:1165:U:H2'	25:BA:1166:C:H6	1.66	0.60
25:BA:1986:A:H2'	25:BA:1987:G:H5''	1.83	0.60
28:BD:83:GLU:HB2	28:BD:92:ILE:HD11	1.84	0.60
32:BH:116:GLU:HG2	32:BH:117:PRO:HD2	1.83	0.60
41:BU:106:PHE:HA	41:BU:109:LEU:HD12	1.82	0.60
42:BV:4:ILE:HG22	42:BV:4:ILE:O	2.02	0.60
43:BW:73:ALA:HB3	43:BW:106:ILE:HD11	1.84	0.60
44:BX:35:THR:HG22	44:BX:37:THR:H	1.67	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BZ:5:LEU:HD12	46:BZ:6:LYS:H	1.67	0.60
46:BZ:53:ILE:HG23	46:BZ:71:VAL:HB	1.82	0.60
53:B6:25:LYS:HD3	55:B8:34:TRP:HZ2	1.67	0.60
1:CA:345:G:H2'	1:CA:346:G:C8	2.37	0.60
1:CA:1197:G:H5''	14:CN:5:ALA:HB2	1.84	0.60
2:CB:77:ALA:O	2:CB:81:VAL:HG23	2.01	0.60
9:CI:18:PHE:HB2	9:CI:62:TYR:O	2.01	0.60
13:CM:90:LEU:HA	13:CM:93:ARG:HB2	1.83	0.60
20:CT:99:LEU:C	20:CT:100:ILE:HD12	2.26	0.60
25:DA:143:G:H2'	25:DA:143(A):C:H6	1.67	0.60
25:DA:673:C:O2'	30:DF:82:ILE:HD13	2.01	0.60
25:DA:1961:C:O2'	25:DA:1962:C:H5'	2.01	0.60
25:DA:2347:C:H4'	53:D6:39:TYR:HE1	1.67	0.60
25:DA:2593:U:H2'	25:DA:2594:C:C6	2.37	0.60
26:DB:107:G:C2'	26:DB:108:U:C5'	2.80	0.60
29:DE:51:PHE:O	29:DE:52:LEU:CB	2.45	0.60
33:DI:65:ALA:HA	33:DI:131:LYS:HE2	1.84	0.60
33:DI:95:LYS:HA	33:DI:98:ALA:HB3	1.82	0.60
36:DP:48:PRO:O	36:DP:49:ARG:C	2.45	0.60
40:DT:24:PRO:C	40:DT:49:VAL:HG13	2.27	0.60
40:DT:25:GLY:O	40:DT:48:ILE:HG23	2.02	0.60
41:DU:105:VAL:HG11	42:DV:40:LEU:CD1	2.31	0.60
55:D8:50:LEU:HD12	55:D8:51:ALA:N	2.17	0.60
2:AB:75:LYS:HG2	2:AB:78:GLN:HE21	1.66	0.59
2:AB:104:ASN:OD1	2:AB:107:THR:HB	2.02	0.59
9:AI:24:GLY:HA2	9:AI:59:PHE:O	2.01	0.59
17:AQ:43:LEU:O	17:AQ:69:LYS:HG3	2.02	0.59
22:AW:62:C:H2'	22:AW:63:G:C8	2.37	0.59
22:AY:35:A:H2'	22:AY:36:A:O4'	2.02	0.59
25:BA:271(U):G:C4	25:BA:271(V):G:C8	2.89	0.59
25:BA:404:C:C4'	25:BA:405:U:H5'	2.25	0.59
25:BA:1129:A:H4'	25:BA:2516:G:C5'	2.31	0.59
25:BA:1221(A):C:H2'	25:BA:1222:C:H6	1.67	0.59
25:BA:1647:G:H3'	25:BA:1647:G:OP2	2.02	0.59
25:BA:2307:G:N3	25:BA:2307:G:C3'	2.65	0.59
25:BA:2586:C:H2'	25:BA:2587:A:H5'	1.81	0.59
25:BA:2672:G:C3'	25:BA:2673:G:H5''	2.32	0.59
26:BB:69:G:H2'	26:BB:70:C:C6	2.37	0.59
26:BB:78:A:C2	26:BB:100:A:C4	2.90	0.59
28:BD:161:THR:OG1	28:BD:196:VAL:HG21	2.02	0.59
31:BG:46:ALA:HB3	31:BG:82:LEU:HD13	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BN:54:VAL:HB	34:BN:122:VAL:HG22	1.83	0.59
35:BO:88:ASN:HA	35:BO:94:ARG:HE	1.67	0.59
36:BP:89:ALA:HA	36:BP:121:LYS:HD3	1.83	0.59
37:BQ:34:LEU:HD11	37:BQ:129:THR:CB	2.31	0.59
39:BS:54:LEU:C	39:BS:56:LEU:H	2.10	0.59
42:BV:19:LYS:CG	42:BV:94:LEU:HB2	2.22	0.59
1:CA:60:A:H4'	1:CA:61:G:O5'	2.01	0.59
1:CA:1130:U:H2'	1:CA:1131:C:O4'	2.01	0.59
1:CA:1131:C:H2'	1:CA:1132:U:C6	2.37	0.59
1:CA:1471:G:O2'	25:DA:1912:A:O3'	2.19	0.59
3:CC:189:ALA:O	3:CC:191:THR:HG23	2.02	0.59
7:CG:15:ASP:HB3	7:CG:20:ASP:H	1.67	0.59
7:CG:113:GLU:HG3	7:CG:119:ARG:HA	1.83	0.59
9:CI:4:TYR:HD1	9:CI:4:TYR:H	1.49	0.59
10:CJ:48:THR:HA	10:CJ:62:HIS:CB	2.31	0.59
12:CL:101:VAL:HG12	12:CL:104:VAL:HG23	1.84	0.59
25:DA:870:A:P	37:DQ:6:ARG:HH21	2.24	0.59
25:DA:1647:G:H3'	25:DA:1647:G:OP2	2.02	0.59
25:DA:1666:G:O2'	25:DA:1667:G:H5'	2.02	0.59
25:DA:2094:G:OP1	33:DI:22:LYS:HD2	2.02	0.59
28:DD:83:GLU:HB2	28:DD:92:ILE:HD11	1.84	0.59
28:DD:161:THR:O	28:DD:196:VAL:HG23	2.01	0.59
30:DF:8:GLN:CB	30:DF:126:VAL:HA	2.30	0.59
30:DF:113:ALA:HB1	30:DF:186:ILE:HG21	1.84	0.59
32:DH:12:PRO:CG	32:DH:49:VAL:HA	2.32	0.59
40:DT:55:ASN:ND2	40:DT:58:ASN:CG	2.60	0.59
45:DY:43:ASN:O	45:DY:44:ILE:O	2.20	0.59
1:AA:15:G:H1	1:AA:897:U:H3	1.49	0.59
1:AA:387:G:H2'	1:AA:388:A:H8	1.66	0.59
13:AM:3:ARG:HG2	13:AM:9:ILE:HG12	1.85	0.59
25:BA:271(T):C:H5'	25:BA:271(T):C:C6	2.28	0.59
25:BA:556:G:H2'	25:BA:557:U:C6	2.38	0.59
25:BA:814:C:O2'	25:BA:815:C:H5'	2.02	0.59
25:BA:870:A:C2	25:BA:871:U:H1'	2.38	0.59
25:BA:911:A:H5''	25:BA:912:C:H5'	1.78	0.59
25:BA:2257:U:O2'	25:BA:2258:C:H5'	2.03	0.59
25:BA:2711:A:H5''	25:BA:2712:U:H5'	1.84	0.59
34:BN:17:ASP:C	34:BN:19:GLU:H	2.10	0.59
39:BS:58:LEU:HD23	39:BS:65:VAL:HG13	1.84	0.59
45:BY:16:ALA:HB1	45:BY:21:LYS:NZ	2.17	0.59
45:BY:29:GLU:N	45:BY:29:GLU:OE1	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BZ:41:LEU:HD11	46:BZ:82:ARG:NH1	2.17	0.59
53:B6:20:ASN:HD22	53:B6:21:TYR:H	1.48	0.59
1:CA:1461:C:H4'	25:DA:1960:A:O2'	2.01	0.59
2:CB:164:VAL:HB	2:CB:186:ALA:CB	2.31	0.59
3:CC:35:GLU:O	3:CC:39:ILE:HG13	2.03	0.59
8:CH:9:MET:HB2	8:CH:26:VAL:HG21	1.82	0.59
8:CH:83:ILE:HG13	8:CH:137:VAL:HG22	1.84	0.59
9:CI:21:PRO:HA	9:CI:58:HIS:O	2.01	0.59
10:CJ:32:ALA:HB3	10:CJ:75:ILE:HG13	1.83	0.59
22:CW:5:G:N3	22:CW:69:G:N2	2.50	0.59
22:CW:39:U:H6	22:CW:39:U:C5'	2.15	0.59
23:CV:62:C:H2'	23:CV:63:C:H6	1.67	0.59
25:DA:282:A:C4	25:DA:359:A:C2	2.90	0.59
25:DA:1129:A:H4'	25:DA:2516:G:C5'	2.32	0.59
33:DI:1:MET:C	33:DI:20:ASP:HB2	2.28	0.59
33:DI:94:ALA:C	33:DI:96:ASP:H	2.10	0.59
37:DQ:81:VAL:CG2	47:D0:7:LEU:HD21	2.31	0.59
39:DS:58:LEU:HD23	39:DS:65:VAL:HG13	1.84	0.59
49:D2:63:VAL:HA	49:D2:66:GLU:HG2	1.84	0.59
1:AA:702:C:O2'	18:AR:49:LYS:HB3	2.02	0.59
1:AA:817:C:H2'	1:AA:818:U:C6	2.37	0.59
1:AA:885:A:H2'	1:AA:886:A:C8	2.37	0.59
1:AA:1258:C:HO2'	1:AA:1260:A:H8	1.51	0.59
4:AD:17:VAL:HG11	4:AD:197:PRO:CB	2.33	0.59
8:AH:23:SER:HB3	8:AH:62:TYR:HA	1.85	0.59
22:AW:18:G:N1	22:AW:55:U:O2'	2.31	0.59
22:AW:38:A:H3'	22:AW:39:U:C5'	2.31	0.59
25:BA:709:U:H2'	25:BA:710:G:C8	2.37	0.59
25:BA:914:C:H2'	25:BA:915:C:C5'	2.24	0.59
25:BA:1858:G:H2'	25:BA:1883:G:H22	1.66	0.59
25:BA:2406:U:O4	36:BP:70:GLN:HB3	2.02	0.59
26:BB:48:A:H4'	39:BS:95:HIS:CD2	2.31	0.59
28:BD:11:PRO:C	28:BD:13:ARG:N	2.49	0.59
34:BN:78:TYR:N	34:BN:78:TYR:CD1	2.70	0.59
36:BP:48:PRO:O	36:BP:49:ARG:C	2.43	0.59
36:BP:63:PRO:C	36:BP:65:ARG:H	2.09	0.59
45:BY:99:CYS:O	45:BY:100:ALA:HB2	2.03	0.59
46:BZ:166:SER:H	46:BZ:167:PRO:HA	1.67	0.59
51:B4:42:CYS:SG	51:B4:62:CYS:HB3	2.42	0.59
1:CA:341:G:N2	1:CA:342:U:C6	2.71	0.59
1:CA:1099:G:O3'	9:CI:104:ARG:HG3	2.01	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:178:ARG:HD2	8:CH:71:GLY:O	2.02	0.59
5:CE:41:VAL:CG1	5:CE:112:LEU:C	2.75	0.59
6:CF:33:TYR:CE1	6:CF:75:LEU:HA	2.37	0.59
25:DA:228:A:H5'	25:DA:229:A:OP2	2.01	0.59
25:DA:309:G:N3	25:DA:329:G:O2'	2.32	0.59
25:DA:709:U:H2'	25:DA:710:G:C8	2.37	0.59
25:DA:1165:U:H2'	25:DA:1166:C:H6	1.66	0.59
25:DA:2498:C:O2'	25:DA:2499:C:H5'	2.02	0.59
25:DA:2682:U:O4	25:DA:2728:U:C1'	2.51	0.59
25:DA:2684:U:OP2	40:DT:53:ARG:NH2	2.33	0.59
27:DC:36:LYS:HZ2	27:DC:36:LYS:HA	1.65	0.59
29:DE:1:MET:HE2	29:DE:83:ASP:O	2.01	0.59
29:DE:176:ILE:HG23	29:DE:178:GLU:HB3	1.83	0.59
32:DH:116:GLU:HG2	32:DH:117:PRO:HD2	1.83	0.59
36:DP:16:ARG:HB2	36:DP:16:ARG:CZ	2.32	0.59
37:DQ:137:TYR:OH	46:DZ:81:ARG:NH2	2.30	0.59
40:DT:57:PHE:O	40:DT:58:ASN:CB	2.49	0.59
40:DT:89:VAL:CG2	40:DT:91:ARG:NE	2.65	0.59
41:DU:92:ARG:C	41:DU:94:ASN:H	2.08	0.59
45:DY:95:LYS:HG2	45:DY:100:ALA:CB	2.33	0.59
1:AA:559:G:N2	1:AA:742:A:OP1	2.31	0.59
2:AB:19:HIS:ND1	2:AB:189:ASP:OD2	2.36	0.59
3:AC:126:ARG:HH11	3:AC:126:ARG:HG2	1.67	0.59
9:AI:21:PRO:HA	9:AI:58:HIS:O	2.02	0.59
9:AI:56:LEU:O	9:AI:56:LEU:HD23	2.02	0.59
13:AM:90:LEU:HA	13:AM:93:ARG:CB	2.33	0.59
13:AM:116:THR:HG22	13:AM:117:VAL:N	2.17	0.59
17:AQ:6:LEU:HD12	17:AQ:6:LEU:N	2.16	0.59
22:AW:55:U:C5	22:AW:58:A:OP2	2.56	0.59
22:AY:37:A:H5'	22:AY:38:A:OP2	2.01	0.59
25:BA:95:G:H1'	49:B2:47:ASN:HD22	1.68	0.59
25:BA:915:C:H2'	25:BA:916:G:H8	1.65	0.59
25:BA:1446:C:C2'	25:BA:1447:G:H5'	2.31	0.59
25:BA:1880:C:H5'	25:BA:1880:C:C6	2.27	0.59
25:BA:2186:G:N1	25:BA:2187:G:C5	2.70	0.59
25:BA:2491:U:H4'	25:BA:2570:G:OP1	2.02	0.59
28:BD:27:THR:O	28:BD:27:THR:HG23	2.02	0.59
31:BG:14:GLU:C	31:BG:17:PRO:HD2	2.27	0.59
34:BN:3:THR:O	34:BN:5:VAL:HG12	2.03	0.59
37:BQ:66:ILE:HG22	37:BQ:104:PHE:HE2	1.65	0.59
37:BQ:103:MET:HE1	37:BQ:125:LEU:HD13	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BS:49:VAL:HG21	39:BS:77:ALA:HA	1.84	0.59
42:BV:45:THR:O	42:BV:46:VAL:HG12	2.01	0.59
43:BW:9:TYR:CD2	43:BW:9:TYR:N	2.69	0.59
49:B2:63:VAL:HA	49:B2:66:GLU:HG2	1.85	0.59
1:CA:57:G:H2'	1:CA:58:C:C6	2.38	0.59
1:CA:934:U:H4'	19:CS:79:THR:HB	1.85	0.59
2:CB:67:THR:CB	2:CB:155:LEU:HD21	2.32	0.59
3:CC:92:ALA:HB2	3:CC:99:VAL:HG21	1.84	0.59
25:DA:75:G:H4'	49:D2:55:ARG:HH11	1.67	0.59
25:DA:272:G:O4'	25:DA:272(B):G:O2'	2.18	0.59
25:DA:1991:U:O2'	25:DA:1992:G:H5'	2.02	0.59
25:DA:2186:G:N1	25:DA:2187:G:C5	2.70	0.59
25:DA:2711:A:H5''	25:DA:2712:U:H5'	1.84	0.59
26:DB:106:G:H5'	46:DZ:31:ARG:HB2	1.83	0.59
28:DD:36:PRO:HA	28:DD:62:TYR:O	2.00	0.59
28:DD:142:VAL:HG23	28:DD:192:THR:C	2.28	0.59
30:DF:202:PHE:C	30:DF:202:PHE:CD1	2.79	0.59
31:DG:174:GLU:HB3	31:DG:175:LEU:HD12	1.85	0.59
39:DS:101:LEU:CD1	39:DS:101:LEU:H	2.15	0.59
40:DT:55:ASN:O	40:DT:56:GLY:C	2.45	0.59
42:DV:18:LEU:HD13	42:DV:19:LYS:N	2.17	0.59
43:DW:24:ILE:CG2	43:DW:36:LEU:HD21	2.32	0.59
45:DY:29:GLU:N	45:DY:29:GLU:OE1	2.35	0.59
1:AA:522:A:OP2	12:AL:115:LYS:NZ	2.35	0.59
8:AH:5:PRO:O	8:AH:8:ASP:HB3	2.01	0.59
8:AH:60:ARG:HG3	8:AH:60:ARG:NH1	2.14	0.59
13:AM:7:VAL:HG23	31:BG:115:ARG:HA	1.85	0.59
13:AM:76:ALA:O	13:AM:79:LYS:HB2	2.02	0.59
25:BA:363(E):U:H2'	25:BA:363(F):A:C1'	2.31	0.59
25:BA:379:G:H2'	25:BA:380:U:C4'	2.32	0.59
25:BA:888:C:C2'	25:BA:889:C:H5'	2.32	0.59
25:BA:1378:A:OP1	54:B7:10:ARG:NH2	2.35	0.59
25:BA:1594:G:H8	25:BA:1594:G:H5'	1.67	0.59
28:BD:13:ARG:NH1	28:BD:16:MET:SD	2.75	0.59
28:BD:142:VAL:HG23	28:BD:192:THR:C	2.28	0.59
28:BD:270:ILE:O	28:BD:271:ILE:HG12	2.03	0.59
30:BF:47:GLY:HA3	30:BF:95:ARG:O	2.02	0.59
33:BI:88:ILE:HG22	33:BI:89:TYR:N	2.18	0.59
33:BI:94:ALA:C	33:BI:96:ASP:H	2.10	0.59
43:BW:1:MET:HG3	43:BW:64:MET:HE3	1.85	0.59
1:CA:229:C:H2'	1:CA:230:C:H6	1.68	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1184:C:H2'	1:CA:1185:A:H8	1.66	0.59
6:CF:49:ALA:HB2	18:CR:78:LEU:O	2.01	0.59
7:CG:16:LEU:CD1	9:CI:42:ARG:HA	2.32	0.59
14:CN:59:ALA:O	14:CN:60:SER:HB2	2.03	0.59
23:CV:70:C:H2'	23:CV:71:G:H8	1.65	0.59
25:DA:1202:C:H2'	25:DA:1203:G:H5'	1.83	0.59
25:DA:2555:U:H2'	25:DA:2556:C:H5'	1.83	0.59
26:DB:15:A:H3'	26:DB:16:G:C5'	2.30	0.59
26:DB:41:U:C2	31:DG:70:VAL:HG23	2.37	0.59
28:DD:77:ALA:CB	28:DD:97:TYR:HA	2.31	0.59
29:DE:117:MET:HE3	29:DE:124:GLY:HA3	1.84	0.59
32:DH:12:PRO:O	32:DH:13:LYS:HB2	2.02	0.59
32:DH:156:ALA:C	32:DH:158:HIS:H	2.11	0.59
33:DI:133:HIS:HB2	33:DI:134:PRO:HD2	1.85	0.59
34:DN:78:TYR:N	34:DN:78:TYR:CD1	2.70	0.59
1:AA:1256:A:H2'	1:AA:1257:G:O4'	2.02	0.59
2:AB:121:LEU:O	2:AB:121:LEU:HD23	2.02	0.59
10:AJ:62:HIS:O	14:AN:59:ALA:HB3	2.02	0.59
12:AL:92:ASP:O	12:AL:93:LEU:HD23	2.02	0.59
16:AP:20:VAL:CG2	16:AP:32:TYR:HB2	2.33	0.59
17:AQ:68:ARG:O	17:AQ:68:ARG:HG3	2.02	0.59
22:AW:57:G:H2'	22:AW:57:G:N3	2.17	0.59
23:AV:20:G:H21	23:AV:58:A:H1'	1.65	0.59
25:BA:954:G:OP1	37:BQ:15:GLY:N	2.35	0.59
25:BA:1411:C:H2'	25:BA:1412:A:H8	1.66	0.59
25:BA:1609:A:C2	25:BA:1616:A:C5	2.90	0.59
25:BA:2334:G:H21	39:BS:18:ILE:CG1	2.15	0.59
25:BA:2419:U:O4	55:B8:30:ARG:NH2	2.36	0.59
29:BE:176:ILE:HG23	29:BE:178:GLU:HB3	1.83	0.59
30:BF:202:PHE:C	30:BF:202:PHE:CD1	2.79	0.59
36:BP:91:PHE:N	36:BP:91:PHE:CD1	2.70	0.59
38:BR:45:ARG:HG3	38:BR:46:GLY:H	1.66	0.59
43:BW:10:VAL:O	43:BW:11:ARG:HB2	2.01	0.59
44:BX:32:PRO:HA	44:BX:77:LYS:HB3	1.85	0.59
45:BY:95:LYS:HG2	45:BY:100:ALA:CB	2.32	0.59
53:B6:25:LYS:HD3	55:B8:34:TRP:CZ2	2.38	0.59
55:B8:50:LEU:HD12	55:B8:51:ALA:N	2.17	0.59
6:CF:10:LEU:HD12	6:CF:10:LEU:N	2.18	0.59
8:CH:80:ILE:HG22	8:CH:80:ILE:O	2.02	0.59
11:CK:125:PHE:N	11:CK:125:PHE:HD1	2.00	0.59
16:CP:25:ARG:HH11	16:CP:25:ARG:HG3	1.68	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:84:LEU:C	20:CT:84:LEU:CD1	2.76	0.59
23:CV:42:C:C2'	23:CV:43:G:O5'	2.50	0.59
25:DA:1221(A):C:H2'	25:DA:1222:C:H6	1.67	0.59
25:DA:1482:G:N2	25:DA:1507:A:H1'	2.17	0.59
30:DF:57:VAL:HG13	30:DF:59:TYR:CD1	2.38	0.59
33:DI:88:ILE:HG22	33:DI:89:TYR:N	2.17	0.59
39:DS:54:LEU:C	39:DS:56:LEU:H	2.10	0.59
4:AD:119:GLN:HG3	4:AD:123:HIS:CD2	2.36	0.59
12:AL:26:ALA:C	12:AL:27:LEU:HD22	2.28	0.59
13:AM:47:ASP:O	13:AM:48:LEU:HB3	2.03	0.59
13:AM:90:LEU:HA	13:AM:93:ARG:HB2	1.84	0.59
19:AS:10:PHE:HZ	19:AS:70:LYS:CE	2.15	0.59
25:BA:845:G:N2	25:BA:933:A:H61	1.99	0.59
25:BA:1819:A:O2'	25:BA:1820:U:OP2	2.17	0.59
25:BA:2262:U:C2'	25:BA:2263:C:H5''	2.33	0.59
25:BA:2533:A:H3'	25:BA:2534:A:H5''	1.83	0.59
25:BA:2682:U:O4	25:BA:2728:U:C1'	2.51	0.59
32:BH:14:GLY:O	32:BH:29:PRO:HD3	2.03	0.59
39:BS:97:ARG:C	39:BS:97:ARG:HE	2.10	0.59
53:B6:36:LEU:HD13	53:B6:50:ARG:HH12	1.67	0.59
1:CA:821:G:H2'	1:CA:822:U:H5'	1.85	0.59
1:CA:1294:U:O4	19:CS:4:SER:N	2.35	0.59
7:CG:47:CYS:C	7:CG:49:ILE:H	2.08	0.59
8:CH:41:ARG:O	8:CH:41:ARG:HG2	2.02	0.59
21:CU:5:ASP:HB3	21:CU:8:THR:CG2	2.33	0.59
22:CW:2:C:C6	22:CW:3:C:H5	2.20	0.59
25:DA:97:C:H5''	49:D2:2:LYS:HB2	1.83	0.59
25:DA:481:G:OP2	45:DY:47:LYS:CE	2.48	0.59
25:DA:845:G:N2	25:DA:933:A:H61	1.96	0.59
25:DA:870:A:C2	25:DA:871:U:H1'	2.38	0.59
25:DA:1287:A:C6	25:DA:1288:U:C4	2.90	0.59
25:DA:2271:G:OP1	47:D0:18:ALA:HB1	2.01	0.59
25:DA:2467:C:O2	37:DQ:124:LYS:NZ	2.35	0.59
25:DA:2571:C:H5''	25:DA:2572:A:H5''	1.85	0.59
28:DD:26:LYS:HE2	28:DD:82:ILE:H	1.68	0.59
29:DE:59:VAL:O	29:DE:60:ASN:CB	2.49	0.59
33:DI:133:HIS:CB	33:DI:134:PRO:CD	2.80	0.59
34:DN:17:ASP:C	34:DN:19:GLU:H	2.11	0.59
41:DU:104:GLN:CD	41:DU:104:GLN:H	2.08	0.59
44:DX:36:LYS:HD3	44:DX:56:THR:HG23	1.85	0.59
45:DY:8:LYS:H	45:DY:8:LYS:CD	2.05	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DY:16:ALA:HA	45:DY:21:LYS:HD2	1.84	0.59
51:D4:42:CYS:SG	51:D4:62:CYS:HB3	2.43	0.59
53:D6:25:LYS:HD3	55:D8:34:TRP:HZ2	1.67	0.59
1:AA:169:C:H4'	20:AT:25:ARG:NH1	2.17	0.59
1:AA:1266:A:H4'	1:AA:1267:A:H5''	1.84	0.59
1:AA:1476:A:OP2	1:AA:1482:G:OP1	2.21	0.59
12:AL:49:ASN:ND2	12:AL:92:ASP:OD2	2.36	0.59
14:AN:26:ARG:NH2	14:AN:47:LEU:HD11	2.17	0.59
20:AT:72:LEU:HD21	20:AT:77:ALA:N	2.18	0.59
25:BA:1019:U:O2'	25:BA:1021:A:H2	1.84	0.59
25:BA:1287:A:C6	25:BA:1288:U:C4	2.90	0.59
25:BA:1854:A:H62	25:BA:1888:G:H8	1.50	0.59
25:BA:2223:G:C2'	25:BA:2224:G:H5'	2.33	0.59
25:BA:2712:U:O2'	25:BA:2713:A:H5'	2.02	0.59
26:BB:68:C:H2'	26:BB:69:G:C8	2.37	0.59
26:BB:106:G:H5'	46:BZ:31:ARG:HB2	1.83	0.59
29:BE:173:VAL:HG12	29:BE:174:ASP:H	1.67	0.59
31:BG:113:ARG:HA	31:BG:113:ARG:NE	2.18	0.59
32:BH:92:ILE:HG22	32:BH:93:GLY:N	2.18	0.59
33:BI:133:HIS:HB2	33:BI:134:PRO:HD2	1.85	0.59
36:BP:16:ARG:HB2	36:BP:16:ARG:CZ	2.32	0.59
36:BP:55:ARG:CG	36:BP:56:SER:H	2.05	0.59
36:BP:127:ALA:O	36:BP:148:LEU:HD12	2.02	0.59
43:BW:48:ALA:O	43:BW:49:LYS:C	2.45	0.59
2:CB:77:ALA:HB2	2:CB:211:ILE:CD1	2.32	0.59
13:CM:108:ARG:NH1	13:CM:111:LYS:HB2	2.17	0.59
22:CW:56:C:C4	22:CW:57:G:N7	2.70	0.59
25:DA:1339:G:N2	25:DA:1603:A:H1'	2.16	0.59
25:DA:1609:A:C2	25:DA:1616:A:C5	2.90	0.59
25:DA:2080:G:O5'	48:D1:35:THR:CG2	2.51	0.59
25:DA:2377:A:H4'	39:DS:108:GLY:HA2	1.85	0.59
25:DA:2484:G:O2'	25:DA:2485:G:H5'	2.02	0.59
26:DB:25:A:H2'	26:DB:26:A:O4'	2.03	0.59
28:DD:16:MET:CE	28:DD:208:LYS:HD2	2.32	0.59
28:DD:43:ARG:NH1	28:DD:44:ASN:ND2	2.49	0.59
28:DD:134:ARG:HG3	28:DD:135:PHE:CD2	2.38	0.59
28:DD:161:THR:OG1	28:DD:196:VAL:HG21	2.02	0.59
29:DE:116:VAL:HG21	29:DE:122:PHE:CD2	2.38	0.59
37:DQ:12:GLN:NE2	37:DQ:72:LYS:HA	2.18	0.59
37:DQ:133:ARG:HG3	37:DQ:133:ARG:NH1	2.16	0.59
38:DR:10:LEU:HD22	38:DR:17:ARG:CD	2.29	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DV:18:LEU:HD22	42:DV:19:LYS:N	2.18	0.59
42:DV:82:ARG:HG2	42:DV:82:ARG:HH11	1.68	0.59
1:AA:196:U:H2'	1:AA:197:G:H8	1.65	0.59
1:AA:1102:G:H2'	1:AA:1103:U:H6	1.66	0.59
1:AA:1240:C:N4	1:AA:1241:C:O2	2.36	0.59
2:AB:67:THR:CB	2:AB:155:LEU:HD21	2.32	0.59
2:AB:112:VAL:HG11	2:AB:153:ARG:HA	1.83	0.59
5:AE:147:ASP:N	5:AE:147:ASP:OD2	2.34	0.59
25:BA:94(A):G:H2'	25:BA:95:G:O4'	2.02	0.59
25:BA:144:C:H2'	25:BA:145:G:C8	2.38	0.59
25:BA:2571:C:H5''	25:BA:2572:A:H5''	1.85	0.59
25:BA:2611:U:O2'	52:B5:3:LYS:HE2	2.03	0.59
25:BA:2759:G:O2'	25:BA:2760:C:H5'	2.03	0.59
29:BE:203:LYS:HE3	29:BE:203:LYS:O	2.03	0.59
30:BF:57:VAL:HG13	30:BF:59:TYR:CD1	2.38	0.59
33:BI:114:LEU:O	33:BI:115:ALA:HB3	2.03	0.59
42:BV:18:LEU:HD13	42:BV:19:LYS:N	2.17	0.59
1:CA:1035:G:H3'	1:CA:1036:C:H5'	1.84	0.59
1:CA:1131:C:H2'	1:CA:1132:U:H6	1.66	0.59
4:CD:17:VAL:HG11	4:CD:197:PRO:CB	2.32	0.59
10:CJ:62:HIS:O	14:CN:59:ALA:HB3	2.01	0.59
12:CL:11:VAL:HG13	17:CQ:29:HIS:HD2	1.67	0.59
16:CP:20:VAL:HG21	16:CP:32:TYR:HB2	1.84	0.59
18:CR:70:ILE:HG22	18:CR:74:ARG:HD2	1.83	0.59
23:CV:49:C:C5	23:CV:60:A:H1'	2.37	0.59
25:DA:888:C:C2'	25:DA:889:C:H5'	2.32	0.59
25:DA:1405:U:H2'	25:DA:1406:U:C6	2.38	0.59
25:DA:2650:U:O2'	25:DA:2651:C:H5'	2.03	0.59
25:DA:2759:G:O2'	25:DA:2760:C:H5'	2.02	0.59
25:DA:2849:U:P	40:DT:95:ARG:CZ	2.91	0.59
28:DD:13:ARG:NH1	28:DD:16:MET:SD	2.75	0.59
36:DP:61:ARG:HD2	55:D8:13:ARG:HD2	1.84	0.59
40:DT:16:ARG:NH2	40:DT:82:LEU:O	2.36	0.59
42:DV:1:MET:HE1	42:DV:43:GLU:HG2	1.83	0.59
42:DV:68:LYS:HB2	42:DV:68:LYS:NZ	2.17	0.59
43:DW:48:ALA:O	43:DW:49:LYS:C	2.45	0.59
1:AA:956:C:H42	14:AN:18:VAL:HG12	1.68	0.59
1:AA:971:A:N7	1:AA:1197:G:H4'	2.18	0.59
1:AA:1131:C:H2'	1:AA:1132:U:C6	2.32	0.59
1:AA:1286:G:N2	1:AA:1312:G:O2'	2.32	0.59
3:AC:182:ILE:HG12	3:AC:203:PHE:HA	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:87:SER:HB3	5:AE:131:ILE:HD13	1.84	0.59
7:AG:43:PHE:C	7:AG:43:PHE:CD1	2.80	0.59
22:AY:36:A:H61	24:AX:19:U:H3	1.51	0.59
25:BA:483:A:O2'	45:BY:60:PHE:HZ	1.85	0.59
25:BA:589:C:O3'	30:BF:95:ARG:NH1	2.35	0.59
25:BA:1666:G:O2'	25:BA:1667:G:H5'	2.02	0.59
25:BA:2515:C:H2'	25:BA:2516:G:H5'	1.81	0.59
29:BE:49:LEU:H	29:BE:49:LEU:CD1	2.13	0.59
30:BF:4:VAL:HA	30:BF:19:GLU:HB3	1.84	0.59
30:BF:155:LEU:HD23	30:BF:186:ILE:HD13	1.84	0.59
32:BH:159:GLU:CG	32:BH:160:LYS:N	2.61	0.59
33:BI:4:ILE:HG12	33:BI:18:VAL:CG2	2.33	0.59
33:BI:58:LEU:HA	33:BI:61:ARG:HD2	1.85	0.59
36:BP:126:VAL:CG1	36:BP:148:LEU:HD11	2.33	0.59
40:BT:80:SER:HB3	40:BT:81:PRO:CD	2.32	0.59
51:B4:37:PRO:O	51:B4:55:PRO:HG3	2.03	0.59
55:B8:4:MET:O	55:B8:62:LEU:CD1	2.51	0.59
1:CA:340:C:N4	35:DO:107:ARG:HH12	2.01	0.59
2:CB:67:THR:CG2	2:CB:155:LEU:HD21	2.33	0.59
4:CD:79:PHE:CE1	4:CD:204:ILE:HD13	2.38	0.59
22:CW:4:C:H6	22:CW:4:C:O5'	1.86	0.59
25:DA:104:U:C6	25:DA:105:C:C6	2.90	0.59
25:DA:353:G:C6	25:DA:354:G:N7	2.71	0.59
25:DA:564:C:O2'	25:DA:565:C:H5'	2.03	0.59
25:DA:1709:U:H2'	25:DA:1710:C:C6	2.38	0.59
25:DA:1996:C:C5	35:DO:32:TYR:OH	2.54	0.59
25:DA:2262:U:C2'	25:DA:2263:C:H5''	2.33	0.59
25:DA:2672:G:C3'	25:DA:2673:G:H5''	2.32	0.59
31:DG:101:ILE:HD13	31:DG:102:PHE:N	2.18	0.59
32:DH:14:GLY:O	32:DH:29:PRO:HD3	2.03	0.59
32:DH:125:VAL:HG12	32:DH:127:GLU:O	2.03	0.59
34:DN:3:THR:O	34:DN:5:VAL:HG12	2.03	0.59
39:DS:34:HIS:CD2	39:DS:54:LEU:HB2	2.38	0.59
46:DZ:74:VAL:HG22	46:DZ:86:VAL:HG12	1.85	0.59
53:D6:25:LYS:HD3	55:D8:34:TRP:CZ2	2.38	0.59
7:AG:62:PHE:HD1	7:AG:124:LEU:HD21	1.68	0.58
16:AP:42:ARG:O	16:AP:43:LYS:C	2.45	0.58
25:BA:104:U:C6	25:BA:105:C:C6	2.90	0.58
25:BA:143:G:H2'	25:BA:143(A):C:H6	1.68	0.58
25:BA:271(P):C:H5'	33:BI:46:ALA:HB2	1.85	0.58
25:BA:1405:U:H2'	25:BA:1406:U:C6	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1620:G:O2'	54:B7:2:LYS:HG2	2.03	0.58
25:BA:1652:A:C2'	25:BA:1653:G:H5''	2.33	0.58
29:BE:1:MET:HE2	29:BE:83:ASP:O	2.02	0.58
35:BO:12:ASP:OD2	35:BO:14:THR:N	2.36	0.58
36:BP:62:LEU:HD23	36:BP:62:LEU:H	1.68	0.58
44:BX:24:GLY:O	44:BX:82:GLN:HA	2.03	0.58
47:B0:27:GLU:HB2	47:B0:69:PHE:HD1	1.66	0.58
51:B4:60:GLU:O	51:B4:61:VAL:HB	2.02	0.58
1:CA:250:G:H1'	17:CQ:16:GLN:OE1	2.02	0.58
1:CA:905:G:N2	1:CA:1372:U:H1'	2.18	0.58
1:CA:928:G:OP2	13:CM:102:ARG:NH2	2.36	0.58
1:CA:1319:G:H2'	1:CA:1320:A:C8	2.38	0.58
3:CC:71:ALA:HB2	3:CC:106:VAL:HB	1.84	0.58
8:CH:23:SER:HB3	8:CH:62:TYR:HA	1.84	0.58
14:CN:26:ARG:NH2	14:CN:47:LEU:HD11	2.18	0.58
25:DA:845:G:OP2	25:DA:845:G:H8	1.86	0.58
25:DA:1754:C:P	40:DT:96:ARG:HH12	2.26	0.58
25:DA:2675:A:C4'	35:DO:29:ASN:ND2	2.65	0.58
29:DE:51:PHE:HE1	29:DE:52:LEU:CD2	2.02	0.58
30:DF:4:VAL:HA	30:DF:19:GLU:HB3	1.84	0.58
30:DF:24:LEU:HB3	30:DF:25:PRO:HD2	1.84	0.58
30:DF:155:LEU:HD23	30:DF:186:ILE:HD13	1.84	0.58
36:DP:63:PRO:C	36:DP:65:ARG:N	2.57	0.58
38:DR:12:ARG:HD3	38:DR:16:HIS:ND1	2.17	0.58
39:DS:49:VAL:HG21	39:DS:77:ALA:HA	1.84	0.58
40:DT:55:ASN:N	40:DT:59:THR:CG2	2.43	0.58
46:DZ:166:SER:H	46:DZ:167:PRO:HA	1.67	0.58
48:D1:67:ILE:N	48:D1:68:PRO:CD	2.66	0.58
53:D6:32:ASN:ND2	53:D6:33:LYS:H	2.01	0.58
1:AA:535:U:H4'	12:AL:86:ARG:HG2	1.86	0.58
1:AA:553:G:O3'	1:AA:802:A:O2'	2.21	0.58
1:AA:1233:A:H61	1:AA:1266:A:H61	1.49	0.58
3:AC:182:ILE:HG23	3:AC:202:ILE:O	2.03	0.58
5:AE:150:ARG:CZ	5:AE:150:ARG:HB2	2.33	0.58
13:AM:116:THR:O	13:AM:117:VAL:HB	2.03	0.58
22:AW:35:A:H2'	22:AW:36:A:O4'	2.03	0.58
25:BA:315:G:H2'	25:BA:316:C:H6	1.66	0.58
25:BA:1709:U:H2'	25:BA:1710:C:C6	2.38	0.58
25:BA:2498:C:O2'	25:BA:2499:C:H5'	2.02	0.58
25:BA:2662:A:H2'	25:BA:2663:G:O4'	2.01	0.58
26:BB:13:A:H2'	26:BB:70:C:O2'	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BB:25:A:H2'	26:BB:26:A:O4'	2.03	0.58
29:BE:78:LEU:O	29:BE:79:ARG:HD2	2.04	0.58
31:BG:44:GLY:H	31:BG:88:ILE:HG12	1.68	0.58
32:BH:125:VAL:HG12	32:BH:127:GLU:O	2.03	0.58
34:BN:87:LEU:O	34:BN:90:MET:HB2	2.03	0.58
35:BO:88:ASN:N	35:BO:92:GLU:O	2.26	0.58
37:BQ:12:GLN:NE2	37:BQ:72:LYS:HA	2.18	0.58
39:BS:101:LEU:H	39:BS:101:LEU:CD1	2.15	0.58
44:BX:60:ARG:NH1	54:B7:47:ARG:NH2	2.45	0.58
46:BZ:11:GLU:HB2	46:BZ:13:GLU:OE2	2.01	0.58
48:B1:68:PRO:HG2	48:B1:69:LYS:H	1.66	0.58
1:CA:290:C:O2'	1:CA:291:U:H5'	2.03	0.58
1:CA:982:A:N6	1:CA:1017:A:N7	2.50	0.58
1:CA:1007:C:H4'	1:CA:1015:G:H22	1.67	0.58
1:CA:1470:A:H2'	25:DA:1913:A:N1	2.18	0.58
3:CC:41:GLY:O	3:CC:45:LYS:HG3	2.04	0.58
3:CC:58:GLU:O	3:CC:64:VAL:HA	2.03	0.58
3:CC:134:ILE:HD11	3:CC:153:VAL:CG2	2.33	0.58
4:CD:196:LEU:HD12	4:CD:196:LEU:N	2.18	0.58
13:CM:70:LEU:O	13:CM:70:LEU:CD2	2.38	0.58
15:CO:4:THR:HB	15:CO:6:GLU:OE2	2.03	0.58
17:CQ:76:LEU:HD12	17:CQ:77:VAL:H	1.67	0.58
23:CV:15:G:N2	23:CV:49:C:H41	1.99	0.58
25:DA:556:G:H2'	25:DA:557:U:C6	2.37	0.58
25:DA:1464:C:H4'	25:DA:1528(A):A:C1'	2.33	0.58
25:DA:2257:U:O2'	25:DA:2258:C:H5'	2.02	0.58
25:DA:2376:A:N3	39:DS:94:TYR:CE1	2.71	0.58
25:DA:2689:U:H4'	25:DA:2690:C:H6	1.66	0.58
25:DA:2712:U:O2'	25:DA:2713:A:H5'	2.03	0.58
25:DA:2763:G:H5'	25:DA:2763:G:C8	2.39	0.58
25:DA:2849:U:O4	40:DT:23:ARG:NH2	2.32	0.58
26:DB:3:C:N3	26:DB:118:G:N2	2.51	0.58
29:DE:49:LEU:H	29:DE:49:LEU:CD1	2.13	0.58
30:DF:127:GLU:HB2	30:DF:196:LEU:CG	2.33	0.58
31:DG:76:SER:HB2	31:DG:83:ARG:HD3	1.85	0.58
34:DN:87:LEU:O	34:DN:90:MET:HB2	2.03	0.58
36:DP:58:THR:O	36:DP:61:ARG:NE	2.35	0.58
36:DP:126:VAL:CG1	36:DP:148:LEU:HD11	2.33	0.58
39:DS:97:ARG:C	39:DS:97:ARG:HE	2.10	0.58
40:DT:30:VAL:HA	40:DT:43:GLN:O	2.02	0.58
43:DW:1:MET:HG3	43:DW:64:MET:HE3	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DW:19:LEU:O	52:D5:25:LEU:HD12	2.03	0.58
49:D2:43:GLN:O	49:D2:44:LEU:HB2	2.03	0.58
55:D8:4:MET:O	55:D8:62:LEU:CD1	2.51	0.58
1:AA:438:C:H2'	1:AA:439:G:C8	2.38	0.58
3:AC:62:ASP:O	3:AC:98:ASN:HB3	2.03	0.58
5:AE:100:VAL:HG13	5:AE:118:ILE:HG23	1.84	0.58
7:AG:16:LEU:CD1	9:AI:42:ARG:HA	2.33	0.58
8:AH:6:ILE:HG22	8:AH:10:LEU:CD1	2.32	0.58
8:AH:85:ARG:HD3	8:AH:85:ARG:C	2.28	0.58
10:AJ:15:THR:O	10:AJ:94:VAL:HG21	2.03	0.58
13:AM:97:PRO:CD	13:AM:110:ARG:CD	2.81	0.58
18:AR:82:THR:CG2	18:AR:83:GLU:N	2.66	0.58
19:AS:6:LYS:CG	19:AS:7:LYS:HE3	2.33	0.58
25:BA:581:C:OP1	41:BU:33:ARG:HG2	2.01	0.58
25:BA:1675:C:C2	29:BE:129:HIS:CD2	2.91	0.58
25:BA:2390:U:O2'	25:BA:2391:G:C5'	2.50	0.58
25:BA:2468:G:OP1	37:BQ:119:ARG:NH2	2.36	0.58
25:BA:2469:A:N6	25:BA:2481:G:H1'	2.17	0.58
25:BA:2484:G:O2'	25:BA:2485:G:H5'	2.02	0.58
28:BD:16:MET:CE	28:BD:208:LYS:HD2	2.32	0.58
28:BD:131:LEU:HD12	28:BD:131:LEU:N	2.18	0.58
30:BF:6:VAL:HG12	30:BF:7:TYR:O	2.03	0.58
30:BF:32:LEU:HD22	30:BF:112:MET:HE2	1.84	0.58
31:BG:101:ILE:HD13	31:BG:102:PHE:N	2.18	0.58
32:BH:30:LYS:HB2	32:BH:79:VAL:HA	1.85	0.58
33:BI:92:VAL:HG22	33:BI:92:VAL:O	2.03	0.58
39:BS:106:ARG:NH1	39:BS:107:GLU:O	2.35	0.58
44:BX:31:HIS:ND1	44:BX:32:PRO:HD2	2.18	0.58
45:BY:31:LEU:HD22	45:BY:31:LEU:H	1.68	0.58
1:CA:414:C:H2'	1:CA:414:C:O2	2.03	0.58
1:CA:563:U:H2'	1:CA:564:G:O4'	2.03	0.58
1:CA:1236:G:C5'	3:CC:26:LYS:HZ2	2.15	0.58
2:CB:16:HIS:HD2	2:CB:210:SER:HA	1.68	0.58
2:CB:204:ASN:ND2	2:CB:207:ALA:H	1.95	0.58
7:CG:74:GLU:HG2	7:CG:91:VAL:HG22	1.86	0.58
17:CQ:67:LYS:HA	17:CQ:70:ARG:NH1	2.18	0.58
20:CT:26:ASN:HB3	20:CT:71:THR:CB	2.33	0.58
22:CW:36:A:N6	22:CW:37:A:N7	2.52	0.58
22:CW:37:A:H2'	22:CW:38:A:C8	2.38	0.58
22:CY:27:G:H3'	22:CY:27:G:H8	1.68	0.58
25:DA:2482:G:H22	37:DQ:52:VAL:HG11	1.67	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DE:203:LYS:O	29:DE:203:LYS:HE3	2.03	0.58
30:DF:36:VAL:CG1	30:DF:183:VAL:HG21	2.34	0.58
32:DH:86:GLU:N	32:DH:86:GLU:OE1	2.36	0.58
32:DH:92:ILE:HG22	32:DH:93:GLY:N	2.18	0.58
33:DI:4:ILE:HG12	33:DI:18:VAL:CG2	2.33	0.58
34:DN:48:MET:HE3	34:DN:48:MET:N	2.18	0.58
35:DO:48:PRO:O	35:DO:50:GLY:N	2.36	0.58
40:DT:98:LYS:HB3	40:DT:100:TYR:CE1	2.38	0.58
46:DZ:151:HIS:CB	46:DZ:170:THR:HA	2.33	0.58
2:AB:200:ILE:HG22	2:AB:202:PRO:HD3	1.85	0.58
8:AH:103:VAL:HG21	8:AH:109:ILE:O	2.03	0.58
20:AT:26:ASN:CB	20:AT:71:THR:HG23	2.32	0.58
25:BA:1745(A):C:H5'	25:BA:1746:G:OP2	2.02	0.58
25:BA:2264:C:H2'	25:BA:2265:U:H6	1.67	0.58
25:BA:2330:G:H2'	25:BA:2331:G:C5'	2.33	0.58
27:BC:47:LEU:HD23	27:BC:47:LEU:H	1.68	0.58
28:BD:32:SER:O	28:BD:33:LEU:C	2.46	0.58
28:BD:134:ARG:HG3	28:BD:135:PHE:CD2	2.38	0.58
28:BD:244:ARG:CG	28:BD:245:PRO:CD	2.62	0.58
29:BE:52:LEU:HD23	29:BE:76:ARG:N	2.19	0.58
30:BF:113:ALA:HB1	30:BF:186:ILE:HG21	1.84	0.58
30:BF:127:GLU:HB2	30:BF:196:LEU:CG	2.33	0.58
31:BG:39:ILE:HD12	31:BG:40:ASN:H	1.68	0.58
36:BP:23:PRO:HB2	36:BP:33:ARG:HG3	1.85	0.58
39:BS:34:HIS:CD2	39:BS:54:LEU:HB2	2.38	0.58
43:BW:64:MET:HE2	43:BW:109:GLU:HG2	1.86	0.58
44:BX:36:LYS:HD3	44:BX:56:THR:HG23	1.85	0.58
1:CA:627:G:H5'	8:CH:92:ARG:NH2	2.18	0.58
1:CA:758:G:N2	1:CA:787:U:O4	2.36	0.58
1:CA:1281:G:HO2'	1:CA:1282:U:P	2.26	0.58
2:CB:88:ALA:HB2	2:CB:219:VAL:HG13	1.85	0.58
3:CC:61:ALA:O	3:CC:62:ASP:HB2	2.03	0.58
3:CC:155:GLY:O	3:CC:156:ARG:HB2	2.03	0.58
5:CE:80:ILE:HG22	8:CH:104:ARG:HH22	1.65	0.58
6:CF:42:GLU:C	6:CF:44:GLY:H	2.10	0.58
9:CI:99:LEU:HD13	9:CI:99:LEU:O	2.03	0.58
12:CL:25:PRO:O	12:CL:27:LEU:HD22	2.03	0.58
13:CM:5:ALA:HB2	13:CM:66:LEU:HD11	1.84	0.58
15:CO:74:ASP:OD2	15:CO:77:ARG:HG2	2.04	0.58
15:CO:78:TYR:C	15:CO:80:ALA:H	2.09	0.58
19:CS:53:ASN:O	19:CS:77:THR:HG22	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CW:14:A:C6	22:CW:22:G:C2	2.90	0.58
25:DA:90:U:H1'	25:DA:92:A:H8	1.68	0.58
25:DA:271(T):C:H5'	25:DA:271(T):C:C6	2.28	0.58
25:DA:271(U):G:H2'	25:DA:271(V):G:C5'	2.08	0.58
25:DA:2822:G:H2'	25:DA:2823:A:H5''	1.85	0.58
25:DA:2831:G:P	29:DE:58:ARG:HH22	2.26	0.58
26:DB:78:A:C2	26:DB:100:A:C4	2.90	0.58
31:DG:39:ILE:HD12	31:DG:40:ASN:H	1.68	0.58
31:DG:51:ARG:HA	31:DG:51:ARG:HE	1.67	0.58
31:DG:175:LEU:H	31:DG:175:LEU:CD1	2.17	0.58
34:DN:4:TYR:CD1	34:DN:4:TYR:N	2.72	0.58
39:DS:12:PHE:HD1	39:DS:12:PHE:O	1.85	0.58
39:DS:71:ARG:O	39:DS:74:ALA:HB3	2.03	0.58
40:DT:33:LYS:HG3	40:DT:41:ARG:HH11	1.68	0.58
40:DT:89:VAL:HG11	40:DT:91:ARG:CZ	2.33	0.58
42:DV:19:LYS:CG	42:DV:94:LEU:HB2	2.22	0.58
1:AA:917:C:H2'	1:AA:918:G:C8	2.38	0.58
7:AG:47:CYS:C	7:AG:49:ILE:H	2.09	0.58
20:AT:57:ARG:NH1	20:AT:102:GLY:HA2	2.19	0.58
25:BA:95:G:H1'	49:B2:47:ASN:ND2	2.17	0.58
25:BA:313:C:C2'	25:BA:314:A:H5'	2.32	0.58
25:BA:2206:G:H21	25:BA:2207:G:C5'	2.15	0.58
25:BA:2748:A:O2'	32:BH:66:GLY:HA3	2.04	0.58
25:BA:2795:G:N7	25:BA:2801(A):A:C2	2.72	0.58
26:BB:14:U:OP2	26:BB:70:C:O2'	2.21	0.58
28:BD:142:VAL:HG23	28:BD:192:THR:O	2.02	0.58
29:BE:101:ARG:NH2	29:BE:171:GLU:CB	2.64	0.58
29:BE:116:VAL:HG21	29:BE:122:PHE:CD2	2.38	0.58
34:BN:73:THR:CG2	34:BN:82:LEU:HD11	2.32	0.58
36:BP:146:VAL:HG13	36:BP:147:LEU:N	2.18	0.58
45:BY:17:SER:HB3	45:BY:71:LYS:CB	2.19	0.58
1:CA:784:U:H2'	1:CA:785:A:H8	1.68	0.58
19:CS:50:ALA:HB1	19:CS:57:HIS:HB3	1.85	0.58
20:CT:97:ALA:O	20:CT:99:LEU:N	2.37	0.58
25:DA:271(H):G:C6	25:DA:271(Q):G:C6	2.91	0.58
25:DA:614(C):A:N3	30:DF:180:GLY:HA2	2.18	0.58
25:DA:1309:G:O2'	25:DA:1310:G:H5'	2.03	0.58
25:DA:1407:C:H2'	25:DA:1407:C:O2	2.02	0.58
25:DA:2307:G:N3	25:DA:2307:G:C3'	2.65	0.58
25:DA:2727:G:O3'	35:DO:70:LYS:NZ	2.36	0.58
36:DP:127:ALA:O	36:DP:148:LEU:HD12	2.02	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:D4:60:GLU:O	51:D4:61:VAL:HB	2.02	0.58
2:AB:121:LEU:HA	2:AB:126:GLU:OE1	2.03	0.58
2:AB:172:ILE:H	2:AB:172:ILE:CD1	2.16	0.58
8:AH:65:TYR:N	8:AH:65:TYR:CD1	2.72	0.58
15:AO:74:ASP:OD2	15:AO:77:ARG:HG2	2.02	0.58
19:AS:6:LYS:HE3	19:AS:6:LYS:N	2.18	0.58
19:AS:29:ARG:HD2	19:AS:29:ARG:H	1.69	0.58
25:BA:106:C:H2'	25:BA:107:C:H6	1.68	0.58
25:BA:171:G:H2'	25:BA:172:C:C6	2.38	0.58
25:BA:349:G:H5'	25:BA:350:U:OP2	2.03	0.58
25:BA:464:U:H4'	54:B7:5:TRP:CZ3	2.38	0.58
25:BA:874:G:H2'	25:BA:875:G:H8	1.68	0.58
25:BA:2261:C:H1'	25:BA:2388:A:N3	2.19	0.58
25:BA:2484:G:C2	25:BA:2485:G:C8	2.92	0.58
25:BA:2787:C:H1'	29:BE:61:ARG:HG2	1.85	0.58
26:BB:3:C:N3	26:BB:118:G:N2	2.51	0.58
27:BC:77:ILE:HG21	27:BC:123:VAL:N	2.19	0.58
30:BF:8:GLN:CB	30:BF:126:VAL:HA	2.30	0.58
34:BN:24:GLY:O	34:BN:28:THR:HB	2.03	0.58
34:BN:48:MET:HE3	34:BN:48:MET:N	2.18	0.58
35:BO:77:ILE:HD13	40:BT:74:ARG:HG2	1.84	0.58
50:B3:4:LEU:HD23	50:B3:5:LYS:N	2.19	0.58
51:B4:37:PRO:HA	51:B4:51:TYR:CD2	2.39	0.58
1:CA:869:A:O2'	1:CA:1397:G:H4'	2.03	0.58
1:CA:1107:U:H5'	1:CA:1108:U:H5	1.68	0.58
2:CB:74:LYS:C	2:CB:76:GLN:H	2.11	0.58
2:CB:96:ARG:HD2	2:CB:96:ARG:N	2.19	0.58
3:CC:76:VAL:CG2	3:CC:77:ILE:N	2.66	0.58
5:CE:135:THR:O	5:CE:138:ALA:HB3	2.03	0.58
18:CR:40:LEU:HD22	18:CR:70:ILE:HD13	1.83	0.58
22:CW:9:A:O4'	22:CW:46:G:N2	2.35	0.58
25:DA:108:U:H2'	25:DA:109:G:C5'	2.34	0.58
27:DC:47:LEU:H	27:DC:47:LEU:HD23	1.69	0.58
27:DC:77:ILE:HG21	27:DC:123:VAL:N	2.19	0.58
28:DD:270:ILE:O	28:DD:271:ILE:HG12	2.03	0.58
34:DN:18:ALA:HB1	34:DN:21:LYS:CB	2.34	0.58
36:DP:146:VAL:HG13	36:DP:147:LEU:N	2.18	0.58
40:DT:29:ARG:O	40:DT:45:PHE:N	2.36	0.58
44:DX:24:GLY:O	44:DX:82:GLN:HA	2.03	0.58
46:DZ:42:VAL:HG13	46:DZ:43:GLU:N	2.18	0.58
50:D3:4:LEU:HD23	50:D3:5:LYS:N	2.19	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:D8:7:HIS:CG	55:D8:59:LYS:HZ1	2.21	0.58
3:AC:58:GLU:O	3:AC:64:VAL:HA	2.03	0.58
7:AG:74:GLU:HG2	7:AG:91:VAL:HG22	1.86	0.58
20:AT:26:ASN:CB	20:AT:71:THR:CG2	2.81	0.58
23:AV:24:C:H2'	23:AV:25:U:C6	2.33	0.58
23:AV:30:G:N1	23:AV:43:G:N3	2.52	0.58
25:BA:108:U:H2'	25:BA:109:G:H5'	1.83	0.58
25:BA:819:A:OP2	25:BA:1187:G:N2	2.27	0.58
25:BA:2867:G:OP2	40:BT:119:LYS:NZ	2.34	0.58
27:BC:23:ASP:C	27:BC:25:ALA:H	2.12	0.58
28:BD:112:GLN:HB2	28:BD:115:GLN:NE2	2.18	0.58
30:BF:36:VAL:CG1	30:BF:183:VAL:HG21	2.34	0.58
36:BP:71:VAL:HG12	36:BP:72:PRO:HD3	1.85	0.58
36:BP:99:LEU:HA	36:BP:102:ARG:NH2	2.18	0.58
42:BV:39:LEU:CD1	42:BV:51:VAL:HG22	2.33	0.58
48:B1:18:ILE:HD12	48:B1:18:ILE:N	2.19	0.58
1:CA:1362:U:C5	7:CG:3:ARG:HA	2.39	0.58
2:CB:80:ILE:CD1	2:CB:211:ILE:HG22	2.32	0.58
8:CH:85:ARG:HD3	8:CH:85:ARG:C	2.28	0.58
11:CK:32:ILE:HD12	11:CK:72:ALA:CB	2.32	0.58
13:CM:76:ALA:O	13:CM:79:LYS:HB2	2.04	0.58
19:CS:36:ARG:NH1	19:CS:75:ALA:HB3	2.18	0.58
22:CW:2:C:H6	22:CW:2:C:OP2	1.86	0.58
23:CV:24:C:H2'	23:CV:25:U:H6	1.68	0.58
23:CV:42:C:C2	23:CV:43:G:C8	2.92	0.58
25:DA:171:G:H2'	25:DA:172:C:C6	2.38	0.58
25:DA:349:G:H5'	25:DA:350:U:OP2	2.03	0.58
25:DA:1446:C:C3'	25:DA:1447:G:H5''	2.33	0.58
25:DA:1594:G:H5'	25:DA:1594:G:H8	1.67	0.58
25:DA:1819:A:O4'	25:DA:1821:A:C4	2.56	0.58
25:DA:2162:G:H2'	25:DA:2163:C:C6	2.39	0.58
25:DA:2293:C:OP1	39:DS:92:TYR:OH	2.22	0.58
25:DA:2516:G:C3'	25:DA:2517:C:H5'	2.32	0.58
26:DB:11:C:H3'	26:DB:12:C:C6	2.39	0.58
26:DB:50:G:P	39:DS:63:THR:HG23	2.44	0.58
28:DD:257:LEU:HD22	28:DD:258:LYS:O	2.04	0.58
30:DF:89:VAL:HG12	30:DF:90:PHE:H	1.68	0.58
32:DH:17:VAL:CG1	32:DH:45:VAL:HG13	2.33	0.58
32:DH:30:LYS:HB2	32:DH:79:VAL:HA	1.85	0.58
40:DT:29:ARG:CD	40:DT:85:LYS:CG	2.81	0.58
41:DU:38:THR:O	41:DU:41:ALA:HB3	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DV:47:VAL:O	42:DV:48:GLY:C	2.47	0.58
46:DZ:44:PHE:HE2	46:DZ:86:VAL:HG21	1.69	0.58
46:DZ:153:SER:CB	46:DZ:167:PRO:HB3	2.29	0.58
48:D1:18:ILE:HD12	48:D1:18:ILE:N	2.19	0.58
1:AA:88:G:H2'	1:AA:89:U:H5'	1.86	0.58
3:AC:189:ALA:O	3:AC:191:THR:HG23	2.04	0.58
4:AD:130:GLY:O	4:AD:131:ARG:C	2.46	0.58
5:AE:136:MET:O	5:AE:138:ALA:N	2.37	0.58
7:AG:43:PHE:C	7:AG:43:PHE:HD1	2.11	0.58
11:AK:111:ASP:CA	18:AR:84:LYS:HG3	2.27	0.58
14:AN:26:ARG:HH22	14:AN:47:LEU:CD2	2.08	0.58
16:AP:12:LYS:O	16:AP:13:HIS:HB2	2.04	0.58
18:AR:36:ASN:HD22	18:AR:39:VAL:CG2	2.16	0.58
19:AS:50:ALA:HB1	19:AS:57:HIS:HB3	1.85	0.58
23:AV:74:A:O3'	23:AV:75:C:O4'	2.22	0.58
25:BA:108:U:H2'	25:BA:109:G:C5'	2.34	0.58
25:BA:351:G:C8	25:BA:351:G:OP2	2.57	0.58
25:BA:353:G:C6	25:BA:354:G:N7	2.71	0.58
25:BA:614(C):A:C4	30:BF:180:GLY:HA2	2.39	0.58
25:BA:806:C:OP2	36:BP:39:LYS:CD	2.52	0.58
25:BA:941:A:H4'	36:BP:35:HIS:CE1	2.39	0.58
25:BA:1385:G:OP1	25:BA:1385:G:C4'	2.51	0.58
25:BA:1407:C:O2	25:BA:1407:C:H2'	2.02	0.58
30:BF:24:LEU:HB3	30:BF:25:PRO:HD2	1.84	0.58
30:BF:124:LEU:HG	30:BF:126:VAL:HG13	1.86	0.58
35:BO:114:ILE:O	35:BO:116:SER:N	2.36	0.58
38:BR:4:LEU:C	38:BR:6:SER:H	2.10	0.58
48:B1:67:ILE:N	48:B1:68:PRO:CD	2.66	0.58
52:B5:36:CYS:SG	52:B5:37:LYS:N	2.77	0.58
1:CA:295:A:H1'	1:CA:548:U:O2	2.04	0.58
2:CB:92:TYR:C	2:CB:92:TYR:HD1	2.12	0.58
4:CD:19:LEU:HD12	4:CD:19:LEU:N	2.19	0.58
4:CD:31:CYS:C	4:CD:33:MET:N	2.60	0.58
19:CS:5:LEU:HD12	19:CS:10:PHE:CD1	2.33	0.58
23:CV:57:C:H5	31:DG:84:LYS:HZ3	0.59	0.58
25:DA:272(J):C:O2	25:DA:272(J):C:C2'	2.52	0.58
25:DA:1158:C:H5'	50:D3:31:LEU:HB2	1.86	0.58
25:DA:1573:G:H2'	25:DA:1574:C:H5'	1.86	0.58
25:DA:2340:G:O2'	25:DA:2341:G:H5'	2.04	0.58
25:DA:2484:G:C2	25:DA:2485:G:C8	2.92	0.58
30:DF:132:VAL:CG2	30:DF:133:ASN:H	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DH:40:GLU:O	32:DH:41:MET:CB	2.51	0.58
32:DH:41:MET:O	32:DH:42:ARG:O	2.21	0.58
34:DN:62:VAL:HG22	34:DN:66:LYS:CD	2.33	0.58
44:DX:31:HIS:ND1	44:DX:32:PRO:HD2	2.18	0.58
52:D5:57:VAL:C	52:D5:58:LEU:HD23	2.29	0.58
53:D6:17:LYS:C	53:D6:18:ARG:HD3	2.29	0.58
1:AA:343:G:O2'	1:AA:344:A:C5'	2.52	0.58
3:AC:86:VAL:O	3:AC:90:GLU:HG2	2.04	0.58
8:AH:87:SER:HA	8:AH:93:VAL:HG23	1.86	0.58
12:AL:83:VAL:CG1	12:AL:100:ILE:HG23	2.33	0.58
15:AO:4:THR:HB	15:AO:6:GLU:OE2	2.03	0.58
17:AQ:18:THR:HG22	17:AQ:19:VAL:N	2.17	0.58
22:AW:18:G:N2	22:AW:55:U:H6	2.02	0.58
25:BA:271(Q):G:O2'	25:BA:271(R):G:P	2.61	0.58
25:BA:528:A:H3'	25:BA:528:A:C8	2.39	0.58
25:BA:871:U:H4'	37:BQ:69:PHE:CD2	2.39	0.58
25:BA:1021:A:C8	25:BA:1021:A:C3'	2.84	0.58
25:BA:2162:G:H2'	25:BA:2163:C:C6	2.39	0.58
25:BA:2468:G:O2'	25:BA:2476:A:H8	1.86	0.58
25:BA:2790:A:H2'	25:BA:2790:A:N3	2.18	0.58
27:BC:36:LYS:HA	27:BC:36:LYS:HZ2	1.69	0.58
28:BD:26:LYS:HE2	28:BD:82:ILE:H	1.68	0.58
28:BD:257:LEU:HD22	28:BD:258:LYS:O	2.04	0.58
31:BG:174:GLU:HB3	31:BG:175:LEU:HD12	1.85	0.58
33:BI:133:HIS:CB	33:BI:134:PRO:CD	2.80	0.58
36:BP:55:ARG:CG	36:BP:56:SER:N	2.51	0.58
38:BR:28:LEU:HA	38:BR:34:ILE:CG1	2.34	0.58
40:BT:80:SER:OG	40:BT:81:PRO:CD	2.43	0.58
45:BY:88:LYS:NZ	45:BY:93:GLY:CA	2.67	0.58
46:BZ:151:HIS:CB	46:BZ:170:THR:HA	2.34	0.58
51:B4:64:LYS:O	51:B4:65:CYS:SG	2.62	0.58
1:CA:701:G:C4	11:CK:116:HIS:CD2	2.92	0.58
1:CA:1136:G:H2'	1:CA:1137:G:H8	1.68	0.58
1:CA:1328:G:N2	1:CA:1355:G:H2'	2.18	0.58
2:CB:30:ARG:HG3	2:CB:31:TYR:CD2	2.39	0.58
4:CD:65:ARG:HD3	4:CD:75:PHE:CD2	2.38	0.58
4:CD:165:MET:HE3	4:CD:176:LEU:HD23	1.85	0.58
9:CI:92:TYR:N	9:CI:92:TYR:CD1	2.72	0.58
11:CK:20:TYR:O	11:CK:30:VAL:HA	2.04	0.58
11:CK:97:ALA:O	11:CK:101:SER:HB3	2.04	0.58
13:CM:40:ASN:ND2	13:CM:43:THR:HG23	2.10	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CS:51:VAL:O	19:CS:57:HIS:HA	2.03	0.58
20:CT:30:LYS:HZ2	20:CT:80:ARG:NH2	2.02	0.58
25:DA:8:A:OP1	34:DN:51:PHE:HE2	1.87	0.58
25:DA:351:G:C8	25:DA:351:G:OP2	2.57	0.58
25:DA:874:G:H2'	25:DA:875:G:H8	1.68	0.58
25:DA:2186:G:C2	25:DA:2187:G:C5	2.92	0.58
25:DA:2298:A:H2'	25:DA:2299:G:O4'	2.04	0.58
28:DD:26:LYS:NZ	28:DD:82:ILE:O	2.35	0.58
30:DF:176:LEU:HD21	30:DF:180:GLY:O	2.04	0.58
34:DN:73:THR:CG2	34:DN:82:LEU:HD11	2.32	0.58
38:DR:4:LEU:C	38:DR:6:SER:H	2.10	0.58
38:DR:28:LEU:HA	38:DR:34:ILE:CG1	2.34	0.58
41:DU:62:ILE:HD12	41:DU:76:TYR:CZ	2.38	0.58
43:DW:73:ALA:HB3	43:DW:106:ILE:HD11	1.84	0.58
46:DZ:9:TYR:OH	46:DZ:35:ARG:HG3	2.03	0.58
1:AA:267:C:H2'	1:AA:268:A:C8	2.39	0.58
1:AA:527:G:H2'	1:AA:528:C:C6	2.39	0.58
1:AA:1140:C:C2'	1:AA:1140:C:O2	2.51	0.58
2:AB:80:ILE:HD13	2:AB:211:ILE:HG22	1.86	0.58
3:AC:76:VAL:CG2	3:AC:77:ILE:N	2.66	0.58
7:AG:97:GLN:O	7:AG:100:ALA:HB3	2.03	0.58
8:AH:23:SER:HA	8:AH:63:LEU:CD2	2.34	0.58
9:AI:18:PHE:HD1	9:AI:62:TYR:HD2	1.51	0.58
13:AM:88:ARG:O	13:AM:98:VAL:HG13	2.04	0.58
25:BA:83:G:N2	25:BA:102:G:H2'	2.19	0.58
25:BA:1430:C:H2'	25:BA:1431:U:H6	1.69	0.58
25:BA:1796:U:H2'	25:BA:1797:C:C6	2.39	0.58
25:BA:2356:C:O3'	47:B0:20:ARG:HD3	2.03	0.58
30:BF:89:VAL:HG12	30:BF:90:PHE:H	1.68	0.58
30:BF:176:LEU:HD21	30:BF:180:GLY:O	2.04	0.58
31:BG:5:VAL:HG12	51:B4:51:TYR:CE1	2.39	0.58
34:BN:3:THR:C	34:BN:5:VAL:H	2.12	0.58
34:BN:4:TYR:N	34:BN:4:TYR:CD1	2.71	0.58
40:BT:32:TYR:CG	40:BT:81:PRO:O	2.56	0.58
40:BT:90:GLN:HA	40:BT:91:ARG:HB2	1.86	0.58
41:BU:57:PHE:C	41:BU:59:ARG:N	2.60	0.58
52:B5:16:ARG:HD2	52:B5:20:ARG:NH2	2.19	0.58
53:B6:32:ASN:ND2	53:B6:33:LYS:H	2.01	0.58
1:CA:575:G:H2'	1:CA:576:G:H8	1.67	0.58
2:CB:19:HIS:ND1	2:CB:189:ASP:OD2	2.36	0.58
3:CC:150:LYS:HA	3:CC:169:ALA:CB	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:CP:20:VAL:HG23	16:CP:34:GLU:O	2.04	0.58
20:CT:13:LEU:C	20:CT:13:LEU:HD12	2.28	0.58
20:CT:29:LYS:O	20:CT:33:ILE:HG12	2.03	0.58
22:CW:34:G:H2'	22:CW:35:A:O5'	2.03	0.58
23:CV:73:A:N6	23:CV:74:A:C6	2.72	0.58
25:DA:280:C:C5	25:DA:281:G:N7	2.72	0.58
25:DA:1902:C:H1'	28:DD:244:ARG:HG3	1.86	0.58
25:DA:2795:G:N7	25:DA:2801(A):A:C2	2.72	0.58
26:DB:17:C:H2'	26:DB:18:G:O4'	2.04	0.58
28:DD:70:TRP:HZ3	28:DD:146:GLU:CD	2.12	0.58
28:DD:112:GLN:HB2	28:DD:115:GLN:NE2	2.18	0.58
30:DF:6:VAL:HG12	30:DF:7:TYR:O	2.03	0.58
30:DF:32:LEU:HD22	30:DF:112:MET:HE2	1.84	0.58
31:DG:44:GLY:H	31:DG:88:ILE:HG12	1.68	0.58
31:DG:46:ALA:HB3	31:DG:82:LEU:HD13	1.85	0.58
34:DN:24:GLY:O	34:DN:28:THR:HB	2.03	0.58
36:DP:83:VAL:CG1	36:DP:112:LEU:HD21	2.34	0.58
38:DR:104:ARG:HH11	38:DR:104:ARG:CB	2.17	0.58
44:DX:35:THR:O	44:DX:39:ILE:HG12	2.04	0.58
45:DY:99:CYS:O	45:DY:100:ALA:HB2	2.02	0.58
49:D2:38:GLN:NE2	49:D2:44:LEU:HD12	2.19	0.58
51:D4:37:PRO:O	51:D4:55:PRO:HG3	2.03	0.58
1:AA:1171:G:H3'	3:AC:3:ASN:ND2	2.19	0.57
1:AA:1327:A:N1	1:AA:1356:A:H5''	2.19	0.57
1:AA:1405:G:H5'	35:BO:49:ARG:HH22	1.68	0.57
2:AB:67:THR:CG2	2:AB:155:LEU:HD21	2.34	0.57
4:AD:4:TYR:HE2	4:AD:6:GLY:O	1.87	0.57
4:AD:196:LEU:HD12	4:AD:196:LEU:N	2.18	0.57
5:AE:135:THR:O	5:AE:138:ALA:HB3	2.03	0.57
16:AP:25:ARG:HG3	16:AP:25:ARG:HH11	1.69	0.57
18:AR:36:ASN:HD22	18:AR:39:VAL:HB	1.67	0.57
23:AV:56:U:O2	23:AV:58:A:C8	2.57	0.57
25:BA:90:U:H1'	25:BA:92:A:H8	1.68	0.57
25:BA:125:G:C6	54:B7:10:ARG:HG3	2.39	0.57
25:BA:444:C:OP2	41:BU:2:PRO:HD3	2.03	0.57
25:BA:564:C:O2'	25:BA:565:C:H5'	2.03	0.57
25:BA:649:G:H2'	25:BA:650:C:H6	1.68	0.57
25:BA:2110:G:O2'	25:BA:2120:G:H5'	2.03	0.57
25:BA:2317:C:C2'	25:BA:2318:G:H5'	2.34	0.57
25:BA:2516:G:C3'	25:BA:2517:C:H5'	2.32	0.57
26:BB:15:A:H1'	26:BB:110:G:C5	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BE:117:MET:HE3	29:BE:124:GLY:HA3	1.85	0.57
33:BI:1:MET:C	33:BI:20:ASP:HB2	2.28	0.57
33:BI:58:LEU:C	33:BI:60:GLU:H	2.12	0.57
34:BN:18:ALA:HB1	34:BN:21:LYS:CB	2.34	0.57
34:BN:62:VAL:HG22	34:BN:66:LYS:CD	2.33	0.57
37:BQ:42:ILE:HA	37:BQ:46:GLN:OE1	2.04	0.57
37:BQ:48:GLU:O	37:BQ:52:VAL:HG23	2.05	0.57
44:BX:30:VAL:HG11	44:BX:39:ILE:HD12	1.86	0.57
44:BX:35:THR:O	44:BX:39:ILE:HG12	2.04	0.57
45:BY:95:LYS:HA	45:BY:100:ALA:HA	1.86	0.57
53:B6:17:LYS:C	53:B6:18:ARG:HD3	2.29	0.57
1:CA:690:C:OP1	11:CK:85:ARG:NH1	2.28	0.57
1:CA:1417:G:H2'	1:CA:1418:U:C6	2.39	0.57
10:CJ:89:ASP:C	10:CJ:90:LEU:HD12	2.29	0.57
11:CK:125:PHE:N	11:CK:125:PHE:CD1	2.71	0.57
12:CL:84:LEU:HB2	12:CL:104:VAL:HG11	1.85	0.57
13:CM:5:ALA:CB	13:CM:66:LEU:HD11	2.32	0.57
15:CO:78:TYR:C	15:CO:80:ALA:N	2.62	0.57
17:CQ:77:VAL:O	17:CQ:78:GLU:HB3	2.04	0.57
25:DA:1854:A:H62	25:DA:1888:G:H8	1.50	0.57
25:DA:2223:G:C2'	25:DA:2224:G:H5'	2.33	0.57
25:DA:2787:C:H1'	29:DE:61:ARG:CG	2.33	0.57
31:DG:53:LEU:N	31:DG:53:LEU:HD22	2.19	0.57
32:DH:47:GLU:HG2	32:DH:48:GLY:N	2.18	0.57
36:DP:50:ARG:NH2	36:DP:50:ARG:HG2	2.19	0.57
38:DR:45:ARG:CG	38:DR:46:GLY:N	2.67	0.57
39:DS:97:ARG:C	39:DS:97:ARG:NE	2.62	0.57
44:DX:12:VAL:CG2	44:DX:13:LEU:H	1.91	0.57
44:DX:32:PRO:HA	44:DX:77:LYS:HB3	1.85	0.57
1:AA:354:U:H2'	1:AA:355:A:H8	1.66	0.57
1:AA:371:G:O3'	16:AP:5:ARG:HD2	2.04	0.57
2:AB:48:MET:CA	2:AB:51:LEU:HD12	2.28	0.57
2:AB:144:ARG:HA	2:AB:147:LYS:CB	2.34	0.57
2:AB:169:LYS:HD2	2:AB:170:GLU:OE2	2.04	0.57
3:AC:6:HIS:ND1	14:AN:49:HIS:HB3	2.19	0.57
8:AH:127:LEU:O	8:AH:127:LEU:HD13	2.04	0.57
13:AM:27:LYS:CE	13:AM:31:LYS:HE3	2.25	0.57
14:AN:48:ALA:HB2	14:AN:53:LEU:HD12	1.86	0.57
19:AS:36:ARG:NH1	19:AS:75:ALA:HB3	2.17	0.57
22:AW:57:G:N3	22:AW:58:A:H5'	2.19	0.57
23:AV:4:G:H21	23:AV:5:G:H1'	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:524:U:H4'	25:BA:555:U:H4'	1.86	0.57
25:BA:1035:U:H5'	32:BH:59:ARG:HD3	1.86	0.57
25:BA:1309:G:O2'	25:BA:1310:G:H5'	2.03	0.57
25:BA:1711:C:O2'	25:BA:1712:C:H5'	2.05	0.57
25:BA:2393:A:H5'	36:BP:62:LEU:HB3	1.86	0.57
25:BA:2645:G:C3'	25:BA:2646:C:H5'	2.30	0.57
25:BA:2729:G:H1'	29:BE:187:ALA:CB	2.34	0.57
31:BG:76:SER:HB2	31:BG:83:ARG:HD3	1.85	0.57
31:BG:110:ALA:HA	31:BG:140:ILE:O	2.03	0.57
38:BR:27:SER:HB3	38:BR:34:ILE:CD1	2.34	0.57
43:BW:40:ASN:O	43:BW:41:LYS:HG2	2.05	0.57
47:B0:27:GLU:HB2	47:B0:69:PHE:CD1	2.39	0.57
4:CD:119:GLN:HG3	4:CD:123:HIS:CD2	2.39	0.57
5:CE:41:VAL:CG1	5:CE:113:ALA:N	2.67	0.57
8:CH:119:LEU:HB2	8:CH:124:ALA:HB2	1.86	0.57
20:CT:104:LEU:HD23	20:CT:105:SER:N	2.18	0.57
25:DA:83:G:N2	25:DA:102:G:H2'	2.19	0.57
25:DA:686:G:N2	25:DA:788:A:H61	2.03	0.57
25:DA:948:G:H1'	25:DA:984:A:C2	2.38	0.57
25:DA:1411:C:H2'	25:DA:1412:A:H8	1.66	0.57
25:DA:2320:A:C6	25:DA:2333:A:C5	2.93	0.57
30:DF:40:GLN:NE2	30:DF:182:ASN:HB2	2.19	0.57
31:DG:21:ARG:HD3	31:DG:21:ARG:C	2.30	0.57
32:DH:12:PRO:CD	32:DH:49:VAL:HG12	2.34	0.57
32:DH:68:THR:C	32:DH:70:THR:N	2.60	0.57
33:DI:88:ILE:CD1	33:DI:123:LEU:HG	2.32	0.57
35:DO:90:GLN:OE1	35:DO:90:GLN:N	2.37	0.57
37:DQ:48:GLU:O	37:DQ:52:VAL:HG23	2.05	0.57
39:DS:96:GLY:C	39:DS:98:VAL:H	2.12	0.57
40:DT:92:GLY:O	40:DT:114:LEU:CD2	2.51	0.57
41:DU:92:ARG:NH2	41:DU:94:ASN:ND2	2.51	0.57
43:DW:40:ASN:O	43:DW:41:LYS:HG2	2.04	0.57
45:DY:81:LYS:HB3	45:DY:96:ILE:HG22	1.87	0.57
51:D4:37:PRO:HA	51:D4:51:TYR:CD2	2.39	0.57
53:D6:36:LEU:HD13	53:D6:50:ARG:HH12	1.67	0.57
1:AA:385:C:H2'	1:AA:386:G:C8	2.38	0.57
1:AA:1059:G:N2	1:AA:1062:A:OP2	2.29	0.57
3:AC:109:PRO:HB3	3:AC:115:LEU:HD13	1.85	0.57
5:AE:81:GLU:HG2	5:AE:90:VAL:HG12	1.86	0.57
7:AG:23:VAL:O	7:AG:27:ILE:HG13	2.04	0.57
10:AJ:46:ARG:HG2	10:AJ:64:GLU:HB3	1.84	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:77:LEU:HD21	12:AL:107:ALA:HB2	1.87	0.57
23:AV:10:G:N2	23:AV:27:G:H1'	2.19	0.57
25:BA:125:G:H21	54:B7:48:LYS:HD2	1.68	0.57
25:BA:280:C:C5	25:BA:281:G:N7	2.72	0.57
25:BA:364:C:H2'	25:BA:365:C:C5'	2.33	0.57
25:BA:1784:A:H4'	25:BA:1785:A:O5'	2.05	0.57
25:BA:1907:G:O2'	25:BA:1908:C:H5'	2.04	0.57
25:BA:2186:G:C2	25:BA:2187:G:C5	2.92	0.57
25:BA:2763:G:C8	25:BA:2763:G:H5'	2.38	0.57
25:BA:2784:C:H4'	29:BE:41:LYS:O	2.04	0.57
25:BA:2822:G:H2'	25:BA:2823:A:H5''	1.85	0.57
27:BC:83:ILE:HD11	27:BC:95:GLY:O	2.04	0.57
29:BE:15:PHE:CD2	40:BT:80:SER:CB	2.77	0.57
31:BG:9:ARG:HG2	31:BG:9:ARG:NH1	2.17	0.57
31:BG:51:ARG:HA	31:BG:51:ARG:HE	1.67	0.57
36:BP:57:THR:HG22	36:BP:58:THR:H	1.69	0.57
38:BR:104:ARG:HH11	38:BR:104:ARG:CB	2.17	0.57
41:BU:92:ARG:NH2	41:BU:94:ASN:ND2	2.51	0.57
45:BY:54:LYS:O	45:BY:55:TYR:CB	2.52	0.57
46:BZ:42:VAL:HG13	46:BZ:43:GLU:N	2.18	0.57
46:BZ:94:GLU:O	46:BZ:96:VAL:HG23	2.05	0.57
48:B1:11:ARG:HB2	48:B1:12:PRO:HD2	1.86	0.57
53:B6:40:CYS:SG	53:B6:45:LYS:HE3	2.44	0.57
56:B9:9:ARG:HH11	56:B9:9:ARG:CB	2.17	0.57
1:CA:453:G:H1'	1:CA:457:A:H61	1.69	0.57
9:CI:118:LYS:HB2	9:CI:118:LYS:HZ2	1.68	0.57
11:CK:91:ARG:HD2	11:CK:91:ARG:C	2.28	0.57
13:CM:35:GLU:HG3	13:CM:36:LYS:N	2.18	0.57
18:CR:74:ARG:HH21	18:CR:81:PHE:HA	1.70	0.57
25:DA:359:A:C2'	25:DA:360:G:C5'	2.78	0.57
25:DA:1473:G:O2'	25:DA:1474:C:H5'	2.04	0.57
25:DA:2110:G:O2'	25:DA:2120:G:H5'	2.04	0.57
25:DA:2261:C:H1'	25:DA:2388:A:N3	2.19	0.57
27:DC:23:ASP:C	27:DC:25:ALA:H	2.12	0.57
28:DD:267:SER:HA	28:DD:270:ILE:CG1	2.34	0.57
28:DD:270:ILE:C	28:DD:271:ILE:CG1	2.78	0.57
29:DE:52:LEU:HD12	29:DE:75:VAL:HB	1.86	0.57
29:DE:101:ARG:HH22	29:DE:171:GLU:HB2	1.64	0.57
31:DG:96:ARG:N	31:DG:99:MET:HE2	2.19	0.57
36:DP:91:PHE:N	36:DP:91:PHE:CD1	2.71	0.57
43:DW:9:TYR:N	43:DW:9:TYR:CD2	2.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:D1:11:ARG:HB2	48:D1:12:PRO:HD2	1.85	0.57
52:D5:16:ARG:HD2	52:D5:20:ARG:NH2	2.19	0.57
1:AA:1481:G:C1'	1:AA:1482:G:OP2	2.52	0.57
2:AB:88:ALA:HB2	2:AB:219:VAL:HG13	1.86	0.57
3:AC:34:LEU:HD23	3:AC:35:GLU:N	2.19	0.57
7:AG:150:ALA:HB2	11:AK:50:TYR:HH	1.69	0.57
8:AH:119:LEU:HB2	8:AH:124:ALA:HB2	1.86	0.57
9:AI:14:VAL:HG12	9:AI:15:ALA:N	2.20	0.57
25:BA:614(C):A:N3	30:BF:180:GLY:HA2	2.20	0.57
25:BA:1504:C:O2'	25:BA:1505:C:C5'	2.53	0.57
25:BA:2298:A:H2'	25:BA:2299:G:O4'	2.04	0.57
25:BA:2517:C:C6	25:BA:2542:A:C2	2.93	0.57
25:BA:2758:A:C3'	25:BA:2759:G:H5''	2.34	0.57
26:BB:11:C:H3'	26:BB:12:C:C6	2.39	0.57
28:BD:70:TRP:HZ3	28:BD:146:GLU:CD	2.13	0.57
29:BE:71:GLY:O	29:BE:72:VAL:C	2.47	0.57
31:BG:2:PRO:HD2	51:B4:51:TYR:CE1	2.40	0.57
31:BG:21:ARG:HD3	31:BG:21:ARG:C	2.29	0.57
32:BH:86:GLU:N	32:BH:86:GLU:OE1	2.36	0.57
36:BP:84:ASN:ND2	36:BP:116:GLY:HA3	2.19	0.57
37:BQ:18:LYS:HE2	37:BQ:18:LYS:HA	1.85	0.57
39:BS:48:LEU:CD2	39:BS:82:ILE:HD11	2.34	0.57
41:BU:62:ILE:HD12	41:BU:76:TYR:CZ	2.38	0.57
46:BZ:15:PRO:O	46:BZ:19:ARG:HG3	2.05	0.57
46:BZ:74:VAL:HG22	46:BZ:86:VAL:HG12	1.85	0.57
1:CA:171:C:OP1	20:CT:65:LYS:NZ	2.37	0.57
4:CD:130:GLY:O	4:CD:131:ARG:C	2.47	0.57
8:CH:6:ILE:HG22	8:CH:10:LEU:CD1	2.34	0.57
12:CL:83:VAL:CG1	12:CL:100:ILE:HG23	2.34	0.57
18:CR:82:THR:CG2	18:CR:83:GLU:N	2.67	0.57
22:CW:35:A:C6	22:CW:36:A:C6	2.92	0.57
25:DA:1001:A:H2'	25:DA:1002:G:O4'	2.04	0.57
25:DA:1223:G:H5'	25:DA:1224:C:OP2	2.05	0.57
25:DA:1301:A:HO2'	25:DA:1302:A:P	2.28	0.57
25:DA:1796:U:H2'	25:DA:1797:C:C6	2.39	0.57
25:DA:2884:U:H2'	25:DA:2885:C:H5'	1.86	0.57
28:DD:131:LEU:HD12	28:DD:131:LEU:N	2.18	0.57
28:DD:158:ALA:HB3	28:DD:161:THR:HG21	1.85	0.57
29:DE:71:GLY:O	29:DE:72:VAL:C	2.47	0.57
29:DE:110:GLY:HA2	29:DE:162:ALA:H	1.69	0.57
29:DE:116:VAL:HG22	29:DE:122:PHE:HB2	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DN:89:LYS:O	34:DN:93:THR:HG22	2.04	0.57
36:DP:71:VAL:HG12	36:DP:72:PRO:HD3	1.85	0.57
38:DR:77:ARG:O	38:DR:79:LEU:N	2.37	0.57
41:DU:34:LYS:HA	41:DU:34:LYS:CE	2.30	0.57
41:DU:57:PHE:C	41:DU:59:ARG:N	2.60	0.57
41:DU:92:ARG:O	41:DU:94:ASN:N	2.30	0.57
42:DV:6:LYS:HG3	42:DV:11:GLN:HG2	1.86	0.57
47:D0:27:GLU:HB2	47:D0:69:PHE:CD1	2.39	0.57
1:AA:17:U:H2'	1:AA:18:C:C6	2.40	0.57
1:AA:807:C:H2'	1:AA:808:G:C8	2.39	0.57
3:AC:61:ALA:O	3:AC:62:ASP:HB2	2.03	0.57
9:AI:18:PHE:HB2	9:AI:62:TYR:O	2.04	0.57
11:AK:111:ASP:HA	18:AR:84:LYS:CG	2.28	0.57
12:AL:83:VAL:HG12	12:AL:84:LEU:N	2.19	0.57
14:AN:41:ARG:HG3	14:AN:42:ILE:N	2.19	0.57
25:BA:308:G:O2'	25:BA:329:G:N2	2.38	0.57
25:BA:583:G:OP2	41:BU:10:ARG:NH1	2.36	0.57
25:BA:585:G:H2'	25:BA:1251:C:H42	1.70	0.57
25:BA:833:U:O2	36:BP:55:ARG:NH1	2.38	0.57
27:BC:82:LYS:HE3	27:BC:151:GLU:O	2.05	0.57
30:BF:161:GLU:HA	30:BF:164:ARG:HB2	1.86	0.57
31:BG:170:ARG:NH2	31:BG:182:LYS:HG3	2.20	0.57
31:BG:175:LEU:HD12	31:BG:175:LEU:N	2.20	0.57
33:BI:73:GLU:HB2	33:BI:136:VAL:HG23	1.85	0.57
39:BS:97:ARG:C	39:BS:97:ARG:NE	2.62	0.57
45:BY:76:CYS:HB3	45:BY:96:ILE:CD1	2.27	0.57
46:BZ:5:LEU:HD21	46:BZ:43:GLU:CB	2.26	0.57
52:B5:57:VAL:C	52:B5:58:LEU:HD23	2.29	0.57
1:CA:1301:C:H5'	19:CS:70:LYS:HG3	1.87	0.57
2:CB:172:ILE:H	2:CB:172:ILE:CD1	2.16	0.57
5:CE:31:LEU:HD11	5:CE:43:LEU:HD11	1.87	0.57
8:CH:127:LEU:HD13	8:CH:127:LEU:O	2.04	0.57
17:CQ:52:LYS:HG2	17:CQ:55:ASP:OD1	2.05	0.57
20:CT:98:PRO:C	20:CT:100:ILE:H	2.12	0.57
25:DA:1784:A:H4'	25:DA:1785:A:O5'	2.05	0.57
25:DA:1902:C:C1'	28:DD:244:ARG:HG3	2.34	0.57
25:DA:1907:G:O2'	25:DA:1908:C:H5'	2.04	0.57
25:DA:2127:G:C5'	27:DC:36:LYS:HZ3	2.18	0.57
25:DA:2201:C:O2'	25:DA:2202:C:H5'	2.05	0.57
25:DA:2715:C:O2'	25:DA:2716:U:H5'	2.05	0.57
26:DB:15:A:H1'	26:DB:110:G:C5	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DC:82:LYS:HE3	27:DC:151:GLU:O	2.05	0.57
27:DC:83:ILE:HD11	27:DC:95:GLY:O	2.04	0.57
29:DE:101:ARG:NH2	29:DE:171:GLU:CB	2.64	0.57
30:DF:124:LEU:HG	30:DF:126:VAL:HG13	1.86	0.57
31:DG:39:ILE:HD12	31:DG:40:ASN:N	2.20	0.57
40:DT:55:ASN:H	40:DT:59:THR:CB	2.17	0.57
44:DX:60:ARG:HH22	54:D7:47:ARG:CZ	2.17	0.57
45:DY:2:ARG:C	45:DY:4:LYS:H	2.13	0.57
1:AA:1140:C:O2	1:AA:1140:C:H2'	2.03	0.57
1:AA:1237:A:OP2	3:AC:26:LYS:NZ	2.35	0.57
3:AC:134:ILE:HD11	3:AC:153:VAL:CG2	2.35	0.57
5:AE:145:LYS:O	5:AE:149:GLU:HG2	2.05	0.57
8:AH:80:ILE:HG22	8:AH:80:ILE:O	2.04	0.57
14:AN:24:CYS:HB3	14:AN:27:CYS:O	2.04	0.57
19:AS:51:VAL:O	19:AS:57:HIS:HA	2.04	0.57
20:AT:97:ALA:O	20:AT:99:LEU:N	2.36	0.57
20:AT:104:LEU:HD23	20:AT:105:SER:N	2.19	0.57
23:AV:12:G:H1'	25:BA:1923:U:O2'	2.04	0.57
23:AV:35:C:HO2'	23:AV:36:A:P	2.28	0.57
25:BA:1001:A:H2'	25:BA:1002:G:O4'	2.04	0.57
25:BA:1899:G:N2	25:BA:1902:C:N4	2.51	0.57
25:BA:2715:C:O2'	25:BA:2716:U:H5'	2.05	0.57
25:BA:2720:U:H3'	25:BA:2721:A:H8	1.70	0.57
29:BE:57:LYS:C	29:BE:59:VAL:H	2.13	0.57
31:BG:54:GLU:O	31:BG:57:ALA:HB3	2.05	0.57
31:BG:175:LEU:CD1	31:BG:175:LEU:H	2.17	0.57
35:BO:15:GLY:HA2	35:BO:47:ILE:HB	1.85	0.57
36:BP:38:GLN:CG	36:BP:39:LYS:H	2.04	0.57
37:BQ:32:TYR:OH	37:BQ:111:GLU:HB2	2.05	0.57
39:BS:96:GLY:C	39:BS:98:VAL:H	2.12	0.57
41:BU:38:THR:O	41:BU:41:ALA:HB3	2.04	0.57
42:BV:47:VAL:O	42:BV:48:GLY:C	2.47	0.57
42:BV:82:ARG:HH11	42:BV:82:ARG:HG2	1.68	0.57
1:CA:261:G:H5'	1:CA:262:C:H5	1.64	0.57
1:CA:429:U:H2'	1:CA:430:C:C6	2.39	0.57
3:CC:148:GLY:HA3	3:CC:172:ARG:O	2.05	0.57
5:CE:81:GLU:HG2	5:CE:90:VAL:HG12	1.84	0.57
7:CG:60:LYS:HA	7:CG:60:LYS:HZ3	1.68	0.57
7:CG:108:ALA:O	7:CG:111:ARG:HB2	2.04	0.57
8:CH:60:ARG:HG3	8:CH:60:ARG:NH1	2.19	0.57
13:CM:28:ALA:C	13:CM:30:ALA:H	2.11	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:47:ASP:O	13:CM:48:LEU:HB3	2.04	0.57
25:DA:108:U:H2'	25:DA:109:G:H5'	1.83	0.57
25:DA:214:G:O2'	25:DA:215:G:O4'	2.22	0.57
25:DA:308:G:O2'	25:DA:329:G:N2	2.38	0.57
25:DA:583:G:OP2	41:DU:10:ARG:NH1	2.35	0.57
25:DA:855:G:H2'	25:DA:856:C:C6	2.39	0.57
25:DA:1652:A:C2'	25:DA:1653:G:H5''	2.33	0.57
25:DA:1692:U:O2'	25:DA:1693:U:H2'	2.05	0.57
25:DA:1982:C:H6	25:DA:1982:C:O5'	1.87	0.57
25:DA:2128:C:OP1	27:DC:35:ALA:HB1	2.04	0.57
27:DC:75:LEU:HD13	27:DC:119:VAL:O	2.04	0.57
29:DE:57:LYS:C	29:DE:59:VAL:H	2.13	0.57
30:DF:164:ARG:HH11	30:DF:164:ARG:HG2	1.69	0.57
31:DG:47:LYS:CE	31:DG:81:LYS:HD2	2.35	0.57
31:DG:85:GLY:O	31:DG:87:PRO:HD2	2.05	0.57
31:DG:110:ALA:HA	31:DG:140:ILE:O	2.03	0.57
32:DH:25:LYS:H	32:DH:25:LYS:CD	2.12	0.57
36:DP:81:GLN:HG2	36:DP:106:LEU:CD1	2.35	0.57
37:DQ:42:ILE:HA	37:DQ:46:GLN:OE1	2.04	0.57
39:DS:48:LEU:CD2	39:DS:82:ILE:HD11	2.34	0.57
39:DS:106:ARG:HD2	39:DS:107:GLU:O	2.05	0.57
41:DU:31:SER:O	41:DU:33:ARG:N	2.38	0.57
41:DU:68:ALA:O	41:DU:71:GLN:HB2	2.04	0.57
45:DY:7:VAL:HB	45:DY:8:LYS:NZ	2.20	0.57
1:AA:659:A:H1'	11:AK:115:PRO:HB3	1.87	0.57
1:AA:1360:C:H5''	7:AG:6:ARG:HE	1.70	0.57
3:AC:62:ASP:HA	3:AC:97:LYS:HE2	1.86	0.57
7:AG:113:GLU:HG3	7:AG:119:ARG:HA	1.86	0.57
8:AH:83:ILE:HG13	8:AH:137:VAL:HG22	1.85	0.57
11:AK:97:ALA:O	11:AK:101:SER:HB3	2.05	0.57
12:AL:24:VAL:HG13	12:AL:98:TYR:CE2	2.40	0.57
23:AV:72:C:O5'	23:AV:72:C:H6	1.87	0.57
25:BA:154(A):C:H41	25:BA:172:C:H42	1.53	0.57
25:BA:1441:G:O2'	25:BA:1442:G:H5'	2.04	0.57
25:BA:1473:G:O2'	25:BA:1474:C:H5'	2.04	0.57
25:BA:1879:C:C3'	25:BA:1880:C:H5''	2.34	0.57
25:BA:2292:C:O2'	25:BA:2293:C:H5'	2.05	0.57
27:BC:75:LEU:HD13	27:BC:119:VAL:O	2.04	0.57
32:BH:94:TYR:CE2	32:BH:160:LYS:HB3	2.40	0.57
37:BQ:61:GLY:O	46:BZ:178:GLU:HB2	2.04	0.57
39:BS:96:GLY:O	39:BS:98:VAL:N	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BT:28:VAL:HG12	40:BT:86:ILE:O	2.05	0.57
40:BT:64:ARG:HB2	40:BT:73:GLU:HG2	1.87	0.57
41:BU:101:ARG:O	41:BU:102:GLU:HG2	2.05	0.57
42:BV:2:PHE:O	42:BV:3:ALA:HB3	2.05	0.57
46:BZ:9:TYR:OH	46:BZ:35:ARG:HG3	2.03	0.57
46:BZ:153:SER:CB	46:BZ:167:PRO:HB3	2.28	0.57
48:B1:66:HIS:C	48:B1:68:PRO:HD2	2.30	0.57
1:CA:156:A:C5	1:CA:157:C:H1'	2.40	0.57
1:CA:756:G:O3'	28:DD:202:LYS:NZ	2.34	0.57
1:CA:1329:U:H4'	9:CI:120:ARG:HD2	1.87	0.57
2:CB:19:HIS:CE1	2:CB:191:ASP:HB2	2.40	0.57
8:CH:65:TYR:N	8:CH:65:TYR:CD1	2.71	0.57
13:CM:22:ILE:HG22	13:CM:25:ILE:HD13	1.87	0.57
14:CN:40:CYS:SG	14:CN:43:CYS:N	2.77	0.57
16:CP:20:VAL:CG2	16:CP:32:TYR:HB2	2.35	0.57
20:CT:41:ILE:CG2	20:CT:84:LEU:CD2	2.81	0.57
22:CW:12:U:H3	22:CW:23:A:H61	1.52	0.57
23:CV:4:G:HO2'	23:CV:5:G:H8	1.52	0.57
25:DA:528:A:H3'	25:DA:528:A:C8	2.39	0.57
25:DA:1441:G:O2'	25:DA:1442:G:H5'	2.04	0.57
25:DA:1504:C:O2'	25:DA:1505:C:C5'	2.53	0.57
25:DA:1504:C:O2'	25:DA:1505:C:H5'	2.05	0.57
25:DA:1879:C:C3'	25:DA:1880:C:H5''	2.34	0.57
25:DA:2292:C:O2'	25:DA:2293:C:H5'	2.05	0.57
25:DA:2758:A:C3'	25:DA:2759:G:H5''	2.35	0.57
26:DB:55:U:O2'	26:DB:56:G:H5'	2.05	0.57
26:DB:69:G:H2'	26:DB:70:C:H6	1.69	0.57
31:DG:95:ARG:O	31:DG:96:ARG:O	2.23	0.57
32:DH:58:GLU:C	32:DH:60:ARG:H	2.12	0.57
33:DI:111:PRO:HA	33:DI:114:LEU:HD11	1.87	0.57
34:DN:3:THR:C	34:DN:5:VAL:H	2.12	0.57
42:DV:2:PHE:O	42:DV:3:ALA:HB3	2.05	0.57
48:D1:94:LEU:C	48:D1:96:LYS:N	2.62	0.57
52:D5:36:CYS:SG	52:D5:37:LYS:N	2.77	0.57
1:AA:366:G:O2'	1:AA:368:A:N7	2.37	0.57
1:AA:695:A:H2'	1:AA:696:G:O4'	2.04	0.57
1:AA:957:C:H5'	1:AA:958:U:C5	2.40	0.57
1:AA:1184:C:OP1	14:AN:3:ARG:HD3	2.05	0.57
1:AA:1425:G:H22	40:BT:119:LYS:HB2	1.68	0.57
2:AB:92:TYR:C	2:AB:92:TYR:CD1	2.83	0.57
2:AB:92:TYR:C	2:AB:92:TYR:HD1	2.11	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:80:GLU:O	4:AD:84:LYS:HE2	2.03	0.57
6:AF:49:ALA:HB2	18:AR:78:LEU:O	2.05	0.57
17:AQ:27:PHE:CE1	17:AQ:36:ILE:HD11	2.40	0.57
24:AX:21:C:H2'	24:AX:22:A:H8	1.69	0.57
25:BA:214:G:O2'	25:BA:215:G:O4'	2.22	0.57
25:BA:956:G:OP2	37:BQ:14:ARG:NH2	2.38	0.57
25:BA:1223:G:H5'	25:BA:1224:C:OP2	2.04	0.57
25:BA:1692:U:O2'	25:BA:1693:U:H2'	2.05	0.57
25:BA:2232:U:OP2	48:B1:40:ARG:NH2	2.28	0.57
25:BA:2392:A:H2	25:BA:2424:C:H42	1.53	0.57
28:BD:242:ARG:HD2	28:BD:242:ARG:N	2.20	0.57
31:BG:96:ARG:N	31:BG:99:MET:HE2	2.19	0.57
39:BS:28:VAL:HB	39:BS:89:ARG:CG	2.34	0.57
42:BV:49:THR:CB	42:BV:50:PRO:HD2	2.34	0.57
45:BY:96:ILE:HD12	45:BY:99:CYS:CB	2.35	0.57
1:CA:952:A:H4'	1:CA:953:G:H5''	1.87	0.57
1:CA:1486:C:H42	1:CA:1503:G:H1	1.53	0.57
2:CB:92:TYR:C	2:CB:92:TYR:CD1	2.83	0.57
4:CD:57:ARG:HH11	4:CD:57:ARG:HG3	1.70	0.57
4:CD:80:GLU:O	4:CD:84:LYS:HE2	2.04	0.57
5:CE:150:ARG:CZ	5:CE:150:ARG:HB2	2.35	0.57
7:CG:62:PHE:HD1	7:CG:124:LEU:HD21	1.70	0.57
12:CL:41:ARG:CG	12:CL:42:THR:H	1.99	0.57
18:CR:44:LEU:HD11	18:CR:79:LEU:HD22	1.86	0.57
23:CV:18:U:C4'	23:CV:19:G:OP2	2.32	0.57
23:CV:37:U:H2'	23:CV:38:A:H8	1.70	0.57
23:CV:42:C:H2'	23:CV:43:G:O5'	2.04	0.57
25:DA:271(O):C:HO2'	25:DA:271(P):C:H6	1.50	0.57
25:DA:614(C):A:C4	30:DF:180:GLY:CA	2.88	0.57
25:DA:986:C:O2'	25:DA:987:G:H5'	2.05	0.57
25:DA:1991:U:O2'	25:DA:1992:G:O5'	2.22	0.57
25:DA:2517:C:C6	25:DA:2542:A:C2	2.92	0.57
28:DD:16:MET:HE1	28:DD:208:LYS:HD2	1.87	0.57
28:DD:242:ARG:N	28:DD:242:ARG:HD2	2.20	0.57
31:DG:109:VAL:HG11	31:DG:142:PRO:HG3	1.86	0.57
33:DI:92:VAL:HG22	33:DI:92:VAL:O	2.04	0.57
39:DS:96:GLY:O	39:DS:98:VAL:N	2.37	0.57
44:DX:30:VAL:HG11	44:DX:39:ILE:HD12	1.87	0.57
55:D8:23:VAL:CG1	55:D8:46:ARG:HB3	2.35	0.57
1:AA:581:U:H2'	1:AA:582:C:C6	2.40	0.57
1:AA:743:G:O2'	17:AQ:98:LEU:HD23	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:53:LEU:O	5:AE:57:LYS:HB2	2.05	0.57
11:AK:127:LYS:HE2	11:AK:127:LYS:CA	2.20	0.57
13:AM:94:ARG:NH2	25:BA:887:A:N9	2.53	0.57
19:AS:6:LYS:HD2	19:AS:6:LYS:H	1.69	0.57
25:BA:176:G:O2'	25:BA:177:G:H5'	2.05	0.57
25:BA:1388:G:O2'	25:BA:1389:G:H5'	2.04	0.57
25:BA:2124:G:O2'	27:BC:40:THR:HA	2.05	0.57
25:BA:2650:U:O2'	25:BA:2651:C:H5'	2.03	0.57
26:BB:11:C:OP2	47:B0:72:ARG:NE	2.38	0.57
26:BB:17:C:H2'	26:BB:18:G:O4'	2.05	0.57
29:BE:101:ARG:HH22	29:BE:171:GLU:HB2	1.64	0.57
29:BE:116:VAL:HG22	29:BE:122:PHE:HB2	1.86	0.57
31:BG:53:LEU:N	31:BG:53:LEU:HD22	2.19	0.57
32:BH:68:THR:C	32:BH:70:THR:N	2.60	0.57
34:BN:89:LYS:O	34:BN:93:THR:HG22	2.04	0.57
38:BR:45:ARG:CG	38:BR:46:GLY:N	2.68	0.57
45:BY:17:SER:HB2	45:BY:71:LYS:HE3	1.86	0.57
1:CA:956:C:H42	14:CN:18:VAL:CG1	2.17	0.57
1:CA:1115:G:N3	1:CA:1124:G:N2	2.52	0.57
3:CC:126:ARG:HH11	3:CC:126:ARG:HG2	1.70	0.57
9:CI:14:VAL:HG12	9:CI:15:ALA:N	2.20	0.57
13:CM:57:ARG:CZ	51:D4:60:GLU:HG3	2.34	0.57
22:CW:1:G:C6	22:CW:2:C:N4	2.72	0.57
22:CW:36:A:C6	22:CW:37:A:N7	2.73	0.57
25:DA:154(A):C:H41	25:DA:172:C:H42	1.53	0.57
25:DA:307:G:H3'	25:DA:307:G:C8	2.39	0.57
25:DA:832:G:H21	36:DP:53:GLY:C	2.13	0.57
25:DA:1514:U:H2'	25:DA:1515:G:H8	1.70	0.57
25:DA:2087:G:O2'	25:DA:2088:G:H5'	2.05	0.57
25:DA:2762:G:C3'	25:DA:2763:G:H5''	2.35	0.57
29:DE:11:MET:CA	40:DT:8:LYS:HZ1	2.18	0.57
29:DE:78:LEU:O	29:DE:79:ARG:HD2	2.03	0.57
33:DI:114:LEU:O	33:DI:115:ALA:HB3	2.03	0.57
36:DP:17:LYS:O	36:DP:19:VAL:N	2.38	0.57
41:DU:101:ARG:O	41:DU:102:GLU:HG2	2.05	0.57
1:AA:138:G:N2	1:AA:172:C:O2	2.37	0.57
1:AA:197:G:H1'	20:AT:105:SER:HB3	1.86	0.57
8:AH:6:ILE:HG22	8:AH:10:LEU:HD11	1.87	0.57
10:AJ:6:ILE:HG22	10:AJ:98:ILE:CD1	2.35	0.57
11:AK:32:ILE:HD12	11:AK:72:ALA:CB	2.30	0.57
11:AK:125:PHE:N	11:AK:125:PHE:CD1	2.70	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:6:THR:HG23	12:AL:9:GLN:CD	2.29	0.57
13:AM:28:ALA:C	13:AM:30:ALA:H	2.12	0.57
19:AS:43:GLU:C	19:AS:45:VAL:N	2.63	0.57
22:AW:65:G:C2	22:AW:66:U:N3	2.73	0.57
24:AX:19:U:H2'	24:AX:20:U:C6	2.39	0.57
25:BA:613:G:H8	25:BA:613:G:C5'	2.15	0.57
25:BA:878:A:H61	25:BA:899:A:H2'	1.70	0.57
25:BA:906:G:H5'	37:BQ:26:TYR:OH	2.05	0.57
25:BA:986:C:O2'	25:BA:987:G:H5'	2.05	0.57
25:BA:1312:U:O4'	25:BA:1313:U:C2	2.58	0.57
25:BA:1906:G:O2'	25:BA:1907:G:H5'	2.05	0.57
25:BA:2056:G:N2	52:B5:4:HIS:O	2.37	0.57
28:BD:271:ILE:O	28:BD:272:ALA:HB2	2.05	0.57
30:BF:40:GLN:NE2	30:BF:182:ASN:HB2	2.19	0.57
36:BP:47:ASP:HB3	36:BP:48:PRO:HA	1.86	0.57
39:BS:71:ARG:O	39:BS:74:ALA:HB3	2.03	0.57
41:BU:31:SER:O	41:BU:33:ARG:N	2.38	0.57
41:BU:57:PHE:C	41:BU:59:ARG:H	2.13	0.57
19:CS:6:LYS:H	19:CS:6:LYS:CE	2.18	0.57
22:CW:55:U:C4	22:CW:57:G:H5'	2.40	0.57
23:CV:62:C:H2'	23:CV:63:C:C6	2.40	0.57
25:DA:315:G:H2'	25:DA:316:C:H6	1.66	0.57
25:DA:1140:C:P	34:DN:66:LYS:HZ3	2.28	0.57
25:DA:1311:G:C5	54:D7:47:ARG:NH2	2.73	0.57
25:DA:1711:C:O2'	25:DA:1712:C:H5'	2.04	0.57
25:DA:1953:A:H2	25:DA:2549:G:N3	2.03	0.57
25:DA:2127:G:O5'	27:DC:36:LYS:NZ	2.38	0.57
25:DA:2317:C:C2'	25:DA:2318:G:H5'	2.34	0.57
25:DA:2657:A:O2'	32:DH:160:LYS:HE3	2.05	0.57
28:DD:31:LYS:NZ	28:DD:102:LYS:NZ	2.52	0.57
28:DD:97:TYR:CE1	28:DD:103:ARG:HG3	2.40	0.57
31:DG:54:GLU:O	31:DG:57:ALA:HB3	2.04	0.57
34:DN:48:MET:H	34:DN:48:MET:CE	2.15	0.57
39:DS:28:VAL:HB	39:DS:89:ARG:CG	2.33	0.57
42:DV:21:ARG:HD3	42:DV:21:ARG:H	1.69	0.57
55:D8:6:THR:HB	55:D8:63:PRO:HG3	1.87	0.57
56:D9:9:ARG:HH11	56:D9:9:ARG:CB	2.17	0.57
1:AA:28:G:O2'	1:AA:291:U:OP1	2.21	0.56
2:AB:19:HIS:CE1	2:AB:191:ASP:HB2	2.40	0.56
5:AE:86:ALA:C	5:AE:125:SER:HB3	2.30	0.56
12:AL:24:VAL:O	12:AL:24:VAL:CG1	2.53	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AU:18:TYR:HD1	21:AU:24:ARG:CZ	2.18	0.56
22:AY:38:A:C2	22:AY:39:U:C2	2.94	0.56
25:BA:70:G:H5''	25:BA:113:G:H1'	1.86	0.56
25:BA:1882:C:H5'	25:BA:1883:G:OP2	2.05	0.56
25:BA:2036:C:H5'	25:BA:2036:C:C6	2.27	0.56
25:BA:2087:G:O2'	25:BA:2088:G:H5'	2.05	0.56
25:BA:2300:G:N2	25:BA:2317:C:C1'	2.55	0.56
25:BA:2340:G:O2'	25:BA:2341:G:H5'	2.04	0.56
25:BA:2543:G:H8	25:BA:2543:G:H5'	1.70	0.56
25:BA:2610:C:O2'	25:BA:2611:U:P	2.63	0.56
25:BA:2672:G:C2'	25:BA:2673:G:H5''	2.35	0.56
25:BA:2884:U:H2'	25:BA:2885:C:H5'	1.86	0.56
28:BD:31:LYS:NZ	28:BD:102:LYS:NZ	2.52	0.56
32:BH:37:VAL:HG21	32:BH:72:ILE:HD11	1.87	0.56
37:BQ:1:MET:HE2	37:BQ:1:MET:C	2.30	0.56
37:BQ:110:THR:OG1	37:BQ:112:GLU:HG2	2.05	0.56
39:BS:88:ASP:OD2	39:BS:89:ARG:N	2.38	0.56
43:BW:72:LYS:HB3	43:BW:106:ILE:O	2.05	0.56
45:BY:27:VAL:HG12	45:BY:29:GLU:OE1	2.05	0.56
50:B3:8:LEU:HD11	50:B3:31:LEU:HD23	1.87	0.56
1:CA:1134:A:H2'	1:CA:1135:C:H6	1.70	0.56
1:CA:1220:A:H2'	1:CA:1279:C:H42	1.70	0.56
2:CB:169:LYS:HD2	2:CB:170:GLU:OE2	2.05	0.56
3:CC:109:PRO:HA	3:CC:115:LEU:HD12	1.85	0.56
4:CD:4:TYR:HE2	4:CD:6:GLY:O	1.88	0.56
7:CG:43:PHE:C	7:CG:43:PHE:HD1	2.13	0.56
17:CQ:18:THR:HG22	17:CQ:19:VAL:N	2.20	0.56
22:CW:71:G:N2	22:CW:72:C:C2	2.72	0.56
25:DA:251:A:H5''	36:DP:51:PHE:CZ	2.40	0.56
25:DA:301:G:H1'	25:DA:302:C:C6	2.40	0.56
25:DA:941:A:O3'	36:DP:35:HIS:ND1	2.37	0.56
25:DA:1786:A:C2	25:DA:2606:C:H1'	2.40	0.56
25:DA:2610:C:O2'	25:DA:2611:U:P	2.63	0.56
33:DI:73:GLU:HB2	33:DI:136:VAL:HG23	1.85	0.56
36:DP:84:ASN:ND2	36:DP:116:GLY:HA3	2.19	0.56
38:DR:8:ARG:HA	38:DR:8:ARG:NE	2.18	0.56
38:DR:28:LEU:HD11	38:DR:116:LEU:CD2	2.35	0.56
45:DY:88:LYS:NZ	45:DY:93:GLY:CA	2.67	0.56
45:DY:95:LYS:HA	45:DY:100:ALA:HA	1.86	0.56
46:DZ:15:PRO:O	46:DZ:19:ARG:HG3	2.05	0.56
46:DZ:158:PRO:HG2	46:DZ:161:VAL:HG21	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:D1:3:LYS:O	48:D1:12:PRO:HD3	2.05	0.56
48:D1:52:ARG:HG3	48:D1:53:VAL:N	2.16	0.56
50:D3:8:LEU:HD11	50:D3:31:LEU:HD23	1.87	0.56
1:AA:15:G:H2'	1:AA:16:A:C8	2.40	0.56
1:AA:20:U:H2'	1:AA:21:G:O4'	2.05	0.56
1:AA:668:G:O2'	1:AA:669:U:H5'	2.05	0.56
1:AA:1091:C:P	3:AC:176:HIS:HD1	2.27	0.56
1:AA:1100:C:H2'	1:AA:1101:C:H6	1.71	0.56
13:AM:88:ARG:CG	13:AM:98:VAL:HG11	2.35	0.56
13:AM:93:ARG:NE	25:BA:888:C:H5''	2.18	0.56
14:AN:27:CYS:SG	14:AN:43:CYS:SG	3.03	0.56
15:AO:78:TYR:C	15:AO:80:ALA:N	2.60	0.56
20:AT:26:ASN:HB2	20:AT:71:THR:HG21	1.84	0.56
25:BA:271(E):U:H2'	25:BA:271(F):C:C6	2.41	0.56
25:BA:1170:G:H1	25:BA:1179:C:N4	1.96	0.56
25:BA:1514:U:H2'	25:BA:1515:G:H8	1.70	0.56
25:BA:1786:A:C2	25:BA:2606:C:H1'	2.40	0.56
25:BA:1887:C:C2'	25:BA:1888:G:H5''	2.35	0.56
25:BA:1982:C:O5'	25:BA:1982:C:H6	1.87	0.56
25:BA:2025:C:H2'	25:BA:2026:C:H6	1.70	0.56
25:BA:2126:A:H1'	25:BA:2127:G:O4'	2.05	0.56
26:BB:28:C:OP1	39:BS:31:SER:OG	2.21	0.56
28:BD:13:ARG:HG2	28:BD:13:ARG:O	2.05	0.56
31:BG:39:ILE:HD12	31:BG:40:ASN:N	2.20	0.56
32:BH:58:GLU:C	32:BH:60:ARG:H	2.12	0.56
32:BH:156:ALA:C	32:BH:158:HIS:H	2.11	0.56
33:BI:111:PRO:HA	33:BI:114:LEU:HD11	1.87	0.56
34:BN:51:PHE:CE2	34:BN:119:ARG:HD2	2.40	0.56
36:BP:64:LYS:HG3	55:B8:25:MET:HE2	1.85	0.56
38:BR:2:ARG:NH2	38:BR:5:LYS:HZ3	2.03	0.56
40:BT:73:GLU:OE2	40:BT:103:ARG:NH2	2.38	0.56
41:BU:34:LYS:HA	41:BU:34:LYS:CE	2.30	0.56
41:BU:68:ALA:O	41:BU:71:GLN:HB2	2.04	0.56
46:BZ:17:ALA:HA	46:BZ:20:ARG:HB2	1.88	0.56
1:CA:553:G:O3'	1:CA:802:A:O2'	2.23	0.56
1:CA:951:A:OP2	14:CN:41:ARG:NH1	2.36	0.56
2:CB:185:ILE:HG12	2:CB:199:TYR:HB2	1.87	0.56
7:CG:43:PHE:C	7:CG:43:PHE:CD1	2.82	0.56
8:CH:84:ARG:HH11	8:CH:84:ARG:HG2	1.69	0.56
11:CK:126:ARG:HB3	11:CK:126:ARG:NH1	2.19	0.56
17:CQ:27:PHE:CE1	17:CQ:36:ILE:HD11	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:14:LYS:HB2	20:CT:17:ARG:NH2	2.19	0.56
23:CV:14:A:C4	23:CV:23:G:C2	2.93	0.56
25:DA:106:C:H2'	25:DA:107:C:H6	1.67	0.56
25:DA:280:C:O2	25:DA:361:G:N3	2.38	0.56
25:DA:311:A:O4'	25:DA:332:A:C4	2.59	0.56
25:DA:395:U:H2'	25:DA:396:G:N7	2.20	0.56
25:DA:536:A:H2'	25:DA:537:C:C6	2.40	0.56
25:DA:592:G:N3	55:D8:4:MET:HE2	2.20	0.56
25:DA:2074:U:H2'	25:DA:2075:U:C6	2.40	0.56
25:DA:2330:G:H2'	25:DA:2331:G:H5''	1.87	0.56
25:DA:2468:G:O2'	25:DA:2476:A:H8	1.86	0.56
28:DD:32:SER:O	28:DD:33:LEU:C	2.46	0.56
31:DG:43:LEU:HB2	31:DG:88:ILE:CD1	2.35	0.56
45:DY:31:LEU:HD22	45:DY:31:LEU:H	1.69	0.56
45:DY:76:CYS:HB3	45:DY:96:ILE:CD1	2.27	0.56
1:AA:198:U:H4'	20:AT:103:GLY:HA2	1.86	0.56
1:AA:260:G:H5''	17:AQ:64:PRO:O	2.05	0.56
1:AA:676:G:H2'	1:AA:677:A:C8	2.40	0.56
1:AA:1090:G:H2'	1:AA:1091:C:H5'	1.87	0.56
1:AA:1461:C:H4'	25:BA:1960:A:O2'	2.05	0.56
4:AD:162:LEU:O	4:AD:165:MET:HB2	2.05	0.56
5:AE:6:PHE:CD2	5:AE:36:ASP:HB3	2.41	0.56
10:AJ:34:VAL:CG2	10:AJ:74:ILE:HG22	2.27	0.56
11:AK:48:ILE:HG22	11:AK:49:GLY:N	2.20	0.56
12:AL:41:ARG:NH1	12:AL:41:ARG:CB	2.69	0.56
17:AQ:14:LYS:HB2	17:AQ:14:LYS:HZ3	1.70	0.56
19:AS:28:LYS:HD2	19:AS:29:ARG:CZ	2.36	0.56
21:AU:18:TYR:CD1	21:AU:24:ARG:CZ	2.89	0.56
25:BA:280:C:O2	25:BA:361:G:N3	2.39	0.56
25:BA:589:C:O2'	25:BA:590:A:H5'	2.04	0.56
25:BA:686:G:N2	25:BA:788:A:H61	2.02	0.56
25:BA:839:U:H1'	25:BA:1191:G:H1'	1.87	0.56
25:BA:845:G:H8	25:BA:845:G:OP2	1.86	0.56
25:BA:866:A:N1	25:BA:914:C:C6	2.74	0.56
25:BA:1301:A:HO2'	25:BA:1302:A:P	2.28	0.56
25:BA:1973:G:H2'	25:BA:1974:C:C6	2.41	0.56
25:BA:2186:G:C4	25:BA:2187:G:N7	2.73	0.56
25:BA:2321:G:H2'	25:BA:2321:G:N3	2.20	0.56
25:BA:2468:G:O2'	25:BA:2476:A:C8	2.59	0.56
25:BA:2483:C:H5'	25:BA:2484:G:OP2	2.05	0.56
25:BA:2518:A:H5'	25:BA:2518:A:H8	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BD:16:MET:HE1	28:BD:208:LYS:HD2	1.87	0.56
31:BG:95:ARG:O	31:BG:96:ARG:O	2.23	0.56
32:BH:20:ALA:HB2	32:BH:25:LYS:HE3	1.88	0.56
32:BH:47:GLU:HG2	32:BH:48:GLY:N	2.18	0.56
32:BH:70:THR:O	32:BH:72:ILE:N	2.37	0.56
33:BI:82:ARG:HH11	33:BI:82:ARG:HG3	1.70	0.56
34:BN:32:THR:CG2	34:BN:37:LYS:HB3	2.35	0.56
37:BQ:70:PRO:HA	37:BQ:94:VAL:O	2.05	0.56
38:BR:77:ARG:O	38:BR:79:LEU:N	2.37	0.56
38:BR:84:ALA:HB3	38:BR:85:PRO:HD3	1.87	0.56
40:BT:134:GLU:O	40:BT:136:GLN:N	2.39	0.56
42:BV:18:LEU:HD22	42:BV:19:LYS:N	2.18	0.56
42:BV:18:LEU:CG	42:BV:19:LYS:H	2.18	0.56
44:BX:5:TYR:CE1	49:B2:30:ARG:HB2	2.41	0.56
47:B0:23:VAL:HG22	47:B0:38:VAL:HG22	1.87	0.56
50:B3:44:ARG:O	50:B3:48:GLU:HG2	2.06	0.56
53:B6:10:LEU:HD22	53:B6:10:LEU:H	1.71	0.56
55:B8:4:MET:O	55:B8:62:LEU:HD11	2.05	0.56
1:CA:385:C:H2'	1:CA:386:G:C8	2.39	0.56
1:CA:584:C:H42	1:CA:620:G:H1	1.53	0.56
1:CA:1036:C:O2'	1:CA:1037:A:C5'	2.52	0.56
1:CA:1036:C:HO2'	1:CA:1037:A:P	2.29	0.56
1:CA:1134:A:H5''	10:CJ:13:HIS:CD2	2.40	0.56
3:CC:34:LEU:HD23	3:CC:35:GLU:N	2.20	0.56
3:CC:86:VAL:O	3:CC:90:GLU:HG2	2.05	0.56
4:CD:9:CYS:HA	4:CD:12:CYS:HB2	1.86	0.56
6:CF:100:ASN:ND2	18:CR:23:LYS:HE3	2.20	0.56
8:CH:85:ARG:HG3	8:CH:85:ARG:HH11	1.69	0.56
9:CI:121:ARG:HD3	9:CI:121:ARG:O	2.05	0.56
13:CM:116:THR:CG2	13:CM:117:VAL:N	2.56	0.56
18:CR:36:ASN:HD22	18:CR:39:VAL:HB	1.69	0.56
19:CS:29:ARG:H	19:CS:29:ARG:HD2	1.70	0.56
20:CT:29:LYS:HD3	20:CT:66:ALA:CB	2.34	0.56
22:CW:36:A:C5	22:CW:37:A:C8	2.92	0.56
23:CV:55:U:H3'	23:CV:55:U:C6	2.40	0.56
25:DA:77:C:H5''	49:D2:10:LEU:HD11	1.87	0.56
25:DA:451:C:H41	25:DA:453:C:H3'	1.70	0.56
25:DA:819:A:OP2	25:DA:1187:G:N2	2.27	0.56
25:DA:878:A:H61	25:DA:899:A:H2'	1.70	0.56
25:DA:911:A:H5''	25:DA:912:C:H5'	1.78	0.56
25:DA:941:A:HO2'	36:DP:35:HIS:CE1	2.19	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1108:U:H2'	25:DA:1109:C:H5'	1.88	0.56
25:DA:1794:U:H2'	25:DA:1795:C:C6	2.39	0.56
25:DA:1887:C:C2'	25:DA:1888:G:H5''	2.35	0.56
25:DA:2186:G:C4	25:DA:2187:G:N7	2.73	0.56
25:DA:2233:U:H2'	25:DA:2234:G:C8	2.41	0.56
25:DA:2301:C:H2'	25:DA:2302:G:O4'	2.06	0.56
25:DA:2321:G:H2'	25:DA:2321:G:N3	2.20	0.56
25:DA:2352:A:C2'	25:DA:2353:G:H5'	2.36	0.56
25:DA:2468:G:O2'	25:DA:2476:A:C8	2.59	0.56
25:DA:2720:U:H3'	25:DA:2721:A:H8	1.70	0.56
26:DB:35:U:O2'	26:DB:36:C:H5'	2.06	0.56
28:DD:165:ILE:HD13	28:DD:175:LEU:CD2	2.35	0.56
29:DE:3:GLY:CA	29:DE:81:ILE:HG21	2.34	0.56
30:DF:157:VAL:HB	30:DF:194:MET:CB	2.35	0.56
30:DF:161:GLU:HA	30:DF:164:ARG:HB2	1.86	0.56
32:DH:20:ALA:HB2	32:DH:25:LYS:HE3	1.88	0.56
33:DI:42:SER:C	33:DI:44:LEU:H	2.13	0.56
33:DI:94:ALA:HB1	33:DI:111:PRO:CA	2.36	0.56
34:DN:32:THR:CG2	34:DN:37:LYS:HB3	2.35	0.56
35:DO:13:ASN:OD1	35:DO:97:ARG:N	2.34	0.56
37:DQ:61:GLY:O	46:DZ:178:GLU:HB2	2.05	0.56
38:DR:17:ARG:HH11	38:DR:17:ARG:HG2	1.71	0.56
38:DR:27:SER:HB3	38:DR:34:ILE:CD1	2.34	0.56
40:DT:6:LEU:HD23	40:DT:7:ILE:HD13	1.87	0.56
40:DT:12:SER:CB	40:DT:57:PHE:CD1	2.88	0.56
41:DU:29:SER:OG	41:DU:30:LYS:HE2	2.06	0.56
42:DV:5:VAL:HG21	42:DV:35:LEU:HG	1.87	0.56
42:DV:34:GLU:O	42:DV:36:PRO:HD3	2.05	0.56
43:DW:64:MET:HE2	43:DW:109:GLU:HG2	1.86	0.56
44:DX:63:LYS:HA	44:DX:72:LYS:HA	1.88	0.56
48:D1:66:HIS:C	48:D1:68:PRO:HD2	2.30	0.56
51:D4:46:ASN:ND2	51:D4:47:VAL:N	2.53	0.56
1:AA:603:C:H2'	1:AA:604:A:O4'	2.06	0.56
1:AA:773:A:H8	1:AA:773:A:O5'	1.87	0.56
1:AA:774:G:N2	1:AA:1474:G:O3'	2.36	0.56
1:AA:1048:C:O2'	1:AA:1049:A:OP1	2.18	0.56
1:AA:1328:G:N2	1:AA:1355:G:H2'	2.20	0.56
6:AF:100:ASN:ND2	18:AR:23:LYS:HE3	2.19	0.56
10:AJ:30:SER:HA	10:AJ:80:LYS:HD3	1.86	0.56
10:AJ:61:GLU:OE1	14:AN:58:LYS:HE2	2.05	0.56
17:AQ:52:LYS:HG2	17:AQ:55:ASP:OD1	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:74:LEU:HD12	17:AQ:75:ARG:HG2	1.86	0.56
22:AW:3:C:H2'	22:AW:4:C:H6	1.71	0.56
25:BA:69:C:H5'	25:BA:70:G:OP2	2.06	0.56
25:BA:481:G:H2'	25:BA:507:A:N1	2.21	0.56
25:BA:752:A:O2'	25:BA:753:C:OP2	2.21	0.56
25:BA:850:C:O3'	50:B3:49:LYS:NZ	2.37	0.56
25:BA:1007:C:OP1	34:BN:35:ARG:NH1	2.37	0.56
25:BA:2390:U:C2'	25:BA:2391:G:H5'	2.31	0.56
28:BD:270:ILE:C	28:BD:271:ILE:CG1	2.78	0.56
31:BG:5:VAL:HG12	51:B4:51:TYR:CD1	2.40	0.56
32:BH:97:ARG:O	32:BH:98:LEU:HB2	2.06	0.56
36:BP:83:VAL:CG1	36:BP:112:LEU:HD21	2.34	0.56
38:BR:26:LYS:HE2	38:BR:71:GLN:H	1.70	0.56
45:BY:2:ARG:N	45:BY:4:LYS:HG2	2.21	0.56
45:BY:7:VAL:HB	45:BY:8:LYS:NZ	2.20	0.56
48:B1:94:LEU:C	48:B1:96:LYS:N	2.62	0.56
51:B4:46:ASN:ND2	51:B4:47:VAL:N	2.52	0.56
1:CA:950:G:H1'	10:CJ:55:LYS:HE2	1.87	0.56
1:CA:1197:G:OP1	14:CN:2:ALA:HA	2.06	0.56
1:CA:1229:A:N3	9:CI:70:LYS:HE3	2.20	0.56
2:CB:121:LEU:HA	2:CB:126:GLU:OE1	2.04	0.56
4:CD:6:GLY:O	4:CD:7:PRO:C	2.47	0.56
8:CH:20:TYR:HD1	8:CH:65:TYR:CD2	2.24	0.56
8:CH:87:SER:HA	8:CH:93:VAL:HG23	1.87	0.56
12:CL:28:LYS:CB	12:CL:33:ARG:CZ	2.83	0.56
22:CW:44:G:H3'	22:CW:45:U:C5	2.41	0.56
25:DA:271(E):U:H2'	25:DA:271(F):C:C6	2.40	0.56
25:DA:2483:C:H5'	25:DA:2484:G:OP2	2.05	0.56
28:DD:6:PHE:HD2	28:DD:9:TYR:OH	1.88	0.56
28:DD:271:ILE:O	28:DD:272:ALA:HB2	2.05	0.56
34:DN:51:PHE:CE2	34:DN:119:ARG:HD2	2.40	0.56
39:DS:85:VAL:HG22	39:DS:106:ARG:HB2	1.88	0.56
40:DT:65:LYS:HZ2	40:DT:66:VAL:C	2.14	0.56
42:DV:4:ILE:CG2	42:DV:39:LEU:CD2	2.84	0.56
43:DW:92:ARG:O	43:DW:93:ALA:HB3	2.05	0.56
45:DY:96:ILE:HD12	45:DY:99:CYS:CB	2.35	0.56
46:DZ:6:LYS:HA	46:DZ:60:GLU:HB2	1.88	0.56
46:DZ:10:ARG:HH21	46:DZ:26:GLY:N	2.03	0.56
1:AA:1310:A:OP1	13:AM:28:ALA:HB3	2.06	0.56
1:AA:1328:G:C8	9:AI:107:ARG:HB3	2.40	0.56
3:AC:109:PRO:HA	3:AC:115:LEU:HD12	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:148:GLY:HA3	3:AC:172:ARG:O	2.05	0.56
11:AK:126:ARG:HB3	11:AK:126:ARG:HH11	1.70	0.56
22:AW:8:U:O2	22:AW:21:A:C2	2.57	0.56
22:AW:16:U:C6	22:AW:17:C:H5'	2.40	0.56
22:AW:30:G:N3	22:AW:31:A:C8	2.73	0.56
23:AV:5:G:C2	23:AV:70:C:C2	2.93	0.56
25:BA:311:A:C6	25:BA:328:U:C4	2.94	0.56
25:BA:321:G:OP2	30:BF:136:THR:HG22	2.06	0.56
25:BA:1504:C:O2'	25:BA:1505:C:H5'	2.05	0.56
25:BA:2854:G:H2'	25:BA:2855:C:C6	2.41	0.56
26:BB:55:U:O2'	26:BB:56:G:H5'	2.05	0.56
28:BD:248:SER:HB2	28:BD:249:PRO:HD2	1.88	0.56
29:BE:111:ARG:HD2	29:BE:160:TYR:HE1	1.70	0.56
31:BG:69:ALA:O	31:BG:90:LEU:HD22	2.06	0.56
31:BG:88:ILE:CD1	31:BG:89:GLY:N	2.68	0.56
34:BN:42:TRP:CD1	41:BU:63:VAL:HG11	2.41	0.56
36:BP:101:VAL:HG13	36:BP:106:LEU:HD23	1.87	0.56
40:BT:80:SER:HB3	40:BT:81:PRO:HD2	1.86	0.56
44:BX:71:GLY:C	44:BX:72:LYS:HD2	2.31	0.56
45:BY:28:LYS:HA	45:BY:39:VAL:N	2.18	0.56
48:B1:3:LYS:O	48:B1:12:PRO:HD3	2.05	0.56
55:B8:23:VAL:CG1	55:B8:46:ARG:HB3	2.35	0.56
1:CA:209:U:H4'	1:CA:211:G:C4	2.41	0.56
1:CA:307:C:H2'	1:CA:308:A:H8	1.69	0.56
11:CK:114:VAL:O	11:CK:114:VAL:HG13	2.04	0.56
20:CT:14:LYS:HA	20:CT:17:ARG:NE	2.19	0.56
22:CY:28:G:N3	22:CY:43:C:N3	2.54	0.56
25:DA:524:U:H4'	25:DA:555:U:H4'	1.86	0.56
25:DA:744:G:OP1	29:DE:132:HIS:HB3	2.05	0.56
25:DA:1880:C:H6	25:DA:1880:C:C5'	2.11	0.56
25:DA:1882:C:H5'	25:DA:1883:G:OP2	2.05	0.56
25:DA:1906:G:O2'	25:DA:1907:G:H5'	2.05	0.56
25:DA:2710:C:OP1	38:DR:15:SER:HB2	2.05	0.56
29:DE:3:GLY:HA3	29:DE:81:ILE:CG2	2.32	0.56
29:DE:111:ARG:HD2	29:DE:160:TYR:HE1	1.70	0.56
31:DG:170:ARG:NH2	31:DG:182:LYS:HG3	2.20	0.56
32:DH:18:GLU:HB3	32:DH:25:LYS:HZ3	1.70	0.56
33:DI:120:ILE:HG22	33:DI:121:LYS:N	2.20	0.56
37:DQ:1:MET:HE2	37:DQ:1:MET:C	2.29	0.56
37:DQ:110:THR:OG1	37:DQ:112:GLU:HG2	2.05	0.56
38:DR:26:LYS:HE2	38:DR:71:GLN:H	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DR:81:ASP:O	38:DR:82:GLU:HB2	2.05	0.56
41:DU:79:PHE:CE1	41:DU:106:PHE:CZ	2.94	0.56
46:DZ:150:LEU:HD23	46:DZ:171:ILE:CG1	2.32	0.56
49:D2:43:GLN:O	49:D2:44:LEU:CD2	2.53	0.56
1:AA:256:U:N3	1:AA:259:U:OP2	2.28	0.56
1:AA:499:U:O2'	1:AA:502:C:N3	2.32	0.56
1:AA:773:A:OP1	23:AV:39:A:O2'	2.21	0.56
1:AA:1301:C:H5'	19:AS:70:LYS:HG3	1.88	0.56
4:AD:166:LYS:HG3	4:AD:178:VAL:HG11	1.88	0.56
6:AF:89:MET:SD	18:AR:76:LEU:HD21	2.46	0.56
10:AJ:90:LEU:HD12	10:AJ:90:LEU:N	2.21	0.56
18:AR:25:THR:HG22	18:AR:42:ARG:NH1	2.21	0.56
19:AS:29:ARG:HD2	19:AS:29:ARG:N	2.20	0.56
19:AS:45:VAL:C	19:AS:47:HIS:N	2.63	0.56
22:AW:16:U:C3'	22:AW:17:C:H5'	2.36	0.56
25:BA:311:A:O4'	25:BA:332:A:C4	2.59	0.56
25:BA:1573:G:H2'	25:BA:1574:C:H5'	1.86	0.56
25:BA:1794:U:H2'	25:BA:1795:C:C6	2.39	0.56
25:BA:2074:U:H2'	25:BA:2075:U:C6	2.40	0.56
25:BA:2308:G:O6	25:BA:2310:A:H2'	2.06	0.56
25:BA:2526:G:N2	56:B9:2:LYS:HG3	2.13	0.56
27:BC:68:LEU:HD22	27:BC:180:PHE:CB	2.36	0.56
28:BD:267:SER:HA	28:BD:270:ILE:CG1	2.34	0.56
29:BE:110:GLY:HA2	29:BE:162:ALA:H	1.70	0.56
30:BF:3:GLU:CB	30:BF:24:LEU:HG	2.35	0.56
30:BF:7:TYR:HB3	30:BF:16:GLY:N	2.21	0.56
34:BN:2:LYS:HE2	41:BU:95:LEU:HD21	1.88	0.56
36:BP:52:GLU:HG3	36:BP:57:THR:OG1	2.05	0.56
36:BP:85:LEU:HD23	36:BP:85:LEU:N	2.18	0.56
39:BS:89:ARG:HD2	39:BS:92:TYR:CA	2.33	0.56
41:BU:58:ARG:O	41:BU:62:ILE:HG12	2.06	0.56
43:BW:92:ARG:O	43:BW:93:ALA:HB3	2.05	0.56
53:B6:15:GLU:OE1	53:B6:18:ARG:HG3	2.06	0.56
1:CA:1294:U:OP1	19:CS:6:LYS:HG3	2.04	0.56
2:CB:43:ASP:OD2	2:CB:46:LYS:HB2	2.06	0.56
3:CC:22:TRP:CZ3	3:CC:32:LEU:HB3	2.41	0.56
13:CM:94:ARG:CZ	25:DA:887:A:H3'	2.35	0.56
22:CW:19:G:H22	22:CW:56:C:H42	1.53	0.56
22:CW:61:C:H2'	22:CW:62:C:C6	2.40	0.56
23:CV:19:G:H1'	23:CV:59:A:C2	2.41	0.56
22:CY:33:U:C3'	22:CY:34:G:H5''	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:102:G:OP1	25:DA:102:G:H4'	2.06	0.56
25:DA:176:G:O2'	25:DA:177:G:H5'	2.05	0.56
25:DA:285:C:C2	25:DA:286:C:C6	2.94	0.56
25:DA:558:G:P	34:DN:111:PRO:HD2	2.46	0.56
25:DA:589:C:O2'	25:DA:590:A:H5'	2.04	0.56
25:DA:1210:A:H4'	25:DA:1211:U:O5'	2.05	0.56
25:DA:2126:A:H1'	25:DA:2127:G:O4'	2.05	0.56
25:DA:2127:G:O5'	27:DC:36:LYS:CE	2.54	0.56
25:DA:2876:G:P	40:DT:4:GLY:H	2.28	0.56
28:DD:210:GLY:C	28:DD:212:SER:H	2.14	0.56
29:DE:143:ASN:HB2	29:DE:147:PRO:HD2	1.88	0.56
30:DF:51:THR:HB	30:DF:88:VAL:HG11	1.87	0.56
30:DF:132:VAL:CG2	30:DF:133:ASN:N	2.66	0.56
32:DH:37:VAL:HG21	32:DH:72:ILE:HD11	1.87	0.56
34:DN:43:THR:HB	34:DN:46:VAL:HG12	1.88	0.56
35:DO:64:ARG:HG3	35:DO:83:ALA:HB3	1.87	0.56
35:DO:73:ASP:OD2	35:DO:75:SER:OG	2.21	0.56
36:DP:107:LYS:C	36:DP:109:GLY:N	2.62	0.56
36:DP:140:ALA:O	36:DP:141:ALA:HB3	2.06	0.56
41:DU:79:PHE:O	41:DU:79:PHE:HD2	1.89	0.56
42:DV:18:LEU:CG	42:DV:19:LYS:H	2.18	0.56
45:DY:66:PRO:O	45:DY:67:LEU:CG	2.43	0.56
51:D4:39:ARG:HH11	51:D4:39:ARG:HG2	1.71	0.56
53:D6:10:LEU:H	53:D6:10:LEU:HD22	1.71	0.56
1:AA:1276:G:O3'	13:AM:14:ARG:NH1	2.39	0.56
4:AD:92:VAL:O	4:AD:96:LEU:HD13	2.06	0.56
10:AJ:89:ASP:C	10:AJ:90:LEU:HD12	2.30	0.56
20:AT:72:LEU:HD21	20:AT:77:ALA:CA	2.36	0.56
20:AT:98:PRO:C	20:AT:100:ILE:H	2.13	0.56
22:AW:21:A:N7	22:AW:46:G:C5	2.74	0.56
22:AW:22:G:N2	22:AW:23:A:C4	2.74	0.56
23:AV:50:G:O6	23:AV:66:C:N4	2.26	0.56
23:AV:76:C:OP1	25:BA:2602:A:C5'	2.54	0.56
25:BA:500:G:N2	25:BA:502:A:H3'	2.20	0.56
25:BA:855:G:H2'	25:BA:856:C:C6	2.39	0.56
25:BA:1108:U:H2'	25:BA:1109:C:H5'	1.88	0.56
25:BA:1750:G:O2'	25:BA:1751:C:H5'	2.06	0.56
25:BA:2301:C:H2'	25:BA:2302:G:O4'	2.06	0.56
25:BA:2737:G:H2'	25:BA:2738:A:C8	2.41	0.56
31:BG:47:LYS:CE	31:BG:81:LYS:HD2	2.35	0.56
31:BG:124:SER:HB2	31:BG:131:TYR:CE1	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BR:10:LEU:HB3	38:BR:17:ARG:CD	2.36	0.56
41:BU:33:ARG:O	41:BU:37:GLU:HG3	2.06	0.56
42:BV:21:ARG:HD3	42:BV:21:ARG:H	1.70	0.56
45:BY:81:LYS:HB3	45:BY:96:ILE:HG22	1.86	0.56
53:B6:46:HIS:O	53:B6:46:HIS:HD2	1.88	0.56
2:CB:57:PHE:HD2	2:CB:185:ILE:HD11	1.71	0.56
3:CC:62:ASP:O	3:CC:98:ASN:HB3	2.05	0.56
4:CD:112:VAL:HG13	4:CD:116:GLN:OE1	2.05	0.56
8:CH:12:ARG:HG2	8:CH:24:THR:HG21	1.88	0.56
10:CJ:61:GLU:OE1	14:CN:58:LYS:HE2	2.06	0.56
12:CL:5:PRO:O	12:CL:6:THR:C	2.48	0.56
13:CM:100:GLY:O	13:CM:101:GLN:HG3	2.04	0.56
19:CS:45:VAL:C	19:CS:47:HIS:N	2.63	0.56
20:CT:72:LEU:HD21	20:CT:77:ALA:N	2.20	0.56
22:CW:30:G:N2	22:CW:41:C:N3	2.53	0.56
23:CV:30:G:H2'	23:CV:31:G:O4'	2.05	0.56
25:DA:61:G:H1	25:DA:94:C:H42	1.54	0.56
25:DA:271(J):C:C3'	25:DA:271(K):U:H5''	2.35	0.56
25:DA:328:U:H4'	45:DY:68:HIS:CD2	2.41	0.56
25:DA:379:G:H2'	25:DA:380:U:H5''	1.87	0.56
25:DA:839:U:H1'	25:DA:1191:G:H1'	1.87	0.56
25:DA:943:U:OP1	36:DP:38:GLN:HB3	2.06	0.56
25:DA:953:A:C2'	25:DA:954:G:H5'	2.36	0.56
25:DA:1259:G:O2'	25:DA:1260:G:H5'	2.06	0.56
25:DA:1278:A:C5'	38:DR:36:THR:HG22	2.36	0.56
25:DA:1602:U:H3'	25:DA:1603:A:C5'	2.36	0.56
25:DA:1652:A:C2'	25:DA:1653:G:C5'	2.84	0.56
25:DA:1750:G:O2'	25:DA:1751:C:H5'	2.06	0.56
25:DA:1813:G:H1'	28:DD:50:THR:OG1	2.06	0.56
25:DA:2390:U:C2'	25:DA:2391:G:H5'	2.31	0.56
25:DA:2692:C:H2'	25:DA:2693:A:H8	1.70	0.56
25:DA:2790:A:H2'	25:DA:2790:A:N3	2.19	0.56
29:DE:101:ARG:HD3	29:DE:169:ASN:HD21	1.70	0.56
31:DG:175:LEU:HD12	31:DG:175:LEU:N	2.20	0.56
34:DN:19:GLU:HG3	34:DN:20:GLY:N	2.20	0.56
40:DT:28:VAL:HG13	40:DT:45:PHE:C	2.30	0.56
42:DV:68:LYS:HB2	42:DV:68:LYS:HZ3	1.71	0.56
45:DY:67:LEU:O	45:DY:68:HIS:C	2.46	0.56
48:D1:82:LEU:HB3	48:D1:90:ILE:HD12	1.87	0.56
50:D3:44:ARG:O	50:D3:48:GLU:HG2	2.06	0.56
55:D8:4:MET:O	55:D8:62:LEU:HD11	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:D8:62:LEU:N	55:D8:63:PRO:CD	2.69	0.56
1:AA:609:U:C2	1:AA:610:G:C8	2.94	0.56
1:AA:885:A:H2'	1:AA:886:A:H8	1.69	0.56
4:AD:30:LYS:HA	4:AD:35:ARG:CG	2.36	0.56
4:AD:65:ARG:HD3	4:AD:75:PHE:CD2	2.40	0.56
7:AG:108:ALA:O	7:AG:111:ARG:HB2	2.05	0.56
9:AI:92:TYR:N	9:AI:92:TYR:CD1	2.73	0.56
10:AJ:78:ASN:ND2	10:AJ:80:LYS:HB2	2.20	0.56
12:AL:126:LYS:C	12:AL:128:ALA:H	2.14	0.56
13:AM:84:ILE:CG1	19:AS:66:MET:HE1	2.36	0.56
22:AW:8:U:C4	22:AW:13:C:C4	2.93	0.56
23:AV:17:C:H3'	23:AV:18:U:C5'	2.35	0.56
25:BA:536:A:H2'	25:BA:537:C:C6	2.40	0.56
25:BA:1570:A:H2'	25:BA:1571:A:C8	2.41	0.56
25:BA:1602:U:H3'	25:BA:1603:A:C5'	2.36	0.56
25:BA:1652:A:C2'	25:BA:1653:G:C5'	2.84	0.56
25:BA:1987:G:H8	25:BA:1987:G:C5'	2.19	0.56
25:BA:2352:A:C2'	25:BA:2353:G:H5'	2.36	0.56
25:BA:2377:A:H2'	25:BA:2378:A:C8	2.41	0.56
25:BA:2763:G:H5'	25:BA:2763:G:H8	1.70	0.56
25:BA:2836:U:H2'	25:BA:2837:G:C8	2.41	0.56
30:BF:37:VAL:HG13	30:BF:184:TYR:HD1	1.71	0.56
30:BF:164:ARG:HH11	30:BF:164:ARG:HG2	1.69	0.56
31:BG:40:ASN:HB2	31:BG:91:ARG:CB	2.36	0.56
36:BP:108:LYS:C	36:BP:110:TYR:H	2.12	0.56
42:BV:21:ARG:HD3	42:BV:21:ARG:N	2.21	0.56
46:BZ:10:ARG:HH21	46:BZ:26:GLY:N	2.03	0.56
46:BZ:44:PHE:HE2	46:BZ:86:VAL:HG21	1.69	0.56
52:B5:37:LYS:HG3	52:B5:38:ALA:H	1.71	0.56
55:B8:62:LEU:N	55:B8:63:PRO:CD	2.69	0.56
3:CC:182:ILE:HG12	3:CC:203:PHE:HD1	1.70	0.56
9:CI:64:THR:HG23	9:CI:64:THR:O	2.06	0.56
15:CO:75:PRO:O	15:CO:79:ARG:HG3	2.05	0.56
17:CQ:77:VAL:O	17:CQ:78:GLU:CB	2.54	0.56
20:CT:30:LYS:HE3	20:CT:80:ARG:HH21	1.70	0.56
22:CW:5:G:C2	22:CW:69:G:N2	2.74	0.56
22:CW:40:C:O5'	22:CW:40:C:H6	1.88	0.56
25:DA:676:A:H2	25:DA:802:A:H61	1.53	0.56
25:DA:1495:A:N3	25:DA:1495:A:H2'	2.21	0.56
25:DA:1686:C:H2'	25:DA:1687:G:H5'	1.87	0.56
25:DA:2523:G:H5'	25:DA:2523:G:C8	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2543:G:H8	25:DA:2543:G:H5'	1.70	0.56
25:DA:2737:G:H2'	25:DA:2738:A:C8	2.41	0.56
25:DA:2787:C:H1'	29:DE:61:ARG:HG2	1.88	0.56
25:DA:2815:C:O2	52:D5:43:HIS:HE1	1.89	0.56
25:DA:2854:G:H2'	25:DA:2855:C:H6	1.70	0.56
28:DD:26:LYS:HZ3	28:DD:82:ILE:H	1.51	0.56
29:DE:78:LEU:C	29:DE:79:ARG:HD2	2.31	0.56
29:DE:161:GLY:O	29:DE:162:ALA:C	2.49	0.56
29:DE:184:VAL:CG1	29:DE:185:LYS:H	2.12	0.56
31:DG:9:ARG:HG2	31:DG:9:ARG:NH1	2.17	0.56
32:DH:24:VAL:HG21	32:DH:72:ILE:HD13	1.88	0.56
33:DI:73:GLU:OE2	33:DI:137:PRO:HD2	2.06	0.56
34:DN:42:TRP:CD1	41:DU:63:VAL:HG11	2.41	0.56
39:DS:88:ASP:OD2	39:DS:89:ARG:N	2.38	0.56
44:DX:71:GLY:C	44:DX:72:LYS:HD2	2.31	0.56
1:AA:525:G:H5'	4:AD:41:GLY:HA3	1.88	0.56
1:AA:1081:G:H5'	1:AA:1082:C:OP2	2.06	0.56
2:AB:81:VAL:HG12	2:AB:81:VAL:O	2.06	0.56
3:AC:195:VAL:O	3:AC:196:LEU:HD22	2.06	0.56
8:AH:86:ILE:HG13	8:AH:133:LEU:CD2	2.36	0.56
11:AK:48:ILE:HG23	11:AK:63:LEU:HD22	1.87	0.56
11:AK:127:LYS:HA	11:AK:127:LYS:CE	2.17	0.56
12:AL:46:LYS:O	12:AL:47:LYS:O	2.24	0.56
14:AN:12:ARG:HB3	14:AN:14:PRO:HG2	1.88	0.56
17:AQ:76:LEU:HD12	17:AQ:77:VAL:N	2.21	0.56
23:AV:3:C:C3'	23:AV:4:G:C5'	2.83	0.56
25:BA:379:G:H2'	25:BA:380:U:H5''	1.88	0.56
25:BA:598:G:H5'	36:BP:15:ARG:HB2	1.88	0.56
25:BA:796:C:H2'	25:BA:797:C:C6	2.41	0.56
25:BA:1495:A:N3	25:BA:1495:A:H2'	2.21	0.56
25:BA:1686:C:H2'	25:BA:1687:G:H5'	1.88	0.56
25:BA:1830:C:H42	25:BA:1975:G:H1	1.54	0.56
25:BA:2233:U:H2'	25:BA:2234:G:C8	2.41	0.56
28:BD:165:ILE:HD13	28:BD:175:LEU:CD2	2.35	0.56
29:BE:101:ARG:HD3	29:BE:169:ASN:HD21	1.70	0.56
30:BF:157:VAL:HB	30:BF:194:MET:CB	2.35	0.56
31:BG:7:LEU:HD22	31:BG:176:LEU:HD22	1.88	0.56
32:BH:17:VAL:HG11	32:BH:50:VAL:HG21	1.88	0.56
34:BN:19:GLU:HG3	34:BN:20:GLY:N	2.20	0.56
36:BP:107:LYS:C	36:BP:109:GLY:N	2.62	0.56
38:BR:12:ARG:HD3	38:BR:16:HIS:CE1	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:B1:57:GLU:O	48:B1:58:ILE:O	2.24	0.56
49:B2:7:ARG:HH11	49:B2:7:ARG:CG	2.18	0.56
1:CA:737:C:H5'	1:CA:738:G:C8	2.38	0.56
1:CA:1425:G:H3'	1:CA:1426:A:C5'	2.36	0.56
2:CB:48:MET:CA	2:CB:51:LEU:HD12	2.29	0.56
3:CC:99:VAL:O	3:CC:99:VAL:HG23	2.06	0.56
5:CE:145:LYS:O	5:CE:149:GLU:HG2	2.05	0.56
8:CH:68:ARG:O	8:CH:69:ARG:HG3	2.05	0.56
10:CJ:30:SER:HA	10:CJ:80:LYS:HD3	1.88	0.56
17:CQ:53:LEU:HD23	17:CQ:82:MET:HE1	1.88	0.56
20:CT:53:LEU:HB3	20:CT:102:GLY:HA3	1.88	0.56
21:CU:6:ARG:NE	21:CU:15:ARG:HH12	2.04	0.56
25:DA:302:C:C2'	25:DA:303:U:H5'	2.35	0.56
25:DA:329:G:O6	45:DY:19:LYS:HB2	2.06	0.56
25:DA:481:G:H2'	25:DA:507:A:N1	2.21	0.56
25:DA:649:G:H2'	25:DA:650:C:H6	1.68	0.56
25:DA:1388:G:O2'	25:DA:1389:G:H5'	2.04	0.56
25:DA:1973:G:H2'	25:DA:1974:C:C6	2.41	0.56
25:DA:1987:G:H8	25:DA:1987:G:C5'	2.19	0.56
25:DA:2364:C:H2'	25:DA:2365:G:O4'	2.05	0.56
31:DG:124:SER:HB2	31:DG:131:TYR:CE1	2.41	0.56
32:DH:94:TYR:CE2	32:DH:160:LYS:HB3	2.40	0.56
37:DQ:32:TYR:OH	37:DQ:111:GLU:HB2	2.05	0.56
46:DZ:151:HIS:HA	46:DZ:170:THR:HA	1.88	0.56
1:AA:1230:C:O2	1:AA:1269:A:N6	2.38	0.56
1:AA:1374:G:N2	1:AA:1479:A:H8	2.04	0.56
2:AB:54:THR:O	2:AB:58:ILE:HG12	2.06	0.56
3:AC:35:GLU:O	3:AC:39:ILE:HG13	2.06	0.56
7:AG:153:HIS:CE1	11:AK:57:THR:HG23	2.41	0.56
8:AH:41:ARG:HG2	8:AH:41:ARG:O	2.05	0.56
12:AL:28:LYS:HG3	12:AL:33:ARG:HH12	1.70	0.56
12:AL:87:GLY:HA2	12:AL:98:TYR:HA	1.87	0.56
15:AO:60:VAL:CG2	25:BA:715:G:H1'	2.36	0.56
17:AQ:32:TYR:O	17:AQ:34:LYS:N	2.39	0.56
22:AY:29:G:C6	22:AY:42:C:N3	2.74	0.56
24:AX:16:A:H2'	24:AX:17:U:O4'	2.05	0.56
25:BA:272:G:C2	25:BA:421:U:C5	2.93	0.56
25:BA:301:G:H1'	25:BA:302:C:C6	2.40	0.56
25:BA:379:G:C8	25:BA:380:U:C6	2.94	0.56
25:BA:1464:C:H4'	25:BA:1528(A):A:C1'	2.35	0.56
25:BA:1747(A):G:H2'	25:BA:1748:G:C5'	2.30	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2094:G:OP1	33:BI:22:LYS:HD2	2.05	0.56
25:BA:2201:C:O2'	25:BA:2202:C:H5'	2.05	0.56
25:BA:2320:A:H2'	25:BA:2320:A:N3	2.21	0.56
25:BA:2481:G:O2'	25:BA:2482:G:P	2.64	0.56
25:BA:2684:U:P	40:BT:60:THR:HG21	2.46	0.56
26:BB:30:C:H2'	26:BB:31:C:O4'	2.06	0.56
26:BB:56:G:OP1	31:BG:27:ASN:OD1	2.24	0.56
29:BE:3:GLY:HA3	29:BE:81:ILE:CG2	2.32	0.56
33:BI:94:ALA:HB1	33:BI:111:PRO:CA	2.36	0.56
34:BN:43:THR:HB	34:BN:46:VAL:HG12	1.88	0.56
36:BP:65:ARG:HH12	55:B8:15:LYS:HB2	1.68	0.56
36:BP:81:GLN:HG2	36:BP:106:LEU:CD1	2.35	0.56
53:B6:47:THR:HG22	53:B6:48:VAL:N	2.21	0.56
55:B8:53:PRO:HA	55:B8:56:GLU:HB2	1.88	0.56
1:CA:298:A:O2'	1:CA:538:C:O2'	2.21	0.56
1:CA:909:C:C5	7:CG:3:ARG:HD3	2.41	0.56
3:CC:173:VAL:HG12	3:CC:175:LEU:CD1	2.35	0.56
5:CE:101:ILE:HD13	5:CE:101:ILE:N	2.21	0.56
8:CH:58:TYR:O	8:CH:59:LEU:HD23	2.06	0.56
10:CJ:40:LEU:HB2	10:CJ:41:PRO:CD	2.21	0.56
13:CM:100:GLY:O	13:CM:101:GLN:CB	2.52	0.56
18:CR:44:LEU:CD1	18:CR:79:LEU:HD22	2.36	0.56
18:CR:53:ARG:NH2	18:CR:60:ALA:N	2.54	0.56
19:CS:43:GLU:C	19:CS:45:VAL:N	2.63	0.56
20:CT:30:LYS:CE	20:CT:80:ARG:HH21	2.19	0.56
25:DA:142:A:C8	25:DA:1408:C:H1'	2.41	0.56
25:DA:1455:G:C8	38:DR:60:LEU:HD11	2.41	0.56
25:DA:1647:G:H3'	25:DA:1647:G:P	2.46	0.56
25:DA:2126:A:N1	25:DA:2162:G:O2'	2.31	0.56
25:DA:2308:G:O6	25:DA:2310:A:H2'	2.06	0.56
25:DA:2330:G:C2'	25:DA:2331:G:O5'	2.54	0.56
25:DA:2763:G:H5'	25:DA:2763:G:H8	1.70	0.56
28:DD:102:LYS:C	28:DD:103:ARG:HG2	2.31	0.56
30:DF:37:VAL:HG13	30:DF:184:TYR:HD1	1.71	0.56
30:DF:127:GLU:O	30:DF:129:PHE:N	2.34	0.56
31:DG:40:ASN:HB2	31:DG:91:ARG:CB	2.36	0.56
35:DO:68:GLU:OE1	35:DO:78:ARG:NH1	2.39	0.56
36:DP:83:VAL:HG11	36:DP:112:LEU:HD21	1.88	0.56
36:DP:108:LYS:C	36:DP:110:TYR:H	2.12	0.56
40:DT:16:ARG:NH1	40:DT:18:ASP:OD1	2.39	0.56
41:DU:58:ARG:O	41:DU:62:ILE:HG12	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DV:21:ARG:HD3	42:DV:21:ARG:N	2.21	0.56
47:D0:23:VAL:HG22	47:D0:38:VAL:HG22	1.87	0.56
1:AA:440:G:H1	1:AA:472:C:H42	1.55	0.55
3:AC:129:ALA:HB3	3:AC:132:ARG:HD2	1.88	0.55
5:AE:63:ARG:C	5:AE:65:ASN:H	2.14	0.55
8:AH:64:LYS:CG	8:AH:79:VAL:HG21	2.36	0.55
9:AI:64:THR:O	9:AI:64:THR:HG23	2.06	0.55
12:AL:28:LYS:HE2	12:AL:33:ARG:NH2	2.15	0.55
17:AQ:77:VAL:O	17:AQ:78:GLU:HB3	2.05	0.55
22:AW:39:U:H3'	22:AW:39:U:O2	2.06	0.55
25:BA:311:A:O4'	25:BA:332:A:C5	2.59	0.55
25:BA:1436:G:C3'	25:BA:1437:C:H5''	2.36	0.55
25:BA:2126:A:C5'	27:BC:36:LYS:HG2	2.36	0.55
25:BA:2352:A:H2'	25:BA:2353:G:H5'	1.88	0.55
25:BA:2894:G:N3	25:BA:2894:G:H2'	2.21	0.55
28:BD:97:TYR:CE1	28:BD:103:ARG:HG3	2.40	0.55
28:BD:102:LYS:C	28:BD:103:ARG:HG2	2.31	0.55
29:BE:3:GLY:CA	29:BE:81:ILE:HG21	2.34	0.55
29:BE:12:THR:HG23	40:BT:8:LYS:HZ3	1.71	0.55
31:BG:2:PRO:HD3	51:B4:51:TYR:CD1	2.34	0.55
31:BG:17:PRO:HA	31:BG:20:ILE:HG13	1.89	0.55
31:BG:18:GLU:O	31:BG:22:ARG:HG3	2.06	0.55
36:BP:83:VAL:HG11	36:BP:112:LEU:HD21	1.88	0.55
38:BR:81:ASP:O	38:BR:82:GLU:HB2	2.05	0.55
41:BU:98:LEU:O	41:BU:101:ARG:O	2.25	0.55
55:B8:23:VAL:HG12	55:B8:46:ARG:HH11	1.71	0.55
1:CA:174:U:H2'	1:CA:175:G:H5'	1.89	0.55
1:CA:1053:C:H2'	1:CA:1054:G:C8	2.41	0.55
1:CA:1358:U:H2'	1:CA:1359:A:C8	2.41	0.55
3:CC:131:ARG:HH12	3:CC:135:LYS:HE3	1.71	0.55
3:CC:150:LYS:HG3	3:CC:169:ALA:HB2	1.88	0.55
8:CH:40:ALA:C	8:CH:42:GLU:H	2.14	0.55
9:CI:53:VAL:HG11	9:CI:85:LEU:HD22	1.86	0.55
10:CJ:50:ILE:HG23	10:CJ:60:ARG:HD3	1.88	0.55
17:CQ:74:LEU:C	17:CQ:74:LEU:HD13	2.31	0.55
24:CX:16:A:H2'	24:CX:17:U:C6	2.41	0.55
25:DA:517:C:OP1	52:D5:16:ARG:NH2	2.40	0.55
25:DA:585:G:H2'	25:DA:1251:C:H42	1.69	0.55
25:DA:1162:G:H4'	42:DV:24:LYS:HB2	1.88	0.55
25:DA:2022:U:O2'	25:DA:2617:C:H5'	2.06	0.55
26:DB:92:C:C2'	26:DB:93:G:H8	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DF:167:ALA:O	30:DF:168:ARG:C	2.49	0.55
36:DP:99:LEU:HA	36:DP:102:ARG:NH2	2.18	0.55
39:DS:90:GLY:C	39:DS:92:TYR:H	2.14	0.55
41:DU:69:CYS:SG	41:DU:79:PHE:HD1	2.29	0.55
1:AA:550:G:C2	1:AA:551:G:H1'	2.41	0.55
1:AA:564:G:N2	1:AA:743:G:N7	2.53	0.55
1:AA:1077:U:OP1	1:AA:1090:G:N2	2.23	0.55
3:AC:195:VAL:HG12	3:AC:196:LEU:H	1.70	0.55
4:AD:22:LYS:HD3	4:AD:26:CYS:SG	2.46	0.55
8:AH:10:LEU:HD23	8:AH:83:ILE:CD1	2.23	0.55
16:AP:68:ASP:O	16:AP:71:ARG:HG2	2.06	0.55
22:AW:31:A:C2	22:AW:32:U:O2	2.59	0.55
25:BA:142:A:C8	25:BA:1408:C:H1'	2.41	0.55
25:BA:271(J):C:C3'	25:BA:271(K):U:H5''	2.35	0.55
25:BA:285:C:C2	25:BA:286:C:C6	2.93	0.55
25:BA:395:U:H2'	25:BA:396:G:N7	2.20	0.55
25:BA:587:C:C5	25:BA:671:C:H1'	2.41	0.55
25:BA:651:G:OP1	55:B8:19:SER:HB2	2.06	0.55
25:BA:1210:A:H4'	25:BA:1211:U:O5'	2.06	0.55
25:BA:1259:G:O2'	25:BA:1260:G:H5'	2.06	0.55
25:BA:2223:G:H2'	25:BA:2224:G:H5'	1.88	0.55
29:BE:1:MET:HA	29:BE:200:GLU:OE1	2.07	0.55
32:BH:19:VAL:HG11	32:BH:43:VAL:O	2.07	0.55
33:BI:42:SER:C	33:BI:44:LEU:H	2.13	0.55
33:BI:73:GLU:OE2	33:BI:137:PRO:HD2	2.06	0.55
36:BP:85:LEU:HA	36:BP:88:LEU:HD22	1.89	0.55
37:BQ:112:GLU:HG3	37:BQ:113:GLN:N	2.20	0.55
39:BS:74:ALA:O	39:BS:75:GLU:C	2.49	0.55
42:BV:34:GLU:O	42:BV:36:PRO:HD3	2.05	0.55
43:BW:43:GLY:O	43:BW:44:ALA:C	2.48	0.55
56:B9:24:TYR:CE2	56:B9:35:ARG:HG3	2.42	0.55
1:CA:767:C:H4'	25:DA:1837:C:OP1	2.06	0.55
1:CA:1052:U:H2'	1:CA:1053:C:H6	1.71	0.55
1:CA:1238:U:OP2	1:CA:1238:U:H4'	2.06	0.55
4:CD:53:ASP:HB3	4:CD:57:ARG:NH1	2.13	0.55
4:CD:165:MET:HE3	4:CD:176:LEU:CD2	2.35	0.55
9:CI:104:ARG:O	9:CI:105:ASP:HB3	2.06	0.55
15:CO:82:ILE:HD11	15:CO:88:ARG:HB2	1.88	0.55
23:CV:20:G:C2	23:CV:58:A:N3	2.75	0.55
25:DA:61:G:OP1	49:D2:51:ARG:HB3	2.07	0.55
25:DA:144:C:H2'	25:DA:145:G:C8	2.38	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:307:G:O5'	25:DA:307:G:C8	2.56	0.55
25:DA:311:A:C6	25:DA:328:U:C4	2.94	0.55
25:DA:471:A:H2'	25:DA:472:A:C8	2.41	0.55
25:DA:587:C:C5	25:DA:671:C:H1'	2.42	0.55
25:DA:1141:U:OP1	34:DN:25:ARG:NH1	2.39	0.55
25:DA:2745:C:H4'	32:DH:142:GLY:O	2.05	0.55
25:DA:2774:C:H2'	25:DA:2775:A:O4'	2.05	0.55
25:DA:2854:G:H2'	25:DA:2855:C:C6	2.41	0.55
29:DE:111:ARG:HD2	29:DE:160:TYR:CE1	2.41	0.55
29:DE:179:GLU:O	29:DE:180:ASN:HB2	2.06	0.55
30:DF:20:LEU:HB3	30:DF:23:ASP:OD2	2.07	0.55
31:DG:7:LEU:HD22	31:DG:176:LEU:HD22	1.88	0.55
33:DI:82:ARG:NH1	33:DI:82:ARG:HG3	2.22	0.55
43:DW:8:ARG:HA	43:DW:102:HIS:HD2	1.71	0.55
43:DW:73:ALA:O	43:DW:106:ILE:HG12	2.07	0.55
48:D1:52:ARG:HG3	48:D1:52:ARG:HH21	1.71	0.55
50:D3:35:ARG:HH11	50:D3:35:ARG:HG3	1.71	0.55
53:D6:13:CYS:O	53:D6:21:TYR:HA	2.07	0.55
1:AA:516:A:OP1	1:AA:516:A:H3'	2.06	0.55
1:AA:740:U:H2'	1:AA:741:G:O4'	2.05	0.55
4:AD:176:LEU:HD12	4:AD:182:LYS:O	2.06	0.55
6:AF:87:ARG:C	6:AF:88:VAL:HG23	2.30	0.55
10:AJ:42:THR:HG23	10:AJ:68:HIS:HA	1.88	0.55
12:AL:5:PRO:O	12:AL:6:THR:C	2.48	0.55
19:AS:53:ASN:O	19:AS:77:THR:HG22	2.06	0.55
20:AT:33:ILE:HD11	20:AT:62:LEU:C	2.31	0.55
22:AW:23:A:C6	22:AW:24:G:C6	2.94	0.55
23:AV:22:A:C2	23:AV:49:C:C5	2.94	0.55
25:BA:322:A:OP2	30:BF:169:ASN:HB2	2.06	0.55
25:BA:353:G:N1	25:BA:354:G:N7	2.55	0.55
25:BA:471:A:H2'	25:BA:472:A:C8	2.41	0.55
25:BA:601:C:O2'	25:BA:605:C:H5''	2.06	0.55
25:BA:676:A:H2	25:BA:802:A:H61	1.53	0.55
25:BA:1269:A:H2'	25:BA:1270:C:C6	2.41	0.55
25:BA:1335:U:O2'	25:BA:1336:A:H5'	2.07	0.55
25:BA:1486:A:N6	25:BA:1504:C:H42	2.04	0.55
25:BA:1541:G:O6	25:BA:1542:A:N6	2.40	0.55
25:BA:1819:A:HO2'	25:BA:1820:U:P	2.28	0.55
25:BA:1953:A:H2	25:BA:2549:G:N3	2.03	0.55
25:BA:2364:C:H2'	25:BA:2365:G:O4'	2.06	0.55
25:BA:2580:U:H5'	29:BE:131:ALA:HB2	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2729:G:H1'	29:BE:187:ALA:HB2	1.88	0.55
25:BA:2774:C:H2'	25:BA:2775:A:O4'	2.05	0.55
28:BD:79:VAL:HG12	28:BD:79:VAL:O	2.06	0.55
29:BE:111:ARG:HD2	29:BE:160:TYR:CE1	2.41	0.55
29:BE:161:GLY:O	29:BE:162:ALA:C	2.49	0.55
30:BF:51:THR:HB	30:BF:88:VAL:HG11	1.87	0.55
32:BH:68:THR:C	32:BH:70:THR:H	2.12	0.55
33:BI:120:ILE:HG22	33:BI:121:LYS:N	2.20	0.55
37:BQ:57:HIS:CE1	37:BQ:116:GLU:HB3	2.41	0.55
41:BU:104:GLN:HB2	42:BV:44:LYS:HZ3	1.72	0.55
44:BX:57:LEU:HD13	44:BX:78:LYS:O	2.06	0.55
1:CA:187:C:H1'	1:CA:191:G:N2	2.21	0.55
1:CA:348:A:H5'	1:CA:348:A:H8	1.71	0.55
1:CA:483:G:H2'	1:CA:484:C:C6	2.41	0.55
1:CA:930:G:C5'	1:CA:942:A:H61	2.19	0.55
1:CA:1246:G:H2'	1:CA:1247:G:O4'	2.07	0.55
2:CB:113:HIS:O	2:CB:117:GLU:HG3	2.07	0.55
5:CE:63:ARG:C	5:CE:65:ASN:H	2.14	0.55
8:CH:10:LEU:HD23	8:CH:83:ILE:CD1	2.23	0.55
10:CJ:15:THR:O	10:CJ:94:VAL:HG21	2.06	0.55
12:CL:41:ARG:NH1	12:CL:41:ARG:CB	2.69	0.55
19:CS:29:ARG:HD2	19:CS:29:ARG:N	2.21	0.55
22:CW:6:G:O2'	22:CW:7:A:H5'	2.06	0.55
22:CW:76:A:C2	25:DA:2421:G:C6	2.94	0.55
25:DA:311:A:O4'	25:DA:332:A:C5	2.59	0.55
25:DA:311:A:H5'	25:DA:332:A:C2	2.42	0.55
25:DA:445:C:OP1	41:DU:2:PRO:HA	2.07	0.55
25:DA:969:U:OP1	50:D3:17:LYS:HD3	2.06	0.55
25:DA:1486:A:N6	25:DA:1504:C:H42	2.04	0.55
25:DA:2352:A:H2'	25:DA:2353:G:H5'	1.88	0.55
25:DA:2836:U:H2'	25:DA:2837:G:C8	2.41	0.55
25:DA:2894:G:H2'	25:DA:2894:G:N3	2.21	0.55
26:DB:14:U:H5'	26:DB:71:C:O4'	2.06	0.55
28:DD:33:LEU:HD12	28:DD:33:LEU:N	2.17	0.55
28:DD:77:ALA:HB1	28:DD:96:HIS:O	2.06	0.55
28:DD:248:SER:HB2	28:DD:249:PRO:HD2	1.88	0.55
29:DE:1:MET:HA	29:DE:200:GLU:OE1	2.07	0.55
30:DF:1:MET:HE2	30:DF:26:ALA:C	2.31	0.55
32:DH:97:ARG:O	32:DH:98:LEU:HB2	2.06	0.55
33:DI:77:LEU:HD21	33:DI:104:GLN:OE1	2.06	0.55
33:DI:82:ARG:HG3	33:DI:82:ARG:HH11	1.70	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DP:50:ARG:O	36:DP:57:THR:HG22	2.06	0.55
39:DS:74:ALA:O	39:DS:75:GLU:C	2.49	0.55
41:DU:57:PHE:C	41:DU:59:ARG:H	2.13	0.55
41:DU:62:ILE:HD12	41:DU:76:TYR:CE1	2.42	0.55
41:DU:92:ARG:HH11	41:DU:92:ARG:CG	2.19	0.55
42:DV:19:LYS:HZ3	42:DV:20:LEU:HB2	1.71	0.55
44:DX:60:ARG:HH22	54:D7:47:ARG:NE	2.04	0.55
50:D3:31:LEU:C	50:D3:33:GLN:H	2.14	0.55
55:D8:8:LYS:O	55:D8:12:LYS:HG3	2.06	0.55
55:D8:23:VAL:HG12	55:D8:46:ARG:HH11	1.71	0.55
1:AA:460:G:H2'	1:AA:461:G:H8	1.70	0.55
1:AA:940:G:N2	1:AA:949:C:O2	2.39	0.55
1:AA:1091:C:H2'	1:AA:1092:A:O4'	2.05	0.55
1:AA:1261:A:O4'	10:AJ:41:PRO:HG3	2.06	0.55
2:AB:114:ARG:NH1	2:AB:118:LEU:HD21	2.21	0.55
6:AF:51:PRO:HA	6:AF:56:PRO:HA	1.88	0.55
8:AH:68:ARG:O	8:AH:69:ARG:HG3	2.07	0.55
18:AR:44:LEU:CD1	18:AR:79:LEU:HD22	2.37	0.55
23:AV:4:G:C2	23:AV:5:G:N9	2.74	0.55
25:BA:271(M):G:C2'	25:BA:271(N):U:H5''	2.34	0.55
25:BA:302:C:C2'	25:BA:303:U:H5'	2.35	0.55
25:BA:873:G:O3'	37:BQ:63:LYS:HE2	2.06	0.55
25:BA:1658:C:C4	25:BA:1659:U:C4	2.95	0.55
25:BA:1819:A:O4'	25:BA:1821:A:C4	2.60	0.55
25:BA:2022:U:O2'	25:BA:2617:C:H5'	2.06	0.55
26:BB:35:U:O2'	26:BB:36:C:H5'	2.06	0.55
28:BD:30:GLU:CD	28:BD:63:ARG:HH21	2.14	0.55
28:BD:210:GLY:C	28:BD:212:SER:H	2.14	0.55
30:BF:1:MET:HE2	30:BF:26:ALA:C	2.31	0.55
30:BF:67:GLN:O	30:BF:67:GLN:CG	2.41	0.55
31:BG:43:LEU:HB2	31:BG:88:ILE:CD1	2.35	0.55
32:BH:18:GLU:HB3	32:BH:25:LYS:HZ3	1.71	0.55
34:BN:26:LEU:HD21	34:BN:30:ILE:HD11	1.89	0.55
41:BU:69:CYS:SG	41:BU:79:PHE:HD1	2.29	0.55
41:BU:90:VAL:HG12	41:BU:91:ASP:N	2.10	0.55
53:B6:11:LEU:HG	53:B6:26:ASN:HD21	1.72	0.55
55:B8:6:THR:HB	55:B8:63:PRO:HG3	1.87	0.55
56:B9:24:TYR:O	56:B9:25:VAL:HG23	2.06	0.55
2:CB:171:ALA:HA	2:CB:174:VAL:HG23	1.87	0.55
3:CC:70:VAL:HG12	3:CC:72:LYS:N	2.22	0.55
4:CD:128:VAL:O	4:CD:129:ASN:C	2.48	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:29:SER:HB3	8:CH:32:LYS:HB2	1.88	0.55
10:CJ:42:THR:HG23	10:CJ:68:HIS:HA	1.88	0.55
12:CL:83:VAL:HG12	12:CL:84:LEU:N	2.22	0.55
17:CQ:62:SER:CB	17:CQ:72:ARG:HG3	2.37	0.55
22:CW:21:A:C4	22:CW:48:C:C4	2.95	0.55
23:CV:25:U:O2'	25:DA:1923:U:H5''	2.06	0.55
25:DA:61:G:C8	49:D2:47:ASN:HB3	2.41	0.55
25:DA:271(H):G:O6	25:DA:271(Q):G:O6	2.24	0.55
25:DA:752:A:O2'	25:DA:753:C:OP2	2.21	0.55
25:DA:918:A:N3	26:DB:80:U:H4'	2.21	0.55
25:DA:1479:G:H5'	25:DA:1558:A:H2	1.72	0.55
25:DA:2171:A:C4	25:DA:2172:U:C4	2.94	0.55
25:DA:2302:G:H21	31:DG:128:ARG:CG	2.17	0.55
25:DA:2377:A:H2'	25:DA:2378:A:C8	2.41	0.55
25:DA:2732:G:C2'	25:DA:2733:A:H5'	2.36	0.55
26:DB:89:G:C2'	26:DB:90:A:H5'	2.36	0.55
28:DD:13:ARG:HG2	28:DD:13:ARG:O	2.05	0.55
29:DE:132:HIS:NE2	29:DE:135:HIS:CE1	2.73	0.55
31:DG:18:GLU:O	31:DG:22:ARG:HG3	2.06	0.55
31:DG:69:ALA:O	31:DG:90:LEU:HD22	2.06	0.55
32:DH:41:MET:HG2	32:DH:52:VAL:HG12	1.89	0.55
34:DN:58:ASP:C	34:DN:60:ILE:N	2.57	0.55
36:DP:101:VAL:HG13	36:DP:106:LEU:HD23	1.88	0.55
37:DQ:57:HIS:CE1	37:DQ:116:GLU:HB3	2.41	0.55
37:DQ:70:PRO:HA	37:DQ:94:VAL:O	2.05	0.55
38:DR:12:ARG:HD3	38:DR:16:HIS:CE1	2.41	0.55
41:DU:98:LEU:O	41:DU:101:ARG:O	2.25	0.55
41:DU:98:LEU:HD21	42:DV:2:PHE:CZ	2.42	0.55
43:DW:43:GLY:O	43:DW:44:ALA:C	2.49	0.55
45:DY:28:LYS:O	45:DY:29:GLU:C	2.50	0.55
46:DZ:17:ALA:HA	46:DZ:20:ARG:HB2	1.88	0.55
1:AA:87:C:H2'	1:AA:88:G:H8	1.71	0.55
2:AB:96:ARG:HD2	2:AB:96:ARG:N	2.21	0.55
4:AD:11:LEU:C	4:AD:13:ARG:N	2.60	0.55
5:AE:40:ARG:HH11	5:AE:40:ARG:HG2	1.72	0.55
22:AW:21:A:N6	22:AW:46:G:C4	2.75	0.55
25:BA:93:G:H2'	25:BA:94:C:C6	2.42	0.55
25:BA:271(U):G:N3	25:BA:271(V):G:C8	2.75	0.55
25:BA:451:C:H41	25:BA:453:C:H3'	1.70	0.55
25:BA:651:G:OP1	55:B8:19:SER:CB	2.55	0.55
25:BA:747:U:OP2	52:B5:3:LYS:NZ	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2015:A:C4	52:B5:6:VAL:HG23	2.41	0.55
25:BA:2762:G:C3'	25:BA:2763:G:H5''	2.35	0.55
27:BC:49:ILE:O	27:BC:51:PRO:HD3	2.06	0.55
28:BD:238:GLY:O	28:BD:239:ARG:O	2.25	0.55
32:BH:126:PRO:O	32:BH:127:GLU:CB	2.54	0.55
35:BO:73:ASP:OD1	35:BO:74:GLY:N	2.39	0.55
36:BP:17:LYS:O	36:BP:19:VAL:N	2.38	0.55
36:BP:34:GLY:O	36:BP:35:HIS:HB2	2.06	0.55
36:BP:128:HIS:N	36:BP:128:HIS:CD2	2.74	0.55
38:BR:17:ARG:HH11	38:BR:17:ARG:HG2	1.70	0.55
38:BR:77:ARG:C	38:BR:79:LEU:N	2.64	0.55
39:BS:19:LYS:HB3	39:BS:20:ARG:NH1	2.13	0.55
43:BW:8:ARG:HA	43:BW:102:HIS:HD2	1.71	0.55
43:BW:73:ALA:O	43:BW:106:ILE:HG12	2.07	0.55
1:CA:257:A:H2'	1:CA:258:A:C8	2.42	0.55
1:CA:262:C:C6	1:CA:262:C:C5'	2.85	0.55
1:CA:745:C:H2'	1:CA:746:G:C8	2.42	0.55
1:CA:953:G:H5'	1:CA:1339:U:O2'	2.07	0.55
1:CA:1074:A:H5''	7:CG:4:ARG:NH2	2.22	0.55
1:CA:1381:C:C2	1:CA:1479:A:N6	2.75	0.55
3:CC:79:ARG:HG3	3:CC:82:GLU:OE2	2.07	0.55
4:CD:8:VAL:O	4:CD:10:ARG:N	2.31	0.55
8:CH:6:ILE:HG22	8:CH:10:LEU:HD11	1.88	0.55
10:CJ:4:ILE:HB	10:CJ:74:ILE:CD1	2.35	0.55
13:CM:84:ILE:CG1	19:CS:66:MET:HE1	2.35	0.55
13:CM:94:ARG:NH2	25:DA:887:A:N9	2.54	0.55
17:CQ:74:LEU:HD12	17:CQ:75:ARG:HG2	1.88	0.55
20:CT:36:LEU:HB3	20:CT:59:ALA:HB2	1.87	0.55
20:CT:44:ALA:HB1	20:CT:88:VAL:HG13	1.89	0.55
25:DA:105:C:C4	25:DA:106:C:N4	2.75	0.55
25:DA:572:A:H5''	25:DA:573:G:OP2	2.06	0.55
25:DA:601:C:O2'	25:DA:605:C:H5''	2.06	0.55
25:DA:796:C:H2'	25:DA:797:C:C6	2.41	0.55
25:DA:1494:A:C2'	25:DA:1495:A:H5''	2.37	0.55
25:DA:2082:A:H2'	25:DA:2083:G:O4'	2.07	0.55
25:DA:2223:G:H2'	25:DA:2224:G:H5'	1.88	0.55
26:DB:85:G:N1	26:DB:93:G:C5	2.75	0.55
33:DI:125:GLU:OE1	33:DI:125:GLU:HA	2.07	0.55
36:DP:47:ASP:HB3	36:DP:48:PRO:HA	1.86	0.55
37:DQ:112:GLU:HG3	37:DQ:113:GLN:N	2.20	0.55
38:DR:10:LEU:HB3	38:DR:17:ARG:CD	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DT:16:ARG:HG3	40:DT:79:HIS:HA	1.88	0.55
45:DY:28:LYS:C	45:DY:38:ILE:HB	2.32	0.55
48:D1:81:LYS:HG2	48:D1:83:GLU:OE1	2.06	0.55
52:D5:37:LYS:HG3	52:D5:38:ALA:H	1.71	0.55
55:D8:52:LYS:N	55:D8:53:PRO:CD	2.68	0.55
1:AA:363:U:OP2	33:DI:121:LYS:NZ	2.39	0.55
1:AA:720:A:H2'	1:AA:721:C:C6	2.42	0.55
1:AA:1209:C:H2'	1:AA:1210:A:C8	2.35	0.55
2:AB:9:GLU:O	2:AB:12:GLU:HB2	2.07	0.55
2:AB:54:THR:HG23	2:AB:199:TYR:HB3	1.89	0.55
3:AC:112:SER:HB3	3:AC:115:LEU:HD12	1.89	0.55
4:AD:196:LEU:HA	6:CF:16:GLN:CG	2.36	0.55
7:AG:69:VAL:HG21	7:AG:104:LEU:HD21	1.88	0.55
13:AM:3:ARG:HH21	13:AM:7:VAL:HG13	1.71	0.55
14:AN:59:ALA:O	14:AN:60:SER:HB2	2.05	0.55
16:AP:65:GLN:N	16:AP:65:GLN:OE1	2.39	0.55
18:AR:53:ARG:HG2	18:AR:53:ARG:NH1	2.21	0.55
25:BA:311:A:H5'	25:BA:332:A:C2	2.42	0.55
25:BA:614(A):U:H4'	25:BA:614(B):G:C5'	2.37	0.55
25:BA:614(C):A:C4	30:BF:180:GLY:CA	2.89	0.55
25:BA:2779:U:C6	25:BA:2781:A:C2	2.95	0.55
29:BE:78:LEU:C	29:BE:79:ARG:HD2	2.31	0.55
30:BF:32:LEU:HD23	30:BF:32:LEU:C	2.32	0.55
36:BP:140:ALA:O	36:BP:141:ALA:HB3	2.06	0.55
38:BR:94:TYR:N	38:BR:94:TYR:CD1	2.75	0.55
48:B1:52:ARG:HG3	48:B1:52:ARG:HH21	1.71	0.55
1:CA:711:A:H2'	1:CA:712:A:C8	2.41	0.55
1:CA:931:G:H21	1:CA:1208:A:H62	1.55	0.55
1:CA:1259:U:H6	1:CA:1259:U:H3'	1.70	0.55
2:CB:9:GLU:O	2:CB:12:GLU:HB2	2.07	0.55
4:CD:166:LYS:HG3	4:CD:178:VAL:HG11	1.87	0.55
6:CF:7:ASN:HD21	18:CR:34:TYR:HE1	1.54	0.55
7:CG:21:VAL:HG23	7:CG:22:LEU:N	2.22	0.55
8:CH:86:ILE:HG13	8:CH:133:LEU:CD2	2.36	0.55
12:CL:119:LYS:C	12:CL:120:TYR:HD1	2.14	0.55
14:CN:24:CYS:HB3	14:CN:27:CYS:O	2.06	0.55
22:CW:63:G:O2'	27:DC:53:ARG:HG2	2.06	0.55
25:DA:285:C:H3'	25:DA:286:C:H5''	1.89	0.55
25:DA:500:G:N2	25:DA:502:A:H3'	2.20	0.55
25:DA:1952:A:H8	25:DA:1952:A:O5'	1.90	0.55
25:DA:2127:G:OP1	27:DC:36:LYS:CE	2.55	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2695:C:H2'	25:DA:2696:U:C6	2.42	0.55
30:DF:32:LEU:HD23	30:DF:32:LEU:C	2.32	0.55
32:DH:68:THR:C	32:DH:70:THR:H	2.12	0.55
37:DQ:54:MET:HB3	37:DQ:64:ILE:CD1	2.21	0.55
43:DW:68:ARG:HH22	43:DW:112:GLY:HA2	1.72	0.55
53:D6:15:GLU:OE1	53:D6:18:ARG:HG3	2.06	0.55
53:D6:16:CYS:O	53:D6:17:LYS:HB2	2.07	0.55
56:D9:24:TYR:CE2	56:D9:35:ARG:HG3	2.42	0.55
1:AA:26:A:N6	1:AA:541:G:HI'	2.22	0.55
1:AA:565:U:C2	1:AA:743:G:C6	2.94	0.55
1:AA:1310:A:H2'	1:AA:1311:U:O4'	2.07	0.55
3:AC:14:ILE:O	3:AC:15:THR:C	2.49	0.55
4:AD:31:CYS:O	4:AD:31:CYS:SG	2.65	0.55
4:AD:58:LEU:HD22	4:AD:62:GLN:HG2	1.89	0.55
11:AK:48:ILE:CG2	11:AK:63:LEU:HD22	2.35	0.55
20:AT:84:LEU:HD13	20:AT:84:LEU:C	2.31	0.55
25:BA:607:U:OP1	30:BF:102:PRO:HA	2.07	0.55
25:BA:848:G:H5'	25:BA:848:G:H8	1.72	0.55
25:BA:866:A:C2	25:BA:914:C:C6	2.95	0.55
25:BA:2288:A:C2	25:BA:2325:G:C8	2.95	0.55
25:BA:2684:U:O2'	35:BO:68:GLU:OE1	2.25	0.55
25:BA:2692:C:H2'	25:BA:2693:A:H8	1.70	0.55
28:BD:77:ALA:HB1	28:BD:96:HIS:O	2.06	0.55
30:BF:65:TRP:CZ3	30:BF:73:ALA:O	2.59	0.55
30:BF:167:ALA:O	30:BF:168:ARG:C	2.49	0.55
34:BN:131:GLN:NE2	34:BN:134:ARG:HD2	2.19	0.55
41:BU:98:LEU:HD21	42:BV:2:PHE:CZ	2.42	0.55
46:BZ:158:PRO:HG2	46:BZ:161:VAL:HG21	1.87	0.55
50:B3:35:ARG:HG3	50:B3:35:ARG:HH11	1.72	0.55
53:B6:16:CYS:O	53:B6:17:LYS:HB2	2.07	0.55
2:CB:132:LYS:HA	2:CB:135:GLN:HG3	1.87	0.55
3:CC:70:VAL:CG1	3:CC:71:ALA:N	2.70	0.55
8:CH:53:VAL:HG12	8:CH:54:ASP:OD2	2.07	0.55
12:CL:27:LEU:HD22	12:CL:27:LEU:N	2.21	0.55
13:CM:25:ILE:N	13:CM:25:ILE:HD12	2.22	0.55
22:CY:36:A:N1	24:CX:20:U:C4	2.75	0.55
25:DA:299:A:H5''	45:DY:84:ARG:HH21	1.72	0.55
25:DA:806:C:OP2	36:DP:39:LYS:CD	2.53	0.55
25:DA:1269:A:H2'	25:DA:1270:C:C6	2.41	0.55
25:DA:1615:C:O2'	25:DA:1616:A:C5'	2.55	0.55
27:DC:49:ILE:O	27:DC:51:PRO:HD3	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DE:16:ARG:NH1	29:DE:171:GLU:OE2	2.39	0.55
29:DE:91:VAL:HG13	29:DE:95:ILE:HG12	1.89	0.55
31:DG:115:ARG:HH12	31:DG:136:ARG:HD3	1.70	0.55
33:DI:114:LEU:HD23	33:DI:130:TYR:CE1	2.42	0.55
38:DR:84:ALA:HB3	38:DR:85:PRO:HD3	1.88	0.55
41:DU:83:LEU:HG	41:DU:88:ILE:HD11	1.89	0.55
45:DY:27:VAL:HG12	45:DY:29:GLU:OE1	2.05	0.55
55:D8:62:LEU:N	55:D8:63:PRO:HD2	2.21	0.55
1:AA:345:G:H2'	1:AA:346:G:C8	2.42	0.55
1:AA:1231:A:H4'	9:AI:68:GLY:N	2.22	0.55
1:AA:1275:G:H2'	1:AA:1276:G:C8	2.41	0.55
2:AB:80:ILE:CD1	2:AB:211:ILE:HG22	2.36	0.55
4:AD:57:ARG:HG3	4:AD:57:ARG:HH11	1.71	0.55
6:AF:42:GLU:C	6:AF:44:GLY:H	2.14	0.55
9:AI:103:THR:HG22	9:AI:104:ARG:N	2.21	0.55
13:AM:82:MET:HG2	13:AM:82:MET:O	2.07	0.55
17:AQ:21:VAL:O	17:AQ:41:LYS:HA	2.07	0.55
18:AR:36:ASN:HD22	18:AR:39:VAL:CB	2.20	0.55
20:AT:50:GLU:CB	20:AT:100:ILE:CG1	2.74	0.55
21:AU:25:LYS:HB2	21:AU:25:LYS:HZ2	1.72	0.55
22:AY:38:A:C6	22:AY:39:U:N3	2.74	0.55
25:BA:208:C:H2'	25:BA:209:C:C6	2.42	0.55
25:BA:613:G:C6	25:BA:614:U:C4	2.95	0.55
25:BA:910:A:N9	37:BQ:13:GLN:OE1	2.40	0.55
25:BA:953:A:C2'	25:BA:954:G:H5'	2.36	0.55
25:BA:1647:G:H3'	25:BA:1647:G:P	2.46	0.55
25:BA:2314:C:O2'	25:BA:2315:G:H5'	2.07	0.55
25:BA:2523:G:H5'	25:BA:2523:G:C8	2.41	0.55
28:BD:34:VAL:HG22	28:BD:34:VAL:O	2.07	0.55
30:BF:20:LEU:HB3	30:BF:23:ASP:OD2	2.07	0.55
30:BF:34:TRP:HB2	36:BP:10:PRO:O	2.06	0.55
31:BG:85:GLY:O	31:BG:87:PRO:HD2	2.05	0.55
34:BN:56:ASN:HA	34:BN:125:GLY:N	2.03	0.55
35:BO:88:ASN:OD1	35:BO:92:GLU:N	2.36	0.55
36:BP:23:PRO:HD2	36:BP:33:ARG:NH2	2.22	0.55
40:BT:82:LEU:O	40:BT:84:GLN:N	2.33	0.55
41:BU:29:SER:OG	41:BU:30:LYS:HE2	2.06	0.55
41:BU:79:PHE:O	41:BU:79:PHE:HD2	1.89	0.55
46:BZ:171:ILE:O	46:BZ:172:ALA:HB2	2.06	0.55
48:B1:81:LYS:HG2	48:B1:83:GLU:OE1	2.06	0.55
1:CA:59:A:H3'	1:CA:326:G:H22	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1280:A:H5'	1:CA:1281:G:OP1	2.07	0.55
4:CD:15:GLU:HG2	4:CD:63:LYS:CG	2.34	0.55
5:CE:33:VAL:HG22	5:CE:43:LEU:HD13	1.89	0.55
8:CH:6:ILE:H	8:CH:6:ILE:CD1	2.11	0.55
10:CJ:90:LEU:HD12	10:CJ:90:LEU:N	2.21	0.55
11:CK:127:LYS:HE2	11:CK:127:LYS:CA	2.22	0.55
13:CM:72:ALA:O	13:CM:75:ALA:HB3	2.07	0.55
18:CR:36:ASN:HD22	18:CR:39:VAL:CB	2.20	0.55
20:CT:33:ILE:HD12	20:CT:63:ILE:HG12	1.87	0.55
25:DA:1242:A:H5'	25:DA:1243:G:OP2	2.07	0.55
25:DA:1747(A):G:H2'	25:DA:1748:G:C5'	2.30	0.55
25:DA:2169:A:C2'	25:DA:2170:A:H5'	2.37	0.55
25:DA:2485:G:H5''	37:DQ:46:GLN:HE21	1.71	0.55
25:DA:2635:C:H5''	29:DE:78:LEU:O	2.06	0.55
25:DA:2779:U:C6	25:DA:2781:A:C2	2.95	0.55
28:DD:32:SER:O	28:DD:36:PRO:HD2	2.07	0.55
36:DP:23:PRO:C	36:DP:33:ARG:NH1	2.65	0.55
36:DP:84:ASN:C	36:DP:86:LYS:N	2.64	0.55
40:DT:13:ARG:NH1	40:DT:13:ARG:HA	2.22	0.55
41:DU:33:ARG:O	41:DU:37:GLU:HG3	2.06	0.55
44:DX:57:LEU:HD13	44:DX:78:LYS:O	2.06	0.55
2:AB:43:ASP:OD2	2:AB:46:LYS:HB2	2.07	0.55
3:AC:20:SER:HB2	3:AC:40:ARG:NH2	2.17	0.55
3:AC:182:ILE:HG12	3:AC:203:PHE:HD1	1.72	0.55
8:AH:86:ILE:O	8:AH:87:SER:C	2.50	0.55
12:AL:27:LEU:O	12:AL:29:GLY:N	2.40	0.55
12:AL:119:LYS:C	12:AL:120:TYR:HD1	2.15	0.55
17:AQ:77:VAL:O	17:AQ:78:GLU:CB	2.54	0.55
19:AS:10:PHE:CE2	19:AS:39:THR:OG1	2.56	0.55
25:BA:71:A:H5''	25:BA:73:A:N7	2.21	0.55
25:BA:290:G:O2'	25:BA:291:C:H5'	2.07	0.55
25:BA:1242:A:H5'	25:BA:1243:G:OP2	2.07	0.55
25:BA:1494:A:C2'	25:BA:1495:A:H5''	2.37	0.55
25:BA:2036:C:H6	25:BA:2036:C:C5'	2.14	0.55
25:BA:2320:A:C8	25:BA:2333:A:N6	2.74	0.55
26:BB:40:U:N3	26:BB:43:C:H5''	2.21	0.55
28:BD:158:ALA:HB3	28:BD:161:THR:CG2	2.36	0.55
28:BD:181:GLU:CA	28:BD:272:ALA:HB3	2.33	0.55
29:BE:70:ALA:O	29:BE:71:GLY:C	2.50	0.55
30:BF:53:THR:HG23	30:BF:55:GLY:N	2.20	0.55
32:BH:89:ILE:HD12	32:BH:89:ILE:C	2.32	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BI:82:ARG:HG3	33:BI:82:ARG:NH1	2.21	0.55
39:BS:90:GLY:C	39:BS:92:TYR:H	2.14	0.55
40:BT:11:GLU:N	40:BT:11:GLU:OE2	2.39	0.55
40:BT:57:PHE:O	40:BT:59:THR:N	2.40	0.55
41:BU:92:ARG:HH11	41:BU:92:ARG:CG	2.19	0.55
44:BX:63:LYS:HA	44:BX:72:LYS:HA	1.88	0.55
45:BY:28:LYS:CB	45:BY:38:ILE:H	2.15	0.55
55:B8:62:LEU:N	55:B8:63:PRO:HD2	2.21	0.55
1:CA:311:G:H2'	1:CA:312:G:C8	2.42	0.55
1:CA:1022:U:H2'	1:CA:1023:A:H8	1.72	0.55
1:CA:1400:A:N3	25:DA:1959:G:H1'	2.22	0.55
3:CC:129:ALA:HB3	3:CC:132:ARG:HD2	1.88	0.55
4:CD:30:LYS:HA	4:CD:35:ARG:CG	2.36	0.55
4:CD:92:VAL:O	4:CD:96:LEU:HD13	2.07	0.55
6:CF:12:PRO:HD2	6:CF:86:ARG:NH1	2.22	0.55
23:CV:17:C:H3'	23:CV:18:U:H5''	1.82	0.55
22:CY:28:G:N2	22:CY:42:C:N3	2.55	0.55
25:DA:93:G:H2'	25:DA:94:C:C6	2.42	0.55
25:DA:451:C:N4	25:DA:453:C:H3'	2.22	0.55
25:DA:1175:U:H4'	25:DA:1176:G:C3'	2.37	0.55
25:DA:1992:G:P	25:DA:1992:G:H8	2.30	0.55
25:DA:2463:C:C2'	25:DA:2464:C:H5'	2.28	0.55
26:DB:41:U:C5	31:DG:69:ALA:HB1	2.41	0.55
30:DF:141:ALA:O	30:DF:144:LYS:HB3	2.07	0.55
31:DG:85:GLY:O	31:DG:87:PRO:CD	2.54	0.55
32:DH:126:PRO:O	32:DH:127:GLU:CB	2.54	0.55
34:DN:56:ASN:HA	34:DN:125:GLY:N	2.03	0.55
38:DR:94:TYR:N	38:DR:94:TYR:CD1	2.75	0.55
40:DT:134:GLU:O	40:DT:136:GLN:N	2.40	0.55
43:DW:72:LYS:HB3	43:DW:106:ILE:O	2.05	0.55
53:D6:11:LEU:HG	53:D6:26:ASN:HD21	1.72	0.55
1:AA:503:A:N1	1:AA:519:C:H1'	2.22	0.55
1:AA:1267:A:H2'	1:AA:1268:A:O3'	2.07	0.55
3:AC:3:ASN:CG	3:AC:4:LYS:H	2.15	0.55
6:AF:75:LEU:HD23	6:AF:75:LEU:C	2.32	0.55
7:AG:116:ALA:HA	7:AG:119:ARG:HG3	1.89	0.55
9:AI:53:VAL:HG12	9:AI:92:TYR:CE2	2.42	0.55
11:AK:80:VAL:O	11:AK:80:VAL:HG23	2.07	0.55
15:AO:87:ILE:HG22	15:AO:88:ARG:N	2.14	0.55
17:AQ:74:LEU:C	17:AQ:74:LEU:HD13	2.32	0.55
20:AT:100:ILE:N	20:AT:100:ILE:CD1	2.63	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AW:16:U:C2	22:AW:19:G:OP2	2.60	0.55
22:AY:38:A:N1	22:AY:39:U:O2	2.40	0.55
25:BA:272:G:N1	25:BA:421:U:C2	2.74	0.55
25:BA:299:A:C5	25:BA:322:A:C2	2.95	0.55
25:BA:904:C:O2'	46:BZ:169:GLU:OE1	2.25	0.55
25:BA:1615:C:O2'	25:BA:1616:A:C5'	2.55	0.55
26:BB:71:C:C2	26:BB:72:G:C8	2.95	0.55
28:BD:182:LEU:H	28:BD:272:ALA:HB3	1.72	0.55
29:BE:143:ASN:HB2	29:BE:147:PRO:HD2	1.88	0.55
30:BF:164:ARG:HG3	30:BF:175:THR:OG1	2.07	0.55
31:BG:41:GLN:N	31:BG:90:LEU:O	2.37	0.55
34:BN:39:ARG:HG2	34:BN:39:ARG:NH1	2.22	0.55
37:BQ:70:PRO:HA	37:BQ:94:VAL:C	2.31	0.55
41:BU:25:TRP:HB3	41:BU:28:ARG:HD2	1.89	0.55
46:BZ:4:ARG:HD2	46:BZ:58:VAL:HB	1.89	0.55
48:B1:52:ARG:HG3	48:B1:53:VAL:N	2.16	0.55
52:B5:20:ARG:HA	52:B5:23:HIS:ND1	2.22	0.55
2:CB:54:THR:O	2:CB:58:ILE:HG12	2.06	0.55
13:CM:5:ALA:HB2	13:CM:66:LEU:CD1	2.34	0.55
14:CN:57:ARG:HG2	14:CN:58:LYS:N	2.21	0.55
22:CW:2:C:N4	22:CW:72:C:H42	1.95	0.55
25:DA:290:G:O2'	25:DA:291:C:H5'	2.07	0.55
25:DA:613:G:C6	25:DA:614:U:C4	2.95	0.55
25:DA:614(A):U:H4'	25:DA:614(B):G:C5'	2.37	0.55
25:DA:832:G:H21	36:DP:53:GLY:CA	2.20	0.55
25:DA:848:G:H8	25:DA:848:G:H5'	1.72	0.55
25:DA:942:G:C5'	36:DP:35:HIS:HB3	2.37	0.55
25:DA:1819:A:H4'	25:DA:1820:U:H5''	1.88	0.55
25:DA:2481:G:O2'	25:DA:2482:G:P	2.64	0.55
25:DA:2672:G:C2'	25:DA:2673:G:H5''	2.35	0.55
28:DD:30:GLU:CD	28:DD:63:ARG:HH21	2.14	0.55
31:DG:17:PRO:HA	31:DG:20:ILE:HG13	1.88	0.55
34:DN:26:LEU:HD21	34:DN:30:ILE:HD11	1.89	0.55
36:DP:85:LEU:HA	36:DP:88:LEU:HD22	1.89	0.55
37:DQ:140:ALA:HB3	46:DZ:53:ILE:CD1	2.36	0.55
40:DT:64:ARG:HB2	40:DT:73:GLU:HG2	1.88	0.55
40:DT:89:VAL:CG1	40:DT:91:ARG:NE	2.68	0.55
41:DU:49:HIS:HA	41:DU:52:ARG:HB2	1.89	0.55
42:DV:4:ILE:HD12	42:DV:40:LEU:HG	1.88	0.55
48:D1:35:THR:HG22	48:D1:36:GLY:N	2.21	0.55
1:AA:819:G:C6	1:AA:828:G:C6	2.96	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:69:LEU:HD12	2:AB:70:PHE:N	2.22	0.54
2:AB:80:ILE:C	2:AB:82:ARG:N	2.65	0.54
4:AD:6:GLY:O	4:AD:7:PRO:C	2.49	0.54
4:AD:108:LEU:HD12	4:AD:174:LEU:HD13	1.88	0.54
8:AH:6:ILE:C	8:AH:10:LEU:HD12	2.32	0.54
11:AK:21:ILE:HD12	11:AK:21:ILE:N	2.23	0.54
13:AM:25:ILE:HD12	13:AM:25:ILE:N	2.21	0.54
15:AO:54:ARG:HG2	15:AO:54:ARG:NH1	2.22	0.54
17:AQ:18:THR:HG22	17:AQ:19:VAL:H	1.71	0.54
22:AW:36:A:N1	22:AW:37:A:C5	2.74	0.54
23:AV:22:A:C6	23:AV:47:G:C4	2.95	0.54
25:BA:61:G:H1	25:BA:94:C:H42	1.54	0.54
25:BA:96:G:H4'	49:B2:48:HIS:CD2	2.42	0.54
25:BA:105:C:C4	25:BA:106:C:N4	2.75	0.54
25:BA:572:A:H5''	25:BA:573:G:OP2	2.06	0.54
25:BA:948:G:H1'	25:BA:984:A:C2	2.42	0.54
25:BA:1495:A:H3'	25:BA:1496:A:C2	2.42	0.54
25:BA:2171:A:C4	25:BA:2172:U:C4	2.94	0.54
25:BA:2732:G:C2'	25:BA:2733:A:H5'	2.36	0.54
26:BB:68:C:O5'	26:BB:68:C:H6	1.90	0.54
27:BC:74:VAL:CG2	27:BC:91:ALA:HB2	2.37	0.54
28:BD:32:SER:O	28:BD:36:PRO:HD2	2.07	0.54
30:BF:160:ASN:HD21	30:BF:162:LEU:HB2	1.71	0.54
31:BG:41:GLN:HE22	31:BG:153:ARG:CG	2.20	0.54
31:BG:85:GLY:O	31:BG:87:PRO:CD	2.54	0.54
32:BH:100:GLY:C	32:BH:102:ALA:H	2.15	0.54
36:BP:56:SER:CB	36:BP:60:MET:SD	2.96	0.54
40:BT:120:ARG:NH1	40:BT:123:GLN:OE1	2.40	0.54
46:BZ:6:LYS:HA	46:BZ:60:GLU:HB2	1.88	0.54
46:BZ:30:ASN:O	46:BZ:31:ARG:CB	2.55	0.54
46:BZ:151:HIS:HA	46:BZ:170:THR:HA	1.88	0.54
52:B5:40:LYS:HB2	52:B5:41:PRO:HD2	1.89	0.54
55:B8:8:LYS:O	55:B8:12:LYS:HG3	2.06	0.54
1:CA:497:C:H2'	1:CA:498:G:C8	2.42	0.54
3:CC:5:ILE:C	3:CC:5:ILE:CD1	2.80	0.54
4:CD:108:LEU:HB3	4:CD:110:PHE:HE1	1.72	0.54
7:CG:38:LEU:O	7:CG:42:ILE:HG13	2.07	0.54
9:CI:116:LYS:O	9:CI:117:HIS:HB2	2.08	0.54
13:CM:3:ARG:HH21	13:CM:7:VAL:HG13	1.72	0.54
13:CM:116:THR:CG2	13:CM:117:VAL:H	1.96	0.54
19:CS:6:LYS:H	19:CS:6:LYS:HE3	1.71	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:208:C:H2'	25:DA:209:C:C6	2.42	0.54
25:DA:353:G:N1	25:DA:354:G:N7	2.55	0.54
25:DA:559:G:H22	41:DU:49:HIS:CD2	2.26	0.54
25:DA:758:C:O2'	25:DA:759:G:H5'	2.07	0.54
25:DA:1216:G:P	41:DU:12:ARG:HH21	2.30	0.54
25:DA:1264:G:H5'	52:D5:11:THR:OG1	2.06	0.54
25:DA:2885:C:N3	25:DA:2886:G:H1'	2.22	0.54
26:DB:89:G:H2'	26:DB:90:A:H5'	1.89	0.54
37:DQ:141:GLN:C	46:DZ:53:ILE:O	2.50	0.54
39:DS:59:LYS:HE3	39:DS:68:GLN:HE22	1.72	0.54
40:DT:29:ARG:CD	40:DT:85:LYS:CA	2.40	0.54
40:DT:29:ARG:NE	40:DT:30:VAL:H	2.05	0.54
45:DY:87:LYS:HG3	45:DY:88:LYS:H	1.73	0.54
46:DZ:4:ARG:HD2	46:DZ:58:VAL:HB	1.88	0.54
46:DZ:30:ASN:O	46:DZ:31:ARG:CB	2.55	0.54
46:DZ:171:ILE:O	46:DZ:172:ALA:HB2	2.05	0.54
50:D3:10:LYS:HB3	50:D3:53:LEU:HA	1.90	0.54
56:D9:24:TYR:O	56:D9:25:VAL:HG23	2.07	0.54
1:AA:511:C:H41	12:AL:49:ASN:ND2	2.05	0.54
1:AA:903:G:N2	24:AX:15:A:H5''	2.22	0.54
1:AA:1004:G:H2'	1:AA:1004:G:N3	2.21	0.54
1:AA:1224:C:OP2	21:AU:10:ARG:NH2	2.40	0.54
1:AA:1236:G:H3'	3:AC:26:LYS:HZ2	1.70	0.54
1:AA:1396:U:H2'	1:AA:1397:G:C8	2.42	0.54
2:AB:185:ILE:HG12	2:AB:199:TYR:HB2	1.90	0.54
3:AC:53:ALA:O	3:AC:54:ARG:HB2	2.07	0.54
6:AF:21:LEU:HD13	6:AF:24:GLU:CD	2.33	0.54
6:AF:45:LEU:HD11	6:AF:57:GLN:HB3	1.88	0.54
7:AG:26:PHE:O	7:AG:30:ILE:HG12	2.07	0.54
7:AG:73:MET:CG	7:AG:90:GLU:HA	2.33	0.54
8:AH:29:SER:HB3	8:AH:32:LYS:HB2	1.89	0.54
12:AL:25:PRO:O	12:AL:27:LEU:HD22	2.08	0.54
25:BA:39:C:O2	30:BF:46:ARG:NH2	2.38	0.54
25:BA:103:A:C3'	25:BA:104:U:C5'	2.85	0.54
25:BA:539:G:H2'	25:BA:540:C:H6	1.73	0.54
25:BA:1109:C:H5	25:BA:1110:G:C5	2.25	0.54
25:BA:1409:C:H2'	25:BA:1410:G:C8	2.42	0.54
25:BA:1577:C:H2'	25:BA:1578:U:C6	2.43	0.54
25:BA:2082:A:H2'	25:BA:2083:G:O4'	2.06	0.54
25:BA:2103:C:H3'	25:BA:2104:G:C5'	2.32	0.54
25:BA:2135:A:H2'	25:BA:2136:C:H6	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2169:A:C2'	25:BA:2170:A:H5'	2.37	0.54
25:BA:2475:C:H5'	25:BA:2476:A:OP2	2.07	0.54
28:BD:80:ALA:HB2	28:BD:96:HIS:CD2	2.43	0.54
32:BH:24:VAL:HG21	32:BH:72:ILE:HD13	1.89	0.54
33:BI:114:LEU:HD23	33:BI:130:TYR:CE1	2.42	0.54
36:BP:126:VAL:HG22	36:BP:145:PRO:CB	2.37	0.54
37:BQ:30:GLY:CA	37:BQ:107:ALA:HB2	2.37	0.54
38:BR:28:LEU:HD11	38:BR:116:LEU:CD2	2.35	0.54
39:BS:59:LYS:HE3	39:BS:68:GLN:HE22	1.73	0.54
39:BS:87:PHE:CG	39:BS:88:ASP:N	2.75	0.54
41:BU:91:ASP:OD2	41:BU:96:ALA:N	2.41	0.54
46:BZ:72:ARG:O	46:BZ:73:GLN:HB3	2.08	0.54
1:CA:733:G:H1'	15:CO:23:GLY:H	1.73	0.54
1:CA:1202:G:H4'	19:CS:77:THR:HG22	1.89	0.54
1:CA:1281:G:C2'	1:CA:1282:U:OP2	2.54	0.54
1:CA:1482:G:H4'	1:CA:1483:U:H5'	1.88	0.54
15:CO:8:LYS:O	15:CO:12:ILE:HG13	2.07	0.54
23:CV:19:G:C1'	23:CV:59:A:C2	2.90	0.54
23:CV:55:U:O2'	23:CV:56:U:H5'	2.06	0.54
25:DA:109:G:C2	25:DA:110:G:C4	2.96	0.54
25:DA:225:A:H2'	25:DA:226:G:H5'	1.89	0.54
25:DA:271(U):G:N3	25:DA:271(V):G:C8	2.75	0.54
25:DA:364:C:H2'	25:DA:365:C:C5'	2.33	0.54
25:DA:1430:C:H2'	25:DA:1431:U:H6	1.69	0.54
25:DA:2297:C:O2'	25:DA:2298:A:H5'	2.08	0.54
27:DC:74:VAL:CG2	27:DC:91:ALA:HB2	2.37	0.54
30:DF:22:ALA:HA	30:DF:26:ALA:HB2	1.89	0.54
30:DF:34:TRP:HB2	36:DP:10:PRO:O	2.07	0.54
30:DF:53:THR:HG23	30:DF:55:GLY:N	2.20	0.54
30:DF:160:ASN:HD21	30:DF:162:LEU:HB2	1.72	0.54
32:DH:70:THR:O	32:DH:72:ILE:N	2.37	0.54
32:DH:138:LYS:HG3	32:DH:139:GLN:N	2.22	0.54
36:DP:61:ARG:HH11	55:D8:13:ARG:NE	2.05	0.54
36:DP:126:VAL:HG22	36:DP:145:PRO:CB	2.37	0.54
39:DS:24:LEU:CB	39:DS:85:VAL:HG12	2.37	0.54
39:DS:89:ARG:HD2	39:DS:92:TYR:CA	2.33	0.54
40:DT:89:VAL:CB	40:DT:91:ARG:CD	2.86	0.54
40:DT:129:ARG:CZ	40:DT:131:ALA:HB3	2.36	0.54
43:DW:51:LEU:HD13	43:DW:51:LEU:C	2.32	0.54
50:D3:7:LYS:C	50:D3:54:VAL:HG13	2.33	0.54
53:D6:19:ARG:CG	53:D6:20:ASN:N	2.68	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:D6:36:LEU:O	53:D6:37:ARG:HG3	2.07	0.54
1:AA:1112:A:H5''	9:AI:18:PHE:CE1	2.42	0.54
1:AA:1136:G:H2'	1:AA:1137:G:H8	1.72	0.54
1:AA:1400:A:N6	1:AA:1459:G:O2'	2.40	0.54
3:AC:173:VAL:O	3:AC:173:VAL:HG12	2.06	0.54
6:AF:62:TRP:CH2	6:AF:64:GLN:HB2	2.42	0.54
9:AI:126:SER:C	9:AI:128:ARG:H	2.15	0.54
10:AJ:50:ILE:N	10:AJ:50:ILE:CD1	2.66	0.54
12:AL:41:ARG:HH11	12:AL:41:ARG:CB	2.17	0.54
13:AM:97:PRO:HA	13:AM:110:ARG:HD2	1.88	0.54
15:AO:56:LEU:HD21	25:BA:715:G:N2	2.22	0.54
19:AS:44:MET:O	19:AS:47:HIS:HB2	2.07	0.54
20:AT:14:LYS:HA	20:AT:17:ARG:NE	2.20	0.54
20:AT:24:LEU:HD13	20:AT:24:LEU:C	2.32	0.54
22:AY:38:A:C6	22:AY:39:U:C2	2.96	0.54
25:BA:80:G:O2'	25:BA:81:G:H5'	2.08	0.54
25:BA:886:C:C2'	25:BA:887:A:H4'	2.38	0.54
28:BD:130:ALA:C	28:BD:131:LEU:HD12	2.32	0.54
29:BE:16:ARG:NH1	29:BE:171:GLU:OE2	2.39	0.54
29:BE:179:GLU:O	29:BE:180:ASN:HB2	2.06	0.54
30:BF:141:ALA:O	30:BF:144:LYS:HB3	2.07	0.54
32:BH:103:LEU:HD22	32:BH:123:PHE:CD2	2.43	0.54
35:BO:24:VAL:HA	35:BO:39:ILE:HG22	1.89	0.54
41:BU:62:ILE:HD12	41:BU:76:TYR:CE1	2.42	0.54
41:BU:83:LEU:HG	41:BU:88:ILE:HD11	1.89	0.54
45:BY:28:LYS:O	45:BY:29:GLU:C	2.50	0.54
48:B1:5:CYS:O	48:B1:9:GLY:HA2	2.07	0.54
51:B4:39:ARG:HH11	51:B4:39:ARG:HG2	1.71	0.54
51:B4:40:ILE:HD12	51:B4:40:ILE:N	2.23	0.54
1:CA:581:U:H2'	1:CA:582:C:C6	2.42	0.54
1:CA:838:G:O6	1:CA:846:G:N2	2.40	0.54
1:CA:899:G:H4'	5:CE:20:GLN:HA	1.89	0.54
1:CA:1144:C:H2'	1:CA:1145:C:C6	2.42	0.54
3:CC:110:ASN:O	3:CC:141:VAL:HG22	2.07	0.54
4:CD:84:LYS:HD3	4:CD:84:LYS:N	2.22	0.54
12:CL:26:ALA:C	12:CL:27:LEU:HD22	2.32	0.54
12:CL:41:ARG:HH11	12:CL:41:ARG:CB	2.17	0.54
13:CM:116:THR:O	13:CM:117:VAL:CG2	2.56	0.54
18:CR:36:ASN:HB2	18:CR:39:VAL:HG23	1.88	0.54
20:CT:50:GLU:CB	20:CT:100:ILE:CG1	2.81	0.54
22:CY:28:G:H2'	22:CY:29:G:H8	1.70	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:748:G:C8	43:DW:89:ALA:HB1	2.42	0.54
25:DA:999:U:H5''	25:DA:1154:G:O6	2.08	0.54
25:DA:1109:C:H5	25:DA:1110:G:C5	2.25	0.54
25:DA:1300:U:H5	25:DA:1634:A:N3	2.06	0.54
25:DA:1495:A:H3'	25:DA:1496:A:C2	2.42	0.54
25:DA:1570:A:H2'	25:DA:1571:A:C8	2.41	0.54
25:DA:1577:C:H2'	25:DA:1578:U:C6	2.43	0.54
25:DA:1658:C:C4	25:DA:1659:U:C4	2.95	0.54
25:DA:1993:U:H4'	29:DE:128:SER:OG	2.08	0.54
25:DA:2052:G:O4'	29:DE:142:GLY:HA3	2.07	0.54
25:DA:2172:U:O3'	25:DA:2173:A:H8	1.89	0.54
25:DA:2518:A:H5'	25:DA:2518:A:H8	1.70	0.54
26:DB:40:U:N3	26:DB:43:C:H5''	2.21	0.54
26:DB:69:G:C4	26:DB:70:C:C5	2.95	0.54
27:DC:68:LEU:HD22	27:DC:180:PHE:CB	2.36	0.54
27:DC:68:LEU:CD1	27:DC:179:SER:HA	2.32	0.54
28:DD:31:LYS:HZ1	28:DD:102:LYS:NZ	2.05	0.54
28:DD:130:ALA:C	28:DD:131:LEU:HD12	2.32	0.54
29:DE:168:MET:O	29:DE:170:LEU:HD12	2.08	0.54
31:DG:175:LEU:HD12	31:DG:175:LEU:H	1.72	0.54
33:DI:83:ALA:HA	33:DI:89:TYR:CD1	2.43	0.54
36:DP:46:LYS:HG2	36:DP:52:GLU:CD	2.32	0.54
38:DR:10:LEU:HD13	38:DR:17:ARG:NH1	2.23	0.54
39:DS:19:LYS:C	39:DS:20:ARG:NH1	2.66	0.54
44:DX:9:LEU:HA	49:D2:36:ARG:HH21	1.72	0.54
44:DX:60:ARG:HH22	54:D7:47:ARG:NH2	2.05	0.54
51:D4:64:LYS:O	51:D4:65:CYS:SG	2.62	0.54
1:AA:319:G:OP1	20:AT:70:SER:HB2	2.08	0.54
1:AA:775:A:H1'	1:AA:777:A:N7	2.22	0.54
1:AA:869:A:C6	1:AA:884:A:C8	2.95	0.54
1:AA:1020:C:H2'	1:AA:1021:C:C6	2.42	0.54
1:AA:1107:U:O4	10:AJ:5:ARG:HD3	2.06	0.54
8:AH:120:THR:HG23	8:AH:123:GLU:OE1	2.08	0.54
12:AL:62:SER:O	12:AL:64:TYR:HD1	1.91	0.54
16:AP:14:ASN:O	16:AP:16:HIS:ND1	2.40	0.54
22:AW:17:C:O4'	22:AW:17:C:OP2	2.25	0.54
22:AW:71:G:H8	22:AW:71:G:OP2	1.89	0.54
22:AW:76:A:O2'	25:BA:2394:C:O2	2.25	0.54
25:BA:451:C:N4	25:BA:453:C:H3'	2.22	0.54
25:BA:1019:U:O2'	25:BA:1021:A:C2	2.57	0.54
25:BA:1300:U:H5	25:BA:1634:A:N3	2.06	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1952:A:H8	25:BA:1952:A:O5'	1.90	0.54
25:BA:2024:G:H2'	25:BA:2025:C:C6	2.43	0.54
25:BA:2161:C:H2'	25:BA:2162:G:H8	1.72	0.54
25:BA:2414:G:H21	36:BP:67:MET:CE	2.20	0.54
25:BA:2577:A:H5''	25:BA:2578:G:H5'	1.90	0.54
29:BE:168:MET:O	29:BE:170:LEU:HD12	2.07	0.54
33:BI:81:VAL:HG13	33:BI:88:ILE:HG21	1.89	0.54
34:BN:120:LEU:HD13	34:BN:122:VAL:HG23	1.89	0.54
36:BP:84:ASN:C	36:BP:86:LYS:N	2.64	0.54
39:BS:85:VAL:HG22	39:BS:106:ARG:HB2	1.88	0.54
43:BW:68:ARG:HH22	43:BW:112:GLY:HA2	1.72	0.54
48:B1:82:LEU:HB3	48:B1:90:ILE:HD12	1.87	0.54
1:CA:289:U:C2'	1:CA:290:C:H5'	2.35	0.54
1:CA:437:C:H2'	1:CA:438:C:C6	2.43	0.54
1:CA:484:C:H2'	1:CA:485:G:C8	2.42	0.54
1:CA:645:G:H2'	1:CA:646:A:C8	2.42	0.54
2:CB:137:ARG:HD3	2:CB:137:ARG:C	2.33	0.54
4:CD:57:ARG:HG2	4:CD:202:LEU:HD22	1.90	0.54
8:CH:77:GLU:HG2	8:CH:78:GLN:H	1.73	0.54
9:CI:126:SER:C	9:CI:128:ARG:H	2.15	0.54
13:CM:106:ASN:O	13:CM:107:ALA:HB3	2.07	0.54
18:CR:25:THR:HG22	18:CR:42:ARG:NH1	2.23	0.54
19:CS:29:ARG:O	19:CS:31:ILE:N	2.41	0.54
22:CW:12:U:H6	22:CW:12:U:O5'	1.90	0.54
25:DA:39:C:O2	30:DF:46:ARG:NH2	2.36	0.54
25:DA:103:A:C3'	25:DA:104:U:C5'	2.85	0.54
25:DA:299:A:C5	25:DA:322:A:C2	2.95	0.54
25:DA:311:A:C8	25:DA:332:A:N6	2.75	0.54
25:DA:613:G:H8	25:DA:613:G:C5'	2.15	0.54
25:DA:886:C:C2'	25:DA:887:A:H4'	2.38	0.54
25:DA:954:G:OP1	37:DQ:15:GLY:N	2.36	0.54
25:DA:1175:U:H4'	25:DA:1176:G:H3'	1.90	0.54
25:DA:1329:U:H5''	25:DA:1330:C:H5	1.72	0.54
25:DA:2365:G:O6	55:D8:39:LYS:HE3	2.07	0.54
26:DB:71:C:C2	26:DB:72:G:C8	2.95	0.54
28:DD:238:GLY:O	28:DD:239:ARG:O	2.25	0.54
30:DF:3:GLU:CB	30:DF:24:LEU:HG	2.35	0.54
30:DF:24:LEU:HB3	30:DF:25:PRO:CD	2.37	0.54
30:DF:164:ARG:HG3	30:DF:175:THR:OG1	2.08	0.54
31:DG:149:VAL:O	31:DG:149:VAL:HG23	2.08	0.54
31:DG:165:THR:HG1	31:DG:168:GLU:H	1.54	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DH:89:ILE:HD12	32:DH:89:ILE:C	2.32	0.54
34:DN:2:LYS:HE2	41:DU:95:LEU:HD21	1.88	0.54
36:DP:50:ARG:HG2	36:DP:50:ARG:HH21	1.73	0.54
36:DP:128:HIS:CD2	36:DP:128:HIS:N	2.74	0.54
43:DW:60:ASN:N	43:DW:60:ASN:ND2	2.54	0.54
46:DZ:4:ARG:HH21	46:DZ:60:GLU:HG2	1.73	0.54
1:AA:365:C:H2'	1:AA:366:G:H8	1.73	0.54
1:AA:950:G:H3'	1:AA:951:A:H5''	1.90	0.54
1:AA:979:G:C8	1:AA:980:G:C8	2.96	0.54
6:AF:75:LEU:HD23	6:AF:79:LEU:HG	1.88	0.54
7:AG:21:VAL:HG23	7:AG:22:LEU:N	2.22	0.54
12:AL:27:LEU:C	12:AL:29:GLY:N	2.64	0.54
14:AN:40:CYS:SG	14:AN:43:CYS:N	2.80	0.54
15:AO:75:PRO:O	15:AO:79:ARG:HG3	2.06	0.54
25:BA:327:G:H2'	25:BA:328:U:C6	2.42	0.54
25:BA:748:G:C8	43:BW:89:ALA:HB1	2.42	0.54
25:BA:999:U:H5''	25:BA:1154:G:O6	2.08	0.54
25:BA:1563:G:O2'	25:BA:1564:C:H5'	2.07	0.54
25:BA:2171:A:O2'	25:BA:2172:U:H6	1.89	0.54
25:BA:2297:C:O2'	25:BA:2298:A:H5'	2.08	0.54
28:BD:32:SER:O	28:BD:34:VAL:N	2.41	0.54
28:BD:71:ASP:CB	28:BD:103:ARG:HH22	2.21	0.54
30:BF:107:LYS:O	30:BF:108:LYS:C	2.50	0.54
32:BH:138:LYS:HG3	32:BH:139:GLN:N	2.22	0.54
33:BI:77:LEU:HD21	33:BI:104:GLN:OE1	2.06	0.54
35:BO:107:ARG:NE	40:BT:35:LYS:HZ2	2.05	0.54
38:BR:10:LEU:HD13	38:BR:17:ARG:NH1	2.23	0.54
40:BT:35:LYS:HE2	40:BT:41:ARG:NH2	2.20	0.54
41:BU:115:ALA:C	41:BU:117:GLN:H	2.16	0.54
43:BW:3:ALA:HB2	43:BW:58:ALA:HA	1.90	0.54
43:BW:51:LEU:C	43:BW:51:LEU:HD13	2.32	0.54
45:BY:28:LYS:C	45:BY:38:ILE:HB	2.32	0.54
53:B6:36:LEU:O	53:B6:37:ARG:HG3	2.07	0.54
1:CA:136:G:H2'	1:CA:137:A:H8	1.73	0.54
1:CA:522:A:H2'	1:CA:523:G:H8	1.71	0.54
1:CA:871:G:H2'	1:CA:872:G:H8	1.71	0.54
1:CA:888:U:H2'	1:CA:889:C:C6	2.42	0.54
3:CC:195:VAL:O	3:CC:196:LEU:HD22	2.08	0.54
4:CD:58:LEU:HD22	4:CD:62:GLN:HG2	1.89	0.54
6:CF:75:LEU:HD23	6:CF:75:LEU:C	2.32	0.54
9:CI:103:THR:HG22	9:CI:105:ASP:H	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:46:LYS:O	12:CL:47:LYS:O	2.26	0.54
13:CM:82:MET:HB2	13:CM:93:ARG:NH1	2.22	0.54
17:CQ:32:TYR:O	17:CQ:34:LYS:N	2.40	0.54
25:DA:321:G:O4'	30:DF:165:ARG:HD2	2.08	0.54
25:DA:327:G:H2'	25:DA:328:U:C6	2.42	0.54
25:DA:588:U:H2'	25:DA:589:C:C6	2.43	0.54
25:DA:2024:G:H2'	25:DA:2025:C:C6	2.43	0.54
25:DA:2347:C:H4'	53:D6:39:TYR:CE1	2.42	0.54
25:DA:2357:U:OP1	47:D0:20:ARG:NH1	2.41	0.54
26:DB:65:C:N4	26:DB:109:C:H2'	2.22	0.54
26:DB:68:C:H2'	26:DB:69:G:H8	1.72	0.54
26:DB:107:G:C6	26:DB:108:U:C4	2.95	0.54
28:DD:79:VAL:O	28:DD:79:VAL:HG12	2.06	0.54
30:DF:65:TRP:CZ3	30:DF:73:ALA:O	2.59	0.54
30:DF:107:LYS:O	30:DF:108:LYS:C	2.50	0.54
31:DG:130:ASN:HB3	31:DG:159:VAL:O	2.08	0.54
32:DH:67:LEU:O	32:DH:71:LEU:HB2	2.08	0.54
37:DQ:70:PRO:HA	37:DQ:94:VAL:C	2.32	0.54
38:DR:9:LYS:O	38:DR:10:LEU:CG	2.55	0.54
40:DT:9:LEU:O	40:DT:13:ARG:NH2	2.40	0.54
1:AA:625:A:N3	8:AH:113:SER:OG	2.36	0.54
1:AA:674:G:OP2	11:AK:26:ASN:ND2	2.40	0.54
1:AA:1353:G:OP1	9:AI:11:LYS:HG2	2.08	0.54
2:AB:132:LYS:HA	2:AB:135:GLN:HG3	1.90	0.54
2:AB:223:ILE:HA	2:AB:226:ARG:HD2	1.89	0.54
3:AC:70:VAL:O	3:AC:106:VAL:HG23	2.08	0.54
8:AH:20:TYR:HD1	8:AH:65:TYR:CD2	2.24	0.54
8:AH:91:ARG:HH11	8:AH:91:ARG:HG2	1.72	0.54
9:AI:118:LYS:NZ	9:AI:118:LYS:CB	2.70	0.54
10:AJ:96:ILE:N	10:AJ:96:ILE:HD13	2.23	0.54
25:BA:102:G:H4'	25:BA:102:G:OP1	2.06	0.54
25:BA:285:C:H3'	25:BA:286:C:H5''	1.89	0.54
25:BA:648:G:O2'	25:BA:649:G:H5'	2.08	0.54
25:BA:758:C:O2'	25:BA:759:G:H5'	2.07	0.54
25:BA:863:A:H2'	25:BA:864:G:C8	2.41	0.54
25:BA:911:A:H5''	25:BA:912:C:O5'	2.04	0.54
25:BA:1329:U:H5''	25:BA:1330:C:H5	1.72	0.54
25:BA:1431:U:O2'	25:BA:1432:C:H5'	2.08	0.54
25:BA:1748:G:H5'	25:BA:1748:G:C8	2.40	0.54
25:BA:2885:C:N3	25:BA:2886:G:H1'	2.22	0.54
26:BB:7:G:O5'	39:BS:29:PHE:CE1	2.61	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BB:93:G:O2'	26:BB:94:C:H5'	2.08	0.54
28:BD:77:ALA:HB2	28:BD:97:TYR:HA	1.90	0.54
29:BE:51:PHE:O	29:BE:52:LEU:CB	2.44	0.54
30:BF:24:LEU:HB3	30:BF:25:PRO:CD	2.37	0.54
30:BF:132:VAL:HG13	30:BF:133:ASN:N	2.23	0.54
30:BF:177:ALA:HB1	30:BF:178:PRO:CD	2.37	0.54
36:BP:48:PRO:O	36:BP:50:ARG:N	2.40	0.54
36:BP:98:GLU:HA	36:BP:101:VAL:HG22	1.88	0.54
38:BR:8:ARG:HA	38:BR:8:ARG:NE	2.18	0.54
38:BR:33:ARG:HG3	38:BR:115:GLU:HB2	1.90	0.54
41:BU:79:PHE:CE1	41:BU:106:PHE:CZ	2.95	0.54
45:BY:8:LYS:H	45:BY:8:LYS:CD	2.05	0.54
48:B1:35:THR:HG22	48:B1:36:GLY:N	2.21	0.54
1:CA:940:G:H2'	1:CA:941:A:H8	1.73	0.54
1:CA:954:A:H1'	1:CA:959:U:O4	2.08	0.54
4:CD:162:LEU:O	4:CD:165:MET:HB2	2.07	0.54
8:CH:91:ARG:HH11	8:CH:91:ARG:HG2	1.72	0.54
12:CL:6:THR:HG23	12:CL:9:GLN:CD	2.32	0.54
16:CP:65:GLN:N	16:CP:65:GLN:OE1	2.41	0.54
22:CW:70:G:N1	22:CW:71:G:C5	2.76	0.54
25:DA:748:G:OP1	25:DA:2612:C:N4	2.41	0.54
25:DA:852:G:O2'	25:DA:853:G:H5'	2.07	0.54
25:DA:2377:A:H4'	39:DS:108:GLY:CA	2.38	0.54
25:DA:2475:C:H5'	25:DA:2476:A:OP2	2.07	0.54
25:DA:2562:U:H1'	35:DO:23:ARG:HH12	1.71	0.54
25:DA:2778:A:C4'	25:DA:2779:U:OP2	2.55	0.54
28:DD:241:PRO:O	28:DD:243:GLY:N	2.40	0.54
29:DE:70:ALA:O	29:DE:71:GLY:C	2.50	0.54
32:DH:20:ALA:HB1	32:DH:21:PRO:CD	2.37	0.54
35:DO:2:ILE:HD12	35:DO:6:THR:HG21	1.89	0.54
36:DP:98:GLU:HA	36:DP:101:VAL:HG22	1.88	0.54
1:AA:1314:A:H2'	1:AA:1315:G:O4'	2.07	0.54
1:AA:1358:U:H2'	1:AA:1359:A:C8	2.43	0.54
1:AA:1486:C:C2'	1:AA:1487:U:H5'	2.38	0.54
3:AC:70:VAL:CG1	3:AC:71:ALA:N	2.71	0.54
11:AK:30:VAL:HG21	11:AK:65:ALA:HA	1.90	0.54
11:AK:44:SER:H	11:AK:47:VAL:CG2	2.21	0.54
12:AL:6:THR:HG23	12:AL:9:GLN:HG3	1.90	0.54
13:AM:8:GLU:OE1	13:AM:22:ILE:HG23	2.07	0.54
13:AM:106:ASN:O	13:AM:107:ALA:HB3	2.08	0.54
14:AN:13:THR:O	14:AN:15:LYS:N	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AO:50:HIS:O	15:AO:53:HIS:HB3	2.06	0.54
16:AP:20:VAL:HG23	16:AP:34:GLU:O	2.08	0.54
23:AV:1:C:H4'	23:AV:1:C:OP1	2.08	0.54
25:BA:109:G:C2	25:BA:110:G:C4	2.96	0.54
25:BA:225:A:H2'	25:BA:226:G:H5'	1.89	0.54
25:BA:353:G:C4	25:BA:354:G:C8	2.96	0.54
25:BA:588:U:H2'	25:BA:589:C:C6	2.43	0.54
25:BA:1175:U:H4'	25:BA:1176:G:C3'	2.37	0.54
25:BA:1175:U:H4'	25:BA:1176:G:H3'	1.89	0.54
25:BA:1447:G:C5	25:BA:1448:G:N7	2.76	0.54
25:BA:1447:G:O4'	25:BA:1545:A:O2'	2.19	0.54
25:BA:2299:G:N1	25:BA:2318:G:C8	2.76	0.54
27:BC:76:ALA:C	27:BC:78:ALA:N	2.66	0.54
28:BD:31:LYS:HZ2	28:BD:102:LYS:HZ2	1.53	0.54
30:BF:22:ALA:HA	30:BF:26:ALA:HB2	1.89	0.54
36:BP:92:GLU:HG3	36:BP:93:GLY:N	2.23	0.54
39:BS:48:LEU:HD12	39:BS:48:LEU:N	2.23	0.54
39:BS:62:LYS:O	39:BS:65:VAL:HB	2.08	0.54
40:BT:110:ILE:O	40:BT:113:LYS:N	2.41	0.54
42:BV:2:PHE:CD1	42:BV:13:ARG:NH1	2.76	0.54
42:BV:38:LEU:O	42:BV:52:VAL:HG12	2.08	0.54
49:B2:32:LEU:O	49:B2:36:ARG:HG3	2.08	0.54
1:CA:238:A:H4'	1:CA:239:U:O5'	2.06	0.54
1:CA:246:G:C6	1:CA:261:G:C6	2.95	0.54
1:CA:485:G:C2	1:CA:486:C:C2	2.95	0.54
22:CW:21:A:N7	22:CW:46:G:C5	2.75	0.54
23:CV:2:G:C2	23:CV:3:C:C6	2.95	0.54
22:CY:28:G:C2	22:CY:43:C:C4	2.95	0.54
25:DA:336:C:H4'	45:DY:7:VAL:HG11	1.90	0.54
25:DA:1335:U:O2'	25:DA:1336:A:H5'	2.07	0.54
25:DA:2039:C:H2'	25:DA:2040:C:H6	1.72	0.54
25:DA:2238:G:H2'	25:DA:2238:G:N3	2.23	0.54
25:DA:2880:C:O2'	38:DR:90:ARG:HD3	2.07	0.54
29:DE:15:PHE:CD2	40:DT:80:SER:HB2	2.43	0.54
29:DE:59:VAL:CG2	29:DE:60:ASN:H	2.02	0.54
31:DG:72:ARG:HH11	31:DG:86:MET:HA	1.73	0.54
31:DG:101:ILE:HD13	31:DG:101:ILE:C	2.33	0.54
33:DI:129:THR:HA	33:DI:137:PRO:CA	2.37	0.54
36:DP:75:ILE:N	36:DP:75:ILE:HD12	2.23	0.54
40:DT:23:ARG:HG3	40:DT:120:ARG:HH11	1.70	0.54
41:DU:88:ILE:O	41:DU:88:ILE:CG1	2.55	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DV:5:VAL:CG2	42:DV:35:LEU:HG	2.37	0.54
46:DZ:99:TYR:N	46:DZ:99:TYR:CD2	2.76	0.54
48:D1:41:ARG:HD3	48:D1:43:TYR:CZ	2.43	0.54
50:D3:6:VAL:HG12	50:D3:56:VAL:HG22	1.90	0.54
50:D3:40:THR:HA	50:D3:44:ARG:NH2	2.23	0.54
53:D6:46:HIS:O	53:D6:46:HIS:CD2	2.60	0.54
1:AA:343:G:HO2'	1:AA:344:A:P	2.29	0.54
1:AA:701:G:H5'	11:AK:117:ASN:OD1	2.08	0.54
1:AA:836:A:H2'	1:AA:837:A:O4'	2.07	0.54
5:AE:88:LYS:HB3	5:AE:123:LEU:O	2.08	0.54
9:AI:126:SER:O	9:AI:128:ARG:HG2	2.08	0.54
14:AN:36:PHE:CD1	14:AN:36:PHE:C	2.85	0.54
25:BA:8:A:OP1	34:BN:51:PHE:HE2	1.89	0.54
25:BA:311:A:C8	25:BA:332:A:N6	2.75	0.54
25:BA:904:C:O2'	46:BZ:169:GLU:CD	2.50	0.54
25:BA:1264:G:OP1	52:B5:19:ARG:NH2	2.33	0.54
25:BA:2111:C:H42	25:BA:2147:G:H22	1.56	0.54
25:BA:2172:U:O3'	25:BA:2173:A:H8	1.89	0.54
25:BA:2783:G:H2'	25:BA:2784:C:C6	2.42	0.54
25:BA:2854:G:H2'	25:BA:2855:C:H6	1.70	0.54
27:BC:86:ALA:CB	27:BC:94:VAL:HG11	2.38	0.54
30:BF:127:GLU:OE2	30:BF:127:GLU:O	2.26	0.54
30:BF:132:VAL:O	30:BF:133:ASN:C	2.50	0.54
31:BG:130:ASN:HB3	31:BG:159:VAL:O	2.08	0.54
32:BH:20:ALA:HB1	32:BH:21:PRO:CD	2.37	0.54
32:BH:44:VAL:CG1	32:BH:45:VAL:H	2.14	0.54
39:BS:14:VAL:CG1	39:BS:15:ARG:H	2.19	0.54
39:BS:19:LYS:C	39:BS:20:ARG:NH1	2.66	0.54
40:BT:130:ALA:O	40:BT:132:LYS:N	2.41	0.54
41:BU:49:HIS:HA	41:BU:52:ARG:HB2	1.90	0.54
46:BZ:150:LEU:HD23	46:BZ:171:ILE:CG1	2.32	0.54
1:CA:130:C:N4	1:CA:222:G:H1	2.06	0.54
1:CA:338:U:H1'	1:CA:341:G:O6	2.08	0.54
1:CA:553:G:H1'	1:CA:803:U:C4	2.43	0.54
1:CA:982:A:O2'	1:CA:1020:C:H1'	2.08	0.54
1:CA:1268:A:C6	1:CA:1269:A:C6	2.95	0.54
1:CA:1272:G:H4'	9:CI:39:GLY:HA3	1.89	0.54
2:CB:107:THR:HA	2:CB:110:GLN:CD	2.33	0.54
2:CB:126:GLU:C	2:CB:128:GLU:N	2.66	0.54
5:CE:100:VAL:CG1	5:CE:118:ILE:HG22	2.35	0.54
7:CG:26:PHE:O	7:CG:30:ILE:HG12	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:30:VAL:HG21	11:CK:65:ALA:HA	1.88	0.54
13:CM:18:ALA:HB2	13:CM:45:VAL:HG21	1.89	0.54
19:CS:44:MET:O	19:CS:47:HIS:HB2	2.08	0.54
20:CT:53:LEU:CD1	20:CT:102:GLY:N	2.69	0.54
20:CT:53:LEU:HB3	20:CT:102:GLY:CA	2.38	0.54
21:CU:3:LYS:HG2	21:CU:14:TRP:CD1	2.43	0.54
22:CW:1:G:N1	22:CW:2:C:C4	2.76	0.54
23:CV:19:G:C4	23:CV:59:A:N1	2.75	0.54
25:DA:80:G:O2'	25:DA:81:G:H5'	2.08	0.54
25:DA:379:G:C8	25:DA:380:U:C6	2.94	0.54
25:DA:1150:C:O2'	25:DA:1151:G:H5'	2.08	0.54
25:DA:1409:C:H2'	25:DA:1410:G:C8	2.42	0.54
25:DA:1497:U:H5'	25:DA:1498:C:C5	2.43	0.54
25:DA:1563:G:O2'	25:DA:1564:C:H5'	2.07	0.54
25:DA:1641:A:H2'	25:DA:1642:G:O4'	2.08	0.54
25:DA:2320:A:N3	25:DA:2320:A:H2'	2.21	0.54
25:DA:2334:G:H5'	39:DS:13:ARG:HG2	1.89	0.54
26:DB:30:C:H2'	26:DB:31:C:O4'	2.07	0.54
26:DB:86:G:O2'	26:DB:87:G:H5'	2.08	0.54
28:DD:32:SER:O	28:DD:34:VAL:N	2.41	0.54
28:DD:70:TRP:CH2	28:DD:150:LYS:HA	2.43	0.54
30:DF:132:VAL:O	30:DF:133:ASN:C	2.50	0.54
34:DN:78:TYR:HB3	34:DN:79:PRO:CD	2.38	0.54
37:DQ:16:ARG:C	37:DQ:17:LEU:HD23	2.33	0.54
41:DU:79:PHE:HE1	41:DU:106:PHE:CZ	2.26	0.54
42:DV:25:LEU:H	42:DV:92:THR:CG2	2.11	0.54
45:DY:17:SER:OG	45:DY:71:LYS:HD2	2.08	0.54
1:AA:78:G:N7	1:AA:79:U:H5	2.06	0.54
1:AA:460:G:H2'	1:AA:461:G:C8	2.43	0.54
2:AB:92:TYR:O	2:AB:93:VAL:HG13	2.08	0.54
12:AL:55:VAL:HG12	12:AL:56:ALA:N	2.23	0.54
13:AM:88:ARG:HA	13:AM:98:VAL:CG1	2.38	0.54
17:AQ:69:LYS:O	17:AQ:70:ARG:HD2	2.07	0.54
25:BA:34:C:H2'	25:BA:35:G:H5'	1.89	0.54
25:BA:558:G:P	34:BN:111:PRO:HD2	2.48	0.54
25:BA:852:G:O2'	25:BA:853:G:H5'	2.07	0.54
25:BA:897:C:C2	25:BA:898:C:C5	2.96	0.54
25:BA:926:A:H5'	25:BA:926:A:C8	2.42	0.54
25:BA:1313:U:H2'	25:BA:1314:C:H5'	1.90	0.54
33:BI:51:ILE:HA	33:BI:54:GLN:HB2	1.89	0.54
33:BI:125:GLU:HA	33:BI:125:GLU:OE1	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BN:78:TYR:HB3	34:BN:79:PRO:CD	2.38	0.54
37:BQ:141:GLN:O	46:BZ:53:ILE:C	2.51	0.54
38:BR:2:ARG:NH1	38:BR:5:LYS:HE2	2.23	0.54
38:BR:9:LYS:O	38:BR:10:LEU:CG	2.55	0.54
41:BU:88:ILE:O	41:BU:88:ILE:CG1	2.55	0.54
41:BU:102:GLU:HB2	41:BU:104:GLN:HE22	1.73	0.54
46:BZ:99:TYR:CD2	46:BZ:99:TYR:N	2.76	0.54
46:BZ:128:VAL:CG2	46:BZ:132:ASN:HB2	2.38	0.54
50:B3:40:THR:HA	50:B3:44:ARG:NH2	2.23	0.54
1:CA:298:A:HO2'	1:CA:538:C:HO2'	1.53	0.54
1:CA:1374:G:C5	1:CA:1375:U:C5	2.96	0.54
1:CA:1493:G:N1	1:CA:1496:A:OP2	2.41	0.54
2:CB:73:THR:HG22	2:CB:95:GLN:O	2.08	0.54
2:CB:204:ASN:ND2	2:CB:206:ASP:H	2.05	0.54
3:CC:14:ILE:O	3:CC:15:THR:C	2.50	0.54
7:CG:69:VAL:HG21	7:CG:104:LEU:HD21	1.89	0.54
9:CI:114:TYR:N	9:CI:114:TYR:CD2	2.59	0.54
17:CQ:21:VAL:O	17:CQ:41:LYS:HA	2.07	0.54
19:CS:63:THR:CG2	19:CS:66:MET:HE3	2.31	0.54
22:CW:76:A:H62	25:DA:2421:G:H2'	1.70	0.54
23:CV:8:U:C2	23:CV:15:G:O6	2.61	0.54
22:CY:29:G:N3	22:CY:29:G:H2'	2.22	0.54
25:DA:309:G:N2	25:DA:330:A:P	2.81	0.54
25:DA:494:G:O2'	43:DW:5:ALA:O	2.24	0.54
25:DA:774:A:H2	25:DA:787:U:O2'	1.91	0.54
25:DA:1697:G:C3'	25:DA:1698:A:H5''	2.27	0.54
25:DA:2135:A:H2'	25:DA:2136:C:H6	1.72	0.54
25:DA:2178:C:H4'	27:DC:46:LYS:HD3	1.89	0.54
25:DA:2491:U:C5'	25:DA:2570:G:H5''	2.19	0.54
25:DA:2680:C:H2'	25:DA:2681:C:O2	2.08	0.54
25:DA:2783:G:H2'	25:DA:2784:C:C6	2.42	0.54
25:DA:2810:A:H2'	29:DE:61:ARG:NH2	2.23	0.54
26:DB:83:G:H2'	26:DB:84:C:C5'	2.38	0.54
28:DD:109:ASP:HB2	28:DD:197:GLY:CA	2.38	0.54
30:DF:7:TYR:HB3	30:DF:16:GLY:N	2.21	0.54
31:DG:125:PHE:O	31:DG:128:ARG:HG2	2.08	0.54
32:DH:103:LEU:HD22	32:DH:123:PHE:CD2	2.43	0.54
33:DI:87:LYS:HA	33:DI:122:GLU:CG	2.30	0.54
36:DP:83:VAL:CG2	36:DP:105:LEU:HD12	2.38	0.54
39:DS:17:ARG:C	39:DS:19:LYS:N	2.64	0.54
40:DT:25:GLY:H	40:DT:49:VAL:CG1	2.20	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DV:38:LEU:O	42:DV:52:VAL:HG12	2.08	0.54
45:DY:42:VAL:CB	45:DY:65:ALA:HB3	2.30	0.54
46:DZ:30:ASN:HA	46:DZ:89:PHE:CE2	2.43	0.54
52:D5:42:PRO:O	52:D5:43:HIS:HB2	2.08	0.54
1:AA:131:C:H42	1:AA:221:G:H1	1.56	0.54
1:AA:491:C:OP1	1:AA:491:C:H6	1.91	0.54
1:AA:828:G:H2'	1:AA:829:G:H8	1.73	0.54
1:AA:917:C:H2'	1:AA:918:G:H8	1.72	0.54
1:AA:1115:G:N2	1:AA:1125:G:H1'	2.20	0.54
1:AA:1411:C:H2'	1:AA:1412:C:C6	2.43	0.54
4:AD:62:GLN:O	4:AD:66:ARG:HD2	2.07	0.54
7:AG:38:LEU:O	7:AG:42:ILE:HG13	2.08	0.54
7:AG:52:GLU:O	7:AG:54:THR:N	2.41	0.54
8:AH:40:ALA:C	8:AH:42:GLU:H	2.15	0.54
10:AJ:88:LEU:CD1	10:AJ:90:LEU:HD11	2.38	0.54
12:AL:59:ARG:HG3	12:AL:64:TYR:O	2.07	0.54
18:AR:25:THR:HG22	18:AR:42:ARG:HH11	1.72	0.54
18:AR:36:ASN:HB2	18:AR:39:VAL:HG23	1.89	0.54
22:AW:11:C:H2'	22:AW:12:U:H6	1.73	0.54
25:BA:379:G:C6	25:BA:380:U:C2	2.96	0.54
25:BA:1434:A:O2'	25:BA:1435:G:H5'	2.08	0.54
25:BA:1609:A:N1	25:BA:1616:A:N7	2.56	0.54
25:BA:1887:C:H3'	25:BA:1888:G:H5''	1.90	0.54
25:BA:2389:G:H5''	25:BA:2390:U:H5'	1.90	0.54
25:BA:2864:G:H2'	25:BA:2865:U:O4'	2.08	0.54
26:BB:7:G:H21	39:BS:38:GLN:HE22	1.56	0.54
31:BG:125:PHE:O	31:BG:128:ARG:HG2	2.08	0.54
37:BQ:16:ARG:C	37:BQ:17:LEU:HD23	2.33	0.54
38:BR:82:GLU:O	38:BR:86:ARG:HG3	2.08	0.54
40:BT:15:VAL:HA	40:BT:79:HIS:HD2	1.73	0.54
55:B8:29:LYS:HD3	55:B8:44:LYS:HG2	1.90	0.54
55:B8:36:LYS:HB3	55:B8:40:GLU:HG3	1.90	0.54
1:CA:319:G:OP1	20:CT:22:ARG:HD3	2.08	0.54
1:CA:740:U:O2'	1:CA:856:C:H1'	2.08	0.54
2:CB:200:ILE:HG22	2:CB:202:PRO:HD3	1.89	0.54
3:CC:195:VAL:HG12	3:CC:196:LEU:H	1.72	0.54
10:CJ:78:ASN:ND2	10:CJ:80:LYS:HB2	2.23	0.54
11:CK:78:GLN:O	11:CK:103:LEU:HD13	2.07	0.54
12:CL:62:SER:O	12:CL:64:TYR:HD1	1.91	0.54
22:CW:5:G:C8	22:CW:5:G:O5'	2.61	0.54
25:DA:308:G:C2'	25:DA:309:G:H5'	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1203:G:H4'	36:DP:7:ARG:HG2	1.90	0.54
25:DA:2469:A:N3	25:DA:2469:A:H2'	2.23	0.54
27:DC:76:ALA:C	27:DC:78:ALA:N	2.66	0.54
28:DD:34:VAL:HG22	28:DD:34:VAL:O	2.07	0.54
29:DE:15:PHE:CE2	40:DT:80:SER:HB2	2.43	0.54
31:DG:41:GLN:HE22	31:DG:153:ARG:CG	2.20	0.54
35:DO:3:GLN:HB2	35:DO:4:PRO:HD2	1.90	0.54
37:DQ:141:GLN:NE2	46:DZ:72:ARG:HA	2.22	0.54
39:DS:48:LEU:HD12	39:DS:48:LEU:N	2.23	0.54
39:DS:75:GLU:HA	39:DS:78:LEU:HD12	1.90	0.54
42:DV:18:LEU:CD1	42:DV:19:LYS:H	2.22	0.54
45:DY:30:VAL:HG12	45:DY:31:LEU:N	2.23	0.54
49:D2:32:LEU:O	49:D2:36:ARG:HG3	2.08	0.54
52:D5:20:ARG:HA	52:D5:23:HIS:ND1	2.22	0.54
52:D5:40:LYS:HB2	52:D5:41:PRO:HD2	1.89	0.54
1:AA:926:A:C2	1:AA:1214:G:N3	2.76	0.53
3:AC:39:ILE:C	3:AC:41:GLY:N	2.65	0.53
5:AE:82:VAL:HG21	5:AE:138:ALA:HA	1.89	0.53
5:AE:101:ILE:HD11	5:AE:119:LEU:CD2	2.23	0.53
7:AG:12:LEU:HD13	7:AG:25:ALA:HB2	1.90	0.53
7:AG:108:ALA:HA	7:AG:111:ARG:HD2	1.90	0.53
9:AI:28:VAL:HG13	9:AI:63:ILE:O	2.09	0.53
10:AJ:50:ILE:HG23	10:AJ:60:ARG:HD3	1.90	0.53
13:AM:82:MET:HB2	13:AM:93:ARG:NH1	2.23	0.53
17:AQ:11:VAL:HG23	17:AQ:20:THR:HB	1.90	0.53
17:AQ:62:SER:CB	17:AQ:72:ARG:HG3	2.38	0.53
22:AW:55:U:C5	22:AW:57:G:H5'	2.43	0.53
23:AV:2:G:N3	23:AV:2:G:H2'	2.23	0.53
23:AV:11:A:N1	23:AV:12:G:C2	2.76	0.53
25:BA:7:G:H2'	25:BA:8:A:C8	2.44	0.53
25:BA:860:U:OP2	25:BA:916:G:N1	2.40	0.53
25:BA:1336:A:OP1	44:BX:64:LYS:HE3	2.08	0.53
26:BB:73:A:H2'	26:BB:74:U:H5'	1.90	0.53
27:BC:214:VAL:C	27:BC:216:THR:N	2.63	0.53
33:BI:51:ILE:O	33:BI:55:ALA:N	2.40	0.53
36:BP:115:LEU:N	36:BP:115:LEU:HD23	2.23	0.53
45:BY:30:VAL:HG12	45:BY:31:LEU:N	2.23	0.53
46:BZ:57:ILE:HG22	46:BZ:58:VAL:H	1.73	0.53
53:B6:13:CYS:O	53:B6:21:TYR:HA	2.07	0.53
1:CA:657:G:N2	1:CA:700:C:O2	2.41	0.53
1:CA:914:A:N6	1:CA:1326:U:O4	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:112:VAL:O	2:CB:115:LEU:HB3	2.08	0.53
5:CE:136:MET:O	5:CE:138:ALA:N	2.40	0.53
7:CG:27:ILE:HG12	7:CG:43:PHE:HD2	1.73	0.53
8:CH:103:VAL:HG21	8:CH:109:ILE:O	2.08	0.53
10:CJ:87:THR:OG1	10:CJ:88:LEU:N	2.41	0.53
25:DA:34:C:H2'	25:DA:35:G:H5'	1.89	0.53
25:DA:49:A:H5''	25:DA:51:G:O4'	2.09	0.53
25:DA:999:U:H2'	25:DA:1000:A:C5'	2.38	0.53
25:DA:1190:G:H5''	36:DP:35:HIS:CA	2.36	0.53
25:DA:1436:G:C3'	25:DA:1437:C:H5''	2.36	0.53
25:DA:1789:A:H2'	25:DA:1790:C:O4'	2.07	0.53
25:DA:1819:A:O4'	25:DA:1821:A:N7	2.41	0.53
25:DA:1830:C:H42	25:DA:1975:G:H1	1.54	0.53
25:DA:2111:C:H42	25:DA:2147:G:H22	1.56	0.53
25:DA:2314:C:O2'	25:DA:2315:G:H5'	2.07	0.53
25:DA:2698:U:H2'	25:DA:2699:C:C6	2.43	0.53
25:DA:2777:G:C4'	25:DA:2778:A:H5'	2.39	0.53
27:DC:78:ALA:HB2	27:DC:82:LYS:HB2	1.90	0.53
27:DC:100:ILE:HG22	27:DC:101:GLN:HG3	1.90	0.53
28:DD:26:LYS:HE2	28:DD:82:ILE:N	2.23	0.53
28:DD:33:LEU:O	28:DD:35:LYS:HG2	2.09	0.53
30:DF:9:ILE:HG22	30:DF:9:ILE:O	2.08	0.53
30:DF:181:LEU:HB3	30:DF:205:ARG:NH1	2.23	0.53
31:DG:39:ILE:HG23	31:DG:92:VAL:HG13	1.89	0.53
31:DG:113:ARG:O	31:DG:114:ILE:C	2.51	0.53
33:DI:79:ILE:HG22	33:DI:81:VAL:HG23	1.89	0.53
37:DQ:30:GLY:CA	37:DQ:107:ALA:HB2	2.37	0.53
37:DQ:59:ARG:NH1	37:DQ:59:ARG:HG3	2.23	0.53
38:DR:33:ARG:HG3	38:DR:115:GLU:HB2	1.90	0.53
40:DT:28:VAL:O	40:DT:29:ARG:HD2	2.08	0.53
43:DW:24:ILE:HD13	43:DW:36:LEU:HD11	1.90	0.53
48:D1:57:GLU:O	48:D1:58:ILE:O	2.24	0.53
53:D6:47:THR:HG22	53:D6:48:VAL:N	2.23	0.53
1:AA:108:G:H1'	1:AA:109:A:N7	2.22	0.53
1:AA:210:U:H2'	1:AA:210:U:O2	2.08	0.53
3:AC:73:PRO:HD2	3:AC:105:GLU:OE2	2.08	0.53
3:AC:99:VAL:O	3:AC:99:VAL:HG23	2.08	0.53
11:AK:99:GLN:NE2	11:AK:105:VAL:HG21	2.23	0.53
23:AV:47:G:H3'	23:AV:47:G:C8	2.43	0.53
25:BA:1336:A:H2'	25:BA:1337:G:H8	1.73	0.53
25:BA:1384:A:N3	25:BA:1405:U:H1'	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1952:A:C6	35:BO:22:ILE:HD11	2.42	0.53
25:BA:2168:G:N2	25:BA:2171:A:C8	2.77	0.53
25:BA:2463:C:O2'	25:BA:2464:C:H5''	2.08	0.53
25:BA:2680:C:H2'	25:BA:2681:C:O2	2.08	0.53
25:BA:2695:C:H2'	25:BA:2696:U:C6	2.42	0.53
32:BH:40:GLU:O	32:BH:42:ARG:N	2.42	0.53
32:BH:89:ILE:HG12	32:BH:129:THR:HA	1.90	0.53
33:BI:65:ALA:HB1	33:BI:131:LYS:HG2	1.90	0.53
34:BN:17:ASP:HB2	34:BN:55:VAL:HG12	1.90	0.53
34:BN:131:GLN:HE22	34:BN:134:ARG:CD	2.17	0.53
34:BN:134:ARG:H	34:BN:135:PRO:HD3	1.73	0.53
37:BQ:59:ARG:NH1	37:BQ:59:ARG:HG3	2.23	0.53
38:BR:77:ARG:C	38:BR:79:LEU:H	2.17	0.53
40:BT:91:ARG:O	40:BT:93:ARG:N	2.41	0.53
44:BX:64:LYS:HZ3	44:BX:73:ARG:HH21	1.56	0.53
48:B1:44:PRO:HB2	48:B1:46:LEU:CD1	2.39	0.53
50:B3:10:LYS:HB3	50:B3:53:LEU:HA	1.89	0.53
52:B5:42:PRO:O	52:B5:43:HIS:HB2	2.08	0.53
1:CA:965:G:C2	1:CA:966:C:C2	2.96	0.53
1:CA:1031:U:C5	1:CA:1182:A:H5'	2.43	0.53
2:CB:114:ARG:NH1	2:CB:118:LEU:HD21	2.22	0.53
3:CC:22:TRP:CH2	3:CC:32:LEU:HB3	2.43	0.53
3:CC:73:PRO:HD2	3:CC:105:GLU:OE2	2.08	0.53
3:CC:113:ALA:HB3	3:CC:114:PRO:CD	2.37	0.53
4:CD:107:ARG:HB3	4:CD:174:LEU:CD1	2.38	0.53
4:CD:108:LEU:HD12	4:CD:174:LEU:HD13	1.90	0.53
7:CG:12:LEU:HD13	7:CG:25:ALA:HB2	1.89	0.53
7:CG:108:ALA:HA	7:CG:111:ARG:HD2	1.91	0.53
9:CI:11:LYS:H	9:CI:104:ARG:HH21	1.56	0.53
9:CI:28:VAL:HG13	9:CI:63:ILE:O	2.07	0.53
10:CJ:8:LEU:CD1	10:CJ:20:ALA:HA	2.38	0.53
13:CM:3:ARG:HG2	13:CM:9:ILE:HG12	1.88	0.53
13:CM:82:MET:HG2	13:CM:82:MET:O	2.06	0.53
17:CQ:76:LEU:HD12	17:CQ:77:VAL:N	2.23	0.53
18:CR:25:THR:HG22	18:CR:42:ARG:HH11	1.73	0.53
25:DA:769:G:H2'	25:DA:770:G:H8	1.74	0.53
25:DA:957:A:H5'	37:DQ:76:LYS:HE3	1.90	0.53
25:DA:1755:A:P	40:DT:113:LYS:HZ1	2.29	0.53
26:DB:69:G:C6	26:DB:70:C:C4	2.96	0.53
28:DD:80:ALA:HB2	28:DD:96:HIS:CD2	2.43	0.53
28:DD:182:LEU:H	28:DD:272:ALA:HB3	1.72	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DF:132:VAL:HG13	30:DF:133:ASN:N	2.23	0.53
31:DG:123:ASN:O	31:DG:125:PHE:N	2.41	0.53
32:DH:100:GLY:C	32:DH:102:ALA:H	2.15	0.53
33:DI:29:TYR:CE1	33:DI:33:ARG:NE	2.75	0.53
33:DI:58:LEU:HA	33:DI:61:ARG:CD	2.37	0.53
34:DN:120:LEU:HD11	34:DN:122:VAL:CG2	2.38	0.53
37:DQ:31:ASP:O	37:DQ:133:ARG:O	2.26	0.53
38:DR:77:ARG:C	38:DR:79:LEU:H	2.17	0.53
39:DS:83:LYS:HG2	39:DS:105:ALA:HB3	1.91	0.53
41:DU:12:ARG:C	41:DU:15:LYS:HZ2	2.13	0.53
44:DX:3:THR:O	44:DX:4:ALA:HB3	2.08	0.53
46:DZ:117:LEU:HD23	46:DZ:118:GLN:N	2.23	0.53
1:AA:316:A:H2	1:AA:327:G:H22	1.56	0.53
1:AA:457:A:H1'	16:AP:82:GLN:HE22	1.73	0.53
1:AA:1218:C:H5''	1:AA:1219:A:O4'	2.08	0.53
3:AC:76:VAL:CG2	3:AC:77:ILE:H	2.21	0.53
17:AQ:53:LEU:HD23	17:AQ:82:MET:HE1	1.90	0.53
25:BA:321:G:O4'	30:BF:165:ARG:HD2	2.08	0.53
25:BA:587:C:C4	36:BP:33:ARG:HG2	2.44	0.53
25:BA:1331:A:O2'	25:BA:1332:G:H5''	2.09	0.53
25:BA:1429:G:H2'	25:BA:1430:C:C6	2.44	0.53
25:BA:1479:G:H5'	25:BA:1558:A:H2	1.72	0.53
25:BA:1497:U:H5'	25:BA:1498:C:C5	2.43	0.53
25:BA:2422:A:H4'	25:BA:2423:U:OP1	2.08	0.53
25:BA:2469:A:H2'	25:BA:2469:A:N3	2.23	0.53
25:BA:2482:G:H22	37:BQ:52:VAL:HG11	1.72	0.53
27:BC:100:ILE:HG22	27:BC:101:GLN:HG3	1.90	0.53
28:BD:270:ILE:C	28:BD:271:ILE:HG12	2.34	0.53
31:BG:76:SER:HA	31:BG:83:ARG:HB2	1.90	0.53
31:BG:101:ILE:HD13	31:BG:101:ILE:C	2.33	0.53
32:BH:67:LEU:O	32:BH:71:LEU:HB2	2.08	0.53
33:BI:129:THR:HA	33:BI:137:PRO:CA	2.37	0.53
36:BP:101:VAL:HG12	36:BP:107:LYS:N	2.23	0.53
38:BR:88:ARG:HD2	38:BR:89:ASP:OD1	2.08	0.53
39:BS:31:SER:HB3	39:BS:34:HIS:H	1.74	0.53
48:B1:41:ARG:HD3	48:B1:43:TYR:CZ	2.43	0.53
50:B3:6:VAL:HG12	50:B3:56:VAL:HG22	1.90	0.53
55:B8:52:LYS:N	55:B8:53:PRO:CD	2.68	0.53
1:CA:396:C:H2'	1:CA:397:G:H8	1.73	0.53
1:CA:858:G:H2'	1:CA:859:C:O4'	2.09	0.53
1:CA:930:G:H5'	1:CA:942:A:H61	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:76:VAL:CG2	3:CC:77:ILE:H	2.21	0.53
4:CD:176:LEU:HD12	4:CD:182:LYS:O	2.09	0.53
7:CG:72:ARG:O	7:CG:73:MET:HG3	2.09	0.53
8:CH:23:SER:HA	8:CH:63:LEU:CD2	2.38	0.53
8:CH:35:ILE:O	8:CH:39:LEU:HD23	2.08	0.53
8:CH:112:LEU:C	8:CH:112:LEU:HD12	2.33	0.53
12:CL:104:VAL:HG12	12:CL:105:TYR:CD1	2.43	0.53
14:CN:41:ARG:HG3	14:CN:42:ILE:N	2.22	0.53
17:CQ:14:LYS:HB2	17:CQ:14:LYS:HZ3	1.74	0.53
22:CW:16:U:H3'	22:CW:17:C:C5'	2.32	0.53
22:CW:51:U:H2'	22:CW:52:G:C8	2.43	0.53
23:CV:3:C:O2'	23:CV:4:G:H5'	2.08	0.53
25:DA:353:G:C4	25:DA:354:G:C8	2.96	0.53
25:DA:648:G:O2'	25:DA:649:G:H5'	2.08	0.53
25:DA:870:A:OP1	37:DQ:6:ARG:NE	2.41	0.53
25:DA:1431:U:O2'	25:DA:1432:C:H5'	2.08	0.53
25:DA:2349:G:H8	25:DA:2349:G:H5'	1.73	0.53
25:DA:2689:U:H5''	25:DA:2690:C:H5'	1.91	0.53
25:DA:2721:A:H2'	25:DA:2722:G:H8	1.74	0.53
25:DA:2777:G:H5''	25:DA:2778:A:H5''	1.90	0.53
26:DB:87:G:H2'	26:DB:88:C:H5''	1.89	0.53
28:DD:6:PHE:HB3	28:DD:9:TYR:HE1	1.73	0.53
29:DE:132:HIS:CD2	29:DE:135:HIS:HE1	2.24	0.53
30:DF:7:TYR:HB2	30:DF:17:ARG:N	2.23	0.53
30:DF:152:GLU:O	30:DF:154:VAL:HG23	2.08	0.53
33:DI:102:SER:HA	33:DI:107:VAL:O	2.08	0.53
35:DO:1:MET:HG3	35:DO:32:TYR:CD1	2.44	0.53
36:DP:115:LEU:HD23	36:DP:115:LEU:N	2.23	0.53
37:DQ:4:PRO:O	37:DQ:6:ARG:N	2.40	0.53
37:DQ:54:MET:CB	37:DQ:64:ILE:HD13	2.21	0.53
37:DQ:59:ARG:O	37:DQ:60:ARG:CB	2.56	0.53
38:DR:63:ARG:HA	38:DR:80:PHE:HE2	1.73	0.53
44:DX:64:LYS:HZ3	44:DX:73:ARG:HH21	1.56	0.53
46:DZ:151:HIS:HB3	46:DZ:170:THR:HA	1.90	0.53
48:D1:5:CYS:O	48:D1:9:GLY:HA2	2.07	0.53
1:AA:222:G:H2'	1:AA:223:A:C8	2.44	0.53
1:AA:969:U:O2	1:AA:970:G:N2	2.41	0.53
1:AA:1140:C:O2'	1:AA:1142:G:OP1	2.22	0.53
2:AB:113:HIS:O	2:AB:117:GLU:HG3	2.07	0.53
4:AD:10:ARG:HH11	4:AD:10:ARG:HG2	1.74	0.53
5:AE:31:LEU:HD11	5:AE:43:LEU:HD11	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:111:ARG:HB3	7:AG:113:GLU:HG2	1.91	0.53
13:AM:72:ALA:O	13:AM:75:ALA:HB3	2.08	0.53
22:AW:55:U:O2	22:AW:55:U:O5'	2.26	0.53
25:BA:271(K):U:H3'	25:BA:271(L):U:H5'	1.90	0.53
25:BA:438:G:O2'	25:BA:440:G:H5'	2.08	0.53
25:BA:637:A:H2'	36:BP:117:GLU:OE2	2.08	0.53
25:BA:957:A:H5'	37:BQ:76:LYS:HE3	1.91	0.53
25:BA:1012:U:O4	34:BN:28:THR:HG21	2.09	0.53
25:BA:1336:A:H2'	25:BA:1337:G:C8	2.43	0.53
25:BA:1999:C:H4'	25:BA:2723:C:O2	2.09	0.53
25:BA:2039:C:H2'	25:BA:2040:C:H6	1.72	0.53
25:BA:2285:C:OP2	53:B6:27:LYS:HD2	2.09	0.53
26:BB:87:G:H2'	26:BB:88:C:H5''	1.91	0.53
28:BD:109:ASP:HB2	28:BD:197:GLY:CA	2.38	0.53
29:BE:61:ARG:CB	29:BE:62:PRO:CD	2.86	0.53
30:BF:7:TYR:HB2	30:BF:17:ARG:N	2.23	0.53
31:BG:83:ARG:HH11	31:BG:84:LYS:HD2	1.73	0.53
31:BG:149:VAL:HG23	31:BG:149:VAL:O	2.08	0.53
31:BG:175:LEU:HD12	31:BG:175:LEU:H	1.72	0.53
38:BR:54:LEU:HD23	38:BR:66:VAL:HG23	1.90	0.53
39:BS:15:ARG:O	39:BS:18:ILE:HG22	2.08	0.53
1:CA:446:A:OP1	16:CP:43:LYS:NZ	2.28	0.53
1:CA:1100:C:H1'	1:CA:1160:A:C4	2.42	0.53
5:CE:40:ARG:HG2	5:CE:40:ARG:HH11	1.73	0.53
5:CE:76:ILE:CG1	5:CE:77:PRO:HD2	2.38	0.53
7:CG:68:ASN:HD22	7:CG:128:ALA:HA	1.73	0.53
8:CH:6:ILE:C	8:CH:10:LEU:HD12	2.32	0.53
11:CK:126:ARG:HB3	11:CK:126:ARG:HH11	1.73	0.53
16:CP:12:LYS:O	16:CP:13:HIS:HB2	2.08	0.53
16:CP:15:PRO:O	16:CP:41:PRO:HD2	2.09	0.53
22:CW:26:A:H2'	22:CW:27:G:C8	2.44	0.53
22:CW:36:A:H2'	22:CW:37:A:O5'	2.09	0.53
25:DA:379:G:C6	25:DA:380:U:C2	2.96	0.53
25:DA:2059:A:H5'	25:DA:2060:A:OP2	2.09	0.53
25:DA:2171:A:O2'	25:DA:2172:U:H6	1.89	0.53
25:DA:2290:G:H5'	25:DA:2290:G:C8	2.37	0.53
25:DA:2716:U:O2'	25:DA:2717:G:H5'	2.09	0.53
25:DA:2864:G:H2'	25:DA:2865:U:O4'	2.09	0.53
29:DE:137:HIS:HB3	29:DE:138:PRO:HD2	1.91	0.53
31:DG:41:GLN:N	31:DG:90:LEU:O	2.37	0.53
32:DH:86:GLU:N	32:DH:86:GLU:CD	2.67	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DI:120:ILE:O	33:DI:121:LYS:CB	2.57	0.53
39:DS:28:VAL:HG12	39:DS:29:PHE:N	2.24	0.53
40:DT:38:ASN:HD21	40:DT:41:ARG:HB2	1.74	0.53
45:DY:28:LYS:HA	45:DY:39:VAL:N	2.18	0.53
55:D8:2:PRO:O	55:D8:3:LYS:C	2.51	0.53
1:AA:198:U:C4'	20:AT:103:GLY:HA2	2.39	0.53
1:AA:1170:C:H5''	3:AC:5:ILE:HG21	1.89	0.53
2:AB:137:ARG:C	2:AB:137:ARG:HD3	2.33	0.53
8:AH:12:ARG:HG2	8:AH:24:THR:HG21	1.88	0.53
12:AL:27:LEU:C	12:AL:29:GLY:H	2.15	0.53
20:AT:53:LEU:O	20:AT:54:LYS:C	2.51	0.53
23:AV:20:G:N1	23:AV:58:A:C2	2.76	0.53
25:BA:299:A:H8	25:BA:299:A:O5'	1.92	0.53
25:BA:460:A:H2'	25:BA:461:C:O4'	2.09	0.53
25:BA:954:G:H4'	37:BQ:13:GLN:NE2	2.23	0.53
25:BA:2467:C:H4'	37:BQ:123:HIS:CD2	2.43	0.53
25:BA:2491:U:C5'	25:BA:2570:G:H5''	2.19	0.53
25:BA:2809:A:C2	25:BA:2892:A:N3	2.77	0.53
26:BB:6:C:O2'	39:BS:29:PHE:CE1	2.38	0.53
33:BI:118:LYS:HD2	33:BI:119:PRO:HD2	1.91	0.53
37:BQ:31:ASP:O	37:BQ:133:ARG:O	2.26	0.53
40:BT:120:ARG:O	40:BT:124:ASP:N	2.41	0.53
42:BV:14:VAL:HB	42:BV:96:ILE:HG13	1.91	0.53
44:BX:3:THR:O	44:BX:4:ALA:HB3	2.08	0.53
46:BZ:165:VAL:HG12	46:BZ:166:SER:N	2.24	0.53
50:B3:26:LEU:O	50:B3:28:LEU:HG	2.08	0.53
55:B8:2:PRO:O	55:B8:3:LYS:C	2.51	0.53
1:CA:378:A:C5	1:CA:379:G:H1'	2.43	0.53
1:CA:853:G:C6	1:CA:854:C:C4	2.97	0.53
1:CA:1153:C:H2'	1:CA:1154:G:H8	1.73	0.53
2:CB:81:VAL:HG12	2:CB:81:VAL:O	2.07	0.53
5:CE:6:PHE:CD2	5:CE:36:ASP:HB3	2.43	0.53
13:CM:88:ARG:HG2	13:CM:98:VAL:CG1	2.38	0.53
13:CM:93:ARG:CZ	25:DA:888:C:C4'	2.77	0.53
18:CR:35:ARG:O	18:CR:37:VAL:HG13	2.09	0.53
23:CV:30:G:C6	23:CV:43:G:N1	2.77	0.53
25:DA:534:U:O2'	41:DU:49:HIS:CD2	2.62	0.53
25:DA:747:U:OP2	52:D5:3:LYS:HD3	2.08	0.53
25:DA:919:G:N2	25:DA:2269:A:OP2	2.42	0.53
25:DA:926:A:H5'	25:DA:926:A:C8	2.42	0.53
25:DA:1336:A:H2'	25:DA:1337:G:C8	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1429:G:H2'	25:DA:1430:C:C6	2.43	0.53
25:DA:1992:G:P	25:DA:1992:G:C8	3.02	0.53
25:DA:2015:A:H1'	52:D5:2:ALA:CA	2.31	0.53
25:DA:2168:G:N2	25:DA:2171:A:C8	2.77	0.53
30:DF:127:GLU:O	30:DF:127:GLU:OE2	2.26	0.53
35:DO:13:ASN:ND2	35:DO:96:THR:HG23	2.22	0.53
37:DQ:34:LEU:HD12	37:DQ:130:LYS:O	2.09	0.53
37:DQ:120:ILE:O	37:DQ:123:HIS:HB2	2.09	0.53
41:DU:25:TRP:HB3	41:DU:28:ARG:HD2	1.89	0.53
52:D5:35:GLU:O	52:D5:36:CYS:HB2	2.08	0.53
56:D9:14:CYS:SG	56:D9:25:VAL:HG13	2.49	0.53
1:AA:232:C:H5''	17:AQ:25:ARG:NH1	2.23	0.53
1:AA:267:C:H2'	1:AA:268:A:H8	1.74	0.53
1:AA:1323:C:H1'	9:AI:124:GLN:NE2	2.21	0.53
5:AE:80:ILE:HG22	8:AH:104:ARG:NH2	2.23	0.53
7:AG:15:ASP:OD2	7:AG:44:TYR:OH	2.26	0.53
8:AH:84:ARG:HH11	8:AH:84:ARG:HG2	1.74	0.53
13:AM:22:ILE:HG22	13:AM:25:ILE:HD13	1.90	0.53
25:BA:541:C:O2'	25:BA:542:C:C5'	2.49	0.53
25:BA:717:G:H2'	25:BA:718:A:O4'	2.09	0.53
25:BA:888:C:H2'	25:BA:889:C:H5'	1.90	0.53
25:BA:2012:G:O2'	43:BW:96:ILE:HD11	2.09	0.53
26:BB:56:G:C5'	31:BG:27:ASN:CG	2.82	0.53
28:BD:26:LYS:HE2	28:BD:82:ILE:N	2.23	0.53
29:BE:91:VAL:HG13	29:BE:95:ILE:HG12	1.89	0.53
32:BH:86:GLU:N	32:BH:86:GLU:CD	2.67	0.53
33:BI:47:LEU:HA	33:BI:50:ARG:NE	2.23	0.53
33:BI:83:ALA:HA	33:BI:89:TYR:CD1	2.43	0.53
33:BI:98:ALA:C	33:BI:100:ALA:H	2.17	0.53
33:BI:102:SER:HA	33:BI:107:VAL:O	2.08	0.53
35:BO:25:LEU:N	35:BO:38:VAL:O	2.36	0.53
35:BO:89:ASN:OD1	35:BO:89:ASN:N	2.40	0.53
37:BQ:34:LEU:HD12	37:BQ:130:LYS:O	2.09	0.53
41:BU:79:PHE:HE1	41:BU:106:PHE:CE2	2.27	0.53
42:BV:19:LYS:HZ3	42:BV:20:LEU:HB2	1.73	0.53
43:BW:24:ILE:HD13	43:BW:36:LEU:HD11	1.90	0.53
46:BZ:19:ARG:HH11	46:BZ:82:ARG:NH2	2.06	0.53
46:BZ:30:ASN:HA	46:BZ:89:PHE:CE2	2.43	0.53
46:BZ:104:PHE:HD1	46:BZ:139:VAL:HB	1.73	0.53
46:BZ:151:HIS:HB3	46:BZ:170:THR:HA	1.91	0.53
49:B2:43:GLN:O	49:B2:44:LEU:HD23	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:B3:8:LEU:HD13	50:B3:31:LEU:HD23	1.91	0.53
50:B3:31:LEU:C	50:B3:33:GLN:H	2.14	0.53
2:CB:107:THR:HA	2:CB:110:GLN:OE1	2.08	0.53
3:CC:39:ILE:C	3:CC:41:GLY:N	2.66	0.53
5:CE:76:ILE:CG1	5:CE:142:LEU:HD22	2.38	0.53
10:CJ:6:ILE:HG22	10:CJ:98:ILE:CD1	2.38	0.53
14:CN:13:THR:O	14:CN:15:LYS:N	2.42	0.53
18:CR:36:ASN:HD22	18:CR:39:VAL:HG21	1.73	0.53
22:CW:30:G:C2	22:CW:31:A:C5	2.96	0.53
22:CW:38:A:H2'	22:CW:39:U:O4'	2.09	0.53
24:CX:13:A:H2'	24:CX:14:A:O4'	2.08	0.53
25:DA:336:C:H5''	45:DY:7:VAL:HG11	1.90	0.53
25:DA:523:C:H5''	25:DA:540:C:O2'	2.09	0.53
25:DA:539:G:H2'	25:DA:540:C:H6	1.72	0.53
25:DA:1434:A:O2'	25:DA:1435:G:H5'	2.08	0.53
25:DA:1678:G:N2	25:DA:1989:G:H22	2.07	0.53
25:DA:1999:C:H4'	25:DA:2723:C:O2	2.09	0.53
25:DA:2114:A:H2'	25:DA:2115:G:O4'	2.09	0.53
25:DA:2206:G:H21	25:DA:2207:G:C5'	2.15	0.53
25:DA:2683:C:H5'	40:DT:58:ASN:ND2	2.23	0.53
25:DA:2757:A:OP1	56:D9:19:ARG:HA	2.09	0.53
27:DC:78:ALA:C	27:DC:80:GLY:H	2.17	0.53
29:DE:69:LYS:HD3	29:DE:89:ASP:HA	1.91	0.53
33:DI:81:VAL:HG13	33:DI:88:ILE:HG21	1.89	0.53
33:DI:98:ALA:C	33:DI:100:ALA:H	2.17	0.53
34:DN:43:THR:O	34:DN:45:ASN:N	2.42	0.53
35:DO:114:ILE:O	35:DO:117:LEU:N	2.42	0.53
37:DQ:66:ILE:HG22	37:DQ:104:PHE:CD2	2.44	0.53
42:DV:64:HIS:CE1	42:DV:92:THR:HG22	2.43	0.53
46:DZ:68:PRO:O	46:DZ:91:LEU:HD13	2.08	0.53
47:D0:25:ARG:HA	47:D0:29:GLN:NE2	2.21	0.53
50:D3:36:VAL:O	50:D3:36:VAL:HG23	2.08	0.53
56:D9:27:CYS:SG	56:D9:28:GLU:N	2.80	0.53
1:AA:142:G:O2'	1:AA:143:A:H5'	2.09	0.53
1:AA:641:G:H2'	1:AA:642:U:H6	1.73	0.53
1:AA:804:G:H2'	1:AA:805:C:C6	2.44	0.53
1:AA:1033:C:H2'	1:AA:1034:U:C6	2.44	0.53
2:AB:91:PRO:HG2	2:AB:155:LEU:CD2	2.31	0.53
2:AB:114:ARG:HH12	2:AB:118:LEU:HD21	1.74	0.53
2:AB:126:GLU:C	2:AB:128:GLU:N	2.66	0.53
4:AD:187:ARG:NH2	4:AD:193:ASP:OD2	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AV:66:C:C2'	23:AV:67:C:O5'	2.57	0.53
25:BA:8:A:H2'	25:BA:9:U:C6	2.44	0.53
25:BA:349:G:N1	25:BA:350:U:C2	2.77	0.53
25:BA:518:G:H4'	43:BW:18:ARG:NH1	2.23	0.53
25:BA:523:C:H5''	25:BA:540:C:O2'	2.09	0.53
25:BA:1658:C:OP1	29:BE:132:HIS:CE1	2.62	0.53
25:BA:2080:G:P	48:B1:35:THR:HG21	2.49	0.53
25:BA:2189:U:C2'	25:BA:2190:G:H5''	2.39	0.53
25:BA:2230:G:H4'	48:B1:43:TYR:HB2	1.90	0.53
25:BA:2817:G:H21	25:BA:2836:U:C1'	2.22	0.53
26:BB:28:C:O2'	26:BB:29:A:H5'	2.09	0.53
28:BD:70:TRP:CH2	28:BD:150:LYS:HA	2.43	0.53
32:BH:158:HIS:O	32:BH:159:GLU:CB	2.57	0.53
37:BQ:59:ARG:O	37:BQ:60:ARG:CB	2.56	0.53
38:BR:74:LYS:HD2	38:BR:77:ARG:NH2	2.22	0.53
41:BU:12:ARG:C	41:BU:15:LYS:HZ2	2.17	0.53
41:BU:90:VAL:O	41:BU:92:ARG:N	2.37	0.53
44:BX:66:LEU:C	44:BX:66:LEU:HD23	2.34	0.53
50:B3:7:LYS:C	50:B3:54:VAL:HG13	2.33	0.53
55:B8:63:PRO:HB2	55:B8:64:TYR:CD1	2.44	0.53
1:CA:458:G:H5''	16:CP:81:ARG:HH21	1.73	0.53
1:CA:484:C:H2'	1:CA:485:G:H8	1.73	0.53
1:CA:928:G:H2'	1:CA:929:U:H6	1.73	0.53
1:CA:1025:C:H2'	1:CA:1026:A:H8	1.73	0.53
1:CA:1036:C:H2'	1:CA:1037:A:OP2	2.09	0.53
4:CD:146:ILE:N	4:CD:146:ILE:CD1	2.72	0.53
4:CD:150:GLU:N	4:CD:150:GLU:OE1	2.41	0.53
7:CG:15:ASP:OD2	7:CG:44:TYR:OH	2.26	0.53
7:CG:111:ARG:HB3	7:CG:113:GLU:HG2	1.90	0.53
8:CH:64:LYS:CG	8:CH:79:VAL:HG21	2.39	0.53
9:CI:126:SER:O	9:CI:127:LYS:HB3	2.08	0.53
13:CM:16:ASP:HB2	13:CM:27:LYS:HZ2	1.74	0.53
20:CT:53:LEU:CB	20:CT:102:GLY:HA3	2.39	0.53
23:CV:9:G:O2'	23:CV:10:G:N7	2.31	0.53
23:CV:57:C:H41	31:DG:83:ARG:HH22	1.42	0.53
25:DA:271(P):C:OP1	33:DI:45:LYS:HE3	2.08	0.53
25:DA:389:G:N1	36:DP:70:GLN:HG3	2.24	0.53
25:DA:645:C:O2	25:DA:645:C:C2'	2.57	0.53
25:DA:897:C:C2	25:DA:898:C:C5	2.96	0.53
25:DA:1384:A:N3	25:DA:1405:U:H1'	2.23	0.53
25:DA:2189:U:C2'	25:DA:2190:G:H5''	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2199:A:H2'	25:DA:2199:A:N3	2.24	0.53
25:DA:2543:G:H2'	25:DA:2544:G:C8	2.44	0.53
25:DA:2809:A:C2	25:DA:2892:A:N3	2.77	0.53
27:DC:86:ALA:CB	27:DC:94:VAL:HG11	2.38	0.53
34:DN:1:MET:C	34:DN:2:LYS:HD2	2.34	0.53
38:DR:54:LEU:HD23	38:DR:66:VAL:HG23	1.90	0.53
39:DS:62:LYS:O	39:DS:65:VAL:HB	2.08	0.53
40:DT:29:ARG:CG	40:DT:85:LYS:CG	2.73	0.53
41:DU:91:ASP:OD2	41:DU:96:ALA:N	2.41	0.53
44:DX:66:LEU:HD23	44:DX:66:LEU:C	2.34	0.53
52:D5:56:LYS:HD2	52:D5:56:LYS:H	1.74	0.53
53:D6:32:ASN:CG	53:D6:33:LYS:N	2.66	0.53
55:D8:23:VAL:HA	55:D8:47:LYS:O	2.09	0.53
1:AA:423:G:C5	1:AA:425:A:C6	2.96	0.53
1:AA:458:G:H2'	1:AA:459:G:H8	1.73	0.53
1:AA:1286:G:H8	1:AA:1286:G:OP2	1.92	0.53
1:AA:1328:G:H5''	9:AI:107:ARG:CG	2.31	0.53
4:AD:4:TYR:O	4:AD:5:ILE:HB	2.07	0.53
4:AD:114:ARG:HH11	4:AD:114:ARG:HG3	1.74	0.53
10:AJ:85:LEU:C	10:AJ:87:THR:N	2.66	0.53
12:AL:24:VAL:HG13	12:AL:98:TYR:HE2	1.72	0.53
13:AM:97:PRO:CA	13:AM:110:ARG:HD2	2.39	0.53
14:AN:57:ARG:HG2	14:AN:58:LYS:N	2.23	0.53
23:AV:5:G:N2	23:AV:70:C:C2	2.77	0.53
23:AV:49:C:H2'	23:AV:49:C:O2	2.08	0.53
25:BA:103:A:C2'	25:BA:104:U:H5''	2.39	0.53
25:BA:271(O):C:O2'	25:BA:271(P):C:C6	2.61	0.53
25:BA:2176:A:O5'	27:BC:217:THR:HA	2.08	0.53
25:BA:2199:A:H2'	25:BA:2199:A:N3	2.23	0.53
25:BA:2263:C:H5'	25:BA:2263:C:C6	2.34	0.53
25:BA:2543:G:H2'	25:BA:2544:G:C8	2.44	0.53
25:BA:2787:C:H1'	29:BE:61:ARG:HG3	1.91	0.53
28:BD:10:THR:O	28:BD:11:PRO:O	2.27	0.53
28:BD:26:LYS:CE	28:BD:82:ILE:N	2.72	0.53
35:BO:6:THR:O	35:BO:20:MET:HA	2.08	0.53
36:BP:61:ARG:CZ	55:B8:13:ARG:HD2	2.38	0.53
36:BP:83:VAL:CG2	36:BP:105:LEU:HD12	2.39	0.53
37:BQ:115:MET:O	37:BQ:119:ARG:HB2	2.09	0.53
37:BQ:120:ILE:O	37:BQ:123:HIS:HB2	2.09	0.53
38:BR:45:ARG:CG	38:BR:46:GLY:H	2.22	0.53
39:BS:57:LYS:O	39:BS:58:LEU:O	2.27	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BS:75:GLU:HA	39:BS:78:LEU:HD12	1.90	0.53
40:BT:32:TYR:CD1	40:BT:81:PRO:HB2	2.44	0.53
43:BW:110:LYS:HG3	43:BW:111:HIS:ND1	2.24	0.53
47:B0:25:ARG:HA	47:B0:29:GLN:NE2	2.20	0.53
47:B0:41:ARG:HD2	47:B0:41:ARG:N	2.17	0.53
53:B6:40:CYS:SG	53:B6:45:LYS:CE	2.97	0.53
56:B9:14:CYS:SG	56:B9:25:VAL:HG13	2.49	0.53
1:CA:811:A:H2'	1:CA:812:G:O4'	2.09	0.53
2:CB:204:ASN:HB3	2:CB:210:SER:OG	2.08	0.53
8:CH:86:ILE:O	8:CH:87:SER:C	2.50	0.53
9:CI:8:GLY:HA3	9:CI:76:ALA:O	2.09	0.53
11:CK:21:ILE:HD12	11:CK:21:ILE:N	2.24	0.53
16:CP:68:ASP:O	16:CP:71:ARG:HG2	2.08	0.53
25:DA:380:U:H5''	25:DA:380:U:H6	1.74	0.53
25:DA:438:G:O2'	25:DA:440:G:H5'	2.08	0.53
25:DA:460:A:H2'	25:DA:461:C:O4'	2.09	0.53
25:DA:813:U:H2'	25:DA:814:C:H6	1.73	0.53
25:DA:1506:C:O2	25:DA:1506:C:H2'	2.08	0.53
25:DA:1885:A:H5'	25:DA:1885:A:H8	1.74	0.53
25:DA:1899:G:N2	25:DA:1902:C:N4	2.51	0.53
25:DA:2161:C:H2'	25:DA:2162:G:H8	1.72	0.53
26:DB:73:A:H2'	26:DB:74:U:H5'	1.89	0.53
27:DC:214:VAL:C	27:DC:216:THR:N	2.63	0.53
28:DD:77:ALA:HB2	28:DD:97:TYR:HA	1.90	0.53
28:DD:270:ILE:C	28:DD:271:ILE:HG12	2.34	0.53
31:DG:113:ARG:O	31:DG:114:ILE:O	2.27	0.53
32:DH:30:LYS:HG2	32:DH:79:VAL:O	2.09	0.53
32:DH:41:MET:CG	32:DH:53:GLU:O	2.54	0.53
33:DI:54:GLN:O	33:DI:57:ARG:HB2	2.08	0.53
36:DP:62:LEU:HD23	36:DP:62:LEU:H	1.73	0.53
36:DP:92:GLU:HG3	36:DP:93:GLY:N	2.23	0.53
38:DR:88:ARG:HD2	38:DR:89:ASP:OD1	2.08	0.53
40:DT:55:ASN:C	40:DT:59:THR:CG2	2.79	0.53
41:DU:102:GLU:HB2	41:DU:104:GLN:HE22	1.72	0.53
42:DV:2:PHE:HE1	42:DV:13:ARG:HD2	1.73	0.53
42:DV:39:LEU:N	42:DV:39:LEU:HD22	2.24	0.53
45:DY:28:LYS:CB	45:DY:38:ILE:H	2.16	0.53
48:D1:44:PRO:HB2	48:D1:46:LEU:CD1	2.39	0.53
49:D2:55:ARG:O	49:D2:58:ALA:HB3	2.09	0.53
51:D4:40:ILE:N	51:D4:40:ILE:HD12	2.23	0.53
55:D8:63:PRO:HB2	55:D8:64:TYR:CD1	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:311:G:H2'	1:AA:312:G:H8	1.74	0.53
1:AA:748:G:N1	1:AA:795:C:O2'	2.25	0.53
1:AA:992:A:C2	1:AA:1200:U:H1'	2.44	0.53
1:AA:1348:C:H2'	1:AA:1349:C:C6	2.44	0.53
2:AB:178:ARG:HD2	8:AH:71:GLY:CA	2.39	0.53
3:AC:36:ASP:OD2	3:AC:57:ILE:HG21	2.08	0.53
4:AD:165:MET:HE3	4:AD:176:LEU:HD23	1.90	0.53
9:AI:10:ARG:HD3	9:AI:75:ASP:CB	2.38	0.53
9:AI:89:ASN:HB3	9:AI:92:TYR:CD1	2.44	0.53
10:AJ:16:LEU:HD23	10:AJ:94:VAL:CG1	2.39	0.53
13:AM:91:ARG:HA	13:AM:96:LEU:HB2	1.91	0.53
19:AS:29:ARG:O	19:AS:31:ILE:N	2.42	0.53
23:AV:35:C:H2'	23:AV:36:A:C8	2.43	0.53
25:BA:49:A:H5''	25:BA:51:G:O4'	2.09	0.53
25:BA:62:C:H2'	25:BA:63:U:H5'	1.91	0.53
25:BA:541:C:C2'	25:BA:542:C:C5'	2.83	0.53
25:BA:815:C:O2'	25:BA:816:C:H5'	2.09	0.53
25:BA:848:G:H2'	25:BA:849:A:C8	2.44	0.53
25:BA:1789:A:H2'	25:BA:1790:C:O4'	2.08	0.53
25:BA:2186:G:C6	25:BA:2187:G:O6	2.62	0.53
25:BA:2203:U:O2	25:BA:2203:U:H2'	2.08	0.53
25:BA:2698:U:H2'	25:BA:2699:C:C6	2.43	0.53
25:BA:2716:U:O2'	25:BA:2717:G:H5'	2.09	0.53
25:BA:2887:U:H2'	25:BA:2888:C:H6	1.74	0.53
26:BB:117:G:C5'	39:BS:55:ALA:HB1	2.38	0.53
29:BE:149:ARG:HG3	29:BE:149:ARG:HH11	1.73	0.53
31:BG:115:ARG:HH12	31:BG:136:ARG:HD3	1.71	0.53
31:BG:123:ASN:O	31:BG:125:PHE:N	2.41	0.53
32:BH:130:ARG:HD3	32:BH:132:ARG:NH2	2.24	0.53
42:BV:49:THR:HB	42:BV:50:PRO:HD2	1.90	0.53
43:BW:12:ILE:HD12	43:BW:42:ARG:NH1	2.24	0.53
43:BW:24:ILE:HG21	43:BW:36:LEU:HD21	1.90	0.53
46:BZ:68:PRO:O	46:BZ:91:LEU:HD13	2.08	0.53
49:B2:50:ILE:C	49:B2:52:ASP:H	2.17	0.53
1:CA:183:G:H2'	1:CA:184:C:C6	2.43	0.53
1:CA:1345:A:H4'	1:CA:1346:U:H5''	1.91	0.53
1:CA:1399:G:N2	1:CA:1459:G:H2'	2.24	0.53
2:CB:223:ILE:HA	2:CB:226:ARG:HB3	1.90	0.53
3:CC:20:SER:HB2	3:CC:40:ARG:NH2	2.20	0.53
5:CE:53:LEU:O	5:CE:57:LYS:HB2	2.08	0.53
7:CG:5:ARG:C	7:CG:7:ALA:H	2.16	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:46:ALA:O	7:CG:49:ILE:HB	2.08	0.53
12:CL:43:VAL:HG21	12:CL:93:LEU:HD22	1.90	0.53
14:CN:7:ILE:O	14:CN:11:LYS:HE3	2.09	0.53
14:CN:37:PHE:CE1	14:CN:53:LEU:HD22	2.43	0.53
16:CP:21:VAL:HG13	16:CP:33:ILE:HB	1.91	0.53
25:DA:2025:C:H2'	25:DA:2026:C:H6	1.70	0.53
25:DA:2127:G:H5'	27:DC:36:LYS:NZ	2.24	0.53
25:DA:2206:G:N2	25:DA:2207:G:C5'	2.69	0.53
25:DA:2304:G:C2	25:DA:2313:C:N3	2.77	0.53
25:DA:2393:A:H5'	36:DP:62:LEU:HB3	1.90	0.53
25:DA:2887:U:H2'	25:DA:2888:C:H6	1.74	0.53
26:DB:31:C:H2'	26:DB:53:A:H61	1.74	0.53
26:DB:83:G:H1	26:DB:94:C:H42	1.56	0.53
26:DB:104:U:O2'	26:DB:105:A:H5'	2.09	0.53
29:DE:61:ARG:CB	29:DE:62:PRO:CD	2.86	0.53
32:DH:130:ARG:HD3	32:DH:132:ARG:NH2	2.24	0.53
32:DH:146:ALA:HB2	32:DH:164:TYR:OH	2.09	0.53
34:DN:62:VAL:HG22	34:DN:66:LYS:CB	2.38	0.53
36:DP:114:ILE:HD12	36:DP:115:LEU:N	2.24	0.53
39:DS:15:ARG:O	39:DS:18:ILE:HG22	2.08	0.53
42:DV:14:VAL:HB	42:DV:96:ILE:HG13	1.91	0.53
1:AA:239:U:C6	1:AA:871:G:N2	2.77	0.53
1:AA:1121:G:N3	1:AA:1123:C:N4	2.55	0.53
1:AA:1327:A:H5''	9:AI:120:ARG:NH1	2.18	0.53
58:AA:1694:PAR:H34	58:AA:1694:PAR:HN61	1.73	0.53
4:AD:166:LYS:O	28:DD:135:PHE:HE2	1.92	0.53
5:AE:41:VAL:HG13	5:AE:113:ALA:CA	2.38	0.53
8:AH:53:VAL:HG12	8:AH:54:ASP:OD2	2.09	0.53
12:AL:22:SER:C	12:AL:24:VAL:H	2.17	0.53
20:AT:33:ILE:HD11	20:AT:62:LEU:O	2.09	0.53
20:AT:57:ARG:CZ	20:AT:102:GLY:HA2	2.38	0.53
22:AW:51:U:O2	22:AW:64:A:C2	2.62	0.53
25:BA:242:G:C5'	55:B8:62:LEU:HD13	2.15	0.53
25:BA:748:G:OP1	25:BA:2612:C:N4	2.41	0.53
25:BA:921:G:H4'	25:BA:2269:A:C6	2.43	0.53
25:BA:999:U:H2'	25:BA:1000:A:C5'	2.38	0.53
25:BA:1301:A:O2'	25:BA:1302:A:C2'	2.52	0.53
25:BA:1678:G:N2	25:BA:1989:G:H22	2.07	0.53
25:BA:2777:G:H5''	25:BA:2778:A:C5'	2.39	0.53
25:BA:2795:G:N7	25:BA:2801(A):A:H2	2.07	0.53
29:BE:31:CYS:HB3	29:BE:49:LEU:HB3	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BE:36:ARG:NH1	29:BE:85:ASN:OD1	2.42	0.53
31:BG:39:ILE:HG23	31:BG:92:VAL:HG13	1.89	0.53
36:BP:17:LYS:O	36:BP:17:LYS:HG2	2.09	0.53
41:BU:105:VAL:O	41:BU:109:LEU:HD12	2.09	0.53
45:BY:86:ARG:NH1	45:BY:95:LYS:NZ	2.57	0.53
52:B5:40:LYS:C	52:B5:40:LYS:HD2	2.34	0.53
1:CA:1053:C:H2'	1:CA:1054:G:H8	1.72	0.53
1:CA:1089:C:C4	1:CA:1090:G:C8	2.96	0.53
2:CB:178:ARG:HD2	8:CH:71:GLY:CA	2.39	0.53
4:CD:10:ARG:HH11	4:CD:10:ARG:HG2	1.74	0.53
4:CD:79:PHE:CD2	4:CD:79:PHE:C	2.87	0.53
6:CF:8:ILE:HG22	6:CF:9:VAL:N	2.22	0.53
9:CI:126:SER:O	9:CI:128:ARG:HG2	2.08	0.53
11:CK:48:ILE:HG22	11:CK:49:GLY:N	2.23	0.53
18:CR:19:LYS:O	18:CR:20:ALA:HB2	2.09	0.53
19:CS:29:ARG:HD2	19:CS:30:LEU:N	2.23	0.53
22:CW:13:C:O2	22:CW:23:A:C2	2.62	0.53
25:DA:299:A:H8	25:DA:299:A:O5'	1.92	0.53
25:DA:554:U:C2'	25:DA:555:U:H5'	2.39	0.53
25:DA:717:G:H2'	25:DA:718:A:O4'	2.09	0.53
25:DA:1140:C:C5'	34:DN:66:LYS:HZ3	2.12	0.53
25:DA:1365:A:H5''	48:D1:41:ARG:NH1	2.15	0.53
25:DA:1416:G:H21	25:DA:1586:A:N6	2.07	0.53
25:DA:2123:G:N2	27:DC:42:GLU:OE2	2.39	0.53
25:DA:2392:A:H2	25:DA:2424:C:H42	1.57	0.53
25:DA:2795:G:N7	25:DA:2801(A):A:H2	2.07	0.53
26:DB:38:C:O2	26:DB:48:A:H1'	2.09	0.53
29:DE:173:VAL:O	29:DE:174:ASP:C	2.52	0.53
34:DN:131:GLN:HE22	34:DN:134:ARG:CD	2.17	0.53
34:DN:134:ARG:H	34:DN:135:PRO:HD3	1.73	0.53
36:DP:97:PRO:HD3	36:DP:126:VAL:O	2.08	0.53
38:DR:2:ARG:NH1	38:DR:5:LYS:HE2	2.23	0.53
43:DW:3:ALA:HB2	43:DW:58:ALA:HA	1.90	0.53
45:DY:37:VAL:O	45:DY:66:PRO:CA	2.57	0.53
46:DZ:57:ILE:HG22	46:DZ:58:VAL:H	1.73	0.53
56:D9:7:VAL:HG13	56:D9:34:GLN:HB3	1.91	0.53
2:AB:158:LEU:H	2:AB:158:LEU:HD12	1.73	0.52
3:AC:131:ARG:HH12	3:AC:135:LYS:HE3	1.72	0.52
4:AD:84:LYS:HD3	4:AD:84:LYS:N	2.23	0.52
15:AO:76:GLU:C	15:AO:78:TYR:H	2.16	0.52
17:AQ:31:LEU:O	17:AQ:31:LEU:HG	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AW:31:A:C2	22:AW:32:U:C2	2.96	0.52
25:BA:119:A:H4'	25:BA:120:U:OP1	2.09	0.52
25:BA:270:A:O2'	25:BA:271:A:H5'	2.10	0.52
25:BA:774:A:H2	25:BA:787:U:O2'	1.91	0.52
25:BA:2238:G:N3	25:BA:2238:G:H2'	2.23	0.52
25:BA:2527:C:H5'	56:B9:30:PRO:HB2	1.92	0.52
26:BB:15:A:H5'	26:BB:16:G:C8	2.44	0.52
29:BE:120:TRP:CD1	29:BE:155:LYS:HB3	2.45	0.52
31:BG:72:ARG:HH11	31:BG:86:MET:HA	1.73	0.52
32:BH:30:LYS:HG2	32:BH:79:VAL:O	2.09	0.52
32:BH:130:ARG:HH11	32:BH:132:ARG:HH21	1.57	0.52
32:BH:148:ILE:O	32:BH:151:ILE:HG12	2.09	0.52
33:BI:79:ILE:HG22	33:BI:81:VAL:HG23	1.89	0.52
34:BN:1:MET:C	34:BN:2:LYS:HD2	2.34	0.52
34:BN:22:THR:HB	34:BN:25:ARG:HB2	1.92	0.52
36:BP:63:PRO:HB3	55:B8:13:ARG:CB	2.40	0.52
36:BP:97:PRO:HD3	36:BP:126:VAL:O	2.08	0.52
39:BS:17:ARG:C	39:BS:19:LYS:N	2.64	0.52
39:BS:35:ILE:O	39:BS:35:ILE:HG23	2.09	0.52
46:BZ:4:ARG:HH21	46:BZ:60:GLU:HG2	1.73	0.52
46:BZ:103:ARG:O	46:BZ:138:GLU:HA	2.09	0.52
46:BZ:117:LEU:HD23	46:BZ:118:GLN:N	2.23	0.52
47:B0:14:ARG:O	47:B0:15:ASP:HB2	2.10	0.52
55:B8:23:VAL:HA	55:B8:47:LYS:O	2.09	0.52
1:CA:85:U:H5''	1:CA:86:C:H5'	1.90	0.52
1:CA:505:C:H2'	1:CA:506:A:O4'	2.09	0.52
6:CF:89:MET:SD	18:CR:76:LEU:HD21	2.48	0.52
10:CJ:88:LEU:CD1	10:CJ:90:LEU:HD11	2.39	0.52
13:CM:108:ARG:HH11	13:CM:108:ARG:CA	2.04	0.52
22:CW:24:G:H2'	22:CW:25:C:C6	2.44	0.52
25:DA:379:G:N7	25:DA:380:U:C6	2.77	0.52
25:DA:541:C:C2'	25:DA:542:C:C5'	2.83	0.52
25:DA:598:G:H5'	36:DP:15:ARG:HB2	1.91	0.52
25:DA:1175:U:O5'	25:DA:1176:G:H5'	2.09	0.52
25:DA:2422:A:H4'	25:DA:2423:U:OP1	2.08	0.52
25:DA:2469:A:H62	25:DA:2481:G:H1'	1.74	0.52
25:DA:2817:G:H21	25:DA:2836:U:C1'	2.22	0.52
27:DC:87:GLU:HG2	27:DC:93:TYR:HA	1.91	0.52
28:DD:30:GLU:HG3	28:DD:63:ARG:CZ	2.39	0.52
28:DD:68:LYS:O	28:DD:68:LYS:HG3	2.08	0.52
29:DE:3:GLY:O	29:DE:4:ILE:CB	2.58	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DH:17:VAL:HB	32:DH:45:VAL:HG11	1.88	0.52
32:DH:89:ILE:HG12	32:DH:129:THR:HA	1.90	0.52
33:DI:92:VAL:HA	33:DI:96:ASP:OD1	2.09	0.52
34:DN:131:GLN:NE2	34:DN:134:ARG:HD2	2.19	0.52
39:DS:35:ILE:O	39:DS:35:ILE:HG23	2.09	0.52
39:DS:49:VAL:HG22	39:DS:80:LEU:HD22	1.92	0.52
41:DU:79:PHE:HE1	41:DU:106:PHE:CE2	2.26	0.52
41:DU:115:ALA:C	41:DU:117:GLN:H	2.16	0.52
42:DV:2:PHE:CD1	42:DV:13:ARG:NH1	2.76	0.52
43:DW:50:VAL:CG1	43:DW:51:LEU:H	2.20	0.52
46:DZ:89:PHE:O	46:DZ:91:LEU:HD12	2.10	0.52
47:D0:14:ARG:O	47:D0:15:ASP:HB2	2.09	0.52
55:D8:29:LYS:HD3	55:D8:44:LYS:HG2	1.90	0.52
1:AA:1035:G:C4	1:AA:1180:U:C5	2.97	0.52
4:AD:128:VAL:O	4:AD:129:ASN:C	2.50	0.52
4:AD:166:LYS:O	28:DD:135:PHE:CE2	2.61	0.52
7:AG:72:ARG:O	7:AG:73:MET:HG3	2.09	0.52
8:AH:6:ILE:HD12	8:AH:6:ILE:N	2.16	0.52
10:AJ:43:ARG:O	10:AJ:67:THR:HG22	2.09	0.52
14:AN:47:LEU:HA	14:AN:50:LYS:HD2	1.91	0.52
18:AR:35:ARG:O	18:AR:37:VAL:HG13	2.09	0.52
18:AR:53:ARG:HG2	18:AR:53:ARG:HH11	1.73	0.52
25:BA:592:G:N3	55:B8:4:MET:HE2	2.23	0.52
25:BA:2472:G:H5'	25:BA:2473:U:H5''	1.91	0.52
25:BA:2777:G:H5''	25:BA:2778:A:H5''	1.90	0.52
29:BE:137:HIS:HB3	29:BE:138:PRO:HD2	1.90	0.52
30:BF:152:GLU:O	30:BF:154:VAL:HG23	2.08	0.52
30:BF:181:LEU:HB3	30:BF:205:ARG:NH1	2.23	0.52
31:BG:17:PRO:O	31:BG:20:ILE:N	2.42	0.52
34:BN:62:VAL:HG22	34:BN:66:LYS:CB	2.39	0.52
36:BP:75:ILE:HD12	36:BP:75:ILE:N	2.23	0.52
39:BS:56:LEU:C	39:BS:56:LEU:HD23	2.34	0.52
49:B2:55:ARG:O	49:B2:58:ALA:HB3	2.09	0.52
50:B3:36:VAL:HG23	50:B3:36:VAL:O	2.09	0.52
1:CA:278:C:C4	1:CA:279:G:N7	2.78	0.52
1:CA:1031:U:H4'	1:CA:1032:G:C5'	2.40	0.52
1:CA:1046:G:N2	1:CA:1171:G:H2'	2.25	0.52
2:CB:84:GLU:O	2:CB:219:VAL:HG21	2.10	0.52
2:CB:109:SER:C	2:CB:111:ARG:H	2.17	0.52
2:CB:114:ARG:HH12	2:CB:118:LEU:HD21	1.75	0.52
6:CF:8:ILE:CG2	6:CF:9:VAL:N	2.71	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:CP:76:GLN:HG2	16:CP:76:GLN:O	2.10	0.52
17:CQ:75:ARG:HG3	17:CQ:75:ARG:HH11	1.74	0.52
21:CU:2:GLY:C	21:CU:4:GLY:H	2.17	0.52
22:CW:76:A:O2'	25:DA:2394:C:N3	2.40	0.52
23:CV:51:U:H3	23:CV:65:G:H1	1.57	0.52
23:CV:55:U:C6	23:CV:55:U:C3'	2.92	0.52
25:DA:154(A):C:O2	25:DA:154(A):C:O4'	2.26	0.52
25:DA:270:A:O2'	25:DA:271:A:H5'	2.10	0.52
25:DA:360:G:H2'	25:DA:361:G:H8	1.75	0.52
25:DA:708:C:H5'	25:DA:709:U:OP2	2.09	0.52
25:DA:815:C:O2'	25:DA:816:C:H5'	2.09	0.52
25:DA:1230:C:O2'	25:DA:1231:G:H5'	2.10	0.52
25:DA:1609:A:N1	25:DA:1616:A:N7	2.56	0.52
25:DA:2472:G:H5'	25:DA:2473:U:H5''	1.91	0.52
25:DA:2684:U:OP1	40:DT:60:THR:HG21	2.09	0.52
26:DB:91:C:OP1	37:DQ:16:ARG:HG3	2.08	0.52
29:DE:1:MET:HE3	29:DE:83:ASP:HB2	1.92	0.52
29:DE:36:ARG:NH1	29:DE:85:ASN:OD1	2.42	0.52
32:DH:159:GLU:CG	32:DH:160:LYS:N	2.61	0.52
36:DP:50:ARG:HB3	55:D8:59:LYS:CD	2.33	0.52
37:DQ:65:PHE:HB2	37:DQ:105:GLU:CG	2.38	0.52
41:DU:105:VAL:O	41:DU:109:LEU:HD12	2.09	0.52
44:DX:59:VAL:N	44:DX:76:ARG:O	2.40	0.52
45:DY:2:ARG:C	45:DY:2:ARG:HD3	2.33	0.52
46:DZ:72:ARG:O	46:DZ:73:GLN:HB3	2.08	0.52
46:DZ:102:LEU:HD22	46:DZ:121:HIS:O	2.09	0.52
47:D0:30:VAL:HA	47:D0:66:VAL:HG22	1.91	0.52
50:D3:7:LYS:O	50:D3:54:VAL:HG13	2.10	0.52
55:D8:4:MET:SD	55:D8:61:LEU:CD2	2.98	0.52
55:D8:61:LEU:CD1	55:D8:61:LEU:H	2.14	0.52
1:AA:129:C:H2'	1:AA:130:C:H5'	1.92	0.52
1:AA:429:U:H2'	1:AA:430:C:C6	2.44	0.52
1:AA:775:A:H4'	1:AA:776:U:O5'	2.09	0.52
1:AA:1272:G:H4'	9:AI:38:GLN:O	2.09	0.52
4:AD:31:CYS:C	4:AD:33:MET:N	2.61	0.52
5:AE:70:PRO:HG2	5:AE:142:LEU:CB	2.39	0.52
10:AJ:85:LEU:C	10:AJ:87:THR:H	2.15	0.52
15:AO:60:VAL:HG21	25:BA:715:G:H1'	1.91	0.52
15:AO:78:TYR:O	15:AO:80:ALA:N	2.42	0.52
15:AO:82:ILE:HD11	15:AO:88:ARG:HB2	1.90	0.52
22:AW:8:U:O2	22:AW:21:A:H2	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AV:47:G:H3'	23:AV:47:G:H8	1.74	0.52
25:BA:66:C:O2'	25:BA:67:U:H5'	2.09	0.52
25:BA:271(Q):G:HO2'	25:BA:271(R):G:P	2.32	0.52
25:BA:813:U:H2'	25:BA:814:C:H6	1.73	0.52
25:BA:1150:C:O2'	25:BA:1151:G:H5'	2.08	0.52
25:BA:1230:C:O2'	25:BA:1231:G:H5'	2.10	0.52
25:BA:1338:G:N3	25:BA:1393:A:H2	2.08	0.52
25:BA:1424:G:H2'	25:BA:1425:G:O4'	2.10	0.52
25:BA:1506:C:H2'	25:BA:1506:C:O2	2.08	0.52
25:BA:2059:A:H5'	25:BA:2060:A:OP2	2.09	0.52
25:BA:2126:A:N1	25:BA:2162:G:O2'	2.31	0.52
26:BB:41:U:O2	31:BG:70:VAL:HG23	2.10	0.52
26:BB:104:U:O2'	26:BB:105:A:H5'	2.09	0.52
28:BD:33:LEU:O	28:BD:35:LYS:HG2	2.09	0.52
29:BE:11:MET:H	40:BT:8:LYS:HZ2	1.58	0.52
31:BG:31:VAL:CG2	31:BG:32:PRO:HD2	2.39	0.52
32:BH:41:MET:CE	32:BH:54:ARG:HA	2.38	0.52
33:BI:92:VAL:HA	33:BI:96:ASP:OD1	2.09	0.52
34:BN:43:THR:O	34:BN:45:ASN:N	2.42	0.52
35:BO:2:ILE:HG23	35:BO:6:THR:HG21	1.91	0.52
39:BS:28:VAL:HG12	39:BS:29:PHE:N	2.24	0.52
41:BU:15:LYS:O	41:BU:19:LYS:HG3	2.10	0.52
41:BU:92:ARG:NH1	42:BV:11:GLN:HB2	2.25	0.52
46:BZ:102:LEU:HD22	46:BZ:121:HIS:O	2.09	0.52
47:B0:27:GLU:HG3	47:B0:68:GLU:HA	1.91	0.52
56:B9:26:ILE:HD12	56:B9:26:ILE:N	2.25	0.52
1:CA:1300:A:OP2	19:CS:5:LEU:HG	2.09	0.52
2:CB:219:VAL:HA	2:CB:222:ILE:CG1	2.38	0.52
6:CF:86:ARG:O	6:CF:87:ARG:HG2	2.09	0.52
7:CG:53:LYS:O	7:CG:54:THR:HB	2.08	0.52
10:CJ:96:ILE:N	10:CJ:96:ILE:HD13	2.24	0.52
11:CK:54:ARG:HH12	22:CW:40:C:H5''	1.74	0.52
12:CL:55:VAL:HG12	12:CL:56:ALA:N	2.24	0.52
16:CP:71:ARG:HA	16:CP:74:LEU:CD1	2.33	0.52
17:CQ:18:THR:HG22	17:CQ:19:VAL:H	1.74	0.52
22:CW:39:U:C5	22:CW:40:C:C4	2.98	0.52
25:DA:7:G:H2'	25:DA:8:A:C8	2.43	0.52
25:DA:139:G:H1	25:DA:142(A):C:H42	1.57	0.52
25:DA:1331:A:O2'	25:DA:1332:G:H5''	2.09	0.52
25:DA:1880:C:H5'	25:DA:1880:C:C6	2.27	0.52
25:DA:2186:G:C6	25:DA:2187:G:O6	2.62	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2240:C:O2'	25:DA:2241:A:H5'	2.09	0.52
31:DG:76:SER:HA	31:DG:83:ARG:HB2	1.90	0.52
31:DG:81:LYS:O	31:DG:82:LEU:C	2.52	0.52
31:DG:83:ARG:HH11	31:DG:84:LYS:HD2	1.73	0.52
32:DH:137:ASP:OD1	32:DH:138:LYS:N	2.42	0.52
36:DP:41:ARG:NH1	36:DP:45:LEU:HD12	2.25	0.52
37:DQ:52:VAL:O	37:DQ:56:ARG:HB2	2.10	0.52
38:DR:8:ARG:HE	38:DR:8:ARG:CA	2.17	0.52
39:DS:56:LEU:HD23	39:DS:56:LEU:C	2.34	0.52
40:DT:51:ARG:CB	40:DT:98:LYS:HG3	2.30	0.52
41:DU:15:LYS:O	41:DU:19:LYS:HG3	2.09	0.52
41:DU:104:GLN:HB2	42:DV:44:LYS:HZ3	1.72	0.52
45:DY:88:LYS:HZ1	45:DY:93:GLY:CA	2.21	0.52
46:DZ:19:ARG:HH11	46:DZ:82:ARG:NH2	2.06	0.52
46:DZ:104:PHE:HD1	46:DZ:139:VAL:HB	1.73	0.52
1:AA:238:A:H4'	1:AA:239:U:O5'	2.09	0.52
1:AA:261:G:HO2'	1:AA:262:C:P	2.33	0.52
1:AA:821:G:C2'	1:AA:822:U:H5''	2.39	0.52
1:AA:1023:A:H2'	1:AA:1024:G:C8	2.44	0.52
1:AA:1042:C:H2'	1:AA:1043:G:H8	1.75	0.52
2:AB:97:TRP:HZ2	2:AB:102:LEU:HD13	1.74	0.52
2:AB:107:THR:HG23	2:AB:110:GLN:NE2	2.24	0.52
7:AG:5:ARG:C	7:AG:7:ALA:H	2.16	0.52
9:AI:18:PHE:O	9:AI:61:ALA:HA	2.09	0.52
19:AS:35:SER:C	19:AS:37:ARG:H	2.16	0.52
20:AT:26:ASN:HB3	20:AT:71:THR:OG1	2.08	0.52
23:AV:22:A:O3'	23:AV:23:G:H8	1.91	0.52
22:AY:28:G:H22	22:AY:42:C:H42	1.56	0.52
25:BA:769:G:H2'	25:BA:770:G:H8	1.73	0.52
25:BA:1019:U:H3	25:BA:1142(A):A:N6	2.06	0.52
25:BA:1344:G:C4	25:BA:1385:G:C8	2.97	0.52
25:BA:1350:C:O2'	25:BA:1351:C:H5'	2.10	0.52
25:BA:1416:G:H21	25:BA:1586:A:H62	1.57	0.52
25:BA:2334:G:H21	39:BS:18:ILE:HG13	1.74	0.52
25:BA:2469:A:H62	25:BA:2481:G:H1'	1.74	0.52
25:BA:2689:U:H5''	25:BA:2690:C:H5'	1.91	0.52
27:BC:78:ALA:HB2	27:BC:82:LYS:HB2	1.90	0.52
28:BD:30:GLU:HG3	28:BD:63:ARG:CZ	2.39	0.52
30:BF:9:ILE:HG22	30:BF:9:ILE:O	2.08	0.52
30:BF:139:PHE:CB	30:BF:166:ALA:HB1	2.39	0.52
32:BH:146:ALA:HB2	32:BH:164:TYR:OH	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:63:PRO:O	36:BP:65:ARG:N	2.43	0.52
41:BU:55:ARG:HA	41:BU:58:ARG:CG	2.40	0.52
41:BU:79:PHE:HE1	41:BU:106:PHE:CZ	2.27	0.52
42:BV:64:HIS:CE1	42:BV:92:THR:HG22	2.43	0.52
43:BW:50:VAL:CG1	43:BW:51:LEU:H	2.20	0.52
46:BZ:89:PHE:O	46:BZ:91:LEU:HD12	2.10	0.52
52:B5:56:LYS:H	52:B5:56:LYS:HD2	1.74	0.52
56:B9:27:CYS:SG	56:B9:28:GLU:N	2.80	0.52
1:CA:1116:G:N2	1:CA:1123:C:O2	2.41	0.52
1:CA:1340:C:OP2	14:CN:35:ARG:NH1	2.42	0.52
1:CA:1411:C:H2'	1:CA:1412:C:C6	2.44	0.52
5:CE:6:PHE:HB3	5:CE:35:GLY:O	2.09	0.52
5:CE:126:ARG:HH11	5:CE:126:ARG:CG	2.13	0.52
5:CE:136:MET:C	5:CE:138:ALA:H	2.18	0.52
9:CI:116:LYS:O	9:CI:118:LYS:N	2.41	0.52
13:CM:8:GLU:OE1	13:CM:22:ILE:HG23	2.10	0.52
16:CP:14:ASN:O	16:CP:16:HIS:ND1	2.41	0.52
18:CR:53:ARG:HG2	18:CR:53:ARG:NH1	2.23	0.52
25:DA:271(K):U:H3'	25:DA:271(L):U:H5'	1.91	0.52
25:DA:481:G:P	45:DY:47:LYS:HE3	2.50	0.52
25:DA:888:C:H2'	25:DA:889:C:H5'	1.90	0.52
25:DA:1301:A:H4'	25:DA:1302:A:OP1	2.10	0.52
25:DA:2126:A:H5'	27:DC:36:LYS:HG2	1.89	0.52
25:DA:2171:A:H2'	25:DA:2172:U:C6	2.45	0.52
25:DA:2707:G:H5''	38:DR:68:ARG:NH2	2.25	0.52
26:DB:92:C:H6	26:DB:92:C:O5'	1.91	0.52
26:DB:93:G:C2	26:DB:94:C:C4	2.98	0.52
28:DD:2:ALA:O	28:DD:3:VAL:HB	2.10	0.52
28:DD:159:ALA:HB1	28:DD:198:ASN:O	2.09	0.52
29:DE:2:LYS:HE2	29:DE:95:ILE:HG23	1.92	0.52
29:DE:120:TRP:CD1	29:DE:155:LYS:HB3	2.45	0.52
30:DF:57:VAL:CG1	30:DF:59:TYR:CD1	2.93	0.52
31:DG:17:PRO:O	31:DG:20:ILE:N	2.43	0.52
33:DI:65:ALA:HB1	33:DI:131:LYS:HG2	1.90	0.52
33:DI:118:LYS:HD2	33:DI:119:PRO:HD2	1.90	0.52
35:DO:86:ILE:HD12	35:DO:86:ILE:H	1.73	0.52
38:DR:77:ARG:C	38:DR:79:LEU:N	2.64	0.52
40:DT:3:ARG:O	40:DT:6:LEU:N	2.42	0.52
41:DU:92:ARG:NH1	42:DV:11:GLN:HB2	2.25	0.52
46:DZ:94:GLU:O	46:DZ:96:VAL:N	2.42	0.52
46:DZ:111:VAL:HG13	46:DZ:111:VAL:O	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DZ:128:VAL:CG2	46:DZ:132:ASN:HB2	2.38	0.52
1:AA:59:A:H2'	1:AA:59:A:N3	2.24	0.52
2:AB:178:ARG:O	8:AH:71:GLY:HA2	2.09	0.52
2:AB:204:ASN:ND2	2:AB:206:ASP:H	2.07	0.52
2:AB:219:VAL:HA	2:AB:222:ILE:CG1	2.39	0.52
4:AD:15:GLU:HG2	4:AD:63:LYS:CG	2.39	0.52
4:AD:25:ARG:C	4:AD:27:TYR:N	2.67	0.52
11:AK:124:LYS:HB3	11:AK:125:PHE:HD1	1.74	0.52
13:AM:113:PRO:O	13:AM:115:LYS:CE	2.56	0.52
25:BA:360:G:H2'	25:BA:361:G:H8	1.75	0.52
25:BA:379:G:N7	25:BA:380:U:C6	2.77	0.52
25:BA:380:U:H5''	25:BA:380:U:H6	1.74	0.52
25:BA:708:C:H5'	25:BA:709:U:OP2	2.09	0.52
25:BA:730:C:O2'	25:BA:731:C:H5'	2.09	0.52
25:BA:760:G:C2'	25:BA:761:A:H5'	2.40	0.52
25:BA:1151:G:H4'	41:BU:81:HIS:CD2	2.45	0.52
25:BA:1178:C:H2'	25:BA:1179:C:H6	1.74	0.52
25:BA:1301:A:H4'	25:BA:1302:A:OP1	2.09	0.52
25:BA:2745:C:H4'	32:BH:142:GLY:O	2.09	0.52
26:BB:31:C:H2'	26:BB:53:A:H61	1.74	0.52
28:BD:69:ARG:NH2	28:BD:192:THR:HB	2.24	0.52
30:BF:46:ARG:HG3	30:BF:46:ARG:NH1	2.23	0.52
30:BF:57:VAL:CG1	30:BF:59:TYR:CD1	2.93	0.52
30:BF:127:GLU:HB2	30:BF:196:LEU:HD21	1.91	0.52
31:BG:65:GLY:O	31:BG:66:GLN:HG3	2.09	0.52
32:BH:137:ASP:OD1	32:BH:138:LYS:N	2.42	0.52
37:BQ:39:PRO:HD3	37:BQ:99:PRO:CG	2.39	0.52
39:BS:92:TYR:CG	39:BS:93:LYS:N	2.78	0.52
46:BZ:6:LYS:HE2	46:BZ:8:TYR:HH	1.72	0.52
50:B3:5:LYS:CG	50:B3:36:VAL:HG12	2.39	0.52
55:B8:51:ALA:HA	55:B8:54:GLU:CD	2.34	0.52
1:CA:1007:C:H4'	1:CA:1015:G:N2	2.24	0.52
2:CB:157:ARG:O	2:CB:158:LEU:C	2.53	0.52
2:CB:223:ILE:HA	2:CB:226:ARG:HD2	1.90	0.52
5:CE:78:HIS:HE1	5:CE:143:ARG:H	1.56	0.52
9:CI:53:VAL:CG1	9:CI:95:LYS:HE3	2.40	0.52
10:CJ:43:ARG:O	10:CJ:67:THR:HG22	2.09	0.52
11:CK:34:ASP:C	11:CK:34:ASP:OD2	2.52	0.52
12:CL:39:VAL:HB	12:CL:57:LYS:HB2	1.91	0.52
14:CN:36:PHE:C	14:CN:36:PHE:CD1	2.87	0.52
22:CW:1:G:N3	22:CW:1:G:H2'	2.23	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:336:C:C5'	45:DY:7:VAL:HG11	2.39	0.52
25:DA:797:C:OP2	30:DF:62:ARG:HG3	2.09	0.52
25:DA:1140:C:C5'	25:DA:1141:U:OP2	2.58	0.52
25:DA:1286:A:O2'	25:DA:1288:U:OP2	2.26	0.52
25:DA:2591:C:H2'	25:DA:2592:G:C8	2.44	0.52
25:DA:2645:G:C3'	25:DA:2646:C:H5'	2.30	0.52
25:DA:2885:C:C2	25:DA:2886:G:H1'	2.45	0.52
28:DD:31:LYS:O	28:DD:32:SER:C	2.52	0.52
31:DG:111:LEU:HD23	31:DG:114:ILE:HD11	1.92	0.52
38:DR:45:ARG:CG	38:DR:46:GLY:H	2.22	0.52
38:DR:54:LEU:HD23	38:DR:66:VAL:CG2	2.40	0.52
38:DR:82:GLU:O	38:DR:86:ARG:HG3	2.08	0.52
43:DW:12:ILE:HD12	43:DW:42:ARG:NH1	2.23	0.52
50:D3:26:LEU:O	50:D3:28:LEU:HG	2.08	0.52
55:D8:36:LYS:HB3	55:D8:40:GLU:HG3	1.91	0.52
1:AA:923:A:O2'	1:AA:1314:A:N3	2.37	0.52
1:AA:951:A:OP1	1:AA:951:A:H8	1.93	0.52
1:AA:1035:G:C3'	1:AA:1036:C:H5'	2.40	0.52
1:AA:1197:G:H5''	14:AN:5:ALA:HB2	1.91	0.52
2:AB:63:MET:C	2:AB:65:GLY:H	2.17	0.52
2:AB:77:ALA:O	2:AB:80:ILE:HG23	2.10	0.52
3:AC:3:ASN:CG	3:AC:4:LYS:N	2.67	0.52
4:AD:150:GLU:OE1	4:AD:150:GLU:N	2.39	0.52
8:AH:77:GLU:HG2	8:AH:78:GLN:H	1.73	0.52
9:AI:24:GLY:O	9:AI:25:LYS:C	2.51	0.52
19:AS:29:ARG:HD2	19:AS:30:LEU:N	2.24	0.52
23:AV:19:G:C5	23:AV:59:A:C6	2.98	0.52
25:BA:75:G:H4'	49:B2:55:ARG:NH1	2.21	0.52
25:BA:271(R):G:O2'	25:BA:271(S):G:H5'	2.10	0.52
25:BA:289:A:C4	25:BA:353:G:N2	2.78	0.52
25:BA:991:C:H5'	25:BA:991:C:H6	1.75	0.52
25:BA:2114:A:H2'	25:BA:2115:G:O4'	2.09	0.52
25:BA:2591:C:H2'	25:BA:2592:G:C8	2.44	0.52
32:BH:158:HIS:CD2	32:BH:170:ARG:HA	2.45	0.52
33:BI:120:ILE:O	33:BI:121:LYS:CB	2.57	0.52
34:BN:58:ASP:C	34:BN:60:ILE:N	2.57	0.52
36:BP:41:ARG:NH1	36:BP:45:LEU:HD12	2.25	0.52
44:BX:61:GLY:HA3	44:BX:73:ARG:O	2.09	0.52
46:BZ:158:PRO:CB	46:BZ:159:PRO:CD	2.87	0.52
47:B0:11:ARG:HB2	47:B0:11:ARG:HH11	1.75	0.52
52:B5:35:GLU:O	52:B5:36:CYS:HB2	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:B7:19:ARG:HG2	54:B7:19:ARG:NH1	2.25	0.52
55:B8:61:LEU:CD1	55:B8:61:LEU:H	2.14	0.52
1:CA:1018:G:H5'	1:CA:1019:C:OP2	2.10	0.52
1:CA:1334:G:H2'	1:CA:1335:C:C6	2.45	0.52
1:CA:1405:G:P	35:DO:49:ARG:HH12	2.33	0.52
4:CD:150:GLU:HG2	4:CD:151:LYS:H	1.75	0.52
12:CL:6:THR:HG23	12:CL:9:GLN:HG3	1.92	0.52
12:CL:92:ASP:O	12:CL:93:LEU:HD23	2.09	0.52
14:CN:21:TYR:HD2	14:CN:22:THR:O	1.93	0.52
25:DA:541:C:O2'	25:DA:542:C:C5'	2.49	0.52
25:DA:730:C:O2'	25:DA:731:C:H5'	2.09	0.52
25:DA:1317:A:H2'	25:DA:1318:C:H6	1.75	0.52
25:DA:1751:C:O2'	25:DA:1752:C:H5'	2.10	0.52
25:DA:2463:C:O2'	25:DA:2464:C:H5''	2.09	0.52
25:DA:2577:A:H5''	25:DA:2578:G:H5'	1.90	0.52
25:DA:2807:G:C3'	25:DA:2808:U:H5''	2.40	0.52
28:DD:35:LYS:O	28:DD:64:ILE:HG22	2.09	0.52
28:DD:62:TYR:HA	28:DD:87:ASN:HD21	1.75	0.52
29:DE:31:CYS:HB3	29:DE:49:LEU:HB3	1.91	0.52
33:DI:5:LEU:HD12	33:DI:5:LEU:N	2.24	0.52
36:DP:17:LYS:O	36:DP:17:LYS:HG2	2.09	0.52
36:DP:56:SER:C	36:DP:57:THR:HG1	2.15	0.52
36:DP:101:VAL:HG12	36:DP:107:LYS:N	2.24	0.52
37:DQ:39:PRO:HD3	37:DQ:99:PRO:CG	2.39	0.52
37:DQ:115:MET:O	37:DQ:119:ARG:HB2	2.09	0.52
40:DT:89:VAL:CG1	40:DT:91:ARG:HE	2.22	0.52
43:DW:47:VAL:HG12	43:DW:47:VAL:O	2.10	0.52
45:DY:7:VAL:HB	45:DY:8:LYS:HD2	1.92	0.52
47:D0:27:GLU:HG3	47:D0:68:GLU:HA	1.91	0.52
50:D3:17:LYS:HD2	50:D3:20:LYS:HD2	1.92	0.52
50:D3:29:ARG:HG3	50:D3:29:ARG:NH1	2.24	0.52
52:D5:20:ARG:O	52:D5:23:HIS:HB2	2.10	0.52
52:D5:40:LYS:HD2	52:D5:40:LYS:C	2.34	0.52
53:D6:9:LEU:HD23	53:D6:10:LEU:O	2.10	0.52
53:D6:40:CYS:SG	53:D6:45:LYS:CE	2.97	0.52
1:AA:343:G:C2'	1:AA:344:A:O5'	2.58	0.52
1:AA:1260:A:O2'	1:AA:1263:C:N4	2.43	0.52
2:AB:112:VAL:O	2:AB:115:LEU:HB3	2.09	0.52
2:AB:178:ARG:HG3	8:AH:72:PRO:N	2.25	0.52
3:AC:79:ARG:HG3	3:AC:82:GLU:OE2	2.08	0.52
7:AG:53:LYS:O	7:AG:54:THR:HB	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:40:ASN:ND2	13:AM:43:THR:HG23	2.10	0.52
14:AN:24:CYS:H	14:AN:33:VAL:HG11	1.75	0.52
16:AP:21:VAL:HG13	16:AP:33:ILE:HB	1.91	0.52
17:AQ:75:ARG:HH11	17:AQ:75:ARG:HG3	1.75	0.52
22:AW:18:G:H1	22:AW:55:U:C2'	2.22	0.52
23:AV:36:A:C6	24:AX:18:G:N1	2.78	0.52
25:BA:662:G:OP1	36:BP:18:ARG:HD2	2.09	0.52
25:BA:2186:G:C6	25:BA:2187:G:N7	2.78	0.52
25:BA:2349:G:H5'	25:BA:2349:G:H8	1.73	0.52
25:BA:2807:G:C3'	25:BA:2808:U:H5''	2.40	0.52
26:BB:117:G:H5''	39:BS:55:ALA:O	2.09	0.52
27:BC:87:GLU:HG2	27:BC:93:TYR:HA	1.91	0.52
28:BD:62:TYR:HA	28:BD:87:ASN:HD21	1.74	0.52
28:BD:159:ALA:HB1	28:BD:198:ASN:O	2.09	0.52
28:BD:267:SER:C	28:BD:269:PHE:N	2.68	0.52
29:BE:176:ILE:HD12	29:BE:176:ILE:N	2.25	0.52
31:BG:81:LYS:O	31:BG:82:LEU:C	2.52	0.52
34:BN:38:HIS:NE2	34:BN:50:ASP:OD2	2.43	0.52
40:BT:88:ILE:HG22	40:BT:89:VAL:HG12	1.91	0.52
42:BV:18:LEU:CD1	42:BV:19:LYS:H	2.22	0.52
45:BY:7:VAL:HB	45:BY:8:LYS:HD2	1.91	0.52
45:BY:90:LEU:C	45:BY:90:LEU:HD12	2.34	0.52
50:B3:42:ALA:O	50:B3:43:ILE:HD13	2.10	0.52
1:CA:521:G:OP1	12:CL:114:LYS:N	2.38	0.52
1:CA:1110:C:H2'	1:CA:1110:C:O2	2.10	0.52
2:CB:67:THR:HG21	2:CB:155:LEU:HD21	1.92	0.52
2:CB:107:THR:HG23	2:CB:110:GLN:NE2	2.25	0.52
3:CC:13:GLY:HA3	14:CN:57:ARG:NE	2.25	0.52
3:CC:70:VAL:CG1	3:CC:71:ALA:H	2.22	0.52
5:CE:69:VAL:CG1	5:CE:71:LEU:HD21	2.40	0.52
6:CF:45:LEU:HD12	6:CF:46:ARG:N	2.24	0.52
8:CH:44:PHE:HA	8:CH:79:VAL:CG1	2.40	0.52
14:CN:24:CYS:H	14:CN:33:VAL:HG11	1.74	0.52
22:CW:21:A:N6	22:CW:46:G:N3	2.58	0.52
25:DA:349:G:N1	25:DA:350:U:C2	2.77	0.52
25:DA:471:A:C2'	25:DA:472:A:C5'	2.88	0.52
25:DA:476:G:H4'	25:DA:502:A:N1	2.25	0.52
25:DA:760:G:C2'	25:DA:761:A:H5'	2.40	0.52
25:DA:863:A:H2'	25:DA:864:G:C8	2.41	0.52
25:DA:942:G:P	36:DP:35:HIS:HB3	2.50	0.52
25:DA:2620:C:OP1	29:DE:152:LYS:O	2.27	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DB:77:U:C5	26:DB:99:G:N2	2.78	0.52
28:DD:69:ARG:NH2	28:DD:192:THR:HB	2.24	0.52
28:DD:186:HIS:CE1	28:DD:188:GLU:HG2	2.44	0.52
28:DD:267:SER:C	28:DD:269:PHE:N	2.68	0.52
29:DE:149:ARG:HH11	29:DE:149:ARG:HG3	1.73	0.52
33:DI:92:VAL:HG11	33:DI:120:ILE:CG1	2.40	0.52
34:DN:22:THR:HB	34:DN:25:ARG:HB2	1.92	0.52
34:DN:30:ILE:O	34:DN:34:LEU:HB2	2.10	0.52
35:DO:5:GLN:HA	35:DO:20:MET:HE2	1.91	0.52
38:DR:2:ARG:NH2	38:DR:5:LYS:HZ3	2.07	0.52
38:DR:21:TYR:OH	38:DR:43:GLU:HG2	2.10	0.52
41:DU:55:ARG:HA	41:DU:58:ARG:CG	2.40	0.52
44:DX:89:ILE:O	44:DX:93:GLU:HG2	2.10	0.52
45:DY:37:VAL:O	45:DY:66:PRO:HA	2.10	0.52
45:DY:77:PRO:O	45:DY:78:ALA:HB2	2.10	0.52
49:D2:50:ILE:C	49:D2:52:ASP:H	2.17	0.52
50:D3:5:LYS:CG	50:D3:36:VAL:HG12	2.39	0.52
50:D3:42:ALA:O	50:D3:43:ILE:HD13	2.10	0.52
1:AA:1088:G:H2'	1:AA:1089:C:C6	2.42	0.52
4:AD:3:ARG:HG2	4:AD:118:ARG:HD3	1.92	0.52
12:AL:27:LEU:HD22	12:AL:27:LEU:N	2.25	0.52
13:AM:88:ARG:HA	13:AM:98:VAL:HG12	1.90	0.52
13:AM:92:HIS:CD2	13:AM:98:VAL:HG21	2.44	0.52
19:AS:60:VAL:HG22	19:AS:61:TYR:O	2.10	0.52
22:AY:40:C:O2'	22:AY:41:C:H5'	2.10	0.52
25:BA:9:U:O2'	25:BA:10:G:O5'	2.27	0.52
25:BA:271(O):C:O2'	25:BA:271(P):C:H6	1.92	0.52
25:BA:271(O):C:H4'	33:BI:49:ALA:CB	2.40	0.52
25:BA:889:C:H1'	25:BA:890:A:O4'	2.10	0.52
25:BA:1416:G:H21	25:BA:1586:A:N6	2.07	0.52
25:BA:2240:C:O2'	25:BA:2241:A:H5'	2.09	0.52
25:BA:2303:G:H5''	31:BG:126:ASP:HB2	1.91	0.52
26:BB:55:U:H2'	26:BB:56:G:H8	1.73	0.52
28:BD:10:THR:O	28:BD:13:ARG:HB3	2.10	0.52
28:BD:33:LEU:O	28:BD:34:VAL:C	2.52	0.52
28:BD:68:LYS:O	28:BD:68:LYS:HG3	2.08	0.52
28:BD:101:GLU:OE1	28:BD:103:ARG:HD3	2.10	0.52
28:BD:186:HIS:CE1	28:BD:188:GLU:HG2	2.44	0.52
29:BE:92:THR:H	29:BE:95:ILE:HD13	1.74	0.52
30:BF:202:PHE:HE1	30:BF:206:ILE:HD13	1.74	0.52
36:BP:114:ILE:HD12	36:BP:115:LEU:N	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:121:LYS:O	36:BP:123:LEU:HG	2.10	0.52
39:BS:49:VAL:HG22	39:BS:80:LEU:HD22	1.92	0.52
43:BW:60:ASN:ND2	43:BW:60:ASN:H	2.07	0.52
45:BY:77:PRO:O	45:BY:78:ALA:HB2	2.10	0.52
46:BZ:118:GLN:HG2	46:BZ:119:GLU:N	2.24	0.52
48:B1:50:ARG:HH11	48:B1:50:ARG:CG	2.23	0.52
50:B3:7:LYS:O	50:B3:54:VAL:HG13	2.09	0.52
1:CA:1234:G:H2'	1:CA:1235:C:C6	2.44	0.52
3:CC:175:LEU:HD21	3:CC:201:TYR:CE2	2.45	0.52
4:CD:108:LEU:O	4:CD:110:PHE:HD1	1.93	0.52
4:CD:114:ARG:HG3	4:CD:114:ARG:HH11	1.74	0.52
17:CQ:31:LEU:O	17:CQ:31:LEU:HG	2.07	0.52
23:CV:15:G:N2	23:CV:22:A:H1'	2.24	0.52
25:DA:18:C:O3'	41:DU:23:GLY:HA2	2.09	0.52
25:DA:251:A:C5'	36:DP:51:PHE:HZ	2.22	0.52
25:DA:336:C:H4'	45:DY:7:VAL:CG1	2.40	0.52
25:DA:784:A:C5	28:DD:229:VAL:HG21	2.45	0.52
25:DA:1030:G:P	37:DQ:128:LYS:HD3	2.50	0.52
25:DA:1168:G:C2	25:DA:1182:A:C2	2.98	0.52
25:DA:1386:C:OP2	25:DA:1396:U:C5	2.63	0.52
25:DA:1887:C:H3'	25:DA:1888:G:H5''	1.90	0.52
25:DA:2263:C:H5'	25:DA:2263:C:C6	2.34	0.52
25:DA:2376:A:H61	39:DS:92:TYR:HE2	1.55	0.52
26:DB:75:G:N1	26:DB:103:G:N2	2.58	0.52
29:DE:92:THR:H	29:DE:95:ILE:HD13	1.74	0.52
30:DF:164:ARG:HG2	30:DF:164:ARG:NH1	2.24	0.52
31:DG:32:PRO:HB2	31:DG:172:LEU:HD13	1.92	0.52
32:DH:106:THR:HG22	32:DH:112:PRO:HB3	1.92	0.52
33:DI:57:ARG:O	33:DI:61:ARG:NE	2.43	0.52
34:DN:17:ASP:HB2	34:DN:55:VAL:HG12	1.90	0.52
36:DP:23:PRO:HD2	36:DP:33:ARG:NE	2.24	0.52
36:DP:63:PRO:O	36:DP:65:ARG:N	2.42	0.52
40:DT:29:ARG:CD	40:DT:85:LYS:CB	2.80	0.52
40:DT:51:ARG:HB2	40:DT:98:LYS:CG	2.35	0.52
48:D1:50:ARG:HH11	48:D1:50:ARG:CG	2.23	0.52
1:AA:22:G:H2'	1:AA:23:C:C6	2.44	0.52
1:AA:203:A:N6	1:AA:216:C:H5'	2.25	0.52
1:AA:470:U:H2'	1:AA:471:A:H8	1.73	0.52
1:AA:675:U:H2'	1:AA:677:A:OP2	2.09	0.52
1:AA:1077:U:P	1:AA:1090:G:H1	2.33	0.52
1:AA:1239:G:H2'	1:AA:1240:C:C6	2.41	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:109:SER:C	2:AB:111:ARG:H	2.18	0.52
3:AC:110:ASN:O	3:AC:141:VAL:HG22	2.08	0.52
3:AC:175:LEU:HD21	3:AC:201:TYR:CE2	2.45	0.52
5:AE:41:VAL:HG11	5:AE:113:ALA:N	2.24	0.52
9:AI:126:SER:O	9:AI:127:LYS:HB3	2.08	0.52
13:AM:10:PRO:O	13:AM:11:ARG:HG3	2.10	0.52
13:AM:13:LYS:HA	13:AM:44:ARG:HH11	1.71	0.52
13:AM:93:ARG:NH1	25:BA:888:C:C4'	2.73	0.52
13:AM:116:THR:O	13:AM:117:VAL:CB	2.58	0.52
19:AS:58:VAL:O	19:AS:58:VAL:HG23	2.09	0.52
23:AV:36:A:C2	24:AX:18:G:C2	2.97	0.52
25:BA:143:G:H2'	25:BA:143(A):C:C6	2.45	0.52
25:BA:554:U:C2'	25:BA:555:U:H5'	2.39	0.52
25:BA:1024:G:C3'	25:BA:1025:G:H5''	2.36	0.52
25:BA:1216:G:P	41:BU:12:ARG:HH21	2.32	0.52
25:BA:1751:C:O2'	25:BA:1752:C:H5'	2.10	0.52
25:BA:2207:G:H2'	25:BA:2207:G:N3	2.24	0.52
25:BA:2700:C:O2'	25:BA:2701:C:H5'	2.10	0.52
25:BA:2777:G:C4'	25:BA:2778:A:H5'	2.38	0.52
28:BD:10:THR:OG1	28:BD:11:PRO:HD2	2.10	0.52
28:BD:35:LYS:O	28:BD:64:ILE:HG22	2.09	0.52
29:BE:69:LYS:HD3	29:BE:89:ASP:HA	1.91	0.52
38:BR:21:TYR:OH	38:BR:43:GLU:HG2	2.10	0.52
38:BR:54:LEU:HD23	38:BR:66:VAL:CG2	2.40	0.52
38:BR:63:ARG:HA	38:BR:80:PHE:HE2	1.73	0.52
39:BS:12:PHE:O	39:BS:12:PHE:CD1	2.62	0.52
39:BS:30:ARG:HH22	39:BS:62:LYS:CD	2.20	0.52
53:B6:9:LEU:HD23	53:B6:10:LEU:O	2.10	0.52
53:B6:46:HIS:O	53:B6:46:HIS:CD2	2.62	0.52
55:B8:4:MET:SD	55:B8:61:LEU:CD2	2.98	0.52
55:B8:32:LEU:HB3	55:B8:36:LYS:NZ	2.25	0.52
1:CA:41:G:H2'	1:CA:42:G:C8	2.45	0.52
2:CB:54:THR:HG23	2:CB:199:TYR:HB3	1.92	0.52
4:CD:105:VAL:HG13	4:CD:110:PHE:HB2	1.92	0.52
5:CE:6:PHE:HD1	5:CE:63:ARG:HH12	1.58	0.52
11:CK:111:ASP:CA	18:CR:84:LYS:HG3	2.29	0.52
16:CP:18:ARG:HD3	16:CP:35:LYS:HD2	1.91	0.52
17:CQ:33:GLY:O	17:CQ:34:LYS:C	2.53	0.52
19:CS:6:LYS:CG	19:CS:7:LYS:HE3	2.40	0.52
19:CS:58:VAL:O	19:CS:58:VAL:HG23	2.09	0.52
22:CW:26:A:H61	22:CW:44:G:H1	1.57	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CW:69:G:H2'	22:CW:70:G:H5''	1.91	0.52
25:DA:119:A:H4'	25:DA:120:U:OP1	2.09	0.52
25:DA:311:A:OP1	25:DA:332:A:N1	2.43	0.52
25:DA:991:C:H5'	25:DA:991:C:H6	1.75	0.52
25:DA:1178:C:H2'	25:DA:1179:C:H6	1.74	0.52
25:DA:1350:C:O2'	25:DA:1351:C:H5'	2.09	0.52
25:DA:1688:U:H1'	25:DA:1701:A:C6	2.45	0.52
25:DA:1722:A:C2	25:DA:1740:G:C8	2.97	0.52
25:DA:2075:U:O4	25:DA:2238:G:C5	2.63	0.52
25:DA:2127:G:C5'	27:DC:36:LYS:NZ	2.72	0.52
25:DA:2128:C:OP1	27:DC:35:ALA:CA	2.58	0.52
28:DD:28:GLU:N	28:DD:29:PRO:CD	2.64	0.52
29:DE:16:ARG:O	29:DE:17:ASP:HB3	2.10	0.52
31:DG:39:ILE:HG23	31:DG:92:VAL:CG1	2.40	0.52
31:DG:111:LEU:HA	31:DG:114:ILE:CD1	2.40	0.52
31:DG:114:ILE:O	31:DG:115:ARG:C	2.52	0.52
32:DH:16:SER:HB2	32:DH:27:LYS:HB2	1.92	0.52
32:DH:158:HIS:CD2	32:DH:170:ARG:HA	2.45	0.52
33:DI:100:ALA:O	33:DI:101:LEU:HB2	2.09	0.52
33:DI:144:VAL:HG23	33:DI:145:VAL:HG23	1.92	0.52
37:DQ:33:GLY:HA2	37:DQ:105:GLU:HA	1.92	0.52
39:DS:12:PHE:O	39:DS:12:PHE:CD1	2.62	0.52
39:DS:57:LYS:O	39:DS:58:LEU:O	2.27	0.52
39:DS:85:VAL:HG23	39:DS:86:ALA:N	2.25	0.52
46:DZ:103:ARG:O	46:DZ:138:GLU:HA	2.09	0.52
46:DZ:118:GLN:HG2	46:DZ:119:GLU:N	2.24	0.52
49:D2:7:ARG:HH11	49:D2:7:ARG:CG	2.18	0.52
1:AA:402:G:H5'	4:AD:3:ARG:HH12	1.74	0.52
1:AA:473:C:H2'	1:AA:474:G:C8	2.44	0.52
1:AA:641:G:H2'	1:AA:642:U:C6	2.44	0.52
1:AA:1054:G:H2'	1:AA:1055:U:C6	2.45	0.52
2:AB:16:HIS:CD2	2:AB:210:SER:HA	2.44	0.52
3:AC:138:VAL:CG2	3:AC:151:VAL:HG23	2.40	0.52
11:AK:34:ASP:C	11:AK:34:ASP:OD2	2.53	0.52
12:AL:39:VAL:HB	12:AL:57:LYS:HB2	1.92	0.52
18:AR:53:ARG:NH2	18:AR:60:ALA:N	2.57	0.52
18:AR:66:LEU:CD1	18:AR:70:ILE:HD11	2.36	0.52
25:BA:103:A:C3'	25:BA:104:U:H5'	2.40	0.52
25:BA:311:A:OP1	25:BA:332:A:N1	2.43	0.52
25:BA:471:A:C2'	25:BA:472:A:C5'	2.88	0.52
25:BA:535:C:O2'	25:BA:536:A:H5'	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1722:A:C2	25:BA:1740:G:C8	2.97	0.52
25:BA:1952:A:C5	35:BO:22:ILE:CD1	2.93	0.52
25:BA:2308:G:N7	25:BA:2310:A:O5'	2.43	0.52
26:BB:77:U:C5	26:BB:99:G:N2	2.78	0.52
33:BI:72:LEU:O	33:BI:138:ILE:HG23	2.10	0.52
36:BP:10:PRO:O	36:BP:11:GLY:C	2.53	0.52
39:BS:90:GLY:O	39:BS:92:TYR:N	2.35	0.52
41:BU:25:TRP:CG	41:BU:26:GLY:N	2.75	0.52
41:BU:79:PHE:HE2	41:BU:83:LEU:HD21	1.75	0.52
42:BV:5:VAL:HG22	42:BV:6:LYS:N	2.25	0.52
46:BZ:58:VAL:HA	46:BZ:67:LEU:O	2.10	0.52
49:B2:38:GLN:HA	49:B2:41:ILE:CD1	2.40	0.52
53:B6:9:LEU:O	53:B6:25:LYS:HG3	2.10	0.52
53:B6:19:ARG:CG	53:B6:20:ASN:N	2.68	0.52
56:B9:9:ARG:HA	56:B9:14:CYS:SG	2.50	0.52
1:CA:584:C:H2'	1:CA:585:A:H8	1.75	0.52
1:CA:642:U:H2'	1:CA:643:G:H8	1.75	0.52
1:CA:958:U:H5'	14:CN:21:TYR:CE1	2.45	0.52
1:CA:1502:G:OP1	11:CK:120:ARG:NH2	2.43	0.52
2:CB:27:LYS:C	2:CB:29:ALA:H	2.18	0.52
7:CG:32:ARG:O	7:CG:33:ASP:HB2	2.10	0.52
7:CG:91:VAL:HG12	7:CG:96:GLN:HB2	1.92	0.52
13:CM:65:LYS:HG3	13:CM:70:LEU:HA	1.92	0.52
21:CU:24:ARG:O	21:CU:25:LYS:O	2.28	0.52
25:DA:62:C:H2'	25:DA:63:U:H5'	1.91	0.52
25:DA:66:C:O2'	25:DA:67:U:H5'	2.09	0.52
25:DA:614:U:O4'	25:DA:614(C):A:N6	2.43	0.52
25:DA:1336:A:H2'	25:DA:1337:G:H8	1.74	0.52
25:DA:1544:A:H2'	25:DA:1545:A:C1'	2.40	0.52
25:DA:2124:G:H5''	27:DC:177:LYS:HA	1.91	0.52
25:DA:2320:A:N1	25:DA:2333:A:C8	2.78	0.52
25:DA:2870:C:C2'	25:DA:2871:C:H5'	2.40	0.52
25:DA:2876:G:O5'	40:DT:3:ARG:HA	2.10	0.52
28:DD:101:GLU:OE1	28:DD:103:ARG:HD3	2.10	0.52
29:DE:81:ILE:O	29:DE:81:ILE:CG2	2.56	0.52
30:DF:202:PHE:HE1	30:DF:206:ILE:HD13	1.74	0.52
31:DG:105:LYS:CE	51:D4:52:SER:HB3	2.38	0.52
36:DP:121:LYS:O	36:DP:123:LEU:HG	2.10	0.52
36:DP:143:GLY:C	36:DP:145:PRO:HD3	2.35	0.52
37:DQ:59:ARG:HG3	37:DQ:59:ARG:HH11	1.75	0.52
38:DR:28:LEU:C	38:DR:28:LEU:CD1	2.82	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DT:8:LYS:O	40:DT:11:GLU:HB2	2.10	0.52
43:DW:60:ASN:ND2	43:DW:60:ASN:H	2.07	0.52
43:DW:68:ARG:HD2	43:DW:110:LYS:HB3	1.92	0.52
43:DW:110:LYS:HG3	43:DW:111:HIS:ND1	2.24	0.52
49:D2:7:ARG:CZ	49:D2:7:ARG:HB3	2.40	0.52
52:D5:46:CYS:HB3	52:D5:49:CYS:HB2	1.92	0.52
1:AA:1324:G:H4'	9:AI:122:ALA:HB3	1.92	0.51
2:AB:96:ARG:NH1	2:AB:148:TYR:HE1	2.07	0.51
2:AB:194:PRO:CB	2:AB:200:ILE:HD13	2.40	0.51
3:AC:22:TRP:CZ3	3:AC:32:LEU:HB3	2.44	0.51
4:AD:29:PRO:C	4:AD:30:LYS:HG2	2.34	0.51
16:AP:53:VAL:CG1	16:AP:79:VAL:HG22	2.41	0.51
22:AW:21:A:N7	22:AW:46:G:N7	2.58	0.51
23:AV:54:G:C2	23:AV:55:U:C4	2.98	0.51
25:BA:94(A):G:H2'	25:BA:95:G:H5''	1.92	0.51
25:BA:139:G:H1	25:BA:142(A):C:H42	1.57	0.51
25:BA:379:G:C5	25:BA:380:U:C5	2.98	0.51
25:BA:1140:C:C5'	25:BA:1141:U:OP2	2.58	0.51
25:BA:1479:G:H2'	25:BA:1480:G:O4'	2.10	0.51
25:BA:1686:C:C2'	25:BA:1687:G:H5'	2.40	0.51
25:BA:2629:A:C8	25:BA:2895:U:N3	2.78	0.51
25:BA:2870:C:C2'	25:BA:2871:C:H5'	2.40	0.51
25:BA:2882:A:OP1	38:BR:96:ARG:HD3	2.09	0.51
31:BG:113:ARG:NH1	31:BG:113:ARG:N	2.57	0.51
32:BH:17:VAL:HG11	32:BH:50:VAL:HG22	1.92	0.51
32:BH:41:MET:HG3	32:BH:53:GLU:C	2.35	0.51
39:BS:74:ALA:HB1	39:BS:103:GLU:CG	2.39	0.51
47:B0:30:VAL:HA	47:B0:66:VAL:HG22	1.91	0.51
50:B3:13:ILE:HG22	50:B3:13:ILE:O	2.09	0.51
56:B9:7:VAL:HG13	56:B9:34:GLN:HB3	1.91	0.51
1:CA:109:A:H2'	1:CA:110:G:H8	1.74	0.51
2:CB:63:MET:C	2:CB:65:GLY:H	2.17	0.51
2:CB:80:ILE:C	2:CB:82:ARG:N	2.67	0.51
2:CB:158:LEU:H	2:CB:158:LEU:HD12	1.74	0.51
3:CC:112:SER:HB3	3:CC:115:LEU:HD12	1.91	0.51
4:CD:25:ARG:C	4:CD:27:TYR:N	2.67	0.51
6:CF:62:TRP:C	6:CF:63:TYR:CD2	2.88	0.51
7:CG:68:ASN:ND2	7:CG:128:ALA:HA	2.26	0.51
8:CH:120:THR:HG23	8:CH:123:GLU:OE1	2.11	0.51
10:CJ:16:LEU:HD23	10:CJ:94:VAL:CG1	2.39	0.51
19:CS:10:PHE:CE2	19:CS:39:THR:OG1	2.61	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:29:LYS:HD3	20:CT:66:ALA:HB2	1.93	0.51
25:DA:18:C:H5''	41:DU:24:TYR:O	2.10	0.51
25:DA:535:C:O2'	25:DA:536:A:H5'	2.10	0.51
25:DA:1424:G:H2'	25:DA:1425:G:O4'	2.10	0.51
25:DA:1578:U:C2'	25:DA:1579:A:H5''	2.40	0.51
25:DA:2308:G:N7	25:DA:2310:A:O5'	2.43	0.51
25:DA:2484:G:H2'	25:DA:2485:G:H8	1.75	0.51
25:DA:2721:A:H2'	25:DA:2722:G:C8	2.45	0.51
26:DB:38:C:O4'	39:DS:95:HIS:NE2	2.43	0.51
26:DB:87:G:C2'	26:DB:88:C:H5''	2.41	0.51
27:DC:141:LYS:O	27:DC:142:ALA:HB2	2.10	0.51
28:DD:25:THR:CG2	28:DD:26:LYS:H	2.20	0.51
28:DD:226:MET:HB3	28:DD:230:ASP:HB2	1.91	0.51
32:DH:130:ARG:HH11	32:DH:132:ARG:HH21	1.57	0.51
32:DH:158:HIS:O	32:DH:159:GLU:CB	2.57	0.51
34:DN:104:LYS:HB2	34:DN:117:PHE:CE1	2.45	0.51
36:DP:10:PRO:O	36:DP:11:GLY:C	2.53	0.51
38:DR:86:ARG:HB3	38:DR:118:GLU:OE2	2.10	0.51
40:DT:28:VAL:CG2	40:DT:46:GLU:CG	2.87	0.51
40:DT:131:ALA:O	40:DT:133:GLU:N	2.43	0.51
41:DU:79:PHE:HE2	41:DU:83:LEU:HD21	1.75	0.51
43:DW:24:ILE:HG21	43:DW:36:LEU:HD21	1.90	0.51
44:DX:10:ALA:HA	49:D2:37:PHE:CE1	2.45	0.51
44:DX:61:GLY:HA3	44:DX:73:ARG:O	2.09	0.51
44:DX:64:LYS:HD3	44:DX:73:ARG:CZ	2.40	0.51
47:D0:12:ASN:O	47:D0:13:GLY:C	2.53	0.51
55:D8:51:ALA:HA	55:D8:54:GLU:CD	2.34	0.51
1:AA:473:C:H2'	1:AA:474:G:H8	1.75	0.51
1:AA:992:A:H2'	1:AA:993:A:C8	2.45	0.51
2:AB:95:GLN:HE21	2:AB:147:LYS:CG	2.23	0.51
3:AC:13:GLY:HA3	14:AN:57:ARG:NE	2.25	0.51
5:AE:100:VAL:HG13	5:AE:118:ILE:HG22	1.89	0.51
8:AH:82:HIS:C	8:AH:82:HIS:HD2	2.15	0.51
13:AM:7:VAL:HG21	31:BG:115:ARG:CG	2.40	0.51
16:AP:53:VAL:HG12	16:AP:79:VAL:HG22	1.93	0.51
25:BA:272:G:C6	25:BA:421:U:N1	2.78	0.51
25:BA:365:C:H6	25:BA:365:C:C5'	2.19	0.51
25:BA:476:G:H4'	25:BA:502:A:N1	2.25	0.51
25:BA:784:A:C5	28:BD:229:VAL:HG21	2.45	0.51
25:BA:1042:G:H1	25:BA:1112:G:H22	1.58	0.51
25:BA:1772:G:H2'	25:BA:1773:A:O5'	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1885:A:H8	25:BA:1885:A:H5'	1.74	0.51
25:BA:2683:C:OP1	40:BT:53:ARG:NH2	2.42	0.51
26:BB:38:C:O2	26:BB:48:A:H1'	2.09	0.51
26:BB:75:G:N1	26:BB:103:G:N2	2.58	0.51
26:BB:82:G:O2'	26:BB:83:G:H5'	2.11	0.51
28:BD:31:LYS:O	28:BD:32:SER:C	2.52	0.51
28:BD:226:MET:HB3	28:BD:230:ASP:HB2	1.91	0.51
29:BE:61:ARG:HB3	29:BE:62:PRO:HD3	1.91	0.51
31:BG:114:ILE:HG12	31:BG:140:ILE:CD1	2.15	0.51
32:BH:98:LEU:HD12	32:BH:102:ALA:O	2.11	0.51
34:BN:126:PRO:O	34:BN:127:ASP:HB2	2.10	0.51
44:BX:27:THR:HG22	44:BX:80:ILE:CB	2.18	0.51
44:BX:60:ARG:HH22	54:B7:47:ARG:HE	1.57	0.51
45:BY:17:SER:CA	45:BY:71:LYS:HD2	2.40	0.51
45:BY:87:LYS:HG3	45:BY:88:LYS:H	1.72	0.51
46:BZ:56:VAL:CG1	46:BZ:57:ILE:N	2.73	0.51
49:B2:7:ARG:HB3	49:B2:7:ARG:CZ	2.40	0.51
50:B3:17:LYS:HD2	50:B3:20:LYS:HD2	1.92	0.51
53:B6:32:ASN:CG	53:B6:33:LYS:N	2.66	0.51
53:B6:32:ASN:HD22	53:B6:33:LYS:HE3	1.75	0.51
1:CA:660:U:H3	1:CA:696:G:N2	2.06	0.51
1:CA:844:G:H2'	1:CA:845:C:C6	2.43	0.51
3:CC:3:ASN:CG	3:CC:4:LYS:H	2.16	0.51
3:CC:173:VAL:HG12	3:CC:175:LEU:HD12	1.92	0.51
4:CD:187:ARG:NH2	4:CD:193:ASP:OD2	2.43	0.51
5:CE:78:HIS:CD2	8:CH:104:ARG:HE	2.21	0.51
5:CE:87:SER:HB3	5:CE:131:ILE:HD13	1.93	0.51
6:CF:3:ARG:HD3	6:CF:64:GLN:OE1	2.10	0.51
8:CH:86:ILE:CG2	8:CH:87:SER:H	2.18	0.51
19:CS:35:SER:C	19:CS:37:ARG:H	2.17	0.51
22:CW:30:G:H2'	22:CW:31:A:H8	1.75	0.51
22:CW:36:A:C6	22:CW:37:A:C8	2.98	0.51
23:CV:4:G:O6	23:CV:71:G:C6	2.63	0.51
23:CV:76:C:OP1	25:DA:2602:A:H5''	2.10	0.51
25:DA:8:A:H2'	25:DA:9:U:C6	2.44	0.51
25:DA:289:A:C4	25:DA:353:G:N2	2.78	0.51
25:DA:848:G:H2'	25:DA:849:A:C8	2.44	0.51
25:DA:1171:G:H5''	25:DA:1173:G:C4'	2.40	0.51
25:DA:1188:U:H4'	42:DV:79:VAL:HG22	1.91	0.51
25:DA:1416:G:H21	25:DA:1586:A:H62	1.57	0.51
25:DA:2203:U:H2'	25:DA:2203:U:O2	2.08	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2569:G:O2'	25:DA:2570:G:H5'	2.11	0.51
25:DA:2674:G:O2'	35:DO:29:ASN:O	2.28	0.51
25:DA:2777:G:H5'	25:DA:2778:A:C5'	2.39	0.51
26:DB:55:U:H2'	26:DB:56:G:H8	1.73	0.51
28:DD:106:ILE:HG23	28:DD:106:ILE:O	2.10	0.51
30:DF:11:VAL:HG12	30:DF:12:LEU:N	2.17	0.51
33:DI:53:ALA:O	33:DI:56:LYS:HG2	2.09	0.51
36:DP:7:ARG:NE	36:DP:7:ARG:CA	2.65	0.51
36:DP:85:LEU:HD23	36:DP:85:LEU:N	2.18	0.51
36:DP:144:GLU:N	36:DP:145:PRO:CD	2.72	0.51
37:DQ:141:GLN:HE22	46:DZ:72:ARG:C	2.19	0.51
39:DS:24:LEU:HB3	39:DS:85:VAL:CG1	2.38	0.51
39:DS:61:ASN:O	39:DS:62:LYS:HG2	2.10	0.51
40:DT:30:VAL:HG12	40:DT:44:ASP:N	2.26	0.51
40:DT:89:VAL:HG11	40:DT:91:ARG:NH2	2.25	0.51
40:DT:89:VAL:O	40:DT:91:ARG:HB2	2.10	0.51
46:DZ:135:GLU:HG2	46:DZ:136:PHE:HD2	1.75	0.51
53:D6:9:LEU:HD23	53:D6:10:LEU:N	2.26	0.51
1:AA:199:C:H2'	1:AA:200:C:C6	2.45	0.51
1:AA:603:C:H2'	1:AA:604:A:C8	2.44	0.51
1:AA:953:G:H21	1:AA:1343:C:H2'	1.73	0.51
1:AA:1258:C:O2'	1:AA:1260:A:H8	1.93	0.51
2:AB:14:GLY:C	2:AB:15:VAL:HG22	2.36	0.51
2:AB:95:GLN:HG3	2:AB:148:TYR:HA	1.93	0.51
2:AB:223:ILE:HA	2:AB:226:ARG:HB3	1.92	0.51
3:AC:5:ILE:C	3:AC:5:ILE:CD1	2.82	0.51
4:AD:13:ARG:O	4:AD:14:ARG:C	2.54	0.51
6:AF:61:LEU:HD23	6:AF:63:TYR:OH	2.10	0.51
7:AG:32:ARG:O	7:AG:33:ASP:CB	2.58	0.51
7:AG:46:ALA:O	7:AG:49:ILE:HB	2.09	0.51
8:AH:58:TYR:O	8:AH:59:LEU:HD23	2.10	0.51
10:AJ:24:VAL:HG21	10:AJ:37:PRO:HG3	1.93	0.51
12:AL:28:LYS:HE3	12:AL:33:ARG:HH22	1.70	0.51
13:AM:18:ALA:HB2	13:AM:45:VAL:HG21	1.92	0.51
25:BA:9:U:O2'	25:BA:10:G:P	2.68	0.51
25:BA:90:U:H1'	25:BA:92:A:C8	2.45	0.51
25:BA:614:U:O4'	25:BA:614(C):A:N6	2.43	0.51
25:BA:1286:A:O2'	25:BA:1288:U:OP2	2.26	0.51
25:BA:1827:C:O2'	25:BA:1828:G:H5'	2.10	0.51
25:BA:2097:C:H2'	25:BA:2098:U:O4'	2.11	0.51
25:BA:2721:A:H2'	25:BA:2722:G:H8	1.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2838:G:H2'	25:BA:2839:G:H8	1.75	0.51
27:BC:78:ALA:C	27:BC:80:GLY:H	2.16	0.51
28:BD:172:TYR:HD1	28:BD:186:HIS:CA	2.21	0.51
29:BE:1:MET:HE3	29:BE:83:ASP:HB2	1.92	0.51
29:BE:16:ARG:O	29:BE:17:ASP:HB3	2.10	0.51
29:BE:36:ARG:HH12	29:BE:86:PRO:HD2	1.76	0.51
30:BF:160:ASN:HB3	30:BF:163:VAL:HG23	1.92	0.51
31:BG:113:ARG:NH1	31:BG:113:ARG:CB	2.59	0.51
33:BI:100:ALA:O	33:BI:101:LEU:HB2	2.09	0.51
36:BP:7:ARG:NE	36:BP:7:ARG:CA	2.65	0.51
36:BP:52:GLU:CB	36:BP:55:ARG:HD2	2.40	0.51
36:BP:77:ARG:HB2	36:BP:78:PRO:HD2	1.91	0.51
36:BP:143:GLY:C	36:BP:145:PRO:HD3	2.35	0.51
36:BP:147:LEU:HG	36:BP:148:LEU:N	2.25	0.51
37:BQ:66:ILE:HG22	37:BQ:104:PHE:CD2	2.44	0.51
38:BR:28:LEU:C	38:BR:28:LEU:CD1	2.82	0.51
42:BV:53:GLU:C	42:BV:55:ALA:H	2.18	0.51
42:BV:69:LYS:HA	42:BV:88:ARG:CG	2.39	0.51
1:CA:335:U:OP2	35:DO:96:THR:OG1	2.29	0.51
1:CA:408:G:O2'	1:CA:423:G:N2	2.43	0.51
1:CA:1206:A:H2'	1:CA:1206:A:N3	2.24	0.51
2:CB:54:THR:HG21	2:CB:201:ILE:HD11	1.93	0.51
2:CB:213:LEU:C	2:CB:213:LEU:CD2	2.84	0.51
6:CF:75:LEU:HD21	6:CF:79:LEU:HD11	1.92	0.51
8:CH:12:ARG:NH1	8:CH:26:VAL:HA	2.24	0.51
10:CJ:85:LEU:C	10:CJ:87:THR:H	2.17	0.51
12:CL:22:SER:C	12:CL:24:VAL:H	2.18	0.51
15:CO:54:ARG:HG2	15:CO:54:ARG:NH1	2.22	0.51
19:CS:16:LEU:HA	19:CS:19:VAL:HB	1.92	0.51
19:CS:28:LYS:HD2	19:CS:29:ARG:CZ	2.40	0.51
20:CT:24:LEU:C	20:CT:24:LEU:HD13	2.34	0.51
22:CY:27:G:H3'	22:CY:27:G:C8	2.45	0.51
25:DA:84:A:C5'	45:DY:9:LYS:HE3	2.38	0.51
25:DA:271(H):G:O2'	25:DA:271(I):G:H8	1.94	0.51
25:DA:1479:G:H2'	25:DA:1480:G:O4'	2.10	0.51
25:DA:1490:A:N6	28:DD:98:VAL:HG11	2.26	0.51
25:DA:1772:G:H2'	25:DA:1773:A:O5'	2.10	0.51
25:DA:1952:A:N1	35:DO:22:ILE:CD1	2.73	0.51
25:DA:2121:G:N2	27:DC:172:HIS:CB	2.71	0.51
25:DA:2186:G:C6	25:DA:2187:G:N7	2.78	0.51
25:DA:2207:G:N3	25:DA:2207:G:H2'	2.24	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2329:G:C2'	25:DA:2330:G:H5'	2.41	0.51
25:DA:2636:U:H4'	29:DE:80:GLU:CD	2.36	0.51
28:DD:7:LYS:O	28:DD:9:TYR:HD1	1.90	0.51
32:DH:135:GLY:HA3	32:DH:141:VAL:CG2	2.40	0.51
33:DI:72:LEU:O	33:DI:138:ILE:HG23	2.10	0.51
34:DN:126:PRO:O	34:DN:127:ASP:HB2	2.10	0.51
36:DP:23:PRO:HB2	36:DP:33:ARG:CG	2.41	0.51
36:DP:32:THR:O	36:DP:36:LYS:HG3	2.11	0.51
36:DP:113:LYS:HE2	36:DP:115:LEU:HD13	1.93	0.51
38:DR:74:LYS:HD2	38:DR:77:ARG:NH2	2.22	0.51
39:DS:74:ALA:HB1	39:DS:103:GLU:CG	2.39	0.51
45:DY:26:LYS:HG2	45:DY:27:VAL:HG23	1.92	0.51
56:D9:26:ILE:HD12	56:D9:26:ILE:N	2.25	0.51
1:AA:103:C:H2'	1:AA:104:G:O4'	2.09	0.51
1:AA:956:C:H3'	1:AA:957:C:C5'	2.39	0.51
1:AA:1056:G:O3'	2:AB:103:THR:CG2	2.59	0.51
2:AB:40:HIS:CB	2:AB:190:THR:HG21	2.41	0.51
2:AB:213:LEU:C	2:AB:213:LEU:CD2	2.84	0.51
4:AD:79:PHE:C	4:AD:79:PHE:CD2	2.88	0.51
6:AF:39:LYS:HG2	6:AF:40:VAL:N	2.24	0.51
7:AG:32:ARG:O	7:AG:33:ASP:HB2	2.11	0.51
10:AJ:8:LEU:CD1	10:AJ:20:ALA:HA	2.40	0.51
11:AK:58:PRO:HA	11:AK:90:GLY:HA3	1.93	0.51
16:AP:71:ARG:HA	16:AP:74:LEU:CD1	2.34	0.51
23:AV:35:C:H2'	23:AV:36:A:H8	1.76	0.51
25:BA:309:G:N2	25:BA:330:A:P	2.81	0.51
25:BA:469:G:OP1	30:BF:59:TYR:HB3	2.11	0.51
25:BA:952:G:O6	25:BA:953:A:N6	2.42	0.51
25:BA:2075:U:P	28:BD:244:ARG:NH2	2.83	0.51
25:BA:2290:G:H5'	25:BA:2290:G:C8	2.37	0.51
25:BA:2290:G:H2'	25:BA:2291:U:O4'	2.11	0.51
25:BA:2632:A:C2	29:BE:61:ARG:HD3	2.46	0.51
32:BH:140:LYS:HG2	32:BH:140:LYS:O	2.10	0.51
36:BP:32:THR:HG21	36:BP:37:GLY:CA	2.40	0.51
38:BR:28:LEU:HD13	38:BR:28:LEU:O	2.11	0.51
38:BR:97:VAL:CG2	38:BR:114:VAL:HG22	2.32	0.51
39:BS:29:PHE:C	39:BS:29:PHE:CD2	2.88	0.51
43:BW:111:HIS:CG	43:BW:112:GLY:N	2.78	0.51
46:BZ:101:PRO:HB2	46:BZ:136:PHE:HB3	1.93	0.51
53:B6:24:GLU:O	53:B6:25:LYS:HB2	2.11	0.51
1:CA:459:G:H2'	1:CA:460:G:C8	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:669:U:O4	1:CA:686:G:H1'	2.11	0.51
1:CA:976:C:N4	1:CA:977:U:O4	2.44	0.51
1:CA:985:C:H2'	1:CA:986:C:C6	2.46	0.51
1:CA:1204:C:P	19:CS:78:ARG:HH21	2.34	0.51
1:CA:1474:G:C5	1:CA:1475:U:C5	2.98	0.51
2:CB:92:TYR:O	2:CB:93:VAL:HG13	2.10	0.51
3:CC:17:ASP:OD2	3:CC:18:TRP:N	2.44	0.51
4:CD:62:GLN:O	4:CD:66:ARG:HD2	2.11	0.51
8:CH:86:ILE:CG2	8:CH:133:LEU:HD22	2.40	0.51
10:CJ:32:ALA:H	10:CJ:76:ASN:HD22	1.57	0.51
11:CK:124:LYS:HB3	11:CK:125:PHE:HD1	1.75	0.51
14:CN:27:CYS:SG	14:CN:43:CYS:SG	3.08	0.51
18:CR:53:ARG:HG2	18:CR:53:ARG:HH11	1.75	0.51
25:DA:271(Q):G:O2'	25:DA:271(R):G:OP2	2.20	0.51
25:DA:271(Y):U:O2'	25:DA:271(Z):C:O5'	2.27	0.51
25:DA:747:U:C1'	52:D5:2:ALA:HB3	2.40	0.51
25:DA:889:C:H1'	25:DA:890:A:O4'	2.10	0.51
25:DA:912:C:O2	25:DA:912:C:H2'	2.10	0.51
25:DA:921:G:H4'	25:DA:2269:A:C6	2.46	0.51
25:DA:1448:G:H5'	25:DA:1449:A:OP1	2.11	0.51
25:DA:1484:G:H3'	25:DA:1485:G:C5'	2.38	0.51
25:DA:1579:A:H2'	25:DA:1580:A:O4'	2.11	0.51
25:DA:2142:C:O2'	25:DA:2143:C:H5'	2.11	0.51
25:DA:2675:A:H4'	35:DO:29:ASN:ND2	2.26	0.51
26:DB:28:C:O2'	26:DB:29:A:H5'	2.09	0.51
27:DC:36:LYS:HB2	27:DC:36:LYS:NZ	2.25	0.51
30:DF:38:ARG:HG3	30:DF:38:ARG:HH11	1.75	0.51
31:DG:114:ILE:HB	31:DG:117:PHE:HB2	1.91	0.51
31:DG:114:ILE:HD12	31:DG:117:PHE:CD2	2.46	0.51
36:DP:32:THR:O	36:DP:33:ARG:CB	2.59	0.51
36:DP:147:LEU:HG	36:DP:148:LEU:N	2.25	0.51
40:DT:18:ASP:OD1	40:DT:18:ASP:N	2.41	0.51
46:DZ:58:VAL:HA	46:DZ:67:LEU:O	2.10	0.51
46:DZ:129:SER:C	46:DZ:131:ARG:H	2.19	0.51
53:D6:20:ASN:ND2	53:D6:21:TYR:N	2.59	0.51
1:AA:1003:U:O2'	1:AA:1004:G:N7	2.43	0.51
1:AA:1110:C:H5'	9:AI:16:ARG:NH2	2.25	0.51
1:AA:1125:G:H2'	1:AA:1126:G:C8	2.45	0.51
4:AD:107:ARG:HB3	4:AD:174:LEU:CD1	2.40	0.51
4:AD:150:GLU:HG2	4:AD:151:LYS:H	1.75	0.51
5:AE:33:VAL:HG22	5:AE:43:LEU:HD13	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:97:GLU:HA	10:AJ:97:GLU:OE2	2.11	0.51
12:AL:75:HIS:HD2	12:AL:77:LEU:HB2	1.76	0.51
20:AT:59:ALA:C	20:AT:61:SER:N	2.67	0.51
25:BA:271(U):G:C2	25:BA:271(V):G:C8	2.99	0.51
25:BA:359:A:O2'	25:BA:360:G:H5'	2.10	0.51
25:BA:556:G:H2'	25:BA:557:U:H6	1.75	0.51
25:BA:587:C:C6	25:BA:671:C:H1'	2.45	0.51
25:BA:773:U:H4'	28:BD:47:GLY:HA3	1.93	0.51
25:BA:917:A:H2'	25:BA:918:A:C8	2.45	0.51
25:BA:1453:U:H4'	25:BA:1455:G:OP1	2.11	0.51
25:BA:1654:A:OP2	25:BA:1654:A:H4'	2.11	0.51
25:BA:2142:C:O2'	25:BA:2143:C:H5'	2.11	0.51
25:BA:2336:A:H61	47:B0:43:THR:HG21	1.75	0.51
27:BC:45:ALA:O	27:BC:46:LYS:HB2	2.11	0.51
29:BE:59:VAL:CG2	29:BE:60:ASN:N	2.68	0.51
32:BH:43:VAL:HG12	32:BH:53:GLU:H	1.75	0.51
33:BI:5:LEU:HD12	33:BI:5:LEU:N	2.24	0.51
34:BN:120:LEU:HD11	34:BN:122:VAL:CG2	2.39	0.51
35:BO:6:THR:HG22	35:BO:8:LEU:HD22	1.93	0.51
36:BP:7:ARG:O	36:BP:10:PRO:CD	2.54	0.51
37:BQ:51:ARG:O	37:BQ:55:VAL:HG12	2.10	0.51
39:BS:83:LYS:HG2	39:BS:105:ALA:HB3	1.90	0.51
40:BT:27:THR:OG1	40:BT:28:VAL:O	2.27	0.51
40:BT:126:ALA:C	40:BT:128:GLU:H	2.19	0.51
41:BU:91:ASP:OD2	41:BU:96:ALA:CB	2.57	0.51
42:BV:22:VAL:O	42:BV:23:GLU:HB2	2.11	0.51
42:BV:35:LEU:HB2	42:BV:57:VAL:CG1	2.40	0.51
44:BX:89:ILE:O	44:BX:93:GLU:HG2	2.10	0.51
1:CA:103:C:O2'	16:CP:25:ARG:O	2.27	0.51
1:CA:609:U:C2	1:CA:610:G:C8	2.99	0.51
1:CA:821:G:C2'	1:CA:822:U:H5'	2.39	0.51
2:CB:82:ARG:HG2	2:CB:83:MET:HE2	1.91	0.51
6:CF:9:VAL:C	6:CF:10:LEU:HD12	2.36	0.51
10:CJ:97:GLU:OE2	10:CJ:97:GLU:HA	2.10	0.51
11:CK:80:VAL:HG23	11:CK:80:VAL:O	2.09	0.51
12:CL:126:LYS:C	12:CL:128:ALA:H	2.19	0.51
14:CN:47:LEU:HA	14:CN:50:LYS:HD2	1.93	0.51
18:CR:50:ILE:HD12	18:CR:70:ILE:HG21	1.91	0.51
22:CW:16:U:C3'	22:CW:17:C:H5'	2.33	0.51
25:DA:143:G:H2'	25:DA:143(A):C:C6	2.45	0.51
25:DA:320:A:H3'	30:DF:136:THR:CG2	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:556:G:H2'	25:DA:557:U:H6	1.75	0.51
25:DA:587:C:C6	25:DA:671:C:H1'	2.46	0.51
25:DA:1246:A:P	36:DP:18:ARG:HG3	2.51	0.51
25:DA:1313:U:O2	25:DA:1313:U:C2'	2.58	0.51
25:DA:1582:C:O2'	25:DA:1586:A:C8	2.64	0.51
25:DA:1686:C:C2'	25:DA:1687:G:H5'	2.40	0.51
25:DA:2036:C:H6	25:DA:2036:C:C5'	2.14	0.51
25:DA:2389:G:H5''	25:DA:2390:U:H5'	1.91	0.51
25:DA:2735:G:H2'	25:DA:2736:G:H8	1.75	0.51
28:DD:33:LEU:O	28:DD:34:VAL:C	2.52	0.51
28:DD:71:ASP:CB	28:DD:103:ARG:HH22	2.21	0.51
29:DE:52:LEU:CD1	29:DE:53:PRO:HD2	2.25	0.51
29:DE:118:LYS:H	29:DE:121:ASN:H	1.58	0.51
30:DF:160:ASN:HB3	30:DF:163:VAL:HG23	1.91	0.51
32:DH:17:VAL:C	32:DH:45:VAL:HG22	2.36	0.51
37:DQ:27:VAL:HG23	37:DQ:137:TYR:CE1	2.45	0.51
39:DS:87:PHE:CG	39:DS:88:ASP:N	2.75	0.51
42:DV:35:LEU:HB2	42:DV:57:VAL:CG1	2.40	0.51
42:DV:53:GLU:C	42:DV:55:ALA:H	2.18	0.51
43:DW:111:HIS:CG	43:DW:112:GLY:N	2.78	0.51
48:D1:40:ARG:HD3	48:D1:40:ARG:O	2.11	0.51
49:D2:43:GLN:O	49:D2:44:LEU:CB	2.57	0.51
1:AA:154:A:N6	1:AA:339:A:O2'	2.44	0.51
1:AA:451:C:C2	1:AA:452:C:C5	2.99	0.51
1:AA:683:G:H4'	1:AA:687:A:H1'	1.93	0.51
1:AA:904:G:H1	1:AA:1372:U:H3	1.57	0.51
2:AB:21:ARG:C	2:AB:23:ARG:H	2.19	0.51
2:AB:28:PHE:CD1	2:AB:28:PHE:O	2.63	0.51
2:AB:112:VAL:HG22	2:AB:149:LEU:HD13	1.91	0.51
4:AD:196:LEU:CA	6:CF:16:GLN:HG3	2.39	0.51
6:AF:62:TRP:C	6:AF:63:TYR:CD2	2.88	0.51
20:AT:33:ILE:CD1	20:AT:62:LEU:CB	2.85	0.51
23:AV:53:G:HO2'	23:AV:54:G:P	2.33	0.51
23:AV:66:C:C2'	23:AV:67:C:H5'	2.37	0.51
25:BA:1168:G:C2	25:BA:1182:A:C2	2.98	0.51
25:BA:1503:U:O2'	25:BA:1504:C:H5'	2.10	0.51
25:BA:2068:U:N3	25:BA:2430:A:C2	2.44	0.51
26:BB:65:C:N4	26:BB:109:C:H2'	2.23	0.51
29:BE:132:HIS:CD2	29:BE:135:HIS:NE2	2.79	0.51
30:BF:28:ILE:HG12	30:BF:119:ARG:HH21	1.76	0.51
30:BF:202:PHE:CE1	30:BF:206:ILE:HD13	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BG:6:ALA:HB3	31:BG:104:GLU:CD	2.35	0.51
32:BH:85:LYS:HE2	32:BH:145:ALA:HA	1.92	0.51
34:BN:30:ILE:HG23	34:BN:52:VAL:HG11	1.93	0.51
37:BQ:59:ARG:HG3	37:BQ:59:ARG:HH11	1.75	0.51
39:BS:24:LEU:HB3	39:BS:85:VAL:CG1	2.38	0.51
41:BU:99:ALA:HB2	41:BU:106:PHE:CD1	2.46	0.51
53:B6:9:LEU:HD23	53:B6:10:LEU:N	2.26	0.51
1:CA:1046:G:C8	1:CA:1048:C:C2	2.98	0.51
2:CB:8:LYS:NZ	2:CB:217:ARG:HH12	2.09	0.51
2:CB:164:VAL:HB	2:CB:186:ALA:HB1	1.91	0.51
2:CB:213:LEU:HD23	2:CB:213:LEU:O	2.11	0.51
8:CH:23:SER:HB2	8:CH:61:VAL:O	2.10	0.51
10:CJ:38:ILE:O	10:CJ:38:ILE:HG13	2.09	0.51
13:CM:91:ARG:HH22	13:CM:103:THR:HG21	1.76	0.51
17:CQ:18:THR:HG23	17:CQ:69:LYS:HE3	1.91	0.51
20:CT:57:ARG:HB2	20:CT:57:ARG:NH1	2.26	0.51
23:CV:4:G:O2'	23:CV:5:G:O5'	2.28	0.51
23:CV:22:A:C2	23:CV:49:C:C5	2.99	0.51
25:DA:141:A:H8	25:DA:1408:C:HO2'	1.45	0.51
25:DA:271(O):C:O2'	25:DA:271(P):C:H6	1.92	0.51
25:DA:857:C:H5'	47:D0:77:ARG:NH2	2.22	0.51
25:DA:1000:A:H8	25:DA:1000:A:H5'	1.76	0.51
25:DA:1049:C:O2	25:DA:1049:C:H2'	2.11	0.51
25:DA:1309:G:P	54:D7:9:ARG:HD2	2.51	0.51
25:DA:1654:A:OP2	25:DA:1654:A:H4'	2.11	0.51
25:DA:2590:A:OP2	28:DD:238:GLY:HA2	2.11	0.51
26:DB:15:A:H5'	26:DB:16:G:C8	2.45	0.51
30:DF:139:PHE:CB	30:DF:166:ALA:HB1	2.39	0.51
31:DG:27:ASN:O	31:DG:29:TRP:N	2.43	0.51
32:DH:98:LEU:HD12	32:DH:102:ALA:O	2.10	0.51
32:DH:148:ILE:O	32:DH:151:ILE:HG12	2.09	0.51
33:DI:6:LEU:O	33:DI:8:PRO:N	2.43	0.51
34:DN:18:ALA:O	34:DN:21:LYS:N	2.38	0.51
36:DP:77:ARG:HB2	36:DP:78:PRO:HD2	1.91	0.51
36:DP:105:LEU:O	36:DP:106:LEU:HB3	2.11	0.51
38:DR:63:ARG:NH1	38:DR:80:PHE:HD2	2.08	0.51
40:DT:129:ARG:NH1	40:DT:131:ALA:O	2.44	0.51
43:DW:75:TYR:N	43:DW:75:TYR:CD1	2.78	0.51
45:DY:90:LEU:C	45:DY:90:LEU:HD12	2.35	0.51
46:DZ:4:ARG:HE	46:DZ:60:GLU:CG	2.23	0.51
46:DZ:30:ASN:HA	46:DZ:89:PHE:HE2	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DZ:151:HIS:HB3	46:DZ:170:THR:CG2	2.37	0.51
50:D3:13:ILE:HG22	50:D3:13:ILE:O	2.10	0.51
1:AA:458:G:H5''	16:AP:81:ARG:HH21	1.75	0.51
1:AA:575:G:H2'	1:AA:576:G:H8	1.74	0.51
5:AE:136:MET:C	5:AE:138:ALA:H	2.18	0.51
9:AI:50:LEU:O	9:AI:53:VAL:N	2.41	0.51
12:AL:28:LYS:C	12:AL:30:ALA:N	2.66	0.51
12:AL:126:LYS:HG3	12:AL:127:GLU:N	2.25	0.51
16:AP:15:PRO:O	16:AP:41:PRO:HD2	2.11	0.51
22:AW:76:A:C2	25:BA:2421:G:C6	2.98	0.51
23:AV:31:G:N2	23:AV:42:C:H1'	2.26	0.51
25:BA:109:G:C5	25:BA:110:G:N7	2.78	0.51
25:BA:645:C:O2	25:BA:645:C:C2'	2.57	0.51
25:BA:1819:A:O4'	25:BA:1821:A:N7	2.44	0.51
25:BA:2040:C:H2'	25:BA:2041:U:C6	2.46	0.51
25:BA:2230:G:O3'	48:B1:43:TYR:HB2	2.11	0.51
25:BA:2302:G:N3	31:BG:128:ARG:HD2	2.25	0.51
25:BA:2484:G:H2'	25:BA:2485:G:H8	1.75	0.51
29:BE:173:VAL:O	29:BE:174:ASP:C	2.52	0.51
30:BF:164:ARG:HG2	30:BF:164:ARG:NH1	2.24	0.51
31:BG:165:THR:OG1	31:BG:168:GLU:HB2	2.11	0.51
32:BH:135:GLY:HA3	32:BH:141:VAL:CG2	2.40	0.51
33:BI:101:LEU:CB	33:BI:109:ILE:HD11	2.39	0.51
34:BN:26:LEU:CD2	34:BN:30:ILE:HD11	2.41	0.51
34:BN:30:ILE:O	34:BN:34:LEU:HB2	2.10	0.51
38:BR:86:ARG:HB3	38:BR:118:GLU:OE2	2.10	0.51
39:BS:46:VAL:CG1	39:BS:47:THR:H	2.05	0.51
40:BT:132:LYS:O	40:BT:134:GLU:N	2.43	0.51
42:BV:2:PHE:HE1	42:BV:13:ARG:HD2	1.73	0.51
45:BY:26:LYS:HG2	45:BY:27:VAL:HG23	1.92	0.51
47:B0:24:LYS:O	47:B0:25:ARG:HD3	2.10	0.51
55:B8:23:VAL:CG1	55:B8:46:ARG:HH11	2.24	0.51
1:CA:338:U:H5''	1:CA:339:A:N7	2.26	0.51
1:CA:486:C:O5'	1:CA:486:C:H6	1.93	0.51
1:CA:1018:G:H3'	1:CA:1019:C:C6	2.45	0.51
1:CA:1115:G:N2	1:CA:1125:G:H1'	2.26	0.51
2:CB:21:ARG:C	2:CB:23:ARG:H	2.19	0.51
7:CG:116:ALA:HA	7:CG:119:ARG:HG3	1.93	0.51
8:CH:120:THR:OG1	8:CH:123:GLU:HG3	2.10	0.51
9:CI:24:GLY:O	9:CI:25:LYS:C	2.52	0.51
11:CK:44:SER:H	11:CK:47:VAL:CG2	2.23	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:CQ:11:VAL:HG23	17:CQ:20:THR:HB	1.93	0.51
17:CQ:92:ARG:HA	17:CQ:95:TYR:CE2	2.46	0.51
22:CW:57:G:H2'	22:CW:58:A:C5'	2.40	0.51
22:CY:37:A:H5''	22:CY:38:A:OP2	2.11	0.51
25:DA:379:G:C5	25:DA:380:U:C5	2.98	0.51
25:DA:573:G:O2'	25:DA:574:C:H3'	2.11	0.51
25:DA:673:C:HO2'	30:DF:82:ILE:HD13	1.76	0.51
25:DA:869:G:O2'	37:DQ:8:LYS:HG3	2.11	0.51
25:DA:1827:C:O2'	25:DA:1828:G:H5'	2.11	0.51
25:DA:1952:A:N6	25:DA:1953:A:H61	2.09	0.51
25:DA:2838:G:H2'	25:DA:2839:G:H8	1.75	0.51
29:DE:72:VAL:O	29:DE:73:GLU:O	2.28	0.51
31:DG:43:LEU:CD2	31:DG:88:ILE:HD11	2.38	0.51
31:DG:65:GLY:O	31:DG:66:GLN:HG3	2.09	0.51
32:DH:64:LEU:C	32:DH:66:GLY:N	2.69	0.51
33:DI:54:GLN:HA	33:DI:57:ARG:CG	2.40	0.51
37:DQ:16:ARG:NH2	37:DQ:18:LYS:HE3	2.25	0.51
42:DV:27:ALA:O	42:DV:28:GLU:O	2.29	0.51
47:D0:11:ARG:HH11	47:D0:11:ARG:CB	2.23	0.51
53:D6:9:LEU:O	53:D6:25:LYS:HG3	2.10	0.51
55:D8:23:VAL:CG1	55:D8:46:ARG:HH11	2.24	0.51
1:AA:635:U:O4	1:AA:735:G:O2'	2.27	0.51
1:AA:1471:G:N7	58:AA:1694:PAR:N32	2.59	0.51
2:AB:74:LYS:H	2:AB:74:LYS:HD2	1.76	0.51
2:AB:105:PHE:O	2:AB:106:LYS:C	2.54	0.51
8:AH:86:ILE:CG2	8:AH:133:LEU:HD22	2.40	0.51
11:AK:78:GLN:O	11:AK:103:LEU:HD13	2.11	0.51
15:AO:17:ARG:HG3	15:AO:17:ARG:NH1	2.23	0.51
19:AS:16:LEU:HA	19:AS:19:VAL:HB	1.93	0.51
23:AV:20:G:N2	23:AV:58:A:N3	2.57	0.51
25:BA:71:A:C4'	25:BA:72:U:OP2	2.58	0.51
25:BA:271(T):C:H6	25:BA:271(T):C:C5'	2.18	0.51
25:BA:287:C:H2'	25:BA:288:C:O4'	2.11	0.51
25:BA:573:G:O2'	25:BA:574:C:H3'	2.11	0.51
25:BA:800:A:C5	25:BA:802:A:O4'	2.64	0.51
25:BA:987:G:H2'	25:BA:988:A:O4'	2.11	0.51
25:BA:1175:U:O5'	25:BA:1176:G:H5'	2.10	0.51
25:BA:1317:A:H2'	25:BA:1318:C:H6	1.75	0.51
25:BA:1579:A:H2'	25:BA:1580:A:O4'	2.11	0.51
25:BA:1653:G:O6	38:BR:11:ASN:HB2	2.10	0.51
25:BA:2569:G:O2'	25:BA:2570:G:H5'	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2657:A:O2'	32:BH:160:LYS:HE3	2.11	0.51
25:BA:2787:C:O2	29:BE:61:ARG:NH1	2.44	0.51
27:BC:141:LYS:O	27:BC:142:ALA:HB2	2.10	0.51
31:BG:2:PRO:CD	51:B4:51:TYR:CD2	2.93	0.51
31:BG:47:LYS:HD3	31:BG:82:LEU:HG	1.93	0.51
32:BH:106:THR:HG22	32:BH:112:PRO:HB3	1.92	0.51
33:BI:53:ALA:O	33:BI:57:ARG:CG	2.59	0.51
34:BN:39:ARG:HE	34:BN:41:ASP:CG	2.19	0.51
43:BW:47:VAL:O	43:BW:47:VAL:HG12	2.10	0.51
46:BZ:111:VAL:O	46:BZ:111:VAL:HG13	2.10	0.51
47:B0:11:ARG:HH11	47:B0:11:ARG:CB	2.23	0.51
47:B0:72:ARG:NE	47:B0:75:LEU:HD13	2.26	0.51
50:B3:29:ARG:HG3	50:B3:29:ARG:NH1	2.24	0.51
1:CA:1160:A:H5'	9:CI:102:LEU:HD12	1.91	0.51
2:CB:69:LEU:HD12	2:CB:70:PHE:N	2.25	0.51
2:CB:112:VAL:HG22	2:CB:149:LEU:HD13	1.93	0.51
4:CD:3:ARG:HG2	4:CD:118:ARG:HD3	1.93	0.51
4:CD:13:ARG:O	4:CD:14:ARG:C	2.54	0.51
5:CE:101:ILE:HG12	5:CE:101:ILE:O	2.11	0.51
5:CE:144:THR:C	5:CE:146:ALA:N	2.67	0.51
12:CL:59:ARG:HG3	12:CL:64:TYR:O	2.10	0.51
24:CX:14:A:O2'	24:CX:15:A:OP1	2.24	0.51
25:DA:243:U:OP1	55:D8:6:THR:CG2	2.59	0.51
25:DA:271(U):G:C2	25:DA:271(V):G:C8	2.98	0.51
25:DA:917:A:H2'	25:DA:918:A:C8	2.45	0.51
25:DA:2103:C:H3'	25:DA:2104:G:C5'	2.32	0.51
25:DA:2290:G:H2'	25:DA:2291:U:O4'	2.11	0.51
25:DA:2461:C:H2'	25:DA:2462:U:C6	2.46	0.51
25:DA:2869:G:H2'	25:DA:2870:C:O4'	2.11	0.51
26:DB:83:G:C5	26:DB:84:C:C5	2.98	0.51
27:DC:45:ALA:O	27:DC:46:LYS:HB2	2.11	0.51
29:DE:61:ARG:HB3	29:DE:62:PRO:HD3	1.91	0.51
30:DF:116:ASP:OD2	36:DP:5:ASP:N	2.44	0.51
30:DF:177:ALA:HB1	30:DF:178:PRO:CD	2.37	0.51
31:DG:96:ARG:O	31:DG:97:ASP:C	2.54	0.51
33:DI:82:ARG:O	33:DI:89:TYR:HD1	1.94	0.51
34:DN:38:HIS:NE2	34:DN:50:ASP:OD2	2.43	0.51
36:DP:126:VAL:HG22	36:DP:145:PRO:HB2	1.93	0.51
37:DQ:111:GLU:O	37:DQ:115:MET:HG2	2.11	0.51
38:DR:52:ILE:O	38:DR:55:ALA:HB3	2.11	0.51
43:DW:111:HIS:CD2	43:DW:112:GLY:H	2.28	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DY:86:ARG:NH1	45:DY:95:LYS:NZ	2.57	0.51
45:DY:96:ILE:HD12	45:DY:99:CYS:HB2	1.92	0.51
49:D2:69:ARG:O	49:D2:70:GLN:HB3	2.10	0.51
1:AA:521:G:P	12:AL:115:LYS:HB2	2.50	0.51
1:AA:1297:G:N2	1:AA:1300:A:O5'	2.43	0.51
2:AB:171:ALA:HA	2:AB:174:VAL:HG23	1.93	0.51
4:AD:9:CYS:SG	4:AD:22:LYS:CD	2.99	0.51
4:AD:20:TYR:HE1	6:CF:15:ASP:CB	2.14	0.51
5:AE:14:ARG:NH1	5:AE:129:ILE:HD11	2.26	0.51
6:AF:35:ALA:HB2	6:AF:67:MET:SD	2.51	0.51
7:AG:27:ILE:HG12	7:AG:43:PHE:HD2	1.76	0.51
8:AH:44:PHE:HA	8:AH:79:VAL:CG1	2.41	0.51
9:AI:3:GLN:CG	9:AI:20:ARG:HH12	2.23	0.51
9:AI:8:GLY:HA3	9:AI:76:ALA:O	2.10	0.51
13:AM:16:ASP:HB2	13:AM:27:LYS:HZ2	1.76	0.51
13:AM:19:LEU:HB3	13:AM:25:ILE:HG21	1.93	0.51
13:AM:76:ALA:HA	13:AM:79:LYS:HD2	1.92	0.51
13:AM:94:ARG:HH21	25:BA:887:A:C1'	2.20	0.51
16:AP:6:LEU:HB3	16:AP:17:TYR:CD2	2.46	0.51
19:AS:63:THR:CG2	19:AS:66:MET:HE3	2.34	0.51
20:AT:59:ALA:C	20:AT:61:SER:H	2.18	0.51
25:BA:271(H):G:O2'	25:BA:271(I):G:H8	1.94	0.51
25:BA:327:G:H2'	25:BA:328:U:H6	1.76	0.51
25:BA:1448:G:H5'	25:BA:1449:A:OP1	2.11	0.51
25:BA:1594:G:H5'	25:BA:1594:G:C8	2.46	0.51
25:BA:1719:G:C2'	25:BA:1720:U:H5'	2.41	0.51
25:BA:2171:A:H2'	25:BA:2172:U:C6	2.45	0.51
25:BA:2721:A:H2'	25:BA:2722:G:C8	2.46	0.51
30:BF:11:VAL:HG12	30:BF:12:LEU:N	2.17	0.51
30:BF:75:HIS:HE1	30:BF:82:ILE:HD11	1.76	0.51
30:BF:116:ASP:OD2	36:BP:5:ASP:N	2.44	0.51
31:BG:96:ARG:O	31:BG:97:ASP:C	2.54	0.51
31:BG:172:LEU:HG	31:BG:176:LEU:CD1	2.41	0.51
33:BI:6:LEU:O	33:BI:8:PRO:N	2.43	0.51
36:BP:97:PRO:O	36:BP:98:GLU:CG	2.59	0.51
36:BP:114:ILE:HG22	36:BP:127:ALA:CB	2.41	0.51
38:BR:63:ARG:NH1	38:BR:80:PHE:HD2	2.08	0.51
39:BS:26:LEU:HA	39:BS:39:ILE:HD13	1.93	0.51
39:BS:85:VAL:HG23	39:BS:86:ALA:N	2.25	0.51
42:BV:1:MET:HE1	42:BV:43:GLU:OE2	2.11	0.51
45:BY:96:ILE:HD12	45:BY:99:CYS:HB2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BZ:30:ASN:O	46:BZ:31:ARG:HB3	2.11	0.51
49:B2:53:LEU:O	49:B2:54:LYS:C	2.54	0.51
52:B5:20:ARG:O	52:B5:23:HIS:HB2	2.10	0.51
1:CA:916:G:H2'	1:CA:917:C:C6	2.46	0.51
1:CA:963:A:N3	19:CS:52:TYR:OH	2.36	0.51
1:CA:1111:C:N4	1:CA:1115:G:N7	2.59	0.51
7:CG:32:ARG:O	7:CG:33:ASP:CB	2.57	0.51
12:CL:113:ARG:HH11	12:CL:113:ARG:HG2	1.76	0.51
14:CN:23:ARG:HD2	14:CN:28:GLY:O	2.11	0.51
14:CN:33:VAL:HG12	14:CN:39:LEU:O	2.11	0.51
15:CO:17:ARG:HG3	15:CO:17:ARG:NH1	2.21	0.51
19:CS:43:GLU:O	19:CS:45:VAL:N	2.40	0.51
23:CV:42:C:N3	23:CV:43:G:C8	2.79	0.51
25:DA:109:G:C5	25:DA:110:G:N7	2.78	0.51
25:DA:363(C):G:H2'	25:DA:363(D):G:H8	1.76	0.51
25:DA:747:U:P	52:D5:3:LYS:HD3	2.51	0.51
25:DA:1324:G:H1'	25:DA:1616:A:H62	1.76	0.51
25:DA:1338:G:N3	25:DA:1393:A:H2	2.08	0.51
28:DD:7:LYS:O	28:DD:9:TYR:HE1	1.94	0.51
28:DD:190:TYR:O	28:DD:191:ALA:HB2	2.11	0.51
29:DE:176:ILE:HD12	29:DE:176:ILE:N	2.25	0.51
31:DG:6:ALA:HB3	31:DG:104:GLU:CD	2.35	0.51
31:DG:109:VAL:C	31:DG:112:PRO:HD2	2.35	0.51
31:DG:165:THR:OG1	31:DG:168:GLU:HB2	2.11	0.51
32:DH:85:LYS:HE2	32:DH:145:ALA:HA	1.92	0.51
34:DN:39:ARG:HG2	34:DN:39:ARG:NH1	2.22	0.51
34:DN:120:LEU:HD13	34:DN:122:VAL:HG23	1.89	0.51
40:DT:64:ARG:NH2	40:DT:103:ARG:HG2	2.26	0.51
45:DY:16:ALA:HB1	45:DY:21:LYS:HZ3	1.76	0.51
46:DZ:165:VAL:HG12	46:DZ:166:SER:N	2.24	0.51
1:AA:505:C:H41	12:AL:53:ARG:NH2	2.09	0.51
1:AA:967:C:C2	1:AA:1197:G:C2	2.99	0.51
2:AB:82:ARG:HG2	2:AB:83:MET:HE2	1.91	0.51
2:AB:107:THR:HA	2:AB:110:GLN:CD	2.37	0.51
2:AB:109:SER:C	2:AB:111:ARG:N	2.69	0.51
3:AC:59:ARG:HG2	3:AC:64:VAL:HG12	1.93	0.51
4:AD:108:LEU:HB3	4:AD:110:PHE:HE1	1.70	0.51
6:AF:67:MET:CG	6:AF:68:PRO:HD2	2.40	0.51
8:AH:64:LYS:HG2	8:AH:79:VAL:HG21	1.93	0.51
10:AJ:48:THR:CA	10:AJ:62:HIS:HB3	2.40	0.51
10:AJ:87:THR:OG1	10:AJ:88:LEU:N	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AN:21:TYR:HD2	14:AN:22:THR:O	1.94	0.51
19:AS:10:PHE:CZ	19:AS:70:LYS:HE2	2.41	0.51
20:AT:57:ARG:HB2	20:AT:57:ARG:NH1	2.26	0.51
22:AW:50:U:C2	22:AW:65:G:N2	2.79	0.51
23:AV:32:G:H1	23:AV:40:C:N4	2.09	0.51
25:BA:118:A:H5'	25:BA:119:A:H8	1.76	0.51
25:BA:285:C:H5''	25:BA:286:C:OP2	2.11	0.51
25:BA:671:C:O2'	25:BA:672:C:H5'	2.11	0.51
25:BA:807:U:O2'	25:BA:808:G:H5'	2.10	0.51
25:BA:858:U:HO2'	25:BA:859:G:C4	1.68	0.51
25:BA:910:A:N1	25:BA:2277:G:H1'	2.26	0.51
25:BA:1124:C:H1'	56:B9:36:GLN:OE1	2.10	0.51
25:BA:1171:G:H5'	25:BA:1173:G:OP2	2.11	0.51
25:BA:1493:C:O2	25:BA:1493:C:H2'	2.11	0.51
25:BA:1609:A:C2	25:BA:1616:A:C4	2.99	0.51
25:BA:1641:A:H2'	25:BA:1642:G:O4'	2.10	0.51
25:BA:2330:G:N2	25:BA:2386:C:C2	2.79	0.51
26:BB:12:C:O2'	47:B0:74:ARG:HB2	2.11	0.51
28:BD:33:LEU:HD12	28:BD:33:LEU:N	2.17	0.51
28:BD:65:ILE:HD13	28:BD:65:ILE:O	2.11	0.51
29:BE:11:MET:HB3	29:BE:24:THR:HA	1.93	0.51
30:BF:75:HIS:CE1	30:BF:82:ILE:HD11	2.46	0.51
33:BI:131:LYS:HG3	33:BI:132:PRO:CD	2.41	0.51
34:BN:43:THR:C	34:BN:45:ASN:H	2.19	0.51
36:BP:144:GLU:N	36:BP:145:PRO:CD	2.72	0.51
38:BR:33:ARG:HG3	38:BR:115:GLU:CB	2.41	0.51
42:BV:49:THR:HB	42:BV:50:PRO:CD	2.40	0.51
44:BX:59:VAL:N	44:BX:76:ARG:O	2.40	0.51
46:BZ:129:SER:C	46:BZ:131:ARG:H	2.19	0.51
1:CA:261:G:H5'	1:CA:263:C:H41	1.75	0.51
1:CA:319:G:H5''	20:CT:70:SER:CB	2.32	0.51
1:CA:1230:C:H4'	9:CI:36:TYR:OH	2.11	0.51
1:CA:1258:C:HO2'	1:CA:1260:A:H8	1.57	0.51
3:CC:124:ILE:HG12	3:CC:130:VAL:HG22	1.93	0.51
6:CF:21:LEU:HD13	6:CF:24:GLU:CD	2.36	0.51
6:CF:39:LYS:HG2	6:CF:40:VAL:N	2.23	0.51
8:CH:67:PRO:O	8:CH:68:ARG:O	2.29	0.51
8:CH:85:ARG:HD3	8:CH:86:ILE:N	2.26	0.51
9:CI:18:PHE:O	9:CI:61:ALA:HA	2.10	0.51
11:CK:20:TYR:HB2	11:CK:31:THR:O	2.11	0.51
11:CK:80:VAL:HG13	11:CK:103:LEU:CD1	2.42	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:48:LEU:HA	13:CM:52:GLU:OE1	2.11	0.51
20:CT:8:ARG:HH11	20:CT:8:ARG:HG3	1.76	0.51
22:CW:34:G:C2'	22:CW:35:A:O5'	2.59	0.51
22:CY:33:U:H5''	22:CY:34:G:OP2	2.11	0.51
25:DA:65:C:O2'	25:DA:66:C:H5'	2.11	0.51
25:DA:71:A:C4'	25:DA:72:U:OP2	2.59	0.51
25:DA:926:A:H2'	25:DA:927:G:H8	1.75	0.51
25:DA:942:G:H5'	36:DP:35:HIS:HA	1.93	0.51
25:DA:1151:G:H4'	41:DU:81:HIS:CD2	2.46	0.51
25:DA:1300:U:O2'	25:DA:1301:A:P	2.69	0.51
25:DA:1594:G:H5'	25:DA:1594:G:C8	2.46	0.51
25:DA:2127:G:OP1	27:DC:36:LYS:HE2	2.11	0.51
25:DA:2236:C:C2'	25:DA:2237:G:H5'	2.41	0.51
26:DB:15:A:H5'	26:DB:16:G:H8	1.76	0.51
26:DB:83:G:H2'	26:DB:84:C:O5'	2.10	0.51
28:DD:9:TYR:HD1	28:DD:9:TYR:N	1.86	0.51
29:DE:47:VAL:HG12	29:DE:49:LEU:HD12	1.93	0.51
29:DE:101:ARG:HB2	29:DE:201:THR:CG2	2.41	0.51
30:DF:3:GLU:HA	30:DF:24:LEU:HB3	1.93	0.51
30:DF:11:VAL:C	30:DF:13:SER:N	2.68	0.51
30:DF:202:PHE:CE1	30:DF:206:ILE:HD13	2.46	0.51
33:DI:23:PRO:HB3	33:DI:27:ARG:NH1	2.26	0.51
34:DN:53:VAL:HG11	34:DN:130:HIS:HE1	1.76	0.51
35:DO:13:ASN:HD21	35:DO:96:THR:HG23	1.75	0.51
36:DP:38:GLN:CG	36:DP:39:LYS:H	2.04	0.51
36:DP:97:PRO:O	36:DP:98:GLU:CG	2.59	0.51
46:DZ:56:VAL:CG1	46:DZ:57:ILE:N	2.73	0.51
55:D8:32:LEU:HB3	55:D8:36:LYS:NZ	2.25	0.51
56:D9:9:ARG:HA	56:D9:14:CYS:SG	2.50	0.51
1:AA:85:U:H5''	1:AA:86:C:H5'	1.93	0.50
1:AA:309:C:O2'	1:AA:310:A:H5'	2.11	0.50
1:AA:1307:C:H2'	1:AA:1308:C:C6	2.44	0.50
3:AC:22:TRP:CH2	3:AC:32:LEU:HB3	2.46	0.50
4:AD:57:ARG:HG2	4:AD:202:LEU:HD22	1.93	0.50
6:AF:9:VAL:C	6:AF:10:LEU:HD12	2.37	0.50
10:AJ:32:ALA:H	10:AJ:76:ASN:HD22	1.57	0.50
13:AM:13:LYS:O	13:AM:14:ARG:C	2.52	0.50
18:AR:36:ASN:HD22	18:AR:39:VAL:HG21	1.75	0.50
20:AT:13:LEU:HD12	20:AT:13:LEU:O	2.11	0.50
25:BA:1335:U:H2'	25:BA:1336:A:H8	1.76	0.50
25:BA:1484:G:H3'	25:BA:1485:G:C5'	2.38	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1503:U:H2'	25:BA:1504:C:C6	2.46	0.50
25:BA:1688:U:H1'	25:BA:1701:A:C6	2.45	0.50
25:BA:2236:C:C2'	25:BA:2237:G:H5'	2.41	0.50
25:BA:2443:C:O2'	25:BA:2444:G:H5'	2.11	0.50
25:BA:2710:C:OP1	38:BR:15:SER:HB2	2.11	0.50
25:BA:2755:C:O2'	25:BA:2756:U:H2'	2.12	0.50
25:BA:2869:G:H2'	25:BA:2870:C:O4'	2.11	0.50
29:BE:72:VAL:O	29:BE:73:GLU:O	2.28	0.50
32:BH:139:GLN:CD	32:BH:139:GLN:C	2.79	0.50
33:BI:18:VAL:O	33:BI:18:VAL:HG12	2.11	0.50
33:BI:82:ARG:O	33:BI:89:TYR:HD1	1.94	0.50
33:BI:92:VAL:HG11	33:BI:120:ILE:CG1	2.40	0.50
34:BN:53:VAL:HG11	34:BN:130:HIS:HE1	1.76	0.50
34:BN:104:LYS:HB2	34:BN:117:PHE:CE1	2.45	0.50
37:BQ:33:GLY:HA2	37:BQ:105:GLU:HA	1.92	0.50
37:BQ:65:PHE:HB2	37:BQ:105:GLU:CG	2.38	0.50
39:BS:24:LEU:CB	39:BS:85:VAL:HG12	2.37	0.50
41:BU:90:VAL:HG22	42:BV:39:LEU:HG	1.91	0.50
46:BZ:135:GLU:HG2	46:BZ:136:PHE:HD2	1.75	0.50
47:B0:6:GLY:O	47:B0:7:LEU:HD23	2.12	0.50
1:CA:74:C:H42	1:CA:88:G:H1	1.59	0.50
1:CA:347:C:C2	1:CA:351:A:N6	2.79	0.50
1:CA:722:C:O2'	15:CO:42:HIS:ND1	2.44	0.50
4:CD:9:CYS:SG	4:CD:31:CYS:C	2.94	0.50
11:CK:99:GLN:NE2	11:CK:105:VAL:HG21	2.26	0.50
22:CW:58:A:C2	22:CW:61:C:C2	2.98	0.50
23:CV:17:C:OP1	23:CV:62:C:H5'	2.12	0.50
25:DA:291:C:N4	25:DA:349:G:H1	2.10	0.50
25:DA:359:A:O2'	25:DA:360:G:H5'	2.10	0.50
25:DA:365:C:H5'	25:DA:365:C:C6	2.32	0.50
25:DA:402:A:H2'	25:DA:403:U:H5'	1.94	0.50
25:DA:807:U:O2'	25:DA:808:G:H5'	2.10	0.50
25:DA:952:G:O6	25:DA:953:A:N6	2.42	0.50
25:DA:1042:G:H1	25:DA:1112:G:H22	1.58	0.50
25:DA:2320:A:C5	25:DA:2333:A:C6	2.99	0.50
25:DA:2376:A:N6	39:DS:92:TYR:CE2	2.78	0.50
26:DB:83:G:H5'	50:D3:52:HIS:NE2	2.26	0.50
28:DD:112:GLN:N	28:DD:115:GLN:NE2	2.60	0.50
34:DN:43:THR:C	34:DN:45:ASN:H	2.19	0.50
34:DN:58:ASP:OD1	34:DN:124:ALA:HB1	2.11	0.50
38:DR:33:ARG:HG3	38:DR:115:GLU:CB	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DS:17:ARG:O	39:DS:18:ILE:C	2.54	0.50
40:DT:6:LEU:HA	40:DT:9:LEU:HD12	1.93	0.50
42:DV:1:MET:HE1	42:DV:43:GLU:OE2	2.11	0.50
42:DV:89:GLN:OE1	42:DV:90:PRO:HD2	2.11	0.50
45:DY:38:ILE:O	45:DY:39:VAL:HB	2.11	0.50
46:DZ:98:MET:HE3	46:DZ:99:TYR:O	2.11	0.50
1:AA:292:G:N2	1:AA:295:A:OP2	2.45	0.50
1:AA:631:A:H2'	1:AA:632:G:C8	2.46	0.50
1:AA:674:G:H1'	1:AA:679:A:N6	2.26	0.50
1:AA:784:U:H2'	1:AA:785:A:H8	1.76	0.50
2:AB:57:PHE:HD2	2:AB:185:ILE:HD11	1.72	0.50
2:AB:213:LEU:HD23	2:AB:213:LEU:O	2.11	0.50
3:AC:127:ARG:HH11	3:AC:127:ARG:HG2	1.76	0.50
3:AC:150:LYS:HG3	3:AC:169:ALA:HB2	1.93	0.50
8:AH:112:LEU:HD12	8:AH:112:LEU:C	2.35	0.50
13:AM:66:LEU:O	13:AM:67:GLU:C	2.54	0.50
15:AO:64:ARG:NH2	25:BA:715:G:OP2	2.44	0.50
16:AP:76:GLN:O	16:AP:76:GLN:HG2	2.10	0.50
23:AV:9:G:N3	23:AV:46:G:H2'	2.26	0.50
24:AX:17:U:O2'	24:AX:18:G:H5'	2.11	0.50
25:BA:352:G:O2'	25:BA:353:G:O5'	2.29	0.50
25:BA:1502:C:H2'	25:BA:1502:C:O2	2.12	0.50
25:BA:1813:G:H1'	28:BD:50:THR:OG1	2.11	0.50
25:BA:2075:U:C5	25:BA:2238:G:C4	2.99	0.50
25:BA:2735:G:H2'	25:BA:2736:G:H8	1.75	0.50
25:BA:2810:A:H2'	29:BE:61:ARG:NH2	2.26	0.50
27:BC:74:VAL:HG23	27:BC:91:ALA:HB2	1.93	0.50
28:BD:2:ALA:O	28:BD:3:VAL:HB	2.10	0.50
29:BE:100:GLU:O	29:BE:172:VAL:HG23	2.12	0.50
29:BE:119:ARG:HD2	29:BE:120:TRP:CD1	2.46	0.50
30:BF:38:ARG:HH11	30:BF:38:ARG:HG3	1.75	0.50
31:BG:39:ILE:HG23	31:BG:92:VAL:CG1	2.40	0.50
31:BG:137:GLU:HG2	31:BG:152:LEU:HD11	1.94	0.50
36:BP:105:LEU:O	36:BP:106:LEU:HB3	2.11	0.50
37:BQ:52:VAL:O	37:BQ:56:ARG:HB2	2.10	0.50
39:BS:61:ASN:O	39:BS:62:LYS:HG2	2.10	0.50
39:BS:93:LYS:O	39:BS:93:LYS:CG	2.60	0.50
40:BT:90:GLN:HA	40:BT:92:GLY:H	1.76	0.50
44:BX:64:LYS:HD3	44:BX:73:ARG:CZ	2.40	0.50
45:BY:38:ILE:O	45:BY:39:VAL:HB	2.10	0.50
46:BZ:144:LEU:HA	46:BZ:148:ASP:HB3	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:B3:29:ARG:HB2	50:B3:33:GLN:NE2	2.27	0.50
1:CA:47:C:H6	1:CA:360:U:H2'	1.77	0.50
1:CA:70:G:H1	1:CA:92:U:H3	1.58	0.50
1:CA:299:U:H2'	1:CA:300:G:C8	2.46	0.50
1:CA:317:C:O2'	20:CT:23:ARG:HB2	2.10	0.50
1:CA:897:U:H2'	1:CA:898:U:O4'	2.11	0.50
2:CB:28:PHE:O	2:CB:28:PHE:CD1	2.65	0.50
2:CB:40:HIS:CB	2:CB:190:THR:HG21	2.41	0.50
2:CB:82:ARG:O	2:CB:86:GLU:HG3	2.12	0.50
2:CB:96:ARG:NH1	2:CB:148:TYR:HE1	2.09	0.50
7:CG:16:LEU:HD11	9:CI:42:ARG:HG3	1.93	0.50
9:CI:3:GLN:CG	9:CI:20:ARG:HH12	2.24	0.50
11:CK:13:GLN:HB3	11:CK:75:TYR:O	2.11	0.50
15:CO:76:GLU:C	15:CO:78:TYR:H	2.17	0.50
16:CP:53:VAL:HG12	16:CP:79:VAL:HG22	1.92	0.50
20:CT:50:GLU:CA	20:CT:100:ILE:HG21	2.35	0.50
22:CW:76:A:C2	25:DA:2421:G:C5	2.99	0.50
23:CV:59:A:C5	23:CV:62:C:C5	3.00	0.50
25:DA:271(Y):U:O2'	25:DA:271(Z):C:C6	2.64	0.50
25:DA:596:G:H2'	25:DA:597:U:O4'	2.12	0.50
25:DA:955:C:H5'	25:DA:956:G:OP2	2.11	0.50
25:DA:987:G:H2'	25:DA:988:A:O4'	2.11	0.50
25:DA:1049:C:N4	25:DA:1111:A:C2	2.79	0.50
25:DA:1503:U:H2'	25:DA:1504:C:C6	2.47	0.50
25:DA:2040:C:H2'	25:DA:2041:U:C6	2.46	0.50
25:DA:2124:G:C5'	27:DC:177:LYS:HA	2.41	0.50
25:DA:2336:A:H61	47:D0:43:THR:HG21	1.76	0.50
25:DA:2712:U:OP1	25:DA:2714:G:H4'	2.11	0.50
25:DA:2846:G:OP2	40:DT:54:ARG:HB2	2.11	0.50
28:DD:181:GLU:CA	28:DD:272:ALA:HB3	2.33	0.50
30:DF:127:GLU:HB2	30:DF:196:LEU:HD21	1.91	0.50
31:DG:76:SER:HB3	31:DG:84:LYS:H	1.76	0.50
31:DG:123:ASN:C	31:DG:125:PHE:H	2.19	0.50
31:DG:137:GLU:HG2	31:DG:152:LEU:HD11	1.94	0.50
33:DI:88:ILE:CD1	33:DI:123:LEU:H	2.22	0.50
33:DI:120:ILE:HG22	33:DI:122:GLU:H	1.76	0.50
34:DN:39:ARG:HE	34:DN:41:ASP:CG	2.19	0.50
37:DQ:111:GLU:OE2	37:DQ:133:ARG:NH2	2.44	0.50
41:DU:25:TRP:CG	41:DU:26:GLY:N	2.75	0.50
41:DU:90:VAL:HG12	41:DU:91:ASP:N	2.10	0.50
41:DU:95:LEU:C	41:DU:97:ASP:N	2.69	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DU:104:GLN:CB	42:DV:44:LYS:NZ	2.75	0.50
48:D1:58:ILE:HD12	48:D1:91:LYS:HA	1.93	0.50
53:D6:24:GLU:O	53:D6:25:LYS:HB2	2.11	0.50
1:AA:261:G:O2'	1:AA:262:C:OP2	2.29	0.50
1:AA:660:U:O2	1:AA:760:A:O2'	2.29	0.50
1:AA:1047:U:H1'	1:AA:1048:C:OP2	2.11	0.50
1:AA:1141:U:OP1	2:AB:133:LYS:NZ	2.44	0.50
2:AB:207:ALA:HB1	2:AB:209:ARG:HG2	1.92	0.50
3:AC:17:ASP:OD2	3:AC:18:TRP:N	2.44	0.50
3:AC:34:LEU:HD23	3:AC:34:LEU:C	2.36	0.50
5:AE:11:ILE:HG21	5:AE:105:VAL:HG22	1.94	0.50
5:AE:34:VAL:O	5:AE:41:VAL:HA	2.12	0.50
12:AL:18:VAL:O	12:AL:19:ARG:HB3	2.11	0.50
12:AL:76:ASN:OD1	12:AL:108:ALA:HB3	2.11	0.50
13:AM:91:ARG:NH1	13:AM:96:LEU:HD13	2.26	0.50
17:AQ:76:LEU:HD11	17:AQ:78:GLU:C	2.37	0.50
25:BA:185:U:H4'	25:BA:218:A:H4'	1.94	0.50
25:BA:271(Y):U:O2'	25:BA:271(Z):C:O5'	2.29	0.50
25:BA:816:C:H2'	25:BA:817:C:H6	1.76	0.50
25:BA:1327:C:H2'	25:BA:1328:G:O4'	2.12	0.50
25:BA:1578:U:C2'	25:BA:1579:A:H5''	2.40	0.50
25:BA:1658:C:OP1	29:BE:132:HIS:O	2.29	0.50
28:BD:190:TYR:O	28:BD:191:ALA:HB2	2.10	0.50
29:BE:2:LYS:HE2	29:BE:95:ILE:HG23	1.92	0.50
29:BE:30:PRO:HA	29:BE:92:THR:HG22	1.93	0.50
29:BE:47:VAL:HG12	29:BE:49:LEU:HD12	1.93	0.50
31:BG:32:PRO:HB2	31:BG:172:LEU:HD13	1.92	0.50
31:BG:83:ARG:O	31:BG:84:LYS:HB2	2.10	0.50
33:BI:5:LEU:O	33:BI:6:LEU:HD23	2.11	0.50
33:BI:144:VAL:C	33:BI:145:VAL:HG23	2.36	0.50
35:BO:114:ILE:O	35:BO:116:SER:OG	2.28	0.50
39:BS:18:ILE:O	39:BS:18:ILE:HG23	2.11	0.50
41:BU:66:ASN:O	41:BU:70:ARG:HB2	2.12	0.50
41:BU:104:GLN:CB	42:BV:44:LYS:NZ	2.75	0.50
42:BV:2:PHE:CE2	42:BV:4:ILE:HG13	2.45	0.50
42:BV:23:GLU:O	42:BV:24:LYS:C	2.55	0.50
42:BV:27:ALA:O	42:BV:28:GLU:O	2.29	0.50
42:BV:89:GLN:OE1	42:BV:90:PRO:HD2	2.11	0.50
43:BW:75:TYR:N	43:BW:75:TYR:CD1	2.78	0.50
52:B5:46:CYS:HB3	52:B5:49:CYS:HB2	1.92	0.50
1:CA:819:G:C6	1:CA:828:G:C6	2.99	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:964:G:H1	1:CA:1199:C:H42	1.60	0.50
2:CB:57:PHE:CE2	2:CB:185:ILE:HD11	2.47	0.50
2:CB:109:SER:C	2:CB:111:ARG:N	2.68	0.50
2:CB:165:VAL:O	2:CB:187:LEU:O	2.29	0.50
3:CC:34:LEU:HD23	3:CC:34:LEU:C	2.36	0.50
3:CC:148:GLY:CA	3:CC:203:PHE:HB3	2.41	0.50
5:CE:14:ARG:CZ	5:CE:129:ILE:HD11	2.41	0.50
12:CL:18:VAL:O	12:CL:19:ARG:HB3	2.11	0.50
15:CO:54:ARG:HG3	15:CO:58:MET:HE2	1.93	0.50
23:CV:65:G:C2	23:CV:66:C:C2	3.00	0.50
25:DA:6:A:O2'	34:DN:130:HIS:CB	2.58	0.50
25:DA:760:G:H2'	25:DA:761:A:H5'	1.93	0.50
25:DA:956:G:OP2	37:DQ:14:ARG:NH2	2.44	0.50
25:DA:1311:G:C6	54:D7:47:ARG:NH2	2.80	0.50
25:DA:1493:C:H2'	25:DA:1493:C:O2	2.11	0.50
25:DA:2097:C:H2'	25:DA:2098:U:O4'	2.11	0.50
25:DA:2443:C:O2'	25:DA:2444:G:H5'	2.11	0.50
25:DA:2755:C:O2'	25:DA:2756:U:H2'	2.12	0.50
29:DE:100:GLU:O	29:DE:172:VAL:HG23	2.12	0.50
32:DH:35:VAL:HG21	32:DH:75:ALA:HB2	1.94	0.50
33:DI:129:THR:O	33:DI:130:TYR:HB2	2.11	0.50
36:DP:5:ASP:OD2	36:DP:6:LEU:HD23	2.12	0.50
36:DP:7:ARG:HA	36:DP:7:ARG:HE	1.76	0.50
36:DP:108:LYS:C	36:DP:110:TYR:N	2.69	0.50
37:DQ:1:MET:HE2	37:DQ:1:MET:O	2.11	0.50
38:DR:28:LEU:HD13	38:DR:28:LEU:O	2.11	0.50
38:DR:28:LEU:HA	38:DR:34:ILE:HG13	1.93	0.50
39:DS:26:LEU:HA	39:DS:39:ILE:HD13	1.93	0.50
42:DV:18:LEU:HD12	42:DV:18:LEU:N	2.27	0.50
46:DZ:30:ASN:O	46:DZ:31:ARG:HB3	2.11	0.50
46:DZ:103:ARG:HB2	46:DZ:136:PHE:CD1	2.46	0.50
48:D1:94:LEU:O	48:D1:96:LYS:N	2.45	0.50
49:D2:46:GLN:O	49:D2:49:LYS:HB2	2.12	0.50
50:D3:29:ARG:HB2	50:D3:33:GLN:HE22	1.77	0.50
53:D6:32:ASN:HD22	53:D6:33:LYS:HE3	1.75	0.50
1:AA:502:C:H2'	1:AA:503:A:O4'	2.12	0.50
1:AA:1136:G:H2'	1:AA:1137:G:C8	2.47	0.50
3:AC:34:LEU:HD12	14:AN:25:VAL:HG13	1.93	0.50
3:AC:148:GLY:CA	3:AC:203:PHE:HB3	2.41	0.50
18:AR:61:LYS:O	18:AR:65:ILE:HG13	2.11	0.50
25:BA:271(W):G:O6	25:BA:271(X):G:N1	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:471:A:H2'	25:BA:472:A:C5'	2.42	0.50
25:BA:596:G:H2'	25:BA:597:U:O4'	2.12	0.50
25:BA:869:G:H2'	25:BA:870:A:C8	2.45	0.50
25:BA:1385:G:OP1	25:BA:1385:G:H4'	2.10	0.50
25:BA:1528(A):A:N6	25:BA:1541:G:O2'	2.39	0.50
25:BA:1952:A:C2	35:BO:22:ILE:HG23	2.46	0.50
25:BA:2329:G:C2'	25:BA:2330:G:H5'	2.41	0.50
25:BA:2635:C:H5''	29:BE:78:LEU:O	2.10	0.50
25:BA:2838:G:H2'	25:BA:2839:G:C8	2.47	0.50
25:BA:2885:C:C2	25:BA:2886:G:H1'	2.45	0.50
29:BE:28:ALA:O	29:BE:29:GLY:C	2.55	0.50
29:BE:59:VAL:HG13	29:BE:60:ASN:N	2.27	0.50
29:BE:132:HIS:O	29:BE:135:HIS:CD2	2.64	0.50
30:BF:20:LEU:HD22	30:BF:203:GLN:OE1	2.12	0.50
31:BG:33:ARG:HB2	31:BG:162:THR:HG21	1.94	0.50
37:BQ:12:GLN:NE2	37:BQ:72:LYS:HG3	2.27	0.50
39:BS:34:HIS:NE2	39:BS:54:LEU:HB2	2.25	0.50
45:BY:55:TYR:CB	45:BY:56:PRO:HD2	2.17	0.50
46:BZ:8:TYR:N	46:BZ:8:TYR:CD1	2.80	0.50
46:BZ:98:MET:HE3	46:BZ:99:TYR:O	2.11	0.50
46:BZ:103:ARG:HB2	46:BZ:136:PHE:CD1	2.46	0.50
49:B2:17:SER:HB3	49:B2:20:GLU:HB3	1.93	0.50
1:CA:76:G:O2'	1:CA:77:G:N2	2.44	0.50
1:CA:227:G:H2'	1:CA:228:C:H6	1.76	0.50
1:CA:564:G:N1	1:CA:742:A:OP2	2.41	0.50
1:CA:581:U:H2'	1:CA:582:C:H6	1.77	0.50
1:CA:1056:G:O4'	2:CB:104:ASN:ND2	2.44	0.50
3:CC:34:LEU:HD12	14:CN:25:VAL:HG13	1.94	0.50
4:CD:9:CYS:SG	4:CD:22:LYS:CD	2.99	0.50
10:CJ:57:LYS:HE3	10:CJ:60:ARG:NH2	2.26	0.50
13:CM:66:LEU:O	13:CM:70:LEU:N	2.23	0.50
14:CN:12:ARG:HB3	14:CN:14:PRO:HG2	1.92	0.50
19:CS:10:PHE:CD2	19:CS:10:PHE:C	2.90	0.50
21:CU:2:GLY:O	21:CU:4:GLY:N	2.43	0.50
22:CW:2:C:C4	22:CW:3:C:C5	3.00	0.50
23:CV:53:G:O2'	23:CV:54:G:OP1	2.29	0.50
25:DA:90:U:H1'	25:DA:92:A:C8	2.45	0.50
25:DA:327:G:H2'	25:DA:328:U:H6	1.77	0.50
25:DA:352:G:O2'	25:DA:353:G:O5'	2.29	0.50
25:DA:729:G:HO2'	25:DA:763:G:H4'	1.74	0.50
25:DA:1171:G:H5'	25:DA:1173:G:OP2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1479:G:H5'	25:DA:1558:A:C2	2.47	0.50
25:DA:1609:A:C2	25:DA:1616:A:C4	2.99	0.50
25:DA:1882:C:H2'	25:DA:1882:C:O2	2.10	0.50
25:DA:2282:G:O2'	25:DA:2283:C:OP2	2.28	0.50
25:DA:2875:C:H4'	40:DT:5:ALA:HB2	1.93	0.50
31:DG:88:ILE:CD1	31:DG:89:GLY:N	2.68	0.50
32:DH:17:VAL:O	32:DH:45:VAL:HG23	2.09	0.50
33:DI:5:LEU:O	33:DI:6:LEU:HD23	2.12	0.50
39:DS:73:LEU:O	39:DS:73:LEU:HD23	2.12	0.50
41:DU:45:TYR:O	41:DU:46:ALA:C	2.55	0.50
47:D0:24:LYS:O	47:D0:25:ARG:HD3	2.10	0.50
1:AA:259:U:C3'	1:AA:260:G:H5'	2.41	0.50
1:AA:338:U:H5''	1:AA:339:A:C8	2.46	0.50
1:AA:408:G:O2'	1:AA:423:G:N2	2.44	0.50
1:AA:1088:G:C4	1:AA:1089:C:C5	2.99	0.50
2:AB:31:TYR:CD2	2:AB:31:TYR:N	2.80	0.50
2:AB:134:GLU:HA	2:AB:137:ARG:CB	2.42	0.50
3:AC:127:ARG:N	3:AC:127:ARG:HD2	2.27	0.50
7:AG:52:GLU:C	7:AG:54:THR:H	2.19	0.50
11:AK:20:TYR:O	11:AK:30:VAL:HA	2.11	0.50
13:AM:94:ARG:HH21	25:BA:887:A:C2'	1.92	0.50
17:AQ:5:VAL:C	17:AQ:6:LEU:HD12	2.37	0.50
17:AQ:92:ARG:HA	17:AQ:95:TYR:CE2	2.47	0.50
20:AT:33:ILE:CD1	20:AT:62:LEU:C	2.84	0.50
22:AW:16:U:H3'	22:AW:16:U:H6	1.77	0.50
22:AW:16:U:C5	22:AW:18:G:H3'	2.45	0.50
23:AV:14:A:H1'	23:AV:23:G:H22	1.74	0.50
25:BA:109:G:N3	25:BA:110:G:C8	2.79	0.50
25:BA:291:C:N4	25:BA:349:G:H1	2.10	0.50
25:BA:908:C:OP1	37:BQ:22:LYS:HB2	2.12	0.50
25:BA:926:A:H2'	25:BA:927:G:H8	1.75	0.50
25:BA:955:C:H5'	25:BA:956:G:OP2	2.11	0.50
25:BA:1049:C:H2'	25:BA:1049:C:O2	2.11	0.50
25:BA:1300:U:O2'	25:BA:1301:A:P	2.69	0.50
25:BA:2419:U:O4	55:B8:30:ARG:NH1	2.45	0.50
25:BA:2461:C:H2'	25:BA:2462:U:C6	2.46	0.50
25:BA:2712:U:OP1	25:BA:2714:G:H4'	2.11	0.50
25:BA:2734:A:H5'	25:BA:2735:G:OP2	2.12	0.50
25:BA:2887:U:H2'	25:BA:2888:C:C6	2.47	0.50
29:BE:3:GLY:O	29:BE:4:ILE:CB	2.58	0.50
29:BE:118:LYS:H	29:BE:121:ASN:H	1.58	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BE:134:ILE:O	29:BE:134:ILE:CG1	2.59	0.50
29:BE:178:GLU:HG3	29:BE:179:GLU:OE1	2.12	0.50
37:BQ:1:MET:HE2	37:BQ:1:MET:O	2.11	0.50
37:BQ:4:PRO:O	37:BQ:6:ARG:N	2.40	0.50
40:BT:83:ILE:HG13	40:BT:84:GLN:N	2.25	0.50
43:BW:68:ARG:HD2	43:BW:110:LYS:HB3	1.92	0.50
43:BW:111:HIS:CD2	43:BW:112:GLY:H	2.28	0.50
46:BZ:4:ARG:HE	46:BZ:60:GLU:CG	2.23	0.50
48:B1:29:GLY:C	48:B1:31:GLY:H	2.18	0.50
50:B3:49:LYS:C	50:B3:51:ALA:H	2.19	0.50
53:B6:20:ASN:ND2	53:B6:21:TYR:N	2.59	0.50
1:CA:551:G:N2	1:CA:860:C:C2	2.79	0.50
1:CA:773:A:N6	1:CA:774:G:C6	2.80	0.50
1:CA:1003:U:O2'	1:CA:1004:G:N7	2.43	0.50
1:CA:1005:C:H1'	1:CA:1017:A:H2	1.77	0.50
1:CA:1281:G:O2'	1:CA:1282:U:O5'	2.30	0.50
4:CD:149:ALA:O	4:CD:153:ARG:HG3	2.11	0.50
10:CJ:24:VAL:HG21	10:CJ:37:PRO:HG3	1.92	0.50
13:CM:76:ALA:HA	13:CM:79:LYS:HD2	1.93	0.50
16:CP:53:VAL:CG1	16:CP:79:VAL:HG22	2.41	0.50
19:CS:60:VAL:HG22	19:CS:61:TYR:O	2.12	0.50
20:CT:100:ILE:CD1	20:CT:100:ILE:N	2.66	0.50
25:DA:307:G:C8	25:DA:307:G:C3'	2.93	0.50
25:DA:952:G:N1	25:DA:953:A:C5	2.80	0.50
25:DA:1024:G:C3'	25:DA:1025:G:H5''	2.36	0.50
25:DA:1202:C:C2'	25:DA:1203:G:H5'	2.41	0.50
25:DA:1453:U:H4'	25:DA:1455:G:OP1	2.11	0.50
25:DA:1502:C:H2'	25:DA:1502:C:O2	2.12	0.50
25:DA:1719:G:C2'	25:DA:1720:U:H5'	2.41	0.50
25:DA:2124:G:O2'	27:DC:40:THR:O	2.27	0.50
25:DA:2186:G:O6	25:DA:2187:G:O6	2.30	0.50
25:DA:2700:C:O2'	25:DA:2701:C:H5'	2.10	0.50
28:DD:172:TYR:CD1	28:DD:186:HIS:CA	2.93	0.50
29:DE:11:MET:N	40:DT:8:LYS:HZ1	2.08	0.50
30:DF:75:HIS:CE1	30:DF:82:ILE:HD11	2.46	0.50
31:DG:31:VAL:CG2	31:DG:32:PRO:HD2	2.39	0.50
33:DI:136:VAL:HG22	33:DI:136:VAL:O	2.11	0.50
34:DN:15:LEU:HB3	34:DN:136:GLU:HA	1.93	0.50
34:DN:26:LEU:HG	34:DN:30:ILE:HD11	1.93	0.50
35:DO:39:ILE:HG12	35:DO:60:ALA:O	2.12	0.50
36:DP:21:ARG:CD	36:DP:29:LYS:HE3	2.35	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DT:29:ARG:CZ	40:DT:30:VAL:H	2.25	0.50
40:DT:55:ASN:O	40:DT:57:PHE:O	2.30	0.50
41:DU:111:GLU:O	41:DU:112:ARG:C	2.55	0.50
46:DZ:101:PRO:HB2	46:DZ:136:PHE:HB3	1.93	0.50
46:DZ:136:PHE:CD1	46:DZ:137:ILE:N	2.80	0.50
48:D1:29:GLY:C	48:D1:31:GLY:H	2.18	0.50
49:D2:53:LEU:O	49:D2:54:LYS:C	2.54	0.50
50:D3:49:LYS:C	50:D3:51:ALA:H	2.19	0.50
1:AA:145:A:H2'	1:AA:146:A:O4'	2.12	0.50
1:AA:1056:G:O4'	2:AB:104:ASN:ND2	2.44	0.50
1:AA:1115:G:C2	1:AA:1124:G:C2	3.00	0.50
2:AB:204:ASN:HB3	2:AB:210:SER:OG	2.10	0.50
3:AC:113:ALA:HB3	3:AC:114:PRO:CD	2.39	0.50
4:AD:158:ILE:HG22	4:AD:181:MET:CE	2.41	0.50
4:AD:165:MET:HE3	4:AD:176:LEU:CD2	2.42	0.50
5:AE:76:ILE:CG1	5:AE:77:PRO:HD2	2.41	0.50
13:AM:125:ARG:HG3	22:AY:38:A:HO2'	1.71	0.50
15:AO:39:LEU:HD13	15:AO:56:LEU:HB2	1.93	0.50
23:AV:54:G:O2'	23:AV:55:U:OP2	2.30	0.50
25:BA:15:G:H8	25:BA:15:G:H5''	1.77	0.50
25:BA:154(A):C:O4'	25:BA:154(A):C:O2	2.26	0.50
25:BA:614(A):U:H4'	25:BA:614(B):G:H5''	1.93	0.50
25:BA:758:C:C2'	25:BA:759:G:H5'	2.41	0.50
25:BA:1227:G:OP1	41:BU:13:LYS:HG2	2.12	0.50
25:BA:1882:C:O2	25:BA:1882:C:H2'	2.10	0.50
25:BA:2298:A:H61	25:BA:2318:G:C2'	2.24	0.50
25:BA:2704:C:H2'	25:BA:2705:A:O4'	2.12	0.50
25:BA:2886:G:H2'	25:BA:2887:U:H6	1.77	0.50
26:BB:15:A:H5'	26:BB:16:G:H8	1.76	0.50
26:BB:41:U:C4	31:BG:69:ALA:HB1	2.46	0.50
29:BE:9:VAL:HG13	29:BE:25:VAL:O	2.12	0.50
32:BH:16:SER:HB2	32:BH:27:LYS:HB2	1.92	0.50
33:BI:120:ILE:HG22	33:BI:122:GLU:H	1.76	0.50
34:BN:58:ASP:OD1	34:BN:124:ALA:HB1	2.11	0.50
37:BQ:111:GLU:O	37:BQ:115:MET:HG2	2.11	0.50
37:BQ:111:GLU:OE2	37:BQ:133:ARG:NH2	2.44	0.50
39:BS:17:ARG:HH21	39:BS:90:GLY:N	2.10	0.50
42:BV:5:VAL:CG2	42:BV:6:LYS:N	2.74	0.50
47:B0:11:ARG:HB2	47:B0:11:ARG:NH1	2.26	0.50
48:B1:40:ARG:HD3	48:B1:40:ARG:O	2.10	0.50
49:B2:8:LYS:O	49:B2:9:GLN:C	2.55	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:B7:41:ARG:HB2	54:B7:41:ARG:HH11	1.76	0.50
54:B7:47:ARG:O	54:B7:47:ARG:HD2	2.12	0.50
1:CA:434:A:C5	1:CA:435:A:H1'	2.47	0.50
1:CA:795:C:OP1	1:CA:880:G:H1'	2.12	0.50
1:CA:1280:A:O3'	1:CA:1281:G:H4'	2.12	0.50
2:CB:128:GLU:O	2:CB:129:GLU:HG2	2.12	0.50
3:CC:70:VAL:O	3:CC:106:VAL:HG23	2.11	0.50
6:CF:10:LEU:HA	6:CF:84:ASN:O	2.10	0.50
7:CG:78:ARG:HD2	7:CG:79:ARG:N	2.23	0.50
9:CI:116:LYS:O	9:CI:121:ARG:O	2.30	0.50
12:CL:43:VAL:CG2	12:CL:93:LEU:HD22	2.41	0.50
17:CQ:45:HIS:HB2	17:CQ:69:LYS:HE2	1.94	0.50
25:DA:109:G:N3	25:DA:110:G:C8	2.79	0.50
25:DA:118:A:H5'	25:DA:119:A:H8	1.76	0.50
25:DA:271(Q):G:O2'	25:DA:271(R):G:P	2.69	0.50
25:DA:469:G:OP1	30:DF:59:TYR:HB3	2.11	0.50
25:DA:733:G:C6	25:DA:761:A:N7	2.80	0.50
25:DA:910:A:H2	25:DA:2264:C:O2	1.95	0.50
25:DA:971:C:H2'	25:DA:972:G:O4'	2.12	0.50
25:DA:1049:C:N4	25:DA:1110:G:H21	2.10	0.50
25:DA:1190:G:OP1	36:DP:35:HIS:O	2.29	0.50
25:DA:1503:U:O2'	25:DA:1504:C:H5'	2.10	0.50
25:DA:2262:U:H2'	25:DA:2263:C:C5'	2.42	0.50
25:DA:2886:G:H2'	25:DA:2887:U:H6	1.77	0.50
29:DE:11:MET:HB3	29:DE:24:THR:HA	1.92	0.50
29:DE:181:LEU:HD21	40:DT:7:ILE:CG2	2.42	0.50
30:DF:138:GLU:O	30:DF:139:PHE:C	2.55	0.50
31:DG:82:LEU:CD2	31:DG:87:PRO:HG3	2.41	0.50
31:DG:83:ARG:O	31:DG:84:LYS:HB2	2.10	0.50
31:DG:111:LEU:O	31:DG:114:ILE:HG13	2.12	0.50
32:DH:116:GLU:HG2	32:DH:117:PRO:CD	2.42	0.50
32:DH:140:LYS:HG2	32:DH:140:LYS:O	2.11	0.50
36:DP:9:ASN:O	36:DP:11:GLY:N	2.45	0.50
36:DP:105:LEU:N	36:DP:105:LEU:CD2	2.73	0.50
39:DS:18:ILE:HG23	39:DS:18:ILE:O	2.11	0.50
41:DU:66:ASN:O	41:DU:70:ARG:HB2	2.12	0.50
44:DX:27:THR:HG22	44:DX:80:ILE:CB	2.18	0.50
47:D0:72:ARG:NE	47:D0:75:LEU:HD13	2.26	0.50
53:D6:37:ARG:HG3	53:D6:37:ARG:NH1	2.26	0.50
1:AA:343:G:O2'	1:AA:344:A:OP1	2.30	0.50
1:AA:1324:G:H1'	9:AI:121:ARG:HH12	1.75	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1481:G:H1'	1:AA:1482:G:OP2	2.10	0.50
2:AB:128:GLU:O	2:AB:129:GLU:HG2	2.12	0.50
2:AB:165:VAL:CG2	2:AB:166:ASP:H	2.22	0.50
3:AC:173:VAL:HG12	3:AC:175:LEU:CD1	2.42	0.50
4:AD:96:LEU:HG	4:AD:139:ARG:NH1	2.26	0.50
4:AD:105:VAL:HG13	4:AD:110:PHE:HB2	1.94	0.50
11:AK:13:GLN:HB3	11:AK:75:TYR:O	2.12	0.50
11:AK:99:GLN:NE2	11:AK:105:VAL:HG11	2.26	0.50
12:AL:117:ARG:O	12:AL:119:LYS:O	2.29	0.50
22:AW:38:A:C2'	22:AW:39:U:H5'	2.36	0.50
22:AW:38:A:H3'	22:AW:39:U:H5'	1.93	0.50
23:AV:2:G:N1	23:AV:73:A:C2	2.80	0.50
23:AV:50:G:N1	23:AV:51:U:O2	2.45	0.50
25:BA:614(C):A:O2'	25:BA:615:G:O5'	2.30	0.50
25:BA:760:G:H2'	25:BA:761:A:H5'	1.93	0.50
25:BA:790:C:O2'	25:BA:791:C:OP1	2.30	0.50
25:BA:1049:C:N4	25:BA:1111:A:C2	2.80	0.50
25:BA:1301:A:HO2'	25:BA:1302:A:H2'	1.76	0.50
25:BA:1324:G:H1'	25:BA:1616:A:H62	1.76	0.50
25:BA:1952:A:N6	25:BA:1953:A:H61	2.09	0.50
25:BA:1980:G:O2'	25:BA:1982:C:OP2	2.30	0.50
25:BA:2121:G:H21	27:BC:172:HIS:CB	2.24	0.50
25:BA:2516:G:O2'	25:BA:2517:C:H5''	2.11	0.50
26:BB:66:A:H61	26:BB:108:U:H2'	1.77	0.50
26:BB:79:C:C2'	26:BB:80:U:H5'	2.42	0.50
28:BD:227:ASN:O	28:BD:228:PRO:C	2.55	0.50
31:BG:97:ASP:O	31:BG:101:ILE:CG2	2.60	0.50
33:BI:53:ALA:O	33:BI:57:ARG:HG2	2.12	0.50
33:BI:62:LYS:O	33:BI:62:LYS:HD3	2.12	0.50
36:BP:5:ASP:OD2	36:BP:6:LEU:HD23	2.12	0.50
36:BP:113:LYS:HE2	36:BP:115:LEU:HD13	1.93	0.50
38:BR:52:ILE:O	38:BR:55:ALA:HB3	2.11	0.50
39:BS:73:LEU:O	39:BS:73:LEU:HD23	2.12	0.50
42:BV:18:LEU:CD1	42:BV:18:LEU:N	2.75	0.50
42:BV:18:LEU:N	42:BV:18:LEU:HD12	2.27	0.50
42:BV:62:LEU:N	42:BV:62:LEU:HD22	2.27	0.50
46:BZ:102:LEU:HD13	46:BZ:123:ASP:CA	2.40	0.50
1:CA:19:C:OP1	5:CE:125:SER:OG	2.22	0.50
2:CB:14:GLY:C	2:CB:15:VAL:HG22	2.35	0.50
2:CB:77:ALA:O	2:CB:80:ILE:HG23	2.11	0.50
5:CE:33:VAL:O	5:CE:112:LEU:HD12	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:118:VAL:C	8:CH:119:LEU:HD23	2.37	0.50
9:CI:63:ILE:CD1	9:CI:81:ILE:HD11	2.38	0.50
15:CO:56:LEU:O	15:CO:60:VAL:HG23	2.11	0.50
15:CO:78:TYR:O	15:CO:80:ALA:N	2.44	0.50
15:CO:82:ILE:HD13	15:CO:82:ILE:C	2.37	0.50
20:CT:53:LEU:O	20:CT:54:LYS:C	2.54	0.50
23:CV:54:G:O2'	23:CV:55:U:OP2	2.30	0.50
25:DA:471:A:H2'	25:DA:472:A:C5'	2.42	0.50
25:DA:612:C:C2'	25:DA:613:G:C5'	2.74	0.50
25:DA:614(A):U:H4'	25:DA:614(B):G:H5''	1.93	0.50
25:DA:614(C):A:O2'	25:DA:615:G:O4'	2.30	0.50
25:DA:816:C:H2'	25:DA:817:C:H6	1.77	0.50
25:DA:863:A:P	37:DQ:22:LYS:HG2	2.52	0.50
25:DA:1124:C:H1'	56:D9:36:GLN:OE1	2.12	0.50
25:DA:1247:A:OP1	30:DF:95:ARG:NH2	2.45	0.50
25:DA:1327:C:H2'	25:DA:1328:G:O4'	2.12	0.50
25:DA:1336:A:OP1	44:DX:64:LYS:HE3	2.12	0.50
25:DA:2172:U:O3'	25:DA:2173:A:C8	2.65	0.50
25:DA:2175:C:C1'	27:DC:215:THR:HA	2.42	0.50
25:DA:2729:G:H1'	29:DE:187:ALA:CB	2.42	0.50
28:DD:6:PHE:HB3	28:DD:9:TYR:CE1	2.47	0.50
28:DD:65:ILE:HD13	28:DD:65:ILE:O	2.11	0.50
30:DF:101:LEU:HD12	30:DF:102:PRO:CD	2.39	0.50
31:DG:47:LYS:HD3	31:DG:82:LEU:HG	1.93	0.50
32:DH:139:GLN:CD	32:DH:139:GLN:C	2.79	0.50
33:DI:62:LYS:O	33:DI:62:LYS:HD3	2.12	0.50
34:DN:26:LEU:CD2	34:DN:30:ILE:HD11	2.40	0.50
42:DV:22:VAL:O	42:DV:23:GLU:HB2	2.11	0.50
45:DY:50:ARG:CZ	45:DY:55:TYR:CE1	2.84	0.50
1:AA:204:G:H2'	1:AA:205:G:C8	2.46	0.50
1:AA:1153:C:H2'	1:AA:1154:G:C8	2.47	0.50
2:AB:15:VAL:HG21	2:AB:209:ARG:NH2	2.20	0.50
4:AD:108:LEU:CD1	4:AD:174:LEU:HD13	2.41	0.50
5:AE:6:PHE:HD1	5:AE:63:ARG:HH12	1.59	0.50
9:AI:48:GLU:N	9:AI:49:PRO:CD	2.75	0.50
9:AI:99:LEU:HD12	9:AI:101:PHE:CE1	2.47	0.50
13:AM:90:LEU:O	13:AM:91:ARG:CB	2.59	0.50
23:AV:17:C:OP1	23:AV:62:C:H5'	2.12	0.50
25:BA:289:A:C4	25:BA:353:G:C2	3.00	0.50
25:BA:324:A:N6	25:BA:338:G:O2'	2.44	0.50
25:BA:539:G:H2'	25:BA:540:C:C6	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:557:U:H2'	25:BA:558:G:C8	2.46	0.50
25:BA:614(C):A:O2'	25:BA:615:G:O4'	2.30	0.50
25:BA:1049:C:N4	25:BA:1110:G:H21	2.10	0.50
25:BA:1202:C:C2'	25:BA:1203:G:H5'	2.41	0.50
25:BA:2136:C:N4	25:BA:2155:G:H1	2.10	0.50
25:BA:2171:A:O2'	25:BA:2172:U:O5'	2.30	0.50
25:BA:2840:C:H5''	38:BR:53:HIS:CD2	2.47	0.50
28:BD:106:ILE:O	28:BD:106:ILE:HG23	2.11	0.50
30:BF:3:GLU:HA	30:BF:24:LEU:HB3	1.93	0.50
31:BG:26:GLN:C	31:BG:28:VAL:H	2.19	0.50
31:BG:41:GLN:HB3	31:BG:43:LEU:HD21	1.93	0.50
32:BH:35:VAL:HG21	32:BH:75:ALA:HB2	1.94	0.50
32:BH:87:LEU:HD23	32:BH:164:TYR:HA	1.94	0.50
34:BN:3:THR:HG22	34:BN:5:VAL:HG12	1.94	0.50
38:BR:42:LYS:O	38:BR:45:ARG:HG2	2.11	0.50
41:BU:79:PHE:CD2	41:BU:79:PHE:C	2.90	0.50
48:B1:27:GLU:O	48:B1:28:GLY:C	2.55	0.50
53:B6:37:ARG:HG3	53:B6:37:ARG:NH1	2.26	0.50
1:CA:486:C:O2'	1:CA:487:C:H5'	2.12	0.50
1:CA:981:G:H2'	1:CA:982:A:H4'	1.93	0.50
1:CA:1302:C:H3'	1:CA:1303:C:H5''	1.94	0.50
2:CB:165:VAL:CG2	2:CB:166:ASP:H	2.21	0.50
4:CD:4:TYR:O	4:CD:5:ILE:HB	2.12	0.50
4:CD:56:VAL:HG12	4:CD:202:LEU:HD13	1.94	0.50
11:CK:80:VAL:HG13	11:CK:103:LEU:HD11	1.94	0.50
12:CL:28:LYS:HG3	12:CL:33:ARG:CZ	2.41	0.50
20:CT:72:LEU:HD21	20:CT:77:ALA:CA	2.42	0.50
22:CW:24:G:H2'	22:CW:25:C:H6	1.77	0.50
22:CW:57:G:H2'	22:CW:57:G:N3	2.27	0.50
25:DA:185:U:H4'	25:DA:218:A:H4'	1.94	0.50
25:DA:324:A:N6	25:DA:338:G:O2'	2.44	0.50
25:DA:790:C:O2'	25:DA:791:C:O5'	2.30	0.50
25:DA:1335:U:H2'	25:DA:1336:A:H8	1.76	0.50
25:DA:1899:G:H22	25:DA:1902:C:H41	1.56	0.50
25:DA:2178:C:H2'	25:DA:2179:C:H6	1.76	0.50
25:DA:2261:C:O4'	25:DA:2388:A:H1'	2.11	0.50
25:DA:2824:C:H2'	25:DA:2825:C:O4'	2.12	0.50
25:DA:2887:U:H2'	25:DA:2888:C:C6	2.47	0.50
29:DE:15:PHE:CE2	40:DT:80:SER:CB	2.95	0.50
29:DE:178:GLU:HG3	29:DE:179:GLU:OE1	2.12	0.50
30:DF:20:LEU:HD22	30:DF:203:GLN:OE1	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DF:127:GLU:HB2	30:DF:196:LEU:HG	1.94	0.50
30:DF:136:THR:HG23	30:DF:137:LYS:N	2.27	0.50
31:DG:41:GLN:HB3	31:DG:43:LEU:HD21	1.94	0.50
31:DG:109:VAL:HB	31:DG:142:PRO:HG3	1.93	0.50
31:DG:172:LEU:HG	31:DG:176:LEU:CD1	2.41	0.50
33:DI:123:LEU:HD22	33:DI:142:VAL:HG12	1.94	0.50
36:DP:13:ASN:OD1	36:DP:13:ASN:C	2.54	0.50
39:DS:90:GLY:O	39:DS:92:TYR:N	2.35	0.50
40:DT:13:ARG:C	40:DT:15:VAL:H	2.19	0.50
40:DT:29:ARG:HA	40:DT:29:ARG:NH1	2.26	0.50
40:DT:62:THR:HG22	40:DT:75:ILE:HG12	1.94	0.50
44:DX:80:ILE:HD13	44:DX:80:ILE:O	2.12	0.50
1:AA:103:C:O2'	16:AP:25:ARG:O	2.28	0.50
1:AA:435:A:H8	1:AA:435:A:OP2	1.94	0.50
1:AA:1281:G:O2'	1:AA:1282:U:O5'	2.30	0.50
1:AA:1281:G:O2'	1:AA:1282:U:OP2	2.30	0.50
1:AA:1281:G:H2'	1:AA:1282:U:OP2	2.12	0.50
2:AB:157:ARG:O	2:AB:158:LEU:C	2.55	0.50
3:AC:35:GLU:HA	3:AC:38:ARG:CD	2.42	0.50
5:AE:41:VAL:CG1	5:AE:113:ALA:CA	2.89	0.50
5:AE:53:LEU:HD12	5:AE:53:LEU:N	2.23	0.50
5:AE:136:MET:C	5:AE:138:ALA:N	2.67	0.50
10:AJ:4:ILE:HB	10:AJ:74:ILE:CD1	2.36	0.50
10:AJ:8:LEU:HD23	10:AJ:96:ILE:HG22	1.91	0.50
10:AJ:58:ASP:O	10:AJ:59:SER:C	2.55	0.50
11:AK:80:VAL:HG13	11:AK:103:LEU:CD1	2.42	0.50
14:AN:47:LEU:HA	14:AN:50:LYS:CD	2.42	0.50
20:AT:50:GLU:HG3	20:AT:51:GLU:N	2.27	0.50
22:AY:38:A:N3	22:AY:38:A:C2'	2.71	0.50
25:BA:65:C:O2'	25:BA:66:C:H5'	2.11	0.50
25:BA:149:A:H2'	25:BA:150:C:O4'	2.12	0.50
25:BA:614(C):A:H1'	30:BF:180:GLY:O	2.11	0.50
25:BA:2261:C:O4'	25:BA:2388:A:H1'	2.11	0.50
25:BA:2282:G:O2'	25:BA:2283:C:OP2	2.28	0.50
26:BB:87:G:C3'	26:BB:88:C:H5''	2.42	0.50
29:BE:184:VAL:CG1	29:BE:185:LYS:H	2.12	0.50
35:BO:62:VAL:HA	35:BO:84:ALA:HB2	1.94	0.50
37:BQ:39:PRO:O	37:BQ:40:ALA:HB2	2.12	0.50
38:BR:28:LEU:HA	38:BR:34:ILE:HG13	1.94	0.50
40:BT:74:ARG:HB3	40:BT:76:PHE:HE2	1.77	0.50
41:BU:45:TYR:O	41:BU:46:ALA:C	2.55	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BW:97:LYS:O	43:BW:99:ARG:N	2.45	0.50
45:BY:88:LYS:NZ	45:BY:93:GLY:HA3	2.26	0.50
46:BZ:136:PHE:CD1	46:BZ:137:ILE:N	2.80	0.50
49:B2:46:GLN:O	49:B2:49:LYS:HB2	2.12	0.50
52:B5:3:LYS:HG3	52:B5:4:HIS:H	1.76	0.50
1:CA:558:G:H4'	1:CA:559:G:H5''	1.93	0.50
1:CA:764:A:O2'	1:CA:1499:U:O2	2.30	0.50
1:CA:1036:C:C4	22:CY:34:G:H1'	2.47	0.50
1:CA:1117:U:HO2'	1:CA:1118:U:H5	1.58	0.50
1:CA:1184:C:H2'	1:CA:1185:A:C8	2.45	0.50
1:CA:1354:U:C4	1:CA:1355:G:C5	3.00	0.50
1:CA:1384:C:H2'	1:CA:1385:C:O4'	2.12	0.50
2:CB:101:MET:HA	2:CB:108:ILE:HG21	1.94	0.50
3:CC:53:ALA:O	3:CC:54:ARG:HB2	2.12	0.50
4:CD:11:LEU:C	4:CD:13:ARG:N	2.63	0.50
6:CF:45:LEU:O	6:CF:46:ARG:HG2	2.11	0.50
9:CI:89:ASN:HB3	9:CI:92:TYR:CD1	2.46	0.50
11:CK:19:ALA:HB3	11:CK:82:VAL:HG23	1.94	0.50
17:CQ:63:ARG:HG2	17:CQ:64:PRO:CD	2.41	0.50
19:CS:35:SER:C	19:CS:37:ARG:N	2.70	0.50
23:CV:35:C:O2'	23:CV:36:A:OP1	2.30	0.50
25:DA:149:A:H2'	25:DA:150:C:O4'	2.12	0.50
25:DA:770:G:O3'	54:D7:10:ARG:NH1	2.45	0.50
25:DA:800:A:C5	25:DA:802:A:O4'	2.64	0.50
26:DB:83:G:C2'	26:DB:84:C:O5'	2.60	0.50
26:DB:85:G:N1	26:DB:93:G:C6	2.80	0.50
32:DH:30:LYS:NZ	32:DH:83:TYR:HE1	2.10	0.50
32:DH:157:TYR:O	32:DH:158:HIS:HB2	2.12	0.50
33:DI:131:LYS:HG3	33:DI:132:PRO:CD	2.41	0.50
34:DN:42:TRP:HA	34:DN:42:TRP:CE3	2.47	0.50
37:DQ:12:GLN:NE2	37:DQ:72:LYS:HG3	2.26	0.50
39:DS:15:ARG:C	39:DS:17:ARG:N	2.68	0.50
41:DU:79:PHE:C	41:DU:79:PHE:CD2	2.90	0.50
42:DV:18:LEU:CD1	42:DV:18:LEU:N	2.75	0.50
43:DW:10:VAL:O	43:DW:11:ARG:CB	2.59	0.50
46:DZ:7:ALA:C	46:DZ:8:TYR:CD1	2.90	0.50
47:D0:11:ARG:NH1	47:D0:11:ARG:HB2	2.26	0.50
49:D2:17:SER:HB3	49:D2:20:GLU:HB3	1.93	0.50
54:D7:41:ARG:HB2	54:D7:41:ARG:HH11	1.76	0.50
1:AA:537:C:C2	1:AA:538:C:C5	3.00	0.49
1:AA:980:G:N2	1:AA:1021:C:O2	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1050:G:P	1:AA:1076:G:H5'	2.52	0.49
1:AA:1286:G:OP2	1:AA:1286:G:C8	2.64	0.49
2:AB:63:MET:C	2:AB:65:GLY:N	2.69	0.49
2:AB:164:VAL:HB	2:AB:186:ALA:HB1	1.94	0.49
4:AD:57:ARG:HG3	4:AD:57:ARG:NH1	2.27	0.49
8:AH:85:ARG:HD3	8:AH:86:ILE:N	2.27	0.49
9:AI:118:LYS:HZ3	9:AI:118:LYS:HB3	1.77	0.49
11:AK:80:VAL:HG13	11:AK:103:LEU:HD11	1.93	0.49
11:AK:126:ARG:C	11:AK:128:ALA:N	2.70	0.49
12:AL:59:ARG:HA	12:AL:65:GLU:HA	1.94	0.49
17:AQ:33:GLY:O	17:AQ:34:LYS:C	2.54	0.49
22:AW:52:G:C2	22:AW:63:G:N1	2.80	0.49
25:BA:225:A:C2'	25:BA:226:G:H5'	2.42	0.49
25:BA:329:G:OP2	45:BY:71:LYS:HD3	2.11	0.49
25:BA:729:G:HO2'	25:BA:763:G:H4'	1.75	0.49
25:BA:910:A:C6	37:BQ:13:GLN:HG3	2.46	0.49
25:BA:912:C:H2'	25:BA:912:C:O2	2.10	0.49
25:BA:1578:U:H2'	25:BA:1578:U:O2	2.12	0.49
25:BA:2075:U:N3	25:BA:2238:G:C6	2.80	0.49
25:BA:2629:A:H8	25:BA:2895:U:H3	1.57	0.49
25:BA:2845:G:OP1	40:BT:56:GLY:N	2.43	0.49
26:BB:7:G:H21	39:BS:38:GLN:NE2	2.10	0.49
28:BD:112:GLN:N	28:BD:115:GLN:NE2	2.60	0.49
28:BD:125:ILE:HD12	28:BD:136:ILE:HG23	1.94	0.49
29:BE:101:ARG:HB2	29:BE:201:THR:CG2	2.41	0.49
31:BG:123:ASN:C	31:BG:125:PHE:H	2.19	0.49
36:BP:7:ARG:HA	36:BP:7:ARG:HE	1.77	0.49
36:BP:35:HIS:O	36:BP:36:LYS:HB2	2.12	0.49
40:BT:23:ARG:O	40:BT:25:GLY:N	2.45	0.49
49:B2:13:ALA:O	49:B2:15:LYS:N	2.45	0.49
1:CA:935:A:C6	1:CA:936:A:C6	3.00	0.49
1:CA:1278:C:O2'	7:CG:114:ARG:NH2	2.45	0.49
2:CB:97:TRP:HZ2	2:CB:102:LEU:HD13	1.77	0.49
12:CL:28:LYS:CG	12:CL:33:ARG:HH22	2.23	0.49
22:CW:26:A:H2'	22:CW:27:G:H8	1.77	0.49
25:DA:9:U:O2'	25:DA:10:G:P	2.69	0.49
25:DA:225:A:C2'	25:DA:226:G:H5'	2.42	0.49
25:DA:285:C:H5''	25:DA:286:C:OP2	2.11	0.49
25:DA:308:G:HO2'	25:DA:329:G:N2	2.10	0.49
25:DA:443:A:H1'	25:DA:1201:C:O4'	2.12	0.49
28:DD:65:ILE:HD11	28:DD:67:PHE:CE1	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DF:28:ILE:CG2	30:DF:116:ASP:HB2	2.41	0.49
31:DG:26:GLN:C	31:DG:28:VAL:H	2.19	0.49
31:DG:33:ARG:HB2	31:DG:162:THR:HG21	1.94	0.49
32:DH:85:LYS:HE2	32:DH:145:ALA:CA	2.42	0.49
36:DP:56:SER:O	36:DP:57:THR:C	2.54	0.49
37:DQ:51:ARG:O	37:DQ:55:VAL:HG12	2.10	0.49
39:DS:29:PHE:CD2	39:DS:29:PHE:C	2.88	0.49
39:DS:34:HIS:NE2	39:DS:54:LEU:HB2	2.25	0.49
40:DT:53:ARG:HH11	40:DT:55:ASN:CB	2.16	0.49
40:DT:55:ASN:CG	40:DT:58:ASN:OD1	2.54	0.49
43:DW:97:LYS:O	43:DW:99:ARG:N	2.45	0.49
46:DZ:8:TYR:CD1	46:DZ:8:TYR:N	2.80	0.49
47:D0:6:GLY:O	47:D0:7:LEU:HD23	2.12	0.49
47:D0:11:ARG:HH11	47:D0:11:ARG:HB2	1.75	0.49
1:AA:752:G:H4'	1:AA:1490:A:H4'	1.94	0.49
1:AA:1049:A:O2'	1:AA:1050:G:OP2	2.30	0.49
2:AB:73:THR:HG22	2:AB:95:GLN:O	2.11	0.49
2:AB:187:LEU:HA	2:AB:201:ILE:HB	1.95	0.49
6:AF:8:ILE:HG12	6:AF:88:VAL:HG22	1.94	0.49
6:AF:36:ARG:O	6:AF:65:VAL:HB	2.11	0.49
8:AH:103:VAL:HG12	8:AH:108:GLY:HA3	1.94	0.49
11:AK:12:ARG:HH21	11:AK:14:VAL:CG1	2.23	0.49
12:AL:113:ARG:HH11	12:AL:113:ARG:HG2	1.76	0.49
13:AM:7:VAL:HG21	31:BG:115:ARG:HG2	1.94	0.49
14:AN:7:ILE:O	14:AN:11:LYS:HE3	2.12	0.49
15:AO:54:ARG:HG3	15:AO:58:MET:HE2	1.93	0.49
16:AP:39:TYR:CZ	16:AP:41:PRO:HA	2.46	0.49
17:AQ:63:ARG:HG2	17:AQ:64:PRO:CD	2.42	0.49
18:AR:47:THR:HG21	18:AR:49:LYS:HE2	1.93	0.49
22:AW:11:C:H2'	22:AW:12:U:C6	2.46	0.49
23:AV:40:C:H2'	23:AV:41:C:H5'	1.94	0.49
25:BA:445:C:OP1	41:BU:2:PRO:HA	2.11	0.49
25:BA:587:C:H4'	25:BA:588:U:H5'	1.95	0.49
25:BA:664:C:H4'	25:BA:941:A:P	2.52	0.49
25:BA:733:G:C6	25:BA:761:A:N7	2.80	0.49
25:BA:910:A:H2	25:BA:2264:C:O2	1.95	0.49
25:BA:1000:A:H8	25:BA:1000:A:H5'	1.76	0.49
25:BA:1175:U:H4'	25:BA:1176:G:C2'	2.42	0.49
25:BA:1287:A:N7	25:BA:1288:U:C4	2.80	0.49
25:BA:1308:A:H2'	25:BA:1309:G:O4'	2.12	0.49
25:BA:1329:U:C5'	25:BA:1330:C:H5	2.25	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2104:G:N3	25:BA:2104:G:H5'	2.27	0.49
25:BA:2420:C:OP2	55:B8:33:ASN:O	2.30	0.49
25:BA:2749:A:H1'	32:BH:63:SER:OG	2.12	0.49
25:BA:2824:C:H2'	25:BA:2825:C:O4'	2.12	0.49
27:BC:36:LYS:HB2	27:BC:36:LYS:NZ	2.25	0.49
27:BC:43:VAL:O	27:BC:43:VAL:HG12	2.12	0.49
28:BD:108:PRO:HB3	28:BD:143:HIS:HE1	1.75	0.49
29:BE:188:VAL:O	29:BE:188:VAL:HG13	2.13	0.49
31:BG:41:GLN:HB3	31:BG:43:LEU:CD2	2.42	0.49
31:BG:137:GLU:HG2	31:BG:152:LEU:CD1	2.43	0.49
32:BH:85:LYS:HE2	32:BH:145:ALA:CA	2.42	0.49
33:BI:31:LEU:HB2	33:BI:32:PRO:HD3	1.93	0.49
34:BN:26:LEU:HG	34:BN:30:ILE:HD11	1.93	0.49
34:BN:42:TRP:HA	34:BN:42:TRP:CE3	2.47	0.49
36:BP:9:ASN:O	36:BP:11:GLY:N	2.45	0.49
39:BS:89:ARG:CB	39:BS:92:TYR:HB3	2.36	0.49
39:BS:101:LEU:H	39:BS:101:LEU:HD13	1.77	0.49
41:BU:62:ILE:HD12	41:BU:76:TYR:OH	2.13	0.49
43:BW:10:VAL:O	43:BW:11:ARG:CB	2.59	0.49
1:CA:125:C:C2	1:CA:126:C:C5	2.99	0.49
1:CA:391:G:O2'	1:CA:393:C:OP1	2.17	0.49
1:CA:542:A:H4'	1:CA:543:U:H3'	1.93	0.49
1:CA:1018:G:H3'	1:CA:1019:C:H6	1.77	0.49
1:CA:1052:U:H2'	1:CA:1053:C:C6	2.47	0.49
1:CA:1236:G:H5'	3:CC:26:LYS:HZ2	1.76	0.49
2:CB:103:THR:OG1	2:CB:176:GLU:HG2	2.12	0.49
6:CF:82:ARG:HB3	6:CF:82:ARG:NH1	2.26	0.49
11:CK:44:SER:OG	11:CK:47:VAL:HG23	2.12	0.49
11:CK:126:ARG:C	11:CK:128:ALA:N	2.70	0.49
13:CM:108:ARG:O	13:CM:111:LYS:O	2.30	0.49
23:CV:16:C:H3'	23:CV:17:C:C5'	2.42	0.49
25:DA:94(A):G:H2'	25:DA:95:G:H5''	1.92	0.49
25:DA:407:G:H2'	25:DA:408:G:H8	1.77	0.49
25:DA:758:C:C2'	25:DA:759:G:H5'	2.41	0.49
25:DA:1233:C:O2'	25:DA:1234:U:H5'	2.13	0.49
25:DA:1268:A:C2	25:DA:2013:A:C4	3.00	0.49
25:DA:1786:A:H2	25:DA:2606:C:H1'	1.77	0.49
25:DA:1902:C:H2'	25:DA:1903:G:O5'	2.12	0.49
25:DA:1999:C:H5''	25:DA:2723:C:O2'	2.12	0.49
25:DA:2136:C:N4	25:DA:2155:G:H1	2.09	0.49
25:DA:2704:C:H2'	25:DA:2705:A:O4'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DB:88:C:N4	26:DB:89:G:C2	2.80	0.49
27:DC:74:VAL:HG23	27:DC:91:ALA:HB2	1.93	0.49
27:DC:182:PRO:O	27:DC:183:GLU:CB	2.61	0.49
28:DD:142:VAL:HG22	28:DD:143:HIS:N	2.27	0.49
29:DE:36:ARG:HH12	29:DE:86:PRO:HD2	1.76	0.49
29:DE:59:VAL:HG13	29:DE:60:ASN:N	2.27	0.49
30:DF:75:HIS:HE1	30:DF:82:ILE:HD11	1.76	0.49
34:DN:30:ILE:HG23	34:DN:52:VAL:HG11	1.93	0.49
36:DP:61:ARG:NH1	55:D8:13:ARG:NE	2.60	0.49
36:DP:114:ILE:HG22	36:DP:127:ALA:CB	2.41	0.49
38:DR:42:LYS:O	38:DR:45:ARG:HG2	2.11	0.49
42:DV:75:PHE:CD1	42:DV:75:PHE:C	2.90	0.49
46:DZ:44:PHE:C	46:DZ:44:PHE:CD1	2.90	0.49
47:D0:41:ARG:HD2	47:D0:41:ARG:N	2.17	0.49
49:D2:8:LYS:O	49:D2:9:GLN:C	2.55	0.49
50:D3:1:MET:CE	50:D3:41:PRO:HD3	2.43	0.49
55:D8:33:ASN:HA	55:D8:36:LYS:HD2	1.94	0.49
1:AA:762:C:O2'	11:AK:120:ARG:HD3	2.12	0.49
1:AA:1293:G:C2	1:AA:1294:U:C4	3.00	0.49
1:AA:1481:G:O4'	1:AA:1482:G:OP2	2.30	0.49
3:AC:15:THR:HG22	3:AC:16:ARG:H	1.75	0.49
5:AE:87:SER:HB3	5:AE:131:ILE:HD11	1.94	0.49
7:AG:150:ALA:HB2	11:AK:50:TYR:CZ	2.47	0.49
11:AK:99:GLN:HE21	11:AK:105:VAL:HG11	1.77	0.49
14:AN:37:PHE:CE1	14:AN:53:LEU:HD22	2.48	0.49
17:AQ:18:THR:O	17:AQ:19:VAL:HG13	2.13	0.49
18:AR:74:ARG:HH21	18:AR:81:PHE:HA	1.76	0.49
19:AS:72:GLY:C	19:AS:74:PHE:H	2.21	0.49
20:AT:58:LYS:O	20:AT:61:SER:HB3	2.12	0.49
22:AW:52:G:H1	22:AW:62:C:H42	1.58	0.49
23:AV:9:G:C6	23:AV:47:G:C2	3.00	0.49
23:AV:35:C:O2'	23:AV:36:A:O5'	2.30	0.49
25:BA:302:C:H2'	25:BA:303:U:H6	1.78	0.49
25:BA:402:A:H2'	25:BA:403:U:H5'	1.94	0.49
25:BA:952:G:N1	25:BA:953:A:C5	2.81	0.49
25:BA:1345:C:O2'	25:BA:1346:G:H5'	2.12	0.49
25:BA:1902:C:H2'	25:BA:1903:G:O5'	2.12	0.49
25:BA:2691:C:H5'	25:BA:2691:C:C6	2.43	0.49
28:BD:134:ARG:HD3	28:BD:135:PHE:CZ	2.48	0.49
29:BE:52:LEU:HD23	29:BE:76:ARG:CA	2.42	0.49
31:BG:167:GLU:O	31:BG:170:ARG:N	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BI:19:VAL:HG22	33:BI:20:ASP:N	2.27	0.49
33:BI:58:LEU:N	33:BI:61:ARG:HE	2.10	0.49
34:BN:55:VAL:HG22	34:BN:126:PRO:CA	2.41	0.49
37:BQ:38:GLU:HG3	37:BQ:127:ILE:HB	1.94	0.49
38:BR:38:VAL:HB	38:BR:39:PRO:CD	2.37	0.49
38:BR:111:LEU:HD22	38:BR:111:LEU:N	2.27	0.49
39:BS:89:ARG:HB3	39:BS:92:TYR:CB	2.35	0.49
39:BS:93:LYS:O	39:BS:94:TYR:C	2.54	0.49
41:BU:104:GLN:HB3	42:BV:44:LYS:NZ	2.27	0.49
41:BU:112:ARG:HH11	41:BU:112:ARG:HG2	1.77	0.49
44:BX:12:VAL:CG2	44:BX:13:LEU:H	1.91	0.49
46:BZ:7:ALA:C	46:BZ:8:TYR:CD1	2.90	0.49
55:B8:49:VAL:HG23	55:B8:53:PRO:HB3	1.95	0.49
1:CA:328:G:O2'	1:CA:329:C:H5'	2.12	0.49
1:CA:340:C:H2'	40:DT:41:ARG:HH21	1.76	0.49
1:CA:441:G:H8	1:CA:441:G:O5'	1.95	0.49
1:CA:676:G:H1'	7:CG:82:GLY:HA3	1.94	0.49
1:CA:916:G:C6	1:CA:917:C:N4	2.80	0.49
1:CA:953:G:N2	1:CA:1343:C:H2'	2.27	0.49
1:CA:1201:G:H2'	1:CA:1202:G:H8	1.78	0.49
2:CB:194:PRO:CB	2:CB:200:ILE:HD13	2.42	0.49
7:CG:52:GLU:C	7:CG:54:THR:H	2.20	0.49
7:CG:73:MET:CG	7:CG:90:GLU:HA	2.31	0.49
8:CH:51:VAL:HG11	8:CH:60:ARG:CG	2.42	0.49
13:CM:97:PRO:N	13:CM:110:ARG:HD3	2.26	0.49
25:DA:42:G:H2'	25:DA:43:A:O4'	2.12	0.49
25:DA:528:A:C8	25:DA:528:A:C3'	2.95	0.49
25:DA:860:U:OP2	25:DA:916:G:N1	2.44	0.49
25:DA:2167:U:O2'	25:DA:2168:G:H5'	2.13	0.49
25:DA:2208:A:H1'	25:DA:2219:G:C4	2.47	0.49
25:DA:2376:A:C2	39:DS:94:TYR:CE1	2.99	0.49
25:DA:2734:A:H5'	25:DA:2735:G:OP2	2.12	0.49
25:DA:2876:G:H4'	40:DT:3:ARG:HA	1.94	0.49
29:DE:101:ARG:HH21	29:DE:171:GLU:HA	1.77	0.49
33:DI:31:LEU:HB2	33:DI:32:PRO:HD3	1.93	0.49
36:DP:61:ARG:CD	55:D8:13:ARG:HD2	2.42	0.49
41:DU:61:TRP:O	41:DU:63:VAL:N	2.45	0.49
42:DV:69:LYS:HA	42:DV:88:ARG:CG	2.39	0.49
42:DV:82:ARG:HG2	42:DV:82:ARG:NH1	2.27	0.49
45:DY:86:ARG:NH1	45:DY:95:LYS:HZ1	2.10	0.49
56:D9:7:VAL:HG13	56:D9:34:GLN:CB	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:330:C:O2	1:AA:1415:A:H2	1.96	0.49
1:AA:626:C:H5'	8:AH:31:PHE:CE1	2.48	0.49
1:AA:1171:G:H5'	3:AC:176:HIS:NE2	2.28	0.49
1:AA:1281:G:O4'	1:AA:1281:G:OP2	2.30	0.49
1:AA:1422:C:C3'	1:AA:1423:G:H5'	2.42	0.49
2:AB:17:PHE:N	2:AB:17:PHE:CD2	2.80	0.49
3:AC:70:VAL:CG1	3:AC:71:ALA:H	2.23	0.49
3:AC:83:ARG:O	3:AC:87:LEU:HG	2.12	0.49
3:AC:120:VAL:O	3:AC:121:ALA:C	2.55	0.49
7:AG:48:LYS:O	7:AG:52:GLU:HB2	2.11	0.49
9:AI:96:LEU:HG	9:AI:102:LEU:HB2	1.94	0.49
10:AJ:6:ILE:HG22	10:AJ:98:ILE:HG13	1.94	0.49
15:AO:60:VAL:HG21	25:BA:715:G:C1'	2.43	0.49
15:AO:74:ASP:HB3	15:AO:77:ARG:HG2	1.94	0.49
17:AQ:45:HIS:CG	17:AQ:65:ILE:HD13	2.47	0.49
18:AR:53:ARG:NE	18:AR:58:LEU:O	2.41	0.49
20:AT:8:ARG:HH11	20:AT:8:ARG:HG3	1.77	0.49
23:AV:6:G:N2	23:AV:69:C:C2	2.81	0.49
25:BA:528:A:C8	25:BA:528:A:C3'	2.96	0.49
25:BA:614(C):A:O2'	25:BA:615:G:C4'	2.60	0.49
25:BA:1188:U:H4'	42:BV:79:VAL:HG22	1.93	0.49
25:BA:1578:U:H2'	25:BA:1579:A:H5'	1.94	0.49
25:BA:2108:C:O2'	25:BA:2109:U:H5'	2.12	0.49
25:BA:2178:C:H2'	25:BA:2179:C:H6	1.76	0.49
25:BA:2483:C:C5'	25:BA:2484:G:OP2	2.61	0.49
25:BA:2632:A:O2'	29:BE:61:ARG:NH2	2.44	0.49
29:BE:72:VAL:O	29:BE:73:GLU:C	2.54	0.49
29:BE:176:ILE:HG22	29:BE:176:ILE:O	2.13	0.49
30:BF:11:VAL:C	30:BF:13:SER:N	2.68	0.49
30:BF:136:THR:HG23	30:BF:137:LYS:N	2.27	0.49
30:BF:158:THR:HG23	30:BF:164:ARG:HE	1.77	0.49
40:BT:27:THR:HA	40:BT:88:ILE:H	1.76	0.49
41:BU:96:ALA:HB1	41:BU:106:PHE:HE1	1.77	0.49
41:BU:99:ALA:HB2	41:BU:106:PHE:CG	2.48	0.49
44:BX:80:ILE:HD13	44:BX:80:ILE:O	2.12	0.49
45:BY:68:HIS:HB3	45:BY:71:LYS:CG	2.43	0.49
48:B1:58:ILE:HD12	48:B1:91:LYS:HA	1.93	0.49
55:B8:63:PRO:HB2	55:B8:64:TYR:HD1	1.78	0.49
56:B9:7:VAL:HG13	56:B9:34:GLN:CB	2.43	0.49
1:CA:156:A:N7	1:CA:157:C:H1'	2.27	0.49
1:CA:562:G:H5'	1:CA:711:A:H1'	1.92	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:685:A:C6	25:DA:1848:A:C6	3.00	0.49
1:CA:817:C:OP1	18:CR:60:ALA:HB2	2.12	0.49
2:CB:207:ALA:HB1	2:CB:209:ARG:HG2	1.94	0.49
3:CC:3:ASN:CG	3:CC:4:LYS:N	2.69	0.49
4:CD:29:PRO:C	4:CD:30:LYS:HG2	2.38	0.49
7:CG:16:LEU:HD12	9:CI:42:ARG:HA	1.94	0.49
8:CH:64:LYS:HG2	8:CH:79:VAL:HG21	1.95	0.49
9:CI:104:ARG:O	9:CI:105:ASP:C	2.51	0.49
11:CK:99:GLN:NE2	11:CK:105:VAL:HG11	2.27	0.49
14:CN:23:ARG:O	14:CN:24:CYS:C	2.54	0.49
15:CO:25:THR:O	15:CO:26:GLU:C	2.55	0.49
22:CW:1:G:C6	22:CW:73:A:C2	3.00	0.49
22:CW:35:A:N6	22:CW:36:A:N6	2.61	0.49
22:CW:55:U:C5	22:CW:57:G:H5'	2.48	0.49
23:CV:47:G:H3'	23:CV:47:G:C8	2.47	0.49
25:DA:99:U:C4'	25:DA:102:G:H1'	2.42	0.49
25:DA:103:A:C3'	25:DA:104:U:H5'	2.40	0.49
25:DA:251:A:C5'	36:DP:51:PHE:CZ	2.96	0.49
25:DA:433:C:H2'	25:DA:434:U:C6	2.47	0.49
25:DA:866:A:N1	25:DA:914:C:C5	2.80	0.49
25:DA:1007:C:OP1	34:DN:35:ARG:NH1	2.46	0.49
25:DA:1238:G:H2'	25:DA:1239:G:H8	1.77	0.49
25:DA:1301:A:H2'	25:DA:1302:A:H3'	1.94	0.49
25:DA:1496:A:C8	25:DA:1577:C:O2'	2.65	0.49
25:DA:1885:A:H2'	25:DA:1886:C:O4'	2.12	0.49
25:DA:2171:A:O2'	25:DA:2172:U:O5'	2.30	0.49
25:DA:2667:C:H1'	32:DH:109:PHE:CD2	2.48	0.49
25:DA:2685:G:H5''	35:DO:68:GLU:OE1	2.11	0.49
25:DA:2838:G:H2'	25:DA:2839:G:C8	2.47	0.49
27:DC:43:VAL:HG12	27:DC:43:VAL:O	2.12	0.49
28:DD:26:LYS:CE	28:DD:82:ILE:N	2.72	0.49
28:DD:172:TYR:HD1	28:DD:186:HIS:CA	2.21	0.49
31:DG:167:GLU:O	31:DG:170:ARG:N	2.45	0.49
36:DP:7:ARG:O	36:DP:10:PRO:CD	2.54	0.49
41:DU:92:ARG:CD	42:DV:11:GLN:CD	2.82	0.49
41:DU:99:ALA:HB2	41:DU:106:PHE:CD1	2.47	0.49
45:DY:42:VAL:HG12	45:DY:44:ILE:HG13	1.94	0.49
46:DZ:151:HIS:HB2	46:DZ:168:GLU:O	2.12	0.49
49:D2:13:ALA:O	49:D2:15:LYS:N	2.45	0.49
53:D6:46:HIS:CD2	53:D6:46:HIS:C	2.91	0.49
55:D8:21:LYS:HD3	55:D8:48:PHE:CE2	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:345:G:C6	1:AA:346:G:O6	2.65	0.49
1:AA:668:G:C2	1:AA:669:U:C5	3.00	0.49
1:AA:786:G:H8	1:AA:786:G:O5'	1.94	0.49
1:AA:1104:U:O4	1:AA:1105:A:N6	2.45	0.49
1:AA:1399:G:N2	1:AA:1459:G:H2'	2.28	0.49
1:AA:1428:C:H2'	1:AA:1429:C:H6	1.77	0.49
2:AB:107:THR:HG23	2:AB:110:GLN:HE22	1.77	0.49
4:AD:30:LYS:CA	4:AD:35:ARG:HD2	2.43	0.49
6:AF:8:ILE:HG22	6:AF:9:VAL:N	2.28	0.49
7:AG:62:PHE:HA	7:AG:124:LEU:HD23	1.95	0.49
9:AI:10:ARG:CD	9:AI:105:ASP:CB	2.90	0.49
12:AL:60:LEU:N	12:AL:60:LEU:HD22	2.28	0.49
12:AL:75:HIS:CD2	12:AL:77:LEU:HB2	2.48	0.49
19:AS:33:THR:OG1	19:AS:34:TRP:N	2.44	0.49
19:AS:43:GLU:O	19:AS:45:VAL:N	2.40	0.49
22:AW:57:G:H21	22:AW:58:A:H4'	1.77	0.49
23:AV:68:C:C4	23:AV:69:C:C5	3.01	0.49
25:BA:42:G:H2'	25:BA:43:A:O4'	2.12	0.49
25:BA:686:G:O6	54:B7:12:ARG:HG3	2.12	0.49
25:BA:1171:G:H5''	25:BA:1173:G:C4'	2.40	0.49
25:BA:1479:G:H5'	25:BA:1558:A:C2	2.47	0.49
25:BA:2172:U:O3'	25:BA:2173:A:C8	2.65	0.49
26:BB:106:G:H4'	46:BZ:31:ARG:HG3	1.94	0.49
27:BC:77:ILE:O	27:BC:77:ILE:HG23	2.13	0.49
32:BH:30:LYS:NZ	32:BH:83:TYR:HE1	2.10	0.49
33:BI:92:VAL:O	33:BI:93:THR:O	2.31	0.49
36:BP:51:PHE:CD2	36:BP:52:GLU:O	2.65	0.49
37:BQ:32:TYR:CZ	37:BQ:111:GLU:HB2	2.48	0.49
46:BZ:85:HIS:C	46:BZ:85:HIS:ND1	2.70	0.49
55:B8:33:ASN:HA	55:B8:36:LYS:HD2	1.94	0.49
1:CA:705:A:H2'	1:CA:707:G:C8	2.48	0.49
1:CA:893:G:H2'	1:CA:894:G:H8	1.78	0.49
1:CA:1266:A:H4'	1:CA:1267:A:O5'	2.13	0.49
1:CA:1319:G:H21	23:CV:42:C:H1'	1.77	0.49
1:CA:1331:A:N6	1:CA:1355:G:N2	2.61	0.49
2:CB:91:PRO:HG2	2:CB:155:LEU:CD2	2.34	0.49
2:CB:187:LEU:HA	2:CB:201:ILE:HB	1.95	0.49
3:CC:59:ARG:HG2	3:CC:64:VAL:HG12	1.94	0.49
7:CG:22:LEU:HG	7:CG:62:PHE:HE2	1.77	0.49
9:CI:99:LEU:HD12	9:CI:101:PHE:CE1	2.48	0.49
10:CJ:83:GLU:HB3	10:CJ:84:GLN:NE2	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:60:LEU:N	12:CL:60:LEU:HD22	2.27	0.49
13:CM:50:GLU:OE2	51:D4:58:TYR:CE1	2.66	0.49
13:CM:80:ARG:C	13:CM:82:MET:H	2.21	0.49
23:CV:54:G:O2'	23:CV:55:U:O5'	2.30	0.49
23:CV:76:C:OP1	25:DA:2602:A:C5'	2.60	0.49
25:DA:569:U:H1'	25:DA:947:G:O4'	2.13	0.49
25:DA:587:C:H4'	25:DA:588:U:H5'	1.95	0.49
25:DA:869:G:H2'	25:DA:870:A:C8	2.45	0.49
25:DA:910:A:N1	25:DA:2277:G:H1'	2.27	0.49
25:DA:1748:G:H5'	25:DA:1748:G:C8	2.40	0.49
25:DA:1754:C:P	40:DT:96:ARG:NH1	2.85	0.49
25:DA:2516:G:O2'	25:DA:2517:C:H5''	2.11	0.49
25:DA:2580:U:H5'	29:DE:131:ALA:HB2	1.94	0.49
26:DB:91:C:O2'	26:DB:92:C:C5'	2.59	0.49
28:DD:227:ASN:O	28:DD:228:PRO:C	2.55	0.49
29:DE:9:VAL:HG13	29:DE:25:VAL:O	2.12	0.49
30:DF:158:THR:HG23	30:DF:164:ARG:HE	1.77	0.49
31:DG:41:GLN:HB3	31:DG:43:LEU:CD2	2.43	0.49
31:DG:137:GLU:HG2	31:DG:152:LEU:CD1	2.42	0.49
32:DH:41:MET:CB	32:DH:53:GLU:O	2.59	0.49
33:DI:19:VAL:HG22	33:DI:20:ASP:N	2.27	0.49
33:DI:72:LEU:HD23	33:DI:107:VAL:HG21	1.94	0.49
33:DI:120:ILE:HG22	33:DI:122:GLU:N	2.27	0.49
37:DQ:109:VAL:CG1	37:DQ:110:THR:N	2.75	0.49
38:DR:111:LEU:N	38:DR:111:LEU:HD22	2.27	0.49
39:DS:93:LYS:O	39:DS:94:TYR:C	2.54	0.49
43:DW:8:ARG:HH11	43:DW:8:ARG:HG3	1.78	0.49
52:D5:3:LYS:HG3	52:D5:4:HIS:H	1.76	0.49
1:AA:67:C:H2'	1:AA:68:G:H8	1.77	0.49
1:AA:340:C:H2'	40:BT:41:ARG:NH2	2.27	0.49
1:AA:922:G:H2'	1:AA:922:G:N3	2.27	0.49
1:AA:951:A:P	14:AN:41:ARG:HH12	2.35	0.49
1:AA:1424:G:H2'	1:AA:1425:G:H5'	1.94	0.49
1:AA:1479:A:H5'	1:AA:1481:G:N7	2.27	0.49
2:AB:84:GLU:O	2:AB:219:VAL:HG21	2.13	0.49
4:AD:174:LEU:O	4:AD:186:LEU:HD11	2.13	0.49
8:AH:24:THR:HG22	8:AH:25:ASP:N	2.27	0.49
23:AV:1:C:C5'	23:AV:2:G:OP2	2.59	0.49
23:AV:4:G:HO2'	23:AV:5:G:P	2.34	0.49
22:AY:30:G:N2	22:AY:41:C:O2	2.46	0.49
25:BA:272:G:C5	25:BA:421:U:C6	3.00	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:301:G:C6	25:BA:317:G:C6	3.01	0.49
25:BA:769:G:H5'	25:BA:1379:A:N6	2.28	0.49
25:BA:1160:G:N2	42:BV:10:LYS:HE2	2.27	0.49
25:BA:2884:U:C2'	25:BA:2885:C:H5'	2.42	0.49
25:BA:2892:A:H2'	25:BA:2893:G:C4'	2.40	0.49
27:BC:61:THR:HG22	27:BC:163:PHE:O	2.13	0.49
32:BH:43:VAL:CG1	32:BH:53:GLU:H	2.25	0.49
33:BI:23:PRO:HB3	33:BI:27:ARG:NH1	2.26	0.49
33:BI:98:ALA:HA	33:BI:109:ILE:CB	2.43	0.49
38:BR:8:ARG:HE	38:BR:8:ARG:CA	2.17	0.49
39:BS:17:ARG:O	39:BS:18:ILE:C	2.55	0.49
41:BU:92:ARG:HD3	41:BU:92:ARG:N	2.27	0.49
42:BV:82:ARG:HG2	42:BV:82:ARG:NH1	2.27	0.49
44:BX:47:PHE:N	44:BX:47:PHE:CD1	2.80	0.49
45:BY:89:PHE:O	45:BY:90:LEU:HB3	2.13	0.49
47:B0:12:ASN:O	47:B0:13:GLY:C	2.53	0.49
48:B1:94:LEU:O	48:B1:96:LYS:N	2.44	0.49
1:CA:871:G:H2'	1:CA:872:G:C8	2.47	0.49
2:CB:92:TYR:CD1	2:CB:151:GLY:HA3	2.48	0.49
5:CE:101:ILE:HD11	5:CE:119:LEU:CA	2.38	0.49
5:CE:151:LEU:HD11	8:CH:77:GLU:OE2	2.12	0.49
7:CG:48:LYS:O	7:CG:52:GLU:HB2	2.13	0.49
7:CG:145:ALA:O	7:CG:147:ALA:N	2.43	0.49
11:CK:32:ILE:HD11	11:CK:68:ALA:O	2.12	0.49
16:CP:39:TYR:CZ	16:CP:41:PRO:HA	2.48	0.49
22:CW:32:U:C2'	22:CW:33:U:H5'	2.40	0.49
23:CV:15:G:C2	23:CV:22:A:N3	2.81	0.49
25:DA:289:A:C4	25:DA:353:G:C2	3.00	0.49
25:DA:301:G:C6	25:DA:317:G:C6	3.01	0.49
25:DA:528:A:C2	25:DA:2043:C:C4'	2.85	0.49
25:DA:637:A:H2'	36:DP:117:GLU:OE2	2.12	0.49
25:DA:1003:G:N3	25:DA:1010:A:H2	2.11	0.49
25:DA:1329:U:C5'	25:DA:1330:C:H5	2.25	0.49
25:DA:1609:A:C6	25:DA:1616:A:C8	3.01	0.49
25:DA:2376:A:C4	39:DS:94:TYR:CD1	3.00	0.49
29:DE:167:VAL:HG22	29:DE:168:MET:N	2.28	0.49
32:DH:87:LEU:HD23	32:DH:164:TYR:HA	1.94	0.49
33:DI:92:VAL:O	33:DI:93:THR:O	2.31	0.49
34:DN:107:LEU:HD12	34:DN:117:PHE:HB2	1.95	0.49
37:DQ:32:TYR:CZ	37:DQ:111:GLU:HB2	2.48	0.49
37:DQ:141:GLN:HE22	46:DZ:72:ARG:CA	2.25	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DU:79:PHE:HD2	41:DU:79:PHE:C	2.20	0.49
41:DU:92:ARG:C	41:DU:94:ASN:N	2.70	0.49
42:DV:4:ILE:O	42:DV:39:LEU:HD22	2.13	0.49
43:DW:8:ARG:HA	43:DW:102:HIS:CD2	2.48	0.49
45:DY:2:ARG:N	45:DY:4:LYS:HG2	2.28	0.49
48:D1:75:GLU:C	48:D1:77:ALA:H	2.21	0.49
51:D4:37:PRO:HA	51:D4:51:TYR:HD2	1.76	0.49
1:AA:209:U:O2'	1:AA:211:G:O6	2.30	0.49
1:AA:506:A:C2	12:AL:91:LYS:HB3	2.47	0.49
1:AA:608:G:H2'	1:AA:609:U:C6	2.45	0.49
1:AA:659:A:H2'	1:AA:660:U:H6	1.77	0.49
1:AA:823:C:H4'	1:AA:825:C:C2	2.47	0.49
1:AA:916:G:H2'	1:AA:917:C:H6	1.78	0.49
1:AA:1099:G:H4'	9:AI:104:ARG:HH11	1.78	0.49
1:AA:1379:C:N4	24:AX:22:A:H3'	2.26	0.49
4:AD:25:ARG:NH1	4:AD:30:LYS:O	2.46	0.49
10:AJ:38:ILE:O	10:AJ:38:ILE:HG13	2.11	0.49
10:AJ:83:GLU:HB3	10:AJ:84:GLN:NE2	2.26	0.49
12:AL:6:THR:HG23	12:AL:9:GLN:CG	2.42	0.49
13:AM:117:VAL:CG1	13:AM:118:ALA:N	2.56	0.49
14:AN:23:ARG:O	14:AN:24:CYS:C	2.56	0.49
15:AO:8:LYS:O	15:AO:12:ILE:HG13	2.12	0.49
15:AO:82:ILE:HD13	15:AO:82:ILE:C	2.36	0.49
19:AS:39:THR:CG2	19:AS:40:ILE:N	2.75	0.49
20:AT:72:LEU:HD21	20:AT:77:ALA:HA	1.95	0.49
25:BA:289:A:C2	25:BA:353:G:N3	2.81	0.49
25:BA:309:G:H1'	25:BA:329:G:C4	2.47	0.49
25:BA:407:G:H2'	25:BA:408:G:H8	1.77	0.49
25:BA:614(C):A:O2'	25:BA:615:G:OP1	2.30	0.49
25:BA:860:U:C2	25:BA:2268:A:C8	3.01	0.49
25:BA:1990:C:H2'	25:BA:1991:U:C6	2.48	0.49
25:BA:2206:G:N2	25:BA:2207:G:C5'	2.69	0.49
25:BA:2376:A:N6	39:BS:92:TYR:HE2	2.10	0.49
25:BA:2453:A:O2'	25:BA:2454:G:H5'	2.12	0.49
25:BA:2468:G:H5'	37:BQ:120:ILE:CD1	2.42	0.49
25:BA:2831:G:P	29:BE:58:ARG:HH22	2.36	0.49
27:BC:68:LEU:CD1	27:BC:179:SER:HA	2.32	0.49
28:BD:172:TYR:CD1	28:BD:186:HIS:CA	2.94	0.49
30:BF:16:GLY:O	30:BF:17:ARG:HG3	2.12	0.49
30:BF:101:LEU:HD12	30:BF:102:PRO:CD	2.39	0.49
31:BG:132:ASN:OD1	31:BG:158:ALA:HB1	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BG:133:LEU:HD11	31:BG:157:ILE:CD1	2.35	0.49
32:BH:116:GLU:HG2	32:BH:117:PRO:CD	2.42	0.49
32:BH:157:TYR:O	32:BH:158:HIS:HB2	2.12	0.49
33:BI:136:VAL:O	33:BI:136:VAL:HG22	2.11	0.49
34:BN:15:LEU:HB3	34:BN:136:GLU:HA	1.93	0.49
36:BP:23:PRO:HB2	36:BP:33:ARG:NE	2.28	0.49
36:BP:108:LYS:C	36:BP:110:TYR:N	2.69	0.49
39:BS:70:GLY:C	39:BS:72:ALA:N	2.69	0.49
41:BU:61:TRP:O	41:BU:63:VAL:N	2.45	0.49
41:BU:79:PHE:HD2	41:BU:79:PHE:C	2.20	0.49
43:BW:48:ALA:O	43:BW:50:VAL:N	2.46	0.49
46:BZ:44:PHE:CD1	46:BZ:44:PHE:C	2.90	0.49
48:B1:75:GLU:C	48:B1:77:ALA:H	2.21	0.49
53:B6:27:LYS:O	53:B6:29:ASN:N	2.46	0.49
1:CA:21:G:H2'	1:CA:22:G:C8	2.48	0.49
1:CA:180:C:H4'	20:CT:82:SER:CB	2.35	0.49
1:CA:283:A:H2'	1:CA:284:G:H4'	1.94	0.49
1:CA:500:G:N3	1:CA:514:U:H5'	2.28	0.49
1:CA:505:C:H5''	12:CL:120:TYR:OH	2.13	0.49
1:CA:1475:U:O2'	24:CX:17:U:OP1	2.22	0.49
2:CB:63:MET:C	2:CB:65:GLY:N	2.69	0.49
2:CB:107:THR:HG23	2:CB:110:GLN:HE22	1.78	0.49
3:CC:83:ARG:O	3:CC:87:LEU:HG	2.12	0.49
3:CC:90:GLU:HA	3:CC:90:GLU:OE1	2.13	0.49
5:CE:20:GLN:O	5:CE:21:ALA:C	2.55	0.49
5:CE:136:MET:C	5:CE:138:ALA:N	2.69	0.49
10:CJ:6:ILE:HG12	10:CJ:72:VAL:O	2.12	0.49
10:CJ:8:LEU:HD23	10:CJ:96:ILE:HG22	1.93	0.49
15:CO:39:LEU:HD13	15:CO:56:LEU:HB2	1.95	0.49
17:CQ:5:VAL:C	17:CQ:6:LEU:HD12	2.37	0.49
17:CQ:10:VAL:HG23	17:CQ:55:ASP:O	2.12	0.49
18:CR:61:LYS:O	18:CR:65:ILE:HG13	2.12	0.49
25:DA:18:C:H4'	41:DU:23:GLY:O	2.12	0.49
25:DA:747:U:H1'	52:D5:2:ALA:HB3	1.95	0.49
25:DA:869:G:H1'	37:DQ:8:LYS:HD2	1.95	0.49
25:DA:2376:A:C6	39:DS:94:TYR:CD1	3.01	0.49
25:DA:2884:U:C2'	25:DA:2885:C:H5'	2.42	0.49
26:DB:85:G:O6	26:DB:93:G:O6	2.30	0.49
26:DB:106:G:H4'	46:DZ:31:ARG:HG3	1.94	0.49
28:DD:25:THR:O	28:DD:26:LYS:NZ	2.42	0.49
28:DD:26:LYS:NZ	28:DD:82:ILE:N	2.55	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DD:49:ILE:CD1	28:DD:52:ARG:HA	2.41	0.49
28:DD:80:ALA:HB3	28:DD:94:LEU:HD13	1.95	0.49
29:DE:28:ALA:O	29:DE:29:GLY:C	2.55	0.49
33:DI:58:LEU:C	33:DI:60:GLU:H	2.20	0.49
33:DI:98:ALA:C	33:DI:100:ALA:N	2.70	0.49
34:DN:23:LEU:CD1	34:DN:98:VAL:HG12	2.42	0.49
40:DT:28:VAL:HG21	40:DT:46:GLU:CG	2.41	0.49
41:DU:91:ASP:OD2	41:DU:96:ALA:CB	2.57	0.49
48:D1:27:GLU:O	48:D1:28:GLY:C	2.55	0.49
1:AA:343:G:O2'	1:AA:344:A:O5'	2.30	0.49
1:AA:1221:U:N3	7:AG:30:ILE:HG22	2.27	0.49
2:AB:164:VAL:HB	2:AB:186:ALA:HB2	1.95	0.49
3:AC:11:ARG:HG2	3:AC:11:ARG:NH1	2.26	0.49
3:AC:70:VAL:HG12	3:AC:72:LYS:N	2.25	0.49
3:AC:114:PRO:O	3:AC:118:GLN:NE2	2.36	0.49
4:AD:65:ARG:HD2	4:AD:72:GLU:HA	1.95	0.49
4:AD:195:ALA:O	6:CF:16:GLN:CB	2.50	0.49
6:AF:75:LEU:HD21	6:AF:79:LEU:HD11	1.95	0.49
7:AG:15:ASP:HB3	7:AG:19:GLY:N	2.28	0.49
8:AH:23:SER:HB2	8:AH:61:VAL:O	2.12	0.49
8:AH:85:ARG:HH11	8:AH:85:ARG:HG3	1.78	0.49
9:AI:118:LYS:O	9:AI:120:ARG:N	2.41	0.49
22:AW:52:G:H2'	22:AW:53:G:C8	2.48	0.49
25:BA:443:A:H1'	25:BA:1201:C:O4'	2.12	0.49
25:BA:675:A:OP1	30:BF:63:LYS:HE2	2.13	0.49
25:BA:790:C:O2'	25:BA:791:C:O5'	2.30	0.49
25:BA:859:G:O2'	25:BA:860:U:OP2	2.30	0.49
25:BA:941:A:O2'	36:BP:35:HIS:CE1	2.66	0.49
25:BA:1268:A:C2	25:BA:2013:A:C4	3.00	0.49
25:BA:1386:C:H2'	25:BA:1387:C:C6	2.47	0.49
25:BA:1455:G:C8	38:BR:60:LEU:HD11	2.48	0.49
30:BF:155:LEU:CD2	30:BF:186:ILE:HD13	2.42	0.49
32:BH:26:VAL:O	32:BH:32:GLU:HA	2.12	0.49
33:BI:120:ILE:HG22	33:BI:122:GLU:N	2.27	0.49
35:BO:4:PRO:O	35:BO:5:GLN:CB	2.59	0.49
36:BP:33:ARG:O	36:BP:35:HIS:O	2.30	0.49
36:BP:56:SER:HB2	36:BP:60:MET:SD	2.52	0.49
36:BP:107:LYS:O	36:BP:107:LYS:HG3	2.13	0.49
36:BP:126:VAL:HG22	36:BP:145:PRO:HB2	1.93	0.49
37:BQ:34:LEU:CD1	37:BQ:129:THR:HB	2.43	0.49
39:BS:42:ASP:C	39:BS:44:LYS:H	2.20	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BY:17:SER:HB2	45:BY:71:LYS:HE2	1.88	0.49
46:BZ:30:ASN:HA	46:BZ:89:PHE:HE2	1.76	0.49
1:CA:365:C:C2	1:CA:387:G:N2	2.81	0.49
1:CA:940:G:H1	1:CA:949:C:H42	1.60	0.49
1:CA:1036:C:C2'	1:CA:1037:A:OP2	2.59	0.49
2:CB:61:LEU:HD11	2:CB:66:GLY:HA3	1.95	0.49
2:CB:74:LYS:HD2	2:CB:74:LYS:H	1.77	0.49
4:CD:100:ARG:HH12	4:CD:137:SER:HB3	1.78	0.49
5:CE:34:VAL:O	5:CE:41:VAL:HA	2.12	0.49
5:CE:144:THR:OG1	5:CE:146:ALA:HB3	2.12	0.49
10:CJ:85:LEU:C	10:CJ:87:THR:N	2.67	0.49
13:CM:94:ARG:NH2	25:DA:887:A:C1'	2.66	0.49
23:CV:35:C:O2'	23:CV:36:A:O5'	2.30	0.49
25:DA:363(F):A:HO2'	25:DA:364:C:H5	1.61	0.49
25:DA:621:A:H2'	25:DA:622:G:H5'	1.95	0.49
25:DA:675:A:OP1	30:DF:63:LYS:HE2	2.13	0.49
25:DA:859:G:O2'	25:DA:860:U:OP2	2.30	0.49
25:DA:1308:A:H2'	25:DA:1309:G:O4'	2.12	0.49
25:DA:1514:U:H2'	25:DA:1515:G:C8	2.48	0.49
25:DA:1578:U:H2'	25:DA:1579:A:H5'	1.94	0.49
25:DA:2068:U:N3	25:DA:2430:A:C2	2.44	0.49
25:DA:2320:A:C8	25:DA:2333:A:N6	2.80	0.49
25:DA:2391:G:O2'	25:DA:2392:A:OP2	2.30	0.49
26:DB:109:C:H5'	26:DB:110:G:O5'	2.13	0.49
27:DC:61:THR:HG22	27:DC:163:PHE:O	2.13	0.49
28:DD:134:ARG:HD3	28:DD:135:PHE:CZ	2.47	0.49
29:DE:72:VAL:O	29:DE:73:GLU:C	2.54	0.49
32:DH:17:VAL:CG1	32:DH:45:VAL:CB	2.90	0.49
33:DI:18:VAL:O	33:DI:18:VAL:HG12	2.11	0.49
34:DN:55:VAL:HG22	34:DN:126:PRO:CA	2.41	0.49
34:DN:99:LEU:HD12	34:DN:122:VAL:HG21	1.95	0.49
41:DU:95:LEU:O	41:DU:98:LEU:HG	2.13	0.49
41:DU:110:VAL:O	41:DU:113:ALA:HB3	2.13	0.49
42:DV:62:LEU:HD22	42:DV:62:LEU:N	2.27	0.49
50:D3:8:LEU:HD13	50:D3:31:LEU:HD23	1.91	0.49
50:D3:29:ARG:HB2	50:D3:33:GLN:NE2	2.27	0.49
1:AA:35:G:C2	1:AA:533:G:C2	3.01	0.49
1:AA:35:G:C6	1:AA:36:C:N4	2.81	0.49
1:AA:1081:G:OP1	2:AB:96:ARG:NH2	2.46	0.49
2:AB:57:PHE:CE2	2:AB:185:ILE:HD11	2.47	0.49
2:AB:167:PRO:O	2:AB:168:THR:C	2.56	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:217:ARG:HA	2:AB:220:ASP:OD2	2.13	0.49
2:AB:236:TYR:HD2	2:AB:239:VAL:HB	1.77	0.49
10:AJ:90:LEU:N	10:AJ:91:PRO:CD	2.76	0.49
11:AK:18:ARG:NH2	11:AK:36:ASP:O	2.46	0.49
11:AK:44:SER:OG	11:AK:47:VAL:HG23	2.12	0.49
12:AL:111:LYS:O	12:AL:112:ASP:HB2	2.13	0.49
15:AO:25:THR:O	15:AO:26:GLU:C	2.55	0.49
16:AP:64:ALA:O	16:AP:65:GLN:C	2.56	0.49
23:AV:48:U:H3'	23:AV:48:U:H6	1.77	0.49
23:AV:73:A:H8	23:AV:73:A:O5'	1.96	0.49
23:AV:76:C:OP1	25:BA:2602:A:H5''	2.12	0.49
25:BA:363(C):G:H2'	25:BA:363(D):G:H8	1.76	0.49
25:BA:389:G:N1	36:BP:70:GLN:HG3	2.27	0.49
25:BA:879:G:N2	25:BA:899:A:H1'	2.28	0.49
25:BA:971:C:H2'	25:BA:972:G:O4'	2.12	0.49
25:BA:993:G:N3	42:BV:89:GLN:NE2	2.61	0.49
25:BA:1003:G:N3	25:BA:1010:A:H2	2.11	0.49
25:BA:1301:A:H2'	25:BA:1302:A:H3'	1.94	0.49
25:BA:1754:C:C5	40:BT:96:ARG:NH1	2.81	0.49
25:BA:1885:A:H2'	25:BA:1886:C:O4'	2.12	0.49
25:BA:2092:U:C5	25:BA:2225:A:O2'	2.65	0.49
25:BA:2302:G:O2'	31:BG:128:ARG:NH2	2.46	0.49
29:BE:66:HIS:HD1	29:BE:66:HIS:C	2.21	0.49
30:BF:192:LEU:HD23	30:BF:193:VAL:N	2.28	0.49
32:BH:149:ARG:HD3	32:BH:164:TYR:CD1	2.48	0.49
33:BI:45:LYS:O	33:BI:48:GLU:HB2	2.13	0.49
33:BI:95:LYS:HA	33:BI:98:ALA:CB	2.42	0.49
33:BI:110:ASP:O	33:BI:114:LEU:HD21	2.13	0.49
33:BI:123:LEU:HD22	33:BI:142:VAL:HG12	1.94	0.49
33:BI:129:THR:O	33:BI:130:TYR:HB2	2.11	0.49
34:BN:23:LEU:CD1	34:BN:98:VAL:HG12	2.42	0.49
36:BP:99:LEU:HD23	36:BP:99:LEU:C	2.38	0.49
39:BS:85:VAL:C	39:BS:106:ARG:HG3	2.38	0.49
42:BV:15:GLU:CB	42:BV:16:PRO:CD	2.90	0.49
45:BY:28:LYS:HB2	45:BY:38:ILE:N	2.19	0.49
46:BZ:117:LEU:HD21	46:BZ:172:ALA:HB1	1.95	0.49
46:BZ:155:LEU:O	46:BZ:157:LEU:HD12	2.13	0.49
54:B7:41:ARG:HB2	54:B7:41:ARG:NH1	2.28	0.49
55:B8:32:LEU:HB3	55:B8:36:LYS:HZ2	1.77	0.49
1:CA:136:G:H2'	1:CA:137:A:C8	2.46	0.49
1:CA:310:A:H5''	1:CA:312:G:OP2	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:451:C:H2'	1:CA:452:C:C6	2.47	0.49
1:CA:584:C:H2'	1:CA:585:A:C8	2.47	0.49
1:CA:1070:G:H1	1:CA:1079:C:H42	1.61	0.49
1:CA:1142:G:N2	1:CA:1143:C:O4'	2.45	0.49
1:CA:1159:G:O2'	1:CA:1161:A:N7	2.42	0.49
1:CA:1261:A:H5''	10:CJ:40:LEU:HD12	1.95	0.49
1:CA:1391:C:H4'	25:DA:1915:U:O4	2.13	0.49
1:CA:1507:G:H4'	1:CA:1507:G:OP1	2.11	0.49
3:CC:120:VAL:O	3:CC:121:ALA:C	2.54	0.49
5:CE:101:ILE:HD13	5:CE:118:ILE:O	2.13	0.49
8:CH:63:LEU:CB	8:CH:65:TYR:CE1	2.96	0.49
9:CI:10:ARG:HD3	9:CI:75:ASP:CB	2.40	0.49
10:CJ:56:HIS:C	10:CJ:58:ASP:H	2.20	0.49
10:CJ:94:VAL:CG1	10:CJ:95:GLU:N	2.76	0.49
11:CK:18:ARG:NH2	11:CK:36:ASP:O	2.46	0.49
11:CK:19:ALA:HB3	11:CK:82:VAL:CG2	2.43	0.49
11:CK:99:GLN:HE21	11:CK:105:VAL:HG11	1.77	0.49
25:DA:271(P):C:H2'	25:DA:271(Q):G:C5'	2.40	0.49
25:DA:281:G:N2	25:DA:358:U:H5	2.03	0.49
25:DA:283:A:O2'	25:DA:284:U:OP1	2.30	0.49
25:DA:287:C:H2'	25:DA:288:C:O4'	2.11	0.49
25:DA:558:G:OP2	34:DN:111:PRO:HD2	2.12	0.49
25:DA:614(C):A:O2'	25:DA:615:G:O5'	2.30	0.49
25:DA:671:C:O2'	25:DA:672:C:H5'	2.11	0.49
25:DA:769:G:H5'	25:DA:1379:A:N6	2.28	0.49
25:DA:865:C:H4'	25:DA:866:A:OP1	2.13	0.49
26:DB:70:C:H6	26:DB:70:C:O5'	1.95	0.49
26:DB:92:C:H5''	46:DZ:79:ARG:NH2	2.28	0.49
29:DE:188:VAL:O	29:DE:188:VAL:HG13	2.13	0.49
30:DF:16:GLY:O	30:DF:17:ARG:HG3	2.12	0.49
30:DF:28:ILE:HG12	30:DF:119:ARG:HH21	1.76	0.49
33:DI:77:LEU:O	33:DI:140:LEU:HD12	2.13	0.49
34:DN:3:THR:HG22	34:DN:5:VAL:HG12	1.94	0.49
39:DS:42:ASP:C	39:DS:44:LYS:H	2.20	0.49
39:DS:101:LEU:H	39:DS:101:LEU:HD13	1.77	0.49
41:DU:99:ALA:HB2	41:DU:106:PHE:CG	2.48	0.49
45:DY:88:LYS:NZ	45:DY:93:GLY:HA3	2.27	0.49
46:DZ:85:HIS:ND1	46:DZ:85:HIS:C	2.70	0.49
1:AA:370:U:H4'	16:AP:17:TYR:CE2	2.48	0.49
1:AA:433:G:N1	1:AA:479:A:OP2	2.32	0.49
1:AA:802:A:N6	1:AA:1506:G:N7	2.61	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:960:A:N1	1:AA:1203:G:N2	2.59	0.49
1:AA:1220:A:H62	1:AA:1280:A:N6	2.01	0.49
2:AB:82:ARG:O	2:AB:86:GLU:HG3	2.12	0.49
4:AD:13:ARG:HD2	4:AD:38:TYR:O	2.13	0.49
4:AD:100:ARG:HH12	4:AD:137:SER:HB3	1.78	0.49
5:AE:20:GLN:O	5:AE:21:ALA:C	2.56	0.49
8:AH:35:ILE:O	8:AH:39:LEU:HD23	2.12	0.49
8:AH:60:ARG:NH1	8:AH:60:ARG:CG	2.75	0.49
8:AH:84:ARG:HG3	8:AH:85:ARG:H	1.74	0.49
10:AJ:5:ARG:O	10:AJ:98:ILE:HA	2.12	0.49
12:AL:12:ARG:HG2	12:AL:12:ARG:NH1	2.26	0.49
12:AL:85:ILE:HD13	12:AL:85:ILE:HA	1.60	0.49
13:AM:6:GLY:HA2	31:BG:115:ARG:O	2.12	0.49
14:AN:27:CYS:SG	14:AN:29:ARG:HB2	2.53	0.49
15:AO:6:GLU:OE2	15:AO:6:GLU:N	2.45	0.49
19:AS:35:SER:C	19:AS:37:ARG:N	2.70	0.49
25:BA:99:U:C4'	25:BA:102:G:H1'	2.42	0.49
25:BA:433:C:H2'	25:BA:434:U:C6	2.47	0.49
25:BA:784:A:H5'	25:BA:785:G:OP1	2.12	0.49
25:BA:814:C:H2'	25:BA:815:C:H6	1.78	0.49
25:BA:865:C:H4'	25:BA:866:A:OP1	2.13	0.49
25:BA:1278:A:C5'	38:BR:36:THR:HG22	2.43	0.49
25:BA:1778:U:H2'	25:BA:1784:A:N6	2.28	0.49
25:BA:2262:U:H2'	25:BA:2263:C:C5'	2.42	0.49
25:BA:2393:A:C4'	36:BP:60:MET:O	2.61	0.49
25:BA:2870:C:H2'	25:BA:2871:C:O4'	2.13	0.49
28:BD:65:ILE:HD11	28:BD:67:PHE:CE1	2.47	0.49
28:BD:142:VAL:HG22	28:BD:143:HIS:N	2.27	0.49
29:BE:2:LYS:NZ	29:BE:95:ILE:O	2.40	0.49
29:BE:101:ARG:HH21	29:BE:171:GLU:HA	1.77	0.49
33:BI:72:LEU:HD23	33:BI:107:VAL:HG21	1.94	0.49
34:BN:93:THR:O	34:BN:94:HIS:HB2	2.13	0.49
37:BQ:116:GLU:HA	37:BQ:116:GLU:OE1	2.13	0.49
41:BU:92:ARG:C	41:BU:94:ASN:N	2.70	0.49
45:BY:42:VAL:HG12	45:BY:44:ILE:HG13	1.94	0.49
51:B4:37:PRO:HA	51:B4:51:TYR:HD2	1.76	0.49
1:CA:1301:C:H5'	19:CS:70:LYS:CG	2.42	0.49
1:CA:1401:G:C6	1:CA:1459:G:C2	3.01	0.49
2:CB:16:HIS:CD2	2:CB:210:SER:HA	2.47	0.49
3:CC:127:ARG:HH11	3:CC:127:ARG:HG2	1.78	0.49
4:CD:126:ILE:HG22	4:CD:127:THR:N	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CF:42:GLU:C	6:CF:44:GLY:N	2.70	0.49
9:CI:53:VAL:HG13	9:CI:95:LYS:HE3	1.95	0.49
10:CJ:28:ARG:NH2	10:CJ:34:VAL:O	2.46	0.49
11:CK:96:ARG:HA	11:CK:99:GLN:HG3	1.94	0.49
19:CS:45:VAL:HA	19:CS:62:ILE:HG23	1.94	0.49
19:CS:72:GLY:C	19:CS:74:PHE:H	2.21	0.49
22:CW:21:A:C4	22:CW:48:C:N4	2.81	0.49
23:CV:47:G:H3'	23:CV:47:G:H8	1.78	0.49
23:CV:59:A:C6	23:CV:62:C:C6	3.01	0.49
25:DA:271(W):G:O6	25:DA:271(X):G:N1	2.45	0.49
25:DA:614(C):A:H1'	30:DF:180:GLY:O	2.13	0.49
25:DA:910:A:C4	37:DQ:13:GLN:OE1	2.66	0.49
25:DA:1141:U:C5	34:DN:64:GLY:HA3	2.48	0.49
25:DA:1227:G:OP1	41:DU:13:LYS:HG2	2.13	0.49
25:DA:1952:A:C4	35:DO:22:ILE:HG13	2.47	0.49
29:DE:11:MET:O	40:DT:8:LYS:NZ	2.46	0.49
29:DE:30:PRO:HA	29:DE:92:THR:HG22	1.93	0.49
29:DE:88:GLY:O	29:DE:89:ASP:HB2	2.13	0.49
29:DE:101:ARG:HB2	29:DE:201:THR:HG22	1.95	0.49
30:DF:192:LEU:HD23	30:DF:193:VAL:N	2.28	0.49
31:DG:95:ARG:HH11	31:DG:95:ARG:HG2	1.78	0.49
32:DH:121:ILE:HG22	32:DH:133:VAL:CG1	2.43	0.49
33:DI:98:ALA:HA	33:DI:109:ILE:CB	2.42	0.49
37:DQ:35:VAL:HG23	37:DQ:100:GLY:O	2.13	0.49
37:DQ:39:PRO:O	37:DQ:40:ALA:HB2	2.12	0.49
38:DR:12:ARG:HG3	38:DR:12:ARG:HH11	1.78	0.49
38:DR:109:ALA:O	38:DR:111:LEU:HD22	2.13	0.49
39:DS:85:VAL:C	39:DS:106:ARG:HG3	2.38	0.49
42:DV:23:GLU:O	42:DV:24:LYS:C	2.55	0.49
43:DW:68:ARG:O	43:DW:110:LYS:N	2.46	0.49
45:DY:100:ALA:O	45:DY:101:LYS:O	2.31	0.49
46:DZ:144:LEU:HA	46:DZ:148:ASP:HB3	1.94	0.49
48:D1:57:GLU:O	48:D1:57:GLU:HG2	2.13	0.49
54:D7:47:ARG:O	54:D7:47:ARG:HD2	2.12	0.49
1:AA:775:A:N3	1:AA:777:A:C5	2.81	0.48
1:AA:1052:U:H2'	1:AA:1053:C:H6	1.78	0.48
1:AA:1134:A:OP1	10:AJ:13:HIS:HB2	2.13	0.48
1:AA:1143:C:H2'	1:AA:1144:C:C6	2.48	0.48
1:AA:1149:A:H8	1:AA:1149:A:O5'	1.96	0.48
2:AB:67:THR:HG21	2:AB:155:LEU:HD21	1.94	0.48
2:AB:107:THR:HA	2:AB:110:GLN:OE1	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:221:LEU:N	2:AB:221:LEU:HD22	2.28	0.48
4:AD:30:LYS:HA	4:AD:35:ARG:HD2	1.94	0.48
8:AH:12:ARG:NH1	8:AH:26:VAL:HA	2.27	0.48
8:AH:41:ARG:NH2	8:AH:123:GLU:OE2	2.46	0.48
9:AI:10:ARG:HG2	9:AI:105:ASP:HB2	1.95	0.48
10:AJ:33:GLN:HB2	10:AJ:75:ILE:CD1	2.43	0.48
18:AR:50:ILE:HD12	18:AR:70:ILE:HG21	1.94	0.48
19:AS:24:ALA:O	19:AS:25:LYS:CB	2.61	0.48
20:AT:56:MET:HG3	20:AT:84:LEU:CD1	2.40	0.48
22:AW:52:G:N1	22:AW:63:G:C6	2.81	0.48
23:AV:4:G:C4	23:AV:5:G:N7	2.81	0.48
25:BA:139:G:H2'	25:BA:140:G:N7	2.28	0.48
25:BA:1496:A:C8	25:BA:1577:C:O2'	2.65	0.48
25:BA:1993:U:H2'	25:BA:1994:C:O5'	2.12	0.48
25:BA:2092:U:C6	25:BA:2225:A:O2'	2.65	0.48
25:BA:2186:G:O6	25:BA:2187:G:O6	2.30	0.48
30:BF:46:ARG:HH11	30:BF:46:ARG:CG	2.25	0.48
32:BH:38:SER:O	32:BH:40:GLU:N	2.46	0.48
33:BI:120:ILE:HD13	33:BI:126:TYR:CE1	2.48	0.48
38:BR:27:SER:HB3	38:BR:34:ILE:HD11	1.95	0.48
42:BV:25:LEU:H	42:BV:92:THR:CG2	2.11	0.48
42:BV:79:VAL:O	42:BV:80:GLN:HB2	2.13	0.48
45:BY:3:VAL:HG12	45:BY:3:VAL:O	2.12	0.48
45:BY:26:LYS:O	45:BY:28:LYS:HE3	2.13	0.48
50:B3:1:MET:CE	50:B3:41:PRO:HD3	2.43	0.48
50:B3:29:ARG:HB2	50:B3:33:GLN:HE22	1.77	0.48
1:CA:413:C:H2'	1:CA:414:C:H6	1.77	0.48
1:CA:482:A:C6	1:CA:530:A:C8	3.01	0.48
1:CA:497:C:H2'	1:CA:498:G:H8	1.76	0.48
1:CA:522:A:H2'	1:CA:523:G:C8	2.48	0.48
1:CA:1167:G:N2	1:CA:1168:G:H1'	2.28	0.48
1:CA:1294:U:C5	19:CS:4:SER:N	2.81	0.48
1:CA:1493:G:H2'	1:CA:1495:A:OP2	2.12	0.48
3:CC:142:MET:C	3:CC:144:SER:H	2.21	0.48
6:CF:50:TYR:CE2	6:CF:52:ILE:HD11	2.47	0.48
8:CH:84:ARG:HG3	8:CH:85:ARG:H	1.77	0.48
8:CH:125:ARG:HH11	8:CH:125:ARG:HG3	1.78	0.48
10:CJ:22:LYS:NZ	10:CJ:23:ILE:HG12	2.28	0.48
10:CJ:90:LEU:N	10:CJ:91:PRO:CD	2.76	0.48
13:CM:10:PRO:HB2	13:CM:18:ALA:CB	2.39	0.48
14:CN:47:LEU:HA	14:CN:50:LYS:CD	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CO:74:ASP:HB3	15:CO:77:ARG:HG2	1.94	0.48
20:CT:50:GLU:HA	20:CT:100:ILE:CB	2.43	0.48
22:CW:36:A:C2'	22:CW:37:A:O5'	2.61	0.48
25:DA:9:U:O2'	25:DA:10:G:O5'	2.29	0.48
25:DA:289:A:C2	25:DA:353:G:N3	2.81	0.48
25:DA:341:G:O2'	25:DA:342:G:H5'	2.13	0.48
25:DA:518:G:H4'	43:DW:18:ARG:NH1	2.28	0.48
25:DA:1112:G:C2	25:DA:1113:U:C2	3.01	0.48
25:DA:1175:U:H4'	25:DA:1176:G:C2'	2.42	0.48
25:DA:1387:C:H5'	25:DA:1469:A:H4'	1.95	0.48
25:DA:1406:U:H3'	25:DA:1407:C:H6	1.78	0.48
25:DA:1578:U:H2'	25:DA:1578:U:O2	2.12	0.48
25:DA:1668:A:H5''	35:DO:5:GLN:HG2	1.95	0.48
25:DA:1778:U:H2'	25:DA:1784:A:N6	2.28	0.48
25:DA:2225:A:H1'	25:DA:2226:C:OP2	2.13	0.48
25:DA:2414:G:H21	36:DP:67:MET:CE	2.25	0.48
27:DC:64:LEU:O	27:DC:66:HIS:N	2.46	0.48
29:DE:110:GLY:O	38:DR:2:ARG:NE	2.46	0.48
29:DE:119:ARG:HD2	29:DE:120:TRP:CD1	2.47	0.48
31:DG:113:ARG:CZ	51:D4:61:VAL:O	2.61	0.48
31:DG:132:ASN:OD1	31:DG:158:ALA:HB1	2.13	0.48
32:DH:149:ARG:HD3	32:DH:164:TYR:CD1	2.48	0.48
33:DI:95:LYS:HA	33:DI:98:ALA:CB	2.42	0.48
34:DN:57:ALA:O	34:DN:58:ASP:C	2.56	0.48
35:DO:1:MET:CG	35:DO:32:TYR:HB3	2.43	0.48
36:DP:99:LEU:HD23	36:DP:99:LEU:C	2.38	0.48
37:DQ:38:GLU:HG3	37:DQ:127:ILE:HB	1.95	0.48
37:DQ:116:GLU:HA	37:DQ:116:GLU:OE1	2.13	0.48
39:DS:17:ARG:HH21	39:DS:90:GLY:N	2.10	0.48
40:DT:29:ARG:HD3	40:DT:84:GLN:C	2.37	0.48
41:DU:62:ILE:HD12	41:DU:76:TYR:OH	2.13	0.48
41:DU:96:ALA:HB1	41:DU:106:PHE:HE1	1.77	0.48
43:DW:92:ARG:HG2	43:DW:92:ARG:NH1	2.27	0.48
45:DY:68:HIS:HB3	45:DY:71:LYS:CG	2.43	0.48
46:DZ:117:LEU:HD21	46:DZ:172:ALA:HB1	1.94	0.48
46:DZ:120:ILE:HB	46:DZ:172:ALA:N	2.28	0.48
49:D2:40:SER:C	49:D2:42:GLY:H	2.21	0.48
1:AA:774:G:C5	1:AA:775:A:N7	2.81	0.48
5:AE:144:THR:C	5:AE:146:ALA:N	2.68	0.48
7:AG:15:ASP:CB	7:AG:20:ASP:H	2.24	0.48
9:AI:89:ASN:C	9:AI:91:ASP:H	2.21	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:99:GLN:HA	11:AK:105:VAL:HG11	1.95	0.48
13:AM:91:ARG:HH11	19:AS:81:ARG:HH22	1.61	0.48
13:AM:93:ARG:HG3	25:BA:888:C:OP2	2.13	0.48
17:AQ:10:VAL:HG23	17:AQ:55:ASP:O	2.12	0.48
22:AW:70:G:C2	22:AW:71:G:C4	3.01	0.48
22:AW:75:C:H6	22:AW:75:C:O5'	1.96	0.48
23:AV:54:G:H8	23:AV:54:G:O5'	1.97	0.48
25:BA:309:G:O2'	25:BA:329:G:C8	2.61	0.48
25:BA:341:G:O2'	25:BA:342:G:H5'	2.13	0.48
25:BA:1032:A:OP1	56:B9:8:LYS:HE3	2.13	0.48
25:BA:1657:C:H2'	25:BA:1658:C:H6	1.78	0.48
25:BA:2186:G:C6	25:BA:2187:G:C6	3.02	0.48
26:BB:31:C:C2'	26:BB:53:A:H61	2.26	0.48
26:BB:105:A:H2'	26:BB:106:G:O4'	2.13	0.48
27:BC:83:ILE:HD12	27:BC:94:VAL:O	2.13	0.48
28:BD:155:LEU:HD12	28:BD:155:LEU:N	2.28	0.48
28:BD:155:LEU:N	28:BD:155:LEU:CD1	2.77	0.48
28:BD:186:HIS:HE1	28:BD:188:GLU:HG2	1.78	0.48
29:BE:1:MET:HE2	29:BE:83:ASP:C	2.38	0.48
29:BE:52:LEU:HD12	29:BE:53:PRO:CD	2.41	0.48
29:BE:119:ARG:HD2	29:BE:120:TRP:NE1	2.28	0.48
30:BF:127:GLU:O	30:BF:129:PHE:N	2.34	0.48
31:BG:140:ILE:O	31:BG:140:ILE:HG22	2.13	0.48
32:BH:25:LYS:H	32:BH:25:LYS:CD	2.12	0.48
34:BN:17:ASP:C	34:BN:19:GLU:N	2.71	0.48
34:BN:107:LEU:HD12	34:BN:117:PHE:HB2	1.95	0.48
40:BT:57:PHE:CG	40:BT:58:ASN:N	2.75	0.48
1:CA:1197:G:OP2	14:CN:2:ALA:HB2	2.13	0.48
1:CA:1288:U:H2'	1:CA:1289:U:C6	2.47	0.48
2:CB:236:TYR:HD2	2:CB:239:VAL:HB	1.78	0.48
3:CC:139:GLN:HA	3:CC:139:GLN:OE1	2.13	0.48
3:CC:149:ALA:O	3:CC:150:LYS:HB2	2.13	0.48
7:CG:52:GLU:O	7:CG:54:THR:N	2.43	0.48
9:CI:5:TYR:OH	9:CI:16:ARG:HG2	2.14	0.48
15:CO:6:GLU:OE2	15:CO:6:GLU:N	2.44	0.48
15:CO:56:LEU:CD2	25:DA:715:G:C2	2.91	0.48
20:CT:61:SER:O	20:CT:63:ILE:N	2.47	0.48
22:CW:66:U:O5'	22:CW:66:U:H6	1.94	0.48
22:CY:35:A:C2'	22:CY:36:A:H5''	2.41	0.48
25:DA:139:G:H2'	25:DA:140:G:N7	2.28	0.48
25:DA:325:G:H2'	25:DA:326:G:C8	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:614(C):A:O2'	25:DA:615:G:OP1	2.30	0.48
25:DA:664:C:H4'	25:DA:941:A:P	2.53	0.48
25:DA:784:A:H5'	25:DA:785:G:OP1	2.12	0.48
25:DA:1345:C:O2'	25:DA:1346:G:H5'	2.12	0.48
25:DA:1819:A:O2'	25:DA:1820:U:OP2	2.27	0.48
25:DA:2453:A:O2'	25:DA:2454:G:H5'	2.12	0.48
25:DA:2483:C:C5'	25:DA:2484:G:OP2	2.61	0.48
28:DD:125:ILE:HD12	28:DD:136:ILE:HG23	1.94	0.48
28:DD:155:LEU:HD12	28:DD:155:LEU:N	2.28	0.48
30:DF:28:ILE:O	30:DF:28:ILE:HD12	2.13	0.48
30:DF:125:LEU:HD22	30:DF:125:LEU:N	2.29	0.48
31:DG:97:ASP:O	31:DG:101:ILE:CG2	2.60	0.48
33:DI:12:LEU:O	33:DI:12:LEU:HG	2.14	0.48
33:DI:69:LYS:O	33:DI:73:GLU:HB3	2.12	0.48
33:DI:88:ILE:N	33:DI:88:ILE:CD1	2.76	0.48
34:DN:32:THR:HG23	34:DN:37:LYS:HB3	1.95	0.48
36:DP:107:LYS:O	36:DP:107:LYS:HG3	2.13	0.48
39:DS:17:ARG:O	39:DS:19:LYS:N	2.46	0.48
40:DT:36:GLU:HB3	40:DT:38:ASN:HB3	1.93	0.48
50:D3:8:LEU:HD12	50:D3:31:LEU:HA	1.94	0.48
53:D6:27:LYS:O	53:D6:29:ASN:N	2.46	0.48
54:D7:19:ARG:HG2	54:D7:19:ARG:NH1	2.25	0.48
1:AA:441:G:N2	1:AA:472:C:N4	2.60	0.48
1:AA:660:U:H1'	11:AK:119:CYS:SG	2.53	0.48
1:AA:1192:U:H4'	1:AA:1193:U:OP1	2.14	0.48
1:AA:1267:A:O2'	1:AA:1269:A:OP1	2.27	0.48
1:AA:1475:U:O2'	24:AX:17:U:OP1	2.21	0.48
3:AC:18:TRP:H	3:AC:18:TRP:HE3	1.61	0.48
4:AD:56:VAL:HG12	4:AD:202:LEU:HD13	1.95	0.48
4:AD:68:TYR:O	4:AD:69:GLY:C	2.55	0.48
6:AF:41:GLU:OE1	18:AR:35:ARG:NH2	2.45	0.48
8:AH:87:SER:HB2	8:AH:93:VAL:HB	1.94	0.48
10:AJ:22:LYS:NZ	10:AJ:23:ILE:HG12	2.28	0.48
13:AM:80:ARG:C	13:AM:82:MET:H	2.22	0.48
22:AW:23:A:N6	22:AW:24:G:C6	2.81	0.48
22:AY:37:A:H3'	22:AY:38:A:O4'	2.13	0.48
25:BA:18:C:O3'	41:BU:23:GLY:HA2	2.12	0.48
25:BA:144:C:O2'	25:BA:145:G:H5'	2.13	0.48
25:BA:283:A:O2'	25:BA:284:U:OP1	2.30	0.48
25:BA:314:A:C2'	25:BA:315:G:C5'	2.90	0.48
25:BA:605:C:O2	25:BA:657:U:O2'	2.31	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:953:A:C2	25:BA:954:G:C8	3.01	0.48
25:BA:1591:G:H5'	25:BA:1591:G:H8	1.78	0.48
25:BA:2127:G:H2'	25:BA:2128:C:O4'	2.13	0.48
26:BB:7:G:N2	39:BS:38:GLN:HE22	2.10	0.48
28:BD:24:ILE:HG13	28:BD:25:THR:N	2.25	0.48
28:BD:33:LEU:O	28:BD:35:LYS:N	2.46	0.48
28:BD:80:ALA:HB3	28:BD:94:LEU:HD13	1.95	0.48
30:BF:138:GLU:O	30:BF:139:PHE:C	2.55	0.48
31:BG:114:ILE:O	31:BG:115:ARG:C	2.55	0.48
33:BI:15:VAL:C	33:BI:17:GLN:H	2.21	0.48
33:BI:29:TYR:CE1	33:BI:33:ARG:NE	2.75	0.48
33:BI:69:LYS:O	33:BI:73:GLU:HB3	2.12	0.48
33:BI:77:LEU:O	33:BI:140:LEU:HD12	2.13	0.48
34:BN:25:ARG:HH11	34:BN:25:ARG:CG	2.27	0.48
37:BQ:27:VAL:HG23	37:BQ:137:TYR:CE1	2.45	0.48
39:BS:41:ASP:OD2	39:BS:44:LYS:HB3	2.13	0.48
41:BU:95:LEU:O	41:BU:98:LEU:HG	2.13	0.48
42:BV:29:PRO:O	42:BV:61:VAL:CG2	2.57	0.48
43:BW:9:TYR:N	43:BW:9:TYR:HD2	2.12	0.48
43:BW:68:ARG:O	43:BW:110:LYS:N	2.46	0.48
50:B3:8:LEU:HD12	50:B3:31:LEU:HA	1.94	0.48
1:CA:180:C:H1'	20:CT:85:MET:HE1	1.95	0.48
1:CA:1327:A:H5''	9:CI:120:ARG:NH1	2.23	0.48
2:CB:17:PHE:N	2:CB:17:PHE:HD2	2.11	0.48
2:CB:24:TRP:CD1	2:CB:24:TRP:N	2.79	0.48
3:CC:71:ALA:HB1	3:CC:109:PRO:HG3	1.93	0.48
4:CD:25:ARG:NH1	4:CD:30:LYS:O	2.47	0.48
4:CD:57:ARG:HG3	4:CD:57:ARG:NH1	2.26	0.48
10:CJ:54:PHE:CD2	10:CJ:55:LYS:HE3	2.47	0.48
25:DA:557:U:H2'	25:DA:558:G:C8	2.46	0.48
25:DA:843:G:O2'	25:DA:844:C:H5'	2.13	0.48
25:DA:1019:U:H3	25:DA:1142(A):A:N6	2.06	0.48
25:DA:1042:G:H2'	25:DA:1042:G:N3	2.28	0.48
25:DA:2087:G:C2'	25:DA:2088:G:H5'	2.44	0.48
25:DA:2123:G:H1'	27:DC:44:HIS:CE1	2.47	0.48
25:DA:2392:A:OP1	55:D8:32:LEU:CD2	2.62	0.48
25:DA:2845:G:C2'	25:DA:2846:G:H5'	2.43	0.48
25:DA:2863:C:H2'	25:DA:2864:G:H5'	1.95	0.48
27:DC:77:ILE:O	27:DC:77:ILE:HG23	2.13	0.48
29:DE:101:ARG:HH21	29:DE:171:GLU:CB	2.25	0.48
29:DE:132:HIS:CE1	29:DE:135:HIS:NE2	2.81	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DN:93:THR:O	34:DN:94:HIS:HB2	2.13	0.48
37:DQ:4:PRO:HD3	37:DQ:70:PRO:O	2.12	0.48
43:DW:48:ALA:O	43:DW:50:VAL:N	2.46	0.48
49:D2:13:ALA:C	49:D2:15:LYS:H	2.21	0.48
49:D2:25:VAL:O	49:D2:29:LYS:HG2	2.13	0.48
55:D8:49:VAL:C	55:D8:53:PRO:HG3	2.38	0.48
1:AA:324:A:C2	1:AA:327:G:C8	3.01	0.48
2:AB:27:LYS:C	2:AB:29:ALA:H	2.20	0.48
2:AB:165:VAL:O	2:AB:187:LEU:O	2.31	0.48
3:AC:142:MET:C	3:AC:144:SER:H	2.22	0.48
5:AE:6:PHE:HB3	5:AE:35:GLY:O	2.12	0.48
5:AE:144:THR:OG1	5:AE:146:ALA:HB3	2.14	0.48
6:AF:3:ARG:HH11	6:AF:3:ARG:HG3	1.78	0.48
6:AF:8:ILE:CG2	6:AF:9:VAL:N	2.76	0.48
7:AG:44:TYR:C	7:AG:46:ALA:N	2.69	0.48
9:AI:4:TYR:N	9:AI:4:TYR:HD1	2.10	0.48
10:AJ:61:GLU:OE2	14:AN:45:ARG:NH1	2.47	0.48
11:AK:32:ILE:HD11	11:AK:68:ALA:O	2.12	0.48
14:AN:23:ARG:HD2	14:AN:28:GLY:O	2.14	0.48
23:AV:28:U:O2'	23:AV:29:C:H5'	2.14	0.48
22:AY:28:G:H2'	22:AY:29:G:C8	2.48	0.48
25:BA:309:G:O3'	45:BY:18:GLY:HA3	2.14	0.48
25:BA:921:G:H4'	25:BA:2269:A:C5	2.47	0.48
25:BA:1158:C:H5'	50:B3:31:LEU:HB2	1.94	0.48
25:BA:1582:C:O2'	25:BA:1586:A:C8	2.64	0.48
25:BA:1999:C:H5''	25:BA:2723:C:O2'	2.12	0.48
25:BA:2023:G:H4'	25:BA:2617:C:O3'	2.13	0.48
25:BA:2267:A:H5''	25:BA:2268:A:H5'	1.96	0.48
25:BA:2873:A:N3	38:BR:6:SER:CB	2.75	0.48
27:BC:77:ILE:CB	27:BC:122:ALA:HA	2.44	0.48
28:BD:49:ILE:CD1	28:BD:52:ARG:HA	2.41	0.48
31:BG:19:LEU:HD21	31:BG:171:ALA:HB1	1.96	0.48
34:BN:43:THR:O	34:BN:46:VAL:HG12	2.13	0.48
37:BQ:4:PRO:HD3	37:BQ:70:PRO:O	2.12	0.48
40:BT:132:LYS:HB2	40:BT:132:LYS:HE3	1.59	0.48
41:BU:111:GLU:O	41:BU:112:ARG:C	2.55	0.48
42:BV:75:PHE:C	42:BV:75:PHE:CD1	2.90	0.48
43:BW:50:VAL:CG1	43:BW:51:LEU:N	2.76	0.48
44:BX:29:TRP:CE3	44:BX:78:LYS:HB3	2.49	0.48
55:B8:21:LYS:HD3	55:B8:48:PHE:CE2	2.48	0.48
1:CA:565:U:OP1	15:CO:68:ARG:NH2	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:15:VAL:HG21	2:CB:209:ARG:NH2	2.21	0.48
2:CB:17:PHE:N	2:CB:17:PHE:CD2	2.79	0.48
2:CB:95:GLN:HG3	2:CB:148:TYR:HA	1.94	0.48
14:CN:27:CYS:C	14:CN:29:ARG:H	2.22	0.48
20:CT:53:LEU:CD1	20:CT:102:GLY:H	2.24	0.48
22:CW:5:G:H8	22:CW:5:G:O5'	1.97	0.48
22:CW:67:C:C4	22:CW:68:C:N4	2.81	0.48
23:CV:49:C:C6	23:CV:60:A:H1'	2.49	0.48
23:CV:51:U:C2	23:CV:52:C:C5	3.01	0.48
22:CY:28:G:H2'	22:CY:29:G:O4'	2.13	0.48
25:DA:271(M):G:C2'	25:DA:271(N):U:H5''	2.34	0.48
25:DA:604:G:H2'	25:DA:605:C:C6	2.49	0.48
25:DA:825:C:O2	36:DP:55:ARG:HD3	2.13	0.48
25:DA:910:A:H2'	25:DA:2264:C:O2'	2.14	0.48
25:DA:1472:A:H2'	25:DA:1473:G:H8	1.79	0.48
25:DA:1747(A):G:O2'	25:DA:1748:G:H5''	2.13	0.48
25:DA:1812:A:H2'	25:DA:1813:G:H8	1.79	0.48
26:DB:31:C:C2'	26:DB:53:A:H61	2.26	0.48
28:DD:197:GLY:O	28:DD:198:ASN:HB3	2.14	0.48
29:DE:119:ARG:HD2	29:DE:120:TRP:NE1	2.28	0.48
32:DH:18:GLU:HB3	32:DH:25:LYS:HZ2	1.78	0.48
34:DN:42:TRP:HA	34:DN:42:TRP:HE3	1.78	0.48
38:DR:13:HIS:O	38:DR:14:SER:C	2.56	0.48
38:DR:38:VAL:HB	38:DR:39:PRO:CD	2.38	0.48
39:DS:93:LYS:O	39:DS:95:HIS:N	2.47	0.48
41:DU:97:ASP:OD2	41:DU:101:ARG:NH2	2.31	0.48
41:DU:112:ARG:HH11	41:DU:112:ARG:HG2	1.78	0.48
42:DV:4:ILE:CG2	42:DV:39:LEU:HD23	2.43	0.48
43:DW:51:LEU:HD13	43:DW:52:GLU:N	2.28	0.48
46:DZ:28:MET:O	46:DZ:33:LEU:HG	2.13	0.48
55:D8:50:LEU:CD1	55:D8:54:GLU:OE2	2.62	0.48
1:AA:562:G:C6	1:AA:563:U:C4	3.01	0.48
1:AA:587:G:C5	1:AA:588:U:C5	3.02	0.48
1:AA:804:G:H2'	1:AA:805:C:H6	1.79	0.48
1:AA:1155:G:H2'	1:AA:1156:G:C8	2.49	0.48
1:AA:1323:C:O2'	9:AI:124:GLN:HA	2.14	0.48
2:AB:16:HIS:HA	2:AB:210:SER:OG	2.14	0.48
4:AD:17:VAL:HG12	4:AD:18:LYS:N	2.27	0.48
5:AE:101:ILE:HD11	5:AE:119:LEU:HA	1.95	0.48
7:AG:75:VAL:O	7:AG:75:VAL:HG23	2.14	0.48
9:AI:11:LYS:O	9:AI:12:GLU:C	2.57	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:83:GLU:O	10:AJ:85:LEU:N	2.47	0.48
20:AT:16:HIS:O	20:AT:19:SER:HB3	2.13	0.48
23:AV:17:C:H3'	23:AV:18:U:H5''	1.95	0.48
23:AV:33:C:C2'	23:AV:34:U:H5'	2.43	0.48
25:BA:236:C:H2'	25:BA:237:C:H6	1.78	0.48
25:BA:869:G:O2'	37:BQ:8:LYS:HG3	2.13	0.48
25:BA:915:C:O2'	25:BA:916:G:H5'	2.13	0.48
25:BA:1112:G:C2	25:BA:1113:U:C2	3.01	0.48
25:BA:1233:C:O2'	25:BA:1234:U:H5'	2.13	0.48
25:BA:1494:A:O2'	25:BA:1495:A:H5''	2.14	0.48
25:BA:2159:G:N2	25:BA:2160:G:H1'	2.29	0.48
25:BA:2208:A:H1'	25:BA:2219:G:C4	2.48	0.48
25:BA:2485:G:H5''	37:BQ:46:GLN:HE21	1.79	0.48
25:BA:2831:G:O4'	25:BA:2883:A:C2	2.67	0.48
27:BC:82:LYS:NZ	27:BC:149:ILE:HA	2.29	0.48
27:BC:182:PRO:O	27:BC:183:GLU:CB	2.61	0.48
28:BD:158:ALA:O	28:BD:159:ALA:C	2.54	0.48
29:BE:93:VAL:C	29:BE:95:ILE:H	2.22	0.48
31:BG:64:THR:CG2	31:BG:65:GLY:H	2.26	0.48
32:BH:141:VAL:C	32:BH:143:GLN:N	2.70	0.48
33:BI:15:VAL:O	33:BI:17:GLN:N	2.47	0.48
34:BN:32:THR:HG23	34:BN:37:LYS:HB3	1.95	0.48
34:BN:42:TRP:CZ3	34:BN:48:MET:HE1	2.49	0.48
36:BP:41:ARG:CZ	36:BP:45:LEU:HD12	2.43	0.48
36:BP:50:ARG:HG2	36:BP:50:ARG:NH2	2.27	0.48
36:BP:83:VAL:HG13	36:BP:114:ILE:HA	1.96	0.48
36:BP:112:LEU:HD13	36:BP:112:LEU:C	2.38	0.48
38:BR:106:GLY:O	38:BR:107:ASP:HB3	2.13	0.48
41:BU:27:LEU:O	41:BU:34:LYS:HB2	2.14	0.48
45:BY:28:LYS:NZ	45:BY:28:LYS:N	2.60	0.48
45:BY:84:ARG:HH12	45:BY:97:ARG:HD2	1.78	0.48
46:BZ:28:MET:O	46:BZ:33:LEU:HG	2.13	0.48
48:B1:57:GLU:O	48:B1:57:GLU:HG2	2.13	0.48
48:B1:69:LYS:HA	48:B1:72:GLU:HB2	1.95	0.48
1:CA:905:G:C2	1:CA:1372:U:O2	2.67	0.48
1:CA:982:A:C5	1:CA:1019:C:N3	2.82	0.48
1:CA:1370:C:H2'	1:CA:1371:C:C6	2.48	0.48
3:CC:127:ARG:HD2	3:CC:127:ARG:N	2.28	0.48
4:CD:17:VAL:HG12	4:CD:18:LYS:N	2.28	0.48
6:CF:3:ARG:HH11	6:CF:3:ARG:HG3	1.78	0.48
6:CF:69:GLU:CD	6:CF:69:GLU:H	2.21	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:87:SER:HB2	8:CH:93:VAL:HB	1.95	0.48
8:CH:103:VAL:HG12	8:CH:108:GLY:HA3	1.95	0.48
10:CJ:79:ARG:N	10:CJ:79:ARG:HH11	2.12	0.48
12:CL:119:LYS:C	12:CL:120:TYR:CD1	2.91	0.48
16:CP:55:ARG:O	16:CP:58:TYR:N	2.46	0.48
17:CQ:45:HIS:CG	17:CQ:65:ILE:HD13	2.49	0.48
20:CT:94:ALA:O	20:CT:95:ALA:HB3	2.12	0.48
25:DA:103:A:C2'	25:DA:104:U:H5''	2.39	0.48
25:DA:271(P):C:C5'	33:DI:46:ALA:HB2	2.44	0.48
25:DA:541:C:H2'	25:DA:542:C:C5'	2.42	0.48
25:DA:554:U:O2'	25:DA:555:U:H5'	2.14	0.48
25:DA:613:G:N1	25:DA:614:U:C5	2.82	0.48
25:DA:614(C):A:O2'	25:DA:615:G:C4'	2.60	0.48
25:DA:911:A:C2	25:DA:2277:G:N3	2.81	0.48
25:DA:1032:A:O3'	56:D9:16:VAL:HG11	2.14	0.48
25:DA:1188:U:C5'	42:DV:79:VAL:HG22	2.43	0.48
25:DA:1245:G:OP1	36:DP:16:ARG:NE	2.46	0.48
25:DA:1275:A:C8	38:DR:16:HIS:CD2	3.02	0.48
25:DA:1331:A:O2'	25:DA:1332:G:H8	1.97	0.48
25:DA:2262:U:O2'	25:DA:2263:C:H5''	2.13	0.48
25:DA:2310:A:O2'	25:DA:2311:A:H5''	2.13	0.48
25:DA:2522:U:C2'	25:DA:2523:G:H5''	2.43	0.48
25:DA:2801:A:H1'	25:DA:2801(A):A:N7	2.29	0.48
25:DA:2892:A:H2'	25:DA:2893:G:C4'	2.40	0.48
26:DB:13:A:N7	26:DB:70:C:H4'	2.28	0.48
26:DB:107:G:C4	26:DB:108:U:C6	3.02	0.48
28:DD:30:GLU:CD	28:DD:63:ARG:NE	2.72	0.48
28:DD:75:ILE:HD13	28:DD:99:ASP:OD1	2.13	0.48
28:DD:155:LEU:N	28:DD:155:LEU:CD1	2.77	0.48
29:DE:1:MET:HE2	29:DE:83:ASP:C	2.38	0.48
30:DF:46:ARG:HG3	30:DF:46:ARG:NH1	2.23	0.48
30:DF:155:LEU:CD2	30:DF:186:ILE:HD13	2.42	0.48
32:DH:26:VAL:O	32:DH:32:GLU:HA	2.12	0.48
32:DH:130:ARG:HH11	32:DH:132:ARG:NH2	2.12	0.48
33:DI:110:ASP:O	33:DI:114:LEU:HD21	2.13	0.48
36:DP:41:ARG:CZ	36:DP:45:LEU:HD12	2.43	0.48
36:DP:97:PRO:C	36:DP:99:LEU:N	2.71	0.48
37:DQ:34:LEU:CD1	37:DQ:129:THR:HB	2.43	0.48
38:DR:63:ARG:O	38:DR:67:LEU:HB2	2.14	0.48
40:DT:95:ARG:HD2	40:DT:95:ARG:HA	1.52	0.48
45:DY:54:LYS:CE	45:DY:55:TYR:CE2	2.83	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:D5:20:ARG:HA	52:D5:23:HIS:HD1	1.78	0.48
54:D7:43:THR:HG23	54:D7:44:PRO:CD	2.43	0.48
1:AA:484:C:H2'	1:AA:485:G:H8	1.79	0.48
1:AA:672:C:H2'	1:AA:673:G:O4'	2.12	0.48
1:AA:1007:C:H4'	1:AA:1015:G:H22	1.79	0.48
1:AA:1153:C:H2'	1:AA:1154:G:H8	1.78	0.48
2:AB:35:GLU:O	2:AB:35:GLU:HG2	2.14	0.48
2:AB:55:PHE:HA	2:AB:58:ILE:HB	1.96	0.48
2:AB:168:THR:HA	2:AB:171:ALA:HB2	1.96	0.48
4:AD:8:VAL:O	4:AD:10:ARG:N	2.31	0.48
13:AM:9:ILE:HD12	13:AM:9:ILE:N	2.29	0.48
16:AP:14:ASN:N	16:AP:15:PRO:CD	2.75	0.48
22:AW:14:A:C6	22:AW:15:G:C1'	2.92	0.48
25:BA:18:C:H5''	41:BU:24:TYR:O	2.12	0.48
25:BA:102:G:OP1	25:BA:102:G:C4'	2.62	0.48
25:BA:125:G:N2	54:B7:48:LYS:HD2	2.29	0.48
25:BA:407:G:H2'	25:BA:408:G:C8	2.48	0.48
25:BA:440:G:H2'	25:BA:441:U:C6	2.48	0.48
25:BA:849:A:H8	25:BA:849:A:O5'	1.96	0.48
25:BA:852:G:H2'	25:BA:853:G:C8	2.49	0.48
25:BA:855:G:C6	25:BA:856:C:N4	2.82	0.48
25:BA:1652:A:N6	25:BA:1653:G:N1	2.62	0.48
25:BA:2087:G:C2'	25:BA:2088:G:H5'	2.44	0.48
25:BA:2164:C:H3'	25:BA:2165:G:H8	1.78	0.48
25:BA:2302:G:C5	25:BA:2315:G:N1	2.82	0.48
25:BA:2474:C:H2'	25:BA:2474:C:O2	2.14	0.48
25:BA:2484:G:O2'	37:BQ:124:LYS:O	2.31	0.48
25:BA:2505:G:O2'	25:BA:2506:U:H5'	2.14	0.48
26:BB:10:C:H42	26:BB:111:G:H1	1.60	0.48
26:BB:45:A:H2'	26:BB:46:A:H5'	1.96	0.48
28:BD:24:ILE:O	28:BD:25:THR:O	2.31	0.48
28:BD:30:GLU:CD	28:BD:63:ARG:NE	2.72	0.48
28:BD:118:VAL:HG22	28:BD:119:ALA:N	2.29	0.48
28:BD:183:ARG:HH11	28:BD:183:ARG:HG2	1.78	0.48
28:BD:197:GLY:O	28:BD:198:ASN:HB3	2.14	0.48
29:BE:19:ARG:O	29:BE:19:ARG:HG3	2.14	0.48
29:BE:181:LEU:HD21	40:BT:7:ILE:HG23	1.94	0.48
29:BE:197:ILE:O	29:BE:197:ILE:HG13	2.14	0.48
30:BF:144:LYS:C	30:BF:146:ALA:H	2.21	0.48
31:BG:97:ASP:O	31:BG:98:ARG:C	2.56	0.48
32:BH:89:ILE:HD13	32:BH:94:TYR:HB3	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BH:130:ARG:HH11	32:BH:132:ARG:NH2	2.12	0.48
33:BI:98:ALA:C	33:BI:100:ALA:N	2.70	0.48
33:BI:133:HIS:O	33:BI:134:PRO:C	2.55	0.48
34:BN:41:ASP:O	34:BN:42:TRP:C	2.57	0.48
36:BP:21:ARG:CD	36:BP:29:LYS:HE3	2.35	0.48
36:BP:108:LYS:HD2	36:BP:108:LYS:N	2.28	0.48
41:BU:110:VAL:O	41:BU:113:ALA:HB3	2.13	0.48
42:BV:2:PHE:HB3	42:BV:41:GLY:C	2.39	0.48
42:BV:2:PHE:HD1	42:BV:13:ARG:NH1	2.11	0.48
42:BV:19:LYS:C	42:BV:20:LEU:HD12	2.38	0.48
42:BV:39:LEU:HD11	42:BV:51:VAL:CG2	2.43	0.48
45:BY:8:LYS:CE	45:BY:72:VAL:HG23	2.44	0.48
46:BZ:151:HIS:HB2	46:BZ:168:GLU:O	2.12	0.48
49:B2:13:ALA:C	49:B2:15:LYS:H	2.21	0.48
52:B5:20:ARG:HA	52:B5:23:HIS:HD1	1.78	0.48
1:CA:515:A:H2	1:CA:1188:G:O4'	1.96	0.48
1:CA:523:G:H2'	1:CA:524:G:O4'	2.13	0.48
1:CA:542:A:OP1	5:CE:126:ARG:NH2	2.46	0.48
1:CA:589:G:H5''	1:CA:590:A:H5'	1.95	0.48
1:CA:919:G:H21	9:CI:124:GLN:NE2	2.10	0.48
2:CB:96:ARG:O	2:CB:97:TRP:C	2.56	0.48
2:CB:217:ARG:HA	2:CB:220:ASP:OD2	2.13	0.48
7:CG:59:LEU:HD23	7:CG:59:LEU:C	2.39	0.48
8:CH:63:LEU:HB3	8:CH:65:TYR:CE1	2.49	0.48
12:CL:24:VAL:HG21	12:CL:97:ARG:O	2.14	0.48
17:CQ:27:PHE:CZ	17:CQ:36:ILE:HD11	2.49	0.48
20:CT:38:LYS:C	20:CT:40:ALA:N	2.70	0.48
25:DA:89:G:H3'	25:DA:90:U:H5''	1.96	0.48
25:DA:144:C:O2'	25:DA:145:G:H5'	2.13	0.48
25:DA:440:G:H2'	25:DA:441:U:C6	2.48	0.48
25:DA:605:C:O2	25:DA:657:U:O2'	2.31	0.48
25:DA:811:U:OP1	36:DP:30:THR:HG22	2.14	0.48
25:DA:1129:A:C4'	25:DA:2516:G:H4'	2.44	0.48
25:DA:1453:U:O4	38:DR:67:LEU:HD21	2.13	0.48
25:DA:1697:G:H3'	25:DA:1698:A:C5'	2.31	0.48
25:DA:1751:C:H2'	25:DA:1752:C:H6	1.79	0.48
25:DA:2104:G:H5'	25:DA:2104:G:N3	2.28	0.48
25:DA:2299:G:C6	25:DA:2318:G:H8	2.30	0.48
25:DA:2472:G:H3'	25:DA:2475:C:N4	2.29	0.48
25:DA:2823:A:OP1	29:DE:113:PHE:HB2	2.13	0.48
25:DA:2849:U:H1'	25:DA:2866:U:H6	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DD:24:ILE:HG13	28:DD:25:THR:N	2.25	0.48
28:DD:33:LEU:O	28:DD:35:LYS:N	2.46	0.48
29:DE:119:ARG:HG2	29:DE:160:TYR:HB2	1.96	0.48
30:DF:46:ARG:NH1	30:DF:46:ARG:CG	2.77	0.48
30:DF:63:LYS:NZ	30:DF:67:GLN:HB3	2.28	0.48
33:DI:15:VAL:O	33:DI:17:GLN:N	2.47	0.48
34:DN:17:ASP:C	34:DN:19:GLU:N	2.71	0.48
38:DR:106:GLY:O	38:DR:107:ASP:HB3	2.13	0.48
41:DU:90:VAL:HG21	42:DV:47:VAL:HG21	1.96	0.48
41:DU:91:ASP:C	41:DU:92:ARG:CD	2.82	0.48
45:DY:8:LYS:CE	45:DY:72:VAL:HG23	2.43	0.48
45:DY:96:ILE:CG1	45:DY:99:CYS:HB2	2.44	0.48
46:DZ:166:SER:HB2	46:DZ:168:GLU:HB2	1.96	0.48
1:AA:95:G:H2'	1:AA:96:C:H6	1.78	0.48
1:AA:523:G:C6	1:AA:524:G:C5	3.02	0.48
1:AA:722:C:O2'	15:AO:42:HIS:ND1	2.41	0.48
1:AA:913:C:H2'	1:AA:914:A:O4'	2.13	0.48
3:AC:71:ALA:HB1	3:AC:109:PRO:HG3	1.95	0.48
4:AD:12:CYS:SG	4:AD:19:LEU:O	2.72	0.48
5:AE:20:GLN:O	5:AE:23:GLY:O	2.32	0.48
5:AE:90:VAL:HG21	5:AE:121:LYS:HB3	1.96	0.48
6:AF:82:ARG:HB3	6:AF:82:ARG:NH1	2.27	0.48
9:AI:43:ALA:C	9:AI:45:ALA:H	2.22	0.48
10:AJ:28:ARG:NH2	10:AJ:34:VAL:O	2.46	0.48
12:AL:101:VAL:HG12	12:AL:104:VAL:CG2	2.44	0.48
13:AM:111:LYS:O	13:AM:113:PRO:HD2	2.13	0.48
25:BA:271(D):G:O2'	25:BA:271(E):U:H5'	2.14	0.48
25:BA:610:G:H2'	25:BA:611:C:C6	2.48	0.48
25:BA:631:A:H2'	25:BA:632:A:O4'	2.13	0.48
25:BA:843:G:O2'	25:BA:844:C:H5'	2.14	0.48
25:BA:879:G:C2	25:BA:899:A:H1'	2.49	0.48
25:BA:1232:G:H2'	25:BA:1233:C:H6	1.79	0.48
25:BA:1238:G:H2'	25:BA:1239:G:H8	1.77	0.48
25:BA:1332:G:N2	25:BA:1609:A:O2'	2.47	0.48
25:BA:1387:C:H5'	25:BA:1469:A:H4'	1.95	0.48
25:BA:1812:A:H2'	25:BA:1813:G:H8	1.79	0.48
25:BA:2414:G:H21	36:BP:67:MET:HE1	1.79	0.48
25:BA:2472:G:H3'	25:BA:2475:C:N4	2.29	0.48
25:BA:2778:A:C4'	25:BA:2779:U:OP2	2.55	0.48
25:BA:2789:C:N3	25:BA:2894:G:O6	2.47	0.48
26:BB:69:G:C2	26:BB:70:C:C2	3.01	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BF:65:TRP:CH2	30:BF:75:HIS:HD2	2.32	0.48
30:BF:127:GLU:HB2	30:BF:196:LEU:HG	1.94	0.48
33:BI:68:LEU:HD21	33:BI:130:TYR:CD2	2.49	0.48
35:BO:77:ILE:HD12	40:BT:73:GLU:O	2.13	0.48
36:BP:32:THR:CG2	36:BP:37:GLY:HA2	2.43	0.48
38:BR:109:ALA:O	38:BR:111:LEU:HD22	2.13	0.48
39:BS:65:VAL:O	39:BS:69:VAL:HG12	2.14	0.48
40:BT:62:THR:HG22	40:BT:75:ILE:HG22	1.96	0.48
47:B0:26:TYR:H	47:B0:29:GLN:NE2	2.11	0.48
1:CA:309:C:O2'	1:CA:310:A:H5'	2.13	0.48
1:CA:626:C:H5'	8:CH:31:PHE:CD1	2.48	0.48
1:CA:750:A:H2'	1:CA:751:A:O4'	2.13	0.48
2:CB:105:PHE:O	2:CB:106:LYS:C	2.57	0.48
2:CB:134:GLU:HA	2:CB:137:ARG:CB	2.42	0.48
2:CB:167:PRO:O	2:CB:168:THR:C	2.56	0.48
2:CB:238:LEU:O	2:CB:240:GLN:N	2.47	0.48
3:CC:18:TRP:H	3:CC:18:TRP:HE3	1.60	0.48
3:CC:188:LEU:HB3	3:CC:189:ALA:H	1.55	0.48
8:CH:5:PRO:HB3	8:CH:32:LYS:NZ	2.29	0.48
9:CI:17:VAL:HG22	9:CI:63:ILE:CD1	2.43	0.48
9:CI:43:ALA:C	9:CI:45:ALA:H	2.22	0.48
10:CJ:63:PHE:HA	14:CN:59:ALA:HB2	1.95	0.48
22:CW:2:C:C6	22:CW:2:C:OP2	2.66	0.48
25:DA:125:G:H21	54:D7:48:LYS:CD	2.26	0.48
25:DA:302:C:H2'	25:DA:303:U:C6	2.49	0.48
25:DA:365:C:H6	25:DA:365:C:C5'	2.19	0.48
25:DA:464:U:C4'	54:D7:5:TRP:CZ3	2.96	0.48
25:DA:610:G:H2'	25:DA:611:C:C6	2.48	0.48
25:DA:624:C:O2'	25:DA:625:G:H5'	2.14	0.48
25:DA:866:A:N1	25:DA:914:C:C6	2.82	0.48
25:DA:879:G:N2	25:DA:899:A:H1'	2.28	0.48
25:DA:950:G:H2'	25:DA:951:C:C6	2.49	0.48
25:DA:954:G:H4'	37:DQ:13:GLN:HE21	1.77	0.48
25:DA:1311:G:C4	54:D7:47:ARG:NH2	2.82	0.48
25:DA:1657:C:H2'	25:DA:1658:C:H6	1.78	0.48
25:DA:2474:C:O2	25:DA:2474:C:H2'	2.14	0.48
25:DA:2590:A:O2'	25:DA:2591:C:H5'	2.14	0.48
25:DA:2810:A:H1'	29:DE:61:ARG:HH12	1.78	0.48
26:DB:105:A:H2'	26:DB:106:G:O4'	2.14	0.48
31:DG:19:LEU:HD21	31:DG:171:ALA:HB1	1.96	0.48
32:DH:89:ILE:HD13	32:DH:94:TYR:HB3	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DI:15:VAL:C	33:DI:17:GLN:H	2.21	0.48
33:DI:68:LEU:HD23	33:DI:68:LEU:O	2.13	0.48
34:DN:41:ASP:O	34:DN:42:TRP:C	2.57	0.48
38:DR:27:SER:HB3	38:DR:34:ILE:HD11	1.95	0.48
41:DU:27:LEU:O	41:DU:34:LYS:HB2	2.14	0.48
41:DU:92:ARG:HD3	41:DU:92:ARG:N	2.27	0.48
42:DV:39:LEU:O	42:DV:40:LEU:HB2	2.14	0.48
43:DW:55:ALA:HA	43:DW:107:LEU:CD2	2.44	0.48
44:DX:35:THR:HG22	44:DX:36:LYS:N	2.28	0.48
46:DZ:155:LEU:O	46:DZ:157:LEU:HD12	2.13	0.48
49:D2:63:VAL:O	49:D2:66:GLU:CG	2.62	0.48
54:D7:16:HIS:HA	54:D7:21:ARG:HH12	1.79	0.48
54:D7:41:ARG:HB2	54:D7:41:ARG:NH1	2.28	0.48
1:AA:441:G:H2'	1:AA:469:G:N2	2.28	0.48
1:AA:1118:U:H5''	1:AA:1119:C:C5	2.48	0.48
1:AA:1145:C:H2'	1:AA:1146:G:C8	2.48	0.48
1:AA:1341:A:OP1	1:AA:1341:A:H8	1.96	0.48
2:AB:187:LEU:HD11	2:AB:204:ASN:O	2.14	0.48
5:AE:78:HIS:HD2	8:AH:104:ARG:CZ	2.26	0.48
8:AH:120:THR:OG1	8:AH:123:GLU:HG3	2.13	0.48
9:AI:104:ARG:CG	9:AI:106:ALA:N	2.68	0.48
10:AJ:13:HIS:O	10:AJ:17:ASP:HB2	2.13	0.48
10:AJ:97:GLU:O	10:AJ:98:ILE:HD12	2.14	0.48
11:AK:46:GLY:HA2	11:AK:50:TYR:O	2.13	0.48
17:AQ:27:PHE:CZ	17:AQ:36:ILE:HD11	2.49	0.48
20:AT:33:ILE:HD13	20:AT:62:LEU:HB2	1.95	0.48
22:AW:51:U:C2	22:AW:52:G:N7	2.81	0.48
25:BA:302:C:H2'	25:BA:303:U:C6	2.49	0.48
25:BA:534:U:H5'	41:BU:42:ALA:HB1	1.96	0.48
25:BA:1129:A:C4'	25:BA:2516:G:H4'	2.43	0.48
25:BA:1176:G:O2'	25:BA:1177:A:H5'	2.13	0.48
25:BA:1266:G:OP2	52:B5:19:ARG:NH1	2.47	0.48
25:BA:1270:C:O2'	25:BA:1648:C:OP2	2.30	0.48
25:BA:1647:G:OP2	25:BA:1647:G:C3'	2.61	0.48
25:BA:1986:A:H3'	25:BA:1987:G:H5''	1.94	0.48
25:BA:2189:U:H2'	25:BA:2190:G:H5''	1.95	0.48
25:BA:2225:A:H1'	25:BA:2226:C:OP2	2.13	0.48
25:BA:2330:G:O2'	25:BA:2331:G:O5'	2.32	0.48
25:BA:2636:U:H4'	29:BE:80:GLU:CD	2.38	0.48
25:BA:2810:A:H2'	25:BA:2811:G:O4'	2.14	0.48
26:BB:87:G:C2'	26:BB:88:C:H5''	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BG:43:LEU:CB	31:BG:88:ILE:HG12	2.39	0.48
32:BH:41:MET:HG2	32:BH:52:VAL:HG12	1.95	0.48
32:BH:88:LEU:N	32:BH:88:LEU:HD22	2.29	0.48
34:BN:59:LYS:O	34:BN:60:ILE:C	2.56	0.48
34:BN:99:LEU:HD12	34:BN:122:VAL:HG21	1.95	0.48
36:BP:148:LEU:O	36:BP:149:GLU:HB2	2.13	0.48
45:BY:96:ILE:CG1	45:BY:99:CYS:HB2	2.44	0.48
46:BZ:14:LYS:C	46:BZ:16:SER:N	2.71	0.48
47:B0:54:GLY:O	47:B0:56:ASP:N	2.47	0.48
1:CA:119:G:H5'	1:CA:616:G:N2	2.28	0.48
1:CA:458:G:OP2	16:CP:75:ARG:NH1	2.47	0.48
1:CA:625:A:N3	8:CH:113:SER:OG	2.32	0.48
1:CA:977:U:H2'	1:CA:978:A:H8	1.76	0.48
1:CA:977:U:N3	1:CA:1024:G:N2	2.61	0.48
4:CD:30:LYS:HA	4:CD:35:ARG:HD2	1.96	0.48
4:CD:146:ILE:HD12	4:CD:146:ILE:H	1.78	0.48
5:CE:76:ILE:HG13	5:CE:77:PRO:HD2	1.96	0.48
8:CH:119:LEU:HD12	8:CH:124:ALA:HA	1.96	0.48
11:CK:12:ARG:HH21	11:CK:14:VAL:CG1	2.25	0.48
12:CL:79:GLU:HG2	12:CL:79:GLU:O	2.12	0.48
12:CL:111:LYS:O	12:CL:112:ASP:HB2	2.13	0.48
16:CP:6:LEU:HB3	16:CP:17:TYR:CD2	2.48	0.48
20:CT:26:ASN:CB	20:CT:71:THR:CB	2.89	0.48
22:CW:38:A:H8	22:CW:38:A:O5'	1.97	0.48
22:CW:69:G:C3'	22:CW:70:G:H5''	2.44	0.48
23:CV:41:C:C2'	23:CV:42:C:H5'	2.44	0.48
22:CY:27:G:C8	22:CY:28:G:N7	2.81	0.48
25:DA:125:G:N2	54:D7:48:LYS:HD2	2.27	0.48
25:DA:236:C:H2'	25:DA:237:C:H6	1.78	0.48
25:DA:407:G:H2'	25:DA:408:G:C8	2.48	0.48
25:DA:539:G:H2'	25:DA:540:C:C6	2.47	0.48
25:DA:696:G:O2'	25:DA:697:C:H5'	2.14	0.48
25:DA:709:U:H2'	25:DA:710:G:H8	1.78	0.48
25:DA:1176:G:O2'	25:DA:1177:A:H5'	2.13	0.48
25:DA:1301:A:O2'	25:DA:1302:A:C2'	2.52	0.48
25:DA:1310:G:OP2	54:D7:9:ARG:NH1	2.47	0.48
25:DA:1332:G:N2	25:DA:1609:A:O2'	2.47	0.48
25:DA:1344:G:C2	25:DA:1385:G:C8	3.02	0.48
25:DA:1518:U:H2'	25:DA:1519:G:O4'	2.14	0.48
25:DA:2189:U:H2'	25:DA:2190:G:H5''	1.95	0.48
25:DA:2341:G:H2'	25:DA:2342:C:C6	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2600:A:H2'	25:DA:2601:C:C6	2.48	0.48
26:DB:10:C:H42	26:DB:111:G:H1	1.60	0.48
26:DB:83:G:C2	26:DB:84:C:C2	3.02	0.48
29:DE:93:VAL:C	29:DE:95:ILE:H	2.22	0.48
29:DE:101:ARG:HA	29:DE:101:ARG:HE	1.79	0.48
30:DF:52:LYS:O	30:DF:88:VAL:HG12	2.14	0.48
31:DG:97:ASP:O	31:DG:98:ARG:C	2.56	0.48
32:DH:84:SER:O	32:DH:85:LYS:CB	2.62	0.48
33:DI:68:LEU:HD21	33:DI:130:TYR:CD2	2.49	0.48
36:DP:98:GLU:HG3	36:DP:99:LEU:N	2.28	0.48
36:DP:108:LYS:N	36:DP:108:LYS:HD2	2.28	0.48
36:DP:112:LEU:C	36:DP:112:LEU:HD13	2.38	0.48
40:DT:24:PRO:HA	40:DT:49:VAL:HG22	1.96	0.48
41:DU:69:CYS:CB	41:DU:79:PHE:CD1	2.96	0.48
42:DV:2:PHE:HD1	42:DV:13:ARG:NH1	2.11	0.48
42:DV:79:VAL:O	42:DV:80:GLN:HB2	2.13	0.48
45:DY:3:VAL:O	45:DY:3:VAL:HG12	2.12	0.48
45:DY:26:LYS:O	45:DY:28:LYS:HE3	2.13	0.48
45:DY:54:LYS:CB	45:DY:55:TYR:CE2	2.94	0.48
46:DZ:102:LEU:HB2	46:DZ:122:ARG:O	2.14	0.48
47:D0:10:THR:HG22	47:D0:12:ASN:HB2	1.96	0.48
1:AA:568:G:OP1	17:AQ:37:LYS:HE2	2.13	0.48
1:AA:659:A:H2'	1:AA:660:U:C6	2.49	0.48
1:AA:1157:A:H2'	1:AA:1158:G:C8	2.49	0.48
1:AA:1268:A:H2'	1:AA:1269:A:C8	2.48	0.48
2:AB:24:TRP:CD1	2:AB:24:TRP:N	2.80	0.48
2:AB:140:HIS:O	2:AB:143:GLU:HB2	2.13	0.48
5:AE:11:ILE:HD12	5:AE:31:LEU:HD12	1.95	0.48
11:AK:124:LYS:HB3	11:AK:125:PHE:CD1	2.49	0.48
13:AM:8:GLU:OE2	13:AM:22:ILE:HA	2.13	0.48
14:AN:22:THR:O	14:AN:23:ARG:HB2	2.14	0.48
22:AY:28:G:N2	22:AY:42:C:N4	2.56	0.48
25:BA:301:G:H4'	25:BA:301:G:OP1	2.13	0.48
25:BA:528:A:C2	25:BA:2043:C:H5'	2.47	0.48
25:BA:952:G:C4	25:BA:953:A:C8	3.01	0.48
25:BA:1042:G:N3	25:BA:1042:G:H2'	2.28	0.48
25:BA:1747(A):G:O2'	25:BA:1748:G:H5''	2.13	0.48
25:BA:2262:U:O2'	25:BA:2263:C:H5''	2.12	0.48
25:BA:2584:U:H3'	25:BA:2584:U:H6	1.79	0.48
25:BA:2790:A:N3	25:BA:2790:A:C2'	2.77	0.48
25:BA:2831:G:H1'	25:BA:2883:A:H2'	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2849:U:H1'	25:BA:2866:U:H6	1.79	0.48
28:BD:68:LYS:HB2	28:BD:70:TRP:CZ2	2.49	0.48
28:BD:241:PRO:C	28:BD:242:ARG:HD2	2.38	0.48
30:BF:20:LEU:C	30:BF:24:LEU:HD23	2.38	0.48
30:BF:124:LEU:HG	30:BF:126:VAL:CG1	2.44	0.48
31:BG:27:ASN:O	31:BG:29:TRP:N	2.43	0.48
36:BP:98:GLU:HG3	36:BP:99:LEU:N	2.28	0.48
39:BS:17:ARG:O	39:BS:19:LYS:N	2.47	0.48
39:BS:93:LYS:O	39:BS:95:HIS:N	2.47	0.48
40:BT:102:ILE:HG22	40:BT:110:ILE:HG12	1.95	0.48
42:BV:46:VAL:CG2	42:BV:47:VAL:H	2.22	0.48
43:BW:8:ARG:HA	43:BW:102:HIS:CD2	2.48	0.48
45:BY:2:ARG:O	45:BY:3:VAL:HB	2.14	0.48
46:BZ:10:ARG:HB2	46:BZ:38:TYR:HD2	1.79	0.48
46:BZ:91:LEU:HD12	46:BZ:91:LEU:N	2.29	0.48
53:B6:47:THR:HB	53:B6:49:HIS:HE1	1.66	0.48
1:CA:468:G:H5'	1:CA:470:U:O4'	2.14	0.48
1:CA:1036:C:O2'	1:CA:1037:A:O5'	2.30	0.48
2:CB:36:ARG:H	2:CB:41:ILE:HD13	1.79	0.48
2:CB:171:ALA:HA	2:CB:174:VAL:CG2	2.43	0.48
2:CB:221:LEU:N	2:CB:221:LEU:HD22	2.27	0.48
5:CE:65:ASN:C	5:CE:66:MET:HG2	2.39	0.48
7:CG:76:ARG:HG2	7:CG:76:ARG:NH1	2.26	0.48
9:CI:96:LEU:HG	9:CI:102:LEU:HB2	1.95	0.48
10:CJ:13:HIS:ND1	10:CJ:13:HIS:C	2.71	0.48
10:CJ:49:VAL:HG21	14:CN:41:ARG:O	2.14	0.48
19:CS:39:THR:CG2	19:CS:40:ILE:N	2.77	0.48
25:DA:814:C:H2'	25:DA:815:C:H6	1.78	0.48
25:DA:860:U:C2	25:DA:2268:A:C8	3.01	0.48
25:DA:915:C:O2'	25:DA:916:G:H5'	2.13	0.48
25:DA:1131:G:OP1	34:DN:80:GLY:N	2.33	0.48
25:DA:1386:C:H2'	25:DA:1387:C:C6	2.48	0.48
25:DA:2023:G:H4'	25:DA:2617:C:O3'	2.13	0.48
25:DA:2127:G:H2'	25:DA:2128:C:O4'	2.13	0.48
25:DA:2288:A:C2	25:DA:2325:G:C8	3.02	0.48
25:DA:2810:A:H2'	25:DA:2811:G:O4'	2.14	0.48
25:DA:2831:G:H1'	25:DA:2883:A:H2'	1.95	0.48
26:DB:45:A:H2'	26:DB:46:A:H5'	1.96	0.48
28:DD:24:ILE:O	28:DD:25:THR:O	2.31	0.48
30:DF:133:ASN:O	30:DF:135:LYS:N	2.46	0.48
30:DF:160:ASN:C	30:DF:162:LEU:H	2.21	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DG:47:LYS:N	31:DG:51:ARG:HG3	2.29	0.48
33:DI:41:GLU:O	33:DI:45:LYS:HG2	2.14	0.48
33:DI:120:ILE:HD13	33:DI:126:TYR:CE1	2.48	0.48
39:DS:95:HIS:CG	39:DS:96:GLY:N	2.82	0.48
42:DV:2:PHE:HB3	42:DV:42:GLY:N	2.29	0.48
42:DV:5:VAL:HG12	42:DV:14:VAL:HG13	1.95	0.48
46:DZ:91:LEU:HD12	46:DZ:91:LEU:N	2.29	0.48
47:D0:54:GLY:O	47:D0:56:ASP:N	2.47	0.48
53:D6:26:ASN:O	53:D6:27:LYS:HG2	2.14	0.48
55:D8:49:VAL:HG23	55:D8:53:PRO:HB3	1.95	0.48
1:AA:494:C:C2	1:AA:495:U:C5	3.01	0.48
1:AA:525:G:H5'	4:AD:41:GLY:CA	2.44	0.48
1:AA:648:A:C8	1:AA:716:A:C2	3.02	0.48
1:AA:930:G:C5'	1:AA:942:A:H61	2.27	0.48
1:AA:1221:U:H3	7:AG:30:ILE:HG22	1.78	0.48
2:AB:54:THR:HG21	2:AB:201:ILE:HD11	1.95	0.48
4:AD:43:HIS:O	4:AD:44:GLY:C	2.57	0.48
4:AD:107:ARG:HB3	4:AD:174:LEU:HD11	1.95	0.48
5:AE:64:ARG:HA	5:AE:64:ARG:HE	1.79	0.48
6:AF:19:LEU:O	6:AF:23:LYS:HG3	2.14	0.48
10:AJ:54:PHE:CD2	10:AJ:55:LYS:HE3	2.49	0.48
12:AL:119:LYS:C	12:AL:120:TYR:CD1	2.92	0.48
18:AR:19:LYS:O	18:AR:20:ALA:HB2	2.12	0.48
18:AR:63:GLN:HA	18:AR:63:GLN:OE1	2.14	0.48
22:AW:67:C:O2'	22:AW:68:C:H5'	2.14	0.48
23:AV:4:G:O2'	23:AV:5:G:O5'	2.30	0.48
25:BA:185:U:H2'	25:BA:186:G:C8	2.49	0.48
25:BA:604:G:H2'	25:BA:605:C:C6	2.49	0.48
25:BA:621:A:H2'	25:BA:622:G:H5'	1.95	0.48
25:BA:673:C:HO2'	30:BF:82:ILE:HD13	1.79	0.48
25:BA:950:G:H2'	25:BA:951:C:C6	2.49	0.48
25:BA:1406:U:H3'	25:BA:1407:C:H6	1.78	0.48
25:BA:1609:A:C6	25:BA:1616:A:C8	3.01	0.48
25:BA:1786:A:H2	25:BA:2606:C:H1'	1.77	0.48
25:BA:2310:A:O2'	25:BA:2311:A:H5''	2.13	0.48
25:BA:2357:U:OP1	47:B0:20:ARG:NH1	2.46	0.48
25:BA:2408:U:O2'	25:BA:2409:G:H5'	2.13	0.48
25:BA:2845:G:C2'	25:BA:2846:G:H5'	2.43	0.48
29:BE:63:LEU:HD23	29:BE:65:GLY:N	2.28	0.48
29:BE:101:ARG:HB2	29:BE:201:THR:HG22	1.96	0.48
30:BF:133:ASN:O	30:BF:135:LYS:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BF:168:ARG:C	30:BF:170:LEU:H	2.22	0.48
31:BG:82:LEU:CD2	31:BG:87:PRO:HG3	2.41	0.48
31:BG:164:GLU:O	31:BG:165:THR:C	2.57	0.48
36:BP:52:GLU:OE2	36:BP:55:ARG:O	2.32	0.48
36:BP:95:VAL:CG2	36:BP:125:VAL:HB	2.44	0.48
37:BQ:43:THR:HG1	37:BQ:46:GLN:HG3	1.76	0.48
37:BQ:109:VAL:CG1	37:BQ:110:THR:N	2.75	0.48
39:BS:22:GLY:O	39:BS:23:ARG:O	2.32	0.48
41:BU:12:ARG:HA	41:BU:15:LYS:NZ	2.29	0.48
41:BU:69:CYS:CB	41:BU:79:PHE:CD1	2.96	0.48
43:BW:58:ALA:O	43:BW:62:HIS:HB2	2.14	0.48
45:BY:13:VAL:HA	45:BY:75:ILE:CG2	2.44	0.48
49:B2:50:ILE:O	49:B2:54:LYS:HG2	2.14	0.48
53:B6:26:ASN:O	53:B6:27:LYS:HG2	2.14	0.48
1:CA:5:U:H1'	1:CA:6:G:N1	2.29	0.48
1:CA:22:G:H2'	1:CA:23:C:C6	2.49	0.48
1:CA:345:G:O2'	1:CA:346:G:H5'	2.13	0.48
1:CA:433:G:H4'	4:CD:123:HIS:ND1	2.28	0.48
1:CA:1056:G:O3'	2:CB:103:THR:HG21	2.14	0.48
2:CB:55:PHE:HA	2:CB:58:ILE:HB	1.96	0.48
3:CC:186:PHE:HA	3:CC:198:VAL:O	2.14	0.48
7:CG:79:ARG:HG3	7:CG:79:ARG:NH1	2.28	0.48
9:CI:16:ARG:HB2	9:CI:64:THR:HG22	1.96	0.48
12:CL:126:LYS:HG3	12:CL:127:GLU:N	2.28	0.48
20:CT:13:LEU:HD12	20:CT:13:LEU:O	2.14	0.48
20:CT:16:HIS:O	20:CT:19:SER:HB3	2.13	0.48
25:DA:198:C:H5'	25:DA:2244:U:OP1	2.14	0.48
25:DA:302:C:H2'	25:DA:303:U:H6	1.78	0.48
25:DA:673:C:H6	25:DA:673:C:H5''	1.79	0.48
25:DA:781:A:O2'	25:DA:782:A:OP2	2.30	0.48
25:DA:855:G:C6	25:DA:856:C:N4	2.82	0.48
25:DA:904:C:HO2'	46:DZ:169:GLU:CD	2.22	0.48
25:DA:1414:G:H1	25:DA:1588:C:H42	1.62	0.48
25:DA:1652:A:N6	25:DA:1653:G:N1	2.62	0.48
25:DA:1980:G:O2'	25:DA:1982:C:OP2	2.30	0.48
25:DA:2171:A:HO2'	25:DA:2172:U:C1'	2.27	0.48
25:DA:2186:G:C6	25:DA:2187:G:C6	3.01	0.48
25:DA:2261:C:O2'	25:DA:2262:U:H5'	2.14	0.48
25:DA:2408:U:O2'	25:DA:2409:G:H5'	2.13	0.48
25:DA:2638:G:OP2	29:DE:82:ARG:NH2	2.46	0.48
28:DD:68:LYS:HB2	28:DD:70:TRP:CZ2	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DG:91:ARG:CD	31:DG:91:ARG:C	2.87	0.48
31:DG:133:LEU:HG	31:DG:157:ILE:HG13	1.96	0.48
32:DH:43:VAL:HG12	32:DH:53:GLU:H	1.79	0.48
32:DH:98:LEU:HD22	32:DH:125:VAL:CG2	2.44	0.48
33:DI:60:GLU:O	33:DI:64:GLU:HG2	2.14	0.48
33:DI:80:PRO:O	33:DI:81:VAL:C	2.57	0.48
34:DN:59:LYS:O	34:DN:60:ILE:C	2.56	0.48
36:DP:16:ARG:C	36:DP:16:ARG:HD3	2.39	0.48
36:DP:32:THR:HB	36:DP:36:LYS:HB2	1.96	0.48
36:DP:95:VAL:CG2	36:DP:125:VAL:HB	2.43	0.48
36:DP:97:PRO:O	36:DP:98:GLU:HG3	2.14	0.48
38:DR:87:TYR:HE1	38:DR:117:VAL:O	1.97	0.48
40:DT:30:VAL:HB	40:DT:42:ILE:HB	1.96	0.48
40:DT:64:ARG:NH2	40:DT:73:GLU:OE1	2.34	0.48
41:DU:15:LYS:HD3	41:DU:15:LYS:N	2.28	0.48
41:DU:112:ARG:HE	42:DV:46:VAL:HG21	1.78	0.48
44:DX:29:TRP:CE3	44:DX:78:LYS:HB3	2.49	0.48
44:DX:32:PRO:HA	44:DX:77:LYS:HB2	1.96	0.48
44:DX:35:THR:HB	44:DX:38:GLU:H	1.79	0.48
45:DY:2:ARG:C	45:DY:4:LYS:N	2.70	0.48
45:DY:27:VAL:CA	45:DY:28:LYS:HZ2	2.26	0.48
45:DY:28:LYS:NZ	45:DY:28:LYS:H	2.03	0.48
45:DY:28:LYS:HB2	45:DY:38:ILE:N	2.19	0.48
45:DY:84:ARG:HH12	45:DY:97:ARG:HD2	1.78	0.48
46:DZ:163:LEU:H	46:DZ:163:LEU:CD1	2.20	0.48
1:AA:523:G:H2'	1:AA:524:G:O4'	2.13	0.47
1:AA:1014:G:H2'	1:AA:1015:G:C8	2.48	0.47
1:AA:1301:C:C2	19:AS:72:GLY:HA3	2.49	0.47
2:AB:103:THR:OG1	2:AB:176:GLU:HG2	2.13	0.47
3:AC:112:SER:O	3:AC:114:PRO:HD2	2.14	0.47
4:AD:146:ILE:N	4:AD:146:ILE:CD1	2.73	0.47
4:AD:158:ILE:HG22	4:AD:181:MET:HE1	1.96	0.47
6:AF:63:TYR:CD2	6:AF:63:TYR:N	2.82	0.47
8:AH:114:THR:C	8:AH:116:LYS:H	2.22	0.47
9:AI:16:ARG:HB2	9:AI:64:THR:HG23	1.96	0.47
12:AL:25:PRO:C	12:AL:27:LEU:H	2.22	0.47
19:AS:31:ILE:CG2	19:AS:49:ILE:HA	2.43	0.47
22:AW:76:A:O2'	25:BA:2394:C:C2	2.65	0.47
25:BA:66:C:C2'	25:BA:67:U:H5'	2.44	0.47
25:BA:109:G:C2'	25:BA:110:G:C5'	2.92	0.47
25:BA:198:C:H5'	25:BA:2244:U:OP1	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:272:G:C6	25:BA:421:U:C6	3.02	0.47
25:BA:619:G:P	25:BA:620:G:H22	2.37	0.47
25:BA:646:A:C8	25:BA:647:G:H1'	2.49	0.47
25:BA:747:U:H5	52:B5:3:LYS:HB2	1.70	0.47
25:BA:911:A:C2	25:BA:2277:G:N3	2.81	0.47
25:BA:943:U:OP1	36:BP:38:GLN:HB3	2.14	0.47
25:BA:965:C:H6	25:BA:965:C:H5''	1.79	0.47
25:BA:1447:G:C6	25:BA:1448:G:C5	3.02	0.47
25:BA:1518:U:H2'	25:BA:1519:G:O4'	2.14	0.47
25:BA:1899:G:H22	25:BA:1902:C:H41	1.56	0.47
25:BA:2171:A:HO2'	25:BA:2172:U:C1'	2.27	0.47
25:BA:2626:C:H2'	25:BA:2627:G:O4'	2.15	0.47
27:BC:64:LEU:O	27:BC:66:HIS:N	2.46	0.47
30:BF:184:TYR:CE2	30:BF:188:ARG:HD2	2.49	0.47
31:BG:95:ARG:HH11	31:BG:95:ARG:HG2	1.78	0.47
33:BI:68:LEU:HD23	33:BI:68:LEU:O	2.13	0.47
34:BN:57:ALA:O	34:BN:58:ASP:C	2.56	0.47
34:BN:108:PRO:O	34:BN:113:GLY:HA3	2.14	0.47
36:BP:9:ASN:C	36:BP:11:GLY:N	2.71	0.47
36:BP:52:GLU:HG2	36:BP:55:ARG:C	2.39	0.47
37:BQ:76:LYS:HB3	37:BQ:91:GLU:HG3	1.96	0.47
37:BQ:137:TYR:O	37:BQ:138:ASP:O	2.32	0.47
38:BR:82:GLU:C	38:BR:85:PRO:HD2	2.39	0.47
39:BS:95:HIS:CG	39:BS:96:GLY:N	2.82	0.47
41:BU:90:VAL:CG1	41:BU:91:ASP:H	2.10	0.47
48:B1:23:LYS:HE2	48:B1:28:GLY:CA	2.42	0.47
49:B2:42:GLY:O	49:B2:44:LEU:N	2.46	0.47
1:CA:15:G:H21	5:CE:18:ARG:HA	1.79	0.47
1:CA:32:A:C2	1:CA:33:A:C4	3.02	0.47
1:CA:386:G:C6	1:CA:387:G:C5	3.02	0.47
1:CA:1193:U:H3'	1:CA:1193:U:H6	1.79	0.47
2:CB:44:LEU:H	2:CB:44:LEU:CD1	2.25	0.47
2:CB:168:THR:HA	2:CB:171:ALA:HB2	1.94	0.47
2:CB:178:ARG:HH11	2:CB:178:ARG:CG	2.27	0.47
3:CC:138:VAL:CG2	3:CC:151:VAL:HG23	2.42	0.47
8:CH:82:HIS:C	8:CH:82:HIS:HD2	2.19	0.47
8:CH:91:ARG:HH11	8:CH:91:ARG:CG	2.27	0.47
10:CJ:17:ASP:OD1	10:CJ:70:ARG:NH1	2.47	0.47
11:CK:46:GLY:HA2	11:CK:50:TYR:O	2.13	0.47
13:CM:9:ILE:HD12	13:CM:9:ILE:N	2.29	0.47
13:CM:19:LEU:HB3	13:CM:25:ILE:HG21	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:CQ:50:LYS:HG3	17:CQ:51:TYR:CD1	2.49	0.47
25:DA:69:C:H2'	25:DA:69:C:O2	2.14	0.47
25:DA:271(P):C:C2'	25:DA:271(Q):G:C5'	2.87	0.47
25:DA:271(R):G:H2'	25:DA:271(S):G:H8	1.79	0.47
25:DA:752:A:H4'	25:DA:753:C:O5'	2.14	0.47
25:DA:790:C:HO2'	25:DA:791:C:P	2.29	0.47
25:DA:952:G:C4	25:DA:953:A:C8	3.02	0.47
25:DA:953:A:C2	25:DA:954:G:C8	3.01	0.47
25:DA:2123:G:H4'	27:DC:175:VAL:O	2.13	0.47
25:DA:2228:G:P	28:DD:263:ARG:HH12	2.36	0.47
25:DA:2711:A:OP1	25:DA:2712(A):A:P	2.72	0.47
27:DC:83:ILE:HD12	27:DC:94:VAL:O	2.13	0.47
28:DD:241:PRO:C	28:DD:242:ARG:HD2	2.38	0.47
30:DF:119:ARG:HH11	30:DF:119:ARG:HG2	1.79	0.47
30:DF:144:LYS:C	30:DF:146:ALA:H	2.21	0.47
30:DF:168:ARG:C	30:DF:170:LEU:H	2.22	0.47
30:DF:184:TYR:CE2	30:DF:188:ARG:HD2	2.49	0.47
32:DH:32:GLU:O	32:DH:33:LEU:HD23	2.14	0.47
33:DI:5:LEU:C	33:DI:6:LEU:HD23	2.39	0.47
33:DI:14:ASP:O	33:DI:15:VAL:O	2.32	0.47
34:DN:91:LEU:CD2	34:DN:98:VAL:HG21	2.44	0.47
36:DP:148:LEU:O	36:DP:149:GLU:HB2	2.13	0.47
39:DS:35:ILE:CG2	39:DS:53:SER:HB2	2.44	0.47
39:DS:41:ASP:OD2	39:DS:44:LYS:HB3	2.13	0.47
40:DT:12:SER:HB3	40:DT:57:PHE:CE1	2.49	0.47
42:DV:2:PHE:HB3	42:DV:41:GLY:C	2.39	0.47
42:DV:15:GLU:O	42:DV:16:PRO:O	2.32	0.47
42:DV:39:LEU:N	42:DV:39:LEU:CD1	2.69	0.47
45:DY:28:LYS:NZ	45:DY:28:LYS:N	2.60	0.47
1:AA:505:C:H41	12:AL:53:ARG:HH22	1.60	0.47
1:AA:1005:C:H6	1:AA:1005:C:H3'	1.78	0.47
1:AA:1056:G:O3'	2:AB:103:THR:HG21	2.14	0.47
1:AA:1086:G:H4'	2:AB:111:ARG:NH1	2.28	0.47
3:AC:34:LEU:O	3:AC:38:ARG:HG2	2.15	0.47
3:AC:126:ARG:HG2	3:AC:126:ARG:NH1	2.29	0.47
4:AD:9:CYS:SG	4:AD:31:CYS:C	2.97	0.47
4:AD:108:LEU:O	4:AD:110:PHE:HD1	1.97	0.47
5:AE:12:LEU:C	5:AE:13:ILE:HG13	2.39	0.47
5:AE:65:ASN:C	5:AE:66:MET:HG2	2.38	0.47
6:AF:50:TYR:HE2	6:AF:52:ILE:HD11	1.79	0.47
7:AG:41:ARG:O	7:AG:45:ASP:N	2.39	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:103:VAL:CG1	8:AH:108:GLY:HA3	2.44	0.47
9:AI:83:ARG:O	9:AI:86:VAL:HG12	2.14	0.47
10:AJ:6:ILE:HG12	10:AJ:72:VAL:O	2.14	0.47
20:AT:14:LYS:CB	20:AT:17:ARG:HH21	2.27	0.47
21:AU:3:LYS:HB3	21:AU:14:TRP:CD1	2.50	0.47
23:AV:23:G:C6	23:AV:24:C:N4	2.82	0.47
25:BA:271(Q):G:C2	25:BA:271(R):G:N7	2.80	0.47
25:BA:1022:G:O2'	25:BA:1023:U:OP2	2.30	0.47
25:BA:1129:A:H1'	25:BA:2516:G:O4'	2.15	0.47
25:BA:2320:A:N1	25:BA:2333:A:N7	2.63	0.47
25:BA:2330:G:H2'	25:BA:2331:G:O5'	2.14	0.47
25:BA:2600:A:H2'	25:BA:2601:C:C6	2.48	0.47
25:BA:2863:C:C2'	25:BA:2864:G:C5'	2.82	0.47
28:BD:168:ARG:O	28:BD:169:GLU:HB2	2.14	0.47
29:BE:88:GLY:O	29:BE:89:ASP:HB2	2.13	0.47
30:BF:28:ILE:HD12	30:BF:28:ILE:O	2.13	0.47
30:BF:160:ASN:C	30:BF:162:LEU:H	2.21	0.47
33:BI:37:VAL:HG12	33:BI:38:LEU:N	2.29	0.47
33:BI:87:LYS:HA	33:BI:122:GLU:CG	2.30	0.47
37:BQ:35:VAL:HG23	37:BQ:100:GLY:O	2.13	0.47
37:BQ:51:ARG:HH11	37:BQ:51:ARG:CG	2.26	0.47
38:BR:13:HIS:O	38:BR:14:SER:C	2.56	0.47
41:BU:91:ASP:C	41:BU:92:ARG:CD	2.82	0.47
42:BV:21:ARG:HB3	42:BV:91:TYR:CB	2.35	0.47
43:BW:51:LEU:HD13	43:BW:52:GLU:N	2.28	0.47
46:BZ:166:SER:HB2	46:BZ:168:GLU:HB2	1.96	0.47
55:B8:49:VAL:C	55:B8:53:PRO:HG3	2.38	0.47
1:CA:206:G:H2'	1:CA:207:C:O4'	2.15	0.47
1:CA:378:A:C6	1:CA:379:G:H1'	2.49	0.47
1:CA:511:C:H41	12:CL:49:ASN:ND2	2.11	0.47
1:CA:884:A:C6	1:CA:885:A:C5	3.02	0.47
1:CA:939:C:H2'	1:CA:940:G:H8	1.79	0.47
1:CA:1116:G:H2'	1:CA:1117:U:H5'	1.95	0.47
2:CB:140:HIS:O	2:CB:143:GLU:HB2	2.14	0.47
2:CB:178:ARG:O	8:CH:72:PRO:HD3	2.13	0.47
4:CD:96:LEU:HG	4:CD:139:ARG:NH1	2.29	0.47
4:CD:107:ARG:HB3	4:CD:174:LEU:HD11	1.96	0.47
5:CE:12:LEU:C	5:CE:13:ILE:HG13	2.39	0.47
7:CG:57:GLU:O	7:CG:57:GLU:HG3	2.15	0.47
9:CI:16:ARG:HB2	9:CI:64:THR:HG23	1.96	0.47
9:CI:104:ARG:HB2	9:CI:106:ALA:HB2	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CR:47:THR:HG21	18:CR:49:LYS:HE2	1.96	0.47
19:CS:36:ARG:HB2	19:CS:72:GLY:HA2	1.96	0.47
25:DA:118:A:H1'	25:DA:178:G:O4'	2.14	0.47
25:DA:185:U:H2'	25:DA:186:G:C8	2.49	0.47
25:DA:566:U:O2'	25:DA:567:A:H5'	2.14	0.47
25:DA:614:U:O2	25:DA:614:U:O4'	2.30	0.47
25:DA:619:G:P	25:DA:620:G:H22	2.37	0.47
25:DA:708:C:H42	25:DA:723:G:H1	1.62	0.47
25:DA:814:C:C5	36:DP:27:HIS:CE1	3.02	0.47
25:DA:1239:G:H2'	25:DA:1240:U:O4'	2.14	0.47
25:DA:1647:G:OP2	25:DA:1647:G:C3'	2.61	0.47
25:DA:2267:A:H5''	25:DA:2268:A:H5'	1.96	0.47
25:DA:2505:G:O2'	25:DA:2506:U:H5'	2.14	0.47
25:DA:2831:G:O4'	25:DA:2883:A:C2	2.67	0.47
26:DB:14:U:OP2	26:DB:71:C:C4'	2.62	0.47
28:DD:12:SER:O	28:DD:16:MET:HE3	2.14	0.47
28:DD:118:VAL:HG22	28:DD:119:ALA:N	2.29	0.47
29:DE:11:MET:C	40:DT:8:LYS:NZ	2.71	0.47
30:DF:20:LEU:C	30:DF:24:LEU:HD23	2.38	0.47
30:DF:83:PHE:O	30:DF:84:VAL:CB	2.61	0.47
30:DF:168:ARG:O	30:DF:170:LEU:N	2.47	0.47
31:DG:76:SER:CB	31:DG:84:LYS:HG3	2.44	0.47
32:DH:94:TYR:HE1	32:DH:108:GLY:H	1.61	0.47
32:DH:103:LEU:HD23	32:DH:115:VAL:HB	1.96	0.47
32:DH:158:HIS:ND1	32:DH:168:PRO:HB2	2.29	0.47
36:DP:83:VAL:O	36:DP:83:VAL:HG13	2.14	0.47
38:DR:59:ASP:N	38:DR:59:ASP:OD2	2.47	0.47
42:DV:19:LYS:C	42:DV:20:LEU:HD12	2.39	0.47
42:DV:29:PRO:O	42:DV:61:VAL:CG2	2.57	0.47
43:DW:50:VAL:CG1	43:DW:51:LEU:N	2.76	0.47
45:DY:89:PHE:O	45:DY:90:LEU:HB3	2.13	0.47
47:D0:10:THR:HG22	47:D0:12:ASN:N	2.27	0.47
47:D0:26:TYR:H	47:D0:29:GLN:NE2	2.12	0.47
49:D2:14:ARG:HG3	49:D2:14:ARG:NH1	2.26	0.47
52:D5:48:GLU:HA	52:D5:57:VAL:HG22	1.96	0.47
53:D6:45:LYS:O	53:D6:46:HIS:CB	2.62	0.47
1:AA:183:G:H2'	1:AA:184:C:C6	2.49	0.47
1:AA:916:G:H2'	1:AA:917:C:C6	2.49	0.47
1:AA:1065:U:H2'	1:AA:1066:G:O4'	2.15	0.47
1:AA:1422:C:O2'	1:AA:1423:G:H5'	2.14	0.47
2:AB:36:ARG:H	2:AB:41:ILE:HD13	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:33:LEU:O	3:AC:37:GLN:HG2	2.14	0.47
3:AC:87:LEU:C	3:AC:89:GLU:N	2.69	0.47
4:AD:81:GLU:CD	4:AD:139:ARG:HH22	2.22	0.47
5:AE:41:VAL:HG21	5:AE:113:ALA:HB2	1.96	0.47
7:AG:16:LEU:HD12	9:AI:42:ARG:HA	1.96	0.47
7:AG:70:LYS:HB3	7:AG:96:GLN:OE1	2.14	0.47
7:AG:85:TYR:CE1	7:AG:154:TYR:HE1	2.33	0.47
7:AG:155:ARG:O	7:AG:156:TRP:O	2.32	0.47
11:AK:20:TYR:HB2	11:AK:31:THR:O	2.14	0.47
12:AL:53:ARG:NH1	12:AL:92:ASP:HB2	2.22	0.47
20:AT:61:SER:O	20:AT:63:ILE:N	2.47	0.47
22:AW:41:C:H2'	22:AW:41:C:O2	2.13	0.47
23:AV:24:C:C6	23:AV:25:U:H5	2.31	0.47
23:AV:68:C:C5	23:AV:69:C:C5	3.02	0.47
25:BA:285:C:C2'	25:BA:286:C:O4'	2.59	0.47
25:BA:554:U:O2'	25:BA:555:U:H5'	2.14	0.47
25:BA:613:G:N1	25:BA:614:U:C5	2.81	0.47
25:BA:953:A:N6	25:BA:965:C:H42	2.12	0.47
25:BA:1798:U:H5''	28:BD:260:ARG:HB3	1.96	0.47
25:BA:1958:C:O2'	25:BA:1959:G:H5'	2.14	0.47
25:BA:2029:G:H2'	25:BA:2031:A:OP1	2.13	0.47
25:BA:2032:G:O2'	29:BE:145:LYS:NZ	2.45	0.47
25:BA:2167:U:O2'	25:BA:2168:G:H5'	2.13	0.47
25:BA:2396:G:O2'	48:B1:29:GLY:HA3	2.15	0.47
25:BA:2803:C:H5'	25:BA:2804:C:OP1	2.15	0.47
30:BF:63:LYS:NZ	30:BF:67:GLN:HB3	2.28	0.47
31:BG:172:LEU:HG	31:BG:176:LEU:HD12	1.96	0.47
34:BN:18:ALA:O	34:BN:21:LYS:N	2.38	0.47
35:BO:11:ALA:HB1	35:BO:98:VAL:HG23	1.96	0.47
36:BP:16:ARG:C	36:BP:16:ARG:HD3	2.39	0.47
36:BP:52:GLU:HB2	36:BP:53:GLY:H	1.59	0.47
41:BU:90:VAL:HG21	42:BV:47:VAL:HG21	1.96	0.47
45:BY:95:LYS:HG2	45:BY:100:ALA:HB2	1.96	0.47
54:B7:41:ARG:CD	54:B7:45:ALA:HB2	2.41	0.47
1:CA:337:C:C4	1:CA:338:U:C4	3.02	0.47
1:CA:492:A:N3	1:CA:526:C:O2'	2.36	0.47
1:CA:607:C:H2'	1:CA:608:G:H8	1.79	0.47
1:CA:718:C:H2'	1:CA:719:C:C6	2.49	0.47
2:CB:35:GLU:HG2	2:CB:35:GLU:O	2.13	0.47
5:CE:11:ILE:HG22	5:CE:12:LEU:N	2.28	0.47
5:CE:64:ARG:HA	5:CE:64:ARG:HE	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:79:LEU:HD21	9:CI:102:LEU:HA	1.97	0.47
9:CI:88:TYR:O	9:CI:89:ASN:CB	2.62	0.47
9:CI:118:LYS:CB	9:CI:118:LYS:HZ3	2.26	0.47
13:CM:108:ARG:N	13:CM:108:ARG:HD2	2.30	0.47
19:CS:6:LYS:HE3	19:CS:6:LYS:N	2.27	0.47
25:DA:15:G:H5''	25:DA:15:G:H8	1.77	0.47
25:DA:306:U:C5	25:DA:307:G:C6	3.01	0.47
25:DA:536:A:H2'	25:DA:537:C:H6	1.79	0.47
25:DA:852:G:H2'	25:DA:853:G:C8	2.49	0.47
25:DA:942:G:H5'	36:DP:35:HIS:CB	2.42	0.47
25:DA:1332:G:H21	25:DA:1610:A:H8	1.60	0.47
25:DA:1592:C:H2'	25:DA:1593:G:C8	2.49	0.47
25:DA:2584:U:H2'	25:DA:2585:U:C4'	2.39	0.47
25:DA:2615:U:C2	52:D5:7:PRO:HA	2.49	0.47
28:DD:168:ARG:O	28:DD:169:GLU:HB2	2.15	0.47
29:DE:132:HIS:NE2	29:DE:135:HIS:NE2	2.62	0.47
31:DG:46:ALA:C	31:DG:51:ARG:HG3	2.39	0.47
31:DG:111:LEU:O	31:DG:112:PRO:C	2.57	0.47
33:DI:83:ALA:HB1	33:DI:88:ILE:HD12	1.95	0.47
33:DI:110:ASP:C	33:DI:114:LEU:HD21	2.39	0.47
34:DN:46:VAL:O	34:DN:47:ALA:CB	2.63	0.47
35:DO:34:THR:N	35:DO:37:ASP:OD2	2.47	0.47
37:DQ:51:ARG:HH11	37:DQ:51:ARG:CG	2.26	0.47
39:DS:36:TYR:N	39:DS:36:TYR:CD1	2.83	0.47
40:DT:115:ARG:HA	40:DT:115:ARG:HE	1.78	0.47
46:DZ:159:PRO:C	46:DZ:161:VAL:H	2.23	0.47
48:D1:72:GLU:O	48:D1:76:ARG:HG2	2.14	0.47
1:AA:257:A:H5''	20:AT:76:ALA:HB2	1.95	0.47
1:AA:816:U:H2'	1:AA:817:C:C6	2.49	0.47
1:AA:968:U:C2	1:AA:1196:G:N2	2.82	0.47
1:AA:1197:G:H2'	1:AA:1198:C:C6	2.49	0.47
1:AA:1345:A:H4'	1:AA:1346:U:H5''	1.97	0.47
1:AA:1423:G:H1'	1:AA:1438:G:N2	2.29	0.47
2:AB:165:VAL:CG2	2:AB:166:ASP:N	2.77	0.47
8:AH:67:PRO:O	8:AH:68:ARG:O	2.32	0.47
13:AM:10:PRO:HB2	13:AM:18:ALA:CB	2.38	0.47
20:AT:72:LEU:CD2	20:AT:73:HIS:N	2.70	0.47
22:AW:35:A:N6	22:AW:36:A:N1	2.62	0.47
22:AY:37:A:N7	22:AY:38:A:C8	2.82	0.47
25:BA:18:C:H4'	41:BU:23:GLY:O	2.15	0.47
25:BA:29:U:H2'	25:BA:30:G:C8	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:265:A:C6	25:BA:283:A:C8	3.02	0.47
25:BA:614:U:O2	25:BA:614:U:O4'	2.31	0.47
25:BA:673:C:H5''	25:BA:673:C:H6	1.79	0.47
25:BA:708:C:H42	25:BA:723:G:H1	1.62	0.47
25:BA:911:A:O5'	25:BA:911:A:H8	1.97	0.47
25:BA:1239:G:H2'	25:BA:1240:U:O4'	2.14	0.47
25:BA:1592:C:H2'	25:BA:1593:G:C8	2.49	0.47
25:BA:1657:C:H2'	25:BA:1658:C:C6	2.49	0.47
25:BA:2175:C:H1'	27:BC:215:THR:H	1.79	0.47
25:BA:2391:G:O2'	25:BA:2392:A:OP2	2.30	0.47
25:BA:2585:U:H6	25:BA:2585:U:H3'	1.80	0.47
25:BA:2792:G:O2'	25:BA:2793:G:H5'	2.14	0.47
28:BD:31:LYS:HB3	28:BD:35:LYS:HG3	1.97	0.47
29:BE:101:ARG:HA	29:BE:101:ARG:HE	1.79	0.47
30:BF:52:LYS:O	30:BF:88:VAL:HG12	2.14	0.47
31:BG:117:PHE:HD1	31:BG:118:ARG:H	1.62	0.47
31:BG:143:GLU:H	31:BG:143:GLU:HG2	1.42	0.47
32:BH:32:GLU:O	32:BH:33:LEU:HD23	2.14	0.47
32:BH:84:SER:O	32:BH:85:LYS:CB	2.62	0.47
33:BI:5:LEU:C	33:BI:6:LEU:HD23	2.39	0.47
33:BI:80:PRO:O	33:BI:81:VAL:C	2.57	0.47
33:BI:129:THR:OG1	33:BI:130:TYR:N	2.47	0.47
34:BN:42:TRP:HA	34:BN:42:TRP:HE3	1.78	0.47
36:BP:16:ARG:NH1	36:BP:16:ARG:CB	2.76	0.47
44:BX:35:THR:HG22	44:BX:36:LYS:N	2.29	0.47
46:BZ:120:ILE:HB	46:BZ:172:ALA:N	2.29	0.47
46:BZ:166:SER:CB	46:BZ:168:GLU:HB2	2.44	0.47
48:B1:52:ARG:HG3	48:B1:52:ARG:NH2	2.28	0.47
1:CA:35:G:H2'	1:CA:36:C:C6	2.49	0.47
1:CA:232:C:H5''	17:CQ:25:ARG:NH1	2.29	0.47
1:CA:304:G:O2'	1:CA:590:A:N6	2.42	0.47
1:CA:635:U:O2'	1:CA:636:A:OP2	2.27	0.47
1:CA:725:G:OP2	15:CO:35:ARG:NH2	2.35	0.47
1:CA:743:G:H2'	1:CA:744:G:H5'	1.96	0.47
1:CA:970:G:C2'	1:CA:972:C:H41	2.27	0.47
1:CA:1277:C:H5'	13:CM:44:ARG:NH2	2.29	0.47
2:CB:50:GLU:O	2:CB:51:LEU:C	2.58	0.47
3:CC:11:ARG:HG2	3:CC:11:ARG:NH1	2.28	0.47
3:CC:35:GLU:HA	3:CC:38:ARG:CD	2.42	0.47
4:CD:108:LEU:CD1	4:CD:174:LEU:HD13	2.44	0.47
5:CE:20:GLN:O	5:CE:23:GLY:O	2.31	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:28:PHE:N	5:CE:28:PHE:HD1	2.12	0.47
5:CE:79:GLU:O	8:CH:104:ARG:NH1	2.47	0.47
6:CF:63:TYR:CD2	6:CF:63:TYR:N	2.82	0.47
7:CG:59:LEU:HD23	7:CG:60:LYS:HZ3	1.79	0.47
9:CI:89:ASN:C	9:CI:91:ASP:H	2.23	0.47
11:CK:111:ASP:HA	18:CR:84:LYS:CG	2.30	0.47
21:CU:5:ASP:O	21:CU:8:THR:HG23	2.15	0.47
22:CW:2:C:C5	22:CW:3:C:H5	2.32	0.47
23:CV:21:U:C3'	23:CV:22:A:H5'	2.44	0.47
22:CY:33:U:H2'	22:CY:34:G:H3'	1.96	0.47
25:DA:102:G:OP1	25:DA:102:G:C4'	2.62	0.47
25:DA:265:A:C6	25:DA:283:A:C8	3.02	0.47
25:DA:849:A:H8	25:DA:849:A:O5'	1.96	0.47
25:DA:858:U:O2'	25:DA:859:G:N9	2.41	0.47
25:DA:879:G:C2	25:DA:899:A:H1'	2.49	0.47
25:DA:1175:U:C4'	25:DA:1176:G:H2'	2.44	0.47
25:DA:1309:G:H3'	54:D7:9:ARG:NH1	2.29	0.47
25:DA:1389:G:OP1	25:DA:1526:G:H5''	2.15	0.47
25:DA:1494:A:O2'	25:DA:1495:A:H5''	2.14	0.47
25:DA:2029:G:H2'	25:DA:2031:A:OP1	2.13	0.47
25:DA:2392:A:OP1	55:D8:32:LEU:HD22	2.13	0.47
25:DA:2419:U:OP1	55:D8:41:ILE:HD13	2.13	0.47
25:DA:2870:C:H2'	25:DA:2871:C:O4'	2.13	0.47
27:DC:36:LYS:CD	27:DC:37:PHE:H	2.26	0.47
28:DD:31:LYS:HB3	28:DD:35:LYS:HG3	1.97	0.47
28:DD:183:ARG:HH11	28:DD:183:ARG:HG2	1.78	0.47
29:DE:59:VAL:CG2	29:DE:60:ASN:N	2.67	0.47
29:DE:201:THR:OG1	29:DE:202:LYS:N	2.47	0.47
30:DF:78:ILE:H	30:DF:78:ILE:CD1	2.24	0.47
30:DF:136:THR:HG23	30:DF:137:LYS:H	1.79	0.47
33:DI:10:GLU:O	33:DI:12:LEU:HD23	2.15	0.47
34:DN:43:THR:O	34:DN:46:VAL:HG12	2.13	0.47
36:DP:33:ARG:HG3	36:DP:34:GLY:H	1.79	0.47
36:DP:80:TYR:CD1	36:DP:111:ARG:HB3	2.49	0.47
38:DR:2:ARG:CZ	38:DR:5:LYS:CE	2.92	0.47
41:DU:12:ARG:HA	41:DU:15:LYS:NZ	2.29	0.47
50:D3:26:LEU:O	50:D3:27:GLY:C	2.57	0.47
50:D3:38:GLU:O	50:D3:40:THR:HG23	2.14	0.47
55:D8:63:PRO:HB2	55:D8:64:TYR:HD1	1.78	0.47
1:AA:899:G:H2'	1:AA:900:A:C8	2.50	0.47
1:AA:1302:C:C3'	1:AA:1303:C:C5'	2.86	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:8:LYS:NZ	2:AB:217:ARG:HH12	2.11	0.47
4:AD:28:SER:O	4:AD:29:PRO:C	2.55	0.47
6:AF:69:GLU:O	6:AF:72:VAL:CG1	2.57	0.47
9:AI:28:VAL:CG2	9:AI:63:ILE:HB	2.26	0.47
10:AJ:57:LYS:HE3	10:AJ:60:ARG:NH2	2.30	0.47
12:AL:28:LYS:HB2	12:AL:33:ARG:NH1	2.29	0.47
13:AM:91:ARG:O	13:AM:96:LEU:N	2.48	0.47
14:AN:27:CYS:C	14:AN:29:ARG:H	2.23	0.47
16:AP:43:LYS:HD2	16:AP:43:LYS:N	2.30	0.47
17:AQ:69:LYS:C	17:AQ:70:ARG:HD2	2.39	0.47
18:AR:59:SER:H	18:AR:62:GLU:HB2	1.79	0.47
22:AW:75:C:O2'	22:AW:76:A:C8	2.64	0.47
23:AV:8:U:O2	23:AV:49:C:C6	2.63	0.47
25:BA:236:C:H2'	25:BA:237:C:C6	2.50	0.47
25:BA:271(H):G:C6	25:BA:271(Q):G:C6	3.03	0.47
25:BA:566:U:O2'	25:BA:567:A:H5'	2.14	0.47
25:BA:962:G:O2'	25:BA:963:U:H5'	2.14	0.47
25:BA:1331:A:O2'	25:BA:1332:G:H8	1.97	0.47
25:BA:1493:C:O2	25:BA:1493:C:C2'	2.63	0.47
25:BA:1751:C:H2'	25:BA:1752:C:H6	1.79	0.47
25:BA:2341:G:H2'	25:BA:2342:C:C6	2.49	0.47
26:BB:56:G:H4'	26:BB:57:A:O5'	2.15	0.47
26:BB:115:G:H4'	39:BS:47:THR:HB	1.97	0.47
28:BD:75:ILE:HD13	28:BD:99:ASP:OD1	2.14	0.47
31:BG:91:ARG:CD	31:BG:91:ARG:C	2.87	0.47
31:BG:128:ARG:O	31:BG:130:ASN:N	2.48	0.47
32:BH:107:VAL:HG21	32:BH:152:ARG:CG	2.44	0.47
33:BI:52:ARG:O	33:BI:56:LYS:HG2	2.14	0.47
33:BI:58:LEU:HD12	33:BI:61:ARG:NE	2.30	0.47
33:BI:60:GLU:O	33:BI:64:GLU:HG2	2.14	0.47
33:BI:110:ASP:C	33:BI:114:LEU:HD21	2.39	0.47
38:BR:12:ARG:HG3	38:BR:12:ARG:HH11	1.78	0.47
38:BR:27:SER:HB3	38:BR:34:ILE:HD12	1.96	0.47
39:BS:98:VAL:O	39:BS:98:VAL:HG13	2.15	0.47
44:BX:35:THR:HB	44:BX:38:GLU:H	1.79	0.47
46:BZ:103:ARG:HB2	46:BZ:136:PHE:CE1	2.50	0.47
46:BZ:125:LEU:O	46:BZ:164:ALA:HB3	2.14	0.47
46:BZ:159:PRO:C	46:BZ:161:VAL:H	2.22	0.47
1:CA:116:C:OP1	1:CA:307:C:H5'	2.13	0.47
1:CA:965:G:N2	1:CA:966:C:O2	2.48	0.47
1:CA:980:G:H2'	1:CA:980:G:N3	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1361:G:O2'	1:CA:1362:U:H5'	2.14	0.47
2:CB:19:HIS:O	2:CB:39:ILE:HG23	2.14	0.47
2:CB:137:ARG:HH11	2:CB:137:ARG:HG2	1.79	0.47
3:CC:107:GLN:CD	3:CC:107:GLN:H	2.23	0.47
4:CD:96:LEU:HD12	4:CD:96:LEU:N	2.30	0.47
6:CF:4:TYR:CD1	6:CF:92:LYS:HA	2.50	0.47
7:CG:44:TYR:C	7:CG:46:ALA:N	2.70	0.47
10:CJ:49:VAL:HG22	10:CJ:50:ILE:N	2.30	0.47
11:CK:58:PRO:HA	11:CK:90:GLY:HA3	1.95	0.47
12:CL:59:ARG:HA	12:CL:65:GLU:HA	1.95	0.47
22:CW:3:C:H1'	22:CW:71:G:H22	1.76	0.47
22:CW:6:G:C2	22:CW:68:C:N3	2.82	0.47
25:DA:109:G:C2'	25:DA:110:G:C5'	2.92	0.47
25:DA:188:G:H5'	48:D1:14:VAL:HG21	1.97	0.47
25:DA:203:C:C3'	25:DA:204:A:H5''	2.44	0.47
25:DA:236:C:H2'	25:DA:237:C:C6	2.50	0.47
25:DA:271(D):G:O2'	25:DA:271(E):U:H5'	2.14	0.47
25:DA:945:A:C4	25:DA:2448:A:C2	3.03	0.47
25:DA:1141:U:C4	34:DN:64:GLY:HA3	2.49	0.47
25:DA:2393:A:H4'	36:DP:60:MET:O	2.15	0.47
25:DA:2484:G:O2'	37:DQ:124:LYS:O	2.32	0.47
25:DA:2584:U:H3'	25:DA:2584:U:H6	1.79	0.47
26:DB:69:G:N1	26:DB:70:C:N3	2.63	0.47
28:DD:158:ALA:O	28:DD:159:ALA:C	2.58	0.47
29:DE:79:ARG:HG2	29:DE:79:ARG:NH1	2.29	0.47
31:DG:172:LEU:HG	31:DG:176:LEU:HD12	1.96	0.47
32:DH:87:LEU:N	32:DH:131:VAL:O	2.47	0.47
33:DI:26:ALA:O	33:DI:31:LEU:HD13	2.14	0.47
33:DI:131:LYS:HG3	33:DI:132:PRO:HD2	1.97	0.47
34:DN:26:LEU:CG	34:DN:30:ILE:HD11	2.45	0.47
34:DN:42:TRP:CZ3	34:DN:48:MET:HE1	2.49	0.47
34:DN:108:PRO:O	34:DN:113:GLY:HA3	2.14	0.47
36:DP:23:PRO:O	36:DP:33:ARG:HD2	2.14	0.47
39:DS:22:GLY:O	39:DS:23:ARG:O	2.32	0.47
39:DS:66:ALA:HA	39:DS:69:VAL:HG12	1.96	0.47
41:DU:90:VAL:O	41:DU:92:ARG:N	2.37	0.47
43:DW:8:ARG:HG3	43:DW:8:ARG:NH1	2.30	0.47
43:DW:58:ALA:O	43:DW:62:HIS:HB2	2.14	0.47
45:DY:18:GLY:N	45:DY:21:LYS:HB2	2.29	0.47
45:DY:66:PRO:C	45:DY:67:LEU:HG	2.31	0.47
1:AA:44:G:N2	1:AA:394:G:C4	2.83	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:442:A:P	1:AA:469:G:H22	2.36	0.47
1:AA:822:U:O2	1:AA:822:U:H2'	2.13	0.47
1:AA:903:G:C6	1:AA:1482:G:C6	3.03	0.47
1:AA:915:A:C6	1:AA:916:G:C5	3.03	0.47
1:AA:1050:G:N7	1:AA:1076:G:C8	2.81	0.47
1:AA:1267:A:H2'	1:AA:1268:A:H4'	1.96	0.47
2:AB:97:TRP:CH2	2:AB:176:GLU:CD	2.89	0.47
2:AB:178:ARG:HH11	2:AB:178:ARG:CG	2.28	0.47
3:AC:90:GLU:HA	3:AC:90:GLU:OE1	2.14	0.47
4:AD:20:TYR:CE1	6:CF:15:ASP:CA	2.98	0.47
4:AD:206:PHE:CD2	4:AD:207:TYR:CE2	3.03	0.47
5:AE:70:PRO:O	5:AE:77:PRO:HD3	2.15	0.47
6:AF:21:LEU:HA	6:AF:24:GLU:HG2	1.96	0.47
7:AG:145:ALA:O	7:AG:147:ALA:N	2.41	0.47
8:AH:5:PRO:HB3	8:AH:32:LYS:NZ	2.30	0.47
9:AI:50:LEU:O	9:AI:53:VAL:HG22	2.14	0.47
10:AJ:40:LEU:HG	10:AJ:69:ASN:CB	2.43	0.47
12:AL:22:SER:C	12:AL:24:VAL:N	2.72	0.47
14:AN:34:TYR:N	14:AN:34:TYR:CD1	2.83	0.47
16:AP:18:ARG:HD3	16:AP:35:LYS:HD2	1.96	0.47
25:BA:451:C:C5	25:BA:453:C:H5''	2.49	0.47
25:BA:492:A:C2	25:BA:493:G:H1'	2.50	0.47
25:BA:607:U:H5	25:BA:619:G:C5	2.33	0.47
25:BA:624:C:O2'	25:BA:625:G:H5'	2.14	0.47
25:BA:1313:U:C2'	25:BA:1314:C:H5'	2.44	0.47
25:BA:1329:U:H5''	25:BA:1330:C:C5	2.50	0.47
25:BA:1472:A:H2'	25:BA:1473:G:H8	1.79	0.47
25:BA:2522:U:C2'	25:BA:2523:G:H5''	2.43	0.47
28:BD:266:SER:O	28:BD:267:SER:O	2.33	0.47
29:BE:201:THR:OG1	29:BE:202:LYS:N	2.47	0.47
30:BF:40:GLN:HE22	30:BF:182:ASN:HB2	1.80	0.47
31:BG:47:LYS:N	31:BG:51:ARG:HG3	2.29	0.47
32:BH:17:VAL:CG1	32:BH:50:VAL:HG21	2.44	0.47
32:BH:87:LEU:N	32:BH:131:VAL:O	2.47	0.47
32:BH:103:LEU:HD23	32:BH:115:VAL:HB	1.96	0.47
33:BI:12:LEU:O	33:BI:12:LEU:HG	2.13	0.47
33:BI:40:THR:O	33:BI:44:LEU:HB2	2.15	0.47
34:BN:15:LEU:CD1	34:BN:16:ILE:N	2.76	0.47
35:BO:86:ILE:H	35:BO:86:ILE:HD12	1.79	0.47
36:BP:80:TYR:CD1	36:BP:111:ARG:HB3	2.49	0.47
37:BQ:58:PHE:HD1	37:BQ:58:PHE:O	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BT:51:ARG:O	40:BT:61:PHE:HA	2.15	0.47
40:BT:90:GLN:HG3	40:BT:92:GLY:N	2.29	0.47
42:BV:2:PHE:HB3	42:BV:42:GLY:N	2.29	0.47
43:BW:9:TYR:H	43:BW:102:HIS:CD2	2.33	0.47
43:BW:12:ILE:O	43:BW:12:ILE:HG23	2.15	0.47
45:BY:26:LYS:CG	45:BY:27:VAL:H	2.09	0.47
48:B1:72:GLU:O	48:B1:76:ARG:HG2	2.14	0.47
48:B1:86:SER:O	48:B1:90:ILE:HG12	2.15	0.47
50:B3:38:GLU:O	50:B3:40:THR:HG23	2.14	0.47
53:B6:46:HIS:CD2	53:B6:46:HIS:C	2.92	0.47
1:CA:194:U:H2'	1:CA:195:G:C8	2.50	0.47
1:CA:327:G:OP2	20:CT:10:LEU:HB3	2.14	0.47
1:CA:377:A:H2'	1:CA:378:A:H8	1.75	0.47
1:CA:1457:G:N2	1:CA:1458:U:H1'	2.30	0.47
2:CB:16:HIS:HA	2:CB:210:SER:OG	2.14	0.47
2:CB:178:ARG:CD	8:CH:71:GLY:C	2.82	0.47
2:CB:187:LEU:HD11	2:CB:204:ASN:O	2.15	0.47
6:CF:22:GLU:OE1	6:CF:84:ASN:ND2	2.45	0.47
6:CF:61:LEU:HD23	6:CF:63:TYR:OH	2.14	0.47
6:CF:62:TRP:C	6:CF:63:TYR:HD2	2.22	0.47
8:CH:24:THR:HG22	8:CH:25:ASP:N	2.30	0.47
8:CH:116:LYS:O	8:CH:119:LEU:HD21	2.14	0.47
10:CJ:67:THR:O	10:CJ:67:THR:CG2	2.63	0.47
12:CL:28:LYS:CB	12:CL:33:ARG:NH2	2.78	0.47
14:CN:8:GLU:HG3	14:CN:12:ARG:NH1	2.30	0.47
14:CN:27:CYS:SG	14:CN:29:ARG:HB2	2.55	0.47
22:CW:2:C:H42	22:CW:72:C:N4	1.99	0.47
22:CW:5:G:N2	22:CW:69:G:N3	2.62	0.47
24:CX:14:A:N6	24:CX:15:A:C2	2.83	0.47
25:DA:150:C:H2'	25:DA:151:C:C6	2.50	0.47
25:DA:329:G:OP2	45:DY:71:LYS:CE	2.63	0.47
25:DA:492:A:C2	25:DA:493:G:H1'	2.49	0.47
25:DA:886:C:H2'	25:DA:887:A:H4'	1.97	0.47
25:DA:1591:G:H8	25:DA:1591:G:H5'	1.78	0.47
25:DA:2870:C:H2'	25:DA:2871:C:H5'	1.96	0.47
25:DA:2872:G:C2	25:DA:2873:A:N6	2.83	0.47
25:DA:2884:U:H2'	25:DA:2885:C:C5'	2.45	0.47
26:DB:83:G:C5	26:DB:84:C:C4	3.02	0.47
28:DD:186:HIS:HE1	28:DD:188:GLU:HG2	1.78	0.47
29:DE:197:ILE:O	29:DE:197:ILE:HG13	2.14	0.47
30:DF:139:PHE:HB2	30:DF:166:ALA:HB1	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DG:113:ARG:HH11	31:DG:113:ARG:CA	2.16	0.47
32:DH:158:HIS:NE2	32:DH:169:VAL:O	2.47	0.47
33:DI:37:VAL:HG12	33:DI:38:LEU:N	2.29	0.47
34:DN:15:LEU:CD1	34:DN:16:ILE:N	2.76	0.47
38:DR:10:LEU:HD13	38:DR:17:ARG:CZ	2.45	0.47
46:DZ:120:ILE:HG21	46:DZ:170:THR:OG1	2.14	0.47
46:DZ:150:LEU:O	46:DZ:171:ILE:HG12	2.15	0.47
1:AA:244:U:H5'	1:AA:245:A:OP2	2.15	0.47
1:AA:259:U:O2'	1:AA:260:G:H5'	2.13	0.47
1:AA:280:G:H2'	1:AA:281:G:H8	1.79	0.47
1:AA:562:G:H5'	1:AA:711:A:H1'	1.97	0.47
1:AA:712:A:N1	1:AA:747:C:O2'	2.37	0.47
1:AA:732:C:H2'	1:AA:733:G:H8	1.79	0.47
1:AA:733:G:H1'	15:AO:23:GLY:H	1.80	0.47
1:AA:854:C:H5''	8:AH:88:LYS:CD	2.40	0.47
1:AA:919:G:N2	9:AI:124:GLN:NE2	2.58	0.47
1:AA:955:A:H5''	1:AA:956:C:OP2	2.14	0.47
1:AA:985:C:H2'	1:AA:986:C:H6	1.80	0.47
1:AA:1036:C:OP1	1:AA:1179:G:OP2	2.32	0.47
1:AA:1078:C:H2'	1:AA:1079:C:H6	1.80	0.47
2:AB:26:PRO:O	2:AB:29:ALA:HB2	2.15	0.47
2:AB:137:ARG:HH11	2:AB:137:ARG:HG2	1.80	0.47
2:AB:163:PHE:HA	2:AB:185:ILE:O	2.14	0.47
3:AC:17:ASP:OD1	3:AC:21:ARG:NH1	2.48	0.47
3:AC:107:GLN:CD	3:AC:107:GLN:H	2.23	0.47
3:AC:124:ILE:HG12	3:AC:130:VAL:HG22	1.95	0.47
3:AC:159:GLY:HA2	3:AC:193:TYR:CG	2.50	0.47
3:AC:189:ALA:O	3:AC:191:THR:N	2.48	0.47
4:AD:46:LYS:O	4:AD:47:ARG:C	2.57	0.47
4:AD:52:SER:C	4:AD:54:TYR:N	2.72	0.47
4:AD:53:ASP:HB3	4:AD:57:ARG:NH1	2.14	0.47
4:AD:110:PHE:N	4:AD:110:PHE:CD1	2.83	0.47
4:AD:149:ALA:O	4:AD:153:ARG:HG3	2.15	0.47
6:AF:22:GLU:HA	6:AF:22:GLU:OE2	2.15	0.47
6:AF:30:LEU:HD23	6:AF:75:LEU:HD11	1.97	0.47
8:AH:40:ALA:C	8:AH:42:GLU:N	2.73	0.47
8:AH:51:VAL:HG11	8:AH:60:ARG:CG	2.44	0.47
9:AI:103:THR:CG2	9:AI:104:ARG:N	2.78	0.47
10:AJ:94:VAL:CG1	10:AJ:95:GLU:N	2.77	0.47
13:AM:65:LYS:HG2	13:AM:70:LEU:CA	2.44	0.47
13:AM:88:ARG:HG2	13:AM:98:VAL:HG11	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:58:TYR:O	16:AP:61:SER:N	2.48	0.47
17:AQ:77:VAL:O	17:AQ:78:GLU:HG2	2.14	0.47
19:AS:39:THR:HG22	19:AS:40:ILE:H	1.80	0.47
19:AS:66:MET:O	19:AS:66:MET:HG3	2.14	0.47
20:AT:49:ALA:HB1	20:AT:100:ILE:HD11	1.97	0.47
20:AT:94:ALA:O	20:AT:95:ALA:HB3	2.14	0.47
23:AV:56:U:O2	23:AV:58:A:N7	2.48	0.47
25:BA:271(P):C:OP1	33:BI:45:LYS:HE3	2.15	0.47
25:BA:752:A:H4'	25:BA:753:C:O5'	2.14	0.47
25:BA:1114:G:C2'	25:BA:1115:G:H5''	2.44	0.47
25:BA:1514:U:H2'	25:BA:1515:G:C8	2.48	0.47
25:BA:1952:A:C6	25:BA:1953:A:C6	3.03	0.47
25:BA:2186:G:C4	25:BA:2187:G:C8	3.03	0.47
25:BA:2349:G:H5'	25:BA:2349:G:C8	2.50	0.47
25:BA:2476:A:N1	25:BA:2477:C:C5	2.83	0.47
25:BA:2590:A:O2'	25:BA:2591:C:H5'	2.14	0.47
25:BA:2591:C:OP2	28:BD:239:ARG:HB3	2.14	0.47
25:BA:2692:C:H2'	25:BA:2693:A:C8	2.49	0.47
25:BA:2746:U:O4'	32:BH:139:GLN:HB2	2.14	0.47
25:BA:2762:G:C3'	25:BA:2763:G:C5'	2.92	0.47
26:BB:29:A:H2'	26:BB:30:C:C6	2.50	0.47
28:BD:26:LYS:NZ	28:BD:82:ILE:N	2.55	0.47
29:BE:2:LYS:HE2	29:BE:95:ILE:HG22	1.95	0.47
31:BG:76:SER:CB	31:BG:84:LYS:HG3	2.44	0.47
31:BG:101:ILE:HG13	51:B4:51:TYR:O	2.15	0.47
32:BH:18:GLU:HB3	32:BH:25:LYS:HZ2	1.76	0.47
32:BH:72:ILE:O	32:BH:76:VAL:HG23	2.15	0.47
32:BH:121:ILE:HG22	32:BH:133:VAL:CG1	2.43	0.47
33:BI:88:ILE:CD1	33:BI:123:LEU:H	2.21	0.47
34:BN:43:THR:HB	34:BN:46:VAL:CG1	2.45	0.47
34:BN:46:VAL:O	34:BN:47:ALA:CB	2.63	0.47
36:BP:61:ARG:HA	55:B8:27:THR:HG22	1.96	0.47
36:BP:83:VAL:HG13	36:BP:83:VAL:O	2.14	0.47
36:BP:83:VAL:HG21	36:BP:105:LEU:HD12	1.97	0.47
36:BP:97:PRO:C	36:BP:99:LEU:N	2.71	0.47
36:BP:110:TYR:O	36:BP:111:ARG:C	2.58	0.47
37:BQ:12:GLN:HE21	37:BQ:73:PRO:CD	2.28	0.47
38:BR:63:ARG:O	38:BR:67:LEU:HB2	2.14	0.47
39:BS:79:ALA:C	39:BS:80:LEU:HD12	2.40	0.47
39:BS:88:ASP:CG	39:BS:89:ARG:N	2.73	0.47
40:BT:11:GLU:CD	40:BT:11:GLU:H	2.21	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BT:90:GLN:HG3	40:BT:92:GLY:H	1.79	0.47
42:BV:15:GLU:O	42:BV:16:PRO:O	2.32	0.47
42:BV:40:LEU:CD2	42:BV:40:LEU:N	2.77	0.47
42:BV:68:LYS:HB2	42:BV:68:LYS:HZ3	1.79	0.47
43:BW:8:ARG:NH1	43:BW:8:ARG:HG3	2.30	0.47
43:BW:45:TYR:CD2	43:BW:45:TYR:C	2.93	0.47
43:BW:61:ASN:N	43:BW:61:ASN:ND2	2.58	0.47
44:BX:43:VAL:HG21	44:BX:81:VAL:HG11	1.96	0.47
45:BY:16:ALA:CB	45:BY:21:LYS:NZ	2.77	0.47
45:BY:31:LEU:HD23	45:BY:36:ALA:O	2.14	0.47
46:BZ:102:LEU:HB2	46:BZ:122:ARG:O	2.14	0.47
47:B0:10:THR:HG22	47:B0:12:ASN:HB2	1.96	0.47
49:B2:25:VAL:O	49:B2:29:LYS:HG2	2.14	0.47
53:B6:45:LYS:O	53:B6:46:HIS:CB	2.62	0.47
54:B7:16:HIS:HA	54:B7:21:ARG:NH1	2.30	0.47
55:B8:50:LEU:CD1	55:B8:54:GLU:OE2	2.62	0.47
1:CA:35:G:C6	1:CA:36:C:N4	2.83	0.47
1:CA:62:U:OP1	1:CA:380:C:O2'	2.21	0.47
1:CA:351:A:H5''	1:CA:362:U:C5	2.49	0.47
1:CA:394:G:H2'	1:CA:395:C:C6	2.49	0.47
1:CA:399:U:H2'	1:CA:400:U:H6	1.80	0.47
1:CA:402:G:H5'	4:CD:3:ARG:HH12	1.80	0.47
1:CA:525:G:H5'	4:CD:41:GLY:CA	2.45	0.47
1:CA:575:G:H2'	1:CA:576:G:C8	2.48	0.47
1:CA:610:G:H2'	1:CA:611:G:H8	1.79	0.47
1:CA:942:A:C2	1:CA:946:A:C2	3.03	0.47
1:CA:1007:C:C4'	1:CA:1015:G:H22	2.28	0.47
1:CA:1060:U:H1'	5:CE:130:ASN:OD1	2.15	0.47
1:CA:1170:C:OP1	10:CJ:51:ARG:NH2	2.47	0.47
1:CA:1460:A:H1'	25:DA:1948:G:H1'	1.97	0.47
2:CB:179:LYS:HA	8:CH:72:PRO:HD3	1.96	0.47
4:CD:13:ARG:HD2	4:CD:38:TYR:O	2.15	0.47
4:CD:30:LYS:CA	4:CD:35:ARG:HD2	2.44	0.47
5:CE:9:LYS:HB3	5:CE:112:LEU:HD11	1.95	0.47
7:CG:75:VAL:HG12	7:CG:88:PRO:HB3	1.97	0.47
7:CG:84:ASN:HD22	22:CW:33:U:H4'	1.80	0.47
7:CG:148:ASN:O	7:CG:150:ALA:N	2.48	0.47
9:CI:116:LYS:HD3	9:CI:116:LYS:HA	1.42	0.47
10:CJ:33:GLN:HB2	10:CJ:75:ILE:CD1	2.44	0.47
10:CJ:58:ASP:O	10:CJ:59:SER:C	2.57	0.47
11:CK:96:ARG:HA	11:CK:99:GLN:CG	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:22:SER:C	12:CL:24:VAL:N	2.73	0.47
12:CL:51:ALA:O	12:CL:52:LEU:HD22	2.14	0.47
19:CS:66:MET:HG3	19:CS:66:MET:O	2.15	0.47
22:CW:30:G:N2	22:CW:41:C:C2	2.83	0.47
23:CV:3:C:C2	23:CV:4:G:C8	3.02	0.47
23:CV:57:C:C5	31:DG:83:ARG:CZ	2.98	0.47
22:CY:27:G:C8	22:CY:27:G:C3'	2.98	0.47
25:DA:8:A:H2'	25:DA:9:U:H6	1.80	0.47
25:DA:29:U:H2'	25:DA:30:G:C8	2.49	0.47
25:DA:94:C:H2'	25:DA:94:C:O2	2.14	0.47
25:DA:176:G:C2'	25:DA:177:G:H5'	2.45	0.47
25:DA:631:A:H2'	25:DA:632:A:O4'	2.13	0.47
25:DA:646:A:C8	25:DA:647:G:H1'	2.49	0.47
25:DA:773:U:H4'	28:DD:47:GLY:HA3	1.97	0.47
25:DA:911:A:H8	25:DA:911:A:O5'	1.97	0.47
25:DA:1721:G:O6	25:DA:1739:U:H5'	2.15	0.47
25:DA:1766:U:O2'	25:DA:1767:C:H5'	2.15	0.47
25:DA:2127:G:N2	25:DA:2173:A:H1'	2.30	0.47
25:DA:2164:C:H3'	25:DA:2165:G:H8	1.78	0.47
25:DA:2302:G:N2	31:DG:128:ARG:HG3	2.23	0.47
25:DA:2330:G:H2'	25:DA:2331:G:O4'	2.15	0.47
25:DA:2697:G:H2'	25:DA:2698:U:O4'	2.15	0.47
25:DA:2736:G:O2'	25:DA:2737:G:H5'	2.15	0.47
25:DA:2762:G:C3'	25:DA:2763:G:C5'	2.92	0.47
25:DA:2788:C:H2'	25:DA:2789:C:O4'	2.15	0.47
25:DA:2792:G:O2'	25:DA:2793:G:H5'	2.14	0.47
25:DA:2803:C:H5'	25:DA:2804:C:OP1	2.15	0.47
25:DA:2884:U:O2	52:D5:52:TYR:HE2	1.98	0.47
27:DC:77:ILE:CB	27:DC:122:ALA:HA	2.44	0.47
27:DC:82:LYS:NZ	27:DC:149:ILE:HA	2.29	0.47
27:DC:154:ARG:C	27:DC:156:ILE:H	2.23	0.47
28:DD:71:ASP:HB2	28:DD:103:ARG:NH2	2.26	0.47
28:DD:228:PRO:HD3	28:DD:235:GLY:CA	2.45	0.47
29:DE:2:LYS:HE2	29:DE:95:ILE:HG22	1.95	0.47
29:DE:2:LYS:NZ	29:DE:95:ILE:O	2.40	0.47
29:DE:63:LEU:HD23	29:DE:65:GLY:N	2.29	0.47
30:DF:3:GLU:HG3	30:DF:19:GLU:HG3	1.97	0.47
32:DH:72:ILE:O	32:DH:76:VAL:HG23	2.15	0.47
32:DH:141:VAL:C	32:DH:143:GLN:N	2.70	0.47
33:DI:40:THR:O	33:DI:44:LEU:HB2	2.15	0.47
33:DI:101:LEU:CB	33:DI:109:ILE:HD11	2.39	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DI:123:LEU:HD23	33:DI:142:VAL:HG12	1.96	0.47
34:DN:79:PRO:C	34:DN:81:GLY:H	2.22	0.47
34:DN:131:GLN:O	34:DN:132:ALA:HB2	2.15	0.47
36:DP:83:VAL:HG13	36:DP:114:ILE:HA	1.95	0.47
36:DP:110:TYR:O	36:DP:111:ARG:C	2.58	0.47
36:DP:144:GLU:HG2	36:DP:144:GLU:O	2.15	0.47
37:DQ:21:THR:HG21	37:DQ:101:ARG:CD	2.45	0.47
37:DQ:141:GLN:O	46:DZ:53:ILE:C	2.57	0.47
38:DR:28:LEU:HA	38:DR:34:ILE:HG12	1.96	0.47
38:DR:82:GLU:C	38:DR:85:PRO:HD2	2.39	0.47
39:DS:58:LEU:HD23	39:DS:65:VAL:CG1	2.45	0.47
39:DS:65:VAL:O	39:DS:69:VAL:HG12	2.13	0.47
39:DS:89:ARG:HH11	39:DS:92:TYR:HA	1.80	0.47
40:DT:3:ARG:HB2	40:DT:6:LEU:HB3	1.97	0.47
40:DT:54:ARG:HA	40:DT:59:THR:CB	2.36	0.47
42:DV:40:LEU:N	42:DV:40:LEU:CD2	2.77	0.47
42:DV:46:VAL:CG2	42:DV:47:VAL:H	2.21	0.47
45:DY:31:LEU:HD23	45:DY:36:ALA:O	2.14	0.47
45:DY:95:LYS:HG2	45:DY:100:ALA:HB2	1.97	0.47
46:DZ:17:ALA:HA	46:DZ:20:ARG:HD2	1.97	0.47
46:DZ:151:HIS:CA	46:DZ:170:THR:HA	2.45	0.47
46:DZ:166:SER:CB	46:DZ:168:GLU:HB2	2.44	0.47
48:D1:48:LYS:HA	48:D1:60:PHE:O	2.15	0.47
48:D1:86:SER:O	48:D1:90:ILE:HG12	2.14	0.47
52:D5:56:LYS:HB3	52:D5:56:LYS:NZ	2.30	0.47
54:D7:8:ASN:HB3	54:D7:11:LYS:HB3	1.97	0.47
1:AA:180:C:O2'	20:AT:85:MET:SD	2.58	0.47
1:AA:942:A:C2	1:AA:946:A:C2	3.03	0.47
1:AA:1093:A:N1	3:AC:177:THR:OG1	2.35	0.47
1:AA:1172:A:H5''	3:AC:4:LYS:NZ	2.29	0.47
1:AA:1235:C:H41	10:AJ:43:ARG:HH12	1.62	0.47
1:AA:1490:A:C6	1:AA:1491:C:N4	2.83	0.47
2:AB:61:LEU:HD11	2:AB:66:GLY:HA3	1.97	0.47
2:AB:194:PRO:O	2:AB:197:VAL:N	2.48	0.47
5:AE:20:GLN:HG2	5:AE:21:ALA:N	2.29	0.47
5:AE:45:PHE:CE2	5:AE:129:ILE:HD13	2.44	0.47
6:AF:42:GLU:C	6:AF:44:GLY:N	2.72	0.47
6:AF:62:TRP:C	6:AF:63:TYR:HD2	2.21	0.47
8:AH:21:LYS:O	8:AH:22:GLU:C	2.58	0.47
10:AJ:8:LEU:HB3	10:AJ:16:LEU:CD2	2.44	0.47
10:AJ:24:VAL:HG12	10:AJ:24:VAL:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:96:ARG:HA	11:AK:99:GLN:HG3	1.97	0.47
12:AL:28:LYS:O	12:AL:29:GLY:C	2.58	0.47
19:AS:63:THR:HG22	19:AS:66:MET:HG2	1.97	0.47
20:AT:38:LYS:C	20:AT:40:ALA:N	2.70	0.47
25:BA:941:A:O2'	36:BP:35:HIS:ND1	2.43	0.47
25:BA:942:G:OP1	36:BP:35:HIS:HB3	2.15	0.47
25:BA:1175:U:C4'	25:BA:1176:G:H2'	2.44	0.47
25:BA:1484:G:C2'	25:BA:1485:G:H5''	2.45	0.47
25:BA:2261:C:O2'	25:BA:2262:U:H5'	2.14	0.47
25:BA:2682:U:H2'	25:BA:2683:C:C6	2.50	0.47
25:BA:2823:A:OP1	29:BE:113:PHE:HB2	2.15	0.47
25:BA:2838:G:H1'	38:BR:45:ARG:HH11	1.79	0.47
25:BA:2863:C:H2'	25:BA:2864:G:H5'	1.95	0.47
25:BA:2881:C:C2	25:BA:2882:A:N7	2.83	0.47
26:BB:81:G:C6	26:BB:82:G:C5	3.03	0.47
27:BC:214:VAL:C	27:BC:216:THR:H	2.23	0.47
28:BD:25:THR:C	28:BD:27:THR:H	2.23	0.47
28:BD:31:LYS:CE	28:BD:94:LEU:HD11	2.40	0.47
30:BF:17:ARG:HH11	30:BF:17:ARG:CG	2.27	0.47
30:BF:168:ARG:HA	30:BF:175:THR:CG2	2.42	0.47
36:BP:85:LEU:HD12	36:BP:120:ALA:HB2	1.97	0.47
40:BT:26:ASP:O	40:BT:89:VAL:N	2.36	0.47
40:BT:85:LYS:O	40:BT:85:LYS:NZ	2.26	0.47
46:BZ:14:LYS:N	46:BZ:15:PRO:HD3	2.30	0.47
47:B0:72:ARG:CB	47:B0:75:LEU:HB3	2.45	0.47
52:B5:56:LYS:HB3	52:B5:56:LYS:NZ	2.30	0.47
1:CA:1140:C:H42	1:CA:1162:G:H22	1.63	0.47
1:CA:1488:G:H2'	1:CA:1489:U:O4'	2.15	0.47
2:CB:41:ILE:HG22	2:CB:41:ILE:O	2.15	0.47
2:CB:207:ALA:C	2:CB:209:ARG:H	2.22	0.47
4:CD:65:ARG:HD2	4:CD:72:GLU:HA	1.95	0.47
9:CI:114:TYR:CE1	10:CJ:60:ARG:N	2.83	0.47
13:CM:49:THR:N	13:CM:52:GLU:OE1	2.47	0.47
23:CV:15:G:H1	23:CV:49:C:H5	1.61	0.47
23:CV:25:U:C2'	23:CV:26:C:H5'	2.44	0.47
25:DA:15:G:O2'	52:D5:18:ALA:HA	2.15	0.47
25:DA:30:G:O2'	25:DA:31:C:H5'	2.15	0.47
25:DA:301:G:OP1	25:DA:301:G:H4'	2.13	0.47
25:DA:1049:C:H2'	25:DA:1050:A:C8	2.50	0.47
25:DA:1469:A:O2'	25:DA:1470:G:H5'	2.15	0.47
25:DA:1902:C:H5''	28:DD:246:PRO:HD3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2299:G:N1	25:DA:2318:G:C8	2.83	0.47
25:DA:2392:A:H2'	25:DA:2393:A:O4'	2.15	0.47
25:DA:2562:U:H2'	25:DA:2563:U:H5'	1.97	0.47
25:DA:2626:C:H2'	25:DA:2627:G:O4'	2.14	0.47
25:DA:2789:C:N3	25:DA:2894:G:O6	2.47	0.47
25:DA:2790:A:N3	25:DA:2790:A:C2'	2.77	0.47
26:DB:82:G:H2'	26:DB:83:G:H8	1.79	0.47
26:DB:83:G:H4'	50:D3:52:HIS:CD2	2.50	0.47
27:DC:83:ILE:HA	27:DC:94:VAL:CG2	2.45	0.47
27:DC:155:GLU:O	27:DC:156:ILE:CB	2.63	0.47
29:DE:19:ARG:O	29:DE:19:ARG:HG3	2.14	0.47
30:DF:9:ILE:HG12	30:DF:13:SER:O	2.15	0.47
30:DF:65:TRP:CH2	30:DF:75:HIS:HD2	2.32	0.47
31:DG:128:ARG:O	31:DG:130:ASN:N	2.47	0.47
32:DH:43:VAL:CG1	32:DH:52:VAL:HA	2.30	0.47
32:DH:88:LEU:HD22	32:DH:88:LEU:N	2.29	0.47
34:DN:119:ARG:HG3	34:DN:119:ARG:NH1	2.30	0.47
37:DQ:76:LYS:HB3	37:DQ:91:GLU:HG3	1.96	0.47
38:DR:97:VAL:CG2	38:DR:114:VAL:HG22	2.32	0.47
40:DT:27:THR:O	40:DT:28:VAL:HG23	2.14	0.47
41:DU:98:LEU:HD21	42:DV:2:PHE:HZ	1.80	0.47
42:DV:25:LEU:HD11	42:DV:94:LEU:HD11	1.97	0.47
43:DW:1:MET:CG	43:DW:64:MET:HE3	2.44	0.47
46:DZ:10:ARG:HB2	46:DZ:38:TYR:HD2	1.79	0.47
46:DZ:14:LYS:C	46:DZ:16:SER:N	2.71	0.47
47:D0:70:GLN:HE21	47:D0:70:GLN:HB3	1.54	0.47
48:D1:52:ARG:HG3	48:D1:52:ARG:NH2	2.28	0.47
1:AA:56:U:O5'	1:AA:56:U:H6	1.98	0.47
1:AA:168:C:H2'	1:AA:169:C:C6	2.50	0.47
3:AC:73:PRO:CA	3:AC:76:VAL:HG22	2.45	0.47
7:AG:91:VAL:HG12	7:AG:96:GLN:HB2	1.95	0.47
8:AH:118:VAL:C	8:AH:119:LEU:HD23	2.40	0.47
9:AI:17:VAL:HG22	9:AI:63:ILE:CD1	2.44	0.47
12:AL:40:VAL:O	12:AL:40:VAL:HG12	2.15	0.47
13:AM:116:THR:C	13:AM:117:VAL:HG23	2.40	0.47
20:AT:45:GLN:C	20:AT:47:GLY:H	2.22	0.47
23:AV:69:C:O2'	23:AV:70:C:H5'	2.15	0.47
22:AY:33:U:H3'	22:AY:34:G:C5'	2.45	0.47
25:BA:272:G:C4	25:BA:421:U:C5	3.03	0.47
25:BA:1140:C:P	34:BN:66:LYS:HZ3	2.37	0.47
25:BA:1414:G:H1	25:BA:1588:C:H42	1.62	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1987:G:C8	25:BA:1987:G:C5'	2.97	0.47
25:BA:2040:C:H2'	25:BA:2041:U:H6	1.79	0.47
25:BA:2445:G:OP1	30:BF:74:ARG:NH2	2.47	0.47
27:BC:154:ARG:C	27:BC:156:ILE:H	2.23	0.47
28:BD:12:SER:O	28:BD:16:MET:HE3	2.14	0.47
29:BE:167:VAL:HG22	29:BE:168:MET:N	2.28	0.47
32:BH:23:ARG:NE	32:BH:36:PRO:HB3	2.30	0.47
32:BH:156:ALA:N	32:BH:158:HIS:H	2.12	0.47
33:BI:41:GLU:O	33:BI:45:LYS:HG2	2.14	0.47
35:BO:22:ILE:HB	35:BO:40:VAL:O	2.15	0.47
38:BR:59:ASP:N	38:BR:59:ASP:OD2	2.47	0.47
39:BS:15:ARG:C	39:BS:17:ARG:N	2.68	0.47
39:BS:36:TYR:CD1	39:BS:36:TYR:N	2.82	0.47
41:BU:112:ARG:HE	42:BV:46:VAL:HG21	1.78	0.47
43:BW:1:MET:CG	43:BW:64:MET:HE3	2.44	0.47
43:BW:92:ARG:HG2	43:BW:92:ARG:NH1	2.27	0.47
46:BZ:96:VAL:CG1	46:BZ:97:GLU:N	2.78	0.47
46:BZ:151:HIS:CA	46:BZ:170:THR:HA	2.45	0.47
48:B1:48:LYS:HA	48:B1:60:PHE:O	2.15	0.47
52:B5:48:GLU:HA	52:B5:57:VAL:HG22	1.96	0.47
53:B6:36:LEU:HD23	53:B6:36:LEU:N	2.30	0.47
1:CA:67:C:H2'	1:CA:68:G:C8	2.50	0.47
1:CA:261:G:H5'	1:CA:262:C:C5	2.44	0.47
1:CA:334:C:OP2	35:DO:97:ARG:NH1	2.48	0.47
1:CA:404:G:H5'	4:CD:25:ARG:HB2	1.97	0.47
1:CA:943:G:C2	1:CA:944:C:C2	3.03	0.47
1:CA:1199:C:H2'	1:CA:1200:U:C6	2.50	0.47
1:CA:1221:U:N3	7:CG:30:ILE:HG22	2.29	0.47
3:CC:76:VAL:HG23	3:CC:77:ILE:H	1.78	0.47
6:CF:21:LEU:HA	6:CF:24:GLU:HG2	1.96	0.47
10:CJ:5:ARG:O	10:CJ:98:ILE:HA	2.14	0.47
10:CJ:6:ILE:HG22	10:CJ:98:ILE:HG13	1.96	0.47
20:CT:38:LYS:C	20:CT:40:ALA:H	2.21	0.47
20:CT:59:ALA:C	20:CT:61:SER:N	2.69	0.47
25:DA:247:G:H4'	25:DA:386:G:C5	2.50	0.47
25:DA:314:A:C2'	25:DA:315:G:C5'	2.90	0.47
25:DA:782:A:C2	28:DD:226:MET:HE2	2.49	0.47
25:DA:1344:G:N3	25:DA:1385:G:C8	2.82	0.47
25:DA:1952:A:C6	25:DA:1953:A:C6	3.03	0.47
25:DA:2183:C:O2'	25:DA:2184:G:H5'	2.15	0.47
26:DB:93:G:C2	26:DB:94:C:C5	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DC:83:ILE:HG23	27:DC:94:VAL:HG23	1.97	0.47
28:DD:40:THR:HG22	28:DD:41:GLY:O	2.15	0.47
28:DD:206:LEU:HA	28:DD:206:LEU:HD23	1.56	0.47
33:DI:104:GLN:O	33:DI:105:HIS:CD2	2.66	0.47
35:DO:17:ARG:HE	35:DO:47:ILE:HD11	1.80	0.47
36:DP:9:ASN:ND2	36:DP:10:PRO:HD3	2.30	0.47
38:DR:27:SER:HB3	38:DR:34:ILE:HD12	1.96	0.47
40:DT:12:SER:HB3	40:DT:57:PHE:CG	2.48	0.47
41:DU:104:GLN:HB3	42:DV:44:LYS:NZ	2.27	0.47
49:D2:65:ASN:HB3	49:D2:69:ARG:HH21	1.76	0.47
1:AA:1236:G:O3'	1:AA:1239:G:H1'	2.15	0.47
2:AB:8:LYS:C	2:AB:12:GLU:HG3	2.39	0.47
2:AB:101:MET:HA	2:AB:108:ILE:HG21	1.96	0.47
3:AC:139:GLN:OE1	3:AC:139:GLN:HA	2.15	0.47
5:AE:41:VAL:CG1	5:AE:112:LEU:C	2.88	0.47
11:AK:121:PRO:C	11:AK:122:LYS:O	2.57	0.47
19:AS:45:VAL:HA	19:AS:62:ILE:HG23	1.96	0.47
20:AT:44:ALA:HB1	20:AT:92:LEU:HG	1.97	0.47
20:AT:98:PRO:C	20:AT:100:ILE:N	2.73	0.47
25:BA:1024:G:H8	25:BA:1024:G:O5'	1.98	0.47
25:BA:1447:G:C4	25:BA:1448:G:C8	3.03	0.47
25:BA:1670:C:O2	29:BE:129:HIS:HE1	1.97	0.47
25:BA:2011:U:C2'	25:BA:2012:G:H5'	2.45	0.47
25:BA:2376:A:H2'	25:BA:2377:A:O4'	2.15	0.47
25:BA:2467:C:O2	37:BQ:124:LYS:NZ	2.46	0.47
25:BA:2697:G:H2'	25:BA:2698:U:O4'	2.15	0.47
25:BA:2707:G:H5''	38:BR:68:ARG:NH2	2.30	0.47
25:BA:2839:G:H1	25:BA:2878:U:H3	1.63	0.47
25:BA:2872:G:C2	25:BA:2873:A:N6	2.83	0.47
25:BA:2886:G:H2'	25:BA:2887:U:C6	2.50	0.47
26:BB:49:C:OP1	39:BS:96:GLY:HA3	2.14	0.47
26:BB:60:C:H2'	26:BB:61:G:C8	2.42	0.47
27:BC:41:VAL:HG12	27:BC:213:TYR:HA	1.97	0.47
29:BE:1:MET:HA	29:BE:200:GLU:CD	2.40	0.47
29:BE:116:VAL:CG2	29:BE:122:PHE:CG	2.98	0.47
30:BF:3:GLU:HG3	30:BF:19:GLU:HG3	1.97	0.47
31:BG:46:ALA:C	31:BG:51:ARG:HG3	2.39	0.47
31:BG:91:ARG:HD2	31:BG:91:ARG:C	2.40	0.47
31:BG:108:ASN:HA	51:B4:63:SER:HB3	1.97	0.47
31:BG:111:LEU:CA	31:BG:114:ILE:CD1	2.84	0.47
31:BG:130:ASN:HB3	31:BG:160:VAL:HA	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BI:14:ASP:O	33:BI:15:VAL:O	2.32	0.47
34:BN:32:THR:HG22	34:BN:37:LYS:HB3	1.97	0.47
34:BN:91:LEU:CD2	34:BN:98:VAL:HG21	2.45	0.47
35:BO:64:ARG:O	35:BO:83:ALA:N	2.39	0.47
38:BR:2:ARG:CZ	38:BR:5:LYS:CE	2.92	0.47
38:BR:87:TYR:HE1	38:BR:117:VAL:O	1.97	0.47
39:BS:58:LEU:HD23	39:BS:65:VAL:CG1	2.45	0.47
40:BT:33:LYS:HA	40:BT:33:LYS:HE3	1.97	0.47
41:BU:8:VAL:O	41:BU:9:VAL:C	2.58	0.47
46:BZ:17:ALA:HA	46:BZ:20:ARG:HD2	1.97	0.47
46:BZ:120:ILE:HG21	46:BZ:170:THR:OG1	2.14	0.47
1:CA:197:G:N3	20:CT:105:SER:HB3	2.30	0.47
1:CA:649:G:OP2	1:CA:708:G:N2	2.41	0.47
1:CA:792:G:C6	1:CA:793:C:C4	3.02	0.47
1:CA:1254:G:H3'	1:CA:1255:G:H8	1.79	0.47
2:CB:97:TRP:CH2	2:CB:176:GLU:CD	2.92	0.47
3:CC:15:THR:HG22	3:CC:16:ARG:H	1.80	0.47
3:CC:129:ALA:HB3	3:CC:132:ARG:HB3	1.97	0.47
5:CE:76:ILE:HG13	5:CE:142:LEU:HD13	1.96	0.47
5:CE:90:VAL:O	5:CE:91:LEU:HD12	2.14	0.47
5:CE:101:ILE:O	5:CE:120:THR:OG1	2.29	0.47
9:CI:11:LYS:O	9:CI:12:GLU:C	2.58	0.47
9:CI:88:TYR:O	9:CI:89:ASN:HB2	2.15	0.47
11:CK:27:ASN:HA	11:CK:55:LYS:C	2.39	0.47
11:CK:124:LYS:HB3	11:CK:125:PHE:CD1	2.50	0.47
12:CL:6:THR:HG23	12:CL:9:GLN:CG	2.45	0.47
19:CS:24:ALA:O	19:CS:25:LYS:CB	2.61	0.47
22:CW:34:G:O6	24:CX:13:A:C6	2.67	0.47
22:CW:35:A:C6	24:CX:13:A:N1	2.82	0.47
25:DA:25:U:H5'	43:DW:78:GLU:O	2.15	0.47
25:DA:108:U:H2'	25:DA:109:G:H8	1.79	0.47
25:DA:634:C:H2'	25:DA:635:C:C6	2.50	0.47
25:DA:674:G:H1'	30:DF:74:ARG:CD	2.44	0.47
25:DA:1142:U:H6	25:DA:1142:U:H3'	1.80	0.47
25:DA:1232:G:H2'	25:DA:1233:C:H6	1.79	0.47
25:DA:1935:G:H1'	25:DA:1964:G:N2	2.30	0.47
25:DA:1958:C:O2'	25:DA:1959:G:H5'	2.15	0.47
25:DA:2376:A:H2'	25:DA:2377:A:O4'	2.15	0.47
25:DA:2482:G:H22	37:DQ:52:VAL:CG1	2.28	0.47
25:DA:2482:G:N2	37:DQ:52:VAL:HG11	2.30	0.47
25:DA:2873:A:N3	38:DR:6:SER:CB	2.73	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DB:29:A:H2'	26:DB:30:C:C6	2.50	0.47
27:DC:41:VAL:HG12	27:DC:213:TYR:HA	1.97	0.47
28:DD:111:LEU:HD13	28:DD:112:GLN:N	2.30	0.47
30:DF:31:HIS:HB2	36:DP:13:ASN:HB3	1.97	0.47
30:DF:40:GLN:HE22	30:DF:182:ASN:HB2	1.80	0.47
30:DF:42:ALA:O	30:DF:45:ARG:HB2	2.15	0.47
30:DF:168:ARG:HA	30:DF:175:THR:CG2	2.42	0.47
33:DI:10:GLU:OE1	33:DI:11:ASN:HB2	2.15	0.47
34:DN:43:THR:HB	34:DN:46:VAL:CG1	2.45	0.47
35:DO:28:SER:O	35:DO:29:ASN:C	2.56	0.47
36:DP:9:ASN:C	36:DP:11:GLY:N	2.71	0.47
39:DS:70:GLY:C	39:DS:72:ALA:N	2.69	0.47
40:DT:56:GLY:N	40:DT:59:THR:HG22	2.29	0.47
42:DV:16:PRO:O	42:DV:96:ILE:O	2.33	0.47
42:DV:19:LYS:CG	42:DV:20:LEU:N	2.78	0.47
49:D2:50:ILE:O	49:D2:54:LYS:HG2	2.14	0.47
52:D5:36:CYS:HB2	52:D5:49:CYS:SG	2.55	0.47
1:AA:12:U:H4'	1:AA:509:C:O2'	2.15	0.46
1:AA:1007:C:C4'	1:AA:1015:G:H22	2.28	0.46
1:AA:1306:C:N4	1:AA:1307:C:N4	2.63	0.46
1:AA:1378:A:H2	5:AE:19:MET:HG3	1.80	0.46
1:AA:1407:U:O2	1:AA:1453:G:C2	2.68	0.46
5:AE:6:PHE:HD1	5:AE:63:ARG:NH1	2.13	0.46
5:AE:69:VAL:HG11	5:AE:71:LEU:HD21	1.97	0.46
5:AE:78:HIS:HE1	5:AE:143:ARG:H	1.63	0.46
7:AG:78:ARG:HD2	7:AG:79:ARG:N	2.24	0.46
7:AG:78:ARG:CD	7:AG:79:ARG:H	2.26	0.46
13:AM:48:LEU:HA	13:AM:52:GLU:OE1	2.15	0.46
20:AT:49:ALA:HB1	20:AT:100:ILE:CD1	2.45	0.46
23:AV:15:G:H22	23:AV:49:C:N4	2.12	0.46
25:BA:89:G:H3'	25:BA:90:U:H5''	1.96	0.46
25:BA:150:C:H2'	25:BA:151:C:C6	2.50	0.46
25:BA:312:G:H5'	25:BA:331:A:H2'	1.97	0.46
25:BA:1188:U:C5'	42:BV:79:VAL:HG22	2.45	0.46
25:BA:1344:G:H4'	25:BA:1384:A:N7	2.30	0.46
25:BA:1354:A:H2'	25:BA:1355:G:O4'	2.15	0.46
25:BA:1811:G:O2'	25:BA:1812:A:H5'	2.15	0.46
25:BA:2016:U:O2	52:B5:7:PRO:HG2	2.15	0.46
25:BA:2052:G:O4'	29:BE:142:GLY:HA3	2.15	0.46
25:BA:2196:C:C2'	25:BA:2197:U:H5'	2.45	0.46
25:BA:2884:U:H2'	25:BA:2885:C:C5'	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BD:111:LEU:HD13	28:BD:112:GLN:N	2.30	0.46
29:BE:46:ALA:HA	29:BE:82:ARG:O	2.15	0.46
30:BF:67:GLN:O	30:BF:68:LYS:CB	2.63	0.46
30:BF:125:LEU:N	30:BF:125:LEU:HD22	2.29	0.46
31:BG:46:ALA:CA	31:BG:51:ARG:HG3	2.45	0.46
32:BH:98:LEU:HD22	32:BH:125:VAL:CG2	2.45	0.46
34:BN:3:THR:O	34:BN:5:VAL:N	2.49	0.46
34:BN:131:GLN:O	34:BN:132:ALA:HB2	2.15	0.46
36:BP:97:PRO:O	36:BP:98:GLU:HG3	2.14	0.46
41:BU:15:LYS:N	41:BU:15:LYS:HD3	2.28	0.46
46:BZ:141:VAL:HG22	46:BZ:141:VAL:O	2.15	0.46
46:BZ:163:LEU:H	46:BZ:163:LEU:CD1	2.20	0.46
47:B0:23:VAL:HG11	47:B0:69:PHE:HZ	1.81	0.46
1:CA:76:G:N2	1:CA:77:G:C6	2.83	0.46
1:CA:138:G:C2	1:CA:139:G:C4	3.03	0.46
1:CA:1260:A:H61	3:CC:26:LYS:HZ1	1.62	0.46
1:CA:1281:G:O2'	1:CA:1282:U:OP2	2.30	0.46
1:CA:1432:C:O4'	1:CA:1433:G:C2	2.68	0.46
2:CB:31:TYR:CD2	2:CB:31:TYR:N	2.82	0.46
3:CC:114:PRO:O	3:CC:118:GLN:NE2	2.38	0.46
4:CD:81:GLU:CD	4:CD:139:ARG:HH22	2.23	0.46
8:CH:21:LYS:O	8:CH:22:GLU:C	2.58	0.46
13:CM:90:LEU:O	13:CM:92:HIS:N	2.45	0.46
15:CO:76:GLU:C	15:CO:78:TYR:N	2.74	0.46
16:CP:58:TYR:O	16:CP:61:SER:N	2.48	0.46
18:CR:44:LEU:CD2	18:CR:50:ILE:HD13	2.44	0.46
19:CS:61:TYR:CG	19:CS:62:ILE:N	2.83	0.46
20:CT:58:LYS:O	20:CT:61:SER:HB3	2.15	0.46
23:CV:4:G:C6	23:CV:71:G:C6	3.04	0.46
23:CV:32:G:H2'	23:CV:33:C:C6	2.47	0.46
25:DA:451:C:C5	25:DA:453:C:H5''	2.50	0.46
25:DA:962:G:O2'	25:DA:963:U:H5'	2.15	0.46
25:DA:965:C:H6	25:DA:965:C:H5''	1.79	0.46
25:DA:2080:G:P	48:D1:35:THR:HG21	2.54	0.46
25:DA:2159:G:N2	25:DA:2160:G:H1'	2.29	0.46
25:DA:2186:G:C4	25:DA:2187:G:C8	3.03	0.46
25:DA:2580:U:H5'	29:DE:131:ALA:H	1.80	0.46
25:DA:2632:A:O2'	29:DE:61:ARG:NH2	2.49	0.46
25:DA:2682:U:H2'	25:DA:2683:C:C6	2.50	0.46
25:DA:2701:C:H2'	25:DA:2702:U:H6	1.81	0.46
25:DA:2784:C:H1'	29:DE:42:ASP:OD1	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DB:87:G:H1	26:DB:91:C:N4	2.13	0.46
29:DE:119:ARG:O	29:DE:120:TRP:CD2	2.68	0.46
31:DG:43:LEU:HB2	31:DG:88:ILE:HD11	1.97	0.46
31:DG:175:LEU:CD1	31:DG:175:LEU:N	2.78	0.46
32:DH:13:LYS:O	32:DH:15:VAL:N	2.46	0.46
32:DH:23:ARG:NE	32:DH:36:PRO:HB3	2.30	0.46
32:DH:107:VAL:HG21	32:DH:152:ARG:CG	2.44	0.46
33:DI:58:LEU:HD12	33:DI:61:ARG:CZ	2.46	0.46
35:DO:12:ASP:OD1	35:DO:14:THR:OG1	2.32	0.46
39:DS:79:ALA:C	39:DS:80:LEU:HD12	2.40	0.46
40:DT:88:ILE:HG22	40:DT:89:VAL:HG22	1.96	0.46
40:DT:102:ILE:O	40:DT:106:SER:HB3	2.15	0.46
47:D0:51:VAL:CG2	47:D0:81:VAL:HG23	2.44	0.46
53:D6:36:LEU:N	53:D6:36:LEU:HD23	2.30	0.46
56:D9:19:ARG:O	56:D9:20:HIS:HB2	2.16	0.46
1:AA:923:A:H2'	1:AA:924:G:C8	2.50	0.46
1:AA:1113:G:C2	1:AA:1114:C:N4	2.83	0.46
2:AB:17:PHE:N	2:AB:17:PHE:HD2	2.13	0.46
2:AB:92:TYR:CD1	2:AB:151:GLY:HA3	2.50	0.46
2:AB:238:LEU:O	2:AB:240:GLN:N	2.47	0.46
7:AG:69:VAL:HG12	7:AG:100:ALA:HA	1.97	0.46
8:AH:86:ILE:CG2	8:AH:87:SER:H	2.21	0.46
9:AI:5:TYR:OH	9:AI:16:ARG:HG2	2.15	0.46
10:AJ:63:PHE:HA	14:AN:59:ALA:HB2	1.97	0.46
12:AL:38:THR:HG21	12:AL:65:GLU:OE2	2.15	0.46
13:AM:88:ARG:CA	13:AM:98:VAL:CG1	2.93	0.46
14:AN:15:LYS:O	14:AN:16:PHE:C	2.58	0.46
19:AS:28:LYS:HD2	19:AS:29:ARG:NE	2.30	0.46
20:AT:93:GLU:OE1	20:AT:94:ALA:N	2.48	0.46
23:AV:66:C:C5'	23:AV:66:C:C6	2.89	0.46
25:BA:69:C:H2'	25:BA:69:C:O2	2.14	0.46
25:BA:71:A:H3'	25:BA:71:A:P	2.54	0.46
25:BA:108:U:H2'	25:BA:109:G:H8	1.79	0.46
25:BA:176:G:C2'	25:BA:177:G:H5'	2.45	0.46
25:BA:271(Q):G:C4	25:BA:271(R):G:C8	2.95	0.46
25:BA:351:G:OP2	25:BA:351:G:H8	1.97	0.46
25:BA:769:G:H5'	25:BA:1379:A:H61	1.81	0.46
25:BA:1484:G:H2'	25:BA:1485:G:H5''	1.97	0.46
25:BA:1925:C:C2'	25:BA:1926:U:H5'	2.46	0.46
25:BA:2327:A:C5	25:BA:2388:A:N1	2.83	0.46
25:BA:2870:C:H2'	25:BA:2871:C:H5'	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BB:7:G:N3	39:BS:38:GLN:NE2	2.56	0.46
28:BD:181:GLU:OE2	28:BD:270:ILE:HG22	2.16	0.46
31:BG:9:ARG:O	31:BG:10:LYS:C	2.58	0.46
31:BG:44:GLY:N	31:BG:88:ILE:HG12	2.31	0.46
32:BH:94:TYR:HE1	32:BH:108:GLY:H	1.61	0.46
33:BI:10:GLU:O	33:BI:12:LEU:HD23	2.15	0.46
33:BI:26:ALA:O	33:BI:31:LEU:HD13	2.14	0.46
34:BN:58:ASP:C	34:BN:60:ILE:HG13	2.40	0.46
34:BN:111:PRO:HA	34:BN:114:ARG:CZ	2.45	0.46
37:BQ:1:MET:O	37:BQ:2:LEU:HB2	2.15	0.46
39:BS:66:ALA:HA	39:BS:69:VAL:HG12	1.97	0.46
41:BU:92:ARG:CG	41:BU:92:ARG:NH1	2.78	0.46
45:BY:40:GLU:HA	45:BY:40:GLU:OE2	2.15	0.46
47:B0:10:THR:CG2	47:B0:12:ASN:HB2	2.45	0.46
47:B0:51:VAL:CG2	47:B0:81:VAL:HG23	2.44	0.46
49:B2:12:GLU:O	49:B2:16:LEU:HG	2.16	0.46
49:B2:16:LEU:O	49:B2:17:SER:O	2.33	0.46
54:B7:16:HIS:HA	54:B7:21:ARG:HH12	1.79	0.46
1:CA:27:G:H2'	1:CA:28:G:H8	1.80	0.46
1:CA:346:G:H8	1:CA:346:G:O5'	1.98	0.46
1:CA:522:A:OP1	12:CL:114:LYS:HE2	2.14	0.46
1:CA:619:U:H2'	1:CA:620:G:C8	2.49	0.46
1:CA:627:G:O2'	1:CA:628:C:H5'	2.15	0.46
1:CA:1136:G:H2'	1:CA:1137:G:C8	2.50	0.46
1:CA:1296:U:H2'	1:CA:1297:G:O4'	2.14	0.46
2:CB:194:PRO:O	2:CB:197:VAL:N	2.48	0.46
3:CC:92:ALA:C	3:CC:94:LEU:N	2.72	0.46
3:CC:159:GLY:HA2	3:CC:193:TYR:CG	2.50	0.46
4:CD:68:TYR:O	4:CD:69:GLY:C	2.58	0.46
6:CF:19:LEU:O	6:CF:23:LYS:HG3	2.16	0.46
6:CF:28:ARG:HG3	6:CF:28:ARG:HH11	1.81	0.46
7:CG:11:GLN:NE2	7:CG:12:LEU:N	2.62	0.46
19:CS:33:THR:OG1	19:CS:34:TRP:N	2.46	0.46
25:DA:353:G:C5	25:DA:354:G:N7	2.83	0.46
25:DA:662:G:OP1	36:DP:18:ARG:HD2	2.15	0.46
25:DA:747:U:H3'	25:DA:2612:C:H41	1.80	0.46
25:DA:1019:U:O2'	25:DA:1021:A:C2	2.57	0.46
25:DA:1373:A:H2'	25:DA:1374:G:O4'	2.16	0.46
25:DA:1396:U:O2	25:DA:1396:U:C2'	2.63	0.46
25:DA:2040:C:H2'	25:DA:2041:U:H6	1.79	0.46
25:DA:2196:C:C2'	25:DA:2197:U:H5'	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2349:G:H5'	25:DA:2349:G:C8	2.50	0.46
25:DA:2419:U:O4	55:D8:30:ARG:NH1	2.48	0.46
26:DB:11:C:OP1	47:D0:72:ARG:HD2	2.14	0.46
26:DB:66:A:C2	26:DB:109:C:C2	3.04	0.46
26:DB:83:G:N1	26:DB:84:C:C4	2.83	0.46
26:DB:87:G:N2	26:DB:91:C:N3	2.63	0.46
28:DD:146:GLU:HG2	28:DD:152:GLY:C	2.40	0.46
28:DD:172:TYR:CE2	28:DD:269:PHE:CE1	3.03	0.46
31:DG:117:PHE:HD1	31:DG:118:ARG:H	1.62	0.46
33:DI:117:GLU:O	33:DI:118:LYS:C	2.57	0.46
34:DN:134:ARG:N	34:DN:135:PRO:CD	2.77	0.46
37:DQ:1:MET:O	37:DQ:2:LEU:HB2	2.15	0.46
37:DQ:12:GLN:HE21	37:DQ:73:PRO:CD	2.28	0.46
39:DS:88:ASP:CG	39:DS:89:ARG:N	2.73	0.46
40:DT:78:LEU:O	40:DT:78:LEU:HD23	2.14	0.46
43:DW:9:TYR:H	43:DW:102:HIS:CD2	2.33	0.46
43:DW:68:ARG:HD2	43:DW:110:LYS:HB2	1.97	0.46
45:DY:17:SER:OG	45:DY:71:LYS:CD	2.63	0.46
46:DZ:52:SER:OG	46:DZ:53:ILE:HG13	2.16	0.46
46:DZ:103:ARG:HB2	46:DZ:136:PHE:CE1	2.50	0.46
48:D1:68:PRO:HG2	48:D1:69:LYS:N	2.30	0.46
48:D1:69:LYS:HA	48:D1:72:GLU:HB2	1.95	0.46
50:D3:48:GLU:O	50:D3:51:ALA:HB2	2.16	0.46
1:AA:112:A:H4'	1:AA:113:A:O5'	2.15	0.46
1:AA:124:A:H1'	1:AA:258:A:O2'	2.15	0.46
1:AA:365:C:H2'	1:AA:366:G:C8	2.51	0.46
1:AA:602:U:N3	4:AD:134:ASP:OD2	2.34	0.46
1:AA:656:G:O3'	6:AF:87:ARG:NH2	2.47	0.46
1:AA:953:G:OP2	1:AA:1339:U:O2'	2.28	0.46
1:AA:1123:C:H2'	1:AA:1124:G:C8	2.51	0.46
1:AA:1405:G:C2	1:AA:1406:C:C2	3.04	0.46
2:AB:74:LYS:C	2:AB:76:GLN:N	2.71	0.46
2:AB:178:ARG:HD2	8:AH:71:GLY:O	2.16	0.46
3:AC:188:LEU:O	3:AC:189:ALA:HB2	2.14	0.46
7:AG:16:LEU:HD11	9:AI:42:ARG:HG3	1.95	0.46
7:AG:57:GLU:O	7:AG:57:GLU:HG3	2.15	0.46
8:AH:5:PRO:HB3	8:AH:32:LYS:HZ1	1.80	0.46
8:AH:91:ARG:HH11	8:AH:91:ARG:CG	2.27	0.46
10:AJ:13:HIS:ND1	10:AJ:13:HIS:C	2.73	0.46
14:AN:34:TYR:H	14:AN:34:TYR:HD1	1.62	0.46
20:AT:39:LYS:O	20:AT:43:LEU:HG	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:271(P):C:C5'	33:BI:46:ALA:HB2	2.45	0.46
25:BA:1344:G:H4'	25:BA:1384:A:C5	2.50	0.46
25:BA:1490:A:N6	28:BD:98:VAL:HG11	2.30	0.46
25:BA:2039:C:O2'	25:BA:2040:C:H5'	2.15	0.46
25:BA:2177:C:H1'	27:BC:44:HIS:CD2	2.50	0.46
25:BA:2464:C:N3	25:BA:2487:G:C2	2.84	0.46
25:BA:2517:C:C6	25:BA:2542:A:N1	2.84	0.46
25:BA:2736:G:O2'	25:BA:2737:G:H5'	2.15	0.46
25:BA:2840:C:H4'	38:BR:53:HIS:CD2	2.51	0.46
28:BD:40:THR:HG22	28:BD:41:GLY:O	2.15	0.46
28:BD:228:PRO:HD3	28:BD:235:GLY:CA	2.45	0.46
29:BE:117:MET:CE	29:BE:124:GLY:HA3	2.45	0.46
31:BG:6:ALA:HB3	31:BG:104:GLU:OE1	2.15	0.46
32:BH:64:LEU:C	32:BH:66:GLY:N	2.69	0.46
32:BH:158:HIS:NE2	32:BH:169:VAL:O	2.47	0.46
34:BN:26:LEU:CG	34:BN:30:ILE:HD11	2.45	0.46
34:BN:134:ARG:N	34:BN:135:PRO:CD	2.77	0.46
36:BP:101:VAL:HG12	36:BP:107:LYS:H	1.80	0.46
39:BS:35:ILE:CG2	39:BS:53:SER:HB2	2.44	0.46
41:BU:110:VAL:O	41:BU:114:LYS:HG2	2.16	0.46
42:BV:25:LEU:HD11	42:BV:94:LEU:HD11	1.97	0.46
42:BV:39:LEU:HD13	42:BV:39:LEU:N	2.29	0.46
43:BW:55:ALA:HA	43:BW:107:LEU:CD2	2.44	0.46
46:BZ:74:VAL:HG13	46:BZ:86:VAL:HG13	1.97	0.46
53:B6:52:VAL:HG12	53:B6:53:LYS:N	2.30	0.46
54:B7:8:ASN:HB3	54:B7:11:LYS:HB3	1.97	0.46
55:B8:61:LEU:HD12	55:B8:61:LEU:N	2.30	0.46
1:CA:636:A:O4'	8:CH:56:LYS:NZ	2.49	0.46
1:CA:1358:U:H2'	1:CA:1359:A:H8	1.79	0.46
4:CD:52:SER:C	4:CD:54:TYR:N	2.73	0.46
4:CD:206:PHE:CD2	4:CD:207:TYR:CE2	3.04	0.46
7:CG:15:ASP:CB	7:CG:20:ASP:H	2.28	0.46
7:CG:70:LYS:HB3	7:CG:96:GLN:OE1	2.14	0.46
7:CG:75:VAL:HG23	7:CG:75:VAL:O	2.15	0.46
8:CH:29:SER:O	8:CH:30:ARG:C	2.58	0.46
9:CI:28:VAL:CA	9:CI:63:ILE:O	2.60	0.46
9:CI:48:GLU:N	9:CI:49:PRO:CD	2.76	0.46
10:CJ:83:GLU:O	10:CJ:85:LEU:N	2.49	0.46
11:CK:99:GLN:HA	11:CK:105:VAL:HG11	1.97	0.46
22:CW:21:A:N7	22:CW:46:G:C8	2.83	0.46
23:CV:53:G:C8	23:CV:53:G:C5'	2.95	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:66:C:C2'	25:DA:67:U:H5'	2.44	0.46
25:DA:272:G:N1	25:DA:421:U:C4	2.84	0.46
25:DA:312:G:H5'	25:DA:331:A:H2'	1.98	0.46
25:DA:315:G:C5	25:DA:316:C:C4	3.03	0.46
25:DA:359:A:C8	25:DA:360:G:C8	3.04	0.46
25:DA:496:G:H1'	43:DW:61:ASN:OD1	2.15	0.46
25:DA:1173:G:H3'	25:DA:1174:A:C5'	2.45	0.46
25:DA:1287:A:N7	25:DA:1288:U:C4	2.80	0.46
25:DA:1464:C:C4'	25:DA:1528(A):A:H1'	2.40	0.46
25:DA:1742:G:N7	25:DA:1743:C:C4	2.84	0.46
25:DA:2039:C:O2'	25:DA:2040:C:H5'	2.15	0.46
25:DA:2314:C:H2'	25:DA:2315:G:C8	2.46	0.46
25:DA:2464:C:N3	25:DA:2487:G:C2	2.84	0.46
25:DA:2629:A:C8	25:DA:2895:U:N3	2.78	0.46
25:DA:2729:G:H1'	29:DE:187:ALA:HB2	1.97	0.46
25:DA:2820:A:H4'	38:DR:2:ARG:HH12	1.80	0.46
28:DD:147:LEU:HA	28:DD:147:LEU:HD12	1.70	0.46
28:DD:158:ALA:HB3	28:DD:161:THR:CG2	2.45	0.46
28:DD:181:GLU:OE2	28:DD:270:ILE:HG22	2.16	0.46
29:DE:46:ALA:HA	29:DE:82:ARG:O	2.15	0.46
29:DE:176:ILE:HG22	29:DE:176:ILE:O	2.13	0.46
31:DG:44:GLY:N	31:DG:88:ILE:HG12	2.31	0.46
31:DG:101:ILE:HG12	31:DG:105:LYS:NZ	2.30	0.46
32:DH:89:ILE:HD13	32:DH:94:TYR:CB	2.46	0.46
33:DI:72:LEU:HD21	33:DI:107:VAL:HG21	1.97	0.46
33:DI:133:HIS:O	33:DI:134:PRO:C	2.55	0.46
36:DP:101:VAL:C	36:DP:103:ALA:N	2.69	0.46
40:DT:23:ARG:CG	40:DT:120:ARG:NH1	2.69	0.46
41:DU:92:ARG:HG2	41:DU:92:ARG:NH1	2.26	0.46
41:DU:102:GLU:OE2	42:DV:2:PHE:CD1	2.69	0.46
41:DU:109:LEU:O	41:DU:110:VAL:C	2.58	0.46
42:DV:15:GLU:CB	42:DV:16:PRO:CD	2.90	0.46
43:DW:9:TYR:N	43:DW:9:TYR:HD2	2.12	0.46
46:DZ:125:LEU:O	46:DZ:164:ALA:HB3	2.14	0.46
49:D2:12:GLU:O	49:D2:16:LEU:HG	2.16	0.46
1:AA:168:C:O2'	1:AA:169:C:H5'	2.16	0.46
1:AA:721:C:H2'	1:AA:722:C:C6	2.51	0.46
1:AA:949:C:O3'	10:AJ:57:LYS:HG2	2.16	0.46
1:AA:1280:A:N7	1:AA:1282:U:O2	2.48	0.46
2:AB:219:VAL:HG13	2:AB:222:ILE:HD12	1.98	0.46
3:AC:129:ALA:HB3	3:AC:132:ARG:HB3	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:170:VAL:O	4:AD:171:GLY:C	2.58	0.46
5:AE:90:VAL:HG22	5:AE:121:LYS:O	2.15	0.46
8:AH:29:SER:O	8:AH:30:ARG:C	2.58	0.46
8:AH:83:ILE:O	8:AH:83:ILE:HG23	2.15	0.46
10:AJ:17:ASP:OD1	10:AJ:70:ARG:NH1	2.48	0.46
14:AN:8:GLU:HG3	14:AN:12:ARG:NH1	2.29	0.46
15:AO:76:GLU:C	15:AO:78:TYR:N	2.72	0.46
16:AP:55:ARG:O	16:AP:58:TYR:N	2.49	0.46
19:AS:36:ARG:HB2	19:AS:72:GLY:HA2	1.97	0.46
19:AS:61:TYR:CG	19:AS:62:ILE:N	2.83	0.46
22:AW:44:G:C2	22:AW:45:U:O2	2.69	0.46
25:BA:88:G:N3	25:BA:88:G:H2'	2.30	0.46
25:BA:196:A:N3	25:BA:196:A:H2'	2.31	0.46
25:BA:247:G:H4'	25:BA:386:G:C5	2.50	0.46
25:BA:315:G:C5	25:BA:316:C:C4	3.03	0.46
25:BA:359:A:C8	25:BA:360:G:C8	3.04	0.46
25:BA:395:U:O2	25:BA:395:U:C2'	2.63	0.46
25:BA:402:A:C2'	25:BA:403:U:H5'	2.45	0.46
25:BA:536:A:H2'	25:BA:537:C:H6	1.79	0.46
25:BA:674:G:H1'	30:BF:74:ARG:CD	2.46	0.46
25:BA:696:G:O2'	25:BA:697:C:H5'	2.14	0.46
25:BA:846:C:C2	25:BA:930:U:C4	3.03	0.46
25:BA:1742:G:N7	25:BA:1743:C:C4	2.84	0.46
25:BA:2127:G:N2	25:BA:2173:A:H1'	2.30	0.46
25:BA:2327:A:C2	25:BA:2388:A:C2	3.04	0.46
25:BA:2631:G:O2'	25:BA:2810:A:N1	2.48	0.46
25:BA:2672:G:H3'	25:BA:2673:G:H5''	1.97	0.46
25:BA:2783:G:H2'	25:BA:2784:C:H6	1.80	0.46
25:BA:2788:C:H2'	25:BA:2789:C:O4'	2.15	0.46
25:BA:2801:A:H1'	25:BA:2801(A):A:N7	2.29	0.46
27:BC:36:LYS:NZ	27:BC:36:LYS:CB	2.79	0.46
27:BC:83:ILE:HA	27:BC:94:VAL:CG2	2.46	0.46
30:BF:42:ALA:O	30:BF:45:ARG:HB2	2.15	0.46
30:BF:136:THR:HG23	30:BF:137:LYS:H	1.79	0.46
31:BG:43:LEU:CD2	31:BG:88:ILE:HD11	2.39	0.46
32:BH:18:GLU:CB	32:BH:25:LYS:HG2	2.41	0.46
36:BP:9:ASN:ND2	36:BP:10:PRO:HD3	2.31	0.46
40:BT:61:PHE:CE2	40:BT:76:PHE:HB2	2.50	0.46
43:BW:24:ILE:HG23	43:BW:36:LEU:HD21	1.97	0.46
44:BX:32:PRO:HA	44:BX:77:LYS:HB2	1.95	0.46
46:BZ:150:LEU:O	46:BZ:171:ILE:HG12	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:B2:21:LEU:O	49:B2:24:LEU:HB3	2.16	0.46
49:B2:38:GLN:HA	49:B2:41:ILE:HD11	1.97	0.46
1:CA:35:G:C2	1:CA:533:G:C2	3.03	0.46
1:CA:369:A:C6	1:CA:370:U:C4	3.02	0.46
2:CB:8:LYS:C	2:CB:12:GLU:HG3	2.39	0.46
5:CE:6:PHE:HD1	5:CE:63:ARG:NH1	2.13	0.46
6:CF:76:ALA:O	6:CF:80:ARG:HG2	2.15	0.46
7:CG:155:ARG:O	7:CG:156:TRP:O	2.33	0.46
9:CI:118:LYS:HB2	9:CI:118:LYS:HZ3	1.80	0.46
11:CK:108:ILE:O	18:CR:86:VAL:HG13	2.15	0.46
12:CL:122:THR:HG22	12:CL:123:LYS:O	2.15	0.46
14:CN:15:LYS:O	14:CN:16:PHE:C	2.58	0.46
20:CT:30:LYS:HE3	20:CT:80:ARG:NH2	2.31	0.46
20:CT:45:GLN:C	20:CT:47:GLY:H	2.23	0.46
22:CW:52:G:C2	22:CW:53:G:C4	3.03	0.46
25:DA:298:G:H1'	25:DA:340:A:N6	2.30	0.46
25:DA:445:C:H2'	25:DA:446:G:O4'	2.15	0.46
25:DA:651:G:N3	25:DA:651:G:H2'	2.31	0.46
25:DA:1339:G:H21	25:DA:1603:A:H1'	1.79	0.46
25:DA:1435:G:H2'	25:DA:1436:G:O4'	2.15	0.46
25:DA:2176:A:O3'	27:DC:218:MET:CB	2.64	0.46
25:DA:2629:A:H8	25:DA:2895:U:H3	1.57	0.46
25:DA:2675:A:C1'	35:DO:29:ASN:ND2	2.78	0.46
28:DD:25:THR:C	28:DD:27:THR:H	2.23	0.46
28:DD:48:ARG:HH11	28:DD:48:ARG:CG	2.27	0.46
28:DD:266:SER:O	28:DD:267:SER:O	2.33	0.46
30:DF:124:LEU:HG	30:DF:126:VAL:CG1	2.44	0.46
31:DG:28:VAL:O	31:DG:31:VAL:CG1	2.63	0.46
31:DG:61:ALA:HA	31:DG:64:THR:HG22	1.97	0.46
41:DU:98:LEU:O	41:DU:100:VAL:N	2.48	0.46
45:DY:50:ARG:O	45:DY:52:SER:N	2.48	0.46
45:DY:76:CYS:SG	45:DY:77:PRO:CD	2.86	0.46
45:DY:90:LEU:O	45:DY:91:GLU:HG2	2.15	0.46
47:D0:10:THR:CG2	47:D0:12:ASN:HB2	2.45	0.46
53:D6:52:VAL:HG12	53:D6:53:LYS:N	2.30	0.46
1:AA:571:G:H2'	1:AA:572:C:H6	1.81	0.46
1:AA:1066:G:H5'	1:AA:1084:A:OP2	2.16	0.46
1:AA:1241:C:H3'	1:AA:1241:C:C6	2.49	0.46
1:AA:1329:U:H2'	1:AA:1330:A:H8	1.79	0.46
2:AB:50:GLU:O	2:AB:51:LEU:C	2.58	0.46
3:AC:52:LEU:H	3:AC:52:LEU:CD2	2.24	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:149:ALA:O	3:AC:150:LYS:HB2	2.15	0.46
3:AC:188:LEU:HB3	3:AC:189:ALA:H	1.53	0.46
4:AD:100:ARG:HH22	4:AD:137:SER:HB3	1.80	0.46
8:AH:63:LEU:CB	8:AH:65:TYR:CE1	2.98	0.46
11:AK:29:ILE:HD12	11:AK:43:SER:C	2.39	0.46
14:AN:3:ARG:O	14:AN:7:ILE:HG23	2.16	0.46
15:AO:39:LEU:CD1	15:AO:56:LEU:HB2	2.45	0.46
17:AQ:17:LYS:HA	17:AQ:49:GLU:HG2	1.97	0.46
18:AR:52:PRO:O	18:AR:56:THR:HG23	2.15	0.46
25:BA:281:G:N2	25:BA:358:U:H5	2.03	0.46
25:BA:311:A:C6	25:BA:328:U:N3	2.83	0.46
25:BA:353:G:C5	25:BA:354:G:N7	2.83	0.46
25:BA:445:C:H2'	25:BA:446:G:O4'	2.15	0.46
25:BA:634:C:H2'	25:BA:635:C:C6	2.50	0.46
25:BA:747:U:H3'	25:BA:2612:C:H41	1.80	0.46
25:BA:779:U:H2'	25:BA:780:G:H8	1.76	0.46
25:BA:910:A:H2'	25:BA:2264:C:O2'	2.14	0.46
25:BA:1040:C:O2'	25:BA:1041:C:P	2.73	0.46
25:BA:1142:U:H3'	25:BA:1142:U:H6	1.80	0.46
25:BA:1331:A:O2'	25:BA:1332:G:C8	2.69	0.46
25:BA:1766:U:O2'	25:BA:1767:C:H5'	2.15	0.46
25:BA:2183:C:O2'	25:BA:2184:G:H5'	2.15	0.46
25:BA:2320:A:C5	25:BA:2333:A:C5	3.03	0.46
25:BA:2701:C:H2'	25:BA:2702:U:H6	1.81	0.46
26:BB:109:C:H5'	26:BB:110:G:O5'	2.14	0.46
28:BD:10:THR:C	28:BD:11:PRO:O	2.56	0.46
29:BE:119:ARG:O	29:BE:120:TRP:CD2	2.68	0.46
30:BF:68:LYS:HB3	30:BF:69:HIS:H	1.43	0.46
31:BG:76:SER:HB3	31:BG:84:LYS:CA	2.46	0.46
31:BG:111:LEU:O	31:BG:117:PHE:CE2	2.67	0.46
31:BG:133:LEU:HG	31:BG:157:ILE:HG13	1.96	0.46
31:BG:175:LEU:N	31:BG:175:LEU:CD1	2.78	0.46
32:BH:158:HIS:ND1	32:BH:168:PRO:HB2	2.29	0.46
33:BI:131:LYS:HG3	33:BI:132:PRO:HD2	1.96	0.46
34:BN:91:LEU:O	34:BN:95:PRO:HB3	2.15	0.46
34:BN:119:ARG:HH11	34:BN:119:ARG:CG	2.29	0.46
37:BQ:34:LEU:HD11	37:BQ:129:THR:OG1	2.16	0.46
38:BR:7:GLY:O	38:BR:8:ARG:O	2.33	0.46
38:BR:28:LEU:HA	38:BR:34:ILE:HG12	1.96	0.46
39:BS:101:LEU:C	39:BS:101:LEU:HD22	2.41	0.46
40:BT:26:ASP:OD1	40:BT:48:ILE:HG12	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BU:72:HIS:HE1	41:BU:107:ALA:HB2	1.80	0.46
42:BV:19:LYS:CG	42:BV:20:LEU:N	2.78	0.46
42:BV:19:LYS:HZ3	42:BV:20:LEU:H	1.57	0.46
47:B0:29:GLN:O	47:B0:31:VAL:HG13	2.16	0.46
1:CA:685:A:N6	25:DA:1848:A:N1	2.64	0.46
1:CA:823:C:H4'	1:CA:825:C:C2	2.50	0.46
1:CA:980:G:N2	1:CA:981:G:HI'	2.30	0.46
1:CA:1123:C:H2'	1:CA:1124:G:C8	2.49	0.46
1:CA:1389:C:O2'	25:DA:1912:A:N1	2.42	0.46
1:CA:1448:G:H2'	1:CA:1449:U:C6	2.50	0.46
2:CB:74:LYS:C	2:CB:76:GLN:N	2.72	0.46
2:CB:196:LEU:HA	8:CH:74:PRO:HG3	1.97	0.46
4:CD:150:GLU:O	4:CD:153:ARG:HG3	2.16	0.46
7:CG:140:ASP:CG	7:CG:143:ARG:HH12	2.24	0.46
8:CH:6:ILE:HD12	8:CH:6:ILE:N	2.16	0.46
8:CH:40:ALA:C	8:CH:42:GLU:N	2.72	0.46
8:CH:83:ILE:HG23	8:CH:83:ILE:O	2.15	0.46
10:CJ:24:VAL:HG12	10:CJ:24:VAL:O	2.16	0.46
17:CQ:18:THR:O	17:CQ:19:VAL:HG13	2.14	0.46
17:CQ:76:LEU:HD11	17:CQ:78:GLU:C	2.40	0.46
22:CW:18:G:N2	22:CW:55:U:C6	2.83	0.46
22:CW:21:A:C5	22:CW:46:G:C6	3.03	0.46
22:CW:30:G:H2'	22:CW:31:A:C8	2.51	0.46
23:CV:12:G:HI'	25:DA:1923:U:O2'	2.16	0.46
25:DA:262:A:H2'	25:DA:263:C:O4'	2.16	0.46
25:DA:329:G:OP2	45:DY:71:LYS:CD	2.64	0.46
25:DA:471:A:H2'	25:DA:472:A:H5'	1.97	0.46
25:DA:661:C:H2'	25:DA:662:G:C8	2.51	0.46
25:DA:779:U:H2'	25:DA:780:G:H8	1.76	0.46
25:DA:910:A:C2'	25:DA:2264:C:O2'	2.64	0.46
25:DA:1022:G:O2'	25:DA:1023:U:OP2	2.30	0.46
25:DA:1035:U:C5'	32:DH:59:ARG:HD3	2.45	0.46
25:DA:1193:G:H2'	25:DA:1194:A:O4'	2.16	0.46
25:DA:1354:A:H2'	25:DA:1355:G:O4'	2.15	0.46
25:DA:1484:G:C2'	25:DA:1485:G:H5''	2.45	0.46
25:DA:1708:C:O2'	25:DA:1709:U:H5'	2.16	0.46
25:DA:2011:U:C2'	25:DA:2012:G:H5'	2.45	0.46
25:DA:2517:C:C6	25:DA:2542:A:N1	2.84	0.46
27:DC:214:VAL:C	27:DC:216:THR:H	2.23	0.46
28:DD:30:GLU:HG3	28:DD:63:ARG:NE	2.30	0.46
29:DE:66:HIS:HD1	29:DE:66:HIS:C	2.21	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DF:3:GLU:CB	30:DF:19:GLU:HB2	2.46	0.46
31:DG:140:ILE:O	31:DG:140:ILE:HG22	2.13	0.46
32:DH:38:SER:O	32:DH:40:GLU:N	2.45	0.46
34:DN:91:LEU:O	34:DN:95:PRO:HB3	2.15	0.46
34:DN:111:PRO:HA	34:DN:114:ARG:CZ	2.45	0.46
35:DO:13:ASN:OD1	35:DO:96:THR:N	2.37	0.46
36:DP:114:ILE:CG2	36:DP:127:ALA:HB2	2.44	0.46
39:DS:98:VAL:O	39:DS:98:VAL:HG13	2.15	0.46
41:DU:72:HIS:HE1	41:DU:107:ALA:HB2	1.80	0.46
42:DV:34:GLU:O	42:DV:36:PRO:CD	2.64	0.46
46:DZ:19:ARG:NH1	46:DZ:82:ARG:NH2	2.63	0.46
53:D6:47:THR:HB	53:D6:49:HIS:HE1	1.67	0.46
1:AA:330:C:H2'	1:AA:331:C:C6	2.51	0.46
1:AA:769:G:H2'	1:AA:770:A:O4'	2.16	0.46
1:AA:968:U:O4	1:AA:1193:U:O2'	2.29	0.46
1:AA:1278:C:O3'	7:AG:114:ARG:NH2	2.49	0.46
1:AA:1421:C:H42	1:AA:1439:G:H1	1.63	0.46
2:AB:12:GLU:C	2:AB:14:GLY:N	2.73	0.46
2:AB:95:GLN:NE2	2:AB:147:LYS:HG2	2.26	0.46
4:AD:11:LEU:O	4:AD:12:CYS:C	2.59	0.46
4:AD:18:LYS:C	4:AD:19:LEU:HD12	2.41	0.46
5:AE:51:VAL:HB	5:AE:52:PRO:CD	2.44	0.46
6:AF:76:ALA:O	6:AF:80:ARG:HG2	2.15	0.46
7:AG:154:TYR:O	7:AG:156:TRP:N	2.48	0.46
10:AJ:78:ASN:HD21	10:AJ:80:LYS:HB2	1.80	0.46
10:AJ:79:ARG:N	10:AJ:79:ARG:HH11	2.12	0.46
11:AK:19:ALA:HB3	11:AK:82:VAL:CG2	2.45	0.46
14:AN:33:VAL:HG12	14:AN:39:LEU:O	2.15	0.46
22:AW:71:G:OP2	22:AW:71:G:C8	2.68	0.46
23:AV:4:G:N2	23:AV:5:G:H1'	2.30	0.46
25:BA:8:A:H2'	25:BA:9:U:H6	1.80	0.46
25:BA:9:U:HO2'	25:BA:10:G:C5'	2.28	0.46
25:BA:250:G:OP2	55:B8:13:ARG:NH2	2.49	0.46
25:BA:271(Q):G:C6	25:BA:271(R):G:C6	3.03	0.46
25:BA:325:G:H2'	25:BA:326:G:C8	2.48	0.46
25:BA:491:G:O2'	25:BA:492:A:H5'	2.16	0.46
25:BA:523:C:O2'	25:BA:524:U:H5'	2.16	0.46
25:BA:572:A:C2	25:BA:2033:A:C2	3.04	0.46
25:BA:1400:G:H2'	25:BA:1401:G:C8	2.51	0.46
25:BA:1935:G:H1'	25:BA:1964:G:N2	2.30	0.46
25:BA:1953:A:C2	25:BA:2549:G:N3	2.84	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2208:A:H1'	25:BA:2219:G:N3	2.31	0.46
25:BA:2562:U:H2'	25:BA:2563:U:H5'	1.97	0.46
27:BC:196:LEU:C	27:BC:198:ALA:N	2.74	0.46
28:BD:206:LEU:HD23	28:BD:206:LEU:HA	1.56	0.46
29:BE:101:ARG:HH21	29:BE:171:GLU:CB	2.25	0.46
32:BH:30:LYS:CE	32:BH:81:GLU:HG2	2.46	0.46
32:BH:89:ILE:HD13	32:BH:94:TYR:CB	2.45	0.46
33:BI:115:ALA:HB1	33:BI:129:THR:HG23	1.98	0.46
34:BN:79:PRO:C	34:BN:81:GLY:H	2.22	0.46
35:BO:63:VAL:HG22	35:BO:84:ALA:HA	1.98	0.46
36:BP:49:ARG:CZ	36:BP:50:ARG:HH22	2.29	0.46
36:BP:64:LYS:HD2	55:B8:25:MET:SD	2.56	0.46
43:BW:17:VAL:O	43:BW:18:ARG:C	2.57	0.46
44:BX:48:LYS:HZ3	49:B2:30:ARG:HH22	1.64	0.46
45:BY:28:LYS:NZ	45:BY:28:LYS:H	2.03	0.46
45:BY:90:LEU:O	45:BY:91:GLU:HG2	2.15	0.46
46:BZ:21:ALA:HB3	46:BZ:23:LYS:HD3	1.98	0.46
49:B2:50:ILE:C	49:B2:52:ASP:N	2.74	0.46
50:B3:48:GLU:O	50:B3:51:ALA:HB2	2.16	0.46
53:B6:47:THR:HG22	53:B6:49:HIS:H	1.81	0.46
1:CA:44:G:H2'	1:CA:45:U:O4'	2.16	0.46
1:CA:404:G:C5'	4:CD:25:ARG:HB2	2.45	0.46
1:CA:961:C:H42	1:CA:1202:G:H1	1.63	0.46
2:CB:12:GLU:C	2:CB:14:GLY:H	2.23	0.46
2:CB:110:GLN:HE21	2:CB:110:GLN:HB2	1.53	0.46
2:CB:207:ALA:C	2:CB:209:ARG:N	2.72	0.46
3:CC:148:GLY:HA3	3:CC:203:PHE:HB3	1.98	0.46
5:CE:12:LEU:O	5:CE:13:ILE:HG13	2.16	0.46
10:CJ:40:LEU:HG	10:CJ:69:ASN:CB	2.41	0.46
10:CJ:54:PHE:CG	10:CJ:55:LYS:HE3	2.50	0.46
14:CN:22:THR:O	14:CN:23:ARG:HB2	2.14	0.46
14:CN:23:ARG:HA	14:CN:29:ARG:O	2.16	0.46
23:CV:3:C:N3	23:CV:4:G:N7	2.63	0.46
25:DA:95:G:H1'	49:D2:47:ASN:HD22	1.81	0.46
25:DA:285:C:C2'	25:DA:286:C:O4'	2.59	0.46
25:DA:1865:G:H5'	25:DA:1866:C:P	2.56	0.46
25:DA:2016:U:O2	52:D5:7:PRO:HG2	2.15	0.46
25:DA:2839:G:H1	25:DA:2878:U:H3	1.63	0.46
29:DE:1:MET:HA	29:DE:200:GLU:CD	2.40	0.46
31:DG:9:ARG:O	31:DG:12:TYR:N	2.49	0.46
31:DG:31:VAL:CG2	31:DG:32:PRO:CD	2.94	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DG:91:ARG:HD2	31:DG:91:ARG:C	2.40	0.46
31:DG:109:VAL:CB	31:DG:142:PRO:HG3	2.46	0.46
32:DH:54:ARG:O	32:DH:54:ARG:HG3	2.15	0.46
34:DN:58:ASP:C	34:DN:60:ILE:HG13	2.40	0.46
37:DQ:137:TYR:O	37:DQ:138:ASP:O	2.32	0.46
40:DT:28:VAL:CG1	40:DT:29:ARG:N	2.78	0.46
40:DT:53:ARG:HH12	40:DT:55:ASN:CB	2.27	0.46
41:DU:110:VAL:O	41:DU:114:LYS:HG2	2.16	0.46
42:DV:3:ALA:O	42:DV:13:ARG:HA	2.16	0.46
42:DV:5:VAL:CG1	42:DV:14:VAL:HG13	2.46	0.46
44:DX:43:VAL:HG21	44:DX:81:VAL:HG11	1.96	0.46
45:DY:13:VAL:HA	45:DY:75:ILE:CG2	2.44	0.46
45:DY:40:GLU:OE2	45:DY:40:GLU:HA	2.15	0.46
46:DZ:14:LYS:N	46:DZ:15:PRO:HD3	2.30	0.46
46:DZ:85:HIS:C	46:DZ:85:HIS:HD1	2.24	0.46
49:D2:18:PRO:HG2	49:D2:19:VAL:N	2.30	0.46
1:AA:113:A:C6	1:AA:115:G:C2	3.04	0.46
1:AA:447:A:H4'	16:AP:72:ARG:HG3	1.98	0.46
1:AA:528:C:H5''	4:AD:72:GLU:HG2	1.98	0.46
1:AA:731:C:H6	1:AA:731:C:O5'	1.97	0.46
2:AB:96:ARG:O	2:AB:97:TRP:C	2.55	0.46
3:AC:30:ARG:HD3	14:AN:38:GLY:CA	2.46	0.46
3:AC:186:PHE:HA	3:AC:198:VAL:O	2.16	0.46
4:AD:110:PHE:HD1	4:AD:110:PHE:N	2.13	0.46
4:AD:127:THR:HB	4:AD:130:GLY:O	2.15	0.46
5:AE:26:PHE:CD1	5:AE:26:PHE:N	2.83	0.46
6:AF:22:GLU:O	6:AF:26:ILE:HG13	2.16	0.46
7:AG:9:VAL:O	7:AG:10:ARG:C	2.59	0.46
7:AG:44:TYR:O	7:AG:47:CYS:N	2.49	0.46
7:AG:59:LEU:C	7:AG:59:LEU:HD23	2.40	0.46
7:AG:79:ARG:HG3	7:AG:79:ARG:NH1	2.26	0.46
8:AH:63:LEU:HB3	8:AH:65:TYR:CE1	2.51	0.46
9:AI:114:TYR:CE1	10:AJ:60:ARG:N	2.84	0.46
20:AT:38:LYS:C	20:AT:40:ALA:H	2.22	0.46
22:AW:62:C:H2'	22:AW:63:G:H8	1.80	0.46
23:AV:66:C:C2'	23:AV:67:C:C5'	2.89	0.46
25:BA:118:A:H1'	25:BA:178:G:O4'	2.14	0.46
25:BA:271(K):U:H3'	25:BA:271(L):U:C5'	2.46	0.46
25:BA:353:G:C4	25:BA:354:G:N7	2.84	0.46
25:BA:709:U:H2'	25:BA:710:G:H8	1.78	0.46
25:BA:832:G:OP1	36:BP:40:SER:HB3	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:859:G:O2'	25:BA:860:U:P	2.74	0.46
25:BA:948:G:C2	25:BA:970:C:O2	2.69	0.46
25:BA:1051:G:N2	25:BA:1052:C:C5	2.83	0.46
25:BA:1203:G:H4'	36:BP:7:ARG:HG2	1.97	0.46
25:BA:1469:A:O2'	25:BA:1470:G:H5'	2.15	0.46
25:BA:1748:G:H2'	25:BA:1749:A:O4'	2.16	0.46
25:BA:2108:C:C2	25:BA:2182:G:N2	2.84	0.46
25:BA:2287:A:N1	25:BA:2346:A:C2	2.81	0.46
25:BA:2302:G:C6	25:BA:2315:G:C5	3.04	0.46
25:BA:2689:U:O2'	25:BA:2690:C:OP2	2.31	0.46
27:BC:58:VAL:HG22	27:BC:167:LYS:N	2.31	0.46
28:BD:96:HIS:CE1	28:BD:102:LYS:HE2	2.51	0.46
28:BD:172:TYR:CE2	28:BD:269:PHE:CE1	3.02	0.46
29:BE:79:ARG:HG2	29:BE:79:ARG:NH1	2.29	0.46
30:BF:3:GLU:CB	30:BF:19:GLU:HB2	2.46	0.46
30:BF:53:THR:HG22	30:BF:56:GLU:CG	2.45	0.46
38:BR:80:PHE:O	38:BR:85:PRO:HD3	2.15	0.46
40:BT:22:PHE:O	40:BT:23:ARG:HG3	2.15	0.46
40:BT:76:PHE:HA	40:BT:77:PRO:HD3	1.76	0.46
45:BY:42:VAL:CB	45:BY:65:ALA:HB3	2.43	0.46
45:BY:68:HIS:HB3	45:BY:71:LYS:HG3	1.97	0.46
47:B0:10:THR:HG22	47:B0:12:ASN:N	2.27	0.46
49:B2:7:ARG:CG	49:B2:7:ARG:NH1	2.77	0.46
53:B6:15:GLU:O	53:B6:15:GLU:CG	2.60	0.46
53:B6:45:LYS:O	53:B6:46:HIS:ND1	2.48	0.46
1:CA:726:U:O5'	1:CA:726:U:H6	1.99	0.46
1:CA:922:G:C2	1:CA:1318:G:C2	3.04	0.46
1:CA:1061:G:H2'	1:CA:1062:A:C8	2.50	0.46
1:CA:1439:G:H2'	1:CA:1440:C:H6	1.81	0.46
2:CB:164:VAL:HB	2:CB:186:ALA:HB2	1.96	0.46
2:CB:178:ARG:HG3	8:CH:71:GLY:C	2.41	0.46
4:CD:127:THR:HB	4:CD:130:GLY:O	2.16	0.46
4:CD:194:LEU:HD22	4:CD:194:LEU:N	2.31	0.46
7:CG:77:SER:HB2	22:CW:32:U:H4'	1.98	0.46
9:CI:118:LYS:O	9:CI:119:ALA:HB3	2.16	0.46
10:CJ:22:LYS:C	10:CJ:24:VAL:H	2.24	0.46
10:CJ:48:THR:CA	10:CJ:62:HIS:HB3	2.41	0.46
11:CK:29:ILE:HD12	11:CK:43:SER:C	2.39	0.46
12:CL:27:LEU:HD11	12:CL:64:TYR:CE1	2.50	0.46
12:CL:117:ARG:HD2	12:CL:122:THR:CG2	2.46	0.46
13:CM:17:VAL:O	13:CM:20:THR:HB	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:94:ARG:NH1	25:DA:888:C:H5''	2.30	0.46
24:CX:16:A:O2'	24:CX:17:U:H5'	2.15	0.46
25:DA:285:C:N3	25:DA:286:C:C5	2.84	0.46
25:DA:308:G:O2'	25:DA:309:G:H5'	2.16	0.46
25:DA:792:G:C5'	25:DA:793:A:H5'	2.45	0.46
25:DA:942:G:H5'	36:DP:35:HIS:CA	2.46	0.46
25:DA:947:G:N2	25:DA:971:C:C2	2.84	0.46
25:DA:953:A:N6	25:DA:965:C:H42	2.12	0.46
25:DA:1114:G:C2'	25:DA:1115:G:H5''	2.44	0.46
25:DA:1129:A:H1'	25:DA:2516:G:O4'	2.15	0.46
25:DA:1329:U:H5''	25:DA:1330:C:C5	2.50	0.46
25:DA:1478:G:O2'	25:DA:1479:G:H5'	2.16	0.46
25:DA:1811:G:O2'	25:DA:1812:A:H5'	2.15	0.46
25:DA:2863:C:C2'	25:DA:2864:G:C5'	2.82	0.46
26:DB:81:G:C6	26:DB:82:G:C5	3.03	0.46
30:DF:139:PHE:HB3	30:DF:166:ALA:HB1	1.98	0.46
31:DG:130:ASN:HB3	31:DG:160:VAL:HA	1.97	0.46
34:DN:23:LEU:H	34:DN:23:LEU:CD2	2.29	0.46
39:DS:67:ARG:NH1	39:DS:98:VAL:HG13	2.30	0.46
46:DZ:33:LEU:HD11	46:DZ:35:ARG:CB	2.45	0.46
46:DZ:74:VAL:HG13	46:DZ:86:VAL:HG13	1.97	0.46
47:D0:23:VAL:HG11	47:D0:69:PHE:HZ	1.81	0.46
48:D1:23:LYS:HE2	48:D1:28:GLY:CA	2.42	0.46
49:D2:7:ARG:CG	49:D2:7:ARG:NH1	2.77	0.46
53:D6:9:LEU:HD23	53:D6:9:LEU:C	2.40	0.46
54:D7:16:HIS:HA	54:D7:21:ARG:NH1	2.30	0.46
1:AA:9:G:H8	5:AE:126:ARG:HH21	1.62	0.46
1:AA:519:C:H2'	1:AA:520:G:C8	2.51	0.46
1:AA:554:U:O4	1:AA:841:A:N6	2.48	0.46
1:AA:853:G:C6	1:AA:854:C:N4	2.83	0.46
1:AA:858:G:H2'	1:AA:859:C:O4'	2.16	0.46
2:AB:24:TRP:HB3	2:AB:40:HIS:CE1	2.51	0.46
4:AD:165:MET:O	4:AD:166:LYS:C	2.57	0.46
5:AE:41:VAL:CG1	5:AE:113:ALA:N	2.79	0.46
7:AG:22:LEU:HG	7:AG:62:PHE:HE2	1.80	0.46
9:AI:79:LEU:HD21	9:AI:102:LEU:HA	1.97	0.46
12:AL:43:VAL:CG2	12:AL:93:LEU:HD22	2.45	0.46
13:AM:10:PRO:HB3	13:AM:18:ALA:O	2.16	0.46
19:AS:36:ARG:HB2	19:AS:72:GLY:CA	2.46	0.46
19:AS:45:VAL:O	19:AS:47:HIS:N	2.49	0.46
19:AS:64:GLU:HG3	19:AS:65:ASN:N	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AW:66:U:H2'	22:AW:67:C:C6	2.50	0.46
25:BA:94:C:O2	25:BA:94:C:H2'	2.14	0.46
25:BA:291:C:N3	25:BA:349:G:N2	2.64	0.46
25:BA:309:G:N3	25:BA:329:G:O2'	2.32	0.46
25:BA:910:A:C2'	25:BA:2264:C:O2'	2.64	0.46
25:BA:1049:C:H2'	25:BA:1050:A:C8	2.50	0.46
25:BA:1639:U:H2'	25:BA:1640:C:C5'	2.42	0.46
25:BA:1865:G:H5'	25:BA:1866:C:P	2.56	0.46
25:BA:1952:A:N1	35:BO:22:ILE:CD1	2.64	0.46
25:BA:2266:A:C2	25:BA:2272:U:C5	3.04	0.46
25:BA:2392:A:H2'	25:BA:2393:A:O4'	2.15	0.46
25:BA:2571:C:H5'	25:BA:2572:A:H5''	1.97	0.46
25:BA:2620:C:OP1	29:BE:152:LYS:O	2.34	0.46
25:BA:2747:G:O6	25:BA:2755:C:H5''	2.16	0.46
26:BB:79:C:O2'	26:BB:80:U:H5'	2.16	0.46
28:BD:25:THR:O	28:BD:26:LYS:NZ	2.42	0.46
28:BD:33:LEU:H	28:BD:33:LEU:CD1	2.18	0.46
28:BD:146:GLU:HG2	28:BD:152:GLY:C	2.40	0.46
30:BF:22:ALA:C	30:BF:24:LEU:H	2.23	0.46
31:BG:111:LEU:O	31:BG:117:PHE:HD2	1.92	0.46
33:BI:10:GLU:OE1	33:BI:11:ASN:HB2	2.15	0.46
33:BI:65:ALA:CA	33:BI:131:LYS:HE2	2.46	0.46
33:BI:120:ILE:HG21	33:BI:126:TYR:HE1	1.80	0.46
34:BN:23:LEU:HD23	34:BN:23:LEU:H	1.81	0.46
34:BN:119:ARG:NH1	34:BN:119:ARG:HG3	2.30	0.46
35:BO:6:THR:HG22	35:BO:8:LEU:CD2	2.46	0.46
38:BR:10:LEU:HD13	38:BR:17:ARG:CZ	2.45	0.46
39:BS:34:HIS:CE1	39:BS:55:ALA:HB2	2.51	0.46
39:BS:77:ALA:O	39:BS:78:LEU:C	2.59	0.46
43:BW:8:ARG:HG3	43:BW:8:ARG:HH11	1.78	0.46
52:B5:36:CYS:HB2	52:B5:49:CYS:SG	2.56	0.46
55:B8:61:LEU:H	55:B8:61:LEU:HD12	1.81	0.46
1:CA:76:G:N2	1:CA:77:G:O6	2.49	0.46
1:CA:261:G:O2'	1:CA:262:C:OP2	2.34	0.46
1:CA:539:C:O2'	1:CA:540:G:H5'	2.16	0.46
1:CA:849:A:C4	1:CA:851:G:N7	2.84	0.46
1:CA:1039:G:H4'	3:CC:196:LEU:O	2.16	0.46
1:CA:1289:U:OP2	13:CM:99:ARG:HD2	2.16	0.46
1:CA:1413:C:N4	1:CA:1414:G:C6	2.84	0.46
2:CB:20:GLU:CD	2:CB:23:ARG:HH22	2.24	0.46
3:CC:27:LYS:NZ	3:CC:27:LYS:HB3	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:73:PRO:CA	3:CC:76:VAL:HG22	2.46	0.46
4:CD:12:CYS:SG	4:CD:19:LEU:O	2.74	0.46
11:CK:121:PRO:C	11:CK:122:LYS:O	2.57	0.46
18:CR:58:LEU:HB3	18:CR:62:GLU:HB2	1.98	0.46
20:CT:50:GLU:HG3	20:CT:51:GLU:N	2.31	0.46
20:CT:72:LEU:CD2	20:CT:73:HIS:N	2.72	0.46
25:DA:470:A:OP1	30:DF:59:TYR:HE2	1.98	0.46
25:DA:523:C:O2'	25:DA:524:U:H5'	2.16	0.46
25:DA:1024:G:H8	25:DA:1024:G:O5'	1.98	0.46
25:DA:1040:C:O2'	25:DA:1041:C:P	2.73	0.46
25:DA:1425:G:H2'	25:DA:1426:G:C8	2.51	0.46
25:DA:2177:C:H1'	27:DC:44:HIS:CD2	2.51	0.46
25:DA:2283:C:H2'	25:DA:2284:C:H5'	1.98	0.46
25:DA:2419:U:O4	55:D8:30:ARG:CZ	2.63	0.46
27:DC:36:LYS:NZ	27:DC:36:LYS:CB	2.79	0.46
28:DD:33:LEU:HD21	28:DD:102:LYS:HZ2	1.80	0.46
28:DD:231:HIS:ND1	28:DD:232:PRO:HD2	2.31	0.46
28:DD:257:LEU:CD2	28:DD:257:LEU:C	2.88	0.46
29:DE:116:VAL:CG2	29:DE:122:PHE:CG	2.98	0.46
30:DF:53:THR:HG22	30:DF:56:GLU:CG	2.45	0.46
30:DF:197:ASP:O	30:DF:200:GLU:N	2.36	0.46
31:DG:76:SER:HB3	31:DG:84:LYS:CA	2.46	0.46
31:DG:117:PHE:HE1	31:DG:119:GLY:O	1.99	0.46
31:DG:164:GLU:O	31:DG:165:THR:C	2.57	0.46
33:DI:120:ILE:HG21	33:DI:126:TYR:HE1	1.80	0.46
37:DQ:34:LEU:HD11	37:DQ:129:THR:OG1	2.16	0.46
37:DQ:58:PHE:HD1	37:DQ:58:PHE:O	1.97	0.46
39:DS:17:ARG:NH2	39:DS:90:GLY:N	2.64	0.46
40:DT:53:ARG:HH12	40:DT:55:ASN:HB2	1.72	0.46
43:DW:45:TYR:CD2	43:DW:45:TYR:C	2.93	0.46
45:DY:68:HIS:HB3	45:DY:71:LYS:HG3	1.98	0.46
47:D0:29:GLN:O	47:D0:31:VAL:HG13	2.16	0.46
47:D0:72:ARG:CB	47:D0:75:LEU:HB3	2.45	0.46
49:D2:63:VAL:CA	49:D2:66:GLU:HG2	2.46	0.46
50:D3:9:VAL:HG23	50:D3:10:LYS:N	2.31	0.46
1:AA:669:U:O2'	1:AA:670:A:OP2	2.30	0.46
1:AA:1077:U:C4	1:AA:1078:C:C4	3.04	0.46
1:AA:1259:U:O4	10:AJ:99:LYS:NZ	2.23	0.46
2:AB:41:ILE:HG22	2:AB:41:ILE:O	2.16	0.46
3:AC:30:ARG:HD3	14:AN:38:GLY:HA3	1.98	0.46
5:AE:101:ILE:HG12	5:AE:101:ILE:O	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:47:CYS:C	7:AG:49:ILE:N	2.74	0.46
7:AG:76:ARG:HG2	7:AG:76:ARG:NH1	2.28	0.46
8:AH:86:ILE:CB	8:AH:133:LEU:HD22	2.46	0.46
9:AI:96:LEU:O	9:AI:101:PHE:N	2.43	0.46
12:AL:22:SER:O	12:AL:24:VAL:N	2.49	0.46
12:AL:76:ASN:OD1	12:AL:108:ALA:CB	2.63	0.46
12:AL:122:THR:HG22	12:AL:123:LYS:O	2.16	0.46
16:AP:75:ARG:C	16:AP:77:ALA:H	2.24	0.46
25:BA:99:U:C6	25:BA:102:G:C2	3.04	0.46
25:BA:271(Y):U:O2'	25:BA:271(Z):C:C6	2.69	0.46
25:BA:285:C:N3	25:BA:286:C:C5	2.84	0.46
25:BA:365:C:H2'	25:BA:366:C:O4'	2.15	0.46
25:BA:661:C:H2'	25:BA:662:G:C8	2.51	0.46
25:BA:797:C:OP2	30:BF:62:ARG:HG3	2.16	0.46
25:BA:858:U:O2'	25:BA:859:G:N9	2.41	0.46
25:BA:917:A:H2'	25:BA:918:A:H8	1.81	0.46
25:BA:925:C:C3'	25:BA:926:A:H5''	2.46	0.46
25:BA:1022:G:O6	34:BN:66:LYS:HE3	2.16	0.46
25:BA:1657:C:O2'	25:BA:1658:C:H5'	2.16	0.46
25:BA:1865:G:H5'	25:BA:1866:C:OP2	2.16	0.46
25:BA:2184:G:H2'	25:BA:2185:C:C6	2.51	0.46
25:BA:2205:C:O2	25:BA:2220:G:C2	2.69	0.46
25:BA:2283:C:H2'	25:BA:2284:C:H5'	1.97	0.46
27:BC:64:LEU:HD13	27:BC:189:ILE:CB	2.46	0.46
28:BD:106:ILE:HD11	28:BD:157:ARG:O	2.16	0.46
28:BD:224:ALA:O	28:BD:225:ALA:HB2	2.16	0.46
29:BE:119:ARG:HG2	29:BE:160:TYR:HB2	1.96	0.46
30:BF:9:ILE:HG12	30:BF:13:SER:O	2.15	0.46
30:BF:31:HIS:HB2	36:BP:13:ASN:HB3	1.97	0.46
30:BF:34:TRP:CE2	36:BP:12:ALA:HB2	2.51	0.46
30:BF:139:PHE:HB2	30:BF:166:ALA:HB1	1.96	0.46
30:BF:170:LEU:HD23	30:BF:173:VAL:HG21	1.98	0.46
30:BF:202:PHE:O	30:BF:203:GLN:C	2.59	0.46
31:BG:138:GLN:HB3	31:BG:153:ARG:O	2.16	0.46
36:BP:34:GLY:O	36:BP:35:HIS:CB	2.63	0.46
41:BU:15:LYS:HA	41:BU:18:LEU:HB2	1.98	0.46
44:BX:70:LEU:HD23	44:BX:71:GLY:N	2.31	0.46
45:BY:86:ARG:NH1	45:BY:95:LYS:HZ1	2.14	0.46
50:B3:31:LEU:C	50:B3:33:GLN:N	2.73	0.46
53:B6:9:LEU:HD23	53:B6:9:LEU:C	2.40	0.46
1:CA:642:U:C2	1:CA:643:G:C8	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:992:A:C2	1:CA:1200:U:H1'	2.51	0.46
1:CA:1035:G:O2'	1:CA:1036:C:OP1	2.29	0.46
1:CA:1140:C:N4	1:CA:1162:G:H22	2.13	0.46
1:CA:1171:G:OP1	3:CC:5:ILE:HG13	2.15	0.46
2:CB:119:GLU:O	2:CB:122:PHE:HB3	2.16	0.46
3:CC:29:TYR:CD1	14:CN:36:PHE:CZ	3.04	0.46
3:CC:64:VAL:HG22	3:CC:99:VAL:HA	1.97	0.46
4:CD:28:SER:O	4:CD:29:PRO:C	2.56	0.46
4:CD:80:GLU:OE2	4:CD:80:GLU:HA	2.16	0.46
4:CD:158:ILE:HG22	4:CD:181:MET:CE	2.45	0.46
5:CE:53:LEU:HD12	5:CE:53:LEU:N	2.23	0.46
8:CH:60:ARG:NH1	8:CH:60:ARG:CG	2.79	0.46
9:CI:96:LEU:O	9:CI:101:PHE:N	2.44	0.46
11:CK:65:ALA:HB1	11:CK:98:LEU:CD2	2.46	0.46
12:CL:24:VAL:O	12:CL:24:VAL:CG1	2.57	0.46
12:CL:85:ILE:HA	12:CL:85:ILE:HD13	1.62	0.46
13:CM:76:ALA:HA	13:CM:79:LYS:HB2	1.98	0.46
13:CM:79:LYS:O	13:CM:82:MET:N	2.49	0.46
14:CN:42:ILE:O	14:CN:43:CYS:C	2.59	0.46
18:CR:52:PRO:O	18:CR:56:THR:HG23	2.16	0.46
18:CR:53:ARG:NE	18:CR:58:LEU:O	2.42	0.46
25:DA:99:U:C6	25:DA:102:G:C2	3.04	0.46
25:DA:291:C:N3	25:DA:349:G:N2	2.64	0.46
25:DA:307:G:H21	25:DA:330:A:H62	1.63	0.46
25:DA:311:A:C6	25:DA:328:U:N3	2.83	0.46
25:DA:574:C:N3	29:DE:145:LYS:HE2	2.31	0.46
25:DA:666:G:OP1	36:DP:47:ASP:O	2.33	0.46
25:DA:849:A:H61	25:DA:928:G:H1'	1.81	0.46
25:DA:910:A:N9	37:DQ:13:GLN:OE1	2.49	0.46
25:DA:1400:G:H2'	25:DA:1401:G:C8	2.51	0.46
25:DA:1657:C:H2'	25:DA:1658:C:C6	2.50	0.46
25:DA:1815:A:P	28:DD:54:ARG:HH22	2.39	0.46
25:DA:2124:G:O2'	27:DC:40:THR:C	2.59	0.46
25:DA:2184:G:H2'	25:DA:2185:C:C6	2.51	0.46
25:DA:2881:C:C2	25:DA:2882:A:N7	2.83	0.46
26:DB:83:G:H2'	26:DB:84:C:H6	1.81	0.46
28:DD:96:HIS:CE1	28:DD:102:LYS:HE2	2.51	0.46
31:DG:16:ARG:NH1	31:DG:16:ARG:HG3	2.31	0.46
31:DG:46:ALA:CA	31:DG:51:ARG:HG3	2.45	0.46
32:DH:17:VAL:HG11	32:DH:45:VAL:CA	2.45	0.46
32:DH:18:GLU:CB	32:DH:25:LYS:HG2	2.41	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DI:23:PRO:HB3	33:DI:27:ARG:HH12	1.81	0.46
36:DP:10:PRO:O	36:DP:11:GLY:O	2.34	0.46
38:DR:9:LYS:HE2	38:DR:43:GLU:OE2	2.16	0.46
39:DS:34:HIS:CE1	39:DS:55:ALA:HB2	2.51	0.46
39:DS:89:ARG:HB3	39:DS:92:TYR:CB	2.35	0.46
40:DT:29:ARG:NE	40:DT:84:GLN:O	2.49	0.46
42:DV:65:GLY:O	42:DV:90:PRO:HA	2.16	0.46
43:DW:28:SER:OG	43:DW:31:GLU:HB2	2.16	0.46
44:DX:44:GLU:O	44:DX:46:ALA:N	2.45	0.46
55:D8:52:LYS:O	55:D8:55:ALA:HB3	2.16	0.46
1:AA:353:U:H2'	1:AA:354:U:H6	1.81	0.46
1:AA:458:G:H2'	1:AA:459:G:C8	2.50	0.46
1:AA:768:G:C2	1:AA:781:G:C2	3.04	0.46
1:AA:1428:C:H2'	1:AA:1429:C:C6	2.51	0.46
5:AE:131:ILE:O	5:AE:134:ALA:HB3	2.15	0.46
8:AH:77:GLU:HG2	8:AH:78:GLN:N	2.31	0.46
9:AI:88:TYR:O	9:AI:89:ASN:CB	2.64	0.46
10:AJ:54:PHE:CG	10:AJ:55:LYS:HE3	2.51	0.46
13:AM:90:LEU:C	13:AM:92:HIS:N	2.74	0.46
22:AW:40:C:H2'	22:AW:41:C:H6	1.81	0.46
23:AV:47:G:C8	23:AV:47:G:C3'	2.99	0.46
22:AY:40:C:O2	22:AY:40:C:C2'	2.62	0.46
25:BA:320:A:H3'	30:BF:136:THR:CG2	2.45	0.46
25:BA:558:G:OP1	34:BN:111:PRO:HD2	2.16	0.46
25:BA:1013:C:H42	25:BA:1149:G:H1	1.64	0.46
25:BA:1453:U:O4	38:BR:67:LEU:HD21	2.16	0.46
25:BA:2001:A:H2'	25:BA:2002:G:C8	2.51	0.46
25:BA:2124:G:H2'	25:BA:2125:G:O4'	2.16	0.46
25:BA:2134:A:N3	25:BA:2159:G:H1'	2.31	0.46
25:BA:2291:U:H4'	25:BA:2380:C:O2	2.16	0.46
25:BA:2302:G:O6	25:BA:2315:G:C6	2.68	0.46
25:BA:2312:U:C3'	25:BA:2313:C:H5''	2.46	0.46
25:BA:2331:G:H8	25:BA:2331:G:H5''	1.81	0.46
25:BA:2562:U:C2'	25:BA:2563:U:H5'	2.46	0.46
26:BB:46:A:H2'	26:BB:47:C:C6	2.51	0.46
26:BB:66:A:C2	26:BB:109:C:C2	3.03	0.46
27:BC:23:ASP:C	27:BC:25:ALA:N	2.72	0.46
30:BF:119:ARG:HH11	30:BF:119:ARG:HG2	1.79	0.46
31:BG:95:ARG:C	31:BG:96:ARG:O	2.59	0.46
33:BI:107:VAL:O	33:BI:109:ILE:HD12	2.15	0.46
34:BN:27:ALA:HA	34:BN:30:ILE:HB	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BR:51:LEU:CD2	38:BR:66:VAL:HG13	2.38	0.46
39:BS:89:ARG:HH11	39:BS:92:TYR:HA	1.80	0.46
40:BT:78:LEU:HD23	40:BT:79:HIS:CE1	2.51	0.46
41:BU:98:LEU:O	41:BU:100:VAL:N	2.49	0.46
50:B3:9:VAL:HG23	50:B3:10:LYS:N	2.31	0.46
55:B8:21:LYS:HD3	55:B8:48:PHE:CZ	2.51	0.46
55:B8:51:ALA:HA	55:B8:54:GLU:OE1	2.16	0.46
55:B8:52:LYS:O	55:B8:55:ALA:HB3	2.16	0.46
1:CA:203:A:N1	1:CA:215:G:O2'	2.41	0.46
1:CA:810:U:H2'	1:CA:836:A:H61	1.81	0.46
1:CA:1333:C:H2'	1:CA:1334:G:C8	2.50	0.46
1:CA:1463:G:C6	1:CA:1464:G:C6	3.03	0.46
3:CC:30:ARG:HD3	14:CN:38:GLY:HA3	1.98	0.46
5:CE:14:ARG:HH12	5:CE:129:ILE:CD1	2.27	0.46
6:CF:53:ALA:C	6:CF:55:ASP:H	2.24	0.46
8:CH:86:ILE:CB	8:CH:133:LEU:HD22	2.46	0.46
12:CL:25:PRO:C	12:CL:27:LEU:N	2.69	0.46
13:CM:8:GLU:OE2	13:CM:22:ILE:HA	2.16	0.46
16:CP:64:ALA:O	16:CP:65:GLN:C	2.57	0.46
19:CS:36:ARG:HB2	19:CS:72:GLY:CA	2.46	0.46
20:CT:41:ILE:HG21	20:CT:84:LEU:HD21	1.92	0.46
22:CW:68:C:C2	22:CW:69:G:C8	3.04	0.46
22:CY:37:A:C2	22:CY:38:A:H1'	2.51	0.46
25:DA:9:U:HO2'	25:DA:10:G:C5'	2.28	0.46
25:DA:196:A:H2'	25:DA:196:A:N3	2.31	0.46
25:DA:271(T):C:H6	25:DA:271(T):C:C5'	2.18	0.46
25:DA:353:G:C4	25:DA:354:G:N7	2.84	0.46
25:DA:365:C:H2'	25:DA:366:C:O4'	2.15	0.46
25:DA:613:G:C2	25:DA:615:G:C5	3.04	0.46
25:DA:614(C):A:O4'	30:DF:182:ASN:ND2	2.48	0.46
25:DA:633:A:C2'	25:DA:634:C:H5'	2.46	0.46
25:DA:1022:G:HO2'	25:DA:1023:U:P	2.38	0.46
25:DA:1331:A:O2'	25:DA:1332:G:C8	2.69	0.46
25:DA:1358:G:O2'	25:DA:1359:A:H5''	2.16	0.46
25:DA:1493:C:O2	25:DA:1493:C:C2'	2.63	0.46
25:DA:1865:G:H5'	25:DA:1866:C:OP2	2.16	0.46
25:DA:2291:U:H4'	25:DA:2380:C:O2	2.16	0.46
25:DA:2747:G:O6	25:DA:2755:C:H5''	2.16	0.46
25:DA:2849:U:OP2	40:DT:95:ARG:NE	2.49	0.46
26:DB:56:G:H4'	26:DB:57:A:O5'	2.15	0.46
29:DE:63:LEU:O	29:DE:64:LYS:C	2.59	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DG:113:ARG:NH1	31:DG:113:ARG:N	2.63	0.46
31:DG:137:GLU:HB3	31:DG:139:LEU:HD23	1.98	0.46
32:DH:122:THR:O	32:DH:133:VAL:HG13	2.16	0.46
34:DN:3:THR:O	34:DN:5:VAL:N	2.49	0.46
34:DN:9:VAL:HG11	34:DN:39:ARG:NH2	2.31	0.46
34:DN:32:THR:HG22	34:DN:37:LYS:HB3	1.97	0.46
39:DS:93:LYS:O	39:DS:93:LYS:CG	2.59	0.46
39:DS:101:LEU:HD22	39:DS:101:LEU:C	2.41	0.46
43:DW:17:VAL:O	43:DW:18:ARG:C	2.57	0.46
43:DW:22:ASP:HA	43:DW:25:ARG:NH1	2.28	0.46
44:DX:47:PHE:N	44:DX:47:PHE:CD1	2.81	0.46
46:DZ:96:VAL:CG1	46:DZ:97:GLU:N	2.79	0.46
46:DZ:146:ILE:CG2	46:DZ:174:VAL:HG12	2.44	0.46
55:D8:21:LYS:HD3	55:D8:48:PHE:CZ	2.51	0.46
1:AA:194:U:H2'	1:AA:195:G:C8	2.50	0.45
1:AA:1236:G:H5''	3:AC:26:LYS:HZ2	1.81	0.45
2:AB:208:ILE:O	2:AB:208:ILE:HG22	2.15	0.45
3:AC:27:LYS:HB3	3:AC:27:LYS:NZ	2.31	0.45
4:AD:146:ILE:HD12	4:AD:146:ILE:H	1.79	0.45
5:AE:12:LEU:HD13	5:AE:12:LEU:C	2.41	0.45
5:AE:12:LEU:O	5:AE:13:ILE:HG13	2.17	0.45
5:AE:40:ARG:HG2	5:AE:40:ARG:NH1	2.30	0.45
10:AJ:22:LYS:C	10:AJ:24:VAL:H	2.24	0.45
10:AJ:45:ARG:NH1	10:AJ:45:ARG:CG	2.77	0.45
12:AL:86:ARG:HB2	12:AL:101:VAL:HG23	1.98	0.45
13:AM:76:ALA:HA	13:AM:79:LYS:HB2	1.97	0.45
13:AM:91:ARG:HH22	13:AM:103:THR:HG21	1.81	0.45
23:AV:64:G:C2	23:AV:65:G:N7	2.84	0.45
22:AY:28:G:C2	22:AY:43:C:N4	2.75	0.45
25:BA:30:G:O2'	25:BA:31:C:H5'	2.15	0.45
25:BA:336:C:H5''	45:BY:7:VAL:CG1	2.46	0.45
25:BA:419:C:O2'	25:BA:420:C:H5'	2.16	0.45
25:BA:1173:G:H3'	25:BA:1174:A:C5'	2.46	0.45
25:BA:1373:A:H2'	25:BA:1374:G:O4'	2.16	0.45
25:BA:1435:G:H2'	25:BA:1436:G:O4'	2.15	0.45
25:BA:1668:A:N3	25:BA:1670:C:C4	2.84	0.45
25:BA:1819:A:H4'	25:BA:1820:U:C5'	2.46	0.45
25:BA:2273:A:O2'	25:BA:2274:A:H5'	2.17	0.45
25:BA:2364:C:O2'	25:BA:2365:G:H5'	2.16	0.45
25:BA:2419:U:H5''	53:B6:23:THR:HG21	1.98	0.45
25:BA:2590:A:OP2	28:BD:238:GLY:HA2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BD:201:HIS:C	28:BD:203:ASN:H	2.24	0.45
28:BD:257:LEU:CD2	28:BD:257:LEU:C	2.88	0.45
29:BE:56:PRO:O	29:BE:57:LYS:C	2.59	0.45
30:BF:28:ILE:CG2	30:BF:116:ASP:HB2	2.41	0.45
30:BF:117:ARG:HH21	30:BF:187:VAL:HA	1.81	0.45
30:BF:168:ARG:O	30:BF:170:LEU:N	2.47	0.45
30:BF:187:VAL:HG12	36:BP:7:ARG:HH21	1.80	0.45
31:BG:16:ARG:N	31:BG:17:PRO:HD2	2.31	0.45
31:BG:101:ILE:HG12	31:BG:105:LYS:NZ	2.30	0.45
33:BI:123:LEU:HD23	33:BI:142:VAL:HG12	1.96	0.45
34:BN:23:LEU:H	34:BN:23:LEU:CD2	2.29	0.45
34:BN:55:VAL:O	34:BN:56:ASN:C	2.59	0.45
36:BP:131:SER:O	36:BP:132:LYS:C	2.58	0.45
38:BR:18:LEU:HD13	38:BR:19:ALA:N	2.31	0.45
39:BS:66:ALA:HA	39:BS:69:VAL:CG1	2.46	0.45
40:BT:26:ASP:O	40:BT:88:ILE:HB	2.17	0.45
42:BV:3:ALA:O	42:BV:13:ARG:HA	2.16	0.45
45:BY:31:LEU:CD2	45:BY:36:ALA:O	2.64	0.45
46:BZ:19:ARG:NH1	46:BZ:82:ARG:NH2	2.63	0.45
49:B2:43:GLN:O	49:B2:44:LEU:CD2	2.64	0.45
1:CA:290:C:O2'	1:CA:291:U:O5'	2.34	0.45
1:CA:675:U:H2'	1:CA:677:A:OP2	2.17	0.45
1:CA:1497:G:H2'	1:CA:1498:G:H8	1.81	0.45
2:CB:121:LEU:O	2:CB:127:ILE:HD11	2.16	0.45
2:CB:124:SER:OG	2:CB:125:PRO:HD2	2.16	0.45
2:CB:178:ARG:CD	8:CH:71:GLY:O	2.64	0.45
3:CC:17:ASP:OD1	3:CC:21:ARG:NH1	2.49	0.45
3:CC:29:TYR:HD1	14:CN:36:PHE:CZ	2.34	0.45
6:CF:52:ILE:CD1	6:CF:87:ARG:NH2	2.80	0.45
7:CG:62:PHE:HA	7:CG:124:LEU:HD23	1.95	0.45
8:CH:25:ASP:HA	8:CH:59:LEU:O	2.17	0.45
10:CJ:76:ASN:ND2	10:CJ:78:ASN:OD1	2.49	0.45
12:CL:6:THR:O	12:CL:7:ILE:C	2.59	0.45
13:CM:93:ARG:NH1	25:DA:888:C:C4'	2.73	0.45
18:CR:26:LEU:HD21	18:CR:42:ARG:CZ	2.46	0.45
22:CW:28:G:N2	22:CW:42:C:O2	2.49	0.45
25:DA:17:G:H4'	41:DU:25:TRP:HZ3	1.73	0.45
25:DA:38:A:N3	30:DF:48:THR:HB	2.31	0.45
25:DA:143(A):C:H4'	44:DX:38:GLU:OE1	2.16	0.45
25:DA:272:G:C6	25:DA:421:U:C2	3.03	0.45
25:DA:448:U:O4	25:DA:583:G:H1'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1037:G:H1	25:DA:1118:C:H42	1.64	0.45
25:DA:1114:G:H2'	25:DA:1115:G:H5''	1.98	0.45
25:DA:1317:A:H2'	25:DA:1318:C:C6	2.51	0.45
25:DA:1472:A:H2'	25:DA:1473:G:C8	2.51	0.45
25:DA:1557:C:H5''	25:DA:1558:A:OP2	2.16	0.45
25:DA:2055:C:OP1	52:D5:8:LYS:NZ	2.39	0.45
25:DA:2133:G:H2'	25:DA:2157:G:N2	2.32	0.45
25:DA:2303:G:H1'	31:DG:132:ASN:HD22	1.81	0.45
25:DA:2850:A:C2'	25:DA:2851:A:H8	2.22	0.45
25:DA:2886:G:H2'	25:DA:2887:U:C6	2.50	0.45
26:DB:83:G:H5''	50:D3:52:HIS:CE1	2.51	0.45
28:DD:106:ILE:HD11	28:DD:157:ARG:O	2.16	0.45
29:DE:65:GLY:HA2	29:DE:70:ALA:CB	2.47	0.45
29:DE:68:ALA:C	29:DE:70:ALA:H	2.25	0.45
31:DG:9:ARG:O	31:DG:10:LYS:C	2.58	0.45
31:DG:111:LEU:HA	31:DG:114:ILE:HD11	1.98	0.45
33:DI:40:THR:C	33:DI:42:SER:N	2.73	0.45
33:DI:129:THR:OG1	33:DI:130:TYR:N	2.47	0.45
34:DN:23:LEU:H	34:DN:23:LEU:HD23	1.81	0.45
34:DN:25:ARG:HH11	34:DN:25:ARG:CG	2.27	0.45
34:DN:60:ILE:H	34:DN:60:ILE:HG13	1.61	0.45
35:DO:104:ARG:HH12	40:DT:35:LYS:HG2	1.81	0.45
36:DP:123:LEU:C	36:DP:123:LEU:HD12	2.41	0.45
38:DR:79:LEU:CD2	38:DR:79:LEU:C	2.89	0.45
39:DS:66:ALA:HA	39:DS:69:VAL:CG1	2.46	0.45
39:DS:77:ALA:O	39:DS:78:LEU:C	2.59	0.45
41:DU:8:VAL:O	41:DU:9:VAL:C	2.58	0.45
43:DW:12:ILE:HG23	43:DW:12:ILE:O	2.15	0.45
44:DX:92:LEU:C	44:DX:94:GLY:H	2.24	0.45
45:DY:31:LEU:CD2	45:DY:36:ALA:O	2.64	0.45
45:DY:55:TYR:HA	45:DY:56:PRO:HD2	1.65	0.45
46:DZ:157:LEU:HA	46:DZ:158:PRO:HD2	1.80	0.45
1:AA:60:A:O2'	20:AT:10:LEU:HD11	2.16	0.45
1:AA:441:G:H8	1:AA:441:G:O5'	1.98	0.45
1:AA:610:G:H2'	1:AA:611:G:H8	1.82	0.45
1:AA:1286:G:C5'	21:AU:4:GLY:HA3	2.46	0.45
2:AB:168:THR:O	2:AB:169:LYS:C	2.59	0.45
3:AC:86:VAL:C	3:AC:89:GLU:HB3	2.41	0.45
5:AE:51:VAL:CB	5:AE:52:PRO:HD3	2.45	0.45
5:AE:84:PHE:HB2	5:AE:134:ALA:HB2	1.98	0.45
7:AG:84:ASN:HD22	22:AW:33:U:H4'	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:140:ASP:CG	7:AG:143:ARG:HH12	2.25	0.45
10:AJ:98:ILE:O	10:AJ:98:ILE:HG22	2.16	0.45
11:AK:123:LYS:O	11:AK:124:LYS:C	2.58	0.45
12:AL:43:VAL:HG21	12:AL:93:LEU:HD22	1.97	0.45
16:AP:58:TYR:O	16:AP:61:SER:OG	2.32	0.45
22:AW:52:G:C2	22:AW:63:G:C6	3.04	0.45
23:AV:50:G:C2	23:AV:51:U:O2	2.69	0.45
25:BA:142(A):C:O2'	25:BA:143:G:H5'	2.16	0.45
25:BA:298:G:H1'	25:BA:340:A:N6	2.30	0.45
25:BA:310:A:P	45:BY:18:GLY:HA2	2.55	0.45
25:BA:893:C:H2'	25:BA:894:C:C6	2.52	0.45
25:BA:1317:A:H2'	25:BA:1318:C:C6	2.51	0.45
25:BA:1472:A:H2'	25:BA:1473:G:C8	2.51	0.45
25:BA:1659:U:OP2	29:BE:132:HIS:CE1	2.70	0.45
25:BA:1697:G:H3'	25:BA:1698:A:C5'	2.31	0.45
25:BA:1863:G:H2'	25:BA:1864:U:O4'	2.16	0.45
25:BA:2231:C:OP1	48:B1:42:GLN:HA	2.15	0.45
25:BA:2554:U:C2	25:BA:2555:U:C5	3.04	0.45
26:BB:9:G:OP1	39:BS:17:ARG:CD	2.64	0.45
26:BB:106:G:H5''	46:BZ:31:ARG:HE	1.80	0.45
27:BC:155:GLU:O	27:BC:156:ILE:CB	2.63	0.45
28:BD:25:THR:CG2	28:BD:26:LYS:H	2.20	0.45
28:BD:77:ALA:HB2	28:BD:97:TYR:CD2	2.52	0.45
29:BE:63:LEU:O	29:BE:64:LYS:C	2.59	0.45
31:BG:19:LEU:CD2	31:BG:171:ALA:HB1	2.47	0.45
31:BG:43:LEU:HB2	31:BG:88:ILE:HD11	1.97	0.45
31:BG:61:ALA:HA	31:BG:64:THR:HG22	1.97	0.45
31:BG:117:PHE:HE1	31:BG:119:GLY:O	1.99	0.45
32:BH:13:LYS:O	32:BH:15:VAL:N	2.46	0.45
32:BH:24:VAL:HG21	32:BH:72:ILE:CD1	2.47	0.45
36:BP:123:LEU:C	36:BP:123:LEU:HD12	2.42	0.45
37:BQ:37:LEU:HD21	37:BQ:130:LYS:CB	2.45	0.45
39:BS:48:LEU:HD12	39:BS:48:LEU:H	1.81	0.45
41:BU:102:GLU:OE2	42:BV:2:PHE:CD1	2.69	0.45
42:BV:34:GLU:O	42:BV:36:PRO:CD	2.63	0.45
45:BY:28:LYS:O	45:BY:38:ILE:HB	2.16	0.45
45:BY:76:CYS:O	45:BY:77:PRO:C	2.60	0.45
50:B3:26:LEU:O	50:B3:27:GLY:C	2.57	0.45
1:CA:441:G:O6	1:CA:469:G:O2'	2.29	0.45
1:CA:752:G:H4'	1:CA:1490:A:H4'	1.97	0.45
1:CA:1046:G:H21	1:CA:1171:G:H2'	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1056:G:H2'	1:CA:1057:C:C6	2.51	0.45
1:CA:1381:C:C2	1:CA:1383:G:C5	3.04	0.45
4:CD:4:TYR:HE2	4:CD:6:GLY:C	2.24	0.45
5:CE:20:GLN:HG2	5:CE:21:ALA:N	2.30	0.45
7:CG:12:LEU:CD1	7:CG:25:ALA:HB2	2.46	0.45
7:CG:85:TYR:CE1	7:CG:154:TYR:HE1	2.33	0.45
12:CL:75:HIS:CD2	12:CL:77:LEU:HB2	2.51	0.45
14:CN:25:VAL:HG23	14:CN:38:GLY:O	2.16	0.45
16:CP:28:ARG:HG2	16:CP:28:ARG:HH11	1.81	0.45
17:CQ:50:LYS:HG3	17:CQ:51:TYR:H	1.81	0.45
18:CR:86:VAL:O	18:CR:87:ARG:O	2.34	0.45
22:CW:18:G:O2'	22:CW:57:G:O6	2.27	0.45
25:DA:320:A:H3'	30:DF:136:THR:HG22	1.97	0.45
25:DA:402:A:C2'	25:DA:403:U:H5'	2.45	0.45
25:DA:528:A:C2	25:DA:2043:C:H5'	2.47	0.45
25:DA:1013:C:H42	25:DA:1149:G:H1	1.64	0.45
25:DA:1022:G:O6	34:DN:66:LYS:HE3	2.16	0.45
25:DA:1357:U:H2'	25:DA:1358:G:O4'	2.17	0.45
25:DA:1798:U:H5''	28:DD:260:ARG:HB3	1.98	0.45
25:DA:2032:G:O2'	29:DE:145:LYS:NZ	2.48	0.45
25:DA:2108:C:H6	25:DA:2108:C:H5''	1.82	0.45
25:DA:2124:G:H2'	25:DA:2125:G:O4'	2.16	0.45
25:DA:2273:A:O2'	25:DA:2274:A:H5'	2.16	0.45
25:DA:2355:C:H4'	47:D0:24:LYS:HG3	1.98	0.45
25:DA:2692:C:H2'	25:DA:2693:A:C8	2.49	0.45
25:DA:2840:C:H5''	38:DR:53:HIS:CD2	2.50	0.45
28:DD:117:VAL:HG22	28:DD:118:VAL:N	2.32	0.45
28:DD:133:LEU:HB3	28:DD:173:VAL:HG11	1.99	0.45
31:DG:103:LEU:HA	31:DG:106:LEU:HB3	1.97	0.45
31:DG:152:LEU:HG	31:DG:153:ARG:H	1.82	0.45
37:DQ:24:GLY:HA2	37:DQ:67:ARG:HH22	1.82	0.45
44:DX:57:LEU:HD21	44:DX:78:LYS:HE2	1.99	0.45
44:DX:70:LEU:HD23	44:DX:71:GLY:N	2.32	0.45
49:D2:16:LEU:O	49:D2:17:SER:O	2.33	0.45
49:D2:38:GLN:HA	49:D2:41:ILE:CD1	2.45	0.45
50:D3:44:ARG:O	50:D3:45:GLY:C	2.60	0.45
54:D7:41:ARG:CD	54:D7:45:ALA:HB2	2.41	0.45
55:D8:51:ALA:HA	55:D8:54:GLU:OE1	2.16	0.45
1:AA:872:G:H2'	1:AA:873:C:C6	2.50	0.45
1:AA:1260:A:H61	3:AC:26:LYS:HZ3	1.64	0.45
2:AB:19:HIS:CG	2:AB:189:ASP:OD2	2.70	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:20:GLU:CD	2:AB:23:ARG:HH22	2.24	0.45
2:AB:86:GLU:C	2:AB:88:ALA:H	2.24	0.45
3:AC:157:ILE:HD12	3:AC:164:ARG:NH1	2.31	0.45
9:AI:98:PRO:C	9:AI:100:GLY:H	2.25	0.45
10:AJ:8:LEU:HD21	10:AJ:96:ILE:HG22	1.98	0.45
10:AJ:40:LEU:CG	10:AJ:69:ASN:HB3	2.45	0.45
12:AL:32:PHE:HB3	12:AL:84:LEU:HD11	1.98	0.45
14:AN:25:VAL:HG23	14:AN:38:GLY:O	2.16	0.45
23:AV:3:C:O2'	23:AV:4:G:C5'	2.44	0.45
22:AY:28:G:H2'	22:AY:29:G:H8	1.80	0.45
25:BA:262:A:H2'	25:BA:263:C:O4'	2.16	0.45
25:BA:1503:U:C4	25:BA:1504:C:N4	2.83	0.45
25:BA:1557:C:H5''	25:BA:1558:A:OP2	2.16	0.45
25:BA:1665:A:C4'	35:BO:67:LYS:HB2	2.43	0.45
25:BA:1708:C:O2'	25:BA:1709:U:H5'	2.16	0.45
25:BA:2297:C:N3	25:BA:2320:A:C8	2.84	0.45
25:BA:2454:G:O2'	25:BA:2455:G:H5'	2.15	0.45
25:BA:2464:C:C2	25:BA:2487:G:C2	3.05	0.45
25:BA:2678:C:C2	25:BA:2679:A:C8	3.05	0.45
25:BA:2753:A:C2	25:BA:2754:U:C2	3.04	0.45
27:BC:39:GLU:HG2	27:BC:180:PHE:CB	2.47	0.45
28:BD:30:GLU:HG3	28:BD:63:ARG:NE	2.31	0.45
28:BD:218:ARG:HB3	28:BD:219:PRO:HD2	1.98	0.45
29:BE:65:GLY:HA2	29:BE:70:ALA:CB	2.47	0.45
29:BE:93:VAL:HG21	29:BE:180:ASN:C	2.42	0.45
31:BG:16:ARG:NH1	31:BG:16:ARG:HG3	2.31	0.45
31:BG:28:VAL:O	31:BG:31:VAL:CG1	2.63	0.45
31:BG:33:ARG:HB2	31:BG:162:THR:CG2	2.46	0.45
31:BG:103:LEU:HA	31:BG:106:LEU:HB3	1.97	0.45
35:BO:121:VAL:HG11	40:BT:35:LYS:NZ	2.31	0.45
39:BS:49:VAL:CG1	39:BS:50:SER:H	2.25	0.45
41:BU:78:THR:O	41:BU:79:PHE:C	2.59	0.45
41:BU:98:LEU:HD21	42:BV:2:PHE:HZ	1.80	0.45
43:BW:28:SER:OG	43:BW:31:GLU:HB2	2.16	0.45
43:BW:84:ARG:HB2	43:BW:96:ILE:HG22	1.98	0.45
45:BY:38:ILE:O	45:BY:39:VAL:CB	2.64	0.45
46:BZ:119:GLU:CD	46:BZ:119:GLU:H	2.24	0.45
48:B1:29:GLY:O	48:B1:31:GLY:N	2.49	0.45
1:CA:545:C:N3	12:CL:16:GLU:HB3	2.32	0.45
1:CA:733:G:N2	1:CA:734:U:C2	2.85	0.45
1:CA:810:U:O2'	1:CA:836:A:N1	2.44	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:970:G:H2'	1:CA:970:G:N3	2.32	0.45
1:CA:1121:G:N3	1:CA:1123:C:N4	2.64	0.45
1:CA:1149:A:H8	1:CA:1149:A:OP1	1.99	0.45
1:CA:1178:G:OP1	1:CA:1179:G:OP2	2.34	0.45
3:CC:30:ARG:HD3	14:CN:38:GLY:CA	2.46	0.45
3:CC:34:LEU:O	3:CC:38:ARG:HG2	2.16	0.45
4:CD:187:ARG:HG2	4:CD:187:ARG:NH1	2.30	0.45
8:CH:103:VAL:CG1	8:CH:108:GLY:HA3	2.46	0.45
11:CK:123:LYS:O	11:CK:124:LYS:C	2.59	0.45
12:CL:75:HIS:HD2	12:CL:77:LEU:HB2	1.80	0.45
13:CM:34:LEU:HD13	13:CM:41:PRO:CA	2.46	0.45
13:CM:90:LEU:C	13:CM:92:HIS:H	2.24	0.45
15:CO:78:TYR:OH	15:CO:88:ARG:HD2	2.16	0.45
17:CQ:40:LYS:HG2	17:CQ:42:TYR:CE1	2.52	0.45
23:CV:30:G:H2'	23:CV:31:G:H5'	1.97	0.45
25:DA:71:A:O2'	25:DA:72:U:OP2	2.30	0.45
25:DA:221:A:O2'	25:DA:222:A:OP2	2.32	0.45
25:DA:250:G:H2'	25:DA:251:A:C8	2.52	0.45
25:DA:265:A:N6	25:DA:283:A:C8	2.85	0.45
25:DA:271(K):U:H3'	25:DA:271(L):U:C5'	2.46	0.45
25:DA:481:G:C2'	25:DA:482:A:OP2	2.64	0.45
25:DA:769:G:H5'	25:DA:1379:A:H61	1.81	0.45
25:DA:1022:G:N2	25:DA:1142(A):A:C2	2.82	0.45
25:DA:1045:A:N3	25:DA:1045:A:C2'	2.78	0.45
25:DA:1748:G:H2'	25:DA:1749:A:O4'	2.16	0.45
25:DA:1952:A:N3	35:DO:22:ILE:HG13	2.32	0.45
25:DA:2205:C:O2	25:DA:2220:G:C2	2.69	0.45
25:DA:2236:C:H2'	25:DA:2237:G:H5'	1.98	0.45
25:DA:2377:A:O4'	39:DS:108:GLY:HA2	2.16	0.45
25:DA:2897:U:O2	25:DA:2897:U:C2'	2.64	0.45
26:DB:6:C:C2	26:DB:116:G:N2	2.85	0.45
28:DD:13:ARG:HA	28:DD:16:MET:HB2	1.97	0.45
31:DG:101:ILE:HG12	31:DG:105:LYS:HZ1	1.82	0.45
32:DH:91:GLY:O	32:DH:92:ILE:O	2.35	0.45
33:DI:107:VAL:O	33:DI:109:ILE:HD12	2.16	0.45
36:DP:97:PRO:O	36:DP:99:LEU:N	2.45	0.45
38:DR:99:LYS:HB2	38:DR:99:LYS:NZ	2.32	0.45
40:DT:132:LYS:O	40:DT:134:GLU:N	2.47	0.45
45:DY:28:LYS:O	45:DY:38:ILE:HB	2.16	0.45
1:AA:419:G:H8	1:AA:419:G:O5'	2.00	0.45
1:AA:817:C:OP1	18:AR:60:ALA:HB2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:993:A:H2'	1:AA:994:A:C8	2.51	0.45
1:AA:1212:G:H5''	9:AI:128:ARG:HG3	1.99	0.45
1:AA:1297:G:O6	19:AS:5:LEU:HD23	2.16	0.45
8:AH:119:LEU:HD12	8:AH:124:ALA:HA	1.97	0.45
9:AI:19:LEU:CD2	9:AI:61:ALA:HB2	2.47	0.45
13:AM:68:GLY:HA3	31:BG:116:ASP:OD2	2.17	0.45
13:AM:90:LEU:C	13:AM:92:HIS:H	2.24	0.45
16:AP:9:PHE:HB2	16:AP:16:HIS:O	2.17	0.45
16:AP:28:ARG:HG2	16:AP:28:ARG:HH11	1.82	0.45
18:AR:86:VAL:O	18:AR:87:ARG:O	2.34	0.45
23:AV:41:C:H3'	23:AV:41:C:C6	2.50	0.45
23:AV:53:G:O2'	23:AV:54:G:OP1	2.30	0.45
25:BA:185:U:H2'	25:BA:186:G:H8	1.80	0.45
25:BA:333:G:H2'	25:BA:333:G:N3	2.31	0.45
25:BA:614(C):A:C4	30:BF:180:GLY:HA3	2.51	0.45
25:BA:651:G:H2'	25:BA:651:G:N3	2.31	0.45
25:BA:886:C:H2'	25:BA:887:A:H4'	1.97	0.45
25:BA:1311:G:C5	54:B7:47:ARG:NH2	2.84	0.45
25:BA:1647:G:OP2	25:BA:1647:G:H2'	2.16	0.45
25:BA:1884:A:C3'	25:BA:1885:A:H5''	2.45	0.45
25:BA:2068:U:H3	25:BA:2430:A:H2	0.70	0.45
25:BA:2108:C:H6	25:BA:2108:C:H5''	1.82	0.45
25:BA:2128:C:OP1	27:BC:35:ALA:HB1	2.17	0.45
25:BA:2133:G:H2'	25:BA:2157:G:N2	2.31	0.45
25:BA:2134:A:H2	25:BA:2159:G:H1'	1.72	0.45
25:BA:2638:G:OP2	29:BE:82:ARG:NH2	2.50	0.45
27:BC:221:SER:O	27:BC:222:VAL:O	2.35	0.45
28:BD:33:LEU:HD21	28:BD:102:LYS:HZ2	1.81	0.45
30:BF:11:VAL:O	30:BF:13:SER:N	2.49	0.45
34:BN:9:VAL:HG11	34:BN:39:ARG:NH2	2.32	0.45
38:BR:107:ASP:C	38:BR:107:ASP:OD2	2.60	0.45
39:BS:42:ASP:C	39:BS:44:LYS:N	2.73	0.45
39:BS:67:ARG:NH1	39:BS:98:VAL:HG13	2.31	0.45
39:BS:77:ALA:O	39:BS:80:LEU:HD13	2.17	0.45
46:BZ:85:HIS:C	46:BZ:85:HIS:HD1	2.24	0.45
46:BZ:124:ILE:HG12	46:BZ:125:LEU:O	2.17	0.45
46:BZ:137:ILE:HD11	46:BZ:158:PRO:HD2	1.99	0.45
50:B3:2:PRO:O	50:B3:39:ASP:HB3	2.16	0.45
1:CA:1004:G:H2'	1:CA:1004:G:N3	2.32	0.45
1:CA:1039:G:N2	1:CA:1185:A:H1'	2.32	0.45
1:CA:1087:A:H2'	1:CA:1088:G:H8	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1487:U:H2'	1:CA:1488:G:H8	1.75	0.45
2:CB:18:GLY:HA2	2:CB:40:HIS:O	2.16	0.45
2:CB:25:ASN:OD1	2:CB:27:LYS:HB2	2.16	0.45
2:CB:204:ASN:HD21	2:CB:206:ASP:H	1.63	0.45
3:CC:119:ARG:HG3	3:CC:119:ARG:HH11	1.81	0.45
5:CE:11:ILE:HD12	5:CE:31:LEU:HD12	1.97	0.45
7:CG:9:VAL:O	7:CG:10:ARG:C	2.59	0.45
8:CH:85:ARG:C	8:CH:85:ARG:CD	2.90	0.45
10:CJ:16:LEU:HD13	10:CJ:16:LEU:C	2.41	0.45
11:CK:29:ILE:HD11	11:CK:42:TRP:HE3	1.81	0.45
17:CQ:77:VAL:O	17:CQ:78:GLU:HG2	2.16	0.45
19:CS:9:VAL:HB	19:CS:11:VAL:HG12	1.97	0.45
20:CT:98:PRO:C	20:CT:100:ILE:N	2.71	0.45
22:CW:4:C:C2	22:CW:70:G:N2	2.84	0.45
23:CV:5:G:H2'	23:CV:6:G:H8	1.81	0.45
23:CV:58:A:C2'	23:CV:59:A:H5'	2.46	0.45
25:DA:26:G:C6	25:DA:27:G:N1	2.84	0.45
25:DA:607:U:H5	25:DA:619:G:C5	2.33	0.45
25:DA:834:C:O2'	25:DA:835:A:H5'	2.17	0.45
25:DA:1163:G:O2'	25:DA:1164:G:H5'	2.16	0.45
25:DA:1668:A:N3	25:DA:1670:C:C4	2.84	0.45
25:DA:1812:A:H2'	25:DA:1813:G:C8	2.51	0.45
25:DA:1885:A:H5'	25:DA:1885:A:C8	2.52	0.45
25:DA:2012:G:O2'	43:DW:96:ILE:HD11	2.16	0.45
25:DA:2248:C:C2'	25:DA:2249:U:H5'	2.47	0.45
25:DA:2312:U:C3'	25:DA:2313:C:H5''	2.46	0.45
25:DA:2481:G:O2'	25:DA:2482:G:O5'	2.34	0.45
25:DA:2773:C:O2'	25:DA:2774:C:H5'	2.16	0.45
25:DA:2811:G:C1'	29:DE:61:ARG:HH21	2.29	0.45
27:DC:58:VAL:HG22	27:DC:167:LYS:N	2.31	0.45
28:DD:77:ALA:HB2	28:DD:97:TYR:CD2	2.52	0.45
28:DD:201:HIS:C	28:DD:203:ASN:H	2.24	0.45
30:DF:67:GLN:O	30:DF:68:LYS:CB	2.63	0.45
32:DH:43:VAL:CG1	32:DH:53:GLU:H	2.29	0.45
32:DH:142:GLY:O	32:DH:145:ALA:HB3	2.16	0.45
33:DI:4:ILE:HD11	33:DI:44:LEU:HD12	1.98	0.45
33:DI:54:GLN:HA	33:DI:57:ARG:CB	2.45	0.45
37:DQ:21:THR:HG21	37:DQ:101:ARG:HD3	1.97	0.45
38:DR:7:GLY:O	38:DR:8:ARG:O	2.33	0.45
38:DR:107:ASP:C	38:DR:107:ASP:OD2	2.60	0.45
42:DV:21:ARG:HB3	42:DV:91:TYR:CB	2.35	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DY:38:ILE:O	45:DY:39:VAL:CB	2.65	0.45
45:DY:76:CYS:O	45:DY:77:PRO:C	2.59	0.45
46:DZ:136:PHE:O	46:DZ:137:ILE:HG13	2.17	0.45
46:DZ:141:VAL:HG22	46:DZ:141:VAL:O	2.16	0.45
46:DZ:158:PRO:CB	46:DZ:159:PRO:CD	2.87	0.45
55:D8:61:LEU:HD12	55:D8:61:LEU:N	2.30	0.45
1:AA:9:G:O2'	1:AA:10:A:H5'	2.17	0.45
1:AA:32:A:H2'	1:AA:33:A:C8	2.51	0.45
1:AA:36:C:C4	1:AA:37:U:C4	3.05	0.45
1:AA:72:C:C2	1:AA:91:G:C2	3.05	0.45
1:AA:246:G:C6	1:AA:261:G:C6	3.05	0.45
1:AA:368:A:C2	1:AA:369:A:C8	3.04	0.45
1:AA:678:A:H2'	1:AA:679:A:C8	2.51	0.45
1:AA:926:A:H1'	1:AA:1346:U:H3	1.81	0.45
1:AA:997:C:H2'	1:AA:998:U:O4'	2.17	0.45
1:AA:1044:U:H2'	1:AA:1045:C:C6	2.51	0.45
1:AA:1049:A:O4'	1:AA:1050:G:O4'	2.33	0.45
1:AA:1115:G:C2	1:AA:1124:G:N1	2.85	0.45
1:AA:1241:C:C6	1:AA:1241:C:C3'	2.99	0.45
2:AB:19:HIS:O	2:AB:39:ILE:HG23	2.17	0.45
3:AC:11:ARG:HB3	3:AC:15:THR:HB	1.98	0.45
3:AC:20:SER:OG	3:AC:36:ASP:OD1	2.32	0.45
3:AC:64:VAL:HG22	3:AC:99:VAL:HA	1.99	0.45
8:AH:40:ALA:O	8:AH:42:GLU:N	2.50	0.45
8:AH:68:ARG:HG2	8:AH:69:ARG:H	1.82	0.45
8:AH:116:LYS:O	8:AH:119:LEU:HD21	2.17	0.45
9:AI:16:ARG:HB2	9:AI:64:THR:HG22	1.96	0.45
9:AI:95:LYS:N	9:AI:98:PRO:HD2	2.31	0.45
10:AJ:32:ALA:C	10:AJ:33:GLN:HG3	2.42	0.45
12:AL:79:GLU:O	12:AL:79:GLU:HG2	2.17	0.45
14:AN:42:ILE:O	14:AN:43:CYS:C	2.60	0.45
23:AV:4:G:O2'	23:AV:5:G:OP2	2.34	0.45
23:AV:36:A:N1	24:AX:18:G:C2	2.85	0.45
25:BA:271(Q):G:C2	25:BA:271(R):G:C4	3.04	0.45
25:BA:633:A:C2'	25:BA:634:C:H5'	2.46	0.45
25:BA:908:C:O2'	25:BA:909:A:H5'	2.16	0.45
25:BA:947:G:N2	25:BA:971:C:C2	2.84	0.45
25:BA:1425:G:H2'	25:BA:1426:G:C8	2.51	0.45
25:BA:1525:G:H2'	25:BA:1526:G:C8	2.52	0.45
25:BA:1812:A:H2'	25:BA:1813:G:C8	2.51	0.45
25:BA:2236:C:H2'	25:BA:2237:G:H5'	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2481:G:O2'	25:BA:2482:G:O5'	2.34	0.45
25:BA:2773:C:O2'	25:BA:2774:C:H5'	2.16	0.45
25:BA:2808:U:H5'	25:BA:2891:G:O6	2.16	0.45
25:BA:2820:A:H4'	38:BR:2:ARG:HH12	1.82	0.45
27:BC:83:ILE:HA	27:BC:94:VAL:HG21	1.99	0.45
28:BD:231:HIS:ND1	28:BD:232:PRO:HD2	2.31	0.45
30:BF:161:GLU:HG2	30:BF:164:ARG:NH2	2.32	0.45
31:BG:9:ARG:O	31:BG:12:TYR:N	2.49	0.45
32:BH:38:SER:C	32:BH:40:GLU:N	2.74	0.45
33:BI:104:GLN:O	33:BI:105:HIS:CD2	2.66	0.45
35:BO:23:ARG:HA	35:BO:23:ARG:HD2	1.79	0.45
36:BP:61:ARG:HA	55:B8:27:THR:CG2	2.47	0.45
36:BP:144:GLU:O	36:BP:144:GLU:HG2	2.15	0.45
40:BT:23:ARG:HB3	40:BT:24:PRO:HD2	1.98	0.45
45:BY:8:LYS:HE3	45:BY:72:VAL:C	2.41	0.45
46:BZ:75:ASN:O	46:BZ:84:GLU:HB2	2.17	0.45
46:BZ:136:PHE:O	46:BZ:137:ILE:HG13	2.17	0.45
49:B2:18:PRO:HG2	49:B2:19:VAL:N	2.30	0.45
50:B3:35:ARG:HG3	50:B3:35:ARG:NH1	2.31	0.45
50:B3:44:ARG:O	50:B3:45:GLY:C	2.60	0.45
54:B7:24:THR:HG23	54:B7:27:GLY:H	1.82	0.45
1:CA:227:G:H2'	1:CA:228:C:C6	2.51	0.45
1:CA:836:A:H2'	1:CA:837:A:O4'	2.16	0.45
1:CA:923:A:H2'	1:CA:924:G:H8	1.80	0.45
1:CA:934:U:H2'	1:CA:936:A:OP2	2.17	0.45
1:CA:1371:C:H2'	1:CA:1372:U:O4'	2.17	0.45
2:CB:86:GLU:C	2:CB:88:ALA:H	2.25	0.45
2:CB:163:PHE:HA	2:CB:185:ILE:O	2.16	0.45
2:CB:208:ILE:HG22	2:CB:208:ILE:O	2.14	0.45
3:CC:11:ARG:HB3	3:CC:15:THR:HB	1.98	0.45
5:CE:40:ARG:HG2	5:CE:40:ARG:NH1	2.31	0.45
5:CE:41:VAL:HG21	5:CE:113:ALA:HB2	1.97	0.45
8:CH:36:LEU:HA	8:CH:39:LEU:HB2	1.99	0.45
8:CH:84:ARG:HG2	8:CH:84:ARG:NH1	2.30	0.45
13:CM:79:LYS:O	13:CM:80:ARG:C	2.60	0.45
14:CN:26:ARG:CD	14:CN:43:CYS:SG	2.97	0.45
15:CO:30:ALA:CA	15:CO:85:LEU:HD11	2.46	0.45
17:CQ:86:GLU:O	17:CQ:90:ILE:HG12	2.16	0.45
19:CS:37:ARG:H	19:CS:37:ARG:HG3	1.59	0.45
20:CT:57:ARG:NH1	20:CT:102:GLY:HA2	2.32	0.45
21:CU:3:LYS:HE3	21:CU:3:LYS:HB2	1.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CV:30:G:C5	23:CV:43:G:C2	3.04	0.45
25:DA:69:C:H2'	25:DA:73:A:O2'	2.17	0.45
25:DA:271(Y):U:O2'	25:DA:271(Z):C:O4'	2.34	0.45
25:DA:572:A:C2	25:DA:2033:A:C2	3.04	0.45
25:DA:911:A:C5	37:DQ:9:TYR:CD1	3.04	0.45
25:DA:1012:U:O4	34:DN:28:THR:HG21	2.16	0.45
25:DA:1647:G:OP2	25:DA:1647:G:H2'	2.16	0.45
25:DA:1657:C:O2'	25:DA:1658:C:H5'	2.16	0.45
25:DA:1666:G:H2'	25:DA:1667:G:H5'	1.98	0.45
25:DA:2331:G:H5''	25:DA:2331:G:H8	1.81	0.45
25:DA:2454:G:O2'	25:DA:2455:G:H5'	2.15	0.45
25:DA:2562:U:C2'	25:DA:2563:U:H5'	2.46	0.45
25:DA:2751:G:N3	25:DA:2751:G:H2'	2.32	0.45
25:DA:2783:G:H2'	25:DA:2784:C:H6	1.80	0.45
26:DB:106:G:H5''	46:DZ:31:ARG:HE	1.80	0.45
29:DE:56:PRO:O	29:DE:57:LYS:C	2.59	0.45
29:DE:93:VAL:HG21	29:DE:180:ASN:C	2.41	0.45
29:DE:144:ARG:HB3	29:DE:145:LYS:H	1.50	0.45
30:DF:187:VAL:HG12	36:DP:7:ARG:HH21	1.80	0.45
31:DG:33:ARG:HB2	31:DG:162:THR:CG2	2.46	0.45
31:DG:111:LEU:N	31:DG:112:PRO:HD2	2.31	0.45
36:DP:6:LEU:HD23	36:DP:6:LEU:N	2.29	0.45
36:DP:112:LEU:H	36:DP:128:HIS:CD2	2.35	0.45
37:DQ:140:ALA:HB1	46:DZ:99:TYR:HB2	1.99	0.45
38:DR:37:THR:OG1	38:DR:40:LYS:HB2	2.17	0.45
39:DS:53:SER:O	39:DS:54:LEU:C	2.60	0.45
39:DS:88:ASP:CG	39:DS:89:ARG:H	2.24	0.45
42:DV:98:GLU:OE1	42:DV:100:ARG:HD3	2.16	0.45
46:DZ:118:GLN:N	46:DZ:173:ALA:O	2.49	0.45
46:DZ:124:ILE:HG12	46:DZ:125:LEU:O	2.17	0.45
46:DZ:137:ILE:HD11	46:DZ:158:PRO:HD2	1.99	0.45
47:D0:10:THR:C	47:D0:12:ASN:H	2.24	0.45
48:D1:29:GLY:O	48:D1:31:GLY:N	2.49	0.45
51:D4:40:ILE:HA	51:D4:57:ILE:HB	1.99	0.45
1:AA:433:G:H4'	4:AD:123:HIS:ND1	2.31	0.45
1:AA:649:G:H5'	1:AA:709:C:H1'	1.98	0.45
1:AA:721:C:H2'	1:AA:722:C:H6	1.82	0.45
2:AB:18:GLY:HA2	2:AB:40:HIS:O	2.17	0.45
3:AC:92:ALA:C	3:AC:94:LEU:N	2.73	0.45
5:AE:35:GLY:HA3	5:AE:112:LEU:HB3	1.97	0.45
9:AI:103:THR:HG22	9:AI:105:ASP:H	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:104:VAL:HG12	12:AL:105:TYR:CD1	2.51	0.45
15:AO:82:ILE:HD11	15:AO:87:ILE:C	2.42	0.45
19:AS:36:ARG:CZ	19:AS:72:GLY:HA2	2.46	0.45
22:AW:7:A:C6	22:AW:49:C:C2	3.05	0.45
22:AW:16:U:O4	22:AW:18:G:H2'	2.17	0.45
25:BA:9:U:C4	25:BA:2629:A:N6	2.84	0.45
25:BA:26:G:C6	25:BA:27:G:N1	2.84	0.45
25:BA:71:A:O2'	25:BA:72:U:OP2	2.30	0.45
25:BA:392:C:H5''	25:BA:409:C:H5''	1.99	0.45
25:BA:613:G:C2	25:BA:615:G:C5	3.04	0.45
25:BA:782:A:C2	28:BD:226:MET:HE2	2.51	0.45
25:BA:875:G:H2'	25:BA:876:C:O4'	2.17	0.45
25:BA:1022:G:N2	25:BA:1142(A):A:C2	2.82	0.45
25:BA:1025:G:C4	25:BA:1135:C:H1'	2.52	0.45
25:BA:1141:U:C4	34:BN:64:GLY:HA3	2.52	0.45
25:BA:1339:G:H21	25:BA:1603:A:H1'	1.79	0.45
25:BA:1357:U:H2'	25:BA:1358:G:O4'	2.17	0.45
25:BA:1358:G:O2'	25:BA:1359:A:H5''	2.16	0.45
25:BA:1368:G:O2'	25:BA:1369:G:H5'	2.17	0.45
25:BA:1693:U:O2'	28:BD:14:ARG:NH2	2.50	0.45
25:BA:1899:G:C2'	25:BA:1900:A:OP2	2.65	0.45
25:BA:2167:U:O2	25:BA:2171:A:N7	2.50	0.45
25:BA:2230:G:O2'	48:B1:43:TYR:O	2.30	0.45
25:BA:2277:G:OP2	47:B0:10:THR:HG21	2.17	0.45
25:BA:2298:A:N6	25:BA:2318:G:C2'	2.79	0.45
25:BA:2850:A:C2'	25:BA:2851:A:H8	2.22	0.45
25:BA:2855:C:O2'	25:BA:2856:C:H5'	2.17	0.45
27:BC:191:ALA:O	27:BC:195:ALA:HB3	2.17	0.45
29:BE:1:MET:O	29:BE:2:LYS:C	2.60	0.45
30:BF:57:VAL:HG13	30:BF:59:TYR:CE1	2.51	0.45
30:BF:127:GLU:HB2	30:BF:196:LEU:CD2	2.47	0.45
30:BF:187:VAL:CG1	36:BP:7:ARG:HH21	2.30	0.45
31:BG:42:GLY:O	31:BG:43:LEU:HB2	2.17	0.45
31:BG:104:GLU:CG	51:B4:50:THR:HG21	2.42	0.45
31:BG:152:LEU:HG	31:BG:153:ARG:H	1.82	0.45
32:BH:122:THR:O	32:BH:133:VAL:HG13	2.16	0.45
32:BH:142:GLY:O	32:BH:145:ALA:HB3	2.16	0.45
36:BP:114:ILE:CG2	36:BP:127:ALA:HB2	2.44	0.45
38:BR:99:LYS:HB2	38:BR:99:LYS:NZ	2.31	0.45
39:BS:17:ARG:NH2	39:BS:90:GLY:N	2.64	0.45
39:BS:53:SER:O	39:BS:54:LEU:C	2.60	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BS:95:HIS:CG	39:BS:96:GLY:H	2.35	0.45
40:BT:82:LEU:HD12	40:BT:82:LEU:N	2.31	0.45
41:BU:92:ARG:CD	42:BV:11:GLN:CD	2.82	0.45
46:BZ:110:GLY:CA	46:BZ:115:GLY:HA3	2.47	0.45
52:B5:41:PRO:HG2	52:B5:44:THR:CG2	2.46	0.45
1:CA:156:A:OP2	1:CA:156:A:H8	1.99	0.45
1:CA:601:C:H5''	1:CA:602:U:H5''	1.97	0.45
1:CA:853:G:C6	1:CA:854:C:N4	2.84	0.45
1:CA:905:G:N1	1:CA:1372:U:O2	2.49	0.45
1:CA:948:G:OP1	1:CA:948:G:H3'	2.16	0.45
1:CA:1196:G:O2'	1:CA:1197:G:H5'	2.17	0.45
1:CA:1236:G:H3'	1:CA:1260:A:N6	2.32	0.45
2:CB:109:SER:O	2:CB:111:ARG:N	2.49	0.45
3:CC:33:LEU:O	3:CC:37:GLN:HG2	2.17	0.45
3:CC:58:GLU:HB2	3:CC:65:ALA:HB2	1.98	0.45
3:CC:172:ARG:O	3:CC:173:VAL:CG2	2.65	0.45
4:CD:14:ARG:C	4:CD:16:GLY:H	2.25	0.45
6:CF:71:ARG:HG3	6:CF:71:ARG:NH1	2.31	0.45
6:CF:79:LEU:O	6:CF:85:VAL:HG21	2.17	0.45
7:CG:79:ARG:HH11	7:CG:79:ARG:CG	2.26	0.45
8:CH:66:GLY:O	8:CH:76:PRO:HB2	2.16	0.45
9:CI:46:ALA:HB2	9:CI:74:ILE:HG23	1.98	0.45
9:CI:83:ARG:O	9:CI:86:VAL:HG12	2.15	0.45
9:CI:96:LEU:HD12	9:CI:101:PHE:CB	2.47	0.45
10:CJ:61:GLU:OE2	14:CN:45:ARG:NH1	2.50	0.45
13:CM:90:LEU:C	13:CM:92:HIS:N	2.74	0.45
15:CO:87:ILE:HG22	15:CO:88:ARG:N	2.16	0.45
16:CP:43:LYS:N	16:CP:43:LYS:HD2	2.31	0.45
19:CS:10:PHE:CZ	19:CS:70:LYS:HE2	2.42	0.45
20:CT:25:ARG:HH11	20:CT:25:ARG:HG3	1.82	0.45
23:CV:11:A:H2'	23:CV:12:G:O4'	2.17	0.45
25:DA:185:U:H2'	25:DA:186:G:H8	1.80	0.45
25:DA:354:G:C2	25:DA:355:G:C8	3.05	0.45
25:DA:580:C:H4'	41:DU:27:LEU:CD1	2.46	0.45
25:DA:614(C):A:C4	30:DF:180:GLY:HA3	2.51	0.45
25:DA:858:U:O2'	25:DA:859:G:C8	2.68	0.45
25:DA:908:C:O2'	25:DA:909:A:H5'	2.16	0.45
25:DA:957:A:H4'	37:DQ:74:TYR:OH	2.16	0.45
25:DA:995:C:C2	41:DU:57:PHE:CE1	3.05	0.45
25:DA:1769:G:O2'	25:DA:1958:C:OP1	2.33	0.45
25:DA:1899:G:C2'	25:DA:1900:A:OP2	2.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2167:U:O2	25:DA:2171:A:N7	2.50	0.45
25:DA:2364:C:O2'	25:DA:2365:G:H5'	2.16	0.45
25:DA:2476:A:N1	25:DA:2477:C:C5	2.83	0.45
25:DA:2580:U:H4'	29:DE:130:GLY:CA	2.46	0.45
25:DA:2585:U:H3'	25:DA:2585:U:H6	1.80	0.45
25:DA:2633:G:H1'	29:DE:62:PRO:HG3	1.98	0.45
25:DA:2703:C:H2'	25:DA:2704:C:H6	1.82	0.45
25:DA:2732:G:C3'	25:DA:2733:A:H5'	2.47	0.45
25:DA:2753:A:C2	25:DA:2754:U:C2	3.04	0.45
26:DB:81:G:O6	26:DB:97:G:C6	2.69	0.45
27:DC:221:SER:O	27:DC:222:VAL:O	2.34	0.45
28:DD:26:LYS:HZ1	28:DD:82:ILE:C	2.24	0.45
29:DE:93:VAL:O	29:DE:95:ILE:N	2.50	0.45
30:DF:34:TRP:CE2	36:DP:12:ALA:HB2	2.51	0.45
33:DI:23:PRO:O	33:DI:24:GLY:C	2.59	0.45
33:DI:42:SER:C	33:DI:44:LEU:N	2.75	0.45
36:DP:83:VAL:HG21	36:DP:105:LEU:HD12	1.97	0.45
38:DR:80:PHE:O	38:DR:85:PRO:HD3	2.15	0.45
39:DS:53:SER:O	39:DS:55:ALA:N	2.50	0.45
39:DS:77:ALA:O	39:DS:80:LEU:HD13	2.16	0.45
46:DZ:75:ASN:O	46:DZ:84:GLU:HB2	2.17	0.45
46:DZ:109:ALA:O	46:DZ:111:VAL:HG12	2.16	0.45
46:DZ:110:GLY:CA	46:DZ:115:GLY:HA3	2.47	0.45
47:D0:70:GLN:OE1	47:D0:72:ARG:HD3	2.17	0.45
1:AA:51:A:C6	1:AA:348:A:C2	3.05	0.45
1:AA:152:G:N1	1:AA:157:C:O2	2.45	0.45
1:AA:534:U:O2'	12:AL:86:ARG:HD2	2.17	0.45
1:AA:546:A:N7	1:AA:550:G:H1'	2.31	0.45
1:AA:1100:C:H2'	1:AA:1101:C:C6	2.50	0.45
1:AA:1175:U:H4'	5:AE:22:GLY:HA2	1.97	0.45
2:AB:109:SER:O	2:AB:111:ARG:N	2.49	0.45
2:AB:112:VAL:CG2	2:AB:149:LEU:HD13	2.47	0.45
2:AB:207:ALA:C	2:AB:209:ARG:N	2.73	0.45
9:AI:48:GLU:HA	9:AI:51:ARG:HH11	1.82	0.45
10:AJ:7:LYS:CD	10:AJ:71:LEU:HD13	2.42	0.45
10:AJ:49:VAL:HG22	10:AJ:50:ILE:N	2.32	0.45
20:AT:32:ALA:O	20:AT:33:ILE:C	2.56	0.45
25:BA:711:G:O2'	25:BA:712:G:H5'	2.17	0.45
25:BA:773:U:H4'	28:BD:47:GLY:CA	2.47	0.45
25:BA:1248:G:OP1	41:BU:2:PRO:HD2	2.17	0.45
25:BA:1328:G:H2'	25:BA:1330:C:C5	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2164:C:C2'	25:BA:2165:G:H5'	2.47	0.45
25:BA:2300:G:O6	25:BA:2316:C:N4	2.49	0.45
25:BA:2584:U:H2'	25:BA:2585:U:C4'	2.39	0.45
25:BA:2719:G:H5''	40:BT:98:LYS:NZ	2.32	0.45
28:BD:117:VAL:HG22	28:BD:118:VAL:N	2.32	0.45
28:BD:133:LEU:HB3	28:BD:173:VAL:HG11	1.98	0.45
29:BE:69:LYS:O	29:BE:70:ALA:C	2.60	0.45
30:BF:103:LYS:HA	30:BF:106:ARG:HG3	1.99	0.45
31:BG:165:THR:OG1	31:BG:168:GLU:HG3	2.16	0.45
32:BH:17:VAL:HB	32:BH:45:VAL:CG2	2.47	0.45
33:BI:4:ILE:HD11	33:BI:44:LEU:HD12	1.98	0.45
33:BI:23:PRO:HB3	33:BI:27:ARG:HH12	1.81	0.45
33:BI:117:GLU:O	33:BI:118:LYS:C	2.57	0.45
34:BN:96:GLU:H	34:BN:96:GLU:CD	2.22	0.45
35:BO:35:VAL:HG11	35:BO:103:ALA:HB3	1.99	0.45
38:BR:79:LEU:CD2	38:BR:79:LEU:C	2.89	0.45
39:BS:34:HIS:HD2	39:BS:54:LEU:HD23	1.82	0.45
39:BS:89:ARG:O	39:BS:90:GLY:O	2.35	0.45
41:BU:12:ARG:C	41:BU:14:HIS:N	2.73	0.45
42:BV:98:GLU:OE1	42:BV:100:ARG:HD3	2.16	0.45
44:BX:60:ARG:HH22	54:B7:47:ARG:HH21	1.64	0.45
45:BY:76:CYS:SG	45:BY:77:PRO:CD	2.86	0.45
46:BZ:96:VAL:HG12	46:BZ:97:GLU:N	2.30	0.45
51:B4:40:ILE:HA	51:B4:57:ILE:HB	1.99	0.45
1:CA:23:C:OP2	1:CA:544:U:N3	2.48	0.45
1:CA:371:G:O3'	16:CP:5:ARG:HD2	2.17	0.45
1:CA:541:G:C4	1:CA:542:A:C2	3.04	0.45
1:CA:673:G:C6	1:CA:674:G:C6	3.04	0.45
1:CA:1036:C:O2'	1:CA:1037:A:P	2.74	0.45
2:CB:21:ARG:O	2:CB:23:ARG:N	2.50	0.45
3:CC:14:ILE:CG1	3:CC:15:THR:H	2.03	0.45
4:CD:110:PHE:N	4:CD:110:PHE:CD1	2.85	0.45
5:CE:26:PHE:CD1	5:CE:26:PHE:N	2.84	0.45
6:CF:96:PRO:HB3	18:CR:30:ASP:CG	2.42	0.45
8:CH:40:ALA:O	8:CH:42:GLU:N	2.50	0.45
9:CI:4:TYR:N	9:CI:4:TYR:HD1	2.10	0.45
10:CJ:63:PHE:HB3	14:CN:58:LYS:HA	1.99	0.45
11:CK:21:ILE:HA	11:CK:30:VAL:HG12	1.99	0.45
13:CM:10:PRO:HB3	13:CM:18:ALA:O	2.16	0.45
18:CR:58:LEU:HD12	18:CR:58:LEU:N	2.32	0.45
20:CT:61:SER:O	20:CT:62:LEU:C	2.59	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CV:16:C:OP2	23:CV:16:C:H6	1.99	0.45
25:DA:88:G:H2'	25:DA:88:G:N3	2.30	0.45
25:DA:285:C:C4	25:DA:286:C:C5	3.05	0.45
25:DA:319:C:OP2	30:DF:137:LYS:NZ	2.50	0.45
25:DA:491:G:O2'	25:DA:492:A:H5'	2.16	0.45
25:DA:613:G:N1	25:DA:615:G:C6	2.85	0.45
25:DA:703:U:C2'	25:DA:704:G:H5'	2.47	0.45
25:DA:764:A:C6	28:DD:209:ALA:HB1	2.52	0.45
25:DA:859:G:O2'	25:DA:860:U:P	2.74	0.45
25:DA:995:C:O2	34:DN:4:TYR:OH	2.34	0.45
25:DA:1016:G:N2	25:DA:1146:C:O2	2.50	0.45
25:DA:1925:C:C2'	25:DA:1926:U:H5'	2.46	0.45
25:DA:2173:A:C2'	25:DA:2174:C:H5'	2.47	0.45
25:DA:2455:G:H2'	25:DA:2456:C:C6	2.52	0.45
26:DB:69:G:N3	26:DB:70:C:C6	2.85	0.45
26:DB:91:C:HO2'	26:DB:92:C:H5'	1.79	0.45
27:DC:19:VAL:O	27:DC:20:TYR:HB3	2.16	0.45
27:DC:64:LEU:HD13	27:DC:189:ILE:CB	2.46	0.45
27:DC:196:LEU:C	27:DC:198:ALA:N	2.74	0.45
28:DD:31:LYS:CE	28:DD:94:LEU:HD11	2.40	0.45
28:DD:227:ASN:HB3	28:DD:228:PRO:HD2	1.99	0.45
30:DF:127:GLU:HB2	30:DF:196:LEU:CD2	2.47	0.45
31:DG:104:GLU:HG2	51:D4:50:THR:CG2	2.46	0.45
32:DH:24:VAL:HG21	32:DH:72:ILE:CD1	2.46	0.45
36:DP:136:GLU:O	36:DP:139:LYS:HB3	2.17	0.45
39:DS:18:ILE:O	39:DS:18:ILE:HD13	2.17	0.45
40:DT:3:ARG:O	40:DT:5:ALA:N	2.49	0.45
40:DT:30:VAL:HG12	40:DT:43:GLN:C	2.42	0.45
41:DU:12:ARG:C	41:DU:14:HIS:N	2.73	0.45
41:DU:111:GLU:O	41:DU:113:ALA:N	2.50	0.45
43:DW:61:ASN:N	43:DW:61:ASN:ND2	2.58	0.45
44:DX:3:THR:O	44:DX:4:ALA:CB	2.64	0.45
44:DX:63:LYS:HE3	44:DX:72:LYS:CE	2.29	0.45
46:DZ:119:GLU:CD	46:DZ:119:GLU:H	2.24	0.45
49:D2:21:LEU:O	49:D2:24:LEU:HB3	2.16	0.45
51:D4:43:GLY:N	51:D4:59:VAL:O	2.50	0.45
53:D6:30:THR:HB	53:D6:31:PRO:CD	2.46	0.45
1:AA:292:G:O2'	1:AA:294:G:N7	2.48	0.45
1:AA:396:C:C2	1:AA:397:G:C8	3.05	0.45
1:AA:769:G:C2	1:AA:780:C:O2	2.70	0.45
1:AA:1035:G:O2'	1:AA:1180:U:H5	2.00	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1056:G:C1'	2:AB:104:ASN:HD22	2.30	0.45
1:AA:1313:A:O2'	1:AA:1314:A:H5'	2.16	0.45
1:AA:1383:G:C2	1:AA:1384:C:H1'	2.52	0.45
1:AA:1384:C:H2'	1:AA:1385:C:O4'	2.16	0.45
2:AB:193:ASP:OD2	2:AB:193:ASP:O	2.35	0.45
3:AC:58:GLU:HB2	3:AC:65:ALA:HB2	1.99	0.45
3:AC:188:LEU:HD12	3:AC:195:VAL:CG1	2.47	0.45
4:AD:96:LEU:HD12	4:AD:96:LEU:N	2.32	0.45
5:AE:14:ARG:CZ	5:AE:129:ILE:HD11	2.46	0.45
5:AE:15:ARG:O	5:AE:16:THR:O	2.35	0.45
5:AE:112:LEU:N	5:AE:112:LEU:HD23	2.32	0.45
9:AI:58:HIS:C	9:AI:59:PHE:CD1	2.95	0.45
10:AJ:32:ALA:CB	10:AJ:76:ASN:HB3	2.47	0.45
25:BA:285:C:C4	25:BA:286:C:C5	3.05	0.45
25:BA:613:G:N1	25:BA:615:G:C6	2.85	0.45
25:BA:1291:C:H2'	25:BA:1292:U:C6	2.52	0.45
25:BA:2173:A:C2'	25:BA:2174:C:H5'	2.47	0.45
25:BA:2455:G:H2'	25:BA:2456:C:C6	2.52	0.45
27:BC:83:ILE:HG23	27:BC:94:VAL:HG23	1.97	0.45
29:BE:12:THR:HG23	40:BT:8:LYS:NZ	2.32	0.45
29:BE:128:SER:O	29:BE:130:GLY:N	2.50	0.45
31:BG:83:ARG:NH1	31:BG:84:LYS:HD2	2.32	0.45
34:BN:56:ASN:CA	34:BN:125:GLY:H	2.08	0.45
36:BP:61:ARG:HG3	36:BP:61:ARG:H	1.54	0.45
37:BQ:140:ALA:HB1	46:BZ:99:TYR:HB2	1.99	0.45
42:BV:65:GLY:O	42:BV:90:PRO:HA	2.16	0.45
43:BW:10:VAL:HG23	43:BW:101:SER:O	2.17	0.45
43:BW:65:LEU:HD22	43:BW:68:ARG:N	2.25	0.45
44:BX:12:VAL:CG1	44:BX:27:THR:O	2.64	0.45
46:BZ:63:ASP:C	46:BZ:65:GLN:H	2.25	0.45
1:CA:198:U:O3'	20:CT:57:ARG:HD2	2.17	0.45
1:CA:565:U:H2'	1:CA:566:A:C8	2.51	0.45
1:CA:846:G:O2'	1:CA:849:A:N7	2.47	0.45
1:CA:860:C:C4	1:CA:861:U:H5	2.35	0.45
1:CA:1225:C:C2	1:CA:1275:G:N2	2.85	0.45
1:CA:1236:G:H5''	3:CC:26:LYS:HZ2	1.81	0.45
7:CG:15:ASP:HB3	7:CG:19:GLY:N	2.32	0.45
7:CG:151:TYR:O	7:CG:154:TYR:HB2	2.16	0.45
8:CH:68:ARG:HG2	8:CH:69:ARG:H	1.81	0.45
8:CH:118:VAL:O	8:CH:119:LEU:HD23	2.16	0.45
10:CJ:13:HIS:O	10:CJ:17:ASP:HB2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:81:THR:O	10:CJ:83:GLU:N	2.50	0.45
11:CK:29:ILE:CD1	11:CK:44:SER:HB3	2.45	0.45
12:CL:22:SER:O	12:CL:24:VAL:N	2.50	0.45
12:CL:40:VAL:HG12	12:CL:40:VAL:O	2.16	0.45
12:CL:46:LYS:CG	12:CL:47:LYS:N	2.59	0.45
17:CQ:68:ARG:H	17:CQ:70:ARG:HH12	1.50	0.45
20:CT:14:LYS:CB	20:CT:17:ARG:HH21	2.30	0.45
22:CW:21:A:C6	22:CW:46:G:C5	3.02	0.45
23:CV:30:G:C6	23:CV:43:G:C2	3.05	0.45
25:DA:9:U:C4	25:DA:2629:A:N6	2.84	0.45
25:DA:480:A:P	45:DY:46:LYS:HE2	2.54	0.45
25:DA:549:G:O5'	25:DA:549:G:C8	2.62	0.45
25:DA:569:U:C4	25:DA:570:G:C6	3.05	0.45
25:DA:637:A:H4'	25:DA:638:G:O5'	2.17	0.45
25:DA:674:G:H1'	30:DF:74:ARG:HD2	1.99	0.45
25:DA:711:G:O2'	25:DA:712:G:H5'	2.17	0.45
25:DA:751:A:OP2	43:DW:90:ARG:N	2.50	0.45
25:DA:871:U:H4'	37:DQ:69:PHE:CD2	2.51	0.45
25:DA:917:A:H2'	25:DA:918:A:H8	1.81	0.45
25:DA:1029:A:H8	25:DA:1029:A:O5'	2.00	0.45
25:DA:1276:A:O2'	38:DR:16:HIS:HE1	2.00	0.45
25:DA:1368:G:O2'	25:DA:1369:G:H5'	2.17	0.45
25:DA:1412:A:H2'	25:DA:1413:G:C8	2.52	0.45
25:DA:1525:G:H2'	25:DA:1526:G:C8	2.51	0.45
25:DA:1884:A:C3'	25:DA:1885:A:H5''	2.45	0.45
25:DA:1902:C:C4	25:DA:1903:G:H1'	2.52	0.45
25:DA:2283:C:C2'	25:DA:2284:C:H5'	2.47	0.45
25:DA:2586:C:HO2'	25:DA:2587:A:H5'	1.78	0.45
25:DA:2846:G:H2'	25:DA:2847:U:O4'	2.17	0.45
26:DB:46:A:H2'	26:DB:47:C:C6	2.51	0.45
26:DB:73:A:H2'	26:DB:74:U:C5'	2.47	0.45
29:DE:45:THR:CG2	29:DE:83:ASP:HA	2.45	0.45
29:DE:117:MET:CE	29:DE:124:GLY:HA3	2.45	0.45
30:DF:22:ALA:C	30:DF:24:LEU:H	2.23	0.45
30:DF:161:GLU:HG2	30:DF:164:ARG:NH2	2.32	0.45
32:DH:103:LEU:HD22	32:DH:123:PHE:HD2	1.82	0.45
33:DI:87:LYS:N	33:DI:122:GLU:HG2	2.31	0.45
36:DP:85:LEU:HD12	36:DP:120:ALA:HB2	1.97	0.45
38:DR:34:ILE:HG22	38:DR:35:THR:N	2.32	0.45
39:DS:89:ARG:O	39:DS:90:GLY:O	2.35	0.45
43:DW:24:ILE:HG23	43:DW:36:LEU:HD21	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DX:46:ALA:O	49:D2:30:ARG:NH2	2.49	0.45
45:DY:17:SER:OG	45:DY:71:LYS:CB	2.54	0.45
46:DZ:3:TYR:N	46:DZ:3:TYR:CD1	2.85	0.45
46:DZ:14:LYS:HD3	46:DZ:17:ALA:CB	2.46	0.45
46:DZ:33:LEU:HG	46:DZ:34:ASN:N	2.31	0.45
1:AA:255:G:C6	1:AA:256:U:C4	3.05	0.45
1:AA:280:G:H2'	1:AA:281:G:C8	2.52	0.45
1:AA:364:C:OP2	1:AA:383:G:N2	2.36	0.45
1:AA:841:A:H2'	1:AA:842:A:C8	2.52	0.45
1:AA:1007:C:H4'	1:AA:1015:G:N2	2.31	0.45
1:AA:1144:C:H2'	1:AA:1145:C:C6	2.52	0.45
1:AA:1187:G:C6	1:AA:1188:G:C5	3.04	0.45
1:AA:1397:G:C2	1:AA:1463:G:C2	3.04	0.45
2:AB:42:ILE:CD1	2:AB:202:PRO:HB2	2.39	0.45
2:AB:180:LEU:O	2:AB:181:PHE:HB2	2.17	0.45
2:AB:207:ALA:C	2:AB:209:ARG:H	2.24	0.45
3:AC:148:GLY:N	3:AC:203:PHE:HB3	2.31	0.45
4:AD:4:TYR:HE2	4:AD:6:GLY:C	2.25	0.45
4:AD:30:LYS:HB3	4:AD:35:ARG:HD2	1.99	0.45
9:AI:10:ARG:CD	9:AI:105:ASP:OD2	2.54	0.45
9:AI:88:TYR:O	9:AI:89:ASN:ND2	2.50	0.45
18:AR:44:LEU:CD2	18:AR:50:ILE:HD13	2.46	0.45
19:AS:18:LYS:HD2	19:AS:22:LEU:HD21	1.99	0.45
19:AS:31:ILE:HG23	19:AS:31:ILE:O	2.17	0.45
23:AV:44:A:H2'	23:AV:44:A:N3	2.32	0.45
22:AY:29:G:H2'	22:AY:29:G:N3	2.32	0.45
24:AX:15:A:H5'	24:AX:16:A:OP1	2.16	0.45
25:BA:69:C:H2'	25:BA:73:A:O2'	2.17	0.45
25:BA:448:U:O4	25:BA:583:G:H1'	2.16	0.45
25:BA:637:A:H4'	25:BA:638:G:O5'	2.17	0.45
25:BA:1029:A:H8	25:BA:1029:A:O5'	2.00	0.45
25:BA:1117:G:H2'	25:BA:1118:C:C6	2.52	0.45
25:BA:1163:G:O2'	25:BA:1164:G:H5'	2.16	0.45
25:BA:1187:G:H8	25:BA:1187:G:O5'	2.00	0.45
25:BA:1412:A:H2'	25:BA:1413:G:C8	2.52	0.45
25:BA:1478:G:O2'	25:BA:1479:G:H5'	2.16	0.45
25:BA:1666:G:H2'	25:BA:1667:G:H5'	1.98	0.45
25:BA:1885:A:H5'	25:BA:1885:A:C8	2.52	0.45
25:BA:2146:C:H4'	25:BA:2147:G:C8	2.52	0.45
25:BA:2287:A:C2	25:BA:2289:G:C8	3.05	0.45
25:BA:2314:C:H2'	25:BA:2315:G:C8	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2869:G:H2'	25:BA:2870:C:C6	2.52	0.45
27:BC:19:VAL:O	27:BC:20:TYR:HB3	2.16	0.45
33:BI:87:LYS:N	33:BI:122:GLU:HG2	2.31	0.45
39:BS:18:ILE:O	39:BS:18:ILE:HD13	2.17	0.45
41:BU:109:LEU:O	41:BU:110:VAL:C	2.58	0.45
44:BX:27:THR:HA	44:BX:80:ILE:HA	1.99	0.45
45:BY:96:ILE:HG13	45:BY:100:ALA:H	1.82	0.45
46:BZ:52:SER:OG	46:BZ:53:ILE:HG13	2.16	0.45
46:BZ:118:GLN:N	46:BZ:173:ALA:O	2.49	0.45
48:B1:78:LYS:C	48:B1:80:LEU:H	2.25	0.45
53:B6:13:CYS:HB2	53:B6:22:ALA:HB3	1.99	0.45
55:B8:4:MET:O	55:B8:62:LEU:HD12	2.17	0.45
1:CA:116:C:OP1	1:CA:306:C:O2'	2.19	0.45
1:CA:385:C:O3'	16:CP:28:ARG:NH2	2.49	0.45
1:CA:443:C:O2	16:CP:42:ARG:HD2	2.17	0.45
1:CA:1215:C:H6	1:CA:1215:C:O5'	2.00	0.45
6:CF:8:ILE:HD11	6:CF:79:LEU:HD13	1.98	0.45
8:CH:64:LYS:C	8:CH:65:TYR:CD1	2.95	0.45
8:CH:109:ILE:HD11	8:CH:120:THR:HG22	1.98	0.45
9:CI:19:LEU:CD2	9:CI:61:ALA:HB2	2.46	0.45
9:CI:92:TYR:HD1	9:CI:92:TYR:H	1.65	0.45
10:CJ:32:ALA:C	10:CJ:33:GLN:HG3	2.42	0.45
10:CJ:97:GLU:O	10:CJ:98:ILE:HD12	2.16	0.45
12:CL:32:PHE:HB3	12:CL:84:LEU:HD11	1.99	0.45
16:CP:14:ASN:N	16:CP:15:PRO:CD	2.75	0.45
19:CS:22:LEU:HD13	19:CS:27:GLU:CB	2.47	0.45
20:CT:23:ARG:O	20:CT:27:LYS:HB2	2.17	0.45
25:DA:225:A:H2'	25:DA:226:G:C5'	2.47	0.45
25:DA:281:G:N2	25:DA:358:U:C4	2.84	0.45
25:DA:308:G:H1'	25:DA:329:G:N2	2.32	0.45
25:DA:419:C:O2'	25:DA:420:C:H5'	2.17	0.45
25:DA:1117:G:H2'	25:DA:1118:C:C6	2.52	0.45
25:DA:1187:G:H8	25:DA:1187:G:O5'	2.00	0.45
25:DA:1301:A:HO2'	25:DA:1302:A:H2'	1.76	0.45
25:DA:1484:G:H2'	25:DA:1485:G:H5''	1.97	0.45
25:DA:1863:G:H2'	25:DA:1864:U:O4'	2.16	0.45
25:DA:2178:C:H5''	27:DC:46:LYS:HG2	1.98	0.45
25:DA:2266:A:C2	25:DA:2272:U:C5	3.04	0.45
25:DA:2349:G:H4'	53:D6:42:TRP:CZ2	2.52	0.45
25:DA:2350:C:H2'	25:DA:2351:G:O4'	2.17	0.45
25:DA:2373:G:H2'	25:DA:2374:C:C6	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2464:C:C2	25:DA:2487:G:C2	3.05	0.45
25:DA:2855:C:O2'	25:DA:2856:C:H5'	2.17	0.45
30:DF:36:VAL:HG12	30:DF:183:VAL:HG21	1.99	0.45
30:DF:57:VAL:HG13	30:DF:59:TYR:CE1	2.51	0.45
30:DF:64:ILE:HG22	30:DF:76:GLY:O	2.17	0.45
30:DF:117:ARG:HH21	30:DF:187:VAL:HA	1.81	0.45
31:DG:46:ALA:HB3	31:DG:82:LEU:HD11	1.99	0.45
31:DG:83:ARG:NH1	31:DG:84:LYS:HD2	2.32	0.45
31:DG:133:LEU:HD11	31:DG:157:ILE:CD1	2.35	0.45
31:DG:178:PHE:HA	31:DG:179:PRO:HD3	1.69	0.45
33:DI:115:ALA:HB1	33:DI:129:THR:HG23	1.98	0.45
36:DP:8:PRO:O	36:DP:9:ASN:HB3	2.17	0.45
38:DR:18:LEU:HD13	38:DR:19:ALA:N	2.31	0.45
39:DS:48:LEU:HD12	39:DS:48:LEU:H	1.81	0.45
39:DS:95:HIS:CG	39:DS:96:GLY:H	2.35	0.45
41:DU:15:LYS:HA	41:DU:18:LEU:HB2	1.98	0.45
43:DW:27:LYS:O	43:DW:70:TYR:HB2	2.17	0.45
48:D1:86:SER:O	48:D1:89:GLU:N	2.50	0.45
55:D8:55:ALA:O	55:D8:56:GLU:C	2.59	0.45
55:D8:61:LEU:H	55:D8:61:LEU:HD12	1.81	0.45
1:AA:95:G:C6	1:AA:96:C:C4	3.05	0.45
1:AA:173:A:H2'	1:AA:174:U:C6	2.52	0.45
1:AA:885:A:C2	1:AA:886:A:C5	3.05	0.45
1:AA:962:C:H2'	1:AA:963:A:C8	2.52	0.45
1:AA:1192:U:H5'	1:AA:1193:U:OP2	2.16	0.45
1:AA:1209:C:OP1	13:AM:114:ARG:HA	2.16	0.45
1:AA:1348:C:H2'	1:AA:1349:C:H6	1.81	0.45
1:AA:1430:U:H4'	1:AA:1431:A:N7	2.31	0.45
2:AB:69:LEU:HD12	2:AB:69:LEU:C	2.42	0.45
2:AB:228:GLY:O	2:AB:229:VAL:C	2.59	0.45
3:AC:79:ARG:NH2	11:CK:100:ALA:HB2	2.22	0.45
6:AF:71:ARG:HG3	6:AF:71:ARG:NH1	2.32	0.45
8:AH:56:LYS:HB2	8:AH:58:TYR:HE1	1.82	0.45
12:AL:53:ARG:HH12	12:AL:92:ASP:CB	2.24	0.45
12:AL:85:ILE:HD13	12:AL:100:ILE:HA	1.99	0.45
13:AM:91:ARG:HH11	13:AM:96:LEU:HD13	1.82	0.45
15:AO:39:LEU:HD23	15:AO:39:LEU:HA	1.82	0.45
19:AS:13:ASP:C	19:AS:15:LEU:N	2.75	0.45
22:AW:16:U:H6	22:AW:17:C:H5'	1.82	0.45
23:AV:50:G:C2	23:AV:67:C:C2	3.04	0.45
25:BA:250:G:H2'	25:BA:251:A:C8	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:320:A:H2'	30:BF:136:THR:HG21	1.98	0.45
25:BA:354:G:C2	25:BA:355:G:C8	3.05	0.45
25:BA:389:G:H1	36:BP:71:VAL:CG1	2.16	0.45
25:BA:481:G:C2'	25:BA:482:A:OP2	2.64	0.45
25:BA:703:U:C2'	25:BA:704:G:H5'	2.47	0.45
25:BA:845:G:O2'	25:BA:846:C:H5	2.00	0.45
25:BA:1021:A:OP2	34:BN:65:LYS:NZ	2.49	0.45
25:BA:1151:G:H5''	41:BU:81:HIS:CE1	2.52	0.45
25:BA:1153:C:OP1	41:BU:76:TYR:OH	2.31	0.45
25:BA:1193:G:H2'	25:BA:1194:A:O4'	2.16	0.45
25:BA:1203:G:OP2	25:BA:1204:A:H2'	2.17	0.45
25:BA:2330:G:N2	25:BA:2386:C:O2	2.50	0.45
25:BA:2469:A:C2	25:BA:2470:G:H1'	2.51	0.45
25:BA:2743:C:H2'	25:BA:2744:G:O4'	2.17	0.45
25:BA:2822:G:O6	38:BR:4:LEU:HD12	2.17	0.45
29:BE:11:MET:CB	29:BE:24:THR:HA	2.47	0.45
29:BE:60:ASN:O	29:BE:61:ARG:C	2.60	0.45
29:BE:93:VAL:O	29:BE:95:ILE:N	2.50	0.45
31:BG:97:ASP:O	31:BG:101:ILE:HG23	2.17	0.45
34:BN:87:LEU:O	34:BN:88:GLU:C	2.60	0.45
36:BP:112:LEU:H	36:BP:128:HIS:CD2	2.35	0.45
37:BQ:24:GLY:HA2	37:BQ:67:ARG:HH22	1.82	0.45
38:BR:37:THR:OG1	38:BR:40:LYS:HB2	2.16	0.45
44:BX:3:THR:O	44:BX:4:ALA:CB	2.64	0.45
44:BX:60:ARG:HH12	54:B7:47:ARG:HH22	1.58	0.45
46:BZ:114:GLY:CA	46:BZ:177:PRO:HD3	2.47	0.45
48:B1:86:SER:O	48:B1:89:GLU:N	2.50	0.45
49:B2:63:VAL:O	49:B2:66:GLU:CG	2.62	0.45
1:CA:583:C:OP1	8:CH:97:VAL:HG12	2.17	0.45
1:CA:731:C:O5'	1:CA:731:C:H6	1.99	0.45
1:CA:953:G:C6	1:CA:1345:A:C2	3.05	0.45
1:CA:1307:C:H2'	1:CA:1308:C:C6	2.52	0.45
1:CA:1311:U:C5	1:CA:1312:G:C5	3.05	0.45
2:CB:102:LEU:HD23	2:CB:182:ILE:HD12	1.99	0.45
3:CC:157:ILE:HD12	3:CC:164:ARG:NH1	2.32	0.45
4:CD:165:MET:O	4:CD:166:LYS:C	2.60	0.45
8:CH:56:LYS:HB2	8:CH:58:TYR:HE1	1.81	0.45
11:CK:73:MET:C	11:CK:75:TYR:H	2.25	0.45
13:CM:90:LEU:HA	13:CM:93:ARG:HB3	1.99	0.45
13:CM:96:LEU:HA	13:CM:110:ARG:HD3	1.97	0.45
15:CO:40:SER:HA	25:DA:715:G:N2	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CS:43:GLU:O	19:CS:43:GLU:OE1	2.35	0.45
19:CS:63:THR:HG22	19:CS:66:MET:HG2	1.99	0.45
20:CT:32:ALA:O	20:CT:33:ILE:C	2.58	0.45
20:CT:39:LYS:O	20:CT:43:LEU:HG	2.15	0.45
22:CW:44:G:OP2	22:CW:44:G:C8	2.71	0.45
25:DA:297:C:C2'	25:DA:298:G:C5'	2.81	0.45
25:DA:487:C:H1'	43:DW:53:SER:OG	2.17	0.45
25:DA:651:G:OP1	55:D8:19:SER:CB	2.65	0.45
25:DA:832:G:N2	36:DP:53:GLY:O	2.49	0.45
25:DA:848:G:H5'	25:DA:848:G:C8	2.51	0.45
25:DA:952:G:C4	25:DA:953:A:N7	2.85	0.45
25:DA:1291:C:H2'	25:DA:1292:U:C6	2.52	0.45
25:DA:1328:G:H2'	25:DA:1330:C:C5	2.52	0.45
25:DA:1507:A:H2'	25:DA:1508:A:H8	1.82	0.45
25:DA:2001:A:H2'	25:DA:2002:G:C8	2.51	0.45
25:DA:2164:C:C2'	25:DA:2165:G:H5'	2.47	0.45
25:DA:2300:G:N2	25:DA:2317:C:C1'	2.64	0.45
25:DA:2355:C:H1'	47:D0:39:ARG:HH21	1.82	0.45
25:DA:2753:A:H1'	56:D9:15:LYS:NZ	2.32	0.45
28:DD:243:GLY:O	28:DD:244:ARG:HB3	2.17	0.45
29:DE:37:ARG:O	29:DE:45:THR:N	2.49	0.45
29:DE:60:ASN:OD1	29:DE:60:ASN:C	2.60	0.45
30:DF:22:ALA:CA	30:DF:26:ALA:HB2	2.47	0.45
31:DG:16:ARG:N	31:DG:17:PRO:HD2	2.31	0.45
31:DG:39:ILE:HB	31:DG:157:ILE:HG22	1.99	0.45
31:DG:165:THR:OG1	31:DG:168:GLU:HG3	2.16	0.45
34:DN:65:LYS:C	34:DN:67:LEU:H	2.25	0.45
34:DN:119:ARG:CG	34:DN:119:ARG:HH11	2.29	0.45
36:DP:101:VAL:HG12	36:DP:107:LYS:H	1.81	0.45
40:DT:3:ARG:C	40:DT:5:ALA:N	2.73	0.45
41:DU:78:THR:O	41:DU:79:PHE:C	2.59	0.45
42:DV:41:GLY:N	42:DV:45:THR:HB	2.32	0.45
44:DX:27:THR:HA	44:DX:80:ILE:HA	1.99	0.45
46:DZ:114:GLY:CA	46:DZ:177:PRO:HD3	2.47	0.45
48:D1:25:LYS:C	48:D1:27:GLU:N	2.73	0.45
48:D1:78:LYS:C	48:D1:80:LEU:H	2.25	0.45
55:D8:57:ARG:C	55:D8:59:LYS:N	2.75	0.45
1:AA:1399:G:C6	1:AA:1459:G:C6	3.05	0.44
4:AD:194:LEU:N	4:AD:194:LEU:HD22	2.32	0.44
5:AE:13:ILE:HA	5:AE:29:GLY:O	2.17	0.44
8:AH:86:ILE:HG13	8:AH:133:LEU:HD22	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:99:GLU:O	8:AH:100:ILE:C	2.60	0.44
12:AL:32:PHE:HB3	12:AL:84:LEU:CD1	2.47	0.44
16:AP:6:LEU:HB3	16:AP:17:TYR:HD2	1.81	0.44
17:AQ:58:GLU:C	17:AQ:59:ILE:HD13	2.42	0.44
18:AR:56:THR:HB	18:AR:58:LEU:HD13	1.99	0.44
20:AT:100:ILE:C	20:AT:102:GLY:H	2.25	0.44
22:AW:38:A:C3'	22:AW:39:U:H5'	2.43	0.44
23:AV:3:C:C3'	23:AV:4:G:H5'	2.42	0.44
23:AV:6:G:C2	23:AV:69:C:O2	2.70	0.44
23:AV:72:C:C6	23:AV:72:C:H3'	2.52	0.44
25:BA:764:A:C6	28:BD:209:ALA:HB1	2.51	0.44
25:BA:834:C:O2'	25:BA:835:A:H5'	2.17	0.44
25:BA:886:C:H2'	25:BA:887:A:C4'	2.47	0.44
25:BA:1659:U:OP2	29:BE:132:HIS:HE1	2.01	0.44
25:BA:2061:G:H5''	25:BA:2503:A:C2	2.52	0.44
25:BA:2186:G:C2'	25:BA:2187:G:H5''	2.47	0.44
25:BA:2350:C:H2'	25:BA:2351:G:O4'	2.17	0.44
25:BA:2553:G:H2'	25:BA:2554:U:H4'	1.99	0.44
25:BA:2897:U:O2	25:BA:2897:U:C2'	2.64	0.44
26:BB:12:C:N4	47:B0:75:LEU:HD12	2.32	0.44
28:BD:201:HIS:C	28:BD:203:ASN:N	2.75	0.44
29:BE:68:ALA:C	29:BE:70:ALA:H	2.24	0.44
29:BE:110:GLY:CA	29:BE:162:ALA:H	2.30	0.44
31:BG:117:PHE:CD1	31:BG:118:ARG:N	2.85	0.44
31:BG:137:GLU:HB3	31:BG:139:LEU:HD23	1.98	0.44
32:BH:128:PRO:HG2	32:BH:129:THR:HG23	1.99	0.44
34:BN:78:TYR:N	34:BN:78:TYR:HD1	2.15	0.44
36:BP:49:ARG:CD	55:B8:58:ILE:HG22	2.47	0.44
36:BP:64:LYS:CG	55:B8:25:MET:HE2	2.46	0.44
37:BQ:69:PHE:HD1	37:BQ:70:PRO:HD2	1.81	0.44
38:BR:16:HIS:O	38:BR:17:ARG:C	2.60	0.44
39:BS:53:SER:O	39:BS:55:ALA:N	2.50	0.44
40:BT:7:ILE:HG22	40:BT:11:GLU:OE1	2.17	0.44
44:BX:92:LEU:C	44:BX:94:GLY:H	2.24	0.44
45:BY:15:VAL:CG1	45:BY:16:ALA:N	2.81	0.44
46:BZ:151:HIS:HB3	46:BZ:170:THR:CG2	2.37	0.44
49:B2:63:VAL:CA	49:B2:66:GLU:HG2	2.46	0.44
52:B5:3:LYS:HA	52:B5:3:LYS:HD2	1.70	0.44
55:B8:41:ILE:O	55:B8:44:LYS:HB2	2.18	0.44
1:CA:264:C:H2'	1:CA:265:A:C8	2.52	0.44
1:CA:1426:A:H4'	1:CA:1426:A:OP1	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:224:GLN:C	2:CB:226:ARG:H	2.25	0.44
5:CE:84:PHE:CZ	5:CE:133:TYR:CD2	3.05	0.44
7:CG:140:ASP:HA	7:CG:143:ARG:HH11	1.80	0.44
11:CK:41:THR:HG21	11:CK:71:LYS:CB	2.47	0.44
13:CM:77:ASN:HD22	13:CM:77:ASN:C	2.25	0.44
19:CS:64:GLU:HG3	19:CS:65:ASN:N	2.31	0.44
20:CT:30:LYS:CE	20:CT:80:ARG:NH2	2.79	0.44
20:CT:93:GLU:OE1	20:CT:94:ALA:N	2.50	0.44
22:CW:21:A:N9	22:CW:48:C:N4	2.65	0.44
25:DA:333:G:H2'	25:DA:333:G:N3	2.31	0.44
25:DA:893:C:H2'	25:DA:894:C:C6	2.52	0.44
25:DA:978:G:H2'	25:DA:979:G:O4'	2.17	0.44
25:DA:1444:G:H2'	25:DA:1445(A):C:C5	2.52	0.44
25:DA:2287:A:C2	25:DA:2289:G:C8	3.05	0.44
25:DA:2746:U:O3'	32:DH:138:LYS:HE3	2.17	0.44
25:DA:2845:G:H5''	40:DT:54:ARG:O	2.16	0.44
27:DC:39:GLU:HG2	27:DC:180:PHE:CB	2.47	0.44
28:DD:224:ALA:O	28:DD:225:ALA:HB2	2.17	0.44
29:DE:201:THR:HG21	29:DE:203:LYS:HG2	1.99	0.44
30:DF:103:LYS:HA	30:DF:106:ARG:HG3	1.99	0.44
31:DG:19:LEU:CD2	31:DG:171:ALA:HB1	2.47	0.44
31:DG:35:GLU:HB2	31:DG:160:VAL:HG12	1.99	0.44
34:DN:126:PRO:O	34:DN:127:ASP:CB	2.65	0.44
39:DS:34:HIS:HD2	39:DS:54:LEU:HD23	1.82	0.44
39:DS:42:ASP:C	39:DS:44:LYS:N	2.73	0.44
40:DT:70:VAL:HG22	40:DT:71:GLY:H	1.82	0.44
46:DZ:96:VAL:HG12	46:DZ:97:GLU:N	2.32	0.44
48:D1:62:VAL:HG22	48:D1:63:ALA:N	2.32	0.44
49:D2:50:ILE:C	49:D2:52:ASP:N	2.74	0.44
49:D2:69:ARG:O	49:D2:70:GLN:CB	2.65	0.44
55:D8:4:MET:O	55:D8:62:LEU:HD12	2.17	0.44
1:AA:164:U:O2'	1:AA:165:A:H5'	2.18	0.44
1:AA:492:A:C2	1:AA:493:A:C2	3.06	0.44
1:AA:610:G:H2'	1:AA:611:G:C8	2.53	0.44
1:AA:699:A:N3	11:AK:117:ASN:O	2.50	0.44
2:AB:12:GLU:C	2:AB:14:GLY:H	2.25	0.44
2:AB:124:SER:OG	2:AB:125:PRO:HD2	2.16	0.44
4:AD:17:VAL:HG11	4:AD:197:PRO:HB2	1.99	0.44
4:AD:126:ILE:HG22	4:AD:127:THR:N	2.31	0.44
7:AG:11:GLN:CD	7:AG:12:LEU:H	2.26	0.44
7:AG:137:LYS:O	7:AG:138:LYS:C	2.60	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:104:ARG:C	8:AH:106:GLY:H	2.24	0.44
9:AI:96:LEU:HD12	9:AI:101:PHE:CB	2.46	0.44
10:AJ:35:SER:O	10:AJ:36:GLY:C	2.60	0.44
11:AK:65:ALA:HB1	11:AK:98:LEU:CD2	2.47	0.44
13:AM:46:LYS:HG3	13:AM:47:ASP:OD1	2.17	0.44
13:AM:90:LEU:HA	13:AM:93:ARG:HB3	2.00	0.44
14:AN:23:ARG:HA	14:AN:29:ARG:O	2.16	0.44
15:AO:74:ASP:C	15:AO:76:GLU:N	2.71	0.44
18:AR:58:LEU:HB3	18:AR:62:GLU:HB2	1.98	0.44
20:AT:69:GLY:O	20:AT:73:HIS:CD2	2.70	0.44
22:AW:18:G:C2	22:AW:55:U:H1'	2.53	0.44
22:AW:70:G:C6	22:AW:71:G:C6	3.05	0.44
22:AY:34:G:N3	22:AY:34:G:C2'	2.78	0.44
25:BA:265:A:N6	25:BA:283:A:C8	2.85	0.44
25:BA:271(F):C:H2'	25:BA:271(G):C:C6	2.49	0.44
25:BA:271(P):C:O2'	25:BA:271(Q):G:H5'	2.17	0.44
25:BA:1309:G:C2'	25:BA:1310:G:H5'	2.48	0.44
25:BA:1464:C:C4'	25:BA:1528(A):A:H1'	2.44	0.44
25:BA:1485:G:H1'	25:BA:1505:C:N4	2.33	0.44
25:BA:1992:G:O5'	25:BA:1992:G:C8	2.71	0.44
25:BA:2172:U:C2'	25:BA:2173:A:OP1	2.65	0.44
25:BA:2195:C:C2'	25:BA:2196:C:H5'	2.48	0.44
25:BA:2444:G:OP2	30:BF:68:LYS:HE2	2.17	0.44
25:BA:2703:C:H2'	25:BA:2704:C:H6	1.82	0.44
25:BA:2728:U:OP1	35:BO:70:LYS:NZ	2.50	0.44
26:BB:45:A:H1'	31:BG:95:ARG:NH2	2.33	0.44
26:BB:73:A:H2'	26:BB:74:U:C5'	2.47	0.44
28:BD:132:PRO:HG3	28:BD:190:TYR:CE1	2.53	0.44
28:BD:244:ARG:HG2	28:BD:245:PRO:O	2.17	0.44
30:BF:19:GLU:CD	30:BF:19:GLU:N	2.76	0.44
30:BF:78:ILE:H	30:BF:78:ILE:CD1	2.24	0.44
31:BG:31:VAL:CG2	31:BG:32:PRO:CD	2.94	0.44
32:BH:97:ARG:O	32:BH:125:VAL:HG11	2.18	0.44
34:BN:62:VAL:HG13	34:BN:62:VAL:O	2.17	0.44
36:BP:30:THR:HG22	36:BP:31:ALA:N	2.27	0.44
36:BP:105:LEU:N	36:BP:105:LEU:CD2	2.73	0.44
40:BT:11:GLU:C	40:BT:13:ARG:N	2.75	0.44
41:BU:111:GLU:O	41:BU:113:ALA:N	2.50	0.44
45:BY:55:TYR:CB	45:BY:56:PRO:CD	2.78	0.44
47:B0:24:LYS:N	47:B0:37:LEU:O	2.49	0.44
51:B4:43:GLY:N	51:B4:59:VAL:O	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:B6:12:GLU:HA	53:B6:23:THR:HA	1.99	0.44
56:B9:4:ARG:O	56:B9:36:GLN:HA	2.18	0.44
1:CA:790:A:C5	1:CA:791:C:C4	3.05	0.44
1:CA:849:A:C5	1:CA:851:G:C8	3.06	0.44
1:CA:958:U:H2'	1:CA:959:U:C6	2.52	0.44
1:CA:1297:G:N2	1:CA:1299:A:H3'	2.32	0.44
1:CA:1314:A:H2'	1:CA:1315:G:O4'	2.18	0.44
2:CB:26:PRO:O	2:CB:29:ALA:HB2	2.17	0.44
2:CB:194:PRO:O	2:CB:195:ASP:C	2.61	0.44
5:CE:12:LEU:HD13	5:CE:12:LEU:C	2.41	0.44
5:CE:78:HIS:CG	8:CH:104:ARG:HG3	2.53	0.44
6:CF:22:GLU:O	6:CF:26:ILE:HG13	2.17	0.44
6:CF:68:PRO:HG3	6:CF:71:ARG:HH22	1.82	0.44
7:CG:69:VAL:HG12	7:CG:100:ALA:HA	1.99	0.44
10:CJ:51:ARG:NE	10:CJ:61:GLU:HB2	2.32	0.44
19:CS:31:ILE:HG23	19:CS:31:ILE:O	2.17	0.44
25:DA:109:G:H2'	25:DA:110:G:C8	2.47	0.44
25:DA:142(A):C:O2'	25:DA:143:G:H5'	2.16	0.44
25:DA:1161:C:H1'	42:DV:8:GLY:O	2.17	0.44
25:DA:1208:C:C4	25:DA:1209:G:N7	2.86	0.44
25:DA:2464:C:C2'	25:DA:2465:C:O5'	2.66	0.44
25:DA:2553:G:H2'	25:DA:2554:U:H4'	1.99	0.44
25:DA:2554:U:C2	25:DA:2555:U:C5	3.04	0.44
25:DA:2678:C:C2	25:DA:2679:A:C8	3.05	0.44
25:DA:2761:G:H2'	25:DA:2761:G:N3	2.32	0.44
25:DA:2810:A:O2'	29:DE:61:ARG:HB2	2.16	0.44
29:DE:53:PRO:O	29:DE:54:GLN:C	2.60	0.44
29:DE:60:ASN:O	29:DE:61:ARG:C	2.60	0.44
29:DE:149:ARG:HG3	29:DE:149:ARG:NH1	2.32	0.44
30:DF:170:LEU:HD23	30:DF:173:VAL:HG21	1.98	0.44
30:DF:202:PHE:O	30:DF:203:GLN:C	2.59	0.44
31:DG:138:GLN:HB3	31:DG:153:ARG:O	2.16	0.44
34:DN:55:VAL:O	34:DN:56:ASN:C	2.59	0.44
34:DN:90:MET:HE1	34:DN:97:ARG:HD2	1.99	0.44
39:DS:14:VAL:CG1	39:DS:15:ARG:H	2.19	0.44
41:DU:72:HIS:HE1	41:DU:107:ALA:CB	2.30	0.44
44:DX:5:TYR:CE1	49:D2:30:ARG:HB2	2.52	0.44
45:DY:96:ILE:HG13	45:DY:100:ALA:H	1.82	0.44
48:D1:44:PRO:O	48:D1:46:LEU:N	2.50	0.44
1:AA:143:A:H1'	1:AA:144:C:H5'	1.99	0.44
1:AA:209:U:O5'	1:AA:209:U:H6	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:828:G:H2'	1:AA:829:G:C8	2.52	0.44
1:AA:1160:A:H5'	9:AI:102:LEU:HD12	1.99	0.44
1:AA:1422:C:H2'	1:AA:1423:G:C5'	2.38	0.44
2:AB:167:PRO:O	2:AB:171:ALA:N	2.50	0.44
3:AC:119:ARG:HH11	3:AC:119:ARG:HG3	1.82	0.44
3:AC:172:ARG:O	3:AC:173:VAL:CG2	2.65	0.44
4:AD:187:ARG:HG2	4:AD:187:ARG:NH1	2.31	0.44
5:AE:11:ILE:HG22	5:AE:12:LEU:N	2.32	0.44
7:AG:145:ALA:O	7:AG:146:GLU:HB2	2.17	0.44
8:AH:36:LEU:HA	8:AH:39:LEU:HB2	1.98	0.44
8:AH:109:ILE:HG22	8:AH:137:VAL:HB	1.99	0.44
9:AI:104:ARG:O	9:AI:105:ASP:HB2	2.17	0.44
10:AJ:13:HIS:ND1	10:AJ:14:LYS:HG3	2.33	0.44
12:AL:76:ASN:O	12:AL:77:LEU:C	2.61	0.44
25:BA:125:G:H4'	25:BA:126:A:OP2	2.18	0.44
25:BA:225:A:H2'	25:BA:226:G:C5'	2.47	0.44
25:BA:353:G:N1	25:BA:354:G:C5	2.85	0.44
25:BA:384:U:H2'	25:BA:385:C:C6	2.53	0.44
25:BA:1114:G:H2'	25:BA:1115:G:H5''	1.98	0.44
25:BA:1685:C:C3'	25:BA:1686:C:H5''	2.47	0.44
25:BA:1769:G:O2'	25:BA:1958:C:OP1	2.33	0.44
25:BA:2126:A:O2'	25:BA:2127:G:OP2	2.36	0.44
25:BA:2223:G:H2'	25:BA:2224:G:C5'	2.48	0.44
25:BA:2248:C:C2'	25:BA:2249:U:H5'	2.47	0.44
25:BA:2409:G:H2'	25:BA:2410:G:O4'	2.18	0.44
25:BA:2482:G:H22	37:BQ:52:VAL:CG1	2.30	0.44
25:BA:2732:G:C3'	25:BA:2733:A:H5'	2.47	0.44
25:BA:2742:C:OP1	56:B9:35:ARG:HD3	2.16	0.44
25:BA:2801:A:H8	25:BA:2801(A):A:H62	1.66	0.44
25:BA:2893:G:H5'	25:BA:2893:G:H8	1.83	0.44
26:BB:41:U:C5	31:BG:69:ALA:HB1	2.52	0.44
30:BF:64:ILE:HG22	30:BF:76:GLY:O	2.18	0.44
30:BF:132:VAL:CG2	30:BF:133:ASN:N	2.66	0.44
31:BG:14:GLU:O	31:BG:17:PRO:HG2	2.17	0.44
31:BG:16:ARG:HG3	31:BG:16:ARG:HH11	1.82	0.44
31:BG:56:ALA:O	31:BG:60:LEU:HB2	2.18	0.44
32:BH:155:SER:OG	32:BH:156:ALA:N	2.50	0.44
33:BI:42:SER:C	33:BI:44:LEU:N	2.75	0.44
36:BP:7:ARG:HB3	36:BP:8:PRO:CD	2.47	0.44
39:BS:88:ASP:CG	39:BS:89:ARG:H	2.24	0.44
40:BT:137:LYS:HD3	40:BT:137:LYS:HA	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BZ:33:LEU:HG	46:BZ:34:ASN:N	2.31	0.44
51:B4:52:SER:OG	51:B4:53:THR:N	2.50	0.44
1:CA:207:C:H42	1:CA:209:U:H1'	1.82	0.44
1:CA:607:C:H4'	16:CP:10:GLY:C	2.42	0.44
1:CA:665:G:C6	1:CA:666:G:N7	2.85	0.44
1:CA:885:A:H2'	1:CA:886:A:C8	2.53	0.44
1:CA:1142:G:C6	1:CA:1143:C:C5	3.06	0.44
1:CA:1171:G:H3'	3:CC:3:ASN:HD22	1.78	0.44
1:CA:1197:G:H5''	14:CN:5:ALA:CB	2.46	0.44
2:CB:51:LEU:HD23	2:CB:201:ILE:HD12	1.99	0.44
4:CD:25:ARG:O	4:CD:27:TYR:N	2.51	0.44
7:CG:95:ARG:HH11	7:CG:95:ARG:HG3	1.82	0.44
8:CH:41:ARG:NH2	8:CH:123:GLU:OE2	2.50	0.44
9:CI:35:GLU:O	9:CI:38:GLN:HB2	2.17	0.44
20:CT:87:LYS:O	20:CT:91:LEU:HG	2.17	0.44
22:CW:21:A:C5	22:CW:48:C:C5	3.05	0.44
25:DA:95:G:H1'	49:D2:47:ASN:ND2	2.31	0.44
25:DA:314:A:H2'	25:DA:315:G:C8	2.53	0.44
25:DA:336:C:O3'	45:DY:7:VAL:HG13	2.18	0.44
25:DA:353:G:N1	25:DA:354:G:C5	2.85	0.44
25:DA:384:U:H2'	25:DA:385:C:H6	1.83	0.44
25:DA:886:C:H2'	25:DA:887:A:C4'	2.47	0.44
25:DA:1203:G:OP2	25:DA:1204:A:H2'	2.17	0.44
25:DA:1274:A:N3	25:DA:1297:C:H1'	2.32	0.44
25:DA:1309:G:C2'	25:DA:1310:G:H5'	2.48	0.44
25:DA:1352:U:O2	25:DA:1570:A:H2	2.00	0.44
25:DA:1485:G:H1'	25:DA:1505:C:N4	2.32	0.44
25:DA:1603:A:H8	25:DA:1603:A:H5'	1.83	0.44
25:DA:1899:G:H22	25:DA:1902:C:N4	2.13	0.44
25:DA:2033:A:O2'	25:DA:2034:U:O5'	2.36	0.44
25:DA:2223:G:H2'	25:DA:2224:G:C5'	2.48	0.44
25:DA:2571:C:H5'	25:DA:2572:A:H5''	1.97	0.44
25:DA:2687:U:H2'	25:DA:2688:U:O4'	2.17	0.44
25:DA:2743:C:H2'	25:DA:2744:G:O4'	2.17	0.44
26:DB:85:G:O6	26:DB:93:G:C6	2.70	0.44
27:DC:23:ASP:C	27:DC:25:ALA:N	2.72	0.44
27:DC:191:ALA:O	27:DC:195:ALA:HB3	2.17	0.44
28:DD:44:ASN:HB3	28:DD:49:ILE:CA	2.41	0.44
31:DG:55:LYS:C	31:DG:57:ALA:N	2.75	0.44
32:DH:73:ALA:O	32:DH:76:VAL:HB	2.18	0.44
33:DI:65:ALA:CB	33:DI:131:LYS:HE2	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DN:56:ASN:CA	34:DN:125:GLY:H	2.08	0.44
35:DO:87:ILE:HG22	35:DO:88:ASN:O	2.17	0.44
36:DP:50:ARG:HD3	55:D8:7:HIS:CD2	2.53	0.44
39:DS:54:LEU:H	39:DS:54:LEU:CD2	2.28	0.44
39:DS:59:LYS:HE3	39:DS:68:GLN:NE2	2.32	0.44
43:DW:62:HIS:O	43:DW:63:ASP:C	2.60	0.44
46:DZ:77:ASP:OD2	46:DZ:79:ARG:O	2.36	0.44
1:AA:35:G:C2	1:AA:533:G:N3	2.85	0.44
1:AA:168:C:H2'	1:AA:169:C:H6	1.82	0.44
1:AA:898:U:O2	5:AE:19:MET:HB2	2.16	0.44
1:AA:931:G:H2'	1:AA:932:U:C6	2.53	0.44
1:AA:1042:C:H4'	10:AJ:52:GLY:N	2.33	0.44
1:AA:1080:C:H2'	1:AA:1081:G:O4'	2.18	0.44
1:AA:1275:G:H2'	1:AA:1276:G:H8	1.81	0.44
1:AA:1370:C:H2'	1:AA:1371:C:C6	2.53	0.44
1:AA:1387:G:H1'	1:AA:1496:A:C4'	2.47	0.44
1:AA:1487:U:H2'	1:AA:1488:G:H8	1.75	0.44
5:AE:6:PHE:HD2	5:AE:36:ASP:HB3	1.79	0.44
5:AE:31:LEU:HD22	5:AE:31:LEU:HA	1.89	0.44
5:AE:150:ARG:HB2	5:AE:150:ARG:NH1	2.32	0.44
7:AG:144:MET:HE1	22:AW:40:C:O2	2.17	0.44
9:AI:17:VAL:HG22	9:AI:63:ILE:HD13	1.99	0.44
12:AL:77:LEU:HD21	12:AL:107:ALA:CB	2.47	0.44
16:AP:6:LEU:HD12	16:AP:6:LEU:N	2.33	0.44
19:AS:15:LEU:N	19:AS:15:LEU:HD22	2.33	0.44
20:AT:24:LEU:HD13	20:AT:24:LEU:O	2.18	0.44
22:AW:57:G:N2	22:AW:58:A:H4'	2.33	0.44
23:AV:30:G:N1	23:AV:43:G:C4	2.85	0.44
25:BA:221:A:O2'	25:BA:222:A:OP2	2.32	0.44
25:BA:271(M):G:O2'	25:BA:271(N):U:H3'	2.18	0.44
25:BA:1037:G:H1	25:BA:1118:C:H42	1.64	0.44
25:BA:1192:G:C2'	25:BA:1193:G:H5'	2.48	0.44
25:BA:1446:C:H2'	25:BA:1447:G:H5'	1.98	0.44
25:BA:1603:A:H5'	25:BA:1603:A:H8	1.83	0.44
25:BA:1652:A:N6	38:BR:11:ASN:HD22	1.87	0.44
25:BA:2262:U:H2'	25:BA:2263:C:H5'	2.00	0.44
25:BA:2761:G:H2'	25:BA:2761:G:N3	2.32	0.44
25:BA:2846:G:H2'	25:BA:2847:U:C6	2.53	0.44
28:BD:23:GLU:OE2	28:BD:23:GLU:HA	2.18	0.44
31:BG:101:ILE:O	31:BG:105:LYS:HG3	2.18	0.44
31:BG:161:THR:CG2	31:BG:162:THR:N	2.79	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BG:165:THR:OG1	31:BG:168:GLU:CB	2.66	0.44
32:BH:94:TYR:CG	32:BH:107:VAL:HG12	2.53	0.44
32:BH:121:ILE:HD13	32:BH:141:VAL:HG22	1.99	0.44
35:BO:29:ASN:N	35:BO:29:ASN:OD1	2.49	0.44
36:BP:120:ALA:HB1	36:BP:138:LEU:HD12	2.00	0.44
36:BP:140:ALA:O	36:BP:141:ALA:CB	2.66	0.44
38:BR:34:ILE:HG22	38:BR:35:THR:N	2.31	0.44
38:BR:104:ARG:NH1	38:BR:109:ALA:HB3	2.33	0.44
39:BS:26:LEU:HA	39:BS:38:GLN:O	2.18	0.44
41:BU:57:PHE:O	41:BU:59:ARG:N	2.50	0.44
43:BW:17:VAL:O	43:BW:20:VAL:N	2.49	0.44
43:BW:27:LYS:CE	43:BW:31:GLU:HG2	2.48	0.44
47:B0:10:THR:C	47:B0:12:ASN:H	2.25	0.44
55:B8:64:TYR:CD1	55:B8:64:TYR:N	2.86	0.44
1:CA:926:A:C2	1:CA:1214:G:N3	2.85	0.44
1:CA:1056:G:O3'	2:CB:103:THR:CG2	2.66	0.44
1:CA:1277:C:H5'	13:CM:44:ARG:HH22	1.82	0.44
1:CA:1400:A:C2	1:CA:1460:A:C2	3.06	0.44
3:CC:73:PRO:C	3:CC:76:VAL:HG22	2.43	0.44
4:CD:46:LYS:O	4:CD:47:ARG:C	2.59	0.44
4:CD:110:PHE:HD1	4:CD:110:PHE:N	2.15	0.44
4:CD:127:THR:HG23	4:CD:149:ALA:HB2	2.00	0.44
4:CD:158:ILE:HG22	4:CD:181:MET:HE1	2.00	0.44
5:CE:6:PHE:HD2	5:CE:36:ASP:HB3	1.83	0.44
5:CE:78:HIS:CB	8:CH:104:ARG:HG3	2.47	0.44
5:CE:148:VAL:HG21	8:CH:107:LEU:HD22	2.00	0.44
9:CI:47:LEU:N	9:CI:47:LEU:CD1	2.81	0.44
13:CM:28:ALA:C	13:CM:30:ALA:N	2.75	0.44
13:CM:91:ARG:HH11	19:CS:81:ARG:HH22	1.65	0.44
20:CT:26:ASN:HB2	20:CT:71:THR:HG21	1.77	0.44
22:CW:1:G:N1	22:CW:2:C:N3	2.66	0.44
22:CW:2:C:C2	22:CW:3:C:C5	3.05	0.44
22:CW:13:C:O2	22:CW:14:A:C8	2.70	0.44
25:DA:664:C:O3'	25:DA:941:A:OP1	2.36	0.44
25:DA:921:G:H4'	25:DA:2269:A:C5	2.52	0.44
25:DA:1025:G:C4	25:DA:1135:C:H1'	2.52	0.44
25:DA:1337:G:H2'	25:DA:1338:G:H8	1.82	0.44
25:DA:1550:C:H2'	25:DA:1551:C:H6	1.82	0.44
25:DA:1847:A:H3'	25:DA:1848:A:C5'	2.48	0.44
25:DA:1953:A:C2	25:DA:2549:G:N3	2.84	0.44
25:DA:2150:U:H2'	25:DA:2151:G:H8	1.79	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2195:C:C2'	25:DA:2196:C:H5'	2.47	0.44
25:DA:2469:A:C2	25:DA:2470:G:H1'	2.51	0.44
25:DA:2672:G:H3'	25:DA:2673:G:H5''	1.97	0.44
25:DA:2719:G:OP1	40:DT:100:TYR:OH	2.36	0.44
25:DA:2744:G:H21	32:DH:143:GLN:HE22	1.65	0.44
25:DA:2808:U:H5'	25:DA:2891:G:O6	2.16	0.44
26:DB:88:C:N4	26:DB:89:G:N1	2.64	0.44
29:DE:11:MET:CB	29:DE:24:THR:HA	2.47	0.44
29:DE:128:SER:O	29:DE:130:GLY:N	2.50	0.44
30:DF:68:LYS:HB3	30:DF:69:HIS:H	1.43	0.44
31:DG:64:THR:CG2	31:DG:65:GLY:H	2.26	0.44
31:DG:95:ARG:C	31:DG:96:ARG:O	2.59	0.44
31:DG:161:THR:CG2	31:DG:162:THR:N	2.79	0.44
34:DN:27:ALA:HA	34:DN:30:ILE:HB	1.98	0.44
34:DN:62:VAL:O	34:DN:62:VAL:HG13	2.17	0.44
34:DN:87:LEU:O	34:DN:88:GLU:C	2.60	0.44
36:DP:91:PHE:H	36:DP:91:PHE:HD1	1.61	0.44
37:DQ:37:LEU:HD21	37:DQ:130:LYS:CB	2.45	0.44
38:DR:11:ASN:O	38:DR:12:ARG:CG	2.60	0.44
40:DT:45:PHE:HE2	40:DT:63:VAL:HB	1.82	0.44
42:DV:28:GLU:O	42:DV:29:PRO:O	2.36	0.44
43:DW:84:ARG:HB2	43:DW:96:ILE:HG22	1.99	0.44
46:DZ:11:GLU:CD	46:DZ:11:GLU:N	2.73	0.44
46:DZ:21:ALA:HB3	46:DZ:23:LYS:HD3	1.98	0.44
49:D2:8:LYS:O	49:D2:11:GLU:N	2.50	0.44
1:AA:607:C:O2'	1:AA:608:G:H5'	2.18	0.44
1:AA:1089:C:C4	1:AA:1090:G:C8	3.06	0.44
1:AA:1140:C:C2	1:AA:1162:G:N2	2.85	0.44
1:AA:1219:A:C8	1:AA:1284:C:H1'	2.52	0.44
1:AA:1434:G:H2'	1:AA:1435:G:H8	1.83	0.44
2:AB:127:ILE:C	2:AB:129:GLU:N	2.76	0.44
4:AD:25:ARG:O	4:AD:27:TYR:N	2.50	0.44
4:AD:80:GLU:OE2	4:AD:80:GLU:HA	2.18	0.44
5:AE:105:VAL:N	5:AE:106:PRO:HD2	2.32	0.44
10:AJ:97:GLU:C	10:AJ:98:ILE:HD12	2.43	0.44
11:AK:31:THR:O	11:AK:31:THR:HG23	2.17	0.44
12:AL:126:LYS:HE2	12:AL:127:GLU:H	1.82	0.44
13:AM:17:VAL:O	13:AM:20:THR:HB	2.17	0.44
13:AM:79:LYS:O	13:AM:80:ARG:C	2.61	0.44
13:AM:89:GLY:C	13:AM:90:LEU:O	2.59	0.44
14:AN:27:CYS:O	14:AN:29:ARG:N	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:63:ILE:HD12	20:AT:81:LYS:HG2	1.99	0.44
22:AW:53:G:N1	22:AW:54:U:C4	2.86	0.44
23:AV:25:U:O2	23:AV:26:C:C1'	2.66	0.44
25:BA:228:A:H2'	25:BA:230:U:O4'	2.18	0.44
25:BA:271(Q):G:C6	25:BA:271(R):G:O6	2.71	0.44
25:BA:308:G:H1'	25:BA:329:G:N2	2.32	0.44
25:BA:320:A:H3'	30:BF:136:THR:HG22	1.99	0.44
25:BA:1221(A):C:O2'	25:BA:1222:C:H5'	2.18	0.44
25:BA:2017:U:O2	52:B5:10:LYS:HB2	2.18	0.44
25:BA:2073:C:O2'	25:BA:2074:U:H5'	2.18	0.44
25:BA:2685:G:OP1	40:BT:51:ARG:NH2	2.27	0.44
25:BA:2687:U:H2'	25:BA:2688:U:O4'	2.17	0.44
26:BB:6:C:C2	26:BB:116:G:N2	2.85	0.44
27:BC:214:VAL:O	27:BC:216:THR:N	2.51	0.44
28:BD:25:THR:C	28:BD:27:THR:N	2.75	0.44
29:BE:34:VAL:O	29:BE:35:GLN:CB	2.58	0.44
29:BE:111:ARG:CD	29:BE:160:TYR:HE1	2.31	0.44
30:BF:36:VAL:HG12	30:BF:183:VAL:HG21	1.99	0.44
30:BF:139:PHE:HB3	30:BF:166:ALA:HB1	1.98	0.44
31:BG:39:ILE:HB	31:BG:157:ILE:HG22	1.99	0.44
31:BG:46:ALA:HB3	31:BG:82:LEU:HD11	1.99	0.44
31:BG:111:LEU:HA	31:BG:114:ILE:HD12	1.94	0.44
31:BG:123:ASN:C	31:BG:125:PHE:N	2.76	0.44
35:BO:99:PHE:N	35:BO:99:PHE:CD1	2.86	0.44
36:BP:48:PRO:HG2	36:BP:49:ARG:N	2.29	0.44
36:BP:136:GLU:O	36:BP:139:LYS:HB3	2.17	0.44
41:BU:31:SER:CB	41:BU:34:LYS:HB2	2.44	0.44
41:BU:111:GLU:OE2	41:BU:111:GLU:HA	2.18	0.44
42:BV:16:PRO:O	42:BV:96:ILE:O	2.34	0.44
43:BW:22:ASP:HA	43:BW:25:ARG:NH1	2.28	0.44
43:BW:68:ARG:HD2	43:BW:110:LYS:HB2	1.97	0.44
44:BX:57:LEU:HD21	44:BX:78:LYS:HE2	1.98	0.44
46:BZ:157:LEU:HA	46:BZ:158:PRO:HD2	1.80	0.44
49:B2:8:LYS:O	49:B2:11:GLU:N	2.50	0.44
53:B6:30:THR:HB	53:B6:31:PRO:CD	2.46	0.44
55:B8:7:HIS:CD2	55:B8:59:LYS:NZ	2.86	0.44
55:B8:29:LYS:HE2	55:B8:44:LYS:HB3	1.99	0.44
1:CA:794:C:O2'	1:CA:878:A:N1	2.50	0.44
1:CA:797:A:O2'	1:CA:798:A:H5'	2.18	0.44
1:CA:816:U:H3	1:CA:830:G:H1	1.66	0.44
1:CA:853:G:O6	1:CA:854:C:N4	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:964:G:H1	1:CA:1199:C:N4	2.16	0.44
1:CA:1005:C:H1'	1:CA:1017:A:C2	2.51	0.44
1:CA:1209:C:OP1	13:CM:115:LYS:HE3	2.17	0.44
1:CA:1236:G:C6	1:CA:1260:A:C8	3.06	0.44
1:CA:1405:G:C2	1:CA:1455:C:C2	3.05	0.44
2:CB:19:HIS:CG	2:CB:20:GLU:H	2.35	0.44
2:CB:208:ILE:HG22	2:CB:212:GLN:HB2	2.00	0.44
2:CB:223:ILE:O	2:CB:227:GLY:N	2.51	0.44
2:CB:228:GLY:O	2:CB:229:VAL:C	2.60	0.44
7:CG:82:GLY:O	22:CW:37:A:N1	2.51	0.44
7:CG:137:LYS:O	7:CG:138:LYS:C	2.61	0.44
8:CH:97:VAL:HG13	8:CH:98:LYS:N	2.32	0.44
9:CI:17:VAL:HG22	9:CI:63:ILE:HD13	1.99	0.44
9:CI:98:PRO:C	9:CI:100:GLY:H	2.25	0.44
9:CI:98:PRO:C	9:CI:100:GLY:N	2.74	0.44
13:CM:123:ALA:HB2	22:CY:39:U:C4'	2.48	0.44
15:CO:39:LEU:CD1	15:CO:56:LEU:HB2	2.47	0.44
16:CP:75:ARG:C	16:CP:77:ALA:H	2.25	0.44
18:CR:63:GLN:HA	18:CR:63:GLN:OE1	2.17	0.44
18:CR:66:LEU:CD1	18:CR:70:ILE:HD11	2.37	0.44
20:CT:53:LEU:CG	20:CT:102:GLY:HA3	2.39	0.44
25:DA:348:G:C4	25:DA:349:G:C8	3.06	0.44
25:DA:859:G:O4'	25:DA:2268:A:H1'	2.17	0.44
25:DA:971:C:C2'	25:DA:972:G:H5'	2.48	0.44
25:DA:2134:A:H2	25:DA:2159:G:H1'	1.72	0.44
25:DA:2172:U:C2'	25:DA:2173:A:OP1	2.65	0.44
25:DA:2735:G:H2'	25:DA:2736:G:C8	2.53	0.44
25:DA:2846:G:H2'	25:DA:2847:U:C6	2.53	0.44
26:DB:60:C:H2'	26:DB:61:G:C8	2.42	0.44
26:DB:83:G:H2'	26:DB:84:C:C6	2.53	0.44
28:DD:83:GLU:OE1	28:DD:104:TYR:OH	2.31	0.44
29:DE:119:ARG:HG2	29:DE:160:TYR:CD2	2.53	0.44
29:DE:153:GLY:O	29:DE:154:LYS:C	2.59	0.44
30:DF:3:GLU:HG3	30:DF:19:GLU:CG	2.48	0.44
31:DG:101:ILE:O	31:DG:105:LYS:HG3	2.18	0.44
31:DG:152:LEU:HG	31:DG:153:ARG:N	2.33	0.44
31:DG:173:LEU:HD22	31:DG:178:PHE:CE2	2.53	0.44
33:DI:114:LEU:O	33:DI:115:ALA:CB	2.65	0.44
34:DN:7:LYS:O	34:DN:8:GLN:C	2.60	0.44
36:DP:131:SER:O	36:DP:132:LYS:C	2.58	0.44
37:DQ:141:GLN:HB2	46:DZ:98:MET:HA	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DV:61:VAL:HA	42:DV:94:LEU:HD23	2.00	0.44
43:DW:10:VAL:HG23	43:DW:101:SER:O	2.17	0.44
45:DY:8:LYS:HE3	45:DY:72:VAL:C	2.41	0.44
45:DY:54:LYS:HD3	45:DY:55:TYR:CZ	2.46	0.44
50:D3:35:ARG:HG3	50:D3:35:ARG:NH1	2.31	0.44
55:D8:61:LEU:C	55:D8:63:PRO:HD2	2.43	0.44
1:AA:115:G:H2'	1:AA:116:C:O4'	2.17	0.44
1:AA:437:C:H2'	1:AA:438:C:C6	2.53	0.44
1:AA:547:C:H5'	17:AQ:32:TYR:CE2	2.52	0.44
1:AA:713:G:C5	1:AA:714:G:H1'	2.53	0.44
1:AA:960:A:H3'	1:AA:960:A:N3	2.33	0.44
1:AA:1286:G:C2	1:AA:1312:G:N3	2.85	0.44
1:AA:1490:A:H2'	1:AA:1491:C:H6	1.81	0.44
2:AB:19:HIS:CG	2:AB:20:GLU:H	2.35	0.44
2:AB:171:ALA:HA	2:AB:174:VAL:CG2	2.47	0.44
4:AD:150:GLU:O	4:AD:153:ARG:HG3	2.18	0.44
7:AG:140:ASP:HA	7:AG:143:ARG:HH11	1.82	0.44
9:AI:55:ALA:HB1	9:AI:59:PHE:CE1	2.53	0.44
10:AJ:51:ARG:NE	10:AJ:61:GLU:HB2	2.33	0.44
11:AK:62:GLN:C	11:AK:64:ALA:N	2.76	0.44
11:AK:96:ARG:HA	11:AK:99:GLN:CG	2.47	0.44
13:AM:49:THR:N	13:AM:52:GLU:OE1	2.48	0.44
17:AQ:65:ILE:HD11	17:AQ:72:ARG:HG2	1.99	0.44
22:AY:36:A:N6	24:AX:19:U:H3	2.14	0.44
25:BA:301:G:C6	25:BA:317:G:C5	3.06	0.44
25:BA:353:G:C2'	25:BA:354:G:H5'	2.47	0.44
25:BA:1301:A:O2'	25:BA:1302:A:P	2.76	0.44
25:BA:1550:C:H2'	25:BA:1551:C:H6	1.82	0.44
25:BA:2283:C:C2'	25:BA:2284:C:H5'	2.47	0.44
25:BA:2637:U:C2'	25:BA:2638:G:H5'	2.48	0.44
25:BA:2755:C:C4	56:B9:19:ARG:NH1	2.85	0.44
25:BA:2801(A):A:C2	25:BA:2803:C:O2	2.71	0.44
28:BD:13:ARG:HA	28:BD:16:MET:HB2	1.98	0.44
28:BD:16:MET:HE2	28:BD:208:LYS:HD2	1.99	0.44
28:BD:213:ARG:HD2	28:BD:213:ARG:HA	1.53	0.44
29:BE:108:SER:HB3	29:BE:165:VAL:HG21	1.99	0.44
29:BE:153:GLY:O	29:BE:154:LYS:C	2.60	0.44
30:BF:80:ALA:O	30:BF:83:PHE:HB2	2.18	0.44
32:BH:43:VAL:CG1	32:BH:52:VAL:HA	2.30	0.44
32:BH:91:GLY:O	32:BH:92:ILE:O	2.35	0.44
33:BI:40:THR:C	33:BI:42:SER:N	2.74	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BN:7:LYS:O	34:BN:8:GLN:C	2.60	0.44
36:BP:8:PRO:O	36:BP:9:ASN:HB3	2.17	0.44
36:BP:66:GLY:O	36:BP:67:MET:CB	2.65	0.44
36:BP:111:ARG:NH1	36:BP:149:GLU:HG3	2.32	0.44
37:BQ:17:LEU:C	37:BQ:18:LYS:HD2	2.42	0.44
38:BR:33:ARG:N	38:BR:33:ARG:HD2	2.33	0.44
40:BT:3:ARG:HG3	40:BT:6:LEU:HB2	1.98	0.44
43:BW:62:HIS:O	43:BW:63:ASP:C	2.60	0.44
45:BY:17:SER:HB3	45:BY:71:LYS:CD	2.44	0.44
47:B0:70:GLN:OE1	47:B0:72:ARG:HD3	2.17	0.44
48:B1:62:VAL:HG22	48:B1:63:ALA:N	2.32	0.44
53:B6:19:ARG:CD	53:B6:19:ARG:H	2.30	0.44
1:CA:109:A:H2'	1:CA:110:G:C8	2.53	0.44
1:CA:109:A:C4	1:CA:110:G:C8	3.06	0.44
1:CA:578:G:O4'	1:CA:579:C:H5	2.00	0.44
1:CA:985:C:H2'	1:CA:986:C:H6	1.82	0.44
1:CA:1145:C:H2'	1:CA:1146:G:C8	2.53	0.44
2:CB:121:LEU:HD11	2:CB:130:ARG:HD2	1.99	0.44
2:CB:236:TYR:N	2:CB:236:TYR:CD1	2.85	0.44
3:CC:64:VAL:HG13	3:CC:97:LYS:HZ2	1.83	0.44
3:CC:95:THR:O	3:CC:97:LYS:N	2.51	0.44
3:CC:126:ARG:HG2	3:CC:126:ARG:NH1	2.32	0.44
3:CC:172:ARG:C	3:CC:173:VAL:HG23	2.43	0.44
7:CG:6:ARG:HG2	7:CG:6:ARG:O	2.17	0.44
7:CG:49:ILE:CG2	7:CG:53:LYS:HD2	2.45	0.44
8:CH:109:ILE:HD11	8:CH:120:THR:CG2	2.48	0.44
9:CI:8:GLY:HA2	9:CI:79:LEU:HB3	1.99	0.44
9:CI:28:VAL:CG2	9:CI:63:ILE:HB	2.27	0.44
11:CK:27:ASN:HA	11:CK:55:LYS:O	2.17	0.44
13:CM:92:HIS:CE1	13:CM:98:VAL:HG21	2.52	0.44
21:CU:6:ARG:HG3	21:CU:15:ARG:NH1	2.33	0.44
22:CW:19:G:OP2	22:CW:19:G:C8	2.70	0.44
25:DA:7:G:OP1	34:DN:121:LYS:NZ	2.51	0.44
25:DA:125:G:H4'	25:DA:126:A:OP2	2.18	0.44
25:DA:272:G:N1	25:DA:421:U:N3	2.66	0.44
25:DA:306:U:C5	25:DA:307:G:C5	3.05	0.44
25:DA:353:G:C2'	25:DA:354:G:H5'	2.47	0.44
25:DA:875:G:H2'	25:DA:876:C:O4'	2.17	0.44
25:DA:1109:C:C5	25:DA:1110:G:C5	3.06	0.44
25:DA:1407:C:H42	25:DA:1595:G:H1	1.66	0.44
25:DA:1451:C:N3	25:DA:1459:G:O6	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2611:U:O2	52:D5:3:LYS:HE3	2.18	0.44
25:DA:2849:U:P	40:DT:95:ARG:NE	2.91	0.44
27:DC:83:ILE:HA	27:DC:94:VAL:HG21	1.98	0.44
28:DD:22:SER:O	28:DD:23:GLU:C	2.60	0.44
28:DD:218:ARG:HB3	28:DD:219:PRO:HD2	1.98	0.44
31:DG:42:GLY:O	31:DG:43:LEU:HB2	2.17	0.44
31:DG:51:ARG:CZ	31:DG:53:LEU:HD21	2.48	0.44
31:DG:106:LEU:CA	31:DG:110:ALA:HB3	2.44	0.44
32:DH:121:ILE:HD13	32:DH:141:VAL:HG22	1.99	0.44
32:DH:127:GLU:HB3	32:DH:128:PRO:HD2	2.00	0.44
32:DH:128:PRO:HG2	32:DH:129:THR:HG23	1.99	0.44
33:DI:54:GLN:O	33:DI:57:ARG:CA	2.66	0.44
33:DI:65:ALA:CA	33:DI:131:LYS:HE2	2.46	0.44
37:DQ:141:GLN:HB2	46:DZ:99:TYR:HD2	1.83	0.44
39:DS:20:ARG:HD3	39:DS:20:ARG:HA	1.76	0.44
40:DT:58:ASN:OD1	40:DT:58:ASN:O	2.35	0.44
41:DU:111:GLU:OE2	41:DU:111:GLU:HA	2.18	0.44
45:DY:46:LYS:C	45:DY:47:LYS:HG3	2.43	0.44
50:D3:2:PRO:O	50:D3:39:ASP:HB3	2.16	0.44
51:D4:48:ILE:HD12	51:D4:48:ILE:N	2.24	0.44
54:D7:24:THR:HG23	54:D7:27:GLY:H	1.82	0.44
55:D8:29:LYS:HE2	55:D8:44:LYS:HB3	1.99	0.44
1:AA:418:G:H2'	1:AA:419:G:O4'	2.18	0.44
1:AA:666:G:H2'	1:AA:667:A:C8	2.53	0.44
1:AA:1113:G:H2'	1:AA:1114:C:C6	2.52	0.44
1:AA:1149:A:O5'	1:AA:1149:A:C8	2.71	0.44
2:AB:25:ASN:OD1	2:AB:27:LYS:HB2	2.18	0.44
2:AB:114:ARG:HG3	2:AB:114:ARG:NH1	2.30	0.44
2:AB:236:TYR:N	2:AB:236:TYR:CD1	2.85	0.44
4:AD:100:ARG:CZ	4:AD:137:SER:HA	2.48	0.44
5:AE:76:ILE:HG13	5:AE:142:LEU:HD13	1.99	0.44
11:AK:19:ALA:HB3	11:AK:82:VAL:HG23	1.99	0.44
12:AL:58:VAL:O	12:AL:60:LEU:HD22	2.18	0.44
13:AM:96:LEU:C	13:AM:110:ARG:NE	2.76	0.44
13:AM:97:PRO:N	13:AM:110:ARG:HD2	2.30	0.44
13:AM:100:GLY:O	13:AM:101:GLN:HG3	2.17	0.44
18:AR:26:LEU:HD21	18:AR:42:ARG:CZ	2.47	0.44
22:AW:66:U:H5''	53:B6:28:ARG:HH22	1.81	0.44
22:AY:28:G:N2	22:AY:42:C:H42	2.13	0.44
25:BA:83:G:C2	25:BA:102:G:H2'	2.53	0.44
25:BA:237:C:O2'	25:BA:238:C:H5'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:283:A:HO2'	25:BA:284:U:P	2.41	0.44
25:BA:379:G:C6	25:BA:380:U:N3	2.86	0.44
25:BA:384:U:H2'	25:BA:385:C:H6	1.83	0.44
25:BA:579:G:H2'	25:BA:580:C:C6	2.53	0.44
25:BA:859:G:O4'	25:BA:2268:A:H1'	2.17	0.44
25:BA:878:A:N6	25:BA:899:A:O2'	2.51	0.44
25:BA:971:C:C2'	25:BA:972:G:H5'	2.47	0.44
25:BA:971:C:O2'	25:BA:972:G:H5'	2.18	0.44
25:BA:1208:C:C4	25:BA:1209:G:N7	2.86	0.44
25:BA:2441:C:H4'	25:BA:2441:C:OP1	2.18	0.44
25:BA:2626:C:O2'	25:BA:2627:G:H5'	2.18	0.44
25:BA:2692:C:H1'	25:BA:2847:U:O2'	2.18	0.44
29:BE:66:HIS:O	29:BE:66:HIS:ND1	2.38	0.44
30:BF:72:ARG:HA	30:BF:72:ARG:HH11	1.82	0.44
31:BG:152:LEU:HG	31:BG:153:ARG:N	2.33	0.44
32:BH:41:MET:CA	32:BH:53:GLU:HB2	2.48	0.44
33:BI:109:ILE:HD12	33:BI:109:ILE:N	2.33	0.44
34:BN:57:ALA:C	34:BN:58:ASP:O	2.61	0.44
38:BR:9:LYS:HE2	38:BR:43:GLU:OE2	2.16	0.44
39:BS:30:ARG:NH2	39:BS:62:LYS:HD2	2.23	0.44
46:BZ:77:ASP:OD2	46:BZ:79:ARG:O	2.36	0.44
46:BZ:109:ALA:O	46:BZ:111:VAL:HG12	2.16	0.44
1:CA:274:A:OP2	17:CQ:95:TYR:OH	2.19	0.44
1:CA:916:G:H5''	7:CG:102:ARG:HH22	1.79	0.44
1:CA:1207:C:H42	13:CM:104:ARG:HD2	1.83	0.44
1:CA:1302:C:C3'	1:CA:1303:C:H5''	2.47	0.44
1:CA:1482:G:H5''	1:CA:1483:U:OP1	2.17	0.44
3:CC:134:ILE:HG23	3:CC:151:VAL:HB	2.00	0.44
3:CC:148:GLY:N	3:CC:203:PHE:HB3	2.33	0.44
3:CC:189:ALA:O	3:CC:191:THR:N	2.50	0.44
6:CF:7:ASN:O	6:CF:8:ILE:HG13	2.18	0.44
7:CG:78:ARG:CD	7:CG:79:ARG:H	2.24	0.44
7:CG:153:HIS:CE1	11:CK:57:THR:HG23	2.53	0.44
7:CG:154:TYR:O	7:CG:156:TRP:N	2.50	0.44
8:CH:77:GLU:HG2	8:CH:78:GLN:N	2.32	0.44
9:CI:33:PHE:CZ	9:CI:47:LEU:HD13	2.53	0.44
10:CJ:48:THR:CB	10:CJ:62:HIS:HB3	2.48	0.44
11:CK:21:ILE:HG13	11:CK:30:VAL:CG1	2.46	0.44
12:CL:26:ALA:O	12:CL:33:ARG:HD2	2.18	0.44
13:CM:88:ARG:HG2	13:CM:98:VAL:HG11	2.00	0.44
14:CN:23:ARG:NH1	14:CN:30:ALA:HB2	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CO:74:ASP:C	15:CO:76:GLU:N	2.70	0.44
17:CQ:83:ASP:O	17:CQ:86:GLU:HB2	2.18	0.44
18:CR:30:ASP:C	18:CR:32:ARG:H	2.25	0.44
20:CT:100:ILE:C	20:CT:102:GLY:H	2.26	0.44
22:CW:1:G:C2	22:CW:2:C:C2	3.05	0.44
25:DA:97:C:H5''	49:D2:2:LYS:HB3	1.95	0.44
25:DA:207:A:H2'	25:DA:208:C:O4'	2.17	0.44
25:DA:271(M):G:O2'	25:DA:271(N):U:H3'	2.18	0.44
25:DA:579:G:H2'	25:DA:580:C:C6	2.53	0.44
25:DA:666:G:O2'	25:DA:667:U:H5'	2.17	0.44
25:DA:1051:G:N2	25:DA:1052:C:C5	2.83	0.44
25:DA:1344:G:N3	25:DA:1385:G:O4'	2.50	0.44
25:DA:1384:A:H1'	25:DA:1405:U:O4'	2.18	0.44
25:DA:1600:C:O2'	25:DA:1601:G:H5'	2.18	0.44
25:DA:1614:A:H62	43:DW:93:ALA:CB	2.23	0.44
25:DA:1668:A:H4'	25:DA:1669:A:O5'	2.18	0.44
25:DA:1717:G:C2'	25:DA:1718:G:H5''	2.47	0.44
25:DA:2287:A:N1	25:DA:2346:A:C2	2.81	0.44
25:DA:2313:C:OP1	31:DG:71:THR:CG2	2.65	0.44
25:DA:2408:U:O5'	25:DA:2408:U:H6	2.01	0.44
25:DA:2409:G:H2'	25:DA:2410:G:O4'	2.18	0.44
25:DA:2479:G:OP1	25:DA:2537:U:H1'	2.18	0.44
25:DA:2626:C:O2'	25:DA:2627:G:H5'	2.18	0.44
25:DA:2869:G:H2'	25:DA:2870:C:C6	2.52	0.44
27:DC:127:LEU:O	27:DC:129:ARG:N	2.51	0.44
28:DD:142:VAL:HG21	28:DD:191:ALA:HB1	2.00	0.44
30:DF:19:GLU:CD	30:DF:19:GLU:N	2.76	0.44
30:DF:187:VAL:HG12	36:DP:7:ARG:NH2	2.33	0.44
32:DH:85:LYS:HD3	32:DH:133:VAL:CB	2.41	0.44
32:DH:97:ARG:O	32:DH:125:VAL:HG11	2.18	0.44
33:DI:53:ALA:O	33:DI:56:LYS:CG	2.66	0.44
33:DI:109:ILE:HD12	33:DI:109:ILE:N	2.33	0.44
35:DO:61:VAL:HG22	35:DO:62:VAL:O	2.18	0.44
36:DP:7:ARG:HB3	36:DP:8:PRO:CD	2.47	0.44
36:DP:146:VAL:CG1	36:DP:147:LEU:H	2.28	0.44
37:DQ:51:ARG:HH11	37:DQ:51:ARG:CB	2.31	0.44
39:DS:68:GLN:C	39:DS:70:GLY:N	2.76	0.44
41:DU:57:PHE:O	41:DU:59:ARG:N	2.50	0.44
41:DU:111:GLU:C	41:DU:113:ALA:N	2.75	0.44
55:D8:61:LEU:CD1	55:D8:61:LEU:N	2.79	0.44
1:AA:90:G:O2'	1:AA:91:G:P	2.76	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:313:G:C2	1:AA:331:C:N3	2.86	0.44
1:AA:498:G:C2	1:AA:520:G:C2	3.06	0.44
1:AA:590:A:O2'	1:AA:591:A:H5'	2.18	0.44
1:AA:930:G:H5'	1:AA:942:A:H61	1.82	0.44
1:AA:985:C:H2'	1:AA:986:C:C6	2.52	0.44
2:AB:80:ILE:CD1	2:AB:212:GLN:HA	2.47	0.44
2:AB:112:VAL:CG1	2:AB:153:ARG:HA	2.47	0.44
5:AE:78:HIS:CD2	8:AH:104:ARG:CZ	3.01	0.44
6:AF:79:LEU:O	6:AF:85:VAL:HG21	2.18	0.44
7:AG:153:HIS:HE1	11:AK:57:THR:HG23	1.83	0.44
9:AI:88:TYR:O	9:AI:89:ASN:HB2	2.17	0.44
18:AR:58:LEU:HD12	18:AR:58:LEU:N	2.32	0.44
25:BA:108:U:HO2'	25:BA:109:G:H5'	1.68	0.44
25:BA:188:G:C2'	25:BA:189:G:H5'	2.48	0.44
25:BA:248:G:C2	25:BA:2431:U:H4'	2.53	0.44
25:BA:285:C:C3'	25:BA:286:C:H5''	2.47	0.44
25:BA:569:U:C4	25:BA:570:G:C6	3.05	0.44
25:BA:691:C:O2'	25:BA:692:C:H5'	2.18	0.44
25:BA:1507:A:H2'	25:BA:1508:A:H8	1.82	0.44
25:BA:1710:C:O2'	25:BA:1711:C:H5'	2.18	0.44
25:BA:2169:A:O2'	25:BA:2170:A:H5'	2.18	0.44
25:BA:2291:U:H5''	25:BA:2380:C:O2'	2.18	0.44
25:BA:2373:G:H2'	25:BA:2374:C:C6	2.52	0.44
25:BA:2420:C:OP1	55:B8:34:TRP:HB2	2.18	0.44
25:BA:2425:A:H5''	25:BA:2427:C:O4'	2.18	0.44
25:BA:2482:G:N2	37:BQ:52:VAL:HG11	2.32	0.44
25:BA:2815:C:O2	52:B5:43:HIS:HE1	2.00	0.44
25:BA:2870:C:H2'	25:BA:2871:C:C5'	2.48	0.44
29:BE:70:ALA:O	29:BE:71:GLY:O	2.35	0.44
29:BE:81:ILE:O	29:BE:81:ILE:CG2	2.56	0.44
31:BG:2:PRO:HD3	51:B4:51:TYR:CB	2.44	0.44
31:BG:18:GLU:OE2	31:BG:21:ARG:NH1	2.51	0.44
31:BG:76:SER:HB3	31:BG:84:LYS:H	1.76	0.44
33:BI:4:ILE:HD13	33:BI:47:LEU:HD13	1.99	0.44
33:BI:23:PRO:O	33:BI:24:GLY:C	2.59	0.44
33:BI:65:ALA:CB	33:BI:131:LYS:HE2	2.48	0.44
34:BN:62:VAL:HG22	34:BN:66:LYS:HD2	1.99	0.44
35:BO:122:LEU:HA	35:BO:122:LEU:HD23	1.74	0.44
36:BP:120:ALA:CB	36:BP:138:LEU:HA	2.48	0.44
38:BR:76:VAL:O	38:BR:79:LEU:HB3	2.18	0.44
39:BS:36:TYR:H	39:BS:36:TYR:HD1	1.65	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BS:68:GLN:C	39:BS:70:GLY:N	2.76	0.44
45:BY:27:VAL:CA	45:BY:28:LYS:HZ2	2.29	0.44
45:BY:47:LYS:N	45:BY:47:LYS:CD	2.76	0.44
46:BZ:28:MET:HA	46:BZ:88:PHE:O	2.18	0.44
46:BZ:56:VAL:HG12	46:BZ:57:ILE:O	2.18	0.44
48:B1:44:PRO:O	48:B1:46:LEU:N	2.50	0.44
48:B1:68:PRO:HG2	48:B1:69:LYS:N	2.30	0.44
50:B3:23:LEU:HD12	50:B3:50:VAL:HG11	1.99	0.44
1:CA:249:G:O2'	1:CA:250:G:H5'	2.18	0.44
1:CA:1036:C:N4	22:CY:34:G:H1'	2.33	0.44
1:CA:1096:C:H6	1:CA:1096:C:O5'	2.01	0.44
1:CA:1183:G:C8	1:CA:1184:C:C5	3.05	0.44
1:CA:1338:A:C5	1:CA:1339:U:C4	3.05	0.44
2:CB:40:HIS:HB2	2:CB:190:THR:HG21	1.98	0.44
3:CC:113:ALA:CB	3:CC:114:PRO:HD3	2.41	0.44
5:CE:33:VAL:O	5:CE:112:LEU:CD1	2.66	0.44
5:CE:105:VAL:N	5:CE:106:PRO:HD2	2.33	0.44
5:CE:126:ARG:NH1	5:CE:126:ARG:CG	2.75	0.44
7:CG:41:ARG:O	7:CG:45:ASP:N	2.38	0.44
9:CI:95:LYS:HD3	9:CI:95:LYS:C	2.43	0.44
10:CJ:50:ILE:N	10:CJ:50:ILE:CD1	2.66	0.44
13:CM:4:ILE:CD1	13:CM:22:ILE:HD11	2.47	0.44
13:CM:90:LEU:O	13:CM:91:ARG:CB	2.62	0.44
14:CN:37:PHE:C	14:CN:39:LEU:H	2.26	0.44
22:CW:66:U:H2'	22:CW:67:C:O4'	2.18	0.44
25:DA:10:G:C6	25:DA:2629:A:C8	3.06	0.44
25:DA:301:G:C6	25:DA:317:G:C5	3.06	0.44
25:DA:330:A:H2	25:DA:1210:A:H2'	1.83	0.44
25:DA:909:A:H2'	25:DA:912:C:H5	1.82	0.44
25:DA:1301:A:O2'	25:DA:1302:A:P	2.76	0.44
25:DA:1827:C:H2'	25:DA:1828:G:H5'	2.00	0.44
25:DA:2086:U:H2'	25:DA:2087:G:C8	2.53	0.44
25:DA:2169:A:O2'	25:DA:2170:A:H5'	2.18	0.44
25:DA:2203:U:O2'	28:DD:151:LYS:HG2	2.18	0.44
25:DA:2208:A:H1'	25:DA:2219:G:N3	2.31	0.44
25:DA:2262:U:H2'	25:DA:2263:C:H5'	1.99	0.44
25:DA:2481:G:H4'	25:DA:2482:G:H5'	2.00	0.44
25:DA:2745:C:H4'	32:DH:142:GLY:C	2.42	0.44
25:DA:2758:A:C4	32:DH:67:LEU:HD21	2.52	0.44
25:DA:2882:A:OP1	38:DR:96:ARG:HD3	2.18	0.44
28:DD:201:HIS:C	28:DD:203:ASN:N	2.75	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DE:82:ARG:HB3	29:DE:83:ASP:H	1.64	0.44
30:DF:41:LEU:HD11	30:DF:184:TYR:CE1	2.52	0.44
30:DF:187:VAL:CG1	36:DP:7:ARG:HH21	2.30	0.44
31:DG:56:ALA:O	31:DG:60:LEU:HB2	2.18	0.44
32:DH:30:LYS:CE	32:DH:81:GLU:HG2	2.46	0.44
32:DH:155:SER:OG	32:DH:156:ALA:N	2.50	0.44
33:DI:45:LYS:C	33:DI:47:LEU:N	2.74	0.44
34:DN:62:VAL:HG22	34:DN:66:LYS:HB2	2.00	0.44
36:DP:17:LYS:O	36:DP:18:ARG:C	2.61	0.44
36:DP:30:THR:CG2	36:DP:31:ALA:H	2.19	0.44
36:DP:75:ILE:N	36:DP:75:ILE:CD1	2.81	0.44
36:DP:111:ARG:NH1	36:DP:149:GLU:HG3	2.32	0.44
36:DP:120:ALA:HB1	36:DP:138:LEU:HD12	1.99	0.44
36:DP:120:ALA:CB	36:DP:138:LEU:HA	2.48	0.44
38:DR:2:ARG:NH2	38:DR:5:LYS:HZ1	2.14	0.44
39:DS:36:TYR:H	39:DS:36:TYR:HD1	1.65	0.44
43:DW:70:TYR:HE2	43:DW:108:GLY:HA3	1.83	0.44
44:DX:64:LYS:CD	44:DX:73:ARG:CZ	2.96	0.44
50:D3:23:LEU:HD12	50:D3:50:VAL:HG11	1.99	0.44
55:D8:46:ARG:O	55:D8:47:LYS:CB	2.62	0.44
1:AA:105:G:C2	1:AA:325:C:N4	2.86	0.44
1:AA:668:G:N1	1:AA:687:A:OP2	2.47	0.44
1:AA:1033:C:H2'	1:AA:1034:U:H6	1.82	0.44
1:AA:1231:A:H4'	9:AI:68:GLY:H	1.83	0.44
1:AA:1261:A:C8	10:AJ:41:PRO:HD3	2.53	0.44
1:AA:1353:G:C6	1:AA:1354:U:C4	3.06	0.44
2:AB:44:LEU:H	2:AB:44:LEU:CD1	2.24	0.44
2:AB:119:GLU:O	2:AB:122:PHE:HB3	2.16	0.44
4:AD:29:PRO:O	4:AD:30:LYS:CB	2.65	0.44
8:AH:85:ARG:C	8:AH:85:ARG:CD	2.91	0.44
9:AI:98:PRO:C	9:AI:100:GLY:N	2.74	0.44
10:AJ:56:HIS:C	10:AJ:58:ASP:H	2.23	0.44
10:AJ:81:THR:O	10:AJ:83:GLU:N	2.51	0.44
11:AK:62:GLN:C	11:AK:64:ALA:H	2.25	0.44
13:AM:14:ARG:HB2	13:AM:16:ASP:OD2	2.18	0.44
13:AM:79:LYS:O	13:AM:82:MET:N	2.50	0.44
13:AM:92:HIS:CD2	13:AM:98:VAL:CG2	3.01	0.44
15:AO:56:LEU:O	15:AO:60:VAL:HG23	2.18	0.44
15:AO:78:TYR:OH	15:AO:88:ARG:HD2	2.18	0.44
18:AR:30:ASP:C	18:AR:32:ARG:H	2.26	0.44
20:AT:14:LYS:CA	20:AT:17:ARG:HH21	2.31	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AW:15:G:C2	22:AW:59:U:O2	2.71	0.44
25:BA:203:C:C3'	25:BA:204:A:H5''	2.44	0.44
25:BA:319:C:OP2	30:BF:137:LYS:NZ	2.51	0.44
25:BA:570:G:H2'	25:BA:2030:A:C5	2.53	0.44
25:BA:674:G:H1'	30:BF:74:ARG:HD2	2.00	0.44
25:BA:729:G:H1'	25:BA:763:G:O3'	2.18	0.44
25:BA:957:A:N1	25:BA:2458:G:H4'	2.33	0.44
25:BA:957:A:H4'	37:BQ:74:TYR:OH	2.18	0.44
25:BA:978:G:H2'	25:BA:979:G:O4'	2.17	0.44
25:BA:995:C:OP2	41:BU:54:LYS:NZ	2.43	0.44
25:BA:1275:A:C8	38:BR:16:HIS:CD2	3.06	0.44
25:BA:1337:G:H2'	25:BA:1338:G:H8	1.82	0.44
25:BA:2479:G:OP1	25:BA:2537:U:H1'	2.18	0.44
26:BB:81:G:O6	26:BB:97:G:C6	2.71	0.44
28:BD:71:ASP:HB2	28:BD:103:ARG:NH2	2.27	0.44
28:BD:261:LYS:HZ1	28:BD:263:ARG:NH1	2.16	0.44
28:BD:270:ILE:O	28:BD:270:ILE:HD12	2.18	0.44
29:BE:60:ASN:OD1	29:BE:60:ASN:C	2.60	0.44
30:BF:22:ALA:CA	30:BF:26:ALA:HB2	2.47	0.44
32:BH:27:LYS:HE3	32:BH:32:GLU:HB2	2.00	0.44
32:BH:54:ARG:HH11	32:BH:54:ARG:HG2	1.82	0.44
32:BH:73:ALA:O	32:BH:76:VAL:HB	2.18	0.44
32:BH:108:GLY:O	32:BH:109:PHE:C	2.60	0.44
33:BI:72:LEU:HD21	33:BI:107:VAL:HG21	1.97	0.44
40:BT:6:LEU:HD23	40:BT:6:LEU:HA	1.82	0.44
40:BT:18:ASP:OD1	40:BT:18:ASP:N	2.51	0.44
41:BU:72:HIS:HE1	41:BU:107:ALA:CB	2.30	0.44
44:BX:47:PHE:HZ	49:B2:37:PHE:CE2	2.36	0.44
48:B1:29:GLY:C	48:B1:30:VAL:CG2	2.91	0.44
49:B2:64:LEU:O	49:B2:64:LEU:HD22	2.18	0.44
56:B9:19:ARG:O	56:B9:20:HIS:HB2	2.16	0.44
1:CA:237:C:C2	1:CA:280:G:C2	3.06	0.44
1:CA:254:G:H2'	1:CA:255:G:O4'	2.18	0.44
1:CA:273:G:N2	17:CQ:95:TYR:HB3	2.32	0.44
1:CA:396:C:H2'	1:CA:397:G:C8	2.53	0.44
1:CA:928:G:H2'	1:CA:929:U:C6	2.53	0.44
1:CA:975:G:N2	1:CA:1025:C:O2	2.49	0.44
1:CA:1290:G:C6	1:CA:1310:A:C2	3.06	0.44
2:CB:168:THR:HG23	2:CB:192:SER:OG	2.18	0.44
3:CC:102:ASN:C	3:CC:103:VAL:HG23	2.43	0.44
4:CD:18:LYS:C	4:CD:19:LEU:HD12	2.43	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:100:ARG:HH22	4:CD:137:SER:HB3	1.83	0.44
4:CD:170:VAL:O	4:CD:171:GLY:C	2.60	0.44
5:CE:102:ALA:HB1	5:CE:106:PRO:HG2	2.00	0.44
6:CF:22:GLU:OE2	6:CF:22:GLU:HA	2.17	0.44
6:CF:63:TYR:O	6:CF:65:VAL:HG13	2.18	0.44
7:CG:145:ALA:O	7:CG:146:GLU:HB2	2.18	0.44
12:CL:38:THR:HG21	12:CL:65:GLU:OE2	2.17	0.44
16:CP:9:PHE:HB2	16:CP:16:HIS:O	2.17	0.44
16:CP:45:THR:OG1	16:CP:46:PRO:HD2	2.18	0.44
17:CQ:60:ILE:O	17:CQ:61:GLU:C	2.61	0.44
17:CQ:65:ILE:HD11	17:CQ:72:ARG:HG2	2.00	0.44
19:CS:13:ASP:C	19:CS:15:LEU:N	2.75	0.44
21:CU:9:ARG:O	21:CU:13:ILE:HG13	2.18	0.44
22:CW:13:C:O2	22:CW:14:A:H8	2.01	0.44
25:DA:269:U:O2	25:DA:269:U:H2'	2.18	0.44
25:DA:845:G:O2'	25:DA:846:C:H5	2.00	0.44
25:DA:952:G:N1	25:DA:953:A:N7	2.66	0.44
25:DA:953:A:C6	25:DA:965:C:N3	2.86	0.44
25:DA:984:A:H5''	25:DA:985:C:C5	2.48	0.44
25:DA:1160:G:N2	42:DV:10:LYS:HE2	2.33	0.44
25:DA:1378:A:C4'	25:DA:1379:A:OP1	2.52	0.44
25:DA:2061:G:H5''	25:DA:2503:A:C2	2.52	0.44
25:DA:2196:C:HO2'	25:DA:2197:U:H5'	1.82	0.44
25:DA:2287:A:C2	25:DA:2346:A:C2	3.06	0.44
25:DA:2330:G:H2'	25:DA:2331:G:O5'	2.18	0.44
25:DA:2692:C:H1'	25:DA:2847:U:O2'	2.18	0.44
25:DA:2820:A:O2'	25:DA:2821:A:OP1	2.34	0.44
25:DA:2832:U:O4	25:DA:2883:A:H5''	2.18	0.44
25:DA:2870:C:H2'	25:DA:2871:C:C5'	2.48	0.44
26:DB:75:G:H1	26:DB:103:G:N2	2.16	0.44
28:DD:72:LYS:HB3	28:DD:75:ILE:HB	1.99	0.44
28:DD:168:ARG:HA	28:DD:173:VAL:HA	2.00	0.44
29:DE:4:ILE:HG12	29:DE:28:ALA:CB	2.44	0.44
29:DE:75:VAL:O	29:DE:76:ARG:C	2.61	0.44
30:DF:80:ALA:O	30:DF:83:PHE:HB2	2.18	0.44
31:DG:165:THR:OG1	31:DG:168:GLU:CB	2.66	0.44
32:DH:108:GLY:O	32:DH:109:PHE:C	2.60	0.44
32:DH:132:ARG:HH11	32:DH:132:ARG:HG2	1.82	0.44
37:DQ:16:ARG:CG	37:DQ:17:LEU:H	2.27	0.44
37:DQ:115:MET:HE2	37:DQ:115:MET:HA	2.00	0.44
37:DQ:141:GLN:OE1	46:DZ:72:ARG:HA	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DT:89:VAL:HB	40:DT:91:ARG:NE	2.30	0.44
43:DW:65:LEU:HD22	43:DW:68:ARG:N	2.25	0.44
46:DZ:4:ARG:CD	46:DZ:58:VAL:HB	2.48	0.44
46:DZ:28:MET:HE3	46:DZ:33:LEU:HD21	2.00	0.44
1:AA:358:A:C6	1:AA:359:A:C6	3.06	0.43
1:AA:433:G:O2'	1:AA:478:U:O4	2.32	0.43
1:AA:982:A:H5''	1:AA:1003:U:H3	1.83	0.43
1:AA:1050:G:O5'	1:AA:1050:G:C8	2.62	0.43
2:AB:7:VAL:O	2:AB:7:VAL:HG12	2.18	0.43
2:AB:40:HIS:HB2	2:AB:190:THR:HG21	2.00	0.43
2:AB:121:LEU:HD11	2:AB:130:ARG:HD2	1.99	0.43
2:AB:178:ARG:CD	8:AH:71:GLY:C	2.88	0.43
7:AG:12:LEU:CD1	7:AG:25:ALA:HB2	2.48	0.43
9:AI:53:VAL:O	9:AI:54:ASP:CB	2.63	0.43
9:AI:92:TYR:H	9:AI:92:TYR:HD1	1.65	0.43
12:AL:126:LYS:C	12:AL:128:ALA:N	2.75	0.43
16:AP:82:GLN:O	16:AP:83:GLU:HB2	2.18	0.43
25:BA:94:C:H5'	25:BA:94(A):G:OP2	2.17	0.43
25:BA:269:U:O2	25:BA:269:U:H2'	2.18	0.43
25:BA:292:C:H2'	25:BA:292:C:O2	2.18	0.43
25:BA:308:G:HO2'	25:BA:329:G:N2	2.13	0.43
25:BA:359:A:C2'	25:BA:360:G:C5'	2.78	0.43
25:BA:558:G:OP2	34:BN:111:PRO:HD2	2.18	0.43
25:BA:995:C:C2	41:BU:57:PHE:CE1	3.05	0.43
25:BA:1159:U:OP2	50:B3:30:ARG:NH2	2.51	0.43
25:BA:1274:A:N3	25:BA:1297:C:H1'	2.32	0.43
25:BA:1352:U:O2	25:BA:1570:A:H2	2.00	0.43
25:BA:1451:C:N3	25:BA:1459:G:O6	2.50	0.43
25:BA:1902:C:C4	25:BA:1903:G:H1'	2.52	0.43
25:BA:2171:A:N3	25:BA:2172:U:C4	2.86	0.43
25:BA:2320:A:C5	25:BA:2333:A:N6	2.86	0.43
25:BA:2751:G:H2'	25:BA:2751:G:N3	2.32	0.43
25:BA:2832:U:O4	25:BA:2883:A:H5''	2.18	0.43
26:BB:73:A:C2'	26:BB:74:U:H5'	2.47	0.43
27:BC:41:VAL:CA	27:BC:213:TYR:HA	2.42	0.43
28:BD:211:ARG:HA	28:BD:214:TRP:CG	2.53	0.43
29:BE:59:VAL:CG2	29:BE:60:ASN:H	2.02	0.43
29:BE:119:ARG:HG2	29:BE:160:TYR:CD2	2.53	0.43
31:BG:51:ARG:CZ	31:BG:53:LEU:HD21	2.48	0.43
31:BG:181:ARG:O	31:BG:182:LYS:C	2.61	0.43
32:BH:91:GLY:CA	32:BH:160:LYS:HA	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BI:88:ILE:H	33:BI:122:GLU:HA	1.83	0.43
34:BN:90:MET:HE1	34:BN:97:ARG:HD2	1.99	0.43
37:BQ:141:GLN:HB2	46:BZ:99:TYR:HD2	1.82	0.43
42:BV:28:GLU:O	42:BV:29:PRO:O	2.36	0.43
46:BZ:28:MET:HE3	46:BZ:33:LEU:HD21	2.00	0.43
46:BZ:114:GLY:O	46:BZ:146:ILE:HD13	2.18	0.43
47:B0:43:THR:HG23	47:B0:43:THR:O	2.18	0.43
1:CA:520:G:OP1	12:CL:113:ARG:NH2	2.51	0.43
1:CA:651:G:O4'	15:CO:49:ASP:HB2	2.18	0.43
1:CA:691:C:H2'	1:CA:692:G:H8	1.83	0.43
1:CA:790:A:H2'	1:CA:791:C:O4'	2.19	0.43
1:CA:854:C:H2'	1:CA:855:G:C8	2.53	0.43
1:CA:1047:U:OP2	1:CA:1171:G:N2	2.51	0.43
1:CA:1114:C:N4	1:CA:1115:G:C2	2.86	0.43
1:CA:1431:A:N3	1:CA:1431:A:H2'	2.33	0.43
2:CB:167:PRO:O	2:CB:171:ALA:N	2.50	0.43
4:CD:2:GLY:O	4:CD:3:ARG:C	2.61	0.43
5:CE:13:ILE:HA	5:CE:29:GLY:O	2.18	0.43
5:CE:68:GLU:O	5:CE:68:GLU:HG3	2.17	0.43
8:CH:114:THR:C	8:CH:116:LYS:H	2.25	0.43
11:CK:62:GLN:C	11:CK:64:ALA:H	2.25	0.43
11:CK:107:SER:OG	11:CK:108:ILE:N	2.51	0.43
12:CL:76:ASN:O	12:CL:77:LEU:C	2.60	0.43
13:CM:48:LEU:HG	13:CM:53:VAL:HG23	2.00	0.43
14:CN:34:TYR:CD1	14:CN:34:TYR:N	2.86	0.43
15:CO:24:SER:OG	15:CO:25:THR:N	2.51	0.43
16:CP:58:TYR:O	16:CP:61:SER:OG	2.33	0.43
17:CQ:17:LYS:HA	17:CQ:49:GLU:HG2	1.99	0.43
20:CT:96:GLY:O	20:CT:97:ALA:O	2.36	0.43
23:CV:53:G:O2'	23:CV:54:G:C5'	2.66	0.43
25:DA:36:G:H4'	25:DA:451:C:C2	2.53	0.43
25:DA:72:U:H6	49:D2:61:LEU:CD1	2.31	0.43
25:DA:228:A:H2'	25:DA:230:U:O4'	2.18	0.43
25:DA:271(G):C:O2'	25:DA:271(H):G:H5'	2.18	0.43
25:DA:322:A:P	30:DF:169:ASN:HB2	2.58	0.43
25:DA:384:U:H2'	25:DA:385:C:C6	2.52	0.43
25:DA:392:C:H5''	25:DA:409:C:H5''	1.99	0.43
25:DA:570:G:H2'	25:DA:2030:A:C5	2.53	0.43
25:DA:624:C:C2'	25:DA:625:G:H5'	2.48	0.43
25:DA:859:G:HO2'	25:DA:860:U:P	2.40	0.43
25:DA:1192:G:C2'	25:DA:1193:G:H5'	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2557:G:H2'	25:DA:2558:C:C6	2.53	0.43
25:DA:2637:U:C2'	25:DA:2638:G:H5'	2.47	0.43
25:DA:2691:C:H5'	25:DA:2691:C:C6	2.43	0.43
25:DA:2847:U:P	40:DT:98:LYS:HZ3	2.41	0.43
27:DC:45:ALA:HB3	27:DC:174:PRO:CB	2.48	0.43
27:DC:66:HIS:CE1	27:DC:68:LEU:HD21	2.53	0.43
31:DG:181:ARG:O	31:DG:182:LYS:C	2.61	0.43
32:DH:65:HIS:CE1	32:DH:69:ARG:HD2	2.53	0.43
32:DH:89:ILE:O	32:DH:161:GLY:O	2.36	0.43
32:DH:94:TYR:CG	32:DH:107:VAL:HG12	2.53	0.43
34:DN:23:LEU:C	34:DN:25:ARG:H	2.26	0.43
36:DP:56:SER:C	36:DP:57:THR:OG1	2.61	0.43
36:DP:65:ARG:HH12	55:D8:15:LYS:HB2	1.81	0.43
36:DP:101:VAL:HG23	36:DP:102:ARG:N	2.33	0.43
42:DV:38:LEU:HD23	42:DV:39:LEU:N	2.34	0.43
44:DX:12:VAL:CG1	44:DX:27:THR:O	2.64	0.43
46:DZ:28:MET:HA	46:DZ:88:PHE:O	2.18	0.43
46:DZ:94:GLU:HA	46:DZ:95:PRO:HD3	1.82	0.43
52:D5:41:PRO:HG2	52:D5:44:THR:CG2	2.46	0.43
1:AA:78:G:C8	1:AA:79:U:H5	2.35	0.43
1:AA:90:G:O2'	1:AA:91:G:O5'	2.34	0.43
1:AA:311:G:H2'	1:AA:312:G:C8	2.53	0.43
1:AA:631:A:H2'	1:AA:632:G:H8	1.83	0.43
1:AA:780:C:H2'	1:AA:781:G:C8	2.53	0.43
1:AA:1036:C:C4	22:AY:34:G:H1'	2.53	0.43
1:AA:1394:C:H2'	1:AA:1395:A:C8	2.53	0.43
2:AB:69:LEU:HB2	2:AB:159:PRO:CG	2.48	0.43
2:AB:224:GLN:C	2:AB:226:ARG:H	2.26	0.43
3:AC:73:PRO:HA	3:AC:76:VAL:HG22	2.00	0.43
3:AC:73:PRO:C	3:AC:76:VAL:HG22	2.42	0.43
3:AC:95:THR:O	3:AC:97:LYS:N	2.51	0.43
5:AE:39:GLY:HA2	5:AE:69:VAL:HB	1.99	0.43
6:AF:24:GLU:HB2	6:AF:28:ARG:HH12	1.83	0.43
7:AG:60:LYS:HA	7:AG:60:LYS:HZ3	1.77	0.43
8:AH:64:LYS:C	8:AH:65:TYR:CD1	2.96	0.43
8:AH:103:VAL:HB	8:AH:108:GLY:C	2.43	0.43
8:AH:119:LEU:CD1	8:AH:124:ALA:HA	2.48	0.43
12:AL:126:LYS:CG	12:AL:127:GLU:N	2.81	0.43
14:AN:26:ARG:CG	14:AN:27:CYS:H	2.05	0.43
17:AQ:83:ASP:O	17:AQ:86:GLU:HB2	2.18	0.43
18:AR:56:THR:CB	18:AR:58:LEU:CD1	2.96	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:25:ARG:HH11	20:AT:25:ARG:HG3	1.82	0.43
22:AW:51:U:N3	22:AW:52:G:N7	2.66	0.43
23:AV:55:U:H6	23:AV:55:U:H3'	1.83	0.43
22:AY:35:A:H2'	22:AY:36:A:C4'	2.48	0.43
25:BA:142:A:H1'	25:BA:1408:C:O4'	2.18	0.43
25:BA:282:A:H3'	25:BA:284:U:O4	2.18	0.43
25:BA:314:A:H2'	25:BA:315:G:C8	2.53	0.43
25:BA:348:G:C4	25:BA:349:G:C8	3.06	0.43
25:BA:1155:A:OP1	41:BU:55:ARG:HD2	2.18	0.43
25:BA:1444:G:H2'	25:BA:1445(A):C:C5	2.52	0.43
25:BA:1453:U:C5	25:BA:2702:U:O4	2.71	0.43
25:BA:2182:G:H2'	25:BA:2183:C:C6	2.53	0.43
25:BA:2236:C:H2'	25:BA:2237:G:O4'	2.18	0.43
25:BA:2481:G:H4'	25:BA:2482:G:H5'	2.00	0.43
25:BA:2846:G:H2'	25:BA:2847:U:O4'	2.17	0.43
28:BD:43:ARG:HG2	28:BD:54:ARG:O	2.19	0.43
28:BD:72:LYS:HB3	28:BD:75:ILE:HB	1.99	0.43
29:BE:149:ARG:HG3	29:BE:149:ARG:NH1	2.32	0.43
30:BF:131:GLY:O	30:BF:132:VAL:O	2.37	0.43
31:BG:35:GLU:HB2	31:BG:160:VAL:HG12	1.99	0.43
31:BG:39:ILE:HD11	31:BG:155:MET:CB	2.40	0.43
32:BH:65:HIS:CE1	32:BH:69:ARG:HD2	2.53	0.43
34:BN:133:GLN:O	34:BN:134:ARG:HG3	2.18	0.43
35:BO:109:LYS:HB2	35:BO:111:PHE:CD2	2.53	0.43
39:BS:82:ILE:HG22	39:BS:83:LYS:N	2.33	0.43
41:BU:78:THR:HG22	41:BU:79:PHE:N	2.33	0.43
43:BW:97:LYS:O	43:BW:98:LYS:C	2.61	0.43
44:BX:48:LYS:NZ	49:B2:30:ARG:HH22	2.16	0.43
45:BY:28:LYS:CB	45:BY:37:VAL:HB	2.34	0.43
50:B3:46:ASN:O	50:B3:50:VAL:HG22	2.17	0.43
53:B6:42:TRP:HA	53:B6:42:TRP:CE3	2.52	0.43
1:CA:66:G:C2	1:CA:67:C:C6	3.06	0.43
1:CA:224:U:H2'	1:CA:225:G:H8	1.82	0.43
1:CA:406:A:C5	1:CA:424:U:C5	3.06	0.43
1:CA:516:A:HO2'	1:CA:517:U:H5''	1.83	0.43
1:CA:1039:G:H5''	3:CC:154:SER:HB2	2.00	0.43
1:CA:1198:C:H2'	1:CA:1199:C:O4'	2.18	0.43
1:CA:1354:U:C4	1:CA:1355:G:C4	3.06	0.43
1:CA:1471:G:N2	25:DA:1912:A:C2	2.86	0.43
1:CA:1474:G:C5	1:CA:1475:U:C4	3.06	0.43
2:CB:219:VAL:HG13	2:CB:222:ILE:HD12	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:84:ILE:HA	3:CC:87:LEU:HD12	2.00	0.43
5:CE:87:SER:HB3	5:CE:131:ILE:CD1	2.48	0.43
13:CM:113:PRO:C	13:CM:114:ARG:HG2	2.43	0.43
14:CN:27:CYS:O	14:CN:29:ARG:N	2.51	0.43
19:CS:10:PHE:CZ	19:CS:70:LYS:HD2	2.53	0.43
19:CS:31:ILE:CG2	19:CS:49:ILE:HA	2.43	0.43
23:CV:16:C:H5'	23:CV:17:C:C6	2.53	0.43
23:CV:64:G:H2'	23:CV:64:G:N3	2.33	0.43
25:DA:94:C:H5'	25:DA:94(A):G:OP2	2.17	0.43
25:DA:248:G:C2	25:DA:2431:U:H4'	2.53	0.43
25:DA:285:C:C3'	25:DA:286:C:H5''	2.47	0.43
25:DA:379:G:C6	25:DA:380:U:N3	2.86	0.43
25:DA:663:G:O3'	36:DP:21:ARG:NH2	2.51	0.43
25:DA:1709:U:H2'	25:DA:1710:C:H6	1.83	0.43
25:DA:2073:C:O2'	25:DA:2074:U:H5'	2.18	0.43
25:DA:2291:U:H5''	25:DA:2380:C:O2'	2.18	0.43
25:DA:2441:C:OP1	25:DA:2441:C:H4'	2.18	0.43
25:DA:2473:U:O2	25:DA:2473:U:H2'	2.18	0.43
25:DA:2821:A:OP2	38:DR:2:ARG:NH2	2.51	0.43
28:DD:132:PRO:HG3	28:DD:190:TYR:CE1	2.53	0.43
28:DD:158:ALA:O	28:DD:161:THR:HG23	2.18	0.43
28:DD:270:ILE:O	28:DD:270:ILE:HD12	2.18	0.43
29:DE:108:SER:HB3	29:DE:165:VAL:HG21	1.99	0.43
31:DG:16:ARG:HG3	31:DG:16:ARG:HH11	1.82	0.43
31:DG:18:GLU:OE2	31:DG:21:ARG:NH1	2.51	0.43
31:DG:97:ASP:O	31:DG:101:ILE:HG23	2.18	0.43
33:DI:113:ARG:H	33:DI:113:ARG:HD2	1.83	0.43
35:DO:116:SER:OG	35:DO:117:LEU:N	2.51	0.43
36:DP:30:THR:HG22	36:DP:31:ALA:N	2.27	0.43
37:DQ:103:MET:CE	37:DQ:125:LEU:HD13	2.48	0.43
39:DS:99:LYS:O	39:DS:100:ALA:C	2.61	0.43
41:DU:52:ARG:HD3	41:DU:55:ARG:NE	2.25	0.43
45:DY:27:VAL:C	45:DY:29:GLU:OE1	2.61	0.43
45:DY:28:LYS:CB	45:DY:37:VAL:HB	2.34	0.43
46:DZ:56:VAL:HG12	46:DZ:57:ILE:O	2.18	0.43
46:DZ:99:TYR:HA	46:DZ:125:LEU:HA	2.01	0.43
46:DZ:114:GLY:O	46:DZ:146:ILE:HD13	2.18	0.43
48:D1:29:GLY:C	48:D1:31:GLY:N	2.76	0.43
53:D6:19:ARG:CD	53:D6:19:ARG:H	2.30	0.43
55:D8:7:HIS:CD2	55:D8:59:LYS:NZ	2.86	0.43
55:D8:26:LYS:CE	55:D8:47:LYS:HD3	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:61:G:H2'	1:AA:62:U:O4'	2.16	0.43
1:AA:74:C:C4	1:AA:75:G:N7	2.86	0.43
1:AA:402:G:H1	1:AA:430:C:N4	2.12	0.43
1:AA:521:G:OP1	12:AL:115:LYS:HB2	2.18	0.43
1:AA:607:C:H4'	16:AP:10:GLY:C	2.42	0.43
1:AA:917:C:OP1	7:AG:102:ARG:HD3	2.17	0.43
1:AA:1129:C:O2	9:AI:16:ARG:NH1	2.44	0.43
1:AA:1266:A:C4'	1:AA:1267:A:H5''	2.48	0.43
2:AB:19:HIS:ND1	2:AB:191:ASP:HB2	2.34	0.43
3:AC:113:ALA:CB	3:AC:114:PRO:HD3	2.43	0.43
3:AC:173:VAL:HG12	3:AC:175:LEU:HD12	2.00	0.43
9:AI:92:TYR:N	9:AI:92:TYR:HD1	2.15	0.43
10:AJ:48:THR:CG2	10:AJ:62:HIS:HB3	2.47	0.43
10:AJ:63:PHE:CD2	10:AJ:63:PHE:N	2.87	0.43
10:AJ:83:GLU:C	10:AJ:85:LEU:N	2.74	0.43
11:AK:27:ASN:HA	11:AK:55:LYS:C	2.42	0.43
22:AW:24:G:C5	22:AW:25:C:C5	3.06	0.43
22:AW:72:C:HO2'	22:AW:73:A:H5'	1.81	0.43
25:BA:207:A:H2'	25:BA:208:C:O4'	2.17	0.43
25:BA:478:A:C6	25:BA:480:A:C6	3.06	0.43
25:BA:666:G:O2'	25:BA:667:U:H5'	2.17	0.43
25:BA:1721:G:O6	25:BA:1739:U:H5'	2.15	0.43
25:BA:1797:C:O2'	28:BD:259:THR:CG2	2.66	0.43
25:BA:2483:C:O2	37:BQ:124:LYS:HE3	2.19	0.43
25:BA:2580:U:H4'	29:BE:130:GLY:CA	2.47	0.43
25:BA:2735:G:H2'	25:BA:2736:G:C8	2.53	0.43
27:BC:127:LEU:O	27:BC:129:ARG:N	2.51	0.43
28:BD:210:GLY:C	28:BD:212:SER:N	2.76	0.43
30:BF:17:ARG:HG3	30:BF:17:ARG:NH1	2.31	0.43
32:BH:54:ARG:HG2	32:BH:54:ARG:NH1	2.33	0.43
33:BI:6:LEU:HD12	33:BI:34:GLY:O	2.18	0.43
33:BI:133:HIS:CD2	33:BI:133:HIS:H	2.35	0.43
34:BN:65:LYS:C	34:BN:67:LEU:H	2.26	0.43
37:BQ:12:GLN:HE21	37:BQ:73:PRO:HD3	1.83	0.43
38:BR:28:LEU:CA	38:BR:34:ILE:HG13	2.48	0.43
39:BS:54:LEU:H	39:BS:54:LEU:CD2	2.28	0.43
44:BX:36:LYS:HD2	44:BX:54:VAL:O	2.18	0.43
45:BY:2:ARG:C	45:BY:4:LYS:H	2.24	0.43
46:BZ:4:ARG:CD	46:BZ:58:VAL:HB	2.48	0.43
46:BZ:132:ASN:HB3	46:BZ:159:PRO:O	2.19	0.43
51:B4:45:GLY:O	51:B4:46:ASN:O	2.37	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:B7:43:THR:CG2	54:B7:44:PRO:N	2.81	0.43
55:B8:61:LEU:C	55:B8:63:PRO:HD2	2.43	0.43
1:CA:57:G:C5	1:CA:58:C:C4	3.05	0.43
1:CA:437:C:H2'	1:CA:438:C:H6	1.83	0.43
1:CA:900:A:C2	1:CA:901:C:C2	3.06	0.43
1:CA:1100:C:OP1	9:CI:104:ARG:HD3	2.18	0.43
2:CB:19:HIS:ND1	2:CB:191:ASP:HB2	2.33	0.43
2:CB:95:GLN:HE21	2:CB:147:LYS:CG	2.25	0.43
2:CB:235:SER:OG	2:CB:236:TYR:CD1	2.66	0.43
3:CC:86:VAL:C	3:CC:89:GLU:HB3	2.44	0.43
6:CF:50:TYR:CE1	18:CR:77:GLY:HA2	2.53	0.43
8:CH:63:LEU:HB2	8:CH:65:TYR:CE1	2.54	0.43
10:CJ:32:ALA:CB	10:CJ:76:ASN:HB3	2.48	0.43
15:CO:29:VAL:O	15:CO:32:LEU:N	2.51	0.43
17:CQ:12:SER:OG	17:CQ:14:LYS:NZ	2.51	0.43
19:CS:15:LEU:N	19:CS:15:LEU:HD22	2.33	0.43
22:CW:6:G:N2	22:CW:68:C:O2	2.51	0.43
22:CW:35:A:N6	24:CX:13:A:C6	2.87	0.43
22:CW:56:C:C4	22:CW:57:G:C8	3.06	0.43
23:CV:7:G:N2	23:CV:68:C:C2	2.85	0.43
23:CV:25:U:H6	23:CV:25:U:O5'	2.00	0.43
23:CV:30:G:H2'	23:CV:31:G:C5'	2.48	0.43
25:DA:105:C:C6	25:DA:105:C:H5''	2.53	0.43
25:DA:272(J):C:N3	25:DA:363:G:O6	2.51	0.43
25:DA:292:C:O2	25:DA:292:C:H2'	2.18	0.43
25:DA:486:C:H4'	43:DW:60:ASN:OD1	2.18	0.43
25:DA:661:C:H2'	25:DA:662:G:H8	1.83	0.43
25:DA:729:G:H1'	25:DA:763:G:O3'	2.18	0.43
25:DA:878:A:N6	25:DA:899:A:O2'	2.51	0.43
25:DA:888:C:O2'	25:DA:889:C:H5'	2.18	0.43
25:DA:925:C:C3'	25:DA:926:A:H5''	2.46	0.43
25:DA:1508:A:H2'	25:DA:1508:A:N3	2.34	0.43
25:DA:1801:G:C6	25:DA:2202:C:O4'	2.71	0.43
25:DA:2182:G:H2'	25:DA:2183:C:C6	2.53	0.43
25:DA:2485:G:O3'	37:DQ:126:PRO:HA	2.18	0.43
25:DA:2556:C:H2'	25:DA:2557:G:O4'	2.19	0.43
25:DA:2784:C:H1'	29:DE:37:ARG:NH1	2.33	0.43
25:DA:2838:G:H1'	38:DR:45:ARG:HH11	1.82	0.43
27:DC:41:VAL:HG23	27:DC:178:ALA:CB	2.44	0.43
28:DD:24:ILE:HD12	28:DD:84:TYR:HB2	2.00	0.43
28:DD:43:ARG:HH11	28:DD:44:ASN:ND2	2.16	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DD:206:LEU:HD22	28:DD:211:ARG:CG	2.48	0.43
28:DD:211:ARG:HA	28:DD:214:TRP:CG	2.53	0.43
29:DE:69:LYS:O	29:DE:70:ALA:C	2.60	0.43
30:DF:9:ILE:CG1	30:DF:14:PRO:HA	2.47	0.43
31:DG:107:LEU:HD21	31:DG:178:PHE:CE1	2.53	0.43
31:DG:117:PHE:CD1	31:DG:118:ARG:N	2.85	0.43
33:DI:54:GLN:C	33:DI:57:ARG:H	2.26	0.43
34:DN:57:ALA:C	34:DN:58:ASP:O	2.61	0.43
35:DO:88:ASN:OD1	35:DO:92:GLU:N	2.33	0.43
36:DP:16:ARG:NH1	36:DP:16:ARG:CB	2.75	0.43
38:DR:51:LEU:CD2	38:DR:66:VAL:HG13	2.38	0.43
39:DS:53:SER:O	39:DS:56:LEU:HB3	2.19	0.43
39:DS:56:LEU:HD22	39:DS:58:LEU:HD13	2.01	0.43
41:DU:92:ARG:HH11	42:DV:11:GLN:HG3	1.83	0.43
46:DZ:12:GLY:O	46:DZ:13:GLU:HG3	2.18	0.43
50:D3:46:ASN:O	50:D3:50:VAL:HG22	2.17	0.43
53:D6:12:GLU:HA	53:D6:23:THR:HA	1.99	0.43
1:AA:260:G:C4	1:AA:262:C:C5	3.07	0.43
1:AA:526:C:C4	1:AA:527:G:N7	2.86	0.43
1:AA:551:G:N2	1:AA:860:C:C2	2.87	0.43
1:AA:822:U:C3'	1:AA:822:U:C2	3.02	0.43
1:AA:1311:U:C5	1:AA:1312:G:C5	3.07	0.43
1:AA:1385:C:H1'	1:AA:1477:A:N1	2.32	0.43
2:AB:121:LEU:O	2:AB:127:ILE:HD11	2.17	0.43
3:AC:29:TYR:CD1	14:AN:36:PHE:CZ	3.06	0.43
3:AC:84:ILE:HA	3:AC:87:LEU:HD12	2.01	0.43
3:AC:148:GLY:HA3	3:AC:203:PHE:HB3	2.00	0.43
4:AD:14:ARG:C	4:AD:16:GLY:H	2.26	0.43
8:AH:66:GLY:O	8:AH:76:PRO:HB2	2.18	0.43
9:AI:79:LEU:HD11	9:AI:83:ARG:CZ	2.48	0.43
9:AI:96:LEU:CG	9:AI:102:LEU:HB2	2.49	0.43
9:AI:104:ARG:NE	9:AI:106:ALA:HA	2.33	0.43
10:AJ:48:THR:CB	10:AJ:62:HIS:HB3	2.48	0.43
23:AV:65:G:C2	23:AV:66:C:C2	3.07	0.43
25:BA:15:G:O2'	52:B5:18:ALA:HA	2.18	0.43
25:BA:661:C:H2'	25:BA:662:G:H8	1.83	0.43
25:BA:1500:G:C6	25:BA:1501:C:N3	2.87	0.43
25:BA:2307:G:N2	25:BA:2308:G:H5'	2.33	0.43
25:BA:2556:C:H2'	25:BA:2557:G:O4'	2.19	0.43
25:BA:2580:U:H5'	29:BE:131:ALA:H	1.81	0.43
25:BA:2688:U:C5	25:BA:2719:G:C5	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BC:66:HIS:CE1	27:BC:68:LEU:HD21	2.53	0.43
28:BD:35:LYS:HD3	28:BD:35:LYS:HA	1.70	0.43
28:BD:44:ASN:HB3	28:BD:49:ILE:CA	2.42	0.43
28:BD:61:LEU:O	28:BD:63:ARG:NH1	2.51	0.43
29:BE:75:VAL:O	29:BE:76:ARG:C	2.61	0.43
31:BG:40:ASN:HA	31:BG:91:ARG:HA	2.00	0.43
32:BH:76:VAL:C	32:BH:78:GLY:N	2.76	0.43
33:BI:81:VAL:CG2	33:BI:142:VAL:HG13	2.41	0.43
33:BI:94:ALA:O	33:BI:96:ASP:N	2.50	0.43
36:BP:10:PRO:O	36:BP:11:GLY:O	2.34	0.43
37:BQ:51:ARG:HH11	37:BQ:51:ARG:CB	2.31	0.43
40:BT:36:GLU:HB2	40:BT:38:ASN:HB2	2.01	0.43
41:BU:55:ARG:HA	41:BU:58:ARG:HG3	2.00	0.43
44:BX:64:LYS:CD	44:BX:73:ARG:CZ	2.96	0.43
45:BY:14:LEU:HD12	45:BY:15:VAL:N	2.31	0.43
46:BZ:104:PHE:CD1	46:BZ:139:VAL:HB	2.52	0.43
50:B3:1:MET:HE1	50:B3:41:PRO:HD3	1.99	0.43
54:B7:29:LYS:O	54:B7:32:LYS:HB3	2.19	0.43
55:B8:26:LYS:CE	55:B8:47:LYS:HD3	2.48	0.43
1:CA:57:G:H2'	1:CA:58:C:O4'	2.18	0.43
1:CA:528:C:H2'	1:CA:529:G:O4'	2.17	0.43
1:CA:1242:A:C8	1:CA:1243:C:C5	3.06	0.43
1:CA:1472:U:H2'	1:CA:1473:C:C6	2.54	0.43
2:CB:102:LEU:HD12	2:CB:102:LEU:N	2.33	0.43
6:CF:40:VAL:HA	6:CF:62:TRP:O	2.18	0.43
10:CJ:35:SER:O	10:CJ:36:GLY:C	2.61	0.43
10:CJ:81:THR:C	10:CJ:83:GLU:N	2.76	0.43
12:CL:25:PRO:N	12:CL:98:TYR:OH	2.51	0.43
12:CL:42:THR:HG23	12:CL:42:THR:O	2.18	0.43
12:CL:101:VAL:HG12	12:CL:104:VAL:CG2	2.47	0.43
13:CM:20:THR:C	13:CM:22:ILE:H	2.27	0.43
13:CM:93:ARG:HG3	25:DA:888:C:OP2	2.17	0.43
16:CP:76:GLN:O	16:CP:76:GLN:CG	2.65	0.43
19:CS:45:VAL:O	19:CS:47:HIS:N	2.51	0.43
20:CT:72:LEU:HD21	20:CT:77:ALA:HA	2.00	0.43
22:CW:55:U:O2	22:CW:55:U:O5'	2.35	0.43
25:DA:142:A:H8	25:DA:1408:C:H1'	1.83	0.43
25:DA:289:A:C2	25:DA:353:G:C2	3.07	0.43
25:DA:697:C:H2'	25:DA:698:C:C6	2.54	0.43
25:DA:1500:G:C6	25:DA:1501:C:N3	2.87	0.43
25:DA:1620:G:O2'	54:D7:2:LYS:HG2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2632:A:C2	29:DE:61:ARG:HD3	2.53	0.43
25:DA:2654:A:N1	25:DA:2665:A:H5''	2.34	0.43
25:DA:2801:A:H8	25:DA:2801(A):A:H62	1.66	0.43
26:DB:11:C:P	47:D0:72:ARG:HD2	2.58	0.43
26:DB:13:A:C5	26:DB:70:C:H4'	2.54	0.43
26:DB:91:C:C2'	26:DB:92:C:O5'	2.67	0.43
28:DD:9:TYR:CZ	28:DD:13:ARG:CD	2.99	0.43
29:DE:1:MET:O	29:DE:2:LYS:C	2.60	0.43
30:DF:7:TYR:CE2	30:DF:10:PRO:HG3	2.54	0.43
31:DG:40:ASN:HA	31:DG:91:ARG:HA	2.00	0.43
33:DI:88:ILE:H	33:DI:122:GLU:HA	1.84	0.43
34:DN:72:TYR:N	34:DN:72:TYR:CD1	2.87	0.43
35:DO:13:ASN:ND2	35:DO:13:ASN:O	2.50	0.43
38:DR:104:ARG:NH1	38:DR:109:ALA:HB3	2.33	0.43
39:DS:62:LYS:N	39:DS:65:VAL:HG23	2.29	0.43
41:DU:65:ILE:C	41:DU:67:ALA:N	2.75	0.43
43:DW:55:ALA:HA	43:DW:107:LEU:HD23	2.00	0.43
46:DZ:102:LEU:HD13	46:DZ:123:ASP:CA	2.40	0.43
49:D2:3:LEU:O	49:D2:3:LEU:HD23	2.18	0.43
49:D2:13:ALA:C	49:D2:15:LYS:N	2.77	0.43
49:D2:47:ASN:O	49:D2:49:LYS:N	2.52	0.43
54:D7:1:MET:SD	54:D7:3:ARG:NH2	2.92	0.43
1:AA:22:G:C6	1:AA:23:C:C4	3.06	0.43
1:AA:146:A:H62	1:AA:163:C:H42	1.67	0.43
1:AA:551:G:C6	1:AA:552:C:C4	3.07	0.43
1:AA:730:C:C5	1:AA:731:C:C4	3.06	0.43
1:AA:806:G:C6	1:AA:807:C:C4	3.06	0.43
1:AA:1007:C:H5''	1:AA:1008:C:OP1	2.18	0.43
1:AA:1065:U:O2'	1:AA:1084:A:OP2	2.31	0.43
1:AA:1273:U:H5'	9:AI:38:GLN:OE1	2.19	0.43
2:AB:51:LEU:HD23	2:AB:201:ILE:HD12	1.99	0.43
3:AC:119:ARG:HE	3:AC:140:ARG:NE	2.16	0.43
5:AE:28:PHE:N	5:AE:28:PHE:HD1	2.16	0.43
6:AF:63:TYR:N	6:AF:63:TYR:HD2	2.17	0.43
7:AG:47:CYS:HA	7:AG:50:ILE:CG1	2.44	0.43
7:AG:50:ILE:HG21	7:AG:58:PRO:CA	2.41	0.43
7:AG:154:TYR:C	7:AG:156:TRP:H	2.26	0.43
8:AH:44:PHE:HA	8:AH:79:VAL:HG11	2.01	0.43
9:AI:47:LEU:N	9:AI:47:LEU:CD1	2.81	0.43
10:AJ:24:VAL:CG2	10:AJ:72:VAL:HG11	2.48	0.43
10:AJ:81:THR:C	10:AJ:83:GLU:N	2.76	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:26:ALA:O	12:AL:33:ARG:HD2	2.18	0.43
13:AM:97:PRO:HD3	13:AM:110:ARG:CD	2.48	0.43
22:AW:31:A:H2'	22:AW:32:U:O4'	2.19	0.43
23:AV:22:A:N6	23:AV:47:G:C4	2.87	0.43
25:BA:105:C:C6	25:BA:105:C:H5''	2.53	0.43
25:BA:143(A):C:H4'	44:BX:38:GLU:OE1	2.19	0.43
25:BA:246:C:C2'	25:BA:247:G:H5'	2.49	0.43
25:BA:337:C:H2'	25:BA:338:G:O5'	2.18	0.43
25:BA:365:C:H5'	25:BA:365:C:C6	2.32	0.43
25:BA:904:C:H1'	46:BZ:169:GLU:OE2	2.19	0.43
25:BA:1141:U:C5	34:BN:64:GLY:HA3	2.54	0.43
25:BA:1386:C:H2'	25:BA:1387:C:H6	1.82	0.43
25:BA:1600:C:O2'	25:BA:1601:G:H5'	2.18	0.43
25:BA:1658:C:N4	25:BA:1659:U:O4	2.52	0.43
25:BA:1668:A:H4'	25:BA:1669:A:O5'	2.18	0.43
25:BA:2164:C:H3'	25:BA:2165:G:C8	2.53	0.43
25:BA:2303:G:O3'	31:BG:124:SER:HA	2.18	0.43
25:BA:2681:C:C4'	25:BA:2682:U:OP1	2.56	0.43
25:BA:2689:U:H4'	25:BA:2690:C:C6	2.49	0.43
28:BD:81:ALA:HA	28:BD:113:VAL:CG1	2.49	0.43
28:BD:176:ARG:HH11	28:BD:176:ARG:CG	2.28	0.43
28:BD:227:ASN:HB3	28:BD:228:PRO:HD2	1.99	0.43
29:BE:35:GLN:HG2	29:BE:36:ARG:N	2.33	0.43
29:BE:47:VAL:HG23	29:BE:84:PHE:O	2.18	0.43
29:BE:201:THR:HG21	29:BE:203:LYS:HG2	1.99	0.43
30:BF:41:LEU:HD11	30:BF:184:TYR:CE1	2.52	0.43
30:BF:135:LYS:O	30:BF:136:THR:C	2.61	0.43
31:BG:125:PHE:HB2	31:BG:166:ASP:OD2	2.18	0.43
32:BH:132:ARG:HH11	32:BH:132:ARG:HG2	1.82	0.43
33:BI:56:LYS:HE3	33:BI:56:LYS:HB2	1.38	0.43
33:BI:83:ALA:HB1	33:BI:88:ILE:HD12	1.95	0.43
35:BO:88:ASN:CA	35:BO:94:ARG:HE	2.30	0.43
36:BP:101:VAL:HG23	36:BP:102:ARG:N	2.33	0.43
37:BQ:85:LYS:CG	47:B0:7:LEU:HD13	2.49	0.43
39:BS:48:LEU:H	39:BS:48:LEU:CD1	2.31	0.43
39:BS:53:SER:O	39:BS:56:LEU:HB3	2.19	0.43
39:BS:62:LYS:N	39:BS:65:VAL:HG23	2.30	0.43
39:BS:87:PHE:O	39:BS:88:ASP:HB2	2.19	0.43
44:BX:60:ARG:NH2	54:B7:47:ARG:NH2	2.65	0.43
45:BY:31:LEU:CB	45:BY:32:PRO:CA	2.95	0.43
45:BY:46:LYS:C	45:BY:47:LYS:HG3	2.42	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BZ:6:LYS:NZ	46:BZ:6:LYS:HB2	2.33	0.43
46:BZ:61:LEU:HB2	46:BZ:65:GLN:HB2	2.00	0.43
48:B1:3:LYS:CG	48:B1:4:VAL:H	2.15	0.43
48:B1:8:SER:HB3	48:B1:66:HIS:NE2	2.33	0.43
49:B2:18:PRO:O	49:B2:21:LEU:HB2	2.18	0.43
49:B2:22:GLU:O	49:B2:23:LYS:C	2.60	0.43
53:B6:27:LYS:O	53:B6:28:ARG:C	2.62	0.43
54:B7:6:GLN:HA	54:B7:7:PRO:HD2	1.82	0.43
1:CA:12:U:O2'	1:CA:509:C:H4'	2.18	0.43
1:CA:15:G:H2'	1:CA:16:A:C8	2.54	0.43
1:CA:246:G:N2	1:CA:248:U:C5	2.86	0.43
1:CA:498:G:C2	1:CA:520:G:C2	3.06	0.43
1:CA:901:C:O2'	1:CA:1479:A:N6	2.52	0.43
1:CA:934:U:O2'	1:CA:936:A:N7	2.36	0.43
1:CA:1040:G:N2	10:CJ:53:PRO:HG3	2.34	0.43
1:CA:1369:G:C6	1:CA:1370:C:N4	2.87	0.43
1:CA:1432:C:O2	1:CA:1433:G:N2	2.49	0.43
1:CA:1478:C:N4	1:CA:1481:G:C2	2.87	0.43
1:CA:1489:U:H2'	1:CA:1490:A:C8	2.54	0.43
2:CB:178:ARG:HG3	8:CH:72:PRO:CA	2.49	0.43
4:CD:30:LYS:O	4:CD:32:ALA:N	2.51	0.43
6:CF:39:LYS:CG	6:CF:40:VAL:H	2.29	0.43
7:CG:50:ILE:O	7:CG:54:THR:O	2.36	0.43
9:CI:79:LEU:HD13	9:CI:79:LEU:C	2.43	0.43
9:CI:92:TYR:N	9:CI:92:TYR:HD1	2.15	0.43
10:CJ:92:THR:HG23	10:CJ:93:GLY:N	2.34	0.43
10:CJ:98:ILE:O	10:CJ:98:ILE:HG22	2.18	0.43
11:CK:53:SER:C	11:CK:55:LYS:H	2.26	0.43
12:CL:78:GLN:C	12:CL:80:HIS:H	2.27	0.43
12:CL:102:ARG:HB3	12:CL:108:ALA:O	2.18	0.43
13:CM:79:LYS:O	13:CM:82:MET:SD	2.77	0.43
13:CM:91:ARG:HB3	13:CM:96:LEU:O	2.18	0.43
21:CU:6:ARG:NE	21:CU:15:ARG:NH1	2.66	0.43
22:CW:14:A:N1	22:CW:15:G:C1'	2.81	0.43
22:CW:34:G:O6	24:CX:14:A:C2	2.71	0.43
22:CW:69:G:C2'	22:CW:70:G:H5''	2.48	0.43
22:CY:36:A:C2	24:CX:20:U:C2	3.06	0.43
25:DA:237:C:O2'	25:DA:238:C:H5'	2.18	0.43
25:DA:271(W):G:C6	25:DA:271(X):G:N1	2.87	0.43
25:DA:351:G:OP2	25:DA:351:G:H8	1.97	0.43
25:DA:389:G:H22	36:DP:71:VAL:HG12	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:691:C:O2'	25:DA:692:C:H5'	2.18	0.43
25:DA:948:G:C2	25:DA:970:C:O2	2.71	0.43
25:DA:971:C:O2'	25:DA:972:G:H5'	2.18	0.43
25:DA:1048:A:H4'	25:DA:1049:C:C5	2.53	0.43
25:DA:1188:U:H4'	42:DV:79:VAL:CG2	2.48	0.43
25:DA:1221(A):C:O2'	25:DA:1222:C:H5'	2.18	0.43
25:DA:1331:A:HO2'	25:DA:1332:G:H8	1.67	0.43
25:DA:1344:G:C6	25:DA:1385:G:N7	2.87	0.43
25:DA:1494:A:N3	25:DA:1494:A:H3'	2.34	0.43
25:DA:1509(B):A:H2'	25:DA:1510:G:C8	2.54	0.43
25:DA:2126:A:O2'	25:DA:2127:G:OP2	2.36	0.43
25:DA:2164:C:H3'	25:DA:2165:G:C8	2.53	0.43
25:DA:2236:C:H2'	25:DA:2237:G:C5'	2.49	0.43
25:DA:2468:G:C5'	37:DQ:120:ILE:CD1	2.96	0.43
25:DA:2638:G:P	29:DE:82:ARG:NH2	2.91	0.43
25:DA:2681:C:C4'	25:DA:2682:U:OP1	2.56	0.43
25:DA:2683:C:C5'	40:DT:58:ASN:ND2	2.81	0.43
26:DB:30:C:H4'	26:DB:58:A:H2	1.83	0.43
28:DD:81:ALA:HA	28:DD:113:VAL:CG1	2.49	0.43
29:DE:44:TYR:O	29:DE:45:THR:CB	2.64	0.43
29:DE:70:ALA:O	29:DE:71:GLY:O	2.35	0.43
30:DF:192:LEU:HD21	30:DF:194:MET:CE	2.42	0.43
31:DG:39:ILE:HD11	31:DG:155:MET:CB	2.40	0.43
31:DG:131:TYR:O	31:DG:159:VAL:HG13	2.19	0.43
35:DO:31:LYS:HD3	35:DO:31:LYS:HA	1.63	0.43
38:DR:28:LEU:CA	38:DR:34:ILE:HG13	2.48	0.43
45:DY:36:ALA:HB1	45:DY:66:PRO:HB2	2.00	0.43
48:D1:29:GLY:C	48:D1:30:VAL:CG2	2.91	0.43
48:D1:51:VAL:HG12	48:D1:58:ILE:O	2.19	0.43
49:D2:18:PRO:O	49:D2:21:LEU:HB2	2.18	0.43
53:D6:42:TRP:CE3	53:D6:42:TRP:HA	2.52	0.43
55:D8:53:PRO:C	55:D8:55:ALA:N	2.73	0.43
56:D9:4:ARG:O	56:D9:36:GLN:HA	2.18	0.43
1:AA:21:G:H2'	1:AA:22:G:C8	2.53	0.43
1:AA:74:C:H42	1:AA:88:G:H1	1.67	0.43
1:AA:385:C:H2'	1:AA:386:G:H8	1.83	0.43
1:AA:396:C:N3	1:AA:397:G:N7	2.67	0.43
1:AA:794:C:H4'	1:AA:877:A:N6	2.33	0.43
1:AA:949:C:O3'	10:AJ:57:LYS:CG	2.66	0.43
1:AA:1054:G:H21	2:AB:107:THR:HG21	1.83	0.43
1:AA:1116:G:H2'	1:AA:1117:U:H5'	1.98	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:37:ASN:O	2:AB:39:ILE:N	2.46	0.43
5:AE:90:VAL:O	5:AE:91:LEU:HD12	2.18	0.43
7:AG:148:ASN:O	7:AG:150:ALA:N	2.51	0.43
7:AG:151:TYR:O	7:AG:154:TYR:HB2	2.18	0.43
9:AI:46:ALA:HB2	9:AI:74:ILE:HG23	2.00	0.43
9:AI:116:LYS:HA	9:AI:116:LYS:HD3	1.73	0.43
14:AN:50:LYS:H	14:AN:50:LYS:HG3	1.66	0.43
23:AV:1:C:N4	23:AV:74:A:C2	2.86	0.43
23:AV:14:A:H2'	23:AV:14:A:N3	2.34	0.43
23:AV:66:C:C6	23:AV:66:C:C4'	3.02	0.43
25:BA:330:A:H2	25:BA:1210:A:H2'	1.83	0.43
25:BA:350:U:H2'	25:BA:351:G:O4'	2.19	0.43
25:BA:792:G:C5'	25:BA:793:A:H5'	2.45	0.43
25:BA:906:G:O3'	37:BQ:67:ARG:NH2	2.50	0.43
25:BA:1048:A:H4'	25:BA:1049:C:C5	2.53	0.43
25:BA:1109:C:C5	25:BA:1110:G:C5	3.06	0.43
25:BA:1142(A):A:C5	25:BA:1144:G:C5	3.07	0.43
25:BA:1309:G:P	54:B7:9:ARG:HD2	2.58	0.43
25:BA:1438:U:O2'	25:BA:1439:A:H5'	2.18	0.43
25:BA:1847:A:H3'	25:BA:1848:A:C5'	2.48	0.43
25:BA:2033:A:O2'	25:BA:2034:U:O5'	2.36	0.43
25:BA:2134:A:N6	25:BA:2157:G:C1'	2.73	0.43
25:BA:2150:U:H2'	25:BA:2151:G:H8	1.79	0.43
25:BA:2287:A:C2	25:BA:2346:A:C2	3.06	0.43
25:BA:2408:U:O5'	25:BA:2408:U:H6	2.01	0.43
25:BA:2654:A:N1	25:BA:2665:A:H5''	2.34	0.43
25:BA:2667:C:H1'	32:BH:109:PHE:CD2	2.53	0.43
25:BA:2770:G:H5'	25:BA:2771:C:OP2	2.19	0.43
26:BB:107:G:C2	26:BB:108:U:C6	3.06	0.43
27:BC:58:VAL:HG22	27:BC:167:LYS:CA	2.49	0.43
28:BD:142:VAL:CG2	28:BD:192:THR:O	2.66	0.43
29:BE:11:MET:O	40:BT:8:LYS:NZ	2.50	0.43
29:BE:52:LEU:HA	29:BE:53:PRO:HD3	1.50	0.43
29:BE:101:ARG:HH21	29:BE:171:GLU:N	2.16	0.43
29:BE:117:MET:O	29:BE:118:LYS:HB2	2.19	0.43
31:BG:28:VAL:C	31:BG:30:GLU:N	2.76	0.43
32:BH:130:ARG:NH1	32:BH:132:ARG:HH21	2.16	0.43
34:BN:3:THR:C	34:BN:5:VAL:N	2.77	0.43
37:BQ:115:MET:HE2	37:BQ:115:MET:HA	1.99	0.43
38:BR:10:LEU:HB3	38:BR:17:ARG:HD2	2.00	0.43
38:BR:24:GLN:O	38:BR:25:ALA:C	2.61	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BW:27:LYS:O	43:BW:70:TYR:HB2	2.17	0.43
43:BW:55:ALA:HA	43:BW:107:LEU:HD23	1.99	0.43
44:BX:63:LYS:HB3	44:BX:72:LYS:HG3	2.01	0.43
45:BY:37:VAL:O	45:BY:38:ILE:HG12	2.19	0.43
46:BZ:150:LEU:CD2	46:BZ:171:ILE:HG13	2.38	0.43
48:B1:23:LYS:CD	48:B1:28:GLY:HA3	2.49	0.43
54:B7:1:MET:SD	54:B7:3:ARG:NH2	2.92	0.43
1:CA:898:U:H2'	1:CA:899:G:O4'	2.18	0.43
1:CA:921:G:O2'	1:CA:1320:A:N6	2.52	0.43
1:CA:1134:A:H2'	1:CA:1135:C:C6	2.50	0.43
1:CA:1207:C:N4	13:CM:104:ARG:HD2	2.33	0.43
1:CA:1257:G:H2'	1:CA:1258:C:O4'	2.18	0.43
1:CA:1473:C:H4'	25:DA:1920:C:O2'	2.19	0.43
2:CB:19:HIS:CG	2:CB:189:ASP:OD2	2.72	0.43
2:CB:77:ALA:CB	2:CB:211:ILE:CD1	2.96	0.43
2:CB:168:THR:O	2:CB:169:LYS:C	2.61	0.43
4:CD:11:LEU:O	4:CD:12:CYS:C	2.62	0.43
4:CD:108:LEU:O	4:CD:110:PHE:CD1	2.71	0.43
6:CF:63:TYR:N	6:CF:63:TYR:HD2	2.17	0.43
7:CG:11:GLN:CD	7:CG:12:LEU:H	2.26	0.43
8:CH:38:ILE:HG12	8:CH:41:ARG:HH11	1.83	0.43
9:CI:95:LYS:N	9:CI:98:PRO:HD2	2.33	0.43
13:CM:50:GLU:O	13:CM:54:VAL:HG23	2.18	0.43
15:CO:32:LEU:C	15:CO:34:LEU:N	2.75	0.43
15:CO:82:ILE:HD11	15:CO:87:ILE:C	2.43	0.43
17:CQ:29:HIS:CE1	17:CQ:31:LEU:H	2.33	0.43
17:CQ:75:ARG:HG3	17:CQ:75:ARG:NH1	2.33	0.43
19:CS:9:VAL:CG1	19:CS:11:VAL:HG12	2.48	0.43
22:CW:53:G:N1	22:CW:54:U:C4	2.86	0.43
23:CV:15:G:H22	23:CV:49:C:N4	2.10	0.43
22:CY:36:A:H2	24:CX:20:U:C2	2.36	0.43
25:DA:142:A:H1'	25:DA:1408:C:O4'	2.18	0.43
25:DA:644:A:N6	25:DA:2349:G:H1'	2.33	0.43
25:DA:886:C:C2	25:DA:889:C:N4	2.86	0.43
25:DA:1378:A:OP1	54:D7:10:ARG:NH2	2.51	0.43
25:DA:1655:A:H4'	29:DE:115:GLY:N	2.34	0.43
25:DA:1986:A:H3'	25:DA:1987:G:H5''	1.94	0.43
25:DA:2136:C:N4	25:DA:2155:G:N1	2.67	0.43
25:DA:2308:G:H2'	25:DA:2309:A:H8	1.80	0.43
25:DA:2521:C:O2'	25:DA:2564:A:N3	2.34	0.43
26:DB:69:G:C2	26:DB:70:C:N3	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DB:73:A:C2'	26:DB:74:U:H5'	2.47	0.43
28:DD:43:ARG:HG2	28:DD:54:ARG:O	2.19	0.43
28:DD:142:VAL:CG2	28:DD:192:THR:O	2.66	0.43
29:DE:101:ARG:HH21	29:DE:171:GLU:N	2.17	0.43
30:DF:57:VAL:CG1	30:DF:59:TYR:HD1	2.31	0.43
33:DI:145:VAL:CG1	33:DI:146:ALA:N	2.68	0.43
36:DP:48:PRO:HG2	36:DP:49:ARG:N	2.29	0.43
37:DQ:25:ASP:OD1	37:DQ:25:ASP:N	2.52	0.43
37:DQ:81:VAL:CG2	47:D0:7:LEU:CD2	2.96	0.43
38:DR:24:GLN:O	38:DR:25:ALA:C	2.61	0.43
42:DV:28:GLU:HB3	42:DV:29:PRO:CD	2.48	0.43
42:DV:49:THR:CB	42:DV:50:PRO:HD2	2.47	0.43
44:DX:36:LYS:HD2	44:DX:54:VAL:O	2.18	0.43
46:DZ:45:ASP:O	46:DZ:46:LYS:C	2.61	0.43
46:DZ:132:ASN:HB3	46:DZ:159:PRO:O	2.19	0.43
46:DZ:153:SER:C	46:DZ:155:LEU:H	2.26	0.43
47:D0:34:GLY:O	47:D0:35:ASN:C	2.62	0.43
48:D1:8:SER:HB3	48:D1:66:HIS:NE2	2.33	0.43
53:D6:11:LEU:HD13	53:D6:12:GLU:N	2.34	0.43
55:D8:64:TYR:CD1	55:D8:64:TYR:N	2.86	0.43
1:AA:264:C:H2'	1:AA:265:A:C8	2.53	0.43
1:AA:268:A:N6	1:AA:269:A:N6	2.66	0.43
1:AA:752:G:OP2	1:AA:786:G:O2'	2.34	0.43
1:AA:958:U:H5'	14:AN:21:TYR:OH	2.18	0.43
1:AA:1173:C:C5	1:AA:1174:G:C8	3.07	0.43
1:AA:1478:C:OP2	1:AA:1481:G:H2'	2.18	0.43
3:AC:6:HIS:CD2	3:AC:8:ILE:H	2.37	0.43
4:AD:127:THR:HG23	4:AD:149:ALA:HB2	2.01	0.43
4:AD:196:LEU:C	4:AD:198:VAL:H	2.25	0.43
9:AI:79:LEU:C	9:AI:79:LEU:HD13	2.44	0.43
13:AM:94:ARG:NH2	25:BA:887:A:C4	2.87	0.43
14:AN:37:PHE:C	14:AN:39:LEU:H	2.26	0.43
20:AT:90:GLN:C	20:AT:93:GLU:OE2	2.61	0.43
22:AW:50:U:C4	22:AW:51:U:C4	3.07	0.43
25:BA:36:G:H4'	25:BA:451:C:C2	2.53	0.43
25:BA:125:G:H21	54:B7:48:LYS:CD	2.31	0.43
25:BA:271(G):C:O2'	25:BA:271(H):G:H5'	2.18	0.43
25:BA:351:G:H8	25:BA:351:G:P	2.42	0.43
25:BA:811:U:OP1	36:BP:30:THR:HG22	2.19	0.43
25:BA:857:C:H5'	47:B0:77:ARG:NH2	2.29	0.43
25:BA:910:A:C5	37:BQ:13:GLN:CG	2.95	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:953:A:N6	25:BA:965:C:N4	2.67	0.43
25:BA:953:A:C6	25:BA:965:C:N3	2.86	0.43
25:BA:1493:C:C4	25:BA:2206:G:O2'	2.68	0.43
25:BA:2162:G:O3'	25:BA:2172:U:O2'	2.24	0.43
25:BA:2336:A:H61	47:B0:43:THR:CG2	2.31	0.43
25:BA:2464:C:C2'	25:BA:2465:C:O5'	2.66	0.43
25:BA:2825:C:H2'	25:BA:2826:A:O4'	2.19	0.43
26:BB:30:C:H4'	26:BB:58:A:H2	1.83	0.43
26:BB:69:G:N2	26:BB:70:C:C2	2.87	0.43
27:BC:78:ALA:HB1	27:BC:82:LYS:HB2	2.00	0.43
29:BE:120:TRP:NE1	29:BE:155:LYS:HB3	2.34	0.43
30:BF:8:GLN:HB2	30:BF:124:LEU:HD11	2.00	0.43
30:BF:46:ARG:NH1	30:BF:46:ARG:CG	2.77	0.43
30:BF:164:ARG:HG3	30:BF:175:THR:HG1	1.82	0.43
31:BG:53:LEU:N	31:BG:53:LEU:CD2	2.81	0.43
32:BH:26:VAL:HG11	32:BH:76:VAL:HA	2.01	0.43
32:BH:153:LYS:O	32:BH:153:LYS:HD3	2.19	0.43
33:BI:114:LEU:O	33:BI:115:ALA:CB	2.65	0.43
36:BP:115:LEU:N	36:BP:115:LEU:CD2	2.82	0.43
37:BQ:81:VAL:CG2	47:B0:7:LEU:CD2	2.97	0.43
39:BS:16:ASN:O	39:BS:20:ARG:NH2	2.51	0.43
42:BV:61:VAL:HA	42:BV:94:LEU:HD23	1.99	0.43
45:BY:30:VAL:CG1	45:BY:31:LEU:N	2.81	0.43
46:BZ:74:VAL:HG22	46:BZ:86:VAL:CG1	2.49	0.43
46:BZ:77:ASP:C	46:BZ:79:ARG:H	2.27	0.43
46:BZ:128:VAL:HG22	46:BZ:129:SER:H	1.84	0.43
46:BZ:153:SER:C	46:BZ:155:LEU:H	2.26	0.43
48:B1:29:GLY:C	48:B1:31:GLY:N	2.76	0.43
49:B2:3:LEU:O	49:B2:3:LEU:HD23	2.18	0.43
49:B2:14:ARG:HG3	49:B2:14:ARG:NH1	2.26	0.43
50:B3:23:LEU:CD1	50:B3:50:VAL:HG11	2.49	0.43
55:B8:29:LYS:CE	55:B8:44:LYS:HB3	2.49	0.43
55:B8:53:PRO:C	55:B8:55:ALA:N	2.73	0.43
55:B8:57:ARG:C	55:B8:59:LYS:N	2.75	0.43
1:CA:41:G:H2'	1:CA:42:G:H8	1.82	0.43
1:CA:57:G:H2'	1:CA:58:C:H6	1.80	0.43
1:CA:482:A:N6	1:CA:530:A:C8	2.87	0.43
1:CA:685:A:C5	25:DA:1848:A:C4	3.06	0.43
1:CA:718:C:H2'	1:CA:719:C:H6	1.84	0.43
1:CA:740:U:H2'	1:CA:741:G:O4'	2.18	0.43
1:CA:896:A:H8	1:CA:896:A:O5'	2.02	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:917:C:H2'	1:CA:918:G:C8	2.53	0.43
1:CA:1259:U:C6	1:CA:1259:U:C3'	3.01	0.43
1:CA:1266:A:OP1	1:CA:1266:A:H8	2.00	0.43
1:CA:1456:C:H2'	1:CA:1457:G:H8	1.83	0.43
2:CB:24:TRP:HB3	2:CB:40:HIS:CE1	2.53	0.43
2:CB:80:ILE:CD1	2:CB:212:GLN:HA	2.48	0.43
2:CB:112:VAL:CG1	2:CB:153:ARG:HA	2.47	0.43
2:CB:134:GLU:CA	2:CB:137:ARG:HB3	2.47	0.43
2:CB:219:VAL:HA	2:CB:222:ILE:HG13	2.00	0.43
3:CC:66:VAL:O	3:CC:66:VAL:HG12	2.19	0.43
3:CC:188:LEU:O	3:CC:189:ALA:HB2	2.18	0.43
6:CF:3:ARG:NH1	6:CF:38:GLU:OE1	2.51	0.43
6:CF:75:LEU:O	6:CF:78:GLU:HB3	2.19	0.43
7:CG:50:ILE:HG21	7:CG:58:PRO:CA	2.39	0.43
7:CG:59:LEU:HD23	7:CG:60:LYS:N	2.33	0.43
8:CH:109:ILE:CG1	8:CH:110:ALA:H	2.23	0.43
9:CI:58:HIS:C	9:CI:59:PHE:CD1	2.97	0.43
10:CJ:40:LEU:CG	10:CJ:69:ASN:HB3	2.43	0.43
10:CJ:48:THR:HG22	10:CJ:49:VAL:N	2.33	0.43
13:CM:14:ARG:HB2	13:CM:16:ASP:OD2	2.18	0.43
15:CO:17:ARG:HD3	15:CO:26:GLU:HG3	2.01	0.43
22:CW:1:G:C6	22:CW:2:C:C4	3.06	0.43
22:CW:14:A:C2	22:CW:15:G:O4'	2.71	0.43
22:CY:30:G:C6	22:CY:31:A:N7	2.86	0.43
22:CY:34:G:H5''	22:CY:35:A:OP2	2.19	0.43
22:CY:37:A:C6	22:CY:38:A:C4	3.07	0.43
25:DA:188:G:C2'	25:DA:189:G:H5'	2.48	0.43
25:DA:957:A:N1	25:DA:2458:G:H4'	2.33	0.43
25:DA:1289:C:H2'	25:DA:1290:C:C6	2.54	0.43
25:DA:1453:U:C5	25:DA:2702:U:O4	2.71	0.43
25:DA:1503:U:C4	25:DA:1504:C:N4	2.83	0.43
25:DA:1653:G:O6	38:DR:11:ASN:HB2	2.19	0.43
25:DA:2127:G:H5'	27:DC:36:LYS:HZ3	1.82	0.43
25:DA:2168:G:C2	25:DA:2171:A:C8	3.07	0.43
25:DA:2801(A):A:C2	25:DA:2803:C:O2	2.71	0.43
25:DA:2810:A:C2'	29:DE:61:ARG:CZ	2.97	0.43
27:DC:187:ASP:O	27:DC:189:ILE:N	2.50	0.43
28:DD:241:PRO:O	28:DD:242:ARG:HB2	2.19	0.43
29:DE:35:GLN:HG2	29:DE:36:ARG:N	2.33	0.43
30:DF:8:GLN:HB2	30:DF:124:LEU:HD11	2.00	0.43
31:DG:14:GLU:O	31:DG:17:PRO:HG2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DG:28:VAL:C	31:DG:30:GLU:N	2.76	0.43
31:DG:125:PHE:HB2	31:DG:166:ASP:OD2	2.18	0.43
32:DH:76:VAL:C	32:DH:78:GLY:N	2.76	0.43
34:DN:62:VAL:HG22	34:DN:66:LYS:HD2	1.99	0.43
34:DN:78:TYR:N	34:DN:78:TYR:HD1	2.15	0.43
36:DP:83:VAL:HG23	36:DP:105:LEU:HD12	2.01	0.43
38:DR:16:HIS:O	38:DR:17:ARG:C	2.60	0.43
39:DS:26:LEU:HA	39:DS:38:GLN:O	2.18	0.43
40:DT:99:LEU:C	40:DT:101:PHE:H	2.27	0.43
45:DY:30:VAL:CG1	45:DY:31:LEU:N	2.81	0.43
45:DY:37:VAL:O	45:DY:38:ILE:HG12	2.19	0.43
50:D3:1:MET:HE1	50:D3:41:PRO:HD3	1.99	0.43
54:D7:6:GLN:HA	54:D7:7:PRO:HD2	1.82	0.43
55:D8:61:LEU:N	55:D8:63:PRO:HD2	2.33	0.43
1:AA:142:G:C2	1:AA:143:A:N7	2.86	0.43
1:AA:372:G:OP1	16:AP:3:LYS:HD2	2.18	0.43
1:AA:1004:G:OP2	1:AA:1005:C:N4	2.51	0.43
1:AA:1078:C:H2'	1:AA:1079:C:C6	2.54	0.43
3:AC:54:ARG:NH1	3:AC:56:ASP:HB2	2.34	0.43
5:AE:7:GLU:HG2	5:AE:37:ARG:HH21	1.84	0.43
5:AE:76:ILE:HG13	5:AE:77:PRO:HD2	2.00	0.43
6:AF:21:LEU:HD13	6:AF:24:GLU:OE1	2.19	0.43
7:AG:43:PHE:HD1	7:AG:43:PHE:O	2.01	0.43
11:AK:48:ILE:CD1	11:AK:64:ALA:HA	2.45	0.43
12:AL:6:THR:O	12:AL:7:ILE:C	2.62	0.43
13:AM:65:LYS:HG3	13:AM:66:LEU:H	1.83	0.43
13:AM:96:LEU:HA	13:AM:110:ARG:HD3	1.98	0.43
18:AR:82:THR:CG2	18:AR:83:GLU:H	2.30	0.43
20:AT:53:LEU:HA	20:AT:56:MET:HE2	1.99	0.43
22:AW:68:C:O2'	22:AW:69:G:H5'	2.19	0.43
23:AV:20:G:N1	23:AV:58:A:N3	2.66	0.43
23:AV:36:A:H61	24:AX:17:U:H3	1.66	0.43
25:BA:297:C:C2'	25:BA:298:G:C5'	2.81	0.43
25:BA:389:G:N1	36:BP:71:VAL:CG1	2.78	0.43
25:BA:569:U:H1'	25:BA:947:G:O4'	2.18	0.43
25:BA:920:G:O2'	25:BA:921:G:H5'	2.19	0.43
25:BA:1796:U:H2'	25:BA:1797:C:H6	1.83	0.43
25:BA:2181:G:O2'	25:BA:2182:G:H5'	2.18	0.43
25:BA:2287:A:N3	25:BA:2289:G:C8	2.87	0.43
26:BB:7:G:H21	39:BS:38:GLN:CD	2.26	0.43
27:BC:42:GLU:H	27:BC:213:TYR:H	1.67	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BD:22:SER:O	28:BD:23:GLU:C	2.60	0.43
28:BD:158:ALA:O	28:BD:161:THR:HG23	2.18	0.43
29:BE:45:THR:CG2	29:BE:83:ASP:HA	2.45	0.43
29:BE:93:VAL:C	29:BE:95:ILE:N	2.77	0.43
30:BF:53:THR:HG22	30:BF:56:GLU:CD	2.44	0.43
30:BF:181:LEU:HB3	30:BF:205:ARG:HH12	1.84	0.43
30:BF:187:VAL:HG12	36:BP:7:ARG:NH2	2.33	0.43
31:BG:106:LEU:CA	31:BG:110:ALA:HB3	2.44	0.43
31:BG:165:THR:HG1	31:BG:168:GLU:H	1.63	0.43
32:BH:89:ILE:O	32:BH:161:GLY:O	2.36	0.43
33:BI:10:GLU:CD	33:BI:11:ASN:N	2.77	0.43
34:BN:126:PRO:O	34:BN:127:ASP:CB	2.66	0.43
36:BP:51:PHE:CE1	36:BP:52:GLU:OE1	2.72	0.43
37:BQ:62:GLY:H	37:BQ:109:VAL:HG23	1.84	0.43
39:BS:17:ARG:H	39:BS:17:ARG:HG2	1.65	0.43
39:BS:28:VAL:CG1	39:BS:29:PHE:N	2.81	0.43
42:BV:41:GLY:N	42:BV:45:THR:HB	2.32	0.43
43:BW:2:GLU:HA	43:BW:64:MET:HE1	2.01	0.43
45:BY:20:TYR:CE1	45:BY:42:VAL:HG22	2.54	0.43
46:BZ:3:TYR:N	46:BZ:3:TYR:CD1	2.85	0.43
46:BZ:11:GLU:CD	46:BZ:11:GLU:N	2.73	0.43
47:B0:34:GLY:O	47:B0:35:ASN:C	2.62	0.43
47:B0:49:LYS:HB2	47:B0:80:HIS:HB3	2.01	0.43
48:B1:23:LYS:O	48:B1:24:ALA:C	2.61	0.43
55:B8:28:GLY:C	55:B8:32:LEU:HG	2.44	0.43
1:CA:902:G:C2	1:CA:1374:G:C2	3.06	0.43
1:CA:902:G:C4	1:CA:1374:G:N2	2.87	0.43
1:CA:1086:G:H2'	1:CA:1087:A:O4'	2.19	0.43
1:CA:1095:C:O5'	1:CA:1095:C:H6	2.01	0.43
1:CA:1329:U:H2'	1:CA:1330:A:H8	1.83	0.43
1:CA:1407:U:H1'	1:CA:1453:G:N2	2.33	0.43
2:CB:15:VAL:C	2:CB:16:HIS:CG	2.96	0.43
2:CB:69:LEU:HB2	2:CB:159:PRO:HG2	2.01	0.43
3:CC:77:ILE:O	3:CC:83:ARG:HB3	2.19	0.43
3:CC:196:LEU:HB3	3:CC:197:GLY:H	1.72	0.43
4:CD:43:HIS:O	4:CD:44:GLY:C	2.62	0.43
5:CE:33:VAL:C	5:CE:112:LEU:HD12	2.44	0.43
7:CG:78:ARG:NE	7:CG:79:ARG:O	2.51	0.43
7:CG:95:ARG:HG3	7:CG:95:ARG:NH1	2.33	0.43
10:CJ:63:PHE:CD2	10:CJ:63:PHE:N	2.85	0.43
11:CK:34:ASP:OD2	11:CK:36:ASP:N	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:72:ALA:HA	13:CM:75:ALA:HB2	2.00	0.43
13:CM:94:ARG:CZ	25:DA:887:A:C3'	2.93	0.43
20:CT:90:GLN:C	20:CT:93:GLU:OE2	2.61	0.43
22:CW:13:C:C2	22:CW:23:A:N1	2.87	0.43
22:CY:33:U:O2'	22:CY:35:A:N7	2.42	0.43
25:DA:271(F):C:H2'	25:DA:271(G):C:C6	2.49	0.43
25:DA:272:G:C6	25:DA:272(B):G:N2	2.86	0.43
25:DA:478:A:C6	25:DA:480:A:C6	3.06	0.43
25:DA:874:G:O2'	25:DA:875:G:H5'	2.19	0.43
25:DA:958:U:O2	26:DB:90:A:H4'	2.19	0.43
25:DA:1710:C:O2'	25:DA:1711:C:H5'	2.18	0.43
25:DA:1819:A:O4'	25:DA:1821:A:C8	2.71	0.43
25:DA:1992:G:C4'	25:DA:1993:U:OP1	2.53	0.43
25:DA:2128:C:O5'	27:DC:35:ALA:CB	2.61	0.43
25:DA:2134:A:N3	25:DA:2159:G:H1'	2.30	0.43
25:DA:2146:C:H4'	25:DA:2147:G:C8	2.52	0.43
27:DC:214:VAL:O	27:DC:216:THR:N	2.51	0.43
28:DD:30:GLU:CD	28:DD:63:ARG:NH2	2.77	0.43
28:DD:261:LYS:HZ1	28:DD:263:ARG:NH1	2.17	0.43
29:DE:120:TRP:NE1	29:DE:155:LYS:HB3	2.34	0.43
31:DG:43:LEU:CB	31:DG:88:ILE:HG12	2.39	0.43
33:DI:6:LEU:HD12	33:DI:34:GLY:O	2.18	0.43
34:DN:79:PRO:C	34:DN:81:GLY:N	2.77	0.43
35:DO:104:ARG:HH12	40:DT:35:LYS:CG	2.32	0.43
36:DP:104:GLY:C	36:DP:105:LEU:HD23	2.44	0.43
37:DQ:10:ARG:HG3	37:DQ:10:ARG:NH1	2.32	0.43
39:DS:48:LEU:H	39:DS:48:LEU:CD1	2.31	0.43
39:DS:101:LEU:HD22	39:DS:101:LEU:O	2.19	0.43
43:DW:1:MET:CE	43:DW:2:GLU:H	2.32	0.43
43:DW:97:LYS:O	43:DW:98:LYS:C	2.61	0.43
46:DZ:128:VAL:HG22	46:DZ:129:SER:H	1.84	0.43
47:D0:43:THR:O	47:D0:43:THR:HG23	2.18	0.43
50:D3:31:LEU:O	50:D3:33:GLN:N	2.52	0.43
54:D7:29:LYS:O	54:D7:32:LYS:HB3	2.19	0.43
55:D8:29:LYS:CE	55:D8:44:LYS:HB3	2.49	0.43
1:AA:136:G:N1	1:AA:137:A:C5	2.87	0.43
1:AA:398:C:H2'	1:AA:399:U:C6	2.53	0.43
1:AA:565:U:OP1	15:AO:68:ARG:NH2	2.52	0.43
1:AA:1267:A:C8	1:AA:1268:A:H4'	2.54	0.43
1:AA:1294:U:O5'	1:AA:1294:U:C6	2.62	0.43
1:AA:1452:G:H4'	25:BA:1689:A:H4'	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:223:ILE:O	2:AB:227:GLY:N	2.52	0.43
4:AD:39:PRO:O	4:AD:44:GLY:HA3	2.17	0.43
5:AE:110:LEU:HD13	5:AE:118:ILE:HG21	2.00	0.43
9:AI:121:ARG:HD3	9:AI:121:ARG:C	2.43	0.43
10:AJ:51:ARG:HE	10:AJ:61:GLU:HB2	1.83	0.43
12:AL:62:SER:C	12:AL:64:TYR:H	2.27	0.43
13:AM:3:ARG:HG2	13:AM:9:ILE:HG13	2.01	0.43
15:AO:38:ARG:HH11	15:AO:38:ARG:HG2	1.83	0.43
17:AQ:60:ILE:O	17:AQ:61:GLU:C	2.62	0.43
19:AS:22:LEU:HD13	19:AS:27:GLU:CB	2.49	0.43
22:AW:9:A:O2'	22:AW:10:G:N7	2.52	0.43
22:AW:28:G:N2	22:AW:43:C:O2	2.52	0.43
25:BA:109:G:C2'	25:BA:110:G:O5'	2.67	0.43
25:BA:234:C:H2'	25:BA:235:U:H6	1.84	0.43
25:BA:271(H):G:O6	25:BA:271(Q):G:O6	2.35	0.43
25:BA:281:G:N2	25:BA:358:U:C4	2.84	0.43
25:BA:541:C:H2'	25:BA:542:C:C5'	2.42	0.43
25:BA:582:G:H2'	25:BA:583:G:C8	2.54	0.43
25:BA:624:C:C2'	25:BA:625:G:H5'	2.48	0.43
25:BA:644:A:N6	25:BA:2349:G:H1'	2.33	0.43
25:BA:848:G:H5'	25:BA:848:G:C8	2.52	0.43
25:BA:956:G:N2	25:BA:959:A:H3'	2.34	0.43
25:BA:1209:G:O2'	25:BA:1237:A:N1	2.47	0.43
25:BA:1363:C:H2'	25:BA:1364:G:H8	1.84	0.43
25:BA:1407:C:H42	25:BA:1595:G:H1	1.66	0.43
25:BA:1488:G:C2	25:BA:1489:U:O2	2.72	0.43
25:BA:2206:G:H3'	25:BA:2206:G:N3	2.34	0.43
25:BA:2236:C:H2'	25:BA:2237:G:C5'	2.48	0.43
25:BA:2488:A:H2'	25:BA:2489:G:O4'	2.19	0.43
25:BA:2813:A:C2'	25:BA:2814:C:H5'	2.49	0.43
26:BB:75:G:H1	26:BB:103:G:N2	2.16	0.43
28:BD:153:ALA:C	28:BD:154:LYS:HG2	2.44	0.43
28:BD:241:PRO:O	28:BD:242:ARG:HB2	2.19	0.43
31:BG:167:GLU:C	31:BG:169:ALA:N	2.77	0.43
32:BH:17:VAL:O	32:BH:19:VAL:HG23	2.19	0.43
33:BI:113:ARG:HD2	33:BI:113:ARG:H	1.83	0.43
34:BN:72:TYR:N	34:BN:72:TYR:CD1	2.87	0.43
35:BO:19:ILE:HG22	35:BO:43:VAL:HA	2.01	0.43
36:BP:111:ARG:CZ	36:BP:149:GLU:HG3	2.48	0.43
38:BR:53:HIS:ND1	38:BR:53:HIS:O	2.52	0.43
38:BR:60:LEU:O	38:BR:63:ARG:HB3	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BV:35:LEU:O	42:BV:36:PRO:C	2.61	0.43
43:BW:20:VAL:HG11	43:BW:44:ALA:HA	2.01	0.43
44:BX:44:GLU:O	44:BX:46:ALA:N	2.45	0.43
45:BY:27:VAL:CA	45:BY:28:LYS:NZ	2.69	0.43
45:BY:31:LEU:HD23	45:BY:36:ALA:C	2.44	0.43
46:BZ:45:ASP:O	46:BZ:46:LYS:C	2.61	0.43
46:BZ:51:ALA:O	46:BZ:52:SER:HB3	2.19	0.43
46:BZ:99:TYR:HA	46:BZ:125:LEU:HA	2.01	0.43
46:BZ:127:LYS:HD3	46:BZ:162:GLU:OE1	2.19	0.43
53:B6:36:LEU:HD13	53:B6:50:ARG:HH11	1.83	0.43
55:B8:38:GLY:O	55:B8:42:ARG:HB3	2.19	0.43
1:CA:185:C:H2'	1:CA:186:C:C6	2.54	0.43
1:CA:451:C:C2	1:CA:460:G:C2	3.07	0.43
1:CA:1113:G:H2'	1:CA:1114:C:C6	2.54	0.43
1:CA:1208:A:O2'	13:CM:115:LYS:CB	2.67	0.43
1:CA:1239:G:O2'	1:CA:1240:C:H5'	2.18	0.43
1:CA:1310:A:C2	1:CA:1311:U:C2	3.06	0.43
1:CA:1381:C:C2	1:CA:1383:G:C6	3.07	0.43
2:CB:12:GLU:C	2:CB:14:GLY:N	2.73	0.43
2:CB:95:GLN:NE2	2:CB:147:LYS:HG2	2.29	0.43
4:CD:14:ARG:C	4:CD:16:GLY:N	2.77	0.43
4:CD:96:LEU:N	4:CD:96:LEU:CD1	2.82	0.43
8:CH:44:PHE:HA	8:CH:79:VAL:HG12	2.01	0.43
12:CL:113:ARG:NH1	12:CL:120:TYR:CD2	2.87	0.43
14:CN:26:ARG:HD2	14:CN:43:CYS:CB	2.49	0.43
16:CP:6:LEU:HB3	16:CP:17:TYR:HD2	1.84	0.43
16:CP:82:GLN:O	16:CP:83:GLU:HB2	2.19	0.43
20:CT:61:SER:C	20:CT:63:ILE:N	2.76	0.43
23:CV:29:C:C6	23:CV:29:C:H3'	2.54	0.43
23:CV:30:G:O5'	23:CV:30:G:C8	2.67	0.43
23:CV:30:G:C6	23:CV:43:G:C6	3.07	0.43
25:DA:332:A:O2'	25:DA:333:G:P	2.77	0.43
25:DA:337:C:H2'	25:DA:338:G:O5'	2.19	0.43
25:DA:351:G:H8	25:DA:351:G:P	2.42	0.43
25:DA:375:C:H2'	25:DA:376:C:C6	2.54	0.43
25:DA:855:G:C6	25:DA:856:C:C4	3.07	0.43
25:DA:892:G:O2'	25:DA:893:C:H5'	2.18	0.43
25:DA:920:G:O2'	25:DA:921:G:H5'	2.19	0.43
25:DA:956:G:N2	25:DA:959:A:H3'	2.34	0.43
25:DA:1313:U:H2'	25:DA:1314:C:H5'	2.00	0.43
25:DA:1488:G:C2	25:DA:1489:U:O2	2.72	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1541:G:H5''	25:DA:1542:A:OP2	2.19	0.43
25:DA:1819:A:C4'	25:DA:1820:U:O5'	2.60	0.43
25:DA:1937:A:C8	25:DA:1939:U:H2'	2.54	0.43
25:DA:2206:G:H3'	25:DA:2206:G:N3	2.34	0.43
25:DA:2287:A:N3	25:DA:2289:G:C8	2.87	0.43
25:DA:2813:A:C2'	25:DA:2814:C:H5'	2.49	0.43
26:DB:107:G:C2	26:DB:108:U:N1	2.87	0.43
29:DE:110:GLY:CA	29:DE:162:ALA:H	2.30	0.43
30:DF:181:LEU:HB3	30:DF:205:ARG:HH12	1.84	0.43
36:DP:47:ASP:HB2	36:DP:51:PHE:HB2	2.01	0.43
38:DR:33:ARG:HD2	38:DR:33:ARG:N	2.33	0.43
40:DT:23:ARG:CG	40:DT:120:ARG:HH11	2.31	0.43
41:DU:98:LEU:C	41:DU:100:VAL:N	2.75	0.43
44:DX:64:LYS:HB3	44:DX:64:LYS:HE2	1.84	0.43
46:DZ:5:LEU:HD12	46:DZ:6:LYS:N	2.33	0.43
49:D2:63:VAL:O	49:D2:64:LEU:C	2.62	0.43
49:D2:64:LEU:O	49:D2:64:LEU:HD22	2.18	0.43
51:D4:45:GLY:O	51:D4:46:ASN:O	2.37	0.43
55:D8:38:GLY:O	55:D8:42:ARG:HB3	2.19	0.43
1:AA:965:G:H2'	1:AA:966:C:O4'	2.19	0.43
1:AA:1046:G:H5'	1:AA:1048:C:H1'	2.00	0.43
1:AA:1210:A:H2'	1:AA:1211:C:C6	2.54	0.43
2:AB:102:LEU:HD23	2:AB:182:ILE:HD12	2.00	0.43
2:AB:204:ASN:HD21	2:AB:206:ASP:H	1.66	0.43
4:AD:189:PRO:CB	4:AD:194:LEU:HD21	2.40	0.43
4:AD:195:ALA:O	6:CF:16:GLN:O	2.37	0.43
4:AD:196:LEU:C	6:CF:16:GLN:HG3	2.44	0.43
7:AG:95:ARG:HH11	7:AG:95:ARG:HG3	1.84	0.43
8:AH:84:ARG:HG2	8:AH:84:ARG:NH1	2.33	0.43
10:AJ:48:THR:HG22	10:AJ:49:VAL:N	2.33	0.43
10:AJ:63:PHE:HB3	14:AN:58:LYS:HA	1.99	0.43
14:AN:22:THR:HB	14:AN:33:VAL:HG21	2.01	0.43
14:AN:23:ARG:O	14:AN:24:CYS:O	2.37	0.43
15:AO:17:ARG:HD3	15:AO:26:GLU:HG3	2.01	0.43
15:AO:32:LEU:C	15:AO:34:LEU:N	2.77	0.43
17:AQ:78:GLU:O	17:AQ:78:GLU:HG3	2.19	0.43
19:AS:6:LYS:CD	19:AS:6:LYS:N	2.79	0.43
22:AW:75:C:C3'	22:AW:75:C:C6	3.02	0.43
22:AY:37:A:C4	22:AY:38:A:H1'	2.53	0.43
25:BA:10:G:C6	25:BA:2629:A:C8	3.06	0.43
25:BA:109:G:H2'	25:BA:110:G:C8	2.47	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:409:C:O2'	25:BA:410:G:H5'	2.18	0.43
25:BA:624:C:H6	25:BA:624:C:O5'	2.01	0.43
25:BA:855:G:C6	25:BA:856:C:C4	3.07	0.43
25:BA:1129:A:C4'	25:BA:2516:G:C4'	2.97	0.43
25:BA:1245:G:OP1	36:BP:16:ARG:NE	2.51	0.43
25:BA:1508:A:N3	25:BA:1508:A:H2'	2.34	0.43
25:BA:1509(B):A:H2'	25:BA:1510:G:C8	2.54	0.43
25:BA:1983:C:H4'	25:BA:2606:C:H4'	2.01	0.43
25:BA:2266:A:H4'	25:BA:2267:A:N3	2.33	0.43
25:BA:2306:C:N3	31:BG:43:LEU:O	2.52	0.43
25:BA:2465:C:O2	25:BA:2465:C:H2'	2.19	0.43
25:BA:2528:U:OP1	56:B9:30:PRO:HG2	2.19	0.43
25:BA:2784:C:H1'	29:BE:37:ARG:NH1	2.33	0.43
27:BC:45:ALA:HB3	27:BC:174:PRO:CB	2.49	0.43
27:BC:47:LEU:HB2	27:BC:207:THR:CB	2.49	0.43
29:BE:59:VAL:HG21	29:BE:63:LEU:HD12	2.01	0.43
29:BE:176:ILE:HB	29:BE:181:LEU:HB2	2.01	0.43
31:BG:76:SER:HB3	31:BG:84:LYS:HG3	2.00	0.43
31:BG:95:ARG:HG2	31:BG:95:ARG:NH1	2.34	0.43
31:BG:107:LEU:HD21	31:BG:178:PHE:CE1	2.53	0.43
31:BG:131:TYR:O	31:BG:159:VAL:HG13	2.18	0.43
31:BG:173:LEU:HD22	31:BG:178:PHE:CE2	2.53	0.43
32:BH:19:VAL:HG22	32:BH:24:VAL:HG12	2.01	0.43
32:BH:116:GLU:HG2	32:BH:117:PRO:N	2.34	0.43
32:BH:118:PRO:HD2	32:BH:123:PHE:HE1	1.83	0.43
34:BN:128:HIS:HA	34:BN:129:PRO:HD2	1.83	0.43
36:BP:51:PHE:CE2	36:BP:52:GLU:O	2.72	0.43
36:BP:75:ILE:N	36:BP:75:ILE:CD1	2.81	0.43
36:BP:104:GLY:C	36:BP:105:LEU:HD23	2.43	0.43
40:BT:64:ARG:NE	40:BT:73:GLU:OE1	2.51	0.43
43:BW:60:ASN:C	43:BW:61:ASN:HD22	2.27	0.43
43:BW:70:TYR:HE2	43:BW:108:GLY:HA3	1.83	0.43
45:BY:31:LEU:HD23	45:BY:36:ALA:H	1.84	0.43
46:BZ:12:GLY:O	46:BZ:13:GLU:HG3	2.18	0.43
52:B5:56:LYS:HD2	52:B5:56:LYS:N	2.34	0.43
55:B8:61:LEU:N	55:B8:63:PRO:HD2	2.33	0.43
1:CA:19:C:O2'	1:CA:555:A:N1	2.50	0.43
1:CA:261:G:O3'	17:CQ:67:LYS:HB2	2.19	0.43
1:CA:368:A:C2	1:CA:466:A:C6	3.06	0.43
1:CA:558:G:O2'	1:CA:804:G:H5'	2.18	0.43
1:CA:672:C:H2'	1:CA:673:G:O4'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1398:G:C2	1:CA:1462:U:O2	2.71	0.43
2:CB:127:ILE:C	2:CB:129:GLU:N	2.77	0.43
2:CB:187:LEU:O	2:CB:187:LEU:HD13	2.18	0.43
3:CC:8:ILE:C	3:CC:10:PHE:H	2.27	0.43
6:CF:52:ILE:HD12	6:CF:87:ARG:NH2	2.34	0.43
10:CJ:32:ALA:N	10:CJ:76:ASN:HD22	2.17	0.43
13:CM:37:THR:HG22	13:CM:59:TYR:HB2	2.00	0.43
14:CN:3:ARG:O	14:CN:7:ILE:HG23	2.18	0.43
14:CN:23:ARG:O	14:CN:24:CYS:O	2.37	0.43
17:CQ:59:ILE:HG22	17:CQ:71:PHE:CD1	2.54	0.43
17:CQ:78:GLU:O	17:CQ:78:GLU:HG3	2.18	0.43
18:CR:37:VAL:O	18:CR:41:LYS:HB2	2.18	0.43
19:CS:36:ARG:HH11	19:CS:36:ARG:HB3	1.83	0.43
20:CT:26:ASN:CB	20:CT:71:THR:HG21	2.39	0.43
22:CW:3:C:O2	22:CW:3:C:C2'	2.67	0.43
22:CW:18:G:C6	22:CW:55:U:H1'	2.52	0.43
23:CV:16:C:O2	23:CV:61:U:H4'	2.18	0.43
25:DA:246:C:C2'	25:DA:247:G:H5'	2.49	0.43
25:DA:582:G:H2'	25:DA:583:G:C8	2.54	0.43
25:DA:624:C:O2'	25:DA:657:U:H5'	2.19	0.43
25:DA:640:C:O2'	25:DA:641:C:H5'	2.19	0.43
25:DA:1287:A:C6	25:DA:1288:U:O4	2.72	0.43
25:DA:1681:G:H8	25:DA:1681:G:OP2	2.02	0.43
25:DA:1685:C:C3'	25:DA:1686:C:H5''	2.47	0.43
25:DA:2103:C:N3	25:DA:2186:G:N2	2.61	0.43
25:DA:2171:A:N3	25:DA:2172:U:C4	2.86	0.43
25:DA:2186:G:C6	25:DA:2187:G:C5	3.07	0.43
27:DC:58:VAL:HG22	27:DC:167:LYS:CA	2.49	0.43
28:DD:74:GLY:O	28:DD:76:PRO:HD3	2.19	0.43
28:DD:77:ALA:HB2	28:DD:97:TYR:CG	2.54	0.43
29:DE:47:VAL:HG21	29:DE:86:PRO:HD3	2.01	0.43
30:DF:20:LEU:HG	30:DF:21:ALA:N	2.24	0.43
30:DF:53:THR:HG22	30:DF:56:GLU:CD	2.44	0.43
31:DG:76:SER:HB3	31:DG:84:LYS:HG3	2.00	0.43
32:DH:91:GLY:CA	32:DH:160:LYS:HA	2.48	0.43
32:DH:130:ARG:NH1	32:DH:132:ARG:HH21	2.16	0.43
36:DP:21:ARG:O	36:DP:23:PRO:HD3	2.19	0.43
38:DR:55:ALA:HB1	38:DR:84:ALA:HB2	2.01	0.43
38:DR:118:GLU:HA	38:DR:118:GLU:OE1	2.18	0.43
39:DS:28:VAL:CG1	39:DS:29:PHE:N	2.81	0.43
39:DS:87:PHE:O	39:DS:88:ASP:HB2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DX:60:ARG:NH1	54:D7:47:ARG:NH2	2.62	0.43
46:DZ:127:LYS:HD3	46:DZ:162:GLU:OE1	2.19	0.43
47:D0:53:MET:HA	47:D0:58:THR:O	2.19	0.43
49:D2:14:ARG:HD3	49:D2:66:GLU:OE2	2.19	0.43
1:AA:29:G:C6	1:AA:30:U:C4	3.07	0.42
1:AA:170:C:H2'	1:AA:171:C:C6	2.54	0.42
1:AA:479:A:H4'	1:AA:480:A:OP1	2.19	0.42
1:AA:885:A:C2	1:AA:886:A:C4	3.06	0.42
1:AA:916:G:H5''	7:AG:102:ARG:CZ	2.49	0.42
1:AA:1009:G:H1'	1:AA:1013:G:H22	1.84	0.42
1:AA:1018:G:H5'	1:AA:1019:C:OP2	2.18	0.42
1:AA:1094:C:H1'	3:AC:179:ARG:HD3	2.01	0.42
2:AB:88:ALA:HB2	2:AB:219:VAL:CG1	2.49	0.42
5:AE:93:PRO:HG3	8:AH:105:ARG:HG3	2.00	0.42
6:AF:75:LEU:O	6:AF:76:ALA:C	2.62	0.42
7:AG:6:ARG:HG2	7:AG:6:ARG:O	2.19	0.42
10:AJ:30:SER:CB	10:AJ:80:LYS:HD3	2.49	0.42
10:AJ:47:PHE:CZ	14:AN:37:PHE:HE2	2.37	0.42
12:AL:11:VAL:HG21	17:AQ:34:LYS:HD3	2.00	0.42
17:AQ:75:ARG:HG3	17:AQ:75:ARG:NH1	2.34	0.42
20:AT:87:LYS:O	20:AT:91:LEU:HG	2.18	0.42
20:AT:90:GLN:O	20:AT:91:LEU:HD23	2.19	0.42
25:BA:271(Q):G:O2'	25:BA:271(R):G:OP2	2.30	0.42
25:BA:271(W):G:C6	25:BA:271(X):G:N1	2.87	0.42
25:BA:332:A:O2'	25:BA:333:G:P	2.77	0.42
25:BA:355:G:C2	25:BA:356:G:C5	3.07	0.42
25:BA:363:G:N7	25:BA:363(A):A:N7	2.67	0.42
25:BA:375:C:H2'	25:BA:376:C:C6	2.54	0.42
25:BA:534:U:O2'	41:BU:49:HIS:CD2	2.71	0.42
25:BA:697:C:H2'	25:BA:698:C:C6	2.54	0.42
25:BA:1140:C:H5''	34:BN:66:LYS:HZ1	1.76	0.42
25:BA:1266:G:P	52:B5:19:ARG:NH1	2.92	0.42
25:BA:1541:G:H5''	25:BA:1542:A:OP2	2.19	0.42
25:BA:1602:U:H3'	25:BA:1603:A:H5'	2.01	0.42
25:BA:1937:A:C8	25:BA:1939:U:H2'	2.54	0.42
25:BA:2525:G:O4'	25:BA:2741:A:H2	2.02	0.42
25:BA:2557:G:H2'	25:BA:2558:C:C6	2.53	0.42
26:BB:28:C:P	39:BS:31:SER:HG	2.41	0.42
26:BB:69:G:H2'	26:BB:70:C:H6	1.78	0.42
28:BD:26:LYS:HE2	28:BD:81:ALA:HA	2.01	0.42
28:BD:142:VAL:HG21	28:BD:191:ALA:HB1	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BD:206:LEU:HD22	28:BD:211:ARG:CG	2.49	0.42
30:BF:89:VAL:CG1	30:BF:90:PHE:H	2.28	0.42
31:BG:114:ILE:HG23	31:BG:140:ILE:HD11	2.01	0.42
32:BH:147:ASN:O	32:BH:150:ALA:HB3	2.19	0.42
33:BI:47:LEU:C	33:BI:50:ARG:HG3	2.42	0.42
33:BI:68:LEU:O	33:BI:72:LEU:HB3	2.19	0.42
36:BP:23:PRO:CB	36:BP:33:ARG:HG3	2.49	0.42
37:BQ:25:ASP:OD1	37:BQ:25:ASP:N	2.52	0.42
39:BS:101:LEU:HD22	39:BS:101:LEU:O	2.19	0.42
40:BT:51:ARG:CG	40:BT:98:LYS:HD3	2.45	0.42
42:BV:38:LEU:CD1	42:BV:57:VAL:HB	2.49	0.42
46:BZ:16:SER:O	46:BZ:19:ARG:HB2	2.19	0.42
46:BZ:121:HIS:C	46:BZ:123:ASP:N	2.76	0.42
47:B0:50:ASN:C	47:B0:62:LEU:HB2	2.44	0.42
1:CA:40:C:H2'	1:CA:41:G:C8	2.53	0.42
1:CA:136:G:C2	1:CA:137:A:C5	3.06	0.42
1:CA:402:G:O2'	4:CD:116:GLN:HG3	2.19	0.42
1:CA:436:C:H42	1:CA:476:G:H1	1.66	0.42
1:CA:488:G:C5	1:CA:518:A:C2	3.07	0.42
1:CA:558:G:H1	1:CA:857:C:N4	2.17	0.42
1:CA:744:G:C6	1:CA:745:C:C4	3.07	0.42
1:CA:950:G:C1'	10:CJ:55:LYS:HE2	2.49	0.42
1:CA:1014:G:H2'	1:CA:1015:G:C8	2.54	0.42
1:CA:1072:U:H2'	1:CA:1073:U:C6	2.54	0.42
1:CA:1089:C:OP1	3:CC:174:PRO:HD3	2.19	0.42
1:CA:1104:U:O4	1:CA:1105:A:N6	2.51	0.42
1:CA:1180:U:H4'	10:CJ:54:PHE:CE2	2.54	0.42
1:CA:1487:U:O2	1:CA:1503:G:N2	2.53	0.42
2:CB:204:ASN:CG	2:CB:205:ASP:N	2.77	0.42
2:CB:215:LEU:HD23	2:CB:215:LEU:HA	1.92	0.42
4:CD:54:TYR:O	4:CD:55:ALA:C	2.62	0.42
4:CD:191:ARG:O	4:CD:191:ARG:HD2	2.19	0.42
6:CF:100:ASN:O	6:CF:101:ALA:O	2.37	0.42
7:CG:154:TYR:C	7:CG:156:TRP:H	2.27	0.42
8:CH:104:ARG:C	8:CH:106:GLY:H	2.26	0.42
10:CJ:84:GLN:O	10:CJ:85:LEU:HD23	2.19	0.42
15:CO:36:ILE:HG23	15:CO:56:LEU:HD11	2.01	0.42
18:CR:59:SER:H	18:CR:62:GLU:HB2	1.84	0.42
22:CW:71:G:C2	22:CW:72:C:C2	3.07	0.42
23:CV:3:C:N3	23:CV:4:G:C8	2.87	0.42
23:CV:19:G:C4	23:CV:59:A:C6	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CV:55:U:H6	23:CV:55:U:C3'	2.26	0.42
25:DA:83:G:C2	25:DA:102:G:H2'	2.53	0.42
25:DA:108:U:C2	25:DA:109:G:C8	3.07	0.42
25:DA:553:G:C6	25:DA:554:U:N3	2.87	0.42
25:DA:1789:A:P	28:DD:222:ARG:HE	2.41	0.42
25:DA:1798:U:C5'	28:DD:259:THR:HG22	2.23	0.42
25:DA:2123:G:H2'	25:DA:2124:G:O4'	2.20	0.42
25:DA:2124:G:H5''	27:DC:177:LYS:CA	2.49	0.42
25:DA:2135:A:H2'	25:DA:2136:C:C6	2.54	0.42
25:DA:2266:A:H4'	25:DA:2267:A:N3	2.33	0.42
25:DA:2425:A:H5''	25:DA:2427:C:O4'	2.18	0.42
25:DA:2689:U:H4'	25:DA:2690:C:C6	2.49	0.42
25:DA:2776:A:H4'	25:DA:2777:G:H5''	2.01	0.42
25:DA:2787:C:H1'	29:DE:61:ARG:HG3	1.99	0.42
28:DD:136:ILE:HG22	28:DD:140:THR:OG1	2.18	0.42
29:DE:77:ILE:HG22	29:DE:78:LEU:HG	2.01	0.42
29:DE:141:ILE:O	29:DE:141:ILE:HG13	2.18	0.42
30:DF:19:GLU:O	30:DF:20:LEU:HB2	2.18	0.42
30:DF:82:ILE:O	30:DF:82:ILE:HG13	2.19	0.42
31:DG:47:LYS:HE2	31:DG:81:LYS:HD2	2.00	0.42
31:DG:69:ALA:O	31:DG:90:LEU:CD2	2.67	0.42
32:DH:62:LYS:C	32:DH:64:LEU:H	2.26	0.42
32:DH:147:ASN:O	32:DH:150:ALA:HB3	2.19	0.42
33:DI:45:LYS:C	33:DI:47:LEU:H	2.26	0.42
33:DI:60:GLU:C	33:DI:62:LYS:H	2.26	0.42
33:DI:133:HIS:CD2	33:DI:133:HIS:H	2.35	0.42
34:DN:22:THR:HA	34:DN:61:ARG:O	2.19	0.42
36:DP:111:ARG:CZ	36:DP:149:GLU:HG3	2.48	0.42
39:DS:82:ILE:HG22	39:DS:83:LYS:N	2.33	0.42
40:DT:55:ASN:HD22	40:DT:58:ASN:CG	2.27	0.42
40:DT:82:LEU:H	40:DT:82:LEU:HD12	1.83	0.42
41:DU:78:THR:HG22	41:DU:79:PHE:N	2.33	0.42
43:DW:2:GLU:HA	43:DW:64:MET:HE1	2.01	0.42
46:DZ:6:LYS:NZ	46:DZ:6:LYS:HB2	2.33	0.42
46:DZ:74:VAL:HG22	46:DZ:86:VAL:CG1	2.49	0.42
48:D1:23:LYS:O	48:D1:24:ALA:C	2.61	0.42
53:D6:13:CYS:HB2	53:D6:22:ALA:HB3	1.99	0.42
53:D6:47:THR:HG22	53:D6:49:HIS:H	1.84	0.42
1:AA:261:G:H5'	1:AA:261:G:C8	2.53	0.42
1:AA:1082:C:OP2	2:AB:96:ARG:HG2	2.20	0.42
1:AA:1125:G:H2'	1:AA:1126:G:H8	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1302:C:H3'	1:AA:1303:C:C5'	2.38	0.42
2:AB:39:ILE:CG2	2:AB:40:HIS:N	2.80	0.42
2:AB:170:GLU:C	2:AB:172:ILE:N	2.77	0.42
2:AB:208:ILE:HG22	2:AB:212:GLN:HB2	2.01	0.42
3:AC:29:TYR:HD1	14:AN:36:PHE:CZ	2.37	0.42
3:AC:30:ARG:O	3:AC:34:LEU:HB3	2.19	0.42
3:AC:77:ILE:O	3:AC:83:ARG:HB3	2.19	0.42
3:AC:92:ALA:HB2	3:AC:99:VAL:HG22	1.98	0.42
5:AE:12:LEU:HD22	5:AE:13:ILE:N	2.26	0.42
6:AF:96:PRO:HB3	18:AR:30:ASP:CG	2.43	0.42
8:AH:125:ARG:HG3	8:AH:125:ARG:HH11	1.84	0.42
9:AI:118:LYS:NZ	9:AI:118:LYS:HB3	2.32	0.42
11:AK:41:THR:HG21	11:AK:71:LYS:CB	2.49	0.42
13:AM:50:GLU:O	13:AM:54:VAL:HG23	2.19	0.42
17:AQ:67:LYS:CA	17:AQ:70:ARG:NH1	2.77	0.42
17:AQ:86:GLU:O	17:AQ:90:ILE:HG12	2.19	0.42
19:AS:17:GLU:O	19:AS:21:GLU:HG3	2.19	0.42
20:AT:14:LYS:O	20:AT:18:GLN:HG3	2.18	0.42
20:AT:61:SER:O	20:AT:62:LEU:C	2.61	0.42
20:AT:96:GLY:O	20:AT:97:ALA:O	2.36	0.42
22:AW:18:G:H22	22:AW:55:U:H6	1.67	0.42
22:AW:56:C:H2'	22:AW:57:G:H8	1.83	0.42
23:AV:10:G:N2	23:AV:26:C:O2	2.52	0.42
25:BA:271(U):G:C3'	25:BA:271(V):G:C5'	2.89	0.42
25:BA:289:A:C2	25:BA:353:G:C2	3.07	0.42
25:BA:553:G:C6	25:BA:554:U:N3	2.87	0.42
25:BA:888:C:O2'	25:BA:889:C:H5'	2.18	0.42
25:BA:892:G:O2'	25:BA:893:C:H5'	2.18	0.42
25:BA:1016:G:N2	25:BA:1146:C:O2	2.50	0.42
25:BA:1140:C:OP1	34:BN:23:LEU:HD23	2.19	0.42
25:BA:1311:G:C6	54:B7:47:ARG:NH2	2.87	0.42
25:BA:1494:A:N3	25:BA:1494:A:H3'	2.34	0.42
25:BA:1799:G:N2	25:BA:1818:U:O2'	2.52	0.42
25:BA:1827:C:H2'	25:BA:1828:G:H5'	2.00	0.42
25:BA:2092:U:C5	25:BA:2226:C:OP2	2.72	0.42
25:BA:2109:U:H1'	25:BA:2181:G:N2	2.34	0.42
25:BA:2228:G:H2'	25:BA:2229:C:C6	2.54	0.42
25:BA:2528:U:H2'	25:BA:2530:A:O5'	2.19	0.42
26:BB:41:U:N3	31:BG:70:VAL:HG23	2.34	0.42
27:BC:106:GLY:O	27:BC:108:MET:N	2.47	0.42
27:BC:168:THR:HA	27:BC:173:ALA:HB1	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BC:212:VAL:O	27:BC:213:TYR:CB	2.67	0.42
28:BD:134:ARG:O	28:BD:168:ARG:NH1	2.52	0.42
29:BE:141:ILE:O	29:BE:141:ILE:HG13	2.18	0.42
30:BF:20:LEU:HG	30:BF:21:ALA:N	2.24	0.42
30:BF:53:THR:HG23	30:BF:54:ARG:N	2.33	0.42
31:BG:2:PRO:HG3	51:B4:51:TYR:CD2	2.52	0.42
31:BG:22:ARG:NH1	31:BG:22:ARG:CB	2.55	0.42
31:BG:111:LEU:C	31:BG:117:PHE:CE2	2.97	0.42
37:BQ:141:GLN:HB2	46:BZ:98:MET:HA	2.00	0.42
39:BS:35:ILE:HG23	39:BS:53:SER:HB2	2.01	0.42
39:BS:90:GLY:C	39:BS:92:TYR:N	2.77	0.42
41:BU:97:ASP:OD2	41:BU:101:ARG:NH2	2.31	0.42
45:BY:50:ARG:HA	45:BY:50:ARG:HD3	1.45	0.42
48:B1:82:LEU:C	48:B1:83:GLU:CD	2.87	0.42
49:B2:13:ALA:C	49:B2:15:LYS:N	2.77	0.42
49:B2:29:LYS:HD3	49:B2:57:ILE:CG2	2.48	0.42
1:CA:196:U:H2'	1:CA:197:G:C8	2.55	0.42
1:CA:287:G:C5	1:CA:288:G:H1'	2.54	0.42
1:CA:451:C:C2	1:CA:460:G:N2	2.87	0.42
1:CA:791:C:OP2	15:CO:48:LYS:HE3	2.18	0.42
1:CA:919:G:N2	9:CI:124:GLN:HE22	2.12	0.42
1:CA:1088:G:H2'	1:CA:1089:C:H6	1.83	0.42
1:CA:1150:A:C2	1:CA:1151:A:C4	3.07	0.42
1:CA:1153:C:H2'	1:CA:1154:G:C8	2.53	0.42
1:CA:1269:A:N6	1:CA:1270:A:N6	2.67	0.42
1:CA:1415:A:H2'	1:CA:1416:A:O4'	2.19	0.42
2:CB:69:LEU:HB2	2:CB:159:PRO:CG	2.49	0.42
4:CD:114:ARG:HG3	4:CD:114:ARG:NH1	2.33	0.42
5:CE:70:PRO:CG	5:CE:142:LEU:HB2	2.34	0.42
7:CG:95:ARG:CZ	7:CG:99:LEU:HD21	2.49	0.42
12:CL:85:ILE:HD13	12:CL:100:ILE:HA	2.00	0.42
12:CL:126:LYS:HE2	12:CL:127:GLU:H	1.84	0.42
14:CN:4:LYS:C	14:CN:6:LEU:N	2.77	0.42
18:CR:56:THR:CB	18:CR:58:LEU:CD1	2.96	0.42
19:CS:17:GLU:O	19:CS:21:GLU:HG3	2.18	0.42
19:CS:28:LYS:HD2	19:CS:29:ARG:NE	2.34	0.42
19:CS:36:ARG:CZ	19:CS:72:GLY:HA2	2.49	0.42
22:CW:30:G:N3	22:CW:31:A:C8	2.86	0.42
22:CW:31:A:N1	22:CW:39:U:O4	2.52	0.42
25:DA:198:C:O5'	25:DA:198:C:H6	2.02	0.42
25:DA:271(S):G:C3'	25:DA:271(T):C:H5''	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:272(I):U:H2'	25:DA:272(J):C:C6	2.47	0.42
25:DA:409:C:O2'	25:DA:410:G:H5'	2.18	0.42
25:DA:953:A:N6	25:DA:965:C:N4	2.66	0.42
25:DA:1034:G:H5'	56:D9:18:ARG:HE	1.83	0.42
25:DA:2181:G:O2'	25:DA:2182:G:H5'	2.18	0.42
28:DD:33:LEU:H	28:DD:33:LEU:CD1	2.18	0.42
29:DE:176:ILE:CG2	29:DE:178:GLU:HB3	2.49	0.42
31:DG:53:LEU:N	31:DG:53:LEU:CD2	2.81	0.42
31:DG:90:LEU:HD23	31:DG:90:LEU:HA	1.79	0.42
31:DG:167:GLU:C	31:DG:169:ALA:H	2.27	0.42
31:DG:167:GLU:C	31:DG:169:ALA:N	2.77	0.42
32:DH:153:LYS:HD3	32:DH:153:LYS:O	2.19	0.42
33:DI:10:GLU:CD	33:DI:11:ASN:N	2.76	0.42
38:DR:60:LEU:O	38:DR:63:ARG:HB3	2.18	0.42
38:DR:78:LYS:O	38:DR:78:LYS:HG2	2.19	0.42
38:DR:87:TYR:CE1	38:DR:117:VAL:O	2.72	0.42
39:DS:49:VAL:CG1	39:DS:50:SER:H	2.25	0.42
40:DT:19:LEU:HA	40:DT:20:PRO:HD3	1.90	0.42
40:DT:89:VAL:CB	40:DT:91:ARG:CG	2.75	0.42
40:DT:113:LYS:O	40:DT:114:LEU:HD23	2.19	0.42
45:DY:20:TYR:CE1	45:DY:42:VAL:HG22	2.54	0.42
46:DZ:16:SER:O	46:DZ:19:ARG:HB2	2.19	0.42
46:DZ:150:LEU:O	46:DZ:171:ILE:CG1	2.68	0.42
47:D0:49:LYS:HB2	47:D0:80:HIS:HB3	2.01	0.42
47:D0:72:ARG:CZ	47:D0:75:LEU:HD13	2.50	0.42
47:D0:73:GLY:C	47:D0:75:LEU:H	2.27	0.42
48:D1:40:ARG:C	48:D1:40:ARG:CD	2.88	0.42
55:D8:14:VAL:CG2	55:D8:22:VAL:CG1	2.98	0.42
1:AA:404:G:P	4:AD:24:GLU:HB2	2.59	0.42
1:AA:1072:U:H2'	1:AA:1073:U:H6	1.84	0.42
1:AA:1361:G:C6	1:AA:1362:U:O4	2.72	0.42
1:AA:1404:G:OP1	35:BO:48:PRO:HA	2.19	0.42
2:AB:48:MET:O	2:AB:49:GLU:C	2.61	0.42
3:AC:149:ALA:O	3:AC:169:ALA:HB1	2.19	0.42
5:AE:36:ASP:OD2	5:AE:38:GLN:N	2.48	0.42
6:AF:28:ARG:HH11	6:AF:28:ARG:HG3	1.82	0.42
7:AG:59:LEU:HD23	7:AG:60:LYS:HZ3	1.82	0.42
9:AI:95:LYS:HD3	9:AI:95:LYS:C	2.42	0.42
9:AI:118:LYS:C	9:AI:120:ARG:H	2.25	0.42
12:AL:42:THR:O	12:AL:42:THR:HG23	2.18	0.42
12:AL:86:ARG:HB2	12:AL:101:VAL:CG2	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AN:29:ARG:HG2	14:AN:40:CYS:HB2	2.00	0.42
15:AO:12:ILE:C	15:AO:14:GLU:H	2.27	0.42
16:AP:25:ARG:HG3	16:AP:25:ARG:NH1	2.35	0.42
19:AS:6:LYS:HG2	19:AS:7:LYS:HE3	2.00	0.42
19:AS:40:ILE:HG21	19:AS:67:VAL:HA	2.00	0.42
23:AV:40:C:C2'	23:AV:41:C:H5'	2.49	0.42
25:BA:320:A:C2'	30:BF:136:THR:HG21	2.49	0.42
25:BA:613:G:C2	25:BA:614:U:C6	3.08	0.42
25:BA:624:C:O2'	25:BA:657:U:H5'	2.19	0.42
25:BA:747:U:OP2	52:B5:3:LYS:CD	2.65	0.42
25:BA:927:G:H2'	25:BA:927:G:N3	2.35	0.42
25:BA:952:G:C4	25:BA:953:A:N7	2.87	0.42
25:BA:1242:A:C2	36:BP:8:PRO:HG3	2.55	0.42
25:BA:1289:C:H2'	25:BA:1290:C:C6	2.54	0.42
25:BA:1608:A:H1'	25:BA:1610:A:OP2	2.19	0.42
25:BA:1717:G:C2'	25:BA:1718:G:H5''	2.47	0.42
25:BA:2009:G:N3	38:BR:107:ASP:HA	2.34	0.42
25:BA:2064:C:H2'	25:BA:2065:C:C6	2.55	0.42
25:BA:2168:G:C2	25:BA:2171:A:C8	3.07	0.42
25:BA:2420:C:O2'	25:BA:2421:G:H5'	2.19	0.42
25:BA:2776:A:H4'	25:BA:2777:G:H5''	2.01	0.42
30:BF:9:ILE:CG1	30:BF:14:PRO:HA	2.48	0.42
30:BF:40:GLN:OE1	30:BF:183:VAL:HG23	2.20	0.42
31:BG:69:ALA:O	31:BG:90:LEU:CD2	2.68	0.42
36:BP:9:ASN:O	36:BP:10:PRO:C	2.61	0.42
38:BR:55:ALA:HB1	38:BR:84:ALA:HB2	2.01	0.42
41:BU:12:ARG:CA	41:BU:15:LYS:NZ	2.82	0.42
41:BU:92:ARG:HH12	42:BV:11:GLN:H	1.67	0.42
41:BU:95:LEU:C	41:BU:97:ASP:N	2.69	0.42
41:BU:105:VAL:O	41:BU:109:LEU:CD1	2.67	0.42
42:BV:35:LEU:HB2	42:BV:57:VAL:HG13	2.01	0.42
42:BV:47:VAL:HB	42:BV:49:THR:O	2.19	0.42
46:BZ:44:PHE:CZ	46:BZ:86:VAL:HG11	2.54	0.42
46:BZ:146:ILE:CG2	46:BZ:174:VAL:HG12	2.44	0.42
48:B1:71:TYR:N	48:B1:71:TYR:CD1	2.88	0.42
48:B1:83:GLU:O	48:B1:86:SER:OG	2.38	0.42
55:B8:26:LYS:NZ	55:B8:47:LYS:HD3	2.34	0.42
1:CA:15:G:H4'	5:CE:24:ARG:NH2	2.34	0.42
1:CA:33:A:H2'	1:CA:34:C:C6	2.54	0.42
1:CA:180:C:C4'	20:CT:82:SER:HB3	2.37	0.42
1:CA:239:U:N1	1:CA:871:G:N2	2.66	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1184:C:O2'	1:CA:1185:A:H5'	2.20	0.42
2:CB:8:LYS:HZ3	2:CB:217:ARG:HH12	1.65	0.42
2:CB:112:VAL:CG2	2:CB:149:LEU:HD13	2.48	0.42
2:CB:129:GLU:O	2:CB:130:ARG:O	2.37	0.42
3:CC:73:PRO:HA	3:CC:76:VAL:HG13	2.01	0.42
5:CE:15:ARG:O	5:CE:16:THR:O	2.37	0.42
5:CE:132:ALA:O	5:CE:133:TYR:C	2.62	0.42
8:CH:86:ILE:HG13	8:CH:133:LEU:HD22	2.00	0.42
11:CK:20:TYR:HB2	11:CK:31:THR:HG22	2.00	0.42
11:CK:31:THR:O	11:CK:31:THR:HG23	2.18	0.42
13:CM:89:GLY:C	13:CM:90:LEU:O	2.60	0.42
14:CN:39:LEU:HB3	14:CN:40:CYS:H	1.69	0.42
18:CR:56:THR:HB	18:CR:58:LEU:HD13	1.99	0.42
20:CT:56:MET:HE3	20:CT:103:GLY:H	1.84	0.42
20:CT:72:LEU:HD21	20:CT:76:ALA:C	2.44	0.42
23:CV:4:G:N2	23:CV:5:G:C4	2.87	0.42
25:DA:109:G:C2'	25:DA:110:G:O5'	2.67	0.42
25:DA:320:A:H2'	30:DF:136:THR:HG21	2.02	0.42
25:DA:350:U:H2'	25:DA:351:G:O4'	2.19	0.42
25:DA:519:U:O2'	25:DA:520:G:H5'	2.19	0.42
25:DA:1129:A:C4'	25:DA:2516:G:C4'	2.97	0.42
25:DA:1438:U:O2'	25:DA:1439:A:H5'	2.19	0.42
25:DA:1670:C:O2	29:DE:129:HIS:HE1	2.02	0.42
25:DA:1799:G:O2'	28:DD:181:GLU:OE2	2.32	0.42
25:DA:2186:G:C2'	25:DA:2187:G:H5'	2.47	0.42
25:DA:2822:G:O6	38:DR:4:LEU:HD12	2.19	0.42
28:DD:23:GLU:HA	28:DD:23:GLU:OE2	2.18	0.42
29:DE:47:VAL:HG23	29:DE:84:PHE:O	2.18	0.42
30:DF:72:ARG:HH11	30:DF:72:ARG:HA	1.82	0.42
31:DG:141:PHE:HA	31:DG:142:PRO:HD3	1.84	0.42
33:DI:71:ILE:CG1	33:DI:72:LEU:N	2.82	0.42
33:DI:94:ALA:O	33:DI:96:ASP:N	2.50	0.42
38:DR:53:HIS:ND1	38:DR:53:HIS:O	2.52	0.42
39:DS:53:SER:OG	39:DS:54:LEU:N	2.52	0.42
39:DS:92:TYR:CG	39:DS:93:LYS:N	2.78	0.42
43:DW:27:LYS:CE	43:DW:31:GLU:HG2	2.47	0.42
43:DW:76:VAL:O	43:DW:76:VAL:CG1	2.67	0.42
45:DY:31:LEU:HD23	45:DY:36:ALA:H	1.84	0.42
46:DZ:63:ASP:C	46:DZ:65:GLN:H	2.25	0.42
46:DZ:77:ASP:C	46:DZ:79:ARG:H	2.27	0.42
49:D2:22:GLU:O	49:D2:23:LYS:C	2.60	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:D2:40:SER:C	49:D2:42:GLY:N	2.73	0.42
52:D5:48:GLU:O	52:D5:57:VAL:HG22	2.19	0.42
53:D6:16:CYS:SG	53:D6:47:THR:CG2	3.08	0.42
53:D6:30:THR:O	53:D6:31:PRO:C	2.63	0.42
1:AA:327:G:C2	1:AA:328:G:C8	3.07	0.42
1:AA:352:G:N1	1:AA:353:U:C4	2.88	0.42
1:AA:371:G:H5''	16:AP:5:ARG:HB2	2.00	0.42
1:AA:744:G:C6	1:AA:745:C:C4	3.08	0.42
1:AA:979:G:C8	1:AA:980:G:H8	2.37	0.42
1:AA:1295:C:H2'	1:AA:1296:U:C6	2.54	0.42
2:AB:15:VAL:C	2:AB:16:HIS:CG	2.97	0.42
2:AB:134:GLU:CA	2:AB:137:ARG:HB3	2.47	0.42
2:AB:194:PRO:O	2:AB:195:ASP:C	2.61	0.42
3:AC:64:VAL:HG13	3:AC:97:LYS:HZ2	1.84	0.42
4:AD:100:ARG:O	4:AD:101:LEU:C	2.63	0.42
4:AD:127:THR:HG22	4:AD:132:ARG:HA	2.00	0.42
4:AD:134:ASP:C	4:AD:135:LEU:HD13	2.44	0.42
5:AE:72:GLN:O	5:AE:75:THR:HG22	2.20	0.42
6:AF:18:GLN:O	6:AF:21:LEU:HB2	2.19	0.42
6:AF:75:LEU:O	6:AF:78:GLU:HB3	2.18	0.42
7:AG:95:ARG:CZ	7:AG:99:LEU:HD21	2.49	0.42
7:AG:152:ALA:O	7:AG:155:ARG:HG3	2.19	0.42
10:AJ:90:LEU:N	10:AJ:91:PRO:HD3	2.35	0.42
11:AK:21:ILE:HA	11:AK:30:VAL:HG12	2.01	0.42
12:AL:86:ARG:NH2	12:AL:99:HIS:CG	2.87	0.42
12:AL:117:ARG:O	12:AL:118:SER:C	2.63	0.42
19:AS:43:GLU:O	19:AS:43:GLU:OE1	2.37	0.42
22:AW:76:A:C2	25:BA:2421:G:C5	3.08	0.42
23:AV:25:U:O2	23:AV:26:C:O4'	2.38	0.42
23:AV:36:A:N6	24:AX:18:G:C6	2.87	0.42
25:BA:437:G:O2'	25:BA:438:G:H5'	2.19	0.42
25:BA:807:U:OP2	36:BP:39:LYS:HG3	2.20	0.42
25:BA:874:G:O2'	25:BA:875:G:H5'	2.19	0.42
25:BA:2086:U:H2'	25:BA:2087:G:C8	2.53	0.42
28:BD:136:ILE:HA	28:BD:137:PRO:HD3	1.77	0.42
30:BF:3:GLU:HG3	30:BF:19:GLU:CG	2.48	0.42
30:BF:57:VAL:CG1	30:BF:59:TYR:HD1	2.31	0.42
30:BF:192:LEU:C	30:BF:192:LEU:CD2	2.93	0.42
31:BG:55:LYS:C	31:BG:57:ALA:N	2.75	0.42
31:BG:171:ALA:O	31:BG:172:LEU:C	2.63	0.42
32:BH:107:VAL:O	32:BH:107:VAL:HG23	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:35:HIS:O	36:BP:36:LYS:CB	2.65	0.42
37:BQ:134:ARG:HH21	46:BZ:122:ARG:NE	2.17	0.42
38:BR:118:GLU:HA	38:BR:118:GLU:OE1	2.18	0.42
41:BU:98:LEU:C	41:BU:100:VAL:N	2.75	0.42
41:BU:111:GLU:C	41:BU:113:ALA:N	2.76	0.42
43:BW:76:VAL:O	43:BW:76:VAL:CG1	2.67	0.42
45:BY:20:TYR:CZ	45:BY:42:VAL:HA	2.55	0.42
45:BY:27:VAL:C	45:BY:29:GLU:OE1	2.62	0.42
45:BY:97:ARG:HD2	45:BY:97:ARG:HA	1.82	0.42
45:BY:101:LYS:HG2	45:BY:102:CYS:N	2.34	0.42
46:BZ:14:LYS:CD	46:BZ:17:ALA:HB3	2.46	0.42
49:B2:4:SER:O	49:B2:7:ARG:HG2	2.19	0.42
52:B5:48:GLU:O	52:B5:57:VAL:HG22	2.19	0.42
55:B8:46:ARG:HB3	55:B8:47:LYS:H	1.72	0.42
1:CA:51:A:N7	1:CA:107:U:O2'	2.50	0.42
1:CA:86:C:H5	1:CA:87:C:O2	2.02	0.42
1:CA:181:C:C4	1:CA:182:C:C4	3.07	0.42
1:CA:370:U:H4'	16:CP:17:TYR:CE2	2.55	0.42
1:CA:453:G:N2	1:CA:456:G:C8	2.87	0.42
1:CA:666:G:N2	1:CA:690:C:O2	2.49	0.42
1:CA:719:C:H2'	1:CA:720:A:H8	1.81	0.42
1:CA:758:G:H2'	1:CA:759:G:O4'	2.19	0.42
1:CA:1019:C:H2'	1:CA:1020:C:C6	2.54	0.42
1:CA:1135:C:N3	1:CA:1136:G:C8	2.86	0.42
1:CA:1260:A:H61	3:CC:26:LYS:HZ3	1.67	0.42
1:CA:1410:A:H8	1:CA:1410:A:O5'	2.02	0.42
2:CB:37:ASN:O	2:CB:39:ILE:N	2.46	0.42
2:CB:180:LEU:O	2:CB:181:PHE:HB2	2.20	0.42
5:CE:146:ALA:O	5:CE:148:VAL:N	2.52	0.42
9:CI:43:ALA:O	9:CI:45:ALA:N	2.52	0.42
10:CJ:47:PHE:CZ	14:CN:37:PHE:HE2	2.37	0.42
10:CJ:95:GLU:HA	10:CJ:95:GLU:OE2	2.18	0.42
11:CK:22:HIS:HB3	11:CK:29:ILE:CG2	2.44	0.42
11:CK:48:ILE:HG21	11:CK:63:LEU:HD22	2.01	0.42
11:CK:127:LYS:HA	11:CK:127:LYS:CE	2.19	0.42
13:CM:24:GLY:HA3	13:CM:70:LEU:HD12	2.02	0.42
14:CN:26:ARG:CG	14:CN:27:CYS:H	2.07	0.42
18:CR:82:THR:CG2	18:CR:83:GLU:H	2.32	0.42
22:CW:30:G:N1	22:CW:31:A:C5	2.88	0.42
22:CW:45:U:O5'	22:CW:45:U:H6	2.02	0.42
23:CV:20:G:C2	23:CV:58:A:C2	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CV:23:G:C6	23:CV:24:C:N4	2.87	0.42
25:DA:310:A:HO2'	25:DA:311:A:P	2.43	0.42
25:DA:437:G:O2'	25:DA:438:G:H5'	2.19	0.42
25:DA:731:C:O2'	25:DA:732:C:H5'	2.20	0.42
25:DA:927:G:N3	25:DA:927:G:H2'	2.35	0.42
25:DA:950:G:H2'	25:DA:951:C:H6	1.85	0.42
25:DA:1129:A:C1'	25:DA:2516:G:O4'	2.67	0.42
25:DA:1313:U:C2'	25:DA:1314:C:H5'	2.49	0.42
25:DA:1658:C:N4	25:DA:1659:U:O4	2.52	0.42
25:DA:1902:C:N3	25:DA:1903:G:H1'	2.35	0.42
25:DA:2415:G:H2'	25:DA:2416:C:C6	2.55	0.42
25:DA:2646:C:OP2	25:DA:2732:G:O2'	2.37	0.42
27:DC:169:GLY:O	27:DC:170:ALA:HB3	2.19	0.42
28:DD:26:LYS:HE2	28:DD:81:ALA:HA	2.00	0.42
28:DD:108:PRO:HB3	28:DD:143:HIS:HE1	1.75	0.42
29:DE:26:ILE:HG22	29:DE:27:LEU:N	2.35	0.42
29:DE:117:MET:O	29:DE:118:LYS:HB2	2.19	0.42
32:DH:17:VAL:O	32:DH:19:VAL:HG23	2.19	0.42
32:DH:116:GLU:HG2	32:DH:117:PRO:N	2.34	0.42
32:DH:118:PRO:HD2	32:DH:123:PHE:HE1	1.83	0.42
36:DP:7:ARG:CZ	36:DP:7:ARG:HB2	2.50	0.42
37:DQ:60:ARG:HA	46:DZ:178:GLU:O	2.18	0.42
37:DQ:62:GLY:H	37:DQ:109:VAL:HG23	1.84	0.42
38:DR:10:LEU:HB3	38:DR:17:ARG:HD2	2.00	0.42
43:DW:9:TYR:H	43:DW:9:TYR:HD2	1.66	0.42
45:DY:11:ASP:H	45:DY:28:LYS:NZ	2.18	0.42
45:DY:49:VAL:O	45:DY:50:ARG:HB2	2.18	0.42
45:DY:50:ARG:HG3	45:DY:58:GLY:HA2	2.00	0.42
46:DZ:121:HIS:C	46:DZ:123:ASP:N	2.76	0.42
46:DZ:141:VAL:O	46:DZ:141:VAL:HG13	2.18	0.42
48:D1:73:LEU:O	48:D1:74:VAL:C	2.62	0.42
48:D1:82:LEU:C	48:D1:83:GLU:CD	2.87	0.42
52:D5:47:PRO:C	52:D5:48:GLU:HG3	2.45	0.42
55:D8:41:ILE:O	55:D8:44:LYS:HB2	2.18	0.42
1:AA:328:G:H2'	1:AA:329:C:C6	2.53	0.42
1:AA:355:A:C6	1:AA:356:G:C6	3.08	0.42
1:AA:537:C:O2'	1:AA:538:C:H5'	2.20	0.42
1:AA:1338:A:N6	1:AA:1339:U:O4	2.52	0.42
1:AA:1451:G:H1'	25:BA:1701:A:H2	1.85	0.42
2:AB:149:LEU:O	2:AB:150:SER:C	2.62	0.42
2:AB:195:ASP:O	8:AH:74:PRO:HG3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:211:ILE:O	2:AB:215:LEU:HB2	2.20	0.42
3:AC:39:ILE:O	3:AC:41:GLY:N	2.52	0.42
3:AC:172:ARG:C	3:AC:173:VAL:HG23	2.44	0.42
6:AF:45:LEU:CD1	6:AF:57:GLN:HB3	2.49	0.42
7:AG:11:GLN:NE2	7:AG:12:LEU:N	2.61	0.42
7:AG:41:ARG:O	7:AG:42:ILE:C	2.61	0.42
8:AH:63:LEU:HB2	8:AH:65:TYR:HE1	1.84	0.42
8:AH:63:LEU:HB2	8:AH:65:TYR:CE1	2.55	0.42
9:AI:19:LEU:HD21	9:AI:61:ALA:HB2	2.01	0.42
12:AL:32:PHE:CB	12:AL:84:LEU:HD11	2.50	0.42
17:AQ:5:VAL:HA	17:AQ:59:ILE:O	2.20	0.42
19:AS:13:ASP:C	19:AS:15:LEU:H	2.28	0.42
19:AS:36:ARG:HH11	19:AS:36:ARG:HB3	1.85	0.42
20:AT:23:ARG:O	20:AT:27:LYS:HB2	2.20	0.42
22:AW:37:A:C6	22:AW:38:A:C2	3.08	0.42
22:AW:65:G:C6	22:AW:66:U:O4	2.72	0.42
23:AV:60:A:N3	23:AV:60:A:H2'	2.34	0.42
25:BA:313:C:HO2'	25:BA:314:A:H5'	1.75	0.42
25:BA:1045:A:N3	25:BA:1045:A:C2'	2.78	0.42
25:BA:1287:A:C6	25:BA:1288:U:O4	2.72	0.42
25:BA:1427:A:H4'	25:BA:1428:C:O5'	2.20	0.42
25:BA:1784:A:H4'	25:BA:1785:A:C5'	2.50	0.42
25:BA:1899:G:H22	25:BA:1902:C:N4	2.13	0.42
25:BA:1909:C:C6	25:BA:1909:C:H5''	2.55	0.42
25:BA:2080:G:O5'	48:B1:35:THR:HG23	2.20	0.42
25:BA:2186:G:C6	25:BA:2187:G:C5	3.07	0.42
25:BA:2223:G:O2'	25:BA:2224:G:H5'	2.20	0.42
26:BB:32:C:C2	26:BB:51:G:N2	2.88	0.42
28:BD:168:ARG:HA	28:BD:173:VAL:HA	2.00	0.42
28:BD:260:ARG:HD3	28:BD:261:LYS:O	2.19	0.42
29:BE:1:MET:N	29:BE:1:MET:SD	2.79	0.42
29:BE:11:MET:CA	40:BT:8:LYS:NZ	2.60	0.42
29:BE:77:ILE:HG22	29:BE:78:LEU:HG	2.01	0.42
29:BE:181:LEU:HD21	40:BT:7:ILE:HG22	1.98	0.42
30:BF:7:TYR:CE2	30:BF:10:PRO:HG3	2.54	0.42
30:BF:82:ILE:O	30:BF:82:ILE:HG13	2.19	0.42
31:BG:54:GLU:HA	31:BG:57:ALA:HB3	2.01	0.42
31:BG:165:THR:HG1	31:BG:168:GLU:HG3	1.85	0.42
36:BP:21:ARG:O	36:BP:23:PRO:HD3	2.20	0.42
36:BP:108:LYS:O	36:BP:110:TYR:N	2.52	0.42
38:BR:87:TYR:CE1	38:BR:117:VAL:O	2.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BS:99:LYS:O	39:BS:100:ALA:C	2.62	0.42
41:BU:65:ILE:C	41:BU:67:ALA:N	2.75	0.42
41:BU:97:ASP:O	41:BU:100:VAL:HB	2.19	0.42
42:BV:46:VAL:CG2	42:BV:47:VAL:N	2.81	0.42
42:BV:61:VAL:HG22	42:BV:61:VAL:O	2.19	0.42
45:BY:11:ASP:H	45:BY:28:LYS:NZ	2.18	0.42
46:BZ:9:TYR:HD2	46:BZ:9:TYR:HA	1.70	0.42
46:BZ:141:VAL:O	46:BZ:141:VAL:HG13	2.18	0.42
46:BZ:150:LEU:O	46:BZ:171:ILE:CG1	2.68	0.42
47:B0:53:MET:HA	47:B0:58:THR:O	2.19	0.42
55:B8:55:ALA:O	55:B8:56:GLU:C	2.62	0.42
1:CA:238:A:C2	1:CA:241:A:C8	3.07	0.42
1:CA:536:A:C6	1:CA:537:C:N4	2.88	0.42
1:CA:830:G:C2	1:CA:831:G:C8	3.07	0.42
1:CA:844:G:C4	1:CA:845:C:C5	3.08	0.42
1:CA:1202:G:H4'	19:CS:53:ASN:O	2.19	0.42
1:CA:1206:A:OP1	13:CM:102:ARG:HA	2.19	0.42
1:CA:1286:G:H5'	21:CU:4:GLY:HA3	2.01	0.42
1:CA:1287:A:N6	1:CA:1312:G:H1'	2.34	0.42
1:CA:1411:C:H2'	1:CA:1412:C:H6	1.82	0.42
2:CB:42:ILE:CD1	2:CB:202:PRO:HB2	2.39	0.42
2:CB:114:ARG:HH12	2:CB:118:LEU:HD11	1.85	0.42
3:CC:34:LEU:HD12	14:CN:25:VAL:CG1	2.49	0.42
3:CC:119:ARG:HE	3:CC:140:ARG:NE	2.17	0.42
4:CD:4:TYR:CD2	4:CD:5:ILE:N	2.87	0.42
4:CD:30:LYS:HB3	4:CD:35:ARG:HD2	2.01	0.42
5:CE:146:ALA:C	5:CE:148:VAL:N	2.77	0.42
6:CF:30:LEU:O	6:CF:35:ALA:N	2.49	0.42
7:CG:50:ILE:CG2	7:CG:61:VAL:HG21	2.50	0.42
10:CJ:50:ILE:HD13	10:CJ:50:ILE:H	1.81	0.42
12:CL:126:LYS:CG	12:CL:127:GLU:N	2.82	0.42
19:CS:15:LEU:C	19:CS:19:VAL:HG23	2.45	0.42
20:CT:14:LYS:O	20:CT:18:GLN:HG3	2.20	0.42
20:CT:38:LYS:HB3	20:CT:38:LYS:HE2	1.85	0.42
25:DA:283:A:HO2'	25:DA:284:U:P	2.42	0.42
25:DA:479:A:H4'	25:DA:480:A:H5'	2.02	0.42
25:DA:703:U:H2'	25:DA:704:G:H5'	2.02	0.42
25:DA:857:C:C3'	25:DA:858:U:H5'	2.50	0.42
25:DA:950:G:O2'	25:DA:951:C:H5'	2.20	0.42
25:DA:1399:C:O2'	25:DA:1400:G:H5'	2.20	0.42
25:DA:1642:G:O2'	25:DA:1643:G:H5'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1961:C:C2'	25:DA:1962:C:H5'	2.49	0.42
25:DA:2103:C:C3'	25:DA:2104:G:C5'	2.81	0.42
25:DA:2759:G:C2'	25:DA:2760:C:H5'	2.49	0.42
26:DB:50:G:OP2	39:DS:62:LYS:CB	2.65	0.42
26:DB:65:C:C2'	26:DB:66:A:H5'	2.50	0.42
26:DB:73:A:C4	26:DB:105:A:C2	3.07	0.42
26:DB:87:G:C3'	26:DB:88:C:C5'	2.97	0.42
28:DD:153:ALA:C	28:DD:154:LYS:HG2	2.44	0.42
28:DD:232:PRO:HD2	28:DD:249:PRO:HA	2.01	0.42
29:DE:93:VAL:C	29:DE:95:ILE:N	2.77	0.42
30:DF:17:ARG:HH11	30:DF:17:ARG:CG	2.27	0.42
31:DG:54:GLU:HA	31:DG:57:ALA:HB3	2.01	0.42
31:DG:123:ASN:C	31:DG:125:PHE:N	2.76	0.42
32:DH:107:VAL:O	32:DH:107:VAL:HG23	2.20	0.42
32:DH:154:PRO:O	32:DH:155:SER:O	2.38	0.42
33:DI:113:ARG:HD2	33:DI:113:ARG:N	2.34	0.42
34:DN:65:LYS:O	34:DN:67:LEU:N	2.53	0.42
34:DN:118:LYS:C	34:DN:120:LEU:H	2.28	0.42
34:DN:133:GLN:O	34:DN:134:ARG:HG3	2.18	0.42
36:DP:16:ARG:HH11	36:DP:16:ARG:CB	2.32	0.42
37:DQ:134:ARG:NE	46:DZ:122:ARG:NH1	2.52	0.42
38:DR:63:ARG:HG3	38:DR:80:PHE:HE2	1.85	0.42
39:DS:56:LEU:O	39:DS:57:LYS:CB	2.65	0.42
41:DU:31:SER:CB	41:DU:34:LYS:HB2	2.44	0.42
45:DY:20:TYR:CZ	45:DY:42:VAL:HA	2.55	0.42
46:DZ:51:ALA:O	46:DZ:52:SER:HB3	2.18	0.42
46:DZ:110:GLY:HA3	46:DZ:115:GLY:HA3	2.02	0.42
46:DZ:152:ALA:HB3	46:DZ:154:ASP:OD1	2.20	0.42
47:D0:24:LYS:N	47:D0:37:LEU:O	2.50	0.42
49:D2:67:LYS:C	49:D2:69:ARG:N	2.77	0.42
54:D7:43:THR:CG2	54:D7:44:PRO:N	2.81	0.42
1:AA:75:G:H2'	1:AA:75:G:N3	2.35	0.42
1:AA:219:C:H2'	1:AA:220:C:C6	2.55	0.42
1:AA:403:A:H2'	1:AA:404:G:O4'	2.19	0.42
1:AA:468:G:O2'	1:AA:469:G:OP2	2.33	0.42
1:AA:666:G:C2	1:AA:691:C:N3	2.87	0.42
1:AA:988:G:C2	1:AA:998:U:H1'	2.54	0.42
1:AA:1072:U:H2'	1:AA:1073:U:C6	2.54	0.42
1:AA:1085:C:H2'	1:AA:1086:G:O4'	2.20	0.42
1:AA:1294:U:O4	19:AS:4:SER:N	2.52	0.42
1:AA:1330:A:OP1	9:AI:120:ARG:HB2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1354:U:OP1	9:AI:72:GLY:N	2.49	0.42
2:AB:168:THR:HG23	2:AB:192:SER:OG	2.19	0.42
6:AF:39:LYS:CG	6:AF:40:VAL:H	2.29	0.42
6:AF:50:TYR:CE1	18:AR:77:GLY:HA2	2.55	0.42
7:AG:49:ILE:CG2	7:AG:53:LYS:HD2	2.45	0.42
9:AI:8:GLY:HA2	9:AI:79:LEU:HB3	2.00	0.42
10:AJ:78:ASN:HD21	10:AJ:80:LYS:CB	2.33	0.42
11:AK:12:ARG:CG	11:AK:13:GLN:H	2.31	0.42
11:AK:22:HIS:HB3	11:AK:29:ILE:CG2	2.46	0.42
11:AK:53:SER:C	11:AK:55:LYS:H	2.28	0.42
13:AM:82:MET:O	13:AM:83:ASP:O	2.37	0.42
13:AM:94:ARG:NE	25:BA:887:A:H3'	2.31	0.42
15:AO:36:ILE:HG23	15:AO:56:LEU:HD11	2.00	0.42
18:AR:32:ARG:O	18:AR:69:THR:HG21	2.19	0.42
20:AT:52:ALA:CB	20:AT:92:LEU:HD11	2.49	0.42
20:AT:61:SER:C	20:AT:63:ILE:N	2.77	0.42
25:BA:108:U:C2	25:BA:109:G:C8	3.07	0.42
25:BA:549:G:H3'	25:BA:551:G:H5''	2.01	0.42
25:BA:728:G:O3'	28:BD:10:THR:HG21	2.20	0.42
25:BA:1681:G:H8	25:BA:1681:G:OP2	2.02	0.42
25:BA:1815:A:P	28:BD:54:ARG:HH22	2.43	0.42
25:BA:1914:C:O2	25:BA:1914:C:O5'	2.37	0.42
25:BA:2302:G:C6	25:BA:2303:G:C5	3.07	0.42
25:BA:2327:A:C5	25:BA:2388:A:C6	3.07	0.42
25:BA:2334:G:H21	39:BS:18:ILE:HG12	1.85	0.42
25:BA:2473:U:O2	25:BA:2473:U:H2'	2.18	0.42
25:BA:2521:C:H42	25:BA:2544:G:H1	1.68	0.42
27:BC:169:GLY:O	27:BC:170:ALA:HB3	2.19	0.42
28:BD:43:ARG:HH11	28:BD:44:ASN:ND2	2.16	0.42
29:BE:24:THR:O	29:BE:24:THR:HG23	2.19	0.42
29:BE:47:VAL:HG21	29:BE:86:PRO:HD3	2.01	0.42
30:BF:19:GLU:O	30:BF:20:LEU:HB2	2.18	0.42
31:BG:13:GLU:O	31:BG:14:GLU:CB	2.67	0.42
31:BG:125:PHE:HZ	31:BG:180:PHE:CZ	2.38	0.42
32:BH:62:LYS:C	32:BH:64:LEU:H	2.26	0.42
35:BO:47:ILE:HG23	35:BO:48:PRO:HD2	2.00	0.42
36:BP:7:ARG:HB2	36:BP:7:ARG:CZ	2.50	0.42
36:BP:83:VAL:CG1	36:BP:114:ILE:HA	2.50	0.42
38:BR:80:PHE:HD1	38:BR:80:PHE:HA	1.75	0.42
39:BS:56:LEU:HD22	39:BS:58:LEU:HD13	2.01	0.42
39:BS:59:LYS:HE3	39:BS:68:GLN:NE2	2.32	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BT:32:TYR:CD1	40:BT:81:PRO:O	2.73	0.42
40:BT:55:ASN:O	40:BT:57:PHE:N	2.53	0.42
43:BW:1:MET:CE	43:BW:2:GLU:H	2.32	0.42
43:BW:58:ALA:HB1	43:BW:64:MET:SD	2.60	0.42
45:BY:52:SER:O	45:BY:54:LYS:N	2.53	0.42
46:BZ:48:PHE:O	46:BZ:49:ARG:C	2.62	0.42
46:BZ:53:ILE:HG21	46:BZ:71:VAL:O	2.20	0.42
46:BZ:99:TYR:HD2	46:BZ:99:TYR:H	1.67	0.42
46:BZ:120:ILE:O	46:BZ:171:ILE:HA	2.20	0.42
48:B1:25:LYS:C	48:B1:27:GLU:N	2.74	0.42
48:B1:51:VAL:HG12	48:B1:58:ILE:O	2.19	0.42
48:B1:92:LYS:HG3	48:B1:93:GLU:N	2.35	0.42
49:B2:14:ARG:HH11	49:B2:14:ARG:CG	2.30	0.42
49:B2:14:ARG:HD3	49:B2:66:GLU:OE2	2.19	0.42
55:B8:14:VAL:CG2	55:B8:22:VAL:CG1	2.98	0.42
1:CA:402:G:H1	1:CA:430:C:N4	2.09	0.42
1:CA:626:C:H2'	1:CA:627:G:H8	1.83	0.42
1:CA:711:A:H2'	1:CA:712:A:H8	1.83	0.42
1:CA:765:A:H62	1:CA:783:G:H21	1.68	0.42
1:CA:835:G:O6	1:CA:846:G:C8	2.73	0.42
1:CA:1099:G:H4'	9:CI:104:ARG:NH1	2.33	0.42
1:CA:1301:C:OP1	19:CS:70:LYS:NZ	2.52	0.42
1:CA:1324:G:H1'	9:CI:121:ARG:HH12	1.85	0.42
2:CB:114:ARG:HG3	2:CB:114:ARG:NH1	2.31	0.42
3:CC:8:ILE:HG23	3:CC:16:ARG:HG2	2.02	0.42
3:CC:130:VAL:O	3:CC:134:ILE:HG12	2.20	0.42
3:CC:156:ARG:NH2	3:CC:160:ALA:O	2.50	0.42
4:CD:174:LEU:O	4:CD:186:LEU:HD11	2.19	0.42
5:CE:150:ARG:HB2	5:CE:150:ARG:NH1	2.35	0.42
8:CH:12:ARG:HH11	8:CH:26:VAL:HA	1.83	0.42
8:CH:99:GLU:O	8:CH:100:ILE:C	2.62	0.42
9:CI:19:LEU:HD21	9:CI:61:ALA:HB2	2.00	0.42
9:CI:37:PHE:CE1	9:CI:74:ILE:HG12	2.54	0.42
10:CJ:48:THR:CG2	10:CJ:62:HIS:HB3	2.45	0.42
13:CM:125:ARG:CG	22:CY:38:A:O2'	2.65	0.42
14:CN:42:ILE:O	14:CN:45:ARG:N	2.53	0.42
17:CQ:92:ARG:O	17:CQ:95:TYR:CD2	2.72	0.42
18:CR:75:ILE:C	18:CR:77:GLY:H	2.28	0.42
21:CU:6:ARG:NE	21:CU:15:ARG:HH22	1.95	0.42
22:CW:18:G:N2	22:CW:55:U:H6	2.18	0.42
22:CW:28:G:N2	22:CW:43:C:N3	2.66	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CV:25:U:C6	23:CV:25:U:O5'	2.72	0.42
25:DA:200:U:H2'	25:DA:201:C:H5'	2.02	0.42
25:DA:395:U:O2	25:DA:395:U:C2'	2.63	0.42
25:DA:589:C:O3'	30:DF:95:ARG:NH1	2.52	0.42
25:DA:773:U:H4'	28:DD:47:GLY:CA	2.50	0.42
25:DA:1609:A:C2	25:DA:1616:A:C8	3.08	0.42
25:DA:2302:G:C6	25:DA:2303:G:C5	3.07	0.42
25:DA:2631:G:O2'	25:DA:2810:A:N1	2.48	0.42
25:DA:2683:C:P	40:DT:53:ARG:HH22	2.42	0.42
25:DA:2770:G:H5'	25:DA:2771:C:OP2	2.19	0.42
26:DB:32:C:C2	26:DB:51:G:N2	2.88	0.42
27:DC:47:LEU:HB2	27:DC:207:THR:CB	2.49	0.42
29:DE:66:HIS:O	29:DE:66:HIS:ND1	2.38	0.42
29:DE:130:GLY:C	29:DE:131:ALA:O	2.60	0.42
30:DF:53:THR:HG23	30:DF:54:ARG:N	2.33	0.42
32:DH:50:VAL:HG12	32:DH:51:ARG:N	2.35	0.42
32:DH:156:ALA:N	32:DH:158:HIS:H	2.12	0.42
35:DO:88:ASN:ND2	35:DO:90:GLN:HB2	2.31	0.42
37:DQ:12:GLN:HE21	37:DQ:73:PRO:HD3	1.83	0.42
41:DU:83:LEU:HD12	41:DU:113:ALA:HB2	2.02	0.42
42:DV:38:LEU:CD1	42:DV:57:VAL:HB	2.49	0.42
43:DW:41:LYS:HB3	43:DW:41:LYS:HE3	1.81	0.42
43:DW:87:PRO:HA	43:DW:93:ALA:HA	2.02	0.42
45:DY:28:LYS:N	45:DY:28:LYS:CE	2.83	0.42
45:DY:31:LEU:HD23	45:DY:36:ALA:C	2.44	0.42
45:DY:77:PRO:O	45:DY:78:ALA:CB	2.68	0.42
54:D7:31:LEU:O	54:D7:35:ARG:HB2	2.20	0.42
1:AA:99:C:H2'	1:AA:100:G:H8	1.83	0.42
1:AA:329:C:H2'	1:AA:330:C:C6	2.55	0.42
1:AA:983:A:H5''	1:AA:984:C:OP2	2.19	0.42
1:AA:1187:G:O4'	3:AC:194:GLY:HA2	2.19	0.42
1:AA:1473:C:H2'	1:AA:1474:G:O4'	2.19	0.42
2:AB:74:LYS:HE3	2:AB:166:ASP:HB3	2.02	0.42
3:AC:207:VAL:O	3:AC:207:VAL:HG12	2.20	0.42
4:AD:24:GLU:O	4:AD:27:TYR:HB2	2.19	0.42
4:AD:81:GLU:OE1	4:AD:139:ARG:NH2	2.52	0.42
4:AD:138:TYR:CD2	4:AD:138:TYR:C	2.98	0.42
5:AE:150:ARG:CZ	5:AE:150:ARG:CB	2.97	0.42
7:AG:113:GLU:HB3	7:AG:118:VAL:HG23	2.02	0.42
9:AI:125:TYR:CE2	9:AI:127:LYS:HB2	2.55	0.42
15:AO:20:GLY:O	15:AO:22:THR:HG23	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AO:47:LYS:H	15:AO:47:LYS:HG2	1.57	0.42
16:AP:76:GLN:O	16:AP:76:GLN:CG	2.66	0.42
20:AT:40:ALA:HB2	20:AT:55:ILE:HG22	2.02	0.42
20:AT:71:THR:HB	20:AT:72:LEU:H	1.56	0.42
22:AW:2:C:N4	22:AW:71:G:H1	2.04	0.42
23:AV:14:A:H2'	23:AV:15:G:H5'	2.02	0.42
23:AV:20:G:C6	23:AV:58:A:C2	3.08	0.42
25:BA:142:A:H8	25:BA:1408:C:H1'	1.83	0.42
25:BA:198:C:H6	25:BA:198:C:O5'	2.02	0.42
25:BA:519:U:O2'	25:BA:520:G:H5'	2.19	0.42
25:BA:635:C:O2'	25:BA:636:G:H5'	2.20	0.42
25:BA:658:C:H2'	25:BA:659:C:C6	2.55	0.42
25:BA:1018:C:C2'	25:BA:1019:U:H5'	2.50	0.42
25:BA:1240:U:O2'	25:BA:1241:A:H5'	2.19	0.42
25:BA:1717:G:H2'	25:BA:1718:G:H5''	2.02	0.42
25:BA:1851:U:C2'	25:BA:1852:C:H5'	2.50	0.42
25:BA:2015:A:H1'	52:B5:2:ALA:CA	2.43	0.42
25:BA:2172:U:O2'	25:BA:2173:A:OP1	2.38	0.42
25:BA:2521:C:O2'	25:BA:2564:A:N3	2.34	0.42
25:BA:2527:C:C5'	56:B9:30:PRO:HB2	2.49	0.42
25:BA:2726:U:O2'	25:BA:2727:G:H5'	2.20	0.42
25:BA:2759:G:C2'	25:BA:2760:C:H5'	2.49	0.42
26:BB:71:C:H2'	26:BB:72:G:C8	2.47	0.42
28:BD:77:ALA:HB2	28:BD:97:TYR:CG	2.54	0.42
28:BD:136:ILE:HG22	28:BD:140:THR:OG1	2.18	0.42
31:BG:90:LEU:HD23	31:BG:90:LEU:HA	1.79	0.42
31:BG:97:ASP:C	31:BG:99:MET:N	2.76	0.42
32:BH:127:GLU:HB3	32:BH:128:PRO:HD2	2.00	0.42
32:BH:151:ILE:N	32:BH:151:ILE:HD13	2.35	0.42
34:BN:9:VAL:CG1	34:BN:10:GLU:N	2.83	0.42
34:BN:23:LEU:C	34:BN:25:ARG:H	2.26	0.42
36:BP:97:PRO:O	36:BP:99:LEU:N	2.46	0.42
36:BP:114:ILE:HD12	36:BP:115:LEU:H	1.84	0.42
38:BR:4:LEU:C	38:BR:6:SER:N	2.76	0.42
38:BR:78:LYS:O	38:BR:78:LYS:HG2	2.19	0.42
41:BU:92:ARG:HH11	42:BV:11:GLN:HG3	1.83	0.42
46:BZ:33:LEU:HD11	46:BZ:35:ARG:CB	2.45	0.42
46:BZ:177:PRO:O	46:BZ:178:GLU:CG	2.66	0.42
49:B2:47:ASN:O	49:B2:49:LYS:N	2.52	0.42
50:B3:59:VAL:CG1	50:B3:60:GLU:N	2.83	0.42
53:B6:11:LEU:HD13	53:B6:12:GLU:N	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:B8:50:LEU:O	55:B8:51:ALA:HB3	2.20	0.42
1:CA:256:U:OP2	20:CT:79:ARG:NH2	2.53	0.42
1:CA:271:G:O2'	17:CQ:68:ARG:NH1	2.53	0.42
1:CA:397:G:OP1	4:CD:74:GLN:HG2	2.20	0.42
1:CA:496:C:C2	1:CA:522:A:C2	3.07	0.42
1:CA:498:G:C4	1:CA:520:G:N2	2.88	0.42
1:CA:516:A:N6	1:CA:519:C:C2	2.88	0.42
1:CA:762:C:H4'	11:CK:121:PRO:O	2.20	0.42
1:CA:765:A:C6	1:CA:784:U:C2	3.07	0.42
1:CA:898:U:C4	1:CA:899:G:N7	2.88	0.42
1:CA:899:G:C2	1:CA:900:A:C4	3.07	0.42
1:CA:989:G:C6	1:CA:990:U:C4	3.08	0.42
1:CA:1083:A:H4'	1:CA:1084:A:O5'	2.20	0.42
1:CA:1490:A:H2'	1:CA:1491:C:C6	2.54	0.42
2:CB:48:MET:O	2:CB:49:GLU:C	2.62	0.42
3:CC:188:LEU:HD12	3:CC:195:VAL:CG1	2.49	0.42
4:CD:127:THR:HG22	4:CD:132:ARG:HA	2.02	0.42
5:CE:7:GLU:HG2	5:CE:37:ARG:HH21	1.84	0.42
6:CF:68:PRO:HG3	6:CF:71:ARG:NH2	2.34	0.42
8:CH:44:PHE:HA	8:CH:79:VAL:HG11	2.00	0.42
9:CI:50:LEU:HA	9:CI:53:VAL:HG22	2.02	0.42
9:CI:96:LEU:CG	9:CI:102:LEU:HB2	2.49	0.42
11:CK:12:ARG:HE	11:CK:14:VAL:CG1	2.33	0.42
12:CL:32:PHE:HB3	12:CL:84:LEU:CD1	2.50	0.42
12:CL:64:TYR:HB3	12:CL:65:GLU:H	1.68	0.42
13:CM:46:LYS:HG3	13:CM:47:ASP:OD1	2.18	0.42
13:CM:120:LYS:HD3	13:CM:120:LYS:HA	1.83	0.42
20:CT:89:ARG:CZ	20:CT:104:LEU:HD21	2.50	0.42
22:CW:74:C:C2'	22:CW:75:C:H5'	2.50	0.42
23:CV:73:A:C6	23:CV:74:A:C5	3.08	0.42
25:DA:282:A:H3'	25:DA:284:U:O4	2.18	0.42
25:DA:613:G:C2	25:DA:614:U:C6	3.07	0.42
25:DA:635:C:O2'	25:DA:636:G:H5'	2.20	0.42
25:DA:995:C:OP2	41:DU:54:LYS:NZ	2.37	0.42
25:DA:1048:A:P	25:DA:1048:A:N3	2.92	0.42
25:DA:1602:U:H3'	25:DA:1603:A:H5'	2.01	0.42
25:DA:1608:A:H1'	25:DA:1610:A:OP2	2.19	0.42
25:DA:1772:G:C2'	25:DA:1773:A:O5'	2.68	0.42
25:DA:1784:A:H4'	25:DA:1785:A:C5'	2.50	0.42
25:DA:1909:C:H5''	25:DA:1909:C:C6	2.55	0.42
25:DA:2015:A:C4	52:D5:6:VAL:HG23	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2128:C:OP1	27:DC:35:ALA:CB	2.67	0.42
25:DA:2236:C:O2'	25:DA:2237:G:H5'	2.20	0.42
25:DA:2300:G:O6	25:DA:2316:C:N4	2.52	0.42
25:DA:2457:U:C2'	25:DA:2458:G:H5'	2.50	0.42
25:DA:2791:C:H41	25:DA:2803:C:N4	2.18	0.42
25:DA:2817:G:H21	25:DA:2836:U:H1'	1.84	0.42
25:DA:2825:C:H2'	25:DA:2826:A:O4'	2.19	0.42
28:DD:96:HIS:ND1	28:DD:102:LYS:HG2	2.34	0.42
30:DF:131:GLY:O	30:DF:132:VAL:O	2.36	0.42
32:DH:17:VAL:CB	32:DH:45:VAL:CB	2.87	0.42
32:DH:26:VAL:HG11	32:DH:76:VAL:HA	2.00	0.42
32:DH:27:LYS:HE3	32:DH:32:GLU:HB2	2.00	0.42
32:DH:94:TYR:CZ	32:DH:107:VAL:HB	2.55	0.42
34:DN:62:VAL:HG22	34:DN:66:LYS:HD3	2.00	0.42
34:DN:132:ALA:O	34:DN:133:GLN:HB3	2.19	0.42
35:DO:10:VAL:HG23	35:DO:12:ASP:H	1.85	0.42
36:DP:140:ALA:O	36:DP:141:ALA:CB	2.66	0.42
37:DQ:72:LYS:HA	37:DQ:73:PRO:HD3	1.87	0.42
38:DR:76:VAL:O	38:DR:79:LEU:HB3	2.18	0.42
40:DT:126:ALA:C	40:DT:128:GLU:H	2.28	0.42
41:DU:12:ARG:CA	41:DU:15:LYS:NZ	2.82	0.42
41:DU:55:ARG:HA	41:DU:58:ARG:HG3	1.99	0.42
41:DU:105:VAL:O	41:DU:109:LEU:CD1	2.67	0.42
46:DZ:44:PHE:CZ	46:DZ:86:VAL:HG11	2.54	0.42
46:DZ:61:LEU:HB2	46:DZ:65:GLN:HB2	2.00	0.42
46:DZ:104:PHE:CD1	46:DZ:139:VAL:HB	2.52	0.42
47:D0:82:ARG:O	47:D0:83:PRO:O	2.38	0.42
50:D3:3:ARG:HA	50:D3:38:GLU:OE2	2.20	0.42
50:D3:31:LEU:C	50:D3:33:GLN:N	2.73	0.42
55:D8:46:ARG:HB3	55:D8:47:LYS:H	1.72	0.42
1:AA:365:C:C2	1:AA:366:G:C8	3.08	0.42
1:AA:1206:A:H5'	1:AA:1207:C:OP2	2.20	0.42
1:AA:1337:G:H2'	1:AA:1338:A:C8	2.54	0.42
1:AA:1397:G:N3	1:AA:1463:G:C2	2.88	0.42
2:AB:178:ARG:HA	2:AB:178:ARG:HD3	1.94	0.42
3:AC:34:LEU:HD12	14:AN:25:VAL:CG1	2.50	0.42
3:AC:134:ILE:HG23	3:AC:151:VAL:HB	2.02	0.42
6:AF:52:ILE:N	6:AF:55:ASP:O	2.43	0.42
7:AG:95:ARG:HG3	7:AG:95:ARG:NH1	2.35	0.42
8:AH:97:VAL:HG13	8:AH:98:LYS:N	2.34	0.42
10:AJ:92:THR:HG23	10:AJ:93:GLY:N	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:53:LEU:CD1	20:AT:102:GLY:HA3	2.49	0.42
22:AY:43:C:H3'	22:AY:43:C:H6	1.84	0.42
25:BA:108:U:H2'	25:BA:109:G:C8	2.55	0.42
25:BA:188:G:H5'	48:B1:14:VAL:HG21	2.02	0.42
25:BA:523:C:C2'	25:BA:524:U:H5'	2.50	0.42
25:BA:833:U:H2'	25:BA:834:C:C6	2.55	0.42
25:BA:1108:U:C2'	25:BA:1109:C:H5'	2.50	0.42
25:BA:1348:G:H2'	25:BA:1349:A:C5'	2.45	0.42
25:BA:1365:A:H5''	48:B1:41:ARG:NH1	2.22	0.42
25:BA:1573:G:C2'	25:BA:1574:C:H5'	2.49	0.42
25:BA:1651:G:OP1	38:BR:40:LYS:HE3	2.20	0.42
25:BA:1961:C:C2'	25:BA:1962:C:H5'	2.49	0.42
25:BA:2236:C:O2'	25:BA:2237:G:H5'	2.20	0.42
25:BA:2313:C:OP1	31:BG:71:THR:HG21	2.20	0.42
25:BA:2817:G:H21	25:BA:2836:U:H1'	1.84	0.42
26:BB:16:G:O2'	26:BB:17:C:H5'	2.20	0.42
28:BD:24:ILE:HD12	28:BD:84:TYR:HB2	2.01	0.42
29:BE:176:ILE:CG2	29:BE:178:GLU:HB3	2.49	0.42
31:BG:64:THR:CG2	31:BG:65:GLY:N	2.79	0.42
32:BH:154:PRO:O	32:BH:155:SER:O	2.38	0.42
34:BN:22:THR:HA	34:BN:61:ARG:O	2.19	0.42
34:BN:26:LEU:HG	34:BN:30:ILE:CD1	2.50	0.42
34:BN:45:ASN:O	34:BN:45:ASN:ND2	2.52	0.42
34:BN:136:GLU:OE1	34:BN:137:LYS:N	2.53	0.42
35:BO:88:ASN:ND2	35:BO:90:GLN:HB2	2.31	0.42
36:BP:6:LEU:HD23	36:BP:6:LEU:N	2.29	0.42
36:BP:56:SER:O	36:BP:57:THR:CB	2.68	0.42
36:BP:91:PHE:N	36:BP:91:PHE:HD1	2.16	0.42
41:BU:66:ASN:OD1	41:BU:76:TYR:CB	2.68	0.42
41:BU:74:LEU:C	41:BU:74:LEU:HD12	2.45	0.42
41:BU:83:LEU:HD12	41:BU:113:ALA:HB2	2.02	0.42
42:BV:21:ARG:O	42:BV:22:VAL:HG13	2.20	0.42
45:BY:46:LYS:HB3	45:BY:47:LYS:H	1.51	0.42
46:BZ:150:LEU:N	46:BZ:150:LEU:HD13	2.35	0.42
47:B0:73:GLY:C	47:B0:75:LEU:H	2.27	0.42
47:B0:82:ARG:O	47:B0:83:PRO:O	2.38	0.42
49:B2:36:ARG:C	49:B2:38:GLN:H	2.26	0.42
54:B7:31:LEU:O	54:B7:35:ARG:HB2	2.20	0.42
1:CA:637:G:H1'	1:CA:736:A:C2	2.55	0.42
1:CA:707:G:C2	1:CA:708:G:C8	3.08	0.42
1:CA:1066:G:OP1	1:CA:1068:U:C4	2.73	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1110:C:H2'	1:CA:1112:A:N7	2.34	0.42
1:CA:1294:U:P	19:CS:6:LYS:HG3	2.60	0.42
1:CA:1295:C:H2'	1:CA:1296:U:H6	1.85	0.42
1:CA:1327:A:N6	1:CA:1356:A:H3'	2.32	0.42
2:CB:37:ASN:C	2:CB:39:ILE:H	2.27	0.42
2:CB:39:ILE:CG2	2:CB:40:HIS:N	2.80	0.42
2:CB:93:VAL:CG1	2:CB:101:MET:HE1	2.49	0.42
2:CB:124:SER:O	2:CB:127:ILE:HG12	2.20	0.42
2:CB:132:LYS:HA	2:CB:135:GLN:CG	2.50	0.42
2:CB:170:GLU:HA	2:CB:172:ILE:CD1	2.50	0.42
2:CB:187:LEU:HA	2:CB:201:ILE:O	2.20	0.42
4:CD:28:SER:O	4:CD:30:LYS:HG2	2.20	0.42
5:CE:112:LEU:HD23	5:CE:112:LEU:N	2.35	0.42
6:CF:4:TYR:HD1	6:CF:92:LYS:HA	1.84	0.42
6:CF:30:LEU:HD23	6:CF:75:LEU:HD11	2.01	0.42
6:CF:69:GLU:CD	6:CF:69:GLU:N	2.78	0.42
6:CF:97:PHE:HD2	18:CR:31:LEU:HD21	1.85	0.42
7:CG:131:LYS:O	7:CG:131:LYS:HG3	2.19	0.42
8:CH:109:ILE:HG22	8:CH:137:VAL:HB	2.00	0.42
9:CI:18:PHE:HB2	9:CI:62:TYR:HB3	2.02	0.42
9:CI:125:TYR:CE2	9:CI:127:LYS:HB2	2.54	0.42
10:CJ:7:LYS:CD	10:CJ:71:LEU:HD13	2.42	0.42
12:CL:58:VAL:O	12:CL:65:GLU:HA	2.19	0.42
12:CL:113:ARG:HG2	12:CL:113:ARG:NH1	2.34	0.42
13:CM:79:LYS:HB3	13:CM:82:MET:HE1	2.02	0.42
14:CN:34:TYR:HD1	14:CN:34:TYR:H	1.66	0.42
16:CP:6:LEU:N	16:CP:6:LEU:HD12	2.35	0.42
18:CR:61:LYS:CG	18:CR:65:ILE:HD11	2.49	0.42
19:CS:39:THR:HG22	19:CS:40:ILE:H	1.82	0.42
23:CV:15:G:N1	23:CV:22:A:C2	2.87	0.42
23:CV:32:G:C4	23:CV:33:C:C5	3.08	0.42
22:CY:28:G:C5	22:CY:29:G:N7	2.87	0.42
25:DA:10:G:O6	25:DA:2629:A:C8	2.73	0.42
25:DA:30:G:H2'	25:DA:31:C:C6	2.55	0.42
25:DA:589:C:H2'	25:DA:590:A:C8	2.55	0.42
25:DA:747:U:OP2	52:D5:3:LYS:NZ	2.49	0.42
25:DA:1270:C:O2'	25:DA:1648:C:OP2	2.30	0.42
25:DA:1427:A:H4'	25:DA:1428:C:O5'	2.20	0.42
25:DA:2223:G:O2'	25:DA:2224:G:H5'	2.20	0.42
25:DA:2228:G:OP1	28:DD:261:LYS:CE	2.68	0.42
25:DA:2525:G:O4'	25:DA:2741:A:H2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2675:A:H4'	35:DO:29:ASN:HD22	1.82	0.42
25:DA:2756:U:H4'	25:DA:2757:A:OP1	2.20	0.42
28:DD:260:ARG:HD3	28:DD:261:LYS:O	2.19	0.42
29:DE:28:ALA:O	29:DE:29:GLY:O	2.38	0.42
30:DF:1:MET:CE	30:DF:26:ALA:HB1	2.50	0.42
30:DF:135:LYS:O	30:DF:136:THR:C	2.60	0.42
31:DG:95:ARG:HG2	31:DG:95:ARG:NH1	2.34	0.42
32:DH:109:PHE:N	32:DH:109:PHE:CD1	2.83	0.42
33:DI:68:LEU:O	33:DI:72:LEU:HB3	2.19	0.42
34:DN:123:TYR:HH	34:DN:130:HIS:CD2	2.37	0.42
34:DN:128:HIS:HA	34:DN:129:PRO:HD2	1.83	0.42
39:DS:16:ASN:O	39:DS:20:ARG:NH2	2.51	0.42
41:DU:76:TYR:C	41:DU:78:THR:N	2.77	0.42
41:DU:105:VAL:CG1	42:DV:40:LEU:CD1	2.98	0.42
42:DV:35:LEU:O	42:DV:36:PRO:C	2.61	0.42
43:DW:19:LEU:HB3	52:D5:25:LEU:HD11	2.02	0.42
43:DW:52:GLU:HA	43:DW:52:GLU:OE2	2.20	0.42
43:DW:60:ASN:C	43:DW:61:ASN:HD22	2.27	0.42
45:DY:99:CYS:O	45:DY:100:ALA:CB	2.68	0.42
46:DZ:150:LEU:N	46:DZ:150:LEU:HD13	2.35	0.42
47:D0:50:ASN:C	47:D0:62:LEU:HB2	2.44	0.42
48:D1:23:LYS:CD	48:D1:28:GLY:HA3	2.49	0.42
48:D1:71:TYR:CD1	48:D1:71:TYR:N	2.88	0.42
49:D2:4:SER:O	49:D2:7:ARG:HG2	2.19	0.42
50:D3:23:LEU:CD1	50:D3:50:VAL:HG11	2.49	0.42
55:D8:50:LEU:O	55:D8:51:ALA:HB3	2.20	0.42
1:AA:259:U:O2	17:AQ:64:PRO:HG2	2.20	0.42
1:AA:484:C:H2'	1:AA:485:G:C8	2.55	0.42
1:AA:542:A:H4'	1:AA:543:U:H3'	2.01	0.42
1:AA:762:C:N4	1:AA:763:A:C6	2.88	0.42
1:AA:802:A:C5	1:AA:1506:G:C6	3.07	0.42
1:AA:953:G:OP1	14:AN:32:SER:N	2.52	0.42
1:AA:981:G:H2'	1:AA:982:A:C4'	2.49	0.42
1:AA:1141:U:C4	1:AA:1163:G:C4	3.08	0.42
1:AA:1210:A:O3'	23:AV:31:G:H5''	2.19	0.42
1:AA:1493:G:H2'	1:AA:1495:A:OP2	2.19	0.42
2:AB:189:ASP:HB2	2:AB:190:THR:H	1.75	0.42
3:AC:32:LEU:HD22	3:AC:59:ARG:NH1	2.35	0.42
4:AD:14:ARG:HG3	4:AD:15:GLU:OE1	2.20	0.42
7:AG:135:VAL:O	7:AG:136:LYS:C	2.63	0.42
11:AK:12:ARG:HE	11:AK:14:VAL:CG1	2.32	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:107:SER:OG	11:AK:108:ILE:N	2.53	0.42
13:AM:34:LEU:HD13	13:AM:41:PRO:CA	2.47	0.42
19:AS:16:LEU:N	19:AS:16:LEU:CD1	2.83	0.42
19:AS:37:ARG:H	19:AS:37:ARG:HG3	1.58	0.42
19:AS:61:TYR:O	19:AS:62:ILE:HB	2.20	0.42
23:AV:41:C:C6	23:AV:41:C:C3'	3.03	0.42
25:BA:589:C:H2'	25:BA:590:A:C8	2.55	0.42
25:BA:640:C:O2'	25:BA:641:C:H5'	2.19	0.42
25:BA:703:U:H2'	25:BA:704:G:H5'	2.02	0.42
25:BA:747:U:OP2	52:B5:3:LYS:CE	2.67	0.42
25:BA:818:G:H5'	25:BA:839:U:OP1	2.20	0.42
25:BA:1048:A:P	25:BA:1048:A:N3	2.93	0.42
25:BA:1332:G:H21	25:BA:1610:A:H8	1.60	0.42
25:BA:1796:U:H4'	28:BD:256:GLY:N	2.35	0.42
25:BA:1864:U:OP2	25:BA:1864:U:H6	2.03	0.42
25:BA:2136:C:N4	25:BA:2155:G:N1	2.67	0.42
25:BA:2222:G:O2'	25:BA:2223:G:H5'	2.20	0.42
25:BA:2538:C:N3	25:BA:2539:C:C5	2.88	0.42
25:BA:2612:C:C4	25:BA:2613:U:H5	2.38	0.42
25:BA:2754:U:H2'	25:BA:2755:C:H5''	2.02	0.42
25:BA:2881:C:C2	25:BA:2882:A:C8	3.07	0.42
26:BB:65:C:C2'	26:BB:66:A:H5'	2.50	0.42
26:BB:73:A:C4	26:BB:105:A:C2	3.07	0.42
27:BC:99:ILE:HG23	27:BC:103:ILE:CB	2.50	0.42
28:BD:48:ARG:HH11	28:BD:48:ARG:CG	2.27	0.42
28:BD:232:PRO:HD2	28:BD:249:PRO:HA	2.01	0.42
29:BE:169:ASN:OD1	29:BE:203:LYS:HB3	2.19	0.42
30:BF:1:MET:CE	30:BF:27:GLU:HG3	2.50	0.42
30:BF:127:GLU:HG2	30:BF:196:LEU:HD11	2.02	0.42
31:BG:114:ILE:O	31:BG:116:ASP:N	2.53	0.42
31:BG:167:GLU:C	31:BG:169:ALA:H	2.27	0.42
31:BG:172:LEU:O	31:BG:176:LEU:HD12	2.20	0.42
36:BP:7:ARG:CZ	36:BP:7:ARG:CB	2.98	0.42
36:BP:30:THR:CG2	36:BP:31:ALA:H	2.19	0.42
38:BR:63:ARG:HG3	38:BR:80:PHE:HE2	1.85	0.42
39:BS:98:VAL:HG22	39:BS:100:ALA:H	1.84	0.42
40:BT:36:GLU:HB2	40:BT:38:ASN:H	1.85	0.42
40:BT:55:ASN:O	40:BT:55:ASN:ND2	2.53	0.42
41:BU:52:ARG:HD3	41:BU:55:ARG:NE	2.26	0.42
41:BU:61:TRP:O	41:BU:62:ILE:C	2.63	0.42
43:BW:8:ARG:HD3	43:BW:102:HIS:CD2	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BW:87:PRO:HA	43:BW:93:ALA:HA	2.01	0.42
45:BY:77:PRO:O	45:BY:78:ALA:CB	2.68	0.42
47:B0:72:ARG:CZ	47:B0:75:LEU:HD13	2.50	0.42
54:B7:43:THR:HG23	54:B7:44:PRO:CD	2.43	0.42
1:CA:113:A:H2'	1:CA:115:G:N7	2.35	0.42
1:CA:255:G:H2'	1:CA:256:U:C6	2.55	0.42
1:CA:790:A:H2'	1:CA:791:C:C6	2.55	0.42
1:CA:928:G:C6	1:CA:1212:G:C6	3.08	0.42
1:CA:982:A:C6	1:CA:1019:C:N4	2.88	0.42
1:CA:1442:C:H2'	1:CA:1443:C:O4'	2.20	0.42
2:CB:131:PRO:C	2:CB:133:LYS:N	2.78	0.42
3:CC:101:LEU:HD23	3:CC:101:LEU:C	2.45	0.42
4:CD:100:ARG:CZ	4:CD:137:SER:HA	2.50	0.42
4:CD:196:LEU:C	4:CD:198:VAL:H	2.27	0.42
10:CJ:51:ARG:HE	10:CJ:61:GLU:HB2	1.84	0.42
10:CJ:90:LEU:N	10:CJ:91:PRO:HD3	2.35	0.42
12:CL:119:LYS:O	12:CL:120:TYR:HB2	2.20	0.42
13:CM:12:ASN:O	13:CM:13:LYS:HG2	2.19	0.42
20:CT:14:LYS:CA	20:CT:17:ARG:HH21	2.32	0.42
23:CV:4:G:N2	23:CV:5:G:H1'	2.34	0.42
25:DA:271(J):C:H2'	25:DA:271(K):U:H5''	2.02	0.42
25:DA:363:G:N7	25:DA:363(A):A:N7	2.68	0.42
25:DA:498:G:O2'	25:DA:499:U:H5'	2.20	0.42
25:DA:1018:C:C2'	25:DA:1019:U:H5'	2.50	0.42
25:DA:1142(A):A:C5	25:DA:1144:G:C5	3.07	0.42
25:DA:1240:U:O2'	25:DA:1241:A:H5'	2.19	0.42
25:DA:1686:C:C6	25:DA:1686:C:C5'	2.97	0.42
25:DA:1930:G:N2	25:DA:1968:G:H2'	2.35	0.42
25:DA:2015:A:N3	52:D5:2:ALA:N	2.68	0.42
25:DA:2091:U:O2'	48:D1:47:GLN:HG3	2.20	0.42
25:DA:2239:G:H5'	28:DD:251:GLY:HA3	2.01	0.42
25:DA:2296:U:H2'	39:DS:13:ARG:NH2	2.35	0.42
25:DA:2893:G:H8	25:DA:2893:G:H5'	1.83	0.42
27:DC:168:THR:HA	27:DC:173:ALA:HB1	2.01	0.42
28:DD:176:ARG:HH11	28:DD:176:ARG:CG	2.28	0.42
29:DE:176:ILE:HB	29:DE:181:LEU:HB2	2.01	0.42
30:DF:21:ALA:C	30:DF:23:ASP:H	2.28	0.42
32:DH:170:ARG:HG2	32:DH:171:LEU:N	2.35	0.42
35:DO:12:ASP:CG	35:DO:14:THR:HG1	2.27	0.42
36:DP:108:LYS:O	36:DP:110:TYR:N	2.52	0.42
38:DR:14:SER:OG	38:DR:15:SER:N	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DS:54:LEU:C	39:DS:56:LEU:N	2.77	0.42
40:DT:125:ARG:HD3	40:DT:125:ARG:HA	1.71	0.42
41:DU:30:LYS:HA	41:DU:30:LYS:HD3	1.94	0.42
41:DU:97:ASP:O	41:DU:100:VAL:HB	2.19	0.42
43:DW:20:VAL:HG11	43:DW:44:ALA:HA	2.01	0.42
45:DY:15:VAL:CG1	45:DY:16:ALA:N	2.82	0.42
45:DY:91:GLU:HB3	45:DY:92:ASN:H	1.50	0.42
48:D1:81:LYS:C	48:D1:82:LEU:HD13	2.45	0.42
48:D1:92:LYS:HG3	48:D1:93:GLU:N	2.34	0.42
50:D3:6:VAL:HB	50:D3:54:VAL:HG11	2.01	0.42
53:D6:45:LYS:HE3	53:D6:45:LYS:HB3	1.22	0.42
1:AA:33:A:N3	12:AL:32:PHE:HE2	2.18	0.42
1:AA:154:A:N3	1:AA:154:A:C2'	2.81	0.42
1:AA:525:G:N2	1:AA:526:C:C2	2.88	0.42
1:AA:619:U:H2'	1:AA:620:G:C8	2.55	0.42
1:AA:814:U:O2'	1:AA:815:C:H5'	2.19	0.42
1:AA:931:G:C5	1:AA:932:U:C4	3.08	0.42
1:AA:1005:C:H1'	1:AA:1017:A:H2	1.85	0.42
1:AA:1242:A:C6	1:AA:1243:C:C2	3.08	0.42
3:AC:66:VAL:HG12	3:AC:66:VAL:O	2.19	0.42
4:AD:14:ARG:C	4:AD:16:GLY:N	2.77	0.42
6:AF:15:ASP:OD1	6:AF:17:SER:HB2	2.20	0.42
8:AH:118:VAL:O	8:AH:119:LEU:HD23	2.20	0.42
9:AI:43:ALA:O	9:AI:45:ALA:N	2.52	0.42
12:AL:83:VAL:CG1	12:AL:84:LEU:N	2.83	0.42
12:AL:113:ARG:HG2	12:AL:113:ARG:NH1	2.35	0.42
14:AN:8:GLU:HG3	14:AN:12:ARG:HH11	1.85	0.42
22:AW:30:G:O2'	22:AW:31:A:H5'	2.19	0.42
23:AV:72:C:C6	23:AV:72:C:C3'	3.02	0.42
23:AV:76:C:P	23:AV:77:A:OP2	2.78	0.42
22:AY:32:U:C4	22:AY:33:U:C4	3.08	0.42
25:BA:7:G:H1	25:BA:2896:C:H42	1.68	0.42
25:BA:10:G:O6	25:BA:2629:A:C8	2.73	0.42
25:BA:154(A):C:N4	25:BA:172:C:H42	2.16	0.42
25:BA:332:A:O2'	25:BA:333:G:O5'	2.38	0.42
25:BA:674:G:P	30:BF:54:ARG:HH22	2.43	0.42
25:BA:676:A:H2	25:BA:802:A:N6	2.17	0.42
25:BA:851:U:O4'	50:B3:46:ASN:OD1	2.38	0.42
25:BA:1234:U:O2'	25:BA:1235:G:H5'	2.20	0.42
25:BA:1352:U:O2'	25:BA:1353:A:H5'	2.20	0.42
25:BA:1365:A:O2'	48:B1:11:ARG:NH2	2.44	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1399:C:O2'	25:BA:1400:G:H5'	2.20	0.42
25:BA:1946:U:H2'	25:BA:1947:C:H6	1.85	0.42
25:BA:2078:C:C4	25:BA:2079:U:C4	3.08	0.42
25:BA:2230:G:C4'	48:B1:43:TYR:HB2	2.50	0.42
25:BA:2638:G:P	29:BE:82:ARG:NH2	2.93	0.42
26:BB:24:G:N7	26:BB:56:G:O2'	2.49	0.42
27:BC:82:LYS:O	27:BC:86:ALA:HB3	2.20	0.42
28:BD:74:GLY:O	28:BD:76:PRO:HD3	2.19	0.42
29:BE:37:ARG:HD3	29:BE:42:ASP:OD2	2.20	0.42
32:BH:164:TYR:O	32:BH:165:ALA:HB2	2.20	0.42
33:BI:72:LEU:CD1	33:BI:138:ILE:HG21	2.49	0.42
33:BI:101:LEU:HB3	33:BI:109:ILE:CD1	2.43	0.42
34:BN:62:VAL:HG22	34:BN:66:LYS:HB2	2.00	0.42
34:BN:123:TYR:HH	34:BN:130:HIS:CD2	2.37	0.42
36:BP:90:ARG:HB3	36:BP:91:PHE:HD1	1.85	0.42
36:BP:121:LYS:O	36:BP:123:LEU:N	2.53	0.42
37:BQ:103:MET:CE	37:BQ:125:LEU:HD13	2.49	0.42
38:BR:2:ARG:NH2	38:BR:5:LYS:HZ1	2.18	0.42
40:BT:50:ILE:HD12	40:BT:50:ILE:N	2.35	0.42
43:BW:9:TYR:HD2	43:BW:9:TYR:H	1.66	0.42
45:BY:28:LYS:N	45:BY:28:LYS:CE	2.83	0.42
45:BY:39:VAL:O	45:BY:40:GLU:HG2	2.20	0.42
46:BZ:28:MET:CG	46:BZ:33:LEU:HD21	2.48	0.42
46:BZ:77:ASP:HB2	46:BZ:84:GLU:OE2	2.20	0.42
46:BZ:99:TYR:N	46:BZ:99:TYR:HD2	2.16	0.42
46:BZ:110:GLY:O	46:BZ:115:GLY:O	2.37	0.42
46:BZ:152:ALA:HB3	46:BZ:154:ASP:OD1	2.20	0.42
47:B0:33:ALA:N	47:B0:64:ASP:OD1	2.53	0.42
50:B3:31:LEU:O	50:B3:33:GLN:N	2.52	0.42
1:CA:119:G:H4'	1:CA:617:C:O2	2.20	0.42
1:CA:317:C:H4'	20:CT:23:ARG:HD2	2.01	0.42
1:CA:328:G:N2	1:CA:329:C:C2	2.88	0.42
1:CA:438:C:H2'	1:CA:439:G:H8	1.83	0.42
1:CA:447:A:H4'	16:CP:72:ARG:HG3	2.02	0.42
1:CA:494:C:C2	1:CA:495:U:C5	3.08	0.42
1:CA:629:U:H2'	1:CA:630:C:H6	1.80	0.42
1:CA:859:C:N4	12:CL:9:GLN:HE22	2.17	0.42
1:CA:869:A:C2	1:CA:884:A:C4	3.08	0.42
1:CA:1040:G:C5	1:CA:1041:C:C4	3.08	0.42
1:CA:1296:U:C4	1:CA:1297:G:C5	3.08	0.42
7:CG:44:TYR:O	7:CG:47:CYS:N	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:129:GLU:CD	7:CG:131:LYS:HE3	2.45	0.42
8:CH:119:LEU:CD1	8:CH:124:ALA:HA	2.49	0.42
9:CI:79:LEU:HD11	9:CI:83:ARG:CZ	2.50	0.42
10:CJ:30:SER:CB	10:CJ:80:LYS:HD3	2.50	0.42
12:CL:86:ARG:NH2	12:CL:99:HIS:CG	2.88	0.42
17:CQ:58:GLU:C	17:CQ:59:ILE:HD13	2.45	0.42
19:CS:13:ASP:O	19:CS:15:LEU:N	2.53	0.42
20:CT:24:LEU:HD13	20:CT:24:LEU:O	2.19	0.42
20:CT:41:ILE:HG13	20:CT:42:GLN:N	2.34	0.42
22:CW:28:G:H2'	22:CW:29:G:C8	2.54	0.42
22:CW:39:U:H6	22:CW:39:U:H5'	1.84	0.42
25:DA:1352:U:O2'	25:DA:1353:A:H5'	2.20	0.42
25:DA:1818:U:H2'	28:DD:157:ARG:HG3	2.02	0.42
25:DA:1841:U:H2'	25:DA:1842:G:C8	2.55	0.42
25:DA:1914:C:O2	25:DA:1914:C:O5'	2.37	0.42
25:DA:1987:G:C8	25:DA:1987:G:C5'	2.97	0.42
25:DA:2064:C:H2'	25:DA:2065:C:C6	2.54	0.42
25:DA:2109:U:H1'	25:DA:2181:G:N2	2.34	0.42
25:DA:2465:C:O2	25:DA:2465:C:H2'	2.19	0.42
25:DA:2675:A:C1'	35:DO:29:ASN:HD21	2.33	0.42
25:DA:2688:U:C5	25:DA:2719:G:C5	3.07	0.42
26:DB:71:C:H2'	26:DB:72:G:C8	2.47	0.42
27:DC:55:ASP:CG	27:DC:56:GLN:N	2.78	0.42
28:DD:73:VAL:HG13	28:DD:120:GLY:HA2	2.02	0.42
28:DD:130:ALA:O	28:DD:131:LEU:HG	2.20	0.42
29:DE:57:LYS:HB3	29:DE:57:LYS:HZ3	1.84	0.42
31:DG:17:PRO:O	31:DG:18:GLU:C	2.63	0.42
31:DG:171:ALA:O	31:DG:172:LEU:C	2.63	0.42
33:DI:101:LEU:HA	33:DI:104:GLN:HB3	2.02	0.42
39:DS:99:LYS:HE2	39:DS:99:LYS:HB3	1.91	0.42
40:DT:30:VAL:HB	40:DT:43:GLN:H	1.84	0.42
42:DV:19:LYS:HZ3	42:DV:20:LEU:N	2.16	0.42
46:DZ:33:LEU:CD1	46:DZ:34:ASN:H	2.31	0.42
46:DZ:53:ILE:HG21	46:DZ:71:VAL:O	2.20	0.42
46:DZ:57:ILE:CG2	46:DZ:58:VAL:N	2.81	0.42
46:DZ:103:ARG:HD3	46:DZ:136:PHE:CE2	2.55	0.42
47:D0:19:LYS:O	47:D0:20:ARG:C	2.63	0.42
50:D3:56:VAL:CG1	50:D3:57:GLU:N	2.62	0.42
52:D5:3:LYS:HA	52:D5:3:LYS:HD2	1.70	0.42
52:D5:56:LYS:HD2	52:D5:56:LYS:N	2.34	0.42
1:AA:415:U:N3	1:AA:417:C:N3	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:649:G:C5	1:AA:724:G:C6	3.08	0.41
1:AA:768:G:N3	1:AA:781:G:C2	2.88	0.41
1:AA:815:C:O2'	1:AA:816:U:H6	2.03	0.41
1:AA:1188:G:C6	1:AA:1189:C:C4	3.08	0.41
1:AA:1436:C:H4'	20:AT:24:LEU:HD21	2.01	0.41
2:AB:21:ARG:O	2:AB:23:ARG:N	2.50	0.41
6:AF:40:VAL:HA	6:AF:62:TRP:O	2.20	0.41
9:AI:33:PHE:CZ	9:AI:47:LEU:HD13	2.54	0.41
9:AI:37:PHE:CE1	9:AI:74:ILE:HG12	2.55	0.41
11:AK:34:ASP:HB2	11:AK:35:PRO:CD	2.50	0.41
12:AL:78:GLN:C	12:AL:80:HIS:H	2.26	0.41
13:AM:76:ALA:C	13:AM:79:LYS:HB2	2.45	0.41
19:AS:50:ALA:HA	19:AS:58:VAL:O	2.20	0.41
21:AU:6:ARG:HD3	21:AU:15:ARG:CZ	2.50	0.41
22:AW:65:G:C2	22:AW:66:U:C2	3.08	0.41
22:AY:28:G:C2	22:AY:29:G:N7	2.88	0.41
25:BA:20:C:H2'	25:BA:21:A:C8	2.55	0.41
25:BA:72:U:C1'	49:B2:58:ALA:HA	2.50	0.41
25:BA:612:C:C2'	25:BA:613:G:C5'	2.74	0.41
25:BA:857:C:C3'	25:BA:858:U:H5'	2.50	0.41
25:BA:921:G:N2	47:B0:26:TYR:CE1	2.84	0.41
25:BA:986:C:C2'	25:BA:987:G:H5'	2.50	0.41
25:BA:1129:A:C1'	25:BA:2516:G:O4'	2.67	0.41
25:BA:1173:G:H3'	25:BA:1174:A:H5'	2.02	0.41
25:BA:2075:U:C5	25:BA:2238:G:C5	3.08	0.41
25:BA:2168:G:O2'	25:BA:2170:A:N7	2.41	0.41
25:BA:2308:G:H2'	25:BA:2309:A:H8	1.80	0.41
25:BA:2415:G:H2'	25:BA:2416:C:C6	2.55	0.41
26:BB:61:G:H2'	26:BB:62:C:H6	1.84	0.41
28:BD:30:GLU:CD	28:BD:63:ARG:NH2	2.77	0.41
28:BD:96:HIS:ND1	28:BD:102:LYS:HG2	2.34	0.41
28:BD:117:VAL:CG2	28:BD:128:GLY:O	2.68	0.41
29:BE:28:ALA:O	29:BE:29:GLY:O	2.38	0.41
30:BF:17:ARG:CG	30:BF:17:ARG:NH1	2.82	0.41
30:BF:140:LEU:CD2	30:BF:170:LEU:HD11	2.50	0.41
33:BI:26:ALA:C	33:BI:31:LEU:HD13	2.44	0.41
33:BI:46:ALA:O	33:BI:50:ARG:HG2	2.20	0.41
33:BI:79:ILE:CG1	33:BI:140:LEU:HD11	2.47	0.41
34:BN:62:VAL:HG22	34:BN:66:LYS:HD3	2.00	0.41
34:BN:118:LYS:C	34:BN:120:LEU:H	2.28	0.41
36:BP:17:LYS:O	36:BP:18:ARG:C	2.61	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:32:THR:HG21	36:BP:37:GLY:HA2	2.02	0.41
39:BS:78:LEU:C	39:BS:80:LEU:H	2.28	0.41
40:BT:126:ALA:O	40:BT:128:GLU:N	2.47	0.41
45:BY:81:LYS:NZ	45:BY:97:ARG:O	2.51	0.41
46:BZ:14:LYS:HD3	46:BZ:17:ALA:CB	2.46	0.41
46:BZ:44:PHE:CE1	46:BZ:48:PHE:CB	3.03	0.41
46:BZ:63:ASP:O	46:BZ:65:GLN:N	2.46	0.41
1:CA:38:G:H4'	1:CA:530:A:N6	2.35	0.41
1:CA:102:A:C6	1:CA:321:G:C6	3.08	0.41
1:CA:502:C:H2'	1:CA:503:A:C8	2.55	0.41
1:CA:581:U:H4'	8:CH:94:TYR:CD2	2.54	0.41
1:CA:653:G:C5	1:CA:654:G:C8	3.08	0.41
1:CA:855:G:C5'	8:CH:89:PRO:HG2	2.48	0.41
1:CA:955:A:C6	1:CA:1299:A:C6	3.08	0.41
3:CC:30:ARG:O	3:CC:34:LEU:HB3	2.20	0.41
3:CC:73:PRO:HA	3:CC:76:VAL:HG22	2.01	0.41
3:CC:113:ALA:O	3:CC:114:PRO:C	2.62	0.41
5:CE:122:GLU:O	5:CE:123:LEU:HD23	2.20	0.41
5:CE:131:ILE:O	5:CE:134:ALA:HB3	2.19	0.41
5:CE:153:LYS:HB3	5:CE:154:GLY:H	1.65	0.41
6:CF:32:ASN:C	6:CF:34:GLY:H	2.27	0.41
12:CL:120:TYR:CD1	12:CL:120:TYR:N	2.88	0.41
13:CM:65:LYS:HA	13:CM:65:LYS:HD3	1.36	0.41
20:CT:69:GLY:O	20:CT:73:HIS:CD2	2.73	0.41
20:CT:90:GLN:O	20:CT:91:LEU:HD23	2.20	0.41
23:CV:16:C:O2'	23:CV:62:C:OP1	2.38	0.41
23:CV:27:G:C2'	23:CV:28:U:H5'	2.50	0.41
25:DA:549:G:H3'	25:DA:551:G:H5''	2.01	0.41
25:DA:624:C:O5'	25:DA:624:C:H6	2.01	0.41
25:DA:803:U:O2'	25:DA:804:A:H5'	2.19	0.41
25:DA:885:C:C2	25:DA:886:C:N4	2.88	0.41
25:DA:1388:G:C2'	25:DA:1389:G:H5'	2.50	0.41
25:DA:1763:G:OP1	25:DA:1763:G:H4'	2.21	0.41
25:DA:1982:C:O5'	25:DA:1982:C:C6	2.72	0.41
25:DA:2230:G:O3'	48:D1:43:TYR:HB2	2.19	0.41
25:DA:2336:A:H61	47:D0:43:THR:CG2	2.33	0.41
25:DA:2679:A:H2'	25:DA:2680:C:H6	1.84	0.41
25:DA:2726:U:O2'	25:DA:2727:G:H5'	2.19	0.41
25:DA:2746:U:O4'	32:DH:139:GLN:HB2	2.21	0.41
25:DA:2842:G:O2'	25:DA:2843:G:H5'	2.19	0.41
28:DD:25:THR:C	28:DD:27:THR:N	2.75	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DE:102:VAL:HB	29:DE:199:ARG:O	2.20	0.41
30:DF:22:ALA:C	30:DF:24:LEU:N	2.77	0.41
30:DF:81:PRO:C	30:DF:83:PHE:H	2.28	0.41
31:DG:97:ASP:O	31:DG:99:MET:N	2.53	0.41
31:DG:173:LEU:O	31:DG:174:GLU:C	2.63	0.41
32:DH:19:VAL:HG22	32:DH:24:VAL:HG12	2.01	0.41
32:DH:65:HIS:HD1	32:DH:69:ARG:HD3	1.85	0.41
33:DI:79:ILE:CG1	33:DI:140:LEU:HD11	2.47	0.41
33:DI:88:ILE:CG2	33:DI:89:TYR:N	2.81	0.41
34:DN:26:LEU:HG	34:DN:30:ILE:CD1	2.50	0.41
34:DN:136:GLU:OE1	34:DN:137:LYS:N	2.53	0.41
35:DO:89:ASN:C	35:DO:91:LEU:H	2.28	0.41
36:DP:80:TYR:CE1	36:DP:111:ARG:HB3	2.55	0.41
36:DP:83:VAL:CG1	36:DP:114:ILE:HA	2.50	0.41
41:DU:74:LEU:C	41:DU:74:LEU:HD12	2.45	0.41
45:DY:26:LYS:CG	45:DY:27:VAL:N	2.74	0.41
46:DZ:44:PHE:CE1	46:DZ:48:PHE:CB	3.03	0.41
46:DZ:99:TYR:HD2	46:DZ:99:TYR:H	1.67	0.41
53:D6:51:GLU:O	53:D6:52:VAL:HB	2.20	0.41
1:AA:190:G:OP1	1:AA:190:G:H8	2.02	0.41
1:AA:329:C:O2'	1:AA:330:C:H5'	2.19	0.41
1:AA:393:C:H2'	1:AA:394:G:H8	1.84	0.41
1:AA:515:A:H2	1:AA:1188:G:O4'	2.03	0.41
1:AA:571:G:H2'	1:AA:572:C:C6	2.54	0.41
1:AA:992:A:C2	19:AS:34:TRP:CD1	3.08	0.41
1:AA:1005:C:H2'	1:AA:1006:C:C5	2.55	0.41
1:AA:1236:G:H8	1:AA:1236:G:OP2	2.04	0.41
1:AA:1394:C:OP1	12:AL:57:LYS:HE2	2.20	0.41
1:AA:1396:U:H2'	1:AA:1397:G:H8	1.83	0.41
1:AA:1414:G:OP1	40:BT:108:ARG:HB3	2.20	0.41
2:AB:69:LEU:HB2	2:AB:159:PRO:HG2	2.01	0.41
2:AB:93:VAL:CG1	2:AB:101:MET:HE1	2.50	0.41
2:AB:187:LEU:HA	2:AB:201:ILE:O	2.19	0.41
3:AC:113:ALA:O	3:AC:114:PRO:C	2.63	0.41
4:AD:147:ALA:HB2	4:AD:182:LYS:HB3	2.02	0.41
7:AG:143:ARG:NH2	22:AW:42:C:H5''	2.36	0.41
9:AI:16:ARG:HE	9:AI:64:THR:CG2	2.33	0.41
12:AL:83:VAL:HG11	12:AL:100:ILE:HG23	2.01	0.41
12:AL:119:LYS:O	12:AL:120:TYR:HB2	2.20	0.41
13:AM:15:VAL:HG22	13:AM:43:THR:O	2.20	0.41
13:AM:28:ALA:C	13:AM:30:ALA:N	2.75	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AN:42:ILE:O	14:AN:45:ARG:N	2.53	0.41
19:AS:15:LEU:C	19:AS:19:VAL:HG23	2.45	0.41
23:AV:55:U:C2'	23:AV:56:U:O4'	2.64	0.41
23:AV:57:C:H1'	31:BG:76:SER:O	2.20	0.41
25:BA:182:A:H2'	25:BA:183:C:O4'	2.20	0.41
25:BA:571:A:C5	25:BA:575:A:N7	2.88	0.41
25:BA:803:U:O2'	25:BA:804:A:H5'	2.19	0.41
25:BA:1204:A:N6	25:BA:1240:U:O2	2.53	0.41
25:BA:1614:A:H62	43:BW:93:ALA:CB	2.23	0.41
25:BA:1801:G:C6	25:BA:2202:C:O4'	2.73	0.41
25:BA:1902:C:N3	25:BA:1903:G:H1'	2.35	0.41
25:BA:2304:G:C2	25:BA:2313:C:C2	3.08	0.41
25:BA:2419:U:C5'	53:B6:23:THR:HG21	2.49	0.41
25:BA:2553:G:H3'	25:BA:2554:U:H5''	2.02	0.41
25:BA:2756:U:H4'	25:BA:2757:A:OP1	2.20	0.41
25:BA:2838:G:C1'	38:BR:45:ARG:HH11	2.33	0.41
26:BB:103:G:O2'	26:BB:104:U:H5'	2.20	0.41
28:BD:10:THR:HG23	28:BD:13:ARG:HB3	2.01	0.41
29:BE:57:LYS:NZ	29:BE:57:LYS:HB3	2.36	0.41
29:BE:102:VAL:HB	29:BE:199:ARG:O	2.20	0.41
30:BF:136:THR:O	30:BF:137:LYS:C	2.63	0.41
30:BF:192:LEU:HD23	30:BF:192:LEU:C	2.45	0.41
31:BG:20:ILE:O	31:BG:24:GLY:HA2	2.20	0.41
32:BH:170:ARG:HG2	32:BH:171:LEU:N	2.35	0.41
33:BI:113:ARG:HD2	33:BI:113:ARG:N	2.34	0.41
34:BN:132:ALA:O	34:BN:133:GLN:HB3	2.19	0.41
37:BQ:10:ARG:HG3	37:BQ:10:ARG:NH1	2.32	0.41
38:BR:12:ARG:HG3	38:BR:12:ARG:NH1	2.35	0.41
40:BT:130:ALA:O	40:BT:132:LYS:HG3	2.20	0.41
43:BW:36:LEU:N	43:BW:36:LEU:HD23	2.35	0.41
43:BW:52:GLU:OE2	43:BW:52:GLU:HA	2.20	0.41
45:BY:31:LEU:CD2	45:BY:36:ALA:C	2.94	0.41
45:BY:56:PRO:O	45:BY:57:GLN:HG3	2.20	0.41
46:BZ:39:VAL:HG21	46:BZ:44:PHE:HB2	2.02	0.41
46:BZ:77:ASP:O	46:BZ:79:ARG:N	2.54	0.41
48:B1:58:ILE:HD12	48:B1:91:LYS:CA	2.51	0.41
48:B1:81:LYS:C	48:B1:82:LEU:HD13	2.45	0.41
1:CA:169:C:H4'	20:CT:25:ARG:NH1	2.35	0.41
1:CA:227:G:H2'	1:CA:228:C:O4'	2.20	0.41
1:CA:488:G:C6	1:CA:518:A:C2	3.08	0.41
1:CA:931:G:C6	1:CA:932:U:C4	3.07	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1175:U:H2'	1:CA:1176:C:O4'	2.20	0.41
1:CA:1425:G:N1	25:DA:2864:G:OP1	2.42	0.41
5:CE:12:LEU:HD22	5:CE:13:ILE:N	2.25	0.41
5:CE:35:GLY:HA3	5:CE:112:LEU:O	2.19	0.41
7:CG:75:VAL:HA	7:CG:88:PRO:HA	2.02	0.41
10:CJ:55:LYS:HE2	10:CJ:55:LYS:HB3	1.89	0.41
10:CJ:83:GLU:C	10:CJ:85:LEU:N	2.75	0.41
11:CK:27:ASN:OD1	11:CK:28:THR:N	2.51	0.41
14:CN:50:LYS:H	14:CN:50:LYS:HG3	1.68	0.41
18:CR:36:ASN:ND2	18:CR:39:VAL:HG21	2.35	0.41
19:CS:61:TYR:O	19:CS:62:ILE:HB	2.20	0.41
25:DA:265:A:H1'	25:DA:266:G:O4'	2.20	0.41
25:DA:332:A:O2'	25:DA:333:G:O5'	2.38	0.41
25:DA:651:G:OP1	55:D8:19:SER:OG	2.37	0.41
25:DA:1129:A:H4'	25:DA:2516:G:C4'	2.50	0.41
25:DA:1184:G:OP1	50:D3:29:ARG:HD2	2.20	0.41
25:DA:1204:A:N6	25:DA:1240:U:O2	2.53	0.41
25:DA:1544:A:H2'	25:DA:1545:A:O4'	2.20	0.41
25:DA:1983:C:H4'	25:DA:2606:C:H4'	2.01	0.41
25:DA:2172:U:O2'	25:DA:2173:A:OP1	2.38	0.41
25:DA:2222:G:O2'	25:DA:2223:G:H5'	2.20	0.41
25:DA:2242:G:H2'	25:DA:2243:U:O4'	2.20	0.41
25:DA:2302:G:C5	25:DA:2315:G:N1	2.88	0.41
25:DA:2396:G:O2'	48:D1:29:GLY:HA3	2.20	0.41
25:DA:2420:C:O2'	25:DA:2421:G:H5'	2.19	0.41
25:DA:2538:C:N3	25:DA:2539:C:C5	2.88	0.41
25:DA:2591:C:OP2	28:DD:239:ARG:HB3	2.20	0.41
25:DA:2720:U:O2	25:DA:2720:U:H2'	2.20	0.41
25:DA:2881:C:C2	25:DA:2882:A:C8	3.07	0.41
29:DE:39:PRO:HA	29:DE:43:GLY:CA	2.42	0.41
30:DF:192:LEU:CD2	30:DF:192:LEU:C	2.93	0.41
31:DG:125:PHE:HZ	31:DG:180:PHE:CZ	2.38	0.41
31:DG:180:PHE:C	31:DG:182:LYS:H	2.28	0.41
32:DH:54:ARG:HH11	32:DH:54:ARG:CG	2.19	0.41
33:DI:26:ALA:C	33:DI:31:LEU:HD13	2.45	0.41
33:DI:72:LEU:CD1	33:DI:138:ILE:HG21	2.49	0.41
35:DO:8:LEU:N	35:DO:8:LEU:HD22	2.35	0.41
35:DO:22:ILE:HD13	35:DO:22:ILE:HA	1.53	0.41
36:DP:102:ARG:O	36:DP:102:ARG:HG2	2.21	0.41
39:DS:15:ARG:C	39:DS:17:ARG:H	2.28	0.41
39:DS:30:ARG:HA	39:DS:30:ARG:HD2	1.90	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DS:98:VAL:HG22	39:DS:100:ALA:H	1.84	0.41
41:DU:92:ARG:CG	41:DU:92:ARG:NH1	2.78	0.41
42:DV:22:VAL:HG21	42:DV:94:LEU:CD1	2.50	0.41
42:DV:35:LEU:HB2	42:DV:57:VAL:HG13	2.01	0.41
43:DW:58:ALA:HB1	43:DW:64:MET:SD	2.60	0.41
46:DZ:48:PHE:O	46:DZ:49:ARG:C	2.62	0.41
46:DZ:110:GLY:O	46:DZ:115:GLY:O	2.37	0.41
1:AA:8:A:H62	4:AD:208:SER:HB2	1.85	0.41
1:AA:22:G:C2	1:AA:23:C:C2	3.08	0.41
1:AA:249:G:OP1	17:AQ:66:SER:OG	2.28	0.41
1:AA:442:A:C4	1:AA:471:A:C2	3.08	0.41
1:AA:537:C:H2'	1:AA:538:C:C6	2.55	0.41
1:AA:1040:G:C5	1:AA:1041:C:C4	3.08	0.41
1:AA:1160:A:OP2	9:AI:93:ARG:NH2	2.51	0.41
1:AA:1286:G:O2'	1:AA:1312:G:N2	2.53	0.41
1:AA:1354:U:H2'	1:AA:1355:G:O4'	2.20	0.41
1:AA:1381:C:C2	1:AA:1383:G:C5	3.09	0.41
1:AA:1460:A:H1'	25:BA:1948:G:H1'	2.03	0.41
1:AA:1471:G:O6	58:AA:1694:PAR:H42	2.21	0.41
2:AB:102:LEU:HD12	2:AB:102:LEU:N	2.34	0.41
2:AB:187:LEU:O	2:AB:187:LEU:HD13	2.20	0.41
2:AB:221:LEU:CD2	2:AB:221:LEU:H	2.34	0.41
3:AC:150:LYS:CA	3:AC:169:ALA:HB2	2.47	0.41
7:AG:75:VAL:HA	7:AG:88:PRO:HA	2.03	0.41
7:AG:75:VAL:HG12	7:AG:88:PRO:HB3	2.01	0.41
7:AG:150:ALA:O	11:AK:57:THR:HG21	2.20	0.41
8:AH:34:GLU:OE1	8:AH:34:GLU:HA	2.20	0.41
12:AL:51:ALA:O	12:AL:52:LEU:HD22	2.20	0.41
13:AM:20:THR:C	13:AM:22:ILE:H	2.27	0.41
13:AM:24:GLY:HA3	13:AM:70:LEU:HD12	2.01	0.41
13:AM:37:THR:HG22	13:AM:59:TYR:HB2	2.02	0.41
17:AQ:76:LEU:HD11	17:AQ:78:GLU:O	2.20	0.41
20:AT:50:GLU:HB3	20:AT:100:ILE:HG13	1.99	0.41
20:AT:53:LEU:O	20:AT:56:MET:N	2.53	0.41
22:AW:51:U:C4	22:AW:52:G:N7	2.89	0.41
25:BA:33:U:O4	25:BA:446:G:O2'	2.31	0.41
25:BA:76:C:C5'	49:B2:55:ARG:HG2	2.47	0.41
25:BA:171:G:O2'	25:BA:172:C:H5'	2.20	0.41
25:BA:188:G:H2'	25:BA:189:G:H5'	2.02	0.41
25:BA:271(J):C:H2'	25:BA:271(K):U:H5''	2.02	0.41
25:BA:585:G:H2'	25:BA:1251:C:N4	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:614(C):A:O4'	30:BF:182:ASN:ND2	2.53	0.41
25:BA:731:C:O2'	25:BA:732:C:H5'	2.20	0.41
25:BA:1041:C:O2'	25:BA:1115:G:N2	2.54	0.41
25:BA:1438:U:H2'	25:BA:1439:A:H8	1.85	0.41
25:BA:1952:A:C6	25:BA:1953:A:N6	2.88	0.41
25:BA:2015:A:C5	52:B5:6:VAL:HG23	2.55	0.41
25:BA:2457:U:C2'	25:BA:2458:G:H5'	2.50	0.41
25:BA:2586:C:H2'	25:BA:2587:A:C5'	2.48	0.41
25:BA:2646:C:OP2	25:BA:2732:G:O2'	2.37	0.41
26:BB:103:G:H21	46:BZ:73:GLN:NE2	2.18	0.41
28:BD:73:VAL:HG13	28:BD:120:GLY:HA2	2.02	0.41
28:BD:172:TYR:HE2	28:BD:269:PHE:HE1	1.67	0.41
30:BF:117:ARG:NH2	30:BF:187:VAL:HA	2.36	0.41
31:BG:32:PRO:HB3	31:BG:163:ALA:HB2	2.03	0.41
31:BG:97:ASP:O	31:BG:99:MET:N	2.53	0.41
31:BG:173:LEU:O	31:BG:174:GLU:C	2.63	0.41
32:BH:50:VAL:HG12	32:BH:51:ARG:N	2.35	0.41
34:BN:65:LYS:O	34:BN:67:LEU:N	2.53	0.41
34:BN:89:LYS:NZ	34:BN:89:LYS:HB3	2.36	0.41
35:BO:14:THR:O	35:BO:16:ALA:N	2.44	0.41
35:BO:60:ALA:HA	35:BO:87:ILE:HG12	2.02	0.41
36:BP:16:ARG:HB2	36:BP:16:ARG:HH11	1.80	0.41
38:BR:48:VAL:O	38:BR:49:ASP:C	2.63	0.41
40:BT:55:ASN:N	40:BT:59:THR:HG22	2.19	0.41
42:BV:28:GLU:HB3	42:BV:29:PRO:CD	2.48	0.41
42:BV:71:LEU:HD23	42:BV:71:LEU:HA	1.82	0.41
49:B2:63:VAL:O	49:B2:64:LEU:C	2.62	0.41
50:B3:6:VAL:HB	50:B3:54:VAL:HG11	2.01	0.41
53:B6:16:CYS:SG	53:B6:47:THR:CG2	3.08	0.41
53:B6:51:GLU:O	53:B6:52:VAL:HB	2.20	0.41
1:CA:491:C:H6	1:CA:491:C:OP1	2.02	0.41
1:CA:645:G:H2'	1:CA:646:A:H8	1.86	0.41
1:CA:654:G:C2	1:CA:655:U:C2	3.08	0.41
1:CA:724:G:H2'	1:CA:725:G:O4'	2.20	0.41
1:CA:963:A:N6	1:CA:964:G:C6	2.88	0.41
1:CA:1016:G:H2'	1:CA:1017:A:C8	2.55	0.41
1:CA:1056:G:H4'	2:CB:103:THR:HG22	2.02	0.41
1:CA:1314:A:C2	1:CA:1315:G:H1'	2.55	0.41
2:CB:17:PHE:HD1	2:CB:44:LEU:HD11	1.85	0.41
4:CD:39:PRO:O	4:CD:44:GLY:HA3	2.21	0.41
5:CE:11:ILE:HG21	5:CE:105:VAL:HG22	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:152:ALA:O	7:CG:155:ARG:HG3	2.21	0.41
8:CH:36:LEU:HD13	8:CH:61:VAL:HG22	2.03	0.41
11:CK:20:TYR:HB2	11:CK:31:THR:CG2	2.50	0.41
12:CL:62:SER:C	12:CL:64:TYR:H	2.28	0.41
13:CM:81:LEU:HD22	13:CM:86:CYS:SG	2.60	0.41
14:CN:8:GLU:HG3	14:CN:12:ARG:HH11	1.85	0.41
15:CO:26:GLU:HA	15:CO:81:LEU:HD22	2.02	0.41
16:CP:25:ARG:HG3	16:CP:25:ARG:NH1	2.33	0.41
17:CQ:5:VAL:HA	17:CQ:59:ILE:O	2.19	0.41
22:CW:23:A:N6	22:CW:24:G:C6	2.88	0.41
23:CV:53:G:O2'	23:CV:54:G:H5'	2.20	0.41
25:DA:188:G:H2'	25:DA:189:G:H5'	2.02	0.41
25:DA:271(O):C:O2'	25:DA:271(P):C:C6	2.62	0.41
25:DA:355:G:C2	25:DA:356:G:C5	3.07	0.41
25:DA:363(B):G:H2'	25:DA:363(B):G:N3	2.35	0.41
25:DA:523:C:C2'	25:DA:524:U:H5'	2.50	0.41
25:DA:1111:A:HO2'	25:DA:1112:G:H4'	1.84	0.41
25:DA:1667:G:N2	25:DA:1991:U:H2'	2.35	0.41
25:DA:1803:A:H4'	28:DD:259:THR:HG23	2.02	0.41
25:DA:1851:U:C2'	25:DA:1852:C:H5'	2.50	0.41
25:DA:1966:A:N3	25:DA:2592:G:O2'	2.45	0.41
25:DA:2171:A:C2	25:DA:2172:U:N3	2.88	0.41
25:DA:2175:C:H1'	27:DC:215:THR:CA	2.50	0.41
25:DA:2286:A:OP1	53:D6:30:THR:HB	2.20	0.41
25:DA:2320:A:C5	25:DA:2333:A:C5	3.09	0.41
25:DA:2445:G:OP1	30:DF:74:ARG:NH2	2.53	0.41
25:DA:2849:U:OP1	40:DT:95:ARG:CZ	2.68	0.41
26:DB:11:C:OP2	47:D0:72:ARG:NE	2.53	0.41
27:DC:78:ALA:HB1	27:DC:82:LYS:HB2	1.99	0.41
29:DE:52:LEU:HA	29:DE:53:PRO:HD3	1.55	0.41
29:DE:169:ASN:OD1	29:DE:203:LYS:HB3	2.19	0.41
30:DF:1:MET:CE	30:DF:27:GLU:HG3	2.50	0.41
30:DF:179:GLU:OE2	30:DF:179:GLU:N	2.53	0.41
31:DG:20:ILE:O	31:DG:24:GLY:HA2	2.20	0.41
31:DG:172:LEU:O	31:DG:176:LEU:HD12	2.20	0.41
32:DH:44:VAL:CG1	32:DH:45:VAL:H	2.14	0.41
33:DI:94:ALA:C	33:DI:96:ASP:N	2.77	0.41
36:DP:115:LEU:N	36:DP:115:LEU:CD2	2.82	0.41
36:DP:121:LYS:O	36:DP:123:LEU:N	2.53	0.41
37:DQ:141:GLN:HA	46:DZ:53:ILE:HB	2.01	0.41
38:DR:4:LEU:C	38:DR:6:SER:N	2.76	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DS:78:LEU:C	39:DS:80:LEU:H	2.28	0.41
39:DS:106:ARG:HD2	39:DS:106:ARG:C	2.46	0.41
40:DT:24:PRO:CA	40:DT:49:VAL:HG13	2.48	0.41
42:DV:20:LEU:N	42:DV:20:LEU:HD12	2.36	0.41
42:DV:61:VAL:HG22	42:DV:61:VAL:O	2.19	0.41
43:DW:8:ARG:HD3	43:DW:102:HIS:CD2	2.55	0.41
43:DW:36:LEU:N	43:DW:36:LEU:HD23	2.35	0.41
44:DX:14:SER:O	44:DX:17:ALA:HB3	2.21	0.41
46:DZ:77:ASP:O	46:DZ:79:ARG:N	2.53	0.41
46:DZ:120:ILE:O	46:DZ:121:HIS:HB2	2.20	0.41
46:DZ:164:ALA:C	46:DZ:165:VAL:HG23	2.45	0.41
49:D2:5:GLU:H	49:D2:5:GLU:HG3	1.69	0.41
53:D6:27:LYS:O	53:D6:28:ARG:C	2.62	0.41
55:D8:26:LYS:NZ	55:D8:47:LYS:HD3	2.34	0.41
1:AA:316:A:H2'	1:AA:317:C:C6	2.54	0.41
1:AA:540:G:H2'	1:AA:541:G:O4'	2.20	0.41
1:AA:562:G:N2	1:AA:746:G:C4	2.88	0.41
1:AA:957:C:H2'	14:AN:21:TYR:CE1	2.55	0.41
1:AA:1273:U:H2'	1:AA:1274:G:C8	2.55	0.41
1:AA:1451:G:C1'	25:BA:1701:A:H2	2.33	0.41
2:AB:19:HIS:CE1	2:AB:20:GLU:CD	2.98	0.41
2:AB:124:SER:O	2:AB:127:ILE:HG12	2.21	0.41
4:AD:31:CYS:O	4:AD:33:MET:N	2.43	0.41
7:AG:50:ILE:O	7:AG:54:THR:O	2.37	0.41
8:AH:2:LEU:HD13	8:AH:2:LEU:O	2.21	0.41
10:AJ:84:GLN:O	10:AJ:85:LEU:HD23	2.20	0.41
13:AM:108:ARG:HA	13:AM:111:LYS:HG3	2.00	0.41
20:AT:48:LYS:HD2	20:AT:51:GLU:OE2	2.20	0.41
23:AV:31:G:N2	23:AV:42:C:C1'	2.83	0.41
25:BA:109:G:H2'	25:BA:110:G:O5'	2.21	0.41
25:BA:528:A:C2	25:BA:2043:C:C4'	2.85	0.41
25:BA:590:A:H2'	25:BA:591:C:C6	2.56	0.41
25:BA:910:A:C8	37:BQ:13:GLN:OE1	2.73	0.41
25:BA:992:C:O2'	25:BA:993:G:H5'	2.20	0.41
25:BA:1755:A:P	40:BT:113:LYS:HZ3	2.41	0.41
25:BA:1841:U:H2'	25:BA:1842:G:C8	2.55	0.41
25:BA:2104:G:C6	25:BA:2105:C:C4	3.09	0.41
25:BA:2239:G:P	28:BD:244:ARG:NH1	2.88	0.41
25:BA:2355:C:H1'	47:B0:39:ARG:HH21	1.84	0.41
25:BA:2727:G:O3'	35:BO:70:LYS:NZ	2.52	0.41
25:BA:2803:C:O3'	25:BA:2804:C:O4'	2.39	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2842:G:O2'	25:BA:2843:G:H5'	2.19	0.41
27:BC:72:VAL:HG21	27:BC:161:ILE:C	2.46	0.41
28:BD:27:THR:CG2	28:BD:27:THR:O	2.68	0.41
28:BD:83:GLU:OE1	28:BD:104:TYR:OH	2.31	0.41
30:BF:179:GLU:OE2	30:BF:179:GLU:N	2.53	0.41
31:BG:17:PRO:O	31:BG:18:GLU:C	2.63	0.41
31:BG:55:LYS:C	31:BG:57:ALA:H	2.27	0.41
31:BG:180:PHE:C	31:BG:182:LYS:H	2.28	0.41
32:BH:158:HIS:CE1	32:BH:169:VAL:C	2.99	0.41
33:BI:88:ILE:CG2	33:BI:89:TYR:N	2.81	0.41
33:BI:94:ALA:C	33:BI:96:ASP:N	2.77	0.41
33:BI:110:ASP:O	33:BI:114:LEU:HG	2.20	0.41
34:BN:42:TRP:CE3	34:BN:48:MET:HE1	2.55	0.41
35:BO:65:THR:O	35:BO:79:PHE:HB2	2.21	0.41
36:BP:16:ARG:HH11	36:BP:16:ARG:CB	2.32	0.41
36:BP:52:GLU:HB3	36:BP:55:ARG:HD2	2.03	0.41
37:BQ:82:ARG:NH1	47:B0:4:LYS:HE2	2.35	0.41
38:BR:32:GLY:C	38:BR:33:ARG:HD2	2.46	0.41
39:BS:56:LEU:O	39:BS:57:LYS:CB	2.66	0.41
41:BU:105:VAL:CG1	42:BV:40:LEU:CD1	2.98	0.41
44:BX:14:SER:O	44:BX:17:ALA:HB3	2.21	0.41
44:BX:52:VAL:HG21	44:BX:84:ALA:HA	2.02	0.41
45:BY:91:GLU:HB3	45:BY:92:ASN:H	1.50	0.41
46:BZ:14:LYS:O	46:BZ:18:LEU:HB2	2.20	0.41
47:B0:70:GLN:HE21	47:B0:70:GLN:HB3	1.54	0.41
51:B4:45:GLY:O	51:B4:46:ASN:C	2.63	0.41
1:CA:64:G:H4'	1:CA:65:U:H5''	2.01	0.41
1:CA:200:C:H2'	1:CA:201:A:H5''	2.02	0.41
1:CA:223:A:H2'	1:CA:224:U:O4'	2.21	0.41
1:CA:413:C:H1'	1:CA:523:G:O2'	2.19	0.41
1:CA:728:C:OP1	1:CA:828:G:O2'	2.38	0.41
1:CA:819:G:C6	1:CA:828:G:C5	3.08	0.41
1:CA:923:A:O2'	1:CA:1314:A:N3	2.50	0.41
1:CA:1100:C:H2'	1:CA:1101:C:C6	2.55	0.41
1:CA:1183:G:N7	1:CA:1184:C:C4	2.88	0.41
1:CA:1207:C:OP2	13:CM:103:THR:OG1	2.30	0.41
1:CA:1259:U:H3'	1:CA:1259:U:C6	2.54	0.41
3:CC:64:VAL:O	3:CC:100:ALA:HB3	2.21	0.41
4:CD:138:TYR:CD2	4:CD:138:TYR:C	2.97	0.41
8:CH:104:ARG:C	8:CH:106:GLY:N	2.79	0.41
13:CM:3:ARG:HG2	13:CM:9:ILE:HG13	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CO:32:LEU:O	15:CO:34:LEU:N	2.54	0.41
19:CS:13:ASP:C	19:CS:15:LEU:H	2.28	0.41
19:CS:16:LEU:O	19:CS:19:VAL:HB	2.20	0.41
19:CS:40:ILE:HG21	19:CS:67:VAL:HA	2.02	0.41
22:CW:34:G:H2'	22:CW:35:A:C5'	2.51	0.41
25:DA:234:C:H2'	25:DA:235:U:H6	1.84	0.41
25:DA:535:C:C2'	25:DA:536:A:H5'	2.51	0.41
25:DA:778:G:C2	25:DA:787:U:O2	2.74	0.41
25:DA:846:C:C2	25:DA:930:U:C4	3.08	0.41
25:DA:870:A:H5''	37:DQ:6:ARG:CB	2.51	0.41
25:DA:986:C:C2'	25:DA:987:G:H5'	2.50	0.41
25:DA:1363:C:H2'	25:DA:1364:G:H8	1.84	0.41
25:DA:1573:G:C2'	25:DA:1574:C:H5'	2.49	0.41
25:DA:2228:G:H2'	25:DA:2229:C:C6	2.54	0.41
25:DA:2377:A:C4'	39:DS:108:GLY:CA	2.96	0.41
25:DA:2516:G:C6	25:DA:2517:C:N3	2.88	0.41
25:DA:2636:U:OP1	29:DE:80:GLU:N	2.41	0.41
25:DA:2892:A:C3'	25:DA:2893:G:C5'	2.98	0.41
26:DB:103:G:H21	46:DZ:73:GLN:NE2	2.19	0.41
27:DC:97:GLU:HA	27:DC:100:ILE:HG12	2.01	0.41
28:DD:13:ARG:O	28:DD:13:ARG:CG	2.68	0.41
28:DD:16:MET:HE2	28:DD:208:LYS:HD2	1.99	0.41
30:DF:125:LEU:HD11	30:DF:199:TRP:CD1	2.55	0.41
32:DH:158:HIS:CE1	32:DH:169:VAL:C	2.99	0.41
36:DP:24:GLY:O	36:DP:25:SER:HB3	2.20	0.41
38:DR:17:ARG:HH11	38:DR:17:ARG:CG	2.33	0.41
39:DS:89:ARG:CB	39:DS:92:TYR:HB3	2.35	0.41
42:DV:21:ARG:O	42:DV:22:VAL:HG13	2.20	0.41
42:DV:40:LEU:N	42:DV:40:LEU:HD23	2.35	0.41
42:DV:47:VAL:O	42:DV:49:THR:O	2.39	0.41
44:DX:6:ASP:OD1	49:D2:29:LYS:HE3	2.19	0.41
46:DZ:42:VAL:CG1	46:DZ:43:GLU:N	2.84	0.41
48:D1:76:ARG:NH2	48:D1:95:LEU:HD22	2.36	0.41
48:D1:83:GLU:O	48:D1:86:SER:OG	2.37	0.41
1:AA:90:G:C4	1:AA:91:G:C8	3.08	0.41
1:AA:492:A:H2'	1:AA:493:A:C8	2.55	0.41
1:AA:645:G:H2'	1:AA:646:A:C8	2.56	0.41
1:AA:732:C:O2'	1:AA:733:G:H5'	2.19	0.41
1:AA:749:A:H2'	1:AA:750:A:O4'	2.21	0.41
1:AA:1054:G:C2	1:AA:1055:U:C2	3.08	0.41
1:AA:1184:C:H2'	1:AA:1185:A:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1417:G:C2	1:AA:1418:U:C4	3.08	0.41
2:AB:24:TRP:HB3	2:AB:40:HIS:HE1	1.86	0.41
2:AB:24:TRP:CG	2:AB:40:HIS:HE1	2.38	0.41
2:AB:62:ALA:HB1	2:AB:225:ALA:HB3	2.03	0.41
3:AC:8:ILE:C	3:AC:10:PHE:H	2.29	0.41
4:AD:110:PHE:HD1	4:AD:110:PHE:H	1.67	0.41
4:AD:196:LEU:HB3	4:AD:197:PRO:HD2	2.02	0.41
5:AE:18:ARG:HH21	5:AE:25:ARG:HB3	1.85	0.41
5:AE:122:GLU:O	5:AE:123:LEU:HD23	2.21	0.41
7:AG:78:ARG:NE	7:AG:79:ARG:O	2.53	0.41
7:AG:129:GLU:CD	7:AG:131:LYS:HE3	2.45	0.41
7:AG:151:TYR:CD1	7:AG:151:TYR:N	2.89	0.41
8:AH:104:ARG:C	8:AH:106:GLY:N	2.78	0.41
10:AJ:16:LEU:HD13	10:AJ:16:LEU:C	2.45	0.41
11:AK:20:TYR:HB2	11:AK:31:THR:HG22	2.03	0.41
11:AK:34:ASP:OD2	11:AK:36:ASP:N	2.53	0.41
16:AP:6:LEU:N	16:AP:6:LEU:CD1	2.84	0.41
17:AQ:85:VAL:O	17:AQ:86:GLU:C	2.63	0.41
18:AR:25:THR:HG22	18:AR:25:THR:O	2.21	0.41
18:AR:37:VAL:O	18:AR:41:LYS:HB2	2.20	0.41
19:AS:5:LEU:CD1	19:AS:8:GLY:O	2.69	0.41
19:AS:13:ASP:O	19:AS:15:LEU:N	2.53	0.41
20:AT:43:LEU:HB3	20:AT:48:LYS:HG3	2.03	0.41
22:AW:16:U:H6	22:AW:17:C:H4'	1.85	0.41
23:AV:33:C:H2'	23:AV:34:U:H5'	2.02	0.41
25:BA:25:U:H5'	43:BW:78:GLU:O	2.20	0.41
25:BA:265:A:H1'	25:BA:266:G:O4'	2.20	0.41
25:BA:271(Q):G:N1	25:BA:271(R):G:C6	2.89	0.41
25:BA:950:G:H2'	25:BA:951:C:H6	1.85	0.41
25:BA:1032:A:H2	25:BA:1122:G:H22	1.69	0.41
25:BA:1161:C:H1'	42:BV:8:GLY:O	2.20	0.41
25:BA:1505:C:H2'	25:BA:1506:C:O4'	2.21	0.41
25:BA:1594:G:H8	25:BA:1594:G:C5'	2.33	0.41
25:BA:1686:C:H2'	25:BA:1687:G:C5'	2.49	0.41
25:BA:2096:U:H3	25:BA:2193:G:H1	1.67	0.41
25:BA:2123:G:H2'	25:BA:2124:G:O4'	2.20	0.41
25:BA:2171:A:C2	25:BA:2172:U:N3	2.88	0.41
25:BA:2262:U:H2'	25:BA:2263:C:H5''	2.01	0.41
25:BA:2530:A:O2'	25:BA:2532:G:OP2	2.27	0.41
27:BC:95:GLY:HA3	27:BC:99:ILE:CD1	2.51	0.41
28:BD:112:GLN:H	28:BD:115:GLN:NE2	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BD:130:ALA:O	28:BD:131:LEU:HG	2.20	0.41
30:BF:63:LYS:NZ	30:BF:67:GLN:CB	2.84	0.41
31:BG:63:ILE:HA	31:BG:143:GLU:HG3	2.01	0.41
32:BH:58:GLU:C	32:BH:60:ARG:N	2.74	0.41
32:BH:65:HIS:HD1	32:BH:69:ARG:HD3	1.85	0.41
36:BP:58:THR:O	36:BP:61:ARG:CG	2.61	0.41
36:BP:62:LEU:H	36:BP:62:LEU:CD2	2.31	0.41
39:BS:17:ARG:NH2	39:BS:90:GLY:H	2.18	0.41
39:BS:96:GLY:C	39:BS:98:VAL:N	2.78	0.41
39:BS:106:ARG:HD2	39:BS:106:ARG:O	2.20	0.41
40:BT:90:GLN:CA	40:BT:92:GLY:H	2.33	0.41
42:BV:40:LEU:N	42:BV:40:LEU:HD23	2.35	0.41
42:BV:53:GLU:C	42:BV:55:ALA:N	2.78	0.41
45:BY:8:LYS:HE3	45:BY:72:VAL:HG23	2.02	0.41
45:BY:46:LYS:H	45:BY:62:GLU:CD	2.29	0.41
47:B0:51:VAL:HG21	47:B0:80:HIS:HA	2.03	0.41
47:B0:53:MET:HB3	47:B0:59:LEU:CD2	2.47	0.41
48:B1:80:LEU:HD23	48:B1:81:LYS:H	1.86	0.41
50:B3:3:ARG:HA	50:B3:38:GLU:OE2	2.20	0.41
1:CA:487:C:C2	1:CA:525:G:C2	3.08	0.41
1:CA:565:U:H2'	1:CA:566:A:H8	1.85	0.41
1:CA:676:G:C5	1:CA:677:A:C5	3.09	0.41
1:CA:685:A:H8	1:CA:685:A:OP1	2.03	0.41
1:CA:1056:G:N2	1:CA:1084:A:C4	2.88	0.41
1:CA:1173:C:H2'	1:CA:1174:G:O4'	2.19	0.41
1:CA:1486:C:N4	1:CA:1503:G:H1	2.15	0.41
1:CA:1494:G:H1'	25:DA:1919:A:O3'	2.20	0.41
2:CB:194:PRO:CB	2:CB:200:ILE:CD1	2.99	0.41
2:CB:211:ILE:O	2:CB:215:LEU:HB2	2.20	0.41
2:CB:213:LEU:O	2:CB:216:SER:HB3	2.21	0.41
3:CC:62:ASP:HA	3:CC:97:LYS:CE	2.50	0.41
9:CI:125:TYR:C	9:CI:125:TYR:CD2	2.98	0.41
11:CK:82:VAL:HG21	11:CK:98:LEU:HD12	2.03	0.41
19:CS:18:LYS:HD2	19:CS:22:LEU:HD21	2.02	0.41
23:CV:38:A:C4	23:CV:39:A:C8	3.08	0.41
25:DA:35:G:O2'	25:DA:36:G:H5'	2.20	0.41
25:DA:154(A):C:N4	25:DA:172:C:H42	2.16	0.41
25:DA:271(M):G:H5''	33:DI:53:ALA:HB1	2.03	0.41
25:DA:291:C:H42	25:DA:349:G:H1	1.66	0.41
25:DA:320:A:C2'	30:DF:136:THR:HG21	2.50	0.41
25:DA:361:G:C3'	25:DA:362:U:H5''	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:614:U:O4'	25:DA:614(C):A:C6	2.73	0.41
25:DA:818:G:H5'	25:DA:839:U:OP1	2.20	0.41
25:DA:1278:A:O3'	38:DR:34:ILE:HG23	2.20	0.41
25:DA:1438:U:H2'	25:DA:1439:A:H8	1.85	0.41
25:DA:1844:C:O2'	25:DA:1845:G:H5'	2.20	0.41
25:DA:2236:C:H2'	25:DA:2237:G:O4'	2.19	0.41
25:DA:2444:G:OP2	30:DF:68:LYS:HE2	2.21	0.41
26:DB:24:G:H5'	26:DB:25:A:N7	2.36	0.41
27:DC:212:VAL:O	27:DC:213:TYR:CB	2.68	0.41
28:DD:132:PRO:HD3	28:DD:190:TYR:CZ	2.56	0.41
28:DD:133:LEU:CB	28:DD:173:VAL:HG11	2.50	0.41
28:DD:161:THR:H	28:DD:196:VAL:HB	1.86	0.41
29:DE:33:VAL:HG12	29:DE:90:THR:H	1.85	0.41
29:DE:57:LYS:C	29:DE:59:VAL:N	2.79	0.41
29:DE:59:VAL:HG21	29:DE:63:LEU:HD12	2.01	0.41
29:DE:152:LYS:HD2	29:DE:152:LYS:HA	1.91	0.41
30:DF:39:TRP:CD1	30:DF:101:LEU:HB2	2.56	0.41
30:DF:40:GLN:OE1	30:DF:183:VAL:HG23	2.20	0.41
30:DF:136:THR:O	30:DF:137:LYS:C	2.64	0.41
31:DG:26:GLN:O	31:DG:28:VAL:N	2.53	0.41
32:DH:17:VAL:C	32:DH:45:VAL:HG21	2.45	0.41
32:DH:157:TYR:O	32:DH:158:HIS:CB	2.68	0.41
35:DO:1:MET:SD	35:DO:32:TYR:CG	3.14	0.41
35:DO:12:ASP:OD2	35:DO:12:ASP:N	2.52	0.41
36:DP:9:ASN:O	36:DP:10:PRO:C	2.61	0.41
38:DR:18:LEU:HD11	38:DR:22:ARG:NE	2.36	0.41
42:DV:45:THR:C	42:DV:46:VAL:O	2.64	0.41
46:DZ:77:ASP:HB2	46:DZ:84:GLU:OE2	2.20	0.41
46:DZ:103:ARG:HD3	46:DZ:136:PHE:CZ	2.55	0.41
46:DZ:177:PRO:O	46:DZ:178:GLU:CG	2.64	0.41
47:D0:25:ARG:HH11	47:D0:25:ARG:HG2	1.85	0.41
48:D1:80:LEU:HD23	48:D1:81:LYS:H	1.86	0.41
49:D2:36:ARG:C	49:D2:38:GLN:H	2.26	0.41
51:D4:45:GLY:O	51:D4:46:ASN:C	2.63	0.41
51:D4:53:THR:O	51:D4:54:LYS:O	2.38	0.41
53:D6:28:ARG:O	53:D6:29:ASN:C	2.63	0.41
1:AA:413:C:H1'	1:AA:523:G:O2'	2.21	0.41
1:AA:488:G:H2'	1:AA:489:G:H8	1.85	0.41
1:AA:669:U:O2	1:AA:670:A:N7	2.54	0.41
1:AA:751:A:H8	1:AA:751:A:O5'	2.03	0.41
1:AA:1280:A:C5	1:AA:1282:U:C2	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1297:G:H5''	14:AN:17:LYS:HE3	2.02	0.41
2:AB:141:GLU:C	2:AB:143:GLU:N	2.79	0.41
3:AC:3:ASN:O	3:AC:4:LYS:O	2.39	0.41
3:AC:188:LEU:HD12	3:AC:195:VAL:HG11	2.02	0.41
4:AD:52:SER:O	4:AD:53:ASP:C	2.64	0.41
4:AD:191:ARG:O	4:AD:191:ARG:HD2	2.20	0.41
5:AE:146:ALA:C	5:AE:148:VAL:N	2.79	0.41
6:AF:16:GLN:H	6:AF:16:GLN:CD	2.19	0.41
7:AG:107:ALA:CB	7:AG:134:ALA:HB2	2.50	0.41
9:AI:35:GLU:O	9:AI:38:GLN:HB2	2.20	0.41
11:AK:41:THR:CG2	11:AK:42:TRP:N	2.84	0.41
11:AK:73:MET:SD	11:AK:103:LEU:HD23	2.60	0.41
12:AL:114:LYS:HB3	12:AL:114:LYS:HE2	1.88	0.41
12:AL:120:TYR:CD1	12:AL:120:TYR:N	2.88	0.41
13:AM:72:ALA:HA	13:AM:75:ALA:HB2	2.02	0.41
16:AP:20:VAL:CG2	16:AP:21:VAL:N	2.84	0.41
18:AR:76:LEU:N	18:AR:76:LEU:HD22	2.35	0.41
22:AW:53:G:C2	22:AW:54:U:C6	3.09	0.41
23:AV:68:C:C2'	23:AV:69:C:H5'	2.49	0.41
25:BA:77:C:OP1	49:B2:59:ARG:NH1	2.52	0.41
25:BA:105:C:C2	25:BA:106:C:C5	3.09	0.41
25:BA:526:A:O2'	25:BA:2043:C:O2	2.38	0.41
25:BA:535:C:C2'	25:BA:536:A:H5'	2.51	0.41
25:BA:613:G:C5'	25:BA:613:G:C8	2.97	0.41
25:BA:833:U:H5''	36:BP:48:PRO:HB3	2.03	0.41
25:BA:852:G:H2'	25:BA:853:G:H8	1.86	0.41
25:BA:1763:G:H4'	25:BA:1763:G:OP1	2.21	0.41
25:BA:1808:U:H2'	25:BA:1809:A:O4'	2.20	0.41
25:BA:2069:G:C2'	25:BA:2070:G:H5'	2.51	0.41
25:BA:2262:U:C2'	25:BA:2263:C:C5'	2.97	0.41
25:BA:2585:U:C3'	25:BA:2585:U:C6	3.04	0.41
25:BA:2679:A:H2'	25:BA:2680:C:H6	1.85	0.41
25:BA:2720:U:O2	25:BA:2720:U:H2'	2.19	0.41
27:BC:36:LYS:O	27:BC:37:PHE:C	2.64	0.41
28:BD:31:LYS:HZ1	28:BD:102:LYS:HZ3	1.64	0.41
29:BE:92:THR:O	29:BE:93:VAL:C	2.64	0.41
30:BF:125:LEU:HD11	30:BF:199:TRP:CD1	2.56	0.41
31:BG:26:GLN:O	31:BG:28:VAL:N	2.52	0.41
32:BH:157:TYR:O	32:BH:158:HIS:CB	2.68	0.41
33:BI:82:ARG:HH11	33:BI:82:ARG:CG	2.34	0.41
33:BI:119:PRO:O	33:BI:120:ILE:C	2.64	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BN:3:THR:HG22	34:BN:5:VAL:CG1	2.51	0.41
34:BN:96:GLU:OE2	34:BN:96:GLU:N	2.34	0.41
41:BU:62:ILE:HD13	41:BU:93:LYS:HG2	1.97	0.41
41:BU:92:ARG:NH1	42:BV:11:GLN:CB	2.83	0.41
42:BV:38:LEU:HD23	42:BV:39:LEU:N	2.35	0.41
42:BV:45:THR:C	42:BV:46:VAL:O	2.64	0.41
47:B0:19:LYS:O	47:B0:20:ARG:C	2.63	0.41
48:B1:29:GLY:O	48:B1:30:VAL:HG23	2.21	0.41
48:B1:73:LEU:O	48:B1:74:VAL:C	2.62	0.41
50:B3:11:SER:OG	50:B3:12:PRO:HD2	2.21	0.41
53:B6:20:ASN:HD22	53:B6:21:TYR:N	2.15	0.41
53:B6:45:LYS:HE3	53:B6:45:LYS:HB3	1.27	0.41
55:B8:51:ALA:N	55:B8:54:GLU:OE2	2.49	0.41
1:CA:492:A:H4'	1:CA:493:A:OP1	2.20	0.41
1:CA:665:G:C2	1:CA:666:G:C8	3.09	0.41
1:CA:899:G:C6	1:CA:900:A:C6	3.09	0.41
1:CA:925:C:O2'	1:CA:926:A:H5'	2.20	0.41
1:CA:1183:G:H2'	1:CA:1184:C:H5'	2.01	0.41
3:CC:19:GLU:HG2	3:CC:19:GLU:O	2.21	0.41
4:CD:31:CYS:O	4:CD:32:ALA:HB3	2.21	0.41
4:CD:31:CYS:O	4:CD:33:MET:N	2.42	0.41
8:CH:63:LEU:HB2	8:CH:65:TYR:HE1	1.84	0.41
8:CH:65:TYR:N	8:CH:65:TYR:HD1	2.17	0.41
10:CJ:8:LEU:HD21	10:CJ:96:ILE:HG22	2.01	0.41
12:CL:24:VAL:HA	12:CL:25:PRO:HD2	2.01	0.41
12:CL:28:LYS:CG	12:CL:33:ARG:CZ	2.97	0.41
13:CM:24:GLY:C	13:CM:25:ILE:HD12	2.46	0.41
14:CN:29:ARG:HG2	14:CN:40:CYS:HB2	2.01	0.41
15:CO:53:HIS:O	15:CO:54:ARG:C	2.63	0.41
20:CT:13:LEU:O	20:CT:16:HIS:HB3	2.20	0.41
20:CT:41:ILE:HG21	20:CT:84:LEU:CD2	2.49	0.41
22:CW:14:A:N3	22:CW:14:A:C2'	2.81	0.41
23:CV:62:C:C2	23:CV:63:C:C5	3.09	0.41
25:DA:171:G:O2'	25:DA:172:C:H5'	2.20	0.41
25:DA:195:A:C8	25:DA:197:A:OP1	2.73	0.41
25:DA:271(J):C:H5'	25:DA:271(K):U:OP2	2.21	0.41
25:DA:558:G:OP1	34:DN:111:PRO:HD2	2.20	0.41
25:DA:571:A:C5	25:DA:575:A:N7	2.88	0.41
25:DA:994:C:C2'	41:DU:54:LYS:HE3	2.48	0.41
25:DA:1050:A:C4	25:DA:1051:G:N7	2.89	0.41
25:DA:1290:C:C2	25:DA:1291:C:C5	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1419:A:H2'	25:DA:1421:G:N7	2.36	0.41
25:DA:1639:U:H2'	25:DA:1640:C:C5'	2.42	0.41
25:DA:2046:G:O5'	52:D5:19:ARG:HA	2.20	0.41
25:DA:2078:C:C4	25:DA:2079:U:C4	3.08	0.41
25:DA:2206:G:N3	25:DA:2207:G:H5'	2.36	0.41
25:DA:2365:G:H4'	47:D0:60:PHE:CE2	2.55	0.41
25:DA:2528:U:H2'	25:DA:2530:A:O5'	2.19	0.41
25:DA:2586:C:H2'	25:DA:2587:A:C5'	2.48	0.41
25:DA:2754:U:H2'	25:DA:2755:C:H5''	2.02	0.41
25:DA:2848:G:H3'	40:DT:95:ARG:O	2.20	0.41
28:DD:117:VAL:CG2	28:DD:128:GLY:O	2.68	0.41
29:DE:7:VAL:HA	29:DE:194:GLY:O	2.20	0.41
29:DE:61:ARG:CB	29:DE:62:PRO:HD3	2.51	0.41
29:DE:92:THR:O	29:DE:93:VAL:C	2.64	0.41
30:DF:192:LEU:HD23	30:DF:192:LEU:C	2.46	0.41
32:DH:121:ILE:HG21	32:DH:133:VAL:HG12	2.00	0.41
34:DN:45:ASN:O	34:DN:45:ASN:ND2	2.52	0.41
37:DQ:27:VAL:O	37:DQ:29:PHE:N	2.53	0.41
38:DR:32:GLY:C	38:DR:33:ARG:HD2	2.46	0.41
40:DT:24:PRO:HA	40:DT:49:VAL:CG1	2.48	0.41
42:DV:47:VAL:HB	42:DV:49:THR:O	2.19	0.41
43:DW:64:MET:CE	43:DW:109:GLU:HG2	2.50	0.41
44:DX:52:VAL:HG21	44:DX:84:ALA:HA	2.02	0.41
46:DZ:14:LYS:CD	46:DZ:17:ALA:HB3	2.46	0.41
47:D0:41:ARG:HD3	47:D0:44:ARG:HD2	2.03	0.41
48:D1:57:GLU:O	48:D1:58:ILE:C	2.64	0.41
48:D1:82:LEU:HB3	48:D1:90:ILE:CD1	2.50	0.41
49:D2:29:LYS:HD3	49:D2:57:ILE:CG2	2.48	0.41
49:D2:34:GLU:O	49:D2:38:GLN:HG3	2.20	0.41
55:D8:6:THR:HA	55:D8:61:LEU:HD11	2.03	0.41
1:AA:95:G:H2'	1:AA:96:C:C6	2.55	0.41
1:AA:669:U:O2'	1:AA:670:A:P	2.78	0.41
1:AA:1056:G:H1'	2:AB:104:ASN:HD22	1.85	0.41
1:AA:1443:C:H2'	1:AA:1444:G:O4'	2.20	0.41
3:AC:68:VAL:CG1	3:AC:70:VAL:HG23	2.45	0.41
4:AD:114:ARG:HG3	4:AD:114:ARG:NH1	2.34	0.41
7:AG:59:LEU:HD23	7:AG:60:LYS:N	2.35	0.41
13:AM:65:LYS:O	13:AM:66:LEU:HG	2.20	0.41
14:AN:12:ARG:HD3	14:AN:12:ARG:H	1.84	0.41
20:AT:42:GLN:HG3	20:AT:43:LEU:HD23	2.02	0.41
22:AW:12:U:H6	22:AW:12:U:O5'	2.04	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:28:A:H61	25:BA:512:G:H1'	1.84	0.41
25:BA:195:A:C8	25:BA:197:A:OP1	2.74	0.41
25:BA:498:G:O2'	25:BA:499:U:H5'	2.20	0.41
25:BA:851:U:O2	25:BA:927:G:C2	2.74	0.41
25:BA:886:C:C2	25:BA:889:C:N4	2.86	0.41
25:BA:950:G:O2'	25:BA:951:C:H5'	2.20	0.41
25:BA:1142(A):A:C4	25:BA:1144:G:C8	3.09	0.41
25:BA:1799:G:C4	25:BA:1819:A:N6	2.89	0.41
25:BA:1829:A:N3	28:BD:15:PHE:HE1	2.18	0.41
25:BA:2075:U:C4	25:BA:2238:G:N1	2.88	0.41
25:BA:2260:C:O2'	25:BA:2261:C:H5'	2.21	0.41
25:BA:2561:A:O2'	35:BO:23:ARG:HB2	2.21	0.41
25:BA:2804:C:C2'	25:BA:2805:G:H5'	2.50	0.41
26:BB:40:U:HO2'	26:BB:43:C:H5	1.61	0.41
26:BB:91:C:H2'	26:BB:92:C:C6	2.56	0.41
29:BE:39:PRO:HA	29:BE:43:GLY:CA	2.42	0.41
31:BG:36:LYS:HE2	31:BG:160:VAL:HG21	2.03	0.41
33:BI:42:SER:O	33:BI:44:LEU:N	2.54	0.41
33:BI:77:LEU:CD2	33:BI:104:GLN:OE1	2.69	0.41
36:BP:6:LEU:CG	36:BP:9:ASN:HD22	2.14	0.41
36:BP:23:PRO:O	36:BP:33:ARG:NH1	2.53	0.41
36:BP:102:ARG:O	36:BP:102:ARG:HG2	2.20	0.41
37:BQ:2:LEU:O	37:BQ:2:LEU:HG	2.21	0.41
37:BQ:52:VAL:HG12	37:BQ:56:ARG:HG3	2.02	0.41
38:BR:11:ASN:OD1	38:BR:11:ASN:C	2.63	0.41
38:BR:18:LEU:HD21	38:BR:22:ARG:HE	1.85	0.41
39:BS:19:LYS:O	39:BS:19:LYS:HG2	2.21	0.41
39:BS:25:ARG:CZ	39:BS:40:ILE:HD12	2.51	0.41
43:BW:34:ASN:O	43:BW:37:ARG:HB3	2.21	0.41
45:BY:88:LYS:HZ1	45:BY:93:GLY:C	2.29	0.41
46:BZ:103:ARG:HD3	46:BZ:136:PHE:CE2	2.55	0.41
52:B5:47:PRO:C	52:B5:48:GLU:HG3	2.45	0.41
54:B7:36:GLN:O	54:B7:36:GLN:HG2	2.21	0.41
55:B8:7:HIS:ND1	55:B8:10:ALA:N	2.69	0.41
1:CA:44:G:C2	1:CA:45:U:H1'	2.56	0.41
1:CA:97:G:C2	1:CA:98:G:C8	3.08	0.41
1:CA:138:G:N1	1:CA:139:G:C5	2.89	0.41
1:CA:900:A:N6	1:CA:1374:G:O6	2.54	0.41
1:CA:950:G:C3'	1:CA:951:A:H5''	2.46	0.41
1:CA:1078:C:O2'	1:CA:1079:C:H5'	2.20	0.41
1:CA:1352:G:N7	9:CI:109:VAL:HG11	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1474:G:C6	1:CA:1475:U:C4	3.08	0.41
2:CB:7:VAL:O	2:CB:7:VAL:HG12	2.20	0.41
2:CB:193:ASP:OD2	2:CB:193:ASP:O	2.39	0.41
2:CB:233:SER:OG	2:CB:234:PRO:CD	2.65	0.41
3:CC:3:ASN:O	3:CC:4:LYS:O	2.37	0.41
7:CG:20:ASP:HB3	7:CG:23:VAL:CG2	2.50	0.41
7:CG:43:PHE:HD1	7:CG:43:PHE:O	2.02	0.41
8:CH:2:LEU:HD13	8:CH:2:LEU:O	2.21	0.41
8:CH:23:SER:HB2	8:CH:61:VAL:C	2.46	0.41
10:CJ:97:GLU:C	10:CJ:98:ILE:HD12	2.46	0.41
11:CK:12:ARG:CG	11:CK:13:GLN:H	2.30	0.41
15:CO:27:VAL:O	15:CO:31:LEU:HB2	2.21	0.41
15:CO:39:LEU:HA	15:CO:39:LEU:HD23	1.79	0.41
17:CQ:3:LYS:O	17:CQ:4:LYS:C	2.63	0.41
18:CR:50:ILE:HD11	18:CR:74:ARG:NH1	2.35	0.41
23:CV:17:C:OP2	23:CV:19:G:O5'	2.39	0.41
22:CY:32:U:O2	22:CY:32:U:C2'	2.69	0.41
25:DA:28:A:H61	25:DA:512:G:H1'	1.84	0.41
25:DA:71:A:O2'	25:DA:72:U:P	2.78	0.41
25:DA:108:U:H2'	25:DA:109:G:C8	2.55	0.41
25:DA:143(A):C:O2	25:DA:143(A):C:C2'	2.65	0.41
25:DA:286:C:H5''	25:DA:286:C:H6	1.86	0.41
25:DA:635:C:H2'	25:DA:636:G:O4'	2.21	0.41
25:DA:658:C:H2'	25:DA:659:C:C6	2.55	0.41
25:DA:676:A:H2	25:DA:802:A:N6	2.17	0.41
25:DA:764:A:OP1	28:DD:208:LYS:HE2	2.19	0.41
25:DA:778:G:H2'	25:DA:779:U:C6	2.56	0.41
25:DA:817:C:H4'	25:DA:932:G:C5	2.56	0.41
25:DA:832:G:OP1	36:DP:40:SER:HB3	2.21	0.41
25:DA:992:C:O2'	25:DA:993:G:H5'	2.20	0.41
25:DA:994:C:H3'	41:DU:54:LYS:HE3	2.01	0.41
25:DA:1140:C:P	34:DN:66:LYS:NZ	2.94	0.41
25:DA:1169:G:H2'	25:DA:1170:G:O4'	2.20	0.41
25:DA:1264:G:OP1	52:D5:19:ARG:NH2	2.40	0.41
25:DA:1717:G:H2'	25:DA:1718:G:H5''	2.02	0.41
25:DA:2612:C:C4	25:DA:2613:U:H5	2.38	0.41
25:DA:2749:A:H1'	32:DH:63:SER:OG	2.20	0.41
25:DA:2869:G:H2'	25:DA:2870:C:H6	1.86	0.41
27:DC:99:ILE:HG23	27:DC:103:ILE:CB	2.50	0.41
29:DE:2:LYS:HB3	29:DE:95:ILE:CG2	2.51	0.41
29:DE:24:THR:O	29:DE:24:THR:HG23	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DF:89:VAL:O	30:DF:91:GLY:N	2.51	0.41
30:DF:127:GLU:HB2	30:DF:196:LEU:HD11	2.03	0.41
30:DF:140:LEU:CD2	30:DF:170:LEU:HD11	2.50	0.41
31:DG:10:LYS:HA	31:DG:10:LYS:HD2	1.88	0.41
31:DG:97:ASP:C	31:DG:99:MET:N	2.76	0.41
33:DI:119:PRO:O	33:DI:120:ILE:C	2.64	0.41
34:DN:42:TRP:CE3	34:DN:48:MET:HE1	2.55	0.41
34:DN:96:GLU:OE2	34:DN:96:GLU:N	2.34	0.41
34:DN:107:LEU:O	34:DN:108:PRO:C	2.63	0.41
36:DP:32:THR:HG21	36:DP:37:GLY:HA2	2.02	0.41
36:DP:113:LYS:HG2	36:DP:115:LEU:HD22	2.03	0.41
37:DQ:2:LEU:O	37:DQ:2:LEU:HG	2.21	0.41
37:DQ:134:ARG:HH21	46:DZ:122:ARG:NE	2.17	0.41
37:DQ:137:TYR:O	37:DQ:138:ASP:C	2.63	0.41
38:DR:84:ALA:N	38:DR:85:PRO:CD	2.84	0.41
39:DS:35:ILE:HG23	39:DS:53:SER:HB2	2.01	0.41
45:DY:31:LEU:CD2	45:DY:36:ALA:C	2.94	0.41
45:DY:50:ARG:C	45:DY:52:SER:N	2.78	0.41
45:DY:81:LYS:C	45:DY:82:PRO:O	2.64	0.41
47:D0:33:ALA:N	47:D0:64:ASP:OD1	2.53	0.41
48:D1:29:GLY:O	48:D1:30:VAL:HG23	2.21	0.41
49:D2:47:ASN:C	49:D2:49:LYS:N	2.79	0.41
1:AA:351:A:O2'	1:AA:363:U:O2'	2.29	0.41
1:AA:423:G:H4'	1:AA:424:U:O5'	2.21	0.41
1:AA:484:C:O2	1:AA:532:C:O2'	2.39	0.41
1:AA:650:G:H4'	15:AO:51:HIS:ND1	2.36	0.41
1:AA:815:C:O2'	1:AA:816:U:P	2.79	0.41
1:AA:1072:U:C2	1:AA:1073:U:C5	3.09	0.41
1:AA:1251:C:H2'	1:AA:1252:G:O4'	2.20	0.41
1:AA:1281:G:HO2'	1:AA:1282:U:P	2.42	0.41
1:AA:1286:G:N1	1:AA:1312:G:O2'	2.53	0.41
1:AA:1327:A:C2	7:AG:10:ARG:HD3	2.55	0.41
1:AA:1381:C:C4	1:AA:1383:G:C2	3.09	0.41
1:AA:1445:A:H2'	1:AA:1446:G:O4'	2.20	0.41
2:AB:170:GLU:C	2:AB:172:ILE:H	2.28	0.41
2:AB:170:GLU:HA	2:AB:172:ILE:CD1	2.51	0.41
3:AC:11:ARG:O	3:AC:12:LEU:C	2.64	0.41
3:AC:101:LEU:C	3:AC:101:LEU:HD23	2.46	0.41
3:AC:107:GLN:CD	3:AC:107:GLN:N	2.79	0.41
3:AC:130:VAL:O	3:AC:134:ILE:HG12	2.21	0.41
4:AD:2:GLY:O	4:AD:3:ARG:C	2.63	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:64:LEU:HB2	4:AD:198:VAL:HG11	2.03	0.41
4:AD:103:ASN:O	4:AD:104:VAL:C	2.64	0.41
6:AF:3:ARG:HD3	6:AF:64:GLN:NE2	2.36	0.41
6:AF:32:ASN:C	6:AF:34:GLY:H	2.28	0.41
7:AG:69:VAL:HG21	7:AG:104:LEU:CD2	2.50	0.41
7:AG:125:MET:O	7:AG:126:ASP:C	2.63	0.41
11:AK:73:MET:C	11:AK:75:TYR:H	2.28	0.41
11:AK:99:GLN:HA	11:AK:105:VAL:CG1	2.50	0.41
22:AW:21:A:C5	22:AW:46:G:C5	3.08	0.41
23:AV:59:A:C2	23:AV:62:C:C6	3.09	0.41
25:BA:30:G:H2'	25:BA:31:C:C6	2.55	0.41
25:BA:120:U:H5''	25:BA:122:G:OP2	2.21	0.41
25:BA:470:A:OP1	30:BF:59:TYR:HE2	2.03	0.41
25:BA:603:A:H4'	25:BA:604:G:O5'	2.21	0.41
25:BA:778:G:C2	25:BA:787:U:O2	2.74	0.41
25:BA:885:C:C2	25:BA:886:C:N4	2.88	0.41
25:BA:952:G:N1	25:BA:953:A:N7	2.68	0.41
25:BA:1003:G:O2'	25:BA:1010:A:N1	2.52	0.41
25:BA:1042:G:H3'	25:BA:1043:C:C6	2.56	0.41
25:BA:1591:G:O2'	25:BA:1592:C:H5'	2.21	0.41
25:BA:2015:A:C2	52:B5:6:VAL:HG23	2.56	0.41
25:BA:2171:A:O2'	25:BA:2172:U:H2'	2.21	0.41
25:BA:2801(A):A:O3'	25:BA:2802:G:H3'	2.20	0.41
26:BB:24:G:H5'	26:BB:25:A:N7	2.36	0.41
27:BC:187:ASP:O	27:BC:189:ILE:N	2.50	0.41
28:BD:133:LEU:CB	28:BD:173:VAL:HG11	2.50	0.41
29:BE:26:ILE:HG22	29:BE:27:LEU:N	2.35	0.41
30:BF:21:ALA:C	30:BF:23:ASP:H	2.28	0.41
30:BF:81:PRO:C	30:BF:83:PHE:H	2.28	0.41
32:BH:15:VAL:O	32:BH:15:VAL:HG23	2.21	0.41
32:BH:94:TYR:CZ	32:BH:107:VAL:HB	2.55	0.41
36:BP:49:ARG:HH21	36:BP:50:ARG:HH22	1.58	0.41
36:BP:80:TYR:CE1	36:BP:111:ARG:HB3	2.56	0.41
36:BP:106:LEU:HD13	36:BP:112:LEU:HD23	2.03	0.41
36:BP:111:ARG:HH21	36:BP:111:ARG:HG3	1.86	0.41
39:BS:85:VAL:HG23	39:BS:86:ALA:H	1.86	0.41
39:BS:87:PHE:HZ	39:BS:97:ARG:HH12	1.68	0.41
39:BS:106:ARG:HD2	39:BS:106:ARG:C	2.45	0.41
40:BT:33:LYS:O	40:BT:40:THR:HB	2.21	0.41
40:BT:114:LEU:HD23	40:BT:114:LEU:HA	1.78	0.41
45:BY:2:ARG:HG2	45:BY:2:ARG:NH1	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BY:31:LEU:N	45:BY:31:LEU:CD2	2.78	0.41
45:BY:81:LYS:HA	45:BY:82:PRO:HD3	2.00	0.41
1:CA:232:C:H2'	1:CA:233:G:H8	1.85	0.41
1:CA:324:A:O2'	1:CA:327:G:N7	2.48	0.41
1:CA:485:G:OP1	12:CL:118:SER:N	2.31	0.41
1:CA:503:A:H2	1:CA:519:C:O2	2.04	0.41
1:CA:751:A:N7	1:CA:752:G:N7	2.69	0.41
1:CA:955:A:O2'	1:CA:1303:C:N3	2.47	0.41
1:CA:998:U:H2'	1:CA:999:G:H8	1.86	0.41
2:CB:47:THR:HG23	2:CB:202:PRO:HG2	2.03	0.41
2:CB:97:TRP:CZ2	2:CB:173:ALA:HA	2.55	0.41
2:CB:170:GLU:C	2:CB:172:ILE:N	2.78	0.41
3:CC:92:ALA:HB2	3:CC:99:VAL:HG22	1.99	0.41
3:CC:123:GLN:O	3:CC:128:PHE:HB2	2.21	0.41
4:CD:17:VAL:HG11	4:CD:197:PRO:HB2	2.01	0.41
4:CD:159:ARG:HG3	4:CD:159:ARG:HH11	1.85	0.41
5:CE:51:VAL:HB	5:CE:52:PRO:CD	2.48	0.41
7:CG:41:ARG:O	7:CG:42:ILE:C	2.63	0.41
7:CG:125:MET:O	7:CG:126:ASP:C	2.63	0.41
8:CH:125:ARG:O	8:CH:128:GLY:N	2.45	0.41
11:CK:73:MET:C	11:CK:75:TYR:N	2.78	0.41
12:CL:102:ARG:HB3	12:CL:102:ARG:HE	1.79	0.41
14:CN:48:ALA:CA	14:CN:53:LEU:HD12	2.51	0.41
22:CW:2:C:C5	22:CW:3:C:C5	3.09	0.41
22:CW:6:G:N2	22:CW:68:C:N3	2.68	0.41
22:CW:16:U:C3'	22:CW:17:C:C5'	2.96	0.41
22:CY:27:G:N3	22:CY:43:C:N4	2.68	0.41
25:DA:20:C:H2'	25:DA:21:A:C8	2.55	0.41
25:DA:109:G:H2'	25:DA:110:G:O5'	2.21	0.41
25:DA:491:G:C4	25:DA:492:A:C8	3.09	0.41
25:DA:495:G:O2'	43:DW:62:HIS:HE1	2.02	0.41
25:DA:989:G:OP2	50:D3:11:SER:OG	2.32	0.41
25:DA:993:G:N3	42:DV:89:GLN:NE2	2.69	0.41
25:DA:1041:C:O2'	25:DA:1115:G:N2	2.54	0.41
25:DA:1153:C:OP1	41:DU:76:TYR:OH	2.33	0.41
25:DA:1312:U:H4'	25:DA:1313:U:O5'	2.21	0.41
25:DA:1512:U:H2'	25:DA:1513:C:C6	2.56	0.41
25:DA:1796:U:H4'	28:DD:256:GLY:N	2.36	0.41
25:DA:2402:C:H2'	25:DA:2403:C:H5'	2.03	0.41
25:DA:2521:C:H42	25:DA:2544:G:H1	1.67	0.41
25:DA:2822:G:OP1	29:DE:159:HIS:NE2	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2840:C:H4'	38:DR:53:HIS:CD2	2.56	0.41
27:DC:62:VAL:O	27:DC:63:SER:C	2.63	0.41
27:DC:82:LYS:O	27:DC:86:ALA:HB3	2.20	0.41
27:DC:95:GLY:HA3	27:DC:99:ILE:CD1	2.51	0.41
28:DD:27:THR:CG2	28:DD:27:THR:O	2.68	0.41
29:DE:37:ARG:HD3	29:DE:42:ASP:OD2	2.20	0.41
30:DF:132:VAL:HG13	30:DF:133:ASN:H	1.85	0.41
31:DG:32:PRO:HB3	31:DG:163:ALA:HB2	2.03	0.41
31:DG:36:LYS:HE2	31:DG:160:VAL:HG21	2.03	0.41
31:DG:104:GLU:OE2	51:D4:50:THR:HG22	2.20	0.41
32:DH:151:ILE:N	32:DH:151:ILE:HD13	2.35	0.41
34:DN:23:LEU:C	34:DN:25:ARG:N	2.79	0.41
36:DP:57:THR:HB	36:DP:58:THR:H	1.69	0.41
36:DP:90:ARG:HB3	36:DP:91:PHE:HD1	1.85	0.41
37:DQ:52:VAL:HG12	37:DQ:56:ARG:HG3	2.02	0.41
39:DS:19:LYS:HG2	39:DS:19:LYS:O	2.21	0.41
39:DS:29:PHE:HD2	39:DS:30:ARG:N	2.18	0.41
39:DS:75:GLU:O	39:DS:76:LYS:C	2.64	0.41
45:DY:39:VAL:O	45:DY:40:GLU:HG2	2.20	0.41
48:D1:56:GLN:HB3	48:D1:87:PRO:HB3	2.02	0.41
48:D1:58:ILE:HD12	48:D1:91:LYS:CA	2.51	0.41
49:D2:38:GLN:HB3	49:D2:44:LEU:O	2.20	0.41
54:D7:12:ARG:HG3	54:D7:12:ARG:HH11	1.86	0.41
55:D8:51:ALA:N	55:D8:54:GLU:OE2	2.49	0.41
1:AA:261:G:O3'	17:AQ:67:LYS:HB2	2.20	0.41
1:AA:379:G:H2'	1:AA:380:C:C6	2.55	0.41
1:AA:529:G:P	4:AD:72:GLU:HB3	2.60	0.41
1:AA:581:U:H4'	8:AH:94:TYR:CG	2.56	0.41
1:AA:633:G:O2'	1:AA:634:C:H5'	2.21	0.41
1:AA:902:G:C6	1:AA:904:G:N7	2.88	0.41
1:AA:981:G:C2'	1:AA:982:A:H4'	2.51	0.41
1:AA:1056:G:H4'	2:AB:103:THR:HG22	2.02	0.41
1:AA:1126:G:C2	1:AA:1127:C:N3	2.89	0.41
1:AA:1206:A:OP1	13:AM:102:ARG:HA	2.21	0.41
1:AA:1209:C:H4'	13:AM:116:THR:O	2.20	0.41
1:AA:1331:A:H2'	1:AA:1332:U:O4'	2.21	0.41
1:AA:1361:G:N1	1:AA:1362:U:C4	2.89	0.41
2:AB:24:TRP:CG	2:AB:25:ASN:N	2.88	0.41
2:AB:36:ARG:NE	2:AB:36:ARG:CA	2.84	0.41
2:AB:233:SER:OG	2:AB:234:PRO:CD	2.64	0.41
3:AC:53:ALA:HB2	3:AC:115:LEU:CD2	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:53:ALA:HB2	3:AC:115:LEU:HG	2.02	0.41
4:AD:30:LYS:O	4:AD:32:ALA:N	2.52	0.41
4:AD:120:LEU:O	4:AD:121:VAL:C	2.64	0.41
5:AE:146:ALA:O	5:AE:148:VAL:N	2.54	0.41
6:AF:50:TYR:CE2	6:AF:52:ILE:HD11	2.55	0.41
6:AF:53:ALA:C	6:AF:54:LYS:HG2	2.45	0.41
7:AG:108:ALA:C	7:AG:110:GLN:N	2.78	0.41
8:AH:25:ASP:HA	8:AH:59:LEU:O	2.21	0.41
8:AH:44:PHE:HA	8:AH:79:VAL:HG12	2.02	0.41
9:AI:10:ARG:NE	9:AI:105:ASP:HB3	2.35	0.41
9:AI:118:LYS:NZ	9:AI:118:LYS:HB2	2.36	0.41
9:AI:125:TYR:CD2	9:AI:125:TYR:C	2.97	0.41
10:AJ:50:ILE:HD13	10:AJ:50:ILE:H	1.81	0.41
10:AJ:65:LEU:HD12	14:AN:55:GLY:HA3	2.03	0.41
11:AK:59:TYR:CE2	11:AK:63:LEU:HD12	2.56	0.41
12:AL:113:ARG:NH1	12:AL:120:TYR:CD2	2.89	0.41
13:AM:24:GLY:C	13:AM:25:ILE:HD12	2.45	0.41
17:AQ:50:LYS:HG3	17:AQ:51:TYR:CD1	2.55	0.41
22:AW:52:G:N1	22:AW:62:C:N4	2.66	0.41
23:AV:14:A:C2	23:AV:15:G:C1'	3.03	0.41
23:AV:15:G:N2	23:AV:49:C:C5	2.84	0.41
22:AY:29:G:C2	22:AY:42:C:O2	2.73	0.41
25:BA:35:G:O2'	25:BA:36:G:H5'	2.20	0.41
25:BA:57:C:O2'	25:BA:58:G:H5'	2.21	0.41
25:BA:71:A:H8	25:BA:71:A:H3'	1.85	0.41
25:BA:200:U:H2'	25:BA:201:C:H5'	2.02	0.41
25:BA:271(O):C:O2'	25:BA:271(P):C:P	2.79	0.41
25:BA:363(B):G:N3	25:BA:363(B):G:H2'	2.35	0.41
25:BA:479:A:H4'	25:BA:480:A:H5'	2.02	0.41
25:BA:601:C:H2'	25:BA:602:G:O4'	2.21	0.41
25:BA:614:U:O4'	25:BA:614(C):A:C6	2.73	0.41
25:BA:651:G:OP1	55:B8:19:SER:OG	2.37	0.41
25:BA:803:U:C2'	25:BA:804:A:H5'	2.50	0.41
25:BA:845:G:HO2'	25:BA:846:C:H5	1.67	0.41
25:BA:1050:A:C4	25:BA:1051:G:N7	2.89	0.41
25:BA:1169:G:H2'	25:BA:1170:G:O4'	2.20	0.41
25:BA:1349:A:N6	25:BA:1598:C:N4	2.68	0.41
25:BA:1642:G:O2'	25:BA:1643:G:H5'	2.20	0.41
25:BA:1914:C:O2	25:BA:1914:C:O4'	2.39	0.41
25:BA:1992:G:O5'	25:BA:1992:G:H8	2.03	0.41
25:BA:2033:A:O2'	25:BA:2034:U:P	2.79	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2167:U:H6	25:BA:2167:U:O5'	2.04	0.41
25:BA:2242:G:H2'	25:BA:2243:U:O4'	2.20	0.41
25:BA:2303:G:H1'	31:BG:132:ASN:ND2	2.36	0.41
25:BA:2471:C:N4	25:BA:2476:A:O2'	2.50	0.41
25:BA:2746:U:O3'	32:BH:138:LYS:HE3	2.21	0.41
25:BA:2810:A:H1'	29:BE:61:ARG:HH12	1.85	0.41
25:BA:2822:G:OP1	29:BE:159:HIS:NE2	2.54	0.41
27:BC:62:VAL:O	27:BC:63:SER:C	2.63	0.41
27:BC:83:ILE:O	27:BC:83:ILE:HG22	2.21	0.41
28:BD:268:ARG:HB3	28:BD:268:ARG:NH1	2.36	0.41
29:BE:7:VAL:HA	29:BE:194:GLY:O	2.20	0.41
29:BE:18:ASP:OD1	40:BT:81:PRO:HG3	2.21	0.41
29:BE:88:GLY:O	29:BE:89:ASP:CB	2.69	0.41
29:BE:130:GLY:C	29:BE:131:ALA:O	2.60	0.41
30:BF:1:MET:CE	30:BF:26:ALA:HB1	2.50	0.41
30:BF:39:TRP:CD1	30:BF:101:LEU:HB2	2.56	0.41
30:BF:132:VAL:HG13	30:BF:133:ASN:H	1.85	0.41
31:BG:47:LYS:HE2	31:BG:81:LYS:HD2	2.00	0.41
32:BH:85:LYS:HD3	32:BH:133:VAL:CB	2.41	0.41
32:BH:103:LEU:HD22	32:BH:123:PHE:HD2	1.82	0.41
33:BI:33:ARG:HH11	33:BI:33:ARG:HG2	1.86	0.41
33:BI:45:LYS:C	33:BI:47:LEU:N	2.79	0.41
34:BN:1:MET:HE3	34:BN:3:THR:OG1	2.21	0.41
34:BN:78:TYR:HD1	34:BN:78:TYR:H	1.68	0.41
37:BQ:27:VAL:O	37:BQ:29:PHE:N	2.53	0.41
39:BS:30:ARG:HA	39:BS:30:ARG:HD2	1.81	0.41
39:BS:49:VAL:CG1	39:BS:50:SER:N	2.82	0.41
39:BS:85:VAL:HG22	39:BS:106:ARG:CB	2.50	0.41
40:BT:32:TYR:CD2	40:BT:32:TYR:N	2.89	0.41
41:BU:76:TYR:C	41:BU:78:THR:N	2.77	0.41
42:BV:2:PHE:O	42:BV:3:ALA:CB	2.68	0.41
42:BV:22:VAL:HG21	42:BV:94:LEU:CD1	2.50	0.41
43:BW:41:LYS:HB3	43:BW:41:LYS:HE3	1.81	0.41
44:BX:23:GLU:CD	44:BX:23:GLU:H	2.29	0.41
46:BZ:41:LEU:HD11	46:BZ:82:ARG:HH11	1.86	0.41
46:BZ:103:ARG:HD3	46:BZ:136:PHE:CZ	2.55	0.41
46:BZ:108:PRO:O	46:BZ:109:ALA:C	2.64	0.41
46:BZ:110:GLY:HA3	46:BZ:115:GLY:HA3	2.02	0.41
47:B0:45:PHE:N	47:B0:45:PHE:CD1	2.89	0.41
48:B1:76:ARG:NH2	48:B1:95:LEU:HD22	2.36	0.41
49:B2:63:VAL:C	49:B2:66:GLU:HG2	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:B8:14:VAL:O	55:B8:14:VAL:HG13	2.21	0.41
1:CA:6:G:H3'	1:CA:6:G:N3	2.36	0.41
1:CA:66:G:C6	1:CA:67:C:C5	3.09	0.41
1:CA:398:C:H2'	1:CA:399:U:H6	1.86	0.41
1:CA:426:A:H2'	1:CA:427:A:O4'	2.21	0.41
1:CA:610:G:H2'	1:CA:611:G:C8	2.55	0.41
1:CA:746:G:H2'	1:CA:747:C:H6	1.86	0.41
1:CA:762:C:O2'	11:CK:120:ARG:HD3	2.20	0.41
1:CA:786:G:C6	1:CA:787:U:N3	2.88	0.41
1:CA:1207:C:H4'	1:CA:1208:A:OP1	2.20	0.41
1:CA:1280:A:O3'	1:CA:1281:G:C4'	2.69	0.41
1:CA:1330:A:C6	1:CA:1356:A:C8	3.09	0.41
1:CA:1374:G:C5	1:CA:1375:U:C4	3.09	0.41
1:CA:1392:G:H2'	1:CA:1393:C:C6	2.55	0.41
1:CA:1440:C:C5'	40:DT:115:ARG:HH22	2.31	0.41
2:CB:75:LYS:HA	2:CB:75:LYS:HD3	1.86	0.41
2:CB:135:GLN:O	2:CB:139:LYS:HG2	2.21	0.41
2:CB:196:LEU:HD12	2:CB:197:VAL:HG23	2.03	0.41
3:CC:54:ARG:NH1	3:CC:56:ASP:HB2	2.36	0.41
3:CC:73:PRO:CD	3:CC:105:GLU:OE2	2.68	0.41
3:CC:101:LEU:HD23	3:CC:102:ASN:O	2.21	0.41
4:CD:64:LEU:HB2	4:CD:198:VAL:HG11	2.03	0.41
4:CD:81:GLU:OE1	4:CD:139:ARG:NH2	2.53	0.41
4:CD:91:SER:O	4:CD:92:VAL:C	2.64	0.41
5:CE:51:VAL:CB	5:CE:52:PRO:HD3	2.49	0.41
5:CE:64:ARG:O	5:CE:64:ARG:HG3	2.21	0.41
8:CH:85:ARG:HG3	8:CH:85:ARG:NH1	2.36	0.41
10:CJ:57:LYS:CE	10:CJ:60:ARG:NH2	2.84	0.41
11:CK:95:ILE:HG23	11:CK:108:ILE:HD11	2.03	0.41
11:CK:120:ARG:HA	11:CK:121:PRO:HD3	1.87	0.41
12:CL:32:PHE:CB	12:CL:84:LEU:HD11	2.51	0.41
14:CN:22:THR:HB	14:CN:33:VAL:HG21	2.01	0.41
15:CO:4:THR:OG1	15:CO:7:GLU:HG3	2.21	0.41
16:CP:4:ILE:HB	16:CP:66:PRO:CB	2.49	0.41
17:CQ:29:HIS:ND1	17:CQ:29:HIS:C	2.78	0.41
19:CS:9:VAL:CG1	19:CS:11:VAL:CG1	2.99	0.41
19:CS:10:PHE:HZ	19:CS:70:LYS:CD	2.34	0.41
19:CS:72:GLY:C	19:CS:74:PHE:N	2.78	0.41
20:CT:26:ASN:CG	20:CT:71:THR:HG23	2.39	0.41
20:CT:91:LEU:C	20:CT:93:GLU:H	2.29	0.41
22:CW:30:G:C2	22:CW:31:A:N7	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CV:6:G:H2'	23:CV:7:G:O5'	2.21	0.41
23:CV:10:G:N2	23:CV:26:C:O2	2.43	0.41
23:CV:35:C:H3'	23:CV:35:C:C6	2.56	0.41
23:CV:50:G:H2'	23:CV:51:U:O4'	2.20	0.41
23:CV:57:C:C1'	31:DG:76:SER:O	2.57	0.41
22:CY:28:G:C8	22:CY:28:G:H3'	2.55	0.41
25:DA:105:C:C2	25:DA:106:C:C5	3.08	0.41
25:DA:466:A:N3	25:DA:683:C:H1'	2.36	0.41
25:DA:603:A:H4'	25:DA:604:G:O5'	2.21	0.41
25:DA:803:U:C2'	25:DA:804:A:H5'	2.50	0.41
25:DA:1032:A:H2	25:DA:1122:G:H22	1.69	0.41
25:DA:1042:G:H3'	25:DA:1043:C:O4'	2.21	0.41
25:DA:1050:A:C2	25:DA:1051:G:N7	2.89	0.41
25:DA:1173:G:H3'	25:DA:1174:A:H5'	2.02	0.41
25:DA:1188:U:C4'	42:DV:79:VAL:HG22	2.49	0.41
25:DA:1232:G:H2'	25:DA:1233:C:C6	2.56	0.41
25:DA:1301:A:H2	25:DA:1626:G:N3	2.19	0.41
25:DA:1324:G:H1'	25:DA:1616:A:N6	2.36	0.41
25:DA:1341:U:H2'	25:DA:1397:U:O2	2.20	0.41
25:DA:1344:G:C5	25:DA:1385:G:C8	3.09	0.41
25:DA:1505:C:H2'	25:DA:1506:C:O4'	2.21	0.41
25:DA:1568:G:H4'	28:DD:59:LYS:CG	2.50	0.41
25:DA:1668:A:OP1	35:DO:5:GLN:HG3	2.18	0.41
25:DA:1686:C:H2'	25:DA:1687:G:C5'	2.49	0.41
25:DA:1782:C:C4	25:DA:2587:A:C2	3.09	0.41
25:DA:1946:U:H2'	25:DA:1947:C:H6	1.85	0.41
25:DA:1952:A:C6	25:DA:1953:A:N6	2.89	0.41
25:DA:1972:A:H2'	25:DA:1973:G:H8	1.86	0.41
25:DA:2050:C:H1'	29:DE:156:MET:HE1	2.02	0.41
25:DA:2065:C:H2'	25:DA:2066:C:C6	2.56	0.41
25:DA:2069:G:C2'	25:DA:2070:G:H5'	2.51	0.41
25:DA:2167:U:H6	25:DA:2167:U:O5'	2.04	0.41
25:DA:2464:C:O2'	25:DA:2465:C:O5'	2.32	0.41
25:DA:2553:G:H3'	25:DA:2554:U:H5''	2.02	0.41
25:DA:2801(A):A:O3'	25:DA:2802:G:H3'	2.20	0.41
25:DA:2804:C:C2'	25:DA:2805:G:H5'	2.50	0.41
26:DB:40:U:H1'	26:DB:45:A:N6	2.36	0.41
26:DB:43:C:O2	31:DG:95:ARG:NE	2.43	0.41
26:DB:43:C:H3'	26:DB:44:G:C5'	2.51	0.41
26:DB:85:G:H2'	26:DB:86:G:C8	2.56	0.41
26:DB:103:G:O2'	26:DB:104:U:H5'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DC:42:GLU:H	27:DC:213:TYR:H	1.67	0.41
27:DC:83:ILE:HG22	27:DC:83:ILE:O	2.21	0.41
28:DD:24:ILE:O	28:DD:26:LYS:NZ	2.54	0.41
28:DD:133:LEU:HA	28:DD:136:ILE:HD12	2.03	0.41
28:DD:134:ARG:O	28:DD:168:ARG:NH1	2.53	0.41
28:DD:176:ARG:HG2	28:DD:176:ARG:NH1	2.32	0.41
29:DE:6:GLY:CA	29:DE:27:LEU:O	2.69	0.41
29:DE:51:PHE:O	29:DE:74:PRO:HB2	2.21	0.41
29:DE:57:LYS:HB3	29:DE:57:LYS:NZ	2.36	0.41
29:DE:93:VAL:HG13	29:DE:182:LEU:HD13	2.03	0.41
29:DE:111:ARG:CD	29:DE:160:TYR:HE1	2.31	0.41
30:DF:63:LYS:NZ	30:DF:67:GLN:CB	2.84	0.41
30:DF:195:ASP:HB2	30:DF:198:ALA:CB	2.51	0.41
31:DG:17:PRO:HA	31:DG:20:ILE:CG1	2.50	0.41
31:DG:55:LYS:C	31:DG:57:ALA:H	2.27	0.41
31:DG:82:LEU:HD22	31:DG:87:PRO:CG	2.47	0.41
32:DH:58:GLU:C	32:DH:60:ARG:N	2.74	0.41
32:DH:111:HIS:HA	32:DH:112:PRO:HD2	1.88	0.41
32:DH:164:TYR:O	32:DH:165:ALA:HB2	2.20	0.41
33:DI:42:SER:O	33:DI:44:LEU:N	2.54	0.41
34:DN:1:MET:HE3	34:DN:3:THR:OG1	2.21	0.41
36:DP:9:ASN:H	36:DP:10:PRO:HD2	1.86	0.41
38:DR:11:ASN:OD1	38:DR:11:ASN:C	2.63	0.41
39:DS:34:HIS:O	39:DS:35:ILE:HB	2.21	0.41
39:DS:87:PHE:HZ	39:DS:97:ARG:HH12	1.68	0.41
39:DS:106:ARG:HD2	39:DS:106:ARG:O	2.20	0.41
40:DT:39:ARG:O	40:DT:41:ARG:N	2.54	0.41
41:DU:59:ARG:O	41:DU:60:LEU:C	2.64	0.41
41:DU:92:ARG:NH1	42:DV:11:GLN:CB	2.84	0.41
41:DU:115:ALA:C	41:DU:117:GLN:N	2.78	0.41
42:DV:52:VAL:HG13	42:DV:52:VAL:O	2.21	0.41
43:DW:14:PRO:O	43:DW:17:VAL:N	2.51	0.41
44:DX:23:GLU:CD	44:DX:23:GLU:H	2.29	0.41
44:DX:28:PHE:CZ	44:DX:92:LEU:HD11	2.56	0.41
44:DX:63:LYS:HB3	44:DX:72:LYS:HG3	2.01	0.41
45:DY:48:ALA:C	45:DY:50:ARG:H	2.27	0.41
45:DY:67:LEU:HD12	45:DY:68:HIS:O	2.21	0.41
46:DZ:14:LYS:O	46:DZ:18:LEU:HB2	2.20	0.41
46:DZ:72:ARG:NH2	46:DZ:97:GLU:O	2.54	0.41
47:D0:83:PRO:HB2	47:D0:84:LEU:H	1.78	0.41
48:D1:3:LYS:CG	48:D1:4:VAL:N	2.71	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:D2:63:VAL:C	49:D2:66:GLU:HG2	2.45	0.41
50:D3:43:ILE:O	50:D3:47:VAL:HG23	2.21	0.41
53:D6:47:THR:CB	53:D6:49:HIS:ND1	2.73	0.41
54:D7:31:LEU:HD22	54:D7:42:LEU:HD13	2.03	0.41
54:D7:36:GLN:O	54:D7:36:GLN:HG2	2.21	0.41
54:D7:47:ARG:CD	54:D7:47:ARG:C	2.94	0.41
1:AA:457:A:H2'	1:AA:458:G:O4'	2.21	0.41
1:AA:551:G:N7	12:AL:5:PRO:HD3	2.34	0.41
1:AA:818:U:H3	1:AA:828:G:H1	1.68	0.41
1:AA:876:C:H2'	1:AA:877:A:O4'	2.21	0.41
1:AA:906:G:C6	1:AA:907:C:C4	3.09	0.41
1:AA:963:A:C6	1:AA:964:G:C5	3.09	0.41
1:AA:981:G:H2'	1:AA:982:A:H4'	2.03	0.41
1:AA:1112:A:H5''	9:AI:18:PHE:HE1	1.84	0.41
4:AD:20:TYR:CD1	6:CF:15:ASP:HB3	2.46	0.41
4:AD:88:VAL:O	4:AD:89:THR:C	2.64	0.41
4:AD:162:LEU:HD22	4:AD:178:VAL:HG13	2.04	0.41
5:AE:127:ASN:HA	5:AE:128:PRO:HD3	1.94	0.41
7:AG:46:ALA:O	7:AG:49:ILE:N	2.54	0.41
8:AH:12:ARG:HH11	8:AH:26:VAL:HA	1.86	0.41
8:AH:23:SER:CB	8:AH:62:TYR:HA	2.50	0.41
10:AJ:76:ASN:ND2	10:AJ:78:ASN:OD1	2.54	0.41
15:AO:33:THR:HG23	15:AO:63:ARG:NH1	2.36	0.41
15:AO:63:ARG:NH1	15:AO:87:ILE:HD13	2.36	0.41
18:AR:36:ASN:O	18:AR:39:VAL:N	2.54	0.41
18:AR:47:THR:O	18:AR:83:GLU:HG2	2.21	0.41
19:AS:36:ARG:HH12	19:AS:75:ALA:CB	2.26	0.41
19:AS:72:GLY:C	19:AS:74:PHE:N	2.78	0.41
20:AT:84:LEU:C	20:AT:84:LEU:CD1	2.93	0.41
25:BA:184:C:H2'	25:BA:185:U:C6	2.56	0.41
25:BA:621:A:H2'	25:BA:622:G:C5'	2.50	0.41
25:BA:661:C:O3'	36:BP:18:ARG:HD2	2.20	0.41
25:BA:778:G:H2'	25:BA:779:U:C6	2.56	0.41
25:BA:904:C:HO2'	46:BZ:169:GLU:CD	2.22	0.41
25:BA:1042:G:H3'	25:BA:1043:C:O4'	2.21	0.41
25:BA:1050:A:C2	25:BA:1051:G:N7	2.89	0.41
25:BA:1301:A:H2	25:BA:1626:G:N3	2.19	0.41
25:BA:1568:G:H4'	28:BD:59:LYS:CG	2.51	0.41
25:BA:1609:A:C2	25:BA:1616:A:C8	3.08	0.41
25:BA:1844:C:O2'	25:BA:1845:G:H5'	2.20	0.41
25:BA:1856:G:H2'	25:BA:1857:G:H5'	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1930:G:N2	25:BA:1968:G:H2'	2.35	0.41
25:BA:1993:U:C2'	25:BA:1994:C:O5'	2.69	0.41
25:BA:2080:G:OP1	48:B1:35:THR:HG21	2.21	0.41
25:BA:2126:A:H8	25:BA:2126:A:OP2	2.04	0.41
25:BA:2164:C:H2'	25:BA:2165:G:O4'	2.20	0.41
25:BA:2171:A:H2'	25:BA:2172:U:C5	2.56	0.41
25:BA:2245:U:H5'	25:BA:2246:G:C5'	2.44	0.41
25:BA:2484:G:C4	25:BA:2485:G:C8	3.09	0.41
25:BA:2516:G:C6	25:BA:2517:C:N3	2.88	0.41
25:BA:2554:U:N3	25:BA:2555:U:C4	2.89	0.41
25:BA:2748:A:C2	32:BH:63:SER:HB3	2.56	0.41
25:BA:2850:A:OP2	25:BA:2866:U:C5	2.74	0.41
27:BC:97:GLU:HA	27:BC:100:ILE:HG12	2.02	0.41
29:BE:37:ARG:O	29:BE:45:THR:N	2.49	0.41
29:BE:51:PHE:O	29:BE:74:PRO:HB2	2.21	0.41
29:BE:75:VAL:HG12	29:BE:76:ARG:N	2.35	0.41
31:BG:2:PRO:CD	51:B4:51:TYR:CE1	3.04	0.41
34:BN:23:LEU:C	34:BN:25:ARG:N	2.79	0.41
35:BO:20:MET:HG2	35:BO:21:CYS:O	2.20	0.41
35:BO:88:ASN:O	35:BO:91:LEU:N	2.49	0.41
40:BT:7:ILE:H	40:BT:7:ILE:HG12	1.64	0.41
42:BV:5:VAL:HG21	42:BV:35:LEU:HG	2.02	0.41
45:BY:96:ILE:CD1	45:BY:99:CYS:HB2	2.51	0.41
46:BZ:120:ILE:O	46:BZ:121:HIS:HB2	2.20	0.41
48:B1:15:ALA:HB3	48:B1:40:ARG:HD2	2.03	0.41
48:B1:82:LEU:HB3	48:B1:90:ILE:CD1	2.50	0.41
49:B2:34:GLU:O	49:B2:38:GLN:HG3	2.21	0.41
49:B2:65:ASN:O	49:B2:66:GLU:C	2.64	0.41
50:B3:43:ILE:O	50:B3:47:VAL:HG23	2.21	0.41
54:B7:12:ARG:HG3	54:B7:12:ARG:HH11	1.86	0.41
1:CA:39:G:O2'	1:CA:40:C:H5'	2.21	0.41
1:CA:195:G:H2'	1:CA:196:U:C6	2.56	0.41
1:CA:438:C:H2'	1:CA:439:G:C8	2.56	0.41
1:CA:442:A:C4	1:CA:471:A:C2	3.09	0.41
1:CA:744:G:C5	1:CA:745:C:C5	3.09	0.41
1:CA:864:G:H2'	1:CA:865:G:O4'	2.21	0.41
1:CA:917:C:H2'	1:CA:918:G:H8	1.85	0.41
1:CA:1075:A:C2	1:CA:1077:U:H5'	2.56	0.41
1:CA:1279:C:O4'	1:CA:1280:A:C5	2.74	0.41
1:CA:1434:G:H2'	1:CA:1435:G:C8	2.56	0.41
1:CA:1472:U:O2'	25:DA:1919:A:N1	2.38	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:17:PHE:HD2	2:CB:17:PHE:H	1.68	0.41
2:CB:24:TRP:CG	2:CB:40:HIS:HE1	2.39	0.41
2:CB:88:ALA:HB2	2:CB:219:VAL:CG1	2.49	0.41
4:CD:147:ALA:HB2	4:CD:182:LYS:HB3	2.02	0.41
9:CI:121:ARG:O	9:CI:121:ARG:CD	2.67	0.41
10:CJ:8:LEU:HB3	10:CJ:16:LEU:CD2	2.44	0.41
11:CK:59:TYR:O	11:CK:63:LEU:HB2	2.21	0.41
11:CK:62:GLN:C	11:CK:64:ALA:N	2.76	0.41
12:CL:83:VAL:HG11	12:CL:100:ILE:HG23	2.02	0.41
13:CM:83:ASP:C	13:CM:85:GLY:N	2.77	0.41
14:CN:28:GLY:O	14:CN:29:ARG:C	2.64	0.41
15:CO:3:ILE:N	15:CO:3:ILE:CD1	2.80	0.41
15:CO:12:ILE:C	15:CO:14:GLU:H	2.29	0.41
15:CO:26:GLU:H	15:CO:26:GLU:HG2	1.64	0.41
19:CS:16:LEU:N	19:CS:16:LEU:CD1	2.84	0.41
20:CT:53:LEU:CB	20:CT:102:GLY:CA	2.99	0.41
22:CW:53:G:C6	22:CW:54:U:O4	2.74	0.41
25:DA:52:A:O2'	25:DA:53:A:H5'	2.21	0.41
25:DA:272(B):G:C6	25:DA:404:C:C2	3.09	0.41
25:DA:310:A:C4	25:DA:312:G:C8	3.09	0.41
25:DA:395:U:O2'	48:D1:13:ILE:CD1	2.61	0.41
25:DA:414:C:HO2'	25:DA:1864:U:C2'	2.34	0.41
25:DA:534:U:H5'	41:DU:42:ALA:HB1	2.01	0.41
25:DA:598:G:C5'	36:DP:15:ARG:HD2	2.48	0.41
25:DA:614(B):G:H5''	25:DA:614(C):A:P	2.61	0.41
25:DA:614(B):G:H5''	25:DA:614(C):A:OP1	2.21	0.41
25:DA:758:C:O2'	25:DA:1981:A:N3	2.33	0.41
25:DA:1234:U:O2'	25:DA:1235:G:H5'	2.20	0.41
25:DA:1386:C:H2'	25:DA:1387:C:H6	1.86	0.41
25:DA:1479:G:C4	25:DA:1480:G:C8	3.09	0.41
25:DA:1488:G:N1	25:DA:1489:U:O2	2.54	0.41
25:DA:1488:G:C6	25:DA:1489:U:N3	2.89	0.41
25:DA:1864:U:H6	25:DA:1864:U:OP2	2.03	0.41
25:DA:1914:C:O2	25:DA:1914:C:O4'	2.39	0.41
25:DA:2164:C:H2'	25:DA:2165:G:O4'	2.20	0.41
25:DA:2171:A:H2'	25:DA:2172:U:C5	2.56	0.41
25:DA:2414:G:H21	36:DP:67:MET:HE1	1.86	0.41
25:DA:2554:U:N3	25:DA:2555:U:C4	2.89	0.41
25:DA:2585:U:C3'	25:DA:2585:U:C6	3.04	0.41
25:DA:2739:U:O2'	25:DA:2740:A:H5'	2.21	0.41
26:DB:69:G:C2	26:DB:70:C:N1	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DF:32:LEU:HD22	30:DF:112:MET:CE	2.50	0.41
30:DF:117:ARG:NH2	30:DF:187:VAL:HA	2.36	0.41
31:DG:63:ILE:HA	31:DG:143:GLU:HG3	2.03	0.41
33:DI:33:ARG:HG2	33:DI:33:ARG:HH11	1.86	0.41
36:DP:66:GLY:O	36:DP:67:MET:CB	2.65	0.41
36:DP:96:THR:HG22	36:DP:126:VAL:CB	2.47	0.41
36:DP:106:LEU:HD13	36:DP:112:LEU:HD23	2.03	0.41
38:DR:18:LEU:HD21	38:DR:22:ARG:HE	1.85	0.41
40:DT:56:GLY:N	40:DT:59:THR:CG2	2.84	0.41
41:DU:66:ASN:OD1	41:DU:76:TYR:CB	2.68	0.41
41:DU:92:ARG:HH12	42:DV:11:GLN:H	1.67	0.41
42:DV:2:PHE:O	42:DV:3:ALA:CB	2.68	0.41
42:DV:77:ALA:O	42:DV:78:LYS:C	2.64	0.41
43:DW:14:PRO:O	43:DW:16:LYS:N	2.54	0.41
43:DW:69:LEU:HD23	43:DW:69:LEU:HA	1.95	0.41
46:DZ:33:LEU:CG	46:DZ:34:ASN:N	2.83	0.41
46:DZ:53:ILE:O	46:DZ:53:ILE:HD12	2.21	0.41
48:D1:3:LYS:CG	48:D1:4:VAL:H	2.15	0.41
48:D1:15:ALA:HB3	48:D1:40:ARG:HD2	2.03	0.41
49:D2:17:SER:HB3	49:D2:20:GLU:CB	2.51	0.41
53:D6:14:THR:C	53:D6:16:CYS:H	2.29	0.41
1:AA:265:A:H2'	1:AA:266:C:C6	2.56	0.40
1:AA:499:U:C5	1:AA:500:G:C6	3.10	0.40
1:AA:815:C:N4	1:AA:832:G:O6	2.54	0.40
1:AA:853:G:C6	1:AA:854:C:C4	3.08	0.40
1:AA:871:G:C6	1:AA:872:G:C5	3.09	0.40
1:AA:1278:C:O2'	7:AG:114:ARG:NH2	2.54	0.40
3:AC:117:ALA:C	3:AC:119:ARG:N	2.78	0.40
4:AD:20:TYR:CD1	6:CF:15:ASP:CB	2.99	0.40
4:AD:96:LEU:N	4:AD:96:LEU:CD1	2.83	0.40
4:AD:107:ARG:C	4:AD:109:GLY:H	2.29	0.40
5:AE:60:TYR:O	5:AE:64:ARG:HB2	2.21	0.40
5:AE:132:ALA:O	5:AE:133:TYR:C	2.64	0.40
7:AG:143:ARG:HD2	22:AW:41:C:O3'	2.21	0.40
9:AI:53:VAL:CG1	9:AI:92:TYR:CD2	2.98	0.40
13:AM:95:GLY:O	13:AM:96:LEU:HG	2.20	0.40
17:AQ:50:LYS:HG3	17:AQ:51:TYR:H	1.86	0.40
20:AT:91:LEU:C	20:AT:93:GLU:H	2.28	0.40
25:BA:272(B):G:C6	25:BA:404:C:C2	3.10	0.40
25:BA:389:G:C2	36:BP:71:VAL:HG12	2.54	0.40
25:BA:466:A:N3	25:BA:683:C:H1'	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:491:G:C4	25:BA:492:A:C8	3.09	0.40
25:BA:614(B):G:H5''	25:BA:614(C):A:P	2.61	0.40
25:BA:915:C:C4	25:BA:916:G:C5	3.09	0.40
25:BA:941:A:HO2'	36:BP:35:HIS:CE1	2.38	0.40
25:BA:952:G:C6	25:BA:966:G:C6	3.09	0.40
25:BA:1129:A:H4'	25:BA:2516:G:C4'	2.50	0.40
25:BA:1378:A:C4'	25:BA:1379:A:OP1	2.52	0.40
25:BA:1388:G:C2'	25:BA:1389:G:H5'	2.50	0.40
25:BA:1488:G:N1	25:BA:1489:U:O2	2.54	0.40
25:BA:1488:G:C6	25:BA:1489:U:N3	2.89	0.40
25:BA:1827:C:OP2	28:BD:222:ARG:NH1	2.49	0.40
25:BA:1982:C:O5'	25:BA:1982:C:C6	2.72	0.40
25:BA:2013:A:H4'	43:BW:96:ILE:HD12	2.02	0.40
25:BA:2327:A:H2'	25:BA:2328:A:O4'	2.21	0.40
25:BA:2392:A:H8	36:BP:60:MET:CB	2.26	0.40
25:BA:2818:G:H4'	25:BA:2837:G:O4'	2.21	0.40
27:BC:49:ILE:HG22	27:BC:50:ASP:N	2.36	0.40
28:BD:147:LEU:HD13	28:BD:155:LEU:CD1	2.48	0.40
29:BE:9:VAL:CG1	29:BE:25:VAL:O	2.69	0.40
29:BE:61:ARG:CB	29:BE:62:PRO:HD3	2.51	0.40
31:BG:60:LEU:HD22	31:BG:63:ILE:HD11	2.03	0.40
33:BI:29:TYR:HE1	33:BI:33:ARG:HE	1.60	0.40
37:BQ:137:TYR:O	37:BQ:138:ASP:C	2.63	0.40
40:BT:16:ARG:HH21	40:BT:82:LEU:H	1.69	0.40
41:BU:55:ARG:HA	41:BU:58:ARG:HD2	2.03	0.40
43:BW:14:PRO:O	43:BW:16:LYS:N	2.54	0.40
46:BZ:164:ALA:C	46:BZ:165:VAL:HG23	2.45	0.40
49:B2:47:ASN:C	49:B2:49:LYS:N	2.79	0.40
50:B3:26:LEU:HD21	50:B3:46:ASN:HB2	2.03	0.40
53:B6:10:LEU:HD22	53:B6:10:LEU:N	2.35	0.40
53:B6:28:ARG:O	53:B6:29:ASN:C	2.63	0.40
53:B6:30:THR:O	53:B6:31:PRO:C	2.63	0.40
1:CA:653:G:C6	1:CA:654:G:C5	3.09	0.40
1:CA:792:G:C2	1:CA:793:C:C2	3.09	0.40
1:CA:1248:C:O2	1:CA:1248:C:H2'	2.20	0.40
2:CB:62:ALA:HB1	2:CB:225:ALA:HB3	2.03	0.40
2:CB:78:GLN:O	2:CB:94:ASN:ND2	2.54	0.40
2:CB:221:LEU:CD2	2:CB:221:LEU:H	2.34	0.40
3:CC:149:ALA:O	3:CC:169:ALA:HB1	2.21	0.40
7:CG:5:ARG:O	7:CG:7:ALA:N	2.50	0.40
10:CJ:45:ARG:NH1	10:CJ:45:ARG:CG	2.78	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:18:ARG:NH2	11:CK:35:PRO:O	2.54	0.40
12:CL:70:ILE:HD13	12:CL:77:LEU:HD12	2.03	0.40
14:CN:8:GLU:C	14:CN:12:ARG:NH1	2.79	0.40
19:CS:9:VAL:HG11	19:CS:11:VAL:CG1	2.51	0.40
21:CU:6:ARG:CG	21:CU:15:ARG:NH1	2.84	0.40
22:CW:16:U:H6	22:CW:17:C:H5'	1.86	0.40
22:CW:18:G:H1	22:CW:55:U:C2'	2.34	0.40
22:CW:39:U:C5	22:CW:40:C:N4	2.89	0.40
23:CV:52:C:C2'	23:CV:53:G:O5'	2.69	0.40
22:CY:42:C:H5''	22:CY:43:C:OP2	2.20	0.40
25:DA:27:G:H1'	25:DA:513:A:H62	1.86	0.40
25:DA:75:G:H4'	49:D2:55:ARG:NH1	2.33	0.40
25:DA:271(O):C:O2'	25:DA:271(P):C:P	2.79	0.40
25:DA:299:A:C6	25:DA:322:A:N3	2.89	0.40
25:DA:309:G:O4'	25:DA:329:G:C4	2.74	0.40
25:DA:686:G:O6	54:D7:12:ARG:CG	2.69	0.40
25:DA:850:C:O2'	25:DA:851:U:H5'	2.20	0.40
25:DA:1042:G:H3'	25:DA:1043:C:C6	2.56	0.40
25:DA:2260:C:O2'	25:DA:2261:C:H5'	2.21	0.40
25:DA:2584:U:C3'	25:DA:2584:U:C6	3.04	0.40
25:DA:2767:C:H2'	25:DA:2768:C:H6	1.86	0.40
25:DA:2787:C:O2	29:DE:61:ARG:NH1	2.52	0.40
25:DA:2818:G:H4'	25:DA:2837:G:O4'	2.21	0.40
25:DA:2850:A:OP2	25:DA:2866:U:C5	2.74	0.40
28:DD:26:LYS:HD2	28:DD:113:VAL:HG11	2.03	0.40
28:DD:27:THR:HG21	28:DD:81:ALA:HB1	2.03	0.40
28:DD:136:ILE:HA	28:DD:137:PRO:HD3	1.76	0.40
28:DD:268:ARG:NH1	28:DD:268:ARG:HB3	2.36	0.40
29:DE:12:THR:HG23	40:DT:8:LYS:NZ	2.36	0.40
31:DG:17:PRO:HA	31:DG:20:ILE:CD1	2.51	0.40
33:DI:56:LYS:HE3	33:DI:56:LYS:HB2	1.88	0.40
34:DN:70:LYS:O	34:DN:86:PRO:HA	2.21	0.40
37:DQ:108:GLY:O	37:DQ:109:VAL:HG23	2.21	0.40
39:DS:89:ARG:CD	39:DS:92:TYR:HA	2.40	0.40
40:DT:28:VAL:CG2	40:DT:46:GLU:HG3	2.51	0.40
40:DT:53:ARG:HD2	40:DT:60:THR:OG1	2.21	0.40
41:DU:61:TRP:O	41:DU:62:ILE:C	2.62	0.40
42:DV:5:VAL:HG11	42:DV:14:VAL:HG11	2.02	0.40
45:DY:31:LEU:CB	45:DY:32:PRO:CA	2.95	0.40
49:D2:3:LEU:O	49:D2:6:VAL:HB	2.21	0.40
1:AA:151:G:H1	1:AA:158:U:H3	1.70	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:486:C:O2'	1:AA:487:C:H5'	2.21	0.40
1:AA:722:C:HO2'	15:AO:42:HIS:HD1	1.57	0.40
1:AA:821:G:H2'	1:AA:822:U:H5''	2.03	0.40
1:AA:881:C:C4	1:AA:882:U:C4	3.09	0.40
1:AA:932:U:OP1	13:AM:120:LYS:NZ	2.42	0.40
1:AA:1099:G:H4'	9:AI:104:ARG:NH1	2.36	0.40
1:AA:1203:G:H2'	1:AA:1204:C:O4'	2.21	0.40
1:AA:1279:C:H4'	1:AA:1280:A:C4	2.56	0.40
1:AA:1289:U:C5	13:AM:99:ARG:NH1	2.89	0.40
1:AA:1425:G:C3'	1:AA:1426:A:C5'	2.80	0.40
1:AA:1494:G:C5	1:AA:1495:A:C5	3.09	0.40
2:AB:131:PRO:C	2:AB:133:LYS:N	2.77	0.40
2:AB:194:PRO:CB	2:AB:200:ILE:CD1	2.99	0.40
2:AB:204:ASN:CG	2:AB:205:ASP:N	2.80	0.40
2:AB:235:SER:OG	2:AB:236:TYR:CD1	2.68	0.40
3:AC:15:THR:CG2	3:AC:16:ARG:H	2.34	0.40
3:AC:19:GLU:O	3:AC:40:ARG:NH2	2.52	0.40
3:AC:119:ARG:HG3	3:AC:119:ARG:NH1	2.37	0.40
4:AD:91:SER:O	4:AD:92:VAL:C	2.64	0.40
4:AD:147:ALA:HB2	4:AD:182:LYS:CB	2.51	0.40
5:AE:15:ARG:C	5:AE:16:THR:O	2.63	0.40
5:AE:69:VAL:HG12	5:AE:71:LEU:HG	2.03	0.40
6:AF:11:ASN:O	6:AF:14:LEU:HG	2.21	0.40
6:AF:87:ARG:HH11	6:AF:87:ARG:HG2	1.85	0.40
6:AF:100:ASN:O	6:AF:101:ALA:O	2.39	0.40
8:AH:23:SER:HB2	8:AH:61:VAL:C	2.46	0.40
8:AH:38:ILE:HG12	8:AH:41:ARG:HH11	1.86	0.40
12:AL:8:ASN:OD1	17:AQ:34:LYS:HE2	2.22	0.40
12:AL:73:GLU:HA	12:AL:73:GLU:OE1	2.20	0.40
15:AO:53:HIS:O	15:AO:54:ARG:C	2.63	0.40
17:AQ:92:ARG:O	17:AQ:95:TYR:CD2	2.74	0.40
23:AV:51:U:H6	23:AV:51:U:OP2	2.04	0.40
23:AV:53:G:O2'	23:AV:54:G:P	2.79	0.40
25:BA:52:A:O2'	25:BA:53:A:H5'	2.21	0.40
25:BA:291:C:N4	25:BA:349:G:N1	2.64	0.40
25:BA:458:G:O2'	25:BA:469:G:O6	2.39	0.40
25:BA:614(C):A:O2'	25:BA:615:G:H5'	2.18	0.40
25:BA:829:A:N7	25:BA:2248:C:H5'	2.36	0.40
25:BA:1188:U:C4'	42:BV:79:VAL:HG22	2.50	0.40
25:BA:1324:G:H1'	25:BA:1616:A:N6	2.36	0.40
25:BA:1578:U:C2'	25:BA:1579:A:C5'	2.96	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1859:A:N6	25:BA:1883:G:O2'	2.54	0.40
25:BA:2065:C:H2'	25:BA:2066:C:C6	2.56	0.40
25:BA:2330:G:H2'	25:BA:2331:G:O4'	2.21	0.40
25:BA:2665:A:O2'	25:BA:2666:C:H5'	2.21	0.40
25:BA:2739:U:O2'	25:BA:2740:A:H5'	2.21	0.40
26:BB:43:C:H3'	26:BB:44:G:H5'	2.03	0.40
27:BC:122:ALA:HB1	27:BC:129:ARG:CB	2.52	0.40
27:BC:208:PHE:O	27:BC:209:LEU:CB	2.69	0.40
28:BD:18:VAL:HG13	28:BD:211:ARG:HH12	1.86	0.40
29:BE:57:LYS:C	29:BE:59:VAL:N	2.79	0.40
30:BF:22:ALA:C	30:BF:24:LEU:N	2.77	0.40
30:BF:25:PRO:HB3	30:BF:119:ARG:HD3	2.02	0.40
30:BF:127:GLU:HB2	30:BF:196:LEU:HD11	2.03	0.40
31:BG:160:VAL:CG1	31:BG:161:THR:N	2.84	0.40
32:BH:54:ARG:O	32:BH:54:ARG:CG	2.66	0.40
32:BH:68:THR:O	32:BH:70:THR:O	2.39	0.40
33:BI:60:GLU:C	33:BI:62:LYS:H	2.26	0.40
33:BI:88:ILE:HG12	33:BI:122:GLU:CA	2.51	0.40
34:BN:91:LEU:HD23	34:BN:98:VAL:HG21	2.03	0.40
42:BV:17:GLY:C	42:BV:18:LEU:HD12	2.47	0.40
45:BY:14:LEU:HG	45:BY:15:VAL:N	2.36	0.40
46:BZ:14:LYS:O	46:BZ:15:PRO:C	2.64	0.40
48:B1:57:GLU:O	48:B1:58:ILE:C	2.64	0.40
1:CA:400:U:H3'	1:CA:401:G:H5'	2.03	0.40
1:CA:733:G:H1'	15:CO:23:GLY:N	2.34	0.40
1:CA:869:A:N1	1:CA:884:A:C4	2.89	0.40
1:CA:875:G:N2	1:CA:878:A:OP2	2.49	0.40
1:CA:1283:U:P	13:CM:13:LYS:NZ	2.94	0.40
1:CA:1328:G:H5''	9:CI:107:ARG:CB	2.50	0.40
1:CA:1426:A:C8	40:DT:118:ARG:NH1	2.90	0.40
2:CB:19:HIS:CE1	2:CB:189:ASP:OD2	2.74	0.40
2:CB:74:LYS:HE3	2:CB:166:ASP:HB3	2.02	0.40
2:CB:77:ALA:CB	2:CB:211:ILE:HD13	2.52	0.40
3:CC:191:THR:HB	3:CC:192:THR:H	1.79	0.40
4:CD:120:LEU:O	4:CD:121:VAL:C	2.64	0.40
4:CD:149:ALA:O	4:CD:150:GLU:C	2.63	0.40
5:CE:63:ARG:C	5:CE:65:ASN:N	2.77	0.40
6:CF:97:PHE:N	18:CR:30:ASP:OD1	2.53	0.40
7:CG:104:LEU:HD13	7:CG:134:ALA:CB	2.51	0.40
7:CG:113:GLU:HB3	7:CG:118:VAL:HG23	2.02	0.40
7:CG:151:TYR:CD1	7:CG:151:TYR:N	2.89	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:103:VAL:HB	8:CH:108:GLY:C	2.47	0.40
11:CK:82:VAL:CG1	11:CK:108:ILE:HG12	2.51	0.40
13:CM:15:VAL:HG22	13:CM:43:THR:O	2.21	0.40
13:CM:82:MET:O	13:CM:83:ASP:O	2.40	0.40
15:CO:56:LEU:HD21	25:DA:715:G:N3	2.35	0.40
15:CO:61:GLY:O	15:CO:65:ARG:HD3	2.21	0.40
23:CV:4:G:C2	23:CV:5:G:N9	2.90	0.40
23:CV:51:U:N3	23:CV:52:C:H5	2.19	0.40
23:CV:56:U:C5	23:CV:58:A:OP2	2.74	0.40
22:CY:30:G:H2'	22:CY:30:G:N3	2.36	0.40
25:DA:526:A:O2'	25:DA:2043:C:O2	2.38	0.40
25:DA:1115:G:H2'	25:DA:1116:C:C6	2.56	0.40
25:DA:1252:G:C2	25:DA:1253:A:C2	3.09	0.40
25:DA:1458:C:H4'	25:DA:1459:G:O5'	2.22	0.40
25:DA:1796:U:H2'	25:DA:1797:C:H6	1.83	0.40
25:DA:1808:U:H2'	25:DA:1809:A:O4'	2.20	0.40
25:DA:2033:A:O2'	25:DA:2034:U:P	2.79	0.40
25:DA:2302:G:C6	25:DA:2315:G:C5	3.10	0.40
25:DA:2306:C:C5	25:DA:2307:G:H1'	2.56	0.40
25:DA:2536:G:C6	25:DA:2537:U:C4	3.10	0.40
26:DB:39:A:N3	26:DB:39:A:H2'	2.37	0.40
26:DB:40:U:HO2'	26:DB:43:C:H5	1.63	0.40
28:DD:18:VAL:HG13	28:DD:211:ARG:HH12	1.86	0.40
28:DD:182:LEU:N	28:DD:272:ALA:HB3	2.36	0.40
30:DF:127:GLU:HG2	30:DF:196:LEU:HD11	2.02	0.40
33:DI:92:VAL:O	33:DI:92:VAL:HG13	2.20	0.40
33:DI:127:VAL:HA	33:DI:139:GLN:HA	2.03	0.40
34:DN:3:THR:HG22	34:DN:5:VAL:CG1	2.51	0.40
34:DN:104:LYS:C	34:DN:106:MET:H	2.30	0.40
36:DP:114:ILE:HD12	36:DP:115:LEU:H	1.84	0.40
37:DQ:51:ARG:CG	37:DQ:51:ARG:NH1	2.84	0.40
38:DR:48:VAL:O	38:DR:49:ASP:C	2.63	0.40
39:DS:51:ALA:HB3	39:DS:73:LEU:HB2	2.03	0.40
41:DU:55:ARG:HA	41:DU:58:ARG:HD2	2.03	0.40
41:DU:98:LEU:O	41:DU:99:ALA:C	2.64	0.40
42:DV:66:ARG:HH11	42:DV:66:ARG:HG2	1.85	0.40
46:DZ:39:VAL:HG21	46:DZ:44:PHE:HB2	2.02	0.40
46:DZ:63:ASP:O	46:DZ:65:GLN:N	2.46	0.40
47:D0:42:GLY:HA2	47:D0:57:PHE:CE2	2.56	0.40
52:D5:52:TYR:C	52:D5:54:GLY:N	2.78	0.40
53:D6:25:LYS:CD	55:D8:34:TRP:HZ2	2.33	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:583:C:C2	1:AA:622:G:N2	2.89	0.40
1:AA:1269:A:C5	1:AA:1270:A:N7	2.89	0.40
2:AB:114:ARG:HH12	2:AB:118:LEU:HD11	1.86	0.40
2:AB:208:ILE:O	2:AB:212:GLN:HB2	2.21	0.40
2:AB:219:VAL:HA	2:AB:222:ILE:HG13	2.02	0.40
4:AD:92:VAL:O	4:AD:93:PHE:C	2.63	0.40
5:AE:63:ARG:C	5:AE:65:ASN:N	2.78	0.40
8:AH:21:LYS:HE3	8:AH:21:LYS:HB2	1.97	0.40
8:AH:52:ASP:C	8:AH:53:VAL:CG2	2.94	0.40
8:AH:87:SER:HB3	8:AH:133:LEU:O	2.21	0.40
9:AI:50:LEU:HA	9:AI:53:VAL:HG22	2.02	0.40
10:AJ:63:PHE:HA	14:AN:59:ALA:H	1.86	0.40
17:AQ:87:LYS:O	17:AQ:88:TYR:C	2.62	0.40
23:AV:49:C:O2	23:AV:49:C:C2'	2.69	0.40
22:AY:37:A:C3'	22:AY:38:A:O4'	2.70	0.40
25:BA:7:G:OP1	34:BN:121:LYS:NZ	2.54	0.40
25:BA:27:G:O2'	25:BA:28:A:C8	2.54	0.40
25:BA:253:C:O2'	25:BA:254:G:H5'	2.22	0.40
25:BA:614(B):G:H5''	25:BA:614(C):A:OP1	2.21	0.40
25:BA:792:G:C4'	25:BA:793:A:H5'	2.52	0.40
25:BA:850:C:O2'	25:BA:851:U:H5'	2.20	0.40
25:BA:1290:C:C2	25:BA:1291:C:C5	3.09	0.40
25:BA:1512:U:H2'	25:BA:1513:C:C6	2.56	0.40
25:BA:1572:A:O5'	25:BA:1572:A:H8	2.04	0.40
25:BA:1762:A:O5'	25:BA:1762:A:C8	2.69	0.40
25:BA:2091:U:O2'	48:B1:47:GLN:HG3	2.21	0.40
25:BA:2147:G:C2'	25:BA:2148:G:O4'	2.68	0.40
25:BA:2536:G:C6	25:BA:2537:U:C4	3.09	0.40
25:BA:2607:G:H2'	25:BA:2608:G:O4'	2.21	0.40
25:BA:2745:C:H2'	25:BA:2746:U:H6	1.83	0.40
25:BA:2795:G:H2'	25:BA:2795:G:N3	2.37	0.40
28:BD:161:THR:H	28:BD:196:VAL:HB	1.86	0.40
29:BE:6:GLY:CA	29:BE:27:LEU:O	2.69	0.40
29:BE:33:VAL:HG12	29:BE:90:THR:H	1.85	0.40
29:BE:57:LYS:HZ3	29:BE:59:VAL:HG12	1.87	0.40
30:BF:192:LEU:HD21	30:BF:194:MET:CE	2.42	0.40
30:BF:195:ASP:HB2	30:BF:198:ALA:HB2	2.02	0.40
31:BG:148:MET:HE3	31:BG:148:MET:HA	2.04	0.40
32:BH:54:ARG:HB3	32:BH:65:HIS:HD2	1.86	0.40
32:BH:158:HIS:NE2	32:BH:169:VAL:C	2.80	0.40
33:BI:58:LEU:C	33:BI:60:GLU:N	2.78	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BI:127:VAL:HA	33:BI:139:GLN:HA	2.04	0.40
34:BN:103:VAL:O	34:BN:106:MET:N	2.43	0.40
34:BN:107:LEU:O	34:BN:108:PRO:C	2.63	0.40
36:BP:83:VAL:HG23	36:BP:105:LEU:HD12	2.01	0.40
37:BQ:16:ARG:CG	37:BQ:17:LEU:N	2.83	0.40
39:BS:29:PHE:HD2	39:BS:30:ARG:N	2.19	0.40
42:BV:20:LEU:N	42:BV:20:LEU:HD12	2.36	0.40
42:BV:47:VAL:O	42:BV:49:THR:O	2.39	0.40
45:BY:42:VAL:CG1	45:BY:65:ALA:HB3	2.51	0.40
46:BZ:33:LEU:CD1	46:BZ:34:ASN:H	2.31	0.40
46:BZ:42:VAL:CG1	46:BZ:43:GLU:N	2.84	0.40
47:B0:42:GLY:HA2	47:B0:57:PHE:CE2	2.56	0.40
52:B5:40:LYS:C	52:B5:40:LYS:CD	2.94	0.40
54:B7:47:ARG:CD	54:B7:47:ARG:C	2.94	0.40
1:CA:1374:G:N7	1:CA:1375:U:C5	2.89	0.40
2:CB:22:LYS:NZ	2:CB:35:GLU:OE1	2.54	0.40
2:CB:69:LEU:HD12	2:CB:69:LEU:C	2.47	0.40
3:CC:22:TRP:CE3	3:CC:22:TRP:O	2.75	0.40
3:CC:53:ALA:HB2	3:CC:115:LEU:CD2	2.51	0.40
3:CC:53:ALA:HB2	3:CC:115:LEU:HG	2.03	0.40
3:CC:123:GLN:C	3:CC:128:PHE:HB2	2.46	0.40
4:CD:58:LEU:HD22	4:CD:58:LEU:C	2.47	0.40
8:CH:34:GLU:OE1	8:CH:34:GLU:HA	2.22	0.40
8:CH:36:LEU:O	8:CH:39:LEU:N	2.55	0.40
8:CH:38:ILE:HD12	8:CH:118:VAL:HG12	2.02	0.40
9:CI:47:LEU:N	9:CI:47:LEU:HD12	2.37	0.40
9:CI:118:LYS:C	9:CI:120:ARG:N	2.80	0.40
12:CL:58:VAL:O	12:CL:60:LEU:HD22	2.21	0.40
13:CM:70:LEU:C	13:CM:70:LEU:HD22	2.41	0.40
13:CM:78:ILE:HG23	13:CM:92:HIS:ND1	2.37	0.40
15:CO:38:ARG:HH11	15:CO:38:ARG:HG2	1.86	0.40
16:CP:20:VAL:CG2	16:CP:21:VAL:N	2.83	0.40
19:CS:51:VAL:HG12	19:CS:52:TYR:N	2.36	0.40
20:CT:53:LEU:HA	20:CT:56:MET:HE2	2.01	0.40
23:CV:4:G:H21	23:CV:5:G:H1'	1.86	0.40
23:CV:49:C:O2'	23:CV:50:G:P	2.79	0.40
25:DA:125:G:C6	54:D7:10:ARG:HG3	2.56	0.40
25:DA:271(R):G:H2'	25:DA:271(S):G:C8	2.56	0.40
25:DA:590:A:H2'	25:DA:591:C:C6	2.56	0.40
25:DA:747:U:H5	52:D5:3:LYS:HB2	1.81	0.40
25:DA:833:U:H2'	25:DA:834:C:C6	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:915:C:C4	25:DA:916:G:C5	3.09	0.40
25:DA:1108:U:C2'	25:DA:1109:C:H5'	2.49	0.40
25:DA:1142(A):A:C4	25:DA:1144:G:C8	3.09	0.40
25:DA:1159:U:OP2	50:D3:30:ARG:NH2	2.55	0.40
25:DA:1349:A:N6	25:DA:1598:C:N4	2.68	0.40
25:DA:1473:G:C2'	25:DA:1474:C:H5'	2.51	0.40
25:DA:1555:G:N2	25:DA:1556:C:C2	2.89	0.40
25:DA:1567:A:H2'	28:DD:84:TYR:CE2	2.57	0.40
25:DA:1591:G:O2'	25:DA:1592:C:H5'	2.21	0.40
25:DA:1654:A:N6	25:DA:2006:C:O4'	2.54	0.40
25:DA:2104:G:C6	25:DA:2105:C:C4	3.09	0.40
25:DA:2305:A:C4	31:DG:154:GLY:HA3	2.57	0.40
25:DA:2488:A:H2'	25:DA:2489:G:O4'	2.19	0.40
26:DB:65:C:H2'	26:DB:66:A:H5'	2.04	0.40
27:DC:36:LYS:O	27:DC:37:PHE:C	2.64	0.40
27:DC:147:PHE:O	27:DC:148:ASN:CB	2.69	0.40
28:DD:31:LYS:HD2	28:DD:31:LYS:HA	1.98	0.40
28:DD:127:VAL:HA	28:DD:193:VAL:HG22	2.03	0.40
28:DD:176:ARG:CG	28:DD:176:ARG:NH1	2.83	0.40
28:DD:266:SER:C	28:DD:267:SER:O	2.64	0.40
29:DE:9:VAL:CG1	29:DE:25:VAL:HG12	2.52	0.40
31:DG:148:MET:HA	31:DG:148:MET:HE3	2.03	0.40
32:DH:27:LYS:HG2	32:DH:32:GLU:HB2	2.04	0.40
32:DH:68:THR:O	32:DH:70:THR:O	2.39	0.40
32:DH:158:HIS:NE2	32:DH:170:ARG:HA	2.37	0.40
33:DI:99:GLU:HB3	33:DI:103:ARG:NH1	2.37	0.40
33:DI:110:ASP:O	33:DI:114:LEU:CD2	2.70	0.40
34:DN:29:LYS:C	34:DN:31:ALA:N	2.75	0.40
36:DP:17:LYS:O	36:DP:17:LYS:CG	2.69	0.40
38:DR:12:ARG:HG3	38:DR:12:ARG:NH1	2.36	0.40
39:DS:17:ARG:NH2	39:DS:90:GLY:H	2.18	0.40
43:DW:18:ARG:HH11	43:DW:18:ARG:HG2	1.86	0.40
43:DW:46:PHE:O	43:DW:50:VAL:HG12	2.21	0.40
46:DZ:4:ARG:HE	46:DZ:60:GLU:HG3	1.87	0.40
46:DZ:14:LYS:O	46:DZ:15:PRO:C	2.64	0.40
49:D2:67:LYS:O	49:D2:69:ARG:N	2.54	0.40
51:D4:39:ARG:C	51:D4:40:ILE:HD12	2.47	0.40
53:D6:48:VAL:HG23	53:D6:49:HIS:N	2.37	0.40
1:AA:442:A:C5	1:AA:471:A:C2	3.10	0.40
1:AA:536:A:H2'	1:AA:537:C:C6	2.56	0.40
1:AA:669:U:O4	1:AA:686:G:O2'	2.30	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:744:G:C5	1:AA:745:C:C5	3.10	0.40
1:AA:926:A:C2	1:AA:1214:G:C2	3.09	0.40
1:AA:1057:C:H6	1:AA:1057:C:O5'	2.04	0.40
1:AA:1426:A:O2'	1:AA:1427:G:C8	2.75	0.40
2:AB:17:PHE:HD2	2:AB:17:PHE:H	1.68	0.40
2:AB:22:LYS:NZ	2:AB:35:GLU:OE1	2.54	0.40
3:AC:22:TRP:CE3	3:AC:22:TRP:O	2.74	0.40
4:AD:87:GLY:O	4:AD:89:THR:N	2.54	0.40
4:AD:135:LEU:HD13	4:AD:135:LEU:N	2.37	0.40
5:AE:51:VAL:O	5:AE:52:PRO:C	2.65	0.40
5:AE:87:SER:N	5:AE:125:SER:HB3	2.36	0.40
8:AH:58:TYR:HB3	8:AH:59:LEU:H	1.77	0.40
8:AH:84:ARG:CG	8:AH:85:ARG:N	2.77	0.40
8:AH:109:ILE:HD11	8:AH:120:THR:HG22	2.02	0.40
8:AH:109:ILE:CG1	8:AH:110:ALA:H	2.22	0.40
9:AI:8:GLY:O	9:AI:14:VAL:HG13	2.21	0.40
9:AI:14:VAL:CG1	9:AI:15:ALA:N	2.84	0.40
10:AJ:95:GLU:HA	10:AJ:95:GLU:OE2	2.21	0.40
11:AK:21:ILE:HG13	11:AK:30:VAL:CG1	2.49	0.40
11:AK:108:ILE:O	18:AR:86:VAL:HG13	2.21	0.40
13:AM:73:GLU:O	13:AM:77:ASN:HB2	2.21	0.40
17:AQ:74:LEU:HD22	17:AQ:74:LEU:HA	1.87	0.40
22:AW:58:A:C2	22:AW:61:C:C6	3.09	0.40
25:BA:660:G:H5'	30:BF:99:TYR:CD2	2.56	0.40
25:BA:668:G:H2'	25:BA:670:A:H62	1.86	0.40
25:BA:676:A:C2	25:BA:802:A:N6	2.83	0.40
25:BA:925:C:O2'	25:BA:926:A:H5''	2.20	0.40
25:BA:1014:U:H2'	25:BA:1015:G:H8	1.87	0.40
25:BA:1264:G:H5'	52:B5:11:THR:HG1	1.83	0.40
25:BA:1341:U:H2'	25:BA:1397:U:O2	2.20	0.40
25:BA:1362:C:O2'	25:BA:1363:C:H5'	2.22	0.40
25:BA:1555:G:N2	25:BA:1556:C:C2	2.89	0.40
25:BA:2116:G:O2'	25:BA:2117:A:OP1	2.38	0.40
25:BA:2206:G:N3	25:BA:2207:G:H5'	2.36	0.40
25:BA:2231:C:H2'	25:BA:2232:U:O4'	2.21	0.40
25:BA:2239:G:OP1	28:BD:244:ARG:NH1	2.54	0.40
25:BA:2528:U:P	56:B9:30:PRO:HG2	2.62	0.40
25:BA:2729:G:H5'	29:BE:22:PRO:HG3	2.03	0.40
25:BA:2791:C:H41	25:BA:2803:C:N4	2.18	0.40
25:BA:2892:A:C8	25:BA:2893:G:O4'	2.75	0.40
26:BB:40:U:H1'	26:BB:45:A:N6	2.37	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BB:65:C:H2'	26:BB:66:A:H5'	2.04	0.40
27:BC:107:TRP:O	27:BC:108:MET:CB	2.69	0.40
28:BD:132:PRO:HD3	28:BD:190:TYR:CZ	2.56	0.40
28:BD:268:ARG:HB3	28:BD:268:ARG:CZ	2.51	0.40
29:BE:93:VAL:HG13	29:BE:182:LEU:HD13	2.03	0.40
30:BF:195:ASP:HB2	30:BF:198:ALA:CB	2.51	0.40
36:BP:65:ARG:CZ	55:B8:15:LYS:HB2	2.50	0.40
36:BP:113:LYS:HG2	36:BP:115:LEU:HD22	2.03	0.40
38:BR:79:LEU:HD23	38:BR:83:ILE:HB	2.03	0.40
38:BR:84:ALA:N	38:BR:85:PRO:CD	2.84	0.40
38:BR:86:ARG:NE	38:BR:118:GLU:OE2	2.55	0.40
39:BS:84:GLN:C	39:BS:85:VAL:HG13	2.47	0.40
40:BT:102:ILE:H	40:BT:102:ILE:HG13	1.40	0.40
40:BT:113:LYS:HD2	40:BT:113:LYS:HA	1.92	0.40
42:BV:13:ARG:O	42:BV:13:ARG:HG2	2.21	0.40
46:BZ:129:SER:HA	46:BZ:130:PRO:HD3	1.94	0.40
47:B0:41:ARG:HD3	47:B0:44:ARG:HD2	2.03	0.40
48:B1:18:ILE:HG22	48:B1:20:ARG:HG3	2.03	0.40
55:B8:6:THR:HA	55:B8:61:LEU:HD11	2.03	0.40
1:CA:227:G:C5	1:CA:228:C:C5	3.09	0.40
1:CA:319:G:C5'	20:CT:70:SER:CB	2.95	0.40
1:CA:343:G:O2'	1:CA:344:A:OP1	2.38	0.40
1:CA:371:G:OP1	16:CP:5:ARG:HB2	2.21	0.40
1:CA:521:G:H5''	12:CL:114:LYS:HB2	2.03	0.40
1:CA:525:G:H5'	4:CD:41:GLY:HA3	2.04	0.40
1:CA:1269:A:H2'	1:CA:1270:A:C8	2.57	0.40
1:CA:1477:A:C2'	1:CA:1478:C:H5'	2.52	0.40
3:CC:6:HIS:CD2	3:CC:8:ILE:H	2.39	0.40
3:CC:127:ARG:HG2	3:CC:127:ARG:NH1	2.37	0.40
4:CD:24:GLU:O	4:CD:27:TYR:HB2	2.22	0.40
4:CD:29:PRO:O	4:CD:30:LYS:CB	2.69	0.40
5:CE:110:LEU:HD13	5:CE:118:ILE:HG21	2.02	0.40
7:CG:46:ALA:O	7:CG:49:ILE:N	2.53	0.40
7:CG:47:CYS:C	7:CG:49:ILE:N	2.73	0.40
7:CG:78:ARG:CD	7:CG:79:ARG:N	2.85	0.40
8:CH:21:LYS:HE3	8:CH:21:LYS:HB2	1.98	0.40
8:CH:30:ARG:HB3	8:CH:30:ARG:NH1	2.37	0.40
8:CH:109:ILE:CG2	8:CH:137:VAL:HB	2.52	0.40
9:CI:50:LEU:HD13	9:CI:55:ALA:O	2.21	0.40
10:CJ:78:ASN:HD21	10:CJ:80:LYS:HB2	1.84	0.40
11:CK:105:VAL:HG23	11:CK:105:VAL:O	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:76:ALA:C	13:CM:79:LYS:HB2	2.46	0.40
15:CO:63:ARG:NH1	15:CO:87:ILE:HD13	2.36	0.40
18:CR:47:THR:O	18:CR:83:GLU:HG2	2.21	0.40
19:CS:32:LYS:HG2	19:CS:57:HIS:CD2	2.56	0.40
20:CT:59:ALA:O	20:CT:60:GLU:C	2.65	0.40
22:CW:53:G:C2'	22:CW:54:U:O5'	2.70	0.40
25:DA:182:A:H2'	25:DA:183:C:O4'	2.20	0.40
25:DA:621:A:H2'	25:DA:622:G:C5'	2.50	0.40
25:DA:1149:G:H2'	25:DA:1150:C:C6	2.57	0.40
25:DA:1216:G:OP2	41:DU:12:ARG:NH2	2.47	0.40
25:DA:1655:A:H1'	29:DE:113:PHE:CD2	2.57	0.40
25:DA:2171:A:O2'	25:DA:2172:U:H2'	2.21	0.40
25:DA:2231:C:H2'	25:DA:2232:U:O4'	2.21	0.40
25:DA:2256:G:O2'	25:DA:2257:U:H5'	2.22	0.40
25:DA:2260:C:O5'	25:DA:2260:C:H6	2.04	0.40
25:DA:2327:A:H2'	25:DA:2328:A:O4'	2.21	0.40
25:DA:2795:G:H2'	25:DA:2795:G:N3	2.37	0.40
25:DA:2854:G:O2'	25:DA:2855:C:H5'	2.22	0.40
26:DB:83:G:H4'	50:D3:52:HIS:CG	2.56	0.40
26:DB:87:G:C2	26:DB:91:C:N3	2.90	0.40
28:DD:147:LEU:HD13	28:DD:155:LEU:CD1	2.48	0.40
29:DE:75:VAL:HG12	29:DE:76:ARG:N	2.35	0.40
31:DG:60:LEU:HD22	31:DG:63:ILE:HD11	2.03	0.40
32:DH:15:VAL:HG23	32:DH:15:VAL:O	2.21	0.40
32:DH:158:HIS:NE2	32:DH:169:VAL:C	2.80	0.40
33:DI:110:ASP:O	33:DI:114:LEU:HG	2.20	0.40
34:DN:26:LEU:HD23	34:DN:99:LEU:HD21	2.04	0.40
34:DN:78:TYR:HD1	34:DN:78:TYR:H	1.68	0.40
39:DS:34:HIS:HE1	39:DS:55:ALA:HB2	1.87	0.40
39:DS:48:LEU:N	39:DS:48:LEU:CD1	2.85	0.40
41:DU:104:GLN:HB2	42:DV:44:LYS:NZ	2.36	0.40
42:DV:53:GLU:C	42:DV:55:ALA:N	2.78	0.40
46:DZ:99:TYR:N	46:DZ:99:TYR:HD2	2.16	0.40
47:D0:45:PHE:CD1	47:D0:45:PHE:N	2.89	0.40
50:D3:11:SER:OG	50:D3:12:PRO:HD2	2.21	0.40
1:AA:451:C:C4	1:AA:452:C:N4	2.89	0.40
1:AA:1005:C:C3'	1:AA:1005:C:C6	3.04	0.40
1:AA:1308:C:H2'	1:AA:1309:C:C6	2.57	0.40
1:AA:1421:C:H5'	1:AA:1422:C:OP2	2.21	0.40
2:AB:80:ILE:O	2:AB:82:ARG:N	2.54	0.40
2:AB:213:LEU:O	2:AB:216:SER:HB3	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:91:LEU:O	3:AC:95:THR:HB	2.22	0.40
3:AC:101:LEU:HD23	3:AC:102:ASN:O	2.21	0.40
3:AC:191:THR:HB	3:AC:192:THR:H	1.79	0.40
3:AC:196:LEU:HB3	3:AC:197:GLY:H	1.73	0.40
4:AD:106:TYR:CE1	4:AD:113:SER:HA	2.57	0.40
7:AG:50:ILE:CG2	7:AG:61:VAL:HG21	2.51	0.40
7:AG:120:ILE:HG22	7:AG:124:LEU:HD12	2.03	0.40
10:AJ:21:GLN:HG2	10:AJ:21:GLN:O	2.21	0.40
10:AJ:32:ALA:N	10:AJ:76:ASN:HD22	2.17	0.40
11:AK:59:TYR:O	11:AK:63:LEU:HB2	2.21	0.40
12:AL:76:ASN:ND2	12:AL:77:LEU:N	2.68	0.40
15:AO:27:VAL:O	15:AO:31:LEU:HB2	2.21	0.40
18:AR:75:ILE:C	18:AR:77:GLY:H	2.29	0.40
19:AS:16:LEU:CD1	19:AS:16:LEU:H	2.35	0.40
20:AT:41:ILE:HG13	20:AT:42:GLN:N	2.36	0.40
22:AW:41:C:C2	22:AW:42:C:C5	3.10	0.40
23:AV:21:U:O2	23:AV:21:U:O4'	2.40	0.40
23:AV:34:U:H2'	23:AV:35:C:C3'	2.46	0.40
23:AV:75:C:C2	25:BA:2253:G:N2	2.90	0.40
25:BA:271(J):C:C2'	25:BA:271(K):U:H5''	2.52	0.40
25:BA:271(X):G:H2'	25:BA:271(Y):U:C6	2.57	0.40
25:BA:272:G:C6	25:BA:421:U:N3	2.84	0.40
25:BA:496:G:H1'	43:BW:61:ASN:OD1	2.21	0.40
25:BA:549:G:O5'	25:BA:549:G:C8	2.62	0.40
25:BA:615:G:C2	25:BA:616:G:C4	3.10	0.40
25:BA:1140:C:H1'	25:BA:1143:A:N3	2.37	0.40
25:BA:1175:U:H5''	25:BA:1176:G:H8	1.87	0.40
25:BA:1287:A:C4	25:BA:1288:U:C4	3.07	0.40
25:BA:1419:A:H2'	25:BA:1421:G:N7	2.35	0.40
25:BA:1497:U:H3	25:BA:1578:U:P	2.44	0.40
25:BA:2260:C:H6	25:BA:2260:C:O5'	2.04	0.40
25:BA:2391:G:C1'	25:BA:2429:G:N2	2.78	0.40
25:BA:2562:U:H1'	35:BO:23:ARG:HH12	1.75	0.40
25:BA:2585:U:H3'	25:BA:2585:U:C6	2.57	0.40
25:BA:2630:G:H1'	25:BA:2894:G:C4	2.57	0.40
25:BA:2810:A:O2'	29:BE:61:ARG:HB2	2.21	0.40
27:BC:86:ALA:HB2	27:BC:152:ILE:CB	2.51	0.40
28:BD:28:GLU:N	28:BD:29:PRO:CD	2.64	0.40
28:BD:176:ARG:CG	28:BD:176:ARG:NH1	2.83	0.40
30:BF:197:ASP:O	30:BF:200:GLU:N	2.36	0.40
34:BN:79:PRO:C	34:BN:81:GLY:N	2.77	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BN:93:THR:O	34:BN:94:HIS:CB	2.70	0.40
35:BO:100:GLY:HA2	35:BO:101:PRO:HD3	1.83	0.40
36:BP:51:PHE:CZ	36:BP:52:GLU:OE1	2.75	0.40
38:BR:54:LEU:HD21	38:BR:65:LEU:HB3	2.03	0.40
39:BS:20:ARG:HD3	39:BS:20:ARG:HA	1.76	0.40
40:BT:15:VAL:HG23	40:BT:79:HIS:NE2	2.36	0.40
40:BT:93:ARG:HB3	40:BT:94:ALA:H	1.77	0.40
42:BV:39:LEU:N	42:BV:39:LEU:HD22	2.36	0.40
42:BV:39:LEU:CB	42:BV:47:VAL:HG11	2.31	0.40
42:BV:66:ARG:HH11	42:BV:66:ARG:HG2	1.85	0.40
42:BV:77:ALA:O	42:BV:78:LYS:C	2.64	0.40
46:BZ:33:LEU:CG	46:BZ:34:ASN:N	2.83	0.40
46:BZ:45:ASP:HB3	46:BZ:46:LYS:H	1.66	0.40
48:B1:67:ILE:O	48:B1:70:VAL:HB	2.21	0.40
49:B2:59:ARG:O	49:B2:62:THR:HB	2.21	0.40
55:B8:22:VAL:CG2	55:B8:53:PRO:HB2	2.52	0.40
1:CA:259:U:O2'	17:CQ:64:PRO:HB2	2.21	0.40
1:CA:414:C:O2	1:CA:414:C:C2'	2.66	0.40
1:CA:608:G:H4'	16:CP:16:HIS:CD2	2.57	0.40
1:CA:626:C:H5'	8:CH:31:PHE:CE1	2.57	0.40
1:CA:653:G:C6	1:CA:654:G:N7	2.90	0.40
1:CA:691:C:O2'	1:CA:692:G:H5'	2.22	0.40
1:CA:869:A:H2'	1:CA:870:C:C6	2.56	0.40
1:CA:1044:U:H2'	1:CA:1045:C:C6	2.56	0.40
1:CA:1056:G:C1'	2:CB:104:ASN:HD22	2.35	0.40
1:CA:1291:G:O2'	1:CA:1292:G:H5'	2.21	0.40
2:CB:131:PRO:HG2	2:CB:134:GLU:CB	2.45	0.40
3:CC:39:ILE:C	3:CC:41:GLY:H	2.29	0.40
3:CC:92:ALA:O	3:CC:94:LEU:N	2.55	0.40
3:CC:119:ARG:HG3	3:CC:119:ARG:NH1	2.36	0.40
4:CD:106:TYR:CE1	4:CD:113:SER:HA	2.56	0.40
5:CE:15:ARG:C	5:CE:16:THR:O	2.65	0.40
8:CH:37:ARG:HH21	8:CH:38:ILE:CG1	2.34	0.40
8:CH:105:ARG:HD3	8:CH:105:ARG:HA	1.89	0.40
11:CK:48:ILE:CD1	11:CK:64:ALA:HA	2.45	0.40
12:CL:73:GLU:OE1	12:CL:73:GLU:HA	2.22	0.40
12:CL:86:ARG:HB2	12:CL:101:VAL:HG23	2.02	0.40
13:CM:29:ARG:HB3	13:CM:64:TRP:CZ2	2.57	0.40
18:CR:32:ARG:O	18:CR:69:THR:HG21	2.21	0.40
20:CT:55:ILE:O	20:CT:58:LYS:HB3	2.21	0.40
22:CW:4:C:N3	22:CW:70:G:C2	2.90	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:CX:13:A:H5'	24:CX:14:A:OP2	2.21	0.40
25:DA:184:C:H2'	25:DA:185:U:C6	2.56	0.40
25:DA:271(H):G:O6	25:DA:271(Q):G:C6	2.75	0.40
25:DA:271(X):G:H2'	25:DA:271(Y):U:C6	2.57	0.40
25:DA:298:G:H1'	25:DA:340:A:H61	1.87	0.40
25:DA:829:A:N7	25:DA:2248:C:H5'	2.36	0.40
25:DA:856:C:H4'	25:DA:857:C:OP1	2.21	0.40
25:DA:988:A:C5	50:D3:13:ILE:HG21	2.57	0.40
25:DA:1174:A:N3	25:DA:1174:A:H3'	2.37	0.40
25:DA:1176:G:O2'	25:DA:1177:A:C5'	2.70	0.40
25:DA:1183:G:O3'	50:D3:29:ARG:NH1	2.55	0.40
25:DA:1287:A:C4	25:DA:1288:U:C4	3.07	0.40
25:DA:1300:U:O2	25:DA:1626:G:H2'	2.21	0.40
25:DA:1956:U:H2'	25:DA:1957:C:H5'	2.04	0.40
25:DA:2720:U:C5'	25:DA:2721:A:OP2	2.70	0.40
25:DA:2810:A:H2'	29:DE:61:ARG:CZ	2.52	0.40
26:DB:16:G:O2'	26:DB:17:C:H5'	2.20	0.40
28:DD:231:HIS:ND1	28:DD:232:PRO:CD	2.85	0.40
29:DE:9:VAL:CG1	29:DE:25:VAL:O	2.69	0.40
30:DF:114:VAL:HG21	30:DF:202:PHE:CE2	2.57	0.40
33:DI:11:ASN:O	33:DI:12:LEU:CB	2.68	0.40
33:DI:38:LEU:HB2	33:DI:40:THR:HG23	2.02	0.40
33:DI:84:GLY:O	33:DI:85:GLU:CB	2.60	0.40
33:DI:87:LYS:HB2	33:DI:121:LYS:O	2.21	0.40
34:DN:126:PRO:C	34:DN:127:ASP:OD1	2.65	0.40
36:DP:7:ARG:O	36:DP:9:ASN:N	2.55	0.40
36:DP:111:ARG:HG3	36:DP:111:ARG:HH21	1.86	0.40
38:DR:27:SER:O	38:DR:28:LEU:C	2.65	0.40
39:DS:12:PHE:CD1	39:DS:12:PHE:C	3.00	0.40
40:DT:3:ARG:HB2	40:DT:6:LEU:CB	2.51	0.40
42:DV:25:LEU:HB2	42:DV:92:THR:HG21	2.04	0.40
42:DV:45:THR:O	42:DV:46:VAL:O	2.40	0.40
42:DV:97:LYS:HD3	42:DV:97:LYS:HA	1.89	0.40
43:DW:17:VAL:O	43:DW:20:VAL:N	2.49	0.40
45:DY:46:LYS:C	45:DY:47:LYS:CG	2.94	0.40
46:DZ:100:VAL:HG12	46:DZ:136:PHE:HA	2.03	0.40
46:DZ:171:ILE:O	46:DZ:172:ALA:CB	2.70	0.40
47:D0:51:VAL:HG21	47:D0:80:HIS:HA	2.03	0.40
47:D0:63:VAL:O	47:D0:65:GLY:N	2.54	0.40
53:D6:15:GLU:O	53:D6:15:GLU:CG	2.60	0.40
55:D8:61:LEU:HD12	55:D8:63:PRO:HD2	2.04	0.40

All (33) 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)
45:BY:55:TYR:CZ	25:DA:355:G:O2'[3_555]	0.78	1.42
45:BY:55:TYR:OH	25:DA:355:G:C2'[3_555]	1.05	1.15
50:B3:1:MET:CB	36:DP:122:PRO:CG[3_455]	1.20	1.00
50:B3:1:MET:CG	36:DP:122:PRO:CB[3_455]	1.33	0.87
45:BY:55:TYR:CE2	25:DA:355:G:O2'[3_555]	1.37	0.83
45:BY:55:TYR:OH	25:DA:355:G:O2'[3_555]	1.38	0.82
45:BY:55:TYR:CZ	25:DA:355:G:C2'[3_555]	1.38	0.82
25:BA:306:U:OP1	49:D2:18:PRO:CG[3_555]	1.49	0.71
28:BD:135:PHE:CZ	4:CD:167:GLY:CA[4_555]	1.52	0.68
42:DV:50:PRO:CD	52:D5:58:LEU:O[4_445]	1.55	0.65
28:BD:135:PHE:CE2	4:CD:167:GLY:CA[4_555]	1.57	0.63
45:BY:55:TYR:CE2	25:DA:355:G:C1'[3_555]	1.62	0.58
32:DH:47:GLU:CA	45:DY:22:GLY:O[4_445]	1.70	0.50
45:BY:55:TYR:CE2	25:DA:355:G:C2'[3_555]	1.75	0.45
43:BW:59:VAL:CG1	45:DY:90:LEU:CD2[3_555]	1.80	0.40
50:B3:1:MET:SD	36:DP:122:PRO:CB[3_455]	1.81	0.39
11:AK:99:GLN:CB	3:CC:79:ARG:NH1[4_555]	1.85	0.35
50:B3:1:MET:N	36:DP:122:PRO:CD[3_455]	1.91	0.29
25:DA:1593:G:O5'	26:DB:55:U:OP1[1_655]	1.91	0.29
45:BY:55:TYR:CE1	25:DA:355:G:O2'[3_555]	1.92	0.28
50:B3:1:MET:CB	36:DP:122:PRO:CB[3_455]	1.92	0.28
50:B3:1:MET:CB	36:DP:122:PRO:CD[3_455]	1.92	0.28
45:BY:55:TYR:OH	25:DA:355:G:C3'[3_555]	1.97	0.23
50:B3:1:MET:CA	36:DP:122:PRO:CD[3_455]	1.99	0.21
50:B3:1:MET:CG	36:DP:122:PRO:CG[3_455]	2.01	0.19
25:BA:2791:C:OP1	32:DH:101:ARG:NH2[2_455]	2.08	0.12
45:BY:56:PRO:CB	25:DA:288:C:O2'[3_555]	2.09	0.11
28:BD:134:ARG:NH1	4:CD:166:LYS:O[4_555]	2.12	0.08
42:DV:50:PRO:CB	52:D5:59:GLU:CA[4_445]	2.12	0.08
45:BY:57:GLN:N	25:DA:288:C:O2'[3_555]	2.15	0.05
28:BD:134:ARG:CZ	4:CD:166:LYS:O[4_555]	2.18	0.02
42:DV:51:VAL:O	52:D5:58:LEU:CD2[4_445]	2.18	0.02
25:BA:1593:G:N3	26:BB:54:G:OP1[1_655]	2.19	0.01

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	AB	233/256 (91%)	148 (64%)	65 (28%)	20 (9%)	0	10
2	CB	233/256 (91%)	148 (64%)	65 (28%)	20 (9%)	0	10
3	AC	205/239 (86%)	136 (66%)	45 (22%)	24 (12%)	0	5
3	CC	205/239 (86%)	137 (67%)	43 (21%)	25 (12%)	0	4
4	AD	206/209 (99%)	145 (70%)	40 (19%)	21 (10%)	0	7
4	CD	206/209 (99%)	144 (70%)	40 (19%)	22 (11%)	0	6
5	AE	149/162 (92%)	114 (76%)	19 (13%)	16 (11%)	0	6
5	CE	149/162 (92%)	114 (76%)	19 (13%)	16 (11%)	0	6
6	AF	99/101 (98%)	82 (83%)	13 (13%)	4 (4%)	2	21
6	CF	99/101 (98%)	81 (82%)	15 (15%)	3 (3%)	3	26
7	AG	153/156 (98%)	107 (70%)	32 (21%)	14 (9%)	0	9
7	CG	153/156 (98%)	107 (70%)	32 (21%)	14 (9%)	0	9
8	AH	136/138 (99%)	102 (75%)	26 (19%)	8 (6%)	1	15
8	CH	136/138 (99%)	100 (74%)	28 (21%)	8 (6%)	1	15
9	AI	125/128 (98%)	92 (74%)	21 (17%)	12 (10%)	0	8
9	CI	125/128 (98%)	93 (74%)	22 (18%)	10 (8%)	1	11
10	AJ	97/105 (92%)	66 (68%)	22 (23%)	9 (9%)	0	9
10	CJ	97/105 (92%)	67 (69%)	21 (22%)	9 (9%)	0	9
11	AK	117/129 (91%)	94 (80%)	18 (15%)	5 (4%)	2	20
11	CK	117/129 (91%)	92 (79%)	20 (17%)	5 (4%)	2	20
12	AL	123/132 (93%)	86 (70%)	24 (20%)	13 (11%)	0	6
12	CL	123/132 (93%)	85 (69%)	25 (20%)	13 (11%)	0	6
13	AM	123/126 (98%)	79 (64%)	26 (21%)	18 (15%)	0	3
13	CM	123/126 (98%)	84 (68%)	23 (19%)	16 (13%)	0	3
14	AN	58/61 (95%)	37 (64%)	9 (16%)	12 (21%)	0	1

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
14	CN	58/61 (95%)	37 (64%)	9 (16%)	12 (21%)	0	1
15	AO	86/89 (97%)	62 (72%)	19 (22%)	5 (6%)	1	16
15	CO	86/89 (97%)	63 (73%)	18 (21%)	5 (6%)	1	16
16	AP	82/88 (93%)	57 (70%)	22 (27%)	3 (4%)	2	22
16	CP	82/88 (93%)	58 (71%)	21 (26%)	3 (4%)	2	22
17	AQ	98/105 (93%)	77 (79%)	14 (14%)	7 (7%)	1	13
17	CQ	98/105 (93%)	77 (79%)	13 (13%)	8 (8%)	0	11
18	AR	68/88 (77%)	48 (71%)	15 (22%)	5 (7%)	1	12
18	CR	68/88 (77%)	45 (66%)	17 (25%)	6 (9%)	0	10
19	AS	77/93 (83%)	55 (71%)	11 (14%)	11 (14%)	0	3
19	CS	77/93 (83%)	55 (71%)	12 (16%)	10 (13%)	0	3
20	AT	97/106 (92%)	72 (74%)	14 (14%)	11 (11%)	0	5
20	CT	97/106 (92%)	72 (74%)	15 (16%)	10 (10%)	0	7
21	AU	23/27 (85%)	15 (65%)	4 (17%)	4 (17%)	0	2
21	CU	23/27 (85%)	18 (78%)	3 (13%)	2 (9%)	0	10
27	BC	183/229 (80%)	84 (46%)	45 (25%)	54 (30%)	0	0
27	DC	183/229 (80%)	84 (46%)	44 (24%)	55 (30%)	0	0
28	BD	270/276 (98%)	212 (78%)	33 (12%)	25 (9%)	0	9
28	DD	270/276 (98%)	209 (77%)	36 (13%)	25 (9%)	0	9
29	BE	203/206 (98%)	130 (64%)	35 (17%)	38 (19%)	0	2
29	DE	203/206 (98%)	129 (64%)	36 (18%)	38 (19%)	0	2
30	BF	206/210 (98%)	129 (63%)	54 (26%)	23 (11%)	0	6
30	DF	206/210 (98%)	128 (62%)	55 (27%)	23 (11%)	0	6
31	BG	179/182 (98%)	115 (64%)	39 (22%)	25 (14%)	0	3
31	DG	179/182 (98%)	114 (64%)	39 (22%)	26 (14%)	0	3
32	BH	158/180 (88%)	93 (59%)	31 (20%)	34 (22%)	0	1
32	DH	158/180 (88%)	95 (60%)	31 (20%)	32 (20%)	0	1
33	BI	144/148 (97%)	89 (62%)	28 (19%)	27 (19%)	0	2
33	DI	144/148 (97%)	87 (60%)	30 (21%)	27 (19%)	0	2
34	BN	137/140 (98%)	84 (61%)	33 (24%)	20 (15%)	0	3
34	DN	137/140 (98%)	84 (61%)	33 (24%)	20 (15%)	0	3

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
35	BO	120/122 (98%)	88 (73%)	25 (21%)	7 (6%)	1	16
35	DO	120/122 (98%)	94 (78%)	16 (13%)	10 (8%)	0	10
36	BP	144/150 (96%)	83 (58%)	32 (22%)	29 (20%)	0	1
36	DP	144/150 (96%)	81 (56%)	33 (23%)	30 (21%)	0	1
37	BQ	139/141 (99%)	104 (75%)	19 (14%)	16 (12%)	0	5
37	DQ	139/141 (99%)	104 (75%)	17 (12%)	18 (13%)	0	3
38	BR	115/118 (98%)	83 (72%)	22 (19%)	10 (9%)	0	10
38	DR	115/118 (98%)	83 (72%)	21 (18%)	11 (10%)	0	8
39	BS	97/112 (87%)	38 (39%)	27 (28%)	32 (33%)	0	0
39	DS	97/112 (87%)	38 (39%)	27 (28%)	32 (33%)	0	0
40	BT	136/146 (93%)	82 (60%)	31 (23%)	23 (17%)	0	2
40	DT	136/146 (93%)	88 (65%)	33 (24%)	15 (11%)	0	6
41	BU	115/118 (98%)	70 (61%)	34 (30%)	11 (10%)	0	8
41	DU	115/118 (98%)	70 (61%)	34 (30%)	11 (10%)	0	8
42	BV	99/101 (98%)	63 (64%)	19 (19%)	17 (17%)	0	2
42	DV	99/101 (98%)	64 (65%)	19 (19%)	16 (16%)	0	2
43	BW	111/113 (98%)	75 (68%)	24 (22%)	12 (11%)	0	6
43	DW	111/113 (98%)	75 (68%)	24 (22%)	12 (11%)	0	6
44	BX	91/96 (95%)	66 (72%)	20 (22%)	5 (6%)	1	17
44	DX	91/96 (95%)	66 (72%)	20 (22%)	5 (6%)	1	17
45	BY	99/110 (90%)	54 (54%)	18 (18%)	27 (27%)	0	0
45	DY	99/110 (90%)	53 (54%)	16 (16%)	30 (30%)	0	0
46	BZ	175/206 (85%)	103 (59%)	35 (20%)	37 (21%)	0	1
46	DZ	175/206 (85%)	103 (59%)	35 (20%)	37 (21%)	0	1
47	B0	82/85 (96%)	63 (77%)	12 (15%)	7 (8%)	0	10
47	D0	82/85 (96%)	63 (77%)	12 (15%)	7 (8%)	0	10
48	B1	92/98 (94%)	64 (70%)	19 (21%)	9 (10%)	0	8
48	D1	92/98 (94%)	64 (70%)	19 (21%)	9 (10%)	0	8
49	B2	69/72 (96%)	47 (68%)	13 (19%)	9 (13%)	0	3
49	D2	69/72 (96%)	51 (74%)	9 (13%)	9 (13%)	0	3
50	B3	58/60 (97%)	41 (71%)	7 (12%)	10 (17%)	0	2

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
50	D3	58/60 (97%)	41 (71%)	7 (12%)	10 (17%)	0	2
51	B4	29/71 (41%)	15 (52%)	7 (24%)	7 (24%)	0	1
51	D4	29/71 (41%)	15 (52%)	7 (24%)	7 (24%)	0	1
52	B5	57/60 (95%)	42 (74%)	8 (14%)	7 (12%)	0	4
52	D5	57/60 (95%)	42 (74%)	8 (14%)	7 (12%)	0	4
53	B6	43/54 (80%)	20 (46%)	12 (28%)	11 (26%)	0	1
53	D6	43/54 (80%)	20 (46%)	12 (28%)	11 (26%)	0	1
54	B7	47/49 (96%)	44 (94%)	2 (4%)	1 (2%)	5	31
54	D7	47/49 (96%)	44 (94%)	2 (4%)	1 (2%)	5	31
55	B8	62/65 (95%)	40 (64%)	13 (21%)	9 (14%)	0	3
55	D8	62/65 (95%)	39 (63%)	14 (23%)	9 (14%)	0	3
56	B9	34/37 (92%)	27 (79%)	6 (18%)	1 (3%)	3	26
56	D9	34/37 (92%)	27 (79%)	6 (18%)	1 (3%)	3	26
All	All	11698/12586 (93%)	7854 (67%)	2318 (20%)	1526 (13%)	0	3

All (1526) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AB	9	GLU
2	AB	15	VAL
2	AB	20	GLU
2	AB	88	ALA
2	AB	195	ASP
2	AB	238	LEU
2	AB	239	VAL
3	AC	15	THR
3	AC	47	LEU
3	AC	61	ALA
3	AC	113	ALA
3	AC	189	ALA
3	AC	190	ARG
3	AC	207	VAL
4	AD	3	ARG
4	AD	14	ARG
4	AD	30	LYS
5	AE	16	THR
5	AE	146	ALA

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Mol	Chain	Res	Type
7	AG	33	ASP
7	AG	52	GLU
7	AG	53	LYS
7	AG	58	PRO
7	AG	77	SER
7	AG	116	ALA
8	AH	68	ARG
8	AH	86	ILE
9	AI	89	ASN
9	AI	111	ARG
9	AI	117	HIS
10	AJ	32	ALA
10	AJ	57	LYS
12	AL	18	VAL
12	AL	47	LYS
13	AM	12	ASN
13	AM	59	TYR
13	AM	83	ASP
13	AM	104	ARG
13	AM	113	PRO
13	AM	117	VAL
14	AN	14	PRO
14	AN	16	PHE
14	AN	23	ARG
14	AN	24	CYS
17	AQ	78	GLU
18	AR	20	ALA
18	AR	36	ASN
18	AR	87	ARG
19	AS	28	LYS
19	AS	30	LEU
21	AU	3	LYS
21	AU	7	ARG
27	BC	20	TYR
27	BC	35	ALA
27	BC	38	ASP
27	BC	46	LYS
27	BC	58	VAL
27	BC	63	SER
27	BC	108	MET
27	BC	120	MET
27	BC	122	ALA

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Mol	Chain	Res	Type
27	BC	140	PRO
27	BC	142	ALA
27	BC	148	ASN
27	BC	153	ILE
27	BC	156	ILE
27	BC	167	LYS
27	BC	173	ALA
27	BC	174	PRO
27	BC	179	SER
27	BC	182	PRO
27	BC	220	PRO
27	BC	222	VAL
28	BD	25	THR
28	BD	58	HIS
28	BD	169	GLU
28	BD	225	ALA
28	BD	239	ARG
28	BD	267	SER
28	BD	271	ILE
29	BE	4	ILE
29	BE	18	ASP
29	BE	35	GLN
29	BE	44	TYR
29	BE	53	PRO
29	BE	56	PRO
29	BE	59	VAL
29	BE	60	ASN
29	BE	71	GLY
29	BE	73	GLU
29	BE	75	VAL
29	BE	77	ILE
29	BE	84	PHE
29	BE	89	ASP
29	BE	118	LYS
29	BE	169	ASN
29	BE	186	GLY
30	BF	68	LYS
30	BF	89	VAL
30	BF	128	ALA
30	BF	132	VAL
30	BF	134	GLY
30	BF	168	ARG

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Mol	Chain	Res	Type
30	BF	169	ASN
31	BG	14	GLU
31	BG	81	LYS
31	BG	86	MET
31	BG	87	PRO
31	BG	96	ARG
31	BG	97	ASP
31	BG	126	ASP
32	BH	54	ARG
32	BH	55	PRO
32	BH	83	TYR
32	BH	92	ILE
32	BH	98	LEU
32	BH	108	GLY
32	BH	127	GLU
32	BH	155	SER
32	BH	156	ALA
32	BH	159	GLU
32	BH	165	ALA
33	BI	12	LEU
33	BI	15	VAL
33	BI	42	SER
33	BI	77	LEU
33	BI	85	GLU
33	BI	86	THR
33	BI	92	VAL
33	BI	93	THR
33	BI	120	ILE
33	BI	121	LYS
33	BI	133	HIS
34	BN	4	TYR
34	BN	42	TRP
34	BN	57	ALA
34	BN	58	ASP
34	BN	132	ALA
35	BO	114	ILE
35	BO	115	VAL
36	BP	9	ASN
36	BP	14	LYS
36	BP	17	LYS
36	BP	18	ARG
36	BP	31	ALA

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Mol	Chain	Res	Type
36	BP	47	ASP
36	BP	108	LYS
36	BP	147	LEU
37	BQ	2	LEU
37	BQ	5	ARG
37	BQ	60	ARG
37	BQ	134	ARG
37	BQ	135	ASP
37	BQ	138	ASP
38	BR	8	ARG
38	BR	9	LYS
38	BR	12	ARG
38	BR	14	SER
38	BR	107	ASP
39	BS	23	ARG
39	BS	35	ILE
39	BS	57	LYS
39	BS	58	LEU
39	BS	59	LYS
39	BS	62	LYS
39	BS	74	ALA
39	BS	87	PHE
39	BS	88	ASP
39	BS	94	TYR
39	BS	97	ARG
39	BS	100	ALA
40	BT	12	SER
40	BT	32	TYR
40	BT	58	ASN
40	BT	80	SER
40	BT	107	ASP
40	BT	129	ARG
40	BT	133	GLU
41	BU	25	TRP
41	BU	32	PHE
42	BV	15	GLU
42	BV	16	PRO
42	BV	18	LEU
42	BV	19	LYS
42	BV	28	GLU
42	BV	29	PRO
42	BV	46	VAL

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Mol	Chain	Res	Type
42	BV	53	GLU
43	BW	11	ARG
44	BX	4	ALA
44	BX	12	VAL
45	BY	7	VAL
45	BY	44	ILE
45	BY	53	PRO
45	BY	68	HIS
45	BY	77	PRO
45	BY	78	ALA
45	BY	90	LEU
45	BY	96	ILE
46	BZ	31	ARG
46	BZ	45	ASP
46	BZ	111	VAL
46	BZ	136	PHE
46	BZ	165	VAL
47	B0	55	ARG
47	B0	64	ASP
47	B0	83	PRO
48	B1	53	VAL
48	B1	58	ILE
49	B2	44	LEU
49	B2	47	ASN
49	B2	70	GLN
51	B4	46	ASN
51	B4	52	SER
52	B5	4	HIS
52	B5	34	PRO
52	B5	57	VAL
53	B6	16	CYS
53	B6	19	ARG
53	B6	25	LYS
53	B6	26	ASN
53	B6	28	ARG
53	B6	46	HIS
53	B6	52	VAL
55	B8	3	LYS
55	B8	34	TRP
2	CB	9	GLU
2	CB	15	VAL
2	CB	20	GLU

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Mol	Chain	Res	Type
2	CB	88	ALA
2	CB	195	ASP
2	CB	238	LEU
2	CB	239	VAL
3	CC	15	THR
3	CC	47	LEU
3	CC	61	ALA
3	CC	113	ALA
3	CC	189	ALA
3	CC	190	ARG
3	CC	207	VAL
4	CD	3	ARG
4	CD	4	TYR
4	CD	14	ARG
4	CD	30	LYS
5	CE	16	THR
5	CE	146	ALA
7	CG	33	ASP
7	CG	58	PRO
7	CG	77	SER
7	CG	116	ALA
8	CH	68	ARG
8	CH	86	ILE
9	CI	89	ASN
9	CI	111	ARG
10	CJ	32	ALA
10	CJ	57	LYS
12	CL	18	VAL
12	CL	47	LYS
13	CM	59	TYR
13	CM	83	ASP
13	CM	101	GLN
13	CM	104	ARG
13	CM	113	PRO
13	CM	117	VAL
14	CN	14	PRO
14	CN	16	PHE
14	CN	23	ARG
14	CN	24	CYS
17	CQ	78	GLU
18	CR	20	ALA
18	CR	36	ASN

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Mol	Chain	Res	Type
18	CR	45	SER
18	CR	87	ARG
19	CS	28	LYS
19	CS	30	LEU
21	CU	3	LYS
21	CU	25	LYS
27	DC	20	TYR
27	DC	35	ALA
27	DC	38	ASP
27	DC	46	LYS
27	DC	58	VAL
27	DC	63	SER
27	DC	108	MET
27	DC	120	MET
27	DC	122	ALA
27	DC	140	PRO
27	DC	142	ALA
27	DC	148	ASN
27	DC	153	ILE
27	DC	156	ILE
27	DC	167	LYS
27	DC	173	ALA
27	DC	174	PRO
27	DC	179	SER
27	DC	182	PRO
27	DC	220	PRO
27	DC	222	VAL
28	DD	25	THR
28	DD	58	HIS
28	DD	169	GLU
28	DD	225	ALA
28	DD	239	ARG
28	DD	267	SER
28	DD	271	ILE
29	DE	4	ILE
29	DE	18	ASP
29	DE	35	GLN
29	DE	44	TYR
29	DE	54	GLN
29	DE	56	PRO
29	DE	59	VAL
29	DE	60	ASN

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Mol	Chain	Res	Type
29	DE	71	GLY
29	DE	73	GLU
29	DE	75	VAL
29	DE	77	ILE
29	DE	84	PHE
29	DE	89	ASP
29	DE	118	LYS
29	DE	169	ASN
29	DE	186	GLY
30	DF	68	LYS
30	DF	89	VAL
30	DF	128	ALA
30	DF	132	VAL
30	DF	134	GLY
30	DF	168	ARG
30	DF	169	ASN
31	DG	14	GLU
31	DG	81	LYS
31	DG	86	MET
31	DG	87	PRO
31	DG	96	ARG
31	DG	97	ASP
31	DG	110	ALA
31	DG	114	ILE
31	DG	126	ASP
32	DH	55	PRO
32	DH	83	TYR
32	DH	92	ILE
32	DH	98	LEU
32	DH	108	GLY
32	DH	127	GLU
32	DH	155	SER
32	DH	156	ALA
32	DH	159	GLU
32	DH	165	ALA
33	DI	12	LEU
33	DI	15	VAL
33	DI	42	SER
33	DI	77	LEU
33	DI	85	GLU
33	DI	86	THR
33	DI	92	VAL

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Mol	Chain	Res	Type
33	DI	93	THR
33	DI	120	ILE
33	DI	121	LYS
33	DI	133	HIS
34	DN	4	TYR
34	DN	42	TRP
34	DN	57	ALA
34	DN	58	ASP
34	DN	132	ALA
35	DO	28	SER
35	DO	48	PRO
36	DP	9	ASN
36	DP	14	LYS
36	DP	17	LYS
36	DP	18	ARG
36	DP	31	ALA
36	DP	47	ASP
36	DP	108	LYS
36	DP	147	LEU
37	DQ	2	LEU
37	DQ	5	ARG
37	DQ	60	ARG
37	DQ	134	ARG
37	DQ	135	ASP
37	DQ	138	ASP
38	DR	8	ARG
38	DR	9	LYS
38	DR	12	ARG
38	DR	14	SER
38	DR	107	ASP
39	DS	23	ARG
39	DS	35	ILE
39	DS	57	LYS
39	DS	58	LEU
39	DS	59	LYS
39	DS	62	LYS
39	DS	74	ALA
39	DS	87	PHE
39	DS	88	ASP
39	DS	94	TYR
39	DS	97	ARG
39	DS	100	ALA

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Mol	Chain	Res	Type
40	DT	24	PRO
40	DT	40	THR
40	DT	80	SER
41	DU	25	TRP
41	DU	32	PHE
42	DV	15	GLU
42	DV	16	PRO
42	DV	18	LEU
42	DV	19	LYS
42	DV	28	GLU
42	DV	29	PRO
42	DV	46	VAL
42	DV	53	GLU
43	DW	11	ARG
44	DX	4	ALA
44	DX	12	VAL
45	DY	7	VAL
45	DY	44	ILE
45	DY	53	PRO
45	DY	56	PRO
45	DY	68	HIS
45	DY	77	PRO
45	DY	78	ALA
45	DY	90	LEU
45	DY	96	ILE
45	DY	101	LYS
46	DZ	31	ARG
46	DZ	45	ASP
46	DZ	111	VAL
46	DZ	136	PHE
46	DZ	165	VAL
47	D0	55	ARG
47	D0	64	ASP
47	D0	83	PRO
48	D1	53	VAL
48	D1	58	ILE
49	D2	43	GLN
49	D2	44	LEU
49	D2	47	ASN
49	D2	70	GLN
51	D4	46	ASN
51	D4	52	SER

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Mol	Chain	Res	Type
52	D5	4	HIS
52	D5	34	PRO
52	D5	57	VAL
53	D6	16	CYS
53	D6	19	ARG
53	D6	25	LYS
53	D6	26	ASN
53	D6	28	ARG
53	D6	46	HIS
53	D6	52	VAL
55	D8	3	LYS
55	D8	34	TRP
2	AB	18	GLY
2	AB	65	GLY
2	AB	167	PRO
3	AC	4	LYS
3	AC	41	GLY
3	AC	45	LYS
3	AC	62	ASP
3	AC	145	GLY
4	AD	4	TYR
4	AD	24	GLU
4	AD	26	CYS
4	AD	88	VAL
5	AE	6	PHE
5	AE	85	GLY
5	AE	137	GLU
5	AE	147	ASP
6	AF	62	TRP
7	AG	6	ARG
7	AG	14	PRO
7	AG	54	THR
7	AG	155	ARG
8	AH	2	LEU
8	AH	20	TYR
8	AH	71	GLY
8	AH	105	ARG
9	AI	11	LYS
9	AI	12	GLU
9	AI	44	VAL
9	AI	95	LYS
9	AI	100	GLY

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Mol	Chain	Res	Type
9	AI	121	ARG
10	AJ	36	GLY
10	AJ	51	ARG
10	AJ	84	GLN
10	AJ	88	LEU
12	AL	6	THR
12	AL	65	GLU
12	AL	77	LEU
12	AL	80	HIS
12	AL	115	LYS
13	AM	64	TRP
13	AM	67	GLU
13	AM	95	GLY
14	AN	22	THR
14	AN	56	VAL
14	AN	59	ALA
14	AN	60	SER
15	AO	88	ARG
16	AP	63	GLY
17	AQ	33	GLY
17	AQ	99	SER
18	AR	45	SER
19	AS	26	GLY
19	AS	62	ILE
19	AS	80	TYR
20	AT	49	ALA
20	AT	62	LEU
20	AT	97	ALA
21	AU	25	LYS
27	BC	55	ASP
27	BC	78	ALA
27	BC	89	ALA
27	BC	128	GLY
27	BC	133	PRO
27	BC	175	VAL
27	BC	183	GLU
27	BC	209	LEU
27	BC	217	THR
28	BD	3	VAL
28	BD	11	PRO
28	BD	12	SER
28	BD	24	ILE

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Mol	Chain	Res	Type
28	BD	27	THR
28	BD	32	SER
28	BD	33	LEU
28	BD	236	GLY
29	BE	2	LYS
29	BE	29	GLY
29	BE	57	LYS
29	BE	69	LYS
29	BE	76	ARG
29	BE	82	ARG
29	BE	117	MET
29	BE	129	HIS
29	BE	162	ALA
29	BE	189	PRO
30	BF	4	VAL
30	BF	21	ALA
30	BF	25	PRO
30	BF	86	GLY
30	BF	131	GLY
31	BG	27	ASN
31	BG	47	LYS
31	BG	82	LEU
31	BG	110	ALA
31	BG	115	ARG
31	BG	124	SER
32	BH	49	VAL
32	BH	53	GLU
32	BH	138	LYS
32	BH	158	HIS
33	BI	16	GLY
33	BI	81	VAL
33	BI	91	SER
33	BI	95	LYS
33	BI	101	LEU
33	BI	145	VAL
34	BN	8	GLN
34	BN	44	PRO
34	BN	47	ALA
34	BN	64	GLY
34	BN	66	LYS
35	BO	48	PRO
36	BP	11	GLY

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Mol	Chain	Res	Type
36	BP	36	LYS
36	BP	65	ARG
36	BP	83	VAL
36	BP	107	LYS
36	BP	111	ARG
36	BP	122	PRO
36	BP	146	VAL
37	BQ	7	MET
37	BQ	15	GLY
37	BQ	28	ALA
37	BQ	47	ILE
37	BQ	59	ARG
38	BR	78	LYS
38	BR	82	GLU
39	BS	78	LEU
39	BS	79	ALA
39	BS	83	LYS
39	BS	85	VAL
39	BS	90	GLY
39	BS	92	TYR
39	BS	102	ALA
39	BS	103	GLU
39	BS	104	GLY
40	BT	68	TYR
40	BT	83	ILE
40	BT	88	ILE
40	BT	92	GLY
40	BT	97	ALA
40	BT	131	ALA
41	BU	62	ILE
42	BV	31	ALA
42	BV	79	VAL
43	BW	49	LYS
43	BW	98	LYS
43	BW	111	HIS
44	BX	45	THR
45	BY	3	VAL
45	BY	26	LYS
45	BY	38	ILE
45	BY	39	VAL
45	BY	41	GLY
45	BY	47	LYS

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Mol	Chain	Res	Type
45	BY	99	CYS
45	BY	101	LYS
46	BZ	30	ASN
46	BZ	38	TYR
46	BZ	53	ILE
46	BZ	56	VAL
46	BZ	78	LYS
46	BZ	93	ASP
46	BZ	112	ARG
46	BZ	145	GLU
46	BZ	172	ALA
46	BZ	177	PRO
47	B0	13	GLY
48	B1	28	GLY
48	B1	30	VAL
48	B1	45	ASN
48	B1	85	LEU
49	B2	14	ARG
49	B2	41	ILE
49	B2	43	GLN
49	B2	48	HIS
50	B3	13	ILE
50	B3	29	ARG
51	B4	54	LYS
52	B5	33	CYS
52	B5	51	TYR
2	CB	18	GLY
2	CB	65	GLY
2	CB	167	PRO
3	CC	4	LYS
3	CC	41	GLY
3	CC	45	LYS
3	CC	62	ASP
3	CC	145	GLY
4	CD	24	GLU
4	CD	26	CYS
4	CD	88	VAL
5	CE	6	PHE
5	CE	85	GLY
5	CE	137	GLU
5	CE	147	ASP
6	CF	62	TRP

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Mol	Chain	Res	Type
7	CG	6	ARG
7	CG	14	PRO
7	CG	52	GLU
7	CG	53	LYS
7	CG	54	THR
7	CG	155	ARG
8	CH	2	LEU
8	CH	20	TYR
8	CH	71	GLY
9	CI	11	LYS
9	CI	44	VAL
9	CI	95	LYS
9	CI	100	GLY
10	CJ	36	GLY
10	CJ	84	GLN
10	CJ	88	LEU
11	CK	117	ASN
11	CK	122	LYS
12	CL	6	THR
12	CL	65	GLU
12	CL	77	LEU
12	CL	115	LYS
13	CM	95	GLY
14	CN	22	THR
14	CN	56	VAL
14	CN	60	SER
15	CO	88	ARG
16	CP	63	GLY
17	CQ	33	GLY
17	CQ	68	ARG
17	CQ	99	SER
19	CS	26	GLY
19	CS	62	ILE
19	CS	80	TYR
20	CT	49	ALA
27	DC	55	ASP
27	DC	78	ALA
27	DC	89	ALA
27	DC	128	GLY
27	DC	133	PRO
27	DC	175	VAL
27	DC	183	GLU

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Mol	Chain	Res	Type
27	DC	209	LEU
27	DC	217	THR
28	DD	3	VAL
28	DD	12	SER
28	DD	24	ILE
28	DD	27	THR
28	DD	32	SER
28	DD	33	LEU
28	DD	236	GLY
29	DE	2	LYS
29	DE	29	GLY
29	DE	57	LYS
29	DE	69	LYS
29	DE	76	ARG
29	DE	82	ARG
29	DE	117	MET
29	DE	129	HIS
29	DE	131	ALA
29	DE	162	ALA
29	DE	189	PRO
30	DF	4	VAL
30	DF	21	ALA
30	DF	25	PRO
30	DF	86	GLY
30	DF	131	GLY
31	DG	27	ASN
31	DG	47	LYS
31	DG	82	LEU
31	DG	115	ARG
31	DG	124	SER
32	DH	42	ARG
32	DH	49	VAL
32	DH	138	LYS
32	DH	158	HIS
33	DI	16	GLY
33	DI	81	VAL
33	DI	91	SER
33	DI	95	LYS
33	DI	101	LEU
33	DI	145	VAL
34	DN	8	GLN
34	DN	44	PRO

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Mol	Chain	Res	Type
34	DN	47	ALA
34	DN	64	GLY
34	DN	66	LYS
36	DP	11	GLY
36	DP	65	ARG
36	DP	83	VAL
36	DP	107	LYS
36	DP	111	ARG
36	DP	122	PRO
36	DP	146	VAL
37	DQ	7	MET
37	DQ	15	GLY
37	DQ	22	LYS
37	DQ	28	ALA
37	DQ	47	ILE
37	DQ	59	ARG
38	DR	78	LYS
38	DR	82	GLU
39	DS	79	ALA
39	DS	83	LYS
39	DS	85	VAL
39	DS	90	GLY
39	DS	92	TYR
39	DS	102	ALA
39	DS	103	GLU
39	DS	104	GLY
40	DT	46	GLU
40	DT	97	ALA
40	DT	104	ASN
40	DT	107	ASP
40	DT	129	ARG
41	DU	62	ILE
42	DV	31	ALA
42	DV	49	THR
42	DV	79	VAL
43	DW	49	LYS
43	DW	98	LYS
43	DW	111	HIS
44	DX	45	THR
45	DY	3	VAL
45	DY	26	LYS
45	DY	38	ILE

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Mol	Chain	Res	Type
45	DY	39	VAL
45	DY	41	GLY
45	DY	47	LYS
45	DY	51	VAL
45	DY	99	CYS
46	DZ	30	ASN
46	DZ	38	TYR
46	DZ	53	ILE
46	DZ	56	VAL
46	DZ	78	LYS
46	DZ	93	ASP
46	DZ	112	ARG
46	DZ	145	GLU
46	DZ	172	ALA
46	DZ	177	PRO
47	D0	13	GLY
48	D1	28	GLY
48	D1	30	VAL
48	D1	45	ASN
48	D1	85	LEU
49	D2	14	ARG
49	D2	48	HIS
50	D3	13	ILE
50	D3	29	ARG
51	D4	54	LYS
52	D5	33	CYS
52	D5	51	TYR
2	AB	77	ALA
2	AB	78	GLN
2	AB	130	ARG
3	AC	150	LYS
3	AC	154	SER
3	AC	156	ARG
4	AD	29	PRO
4	AD	40	PRO
4	AD	131	ARG
4	AD	171	GLY
4	AD	208	SER
5	AE	8	GLU
5	AE	21	ALA
5	AE	108	ALA
6	AF	68	PRO

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Mol	Chain	Res	Type
8	AH	41	ARG
10	AJ	23	ILE
10	AJ	59	SER
11	AK	117	ASN
12	AL	23	LYS
12	AL	46	LYS
13	AM	48	LEU
13	AM	49	THR
13	AM	75	ALA
14	AN	17	LYS
14	AN	28	GLY
15	AO	73	GLU
16	AP	43	LYS
17	AQ	34	LYS
18	AR	37	VAL
20	AT	71	THR
20	AT	99	LEU
21	AU	9	ARG
27	BC	79	LYS
27	BC	107	TRP
27	BC	144	THR
27	BC	151	GLU
27	BC	164	ARG
28	BD	191	ALA
28	BD	241	PRO
28	BD	268	ARG
29	BE	39	PRO
29	BE	66	HIS
29	BE	72	VAL
29	BE	94	GLU
29	BE	131	ALA
30	BF	14	PRO
30	BF	58	ALA
30	BF	69	HIS
31	BG	9	ARG
31	BG	10	LYS
31	BG	52	ILE
32	BH	13	LYS
32	BH	24	VAL
32	BH	41	MET
32	BH	97	ARG
32	BH	109	PHE

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Mol	Chain	Res	Type
32	BH	154	PRO
32	BH	160	LYS
32	BH	170	ARG
33	BI	43	ASN
33	BI	94	ALA
33	BI	98	ALA
33	BI	111	PRO
33	BI	115	ALA
34	BN	40	PRO
34	BN	60	ILE
34	BN	63	THR
34	BN	68	GLU
36	BP	19	VAL
36	BP	30	THR
36	BP	67	MET
36	BP	106	LEU
36	BP	141	ALA
37	BQ	6	ARG
37	BQ	48	GLU
37	BQ	54	MET
37	BQ	57	HIS
38	BR	10	LEU
38	BR	102	GLU
39	BS	24	LEU
39	BS	26	LEU
39	BS	54	LEU
39	BS	93	LYS
40	BT	3	ARG
40	BT	24	PRO
40	BT	56	GLY
40	BT	135	ALA
41	BU	54	LYS
41	BU	99	ALA
42	BV	49	THR
42	BV	54	GLY
43	BW	14	PRO
43	BW	44	ALA
44	BX	11	PRO
45	BY	37	VAL
45	BY	40	GLU
45	BY	48	ALA
46	BZ	64	GLY

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Mol	Chain	Res	Type
46	BZ	65	GLN
46	BZ	81	ARG
46	BZ	141	VAL
46	BZ	163	LEU
48	B1	52	ARG
48	B1	74	VAL
48	B1	95	LEU
50	B3	50	VAL
50	B3	52	HIS
50	B3	57	GLU
53	B6	44	ARG
54	B7	2	LYS
55	B8	31	HIS
55	B8	33	ASN
55	B8	47	LYS
55	B8	64	TYR
2	CB	77	ALA
2	CB	130	ARG
3	CC	18	TRP
3	CC	150	LYS
3	CC	154	SER
3	CC	156	ARG
3	CC	179	ARG
4	CD	13	ARG
4	CD	29	PRO
4	CD	131	ARG
4	CD	171	GLY
4	CD	208	SER
5	CE	21	ALA
5	CE	64	ARG
5	CE	108	ALA
8	CH	41	ARG
8	CH	105	ARG
9	CI	12	GLU
10	CJ	23	ILE
10	CJ	51	ARG
10	CJ	59	SER
12	CL	46	LYS
12	CL	80	HIS
13	CM	48	LEU
13	CM	64	TRP
13	CM	75	ALA

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Mol	Chain	Res	Type
14	CN	17	LYS
14	CN	28	GLY
14	CN	59	ALA
16	CP	43	LYS
17	CQ	34	LYS
17	CQ	80	GLY
18	CR	37	VAL
20	CT	62	LEU
20	CT	71	THR
20	CT	74	LYS
20	CT	97	ALA
27	DC	79	LYS
27	DC	107	TRP
27	DC	144	THR
27	DC	151	GLU
27	DC	164	ARG
28	DD	191	ALA
28	DD	241	PRO
28	DD	268	ARG
29	DE	39	PRO
29	DE	66	HIS
29	DE	72	VAL
29	DE	94	GLU
30	DF	14	PRO
30	DF	58	ALA
30	DF	69	HIS
31	DG	9	ARG
31	DG	10	LYS
31	DG	52	ILE
32	DH	13	LYS
32	DH	24	VAL
32	DH	97	ARG
32	DH	109	PHE
32	DH	154	PRO
32	DH	160	LYS
32	DH	170	ARG
33	DI	43	ASN
33	DI	94	ALA
33	DI	111	PRO
33	DI	115	ALA
34	DN	40	PRO
34	DN	60	ILE

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Mol	Chain	Res	Type
34	DN	63	THR
34	DN	68	GLU
36	DP	19	VAL
36	DP	30	THR
36	DP	33	ARG
36	DP	38	GLN
36	DP	67	MET
36	DP	106	LEU
36	DP	141	ALA
37	DQ	6	ARG
37	DQ	20	ALA
37	DQ	48	GLU
37	DQ	54	MET
37	DQ	57	HIS
38	DR	10	LEU
38	DR	102	GLU
39	DS	24	LEU
39	DS	26	LEU
39	DS	54	LEU
39	DS	78	LEU
39	DS	93	LYS
40	DT	2	ASN
40	DT	115	ARG
40	DT	132	LYS
41	DU	54	LYS
41	DU	99	ALA
42	DV	54	GLY
43	DW	14	PRO
43	DW	44	ALA
44	DX	11	PRO
45	DY	37	VAL
45	DY	40	GLU
45	DY	48	ALA
45	DY	67	LEU
46	DZ	64	GLY
46	DZ	65	GLN
46	DZ	81	ARG
46	DZ	141	VAL
46	DZ	163	LEU
48	D1	52	ARG
48	D1	74	VAL
48	D1	95	LEU

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Mol	Chain	Res	Type
50	D3	50	VAL
50	D3	52	HIS
50	D3	57	GLU
53	D6	44	ARG
54	D7	2	LYS
55	D8	31	HIS
55	D8	33	ASN
55	D8	47	LYS
55	D8	64	TYR
2	AB	110	GLN
2	AB	157	ARG
2	AB	216	SER
3	AC	18	TRP
3	AC	55	VAL
3	AC	60	ALA
3	AC	96	GLY
3	AC	101	LEU
3	AC	103	VAL
3	AC	179	ARG
4	AD	13	ARG
4	AD	195	ALA
5	AE	64	ARG
5	AE	104	ALA
5	AE	136	MET
5	AE	154	GLY
7	AG	7	ALA
9	AI	109	VAL
11	AK	27	ASN
11	AK	122	LYS
12	AL	79	GLU
12	AL	91	LYS
13	AM	100	GLY
14	AN	26	ARG
15	AO	79	ARG
17	AQ	80	GLY
17	AQ	96	GLU
19	AS	73	GLU
20	AT	74	LYS
20	AT	95	ALA
27	BC	132	GLY
27	BC	162	GLU
27	BC	166	ASP

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Mol	Chain	Res	Type
27	BC	170	ALA
27	BC	184	LYS
27	BC	205	LYS
27	BC	213	TYR
27	BC	215	THR
28	BD	242	ARG
28	BD	272	ALA
30	BF	12	LEU
30	BF	19	GLU
30	BF	84	VAL
30	BF	133	ASN
30	BF	138	GLU
31	BG	50	ALA
31	BG	55	LYS
31	BG	149	VAL
31	BG	165	THR
32	BH	14	GLY
32	BH	66	GLY
32	BH	84	SER
32	BH	85	LYS
33	BI	14	ASP
33	BI	122	GLU
34	BN	127	ASP
34	BN	129	PRO
35	BO	42	SER
36	BP	35	HIS
36	BP	43	GLY
36	BP	48	PRO
36	BP	102	ARG
36	BP	148	LEU
39	BS	14	VAL
40	BT	104	ASN
40	BT	115	ARG
40	BT	127	ALA
41	BU	74	LEU
41	BU	90	VAL
42	BV	3	ALA
42	BV	23	GLU
42	BV	40	LEU
43	BW	6	ILE
43	BW	63	ASP
43	BW	92	ARG

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Mol	Chain	Res	Type
45	BY	50	ARG
45	BY	82	PRO
45	BY	100	ALA
46	BZ	73	GLN
46	BZ	117	LEU
46	BZ	130	PRO
46	BZ	138	GLU
46	BZ	152	ALA
46	BZ	166	SER
47	B0	20	ARG
50	B3	30	ARG
50	B3	32	GLN
50	B3	51	ALA
51	B4	45	GLY
52	B5	35	GLU
53	B6	33	LYS
55	B8	7	HIS
55	B8	35	GLN
2	CB	78	GLN
2	CB	110	GLN
2	CB	157	ARG
3	CC	55	VAL
3	CC	60	ALA
3	CC	96	GLY
3	CC	101	LEU
3	CC	103	VAL
4	CD	15	GLU
4	CD	40	PRO
4	CD	123	HIS
4	CD	195	ALA
5	CE	8	GLU
5	CE	104	ALA
5	CE	154	GLY
7	CG	7	ALA
7	CG	31	MET
9	CI	109	VAL
11	CK	27	ASN
12	CL	23	LYS
12	CL	79	GLU
13	CM	49	THR
13	CM	60	VAL
14	CN	26	ARG

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Mol	Chain	Res	Type
15	CO	33	THR
15	CO	73	GLU
15	CO	79	ARG
17	CQ	96	GLU
19	CS	5	LEU
19	CS	14	HIS
19	CS	73	GLU
20	CT	95	ALA
20	CT	99	LEU
27	DC	132	GLY
27	DC	162	GLU
27	DC	166	ASP
27	DC	170	ALA
27	DC	184	LYS
27	DC	205	LYS
27	DC	213	TYR
27	DC	215	THR
28	DD	244	ARG
28	DD	272	ALA
29	DE	52	LEU
30	DF	12	LEU
30	DF	19	GLU
30	DF	84	VAL
30	DF	133	ASN
30	DF	138	GLU
31	DG	50	ALA
31	DG	55	LYS
31	DG	149	VAL
31	DG	165	THR
32	DH	14	GLY
32	DH	66	GLY
32	DH	84	SER
32	DH	85	LYS
33	DI	98	ALA
33	DI	122	GLU
34	DN	127	ASP
34	DN	129	PRO
35	DO	13	ASN
35	DO	103	ALA
35	DO	115	VAL
36	DP	43	GLY
36	DP	49	ARG

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Mol	Chain	Res	Type
36	DP	102	ARG
36	DP	148	LEU
39	DS	14	VAL
40	DT	32	TYR
40	DT	35	LYS
40	DT	135	ALA
41	DU	74	LEU
41	DU	90	VAL
42	DV	3	ALA
42	DV	23	GLU
43	DW	6	ILE
43	DW	63	ASP
43	DW	92	ARG
45	DY	55	TYR
45	DY	82	PRO
45	DY	100	ALA
46	DZ	73	GLN
46	DZ	117	LEU
46	DZ	130	PRO
46	DZ	138	GLU
46	DZ	152	ALA
46	DZ	166	SER
47	D0	20	ARG
47	D0	30	VAL
50	D3	30	ARG
50	D3	32	GLN
50	D3	51	ALA
51	D4	45	GLY
52	D5	35	GLU
53	D6	33	LYS
55	D8	7	HIS
55	D8	35	GLN
2	AB	22	LYS
2	AB	129	GLU
2	AB	158	LEU
3	AC	81	GLY
4	AD	5	ILE
4	AD	47	ARG
4	AD	123	HIS
5	AE	62	ALA
5	AE	128	PRO
6	AF	29	ALA

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Mol	Chain	Res	Type
7	AG	31	MET
7	AG	100	ALA
8	AH	91	ARG
9	AI	34	ASN
11	AK	39	PRO
12	AL	62	SER
13	AM	3	ARG
13	AM	60	VAL
15	AO	33	THR
19	AS	5	LEU
19	AS	14	HIS
19	AS	25	LYS
19	AS	44	MET
19	AS	61	TYR
20	AT	48	LYS
20	AT	52	ALA
27	BC	52	ARG
27	BC	64	LEU
29	BE	45	THR
29	BE	52	LEU
29	BE	61	ARG
29	BE	98	PRO
30	BF	20	LEU
30	BF	22	ALA
31	BG	17	PRO
31	BG	25	TYR
31	BG	145	THR
31	BG	168	GLU
32	BH	21	PRO
32	BH	90	LYS
33	BI	106	GLY
33	BI	132	PRO
34	BN	135	PRO
36	BP	149	GLU
38	BR	106	GLY
39	BS	89	ARG
40	BT	93	ARG
42	BV	35	LEU
43	BW	93	ALA
44	BX	9	LEU
45	BY	31	LEU
45	BY	55	TYR

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Mol	Chain	Res	Type
45	BY	81	LYS
46	BZ	46	LYS
46	BZ	108	PRO
46	BZ	137	ILE
46	BZ	158	PRO
47	B0	30	VAL
47	B0	47	PRO
49	B2	18	PRO
50	B3	27	GLY
50	B3	39	ASP
51	B4	61	VAL
51	B4	62	CYS
51	B4	65	CYS
53	B6	20	ASN
53	B6	31	PRO
55	B8	40	GLU
2	CB	129	GLU
2	CB	158	LEU
2	CB	216	SER
3	CC	81	GLY
4	CD	5	ILE
4	CD	47	ARG
5	CE	62	ALA
5	CE	128	PRO
5	CE	136	MET
6	CF	13	ASN
7	CG	100	ALA
8	CH	91	ARG
9	CI	34	ASN
10	CJ	82	ILE
12	CL	62	SER
13	CM	3	ARG
13	CM	81	LEU
18	CR	23	LYS
19	CS	61	TYR
27	DC	52	ARG
27	DC	64	LEU
29	DE	45	THR
29	DE	61	ARG
29	DE	98	PRO
30	DF	20	LEU
30	DF	22	ALA

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Mol	Chain	Res	Type
31	DG	17	PRO
31	DG	25	TYR
31	DG	145	THR
31	DG	168	GLU
32	DH	21	PRO
32	DH	90	LYS
33	DI	14	ASP
33	DI	106	GLY
33	DI	132	PRO
34	DN	134	ARG
34	DN	135	PRO
35	DO	49	ARG
35	DO	119	PRO
36	DP	48	PRO
36	DP	149	GLU
38	DR	106	GLY
39	DS	89	ARG
40	DT	34	VAL
42	DV	35	LEU
43	DW	93	ALA
44	DX	9	LEU
45	DY	31	LEU
45	DY	81	LYS
46	DZ	46	LYS
46	DZ	108	PRO
46	DZ	137	ILE
46	DZ	158	PRO
47	D0	47	PRO
49	D2	18	PRO
50	D3	27	GLY
51	D4	61	VAL
51	D4	62	CYS
51	D4	65	CYS
53	D6	20	ASN
53	D6	31	PRO
55	D8	40	GLU
3	AC	14	ILE
4	AD	7	PRO
4	AD	172	PRO
10	AJ	82	ILE
13	AM	4	ILE
13	AM	81	LEU

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Mol	Chain	Res	Type
27	BC	26	ALA
27	BC	74	VAL
27	BC	197	GLU
30	BF	47	GLY
31	BG	153	ARG
32	BH	39	PRO
32	BH	45	VAL
32	BH	101	ARG
34	BN	134	ARG
35	BO	51	ALA
36	BP	70	GLN
39	BS	42	ASP
39	BS	96	GLY
40	BT	7	ILE
41	BU	68	ALA
41	BU	112	ARG
43	BW	15	ARG
45	BY	29	GLU
46	BZ	110	GLY
52	B5	50	GLY
56	B9	25	VAL
2	CB	22	LYS
3	CC	14	ILE
4	CD	7	PRO
4	CD	172	PRO
6	CF	29	ALA
11	CK	39	PRO
12	CL	91	LYS
13	CM	4	ILE
14	CN	25	VAL
19	CS	44	MET
20	CT	52	ALA
27	DC	26	ALA
27	DC	74	VAL
27	DC	197	GLU
28	DD	11	PRO
30	DF	47	GLY
31	DG	153	ARG
32	DH	39	PRO
32	DH	45	VAL
32	DH	101	ARG
35	DO	110	GLY

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Mol	Chain	Res	Type
35	DO	114	ILE
36	DP	70	GLN
38	DR	5	LYS
39	DS	42	ASP
39	DS	96	GLY
41	DU	68	ALA
41	DU	112	ARG
43	DW	15	ARG
45	DY	29	GLU
46	DZ	105	VAL
46	DZ	110	GLY
49	D2	68	ARG
50	D3	39	ASP
52	D5	50	GLY
56	D9	25	VAL
2	AB	232	PRO
4	AD	56	VAL
11	AK	34	ASP
27	BC	49	ILE
27	BC	65	PRO
28	BD	238	GLY
29	BE	86	PRO
32	BH	17	VAL
39	BS	98	VAL
41	BU	9	VAL
42	BV	22	VAL
43	BW	59	VAL
46	BZ	105	VAL
46	BZ	161	VAL
49	B2	17	SER
2	CB	232	PRO
11	CK	34	ASP
27	DC	49	ILE
27	DC	65	PRO
28	DD	238	GLY
29	DE	86	PRO
32	DH	17	VAL
39	DS	98	VAL
41	DU	9	VAL
42	DV	22	VAL
43	DW	59	VAL
46	DZ	161	VAL

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Mol	Chain	Res	Type
49	D2	17	SER
6	AF	67	MET
7	AG	42	ILE
12	AL	121	GLY
14	AN	25	VAL
17	AQ	19	VAL
27	BC	19	VAL
27	BC	62	VAL
33	BI	144	VAL
34	BN	125	GLY
35	BO	22	ILE
41	BU	8	VAL
46	BZ	114	GLY
4	CD	56	VAL
13	CM	7	VAL
20	CT	96	GLY
27	DC	19	VAL
33	DI	144	VAL
34	DN	125	GLY
35	DO	4	PRO
41	DU	8	VAL
46	DZ	114	GLY
9	AI	90	PRO
13	AM	7	VAL
15	AO	75	PRO
20	AT	96	GLY
27	BC	145	VAL
27	BC	200	LYS
28	BD	34	VAL
29	BE	130	GLY
32	BH	120	GLY
37	BQ	78	PRO
46	BZ	37	VAL
3	CC	174	PRO
4	CD	178	VAL
7	CG	42	ILE
12	CL	121	GLY
15	CO	75	PRO
17	CQ	19	VAL
27	DC	62	VAL
27	DC	145	VAL
27	DC	200	LYS

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Mol	Chain	Res	Type
28	DD	34	VAL
29	DE	130	GLY
32	DH	120	GLY
37	DQ	78	PRO
46	DZ	37	VAL
5	AE	11	ILE
16	AP	15	PRO
28	BD	36	PRO
28	BD	127	VAL
35	BO	43	VAL
36	BP	63	PRO
39	BS	91	PRO
40	BT	20	PRO
46	BZ	146	ILE
5	CE	11	ILE
16	CP	15	PRO
28	DD	36	PRO
28	DD	127	VAL
28	DD	228	PRO
36	DP	63	PRO
39	DS	91	PRO
46	DZ	146	ILE
4	AD	92	VAL
20	AT	98	PRO
28	BD	228	PRO
39	BS	46	VAL
45	BY	98	VAL
46	BZ	116	VAL
9	CI	90	PRO
20	CT	98	PRO
27	DC	22	ILE
39	DS	46	VAL
45	DY	52	SER
45	DY	98	VAL
46	DZ	116	VAL
34	BN	126	PRO
34	DN	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	AB	202/220 (92%)	179 (89%)	23 (11%)	5	22
2	CB	202/220 (92%)	179 (89%)	23 (11%)	5	22
3	AC	160/188 (85%)	150 (94%)	10 (6%)	16	42
3	CC	160/188 (85%)	149 (93%)	11 (7%)	14	40
4	AD	180/181 (99%)	160 (89%)	20 (11%)	6	23
4	CD	180/181 (99%)	161 (89%)	19 (11%)	6	25
5	AE	115/123 (94%)	98 (85%)	17 (15%)	3	16
5	CE	115/123 (94%)	97 (84%)	18 (16%)	2	15
6	AF	90/90 (100%)	82 (91%)	8 (9%)	9	32
6	CF	90/90 (100%)	83 (92%)	7 (8%)	11	36
7	AG	126/127 (99%)	118 (94%)	8 (6%)	16	42
7	CG	126/127 (99%)	119 (94%)	7 (6%)	19	45
8	AH	119/119 (100%)	111 (93%)	8 (7%)	15	41
8	CH	119/119 (100%)	111 (93%)	8 (7%)	15	41
9	AI	98/99 (99%)	86 (88%)	12 (12%)	5	21
9	CI	98/99 (99%)	84 (86%)	14 (14%)	3	17
10	AJ	88/92 (96%)	76 (86%)	12 (14%)	3	18
10	CJ	88/92 (96%)	76 (86%)	12 (14%)	3	18
11	AK	90/99 (91%)	81 (90%)	9 (10%)	7	27
11	CK	90/99 (91%)	82 (91%)	8 (9%)	9	32
12	AL	104/109 (95%)	94 (90%)	10 (10%)	8	29
12	CL	104/109 (95%)	93 (89%)	11 (11%)	6	25
13	AM	99/101 (98%)	81 (82%)	18 (18%)	2	11
13	CM	99/101 (98%)	80 (81%)	19 (19%)	1	9
14	AN	49/50 (98%)	44 (90%)	5 (10%)	7	26
14	CN	49/50 (98%)	44 (90%)	5 (10%)	7	26
15	AO	79/80 (99%)	75 (95%)	4 (5%)	21	46
15	CO	79/80 (99%)	75 (95%)	4 (5%)	21	46
16	AP	72/74 (97%)	66 (92%)	6 (8%)	10	34

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
16	CP	72/74 (97%)	66 (92%)	6 (8%)	10	34
17	AQ	94/97 (97%)	85 (90%)	9 (10%)	8	29
17	CQ	94/97 (97%)	85 (90%)	9 (10%)	8	29
18	AR	61/77 (79%)	59 (97%)	2 (3%)	33	56
18	CR	61/77 (79%)	59 (97%)	2 (3%)	33	56
19	AS	69/80 (86%)	59 (86%)	10 (14%)	3	17
19	CS	69/80 (86%)	59 (86%)	10 (14%)	3	17
20	AT	76/82 (93%)	72 (95%)	4 (5%)	20	46
20	CT	76/82 (93%)	69 (91%)	7 (9%)	8	30
21	AU	19/22 (86%)	17 (90%)	2 (10%)	6	25
21	CU	19/22 (86%)	12 (63%)	7 (37%)	0	1
27	BC	61/181 (34%)	54 (88%)	7 (12%)	5	22
27	DC	61/181 (34%)	54 (88%)	7 (12%)	5	22
28	BD	213/218 (98%)	175 (82%)	38 (18%)	2	12
28	DD	213/218 (98%)	175 (82%)	38 (18%)	2	12
29	BE	165/166 (99%)	140 (85%)	25 (15%)	3	16
29	DE	165/166 (99%)	139 (84%)	26 (16%)	2	15
30	BF	165/166 (99%)	144 (87%)	21 (13%)	4	20
30	DF	165/166 (99%)	144 (87%)	21 (13%)	4	20
31	BG	155/156 (99%)	135 (87%)	20 (13%)	4	20
31	DG	155/156 (99%)	134 (86%)	21 (14%)	4	18
32	BH	132/148 (89%)	117 (89%)	15 (11%)	5	22
32	DH	132/148 (89%)	116 (88%)	16 (12%)	5	21
33	BI	122/124 (98%)	104 (85%)	18 (15%)	3	16
33	DI	122/124 (98%)	106 (87%)	16 (13%)	4	19
34	BN	117/119 (98%)	96 (82%)	21 (18%)	2	12
34	DN	117/119 (98%)	96 (82%)	21 (18%)	2	12
35	BO	100/100 (100%)	87 (87%)	13 (13%)	4	19
35	DO	100/100 (100%)	80 (80%)	20 (20%)	1	9
36	BP	112/116 (97%)	87 (78%)	25 (22%)	1	6
36	DP	112/116 (97%)	87 (78%)	25 (22%)	1	6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
37	BQ	111/111 (100%)	96 (86%)	15 (14%)	4	18
37	DQ	111/111 (100%)	93 (84%)	18 (16%)	2	14
38	BR	100/101 (99%)	87 (87%)	13 (13%)	4	19
38	DR	100/101 (99%)	88 (88%)	12 (12%)	5	21
39	BS	77/88 (88%)	67 (87%)	10 (13%)	4	19
39	DS	77/88 (88%)	68 (88%)	9 (12%)	5	22
40	BT	120/127 (94%)	87 (72%)	33 (28%)	0	3
40	DT	120/127 (94%)	88 (73%)	32 (27%)	0	3
41	BU	92/94 (98%)	83 (90%)	9 (10%)	7	28
41	DU	92/94 (98%)	83 (90%)	9 (10%)	7	28
42	BV	82/82 (100%)	70 (85%)	12 (15%)	3	16
42	DV	82/82 (100%)	70 (85%)	12 (15%)	3	16
43	BW	91/92 (99%)	79 (87%)	12 (13%)	4	19
43	DW	91/92 (99%)	79 (87%)	12 (13%)	4	19
44	BX	74/78 (95%)	68 (92%)	6 (8%)	11	35
44	DX	74/78 (95%)	68 (92%)	6 (8%)	11	35
45	BY	84/91 (92%)	69 (82%)	15 (18%)	2	12
45	DY	84/91 (92%)	67 (80%)	17 (20%)	1	8
46	BZ	155/179 (87%)	135 (87%)	20 (13%)	4	20
46	DZ	155/179 (87%)	135 (87%)	20 (13%)	4	20
47	B0	66/67 (98%)	58 (88%)	8 (12%)	5	21
47	D0	66/67 (98%)	58 (88%)	8 (12%)	5	21
48	B1	78/83 (94%)	67 (86%)	11 (14%)	3	17
48	D1	78/83 (94%)	67 (86%)	11 (14%)	3	17
49	B2	66/67 (98%)	53 (80%)	13 (20%)	1	9
49	D2	66/67 (98%)	52 (79%)	14 (21%)	1	7
50	B3	51/52 (98%)	49 (96%)	2 (4%)	28	52
50	D3	51/52 (98%)	49 (96%)	2 (4%)	28	52
51	B4	27/63 (43%)	25 (93%)	2 (7%)	13	38
51	D4	27/63 (43%)	25 (93%)	2 (7%)	13	38
52	B5	51/52 (98%)	44 (86%)	7 (14%)	3	18

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
52	D5	51/52 (98%)	44 (86%)	7 (14%)	3	18
53	B6	43/52 (83%)	33 (77%)	10 (23%)	1	5
53	D6	43/52 (83%)	33 (77%)	10 (23%)	1	5
54	B7	41/42 (98%)	38 (93%)	3 (7%)	13	39
54	D7	41/42 (98%)	38 (93%)	3 (7%)	13	39
55	B8	53/55 (96%)	47 (89%)	6 (11%)	5	23
55	D8	53/55 (96%)	47 (89%)	6 (11%)	5	23
56	B9	33/34 (97%)	28 (85%)	5 (15%)	3	16
56	D9	33/34 (97%)	28 (85%)	5 (15%)	3	16
All	All	9654/10428 (93%)	8409 (87%)	1245 (13%)	4	20

All (1245) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AB	15	VAL
2	AB	17	PHE
2	AB	20	GLU
2	AB	32	ILE
2	AB	36	ARG
2	AB	39	ILE
2	AB	44	LEU
2	AB	45	GLN
2	AB	69	LEU
2	AB	74	LYS
2	AB	75	LYS
2	AB	80	ILE
2	AB	92	TYR
2	AB	110	GLN
2	AB	140	HIS
2	AB	145	LEU
2	AB	155	LEU
2	AB	172	ILE
2	AB	178	ARG
2	AB	187	LEU
2	AB	189	ASP
2	AB	196	LEU
2	AB	213	LEU
3	AC	12	LEU
3	AC	16	ARG

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Mol	Chain	Res	Type
3	AC	34	LEU
3	AC	69	HIS
3	AC	98	ASN
3	AC	104	GLN
3	AC	116	VAL
3	AC	152	ILE
3	AC	165	THR
3	AC	192	THR
4	AD	3	ARG
4	AD	7	PRO
4	AD	9	CYS
4	AD	11	LEU
4	AD	12	CYS
4	AD	15	GLU
4	AD	26	CYS
4	AD	45	GLN
4	AD	49	ARG
4	AD	58	LEU
4	AD	104	VAL
4	AD	110	PHE
4	AD	112	VAL
4	AD	122	ARG
4	AD	135	LEU
4	AD	146	ILE
4	AD	153	ARG
4	AD	162	LEU
4	AD	196	LEU
4	AD	198	VAL
5	AE	10	MET
5	AE	18	ARG
5	AE	28	PHE
5	AE	31	LEU
5	AE	41	VAL
5	AE	51	VAL
5	AE	53	LEU
5	AE	55	VAL
5	AE	68	GLU
5	AE	79	GLU
5	AE	91	LEU
5	AE	98	THR
5	AE	101	ILE
5	AE	112	LEU

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Mol	Chain	Res	Type
5	AE	126	ARG
5	AE	128	PRO
5	AE	147	ASP
6	AF	13	ASN
6	AF	36	ARG
6	AF	40	VAL
6	AF	54	LYS
6	AF	63	TYR
6	AF	65	VAL
6	AF	82	ARG
6	AF	98	LEU
7	AG	14	PRO
7	AG	58	PRO
7	AG	60	LYS
7	AG	79	ARG
7	AG	88	PRO
7	AG	113	GLU
7	AG	114	ARG
7	AG	124	LEU
8	AH	1	MET
8	AH	52	ASP
8	AH	60	ARG
8	AH	63	LEU
8	AH	65	TYR
8	AH	82	HIS
8	AH	85	ARG
8	AH	127	LEU
9	AI	4	TYR
9	AI	10	ARG
9	AI	20	ARG
9	AI	31	GLN
9	AI	47	LEU
9	AI	78	LYS
9	AI	92	TYR
9	AI	95	LYS
9	AI	101	PHE
9	AI	104	ARG
9	AI	114	TYR
9	AI	118	LYS
10	AJ	13	HIS
10	AJ	40	LEU
10	AJ	45	ARG

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Mol	Chain	Res	Type
10	AJ	47	PHE
10	AJ	50	ILE
10	AJ	62	HIS
10	AJ	63	PHE
10	AJ	80	LYS
10	AJ	86	MET
10	AJ	90	LEU
10	AJ	96	ILE
10	AJ	98	ILE
11	AK	32	ILE
11	AK	39	PRO
11	AK	41	THR
11	AK	51	LYS
11	AK	82	VAL
11	AK	84	VAL
11	AK	103	LEU
11	AK	125	PHE
11	AK	127	LYS
12	AL	6	THR
12	AL	12	ARG
12	AL	24	VAL
12	AL	43	VAL
12	AL	52	LEU
12	AL	62	SER
12	AL	80	HIS
12	AL	84	LEU
12	AL	85	ILE
12	AL	89	ARG
13	AM	14	ARG
13	AM	17	VAL
13	AM	47	ASP
13	AM	48	LEU
13	AM	50	GLU
13	AM	56	LEU
13	AM	65	LYS
13	AM	66	LEU
13	AM	69	GLU
13	AM	70	LEU
13	AM	82	MET
13	AM	92	HIS
13	AM	98	VAL
13	AM	99	ARG

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Mol	Chain	Res	Type
13	AM	102	ARG
13	AM	108	ARG
13	AM	111	LYS
13	AM	115	LYS
14	AN	3	ARG
14	AN	14	PRO
14	AN	33	VAL
14	AN	44	LEU
14	AN	50	LYS
15	AO	3	ILE
15	AO	26	GLU
15	AO	41	GLU
15	AO	82	ILE
16	AP	2	VAL
16	AP	27	LYS
16	AP	45	THR
16	AP	53	VAL
16	AP	67	THR
16	AP	69	THR
17	AQ	6	LEU
17	AQ	9	VAL
17	AQ	14	LYS
17	AQ	19	VAL
17	AQ	35	VAL
17	AQ	38	ARG
17	AQ	52	LYS
17	AQ	59	ILE
17	AQ	60	ILE
18	AR	32	ARG
18	AR	36	ASN
19	AS	6	LYS
19	AS	7	LYS
19	AS	13	ASP
19	AS	14	HIS
19	AS	27	GLU
19	AS	29	ARG
19	AS	33	THR
19	AS	37	ARG
19	AS	43	GLU
19	AS	49	ILE
20	AT	72	LEU
20	AT	75	ASN

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Mol	Chain	Res	Type
20	AT	93	GLU
20	AT	100	ILE
21	AU	15	ARG
21	AU	25	LYS
27	BC	24	GLU
27	BC	36	LYS
27	BC	49	ILE
27	BC	56	GLN
27	BC	64	LEU
27	BC	77	ILE
27	BC	94	VAL
28	BD	10	THR
28	BD	18	VAL
28	BD	24	ILE
28	BD	26	LYS
28	BD	28	GLU
28	BD	33	LEU
28	BD	44	ASN
28	BD	46	GLN
28	BD	49	ILE
28	BD	61	LEU
28	BD	64	ILE
28	BD	65	ILE
28	BD	89	SER
28	BD	91	ARG
28	BD	92	ILE
28	BD	94	LEU
28	BD	103	ARG
28	BD	111	LEU
28	BD	113	VAL
28	BD	122	ASP
28	BD	131	LEU
28	BD	166	GLN
28	BD	168	ARG
28	BD	173	VAL
28	BD	192	THR
28	BD	193	VAL
28	BD	211	ARG
28	BD	213	ARG
28	BD	218	ARG
28	BD	221	VAL
28	BD	226	MET

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Mol	Chain	Res	Type
28	BD	228	PRO
28	BD	229	VAL
28	BD	244	ARG
28	BD	257	LEU
28	BD	260	ARG
28	BD	270	ILE
28	BD	271	ILE
29	BE	1	MET
29	BE	9	VAL
29	BE	16	ARG
29	BE	18	ASP
29	BE	33	VAL
29	BE	40	GLU
29	BE	49	LEU
29	BE	52	LEU
29	BE	76	ARG
29	BE	78	LEU
29	BE	86	PRO
29	BE	89	ASP
29	BE	98	PRO
29	BE	118	LYS
29	BE	119	ARG
29	BE	134	ILE
29	BE	144	ARG
29	BE	154	LYS
29	BE	169	ASN
29	BE	173	VAL
29	BE	175	VAL
29	BE	178	GLU
29	BE	179	GLU
29	BE	202	LYS
29	BE	203	LYS
30	BF	2	LYS
30	BF	3	GLU
30	BF	19	GLU
30	BF	28	ILE
30	BF	57	VAL
30	BF	59	TYR
30	BF	67	GLN
30	BF	74	ARG
30	BF	78	ILE
30	BF	95	ARG

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Mol	Chain	Res	Type
30	BF	96	ASP
30	BF	110	LEU
30	BF	112	MET
30	BF	125	LEU
30	BF	140	LEU
30	BF	149	ASP
30	BF	165	ARG
30	BF	170	LEU
30	BF	171	PRO
30	BF	192	LEU
30	BF	202	PHE
31	BG	4	ASP
31	BG	16	ARG
31	BG	22	ARG
31	BG	39	ILE
31	BG	40	ASN
31	BG	48	GLU
31	BG	55	LYS
31	BG	58	GLN
31	BG	60	LEU
31	BG	70	VAL
31	BG	87	PRO
31	BG	88	ILE
31	BG	90	LEU
31	BG	101	ILE
31	BG	113	ARG
31	BG	143	GLU
31	BG	148	MET
31	BG	153	ARG
31	BG	159	VAL
31	BG	162	THR
32	BH	13	LYS
32	BH	21	PRO
32	BH	25	LYS
32	BH	43	VAL
32	BH	46	GLU
32	BH	54	ARG
32	BH	84	SER
32	BH	86	GLU
32	BH	88	LEU
32	BH	109	PHE
32	BH	111	HIS

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Mol	Chain	Res	Type
32	BH	139	GLN
32	BH	151	ILE
32	BH	153	LYS
32	BH	170	ARG
33	BI	38	LEU
33	BI	50	ARG
33	BI	51	ILE
33	BI	52	ARG
33	BI	56	LYS
33	BI	61	ARG
33	BI	68	LEU
33	BI	72	LEU
33	BI	75	LEU
33	BI	82	ARG
33	BI	88	ILE
33	BI	113	ARG
33	BI	118	LYS
33	BI	122	GLU
33	BI	129	THR
33	BI	134	PRO
33	BI	136	VAL
33	BI	138	ILE
34	BN	4	TYR
34	BN	15	LEU
34	BN	22	THR
34	BN	25	ARG
34	BN	39	ARG
34	BN	42	TRP
34	BN	45	ASN
34	BN	48	MET
34	BN	55	VAL
34	BN	63	THR
34	BN	68	GLU
34	BN	78	TYR
34	BN	87	LEU
34	BN	89	LYS
34	BN	90	MET
34	BN	99	LEU
34	BN	108	PRO
34	BN	114	ARG
34	BN	119	ARG
34	BN	134	ARG

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Mol	Chain	Res	Type
34	BN	136	GLU
35	BO	14	THR
35	BO	18	LYS
35	BO	20	MET
35	BO	24	VAL
35	BO	37	ASP
35	BO	38	VAL
35	BO	58	VAL
35	BO	61	VAL
35	BO	78	ARG
35	BO	89	ASN
35	BO	91	LEU
35	BO	108	GLU
35	BO	114	ILE
36	BP	6	LEU
36	BP	9	ASN
36	BP	10	PRO
36	BP	13	ASN
36	BP	16	ARG
36	BP	18	ARG
36	BP	29	LYS
36	BP	30	THR
36	BP	39	LYS
36	BP	41	ARG
36	BP	52	GLU
36	BP	55	ARG
36	BP	57	THR
36	BP	61	ARG
36	BP	67	MET
36	BP	81	GLN
36	BP	85	LEU
36	BP	91	PHE
36	BP	92	GLU
36	BP	98	GLU
36	BP	105	LEU
36	BP	114	ILE
36	BP	125	VAL
36	BP	128	HIS
36	BP	135	LEU
37	BQ	1	MET
37	BQ	6	ARG
37	BQ	17	LEU

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Mol	Chain	Res	Type
37	BQ	45	GLN
37	BQ	51	ARG
37	BQ	55	VAL
37	BQ	63	LYS
37	BQ	66	ILE
37	BQ	75	THR
37	BQ	79	LEU
37	BQ	81	VAL
37	BQ	110	THR
37	BQ	111	GLU
37	BQ	131	ILE
37	BQ	134	ARG
38	BR	2	ARG
38	BR	5	LYS
38	BR	17	ARG
38	BR	18	LEU
38	BR	29	LEU
38	BR	56	LYS
38	BR	60	LEU
38	BR	76	VAL
38	BR	79	LEU
38	BR	80	PHE
38	BR	94	TYR
38	BR	99	LYS
38	BR	104	ARG
39	BS	12	PHE
39	BS	18	ILE
39	BS	31	SER
39	BS	36	TYR
39	BS	56	LEU
39	BS	89	ARG
39	BS	92	TYR
39	BS	97	ARG
39	BS	101	LEU
39	BS	103	GLU
40	BT	3	ARG
40	BT	6	LEU
40	BT	11	GLU
40	BT	12	SER
40	BT	15	VAL
40	BT	16	ARG
40	BT	18	ASP

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Mol	Chain	Res	Type
40	BT	19	LEU
40	BT	26	ASP
40	BT	27	THR
40	BT	28	VAL
40	BT	30	VAL
40	BT	31	SER
40	BT	33	LYS
40	BT	34	VAL
40	BT	36	GLU
40	BT	41	ARG
40	BT	42	ILE
40	BT	48	ILE
40	BT	49	VAL
40	BT	53	ARG
40	BT	60	THR
40	BT	75	ILE
40	BT	78	LEU
40	BT	83	ILE
40	BT	84	GLN
40	BT	85	LYS
40	BT	99	LEU
40	BT	102	ILE
40	BT	119	LYS
40	BT	123	GLN
40	BT	128	GLU
40	BT	134	GLU
41	BU	15	LYS
41	BU	16	LYS
41	BU	20	LEU
41	BU	34	LYS
41	BU	44	ASN
41	BU	60	LEU
41	BU	92	ARG
41	BU	104	GLN
41	BU	105	VAL
42	BV	5	VAL
42	BV	18	LEU
42	BV	19	LYS
42	BV	39	LEU
42	BV	40	LEU
42	BV	49	THR
42	BV	61	VAL

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Mol	Chain	Res	Type
42	BV	66	ARG
42	BV	68	LYS
42	BV	91	TYR
42	BV	92	THR
42	BV	99	ILE
43	BW	9	TYR
43	BW	11	ARG
43	BW	14	PRO
43	BW	19	LEU
43	BW	51	LEU
43	BW	60	ASN
43	BW	61	ASN
43	BW	65	LEU
43	BW	70	TYR
43	BW	75	TYR
43	BW	76	VAL
43	BW	107	LEU
44	BX	49	VAL
44	BX	52	VAL
44	BX	57	LEU
44	BX	68	ARG
44	BX	80	ILE
44	BX	83	VAL
45	BY	2	ARG
45	BY	6	HIS
45	BY	7	VAL
45	BY	19	LYS
45	BY	28	LYS
45	BY	32	PRO
45	BY	42	VAL
45	BY	47	LYS
45	BY	50	ARG
45	BY	62	GLU
45	BY	71	LYS
45	BY	77	PRO
45	BY	89	PHE
45	BY	96	ILE
45	BY	97	ARG
46	BZ	3	TYR
46	BZ	8	TYR
46	BZ	9	TYR
46	BZ	11	GLU

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Mol	Chain	Res	Type
46	BZ	18	LEU
46	BZ	53	ILE
46	BZ	67	LEU
46	BZ	77	ASP
46	BZ	80	ARG
46	BZ	85	HIS
46	BZ	86	VAL
46	BZ	99	TYR
46	BZ	119	GLU
46	BZ	121	HIS
46	BZ	128	VAL
46	BZ	145	GLU
46	BZ	150	LEU
46	BZ	154	ASP
46	BZ	155	LEU
46	BZ	168	GLU
47	B0	3	HIS
47	B0	5	LYS
47	B0	20	ARG
47	B0	53	MET
47	B0	55	ARG
47	B0	70	GLN
47	B0	80	HIS
47	B0	84	LEU
48	B1	25	LYS
48	B1	35	THR
48	B1	40	ARG
48	B1	46	LEU
48	B1	58	ILE
48	B1	59	THR
48	B1	61	ARG
48	B1	72	GLU
48	B1	80	LEU
48	B1	82	LEU
48	B1	94	LEU
49	B2	2	LYS
49	B2	7	ARG
49	B2	32	LEU
49	B2	43	GLN
49	B2	44	LEU
49	B2	47	ASN
49	B2	48	HIS

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Mol	Chain	Res	Type
49	B2	49	LYS
49	B2	52	ASP
49	B2	53	LEU
49	B2	62	THR
49	B2	64	LEU
49	B2	68	ARG
50	B3	24	LYS
50	B3	37	LEU
51	B4	48	ILE
51	B4	56	GLU
52	B5	4	HIS
52	B5	11	THR
52	B5	32	PRO
52	B5	40	LYS
52	B5	48	GLU
52	B5	56	LYS
52	B5	58	LEU
53	B6	10	LEU
53	B6	11	LEU
53	B6	12	GLU
53	B6	18	ARG
53	B6	19	ARG
53	B6	31	PRO
53	B6	36	LEU
53	B6	42	TRP
53	B6	45	LYS
53	B6	46	HIS
54	B7	1	MET
54	B7	4	THR
54	B7	41	ARG
55	B8	30	ARG
55	B8	31	HIS
55	B8	32	LEU
55	B8	41	ILE
55	B8	49	VAL
55	B8	61	LEU
56	B9	2	LYS
56	B9	25	VAL
56	B9	26	ILE
56	B9	28	GLU
56	B9	33	LYS
2	CB	15	VAL

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Mol	Chain	Res	Type
2	CB	17	PHE
2	CB	20	GLU
2	CB	32	ILE
2	CB	36	ARG
2	CB	39	ILE
2	CB	44	LEU
2	CB	45	GLN
2	CB	69	LEU
2	CB	74	LYS
2	CB	75	LYS
2	CB	80	ILE
2	CB	92	TYR
2	CB	110	GLN
2	CB	140	HIS
2	CB	145	LEU
2	CB	155	LEU
2	CB	172	ILE
2	CB	178	ARG
2	CB	187	LEU
2	CB	189	ASP
2	CB	196	LEU
2	CB	213	LEU
3	CC	12	LEU
3	CC	16	ARG
3	CC	34	LEU
3	CC	52	LEU
3	CC	69	HIS
3	CC	98	ASN
3	CC	104	GLN
3	CC	116	VAL
3	CC	152	ILE
3	CC	165	THR
3	CC	192	THR
4	CD	3	ARG
4	CD	7	PRO
4	CD	9	CYS
4	CD	11	LEU
4	CD	12	CYS
4	CD	15	GLU
4	CD	26	CYS
4	CD	45	GLN
4	CD	49	ARG

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Mol	Chain	Res	Type
4	CD	58	LEU
4	CD	104	VAL
4	CD	112	VAL
4	CD	122	ARG
4	CD	135	LEU
4	CD	146	ILE
4	CD	153	ARG
4	CD	162	LEU
4	CD	196	LEU
4	CD	198	VAL
5	CE	10	MET
5	CE	18	ARG
5	CE	28	PHE
5	CE	31	LEU
5	CE	41	VAL
5	CE	51	VAL
5	CE	53	LEU
5	CE	55	VAL
5	CE	71	LEU
5	CE	72	GLN
5	CE	79	GLU
5	CE	91	LEU
5	CE	98	THR
5	CE	101	ILE
5	CE	112	LEU
5	CE	126	ARG
5	CE	128	PRO
5	CE	147	ASP
6	CF	40	VAL
6	CF	46	ARG
6	CF	63	TYR
6	CF	65	VAL
6	CF	82	ARG
6	CF	92	LYS
6	CF	98	LEU
7	CG	58	PRO
7	CG	60	LYS
7	CG	79	ARG
7	CG	88	PRO
7	CG	113	GLU
7	CG	114	ARG
7	CG	124	LEU

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Mol	Chain	Res	Type
8	CH	1	MET
8	CH	52	ASP
8	CH	60	ARG
8	CH	63	LEU
8	CH	65	TYR
8	CH	82	HIS
8	CH	85	ARG
8	CH	127	LEU
9	CI	4	TYR
9	CI	10	ARG
9	CI	20	ARG
9	CI	31	GLN
9	CI	47	LEU
9	CI	78	LYS
9	CI	89	ASN
9	CI	92	TYR
9	CI	95	LYS
9	CI	101	PHE
9	CI	107	ARG
9	CI	114	TYR
9	CI	116	LYS
9	CI	118	LYS
10	CJ	13	HIS
10	CJ	40	LEU
10	CJ	45	ARG
10	CJ	47	PHE
10	CJ	50	ILE
10	CJ	62	HIS
10	CJ	63	PHE
10	CJ	80	LYS
10	CJ	86	MET
10	CJ	90	LEU
10	CJ	96	ILE
10	CJ	98	ILE
11	CK	32	ILE
11	CK	39	PRO
11	CK	51	LYS
11	CK	82	VAL
11	CK	84	VAL
11	CK	103	LEU
11	CK	125	PHE
11	CK	127	LYS

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Mol	Chain	Res	Type
12	CL	6	THR
12	CL	24	VAL
12	CL	28	LYS
12	CL	33	ARG
12	CL	43	VAL
12	CL	52	LEU
12	CL	62	SER
12	CL	80	HIS
12	CL	84	LEU
12	CL	85	ILE
12	CL	89	ARG
13	CM	11	ARG
13	CM	14	ARG
13	CM	17	VAL
13	CM	47	ASP
13	CM	48	LEU
13	CM	50	GLU
13	CM	56	LEU
13	CM	65	LYS
13	CM	67	GLU
13	CM	69	GLU
13	CM	70	LEU
13	CM	77	ASN
13	CM	82	MET
13	CM	92	HIS
13	CM	98	VAL
13	CM	99	ARG
13	CM	108	ARG
13	CM	115	LYS
13	CM	120	LYS
14	CN	3	ARG
14	CN	14	PRO
14	CN	33	VAL
14	CN	44	LEU
14	CN	50	LYS
15	CO	3	ILE
15	CO	26	GLU
15	CO	41	GLU
15	CO	82	ILE
16	CP	2	VAL
16	CP	27	LYS
16	CP	45	THR

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Mol	Chain	Res	Type
16	CP	53	VAL
16	CP	67	THR
16	CP	69	THR
17	CQ	6	LEU
17	CQ	9	VAL
17	CQ	14	LYS
17	CQ	19	VAL
17	CQ	35	VAL
17	CQ	38	ARG
17	CQ	52	LYS
17	CQ	59	ILE
17	CQ	60	ILE
18	CR	32	ARG
18	CR	36	ASN
19	CS	6	LYS
19	CS	7	LYS
19	CS	13	ASP
19	CS	14	HIS
19	CS	27	GLU
19	CS	29	ARG
19	CS	33	THR
19	CS	37	ARG
19	CS	43	GLU
19	CS	49	ILE
20	CT	50	GLU
20	CT	65	LYS
20	CT	72	LEU
20	CT	75	ASN
20	CT	85	MET
20	CT	93	GLU
20	CT	100	ILE
21	CU	3	LYS
21	CU	7	ARG
21	CU	8	THR
21	CU	10	ARG
21	CU	12	LYS
21	CU	15	ARG
21	CU	25	LYS
27	DC	24	GLU
27	DC	36	LYS
27	DC	49	ILE
27	DC	56	GLN

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Mol	Chain	Res	Type
27	DC	64	LEU
27	DC	77	ILE
27	DC	94	VAL
28	DD	9	TYR
28	DD	10	THR
28	DD	18	VAL
28	DD	24	ILE
28	DD	26	LYS
28	DD	28	GLU
28	DD	33	LEU
28	DD	44	ASN
28	DD	46	GLN
28	DD	49	ILE
28	DD	61	LEU
28	DD	64	ILE
28	DD	65	ILE
28	DD	89	SER
28	DD	91	ARG
28	DD	92	ILE
28	DD	94	LEU
28	DD	103	ARG
28	DD	111	LEU
28	DD	113	VAL
28	DD	122	ASP
28	DD	131	LEU
28	DD	166	GLN
28	DD	168	ARG
28	DD	173	VAL
28	DD	192	THR
28	DD	193	VAL
28	DD	211	ARG
28	DD	213	ARG
28	DD	218	ARG
28	DD	221	VAL
28	DD	226	MET
28	DD	228	PRO
28	DD	229	VAL
28	DD	257	LEU
28	DD	260	ARG
28	DD	270	ILE
28	DD	271	ILE
29	DE	1	MET

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Mol	Chain	Res	Type
29	DE	9	VAL
29	DE	16	ARG
29	DE	18	ASP
29	DE	33	VAL
29	DE	40	GLU
29	DE	49	LEU
29	DE	52	LEU
29	DE	76	ARG
29	DE	78	LEU
29	DE	86	PRO
29	DE	89	ASP
29	DE	98	PRO
29	DE	118	LYS
29	DE	119	ARG
29	DE	132	HIS
29	DE	134	ILE
29	DE	144	ARG
29	DE	154	LYS
29	DE	169	ASN
29	DE	173	VAL
29	DE	175	VAL
29	DE	178	GLU
29	DE	179	GLU
29	DE	202	LYS
29	DE	203	LYS
30	DF	2	LYS
30	DF	3	GLU
30	DF	19	GLU
30	DF	28	ILE
30	DF	57	VAL
30	DF	59	TYR
30	DF	67	GLN
30	DF	74	ARG
30	DF	78	ILE
30	DF	95	ARG
30	DF	96	ASP
30	DF	110	LEU
30	DF	112	MET
30	DF	125	LEU
30	DF	140	LEU
30	DF	149	ASP
30	DF	165	ARG

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Mol	Chain	Res	Type
30	DF	170	LEU
30	DF	171	PRO
30	DF	192	LEU
30	DF	202	PHE
31	DG	4	ASP
31	DG	16	ARG
31	DG	22	ARG
31	DG	39	ILE
31	DG	40	ASN
31	DG	48	GLU
31	DG	55	LYS
31	DG	58	GLN
31	DG	60	LEU
31	DG	70	VAL
31	DG	87	PRO
31	DG	88	ILE
31	DG	90	LEU
31	DG	101	ILE
31	DG	104	GLU
31	DG	113	ARG
31	DG	143	GLU
31	DG	148	MET
31	DG	153	ARG
31	DG	159	VAL
31	DG	162	THR
32	DH	13	LYS
32	DH	21	PRO
32	DH	25	LYS
32	DH	41	MET
32	DH	43	VAL
32	DH	46	GLU
32	DH	54	ARG
32	DH	84	SER
32	DH	86	GLU
32	DH	88	LEU
32	DH	109	PHE
32	DH	111	HIS
32	DH	139	GLN
32	DH	151	ILE
32	DH	153	LYS
32	DH	170	ARG
33	DI	38	LEU

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Mol	Chain	Res	Type
33	DI	47	LEU
33	DI	51	ILE
33	DI	61	ARG
33	DI	68	LEU
33	DI	72	LEU
33	DI	75	LEU
33	DI	82	ARG
33	DI	88	ILE
33	DI	113	ARG
33	DI	118	LYS
33	DI	122	GLU
33	DI	129	THR
33	DI	134	PRO
33	DI	136	VAL
33	DI	138	ILE
34	DN	4	TYR
34	DN	15	LEU
34	DN	22	THR
34	DN	25	ARG
34	DN	39	ARG
34	DN	42	TRP
34	DN	45	ASN
34	DN	48	MET
34	DN	55	VAL
34	DN	63	THR
34	DN	68	GLU
34	DN	78	TYR
34	DN	87	LEU
34	DN	89	LYS
34	DN	90	MET
34	DN	99	LEU
34	DN	108	PRO
34	DN	114	ARG
34	DN	119	ARG
34	DN	134	ARG
34	DN	136	GLU
35	DO	5	GLN
35	DO	10	VAL
35	DO	17	ARG
35	DO	18	LYS
35	DO	21	CYS
35	DO	22	ILE

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Mol	Chain	Res	Type
35	DO	24	VAL
35	DO	25	LEU
35	DO	29	ASN
35	DO	42	SER
35	DO	62	VAL
35	DO	64	ARG
35	DO	65	THR
35	DO	66	LYS
35	DO	68	GLU
35	DO	70	LYS
35	DO	73	ASP
35	DO	91	LEU
35	DO	96	THR
35	DO	120	GLU
36	DP	6	LEU
36	DP	9	ASN
36	DP	10	PRO
36	DP	16	ARG
36	DP	18	ARG
36	DP	29	LYS
36	DP	30	THR
36	DP	36	LYS
36	DP	39	LYS
36	DP	41	ARG
36	DP	50	ARG
36	DP	52	GLU
36	DP	57	THR
36	DP	61	ARG
36	DP	67	MET
36	DP	81	GLN
36	DP	85	LEU
36	DP	91	PHE
36	DP	92	GLU
36	DP	98	GLU
36	DP	105	LEU
36	DP	114	ILE
36	DP	125	VAL
36	DP	128	HIS
36	DP	135	LEU
37	DQ	1	MET
37	DQ	6	ARG
37	DQ	17	LEU

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Mol	Chain	Res	Type
37	DQ	18	LYS
37	DQ	21	THR
37	DQ	45	GLN
37	DQ	51	ARG
37	DQ	55	VAL
37	DQ	63	LYS
37	DQ	66	ILE
37	DQ	75	THR
37	DQ	79	LEU
37	DQ	81	VAL
37	DQ	110	THR
37	DQ	111	GLU
37	DQ	128	LYS
37	DQ	131	ILE
37	DQ	134	ARG
38	DR	2	ARG
38	DR	5	LYS
38	DR	17	ARG
38	DR	18	LEU
38	DR	29	LEU
38	DR	56	LYS
38	DR	60	LEU
38	DR	76	VAL
38	DR	79	LEU
38	DR	94	TYR
38	DR	99	LYS
38	DR	104	ARG
39	DS	12	PHE
39	DS	18	ILE
39	DS	36	TYR
39	DS	56	LEU
39	DS	89	ARG
39	DS	92	TYR
39	DS	97	ARG
39	DS	101	LEU
39	DS	103	GLU
40	DT	3	ARG
40	DT	6	LEU
40	DT	11	GLU
40	DT	12	SER
40	DT	13	ARG
40	DT	15	VAL

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Mol	Chain	Res	Type
40	DT	16	ARG
40	DT	23	ARG
40	DT	27	THR
40	DT	29	ARG
40	DT	31	SER
40	DT	38	ASN
40	DT	39	ARG
40	DT	44	ASP
40	DT	49	VAL
40	DT	53	ARG
40	DT	58	ASN
40	DT	65	LYS
40	DT	66	VAL
40	DT	70	VAL
40	DT	74	ARG
40	DT	78	LEU
40	DT	83	ILE
40	DT	84	GLN
40	DT	89	VAL
40	DT	95	ARG
40	DT	96	ARG
40	DT	99	LEU
40	DT	100	TYR
40	DT	102	ILE
40	DT	104	ASN
40	DT	108	ARG
41	DU	15	LYS
41	DU	16	LYS
41	DU	20	LEU
41	DU	34	LYS
41	DU	44	ASN
41	DU	60	LEU
41	DU	92	ARG
41	DU	104	GLN
41	DU	105	VAL
42	DV	5	VAL
42	DV	18	LEU
42	DV	19	LYS
42	DV	39	LEU
42	DV	40	LEU
42	DV	49	THR
42	DV	61	VAL

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Mol	Chain	Res	Type
42	DV	66	ARG
42	DV	68	LYS
42	DV	91	TYR
42	DV	92	THR
42	DV	99	ILE
43	DW	9	TYR
43	DW	11	ARG
43	DW	14	PRO
43	DW	19	LEU
43	DW	51	LEU
43	DW	60	ASN
43	DW	61	ASN
43	DW	65	LEU
43	DW	70	TYR
43	DW	75	TYR
43	DW	76	VAL
43	DW	107	LEU
44	DX	49	VAL
44	DX	52	VAL
44	DX	57	LEU
44	DX	68	ARG
44	DX	80	ILE
44	DX	83	VAL
45	DY	2	ARG
45	DY	6	HIS
45	DY	7	VAL
45	DY	19	LYS
45	DY	28	LYS
45	DY	32	PRO
45	DY	42	VAL
45	DY	47	LYS
45	DY	53	PRO
45	DY	55	TYR
45	DY	57	GLN
45	DY	62	GLU
45	DY	71	LYS
45	DY	77	PRO
45	DY	89	PHE
45	DY	96	ILE
45	DY	97	ARG
46	DZ	3	TYR
46	DZ	8	TYR

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Mol	Chain	Res	Type
46	DZ	9	TYR
46	DZ	11	GLU
46	DZ	18	LEU
46	DZ	53	ILE
46	DZ	67	LEU
46	DZ	77	ASP
46	DZ	80	ARG
46	DZ	85	HIS
46	DZ	86	VAL
46	DZ	99	TYR
46	DZ	119	GLU
46	DZ	121	HIS
46	DZ	128	VAL
46	DZ	145	GLU
46	DZ	150	LEU
46	DZ	154	ASP
46	DZ	155	LEU
46	DZ	168	GLU
47	D0	3	HIS
47	D0	5	LYS
47	D0	20	ARG
47	D0	53	MET
47	D0	55	ARG
47	D0	70	GLN
47	D0	80	HIS
47	D0	84	LEU
48	D1	25	LYS
48	D1	35	THR
48	D1	40	ARG
48	D1	46	LEU
48	D1	58	ILE
48	D1	59	THR
48	D1	61	ARG
48	D1	72	GLU
48	D1	80	LEU
48	D1	82	LEU
48	D1	94	LEU
49	D2	2	LYS
49	D2	7	ARG
49	D2	32	LEU
49	D2	41	ILE
49	D2	43	GLN

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Mol	Chain	Res	Type
49	D2	44	LEU
49	D2	47	ASN
49	D2	48	HIS
49	D2	49	LYS
49	D2	52	ASP
49	D2	53	LEU
49	D2	62	THR
49	D2	64	LEU
49	D2	68	ARG
50	D3	24	LYS
50	D3	37	LEU
51	D4	48	ILE
51	D4	56	GLU
52	D5	4	HIS
52	D5	11	THR
52	D5	32	PRO
52	D5	40	LYS
52	D5	48	GLU
52	D5	56	LYS
52	D5	58	LEU
53	D6	10	LEU
53	D6	11	LEU
53	D6	12	GLU
53	D6	18	ARG
53	D6	19	ARG
53	D6	31	PRO
53	D6	36	LEU
53	D6	42	TRP
53	D6	45	LYS
53	D6	46	HIS
54	D7	1	MET
54	D7	4	THR
54	D7	41	ARG
55	D8	30	ARG
55	D8	31	HIS
55	D8	32	LEU
55	D8	41	ILE
55	D8	49	VAL
55	D8	61	LEU
56	D9	2	LYS
56	D9	25	VAL
56	D9	26	ILE

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Mol	Chain	Res	Type
56	D9	28	GLU
56	D9	33	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (175) such sidechains are listed below:

Mol	Chain	Res	Type
2	AB	40	HIS
2	AB	78	GLN
2	AB	94	ASN
2	AB	104	ASN
2	AB	110	GLN
2	AB	204	ASN
2	AB	224	GLN
3	AC	3	ASN
3	AC	102	ASN
3	AC	110	ASN
3	AC	162	GLN
4	AD	42	GLN
4	AD	74	GLN
5	AE	78	HIS
5	AE	141	GLN
6	AF	84	ASN
6	AF	100	ASN
7	AG	11	GLN
7	AG	106	GLN
9	AI	73	GLN
9	AI	124	GLN
10	AJ	33	GLN
10	AJ	76	ASN
11	AK	93	GLN
11	AK	99	GLN
12	AL	9	GLN
12	AL	75	HIS
13	AM	40	ASN
17	AQ	16	GLN
17	AQ	45	HIS
18	AR	36	ASN
20	AT	73	HIS
28	BD	112	GLN
28	BD	115	GLN
28	BD	143	HIS
28	BD	164	GLN

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Mol	Chain	Res	Type
29	BE	129	HIS
29	BE	132	HIS
29	BE	180	ASN
30	BF	29	ASN
30	BF	75	HIS
30	BF	160	ASN
30	BF	169	ASN
30	BF	204	ASN
31	BG	27	ASN
31	BG	40	ASN
31	BG	41	GLN
32	BH	74	ASN
32	BH	143	GLN
33	BI	105	HIS
34	BN	94	HIS
34	BN	131	GLN
34	BN	133	GLN
35	BO	3	GLN
36	BP	9	ASN
36	BP	13	ASN
36	BP	38	GLN
36	BP	84	ASN
37	BQ	12	GLN
37	BQ	13	GLN
38	BR	11	ASN
38	BR	13	HIS
38	BR	16	HIS
38	BR	50	HIS
38	BR	71	GLN
40	BT	55	ASN
41	BU	14	HIS
41	BU	49	HIS
41	BU	71	GLN
41	BU	72	HIS
41	BU	81	HIS
41	BU	94	ASN
41	BU	104	GLN
43	BW	60	ASN
46	BZ	50	GLN
46	BZ	121	HIS
47	B0	29	GLN
50	B3	19	GLN

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Mol	Chain	Res	Type
51	B4	46	ASN
53	B6	20	ASN
53	B6	26	ASN
53	B6	32	ASN
53	B6	46	HIS
55	B8	35	GLN
56	B9	29	ASN
2	CB	78	GLN
2	CB	94	ASN
2	CB	104	ASN
2	CB	110	GLN
2	CB	204	ASN
2	CB	224	GLN
3	CC	3	ASN
3	CC	102	ASN
3	CC	110	ASN
4	CD	42	GLN
5	CE	78	HIS
6	CF	7	ASN
6	CF	100	ASN
7	CG	11	GLN
7	CG	64	GLN
7	CG	68	ASN
7	CG	106	GLN
7	CG	109	ASN
9	CI	124	GLN
10	CJ	33	GLN
10	CJ	76	ASN
11	CK	93	GLN
11	CK	99	GLN
11	CK	116	HIS
12	CL	9	GLN
12	CL	75	HIS
13	CM	40	ASN
15	CO	62	GLN
16	CP	76	GLN
18	CR	36	ASN
20	CT	26	ASN
20	CT	73	HIS
20	CT	90	GLN
28	DD	112	GLN
28	DD	115	GLN

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Mol	Chain	Res	Type
28	DD	143	HIS
28	DD	164	GLN
29	DE	129	HIS
29	DE	180	ASN
30	DF	29	ASN
30	DF	75	HIS
30	DF	160	ASN
30	DF	169	ASN
30	DF	204	ASN
31	DG	40	ASN
31	DG	41	GLN
32	DH	74	ASN
32	DH	143	GLN
33	DI	105	HIS
34	DN	94	HIS
34	DN	131	GLN
34	DN	133	GLN
35	DO	3	GLN
35	DO	29	ASN
36	DP	9	ASN
36	DP	38	GLN
36	DP	84	ASN
37	DQ	12	GLN
37	DQ	13	GLN
37	DQ	123	HIS
37	DQ	141	GLN
38	DR	11	ASN
38	DR	13	HIS
38	DR	16	HIS
38	DR	71	GLN
40	DT	38	ASN
40	DT	55	ASN
40	DT	84	GLN
40	DT	123	GLN
41	DU	14	HIS
41	DU	49	HIS
41	DU	71	GLN
41	DU	72	HIS
41	DU	81	HIS
41	DU	94	ASN
41	DU	104	GLN
43	DW	60	ASN

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Mol	Chain	Res	Type
46	DZ	50	GLN
46	DZ	73	GLN
46	DZ	75	ASN
47	D0	29	GLN
49	D2	38	GLN
50	D3	19	GLN
51	D4	46	ASN
53	D6	20	ASN
53	D6	26	ASN
53	D6	32	ASN
53	D6	46	HIS
55	D8	35	GLN
56	D9	29	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1503/1522 (98%)	291 (19%)	27 (1%)
1	CA	1502/1522 (98%)	291 (19%)	32 (2%)
22	AW	75/76 (98%)	22 (29%)	0
22	AY	16/76 (21%)	9 (56%)	0
22	CW	75/76 (98%)	26 (34%)	0
22	CY	16/76 (21%)	7 (43%)	0
23	AV	76/77 (98%)	38 (50%)	5 (6%)
23	CV	76/77 (98%)	35 (46%)	5 (6%)
24	AX	7/24 (29%)	2 (28%)	0
24	CX	9/24 (37%)	3 (33%)	1 (11%)
25	BA	2796/2916 (95%)	562 (20%)	53 (1%)
25	DA	2796/2916 (95%)	570 (20%)	58 (2%)
26	BB	118/122 (96%)	18 (15%)	1 (0%)
26	DB	118/122 (96%)	19 (16%)	1 (0%)
All	All	9183/9626 (95%)	1893 (20%)	183 (1%)

All (1893) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	9	G
1	AA	32	A
1	AA	39	G
1	AA	47	C
1	AA	48	C

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Mol	Chain	Res	Type
1	AA	51	A
1	AA	54	C
1	AA	61	G
1	AA	62	U
1	AA	77	G
1	AA	78	G
1	AA	79	U
1	AA	84	C
1	AA	85	U
1	AA	90	G
1	AA	91	G
1	AA	94	A
1	AA	108	G
1	AA	113	A
1	AA	114	C
1	AA	115	G
1	AA	125	C
1	AA	139	G
1	AA	140	G
1	AA	144	C
1	AA	150	G
1	AA	153	G
1	AA	154	A
1	AA	155	A
1	AA	157	C
1	AA	158	U
1	AA	166	A
1	AA	175	G
1	AA	176	U
1	AA	190	G
1	AA	191	G
1	AA	201	A
1	AA	203	A
1	AA	209	U
1	AA	210	U
1	AA	215	G
1	AA	218	U
1	AA	239	U
1	AA	242	G
1	AA	244	U
1	AA	245	A
1	AA	246	G

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Mol	Chain	Res	Type
1	AA	247	U
1	AA	248	U
1	AA	260	G
1	AA	261	G
1	AA	262	C
1	AA	284	G
1	AA	296	G
1	AA	323	C
1	AA	327	G
1	AA	337	C
1	AA	339	A
1	AA	340	C
1	AA	342	U
1	AA	343	G
1	AA	344	A
1	AA	347	C
1	AA	348	A
1	AA	349	G
1	AA	362	U
1	AA	367	C
1	AA	368	A
1	AA	379	G
1	AA	385	C
1	AA	392	A
1	AA	393	C
1	AA	401	G
1	AA	407	A
1	AA	408	G
1	AA	409	A
1	AA	416	U
1	AA	417	C
1	AA	423	G
1	AA	424	U
1	AA	425	A
1	AA	430	C
1	AA	434	A
1	AA	436	C
1	AA	446	A
1	AA	452	C
1	AA	454	A
1	AA	469	G
1	AA	480	A

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Mol	Chain	Res	Type
1	AA	481	U
1	AA	492	A
1	AA	493	A
1	AA	494	C
1	AA	501	C
1	AA	504	G
1	AA	507	G
1	AA	510	G
1	AA	514	U
1	AA	515	A
1	AA	516	A
1	AA	517	U
1	AA	530	A
1	AA	541	G
1	AA	542	A
1	AA	543	U
1	AA	544	U
1	AA	545	C
1	AA	555	A
1	AA	556	A
1	AA	559	G
1	AA	560	G
1	AA	562	G
1	AA	579	C
1	AA	590	A
1	AA	614	G
1	AA	615	A
1	AA	616	G
1	AA	636	A
1	AA	648	A
1	AA	669	U
1	AA	670	A
1	AA	685	A
1	AA	706	U
1	AA	714	G
1	AA	731	C
1	AA	732	C
1	AA	738	G
1	AA	760	A
1	AA	775	A
1	AA	776	U
1	AA	777	A

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Mol	Chain	Res	Type
1	AA	782	G
1	AA	799	A
1	AA	800	C
1	AA	802	A
1	AA	804	G
1	AA	811	A
1	AA	816	U
1	AA	819	G
1	AA	822	U
1	AA	823	C
1	AA	824	U
1	AA	825	C
1	AA	827	U
1	AA	836	A
1	AA	862	G
1	AA	879	G
1	AA	891	A
1	AA	893	G
1	AA	903	G
1	AA	904	G
1	AA	911	C
1	AA	919	G
1	AA	937	U
1	AA	938	U
1	AA	943	G
1	AA	946	A
1	AA	948	G
1	AA	951	A
1	AA	952	A
1	AA	953	G
1	AA	954	A
1	AA	955	A
1	AA	957	C
1	AA	958	U
1	AA	959	U
1	AA	968	U
1	AA	969	U
1	AA	970	G
1	AA	972	C
1	AA	979	G
1	AA	982	A
1	AA	983	A

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Mol	Chain	Res	Type
1	AA	984	C
1	AA	1001	G
1	AA	1002	G
1	AA	1005	C
1	AA	1008	C
1	AA	1010	C
1	AA	1013	G
1	AA	1018	G
1	AA	1032	G
1	AA	1035	G
1	AA	1036	C
1	AA	1037	A
1	AA	1046	G
1	AA	1047	U
1	AA	1048	C
1	AA	1049	A
1	AA	1050	G
1	AA	1063	G
1	AA	1067	U
1	AA	1076	G
1	AA	1077	U
1	AA	1081	G
1	AA	1083	A
1	AA	1099	G
1	AA	1100	C
1	AA	1106	G
1	AA	1107	U
1	AA	1108	U
1	AA	1111	C
1	AA	1112	A
1	AA	1113	G
1	AA	1118	U
1	AA	1119	C
1	AA	1120	G
1	AA	1121	G
1	AA	1127	C
1	AA	1128	A
1	AA	1134	A
1	AA	1139	A
1	AA	1141	U
1	AA	1163	G
1	AA	1168	G

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Mol	Chain	Res	Type
1	AA	1171	G
1	AA	1177	U
1	AA	1178	G
1	AA	1183	G
1	AA	1193	U
1	AA	1194	A
1	AA	1199	C
1	AA	1206	A
1	AA	1207	C
1	AA	1208	A
1	AA	1217	A
1	AA	1219	A
1	AA	1230	C
1	AA	1236	G
1	AA	1237	A
1	AA	1238	U
1	AA	1239	G
1	AA	1241	C
1	AA	1251	C
1	AA	1254	G
1	AA	1259	U
1	AA	1261	A
1	AA	1262	U
1	AA	1263	C
1	AA	1266	A
1	AA	1267	A
1	AA	1268	A
1	AA	1271	G
1	AA	1272	G
1	AA	1274	G
1	AA	1278	C
1	AA	1280	A
1	AA	1281	G
1	AA	1282	U
1	AA	1283	U
1	AA	1286	G
1	AA	1298	C
1	AA	1300	A
1	AA	1301	C
1	AA	1303	C
1	AA	1304	G
1	AA	1312	G

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Mol	Chain	Res	Type
1	AA	1316	C
1	AA	1317	C
1	AA	1319	G
1	AA	1320	A
1	AA	1327	A
1	AA	1328	G
1	AA	1334	G
1	AA	1344	C
1	AA	1345	A
1	AA	1346	U
1	AA	1352	G
1	AA	1377	C
1	AA	1380	A
1	AA	1401	G
1	AA	1421	C
1	AA	1423	G
1	AA	1424	G
1	AA	1425	G
1	AA	1426	A
1	AA	1427	G
1	AA	1431	A
1	AA	1432	C
1	AA	1469	A
1	AA	1476	A
1	AA	1479	A
1	AA	1481	G
1	AA	1482	G
1	AA	1483	U
1	AA	1484	A
1	AA	1485	G
1	AA	1494	G
1	AA	1497	G
1	AA	1506	G
1	AA	1507	G
22	AW	2	C
22	AW	8	U
22	AW	15	G
22	AW	16	U
22	AW	17	C
22	AW	18	G
22	AW	19	G
22	AW	21	A

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Mol	Chain	Res	Type
22	AW	34	G
22	AW	39	U
22	AW	42	C
22	AW	43	C
22	AW	47	U
22	AW	48	C
22	AW	52	G
22	AW	57	G
22	AW	58	A
22	AW	59	U
22	AW	61	C
22	AW	70	G
22	AW	71	G
22	AW	76	A
23	AV	2	G
23	AV	3	C
23	AV	4	G
23	AV	5	G
23	AV	6	G
23	AV	7	G
23	AV	8	U
23	AV	9	G
23	AV	16	C
23	AV	18	U
23	AV	19	G
23	AV	20	G
23	AV	21	U
23	AV	22	A
23	AV	23	G
23	AV	31	G
23	AV	34	U
23	AV	35	C
23	AV	36	A
23	AV	44	A
23	AV	48	U
23	AV	49	C
23	AV	50	G
23	AV	51	U
23	AV	54	G
23	AV	55	U
23	AV	57	C
23	AV	60	A

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Mol	Chain	Res	Type
23	AV	61	U
23	AV	62	C
23	AV	64	G
23	AV	65	G
23	AV	66	C
23	AV	67	C
23	AV	68	C
23	AV	71	G
23	AV	75	C
23	AV	76	C
22	AY	29	G
22	AY	30	G
22	AY	33	U
22	AY	34	G
22	AY	35	A
22	AY	36	A
22	AY	38	A
22	AY	42	C
22	AY	43	C
24	AX	16	A
24	AX	21	C
25	BA	10	G
25	BA	35	G
25	BA	45	C
25	BA	48	G
25	BA	49	A
25	BA	55	G
25	BA	69	C
25	BA	70	G
25	BA	71	A
25	BA	72	U
25	BA	73	A
25	BA	75	G
25	BA	83	G
25	BA	84	A
25	BA	85	G
25	BA	88	G
25	BA	90	U
25	BA	92	A
25	BA	94	C
25	BA	95	G
25	BA	102	G

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Mol	Chain	Res	Type
25	BA	104	U
25	BA	105	C
25	BA	108	U
25	BA	118	A
25	BA	119	A
25	BA	120	U
25	BA	139(A)	G
25	BA	141	A
25	BA	143(A)	C
25	BA	149	A
25	BA	154	G
25	BA	154(A)	C
25	BA	174	C
25	BA	175	G
25	BA	181	A
25	BA	182	A
25	BA	196	A
25	BA	197	A
25	BA	198	C
25	BA	204	A
25	BA	205	G
25	BA	215	G
25	BA	216	A
25	BA	221	A
25	BA	222	A
25	BA	228	A
25	BA	229	A
25	BA	233	A
25	BA	248	G
25	BA	252	G
25	BA	261	G
25	BA	271(J)	C
25	BA	271(K)	U
25	BA	271(L)	U
25	BA	271(N)	U
25	BA	271(O)	C
25	BA	271(P)	C
25	BA	271(R)	G
25	BA	271(T)	C
25	BA	271(V)	G
25	BA	271(X)	G
25	BA	271(Y)	U

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Mol	Chain	Res	Type
25	BA	271(Z)	C
25	BA	272	G
25	BA	272(A)	U
25	BA	272(B)	G
25	BA	272(H)	C
25	BA	272(I)	U
25	BA	272(J)	C
25	BA	283	A
25	BA	284	U
25	BA	286	C
25	BA	287	C
25	BA	311	A
25	BA	329	G
25	BA	330	A
25	BA	332	A
25	BA	333	G
25	BA	351	G
25	BA	352	G
25	BA	353	G
25	BA	354	G
25	BA	356	G
25	BA	358	U
25	BA	359	A
25	BA	361	G
25	BA	362	U
25	BA	363(B)	G
25	BA	363(E)	U
25	BA	363(F)	A
25	BA	364	C
25	BA	365	C
25	BA	372	G
25	BA	379	G
25	BA	380	U
25	BA	386	G
25	BA	387	U
25	BA	388	G
25	BA	395	U
25	BA	396	G
25	BA	405	U
25	BA	406	G
25	BA	411	G
25	BA	412	A

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Mol	Chain	Res	Type
25	BA	428	A
25	BA	444	C
25	BA	448	U
25	BA	451	C
25	BA	456	C
25	BA	457	A
25	BA	470	A
25	BA	475	U
25	BA	481	G
25	BA	482	A
25	BA	505	A
25	BA	508	G
25	BA	509	C
25	BA	512	G
25	BA	530	G
25	BA	531	C
25	BA	532	A
25	BA	533	G
25	BA	542	C
25	BA	551	G
25	BA	552	G
25	BA	556	G
25	BA	563	G
25	BA	573	G
25	BA	587	C
25	BA	604	G
25	BA	607	U
25	BA	613	G
25	BA	614(A)	U
25	BA	614(B)	G
25	BA	615	G
25	BA	627	A
25	BA	637	A
25	BA	645	C
25	BA	646	A
25	BA	670	A
25	BA	673	C
25	BA	686	G
25	BA	708	C
25	BA	722	A
25	BA	730	C
25	BA	753	C

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Mol	Chain	Res	Type
25	BA	759	G
25	BA	762	U
25	BA	764	A
25	BA	776	G
25	BA	782	A
25	BA	784	A
25	BA	785	G
25	BA	790	C
25	BA	791	C
25	BA	792	G
25	BA	805	G
25	BA	812	C
25	BA	819	A
25	BA	827	U
25	BA	828	U
25	BA	830	G
25	BA	846	C
25	BA	848	G
25	BA	856	C
25	BA	857	C
25	BA	858	U
25	BA	859	G
25	BA	866	A
25	BA	886	C
25	BA	890	A
25	BA	896	A
25	BA	897	C
25	BA	904	C
25	BA	910	A
25	BA	911	A
25	BA	912	C
25	BA	917	A
25	BA	919	G
25	BA	926	A
25	BA	932	G
25	BA	933	A
25	BA	941	A
25	BA	945	A
25	BA	946	G
25	BA	953	A
25	BA	958	U
25	BA	959	A

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Mol	Chain	Res	Type
25	BA	961	C
25	BA	965	C
25	BA	974	G
25	BA	975	C
25	BA	975(A)	G
25	BA	983	A
25	BA	991	C
25	BA	996	A
25	BA	1000	A
25	BA	1005	C
25	BA	1012	U
25	BA	1013	C
25	BA	1017	G
25	BA	1022	G
25	BA	1023	U
25	BA	1025	G
25	BA	1026	U
25	BA	1039	G
25	BA	1041	C
25	BA	1044	G
25	BA	1045	A
25	BA	1047	G
25	BA	1049	C
25	BA	1053	C
25	BA	1110	G
25	BA	1111	A
25	BA	1112	G
25	BA	1113	U
25	BA	1115	G
25	BA	1118	C
25	BA	1126	A
25	BA	1130	U
25	BA	1135	C
25	BA	1136	G
25	BA	1141	U
25	BA	1143	A
25	BA	1155	A
25	BA	1173	G
25	BA	1174	A
25	BA	1175	U
25	BA	1176	G
25	BA	1178	C

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Mol	Chain	Res	Type
25	BA	1195	G
25	BA	1205	U
25	BA	1210	A
25	BA	1211	U
25	BA	1221	C
25	BA	1224	C
25	BA	1236	G
25	BA	1247	A
25	BA	1248	G
25	BA	1250	G
25	BA	1253	A
25	BA	1256	G
25	BA	1271	G
25	BA	1272	A
25	BA	1281	G
25	BA	1300	U
25	BA	1301	A
25	BA	1302	A
25	BA	1313	U
25	BA	1314	C
25	BA	1319	G
25	BA	1321	A
25	BA	1325	G
25	BA	1329	U
25	BA	1330	C
25	BA	1332	G
25	BA	1345	C
25	BA	1349	A
25	BA	1352	U
25	BA	1359	A
25	BA	1365	A
25	BA	1368	G
25	BA	1379	A
25	BA	1380	G
25	BA	1384	A
25	BA	1385	G
25	BA	1407	C
25	BA	1416	G
25	BA	1417	C
25	BA	1419	A
25	BA	1420	U
25	BA	1421	G

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Mol	Chain	Res	Type
25	BA	1427	A
25	BA	1428	C
25	BA	1437	C
25	BA	1445	A
25	BA	1449	A
25	BA	1450	G
25	BA	1455	G
25	BA	1460	A
25	BA	1461	G
25	BA	1467	C
25	BA	1471	A
25	BA	1475	G
25	BA	1478	G
25	BA	1482	G
25	BA	1485	G
25	BA	1488	G
25	BA	1490	A
25	BA	1493	C
25	BA	1494	A
25	BA	1495	A
25	BA	1496	A
25	BA	1497	U
25	BA	1498	C
25	BA	1502	C
25	BA	1505	C
25	BA	1509	C
25	BA	1509(A)	A
25	BA	1520	G
25	BA	1542	A
25	BA	1544	A
25	BA	1545	A
25	BA	1546	C
25	BA	1547	C
25	BA	1554	A
25	BA	1558	A
25	BA	1559	G
25	BA	1569	A
25	BA	1578	U
25	BA	1579	A
25	BA	1584	C
25	BA	1586	A
25	BA	1588	C

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Mol	Chain	Res	Type
25	BA	1591	G
25	BA	1594	G
25	BA	1603	A
25	BA	1608	A
25	BA	1610	A
25	BA	1616	A
25	BA	1617	C
25	BA	1618	A
25	BA	1640	C
25	BA	1647	G
25	BA	1648	C
25	BA	1653	G
25	BA	1654	A
25	BA	1674	G
25	BA	1686	C
25	BA	1687	G
25	BA	1696	G
25	BA	1698	A
25	BA	1700	A
25	BA	1718	G
25	BA	1722	A
25	BA	1739	U
25	BA	1740	G
25	BA	1744	C
25	BA	1746	G
25	BA	1748	G
25	BA	1763	G
25	BA	1764	G
25	BA	1772	G
25	BA	1773	A
25	BA	1779	U
25	BA	1780	A
25	BA	1786	A
25	BA	1791	A
25	BA	1800	C
25	BA	1801	G
25	BA	1816	G
25	BA	1820	U
25	BA	1829	A
25	BA	1835	G
25	BA	1847	A
25	BA	1858	G

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Mol	Chain	Res	Type
25	BA	1865	G
25	BA	1866	C
25	BA	1877	A
25	BA	1878	G
25	BA	1880	C
25	BA	1882	C
25	BA	1885	A
25	BA	1888	G
25	BA	1889	A
25	BA	1900	A
25	BA	1902	C
25	BA	1906	G
25	BA	1929	G
25	BA	1930	G
25	BA	1936	A
25	BA	1938	A
25	BA	1955	U
25	BA	1963	U
25	BA	1967	C
25	BA	1969	A
25	BA	1970	A
25	BA	1971	A
25	BA	1972	A
25	BA	1982	C
25	BA	1987	G
25	BA	1988	C
25	BA	1991	U
25	BA	1992	G
25	BA	1993	U
25	BA	1994	C
25	BA	1997	G
25	BA	2023	G
25	BA	2031	A
25	BA	2032	G
25	BA	2033	A
25	BA	2034	U
25	BA	2036	C
25	BA	2043	C
25	BA	2055	C
25	BA	2056	G
25	BA	2059	A
25	BA	2060	A

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Mol	Chain	Res	Type
25	BA	2061	G
25	BA	2062	A
25	BA	2069	G
25	BA	2095	C
25	BA	2099	U
25	BA	2103	C
25	BA	2104	G
25	BA	2108	C
25	BA	2110	G
25	BA	2111	C
25	BA	2116	G
25	BA	2117	A
25	BA	2118	U
25	BA	2119	A
25	BA	2120	G
25	BA	2124	G
25	BA	2126	A
25	BA	2127	G
25	BA	2131	G
25	BA	2133	G
25	BA	2147	G
25	BA	2165	G
25	BA	2168	G
25	BA	2170	A
25	BA	2171	A
25	BA	2172	U
25	BA	2173	A
25	BA	2174	C
25	BA	2179	C
25	BA	2187	G
25	BA	2190	G
25	BA	2192	G
25	BA	2193	G
25	BA	2199	A
25	BA	2200	C
25	BA	2207	G
25	BA	2208	A
25	BA	2219	G
25	BA	2225	A
25	BA	2226	C
25	BA	2238	G
25	BA	2239	G

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Mol	Chain	Res	Type
25	BA	2246	G
25	BA	2251	G
25	BA	2263	C
25	BA	2264	C
25	BA	2275	C
25	BA	2283	C
25	BA	2287	A
25	BA	2288	A
25	BA	2289	G
25	BA	2290	G
25	BA	2305	A
25	BA	2307	G
25	BA	2308	G
25	BA	2309	A
25	BA	2311	A
25	BA	2313	C
25	BA	2316	C
25	BA	2319	G
25	BA	2320	A
25	BA	2325	G
25	BA	2330	G
25	BA	2331	G
25	BA	2334	G
25	BA	2336	A
25	BA	2345	G
25	BA	2349	G
25	BA	2383	G
25	BA	2385	C
25	BA	2388	A
25	BA	2391	G
25	BA	2392	A
25	BA	2399	G
25	BA	2402	C
25	BA	2423	U
25	BA	2425	A
25	BA	2429	G
25	BA	2430	A
25	BA	2435	A
25	BA	2439	A
25	BA	2441	C
25	BA	2448	A
25	BA	2464	C

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Mol	Chain	Res	Type
25	BA	2470	G
25	BA	2476	A
25	BA	2478	A
25	BA	2482	G
25	BA	2484	G
25	BA	2491	U
25	BA	2494	G
25	BA	2502	G
25	BA	2505	G
25	BA	2506	U
25	BA	2507	C
25	BA	2516	G
25	BA	2517	C
25	BA	2518	A
25	BA	2520	C
25	BA	2523	G
25	BA	2529	G
25	BA	2534	A
25	BA	2543	G
25	BA	2554	U
25	BA	2566	A
25	BA	2567	G
25	BA	2573	C
25	BA	2582	G
25	BA	2584	U
25	BA	2585	U
25	BA	2586	C
25	BA	2588	G
25	BA	2602	A
25	BA	2610	C
25	BA	2611	U
25	BA	2612	C
25	BA	2615	U
25	BA	2630	G
25	BA	2646	C
25	BA	2673	G
25	BA	2682	U
25	BA	2690	C
25	BA	2691	C
25	BA	2702	U
25	BA	2712	U
25	BA	2712(A)	A

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Mol	Chain	Res	Type
25	BA	2713	A
25	BA	2714	G
25	BA	2720	U
25	BA	2726	U
25	BA	2733	A
25	BA	2744	G
25	BA	2752	C
25	BA	2754	U
25	BA	2757	A
25	BA	2759	G
25	BA	2762	G
25	BA	2763	G
25	BA	2765	A
25	BA	2766	G
25	BA	2778	A
25	BA	2779	U
25	BA	2780	G
25	BA	2781	A
25	BA	2791	C
25	BA	2792	G
25	BA	2794	C
25	BA	2799	C
25	BA	2802	G
25	BA	2803	C
25	BA	2804	C
25	BA	2808	U
25	BA	2820	A
25	BA	2821	A
25	BA	2833	G
25	BA	2834	G
25	BA	2835	A
25	BA	2849	U
25	BA	2864	G
25	BA	2865	U
25	BA	2872	G
25	BA	2879	C
25	BA	2893	G
26	BB	2	C
26	BB	3	C
26	BB	8	U
26	BB	13	A
26	BB	15	A

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Mol	Chain	Res	Type
26	BB	16	G
26	BB	22	U
26	BB	27	C
26	BB	42	C
26	BB	45	A
26	BB	53	A
26	BB	67	G
26	BB	73	A
26	BB	88	C
26	BB	108	U
26	BB	109	C
26	BB	110	G
26	BB	116	G
1	CA	9	G
1	CA	32	A
1	CA	39	G
1	CA	47	C
1	CA	48	C
1	CA	51	A
1	CA	54	C
1	CA	60	A
1	CA	61	G
1	CA	77	G
1	CA	78	G
1	CA	79	U
1	CA	84	C
1	CA	85	U
1	CA	91	G
1	CA	94	A
1	CA	101	G
1	CA	112	A
1	CA	113	A
1	CA	114	C
1	CA	125	C
1	CA	131	C
1	CA	138	G
1	CA	140	G
1	CA	141	G
1	CA	144	C
1	CA	151	G
1	CA	153	G
1	CA	154	A

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Mol	Chain	Res	Type
1	CA	155	A
1	CA	156	A
1	CA	157	C
1	CA	158	U
1	CA	166	A
1	CA	167	U
1	CA	175	G
1	CA	176	U
1	CA	190	G
1	CA	191	G
1	CA	201	A
1	CA	203	A
1	CA	209	U
1	CA	210	U
1	CA	238	A
1	CA	242	G
1	CA	246	G
1	CA	257	A
1	CA	261	G
1	CA	262	C
1	CA	270	G
1	CA	276	G
1	CA	284	G
1	CA	290	C
1	CA	291	U
1	CA	296	G
1	CA	314	G
1	CA	316	A
1	CA	319	G
1	CA	323	C
1	CA	327	G
1	CA	337	C
1	CA	339	A
1	CA	340	C
1	CA	342	U
1	CA	343	G
1	CA	344	A
1	CA	345	G
1	CA	347	C
1	CA	348	A
1	CA	349	G
1	CA	362	U

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Mol	Chain	Res	Type
1	CA	367	C
1	CA	385	C
1	CA	392	A
1	CA	393	C
1	CA	401	G
1	CA	407	A
1	CA	408	G
1	CA	409	A
1	CA	414	C
1	CA	416	U
1	CA	417	C
1	CA	424	U
1	CA	430	C
1	CA	434	A
1	CA	446	A
1	CA	454	A
1	CA	469	G
1	CA	477	G
1	CA	480	A
1	CA	481	U
1	CA	482	A
1	CA	492	A
1	CA	493	A
1	CA	494	C
1	CA	501	C
1	CA	507	G
1	CA	510	G
1	CA	514	U
1	CA	515	A
1	CA	516	A
1	CA	517	U
1	CA	530	A
1	CA	542	A
1	CA	543	U
1	CA	544	U
1	CA	545	C
1	CA	547	C
1	CA	555	A
1	CA	556	A
1	CA	559	G
1	CA	560	G
1	CA	562	G

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Mol	Chain	Res	Type
1	CA	563	U
1	CA	590	A
1	CA	598	C
1	CA	615	A
1	CA	616	G
1	CA	617	C
1	CA	636	A
1	CA	644	G
1	CA	648	A
1	CA	670	A
1	CA	671	G
1	CA	685	A
1	CA	688	U
1	CA	698	A
1	CA	706	U
1	CA	707	G
1	CA	714	G
1	CA	716	A
1	CA	731	C
1	CA	732	C
1	CA	736	A
1	CA	737	C
1	CA	738	G
1	CA	743	G
1	CA	760	A
1	CA	767	C
1	CA	769	G
1	CA	776	U
1	CA	777	A
1	CA	785	A
1	CA	798	A
1	CA	800	C
1	CA	801	G
1	CA	802	A
1	CA	804	G
1	CA	810	U
1	CA	811	A
1	CA	819	G
1	CA	822	U
1	CA	823	C
1	CA	824	U
1	CA	825	C

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Mol	Chain	Res	Type
1	CA	836	A
1	CA	879	G
1	CA	891	A
1	CA	898	U
1	CA	904	G
1	CA	909	C
1	CA	911	C
1	CA	912	A
1	CA	937	U
1	CA	938	U
1	CA	943	G
1	CA	946	A
1	CA	948	G
1	CA	951	A
1	CA	952	A
1	CA	953	G
1	CA	954	A
1	CA	955	A
1	CA	957	C
1	CA	968	U
1	CA	969	U
1	CA	970	G
1	CA	982	A
1	CA	983	A
1	CA	1001	G
1	CA	1004	G
1	CA	1005	C
1	CA	1008	C
1	CA	1009	G
1	CA	1018	G
1	CA	1032	G
1	CA	1036	C
1	CA	1037	A
1	CA	1047	U
1	CA	1048	C
1	CA	1050	G
1	CA	1063	G
1	CA	1067	U
1	CA	1074	A
1	CA	1076	G
1	CA	1077	U
1	CA	1083	A

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Mol	Chain	Res	Type
1	CA	1090	G
1	CA	1099	G
1	CA	1100	C
1	CA	1106	G
1	CA	1107	U
1	CA	1108	U
1	CA	1110	C
1	CA	1111	C
1	CA	1112	A
1	CA	1118	U
1	CA	1119	C
1	CA	1120	G
1	CA	1121	G
1	CA	1127	C
1	CA	1128	A
1	CA	1134	A
1	CA	1139	A
1	CA	1141	U
1	CA	1142	G
1	CA	1143	C
1	CA	1152	G
1	CA	1163	G
1	CA	1171	G
1	CA	1177	U
1	CA	1178	G
1	CA	1182	A
1	CA	1183	G
1	CA	1185	A
1	CA	1193	U
1	CA	1194	A
1	CA	1196	G
1	CA	1206	A
1	CA	1207	C
1	CA	1208	A
1	CA	1217	A
1	CA	1219	A
1	CA	1236	G
1	CA	1237	A
1	CA	1238	U
1	CA	1251	C
1	CA	1254	G
1	CA	1259	U

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Mol	Chain	Res	Type
1	CA	1260	A
1	CA	1261	A
1	CA	1262	U
1	CA	1263	C
1	CA	1267	A
1	CA	1268	A
1	CA	1274	G
1	CA	1275	G
1	CA	1281	G
1	CA	1282	U
1	CA	1283	U
1	CA	1286	G
1	CA	1298	C
1	CA	1301	C
1	CA	1303	C
1	CA	1304	G
1	CA	1312	G
1	CA	1316	C
1	CA	1317	C
1	CA	1319	G
1	CA	1327	A
1	CA	1328	G
1	CA	1334	G
1	CA	1346	U
1	CA	1350	G
1	CA	1352	G
1	CA	1369	G
1	CA	1380	A
1	CA	1401	G
1	CA	1415	A
1	CA	1424	G
1	CA	1425	G
1	CA	1426	A
1	CA	1427	G
1	CA	1431	A
1	CA	1432	C
1	CA	1458	U
1	CA	1464	G
1	CA	1469	A
1	CA	1474	G
1	CA	1476	A
1	CA	1479	A

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Mol	Chain	Res	Type
1	CA	1480	A
1	CA	1481	G
1	CA	1482	G
1	CA	1483	U
1	CA	1484	A
1	CA	1494	G
1	CA	1496	A
1	CA	1497	G
1	CA	1506	G
1	CA	1507	G
22	CW	2	C
22	CW	9	A
22	CW	10	G
22	CW	14	A
22	CW	16	U
22	CW	17	C
22	CW	18	G
22	CW	19	G
22	CW	21	A
22	CW	34	G
22	CW	35	A
22	CW	37	A
22	CW	39	U
22	CW	43	C
22	CW	46	G
22	CW	47	U
22	CW	54	U
22	CW	57	G
22	CW	58	A
22	CW	59	U
22	CW	62	C
22	CW	63	G
22	CW	70	G
22	CW	71	G
22	CW	75	C
22	CW	76	A
23	CV	3	C
23	CV	4	G
23	CV	5	G
23	CV	8	U
23	CV	9	G
23	CV	14	A

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Mol	Chain	Res	Type
23	CV	16	C
23	CV	17	C
23	CV	18	U
23	CV	19	G
23	CV	20	G
23	CV	21	U
23	CV	22	A
23	CV	27	G
23	CV	28	U
23	CV	32	G
23	CV	34	U
23	CV	35	C
23	CV	36	A
23	CV	47	G
23	CV	48	U
23	CV	49	C
23	CV	50	G
23	CV	54	G
23	CV	55	U
23	CV	56	U
23	CV	57	C
23	CV	60	A
23	CV	61	U
23	CV	62	C
23	CV	64	G
23	CV	66	C
23	CV	72	C
23	CV	75	C
23	CV	76	C
22	CY	29	G
22	CY	30	G
22	CY	34	G
22	CY	36	A
22	CY	37	A
22	CY	42	C
22	CY	43	C
24	CX	14	A
24	CX	15	A
24	CX	19	U
25	DA	10	G
25	DA	35	G
25	DA	45	C

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Mol	Chain	Res	Type
25	DA	48	G
25	DA	49	A
25	DA	55	G
25	DA	69	C
25	DA	70	G
25	DA	71	A
25	DA	72	U
25	DA	73	A
25	DA	75	G
25	DA	83	G
25	DA	84	A
25	DA	85	G
25	DA	88	G
25	DA	90	U
25	DA	92	A
25	DA	94	C
25	DA	95	G
25	DA	102	G
25	DA	104	U
25	DA	105	C
25	DA	108	U
25	DA	118	A
25	DA	119	A
25	DA	120	U
25	DA	139(A)	G
25	DA	141	A
25	DA	142(A)	C
25	DA	143(A)	C
25	DA	149	A
25	DA	154	G
25	DA	154(A)	C
25	DA	174	C
25	DA	175	G
25	DA	181	A
25	DA	182	A
25	DA	196	A
25	DA	197	A
25	DA	198	C
25	DA	204	A
25	DA	205	G
25	DA	215	G
25	DA	216	A

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Mol	Chain	Res	Type
25	DA	221	A
25	DA	222	A
25	DA	228	A
25	DA	229	A
25	DA	233	A
25	DA	248	G
25	DA	252	G
25	DA	261	G
25	DA	271(J)	C
25	DA	271(K)	U
25	DA	271(L)	U
25	DA	271(N)	U
25	DA	271(O)	C
25	DA	271(P)	C
25	DA	271(R)	G
25	DA	271(T)	C
25	DA	271(V)	G
25	DA	271(X)	G
25	DA	271(Y)	U
25	DA	271(Z)	C
25	DA	272	G
25	DA	272(A)	U
25	DA	272(B)	G
25	DA	272(H)	C
25	DA	272(J)	C
25	DA	274	G
25	DA	283	A
25	DA	284	U
25	DA	286	C
25	DA	287	C
25	DA	309	G
25	DA	311	A
25	DA	329	G
25	DA	330	A
25	DA	332	A
25	DA	333	G
25	DA	351	G
25	DA	352	G
25	DA	353	G
25	DA	354	G
25	DA	356	G
25	DA	358	U

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Mol	Chain	Res	Type
25	DA	359	A
25	DA	361	G
25	DA	362	U
25	DA	363(B)	G
25	DA	363(E)	U
25	DA	363(F)	A
25	DA	364	C
25	DA	365	C
25	DA	372	G
25	DA	379	G
25	DA	380	U
25	DA	386	G
25	DA	387	U
25	DA	388	G
25	DA	395	U
25	DA	396	G
25	DA	405	U
25	DA	406	G
25	DA	411	G
25	DA	412	A
25	DA	428	A
25	DA	444	C
25	DA	448	U
25	DA	451	C
25	DA	456	C
25	DA	457	A
25	DA	470	A
25	DA	475	U
25	DA	481	G
25	DA	482	A
25	DA	505	A
25	DA	508	G
25	DA	509	C
25	DA	512	G
25	DA	530	G
25	DA	531	C
25	DA	532	A
25	DA	533	G
25	DA	542	C
25	DA	551	G
25	DA	552	G
25	DA	556	G

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Mol	Chain	Res	Type
25	DA	563	G
25	DA	573	G
25	DA	587	C
25	DA	604	G
25	DA	607	U
25	DA	613	G
25	DA	614(A)	U
25	DA	614(B)	G
25	DA	615	G
25	DA	627	A
25	DA	637	A
25	DA	645	C
25	DA	646	A
25	DA	670	A
25	DA	673	C
25	DA	686	G
25	DA	708	C
25	DA	722	A
25	DA	730	C
25	DA	753	C
25	DA	759	G
25	DA	762	U
25	DA	764	A
25	DA	776	G
25	DA	782	A
25	DA	784	A
25	DA	785	G
25	DA	790	C
25	DA	791	C
25	DA	792	G
25	DA	805	G
25	DA	812	C
25	DA	819	A
25	DA	827	U
25	DA	828	U
25	DA	830	G
25	DA	846	C
25	DA	848	G
25	DA	856	C
25	DA	857	C
25	DA	858	U
25	DA	859	G

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Mol	Chain	Res	Type
25	DA	866	A
25	DA	886	C
25	DA	890	A
25	DA	896	A
25	DA	897	C
25	DA	904	C
25	DA	910	A
25	DA	911	A
25	DA	912	C
25	DA	917	A
25	DA	919	G
25	DA	926	A
25	DA	932	G
25	DA	933	A
25	DA	941	A
25	DA	945	A
25	DA	946	G
25	DA	953	A
25	DA	958	U
25	DA	959	A
25	DA	961	C
25	DA	965	C
25	DA	974	G
25	DA	975	C
25	DA	975(A)	G
25	DA	983	A
25	DA	991	C
25	DA	996	A
25	DA	1000	A
25	DA	1005	C
25	DA	1012	U
25	DA	1013	C
25	DA	1017	G
25	DA	1022	G
25	DA	1023	U
25	DA	1025	G
25	DA	1026	U
25	DA	1039	G
25	DA	1041	C
25	DA	1044	G
25	DA	1045	A
25	DA	1047	G

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Mol	Chain	Res	Type
25	DA	1049	C
25	DA	1053	C
25	DA	1110	G
25	DA	1111	A
25	DA	1112	G
25	DA	1113	U
25	DA	1115	G
25	DA	1118	C
25	DA	1126	A
25	DA	1130	U
25	DA	1135	C
25	DA	1136	G
25	DA	1141	U
25	DA	1143	A
25	DA	1155	A
25	DA	1173	G
25	DA	1174	A
25	DA	1175	U
25	DA	1176	G
25	DA	1178	C
25	DA	1195	G
25	DA	1205	U
25	DA	1210	A
25	DA	1211	U
25	DA	1221	C
25	DA	1224	C
25	DA	1236	G
25	DA	1247	A
25	DA	1248	G
25	DA	1250	G
25	DA	1253	A
25	DA	1256	G
25	DA	1271	G
25	DA	1272	A
25	DA	1281	G
25	DA	1300	U
25	DA	1301	A
25	DA	1302	A
25	DA	1313	U
25	DA	1314	C
25	DA	1319	G
25	DA	1321	A

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Mol	Chain	Res	Type
25	DA	1325	G
25	DA	1329	U
25	DA	1330	C
25	DA	1332	G
25	DA	1345	C
25	DA	1349	A
25	DA	1352	U
25	DA	1359	A
25	DA	1365	A
25	DA	1368	G
25	DA	1379	A
25	DA	1380	G
25	DA	1384	A
25	DA	1385	G
25	DA	1386	C
25	DA	1407	C
25	DA	1416	G
25	DA	1417	C
25	DA	1419	A
25	DA	1420	U
25	DA	1421	G
25	DA	1427	A
25	DA	1428	C
25	DA	1437	C
25	DA	1445	A
25	DA	1447	G
25	DA	1448	G
25	DA	1449	A
25	DA	1450	G
25	DA	1455	G
25	DA	1460	A
25	DA	1461	G
25	DA	1467	C
25	DA	1471	A
25	DA	1475	G
25	DA	1478	G
25	DA	1482	G
25	DA	1485	G
25	DA	1488	G
25	DA	1490	A
25	DA	1493	C
25	DA	1494	A

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Mol	Chain	Res	Type
25	DA	1495	A
25	DA	1496	A
25	DA	1497	U
25	DA	1498	C
25	DA	1502	C
25	DA	1505	C
25	DA	1509	C
25	DA	1509(A)	A
25	DA	1520	G
25	DA	1525	G
25	DA	1542	A
25	DA	1544	A
25	DA	1545	A
25	DA	1546	C
25	DA	1547	C
25	DA	1554	A
25	DA	1558	A
25	DA	1559	G
25	DA	1569	A
25	DA	1578	U
25	DA	1579	A
25	DA	1584	C
25	DA	1586	A
25	DA	1588	C
25	DA	1591	G
25	DA	1594	G
25	DA	1603	A
25	DA	1608	A
25	DA	1610	A
25	DA	1616	A
25	DA	1617	C
25	DA	1618	A
25	DA	1640	C
25	DA	1647	G
25	DA	1648	C
25	DA	1653	G
25	DA	1654	A
25	DA	1674	G
25	DA	1686	C
25	DA	1687	G
25	DA	1696	G
25	DA	1698	A

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Mol	Chain	Res	Type
25	DA	1700	A
25	DA	1718	G
25	DA	1722	A
25	DA	1739	U
25	DA	1740	G
25	DA	1744	C
25	DA	1746	G
25	DA	1748	G
25	DA	1763	G
25	DA	1764	G
25	DA	1772	G
25	DA	1773	A
25	DA	1779	U
25	DA	1780	A
25	DA	1786	A
25	DA	1791	A
25	DA	1800	C
25	DA	1801	G
25	DA	1816	G
25	DA	1818	U
25	DA	1820	U
25	DA	1829	A
25	DA	1835	G
25	DA	1847	A
25	DA	1858	G
25	DA	1865	G
25	DA	1866	C
25	DA	1877	A
25	DA	1878	G
25	DA	1880	C
25	DA	1882	C
25	DA	1885	A
25	DA	1888	G
25	DA	1889	A
25	DA	1900	A
25	DA	1902	C
25	DA	1906	G
25	DA	1929	G
25	DA	1930	G
25	DA	1936	A
25	DA	1938	A
25	DA	1955	U

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Mol	Chain	Res	Type
25	DA	1963	U
25	DA	1967	C
25	DA	1969	A
25	DA	1970	A
25	DA	1971	A
25	DA	1972	A
25	DA	1982	C
25	DA	1987	G
25	DA	1988	C
25	DA	1991	U
25	DA	1992	G
25	DA	1993	U
25	DA	1994	C
25	DA	1997	G
25	DA	2023	G
25	DA	2031	A
25	DA	2032	G
25	DA	2033	A
25	DA	2034	U
25	DA	2036	C
25	DA	2043	C
25	DA	2055	C
25	DA	2056	G
25	DA	2059	A
25	DA	2060	A
25	DA	2061	G
25	DA	2062	A
25	DA	2069	G
25	DA	2095	C
25	DA	2099	U
25	DA	2103	C
25	DA	2104	G
25	DA	2108	C
25	DA	2110	G
25	DA	2111	C
25	DA	2116	G
25	DA	2117	A
25	DA	2118	U
25	DA	2119	A
25	DA	2120	G
25	DA	2124	G
25	DA	2126	A

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Mol	Chain	Res	Type
25	DA	2127	G
25	DA	2131	G
25	DA	2133	G
25	DA	2147	G
25	DA	2165	G
25	DA	2168	G
25	DA	2170	A
25	DA	2171	A
25	DA	2172	U
25	DA	2173	A
25	DA	2174	C
25	DA	2179	C
25	DA	2187	G
25	DA	2190	G
25	DA	2192	G
25	DA	2193	G
25	DA	2199	A
25	DA	2200	C
25	DA	2207	G
25	DA	2208	A
25	DA	2219	G
25	DA	2225	A
25	DA	2226	C
25	DA	2238	G
25	DA	2239	G
25	DA	2246	G
25	DA	2251	G
25	DA	2263	C
25	DA	2264	C
25	DA	2275	C
25	DA	2283	C
25	DA	2287	A
25	DA	2288	A
25	DA	2289	G
25	DA	2290	G
25	DA	2305	A
25	DA	2307	G
25	DA	2308	G
25	DA	2309	A
25	DA	2311	A
25	DA	2313	C
25	DA	2316	C

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Mol	Chain	Res	Type
25	DA	2319	G
25	DA	2320	A
25	DA	2325	G
25	DA	2330	G
25	DA	2331	G
25	DA	2334	G
25	DA	2336	A
25	DA	2345	G
25	DA	2349	G
25	DA	2383	G
25	DA	2385	C
25	DA	2388	A
25	DA	2391	G
25	DA	2392	A
25	DA	2399	G
25	DA	2402	C
25	DA	2423	U
25	DA	2424	C
25	DA	2425	A
25	DA	2429	G
25	DA	2430	A
25	DA	2435	A
25	DA	2439	A
25	DA	2441	C
25	DA	2448	A
25	DA	2464	C
25	DA	2470	G
25	DA	2476	A
25	DA	2478	A
25	DA	2482	G
25	DA	2484	G
25	DA	2491	U
25	DA	2494	G
25	DA	2502	G
25	DA	2505	G
25	DA	2506	U
25	DA	2507	C
25	DA	2516	G
25	DA	2517	C
25	DA	2518	A
25	DA	2520	C
25	DA	2523	G

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Mol	Chain	Res	Type
25	DA	2529	G
25	DA	2534	A
25	DA	2543	G
25	DA	2554	U
25	DA	2566	A
25	DA	2567	G
25	DA	2573	C
25	DA	2582	G
25	DA	2584	U
25	DA	2585	U
25	DA	2586	C
25	DA	2588	G
25	DA	2602	A
25	DA	2610	C
25	DA	2611	U
25	DA	2612	C
25	DA	2615	U
25	DA	2630	G
25	DA	2646	C
25	DA	2673	G
25	DA	2682	U
25	DA	2690	C
25	DA	2691	C
25	DA	2702	U
25	DA	2712	U
25	DA	2712(A)	A
25	DA	2713	A
25	DA	2714	G
25	DA	2720	U
25	DA	2726	U
25	DA	2733	A
25	DA	2744	G
25	DA	2752	C
25	DA	2754	U
25	DA	2757	A
25	DA	2759	G
25	DA	2762	G
25	DA	2763	G
25	DA	2765	A
25	DA	2766	G
25	DA	2778	A
25	DA	2779	U

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Mol	Chain	Res	Type
25	DA	2780	G
25	DA	2781	A
25	DA	2791	C
25	DA	2792	G
25	DA	2794	C
25	DA	2799	C
25	DA	2802	G
25	DA	2803	C
25	DA	2804	C
25	DA	2808	U
25	DA	2820	A
25	DA	2821	A
25	DA	2833	G
25	DA	2834	G
25	DA	2835	A
25	DA	2849	U
25	DA	2864	G
25	DA	2865	U
25	DA	2872	G
25	DA	2879	C
25	DA	2893	G
26	DB	2	C
26	DB	3	C
26	DB	8	U
26	DB	13	A
26	DB	15	A
26	DB	16	G
26	DB	22	U
26	DB	27	C
26	DB	42	C
26	DB	45	A
26	DB	53	A
26	DB	67	G
26	DB	73	A
26	DB	79	C
26	DB	84	C
26	DB	88	C
26	DB	98	G
26	DB	110	G
26	DB	116	G

All (183) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	60	A
1	AA	77	G
1	AA	112	A
1	AA	238	A
1	AA	246	G
1	AA	261	G
1	AA	343	G
1	AA	361	C
1	AA	423	G
1	AA	424	U
1	AA	468	G
1	AA	492	A
1	AA	516	A
1	AA	542	A
1	AA	543	U
1	AA	731	C
1	AA	969	U
1	AA	1031	U
1	AA	1046	G
1	AA	1047	U
1	AA	1049	A
1	AA	1111	C
1	AA	1182	A
1	AA	1192	U
1	AA	1281	G
1	AA	1481	G
1	AA	1482	G
23	AV	18	U
23	AV	35	C
23	AV	49	C
23	AV	53	G
23	AV	61	U
25	BA	71	A
25	BA	74	A
25	BA	197	A
25	BA	214	G
25	BA	221	A
25	BA	283	A
25	BA	286	C
25	BA	331	A
25	BA	332	A
25	BA	387	U
25	BA	474	G

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Mol	Chain	Res	Type
25	BA	481	G
25	BA	603	A
25	BA	614(C)	A
25	BA	752	A
25	BA	790	C
25	BA	856	C
25	BA	945	A
25	BA	1022	G
25	BA	1210	A
25	BA	1286	A
25	BA	1300	U
25	BA	1301	A
25	BA	1324	G
25	BA	1378	A
25	BA	1395	A
25	BA	1427	A
25	BA	1558	A
25	BA	1608	A
25	BA	1686	C
25	BA	1819	A
25	BA	1987	G
25	BA	2033	A
25	BA	2111	C
25	BA	2116	G
25	BA	2126	A
25	BA	2171	A
25	BA	2172	U
25	BA	2187	G
25	BA	2225	A
25	BA	2263	C
25	BA	2282	G
25	BA	2422	A
25	BA	2481	G
25	BA	2506	U
25	BA	2610	C
25	BA	2681	C
25	BA	2689	U
25	BA	2726	U
25	BA	2756	U
25	BA	2763	G
25	BA	2780	G
25	BA	2864	G

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Mol	Chain	Res	Type
26	BB	66	A
1	CA	60	A
1	CA	77	G
1	CA	112	A
1	CA	238	A
1	CA	245	A
1	CA	261	G
1	CA	262	C
1	CA	269	A
1	CA	343	G
1	CA	361	C
1	CA	423	G
1	CA	468	G
1	CA	492	A
1	CA	516	A
1	CA	543	U
1	CA	670	A
1	CA	731	C
1	CA	776	U
1	CA	969	U
1	CA	1031	U
1	CA	1046	G
1	CA	1047	U
1	CA	1049	A
1	CA	1182	A
1	CA	1192	U
1	CA	1237	A
1	CA	1260	A
1	CA	1266	A
1	CA	1280	A
1	CA	1281	G
1	CA	1480	A
1	CA	1481	G
23	CV	18	U
23	CV	19	G
23	CV	35	C
23	CV	53	G
23	CV	61	U
24	CX	14	A
25	DA	70	G
25	DA	71	A
25	DA	74	A

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Mol	Chain	Res	Type
25	DA	197	A
25	DA	214	G
25	DA	221	A
25	DA	272(J)	C
25	DA	283	A
25	DA	286	C
25	DA	331	A
25	DA	332	A
25	DA	387	U
25	DA	474	G
25	DA	481	G
25	DA	603	A
25	DA	614(C)	A
25	DA	752	A
25	DA	790	C
25	DA	856	C
25	DA	945	A
25	DA	1022	G
25	DA	1210	A
25	DA	1286	A
25	DA	1300	U
25	DA	1301	A
25	DA	1324	G
25	DA	1378	A
25	DA	1385	G
25	DA	1395	A
25	DA	1427	A
25	DA	1447	G
25	DA	1558	A
25	DA	1608	A
25	DA	1686	C
25	DA	1818	U
25	DA	1819	A
25	DA	1987	G
25	DA	2033	A
25	DA	2111	C
25	DA	2116	G
25	DA	2126	A
25	DA	2171	A
25	DA	2172	U
25	DA	2187	G
25	DA	2225	A

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Mol	Chain	Res	Type
25	DA	2263	C
25	DA	2282	G
25	DA	2422	A
25	DA	2481	G
25	DA	2506	U
25	DA	2610	C
25	DA	2681	C
25	DA	2689	U
25	DA	2726	U
25	DA	2756	U
25	DA	2763	G
25	DA	2780	G
25	DA	2864	G
26	DB	66	A

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 oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 746 ligands modelled in this entry, 744 are monoatomic - leaving 2 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
58	PAR	CA	1695	-	44,45,45	1.68	10 (22%)	63,67,67	1.33	6 (9%)
58	PAR	AA	1694	-	44,45,45	1.42	8 (18%)	63,67,67	1.23	6 (9%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
58	PAR	CA	1695	-	-	3/18/94/94	0/4/4/4
58	PAR	AA	1694	-	-	5/18/94/94	0/4/4/4

All (18) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
58	CA	1695	PAR	C34-C24	6.06	1.61	1.53
58	CA	1695	PAR	C52-C42	3.68	1.59	1.52
58	AA	1694	PAR	C34-C24	3.34	1.57	1.53
58	AA	1694	PAR	C52-C42	3.10	1.58	1.52
58	AA	1694	PAR	O54-C14	2.95	1.49	1.41
58	CA	1695	PAR	O54-C14	2.89	1.49	1.41
58	CA	1695	PAR	C11-C21	2.89	1.58	1.52
58	AA	1694	PAR	C11-C21	2.65	1.57	1.52
58	AA	1694	PAR	O51-C11	2.54	1.48	1.41
58	CA	1695	PAR	O54-C54	2.38	1.50	1.44
58	CA	1695	PAR	C62-C52	2.28	1.58	1.52
58	AA	1694	PAR	C14-C24	2.18	1.56	1.52
58	CA	1695	PAR	C44-C34	2.17	1.58	1.52
58	CA	1695	PAR	C42-C32	2.12	1.57	1.53
58	CA	1695	PAR	O11-C42	2.05	1.49	1.43
58	AA	1694	PAR	O54-C54	2.05	1.49	1.44
58	CA	1695	PAR	O51-C11	2.04	1.47	1.41
58	AA	1694	PAR	C31-C21	2.03	1.56	1.53

All (12) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	CA	1695	PAR	C14-O54-C54	4.51	122.53	113.72
58	CA	1695	PAR	O54-C54-C64	4.00	113.76	106.07
58	AA	1694	PAR	O54-C54-C64	3.78	113.32	106.07
58	CA	1695	PAR	O11-C11-C21	3.76	114.22	108.08
58	AA	1694	PAR	O33-C14-C24	3.69	114.12	108.08
58	CA	1695	PAR	O33-C14-C24	3.68	114.11	108.08
58	AA	1694	PAR	C14-O54-C54	3.67	120.89	113.72
58	AA	1694	PAR	O11-C11-C21	3.41	113.66	108.08
58	AA	1694	PAR	C11-O51-C51	2.47	118.55	113.72
58	CA	1695	PAR	C11-O51-C51	2.42	118.44	113.72
58	CA	1695	PAR	O52-C13-O43	-2.31	109.00	111.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	AA	1694	PAR	O52-C13-O43	-2.02	109.30	111.37

There are no chirality outliers.

All (8) torsion outliers are listed below:

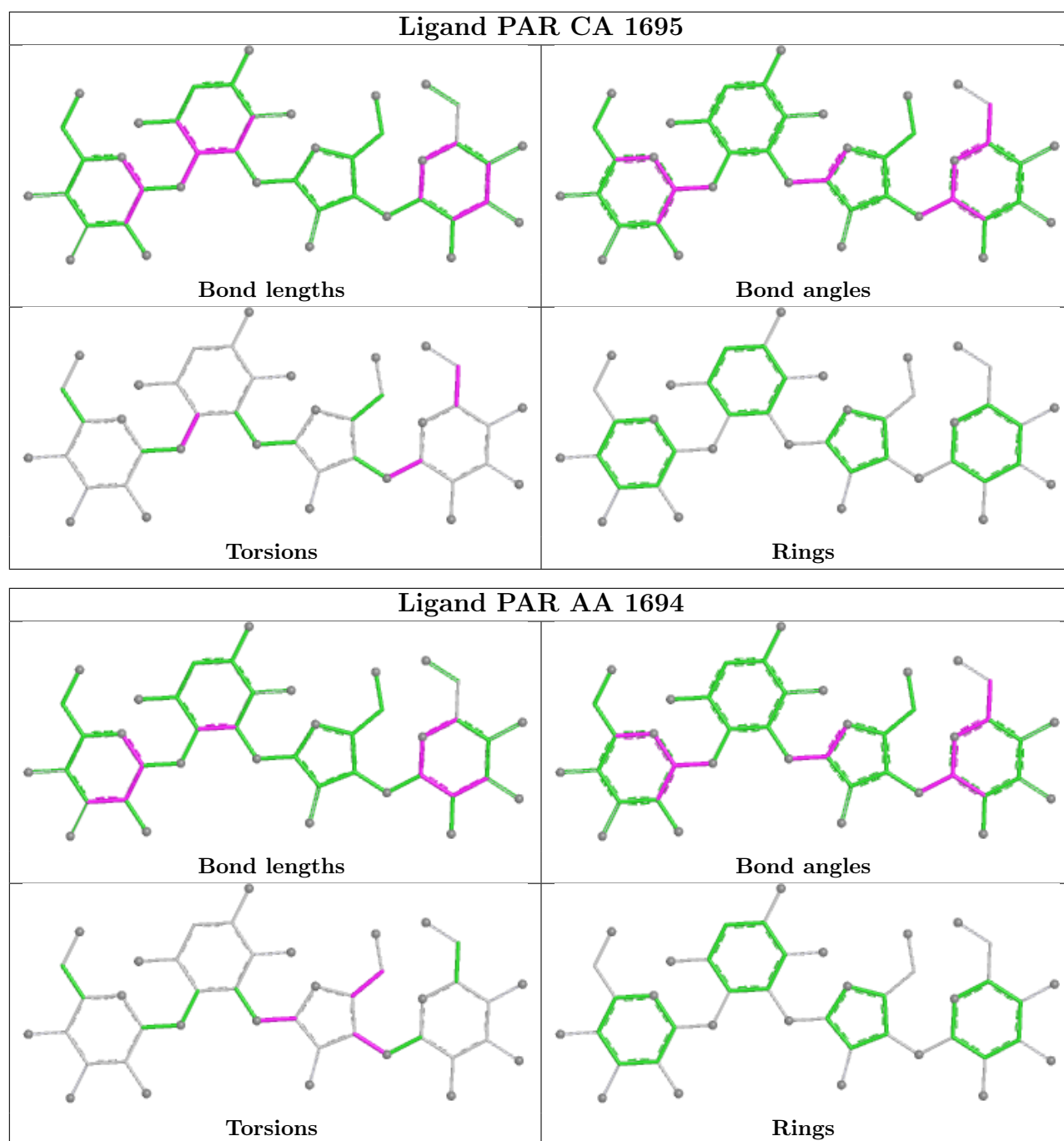
Mol	Chain	Res	Type	Atoms
58	AA	1694	PAR	C23-C13-O52-C52
58	AA	1694	PAR	O43-C43-C53-O53
58	AA	1694	PAR	C33-C43-C53-O53
58	AA	1694	PAR	O43-C13-O52-C52
58	CA	1695	PAR	C44-C54-C64-N64
58	CA	1695	PAR	O54-C14-O33-C33
58	CA	1695	PAR	C52-C42-O11-C11
58	AA	1694	PAR	C43-C33-O33-C14

There are no ring outliers.

2 monomers are involved in 4 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
58	CA	1695	PAR	1	0
58	AA	1694	PAR	3	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 than 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.



5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	AA	1504/1522 (98%)	-0.07	26 (1%) 69 48	7, 49, 127, 206	0
1	CA	1503/1522 (98%)	-0.04	24 (1%) 70 49	2, 41, 123, 215	0
2	AB	235/256 (91%)	0.36	9 (3%) 44 32	44, 88, 131, 174	0
2	CB	235/256 (91%)	0.40	5 (2%) 63 44	40, 81, 123, 166	0
3	AC	207/239 (86%)	0.18	7 (3%) 48 34	38, 71, 111, 143	0
3	CC	207/239 (86%)	0.11	4 (1%) 66 46	28, 62, 104, 145	0
4	AD	208/209 (99%)	0.26	8 (3%) 44 32	28, 59, 107, 141	0
4	CD	208/209 (99%)	0.56	17 (8%) 17 18	21, 52, 103, 125	0
5	AE	151/162 (93%)	0.15	4 (2%) 57 40	7, 52, 95, 111	0
5	CE	151/162 (93%)	0.30	9 (5%) 27 23	4, 46, 92, 114	0
6	AF	101/101 (100%)	0.07	1 (0%) 79 59	16, 53, 101, 141	0
6	CF	101/101 (100%)	0.52	7 (6%) 23 20	12, 55, 104, 131	0
7	AG	155/156 (99%)	0.33	11 (7%) 22 20	34, 66, 111, 154	0
7	CG	155/156 (99%)	0.28	8 (5%) 33 26	27, 64, 114, 148	0
8	AH	138/138 (100%)	0.24	8 (5%) 29 24	19, 59, 87, 125	0
8	CH	138/138 (100%)	0.15	2 (1%) 73 52	12, 49, 82, 122	0
9	AI	127/128 (99%)	0.40	5 (3%) 43 31	31, 75, 120, 153	0
9	CI	127/128 (99%)	0.74	15 (11%) 9 12	27, 75, 114, 148	0
10	AJ	99/105 (94%)	0.76	14 (14%) 6 9	41, 85, 128, 142	0
10	CJ	99/105 (94%)	0.74	8 (8%) 18 18	27, 77, 128, 143	0
11	AK	119/129 (92%)	0.22	4 (3%) 48 34	13, 49, 98, 129	0
11	CK	119/129 (92%)	0.20	4 (3%) 48 34	8, 46, 98, 121	0
12	AL	125/132 (94%)	0.41	6 (4%) 35 27	2, 39, 88, 141	0
12	CL	125/132 (94%)	0.42	5 (4%) 42 31	0, 27, 75, 143	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2		OWAB(Å ²)	Q<0.9
13	AM	125/126 (99%)	0.61	12 (9%)	13 16	36, 76, 116, 147	0
13	CM	125/126 (99%)	0.70	16 (12%)	7 11	22, 61, 109, 136	0
14	AN	60/61 (98%)	0.55	3 (5%)	34 26	40, 67, 117, 132	0
14	CN	60/61 (98%)	0.65	3 (5%)	34 26	31, 50, 106, 121	0
15	AO	88/89 (98%)	0.16	1 (1%)	78 57	14, 48, 93, 116	0
15	CO	88/89 (98%)	0.21	2 (2%)	61 43	9, 45, 89, 132	0
16	AP	84/88 (95%)	0.52	5 (5%)	27 23	30, 51, 101, 137	0
16	CP	84/88 (95%)	0.52	4 (4%)	35 27	30, 52, 88, 106	0
17	AQ	100/105 (95%)	0.45	7 (7%)	22 20	24, 56, 103, 111	0
17	CQ	100/105 (95%)	0.54	8 (8%)	18 18	18, 53, 110, 121	0
18	AR	70/88 (79%)	0.06	1 (1%)	73 52	17, 54, 98, 118	0
18	CR	70/88 (79%)	0.25	0	100 100	12, 47, 88, 116	0
19	AS	79/93 (84%)	0.34	1 (1%)	75 54	37, 76, 126, 161	0
19	CS	79/93 (84%)	0.51	4 (5%)	33 26	26, 55, 121, 146	0
20	AT	99/106 (93%)	0.45	5 (5%)	33 26	11, 59, 105, 121	0
20	CT	99/106 (93%)	0.55	7 (7%)	22 20	3, 58, 106, 125	0
21	AU	25/27 (92%)	0.98	6 (24%)	2 4	41, 69, 87, 97	0
21	CU	25/27 (92%)	1.20	4 (16%)	5 8	31, 55, 91, 125	0
22	AW	76/76 (100%)	0.53	6 (7%)	18 18	23, 129, 187, 208	0
22	AY	17/76 (22%)	0.22	1 (5%)	28 24	29, 51, 105, 123	0
22	CW	76/76 (100%)	0.67	7 (9%)	14 16	12, 118, 185, 207	0
22	CY	17/76 (22%)	-0.34	0	100 100	10, 37, 117, 125	0
23	AV	77/77 (100%)	-0.00	1 (1%)	75 54	16, 67, 122, 137	0
23	CV	77/77 (100%)	0.06	0	100 100	10, 55, 109, 155	0
24	AX	8/24 (33%)	0.12	0	100 100	15, 33, 63, 66	0
24	CX	10/24 (41%)	0.29	0	100 100	9, 26, 96, 134	0
25	BA	2803/2916 (96%)	0.56	183 (6%)	25 22	6, 38, 143, 240	0
25	DA	2803/2916 (96%)	0.58	178 (6%)	25 22	0, 20, 132, 232	0
26	BB	119/122 (97%)	0.57	11 (9%)	14 16	32, 70, 127, 179	0
26	DB	119/122 (97%)	0.55	7 (5%)	28 24	14, 44, 88, 118	0
27	BC	191/229 (83%)	0.89	21 (10%)	10 13	44, 115, 155, 180	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2		OWAB(Å ²)	Q<0.9
27	DC	191/229 (83%)	0.79	15 (7%)	18 18	33, 112, 151, 174	0
28	BD	272/276 (98%)	0.37	14 (5%)	33 26	6, 23, 70, 121	0
28	DD	272/276 (98%)	0.36	12 (4%)	39 29	0, 11, 51, 96	0
29	BE	205/206 (99%)	0.46	16 (7%)	19 18	13, 50, 111, 161	0
29	DE	205/206 (99%)	0.48	10 (4%)	35 27	1, 29, 96, 158	0
30	BF	208/210 (99%)	0.42	7 (3%)	48 34	10, 43, 115, 172	0
30	DF	208/210 (99%)	0.38	7 (3%)	48 34	0, 23, 106, 154	0
31	BG	181/182 (99%)	0.35	10 (5%)	30 25	8, 63, 118, 169	0
31	DG	181/182 (99%)	0.27	7 (3%)	43 31	4, 51, 107, 178	0
32	BH	160/180 (88%)	0.91	20 (12%)	8 11	37, 115, 166, 197	0
32	DH	160/180 (88%)	0.73	17 (10%)	11 14	3, 61, 115, 143	0
33	BI	146/148 (98%)	0.66	11 (7%)	20 19	19, 68, 125, 152	0
33	DI	146/148 (98%)	0.36	5 (3%)	48 34	6, 64, 119, 168	0
34	BN	139/140 (99%)	0.38	6 (4%)	40 30	23, 58, 106, 176	0
34	DN	139/140 (99%)	0.29	5 (3%)	46 33	2, 29, 83, 139	0
35	BO	122/122 (100%)	0.06	5 (4%)	41 31	17, 42, 82, 99	0
35	DO	122/122 (100%)	-0.11	0	100 100	0, 22, 61, 74	0
36	BP	146/150 (97%)	0.90	31 (21%)	2 4	8, 49, 108, 157	0
36	DP	146/150 (97%)	0.92	20 (13%)	6 10	0, 43, 108, 167	0
37	BQ	141/141 (100%)	0.60	14 (9%)	13 15	7, 50, 102, 180	0
37	DQ	141/141 (100%)	0.53	10 (7%)	22 20	1, 25, 75, 167	0
38	BR	117/118 (99%)	0.42	9 (7%)	19 18	18, 39, 91, 120	0
38	DR	117/118 (99%)	0.43	7 (5%)	27 23	4, 22, 64, 109	0
39	BS	99/112 (88%)	0.92	14 (14%)	6 9	15, 67, 116, 158	0
39	DS	99/112 (88%)	0.42	4 (4%)	42 31	11, 41, 91, 147	0
40	BT	138/146 (94%)	0.20	3 (2%)	62 44	24, 57, 109, 142	0
40	DT	138/146 (94%)	0.17	4 (2%)	53 37	3, 39, 96, 120	0
41	BU	117/118 (99%)	0.91	21 (17%)	3 6	14, 48, 114, 142	0
41	DU	117/118 (99%)	0.48	7 (5%)	27 23	2, 19, 65, 93	0
42	BV	101/101 (100%)	0.24	3 (2%)	52 36	15, 72, 122, 174	0
42	DV	101/101 (100%)	0.37	5 (4%)	34 26	1, 39, 86, 153	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
43	BW	113/113 (100%)	0.46	9 (7%) 18 18	11, 32, 89, 159	0
43	DW	113/113 (100%)	0.16	1 (0%) 81 62	2, 17, 64, 110	0
44	BX	93/96 (96%)	0.42	6 (6%) 25 22	15, 35, 72, 98	0
44	DX	93/96 (96%)	0.54	3 (3%) 50 35	2, 20, 73, 84	0
45	BY	101/110 (91%)	1.04	24 (23%) 2 4	20, 63, 128, 197	0
45	DY	101/110 (91%)	0.82	10 (9%) 13 15	6, 54, 130, 226	0
46	BZ	177/206 (85%)	0.53	11 (6%) 26 23	0, 83, 131, 156	0
46	DZ	177/206 (85%)	0.53	13 (7%) 21 19	4, 66, 131, 155	0
47	B0	84/85 (98%)	0.72	9 (10%) 11 14	11, 44, 92, 147	0
47	D0	84/85 (98%)	0.74	7 (8%) 17 18	4, 23, 85, 144	0
48	B1	94/98 (95%)	0.50	3 (3%) 50 35	6, 33, 89, 106	0
48	D1	94/98 (95%)	0.55	5 (5%) 32 25	2, 28, 85, 136	0
49	B2	71/72 (98%)	0.57	4 (5%) 30 24	18, 49, 104, 122	0
49	D2	71/72 (98%)	0.60	5 (7%) 22 20	2, 30, 96, 132	0
50	B3	60/60 (100%)	0.41	3 (5%) 34 26	20, 59, 111, 177	0
50	D3	60/60 (100%)	0.24	3 (5%) 34 26	2, 26, 90, 130	0
51	B4	31/71 (43%)	0.16	1 (3%) 50 35	33, 76, 100, 107	0
51	D4	31/71 (43%)	0.15	1 (3%) 50 35	8, 66, 113, 156	0
52	B5	59/60 (98%)	0.52	3 (5%) 33 26	1, 43, 128, 147	0
52	D5	59/60 (98%)	0.41	3 (5%) 33 26	0, 29, 112, 160	0
53	B6	45/54 (83%)	1.09	6 (13%) 7 10	26, 85, 131, 153	0
53	D6	45/54 (83%)	1.02	4 (8%) 15 16	15, 78, 124, 159	0
54	B7	49/49 (100%)	0.91	8 (16%) 4 7	0, 18, 70, 86	0
54	D7	49/49 (100%)	0.73	6 (12%) 8 12	0, 3, 44, 108	0
55	B8	64/65 (98%)	0.84	9 (14%) 6 9	0, 39, 92, 121	0
55	D8	64/65 (98%)	0.67	7 (10%) 10 13	0, 21, 71, 121	0
56	B9	36/37 (97%)	2.24	19 (52%) 0 1	79, 117, 145, 155	0
56	D9	36/37 (97%)	2.99	24 (66%) 0 0	45, 105, 140, 163	0
All	All	21119/22212 (95%)	0.42	1241 (5%) 28 24	0, 46, 126, 240	0

All (1241) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
37	DQ	140	ALA	12.9
46	DZ	179	ASP	9.0
25	DA	1593	G	7.6
13	CM	126	LYS	6.9
47	D0	2	ALA	6.8
45	DY	51	VAL	6.7
11	AK	129	SER	6.6
25	BA	11	G	6.6
25	BA	2802	G	6.5
25	BA	2506	U	6.5
56	D9	17	ILE	6.4
36	DP	53	GLY	6.2
45	BY	88	LYS	6.2
56	D9	24	TYR	6.1
1	AA	84	C	5.9
45	BY	61	ILE	5.9
53	D6	42	TRP	5.9
11	AK	128	ALA	5.9
13	CM	101	GLN	5.8
8	AH	1	MET	5.8
56	D9	4	ARG	5.8
56	D9	5	ALA	5.6
12	AL	16	GLU	5.6
47	D0	41	ARG	5.6
25	DA	1594	G	5.5
56	D9	18	ARG	5.4
1	CA	84	C	5.4
32	BH	24	VAL	5.4
56	D9	23	VAL	5.2
31	DG	35	GLU	5.2
54	B7	23	ARG	5.2
25	BA	1450	G	5.2
56	D9	3	VAL	5.1
36	BP	33	ARG	5.1
41	BU	91	ASP	5.1
13	AM	100	GLY	5.1
9	CI	81	ILE	5.1
25	DA	1053	C	5.1
8	AH	3	THR	5.1
25	DA	2802	G	5.0
53	B6	42	TRP	5.0
36	BP	52	GLU	5.0
35	BO	1	MET	5.0

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Mol	Chain	Res	Type	RSRZ
25	BA	1026	U	4.9
2	AB	16	HIS	4.9
47	B0	8	GLY	4.9
38	DR	3	HIS	4.9
32	DH	171	LEU	4.9
48	D1	93	GLU	4.9
36	DP	51	PHE	4.9
25	DA	1410	G	4.8
47	B0	7	LEU	4.8
4	CD	12	CYS	4.8
14	AN	2	ALA	4.8
41	BU	37	GLU	4.8
3	CC	161	GLU	4.8
56	B9	23	VAL	4.8
13	CM	124	PRO	4.7
30	BF	84	VAL	4.7
41	BU	58	ARG	4.7
25	BA	12	U	4.7
25	DA	1450	G	4.7
45	BY	60	PHE	4.7
25	DA	2151	G	4.6
28	BD	38	LYS	4.6
1	CA	1164	A	4.6
25	DA	2602	A	4.6
1	AA	81	U	4.6
25	DA	1409	C	4.6
56	B9	10	ILE	4.6
1	CA	979	G	4.6
25	DA	11	G	4.6
4	CD	120	LEU	4.5
25	DA	2136	C	4.5
53	B6	13	CYS	4.5
37	DQ	141	GLN	4.5
56	D9	7	VAL	4.5
13	CM	102	ARG	4.5
12	AL	73	GLU	4.5
25	DA	2135	A	4.5
13	CM	84	ILE	4.5
7	AG	32	ARG	4.4
22	CW	20	U	4.4
34	DN	68	GLU	4.4
36	BP	30	THR	4.4

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Mol	Chain	Res	Type	RSRZ
42	BV	22	VAL	4.4
29	DE	76	ARG	4.4
1	AA	1049	A	4.4
7	AG	2	ALA	4.4
51	D4	66	HIS	4.4
6	CF	79	LEU	4.3
25	DA	2612	C	4.3
25	BA	2602	A	4.3
32	DH	60	ARG	4.3
9	CI	84	ALA	4.3
56	D9	15	LYS	4.3
32	BH	37	VAL	4.3
13	AM	101	GLN	4.3
41	BU	90	VAL	4.3
25	BA	1448	G	4.3
25	DA	2668	G	4.3
45	DY	52	SER	4.3
25	DA	1762	A	4.2
9	CI	115	GLY	4.2
36	DP	86	LYS	4.2
56	B9	33	LYS	4.2
25	BA	508	G	4.2
25	DA	508	G	4.2
49	D2	72	ALA	4.2
28	DD	48	ARG	4.2
25	DA	12	U	4.2
25	DA	1592	C	4.2
28	BD	237	GLU	4.2
2	AB	211	ILE	4.2
10	AJ	64	GLU	4.2
13	CM	12	ASN	4.2
25	DA	529	A	4.2
9	CI	106	ALA	4.1
32	BH	35	VAL	4.1
25	DA	1631(A)	A	4.1
45	BY	56	PRO	4.1
54	D7	1	MET	4.1
45	BY	49	VAL	4.1
4	AD	209	ARG	4.1
25	BA	10	G	4.1
7	CG	85	TYR	4.1
13	CM	125	ARG	4.1

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Mol	Chain	Res	Type	RSRZ
29	DE	193	GLY	4.1
36	BP	61	ARG	4.1
27	BC	107	TRP	4.0
17	AQ	101	ARG	4.0
25	DA	1595	G	4.0
28	DD	262	ARG	4.0
37	BQ	22	LYS	4.0
56	D9	32	HIS	4.0
1	AA	1431	A	4.0
36	BP	34	GLY	4.0
37	BQ	23	GLY	4.0
32	BH	105	LEU	4.0
25	BA	2173	A	4.0
42	DV	22	VAL	4.0
13	CM	105	THR	4.0
47	B0	3	HIS	4.0
25	DA	2062	A	3.9
45	BY	2	ARG	3.9
49	D2	55	ARG	3.9
25	DA	1591	G	3.9
21	CU	2	GLY	3.9
8	AH	4	ASP	3.9
32	BH	12	PRO	3.9
10	AJ	34	VAL	3.9
29	BE	130	GLY	3.9
1	AA	979	G	3.9
12	CL	7	ILE	3.9
25	BA	100	G	3.9
55	B8	62	LEU	3.9
54	D7	48	LYS	3.9
1	AA	82	U	3.9
36	BP	42	SER	3.9
25	BA	2795	G	3.9
26	DB	54	G	3.9
56	B9	26	ILE	3.9
2	AB	215	LEU	3.9
26	DB	88	C	3.9
56	D9	33	LYS	3.9
43	BW	60	ASN	3.8
36	BP	46	LYS	3.8
9	AI	104	ARG	3.8
25	DA	896	A	3.8

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Mol	Chain	Res	Type	RSRZ
25	DA	2117	A	3.8
5	AE	82	VAL	3.8
38	DR	8	ARG	3.8
25	BA	2295	C	3.8
46	DZ	84	GLU	3.8
42	DV	36	PRO	3.8
2	CB	16	HIS	3.8
56	D9	26	ILE	3.7
45	BY	3	VAL	3.7
46	DZ	175	VAL	3.7
7	CG	32	ARG	3.7
56	B9	32	HIS	3.7
25	DA	1048	A	3.7
25	BA	379	G	3.7
25	BA	2125	G	3.7
25	BA	2893	G	3.7
25	DA	1110	G	3.7
25	DA	2402	C	3.7
32	DH	159	GLU	3.7
46	BZ	78	LYS	3.7
36	DP	22	GLY	3.7
56	D9	37	GLY	3.7
53	B6	24	GLU	3.7
1	AA	80	U	3.7
1	AA	1111	C	3.7
25	DA	2115	G	3.7
45	BY	48	ALA	3.7
44	DX	68	ARG	3.7
53	D6	25	LYS	3.7
32	BH	103	LEU	3.7
56	B9	17	ILE	3.6
36	BP	50	ARG	3.6
21	CU	5	ASP	3.6
45	DY	49	VAL	3.6
25	BA	1762	A	3.6
10	CJ	64	GLU	3.6
27	BC	49	ILE	3.6
37	BQ	140	ALA	3.6
38	BR	9	LYS	3.6
47	B0	41	ARG	3.6
17	CQ	44	ALA	3.6
41	DU	59	ARG	3.6

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Mol	Chain	Res	Type	RSRZ
49	B2	49	LYS	3.6
25	BA	1445	A	3.6
26	DB	52	A	3.6
46	DZ	176	PRO	3.6
56	D9	2	LYS	3.6
20	CT	64	ASP	3.6
43	BW	94	ASP	3.6
10	AJ	59	SER	3.6
25	BA	274	G	3.6
25	BA	2149	G	3.6
25	BA	2268	A	3.6
25	DA	2173	A	3.6
37	BQ	17	LEU	3.6
43	BW	92	ARG	3.6
16	CP	68	ASP	3.6
56	D9	20	HIS	3.6
25	BA	2136	C	3.5
36	DP	54	GLY	3.5
25	DA	2751	G	3.5
56	B9	2	LYS	3.5
20	CT	80	ARG	3.5
36	BP	28	GLY	3.5
17	AQ	100	LYS	3.5
27	BC	76	ALA	3.5
25	DA	603	A	3.5
25	DA	899	A	3.5
25	BA	352	G	3.5
25	BA	715	G	3.5
25	BA	862	G	3.5
25	BA	954	G	3.5
9	CI	80	GLY	3.5
10	CJ	59	SER	3.5
7	CG	83	ALA	3.5
36	DP	70	GLN	3.5
25	BA	2892	A	3.5
25	BA	512	G	3.5
5	CE	129	ILE	3.4
36	BP	25	SER	3.4
1	AA	1016	G	3.4
14	CN	2	ALA	3.4
27	DC	38	ASP	3.4
25	DA	288	C	3.4

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Mol	Chain	Res	Type	RSRZ
55	D8	48	PHE	3.4
2	AB	133	LYS	3.4
56	D9	8	LYS	3.4
17	CQ	101	ARG	3.4
39	BS	32	LEU	3.4
56	B9	29	ASN	3.4
13	CM	123	ALA	3.4
25	DA	1468	C	3.4
5	CE	70	PRO	3.4
25	BA	530	G	3.4
25	BA	2191	G	3.4
25	BA	142(A)	C	3.4
25	DA	2647	U	3.4
52	D5	2	ALA	3.4
54	B7	48	LYS	3.3
25	BA	288	C	3.3
25	BA	2068	U	3.3
25	BA	2799	C	3.3
25	DA	272(A)	U	3.3
1	CA	83	A	3.3
46	BZ	74	VAL	3.3
17	CQ	68	ARG	3.3
36	BP	58	THR	3.3
46	BZ	98	MET	3.3
25	DA	272(B)	G	3.3
25	DA	1888	G	3.3
46	BZ	175	VAL	3.3
25	DA	271(B)	C	3.3
33	DI	30	LEU	3.3
5	CE	85	GLY	3.3
25	DA	1494	A	3.3
34	DN	3	THR	3.3
55	B8	56	GLU	3.3
27	BC	220	PRO	3.3
56	B9	18	ARG	3.3
29	BE	128	SER	3.3
9	CI	4	TYR	3.3
56	B9	24	TYR	3.3
56	D9	14	CYS	3.3
25	BA	380	U	3.3
25	BA	2174	C	3.3
25	BA	859	G	3.3

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Mol	Chain	Res	Type	RSRZ
25	DA	81	G	3.3
25	DA	344	G	3.3
25	BA	2135	A	3.3
25	DA	345	A	3.3
38	BR	8	ARG	3.3
33	BI	3	VAL	3.3
40	DT	55	ASN	3.3
47	B0	5	LYS	3.3
36	BP	27	HIS	3.3
41	BU	79	PHE	3.2
31	DG	72	ARG	3.2
36	BP	36	LYS	3.2
25	DA	82	G	3.2
36	BP	41	ARG	3.2
32	BH	145	ALA	3.2
45	BY	82	PRO	3.2
47	B0	15	ASP	3.2
36	DP	28	GLY	3.2
36	DP	104	GLY	3.2
30	DF	175	THR	3.2
36	BP	32	THR	3.2
14	AN	39	LEU	3.2
22	CW	59	U	3.2
25	DA	339	U	3.2
52	B5	53	ALA	3.2
56	B9	20	HIS	3.2
25	DA	1463	C	3.2
1	AA	1164	A	3.2
25	BA	1347	G	3.2
25	DA	80	G	3.2
25	DA	2603	G	3.2
45	BY	10	GLY	3.2
4	CD	126	ILE	3.2
28	DD	15	PHE	3.2
7	AG	5	ARG	3.2
5	CE	108	ALA	3.2
18	AR	67	ALA	3.2
21	AU	3	LYS	3.2
46	BZ	25	PRO	3.2
25	BA	362	U	3.2
26	DB	1	U	3.2
45	DY	59	GLY	3.2

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Mol	Chain	Res	Type	RSRZ
36	BP	57	THR	3.2
37	BQ	139	GLU	3.2
25	BA	1387	C	3.2
16	CP	15	PRO	3.2
1	CA	311	G	3.2
22	AW	34	G	3.2
25	DA	338	G	3.2
45	BY	79	CYS	3.2
27	BC	216	THR	3.2
45	BY	57	GLN	3.2
36	DP	29	LYS	3.2
5	CE	69	VAL	3.2
25	DA	343	C	3.1
25	DA	1632	A	3.1
45	DY	2	ARG	3.1
20	AT	12	ALA	3.1
41	BU	48	ALA	3.1
25	BA	1348	G	3.1
1	CA	80	U	3.1
10	CJ	46	ARG	3.1
19	CS	12	ASP	3.1
25	BA	1631(A)	A	3.1
13	AM	84	ILE	3.1
42	DV	21	ARG	3.1
37	BQ	19	GLY	3.1
34	BN	116	LEU	3.1
36	BP	110	TYR	3.1
55	D8	64	TYR	3.1
25	BA	30	G	3.1
44	BX	38	GLU	3.1
22	AW	47	U	3.1
25	DA	2150	U	3.1
25	DA	2506	U	3.1
37	BQ	141	GLN	3.1
11	CK	129	SER	3.1
25	BA	335	C	3.1
25	BA	1053	C	3.1
25	BA	2683	C	3.1
25	DA	1467	C	3.1
27	DC	170	ALA	3.1
56	B9	5	ALA	3.1
17	CQ	37	LYS	3.1

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Mol	Chain	Res	Type	RSRZ
41	BU	15	LYS	3.1
39	BS	54	LEU	3.1
44	BX	37	THR	3.1
29	DE	75	VAL	3.1
45	BY	51	VAL	3.1
25	BA	181	A	3.1
25	DA	183	C	3.1
36	BP	53	GLY	3.1
27	BC	215	THR	3.1
4	CD	104	VAL	3.0
4	AD	73	ARG	3.0
25	DA	2406	U	3.0
28	BD	52	ARG	3.0
28	DD	237	GLU	3.0
25	BA	651	G	3.0
25	BA	805	G	3.0
25	BA	932	G	3.0
15	CO	62	GLN	3.0
32	BH	148	ILE	3.0
52	D5	60	VAL	3.0
13	AM	123	ALA	3.0
17	AQ	37	LYS	3.0
39	BS	12	PHE	3.0
3	AC	159	GLY	3.0
25	BA	72	U	3.0
41	BU	93	LYS	3.0
29	BE	205	ALA	3.0
25	BA	989	G	3.0
25	BA	2116	G	3.0
54	B7	14	LYS	3.0
17	AQ	73	VAL	3.0
47	D0	7	LEU	3.0
39	BS	36	TYR	3.0
47	B0	4	LYS	3.0
55	B8	29	LYS	3.0
9	AI	38	GLN	3.0
28	DD	175	LEU	3.0
25	BA	1855	G	3.0
53	D6	26	ASN	3.0
30	BF	179	GLU	3.0
2	CB	214	ILE	3.0
13	CM	122	LYS	3.0

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Mol	Chain	Res	Type	RSRZ
29	BE	133	LYS	3.0
34	DN	36	GLY	3.0
6	CF	76	ALA	3.0
30	BF	80	ALA	3.0
39	BS	34	HIS	2.9
12	CL	91	LYS	2.9
48	D1	18	ILE	2.9
55	D8	38	GLY	2.9
25	BA	2801(A)	A	2.9
25	DA	92	A	2.9
25	BA	2148	G	2.9
25	DA	1114	G	2.9
25	BA	2138	C	2.9
25	BA	2690	C	2.9
46	DZ	162	GLU	2.9
25	BA	2796	U	2.9
31	BG	42	GLY	2.9
30	DF	173	VAL	2.9
56	B9	14	CYS	2.9
46	BZ	164	ALA	2.9
27	BC	50	ASP	2.9
50	B3	18	ASP	2.9
53	D6	46	HIS	2.9
25	BA	1616	A	2.9
25	BA	2117	A	2.9
25	DA	363(F)	A	2.9
55	D8	56	GLU	2.9
8	CH	1	MET	2.9
31	BG	86	MET	2.9
10	AJ	72	VAL	2.9
14	CN	30	ALA	2.9
25	DA	1672	C	2.9
1	CA	1107	U	2.9
25	BA	448	U	2.9
29	BE	18	ASP	2.9
37	BQ	25	ASP	2.9
9	CI	128	ARG	2.9
45	DY	97	ARG	2.9
7	AG	75	VAL	2.9
42	DV	80	GLN	2.9
10	AJ	55	LYS	2.9
10	CJ	26	ALA	2.9

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Mol	Chain	Res	Type	RSRZ
4	CD	31	CYS	2.9
10	AJ	73	ASP	2.9
25	BA	2612	C	2.9
25	BA	2646	C	2.9
1	CA	1009	G	2.9
25	DA	879	G	2.9
25	DA	2795	G	2.9
26	BB	86	G	2.9
27	DC	153	ILE	2.9
9	AI	128	ARG	2.9
39	DS	16	ASN	2.9
32	BH	17	VAL	2.8
36	DP	19	VAL	2.8
55	B8	48	PHE	2.8
25	DA	2172	U	2.8
46	BZ	149	SER	2.8
10	AJ	26	ALA	2.8
28	DD	240	ALA	2.8
33	BI	58	LEU	2.8
7	CG	82	GLY	2.8
25	DA	2682	U	2.8
55	B8	45	GLY	2.8
48	B1	15	ALA	2.8
25	BA	2477	C	2.8
25	BA	1857	G	2.8
25	BA	2193	G	2.8
39	BS	91	PRO	2.8
10	CJ	44	VAL	2.8
13	AM	98	VAL	2.8
32	BH	50	VAL	2.8
32	BH	113	VAL	2.8
4	AD	160	GLN	2.8
1	AA	308	A	2.8
4	CD	110	PHE	2.8
25	BA	1220	A	2.8
41	BU	5	LYS	2.8
10	CJ	88	LEU	2.8
20	CT	84	LEU	2.8
25	DA	2118	U	2.8
25	BA	271(T)	C	2.8
25	BA	1638	C	2.8
25	DA	1408	C	2.8

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Mol	Chain	Res	Type	RSRZ
39	DS	14	VAL	2.8
4	AD	24	GLU	2.8
36	DP	43	GLY	2.8
55	B8	33	ASN	2.8
10	CJ	55	LYS	2.8
54	D7	29	LYS	2.8
25	BA	171	G	2.8
25	DA	348	G	2.8
45	BY	86	ARG	2.8
25	DA	346	A	2.8
10	AJ	37	PRO	2.8
28	BD	12	SER	2.8
45	BY	58	GLY	2.8
41	BU	19	LYS	2.8
45	DY	48	ALA	2.8
25	BA	885	C	2.7
25	DA	292	C	2.7
25	DA	2263	C	2.7
37	DQ	81	VAL	2.7
13	AM	122	LYS	2.7
19	CS	10	PHE	2.7
39	BS	11	LYS	2.7
54	D7	32	LYS	2.7
25	BA	2127	G	2.7
32	BH	70	THR	2.7
47	B0	12	ASN	2.7
1	AA	1400	A	2.7
25	BA	92	A	2.7
49	B2	57	ILE	2.7
27	DC	50	ASP	2.7
44	BX	36	LYS	2.7
27	DC	162	GLU	2.7
46	BZ	113	ALA	2.7
29	BE	107	THR	2.7
25	BA	2294	C	2.7
25	DA	1532	C	2.7
44	BX	30	VAL	2.7
47	B0	53	MET	2.7
1	CA	345	G	2.7
2	AB	221	LEU	2.7
25	BA	142	A	2.7
25	DA	274	G	2.7

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Mol	Chain	Res	Type	RSRZ
25	DA	780	G	2.7
25	DA	2238	G	2.7
37	BQ	33	GLY	2.7
4	CD	178	VAL	2.7
41	DU	97	ASP	2.7
31	BG	72	ARG	2.7
2	AB	214	ILE	2.7
20	CT	9	ASN	2.7
28	BD	264	LYS	2.7
48	D1	32	LYS	2.7
25	DA	1469	A	2.7
25	DA	2267	A	2.7
7	CG	62	PHE	2.7
6	CF	40	VAL	2.7
20	AT	13	LEU	2.7
25	BA	82	G	2.7
25	DA	656	G	2.7
25	DA	1044	G	2.7
16	AP	68	ASP	2.7
36	DP	87	ASP	2.7
34	BN	72	TYR	2.7
35	BO	110	GLY	2.7
53	B6	22	ALA	2.7
21	CU	25	LYS	2.7
40	DT	58	ASN	2.7
10	AJ	47	PHE	2.7
45	DY	89	PHE	2.7
33	BI	37	VAL	2.6
36	BP	19	VAL	2.6
38	BR	3	HIS	2.6
55	D8	35	GLN	2.6
29	DE	204	ALA	2.6
52	B5	2	ALA	2.6
1	CA	339	A	2.6
7	AG	154	TYR	2.6
25	DA	2765	A	2.6
32	BH	153	LYS	2.6
1	CA	5	U	2.6
25	BA	63	U	2.6
25	DA	1026	U	2.6
31	BG	40	ASN	2.6
32	DH	67	LEU	2.6

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Mol	Chain	Res	Type	RSRZ
4	CD	9	CYS	2.6
25	BA	962	G	2.6
25	DA	83	G	2.6
25	DA	530	G	2.6
25	DA	2482	G	2.6
28	BD	34	VAL	2.6
33	BI	19	VAL	2.6
39	DS	34	HIS	2.6
9	CI	8	GLY	2.6
1	AA	455	C	2.6
25	BA	2402	C	2.6
25	DA	2803	C	2.6
28	DD	50	THR	2.6
38	DR	4	LEU	2.6
31	DG	160	VAL	2.6
4	AD	9	CYS	2.6
25	DA	1616	A	2.6
12	CL	25	PRO	2.6
47	D0	3	HIS	2.6
3	CC	50	ALA	2.6
27	BC	170	ALA	2.6
45	BY	65	ALA	2.6
35	BO	37	ASP	2.6
38	BR	107	ASP	2.6
49	B2	52	ASP	2.6
1	CA	346	G	2.6
25	DA	2372	G	2.6
25	DA	2747	G	2.6
10	AJ	4	ILE	2.6
45	BY	85	VAL	2.6
41	BU	11	ARG	2.6
25	DA	1589	C	2.6
26	BB	28	C	2.6
30	BF	75	HIS	2.6
56	D9	34	GLN	2.6
3	AC	201	TYR	2.6
2	CB	12	GLU	2.6
25	BA	196	A	2.6
25	BA	2310	A	2.6
25	BA	2758	A	2.6
1	CA	79	U	2.6
25	BA	614(A)	U	2.6

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Mol	Chain	Res	Type	RSRZ
32	BH	38	SER	2.6
33	BI	43	ASN	2.6
54	D7	2	LYS	2.6
29	DE	125	GLY	2.6
25	DA	353	G	2.6
26	BB	87	G	2.6
29	DE	113	PHE	2.6
29	DE	151	TYR	2.6
1	AA	1005	C	2.6
5	AE	33	VAL	2.6
6	CF	80	ARG	2.6
14	CN	56	VAL	2.6
15	CO	60	VAL	2.6
25	BA	1463	C	2.6
26	BB	88	C	2.6
32	DH	44	VAL	2.6
38	BR	12	ARG	2.6
39	DS	11	LYS	2.6
25	BA	603	A	2.6
25	BA	2412	A	2.6
25	BA	2296	U	2.6
25	DA	1113	U	2.6
36	BP	43	GLY	2.6
37	DQ	137	TYR	2.5
27	BC	179	SER	2.5
41	BU	89	GLU	2.5
13	AM	66	LEU	2.5
25	BA	1016	G	2.5
25	BA	1447	G	2.5
25	BA	2192	G	2.5
25	DA	379	G	2.5
11	CK	49	GLY	2.5
25	DA	2108	C	2.5
28	BD	244	ARG	2.5
36	DP	65	ARG	2.5
5	AE	122	GLU	2.5
25	BA	1597	A	2.5
25	DA	271(L)	U	2.5
25	DA	1050	A	2.5
25	DA	1490	A	2.5
25	DA	2897	U	2.5
28	BD	230	ASP	2.5

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Mol	Chain	Res	Type	RSRZ
7	AG	83	ALA	2.5
27	DC	26	ALA	2.5
27	DC	141	LYS	2.5
36	DP	64	LYS	2.5
37	DQ	85	LYS	2.5
36	BP	65	ARG	2.5
3	CC	166	GLU	2.5
4	CD	176	LEU	2.5
28	DD	34	VAL	2.5
1	AA	553	G	2.5
25	DA	2125	G	2.5
16	AP	29	ASP	2.5
25	DA	1041	C	2.5
3	AC	149	ALA	2.5
27	DC	140	PRO	2.5
13	AM	25	ILE	2.5
21	AU	2	GLY	2.5
22	AW	36	A	2.5
25	BA	1637	A	2.5
25	BA	2682	U	2.5
25	DA	1133	U	2.5
4	CD	118	ARG	2.5
37	BQ	16	ARG	2.5
30	BF	1	MET	2.5
32	BH	26	VAL	2.5
53	B6	52	VAL	2.5
28	BD	181	GLU	2.5
48	D1	27	GLU	2.5
12	AL	32	PHE	2.5
12	CL	48	PRO	2.5
29	BE	89	ASP	2.5
34	BN	95	PRO	2.5
39	BS	41	ASP	2.5
12	AL	19	ARG	2.5
32	DH	69	ARG	2.5
33	BI	35	LEU	2.5
29	DE	167	VAL	2.5
30	BF	174	VAL	2.5
44	BX	59	VAL	2.5
25	DA	1049	C	2.5
25	DA	2752	C	2.5
1	CA	980	G	2.5

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Mol	Chain	Res	Type	RSRZ
25	BA	1435	G	2.5
25	BA	1888	G	2.5
25	DA	651	G	2.5
25	DA	916	G	2.5
25	DA	1177	A	2.5
25	DA	1960	A	2.5
32	BH	136	ILE	2.5
27	DC	220	PRO	2.5
55	B8	32	LEU	2.5
36	DP	110	TYR	2.5
10	AJ	7	LYS	2.4
46	DZ	119	GLU	2.4
5	AE	129	ILE	2.4
20	CT	76	ALA	2.4
55	B8	35	GLN	2.4
10	AJ	46	ARG	2.4
25	BA	2139	C	2.4
25	BA	2347	C	2.4
25	DA	105	C	2.4
25	DA	1505	C	2.4
25	DA	2799	C	2.4
50	D3	18	ASP	2.4
25	DA	349	G	2.4
25	DA	973	A	2.4
25	DA	1899	G	2.4
56	B9	8	LYS	2.4
5	CE	83	GLU	2.4
49	D2	31	GLU	2.4
40	DT	105	LEU	2.4
46	BZ	172	ALA	2.4
16	AP	42	ARG	2.4
56	D9	36	GLN	2.4
6	CF	72	VAL	2.4
28	DD	165	ILE	2.4
29	BE	151	TYR	2.4
32	DH	121	ILE	2.4
33	BI	72	LEU	2.4
1	AA	213	C	2.4
1	CA	1108	U	2.4
25	DA	614(A)	U	2.4
25	DA	2107	C	2.4
36	DP	21	ARG	2.4

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Mol	Chain	Res	Type	RSRZ
1	AA	1508	A	2.4
34	DN	111	PRO	2.4
55	D8	63	PRO	2.4
25	BA	1388	G	2.4
25	DA	341	G	2.4
25	DA	1047	G	2.4
25	DA	1444	G	2.4
25	DA	2116	G	2.4
25	DA	2190	G	2.4
27	BC	211	SER	2.4
30	DF	154	VAL	2.4
20	AT	104	LEU	2.4
48	B1	95	LEU	2.4
56	B9	31	LYS	2.4
36	BP	51	PHE	2.4
39	BS	14	VAL	2.4
54	B7	24	THR	2.4
26	DB	55	U	2.4
4	AD	21	LEU	2.4
8	AH	10	LEU	2.4
52	B5	58	LEU	2.4
22	AW	13	C	2.4
25	DA	1476	C	2.4
25	DA	2292	C	2.4
1	AA	1480	A	2.4
2	CB	50	GLU	2.4
36	BP	21	ARG	2.4
37	DQ	16	ARG	2.4
40	BT	115	ARG	2.4
4	AD	31	CYS	2.4
42	BV	11	GLN	2.4
43	BW	1	MET	2.4
1	AA	918	G	2.4
25	BA	549	G	2.4
25	BA	2631	G	2.4
11	AK	121	PRO	2.4
27	BC	163	PHE	2.4
29	BE	122	PHE	2.4
29	BE	12	THR	2.4
9	CI	9	ARG	2.4
40	BT	100	TYR	2.4
45	BY	50	ARG	2.4

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Mol	Chain	Res	Type	RSRZ
9	CI	119	ALA	2.4
20	CT	77	ALA	2.4
33	BI	65	ALA	2.4
41	BU	34	LYS	2.4
56	B9	34	GLN	2.3
38	BR	7	GLY	2.3
46	DZ	88	PHE	2.3
1	CA	340	C	2.3
1	CA	1111	C	2.3
14	AN	6	LEU	2.3
25	BA	1464	C	2.3
25	BA	1609	A	2.3
25	BA	2342	C	2.3
25	DA	324	A	2.3
25	DA	1387	C	2.3
25	DA	2534	A	2.3
25	DA	2733	A	2.3
30	DF	33	LEU	2.3
32	DH	148	ILE	2.3
27	DC	216	THR	2.3
32	BH	115	VAL	2.3
56	B9	16	VAL	2.3
8	AH	30	ARG	2.3
28	DD	273	ARG	2.3
3	AC	193	TYR	2.3
13	CM	121	LYS	2.3
25	BA	176	G	2.3
25	BA	1374	G	2.3
25	BA	1559	G	2.3
25	BA	2121	G	2.3
25	DA	75	G	2.3
29	BE	127	ASP	2.3
44	DX	6	ASP	2.3
56	D9	31	LYS	2.3
31	BG	2	PRO	2.3
33	BI	84	GLY	2.3
36	DP	105	LEU	2.3
13	CM	106	ASN	2.3
36	DP	30	THR	2.3
46	DZ	170	THR	2.3
7	CG	5	ARG	2.3
25	DA	63	U	2.3

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Mol	Chain	Res	Type	RSRZ
38	BR	2	ARG	2.3
40	DT	3	ARG	2.3
41	BU	59	ARG	2.3
16	AP	27	LYS	2.3
25	BA	363(F)	A	2.3
7	AG	45	ASP	2.3
25	BA	527	C	2.3
25	DA	1052	C	2.3
27	BC	162	GLU	2.3
38	BR	43	GLU	2.3
10	AJ	74	ILE	2.3
45	DY	17	SER	2.3
6	CF	85	VAL	2.3
19	CS	9	VAL	2.3
28	BD	51	VAL	2.3
32	DH	52	VAL	2.3
43	BW	61	ASN	2.3
2	AB	137	ARG	2.3
13	AM	114	ARG	2.3
28	BD	59	LYS	2.3
1	CA	421	G	2.3
25	BA	7	G	2.3
25	BA	1219	G	2.3
25	BA	2024	G	2.3
25	BA	2526	G	2.3
27	DC	76	ALA	2.3
6	CF	26	ILE	2.3
55	B8	40	GLU	2.3
25	BA	860	U	2.3
25	BA	2585	U	2.3
36	DP	40	SER	2.3
12	AL	18	VAL	2.3
27	BC	43	VAL	2.3
29	BE	132	HIS	2.3
7	CG	84	ASN	2.3
2	CB	8	LYS	2.3
30	DF	34	TRP	2.3
39	BS	33	LYS	2.3
41	BU	50	ARG	2.3
46	DZ	80	ARG	2.3
56	D9	19	ARG	2.3
22	CW	74	C	2.3

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Mol	Chain	Res	Type	RSRZ
25	BA	302	C	2.3
25	BA	1450(A)	C	2.3
25	BA	2226	C	2.3
26	BB	91	C	2.3
17	AQ	36	ILE	2.3
29	BE	123	ALA	2.3
46	DZ	60	GLU	2.3
17	AQ	99	SER	2.3
27	BC	140	PRO	2.3
45	BY	8	LYS	2.3
25	BA	975(A)	G	2.3
25	BA	2308	G	2.3
25	DA	312	G	2.3
25	BA	2895	U	2.3
25	DA	958	U	2.3
25	DA	2113	U	2.3
35	BO	32	TYR	2.3
3	AC	207	VAL	2.3
13	AM	6	GLY	2.3
13	AM	112	GLY	2.3
13	AM	124	PRO	2.3
25	BA	31	C	2.3
25	BA	2175	C	2.3
32	DH	85	LYS	2.3
33	DI	132	PRO	2.3
41	DU	15	LYS	2.3
21	AU	9	ARG	2.3
31	BG	156	ASP	2.3
39	BS	13	ARG	2.3
43	BW	22	ASP	2.3
27	DC	172	HIS	2.2
32	DH	71	LEU	2.2
38	DR	18	LEU	2.2
27	DC	107	TRP	2.2
2	AB	185	ILE	2.2
50	D3	21	ALA	2.2
33	DI	131	LYS	2.2
31	DG	30	GLU	2.2
32	DH	53	GLU	2.2
52	D5	59	GLU	2.2
6	AF	89	MET	2.2
1	CA	1004	G	2.2

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Mol	Chain	Res	Type	RSRZ
21	AU	10	ARG	2.2
22	AY	27	G	2.2
25	BA	944	G	2.2
25	BA	1299	G	2.2
25	BA	1816	G	2.2
25	DA	1448	G	2.2
27	BC	136	LEU	2.2
41	BU	18	LEU	2.2
25	BA	141	A	2.2
25	DA	2310	A	2.2
25	DA	2632	A	2.2
38	DR	41	ALA	2.2
25	BA	2177	C	2.2
25	DA	2648	C	2.2
39	BS	76	LYS	2.2
56	D9	6	SER	2.2
4	CD	15	GLU	2.2
56	D9	9	ARG	2.2
43	BW	77	ASP	2.2
4	CD	125	HIS	2.2
12	CL	23	LYS	2.2
25	BA	405	U	2.2
25	BA	858	U	2.2
36	BP	39	LYS	2.2
37	BQ	50	ALA	2.2
41	DU	117	GLN	2.2
19	CS	35	SER	2.2
25	DA	1436	G	2.2
25	DA	1772	G	2.2
25	DA	2371	G	2.2
4	CD	121	VAL	2.2
28	BD	273	ARG	2.2
39	BS	90	GLY	2.2
55	D8	40	GLU	2.2
25	BA	1490	A	2.2
25	DA	1609	A	2.2
25	DA	2119	A	2.2
22	CW	17	C	2.2
25	BA	365	C	2.2
25	BA	535	C	2.2
25	BA	1403	C	2.2
25	DA	888	C	2.2

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Mol	Chain	Res	Type	RSRZ
25	DA	2667	C	2.2
37	DQ	25	ASP	2.2
34	BN	101	HIS	2.2
43	BW	113	LYS	2.2
54	B7	22	MET	2.2
36	BP	16	ARG	2.2
41	DU	58	ARG	2.2
9	CI	6	GLY	2.2
37	BQ	122	GLY	2.2
47	D0	13	GLY	2.2
56	B9	21	GLY	2.2
5	CE	118	ILE	2.2
36	BP	75	ILE	2.2
25	DA	1673	U	2.2
29	BE	117	MET	2.2
31	DG	86	MET	2.2
1	CA	1205	G	2.2
22	CW	57	G	2.2
25	BA	2035	G	2.2
25	BA	2603	G	2.2
25	BA	2894	G	2.2
25	DA	84	A	2.2
25	DA	100	G	2.2
25	DA	323	G	2.2
25	DA	1128	A	2.2
38	BR	10	LEU	2.2
43	DW	82	LEU	2.2
19	AS	81	ARG	2.2
45	BY	84	ARG	2.2
5	CE	109	ILE	2.2
4	CD	37	PRO	2.2
25	BA	509	C	2.2
25	BA	2803	C	2.2
25	DA	898	C	2.2
31	BG	137	GLU	2.2
34	BN	2	LYS	2.2
54	B7	32	LYS	2.2
1	AA	1107	U	2.1
9	AI	107	ARG	2.1
9	CI	104	ARG	2.1
16	AP	71	ARG	2.1
16	CP	71	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
17	CQ	26	GLN	2.1
40	BT	29	ARG	2.1
41	BU	14	HIS	2.1
42	BV	21	ARG	2.1
46	DZ	121	HIS	2.1
25	BA	271(L)	U	2.1
25	BA	1931	U	2.1
48	D1	11	ARG	2.1
17	CQ	19	VAL	2.1
50	B3	13	ILE	2.1
41	BU	32	PHE	2.1
45	BY	59	GLY	2.1
27	BC	217	THR	2.1
25	BA	223	A	2.1
25	BA	1507	A	2.1
25	DA	103	A	2.1
25	DA	271	A	2.1
25	DA	1046	A	2.1
26	BB	25	A	2.1
7	AG	101	LEU	2.1
7	CG	38	LEU	2.1
25	BA	81	G	2.1
25	BA	143	G	2.1
25	BA	1858	G	2.1
25	BA	2270	G	2.1
25	BA	2523	G	2.1
33	BI	1	MET	2.1
27	BC	78	ALA	2.1
41	BU	46	ALA	2.1
3	CC	54	ARG	2.1
29	BE	76	ARG	2.1
25	BA	1049	C	2.1
25	BA	1462	C	2.1
25	BA	2586	C	2.1
25	DA	198	C	2.1
25	DA	889	C	2.1
47	D0	16	SER	2.1
9	AI	81	ILE	2.1
30	DF	195	ASP	2.1
9	CI	17	VAL	2.1
12	AL	13	LYS	2.1
8	AH	106	GLY	2.1

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Mol	Chain	Res	Type	RSRZ
13	CM	24	GLY	2.1
17	AQ	96	GLU	2.1
56	D9	28	GLU	2.1
38	DR	36	THR	2.1
1	CA	1193	U	2.1
34	DN	1	MET	2.1
11	CK	61	ALA	2.1
20	CT	79	ARG	2.1
38	DR	105	ARG	2.1
54	D7	33	ARG	2.1
2	AB	210	SER	2.1
8	CH	46	LYS	2.1
20	AT	81	LYS	2.1
28	BD	220	HIS	2.1
36	BP	71	VAL	2.1
44	BX	40	LYS	2.1
56	B9	15	LYS	2.1
25	BA	861	A	2.1
25	BA	2267	A	2.1
25	DA	2801	A	2.1
4	CD	26	CYS	2.1
8	AH	128	GLY	2.1
11	AK	49	GLY	2.1
28	DD	236	GLY	2.1
32	DH	12	PRO	2.1
1	AA	76	G	2.1
1	AA	1099	G	2.1
22	AW	5	G	2.1
25	DA	407	G	2.1
25	DA	2669	G	2.1
1	CA	63	C	2.1
25	BA	884	C	2.1
25	BA	1663	C	2.1
25	BA	1781	C	2.1
25	BA	2343	C	2.1
25	DA	1462	C	2.1
31	DG	113	ARG	2.1
31	DG	128	ARG	2.1
48	B1	21	ARG	2.1
29	BE	48	GLN	2.1
49	D2	29	LYS	2.1
1	AA	1108	U	2.1

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Mol	Chain	Res	Type	RSRZ
1	AA	1262	U	2.1
54	B7	18	PHE	2.1
46	BZ	121	HIS	2.1
30	DF	148	LEU	2.1
31	BG	29	TRP	2.1
36	BP	59	LEU	2.1
32	DH	118	PRO	2.1
37	BQ	21	THR	2.1
25	BA	782	A	2.1
25	BA	1237	A	2.1
25	BA	1938	A	2.1
25	DA	332	A	2.1
25	DA	357	A	2.1
26	BB	90	A	2.1
21	CU	3	LYS	2.1
37	DQ	50	ALA	2.1
37	DQ	136	ALA	2.1
36	BP	68	GLN	2.1
27	BC	58	VAL	2.1
44	DX	92	LEU	2.1
1	CA	1241	C	2.1
25	DA	271(C)	C	2.1
26	DB	2	C	2.1
26	DB	31	C	2.1
29	DE	132	HIS	2.1
23	AV	54	G	2.1
25	BA	27	G	2.1
25	BA	1114	G	2.1
25	BA	1856	G	2.1
25	DA	342	G	2.1
25	DA	361	G	2.1
25	DA	2308	G	2.1
25	DA	2780	G	2.1
26	BB	89	G	2.1
27	BC	219	GLY	2.1
4	CD	81	GLU	2.1
37	DQ	38	GLU	2.1
13	CM	99	ARG	2.1
15	AO	88	ARG	2.1
27	DC	190	ARG	2.1
28	DD	263	ARG	2.1
32	DH	101	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
36	DP	33	ARG	2.1
43	BW	90	ARG	2.1
49	B2	55	ARG	2.1
10	CJ	50	ILE	2.1
27	BC	46	LYS	2.1
33	DI	95	LYS	2.1
36	BP	64	LYS	2.1
13	CM	2	ALA	2.1
30	BF	21	ALA	2.1
32	BH	33	LEU	2.1
33	DI	35	LEU	2.1
46	DZ	116	VAL	2.1
25	BA	74	A	2.0
25	BA	1046	A	2.0
25	BA	1353	A	2.0
25	BA	1786	A	2.0
25	DA	1637	A	2.0
25	DA	1786	A	2.0
41	DU	118	GLY	2.0
21	AU	5	ASP	2.0
21	AU	6	ARG	2.0
27	BC	164	ARG	2.0
31	BG	98	ARG	2.0
37	BQ	10	ARG	2.0
31	BG	84	LYS	2.0
36	BP	29	LYS	2.0
45	BY	94	LYS	2.0
46	BZ	21	ALA	2.0
3	AC	186	PHE	2.0
34	BN	117	PHE	2.0
39	BS	87	PHE	2.0
4	AD	11	LEU	2.0
13	CM	98	VAL	2.0
22	CW	56	C	2.0
22	CW	62	C	2.0
25	BA	888	C	2.0
25	BA	1957	C	2.0
25	BA	2161	C	2.0
25	BA	2752	C	2.0
25	BA	2871	C	2.0
25	DA	857	C	2.0
25	DA	1902	C	2.0

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Mol	Chain	Res	Type	RSRZ
25	DA	2477	C	2.0
33	BI	68	LEU	2.0
45	BY	76	CYS	2.0
45	DY	102	CYS	2.0
53	B6	40	CYS	2.0
1	AA	1162	G	2.0
1	CA	78	G	2.0
25	BA	131	G	2.0
25	BA	2156	G	2.0
25	BA	2157	G	2.0
25	BA	2719	G	2.0
25	DA	139(A)	G	2.0
25	DA	1559	G	2.0
26	BB	76	G	2.0
25	DA	1033	U	2.0
47	D0	8	GLY	2.0
32	BH	65	HIS	2.0
51	B4	51	TYR	2.0
7	AG	4	ARG	2.0
8	AH	13	ILE	2.0
10	AJ	23	ILE	2.0
35	BO	67	LYS	2.0
41	BU	13	LYS	2.0
27	DC	166	ASP	2.0
32	DH	124	GLU	2.0
42	DV	53	GLU	2.0
17	CQ	6	LEU	2.0
20	AT	77	ALA	2.0
3	AC	173	VAL	2.0
5	CE	33	VAL	2.0
7	AG	86	GLN	2.0
25	DA	196	A	2.0
25	DA	917	A	2.0
25	DA	1029	A	2.0
26	BB	26	A	2.0
32	BH	45	VAL	2.0
49	D2	56	GLN	2.0
50	B3	9	VAL	2.0
50	D3	19	GLN	2.0
45	BY	5	MET	2.0
9	CI	127	LYS	2.0
41	BU	28	ARG	2.0

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Mol	Chain	Res	Type	RSRZ
41	DU	7	GLY	2.0
11	CK	25	TYR	2.0
16	CP	41	PRO	2.0
32	DH	65	HIS	2.0
1	AA	169	C	2.0
4	CD	156	GLU	2.0
7	AG	156	TRP	2.0
17	CQ	96	GLU	2.0
25	BA	531	C	2.0
25	BA	1837	C	2.0
25	BA	2743	C	2.0
25	DA	1043	C	2.0
25	DA	1109	C	2.0
26	BB	92	C	2.0
28	BD	155	LEU	2.0
54	B7	31	LEU	2.0
9	CI	94	ALA	2.0
22	AW	55	U	2.0
25	BA	963	U	2.0
25	DA	72	U	2.0
46	DZ	109	ALA	2.0
29	DE	198	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 oligosaccharides in this entry.

6.4 Ligands [i](#)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
57	MG	DA	3169	1/1	-0.61	0.56	0,0,0,0	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	DA	3197	1/1	-0.43	0.53	1,1,1,1	0
57	MG	CA	1670	1/1	-0.30	0.60	0,0,0,0	0
57	MG	BA	3067	1/1	-0.25	0.55	0,0,0,0	0
57	MG	BA	3199	1/1	-0.24	0.39	0,0,0,0	0
57	MG	BB	201	1/1	-0.09	0.37	0,0,0,0	1
57	MG	BB	203	1/1	-0.06	0.38	0,0,0,0	1
57	MG	DA	3184	1/1	-0.02	0.42	0,0,0,0	1
57	MG	BA	3077	1/1	-0.01	0.42	0,0,0,0	0
57	MG	BA	3003	1/1	-0.01	0.70	0,0,0,0	0
57	MG	BA	3079	1/1	-0.00	0.62	0,0,0,0	0
57	MG	BA	3074	1/1	0.03	0.72	0,0,0,0	0
57	MG	BA	3225	1/1	0.03	0.56	0,0,0,0	0
57	MG	BA	3059	1/1	0.07	0.51	0,0,0,0	0
57	MG	DA	3104	1/1	0.09	0.80	0,0,0,0	0
57	MG	BA	3036	1/1	0.10	0.72	0,0,0,0	0
57	MG	DA	3010	1/1	0.10	0.61	0,0,0,0	0
57	MG	BA	3180	1/1	0.13	0.47	0,0,0,0	0
57	MG	AA	1626	1/1	0.14	0.43	0,0,0,0	0
57	MG	BA	3174	1/1	0.15	0.43	0,0,0,0	0
57	MG	BA	3097	1/1	0.15	0.29	0,0,0,0	0
57	MG	B3	101	1/1	0.15	0.48	0,0,0,0	0
57	MG	AA	1623	1/1	0.16	0.33	0,0,0,0	0
57	MG	BU	201	1/1	0.17	0.20	8,8,8,8	0
57	MG	BA	3046	1/1	0.17	0.47	0,0,0,0	0
57	MG	CA	1617	1/1	0.17	0.34	1,1,1,1	0
57	MG	BA	3237	1/1	0.18	0.35	3,3,3,3	0
57	MG	AA	1615	1/1	0.18	0.33	1,1,1,1	0
57	MG	BA	3117	1/1	0.18	0.43	0,0,0,0	0
57	MG	CA	1653	1/1	0.19	0.57	1,1,1,1	0
57	MG	DA	3112	1/1	0.19	0.66	0,0,0,0	0
57	MG	DA	3118	1/1	0.19	0.46	0,0,0,0	0
57	MG	BA	3227	1/1	0.21	0.63	0,0,0,0	0
57	MG	BA	3041	1/1	0.21	0.25	0,0,0,0	1
57	MG	DA	3216	1/1	0.23	0.51	0,0,0,0	0
57	MG	CA	1601	1/1	0.24	0.37	0,0,0,0	0
57	MG	DA	3005	1/1	0.24	0.66	0,0,0,0	0
57	MG	AA	1669	1/1	0.25	0.46	3,3,3,3	1
57	MG	AA	1671	1/1	0.25	0.45	0,0,0,0	0
57	MG	AA	1640	1/1	0.26	0.48	0,0,0,0	0
57	MG	AA	1675	1/1	0.27	0.42	0,0,0,0	0
57	MG	DA	3126	1/1	0.27	0.43	0,0,0,0	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	DA	3064	1/1	0.27	0.38	0,0,0,0	0
57	MG	DA	3245	1/1	0.27	0.76	0,0,0,0	1
57	MG	BA	3157	1/1	0.28	0.59	1,1,1,1	0
57	MG	DA	3247	1/1	0.28	0.32	0,0,0,0	1
57	MG	CA	1647	1/1	0.29	1.41	0,0,0,0	1
57	MG	BA	3091	1/1	0.29	0.51	0,0,0,0	0
57	MG	AA	1651	1/1	0.29	0.44	0,0,0,0	0
57	MG	AA	1664	1/1	0.29	0.35	0,0,0,0	0
57	MG	DA	3235	1/1	0.29	0.46	0,0,0,0	0
57	MG	DA	3120	1/1	0.29	0.58	0,0,0,0	0
57	MG	BB	204	1/1	0.29	0.24	0,0,0,0	1
57	MG	BA	3214	1/1	0.30	0.56	0,0,0,0	0
57	MG	DA	3198	1/1	0.30	1.00	0,0,0,0	1
57	MG	DA	3145	1/1	0.30	0.54	1,1,1,1	0
57	MG	DA	3053	1/1	0.31	0.48	0,0,0,0	0
57	MG	DA	3189	1/1	0.32	0.58	0,0,0,0	0
57	MG	BA	3093	1/1	0.33	0.50	0,0,0,0	0
57	MG	DA	3018	1/1	0.34	0.65	0,0,0,0	0
57	MG	BA	3233	1/1	0.35	0.51	0,0,0,0	0
57	MG	BA	3244	1/1	0.35	0.35	0,0,0,0	0
57	MG	BA	3249	1/1	0.35	0.56	0,0,0,0	0
57	MG	AA	1645	1/1	0.36	0.37	0,0,0,0	0
57	MG	AA	1652	1/1	0.36	0.93	0,0,0,0	1
57	MG	BA	3254	1/1	0.36	0.36	0,0,0,0	0
57	MG	DA	3110	1/1	0.37	0.22	0,0,0,0	0
57	MG	BA	3110	1/1	0.37	0.40	0,0,0,0	0
57	MG	AA	1609	1/1	0.37	0.33	3,3,3,3	0
57	MG	BA	3142	1/1	0.38	0.58	0,0,0,0	0
57	MG	BA	3250	1/1	0.38	0.55	0,0,0,0	1
57	MG	DA	3268	1/1	0.38	0.56	0,0,0,0	1
57	MG	DA	3210	1/1	0.39	0.21	15,15,15,15	0
57	MG	DA	3225	1/1	0.39	0.60	0,0,0,0	0
57	MG	AA	1639	1/1	0.40	0.38	0,0,0,0	0
57	MG	BA	3162	1/1	0.41	0.37	6,6,6,6	0
57	MG	BA	3063	1/1	0.41	0.20	32,32,32,32	0
57	MG	BA	3071	1/1	0.41	0.37	0,0,0,0	0
57	MG	DA	3020	1/1	0.41	0.34	0,0,0,0	0
57	MG	BA	3195	1/1	0.41	0.26	0,0,0,0	0
57	MG	DB	201	1/1	0.41	0.32	0,0,0,0	1
57	MG	CA	1640	1/1	0.43	0.52	0,0,0,0	0
57	MG	BA	3112	1/1	0.43	0.39	0,0,0,0	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	BA	3231	1/1	0.43	0.29	0,0,0,0	0
57	MG	BA	3054	1/1	0.43	0.53	0,0,0,0	0
57	MG	DA	3251	1/1	0.43	0.31	0,0,0,0	1
57	MG	BA	3120	1/1	0.43	0.40	0,0,0,0	0
57	MG	BA	3068	1/1	0.43	0.42	0,0,0,0	0
57	MG	CA	1632	1/1	0.45	0.41	0,0,0,0	0
57	MG	AA	1686	1/1	0.45	0.37	0,0,0,0	0
57	MG	BA	3053	1/1	0.45	0.25	0,0,0,0	0
57	MG	AA	1641	1/1	0.45	0.31	0,0,0,0	0
57	MG	AA	1638	1/1	0.46	0.29	9,9,9,9	0
57	MG	DA	3149	1/1	0.46	0.62	0,0,0,0	0
57	MG	BA	3006	1/1	0.46	0.24	0,0,0,0	0
57	MG	BA	3109	1/1	0.46	0.23	2,2,2,2	0
57	MG	BO	201	1/1	0.47	0.13	47,47,47,47	0
57	MG	BA	3122	1/1	0.48	0.37	0,0,0,0	0
57	MG	DA	3244	1/1	0.49	0.54	0,0,0,0	0
57	MG	BA	3154	1/1	0.49	0.19	0,0,0,0	0
57	MG	BA	3009	1/1	0.49	0.31	0,0,0,0	0
57	MG	DA	3095	1/1	0.49	0.46	0,0,0,0	0
57	MG	CA	1666	1/1	0.49	0.40	0,0,0,0	0
57	MG	BA	3152	1/1	0.49	0.40	3,3,3,3	0
57	MG	DA	3243	1/1	0.50	0.49	0,0,0,0	0
57	MG	DA	3199	1/1	0.50	0.23	1,1,1,1	0
57	MG	BA	3126	1/1	0.50	0.37	0,0,0,0	1
57	MG	DA	3078	1/1	0.50	0.18	0,0,0,0	0
57	MG	BA	3111	1/1	0.50	0.28	2,2,2,2	0
57	MG	BA	3169	1/1	0.50	0.53	0,0,0,0	0
57	MG	DA	3236	1/1	0.50	0.43	0,0,0,0	0
57	MG	AA	1614	1/1	0.51	0.38	2,2,2,2	0
57	MG	DA	3206	1/1	0.51	0.14	36,36,36,36	0
57	MG	AA	1635	1/1	0.51	0.27	0,0,0,0	0
57	MG	BA	3191	1/1	0.51	0.43	0,0,0,0	0
57	MG	BA	3143	1/1	0.51	0.37	0,0,0,0	0
57	MG	BA	3197	1/1	0.51	0.39	0,0,0,0	0
57	MG	BA	3045	1/1	0.51	0.42	0,0,0,0	0
57	MG	DA	3072	1/1	0.51	0.48	1,1,1,1	0
57	MG	DA	3183	1/1	0.51	0.40	0,0,0,0	0
57	MG	BA	3073	1/1	0.51	0.23	0,0,0,0	0
57	MG	BA	3095	1/1	0.51	0.48	0,0,0,0	0
57	MG	DA	3195	1/1	0.51	0.26	32,32,32,32	0
57	MG	AA	1689	1/1	0.51	0.27	0,0,0,0	0
57	MG	BA	3105	1/1	0.51	0.53	0,0,0,0	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	CA	1677	1/1	0.52	0.72	0,0,0,0	1
57	MG	CA	1692	1/1	0.52	0.23	0,0,0,0	1
57	MG	DA	3033	1/1	0.52	0.74	1,1,1,1	0
57	MG	BA	3115	1/1	0.52	0.54	1,1,1,1	0
57	MG	DA	3203	1/1	0.52	0.41	0,0,0,0	0
57	MG	AA	1659	1/1	0.52	0.26	0,0,0,0	0
57	MG	CA	1689	1/1	0.53	0.96	0,0,0,0	1
57	MG	CA	1624	1/1	0.53	0.41	1,1,1,1	0
57	MG	BA	3148	1/1	0.53	0.22	0,0,0,0	0
57	MG	AA	1679	1/1	0.54	0.65	0,0,0,0	1
57	MG	DA	3063	1/1	0.54	0.76	0,0,0,0	0
57	MG	DA	3179	1/1	0.54	0.29	0,0,0,0	0
57	MG	BA	3184	1/1	0.54	0.31	0,0,0,0	0
57	MG	DA	3105	1/1	0.54	0.39	0,0,0,0	0
57	MG	BA	3048	1/1	0.54	0.56	0,0,0,0	0
57	MG	CA	1625	1/1	0.55	0.55	1,1,1,1	0
57	MG	DA	3102	1/1	0.55	0.62	0,0,0,0	0
57	MG	DA	3103	1/1	0.55	0.50	1,1,1,1	0
57	MG	AA	1611	1/1	0.55	0.40	0,0,0,0	0
57	MG	BA	3160	1/1	0.55	0.23	0,0,0,0	0
57	MG	BA	3240	1/1	0.55	0.25	0,0,0,0	0
57	MG	AA	1657	1/1	0.55	0.26	1,1,1,1	0
57	MG	BA	3116	1/1	0.56	0.21	0,0,0,0	0
57	MG	DA	3175	1/1	0.56	0.51	0,0,0,0	0
57	MG	CA	1687	1/1	0.56	0.60	0,0,0,0	1
57	MG	DA	3091	1/1	0.56	0.52	0,0,0,0	0
57	MG	CA	1622	1/1	0.56	0.40	0,0,0,0	0
57	MG	CA	1671	1/1	0.56	0.38	0,0,0,0	0
57	MG	DA	3159	1/1	0.57	0.51	0,0,0,0	0
57	MG	BA	3019	1/1	0.57	0.43	0,0,0,0	0
57	MG	DA	3040	1/1	0.57	0.42	0,0,0,0	0
57	MG	BA	3161	1/1	0.57	0.55	0,0,0,0	0
57	MG	BA	3134	1/1	0.57	0.62	0,0,0,0	1
57	MG	BA	3096	1/1	0.58	0.38	0,0,0,0	0
57	MG	CA	1630	1/1	0.58	0.68	1,1,1,1	0
57	MG	DA	3117	1/1	0.58	0.46	0,0,0,0	0
57	MG	BA	3230	1/1	0.58	0.35	0,0,0,0	0
57	MG	BA	3213	1/1	0.58	0.34	0,0,0,0	0
57	MG	AA	1673	1/1	0.58	0.48	0,0,0,0	0
57	MG	DA	3139	1/1	0.58	0.38	0,0,0,0	0
57	MG	DA	3188	1/1	0.58	0.41	0,0,0,0	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	AA	1617	1/1	0.58	0.29	0,0,0,0	0
57	MG	AA	1613	1/1	0.59	0.38	0,0,0,0	0
57	MG	BA	3090	1/1	0.59	0.43	0,0,0,0	0
57	MG	DA	3239	1/1	0.59	0.14	0,0,0,0	0
57	MG	DA	3073	1/1	0.59	0.54	0,0,0,0	0
57	MG	BA	3132	1/1	0.59	0.40	0,0,0,0	0
57	MG	AA	1670	1/1	0.59	0.29	0,0,0,0	0
57	MG	CA	1651	1/1	0.59	0.22	0,0,0,0	0
57	MG	DA	3248	1/1	0.59	0.32	0,0,0,0	1
57	MG	DA	3052	1/1	0.59	0.32	0,0,0,0	0
57	MG	DA	3254	1/1	0.59	0.60	0,0,0,0	1
57	MG	BA	3170	1/1	0.59	0.29	0,0,0,0	0
57	MG	BA	3030	1/1	0.59	0.21	26,26,26,26	0
57	MG	BA	3114	1/1	0.60	0.30	0,0,0,0	0
57	MG	AA	1688	1/1	0.60	0.41	0,0,0,0	0
57	MG	BA	3042	1/1	0.60	0.42	0,0,0,0	0
57	MG	BA	3185	1/1	0.60	0.24	13,13,13,13	1
57	MG	DA	3207	1/1	0.60	0.56	0,0,0,0	0
57	MG	BA	3247	1/1	0.60	0.29	7,7,7,7	0
57	MG	BA	3165	1/1	0.60	0.28	0,0,0,0	0
57	MG	BA	3044	1/1	0.60	0.28	0,0,0,0	0
57	MG	CA	1604	1/1	0.60	0.16	0,0,0,0	0
57	MG	AA	1631	1/1	0.60	0.27	0,0,0,0	0
57	MG	BA	3102	1/1	0.61	0.21	38,38,38,38	0
57	MG	AA	1627	1/1	0.61	0.31	0,0,0,0	0
57	MG	DA	3079	1/1	0.61	0.34	0,0,0,0	0
57	MG	BA	3024	1/1	0.61	0.29	0,0,0,0	0
57	MG	BA	3010	1/1	0.61	0.36	0,0,0,0	0
57	MG	BA	3035	1/1	0.61	0.61	0,0,0,0	0
57	MG	DA	3113	1/1	0.62	0.42	0,0,0,0	0
57	MG	CA	1664	1/1	0.62	0.21	0,0,0,0	0
57	MG	DA	3163	1/1	0.62	0.47	0,0,0,0	0
57	MG	BA	3144	1/1	0.62	0.28	1,1,1,1	0
57	MG	AA	1660	1/1	0.62	0.13	2,2,2,2	0
57	MG	AA	1606	1/1	0.62	0.33	0,0,0,0	0
57	MG	DA	3256	1/1	0.62	0.67	0,0,0,0	0
57	MG	BA	3190	1/1	0.62	0.27	0,0,0,0	0
57	MG	BA	3005	1/1	0.62	0.38	0,0,0,0	0
57	MG	BA	3261	1/1	0.63	0.15	31,31,31,31	0
57	MG	DA	3051	1/1	0.63	0.24	0,0,0,0	0
57	MG	CA	1629	1/1	0.63	0.40	0,0,0,0	0
57	MG	BA	3018	1/1	0.63	0.22	0,0,0,0	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	DA	3101	1/1	0.63	0.39	0,0,0,0	0
57	MG	DA	3017	1/1	0.63	0.42	0,0,0,0	0
57	MG	DA	3123	1/1	0.63	0.43	0,0,0,0	0
57	MG	CA	1682	1/1	0.63	0.48	1,1,1,1	0
57	MG	DA	3130	1/1	0.63	0.39	0,0,0,0	0
57	MG	BA	3133	1/1	0.63	0.31	0,0,0,0	0
57	MG	AA	1634	1/1	0.63	0.39	0,0,0,0	1
57	MG	BA	3037	1/1	0.64	0.43	0,0,0,0	0
57	MG	DA	3166	1/1	0.64	0.27	11,11,11,11	0
57	MG	CA	1669	1/1	0.64	0.26	0,0,0,0	0
57	MG	BA	3002	1/1	0.64	0.12	13,13,13,13	0
57	MG	DA	3055	1/1	0.64	0.33	0,0,0,0	0
57	MG	BA	3256	1/1	0.64	0.47	0,0,0,0	0
57	MG	DA	3047	1/1	0.64	0.56	0,0,0,0	0
57	MG	DA	3160	1/1	0.64	0.33	0,0,0,0	0
57	MG	DA	3147	1/1	0.65	0.25	1,1,1,1	0
57	MG	DA	3043	1/1	0.65	0.56	0,0,0,0	0
57	MG	BA	3084	1/1	0.65	0.60	0,0,0,0	0
57	MG	DA	3008	1/1	0.65	0.26	0,0,0,0	0
57	MG	BA	3238	1/1	0.65	0.35	2,2,2,2	1
57	MG	AA	1646	1/1	0.65	0.37	0,0,0,0	0
57	MG	BA	3201	1/1	0.65	0.39	0,0,0,0	0
57	MG	BA	3145	1/1	0.65	0.25	0,0,0,0	0
57	MG	DA	3176	1/1	0.65	0.22	0,0,0,0	0
57	MG	BA	3075	1/1	0.65	0.42	0,0,0,0	0
57	MG	DA	3215	1/1	0.65	0.38	0,0,0,0	0
57	MG	DA	3039	1/1	0.65	0.26	0,0,0,0	0
57	MG	CA	1609	1/1	0.65	0.38	0,0,0,0	0
57	MG	BA	3211	1/1	0.66	0.33	0,0,0,0	1
57	MG	BA	3127	1/1	0.66	0.20	55,55,55,55	0
57	MG	CA	1633	1/1	0.66	0.30	0,0,0,0	0
57	MG	CA	1606	1/1	0.66	0.31	5,5,5,5	0
57	MG	CA	1646	1/1	0.66	0.17	1,1,1,1	0
57	MG	DA	3162	1/1	0.66	0.41	0,0,0,0	0
57	MG	DA	3262	1/1	0.66	0.30	0,0,0,0	0
57	MG	B5	102	1/1	0.66	0.50	0,0,0,0	1
57	MG	CA	1611	1/1	0.66	0.29	0,0,0,0	0
57	MG	DA	3062	1/1	0.67	0.47	1,1,1,1	0
57	MG	DA	3089	1/1	0.67	0.34	0,0,0,0	0
57	MG	AA	1610	1/1	0.67	0.85	0,0,0,0	0
57	MG	DA	3227	1/1	0.67	0.28	0,0,0,0	0
57	MG	CA	1610	1/1	0.67	0.44	0,0,0,0	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	CA	1608	1/1	0.67	0.15	0,0,0,0	0
57	MG	DA	3185	1/1	0.67	0.16	0,0,0,0	0
57	MG	CA	1667	1/1	0.67	0.14	27,27,27,27	0
57	MG	DA	3002	1/1	0.67	0.38	0,0,0,0	0
57	MG	DA	3075	1/1	0.68	0.33	0,0,0,0	0
57	MG	BA	3123	1/1	0.68	0.31	0,0,0,0	0
57	MG	DA	3238	1/1	0.68	0.32	0,0,0,0	0
57	MG	BA	3139	1/1	0.68	0.32	0,0,0,0	0
57	MG	DA	3087	1/1	0.68	0.65	1,1,1,1	0
57	MG	DA	3088	1/1	0.68	0.44	1,1,1,1	0
57	MG	AA	1608	1/1	0.68	0.20	0,0,0,0	0
57	MG	DA	3119	1/1	0.68	0.56	0,0,0,0	0
57	MG	BA	3087	1/1	0.68	0.39	0,0,0,0	0
57	MG	BA	3217	1/1	0.68	0.39	0,0,0,0	0
57	MG	BA	3243	1/1	0.68	0.29	0,0,0,0	0
57	MG	BA	3173	1/1	0.68	0.28	0,0,0,0	0
57	MG	DA	3134	1/1	0.68	0.26	0,0,0,0	0
57	MG	AA	1644	1/1	0.68	0.38	0,0,0,0	0
57	MG	BA	3049	1/1	0.68	0.36	0,0,0,0	0
57	MG	CA	1613	1/1	0.69	0.50	0,0,0,0	0
57	MG	BA	3070	1/1	0.69	0.24	0,0,0,0	0
57	MG	BA	3177	1/1	0.69	0.28	0,0,0,0	0
57	MG	DA	3128	1/1	0.69	0.79	1,1,1,1	0
57	MG	DA	3153	1/1	0.69	0.26	0,0,0,0	0
57	MG	BA	3257	1/1	0.69	0.34	0,0,0,0	0
57	MG	DA	3178	1/1	0.69	0.37	0,0,0,0	1
57	MG	DA	3054	1/1	0.69	0.53	0,0,0,0	0
57	MG	D0	101	1/1	0.69	0.41	1,1,1,1	0
57	MG	BA	3050	1/1	0.70	0.22	0,0,0,0	0
57	MG	AA	1667	1/1	0.70	0.23	15,15,15,15	0
57	MG	BA	3004	1/1	0.70	0.29	0,0,0,0	0
57	MG	CA	1693	1/1	0.70	0.26	0,0,0,0	0
57	MG	DA	3129	1/1	0.70	0.47	0,0,0,0	0
57	MG	DA	3111	1/1	0.70	0.40	1,1,1,1	0
57	MG	BA	3163	1/1	0.70	0.46	3,3,3,3	0
57	MG	B5	101	1/1	0.70	0.24	0,0,0,0	0
57	MG	CA	1674	1/1	0.70	0.32	0,0,0,0	0
57	MG	BA	3147	1/1	0.70	0.18	0,0,0,0	0
57	MG	BA	3158	1/1	0.70	0.35	0,0,0,0	0
57	MG	DA	3229	1/1	0.71	0.50	1,1,1,1	0
57	MG	DA	3107	1/1	0.71	0.47	0,0,0,0	0
57	MG	DA	3191	1/1	0.71	0.23	13,13,13,13	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	CA	1673	1/1	0.71	0.22	0,0,0,0	0
57	MG	AA	1621	1/1	0.71	0.37	0,0,0,0	0
57	MG	BA	3081	1/1	0.71	0.25	0,0,0,0	0
57	MG	DA	3138	1/1	0.71	0.41	0,0,0,0	0
57	MG	DA	3201	1/1	0.71	0.37	0,0,0,0	0
57	MG	DA	3094	1/1	0.71	0.66	0,0,0,0	0
57	MG	DA	3022	1/1	0.71	0.39	0,0,0,0	0
57	MG	BA	3251	1/1	0.71	0.26	8,8,8,8	0
57	MG	BA	3099	1/1	0.71	0.37	0,0,0,0	0
57	MG	CA	1645	1/1	0.71	0.58	1,1,1,1	0
57	MG	DA	3056	1/1	0.71	0.37	0,0,0,0	0
57	MG	DA	3187	1/1	0.71	0.27	0,0,0,0	0
57	MG	DA	3059	1/1	0.71	0.25	1,1,1,1	0
57	MG	DD	301	1/1	0.71	0.47	0,0,0,0	0
57	MG	DA	3228	1/1	0.71	0.35	0,0,0,0	0
57	MG	BA	3203	1/1	0.72	0.26	0,0,0,0	0
57	MG	BA	3205	1/1	0.72	0.10	33,33,33,33	0
57	MG	DA	3108	1/1	0.72	0.33	0,0,0,0	0
57	MG	DA	3030	1/1	0.72	0.27	0,0,0,0	0
57	MG	BA	3104	1/1	0.72	0.42	0,0,0,0	0
57	MG	AX	102	1/1	0.72	0.11	29,29,29,29	0
57	MG	BA	3001	1/1	0.72	0.41	17,17,17,17	0
57	MG	DA	3006	1/1	0.72	0.19	3,3,3,3	0
57	MG	CA	1676	1/1	0.72	0.15	0,0,0,0	0
57	MG	BA	3155	1/1	0.72	0.43	0,0,0,0	0
57	MG	CA	1638	1/1	0.72	0.31	0,0,0,0	0
57	MG	AA	1620	1/1	0.72	0.09	1,1,1,1	0
57	MG	CA	1661	1/1	0.73	0.35	1,1,1,1	0
57	MG	AA	1674	1/1	0.73	0.34	16,16,16,16	0
57	MG	BA	3125	1/1	0.73	0.31	0,0,0,0	0
57	MG	DA	3038	1/1	0.73	0.32	0,0,0,0	1
57	MG	BA	3194	1/1	0.73	0.29	0,0,0,0	0
57	MG	AA	1624	1/1	0.73	0.45	0,0,0,0	0
57	MG	DA	3205	1/1	0.73	0.29	0,0,0,0	0
57	MG	DA	3165	1/1	0.73	0.35	0,0,0,0	0
57	MG	AA	1668	1/1	0.73	0.12	36,36,36,36	0
57	MG	CA	1615	1/1	0.73	0.33	1,1,1,1	0
57	MG	BA	3188	1/1	0.73	0.20	5,5,5,5	0
57	MG	DA	3155	1/1	0.74	0.52	0,0,0,0	0
57	MG	DA	3099	1/1	0.74	0.48	0,0,0,0	0
57	MG	BA	3121	1/1	0.74	0.26	0,0,0,0	0
57	MG	BA	3011	1/1	0.74	0.49	0,0,0,0	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	CA	1603	1/1	0.74	0.27	0,0,0,0	0
57	MG	BA	3136	1/1	0.74	0.32	0,0,0,0	0
57	MG	BA	3094	1/1	0.74	0.78	0,0,0,0	0
57	MG	AA	1622	1/1	0.74	0.20	0,0,0,0	0
57	MG	DA	3132	1/1	0.74	0.44	0,0,0,0	0
57	MG	DA	3021	1/1	0.74	0.37	18,18,18,18	0
57	MG	BE	301	1/1	0.74	0.31	0,0,0,0	0
57	MG	AA	1654	1/1	0.74	0.24	0,0,0,0	0
57	MG	DA	3090	1/1	0.74	0.37	0,0,0,0	0
57	MG	BA	3207	1/1	0.74	0.21	0,0,0,0	0
57	MG	DA	3221	1/1	0.74	0.52	0,0,0,0	0
57	MG	BA	3023	1/1	0.74	0.15	43,43,43,43	0
57	MG	DA	3151	1/1	0.74	0.15	0,0,0,0	0
57	MG	AA	1632	1/1	0.74	0.18	3,3,3,3	0
57	MG	DA	3097	1/1	0.75	0.26	1,1,1,1	0
57	MG	CA	1654	1/1	0.75	0.27	0,0,0,0	0
57	MG	CA	1659	1/1	0.75	0.23	8,8,8,8	0
57	MG	BA	3187	1/1	0.75	0.20	5,5,5,5	0
57	MG	DA	3127	1/1	0.75	0.43	1,1,1,1	0
57	MG	BA	3198	1/1	0.75	0.11	41,41,41,41	0
57	MG	AA	1637	1/1	0.75	0.09	34,34,34,34	0
57	MG	DA	3085	1/1	0.75	0.54	0,0,0,0	0
57	MG	BA	3138	1/1	0.75	0.28	0,0,0,0	0
57	MG	CA	1605	1/1	0.75	0.22	1,1,1,1	0
57	MG	BA	3058	1/1	0.75	0.23	4,4,4,4	0
57	MG	DA	3035	1/1	0.75	0.28	0,0,0,0	0
57	MG	DA	3144	1/1	0.75	0.38	0,0,0,0	0
57	MG	DA	3181	1/1	0.75	0.48	15,15,15,15	0
57	MG	BA	3242	1/1	0.75	0.26	0,0,0,0	0
57	MG	DA	3218	1/1	0.75	0.45	0,0,0,0	0
57	MG	DA	3093	1/1	0.75	0.45	0,0,0,0	0
57	MG	AA	1630	1/1	0.75	0.14	29,29,29,29	0
57	MG	BA	3156	1/1	0.75	0.22	0,0,0,0	0
57	MG	BA	3204	1/1	0.76	0.24	3,3,3,3	0
57	MG	AA	1681	1/1	0.76	0.32	0,0,0,0	0
57	MG	BA	3239	1/1	0.76	0.21	0,0,0,0	0
57	MG	DA	3084	1/1	0.76	0.36	0,0,0,0	0
57	MG	BA	3039	1/1	0.76	0.22	0,0,0,0	0
57	MG	BA	3106	1/1	0.76	0.25	7,7,7,7	0
57	MG	DA	3066	1/1	0.76	0.35	1,1,1,1	0
57	MG	DA	3068	1/1	0.76	0.29	1,1,1,1	0
57	MG	DA	3241	1/1	0.76	0.24	0,0,0,0	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	AA	1628	1/1	0.76	0.17	0,0,0,0	0
57	MG	AA	1616	1/1	0.76	0.29	0,0,0,0	0
57	MG	AA	1676	1/1	0.77	0.24	0,0,0,0	0
57	MG	BA	3210	1/1	0.77	0.26	0,0,0,0	0
57	MG	DA	3029	1/1	0.77	0.32	0,0,0,0	0
57	MG	DA	3016	1/1	0.77	0.30	0,0,0,0	0
57	MG	DA	3157	1/1	0.77	0.27	0,0,0,0	0
57	MG	DA	3255	1/1	0.77	0.28	0,0,0,0	0
57	MG	DA	3209	1/1	0.77	0.46	0,0,0,0	0
57	MG	DA	3177	1/1	0.77	0.33	1,1,1,1	0
57	MG	CA	1626	1/1	0.77	0.43	0,0,0,0	0
57	MG	DA	3077	1/1	0.77	0.24	1,1,1,1	0
57	MG	BA	3186	1/1	0.77	0.40	0,0,0,0	0
57	MG	BA	3051	1/1	0.77	0.58	0,0,0,0	0
57	MG	D5	101	1/1	0.77	0.33	0,0,0,0	0
57	MG	BA	3076	1/1	0.78	0.15	34,34,34,34	0
57	MG	CA	1602	1/1	0.78	0.32	0,0,0,0	0
57	MG	DA	3242	1/1	0.78	0.56	1,1,1,1	0
57	MG	DA	3100	1/1	0.78	0.70	0,0,0,0	0
57	MG	DA	3121	1/1	0.78	0.52	0,0,0,0	0
57	MG	AA	1607	1/1	0.78	0.21	0,0,0,0	0
57	MG	CA	1636	1/1	0.78	0.19	0,0,0,0	0
57	MG	AA	1691	1/1	0.78	0.22	58,58,58,58	0
57	MG	DA	3250	1/1	0.78	0.15	46,46,46,46	0
57	MG	DA	3037	1/1	0.78	0.14	0,0,0,0	0
57	MG	AA	1612	1/1	0.78	0.32	0,0,0,0	0
57	MG	DA	3222	1/1	0.78	0.54	1,1,1,1	0
57	MG	CA	1641	1/1	0.78	0.37	0,0,0,0	0
57	MG	CA	1644	1/1	0.78	0.25	27,27,27,27	0
57	MG	CA	1627	1/1	0.78	0.24	3,3,3,3	0
57	MG	DA	3092	1/1	0.78	0.26	0,0,0,0	0
57	MG	DA	3019	1/1	0.78	0.33	0,0,0,0	0
57	MG	CA	1690	1/1	0.78	0.28	3,3,3,3	0
57	MG	BA	3232	1/1	0.78	0.18	0,0,0,0	0
57	MG	DA	3004	1/1	0.79	0.65	1,1,1,1	0
57	MG	DA	3220	1/1	0.79	0.40	0,0,0,0	0
57	MG	BA	3208	1/1	0.79	0.16	0,0,0,0	0
57	MG	BA	3182	1/1	0.79	0.18	17,17,17,17	0
57	MG	CA	1635	1/1	0.79	0.25	0,0,0,0	0
57	MG	BA	3038	1/1	0.79	0.20	28,28,28,28	0
57	MG	BA	3101	1/1	0.79	0.13	13,13,13,13	0
57	MG	BA	3016	1/1	0.79	0.22	1,1,1,1	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	BA	3236	1/1	0.79	0.19	0,0,0,0	0
57	MG	BA	3215	1/1	0.79	0.24	18,18,18,18	0
57	MG	DA	3067	1/1	0.79	0.60	1,1,1,1	0
57	MG	DA	3044	1/1	0.79	0.35	0,0,0,0	0
57	MG	BA	3216	1/1	0.79	0.24	0,0,0,0	1
57	MG	BA	3159	1/1	0.79	0.37	7,7,7,7	0
57	MG	BA	3026	1/1	0.79	0.28	0,0,0,0	0
57	MG	D5	102	1/1	0.79	0.34	0,0,0,0	1
57	MG	DA	3015	1/1	0.80	0.24	0,0,0,0	0
57	MG	BA	3029	1/1	0.80	0.24	0,0,0,0	0
57	MG	DA	3045	1/1	0.80	0.40	0,0,0,0	0
57	MG	BA	3226	1/1	0.80	0.14	39,39,39,39	0
57	MG	DA	3083	1/1	0.80	0.42	1,1,1,1	0
57	MG	DA	3048	1/1	0.80	0.45	0,0,0,0	0
57	MG	DA	3260	1/1	0.80	0.40	0,0,0,0	0
57	MG	BA	3021	1/1	0.80	0.30	0,0,0,0	0
57	MG	CA	1619	1/1	0.80	0.19	0,0,0,0	0
57	MG	DA	3196	1/1	0.80	0.15	3,3,3,3	0
57	MG	BA	3025	1/1	0.80	0.24	0,0,0,0	0
57	MG	DE	301	1/1	0.80	0.17	1,1,1,1	0
57	MG	BA	3107	1/1	0.80	0.27	12,12,12,12	0
57	MG	AA	1687	1/1	0.80	0.28	0,0,0,0	0
57	MG	DA	3182	1/1	0.80	0.24	0,0,0,0	0
57	MG	BA	3245	1/1	0.81	0.32	0,0,0,0	0
57	MG	DA	3253	1/1	0.81	0.29	5,5,5,5	0
57	MG	BA	3078	1/1	0.81	0.20	0,0,0,0	0
57	MG	AA	1690	1/1	0.81	0.08	23,23,23,23	0
57	MG	AA	1647	1/1	0.81	0.23	0,0,0,0	0
57	MG	DA	3192	1/1	0.81	0.34	0,0,0,0	0
57	MG	DA	3261	1/1	0.81	0.20	3,3,3,3	0
57	MG	BA	3064	1/1	0.81	0.15	51,51,51,51	0
57	MG	DA	3061	1/1	0.81	0.58	0,0,0,0	0
57	MG	DA	3024	1/1	0.81	0.23	0,0,0,0	0
57	MG	BA	3108	1/1	0.81	0.37	0,0,0,0	0
57	MG	BA	3234	1/1	0.81	0.28	0,0,0,0	0
57	MG	DA	3031	1/1	0.81	0.31	0,0,0,0	0
57	MG	BA	3052	1/1	0.81	0.12	1,1,1,1	0
57	MG	BA	3260	1/1	0.81	0.11	13,13,13,13	0
57	MG	BA	3224	1/1	0.82	0.18	52,52,52,52	0
57	MG	BA	3255	1/1	0.82	0.18	0,0,0,0	0
57	MG	DA	3109	1/1	0.82	0.36	0,0,0,0	0
57	MG	BA	3178	1/1	0.82	0.48	0,0,0,0	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	BA	3130	1/1	0.82	0.26	0,0,0,0	0
57	MG	AA	1619	1/1	0.82	0.19	1,1,1,1	0
57	MG	DA	3065	1/1	0.82	0.21	0,0,0,0	0
57	MG	DA	3150	1/1	0.82	0.54	0,0,0,0	0
57	MG	AA	1648	1/1	0.82	0.21	1,1,1,1	0
57	MG	AA	1603	1/1	0.82	0.13	55,55,55,55	0
57	MG	BA	3146	1/1	0.82	0.13	0,0,0,0	0
57	MG	BA	3012	1/1	0.82	0.10	68,68,68,68	0
57	MG	DA	3023	1/1	0.82	0.51	0,0,0,0	0
57	MG	DA	3003	1/1	0.82	0.40	1,1,1,1	0
57	MG	DA	3028	1/1	0.82	0.26	0,0,0,0	0
57	MG	BA	3202	1/1	0.82	0.35	0,0,0,0	0
57	MG	DA	3230	1/1	0.82	0.26	0,0,0,0	0
57	MG	BA	3118	1/1	0.82	0.30	3,3,3,3	0
57	MG	DA	3080	1/1	0.82	0.32	0,0,0,0	0
57	MG	BA	3085	1/1	0.82	0.54	0,0,0,0	0
57	MG	CA	1675	1/1	0.82	0.22	0,0,0,0	0
57	MG	DA	3202	1/1	0.82	0.33	0,0,0,0	0
57	MG	BA	3150	1/1	0.83	0.54	0,0,0,0	0
57	MG	AA	1601	1/1	0.83	0.40	0,0,0,0	0
57	MG	DA	3041	1/1	0.83	0.18	36,36,36,36	0
57	MG	DA	3146	1/1	0.83	0.52	0,0,0,0	0
57	MG	BA	3082	1/1	0.83	0.20	88,88,88,88	0
57	MG	BA	3137	1/1	0.83	0.12	108,108,108,108	0
57	MG	AA	1604	1/1	0.83	0.18	0,0,0,0	0
57	MG	BA	3020	1/1	0.83	0.36	0,0,0,0	0
57	MG	CA	1694	1/1	0.83	0.61	1,1,1,1	0
57	MG	DA	3049	1/1	0.83	0.38	0,0,0,0	0
57	MG	DA	3050	1/1	0.83	0.72	0,0,0,0	0
57	MG	CV	102	1/1	0.83	0.45	0,0,0,0	0
57	MG	DA	3071	1/1	0.83	0.51	1,1,1,1	0
57	MG	CA	1643	1/1	0.83	0.36	0,0,0,0	0
57	MG	BA	3113	1/1	0.83	0.17	0,0,0,0	0
57	MG	DA	3164	1/1	0.83	0.45	0,0,0,0	0
57	MG	CA	1621	1/1	0.83	0.14	34,34,34,34	0
57	MG	BA	3040	1/1	0.84	0.42	0,0,0,0	0
57	MG	DA	3131	1/1	0.84	0.16	0,0,0,0	0
57	MG	DA	3180	1/1	0.84	0.23	0,0,0,0	0
57	MG	CA	1642	1/1	0.84	0.33	0,0,0,0	0
57	MG	DA	3069	1/1	0.84	0.30	0,0,0,0	0
57	MG	CA	1672	1/1	0.84	0.21	0,0,0,0	0
57	MG	DA	3231	1/1	0.84	0.29	0,0,0,0	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	BA	3248	1/1	0.84	0.31	7,7,7,7	0
57	MG	BA	3124	1/1	0.84	0.35	2,2,2,2	1
57	MG	BA	3057	1/1	0.84	0.12	29,29,29,29	0
57	MG	BA	3166	1/1	0.84	0.17	0,0,0,0	0
57	MG	CA	1639	1/1	0.84	0.24	1,1,1,1	0
57	MG	DA	3190	1/1	0.84	0.21	0,0,0,0	0
57	MG	BA	3246	1/1	0.84	0.06	21,21,21,21	0
57	MG	CA	1683	1/1	0.84	0.32	1,1,1,1	0
57	MG	CA	1686	1/1	0.84	0.29	0,0,0,0	0
57	MG	DA	3152	1/1	0.84	0.16	2,2,2,2	0
57	MG	BA	3047	1/1	0.85	0.25	0,0,0,0	0
57	MG	BA	3221	1/1	0.85	0.09	79,79,79,79	0
57	MG	CA	1684	1/1	0.85	0.29	0,0,0,0	0
57	MG	CA	1628	1/1	0.85	0.20	0,0,0,0	0
57	MG	BA	3223	1/1	0.85	0.20	0,0,0,0	0
57	MG	AA	1636	1/1	0.85	0.24	4,4,4,4	0
57	MG	AA	1684	1/1	0.85	0.21	0,0,0,0	0
57	MG	AA	1650	1/1	0.85	0.51	0,0,0,0	0
57	MG	AA	1633	1/1	0.85	0.31	0,0,0,0	0
57	MG	DA	3156	1/1	0.85	0.31	0,0,0,0	0
57	MG	BA	3209	1/1	0.85	0.26	0,0,0,0	0
57	MG	BA	3028	1/1	0.85	0.08	83,83,83,83	0
57	MG	AA	1658	1/1	0.85	0.08	41,41,41,41	0
57	MG	CA	1616	1/1	0.85	0.09	0,0,0,0	0
57	MG	DA	3258	1/1	0.85	0.47	8,8,8,8	0
57	MG	DA	3226	1/1	0.85	0.35	0,0,0,0	0
57	MG	B1	101	1/1	0.85	0.11	59,59,59,59	1
57	MG	DA	3193	1/1	0.85	0.34	0,0,0,0	0
57	MG	AA	1677	1/1	0.85	0.19	0,0,0,0	0
57	MG	BA	3151	1/1	0.85	0.20	0,0,0,0	0
57	MG	BA	3235	1/1	0.85	0.30	0,0,0,0	0
57	MG	DA	3234	1/1	0.85	0.48	0,0,0,0	0
57	MG	AA	1672	1/1	0.85	0.15	0,0,0,0	0
57	MG	DA	3141	1/1	0.85	0.43	0,0,0,0	0
57	MG	AA	1680	1/1	0.85	0.56	0,0,0,0	0
57	MG	DA	3135	1/1	0.86	0.23	1,1,1,1	0
57	MG	DA	3058	1/1	0.86	0.79	0,0,0,0	0
57	MG	CA	1607	1/1	0.86	0.68	0,0,0,0	0
57	MG	DA	3204	1/1	0.86	0.32	0,0,0,0	0
57	MG	CA	1631	1/1	0.86	0.11	0,0,0,0	0
57	MG	DA	3142	1/1	0.86	0.38	0,0,0,0	0
57	MG	BA	3015	1/1	0.86	0.12	0,0,0,0	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
57	MG	DA	3125	1/1	0.86	0.17	0,0,0,0	0
57	MG	CA	1652	1/1	0.86	0.07	0,0,0,0	0
57	MG	BA	3241	1/1	0.86	0.20	5,5,5,5	0
57	MG	BF	302	1/1	0.86	0.19	0,0,0,0	0
57	MG	CA	1655	1/1	0.86	0.10	21,21,21,21	0
57	MG	CA	1688	1/1	0.86	0.12	1,1,1,1	0
57	MG	CA	1658	1/1	0.86	0.14	0,0,0,0	0
57	MG	BA	3218	1/1	0.86	0.11	0,0,0,0	0
57	MG	DA	3133	1/1	0.86	0.21	0,0,0,0	0
57	MG	BA	3022	1/1	0.86	0.14	8,8,8,8	0
58	PAR	AA	1694	42/42	0.86	0.14	11,14,23,25	0
57	MG	BA	3017	1/1	0.87	0.22	0,0,0,0	0
57	MG	CA	1678	1/1	0.87	0.23	0,0,0,0	1
57	MG	DA	3042	1/1	0.87	0.34	0,0,0,0	0
57	MG	BA	3212	1/1	0.87	0.30	11,11,11,11	0
57	MG	BA	3229	1/1	0.87	0.15	13,13,13,13	0
57	MG	DA	3257	1/1	0.87	0.23	0,0,0,0	1
57	MG	DA	3171	1/1	0.87	0.11	0,0,0,0	0
57	MG	DA	3237	1/1	0.87	0.61	1,1,1,1	0
57	MG	CA	1656	1/1	0.87	0.40	0,0,0,0	0
57	MG	AA	1629	1/1	0.87	0.11	29,29,29,29	0
57	MG	DA	3264	1/1	0.87	0.43	1,1,1,1	0
57	MG	DA	3060	1/1	0.87	0.26	11,11,11,11	0
57	MG	BA	3013	1/1	0.87	0.09	63,63,63,63	0
57	MG	DA	3122	1/1	0.87	0.28	0,0,0,0	0
57	MG	CA	1648	1/1	0.87	0.24	0,0,0,0	0
57	MG	DA	3158	1/1	0.87	0.32	0,0,0,0	0
57	MG	DA	3124	1/1	0.87	0.36	0,0,0,0	0
57	MG	BA	3164	1/1	0.87	0.12	54,54,54,54	0
57	MG	BA	3103	1/1	0.87	0.68	0,0,0,0	0
57	MG	DA	3027	1/1	0.88	0.23	1,1,1,1	0
57	MG	DA	3046	1/1	0.88	0.64	0,0,0,0	0
57	MG	BA	3061	1/1	0.88	0.09	40,40,40,40	0
57	MG	AA	1643	1/1	0.88	0.09	35,35,35,35	0
57	MG	DA	3173	1/1	0.88	0.17	0,0,0,0	0
57	MG	DA	3148	1/1	0.88	0.20	0,0,0,0	0
57	MG	DA	3106	1/1	0.88	0.22	0,0,0,0	0
57	MG	CA	1649	1/1	0.88	0.25	0,0,0,0	0
57	MG	DA	3200	1/1	0.88	0.56	0,0,0,0	0
57	MG	DA	3013	1/1	0.88	0.19	0,0,0,0	0
57	MG	BA	3228	1/1	0.88	0.10	1,1,1,1	0
57	MG	CA	1620	1/1	0.88	0.73	1,1,1,1	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	CA	1680	1/1	0.88	0.38	1,1,1,1	0
57	MG	DA	3263	1/1	0.88	0.38	0,0,0,0	0
57	MG	CV	101	1/1	0.88	0.12	1,1,1,1	0
57	MG	BA	3007	1/1	0.88	0.53	0,0,0,0	0
57	MG	DA	3115	1/1	0.88	0.27	0,0,0,0	0
57	MG	DA	3240	1/1	0.88	0.17	0,0,0,0	0
57	MG	DA	3001	1/1	0.88	0.33	0,0,0,0	0
57	MG	BA	3135	1/1	0.88	0.21	0,0,0,0	0
57	MG	BA	3141	1/1	0.88	0.53	0,0,0,0	0
57	MG	BA	3181	1/1	0.88	0.28	8,8,8,8	0
57	MG	BA	3189	1/1	0.88	0.19	40,40,40,40	0
57	MG	DA	3170	1/1	0.89	0.19	0,0,0,0	0
57	MG	BB	202	1/1	0.89	0.08	29,29,29,29	0
57	MG	BA	3072	1/1	0.89	0.23	0,0,0,0	0
57	MG	BA	3089	1/1	0.89	0.30	0,0,0,0	0
57	MG	DA	3265	1/1	0.89	0.21	0,0,0,0	0
57	MG	CA	1668	1/1	0.89	0.53	0,0,0,0	0
57	MG	BA	3252	1/1	0.89	0.14	0,0,0,0	0
57	MG	CA	1634	1/1	0.89	0.69	0,0,0,0	0
57	MG	AA	1685	1/1	0.89	0.56	0,0,0,0	0
57	MG	DA	3096	1/1	0.89	0.23	0,0,0,0	0
57	MG	AA	1662	1/1	0.89	0.14	26,26,26,26	0
57	MG	DA	3167	1/1	0.89	0.53	1,1,1,1	0
57	MG	CA	1663	1/1	0.89	0.15	0,0,0,0	0
57	MG	DA	3076	1/1	0.90	0.21	1,1,1,1	0
57	MG	BA	3149	1/1	0.90	0.12	10,10,10,10	0
57	MG	DA	3252	1/1	0.90	0.18	0,0,0,0	0
57	MG	BA	3008	1/1	0.90	0.19	0,0,0,0	0
57	MG	DA	3012	1/1	0.90	0.22	0,0,0,0	0
57	MG	CA	1665	1/1	0.90	0.18	0,0,0,0	0
57	MG	BA	3031	1/1	0.90	0.08	21,21,21,21	0
57	MG	BA	3032	1/1	0.90	0.15	0,0,0,0	0
57	MG	AA	1693	1/1	0.90	0.12	5,5,5,5	0
57	MG	BA	3128	1/1	0.90	0.07	4,4,4,4	0
57	MG	BA	3083	1/1	0.90	0.36	0,0,0,0	0
57	MG	BA	3172	1/1	0.90	0.23	0,0,0,0	0
57	MG	BA	3066	1/1	0.90	0.10	86,86,86,86	0
57	MG	AA	1663	1/1	0.90	0.10	4,4,4,4	0
57	MG	AA	1642	1/1	0.90	0.08	46,46,46,46	0
57	MG	DA	3266	1/1	0.90	0.26	0,0,0,0	0
57	MG	DA	3161	1/1	0.90	0.36	0,0,0,0	0
57	MG	BA	3088	1/1	0.90	0.12	2,2,2,2	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	DA	3214	1/1	0.90	0.81	0,0,0,0	0
57	MG	CA	1657	1/1	0.90	0.10	0,0,0,0	0
57	MG	BA	3196	1/1	0.90	0.18	0,0,0,0	1
57	MG	BA	3179	1/1	0.90	0.12	0,0,0,0	0
57	MG	BA	3069	1/1	0.90	0.12	24,24,24,24	0
57	MG	CA	1662	1/1	0.90	0.25	13,13,13,13	0
57	MG	BA	3055	1/1	0.91	0.20	0,0,0,0	0
57	MG	BA	3092	1/1	0.91	0.13	0,0,0,0	0
57	MG	BA	3253	1/1	0.91	0.40	0,0,0,0	0
57	MG	BA	3065	1/1	0.91	0.17	16,16,16,16	0
57	MG	AA	1682	1/1	0.91	0.08	0,0,0,0	0
57	MG	DA	3194	1/1	0.91	0.32	0,0,0,0	0
57	MG	DA	3070	1/1	0.91	0.49	0,0,0,0	0
57	MG	DA	3081	1/1	0.91	0.23	0,0,0,0	0
57	MG	BA	3167	1/1	0.91	0.50	0,0,0,0	0
57	MG	DA	3186	1/1	0.91	0.45	0,0,0,0	0
57	MG	DA	3259	1/1	0.91	0.60	0,0,0,0	0
57	MG	BA	3086	1/1	0.91	0.14	35,35,35,35	0
57	MG	BA	3222	1/1	0.91	0.20	4,4,4,4	0
57	MG	DA	3026	1/1	0.92	0.31	0,0,0,0	0
57	MG	BA	3119	1/1	0.92	0.65	0,0,0,0	0
57	MG	CA	1637	1/1	0.92	0.19	0,0,0,0	0
57	MG	DA	3232	1/1	0.92	0.13	0,0,0,0	0
57	MG	DA	3249	1/1	0.92	0.21	0,0,0,0	0
57	MG	DA	3114	1/1	0.92	0.24	0,0,0,0	0
57	MG	DA	3143	1/1	0.92	0.41	1,1,1,1	0
57	MG	BA	3062	1/1	0.92	0.07	42,42,42,42	0
57	MG	BA	3259	1/1	0.92	0.39	0,0,0,0	0
57	MG	BA	3140	1/1	0.92	0.08	12,12,12,12	0
57	MG	CA	1679	1/1	0.92	0.08	45,45,45,45	0
57	MG	AA	1625	1/1	0.92	0.10	3,3,3,3	0
57	MG	BA	3176	1/1	0.92	0.14	24,24,24,24	0
57	MG	BA	3131	1/1	0.92	0.25	0,0,0,0	0
57	MG	AA	1692	1/1	0.92	0.13	2,2,2,2	0
59	ZN	CN	101	1/1	0.92	0.11	125,125,125,125	0
57	MG	BA	3175	1/1	0.93	0.18	0,0,0,0	0
57	MG	BA	3056	1/1	0.93	0.53	0,0,0,0	0
57	MG	AX	101	1/1	0.93	0.07	3,3,3,3	0
57	MG	DA	3208	1/1	0.93	0.22	0,0,0,0	0
57	MG	BA	3193	1/1	0.93	0.38	0,0,0,0	0
57	MG	CA	1681	1/1	0.93	0.19	1,1,1,1	0
57	MG	AA	1655	1/1	0.93	0.13	0,0,0,0	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	BA	3183	1/1	0.93	0.14	1,1,1,1	0
57	MG	DA	3136	1/1	0.93	0.30	1,1,1,1	0
57	MG	BF	301	1/1	0.93	0.15	27,27,27,27	1
57	MG	DA	3233	1/1	0.93	0.42	0,0,0,0	0
57	MG	DA	3219	1/1	0.93	0.52	0,0,0,0	0
58	PAR	CA	1695	42/42	0.93	0.18	36,39,47,50	0
57	MG	DA	3007	1/1	0.93	0.61	1,1,1,1	0
57	MG	DA	3211	1/1	0.94	0.28	12,12,12,12	0
57	MG	AA	1665	1/1	0.94	0.14	0,0,0,0	0
57	MG	DA	3082	1/1	0.94	0.25	0,0,0,0	0
57	MG	AA	1653	1/1	0.94	0.16	0,0,0,0	0
57	MG	CA	1660	1/1	0.94	0.17	0,0,0,0	0
57	MG	DA	3009	1/1	0.94	0.47	0,0,0,0	0
57	MG	BA	3219	1/1	0.94	0.11	0,0,0,0	0
57	MG	BA	3033	1/1	0.94	0.21	0,0,0,0	0
57	MG	BA	3060	1/1	0.94	0.10	28,28,28,28	0
57	MG	DA	3014	1/1	0.94	0.17	8,8,8,8	0
57	MG	BA	3098	1/1	0.94	0.34	0,0,0,0	0
57	MG	DA	3025	1/1	0.94	0.17	1,1,1,1	0
57	MG	AA	1666	1/1	0.95	0.08	45,45,45,45	0
57	MG	CA	1691	1/1	0.95	0.12	0,0,0,0	0
57	MG	DA	3154	1/1	0.95	0.25	0,0,0,0	0
57	MG	DA	3140	1/1	0.95	0.23	0,0,0,0	0
57	MG	DA	3011	1/1	0.95	0.14	10,10,10,10	0
57	MG	BA	3080	1/1	0.95	0.13	13,13,13,13	0
57	MG	DA	3246	1/1	0.95	0.37	0,0,0,0	0
57	MG	AA	1649	1/1	0.95	0.05	67,67,67,67	0
57	MG	CA	1618	1/1	0.95	0.16	0,0,0,0	0
57	MG	DA	3267	1/1	0.95	0.19	0,0,0,0	0
57	MG	AA	1678	1/1	0.96	0.35	2,2,2,2	0
57	MG	DA	3213	1/1	0.96	0.12	0,0,0,0	0
57	MG	AA	1683	1/1	0.96	0.13	0,0,0,0	0
57	MG	CA	1623	1/1	0.96	0.11	0,0,0,0	0
57	MG	CA	1685	1/1	0.96	0.16	11,11,11,11	0
57	MG	DA	3217	1/1	0.96	0.05	31,31,31,31	0
57	MG	DA	3036	1/1	0.96	0.49	1,1,1,1	0
57	MG	DA	3116	1/1	0.96	0.43	0,0,0,0	0
57	MG	DA	3174	1/1	0.97	0.44	0,0,0,0	0
57	MG	BA	3192	1/1	0.97	0.18	0,0,0,0	0
57	MG	DA	3034	1/1	0.97	0.32	0,0,0,0	0
57	MG	DA	3086	1/1	0.97	0.56	0,0,0,0	0
57	MG	BA	3100	1/1	0.97	0.04	73,73,73,73	0

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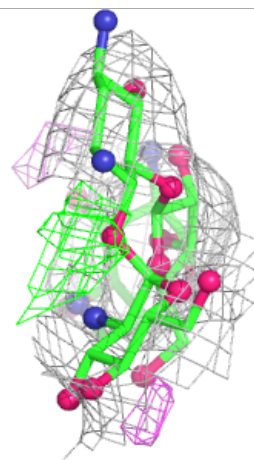
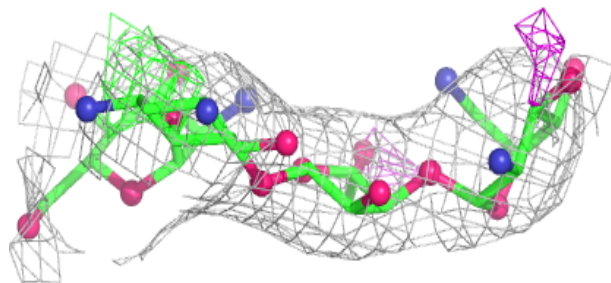
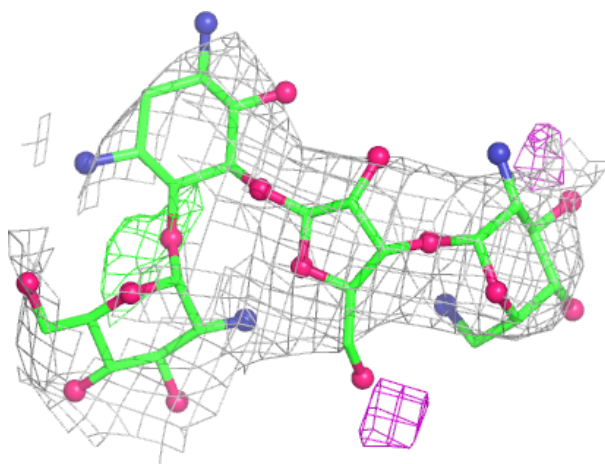
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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	DA	3098	1/1	0.97	0.43	1,1,1,1	0
57	MG	DA	3223	1/1	0.97	0.14	0,0,0,0	0
57	MG	AA	1618	1/1	0.97	0.11	7,7,7,7	0
57	MG	BA	3200	1/1	0.97	0.06	64,64,64,64	0
57	MG	DA	3168	1/1	0.97	0.35	37,37,37,37	1
57	MG	BA	3220	1/1	0.97	0.08	16,16,16,16	0
57	MG	BA	3034	1/1	0.97	0.09	2,2,2,2	0
57	MG	AA	1661	1/1	0.97	0.05	1,1,1,1	0
57	MG	DA	3172	1/1	0.97	0.17	43,43,43,43	0
57	MG	DA	3074	1/1	0.97	0.15	0,0,0,0	0
57	MG	DA	3137	1/1	0.98	0.13	0,0,0,0	0
57	MG	BA	3171	1/1	0.98	0.12	6,6,6,6	0
57	MG	AA	1602	1/1	0.98	0.04	0,0,0,0	0
57	MG	CA	1612	1/1	0.98	0.04	8,8,8,8	0
57	MG	BA	3258	1/1	0.98	0.10	23,23,23,23	0
57	MG	DA	3212	1/1	0.98	0.31	0,0,0,0	0
57	MG	DA	3224	1/1	0.98	0.07	0,0,0,0	0
57	MG	DA	3032	1/1	0.98	0.18	0,0,0,0	0
57	MG	AA	1605	1/1	0.98	0.05	26,26,26,26	0
57	MG	BA	3168	1/1	0.98	0.05	11,11,11,11	0
57	MG	BA	3014	1/1	0.98	0.06	0,0,0,0	0
57	MG	BA	3153	1/1	0.98	0.09	0,0,0,0	0
57	MG	BA	3043	1/1	0.99	0.14	0,0,0,0	1
57	MG	BA	3027	1/1	0.99	0.03	0,0,0,0	1
57	MG	DA	3057	1/1	0.99	0.11	0,0,0,0	0
57	MG	BA	3129	1/1	0.99	0.04	0,0,0,0	1
57	MG	BA	3206	1/1	0.99	0.17	0,0,0,0	0
57	MG	DB	202	1/1	0.99	0.05	0,0,0,0	0
59	ZN	AD	801	1/1	0.99	0.14	9,9,9,9	0
59	ZN	AN	101	1/1	0.99	0.04	76,76,76,76	0
57	MG	AA	1656	1/1	0.99	0.06	9,9,9,9	0
57	MG	CA	1614	1/1	1.00	0.14	0,0,0,0	0
59	ZN	CD	801	1/1	1.00	0.14	8,8,8,8	0
57	MG	CA	1650	1/1	1.00	0.10	0,0,0,0	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.

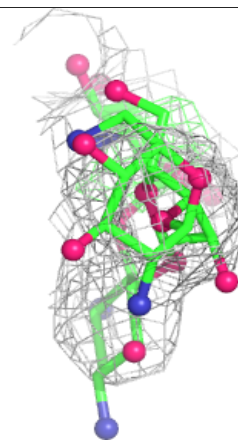
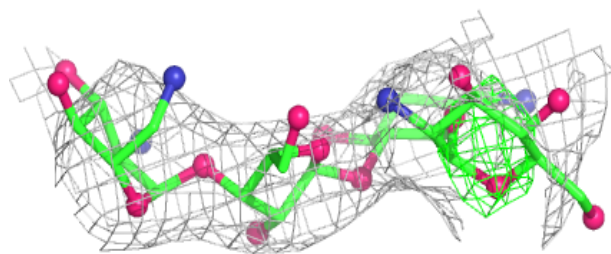
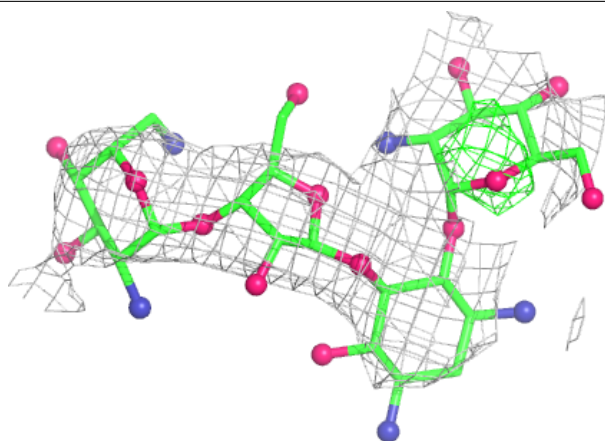
Electron density around PAR AA 1694:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around PAR CA 1695:

$2mF_o-DF_c$ (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.