



Full wwPDB X-ray Structure Validation Report ⓘ

May 21, 2020 – 02:53 pm BST

PDB ID : 4V54
Title : Crystal structure of the bacterial ribosome from Escherichia coli in complex with ribosome recycling factor (RRF).
Authors : Borovinskaya, M.A.; Pai, R.D.; Zhang, W.; Schuwirth, B.-S.; Holton, J.M.; Hirokawa, G.; Kaji, H.; Kaji, A.; Cate, J.H.D.
Deposited on : 2007-06-16
Resolution : 3.30 Å(reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

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

MolProbity	:	4.02b-467
Xtriage (Phenix)	:	1.13
EDS	:	2.11
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.11

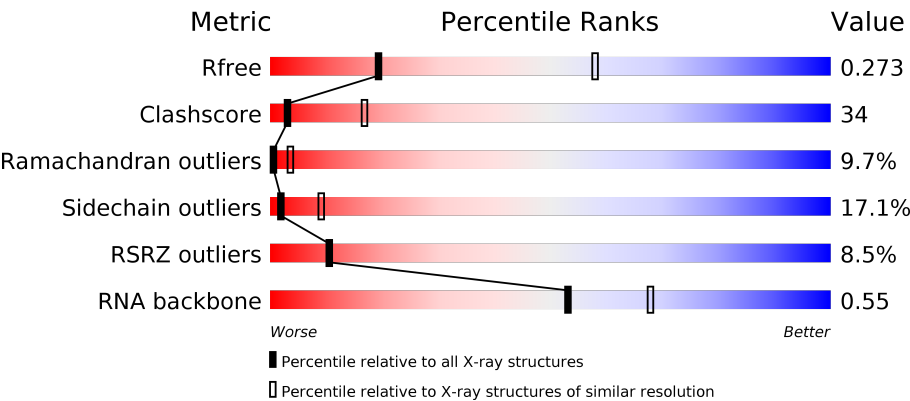
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.30 Å.

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



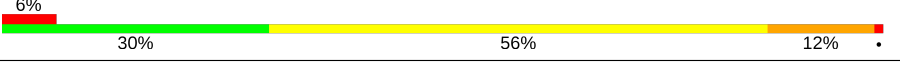
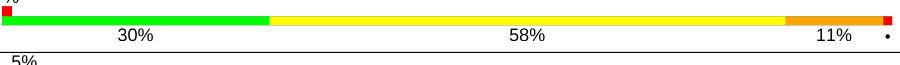
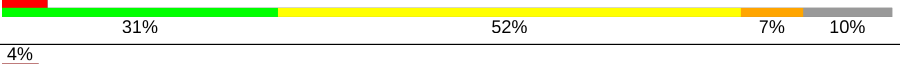
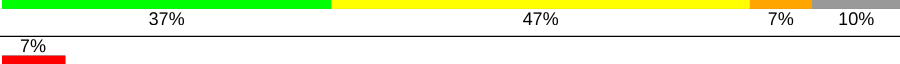
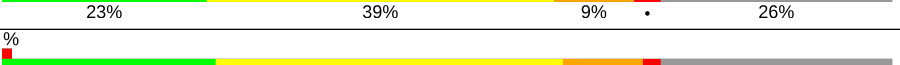
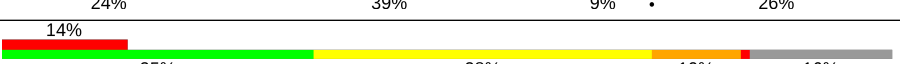
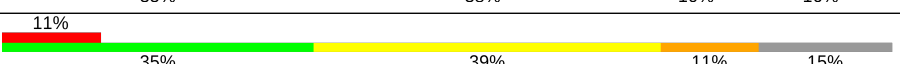
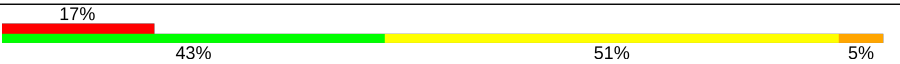

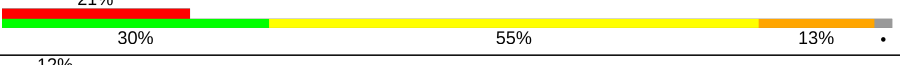
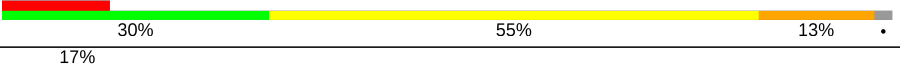
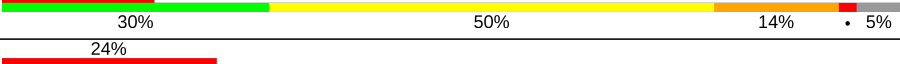
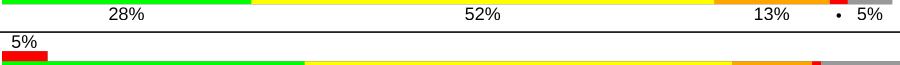
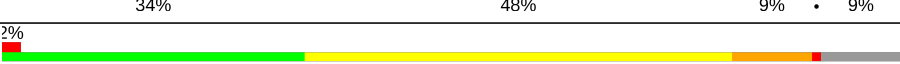
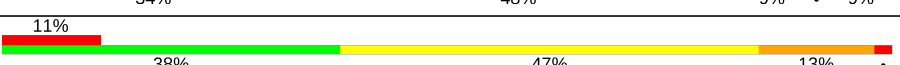
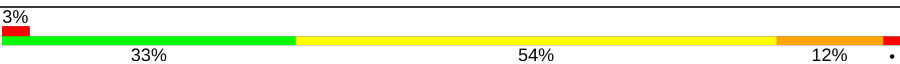
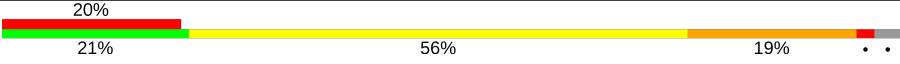
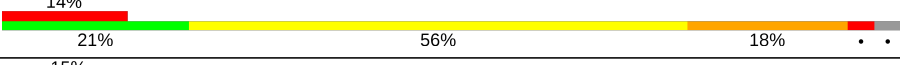



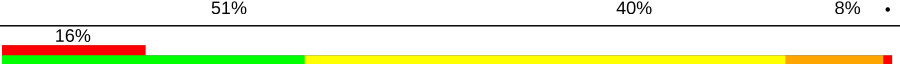



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R _{free}	130704	1149 (3.34-3.26)
Clashscore	141614	1205 (3.34-3.26)
Ramachandran outliers	138981	1183 (3.34-3.26)
Sidechain outliers	138945	1182 (3.34-3.26)
RSRZ outliers	127900	1115 (3.34-3.26)
RNA backbone	3102	1117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

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on 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	1542	<div><div>3%</div><div>27%</div><div>60%</div><div>13%</div><div>•</div></div>
1	CA	1542	<div><div>26%</div><div>61%</div><div>12%</div><div>••</div></div>
2	AC	232	<div><div>3%</div><div>30%</div><div>47%</div><div>11%</div><div>•</div><div>11%</div></div>
2	CC	232	<div><div>2%</div><div>31%</div><div>45%</div><div>12%</div><div>•</div><div>11%</div></div>

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Mol	Chain	Length	Quality of chain
3	AD	205	
3	CD	205	
4	AE	166	
4	CE	166	
5	AF	135	
5	CF	135	
6	AG	178	
6	CG	178	
7	AH	129	
7	CH	129	
8	AI	129	
8	CI	129	
9	AJ	103	
9	CJ	103	
10	AK	128	
10	CK	128	
11	AL	123	
11	CL	123	
12	AM	117	
12	CM	117	
13	AN	100	
13	CN	100	
14	AO	89	
14	CO	89	
15	AP	82	

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Mol	Chain	Length	Quality of chain
15	CP	82	
16	AQ	83	
16	CQ	83	
17	AR	74	
17	CR	74	
18	AS	91	
18	CS	91	
19	AT	86	
19	CT	86	
20	AB	240	
20	CB	240	
21	AU	70	
21	CU	70	
22	BA	120	
22	DA	120	
23	BB	2904	
23	DB	2904	
24	BI	141	
24	DI	141	
25	BC	272	
25	DC	272	
26	BD	209	
26	DD	209	
27	BK	123	
27	DK	123	

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Mol	Chain	Length	Quality of chain
28	BP	114	
28	DP	114	
29	BE	201	
29	DE	201	
30	BY	58	
30	DY	58	
31	B0	56	
31	D0	56	
32	B4	38	
32	D4	38	
33	B1	54	
33	D1	54	
34	B3	64	
34	D3	64	
35	BV	94	
35	DV	94	
36	B2	46	
36	D2	46	
37	BL	144	
37	DL	144	
38	BM	136	
38	DM	136	
39	BX	63	
39	DX	63	
40	BH	149	

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Mol	Chain	Length	Quality of chain
40	DH	149	
41	BJ	142	
41	DJ	142	
42	BN	127	
42	DN	127	
43	BO	117	
43	DO	117	
44	BQ	117	
44	DQ	117	
45	BS	110	
45	DS	110	
46	BU	103	
46	DU	103	
47	BF	178	
47	DF	178	
48	BG	176	
48	DG	176	
49	BR	103	
49	DR	103	
50	BT	100	
50	DT	100	
51	BZ	78	
51	DZ	78	
52	BW	84	
52	DW	84	

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Mol	Chain	Length	Quality of chain
53	B6	185	
53	D6	185	

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
54	MG	AA	2025	-	-	-	X
54	MG	AA	2037	-	-	-	X
54	MG	AA	2059	-	-	-	X
54	MG	BB	3093	-	-	-	X
54	MG	BB	3100	-	-	-	X
54	MG	DB	3058	-	-	-	X

2 Entry composition

There are 56 unique types of molecules in this entry. The entry contains 286960 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	1530	Total	C	N	O	P	0	0	0
			32831	14642	6024	10635	1530			
1	CA	1530	Total	C	N	O	P	0	0	0
			32831	14642	6024	10635	1530			

- Molecule 2 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AC	206	Total	C	N	O	S	0	0	0
			1624	1028	305	288	3			
2	CC	206	Total	C	N	O	S	0	0	0
			1624	1028	305	288	3			

- Molecule 3 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	AD	205	Total	C	N	O	S	0	0	0
			1643	1026	315	298	4			
3	CD	205	Total	C	N	O	S	0	0	0
			1643	1026	315	298	4			

- Molecule 4 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	AE	150	Total	C	N	O	S	0	0	0
			1105	687	211	201	6			
4	CE	150	Total	C	N	O	S	0	0	0
			1105	687	211	201	6			

- Molecule 5 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	AF	100	Total	C	N	O	S	0	0	0
			817	515	148	148	6			
5	CF	100	Total	C	N	O	S	0	0	0
			817	515	148	148	6			

- Molecule 6 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AG	150	Total	C	N	O	S	0	0	0
			1174	730	226	214	4			
6	CG	152	Total	C	N	O	S	0	0	0
			1196	745	230	217	4			

- Molecule 7 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	AH	129	Total	C	N	O	S	0	0	0
			979	616	173	184	6			
7	CH	129	Total	C	N	O	S	0	0	0
			979	616	173	184	6			

- Molecule 8 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	AI	127	Total	C	N	O	S	0	0	0
			1022	634	206	179	3			
8	CI	127	Total	C	N	O	S	0	0	0
			1022	634	206	179	3			

- Molecule 9 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	AJ	98	Total	C	N	O	S	0	0	0
			786	493	150	142	1			
9	CJ	98	Total	C	N	O	S	0	0	0
			786	493	150	142	1			

- Molecule 10 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	AK	117	Total	C	N	O	S	0	0	0
			877	540	174	160	3			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	CK	117	Total	C	N	O	S	0	0	0
			877	540	174	160	3			

- Molecule 11 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	AL	123	Total	C	N	O	S	0	0	0
			955	590	196	165	4			
11	CL	123	Total	C	N	O	S	0	0	0
			955	590	196	165	4			

- Molecule 12 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	AM	114	Total	C	N	O	S	0	0	0
			883	546	178	156	3			
12	CM	113	Total	C	N	O	S	0	0	0
			876	541	177	155	3			

- Molecule 13 is a protein called 30S ribosomal protein S14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	AN	96	Total	C	N	O	S	0	0	0
			774	483	160	128	3			
13	CN	96	Total	C	N	O	S	0	0	0
			774	483	160	128	3			

- Molecule 14 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	AO	88	Total	C	N	O	S	0	0	0
			714	439	144	130	1			
14	CO	88	Total	C	N	O	S	0	0	0
			714	439	144	130	1			

- Molecule 15 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	AP	82	Total	C	N	O	S	0	0	0
			649	406	128	114	1			
15	CP	80	Total	C	N	O	S	0	0	0
			638	400	126	111	1			

- Molecule 16 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	AQ	80	Total	C	N	O	S	0	0	0
			648	411	121	113	3			
16	CQ	81	Total	C	N	O	S	0	0	0
			657	417	122	115	3			

- Molecule 17 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
17	AR	55	Total	C	N	O	0	0	0
			455	288	86	81			
17	CR	55	Total	C	N	O	0	0	0
			455	288	86	81			

- Molecule 18 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	AS	79	Total	C	N	O	S	0	0	0
			637	408	120	107	2			
18	CS	80	Total	C	N	O	S	0	0	0
			644	413	121	108	2			

- Molecule 19 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AT	85	Total	C	N	O	S	0	0	0
			665	411	137	114	3			
19	CT	85	Total	C	N	O	S	0	0	0
			665	411	137	114	3			

- Molecule 20 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AB	218	Total	C	N	O	S	0	0	0
			1704	1081	305	311	7			
20	CB	218	Total	C	N	O	S	0	0	0
			1704	1081	305	311	7			

- Molecule 21 is a protein called 30S ribosomal protein S21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	AU	51	Total	C	N	O	S	0	0	0
			425	265	86	73	1			
21	CU	51	Total	C	N	O	S	0	0	0
			425	265	86	73	1			

- Molecule 22 is a RNA chain called 5S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	BA	117	Total	C	N	O	P	0	0	0
			2507	1116	459	815	117			
22	DA	117	Total	C	N	O	P	0	0	0
			2507	1116	459	815	117			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	BB	2841	Total	C	N	O	P	0	0	0
			60995	27210	11229	19715	2841			
23	DB	2841	Total	C	N	O	P	0	0	0
			60995	27210	11229	19715	2841			

- Molecule 24 is a protein called 50S ribosomal protein L11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	BI	141	Total	C	N	O	S	0	0	0
			1032	651	179	196	6			
24	DI	141	Total	C	N	O	S	0	0	0
			1032	651	179	196	6			

- Molecule 25 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	BC	271	Total	C	N	O	S	0	0	0
			2082	1288	423	364	7			
25	DC	271	Total	C	N	O	S	0	0	0
			2082	1288	423	364	7			

- Molecule 26 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	BD	209	Total	C	N	O	S	0	0	0
			1565	979	288	294	4			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	DD	209	Total	C	N	O	S	0	0	0
			1565	979	288	294	4			

- Molecule 27 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	BK	121	Total	C	N	O	S	0	0	0
			930	582	179	164	5			
27	DK	121	Total	C	N	O	S	0	0	0
			930	582	179	164	5			

- Molecule 28 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	BP	114	Total	C	N	O	S	0	0	0
			917	574	179	163	1			
28	DP	114	Total	C	N	O	S	0	0	0
			917	574	179	163	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	BE	201	Total	C	N	O	S	0	0	0
			1552	974	283	290	5			
29	DE	201	Total	C	N	O	S	0	0	0
			1552	974	283	290	5			

- Molecule 30 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	BY	58	Total	C	N	O	S	0	0	0
			449	281	87	79	2			
30	DY	58	Total	C	N	O	S	0	0	0
			449	281	87	79	2			

- Molecule 31 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	B0	56	Total	C	N	O	S	0	0	0
			444	269	94	80	1			
31	D0	56	Total	C	N	O	S	0	0	0
			444	269	94	80	1			

- Molecule 32 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	B4	38	Total	C	N	O	S	0	0	0
			302	185	65	48	4			
32	D4	38	Total	C	N	O	S	0	0	0
			302	185	65	48	4			

- Molecule 33 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
33	B1	50	Total	C	N	O	0	0	0
			409	263	75	71			
33	D1	50	Total	C	N	O	0	0	0
			409	263	75	71			

- Molecule 34 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	B3	64	Total	C	N	O	S	0	0	0
			504	323	105	74	2			
34	D3	64	Total	C	N	O	S	0	0	0
			504	323	105	74	2			

- Molecule 35 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	BV	94	Total	C	N	O	S	0	0	0
			753	479	137	134	3			
35	DV	94	Total	C	N	O	S	0	0	0
			753	479	137	134	3			

- Molecule 36 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	B2	46	Total	C	N	O	S	0	0	0
			377	228	90	57	2			
36	D2	46	Total	C	N	O	S	0	0	0
			377	228	90	57	2			

- Molecule 37 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	BL	143	Total	C	N	O	S	0	0	0
			1045	649	206	189	1			
37	DL	143	Total	C	N	O	S	0	0	0
			1045	649	206	189	1			

- Molecule 38 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	BM	136	Total	C	N	O	S	0	0	0
			1074	686	205	177	6			
38	DM	136	Total	C	N	O	S	0	0	0
			1074	686	205	177	6			

- Molecule 39 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	BX	63	Total	C	N	O	S	0	0	0
			509	313	99	95	2			
39	DX	63	Total	C	N	O	S	0	0	0
			509	313	99	95	2			

- Molecule 40 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	BH	149	Total	C	N	O	S	0	0	0
			1111	699	197	214	1			
40	DH	149	Total	C	N	O	S	0	0	0
			1111	699	197	214	1			

- Molecule 41 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	BJ	142	Total	C	N	O	S	0	0	0
			1129	714	212	199	4			
41	DJ	142	Total	C	N	O	S	0	0	0
			1129	714	212	199	4			

- Molecule 42 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	BN	120	Total	C	N	O	S	0	0	0
			960	593	196	166	5			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	DN	120	Total	C	N	O	S	0	0	0
			960	593	196	166	5			

- Molecule 43 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	BO	116	Total	C	N	O		0	0	0
			892	552	178	162				
43	DO	116	Total	C	N	O		0	0	0
			892	552	178	162				

- Molecule 44 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	BQ	117	Total	C	N	O		0	0	0
			947	604	192	151				
44	DQ	117	Total	C	N	O		0	0	0
			947	604	192	151				

- Molecule 45 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	BS	110	Total	C	N	O	S	0	0	0
			857	532	166	156	3			
45	DS	110	Total	C	N	O	S	0	0	0
			857	532	166	156	3			

- Molecule 46 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	BU	102	Total	C	N	O		0	0	0
			779	492	146	141				
46	DU	102	Total	C	N	O		0	0	0
			779	492	146	141				

- Molecule 47 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	BF	178	Total	C	N	O	S	0	0	0
			1420	905	251	258	6			
47	DF	178	Total	C	N	O	S	0	0	0
			1420	905	251	258	6			

- Molecule 48 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	BG	176	Total	C	N	O	S	0	0	0
			1323	832	243	246	2			
48	DG	176	Total	C	N	O	S	0	0	0
			1323	832	243	246	2			

- Molecule 49 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	BR	103	Total	C	N	O	S	0	0	0
			816	516	153	145	2			
49	DR	103	Total	C	N	O	S	0	0	0
			816	516	153	145	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	BT	93	Total	C	N	O	S	0	0	0
			738	466	139	131	2			
50	DT	93	Total	C	N	O	S	0	0	0
			738	466	139	131	2			

- Molecule 51 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	BZ	77	Total	C	N	O	S	0	0	0
			625	388	129	106	2			
51	DZ	77	Total	C	N	O	S	0	0	0
			625	388	129	106	2			

- Molecule 52 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	BW	79	Total	C	N	O	S	0	0	0
			596	367	120	108	1			
52	DW	79	Total	C	N	O	S	0	0	0
			596	367	120	108	1			

- Molecule 53 is a protein called ribosome recycling factor.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	B6	185	Total	C	N	O	S	0	0	0
			1478	924	270	282	2			
53	D6	185	Total	C	N	O	S	0	0	0
			1478	924	270	282	2			

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

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
54	DB	111	Total	Mg	0	0
			111	111		
54	BB	110	Total	Mg	0	0
			110	110		
54	AA	60	Total	Mg	0	0
			60	60		
54	CA	61	Total	Mg	0	0
			61	61		
54	CE	1	Total	Mg	0	0
			1	1		

- Molecule 55 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
55	B4	1	Total	Zn	0	0
			1	1		
55	D4	1	Total	Zn	0	0
			1	1		

- Molecule 56 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	AA	289	Total	O	0	0
			289	289		
56	AE	4	Total	O	0	0
			4	4		
56	AK	1	Total	O	0	0
			1	1		
56	AL	1	Total	O	0	0
			1	1		
56	AN	3	Total	O	0	0
			3	3		
56	AP	1	Total	O	0	0
			1	1		

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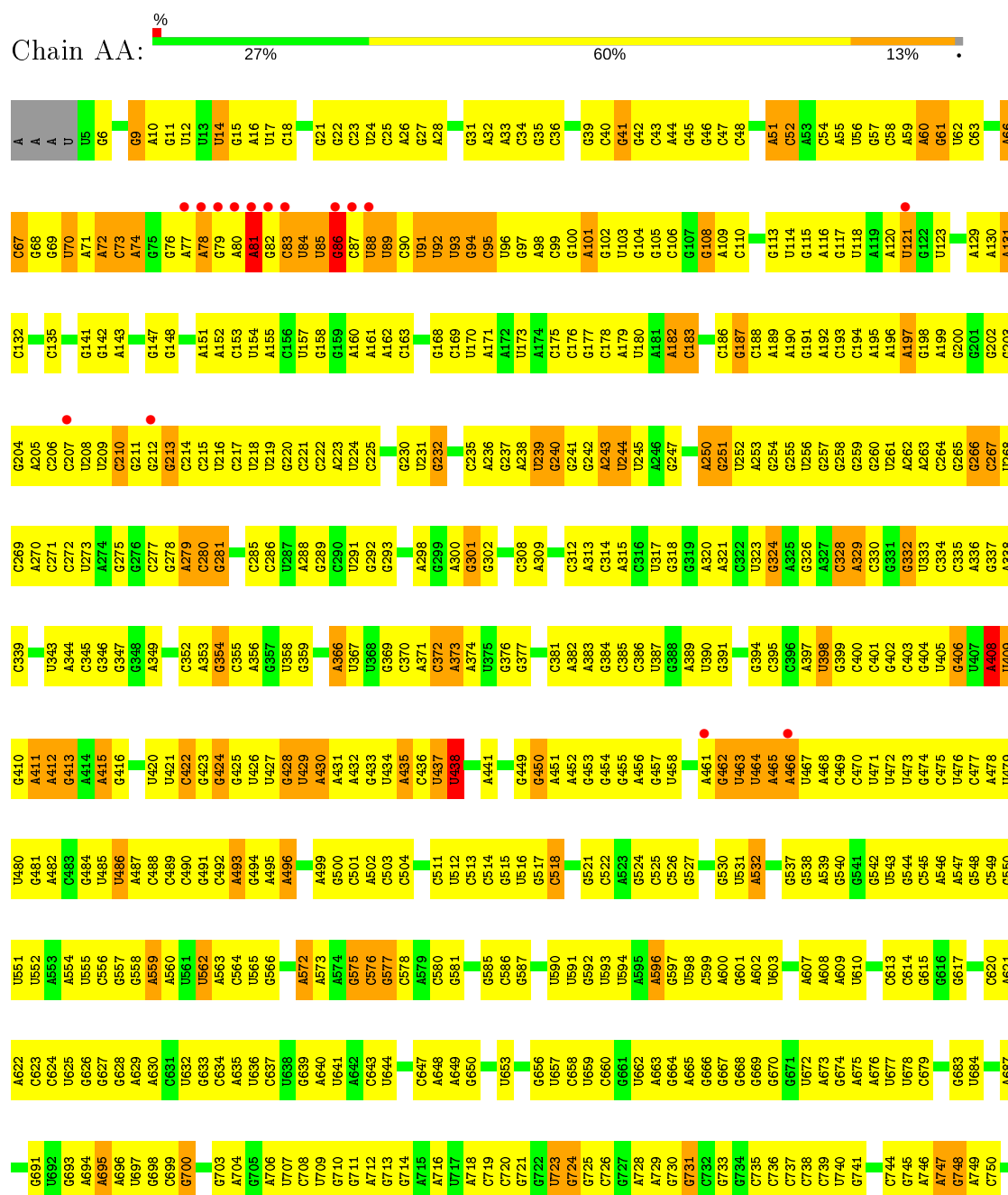
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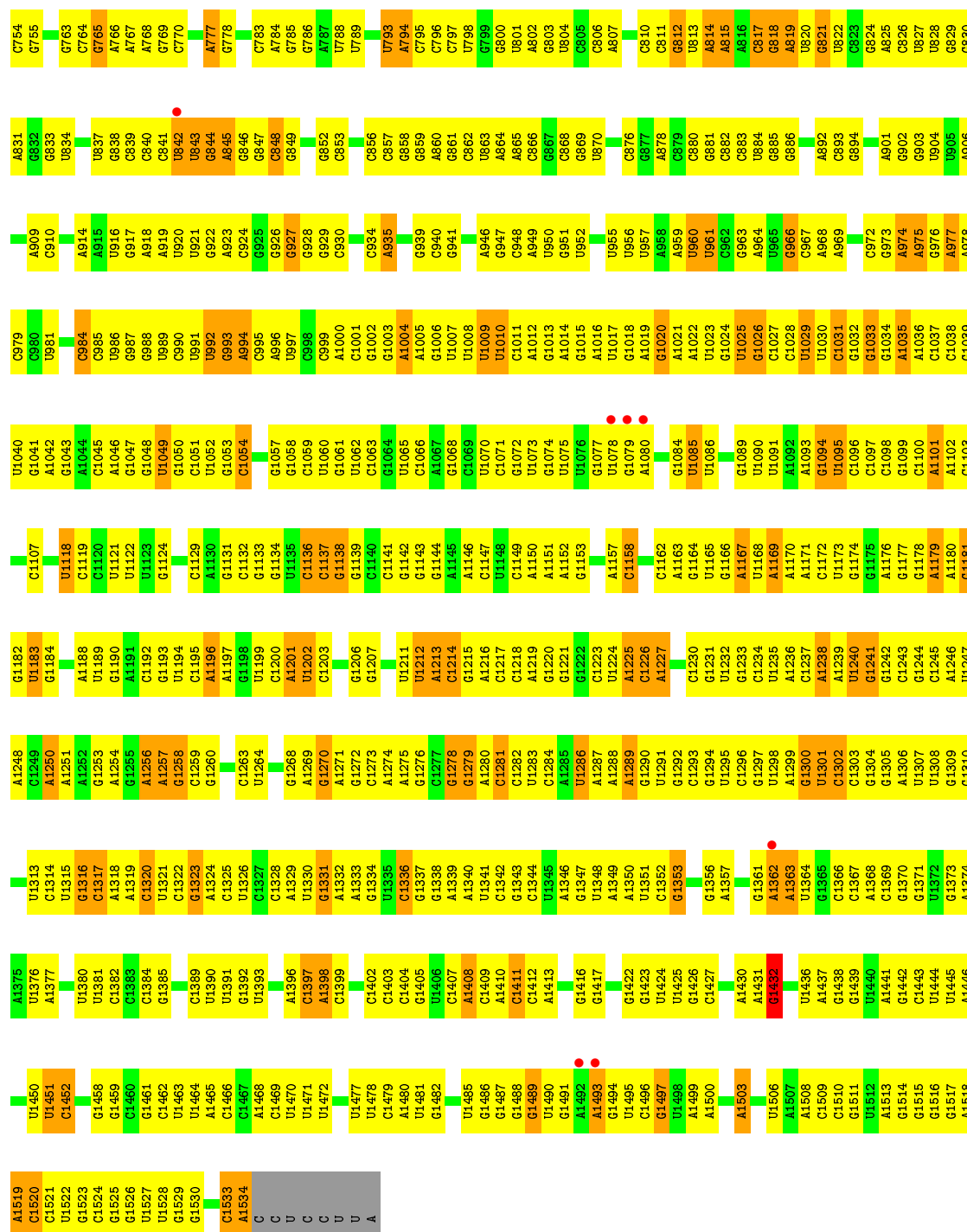
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56	BB	495	Total 495	O 495	0	0
56	BC	4	Total 4	O 4	0	0
56	BD	1	Total 1	O 1	0	0
56	BE	3	Total 3	O 3	0	0
56	B2	1	Total 1	O 1	0	0
56	BL	1	Total 1	O 1	0	0
56	BT	1	Total 1	O 1	0	0
56	CE	2	Total 2	O 2	0	0
56	CK	1	Total 1	O 1	0	0
56	CL	1	Total 1	O 1	0	0
56	CN	4	Total 4	O 4	0	0
56	CT	1	Total 1	O 1	0	0
56	CA	300	Total 300	O 300	0	0
56	DB	505	Total 505	O 505	0	0
56	DC	4	Total 4	O 4	0	0
56	DD	1	Total 1	O 1	0	0
56	DE	2	Total 2	O 2	0	0

3 Residue-property plots

These plots are drawn for all protein, RNA and DNA 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.

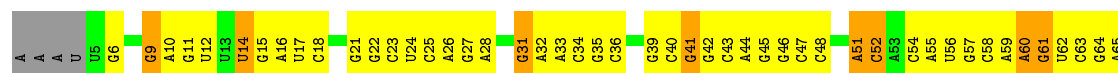
• Molecule 1: 16S rRNA



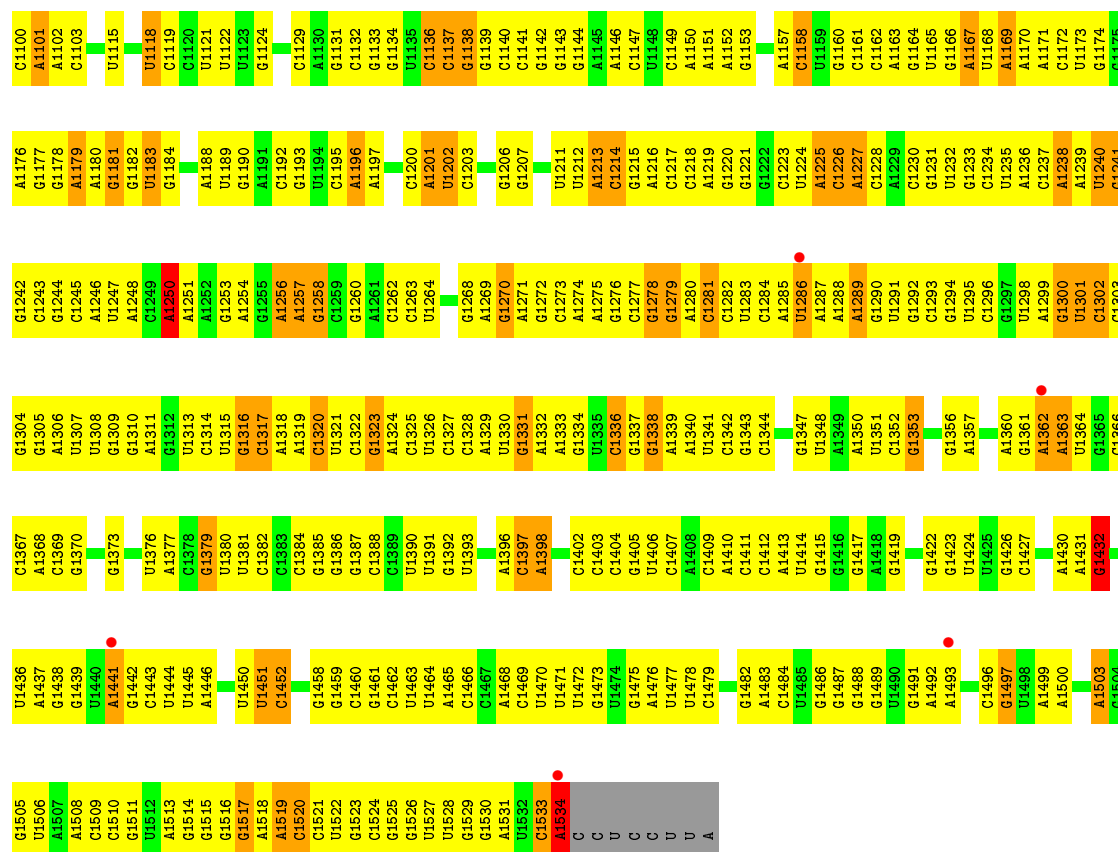


• Molecule 1: 16S rRNA

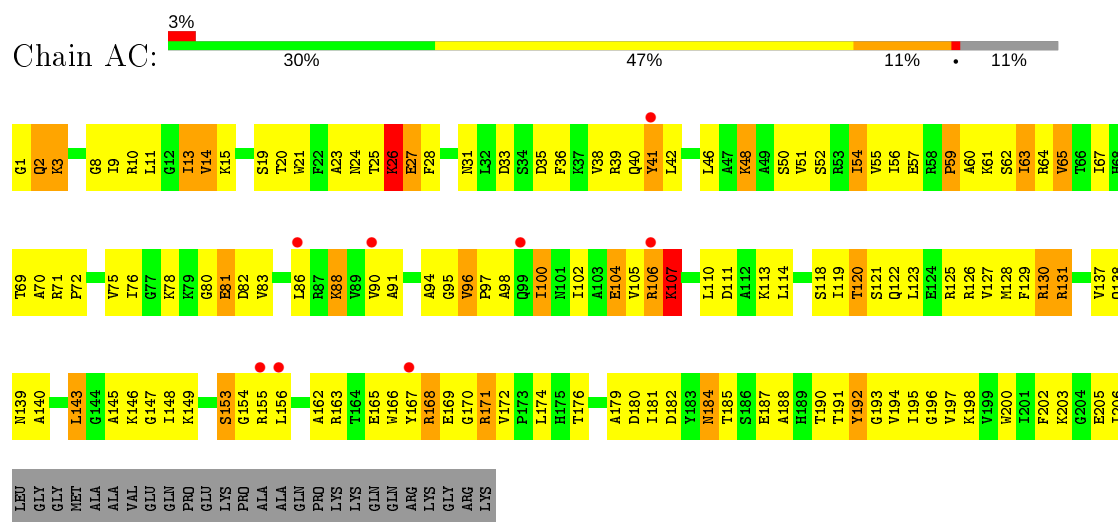
Chain CA: 26% 61% 12%



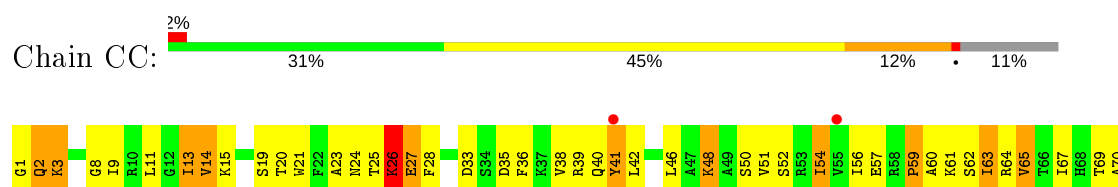
A1036	A130	G202	G266	A336	G406	U476	G548	G617	G683	A749	G830	A909	G976	A1036
C1037	A131	G203	C267	G337	U407	C477	C549	G620	U684	C750	A831	A909	A977	C1037
G1038	C132	G204	U268	A338	A403	A478	G550	G621	A687	C754	G832	C910	A978	G1038
A1039	A133	G205	C269	C339	U409	U479	U551	A621	A688	G755	G833	U911	C979	A1039
G1040	C135	G206	A270	U343	A410	U480	U552	G622	G691	G756	U834	C912	C980	G1040
A1041	G141	C207	C271	U344	A411	G481	A553	G623	G692	G757	U835	A913	C981	A1041
G1042	G142	G208	C272	A345	A412	A482	A554	G624	G693	G758	G836	A914	U982	G1042
A1043	A143	U209	U273	G346	G413	C483	U555	G625	G694	G759	U837	A915	A983	A1043
G1044	G147	G210	A274	A349	A414	C484	C556	U626	A695	C764	G838	A916	A984	G1044
G1045	G148	G211	G276	A352	A415	U485	G557	U627	A696	C765	U839	U917	C985	G1045
A1046	A151	G212	C277	A353	U420	A486	A559	G628	A697	C766	C839	A918	C986	A1046
G1047	A152	G213	G278	C354	U421	C487	A560	U629	A698	C767	C840	A919	C987	G1047
A1048	A153	G214	A279	C355	U422	C488	A561	G630	G700	C768	U841	U920	U988	G1048
U1049	C153	G215	G280	A356	G424	C489	U562	G631	G701	C769	U842	U921	U989	U1049
G1050	U154	U216	G281	C357	A425	C490	U563	U632	A704	C770	G844	G922	C990	G1050
A1051	U155	C221	G282	G358	U426	C491	U564	U633	G705	G778	A845	A923	U991	A1051
U1052	U156	G222	C283	U359	U427	C492	U565	U634	G706	G779	G846	C924	U992	U1052
G1053	G157	C223	U284	U358	U428	C493	U566	U635	A707	G780	C847	G925	C993	G1053
C1054	U158	A223	G285	U359	U429	C494	G567	U636	U708	G781	C848	G926	A994	C1054
G1057	U159	G224	C286	G359	U430	C495	A572	U637	U709	G782	G849	G927	C995	G1057
A1058	G158	C225	U287	U360	A431	C496	A573	U638	G710	G783	G850	G928	A996	A1058
U1059	U160	G226	A288	A363	A432	C497	A574	U639	U711	G784	G851	G929	U997	U1059
G1060	A161	U221	C289	A364	A433	C498	A575	U640	G712	G785	G852	G930	U998	G1060
A1061	U162	G222	C290	U365	A434	C499	A576	U641	G713	G786	G853	C931	C999	A1061
U1062	A162	C223	U291	U366	A435	C500	A577	U642	G714	G787	C854	C932	A1000	U1062
C1063	U163	G224	G292	U367	U436	C501	A578	U643	G715	G788	C855	C933	C1001	C1063
G1064	G168	U231	A298	U368	U437	C502	A579	U644	G716	G789	C856	C934	G1002	G1064
U1065	U169	G232	C299	C370	U438	C503	A580	U645	G717	G790	C857	A935	G1003	U1065
A1066	C170	C233	A300	C371	U439	C504	A581	U646	G718	G791	C858	G936	A1004	A1066
G1067	U170	G234	G301	C372	U440	C505	A582	U647	G719	G792	C859	G937	A1005	G1067
A1068	A171	C235	A302	C373	U441	C506	A583	U648	G720	G793	C860	G938	A1012	A1068
G1069	U172	A236	A303	A374	U442	C507	A584	U649	G721	G794	C861	G939	A1013	G1069
C1069	U173	G237	C308	U375	U443	C508	A585	U650	G722	G795	C862	G940	A1014	C1069
U1070	A174	A238	A309	U376	U444	C509	A586	U651	G723	G796	C863	G941	G1015	U1070
C1071	C175	U239	C312	C377	U445	C510	A587	U652	G724	G797	C864	G942	A1016	C1071
A1072	U176	G240	G241	C381	U446	C511	A588	U653	G725	G798	C865	G943	A1017	A1072
U1073	C177	C242	G242	A382	U447	C512	A589	U654	G726	G799	C866	G944	A1018	U1073
G1074	C178	A243	A243	A383	U448	C513	A590	U655	G727	G800	C867	G945	A1019	G1074
U1075	A179	U244	G244	A384	U449	C514	A591	U656	G728	G801	C868	G946	G1020	U1075
A1076	U180	U245	U245	A385	U450	C515	A592	U657	G729	G802	C869	G947	A1021	A1076
U1077	A181	A246	A246	C386	U451	C516	A593	U658	G730	G803	C870	G948	A1022	U1077
G1078	C183	G247	G247	U387	U452	C517	A594	U659	G731	G804	C871	G949	U1023	G1078
U1079	C186	A250	A250	C388	U453	C518	A595	U660	G732	G805	C872	G950	G1024	U1079
A1080	G187	G251	G251	A389	U454	C519	A596	U661	G733	G806	C873	G951	A1019	A1080
A1081	C188	U252	U252	U390	U455	C520	A597	U662	G734	G807	C874	G952	G1025	A1081
G1084	U188	G253	G253	C391	U456	C521	A598	U663	G735	G808	C875	G953	A1026	G1084
U1085	A189	A254	A254	G394	U457	C522	A599	U664	G736	G809	C876	G954	G1027	U1085
U1086	A190	G255	G255	C395	U458	C523	A600	U665	G737	G810	C877	G955	C1028	U1086
G1089	G191	U256	U256	C396	U459	C524	A601	U666	G738	G811	C878	G956	U1029	G1089
U1090	A192	G257	G257	C397	U460	C525	A602	U667	G739	G812	C879	G957	U1030	U1090
A1091	C193	U258	U258	U397	U461	C526	A603	U668	G740	G813	C880	G958	A1031	A1091
U1092	A193	G259	G259	C398	U462	C527	A604	U669	G741	G814	C881	G959	U1032	U1092
A1093	A194	C260	C260	U398	U463	C528	A605	U670	G742	G815	C882	G960	U1033	A1093
G1094	A195	U261	U261	C399	U464	C529	A606	U671	G743	G816	C883	G961	C1034	G1094
U1095	A196	A262	A262	C400	U465	C530	A607	U672	G744	G817	C884	G962	U1035	U1095
C1096	G198	A263	A263	C401	U466	C531	A608	U673	G745	G818	C885	G963	G1036	C1096
U1097	A199	C264	C264	C402	U467	C532	A609	U674	G746	G819	C886	G964	G1037	U1097
C1098	G200	G265	G265	C403	U468	C533	A610	U675	G747	G820	C887	G965	U1038	C1098
G1099	U405			U405	U469	C534	A611	U676	G748	G821	C888	G966	G1039	G1099

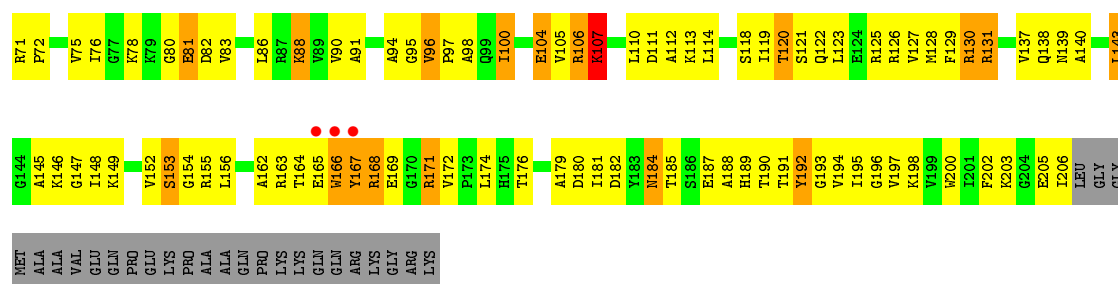


• Molecule 2: 30S ribosomal protein S3

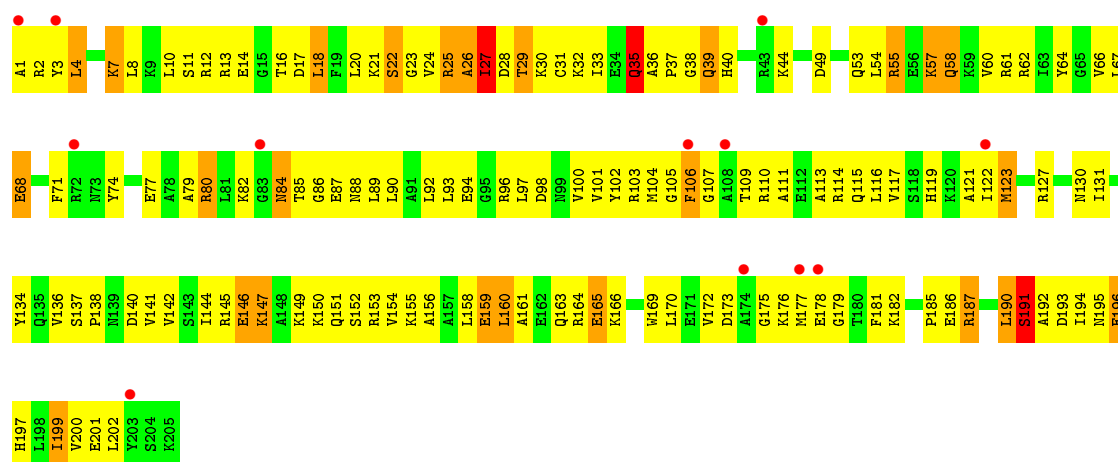


• Molecule 2: 30S ribosomal protein S3

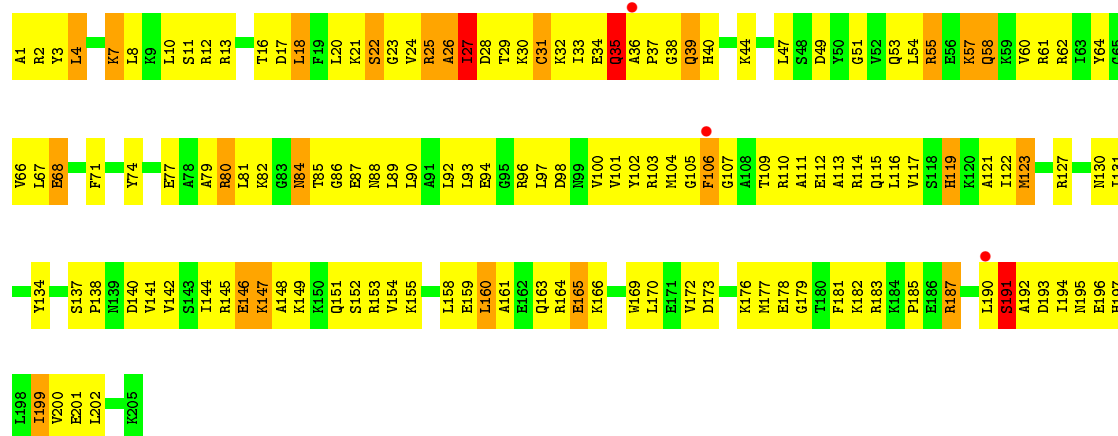




• Molecule 3: 30S ribosomal protein S4

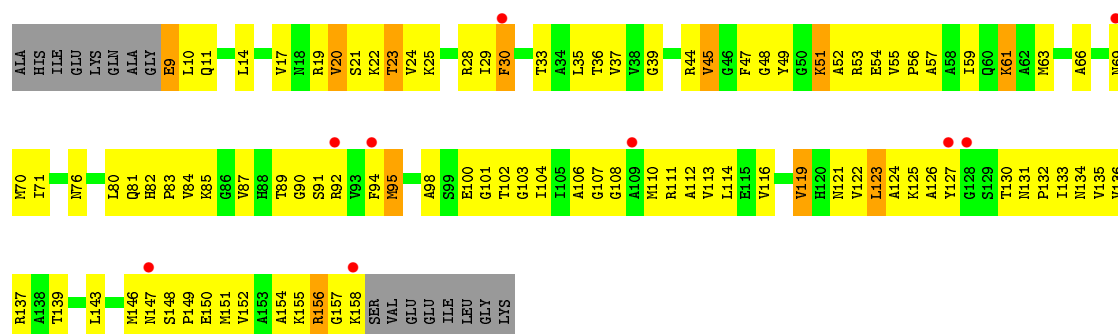


• Molecule 3: 30S ribosomal protein S4

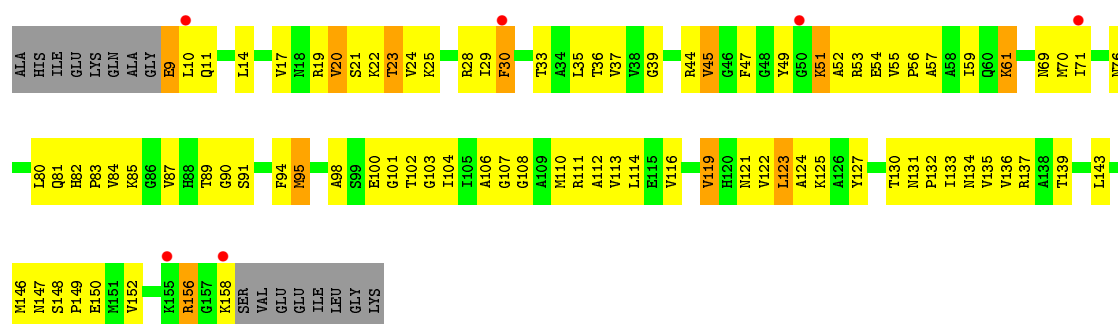


• Molecule 4: 30S ribosomal protein S5

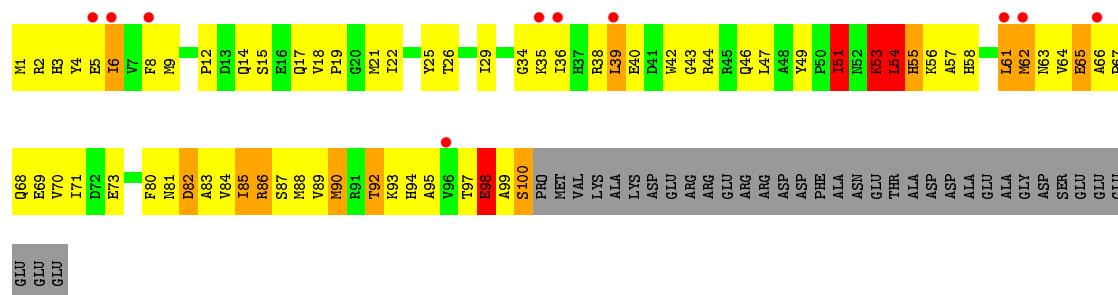
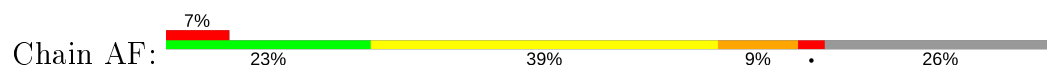




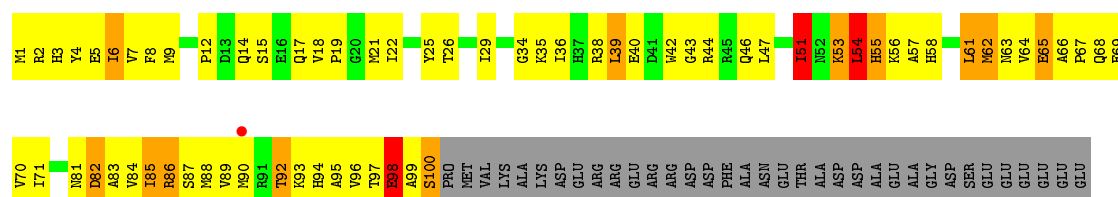
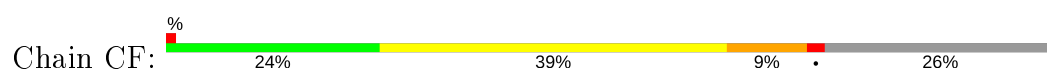
• Molecule 4: 30S ribosomal protein S5



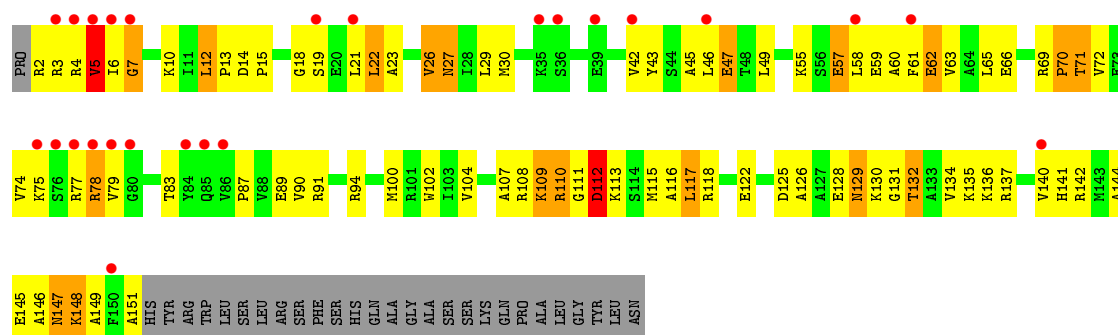
• Molecule 5: 30S ribosomal protein S6



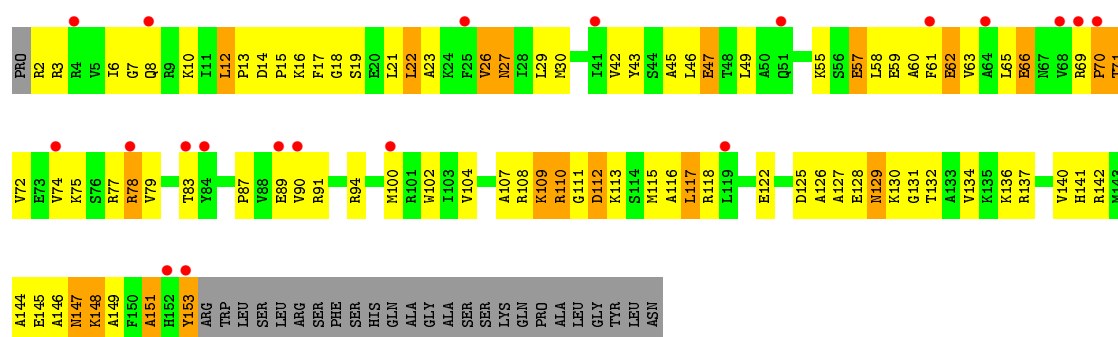
• Molecule 5: 30S ribosomal protein S6



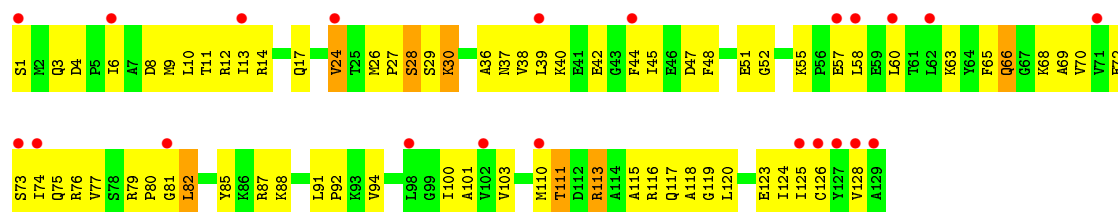
• Molecule 6: 30S ribosomal protein S7



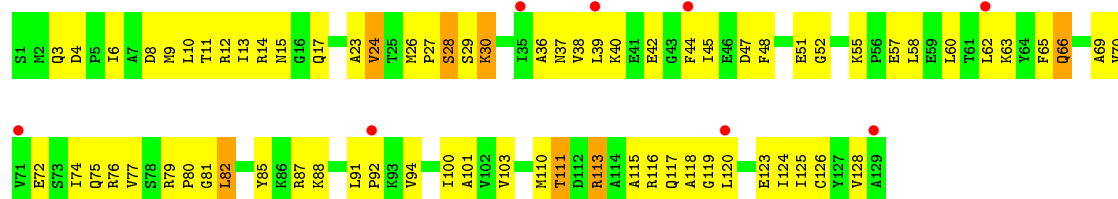
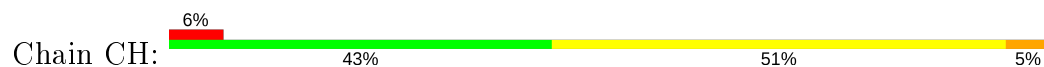
• Molecule 6: 30S ribosomal protein S7



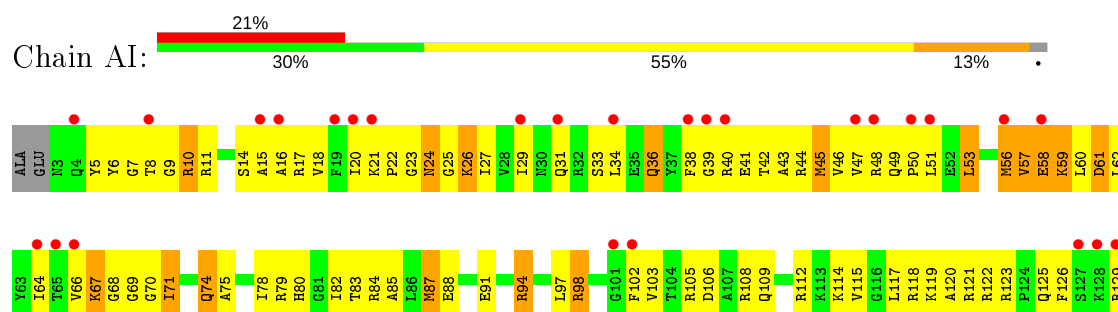
• Molecule 7: 30S ribosomal protein S8



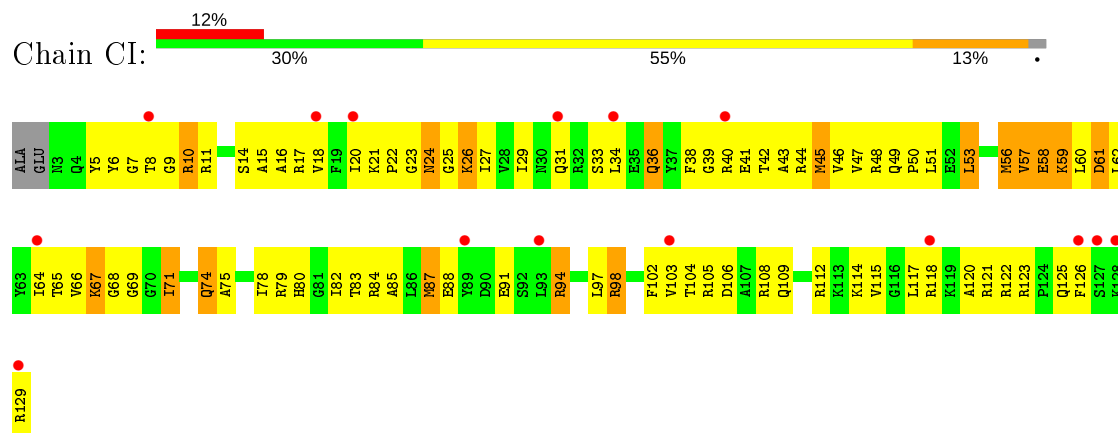
• Molecule 7: 30S ribosomal protein S8



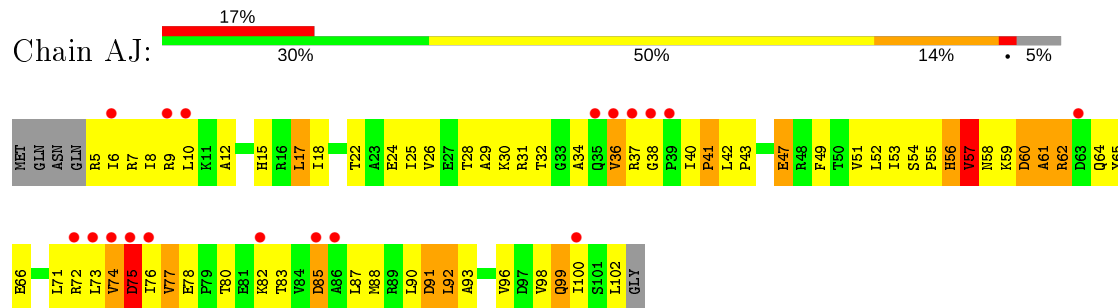
• Molecule 8: 30S ribosomal protein S9



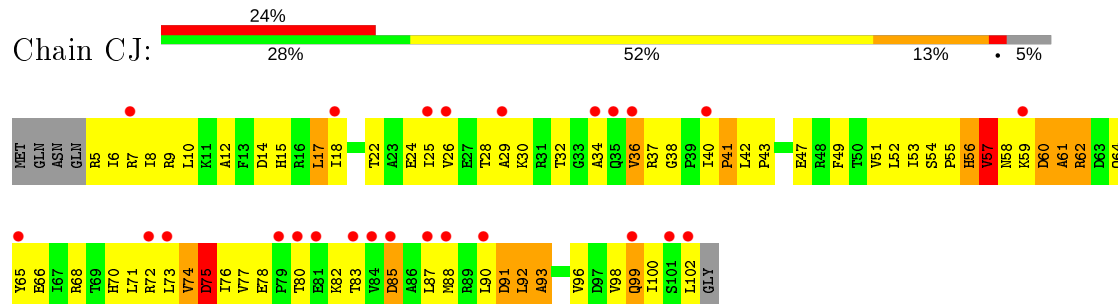
- Molecule 8: 30S ribosomal protein S9



- Molecule 9: 30S ribosomal protein S10

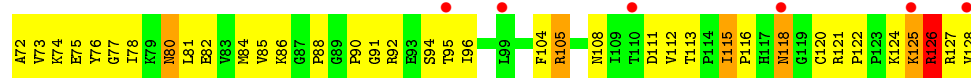
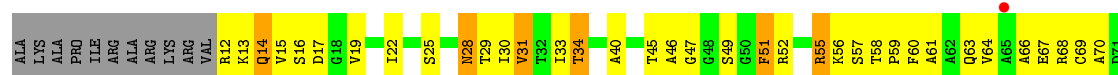


- Molecule 9: 30S ribosomal protein S10

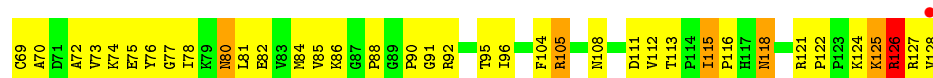


- Molecule 10: 30S ribosomal protein S11

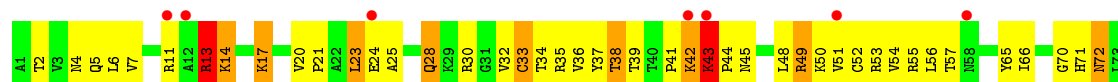




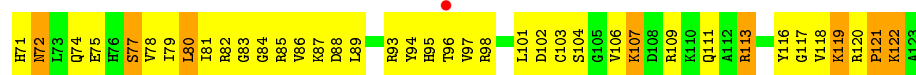
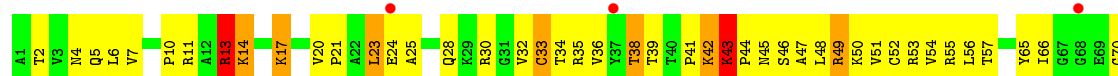
• Molecule 10: 30S ribosomal protein S11



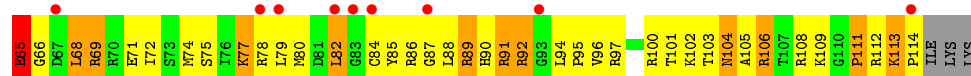
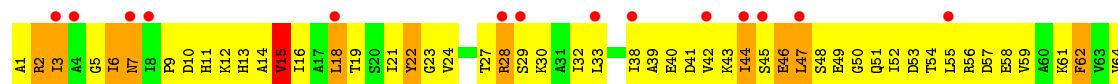
• Molecule 11: 30S ribosomal protein S12



• Molecule 11: 30S ribosomal protein S12

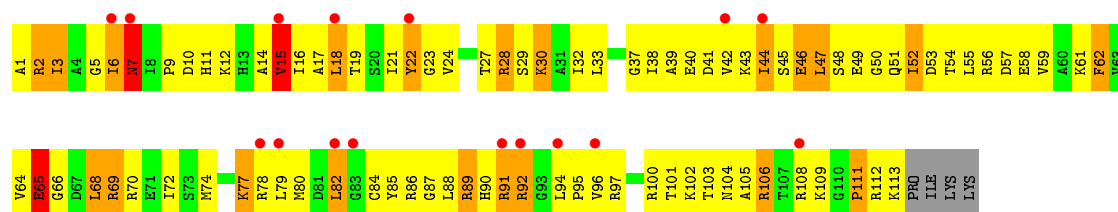


• Molecule 12: 30S ribosomal protein S13



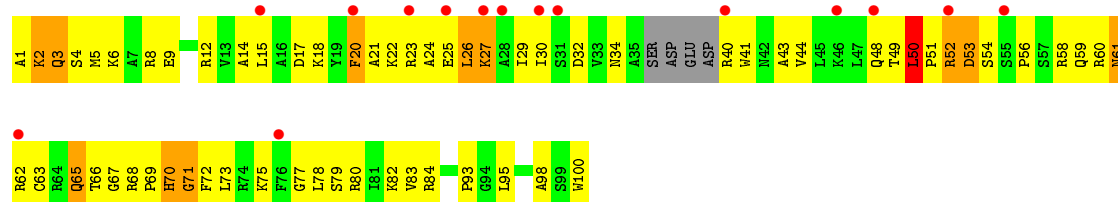
- Molecule 12: 30S ribosomal protein S13

Chain CM: 



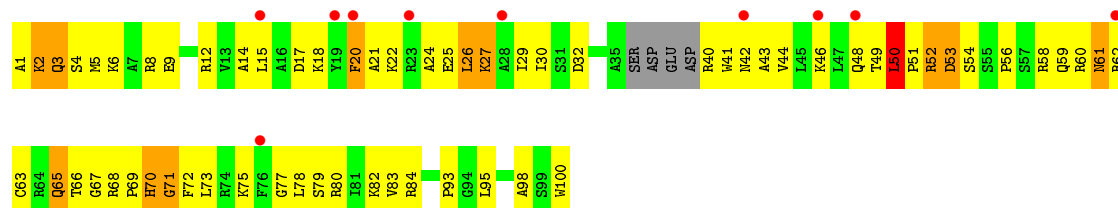
- Molecule 13: 30S ribosomal protein S14

Chain AN: 



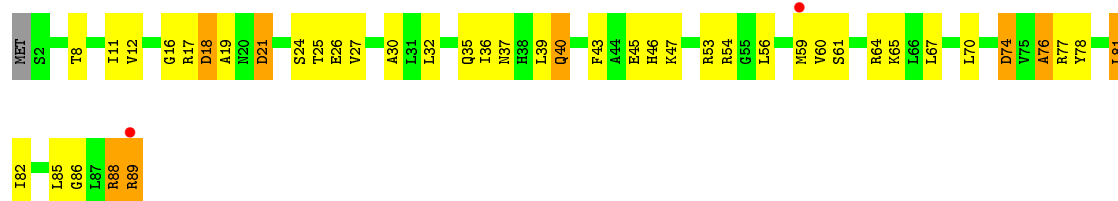
- Molecule 13: 30S ribosomal protein S14

Chain CN: 



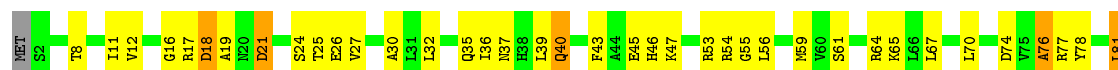
- Molecule 14: 30S ribosomal protein S15

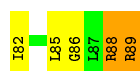
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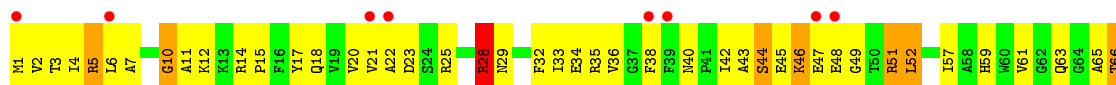
- Molecule 14: 30S ribosomal protein S15

Chain CO: 

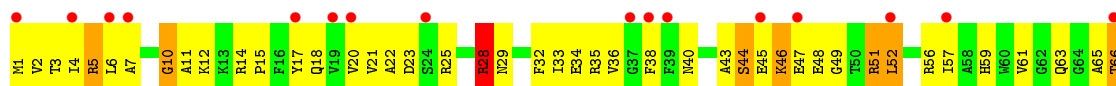




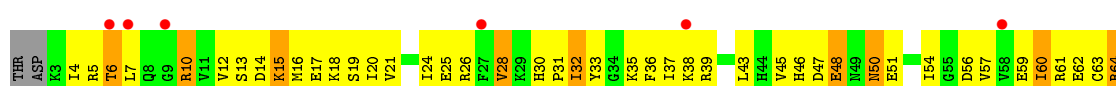
- Molecule 15: 30S ribosomal protein S16



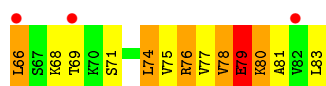
- Molecule 15: 30S ribosomal protein S16



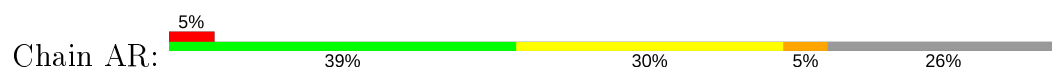
- Molecule 16: 30S ribosomal protein S17

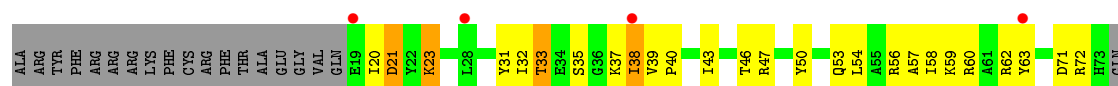


- Molecule 16: 30S ribosomal protein S17

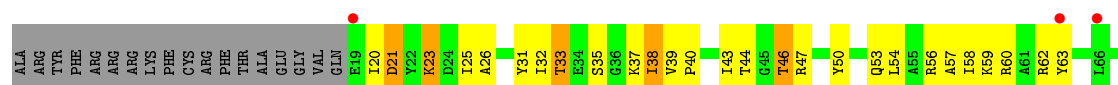


- Molecule 17: 30S ribosomal protein S18

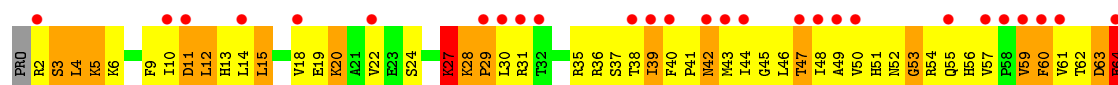
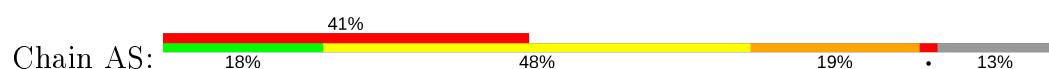




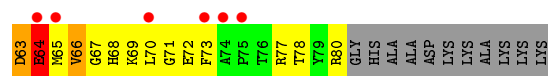
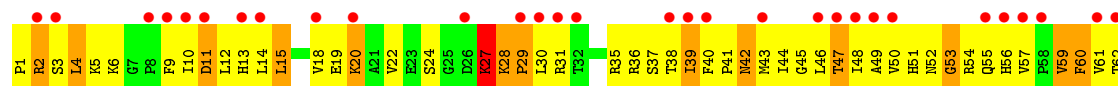
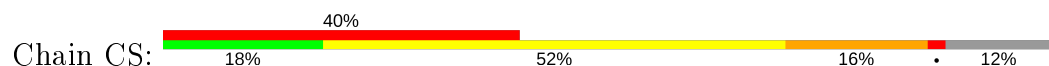
- Molecule 17: 30S ribosomal protein S18



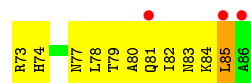
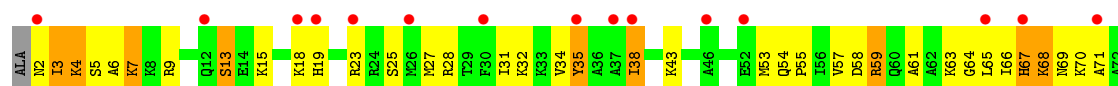
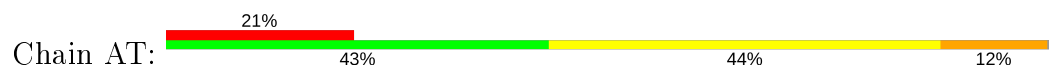
- Molecule 18: 30S ribosomal protein S19



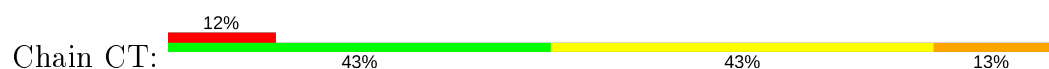
- Molecule 18: 30S ribosomal protein S19

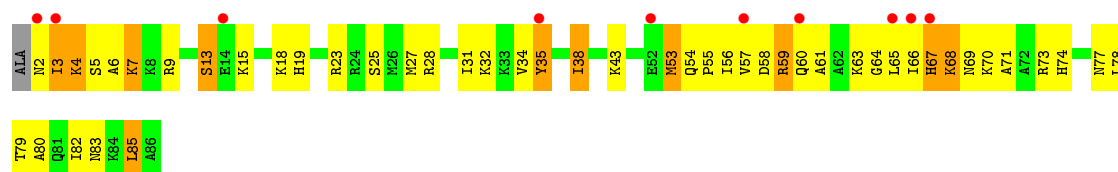


- Molecule 19: 30S ribosomal protein S20

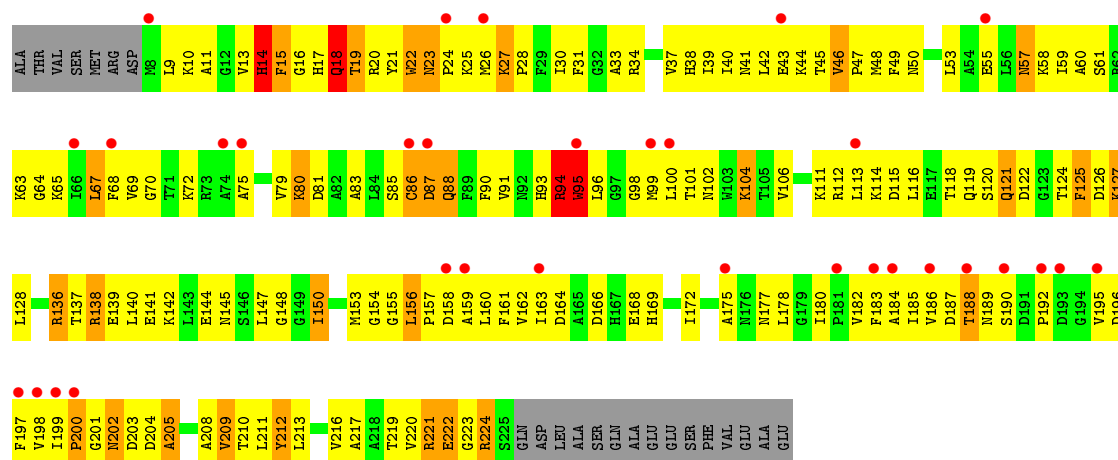


- Molecule 19: 30S ribosomal protein S20

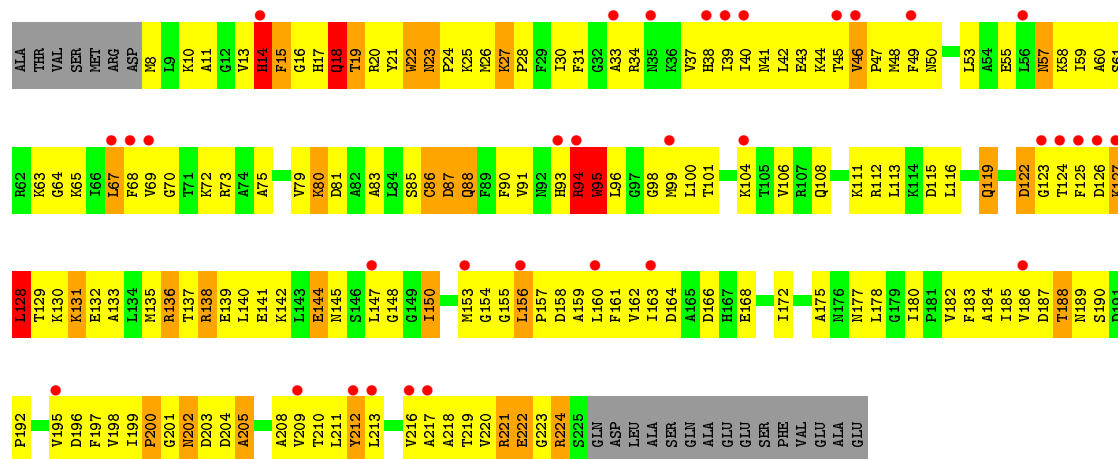




• Molecule 20: 30S ribosomal protein S2



• Molecule 20: 30S ribosomal protein S2



• Molecule 21: 30S ribosomal protein S21



ALA
ARG
ARG
THR
ARG
LEU
TYR

- Molecule 21: 30S ribosomal protein S21

Chain CU: 14% 19% 29% 21% • 27%

PRO VAL I3 K4 V5 R6 R7 E7 N8 E9 F10 F11 D12 V13 A14 L15 R16 K19 R20 R21 S21 C22 E23 K24 A25 G26 V27 L28 V31 R32 R33 R34 R35 F36 Y37 E38 K39 P40 P41 T41 T42 E43 E44 K45 R46 A47 K48 V52 K53 ARG HIS ALA LYS LYS LEU LEU ALA ARG GLU ASN ALA

ARG
ARG
THR
ARG
LEU
TYR

- Molecule 22: 5S rRNA

Chain BA: 3% 28% 58% 11% •

U G2 U5 G6 G7 C8 G9 G10 C11 C12 C13 U14 A15 G16 C17 G18 C19 G20 G24 U25 C26 C27 C28 K29 C30 C31 U32 U33 A34 C35 C36 A39 U40 U41 C42 C43 A46 C47 U48 A49 A50 A51 A52 A53 A54 U55 G56 C60 G61 C62 C63 G64 U65 A66

G69 C70 C71 U74 G75 G76 U77 A78 G79 U80 G81 U82 U87 C88 U89 C90 C91 C92 C93 A94 U95 G96 A99 G100 U103 C104 G105 G106 G107 A108 A109 C110 U111 G112 G116 G117 C118 A U

- Molecule 22: 5S rRNA

Chain DA: 3% 27% 62% 9% •

U G2 C3 U5 G6 G7 C8 G9 C10 C11 C12 G13 U14 A15 G16 C17 G18 C19 G20 G21 G24 U25 C26 C27 C28 A29 C30 C31 U32 U33 A34 C35 C36 A39 U40 G41 C42 C43 A46 C47 U48 C49 A50 A51 A52 A53 A54 U55 G56 C60 G61 C62 C63 G64 U65

A66 G69 C70 C71 G75 G76 U77 G81 U82 G85 G86 U87 C88 U89 C90 C91 C92 C93 A94 U95 G96 G97 G98 A99 U103 C104 G105 G106 G107 A108 A109 C110 U111 G112 G113 C114 A115 G116 G117 C118 A U

- Molecule 23: 23S rRNA

Chain BB: 2% 29% 58% 11% ••

G1 G2 U3 U4 A5 A6 C7 C8 C11 U12 C15 G16 G17 U18 C19 C20 A21 C22 G26 G27 U28 A28 U29 G30 C31 C32 C33 G34 G35 G36 C37 A38 G39 U40 C41 A42 G45 G46 C47 G48 A49 U50 G51 U62 A63 A64 U65 G66 U67 G68 C69 G70 A71 U72 A73 A74

G75 C76 G77 U78 C79 G80 G81 U82 A83 A84 G85 U90 A91 U92 G93 A94 A95 A96 C97 G98 U99 A100 U101 U102 A103 A104 C105 G106 G107 G108 C109 C110 A111 U112 U113 U114 C115 C116 G117 A118 A119 U120 G121 G122 G123 G124 U125 A126 A127 C128 C129 C130 A131 G132 C133 G134 U135 A136 U137

U138 U139 G140 G141 A142 C143 A144 C145 A146 C147 U150 C151 A152 U153 U154 A155 A156 C157 A160 A161 U162 C163 C164 A165 U166 A167 G168 G169 U170 U171 A172 U173 G174 U175 A176 G177 G178 G179 A180 A181 A182 C183 C184 G185 G189 A190 A191 C192 U193 A196 A197 C198 A199 A204 G205

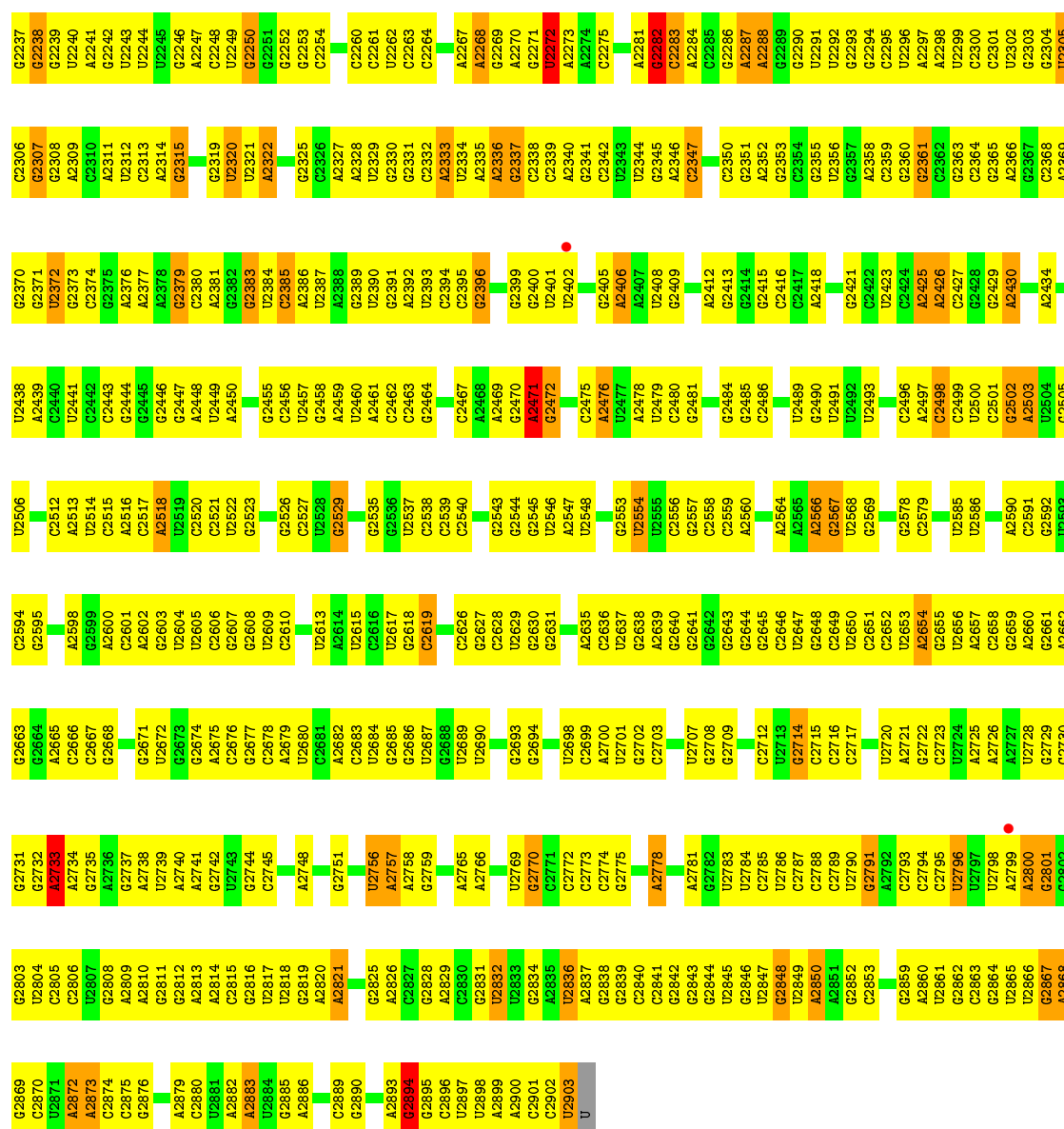
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U1203	A1131	G1060	A983	U913	C850	G776	G697	A632	C565	A282	G425	A347	A282	C208
A1205	U1132	U1060	A984	U913	C851	G777	G698	A633	C566	G498	G426	G350	G284	C210
G1206	A1133	U1061	C987	A918	C852	A781	G699	A634	C567	U499	U427	C351	G285	C211
C1207	U1134	G1062	A988	U919	C853	A782	G700	C635	C568	G500	A428	A352	U286	G212
U1208	C1135	G1063	A989	A920	C854	A783	U703	G636	C569	A504	U431	C353	G287	G215
G1209	G1136	C1064	G989	C921	C855	G784	G704	A637	C570	A505	U432	A354	U288	A216
C1210	G1137	U1065	C990	G922	C856	G785	A705	G638	C571	G506	A433	U355	G289	A217
G1211	G1138	C991	A991	C923	C857	G786	A706	U639	C572	A507	C433	G356	U290	A218
G1212	G1139	C992	C992	G924	C858	G787	G707	C640	C573	A508	U434	U357	G291	A219
U1219	C1140	A1069	C995	A925	C859	A788	G708	G641	C574	C509	U358	G361	U292	G220
G1220	U1141	A1070	C996	G926	A861	U709	U709	A643	C575	C510	U437	A362	G295	G221
C1221	A1142	G1071	A996	A927	G862	A794	U710	A644	C576	U511	G438	G363	U296	A221
U1222	C1143	C1072	C997	A928	A863	C795	G711	A645	C577	A512	U439	G364	G297	A222
G1228	A1147	C1076	A1000	G930	C864	C796	G712	U646	C578	A513	U440	U365	G297	A223
C1229	U1148	U1077	A1001	G931	C865	A802	G713	G647	C579	A514	G442	U366	G298	U224
A1230	G1149	U1078	A1007	U932	C866	U803	U714	G648	C580	A515	G443	G370	A300	C225
U1231	A1151	C1079	C1007	U933	C867	A804	A715	G649	C581	G518	G444	A371	A301	A226
G1232	C1152	U1080	A1008	A934	C868	G805	C717	C850	C582	U519	G445	G372	G302	G230
U1233	G1153	U1081	C1009	A935	C869	G806	A718	U653	C583	A522	G446	A374	G303	A231
G1236	A1154	U1082	A1010	G936	C870	U807	A719	A654	C584	C523	G452	C378	U304	G232
A1237	U1155	U1083	A1011	C937	C871	U810	A720	A655	C585	G524	A453	G379	C305	A233
G1238	G1156	A1084	C1012	G938	C872	U811	A721	G656	C586	G525	A454	U373	U306	U234
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G1242	A1159	U1087	U1017	A943	C875	U814	A727	G659	C589	A528	C457	U376	A310	C237
C1243	U1160	U1088	A1018	A944	C876	C815	G728	A661	C590	A529	G458	A382	A309	C238
U1244	G1161	A1089	U1019	A945	C877	C816	G729	A662	C591	A530	U459	G386	A311	G242
G1245	U1162	U1090	A1020	A946	C878	C817	A730	G662	C592	A531	A460	U387	C314	U243
A1246	G1163	U1091	C946	A947	C879	U818	A731	G663	C593	U534	C461	U388	G315	A244
U1247	U1164	C1092	C948	A948	C880	U819	A732	G664	C594	G535	G462	U389	G316	G245
G1248	A1165	U1093	G949	G950	C881	A820	G740	U665	C595	G536	G463	U390	G319	C246
U1249	G1166	U1094	C951	C951	C882	A821	U741	U666	C596	G537	A464	U391	A320	G247
G1250	U1167	A1098	G952	C952	C883	G822	A742	U667	C597	A538	G465	U392	U321	G248
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U1252	U1169	U1101	C954	C954	C885	A825	U744	U669	C599	A541	G467	G396	A324	C253
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A1260	A1177	U1109	U967	U967	C893	G835	A756	G682	C550	G553	A483	G411	G332	A272
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A1264	U1179	U1111	C969	C969	C895	G837	C765	U686	C552	G555	C485	C413	C334	C274
G1265	G1180	C1112	U970	U970	C896	C838	U766	C687	C553	A556	C486	C414	C335	C275
A1266	U1181	U1113	C971	C971	C897	C839	U767	U688	C554	C557	C487	C415	C336	G338
G1267	G1182	C1114	C972	C972	C898	G841	U768	U689	C555	U558	C488	U416	C337	U276
A1268	U1183	U1115	C973	C973	C899	U842	G770	G690	C556	G559	C489	C417	U339	C277
C1270	G1184	C1116	A974	A974	C900	U843	G771	G691	C557	C560	A490	C418	A340	G277
U1271	U1185	U1117	C975	C975	C901	U844	C772	G692	C558	G560	A491	U419	A341	A278
G1272	G1186	C1118	A976	A976	C902	U845	U773	G693	C559	C604	A492	C420	C341	G279
A1272	U1187	U1119	C977	C977	C903	U846		A693	C560		G494			
	U1188	U1120	C978	C978	C904	U847								
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	A1210	U1141	C1000	C1000	C926	U869								
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	C1221	C1146	C1005	C1005	C931	U874								
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	U1244	U1160	C1019	C1019	C945	U888								
	C1245	G1161	C1020	C1020	C946	U889								
	G1246	U1162	C1021	C1021	C947	U890								
	A1247	A1163	C1022	C1022	C948	U891								
	U1248	C1164	C1023	C1023	C949	U892								
	G1249	U1165	C1024	C1024	C950	U893								
	C1250	A1166	C1025	C1025	C951	U894								
	U1251	U1167	C1026	C1026	C952	U895								
	G1252	G1168	C1027	C1027	C953	U896								
	A1253	U1169	C1028	C1028	C954	U897								
	U1254	C1169	C1029	C1029	C955	U898								
	G1255	U1170	C1030	C1030	C95									



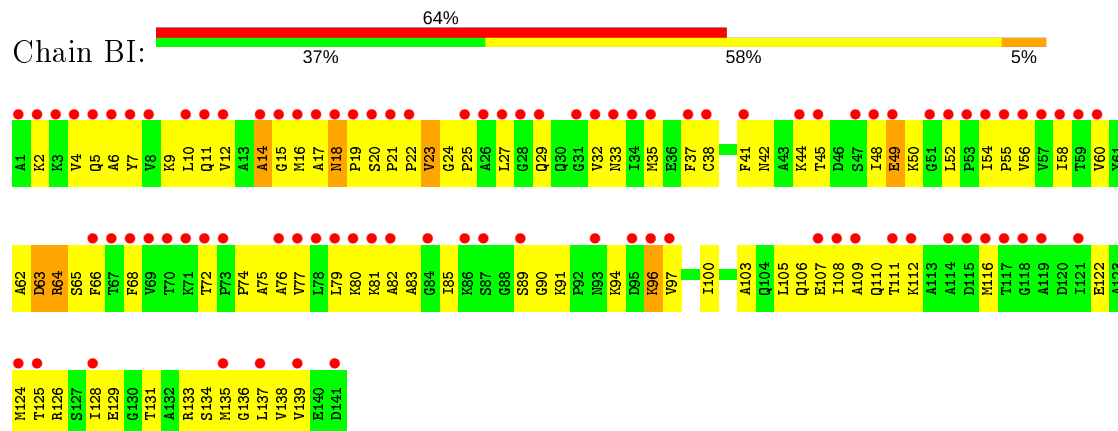
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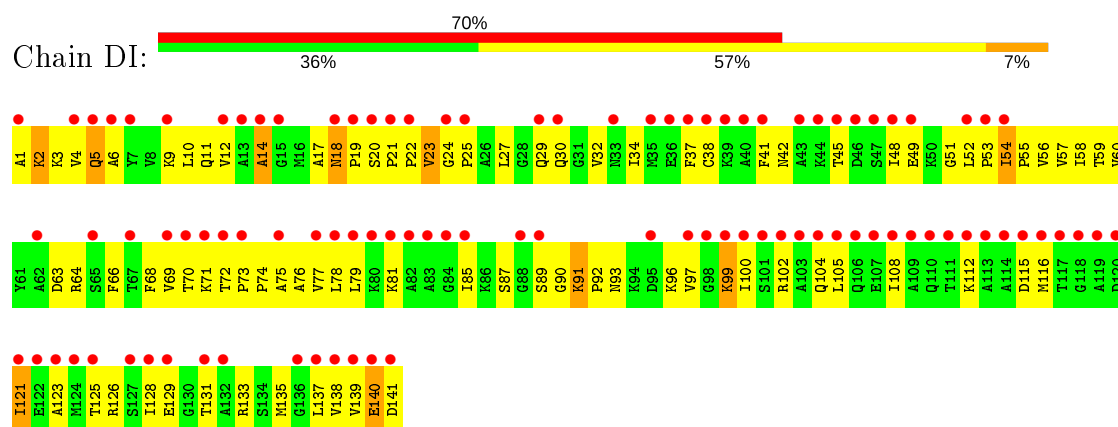




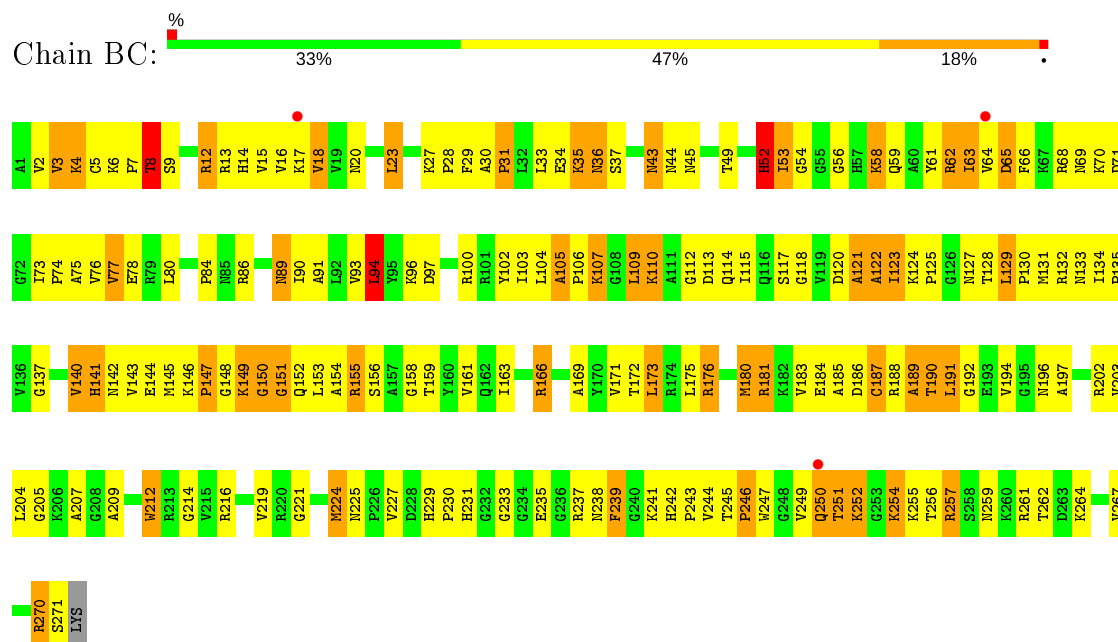
• Molecule 24: 50S ribosomal protein L11



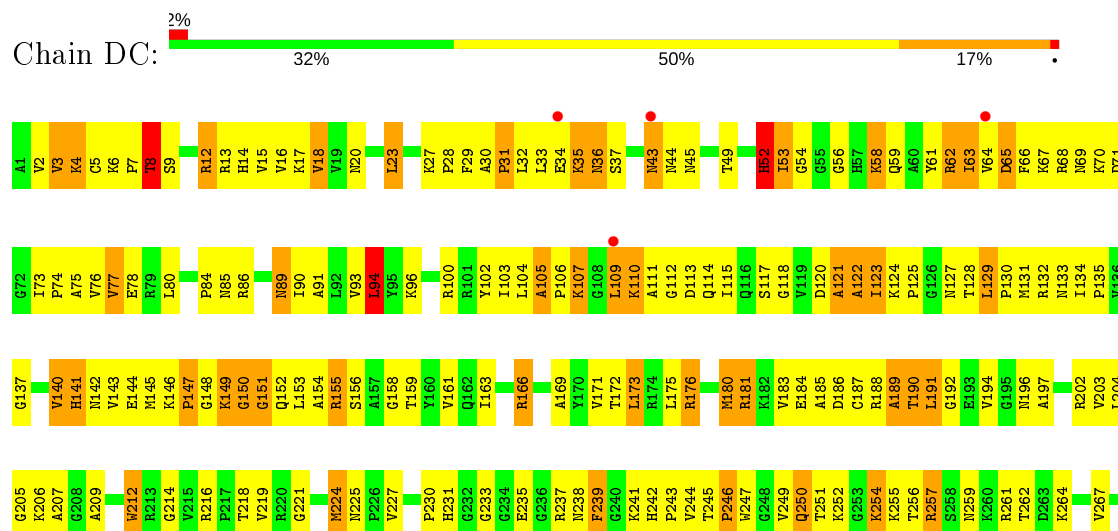
• Molecule 24: 50S ribosomal protein L11



• Molecule 25: 50S ribosomal protein L2

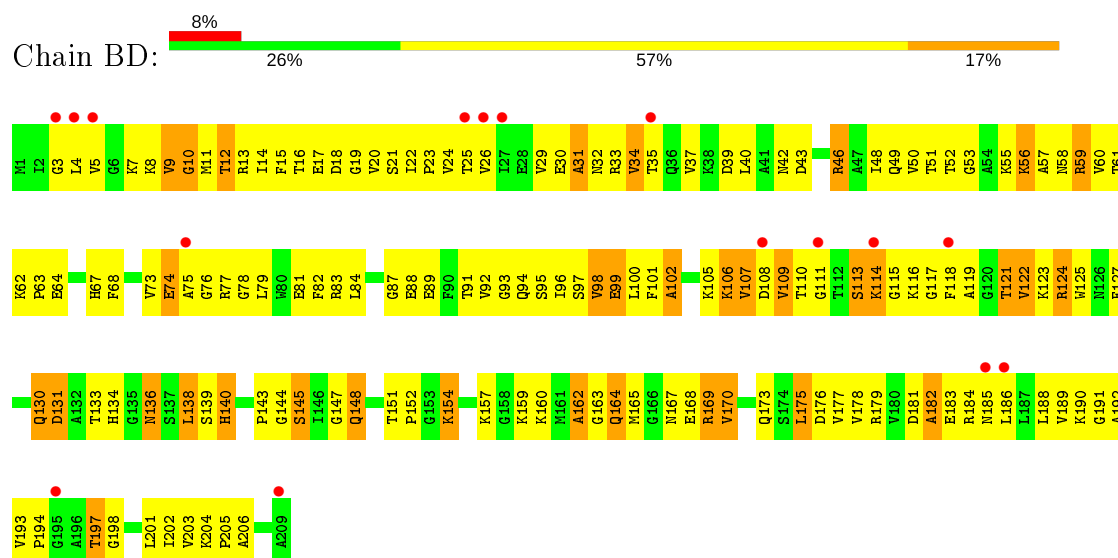


• Molecule 25: 50S ribosomal protein L2

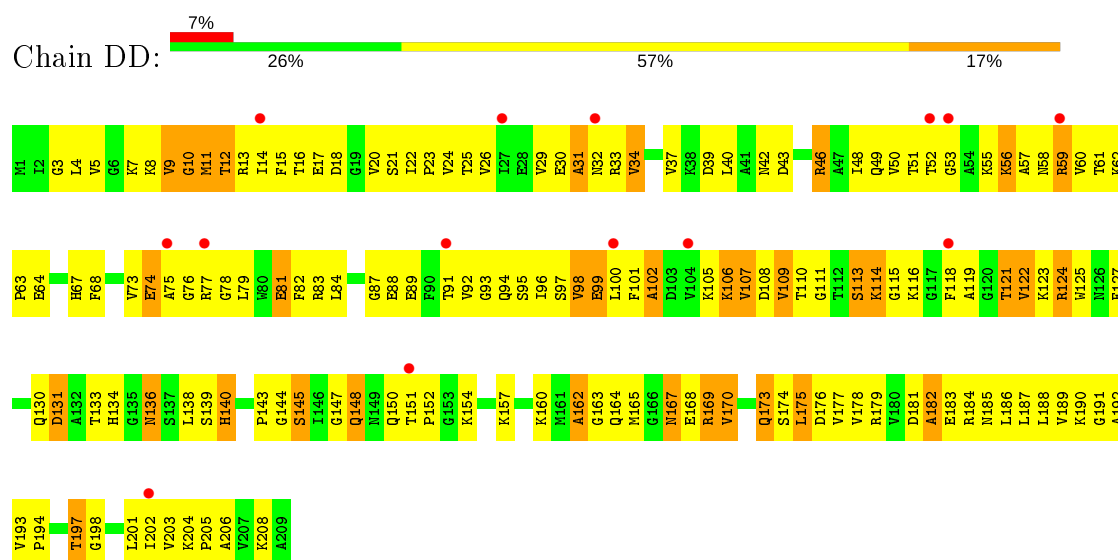




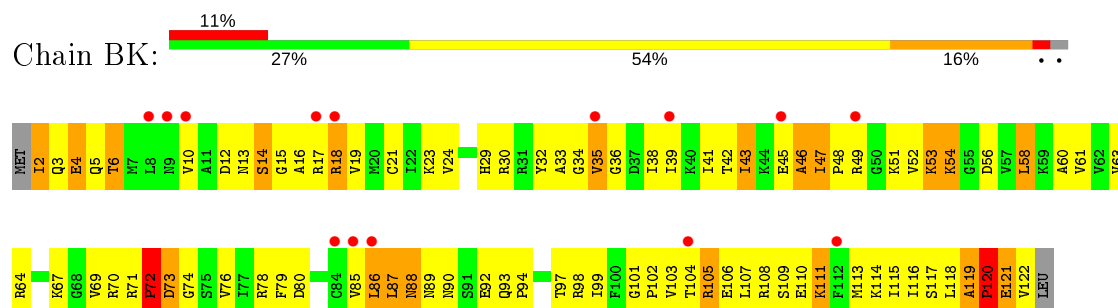
• Molecule 26: 50S ribosomal protein L3



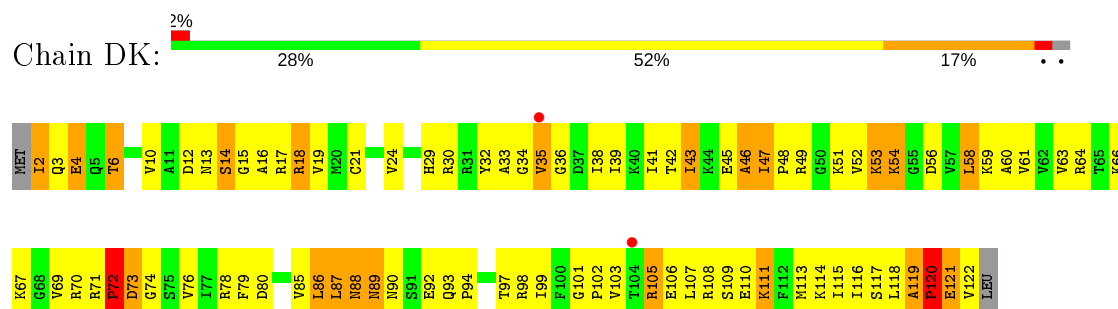
• Molecule 26: 50S ribosomal protein L3



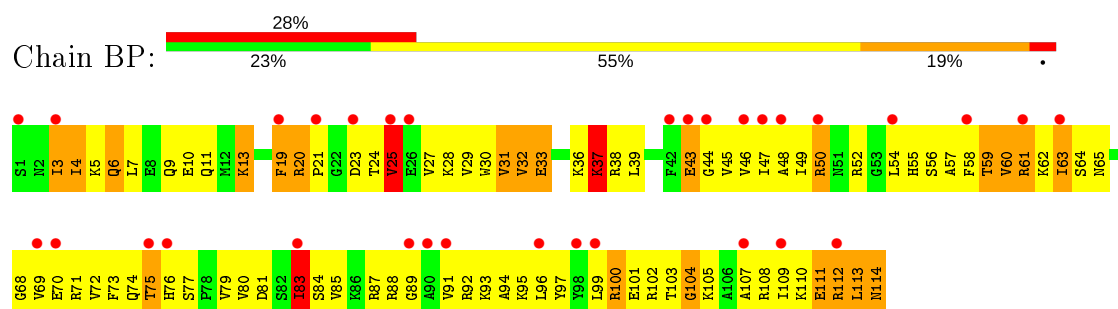
• Molecule 27: 50S ribosomal protein L14



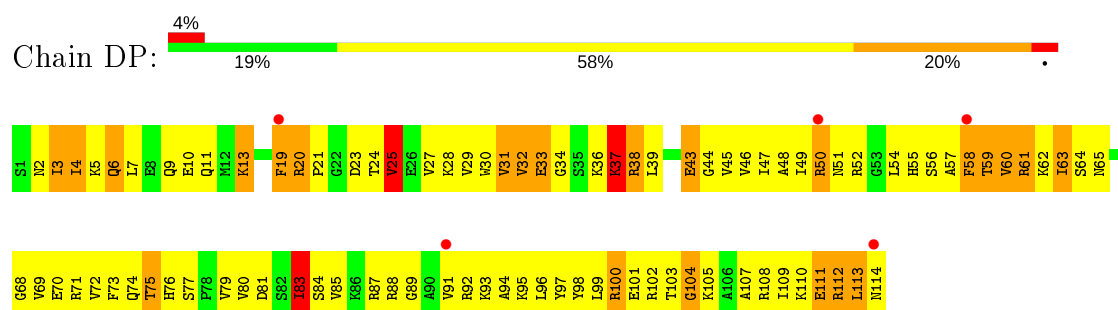
- Molecule 27: 50S ribosomal protein L14



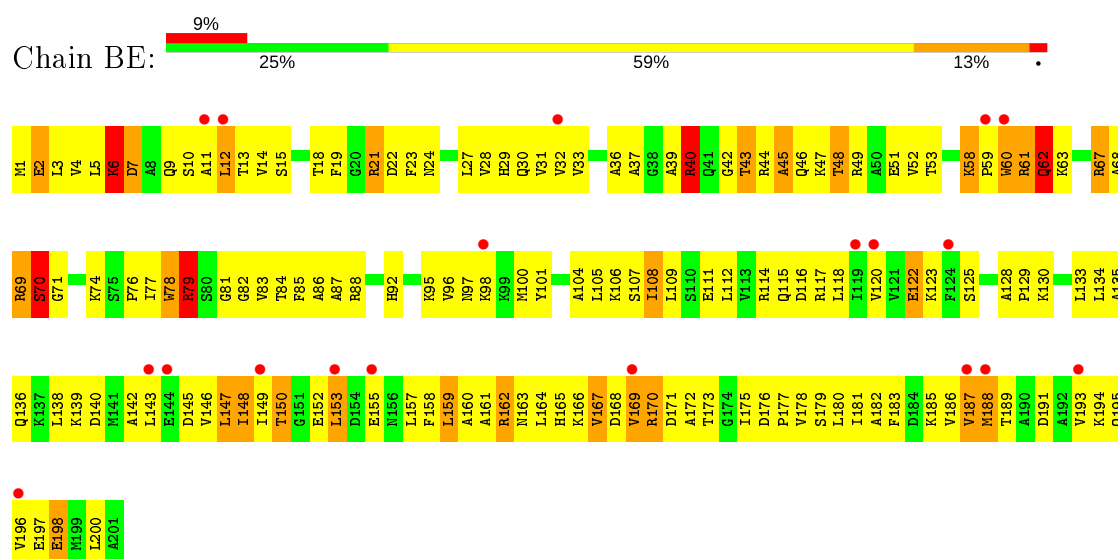
- Molecule 28: 50S ribosomal protein L19



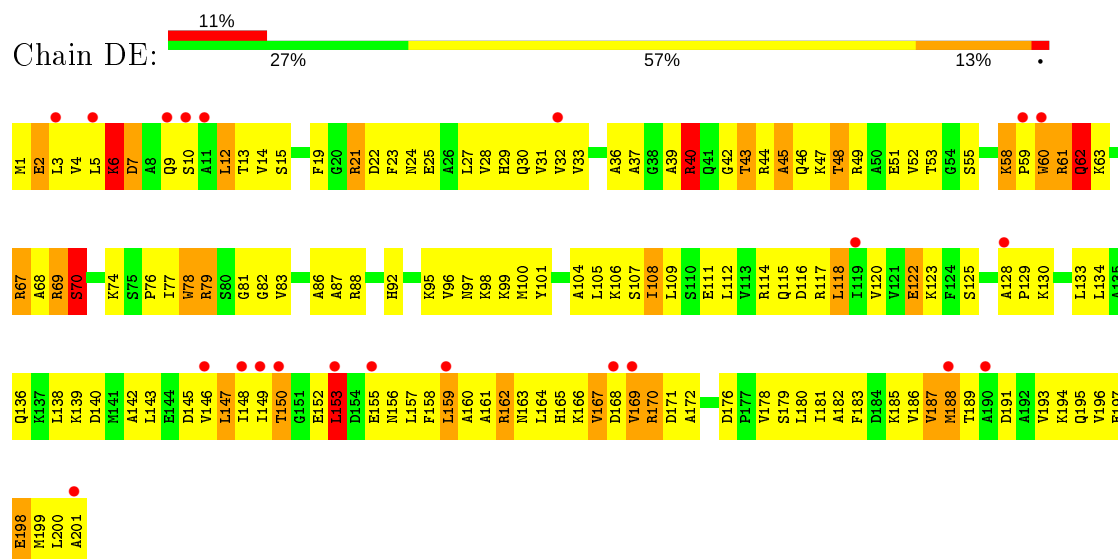
- Molecule 28: 50S ribosomal protein L19



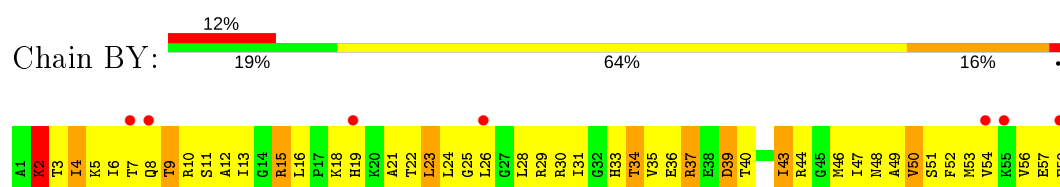
- Molecule 29: 50S ribosomal protein L4



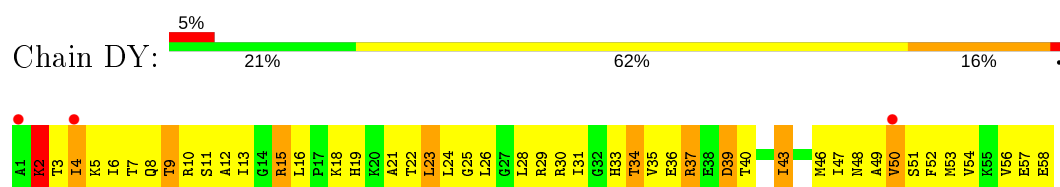
- Molecule 29: 50S ribosomal protein L4



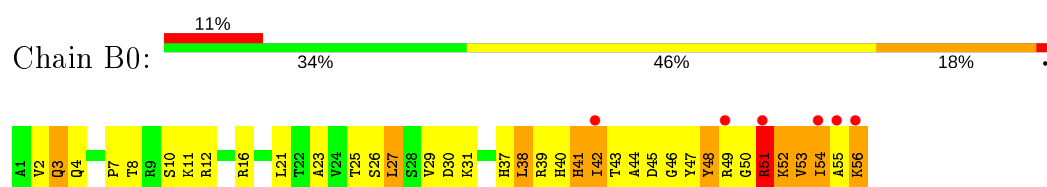
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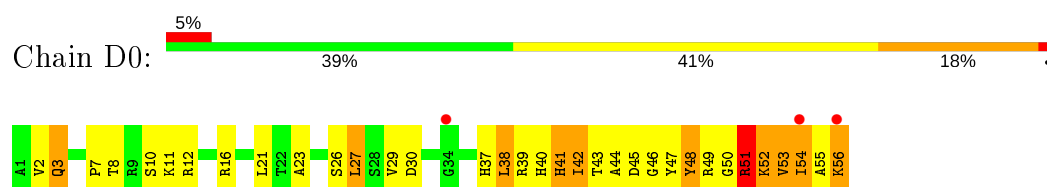
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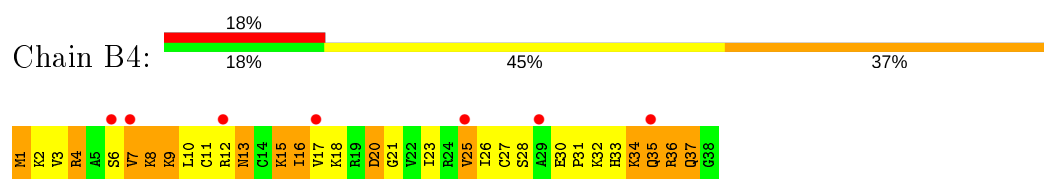
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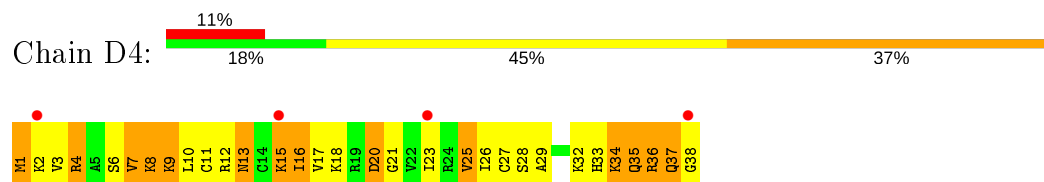
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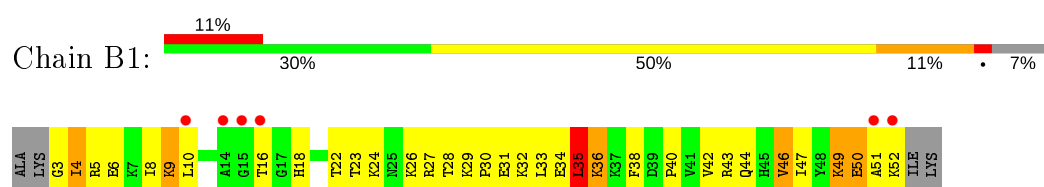
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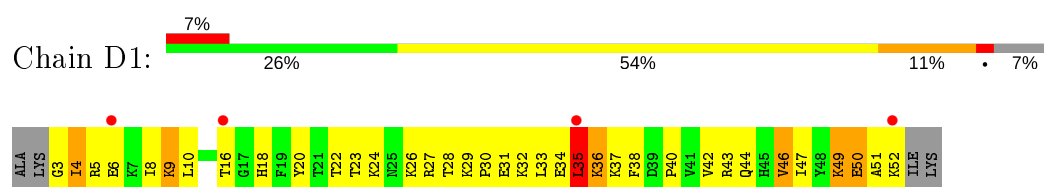
- Molecule 32: 50S ribosomal protein L36



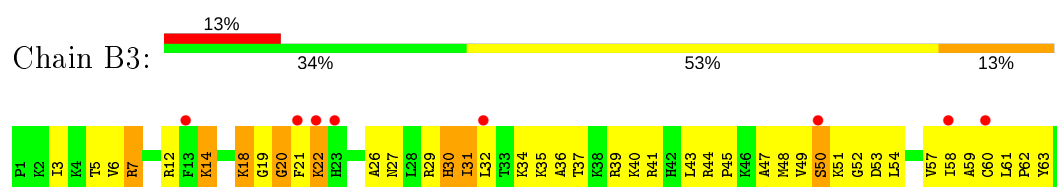
- Molecule 33: 50S ribosomal protein L33



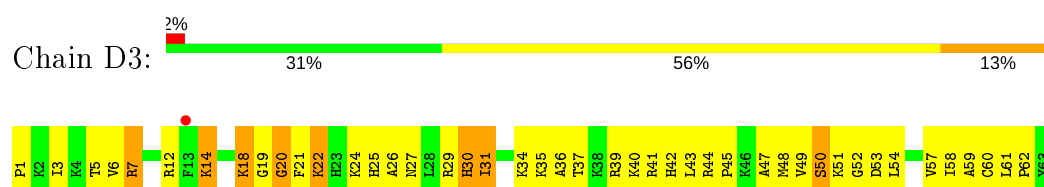
- Molecule 33: 50S ribosomal protein L33



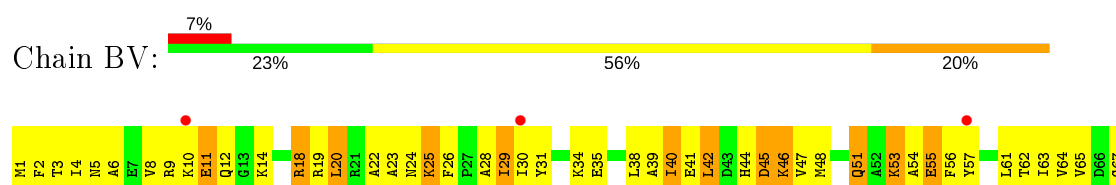
- Molecule 34: 50S ribosomal protein L35

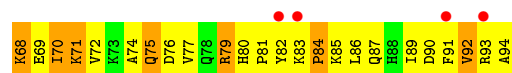


- Molecule 34: 50S ribosomal protein L35

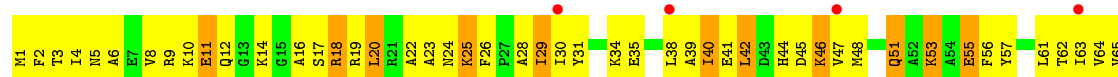


- Molecule 35: 50S ribosomal protein L25

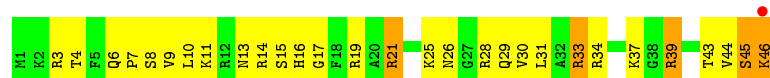




- Molecule 35: 50S ribosomal protein L25



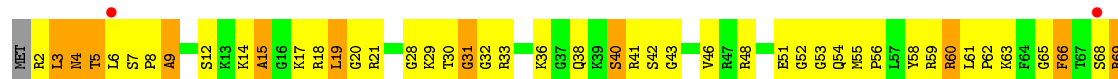
- Molecule 36: 50S ribosomal protein L34



- Molecule 36: 50S ribosomal protein L34

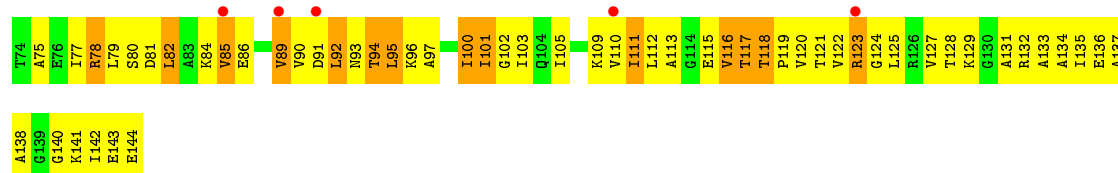


- Molecule 37: 50S ribosomal protein L15

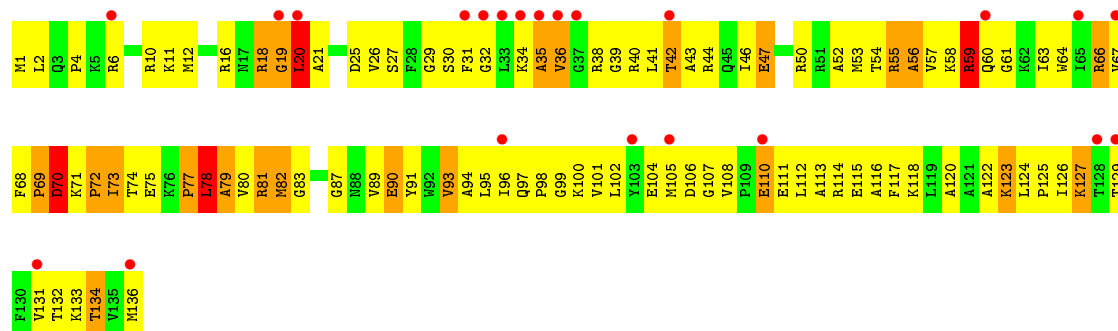


- Molecule 37: 50S ribosomal protein L15

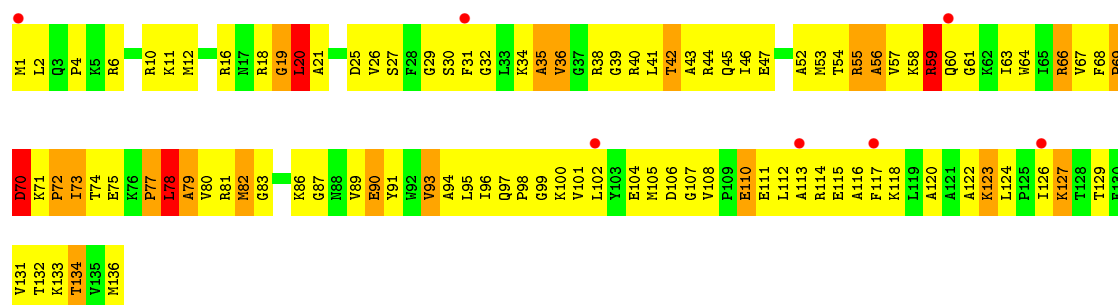




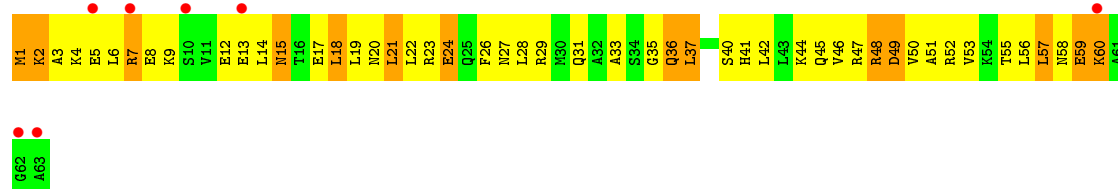
• Molecule 38: 50S ribosomal protein L16



• Molecule 38: 50S ribosomal protein L16



• Molecule 39: 50S ribosomal protein L29

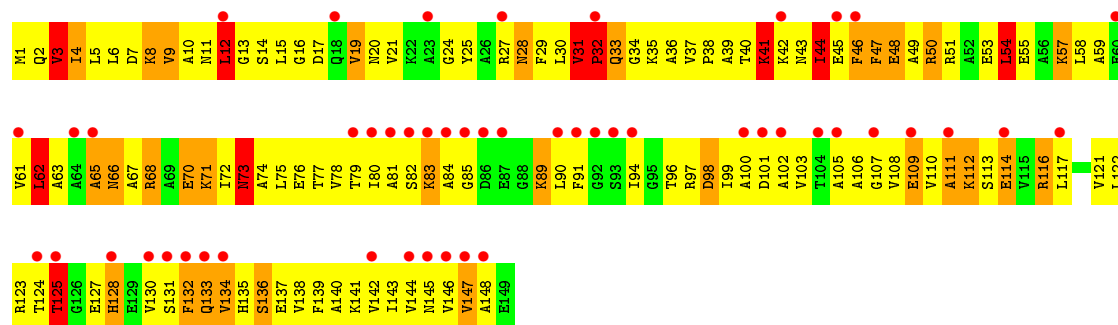
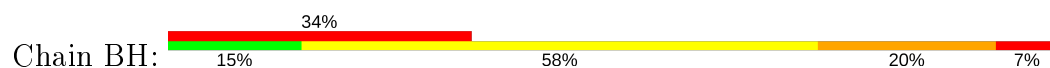


• Molecule 39: 50S ribosomal protein L29

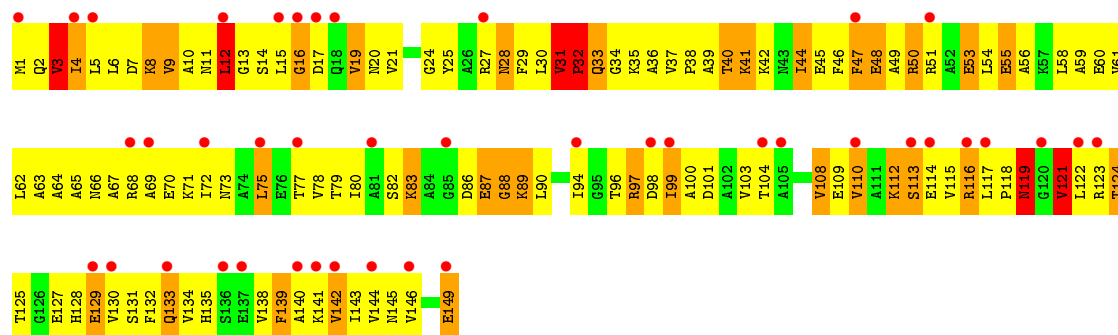




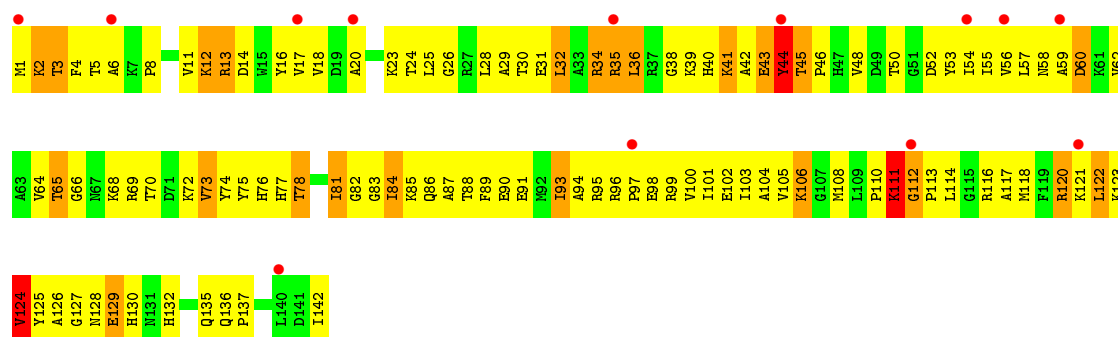
• Molecule 40: 50S ribosomal protein L9



• Molecule 40: 50S ribosomal protein L9



• Molecule 41: 50S ribosomal protein L13

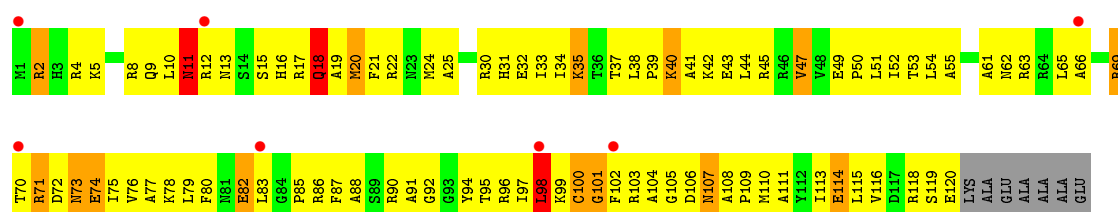


• Molecule 41: 50S ribosomal protein L13

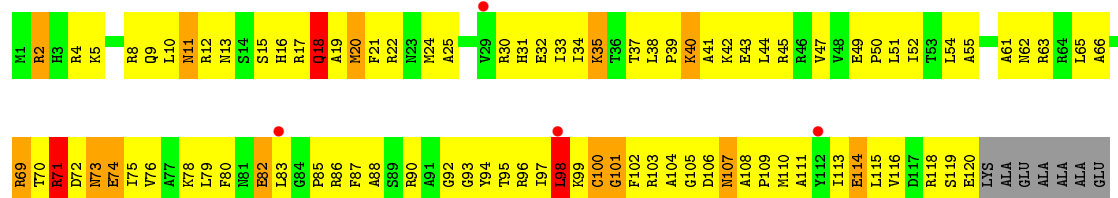




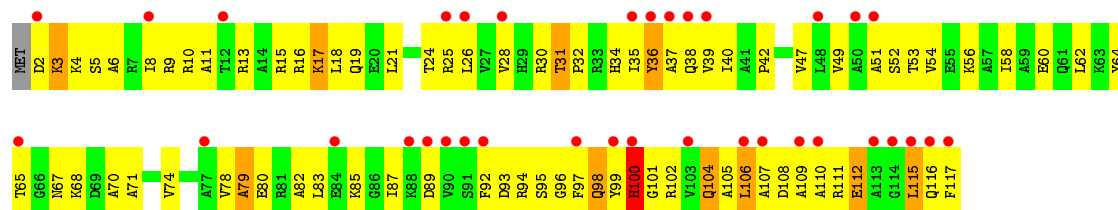
• Molecule 42: 50S ribosomal protein L17



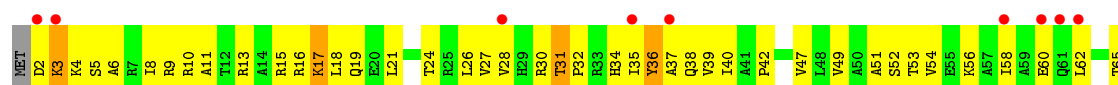
• Molecule 42: 50S ribosomal protein L17

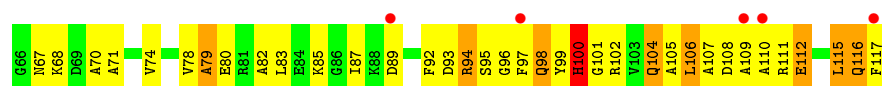


• Molecule 43: 50S ribosomal protein L18

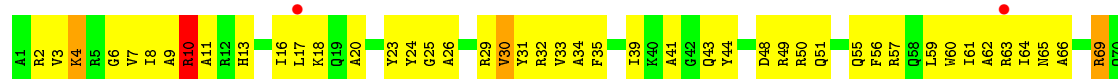


• Molecule 43: 50S ribosomal protein L18





- Molecule 44: 50S ribosomal protein L20



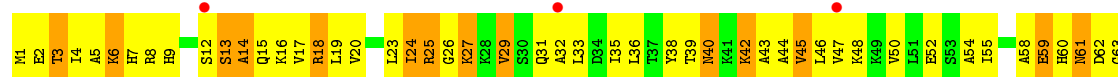
- Molecule 44: 50S ribosomal protein L20



- Molecule 45: 50S ribosomal protein L22

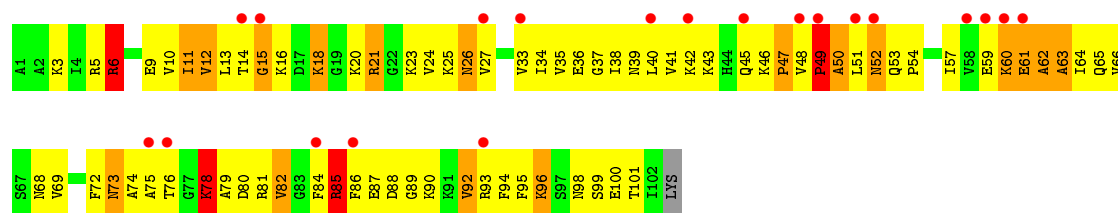


- Molecule 45: 50S ribosomal protein L22

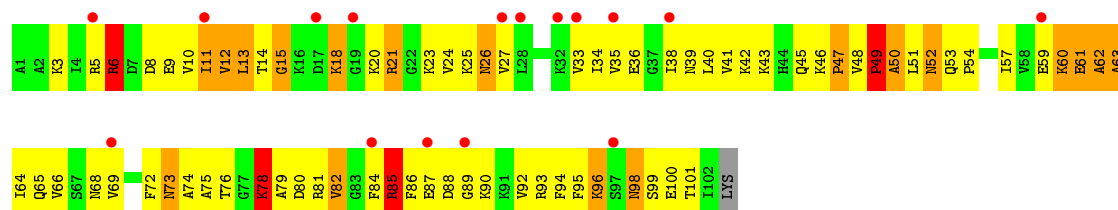


- Molecule 46: 50S ribosomal protein L24

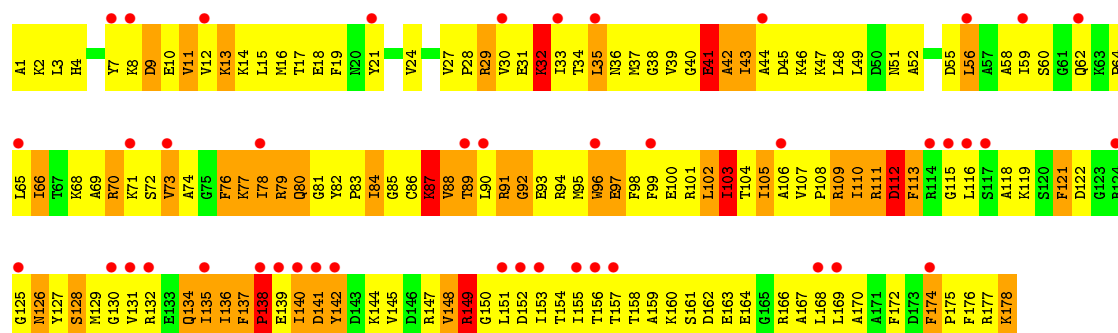
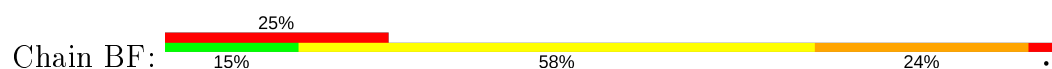




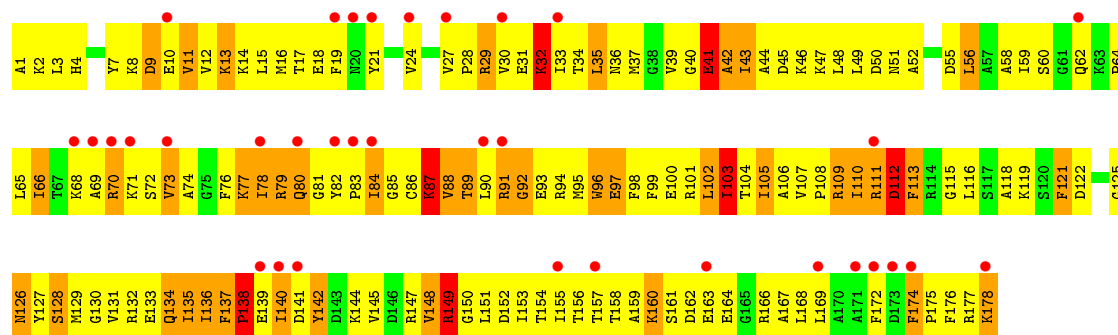
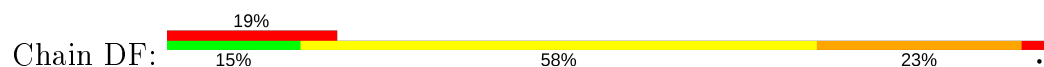
• Molecule 46: 50S ribosomal protein L24



• Molecule 47: 50S ribosomal protein L5

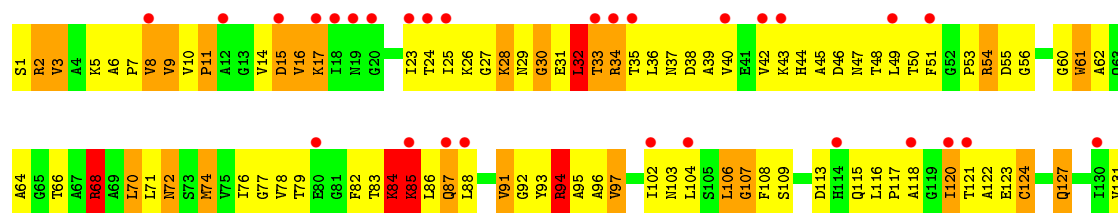


• Molecule 47: 50S ribosomal protein L5

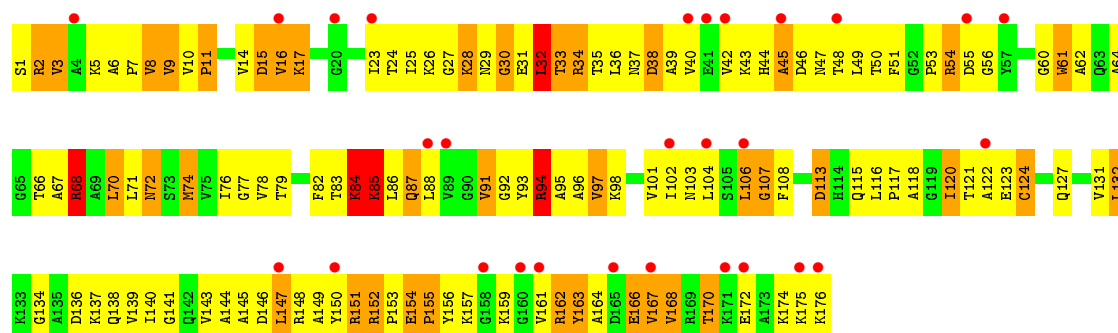


• Molecule 48: 50S ribosomal protein L6

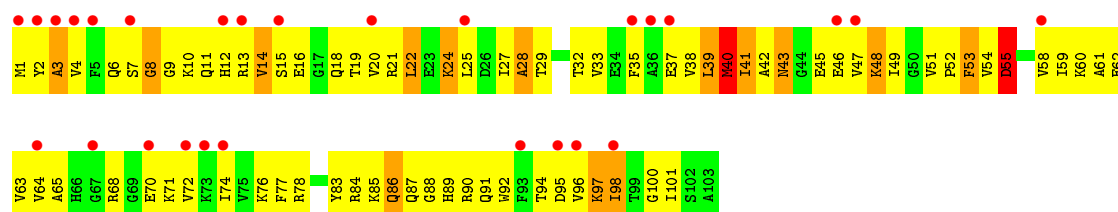




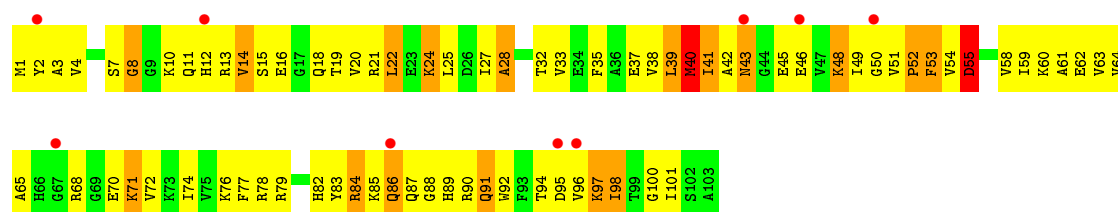
• Molecule 48: 50S ribosomal protein L6



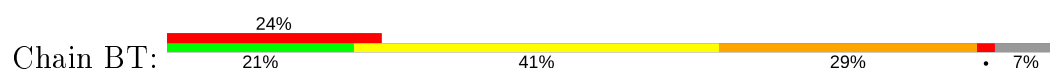
• Molecule 49: 50S ribosomal protein L21

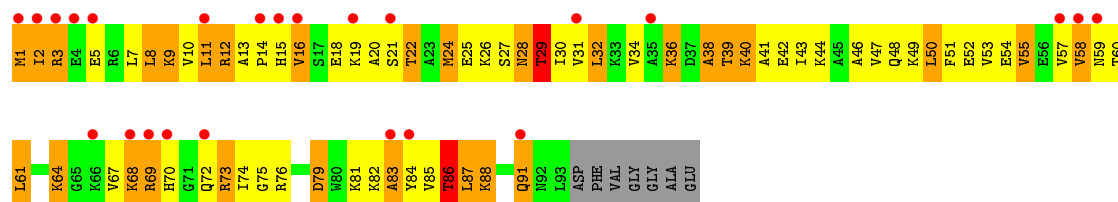


• Molecule 49: 50S ribosomal protein L21

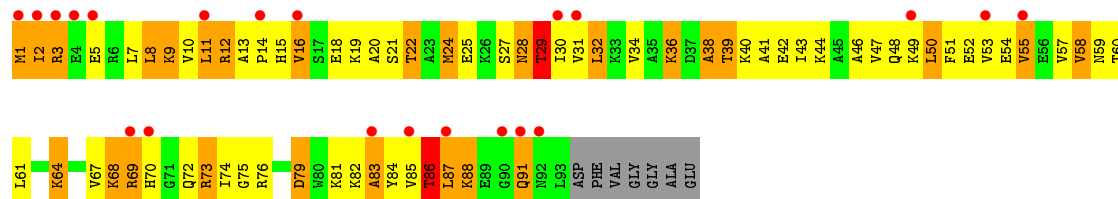
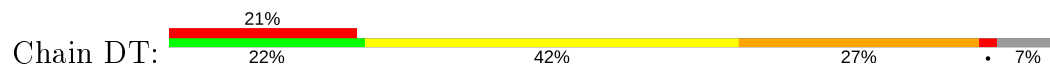


• Molecule 50: 50S ribosomal protein L23

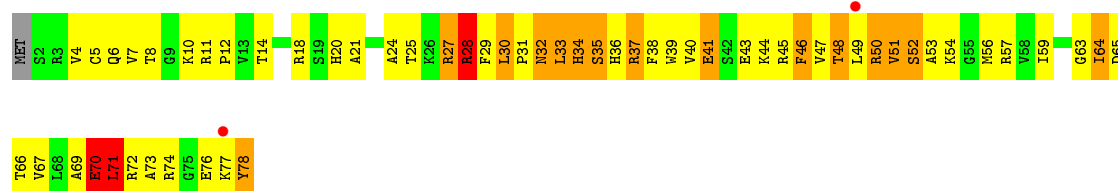




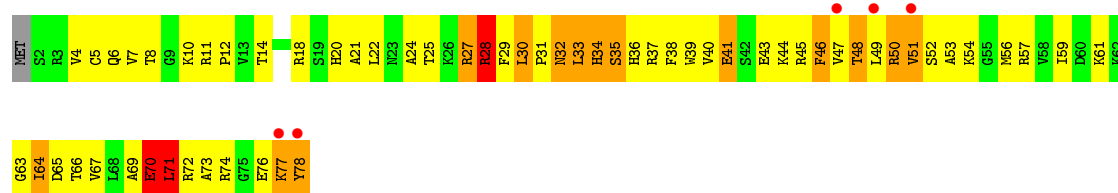
• Molecule 50: 50S ribosomal protein L23



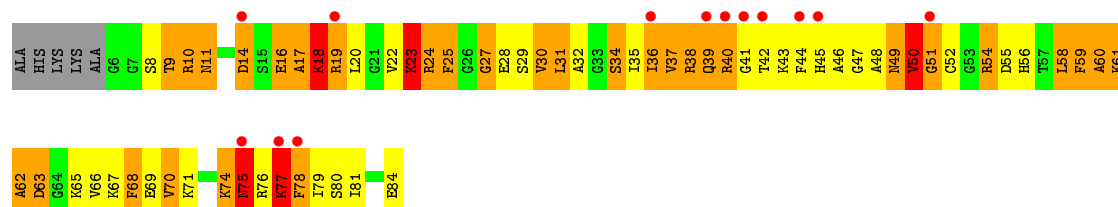
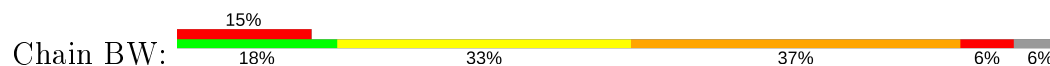
• Molecule 51: 50S ribosomal protein L28



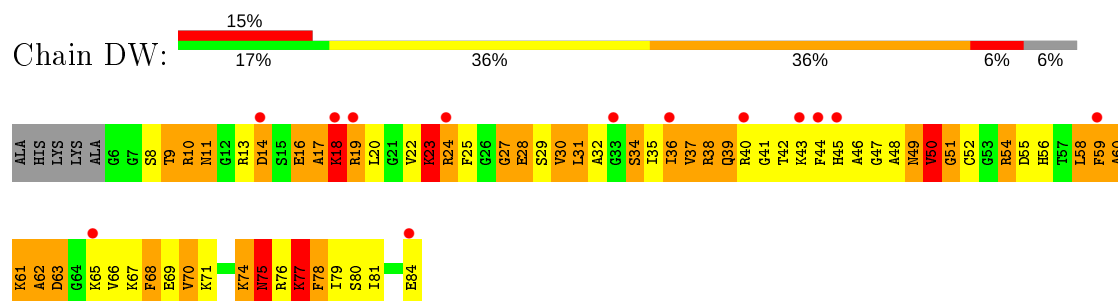
• Molecule 51: 50S ribosomal protein L28



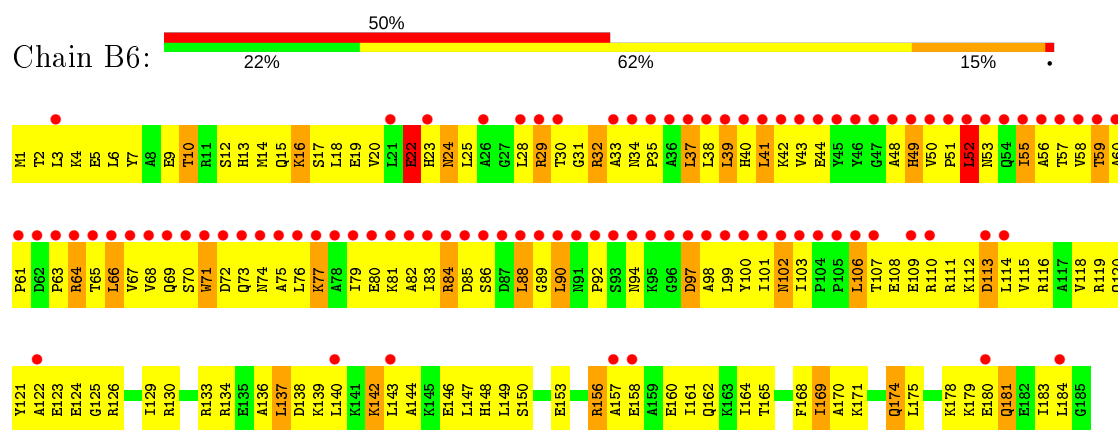
• Molecule 52: 50S ribosomal protein L27



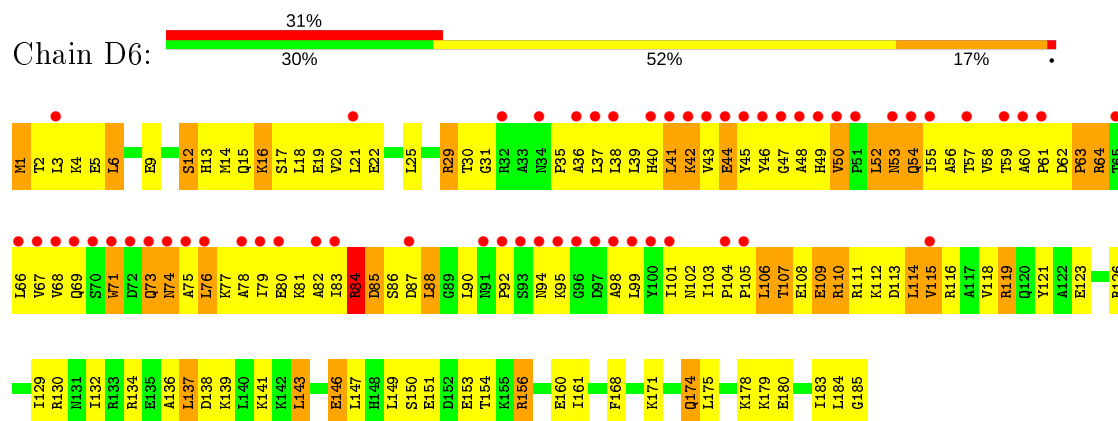
- Molecule 52: 50S ribosomal protein L27



- Molecule 53: ribosome recycling factor



- Molecule 53: ribosome recycling factor



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	207.90 Å 378.20 Å 736.30 Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	40.00 – 3.30 82.86 – 3.32	Depositor EDS
% Data completeness (in resolution range)	85.8 (40.00-3.30) 87.2 (82.86-3.32)	Depositor EDS
R_{merge}	0.10	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.17 (at 3.33 Å)	Xtriage
Refinement program	CNS	Depositor
R, R_{free}	0.275 , 0.304 0.248 , 0.273	Depositor DCC
R_{free} test set	35399 reflections (4.79%)	wwPDB-VP
Wilson B-factor (Å ²)	83.9	Xtriage
Anisotropy	0.393	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.25 , 57.6	EDS
L-test for twinning ²	$\langle L \rangle = 0.49$, $\langle L^2 \rangle = 0.32$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.91	EDS
Total number of atoms	286960	wwPDB-VP
Average B, all atoms (Å ²)	67.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.37% 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: ZN, MG

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# $ Z > 5$	RMSZ	# $ Z > 5$
1	AA	0.26	0/36762	0.75	11/57350 (0.0%)
1	CA	0.26	0/36762	0.75	18/57350 (0.0%)
2	AC	0.23	0/1651	0.44	0/2225
2	CC	0.23	0/1651	0.45	0/2225
3	AD	0.23	0/1665	0.44	0/2227
3	CD	0.23	0/1665	0.43	0/2227
4	AE	0.23	0/1118	0.46	0/1504
4	CE	0.23	0/1118	0.46	0/1504
5	AF	0.24	0/835	0.45	0/1128
5	CF	0.24	0/835	0.45	0/1128
6	AG	0.23	0/1187	0.45	0/1591
6	CG	0.23	0/1211	0.45	0/1624
7	AH	0.23	0/989	0.44	0/1326
7	CH	0.23	0/989	0.44	0/1326
8	AI	0.24	0/1034	0.46	0/1375
8	CI	0.24	0/1034	0.46	0/1375
9	AJ	0.22	0/796	0.49	0/1077
9	CJ	0.22	0/796	0.49	0/1077
10	AK	0.24	0/893	0.46	0/1205
10	CK	0.24	0/893	0.46	0/1205
11	AL	0.22	0/969	0.48	0/1300
11	CL	0.22	0/969	0.49	0/1300
12	AM	0.21	0/892	0.46	0/1193
12	CM	0.21	0/884	0.45	0/1181
13	AN	0.24	0/785	0.44	0/1043
13	CN	0.24	0/785	0.44	0/1043
14	AO	0.23	0/722	0.47	0/964
14	CO	0.23	0/722	0.47	0/964
15	AP	0.25	0/659	0.45	0/884
15	CP	0.25	0/648	0.45	0/870
16	AQ	0.23	0/657	0.47	0/881
16	CQ	0.24	0/666	0.48	0/892

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	AR	0.23	0/462	0.45	0/621
17	CR	0.23	0/462	0.45	0/621
18	AS	0.25	0/652	0.46	0/877
18	CS	0.25	0/660	0.48	0/888
19	AT	0.23	0/671	0.40	0/888
19	CT	0.23	0/671	0.40	0/888
20	AB	0.25	0/1735	0.45	0/2338
20	CB	0.25	0/1735	0.45	0/2338
21	AU	0.26	0/430	0.48	0/570
21	CU	0.26	0/430	0.48	0/570
22	BA	0.25	0/2803	0.74	1/4371 (0.0%)
22	DA	0.25	0/2803	0.74	1/4371 (0.0%)
23	BB	0.28	6/68314 (0.0%)	0.77	55/106569 (0.1%)
23	DB	0.28	8/68314 (0.0%)	0.78	51/106569 (0.0%)
24	BI	0.24	0/1046	0.47	0/1410
24	DI	0.25	0/1046	0.48	0/1410
25	BC	0.22	0/2121	0.48	0/2852
25	DC	0.22	0/2121	0.48	0/2852
26	BD	0.24	0/1586	0.49	0/2134
26	DD	0.24	0/1586	0.49	0/2134
27	BK	0.24	0/939	0.55	0/1258
27	DK	0.24	0/939	0.55	0/1258
28	BP	0.25	0/929	0.50	0/1242
28	DP	0.24	0/929	0.50	0/1242
29	BE	0.24	0/1571	0.51	0/2113
29	DE	0.24	0/1571	0.51	0/2113
30	BY	0.23	0/453	0.50	0/605
30	DY	0.23	0/453	0.50	0/605
31	B0	0.22	0/450	0.56	0/599
31	D0	0.22	0/450	0.56	0/599
32	B4	0.23	0/303	0.47	0/397
32	D4	0.23	0/303	0.47	0/397
33	B1	0.27	0/416	0.49	0/554
33	D1	0.27	0/416	0.49	0/554
34	B3	0.24	0/513	0.47	0/676
34	D3	0.24	0/513	0.47	0/676
35	BV	0.25	0/766	0.43	0/1025
35	DV	0.25	0/766	0.43	0/1025
36	B2	0.26	0/380	0.48	0/498
36	D2	0.26	0/380	0.48	0/498
37	BL	0.23	0/1054	0.49	0/1403
37	DL	0.23	0/1054	0.49	0/1403
38	BM	0.25	0/1093	0.49	0/1460

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	DM	0.25	0/1093	0.49	0/1460
39	BX	0.24	0/510	0.52	0/677
39	DX	0.24	0/510	0.52	0/677
40	BH	0.25	0/1122	0.48	0/1515
40	DH	0.25	0/1122	0.49	0/1515
41	BJ	0.23	0/1152	0.48	0/1551
41	DJ	0.23	0/1152	0.48	0/1551
42	BN	0.24	0/973	0.51	0/1301
42	DN	0.24	0/973	0.51	0/1301
43	BO	0.23	0/902	0.49	0/1209
43	DO	0.23	0/902	0.49	0/1209
44	BQ	0.25	0/960	0.49	0/1278
44	DQ	0.25	0/960	0.49	0/1278
45	BS	0.22	0/864	0.52	0/1156
45	DS	0.22	0/864	0.52	0/1156
46	BU	0.25	0/787	0.47	0/1051
46	DU	0.25	0/787	0.47	0/1051
47	BF	0.26	0/1444	0.52	0/1937
47	DF	0.26	0/1444	0.52	0/1937
48	BG	0.23	0/1343	0.48	0/1816
48	DG	0.23	0/1343	0.47	0/1816
49	BR	0.25	0/829	0.49	0/1107
49	DR	0.25	0/829	0.49	0/1107
50	BT	0.23	0/744	0.55	0/994
50	DT	0.23	0/744	0.55	0/994
51	BZ	0.25	0/635	0.52	0/848
51	DZ	0.25	0/635	0.52	0/848
52	BW	0.28	0/603	0.52	0/797
52	DW	0.28	0/603	0.52	0/797
53	B6	0.24	0/1497	0.48	0/2017
53	D6	0.23	0/1497	0.48	0/2017
All	All	0.26	14/309354 (0.0%)	0.70	137/462003 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	AA	0	14
1	CA	0	13
23	BB	0	29

Continued on next page...

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Mol	Chain	#Chirality outliers	#Planarity outliers
23	DB	0	29
All	All	0	85

All (14) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BB	1086	A	C5-C6	-16.41	1.26	1.41
23	DB	1086	A	C5-C6	-16.29	1.26	1.41
23	DB	1088	A	C6-N1	-10.64	1.28	1.35
23	BB	1088	A	C6-N1	-10.54	1.28	1.35
23	DB	1060	U	C2-N3	7.91	1.43	1.37
23	BB	1060	U	C2-N3	7.86	1.43	1.37
23	BB	2181	U	C4'-C3'	-7.35	1.45	1.53
23	DB	1086	A	N7-C5	-6.64	1.35	1.39
23	BB	1086	A	N3-C4	-6.62	1.30	1.34
23	DB	1086	A	N3-C4	-6.55	1.30	1.34
23	BB	1086	A	N7-C5	-6.43	1.35	1.39
23	DB	125	A	C4'-C3'	6.39	1.60	1.53
23	DB	1992	G	C4'-C3'	-5.75	1.46	1.52
23	DB	1509	A	C4'-C3'	-5.05	1.47	1.52

All (137) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DB	2204	G	O5'-P-OP1	-29.30	75.55	110.70
23	BB	2204	G	O5'-P-OP2	-27.99	77.11	110.70
23	BB	2791	G	O5'-P-OP1	-27.68	77.49	110.70
23	DB	2791	G	O5'-P-OP2	-27.63	77.54	110.70
23	DB	2791	G	O5'-P-OP1	18.08	132.40	110.70
23	DB	2204	G	O5'-P-OP2	17.98	132.27	110.70
23	BB	2204	G	O5'-P-OP1	17.95	132.24	110.70
23	BB	2791	G	O5'-P-OP2	17.88	132.16	110.70
23	DB	2790	U	OP2-P-O3'	14.47	137.03	105.20
23	BB	2790	U	OP1-P-O3'	14.44	136.96	105.20
23	DB	2203	U	OP1-P-O3'	14.41	136.90	105.20
23	BB	2203	U	OP2-P-O3'	14.16	136.36	105.20
23	BB	2272	U	C5-C4-O4	-11.66	118.91	125.90
23	DB	2272	U	C5-C4-O4	-11.59	118.95	125.90
1	CA	232	G	C5'-C4'-C3'	-10.01	99.99	116.00
23	DB	745	G	C5'-C4'-C3'	-9.12	101.41	116.00
1	AA	232	G	C5'-C4'-C3'	-8.97	101.65	116.00
23	DB	560	C	C5'-C4'-C3'	-8.70	102.09	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DB	1088	A	N1-C6-N6	-8.31	113.62	118.60
23	DB	1350	C	C5'-C4'-C3'	-8.29	102.73	116.00
23	BB	745	G	C5'-C4'-C3'	-8.21	102.87	116.00
23	BB	1088	A	N1-C6-N6	-8.19	113.69	118.60
23	BB	1397	U	C5'-C4'-C3'	-8.15	102.96	116.00
23	DB	773	U	C5'-C4'-C3'	-8.14	102.97	116.00
23	DB	2272	U	N3-C4-O4	-8.14	113.70	119.40
23	BB	1907	G	C4'-C3'-O3'	8.06	129.12	113.00
23	BB	2272	U	N3-C4-O4	-8.04	113.77	119.40
23	DB	1397	U	C5'-C4'-C3'	-7.95	103.27	116.00
23	BB	1350	C	C5'-C4'-C3'	-7.93	103.32	116.00
1	CA	40	C	C5'-C4'-C3'	-7.89	103.38	116.00
23	DB	671	C	C5'-C4'-C3'	-7.70	103.68	116.00
23	BB	560	C	C5'-C4'-C3'	-7.53	103.96	116.00
23	DB	1060	U	C5-C4-O4	-7.32	121.51	125.90
23	BB	1600	C	C5'-C4'-C3'	-7.30	104.32	116.00
1	AA	40	C	C5'-C4'-C3'	-7.27	104.37	116.00
23	BB	1060	U	C5-C4-O4	-7.26	121.54	125.90
23	DB	1600	C	C5'-C4'-C3'	-7.22	104.45	116.00
23	BB	1086	A	C4-C5-C6	7.18	120.59	117.00
23	BB	671	C	C5'-C4'-C3'	-7.17	104.53	116.00
23	DB	1552	A	N9-C1'-C2'	-6.99	104.31	112.00
23	DB	1086	A	C4-C5-C6	6.98	120.49	117.00
23	BB	1552	A	N9-C1'-C2'	-6.95	104.35	112.00
23	BB	773	U	C5'-C4'-C3'	-6.95	104.88	116.00
1	AA	765	G	N9-C1'-C2'	-6.92	104.39	112.00
23	DB	825	A	C5'-C4'-C3'	-6.91	104.94	116.00
1	CA	765	G	N9-C1'-C2'	-6.91	104.40	112.00
23	DB	2619	C	C5'-C4'-C3'	-6.84	105.05	116.00
1	CA	1424	U	C5'-C4'-C3'	-6.81	105.11	116.00
23	BB	2272	U	O4'-C1'-N1	6.79	113.63	108.20
23	DB	2272	U	O4'-C1'-N1	6.78	113.62	108.20
1	CA	765	G	C4'-C3'-O3'	6.78	126.55	113.00
1	AA	438	U	N1-C1'-C2'	-6.68	104.66	112.00
1	CA	438	U	N1-C1'-C2'	-6.64	104.70	112.00
23	DB	690	G	C5'-C4'-C3'	-6.53	105.56	116.00
1	AA	765	G	C4'-C3'-O3'	6.47	125.94	113.00
23	BB	1088	A	C5-C6-N6	6.41	128.82	123.70
23	DB	2733	A	N9-C1'-C2'	-6.40	104.96	112.00
23	DB	1088	A	C5-C6-N6	6.39	128.81	123.70
23	BB	2733	A	N9-C1'-C2'	-6.37	104.99	112.00
23	BB	508	A	C4'-C3'-O3'	-6.36	96.05	109.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DB	2282	G	C5'-C4'-C3'	-6.34	105.85	116.00
23	BB	2282	G	C5'-C4'-C3'	-6.31	105.90	116.00
23	BB	1086	A	C6-C5-N7	-6.29	127.90	132.30
23	DB	508	A	C4'-C3'-O3'	-6.25	96.27	109.40
23	DB	1439	A	N9-C1'-C2'	-6.24	105.14	112.00
23	BB	1439	A	N9-C1'-C2'	-6.22	105.15	112.00
23	DB	1337	G	C5'-C4'-C3'	-6.22	106.05	116.00
1	CA	576	C	O5'-P-OP1	-6.19	100.13	105.70
23	DB	1086	A	C6-C5-N7	-6.18	127.97	132.30
23	BB	1337	G	C5'-C4'-C3'	-6.13	106.19	116.00
23	BB	2619	C	C5'-C4'-C3'	-6.12	106.22	116.00
23	DB	832	U	C5'-C4'-C3'	-6.11	106.23	116.00
1	CA	814	A	C5'-C4'-C3'	6.09	125.75	116.00
23	DB	2108	A	N9-C1'-C2'	-6.08	105.31	112.00
23	BB	1911	U	C4'-C3'-O3'	6.07	125.15	113.00
23	BB	2191	A	C5'-C4'-C3'	-6.05	106.33	116.00
23	BB	690	G	C5'-C4'-C3'	-5.96	106.46	116.00
23	BB	825	A	C5'-C4'-C3'	-5.89	106.58	116.00
23	BB	944	C	C5'-C4'-C3'	-5.88	106.60	116.00
23	BB	104	A	C5'-C4'-C3'	-5.86	106.62	116.00
23	BB	2283	C	O5'-P-OP2	-5.86	100.43	105.70
23	DB	2790	U	O3'-P-O5'	-5.83	92.92	104.00
23	DB	479	A	C4'-C3'-O3'	-5.83	97.16	109.40
23	DB	2203	U	O3'-P-O5'	-5.80	92.97	104.00
23	BB	832	U	C5'-C4'-C3'	-5.76	106.78	116.00
23	DB	944	C	C5'-C4'-C3'	-5.75	106.80	116.00
1	CA	31	G	C5'-C4'-C3'	-5.72	106.84	116.00
23	BB	479	A	C4'-C3'-O3'	-5.69	97.44	109.40
23	BB	1060	U	N1-C2-O2	-5.65	118.84	122.80
23	DB	1060	U	N1-C2-O2	-5.61	118.88	122.80
23	DB	2282	G	C2'-C3'-O3'	5.58	122.63	113.70
23	BB	2790	U	O3'-P-O5'	-5.57	93.41	104.00
22	DA	96	G	C5'-C4'-C3'	-5.57	107.08	116.00
1	CA	408	A	C5'-C4'-C3'	-5.53	107.16	116.00
23	DB	2471	A	C5'-C4'-C3'	-5.52	107.16	116.00
23	DB	1086	A	C2-N3-C4	-5.51	107.84	110.60
1	CA	95	C	C5'-C4'-C3'	-5.51	107.19	116.00
1	CA	1250	A	C5'-C4'-C3'	5.50	124.80	116.00
1	CA	1534	A	C2'-C3'-O3'	-5.50	97.40	109.50
23	BB	1086	A	C2-N3-C4	-5.47	107.86	110.60
23	DB	1344	U	C5'-C4'-C3'	-5.46	107.26	116.00
1	AA	814	A	C5'-C4'-C3'	5.45	124.73	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	96	G	C5'-C4'-C3'	-5.44	107.30	116.00
1	AA	101	A	C5'-C4'-C3'	-5.43	107.31	116.00
1	CA	1432	G	C5'-C4'-C3'	-5.43	107.31	116.00
23	BB	461	C	C5'-C4'-C3'	-5.41	107.34	116.00
23	BB	242	G	C4'-C3'-O3'	-5.40	98.05	109.40
23	BB	2471	A	C5'-C4'-C3'	-5.40	107.36	116.00
23	DB	1060	U	N3-C2-O2	5.37	125.96	122.20
1	AA	1250	A	C5'-C4'-C3'	5.36	124.58	116.00
23	BB	2282	G	C2'-C3'-O3'	5.36	122.28	113.70
23	BB	1060	U	N3-C2-O2	5.32	125.93	122.20
23	BB	2203	U	O3'-P-O5'	-5.32	93.89	104.00
1	CA	101	A	C5'-C4'-C3'	-5.32	107.49	116.00
23	BB	1344	U	C5'-C4'-C3'	-5.31	107.51	116.00
23	DB	2894	G	N9-C1'-C2'	-5.29	106.18	112.00
1	CA	407	U	C5'-C4'-C3'	-5.28	107.55	116.00
1	AA	408	A	C5'-C4'-C3'	-5.27	107.57	116.00
1	AA	86	G	N9-C1'-C2'	5.25	120.82	114.00
23	BB	2894	G	N9-C1'-C2'	-5.24	106.24	112.00
23	DB	751	A	C5'-C4'-C3'	-5.23	107.63	116.00
23	DB	242	G	C4'-C3'-O3'	-5.20	98.48	109.40
1	CA	819	A	C5'-C4'-C3'	5.19	124.31	116.00
23	DB	375	G	C5'-C4'-C3'	-5.17	107.74	116.00
23	BB	595	C	C5'-C4'-C3'	-5.16	107.74	116.00
1	CA	366	A	C4'-C3'-C2'	5.15	107.75	102.60
23	DB	1453	A	C5'-C4'-C3'	-5.14	107.77	116.00
23	BB	1907	G	C4'-C3'-C2'	5.13	107.73	102.60
23	DB	1926	U	C5'-C4'-C3'	-5.12	107.80	116.00
23	DB	2156	G	C4'-C3'-O3'	5.12	123.24	113.00
23	DB	595	C	C5'-C4'-C3'	-5.09	107.86	116.00
23	DB	461	C	C5'-C4'-C3'	-5.07	107.89	116.00
1	AA	1409	C	C5'-C4'-C3'	-5.05	107.91	116.00
23	BB	2199	A	C5'-C4'-C3'	-5.05	107.92	116.00
23	BB	1660	G	C5'-C4'-C3'	-5.04	107.94	116.00
23	BB	2103	C	N1-C1'-C2'	5.03	120.54	114.00
23	BB	1280	G	C5'-C4'-C3'	-5.00	108.00	116.00

There are no chirality outliers.

All (85) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	AA	1331	G	Sidechain
1	AA	1432	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1441	A	Sidechain
1	AA	187	G	Sidechain
1	AA	281	G	Sidechain
1	AA	324	G	Sidechain
1	AA	437	U	Sidechain
1	AA	438	U	Sidechain
1	AA	450	G	Sidechain
1	AA	496	A	Sidechain
1	AA	521	G	Sidechain
1	AA	575	G	Sidechain
1	AA	703	G	Sidechain
1	AA	81	A	Sidechain
23	BB	1060	U	Sidechain
23	BB	1086	A	Sidechain
23	BB	1088	A	Sidechain
23	BB	1419	A	Sidechain
23	BB	1439	A	Sidechain
23	BB	1546	G	Sidechain
23	BB	1572	A	Sidechain
23	BB	1828	G	Sidechain
23	BB	1964	G	Sidechain
23	BB	2062	A	Sidechain
23	BB	221	A	Sidechain
23	BB	222	A	Sidechain
23	BB	2272	U	Sidechain
23	BB	2471	A	Sidechain
23	BB	2503	A	Sidechain
23	BB	2638	G	Sidechain
23	BB	2733	A	Sidechain
23	BB	2770	G	Sidechain
23	BB	2848	G	Sidechain
23	BB	2868	A	Sidechain
23	BB	299	A	Sidechain
23	BB	3	U	Sidechain
23	BB	361	G	Sidechain
23	BB	500	G	Sidechain
23	BB	51	G	Sidechain
23	BB	630	G	Sidechain
23	BB	633	A	Sidechain
23	BB	727	A	Sidechain
23	BB	757	G	Sidechain
1	CA	1331	G	Sidechain

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Mol	Chain	Res	Type	Group
1	CA	1432	G	Sidechain
1	CA	1441	A	Sidechain
1	CA	187	G	Sidechain
1	CA	281	G	Sidechain
1	CA	324	G	Sidechain
1	CA	437	U	Sidechain
1	CA	438	U	Sidechain
1	CA	450	G	Sidechain
1	CA	496	A	Sidechain
1	CA	521	G	Sidechain
1	CA	575	G	Sidechain
1	CA	703	G	Sidechain
23	DB	1047	G	Sidechain
23	DB	1060	U	Sidechain
23	DB	1086	A	Sidechain
23	DB	1088	A	Sidechain
23	DB	1419	A	Sidechain
23	DB	1439	A	Sidechain
23	DB	1546	G	Sidechain
23	DB	1572	A	Sidechain
23	DB	1828	G	Sidechain
23	DB	1964	G	Sidechain
23	DB	2062	A	Sidechain
23	DB	2108	A	Sidechain
23	DB	221	A	Sidechain
23	DB	222	A	Sidechain
23	DB	2272	U	Sidechain
23	DB	2471	A	Sidechain
23	DB	2503	A	Sidechain
23	DB	2638	G	Sidechain
23	DB	2733	A	Sidechain
23	DB	2770	G	Sidechain
23	DB	2848	G	Sidechain
23	DB	2868	A	Sidechain
23	DB	299	A	Sidechain
23	DB	500	G	Sidechain
23	DB	51	G	Sidechain
23	DB	630	G	Sidechain
23	DB	633	A	Sidechain
23	DB	727	A	Sidechain
23	DB	757	G	Sidechain

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	32831	0	16521	1174	0
1	CA	32831	0	16521	1151	0
2	AC	1624	0	1699	141	0
2	CC	1624	0	1699	138	0
3	AD	1643	0	1710	151	0
3	CD	1643	0	1710	155	0
4	AE	1105	0	1148	107	0
4	CE	1105	0	1148	102	0
5	AF	817	0	808	85	0
5	CF	817	0	808	82	0
6	AG	1174	0	1230	102	0
6	CG	1196	0	1246	91	0
7	AH	979	0	1034	62	0
7	CH	979	0	1034	62	0
8	AI	1022	0	1070	123	0
8	CI	1022	0	1070	126	0
9	AJ	786	0	828	76	0
9	CJ	786	0	828	76	0
10	AK	877	0	887	84	0
10	CK	877	0	887	73	0
11	AL	955	0	1019	85	0
11	CL	955	0	1019	92	0
12	AM	883	0	944	104	0
12	CM	876	0	937	109	0
13	AN	774	0	827	96	0
13	CN	774	0	827	95	0
14	AO	714	0	734	46	0
14	CO	714	0	734	51	0
15	AP	649	0	666	60	0
15	CP	638	0	656	60	0
16	AQ	648	0	691	64	0
16	CQ	657	0	702	65	0
17	AR	455	0	478	36	0
17	CR	455	0	478	37	0
18	AS	637	0	665	89	0
18	CS	644	0	675	91	0
19	AT	665	0	714	45	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
19	CT	665	0	714	44	0
20	AB	1704	0	1732	195	0
20	CB	1704	0	1732	198	0
21	AU	425	0	449	69	0
21	CU	425	0	449	68	0
22	BA	2507	0	1270	89	0
22	DA	2507	0	1270	83	0
23	BB	60995	0	30679	2163	0
23	DB	60995	0	30677	2184	0
24	BI	1032	0	1088	112	0
24	DI	1032	0	1088	183	0
25	BC	2082	0	2157	232	0
25	DC	2082	0	2157	232	0
26	BD	1565	0	1616	186	0
26	DD	1565	0	1616	184	0
27	BK	930	0	1000	110	0
27	DK	930	0	1000	113	0
28	BP	917	0	965	136	0
28	DP	917	0	965	145	0
29	BE	1552	0	1619	188	0
29	DE	1552	0	1619	191	0
30	BY	449	0	491	52	0
30	DY	449	0	491	52	0
31	B0	444	0	461	39	0
31	D0	444	0	461	31	0
32	B4	302	0	340	50	0
32	D4	302	0	340	53	0
33	B1	409	0	440	51	0
33	D1	409	0	440	43	0
34	B3	504	0	574	54	0
34	D3	504	0	574	57	0
35	BV	753	0	780	86	0
35	DV	753	0	780	84	0
36	B2	377	0	418	34	0
36	D2	377	0	418	32	0
37	BL	1045	0	1117	138	0
37	DL	1045	0	1117	144	0
38	BM	1074	0	1157	120	0
38	DM	1074	0	1157	118	0
39	BX	509	0	543	56	0
39	DX	509	0	543	58	0
40	BH	1111	0	1148	220	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
40	DH	1111	0	1148	161	0
41	BJ	1129	0	1162	156	0
41	DJ	1129	0	1162	161	0
42	BN	960	0	1000	111	0
42	DN	960	0	1000	108	0
43	BO	892	0	923	76	0
43	DO	892	0	923	81	0
44	BQ	947	0	1022	125	0
44	DQ	947	0	1022	136	0
45	BS	857	0	922	94	0
45	DS	857	0	922	93	0
46	BU	779	0	834	111	0
46	DU	779	0	834	111	0
47	BF	1420	0	1460	242	0
47	DF	1420	0	1460	233	0
48	BG	1323	0	1374	158	0
48	DG	1323	0	1374	159	0
49	BR	816	0	839	85	0
49	DR	816	0	839	96	0
50	BT	738	0	807	120	0
50	DT	738	0	807	115	0
51	BZ	625	0	652	63	0
51	DZ	625	0	652	61	0
52	BW	596	0	610	138	0
52	DW	596	0	610	152	0
53	B6	1478	0	1526	204	0
53	D6	1478	0	1526	177	0
54	AA	60	0	0	0	0
54	BB	110	0	0	0	0
54	CA	61	0	0	0	0
54	CE	1	0	0	0	0
54	DB	111	0	0	0	0
55	B4	1	0	0	0	0
55	D4	1	0	0	0	0
56	AA	289	0	0	1	0
56	AE	4	0	0	0	0
56	AK	1	0	0	0	0
56	AL	1	0	0	0	0
56	AN	3	0	0	0	0
56	AP	1	0	0	0	0
56	AT	1	0	0	0	0
56	B2	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	BB	495	0	0	5	0
56	BC	4	0	0	0	0
56	BD	1	0	0	0	0
56	BE	3	0	0	0	0
56	BL	1	0	0	0	0
56	BT	1	0	0	0	0
56	CA	300	0	0	0	0
56	CE	2	0	0	0	0
56	CK	1	0	0	0	0
56	CL	1	0	0	0	0
56	CN	4	0	0	0	0
56	CT	1	0	0	0	0
56	DB	505	0	0	7	0
56	DC	4	0	0	1	0
56	DD	1	0	0	0	0
56	DE	2	0	0	0	0
All	All	286960	0	193714	16198	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 34.

All (16198) 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)
23:DB:1099:G:H8	24:DI:3:LYS:N	1.39	1.17
13:CN:63:CYS:HB3	13:CN:67:GLY:H	1.09	1.16
13:AN:63:CYS:HB3	13:AN:67:GLY:H	1.05	1.15
10:AK:124:LYS:HA	21:AU:34:ARG:HB3	1.27	1.14
29:DE:21:ARG:HD2	29:DE:107:SER:HB3	1.30	1.13
10:CK:124:LYS:HA	21:CU:34:ARG:HB3	1.26	1.12
23:BB:855:G:H21	52:BW:23:LYS:HG2	1.08	1.11
37:BL:143:GLU:HG2	37:BL:144:GLU:H	1.13	1.11
29:BE:21:ARG:HD2	29:BE:107:SER:HB3	1.29	1.11
2:AC:78:LYS:HG3	2:AC:81:GLU:HG2	1.35	1.08
26:DD:148:GLN:HG3	26:DD:152:PRO:HG2	1.33	1.08
40:BH:83:LYS:HA	40:BH:148:ALA:HA	1.33	1.08
26:BD:148:GLN:HG3	26:BD:152:PRO:HG2	1.33	1.08
1:AA:82:G:H3'	1:AA:83:C:H4'	1.19	1.07
23:DB:1099:G:C8	24:DI:3:LYS:N	2.23	1.07
37:DL:143:GLU:HG2	37:DL:144:GLU:H	1.10	1.06
26:DD:106:LYS:HB3	26:DD:206:ALA:H	1.18	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CC:78:LYS:HG3	2:CC:81:GLU:HG2	1.37	1.05
47:BF:115:GLY:HA3	47:BF:177:ARG:HD2	1.38	1.05
9:AJ:53:ILE:HG22	9:AJ:61:ALA:HB1	1.37	1.05
5:AF:3:HIS:HB2	5:AF:92:THR:HA	1.38	1.04
25:DC:144:GLU:HA	25:DC:151:GLY:HA2	1.37	1.04
8:AI:25:GLY:HA3	8:AI:57:VAL:HA	1.38	1.04
48:BG:102:ILE:HG13	48:BG:116:LEU:HD11	1.37	1.04
5:AF:92:THR:HG22	5:AF:94:HIS:H	1.22	1.04
26:BD:106:LYS:HB3	26:BD:206:ALA:H	1.19	1.04
23:DB:855:G:H21	52:DW:23:LYS:HG2	1.18	1.04
47:DF:45:ASP:HB3	47:DF:48:LEU:HD22	1.40	1.04
48:DG:102:ILE:HG13	48:DG:116:LEU:HD11	1.38	1.04
47:DF:115:GLY:HA3	47:DF:177:ARG:HD2	1.39	1.03
23:DB:1098:A:H3'	24:DI:3:LYS:HA	1.40	1.03
4:CE:158:LYS:HZ1	7:CH:63:LYS:HD3	1.21	1.03
47:BF:62:GLN:HG3	47:BF:91:ARG:HH11	1.24	1.02
25:BC:144:GLU:HA	25:BC:151:GLY:HA2	1.40	1.02
8:CI:25:GLY:HA3	8:CI:57:VAL:HA	1.39	1.02
5:CF:3:HIS:HB2	5:CF:92:THR:HA	1.39	1.01
40:DH:125:THR:HA	40:DH:146:VAL:HB	1.41	1.01
40:DH:31:VAL:HB	40:DH:32:PRO:HD2	1.42	1.01
40:BH:31:VAL:HB	40:BH:32:PRO:HD2	1.41	1.01
47:DF:62:GLN:HG3	47:DF:91:ARG:HH11	1.23	1.01
47:BF:45:ASP:HB3	47:BF:48:LEU:HD22	1.42	1.00
40:DH:77:THR:HG22	40:DH:143:ILE:HB	1.43	1.00
4:AE:158:LYS:HZ1	7:AH:63:LYS:HD3	1.25	1.00
23:DB:126:A:H5'	36:D2:19:ARG:HG3	1.40	1.00
42:BN:101:GLY:HA2	42:BN:110:MET:H	1.25	1.00
23:BB:2787:C:H1'	26:BD:63:PRO:HG3	1.42	1.00
23:DB:138:U:H4'	23:DB:139:U:H2'	1.43	1.00
23:DB:1099:G:O5'	24:DI:4:VAL:N	1.94	1.00
42:DN:101:GLY:HA2	42:DN:110:MET:H	1.25	0.99
20:AB:202:ASN:HD22	20:AB:204:ASP:H	1.04	0.99
43:DO:49:VAL:HG21	43:DO:82:ALA:HB2	1.44	0.99
23:DB:1283:G:H22	23:DB:1286:A:H5'	1.27	0.99
30:BY:8:GLN:HG2	30:BY:31:ILE:HA	1.44	0.99
8:CI:51:LEU:HB3	8:CI:56:MET:HG2	1.43	0.99
23:DB:27:G:H22	23:DB:512:G:H2'	1.28	0.99
53:B6:44:GLU:HA	53:B6:49:HIS:HA	1.42	0.99
53:B6:42:LYS:HA	53:B6:51:PRO:HA	1.42	0.99
53:D6:35:PRO:HD3	53:D6:60:ALA:HB2	1.43	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1098:A:H3'	24:DI:3:LYS:CA	1.91	0.99
30:DY:8:GLN:HG2	30:DY:31:ILE:HA	1.41	0.99
40:BH:90:LEU:HG	40:BH:146:VAL:HG11	1.45	0.98
40:BH:83:LYS:HB2	40:BH:91:PHE:HB2	1.44	0.98
26:BD:10:GLY:HA3	26:BD:26:VAL:H	1.28	0.98
23:BB:460:A:H4'	50:BT:72:GLN:HB2	1.44	0.98
43:BO:49:VAL:HG21	43:BO:82:ALA:HB2	1.45	0.98
1:AA:981:U:H4'	13:AN:60:ARG:HD2	1.45	0.98
23:BB:1283:G:H22	23:BB:1286:A:H5'	1.27	0.98
23:BB:27:G:H22	23:BB:512:G:H2'	1.29	0.98
23:BB:2269:G:H4'	52:BW:19:ARG:HH12	1.24	0.98
26:DD:10:GLY:HA3	26:DD:26:VAL:H	1.29	0.98
53:B6:84:ARG:HA	53:B6:89:GLY:HA2	1.44	0.98
21:CU:24:LYS:HD2	21:CU:25:ALA:H	1.29	0.98
9:CJ:53:ILE:HG22	9:CJ:61:ALA:HB1	1.40	0.97
5:CF:92:THR:HG22	5:CF:94:HIS:H	1.24	0.97
21:AU:40:PRO:HA	21:AU:44:ARG:HD2	1.45	0.97
20:CB:202:ASN:HD22	20:CB:204:ASP:H	1.06	0.97
48:DG:10:VAL:HG13	48:DG:14:VAL:HB	1.46	0.97
1:AA:203:G:H1'	1:AA:465:A:H62	1.28	0.97
18:AS:30:LEU:HD12	18:AS:48:ILE:HG12	1.46	0.97
13:CN:60:ARG:HD2	1:CA:981:U:H4'	1.45	0.97
23:DB:1080:A:H4'	24:DI:126:ARG:HD3	1.47	0.97
39:BX:29:ARG:HH12	50:BT:12:ARG:HA	1.29	0.97
51:DZ:54:LYS:HA	51:DZ:57:ARG:HD3	1.46	0.97
8:AI:94:ARG:HH11	8:AI:94:ARG:HB3	1.30	0.96
40:DH:46:PHE:HA	40:DH:50:ARG:HH21	1.29	0.96
52:BW:9:THR:HG23	52:BW:10:ARG:HD3	1.47	0.96
21:CU:36:PHE:HB3	21:CU:40:PRO:HD3	1.47	0.96
7:AH:58:LEU:HD21	7:AH:60:LEU:HD13	1.47	0.96
21:CU:16:ARG:HH22	21:CU:19:LYS:HZ2	1.10	0.96
53:D6:106:LEU:HG	53:D6:111:ARG:HE	1.29	0.96
35:DV:42:LEU:H	35:DV:42:LEU:HD23	1.29	0.96
26:BD:5:VAL:H	26:BD:32:ASN:HD21	1.00	0.96
23:BB:1203:U:H1'	37:BL:4:ASN:HD21	1.30	0.96
40:BH:125:THR:HA	40:BH:146:VAL:HB	1.46	0.96
25:DC:144:GLU:HG3	25:DC:151:GLY:H	1.31	0.96
8:AI:51:LEU:HB3	8:AI:56:MET:HG2	1.44	0.96
41:DJ:81:ILE:HG23	41:DJ:82:GLY:H	1.31	0.95
28:DP:4:ILE:HG22	28:DP:5:LYS:H	1.29	0.95
23:DB:1024:G:H3'	23:DB:1025:G:H5''	1.48	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AU:36:PHE:HB3	21:AU:40:PRO:HD3	1.47	0.95
23:BB:1141:U:H4'	23:BB:1142:A:O4'	1.67	0.95
3:AD:25:ARG:HH11	3:AD:26:ALA:H	1.15	0.95
40:BH:134:VAL:HG13	40:BH:135:HIS:H	1.31	0.95
28:BP:4:ILE:HG22	28:BP:5:LYS:H	1.29	0.95
7:CH:58:LEU:HD21	7:CH:60:LEU:HD13	1.48	0.95
26:DD:29:VAL:HB	26:DD:98:VAL:HG22	1.49	0.95
53:B6:38:LEU:HD12	53:B6:66:LEU:HD22	1.46	0.95
42:DN:37:THR:HG22	42:DN:39:PRO:HD2	1.49	0.95
18:CS:30:LEU:HD12	18:CS:48:ILE:HG12	1.45	0.94
23:DB:1141:U:H4'	23:DB:1142:A:O4'	1.66	0.94
32:B4:2:LYS:HD2	32:B4:4:ARG:HE	1.31	0.94
23:BB:1024:G:H3'	23:BB:1025:G:H5''	1.49	0.94
21:CU:40:PRO:HA	21:CU:44:ARG:HD2	1.45	0.94
26:DD:5:VAL:H	26:DD:32:ASN:HD21	1.04	0.94
20:AB:46:VAL:HG13	20:AB:47:PRO:HD3	1.49	0.94
26:BD:151:THR:HB	26:BD:152:PRO:HD3	1.47	0.94
28:BP:91:VAL:HG11	28:BP:96:LEU:HD11	1.50	0.94
44:BQ:91:ARG:HH12	49:BR:10:LYS:HB3	1.31	0.94
1:AA:203:G:H1'	1:AA:465:A:N6	1.82	0.94
20:AB:202:ASN:ND2	20:AB:204:ASP:H	1.66	0.94
26:BD:9:VAL:HA	26:BD:197:THR:HG23	1.47	0.94
37:BL:124:GLY:N	37:BL:143:GLU:HG3	1.83	0.94
48:BG:10:VAL:HG13	48:BG:14:VAL:HB	1.45	0.94
1:CA:699:C:H2'	1:CA:700:G:H5''	1.50	0.93
15:CP:4:ILE:HG12	15:CP:21:VAL:HG22	1.48	0.93
51:BZ:54:LYS:HA	51:BZ:57:ARG:HD3	1.47	0.93
26:DD:9:VAL:HA	26:DD:197:THR:HG23	1.51	0.93
42:DN:101:GLY:HA2	42:DN:110:MET:N	1.83	0.93
1:AA:600:A:H5''	7:AH:88:LYS:HD2	1.50	0.93
44:DQ:91:ARG:HH12	49:DR:10:LYS:HB3	1.31	0.93
23:BB:1309:G:H4'	36:B2:7:PRO:HB2	1.50	0.93
28:DP:91:VAL:HG11	28:DP:96:LEU:HD11	1.49	0.93
47:BF:36:ASN:HA	47:BF:87:LYS:HA	1.49	0.93
7:CH:88:LYS:HD2	1:CA:600:A:H5''	1.49	0.93
26:DD:151:THR:HB	26:DD:152:PRO:HD3	1.48	0.93
20:CB:46:VAL:HG13	20:CB:47:PRO:HD3	1.49	0.93
45:DS:24:ILE:HG22	45:DS:71:VAL:HG11	1.51	0.93
47:DF:36:ASN:HA	47:DF:87:LYS:HA	1.51	0.93
48:DG:30:GLY:HA3	48:DG:78:VAL:HA	1.50	0.93
46:DU:73:ASN:HD21	46:DU:76:THR:H	1.15	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DL:124:GLY:N	37:DL:143:GLU:HG3	1.83	0.93
1:AA:699:C:H2'	1:AA:700:G:H5''	1.49	0.93
41:BJ:81:ILE:HG23	41:BJ:82:GLY:H	1.31	0.93
15:CP:28:ARG:HD3	15:CP:29:ASN:H	1.34	0.93
53:D6:74:ASN:H	53:D6:74:ASN:HD22	1.16	0.93
23:DB:2471:A:HO2'	23:DB:2472:G:H8	0.94	0.92
3:AD:173:ASP:HB3	3:AD:178:GLU:HB2	1.50	0.92
29:BE:108:ILE:HD11	29:BE:181:ILE:HG13	1.52	0.92
50:BT:11:LEU:HD21	50:BT:46:ALA:HB1	1.47	0.92
1:CA:203:G:H1'	1:CA:465:A:H62	1.30	0.92
48:BG:30:GLY:HA3	48:BG:78:VAL:HA	1.49	0.92
42:BN:101:GLY:HA2	42:BN:110:MET:N	1.84	0.92
20:CB:202:ASN:ND2	20:CB:204:ASP:H	1.67	0.92
52:DW:9:THR:HG23	52:DW:10:ARG:HD3	1.47	0.92
1:AA:72:A:H61	1:AA:98:A:H2	1.16	0.92
23:BB:2471:A:HO2'	23:BB:2472:G:H8	0.95	0.92
23:BB:958:U:H3	38:BM:16:ARG:HB3	1.32	0.92
45:BS:24:ILE:HG22	45:BS:71:VAL:HG11	1.51	0.92
23:BB:2306:C:H2'	23:BB:2307:G:H21	1.35	0.92
21:AU:24:LYS:HD2	21:AU:25:ALA:H	1.33	0.92
13:CN:51:PRO:HB2	13:CN:54:SER:HB2	1.52	0.92
23:DB:2787:C:H1'	26:DD:63:PRO:HG3	1.50	0.91
35:BV:42:LEU:HD23	35:BV:42:LEU:H	1.34	0.91
46:DU:48:VAL:H	46:DU:53:GLN:HB2	1.35	0.91
23:BB:1064:C:H4'	24:BI:90:GLY:HA2	1.50	0.91
23:BB:2305:U:H5''	47:BF:130:GLY:HA3	1.52	0.91
1:CA:203:G:H1'	1:CA:465:A:N6	1.84	0.91
46:BU:73:ASN:HD21	46:BU:76:THR:H	1.14	0.91
2:AC:137:VAL:HA	2:AC:148:ILE:HD13	1.53	0.91
15:AP:28:ARG:HD3	15:AP:29:ASN:H	1.35	0.91
23:BB:126:A:H5''	36:B2:46:LYS:HE2	1.52	0.91
23:BB:1060:U:H5	24:BI:131:THR:HG22	1.34	0.91
8:CI:94:ARG:HH11	8:CI:94:ARG:HB3	1.33	0.91
10:CK:22:ILE:HG21	10:CK:95:THR:HG21	1.51	0.91
25:DC:183:VAL:HG13	25:DC:185:ALA:H	1.34	0.91
10:AK:22:ILE:HG21	10:AK:95:THR:HG21	1.51	0.91
23:DB:1729:U:H3'	23:DB:1730:C:H4'	1.53	0.91
50:DT:11:LEU:HD21	50:DT:46:ALA:HB1	1.49	0.91
35:DV:42:LEU:HD12	35:DV:47:VAL:HG21	1.53	0.91
53:B6:66:LEU:HD12	53:B6:103:ILE:HD11	1.53	0.90
8:AI:5:TYR:HB2	8:AI:20:ILE:HB	1.53	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DO:51:ALA:HB3	43:DO:78:VAL:HG22	1.51	0.90
35:BV:42:LEU:HD12	35:BV:47:VAL:HG21	1.52	0.90
4:CE:37:VAL:HG11	4:CE:113:VAL:HG12	1.52	0.90
52:DW:24:ARG:HA	52:DW:66:VAL:H	1.33	0.90
48:BG:34:ARG:H	48:BG:34:ARG:HH11	1.18	0.90
40:BH:14:SER:HB2	40:BH:17:ASP:HB2	1.51	0.90
38:BM:34:LYS:HB3	38:BM:129:THR:HG22	1.53	0.90
43:BO:51:ALA:HB3	43:BO:78:VAL:HG22	1.51	0.90
48:DG:34:ARG:HH11	48:DG:34:ARG:H	1.20	0.90
38:DM:34:LYS:HB3	38:DM:129:THR:HG22	1.52	0.90
1:AA:243:A:H4'	1:AA:244:U:H5'	1.53	0.90
48:BG:15:ASP:HB3	48:BG:26:LYS:H	1.35	0.90
27:BK:47:ILE:HG12	27:BK:48:PRO:HD2	1.54	0.90
29:BE:5:LEU:HD12	29:BE:10:SER:HB2	1.53	0.90
1:CA:120:A:H2'	1:CA:121:U:H5''	1.53	0.90
23:BB:855:G:N2	52:BW:23:LYS:HG2	1.86	0.90
26:BD:29:VAL:HB	26:BD:98:VAL:HG22	1.54	0.89
27:BK:35:VAL:HG23	27:BK:36:GLY:H	1.35	0.89
50:BT:11:LEU:HD22	50:BT:11:LEU:H	1.36	0.89
8:CI:51:LEU:HD22	8:CI:56:MET:HE3	1.54	0.89
53:D6:44:GLU:HA	53:D6:49:HIS:HA	1.53	0.89
23:DB:958:U:H3	38:DM:16:ARG:HB3	1.34	0.89
13:AN:51:PRO:HB2	13:AN:54:SER:HB2	1.52	0.89
52:BW:24:ARG:HA	52:BW:66:VAL:H	1.34	0.89
23:DB:1060:U:N3	23:DB:1088:A:N7	2.21	0.89
23:DB:1309:G:H4'	36:D2:7:PRO:HB2	1.53	0.89
48:DG:15:ASP:HB3	48:DG:26:LYS:H	1.35	0.89
27:DK:105:ARG:H	27:DK:105:ARG:HD3	1.35	0.89
40:BH:90:LEU:HD22	40:BH:123:ARG:HG2	1.52	0.89
23:DB:1099:G:H8	24:DI:3:LYS:CA	1.85	0.89
23:BB:1060:U:N3	23:BB:1088:A:N7	2.20	0.89
25:BC:144:GLU:HG3	25:BC:151:GLY:H	1.35	0.89
2:CC:137:VAL:HA	2:CC:148:ILE:HD13	1.52	0.89
3:CD:173:ASP:HB3	3:CD:178:GLU:HB2	1.55	0.89
8:CI:5:TYR:HB2	8:CI:20:ILE:HB	1.51	0.89
23:BB:2749:A:H3'	23:BB:2750:A:H5''	1.53	0.89
27:BK:105:ARG:HD3	27:BK:105:ARG:H	1.35	0.89
40:BH:54:LEU:HD12	40:BH:55:GLU:H	1.38	0.89
1:CA:1086:U:H3	1:CA:1099:G:H22	1.19	0.89
32:D4:2:LYS:HD2	32:D4:4:ARG:HE	1.35	0.89
25:BC:183:VAL:HG13	25:BC:185:ALA:H	1.35	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CG:134:VAL:HB	6:CG:137:ARG:HH21	1.38	0.88
23:DB:2306:C:H2'	23:DB:2307:G:H21	1.37	0.88
50:DT:11:LEU:H	50:DT:11:LEU:HD22	1.37	0.88
28:BP:96:LEU:HB3	28:BP:99:LEU:HD23	1.55	0.88
40:BH:128:HIS:HB2	40:BH:144:VAL:HB	1.54	0.88
37:BL:143:GLU:HG2	37:BL:144:GLU:N	1.88	0.88
15:AP:4:ILE:HG12	15:AP:21:VAL:HG22	1.55	0.88
23:BB:1105:U:H2'	23:BB:1106:G:H8	1.39	0.88
52:BW:17:ALA:HA	52:BW:35:ILE:HG23	1.54	0.88
12:CM:21:ILE:HB	12:CM:24:VAL:HG22	1.56	0.88
23:DB:858:G:N3	23:DB:2268:A:H2'	1.89	0.88
28:DP:96:LEU:HB3	28:DP:99:LEU:HD23	1.55	0.88
52:DW:37:VAL:HG12	52:DW:38:ARG:H	1.38	0.88
35:BV:72:VAL:HG12	35:BV:94:ALA:H	1.36	0.88
18:CS:1:PRO:HG3	1:CA:1311:A:N6	1.88	0.88
27:BK:61:VAL:HG13	27:BK:87:LEU:HD11	1.56	0.88
23:DB:2269:G:H4'	52:DW:19:ARG:HH12	1.39	0.88
40:DH:14:SER:HB2	40:DH:17:ASP:HB2	1.53	0.88
27:DK:61:VAL:HG13	27:DK:87:LEU:HD11	1.55	0.88
8:AI:51:LEU:HD22	8:AI:56:MET:HE3	1.55	0.88
42:BN:37:THR:HG22	42:BN:39:PRO:HD2	1.56	0.88
26:DD:106:LYS:HB3	26:DD:206:ALA:N	1.88	0.88
27:DK:35:VAL:HG23	27:DK:36:GLY:H	1.37	0.88
52:DW:17:ALA:HA	52:DW:35:ILE:HG23	1.55	0.88
51:DZ:38:PHE:HE2	51:DZ:51:VAL:HG21	1.39	0.88
6:AG:134:VAL:HB	6:AG:137:ARG:HH21	1.37	0.87
9:AJ:36:VAL:HA	9:AJ:76:ILE:HG22	1.56	0.87
4:AE:37:VAL:HG11	4:AE:113:VAL:HG12	1.54	0.87
41:BJ:17:VAL:HG23	41:BJ:137:PRO:HB2	1.55	0.87
23:BB:858:G:N3	23:BB:2268:A:H2'	1.88	0.87
26:BD:106:LYS:HB3	26:BD:206:ALA:N	1.89	0.87
26:BD:46:ARG:HH22	26:BD:87:GLY:H	1.19	0.87
53:D6:109:GLU:HA	53:D6:112:LYS:HE3	1.54	0.87
40:DH:129:GLU:HA	40:DH:143:ILE:HA	1.56	0.87
1:AA:120:A:H2'	1:AA:121:U:H5''	1.55	0.87
3:CD:25:ARG:HH11	3:CD:26:ALA:H	1.16	0.87
21:CU:42:THR:HB	21:CU:46:ARG:HE	1.39	0.87
29:DE:5:LEU:HD12	29:DE:10:SER:HB2	1.54	0.87
24:BI:27:LEU:HD23	24:BI:27:LEU:H	1.39	0.87
46:BU:48:VAL:H	46:BU:53:GLN:HB2	1.36	0.87
5:AF:29:ILE:HG21	5:AF:64:VAL:HG11	1.55	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:243:A:H4'	1:CA:244:U:H5'	1.56	0.87
27:DK:47:ILE:HG12	27:DK:48:PRO:HD2	1.54	0.87
1:AA:1086:U:H3	1:AA:1099:G:H22	1.18	0.87
13:AN:63:CYS:HB3	13:AN:67:GLY:N	1.90	0.87
23:DB:1099:G:H8	24:DI:3:LYS:H	1.07	0.87
37:DL:143:GLU:HG2	37:DL:144:GLU:N	1.86	0.87
29:BE:111:GLU:HG2	29:BE:114:ARG:HH21	1.39	0.87
23:DB:972:A:H3'	23:DB:973:A:H5''	1.56	0.87
29:DE:108:ILE:HD11	29:DE:181:ILE:HG13	1.54	0.87
47:DF:126:ASN:HD22	47:DF:156:THR:HA	1.37	0.87
47:DF:109:ARG:HB3	47:DF:135:ILE:HD12	1.57	0.87
23:BB:1032:A:H1'	32:B4:23:ILE:HD13	1.55	0.86
23:BB:856:G:H1'	52:BW:23:LYS:HB3	1.56	0.86
48:BG:24:THR:HG22	48:BG:34:ARG:HB3	1.56	0.86
23:BB:972:A:H3'	23:BB:973:A:H5''	1.55	0.86
52:DW:39:GLN:HG3	52:DW:42:THR:HB	1.57	0.86
23:BB:1798:U:H5''	25:BC:257:ARG:HB2	1.55	0.86
5:CF:29:ILE:HG21	5:CF:64:VAL:HG11	1.56	0.86
44:DQ:77:LYS:HB3	44:DQ:116:LEU:HD21	1.56	0.86
35:DV:72:VAL:HG12	35:DV:94:ALA:H	1.39	0.86
53:B6:43:VAL:HB	53:B6:55:ILE:HG21	1.56	0.86
52:BW:37:VAL:HG12	52:BW:38:ARG:H	1.40	0.86
52:DW:18:LYS:HA	52:DW:36:ILE:HG12	1.57	0.86
21:AU:42:THR:HB	21:AU:46:ARG:HE	1.40	0.86
51:BZ:38:PHE:HE2	51:BZ:51:VAL:HG21	1.39	0.86
16:CQ:18:LYS:HD3	16:CQ:48:GLU:HA	1.57	0.86
23:DB:2502:G:H5'	23:DB:2503:A:H5''	1.58	0.86
53:B6:33:ALA:HA	53:B6:103:ILE:HG21	1.56	0.86
26:BD:113:SER:HB2	26:BD:168:GLU:H	1.41	0.86
23:DB:1080:A:H4'	24:DI:126:ARG:CD	2.05	0.86
23:DB:1198:U:H4'	44:DQ:8:ILE:HD11	1.56	0.86
52:BW:39:GLN:HG3	52:BW:42:THR:HB	1.58	0.86
23:BB:470:A:H61	50:BT:72:GLN:HE22	1.24	0.85
4:CE:52:ALA:HB2	4:CE:61:LYS:HE2	1.56	0.85
40:DH:104:THR:HG23	40:DH:109:GLU:HA	1.56	0.85
39:DX:29:ARG:HH12	50:DT:12:ARG:HA	1.38	0.85
47:DF:62:GLN:HG3	47:DF:91:ARG:NH1	1.91	0.85
48:DG:24:THR:HG22	48:DG:34:ARG:HB3	1.57	0.85
23:BB:1283:G:N2	23:BB:1286:A:H5'	1.92	0.85
52:BW:18:LYS:HA	52:BW:36:ILE:HG12	1.57	0.85
52:DW:49:ASN:HB2	52:DW:60:ALA:HA	1.57	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AD:84:ASN:ND2	4:AE:101:GLY:HA3	1.91	0.85
12:AM:21:ILE:HB	12:AM:24:VAL:HG22	1.58	0.85
23:DB:1798:U:H5''	25:DC:257:ARG:HB2	1.58	0.85
11:AL:35:ARG:HH21	11:AL:36:VAL:HG22	1.42	0.85
52:BW:19:ARG:HD3	52:BW:36:ILE:HD11	1.57	0.85
41:DJ:17:VAL:HG23	41:DJ:137:PRO:HB2	1.56	0.85
39:DX:3:ALA:HA	39:DX:6:LEU:HD23	1.58	0.85
23:BB:1729:U:H3'	23:BB:1730:C:H4'	1.56	0.85
40:DH:72:ILE:HG12	40:DH:108:VAL:HG11	1.57	0.85
52:DW:19:ARG:HD3	52:DW:36:ILE:HD11	1.56	0.85
12:AM:85:TYR:HA	12:AM:88:LEU:HD12	1.58	0.85
39:BX:3:ALA:HA	39:BX:6:LEU:HD23	1.59	0.85
25:DC:103:ILE:HG22	25:DC:105:ALA:H	1.42	0.85
48:DG:120:ILE:HD11	48:DG:132:LEU:HB2	1.57	0.85
40:DH:94:ILE:HG23	40:DH:98:ASP:HB2	1.59	0.85
47:BF:109:ARG:HB3	47:BF:135:ILE:HD12	1.57	0.84
26:DD:46:ARG:HH22	26:DD:87:GLY:H	1.22	0.84
23:DB:1283:G:N2	23:DB:1286:A:H5'	1.91	0.84
40:BH:5:LEU:HD11	40:BH:12:LEU:HB2	1.58	0.84
6:CG:74:VAL:HA	6:CG:87:PRO:HA	1.59	0.84
52:BW:49:ASN:HB2	52:BW:60:ALA:HA	1.57	0.84
10:CK:111:ASP:HB2	21:CU:19:LYS:HE3	1.57	0.84
24:DI:27:LEU:HD23	24:DI:27:LEU:H	1.42	0.84
9:AJ:51:VAL:HG23	13:AN:80:ARG:HB2	1.60	0.84
26:DD:113:SER:HB2	26:DD:168:GLU:H	1.42	0.84
30:DY:12:ALA:HA	30:DY:15:ARG:HD3	1.57	0.84
25:BC:103:ILE:HG22	25:BC:105:ALA:H	1.41	0.84
25:DC:105:ALA:HB1	25:DC:109:LEU:HD12	1.60	0.84
16:AQ:18:LYS:HD3	16:AQ:48:GLU:HA	1.57	0.84
53:B6:20:VAL:O	53:B6:24:ASN:HB2	1.77	0.84
23:BB:2502:G:H5'	23:BB:2503:A:H5''	1.59	0.84
40:BH:82:SER:HB3	40:BH:146:VAL:HG13	1.60	0.84
30:BY:12:ALA:HA	30:BY:15:ARG:HD3	1.56	0.84
40:DH:5:LEU:HD11	40:DH:12:LEU:HB2	1.58	0.84
8:AI:56:MET:HG3	8:AI:57:VAL:HG23	1.59	0.84
10:AK:111:ASP:HB2	21:AU:19:LYS:HE3	1.60	0.84
51:BZ:59:ILE:HD13	51:BZ:67:VAL:HG21	1.60	0.84
44:DQ:91:ARG:NH1	49:DR:11:GLN:H	1.76	0.84
52:DW:51:GLY:HA3	52:DW:59:PHE:HB2	1.60	0.84
51:DZ:7:VAL:HG13	51:DZ:8:THR:HG23	1.60	0.84
48:BG:120:ILE:HD11	48:BG:132:LEU:HB2	1.58	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:DZ:59:ILE:HD13	51:DZ:67:VAL:HG21	1.60	0.83
1:AA:79:G:H2'	1:AA:80:A:C8	2.12	0.83
6:AG:74:VAL:HA	6:AG:87:PRO:HA	1.58	0.83
40:DH:86:ASP:HB2	40:DH:89:LYS:HB2	1.59	0.83
16:AQ:46:HIS:HE2	16:AQ:48:GLU:HG2	1.43	0.83
53:B6:55:ILE:HG23	53:B6:56:ALA:H	1.44	0.83
25:BC:180:MET:HB3	25:BC:267:VAL:HB	1.60	0.83
10:AK:34:THR:HB	10:AK:40:ALA:HA	1.60	0.83
40:BH:48:GLU:N	40:BH:50:ARG:HH21	1.76	0.83
44:BQ:77:LYS:HB3	44:BQ:116:LEU:HD21	1.58	0.83
45:BS:26:GLY:H	45:BS:71:VAL:HG13	1.43	0.83
8:CI:56:MET:HG3	8:CI:57:VAL:HG23	1.58	0.83
46:BU:42:LYS:HG3	46:BU:57:ILE:HG21	1.60	0.83
1:CA:18:C:H4'	1:CA:1078:U:O2	1.78	0.83
23:DB:666:A:H4'	37:DL:48:ARG:HD2	1.59	0.83
23:BB:79:C:O2'	23:BB:346:A:H1'	1.78	0.83
53:D6:52:LEU:HG	53:D6:56:ALA:HB3	1.60	0.83
23:DB:161:A:H3'	23:DB:162:U:H5''	1.61	0.83
49:DR:24:LYS:HA	49:DR:94:THR:HG23	1.61	0.83
47:BF:126:ASN:HD22	47:BF:156:THR:HA	1.40	0.83
3:CD:84:ASN:ND2	4:CE:101:GLY:HA3	1.94	0.83
5:AF:6:ILE:HG23	5:AF:62:MET:HB3	1.58	0.83
53:B6:60:ALA:HA	53:B6:66:LEU:HA	1.60	0.83
26:BD:11:MET:HE1	26:BD:192:ALA:H	1.43	0.83
40:BH:49:ALA:H	40:BH:50:ARG:NH2	1.77	0.83
23:DB:1098:A:H2'	24:DI:4:VAL:N	1.93	0.83
21:AU:16:ARG:HH22	21:AU:19:LYS:HZ2	1.26	0.82
9:CJ:36:VAL:HA	9:CJ:76:ILE:HG22	1.58	0.82
9:CJ:51:VAL:HG23	13:CN:80:ARG:HB2	1.61	0.82
44:DQ:63:ARG:HH12	44:DQ:96:ASP:HA	1.41	0.82
1:AA:1004:A:H5'	1:AA:1025:U:O2	1.79	0.82
41:BJ:58:ASN:HA	41:BJ:127:GLY:HA2	1.60	0.82
53:D6:25:LEU:HD21	53:D6:118:VAL:HG13	1.60	0.82
25:DC:180:MET:HB3	25:DC:267:VAL:HB	1.60	0.82
23:BB:1060:U:C2	23:BB:1088:A:N7	2.47	0.82
44:BQ:63:ARG:HH12	44:BQ:96:ASP:HA	1.44	0.82
23:BB:2269:G:H4'	52:BW:19:ARG:NH1	1.93	0.82
32:B4:7:VAL:HG13	32:B4:8:LYS:H	1.44	0.82
14:CO:64:ARG:HH12	14:CO:88:ARG:NH2	1.78	0.82
16:CQ:81:ALA:HB1	16:CQ:83:LEU:HD13	1.61	0.82
24:BI:129:GLU:HB3	24:BI:133:ARG:HH12	1.41	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BT:47:VAL:HB	50:BT:55:VAL:HG21	1.62	0.82
23:DB:1172:C:H2'	23:DB:1173:U:O4'	1.78	0.82
23:BB:1105:U:H2'	23:BB:1106:G:C8	2.15	0.82
47:BF:62:GLN:HG3	47:BF:91:ARG:NH1	1.94	0.82
41:DJ:6:ALA:HB3	41:DJ:45:THR:HG21	1.61	0.82
45:DS:66:ILE:H	45:DS:66:ILE:HD13	1.45	0.82
3:AD:84:ASN:HD21	4:AE:101:GLY:HA3	1.44	0.82
10:AK:55:ARG:HH12	10:AK:60:PHE:HD1	1.26	0.82
23:BB:1437:C:H2'	23:BB:1438:U:C6	2.15	0.82
23:BB:1812:U:H2'	23:BB:1813:G:H8	1.45	0.82
23:DB:1060:U:C2	23:DB:1088:A:N7	2.48	0.82
23:DB:1099:G:H5''	24:DI:3:LYS:N	1.95	0.82
29:DE:155:GLU:HA	29:DE:158:PHE:HB3	1.61	0.82
46:DU:42:LYS:HG3	46:DU:57:ILE:HG21	1.62	0.82
20:AB:221:ARG:HH11	20:AB:221:ARG:HB3	1.44	0.82
9:CJ:9:ARG:HB2	9:CJ:99:GLN:HB3	1.62	0.82
34:D3:41:ARG:HG3	34:D3:44:ARG:HH22	1.45	0.82
42:BN:83:LEU:HA	42:BN:86:ARG:HB2	1.60	0.82
24:DI:121:ILE:HD13	24:DI:121:ILE:H	1.44	0.82
23:DB:558:U:OP1	41:DJ:113:PRO:HG2	1.78	0.82
1:AA:1060:U:H4'	9:AJ:54:SER:HB2	1.61	0.81
1:AA:1328:C:H5''	12:AM:27:THR:HG21	1.61	0.81
16:AQ:60:ILE:HG22	16:AQ:74:LEU:HA	1.62	0.81
14:CO:67:LEU:HD13	14:CO:88:ARG:HH22	1.45	0.81
32:D4:10:LEU:HD12	32:D4:33:HIS:HA	1.61	0.81
40:DH:48:GLU:HA	40:DH:51:ARG:HE	1.45	0.81
12:CM:85:TYR:HA	12:CM:88:LEU:HD12	1.60	0.81
23:DB:1098:A:H2'	24:DI:4:VAL:CA	2.10	0.81
14:AO:36:ILE:HD11	14:AO:59:MET:HB2	1.62	0.81
1:CA:1004:A:H5'	1:CA:1025:U:O2	1.81	0.81
2:CC:76:ILE:HG22	2:CC:80:GLY:HA2	1.62	0.81
23:DB:1081:U:H5'	24:DI:126:ARG:NH1	1.96	0.81
29:DE:111:GLU:HG2	29:DE:114:ARG:HH21	1.43	0.81
1:AA:978:A:H5'	1:AA:1362:A:N6	1.95	0.81
4:AE:52:ALA:HB2	4:AE:61:LYS:HE2	1.60	0.81
23:BB:666:A:H4'	37:BL:48:ARG:HD2	1.62	0.81
1:AA:1021:A:H2'	1:AA:1022:A:O4'	1.80	0.81
14:CO:36:ILE:HD11	14:CO:59:MET:HB2	1.61	0.81
53:D6:156:ARG:HH21	53:D6:160:GLU:HB2	1.46	0.81
40:DH:69:ALA:HA	40:DH:140:ALA:HB2	1.60	0.81
44:DQ:94:LEU:HD12	49:DR:13:ARG:HB2	1.59	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1178:C:H2'	23:BB:1179:G:C8	2.15	0.81
48:BG:84:LYS:HG2	48:BG:85:LYS:H	1.45	0.81
1:AA:73:C:H2'	1:AA:74:A:O4'	1.80	0.81
25:BC:129:LEU:HD23	25:BC:130:PRO:HD2	1.62	0.81
26:BD:148:GLN:HG3	26:BD:152:PRO:CG	2.11	0.81
20:CB:221:ARG:HH11	20:CB:221:ARG:HB3	1.46	0.81
9:CJ:54:SER:HB2	1:CA:1060:U:H4'	1.61	0.81
50:DT:73:ARG:HH21	50:DT:73:ARG:HB3	1.43	0.81
51:DZ:40:VAL:HG21	51:DZ:43:GLU:HB3	1.61	0.81
2:AC:63:ILE:HD11	2:AC:94:ALA:HB3	1.62	0.81
23:DB:1080:A:O2'	24:DI:126:ARG:HD2	1.81	0.81
23:DB:1099:G:P	24:DI:4:VAL:H	2.03	0.81
23:BB:1812:U:H1'	25:BC:43:ASN:HD21	1.45	0.81
1:CA:1021:A:H2'	1:CA:1022:A:O4'	1.80	0.81
23:DB:1437:C:H2'	23:DB:1438:U:C6	2.15	0.81
45:DS:26:GLY:H	45:DS:71:VAL:HG13	1.43	0.81
14:AO:70:LEU:HD11	14:AO:77:ARG:HB2	1.63	0.81
23:BB:558:U:OP1	41:BJ:113:PRO:HG2	1.80	0.81
24:BI:55:PRO:HD3	24:BI:74:PRO:HD3	1.62	0.81
23:DB:479:A:O2'	23:DB:481:G:H5'	1.81	0.81
32:B4:10:LEU:HD12	32:B4:33:HIS:HA	1.61	0.80
23:BB:1060:U:C5	24:BI:131:THR:HG22	2.14	0.80
44:BQ:91:ARG:NH1	49:BR:11:GLN:H	1.79	0.80
2:AC:70:ALA:HA	2:AC:105:VAL:HG21	1.61	0.80
3:AD:25:ARG:HH11	3:AD:26:ALA:N	1.78	0.80
14:AO:67:LEU:HD13	14:AO:88:ARG:HH22	1.46	0.80
53:B6:77:LYS:HE2	53:B6:94:ASN:HD21	1.45	0.80
43:BO:53:THR:HB	43:BO:65:THR:HG22	1.61	0.80
49:BR:24:LYS:HA	49:BR:94:THR:HG23	1.61	0.80
1:CA:978:A:H5'	1:CA:1362:A:N6	1.96	0.80
40:DH:29:PHE:O	40:DH:33:GLN:HB3	1.80	0.80
40:BH:134:VAL:HG13	40:BH:135:HIS:N	1.97	0.80
40:BH:29:PHE:O	40:BH:33:GLN:HB3	1.81	0.80
45:BS:4:ILE:HG22	45:BS:106:VAL:HG13	1.63	0.80
11:CL:49:ARG:HG2	11:CL:89:LEU:HD21	1.63	0.80
13:CN:63:CYS:HB3	13:CN:67:GLY:N	1.93	0.80
23:DB:1812:U:H2'	23:DB:1813:G:H8	1.46	0.80
47:DF:72:SER:HA	47:DF:78:ILE:HG22	1.63	0.80
50:DT:47:VAL:HB	50:DT:55:VAL:HG21	1.62	0.80
51:BZ:40:VAL:HG21	51:BZ:43:GLU:HB3	1.62	0.80
2:CC:63:ILE:HD11	2:CC:94:ALA:HB3	1.64	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1406:U:H2'	23:DB:1407:G:H8	1.46	0.80
48:DG:84:LYS:HG2	48:DG:85:LYS:H	1.44	0.80
24:DI:21:PRO:HB2	24:DI:22:PRO:HD3	1.63	0.80
13:AN:30:ILE:HG21	13:AN:44:VAL:HG21	1.64	0.80
25:BC:105:ALA:HB1	25:BC:109:LEU:HD12	1.62	0.80
41:BJ:29:ALA:HA	41:BJ:32:LEU:HD12	1.63	0.80
27:BK:119:ALA:HB3	27:BK:120:PRO:HD3	1.63	0.80
51:BZ:31:PRO:HB2	51:BZ:33:LEU:HD11	1.63	0.80
10:CK:34:THR:HB	10:CK:40:ALA:HA	1.62	0.80
12:CM:27:THR:HG21	1:CA:1328:C:H5''	1.62	0.80
27:DK:119:ALA:HB3	27:DK:120:PRO:HD3	1.62	0.80
1:AA:1323:G:H2'	1:AA:1324:A:C8	2.17	0.80
9:AJ:9:ARG:HB2	9:AJ:99:GLN:HB3	1.63	0.80
18:AS:39:ILE:HB	18:AS:66:VAL:HA	1.63	0.80
23:BB:1082:U:C4	23:BB:1086:A:C2	2.69	0.80
29:BE:155:GLU:HA	29:BE:158:PHE:HB3	1.61	0.80
50:BT:73:ARG:HH21	50:BT:73:ARG:HB3	1.45	0.80
3:CD:160:LEU:H	3:CD:160:LEU:HD13	1.46	0.80
14:CO:70:LEU:HD11	14:CO:77:ARG:HB2	1.64	0.80
16:CQ:46:HIS:HE2	16:CQ:48:GLU:HG2	1.46	0.80
6:AG:6:ILE:HG13	6:AG:7:GLY:H	1.47	0.80
53:B6:32:ARG:HE	53:B6:37:LEU:HD23	1.47	0.80
28:BP:50:ARG:HB3	28:BP:57:ALA:N	1.97	0.80
28:DP:50:ARG:HB3	28:DP:57:ALA:N	1.97	0.80
49:BR:2:TYR:HB2	49:BR:42:ALA:HB2	1.63	0.80
2:CC:70:ALA:HA	2:CC:105:VAL:HG21	1.64	0.80
5:CF:6:ILE:HG23	5:CF:62:MET:HB3	1.63	0.80
23:DB:1082:U:C4	23:DB:1086:A:C2	2.70	0.80
23:DB:1108:U:O2'	23:DB:1109:C:H5'	1.81	0.80
23:DB:856:G:H1'	52:DW:23:LYS:HB3	1.64	0.80
41:DJ:25:LEU:HD22	41:DJ:26:GLY:H	1.44	0.80
41:DJ:58:ASN:HA	41:DJ:127:GLY:HA2	1.62	0.80
23:DB:992:C:H4'	49:DR:74:ILE:HD13	1.64	0.80
53:B6:67:VAL:HB	53:B6:98:ALA:HB1	1.64	0.80
18:CS:39:ILE:HB	18:CS:66:VAL:HA	1.64	0.80
24:DI:11:GLN:HG2	24:DI:55:PRO:HB3	1.64	0.80
1:AA:87:C:H2'	1:AA:88:U:H4'	1.65	0.79
3:AD:11:SER:HA	3:AD:18:LEU:HD22	1.62	0.79
18:AS:51:HIS:HA	18:AS:56:HIS:HA	1.64	0.79
33:B1:46:VAL:HG22	33:B1:47:ILE:H	1.47	0.79
23:BB:1092:C:OP1	23:BB:2475:C:H4'	1.82	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BS:66:ILE:H	45:BS:66:ILE:HD13	1.45	0.79
11:CL:35:ARG:HH21	11:CL:36:VAL:HG22	1.45	0.79
23:DB:2185:U:H2'	23:DB:2186:G:O4'	1.82	0.79
23:DB:784:G:N1	25:DC:227:VAL:HG11	1.96	0.79
28:DP:99:LEU:HD13	28:DP:102:ARG:HG3	1.64	0.79
49:DR:2:TYR:HB2	49:DR:42:ALA:HB2	1.64	0.79
23:BB:137:U:H2'	23:BB:138:U:O4'	1.82	0.79
46:BU:85:ARG:HD3	46:BU:86:PHE:H	1.46	0.79
9:CJ:36:VAL:HG12	9:CJ:38:GLY:H	1.46	0.79
23:DB:704:G:H1'	23:DB:727:A:N6	1.97	0.79
2:AC:122:GLN:HB3	2:AC:127:VAL:HG21	1.65	0.79
5:AF:29:ILE:HG22	5:AF:34:GLY:HA3	1.63	0.79
8:AI:47:VAL:HG23	8:AI:48:ARG:HG3	1.65	0.79
53:B6:42:LYS:HB3	53:B6:49:HIS:O	1.82	0.79
23:BB:275:C:H2'	23:BB:276:U:O4'	1.82	0.79
47:BF:43:ILE:HG23	47:BF:44:ALA:H	1.47	0.79
37:BL:90:VAL:HB	37:BL:122:VAL:HA	1.64	0.79
28:BP:7:LEU:HD12	28:BP:7:LEU:H	1.47	0.79
1:CA:1323:G:H2'	1:CA:1324:A:C8	2.17	0.79
20:CB:122:ASP:OD2	20:CB:124:THR:HG22	1.82	0.79
32:D4:7:VAL:HG13	32:D4:8:LYS:H	1.45	0.79
2:AC:76:ILE:HG22	2:AC:80:GLY:HA2	1.62	0.79
23:BB:2133:G:H22	23:BB:2156:G:H1	1.28	0.79
49:DR:39:LEU:HB2	49:DR:49:ILE:HG12	1.63	0.79
1:AA:86:G:H1'	1:AA:88:U:C5	2.18	0.79
6:AG:149:ALA:HB2	10:AK:55:ARG:NH1	1.97	0.79
18:AS:48:ILE:HB	18:AS:59:VAL:HG23	1.64	0.79
34:B3:41:ARG:HG3	34:B3:44:ARG:HH22	1.46	0.79
42:DN:83:LEU:HA	42:DN:86:ARG:HB2	1.61	0.79
35:DV:9:ARG:NH2	35:DV:12:GLN:HA	1.98	0.79
23:BB:222:A:N6	23:BB:232:G:H1'	1.97	0.79
47:BF:72:SER:HA	47:BF:78:ILE:HG22	1.65	0.79
28:BP:110:LYS:HD2	28:BP:110:LYS:H	1.47	0.79
3:CD:11:SER:HA	3:CD:18:LEU:HD22	1.63	0.79
33:D1:46:VAL:HG22	33:D1:47:ILE:H	1.48	0.79
47:DF:64:PRO:HA	47:DF:88:VAL:HG22	1.63	0.79
42:DN:72:ASP:HB3	42:DN:75:ILE:HG12	1.62	0.79
23:BB:161:A:H3'	23:BB:162:U:H5''	1.63	0.79
23:BB:345:A:H1'	23:BB:346:A:H2	1.47	0.79
28:BP:61:ARG:NH1	28:BP:100:ARG:HA	1.97	0.79
51:BZ:7:VAL:HG13	51:BZ:8:THR:HG23	1.61	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:222:A:N6	23:DB:232:G:H1'	1.98	0.79
40:DH:131:SER:HB2	40:DH:141:LYS:HA	1.65	0.79
50:DT:50:LEU:HD22	50:DT:50:LEU:H	1.46	0.79
23:BB:142:A:H2'	23:BB:143:C:O4'	1.83	0.79
47:BF:110:ILE:HA	47:BF:111:ARG:CZ	2.13	0.79
13:CN:30:ILE:H	13:CN:30:ILE:HD12	1.48	0.79
18:CS:48:ILE:HB	18:CS:59:VAL:HG23	1.64	0.79
11:AL:107:LYS:H	11:AL:107:LYS:HZ3	1.28	0.79
27:BK:99:ILE:HD13	27:BK:118:LEU:HD22	1.63	0.79
43:BO:3:LYS:H	43:BO:3:LYS:HZ3	1.29	0.79
10:CK:86:LYS:HB3	10:CK:112:VAL:HG23	1.64	0.79
16:CQ:60:ILE:HG22	16:CQ:74:LEU:HA	1.65	0.79
47:DF:35:LEU:HD23	47:DF:153:ILE:HG12	1.65	0.79
47:DF:43:ILE:HG23	47:DF:44:ALA:H	1.48	0.79
42:BN:72:ASP:HB3	42:BN:75:ILE:HG12	1.63	0.79
14:AO:64:ARG:HH12	14:AO:88:ARG:NH2	1.81	0.78
25:BC:140:VAL:HG12	25:BC:141:HIS:H	1.47	0.78
47:BF:64:PRO:HA	47:BF:88:VAL:HG22	1.65	0.78
1:CA:747:A:H2'	1:CA:748:G:O4'	1.82	0.78
23:DB:355:U:H2'	23:DB:356:G:H8	1.46	0.78
25:DC:129:LEU:HD23	25:DC:130:PRO:HD2	1.63	0.78
1:AA:376:G:H5''	15:AP:5:ARG:HD3	1.63	0.78
48:BG:84:LYS:HG3	48:BG:132:LEU:N	1.96	0.78
15:CP:5:ARG:HD3	1:CA:376:G:H5''	1.63	0.78
23:DB:919:U:H2'	23:DB:920:A:C8	2.18	0.78
23:BB:2264:C:H41	52:BW:11:ASN:ND2	1.81	0.78
46:BU:34:ILE:HG12	46:BU:63:ALA:HB2	1.66	0.78
2:CC:122:GLN:HB3	2:CC:127:VAL:HG21	1.64	0.78
5:CF:29:ILE:HG22	5:CF:34:GLY:HA3	1.65	0.78
23:DB:1655:A:H5'	26:DD:118:PHE:HB2	1.64	0.78
47:DF:163:GLU:HA	47:DF:166:ARG:HH11	1.47	0.78
28:DP:110:LYS:HD2	28:DP:110:LYS:H	1.47	0.78
46:DU:85:ARG:HD3	46:DU:86:PHE:H	1.49	0.78
12:CM:106:ARG:HH12	12:CM:109:LYS:HD2	1.49	0.78
47:DF:110:ILE:HA	47:DF:111:ARG:CZ	2.13	0.78
25:BC:231:HIS:HA	25:BC:241:LYS:HE3	1.65	0.78
3:CD:25:ARG:HH11	3:CD:26:ALA:N	1.80	0.78
40:DH:115:VAL:HG22	40:DH:117:LEU:H	1.47	0.78
42:DN:107:ASN:HD21	45:DS:40:ASN:HD22	1.30	0.78
1:AA:412:A:H1'	1:AA:413:G:H5''	1.66	0.78
23:BB:2769:U:H2'	23:BB:2770:G:H8	1.48	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BP:99:LEU:HD13	28:BP:102:ARG:HG3	1.65	0.78
20:CB:19:THR:HG23	20:CB:20:ARG:H	1.49	0.78
18:CS:51:HIS:HA	18:CS:56:HIS:HA	1.65	0.78
28:DP:50:ARG:HB3	28:DP:57:ALA:H	1.48	0.78
23:BB:2180:U:H2'	23:BB:2181:U:H5	1.47	0.78
23:BB:674:G:H1'	29:BE:69:ARG:HD2	1.65	0.78
42:BN:107:ASN:HD21	45:BS:40:ASN:HD22	1.31	0.78
1:CA:1338:G:H2'	1:CA:1339:A:C8	2.19	0.78
40:DH:117:LEU:HD12	40:DH:118:PRO:HD2	1.65	0.78
27:DK:76:VAL:H	28:DP:72:VAL:HG23	1.48	0.78
28:DP:7:LEU:HD12	28:DP:7:LEU:H	1.49	0.78
3:AD:160:LEU:H	3:AD:160:LEU:HD13	1.47	0.78
23:BB:276:U:O2'	23:BB:277:G:H5'	1.83	0.78
47:BF:163:GLU:HA	47:BF:166:ARG:HH11	1.48	0.78
23:DB:1099:G:P	24:DI:3:LYS:HA	2.23	0.78
27:DK:99:ILE:HD13	27:DK:118:LEU:HD22	1.66	0.78
43:DO:24:THR:HG22	43:DO:42:PRO:HD3	1.66	0.78
45:DS:4:ILE:HG22	45:DS:106:VAL:HG13	1.64	0.78
1:AA:1035:A:H2'	1:AA:1036:A:H8	1.49	0.78
10:AK:86:LYS:HB3	10:AK:112:VAL:HG23	1.66	0.78
24:BI:21:PRO:HB2	24:BI:22:PRO:HD3	1.63	0.78
35:BV:9:ARG:NH2	35:BV:12:GLN:HA	1.99	0.78
13:CN:30:ILE:HG21	13:CN:44:VAL:HG21	1.63	0.78
40:DH:127:GLU:HA	40:DH:145:ASN:HA	1.66	0.78
40:DH:5:LEU:HD21	40:DH:12:LEU:HD12	1.65	0.78
37:DL:103:ILE:H	37:DL:103:ILE:HD12	1.49	0.78
1:AA:1338:G:H2'	1:AA:1339:A:C8	2.19	0.78
53:B6:113:ASP:HA	53:B6:116:ARG:NE	1.99	0.78
50:BT:50:LEU:H	50:BT:50:LEU:HD22	1.47	0.78
10:CK:55:ARG:HH12	10:CK:60:PHE:HD1	1.32	0.78
21:CU:34:ARG:HE	21:CU:35:GLU:C	1.87	0.78
48:DG:148:ARG:HA	48:DG:161:VAL:HB	1.66	0.78
26:BD:10:GLY:HA3	26:BD:26:VAL:N	1.99	0.77
40:BH:57:LYS:HG3	40:BH:58:LEU:H	1.48	0.77
28:BP:50:ARG:HB3	28:BP:57:ALA:H	1.48	0.77
23:BB:2356:U:H5''	52:BW:16:GLU:HG3	1.65	0.77
25:DC:140:VAL:HG12	25:DC:141:HIS:H	1.48	0.77
24:DI:45:THR:HA	24:DI:48:ILE:HG22	1.66	0.77
52:DW:24:ARG:HD3	52:DW:65:LYS:HG2	1.64	0.77
11:AL:49:ARG:HG2	11:AL:89:LEU:HD21	1.66	0.77
47:BF:35:LEU:HD23	47:BF:153:ILE:HG12	1.66	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BT:67:VAL:HB	50:BT:76:ARG:HG2	1.66	0.77
35:BV:62:THR:HG22	35:BV:71:LYS:HG2	1.67	0.77
26:DD:148:GLN:HG3	26:DD:152:PRO:CG	2.11	0.77
29:DE:44:ARG:HG3	29:DE:44:ARG:HH21	1.48	0.77
50:DT:15:HIS:HB3	50:DT:31:VAL:HG23	1.66	0.77
19:AT:61:ALA:HA	19:AT:67:HIS:H	1.49	0.77
21:AU:16:ARG:HH12	21:AU:19:LYS:HZ3	1.33	0.77
47:BF:11:VAL:HG12	47:BF:12:VAL:H	1.48	0.77
43:BO:24:THR:HG22	43:BO:42:PRO:HD3	1.66	0.77
51:DZ:31:PRO:HB2	51:DZ:33:LEU:HD11	1.65	0.77
23:BB:479:A:O2'	23:BB:481:G:H5'	1.85	0.77
23:BB:704:G:H1'	23:BB:727:A:N6	1.98	0.77
48:BG:96:ALA:HB3	48:BG:103:ASN:HB3	1.66	0.77
37:BL:92:LEU:HD23	37:BL:92:LEU:H	1.49	0.77
27:BK:76:VAL:H	28:BP:72:VAL:HG23	1.48	0.77
49:BR:39:LEU:HB2	49:BR:49:ILE:HG12	1.65	0.77
1:CA:978:A:H5'	1:CA:1362:A:H62	1.48	0.77
47:DF:11:VAL:HG12	47:DF:12:VAL:H	1.49	0.77
28:DP:61:ARG:NH1	28:DP:100:ARG:HA	1.99	0.77
23:BB:1993:U:H4'	26:BD:133:THR:HG21	1.66	0.77
23:BB:2498:C:O2'	23:BB:2499:C:H5'	1.85	0.77
23:BB:321:U:OP2	29:BE:130:LYS:HA	1.84	0.77
47:BF:66:ILE:HD11	47:BF:83:PRO:HB3	1.67	0.77
37:BL:79:LEU:HB3	37:BL:115:GLU:O	1.85	0.77
1:CA:1035:A:H2'	1:CA:1036:A:H8	1.48	0.77
3:CD:84:ASN:HD21	4:CE:101:GLY:HA3	1.46	0.77
12:CM:22:TYR:HB3	12:CM:69:ARG:HH21	1.49	0.77
21:CU:16:ARG:HH22	21:CU:19:LYS:NZ	1.83	0.77
24:DI:72:THR:HG21	24:DI:112:LYS:HA	1.67	0.77
27:DK:14:SER:HB2	27:DK:51:LYS:H	1.49	0.77
50:DT:39:THR:HG23	50:DT:41:ALA:H	1.49	0.77
9:AJ:36:VAL:HG12	9:AJ:38:GLY:H	1.49	0.77
1:CA:1035:A:H2'	1:CA:1036:A:C8	2.20	0.77
23:DB:2498:C:O2'	23:DB:2499:C:H5'	1.84	0.77
23:DB:277:G:H1'	23:DB:361:G:H1	1.48	0.77
25:DC:144:GLU:HG3	25:DC:151:GLY:N	1.98	0.77
48:DG:84:LYS:HG3	48:DG:132:LEU:N	1.99	0.77
1:AA:93:U:H5''	1:AA:94:G:OP2	1.84	0.77
40:BH:5:LEU:HD21	40:BH:12:LEU:HD12	1.65	0.77
41:BJ:25:LEU:HD22	41:BJ:26:GLY:H	1.49	0.77
50:BT:57:VAL:HG22	50:BT:58:VAL:H	1.49	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DF:66:ILE:HD11	47:DF:83:PRO:HB3	1.67	0.77
41:DJ:35:ARG:HG3	41:DJ:40:HIS:HE2	1.48	0.77
27:DK:70:ARG:HB3	27:DK:76:VAL:HG22	1.67	0.77
1:AA:80:A:H2'	1:AA:81:A:O4'	1.85	0.77
1:AA:522:C:H41	11:AL:49:ARG:HH22	1.31	0.77
26:BD:24:VAL:HG21	26:BD:188:LEU:HB3	1.66	0.77
24:BI:106:GLN:O	24:BI:110:GLN:HG3	1.85	0.77
50:BT:15:HIS:HB3	50:BT:31:VAL:HG23	1.66	0.77
53:D6:25:LEU:HD22	53:D6:179:LYS:HG2	1.65	0.77
48:DG:96:ALA:HB3	48:DG:103:ASN:HB3	1.66	0.77
23:DB:1099:G:OP2	24:DI:3:LYS:HA	1.84	0.77
16:AQ:68:LYS:HG2	16:AQ:69:THR:HG23	1.67	0.77
23:BB:1019:U:H2'	23:BB:1020:A:C8	2.20	0.77
23:BB:1812:U:H2'	23:BB:1813:G:C8	2.20	0.77
26:BD:53:GLY:HA3	26:BD:77:ARG:HG3	1.66	0.77
27:BK:14:SER:HB2	27:BK:51:LYS:H	1.50	0.77
23:DB:1812:U:H1'	25:DC:43:ASN:HD21	1.48	0.77
37:DL:90:VAL:HB	37:DL:122:VAL:HA	1.66	0.77
1:AA:1032:G:H2'	1:AA:1033:G:O4'	1.85	0.77
21:AU:16:ARG:HH22	21:AU:19:LYS:NZ	1.82	0.77
25:BC:166:ARG:HB3	25:BC:171:VAL:HG22	1.66	0.77
49:BR:4:VAL:HG23	49:BR:39:LEU:HG	1.67	0.77
23:DB:1406:U:H2'	23:DB:1407:G:C8	2.20	0.77
48:DG:87:GLN:N	48:DG:87:GLN:HE21	1.82	0.77
27:DK:43:ILE:HG22	27:DK:54:LYS:HA	1.67	0.77
37:DL:79:LEU:HB3	37:DL:115:GLU:O	1.85	0.77
1:AA:978:A:H5'	1:AA:1362:A:H62	1.49	0.76
21:AU:34:ARG:HE	21:AU:35:GLU:C	1.88	0.76
40:BH:4:ILE:HD11	40:BH:43:ASN:HB3	1.67	0.76
16:CQ:68:LYS:HG2	16:CQ:69:THR:HG23	1.67	0.76
41:DJ:29:ALA:HA	41:DJ:32:LEU:HD12	1.66	0.76
23:BB:28:A:H61	23:BB:512:G:H1'	1.51	0.76
46:BU:73:ASN:ND2	46:BU:76:THR:H	1.84	0.76
39:BX:29:ARG:HH11	50:BT:12:ARG:NE	1.84	0.76
8:CI:47:VAL:HG23	8:CI:48:ARG:HG3	1.65	0.76
23:DB:2598:A:H5''	25:DC:233:GLY:HA2	1.66	0.76
26:DD:10:GLY:HA3	26:DD:26:VAL:N	2.00	0.76
38:DM:19:GLY:HA2	38:DM:98:PRO:HD2	1.66	0.76
44:DQ:91:ARG:NH1	49:DR:10:LYS:HB3	1.99	0.76
1:AA:1035:A:H2'	1:AA:1036:A:C8	2.20	0.76
20:AB:156:LEU:HD12	20:AB:156:LEU:H	1.51	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AF:36:ILE:HG21	5:AF:39:LEU:HD23	1.67	0.76
46:BU:26:ASN:HD21	46:BU:34:ILE:HD12	1.50	0.76
24:DI:105:LEU:HD13	24:DI:129:GLU:HG2	1.66	0.76
43:DO:53:THR:HB	43:DO:65:THR:HG22	1.65	0.76
48:BG:148:ARG:HA	48:BG:161:VAL:HB	1.66	0.76
24:BI:27:LEU:HD12	24:BI:32:VAL:HG11	1.66	0.76
27:BK:43:ILE:HG22	27:BK:54:LYS:HA	1.67	0.76
11:CL:49:ARG:HH22	1:CA:522:C:H41	1.32	0.76
1:AA:1003:G:N2	1:AA:1005:A:H5'	2.00	0.76
1:AA:747:A:H2'	1:AA:748:G:O4'	1.85	0.76
23:BB:1178:C:H2'	23:BB:1179:G:H8	1.49	0.76
41:BJ:35:ARG:HG3	41:BJ:40:HIS:HE2	1.50	0.76
23:DB:460:A:H4'	50:DT:72:GLN:HB2	1.66	0.76
37:DL:92:LEU:HD23	37:DL:92:LEU:H	1.49	0.76
50:DT:67:VAL:HB	50:DT:76:ARG:HG2	1.66	0.76
48:BG:87:GLN:HE21	48:BG:87:GLN:N	1.83	0.76
18:CS:1:PRO:HG3	1:CA:1311:A:H62	1.49	0.76
34:D3:18:LYS:HD2	34:D3:19:GLY:N	2.00	0.76
53:D6:74:ASN:HD22	53:D6:74:ASN:N	1.82	0.76
23:DB:1812:U:H2'	23:DB:1813:G:C8	2.19	0.76
12:AM:22:TYR:HB3	12:AM:69:ARG:HH21	1.50	0.76
23:BB:1311:G:H21	23:BB:1603:A:H62	1.30	0.76
1:CA:89:U:H2'	1:CA:90:C:C6	2.20	0.76
2:CC:2:GLN:H	2:CC:2:GLN:HE21	1.31	0.76
6:CG:23:ALA:O	6:CG:26:VAL:HG22	1.85	0.76
23:DB:1099:G:H5''	24:DI:2:LYS:C	2.05	0.76
23:DB:2366:A:H4'	52:DW:61:LYS:HE2	1.68	0.76
1:AA:82:G:H2'	1:AA:84:U:OP1	1.86	0.76
23:BB:2472:G:H2'	23:BB:2475:C:H42	1.51	0.76
23:BB:2743:U:H2'	23:BB:2744:G:O4'	1.85	0.76
23:BB:717:C:H3'	23:BB:718:A:H5''	1.68	0.76
23:BB:924:G:H4'	52:BW:24:ARG:NH2	2.00	0.76
20:CB:83:ALA:O	20:CB:88:GLN:HB2	1.86	0.76
23:DB:351:C:H2'	23:DB:352:A:H8	1.49	0.76
26:DD:53:GLY:HA3	26:DD:77:ARG:HG3	1.68	0.76
40:DH:58:LEU:HD23	40:DH:61:VAL:HG11	1.67	0.76
12:AM:106:ARG:HH12	12:AM:109:LYS:HD2	1.50	0.76
23:BB:770:G:H5''	36:B2:10:LEU:HD12	1.65	0.76
40:BH:89:LYS:HE3	40:BH:123:ARG:HB3	1.66	0.76
52:BW:51:GLY:HA3	52:BW:59:PHE:HB2	1.66	0.76
53:D6:73:GLN:HA	53:D6:76:LEU:HD12	1.68	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2769:U:H2'	23:DB:2770:G:H8	1.49	0.76
25:DC:231:HIS:HA	25:DC:241:LYS:HE3	1.68	0.76
25:DC:80:LEU:HD23	25:DC:91:ALA:HB2	1.68	0.76
51:DZ:64:ILE:HD12	51:DZ:64:ILE:H	1.51	0.76
1:AA:999:C:H2'	1:AA:1000:A:C8	2.21	0.76
4:AE:156:ARG:HA	4:AE:158:LYS:NZ	2.01	0.76
4:AE:33:THR:HG22	4:AE:51:LYS:HB3	1.67	0.76
6:AG:49:LEU:HD22	6:AG:60:ALA:HB1	1.66	0.76
37:BL:103:ILE:HD12	37:BL:103:ILE:H	1.50	0.76
6:AG:23:ALA:O	6:AG:26:VAL:HG22	1.86	0.75
12:AM:10:ASP:HB3	12:AM:45:SER:HB3	1.68	0.75
21:CU:14:ALA:HB1	21:CU:16:ARG:HD2	1.67	0.75
1:AA:22:G:H2'	1:AA:23:C:C6	2.21	0.75
11:AL:79:ILE:HG22	11:AL:103:CYS:HB2	1.67	0.75
29:BE:44:ARG:HH21	29:BE:44:ARG:HG3	1.52	0.75
24:BI:33:ASN:HD21	24:BI:64:ARG:HH11	1.34	0.75
23:DB:1558:C:H4'	23:DB:1559:U:C5'	2.16	0.75
46:DU:34:ILE:HG12	46:DU:63:ALA:HB2	1.66	0.75
1:AA:1206:G:H4'	2:AC:192:TYR:HA	1.68	0.75
1:AA:946:A:H2'	1:AA:947:G:C8	2.21	0.75
23:BB:1064:C:C4'	24:BI:90:GLY:HA2	2.16	0.75
23:BB:654:A:H2'	23:BB:655:A:H5''	1.69	0.75
38:BM:19:GLY:HA2	38:BM:98:PRO:HD2	1.67	0.75
43:BO:15:ARG:HH21	43:BO:95:SER:HB3	1.51	0.75
1:CA:1167:A:H2'	1:CA:1169:A:N7	2.00	0.75
9:CJ:42:LEU:HD11	9:CJ:73:LEU:HB2	1.68	0.75
25:DC:144:GLU:HB3	25:DC:187:CYS:HB3	1.67	0.75
1:AA:82:G:N7	1:AA:83:C:H1'	2.01	0.75
14:AO:32:LEU:HD12	14:AO:59:MET:HB3	1.67	0.75
23:BB:1406:U:H2'	23:BB:1407:G:H8	1.50	0.75
23:BB:1597:A:H5''	23:BB:1598:A:H5'	1.69	0.75
14:CO:32:LEU:HD12	14:CO:59:MET:HB3	1.68	0.75
21:CU:24:LYS:CD	21:CU:25:ALA:H	1.98	0.75
23:DB:1019:U:H2'	23:DB:1020:A:C8	2.21	0.75
23:DB:1311:G:H21	23:DB:1603:A:H62	1.32	0.75
1:AA:239:U:H4'	1:AA:239:U:OP1	1.85	0.75
3:AD:146:GLU:HA	3:AD:149:LYS:HG2	1.69	0.75
1:CA:1241:G:H2'	1:CA:1242:G:H8	1.52	0.75
1:CA:946:A:H2'	1:CA:947:G:C8	2.22	0.75
23:DB:27:G:N2	23:DB:512:G:H2'	2.00	0.75
15:AP:61:VAL:HA	15:AP:65:ALA:HB3	1.67	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1171:G:C3'	23:BB:1172:C:H4'	2.16	0.75
23:BB:670:A:H4'	23:BB:671:C:H5'	1.69	0.75
23:BB:90:U:H3'	23:BB:91:A:H5''	1.68	0.75
27:BK:70:ARG:HB3	27:BK:76:VAL:HG22	1.67	0.75
1:CA:1003:G:N2	1:CA:1005:A:H5'	2.01	0.75
20:CB:34:ARG:O	20:CB:37:VAL:HG12	1.87	0.75
4:CE:156:ARG:HA	4:CE:158:LYS:NZ	2.02	0.75
23:DB:138:U:O3'	23:DB:139:U:H3'	1.87	0.75
23:DB:2264:C:H41	52:DW:11:ASN:ND2	1.84	0.75
23:BB:1447:C:H2'	23:BB:1448:G:H8	1.51	0.75
40:BH:53:GLU:HG2	40:BH:57:LYS:HE2	1.68	0.75
41:BJ:6:ALA:HB3	41:BJ:45:THR:HG21	1.67	0.75
1:CA:239:U:OP1	1:CA:239:U:H4'	1.84	0.75
3:CD:138:PRO:HA	3:CD:181:PHE:HD2	1.50	0.75
8:CI:69:GLY:H	1:CA:1250:A:H4'	1.51	0.75
37:DL:78:ARG:HD3	37:DL:80:SER:OG	1.87	0.75
23:BB:1171:G:H3'	23:BB:1172:C:H4'	1.67	0.75
23:BB:1406:U:H2'	23:BB:1407:G:C8	2.22	0.75
23:BB:2039:U:H2'	23:BB:2040:G:H8	1.52	0.75
26:BD:5:VAL:H	26:BD:32:ASN:ND2	1.82	0.75
48:BG:104:LEU:HD11	48:BG:147:LEU:HD23	1.68	0.75
37:BL:116:VAL:HG13	37:BL:117:THR:H	1.52	0.75
37:BL:78:ARG:HD3	37:BL:80:SER:OG	1.87	0.75
44:BQ:94:LEU:HD12	49:BR:13:ARG:HB2	1.68	0.75
6:CG:49:LEU:HD22	6:CG:60:ALA:HB1	1.68	0.75
8:CI:51:LEU:HB3	8:CI:56:MET:CG	2.17	0.75
19:CT:61:ALA:HA	19:CT:67:HIS:H	1.50	0.75
11:CL:75:GLU:OE2	53:D6:105:PRO:HD2	1.87	0.75
23:DB:1099:G:O4'	24:DI:3:LYS:C	2.25	0.75
23:DB:404:A:H4'	23:DB:405:U:H5'	1.69	0.75
23:DB:704:G:H2'	23:DB:726:G:H22	1.51	0.75
24:DI:55:PRO:HD3	24:DI:74:PRO:HD3	1.67	0.75
7:AH:28:SER:HB2	7:AH:58:LEU:HB2	1.68	0.75
8:AI:21:LYS:O	8:AI:60:LEU:HB2	1.87	0.75
23:BB:919:U:H2'	23:BB:920:A:C8	2.21	0.75
44:BQ:91:ARG:NH1	49:BR:10:LYS:HB3	2.02	0.75
50:BT:39:THR:HG23	50:BT:41:ALA:H	1.51	0.75
39:BX:17:GLU:HB3	39:BX:53:VAL:HG11	1.69	0.75
4:CE:33:THR:HG22	4:CE:51:LYS:HB3	1.68	0.75
5:CF:36:ILE:HG21	5:CF:39:LEU:HD23	1.67	0.75
23:DB:1032:A:H1'	32:D4:23:ILE:HD13	1.68	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:717:C:H3'	23:DB:718:A:H5''	1.67	0.75
40:DH:90:LEU:HD22	40:DH:122:LEU:O	1.86	0.75
20:AB:83:ALA:O	20:AB:88:GLN:HB2	1.87	0.74
9:AJ:42:LEU:HD11	9:AJ:73:LEU:HB2	1.69	0.74
26:BD:186:LEU:HD21	28:BP:3:ILE:HD11	1.69	0.74
3:CD:146:GLU:HA	3:CD:149:LYS:HG2	1.69	0.74
1:AA:524:G:H2'	1:AA:525:C:C6	2.22	0.74
26:BD:148:GLN:CG	26:BD:152:PRO:HG2	2.15	0.74
1:CA:524:G:H2'	1:CA:525:C:C6	2.22	0.74
53:D6:80:GLU:HA	53:D6:83:ILE:HG12	1.68	0.74
23:DB:28:A:H61	23:DB:512:G:H1'	1.50	0.74
40:DH:14:SER:CB	40:DH:17:ASP:HB2	2.17	0.74
37:DL:116:VAL:HG13	37:DL:117:THR:H	1.51	0.74
23:BB:1064:C:H4'	24:BI:90:GLY:CA	2.18	0.74
29:BE:29:HIS:NE2	37:BL:8:PRO:HG3	2.02	0.74
50:BT:87:LEU:HD12	50:BT:91:GLN:HG2	1.69	0.74
51:BZ:64:ILE:H	51:BZ:64:ILE:HD12	1.52	0.74
6:CG:112:ASP:HB2	6:CG:118:ARG:HG2	1.69	0.74
3:AD:29:THR:HB	3:AD:30:LYS:NZ	2.01	0.74
23:BB:222:A:H61	23:BB:232:G:H1'	1.52	0.74
23:BB:2306:C:H2'	23:BB:2307:G:N2	2.02	0.74
25:BC:102:TYR:O	25:BC:103:ILE:HG13	1.86	0.74
25:BC:144:GLU:HG3	25:BC:151:GLY:N	2.01	0.74
26:DD:34:VAL:HB	26:DD:48:ILE:HD11	1.68	0.74
51:DZ:71:LEU:HD13	51:DZ:76:GLU:HB3	1.68	0.74
23:BB:404:A:H4'	23:BB:405:U:H5'	1.68	0.74
23:BB:27:G:N2	23:BB:512:G:H2'	2.01	0.74
25:BC:80:LEU:HD23	25:BC:91:ALA:HB2	1.69	0.74
52:BW:24:ARG:HD3	52:BW:65:LYS:HG2	1.69	0.74
4:CE:107:GLY:HA3	1:CA:9:G:H5'	1.69	0.74
13:CN:15:LEU:HD12	13:CN:53:ASP:HB3	1.69	0.74
15:CP:52:LEU:HD21	15:CP:75:ILE:HG12	1.70	0.74
23:DB:1203:U:H1'	37:DL:4:ASN:HD21	1.52	0.74
23:DB:90:U:H3'	23:DB:91:A:H5''	1.69	0.74
23:BB:2800:A:H2'	23:BB:2801:G:O4'	1.87	0.74
20:CB:42:LEU:HA	20:CB:45:THR:HB	1.70	0.74
11:CL:79:ILE:HG22	11:CL:103:CYS:HB2	1.68	0.74
15:CP:61:VAL:HA	15:CP:65:ALA:HB3	1.70	0.74
26:DD:24:VAL:HG21	26:DD:188:LEU:HB3	1.68	0.74
23:DB:1287:A:OP1	42:DN:104:ALA:HB3	1.87	0.74
1:AA:1250:A:H4'	8:AI:69:GLY:H	1.51	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1727:C:H2'	23:BB:1728:C:C6	2.23	0.74
40:BH:14:SER:CB	40:BH:17:ASP:HB2	2.17	0.74
20:CB:156:LEU:H	20:CB:156:LEU:HD12	1.52	0.74
7:CH:28:SER:HB2	7:CH:58:LEU:HB2	1.67	0.74
50:DT:57:VAL:HG22	50:DT:58:VAL:H	1.52	0.74
1:AA:764:C:H2'	1:AA:765:G:H5'	1.69	0.74
4:AE:143:LEU:O	4:AE:146:MET:HG2	1.88	0.74
23:BB:1173:U:C4	23:BB:1174:U:H1'	2.23	0.74
23:BB:2143:C:H2'	23:BB:2144:G:C4'	2.18	0.74
23:BB:2653:U:O2'	48:BG:109:SER:HB2	1.86	0.74
40:BH:82:SER:HB2	40:BH:94:ILE:HD11	1.70	0.74
20:AB:163:ILE:HG23	20:AB:164:ASP:H	1.51	0.74
1:AA:9:G:H5'	4:AE:107:GLY:HA3	1.70	0.74
21:AU:14:ALA:HB1	21:AU:16:ARG:HD2	1.70	0.74
23:DB:1097:U:H2'	23:DB:1098:A:O4'	1.87	0.74
23:DB:2306:C:H3'	23:DB:2307:G:C5'	2.17	0.74
25:DC:166:ARG:HB3	25:DC:171:VAL:HG22	1.70	0.74
49:DR:4:VAL:HG23	49:DR:39:LEU:HG	1.68	0.74
20:AB:95:TRP:HH2	20:AB:100:LEU:HB2	1.53	0.74
20:AB:19:THR:HG23	20:AB:20:ARG:H	1.53	0.74
6:AG:107:ALA:HA	6:AG:110:ARG:HD2	1.69	0.74
53:B6:30:THR:H	53:B6:37:LEU:HD21	1.53	0.74
23:BB:1558:C:H4'	23:BB:1559:U:C5'	2.18	0.74
20:CB:41:ASN:HD21	20:CB:43:GLU:HB2	1.50	0.74
13:CN:50:LEU:H	13:CN:51:PRO:HD2	1.53	0.74
32:D4:7:VAL:HG23	32:D4:35:GLN:HB2	1.70	0.74
23:DB:784:G:O2'	23:DB:785:G:H5''	1.87	0.74
25:DC:80:LEU:HD11	25:DC:109:LEU:HG	1.68	0.74
40:DH:114:GLU:HB3	40:DH:133:GLN:HE21	1.52	0.74
1:AA:1040:U:H2'	1:AA:1041:G:C8	2.23	0.73
3:AD:138:PRO:HA	3:AD:181:PHE:HD2	1.51	0.73
6:AG:112:ASP:HB2	6:AG:118:ARG:HG2	1.70	0.73
23:BB:643:A:N3	33:B1:43:ARG:HD2	2.03	0.73
3:CD:29:THR:HB	3:CD:30:LYS:NZ	2.02	0.73
23:DB:365:U:H2'	23:DB:366:C:C6	2.22	0.73
42:DN:45:ARG:HG3	42:DN:95:THR:HG21	1.69	0.73
23:DB:2379:G:H5'	43:DO:21:LEU:HD13	1.70	0.73
46:DU:73:ASN:ND2	46:DU:76:THR:H	1.83	0.73
39:DX:1:MET:HB3	39:DX:4:LYS:HB3	1.70	0.73
12:AM:106:ARG:HD3	12:AM:111:PRO:HA	1.70	0.73
1:CA:1032:G:H2'	1:CA:1033:G:O4'	1.86	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:814:A:H5'	1:CA:1511:G:H4'	1.70	0.73
1:CA:22:G:H2'	1:CA:23:C:C6	2.22	0.73
34:D3:5:THR:HG22	34:D3:62:PRO:HD2	1.71	0.73
25:DC:102:TYR:O	25:DC:103:ILE:HG13	1.88	0.73
50:DT:15:HIS:H	50:DT:32:LEU:HA	1.53	0.73
28:BP:56:SER:HB2	28:BP:75:THR:HG21	1.70	0.73
20:CB:119:GLN:NE2	20:CB:124:THR:HG23	2.04	0.73
7:CH:76:ARG:HD2	7:CH:125:ILE:O	1.88	0.73
8:CI:21:LYS:O	8:CI:60:LEU:HB2	1.87	0.73
26:DD:148:GLN:CG	26:DD:152:PRO:HG2	2.15	0.73
28:DP:4:ILE:HG22	28:DP:5:LYS:N	2.04	0.73
1:AA:429:U:H3'	3:AD:8:LEU:HD23	1.68	0.73
23:BB:2306:C:H3'	23:BB:2307:G:C5'	2.17	0.73
23:BB:784:G:N1	25:BC:227:VAL:HG11	2.02	0.73
45:BS:82:MET:HB2	45:BS:98:LYS:HB2	1.70	0.73
47:DF:87:LYS:HG3	47:DF:88:VAL:H	1.53	0.73
34:B3:18:LYS:HD2	34:B3:19:GLY:N	2.03	0.73
23:BB:988:A:P	30:BY:11:SER:HB3	2.29	0.73
1:CA:1040:U:H2'	1:CA:1041:G:C8	2.24	0.73
1:CA:412:A:H1'	1:CA:413:G:H5''	1.68	0.73
1:CA:973:G:H3'	1:CA:974:A:H5''	1.71	0.73
20:CB:163:ILE:HG23	20:CB:164:ASP:H	1.54	0.73
53:D6:53:ASN:HD22	53:D6:53:ASN:N	1.85	0.73
23:DB:2039:U:H2'	23:DB:2040:G:H8	1.53	0.73
8:AI:25:GLY:HA2	8:AI:60:LEU:O	1.88	0.73
31:B0:41:HIS:HB3	42:BN:99:LYS:HB2	1.70	0.73
23:DB:222:A:H61	23:DB:232:G:H1'	1.54	0.73
47:DF:32:LYS:HA	47:DF:95:MET:HG3	1.70	0.73
38:DM:40:ARG:HD3	38:DM:93:VAL:HG21	1.69	0.73
43:DO:15:ARG:HH21	43:DO:95:SER:HB3	1.54	0.73
1:AA:1241:G:H2'	1:AA:1242:G:H8	1.53	0.73
21:AU:24:LYS:CD	21:AU:25:ALA:H	2.01	0.73
23:BB:144:A:H2'	23:BB:145:C:C6	2.23	0.73
49:BR:49:ILE:HD13	49:BR:53:PHE:N	2.03	0.73
5:CF:86:ARG:NH1	17:CR:63:TYR:HB3	2.03	0.73
23:DB:137:U:H3'	23:DB:138:U:C6	2.24	0.73
24:DI:20:SER:HB3	24:DI:21:PRO:HD3	1.69	0.73
7:AH:76:ARG:HD2	7:AH:125:ILE:O	1.89	0.73
32:B4:7:VAL:HG23	32:B4:35:GLN:HB2	1.70	0.73
23:BB:704:G:H1'	23:BB:727:A:H61	1.54	0.73
24:BI:122:GLU:O	24:BI:126:ARG:HG3	1.88	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:999:C:H2'	1:CA:1000:A:C8	2.23	0.73
19:CT:19:HIS:O	19:CT:23:ARG:HG2	1.89	0.73
23:DB:704:G:H1'	23:DB:727:A:H61	1.53	0.73
52:DW:39:GLN:HG2	52:DW:40:ARG:N	2.02	0.73
12:AM:79:LEU:HD22	12:AM:86:ARG:HE	1.52	0.73
23:BB:673:C:H5''	29:BE:76:PRO:HD2	1.70	0.73
47:BF:32:LYS:HA	47:BF:95:MET:HG3	1.70	0.73
38:BM:2:LEU:HD23	38:BM:46:ILE:HD11	1.70	0.73
52:BW:77:LYS:O	52:BW:78:PHE:HB2	1.89	0.73
1:CA:977:A:H2'	1:CA:978:A:H5''	1.71	0.73
53:D6:174:GLN:C	53:D6:174:GLN:HE21	1.92	0.73
23:DB:1447:C:H2'	23:DB:1448:G:H8	1.53	0.73
23:DB:1727:C:H2'	23:DB:1728:C:C6	2.24	0.73
38:DM:71:LYS:HE3	38:DM:73:ILE:HD11	1.69	0.73
42:DN:85:PRO:HA	42:DN:88:ALA:HB2	1.71	0.73
1:AA:269:C:H2'	1:AA:270:A:C8	2.24	0.73
1:AA:532:A:H62	2:AC:191:THR:HB	1.54	0.73
2:AC:2:GLN:H	2:AC:2:GLN:HE21	1.34	0.73
15:AP:52:LEU:HD21	15:AP:75:ILE:HG12	1.69	0.73
53:B6:64:ARG:HA	53:B6:103:ILE:HB	1.71	0.73
42:BN:45:ARG:HG3	42:BN:95:THR:HG21	1.71	0.73
45:BS:70:LYS:HE2	45:BS:72:THR:HG22	1.71	0.73
51:BZ:40:VAL:HG22	51:BZ:45:ARG:O	1.88	0.73
2:CC:26:LYS:HG3	2:CC:27:GLU:HG3	1.70	0.73
22:DA:2:G:H2'	22:DA:3:C:C6	2.24	0.73
23:DB:1244:A:H5''	37:DL:8:PRO:HD3	1.70	0.73
23:DB:470:A:H61	50:DT:72:GLN:HE22	1.37	0.73
23:DB:544:C:H4'	23:DB:545:U:OP1	1.88	0.73
48:DG:104:LEU:HD11	48:DG:147:LEU:HD23	1.70	0.73
1:AA:927:G:H4'	1:AA:1503:A:N7	2.04	0.72
23:BB:2478:A:H5'	32:B4:32:LYS:HE2	1.71	0.72
23:BB:2284:A:OP2	33:B1:5:ARG:HG3	1.88	0.72
23:BB:345:A:H1'	23:BB:346:A:C2	2.23	0.72
23:BB:1655:A:H5'	26:BD:118:PHE:HB2	1.71	0.72
41:BJ:57:LEU:HG	41:BJ:128:ASN:H	1.54	0.72
14:CO:8:THR:O	14:CO:12:VAL:HG23	1.89	0.72
23:DB:654:A:H2'	23:DB:655:A:H5''	1.69	0.72
23:DB:670:A:H4'	23:DB:671:C:H5'	1.70	0.72
47:DF:64:PRO:HA	47:DF:88:VAL:CG2	2.19	0.72
1:AA:731:G:H5'	1:AA:766:A:H4'	1.72	0.72
13:AN:50:LEU:H	13:AN:51:PRO:HD2	1.53	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AO:8:THR:O	14:AO:12:VAL:HG23	1.89	0.72
40:BH:85:GLY:HA3	40:BH:91:PHE:HE1	1.53	0.72
24:BI:20:SER:HB3	24:BI:21:PRO:HD3	1.69	0.72
50:BT:15:HIS:H	50:BT:32:LEU:HA	1.55	0.72
11:CL:35:ARG:NH1	53:D6:104:PRO:HB3	2.03	0.72
23:DB:1197:G:H2'	23:DB:1198:U:H6	1.52	0.72
23:DB:1729:U:H3'	23:DB:1730:C:C4'	2.19	0.72
1:AA:814:A:H5'	1:AA:1511:G:H4'	1.71	0.72
1:AA:973:G:H3'	1:AA:974:A:H5''	1.70	0.72
53:B6:76:LEU:HD23	53:B6:77:LYS:HZ1	1.55	0.72
23:BB:2758:A:H2'	23:BB:2759:G:O4'	1.89	0.72
23:BB:903:C:H2'	23:BB:904:G:C8	2.23	0.72
2:CC:192:TYR:HA	1:CA:1206:G:H4'	1.71	0.72
3:CD:8:LEU:HD23	1:CA:429:U:H3'	1.71	0.72
20:CB:85:SER:HB3	20:CB:221:ARG:HH12	1.54	0.72
11:CL:107:LYS:HZ3	11:CL:107:LYS:H	1.35	0.72
32:D4:9:LYS:HB3	32:D4:16:ILE:HD11	1.70	0.72
23:DB:1993:U:H4'	26:DD:133:THR:HG21	1.72	0.72
5:AF:98:GLU:HG2	5:AF:99:ALA:N	2.04	0.72
23:DB:903:C:H2'	23:DB:904:G:C8	2.24	0.72
35:DV:40:ILE:HD13	35:DV:40:ILE:H	1.53	0.72
52:DW:37:VAL:HG12	52:DW:38:ARG:N	2.05	0.72
1:AA:87:C:C2	1:AA:88:U:H1'	2.23	0.72
20:AB:42:LEU:HA	20:AB:45:THR:HB	1.71	0.72
13:AN:15:LEU:HD12	13:AN:53:ASP:HB3	1.69	0.72
29:BE:146:VAL:HG11	29:BE:187:VAL:HG23	1.71	0.72
41:BJ:73:VAL:HG23	41:BJ:74:TYR:H	1.54	0.72
44:BQ:7:VAL:HG23	44:BQ:8:ILE:HD12	1.70	0.72
49:BR:19:THR:HG22	49:BR:97:LYS:HA	1.70	0.72
50:BT:44:LYS:O	50:BT:48:GLN:HG2	1.90	0.72
6:CG:145:GLU:HA	6:CG:148:LYS:HB2	1.71	0.72
23:DB:2145:C:H3'	23:DB:2146:C:H5'	1.72	0.72
41:DJ:73:VAL:HG23	41:DJ:74:TYR:H	1.53	0.72
49:DR:19:THR:HG22	49:DR:97:LYS:HA	1.71	0.72
4:AE:28:ARG:HH21	4:AE:30:PHE:HA	1.54	0.72
17:AR:40:PRO:HD2	17:AR:43:ILE:HD12	1.71	0.72
53:B6:178:LYS:O	53:B6:181:GLN:HG3	1.90	0.72
25:BC:156:SER:O	25:BC:194:VAL:HG11	1.89	0.72
40:BH:63:ALA:HA	40:BH:66:ASN:HD21	1.55	0.72
24:BI:77:VAL:HA	24:BI:80:LYS:HE2	1.72	0.72
27:BK:102:PRO:HA	27:BK:120:PRO:HB3	1.70	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1526:G:OP2	21:CU:38:GLU:HB3	1.90	0.72
23:DB:2472:G:H2'	23:DB:2475:C:H42	1.55	0.72
25:DC:156:SER:O	25:DC:194:VAL:HG11	1.90	0.72
40:DH:27:ARG:HH21	40:DH:27:ARG:HG2	1.53	0.72
28:DP:20:ARG:HG3	28:DP:21:PRO:HD2	1.70	0.72
23:DB:2336:A:H61	52:DW:40:ARG:HD2	1.52	0.72
2:AC:149:LYS:HB3	2:AC:200:TRP:HB2	1.72	0.72
13:AN:30:ILE:HD12	13:AN:30:ILE:H	1.55	0.72
26:BD:55:LYS:HB3	26:BD:55:LYS:HZ2	1.54	0.72
40:BH:31:VAL:CB	40:BH:32:PRO:HD2	2.18	0.72
38:BM:71:LYS:HE3	38:BM:73:ILE:HD11	1.71	0.72
46:BU:3:LYS:HB3	46:BU:82:VAL:HG21	1.72	0.72
39:BX:1:MET:HB3	39:BX:4:LYS:HB3	1.71	0.72
20:CB:95:TRP:HH2	20:CB:100:LEU:HB2	1.55	0.72
29:DE:23:PHE:HA	29:DE:107:SER:HB2	1.72	0.72
40:DH:78:VAL:HB	40:DH:144:VAL:HG13	1.71	0.72
1:AA:1167:A:H2'	1:AA:1169:A:N7	2.05	0.72
13:AN:26:LEU:HD11	13:AN:44:VAL:HG13	1.70	0.72
28:BP:56:SER:HB2	28:BP:75:THR:CG2	2.20	0.72
35:BV:40:ILE:HD13	35:BV:40:ILE:H	1.54	0.72
1:CA:817:C:H1'	1:CA:819:A:H5'	1.70	0.72
3:CD:39:GLN:HA	1:CA:426:U:H4'	1.71	0.72
23:DB:1168:G:H2'	23:DB:1169:A:C8	2.25	0.72
24:DI:105:LEU:HD11	24:DI:139:VAL:HG21	1.69	0.72
41:DJ:45:THR:H	41:DJ:46:PRO:HD3	1.55	0.72
23:BB:1082:U:N3	23:BB:1086:A:C2	2.58	0.72
40:BH:116:ARG:HB3	40:BH:131:SER:H	1.52	0.72
42:BN:2:ARG:HA	42:BN:5:LYS:HD3	1.72	0.72
28:BP:4:ILE:HG22	28:BP:5:LYS:N	2.04	0.72
1:CA:1409:C:H2'	1:CA:1410:A:C8	2.25	0.72
20:CB:41:ASN:ND2	20:CB:43:GLU:HB2	2.04	0.72
3:CD:29:THR:HG22	3:CD:30:LYS:H	1.54	0.72
23:DB:1080:A:H2'	23:DB:1081:U:H6	1.52	0.72
23:DB:277:G:H4'	23:DB:278:A:N7	2.04	0.72
40:DH:133:GLN:HA	40:DH:139:PHE:HB3	1.71	0.72
52:DW:77:LYS:O	52:DW:78:PHE:HB2	1.88	0.72
1:AA:977:A:H2'	1:AA:978:A:H5''	1.72	0.72
23:BB:1872:A:H2'	23:BB:1873:G:O4'	1.89	0.72
5:AF:80:PHE:CE1	25:BC:123:ILE:HD13	2.25	0.72
40:BH:27:ARG:HH21	40:BH:27:ARG:HG2	1.54	0.72
40:BH:63:ALA:HA	40:BH:66:ASN:ND2	2.05	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BJ:45:THR:H	41:BJ:46:PRO:HD3	1.55	0.72
49:BR:4:VAL:HA	49:BR:12:HIS:O	1.90	0.72
20:CB:87:ASP:HB2	20:CB:224:ARG:HH12	1.55	0.72
3:CD:25:ARG:HD3	3:CD:26:ALA:N	2.05	0.72
3:CD:84:ASN:ND2	3:CD:86:GLY:H	1.88	0.72
6:CG:2:ARG:HB3	6:CG:2:ARG:NH1	2.05	0.72
23:DB:1060:U:C4	23:DB:1088:A:N6	2.58	0.72
23:DB:142:A:H2'	23:DB:143:C:C6	2.25	0.72
23:DB:2269:G:H4'	52:DW:19:ARG:NH1	2.04	0.72
40:DH:27:ARG:H	40:DH:31:VAL:CG2	2.01	0.72
1:AA:865:A:H5'	1:AA:1078:U:O4	1.90	0.71
1:AA:1236:A:H4'	1:AA:1304:G:H4'	1.72	0.71
1:AA:817:C:H1'	1:AA:819:A:H5'	1.71	0.71
53:B6:180:GLU:HA	53:B6:183:ILE:HG22	1.72	0.71
38:BM:10:ARG:HH11	38:BM:89:VAL:HG22	1.53	0.71
1:CA:764:C:H2'	1:CA:765:G:H5'	1.71	0.71
6:CG:104:VAL:O	6:CG:108:ARG:HG3	1.89	0.71
12:CM:10:ASP:HB3	12:CM:45:SER:HB3	1.70	0.71
23:DB:2141:G:H2'	23:DB:2142:A:H8	1.55	0.71
1:AA:408:A:OP1	3:AD:111:ALA:HB3	1.89	0.71
9:AJ:8:ILE:HG12	9:AJ:100:ILE:HG22	1.72	0.71
23:BB:616:A:H3'	23:BB:617:G:H8	1.55	0.71
23:BB:704:G:H2'	23:BB:726:G:H22	1.53	0.71
45:BS:29:VAL:HA	45:BS:32:ALA:HB3	1.71	0.71
1:CA:83:C:O2'	1:CA:84:U:H2'	1.91	0.71
23:DB:2306:C:H2'	23:DB:2307:G:N2	2.03	0.71
27:DK:102:PRO:HA	27:DK:120:PRO:HB3	1.70	0.71
11:AL:78:VAL:HG12	11:AL:101:LEU:HD13	1.72	0.71
23:BB:1060:U:C4	23:BB:1088:A:N6	2.58	0.71
23:BB:1244:A:H5''	37:BL:8:PRO:HD3	1.72	0.71
23:BB:470:A:H61	50:BT:72:GLN:NE2	1.87	0.71
43:BO:3:LYS:NZ	43:BO:3:LYS:H	1.87	0.71
46:BU:40:LEU:HB3	46:BU:59:GLU:HG2	1.73	0.71
13:CN:56:PRO:HD2	1:CA:1317:C:OP1	1.91	0.71
23:DB:1597:A:H5''	23:DB:1598:A:H5'	1.69	0.71
23:DB:1872:A:H2'	23:DB:1873:G:O4'	1.89	0.71
23:DB:2346:A:H3'	23:DB:2347:C:H5''	1.71	0.71
45:DS:17:VAL:C	45:DS:19:LEU:H	1.92	0.71
23:BB:1309:G:OP1	36:B2:9:VAL:HG12	1.90	0.71
23:BB:1859:U:H2'	23:BB:1860:G:C8	2.25	0.71
46:BU:85:ARG:HD3	46:BU:86:PHE:N	2.04	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CB:216:VAL:O	20:CB:220:VAL:HG23	1.90	0.71
23:DB:1387:A:H2'	23:DB:1388:G:H8	1.55	0.71
23:DB:2800:A:H2'	23:DB:2801:G:O4'	1.89	0.71
4:AE:156:ARG:HA	4:AE:158:LYS:HZ2	1.54	0.71
6:AG:142:ARG:HH11	6:AG:142:ARG:HB2	1.54	0.71
12:AM:10:ASP:HA	12:AM:44:ILE:HD13	1.73	0.71
17:AR:21:ASP:OD1	17:AR:23:LYS:HG3	1.91	0.71
48:BG:10:VAL:HG21	48:BG:16:VAL:HG21	1.73	0.71
28:BP:20:ARG:HG3	28:BP:21:PRO:HD2	1.70	0.71
28:DP:50:ARG:HB2	28:DP:56:SER:HB3	1.73	0.71
49:DR:49:ILE:HD13	49:DR:53:PHE:N	2.06	0.71
49:DR:91:GLN:HG3	49:DR:92:TRP:H	1.55	0.71
52:DW:46:ALA:HB2	52:DW:78:PHE:HD1	1.56	0.71
1:AA:473:U:H2'	1:AA:474:G:H8	1.54	0.71
26:BD:34:VAL:HB	26:BD:48:ILE:HD11	1.70	0.71
40:BH:73:ASN:N	40:BH:73:ASN:HD22	1.88	0.71
4:CE:143:LEU:O	4:CE:146:MET:HG2	1.90	0.71
10:CK:31:VAL:HG21	10:CK:66:ALA:HA	1.72	0.71
18:CS:10:ILE:HG22	18:CS:37:SER:HB3	1.73	0.71
23:DB:996:A:O3'	44:DQ:91:ARG:HG2	1.89	0.71
46:DU:49:PRO:HA	46:DU:53:GLN:HG3	1.73	0.71
23:BB:1019:U:H2'	23:BB:1020:A:H8	1.56	0.71
23:BB:1197:G:H2'	23:BB:1198:U:H6	1.56	0.71
47:BF:87:LYS:HG3	47:BF:88:VAL:H	1.56	0.71
28:BP:50:ARG:HB2	28:BP:56:SER:HB3	1.72	0.71
49:BR:91:GLN:HG3	49:BR:92:TRP:H	1.56	0.71
5:CF:98:GLU:HG2	5:CF:99:ALA:N	2.04	0.71
9:CJ:8:ILE:HG12	9:CJ:100:ILE:HG22	1.70	0.71
12:CM:106:ARG:HD3	12:CM:111:PRO:HA	1.72	0.71
50:DT:69:ARG:CZ	50:DT:69:ARG:HA	2.21	0.71
2:AC:126:ARG:NH2	2:AC:191:THR:HG23	2.06	0.71
6:AG:104:VAL:O	6:AG:108:ARG:HG3	1.91	0.71
10:AK:31:VAL:HG21	10:AK:66:ALA:HA	1.71	0.71
1:AA:135:C:O2	15:AP:1:MET:HB2	1.90	0.71
40:BH:103:VAL:HG21	40:BH:110:VAL:H	1.56	0.71
20:CB:44:LYS:C	20:CB:47:PRO:HD2	2.10	0.71
5:CF:47:LEU:HD13	5:CF:51:ILE:HG22	1.71	0.71
23:DB:742:A:H2'	23:DB:743:A:C8	2.26	0.71
38:DM:71:LYS:HD3	38:DM:95:LEU:HD13	1.72	0.71
30:DY:2:LYS:HG2	30:DY:3:THR:H	1.56	0.71
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.26	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AF:86:ARG:NH1	17:AR:63:TYR:HB3	2.05	0.71
1:CA:473:U:H2'	1:CA:474:G:H8	1.55	0.71
1:CA:76:G:H2'	1:CA:77:A:C8	2.26	0.71
23:DB:1082:U:N3	23:DB:1086:A:C2	2.59	0.71
23:DB:2182:U:H2'	23:DB:2183:A:C8	2.25	0.71
23:DB:2804:U:H2'	23:DB:2805:C:C6	2.26	0.71
24:DI:85:ILE:HD13	24:DI:137:LEU:HD21	1.73	0.71
41:DJ:35:ARG:HG3	41:DJ:40:HIS:NE2	2.05	0.71
23:DB:2484:G:OP1	38:DM:44:ARG:HD3	1.90	0.71
51:DZ:40:VAL:HG22	51:DZ:45:ARG:O	1.90	0.71
1:AA:501:C:H2'	1:AA:502:A:H8	1.55	0.71
20:AB:216:VAL:O	20:AB:220:VAL:HG23	1.90	0.71
23:BB:1729:U:H3'	23:BB:1730:C:C4'	2.21	0.71
23:BB:742:A:H2'	23:BB:743:A:C8	2.25	0.71
25:BC:80:LEU:HD11	25:BC:109:LEU:HG	1.71	0.71
26:BD:105:LYS:HD2	26:BD:177:VAL:HG22	1.72	0.71
48:BG:120:ILE:HG13	48:BG:140:ILE:HG22	1.71	0.71
20:CB:96:LEU:HB2	20:CB:99:MET:HE3	1.72	0.71
6:CG:12:LEU:HD22	6:CG:13:PRO:HD2	1.72	0.71
32:D4:12:ARG:HG3	32:D4:13:ASN:HD22	1.56	0.71
23:DB:1440:U:H2'	23:DB:1441:G:H8	1.56	0.71
41:DJ:57:LEU:HG	41:DJ:128:ASN:H	1.55	0.71
1:AA:1237:C:H3'	1:AA:1336:C:H41	1.56	0.70
23:BB:1993:U:H4'	26:BD:133:THR:CG2	2.21	0.70
23:BB:2267:A:H5''	23:BB:2268:A:H5'	1.73	0.70
29:BE:23:PHE:HA	29:BE:107:SER:HB2	1.72	0.70
28:BP:54:LEU:HA	28:BP:76:HIS:HD2	1.57	0.70
50:BT:69:ARG:CZ	50:BT:69:ARG:HA	2.20	0.70
52:BW:37:VAL:HG13	52:BW:55:ASP:O	1.90	0.70
52:BW:46:ALA:HB2	52:BW:78:PHE:HD1	1.55	0.70
1:CA:266:G:O2'	1:CA:267:C:H3'	1.90	0.70
15:CP:43:ALA:HA	15:CP:46:LYS:HD2	1.72	0.70
42:DN:33:ILE:HG22	42:DN:114:GLU:HB2	1.73	0.70
50:DT:44:LYS:O	50:DT:48:GLN:HG2	1.90	0.70
50:DT:87:LEU:HD12	50:DT:91:GLN:HG2	1.73	0.70
46:DU:81:ARG:HD2	46:DU:96:LYS:HG3	1.73	0.70
1:AA:664:G:H22	1:AA:741:G:H1	1.39	0.70
20:AB:34:ARG:O	20:AB:37:VAL:HG12	1.89	0.70
18:AS:10:ILE:HG22	18:AS:37:SER:HB3	1.73	0.70
23:BB:282:A:H2'	23:BB:283:G:C8	2.27	0.70
25:BC:144:GLU:HB3	25:BC:187:CYS:HB3	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BX:14:LEU:O	39:BX:18:LEU:HB2	1.91	0.70
1:CA:664:G:H22	1:CA:741:G:H1	1.38	0.70
14:CO:89:ARG:HH22	23:DB:715:A:H5''	1.55	0.70
23:BB:1920:C:H3'	23:BB:1921:G:H8	1.55	0.70
23:BB:1902:C:H4'	25:BC:241:LYS:O	1.91	0.70
6:CG:107:ALA:HA	6:CG:110:ARG:HD2	1.73	0.70
23:DB:643:A:H61	23:DB:2370:G:H1'	1.57	0.70
23:DB:2902:C:O2'	23:DB:2903:U:H5'	1.92	0.70
28:DP:54:LEU:HA	28:DP:76:HIS:HD2	1.56	0.70
45:DS:82:MET:HB2	45:DS:98:LYS:HB2	1.73	0.70
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.27	0.70
1:AA:33:A:H2'	1:AA:34:C:C6	2.26	0.70
20:AB:85:SER:HB3	20:AB:221:ARG:HH12	1.56	0.70
5:AF:81:ASN:HB3	5:AF:84:VAL:HG12	1.73	0.70
19:AT:19:HIS:O	19:AT:23:ARG:HG2	1.90	0.70
23:BB:181:A:H2'	23:BB:182:A:C8	2.27	0.70
41:BJ:3:THR:HB	41:BJ:44:TYR:OH	1.92	0.70
51:BZ:71:LEU:HD13	51:BZ:76:GLU:HB3	1.73	0.70
23:DB:106:C:H2'	23:DB:107:G:H8	1.54	0.70
29:DE:5:LEU:HD22	29:DE:122:GLU:HG3	1.72	0.70
48:DG:115:GLN:H	48:DG:115:GLN:CD	1.94	0.70
46:DU:26:ASN:HD21	46:DU:34:ILE:HD12	1.56	0.70
46:DU:3:LYS:HB3	46:DU:82:VAL:HG21	1.73	0.70
46:DU:85:ARG:HD3	46:DU:86:PHE:N	2.06	0.70
23:BB:1172:C:H3'	23:BB:1173:U:C6	2.26	0.70
23:BB:718:A:H3'	23:BB:719:C:H6	1.56	0.70
23:BB:784:G:O2'	23:BB:785:G:H5''	1.91	0.70
52:BW:37:VAL:HG12	52:BW:38:ARG:N	2.06	0.70
52:BW:39:GLN:HG2	52:BW:40:ARG:N	2.05	0.70
23:DB:545:U:H2'	23:DB:548:G:OP2	1.91	0.70
47:DF:126:ASN:HB3	47:DF:156:THR:HA	1.73	0.70
6:AG:12:LEU:HD22	6:AG:13:PRO:HD2	1.72	0.70
1:AA:1526:G:OP2	21:AU:38:GLU:HB3	1.91	0.70
53:B6:81:LYS:O	53:B6:84:ARG:HG2	1.91	0.70
23:BB:246:C:H2'	23:BB:247:G:H5'	1.73	0.70
23:BB:2598:A:H5''	25:BC:233:GLY:HA2	1.72	0.70
40:BH:27:ARG:H	40:BH:31:VAL:CG2	2.05	0.70
37:BL:123:ARG:HA	37:BL:143:GLU:HB3	1.74	0.70
42:BN:85:PRO:HA	42:BN:88:ALA:HB2	1.73	0.70
39:BX:1:MET:O	39:BX:5:GLU:HG2	1.92	0.70
15:CP:1:MET:HB2	1:CA:135:C:O2	1.90	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CL:78:VAL:HG12	11:CL:101:LEU:HD13	1.74	0.70
23:DB:1639:C:H2'	23:DB:1640:A:H5'	1.72	0.70
23:DB:246:C:H2'	23:DB:247:G:H5'	1.73	0.70
23:DB:265:A:O2'	23:DB:266:G:H4'	1.91	0.70
43:DO:3:LYS:NZ	43:DO:3:LYS:H	1.89	0.70
46:DU:12:VAL:HG22	46:DU:69:VAL:HG12	1.73	0.70
15:AP:43:ALA:HA	15:AP:46:LYS:HD2	1.74	0.70
1:AA:108:G:C6	19:AT:9:ARG:HG2	2.26	0.70
28:BP:4:ILE:C	28:BP:6:GLN:H	1.95	0.70
10:CK:51:PHE:HB2	10:CK:55:ARG:HB3	1.74	0.70
12:CM:79:LEU:HD22	12:CM:86:ARG:HE	1.56	0.70
21:CU:16:ARG:HH12	21:CU:19:LYS:HZ3	1.39	0.70
23:DB:1381:G:H2'	23:DB:1382:G:H5'	1.74	0.70
23:DB:172:A:H2'	23:DB:173:A:C8	2.26	0.70
46:DU:40:LEU:HB3	46:DU:59:GLU:HG2	1.73	0.70
32:B4:9:LYS:HB3	32:B4:16:ILE:HD11	1.71	0.70
23:BB:172:A:H2'	23:BB:173:A:C8	2.27	0.70
23:BB:2039:U:H2'	23:BB:2040:G:C8	2.26	0.70
8:CI:25:GLY:HA2	8:CI:60:LEU:O	1.92	0.70
29:DE:146:VAL:HG11	29:DE:187:VAL:HG23	1.74	0.70
23:DB:322:A:OP1	29:DE:162:ARG:HD2	1.91	0.70
48:DG:11:PRO:HD2	48:DG:14:VAL:HG21	1.74	0.70
48:DG:120:ILE:HG13	48:DG:140:ILE:HG22	1.73	0.70
38:DM:66:ARG:HH11	38:DM:66:ARG:HB3	1.55	0.70
44:DQ:30:VAL:HG22	44:DQ:31:TYR:H	1.57	0.70
23:DB:470:A:H61	50:DT:72:GLN:NE2	1.89	0.70
35:DV:62:THR:HG22	35:DV:71:LYS:HG2	1.72	0.70
1:AA:452:A:H2'	1:AA:453:G:O4'	1.92	0.70
6:AG:145:GLU:HA	6:AG:148:LYS:HB2	1.73	0.70
23:BB:2443:C:H2'	23:BB:2444:G:H8	1.57	0.70
23:BB:1063:G:H1'	24:BI:134:SER:O	1.90	0.70
38:BM:40:ARG:HD3	38:BM:93:VAL:HG21	1.72	0.70
28:BP:89:GLY:HA2	28:BP:112:ARG:N	2.07	0.70
45:BS:17:VAL:C	45:BS:19:LEU:H	1.94	0.70
46:BU:85:ARG:NH1	46:BU:86:PHE:H	1.89	0.70
1:CA:1237:C:H3'	1:CA:1336:C:H41	1.55	0.70
1:CA:269:C:H2'	1:CA:270:A:C8	2.26	0.70
1:CA:452:A:H2'	1:CA:453:G:O4'	1.92	0.70
3:CD:197:HIS:O	3:CD:200:VAL:HG22	1.91	0.70
23:DB:1108:U:H2'	23:DB:1109:C:H6	1.56	0.70
23:DB:855:G:N2	52:DW:23:LYS:HG2	2.01	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AF:53:LYS:HA	5:AF:53:LYS:NZ	2.05	0.70
8:AI:51:LEU:HB3	8:AI:56:MET:CG	2.18	0.70
47:BF:126:ASN:HB3	47:BF:156:THR:HA	1.73	0.70
46:BU:81:ARG:HD2	46:BU:96:LYS:HG3	1.73	0.70
2:CC:126:ARG:NH2	2:CC:191:THR:HG23	2.06	0.70
2:CC:149:LYS:HB3	2:CC:200:TRP:HB2	1.74	0.70
23:DB:1859:U:H2'	23:DB:1860:G:C8	2.27	0.70
23:DB:351:C:H2'	23:DB:352:A:C8	2.27	0.70
26:DD:186:LEU:HD21	28:DP:3:ILE:HD11	1.74	0.70
37:DL:82:LEU:HD23	37:DL:90:VAL:HG21	1.74	0.70
52:DW:37:VAL:HG13	52:DW:55:ASP:O	1.91	0.70
1:AA:1001:C:H2'	1:AA:1002:G:C8	2.27	0.69
1:AA:993:G:H2'	1:AA:995:C:H41	1.57	0.69
3:AD:94:GLU:HG2	3:AD:185:PRO:HG3	1.74	0.69
23:BB:1429:G:H2'	23:BB:1430:G:H8	1.57	0.69
26:BD:116:LYS:HB3	26:BD:118:PHE:CE2	2.27	0.69
26:BD:34:VAL:CG1	26:BD:94:GLN:H	2.05	0.69
20:CB:184:ALA:HB3	20:CB:195:VAL:HG21	1.73	0.69
27:DK:102:PRO:HB3	27:DK:121:GLU:HG3	1.72	0.69
23:DB:2394:C:OP1	37:DL:63:LYS:HG2	1.92	0.69
23:BB:1594:U:H2'	23:BB:1595:C:C6	2.26	0.69
38:BM:66:ARG:HB3	38:BM:66:ARG:HH11	1.56	0.69
46:BU:49:PRO:HA	46:BU:53:GLN:HG3	1.74	0.69
35:BV:80:HIS:HB3	35:BV:83:LYS:O	1.92	0.69
8:CI:20:ILE:HD13	8:CI:85:ALA:HB3	1.73	0.69
17:CR:21:ASP:OD1	17:CR:23:LYS:HG3	1.91	0.69
31:D0:41:HIS:HB3	42:DN:99:LYS:HB2	1.74	0.69
37:DL:123:ARG:HA	37:DL:143:GLU:HB3	1.73	0.69
1:AA:1089:G:H1'	1:AA:1167:A:H61	1.56	0.69
1:AA:337:G:H2'	1:AA:338:A:C8	2.27	0.69
1:AA:72:A:H2'	1:AA:73:C:C6	2.26	0.69
53:B6:29:ARG:HE	53:B6:32:ARG:HD2	1.57	0.69
23:BB:62:U:H3'	23:BB:63:A:C8	2.27	0.69
40:BH:51:ARG:N	40:BH:51:ARG:HD2	2.07	0.69
40:BH:6:LEU:HD13	40:BH:36:ALA:HA	1.73	0.69
1:CA:1391:U:H2'	1:CA:1392:G:C8	2.27	0.69
3:CD:111:ALA:HB3	1:CA:408:A:OP1	1.92	0.69
3:CD:199:ILE:HG13	3:CD:200:VAL:N	2.06	0.69
3:CD:1:ALA:HA	1:CA:405:U:O4	1.92	0.69
6:CG:142:ARG:HH11	6:CG:142:ARG:HB2	1.57	0.69
11:CL:86:VAL:HB	11:CL:89:LEU:HB2	1.73	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CT:9:ARG:HG2	1:CA:108:G:C6	2.27	0.69
28:DP:89:GLY:HA2	28:DP:112:ARG:N	2.07	0.69
45:DS:29:VAL:HA	45:DS:32:ALA:HB3	1.73	0.69
46:DU:39:ASN:HB3	46:DU:62:ALA:HB3	1.74	0.69
1:AA:1317:C:OP1	13:AN:56:PRO:HD2	1.92	0.69
20:AB:184:ALA:HB3	20:AB:195:VAL:HG21	1.73	0.69
2:AC:19:SER:HB3	2:AC:21:TRP:HE1	1.57	0.69
2:AC:26:LYS:HG3	2:AC:27:GLU:HG3	1.73	0.69
10:AK:14:GLN:HA	10:AK:76:TYR:O	1.92	0.69
21:AU:24:LYS:HB3	21:AU:24:LYS:NZ	2.06	0.69
41:BJ:35:ARG:HG3	41:BJ:40:HIS:NE2	2.07	0.69
27:BK:102:PRO:HB3	27:BK:121:GLU:HG3	1.72	0.69
44:BQ:94:LEU:HD21	49:BR:11:GLN:HB2	1.73	0.69
18:CS:5:LYS:HG2	1:CA:1314:C:OP2	1.93	0.69
23:DB:138:U:H2'	23:DB:140:C:O4'	1.92	0.69
23:DB:2243:U:H2'	23:DB:2244:U:C6	2.27	0.69
48:DG:10:VAL:HG21	48:DG:16:VAL:HG21	1.73	0.69
38:DM:96:ILE:HD11	38:DM:126:ILE:HG12	1.74	0.69
1:AA:91:U:H2'	1:AA:92:U:C6	2.27	0.69
20:AB:127:LYS:O	20:AB:128:LEU:HB2	1.92	0.69
2:AC:70:ALA:HA	2:AC:105:VAL:CG2	2.23	0.69
3:AD:25:ARG:HD3	3:AD:26:ALA:N	2.08	0.69
38:BM:19:GLY:HA2	38:BM:97:GLN:HB2	1.72	0.69
1:CA:90:C:H2'	1:CA:91:U:H6	1.56	0.69
23:DB:275:C:H2'	23:DB:276:U:C6	2.26	0.69
23:DB:1902:C:H4'	25:DC:241:LYS:O	1.93	0.69
48:DG:23:ILE:HD11	48:DG:42:VAL:HG11	1.74	0.69
20:AB:41:ASN:HD21	20:AB:43:GLU:HB2	1.55	0.69
12:AM:7:ASN:ND2	12:AM:7:ASN:H	1.91	0.69
23:BB:2304:G:H22	23:BB:2312:U:H3	1.40	0.69
23:BB:2346:A:H3'	23:BB:2347:C:H5''	1.73	0.69
47:BF:101:ARG:NH1	47:BF:138:PRO:HB2	2.08	0.69
47:BF:58:ALA:HB3	47:BF:139:GLU:HG2	1.74	0.69
47:BF:64:PRO:HA	47:BF:88:VAL:CG2	2.23	0.69
40:BH:78:VAL:O	40:BH:143:ILE:HG13	1.92	0.69
23:BB:992:C:H4'	49:BR:74:ILE:HD13	1.75	0.69
46:BU:84:PHE:O	46:BU:85:ARG:HB2	1.92	0.69
1:CA:1356:G:H2'	1:CA:1357:A:C8	2.28	0.69
3:CD:94:GLU:HG2	3:CD:185:PRO:HG3	1.75	0.69
23:DB:2267:A:H5''	23:DB:2268:A:H5'	1.74	0.69
23:DB:812:C:H5'	37:DL:21:ARG:O	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DJ:23:LYS:HE3	41:DJ:142:ILE:HG23	1.75	0.69
42:DN:12:ARG:HG3	42:DN:13:ASN:H	1.57	0.69
28:DP:63:ILE:HG12	28:DP:68:GLY:HA2	1.74	0.69
35:DV:80:HIS:HB3	35:DV:83:LYS:O	1.92	0.69
1:AA:266:G:O2'	1:AA:267:C:H3'	1.92	0.69
1:AA:87:C:N3	1:AA:88:U:H1'	2.07	0.69
5:AF:47:LEU:HD13	5:AF:51:ILE:HG22	1.73	0.69
23:BB:1437:C:H2'	23:BB:1438:U:H6	1.57	0.69
23:BB:1565:C:H5''	25:BC:17:LYS:NZ	2.08	0.69
48:BG:155:PRO:HA	48:BG:170:THR:HG22	1.75	0.69
48:BG:23:ILE:HD11	48:BG:42:VAL:HG11	1.74	0.69
38:BM:96:ILE:HD11	38:BM:126:ILE:HG12	1.74	0.69
3:CD:90:LEU:HD11	3:CD:194:ILE:HD13	1.74	0.69
12:CM:106:ARG:HA	12:CM:106:ARG:HH11	1.55	0.69
15:CP:28:ARG:HH21	1:CA:390:U:H5''	1.58	0.69
23:DB:1019:U:H2'	23:DB:1020:A:H8	1.58	0.69
23:DB:2461:A:H2'	23:DB:2462:C:C6	2.27	0.69
20:AB:41:ASN:ND2	20:AB:43:GLU:HB2	2.07	0.69
2:AC:126:ARG:HH22	2:AC:190:THR:HB	1.57	0.69
23:BB:1681:G:N3	23:BB:1762:A:H2'	2.08	0.69
25:BC:20:ASN:HD22	25:BC:23:LEU:HD13	1.57	0.69
23:BB:1813:G:N3	25:BC:49:THR:HG21	2.07	0.69
29:BE:148:ILE:HA	29:BE:187:VAL:HB	1.75	0.69
48:BG:3:VAL:O	48:BG:68:ARG:HG3	1.93	0.69
49:BR:49:ILE:HD13	49:BR:53:PHE:H	1.56	0.69
1:CA:33:A:H2'	1:CA:34:C:C6	2.28	0.69
1:CA:920:U:H2'	1:CA:921:U:C6	2.28	0.69
12:CM:7:ASN:H	12:CM:7:ASN:ND2	1.88	0.69
23:DB:1241:A:H2'	23:DB:1242:U:H5'	1.74	0.69
23:DB:1594:U:H2'	23:DB:1595:C:C6	2.28	0.69
23:DB:181:A:H2'	23:DB:182:A:C8	2.27	0.69
23:DB:2645:G:H4'	23:DB:2732:G:H2'	1.75	0.69
26:DD:116:LYS:HB3	26:DD:118:PHE:CE2	2.27	0.69
40:DH:2:GLN:O	40:DH:3:VAL:HG22	1.92	0.69
28:DP:4:ILE:C	28:DP:6:GLN:H	1.95	0.69
1:AA:238:A:H2'	1:AA:239:U:H5''	1.74	0.69
1:AA:812:G:H2'	1:AA:812:G:N3	2.07	0.69
1:AA:93:U:H3'	1:AA:94:G:H5''	1.73	0.69
23:BB:2328:A:H2'	23:BB:2329:U:C6	2.28	0.69
47:BF:137:PHE:HB2	47:BF:138:PRO:HD2	1.75	0.69
15:CP:48:GLU:HG3	15:CP:49:GLY:H	1.57	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:28:A:N6	23:DB:512:G:H1'	2.08	0.69
40:DH:9:VAL:HB	40:DH:12:LEU:O	1.92	0.69
38:DM:10:ARG:HH11	38:DM:89:VAL:HG22	1.58	0.69
44:DQ:7:VAL:HG23	44:DQ:8:ILE:HD12	1.73	0.69
51:DZ:5:CYS:HB2	51:DZ:10:LYS:HB2	1.75	0.69
20:AB:87:ASP:HB2	20:AB:224:ARG:HH12	1.58	0.69
4:AE:37:VAL:HA	4:AE:47:PHE:HA	1.75	0.69
6:AG:125:ASP:HB3	6:AG:130:LYS:HB3	1.74	0.69
23:BB:1241:A:H2'	23:BB:1242:U:H5'	1.73	0.69
23:BB:2749:A:C3'	23:BB:2750:A:H5''	2.21	0.69
26:BD:17:GLU:CD	26:BD:17:GLU:H	1.95	0.69
24:BI:105:LEU:HD11	24:BI:139:VAL:HG11	1.74	0.69
46:BU:73:ASN:HD21	46:BU:76:THR:N	1.91	0.69
6:CG:2:ARG:HB2	1:CA:1380:U:O4	1.92	0.69
2:CC:81:GLU:HG3	2:CC:82:ASP:N	2.06	0.69
24:DI:9:LYS:HG2	24:DI:57:VAL:HG13	1.75	0.69
46:DU:85:ARG:NH1	46:DU:86:PHE:H	1.90	0.69
2:AC:81:GLU:HG3	2:AC:82:ASP:N	2.07	0.69
12:AM:106:ARG:HH11	12:AM:106:ARG:HA	1.58	0.69
16:AQ:74:LEU:HD22	16:AQ:75:VAL:N	2.08	0.69
34:B3:5:THR:HG22	34:B3:62:PRO:HD2	1.75	0.69
23:BB:570:G:H2'	23:BB:2030:A:N7	2.08	0.69
40:BH:21:VAL:HG21	40:BH:25:TYR:HD2	1.58	0.69
40:BH:48:GLU:H	40:BH:50:ARG:HH21	1.41	0.69
1:CA:1278:G:H4'	1:CA:1279:G:H5'	1.74	0.69
12:CM:10:ASP:HA	12:CM:44:ILE:HD13	1.73	0.69
17:CR:40:PRO:HD2	17:CR:43:ILE:HD12	1.75	0.69
23:DB:1918:A:H1'	23:DB:1919:A:N7	2.08	0.69
23:DB:1993:U:H4'	26:DD:133:THR:CG2	2.23	0.69
23:DB:570:G:H2'	23:DB:2030:A:N7	2.08	0.69
23:DB:2502:G:H5'	23:DB:2503:A:C5'	2.23	0.69
23:DB:871:U:H2'	23:DB:872:U:C6	2.28	0.69
47:DF:101:ARG:NH1	47:DF:138:PRO:HB2	2.08	0.69
38:DM:66:ARG:CZ	38:DM:101:VAL:HG11	2.23	0.69
44:DQ:63:ARG:NH1	44:DQ:96:ASP:HA	2.08	0.69
39:DX:1:MET:O	39:DX:5:GLU:HG2	1.93	0.69
30:DY:5:LYS:HB2	30:DY:57:GLU:HB2	1.75	0.69
51:DZ:6:GLN:NE2	51:DZ:50:ARG:H	1.91	0.69
1:AA:215:C:H2'	1:AA:216:U:C6	2.28	0.68
1:AA:764:C:C2'	1:AA:765:G:H5'	2.23	0.68
3:AD:29:THR:HG22	3:AD:30:LYS:H	1.59	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AL:86:VAL:HB	11:AL:89:LEU:HB2	1.74	0.68
23:BB:1387:A:H2'	23:BB:1388:G:H8	1.57	0.68
23:BB:265:A:O2'	23:BB:266:G:H4'	1.94	0.68
23:BB:307:G:N2	23:BB:309:A:H3'	2.08	0.68
42:BN:33:ILE:HG22	42:BN:114:GLU:HB2	1.73	0.68
5:CF:66:ALA:HB1	5:CF:67:PRO:HD2	1.75	0.68
23:DB:2470:G:P	38:DM:55:ARG:HH11	2.16	0.68
48:DG:17:LYS:HA	48:DG:17:LYS:HZ2	1.57	0.68
41:DJ:3:THR:HB	41:DJ:44:TYR:OH	1.93	0.68
5:AF:3:HIS:HB2	5:AF:92:THR:CA	2.17	0.68
23:BB:1174:U:H4'	23:BB:1176:U:O4	1.93	0.68
23:BB:1916:A:H5''	23:BB:1917:U:OP2	1.94	0.68
23:BB:2064:C:H2'	23:BB:2065:C:C6	2.28	0.68
23:BB:2680:U:OP2	26:BD:114:LYS:HB3	1.92	0.68
29:BE:158:PHE:HA	29:BE:169:VAL:HG21	1.75	0.68
48:BG:115:GLN:H	48:BG:115:GLN:CD	1.96	0.68
50:BT:12:ARG:NH1	50:BT:12:ARG:HB3	2.07	0.68
1:CA:1236:A:H4'	1:CA:1304:G:H4'	1.73	0.68
1:CA:764:C:C2'	1:CA:765:G:H5'	2.23	0.68
4:CE:37:VAL:HA	4:CE:47:PHE:HA	1.75	0.68
5:CF:53:LYS:NZ	5:CF:53:LYS:HA	2.08	0.68
7:CH:10:LEU:HD22	7:CH:74:ILE:HD11	1.74	0.68
23:DB:616:A:H3'	23:DB:617:G:H8	1.56	0.68
40:DH:31:VAL:CB	40:DH:32:PRO:HD2	2.18	0.68
43:DO:74:VAL:O	43:DO:78:VAL:HG23	1.93	0.68
49:DR:4:VAL:HA	49:DR:12:HIS:O	1.92	0.68
46:DU:11:ILE:HA	46:DU:21:ARG:HG2	1.75	0.68
1:AA:390:U:H5''	15:AP:28:ARG:HH21	1.59	0.68
3:AD:84:ASN:ND2	3:AD:86:GLY:H	1.91	0.68
1:AA:1348:U:H4'	8:AI:121:ARG:HG3	1.75	0.68
23:BB:141:G:C6	50:BT:2:ILE:HG23	2.28	0.68
23:BB:1469:A:H2'	23:BB:1470:A:C8	2.28	0.68
23:BB:1485:U:H2'	23:BB:1486:U:C6	2.28	0.68
23:BB:1639:C:H2'	23:BB:1640:A:H5'	1.74	0.68
23:BB:721:A:H2'	23:BB:722:A:C8	2.28	0.68
26:BD:106:LYS:O	26:BD:107:VAL:HB	1.93	0.68
1:CA:337:G:H2'	1:CA:338:A:C8	2.28	0.68
23:DB:307:G:N2	23:DB:309:A:H3'	2.08	0.68
47:DF:137:PHE:HB2	47:DF:138:PRO:HD2	1.75	0.68
40:DH:117:LEU:HD13	40:DH:130:VAL:HG22	1.76	0.68
40:DH:49:ALA:HB3	40:DH:50:ARG:NH2	2.09	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DS:70:LYS:HE2	45:DS:72:THR:HG22	1.75	0.68
46:DU:84:PHE:O	46:DU:85:ARG:HB2	1.93	0.68
8:AI:20:ILE:HD13	8:AI:85:ALA:HB3	1.74	0.68
18:AS:18:VAL:O	18:AS:22:VAL:HG23	1.92	0.68
23:BB:2502:G:H5'	23:BB:2503:A:C5'	2.23	0.68
1:CA:1086:U:H3	1:CA:1099:G:N2	1.92	0.68
20:CB:19:THR:O	20:CB:37:VAL:HA	1.94	0.68
4:CE:85:LYS:HE3	4:CE:94:PHE:HB2	1.75	0.68
8:CI:121:ARG:HG3	1:CA:1348:U:H4'	1.75	0.68
23:DB:286:U:H2'	23:DB:287:G:H8	1.57	0.68
29:DE:148:ILE:HA	29:DE:187:VAL:HB	1.75	0.68
49:DR:49:ILE:HD13	49:DR:53:PHE:H	1.59	0.68
50:DT:2:ILE:HB	50:DT:3:ARG:HD3	1.74	0.68
23:BB:1171:G:C5	23:BB:1172:C:H1'	2.29	0.68
23:BB:643:A:H61	23:BB:2370:G:H1'	1.57	0.68
23:BB:871:U:H2'	23:BB:872:U:C6	2.28	0.68
25:BC:175:LEU:HD11	25:BC:181:ARG:HG3	1.75	0.68
1:CA:207:C:H2'	1:CA:208:U:O4'	1.93	0.68
20:CB:172:ILE:HG23	20:CB:182:VAL:HG11	1.76	0.68
8:CI:117:LEU:HD23	8:CI:123:ARG:HB3	1.75	0.68
11:CL:98:ARG:HB2	11:CL:116:TYR:HA	1.75	0.68
23:DB:1469:A:H2'	23:DB:1470:A:C8	2.27	0.68
23:DB:2039:U:H2'	23:DB:2040:G:C8	2.27	0.68
23:DB:2591:C:H2'	23:DB:2592:G:C8	2.29	0.68
26:DD:5:VAL:H	26:DD:32:ASN:ND2	1.86	0.68
1:AA:1314:C:OP2	18:AS:5:LYS:HG2	1.93	0.68
1:AA:390:U:H2'	1:AA:391:G:C8	2.28	0.68
8:AI:117:LEU:HD23	8:AI:123:ARG:HB3	1.76	0.68
10:AK:51:PHE:HB2	10:AK:55:ARG:HB3	1.74	0.68
12:AM:19:THR:HA	12:AM:24:VAL:HG23	1.76	0.68
36:B2:30:VAL:HA	36:B2:33:ARG:NH2	2.09	0.68
23:BB:1060:U:O2	23:BB:1088:A:N7	2.27	0.68
23:BB:1447:C:H2'	23:BB:1448:G:C8	2.28	0.68
23:BB:2804:U:H2'	23:BB:2805:C:C6	2.28	0.68
25:BC:243:PRO:O	25:BC:250:GLN:HA	1.93	0.68
12:CM:19:THR:HA	12:CM:24:VAL:HG23	1.76	0.68
26:DD:55:LYS:HZ1	26:DD:60:VAL:HG13	1.58	0.68
48:DG:3:VAL:O	48:DG:68:ARG:HG3	1.94	0.68
41:DJ:40:HIS:CE1	41:DJ:41:LYS:HG3	2.28	0.68
50:DT:12:ARG:NH1	50:DT:12:ARG:HB3	2.08	0.68
50:DT:20:ALA:O	50:DT:24:MET:HB2	1.94	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DX:14:LEU:O	39:DX:18:LEU:HB2	1.93	0.68
1:AA:60:A:H4'	1:AA:61:G:O5'	1.94	0.68
13:AN:17:ASP:HA	13:AN:21:ALA:HB2	1.75	0.68
18:AS:69:LYS:O	18:AS:72:GLU:HG2	1.94	0.68
40:BH:116:ARG:HB2	40:BH:131:SER:O	1.93	0.68
40:BH:2:GLN:O	40:BH:3:VAL:HG22	1.93	0.68
38:BM:43:ALA:O	38:BM:46:ILE:HG12	1.94	0.68
50:BT:2:ILE:HB	50:BT:3:ARG:HD3	1.76	0.68
50:BT:39:THR:HG22	50:BT:42:GLU:HG2	1.74	0.68
1:CA:384:G:H2'	1:CA:385:C:C6	2.29	0.68
3:CD:115:GLN:HE22	1:CA:406:G:H21	1.41	0.68
13:CN:26:LEU:HD11	13:CN:44:VAL:HG13	1.75	0.68
23:DB:1412:U:H2'	23:DB:1413:A:C8	2.28	0.68
48:DG:83:THR:HA	48:DG:84:LYS:NZ	2.07	0.68
40:DH:21:VAL:HG21	40:DH:25:TYR:HD2	1.58	0.68
28:DP:56:SER:HB2	28:DP:75:THR:HG21	1.74	0.68
1:AA:1513:A:H2'	1:AA:1514:G:C8	2.29	0.68
20:AB:19:THR:O	20:AB:37:VAL:HA	1.94	0.68
5:AF:53:LYS:HA	5:AF:53:LYS:HZ3	1.56	0.68
9:AJ:77:VAL:HB	9:AJ:78:GLU:OE2	1.94	0.68
53:B6:38:LEU:HA	53:B6:41:LEU:HD13	1.75	0.68
23:BB:38:A:O2'	29:BE:43:THR:HA	1.94	0.68
41:BJ:45:THR:OG1	41:BJ:48:VAL:HB	1.93	0.68
42:BN:12:ARG:HG3	42:BN:13:ASN:H	1.58	0.68
42:BN:12:ARG:HG2	42:BN:16:HIS:ND1	2.08	0.68
46:BU:39:ASN:HB3	46:BU:62:ALA:HB3	1.74	0.68
1:CA:731:G:H5'	1:CA:766:A:H4'	1.76	0.68
20:CB:67:LEU:HD21	20:CB:91:VAL:HG23	1.76	0.68
2:CC:126:ARG:HH22	2:CC:190:THR:HB	1.58	0.68
5:CF:3:HIS:HB2	5:CF:92:THR:CA	2.19	0.68
23:DB:1169:A:H2'	23:DB:1170:C:C6	2.28	0.68
23:DB:1579:A:H2'	23:DB:1580:A:C8	2.29	0.68
23:DB:2080:A:OP1	51:DZ:20:HIS:HB3	1.94	0.68
23:DB:1853:A:N1	23:DB:2087:G:H1'	2.08	0.68
23:DB:2271:G:O2'	23:DB:2272:U:H5'	1.94	0.68
23:DB:2859:G:H2'	23:DB:2860:A:C8	2.28	0.68
41:DJ:62:VAL:HG11	41:DJ:101:ILE:HD11	1.76	0.68
28:DP:56:SER:HB2	28:DP:75:THR:CG2	2.24	0.68
1:AA:1238:A:H5'	1:AA:1336:C:H41	1.59	0.68
11:AL:72:ASN:HD21	11:AL:104:SER:HB3	1.59	0.68
53:B6:156:ARG:NH2	53:B6:160:GLU:HB2	2.09	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1125:G:H4'	32:B4:37:GLN:NE2	2.09	0.68
23:BB:675:A:H4'	29:BE:62:GLN:HE22	1.58	0.68
1:CA:1004:A:H2'	1:CA:1005:A:O4'	1.94	0.68
2:CC:140:ALA:HB3	2:CC:148:ILE:HD12	1.76	0.68
3:CD:29:THR:HB	3:CD:30:LYS:HZ3	1.58	0.68
22:DA:2:G:H2'	22:DA:3:C:H6	1.57	0.68
26:DD:118:PHE:HZ	26:DD:123:LYS:HZ3	1.40	0.68
26:DD:169:ARG:O	26:DD:170:VAL:HG22	1.93	0.68
26:DD:17:GLU:H	26:DD:17:GLU:CD	1.95	0.68
49:DR:28:ALA:O	49:DR:63:VAL:HG21	1.94	0.68
1:AA:51:A:H5''	1:AA:52:C:H5''	1.75	0.68
1:AA:80:A:N3	1:AA:81:A:H1'	2.09	0.68
20:AB:57:ASN:HD22	20:AB:223:GLY:HA2	1.58	0.68
23:BB:1198:U:H4'	44:BQ:8:ILE:HD11	1.75	0.68
23:BB:1874:C:H2'	23:BB:1875:G:O4'	1.94	0.68
23:BB:2461:A:H2'	23:BB:2462:C:C6	2.29	0.68
23:BB:2769:U:H2'	23:BB:2770:G:C8	2.29	0.68
40:BH:9:VAL:HB	40:BH:12:LEU:O	1.93	0.68
43:BO:74:VAL:O	43:BO:78:VAL:HG23	1.94	0.68
44:BQ:57:ARG:NH1	44:BQ:61:ILE:HD11	2.08	0.68
1:CA:252:U:H2'	1:CA:253:A:H8	1.59	0.68
2:CC:2:GLN:N	2:CC:2:GLN:HE21	1.92	0.68
15:CP:28:ARG:HD3	15:CP:29:ASN:N	2.09	0.68
53:D6:80:GLU:OE2	53:D6:92:PRO:HB3	1.93	0.68
23:DB:1874:C:H2'	23:DB:1875:G:O4'	1.94	0.68
29:DE:145:ASP:HB2	29:DE:166:LYS:HE2	1.76	0.68
29:DE:158:PHE:HA	29:DE:169:VAL:HG21	1.74	0.68
39:DX:17:GLU:HB3	39:DX:53:VAL:HG11	1.74	0.68
1:AA:252:U:H2'	1:AA:253:A:H8	1.57	0.67
1:AA:920:U:H2'	1:AA:921:U:C6	2.29	0.67
31:B0:8:THR:HG23	31:B0:11:LYS:H	1.59	0.67
26:BD:49:GLN:HE22	26:BD:67:HIS:CE1	2.12	0.67
28:BP:45:VAL:N	28:BP:60:VAL:HG12	2.08	0.67
39:BX:33:ALA:HB1	50:BT:14:PRO:HD2	1.76	0.67
30:BY:5:LYS:HB2	30:BY:57:GLU:HB2	1.75	0.67
1:CA:1001:C:H2'	1:CA:1002:G:C8	2.29	0.67
1:CA:1513:A:H2'	1:CA:1514:G:C8	2.29	0.67
1:CA:17:U:H2'	1:CA:18:C:C6	2.28	0.67
1:CA:993:G:H2'	1:CA:995:C:H41	1.58	0.67
20:CB:57:ASN:HD22	20:CB:223:GLY:HA2	1.60	0.67
2:CC:19:SER:HB3	2:CC:21:TRP:HE1	1.59	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CE:28:ARG:HH21	4:CE:30:PHE:HA	1.57	0.67
23:DB:136:G:H2'	23:DB:137:U:C6	2.29	0.67
23:DB:2142:A:H2'	23:DB:2143:C:C6	2.28	0.67
23:DB:224:U:O4	23:DB:420:C:H5'	1.93	0.67
23:DB:2328:A:H2'	23:DB:2329:U:C6	2.29	0.67
26:DD:49:GLN:HE22	26:DD:67:HIS:CE1	2.11	0.67
48:DG:132:LEU:HD23	48:DG:132:LEU:H	1.59	0.67
40:DH:6:LEU:HD13	40:DH:36:ALA:HA	1.76	0.67
28:DP:45:VAL:N	28:DP:60:VAL:HG12	2.08	0.67
49:DR:60:LYS:H	49:DR:100:GLY:HA3	1.59	0.67
11:AL:85:ARG:HA	11:AL:93:ARG:HA	1.75	0.67
23:BB:720:U:H2'	23:BB:721:A:C8	2.29	0.67
25:BC:94:LEU:HB2	25:BC:100:ARG:HG2	1.75	0.67
41:BJ:40:HIS:CE1	41:BJ:41:LYS:HG3	2.29	0.67
38:BM:21:ALA:HB2	38:BM:100:LYS:HG2	1.76	0.67
49:BR:60:LYS:H	49:BR:100:GLY:HA3	1.59	0.67
46:BU:11:ILE:HA	46:BU:21:ARG:HG2	1.76	0.67
1:CA:812:G:H2'	1:CA:812:G:N3	2.08	0.67
16:CQ:66:LEU:HD12	16:CQ:66:LEU:H	1.59	0.67
23:DB:1060:U:O2	23:DB:1088:A:N7	2.27	0.67
23:DB:1515:A:H2'	23:DB:1516:G:O4'	1.94	0.67
23:DB:1681:G:N3	23:DB:1762:A:H2'	2.10	0.67
23:DB:2425:A:H5'	23:DB:2427:C:O4'	1.94	0.67
23:DB:62:U:H3'	23:DB:63:A:C8	2.29	0.67
23:DB:718:A:H3'	23:DB:719:C:H6	1.58	0.67
25:DC:94:LEU:HB2	25:DC:100:ARG:HG2	1.76	0.67
47:DF:101:ARG:HH12	47:DF:138:PRO:HB2	1.59	0.67
48:DG:143:VAL:O	48:DG:147:LEU:HD12	1.94	0.67
40:DH:27:ARG:H	40:DH:31:VAL:HG23	1.59	0.67
1:AA:384:G:H2'	1:AA:385:C:C6	2.28	0.67
3:AD:90:LEU:HD11	3:AD:194:ILE:HD13	1.76	0.67
23:BB:1346:G:O2'	23:BB:1347:A:H5'	1.94	0.67
23:BB:1870:C:H2'	23:BB:1871:A:N3	2.09	0.67
23:BB:324:A:H2'	23:BB:325:G:O4'	1.94	0.67
26:BD:16:THR:HB	26:BD:18:ASP:OD1	1.94	0.67
24:BI:25:PRO:O	24:BI:29:GLN:HG2	1.94	0.67
50:BT:29:THR:HA	50:BT:86:THR:HA	1.76	0.67
1:CA:1238:A:H5'	1:CA:1336:C:H41	1.58	0.67
1:CA:1486:G:H2'	1:CA:1487:G:O4'	1.93	0.67
1:CA:215:C:H2'	1:CA:216:U:C6	2.29	0.67
20:CB:80:LYS:HG3	20:CB:81:ASP:N	2.10	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:CU:36:PHE:HB3	21:CU:40:PRO:CD	2.24	0.67
23:DB:2194:U:H2'	23:DB:2195:U:C6	2.30	0.67
23:DB:2294:G:P	43:DO:94:ARG:HH11	2.17	0.67
26:DD:16:THR:HB	26:DD:18:ASP:OD1	1.94	0.67
42:DN:38:LEU:HB3	42:DN:39:PRO:HD3	1.77	0.67
44:DQ:30:VAL:HG11	44:DQ:33:VAL:HG13	1.76	0.67
44:DQ:73:ILE:HD11	44:DQ:77:LYS:HD3	1.75	0.67
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.30	0.67
20:AB:67:LEU:HD21	20:AB:91:VAL:HG23	1.75	0.67
12:AM:43:LYS:HB2	12:AM:46:GLU:HG3	1.76	0.67
53:B6:32:ARG:NE	53:B6:37:LEU:HD23	2.09	0.67
23:BB:28:A:N6	23:BB:512:G:H1'	2.09	0.67
35:BV:53:LYS:HD3	35:BV:55:GLU:H	1.59	0.67
1:CA:1171:A:H2'	1:CA:1172:C:C6	2.29	0.67
1:CA:1347:G:N2	1:CA:1373:G:H2'	2.08	0.67
1:CA:501:C:H2'	1:CA:502:A:H8	1.58	0.67
1:CA:674:G:H2'	1:CA:675:A:H8	1.59	0.67
1:CA:806:C:H2'	1:CA:807:A:H8	1.59	0.67
5:CF:81:ASN:HB3	5:CF:84:VAL:HG12	1.76	0.67
23:DB:1168:G:H2'	23:DB:1169:A:H8	1.57	0.67
23:DB:1181:U:H2'	23:DB:1182:G:C8	2.30	0.67
23:DB:1447:C:H2'	23:DB:1448:G:C8	2.30	0.67
27:DK:41:ILE:HG13	27:DK:42:THR:H	1.60	0.67
42:DN:2:ARG:HA	42:DN:5:LYS:HD3	1.77	0.67
23:BB:1412:U:H2'	23:BB:1413:A:C8	2.29	0.67
25:BC:43:ASN:ND2	25:BC:44:ASN:H	1.92	0.67
29:BE:44:ARG:HG3	29:BE:44:ARG:NH2	2.08	0.67
47:BF:107:VAL:HG11	47:BF:175:PRO:HG3	1.75	0.67
42:BN:38:LEU:HB3	42:BN:39:PRO:HD3	1.76	0.67
3:CD:12:ARG:HD2	3:CD:37:PRO:HA	1.76	0.67
9:CJ:42:LEU:HB2	9:CJ:71:LEU:HD21	1.77	0.67
23:DB:1106:G:H2'	23:DB:1107:G:C8	2.30	0.67
23:DB:2108:A:N3	23:DB:2108:A:H2'	2.08	0.67
38:DM:43:ALA:O	38:DM:46:ILE:HG12	1.95	0.67
51:DZ:14:THR:HA	51:DZ:28:ARG:HA	1.76	0.67
1:AA:1278:G:H4'	1:AA:1279:G:H5'	1.76	0.67
1:AA:1307:U:H2'	1:AA:1308:U:C6	2.30	0.67
20:AB:127:LYS:HG2	20:AB:128:LEU:HD23	1.77	0.67
23:BB:142:A:H1'	50:BT:2:ILE:HG22	1.75	0.67
23:BB:2859:G:H2'	23:BB:2860:A:C8	2.29	0.67
40:BH:57:LYS:HE3	40:BH:58:LEU:HB2	1.77	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BP:88:ARG:HB2	28:BP:112:ARG:NH1	2.09	0.67
1:CA:1412:C:H2'	1:CA:1413:A:C8	2.29	0.67
4:CE:76:ASN:HB2	4:CE:81:GLN:NE2	2.10	0.67
23:DB:2654:A:N1	23:DB:2665:A:H5''	2.09	0.67
23:DB:2769:U:H2'	23:DB:2770:G:C8	2.29	0.67
23:DB:45:G:H5''	23:DB:46:G:H5'	1.75	0.67
23:DB:1813:G:N3	25:DC:49:THR:HG21	2.09	0.67
41:DJ:77:HIS:CD2	41:DJ:84:ILE:H	2.12	0.67
1:AA:17:U:H2'	1:AA:18:C:C6	2.30	0.67
8:AI:71:ILE:HD12	8:AI:71:ILE:H	1.60	0.67
23:BB:2152:G:H2'	23:BB:2152:G:N3	2.09	0.67
23:BB:972:A:C3'	23:BB:973:A:H5''	2.25	0.67
44:BQ:63:ARG:NH1	44:BQ:96:ASP:HA	2.10	0.67
15:CP:40:ASN:HD21	15:CP:43:ALA:H	1.43	0.67
21:CU:16:ARG:HH12	21:CU:19:LYS:NZ	1.93	0.67
33:D1:36:LYS:HG2	33:D1:47:ILE:HG13	1.77	0.67
23:DB:1437:C:H2'	23:DB:1438:U:H6	1.56	0.67
23:DB:144:A:H2'	23:DB:145:C:C6	2.30	0.67
23:DB:1552:A:H2'	23:DB:1553:A:H5'	1.77	0.67
23:DB:693:A:H2'	23:DB:694:U:C6	2.29	0.67
47:DF:30:VAL:HG22	47:DF:168:LEU:HD11	1.76	0.67
47:DF:31:GLU:O	47:DF:32:LYS:HD3	1.95	0.67
23:DB:1099:G:C8	24:DI:3:LYS:CA	2.75	0.67
35:DV:63:ILE:HB	35:DV:70:ILE:HD11	1.76	0.67
35:DV:70:ILE:HD13	35:DV:70:ILE:H	1.58	0.67
20:AB:44:LYS:C	20:AB:47:PRO:HD2	2.15	0.67
11:AL:107:LYS:H	11:AL:107:LYS:NZ	1.93	0.67
23:BB:135:U:H2'	23:BB:136:G:C8	2.29	0.67
23:BB:2243:U:H2'	23:BB:2244:U:C6	2.30	0.67
23:BB:364:C:H2'	23:BB:365:U:C6	2.30	0.67
23:BB:693:A:H2'	23:BB:694:U:C6	2.29	0.67
24:BI:10:LEU:HD13	24:BI:12:VAL:HG13	1.75	0.67
41:BJ:20:ALA:HA	41:BJ:23:LYS:HG3	1.75	0.67
41:BJ:77:HIS:CD2	41:BJ:84:ILE:H	2.13	0.67
37:BL:82:LEU:HD23	37:BL:90:VAL:HG21	1.75	0.67
46:BU:98:ASN:OD1	46:BU:100:GLU:HB2	1.95	0.67
51:BZ:14:THR:HA	51:BZ:28:ARG:HA	1.76	0.67
1:CA:1386:G:H2'	1:CA:1387:G:H8	1.60	0.67
1:CA:812:G:H4'	1:CA:812:G:OP1	1.95	0.67
20:CB:23:ASN:HD22	20:CB:24:PRO:N	1.93	0.67
11:CL:51:VAL:HG12	11:CL:52:CYS:H	1.58	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2336:A:H61	52:DW:40:ARG:CD	2.08	0.67
23:DB:2636:C:H2'	23:DB:2637:U:C6	2.30	0.67
23:DB:324:A:H2'	23:DB:325:G:O4'	1.94	0.67
23:DB:479:A:N3	23:DB:481:G:H5''	2.10	0.67
23:DB:773:U:H5'	23:DB:774:G:OP2	1.94	0.67
47:DF:107:VAL:HG11	47:DF:175:PRO:HG3	1.75	0.67
47:DF:104:THR:C	47:DF:108:PRO:HG2	2.16	0.67
47:DF:58:ALA:HB3	47:DF:139:GLU:HG2	1.76	0.67
1:AA:1004:A:H2'	1:AA:1005:A:O4'	1.95	0.67
7:AH:10:LEU:HD22	7:AH:74:ILE:HD11	1.76	0.67
23:BB:1219:U:H2'	23:BB:1220:G:C8	2.29	0.67
23:BB:1440:U:H2'	23:BB:1441:G:H8	1.60	0.67
23:BB:1515:A:H2'	23:BB:1516:G:O4'	1.94	0.67
29:BE:5:LEU:HD22	29:BE:122:GLU:HG3	1.75	0.67
40:BH:80:ILE:O	40:BH:146:VAL:HA	1.95	0.67
29:BE:181:ILE:HG12	37:BL:2:ARG:HH21	1.58	0.67
35:BV:70:ILE:H	35:BV:70:ILE:HD13	1.58	0.67
30:BY:2:LYS:HG2	30:BY:3:THR:H	1.58	0.67
1:CA:51:A:H5''	1:CA:52:C:H5''	1.77	0.67
16:CQ:80:LYS:H	16:CQ:80:LYS:HD2	1.59	0.67
21:CU:24:LYS:HB3	21:CU:24:LYS:NZ	2.10	0.67
34:D3:6:VAL:HB	34:D3:60:CYS:HB3	1.77	0.67
23:DB:1469:A:H2'	23:DB:1470:A:H8	1.60	0.67
23:DB:2267:A:N6	23:DB:2272:U:C4	2.62	0.67
23:DB:2458:G:H1'	23:DB:2460:U:O4	1.94	0.67
25:DC:250:GLN:HG2	25:DC:254:LYS:HG3	1.77	0.67
37:DL:55:MET:HE3	37:DL:56:PRO:HD2	1.76	0.67
38:DM:19:GLY:HA2	38:DM:97:GLN:HB2	1.76	0.67
39:DX:29:ARG:HH11	50:DT:12:ARG:NE	1.93	0.67
50:DT:5:GLU:HA	50:DT:8:LEU:HD12	1.77	0.67
1:AA:699:C:C2'	1:AA:700:G:H5''	2.24	0.67
1:AA:1075:U:H5'	20:AB:101:THR:HG21	1.77	0.67
2:AC:120:THR:HG22	2:AC:188:ALA:HB2	1.77	0.67
5:AF:66:ALA:HB1	5:AF:67:PRO:HD2	1.76	0.67
11:AL:98:ARG:HB2	11:AL:116:TYR:HA	1.77	0.67
23:BB:1107:G:H2'	23:BB:1108:U:C6	2.30	0.67
23:BB:2557:G:H2'	23:BB:2558:C:C6	2.30	0.67
1:CA:1477:U:H2'	1:CA:1478:U:C6	2.30	0.67
1:CA:238:A:H2'	1:CA:239:U:H5''	1.75	0.67
2:CC:120:THR:HG22	2:CC:188:ALA:HB2	1.75	0.67
3:CD:22:SER:HB2	3:CD:109:THR:HG22	1.77	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1106:G:H2'	23:DB:1107:G:H8	1.59	0.67
23:DB:1346:G:O2'	23:DB:1347:A:H5'	1.95	0.67
23:DB:1722:A:H2'	23:DB:1723:G:C8	2.30	0.67
43:DO:3:LYS:HZ3	43:DO:3:LYS:H	1.41	0.67
50:DT:15:HIS:O	50:DT:16:VAL:C	2.33	0.67
1:AA:190:A:H2'	1:AA:191:G:O4'	1.95	0.66
1:AA:270:A:H2'	1:AA:271:C:C6	2.30	0.66
20:AB:46:VAL:HA	20:AB:49:PHE:CD2	2.29	0.66
4:AE:113:VAL:HG11	4:AE:136:VAL:HG23	1.77	0.66
16:AQ:13:SER:HB3	16:AQ:21:VAL:HB	1.77	0.66
16:AQ:66:LEU:HD12	16:AQ:66:LEU:H	1.59	0.66
21:AU:39:LYS:N	21:AU:40:PRO:HD2	2.11	0.66
26:BD:107:VAL:HG13	26:BD:203:VAL:HG23	1.76	0.66
48:BG:122:ALA:HA	48:BG:132:LEU:HA	1.78	0.66
48:BG:106:LEU:HD12	48:BG:151:ARG:HD3	1.76	0.66
40:BH:134:VAL:HG22	40:BH:135:HIS:N	2.10	0.66
50:BT:15:HIS:O	50:BT:16:VAL:C	2.33	0.66
3:CD:154:VAL:HG23	3:CD:155:LYS:H	1.60	0.66
8:CI:38:PHE:HB3	8:CI:43:ALA:HB3	1.75	0.66
10:CK:28:ASN:ND2	10:CK:46:ALA:HB3	2.10	0.66
11:CL:85:ARG:HA	11:CL:93:ARG:HA	1.76	0.66
23:DB:643:A:N6	23:DB:2370:G:H1'	2.10	0.66
23:DB:770:G:H5''	36:D2:10:LEU:HD12	1.77	0.66
47:DF:91:ARG:HD3	47:DF:91:ARG:N	2.11	0.66
41:DJ:45:THR:OG1	41:DJ:48:VAL:HB	1.95	0.66
1:AA:1347:G:N2	1:AA:1373:G:H2'	2.10	0.66
1:AA:1496:C:H2'	1:AA:1497:G:O4'	1.96	0.66
16:AQ:59:GLU:O	16:AQ:75:VAL:HG22	1.94	0.66
53:B6:118:VAL:HG11	53:B6:180:GLU:HB2	1.77	0.66
23:BB:136:G:H2'	23:BB:137:U:C6	2.30	0.66
23:BB:1722:A:H2'	23:BB:1723:G:C8	2.29	0.66
40:BH:31:VAL:HB	40:BH:32:PRO:CD	2.23	0.66
49:BR:28:ALA:O	49:BR:63:VAL:HG21	1.96	0.66
1:CA:1361:G:H2'	1:CA:1362:A:H5''	1.77	0.66
31:D0:8:THR:HG23	31:D0:11:LYS:H	1.59	0.66
53:D6:61:PRO:HD2	53:D6:66:LEU:HD12	1.76	0.66
38:DM:36:VAL:HB	38:DM:127:LYS:O	1.95	0.66
50:DT:57:VAL:HG12	50:DT:86:THR:OG1	1.95	0.66
30:DY:18:LYS:O	30:DY:22:THR:HG23	1.95	0.66
1:AA:1213:A:O2'	1:AA:1214:C:H5''	1.96	0.66
3:AD:197:HIS:O	3:AD:200:VAL:HG22	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AE:131:ASN:HD21	4:AE:133:ILE:HB	1.60	0.66
34:B3:6:VAL:HB	34:B3:60:CYS:HB3	1.77	0.66
53:B6:44:GLU:CA	53:B6:49:HIS:HA	2.22	0.66
23:BB:1908:C:C2	23:BB:1909:C:H1'	2.30	0.66
23:BB:2103:C:H2'	23:BB:2104:C:O4'	1.95	0.66
29:BE:69:ARG:O	29:BE:70:SER:HB3	1.94	0.66
1:CA:390:U:H2'	1:CA:391:G:C8	2.30	0.66
1:CA:98:A:H2'	1:CA:99:C:C6	2.29	0.66
12:CM:68:LEU:HD22	12:CM:69:ARG:NH1	2.10	0.66
53:D6:68:VAL:O	53:D6:98:ALA:HA	1.94	0.66
23:DB:1219:U:H2'	23:DB:1220:G:C8	2.29	0.66
23:DB:2141:G:H2'	23:DB:2142:A:C8	2.30	0.66
25:DC:20:ASN:HD22	25:DC:23:LEU:HD13	1.60	0.66
26:DD:37:VAL:HG23	26:DD:91:THR:HA	1.77	0.66
24:DI:73:PRO:HG2	24:DI:78:LEU:HD21	1.75	0.66
46:DU:86:PHE:CE1	46:DU:88:ASP:HB3	2.31	0.66
35:DV:53:LYS:HD3	35:DV:55:GLU:H	1.60	0.66
35:DV:70:ILE:HG12	35:DV:72:VAL:HG13	1.77	0.66
3:AD:199:ILE:HG13	3:AD:200:VAL:N	2.10	0.66
3:AD:12:ARG:HD2	3:AD:37:PRO:HA	1.77	0.66
32:B4:12:ARG:HG3	32:B4:13:ASN:HD22	1.59	0.66
23:BB:145:C:H2'	23:BB:146:A:H8	1.59	0.66
23:BB:2134:A:H2'	23:BB:2135:A:H8	1.59	0.66
23:BB:2805:C:H2'	23:BB:2806:C:H6	1.60	0.66
26:BD:169:ARG:O	26:BD:170:VAL:HG22	1.94	0.66
29:BE:58:LYS:O	29:BE:60:TRP:N	2.28	0.66
48:BG:11:PRO:HD2	48:BG:14:VAL:HG21	1.75	0.66
27:BK:43:ILE:HD12	27:BK:43:ILE:H	1.60	0.66
1:CA:1003:G:H21	1:CA:1005:A:H5'	1.59	0.66
1:CA:1038:C:H2'	1:CA:1039:G:C8	2.30	0.66
7:CH:92:PRO:HG3	7:CH:124:ILE:HD13	1.78	0.66
16:CQ:76:ARG:HH21	16:CQ:78:VAL:HG13	1.60	0.66
21:CU:39:LYS:N	21:CU:40:PRO:HD2	2.10	0.66
23:DB:1930:G:O2'	23:DB:1968:G:N1	2.27	0.66
23:DB:2867:G:N3	23:DB:2867:G:H2'	2.10	0.66
29:DE:58:LYS:O	29:DE:60:TRP:N	2.29	0.66
23:DB:1060:U:C5	24:DI:131:THR:HG22	2.31	0.66
20:AB:80:LYS:HG3	20:AB:81:ASP:N	2.11	0.66
23:BB:1505:A:H2'	23:BB:1506:U:C6	2.31	0.66
23:BB:162:U:H4'	23:BB:163:C:OP1	1.96	0.66
23:BB:2645:G:H4'	23:BB:2732:G:H2'	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BC:250:GLN:HG2	25:BC:254:LYS:HG3	1.76	0.66
23:BB:322:A:OP1	29:BE:162:ARG:HD2	1.96	0.66
48:BG:34:ARG:N	48:BG:34:ARG:HH11	1.91	0.66
27:BK:41:ILE:HG13	27:BK:42:THR:H	1.60	0.66
44:BQ:104:ALA:HA	49:BR:46:GLU:OE1	1.95	0.66
52:BW:37:VAL:HG11	52:BW:38:ARG:HH11	1.61	0.66
12:CM:43:LYS:HB2	12:CM:46:GLU:HG3	1.78	0.66
16:CQ:20:ILE:HG22	16:CQ:45:VAL:HB	1.78	0.66
18:CS:18:VAL:O	18:CS:22:VAL:HG23	1.95	0.66
23:DB:1098:A:OP2	24:DI:3:LYS:HG2	1.96	0.66
23:DB:1287:A:N7	42:DN:105:GLY:HA3	2.11	0.66
23:DB:721:A:H2'	23:DB:722:A:C8	2.31	0.66
26:DD:51:THR:CG2	26:DD:76:GLY:HA3	2.25	0.66
24:DI:25:PRO:O	24:DI:29:GLN:HG3	1.95	0.66
41:DJ:20:ALA:HA	41:DJ:23:LYS:HG3	1.78	0.66
42:DN:24:MET:HG2	42:DN:44:LEU:HD13	1.78	0.66
45:DS:58:ALA:HB1	45:DS:69:LEU:HD21	1.76	0.66
52:DW:23:LYS:NZ	52:DW:24:ARG:HG3	2.11	0.66
23:DB:2336:A:H61	52:DW:40:ARG:CG	2.08	0.66
23:BB:151:C:H2'	23:BB:152:A:H8	1.61	0.66
23:BB:2591:C:H2'	23:BB:2592:G:C8	2.30	0.66
23:BB:287:G:H2'	23:BB:288:U:C6	2.30	0.66
23:BB:1012:U:O4	41:BJ:30:THR:HG21	1.94	0.66
52:BW:43:LYS:HD2	52:BW:79:ILE:HD11	1.76	0.66
8:CI:71:ILE:HD12	8:CI:71:ILE:H	1.61	0.66
18:CS:69:LYS:O	18:CS:72:GLU:HG2	1.95	0.66
53:D6:36:ALA:HA	53:D6:39:LEU:HD23	1.77	0.66
23:DB:1024:G:C3'	23:DB:1025:G:H5''	2.25	0.66
23:DB:2304:G:H22	23:DB:2312:U:H3	1.42	0.66
29:DE:44:ARG:NH2	29:DE:44:ARG:HG3	2.05	0.66
44:DQ:89:ILE:HB	49:DR:11:GLN:HE22	1.59	0.66
1:AA:1356:G:H2'	1:AA:1357:A:C8	2.31	0.66
1:AA:182:A:O2'	1:AA:183:C:H3'	1.95	0.66
6:AG:129:ASN:HA	6:AG:134:VAL:HG11	1.78	0.66
16:AQ:20:ILE:HG22	16:AQ:45:VAL:HB	1.78	0.66
23:BB:1229:C:H2'	23:BB:1230:A:H8	1.60	0.66
25:BC:76:VAL:HG12	25:BC:114:GLN:HG2	1.77	0.66
47:BF:91:ARG:HD3	47:BF:91:ARG:N	2.11	0.66
1:CA:1307:U:H2'	1:CA:1308:U:C6	2.31	0.66
23:DB:151:C:H2'	23:DB:152:A:H8	1.60	0.66
23:DB:2649:C:H2'	23:DB:2650:U:H6	1.61	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DE:176:ASP:O	29:DE:180:LEU:HG	1.95	0.66
48:DG:155:PRO:HA	48:DG:170:THR:HG22	1.77	0.66
48:DG:34:ARG:HH11	48:DG:34:ARG:N	1.93	0.66
29:DE:29:HIS:NE2	37:DL:8:PRO:HG3	2.11	0.66
44:DQ:57:ARG:NH1	44:DQ:61:ILE:HD11	2.11	0.66
44:DQ:94:LEU:HD21	49:DR:11:GLN:HB2	1.77	0.66
50:DT:25:GLU:HA	50:DT:28:ASN:O	1.96	0.66
46:DU:20:LYS:HB3	46:DU:38:ILE:HD11	1.77	0.66
1:AA:89:U:H2'	1:AA:90:C:C6	2.30	0.66
1:AA:405:U:O4	3:AD:1:ALA:HA	1.95	0.66
16:AQ:76:ARG:HH21	16:AQ:78:VAL:HG13	1.61	0.66
23:BB:687:C:H5'	36:B2:4:THR:O	1.96	0.66
23:BB:2180:U:H2'	23:BB:2181:U:C5	2.31	0.66
41:BJ:1:MET:HG2	41:BJ:2:LYS:NZ	2.11	0.66
37:BL:55:MET:HE2	37:BL:56:PRO:HD2	1.77	0.66
30:BY:7:THR:O	30:BY:54:VAL:HA	1.96	0.66
10:CK:14:GLN:HA	10:CK:76:TYR:O	1.94	0.66
34:D3:49:VAL:HG21	34:D3:54:LEU:HD13	1.78	0.66
23:DB:1104:C:H2'	23:DB:1105:U:C6	2.31	0.66
23:DB:1485:U:H2'	23:DB:1486:U:C6	2.31	0.66
23:DB:2371:G:H2'	23:DB:2372:U:H5''	1.77	0.66
23:DB:713:G:H21	23:DB:718:A:H2	1.44	0.66
25:DC:243:PRO:O	25:DC:250:GLN:HA	1.96	0.66
26:DD:34:VAL:CG1	26:DD:94:GLN:H	2.07	0.66
48:DG:93:TYR:O	48:DG:94:ARG:HG3	1.96	0.66
50:DT:29:THR:HA	50:DT:86:THR:HA	1.77	0.66
52:DW:51:GLY:HA3	52:DW:59:PHE:CB	2.26	0.66
23:BB:1381:G:H2'	23:BB:1382:G:H5'	1.76	0.66
23:BB:721:A:H2'	23:BB:722:A:H8	1.61	0.66
27:BK:18:ARG:HB2	27:BK:45:GLU:HG3	1.76	0.66
38:BM:21:ALA:CB	38:BM:100:LYS:HG2	2.26	0.66
43:BO:79:ALA:HB2	43:BO:110:ALA:HA	1.78	0.66
51:BZ:6:GLN:NE2	51:BZ:50:ARG:H	1.94	0.66
1:CA:1089:G:H1'	1:CA:1167:A:H61	1.61	0.66
1:CA:182:A:O2'	1:CA:183:C:H3'	1.95	0.66
9:CJ:8:ILE:HB	9:CJ:74:VAL:HB	1.78	0.66
23:DB:1505:A:H2'	23:DB:1506:U:C6	2.31	0.66
23:DB:546:U:H5''	23:DB:547:A:OP1	1.96	0.66
23:DB:845:A:C2	23:DB:847:U:H1'	2.31	0.66
25:DC:89:ASN:O	25:DC:105:ALA:HB3	1.95	0.66
37:DL:56:PRO:HD2	37:DL:59:ARG:HG3	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DU:85:ARG:NE	46:DU:85:ARG:HA	2.10	0.66
1:AA:207:C:H2'	1:AA:208:U:O4'	1.96	0.66
20:AB:162:VAL:HG21	20:AB:168:GLU:HB2	1.78	0.66
18:AS:42:ASN:ND2	18:AS:43:MET:HG3	2.11	0.66
23:BB:2267:A:N6	23:BB:2272:U:C4	2.64	0.66
26:BD:34:VAL:HA	26:BD:50:VAL:HG12	1.78	0.66
47:BF:77:LYS:HG3	47:BF:79:ARG:CZ	2.26	0.66
48:BG:143:VAL:O	48:BG:147:LEU:HD12	1.95	0.66
38:BM:40:ARG:HB2	38:BM:93:VAL:CG2	2.26	0.66
50:BT:5:GLU:HA	50:BT:8:LEU:HD12	1.78	0.66
46:BU:20:LYS:HB3	46:BU:38:ILE:HD11	1.77	0.66
20:CB:101:THR:HG21	1:CA:1101:A:H61	1.61	0.66
7:CH:38:VAL:O	7:CH:42:GLU:HG2	1.96	0.66
13:CN:17:ASP:HA	13:CN:21:ALA:HB2	1.76	0.66
23:DB:2064:C:H2'	23:DB:2065:C:C6	2.31	0.66
23:DB:264:C:H2'	23:DB:265:A:H5''	1.78	0.66
46:DU:78:LYS:HD3	46:DU:79:ALA:H	1.61	0.66
38:BM:36:VAL:HB	38:BM:127:LYS:O	1.95	0.65
50:BT:55:VAL:HG22	50:BT:87:LEU:HD23	1.76	0.65
20:CB:23:ASN:C	20:CB:23:ASN:HD22	1.97	0.65
6:CG:125:ASP:HB3	6:CG:130:LYS:HB3	1.76	0.65
23:DB:2284:A:OP2	33:D1:5:ARG:HG3	1.95	0.65
23:DB:2353:G:N3	52:DW:30:VAL:HG13	2.12	0.65
24:DI:27:LEU:HD12	24:DI:32:VAL:HG11	1.76	0.65
50:DT:39:THR:HG22	50:DT:42:GLU:HG2	1.77	0.65
50:DT:55:VAL:HG22	50:DT:87:LEU:HD23	1.77	0.65
30:DY:7:THR:O	30:DY:54:VAL:HA	1.95	0.65
1:AA:950:U:H2'	1:AA:951:G:H8	1.61	0.65
16:AQ:45:VAL:HG12	16:AQ:46:HIS:H	1.62	0.65
21:AU:16:ARG:HA	21:AU:16:ARG:NE	2.11	0.65
23:BB:1287:A:OP1	42:BN:104:ALA:HB3	1.96	0.65
28:BP:88:ARG:HG3	28:BP:112:ARG:HB3	1.78	0.65
44:BQ:10:ARG:CZ	44:BQ:10:ARG:HB2	2.25	0.65
1:CA:1213:A:O2'	1:CA:1214:C:H5''	1.96	0.65
1:CA:1238:A:H5'	1:CA:1336:C:N4	2.11	0.65
4:CE:131:ASN:HD21	4:CE:133:ILE:HB	1.61	0.65
8:CI:118:ARG:NH1	8:CI:122:ARG:HE	1.95	0.65
23:DB:131:A:H2'	23:DB:132:G:H8	1.61	0.65
23:DB:720:U:H2'	23:DB:721:A:C8	2.31	0.65
42:DN:12:ARG:HG2	42:DN:16:HIS:ND1	2.10	0.65
1:AA:232:G:H1'	1:AA:262:A:N1	2.10	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:478:A:H2'	1:AA:479:U:O4'	1.97	0.65
1:AA:649:A:H2'	1:AA:650:G:O4'	1.96	0.65
23:BB:1579:A:H2'	23:BB:1580:A:C8	2.30	0.65
23:BB:2636:C:H2'	23:BB:2637:U:C6	2.31	0.65
23:BB:2867:G:H2'	23:BB:2867:G:N3	2.11	0.65
35:BV:79:ARG:HB3	35:BV:79:ARG:HH11	1.60	0.65
1:CA:1513:A:H2'	1:CA:1514:G:H8	1.62	0.65
1:CA:950:U:H2'	1:CA:951:G:H8	1.60	0.65
20:CB:46:VAL:HA	20:CB:49:PHE:CD2	2.31	0.65
2:CC:154:GLY:HA2	2:CC:163:ARG:O	1.96	0.65
53:D6:53:ASN:HD22	53:D6:53:ASN:H	1.43	0.65
23:DB:1558:C:H4'	23:DB:1559:U:H5'	1.79	0.65
40:DH:31:VAL:O	40:DH:32:PRO:C	2.34	0.65
1:AA:1038:C:H2'	1:AA:1039:G:C8	2.30	0.65
1:AA:1171:A:H2'	1:AA:1172:C:C6	2.31	0.65
23:BB:1942:C:H1'	53:B6:133:ARG:HH22	1.61	0.65
23:BB:264:C:H2'	23:BB:265:A:H5''	1.78	0.65
23:BB:62:U:H3'	23:BB:63:A:H8	1.62	0.65
23:BB:813:U:H2'	23:BB:814:C:H6	1.62	0.65
47:BF:125:GLY:HA2	47:BF:162:ASP:HA	1.78	0.65
46:BU:12:VAL:HG22	46:BU:69:VAL:HG12	1.79	0.65
51:BZ:5:CYS:HB2	51:BZ:10:LYS:HB2	1.78	0.65
1:CA:176:C:H2'	1:CA:177:G:N3	2.12	0.65
1:CA:22:G:H2'	1:CA:23:C:H6	1.61	0.65
1:CA:270:A:H2'	1:CA:271:C:C6	2.31	0.65
4:CE:9:GLU:CD	4:CE:10:LEU:H	2.00	0.65
11:CL:107:LYS:H	11:CL:107:LYS:NZ	1.94	0.65
47:DF:77:LYS:HG3	47:DF:79:ARG:CZ	2.26	0.65
23:DB:2493:U:O2	38:DM:78:LEU:HD21	1.96	0.65
35:DV:80:HIS:CD2	35:DV:83:LYS:H	2.14	0.65
9:AJ:42:LEU:HB2	9:AJ:71:LEU:HD21	1.78	0.65
12:AM:29:SER:HA	12:AM:32:ILE:HG22	1.77	0.65
10:AK:126:ARG:HB2	21:AU:33:ARG:HD2	1.79	0.65
53:B6:108:GLU:HA	53:B6:111:ARG:HB2	1.78	0.65
23:BB:981:A:H4'	23:BB:2037:A:H5'	1.77	0.65
23:BB:2066:C:O2'	23:BB:2067:G:H5'	1.96	0.65
40:BH:114:GLU:HB3	40:BH:134:VAL:HA	1.77	0.65
42:BN:24:MET:HG2	42:BN:44:LEU:HD13	1.78	0.65
35:BV:70:ILE:HG12	35:BV:72:VAL:HG13	1.77	0.65
16:CQ:74:LEU:HD22	16:CQ:75:VAL:N	2.11	0.65
53:D6:18:LEU:HG	53:D6:171:LYS:NZ	2.11	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1429:G:H2'	23:DB:1430:G:H8	1.62	0.65
23:DB:154:U:H2'	23:DB:155:A:H8	1.62	0.65
23:DB:1592:C:H2'	23:DB:1593:A:H8	1.62	0.65
23:DB:1786:A:H1'	23:DB:1938:A:N6	2.11	0.65
23:DB:2291:U:H2'	23:DB:2292:U:C6	2.31	0.65
23:DB:2645:G:H3'	23:DB:2646:C:H5'	1.78	0.65
23:DB:30:G:H2'	23:DB:31:C:C6	2.31	0.65
23:DB:620:G:O6	29:DE:98:LYS:HE2	1.96	0.65
52:DW:37:VAL:HG11	52:DW:38:ARG:HH11	1.62	0.65
1:AA:22:G:H2'	1:AA:23:C:H6	1.59	0.65
1:AA:674:G:H2'	1:AA:675:A:H8	1.59	0.65
1:AA:406:G:H21	3:AD:115:GLN:HE22	1.42	0.65
10:AK:28:ASN:ND2	10:AK:46:ALA:HB3	2.11	0.65
14:AO:8:THR:O	14:AO:11:ILE:HG22	1.97	0.65
23:BB:1709:U:H2'	23:BB:1710:G:H8	1.62	0.65
26:BD:51:THR:CG2	26:BD:76:GLY:HA3	2.26	0.65
48:BG:84:LYS:HG3	48:BG:131:VAL:C	2.17	0.65
37:BL:56:PRO:HD2	37:BL:59:ARG:HG3	1.78	0.65
43:BO:79:ALA:HA	43:BO:115:LEU:HD23	1.79	0.65
46:BU:85:ARG:HA	46:BU:85:ARG:NE	2.10	0.65
30:BY:8:GLN:CG	30:BY:31:ILE:HA	2.24	0.65
4:CE:156:ARG:O	4:CE:158:LYS:HD3	1.97	0.65
12:CM:14:ALA:HB2	12:CM:42:VAL:HG23	1.78	0.65
23:DB:145:C:H2'	23:DB:146:A:H8	1.61	0.65
25:DC:175:LEU:HD11	25:DC:181:ARG:HG3	1.76	0.65
26:DD:105:LYS:HD2	26:DD:177:VAL:HG22	1.77	0.65
47:DF:116:LEU:HB3	47:DF:176:PHE:HA	1.78	0.65
27:DK:71:ARG:HG3	27:DK:105:ARG:NH2	2.12	0.65
38:DM:21:ALA:CB	38:DM:100:LYS:HG2	2.27	0.65
38:DM:40:ARG:HB2	38:DM:93:VAL:CG2	2.25	0.65
44:DQ:91:ARG:HE	44:DQ:94:LEU:HD22	1.62	0.65
52:DW:28:GLU:HG3	52:DW:29:SER:H	1.62	0.65
1:AA:269:C:H2'	1:AA:270:A:H8	1.61	0.65
20:AB:31:PHE:HB2	20:AB:41:ASN:HA	1.78	0.65
21:AU:16:ARG:HH12	21:AU:19:LYS:NZ	1.95	0.65
53:B6:55:ILE:HG13	53:B6:56:ALA:N	2.10	0.65
23:BB:1219:U:H2'	23:BB:1220:G:H8	1.62	0.65
23:BB:17:G:H2'	23:BB:18:U:C6	2.31	0.65
23:BB:1853:A:N1	23:BB:2087:G:H1'	2.11	0.65
23:BB:2291:U:H2'	23:BB:2292:U:C6	2.31	0.65
23:BB:224:U:O4	23:BB:420:C:H5'	1.97	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BI:7:TYR:HB2	24:BI:58:ILE:O	1.96	0.65
35:BV:80:HIS:CD2	35:BV:83:LYS:H	2.14	0.65
52:BW:23:LYS:NZ	52:BW:24:ARG:HG3	2.12	0.65
1:CA:194:C:O2'	1:CA:195:A:H5'	1.97	0.65
8:CI:26:LYS:HE3	8:CI:27:ILE:H	1.61	0.65
11:CL:43:LYS:HE3	11:CL:44:PRO:HD3	1.79	0.65
16:CQ:13:SER:HB3	16:CQ:21:VAL:HB	1.77	0.65
23:DB:849:A:H2'	23:DB:850:U:C6	2.31	0.65
26:DD:106:LYS:O	26:DD:107:VAL:HB	1.94	0.65
48:DG:106:LEU:HD12	48:DG:151:ARG:HD3	1.78	0.65
30:DY:8:GLN:CG	30:DY:31:ILE:HA	2.22	0.65
1:AA:426:U:H4'	3:AD:39:GLN:HA	1.77	0.65
20:AB:120:SER:HA	20:AB:125:PHE:CD1	2.31	0.65
15:AP:48:GLU:HG3	15:AP:49:GLY:H	1.60	0.65
23:BB:2213:U:O2	23:BB:2213:U:H2'	1.96	0.65
23:BB:773:U:H5'	23:BB:774:G:OP2	1.97	0.65
47:BF:101:ARG:HH12	47:BF:138:PRO:HB2	1.62	0.65
50:BT:57:VAL:HG12	50:BT:86:THR:OG1	1.96	0.65
52:BW:23:LYS:O	52:BW:66:VAL:HB	1.97	0.65
16:CQ:62:GLU:OE2	1:CA:235:C:H1'	1.97	0.65
1:CA:478:A:H2'	1:CA:479:U:O4'	1.97	0.65
20:CB:42:LEU:HA	20:CB:45:THR:CB	2.27	0.65
2:CC:70:ALA:HA	2:CC:105:VAL:CG2	2.26	0.65
2:CC:13:ILE:O	2:CC:14:VAL:HG22	1.97	0.65
53:D6:174:GLN:HE21	53:D6:175:LEU:N	1.95	0.65
23:DB:163:C:H2'	23:DB:164:C:O4'	1.97	0.65
1:CA:1409:C:H4'	23:DB:1914:C:N3	2.11	0.65
23:DB:2213:U:O2	23:DB:2213:U:H2'	1.96	0.65
52:DW:23:LYS:O	52:DW:66:VAL:HB	1.97	0.65
1:AA:1086:U:H3	1:AA:1099:G:N2	1.91	0.65
1:AA:1361:G:H2'	1:AA:1362:A:H5''	1.79	0.65
20:AB:172:ILE:HG23	20:AB:182:VAL:HG11	1.79	0.65
8:AI:64:ILE:HD12	8:AI:64:ILE:H	1.62	0.65
13:AN:14:ALA:HB1	13:AN:18:LYS:HE3	1.77	0.65
53:B6:18:LEU:HD21	53:B6:171:LYS:HD2	1.78	0.65
23:BB:2306:C:H3'	23:BB:2307:G:H5''	1.79	0.65
23:BB:996:A:O3'	44:BQ:91:ARG:HG2	1.97	0.65
48:BG:1:SER:HA	48:BG:5:LYS:HE3	1.77	0.65
48:BG:93:TYR:O	48:BG:94:ARG:HG3	1.97	0.65
40:BH:116:ARG:NH1	40:BH:133:GLN:HB2	2.12	0.65
49:BR:96:VAL:HG23	49:BR:98:ILE:HD11	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BT:20:ALA:O	50:BT:24:MET:HB2	1.97	0.65
1:CA:1006:G:H2'	1:CA:1007:U:H6	1.62	0.65
1:CA:1404:C:H2'	1:CA:1405:G:C8	2.31	0.65
4:CE:111:ARG:HG3	4:CE:112:ALA:N	2.12	0.65
23:DB:1028:A:H2'	23:DB:1029:A:C8	2.32	0.65
23:DB:1440:U:H2'	23:DB:1441:G:C8	2.31	0.65
35:DV:79:ARG:HB3	35:DV:79:ARG:HH11	1.61	0.65
1:AA:1238:A:H5'	1:AA:1336:C:N4	2.12	0.65
4:AE:156:ARG:O	4:AE:158:LYS:HD3	1.96	0.65
12:AM:14:ALA:HB2	12:AM:42:VAL:HG23	1.79	0.65
32:B4:15:LYS:O	32:B4:16:ILE:HB	1.97	0.65
23:BB:246:C:C2'	23:BB:247:G:H5'	2.27	0.65
23:BB:643:A:N6	23:BB:2370:G:H1'	2.12	0.65
47:BF:104:THR:C	47:BF:108:PRO:HG2	2.17	0.65
41:BJ:62:VAL:HG11	41:BJ:101:ILE:HD11	1.79	0.65
44:BQ:97:ILE:HD11	44:BQ:108:LEU:HD11	1.77	0.65
1:CA:1019:A:H2'	1:CA:1020:G:C8	2.32	0.65
1:CA:1062:U:H2'	1:CA:1063:C:C6	2.31	0.65
1:CA:806:C:H2'	1:CA:807:A:C8	2.32	0.65
3:CD:26:ALA:HA	3:CD:30:LYS:HE3	1.78	0.65
53:D6:19:GLU:HA	53:D6:22:GLU:HG3	1.78	0.65
23:DB:1684:G:H2'	23:DB:1685:C:H6	1.62	0.65
23:DB:972:A:C3'	23:DB:973:A:H5''	2.27	0.65
25:DC:43:ASN:ND2	25:DC:44:ASN:H	1.95	0.65
47:DF:106:ALA:HA	47:DF:135:ILE:HD11	1.79	0.65
40:DH:31:VAL:HB	40:DH:32:PRO:CD	2.24	0.65
24:DI:72:THR:HG22	24:DI:115:ASP:OD2	1.96	0.65
46:DU:25:LYS:HE3	46:DU:36:GLU:HG3	1.79	0.65
1:AA:56:U:H2'	1:AA:57:G:C8	2.32	0.64
1:AA:72:A:H2'	1:AA:73:C:H6	1.60	0.64
20:AB:42:LEU:HA	20:AB:45:THR:CB	2.27	0.64
3:AD:97:LEU:HB2	3:AD:134:TYR:HB3	1.79	0.64
7:AH:38:VAL:O	7:AH:42:GLU:HG2	1.98	0.64
23:BB:1552:A:H2'	23:BB:1553:A:H5'	1.79	0.64
23:BB:2188:U:H2'	23:BB:2189:U:C6	2.32	0.64
23:BB:2271:G:O2'	23:BB:2272:U:H5'	1.97	0.64
23:BB:2841:C:H2'	23:BB:2842:G:H8	1.62	0.64
25:BC:75:ALA:HB1	25:BC:93:VAL:HG22	1.79	0.64
25:BC:77:VAL:HA	25:BC:93:VAL:HA	1.80	0.64
26:BD:37:VAL:HG23	26:BD:91:THR:HA	1.77	0.64
47:BF:30:VAL:HG22	47:BF:168:LEU:HD11	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BI:129:GLU:HB3	24:BI:133:ARG:NH1	2.10	0.64
41:BJ:23:LYS:HE3	41:BJ:142:ILE:HG23	1.78	0.64
3:CD:8:LEU:HB2	1:CA:430:A:OP1	1.95	0.64
12:CM:29:SER:HA	12:CM:32:ILE:HG22	1.78	0.64
18:CS:42:ASN:ND2	18:CS:43:MET:HG3	2.11	0.64
23:DB:1458:U:O2'	23:DB:1459:G:H5''	1.97	0.64
29:DE:46:GLN:HG3	29:DE:87:ALA:HB3	1.78	0.64
48:DG:122:ALA:HA	48:DG:132:LEU:HA	1.79	0.64
27:DK:43:ILE:H	27:DK:43:ILE:HD12	1.61	0.64
38:DM:2:LEU:HD23	38:DM:46:ILE:HD11	1.77	0.64
46:DU:73:ASN:HD21	46:DU:76:THR:N	1.91	0.64
2:AC:154:GLY:HA2	2:AC:163:ARG:O	1.97	0.64
23:BB:1470:A:H3'	23:BB:1471:G:H8	1.62	0.64
23:BB:479:A:N3	23:BB:481:G:H5''	2.13	0.64
23:BB:845:A:C2	23:BB:847:U:H1'	2.32	0.64
25:BC:58:LYS:O	25:BC:59:GLN:HB2	1.97	0.64
47:BF:127:TYR:HB2	47:BF:155:ILE:HD13	1.80	0.64
38:BM:66:ARG:CZ	38:BM:101:VAL:HG11	2.27	0.64
28:BP:63:ILE:HG12	28:BP:68:GLY:HA2	1.78	0.64
1:CA:1033:G:H2'	1:CA:1034:G:O4'	1.95	0.64
12:CM:7:ASN:HD22	12:CM:7:ASN:H	1.45	0.64
15:CP:40:ASN:ND2	15:CP:43:ALA:H	1.96	0.64
23:DB:2254:C:H1'	53:D6:151:GLU:HB2	1.79	0.64
43:DO:79:ALA:HB2	43:DO:110:ALA:HA	1.78	0.64
44:DQ:94:LEU:C	44:DQ:96:ASP:H	2.01	0.64
1:AA:1003:G:H21	1:AA:1005:A:H5'	1.60	0.64
1:AA:1019:A:H2'	1:AA:1020:G:C8	2.32	0.64
1:AA:1033:G:H2'	1:AA:1034:G:O4'	1.97	0.64
1:AA:1179:A:H2'	1:AA:1180:A:O4'	1.97	0.64
1:AA:86:G:H21	1:AA:87:C:N4	1.95	0.64
20:AB:23:ASN:HD22	20:AB:24:PRO:N	1.95	0.64
5:AF:3:HIS:CD2	5:AF:65:GLU:HG3	2.31	0.64
15:AP:28:ARG:HD3	15:AP:29:ASN:N	2.09	0.64
53:B6:32:ARG:HH22	53:B6:88:LEU:HD23	1.62	0.64
23:BB:154:U:H2'	23:BB:155:A:H8	1.62	0.64
23:BB:2615:U:C2	31:B0:3:GLN:HA	2.32	0.64
23:BB:2645:G:H3'	23:BB:2646:C:H5'	1.79	0.64
47:BF:116:LEU:HB3	47:BF:176:PHE:HA	1.78	0.64
28:BP:50:ARG:CB	28:BP:56:SER:HB3	2.28	0.64
1:CA:1218:C:H2'	1:CA:1219:A:C8	2.33	0.64
1:CA:922:G:N3	1:CA:1398:A:H2	1.96	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1422:G:O2'	1:CA:1423:G:H5'	1.96	0.64
1:CA:232:G:H1'	1:CA:262:A:N1	2.12	0.64
23:DB:1125:G:H4'	32:D4:37:GLN:NE2	2.12	0.64
23:DB:2841:C:H2'	23:DB:2842:G:H8	1.62	0.64
50:DT:32:LEU:H	50:DT:83:ALA:HB3	1.61	0.64
52:DW:10:ARG:O	52:DW:11:ASN:HB2	1.97	0.64
20:AB:119:GLN:HA	20:AB:124:THR:HG23	1.78	0.64
11:AL:51:VAL:HG12	11:AL:52:CYS:H	1.61	0.64
16:AQ:57:VAL:HB	16:AQ:79:GLU:HB3	1.79	0.64
53:B6:58:VAL:HG12	53:B6:66:LEU:HD23	1.79	0.64
23:BB:1915:U:H2'	23:BB:1916:A:O4'	1.96	0.64
23:BB:2109:U:O2	23:BB:2109:U:H2'	1.97	0.64
44:BQ:94:LEU:C	44:BQ:96:ASP:H	2.00	0.64
45:BS:58:ALA:HB1	45:BS:69:LEU:HD21	1.78	0.64
9:CJ:77:VAL:HB	9:CJ:78:GLU:OE2	1.97	0.64
13:CN:60:ARG:HG3	13:CN:62:ARG:HG3	1.80	0.64
23:DB:106:C:H2'	23:DB:107:G:C8	2.32	0.64
23:DB:1099:G:C5'	24:DI:3:LYS:N	2.61	0.64
23:DB:1565:C:H5''	25:DC:17:LYS:NZ	2.12	0.64
23:DB:947:A:H2'	23:DB:948:C:C6	2.32	0.64
24:DI:42:ASN:HA	24:DI:45:THR:OG1	1.96	0.64
43:DO:39:VAL:HB	43:DO:49:VAL:HG22	1.79	0.64
28:DP:88:ARG:HB2	28:DP:112:ARG:NH1	2.12	0.64
52:DW:19:ARG:HE	52:DW:19:ARG:H	1.46	0.64
4:AE:156:ARG:HD2	7:AH:42:GLU:O	1.96	0.64
8:AI:26:LYS:HE3	8:AI:27:ILE:H	1.62	0.64
9:AJ:8:ILE:HB	9:AJ:74:VAL:HB	1.80	0.64
19:AT:68:LYS:HA	19:AT:68:LYS:NZ	2.13	0.64
34:B3:49:VAL:HG21	34:B3:54:LEU:HD13	1.79	0.64
23:BB:1858:A:N6	23:BB:1884:G:H1'	2.12	0.64
23:BB:215:G:H4'	23:BB:216:A:H4'	1.78	0.64
23:BB:2371:G:H2'	23:BB:2372:U:H5''	1.78	0.64
23:BB:849:A:H2'	23:BB:850:U:C6	2.33	0.64
47:BF:31:GLU:O	47:BF:32:LYS:HD3	1.98	0.64
48:BG:132:LEU:HD23	48:BG:132:LEU:H	1.61	0.64
40:BH:41:LYS:O	40:BH:44:ILE:N	2.24	0.64
5:CF:86:ARG:HH12	17:CR:63:TYR:HB3	1.61	0.64
7:CH:44:PHE:HA	7:CH:70:VAL:HG11	1.79	0.64
8:CI:51:LEU:CB	8:CI:56:MET:HG2	2.23	0.64
14:CO:8:THR:O	14:CO:11:ILE:HG22	1.96	0.64
23:DB:543:G:N2	23:DB:545:U:H5'	2.13	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:721:A:H2'	23:DB:722:A:H8	1.63	0.64
25:DC:173:LEU:H	25:DC:173:LEU:HD22	1.62	0.64
48:DG:26:LYS:HB2	48:DG:32:LEU:HG	1.80	0.64
51:DZ:40:VAL:CG2	51:DZ:43:GLU:HB3	2.27	0.64
1:AA:1218:C:H2'	1:AA:1219:A:C8	2.33	0.64
1:AA:390:U:H2'	1:AA:391:G:H8	1.61	0.64
1:AA:812:G:H4'	1:AA:812:G:OP1	1.97	0.64
3:AD:26:ALA:HA	3:AD:30:LYS:HE3	1.80	0.64
15:AP:40:ASN:HD21	15:AP:43:ALA:H	1.45	0.64
23:BB:138:U:H3'	23:BB:140:C:C2	2.33	0.64
23:BB:2145:C:H3'	23:BB:2146:C:C5'	2.28	0.64
43:BO:49:VAL:HG11	43:BO:82:ALA:HA	1.79	0.64
35:BV:63:ILE:HB	35:BV:70:ILE:HD11	1.80	0.64
52:BW:10:ARG:O	52:BW:11:ASN:HB2	1.96	0.64
18:CS:2:ARG:HA	18:CS:2:ARG:NE	2.12	0.64
19:CT:68:LYS:HA	19:CT:68:LYS:NZ	2.12	0.64
21:CU:16:ARG:NE	21:CU:16:ARG:HA	2.12	0.64
53:D6:18:LEU:HD11	53:D6:171:LYS:HD2	1.80	0.64
23:DB:1012:U:O4	41:DJ:30:THR:HG21	1.97	0.64
23:DB:1885:A:H2'	23:DB:1886:U:O4'	1.97	0.64
48:DG:43:LYS:HB2	48:DG:50:THR:OG1	1.98	0.64
24:DI:41:PHE:O	24:DI:45:THR:HG23	1.98	0.64
41:DJ:1:MET:HG2	41:DJ:2:LYS:NZ	2.13	0.64
42:DN:8:ARG:HH21	42:DN:39:PRO:HB3	1.62	0.64
44:DQ:97:ILE:HD11	44:DQ:108:LEU:HD11	1.80	0.64
50:DT:55:VAL:HA	50:DT:87:LEU:HA	1.80	0.64
3:AD:22:SER:HB2	3:AD:109:THR:HG22	1.78	0.64
4:AE:95:MET:HG3	4:AE:124:ALA:HB2	1.79	0.64
13:AN:60:ARG:HG3	13:AN:62:ARG:HG3	1.79	0.64
23:BB:1138:G:H2'	23:BB:1139:G:O4'	1.98	0.64
23:BB:2794:C:H2'	23:BB:2795:C:C6	2.32	0.64
23:BB:558:U:O2'	23:BB:559:G:H5'	1.98	0.64
25:BC:173:LEU:H	25:BC:173:LEU:HD22	1.62	0.64
25:BC:89:ASN:O	25:BC:105:ALA:HB3	1.97	0.64
26:BD:114:LYS:HB2	26:BD:116:LYS:HE3	1.80	0.64
1:CA:1071:C:H2'	1:CA:1072:G:H8	1.63	0.64
1:CA:160:A:H2'	1:CA:161:A:O4'	1.98	0.64
1:CA:240:G:H8	1:CA:240:G:H5'	1.62	0.64
3:CD:2:ARG:HD2	3:CD:114:ARG:CZ	2.28	0.64
10:CK:46:ALA:HB1	10:CK:61:ALA:HB1	1.80	0.64
23:DB:1179:G:H2'	23:DB:1180:U:O4'	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1794:A:H2'	23:DB:1795:C:C6	2.32	0.64
23:DB:246:C:C2'	23:DB:247:G:H5'	2.27	0.64
23:DB:543:G:H2'	23:DB:545:U:OP1	1.98	0.64
48:DG:15:ASP:HB2	48:DG:26:LYS:HB3	1.80	0.64
27:DK:118:LEU:O	27:DK:120:PRO:HD2	1.98	0.64
38:DM:21:ALA:HB2	38:DM:100:LYS:HG2	1.79	0.64
50:DT:32:LEU:HG	50:DT:83:ALA:HB2	1.80	0.64
51:DZ:18:ARG:NH1	51:DZ:24:ALA:HB2	2.12	0.64
53:B6:70:SER:OG	53:B6:75:ALA:HB3	1.97	0.64
23:BB:154:U:H2'	23:BB:155:A:C8	2.32	0.64
23:BB:2143:C:H2'	23:BB:2144:G:H4'	1.80	0.64
23:BB:581:C:H2'	23:BB:582:A:C8	2.33	0.64
26:BD:24:VAL:CG2	26:BD:188:LEU:HB3	2.28	0.64
40:BH:82:SER:HB3	40:BH:146:VAL:CG1	2.26	0.64
41:BJ:13:ARG:O	41:BJ:52:ASP:HA	1.98	0.64
27:BK:19:VAL:HG12	27:BK:43:ILE:HA	1.80	0.64
1:CA:436:C:O2'	1:CA:437:U:H5'	1.98	0.64
20:CB:57:ASN:ND2	20:CB:223:GLY:HA2	2.13	0.64
5:CF:3:HIS:CD2	5:CF:65:GLU:HG3	2.32	0.64
4:CE:156:ARG:HD2	7:CH:42:GLU:O	1.97	0.64
16:CQ:57:VAL:HB	16:CQ:79:GLU:HB3	1.78	0.64
36:D2:30:VAL:HA	36:D2:33:ARG:NH2	2.12	0.64
23:DB:2443:C:H2'	23:DB:2444:G:H8	1.63	0.64
23:DB:857:G:C2'	23:DB:858:G:H5'	2.27	0.64
23:DB:90:U:H3'	23:DB:91:A:C5'	2.28	0.64
50:DT:9:LYS:HD2	50:DT:9:LYS:H	1.63	0.64
1:AA:1288:A:H2'	1:AA:1289:A:O4'	1.98	0.64
7:AH:44:PHE:HA	7:AH:70:VAL:HG11	1.79	0.64
18:AS:5:LYS:C	18:AS:6:LYS:HD2	2.18	0.64
33:B1:36:LYS:HG2	33:B1:47:ILE:HG13	1.80	0.64
53:B6:15:GLN:O	53:B6:19:GLU:HG3	1.98	0.64
23:BB:1469:A:H2'	23:BB:1470:A:H8	1.62	0.64
23:BB:163:C:H2'	23:BB:164:C:O4'	1.97	0.64
23:BB:1786:A:H1'	23:BB:1938:A:N6	2.13	0.64
23:BB:545:U:C4	23:BB:547:A:H5'	2.32	0.64
26:BD:10:GLY:CA	26:BD:26:VAL:H	2.08	0.64
48:BG:166:GLU:HG2	48:BG:168:VAL:HG23	1.79	0.64
42:BN:8:ARG:HH21	42:BN:39:PRO:HB3	1.63	0.64
35:BV:4:ILE:HD12	35:BV:63:ILE:HG13	1.79	0.64
1:CA:313:A:H2'	1:CA:314:C:C6	2.33	0.64
1:CA:76:G:H2'	1:CA:77:A:H8	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:837:U:H2'	1:CA:838:G:H8	1.63	0.64
4:CE:95:MET:HG3	4:CE:124:ALA:HB2	1.79	0.64
9:CJ:80:THR:HB	9:CJ:83:THR:OG1	1.97	0.64
16:CQ:45:VAL:HG12	16:CQ:46:HIS:H	1.63	0.64
23:DB:1050:A:H2'	23:DB:1051:G:O4'	1.98	0.64
23:DB:1138:G:H2'	23:DB:1139:G:O4'	1.98	0.64
23:DB:1700:A:H2'	23:DB:1701:A:H5'	1.79	0.64
23:DB:2662:A:H2'	23:DB:2663:G:O4'	1.98	0.64
25:DC:76:VAL:HG12	25:DC:114:GLN:HG2	1.80	0.64
43:DO:49:VAL:HG11	43:DO:82:ALA:HA	1.79	0.64
1:AA:922:G:N3	1:AA:1398:A:H2	1.95	0.64
1:AA:72:A:O2'	1:AA:73:C:H5'	1.98	0.64
20:AB:57:ASN:ND2	20:AB:223:GLY:HA2	2.13	0.64
2:AC:2:GLN:H	2:AC:2:GLN:NE2	1.96	0.64
6:AG:108:ARG:HG2	6:AG:115:MET:HE3	1.80	0.64
13:AN:51:PRO:HB2	13:AN:54:SER:CB	2.28	0.64
15:AP:78:VAL:O	15:AP:80:LYS:N	2.30	0.64
23:BB:1885:A:H2'	23:BB:1886:U:O4'	1.98	0.64
26:BD:168:GLU:O	26:BD:170:VAL:HG13	1.98	0.64
26:BD:5:VAL:N	26:BD:32:ASN:HD21	1.85	0.64
26:BD:32:ASN:HA	26:BD:51:THR:O	1.97	0.64
38:BM:40:ARG:HB2	38:BM:93:VAL:HG22	1.79	0.64
1:CA:1070:U:H2'	1:CA:1071:C:C6	2.33	0.64
1:CA:1288:A:H2'	1:CA:1289:A:O4'	1.98	0.64
23:DB:1098:A:C2'	24:DI:4:VAL:N	2.59	0.64
23:DB:2653:U:H3'	23:DB:2654:A:H2'	1.78	0.64
23:DB:27:G:H1'	23:DB:513:A:N6	2.13	0.64
23:DB:575:A:O2'	23:DB:576:U:H5'	1.98	0.64
25:DC:58:LYS:O	25:DC:59:GLN:HB2	1.97	0.64
38:DM:40:ARG:HB2	38:DM:93:VAL:HG22	1.79	0.64
50:DT:73:ARG:HB3	50:DT:73:ARG:NH2	2.12	0.64
1:AA:1202:U:H1'	13:AN:68:ARG:HD2	1.80	0.63
1:AA:501:C:H2'	1:AA:502:A:C8	2.32	0.63
20:AB:38:HIS:HB2	20:AB:188:THR:HG21	1.79	0.63
2:AC:2:GLN:N	2:AC:2:GLN:HE21	1.95	0.63
1:AA:1225:A:O2'	18:AS:77:ARG:HD3	1.98	0.63
23:BB:2841:C:H2'	23:BB:2842:G:C8	2.34	0.63
29:BE:112:LEU:HD13	29:BE:186:VAL:HG11	1.80	0.63
24:BI:89:SER:HA	24:BI:97:VAL:HG21	1.80	0.63
23:BB:587:C:O2'	37:BL:19:LEU:HD13	1.98	0.63
44:BQ:17:LEU:HD13	44:BQ:30:VAL:O	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BQ:30:VAL:HG22	44:BQ:31:TYR:H	1.61	0.63
50:BT:22:THR:HA	50:BT:25:GLU:HB3	1.80	0.63
30:BY:18:LYS:O	30:BY:22:THR:HG23	1.97	0.63
1:CA:1007:U:H2'	1:CA:1008:U:C6	2.33	0.63
1:CA:1450:U:H2'	1:CA:1452:C:C5	2.33	0.63
18:CS:5:LYS:C	18:CS:6:LYS:HD2	2.19	0.63
53:D6:12:SER:O	53:D6:16:LYS:HD2	1.98	0.63
53:D6:46:TYR:OH	53:D6:74:ASN:HB3	1.97	0.63
23:DB:1535:A:O2'	23:DB:1536:C:H5'	1.98	0.63
23:DB:522:A:H2'	23:DB:523:C:C6	2.33	0.63
23:DB:743:A:O2'	23:DB:744:U:H5'	1.98	0.63
28:DP:50:ARG:CB	28:DP:56:SER:HB3	2.28	0.63
1:AA:1007:U:H2'	1:AA:1008:U:C6	2.33	0.63
1:AA:1343:G:H2'	1:AA:1344:C:C6	2.33	0.63
1:AA:56:U:H2'	1:AA:57:G:H8	1.62	0.63
1:AA:922:G:H2'	1:AA:923:A:C8	2.33	0.63
8:AI:74:GLN:N	8:AI:74:GLN:HE21	1.96	0.63
23:BB:1049:C:H2'	23:BB:1050:A:H8	1.63	0.63
23:BB:1060:U:O4	23:BB:1088:A:N6	2.31	0.63
23:BB:2653:U:H3'	23:BB:2654:A:H2'	1.78	0.63
23:BB:45:G:H5''	23:BB:46:G:H5'	1.81	0.63
23:BB:947:A:HO2'	23:BB:984:A:H2	1.46	0.63
29:BE:176:ASP:O	29:BE:180:LEU:HG	1.98	0.63
48:BG:43:LYS:HB2	48:BG:50:THR:OG1	1.98	0.63
45:BS:36:LEU:H	45:BS:36:LEU:HD22	1.62	0.63
1:CA:1278:G:H4'	1:CA:1279:G:C5'	2.27	0.63
1:CA:1343:G:H2'	1:CA:1344:C:C6	2.33	0.63
1:CA:279:A:H5'	1:CA:281:G:O4'	1.98	0.63
1:CA:699:C:C2'	1:CA:700:G:H5''	2.25	0.63
1:CA:922:G:H2'	1:CA:923:A:C8	2.34	0.63
8:CI:11:ARG:HA	8:CI:105:ARG:CZ	2.28	0.63
10:CK:80:ASN:HD22	10:CK:105:ARG:HG2	1.62	0.63
14:CO:26:GLU:HA	14:CO:81:LEU:HD11	1.81	0.63
23:DB:1175:A:H2'	23:DB:1176:U:H5'	1.80	0.63
23:DB:2841:C:H2'	23:DB:2842:G:C8	2.34	0.63
23:DB:286:U:H2'	23:DB:287:G:C8	2.31	0.63
29:DE:52:VAL:HG11	29:DE:81:GLY:HA3	1.80	0.63
27:DK:15:GLY:HA3	27:DK:52:VAL:HG23	1.80	0.63
37:DL:41:ARG:HG2	37:DL:41:ARG:HH21	1.61	0.63
44:DQ:10:ARG:HB2	44:DQ:10:ARG:CZ	2.28	0.63
44:DQ:17:LEU:HD13	44:DQ:30:VAL:O	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1278:G:H4'	1:AA:1279:G:C5'	2.28	0.63
1:AA:81:A:H3'	1:AA:83:C:C6	2.34	0.63
10:AK:58:THR:HB	10:AK:59:PRO:HD2	1.81	0.63
53:B6:19:GLU:HA	53:B6:22:GLU:HB2	1.80	0.63
23:BB:2071:A:H2'	23:BB:2072:C:C6	2.33	0.63
23:BB:2091:C:H1'	51:BZ:34:HIS:CD2	2.34	0.63
48:BG:17:LYS:HA	48:BG:17:LYS:HZ2	1.63	0.63
48:BG:33:THR:HA	48:BG:34:ARG:NH1	2.12	0.63
38:BM:71:LYS:HD3	38:BM:95:LEU:HD13	1.80	0.63
3:CD:90:LEU:HD21	3:CD:196:GLU:HB3	1.81	0.63
8:CI:74:GLN:HE21	8:CI:74:GLN:N	1.96	0.63
53:D6:14:MET:HB3	53:D6:168:PHE:CD2	2.34	0.63
53:D6:58:VAL:HG22	53:D6:68:VAL:HA	1.80	0.63
23:DB:131:A:H2'	23:DB:132:G:C8	2.33	0.63
23:DB:1486:U:H2'	23:DB:1487:U:H6	1.62	0.63
23:DB:154:U:H2'	23:DB:155:A:C8	2.33	0.63
23:DB:2898:U:H2'	23:DB:2899:A:H8	1.63	0.63
23:DB:899:A:H2'	23:DB:900:A:O4'	1.98	0.63
23:DB:899:A:C5	23:DB:900:A:H1'	2.33	0.63
29:DE:112:LEU:HD13	29:DE:186:VAL:HG11	1.80	0.63
47:DF:76:PHE:O	47:DF:77:LYS:HB2	1.98	0.63
24:DI:20:SER:O	24:DI:25:PRO:HD2	1.98	0.63
1:AA:41:G:H2'	1:AA:42:G:H8	1.63	0.63
1:AA:97:G:H2'	1:AA:98:A:O4'	1.98	0.63
4:AE:85:LYS:HE3	4:AE:94:PHE:HB2	1.79	0.63
1:AA:235:C:H1'	16:AQ:62:GLU:OE2	1.98	0.63
23:BB:1535:A:O2'	23:BB:1536:C:H5'	1.99	0.63
23:BB:1794:A:H2'	23:BB:1795:C:C6	2.33	0.63
23:BB:871:U:H2'	23:BB:872:U:H6	1.63	0.63
40:BH:68:ARG:HH21	40:BH:71:LYS:HE2	1.63	0.63
40:BH:94:ILE:HA	40:BH:98:ASP:OD1	1.99	0.63
23:BB:670:A:H5''	37:BL:42:SER:HB2	1.80	0.63
1:CA:190:A:H2'	1:CA:191:G:O4'	1.98	0.63
1:CA:502:A:H2'	1:CA:503:C:H6	1.64	0.63
1:CA:90:C:H2'	1:CA:91:U:C6	2.34	0.63
20:CB:38:HIS:HB2	20:CB:188:THR:HG21	1.78	0.63
4:CE:113:VAL:HG11	4:CE:136:VAL:HG23	1.80	0.63
23:DB:1107:G:C2'	23:DB:1108:U:H5'	2.27	0.63
23:DB:215:G:H4'	23:DB:216:A:H4'	1.80	0.63
23:DB:275:C:H2'	23:DB:276:U:H6	1.62	0.63
48:DG:84:LYS:HG3	48:DG:131:VAL:C	2.19	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1100:C:OP2	24:DI:2:LYS:HB3	1.98	0.63
24:DI:1:ALA:HB1	24:DI:2:LYS:HD2	1.80	0.63
37:DL:116:VAL:HG13	37:DL:117:THR:N	2.13	0.63
23:DB:996:A:H4'	44:DQ:91:ARG:CD	2.28	0.63
45:DS:13:SER:O	45:DS:101:SER:HB3	1.99	0.63
39:DX:33:ALA:HB1	50:DT:14:PRO:HD2	1.81	0.63
52:DW:43:LYS:HD2	52:DW:79:ILE:HD11	1.80	0.63
1:AA:430:A:OP1	3:AD:8:LEU:HB2	1.97	0.63
1:AA:57:G:H2'	1:AA:58:C:H6	1.63	0.63
8:AI:118:ARG:NH1	8:AI:122:ARG:HE	1.96	0.63
8:AI:38:PHE:HB3	8:AI:43:ALA:HB3	1.80	0.63
23:BB:2662:A:H2'	23:BB:2663:G:O4'	1.98	0.63
23:BB:903:C:H2'	23:BB:904:G:H8	1.62	0.63
48:BG:83:THR:HA	48:BG:84:LYS:NZ	2.13	0.63
42:BN:72:ASP:O	42:BN:76:VAL:HG13	1.99	0.63
1:CA:1179:A:H2'	1:CA:1180:A:O4'	1.98	0.63
13:CN:14:ALA:HB1	13:CN:18:LYS:HE3	1.78	0.63
15:CP:67:ILE:HG13	15:CP:71:VAL:HG13	1.81	0.63
18:CS:43:MET:O	18:CS:46:LEU:HB2	1.98	0.63
11:CL:38:THR:OG1	53:D6:84:ARG:HG2	1.98	0.63
22:DA:104:A:H2'	22:DA:105:G:O4'	1.99	0.63
23:DB:903:C:H2'	23:DB:904:G:H8	1.64	0.63
23:DB:981:A:H4'	23:DB:2037:A:H5'	1.80	0.63
37:DL:135:ILE:HG23	37:DL:136:GLU:N	2.13	0.63
46:DU:35:VAL:HB	46:DU:38:ILE:HB	1.81	0.63
1:AA:837:U:H2'	1:AA:838:G:H8	1.63	0.63
2:AC:140:ALA:HB3	2:AC:148:ILE:HD12	1.80	0.63
2:AC:13:ILE:O	2:AC:14:VAL:HG22	1.98	0.63
7:AH:124:ILE:HG22	7:AH:125:ILE:H	1.64	0.63
8:AI:56:MET:SD	8:AI:57:VAL:N	2.71	0.63
12:AM:68:LEU:HD22	12:AM:69:ARG:NH1	2.14	0.63
23:BB:1484:U:H2'	23:BB:1485:U:C6	2.33	0.63
23:BB:1486:U:H2'	23:BB:1487:U:H6	1.64	0.63
23:BB:2425:A:H5'	23:BB:2427:C:O4'	1.99	0.63
23:BB:1790:C:O2'	25:BC:207:ALA:HB2	1.99	0.63
48:BG:72:ASN:O	48:BG:76:ILE:HG12	1.98	0.63
40:BH:116:ARG:HG2	40:BH:131:SER:HB2	1.80	0.63
24:BI:11:GLN:HA	24:BI:55:PRO:HA	1.80	0.63
49:BR:76:LYS:HB2	49:BR:85:LYS:HB3	1.81	0.63
50:BT:55:VAL:HA	50:BT:87:LEU:HA	1.80	0.63
52:BW:28:GLU:HG3	52:BW:29:SER:H	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BW:24:ARG:NE	52:BW:65:LYS:HE3	2.13	0.63
1:CA:1027:C:H2'	1:CA:1028:C:C6	2.33	0.63
1:CA:157:U:O2'	1:CA:158:G:H5'	1.99	0.63
20:CB:162:VAL:HG21	20:CB:168:GLU:HB2	1.79	0.63
16:CQ:59:GLU:O	16:CQ:75:VAL:HG22	1.99	0.63
36:D2:10:LEU:O	36:D2:14:ARG:HG2	1.98	0.63
53:D6:18:LEU:HD22	53:D6:168:PHE:CD2	2.33	0.63
23:DB:1219:U:H2'	23:DB:1220:G:H8	1.64	0.63
23:DB:1484:U:H2'	23:DB:1485:U:C6	2.33	0.63
23:DB:17:G:H2'	23:DB:18:U:C6	2.34	0.63
23:DB:90:U:H2'	23:DB:91:A:C2	2.34	0.63
25:DC:75:ALA:HB1	25:DC:93:VAL:HG22	1.79	0.63
47:DF:108:PRO:O	47:DF:110:ILE:HG23	1.99	0.63
48:DG:72:ASN:O	48:DG:76:ILE:HG12	1.97	0.63
40:DH:119:ASN:OD1	40:DH:121:VAL:HG13	1.98	0.63
23:DB:2415:G:H4'	37:DL:66:PHE:HB2	1.80	0.63
1:AA:176:C:H2'	1:AA:177:G:N3	2.14	0.63
1:AA:436:C:O2'	1:AA:437:U:H5'	1.99	0.63
4:AE:9:GLU:CD	4:AE:10:LEU:H	2.01	0.63
15:AP:40:ASN:ND2	15:AP:43:ALA:H	1.96	0.63
1:AA:177:G:H5''	19:AT:59:ARG:HH21	1.64	0.63
23:BB:1652:A:OP1	42:BN:8:ARG:HD3	1.99	0.63
23:BB:528:A:N1	23:BB:2042:A:H2'	2.14	0.63
23:BB:2471:A:O2'	23:BB:2472:G:H8	1.74	0.63
23:BB:968:C:H2'	23:BB:969:G:H8	1.63	0.63
23:BB:2787:C:C1'	26:BD:63:PRO:HG3	2.24	0.63
47:BF:76:PHE:O	47:BF:77:LYS:HB2	1.97	0.63
40:BH:27:ARG:H	40:BH:31:VAL:HG23	1.63	0.63
40:BH:31:VAL:O	40:BH:32:PRO:C	2.34	0.63
23:BB:1063:G:C1'	24:BI:134:SER:O	2.47	0.63
41:BJ:82:GLY:O	41:BJ:84:ILE:HG22	1.99	0.63
37:BL:116:VAL:HG13	37:BL:117:THR:N	2.13	0.63
1:CA:1023:U:H2'	1:CA:1024:G:C8	2.34	0.63
19:CT:59:ARG:HH21	1:CA:177:G:H5''	1.64	0.63
34:D3:41:ARG:HA	34:D3:44:ARG:NH1	2.14	0.63
23:DB:1099:G:C8	24:DI:3:LYS:HB2	2.34	0.63
23:DB:2071:A:H2'	23:DB:2072:C:C6	2.33	0.63
23:DB:2784:U:H4'	26:DD:42:ASN:O	1.98	0.63
29:DE:97:ASN:HB2	29:DE:100:MET:HG3	1.80	0.63
29:DE:48:THR:HG22	29:DE:86:ALA:HB3	1.80	0.63
47:DF:72:SER:HB2	47:DF:80:GLN:H	1.64	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DH:116:ARG:HB3	40:DH:116:ARG:NH1	2.14	0.63
45:DS:18:ARG:HB3	45:DS:76:VAL:HG22	1.81	0.63
1:AA:313:A:H2'	1:AA:314:C:C6	2.34	0.63
33:B1:32:LYS:HA	33:B1:51:ALA:O	1.98	0.63
23:BB:1440:U:H2'	23:BB:1441:G:C8	2.34	0.63
23:BB:1930:G:O2'	23:BB:1968:G:N1	2.31	0.63
23:BB:2302:U:H2'	23:BB:2303:G:C8	2.34	0.63
23:BB:713:G:H21	23:BB:718:A:H2	1.43	0.63
23:BB:743:A:O2'	23:BB:744:U:H5'	1.99	0.63
47:BF:74:ALA:HB3	47:BF:77:LYS:O	1.98	0.63
23:BB:2658:C:H5'	48:BG:159:LYS:HZ3	1.62	0.63
40:BH:3:VAL:HA	40:BH:39:ALA:N	2.14	0.63
40:BH:40:THR:O	40:BH:42:LYS:N	2.31	0.63
37:BL:93:ASN:O	37:BL:95:LEU:N	2.32	0.63
45:BS:82:MET:HE1	45:BS:84:ARG:HH22	1.63	0.63
50:BT:32:LEU:H	50:BT:83:ALA:HB3	1.63	0.63
51:BZ:40:VAL:CG2	51:BZ:43:GLU:HB3	2.29	0.63
15:CP:6:LEU:HB3	15:CP:17:TYR:HB3	1.81	0.63
23:DB:1060:U:O4	23:DB:1088:A:N6	2.31	0.63
23:DB:2805:C:H2'	23:DB:2806:C:H6	1.62	0.63
26:DD:107:VAL:HG13	26:DD:203:VAL:HG23	1.80	0.63
48:DG:166:GLU:HG2	48:DG:168:VAL:HG23	1.79	0.63
15:AP:67:ILE:HG13	15:AP:71:VAL:HG13	1.79	0.63
21:AU:36:PHE:HB3	21:AU:40:PRO:CD	2.24	0.63
53:B6:79:ILE:HA	53:B6:82:ALA:HB3	1.81	0.63
23:BB:1028:A:H2'	23:BB:1029:A:C8	2.34	0.63
23:BB:528:A:C2	23:BB:2043:C:H4'	2.34	0.63
23:BB:2364:C:H4'	52:BW:55:ASP:OD1	1.98	0.63
23:BB:90:U:H3'	23:BB:91:A:C5'	2.26	0.63
41:BJ:117:ALA:HA	41:BJ:120:ARG:HH21	1.62	0.63
44:BQ:91:ARG:HE	44:BQ:94:LEU:HD22	1.64	0.63
18:CS:35:ARG:HD3	1:CA:1320:C:N3	2.14	0.63
1:CA:649:A:H2'	1:CA:650:G:O4'	1.98	0.63
11:CL:43:LYS:HB2	11:CL:44:PRO:CD	2.28	0.63
13:CN:68:ARG:HD2	1:CA:1202:U:H1'	1.80	0.63
23:DB:1176:U:H2'	23:DB:1177:G:O4'	1.98	0.63
23:DB:1229:C:H2'	23:DB:1230:A:H8	1.62	0.63
23:DB:162:U:H4'	23:DB:163:C:OP1	1.97	0.63
23:DB:2149:U:H2'	23:DB:2150:C:C6	2.34	0.63
29:DE:27:LEU:O	29:DE:31:VAL:HG23	1.98	0.63
48:DG:162:ARG:HG3	48:DG:166:GLU:HG3	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DP:50:ARG:HB2	28:DP:56:SER:CB	2.29	0.63
50:DT:22:THR:HA	50:DT:25:GLU:HB3	1.80	0.63
51:DZ:35:SER:HA	51:DZ:49:LEU:O	1.99	0.63
1:AA:220:G:O2'	1:AA:221:C:H5'	1.98	0.62
3:AD:154:VAL:HG23	3:AD:155:LYS:H	1.63	0.62
9:AJ:56:HIS:O	9:AJ:57:VAL:HG12	1.99	0.62
11:AL:43:LYS:HB2	11:AL:44:PRO:CD	2.29	0.62
13:AN:24:ALA:O	13:AN:27:LYS:HG3	1.99	0.62
9:AJ:55:PRO:HA	13:AN:80:ARG:NH2	2.14	0.62
53:B6:58:VAL:HG12	53:B6:59:THR:H	1.62	0.62
22:BA:104:A:H2'	22:BA:105:G:O4'	1.99	0.62
23:BB:136:G:H2'	23:BB:137:U:C5	2.34	0.62
23:BB:2229:U:H2'	23:BB:2230:G:H8	1.63	0.62
23:BB:2458:G:H1'	23:BB:2460:U:O4	1.98	0.62
23:BB:2898:U:H2'	23:BB:2899:A:H8	1.64	0.62
23:BB:1205:A:C6	29:BE:165:HIS:HB2	2.34	0.62
24:BI:20:SER:O	24:BI:25:PRO:HD2	1.99	0.62
46:BU:78:LYS:HD3	46:BU:79:ALA:H	1.64	0.62
1:CA:1273:C:H2'	1:CA:1274:A:O4'	1.99	0.62
1:CA:220:G:O2'	1:CA:221:C:H5'	1.99	0.62
9:CJ:55:PRO:HA	13:CN:80:ARG:NH2	2.14	0.62
11:CL:72:ASN:HD21	11:CL:104:SER:HB3	1.64	0.62
23:DB:1729:U:C3'	23:DB:1730:C:H4'	2.28	0.62
23:DB:528:A:N1	23:DB:2042:A:H2'	2.14	0.62
23:DB:923:G:H1'	52:DW:23:LYS:HZ1	1.63	0.62
26:DD:34:VAL:HA	26:DD:50:VAL:HG12	1.80	0.62
26:DD:32:ASN:HA	26:DD:51:THR:O	1.99	0.62
48:DG:33:THR:HA	48:DG:34:ARG:NH1	2.14	0.62
45:DS:26:GLY:N	45:DS:71:VAL:HG13	2.13	0.62
23:DB:2264:C:H41	52:DW:11:ASN:HD21	1.44	0.62
6:AG:4:ARG:HE	6:AG:6:ILE:HG12	1.64	0.62
14:AO:39:LEU:HD23	14:AO:43:PHE:HE1	1.64	0.62
53:B6:157:ALA:O	53:B6:161:ILE:HG12	1.99	0.62
23:BB:2443:C:H2'	23:BB:2444:G:C8	2.34	0.62
23:BB:2654:A:N1	23:BB:2665:A:H5''	2.15	0.62
23:BB:2805:C:H2'	23:BB:2806:C:C6	2.33	0.62
23:BB:833:A:H2'	23:BB:834:G:C8	2.34	0.62
47:BF:41:GLU:O	47:BF:43:ILE:HG22	1.98	0.62
1:CA:1151:A:HO2'	1:CA:1152:A:H8	1.46	0.62
1:CA:673:A:H2'	1:CA:674:G:C8	2.34	0.62
32:D4:15:LYS:O	32:D4:16:ILE:HB	1.98	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1180:U:H2'	23:DB:1181:U:C6	2.34	0.62
23:DB:1412:U:H2'	23:DB:1413:A:H8	1.64	0.62
23:DB:1799:G:N2	23:DB:1818:U:O2'	2.32	0.62
23:DB:2557:G:H2'	23:DB:2558:C:C6	2.34	0.62
27:DK:18:ARG:HB2	27:DK:45:GLU:HG3	1.81	0.62
1:AA:1027:C:H2'	1:AA:1028:C:C6	2.34	0.62
1:AA:602:A:O2'	1:AA:603:U:H5'	1.99	0.62
3:AD:90:LEU:HD21	3:AD:196:GLU:HB3	1.81	0.62
10:AK:46:ALA:HB1	10:AK:61:ALA:HB1	1.79	0.62
18:AS:39:ILE:HD11	18:AS:68:HIS:HB2	1.81	0.62
34:B3:41:ARG:HA	34:B3:44:ARG:NH1	2.13	0.62
34:B3:44:ARG:N	34:B3:45:PRO:HD2	2.14	0.62
23:BB:1082:U:N3	23:BB:1086:A:C6	2.68	0.62
23:BB:1873:G:O2'	23:BB:1874:C:H5'	1.99	0.62
23:BB:2021:C:OP1	31:B0:8:THR:HG21	2.00	0.62
29:BE:166:LYS:O	29:BE:167:VAL:HB	1.99	0.62
40:BH:100:ALA:HB1	40:BH:112:LYS:HA	1.79	0.62
40:BH:116:ARG:HH11	40:BH:133:GLN:HB2	1.63	0.62
44:BQ:104:ALA:HA	49:BR:46:GLU:CD	2.19	0.62
46:BU:25:LYS:HE3	46:BU:36:GLU:HG3	1.81	0.62
51:BZ:38:PHE:CE2	51:BZ:51:VAL:HG21	2.29	0.62
20:CB:31:PHE:HB2	20:CB:41:ASN:HA	1.80	0.62
53:D6:115:VAL:O	53:D6:119:ARG:HD2	1.99	0.62
23:DB:1275:A:H2'	23:DB:1276:A:O4'	1.99	0.62
23:DB:1381:G:C2'	23:DB:1382:G:H5'	2.28	0.62
23:DB:1794:A:H2'	23:DB:1795:C:H6	1.64	0.62
23:DB:2365:G:O2'	52:DW:59:PHE:HE1	1.82	0.62
23:DB:581:C:H2'	23:DB:582:A:C8	2.34	0.62
23:DB:919:U:H2'	23:DB:920:A:H8	1.61	0.62
1:AA:1513:A:H2'	1:AA:1514:G:H8	1.62	0.62
1:AA:168:G:O2'	1:AA:169:C:H5'	1.99	0.62
1:AA:806:C:H2'	1:AA:807:A:H8	1.63	0.62
1:AA:89:U:H2'	1:AA:90:C:H6	1.63	0.62
7:AH:38:VAL:HG13	7:AH:111:THR:HG22	1.81	0.62
8:AI:50:PRO:HD3	8:AI:79:ARG:HG3	1.80	0.62
10:AK:17:ASP:HA	10:AK:80:ASN:O	2.00	0.62
12:AM:106:ARG:HE	12:AM:112:ARG:CZ	2.13	0.62
15:AP:6:LEU:HB3	15:AP:17:TYR:HB3	1.80	0.62
1:AA:108:G:O6	19:AT:9:ARG:HG2	1.99	0.62
53:B6:39:LEU:HD12	53:B6:40:HIS:N	2.15	0.62
23:BB:1229:C:H2'	23:BB:1230:A:C8	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1412:U:H2'	23:BB:1413:A:H8	1.65	0.62
23:BB:30:G:H2'	23:BB:31:C:C6	2.34	0.62
20:CB:116:LEU:HD11	20:CB:139:GLU:OE1	1.99	0.62
8:CI:64:ILE:H	8:CI:64:ILE:HD12	1.63	0.62
15:CP:3:THR:HB	15:CP:66:THR:O	1.99	0.62
17:CR:33:THR:HG23	17:CR:37:LYS:O	2.00	0.62
23:DB:1309:G:OP1	36:D2:9:VAL:HG12	1.98	0.62
23:DB:1080:A:H2'	23:DB:1081:U:C6	2.33	0.62
23:DB:1199:U:H2'	23:DB:1200:C:C6	2.33	0.62
23:DB:1470:A:H3'	23:DB:1471:G:H8	1.63	0.62
23:DB:620:G:H5'	23:DB:620:G:N3	2.14	0.62
25:DC:159:THR:O	25:DC:194:VAL:HG12	1.99	0.62
26:DD:10:GLY:CA	26:DD:26:VAL:H	2.08	0.62
29:DE:194:LYS:O	29:DE:197:GLU:HB3	2.00	0.62
47:DF:74:ALA:HB3	47:DF:77:LYS:O	2.00	0.62
1:AA:1432:G:H1'	1:AA:1468:A:N6	2.15	0.62
1:AA:206:C:H2'	1:AA:207:C:O4'	2.00	0.62
2:AC:69:THR:HG21	2:AC:75:VAL:HG21	1.82	0.62
5:AF:86:ARG:HH12	17:AR:63:TYR:HB3	1.63	0.62
21:AU:42:THR:O	21:AU:46:ARG:HG3	1.99	0.62
23:BB:1458:U:O2'	23:BB:1459:G:H5''	2.00	0.62
23:BB:189:G:H2'	23:BB:205:G:N2	2.15	0.62
23:BB:27:G:HO2'	23:BB:28:A:H8	1.46	0.62
25:BC:124:LYS:HB3	25:BC:124:LYS:HZ3	1.64	0.62
26:BD:97:SER:HB3	26:BD:99:GLU:CD	2.20	0.62
40:BH:108:VAL:C	40:BH:109:GLU:HG3	2.19	0.62
41:BJ:23:LYS:HE3	41:BJ:142:ILE:HA	1.80	0.62
46:BU:86:PHE:CE1	46:BU:88:ASP:HB3	2.33	0.62
35:BV:80:HIS:HD2	35:BV:82:TYR:H	1.46	0.62
52:BW:35:ILE:HG12	52:BW:35:ILE:O	1.99	0.62
1:CA:763:G:H2'	1:CA:764:C:H6	1.64	0.62
20:CB:119:GLN:HB3	20:CB:125:PHE:HB2	1.80	0.62
4:CE:19:ARG:O	4:CE:20:VAL:HB	1.99	0.62
6:CG:129:ASN:HA	6:CG:134:VAL:HG11	1.81	0.62
7:CH:124:ILE:HG22	7:CH:125:ILE:H	1.65	0.62
9:CJ:59:LYS:HG3	9:CJ:60:ASP:N	2.14	0.62
15:CP:74:LEU:O	15:CP:78:VAL:HG12	1.99	0.62
34:D3:60:CYS:C	34:D3:62:PRO:HD3	2.20	0.62
23:DB:1709:U:H2'	23:DB:1710:G:H8	1.64	0.62
23:DB:639:U:H2'	23:DB:640:C:C6	2.33	0.62
23:DB:833:A:H2'	23:DB:834:G:C8	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DC:14:HIS:O	25:DC:203:VAL:HG11	1.99	0.62
29:DE:48:THR:N	29:DE:51:GLU:HG3	2.14	0.62
41:DJ:25:LEU:HD22	41:DJ:26:GLY:N	2.14	0.62
37:DL:51:GLU:OE1	37:DL:56:PRO:HA	2.00	0.62
38:DM:19:GLY:H	38:DM:38:ARG:HH12	1.47	0.62
43:DO:94:ARG:HD2	43:DO:97:PHE:O	2.00	0.62
50:DT:34:VAL:HG11	50:DT:43:ILE:HD11	1.82	0.62
1:AA:1007:U:H2'	1:AA:1008:U:H6	1.64	0.62
1:AA:1031:C:H4'	1:AA:1032:G:H5''	1.80	0.62
1:AA:1070:U:H2'	1:AA:1071:C:C6	2.34	0.62
20:AB:116:LEU:HD11	20:AB:139:GLU:OE1	2.00	0.62
7:AH:92:PRO:HG3	7:AH:124:ILE:HD13	1.81	0.62
23:BB:545:U:N3	23:BB:547:A:H5'	2.15	0.62
23:BB:580:U:H2'	23:BB:581:C:C6	2.35	0.62
23:BB:936:A:H2'	23:BB:937:C:C6	2.35	0.62
48:BG:9:VAL:HG22	48:BG:48:THR:HG22	1.81	0.62
45:BS:26:GLY:N	45:BS:71:VAL:HG13	2.12	0.62
20:CB:101:THR:HG21	1:CA:1101:A:N6	2.15	0.62
4:CE:22:LYS:HB2	1:CA:1081:A:OP1	2.00	0.62
8:CI:50:PRO:HD3	8:CI:79:ARG:HG3	1.79	0.62
9:CJ:56:HIS:O	9:CJ:57:VAL:HG12	2.00	0.62
10:CK:126:ARG:HB2	21:CU:33:ARG:HD2	1.82	0.62
11:CL:2:THR:OG1	11:CL:5:GLN:HG3	2.00	0.62
13:CN:24:ALA:O	13:CN:27:LYS:HG3	1.99	0.62
14:CO:39:LEU:HD23	14:CO:43:PHE:HE1	1.65	0.62
53:D6:31:GLY:HA3	53:D6:106:LEU:HD13	1.81	0.62
22:DA:111:U:H2'	22:DA:112:G:H8	1.64	0.62
23:DB:1082:U:N3	23:DB:1086:A:C6	2.67	0.62
23:DB:1279:G:OP1	42:DN:35:LYS:HG3	2.00	0.62
23:DB:2805:C:H2'	23:DB:2806:C:C6	2.35	0.62
25:DC:134:ILE:HD11	25:DC:163:ILE:HG13	1.80	0.62
26:DD:24:VAL:CG2	26:DD:188:LEU:HB3	2.28	0.62
24:DI:27:LEU:CD2	24:DI:27:LEU:H	2.12	0.62
27:DK:19:VAL:HB	27:DK:41:ILE:HD11	1.82	0.62
44:DQ:104:ALA:HA	49:DR:46:GLU:CD	2.20	0.62
49:DR:76:LYS:HB2	49:DR:85:LYS:HB3	1.80	0.62
50:DT:32:LEU:N	50:DT:83:ALA:HB3	2.13	0.62
1:AA:1071:C:H2'	1:AA:1072:G:H8	1.64	0.62
13:AN:26:LEU:HD23	13:AN:27:LYS:N	2.15	0.62
18:AS:44:ILE:HA	18:AS:61:VAL:HB	1.82	0.62
32:B4:16:ILE:HG13	32:B4:25:VAL:HG22	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1810:A:H2'	23:BB:1811:G:O4'	1.99	0.62
29:BE:145:ASP:HB2	29:BE:166:LYS:HE2	1.81	0.62
29:BE:48:THR:HG22	29:BE:86:ALA:HB3	1.80	0.62
48:BG:162:ARG:HG3	48:BG:166:GLU:HG3	1.80	0.62
43:BO:94:ARG:HD2	43:BO:97:PHE:O	2.00	0.62
44:BQ:105:PHE:HA	44:BQ:108:LEU:HG	1.82	0.62
44:BQ:30:VAL:HG11	44:BQ:33:VAL:HG13	1.82	0.62
46:BU:40:LEU:HA	46:BU:60:LYS:O	2.00	0.62
23:BB:988:A:C8	30:BY:13:ILE:HD12	2.34	0.62
1:CA:1250:A:H2'	1:CA:1251:A:C8	2.34	0.62
1:CA:678:U:H2'	1:CA:679:C:C6	2.35	0.62
10:CK:58:THR:HB	10:CK:59:PRO:HD2	1.81	0.62
23:DB:100:U:H4'	23:DB:101:A:OP2	1.99	0.62
23:DB:2893:A:H4'	23:DB:2894:G:H5'	1.80	0.62
23:DB:320:A:H4'	23:DB:322:A:N7	2.14	0.62
23:DB:794:A:H2'	23:DB:795:C:C6	2.35	0.62
26:DD:168:GLU:O	26:DD:170:VAL:HG13	1.99	0.62
47:DF:32:LYS:HE2	47:DF:34:THR:HG22	1.80	0.62
41:DJ:23:LYS:HE3	41:DJ:142:ILE:HA	1.81	0.62
38:DM:35:ALA:HB3	38:DM:99:GLY:N	2.15	0.62
38:DM:35:ALA:O	38:DM:36:VAL:HB	1.99	0.62
1:AA:1018:G:H2'	1:AA:1019:A:H8	1.64	0.62
1:AA:1320:C:N3	18:AS:35:ARG:HD3	2.14	0.62
1:AA:160:A:H2'	1:AA:161:A:O4'	1.99	0.62
1:AA:211:G:C5	1:AA:212:G:H1'	2.35	0.62
1:AA:335:C:H2'	1:AA:336:A:H8	1.64	0.62
1:AA:555:U:H2'	1:AA:556:C:C6	2.35	0.62
1:AA:673:A:H2'	1:AA:674:G:C8	2.34	0.62
1:AA:876:C:H1'	7:AH:11:THR:HG21	1.82	0.62
53:B6:109:GLU:HA	53:B6:112:LYS:HE3	1.82	0.62
23:BB:171:U:H2'	23:BB:172:A:C8	2.34	0.62
23:BB:1779:U:H5	23:BB:1784:A:N7	1.98	0.62
23:BB:1921:G:N2	23:BB:1922:G:C6	2.68	0.62
23:BB:2819:G:H2'	23:BB:2821:A:N7	2.15	0.62
23:BB:27:G:H1'	23:BB:513:A:N6	2.14	0.62
47:BF:106:ALA:HA	47:BF:135:ILE:HD11	1.81	0.62
40:BH:100:ALA:CB	40:BH:112:LYS:HA	2.30	0.62
27:BK:119:ALA:HB3	27:BK:120:PRO:CD	2.28	0.62
23:BB:751:A:H5'	45:BS:90:LYS:HA	1.80	0.62
50:BT:39:THR:C	50:BT:41:ALA:H	2.03	0.62
1:CA:41:G:H2'	1:CA:42:G:H8	1.63	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:56:U:H2'	1:CA:57:G:H8	1.65	0.62
20:CB:61:SER:HA	20:CB:224:ARG:HA	1.82	0.62
12:CM:86:ARG:HA	12:CM:96:VAL:HG13	1.82	0.62
53:D6:78:ALA:HA	53:D6:81:LYS:HG3	1.81	0.62
23:DB:1084:A:H1'	23:DB:1106:G:H5'	1.82	0.62
23:DB:1593:A:H2'	23:DB:1594:U:C6	2.34	0.62
23:DB:1726:C:H2'	23:DB:1727:C:C6	2.35	0.62
23:DB:443:A:C8	29:DE:40:ARG:HD3	2.34	0.62
23:DB:813:U:H2'	23:DB:814:C:H6	1.64	0.62
25:DC:202:ARG:NH2	25:DC:202:ARG:HB2	2.14	0.62
47:DF:106:ALA:N	47:DF:108:PRO:HD2	2.14	0.62
12:CM:70:ARG:HE	47:DF:109:ARG:CZ	2.13	0.62
47:DF:110:ILE:CG2	47:DF:113:PHE:HB3	2.30	0.62
40:DH:5:LEU:O	40:DH:6:LEU:HD12	1.99	0.62
24:DI:121:ILE:N	24:DI:121:ILE:HD13	2.13	0.62
39:DX:46:VAL:O	39:DX:50:VAL:HG23	1.98	0.62
1:AA:1053:G:N7	1:AA:1200:C:H5''	2.14	0.62
1:AA:1250:A:H2'	1:AA:1251:A:C8	2.35	0.62
1:AA:531:U:H6	1:AA:531:U:H5'	1.65	0.62
4:AE:76:ASN:HB2	4:AE:81:GLN:NE2	2.15	0.62
9:AJ:37:ARG:NE	9:AJ:37:ARG:HA	2.15	0.62
10:AK:28:ASN:ND2	10:AK:29:THR:H	1.98	0.62
18:AS:35:ARG:HB2	18:AS:71:GLY:CA	2.30	0.62
23:BB:1149:G:H2'	23:BB:1150:C:C6	2.35	0.62
23:BB:197:A:N6	23:BB:2430:A:H2'	2.15	0.62
47:BF:106:ALA:N	47:BF:108:PRO:HD2	2.15	0.62
24:BI:85:ILE:HD13	24:BI:137:LEU:HD21	1.80	0.62
37:BL:135:ILE:HG23	37:BL:136:GLU:N	2.14	0.62
50:BT:32:LEU:HG	50:BT:83:ALA:HB2	1.82	0.62
1:CA:1027:C:H2'	1:CA:1028:C:H6	1.65	0.62
1:CA:449:G:H2'	1:CA:450:G:C8	2.34	0.62
1:CA:56:U:H2'	1:CA:57:G:C8	2.34	0.62
7:CH:11:THR:HG21	1:CA:876:C:H1'	1.82	0.62
5:CF:97:THR:O	5:CF:98:GLU:HB3	1.99	0.62
7:CH:38:VAL:HG13	7:CH:111:THR:HG22	1.82	0.62
53:D6:16:LYS:O	53:D6:20:VAL:HG23	2.00	0.62
23:DB:1197:G:H2'	23:DB:1198:U:C6	2.35	0.62
26:DD:114:LYS:HB2	26:DD:116:LYS:HE3	1.81	0.62
47:DF:127:TYR:HB2	47:DF:155:ILE:HD13	1.82	0.62
40:DH:88:GLY:O	40:DH:124:THR:HA	2.00	0.62
4:AE:111:ARG:HG3	4:AE:112:ALA:N	2.13	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:B6:3:LEU:HD12	53:B6:143:LEU:HD23	1.81	0.62
23:BB:1722:A:H2'	23:BB:1723:G:H8	1.64	0.62
23:BB:2297:A:N6	23:BB:2319:G:H1'	2.14	0.62
23:BB:79:C:HO2'	23:BB:346:A:H1'	1.65	0.62
23:BB:813:U:H2'	23:BB:814:C:C6	2.35	0.62
47:BF:110:ILE:CG2	47:BF:113:PHE:HB3	2.30	0.62
48:BG:137:LYS:O	48:BG:140:ILE:HG13	2.00	0.62
48:BG:167:VAL:HG23	48:BG:168:VAL:H	1.64	0.62
41:BJ:11:VAL:HA	41:BJ:12:LYS:HZ3	1.65	0.62
37:BL:65:GLY:O	37:BL:66:PHE:HB3	2.00	0.62
50:BT:32:LEU:N	50:BT:83:ALA:HB3	2.15	0.62
1:CA:501:C:H2'	1:CA:502:A:C8	2.34	0.62
1:CA:859:G:H2'	1:CA:860:A:C8	2.35	0.62
5:CF:81:ASN:OD1	5:CF:83:ALA:HB3	2.00	0.62
8:CI:56:MET:SD	8:CI:57:VAL:N	2.73	0.62
53:D6:63:PRO:HD2	53:D6:64:ARG:CZ	2.30	0.62
53:D6:80:GLU:OE2	53:D6:99:LEU:HD13	2.00	0.62
23:DB:1203:U:H3'	23:DB:1204:A:H5''	1.81	0.62
23:DB:2872:A:O2'	23:DB:2873:A:H5''	2.00	0.62
23:DB:968:C:H2'	23:DB:969:G:H8	1.65	0.62
29:DE:161:ALA:C	29:DE:163:ASN:H	2.03	0.62
47:DF:125:GLY:HA2	47:DF:162:ASP:HA	1.80	0.62
47:DF:126:ASN:HD22	47:DF:156:THR:CA	2.10	0.62
48:DG:1:SER:HA	48:DG:5:LYS:HE3	1.79	0.62
28:DP:13:LYS:HD2	28:DP:76:HIS:HA	1.81	0.62
44:DQ:105:PHE:O	44:DQ:109:VAL:HG23	1.99	0.62
49:DR:7:SER:HB2	49:DR:22:LEU:HD13	1.81	0.62
46:DU:35:VAL:HB	46:DU:38:ILE:CB	2.30	0.62
35:DV:4:ILE:HD12	35:DV:63:ILE:HG13	1.81	0.62
1:AA:1369:C:H2'	1:AA:1370:G:C8	2.34	0.61
1:AA:157:U:O2'	1:AA:158:G:H5'	1.99	0.61
1:AA:240:G:H8	1:AA:240:G:H5'	1.63	0.61
20:AB:61:SER:HA	20:AB:224:ARG:HA	1.81	0.61
5:AF:81:ASN:OD1	5:AF:83:ALA:HB3	2.00	0.61
8:AI:115:VAL:HG21	9:AJ:62:ARG:HG3	1.82	0.61
11:AL:74:GLN:H	11:AL:77:SER:HB2	1.64	0.61
22:BA:5:U:H2'	22:BA:6:G:H8	1.65	0.61
23:BB:2336:A:H1'	23:BB:2337:G:OP1	2.00	0.61
23:BB:2384:U:H5''	23:BB:2386:A:OP1	2.00	0.61
23:BB:2872:A:O2'	23:BB:2873:A:H5''	2.00	0.61
29:BE:194:LYS:O	29:BE:197:GLU:HB3	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BE:52:VAL:HG11	29:BE:81:GLY:HA3	1.82	0.61
47:BF:148:VAL:O	47:BF:149:ARG:HG2	2.00	0.61
48:BG:26:LYS:HB2	48:BG:32:LEU:HG	1.82	0.61
44:BQ:73:ILE:HD11	44:BQ:77:LYS:HD3	1.81	0.61
49:BR:25:LEU:H	49:BR:94:THR:HG21	1.65	0.61
51:BZ:18:ARG:NH1	51:BZ:24:ALA:HB2	2.15	0.61
1:CA:269:C:H2'	1:CA:270:A:H8	1.64	0.61
1:CA:370:C:O2'	1:CA:371:A:H5'	2.00	0.61
23:DB:1301:A:O2'	23:DB:1302:A:H2'	2.00	0.61
23:DB:2306:C:H3'	23:DB:2307:G:H5''	1.79	0.61
23:DB:2336:A:N1	52:DW:40:ARG:HD2	2.15	0.61
23:DB:2469:A:H4'	38:DM:55:ARG:HE	1.64	0.61
23:DB:2819:G:H2'	23:DB:2821:A:N7	2.15	0.61
48:DG:116:LEU:HD12	48:DG:116:LEU:H	1.64	0.61
27:DK:119:ALA:HB3	27:DK:120:PRO:CD	2.28	0.61
49:DR:96:VAL:HG23	49:DR:98:ILE:HD11	1.81	0.61
1:AA:806:C:H2'	1:AA:807:A:C8	2.35	0.61
20:AB:163:ILE:HG23	20:AB:164:ASP:N	2.14	0.61
6:AG:149:ALA:H	10:AK:55:ARG:NH2	1.98	0.61
40:BH:41:LYS:O	40:BH:45:GLU:N	2.33	0.61
43:BO:39:VAL:HB	43:BO:49:VAL:HG22	1.80	0.61
10:CK:28:ASN:HB2	10:CK:56:LYS:HZ3	1.65	0.61
11:CL:74:GLN:H	11:CL:77:SER:HB2	1.65	0.61
13:CN:9:GLU:OE2	13:CN:60:ARG:HG2	2.01	0.61
34:D3:44:ARG:N	34:D3:45:PRO:HD2	2.13	0.61
23:DB:1117:C:H2'	23:DB:1118:C:H6	1.66	0.61
23:DB:1164:C:H2'	23:DB:1165:A:C8	2.35	0.61
23:DB:2680:U:OP2	26:DD:114:LYS:HB3	2.00	0.61
29:DE:166:LYS:O	29:DE:167:VAL:HB	2.00	0.61
41:DJ:13:ARG:O	41:DJ:52:ASP:HA	2.00	0.61
27:DK:19:VAL:HG12	27:DK:43:ILE:HA	1.80	0.61
37:DL:93:ASN:O	37:DL:95:LEU:N	2.31	0.61
44:DQ:104:ALA:HA	49:DR:46:GLU:OE1	1.99	0.61
1:AA:41:G:H2'	1:AA:42:G:C8	2.35	0.61
1:AA:859:G:H2'	1:AA:860:A:C8	2.34	0.61
20:AB:23:ASN:HD22	20:AB:23:ASN:C	2.00	0.61
11:AL:86:VAL:HG11	11:AL:89:LEU:HD23	1.81	0.61
22:BA:111:U:H2'	22:BA:112:G:H8	1.64	0.61
23:BB:1050:A:H2'	23:BB:1051:G:H8	1.65	0.61
23:BB:1171:G:C4	23:BB:1172:C:H1'	2.36	0.61
23:BB:2537:U:H2'	23:BB:2538:C:C6	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BL:51:GLU:OE1	37:BL:56:PRO:HA	1.99	0.61
43:BO:83:LEU:HD12	43:BO:87:ILE:O	2.00	0.61
22:BA:104:A:H5'	35:BV:75:GLN:HE21	1.64	0.61
1:CA:1007:U:H2'	1:CA:1008:U:H6	1.65	0.61
1:CA:41:G:H2'	1:CA:42:G:C8	2.35	0.61
3:CD:97:LEU:HB2	3:CD:134:TYR:HB3	1.81	0.61
12:CM:106:ARG:HE	12:CM:112:ARG:CZ	2.12	0.61
17:CR:56:ARG:O	17:CR:60:ARG:HG2	2.00	0.61
22:DA:109:A:H2'	22:DA:110:C:C6	2.36	0.61
23:DB:2384:U:H5''	23:DB:2386:A:OP1	2.01	0.61
23:DB:936:A:H2'	23:DB:937:C:C6	2.35	0.61
48:DG:107:GLY:HA3	48:DG:151:ARG:NH2	2.15	0.61
41:DJ:117:ALA:HA	41:DJ:120:ARG:HH21	1.65	0.61
41:DJ:18:VAL:HG12	41:DJ:54:ILE:HD11	1.83	0.61
42:DN:51:LEU:HD21	42:DN:70:THR:HG21	1.82	0.61
42:DN:72:ASP:O	42:DN:76:VAL:HG13	2.01	0.61
42:DN:97:ILE:HD12	42:DN:98:LEU:N	2.14	0.61
28:DP:92:ARG:HH11	28:DP:92:ARG:HG3	1.63	0.61
46:DU:98:ASN:OD1	46:DU:100:GLU:HB2	2.00	0.61
35:DV:80:HIS:HD2	35:DV:82:TYR:H	1.46	0.61
1:AA:1170:A:H2'	1:AA:1171:A:O4'	2.00	0.61
1:AA:472:U:H2'	1:AA:473:U:C6	2.35	0.61
1:AA:501:C:H1'	1:AA:549:C:H1'	1.83	0.61
1:AA:736:C:H2'	1:AA:737:C:C6	2.36	0.61
3:AD:2:ARG:HD2	3:AD:114:ARG:CZ	2.30	0.61
7:AH:118:ALA:HB3	7:AH:120:LEU:HD22	1.82	0.61
13:AN:79:SER:O	13:AN:83:VAL:HG23	2.00	0.61
15:AP:74:LEU:O	15:AP:78:VAL:HG12	2.00	0.61
53:B6:83:ILE:HG22	53:B6:90:LEU:H	1.65	0.61
23:BB:1173:U:H2'	23:BB:1174:U:C4'	2.30	0.61
23:BB:1175:A:H8	23:BB:1175:A:OP1	1.83	0.61
23:BB:1306:C:H2'	23:BB:1307:A:H8	1.66	0.61
25:BC:14:HIS:O	25:BC:203:VAL:HG11	2.00	0.61
48:BG:107:GLY:HA3	48:BG:151:ARG:NH2	2.15	0.61
48:BG:116:LEU:HD12	48:BG:116:LEU:H	1.65	0.61
52:BW:18:LYS:HG3	52:BW:19:ARG:CZ	2.30	0.61
18:CS:77:ARG:HD3	1:CA:1225:A:O2'	1.99	0.61
3:CD:7:LYS:HG2	3:CD:20:LEU:HB3	1.82	0.61
13:CN:5:MET:SD	13:CN:8:ARG:HD2	2.39	0.61
18:CS:44:ILE:HA	18:CS:61:VAL:HB	1.81	0.61
53:D6:31:GLY:CA	53:D6:106:LEU:HD13	2.31	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1229:C:H2'	23:DB:1230:A:C8	2.35	0.61
25:DC:77:VAL:HA	25:DC:93:VAL:HA	1.81	0.61
23:DB:2637:U:OP1	26:DD:83:ARG:HD3	2.01	0.61
29:DE:161:ALA:HB1	29:DE:167:VAL:HG13	1.82	0.61
29:DE:171:ASP:CG	29:DE:172:ALA:H	2.03	0.61
48:DG:84:LYS:HG2	48:DG:85:LYS:N	2.14	0.61
27:DK:41:ILE:HG13	27:DK:42:THR:N	2.15	0.61
44:DQ:105:PHE:HA	44:DQ:108:LEU:HG	1.82	0.61
44:DQ:109:VAL:HG12	44:DQ:113:LYS:HE3	1.82	0.61
1:AA:1314:C:C6	18:AS:5:LYS:HE2	2.36	0.61
2:AC:13:ILE:H	2:AC:13:ILE:HD13	1.66	0.61
16:AQ:80:LYS:HD2	16:AQ:80:LYS:H	1.66	0.61
23:BB:2886:A:H62	31:B0:39:ARG:CZ	2.14	0.61
23:BB:1488:C:O2'	23:BB:1489:C:H5'	2.00	0.61
23:BB:1593:A:H2'	23:BB:1594:U:C6	2.35	0.61
23:BB:1794:A:H2'	23:BB:1795:C:H6	1.66	0.61
23:BB:2732:G:H3'	23:BB:2733:A:H5'	1.80	0.61
23:BB:2783:U:H2'	23:BB:2784:U:C6	2.35	0.61
23:BB:320:A:H4'	23:BB:322:A:N7	2.15	0.61
47:BF:116:LEU:H	47:BF:176:PHE:C	2.04	0.61
28:BP:13:LYS:HD2	28:BP:76:HIS:HA	1.81	0.61
1:CA:1369:C:H2'	1:CA:1370:G:C8	2.36	0.61
1:CA:206:C:H2'	1:CA:207:C:O4'	2.00	0.61
1:CA:57:G:H2'	1:CA:58:C:H6	1.65	0.61
21:CU:40:PRO:O	21:CU:44:ARG:HB2	1.99	0.61
23:DB:1287:A:H3'	23:DB:1288:G:N2	2.15	0.61
23:DB:1870:C:H2'	23:DB:1871:A:N3	2.16	0.61
47:DF:111:ARG:NH2	47:DF:113:PHE:HB2	2.15	0.61
47:DF:41:GLU:O	47:DF:43:ILE:HG22	1.99	0.61
48:DG:148:ARG:HD3	48:DG:152:ARG:HD3	1.83	0.61
51:DZ:30:LEU:HD23	51:DZ:30:LEU:N	2.15	0.61
1:AA:1437:A:H2'	1:AA:1438:G:H8	1.65	0.61
1:AA:264:C:O2'	16:AQ:65:PRO:HG2	2.00	0.61
1:AA:33:A:H2'	1:AA:34:C:H6	1.64	0.61
1:AA:449:G:H2'	1:AA:450:G:C8	2.36	0.61
9:AJ:29:ALA:O	9:AJ:32:THR:HG22	2.01	0.61
18:AS:28:LYS:HD2	18:AS:28:LYS:H	1.65	0.61
23:BB:1164:C:H2'	23:BB:1165:A:H8	1.65	0.61
23:BB:1387:A:H2'	23:BB:1388:G:C8	2.35	0.61
40:BH:67:ALA:O	40:BH:71:LYS:HD3	2.01	0.61
41:BJ:45:THR:HG23	41:BJ:45:THR:O	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BP:50:ARG:HB2	28:BP:56:SER:CB	2.30	0.61
1:CA:390:U:H2'	1:CA:391:G:H8	1.63	0.61
2:CC:2:GLN:NE2	2:CC:2:GLN:H	1.98	0.61
6:CG:109:LYS:HE2	6:CG:109:LYS:HA	1.83	0.61
7:CH:118:ALA:HB3	7:CH:120:LEU:HD22	1.81	0.61
8:CI:115:VAL:HG21	9:CJ:62:ARG:HG3	1.82	0.61
13:CN:26:LEU:HG	13:CN:30:ILE:HD13	1.82	0.61
21:CU:42:THR:O	21:CU:46:ARG:HG3	2.00	0.61
23:DB:1199:U:H2'	23:DB:1200:C:H6	1.66	0.61
23:DB:1387:A:H2'	23:DB:1388:G:C8	2.33	0.61
23:DB:1464:G:H2'	23:DB:1465:G:H8	1.66	0.61
23:DB:2732:G:H3'	23:DB:2733:A:H5'	1.82	0.61
23:DB:871:U:H2'	23:DB:872:U:H6	1.65	0.61
41:DJ:81:ILE:HG23	41:DJ:82:GLY:N	2.10	0.61
23:DB:815:C:OP2	49:DR:85:LYS:HE2	2.01	0.61
46:DU:81:ARG:HB2	46:DU:96:LYS:HG2	1.83	0.61
30:DY:6:ILE:O	30:DY:34:THR:HA	2.01	0.61
1:AA:1009:U:H1'	1:AA:1021:A:N1	2.16	0.61
1:AA:974:A:H4'	1:AA:975:A:H5''	1.83	0.61
3:AD:7:LYS:HG2	3:AD:20:LEU:HB3	1.81	0.61
8:AI:51:LEU:CB	8:AI:56:MET:HG2	2.25	0.61
10:AK:80:ASN:HD22	10:AK:105:ARG:HG2	1.66	0.61
12:AM:28:ARG:HH11	12:AM:32:ILE:HD12	1.66	0.61
13:AN:12:ARG:HH21	13:AN:58:ARG:HH12	1.47	0.61
22:BA:66:A:H61	22:BA:107:G:H2'	1.65	0.61
23:BB:1164:C:H2'	23:BB:1165:A:C8	2.36	0.61
23:BB:1919:A:H3'	23:BB:1920:C:C5	2.36	0.61
23:BB:3:U:HO2'	23:BB:4:U:H6	1.47	0.61
48:BG:84:LYS:HG2	48:BG:85:LYS:N	2.15	0.61
38:BM:57:VAL:HA	38:BM:112:LEU:HD11	1.82	0.61
50:BT:39:THR:CG2	50:BT:42:GLU:H	2.13	0.61
52:BW:19:ARG:HE	52:BW:19:ARG:H	1.47	0.61
1:CA:1009:U:H1'	1:CA:1021:A:N1	2.15	0.61
1:CA:1171:A:H2'	1:CA:1172:C:H6	1.64	0.61
3:CD:117:VAL:O	3:CD:130:ASN:HA	2.01	0.61
8:CI:26:LYS:N	8:CI:61:ASP:HB3	2.16	0.61
11:CL:25:ALA:HB1	1:CA:554:A:H5'	1.80	0.61
33:D1:9:LYS:O	33:D1:9:LYS:HG2	2.01	0.61
53:D6:25:LEU:HB3	53:D6:179:LYS:HE3	1.82	0.61
23:DB:1858:A:N6	23:DB:1884:G:H1'	2.15	0.61
23:DB:2834:G:H1'	23:DB:2883:A:N6	2.15	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:864:G:O2'	23:DB:865:C:H5'	2.01	0.61
41:DJ:82:GLY:O	41:DJ:84:ILE:HG22	2.00	0.61
28:DP:62:LYS:O	28:DP:63:ILE:HB	2.00	0.61
45:DS:24:ILE:HG23	45:DS:32:ALA:HB1	1.81	0.61
52:DW:18:LYS:HG3	52:DW:19:ARG:CZ	2.30	0.61
52:DW:24:ARG:NE	52:DW:65:LYS:HE3	2.15	0.61
52:DW:35:ILE:O	52:DW:35:ILE:HG12	2.00	0.61
23:DB:2336:A:N6	52:DW:40:ARG:HD2	2.16	0.61
1:AA:1273:C:H2'	1:AA:1274:A:O4'	1.99	0.61
1:AA:1486:G:H2'	1:AA:1487:G:O4'	2.01	0.61
18:AS:43:MET:O	18:AS:46:LEU:HB2	2.00	0.61
33:B1:9:LYS:O	33:B1:9:LYS:HG2	2.01	0.61
23:BB:1175:A:H2'	23:BB:1176:U:O4'	2.00	0.61
23:BB:2649:C:H2'	23:BB:2650:U:H6	1.65	0.61
23:BB:2747:G:O6	23:BB:2755:C:H5''	2.00	0.61
23:BB:703:U:H2'	23:BB:704:G:O4'	2.00	0.61
25:BC:270:ARG:HB3	25:BC:270:ARG:HH11	1.66	0.61
24:BI:18:ASN:N	24:BI:19:PRO:HD2	2.14	0.61
42:BN:106:ASP:C	42:BN:108:ALA:H	2.04	0.61
27:BK:78:ARG:HG3	28:BP:70:GLU:HB3	1.82	0.61
45:BS:13:SER:O	45:BS:101:SER:HB3	2.00	0.61
1:CA:1053:G:N7	1:CA:1200:C:H5''	2.15	0.61
1:CA:18:C:H4'	1:CA:1078:U:C2	2.35	0.61
1:CA:1131:G:O2'	1:CA:1132:C:H5'	2.00	0.61
10:CK:30:ILE:HD11	1:CA:706:A:H4'	1.82	0.61
2:CC:19:SER:O	13:CN:93:PRO:HB3	2.01	0.61
3:CD:24:VAL:HG23	3:CD:25:ARG:H	1.66	0.61
9:CJ:29:ALA:O	9:CJ:32:THR:HG22	2.01	0.61
11:CL:35:ARG:NH2	11:CL:36:VAL:HG22	2.15	0.61
12:CM:95:PRO:N	12:CM:108:ARG:HG2	2.16	0.61
13:CN:51:PRO:HB2	13:CN:54:SER:CB	2.27	0.61
23:DB:1199:U:H5'	44:DQ:4:LYS:HD3	1.81	0.61
23:DB:2066:C:O2'	23:DB:2067:G:H5'	2.01	0.61
23:DB:2331:G:H21	23:DB:2336:A:H8	1.49	0.61
23:DB:2336:A:H1'	23:DB:2337:G:OP1	2.00	0.61
23:DB:2649:C:H2'	23:DB:2650:U:C6	2.35	0.61
23:DB:2885:G:H2'	23:DB:2886:A:O4'	2.01	0.61
47:DF:116:LEU:H	47:DF:176:PHE:C	2.04	0.61
48:DG:9:VAL:HG22	48:DG:48:THR:HG22	1.82	0.61
24:DI:32:VAL:HG22	24:DI:60:VAL:HG21	1.83	0.61
28:DP:88:ARG:HG3	28:DP:112:ARG:HB3	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1477:U:H2'	1:AA:1478:U:C6	2.35	0.61
1:AA:252:U:H2'	1:AA:253:A:C8	2.36	0.61
1:AA:825:A:H2'	1:AA:826:C:H6	1.65	0.61
5:AF:1:MET:HG3	5:AF:67:PRO:HD3	1.83	0.61
11:AL:2:THR:OG1	11:AL:5:GLN:HG3	2.01	0.61
12:AM:95:PRO:N	12:AM:108:ARG:HG2	2.15	0.61
18:AS:18:VAL:HG21	18:AS:43:MET:HG2	1.81	0.61
36:B2:10:LEU:O	36:B2:14:ARG:HG2	2.00	0.61
53:B6:84:ARG:HH11	53:B6:84:ARG:HB2	1.66	0.61
22:BA:32:U:H4'	22:BA:52:A:N6	2.16	0.61
23:BB:1024:G:C3'	23:BB:1025:G:H5''	2.26	0.61
23:BB:1203:U:H3'	23:BB:1204:A:H5''	1.81	0.61
23:BB:1889:A:H2'	23:BB:1890:A:C8	2.36	0.61
23:BB:575:A:O2'	23:BB:576:U:H5'	1.99	0.61
26:BD:8:LYS:HB2	26:BD:201:LEU:HD11	1.82	0.61
38:BM:35:ALA:HB3	38:BM:99:GLY:N	2.16	0.61
38:BM:35:ALA:O	38:BM:36:VAL:HB	2.01	0.61
1:CA:1018:G:H2'	1:CA:1019:A:H8	1.65	0.61
1:CA:472:U:H2'	1:CA:473:U:C6	2.36	0.61
20:CB:163:ILE:HG23	20:CB:164:ASP:N	2.15	0.61
4:CE:158:LYS:HZ1	7:CH:63:LYS:CD	2.04	0.61
11:CL:43:LYS:HB2	11:CL:44:PRO:HD3	1.83	0.61
18:CS:29:PRO:HA	18:CS:47:THR:HB	1.83	0.61
18:CS:5:LYS:HE2	1:CA:1314:C:C6	2.36	0.61
53:D6:45:TYR:OH	53:D6:74:ASN:HB2	2.00	0.61
23:DB:1100:C:H2'	23:DB:1101:U:H6	1.65	0.61
23:DB:1439:A:C6	23:DB:1552:A:N7	2.69	0.61
23:DB:1381:G:H1'	23:DB:1571:A:N1	2.16	0.61
23:DB:2137:U:H2'	23:DB:2138:G:H8	1.66	0.61
23:DB:197:A:N6	23:DB:2430:A:H2'	2.16	0.61
23:DB:2794:C:H2'	23:DB:2795:C:C6	2.36	0.61
23:DB:704:G:C2'	23:DB:726:G:H22	2.14	0.61
48:DG:10:VAL:HG23	48:DG:47:ASN:O	2.01	0.61
39:DX:49:ASP:O	39:DX:53:VAL:HG23	2.01	0.61
20:AB:161:PHE:HA	20:AB:183:PHE:O	2.01	0.61
10:AK:55:ARG:NH1	10:AK:60:PHE:HD1	1.97	0.61
5:AF:88:MET:HE3	17:AR:60:ARG:HD3	1.82	0.61
53:B6:39:LEU:HD12	53:B6:40:HIS:H	1.65	0.61
23:BB:1015:U:H2'	23:BB:1016:G:C8	2.36	0.61
23:BB:1048:A:H62	23:BB:1110:G:H21	1.49	0.61
23:BB:1381:G:C2'	23:BB:1382:G:H5'	2.30	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1729:U:C3'	23:BB:1730:C:H4'	2.30	0.61
23:BB:2150:C:H2'	23:BB:2151:U:C6	2.36	0.61
23:BB:580:U:O2'	23:BB:581:C:H5'	2.01	0.61
23:BB:688:U:O2'	23:BB:689:A:H5'	2.00	0.61
23:BB:958:U:H3	38:BM:16:ARG:CB	2.11	0.61
47:BF:103:ILE:H	47:BF:107:VAL:HG23	1.66	0.61
40:BH:127:GLU:HA	40:BH:144:VAL:O	2.01	0.61
41:BJ:44:TYR:O	41:BJ:45:THR:HB	2.01	0.61
45:BS:15:GLN:O	45:BS:19:LEU:HB2	2.00	0.61
23:BB:496:G:H1'	45:BS:61:ASN:ND2	2.16	0.61
50:BT:25:GLU:HA	50:BT:28:ASN:O	2.00	0.61
1:CA:1524:C:H2'	1:CA:1525:G:C8	2.36	0.61
1:CA:555:U:H2'	1:CA:556:C:C6	2.36	0.61
5:CF:1:MET:HG3	5:CF:67:PRO:HD3	1.82	0.61
9:CJ:54:SER:HB2	1:CA:1060:U:C4'	2.30	0.61
10:CK:17:ASP:HA	10:CK:80:ASN:O	2.01	0.61
23:DB:1102:C:O2'	23:DB:1103:A:H5'	2.01	0.61
23:DB:1107:G:O2'	23:DB:1108:U:H5'	2.01	0.61
23:DB:171:U:H2'	23:DB:172:A:C8	2.36	0.61
23:DB:189:G:H2'	23:DB:205:G:N2	2.15	0.61
23:DB:2886:A:H62	31:D0:39:ARG:CZ	2.14	0.61
23:DB:899:A:OP1	23:DB:899:A:H4'	2.01	0.61
25:DC:146:LYS:HB2	25:DC:149:LYS:HB2	1.83	0.61
26:DD:151:THR:CB	26:DD:152:PRO:HD3	2.27	0.61
1:AA:1143:G:H2'	1:AA:1144:G:H8	1.66	0.60
1:AA:389:A:H3'	1:AA:390:U:H6	1.66	0.60
8:AI:26:LYS:N	8:AI:61:ASP:HB3	2.16	0.60
12:AM:86:ARG:HA	12:AM:96:VAL:HG13	1.82	0.60
53:B6:125:GLY:O	53:B6:129:ILE:HG13	2.01	0.60
53:B6:58:VAL:HG12	53:B6:59:THR:N	2.16	0.60
23:BB:1439:A:C6	23:BB:1552:A:N7	2.69	0.60
23:BB:1558:C:H4'	23:BB:1559:U:H5'	1.82	0.60
23:BB:2080:A:OP1	51:BZ:20:HIS:HB3	2.01	0.60
23:BB:2741:A:H2'	23:BB:2742:G:O4'	2.01	0.60
23:BB:639:U:H2'	23:BB:640:C:C6	2.35	0.60
29:BE:46:GLN:HG3	29:BE:87:ALA:HB3	1.83	0.60
47:BF:32:LYS:HE2	47:BF:34:THR:HG22	1.83	0.60
40:BH:112:LYS:HE2	40:BH:113:SER:N	2.16	0.60
40:BH:114:GLU:HB3	40:BH:133:GLN:C	2.21	0.60
40:BH:80:ILE:HD13	40:BH:98:ASP:HB2	1.83	0.60
45:BS:29:VAL:HG23	45:BS:70:LYS:HA	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BS:18:ARG:HB3	45:BS:76:VAL:HG22	1.82	0.60
46:BU:35:VAL:HB	46:BU:38:ILE:CB	2.31	0.60
46:BU:35:VAL:HB	46:BU:38:ILE:HB	1.82	0.60
1:CA:531:U:H5'	1:CA:531:U:H6	1.66	0.60
1:CA:89:U:H2'	1:CA:90:C:H6	1.64	0.60
20:CB:23:ASN:ND2	20:CB:25:LYS:H	1.99	0.60
16:CQ:45:VAL:HG12	16:CQ:46:HIS:N	2.16	0.60
23:DB:1684:G:H2'	23:DB:1685:C:C6	2.34	0.60
23:DB:1889:A:H2'	23:DB:1890:A:C8	2.36	0.60
23:DB:2741:A:H2'	23:DB:2742:G:O4'	2.01	0.60
23:DB:282:A:H2'	23:DB:283:G:C8	2.36	0.60
23:DB:287:G:H2'	23:DB:288:U:C6	2.36	0.60
23:DB:2886:A:N7	31:D0:39:ARG:NH2	2.44	0.60
25:DC:94:LEU:HA	25:DC:100:ARG:HA	1.82	0.60
40:DH:7:ASP:CG	40:DH:8:LYS:H	2.04	0.60
41:DJ:44:TYR:O	41:DJ:45:THR:HB	2.01	0.60
2:AC:8:GLY:HA2	2:AC:11:LEU:HG	1.83	0.60
11:AL:35:ARG:HH21	11:AL:36:VAL:CG2	2.14	0.60
17:AR:59:LYS:HA	17:AR:62:ARG:HD2	1.83	0.60
22:BA:109:A:H2'	22:BA:110:C:C6	2.36	0.60
23:BB:1173:U:N3	23:BB:1174:U:H1'	2.16	0.60
23:BB:2734:A:H2'	23:BB:2735:G:O4'	2.01	0.60
23:BB:2800:A:H2'	23:BB:2801:G:C1'	2.31	0.60
23:BB:519:U:H4'	45:BS:73:LYS:NZ	2.17	0.60
23:BB:581:C:H2'	23:BB:582:A:H8	1.66	0.60
26:BD:118:PHE:HZ	26:BD:123:LYS:HZ3	1.48	0.60
40:BH:50:ARG:H	40:BH:50:ARG:NE	1.99	0.60
23:BB:812:C:H5'	37:BL:21:ARG:O	2.00	0.60
1:CA:501:C:H1'	1:CA:549:C:H1'	1.84	0.60
20:CB:83:ALA:HB3	20:CB:90:PHE:HB3	1.83	0.60
8:CI:29:ILE:HG12	8:CI:64:ILE:HB	1.83	0.60
13:CN:79:SER:O	13:CN:83:VAL:HG23	2.01	0.60
18:CS:35:ARG:HB2	18:CS:71:GLY:CA	2.31	0.60
22:DA:66:A:H61	22:DA:107:G:H2'	1.66	0.60
23:DB:1796:U:H2'	23:DB:1797:G:H8	1.66	0.60
23:DB:2810:A:H2'	23:DB:2811:G:O4'	2.01	0.60
23:DB:303:G:H2'	23:DB:304:U:C6	2.36	0.60
23:DB:528:A:C2	23:DB:2043:C:H4'	2.36	0.60
23:DB:581:C:H2'	23:DB:582:A:H8	1.66	0.60
48:DG:42:VAL:HA	48:DG:50:THR:O	2.01	0.60
49:DR:21:ARG:HB3	49:DR:95:ASP:OD1	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2365:G:H4'	52:DW:59:PHE:CD1	2.36	0.60
9:AJ:28:THR:HG21	9:AJ:90:LEU:HD22	1.82	0.60
21:AU:40:PRO:O	21:AU:44:ARG:HB2	2.00	0.60
23:BB:1139:G:O2'	23:BB:1140:C:H5'	2.01	0.60
23:BB:1275:A:H2'	23:BB:1276:A:O4'	2.02	0.60
23:BB:184:C:H2'	23:BB:185:G:H8	1.67	0.60
23:BB:2425:A:H5''	23:BB:2426:A:H3'	1.82	0.60
23:BB:2834:G:H1'	23:BB:2883:A:N6	2.16	0.60
23:BB:522:A:H2'	23:BB:523:C:C6	2.35	0.60
25:BC:134:ILE:HD11	25:BC:163:ILE:HG13	1.83	0.60
29:BE:161:ALA:HB1	29:BE:167:VAL:HG13	1.83	0.60
45:BS:55:ILE:O	45:BS:58:ALA:HB3	2.00	0.60
1:CA:211:G:C5	1:CA:212:G:H1'	2.35	0.60
6:CG:22:LEU:O	6:CG:26:VAL:HG13	2.02	0.60
18:CS:5:LYS:NZ	1:CA:1314:C:H3'	2.17	0.60
18:CS:61:VAL:HA	18:CS:65:MET:SD	2.42	0.60
21:CU:36:PHE:CB	21:CU:40:PRO:HD3	2.27	0.60
23:DB:1037:G:O2'	23:DB:1038:G:H5'	2.01	0.60
23:DB:1149:G:H2'	23:DB:1150:C:C6	2.36	0.60
25:DC:124:LYS:HB3	25:DC:124:LYS:HZ3	1.67	0.60
43:DO:79:ALA:HA	43:DO:115:LEU:HD23	1.82	0.60
28:DP:88:ARG:HB2	28:DP:112:ARG:CZ	2.31	0.60
1:AA:1143:G:H2'	1:AA:1144:G:C8	2.37	0.60
1:AA:1151:A:HO2'	1:AA:1152:A:H8	1.47	0.60
1:AA:57:G:H2'	1:AA:58:C:C6	2.36	0.60
3:AD:24:VAL:HG23	3:AD:25:ARG:H	1.66	0.60
15:AP:3:THR:HB	15:AP:66:THR:O	2.01	0.60
15:AP:67:ILE:HD11	15:AP:71:VAL:HG22	1.83	0.60
17:AR:56:ARG:O	17:AR:60:ARG:HG2	2.02	0.60
18:AS:29:PRO:HA	18:AS:47:THR:HB	1.82	0.60
23:BB:274:C:H2'	23:BB:275:C:O4'	2.01	0.60
23:BB:2810:A:H2'	23:BB:2811:G:O4'	2.00	0.60
47:BF:1:ALA:O	47:BF:4:HIS:HB3	2.02	0.60
47:BF:58:ALA:HB2	47:BF:140:ILE:HG13	1.83	0.60
38:BM:97:GLN:O	38:BM:100:LYS:HB2	2.01	0.60
49:BR:21:ARG:HB3	49:BR:95:ASP:OD1	2.01	0.60
45:BS:66:ILE:CD1	45:BS:66:ILE:H	2.13	0.60
46:BU:64:ILE:HG13	46:BU:65:GLN:N	2.16	0.60
1:CA:1132:C:H2'	1:CA:1133:G:H8	1.67	0.60
1:CA:254:G:O2'	1:CA:255:G:H5'	2.01	0.60
1:CA:372:C:H4'	1:CA:373:A:H5'	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:678:U:H2'	1:CA:679:C:H6	1.66	0.60
12:CM:102:LYS:HE2	1:CA:952:U:O4	2.01	0.60
4:CE:84:VAL:HG11	4:CE:146:MET:HB3	1.83	0.60
6:CG:110:ARG:HE	6:CG:122:GLU:HB2	1.66	0.60
15:CP:67:ILE:HD11	15:CP:71:VAL:HG22	1.82	0.60
23:DB:1299:G:H4'	23:DB:1301:A:H1'	1.84	0.60
23:DB:2301:C:H2'	23:DB:2302:U:C6	2.36	0.60
23:DB:2313:C:H2'	23:DB:2314:A:H8	1.67	0.60
23:DB:2425:A:H5''	23:DB:2426:A:H3'	1.83	0.60
23:DB:2471:A:O2'	23:DB:2472:G:H8	1.74	0.60
23:DB:2728:U:H2'	23:DB:2729:G:H8	1.67	0.60
26:DD:8:LYS:HB2	26:DD:201:LEU:HD11	1.83	0.60
26:DD:97:SER:HB3	26:DD:99:GLU:CD	2.21	0.60
47:DF:102:LEU:HA	47:DF:106:ALA:HB3	1.84	0.60
48:DG:8:VAL:HG11	48:DG:49:LEU:HB2	1.83	0.60
40:DH:86:ASP:HB3	40:DH:89:LYS:HD3	1.83	0.60
37:DL:110:VAL:HB	37:DL:127:VAL:HG23	1.84	0.60
45:DS:36:LEU:HD22	45:DS:36:LEU:H	1.66	0.60
1:AA:188:C:H2'	1:AA:189:A:O4'	2.01	0.60
1:AA:82:G:H3'	1:AA:83:C:C4'	2.13	0.60
4:AE:19:ARG:O	4:AE:20:VAL:HB	2.00	0.60
8:AI:11:ARG:HA	8:AI:105:ARG:CZ	2.30	0.60
9:AJ:80:THR:HB	9:AJ:83:THR:OG1	2.01	0.60
14:AO:26:GLU:HA	14:AO:81:LEU:HD11	1.83	0.60
53:B6:76:LEU:HB3	53:B6:77:LYS:HZ2	1.66	0.60
23:BB:2145:C:H3'	23:BB:2146:C:H5''	1.81	0.60
29:BE:108:ILE:O	29:BE:108:ILE:HD13	2.01	0.60
49:BR:7:SER:HB2	49:BR:22:LEU:HD13	1.84	0.60
50:BT:9:LYS:H	50:BT:9:LYS:HD2	1.65	0.60
52:BW:18:LYS:CA	52:BW:36:ILE:HG12	2.31	0.60
20:CB:161:PHE:HA	20:CB:183:PHE:O	2.02	0.60
20:CB:195:VAL:HG12	20:CB:197:PHE:H	1.66	0.60
2:CC:52:SER:HB3	2:CC:114:LEU:HG	1.83	0.60
2:CC:69:THR:HG21	2:CC:75:VAL:HG21	1.83	0.60
2:CC:72:PRO:O	2:CC:76:ILE:HG12	2.02	0.60
13:CN:26:LEU:HD23	13:CN:27:LYS:N	2.16	0.60
18:CS:18:VAL:HG21	18:CS:43:MET:HG2	1.83	0.60
18:CS:50:VAL:O	18:CS:57:VAL:HG22	2.00	0.60
19:CT:15:LYS:HD3	19:CT:18:LYS:HE3	1.84	0.60
23:DB:1021:A:H62	23:DB:1141:U:H3	1.49	0.60
23:DB:1486:U:H2'	23:DB:1487:U:C6	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2302:U:H2'	23:DB:2303:G:C8	2.35	0.60
23:DB:918:A:H2'	23:DB:919:U:H5'	1.83	0.60
23:DB:670:A:H5''	37:DL:42:SER:HB2	1.84	0.60
23:DB:1454:C:O2	42:DN:63:ARG:HG2	2.01	0.60
43:DO:83:LEU:HD12	43:DO:87:ILE:O	2.01	0.60
28:DP:75:THR:HG23	28:DP:76:HIS:N	2.16	0.60
35:DV:9:ARG:HD2	35:DV:41:GLU:HB3	1.83	0.60
1:AA:1450:U:H2'	1:AA:1452:C:C5	2.37	0.60
1:AA:194:C:O2'	1:AA:195:A:H5'	2.01	0.60
1:AA:678:U:H2'	1:AA:679:C:C6	2.37	0.60
3:AD:117:VAL:O	3:AD:130:ASN:HA	2.02	0.60
5:AF:97:THR:O	5:AF:98:GLU:HB3	1.99	0.60
6:AG:22:LEU:O	6:AG:26:VAL:HG13	2.00	0.60
18:AS:50:VAL:O	18:AS:57:VAL:HG22	2.02	0.60
23:BB:1230:A:H2'	23:BB:1231:U:H6	1.66	0.60
23:BB:2008:C:H2'	23:BB:2009:A:H8	1.66	0.60
23:BB:2537:U:H2'	23:BB:2538:C:H6	1.66	0.60
29:BE:60:TRP:O	29:BE:61:ARG:HB2	2.00	0.60
47:BF:58:ALA:CB	47:BF:139:GLU:HG2	2.32	0.60
38:BM:75:GLU:HG3	38:BM:90:GLU:HB2	1.83	0.60
28:BP:75:THR:HG23	28:BP:76:HIS:N	2.16	0.60
50:BT:13:ALA:O	50:BT:32:LEU:HB2	2.02	0.60
52:BW:74:LYS:HE2	52:BW:74:LYS:HA	1.84	0.60
19:CT:9:ARG:HG2	1:CA:108:G:O6	2.02	0.60
1:CA:335:C:H2'	1:CA:336:A:H8	1.67	0.60
20:CB:46:VAL:O	20:CB:49:PHE:HB2	2.01	0.60
5:CF:3:HIS:NE2	5:CF:65:GLU:HG3	2.17	0.60
7:CH:65:PHE:HE2	7:CH:66:GLN:HE21	1.49	0.60
32:D4:12:ARG:HG3	32:D4:13:ASN:ND2	2.17	0.60
22:DA:98:G:H1	35:DV:14:LYS:HB2	1.66	0.60
23:DB:1098:A:C8	24:DI:3:LYS:HB3	2.37	0.60
23:DB:150:U:H2'	23:DB:151:C:C6	2.37	0.60
23:DB:1857:G:H1'	23:DB:1885:A:N6	2.16	0.60
23:DB:2150:C:H2'	23:DB:2151:U:O4'	2.01	0.60
23:DB:784:G:C6	25:DC:227:VAL:HG11	2.36	0.60
38:DM:57:VAL:HA	38:DM:112:LEU:HD11	1.82	0.60
38:DM:97:GLN:O	38:DM:100:LYS:HB2	2.01	0.60
1:AA:279:A:H5'	1:AA:281:G:O4'	2.00	0.60
8:AI:126:PHE:HE1	8:AI:129:ARG:HG2	1.66	0.60
12:AM:22:TYR:HD1	12:AM:65:GLU:HB3	1.67	0.60
21:AU:43:GLU:HG2	21:AU:44:ARG:HH21	1.67	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:B6:30:THR:C	53:B6:32:ARG:H	2.04	0.60
53:B6:80:GLU:O	53:B6:83:ILE:HG12	2.01	0.60
23:BB:1464:G:H2'	23:BB:1465:G:H8	1.67	0.60
23:BB:1726:C:H2'	23:BB:1727:C:C6	2.37	0.60
23:BB:82:U:H2'	23:BB:83:A:C8	2.37	0.60
25:BC:16:VAL:H	25:BC:203:VAL:HG12	1.66	0.60
47:BF:108:PRO:O	47:BF:110:ILE:HG23	2.01	0.60
48:BG:148:ARG:HD3	48:BG:152:ARG:HD3	1.84	0.60
48:BG:15:ASP:HB2	48:BG:26:LYS:HB3	1.83	0.60
41:BJ:3:THR:HB	41:BJ:44:TYR:CE1	2.37	0.60
28:BP:62:LYS:O	28:BP:63:ILE:HB	2.00	0.60
45:BS:24:ILE:HG23	45:BS:32:ALA:HB1	1.82	0.60
30:BY:15:ARG:HG2	30:BY:53:MET:SD	2.41	0.60
1:CA:168:G:O2'	1:CA:169:C:H5'	2.02	0.60
1:CA:285:C:H2'	1:CA:286:C:H6	1.67	0.60
1:CA:389:A:H3'	1:CA:390:U:H6	1.66	0.60
1:CA:736:C:H2'	1:CA:737:C:C6	2.37	0.60
3:CD:116:LEU:HD21	3:CD:153:ARG:HD2	1.84	0.60
8:CI:40:ARG:H	8:CI:44:ARG:HD3	1.67	0.60
14:CO:45:GLU:O	14:CO:46:HIS:HB2	2.02	0.60
18:CS:28:LYS:H	18:CS:28:LYS:HD2	1.66	0.60
23:DB:1015:U:H2'	23:DB:1016:G:C8	2.36	0.60
23:DB:1386:C:H2'	23:DB:1387:A:C8	2.37	0.60
23:DB:138:U:H4'	23:DB:139:U:C2'	2.27	0.60
23:DB:453:A:H5''	56:DB:3505:HOH:O	2.02	0.60
23:DB:558:U:O2'	23:DB:559:G:H5'	2.02	0.60
29:DE:1:MET:O	29:DE:13:THR:HA	2.01	0.60
23:DB:1098:A:C3'	24:DI:4:VAL:N	2.65	0.60
38:DM:43:ALA:HB2	38:DM:69:PRO:HB3	1.83	0.60
44:DQ:43:GLN:NE2	49:DR:77:PHE:HB3	2.17	0.60
1:AA:554:A:H5'	11:AL:25:ALA:HB1	1.84	0.60
1:AA:745:G:H2'	1:AA:746:A:O4'	2.02	0.60
1:AA:952:U:O4	12:AM:102:LYS:HE2	2.02	0.60
20:AB:187:ASP:HB3	20:AB:201:GLY:O	2.02	0.60
20:AB:202:ASN:C	20:AB:202:ASN:HD22	2.04	0.60
2:AC:126:ARG:HH22	2:AC:190:THR:CB	2.14	0.60
8:AI:24:ASN:ND2	8:AI:25:GLY:H	2.00	0.60
2:AC:19:SER:O	13:AN:93:PRO:HB3	2.01	0.60
16:AQ:45:VAL:HG12	16:AQ:46:HIS:N	2.16	0.60
16:AQ:45:VAL:HG11	16:AQ:60:ILE:HG21	1.84	0.60
34:B3:60:CYS:C	34:B3:62:PRO:HD3	2.22	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:48:U:H2'	22:BA:49:C:C6	2.36	0.60
23:BB:1395:A:H4'	23:BB:1397:U:C5	2.36	0.60
23:BB:1545:A:H2'	23:BB:1546:G:O4'	2.02	0.60
23:BB:620:G:H5'	23:BB:620:G:N3	2.17	0.60
25:BC:94:LEU:HA	25:BC:100:ARG:HA	1.83	0.60
48:BG:17:LYS:HB3	48:BG:24:THR:OG1	2.01	0.60
40:BH:79:THR:CG2	40:BH:145:ASN:HB2	2.31	0.60
38:BM:43:ALA:HB2	38:BM:69:PRO:HB3	1.84	0.60
44:BQ:105:PHE:O	44:BQ:109:VAL:HG23	2.02	0.60
39:BX:20:ASN:O	39:BX:24:GLU:HB3	2.02	0.60
1:CA:1432:G:H1'	1:CA:1468:A:N6	2.16	0.60
1:CA:974:A:H4'	1:CA:975:A:H5''	1.83	0.60
2:CC:119:ILE:HG21	2:CC:197:VAL:HG11	1.83	0.60
15:CP:68:SER:OG	15:CP:71:VAL:HG12	2.02	0.60
18:CS:39:ILE:HD11	18:CS:68:HIS:HB2	1.82	0.60
22:DA:43:C:O2'	47:DF:91:ARG:HD2	2.02	0.60
23:DB:1582:C:H2'	23:DB:1583:A:O4'	2.02	0.60
23:DB:1747:U:H2'	23:DB:1748:C:H6	1.67	0.60
23:DB:184:C:H2'	23:DB:185:G:H8	1.67	0.60
23:DB:703:U:H2'	23:DB:704:G:O4'	2.02	0.60
23:DB:934:U:H2'	23:DB:935:C:C6	2.36	0.60
25:DC:16:VAL:H	25:DC:203:VAL:HG12	1.67	0.60
29:DE:69:ARG:O	29:DE:70:SER:HB3	2.02	0.60
48:DG:25:ILE:O	48:DG:32:LEU:HA	2.02	0.60
41:DJ:59:ALA:HB1	41:DJ:101:ILE:HG13	1.83	0.60
41:DJ:55:ILE:HG13	41:DJ:55:ILE:O	2.00	0.60
37:DL:65:GLY:O	37:DL:66:PHE:HB3	2.00	0.60
45:DS:66:ILE:CD1	45:DS:66:ILE:H	2.14	0.60
1:AA:1027:C:H2'	1:AA:1028:C:H6	1.66	0.60
1:AA:1131:G:O2'	1:AA:1132:C:H5'	2.01	0.60
1:AA:763:G:H2'	1:AA:764:C:H6	1.67	0.60
6:AG:109:LYS:HA	6:AG:109:LYS:HE2	1.82	0.60
6:AG:21:LEU:H	6:AG:21:LEU:HD23	1.67	0.60
22:BA:75:G:H1'	35:BV:29:ILE:HG12	1.82	0.60
23:BB:1592:C:H2'	23:BB:1593:A:H8	1.67	0.60
23:BB:90:U:H2'	23:BB:91:A:C2	2.36	0.60
25:BC:123:ILE:HD12	25:BC:135:PRO:HD2	1.83	0.60
48:BG:10:VAL:HG23	48:BG:47:ASN:O	2.01	0.60
28:BP:88:ARG:HB2	28:BP:112:ARG:CZ	2.31	0.60
52:BW:37:VAL:HG12	52:BW:38:ARG:HD3	1.83	0.60
1:CA:1170:A:H2'	1:CA:1171:A:O4'	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:602:A:O2'	1:CA:603:U:H5'	2.02	0.60
2:CC:81:GLU:HG3	2:CC:82:ASP:H	1.67	0.60
3:CD:155:LYS:HA	3:CD:158:LEU:HD12	1.83	0.60
11:CL:86:VAL:HG11	11:CL:89:LEU:HD23	1.83	0.60
53:D6:137:LEU:HD13	53:D6:161:ILE:HG21	1.84	0.60
23:DB:1779:U:H5	23:DB:1784:A:N7	2.00	0.60
23:DB:2183:A:H2'	23:DB:2184:A:C8	2.37	0.60
23:DB:2783:U:H2'	23:DB:2784:U:C6	2.37	0.60
23:DB:27:G:HO2'	23:DB:28:A:H8	1.48	0.60
23:DB:545:U:H2'	23:DB:548:G:P	2.41	0.60
23:DB:580:U:H2'	23:DB:581:C:C6	2.36	0.60
23:DB:674:G:H1'	29:DE:69:ARG:HD2	1.83	0.60
47:DF:148:VAL:O	47:DF:149:ARG:HG2	2.00	0.60
48:DG:167:VAL:HG23	48:DG:168:VAL:H	1.66	0.60
45:DS:29:VAL:HG23	45:DS:70:LYS:HA	1.84	0.60
8:AI:56:MET:C	8:AI:58:GLU:H	2.05	0.60
1:AA:676:A:H1'	10:AK:116:PRO:HB3	1.83	0.60
11:AL:35:ARG:NH2	11:AL:36:VAL:HG22	2.15	0.60
34:B3:37:THR:HA	34:B3:40:LYS:HE2	1.84	0.60
53:B6:114:LEU:HD23	53:B6:183:ILE:HD11	1.82	0.60
23:BB:1372:U:HO2'	23:BB:2212:A:H8	1.47	0.60
23:BB:1400:U:H2'	23:BB:1401:G:C8	2.37	0.60
23:BB:1486:U:H2'	23:BB:1487:U:C6	2.37	0.60
23:BB:1723:G:H3'	23:BB:1724:G:H8	1.67	0.60
23:BB:1747:U:H2'	23:BB:1748:C:H6	1.67	0.60
23:BB:1857:G:H1'	23:BB:1885:A:N6	2.17	0.60
23:BB:549:G:H3'	23:BB:549:G:OP2	2.02	0.60
29:BE:1:MET:O	29:BE:13:THR:HA	2.02	0.60
47:BF:72:SER:HB2	47:BF:80:GLN:H	1.67	0.60
40:BH:1:MET:O	40:BH:20:ASN:HA	2.01	0.60
1:CA:1241:G:H2'	1:CA:1242:G:C8	2.36	0.60
1:CA:1342:C:H2'	1:CA:1343:G:C8	2.37	0.60
1:CA:1437:A:H2'	1:CA:1438:G:H8	1.66	0.60
1:CA:285:C:H2'	1:CA:286:C:C6	2.37	0.60
3:CD:25:ARG:HE	1:CA:410:G:P	2.25	0.60
10:CK:116:PRO:HB3	1:CA:676:A:H1'	1.82	0.60
2:CC:76:ILE:HA	2:CC:83:VAL:HB	1.84	0.60
36:D2:26:ASN:O	36:D2:30:VAL:HG23	2.01	0.60
53:D6:41:LEU:O	53:D6:43:VAL:N	2.32	0.60
23:DB:1395:A:H4'	23:DB:1397:U:C5	2.37	0.60
23:DB:2356:U:H5"	52:DW:16:GLU:HG3	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2400:G:O2'	23:DB:2401:U:H5'	2.02	0.60
23:DB:38:A:O2'	29:DE:43:THR:HA	2.02	0.60
22:DA:43:C:H4'	47:DF:91:ARG:HD2	1.84	0.60
48:DG:85:LYS:HA	48:DG:131:VAL:HG12	1.84	0.60
41:DJ:45:THR:HG23	41:DJ:45:THR:O	2.01	0.60
43:DO:28:VAL:HG11	43:DO:92:PHE:CZ	2.37	0.60
28:DP:63:ILE:HA	28:DP:68:GLY:HA2	1.83	0.60
52:DW:74:LYS:HE2	52:DW:74:LYS:HA	1.84	0.60
1:AA:1533:C:O2'	1:AA:1534:A:H4'	2.01	0.59
3:AD:153:ARG:HG3	3:AD:154:VAL:N	2.17	0.59
6:AG:110:ARG:HE	6:AG:122:GLU:HB2	1.67	0.59
18:AS:65:MET:HG3	18:AS:73:PHE:CZ	2.37	0.59
21:AU:16:ARG:NH1	21:AU:19:LYS:HZ3	1.98	0.59
53:B6:28:LEU:HD11	53:B6:121:TYR:HE2	1.67	0.59
23:BB:1038:G:H2'	23:BB:1039:A:C8	2.37	0.59
23:BB:1230:A:H2'	23:BB:1231:U:C6	2.36	0.59
23:BB:2109:U:H2'	23:BB:2110:G:H5'	1.84	0.59
23:BB:2885:G:H2'	23:BB:2886:A:O4'	2.01	0.59
23:BB:794:A:H2'	23:BB:795:C:C6	2.36	0.59
23:BB:918:A:H2'	23:BB:919:U:H5'	1.83	0.59
23:BB:996:A:H4'	44:BQ:91:ARG:CD	2.32	0.59
26:BD:51:THR:HG21	26:BD:76:GLY:HA3	1.84	0.59
29:BE:161:ALA:C	29:BE:163:ASN:H	2.05	0.59
40:BH:1:MET:HB3	40:BH:21:VAL:O	2.02	0.59
42:BN:80:PHE:O	42:BN:85:PRO:HD3	2.02	0.59
43:BO:28:VAL:HG11	43:BO:92:PHE:CZ	2.37	0.59
44:BQ:10:ARG:NH1	44:BQ:10:ARG:HB2	2.17	0.59
45:BS:20:VAL:HG23	45:BS:23:LEU:HD12	1.84	0.59
52:BW:23:LYS:HZ3	52:BW:24:ARG:HG3	1.67	0.59
51:BZ:30:LEU:N	51:BZ:30:LEU:HD23	2.17	0.59
20:CB:94:ARG:N	20:CB:94:ARG:HE	2.00	0.59
2:CC:126:ARG:HH22	2:CC:190:THR:CB	2.15	0.59
17:CR:59:LYS:HA	17:CR:62:ARG:HD2	1.83	0.59
23:DB:1722:A:H2'	23:DB:1723:G:H8	1.65	0.59
23:DB:2393:U:H5'	37:DL:60:ARG:O	2.02	0.59
23:DB:354:A:H2'	23:DB:355:U:C6	2.37	0.59
48:DG:10:VAL:H	48:DG:47:ASN:HB2	1.66	0.59
41:DJ:18:VAL:CG1	41:DJ:54:ILE:HD11	2.32	0.59
27:DK:15:GLY:HA2	27:DK:46:ALA:HA	1.83	0.59
42:DN:106:ASP:C	42:DN:108:ALA:H	2.05	0.59
35:DV:72:VAL:HB	35:DV:92:VAL:O	2.00	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DY:15:ARG:HG2	30:DY:53:MET:SD	2.42	0.59
51:DZ:70:GLU:O	51:DZ:72:ARG:N	2.35	0.59
1:AA:1023:U:H2'	1:AA:1024:G:C8	2.37	0.59
1:AA:77:A:H2'	1:AA:78:A:C8	2.36	0.59
20:AB:204:ASP:O	20:AB:208:ALA:HB3	2.01	0.59
20:AB:83:ALA:HB3	20:AB:90:PHE:HB3	1.84	0.59
2:AC:119:ILE:O	2:AC:123:LEU:HG	2.02	0.59
2:AC:51:VAL:HA	2:AC:69:THR:HA	1.83	0.59
17:AR:33:THR:HG23	17:AR:37:LYS:O	2.02	0.59
18:AS:61:VAL:HA	18:AS:65:MET:SD	2.42	0.59
19:AT:35:TYR:O	19:AT:38:ILE:HG22	2.02	0.59
22:BA:43:C:H4'	47:BF:91:ARG:HD2	1.82	0.59
23:BB:1097:U:H2'	23:BB:1098:A:H5'	1.83	0.59
23:BB:142:A:C1'	50:BT:2:ILE:HG22	2.31	0.59
23:BB:1533:C:H2'	23:BB:1534:U:H6	1.67	0.59
23:BB:2301:C:H2'	23:BB:2302:U:C6	2.37	0.59
23:BB:2331:G:H21	23:BB:2336:A:H8	1.49	0.59
47:BF:168:LEU:HD13	47:BF:169:LEU:N	2.16	0.59
38:BM:19:GLY:H	38:BM:38:ARG:HH12	1.49	0.59
16:CQ:65:PRO:HG2	1:CA:264:C:O2'	2.00	0.59
5:CF:43:GLY:HA2	5:CF:58:HIS:NE2	2.17	0.59
23:DB:115:C:O2'	23:DB:116:C:H5'	2.02	0.59
23:DB:2137:U:H2'	23:DB:2138:G:C8	2.37	0.59
23:DB:37:C:O2'	29:DE:45:ALA:HA	2.01	0.59
23:DB:247:G:H4'	23:DB:386:G:C5	2.37	0.59
40:DH:1:MET:O	40:DH:20:ASN:HA	2.02	0.59
44:DQ:63:ARG:HH12	44:DQ:96:ASP:CA	2.12	0.59
35:DV:24:ASN:HB3	35:DV:44:HIS:HB3	1.82	0.59
52:DW:23:LYS:HZ3	52:DW:24:ARG:HG3	1.66	0.59
51:DZ:66:THR:O	51:DZ:69:ALA:HB3	2.01	0.59
20:AB:195:VAL:HG12	20:AB:197:PHE:H	1.68	0.59
2:AC:76:ILE:HA	2:AC:83:VAL:HB	1.85	0.59
3:AD:146:GLU:HB3	3:AD:149:LYS:HE3	1.84	0.59
13:AN:9:GLU:OE2	13:AN:60:ARG:HG2	2.02	0.59
23:BB:1197:G:H2'	23:BB:1198:U:C6	2.37	0.59
23:BB:1301:A:O2'	23:BB:1302:A:H2'	2.01	0.59
23:BB:144:A:H2'	23:BB:145:C:H6	1.66	0.59
23:BB:2728:U:H2'	23:BB:2729:G:C8	2.37	0.59
23:BB:2896:C:H2'	23:BB:2897:U:C6	2.38	0.59
47:BF:103:ILE:HD11	47:BF:174:PHE:HA	1.84	0.59
48:BG:42:VAL:HA	48:BG:50:THR:O	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BH:84:ALA:HA	40:BH:89:LYS:O	2.03	0.59
24:BI:27:LEU:CD2	24:BI:27:LEU:H	2.14	0.59
44:BQ:9:ALA:C	44:BQ:11:ALA:H	2.06	0.59
50:BT:73:ARG:NH2	50:BT:73:ARG:HB3	2.15	0.59
1:CA:336:A:O2'	1:CA:337:G:H5'	2.02	0.59
1:CA:423:G:H2'	1:CA:424:G:O4'	2.02	0.59
20:CB:43:GLU:O	20:CB:47:PRO:HG2	2.02	0.59
2:CC:39:ARG:HE	2:CC:54:ILE:HG23	1.68	0.59
4:CE:55:VAL:N	4:CE:56:PRO:HD2	2.16	0.59
6:CG:45:ALA:HB2	6:CG:116:ALA:O	2.03	0.59
8:CI:126:PHE:HE1	8:CI:129:ARG:HG2	1.67	0.59
12:CM:28:ARG:CZ	12:CM:62:PHE:HB2	2.33	0.59
15:CP:57:ILE:O	15:CP:61:VAL:HG23	2.01	0.59
23:DB:1873:G:O2'	23:DB:1874:C:H5'	2.01	0.59
23:DB:2728:U:H2'	23:DB:2729:G:C8	2.37	0.59
47:DF:168:LEU:HD13	47:DF:169:LEU:N	2.17	0.59
48:DG:24:THR:C	48:DG:25:ILE:HD12	2.23	0.59
48:DG:34:ARG:HH11	48:DG:34:ARG:HG2	1.68	0.59
24:DI:112:LYS:O	24:DI:116:MET:HG3	2.02	0.59
38:DM:4:PRO:HG2	38:DM:70:ASP:HA	1.84	0.59
45:DS:15:GLN:O	45:DS:19:LEU:HB2	2.03	0.59
50:DT:54:GLU:HB3	50:DT:88:LYS:HB2	1.85	0.59
1:AA:1074:G:H2'	1:AA:1075:U:H6	1.67	0.59
1:AA:1225:A:H3'	1:AA:1226:C:C6	2.38	0.59
1:AA:502:A:H2'	1:AA:503:C:H6	1.67	0.59
1:AA:706:A:H4'	10:AK:30:ILE:HD11	1.84	0.59
4:AE:55:VAL:N	4:AE:56:PRO:HD2	2.16	0.59
5:AF:3:HIS:NE2	5:AF:65:GLU:HG3	2.17	0.59
11:AL:43:LYS:HB2	11:AL:44:PRO:HD3	1.84	0.59
13:AN:50:LEU:N	13:AN:51:PRO:HD2	2.17	0.59
1:AA:1313:U:OP1	18:AS:6:LYS:HD3	2.02	0.59
34:B3:41:ARG:HG3	34:B3:44:ARG:NH2	2.16	0.59
23:BB:247:G:H4'	23:BB:386:G:C5	2.37	0.59
23:BB:934:U:H2'	23:BB:935:C:C6	2.37	0.59
40:BH:99:ILE:HD12	40:BH:144:VAL:HG21	1.83	0.59
38:BM:110:GLU:O	38:BM:114:ARG:HB2	2.02	0.59
46:BU:81:ARG:HB2	46:BU:96:LYS:HG2	1.82	0.59
35:BV:80:HIS:CD2	35:BV:83:LYS:HB2	2.36	0.59
39:BX:29:ARG:HH12	50:BT:12:ARG:CA	2.10	0.59
1:CA:763:G:H2'	1:CA:764:C:C6	2.37	0.59
20:CB:202:ASN:C	20:CB:202:ASN:HD22	2.05	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CE:106:ALA:HB1	4:CE:110:MET:HB3	1.85	0.59
8:CI:120:ALA:O	8:CI:121:ARG:HG2	2.03	0.59
18:CS:28:LYS:HB2	18:CS:29:PRO:HD2	1.84	0.59
18:CS:6:LYS:HD3	1:CA:1313:U:OP1	2.02	0.59
23:DB:1488:C:O2'	23:DB:1489:C:H5'	2.01	0.59
23:DB:2037:A:H2'	23:DB:2038:G:C8	2.37	0.59
23:DB:455:C:N3	23:DB:472:A:H2'	2.17	0.59
23:DB:62:U:H3'	23:DB:63:A:H8	1.65	0.59
25:DC:121:ALA:HB3	25:DC:129:LEU:HD11	1.85	0.59
47:DF:58:ALA:HB2	47:DF:140:ILE:HG13	1.83	0.59
47:DF:65:LEU:HD23	47:DF:87:LYS:HD2	1.84	0.59
40:DH:58:LEU:HA	40:DH:61:VAL:HB	1.84	0.59
42:DN:41:ALA:C	42:DN:43:GLU:H	2.05	0.59
39:DX:15:ASN:O	39:DX:19:LEU:HD13	2.01	0.59
20:AB:55:GLU:HG3	20:AB:197:PHE:CZ	2.37	0.59
2:AC:63:ILE:HD12	2:AC:98:ALA:HB2	1.84	0.59
7:AH:8:ASP:OD1	7:AH:12:ARG:HD2	2.02	0.59
12:AM:28:ARG:NH2	12:AM:62:PHE:HB2	2.16	0.59
21:AU:34:ARG:HD3	21:AU:39:LYS:HZ1	1.67	0.59
53:B6:75:ALA:O	53:B6:79:ILE:HD12	2.02	0.59
23:BB:1918:A:H5''	23:BB:1919:A:OP1	2.02	0.59
23:BB:2394:C:OP1	37:BL:63:LYS:HG2	2.03	0.59
23:BB:264:C:C2'	23:BB:265:A:H5''	2.32	0.59
23:BB:2666:C:O4'	23:BB:2666:C:O2	2.19	0.59
23:BB:273:G:O2'	23:BB:274:C:H5'	2.03	0.59
23:BB:2893:A:H4'	23:BB:2894:G:H5'	1.84	0.59
25:BC:107:LYS:O	25:BC:109:LEU:HD22	2.02	0.59
29:BE:171:ASP:CG	29:BE:172:ALA:H	2.06	0.59
27:BK:41:ILE:HG13	27:BK:42:THR:N	2.17	0.59
38:BM:126:ILE:H	38:BM:126:ILE:HD12	1.67	0.59
52:BW:51:GLY:HA3	52:BW:59:PHE:CB	2.32	0.59
39:BX:49:ASP:O	39:BX:53:VAL:HG23	2.01	0.59
1:CA:1225:A:H3'	1:CA:1226:C:C6	2.37	0.59
1:CA:188:C:H2'	1:CA:189:A:O4'	2.01	0.59
2:CC:63:ILE:HD12	2:CC:98:ALA:HB2	1.84	0.59
3:CD:153:ARG:HG3	3:CD:154:VAL:N	2.17	0.59
12:CM:28:ARG:NH2	12:CM:62:PHE:HB2	2.17	0.59
12:CM:47:LEU:HB3	12:CM:52:ILE:HD11	1.83	0.59
23:DB:1285:A:H2'	23:DB:1286:A:H5''	1.84	0.59
23:DB:2184:A:H2'	23:DB:2185:U:C6	2.37	0.59
23:DB:2229:U:H2'	23:DB:2230:G:H8	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:947:A:HO2'	23:DB:984:A:H2	1.48	0.59
26:DD:51:THR:HG21	26:DD:76:GLY:HA3	1.83	0.59
41:DJ:3:THR:HB	41:DJ:44:TYR:CE1	2.37	0.59
42:DN:55:ALA:HB1	42:DN:80:PHE:H	1.67	0.59
49:DR:68:ARG:NH1	49:DR:90:ARG:HG2	2.18	0.59
46:DU:14:THR:O	46:DU:18:LYS:HA	2.02	0.59
2:AC:39:ARG:HE	2:AC:54:ILE:HG23	1.67	0.59
3:AD:58:GLN:O	3:AD:62:ARG:HG2	2.02	0.59
6:AG:142:ARG:HB2	6:AG:142:ARG:NH1	2.16	0.59
6:AG:87:PRO:HG2	6:AG:151:ALA:HB2	1.85	0.59
9:AJ:66:GLU:HB3	13:AN:98:ALA:HB2	1.85	0.59
10:AK:82:GLU:HG2	10:AK:108:ASN:HB2	1.84	0.59
53:B6:44:GLU:HB2	53:B6:49:HIS:ND1	2.17	0.59
23:BB:1274:A:N3	23:BB:1297:C:H1'	2.18	0.59
23:BB:2106:U:H2'	23:BB:2107:G:O4'	2.02	0.59
23:BB:2134:A:N1	23:BB:2157:G:H4'	2.17	0.59
25:BC:159:THR:O	25:BC:194:VAL:HG12	2.01	0.59
29:BE:15:SER:O	29:BE:19:PHE:HB2	2.02	0.59
40:BH:5:LEU:O	40:BH:6:LEU:HD12	2.03	0.59
24:BI:91:LYS:HB2	24:BI:94:LYS:HD2	1.83	0.59
37:BL:124:GLY:H	37:BL:143:GLU:HG3	1.65	0.59
38:BM:4:PRO:HG2	38:BM:70:ASP:HA	1.84	0.59
43:BO:51:ALA:HB3	43:BO:78:VAL:CG2	2.28	0.59
44:BQ:96:ASP:C	44:BQ:98:ALA:H	2.05	0.59
52:BW:18:LYS:HG3	52:BW:19:ARG:NE	2.17	0.59
30:BY:40:THR:O	30:BY:43:ILE:HG23	2.02	0.59
1:CA:162:A:H2'	1:CA:163:C:O4'	2.02	0.59
1:CA:21:G:H2'	1:CA:22:G:C8	2.38	0.59
9:CJ:37:ARG:NE	9:CJ:37:ARG:HA	2.17	0.59
11:CL:113:ARG:HG2	11:CL:118:VAL:HB	1.84	0.59
19:CT:38:ILE:O	19:CT:38:ILE:HD13	2.02	0.59
23:DB:1230:A:H2'	23:DB:1231:U:C6	2.37	0.59
23:DB:2008:C:H2'	23:DB:2009:A:H8	1.67	0.59
23:DB:2246:G:H2'	23:DB:2247:A:C8	2.37	0.59
23:DB:264:C:C2'	23:DB:265:A:H5''	2.32	0.59
23:DB:416:U:H2'	23:DB:417:C:C6	2.38	0.59
23:DB:813:U:H2'	23:DB:814:C:C6	2.37	0.59
47:DF:102:LEU:O	47:DF:103:ILE:HG22	2.02	0.59
47:DF:40:GLY:HA2	47:DF:84:ILE:HG13	1.83	0.59
24:DI:125:THR:O	24:DI:129:GLU:HG3	2.02	0.59
49:DR:25:LEU:H	49:DR:94:THR:HG21	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DR:39:LEU:HA	49:DR:49:ILE:HG21	1.84	0.59
44:DQ:43:GLN:HE21	49:DR:77:PHE:HB3	1.67	0.59
1:AA:92:U:H2'	1:AA:93:U:C6	2.38	0.59
20:AB:27:LYS:HA	20:AB:30:ILE:HD12	1.83	0.59
1:AA:1057:G:H5''	2:AC:153:SER:HB2	1.84	0.59
21:AU:16:ARG:HH12	21:AU:19:LYS:CE	2.16	0.59
23:BB:2182:U:H2'	23:BB:2183:A:O4'	2.01	0.59
23:BB:2240:U:O2'	23:BB:2241:A:H5'	2.03	0.59
23:BB:2298:A:H2'	23:BB:2299:U:O4'	2.03	0.59
25:BC:202:ARG:NH2	25:BC:202:ARG:HB2	2.17	0.59
41:BJ:123:LYS:O	41:BJ:124:VAL:HG13	2.03	0.59
27:BK:15:GLY:HA3	27:BK:52:VAL:HG23	1.83	0.59
27:BK:64:ARG:HD2	27:BK:102:PRO:O	2.03	0.59
35:BV:9:ARG:HD2	35:BV:41:GLU:HB3	1.84	0.59
35:BV:72:VAL:HB	35:BV:92:VAL:O	2.02	0.59
39:BX:15:ASN:O	39:BX:19:LEU:HD13	2.03	0.59
30:BY:6:ILE:O	30:BY:34:THR:HA	2.02	0.59
2:CC:121:SER:HB3	2:CC:125:ARG:HH12	1.67	0.59
13:CN:5:MET:O	13:CN:8:ARG:HB2	2.03	0.59
16:CQ:60:ILE:HA	16:CQ:75:VAL:HG13	1.84	0.59
53:D6:37:LEU:O	53:D6:41:LEU:HD11	2.03	0.59
23:DB:1047:G:H1'	23:DB:1110:G:N2	2.18	0.59
23:DB:2895:G:H2'	23:DB:2896:C:C6	2.36	0.59
26:DD:157:LYS:NZ	26:DD:157:LYS:HB3	2.18	0.59
26:DD:49:GLN:HE22	26:DD:67:HIS:HE1	1.50	0.59
47:DF:137:PHE:O	47:DF:139:GLU:N	2.35	0.59
47:DF:162:ASP:O	47:DF:166:ARG:HD2	2.03	0.59
45:DS:69:LEU:HG	45:DS:107:VAL:HG22	1.82	0.59
45:DS:83:LYS:HD3	45:DS:97:LEU:HD12	1.85	0.59
1:AA:1018:G:H2'	1:AA:1019:A:C8	2.38	0.59
1:AA:1469:C:H2'	1:AA:1470:U:O4'	2.02	0.59
1:AA:382:A:H2'	1:AA:383:A:C8	2.36	0.59
12:AM:7:ASN:HD22	12:AM:7:ASN:H	1.49	0.59
53:B6:68:VAL:O	53:B6:98:ALA:HA	2.03	0.59
23:BB:1021:A:H62	23:BB:1141:U:H3	1.49	0.59
23:BB:1287:A:H3'	23:BB:1288:G:N2	2.17	0.59
23:BB:1549:A:H2'	23:BB:1550:C:C6	2.38	0.59
23:BB:2376:A:H2'	23:BB:2377:A:O4'	2.02	0.59
23:BB:2860:A:O5'	23:BB:2860:A:H8	1.86	0.59
23:BB:643:A:C4	33:B1:43:ARG:HD2	2.37	0.59
47:BF:137:PHE:O	47:BF:139:GLU:N	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BH:79:THR:HB	40:BH:145:ASN:HB2	1.85	0.59
27:BK:109:SER:HB2	27:BK:111:LYS:HZ1	1.67	0.59
44:BQ:109:VAL:HG12	44:BQ:113:LYS:HE3	1.84	0.59
50:BT:10:VAL:HG21	50:BT:42:GLU:HG3	1.84	0.59
52:BW:23:LYS:HD2	52:BW:24:ARG:N	2.18	0.59
52:BW:46:ALA:HB2	52:BW:78:PHE:CD1	2.38	0.59
1:CA:69:G:H2'	1:CA:70:U:C6	2.38	0.59
5:CF:88:MET:HE3	17:CR:60:ARG:HD3	1.84	0.59
7:CH:110:MET:HG3	7:CH:115:ALA:HB2	1.84	0.59
7:CH:124:ILE:HG22	7:CH:125:ILE:N	2.18	0.59
23:DB:1545:A:H2'	23:DB:1546:G:O4'	2.03	0.59
23:DB:2144:G:H2'	23:DB:2146:C:P	2.42	0.59
23:DB:2734:A:H2'	23:DB:2735:G:O4'	2.02	0.59
23:DB:414:C:H2'	23:DB:415:A:H8	1.68	0.59
23:DB:1790:C:O2'	25:DC:207:ALA:HB2	2.03	0.59
27:DK:14:SER:HB2	27:DK:51:LYS:N	2.17	0.59
27:DK:54:LYS:H	27:DK:54:LYS:HD2	1.67	0.59
1:AA:1006:G:H2'	1:AA:1007:U:H6	1.67	0.59
2:AC:121:SER:HB3	2:AC:125:ARG:HH12	1.67	0.59
9:AJ:59:LYS:HG3	9:AJ:60:ASP:N	2.17	0.59
10:AK:51:PHE:CZ	10:AK:61:ALA:HA	2.38	0.59
12:AM:100:ARG:HH11	12:AM:103:THR:HB	1.68	0.59
53:B6:77:LYS:HE2	53:B6:94:ASN:ND2	2.16	0.59
22:BA:107:G:O2'	22:BA:108:A:H5'	2.03	0.59
23:BB:1082:U:C2	23:BB:1086:A:C6	2.91	0.59
23:BB:1198:U:O2'	44:BQ:3:VAL:HG13	2.02	0.59
23:BB:1714:U:H3'	23:BB:1715:G:C5'	2.32	0.59
25:BC:93:VAL:HG21	25:BC:115:ILE:HD11	1.83	0.59
26:BD:204:LYS:HB2	26:BD:205:PRO:HD2	1.85	0.59
48:BG:25:ILE:O	48:BG:32:LEU:HA	2.03	0.59
48:BG:7:PRO:O	48:BG:8:VAL:HB	2.03	0.59
40:BH:7:ASP:CG	40:BH:8:LYS:H	2.05	0.59
41:BJ:43:GLU:O	41:BJ:45:THR:N	2.36	0.59
42:BN:96:ARG:HH11	42:BN:116:VAL:HG23	1.66	0.59
28:BP:92:ARG:HH11	28:BP:92:ARG:HG3	1.67	0.59
45:BS:83:LYS:HD3	45:BS:97:LEU:HD12	1.83	0.59
1:CA:824:G:O2'	1:CA:825:A:H5'	2.03	0.59
4:CE:149:PRO:HG2	4:CE:150:GLU:OE1	2.03	0.59
7:CH:80:PRO:HG2	1:CA:878:A:H5''	1.85	0.59
9:CJ:28:THR:HG21	9:CJ:90:LEU:HD22	1.83	0.59
10:CK:51:PHE:CZ	10:CK:61:ALA:HA	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CM:22:TYR:HB3	12:CM:69:ARG:NH2	2.18	0.59
13:CN:50:LEU:N	13:CN:51:PRO:HD2	2.17	0.59
23:DB:181:A:H2'	23:DB:182:A:H8	1.68	0.59
23:DB:2061:G:H5''	23:DB:2503:A:C2	2.38	0.59
23:DB:2143:C:H2'	23:DB:2144:G:C4'	2.32	0.59
23:DB:2537:U:H2'	23:DB:2538:C:C6	2.37	0.59
23:DB:2774:C:H2'	23:DB:2775:G:O4'	2.03	0.59
23:DB:2860:A:H8	23:DB:2860:A:O5'	1.86	0.59
47:DF:102:LEU:HD22	47:DF:103:ILE:N	2.18	0.59
44:DQ:51:GLN:O	44:DQ:55:GLN:HG3	2.03	0.59
52:DW:39:GLN:CG	52:DW:42:THR:HB	2.31	0.59
1:AA:1132:C:H2'	1:AA:1133:G:H8	1.68	0.59
20:AB:45:THR:HG22	20:AB:49:PHE:CZ	2.37	0.59
2:AC:26:LYS:HG3	2:AC:27:GLU:N	2.18	0.59
2:AC:72:PRO:O	2:AC:76:ILE:HG12	2.03	0.59
7:AH:65:PHE:HE2	7:AH:66:GLN:HE21	1.50	0.59
23:BB:1259:G:H2'	23:BB:1260:A:H8	1.68	0.59
23:BB:139:U:C2	50:BT:1:MET:HB3	2.38	0.59
23:BB:145:C:H2'	23:BB:146:A:C8	2.37	0.59
23:BB:1870:C:H5''	23:BB:1871:A:C6	2.38	0.59
23:BB:280:U:H2'	23:BB:281:C:C6	2.38	0.59
23:BB:300:A:H2'	23:BB:334:C:H1'	1.85	0.59
23:BB:910:A:H2'	23:BB:911:A:C8	2.38	0.59
29:BE:49:ARG:O	29:BE:74:LYS:HD3	2.02	0.59
47:BF:115:GLY:CA	47:BF:177:ARG:HH11	2.16	0.59
40:BH:59:ALA:HA	40:BH:62:LEU:HD21	1.84	0.59
27:BK:113:MET:SD	27:BK:116:ILE:HD11	2.43	0.59
23:BB:1666:G:H4'	27:BK:6:THR:HG23	1.85	0.59
46:BU:26:ASN:ND2	46:BU:34:ILE:HD12	2.18	0.59
52:BW:39:GLN:CG	52:BW:42:THR:HB	2.31	0.59
51:BZ:66:THR:O	51:BZ:69:ALA:HB3	2.03	0.59
1:CA:57:G:H2'	1:CA:58:C:C6	2.37	0.59
1:CA:923:A:H2'	1:CA:924:C:C6	2.38	0.59
1:CA:996:A:H2'	1:CA:997:U:C6	2.38	0.59
2:CC:14:VAL:O	2:CC:15:LYS:HD2	2.03	0.59
18:CS:65:MET:HG3	18:CS:73:PHE:CZ	2.37	0.59
33:D1:32:LYS:HA	33:D1:51:ALA:O	2.02	0.59
23:DB:1400:U:H2'	23:DB:1401:G:C8	2.38	0.59
23:DB:1723:G:H3'	23:DB:1724:G:H8	1.68	0.59
23:DB:2666:C:O4'	23:DB:2666:C:O2	2.19	0.59
23:DB:2896:C:H2'	23:DB:2897:U:C6	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:352:A:H3'	23:DB:353:C:H6	1.68	0.59
23:DB:580:U:O2'	23:DB:581:C:H5'	2.02	0.59
26:DD:178:VAL:HB	26:DD:188:LEU:HB2	1.85	0.59
40:DH:119:ASN:HD21	40:DH:121:VAL:CG1	2.16	0.59
38:DM:75:GLU:HG3	38:DM:90:GLU:HB2	1.85	0.59
44:DQ:30:VAL:HG13	44:DQ:31:TYR:N	2.16	0.59
50:DT:39:THR:CG2	50:DT:42:GLU:H	2.16	0.59
35:DV:80:HIS:CD2	35:DV:83:LYS:HB2	2.37	0.59
1:AA:1060:U:C4'	9:AJ:54:SER:HB2	2.29	0.58
1:AA:285:C:H2'	1:AA:286:C:C6	2.38	0.58
2:AC:179:ALA:HB3	2:AC:181:ILE:HD11	1.85	0.58
3:AD:116:LEU:HD21	3:AD:153:ARG:HD2	1.85	0.58
13:AN:5:MET:O	13:AN:8:ARG:HB2	2.03	0.58
53:B6:14:MET:HB3	53:B6:168:PHE:CD2	2.37	0.58
23:BB:2246:G:H2'	23:BB:2247:A:C8	2.37	0.58
47:BF:78:ILE:H	47:BF:79:ARG:NH1	2.01	0.58
45:BS:69:LEU:HG	45:BS:107:VAL:HG22	1.84	0.58
1:CA:1143:G:H2'	1:CA:1144:G:H8	1.67	0.58
1:CA:745:G:H2'	1:CA:746:A:O4'	2.03	0.58
1:CA:918:A:H2'	1:CA:919:A:C8	2.38	0.58
2:CC:8:GLY:HA2	2:CC:11:LEU:HG	1.84	0.58
3:CD:24:VAL:HG12	3:CD:160:LEU:HB3	1.85	0.58
8:CI:29:ILE:HG12	8:CI:64:ILE:HD13	1.83	0.58
16:CQ:77:VAL:HG12	16:CQ:79:GLU:H	1.68	0.58
10:CK:113:THR:HG21	21:CU:28:LEU:HD11	1.85	0.58
23:DB:1082:U:C2	23:DB:1086:A:C6	2.90	0.58
23:DB:1139:G:O2'	23:DB:1140:C:H5'	2.03	0.58
23:DB:2800:A:H2'	23:DB:2801:G:C1'	2.33	0.58
26:DD:182:ALA:O	26:DD:184:ARG:N	2.36	0.58
48:DG:17:LYS:HA	48:DG:17:LYS:NZ	2.18	0.58
40:DH:75:LEU:H	40:DH:75:LEU:HD23	1.68	0.58
23:DB:1099:G:O5'	24:DI:4:VAL:HG12	2.03	0.58
41:DJ:123:LYS:O	41:DJ:124:VAL:HG13	2.03	0.58
28:DP:4:ILE:CG2	28:DP:5:LYS:H	2.11	0.58
28:DP:61:ARG:HH21	28:DP:61:ARG:HB3	1.68	0.58
39:DX:20:ASN:O	39:DX:24:GLU:HB3	2.02	0.58
1:AA:162:A:H2'	1:AA:163:C:O4'	2.03	0.58
1:AA:98:A:H2'	1:AA:99:C:C6	2.38	0.58
20:AB:96:LEU:HB2	20:AB:99:MET:HE3	1.84	0.58
5:AF:62:MET:HG3	5:AF:64:VAL:HG23	1.85	0.58
11:AL:54:VAL:HG11	11:AL:79:ILE:HD11	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AQ:60:ILE:HA	16:AQ:75:VAL:HG13	1.84	0.58
23:BB:1176:U:H2'	23:BB:1177:G:O4'	2.04	0.58
23:BB:1299:G:H4'	23:BB:1301:A:H1'	1.85	0.58
23:BB:699:A:H2'	23:BB:700:G:O4'	2.03	0.58
29:BE:27:LEU:O	29:BE:31:VAL:HG23	2.03	0.58
48:BG:10:VAL:CG2	48:BG:16:VAL:HG21	2.33	0.58
41:BJ:81:ILE:HG23	41:BJ:82:GLY:N	2.10	0.58
27:BK:35:VAL:HG23	27:BK:36:GLY:N	2.13	0.58
16:CQ:64:ARG:HD2	1:CA:264:C:O2'	2.03	0.58
1:CA:502:A:H2'	1:CA:503:C:C6	2.38	0.58
20:CB:130:LYS:HA	20:CB:133:ALA:HB3	1.85	0.58
13:CN:25:GLU:O	13:CN:29:ILE:HG13	2.03	0.58
23:DB:1164:C:H2'	23:DB:1165:A:H8	1.66	0.58
23:DB:151:C:H2'	23:DB:152:A:C8	2.38	0.58
23:DB:182:A:H2'	23:DB:183:C:C6	2.39	0.58
23:DB:2537:U:H2'	23:DB:2538:C:H6	1.69	0.58
48:DG:17:LYS:HB3	48:DG:24:THR:OG1	2.03	0.58
41:DJ:6:ALA:HB3	41:DJ:45:THR:CG2	2.33	0.58
28:DP:19:PHE:HE2	28:DP:25:VAL:HG11	1.67	0.58
49:DR:43:ASN:ND2	49:DR:45:GLU:H	2.02	0.58
50:DT:13:ALA:O	50:DT:32:LEU:HB2	2.02	0.58
30:DY:50:VAL:O	30:DY:54:VAL:HG22	2.03	0.58
1:AA:1171:A:H2'	1:AA:1172:C:H6	1.67	0.58
1:AA:1527:U:H2'	1:AA:1528:U:C6	2.39	0.58
2:AC:14:VAL:O	2:AC:15:LYS:HD2	2.03	0.58
3:AD:165:GLU:HG3	3:AD:166:LYS:N	2.18	0.58
5:AF:29:ILE:HD13	5:AF:64:VAL:HG11	1.85	0.58
8:AI:40:ARG:H	8:AI:44:ARG:HD3	1.67	0.58
1:AA:264:C:O2'	16:AQ:64:ARG:HD2	2.03	0.58
19:AT:38:ILE:HD13	19:AT:38:ILE:O	2.03	0.58
23:BB:1285:A:H2'	23:BB:1286:A:H5''	1.85	0.58
23:BB:1684:G:H2'	23:BB:1685:C:H6	1.67	0.58
23:BB:2037:A:H2'	23:BB:2038:G:C8	2.38	0.58
23:BB:2649:C:H2'	23:BB:2650:U:C6	2.39	0.58
26:BD:124:ARG:HG3	26:BD:124:ARG:O	2.02	0.58
41:BJ:25:LEU:HD22	41:BJ:26:GLY:N	2.17	0.58
37:BL:122:VAL:HG23	37:BL:143:GLU:OE1	2.03	0.58
37:BL:78:ARG:HG3	37:BL:81:ASP:OD2	2.02	0.58
38:BM:58:LYS:HB2	38:BM:60:GLN:HE21	1.68	0.58
45:BS:27:LYS:O	45:BS:32:ALA:HB2	2.03	0.58
39:BX:46:VAL:O	39:BX:50:VAL:HG23	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1018:G:H2'	1:CA:1019:A:C8	2.39	0.58
1:CA:1143:G:H2'	1:CA:1144:G:C8	2.37	0.58
1:CA:1162:C:H2'	1:CA:1163:A:C8	2.38	0.58
1:CA:382:A:H2'	1:CA:383:A:C8	2.39	0.58
2:CC:13:ILE:H	2:CC:13:ILE:HD13	1.67	0.58
2:CC:149:LYS:HG3	2:CC:168:ARG:HB2	1.85	0.58
6:CG:21:LEU:H	6:CG:21:LEU:HD23	1.68	0.58
8:CI:36:GLN:N	8:CI:36:GLN:HE21	2.02	0.58
21:CU:34:ARG:HD3	21:CU:39:LYS:HZ1	1.68	0.58
22:DA:48:U:H2'	22:DA:49:C:C6	2.37	0.58
22:DA:32:U:H4'	22:DA:52:A:N6	2.18	0.58
23:DB:1558:C:H4'	23:DB:1559:U:H5''	1.85	0.58
23:DB:2145:C:H3'	23:DB:2146:C:C5'	2.33	0.58
23:DB:2301:C:H2'	23:DB:2302:U:H6	1.68	0.58
23:DB:2415:G:C4'	37:DL:66:PHE:HB2	2.33	0.58
29:DE:15:SER:O	29:DE:19:PHE:HB2	2.04	0.58
29:DE:49:ARG:O	29:DE:74:LYS:HD3	2.04	0.58
47:DF:37:MET:HB2	47:DF:151:LEU:HB2	1.85	0.58
47:DF:103:ILE:HD11	47:DF:174:PHE:HA	1.85	0.58
45:DS:27:LYS:O	45:DS:32:ALA:HB2	2.03	0.58
52:DW:37:VAL:HG12	52:DW:38:ARG:HD3	1.86	0.58
1:AA:1342:C:H2'	1:AA:1343:G:C8	2.38	0.58
1:AA:370:C:O2'	1:AA:371:A:H5'	2.04	0.58
1:AA:373:A:H1'	1:AA:481:G:H1'	1.86	0.58
1:AA:796:C:H2'	1:AA:797:C:H6	1.68	0.58
1:AA:996:A:H2'	1:AA:997:U:C6	2.38	0.58
20:AB:40:ILE:HG21	20:AB:200:PRO:O	2.03	0.58
5:AF:43:GLY:HA2	5:AF:58:HIS:NE2	2.18	0.58
8:AI:29:ILE:HG12	8:AI:64:ILE:HB	1.84	0.58
13:AN:5:MET:SD	13:AN:8:ARG:HD2	2.44	0.58
18:AS:28:LYS:HB2	18:AS:29:PRO:HD2	1.85	0.58
21:AU:36:PHE:CB	21:AU:40:PRO:HD3	2.28	0.58
23:BB:1199:U:H2'	23:BB:1200:C:C6	2.39	0.58
23:BB:1381:G:H1'	23:BB:1571:A:N1	2.17	0.58
23:BB:1582:C:H2'	23:BB:1583:A:O4'	2.04	0.58
23:BB:2302:U:H2'	23:BB:2303:G:H8	1.67	0.58
23:BB:2313:C:H2'	23:BB:2314:A:H8	1.68	0.58
23:BB:2895:G:H2'	23:BB:2896:C:C6	2.37	0.58
23:BB:704:G:C2'	23:BB:726:G:H22	2.16	0.58
23:BB:740:C:O2'	23:BB:741:U:H5'	2.03	0.58
23:BB:321:U:OP2	29:BE:130:LYS:HD3	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BH:81:ALA:HA	40:BH:147:VAL:H	1.68	0.58
42:BN:12:ARG:HG3	42:BN:13:ASN:N	2.18	0.58
23:BB:996:A:H4'	44:BQ:91:ARG:HD2	1.85	0.58
46:BU:5:ARG:HH22	46:BU:93:ARG:HD3	1.68	0.58
46:BU:81:ARG:HB2	46:BU:96:LYS:CG	2.33	0.58
35:BV:24:ASN:HB3	35:BV:44:HIS:HB3	1.84	0.58
51:BZ:70:GLU:O	51:BZ:72:ARG:N	2.36	0.58
1:CA:1478:U:H2'	1:CA:1479:C:C6	2.38	0.58
20:CB:33:ALA:HA	20:CB:37:VAL:O	2.03	0.58
8:CI:24:ASN:ND2	8:CI:25:GLY:H	2.02	0.58
12:CM:22:TYR:HD1	12:CM:65:GLU:HB3	1.68	0.58
12:CM:11:HIS:H	12:CM:45:SER:HB3	1.69	0.58
32:D4:16:ILE:HG13	32:D4:25:VAL:HG22	1.84	0.58
23:DB:145:C:H2'	23:DB:146:A:C8	2.38	0.58
23:DB:1709:U:H2'	23:DB:1710:G:C8	2.39	0.58
23:DB:1747:U:H2'	23:DB:1748:C:C6	2.39	0.58
23:DB:2052:A:OP1	26:DD:145:SER:HA	2.03	0.58
23:DB:2443:C:H2'	23:DB:2444:G:C8	2.38	0.58
23:DB:519:U:H4'	45:DS:73:LYS:NZ	2.17	0.58
29:DE:87:ALA:O	29:DE:88:ARG:HD3	2.02	0.58
47:DF:107:VAL:N	47:DF:108:PRO:CD	2.67	0.58
48:DG:7:PRO:O	48:DG:8:VAL:HB	2.03	0.58
23:DB:587:C:O2'	37:DL:19:LEU:HD13	2.02	0.58
37:DL:78:ARG:HG3	37:DL:81:ASP:OD2	2.03	0.58
43:DO:89:ASP:HA	43:DO:116:GLN:O	2.03	0.58
50:DT:57:VAL:HG13	50:DT:58:VAL:N	2.19	0.58
52:DW:18:LYS:HG3	52:DW:19:ARG:NE	2.18	0.58
52:DW:46:ALA:HB2	52:DW:78:PHE:CD1	2.38	0.58
7:AH:110:MET:HG3	7:AH:115:ALA:HB2	1.85	0.58
11:AL:56:LEU:HD21	11:AL:81:ILE:HG13	1.85	0.58
12:AM:28:ARG:CZ	12:AM:62:PHE:HB2	2.32	0.58
23:BB:1082:U:O4	23:BB:1086:A:C2	2.56	0.58
23:BB:1709:U:H2'	23:BB:1710:G:C8	2.38	0.58
23:BB:182:A:H2'	23:BB:183:C:C6	2.39	0.58
23:BB:2147:A:H3'	23:BB:2148:G:H5'	1.84	0.58
25:BC:128:THR:HA	25:BC:190:THR:HA	1.86	0.58
47:BF:107:VAL:N	47:BF:108:PRO:CD	2.67	0.58
47:BF:111:ARG:NH2	47:BF:113:PHE:HB2	2.17	0.58
48:BG:10:VAL:H	48:BG:47:ASN:HB2	1.67	0.58
48:BG:34:ARG:HD3	48:BG:34:ARG:N	2.18	0.58
24:BI:5:GLN:HG2	24:BI:6:ALA:N	2.18	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BJ:55:ILE:O	41:BJ:55:ILE:HG13	2.02	0.58
27:BK:71:ARG:HG3	27:BK:105:ARG:NH2	2.18	0.58
27:BK:118:LEU:O	27:BK:120:PRO:HD2	2.02	0.58
43:BO:58:ILE:HG22	43:BO:62:LEU:HD23	1.86	0.58
46:BU:85:ARG:HH11	46:BU:86:PHE:H	1.52	0.58
1:CA:1006:G:H2'	1:CA:1007:U:C6	2.39	0.58
1:CA:131:A:H2'	1:CA:132:C:C6	2.38	0.58
1:CA:1411:C:O2'	1:CA:1412:C:H5'	2.03	0.58
20:CB:87:ASP:HB2	20:CB:224:ARG:NH1	2.19	0.58
2:CC:119:ILE:O	2:CC:123:LEU:HG	2.03	0.58
2:CC:51:VAL:HA	2:CC:69:THR:HA	1.84	0.58
16:CQ:68:LYS:O	1:CA:254:G:OP1	2.21	0.58
23:DB:155:A:H2'	23:DB:156:A:C8	2.38	0.58
23:DB:1372:U:HO2'	23:DB:2212:A:H8	1.47	0.58
23:DB:2365:G:H4'	52:DW:59:PHE:CE1	2.38	0.58
24:DI:121:ILE:CD1	24:DI:121:ILE:H	2.14	0.58
45:DS:55:ILE:O	45:DS:59:GLU:HG2	2.04	0.58
1:AA:1226:C:O2'	1:AA:1227:A:H5'	2.04	0.58
1:AA:270:A:H2'	1:AA:271:C:H6	1.69	0.58
1:AA:72:A:N6	1:AA:98:A:H2	1.96	0.58
6:AG:43:TYR:O	6:AG:47:GLU:HB2	2.04	0.58
11:AL:113:ARG:HG2	11:AL:118:VAL:HB	1.86	0.58
23:BB:1056:G:H21	23:BB:1103:A:H62	1.51	0.58
23:BB:1796:U:H2'	23:BB:1797:G:H8	1.68	0.58
23:BB:2184:A:H2'	23:BB:2185:U:C6	2.38	0.58
23:BB:2774:C:H2'	23:BB:2775:G:O4'	2.03	0.58
37:BL:6:LEU:HD23	37:BL:6:LEU:H	1.68	0.58
49:BR:16:GLU:HA	49:BR:98:ILE:HG22	1.86	0.58
1:CA:1031:C:H4'	1:CA:1032:G:H5''	1.86	0.58
1:CA:1417:G:N2	1:CA:1482:G:H2'	2.18	0.58
1:CA:825:A:H2'	1:CA:826:C:H6	1.68	0.58
1:CA:950:U:H2'	1:CA:951:G:C8	2.39	0.58
3:CD:165:GLU:HG3	3:CD:166:LYS:N	2.19	0.58
3:CD:58:GLN:O	3:CD:62:ARG:HG2	2.03	0.58
22:DA:5:U:H2'	22:DA:6:G:H8	1.69	0.58
25:DC:141:HIS:HB3	25:DC:190:THR:OG1	2.04	0.58
25:DC:154:ALA:HB2	25:DC:161:VAL:HG23	1.85	0.58
48:DG:148:ARG:HD3	48:DG:152:ARG:CZ	2.34	0.58
24:DI:108:ILE:HG22	24:DI:128:ILE:HD13	1.85	0.58
38:DM:126:ILE:H	38:DM:126:ILE:HD12	1.68	0.58
28:DP:4:ILE:HA	28:DP:7:LEU:HD13	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DR:20:VAL:O	49:DR:96:VAL:HG22	2.04	0.58
1:AA:254:G:O2'	1:AA:255:G:H5'	2.03	0.58
20:AB:46:VAL:O	20:AB:49:PHE:HB2	2.03	0.58
20:AB:94:ARG:N	20:AB:94:ARG:HE	2.00	0.58
5:AF:29:ILE:HG21	5:AF:64:VAL:CG1	2.31	0.58
12:AM:42:VAL:HB	12:AM:47:LEU:CD2	2.34	0.58
12:AM:47:LEU:HB3	12:AM:52:ILE:CD1	2.34	0.58
11:AL:7:VAL:HG22	16:AQ:33:TYR:HD1	1.69	0.58
23:BB:1386:C:H2'	23:BB:1387:A:C8	2.38	0.58
23:BB:1684:G:H2'	23:BB:1685:C:C6	2.38	0.58
23:BB:2109:U:H2'	23:BB:2110:G:C5'	2.33	0.58
23:BB:2229:U:H2'	23:BB:2230:G:C8	2.37	0.58
23:BB:2301:C:H2'	23:BB:2302:U:H6	1.69	0.58
23:BB:91:A:H1'	23:BB:92:U:C6	2.38	0.58
25:BC:117:SER:HB3	25:BC:128:THR:HB	1.84	0.58
29:BE:87:ALA:O	29:BE:88:ARG:HD3	2.03	0.58
47:BF:102:LEU:HA	47:BF:106:ALA:HB3	1.84	0.58
47:BF:7:TYR:O	47:BF:11:VAL:HB	2.03	0.58
40:BH:49:ALA:O	40:BH:53:GLU:HB2	2.03	0.58
27:BK:15:GLY:HA2	27:BK:46:ALA:HA	1.84	0.58
38:BM:2:LEU:O	38:BM:69:PRO:HG3	2.03	0.58
42:BN:55:ALA:HB1	42:BN:80:PHE:H	1.69	0.58
28:BP:63:ILE:HA	28:BP:68:GLY:HA2	1.84	0.58
50:BT:34:VAL:HG11	50:BT:43:ILE:HD11	1.85	0.58
46:BU:14:THR:O	46:BU:18:LYS:HA	2.03	0.58
46:BU:51:LEU:H	46:BU:53:GLN:NE2	2.02	0.58
1:CA:1226:C:O2'	1:CA:1227:A:H5'	2.02	0.58
4:CE:24:VAL:HA	1:CA:922:G:H4'	1.86	0.58
20:CB:69:VAL:HB	20:CB:162:VAL:HB	1.86	0.58
15:CP:48:GLU:CG	15:CP:49:GLY:H	2.17	0.58
23:DB:2025:C:H2'	23:DB:2026:U:C6	2.39	0.58
23:DB:355:U:H2'	23:DB:356:G:C8	2.35	0.58
23:DB:805:G:OP2	37:DL:41:ARG:HD3	2.04	0.58
47:DF:103:ILE:H	47:DF:107:VAL:HG23	1.69	0.58
47:DF:58:ALA:CB	47:DF:139:GLU:HG2	2.34	0.58
47:DF:126:ASN:ND2	47:DF:156:THR:HA	2.14	0.58
40:DH:79:THR:HG22	40:DH:145:ASN:HB3	1.85	0.58
24:DI:71:LYS:HB3	24:DI:115:ASP:OD2	2.04	0.58
27:DK:64:ARG:HD2	27:DK:102:PRO:O	2.04	0.58
49:DR:72:VAL:CG2	49:DR:89:HIS:HB3	2.34	0.58
46:DU:26:ASN:N	46:DU:26:ASN:HD22	2.01	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:DZ:38:PHE:CE2	51:DZ:51:VAL:HG21	2.30	0.58
1:AA:1053:G:HO2'	1:AA:1199:U:H5	1.52	0.58
1:AA:1308:U:H2'	1:AA:1309:G:H8	1.68	0.58
1:AA:26:A:N6	1:AA:558:G:H1'	2.18	0.58
1:AA:335:C:H2'	1:AA:336:A:C8	2.38	0.58
20:AB:10:LYS:HB2	20:AB:211:LEU:HD21	1.86	0.58
3:AD:137:SER:HB3	3:AD:138:PRO:HD2	1.85	0.58
53:B6:66:LEU:O	53:B6:100:TYR:HA	2.04	0.58
53:B6:178:LYS:HA	53:B6:181:GLN:HG2	1.86	0.58
53:B6:42:LYS:HE2	53:B6:49:HIS:O	2.03	0.58
22:BA:49:C:H2'	22:BA:50:A:H8	1.69	0.58
23:BB:1515:A:H4'	23:BB:1556:C:O2'	2.03	0.58
23:BB:1805:A:N3	25:BC:49:THR:HG23	2.19	0.58
23:BB:2088:A:H2'	23:BB:2089:C:C6	2.39	0.58
23:BB:2804:U:H2'	23:BB:2805:C:H6	1.68	0.58
23:BB:857:G:C2'	23:BB:858:G:H5'	2.33	0.58
47:BF:2:LYS:CE	47:BF:100:GLU:HG2	2.34	0.58
47:BF:34:THR:O	47:BF:89:THR:HA	2.02	0.58
48:BG:157:LYS:HB3	48:BG:159:LYS:HG3	1.85	0.58
40:BH:57:LYS:O	40:BH:61:VAL:HG12	2.04	0.58
49:BR:68:ARG:NH1	49:BR:90:ARG:HG2	2.19	0.58
50:BT:57:VAL:HG13	50:BT:58:VAL:N	2.19	0.58
46:BU:35:VAL:HB	46:BU:38:ILE:HG21	1.85	0.58
1:CA:1152:A:H2'	1:CA:1153:G:H8	1.69	0.58
1:CA:1238:A:H2	1:CA:1241:G:N3	2.02	0.58
1:CA:1253:G:H2'	1:CA:1254:A:H8	1.67	0.58
1:CA:1413:A:O2'	1:CA:1414:U:H5'	2.04	0.58
1:CA:33:A:H2'	1:CA:34:C:H6	1.67	0.58
17:CR:37:LYS:HB2	1:CA:719:C:H1'	1.85	0.58
5:CF:22:ILE:O	5:CF:26:THR:HG23	2.03	0.58
34:D3:37:THR:HA	34:D3:40:LYS:HE2	1.84	0.58
53:D6:38:LEU:HD22	53:D6:83:ILE:HD12	1.86	0.58
23:DB:1315:C:O2'	23:DB:1316:U:H5'	2.04	0.58
23:DB:1923:U:H2'	23:DB:1924:C:H6	1.68	0.58
23:DB:2314:A:H2'	23:DB:2315:G:C8	2.39	0.58
23:DB:309:A:N3	23:DB:329:G:O2'	2.34	0.58
23:DB:546:U:H4'	23:DB:548:G:P	2.44	0.58
23:DB:802:A:H4'	56:DB:3289:HOH:O	2.03	0.58
26:DD:124:ARG:HG3	26:DD:124:ARG:O	2.03	0.58
48:DG:10:VAL:CG2	48:DG:16:VAL:HG21	2.33	0.58
28:DP:32:VAL:HA	28:DP:37:LYS:HA	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DK:78:ARG:HG3	28:DP:70:GLU:HB3	1.85	0.58
45:DS:55:ILE:O	45:DS:58:ALA:HB3	2.04	0.58
1:AA:285:C:H2'	1:AA:286:C:H6	1.69	0.58
13:AN:26:LEU:HG	13:AN:30:ILE:HD13	1.85	0.58
23:BB:1170:C:H2'	23:BB:1171:G:C8	2.39	0.58
23:BB:1198:U:H2'	23:BB:1199:U:C6	2.39	0.58
23:BB:1799:G:N2	23:BB:1818:U:O2'	2.37	0.58
23:BB:1935:G:H1'	23:BB:1964:G:N2	2.19	0.58
23:BB:2213:U:C2'	23:BB:2213:U:O2	2.51	0.58
23:BB:775:G:H4'	23:BB:776:G:H5'	1.86	0.58
23:BB:947:A:H2'	23:BB:948:C:C6	2.39	0.58
25:BC:242:HIS:O	25:BC:244:VAL:HG13	2.04	0.58
29:BE:181:ILE:HG12	37:BL:2:ARG:NH2	2.18	0.58
47:BF:62:GLN:HB3	47:BF:94:ARG:HH12	1.68	0.58
48:BG:145:ALA:HA	48:BG:148:ARG:HG3	1.85	0.58
27:BK:14:SER:HB2	27:BK:51:LYS:N	2.17	0.58
27:BK:54:LYS:H	27:BK:54:LYS:HD2	1.67	0.58
1:CA:26:A:N6	1:CA:558:G:H1'	2.19	0.58
4:CE:156:ARG:HA	4:CE:158:LYS:HZ2	1.67	0.58
13:CN:29:ILE:O	13:CN:32:ASP:HB3	2.03	0.58
53:D6:84:ARG:H	53:D6:84:ARG:HE	1.52	0.58
22:DA:52:A:H4'	22:DA:52:A:OP1	2.03	0.58
23:DB:1810:A:H2'	23:DB:1811:G:O4'	2.03	0.58
23:DB:82:U:H2'	23:DB:83:A:C8	2.38	0.58
25:DC:4:LYS:HD2	25:DC:5:CYS:H	1.69	0.58
26:DD:29:VAL:O	26:DD:185:ASN:HB3	2.04	0.58
29:DE:158:PHE:HA	29:DE:169:VAL:CG2	2.34	0.58
29:DE:160:ALA:C	29:DE:162:ARG:H	2.07	0.58
29:DE:176:ASP:OD1	29:DE:178:VAL:HG12	2.04	0.58
48:DG:157:LYS:HB3	48:DG:159:LYS:HG3	1.85	0.58
48:DG:10:VAL:HB	48:DG:47:ASN:HB2	1.85	0.58
43:DO:35:ILE:HG13	43:DO:71:ALA:HB2	1.86	0.58
44:DQ:9:ALA:C	44:DQ:11:ALA:H	2.07	0.58
46:DU:40:LEU:HA	46:DU:60:LYS:O	2.03	0.58
39:DX:31:GLN:HG2	39:DX:37:LEU:HB2	1.86	0.58
1:AA:372:C:H4'	1:AA:373:A:H5'	1.85	0.58
1:AA:636:U:H2'	1:AA:637:C:H6	1.68	0.58
1:AA:824:G:O2'	1:AA:825:A:H5'	2.04	0.58
20:AB:14:HIS:CD2	20:AB:202:ASN:H	2.22	0.58
7:AH:124:ILE:HG22	7:AH:125:ILE:N	2.19	0.58
14:AO:45:GLU:O	14:AO:46:HIS:HB2	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AR:58:ILE:O	17:AR:62:ARG:HG3	2.04	0.58
21:AU:27:VAL:O	21:AU:31:VAL:HG23	2.04	0.58
32:B4:27:CYS:SG	32:B4:33:HIS:ND1	2.77	0.58
53:B6:106:LEU:HD12	53:B6:107:THR:O	2.03	0.58
23:BB:1683:U:H2'	23:BB:1684:G:C8	2.39	0.58
23:BB:2869:G:H2'	23:BB:2870:C:C6	2.39	0.58
23:BB:455:C:N3	23:BB:472:A:H2'	2.18	0.58
23:BB:1568:G:H4'	25:BC:58:LYS:HB3	1.86	0.58
47:BF:37:MET:HB2	47:BF:151:LEU:HB2	1.86	0.58
48:BG:10:VAL:HB	48:BG:47:ASN:HB2	1.85	0.58
28:BP:94:ALA:C	28:BP:95:LYS:HD2	2.24	0.58
44:BQ:30:VAL:HG13	44:BQ:31:TYR:N	2.17	0.58
1:CA:1234:C:O2'	1:CA:1235:U:H5'	2.04	0.58
1:CA:1253:G:H2'	1:CA:1254:A:C8	2.38	0.58
1:CA:312:C:H2'	1:CA:313:A:H8	1.69	0.58
1:CA:559:A:H4'	1:CA:560:A:H3'	1.86	0.58
12:CM:69:ARG:O	12:CM:72:ILE:HG22	2.04	0.58
53:D6:1:MET:HB3	53:D6:143:LEU:HD21	1.86	0.58
23:DB:1515:A:H4'	23:DB:1556:C:O2'	2.04	0.58
23:DB:1549:A:H2'	23:DB:1550:C:C6	2.39	0.58
23:DB:1908:C:O2'	23:DB:1909:C:H5'	2.03	0.58
23:DB:91:A:H1'	23:DB:92:U:C6	2.39	0.58
26:DD:204:LYS:HB2	26:DD:205:PRO:HD2	1.85	0.58
47:DF:7:TYR:O	47:DF:11:VAL:HB	2.04	0.58
47:DF:115:GLY:CA	47:DF:177:ARG:HH11	2.16	0.58
24:DI:1:ALA:C	24:DI:2:LYS:HD2	2.25	0.58
24:DI:37:PHE:CZ	24:DI:58:ILE:HD11	2.39	0.58
38:DM:110:GLU:O	38:DM:114:ARG:HB2	2.03	0.58
1:AA:502:A:H2'	1:AA:503:C:C6	2.39	0.57
1:AA:512:U:H2'	1:AA:513:C:C6	2.39	0.57
20:AB:118:THR:HA	20:AB:121:GLN:HB3	1.86	0.57
3:AD:104:MET:SD	3:AD:179:GLY:HA3	2.43	0.57
12:AM:69:ARG:O	12:AM:72:ILE:HG22	2.04	0.57
1:AA:254:G:OP1	16:AQ:68:LYS:O	2.21	0.57
16:AQ:77:VAL:HG12	16:AQ:79:GLU:H	1.68	0.57
22:BA:35:C:H2'	22:BA:36:C:O4'	2.03	0.57
26:BD:59:ARG:HB3	26:BD:59:ARG:NH2	2.19	0.57
47:BF:40:GLY:HA2	47:BF:84:ILE:HG13	1.86	0.57
47:BF:78:ILE:HD11	47:BF:84:ILE:HD13	1.85	0.57
22:BA:43:C:C4'	47:BF:91:ARG:HD2	2.34	0.57
48:BG:53:PRO:HG3	48:BG:61:TRP:H	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BM:73:ILE:HG13	38:BM:93:VAL:HB	1.86	0.57
1:CA:512:U:H2'	1:CA:513:C:C6	2.39	0.57
1:CA:783:C:O2'	1:CA:784:A:H5'	2.04	0.57
4:CE:22:LYS:HD2	1:CA:1081:A:H5'	1.84	0.57
8:CI:18:VAL:HG11	8:CI:82:ILE:HG12	1.86	0.57
16:CQ:45:VAL:HG11	16:CQ:60:ILE:HG21	1.84	0.57
21:CU:23:GLU:HA	21:CU:27:VAL:HG21	1.86	0.57
53:D6:43:VAL:HG11	53:D6:79:ILE:HA	1.86	0.57
23:DB:1210:G:H5'	23:DB:1212:G:O4'	2.04	0.57
23:DB:1407:G:H2'	23:DB:1408:G:H8	1.68	0.57
23:DB:18:U:H2'	23:DB:19:A:H8	1.68	0.57
23:DB:688:U:O2'	23:DB:689:A:H5'	2.04	0.57
23:DB:969:G:H2'	23:DB:970:U:C6	2.38	0.57
41:DJ:43:GLU:O	41:DJ:45:THR:N	2.37	0.57
38:DM:134:THR:HG22	38:DM:136:MET:H	1.68	0.57
38:DM:42:THR:C	38:DM:44:ARG:H	2.07	0.57
49:DR:4:VAL:CG2	49:DR:39:LEU:HG	2.33	0.57
1:AA:1226:C:H4'	1:AA:1227:A:OP1	2.04	0.57
1:AA:1524:C:H2'	1:AA:1525:G:C8	2.38	0.57
2:AC:119:ILE:HG21	2:AC:197:VAL:HG11	1.84	0.57
4:AE:89:THR:HG21	4:AE:134:ASN:ND2	2.18	0.57
10:AK:33:ILE:HG12	10:AK:69:CYS:SG	2.44	0.57
23:BB:254:G:H22	34:B3:7:ARG:HH21	1.51	0.57
23:BB:118:A:H5'	23:BB:119:A:H8	1.68	0.57
23:BB:1597:A:C5'	23:BB:1598:A:H5'	2.33	0.57
23:BB:315:G:H2'	23:BB:316:C:C6	2.39	0.57
23:BB:414:C:H2'	23:BB:415:A:C8	2.39	0.57
26:BD:178:VAL:HB	26:BD:188:LEU:HB2	1.84	0.57
24:BI:105:LEU:HD11	24:BI:139:VAL:CG1	2.34	0.57
38:BM:42:THR:C	38:BM:44:ARG:H	2.07	0.57
38:BM:96:ILE:HD11	38:BM:126:ILE:CG1	2.34	0.57
42:BN:31:HIS:O	42:BN:33:ILE:HG13	2.04	0.57
43:BO:89:ASP:HA	43:BO:116:GLN:O	2.04	0.57
28:BP:32:VAL:HA	28:BP:37:LYS:HA	1.86	0.57
44:BQ:33:VAL:C	44:BQ:35:PHE:H	2.06	0.57
44:BQ:59:LEU:O	44:BQ:62:ALA:HB3	2.04	0.57
49:BR:38:VAL:HG13	49:BR:54:VAL:HG12	1.85	0.57
20:CB:10:LYS:HB2	20:CB:211:LEU:HD21	1.86	0.57
8:CI:56:MET:C	8:CI:58:GLU:H	2.06	0.57
12:CM:100:ARG:HH11	12:CM:103:THR:HB	1.69	0.57
33:D1:8:ILE:HG23	33:D1:51:ALA:HA	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:D6:43:VAL:HG21	53:D6:52:LEU:CD1	2.34	0.57
22:DA:43:C:C4'	47:DF:91:ARG:HD2	2.34	0.57
22:DA:75:G:H1'	35:DV:29:ILE:HG12	1.86	0.57
23:DB:1405:U:H2'	23:DB:1406:U:C6	2.39	0.57
23:DB:1714:U:H3'	23:DB:1715:G:C5'	2.33	0.57
23:DB:2213:U:O2	23:DB:2213:U:C2'	2.51	0.57
23:DB:2302:U:H2'	23:DB:2303:G:H8	1.70	0.57
23:DB:2352:A:N1	52:DW:30:VAL:HG11	2.19	0.57
23:DB:2591:C:H2'	23:DB:2592:G:H8	1.68	0.57
23:DB:281:C:H2'	23:DB:282:A:H8	1.69	0.57
47:DF:78:ILE:H	47:DF:79:ARG:NH1	2.02	0.57
38:DM:96:ILE:HD11	38:DM:126:ILE:CG1	2.34	0.57
38:DM:58:LYS:HB2	38:DM:60:GLN:HE21	1.69	0.57
43:DO:51:ALA:HB3	43:DO:78:VAL:CG2	2.29	0.57
50:DT:31:VAL:HA	50:DT:84:TYR:H	1.69	0.57
35:DV:61:LEU:HD11	35:DV:74:ALA:HB2	1.86	0.57
1:AA:1316:G:N2	1:AA:1318:A:H3'	2.18	0.57
1:AA:1463:U:H2'	1:AA:1464:U:C6	2.39	0.57
1:AA:590:U:H2'	1:AA:591:U:H6	1.69	0.57
1:AA:763:G:H2'	1:AA:764:C:C6	2.38	0.57
3:AD:170:LEU:HA	3:AD:182:LYS:HB2	1.86	0.57
12:AM:15:VAL:HG22	12:AM:40:GLU:HB3	1.85	0.57
23:BB:682:G:H5'	36:B2:26:ASN:CG	2.25	0.57
23:BB:1551:A:C3'	23:BB:1552:A:H5''	2.34	0.57
23:BB:1565:C:H5''	25:BC:17:LYS:HZ3	1.69	0.57
23:BB:155:A:H2'	23:BB:156:A:C8	2.39	0.57
23:BB:1923:U:H2'	23:BB:1924:C:C6	2.39	0.57
23:BB:2052:A:OP1	26:BD:145:SER:HA	2.03	0.57
23:BB:2314:A:H2'	23:BB:2315:G:C8	2.39	0.57
23:BB:2884:U:C2	31:B0:49:ARG:HG2	2.39	0.57
23:BB:643:A:H2'	23:BB:644:A:H8	1.68	0.57
23:BB:2073:C:H5''	25:BC:227:VAL:HG12	1.86	0.57
29:BE:97:ASN:HB2	29:BE:100:MET:HG3	1.86	0.57
40:BH:44:ILE:C	40:BH:46:PHE:H	2.06	0.57
40:BH:54:LEU:HA	40:BH:58:LEU:HB2	1.86	0.57
24:BI:109:ALA:HB1	24:BI:124:MET:HG3	1.86	0.57
27:BK:33:ALA:CB	27:BK:39:ILE:HD11	2.35	0.57
43:BO:15:ARG:HH21	43:BO:95:SER:CB	2.17	0.57
49:BR:43:ASN:ND2	49:BR:45:GLU:H	2.02	0.57
49:BR:39:LEU:HA	49:BR:49:ILE:HG21	1.85	0.57
23:BB:815:C:OP2	49:BR:85:LYS:HE2	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1039:A:H1'	35:BV:45:ASP:OD1	2.05	0.57
2:CC:153:SER:HB2	1:CA:1057:G:H5''	1.86	0.57
1:CA:1142:G:H2'	1:CA:1143:G:O4'	2.04	0.57
1:CA:1238:A:N7	1:CA:1303:C:H1'	2.19	0.57
20:CB:88:GLN:HG2	20:CB:220:VAL:HG11	1.86	0.57
22:DA:49:C:H2'	22:DA:50:A:H8	1.69	0.57
23:DB:144:A:H2'	23:DB:145:C:H6	1.68	0.57
23:DB:1599:U:H2'	23:DB:1600:C:C6	2.39	0.57
23:DB:2086:U:H2'	23:DB:2087:G:C8	2.39	0.57
23:DB:2455:G:H2'	23:DB:2456:C:C6	2.40	0.57
23:DB:281:C:H2'	23:DB:282:A:C8	2.39	0.57
23:DB:437:U:H2'	23:DB:438:G:C8	2.39	0.57
23:DB:494:G:H4'	45:DS:6:LYS:HG2	1.87	0.57
23:DB:686:U:H2'	23:DB:788:A:N1	2.20	0.57
25:DC:35:LYS:HG2	25:DC:36:ASN:H	1.70	0.57
40:DH:3:VAL:HA	40:DH:39:ALA:N	2.20	0.57
23:DB:1098:A:H3'	24:DI:3:LYS:C	2.25	0.57
24:DI:78:LEU:HA	24:DI:81:LYS:HE2	1.86	0.57
38:DM:2:LEU:O	38:DM:69:PRO:HG3	2.05	0.57
50:DT:39:THR:C	50:DT:41:ALA:H	2.06	0.57
46:DU:86:PHE:HE1	46:DU:88:ASP:HB3	1.69	0.57
1:AA:21:G:H2'	1:AA:22:G:C8	2.39	0.57
1:AA:336:A:O2'	1:AA:337:G:H5'	2.03	0.57
1:AA:513:C:H2'	1:AA:514:C:H6	1.70	0.57
1:AA:621:A:H2'	1:AA:622:A:C8	2.39	0.57
1:AA:636:U:H2'	1:AA:637:C:C6	2.40	0.57
1:AA:878:A:H5''	7:AH:80:PRO:HG2	1.86	0.57
3:AD:24:VAL:HG12	3:AD:160:LEU:HB3	1.85	0.57
7:AH:94:VAL:HG21	7:AH:100:ILE:O	2.05	0.57
22:BA:49:C:H2'	22:BA:50:A:C8	2.40	0.57
23:BB:2078:C:O2'	23:BB:2079:U:H5'	2.03	0.57
23:BB:2086:U:H2'	23:BB:2087:G:C8	2.40	0.57
23:BB:296:U:H2'	23:BB:297:G:C8	2.39	0.57
23:BB:534:U:H5'	44:BQ:41:ALA:HB1	1.85	0.57
25:BC:146:LYS:HB2	25:BC:149:LYS:HB2	1.84	0.57
25:BC:4:LYS:HD2	25:BC:5:CYS:H	1.68	0.57
23:BB:2579:C:O2'	26:BD:136:ASN:HA	2.04	0.57
26:BD:157:LYS:HB3	26:BD:157:LYS:NZ	2.19	0.57
47:BF:162:ASP:O	47:BF:166:ARG:HD2	2.04	0.57
40:BH:12:LEU:HD13	40:BH:19:VAL:HG21	1.87	0.57
40:BH:114:GLU:HG2	40:BH:132:PHE:CZ	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BM:68:PHE:CG	38:BM:69:PRO:HD2	2.39	0.57
42:BN:83:LEU:CA	42:BN:86:ARG:HB2	2.34	0.57
49:BR:72:VAL:CG2	49:BR:89:HIS:HB3	2.34	0.57
19:CT:73:ARG:HH12	1:CA:263:A:P	2.27	0.57
20:CB:85:SER:HB3	20:CB:221:ARG:NH1	2.18	0.57
2:CC:179:ALA:HB3	2:CC:181:ILE:HD11	1.85	0.57
6:CG:91:ARG:HD2	6:CG:91:ARG:H	1.69	0.57
10:CK:28:ASN:ND2	10:CK:29:THR:H	2.02	0.57
12:CM:42:VAL:HB	12:CM:47:LEU:CD2	2.34	0.57
12:CM:82:LEU:HD21	18:CS:65:MET:HB2	1.87	0.57
53:D6:64:ARG:O	53:D6:102:ASN:HA	2.04	0.57
22:DA:107:G:O2'	22:DA:108:A:H5'	2.04	0.57
23:DB:1192:G:O2'	23:DB:1193:G:H5'	2.04	0.57
23:DB:1884:G:HO2'	23:DB:1885:A:H8	1.52	0.57
23:DB:468:G:H5''	29:DE:55:SER:HB2	1.86	0.57
47:DF:16:MET:SD	47:DF:21:TYR:HB2	2.44	0.57
40:DH:96:THR:HA	40:DH:99:ILE:HD12	1.85	0.57
42:DN:37:THR:HB	42:DN:40:LYS:HB2	1.86	0.57
1:AA:1032:G:N3	1:AA:1032:G:H3'	2.19	0.57
1:AA:1142:G:H2'	1:AA:1143:G:O4'	2.04	0.57
1:AA:241:G:O2'	1:AA:242:G:H5'	2.04	0.57
2:AC:52:SER:HB3	2:AC:114:LEU:HG	1.85	0.57
4:AE:106:ALA:HB1	4:AE:110:MET:HB3	1.85	0.57
53:B6:38:LEU:HD22	53:B6:41:LEU:CD2	2.35	0.57
23:BB:1319:C:O2'	23:BB:1320:C:H5'	2.04	0.57
23:BB:2462:C:H2'	23:BB:2463:C:C6	2.40	0.57
23:BB:3:U:O2'	23:BB:4:U:H6	1.88	0.57
23:BB:458:G:N2	23:BB:469:G:H2'	2.20	0.57
23:BB:705:A:N6	23:BB:726:G:H1'	2.19	0.57
23:BB:969:G:H2'	23:BB:970:U:C6	2.38	0.57
25:BC:131:MET:HA	25:BC:134:ILE:HG12	1.86	0.57
26:BD:34:VAL:HG12	26:BD:94:GLN:H	1.69	0.57
29:BE:108:ILE:HG12	37:BL:2:ARG:HH22	1.70	0.57
40:BH:103:VAL:HG21	40:BH:110:VAL:HG22	1.86	0.57
43:BO:62:LEU:HD11	43:BO:70:ALA:HA	1.87	0.57
1:CA:1051:C:H2'	1:CA:1052:U:C6	2.39	0.57
1:CA:1074:G:H2'	1:CA:1075:U:H6	1.68	0.57
1:CA:1287:A:H2'	1:CA:1288:A:C8	2.40	0.57
20:CB:156:LEU:HD23	20:CB:178:LEU:HD13	1.86	0.57
10:CK:33:ILE:HG12	10:CK:69:CYS:SG	2.45	0.57
10:CK:55:ARG:NH1	10:CK:60:PHE:HD1	2.01	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2135:A:H3'	23:DB:2136:G:H8	1.69	0.57
23:DB:2298:A:H2'	23:DB:2299:U:O4'	2.04	0.57
23:DB:608:A:H2'	23:DB:609:A:C8	2.39	0.57
47:DF:45:ASP:O	47:DF:47:LYS:HD3	2.04	0.57
39:DX:24:GLU:O	39:DX:28:LEU:HD23	2.04	0.57
1:AA:1458:G:H5''	19:AT:25:SER:HB2	1.85	0.57
1:AA:1508:A:H2'	1:AA:1509:C:C6	2.39	0.57
20:AB:202:ASN:ND2	20:AB:204:ASP:N	2.47	0.57
20:AB:33:ALA:HA	20:AB:37:VAL:O	2.04	0.57
23:BB:151:C:H2'	23:BB:152:A:C8	2.39	0.57
23:BB:1842:G:H2'	23:BB:1843:C:C6	2.39	0.57
23:BB:2400:G:O2'	23:BB:2401:U:H5'	2.04	0.57
23:BB:2734:A:C2'	23:BB:2735:G:H5'	2.34	0.57
25:BC:140:VAL:HG12	25:BC:141:HIS:N	2.17	0.57
29:BE:111:GLU:HG2	29:BE:114:ARG:NH2	2.15	0.57
29:BE:48:THR:N	29:BE:51:GLU:HG3	2.19	0.57
47:BF:102:LEU:O	47:BF:103:ILE:HG22	2.04	0.57
23:BB:2303:G:H1'	47:BF:122:ASP:OD1	2.04	0.57
48:BG:8:VAL:HG11	48:BG:49:LEU:HB2	1.87	0.57
24:BI:96:LYS:N	24:BI:96:LYS:HD2	2.20	0.57
41:BJ:3:THR:HG21	44:BQ:60:TRP:HE1	1.69	0.57
42:BN:41:ALA:C	42:BN:43:GLU:H	2.06	0.57
28:BP:19:PHE:HE2	28:BP:25:VAL:HG11	1.69	0.57
49:BR:72:VAL:HG23	49:BR:89:HIS:HB3	1.87	0.57
46:BU:35:VAL:HB	46:BU:38:ILE:CG2	2.34	0.57
1:CA:102:G:H2'	1:CA:103:U:H6	1.70	0.57
1:CA:241:G:O2'	1:CA:242:G:H5'	2.05	0.57
1:CA:272:C:H2'	1:CA:273:U:H6	1.69	0.57
4:CE:95:MET:HA	4:CE:124:ALA:HB2	1.87	0.57
13:CN:12:ARG:HH21	13:CN:58:ARG:HH12	1.51	0.57
33:D1:33:LEU:HB3	33:D1:51:ALA:CB	2.34	0.57
53:D6:58:VAL:HG22	53:D6:68:VAL:HG13	1.87	0.57
23:DB:1061:U:O4'	23:DB:1070:A:H1'	2.03	0.57
23:DB:1319:C:O2'	23:DB:1320:C:H5'	2.04	0.57
23:DB:1341:G:H2'	23:DB:1397:U:O2'	2.05	0.57
23:DB:1533:C:H2'	23:DB:1534:U:H6	1.68	0.57
23:DB:1551:A:C3'	23:DB:1552:A:H5''	2.34	0.57
23:DB:30:G:H2'	23:DB:31:C:H6	1.69	0.57
23:DB:857:G:O2'	23:DB:858:G:H5'	2.04	0.57
25:DC:239:PHE:O	25:DC:241:LYS:HG3	2.04	0.57
48:DG:148:ARG:HD3	48:DG:152:ARG:NH2	2.20	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DJ:11:VAL:HA	41:DJ:12:LYS:HZ3	1.68	0.57
27:DK:109:SER:HB2	27:DK:111:LYS:NZ	2.19	0.57
38:DM:94:ALA:O	38:DM:96:ILE:HG23	2.04	0.57
42:DN:25:ALA:HA	42:DN:44:LEU:HD11	1.86	0.57
46:DU:81:ARG:HB2	46:DU:96:LYS:CG	2.35	0.57
35:DV:80:HIS:HD2	35:DV:83:LYS:H	1.52	0.57
23:DB:2386:A:C2	52:DW:38:ARG:HB3	2.39	0.57
1:AA:977:A:C2	1:AA:1223:C:H2'	2.40	0.57
1:AA:678:U:H2'	1:AA:679:C:H6	1.69	0.57
20:AB:186:VAL:O	20:AB:200:PRO:HA	2.04	0.57
6:AG:91:ARG:HD2	6:AG:91:ARG:H	1.70	0.57
23:BB:1102:C:H2'	23:BB:1103:A:C8	2.39	0.57
23:BB:150:U:H2'	23:BB:151:C:C6	2.40	0.57
23:BB:1919:A:H3'	23:BB:1920:C:H5	1.70	0.57
23:BB:2297:A:H61	23:BB:2319:G:H1'	1.70	0.57
23:BB:2646:C:H2'	23:BB:2647:U:O4'	2.05	0.57
47:BF:102:LEU:HD22	47:BF:103:ILE:N	2.19	0.57
47:BF:62:GLN:HE21	47:BF:91:ARG:NE	2.03	0.57
41:BJ:45:THR:N	41:BJ:46:PRO:HD3	2.19	0.57
39:BX:52:ARG:O	39:BX:55:THR:HB	2.05	0.57
20:CB:204:ASP:O	20:CB:208:ALA:HB3	2.04	0.57
20:CB:23:ASN:HB3	20:CB:188:THR:O	2.05	0.57
2:CC:70:ALA:HA	2:CC:105:VAL:HG11	1.86	0.57
7:CH:6:ILE:HB	7:CH:76:ARG:NH1	2.18	0.57
34:D3:18:LYS:HD2	34:D3:19:GLY:H	1.70	0.57
22:DA:49:C:H2'	22:DA:50:A:C8	2.39	0.57
23:DB:1082:U:O4	23:DB:1086:A:C2	2.56	0.57
23:DB:1181:U:H2'	23:DB:1182:G:H8	1.66	0.57
23:DB:1820:U:H3	25:DC:197:ALA:HA	1.69	0.57
23:DB:1923:U:H2'	23:DB:1924:C:C6	2.39	0.57
23:DB:2376:A:H2'	23:DB:2377:A:O4'	2.04	0.57
23:DB:634:C:H2'	23:DB:635:C:H6	1.69	0.57
23:DB:673:C:O2'	23:DB:674:G:H5'	2.05	0.57
40:DH:118:PRO:O	40:DH:119:ASN:HB3	2.04	0.57
40:DH:1:MET:HB3	40:DH:21:VAL:O	2.04	0.57
40:DH:4:ILE:HG13	40:DH:37:VAL:O	2.05	0.57
24:DI:45:THR:CA	24:DI:48:ILE:HG22	2.33	0.57
28:DP:52:ARG:HH11	28:DP:52:ARG:HG2	1.70	0.57
44:DQ:96:ASP:C	44:DQ:98:ALA:H	2.06	0.57
50:DT:53:VAL:HG11	50:DT:87:LEU:HD22	1.86	0.57
39:DX:8:GLU:O	39:DX:12:GLU:HB2	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1308:U:H3'	12:AM:97:ARG:HH11	1.70	0.57
1:AA:312:C:H2'	1:AA:313:A:H8	1.69	0.57
20:AB:45:THR:HG23	20:AB:200:PRO:O	2.05	0.57
4:AE:84:VAL:HG11	4:AE:146:MET:HB3	1.84	0.57
6:AG:147:ASN:HD22	6:AG:147:ASN:N	2.03	0.57
8:AI:29:ILE:HG12	8:AI:64:ILE:HD13	1.86	0.57
10:AK:73:VAL:O	10:AK:76:TYR:HB2	2.05	0.57
13:AN:29:ILE:O	13:AN:32:ASP:HB3	2.04	0.57
23:BB:2254:C:O2	53:B6:150:SER:HB2	2.04	0.57
53:B6:52:LEU:HD12	53:B6:56:ALA:HB3	1.86	0.57
22:BA:32:U:H1'	22:BA:52:A:N7	2.19	0.57
23:BB:1405:U:H2'	23:BB:1406:U:C6	2.40	0.57
23:BB:2025:C:H2'	23:BB:2026:U:C6	2.39	0.57
23:BB:2449:U:H4'	23:BB:2450:A:OP1	2.04	0.57
23:BB:2578:G:H21	26:BD:130:GLN:HE22	1.53	0.57
23:BB:2809:A:H2'	23:BB:2810:A:C8	2.40	0.57
23:BB:65:U:H2'	23:BB:66:C:H6	1.68	0.57
29:BE:160:ALA:C	29:BE:162:ARG:H	2.08	0.57
48:BG:140:ILE:HA	48:BG:143:VAL:HG22	1.86	0.57
40:BH:66:ASN:HD22	40:BH:67:ALA:N	2.02	0.57
43:BO:35:ILE:HG13	43:BO:71:ALA:HB2	1.87	0.57
1:CA:1029:U:H3'	1:CA:1029:U:P	2.45	0.57
1:CA:1032:G:H3'	1:CA:1032:G:N3	2.20	0.57
1:CA:1352:C:H2'	1:CA:1353:G:C8	2.40	0.57
11:CL:7:VAL:HG22	16:CQ:33:TYR:HD1	1.70	0.57
23:DB:1784:A:H4'	23:DB:1785:A:O5'	2.04	0.57
23:DB:2478:A:H5'	32:D4:32:LYS:HE2	1.85	0.57
23:DB:2864:G:H2'	23:DB:2865:U:C6	2.40	0.57
25:DC:128:THR:HA	25:DC:190:THR:HA	1.86	0.57
25:DC:132:ARG:HA	25:DC:166:ARG:NH1	2.20	0.57
23:DB:1819:A:H5''	25:DC:159:THR:HG21	1.87	0.57
26:DD:56:LYS:CD	26:DD:58:ASN:HB3	2.35	0.57
48:DG:137:LYS:O	48:DG:140:ILE:HG13	2.03	0.57
48:DG:87:GLN:H	48:DG:87:GLN:HE21	1.51	0.57
35:DV:38:LEU:HD21	35:DV:65:VAL:HG21	1.87	0.57
1:AA:1225:A:H3'	1:AA:1226:C:H6	1.70	0.57
1:AA:373:A:C1'	1:AA:481:G:H1'	2.34	0.57
1:AA:859:G:H2'	1:AA:860:A:H8	1.69	0.57
20:AB:88:GLN:HG2	20:AB:220:VAL:HG11	1.86	0.57
3:AD:160:LEU:HD22	3:AD:161:ALA:N	2.20	0.57
8:AI:94:ARG:NH1	8:AI:94:ARG:HB3	2.12	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AJ:91:ASP:C	9:AJ:92:LEU:HD13	2.26	0.57
12:AM:47:LEU:HB3	12:AM:52:ILE:HD11	1.85	0.57
53:B6:42:LYS:HA	53:B6:51:PRO:CA	2.27	0.57
23:BB:1181:U:H2'	23:BB:1182:G:C8	2.40	0.57
23:BB:1485:U:H2'	23:BB:1486:U:H6	1.68	0.57
23:BB:1558:C:H4'	23:BB:1559:U:H5''	1.86	0.57
23:BB:2303:G:H4'	47:BF:121:PHE:O	2.04	0.57
23:BB:2484:G:OP1	38:BM:44:ARG:HD3	2.04	0.57
23:BB:2864:G:H2'	23:BB:2865:U:C6	2.39	0.57
23:BB:303:G:H2'	23:BB:304:U:C6	2.40	0.57
23:BB:419:U:H2'	23:BB:420:C:C6	2.39	0.57
23:BB:857:G:O2'	52:BW:19:ARG:HD2	2.05	0.57
25:BC:124:LYS:N	25:BC:191:LEU:HD13	2.19	0.57
25:BC:154:ALA:HB2	25:BC:161:VAL:HG23	1.87	0.57
29:BE:134:LEU:HD21	29:BE:161:ALA:HB2	1.87	0.57
42:BN:22:ARG:HG3	42:BN:70:THR:HA	1.85	0.57
43:BO:15:ARG:NH2	43:BO:95:SER:HB3	2.19	0.57
28:BP:52:ARG:HH11	28:BP:52:ARG:HG2	1.70	0.57
27:BK:120:PRO:HA	28:BP:65:ASN:HD21	1.70	0.57
35:BV:80:HIS:HD2	35:BV:83:LYS:H	1.52	0.57
52:BW:30:VAL:HA	52:BW:60:ALA:O	2.05	0.57
20:CB:142:LYS:HG2	1:CA:1098:C:OP1	2.05	0.57
1:CA:977:A:C2	1:CA:1223:C:H2'	2.40	0.57
1:CA:1226:C:H4'	1:CA:1227:A:OP1	2.03	0.57
1:CA:84:U:O2'	1:CA:85:U:H5'	2.04	0.57
2:CC:26:LYS:HG3	2:CC:27:GLU:N	2.18	0.57
13:CN:41:TRP:NE1	13:CN:43:ALA:HB3	2.20	0.57
19:CT:25:SER:HB2	1:CA:1458:G:H5''	1.87	0.57
31:D0:21:LEU:HD12	45:DS:19:LEU:O	2.05	0.57
53:D6:58:VAL:HG13	53:D6:67:VAL:O	2.04	0.57
22:DA:98:G:N1	35:DV:14:LYS:HB2	2.19	0.57
23:DB:2229:U:H2'	23:DB:2230:G:C8	2.40	0.57
23:DB:278:A:N3	23:DB:278:A:H2'	2.18	0.57
23:DB:414:C:H2'	23:DB:415:A:C8	2.39	0.57
23:DB:69:C:O2'	23:DB:70:G:H5'	2.05	0.57
23:DB:2579:C:O2'	26:DD:136:ASN:HA	2.05	0.57
47:DF:43:ILE:N	47:DF:46:LYS:HZ3	2.03	0.57
40:DH:124:THR:HG23	40:DH:128:HIS:CE1	2.40	0.57
37:DL:82:LEU:C	37:DL:84:LYS:H	2.08	0.57
42:DN:12:ARG:HG3	42:DN:13:ASN:N	2.18	0.57
43:DO:62:LEU:HD11	43:DO:70:ALA:HA	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DU:12:VAL:HG22	46:DU:69:VAL:CG1	2.34	0.57
35:DV:81:PRO:O	38:DM:34:LYS:HE2	2.05	0.57
1:AA:1074:G:H2'	1:AA:1075:U:C6	2.40	0.57
1:AA:586:C:H5''	7:AH:81:GLY:HA2	1.87	0.57
12:AM:22:TYR:HB3	12:AM:69:ARG:NH2	2.18	0.57
13:AN:25:GLU:O	13:AN:29:ILE:HG13	2.03	0.57
13:AN:41:TRP:NE1	13:AN:43:ALA:HB3	2.19	0.57
19:AT:66:ILE:HG23	19:AT:70:LYS:HD3	1.87	0.57
21:AU:23:GLU:HA	21:AU:27:VAL:HG21	1.87	0.57
22:BA:52:A:OP1	22:BA:52:A:H4'	2.05	0.57
23:BB:1599:U:H2'	23:BB:1600:C:C6	2.40	0.57
23:BB:2151:U:H2'	23:BB:2152:G:H8	1.69	0.57
23:BB:2264:C:H41	52:BW:11:ASN:HD21	1.53	0.57
23:BB:2728:U:H2'	23:BB:2729:G:H8	1.69	0.57
23:BB:414:C:H2'	23:BB:415:A:H8	1.68	0.57
23:BB:850:U:O2'	30:BY:22:THR:HG22	2.05	0.57
25:BC:2:VAL:HG23	25:BC:3:VAL:H	1.69	0.57
25:BC:66:PHE:HB2	25:BC:150:GLY:O	2.04	0.57
22:BA:43:C:O2'	47:BF:91:ARG:HD2	2.05	0.57
41:BJ:2:LYS:O	41:BJ:3:THR:HG23	2.05	0.57
46:BU:11:ILE:O	46:BU:12:VAL:HB	2.05	0.57
23:BB:329:G:H1	46:BU:16:LYS:HG2	1.70	0.57
46:BU:42:LYS:HG3	46:BU:57:ILE:CG2	2.32	0.57
46:BU:51:LEU:N	46:BU:53:GLN:NE2	2.53	0.57
52:BW:23:LYS:HD2	52:BW:24:ARG:H	1.69	0.57
1:CA:1060:U:H2'	1:CA:1061:G:H8	1.70	0.57
1:CA:474:G:H2'	1:CA:475:C:C6	2.39	0.57
20:CB:138:ARG:HD3	20:CB:141:GLU:OE1	2.05	0.57
11:CL:51:VAL:HG12	11:CL:52:CYS:N	2.20	0.57
12:CM:14:ALA:O	12:CM:18:LEU:HB2	2.05	0.57
15:CP:59:HIS:O	15:CP:63:GLN:HG3	2.05	0.57
22:DA:94:A:H2'	22:DA:95:U:O4'	2.05	0.57
23:DB:1239:G:O2'	23:DB:1240:U:H5'	2.04	0.57
23:DB:1316:U:H2'	23:DB:1317:G:H8	1.70	0.57
23:DB:1857:G:HO2'	23:DB:1858:A:H8	1.51	0.57
23:DB:18:U:H2'	23:DB:19:A:C8	2.40	0.57
23:DB:360:U:H2'	23:DB:361:G:Cl'	2.35	0.57
23:DB:78:U:H2'	23:DB:79:C:C6	2.39	0.57
26:DD:133:THR:HG23	26:DD:134:HIS:N	2.20	0.57
48:DG:34:ARG:HG2	48:DG:34:ARG:NH1	2.20	0.57
40:DH:69:ALA:O	40:DH:73:ASN:HB2	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DI:99:LYS:HD3	24:DI:99:LYS:H	1.69	0.57
41:DJ:34:ARG:HD2	41:DJ:39:LYS:HB3	1.87	0.57
50:DT:12:ARG:HH11	50:DT:12:ARG:HB3	1.70	0.57
46:DU:42:LYS:HG3	46:DU:57:ILE:CG2	2.34	0.57
1:AA:1147:C:O2'	8:AI:17:ARG:HD2	2.05	0.56
1:AA:950:U:H2'	1:AA:951:G:C8	2.40	0.56
9:AJ:57:VAL:HG22	9:AJ:58:ASN:H	1.69	0.56
11:AL:106:VAL:HA	11:AL:107:LYS:NZ	2.19	0.56
12:AM:79:LEU:HD22	12:AM:86:ARG:NE	2.18	0.56
33:B1:33:LEU:HB3	33:B1:51:ALA:CB	2.34	0.56
53:B6:52:LEU:HA	53:B6:55:ILE:HG23	1.87	0.56
23:BB:1682:G:H2'	23:BB:1683:U:C6	2.40	0.56
23:BB:1884:G:HO2'	23:BB:1885:A:H8	1.53	0.56
23:BB:2898:U:H2'	23:BB:2899:A:C8	2.39	0.56
25:BC:141:HIS:HB3	25:BC:190:THR:OG1	2.05	0.56
48:BG:148:ARG:HD3	48:BG:152:ARG:NH2	2.20	0.56
27:BK:109:SER:HB2	27:BK:111:LYS:NZ	2.19	0.56
37:BL:18:ARG:C	37:BL:19:LEU:HD12	2.26	0.56
49:BR:4:VAL:CG2	49:BR:39:LEU:HG	2.35	0.56
39:BX:8:GLU:O	39:BX:12:GLU:HB2	2.04	0.56
1:CA:1469:C:H2'	1:CA:1470:U:O4'	2.04	0.56
1:CA:252:U:H2'	1:CA:253:A:C8	2.38	0.56
1:CA:636:U:H2'	1:CA:637:C:H6	1.70	0.56
10:CK:28:ASN:HD21	10:CK:46:ALA:HB3	1.70	0.56
34:D3:30:HIS:O	34:D3:31:ILE:C	2.43	0.56
23:DB:1723:G:C2'	23:DB:1724:G:H5'	2.35	0.56
23:DB:172:A:H2'	23:DB:173:A:H8	1.70	0.56
23:DB:582:A:H2'	23:DB:583:G:H8	1.69	0.56
23:DB:64:A:H2'	23:DB:65:U:C6	2.40	0.56
41:DJ:45:THR:N	41:DJ:46:PRO:HD3	2.19	0.56
29:DE:181:ILE:HG12	37:DL:2:ARG:HH21	1.70	0.56
27:DK:120:PRO:HA	28:DP:65:ASN:HD21	1.70	0.56
45:DS:20:VAL:HG23	45:DS:23:LEU:HD12	1.86	0.56
1:AA:1051:C:H2'	1:AA:1052:U:C6	2.40	0.56
1:AA:1380:U:O4	6:AG:2:ARG:HB2	2.04	0.56
5:AF:3:HIS:CG	5:AF:92:THR:HG23	2.40	0.56
7:AH:6:ILE:HB	7:AH:76:ARG:NH1	2.19	0.56
8:AI:23:GLY:N	8:AI:60:LEU:HA	2.20	0.56
10:AK:92:ARG:CZ	21:AU:24:LYS:HG3	2.35	0.56
34:B3:22:LYS:HA	34:B3:48:MET:HA	1.87	0.56
32:B4:1:MET:HB3	32:B4:34:LYS:HE3	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1061:U:H4'	23:BB:1070:A:O3'	2.05	0.56
23:BB:181:A:H2'	23:BB:182:A:H8	1.68	0.56
23:BB:1857:G:HO2'	23:BB:1858:A:H8	1.52	0.56
23:BB:2591:C:H2'	23:BB:2592:G:H8	1.70	0.56
29:BE:158:PHE:HA	29:BE:169:VAL:CG2	2.35	0.56
47:BF:102:LEU:HB2	47:BF:106:ALA:HB3	1.87	0.56
24:BI:89:SER:HB2	24:BI:136:GLY:HA3	1.86	0.56
41:BJ:17:VAL:HG23	41:BJ:137:PRO:CB	2.31	0.56
42:BN:25:ALA:HA	42:BN:44:LEU:HD11	1.87	0.56
43:BO:2:ASP:OD2	43:BO:4:LYS:HB3	2.05	0.56
44:BQ:89:ILE:HB	49:BR:11:GLN:HE22	1.69	0.56
52:BW:65:LYS:HG3	52:BW:84:GLU:HB3	1.87	0.56
1:CA:1237:C:H3'	1:CA:1336:C:N4	2.20	0.56
1:CA:769:G:H4'	1:CA:1513:A:H4'	1.87	0.56
20:CB:14:HIS:CD2	20:CB:202:ASN:H	2.23	0.56
6:CG:47:GLU:HA	6:CG:57:GLU:OE2	2.04	0.56
8:CI:9:GLY:HA2	8:CI:80:HIS:CD2	2.40	0.56
11:CL:49:ARG:NH2	1:CA:522:C:H41	2.01	0.56
11:CL:54:VAL:HG11	11:CL:79:ILE:HD11	1.86	0.56
21:CU:16:ARG:NH2	21:CU:19:LYS:HZ2	1.92	0.56
23:DB:1061:U:H4'	23:DB:1070:A:O3'	2.05	0.56
23:DB:1198:U:H2'	23:DB:1199:U:C6	2.40	0.56
23:DB:1528:A:H2'	23:DB:1529:G:O4'	2.04	0.56
23:DB:1915:U:H2'	23:DB:1916:A:O4'	2.05	0.56
23:DB:1935:G:H1'	23:DB:1964:G:N2	2.20	0.56
23:DB:2722:G:H4'	42:DN:4:ARG:HB2	1.86	0.56
23:DB:274:C:H2'	23:DB:275:C:O4'	2.05	0.56
23:DB:300:A:H2'	23:DB:334:C:H1'	1.86	0.56
23:DB:634:C:H2'	23:DB:635:C:C6	2.40	0.56
25:DC:202:ARG:HH21	25:DC:202:ARG:HB2	1.70	0.56
25:DC:242:HIS:O	25:DC:244:VAL:HG13	2.05	0.56
47:DF:34:THR:O	47:DF:89:THR:HA	2.04	0.56
48:DG:97:VAL:HG11	48:DG:123:GLU:HA	1.86	0.56
41:DJ:123:LYS:N	41:DJ:123:LYS:HD2	2.19	0.56
44:DQ:86:SER:CB	49:DR:51:VAL:HG12	2.34	0.56
44:DQ:86:SER:HB3	49:DR:51:VAL:HA	1.86	0.56
1:AA:272:C:H2'	1:AA:273:U:H6	1.69	0.56
20:AB:87:ASP:HB2	20:AB:224:ARG:NH1	2.20	0.56
4:AE:95:MET:HA	4:AE:124:ALA:HB2	1.88	0.56
5:AF:22:ILE:O	5:AF:26:THR:HG23	2.05	0.56
6:AG:45:ALA:HB2	6:AG:116:ALA:O	2.04	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AI:18:VAL:HG11	8:AI:82:ILE:HG12	1.86	0.56
8:AI:64:ILE:HG21	8:AI:78:ILE:HG12	1.87	0.56
8:AI:9:GLY:HA2	8:AI:80:HIS:CD2	2.41	0.56
53:B6:33:ALA:CA	53:B6:103:ILE:HG21	2.34	0.56
23:BB:1495:A:H2'	23:BB:1496:A:C8	2.40	0.56
23:BB:1728:C:HO2'	23:BB:1729:U:H6	1.51	0.56
23:BB:1747:U:H2'	23:BB:1748:C:C6	2.40	0.56
23:BB:1904:G:H1'	23:BB:1927:A:N1	2.20	0.56
23:BB:805:G:OP2	37:BL:41:ARG:HD3	2.06	0.56
25:BC:132:ARG:HA	25:BC:166:ARG:NH1	2.19	0.56
27:BK:94:PRO:HG2	27:BK:114:LYS:HD3	1.87	0.56
37:BL:110:VAL:HB	37:BL:127:VAL:HG23	1.88	0.56
28:BP:5:LYS:NZ	28:BP:9:GLN:HB3	2.20	0.56
50:BT:11:LEU:CD2	50:BT:46:ALA:HB1	2.29	0.56
46:BU:12:VAL:HA	46:BU:69:VAL:HA	1.88	0.56
35:BV:25:LYS:HD3	35:BV:41:GLU:OE1	2.05	0.56
35:BV:89:ILE:HD13	35:BV:91:PHE:CZ	2.40	0.56
51:BZ:11:ARG:HB3	51:BZ:12:PRO:HD2	1.87	0.56
1:CA:636:U:H2'	1:CA:637:C:C6	2.40	0.56
1:CA:72:A:H5'	1:CA:73:C:OP2	2.05	0.56
20:CB:186:VAL:O	20:CB:200:PRO:HA	2.05	0.56
8:CI:94:ARG:HA	8:CI:97:LEU:HD12	1.86	0.56
9:CJ:57:VAL:HG22	9:CJ:58:ASN:H	1.69	0.56
12:CM:15:VAL:HG22	12:CM:40:GLU:HB3	1.87	0.56
15:CP:74:LEU:HA	15:CP:77:GLU:OE2	2.05	0.56
19:CT:35:TYR:O	19:CT:38:ILE:HG22	2.04	0.56
23:DB:1870:C:H5''	23:DB:1871:A:C6	2.41	0.56
23:DB:675:A:H4'	29:DE:62:GLN:HE22	1.70	0.56
23:DB:705:A:N6	23:DB:726:G:H1'	2.19	0.56
23:DB:742:A:H2'	23:DB:743:A:H8	1.70	0.56
47:DF:62:GLN:HB3	47:DF:94:ARG:HH12	1.70	0.56
40:DH:64:ALA:O	40:DH:68:ARG:HG2	2.06	0.56
24:DI:2:LYS:NZ	24:DI:2:LYS:HB3	2.20	0.56
23:DB:1007:C:O3'	41:DJ:110:PRO:HB3	2.06	0.56
27:DK:33:ALA:CB	27:DK:39:ILE:HD11	2.35	0.56
49:DR:38:VAL:HG13	49:DR:54:VAL:HG12	1.86	0.56
45:DS:18:ARG:HB3	45:DS:76:VAL:CG2	2.34	0.56
50:DT:10:VAL:HG21	50:DT:42:GLU:HG3	1.85	0.56
46:DU:11:ILE:O	46:DU:11:ILE:HD13	2.05	0.56
35:DV:89:ILE:HD13	35:DV:91:PHE:CZ	2.39	0.56
23:DB:855:G:N3	52:DW:23:LYS:HE3	2.19	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:DW:36:ILE:HB	52:DW:39:GLN:NE2	2.20	0.56
39:DX:52:ARG:O	39:DX:55:THR:HB	2.05	0.56
30:DY:40:THR:O	30:DY:43:ILE:HG23	2.04	0.56
1:AA:102:G:H2'	1:AA:103:U:H6	1.69	0.56
1:AA:1241:G:H2'	1:AA:1242:G:C8	2.37	0.56
1:AA:1318:A:H4'	18:AS:9:PHE:CE1	2.40	0.56
1:AA:384:G:H2'	1:AA:385:C:H6	1.70	0.56
1:AA:769:G:H4'	1:AA:1513:A:H4'	1.87	0.56
20:AB:69:VAL:HB	20:AB:162:VAL:HB	1.88	0.56
3:AD:151:GLN:HB3	3:AD:154:VAL:HG22	1.86	0.56
3:AD:155:LYS:HA	3:AD:158:LEU:HD12	1.87	0.56
6:AG:59:GLU:O	6:AG:63:VAL:HG23	2.05	0.56
10:AK:64:VAL:O	10:AK:68:ARG:HB2	2.05	0.56
12:AM:80:MET:HA	12:AM:87:GLY:HA3	1.87	0.56
33:B1:8:ILE:HG23	33:B1:51:ALA:HA	1.87	0.56
23:BB:1102:C:H2'	23:BB:1103:A:H8	1.69	0.56
23:BB:1192:G:O2'	23:BB:1193:G:H5'	2.06	0.56
23:BB:192:C:H2'	23:BB:193:U:H5'	1.87	0.56
23:BB:2455:G:H2'	23:BB:2456:C:C6	2.40	0.56
23:BB:582:A:H2'	23:BB:583:G:H8	1.70	0.56
29:BE:27:LEU:HG	29:BE:104:ALA:HB2	1.87	0.56
41:BJ:99:ARG:O	41:BJ:103:ILE:HG23	2.05	0.56
1:CA:1342:C:H2'	1:CA:1343:G:H8	1.69	0.56
20:CB:45:THR:HG23	20:CB:200:PRO:O	2.05	0.56
4:CE:111:ARG:HG3	4:CE:112:ALA:H	1.70	0.56
4:CE:156:ARG:HA	4:CE:158:LYS:HZ3	1.70	0.56
5:CF:38:ARG:HB3	5:CF:63:ASN:HB2	1.87	0.56
12:CM:47:LEU:HB3	12:CM:52:ILE:CD1	2.35	0.56
13:CN:29:ILE:HB	13:CN:30:ILE:HD12	1.87	0.56
53:D6:174:GLN:CD	53:D6:178:LYS:HE2	2.26	0.56
53:D6:71:TRP:N	53:D6:71:TRP:CD1	2.73	0.56
23:DB:1018:U:O2'	23:DB:1019:U:H5'	2.05	0.56
23:DB:1316:U:O2'	23:DB:1317:G:H5'	2.05	0.56
23:DB:1842:G:H2'	23:DB:1843:C:C6	2.40	0.56
23:DB:2898:U:H2'	23:DB:2899:A:C8	2.39	0.56
23:DB:643:A:H2'	23:DB:644:A:H8	1.70	0.56
23:DB:79:C:O2'	23:DB:346:A:H1'	2.06	0.56
23:DB:934:U:H2'	23:DB:935:C:H6	1.70	0.56
23:DB:1805:A:H1'	25:DC:49:THR:HG23	1.87	0.56
23:DB:1816:C:H3'	25:DC:61:TYR:CE2	2.40	0.56
29:DE:27:LEU:HG	29:DE:104:ALA:HB2	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DG:148:ARG:HD3	48:DG:152:ARG:CD	2.35	0.56
37:DL:122:VAL:HG23	37:DL:143:GLU:OE1	2.06	0.56
38:DM:68:PHE:CG	38:DM:69:PRO:HD2	2.41	0.56
43:DO:2:ASP:OD2	43:DO:4:LYS:HB3	2.05	0.56
45:DS:42:LYS:O	45:DS:45:VAL:HG22	2.04	0.56
46:DU:12:VAL:HA	46:DU:69:VAL:HA	1.87	0.56
1:AA:1080:A:O3'	4:AE:20:VAL:HG11	2.05	0.56
1:AA:1342:C:H2'	1:AA:1343:G:H8	1.70	0.56
20:AB:43:GLU:O	20:AB:47:PRO:HG2	2.05	0.56
2:AC:126:ARG:NH2	2:AC:191:THR:H	2.03	0.56
21:AU:16:ARG:CA	21:AU:16:ARG:NE	2.68	0.56
33:B1:26:LYS:HD2	33:B1:30:PRO:HA	1.88	0.56
23:BB:2285:C:OP2	33:B1:5:ARG:HD3	2.05	0.56
32:B4:7:VAL:HG23	32:B4:35:GLN:CB	2.34	0.56
53:B6:144:ALA:HA	53:B6:149:LEU:HD12	1.88	0.56
22:BA:5:U:H2'	22:BA:6:G:C8	2.41	0.56
23:BB:1316:U:H2'	23:BB:1317:G:H8	1.70	0.56
23:BB:2037:A:H2'	23:BB:2038:G:H8	1.70	0.56
38:BM:108:VAL:HG21	38:BM:112:LEU:HD12	1.87	0.56
28:BP:4:ILE:HA	28:BP:7:LEU:HD13	1.86	0.56
50:BT:31:VAL:HA	50:BT:84:TYR:H	1.70	0.56
52:BW:59:PHE:O	52:BW:60:ALA:CB	2.54	0.56
52:BW:59:PHE:O	52:BW:60:ALA:HB3	2.06	0.56
1:CA:1308:U:H2'	1:CA:1309:G:H8	1.69	0.56
1:CA:1309:G:H2'	1:CA:1310:G:H8	1.71	0.56
1:CA:454:G:O2'	1:CA:455:G:H5'	2.06	0.56
1:CA:22:G:H4'	1:CA:885:G:C8	2.40	0.56
5:CF:3:HIS:CG	5:CF:92:THR:HG23	2.39	0.56
8:CI:23:GLY:N	8:CI:60:LEU:HA	2.20	0.56
32:D4:25:VAL:O	32:D4:26:ILE:HD13	2.06	0.56
32:D4:1:MET:CE	32:D4:36:ARG:HB2	2.36	0.56
23:DB:1230:A:H2'	23:DB:1231:U:H6	1.70	0.56
23:DB:1315:C:H2'	23:DB:1316:U:H6	1.70	0.56
23:DB:2073:C:H5''	25:DC:227:VAL:HG12	1.88	0.56
23:DB:2336:A:H61	52:DW:40:ARG:CB	2.18	0.56
25:DC:16:VAL:N	25:DC:203:VAL:HG12	2.19	0.56
25:DC:74:PRO:HG2	25:DC:96:LYS:HG2	1.86	0.56
26:DD:10:GLY:O	26:DD:11:MET:HB2	2.05	0.56
47:DF:102:LEU:HB2	47:DF:106:ALA:HB3	1.88	0.56
47:DF:2:LYS:CE	47:DF:100:GLU:HG2	2.35	0.56
43:DO:58:ILE:O	43:DO:62:LEU:HD23	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DP:31:VAL:O	28:DP:32:VAL:HB	2.06	0.56
44:DQ:10:ARG:HB2	44:DQ:10:ARG:NH1	2.20	0.56
44:DQ:111:LYS:HD3	49:DR:48:LYS:HZ2	1.69	0.56
1:AA:1152:A:H2'	1:AA:1153:G:H8	1.69	0.56
1:AA:1162:C:H2'	1:AA:1163:A:C8	2.41	0.56
1:AA:154:U:H2'	1:AA:155:A:C8	2.40	0.56
1:AA:559:A:H4'	1:AA:560:A:H3'	1.86	0.56
1:AA:93:U:H2'	1:AA:95:C:C6	2.40	0.56
20:AB:156:LEU:HD23	20:AB:178:LEU:HD13	1.85	0.56
20:AB:85:SER:HB3	20:AB:221:ARG:NH1	2.20	0.56
2:AC:81:GLU:HG3	2:AC:82:ASP:H	1.70	0.56
3:AD:105:GLY:HA3	3:AD:158:LEU:HD23	1.87	0.56
5:AF:47:LEU:HD21	5:AF:57:ALA:HB2	1.87	0.56
8:AI:36:GLN:N	8:AI:36:GLN:HE21	2.03	0.56
9:AJ:9:ARG:HG3	9:AJ:99:GLN:NE2	2.21	0.56
12:AM:48:SER:HB2	12:AM:51:GLN:HG3	1.87	0.56
22:BA:39:A:O2'	22:BA:40:U:H5'	2.05	0.56
22:BA:91:C:O2'	22:BA:92:C:H5'	2.06	0.56
23:BB:1173:U:H2'	23:BB:1174:U:O4'	2.06	0.56
23:BB:131:A:H2'	23:BB:132:G:H8	1.70	0.56
23:BB:1327:A:H2'	23:BB:1328:A:O4'	2.06	0.56
23:BB:2133:G:N2	23:BB:2156:G:H1	2.01	0.56
23:BB:2328:A:H2'	23:BB:2329:U:H6	1.70	0.56
23:BB:2751:G:N3	23:BB:2751:G:H2'	2.21	0.56
23:BB:634:C:H2'	23:BB:635:C:C6	2.41	0.56
23:BB:5:A:H2'	23:BB:6:A:C8	2.40	0.56
23:BB:686:U:H2'	23:BB:788:A:N1	2.20	0.56
47:BF:109:ARG:HB3	47:BF:135:ILE:CD1	2.35	0.56
24:BI:76:ALA:O	24:BI:80:LYS:HG3	2.06	0.56
42:BN:37:THR:HB	42:BN:40:LYS:HB2	1.87	0.56
50:BT:38:ALA:HB3	50:BT:81:LYS:NZ	2.21	0.56
1:CA:312:C:H2'	1:CA:313:A:C8	2.40	0.56
6:CG:142:ARG:NH1	6:CG:142:ARG:HB2	2.19	0.56
12:CM:48:SER:HB2	12:CM:51:GLN:HG3	1.86	0.56
12:CM:7:ASN:HD22	12:CM:7:ASN:N	2.02	0.56
34:D3:20:GLY:HA3	34:D3:48:MET:HE3	1.88	0.56
23:DB:1173:U:O5'	23:DB:1173:U:H6	1.87	0.56
23:DB:1846:G:H3'	23:DB:1847:A:C2	2.40	0.56
23:DB:2240:U:O2'	23:DB:2241:A:H5'	2.06	0.56
23:DB:2720:U:H5''	28:DP:52:ARG:NH2	2.20	0.56
23:DB:315:G:H2'	23:DB:316:C:C6	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:852:U:H2'	23:DB:853:C:C6	2.41	0.56
48:DG:140:ILE:HA	48:DG:143:VAL:HG22	1.87	0.56
23:DB:1081:U:C5'	24:DI:126:ARG:NH1	2.67	0.56
23:DB:2674:G:H4'	27:DK:30:ARG:HD2	1.86	0.56
27:DK:43:ILE:HD13	27:DK:56:ASP:HB2	1.86	0.56
42:DN:73:ASN:HA	42:DN:76:VAL:HG22	1.87	0.56
43:DO:15:ARG:HH21	43:DO:95:SER:CB	2.18	0.56
43:DO:56:LYS:HE3	43:DO:60:GLU:OE2	2.05	0.56
28:DP:91:VAL:CG2	28:DP:96:LEU:HD21	2.36	0.56
44:DQ:91:ARG:HD3	49:DR:11:GLN:CG	2.35	0.56
2:AC:139:ASN:O	2:AC:143:LEU:HD22	2.05	0.56
5:AF:38:ARG:HB3	5:AF:63:ASN:HB2	1.87	0.56
11:AL:35:ARG:HE	11:AL:36:VAL:H	1.53	0.56
12:AM:21:ILE:HG22	12:AM:23:GLY:H	1.70	0.56
1:AA:1313:U:O4	18:AS:3:SER:HB2	2.06	0.56
19:AT:15:LYS:HD3	19:AT:18:LYS:HE3	1.88	0.56
23:BB:1210:G:H5'	23:BB:1212:G:O4'	2.05	0.56
23:BB:1429:G:H2'	23:BB:1430:G:C8	2.40	0.56
23:BB:1459:G:O2'	23:BB:1460:U:H5'	2.06	0.56
23:BB:1700:A:H2'	23:BB:1701:A:H5'	1.88	0.56
23:BB:309:A:N3	23:BB:329:G:O2'	2.36	0.56
23:BB:84:A:H4'	23:BB:85:G:O5'	2.06	0.56
25:BC:74:PRO:HG2	25:BC:96:LYS:HG2	1.87	0.56
26:BD:29:VAL:O	26:BD:185:ASN:HB3	2.05	0.56
29:BE:67:ARG:HG3	29:BE:68:ALA:N	2.20	0.56
47:BF:16:MET:SD	47:BF:21:TYR:HB2	2.46	0.56
48:BG:148:ARG:HD3	48:BG:152:ARG:CD	2.35	0.56
37:BL:82:LEU:C	37:BL:84:LYS:H	2.08	0.56
35:BV:61:LEU:HD11	35:BV:74:ALA:HB2	1.86	0.56
51:BZ:27:ARG:HD2	51:BZ:29:PHE:CZ	2.41	0.56
51:BZ:35:SER:HA	51:BZ:49:LEU:O	2.06	0.56
1:CA:1225:A:H3'	1:CA:1226:C:H6	1.69	0.56
1:CA:335:C:H2'	1:CA:336:A:C8	2.41	0.56
1:CA:451:A:H4'	1:CA:452:A:O4'	2.05	0.56
3:CD:146:GLU:HB3	3:CD:149:LYS:HE3	1.87	0.56
32:D4:25:VAL:HG11	32:D4:35:GLN:NE2	2.21	0.56
23:DB:1274:A:N3	23:DB:1297:C:H1'	2.20	0.56
23:DB:170:U:H2'	23:DB:171:U:H6	1.71	0.56
23:DB:1846:G:H2'	23:DB:1847:A:O4'	2.04	0.56
23:DB:2646:C:H2'	23:DB:2647:U:O4'	2.05	0.56
23:DB:2740:A:H2'	23:DB:2741:A:C8	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:775:G:H4'	23:DB:776:G:H5'	1.87	0.56
23:DB:876:C:H3'	23:DB:877:A:O4'	2.06	0.56
23:DB:963:U:H5''	56:DB:3703:HOH:O	2.06	0.56
25:DC:117:SER:HB3	25:DC:128:THR:HB	1.87	0.56
26:DD:121:THR:HG23	26:DD:162:ALA:H	1.71	0.56
47:DF:90:LEU:C	47:DF:91:ARG:HD3	2.26	0.56
41:DJ:99:ARG:HA	41:DJ:102:GLU:HB2	1.86	0.56
37:DL:6:LEU:H	37:DL:6:LEU:HD23	1.70	0.56
42:DN:22:ARG:HG3	42:DN:70:THR:HA	1.86	0.56
42:DN:90:ARG:HG2	42:DN:94:TYR:HD1	1.70	0.56
28:DP:6:GLN:HA	28:DP:9:GLN:HG2	1.88	0.56
46:DU:35:VAL:HB	46:DU:38:ILE:CG2	2.36	0.56
52:DW:41:GLY:HA2	52:DW:44:PHE:CE2	2.41	0.56
51:DZ:11:ARG:HB3	51:DZ:12:PRO:HD2	1.86	0.56
1:AA:1283:U:H2'	1:AA:1284:C:C6	2.41	0.56
4:AE:149:PRO:HG2	4:AE:150:GLU:OE1	2.06	0.56
6:AG:47:GLU:HA	6:AG:57:GLU:OE2	2.05	0.56
15:AP:74:LEU:HA	15:AP:77:GLU:OE2	2.06	0.56
1:AA:323:U:H1'	19:AT:13:SER:HB2	1.88	0.56
34:B3:30:HIS:O	34:B3:31:ILE:C	2.43	0.56
23:BB:1175:A:C4	23:BB:1176:U:H1'	2.41	0.56
23:BB:1315:C:H2'	23:BB:1316:U:H6	1.71	0.56
23:BB:162:U:O2'	23:BB:163:C:H5'	2.06	0.56
23:BB:2547:A:H2'	23:BB:2548:U:C6	2.40	0.56
23:BB:2720:U:H5''	28:BP:52:ARG:NH2	2.21	0.56
23:BB:417:C:H2'	23:BB:418:C:C6	2.40	0.56
23:BB:1805:A:H1'	25:BC:49:THR:HG23	1.86	0.56
48:BG:134:GLY:HA3	48:BG:140:ILE:HG21	1.87	0.56
23:BB:2658:C:H5'	48:BG:159:LYS:NZ	2.20	0.56
24:BI:10:LEU:HD12	24:BI:10:LEU:O	2.05	0.56
23:BB:1666:G:H21	27:BK:3:GLN:HE22	1.54	0.56
28:BP:112:ARG:HB2	28:BP:112:ARG:HH11	1.70	0.56
1:CA:1074:G:H2'	1:CA:1075:U:C6	2.41	0.56
1:CA:1316:G:N2	1:CA:1318:A:H3'	2.21	0.56
1:CA:213:G:H2'	1:CA:213:G:N3	2.21	0.56
20:CB:128:LEU:HD12	20:CB:129:THR:N	2.21	0.56
20:CB:55:GLU:HG3	20:CB:197:PHE:CZ	2.40	0.56
20:CB:40:ILE:HG21	20:CB:200:PRO:O	2.06	0.56
20:CB:187:ASP:HB3	20:CB:201:GLY:O	2.05	0.56
6:CG:43:TYR:O	6:CG:47:GLU:HB2	2.06	0.56
10:CK:73:VAL:O	10:CK:76:TYR:HB2	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CL:106:VAL:HA	11:CL:107:LYS:NZ	2.21	0.56
12:CM:97:ARG:HH11	1:CA:1308:U:H3'	1.70	0.56
21:CU:38:GLU:C	21:CU:40:PRO:HD2	2.26	0.56
21:CU:43:GLU:HG2	21:CU:44:ARG:HH21	1.71	0.56
32:D4:2:LYS:HD2	32:D4:4:ARG:NE	2.16	0.56
53:D6:49:HIS:CD2	53:D6:49:HIS:H	2.24	0.56
23:DB:116:C:HO2'	23:DB:126:A:H8	1.51	0.56
23:DB:1548:A:H2'	23:DB:1549:A:C8	2.41	0.56
23:DB:1592:C:H2'	23:DB:1593:A:C8	2.40	0.56
23:DB:2352:A:C6	52:DW:30:VAL:HG11	2.41	0.56
23:DB:2391:G:O6	23:DB:2425:A:H8	1.88	0.56
23:DB:2758:A:C2'	23:DB:2759:G:H5'	2.35	0.56
23:DB:296:U:H2'	23:DB:297:G:C8	2.41	0.56
23:DB:419:U:H2'	23:DB:420:C:C6	2.41	0.56
23:DB:594:U:H2'	23:DB:595:C:H6	1.70	0.56
23:DB:937:C:H2'	23:DB:938:G:H8	1.71	0.56
25:DC:107:LYS:O	25:DC:109:LEU:HD22	2.05	0.56
25:DC:261:ARG:O	25:DC:261:ARG:HG2	2.05	0.56
25:DC:2:VAL:HG23	25:DC:3:VAL:H	1.71	0.56
29:DE:58:LYS:HD2	29:DE:58:LYS:H	1.71	0.56
43:DO:35:ILE:HG13	43:DO:71:ALA:CB	2.36	0.56
44:DQ:33:VAL:C	44:DQ:35:PHE:H	2.09	0.56
4:AE:131:ASN:ND2	4:AE:133:ILE:HB	2.21	0.56
5:AF:92:THR:HG22	5:AF:93:LYS:N	2.21	0.56
11:AL:43:LYS:HE3	11:AL:44:PRO:HD3	1.86	0.56
12:AM:28:ARG:NH1	12:AM:32:ILE:HD12	2.21	0.56
53:B6:67:VAL:HA	53:B6:99:LEU:O	2.06	0.56
23:BB:1528:A:H2'	23:BB:1529:G:O4'	2.06	0.56
23:BB:2438:U:O2'	23:BB:2439:A:H5''	2.06	0.56
23:BB:2788:C:H2'	23:BB:2789:C:C6	2.41	0.56
23:BB:443:A:C8	29:BE:40:ARG:HD3	2.41	0.56
23:BB:78:U:H2'	23:BB:79:C:C6	2.41	0.56
23:BB:919:U:H2'	23:BB:920:A:H8	1.67	0.56
23:BB:1257:C:O2'	29:BE:79:ARG:HB2	2.06	0.56
47:BF:126:ASN:HD22	47:BF:156:THR:CA	2.14	0.56
23:BB:1287:A:N7	42:BN:105:GLY:HA3	2.20	0.56
45:BS:42:LYS:O	45:BS:45:VAL:HG22	2.06	0.56
46:BU:5:ARG:HG2	46:BU:5:ARG:HH21	1.70	0.56
1:CA:1463:U:H2'	1:CA:1464:U:C6	2.41	0.56
1:CA:154:U:H2'	1:CA:155:A:C8	2.41	0.56
1:CA:270:A:H2'	1:CA:271:C:H6	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:373:A:C1'	1:CA:481:G:H1'	2.36	0.56
1:CA:607:A:H2'	1:CA:608:A:C8	2.41	0.56
1:CA:621:A:H2'	1:CA:622:A:C8	2.41	0.56
20:CB:45:THR:HG22	20:CB:49:PHE:CZ	2.40	0.56
2:CC:126:ARG:NH2	2:CC:191:THR:H	2.03	0.56
3:CD:160:LEU:HD22	3:CD:161:ALA:N	2.21	0.56
3:CD:172:VAL:HG23	3:CD:178:GLU:O	2.06	0.56
3:CD:2:ARG:O	3:CD:3:TYR:HB3	2.06	0.56
9:CJ:78:GLU:O	9:CJ:80:THR:N	2.38	0.56
9:CJ:91:ASP:C	9:CJ:92:LEU:HD13	2.25	0.56
17:CR:31:TYR:HB3	17:CR:54:LEU:HD21	1.88	0.56
19:CT:57:VAL:HB	19:CT:71:ALA:HB1	1.87	0.56
23:DB:138:U:H2'	23:DB:140:C:C1'	2.36	0.56
23:DB:2088:A:H2'	23:DB:2089:C:C6	2.41	0.56
23:DB:2462:C:H2'	23:DB:2463:C:C6	2.40	0.56
23:DB:291:G:H2'	23:DB:292:U:C6	2.41	0.56
23:DB:544:C:O2'	23:DB:545:U:O5'	2.24	0.56
25:DC:103:ILE:HG22	25:DC:105:ALA:N	2.19	0.56
29:DE:60:TRP:O	29:DE:61:ARG:HB2	2.04	0.56
24:DI:49:GLU:CB	24:DI:52:LEU:HD12	2.36	0.56
49:DR:16:GLU:HA	49:DR:98:ILE:HG22	1.86	0.56
1:AA:131:A:H2'	1:AA:132:C:C6	2.41	0.56
1:AA:235:C:H2'	1:AA:236:A:C8	2.41	0.56
1:AA:590:U:H2'	1:AA:591:U:C6	2.41	0.56
1:AA:843:U:H3'	1:AA:844:G:H5'	1.87	0.56
1:AA:922:G:H4'	4:AE:24:VAL:HA	1.88	0.56
1:AA:923:A:H2'	1:AA:924:C:C6	2.41	0.56
14:AO:45:GLU:HG2	14:AO:46:HIS:N	2.21	0.56
33:B1:28:THR:C	33:B1:30:PRO:HD3	2.27	0.56
53:B6:107:THR:HG22	53:B6:108:GLU:N	2.20	0.56
23:BB:1015:U:H2'	23:BB:1016:G:H8	1.71	0.56
23:BB:132:G:O2'	23:BB:133:U:H5'	2.06	0.56
23:BB:1341:G:H2'	23:BB:1397:U:O2'	2.06	0.56
23:BB:2187:U:H2'	23:BB:2188:U:C6	2.41	0.56
23:BB:2675:A:N1	23:BB:2732:G:O6	2.39	0.56
23:BB:41:C:H2'	23:BB:42:A:O4'	2.06	0.56
23:BB:784:G:H5''	25:BC:225:ASN:OD1	2.05	0.56
23:BB:784:G:C6	25:BC:227:VAL:HG11	2.41	0.56
25:BC:245:THR:O	25:BC:247:TRP:N	2.39	0.56
29:BE:46:GLN:HG3	29:BE:87:ALA:H	1.71	0.56
42:BN:55:ALA:HA	42:BN:80:PHE:CE1	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BN:79:LEU:O	42:BN:80:PHE:HB2	2.05	0.56
35:BV:38:LEU:HD21	35:BV:65:VAL:HG21	1.88	0.56
1:CA:366:A:O2'	1:CA:394:G:N2	2.39	0.56
3:CD:153:ARG:HG3	3:CD:154:VAL:H	1.71	0.56
12:CM:79:LEU:HD22	12:CM:86:ARG:NE	2.21	0.56
17:CR:58:ILE:O	17:CR:62:ARG:HG3	2.06	0.56
23:DB:2415:G:H2'	23:DB:2416:C:H6	1.71	0.56
23:DB:2626:C:O2'	23:DB:2627:G:H5'	2.05	0.56
23:DB:2636:C:H2'	23:DB:2637:U:H6	1.71	0.56
23:DB:858:G:H21	23:DB:2268:A:H3'	1.71	0.56
25:DC:153:LEU:HD13	25:DC:175:LEU:CD2	2.36	0.56
26:DD:118:PHE:HZ	26:DD:123:LYS:NZ	2.04	0.56
26:DD:68:PHE:HB3	26:DD:73:VAL:HG23	1.88	0.56
48:DG:53:PRO:HG3	48:DG:61:TRP:H	1.70	0.56
41:DJ:11:VAL:HG12	41:DJ:12:LYS:N	2.21	0.56
28:DP:36:LYS:C	28:DP:37:LYS:HG2	2.26	0.56
51:DZ:27:ARG:HD2	51:DZ:29:PHE:CZ	2.41	0.56
1:AA:1465:A:H2'	1:AA:1466:C:C6	2.41	0.56
1:AA:736:C:H2'	1:AA:737:C:H6	1.69	0.56
1:AA:410:G:P	3:AD:25:ARG:HE	2.29	0.56
10:AK:108:ASN:ND2	21:AU:6:ARG:HG3	2.21	0.56
15:AP:48:GLU:CG	15:AP:49:GLY:H	2.19	0.56
32:B4:12:ARG:HG3	32:B4:13:ASN:ND2	2.19	0.56
23:BB:1484:U:H2'	23:BB:1485:U:H6	1.70	0.56
23:BB:1942:C:H1'	53:B6:133:ARG:NH2	2.21	0.56
23:BB:454:A:H3'	23:BB:455:C:H5'	1.88	0.56
48:BG:162:ARG:CG	48:BG:166:GLU:HG3	2.36	0.56
37:BL:143:GLU:CG	37:BL:144:GLU:H	2.02	0.56
31:B0:41:HIS:HB3	42:BN:99:LYS:CB	2.36	0.56
1:CA:1013:G:H2'	1:CA:1015:G:OP2	2.06	0.56
3:CD:116:LEU:O	3:CD:121:ALA:HB3	2.06	0.56
3:CD:137:SER:HB3	3:CD:138:PRO:HD2	1.87	0.56
5:CF:29:ILE:HG21	5:CF:64:VAL:CG1	2.33	0.56
6:CG:147:ASN:N	6:CG:147:ASN:HD22	2.04	0.56
6:CG:72:VAL:HG12	6:CG:89:GLU:HG3	1.87	0.56
8:CI:33:SER:OG	8:CI:36:GLN:HB2	2.06	0.56
53:D6:63:PRO:HD2	53:D6:64:ARG:NH1	2.21	0.56
23:DB:1015:U:H2'	23:DB:1016:G:H8	1.72	0.56
23:DB:1484:U:H2'	23:DB:1485:U:H6	1.71	0.56
23:DB:1733:G:H2'	23:DB:1734:G:C8	2.41	0.56
23:DB:2313:C:H2'	23:DB:2314:A:C8	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2500:U:H5'	23:DB:2501:C:OP2	2.06	0.56
23:DB:2722:G:H2'	23:DB:2723:C:C6	2.41	0.56
23:DB:2899:A:H2'	23:DB:2900:A:C8	2.40	0.56
23:DB:441:U:H2'	23:DB:442:G:C8	2.41	0.56
23:DB:848:C:H2'	23:DB:849:A:H8	1.71	0.56
25:DC:93:VAL:HG21	25:DC:115:ILE:HD11	1.88	0.56
29:DE:67:ARG:HG2	29:DE:67:ARG:NH1	2.21	0.56
47:DF:106:ALA:HA	47:DF:135:ILE:CD1	2.36	0.56
48:DG:145:ALA:HA	48:DG:148:ARG:HG3	1.86	0.56
27:DK:35:VAL:HG23	27:DK:36:GLY:N	2.16	0.56
43:DO:58:ILE:HG22	43:DO:62:LEU:HD23	1.85	0.56
43:DO:15:ARG:NH2	43:DO:95:SER:HB3	2.19	0.56
44:DQ:26:ALA:O	44:DQ:30:VAL:HG12	2.04	0.56
44:DQ:59:LEU:O	44:DQ:62:ALA:HB3	2.06	0.56
46:DU:35:VAL:HB	46:DU:38:ILE:HG21	1.87	0.56
46:DU:64:ILE:HG13	46:DU:65:GLN:N	2.20	0.56
1:AA:312:C:H2'	1:AA:313:A:C8	2.40	0.55
12:AM:47:LEU:HD12	12:AM:51:GLN:HB2	1.88	0.55
14:AO:89:ARG:HA	14:AO:89:ARG:HH11	1.70	0.55
15:AP:57:ILE:O	15:AP:61:VAL:HG23	2.05	0.55
16:AQ:6:THR:HG22	16:AQ:61:ARG:HB3	1.87	0.55
23:BB:1239:G:O2'	23:BB:1240:U:H5'	2.06	0.55
23:BB:2216:G:H2'	23:BB:2217:G:H8	1.71	0.55
23:BB:2516:A:O2'	23:BB:2517:C:H5'	2.07	0.55
23:BB:416:U:H2'	23:BB:417:C:C6	2.41	0.55
23:BB:620:G:O6	29:BE:98:LYS:HE2	2.06	0.55
23:BB:649:G:H2'	23:BB:650:C:C6	2.41	0.55
25:BC:121:ALA:HB3	25:BC:129:LEU:HD11	1.87	0.55
25:BC:30:ALA:HA	25:BC:33:LEU:HD12	1.88	0.55
40:BH:67:ALA:O	40:BH:70:GLU:HG2	2.06	0.55
24:BI:14:ALA:HB1	24:BI:50:LYS:HA	1.87	0.55
23:BB:1070:A:C2	24:BI:9:LYS:HE3	2.41	0.55
41:BJ:11:VAL:HG12	41:BJ:12:LYS:N	2.21	0.55
41:BJ:18:VAL:CG1	41:BJ:54:ILE:HD11	2.36	0.55
42:BN:33:ILE:O	42:BN:33:ILE:HD12	2.06	0.55
44:BQ:51:GLN:O	44:BQ:55:GLN:HG3	2.05	0.55
44:BQ:63:ARG:HH12	44:BQ:96:ASP:CA	2.15	0.55
23:BB:2356:U:C5'	52:BW:16:GLU:HG3	2.35	0.55
39:BX:24:GLU:O	39:BX:28:LEU:HD23	2.05	0.55
1:CA:1163:A:H2'	1:CA:1164:G:H8	1.71	0.55
1:CA:1397:C:H4'	1:CA:1398:A:OP2	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:373:A:H1'	1:CA:481:G:H1'	1.88	0.55
12:CM:21:ILE:HG22	12:CM:23:GLY:H	1.70	0.55
13:CN:5:MET:HB3	13:CN:62:ARG:HH12	1.71	0.55
18:CS:14:LEU:O	18:CS:18:VAL:HG12	2.05	0.55
23:DB:162:U:O2'	23:DB:163:C:H5'	2.06	0.55
23:DB:2037:A:H2'	23:DB:2038:G:H8	1.70	0.55
23:DB:2547:A:H2'	23:DB:2548:U:C6	2.41	0.55
23:DB:2675:A:N1	23:DB:2732:G:O6	2.39	0.55
23:DB:417:C:H2'	23:DB:418:C:C6	2.41	0.55
29:DE:134:LEU:HD21	29:DE:161:ALA:HB2	1.88	0.55
29:DE:48:THR:H	29:DE:51:GLU:HG3	1.70	0.55
47:DF:71:LYS:NZ	47:DF:73:VAL:HB	2.21	0.55
46:DU:26:ASN:ND2	46:DU:34:ILE:HD12	2.20	0.55
23:DB:2355:G:H4'	52:DW:20:LEU:CD1	2.36	0.55
23:DB:2352:A:N3	52:DW:29:SER:HB3	2.21	0.55
1:AA:1060:U:H2'	1:AA:1061:G:H8	1.71	0.55
1:AA:1352:C:H2'	1:AA:1353:G:C8	2.40	0.55
1:AA:474:G:H2'	1:AA:475:C:C6	2.41	0.55
1:AA:26:A:H61	1:AA:558:G:H1'	1.71	0.55
20:AB:23:ASN:HB3	20:AB:188:THR:O	2.07	0.55
2:AC:39:ARG:NH1	2:AC:56:ILE:HD12	2.21	0.55
2:AC:62:SER:HB2	2:AC:97:PRO:O	2.06	0.55
4:AE:14:LEU:HA	4:AE:36:THR:HG22	1.88	0.55
4:AE:82:HIS:HB2	4:AE:83:PRO:HD2	1.88	0.55
23:BB:1061:U:O4'	23:BB:1070:A:H1'	2.05	0.55
23:BB:2187:U:H2'	23:BB:2188:U:H6	1.70	0.55
23:BB:2757:A:N3	23:BB:2757:A:H2'	2.21	0.55
23:BB:2848:G:H1'	23:BB:2868:A:N6	2.21	0.55
23:BB:365:U:H2'	23:BB:366:C:C6	2.41	0.55
26:BD:121:THR:HG23	26:BD:162:ALA:H	1.71	0.55
26:BD:107:VAL:H	26:BD:206:ALA:H	1.53	0.55
47:BF:65:LEU:HD23	47:BF:87:LYS:HD2	1.87	0.55
48:BG:87:GLN:HE21	48:BG:87:GLN:H	1.53	0.55
40:BH:51:ARG:H	40:BH:51:ARG:HD2	1.71	0.55
42:BN:52:ILE:HD11	42:BN:83:LEU:HD23	1.89	0.55
45:BS:55:ILE:O	45:BS:59:GLU:HG2	2.07	0.55
35:BV:6:ALA:C	35:BV:65:VAL:HG12	2.26	0.55
1:CA:1032:G:H2'	1:CA:1033:G:C4'	2.36	0.55
1:CA:575:G:H4'	1:CA:576:C:O5'	2.06	0.55
1:CA:859:G:H2'	1:CA:860:A:H8	1.72	0.55
20:CB:85:SER:CB	20:CB:221:ARG:HH12	2.19	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CC:176:THR:HB	2:CC:179:ALA:HB2	1.88	0.55
3:CD:151:GLN:HB3	3:CD:154:VAL:HG22	1.87	0.55
6:CG:130:LYS:N	6:CG:134:VAL:HG21	2.21	0.55
9:CJ:40:ILE:HD12	9:CJ:73:LEU:HD12	1.88	0.55
22:DA:29:A:OP2	43:DO:32:PRO:HD2	2.06	0.55
22:DA:35:C:H2'	22:DA:36:C:O4'	2.05	0.55
23:DB:1682:G:H2'	23:DB:1683:U:C6	2.40	0.55
23:DB:2078:C:O2'	23:DB:2079:U:H5'	2.05	0.55
23:DB:437:U:H2'	23:DB:438:G:H8	1.71	0.55
23:DB:599:A:O2'	23:DB:600:G:H5'	2.06	0.55
23:DB:632:A:H2'	23:DB:633:A:C8	2.41	0.55
23:DB:65:U:H2'	23:DB:66:C:H6	1.71	0.55
23:DB:784:G:H5''	25:DC:225:ASN:OD1	2.06	0.55
25:DC:131:MET:HA	25:DC:134:ILE:HG12	1.87	0.55
25:DC:140:VAL:HG12	25:DC:141:HIS:N	2.18	0.55
41:DJ:128:ASN:C	41:DJ:129:GLU:HG3	2.27	0.55
42:DN:106:ASP:OD1	42:DN:108:ALA:HB3	2.06	0.55
44:DQ:91:ARG:NH1	49:DR:11:GLN:N	2.51	0.55
1:AA:173:U:H5'	1:AA:197:A:O4'	2.05	0.55
3:AD:2:ARG:O	3:AD:3:TYR:HB3	2.06	0.55
3:AD:3:TYR:C	3:AD:4:LEU:HD12	2.26	0.55
10:AK:111:ASP:HB2	21:AU:19:LYS:CE	2.35	0.55
13:AN:71:GLY:O	13:AN:79:SER:HA	2.06	0.55
15:AP:59:HIS:O	15:AP:63:GLN:HG3	2.05	0.55
23:BB:1146:C:H2'	23:BB:1147:A:C8	2.42	0.55
23:BB:1733:G:H2'	23:BB:1734:G:C8	2.40	0.55
23:BB:2467:C:H1'	38:BM:122:ALA:HB1	1.87	0.55
23:BB:981:A:H2'	23:BB:982:C:H5''	1.88	0.55
47:BF:45:ASP:O	47:BF:46:LYS:HB2	2.07	0.55
48:BG:85:LYS:HA	48:BG:131:VAL:HG12	1.87	0.55
48:BG:34:ARG:HG2	48:BG:34:ARG:HH11	1.71	0.55
40:BH:116:ARG:HH22	40:BH:139:PHE:HB3	1.71	0.55
35:BV:76:ASP:HA	38:BM:136:MET:HE3	1.87	0.55
52:BW:75:ASN:HD22	52:BW:75:ASN:C	2.09	0.55
1:CA:1071:C:H2'	1:CA:1072:G:C8	2.40	0.55
1:CA:1283:U:H2'	1:CA:1284:C:C6	2.41	0.55
1:CA:1391:U:H2'	1:CA:1392:G:H8	1.70	0.55
1:CA:695:A:H61	1:CA:797:C:H1'	1.72	0.55
5:CF:89:VAL:O	1:CA:737:C:H5'	2.07	0.55
4:CE:82:HIS:HB2	4:CE:83:PRO:HD2	1.87	0.55
6:CG:42:VAL:O	6:CG:46:LEU:HB2	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CJ:9:ARG:HG3	9:CJ:99:GLN:NE2	2.22	0.55
11:CL:84:GLY:H	11:CL:94:TYR:HA	1.71	0.55
14:CO:32:LEU:O	14:CO:36:ILE:HG12	2.06	0.55
32:D4:13:ASN:HD22	32:D4:13:ASN:N	2.04	0.55
23:DB:1141:U:OP2	41:DJ:65:THR:HG21	2.06	0.55
23:DB:1242:U:H2'	23:DB:1243:C:C6	2.41	0.55
23:DB:1327:A:H2'	23:DB:1328:A:O4'	2.05	0.55
23:DB:910:A:H2'	23:DB:911:A:C8	2.42	0.55
25:DC:77:VAL:HG23	25:DC:112:GLY:H	1.70	0.55
40:DH:90:LEU:HD12	40:DH:90:LEU:N	2.21	0.55
24:DI:54:ILE:HD13	24:DI:55:PRO:N	2.21	0.55
37:DL:18:ARG:C	37:DL:19:LEU:HD12	2.27	0.55
42:DN:80:PHE:O	42:DN:85:PRO:HD3	2.05	0.55
28:DP:112:ARG:HB2	28:DP:112:ARG:HH11	1.71	0.55
52:DW:23:LYS:HD2	52:DW:24:ARG:N	2.21	0.55
52:DW:59:PHE:O	52:DW:60:ALA:CB	2.53	0.55
52:DW:59:PHE:O	52:DW:60:ALA:HB3	2.06	0.55
30:DY:30:ARG:NH1	30:DY:33:HIS:HA	2.21	0.55
1:AA:1391:U:H2'	1:AA:1392:G:H8	1.68	0.55
1:AA:239:U:C5'	1:AA:239:U:H6	2.19	0.55
1:AA:83:C:O2'	1:AA:84:U:H5'	2.06	0.55
14:AO:60:VAL:HG11	23:BB:715:A:O4'	2.05	0.55
23:BB:1171:G:H3'	23:BB:1172:C:C4'	2.36	0.55
23:BB:1548:A:H2'	23:BB:1549:A:C8	2.41	0.55
23:BB:1657:U:O2'	23:BB:1658:C:H5'	2.07	0.55
23:BB:172:A:H2'	23:BB:173:A:H8	1.71	0.55
23:BB:1910:G:C6	23:BB:1921:G:C2	2.94	0.55
23:BB:2500:U:H5'	23:BB:2501:C:OP2	2.06	0.55
23:BB:2849:U:H4'	23:BB:2850:A:H5'	1.89	0.55
25:BC:143:VAL:HB	25:BC:153:LEU:HB2	1.88	0.55
25:BC:158:GLY:N	25:BC:194:VAL:HG13	2.22	0.55
25:BC:16:VAL:N	25:BC:203:VAL:HG12	2.21	0.55
47:BF:126:ASN:ND2	47:BF:156:THR:HA	2.17	0.55
47:BF:77:LYS:HG3	47:BF:79:ARG:NH2	2.22	0.55
48:BG:66:THR:O	48:BG:70:LEU:HB2	2.06	0.55
41:BJ:99:ARG:HA	41:BJ:102:GLU:HB2	1.87	0.55
41:BJ:34:ARG:HD2	41:BJ:39:LYS:HB3	1.87	0.55
37:BL:77:ILE:HB	37:BL:109:LYS:O	2.07	0.55
28:BP:36:LYS:C	28:BP:37:LYS:HG2	2.27	0.55
35:BV:4:ILE:HB	35:BV:63:ILE:HA	1.87	0.55
23:BB:856:G:C1'	52:BW:23:LYS:HB3	2.32	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:2352:A:N1	52:BW:30:VAL:HG11	2.21	0.55
39:BX:29:ARG:HH11	50:BT:12:ARG:HE	1.53	0.55
1:CA:212:G:H2'	1:CA:213:G:C8	2.42	0.55
1:CA:542:G:O2'	1:CA:543:U:H5'	2.06	0.55
7:CH:81:GLY:HA2	1:CA:586:C:H5''	1.89	0.55
1:CA:610:U:O4'	1:CA:610:U:O2	2.23	0.55
4:CE:98:ALA:HB2	4:CE:123:LEU:HG	1.88	0.55
5:CF:29:ILE:HD13	5:CF:64:VAL:HG11	1.89	0.55
12:CM:28:ARG:HH11	12:CM:32:ILE:HD12	1.70	0.55
21:CU:16:ARG:CA	21:CU:16:ARG:NE	2.69	0.55
36:D2:3:ARG:NE	36:D2:3:ARG:HA	2.20	0.55
23:DB:141:G:H5''	23:DB:142:A:OP2	2.06	0.55
23:DB:155:A:H2'	23:DB:156:A:H8	1.71	0.55
23:DB:165:A:H2'	23:DB:166:U:C6	2.42	0.55
23:DB:170:U:H2'	23:DB:171:U:C6	2.41	0.55
23:DB:259:G:O2'	23:DB:260:G:H5'	2.07	0.55
23:DB:2804:U:H2'	23:DB:2805:C:H6	1.67	0.55
23:DB:281:C:O2'	23:DB:282:A:H5'	2.07	0.55
23:DB:363:G:H2'	23:DB:364:C:C6	2.41	0.55
23:DB:5:A:H2'	23:DB:6:A:C8	2.41	0.55
25:DC:231:HIS:HA	25:DC:241:LYS:CE	2.35	0.55
29:DE:108:ILE:CD1	29:DE:180:LEU:HB2	2.36	0.55
47:DF:109:ARG:HB3	47:DF:135:ILE:CD1	2.34	0.55
23:DB:1080:A:H4'	24:DI:126:ARG:HD2	1.87	0.55
42:DN:55:ALA:HA	42:DN:80:PHE:CE1	2.41	0.55
52:DW:30:VAL:O	52:DW:30:VAL:HG13	2.07	0.55
1:AA:215:C:H2'	1:AA:216:U:H6	1.70	0.55
1:AA:522:C:H41	11:AL:49:ARG:NH2	2.01	0.55
3:AD:29:THR:HB	3:AD:30:LYS:HZ3	1.71	0.55
4:AE:158:LYS:HZ1	7:AH:63:LYS:CD	2.10	0.55
6:AG:58:LEU:O	6:AG:62:GLU:HB2	2.07	0.55
8:AI:94:ARG:HA	8:AI:97:LEU:HD12	1.88	0.55
9:AJ:78:GLU:O	9:AJ:80:THR:N	2.38	0.55
10:AK:28:ASN:HD21	10:AK:46:ALA:HB3	1.70	0.55
14:AO:78:TYR:CZ	14:AO:82:ILE:HD11	2.42	0.55
34:B3:49:VAL:HG11	34:B3:57:VAL:HG21	1.89	0.55
53:B6:6:LEU:HD12	53:B6:143:LEU:HD22	1.87	0.55
23:BB:1729:U:H5'	23:BB:1730:C:OP2	2.07	0.55
23:BB:1908:C:H2'	23:BB:1909:C:H4'	1.87	0.55
23:BB:2185:U:H2'	23:BB:2186:G:O4'	2.06	0.55
23:BB:2567:G:H2'	23:BB:2568:U:C6	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:2722:G:H2'	23:BB:2723:C:C6	2.42	0.55
23:BB:634:C:H2'	23:BB:635:C:H6	1.72	0.55
25:BC:202:ARG:HB2	25:BC:202:ARG:HH21	1.72	0.55
23:BB:2305:U:C4	47:BF:151:LEU:HA	2.41	0.55
47:BF:35:LEU:CD2	47:BF:153:ILE:HG12	2.35	0.55
48:BG:148:ARG:HD3	48:BG:152:ARG:CZ	2.36	0.55
48:BG:17:LYS:HA	48:BG:17:LYS:NZ	2.22	0.55
48:BG:97:VAL:HG11	48:BG:123:GLU:HA	1.88	0.55
27:BK:43:ILE:HD13	27:BK:56:ASP:HB2	1.88	0.55
28:BP:6:GLN:HA	28:BP:9:GLN:HG2	1.89	0.55
50:BT:54:GLU:HB3	50:BT:88:LYS:HB2	1.87	0.55
35:BV:77:VAL:HG23	35:BV:89:ILE:HG22	1.88	0.55
1:CA:17:U:H2'	1:CA:18:C:H6	1.72	0.55
1:CA:173:U:H5'	1:CA:197:A:O4'	2.06	0.55
2:CC:174:LEU:HD21	2:CC:200:TRP:CD1	2.41	0.55
4:CE:131:ASN:ND2	4:CE:133:ILE:HB	2.22	0.55
6:CG:108:ARG:HG2	6:CG:115:MET:HE3	1.87	0.55
8:CI:17:ARG:HD2	1:CA:1147:C:O2'	2.07	0.55
18:CS:68:HIS:HB3	18:CS:72:GLU:OE2	2.07	0.55
53:D6:180:GLU:O	53:D6:184:LEU:HG	2.05	0.55
53:D6:52:LEU:HA	53:D6:55:ILE:HG22	1.89	0.55
23:DB:1661:G:O2'	23:DB:1662:U:H5'	2.06	0.55
23:DB:2869:G:H2'	23:DB:2870:C:C6	2.41	0.55
25:DC:71:ASP:HA	25:DC:117:SER:O	2.05	0.55
25:DC:12:ARG:HD3	25:DC:12:ARG:O	2.06	0.55
29:DE:147:LEU:HB3	29:DE:186:VAL:HG23	1.87	0.55
47:DF:77:LYS:HG3	47:DF:79:ARG:NH2	2.21	0.55
40:DH:82:SER:HB2	40:DH:94:ILE:HD11	1.88	0.55
27:DK:109:SER:HB2	27:DK:111:LYS:HZ1	1.71	0.55
37:DL:100:ILE:O	37:DL:100:ILE:HG12	2.06	0.55
38:DM:102:LEU:HD22	38:DM:102:LEU:H	1.71	0.55
42:DN:96:ARG:HG2	42:DN:98:LEU:HD22	1.88	0.55
28:DP:57:ALA:HA	28:DP:73:PHE:O	2.07	0.55
49:DR:14:VAL:HG11	49:DR:20:VAL:HG21	1.88	0.55
35:DV:64:VAL:HG22	35:DV:69:GLU:HB3	1.87	0.55
1:AA:1508:A:H2'	1:AA:1509:C:H6	1.71	0.55
1:AA:208:U:H2'	1:AA:210:C:C2	2.42	0.55
1:AA:213:G:N3	1:AA:213:G:H2'	2.20	0.55
6:AG:3:ARG:O	6:AG:5:VAL:HG22	2.06	0.55
22:BA:94:A:H2'	22:BA:95:U:O4'	2.06	0.55
23:BB:2889:C:O2'	23:BB:2890:G:H5'	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:437:U:H2'	23:BB:438:G:C8	2.42	0.55
23:BB:532:A:H4'	23:BB:533:G:C8	2.42	0.55
23:BB:632:A:H2'	23:BB:633:A:C8	2.41	0.55
23:BB:668:A:H2'	23:BB:670:A:H62	1.72	0.55
25:BC:77:VAL:HG23	25:BC:112:GLY:H	1.70	0.55
25:BC:20:ASN:ND2	25:BC:23:LEU:HD13	2.21	0.55
26:BD:133:THR:HG23	26:BD:134:HIS:N	2.19	0.55
29:BE:146:VAL:HA	29:BE:185:LYS:O	2.07	0.55
47:BF:119:LYS:HA	47:BF:121:PHE:CZ	2.41	0.55
47:BF:1:ALA:HB2	47:BF:93:GLU:OE2	2.06	0.55
41:BJ:18:VAL:HG12	41:BJ:54:ILE:HD11	1.88	0.55
38:BM:94:ALA:O	38:BM:96:ILE:HG23	2.07	0.55
42:BN:96:ARG:HG2	42:BN:98:LEU:HD22	1.87	0.55
28:BP:61:ARG:HH21	28:BP:61:ARG:HB3	1.72	0.55
1:CA:1118:U:H2'	1:CA:1119:C:H6	1.72	0.55
1:CA:843:U:H3'	1:CA:844:G:H5'	1.88	0.55
2:CC:39:ARG:NH1	2:CC:56:ILE:HD12	2.21	0.55
9:CJ:53:ILE:HG13	13:CN:84:ARG:CZ	2.35	0.55
19:CT:66:ILE:HG23	19:CT:70:LYS:HD3	1.89	0.55
34:D3:49:VAL:HG11	34:D3:57:VAL:HG21	1.87	0.55
53:D6:113:ASP:HA	53:D6:116:ARG:CD	2.37	0.55
23:DB:2134:A:O2'	23:DB:2135:A:H4'	2.07	0.55
23:DB:2834:G:H1'	23:DB:2883:A:H61	1.71	0.55
23:DB:851:C:H2'	23:DB:852:U:H6	1.72	0.55
23:DB:873:C:H2'	23:DB:874:G:H8	1.72	0.55
38:DM:118:LYS:C	38:DM:120:ALA:H	2.08	0.55
28:DP:59:THR:OG1	28:DP:72:VAL:HG12	2.07	0.55
52:DW:30:VAL:HA	52:DW:60:ALA:O	2.07	0.55
1:AA:212:G:H2'	1:AA:213:G:C8	2.41	0.55
1:AA:539:A:H2'	1:AA:540:G:H8	1.71	0.55
1:AA:719:C:H1'	17:AR:37:LYS:HB2	1.86	0.55
20:AB:138:ARG:HD3	20:AB:141:GLU:OE1	2.07	0.55
4:AE:148:SER:O	4:AE:152:VAL:HG23	2.06	0.55
14:AO:56:LEU:HD12	14:AO:59:MET:HE3	1.89	0.55
21:AU:38:GLU:C	21:AU:40:PRO:HD2	2.27	0.55
23:BB:1407:G:H2'	23:BB:1408:G:H8	1.71	0.55
23:BB:2220:U:O2'	23:BB:2221:G:H5'	2.07	0.55
23:BB:2312:U:O2	47:BF:38:GLY:HA3	2.07	0.55
23:BB:2336:A:H61	52:BW:40:ARG:HD2	1.72	0.55
23:BB:2391:G:O6	23:BB:2425:A:H8	1.88	0.55
23:BB:287:G:H2'	23:BB:288:U:H6	1.70	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:686:U:H1'	36:B2:6:GLN:O	2.07	0.55
25:BC:216:ARG:HH11	25:BC:216:ARG:HG3	1.71	0.55
26:BD:121:THR:O	26:BD:122:VAL:HB	2.06	0.55
26:BD:182:ALA:O	26:BD:184:ARG:N	2.38	0.55
26:BD:55:LYS:HZ1	26:BD:60:VAL:HG13	1.70	0.55
29:BE:176:ASP:OD1	29:BE:178:VAL:HG12	2.06	0.55
47:BF:71:LYS:NZ	47:BF:73:VAL:HB	2.22	0.55
40:BH:94:ILE:HG22	40:BH:99:ILE:HD11	1.88	0.55
43:BO:30:ARG:HD2	43:BO:31:THR:N	2.22	0.55
43:BO:56:LYS:O	43:BO:60:GLU:HG3	2.06	0.55
1:CA:239:U:C5'	1:CA:239:U:H6	2.19	0.55
3:CD:105:GLY:HA3	3:CD:158:LEU:HD23	1.89	0.55
3:CD:170:LEU:HA	3:CD:182:LYS:HB2	1.87	0.55
9:CJ:66:GLU:HB3	13:CN:98:ALA:HB2	1.87	0.55
22:DA:111:U:H2'	22:DA:112:G:C8	2.42	0.55
23:DB:1114:C:H2'	23:DB:1115:G:O4'	2.06	0.55
23:DB:2194:U:H2'	23:DB:2195:U:H6	1.71	0.55
23:DB:2360:G:H4'	37:DL:61:LEU:HD11	1.89	0.55
23:DB:2415:G:H2'	23:DB:2416:C:C6	2.41	0.55
23:DB:2514:U:H2'	23:DB:2515:C:C6	2.41	0.55
23:DB:2543:G:H8	23:DB:2543:G:H5'	1.71	0.55
23:DB:2813:A:H2'	23:DB:2814:A:H8	1.71	0.55
23:DB:419:U:H2'	23:DB:420:C:H6	1.71	0.55
23:DB:649:G:H2'	23:DB:650:C:C6	2.41	0.55
23:DB:686:U:H1'	36:D2:6:GLN:O	2.07	0.55
23:DB:776:G:H4'	23:DB:777:G:O5'	2.07	0.55
23:DB:84:A:H4'	23:DB:85:G:O5'	2.07	0.55
25:DC:155:ARG:CB	25:DC:155:ARG:HH11	2.20	0.55
40:DH:97:ARG:H	40:DH:97:ARG:HD2	1.72	0.55
41:DJ:70:THR:HG22	41:DJ:90:GLU:CD	2.26	0.55
43:DO:67:ASN:H	43:DO:70:ALA:HB3	1.69	0.55
49:DR:72:VAL:HG23	49:DR:89:HIS:HB3	1.89	0.55
50:DT:34:VAL:HG23	50:DT:81:LYS:HB3	1.89	0.55
46:DU:51:LEU:N	46:DU:53:GLN:NE2	2.54	0.55
1:AA:1000:A:H2'	1:AA:1001:C:H6	1.72	0.55
1:AA:1314:C:H3'	18:AS:5:LYS:NZ	2.21	0.55
1:AA:868:C:H2'	1:AA:869:G:O4'	2.07	0.55
3:AD:116:LEU:O	3:AD:121:ALA:HB3	2.07	0.55
6:AG:4:ARG:O	6:AG:5:VAL:HG13	2.07	0.55
8:AI:33:SER:OG	8:AI:36:GLN:HB2	2.06	0.55
53:B6:111:ARG:O	53:B6:115:VAL:HG23	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:B6:40:HIS:O	53:B6:41:LEU:C	2.45	0.55
53:B6:83:ILE:O	53:B6:88:LEU:HB2	2.07	0.55
23:BB:1018:U:O2'	23:BB:1019:U:H5'	2.05	0.55
23:BB:1796:U:H2'	23:BB:1797:G:C8	2.42	0.55
23:BB:2899:A:H2'	23:BB:2900:A:C8	2.42	0.55
23:BB:608:A:H2'	23:BB:609:A:C8	2.41	0.55
23:BB:64:A:H2'	23:BB:65:U:C6	2.42	0.55
23:BB:670:A:H4'	23:BB:671:C:C5'	2.36	0.55
23:BB:741:U:H2'	23:BB:742:A:C8	2.41	0.55
23:BB:848:C:H2'	23:BB:849:A:H8	1.72	0.55
47:BF:45:ASP:O	47:BF:47:LYS:HD3	2.07	0.55
40:BH:89:LYS:HZ2	40:BH:89:LYS:HA	1.71	0.55
24:BI:112:LYS:O	24:BI:116:MET:HG3	2.06	0.55
24:BI:17:ALA:O	24:BI:18:ASN:HB3	2.07	0.55
24:BI:58:ILE:N	24:BI:58:ILE:HD12	2.21	0.55
41:BJ:34:ARG:HG3	41:BJ:34:ARG:HH11	1.71	0.55
27:BK:19:VAL:HB	27:BK:41:ILE:HD11	1.89	0.55
38:BM:102:LEU:H	38:BM:102:LEU:HD22	1.72	0.55
42:BN:90:ARG:HG2	42:BN:94:TYR:HD1	1.72	0.55
43:BO:31:THR:HG23	43:BO:34:HIS:O	2.07	0.55
28:BP:91:VAL:CG2	28:BP:96:LEU:HD21	2.37	0.55
45:BS:5:ALA:HB3	45:BS:54:ALA:HB2	1.89	0.55
50:BT:12:ARG:HB3	50:BT:12:ARG:HH11	1.69	0.55
1:CA:1503:A:C8	1:CA:1531:A:H1'	2.41	0.55
1:CA:590:U:H2'	1:CA:591:U:H6	1.72	0.55
7:CH:8:ASP:OD1	7:CH:12:ARG:HD2	2.07	0.55
12:CM:47:LEU:HD12	12:CM:51:GLN:HB2	1.87	0.55
21:CU:27:VAL:O	21:CU:31:VAL:HG23	2.07	0.55
10:CK:108:ASN:ND2	21:CU:6:ARG:HG3	2.22	0.55
32:D4:1:MET:HB3	32:D4:34:LYS:HE3	1.89	0.55
23:DB:1316:U:H2'	23:DB:1317:G:C8	2.42	0.55
23:DB:1459:G:O2'	23:DB:1460:U:H5'	2.05	0.55
23:DB:1485:U:H2'	23:DB:1486:U:H6	1.72	0.55
23:DB:2479:U:OP1	23:DB:2537:U:H1'	2.06	0.55
23:DB:2897:U:H2'	23:DB:2898:U:C6	2.42	0.55
25:DC:66:PHE:HB2	25:DC:150:GLY:O	2.07	0.55
26:DD:121:THR:O	26:DD:122:VAL:HB	2.07	0.55
23:DB:2052:A:O4'	26:DD:147:GLY:HA3	2.07	0.55
47:DF:56:LEU:HD22	47:DF:59:ILE:HD12	1.89	0.55
48:DG:148:ARG:HD2	48:DG:149:ALA:N	2.22	0.55
40:DH:135:HIS:H	40:DH:138:VAL:HB	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DN:96:ARG:HH11	42:DN:116:VAL:HG23	1.70	0.55
43:DO:40:ILE:HA	43:DO:47:VAL:HA	1.89	0.55
28:DP:5:LYS:NZ	28:DP:9:GLN:HB3	2.21	0.55
46:DU:5:ARG:HG2	46:DU:5:ARG:HH21	1.71	0.55
46:DU:86:PHE:CD1	46:DU:90:LYS:HB2	2.42	0.55
1:AA:1027:C:H2'	1:AA:1028:C:O4'	2.07	0.55
1:AA:154:U:H2'	1:AA:155:A:H8	1.72	0.55
1:AA:470:C:H2'	1:AA:471:U:H6	1.72	0.55
1:AA:744:C:O2'	1:AA:745:G:H5'	2.07	0.55
1:AA:93:U:OP1	1:AA:94:G:OP2	2.25	0.55
2:AC:149:LYS:HG3	2:AC:168:ARG:HB2	1.88	0.55
12:AM:33:LEU:HD13	12:AM:39:ALA:O	2.07	0.55
34:B3:14:LYS:O	34:B3:21:PHE:O	2.24	0.55
53:B6:51:PRO:O	53:B6:55:ILE:HG22	2.07	0.55
23:BB:127:A:H5''	23:BB:128:C:C6	2.41	0.55
23:BB:1723:G:C2'	23:BB:1724:G:H5'	2.36	0.55
23:BB:2061:G:H5''	23:BB:2503:A:C2	2.42	0.55
23:BB:909:A:H2'	23:BB:912:C:H5	1.71	0.55
25:BC:12:ARG:HD3	25:BC:12:ARG:O	2.07	0.55
25:BC:35:LYS:HG2	25:BC:36:ASN:H	1.71	0.55
40:BH:116:ARG:CG	40:BH:131:SER:HB2	2.36	0.55
40:BH:130:VAL:HG23	40:BH:130:VAL:O	2.07	0.55
40:BH:131:SER:HB3	40:BH:140:ALA:O	2.06	0.55
24:BI:77:VAL:HA	24:BI:80:LYS:CE	2.37	0.55
37:BL:118:THR:O	37:BL:120:VAL:HG23	2.07	0.55
37:BL:119:PRO:HG3	37:BL:138:ALA:O	2.07	0.55
42:BN:71:ARG:HG2	42:BN:71:ARG:HH21	1.72	0.55
49:BR:14:VAL:HG11	49:BR:20:VAL:HG21	1.89	0.55
45:BS:36:LEU:H	45:BS:36:LEU:CD2	2.20	0.55
1:CA:1527:U:H2'	1:CA:1528:U:C6	2.41	0.55
3:CD:3:TYR:C	3:CD:4:LEU:HD12	2.26	0.55
5:CF:92:THR:HG22	5:CF:94:HIS:N	2.08	0.55
6:CG:26:VAL:HG12	6:CG:42:VAL:HG11	1.88	0.55
8:CI:9:GLY:O	8:CI:16:ALA:HB3	2.07	0.55
11:CL:56:LEU:HD21	11:CL:81:ILE:HG13	1.88	0.55
53:D6:123:GLU:HA	53:D6:126:ARG:HH11	1.71	0.55
23:DB:1175:A:C3'	23:DB:1176:U:H5'	2.37	0.55
23:DB:1439:A:N7	23:DB:1440:U:C6	2.75	0.55
23:DB:1796:U:H2'	23:DB:1797:G:C8	2.41	0.55
23:DB:2418:A:OP1	34:D3:44:ARG:HD3	2.07	0.55
23:DB:365:U:H2'	23:DB:366:C:H6	1.67	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1805:A:N3	25:DC:49:THR:HG23	2.22	0.55
29:DE:48:THR:HG23	29:DE:51:GLU:HG3	1.89	0.55
48:DG:134:GLY:HA3	48:DG:140:ILE:HG21	1.88	0.55
48:DG:66:THR:O	48:DG:70:LEU:HB2	2.06	0.55
23:DB:1099:G:C8	24:DI:3:LYS:CB	2.90	0.55
42:DN:78:LYS:O	42:DN:82:GLU:HB2	2.07	0.55
23:DB:1652:A:OP1	42:DN:8:ARG:HD3	2.07	0.55
28:DP:59:THR:HA	28:DP:71:ARG:O	2.07	0.55
28:DP:94:ALA:C	28:DP:95:LYS:HD2	2.27	0.55
45:DS:82:MET:HE1	45:DS:84:ARG:HH22	1.72	0.55
46:DU:5:ARG:HH22	46:DU:93:ARG:HD3	1.71	0.55
1:AA:1032:G:H2'	1:AA:1033:G:C4'	2.36	0.55
1:AA:1253:G:H2'	1:AA:1254:A:C8	2.42	0.55
1:AA:1432:G:H1'	1:AA:1468:A:H61	1.72	0.55
1:AA:87:C:H2'	1:AA:88:U:C4'	2.36	0.55
20:AB:162:VAL:HG13	20:AB:184:ALA:HB2	1.88	0.55
1:AA:532:A:H62	2:AC:191:THR:CB	2.18	0.55
2:AC:174:LEU:HD21	2:AC:200:TRP:CD1	2.40	0.55
4:AE:98:ALA:HB2	4:AE:123:LEU:HG	1.88	0.55
53:B6:108:GLU:O	53:B6:112:LYS:HG3	2.07	0.55
23:BB:1000:A:H2'	23:BB:1001:A:C8	2.42	0.55
23:BB:1441:G:H2'	23:BB:1442:U:C6	2.41	0.55
23:BB:1859:U:H2'	23:BB:1860:G:H8	1.69	0.55
23:BB:858:G:H21	23:BB:2268:A:H3'	1.71	0.55
23:BB:2740:A:H2'	23:BB:2741:A:C8	2.41	0.55
23:BB:2813:A:H2'	23:BB:2814:A:H8	1.72	0.55
23:BB:2861:U:H2'	23:BB:2862:G:H8	1.72	0.55
26:BD:56:LYS:CD	26:BD:58:ASN:HB3	2.37	0.55
40:BH:66:ASN:N	40:BH:66:ASN:HD22	2.03	0.55
41:BJ:11:VAL:HG11	41:BJ:13:ARG:HE	1.71	0.55
41:BJ:59:ALA:HB1	41:BJ:101:ILE:HG13	1.88	0.55
28:BP:57:ALA:HA	28:BP:73:PHE:O	2.07	0.55
1:CA:513:C:H2'	1:CA:514:C:H6	1.72	0.55
1:CA:98:A:H2'	1:CA:99:C:H6	1.72	0.55
2:CC:139:ASN:O	2:CC:143:LEU:HD22	2.06	0.55
4:CE:113:VAL:HG23	4:CE:114:LEU:N	2.22	0.55
13:CN:71:GLY:O	13:CN:79:SER:HA	2.07	0.55
23:DB:125:A:C6	36:D2:10:LEU:HD23	2.41	0.55
23:DB:1729:U:H5'	23:DB:1730:C:OP2	2.06	0.55
23:DB:2021:C:OP1	31:D0:8:THR:HG21	2.07	0.55
23:DB:2821:A:OP2	26:DD:115:GLY:HA3	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2876:G:H5''	28:DP:2:ASN:HB2	1.88	0.55
23:DB:699:A:H2'	23:DB:700:G:O4'	2.07	0.55
23:DB:921:C:H2'	23:DB:922:C:C6	2.42	0.55
25:DC:124:LYS:N	25:DC:191:LEU:HD13	2.22	0.55
26:DD:7:LYS:HG2	26:DD:198:GLY:HA2	1.88	0.55
48:DG:34:ARG:N	48:DG:34:ARG:HD3	2.21	0.55
40:DH:100:ALA:O	40:DH:103:VAL:HG12	2.06	0.55
38:DM:35:ALA:HB3	38:DM:99:GLY:H	1.71	0.55
23:DB:141:G:C6	50:DT:2:ILE:HG23	2.41	0.55
1:AA:1180:A:H5''	1:AA:1181:G:OP2	2.07	0.54
1:AA:263:A:P	19:AT:73:ARG:HH12	2.29	0.54
1:AA:328:C:H4'	1:AA:329:A:H5'	1.89	0.54
1:AA:420:U:H2'	1:AA:422:C:C5	2.42	0.54
1:AA:683:G:O2'	1:AA:684:U:H5'	2.07	0.54
1:AA:882:C:O2'	1:AA:883:C:H5'	2.07	0.54
3:AD:172:VAL:HG23	3:AD:178:GLU:O	2.06	0.54
6:AG:104:VAL:HG12	6:AG:108:ARG:HD2	1.89	0.54
6:AG:149:ALA:HB2	10:AK:55:ARG:CZ	2.36	0.54
6:AG:42:VAL:O	6:AG:46:LEU:HB2	2.07	0.54
11:AL:20:VAL:HB	11:AL:94:TYR:HE1	1.72	0.54
9:AJ:53:ILE:HG13	13:AN:84:ARG:CZ	2.37	0.54
12:AM:82:LEU:HD21	18:AS:65:MET:HB2	1.88	0.54
36:B2:3:ARG:NE	36:B2:3:ARG:HA	2.23	0.54
53:B6:118:VAL:HG21	53:B6:183:ILE:HG21	1.88	0.54
53:B6:71:TRP:HA	53:B6:71:TRP:CE3	2.42	0.54
23:BB:1104:C:H2'	23:BB:1105:U:C6	2.43	0.54
23:BB:1316:U:H2'	23:BB:1317:G:C8	2.42	0.54
23:BB:417:C:H2'	23:BB:418:C:H6	1.72	0.54
29:BE:105:LEU:HA	29:BE:108:ILE:CG2	2.37	0.54
29:BE:108:ILE:CD1	29:BE:180:LEU:HB2	2.37	0.54
47:BF:43:ILE:HG23	47:BF:44:ALA:N	2.21	0.54
47:BF:90:LEU:C	47:BF:91:ARG:HD3	2.27	0.54
40:BH:117:LEU:CD2	40:BH:130:VAL:HG12	2.37	0.54
38:BM:35:ALA:HB3	38:BM:99:GLY:H	1.72	0.54
42:BN:65:LEU:HD11	42:BN:69:ARG:NH2	2.22	0.54
43:BO:93:ASP:C	43:BO:95:SER:H	2.10	0.54
44:BQ:43:GLN:NE2	49:BR:77:PHE:HB3	2.22	0.54
18:CS:9:PHE:CE1	1:CA:1318:A:H4'	2.42	0.54
1:CA:219:U:H2'	1:CA:220:G:H8	1.71	0.54
1:CA:600:A:H2'	1:CA:601:G:H8	1.72	0.54
15:CP:46:LYS:HE3	1:CA:617:G:H4'	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CB:162:VAL:HG13	20:CB:184:ALA:HB2	1.89	0.54
8:CI:64:ILE:HG21	8:CI:78:ILE:HG12	1.89	0.54
10:CK:64:VAL:O	10:CK:68:ARG:HB2	2.06	0.54
11:CL:106:VAL:HG23	11:CL:116:TYR:HB3	1.89	0.54
14:CO:56:LEU:HD12	14:CO:59:MET:HE3	1.88	0.54
15:CP:2:VAL:O	15:CP:65:ALA:HA	2.06	0.54
33:D1:3:GLY:O	33:D1:4:ILE:HG12	2.07	0.54
53:D6:61:PRO:HD2	53:D6:66:LEU:HA	1.89	0.54
22:DA:39:A:O2'	22:DA:40:U:H5'	2.07	0.54
23:DB:1654:A:O2'	26:DD:118:PHE:HA	2.07	0.54
23:DB:1866:A:H2'	23:DB:1867:G:O4'	2.07	0.54
23:DB:2567:G:H2'	23:DB:2568:U:C6	2.42	0.54
23:DB:687:C:H5'	36:D2:4:THR:O	2.07	0.54
25:DC:71:ASP:O	25:DC:73:ILE:HG12	2.07	0.54
41:DJ:35:ARG:HG3	41:DJ:40:HIS:CD2	2.43	0.54
27:DK:113:MET:SD	27:DK:116:ILE:HD11	2.47	0.54
42:DN:31:HIS:O	42:DN:33:ILE:HG13	2.06	0.54
52:DW:37:VAL:CG1	52:DW:38:ARG:H	2.16	0.54
23:DB:850:U:O2'	30:DY:22:THR:HA	2.06	0.54
1:AA:475:C:H2'	1:AA:476:U:C6	2.43	0.54
1:AA:610:U:O2	1:AA:610:U:O4'	2.23	0.54
1:AA:86:G:N2	1:AA:87:C:N4	2.54	0.54
3:AD:55:ARG:NE	3:AD:55:ARG:HA	2.22	0.54
13:AN:5:MET:HB3	13:AN:62:ARG:HH12	1.72	0.54
53:B6:67:VAL:HG12	53:B6:99:LEU:O	2.06	0.54
23:BB:129:C:H2'	23:BB:130:C:H6	1.72	0.54
23:BB:1561:C:H2'	23:BB:1562:U:C6	2.42	0.54
23:BB:170:U:H2'	23:BB:171:U:H6	1.72	0.54
23:BB:197:A:H62	23:BB:2430:A:H2'	1.71	0.54
23:BB:49:A:H5''	23:BB:51:G:O4'	2.08	0.54
23:BB:599:A:O2'	23:BB:600:G:H5'	2.06	0.54
23:BB:864:G:O2'	23:BB:865:C:H5'	2.07	0.54
26:BD:7:LYS:HG2	26:BD:198:GLY:HA2	1.90	0.54
29:BE:176:ASP:HB3	29:BE:179:SER:HB2	1.89	0.54
38:BM:118:LYS:C	38:BM:120:ALA:H	2.10	0.54
43:BO:35:ILE:HG13	43:BO:71:ALA:CB	2.38	0.54
46:BU:85:ARG:CD	46:BU:86:PHE:H	2.19	0.54
20:CB:159:ALA:HB1	20:CB:183:PHE:HE1	1.73	0.54
20:CB:27:LYS:HA	20:CB:30:ILE:HD12	1.89	0.54
2:CC:42:LEU:HD21	2:CC:90:VAL:HG22	1.89	0.54
6:CG:59:GLU:O	6:CG:63:VAL:HG23	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CO:45:GLU:HG2	14:CO:46:HIS:N	2.22	0.54
53:D6:74:ASN:ND2	53:D6:74:ASN:N	2.53	0.54
23:DB:1259:G:H2'	23:DB:1260:A:H8	1.73	0.54
23:DB:1354:A:H2'	23:DB:1355:G:O4'	2.08	0.54
23:DB:1441:G:H2'	23:DB:1442:U:C6	2.42	0.54
23:DB:1597:A:C5'	23:DB:1598:A:H5'	2.35	0.54
23:DB:2327:A:H2'	23:DB:2328:A:C8	2.43	0.54
23:DB:693:A:H2'	23:DB:694:U:H6	1.72	0.54
23:DB:1565:C:H5"	25:DC:17:LYS:HZ1	1.72	0.54
26:DD:109:VAL:HG11	26:DD:193:VAL:HG11	1.88	0.54
47:DF:35:LEU:CD2	47:DF:153:ILE:HG12	2.34	0.54
47:DF:163:GLU:HA	47:DF:166:ARG:HD3	1.89	0.54
47:DF:42:ALA:O	47:DF:43:ILE:C	2.44	0.54
40:DH:88:GLY:O	40:DH:125:THR:HG23	2.08	0.54
41:DJ:2:LYS:O	41:DJ:3:THR:HG23	2.07	0.54
41:DJ:84:ILE:HG23	41:DJ:84:ILE:O	2.06	0.54
37:DL:55:MET:HE2	37:DL:59:ARG:CZ	2.37	0.54
37:DL:56:PRO:O	37:DL:59:ARG:HB2	2.08	0.54
37:DL:82:LEU:O	37:DL:85:VAL:HG12	2.08	0.54
38:DM:108:VAL:HG21	38:DM:112:LEU:HD12	1.87	0.54
42:DN:114:GLU:HG2	42:DN:115:LEU:N	2.21	0.54
42:DN:65:LEU:HD11	42:DN:69:ARG:NH2	2.22	0.54
28:DP:110:LYS:HD2	28:DP:110:LYS:N	2.21	0.54
45:DS:17:VAL:C	45:DS:19:LEU:N	2.60	0.54
50:DT:11:LEU:CD2	50:DT:46:ALA:HB1	2.31	0.54
46:DU:51:LEU:H	46:DU:53:GLN:NE2	2.05	0.54
35:DV:4:ILE:HB	35:DV:63:ILE:HA	1.89	0.54
52:DW:18:LYS:CA	52:DW:36:ILE:HG12	2.32	0.54
52:DW:54:ARG:HB2	52:DW:54:ARG:NH1	2.22	0.54
1:AA:1147:C:H1'	8:AI:17:ARG:NH1	2.22	0.54
1:AA:783:C:O2'	1:AA:784:A:H5'	2.06	0.54
20:AB:85:SER:CB	20:AB:221:ARG:HH12	2.20	0.54
3:AD:153:ARG:HG3	3:AD:154:VAL:H	1.72	0.54
18:AS:14:LEU:O	18:AS:18:VAL:HG12	2.07	0.54
23:BB:2886:A:N7	31:B0:39:ARG:NH2	2.52	0.54
33:B1:40:PRO:O	33:B1:43:ARG:HG3	2.07	0.54
32:B4:25:VAL:HG11	32:B4:35:GLN:NE2	2.23	0.54
53:B6:43:VAL:HG21	53:B6:52:LEU:HD12	1.88	0.54
53:B6:69:GLN:NE2	53:B6:98:ALA:HB2	2.22	0.54
22:BA:13:G:N2	22:BA:16:G:N3	2.55	0.54
23:BB:1866:A:H2'	23:BB:1867:G:O4'	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:2626:C:O2'	23:BB:2627:G:H5'	2.08	0.54
23:BB:419:U:H2'	23:BB:420:C:H6	1.69	0.54
23:BB:674:G:H5''	29:BE:71:GLY:N	2.22	0.54
23:BB:861:A:H2'	23:BB:862:G:O4'	2.07	0.54
47:BF:43:ILE:N	47:BF:46:LYS:HZ3	2.05	0.54
40:BH:31:VAL:CB	40:BH:32:PRO:CD	2.84	0.54
43:BO:67:ASN:H	43:BO:70:ALA:HB3	1.71	0.54
45:BS:18:ARG:HB3	45:BS:76:VAL:CG2	2.36	0.54
46:BU:94:PHE:HB3	46:BU:101:THR:HA	1.89	0.54
52:BW:8:SER:O	52:BW:9:THR:HB	2.07	0.54
51:BZ:31:PRO:HB2	51:BZ:33:LEU:CD1	2.35	0.54
1:CA:1465:A:H2'	1:CA:1466:C:C6	2.42	0.54
1:CA:491:G:O2'	1:CA:492:C:H5'	2.07	0.54
20:CB:16:GLY:HA3	20:CB:39:ILE:HA	1.89	0.54
20:CB:48:MET:CE	20:CB:198:VAL:HB	2.37	0.54
2:CC:126:ARG:HH22	2:CC:191:THR:H	1.55	0.54
5:CF:47:LEU:HD21	5:CF:57:ALA:HB2	1.90	0.54
6:CG:2:ARG:HH11	6:CG:2:ARG:HB3	1.72	0.54
8:CI:51:LEU:HB3	8:CI:56:MET:CB	2.38	0.54
11:CL:35:ARG:HH21	11:CL:36:VAL:CG2	2.16	0.54
12:CM:89:ARG:HB3	12:CM:96:VAL:HG22	1.88	0.54
53:D6:59:THR:O	53:D6:61:PRO:HD3	2.08	0.54
23:DB:1416:G:HO2'	23:DB:1417:C:H6	1.53	0.54
23:DB:2364:C:H4'	52:DW:55:ASP:OD1	2.06	0.54
23:DB:670:A:H4'	23:DB:671:C:C5'	2.36	0.54
29:DE:105:LEU:HA	29:DE:108:ILE:CG2	2.37	0.54
47:DF:92:GLY:O	47:DF:95:MET:HB3	2.07	0.54
48:DG:15:ASP:CB	48:DG:26:LYS:HB3	2.37	0.54
40:DH:5:LEU:C	40:DH:6:LEU:HD12	2.28	0.54
38:DM:19:GLY:CA	38:DM:38:ARG:HH22	2.21	0.54
42:DN:33:ILE:HD12	42:DN:33:ILE:O	2.07	0.54
46:DU:26:ASN:ND2	46:DU:26:ASN:N	2.54	0.54
23:DB:2365:G:O2'	52:DW:59:PHE:CE1	2.61	0.54
1:AA:1089:G:H1'	1:AA:1167:A:N6	2.23	0.54
1:AA:423:G:H2'	1:AA:424:G:O4'	2.07	0.54
20:AB:23:ASN:ND2	20:AB:25:LYS:H	2.05	0.54
8:AI:9:GLY:O	8:AI:16:ALA:HB3	2.07	0.54
17:AR:31:TYR:HB3	17:AR:54:LEU:HD21	1.89	0.54
53:B6:77:LYS:O	53:B6:80:GLU:HB3	2.07	0.54
23:BB:2040:G:H2'	23:BB:2041:U:O4'	2.08	0.54
23:BB:2228:G:H2'	23:BB:2229:U:C6	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:441:U:H2'	23:BB:442:G:C8	2.42	0.54
23:BB:598:U:H2'	23:BB:599:A:H8	1.72	0.54
23:BB:873:C:H2'	23:BB:874:G:H8	1.73	0.54
26:BD:49:GLN:HE22	26:BD:67:HIS:HE1	1.53	0.54
29:BE:31:VAL:HG21	29:BE:104:ALA:CB	2.38	0.54
29:BE:58:LYS:HD2	29:BE:58:LYS:H	1.69	0.54
47:BF:42:ALA:O	47:BF:43:ILE:C	2.44	0.54
48:BG:24:THR:C	48:BG:25:ILE:HD12	2.28	0.54
48:BG:82:PHE:CE1	48:BG:137:LYS:HE3	2.42	0.54
37:BL:115:GLU:OE1	37:BL:115:GLU:N	2.40	0.54
38:BM:6:ARG:NH1	38:BM:6:ARG:HB3	2.22	0.54
44:BQ:26:ALA:O	44:BQ:30:VAL:HG12	2.07	0.54
50:BT:29:THR:HB	50:BT:86:THR:HG22	1.88	0.54
23:BB:855:G:N3	52:BW:23:LYS:HE3	2.22	0.54
1:CA:223:A:H2'	1:CA:224:U:C6	2.43	0.54
1:CA:268:U:H2'	1:CA:269:C:C6	2.43	0.54
1:CA:590:U:H2'	1:CA:591:U:C6	2.43	0.54
1:CA:929:G:H2'	1:CA:930:C:C6	2.42	0.54
18:CS:53:GLY:O	1:CA:986:U:H1'	2.07	0.54
3:CD:12:ARG:HA	3:CD:33:ILE:HD12	1.89	0.54
4:CE:89:THR:HG21	4:CE:134:ASN:ND2	2.22	0.54
5:CF:53:LYS:HA	5:CF:53:LYS:HZ3	1.70	0.54
6:CG:2:ARG:HH11	6:CG:2:ARG:CB	2.20	0.54
15:CP:3:THR:HA	15:CP:66:THR:H	1.71	0.54
16:CQ:14:ASP:HB3	16:CQ:54:ILE:HB	1.89	0.54
53:D6:106:LEU:HG	53:D6:111:ARG:NE	2.10	0.54
53:D6:15:GLN:HA	53:D6:168:PHE:HE2	1.72	0.54
22:DA:10:G:H2'	22:DA:11:C:O4'	2.07	0.54
23:DB:1188:U:O2'	23:DB:1189:A:H5'	2.07	0.54
23:DB:1561:C:H2'	23:DB:1562:U:C6	2.42	0.54
23:DB:1590:A:H2'	23:DB:1591:A:H8	1.71	0.54
23:DB:2606:C:O2'	23:DB:2607:G:H5'	2.07	0.54
23:DB:280:U:H2'	23:DB:281:C:C6	2.42	0.54
23:DB:861:A:H2'	23:DB:862:G:O4'	2.08	0.54
25:DC:245:THR:O	25:DC:247:TRP:N	2.40	0.54
47:DF:119:LYS:HA	47:DF:121:PHE:CZ	2.42	0.54
41:DJ:44:TYR:CD2	41:DJ:44:TYR:C	2.81	0.54
23:DB:139:U:O2'	50:DT:1:MET:HA	2.08	0.54
50:DT:69:ARG:HB2	50:DT:75:GLY:N	2.23	0.54
35:DV:65:VAL:C	35:DV:67:GLY:H	2.11	0.54
35:DV:63:ILE:HB	35:DV:70:ILE:CD1	2.36	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:DW:47:GLY:HA3	52:DW:80:SER:HB2	1.89	0.54
52:DW:48:ALA:O	52:DW:61:LYS:HB2	2.07	0.54
1:AA:1238:A:H2	1:AA:1241:G:N3	2.05	0.54
1:AA:512:U:O2'	1:AA:513:C:H5'	2.07	0.54
1:AA:695:A:H61	1:AA:797:C:H1'	1.72	0.54
1:AA:82:G:C5	1:AA:83:C:H1'	2.43	0.54
20:AB:159:ALA:HB1	20:AB:183:PHE:HE1	1.73	0.54
2:AC:13:ILE:HD13	2:AC:13:ILE:N	2.23	0.54
4:AE:89:THR:HG22	4:AE:90:GLY:H	1.73	0.54
5:AF:61:LEU:CD1	5:AF:62:MET:H	2.21	0.54
6:AG:4:ARG:HH21	6:AG:6:ILE:HD13	1.73	0.54
12:AM:11:HIS:H	12:AM:45:SER:HB3	1.72	0.54
10:AK:115:ILE:HD11	17:AR:72:ARG:NH2	2.22	0.54
34:B3:49:VAL:CG2	34:B3:54:LEU:HD13	2.37	0.54
23:BB:1171:G:C2'	23:BB:1172:C:H4'	2.37	0.54
23:BB:18:U:H2'	23:BB:19:A:C8	2.42	0.54
23:BB:2327:A:H2'	23:BB:2328:A:C8	2.42	0.54
23:BB:566:U:O2'	23:BB:567:U:H5'	2.07	0.54
29:BE:105:LEU:HA	29:BE:108:ILE:HG22	1.90	0.54
47:BF:92:GLY:O	47:BF:95:MET:HB3	2.07	0.54
48:BG:34:ARG:NH1	48:BG:34:ARG:HG2	2.22	0.54
40:BH:131:SER:O	40:BH:133:GLN:N	2.40	0.54
40:BH:44:ILE:O	40:BH:48:GLU:HB3	2.07	0.54
41:BJ:123:LYS:HD2	41:BJ:123:LYS:N	2.22	0.54
37:BL:30:THR:O	37:BL:32:GLY:N	2.41	0.54
43:BO:40:ILE:HA	43:BO:47:VAL:HA	1.88	0.54
46:BU:86:PHE:CD1	46:BU:90:LYS:HB2	2.42	0.54
1:CA:475:C:H2'	1:CA:476:U:C6	2.43	0.54
1:CA:736:C:H2'	1:CA:737:C:H6	1.72	0.54
20:CB:85:SER:N	20:CB:88:GLN:HE22	2.06	0.54
10:CK:30:ILE:HD11	1:CA:706:A:C4'	2.36	0.54
15:CP:10:GLY:HA3	15:CP:15:PRO:HA	1.89	0.54
53:D6:111:ARG:O	53:D6:115:VAL:HG22	2.08	0.54
53:D6:156:ARG:NH2	53:D6:160:GLU:HB2	2.20	0.54
22:DA:13:G:N2	22:DA:16:G:N3	2.55	0.54
22:DA:32:U:H1'	22:DA:52:A:N7	2.22	0.54
22:DA:91:C:O2'	22:DA:92:C:H5'	2.07	0.54
23:DB:1061:U:O4	24:DI:11:GLN:HG3	2.08	0.54
23:DB:1109:C:O2'	23:DB:1110:G:H5'	2.08	0.54
23:DB:1248:G:O2'	44:DQ:2:ARG:HA	2.08	0.54
23:DB:1562:U:H2'	23:DB:1563:U:C6	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1657:U:O2'	23:DB:1658:C:H5'	2.07	0.54
23:DB:2153:C:H2'	23:DB:2154:A:C8	2.43	0.54
23:DB:2216:G:H2'	23:DB:2217:G:H8	1.71	0.54
23:DB:2520:C:O2'	23:DB:2521:C:H5'	2.08	0.54
23:DB:426:C:O2'	23:DB:427:U:H5'	2.08	0.54
23:DB:543:G:C6	23:DB:544:C:H1'	2.43	0.54
23:DB:572:A:H5''	23:DB:573:U:OP2	2.07	0.54
23:DB:598:U:H2'	23:DB:599:A:H8	1.72	0.54
23:DB:773:U:H4'	25:DC:45:ASN:O	2.07	0.54
25:DC:250:GLN:CD	25:DC:250:GLN:H	2.10	0.54
26:DD:5:VAL:N	26:DD:32:ASN:HD21	1.88	0.54
26:DD:51:THR:HG23	26:DD:78:GLY:O	2.06	0.54
29:DE:146:VAL:HA	29:DE:185:LYS:O	2.07	0.54
29:DE:33:VAL:O	29:DE:36:ALA:HB3	2.08	0.54
24:DI:17:ALA:O	24:DI:18:ASN:CB	2.55	0.54
41:DJ:11:VAL:HG11	41:DJ:13:ARG:HE	1.72	0.54
37:DL:115:GLU:N	37:DL:115:GLU:OE1	2.41	0.54
42:DN:79:LEU:O	42:DN:80:PHE:HB2	2.08	0.54
49:DR:68:ARG:HH11	49:DR:90:ARG:HG2	1.72	0.54
46:DU:11:ILE:O	46:DU:12:VAL:HB	2.06	0.54
1:AA:1237:C:H3'	1:AA:1336:C:N4	2.22	0.54
1:AA:399:G:H2'	1:AA:400:C:C6	2.43	0.54
4:AE:111:ARG:HG3	4:AE:112:ALA:H	1.72	0.54
8:AI:53:LEU:O	8:AI:53:LEU:HD13	2.07	0.54
53:B6:64:ARG:O	53:B6:102:ASN:HA	2.08	0.54
23:BB:1374:G:H2'	23:BB:1375:U:C6	2.43	0.54
23:BB:1439:A:C5	23:BB:1552:A:N6	2.76	0.54
23:BB:1858:A:H62	23:BB:1884:G:H1'	1.72	0.54
23:BB:1854:A:N6	23:BB:1888:G:H1'	2.23	0.54
23:BB:2514:U:H2'	23:BB:2515:C:C6	2.43	0.54
25:BC:261:ARG:HG2	25:BC:261:ARG:O	2.07	0.54
24:BI:100:ILE:O	24:BI:139:VAL:HA	2.07	0.54
42:BN:73:ASN:HA	42:BN:76:VAL:HG22	1.90	0.54
43:BO:17:LYS:HE2	43:BO:21:LEU:HD21	1.88	0.54
52:BW:36:ILE:HB	52:BW:39:GLN:NE2	2.22	0.54
51:BZ:39:TRP:HE1	51:BZ:41:GLU:HG2	1.73	0.54
1:CA:1436:U:H2'	1:CA:1437:A:H8	1.72	0.54
1:CA:16:A:O2'	1:CA:17:U:H5'	2.08	0.54
3:CD:55:ARG:NE	3:CD:55:ARG:HA	2.22	0.54
4:CE:104:ILE:O	4:CE:104:ILE:HG23	2.07	0.54
11:CL:120:ARG:NH1	1:CA:500:G:H5''	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CM:80:MET:HA	12:CM:87:GLY:HA3	1.89	0.54
14:CO:78:TYR:CZ	14:CO:82:ILE:HD11	2.42	0.54
23:DB:165:A:H2'	23:DB:166:U:H6	1.72	0.54
23:DB:2181:U:H2'	23:DB:2182:U:C6	2.43	0.54
23:DB:547:A:H5'	23:DB:548:G:C4	2.43	0.54
23:DB:909:A:H2'	23:DB:912:C:H5	1.72	0.54
24:DI:63:ASP:O	24:DI:64:ARG:HB2	2.06	0.54
37:DL:113:ALA:HB3	37:DL:115:GLU:OE1	2.08	0.54
37:DL:118:THR:O	37:DL:120:VAL:HG23	2.08	0.54
45:DS:7:HIS:HB2	45:DS:50:VAL:HG21	1.89	0.54
1:AA:586:C:O2'	1:AA:587:G:H5'	2.07	0.54
1:AA:802:A:H2'	1:AA:803:G:O4'	2.08	0.54
1:AA:92:U:H2'	1:AA:93:U:C5	2.42	0.54
2:AC:176:THR:HB	2:AC:179:ALA:HB2	1.89	0.54
13:AN:50:LEU:HG	13:AN:51:PRO:HD3	1.89	0.54
15:AP:3:THR:HA	15:AP:66:THR:H	1.73	0.54
18:AS:42:ASN:HD21	18:AS:43:MET:HG3	1.72	0.54
53:B6:25:LEU:HB3	53:B6:179:LYS:HE3	1.90	0.54
53:B6:48:ALA:C	53:B6:50:VAL:H	2.11	0.54
53:B6:58:VAL:HG22	53:B6:68:VAL:HG13	1.90	0.54
23:BB:1171:G:H2'	23:BB:1172:C:H4'	1.89	0.54
23:BB:1242:U:H2'	23:BB:1243:C:C6	2.42	0.54
23:BB:1315:C:O2'	23:BB:1316:U:H5'	2.08	0.54
23:BB:141:G:H3'	23:BB:142:A:C8	2.43	0.54
23:BB:1475:G:H4'	23:BB:1476:U:O5'	2.07	0.54
23:BB:1593:A:H2'	23:BB:1594:U:H6	1.72	0.54
23:BB:1854:A:H62	23:BB:1888:G:H8	1.56	0.54
23:BB:184:C:H2'	23:BB:185:G:C8	2.43	0.54
23:BB:32:C:O2'	23:BB:33:C:H5'	2.08	0.54
23:BB:741:U:H2'	23:BB:742:A:H8	1.73	0.54
23:BB:836:G:H2'	23:BB:837:C:C6	2.42	0.54
23:BB:873:C:H2'	23:BB:874:G:C8	2.43	0.54
25:BC:145:MET:HB2	25:BC:152:GLN:NE2	2.23	0.54
26:BD:92:VAL:O	26:BD:94:GLN:N	2.41	0.54
47:BF:135:ILE:HD11	47:BF:137:PHE:HB3	1.90	0.54
48:BG:71:LEU:HA	48:BG:74:MET:SD	2.47	0.54
29:BE:108:ILE:HG12	37:BL:2:ARG:NH2	2.22	0.54
49:BR:91:GLN:HG3	49:BR:92:TRP:N	2.23	0.54
46:BU:86:PHE:HE1	46:BU:88:ASP:HB3	1.71	0.54
1:CA:1508:A:H2'	1:CA:1509:C:C6	2.42	0.54
1:CA:71:A:O2'	1:CA:72:A:H5"	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:769:G:O2'	1:CA:770:C:H5'	2.07	0.54
1:CA:796:C:H2'	1:CA:797:C:H6	1.73	0.54
3:CD:113:ALA:O	3:CD:117:VAL:HG23	2.07	0.54
18:CS:35:ARG:HH21	18:CS:52:ASN:HA	1.72	0.54
23:DB:1175:A:C2'	23:DB:1176:U:H5'	2.37	0.54
23:DB:140:C:H4'	23:DB:141:G:C4	2.43	0.54
23:DB:1946:U:H2'	23:DB:1947:C:H6	1.71	0.54
23:DB:2848:G:H1'	23:DB:2868:A:N6	2.22	0.54
26:DD:59:ARG:HB3	26:DD:59:ARG:NH2	2.22	0.54
24:DI:85:ILE:CD1	24:DI:137:LEU:HD21	2.37	0.54
38:DM:19:GLY:N	38:DM:38:ARG:HH22	2.05	0.54
46:DU:85:ARG:HH11	46:DU:86:PHE:H	1.54	0.54
22:DA:76:G:H5''	35:DV:17:SER:OG	2.08	0.54
52:DW:75:ASN:C	52:DW:75:ASN:HD22	2.11	0.54
1:AA:1006:G:H2'	1:AA:1007:U:C6	2.42	0.54
1:AA:818:G:O2'	1:AA:819:A:H5''	2.08	0.54
1:AA:918:A:H2'	1:AA:919:A:C8	2.42	0.54
4:AE:104:ILE:O	4:AE:104:ILE:HG23	2.08	0.54
9:AJ:40:ILE:HD12	9:AJ:73:LEU:HD12	1.89	0.54
16:AQ:7:LEU:O	16:AQ:60:ILE:HD13	2.07	0.54
34:B3:18:LYS:HD2	34:B3:19:GLY:H	1.72	0.54
34:B3:22:LYS:HB2	34:B3:48:MET:SD	2.48	0.54
32:B4:13:ASN:HD22	32:B4:13:ASN:N	2.05	0.54
22:BA:111:U:H2'	22:BA:112:G:C8	2.43	0.54
22:BA:10:G:H2'	22:BA:11:C:O4'	2.08	0.54
22:BA:60:C:O2'	22:BA:61:G:H5'	2.08	0.54
23:BB:1553:A:O2'	23:BB:1554:U:H2'	2.08	0.54
23:BB:156:A:H2'	23:BB:157:C:C6	2.42	0.54
23:BB:18:U:H2'	23:BB:19:A:H8	1.72	0.54
23:BB:2282:G:OP1	23:BB:2283:C:H1'	2.08	0.54
23:BB:2794:C:H2'	23:BB:2795:C:H6	1.73	0.54
23:BB:693:A:H2'	23:BB:694:U:H6	1.72	0.54
23:BB:937:C:H2'	23:BB:938:G:H8	1.73	0.54
47:BF:107:VAL:O	47:BF:110:ILE:HG22	2.08	0.54
24:BI:89:SER:HA	24:BI:97:VAL:CG2	2.37	0.54
41:BJ:84:ILE:HG23	41:BJ:84:ILE:O	2.08	0.54
42:BN:106:ASP:OD1	42:BN:108:ALA:HB3	2.08	0.54
43:BO:58:ILE:O	43:BO:62:LEU:HD23	2.07	0.54
52:BW:54:ARG:NH1	52:BW:54:ARG:HB2	2.23	0.54
12:CM:16:ILE:HD11	1:CA:1302:C:OP2	2.08	0.54
1:CA:1508:A:H2'	1:CA:1509:C:H6	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:860:A:H2'	1:CA:861:G:O4'	2.07	0.54
2:CC:62:SER:HB2	2:CC:97:PRO:O	2.08	0.54
21:CU:39:LYS:N	21:CU:40:PRO:CD	2.71	0.54
23:DB:1263:U:O2'	31:D0:7:PRO:HD2	2.08	0.54
32:D4:11:CYS:HB3	32:D4:33:HIS:HE1	1.73	0.54
32:D4:7:VAL:HG23	32:D4:35:GLN:CB	2.36	0.54
53:D6:36:ALA:HA	53:D6:39:LEU:CD2	2.37	0.54
53:D6:40:HIS:O	53:D6:41:LEU:C	2.47	0.54
23:DB:1824:G:O2'	23:DB:1825:U:H5'	2.07	0.54
23:DB:352:A:H3'	23:DB:353:C:C6	2.42	0.54
23:DB:41:C:H2'	23:DB:42:A:O4'	2.08	0.54
29:DE:105:LEU:HA	29:DE:108:ILE:HG22	1.90	0.54
29:DE:115:GLN:O	29:DE:117:ARG:HG3	2.07	0.54
23:DB:1257:C:H5'	29:DE:78:TRP:CZ3	2.43	0.54
43:DO:40:ILE:HG12	43:DO:47:VAL:HG13	1.90	0.54
44:DQ:97:ILE:HG13	44:DQ:105:PHE:HB2	1.89	0.54
41:DJ:3:THR:HG21	44:DQ:60:TRP:HE1	1.73	0.54
37:DL:23:ILE:HD13	49:DR:84:ARG:HB2	1.88	0.54
35:DV:25:LYS:HD3	35:DV:41:GLU:OE1	2.08	0.54
1:AA:1029:U:P	1:AA:1029:U:H3'	2.48	0.54
1:AA:1071:C:H2'	1:AA:1072:G:C8	2.42	0.54
1:AA:1234:C:O2'	1:AA:1235:U:H5'	2.08	0.54
1:AA:1253:G:H2'	1:AA:1254:A:H8	1.73	0.54
1:AA:1343:G:H2'	1:AA:1344:C:H6	1.73	0.54
1:AA:883:C:O2'	1:AA:884:U:H5'	2.07	0.54
1:AA:989:U:O2'	1:AA:990:C:H5'	2.08	0.54
2:AC:156:LEU:HD12	2:AC:163:ARG:HG3	1.88	0.54
4:AE:148:SER:OG	4:AE:150:GLU:HG2	2.08	0.54
6:AG:130:LYS:N	6:AG:134:VAL:HG21	2.22	0.54
7:AH:26:MET:HB2	7:AH:27:PRO:HD2	1.89	0.54
8:AI:120:ALA:O	8:AI:121:ARG:HG2	2.08	0.54
10:AK:70:ALA:C	10:AK:72:ALA:H	2.11	0.54
11:AL:33:CYS:HB2	11:AL:77:SER:O	2.08	0.54
11:AL:84:GLY:H	11:AL:94:TYR:HA	1.73	0.54
21:AU:39:LYS:N	21:AU:40:PRO:CD	2.71	0.54
53:B6:120:GLN:O	53:B6:124:GLU:HG3	2.08	0.54
53:B6:126:ARG:O	53:B6:130:ARG:HG2	2.07	0.54
23:BB:1038:G:H2'	23:BB:1039:A:H8	1.73	0.54
23:BB:1360:G:H2'	23:BB:1361:G:H5'	1.90	0.54
23:BB:1846:G:H3'	23:BB:1847:A:C2	2.42	0.54
23:BB:1913:A:H3'	23:BB:1916:A:N1	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:2443:C:O2'	23:BB:2444:G:H5'	2.08	0.54
23:BB:2636:C:H2'	23:BB:2637:U:H6	1.71	0.54
26:BD:107:VAL:HA	26:BD:204:LYS:O	2.07	0.54
47:BF:106:ALA:HA	47:BF:135:ILE:CD1	2.38	0.54
48:BG:46:ASP:CG	48:BG:47:ASN:H	2.11	0.54
40:BH:6:LEU:HD11	40:BH:37:VAL:HG12	1.89	0.54
23:BB:1081:U:H5'	24:BI:126:ARG:HD2	1.89	0.54
41:BJ:70:THR:HG22	41:BJ:90:GLU:CD	2.29	0.54
23:BB:99:U:H5	46:BU:6:ARG:HH22	1.53	0.54
52:BW:37:VAL:CG1	52:BW:38:ARG:HD3	2.37	0.54
39:BX:31:GLN:HG2	39:BX:37:LEU:HB2	1.87	0.54
4:CE:101:GLY:H	4:CE:121:ASN:HD21	1.55	0.54
10:CK:69:CYS:O	10:CK:73:VAL:HG22	2.07	0.54
14:CO:89:ARG:HA	14:CO:89:ARG:HH11	1.72	0.54
19:CT:4:LYS:HB2	1:CA:332:G:OP2	2.07	0.54
19:CT:4:LYS:HZ1	19:CT:6:ALA:HB2	1.72	0.54
23:DB:2793:C:H2'	23:DB:2794:C:H6	1.72	0.54
23:DB:921:C:H2'	23:DB:922:C:H6	1.73	0.54
25:DC:145:MET:HB2	25:DC:152:GLN:NE2	2.23	0.54
25:DC:69:ASN:O	25:DC:70:LYS:C	2.45	0.54
26:DD:105:LYS:HD2	26:DD:177:VAL:CG2	2.38	0.54
26:DD:92:VAL:O	26:DD:94:GLN:N	2.41	0.54
29:DE:125:SER:HA	29:DE:157:LEU:HD22	1.89	0.54
47:DF:135:ILE:CD1	47:DF:137:PHE:HB3	2.38	0.54
40:DH:104:THR:HA	40:DH:108:VAL:O	2.07	0.54
40:DH:12:LEU:HD13	40:DH:19:VAL:HG21	1.88	0.54
37:DL:135:ILE:HG21	37:DL:142:ILE:HD11	1.88	0.54
38:DM:77:PRO:HB2	38:DM:80:VAL:HG11	1.90	0.54
42:DN:34:ILE:HB	42:DN:113:ILE:CG2	2.37	0.54
28:DP:97:TYR:C	28:DP:99:LEU:H	2.11	0.54
50:DT:38:ALA:HB3	50:DT:81:LYS:NZ	2.23	0.54
1:AA:1042:A:H2'	1:AA:1043:G:O4'	2.08	0.54
1:AA:104:G:O2'	1:AA:105:G:H5'	2.08	0.54
20:AB:53:LEU:HD11	20:AB:216:VAL:HA	1.90	0.54
18:AS:35:ARG:HH21	18:AS:52:ASN:HA	1.73	0.54
19:AT:57:VAL:HB	19:AT:71:ALA:HB1	1.88	0.54
31:B0:29:VAL:HG22	31:B0:30:ASP:N	2.23	0.54
33:B1:26:LYS:HD3	33:B1:52:LYS:HB3	1.90	0.54
23:BB:1354:A:H2'	23:BB:1355:G:O4'	2.07	0.54
23:BB:156:A:H2'	23:BB:157:C:H6	1.73	0.54
23:BB:1724:G:H2'	23:BB:1725:U:H6	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:118:A:N3	23:BB:178:G:H1'	2.23	0.54
23:BB:1816:C:H3'	25:BC:61:TYR:CE2	2.43	0.54
23:BB:1936:A:H2	23:BB:1943:U:C5	2.26	0.54
23:BB:538:A:H2'	23:BB:539:G:O4'	2.08	0.54
23:BB:742:A:H2'	23:BB:743:A:H8	1.68	0.54
25:BC:69:ASN:O	25:BC:70:LYS:C	2.45	0.54
26:BD:109:VAL:HG11	26:BD:193:VAL:HG11	1.89	0.54
40:BH:42:LYS:HA	40:BH:46:PHE:HB2	1.89	0.54
37:BL:100:ILE:O	37:BL:100:ILE:HG12	2.07	0.54
42:BN:34:ILE:HB	42:BN:113:ILE:CG2	2.37	0.54
44:BQ:29:ARG:O	44:BQ:30:VAL:HB	2.07	0.54
45:BS:52:GLU:C	45:BS:54:ALA:H	2.11	0.54
50:BT:69:ARG:HB2	50:BT:75:GLY:N	2.23	0.54
50:BT:34:VAL:HG23	50:BT:81:LYS:HB3	1.89	0.54
51:BZ:40:VAL:HG13	51:BZ:47:VAL:HG22	1.90	0.54
1:CA:1000:A:H2'	1:CA:1001:C:H6	1.73	0.54
1:CA:1009:U:H1'	1:CA:1021:A:C2	2.43	0.54
1:CA:1306:A:N6	1:CA:1331:G:H1'	2.23	0.54
1:CA:384:G:H2'	1:CA:385:C:H6	1.71	0.54
1:CA:441:A:H61	1:CA:493:A:N6	2.04	0.54
3:CD:68:GLU:HB3	1:CA:546:A:P	2.48	0.54
1:CA:551:U:H2'	1:CA:552:U:C6	2.43	0.54
1:CA:26:A:H61	1:CA:558:G:H1'	1.72	0.54
1:CA:586:C:O2'	1:CA:587:G:H5'	2.08	0.54
20:CB:185:ILE:HG23	20:CB:199:ILE:O	2.08	0.54
2:CC:13:ILE:HD13	2:CC:13:ILE:N	2.23	0.54
3:CD:123:MET:HG3	3:CD:127:ARG:C	2.29	0.54
10:CK:28:ASN:HB2	10:CK:56:LYS:NZ	2.23	0.54
33:D1:28:THR:C	33:D1:30:PRO:HD3	2.27	0.54
36:D2:30:VAL:O	36:D2:34:ARG:HG3	2.08	0.54
36:D2:3:ARG:CZ	36:D2:3:ARG:HA	2.38	0.54
53:D6:84:ARG:H	53:D6:84:ARG:NE	2.05	0.54
23:DB:1050:A:C2	23:DB:1051:G:H1'	2.43	0.54
23:DB:1306:C:H2'	23:DB:1307:A:H8	1.71	0.54
23:DB:1932:A:H2'	23:DB:1933:G:O4'	2.08	0.54
23:DB:1936:A:H2	23:DB:1943:U:C5	2.25	0.54
23:DB:2529:G:H4'	48:DG:174:LYS:HE2	1.89	0.54
23:DB:2809:A:H2'	23:DB:2810:A:C8	2.42	0.54
23:DB:39:G:H2'	23:DB:40:U:C6	2.43	0.54
23:DB:594:U:H2'	23:DB:595:C:C6	2.43	0.54
23:DB:876:C:H5'	23:DB:877:A:OP2	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DC:270:ARG:HH11	25:DC:270:ARG:HB3	1.73	0.54
29:DE:31:VAL:HG21	29:DE:104:ALA:CB	2.38	0.54
47:DF:42:ALA:O	47:DF:46:LYS:N	2.41	0.54
24:DI:92:PRO:O	24:DI:93:ASN:HB2	2.08	0.54
1:AA:1014:A:C2	1:AA:1219:A:HI'	2.43	0.53
1:AA:1118:U:H2'	1:AA:1119:C:H6	1.73	0.53
6:AG:26:VAL:HG12	6:AG:42:VAL:HG11	1.90	0.53
6:AG:6:ILE:HG13	6:AG:7:GLY:N	2.22	0.53
12:AM:64:VAL:HB	12:AM:65:GLU:OE2	2.08	0.53
16:AQ:74:LEU:HD22	16:AQ:75:VAL:H	1.72	0.53
10:AK:113:THR:HG21	21:AU:28:LEU:HD11	1.90	0.53
36:B2:30:VAL:O	36:B2:34:ARG:HG3	2.08	0.53
23:BB:1043:C:H2'	23:BB:1044:C:O4'	2.08	0.53
23:BB:1259:G:H2'	23:BB:1260:A:C8	2.43	0.53
23:BB:1551:A:H3'	23:BB:1552:A:H5''	1.89	0.53
23:BB:165:A:H2'	23:BB:166:U:C6	2.43	0.53
23:BB:282:A:H2'	23:BB:283:G:H8	1.70	0.53
23:BB:594:U:H2'	23:BB:595:C:H6	1.73	0.53
23:BB:754:U:H2'	23:BB:755:U:C6	2.43	0.53
23:BB:825:A:H2'	23:BB:826:U:O4'	2.08	0.53
23:BB:956:G:N2	23:BB:959:A:H3'	2.23	0.53
25:BC:104:LEU:H	25:BC:104:LEU:HD22	1.73	0.53
25:BC:155:ARG:HH11	25:BC:155:ARG:CB	2.21	0.53
25:BC:71:ASP:O	25:BC:73:ILE:HG12	2.07	0.53
26:BD:151:THR:CB	26:BD:152:PRO:HD3	2.28	0.53
26:BD:105:LYS:HD2	26:BD:177:VAL:CG2	2.36	0.53
29:BE:147:LEU:HB3	29:BE:186:VAL:HG23	1.90	0.53
29:BE:48:THR:O	29:BE:52:VAL:HG23	2.08	0.53
24:BI:11:GLN:O	24:BI:11:GLN:HG3	2.07	0.53
42:BN:87:PHE:HB3	42:BN:90:ARG:HB3	1.90	0.53
28:BP:97:TYR:C	28:BP:99:LEU:H	2.11	0.53
4:CE:23:THR:HG23	1:CA:921:U:O2	2.08	0.53
5:CF:61:LEU:CD1	5:CF:62:MET:H	2.21	0.53
5:CF:62:MET:HG3	5:CF:64:VAL:HG23	1.89	0.53
15:CP:4:ILE:O	15:CP:71:VAL:HG11	2.09	0.53
53:D6:143:LEU:O	53:D6:146:GLU:HG3	2.08	0.53
23:DB:1173:U:HO2'	23:DB:1176:U:H3	1.56	0.53
23:DB:1459:G:C2'	23:DB:1460:U:H5'	2.38	0.53
23:DB:2040:G:H2'	23:DB:2041:U:O4'	2.08	0.53
23:DB:710:U:H2'	23:DB:711:G:H8	1.73	0.53
23:DB:718:A:H3'	23:DB:719:C:C6	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DF:135:ILE:HD11	47:DF:137:PHE:HB3	1.91	0.53
24:DI:32:VAL:HG22	24:DI:60:VAL:CG2	2.38	0.53
42:DN:87:PHE:HB3	42:DN:90:ARG:HB3	1.90	0.53
44:DQ:29:ARG:O	44:DQ:30:VAL:HB	2.07	0.53
45:DS:36:LEU:HD22	45:DS:36:LEU:N	2.23	0.53
1:AA:1451:U:H4'	1:AA:1452:C:OP1	2.08	0.53
1:AA:268:U:H2'	1:AA:269:C:C6	2.42	0.53
1:AA:441:A:H61	1:AA:493:A:N6	2.06	0.53
1:AA:607:A:H2'	1:AA:608:A:C8	2.43	0.53
2:AC:42:LEU:HD21	2:AC:90:VAL:HG22	1.89	0.53
5:AF:51:ILE:O	5:AF:51:ILE:HG23	2.09	0.53
11:AL:106:VAL:HG23	11:AL:116:TYR:HB3	1.89	0.53
18:AS:11:ASP:HB3	18:AS:13:HIS:CD2	2.44	0.53
23:BB:1097:U:C2'	23:BB:1098:A:H5'	2.37	0.53
23:BB:1920:C:H3'	23:BB:1921:G:C8	2.42	0.53
23:BB:2144:G:C2'	23:BB:2146:C:H5'	2.38	0.53
23:BB:2154:A:H2'	23:BB:2155:U:O4'	2.09	0.53
23:BB:2179:C:H2'	23:BB:2180:U:O4'	2.07	0.53
23:BB:2358:A:H61	37:BL:54:GLN:HE22	1.54	0.53
23:BB:852:U:H2'	23:BB:853:C:C6	2.43	0.53
47:BF:163:GLU:HA	47:BF:166:ARG:HD3	1.90	0.53
23:BB:1076:C:H4'	24:BI:94:LYS:HE3	1.89	0.53
41:BJ:30:THR:HG23	41:BJ:31:GLU:H	1.73	0.53
37:BL:41:ARG:HH21	37:BL:41:ARG:HG2	1.72	0.53
38:BM:134:THR:HG22	38:BM:136:MET:H	1.72	0.53
42:BN:114:GLU:HG2	42:BN:115:LEU:N	2.21	0.53
42:BN:51:LEU:HD21	42:BN:70:THR:HG21	1.89	0.53
42:BN:97:ILE:HD12	42:BN:98:LEU:N	2.23	0.53
45:BS:17:VAL:C	45:BS:19:LEU:N	2.61	0.53
50:BT:53:VAL:HG11	50:BT:87:LEU:HD22	1.91	0.53
30:BY:50:VAL:O	30:BY:54:VAL:HG22	2.08	0.53
2:CC:156:LEU:HD12	2:CC:163:ARG:HG3	1.89	0.53
8:CI:17:ARG:NH1	1:CA:1147:C:H1'	2.23	0.53
10:CK:115:ILE:HD11	17:CR:72:ARG:NH2	2.23	0.53
18:CS:31:ARG:HG3	18:CS:56:HIS:NE2	2.23	0.53
10:CK:122:PRO:HD2	21:CU:35:GLU:HG2	1.91	0.53
34:D3:22:LYS:HA	34:D3:47:ALA:O	2.08	0.53
22:DA:14:U:H4'	22:DA:70:C:O2	2.07	0.53
23:DB:1429:G:H2'	23:DB:1430:G:C8	2.43	0.53
23:DB:2385:C:H2'	23:DB:2386:A:C8	2.43	0.53
23:DB:441:U:H2'	23:DB:442:G:H8	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:754:U:H2'	23:DB:755:U:C6	2.43	0.53
23:DB:981:A:H2'	23:DB:982:C:H5''	1.89	0.53
25:DC:127:ASN:O	25:DC:190:THR:HA	2.09	0.53
23:DB:2305:U:H5''	47:DF:130:GLY:HA3	1.89	0.53
40:DH:65:ALA:HB1	40:DH:138:VAL:HG21	1.89	0.53
24:DI:5:GLN:O	24:DI:6:ALA:HB3	2.07	0.53
42:DN:71:ARG:HG2	42:DN:71:ARG:HH21	1.72	0.53
43:DO:11:ALA:HB2	43:DO:96:GLY:N	2.24	0.53
50:DT:79:ASP:N	50:DT:79:ASP:OD2	2.42	0.53
23:DB:924:G:H4'	52:DW:24:ARG:NH2	2.23	0.53
1:AA:1009:U:H1'	1:AA:1021:A:C2	2.43	0.53
1:AA:1309:G:H2'	1:AA:1310:G:H8	1.73	0.53
1:AA:16:A:O2'	1:AA:17:U:H5'	2.08	0.53
9:AJ:83:THR:O	9:AJ:87:LEU:HD13	2.08	0.53
12:AM:86:ARG:CZ	18:AS:2:ARG:HH22	2.22	0.53
16:AQ:60:ILE:HD13	16:AQ:60:ILE:H	1.72	0.53
23:BB:106:C:H2'	23:BB:107:G:H8	1.74	0.53
23:BB:1103:A:H3'	23:BB:1104:C:H6	1.73	0.53
23:BB:1590:A:H2'	23:BB:1591:A:H8	1.72	0.53
23:BB:2446:G:H2'	23:BB:2447:G:H5''	1.91	0.53
23:BB:2852:G:H2'	23:BB:2853:C:C6	2.43	0.53
23:BB:445:C:O2'	23:BB:446:G:H5'	2.08	0.53
23:BB:580:U:H2'	23:BB:581:C:H6	1.73	0.53
25:BC:6:LYS:C	25:BC:8:THR:H	2.12	0.53
47:BF:135:ILE:CD1	47:BF:137:PHE:HB3	2.37	0.53
48:BG:174:LYS:NZ	48:BG:176:LYS:HB3	2.23	0.53
40:BH:114:GLU:N	40:BH:114:GLU:CD	2.61	0.53
24:BI:81:LYS:HG3	24:BI:82:ALA:N	2.23	0.53
37:BL:135:ILE:HG21	37:BL:142:ILE:HD11	1.90	0.53
28:BP:24:THR:O	28:BP:25:VAL:HG22	2.07	0.53
28:BP:59:THR:HA	28:BP:71:ARG:O	2.08	0.53
28:BP:91:VAL:O	28:BP:92:ARG:HB3	2.09	0.53
35:BV:24:ASN:O	35:BV:44:HIS:HB2	2.07	0.53
52:BW:37:VAL:CG1	52:BW:38:ARG:HH11	2.22	0.53
1:CA:1162:C:H2'	1:CA:1163:A:H8	1.71	0.53
1:CA:1165:U:H2'	1:CA:1166:G:O4'	2.08	0.53
1:CA:216:U:H2'	1:CA:217:C:C6	2.43	0.53
1:CA:512:U:O2'	1:CA:513:C:H5'	2.07	0.53
5:CF:92:THR:HG22	5:CF:93:LYS:N	2.22	0.53
6:CG:134:VAL:HB	6:CG:137:ARG:NH2	2.18	0.53
11:CL:30:ARG:HB3	11:CL:57:THR:HG23	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CM:106:ARG:HH12	12:CM:109:LYS:CD	2.21	0.53
53:D6:114:LEU:HD23	53:D6:183:ILE:HD13	1.91	0.53
23:DB:1098:A:O2'	24:DI:4:VAL:C	2.46	0.53
23:DB:136:G:H2'	23:DB:137:U:C5	2.44	0.53
23:DB:1854:A:N6	23:DB:1888:G:H1'	2.24	0.53
23:DB:2712:C:H2'	23:DB:2714:G:O3'	2.08	0.53
23:DB:458:G:N2	23:DB:469:G:H2'	2.24	0.53
26:DD:107:VAL:HA	26:DD:204:LYS:O	2.09	0.53
41:DJ:75:TYR:CD1	41:DJ:86:GLN:HB3	2.43	0.53
37:DL:143:GLU:CG	37:DL:144:GLU:H	1.99	0.53
28:DP:109:ILE:HG13	28:DP:109:ILE:O	2.09	0.53
1:AA:219:U:H2'	1:AA:220:G:H8	1.73	0.53
1:AA:429:U:H1'	1:AA:430:A:H5''	1.91	0.53
1:AA:986:U:H1'	18:AS:53:GLY:O	2.08	0.53
5:AF:15:SER:HB2	5:AF:44:ARG:HH12	1.73	0.53
5:AF:18:VAL:HG21	5:AF:58:HIS:CE1	2.44	0.53
10:AK:92:ARG:HH22	21:AU:19:LYS:HG2	1.73	0.53
1:AA:500:G:H5''	11:AL:120:ARG:NH1	2.23	0.53
17:AR:20:ILE:HG22	17:AR:53:GLN:NE2	2.24	0.53
33:B1:16:THR:HG21	33:B1:42:VAL:HG23	1.89	0.53
36:B2:33:ARG:HH21	36:B2:33:ARG:HB2	1.74	0.53
53:B6:14:MET:HG2	53:B6:129:ILE:HG23	1.90	0.53
23:BB:1080:A:H2'	23:BB:1081:U:H6	1.74	0.53
23:BB:1107:G:H2'	23:BB:1108:U:H6	1.71	0.53
23:BB:1439:A:N7	23:BB:1440:U:N1	2.56	0.53
23:BB:1824:G:O2'	23:BB:1825:U:H5'	2.07	0.53
23:BB:1846:G:H2'	23:BB:1847:A:O4'	2.07	0.53
23:BB:2144:G:H2'	23:BB:2146:C:OP2	2.08	0.53
23:BB:2825:G:H2'	23:BB:2826:A:H5'	1.89	0.53
23:BB:786:C:O2'	23:BB:787:C:H5'	2.09	0.53
26:BD:10:GLY:O	26:BD:11:MET:HB2	2.06	0.53
29:BE:146:VAL:CG1	29:BE:187:VAL:HG23	2.37	0.53
48:BG:26:LYS:HG2	48:BG:27:GLY:N	2.23	0.53
24:BI:18:ASN:N	24:BI:19:PRO:CD	2.71	0.53
41:BJ:130:HIS:HD2	41:BJ:132:HIS:HB2	1.73	0.53
27:BK:3:GLN:HG2	27:BK:4:GLU:N	2.22	0.53
28:BP:4:ILE:CG2	28:BP:5:LYS:H	2.12	0.53
46:BU:6:ARG:O	46:BU:24:VAL:HB	2.09	0.53
52:BW:49:ASN:HD22	52:BW:60:ALA:N	2.06	0.53
39:BX:18:LEU:O	39:BX:22:LEU:HB3	2.08	0.53
1:CA:1390:U:H2'	1:CA:1391:U:C6	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CF:93:LYS:O	5:CF:94:HIS:HB2	2.09	0.53
12:CM:97:ARG:NH1	1:CA:1308:U:H3'	2.23	0.53
10:CK:92:ARG:HH22	21:CU:19:LYS:HG2	1.73	0.53
21:CU:35:GLU:HB2	21:CU:37:TYR:CE2	2.44	0.53
34:D3:22:LYS:HB2	34:D3:48:MET:SD	2.48	0.53
34:D3:49:VAL:CG2	34:D3:54:LEU:HD13	2.37	0.53
23:DB:515:A:H2	23:DB:1260:A:N3	2.06	0.53
23:DB:1439:A:N7	23:DB:1440:U:N1	2.56	0.53
23:DB:2091:C:H1'	51:DZ:34:HIS:CD2	2.44	0.53
23:DB:538:A:H2'	23:DB:539:G:O4'	2.09	0.53
23:DB:633:A:O5'	23:DB:633:A:H8	1.90	0.53
47:DF:107:VAL:O	47:DF:110:ILE:HG22	2.09	0.53
47:DF:13:LYS:HG3	47:DF:14:LYS:H	1.74	0.53
24:DI:24:GLY:HA2	24:DI:34:ILE:HD12	1.90	0.53
37:DL:30:THR:O	37:DL:32:GLY:N	2.41	0.53
43:DO:105:ALA:C	43:DO:107:ALA:H	2.11	0.53
43:DO:30:ARG:HD2	43:DO:31:THR:N	2.23	0.53
49:DR:14:VAL:HG23	49:DR:15:SER:N	2.24	0.53
1:AA:244:U:O4	1:AA:906:A:H1'	2.09	0.53
1:AA:580:C:H2'	1:AA:581:G:O4'	2.09	0.53
1:AA:85:U:O2	1:AA:85:U:H5''	2.08	0.53
20:AB:65:LYS:HZ2	20:AB:153:MET:HG2	1.74	0.53
2:AC:126:ARG:HH22	2:AC:191:THR:H	1.57	0.53
8:AI:74:GLN:HE21	8:AI:74:GLN:H	1.55	0.53
8:AI:46:VAL:HG21	8:AI:75:ALA:HB1	1.90	0.53
10:AK:30:ILE:HG22	10:AK:45:THR:OG1	2.09	0.53
12:AM:14:ALA:O	12:AM:18:LEU:HB2	2.07	0.53
18:AS:66:VAL:C	18:AS:68:HIS:H	2.12	0.53
23:BB:1175:A:C5	23:BB:1176:U:H1'	2.43	0.53
23:BB:1533:C:H2'	23:BB:1534:U:C6	2.43	0.53
23:BB:1784:A:H4'	23:BB:1785:A:O5'	2.07	0.53
23:BB:1802:A:H2'	23:BB:1803:A:C8	2.44	0.53
23:BB:1924:C:H2'	23:BB:1925:C:C6	2.42	0.53
23:BB:2313:C:H2'	23:BB:2314:A:C8	2.42	0.53
23:BB:2760:C:O2'	23:BB:2761:A:H5'	2.08	0.53
23:BB:2787:C:O2'	23:BB:2788:C:H5'	2.09	0.53
23:BB:426:C:O2'	23:BB:427:U:H5'	2.09	0.53
25:BC:64:VAL:O	25:BC:65:ASP:HB3	2.08	0.53
26:BD:51:THR:HG23	26:BD:78:GLY:O	2.08	0.53
47:BF:110:ILE:HA	47:BF:111:ARG:NH1	2.23	0.53
47:BF:13:LYS:HG3	47:BF:14:LYS:H	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BF:134:GLN:H	47:BF:150:GLY:H	1.57	0.53
47:BF:42:ALA:O	47:BF:46:LYS:N	2.42	0.53
40:BH:94:ILE:HG21	40:BH:144:VAL:HG11	1.89	0.53
28:BP:112:ARG:HB2	28:BP:112:ARG:NH1	2.23	0.53
28:BP:59:THR:OG1	28:BP:72:VAL:HG12	2.07	0.53
45:BS:7:HIS:HB2	45:BS:50:VAL:HG21	1.91	0.53
35:BV:80:HIS:CD2	35:BV:81:PRO:HD2	2.44	0.53
52:BW:37:VAL:CG1	52:BW:38:ARG:H	2.17	0.53
52:BW:48:ALA:O	52:BW:61:LYS:HB2	2.09	0.53
1:CA:1029:U:O4'	1:CA:1029:U:O2	2.26	0.53
2:CC:1:GLY:HA3	1:CA:1060:U:C5	2.44	0.53
1:CA:1339:A:H2'	1:CA:1340:A:O4'	2.08	0.53
1:CA:744:C:O2'	1:CA:745:G:H5'	2.09	0.53
1:CA:949:A:O2'	1:CA:950:U:H5'	2.09	0.53
2:CC:184:ASN:HD22	2:CC:185:THR:H	1.56	0.53
5:CF:44:ARG:HA	5:CF:57:ALA:O	2.09	0.53
10:CK:82:GLU:HG2	10:CK:108:ASN:HB2	1.90	0.53
19:CT:28:ARG:O	19:CT:32:LYS:HG3	2.09	0.53
21:CU:16:ARG:HH12	21:CU:19:LYS:CE	2.21	0.53
34:D3:14:LYS:O	34:D3:21:PHE:O	2.26	0.53
53:D6:38:LEU:HD12	53:D6:66:LEU:HD23	1.89	0.53
23:DB:1098:A:C4	24:DI:3:LYS:O	2.61	0.53
23:DB:192:C:H2'	23:DB:193:U:H5'	1.90	0.53
23:DB:20:C:H2'	23:DB:21:A:H8	1.73	0.53
23:DB:2341:G:H2'	23:DB:2342:C:C6	2.43	0.53
23:DB:2788:C:H2'	23:DB:2789:C:C6	2.43	0.53
23:DB:546:U:H4'	23:DB:547:A:O3'	2.07	0.53
25:DC:20:ASN:O	25:DC:23:LEU:HB2	2.09	0.53
25:DC:53:ILE:HG23	25:DC:53:ILE:O	2.08	0.53
26:DD:39:ASP:O	26:DD:43:ASP:HB2	2.08	0.53
23:DB:2303:G:H1'	47:DF:122:ASP:OD1	2.08	0.53
12:CM:70:ARG:NH2	47:DF:136:ILE:HB	2.23	0.53
47:DF:134:GLN:H	47:DF:150:GLY:H	1.56	0.53
40:DH:4:ILE:HA	40:DH:17:ASP:O	2.08	0.53
23:DB:1060:U:H5	24:DI:131:THR:HG22	1.72	0.53
37:DL:119:PRO:HG3	37:DL:138:ALA:O	2.08	0.53
23:DB:309:A:H4'	46:DU:15:GLY:HA3	1.89	0.53
1:AA:1238:A:N7	1:AA:1303:C:H1'	2.23	0.53
1:AA:1287:A:H2'	1:AA:1288:A:C8	2.44	0.53
1:AA:216:U:H2'	1:AA:217:C:C6	2.43	0.53
1:AA:860:A:H2'	1:AA:861:G:O4'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AB:11:ALA:C	20:AB:13:VAL:H	2.12	0.53
2:AC:95:GLY:O	2:AC:96:VAL:HG13	2.09	0.53
4:AE:89:THR:HG22	4:AE:90:GLY:N	2.24	0.53
8:AI:20:ILE:HD13	8:AI:85:ALA:CB	2.39	0.53
11:AL:51:VAL:HG12	11:AL:52:CYS:N	2.23	0.53
14:AO:56:LEU:HA	14:AO:59:MET:HE3	1.91	0.53
19:AT:54:GLN:N	19:AT:55:PRO:HD2	2.24	0.53
19:AT:59:ARG:HH11	19:AT:59:ARG:HB2	1.74	0.53
34:B3:40:LYS:HA	34:B3:43:LEU:HD12	1.91	0.53
23:BB:2064:C:H2'	23:BB:2065:C:H6	1.74	0.53
23:BB:2472:G:O6	23:BB:2476:A:H4'	2.09	0.53
23:BB:2712:C:H2'	23:BB:2714:G:O3'	2.08	0.53
23:BB:2838:G:H2'	23:BB:2839:G:H8	1.73	0.53
23:BB:705:A:H61	23:BB:726:G:H1'	1.74	0.53
23:BB:936:A:H2'	23:BB:937:C:H6	1.74	0.53
25:BC:71:ASP:HA	25:BC:117:SER:O	2.07	0.53
23:BB:2305:U:O2	47:BF:150:GLY:HA3	2.09	0.53
40:BH:4:ILE:HA	40:BH:17:ASP:O	2.08	0.53
24:BI:52:LEU:HD21	24:BI:81:LYS:HZ2	1.74	0.53
45:BS:36:LEU:N	45:BS:36:LEU:HD22	2.22	0.53
50:BT:7:LEU:O	50:BT:7:LEU:HD13	2.09	0.53
35:BV:64:VAL:HG22	35:BV:69:GLU:HB3	1.90	0.53
52:BW:30:VAL:O	52:BW:30:VAL:HG13	2.09	0.53
9:CJ:12:ALA:HB2	9:CJ:96:VAL:HG12	1.89	0.53
9:CJ:59:LYS:HD3	1:CA:972:C:P	2.49	0.53
12:CM:33:LEU:HD13	12:CM:39:ALA:O	2.07	0.53
34:D3:41:ARG:HG3	34:D3:44:ARG:NH2	2.17	0.53
53:D6:58:VAL:CG2	53:D6:68:VAL:HG13	2.38	0.53
23:DB:1028:A:N6	23:DB:1125:G:H2'	2.24	0.53
23:DB:2639:A:H2'	23:DB:2640:G:O4'	2.09	0.53
23:DB:598:U:H2'	23:DB:599:A:C8	2.44	0.53
23:DB:873:C:H2'	23:DB:874:G:C8	2.43	0.53
23:DB:784:G:H1	25:DC:227:VAL:HG11	1.74	0.53
25:DC:6:LYS:C	25:DC:8:THR:H	2.12	0.53
23:DB:2578:G:H21	26:DD:130:GLN:HE22	1.55	0.53
48:DG:148:ARG:C	48:DG:148:ARG:HD2	2.29	0.53
24:DI:52:LEU:HD22	24:DI:81:LYS:HD3	1.91	0.53
41:DJ:17:VAL:HG23	41:DJ:137:PRO:CB	2.32	0.53
27:DK:94:PRO:HG2	27:DK:114:LYS:HD3	1.91	0.53
43:DO:93:ASP:C	43:DO:95:SER:H	2.10	0.53
28:DP:112:ARG:HB2	28:DP:112:ARG:NH1	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DV:6:ALA:C	35:DV:65:VAL:HG12	2.29	0.53
39:DX:46:VAL:HA	39:DX:49:ASP:HB2	1.91	0.53
1:AA:1390:U:H2'	1:AA:1391:U:C6	2.43	0.53
1:AA:237:G:H2'	1:AA:238:A:H8	1.74	0.53
1:AA:358:U:H2'	1:AA:359:G:C8	2.43	0.53
2:AC:70:ALA:HA	2:AC:105:VAL:HG11	1.89	0.53
16:AQ:14:ASP:HB3	16:AQ:54:ILE:HB	1.90	0.53
18:AS:29:PRO:HA	18:AS:47:THR:O	2.08	0.53
18:AS:31:ARG:HG3	18:AS:56:HIS:NE2	2.23	0.53
18:AS:68:HIS:HB3	18:AS:72:GLU:OE2	2.08	0.53
19:AT:4:LYS:HZ1	19:AT:6:ALA:HB2	1.72	0.53
23:BB:1199:U:H2'	23:BB:1200:C:H6	1.73	0.53
23:BB:1292:G:H2'	23:BB:1293:C:C6	2.43	0.53
23:BB:1932:A:H2'	23:BB:1933:G:O4'	2.08	0.53
23:BB:1942:C:C1'	53:B6:133:ARG:HH22	2.21	0.53
23:BB:2708:G:O2'	23:BB:2709:G:H5'	2.08	0.53
23:BB:921:C:H2'	23:BB:922:C:C6	2.44	0.53
26:BD:68:PHE:HB3	26:BD:73:VAL:HG23	1.89	0.53
47:BF:177:ARG:CZ	47:BF:177:ARG:HA	2.38	0.53
47:BF:69:ALA:HB3	47:BF:80:GLN:O	2.09	0.53
49:BR:68:ARG:HH11	49:BR:90:ARG:HG2	1.73	0.53
45:BS:60:HIS:O	45:BS:61:ASN:CB	2.56	0.53
50:BT:40:LYS:HG3	50:BT:60:THR:HG23	1.90	0.53
46:BU:21:ARG:HH11	46:BU:21:ARG:HG3	1.74	0.53
46:BU:73:ASN:OD1	46:BU:75:ALA:HB3	2.08	0.53
30:BY:2:LYS:CG	30:BY:3:THR:H	2.21	0.53
51:BZ:45:ARG:HG2	51:BZ:46:PHE:N	2.23	0.53
1:CA:1281:C:H5'	1:CA:1282:C:H5	1.73	0.53
1:CA:1343:G:H2'	1:CA:1344:C:H6	1.72	0.53
1:CA:1432:G:H1'	1:CA:1468:A:H61	1.73	0.53
1:CA:961:U:O4'	1:CA:961:U:O2	2.26	0.53
6:CG:58:LEU:O	6:CG:62:GLU:HB2	2.08	0.53
6:CG:72:VAL:HG12	6:CG:89:GLU:HA	1.90	0.53
21:CU:24:LYS:HD2	21:CU:25:ALA:N	2.12	0.53
34:D3:18:LYS:CE	34:D3:20:GLY:H	2.21	0.53
53:D6:43:VAL:HG21	53:D6:52:LEU:HD12	1.91	0.53
23:DB:1098:A:H3'	24:DI:3:LYS:CB	2.38	0.53
23:DB:1210:G:H5'	23:DB:1212:G:H5'	1.91	0.53
23:DB:1315:C:H2'	23:DB:1316:U:C6	2.44	0.53
23:DB:729:G:H2'	23:DB:1775:U:H1'	1.90	0.53
23:DB:2104:C:H5"	23:DB:2105:U:OP1	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2153:C:H2'	23:DB:2154:A:H8	1.74	0.53
23:DB:2271:G:C2'	23:DB:2272:U:H5'	2.39	0.53
23:DB:2785:C:H2'	23:DB:2786:U:H6	1.74	0.53
23:DB:32:C:O2'	23:DB:33:C:H5'	2.08	0.53
23:DB:668:A:H2'	23:DB:670:A:H62	1.73	0.53
23:DB:741:U:H2'	23:DB:742:A:C8	2.43	0.53
29:DE:111:GLU:HG2	29:DE:114:ARG:NH2	2.18	0.53
47:DF:45:ASP:O	47:DF:46:LYS:HB2	2.09	0.53
40:DH:39:ALA:HA	40:DH:44:ILE:HG22	1.91	0.53
24:DI:45:THR:HA	24:DI:48:ILE:CG2	2.38	0.53
38:DM:6:ARG:HB3	38:DM:6:ARG:NH1	2.24	0.53
43:DO:100:HIS:C	43:DO:104:GLN:HB2	2.29	0.53
45:DS:5:ALA:HB3	45:DS:54:ALA:HB2	1.90	0.53
52:DW:23:LYS:HD2	52:DW:24:ARG:H	1.72	0.53
52:DW:37:VAL:CG1	52:DW:38:ARG:HH11	2.22	0.53
51:DZ:40:VAL:HG13	51:DZ:47:VAL:HG22	1.90	0.53
1:AA:235:C:H2'	1:AA:236:A:H8	1.74	0.53
1:AA:279:A:OP1	1:AA:281:G:H5'	2.09	0.53
20:AB:16:GLY:HA3	20:AB:39:ILE:HA	1.90	0.53
3:AD:12:ARG:HA	3:AD:33:ILE:HD12	1.91	0.53
1:AA:552:U:H4'	11:AL:82:ARG:HG3	1.90	0.53
12:AM:94:LEU:HB3	12:AM:95:PRO:HD2	1.91	0.53
15:AP:78:VAL:O	15:AP:79:ASN:C	2.46	0.53
18:AS:20:LYS:HD2	18:AS:20:LYS:O	2.08	0.53
53:B6:12:SER:O	53:B6:16:LYS:HD2	2.09	0.53
53:B6:52:LEU:HA	53:B6:55:ILE:CG2	2.39	0.53
53:B6:69:GLN:HG2	53:B6:98:ALA:HB2	1.90	0.53
23:BB:2370:G:H2'	23:BB:2371:G:C8	2.43	0.53
23:BB:2885:G:N2	31:B0:31:LYS:HG2	2.24	0.53
23:BB:39:G:H2'	23:BB:40:U:C6	2.43	0.53
23:BB:594:U:H2'	23:BB:595:C:C6	2.44	0.53
23:BB:934:U:H2'	23:BB:935:C:H6	1.72	0.53
25:BC:250:GLN:H	25:BC:250:GLN:CD	2.12	0.53
40:BH:122:LEU:HD12	40:BH:122:LEU:N	2.24	0.53
40:BH:5:LEU:C	40:BH:6:LEU:HD12	2.29	0.53
27:BK:47:ILE:HG23	27:BK:49:ARG:H	1.74	0.53
38:BM:26:VAL:CG2	38:BM:133:LYS:HA	2.39	0.53
28:BP:94:ALA:O	28:BP:95:LYS:HD2	2.09	0.53
30:BY:11:SER:OG	30:BY:13:ILE:HG13	2.08	0.53
1:CA:1027:C:H2'	1:CA:1028:C:O4'	2.07	0.53
1:CA:215:C:H2'	1:CA:216:U:H6	1.72	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CI:117:LEU:CD2	8:CI:123:ARG:HB3	2.39	0.53
8:CI:20:ILE:HD13	8:CI:85:ALA:CB	2.38	0.53
19:CT:13:SER:HB2	1:CA:323:U:H1'	1.91	0.53
33:D1:16:THR:HG21	33:D1:42:VAL:HG23	1.90	0.53
53:D6:4:LYS:HD3	53:D6:5:GLU:N	2.24	0.53
53:D6:63:PRO:HB2	53:D6:64:ARG:NE	2.24	0.53
23:DB:1439:A:C5	23:DB:1552:A:N6	2.76	0.53
23:DB:1417:C:O5'	23:DB:1588:G:H1'	2.08	0.53
23:DB:327:G:H2'	23:DB:328:U:O4'	2.09	0.53
23:DB:962:G:H21	23:DB:2250:G:H1	1.57	0.53
25:DC:90:ILE:HD13	25:DC:104:LEU:HA	1.89	0.53
26:DD:107:VAL:H	26:DD:206:ALA:H	1.56	0.53
41:DJ:99:ARG:O	41:DJ:103:ILE:HG23	2.09	0.53
37:DL:124:GLY:H	37:DL:143:GLU:HG3	1.68	0.53
28:DP:4:ILE:C	28:DP:6:GLN:N	2.63	0.53
23:DB:996:A:H4'	44:DQ:91:ARG:HG2	1.90	0.53
52:DW:8:SER:O	52:DW:9:THR:HB	2.08	0.53
39:DX:29:ARG:HH11	50:DT:12:ARG:HE	1.55	0.53
51:DZ:31:PRO:HB2	51:DZ:33:LEU:CD1	2.36	0.53
1:AA:1522:U:O2'	1:AA:1523:G:H5'	2.08	0.53
1:AA:237:G:H2'	1:AA:238:A:C8	2.44	0.53
1:AA:272:C:H2'	1:AA:273:U:C6	2.43	0.53
1:AA:491:G:O2'	1:AA:492:C:H5'	2.08	0.53
20:AB:85:SER:N	20:AB:88:GLN:HE22	2.07	0.53
2:AC:48:LYS:CD	2:AC:48:LYS:H	2.21	0.53
4:AE:113:VAL:HG23	4:AE:114:LEU:N	2.23	0.53
15:AP:2:VAL:O	15:AP:65:ALA:HA	2.08	0.53
31:B0:29:VAL:HG22	31:B0:30:ASP:H	1.74	0.53
34:B3:49:VAL:O	34:B3:51:LYS:N	2.42	0.53
23:BB:1032:A:H1'	32:B4:23:ILE:CD1	2.35	0.53
23:BB:136:G:P	23:BB:136:G:H8	2.32	0.53
23:BB:1432:G:O2'	23:BB:1433:A:H5'	2.09	0.53
23:BB:1439:A:N7	23:BB:1440:U:C6	2.76	0.53
23:BB:155:A:H2'	23:BB:156:A:H8	1.73	0.53
23:BB:1666:G:O3'	27:BK:6:THR:HG23	2.08	0.53
23:BB:176:A:O2'	23:BB:177:G:H5'	2.09	0.53
23:BB:2393:U:H5'	37:BL:60:ARG:O	2.09	0.53
23:BB:2512:C:H2'	23:BB:2513:A:O4'	2.09	0.53
23:BB:2755:C:O5'	23:BB:2755:C:H6	1.91	0.53
23:BB:572:A:H5''	23:BB:573:U:OP2	2.08	0.53
48:BG:148:ARG:HD2	48:BG:149:ALA:N	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BH:45:GLU:HA	40:BH:48:GLU:OE1	2.09	0.53
41:BJ:100:VAL:O	41:BJ:104:ALA:HB2	2.08	0.53
37:BL:90:VAL:HB	37:BL:122:VAL:HG12	1.91	0.53
50:BT:39:THR:HG22	50:BT:42:GLU:CG	2.38	0.53
35:BV:65:VAL:C	35:BV:67:GLY:H	2.12	0.53
1:CA:1029:U:H3'	1:CA:1029:U:OP2	2.08	0.53
1:CA:1412:C:H2'	1:CA:1413:A:H8	1.70	0.53
20:CB:204:ASP:CG	20:CB:205:ALA:H	2.12	0.53
20:CB:23:ASN:HD21	20:CB:25:LYS:HG3	1.74	0.53
2:CC:48:LYS:H	2:CC:48:LYS:CD	2.21	0.53
3:CD:187:ARG:NH1	3:CD:191:SER:HA	2.24	0.53
4:CE:17:VAL:HG23	4:CE:33:THR:O	2.09	0.53
7:CH:51:GLU:HG2	7:CH:52:GLY:H	1.74	0.53
7:CH:94:VAL:HG21	7:CH:100:ILE:O	2.09	0.53
8:CI:46:VAL:HG21	8:CI:75:ALA:HB1	1.89	0.53
13:CN:50:LEU:HG	13:CN:51:PRO:HD3	1.91	0.53
23:DB:1146:C:H2'	23:DB:1147:A:C8	2.44	0.53
23:DB:1334:G:O2'	23:DB:1335:C:H5'	2.09	0.53
23:DB:1495:A:H2'	23:DB:1496:A:C8	2.44	0.53
23:DB:156:A:H2'	23:DB:157:C:C6	2.44	0.53
23:DB:1593:A:H2'	23:DB:1594:U:H6	1.73	0.53
23:DB:2825:G:H2'	23:DB:2826:A:H5'	1.91	0.53
23:DB:582:A:H2'	23:DB:583:G:C8	2.44	0.53
23:DB:811:U:OP2	37:DL:20:GLY:HA2	2.09	0.53
26:DD:32:ASN:N	26:DD:96:ILE:O	2.42	0.53
47:DF:169:LEU:HD22	47:DF:174:PHE:CE1	2.44	0.53
40:DH:133:GLN:CA	40:DH:139:PHE:HB3	2.38	0.53
24:DI:76:ALA:HA	24:DI:135:MET:SD	2.49	0.53
41:DJ:23:LYS:NZ	41:DJ:142:ILE:HG12	2.24	0.53
41:DJ:30:THR:HG23	41:DJ:31:GLU:H	1.74	0.53
27:DK:53:LYS:H	27:DK:53:LYS:HD3	1.73	0.53
42:DN:70:THR:HB	42:DN:75:ILE:HD11	1.90	0.53
50:DT:38:ALA:O	50:DT:39:THR:HB	2.09	0.53
1:AA:1001:C:H2'	1:AA:1002:G:H8	1.71	0.53
1:AA:1489:G:H2'	1:AA:1490:U:C6	2.44	0.53
1:AA:518:C:H2'	1:AA:530:G:C8	2.43	0.53
1:AA:90:C:H2'	1:AA:91:U:C6	2.44	0.53
1:AA:961:U:O2	1:AA:961:U:O4'	2.26	0.53
20:AB:178:LEU:HB2	20:AB:180:ILE:HG12	1.91	0.53
6:AG:70:PRO:HD3	6:AG:102:TRP:CZ3	2.44	0.53
11:AL:42:LYS:HD2	11:AL:43:LYS:HG3	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:B1:3:GLY:C	33:B1:5:ARG:H	2.12	0.53
53:B6:102:ASN:N	53:B6:102:ASN:HD22	2.06	0.53
53:B6:64:ARG:O	53:B6:103:ILE:N	2.41	0.53
53:B6:61:PRO:HD3	53:B6:67:VAL:HG22	1.90	0.53
23:BB:1332:G:H2'	23:BB:1332:G:N3	2.23	0.53
23:BB:1442:U:H2'	23:BB:1443:U:C6	2.44	0.53
23:BB:170:U:H2'	23:BB:171:U:C6	2.43	0.53
23:BB:2359:C:H2'	23:BB:2360:G:C8	2.44	0.53
23:BB:280:U:H2'	23:BB:281:C:H6	1.73	0.53
23:BB:338:G:N2	23:BB:339:U:H1'	2.24	0.53
23:BB:496:G:H1'	45:BS:61:ASN:HD21	1.73	0.53
23:BB:743:A:C2'	23:BB:744:U:H5'	2.38	0.53
25:BC:52:HIS:HA	25:BC:216:ARG:HB2	1.90	0.53
23:BB:1812:U:O2'	25:BC:43:ASN:ND2	2.41	0.53
47:BF:13:LYS:HA	47:BF:16:MET:HB2	1.91	0.53
48:BG:15:ASP:CB	48:BG:26:LYS:HB3	2.39	0.53
40:BH:4:ILE:HG13	40:BH:37:VAL:O	2.09	0.53
41:BJ:128:ASN:C	41:BJ:129:GLU:HG3	2.30	0.53
38:BM:69:PRO:HG2	38:BM:70:ASP:H	1.74	0.53
42:BN:78:LYS:O	42:BN:82:GLU:HB2	2.09	0.53
28:BP:31:VAL:O	28:BP:32:VAL:HB	2.07	0.53
52:BW:41:GLY:HA2	52:BW:44:PHE:CE2	2.43	0.53
1:CA:1014:A:C2	1:CA:1219:A:H1'	2.44	0.53
1:CA:34:C:H2'	1:CA:35:G:H8	1.73	0.53
1:CA:470:C:H2'	1:CA:471:U:H6	1.73	0.53
1:CA:580:C:H2'	1:CA:581:G:O4'	2.09	0.53
1:CA:738:C:H2'	1:CA:739:C:C6	2.44	0.53
6:CG:100:MET:O	6:CG:104:VAL:HG23	2.08	0.53
7:CH:26:MET:HB2	7:CH:27:PRO:HD2	1.91	0.53
16:CQ:24:ILE:HD13	16:CQ:43:LEU:HD13	1.90	0.53
34:D3:22:LYS:HA	34:D3:48:MET:HA	1.89	0.53
23:DB:1475:G:H4'	23:DB:1476:U:O5'	2.09	0.53
23:DB:1553:A:O2'	23:DB:1554:U:H2'	2.09	0.53
23:DB:2516:A:O2'	23:DB:2517:C:H5'	2.09	0.53
23:DB:2615:U:C2	31:D0:3:GLN:HA	2.44	0.53
23:DB:2708:G:O2'	23:DB:2709:G:H5'	2.07	0.53
23:DB:580:U:H2'	23:DB:581:C:H6	1.73	0.53
23:DB:946:C:H2'	23:DB:947:A:H8	1.74	0.53
47:DF:110:ILE:HA	47:DF:111:ARG:NH1	2.23	0.53
27:DK:47:ILE:HG23	27:DK:49:ARG:H	1.73	0.53
27:DK:63:VAL:HG12	27:DK:64:ARG:HD3	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DP:91:VAL:O	28:DP:92:ARG:HB3	2.09	0.53
44:DQ:73:ILE:HG23	44:DQ:78:PHE:HB2	1.91	0.53
45:DS:60:HIS:O	45:DS:61:ASN:CB	2.56	0.53
23:DB:496:G:H1'	45:DS:61:ASN:ND2	2.24	0.53
50:DT:28:ASN:HB2	50:DT:91:GLN:HE22	1.74	0.53
46:DU:86:PHE:HB3	46:DU:90:LYS:O	2.08	0.53
35:DV:30:ILE:HG13	35:DV:40:ILE:HD12	1.90	0.53
20:AB:198:VAL:HG12	20:AB:200:PRO:HD3	1.92	0.52
5:AF:93:LYS:O	5:AF:94:HIS:HB2	2.08	0.52
16:AQ:30:HIS:HB3	16:AQ:33:TYR:HB2	1.91	0.52
32:B4:11:CYS:HB3	32:B4:33:HIS:HE1	1.74	0.52
23:BB:1318:U:H2'	23:BB:1319:C:C6	2.43	0.52
23:BB:1917:U:H2'	23:BB:1918:A:O4'	2.09	0.52
23:BB:2135:A:H3'	23:BB:2136:G:H8	1.74	0.52
23:BB:2143:C:H2'	23:BB:2144:G:O4'	2.09	0.52
23:BB:2415:G:H2'	23:BB:2416:C:C6	2.44	0.52
23:BB:276:U:C2'	23:BB:277:G:H5'	2.39	0.52
23:BB:2834:G:H1'	23:BB:2883:A:H61	1.73	0.52
23:BB:633:A:O5'	23:BB:633:A:H8	1.92	0.52
25:BC:30:ALA:N	25:BC:31:PRO:HD2	2.24	0.52
26:BD:179:ARG:HB3	26:BD:179:ARG:HH11	1.73	0.52
40:BH:40:THR:O	40:BH:41:LYS:C	2.47	0.52
40:BH:79:THR:HG22	40:BH:145:ASN:HB2	1.91	0.52
41:BJ:58:ASN:HA	41:BJ:127:GLY:CA	2.35	0.52
45:BS:60:HIS:O	45:BS:61:ASN:HB2	2.08	0.52
1:CA:1461:G:H2'	1:CA:1462:C:H6	1.74	0.52
1:CA:429:U:H1'	1:CA:430:A:H5''	1.90	0.52
1:CA:674:G:H2'	1:CA:675:A:C8	2.43	0.52
20:CB:95:TRP:CH2	20:CB:100:LEU:HB2	2.42	0.52
6:CG:104:VAL:HG12	6:CG:108:ARG:HD2	1.89	0.52
10:CK:127:ARG:HH11	10:CK:127:ARG:HG3	1.73	0.52
19:CT:59:ARG:HH21	1:CA:177:G:C5'	2.22	0.52
36:D2:19:ARG:HB3	36:D2:19:ARG:NH2	2.24	0.52
53:D6:114:LEU:HD22	53:D6:183:ILE:HG23	1.91	0.52
23:DB:1724:G:H2'	23:DB:1725:U:H6	1.74	0.52
23:DB:2849:U:H4'	23:DB:2850:A:H5'	1.90	0.52
23:DB:417:C:H2'	23:DB:418:C:H6	1.73	0.52
23:DB:823:C:O2'	23:DB:824:U:H5'	2.09	0.52
25:DC:30:ALA:N	25:DC:31:PRO:HD2	2.24	0.52
26:DD:56:LYS:HD3	26:DD:58:ASN:HB3	1.92	0.52
48:DG:122:ALA:HB2	48:DG:132:LEU:HB3	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DH:31:VAL:CB	40:DH:32:PRO:CD	2.84	0.52
40:DH:58:LEU:O	40:DH:61:VAL:HG12	2.09	0.52
27:DK:71:ARG:HG3	27:DK:105:ARG:HH21	1.74	0.52
38:DM:73:ILE:HG13	38:DM:93:VAL:HB	1.90	0.52
28:DP:24:THR:O	28:DP:25:VAL:HG22	2.09	0.52
28:DP:50:ARG:N	28:DP:57:ALA:O	2.41	0.52
44:DQ:83:LYS:NZ	44:DQ:87:VAL:HA	2.24	0.52
51:DZ:45:ARG:HG2	51:DZ:46:PHE:N	2.23	0.52
1:AA:1306:A:N6	1:AA:1331:G:H1'	2.23	0.52
1:AA:1397:C:H4'	1:AA:1398:A:OP2	2.10	0.52
1:AA:34:C:H2'	1:AA:35:G:H8	1.74	0.52
1:AA:454:G:O2'	1:AA:455:G:H5'	2.08	0.52
1:AA:600:A:H2'	1:AA:601:G:H8	1.74	0.52
2:AC:184:ASN:HD22	2:AC:185:THR:H	1.57	0.52
3:AD:187:ARG:NH1	3:AD:191:SER:HA	2.24	0.52
3:AD:29:THR:HG22	3:AD:30:LYS:N	2.24	0.52
8:AI:25:GLY:CA	8:AI:57:VAL:HA	2.26	0.52
8:AI:61:ASP:O	8:AI:62:LEU:HD13	2.09	0.52
15:AP:25:ARG:HD3	15:AP:25:ARG:H	1.74	0.52
34:B3:7:ARG:HH11	34:B3:7:ARG:HG3	1.74	0.52
23:BB:1710:G:O2'	23:BB:1711:A:H5'	2.10	0.52
23:BB:573:U:N3	23:BB:2031:A:OP1	2.38	0.52
23:BB:2215:C:H2'	23:BB:2216:G:H8	1.74	0.52
23:BB:2415:G:H2'	23:BB:2416:C:H6	1.74	0.52
23:BB:2793:C:H2'	23:BB:2794:C:H6	1.74	0.52
23:BB:331:C:O2'	23:BB:332:A:H5'	2.09	0.52
23:BB:857:G:O2'	23:BB:858:G:H5'	2.09	0.52
25:BC:153:LEU:HD13	25:BC:175:LEU:CD2	2.38	0.52
29:BE:136:GLN:NE2	29:BE:139:LYS:HD3	2.24	0.52
48:BG:10:VAL:CG1	48:BG:14:VAL:HB	2.29	0.52
24:BI:49:GLU:CG	24:BI:54:ILE:HD11	2.39	0.52
37:BL:113:ALA:HB3	37:BL:115:GLU:OE1	2.08	0.52
46:BU:23:LYS:HD2	46:BU:23:LYS:N	2.23	0.52
35:BV:51:GLN:HA	35:BV:56:PHE:CG	2.44	0.52
1:CA:104:G:O2'	1:CA:105:G:H5'	2.10	0.52
1:CA:1132:C:H2'	1:CA:1133:G:C8	2.43	0.52
1:CA:1519:A:H3'	1:CA:1520:C:C5'	2.40	0.52
3:CD:169:TRP:CD2	3:CD:185:PRO:HB3	2.45	0.52
3:CD:90:LEU:HD11	3:CD:194:ILE:CD1	2.37	0.52
4:CE:14:LEU:HA	4:CE:36:THR:HG22	1.91	0.52
16:CQ:7:LEU:O	16:CQ:60:ILE:HD13	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CS:66:VAL:C	18:CS:68:HIS:H	2.12	0.52
34:D3:35:LYS:HG2	34:D3:39:ARG:NH2	2.25	0.52
53:D6:37:LEU:HD11	53:D6:88:LEU:HD21	1.90	0.52
23:DB:1054:A:H2'	23:DB:1055:G:C8	2.44	0.52
23:DB:1100:C:H2'	23:DB:1101:U:C6	2.44	0.52
23:DB:1173:U:H2'	23:DB:1174:U:O4'	2.09	0.52
23:DB:2195:U:O2'	23:DB:2196:C:H5'	2.09	0.52
23:DB:2395:C:H2'	23:DB:2396:G:O4'	2.10	0.52
23:DB:615:U:O4	29:DE:39:ALA:HB2	2.08	0.52
47:DF:33:ILE:HG21	47:DF:98:PHE:CE2	2.45	0.52
24:DI:99:LYS:HD3	24:DI:99:LYS:N	2.24	0.52
46:DU:6:ARG:O	46:DU:24:VAL:HB	2.08	0.52
46:DU:46:LYS:HG2	46:DU:47:PRO:HD2	1.91	0.52
51:DZ:33:LEU:H	51:DZ:52:SER:HB2	1.74	0.52
1:AA:1078:U:H2'	1:AA:1079:G:O4'	2.08	0.52
1:AA:1302:C:OP2	12:AM:16:ILE:HD11	2.09	0.52
1:AA:1413:A:H2	1:AA:1487:G:H22	1.57	0.52
1:AA:551:U:H2'	1:AA:552:U:C6	2.44	0.52
1:AA:662:U:H2'	1:AA:663:A:C8	2.44	0.52
8:AI:26:LYS:HE3	8:AI:27:ILE:N	2.23	0.52
8:AI:14:SER:HA	8:AI:68:GLY:O	2.09	0.52
1:AA:1289:A:H61	8:AI:71:ILE:HD13	1.75	0.52
10:AK:85:VAL:HG21	10:AK:96:ILE:HD11	1.91	0.52
31:B0:48:TYR:CG	31:B0:49:ARG:N	2.77	0.52
22:BA:14:U:H1'	22:BA:106:G:H21	1.75	0.52
23:BB:1172:C:H3'	23:BB:1173:U:H6	1.71	0.52
23:BB:1269:A:H2'	23:BB:1270:C:C6	2.45	0.52
23:BB:160:A:H1'	23:BB:2208:C:O2'	2.09	0.52
23:BB:285:G:O2'	23:BB:286:U:H5'	2.09	0.52
23:BB:289:G:H2'	23:BB:290:U:O4'	2.09	0.52
24:BI:75:ALA:HB2	24:BI:112:LYS:HE2	1.90	0.52
37:BL:82:LEU:O	37:BL:85:VAL:HG12	2.09	0.52
38:BM:19:GLY:N	38:BM:38:ARG:HH22	2.08	0.52
45:BS:1:MET:SD	45:BS:62:ASP:HB3	2.49	0.52
50:BT:38:ALA:O	50:BT:39:THR:HB	2.09	0.52
46:BU:11:ILE:O	46:BU:11:ILE:HD13	2.09	0.52
1:CA:1384:C:H2'	1:CA:1385:G:H8	1.74	0.52
1:CA:193:C:H2'	1:CA:194:C:C6	2.43	0.52
20:CB:26:MET:O	20:CB:30:ILE:HG13	2.09	0.52
4:CE:98:ALA:HB1	4:CE:102:THR:HG21	1.91	0.52
11:CL:82:ARG:HG3	1:CA:552:U:H4'	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CO:56:LEU:HA	14:CO:59:MET:HE3	1.91	0.52
18:CS:20:LYS:HD2	18:CS:20:LYS:O	2.09	0.52
18:CS:2:ARG:CZ	1:CA:1320:C:H5''	2.40	0.52
18:CS:43:MET:C	18:CS:46:LEU:HD23	2.30	0.52
34:D3:40:LYS:HA	34:D3:43:LEU:HD12	1.90	0.52
53:D6:150:SER:O	53:D6:154:THR:HG23	2.10	0.52
53:D6:18:LEU:HD21	53:D6:171:LYS:CD	2.38	0.52
22:DA:5:U:H2'	22:DA:6:G:C8	2.44	0.52
23:DB:1098:A:P	24:DI:3:LYS:HG2	2.49	0.52
23:DB:121:G:H2'	23:DB:122:G:H8	1.74	0.52
23:DB:125:A:OP2	36:D2:19:ARG:NH2	2.42	0.52
23:DB:1947:C:H2'	23:DB:1948:G:H8	1.74	0.52
23:DB:2438:U:O2'	23:DB:2439:A:H5''	2.09	0.52
23:DB:947:A:O2'	23:DB:984:A:H2	1.92	0.52
40:DH:24:GLY:O	40:DH:28:ASN:HB2	2.10	0.52
40:DH:6:LEU:HD11	40:DH:37:VAL:HG12	1.91	0.52
41:DJ:130:HIS:HD2	41:DJ:132:HIS:HB2	1.75	0.52
41:DJ:40:HIS:ND1	41:DJ:41:LYS:HG3	2.25	0.52
27:DK:19:VAL:HB	27:DK:41:ILE:CG1	2.38	0.52
37:DL:77:ILE:HB	37:DL:109:LYS:O	2.08	0.52
28:DP:6:GLN:O	28:DP:10:GLU:HB3	2.09	0.52
28:DP:31:VAL:HG13	28:DP:32:VAL:N	2.24	0.52
44:DQ:89:ILE:HB	49:DR:11:GLN:NE2	2.24	0.52
46:DU:94:PHE:HB3	46:DU:101:THR:HA	1.90	0.52
35:DV:80:HIS:CD2	35:DV:81:PRO:HD2	2.44	0.52
52:DW:74:LYS:O	52:DW:76:ARG:HG2	2.10	0.52
1:AA:1461:G:H2'	1:AA:1462:C:H6	1.74	0.52
1:AA:193:C:H2'	1:AA:194:C:C6	2.44	0.52
1:AA:451:A:H4'	1:AA:452:A:O4'	2.09	0.52
1:AA:475:C:H2'	1:AA:476:U:H6	1.75	0.52
1:AA:513:C:H2'	1:AA:514:C:C6	2.44	0.52
1:AA:769:G:O2'	1:AA:770:C:H5'	2.10	0.52
1:AA:840:C:H2'	1:AA:842:U:H5''	1.91	0.52
1:AA:949:A:O2'	1:AA:950:U:H5'	2.09	0.52
6:AG:102:TRP:CH2	6:AG:140:VAL:HG21	2.44	0.52
1:AA:538:G:OP2	11:AL:111:GLN:HB2	2.09	0.52
15:AP:68:SER:OG	15:AP:71:VAL:HG12	2.08	0.52
31:B0:42:ILE:HG22	31:B0:43:THR:O	2.09	0.52
23:BB:1188:U:O2'	23:BB:1189:A:H5'	2.08	0.52
23:BB:1316:U:O2'	23:BB:1317:G:H5'	2.09	0.52
23:BB:1639:C:C2'	23:BB:1640:A:H5'	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:2479:U:OP1	23:BB:2537:U:H1'	2.08	0.52
23:BB:2659:G:N2	23:BB:2661:G:H5''	2.24	0.52
23:BB:2700:A:H2'	23:BB:2701:U:C6	2.44	0.52
23:BB:526:A:N6	23:BB:2626:C:H4'	2.25	0.52
23:BB:655:A:H4'	23:BB:656:G:H5'	1.91	0.52
47:BF:104:THR:C	47:BF:105:ILE:HG13	2.30	0.52
47:BF:56:LEU:HD22	47:BF:59:ILE:HD12	1.91	0.52
48:BG:122:ALA:HB2	48:BG:132:LEU:HB3	1.90	0.52
22:BA:49:C:OP1	43:BO:101:GLY:HA3	2.10	0.52
43:BO:40:ILE:HG12	43:BO:47:VAL:HG13	1.92	0.52
44:BQ:83:LYS:NZ	44:BQ:87:VAL:HA	2.25	0.52
23:BB:494:G:H4'	45:BS:6:LYS:HG2	1.92	0.52
50:BT:29:THR:H	50:BT:91:GLN:NE2	2.08	0.52
46:BU:86:PHE:HB3	46:BU:90:LYS:O	2.09	0.52
35:BV:30:ILE:HG13	35:BV:40:ILE:HD12	1.90	0.52
1:CA:1260:G:H4'	1:CA:1283:U:O2'	2.09	0.52
1:CA:818:G:O2'	1:CA:819:A:H5''	2.09	0.52
1:CA:858:G:O6	1:CA:869:G:H3'	2.10	0.52
6:CG:144:ALA:C	6:CG:146:ALA:H	2.12	0.52
12:CM:106:ARG:HB2	1:CA:947:G:H5''	1.91	0.52
12:CM:94:LEU:HB3	12:CM:95:PRO:HD2	1.92	0.52
16:CQ:30:HIS:HB3	16:CQ:33:TYR:HB2	1.91	0.52
23:DB:1000:A:H2'	23:DB:1001:A:C8	2.44	0.52
23:DB:1092:C:H2'	23:DB:1093:G:H5'	1.91	0.52
23:DB:1292:G:H2'	23:DB:1293:C:C6	2.44	0.52
23:DB:1623:G:O2'	23:DB:1624:U:H5'	2.08	0.52
23:DB:1854:A:H62	23:DB:1888:G:H8	1.56	0.52
23:DB:27:G:H1'	23:DB:513:A:H61	1.73	0.52
23:DB:547:A:H8	23:DB:548:G:N3	2.06	0.52
23:DB:64:A:H2'	23:DB:65:U:H6	1.74	0.52
41:DJ:58:ASN:HA	41:DJ:127:GLY:CA	2.36	0.52
28:DP:7:LEU:HA	28:DP:10:GLU:OE2	2.10	0.52
44:DQ:77:LYS:HA	44:DQ:80:ASN:HB3	1.92	0.52
49:DR:14:VAL:CG2	49:DR:15:SER:N	2.73	0.52
45:DS:36:LEU:H	45:DS:36:LEU:CD2	2.22	0.52
35:DV:77:VAL:HG23	35:DV:89:ILE:HG22	1.90	0.52
51:DZ:32:ASN:O	51:DZ:33:LEU:O	2.27	0.52
1:AA:1013:G:H2'	1:AA:1015:G:OP2	2.09	0.52
20:AB:40:ILE:HD13	20:AB:201:GLY:HA2	1.91	0.52
3:AD:103:ARG:HH21	3:AD:110:ARG:NH2	2.08	0.52
5:AF:44:ARG:HA	5:AF:57:ALA:O	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AG:14:ASP:OD2	6:AG:15:PRO:HD2	2.10	0.52
11:AL:88:ASP:C	11:AL:89:LEU:HD22	2.30	0.52
34:B3:18:LYS:CE	34:B3:20:GLY:H	2.22	0.52
23:BB:1060:U:O2	23:BB:1088:A:C8	2.63	0.52
23:BB:1315:C:H2'	23:BB:1316:U:C6	2.45	0.52
23:BB:1417:C:O5'	23:BB:1588:G:H1'	2.08	0.52
23:BB:27:G:H1'	23:BB:513:A:H61	1.73	0.52
25:BC:141:HIS:HB3	25:BC:190:THR:HG1	1.74	0.52
25:BC:127:ASN:O	25:BC:190:THR:HA	2.09	0.52
23:BB:2784:U:H4'	26:BD:42:ASN:O	2.09	0.52
26:BD:39:ASP:O	26:BD:43:ASP:HB2	2.08	0.52
47:BF:98:PHE:O	47:BF:102:LEU:HD12	2.10	0.52
40:BH:57:LYS:NZ	40:BH:58:LEU:HD13	2.24	0.52
24:BI:23:VAL:HG23	24:BI:24:GLY:N	2.25	0.52
41:BJ:136:GLN:N	41:BJ:137:PRO:HD3	2.25	0.52
27:BK:88:ASN:HD21	27:BK:90:ASN:HB3	1.74	0.52
37:BL:56:PRO:O	37:BL:59:ARG:HB2	2.08	0.52
23:BB:2880:C:O4'	42:BN:91:ALA:HB3	2.09	0.52
43:BO:11:ALA:HB2	43:BO:96:GLY:N	2.24	0.52
44:BQ:73:ILE:HG23	44:BQ:78:PHE:HB2	1.92	0.52
50:BT:79:ASP:N	50:BT:79:ASP:OD2	2.43	0.52
30:BY:6:ILE:HG22	30:BY:7:THR:H	1.75	0.52
1:CA:399:G:H2'	1:CA:400:C:C6	2.45	0.52
1:CA:672:U:H2'	1:CA:673:A:C8	2.45	0.52
1:CA:840:C:H2'	1:CA:842:U:H5''	1.91	0.52
20:CB:122:ASP:CG	20:CB:123:GLY:N	2.63	0.52
20:CB:87:ASP:CB	20:CB:224:ARG:HH12	2.22	0.52
5:CF:12:PRO:HG3	5:CF:54:LEU:HG	1.92	0.52
8:CI:112:ARG:HD2	13:CN:100:TRP:OXT	2.10	0.52
8:CI:14:SER:HA	8:CI:68:GLY:O	2.10	0.52
17:CR:63:TYR:CD2	17:CR:63:TYR:N	2.77	0.52
18:CS:42:ASN:HD21	18:CS:43:MET:HG3	1.73	0.52
19:CT:59:ARG:HB2	19:CT:59:ARG:HH11	1.73	0.52
19:CT:61:ALA:HA	19:CT:67:HIS:N	2.22	0.52
33:D1:26:LYS:HD2	33:D1:30:PRO:HA	1.90	0.52
53:D6:18:LEU:HD21	53:D6:171:LYS:HD2	1.90	0.52
53:D6:68:VAL:HG21	53:D6:99:LEU:HD12	1.91	0.52
23:DB:150:U:H2'	23:DB:151:C:H6	1.74	0.52
23:DB:1666:G:O2'	23:DB:1667:G:H5'	2.10	0.52
23:DB:2217:G:O2'	23:DB:2218:G:H5'	2.10	0.52
23:DB:2359:C:H2'	23:DB:2360:G:C8	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2369:A:O2'	23:DB:2370:G:H5'	2.09	0.52
23:DB:40:U:H2'	23:DB:41:C:C6	2.44	0.52
23:DB:545:U:C2	23:DB:548:G:H5'	2.45	0.52
23:DB:825:A:H2'	23:DB:826:U:O4'	2.09	0.52
26:DD:175:LEU:HD23	26:DD:190:LYS:HB2	1.92	0.52
26:DD:15:PHE:HA	26:DD:20:VAL:O	2.09	0.52
29:DE:67:ARG:HH11	29:DE:67:ARG:HG2	1.74	0.52
29:DE:46:GLN:HG3	29:DE:87:ALA:H	1.75	0.52
47:DF:79:ARG:O	47:DF:81:GLY:N	2.43	0.52
47:DF:95:MET:O	47:DF:98:PHE:HB3	2.10	0.52
24:DI:129:GLU:HB3	24:DI:133:ARG:HH12	1.74	0.52
41:DJ:11:VAL:HG11	41:DJ:13:ARG:NE	2.25	0.52
27:DK:3:GLN:HG2	27:DK:4:GLU:N	2.23	0.52
38:DM:26:VAL:CG2	38:DM:133:LYS:HA	2.40	0.52
28:DP:19:PHE:CE2	28:DP:25:VAL:HG11	2.44	0.52
28:DP:28:LYS:O	28:DP:81:ASP:HB3	2.10	0.52
1:AA:1477:U:H2'	1:AA:1478:U:H6	1.73	0.52
1:AA:389:A:H2'	1:AA:389:A:N3	2.25	0.52
1:AA:560:A:H5'	1:AA:566:G:N2	2.25	0.52
20:AB:221:ARG:CB	20:AB:221:ARG:HH11	2.20	0.52
2:AC:104:GLU:O	2:AC:105:VAL:HG13	2.09	0.52
5:AF:47:LEU:HD12	5:AF:55:HIS:HA	1.91	0.52
6:AG:100:MET:O	6:AG:104:VAL:HG23	2.10	0.52
1:AA:706:A:C4'	10:AK:30:ILE:HD11	2.39	0.52
10:AK:63:GLN:O	10:AK:67:GLU:HG2	2.10	0.52
19:AT:28:ARG:O	19:AT:32:LYS:HG3	2.09	0.52
23:BB:2063:C:O2	23:BB:2450:A:N1	2.43	0.52
23:BB:710:U:H2'	23:BB:711:G:H8	1.74	0.52
23:BB:705:A:N6	23:BB:726:G:O2'	2.42	0.52
23:BB:766:U:H2'	23:BB:767:U:C6	2.44	0.52
25:BC:270:ARG:HB3	25:BC:270:ARG:NH1	2.24	0.52
25:BC:90:ILE:HD13	25:BC:104:LEU:HA	1.90	0.52
23:BB:2307:G:O6	47:BF:40:GLY:HA3	2.10	0.52
48:BG:148:ARG:C	48:BG:148:ARG:HD2	2.30	0.52
48:BG:1:SER:O	48:BG:3:VAL:HG22	2.09	0.52
40:BH:135:HIS:C	40:BH:137:GLU:H	2.12	0.52
40:BH:3:VAL:CB	40:BH:38:PRO:HA	2.40	0.52
37:BL:55:MET:HE1	37:BL:59:ARG:CZ	2.39	0.52
28:BP:4:ILE:C	28:BP:6:GLN:N	2.62	0.52
31:B0:21:LEU:HD12	45:BS:19:LEU:O	2.08	0.52
45:BS:46:LEU:O	45:BS:50:VAL:HG23	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:486:U:H2'	1:CA:487:A:H8	1.74	0.52
3:CD:29:THR:HG22	3:CD:30:LYS:N	2.21	0.52
8:CI:26:LYS:HE3	8:CI:27:ILE:N	2.23	0.52
18:CS:63:ASP:C	18:CS:65:MET:H	2.13	0.52
33:D1:22:THR:OG1	33:D1:23:THR:N	2.42	0.52
23:DB:19:A:H2'	23:DB:20:C:C6	2.44	0.52
23:DB:2005:A:H5''	56:DB:3352:HOH:O	2.10	0.52
23:DB:2370:G:H2'	23:DB:2371:G:C8	2.44	0.52
23:DB:197:A:H62	23:DB:2430:A:H2'	1.75	0.52
23:DB:2700:A:H2'	23:DB:2701:U:C6	2.44	0.52
23:DB:335:C:O2'	23:DB:336:C:H5'	2.09	0.52
23:DB:743:A:C2'	23:DB:744:U:H5'	2.39	0.52
23:DB:877:A:H2	23:DB:900:A:N7	2.07	0.52
23:DB:1568:G:H4'	25:DC:58:LYS:HB3	1.91	0.52
26:DD:12:THR:HG22	26:DD:13:ARG:H	1.75	0.52
48:DG:162:ARG:CG	48:DG:166:GLU:HG3	2.39	0.52
48:DG:46:ASP:CG	48:DG:47:ASN:H	2.13	0.52
40:DH:119:ASN:O	40:DH:121:VAL:HG22	2.09	0.52
24:DI:126:ARG:HB3	24:DI:126:ARG:HH11	1.74	0.52
41:DJ:41:LYS:HE3	41:DJ:52:ASP:OD2	2.10	0.52
38:DM:69:PRO:HG2	38:DM:70:ASP:H	1.74	0.52
23:DB:751:A:H5'	45:DS:90:LYS:HA	1.91	0.52
46:DU:23:LYS:HD2	46:DU:23:LYS:N	2.24	0.52
35:DV:3:THR:HA	35:DV:62:THR:HG1	1.75	0.52
23:DB:2353:G:H4'	52:DW:28:GLU:HG3	1.91	0.52
39:DX:5:GLU:O	39:DX:8:GLU:HB2	2.10	0.52
1:AA:250:A:N3	1:AA:250:A:H3'	2.25	0.52
1:AA:738:C:H2'	1:AA:739:C:H6	1.75	0.52
1:AA:746:A:O2'	1:AA:747:A:H5'	2.10	0.52
1:AA:846:G:H2'	1:AA:846:G:N3	2.24	0.52
20:AB:185:ILE:HA	20:AB:199:ILE:HB	1.92	0.52
8:AI:117:LEU:CD2	8:AI:123:ARG:HB3	2.40	0.52
10:AK:122:PRO:HD2	21:AU:35:GLU:HG2	1.91	0.52
11:AL:30:ARG:HB3	11:AL:57:THR:HG23	1.92	0.52
17:AR:47:ARG:HD3	17:AR:50:TYR:CE1	2.45	0.52
33:B1:10:LEU:HA	33:B1:49:LYS:O	2.09	0.52
53:B6:116:ARG:O	53:B6:120:GLN:HB2	2.10	0.52
53:B6:184:LEU:O	53:B6:184:LEU:HD23	2.09	0.52
23:BB:1049:C:H2'	23:BB:1050:A:C8	2.43	0.52
23:BB:2215:C:H2'	23:BB:2216:G:C8	2.45	0.52
23:BB:431:U:O2'	23:BB:432:A:H5'	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:441:U:H2'	23:BB:442:G:H8	1.75	0.52
23:BB:483:A:H2'	23:BB:484:C:O4'	2.10	0.52
23:BB:547:A:H2'	23:BB:548:G:H5'	1.91	0.52
23:BB:592:A:N3	34:B3:3:ILE:HD11	2.24	0.52
23:BB:877:A:H2'	23:BB:899:A:N1	2.25	0.52
25:BC:20:ASN:O	25:BC:23:LEU:HB2	2.09	0.52
25:BC:53:ILE:O	25:BC:53:ILE:HG23	2.10	0.52
29:BE:157:LEU:HG	29:BE:169:VAL:HG11	1.92	0.52
47:BF:115:GLY:HA2	47:BF:177:ARG:HH11	1.74	0.52
27:BK:99:ILE:H	27:BK:118:LEU:HD23	1.75	0.52
23:BB:597:G:H21	37:BL:12:SER:HA	1.74	0.52
37:BL:9:ALA:HB3	37:BL:12:SER:OG	2.10	0.52
43:BO:56:LYS:HE3	43:BO:60:GLU:OE2	2.08	0.52
46:BU:12:VAL:HG22	46:BU:69:VAL:CG1	2.40	0.52
39:BX:14:LEU:HD22	39:BX:57:LEU:HD21	1.92	0.52
1:CA:1068:G:N7	1:CA:1094:G:H2'	2.24	0.52
1:CA:1180:A:H5''	1:CA:1181:G:OP2	2.08	0.52
1:CA:272:C:H2'	1:CA:273:U:C6	2.44	0.52
1:CA:358:U:H2'	1:CA:359:G:C8	2.45	0.52
1:CA:738:C:H2'	1:CA:739:C:H6	1.74	0.52
1:CA:802:A:H2'	1:CA:803:G:O4'	2.08	0.52
1:CA:939:G:H2'	1:CA:940:C:C6	2.45	0.52
20:CB:147:LEU:HA	20:CB:150:ILE:HG22	1.92	0.52
20:CB:23:ASN:C	20:CB:23:ASN:ND2	2.63	0.52
3:CD:64:TYR:HB2	3:CD:66:VAL:HG23	1.91	0.52
36:D2:33:ARG:HH21	36:D2:33:ARG:HB2	1.73	0.52
23:DB:2365:G:O6	34:D3:42:HIS:HE1	1.93	0.52
53:D6:174:GLN:NE2	53:D6:175:LEU:HD12	2.25	0.52
23:DB:1390:U:O2'	23:DB:1391:U:H5'	2.09	0.52
23:DB:1639:C:C2'	23:DB:1640:A:H5'	2.39	0.52
23:DB:1946:U:H2'	23:DB:1947:C:C6	2.44	0.52
23:DB:2896:C:H2'	23:DB:2897:U:H6	1.75	0.52
23:DB:291:G:H2'	23:DB:292:U:H6	1.74	0.52
23:DB:636:G:H3'	37:DL:128:THR:HG21	1.92	0.52
23:DB:836:G:H2'	23:DB:837:C:C6	2.45	0.52
25:DC:158:GLY:N	25:DC:194:VAL:HG13	2.24	0.52
24:DI:102:ARG:HG3	24:DI:141:ASP:HB2	1.92	0.52
38:DM:2:LEU:HD11	38:DM:68:PHE:CE1	2.44	0.52
23:DB:519:U:H4'	45:DS:73:LYS:HZ3	1.74	0.52
50:DT:29:THR:HB	50:DT:86:THR:HG22	1.90	0.52
50:DT:54:GLU:CB	50:DT:88:LYS:HB2	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1308:U:H2'	1:AA:1309:G:C8	2.45	0.52
20:AB:79:VAL:HG22	20:AB:213:LEU:HD11	1.92	0.52
1:AA:921:U:O2	4:AE:23:THR:HG23	2.10	0.52
11:AL:107:LYS:N	11:AL:107:LYS:HZ3	2.01	0.52
12:AM:7:ASN:HD22	12:AM:7:ASN:N	2.05	0.52
12:AM:92:ARG:HE	12:AM:92:ARG:HA	1.75	0.52
15:AP:23:ASP:OD1	15:AP:25:ARG:HB2	2.10	0.52
18:AS:43:MET:C	18:AS:46:LEU:HD23	2.29	0.52
31:B0:38:LEU:HB3	31:B0:41:HIS:CD2	2.44	0.52
23:BB:1459:G:C2'	23:BB:1460:U:H5'	2.40	0.52
23:BB:1562:U:H2'	23:BB:1563:U:C6	2.44	0.52
23:BB:165:A:H2'	23:BB:166:U:H6	1.74	0.52
23:BB:1683:U:H2'	23:BB:1684:G:H8	1.73	0.52
23:BB:1856:U:H2'	23:BB:1857:G:O4'	2.10	0.52
23:BB:2000:C:O2'	23:BB:2001:C:H5'	2.09	0.52
23:BB:2520:C:O2'	23:BB:2521:C:H5'	2.10	0.52
25:BC:130:PRO:HG2	25:BC:133:ASN:HD22	1.74	0.52
25:BC:6:LYS:HB3	25:BC:8:THR:HG22	1.92	0.52
24:BI:23:VAL:HG23	24:BI:24:GLY:H	1.74	0.52
41:BJ:1:MET:HG2	41:BJ:2:LYS:HZ3	1.74	0.52
41:BJ:30:THR:HG23	41:BJ:31:GLU:N	2.25	0.52
37:BL:127:VAL:HG23	37:BL:131:ALA:HB3	1.92	0.52
28:BP:31:VAL:HG13	28:BP:32:VAL:N	2.25	0.52
44:BQ:104:ALA:O	44:BQ:105:PHE:HB3	2.10	0.52
44:BQ:8:ILE:H	44:BQ:8:ILE:HD12	1.73	0.52
39:BX:46:VAL:HA	39:BX:49:ASP:HB2	1.91	0.52
30:BY:35:VAL:HG22	30:BY:36:GLU:N	2.25	0.52
51:BZ:41:GLU:O	51:BZ:44:LYS:HD2	2.10	0.52
1:CA:1001:C:H2'	1:CA:1002:G:H8	1.75	0.52
1:CA:1042:A:H2'	1:CA:1043:G:O4'	2.08	0.52
1:CA:1157:A:H4'	1:CA:1158:C:O5'	2.10	0.52
1:CA:235:C:H2'	1:CA:236:A:C8	2.44	0.52
3:CD:104:MET:SD	3:CD:179:GLY:HA3	2.49	0.52
5:CF:18:VAL:HG21	5:CF:58:HIS:CE1	2.45	0.52
14:CO:56:LEU:HA	14:CO:59:MET:CE	2.40	0.52
53:D6:53:ASN:ND2	53:D6:54:GLN:HG3	2.25	0.52
23:DB:132:G:O2'	23:DB:133:U:H5'	2.10	0.52
23:DB:1642:G:O2'	23:DB:1643:G:H5'	2.10	0.52
23:DB:1911:U:H2'	23:DB:1918:A:N1	2.25	0.52
23:DB:2449:U:H4'	23:DB:2450:A:OP1	2.08	0.52
23:DB:2512:C:H2'	23:DB:2513:A:O4'	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2665:A:H2'	23:DB:2666:C:O2	2.10	0.52
23:DB:278:A:C2	23:DB:361:G:N2	2.78	0.52
23:DB:526:A:N6	23:DB:2626:C:H4'	2.25	0.52
23:DB:527:C:O2	23:DB:527:C:O4'	2.24	0.52
23:DB:937:C:H2'	23:DB:938:G:C8	2.45	0.52
26:DD:179:ARG:HB3	26:DD:179:ARG:HH11	1.75	0.52
26:DD:34:VAL:HG12	26:DD:94:GLN:H	1.72	0.52
29:DE:108:ILE:HD13	29:DE:108:ILE:O	2.09	0.52
48:DG:174:LYS:NZ	48:DG:176:LYS:HB3	2.24	0.52
23:DB:2751:G:OP2	48:DG:2:ARG:HD2	2.09	0.52
40:DH:3:VAL:CB	40:DH:38:PRO:HA	2.40	0.52
24:DI:1:ALA:CB	24:DI:2:LYS:HD2	2.39	0.52
23:DB:1098:A:C2'	24:DI:4:VAL:C	2.78	0.52
27:DK:102:PRO:CB	27:DK:121:GLU:HG3	2.40	0.52
46:DU:21:ARG:HG3	46:DU:21:ARG:HH11	1.74	0.52
35:DV:24:ASN:O	35:DV:44:HIS:HB2	2.10	0.52
1:AA:173:U:H6	1:AA:198:G:HO2'	1.56	0.52
1:AA:366:A:O2'	1:AA:394:G:N2	2.43	0.52
1:AA:475:C:O2'	1:AA:476:U:H5'	2.10	0.52
8:AI:39:GLY:O	8:AI:40:ARG:HB2	2.10	0.52
11:AL:54:VAL:CG1	11:AL:79:ILE:HD11	2.40	0.52
23:BB:346:A:H5'	23:BB:346:A:N3	2.25	0.52
23:BB:729:G:H2'	23:BB:1775:U:H1'	1.91	0.52
25:BC:141:HIS:HB2	25:BC:192:GLY:O	2.10	0.52
41:BJ:72:LYS:HB2	41:BJ:89:PHE:HB2	1.91	0.52
38:BM:4:PRO:HG3	38:BM:68:PHE:HE2	1.74	0.52
1:CA:1314:C:H2'	1:CA:1315:U:C6	2.45	0.52
1:CA:1471:U:O2'	1:CA:1472:U:H5'	2.10	0.52
1:CA:518:C:H2'	1:CA:530:G:C8	2.45	0.52
1:CA:554:A:H2'	1:CA:555:U:C6	2.45	0.52
1:CA:683:G:O2'	1:CA:684:U:H5'	2.09	0.52
3:CD:102:TYR:CG	3:CD:110:ARG:HG2	2.45	0.52
4:CE:89:THR:HG22	4:CE:90:GLY:H	1.75	0.52
6:CG:70:PRO:HD3	6:CG:102:TRP:CZ3	2.44	0.52
7:CH:81:GLY:O	7:CH:82:LEU:HB2	2.09	0.52
8:CI:56:MET:O	8:CI:58:GLU:HG2	2.10	0.52
10:CK:63:GLN:O	10:CK:67:GLU:HG2	2.10	0.52
10:CK:81:LEU:CD2	10:CK:104:PHE:HB3	2.40	0.52
12:CM:92:ARG:HE	12:CM:92:ARG:HA	1.75	0.52
15:CP:23:ASP:OD1	15:CP:25:ARG:HB2	2.10	0.52
23:DB:1098:A:H2'	24:DI:4:VAL:C	2.30	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:137:U:H2'	23:DB:138:U:O4'	2.09	0.52
23:DB:1551:A:H3'	23:DB:1552:A:H5''	1.90	0.52
23:DB:1984:G:O2'	23:DB:1985:C:H5'	2.09	0.52
23:DB:2150:C:H2'	23:DB:2151:U:H6	1.74	0.52
23:DB:2545:G:O2'	23:DB:2546:U:H5'	2.09	0.52
23:DB:2793:C:H2'	23:DB:2794:C:C6	2.45	0.52
23:DB:2813:A:H2'	23:DB:2814:A:C8	2.44	0.52
23:DB:590:A:H2'	23:DB:591:U:C6	2.45	0.52
23:DB:78:U:H2'	23:DB:79:C:H6	1.75	0.52
29:DE:47:LYS:HB3	29:DE:51:GLU:HB2	1.92	0.52
47:DF:33:ILE:HB	47:DF:90:LEU:HG	1.92	0.52
47:DF:78:ILE:HD11	47:DF:84:ILE:HD13	1.92	0.52
40:DH:16:GLY:HA2	40:DH:47:PHE:HE1	1.75	0.52
24:DI:100:ILE:O	24:DI:139:VAL:HA	2.10	0.52
28:DP:4:ILE:HA	28:DP:7:LEU:CD1	2.39	0.52
44:DQ:39:ILE:O	44:DQ:43:GLN:HG3	2.10	0.52
45:DS:1:MET:SD	45:DS:62:ASP:HB3	2.50	0.52
1:AA:1060:U:H2'	1:AA:1061:G:C8	2.44	0.52
1:AA:1132:C:H2'	1:AA:1133:G:C8	2.44	0.52
1:AA:1165:U:H2'	1:AA:1166:G:O4'	2.09	0.52
1:AA:61:G:H2'	1:AA:62:U:O4'	2.10	0.52
3:AD:25:ARG:NH1	3:AD:26:ALA:H	1.96	0.52
3:AD:64:TYR:HB2	3:AD:66:VAL:HG23	1.92	0.52
5:AF:17:GLN:O	5:AF:21:MET:HG3	2.10	0.52
8:AI:56:MET:O	8:AI:58:GLU:HG2	2.10	0.52
13:AN:22:LYS:HA	13:AN:25:GLU:OE1	2.10	0.52
13:AN:60:ARG:HE	13:AN:62:ARG:HG2	1.74	0.52
15:AP:10:GLY:HA3	15:AP:15:PRO:HA	1.91	0.52
10:AK:115:ILE:HD11	17:AR:72:ARG:HH22	1.74	0.52
32:B4:1:MET:CE	32:B4:36:ARG:HB2	2.39	0.52
53:B6:102:ASN:HD22	53:B6:102:ASN:H	1.58	0.52
23:BB:2657:A:H5''	48:BG:91:VAL:HG21	1.92	0.52
23:BB:2737:G:H2'	23:BB:2738:A:C8	2.45	0.52
23:BB:2840:C:H2'	23:BB:2841:C:C6	2.45	0.52
23:BB:327:G:H2'	23:BB:328:U:O4'	2.10	0.52
23:BB:598:U:H2'	23:BB:599:A:C8	2.44	0.52
23:BB:947:A:O2'	23:BB:984:A:H2	1.92	0.52
25:BC:117:SER:CB	25:BC:128:THR:HB	2.40	0.52
23:BB:1820:U:OP1	25:BC:176:ARG:HD2	2.10	0.52
26:BD:175:LEU:HD23	26:BD:190:LYS:HB2	1.92	0.52
48:BG:172:GLU:OE2	48:BG:175:LYS:HE2	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BH:66:ASN:HD22	40:BH:67:ALA:H	1.57	0.52
40:BH:85:GLY:HA3	40:BH:91:PHE:CE1	2.41	0.52
41:BJ:57:LEU:HG	41:BJ:128:ASN:N	2.24	0.52
41:BJ:75:TYR:CD1	41:BJ:86:GLN:HB3	2.45	0.52
44:BQ:97:ILE:HG13	44:BQ:105:PHE:HB2	1.93	0.52
1:CA:572:A:H5''	1:CA:917:G:H4'	1.92	0.52
1:CA:846:G:H2'	1:CA:846:G:N3	2.25	0.52
1:CA:946:A:H2'	1:CA:947:G:H8	1.74	0.52
20:CB:160:LEU:HD23	20:CB:161:PHE:N	2.25	0.52
2:CC:121:SER:CB	2:CC:125:ARG:HH12	2.23	0.52
3:CD:57:LYS:O	3:CD:61:ARG:HB2	2.09	0.52
8:CI:53:LEU:HD13	8:CI:53:LEU:O	2.09	0.52
8:CI:51:LEU:HB3	8:CI:56:MET:HB3	1.92	0.52
11:CL:20:VAL:HB	11:CL:94:TYR:HE1	1.74	0.52
13:CN:50:LEU:H	13:CN:51:PRO:CD	2.23	0.52
19:CT:54:GLN:N	19:CT:55:PRO:HD2	2.25	0.52
31:D0:42:ILE:HG22	31:D0:43:THR:O	2.10	0.52
33:D1:18:HIS:CD2	33:D1:40:PRO:HD2	2.45	0.52
32:D4:9:LYS:N	32:D4:9:LYS:HD3	2.24	0.52
23:DB:1291:C:O2'	23:DB:1292:G:H5'	2.10	0.52
23:DB:2028:U:H2'	23:DB:2029:G:C8	2.45	0.52
23:DB:2150:C:H2'	23:DB:2151:U:C6	2.45	0.52
23:DB:2328:A:H2'	23:DB:2329:U:H6	1.74	0.52
23:DB:331:C:O2'	23:DB:332:A:H5'	2.10	0.52
23:DB:705:A:H61	23:DB:726:G:H1'	1.75	0.52
29:DE:15:SER:HB2	29:DE:197:GLU:OE2	2.10	0.52
24:DI:2:LYS:C	24:DI:3:LYS:HD2	2.30	0.52
27:DK:119:ALA:CB	27:DK:120:PRO:CD	2.88	0.52
27:DK:99:ILE:H	27:DK:118:LEU:HD23	1.75	0.52
37:DL:79:LEU:HB2	37:DL:113:ALA:HB3	1.90	0.52
37:DL:117:THR:O	37:DL:138:ALA:HB1	2.10	0.52
23:DB:996:A:H4'	44:DQ:91:ARG:HD2	1.91	0.52
23:DB:2352:A:C2	52:DW:29:SER:HB3	2.45	0.52
52:DW:37:VAL:CG1	52:DW:38:ARG:HD3	2.40	0.52
1:AA:1298:U:H4'	1:AA:1299:A:C4	2.45	0.51
1:AA:1308:U:H3'	12:AM:97:ARG:NH1	2.24	0.51
1:AA:1423:G:H2'	1:AA:1424:U:C6	2.45	0.51
1:AA:177:G:C5'	19:AT:59:ARG:HH21	2.22	0.51
1:AA:22:G:H4'	1:AA:885:G:C8	2.45	0.51
1:AA:728:A:H2'	1:AA:729:A:C8	2.45	0.51
20:AB:64:GLY:HA2	20:AB:158:ASP:OD1	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AB:217:ALA:O	20:AB:220:VAL:HB	2.11	0.51
3:AD:123:MET:HG3	3:AD:127:ARG:C	2.31	0.51
6:AG:4:ARG:HD2	6:AG:5:VAL:N	2.25	0.51
9:AJ:10:LEU:CD2	9:AJ:98:VAL:HG12	2.40	0.51
18:AS:39:ILE:CD1	18:AS:68:HIS:HB2	2.41	0.51
32:B4:27:CYS:HB3	32:B4:33:HIS:HB2	1.92	0.51
53:B6:65:THR:OG1	53:B6:102:ASN:HA	2.09	0.51
23:BB:1347:A:H2'	23:BB:1348:C:O4'	2.11	0.51
23:BB:1460:U:H5''	23:BB:1461:C:C5	2.45	0.51
23:BB:1539:U:O2	23:BB:1539:U:H2'	2.10	0.51
23:BB:2073:C:O2'	23:BB:2074:U:H5'	2.10	0.51
23:BB:259:G:O2'	23:BB:260:G:H5'	2.10	0.51
23:BB:2720:U:H2'	23:BB:2721:A:C8	2.45	0.51
23:BB:30:G:H2'	23:BB:31:C:H6	1.74	0.51
23:BB:346:A:H2'	23:BB:347:A:O4'	2.11	0.51
23:BB:69:C:O2'	23:BB:70:G:H5'	2.10	0.51
23:BB:1820:U:H3	25:BC:197:ALA:HA	1.75	0.51
26:BD:12:THR:HG22	26:BD:13:ARG:H	1.76	0.51
29:BE:28:VAL:O	29:BE:32:VAL:HG13	2.10	0.51
23:BB:2529:G:H4'	48:BG:174:LYS:HG3	1.91	0.51
41:BJ:117:ALA:HA	41:BJ:120:ARG:NH2	2.25	0.51
41:BJ:11:VAL:HG11	41:BJ:13:ARG:NE	2.25	0.51
41:BJ:35:ARG:HG3	41:BJ:40:HIS:CD2	2.44	0.51
27:BK:53:LYS:H	27:BK:53:LYS:HD3	1.73	0.51
37:BL:79:LEU:HB2	37:BL:113:ALA:HB3	1.92	0.51
43:BO:105:ALA:C	43:BO:107:ALA:H	2.13	0.51
35:BV:30:ILE:HD12	35:BV:38:LEU:HD23	1.92	0.51
1:CA:1060:U:H2'	1:CA:1061:G:C8	2.44	0.51
1:CA:120:A:H2'	1:CA:121:U:C5'	2.35	0.51
1:CA:11:G:H2'	1:CA:12:U:C6	2.43	0.51
1:CA:1308:U:H2'	1:CA:1309:G:C8	2.45	0.51
1:CA:1309:G:H2'	1:CA:1310:G:C8	2.45	0.51
1:CA:208:U:H2'	1:CA:210:C:C2	2.46	0.51
1:CA:513:C:H2'	1:CA:514:C:C6	2.45	0.51
1:CA:244:U:O4	1:CA:906:A:H1'	2.09	0.51
20:CB:99:MET:HA	20:CB:106:VAL:HG21	1.91	0.51
5:CF:3:HIS:HA	5:CF:65:GLU:HA	1.92	0.51
17:CR:47:ARG:HD3	17:CR:50:TYR:CE1	2.45	0.51
33:D1:26:LYS:HD3	33:D1:52:LYS:HB3	1.91	0.51
33:D1:40:PRO:O	33:D1:43:ARG:HG3	2.10	0.51
34:D3:49:VAL:O	34:D3:51:LYS:N	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1582:C:H3'	23:DB:1583:A:H8	1.75	0.51
23:DB:1717:A:H2'	23:DB:1718:G:O4'	2.10	0.51
23:DB:1859:U:H2'	23:DB:1860:G:H8	1.71	0.51
23:DB:2097:A:H2'	23:DB:2098:U:C6	2.44	0.51
23:DB:2220:U:O2'	23:DB:2221:G:H5'	2.10	0.51
23:DB:2556:C:H2'	23:DB:2557:G:O4'	2.09	0.51
23:DB:2745:C:H4'	48:DG:141:GLY:O	2.11	0.51
23:DB:28:A:O2'	23:DB:583:G:H5'	2.10	0.51
23:DB:705:A:N6	23:DB:726:G:O2'	2.43	0.51
25:DC:124:LYS:HG3	25:DC:125:PRO:HD2	1.92	0.51
25:DC:203:VAL:O	25:DC:205:GLY:N	2.42	0.51
26:DD:46:ARG:NH2	26:DD:88:GLU:HG3	2.25	0.51
29:DE:70:SER:HB2	29:DE:78:TRP:CZ2	2.45	0.51
40:DH:129:GLU:N	40:DH:143:ILE:HG23	2.25	0.51
41:DJ:136:GLN:N	41:DJ:137:PRO:HD3	2.25	0.51
41:DJ:30:THR:HG23	41:DJ:31:GLU:N	2.25	0.51
42:DN:13:ASN:OD1	42:DN:15:SER:HB3	2.10	0.51
28:DP:25:VAL:HA	28:DP:85:VAL:HA	1.92	0.51
49:DR:24:LYS:HA	49:DR:94:THR:CG2	2.38	0.51
35:DV:30:ILE:HD12	35:DV:38:LEU:HD23	1.92	0.51
1:AA:1339:A:H2'	1:AA:1340:A:O4'	2.11	0.51
20:AB:119:GLN:C	20:AB:125:PHE:HB3	2.31	0.51
20:AB:160:LEU:HD23	20:AB:161:PHE:N	2.25	0.51
2:AC:42:LEU:HD21	2:AC:90:VAL:CG2	2.41	0.51
3:AD:115:GLN:HG3	3:AD:119:HIS:CE1	2.45	0.51
4:AE:45:VAL:O	4:AE:70:MET:HB3	2.10	0.51
6:AG:27:ASN:HD22	6:AG:27:ASN:N	2.08	0.51
11:AL:109:ARG:HB3	11:AL:118:VAL:HG21	1.93	0.51
33:B1:22:THR:OG1	33:B1:23:THR:N	2.43	0.51
32:B4:9:LYS:N	32:B4:9:LYS:HD3	2.26	0.51
53:B6:137:LEU:HD11	53:B6:158:GLU:HG2	1.92	0.51
53:B6:88:LEU:O	53:B6:90:LEU:HG	2.09	0.51
23:BB:1461:C:H2'	23:BB:1462:C:C6	2.46	0.51
23:BB:1592:C:H2'	23:BB:1593:A:C8	2.44	0.51
23:BB:182:A:H2'	23:BB:183:C:H6	1.75	0.51
23:BB:2183:A:H2'	23:BB:2184:A:C8	2.45	0.51
23:BB:2539:C:O2'	23:BB:2540:C:H5'	2.10	0.51
23:BB:545:U:H3'	23:BB:547:A:OP1	2.11	0.51
23:BB:630:G:H4'	23:BB:640:C:O2'	2.10	0.51
23:BB:673:C:O2'	23:BB:674:G:H5'	2.10	0.51
23:BB:851:C:H2'	23:BB:852:U:H6	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BC:124:LYS:HG3	25:BC:125:PRO:HD2	1.92	0.51
26:BD:68:PHE:HB3	26:BD:73:VAL:HA	1.91	0.51
29:BE:170:ARG:HH22	29:BE:176:ASP:HB2	1.75	0.51
29:BE:194:LYS:O	29:BE:198:GLU:HG2	2.11	0.51
29:BE:33:VAL:O	29:BE:36:ALA:HB3	2.10	0.51
47:BF:2:LYS:NZ	47:BF:100:GLU:HG2	2.24	0.51
27:BK:10:VAL:HG21	27:BK:16:ALA:HA	1.92	0.51
23:BB:2674:G:H4'	27:BK:30:ARG:HD2	1.92	0.51
27:BK:19:VAL:HB	27:BK:41:ILE:CG1	2.40	0.51
23:BB:633:A:OP1	37:BL:68:SER:HB2	2.11	0.51
38:BM:2:LEU:HD11	38:BM:68:PHE:CE1	2.46	0.51
44:BQ:63:ARG:HH22	44:BQ:96:ASP:CA	2.23	0.51
50:BT:11:LEU:HA	50:BT:34:VAL:HG12	1.93	0.51
52:BW:74:LYS:O	52:BW:76:ARG:HG2	2.11	0.51
51:BZ:49:LEU:HD21	51:BZ:78:TYR:HB2	1.92	0.51
1:CA:462:G:H5''	1:CA:462:G:C8	2.45	0.51
17:CR:38:ILE:HG22	17:CR:58:ILE:HG21	1.92	0.51
33:D1:10:LEU:HA	33:D1:49:LYS:O	2.10	0.51
34:D3:41:ARG:HA	34:D3:44:ARG:HH12	1.76	0.51
23:DB:1802:A:H2'	23:DB:1803:A:C8	2.45	0.51
23:DB:2408:U:H2'	23:DB:2409:G:C8	2.46	0.51
23:DB:2063:C:O2	23:DB:2450:A:N1	2.43	0.51
23:DB:2734:A:C2'	23:DB:2735:G:H5'	2.40	0.51
23:DB:433:C:O2'	23:DB:434:U:H5'	2.11	0.51
47:DF:1:ALA:O	47:DF:4:HIS:HB3	2.11	0.51
48:DG:71:LEU:HA	48:DG:74:MET:SD	2.49	0.51
40:DH:75:LEU:N	40:DH:75:LEU:HD23	2.24	0.51
24:DI:79:LEU:HD11	24:DI:131:THR:OG1	2.10	0.51
27:DK:88:ASN:HD21	27:DK:90:ASN:HB3	1.73	0.51
37:DL:125:LEU:H	37:DL:143:GLU:CG	2.24	0.51
43:DO:6:ALA:O	43:DO:10:ARG:HG3	2.10	0.51
43:DO:56:LYS:O	43:DO:60:GLU:HG3	2.10	0.51
44:DQ:91:ARG:HD3	49:DR:11:GLN:HG3	1.91	0.51
1:AA:1000:A:H2'	1:AA:1001:C:C6	2.46	0.51
1:AA:1068:G:N7	1:AA:1094:G:H2'	2.25	0.51
1:AA:1162:C:H2'	1:AA:1163:A:H8	1.75	0.51
1:AA:1281:C:H5'	1:AA:1282:C:H5	1.74	0.51
1:AA:1392:G:O2'	1:AA:1393:U:H5'	2.10	0.51
1:AA:1438:G:O2'	1:AA:1439:G:H5'	2.10	0.51
1:AA:821:G:H2'	1:AA:822:U:C6	2.45	0.51
1:AA:999:C:H2'	1:AA:1000:A:H8	1.72	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AD:102:TYR:CG	3:AD:110:ARG:HG2	2.45	0.51
3:AD:21:LYS:C	3:AD:23:GLY:H	2.14	0.51
8:AI:51:LEU:HB3	8:AI:56:MET:CB	2.40	0.51
13:AN:40:ARG:HH12	18:AS:6:LYS:HG2	1.76	0.51
1:AA:617:G:H4'	15:AP:46:LYS:HE3	1.92	0.51
31:B0:42:ILE:HG12	42:BN:99:LYS:O	2.10	0.51
23:BB:1083:U:H2'	23:BB:1085:A:OP2	2.10	0.51
23:BB:1858:A:H2'	23:BB:1859:U:O4'	2.10	0.51
23:BB:2813:A:H2'	23:BB:2814:A:C8	2.44	0.51
23:BB:2897:U:H2'	23:BB:2898:U:C6	2.45	0.51
23:BB:513:A:O5'	23:BB:513:A:H8	1.92	0.51
23:BB:548:G:H4'	23:BB:549:G:C5	2.45	0.51
23:BB:582:A:H2'	23:BB:583:G:C8	2.44	0.51
29:BE:28:VAL:HA	29:BE:104:ALA:HB1	1.93	0.51
40:BH:101:ASP:C	40:BH:103:VAL:H	2.14	0.51
40:BH:89:LYS:C	40:BH:90:LEU:HD12	2.30	0.51
27:BK:61:VAL:HG22	27:BK:87:LEU:HD21	1.91	0.51
42:BN:45:ARG:O	42:BN:49:GLU:HG3	2.10	0.51
23:BB:2882:A:OP1	42:BN:96:ARG:HD2	2.09	0.51
35:BV:81:PRO:O	38:BM:34:LYS:HE2	2.10	0.51
1:CA:1392:G:O2'	1:CA:1393:U:H5'	2.10	0.51
1:CA:539:A:H2'	1:CA:540:G:H8	1.74	0.51
4:CE:114:LEU:O	4:CE:119:VAL:HG23	2.11	0.51
4:CE:89:THR:HG22	4:CE:90:GLY:N	2.25	0.51
10:CK:70:ALA:C	10:CK:72:ALA:H	2.13	0.51
11:CL:54:VAL:CG1	11:CL:79:ILE:HD11	2.39	0.51
10:CK:92:ARG:CZ	21:CU:24:LYS:HG3	2.40	0.51
23:DB:1177:G:H2'	23:DB:1178:C:C6	2.45	0.51
23:DB:2446:G:H2'	23:DB:2447:G:H5''	1.92	0.51
23:DB:2472:G:C2'	23:DB:2475:C:H42	2.23	0.51
23:DB:95:A:O2'	39:DX:41:HIS:HD2	1.93	0.51
25:DC:134:ILE:HD12	25:DC:135:PRO:O	2.10	0.51
25:DC:20:ASN:ND2	25:DC:23:LEU:HD13	2.23	0.51
25:DC:52:HIS:HA	25:DC:216:ARG:HB2	1.91	0.51
26:DD:13:ARG:HD3	26:DD:15:PHE:CZ	2.45	0.51
29:DE:67:ARG:HG3	29:DE:68:ALA:N	2.25	0.51
41:DJ:8:PRO:HG3	41:DJ:48:VAL:HG22	1.92	0.51
42:DN:52:ILE:HD11	42:DN:83:LEU:HD23	1.92	0.51
28:DP:77:SER:OG	28:DP:79:VAL:HG22	2.11	0.51
28:DP:92:ARG:NH1	28:DP:92:ARG:HG3	2.25	0.51
44:DQ:87:VAL:HB	49:DR:52:PRO:HG3	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DU:73:ASN:OD1	46:DU:75:ALA:HB3	2.11	0.51
1:AA:1307:U:H2'	1:AA:1308:U:H6	1.75	0.51
1:AA:486:U:H2'	1:AA:487:A:H8	1.74	0.51
20:AB:147:LEU:HA	20:AB:150:ILE:HG22	1.93	0.51
20:AB:63:LYS:HE3	20:AB:224:ARG:HH22	1.76	0.51
12:AM:89:ARG:HB3	12:AM:96:VAL:HG22	1.90	0.51
14:AO:85:LEU:N	14:AO:85:LEU:HD12	2.26	0.51
33:B1:35:LEU:O	33:B1:36:LYS:HB2	2.10	0.51
36:B2:26:ASN:O	36:B2:30:VAL:HG23	2.10	0.51
36:B2:29:GLN:O	36:B2:33:ARG:HB2	2.11	0.51
53:B6:59:THR:O	53:B6:67:VAL:N	2.35	0.51
23:BB:2286:G:H4'	23:BB:2287:A:O4'	2.10	0.51
23:BB:2795:C:C2	23:BB:2796:U:H1'	2.45	0.51
23:BB:718:A:H3'	23:BB:719:C:C6	2.40	0.51
23:BB:909:A:H2'	23:BB:912:C:C5	2.46	0.51
25:BC:103:ILE:HG22	25:BC:105:ALA:N	2.19	0.51
25:BC:122:ALA:O	25:BC:124:LYS:N	2.44	0.51
23:BB:616:A:H4'	29:BE:101:TYR:CE2	2.46	0.51
23:BB:674:G:O3'	29:BE:60:TRP:CZ2	2.63	0.51
29:BE:4:VAL:HG22	29:BE:9:GLN:HE22	1.75	0.51
24:BI:125:THR:O	24:BI:129:GLU:HG3	2.10	0.51
24:BI:17:ALA:O	24:BI:18:ASN:CB	2.59	0.51
41:BJ:44:TYR:C	41:BJ:44:TYR:CD2	2.81	0.51
38:BM:59:ARG:CZ	38:BM:60:GLN:HB3	2.40	0.51
43:BO:6:ALA:O	43:BO:10:ARG:HG3	2.11	0.51
49:BR:3:ALA:HA	49:BR:40:MET:O	2.10	0.51
35:BV:63:ILE:HB	35:BV:70:ILE:CD1	2.40	0.51
52:BW:49:ASN:HD22	52:BW:60:ALA:H	1.59	0.51
1:CA:1085:U:H3'	1:CA:1086:U:C5	2.45	0.51
1:CA:930:C:H2'	1:CA:931:C:H6	1.76	0.51
2:CC:42:LEU:HD21	2:CC:90:VAL:CG2	2.40	0.51
4:CE:148:SER:O	4:CE:152:VAL:HG23	2.09	0.51
33:D1:3:GLY:C	33:D1:5:ARG:H	2.14	0.51
23:DB:118:A:N3	23:DB:178:G:H1'	2.26	0.51
23:DB:1204:A:N1	23:DB:1241:A:N1	2.59	0.51
23:DB:443:A:H2	23:DB:1245:G:N3	2.08	0.51
23:DB:1332:G:N3	23:DB:1332:G:H2'	2.24	0.51
23:DB:1405:U:H2'	23:DB:1406:U:H6	1.75	0.51
23:DB:1539:U:H2'	23:DB:1539:U:O2	2.10	0.51
23:DB:2078:C:H2'	23:DB:2079:U:C6	2.45	0.51
23:DB:2206:C:O2'	23:DB:2207:C:H5'	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2228:G:H2'	23:DB:2229:U:C6	2.45	0.51
23:DB:2678:C:H2'	23:DB:2679:A:C8	2.45	0.51
23:DB:2861:U:H2'	23:DB:2862:G:H8	1.74	0.51
23:DB:431:U:O2'	23:DB:432:A:H5'	2.10	0.51
23:DB:454:A:H3'	23:DB:455:C:H5'	1.92	0.51
23:DB:850:U:O2'	30:DY:22:THR:HG22	2.10	0.51
25:DC:122:ALA:O	25:DC:124:LYS:N	2.44	0.51
25:DC:30:ALA:HA	25:DC:33:LEU:HD12	1.91	0.51
29:DE:136:GLN:NE2	29:DE:139:LYS:HD3	2.25	0.51
47:DF:157:THR:C	47:DF:159:ALA:H	2.14	0.51
41:DJ:34:ARG:HG3	41:DJ:34:ARG:HH11	1.75	0.51
37:DL:90:VAL:HB	37:DL:122:VAL:HG12	1.91	0.51
43:DO:52:SER:OG	43:DO:54:VAL:HG12	2.08	0.51
44:DQ:63:ARG:HH22	44:DQ:96:ASP:CA	2.23	0.51
51:DZ:39:TRP:HE1	51:DZ:41:GLU:HG2	1.74	0.51
1:AA:1323:G:H2'	1:AA:1324:A:H8	1.72	0.51
1:AA:17:U:H2'	1:AA:18:C:H6	1.75	0.51
20:AB:119:GLN:O	20:AB:125:PHE:HB3	2.10	0.51
4:AE:98:ALA:HB1	4:AE:102:THR:HG21	1.93	0.51
1:AA:737:C:H5'	5:AF:89:VAL:O	2.10	0.51
6:AG:72:VAL:HG12	6:AG:89:GLU:HG3	1.92	0.51
7:AH:113:ARG:HA	7:AH:116:ARG:NH1	2.25	0.51
8:AI:118:ARG:NH2	8:AI:122:ARG:HH21	2.08	0.51
9:AJ:65:TYR:HB3	13:AN:95:LEU:HD11	1.93	0.51
14:AO:32:LEU:O	14:AO:36:ILE:HG12	2.09	0.51
32:B4:2:LYS:HD2	32:B4:4:ARG:NE	2.13	0.51
23:BB:1947:C:H2'	23:BB:1948:G:H8	1.75	0.51
23:BB:2096:C:H2'	23:BB:2097:A:H8	1.75	0.51
23:BB:2329:U:H2'	23:BB:2330:G:C8	2.46	0.51
23:BB:2543:G:H8	23:BB:2543:G:H5'	1.75	0.51
23:BB:2639:A:H2'	23:BB:2640:G:O4'	2.11	0.51
23:BB:5:A:H2'	23:BB:6:A:H8	1.75	0.51
23:BB:773:U:H4'	25:BC:45:ASN:O	2.11	0.51
23:BB:967:U:H2'	23:BB:968:C:C6	2.46	0.51
25:BC:30:ALA:HA	25:BC:33:LEU:CD1	2.40	0.51
29:BE:104:ALA:O	29:BE:108:ILE:HG22	2.11	0.51
39:BX:29:ARG:NH1	50:BT:12:ARG:NE	2.58	0.51
1:CA:724:G:O2'	1:CA:725:G:H5'	2.11	0.51
5:CF:100:SER:HA	17:CR:23:LYS:CE	2.40	0.51
8:CI:5:TYR:HB2	8:CI:20:ILE:CB	2.33	0.51
9:CJ:10:LEU:HD11	9:CJ:25:ILE:HD12	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CL:109:ARG:HB3	11:CL:118:VAL:HG21	1.92	0.51
11:CL:111:GLN:HB2	1:CA:538:G:OP2	2.11	0.51
13:CN:15:LEU:HA	13:CN:18:LYS:HD2	1.92	0.51
14:CO:16:GLY:HA2	14:CO:27:VAL:CG2	2.41	0.51
16:CQ:60:ILE:HD13	16:CQ:60:ILE:H	1.75	0.51
34:D3:26:ALA:O	34:D3:27:ASN:HB2	2.11	0.51
53:D6:138:ASP:HA	53:D6:141:LYS:HD3	1.93	0.51
23:DB:1683:U:H2'	23:DB:1684:G:C8	2.45	0.51
23:DB:1812:U:O2'	25:DC:43:ASN:ND2	2.44	0.51
23:DB:1917:U:O2'	23:DB:1918:A:H5'	2.10	0.51
23:DB:528:A:C2	23:DB:2042:A:H2'	2.45	0.51
23:DB:2655:G:HO2'	23:DB:2656:U:P	2.34	0.51
23:DB:2720:U:H2'	23:DB:2721:A:C8	2.45	0.51
23:DB:2729:G:H2'	23:DB:2730:C:C6	2.45	0.51
23:DB:2784:U:H2'	23:DB:2785:C:H6	1.75	0.51
23:DB:4:U:O2'	23:DB:5:A:H5'	2.10	0.51
23:DB:49:A:H5''	23:DB:51:G:O4'	2.10	0.51
23:DB:532:A:H4'	23:DB:533:G:C8	2.46	0.51
23:DB:851:C:H2'	23:DB:852:U:C6	2.45	0.51
25:DC:216:ARG:HH11	25:DC:216:ARG:HG3	1.76	0.51
47:DF:13:LYS:HA	47:DF:16:MET:HB2	1.90	0.51
24:DI:123:ALA:HA	24:DI:126:ARG:HH12	1.75	0.51
41:DJ:3:THR:HB	41:DJ:44:TYR:CZ	2.46	0.51
44:DQ:7:VAL:O	44:DQ:11:ALA:HB2	2.11	0.51
44:DQ:8:ILE:HD12	44:DQ:8:ILE:H	1.74	0.51
46:DU:41:VAL:HG22	46:DU:61:GLU:O	2.10	0.51
30:DY:18:LYS:O	30:DY:21:ALA:HB3	2.10	0.51
1:AA:1298:U:H4'	1:AA:1299:A:N9	2.25	0.51
1:AA:11:G:H2'	1:AA:12:U:C6	2.46	0.51
1:AA:1471:U:O2'	1:AA:1472:U:H5'	2.10	0.51
20:AB:83:ALA:CB	20:AB:90:PHE:HB3	2.41	0.51
10:AK:81:LEU:CD2	10:AK:104:PHE:HB3	2.41	0.51
32:B4:7:VAL:HG13	32:B4:8:LYS:N	2.20	0.51
53:B6:123:GLU:HA	53:B6:126:ARG:HH11	1.76	0.51
22:BA:14:U:H4'	22:BA:70:C:O2	2.09	0.51
22:BA:29:A:OP2	43:BO:32:PRO:HD2	2.10	0.51
23:BB:1582:C:H3'	23:BB:1583:A:H8	1.75	0.51
23:BB:1656:C:H2'	23:BB:1657:U:H6	1.76	0.51
23:BB:2146:C:H1'	23:BB:2147:A:H5'	1.93	0.51
23:BB:2665:A:H2'	23:BB:2666:C:O2	2.11	0.51
26:BD:151:THR:HB	26:BD:152:PRO:CD	2.32	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BE:37:ALA:C	29:BE:39:ALA:H	2.13	0.51
47:BF:169:LEU:HD22	47:BF:174:PHE:CE1	2.46	0.51
40:BH:114:GLU:CG	40:BH:134:VAL:HA	2.40	0.51
40:BH:78:VAL:HB	40:BH:143:ILE:O	2.10	0.51
40:BH:57:LYS:HG3	40:BH:58:LEU:N	2.19	0.51
41:BJ:23:LYS:NZ	41:BJ:142:ILE:HG12	2.25	0.51
28:BP:50:ARG:N	28:BP:57:ALA:O	2.42	0.51
49:BR:20:VAL:O	49:BR:96:VAL:HG22	2.10	0.51
23:BB:470:A:N6	50:BT:72:GLN:HE22	2.01	0.51
52:BW:32:ALA:C	52:BW:34:SER:H	2.14	0.51
30:BY:18:LYS:O	30:BY:21:ALA:HB3	2.11	0.51
1:CA:199:A:H2'	1:CA:200:G:C8	2.46	0.51
1:CA:713:G:H2'	1:CA:714:G:C8	2.45	0.51
3:CD:160:LEU:CD1	3:CD:160:LEU:H	2.21	0.51
3:CD:21:LYS:C	3:CD:23:GLY:H	2.13	0.51
36:D2:33:ARG:HH21	36:D2:33:ARG:CB	2.24	0.51
32:D4:15:LYS:O	32:D4:15:LYS:HE2	2.11	0.51
23:DB:1438:U:N3	23:DB:1552:A:N6	2.58	0.51
23:DB:1924:C:O2'	23:DB:1925:C:H5'	2.11	0.51
23:DB:2144:G:H3'	23:DB:2145:C:C4'	2.40	0.51
23:DB:2472:G:O6	23:DB:2476:A:H4'	2.10	0.51
23:DB:328:U:O3'	46:DU:65:GLN:HG3	2.10	0.51
23:DB:794:A:H2'	23:DB:795:C:H6	1.75	0.51
23:DB:958:U:H3	38:DM:16:ARG:CB	2.12	0.51
23:DB:982:C:O2	23:DB:982:C:H5'	2.11	0.51
29:DE:189:THR:O	29:DE:193:VAL:HG23	2.11	0.51
40:DH:83:LYS:N	40:DH:149:GLU:HB2	2.25	0.51
45:DS:52:GLU:C	45:DS:54:ALA:H	2.14	0.51
51:DZ:5:CYS:HG	51:DZ:52:SER:HG	1.59	0.51
1:AA:1009:U:H2'	1:AA:1010:U:C5	2.45	0.51
1:AA:864:A:H2'	1:AA:865:A:C8	2.46	0.51
7:AH:51:GLU:HG2	7:AH:52:GLY:H	1.76	0.51
7:AH:85:TYR:CD2	7:AH:123:GLU:HB2	2.46	0.51
10:AK:69:CYS:O	10:AK:73:VAL:HG22	2.10	0.51
15:AP:4:ILE:O	15:AP:71:VAL:HG11	2.10	0.51
21:AU:52:VAL:HG13	21:AU:53:LYS:N	2.25	0.51
53:B6:55:ILE:HG23	53:B6:56:ALA:N	2.18	0.51
53:B6:61:PRO:HD2	53:B6:65:THR:O	2.10	0.51
23:BB:1442:U:H2'	23:BB:1443:U:H6	1.76	0.51
23:BB:17:G:H2'	23:BB:18:U:H6	1.74	0.51
23:BB:19:A:H2'	23:BB:20:C:C6	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:2249:U:H4'	23:BB:2275:C:C5	2.46	0.51
23:BB:2365:G:O2'	52:BW:59:PHE:HE1	1.93	0.51
23:BB:2408:U:H2'	23:BB:2409:G:C8	2.45	0.51
23:BB:2462:C:H2'	23:BB:2463:C:H6	1.74	0.51
23:BB:296:U:H2'	23:BB:297:G:H8	1.74	0.51
23:BB:418:C:H2'	23:BB:419:U:C6	2.45	0.51
23:BB:548:G:H4'	23:BB:549:G:C4	2.45	0.51
23:BB:823:C:O2'	23:BB:824:U:H5'	2.10	0.51
25:BC:132:ARG:HA	25:BC:166:ARG:HH11	1.75	0.51
47:BF:137:PHE:CD2	47:BF:137:PHE:N	2.77	0.51
23:BB:1007:C:O3'	41:BJ:110:PRO:HB3	2.10	0.51
41:BJ:25:LEU:HD23	41:BJ:101:ILE:HD13	1.91	0.51
41:BJ:3:THR:HB	41:BJ:44:TYR:CZ	2.45	0.51
42:BN:19:ALA:HA	42:BN:22:ARG:HB3	1.93	0.51
28:BP:7:LEU:HA	28:BP:10:GLU:OE2	2.10	0.51
44:BQ:39:ILE:O	44:BQ:43:GLN:HG3	2.10	0.51
1:CA:1000:A:H2'	1:CA:1001:C:C6	2.46	0.51
1:CA:1478:U:H2'	1:CA:1479:C:H6	1.75	0.51
1:CA:279:A:H5''	1:CA:280:C:H3'	1.92	0.51
1:CA:333:U:H2'	1:CA:334:C:C6	2.46	0.51
1:CA:868:C:H2'	1:CA:869:G:O4'	2.11	0.51
20:CB:142:LYS:HA	20:CB:145:ASN:OD1	2.10	0.51
20:CB:53:LEU:HD11	20:CB:216:VAL:HA	1.92	0.51
9:CJ:83:THR:O	9:CJ:87:LEU:HD13	2.10	0.51
15:CP:25:ARG:HD3	15:CP:25:ARG:H	1.74	0.51
15:CP:46:LYS:O	15:CP:48:GLU:N	2.44	0.51
31:D0:48:TYR:CG	31:D0:49:ARG:N	2.78	0.51
33:D1:9:LYS:HE2	33:D1:50:GLU:OE2	2.11	0.51
53:D6:80:GLU:OE1	53:D6:99:LEU:HD22	2.11	0.51
23:DB:1857:G:H1'	23:DB:1885:A:H62	1.75	0.51
23:DB:2895:G:H2'	23:DB:2896:C:H6	1.75	0.51
23:DB:781:A:OP1	25:DC:216:ARG:NH2	2.44	0.51
25:DC:64:VAL:O	25:DC:65:ASP:HB3	2.10	0.51
26:DD:55:LYS:HZ2	26:DD:55:LYS:HB3	1.75	0.51
29:DE:157:LEU:HG	29:DE:169:VAL:HG11	1.91	0.51
29:DE:171:ASP:CG	29:DE:172:ALA:N	2.63	0.51
29:DE:176:ASP:HB3	29:DE:179:SER:HB2	1.92	0.51
47:DF:177:ARG:HA	47:DF:177:ARG:CZ	2.39	0.51
47:DF:62:GLN:HE21	47:DF:91:ARG:NE	2.09	0.51
41:DJ:112:GLY:H	41:DJ:113:PRO:HD2	1.75	0.51
37:DL:85:VAL:HG11	37:DL:90:VAL:HG22	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DR:78:ARG:HB3	49:DR:83:TYR:HB3	1.92	0.51
51:DZ:18:ARG:HH11	51:DZ:24:ALA:HB2	1.73	0.51
1:AA:1461:G:H2'	1:AA:1462:C:C6	2.46	0.51
1:AA:223:A:H2'	1:AA:224:U:C6	2.45	0.51
20:AB:204:ASP:CG	20:AB:205:ALA:H	2.14	0.51
2:AC:33:ASP:O	2:AC:36:PHE:HB3	2.11	0.51
19:AT:61:ALA:HA	19:AT:67:HIS:N	2.22	0.51
34:B3:7:ARG:HG3	34:B3:7:ARG:NH1	2.26	0.51
53:B6:109:GLU:HA	53:B6:112:LYS:CE	2.40	0.51
23:BB:1172:C:H2'	23:BB:1173:U:C1'	2.40	0.51
23:BB:1204:A:N1	23:BB:1241:A:N1	2.59	0.51
23:BB:1386:C:H1'	23:BB:1470:A:H1'	1.92	0.51
23:BB:1717:A:H2'	23:BB:1718:G:O4'	2.11	0.51
23:BB:2395:C:H2'	23:BB:2396:G:O4'	2.10	0.51
23:BB:2784:U:H2'	23:BB:2785:C:H6	1.76	0.51
23:BB:437:U:H2'	23:BB:438:G:H8	1.76	0.51
23:BB:499:U:H2'	23:BB:500:G:O4'	2.11	0.51
23:BB:899:A:H8	23:BB:899:A:OP2	1.93	0.51
25:BC:140:VAL:CG1	25:BC:141:HIS:H	2.17	0.51
29:BE:3:LEU:HB2	29:BE:12:LEU:CB	2.41	0.51
47:BF:157:THR:C	47:BF:159:ALA:H	2.14	0.51
48:BG:53:PRO:HG3	48:BG:61:TRP:N	2.26	0.51
40:BH:114:GLU:HB3	40:BH:134:VAL:CA	2.40	0.51
41:BJ:41:LYS:HE3	41:BJ:52:ASP:OD2	2.11	0.51
43:BO:100:HIS:C	43:BO:104:GLN:HB2	2.31	0.51
44:BQ:86:SER:O	44:BQ:88:GLU:N	2.44	0.51
50:BT:29:THR:CA	50:BT:86:THR:HA	2.41	0.51
35:BV:28:ALA:HB3	35:BV:42:LEU:HD21	1.93	0.51
35:BV:3:THR:HA	35:BV:62:THR:OG1	2.10	0.51
51:BZ:32:ASN:O	51:BZ:33:LEU:O	2.29	0.51
1:CA:1192:C:H2'	1:CA:1193:G:O4'	2.11	0.51
1:CA:1438:G:O2'	1:CA:1439:G:H5'	2.10	0.51
1:CA:389:A:H2'	1:CA:389:A:N3	2.26	0.51
1:CA:475:C:H2'	1:CA:476:U:H6	1.76	0.51
1:CA:882:C:O2'	1:CA:883:C:H5'	2.09	0.51
3:CD:22:SER:H	3:CD:109:THR:HG22	1.75	0.51
4:CE:148:SER:OG	4:CE:150:GLU:HG2	2.11	0.51
5:CF:85:ILE:HG22	5:CF:86:ARG:N	2.25	0.51
5:CF:6:ILE:HD11	5:CF:8:PHE:HD2	1.76	0.51
6:CG:91:ARG:HD2	6:CG:91:ARG:N	2.25	0.51
7:CH:91:LEU:HD12	7:CH:116:ARG:HB2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CJ:10:LEU:O	9:CJ:71:LEU:HA	2.11	0.51
11:CL:42:LYS:HD2	11:CL:43:LYS:HG3	1.92	0.51
16:CQ:16:MET:CB	16:CQ:19:SER:HB2	2.40	0.51
16:CQ:18:LYS:H	16:CQ:50:ASN:ND2	2.09	0.51
34:D3:12:ARG:HD3	37:DL:61:LEU:O	2.10	0.51
53:D6:171:LYS:HD3	53:D6:175:LEU:HD13	1.93	0.51
23:DB:1439:A:N7	23:DB:1440:U:C2	2.79	0.51
23:DB:160:A:H1'	23:DB:2208:C:O2'	2.11	0.51
23:DB:1653:G:H3'	42:DN:2:ARG:HG3	1.92	0.51
23:DB:48:G:N2	23:DB:177:G:H21	2.09	0.51
23:DB:1858:A:H2'	23:DB:1859:U:O4'	2.10	0.51
23:DB:184:C:H2'	23:DB:185:G:C8	2.44	0.51
24:DI:18:ASN:HB2	24:DI:38:CYS:SG	2.51	0.51
50:DT:7:LEU:O	50:DT:7:LEU:HD13	2.10	0.51
30:DY:25:GLY:HA3	30:DY:46:MET:HE3	1.91	0.51
1:AA:113:G:N2	1:AA:353:A:H8	2.09	0.51
1:AA:1157:A:H4'	1:AA:1158:C:O5'	2.09	0.51
1:AA:34:C:H2'	1:AA:35:G:C8	2.46	0.51
1:AA:462:G:H2'	1:AA:463:U:C6	2.45	0.51
1:AA:842:U:H2'	1:AA:842:U:O2	2.11	0.51
1:AA:994:A:C5	1:AA:1216:A:H4'	2.45	0.51
2:AC:2:GLN:N	2:AC:2:GLN:NE2	2.57	0.51
2:AC:48:LYS:H	2:AC:48:LYS:HD3	1.76	0.51
3:AD:24:VAL:HG23	3:AD:25:ARG:N	2.26	0.51
1:AA:546:A:P	3:AD:68:GLU:HB3	2.50	0.51
4:AE:132:PRO:O	4:AE:136:VAL:HG12	2.11	0.51
6:AG:91:ARG:N	6:AG:91:ARG:HD2	2.26	0.51
22:BA:64:G:H2'	22:BA:65:U:C6	2.46	0.51
23:BB:1390:U:O2'	23:BB:1391:U:H5'	2.10	0.51
23:BB:1400:U:H2'	23:BB:1401:G:H8	1.75	0.51
23:BB:1438:U:N3	23:BB:1552:A:N6	2.58	0.51
23:BB:2088:A:H2'	23:BB:2089:C:H6	1.75	0.51
23:BB:593:U:H2'	23:BB:594:U:C6	2.46	0.51
23:BB:921:C:H2'	23:BB:922:C:H6	1.75	0.51
26:BD:55:LYS:H	26:BD:76:GLY:H	1.59	0.51
29:BE:138:LEU:HB3	29:BE:143:LEU:O	2.10	0.51
47:BF:33:ILE:HB	47:BF:90:LEU:HG	1.93	0.51
41:BJ:44:TYR:C	41:BJ:44:TYR:HD2	2.15	0.51
43:BO:49:VAL:HG12	43:BO:85:LYS:HG3	1.92	0.51
28:BP:44:GLY:HA3	28:BP:60:VAL:HG12	1.93	0.51
46:BU:26:ASN:N	46:BU:26:ASN:ND2	2.58	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BU:64:ILE:HD11	46:BU:68:ASN:ND2	2.26	0.51
35:BV:76:ASP:H	35:BV:90:ASP:HB2	1.75	0.51
52:BW:24:ARG:HB2	52:BW:65:LYS:HB3	1.92	0.51
1:CA:1009:U:H2'	1:CA:1010:U:C5	2.45	0.51
1:CA:462:G:H2'	1:CA:463:U:C6	2.46	0.51
1:CA:737:C:H2'	1:CA:738:C:H6	1.76	0.51
20:CB:11:ALA:C	20:CB:13:VAL:H	2.13	0.51
4:CE:45:VAL:O	4:CE:71:ILE:HG22	2.10	0.51
5:CF:17:GLN:O	5:CF:21:MET:HG3	2.11	0.51
5:CF:51:ILE:O	5:CF:51:ILE:HG23	2.10	0.51
8:CI:11:ARG:HA	8:CI:105:ARG:NH1	2.26	0.51
8:CI:118:ARG:NH2	8:CI:122:ARG:HH21	2.09	0.51
8:CI:39:GLY:O	8:CI:40:ARG:HB2	2.10	0.51
8:CI:49:GLN:N	8:CI:50:PRO:HD2	2.26	0.51
8:CI:74:GLN:HE21	8:CI:74:GLN:H	1.58	0.51
13:CN:79:SER:OG	13:CN:82:LYS:HG2	2.10	0.51
21:CU:41:THR:O	21:CU:45:LYS:HD2	2.11	0.51
53:D6:3:LEU:HD11	53:D6:149:LEU:HD11	1.93	0.51
23:DB:11:C:H2'	23:DB:12:U:H5'	1.93	0.51
23:DB:1858:A:H62	23:DB:1884:G:H1'	1.75	0.51
23:DB:2379:G:H5'	43:DO:21:LEU:CD1	2.41	0.51
23:DB:2462:C:H2'	23:DB:2463:C:H6	1.75	0.51
23:DB:2496:C:OP1	38:DM:82:MET:HB2	2.11	0.51
23:DB:2659:G:N2	23:DB:2661:G:H5''	2.25	0.51
23:DB:356:G:O2'	23:DB:357:C:H5'	2.11	0.51
23:DB:547:A:C8	23:DB:548:G:H1'	2.45	0.51
23:DB:740:C:O2'	23:DB:741:U:H5'	2.10	0.51
25:DC:140:VAL:CG1	25:DC:189:ALA:HB1	2.41	0.51
29:DE:48:THR:O	29:DE:52:VAL:HG23	2.11	0.51
48:DG:6:ALA:HB3	48:DG:68:ARG:CD	2.41	0.51
41:DJ:44:TYR:HD2	41:DJ:44:TYR:C	2.14	0.51
41:DJ:57:LEU:HG	41:DJ:128:ASN:N	2.25	0.51
38:DM:59:ARG:CZ	38:DM:60:GLN:HB3	2.41	0.51
43:DO:31:THR:HG23	43:DO:34:HIS:O	2.11	0.51
50:DT:39:THR:HG22	50:DT:42:GLU:CG	2.41	0.51
30:DY:35:VAL:HG22	30:DY:36:GLU:N	2.25	0.51
1:AA:1309:G:H2'	1:AA:1310:G:C8	2.46	0.51
1:AA:170:U:O2'	1:AA:171:A:H5'	2.11	0.51
1:AA:199:A:H2'	1:AA:200:G:C8	2.46	0.51
1:AA:9:G:OP2	4:AE:125:LYS:HE3	2.10	0.51
20:AB:166:ASP:OD1	20:AB:190:SER:HA	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AB:26:MET:O	20:AB:30:ILE:HG13	2.11	0.51
2:AC:121:SER:CB	2:AC:125:ARG:HH12	2.23	0.51
4:AE:82:HIS:CE1	4:AE:146:MET:HA	2.46	0.51
8:AI:112:ARG:HD2	13:AN:100:TRP:OXT	2.11	0.51
15:AP:20:VAL:HG21	15:AP:32:PHE:CD2	2.46	0.51
21:AU:13:VAL:O	21:AU:13:VAL:HG13	2.11	0.51
31:B0:51:ARG:O	31:B0:52:LYS:HB2	2.10	0.51
36:B2:3:ARG:HA	36:B2:3:ARG:CZ	2.41	0.51
32:B4:2:LYS:CD	32:B4:4:ARG:HE	2.14	0.51
53:B6:110:ARG:O	53:B6:114:LEU:HD13	2.11	0.51
23:BB:1114:C:H2'	23:BB:1115:G:C8	2.46	0.51
23:BB:115:C:O2'	23:BB:116:C:H5'	2.10	0.51
23:BB:1468:U:H2'	23:BB:1522:A:N6	2.26	0.51
23:BB:1870:C:H2'	23:BB:1871:A:C2	2.45	0.51
23:BB:1926:U:H3'	23:BB:1928:A:OP2	2.11	0.51
23:BB:2230:G:H2'	23:BB:2231:U:C6	2.46	0.51
23:BB:2341:G:H2'	23:BB:2342:C:C6	2.46	0.51
23:BB:2755:C:O2'	23:BB:2756:U:H2'	2.11	0.51
25:BC:6:LYS:CB	25:BC:8:THR:HG22	2.41	0.51
47:BF:1:ALA:HB1	47:BF:4:HIS:HB3	1.91	0.51
47:BF:7:TYR:HA	47:BF:11:VAL:CG2	2.41	0.51
47:BF:95:MET:O	47:BF:98:PHE:HB3	2.10	0.51
23:BB:2251:G:OP1	38:BM:81:ARG:HD3	2.10	0.51
44:BQ:43:GLN:HE21	49:BR:77:PHE:HB3	1.76	0.51
45:BS:15:GLN:HA	45:BS:18:ARG:HG2	1.93	0.51
45:BS:42:LYS:HA	45:BS:42:LYS:NZ	2.26	0.51
46:BU:27:VAL:CB	46:BU:33:VAL:HG12	2.41	0.51
35:BV:46:LYS:HA	35:BV:46:LYS:HE3	1.91	0.51
39:BX:13:GLU:OE2	39:BX:13:GLU:HA	2.10	0.51
1:CA:1011:C:H2'	1:CA:1012:A:C8	2.46	0.51
1:CA:1078:U:H2'	1:CA:1079:G:O4'	2.11	0.51
8:CI:108:ARG:HB3	1:CA:1347:G:C8	2.46	0.51
1:CA:1461:G:H2'	1:CA:1462:C:C6	2.46	0.51
1:CA:328:C:H4'	1:CA:329:A:H5'	1.93	0.51
1:CA:345:C:OP1	28:DP:38:ARG:HD2	2.11	0.51
1:CA:113:G:N2	1:CA:353:A:H8	2.09	0.51
3:CD:131:ILE:HD13	1:CA:620:C:N1	2.25	0.51
4:CE:113:VAL:HG21	4:CE:139:THR:HG21	1.93	0.51
6:CG:6:ILE:HG22	6:CG:7:GLY:N	2.25	0.51
7:CH:79:ARG:HB2	7:CH:80:PRO:HD2	1.93	0.51
8:CI:25:GLY:CA	8:CI:57:VAL:HA	2.27	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CJ:42:LEU:HB3	9:CJ:43:PRO:HD2	1.93	0.51
23:DB:254:G:H22	34:D3:7:ARG:HH21	1.58	0.51
53:D6:78:ALA:HA	53:D6:81:LYS:CG	2.40	0.51
23:DB:1599:U:H2'	23:DB:1600:C:H6	1.76	0.51
23:DB:483:A:H2'	23:DB:484:C:O4'	2.10	0.51
23:DB:947:A:H2'	23:DB:948:C:H6	1.76	0.51
47:DF:45:ASP:OD1	47:DF:47:LYS:HB2	2.10	0.51
48:DG:26:LYS:HG2	48:DG:27:GLY:N	2.26	0.51
40:DH:3:VAL:HG12	40:DH:38:PRO:HA	1.93	0.51
40:DH:48:GLU:CB	40:DH:51:ARG:HH21	2.24	0.51
23:DB:549:G:H2'	41:DJ:2:LYS:HE3	1.93	0.51
41:DJ:76:HIS:CE1	41:DJ:85:LYS:HB2	2.46	0.51
38:DM:4:PRO:HG3	38:DM:68:PHE:HE2	1.76	0.51
46:DU:88:ASP:CG	46:DU:89:GLY:H	2.14	0.51
23:DB:95:A:HO2'	39:DX:40:SER:H	1.58	0.51
51:DZ:41:GLU:O	51:DZ:44:LYS:HD2	2.11	0.51
1:AA:1029:U:O2	1:AA:1029:U:O4'	2.26	0.50
1:AA:1314:C:H2'	1:AA:1315:U:C6	2.46	0.50
1:AA:250:A:H1'	1:AA:252:U:C5	2.46	0.50
1:AA:797:C:O2'	1:AA:798:U:H5'	2.11	0.50
1:AA:82:G:OP2	1:AA:83:C:H6	1.95	0.50
3:AD:77:GLU:HA	3:AD:80:ARG:HG2	1.93	0.50
5:AF:2:ARG:HG2	5:AF:92:THR:OG1	2.11	0.50
6:AG:14:ASP:HB3	6:AG:18:GLY:N	2.26	0.50
7:AH:77:VAL:HG23	7:AH:126:CYS:HA	1.93	0.50
10:AK:127:ARG:HG3	10:AK:127:ARG:HH11	1.75	0.50
1:AA:376:G:C5'	15:AP:5:ARG:HD3	2.38	0.50
16:AQ:16:MET:CB	16:AQ:19:SER:HB2	2.41	0.50
23:BB:1028:A:N6	23:BB:1125:G:H2'	2.25	0.50
23:BB:1661:G:O2'	23:BB:1662:U:H5'	2.11	0.50
23:BB:1666:G:O2'	23:BB:1667:G:H5'	2.10	0.50
23:BB:1908:C:H3'	23:BB:1909:C:O4'	2.10	0.50
23:BB:2814:A:H2'	23:BB:2815:C:H6	1.75	0.50
23:BB:279:A:N6	23:BB:361:G:H1'	2.25	0.50
23:BB:633:A:H2'	23:BB:634:C:H5'	1.94	0.50
23:BB:192:C:O2'	23:BB:802:A:N3	2.40	0.50
25:BC:130:PRO:CG	25:BC:133:ASN:HD22	2.24	0.50
26:BD:136:ASN:ND2	26:BD:140:HIS:ND1	2.59	0.50
40:BH:114:GLU:HB3	40:BH:133:GLN:O	2.11	0.50
41:BJ:40:HIS:ND1	41:BJ:41:LYS:HG3	2.27	0.50
38:BM:19:GLY:CA	38:BM:38:ARG:HH22	2.23	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BP:4:ILE:HA	28:BP:7:LEU:CD1	2.42	0.50
46:BU:26:ASN:HD22	46:BU:26:ASN:N	2.07	0.50
35:BV:3:THR:HA	35:BV:62:THR:HG1	1.77	0.50
30:BY:23:LEU:HD23	30:BY:50:VAL:HG11	1.93	0.50
1:CA:412:A:O2'	1:CA:413:G:H5''	2.11	0.50
20:CB:185:ILE:HA	20:CB:199:ILE:HB	1.93	0.50
8:CI:118:ARG:CZ	8:CI:122:ARG:HH21	2.24	0.50
10:CK:95:THR:HG23	10:CK:96:ILE:N	2.26	0.50
18:CS:29:PRO:HA	18:CS:47:THR:O	2.11	0.50
18:CS:30:LEU:HG	18:CS:47:THR:O	2.11	0.50
53:D6:29:ARG:HD3	53:D6:110:ARG:NH2	2.26	0.50
53:D6:38:LEU:CD1	53:D6:66:LEU:HD23	2.40	0.50
53:D6:80:GLU:CA	53:D6:83:ILE:HG12	2.38	0.50
23:DB:1049:C:O2	23:DB:1113:U:H4'	2.11	0.50
23:DB:1856:U:H2'	23:DB:1857:G:O4'	2.10	0.50
23:DB:532:A:N3	23:DB:532:A:H2'	2.27	0.50
23:DB:564:C:O2'	23:DB:565:C:H5'	2.11	0.50
23:DB:565:C:OP2	49:DR:79:ARG:HB2	2.10	0.50
23:DB:633:A:H2'	23:DB:634:C:H5'	1.93	0.50
29:DE:146:VAL:CG1	29:DE:187:VAL:HG23	2.39	0.50
40:DH:56:ALA:O	40:DH:59:ALA:HB3	2.11	0.50
23:DB:1061:U:C4	24:DI:11:GLN:HG3	2.46	0.50
27:DK:71:ARG:O	27:DK:72:PRO:C	2.50	0.50
43:DO:67:ASN:HB3	43:DO:70:ALA:CB	2.40	0.50
28:DP:44:GLY:HA3	28:DP:60:VAL:HG12	1.92	0.50
45:DS:60:HIS:O	45:DS:61:ASN:HB2	2.10	0.50
23:DB:137:U:O2'	50:DT:1:MET:N	2.43	0.50
35:DV:42:LEU:N	35:DV:42:LEU:HD23	2.12	0.50
1:AA:1029:U:OP2	1:AA:1029:U:H3'	2.11	0.50
1:AA:1038:C:H2'	1:AA:1039:G:H8	1.75	0.50
1:AA:1084:G:H5'	1:AA:1102:A:OP2	2.11	0.50
1:AA:35:G:H2'	1:AA:36:C:C6	2.46	0.50
1:AA:470:C:H2'	1:AA:471:U:C6	2.46	0.50
1:AA:711:G:O2'	1:AA:712:A:H5'	2.11	0.50
1:AA:78:A:O5'	1:AA:78:A:H8	1.94	0.50
20:AB:48:MET:CE	20:AB:198:VAL:HB	2.41	0.50
20:AB:212:TYR:O	20:AB:216:VAL:HG22	2.11	0.50
2:AC:129:PHE:CD2	2:AC:156:LEU:HD22	2.46	0.50
5:AF:3:HIS:HA	5:AF:65:GLU:HA	1.93	0.50
5:AF:68:GLN:O	5:AF:71:ILE:HG13	2.11	0.50
12:AM:1:ALA:O	12:AM:3:ILE:HG13	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AU:35:GLU:HB2	21:AU:37:TYR:CE2	2.46	0.50
33:B1:9:LYS:HE2	33:B1:50:GLU:OE2	2.10	0.50
23:BB:2344:U:H4'	23:BB:2345:G:OP1	2.11	0.50
23:BB:2862:G:H2'	23:BB:2863:C:C6	2.46	0.50
23:BB:776:G:H4'	23:BB:777:G:O5'	2.11	0.50
23:BB:853:C:H2'	23:BB:854:C:H6	1.76	0.50
23:BB:968:C:H2'	23:BB:969:G:C8	2.45	0.50
26:BD:13:ARG:HD3	26:BD:15:PHE:CZ	2.45	0.50
26:BD:8:LYS:O	26:BD:9:VAL:HB	2.11	0.50
29:BE:143:LEU:HB3	29:BE:146:VAL:HG21	1.93	0.50
29:BE:125:SER:HA	29:BE:157:LEU:HD22	1.92	0.50
29:BE:29:HIS:HA	29:BE:32:VAL:HG22	1.93	0.50
47:BF:45:ASP:OD1	47:BF:47:LYS:HB2	2.10	0.50
40:BH:79:THR:CB	40:BH:145:ASN:HB2	2.41	0.50
40:BH:34:GLY:O	40:BH:35:LYS:HG2	2.11	0.50
40:BH:5:LEU:HD12	40:BH:17:ASP:HB3	1.93	0.50
37:BL:125:LEU:H	37:BL:143:GLU:CG	2.24	0.50
50:BT:14:PRO:HA	50:BT:32:LEU:HB3	1.92	0.50
50:BT:54:GLU:CB	50:BT:88:LYS:HB2	2.41	0.50
46:BU:43:LYS:NZ	46:BU:45:GLN:HA	2.26	0.50
1:CA:1023:U:H2'	1:CA:1024:G:H8	1.76	0.50
1:CA:410:G:H2'	1:CA:429:U:C5	2.46	0.50
20:CB:198:VAL:HG12	20:CB:200:PRO:HD3	1.93	0.50
2:CC:104:GLU:O	2:CC:105:VAL:HG13	2.11	0.50
2:CC:42:LEU:HD12	2:CC:67:ILE:HD11	1.92	0.50
4:CE:80:LEU:HD11	4:CE:95:MET:HG2	1.94	0.50
16:CQ:74:LEU:HD22	16:CQ:75:VAL:H	1.74	0.50
21:CU:13:VAL:O	21:CU:13:VAL:HG13	2.11	0.50
32:D4:1:MET:HE1	32:D4:36:ARG:HB2	1.93	0.50
53:D6:63:PRO:HB2	53:D6:64:ARG:CZ	2.41	0.50
53:D6:86:SER:C	53:D6:88:LEU:H	2.15	0.50
22:DA:14:U:H1'	22:DA:106:G:H21	1.75	0.50
23:DB:1150:C:H2'	23:DB:1151:A:H8	1.75	0.50
23:DB:120:U:H5''	23:DB:122:G:OP2	2.11	0.50
23:DB:1318:U:H2'	23:DB:1319:C:C6	2.46	0.50
23:DB:1538:G:H2'	23:DB:1539:U:H6	1.76	0.50
23:DB:1656:C:H2'	23:DB:1657:U:H6	1.75	0.50
23:DB:182:A:H2'	23:DB:183:C:H6	1.75	0.50
23:DB:1915:U:H2'	23:DB:1916:A:C1'	2.40	0.50
23:DB:2899:A:H2'	23:DB:2900:A:H8	1.75	0.50
23:DB:299:A:N6	23:DB:322:A:O2'	2.43	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:566:U:O2'	23:DB:567:U:H5'	2.11	0.50
25:DC:130:PRO:HG2	25:DC:133:ASN:HD22	1.75	0.50
26:DD:14:ILE:HG21	26:DD:178:VAL:HG11	1.93	0.50
26:DD:8:LYS:O	26:DD:9:VAL:HB	2.12	0.50
29:DE:4:VAL:HG22	29:DE:9:GLN:HE22	1.76	0.50
47:DF:137:PHE:CD2	47:DF:137:PHE:N	2.77	0.50
40:DH:27:ARG:NH2	40:DH:27:ARG:HG2	2.23	0.50
41:DJ:117:ALA:HA	41:DJ:120:ARG:NH2	2.26	0.50
41:DJ:72:LYS:HB2	41:DJ:89:PHE:HB2	1.93	0.50
23:DB:2547:A:H5''	27:DK:29:HIS:NE2	2.26	0.50
42:DN:103:ARG:HG3	42:DN:104:ALA:N	2.26	0.50
45:DS:66:ILE:N	45:DS:66:ILE:HD13	2.21	0.50
46:DU:53:GLN:N	46:DU:54:PRO:CD	2.74	0.50
46:DU:85:ARG:CD	46:DU:86:PHE:H	2.22	0.50
30:DY:35:VAL:HG22	30:DY:36:GLU:H	1.76	0.50
1:AA:410:G:H2'	1:AA:429:U:C5	2.45	0.50
1:AA:454:G:H2'	1:AA:455:G:H8	1.76	0.50
1:AA:554:A:H2'	1:AA:555:U:C6	2.45	0.50
1:AA:577:G:O2'	1:AA:578:C:H5'	2.12	0.50
1:AA:593:U:H2'	1:AA:594:U:C6	2.47	0.50
1:AA:839:C:H2'	1:AA:840:C:O4'	2.12	0.50
1:AA:858:G:O6	1:AA:869:G:H3'	2.11	0.50
20:AB:95:TRP:CH2	20:AB:100:LEU:HB2	2.40	0.50
3:AD:113:ALA:O	3:AD:117:VAL:HG23	2.12	0.50
1:AA:620:C:N1	3:AD:131:ILE:HD13	2.26	0.50
13:AN:15:LEU:HD23	13:AN:18:LYS:HD2	1.93	0.50
23:BB:126:A:C5'	36:B2:46:LYS:HE2	2.34	0.50
23:BB:1857:G:H1'	23:BB:1885:A:H62	1.76	0.50
23:BB:1908:C:H2'	23:BB:1909:C:C4'	2.41	0.50
23:BB:4:U:O2'	23:BB:5:A:H5'	2.10	0.50
23:BB:982:C:H5'	23:BB:982:C:O2	2.11	0.50
26:BD:13:ARG:HD3	26:BD:15:PHE:CE1	2.47	0.50
29:BE:115:GLN:O	29:BE:117:ARG:HG3	2.10	0.50
29:BE:48:THR:H	29:BE:51:GLU:HG3	1.76	0.50
29:BE:60:TRP:CZ3	29:BE:62:GLN:HA	2.46	0.50
47:BF:177:ARG:CZ	47:BF:178:LYS:H	2.24	0.50
27:BK:71:ARG:O	27:BK:72:PRO:C	2.50	0.50
49:BR:14:VAL:HG23	49:BR:15:SER:N	2.26	0.50
46:BU:46:LYS:HG2	46:BU:47:PRO:HD2	1.94	0.50
35:BV:80:HIS:HB2	35:BV:85:LYS:HG3	1.94	0.50
1:CA:1118:U:H2'	1:CA:1119:C:C6	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CS:77:ARG:HD3	1:CA:1225:A:HO2'	1.75	0.50
1:CA:279:A:OP1	1:CA:281:G:H5'	2.11	0.50
5:CF:15:SER:HB2	5:CF:44:ARG:HH12	1.76	0.50
8:CI:40:ARG:N	8:CI:44:ARG:HD3	2.26	0.50
12:CM:5:GLY:O	12:CM:7:ASN:N	2.45	0.50
12:CM:77:LYS:O	12:CM:80:MET:HB3	2.11	0.50
13:CN:4:SER:HB3	1:CA:1216:A:H5''	1.93	0.50
14:CO:43:PHE:CE1	14:CO:56:LEU:HD22	2.46	0.50
14:CO:85:LEU:N	14:CO:85:LEU:HD12	2.26	0.50
19:CT:66:ILE:HG22	19:CT:67:HIS:N	2.26	0.50
21:CU:35:GLU:HB2	21:CU:37:TYR:CZ	2.47	0.50
53:D6:29:ARG:HD3	53:D6:110:ARG:CZ	2.42	0.50
53:D6:92:PRO:HA	53:D6:101:ILE:HG12	1.91	0.50
22:DA:49:C:OP1	43:DO:101:GLY:HA3	2.12	0.50
22:DA:60:C:O2'	22:DA:61:G:H5'	2.10	0.50
23:DB:1083:U:H2'	23:DB:1085:A:OP2	2.11	0.50
23:DB:1347:A:H2'	23:DB:1348:C:O4'	2.12	0.50
23:DB:2215:C:H2'	23:DB:2216:G:H8	1.76	0.50
23:DB:2784:U:O2'	23:DB:2785:C:H5'	2.11	0.50
23:DB:2893:A:C4'	23:DB:2894:G:H5'	2.41	0.50
23:DB:841:G:O2'	23:DB:842:U:H5'	2.12	0.50
48:DG:74:MET:O	48:DG:78:VAL:HG22	2.11	0.50
24:DI:54:ILE:C	24:DI:54:ILE:HD13	2.31	0.50
49:DR:1:MET:O	49:DR:15:SER:HB3	2.12	0.50
35:DV:51:GLN:HA	35:DV:56:PHE:CG	2.45	0.50
52:DW:36:ILE:HB	52:DW:39:GLN:HE22	1.74	0.50
52:DW:75:ASN:O	52:DW:76:ARG:HB2	2.11	0.50
1:AA:1060:U:H5''	9:AJ:53:ILE:HG12	1.92	0.50
1:AA:1479:C:H2'	1:AA:1480:A:H8	1.75	0.50
1:AA:320:A:H2'	1:AA:321:A:C8	2.46	0.50
1:AA:333:U:H2'	1:AA:334:C:C6	2.46	0.50
1:AA:737:C:H2'	1:AA:738:C:H6	1.77	0.50
1:AA:738:C:H2'	1:AA:739:C:C6	2.45	0.50
20:AB:147:LEU:O	20:AB:150:ILE:HG22	2.11	0.50
2:AC:35:ASP:O	2:AC:39:ARG:HG3	2.11	0.50
2:AC:88:LYS:O	2:AC:88:LYS:HE3	2.12	0.50
7:AH:79:ARG:HB2	7:AH:80:PRO:HD2	1.93	0.50
9:AJ:40:ILE:HB	9:AJ:73:LEU:HB3	1.93	0.50
22:BA:24:G:N7	22:BA:56:G:H2'	2.25	0.50
23:BB:1813:G:C2	25:BC:49:THR:HG21	2.46	0.50
23:BB:1913:A:OP2	23:BB:1916:A:N6	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:2295:C:O2'	23:BB:2296:U:H5'	2.10	0.50
23:BB:2385:C:H2'	23:BB:2386:A:C8	2.45	0.50
26:BD:15:PHE:HA	26:BD:20:VAL:O	2.12	0.50
47:BF:33:ILE:HG21	47:BF:98:PHE:CE2	2.46	0.50
40:BH:27:ARG:NH2	40:BH:27:ARG:HG2	2.23	0.50
40:BH:3:VAL:HG12	40:BH:38:PRO:HA	1.93	0.50
24:BI:124:MET:O	24:BI:128:ILE:HG12	2.11	0.50
27:BK:102:PRO:CB	27:BK:121:GLU:HG3	2.42	0.50
42:BN:49:GLU:HB2	42:BN:50:PRO:HD3	1.94	0.50
43:BO:67:ASN:HB3	43:BO:70:ALA:CB	2.41	0.50
28:BP:109:ILE:HG13	28:BP:109:ILE:O	2.11	0.50
28:BP:6:GLN:O	28:BP:10:GLU:HB3	2.11	0.50
28:BP:110:LYS:HD2	28:BP:110:LYS:N	2.20	0.50
30:BY:30:ARG:NH1	30:BY:33:HIS:HA	2.26	0.50
1:CA:694:A:H3'	1:CA:695:A:H5''	1.94	0.50
1:CA:746:A:O2'	1:CA:747:A:H5'	2.11	0.50
1:CA:909:A:H2'	1:CA:910:C:O4'	2.11	0.50
20:CB:83:ALA:CB	20:CB:90:PHE:HB3	2.40	0.50
2:CC:26:LYS:CG	2:CC:27:GLU:HG3	2.41	0.50
6:CG:27:ASN:HD22	6:CG:27:ASN:N	2.08	0.50
8:CI:115:VAL:HG23	1:CA:1367:C:H5''	1.93	0.50
32:D4:36:ARG:HG2	32:D4:37:GLN:H	1.76	0.50
53:D6:37:LEU:HD21	53:D6:88:LEU:HG	1.94	0.50
23:DB:103:A:H3'	23:DB:104:A:H8	1.76	0.50
23:DB:1141:U:H4'	23:DB:1142:A:C1'	2.41	0.50
23:DB:1374:G:H2'	23:DB:1375:U:C6	2.46	0.50
23:DB:2849:U:H4'	23:DB:2850:A:C5'	2.41	0.50
23:DB:340:A:H2'	23:DB:341:C:O4'	2.11	0.50
23:DB:766:U:H2'	23:DB:767:U:C6	2.47	0.50
23:DB:854:C:O2'	23:DB:855:G:H5'	2.11	0.50
29:DE:143:LEU:HB3	29:DE:146:VAL:HG21	1.93	0.50
29:DE:138:LEU:HB3	29:DE:143:LEU:O	2.10	0.50
47:DF:19:PHE:HE1	47:DF:167:ALA:HB2	1.76	0.50
27:DK:61:VAL:HG22	27:DK:87:LEU:HD21	1.92	0.50
44:DQ:84:LYS:O	44:DQ:86:SER:N	2.44	0.50
45:DS:46:LEU:O	45:DS:50:VAL:HG23	2.10	0.50
39:DX:47:ARG:HH21	39:DX:47:ARG:HG3	1.77	0.50
51:DZ:47:VAL:HG23	51:DZ:47:VAL:O	2.12	0.50
1:AA:1376:U:H2'	1:AA:1377:A:C8	2.47	0.50
1:AA:1404:C:H2'	1:AA:1405:G:C8	2.47	0.50
1:AA:1519:A:H3'	1:AA:1520:C:C5'	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:214:C:H2'	1:AA:215:C:C6	2.46	0.50
1:AA:539:A:H2'	1:AA:540:G:C8	2.45	0.50
1:AA:624:C:H2'	1:AA:625:U:H6	1.77	0.50
1:AA:713:G:H2'	1:AA:714:G:C8	2.46	0.50
1:AA:825:A:H2'	1:AA:826:C:C6	2.46	0.50
6:AG:144:ALA:C	6:AG:146:ALA:H	2.14	0.50
6:AG:146:ALA:C	6:AG:147:ASN:HD22	2.14	0.50
6:AG:26:VAL:HB	6:AG:42:VAL:HG21	1.94	0.50
6:AG:49:LEU:CD2	6:AG:60:ALA:HB1	2.40	0.50
8:AI:20:ILE:HA	8:AI:62:LEU:CD1	2.42	0.50
9:AJ:10:LEU:O	9:AJ:71:LEU:HA	2.12	0.50
10:AK:28:ASN:HB2	10:AK:56:LYS:HZ3	1.75	0.50
12:AM:106:ARG:HE	12:AM:112:ARG:NH1	2.09	0.50
13:AN:29:ILE:HB	13:AN:30:ILE:HD12	1.94	0.50
15:AP:1:MET:HA	15:AP:1:MET:HE3	1.93	0.50
18:AS:63:ASP:C	18:AS:65:MET:H	2.13	0.50
34:B3:61:LEU:N	34:B3:62:PRO:HD3	2.27	0.50
32:B4:11:CYS:HB3	32:B4:33:HIS:CE1	2.47	0.50
53:B6:16:LYS:O	53:B6:20:VAL:HG23	2.12	0.50
53:B6:68:VAL:C	53:B6:98:ALA:HA	2.32	0.50
23:BB:1405:U:H2'	23:BB:1406:U:H6	1.76	0.50
23:BB:2729:G:H2'	23:BB:2730:C:C6	2.46	0.50
23:BB:2785:C:H2'	23:BB:2786:U:H6	1.76	0.50
23:BB:946:C:H2'	23:BB:947:A:H8	1.76	0.50
47:BF:13:LYS:HG3	47:BF:14:LYS:N	2.27	0.50
48:BG:153:PRO:HG3	48:BG:162:ARG:HB3	1.93	0.50
48:BG:87:GLN:HE22	48:BG:164:ALA:HB2	1.77	0.50
40:BH:82:SER:OG	40:BH:90:LEU:HB3	2.12	0.50
23:BB:1070:A:H2	24:BI:9:LYS:HE3	1.76	0.50
27:BK:119:ALA:CB	27:BK:120:PRO:CD	2.89	0.50
45:BS:12:SER:O	45:BS:13:SER:HB3	2.12	0.50
35:BV:79:ARG:HB3	35:BV:79:ARG:NH1	2.24	0.50
52:BW:75:ASN:O	52:BW:76:ARG:HB2	2.12	0.50
1:CA:35:G:H2'	1:CA:36:C:C6	2.47	0.50
1:CA:425:G:H2'	1:CA:426:U:C6	2.46	0.50
1:CA:658:C:H2'	1:CA:659:U:H6	1.77	0.50
1:CA:712:A:O2'	1:CA:713:G:H5'	2.11	0.50
2:CC:2:GLN:N	2:CC:2:GLN:NE2	2.57	0.50
10:CK:111:ASP:HB2	21:CU:19:LYS:CE	2.34	0.50
13:CN:60:ARG:HE	13:CN:62:ARG:HG2	1.75	0.50
16:CQ:6:THR:HG22	16:CQ:61:ARG:HB3	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:D1:33:LEU:HB3	33:D1:51:ALA:HB3	1.94	0.50
23:DB:1432:G:O2'	23:DB:1433:A:H5'	2.10	0.50
23:DB:1505:A:H2'	23:DB:1506:U:H6	1.77	0.50
23:DB:1533:C:H2'	23:DB:1534:U:C6	2.44	0.50
23:DB:1552:A:C2'	23:DB:1553:A:H5'	2.41	0.50
23:DB:1846:G:H3'	23:DB:1847:A:N3	2.26	0.50
23:DB:2515:C:O2'	23:DB:2516:A:H5'	2.11	0.50
23:DB:2539:C:O2'	23:DB:2540:C:H5'	2.11	0.50
23:DB:371:A:O2'	51:DZ:61:LYS:HE2	2.10	0.50
23:DB:847:U:O4'	23:DB:847:U:O2	2.29	0.50
23:DB:853:C:H2'	23:DB:854:C:H6	1.76	0.50
29:DE:3:LEU:HB3	29:DE:120:VAL:HG11	1.93	0.50
47:DF:115:GLY:HA2	47:DF:177:ARG:HH11	1.76	0.50
47:DF:116:LEU:N	47:DF:177:ARG:HB2	2.26	0.50
47:DF:163:GLU:CA	47:DF:166:ARG:HH11	2.22	0.50
40:DH:133:GLN:HA	40:DH:139:PHE:HA	1.94	0.50
40:DH:125:THR:CA	40:DH:146:VAL:HB	2.26	0.50
40:DH:40:THR:O	40:DH:42:LYS:N	2.45	0.50
40:DH:89:LYS:HA	40:DH:123:ARG:O	2.11	0.50
37:DL:41:ARG:HG2	37:DL:41:ARG:NH2	2.27	0.50
43:DO:49:VAL:HG12	43:DO:85:LYS:HG3	1.94	0.50
28:DP:83:ILE:O	28:DP:83:ILE:HD13	2.11	0.50
44:DQ:104:ALA:O	44:DQ:105:PHE:HB3	2.12	0.50
44:DQ:65:ASN:O	44:DQ:69:ARG:HB2	2.12	0.50
44:DQ:83:LYS:HZ3	44:DQ:87:VAL:HA	1.75	0.50
46:DU:43:LYS:NZ	46:DU:45:GLN:HA	2.27	0.50
52:DW:24:ARG:HB2	52:DW:65:LYS:HB3	1.93	0.50
39:DX:1:MET:HB3	39:DX:4:LYS:HD3	1.93	0.50
39:DX:14:LEU:HD22	39:DX:57:LEU:HD21	1.92	0.50
30:DY:6:ILE:HG22	30:DY:7:THR:H	1.76	0.50
1:AA:1060:U:C5	2:AC:1:GLY:HA3	2.46	0.50
1:AA:120:A:H2'	1:AA:121:U:C5'	2.36	0.50
1:AA:204:G:H2'	1:AA:205:A:C8	2.46	0.50
1:AA:332:G:OP2	19:AT:4:LYS:HB2	2.11	0.50
6:AG:10:LYS:NZ	6:AG:10:LYS:HB2	2.27	0.50
8:AI:43:ALA:O	8:AI:46:VAL:HG22	2.11	0.50
9:AJ:53:ILE:CG2	9:AJ:61:ALA:HB1	2.27	0.50
10:AK:95:THR:HG23	10:AK:96:ILE:N	2.27	0.50
11:AL:86:VAL:CG1	11:AL:89:LEU:HD23	2.41	0.50
21:AU:11:PHE:CD1	21:AU:13:VAL:HG12	2.47	0.50
23:BB:1210:G:H5'	23:BB:1212:G:H5'	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:515:A:H2	23:BB:1260:A:N3	2.10	0.50
23:BB:1418:G:H1'	23:BB:1580:A:H61	1.77	0.50
23:BB:2755:C:HO2'	23:BB:2756:U:H2'	1.76	0.50
23:BB:2772:C:H2'	23:BB:2773:C:H6	1.77	0.50
23:BB:2793:C:H2'	23:BB:2794:C:C6	2.46	0.50
23:BB:2849:U:H4'	23:BB:2850:A:C5'	2.41	0.50
23:BB:937:C:H2'	23:BB:938:G:C8	2.46	0.50
25:BC:128:THR:HA	25:BC:190:THR:HG22	1.94	0.50
40:BH:112:LYS:C	40:BH:114:GLU:H	2.15	0.50
40:BH:134:VAL:HG22	40:BH:135:HIS:H	1.75	0.50
40:BH:24:GLY:O	40:BH:28:ASN:HB2	2.11	0.50
40:BH:83:LYS:O	40:BH:90:LEU:HA	2.11	0.50
24:BI:29:GLN:HA	24:BI:29:GLN:HE21	1.76	0.50
41:BJ:6:ALA:HB3	41:BJ:45:THR:CG2	2.37	0.50
37:BL:117:THR:O	37:BL:138:ALA:HB1	2.12	0.50
42:BN:72:ASP:OD2	42:BN:74:GLU:HB3	2.12	0.50
44:BQ:7:VAL:O	44:BQ:11:ALA:HB2	2.12	0.50
50:BT:27:SER:O	50:BT:28:ASN:HB3	2.12	0.50
39:BX:45:GLN:O	39:BX:46:VAL:HB	2.12	0.50
30:BY:35:VAL:HG22	30:BY:36:GLU:H	1.76	0.50
30:BY:12:ALA:HB2	30:BY:53:MET:HE1	1.94	0.50
51:BZ:18:ARG:HH11	51:BZ:24:ALA:HB2	1.75	0.50
1:CA:1337:G:H5''	1:CA:1338:G:OP1	2.12	0.50
1:CA:614:C:O2'	1:CA:615:G:H5'	2.12	0.50
1:CA:842:U:H2'	1:CA:842:U:O2	2.12	0.50
4:CE:101:GLY:H	4:CE:121:ASN:ND2	2.09	0.50
21:CU:11:PHE:CD1	21:CU:13:VAL:HG12	2.47	0.50
31:D0:38:LEU:HB3	31:D0:41:HIS:CD2	2.47	0.50
32:D4:1:MET:O	32:D4:1:MET:HE2	2.12	0.50
23:DB:1415:U:O2'	23:DB:1416:G:H4'	2.11	0.50
23:DB:2002:G:OP1	42:DN:17:ARG:NH1	2.45	0.50
23:DB:2329:U:H2'	23:DB:2330:G:C8	2.46	0.50
23:DB:2671:G:H2'	23:DB:2672:U:C6	2.47	0.50
25:DC:104:LEU:HD22	25:DC:104:LEU:H	1.77	0.50
25:DC:255:LYS:C	25:DC:257:ARG:H	2.14	0.50
29:DE:160:ALA:O	29:DE:161:ALA:HB3	2.11	0.50
47:DF:7:TYR:HA	47:DF:11:VAL:CG2	2.41	0.50
40:DH:68:ARG:NE	40:DH:68:ARG:HA	2.27	0.50
37:DL:136:GLU:HG2	37:DL:140:GLY:O	2.11	0.50
42:DN:83:LEU:CA	42:DN:86:ARG:HB2	2.36	0.50
49:DR:3:ALA:HA	49:DR:40:MET:O	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DR:4:VAL:HG22	49:DR:40:MET:HB2	1.94	0.50
30:DY:8:GLN:OE1	30:DY:23:LEU:HD11	2.11	0.50
1:AA:1436:U:H2'	1:AA:1437:A:H8	1.75	0.50
1:AA:218:U:H2'	1:AA:219:U:C6	2.47	0.50
1:AA:314:C:O2'	1:AA:315:A:H5'	2.11	0.50
1:AA:410:G:H2'	1:AA:429:U:C4	2.46	0.50
1:AA:927:G:O2'	1:AA:928:G:H5'	2.12	0.50
2:AC:185:THR:HG22	2:AC:198:LYS:HG2	1.93	0.50
9:AJ:12:ALA:HB2	9:AJ:96:VAL:HG12	1.93	0.50
13:AN:50:LEU:N	13:AN:51:PRO:CD	2.75	0.50
21:AU:24:LYS:CG	21:AU:25:ALA:H	2.22	0.50
33:B1:3:GLY:O	33:B1:4:ILE:HG12	2.12	0.50
33:B1:46:VAL:HG22	33:B1:47:ILE:N	2.23	0.50
23:BB:1023:U:H2'	23:BB:1024:G:H5'	1.93	0.50
23:BB:1361:G:H2'	23:BB:1362:C:C6	2.46	0.50
23:BB:1642:G:O2'	23:BB:1643:G:H5'	2.11	0.50
23:BB:1826:G:H2'	23:BB:1827:U:H6	1.77	0.50
23:BB:528:A:C2	23:BB:2042:A:H2'	2.46	0.50
23:BB:350:G:H2'	23:BB:351:C:C6	2.47	0.50
23:BB:64:A:H2'	23:BB:65:U:H6	1.76	0.50
23:BB:866:A:H61	23:BB:913:U:C1'	2.25	0.50
26:BD:105:LYS:HA	26:BD:177:VAL:HG22	1.94	0.50
47:BF:163:GLU:CA	47:BF:166:ARG:HH11	2.21	0.50
40:BH:68:ARG:O	40:BH:72:ILE:HG22	2.11	0.50
40:BH:90:LEU:HD21	40:BH:146:VAL:HG21	1.94	0.50
41:BJ:112:GLY:H	41:BJ:113:PRO:HD2	1.75	0.50
37:BL:131:ALA:C	37:BL:133:ALA:H	2.14	0.50
28:BP:103:THR:HG22	28:BP:104:GLY:N	2.27	0.50
28:BP:77:SER:OG	28:BP:79:VAL:HG22	2.11	0.50
44:BQ:83:LYS:HZ3	44:BQ:87:VAL:HA	1.76	0.50
45:BS:9:HIS:H	45:BS:102:HIS:CE1	2.30	0.50
22:BA:94:A:OP1	35:BV:19:ARG:HD3	2.11	0.50
52:BW:47:GLY:HA3	52:BW:80:SER:HB2	1.93	0.50
39:BX:5:GLU:O	39:BX:8:GLU:HB2	2.11	0.50
1:CA:1526:G:H2'	1:CA:1527:U:C6	2.47	0.50
1:CA:486:U:H2'	1:CA:487:A:C8	2.47	0.50
1:CA:577:G:O2'	1:CA:578:C:H5'	2.12	0.50
6:CG:14:ASP:HB3	6:CG:18:GLY:N	2.27	0.50
7:CH:113:ARG:HA	7:CH:116:ARG:NH1	2.26	0.50
7:CH:42:GLU:HG3	7:CH:100:ILE:HD13	1.94	0.50
11:CL:33:CYS:HB2	11:CL:77:SER:O	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CM:64:VAL:HB	12:CM:65:GLU:OE2	2.11	0.50
53:D6:174:GLN:OE1	53:D6:178:LYS:HE2	2.11	0.50
53:D6:44:GLU:HG2	53:D6:49:HIS:CE1	2.47	0.50
22:DA:64:G:H2'	22:DA:65:U:C6	2.47	0.50
23:DB:1958:C:O2'	23:DB:1959:G:H5'	2.12	0.50
23:DB:2093:G:O2'	23:DB:2094:A:H5'	2.12	0.50
23:DB:2104:C:C5	23:DB:2179:C:H5''	2.45	0.50
23:DB:2215:C:H2'	23:DB:2216:G:C8	2.46	0.50
23:DB:338:G:N2	23:DB:339:U:H1'	2.27	0.50
26:DD:130:GLN:O	26:DD:131:ASP:C	2.50	0.50
26:DD:110:THR:HG21	26:DD:169:ARG:HH11	1.77	0.50
26:DD:68:PHE:HB3	26:DD:73:VAL:HA	1.92	0.50
47:DF:105:ILE:C	47:DF:108:PRO:HD2	2.31	0.50
47:DF:13:LYS:HG3	47:DF:14:LYS:N	2.27	0.50
24:DI:10:LEU:HD12	24:DI:10:LEU:O	2.10	0.50
44:DQ:20:ALA:HA	44:DQ:23:TYR:CE1	2.47	0.50
44:DQ:63:ARG:HH21	44:DQ:64:ILE:HD11	1.75	0.50
50:DT:39:THR:HG23	50:DT:41:ALA:N	2.24	0.50
35:DV:93:ARG:HG3	35:DV:93:ARG:HH11	1.77	0.50
23:DB:988:A:P	30:DY:11:SER:HB3	2.52	0.50
51:DZ:53:ALA:O	51:DZ:54:LYS:HB3	2.12	0.50
1:AA:1396:A:O4'	1:AA:1398:A:H1'	2.12	0.50
1:AA:1423:G:H2'	1:AA:1424:U:H6	1.76	0.50
1:AA:238:A:C2'	1:AA:239:U:H5''	2.40	0.50
1:AA:366:A:H2	1:AA:394:G:H1	1.60	0.50
1:AA:709:U:H2'	1:AA:710:G:C8	2.47	0.50
3:AD:90:LEU:HD11	3:AD:194:ILE:CD1	2.40	0.50
3:AD:57:LYS:O	3:AD:61:ARG:HB2	2.10	0.50
5:AF:40:GLU:HB2	5:AF:61:LEU:HB2	1.94	0.50
1:AA:935:A:N6	6:AG:2:ARG:HD2	2.26	0.50
6:AG:87:PRO:CG	6:AG:151:ALA:HB2	2.41	0.50
8:AI:26:LYS:HA	8:AI:26:LYS:HZ1	1.77	0.50
9:AJ:51:VAL:CG2	13:AN:80:ARG:HB2	2.39	0.50
14:AO:35:GLN:O	14:AO:39:LEU:HB2	2.12	0.50
15:AP:46:LYS:O	15:AP:48:GLU:N	2.44	0.50
16:AQ:63:CYS:SG	16:AQ:66:LEU:HD11	2.52	0.50
53:B6:65:THR:HA	53:B6:101:ILE:O	2.12	0.50
53:B6:32:ARG:NH2	53:B6:88:LEU:HD23	2.26	0.50
22:BA:109:A:H2'	22:BA:110:C:H6	1.77	0.50
22:BA:63:C:H2'	22:BA:64:G:C8	2.47	0.50
23:BB:1149:G:H2'	23:BB:1150:C:H6	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1324:G:H1'	23:BB:1616:A:N6	2.27	0.50
23:BB:1505:A:H2'	23:BB:1506:U:H6	1.77	0.50
23:BB:1561:C:H2'	23:BB:1562:U:H6	1.76	0.50
23:BB:1714:U:H3'	23:BB:1715:G:H5'	1.92	0.50
23:BB:1946:U:H2'	23:BB:1947:C:H6	1.77	0.50
23:BB:2322:A:N6	23:BB:2333:A:H62	2.10	0.50
23:BB:2784:U:O2'	23:BB:2785:C:H5'	2.12	0.50
23:BB:2840:C:H2'	23:BB:2841:C:H6	1.76	0.50
23:BB:708:G:H2'	23:BB:709:U:C6	2.47	0.50
25:BC:137:GLY:H	25:BC:163:ILE:HB	1.77	0.50
29:BE:3:LEU:HB2	29:BE:12:LEU:HB2	1.93	0.50
29:BE:140:ASP:C	29:BE:142:ALA:H	2.14	0.50
29:BE:189:THR:O	29:BE:193:VAL:HG23	2.12	0.50
47:BF:11:VAL:O	47:BF:12:VAL:HB	2.11	0.50
48:BG:9:VAL:O	48:BG:11:PRO:HD3	2.12	0.50
40:BH:73:ASN:ND2	40:BH:74:ALA:H	2.09	0.50
38:BM:2:LEU:HD23	38:BM:46:ILE:CD1	2.40	0.50
42:BN:13:ASN:H	42:BN:13:ASN:ND2	2.09	0.50
42:BN:55:ALA:HA	42:BN:80:PHE:CD1	2.47	0.50
49:BR:78:ARG:HB3	49:BR:83:TYR:HB3	1.94	0.50
46:BU:64:ILE:HD11	46:BU:68:ASN:HD22	1.76	0.50
46:BU:87:GLU:OE2	46:BU:88:ASP:HB2	2.11	0.50
1:CA:214:C:H2'	1:CA:215:C:C6	2.47	0.50
20:CB:48:MET:HE1	20:CB:198:VAL:HB	1.92	0.50
20:CB:221:ARG:NH1	20:CB:221:ARG:HB3	2.22	0.50
2:CC:184:ASN:ND2	2:CC:185:THR:H	2.10	0.50
6:CG:146:ALA:C	6:CG:147:ASN:HD22	2.15	0.50
6:CG:71:THR:C	6:CG:90:VAL:HG22	2.33	0.50
9:CJ:15:HIS:HA	9:CJ:18:ILE:HG22	1.94	0.50
10:CK:70:ALA:O	10:CK:74:LYS:HB2	2.12	0.50
14:CO:30:ALA:HA	14:CO:85:LEU:HD21	1.92	0.50
23:DB:1060:U:O2	23:DB:1088:A:C8	2.64	0.50
23:DB:1511:G:H2'	23:DB:1512:C:C6	2.47	0.50
23:DB:2073:C:O2'	23:DB:2074:U:H5'	2.12	0.50
23:DB:2184:A:H2'	23:DB:2185:U:H6	1.76	0.50
23:DB:2443:C:O2'	23:DB:2444:G:H5'	2.11	0.50
23:DB:522:A:H2'	23:DB:523:C:H6	1.75	0.50
26:DD:157:LYS:HB3	26:DD:157:LYS:HZ2	1.77	0.50
47:DF:168:LEU:O	47:DF:169:LEU:HB2	2.12	0.50
22:DA:43:C:H4'	47:DF:91:ARG:CD	2.41	0.50
48:DG:82:PHE:CE1	48:DG:137:LYS:HE3	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DG:61:TRP:CE3	48:DG:61:TRP:HA	2.47	0.50
40:DH:34:GLY:O	40:DH:35:LYS:HG2	2.11	0.50
24:DI:23:VAL:HG12	24:DI:27:LEU:HD21	1.93	0.50
28:DP:5:LYS:HD3	28:DP:9:GLN:OE1	2.12	0.50
52:DW:32:ALA:C	52:DW:34:SER:H	2.15	0.50
51:DZ:49:LEU:HD21	51:DZ:78:TYR:HB2	1.94	0.50
1:AA:147:G:H2'	1:AA:148:G:C8	2.47	0.50
1:AA:486:U:H2'	1:AA:487:A:C8	2.47	0.50
1:AA:987:G:O2'	1:AA:988:G:H5'	2.11	0.50
5:AF:97:THR:O	5:AF:98:GLU:CB	2.60	0.50
6:AG:46:LEU:HG	6:AG:57:GLU:HG3	1.94	0.50
6:AG:149:ALA:HB1	10:AK:58:THR:CB	2.42	0.50
12:AM:58:GLU:O	12:AM:61:LYS:HG2	2.11	0.50
13:AN:79:SER:OG	13:AN:82:LYS:HG2	2.11	0.50
14:AO:16:GLY:HA2	14:AO:27:VAL:CG2	2.41	0.50
33:B1:18:HIS:CD2	33:B1:40:PRO:HD2	2.47	0.50
34:B3:26:ALA:O	34:B3:27:ASN:HB2	2.12	0.50
34:B3:35:LYS:HG2	34:B3:39:ARG:NH2	2.27	0.50
23:BB:106:C:H2'	23:BB:107:G:C8	2.47	0.50
23:BB:1141:U:H4'	23:BB:1142:A:C1'	2.42	0.50
23:BB:1150:C:H2'	23:BB:1151:A:H8	1.77	0.50
23:BB:1265:A:H8	23:BB:1265:A:OP1	1.94	0.50
23:BB:1511:G:H2'	23:BB:1512:C:C6	2.47	0.50
23:BB:1538:G:H2'	23:BB:1539:U:H6	1.77	0.50
23:BB:2206:C:O2'	23:BB:2207:C:H5'	2.12	0.50
23:BB:2515:C:O2'	23:BB:2516:A:H5'	2.12	0.50
23:BB:847:U:O4'	23:BB:847:U:O2	2.29	0.50
23:BB:958:U:O4	38:BM:16:ARG:HA	2.12	0.50
23:BB:2637:U:OP1	26:BD:83:ARG:HD3	2.11	0.50
47:BF:79:ARG:O	47:BF:81:GLY:N	2.44	0.50
48:BG:145:ALA:O	48:BG:148:ARG:HG3	2.12	0.50
27:BK:102:PRO:HD3	28:BP:65:ASN:HB2	1.93	0.50
43:BO:28:VAL:O	43:BO:28:VAL:HG13	2.12	0.50
28:BP:19:PHE:CE2	28:BP:25:VAL:HG11	2.46	0.50
28:BP:28:LYS:O	28:BP:81:ASP:HB3	2.12	0.50
44:BQ:65:ASN:O	44:BQ:69:ARG:HB2	2.12	0.50
39:BX:1:MET:HB3	39:BX:4:LYS:HD3	1.94	0.50
1:CA:454:G:H2'	1:CA:455:G:H8	1.77	0.50
1:CA:560:A:H5'	1:CA:566:G:N2	2.26	0.50
1:CA:994:A:C5	1:CA:1216:A:H4'	2.47	0.50
3:CD:21:LYS:O	3:CD:23:GLY:N	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CH:118:ALA:HB3	7:CH:120:LEU:CD2	2.42	0.50
10:CK:30:ILE:HG22	10:CK:45:THR:OG1	2.11	0.50
13:CN:50:LEU:N	13:CN:51:PRO:CD	2.75	0.50
14:CO:17:ARG:O	14:CO:18:ASP:HB3	2.12	0.50
53:D6:53:ASN:ND2	53:D6:53:ASN:N	2.58	0.50
22:DA:31:C:H2'	22:DA:32:U:H6	1.77	0.50
23:DB:138:U:H2'	23:DB:140:C:N1	2.27	0.50
23:DB:1475:G:H1'	23:DB:1476:U:H5	1.77	0.50
23:DB:1508:A:H3'	23:DB:1509:A:C4	2.47	0.50
23:DB:1561:C:H2'	23:DB:1562:U:H6	1.76	0.50
23:DB:1710:G:O2'	23:DB:1711:A:H5'	2.12	0.50
23:DB:1714:U:H3'	23:DB:1715:G:H5'	1.92	0.50
23:DB:176:A:O2'	23:DB:177:G:H5'	2.11	0.50
23:DB:2386:A:H2'	23:DB:2387:U:C6	2.47	0.50
23:DB:2496:C:O2'	23:DB:2497:A:H5'	2.11	0.50
25:DC:155:ARG:HB3	25:DC:155:ARG:HH11	1.76	0.50
24:DI:19:PRO:HB2	24:DI:22:PRO:HD2	1.94	0.50
24:DI:17:ALA:C	24:DI:19:PRO:HD3	2.32	0.50
24:DI:85:ILE:HD12	24:DI:87:SER:O	2.12	0.50
44:DQ:109:VAL:O	44:DQ:113:LYS:HG3	2.12	0.50
49:DR:91:GLN:HG3	49:DR:92:TRP:N	2.23	0.50
50:DT:29:THR:H	50:DT:91:GLN:NE2	2.09	0.50
46:DU:10:VAL:O	46:DU:21:ARG:HA	2.11	0.50
52:DW:50:VAL:HG23	52:DW:61:LYS:HE3	1.94	0.50
1:AA:1118:U:H2'	1:AA:1119:C:C6	2.46	0.49
1:AA:1216:A:H5''	13:AN:4:SER:HB3	1.93	0.49
1:AA:147:G:H2'	1:AA:148:G:H8	1.78	0.49
1:AA:78:A:H2'	1:AA:79:G:C8	2.47	0.49
20:AB:23:ASN:HD21	20:AB:25:LYS:HG3	1.77	0.49
4:AE:53:ARG:NH1	4:AE:53:ARG:HB3	2.27	0.49
5:AF:85:ILE:HG22	5:AF:86:ARG:N	2.26	0.49
17:AR:63:TYR:N	17:AR:63:TYR:CD2	2.78	0.49
32:B4:25:VAL:O	32:B4:26:ILE:HD13	2.12	0.49
32:B4:3:VAL:HG23	32:B4:4:ARG:H	1.77	0.49
53:B6:150:SER:OG	53:B6:153:GLU:HG3	2.12	0.49
23:BB:1100:C:H2'	23:BB:1101:U:H6	1.76	0.49
23:BB:1182:G:H2'	23:BB:1183:U:O4'	2.12	0.49
23:BB:138:U:C2	23:BB:140:C:H1'	2.47	0.49
23:BB:1439:A:N7	23:BB:1440:U:C2	2.79	0.49
23:BB:2556:C:H2'	23:BB:2557:G:O4'	2.12	0.49
23:BB:2828:G:O2'	23:BB:2829:A:H5'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:2895:G:H2'	23:BB:2896:C:H6	1.77	0.49
23:BB:364:C:H2'	23:BB:365:U:C5	2.47	0.49
23:BB:40:U:H2'	23:BB:41:C:C6	2.47	0.49
23:BB:782:A:N7	25:BC:219:VAL:HG21	2.27	0.49
23:BB:848:C:H2'	23:BB:849:A:C8	2.46	0.49
23:BB:854:C:O2'	23:BB:855:G:H5'	2.12	0.49
25:BC:80:LEU:HD21	25:BC:109:LEU:HG	1.93	0.49
26:BD:110:THR:HG21	26:BD:169:ARG:HH11	1.77	0.49
26:BD:136:ASN:HD21	26:BD:140:HIS:N	2.10	0.49
29:BE:67:ARG:NH1	29:BE:67:ARG:HG2	2.27	0.49
40:BH:90:LEU:HB2	40:BH:123:ARG:CD	2.41	0.49
23:BB:139:U:N3	50:BT:1:MET:HB3	2.26	0.49
52:BW:49:ASN:CB	52:BW:60:ALA:HA	2.35	0.49
1:CA:191:G:H2'	1:CA:192:A:H8	1.77	0.49
1:CA:474:G:H2'	1:CA:475:C:H6	1.75	0.49
1:CA:593:U:H2'	1:CA:594:U:C6	2.47	0.49
1:CA:61:G:H2'	1:CA:62:U:O4'	2.11	0.49
1:CA:708:C:O2'	1:CA:709:U:H5'	2.12	0.49
1:CA:967:C:H2'	1:CA:968:A:C2	2.47	0.49
20:CB:178:LEU:HB2	20:CB:180:ILE:HG12	1.94	0.49
2:CC:95:GLY:O	2:CC:96:VAL:HG13	2.12	0.49
6:CG:102:TRP:CH2	6:CG:140:VAL:HG21	2.46	0.49
11:CL:43:LYS:HE3	11:CL:44:PRO:CD	2.41	0.49
12:CM:28:ARG:NH1	12:CM:32:ILE:HD12	2.26	0.49
17:CR:63:TYR:HD2	17:CR:63:TYR:N	2.10	0.49
19:CT:5:SER:C	19:CT:7:LYS:H	2.15	0.49
53:D6:74:ASN:H	53:D6:74:ASN:ND2	1.94	0.49
23:DB:1099:G:H3'	24:DI:2:LYS:HA	1.93	0.49
23:DB:1418:G:H1'	23:DB:1580:A:H61	1.76	0.49
23:DB:1760:C:H2'	23:DB:1761:C:O4'	2.11	0.49
23:DB:2092:U:H4'	23:DB:2093:G:O5'	2.12	0.49
23:DB:2389:G:H5''	23:DB:2390:U:H5'	1.93	0.49
23:DB:2651:C:O2'	23:DB:2652:C:H5'	2.12	0.49
23:DB:2699:C:H2'	23:DB:2700:A:C8	2.47	0.49
23:DB:2785:C:H2'	23:DB:2786:U:C6	2.46	0.49
23:DB:2838:G:H2'	23:DB:2839:G:H8	1.77	0.49
23:DB:2863:C:O2'	23:DB:2864:G:H5'	2.11	0.49
23:DB:2889:C:O2'	23:DB:2890:G:H5'	2.12	0.49
23:DB:673:C:C2'	23:DB:674:G:H5'	2.42	0.49
23:DB:866:A:H61	23:DB:913:U:C1'	2.25	0.49
23:DB:936:A:H2'	23:DB:937:C:H6	1.74	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DC:94:LEU:HD22	25:DC:100:ARG:NH1	2.27	0.49
25:DC:128:THR:HA	25:DC:190:THR:HG22	1.92	0.49
25:DC:30:ALA:HA	25:DC:33:LEU:CD1	2.42	0.49
25:DC:77:VAL:N	25:DC:93:VAL:HG23	2.27	0.49
29:DE:28:VAL:HA	29:DE:104:ALA:HB1	1.94	0.49
47:DF:104:THR:C	47:DF:105:ILE:HG13	2.32	0.49
24:DI:21:PRO:CB	24:DI:22:PRO:HD3	2.38	0.49
24:DI:5:GLN:HB2	24:DI:30:GLN:OE1	2.12	0.49
24:DI:78:LEU:HD13	24:DI:108:ILE:HG23	1.94	0.49
41:DJ:30:THR:O	41:DJ:34:ARG:HB2	2.13	0.49
27:DK:47:ILE:CG1	27:DK:48:PRO:HD2	2.35	0.49
52:DW:39:GLN:HG3	52:DW:42:THR:CB	2.38	0.49
1:AA:457:G:H2'	1:AA:458:U:O4'	2.12	0.49
1:AA:474:G:H2'	1:AA:475:C:H6	1.77	0.49
1:AA:672:U:H2'	1:AA:673:A:C8	2.47	0.49
1:AA:939:G:H2'	1:AA:940:C:C6	2.47	0.49
3:AD:160:LEU:HA	3:AD:163:GLN:HB2	1.94	0.49
4:AE:113:VAL:HG21	4:AE:139:THR:HG21	1.93	0.49
6:AG:72:VAL:HG12	6:AG:89:GLU:HA	1.93	0.49
8:AI:5:TYR:HB2	8:AI:20:ILE:CB	2.35	0.49
12:AM:106:ARG:HH12	12:AM:109:LYS:CD	2.22	0.49
17:AR:63:TYR:N	17:AR:63:TYR:HD2	2.11	0.49
32:B4:11:CYS:SG	32:B4:13:ASN:HB2	2.52	0.49
32:B4:17:VAL:HG12	32:B4:18:LYS:N	2.27	0.49
53:B6:20:VAL:HA	53:B6:23:HIS:CE1	2.47	0.49
23:BB:1291:C:O2'	23:BB:1292:G:H5'	2.13	0.49
23:BB:138:U:H3'	23:BB:140:C:O2	2.12	0.49
23:BB:1536:C:H1'	23:BB:1537:G:C2	2.47	0.49
23:BB:1984:G:O2'	23:BB:1985:C:H5'	2.11	0.49
23:BB:2092:U:H4'	23:BB:2093:G:O5'	2.12	0.49
23:BB:2290:G:H2'	23:BB:2291:U:C6	2.46	0.49
23:BB:623:C:H2'	23:BB:624:C:H6	1.77	0.49
23:BB:863:A:H2'	23:BB:864:G:C8	2.47	0.49
25:BC:239:PHE:O	25:BC:241:LYS:HG3	2.12	0.49
48:BG:9:VAL:HG13	48:BG:47:ASN:OD1	2.12	0.49
40:BH:84:ALA:H	40:BH:148:ALA:CB	2.26	0.49
41:BJ:76:HIS:CE1	41:BJ:85:LYS:HB2	2.47	0.49
37:BL:92:LEU:HD22	37:BL:124:GLY:HA3	1.93	0.49
43:BO:52:SER:OG	43:BO:54:VAL:HG12	2.13	0.49
50:BT:50:LEU:C	50:BT:52:GLU:H	2.16	0.49
46:BU:53:GLN:N	46:BU:54:PRO:CD	2.74	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BY:8:GLN:OE1	30:BY:23:LEU:HD11	2.12	0.49
51:BZ:53:ALA:O	51:BZ:54:LYS:HB3	2.13	0.49
1:CA:420:U:H2'	1:CA:422:C:C5	2.46	0.49
1:CA:539:A:H2'	1:CA:540:G:C8	2.47	0.49
1:CA:633:G:H2'	1:CA:634:C:C6	2.47	0.49
1:CA:989:U:O2'	1:CA:990:C:H5'	2.12	0.49
3:CD:24:VAL:HG23	3:CD:25:ARG:N	2.27	0.49
4:CE:22:LYS:O	4:CE:29:ILE:HB	2.12	0.49
9:CJ:57:VAL:HG13	9:CJ:58:ASN:N	2.27	0.49
31:D0:29:VAL:HG22	31:D0:30:ASP:N	2.27	0.49
36:D2:44:VAL:O	36:D2:45:SER:C	2.50	0.49
23:DB:2392:A:H4'	34:D3:27:ASN:ND2	2.27	0.49
53:D6:143:LEU:HG	53:D6:147:LEU:HD11	1.93	0.49
23:DB:142:A:H8	23:DB:142:A:O5'	1.95	0.49
23:DB:156:A:H2'	23:DB:157:C:H6	1.76	0.49
23:DB:1728:C:HO2'	23:DB:1729:U:H6	1.60	0.49
23:DB:19:A:H2'	23:DB:20:C:H6	1.76	0.49
23:DB:2286:G:H4'	23:DB:2287:A:O4'	2.11	0.49
23:DB:541:A:H2'	23:DB:542:C:C6	2.47	0.49
23:DB:593:U:H2'	23:DB:594:U:C6	2.47	0.49
23:DB:848:C:H2'	23:DB:849:A:C8	2.46	0.49
29:DE:37:ALA:C	29:DE:39:ALA:H	2.14	0.49
48:DG:25:ILE:CG2	48:DG:78:VAL:HG21	2.42	0.49
40:DH:8:LYS:O	40:DH:13:GLY:HA3	2.12	0.49
23:DB:1225:G:P	49:DR:71:LYS:HZ2	2.35	0.49
50:DT:14:PRO:HA	50:DT:32:LEU:HB3	1.93	0.49
35:DV:76:ASP:H	35:DV:90:ASP:HB2	1.77	0.49
52:DW:49:ASN:HD22	52:DW:60:ALA:N	2.09	0.49
39:DX:45:GLN:O	39:DX:46:VAL:HB	2.11	0.49
30:DY:11:SER:OG	30:DY:13:ILE:HG13	2.12	0.49
1:AA:1011:C:H2'	1:AA:1012:A:C8	2.46	0.49
1:AA:1121:U:O2'	1:AA:1122:U:H5'	2.12	0.49
1:AA:1405:G:H21	1:AA:1518:A:H1'	1.77	0.49
2:AC:24:ASN:O	2:AC:26:LYS:N	2.44	0.49
4:AE:87:VAL:HG23	4:AE:91:SER:O	2.12	0.49
8:AI:40:ARG:N	8:AI:44:ARG:HD3	2.26	0.49
8:AI:20:ILE:HG23	8:AI:60:LEU:CD1	2.42	0.49
8:AI:7:GLY:HA3	8:AI:85:ALA:HB2	1.94	0.49
16:AQ:18:LYS:H	16:AQ:50:ASN:ND2	2.10	0.49
17:AR:38:ILE:HG22	17:AR:58:ILE:HG21	1.93	0.49
53:B6:114:LEU:O	53:B6:118:VAL:HG23	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:B6:133:ARG:HG3	53:B6:165:THR:HG21	1.93	0.49
22:BA:30:C:H2'	22:BA:31:C:H5'	1.94	0.49
23:BB:1248:G:O2'	44:BQ:2:ARG:HA	2.12	0.49
23:BB:1725:U:H2'	23:BB:1726:C:C6	2.48	0.49
23:BB:2096:C:H2'	23:BB:2097:A:C8	2.47	0.49
23:BB:586:A:H5'	29:BE:84:THR:OG1	2.12	0.49
23:BB:590:A:H2'	23:BB:591:U:C6	2.46	0.49
23:BB:673:C:H4'	29:BE:77:ILE:HD12	1.94	0.49
25:BC:173:LEU:HD22	25:BC:181:ARG:O	2.13	0.49
29:BE:171:ASP:CG	29:BE:172:ALA:N	2.66	0.49
23:BB:659:G:H4'	29:BE:95:LYS:HD2	1.94	0.49
47:BF:105:ILE:C	47:BF:108:PRO:HD2	2.32	0.49
47:BF:19:PHE:CZ	47:BF:164:GLU:HG2	2.46	0.49
48:BG:35:THR:HG21	48:BG:70:LEU:HD12	1.93	0.49
24:BI:122:GLU:CD	24:BI:122:GLU:H	2.16	0.49
23:BB:1141:U:OP2	41:BJ:65:THR:HG21	2.12	0.49
41:BJ:88:THR:HG22	41:BJ:91:GLU:OE1	2.12	0.49
37:BL:40:SER:OG	37:BL:41:ARG:HG3	2.13	0.49
38:BM:102:LEU:HD22	38:BM:102:LEU:N	2.27	0.49
23:BB:1653:G:H3'	42:BN:2:ARG:HG3	1.93	0.49
28:BP:19:PHE:O	28:BP:20:ARG:HB2	2.12	0.49
46:BU:51:LEU:O	46:BU:52:ASN:C	2.50	0.49
23:BB:2355:G:H4'	52:BW:20:LEU:CD1	2.42	0.49
52:BW:24:ARG:HA	52:BW:66:VAL:N	2.16	0.49
51:BZ:51:VAL:O	51:BZ:52:SER:HB3	2.13	0.49
9:CJ:53:ILE:HG12	1:CA:1060:U:H5''	1.94	0.49
1:CA:313:A:H2'	1:CA:314:C:H6	1.76	0.49
1:CA:34:C:H2'	1:CA:35:G:C8	2.46	0.49
1:CA:728:A:H2'	1:CA:729:A:C8	2.47	0.49
2:CC:113:LYS:HD3	2:CC:184:ASN:OD1	2.12	0.49
11:CL:107:LYS:H	11:CL:107:LYS:CD	2.25	0.49
12:CM:6:ILE:O	12:CM:7:ASN:C	2.51	0.49
13:CN:22:LYS:HA	13:CN:25:GLU:OE1	2.12	0.49
15:CP:5:ARG:HD3	1:CA:376:G:C5'	2.38	0.49
31:D0:41:HIS:CD2	31:D0:41:HIS:N	2.80	0.49
34:D3:61:LEU:N	34:D3:62:PRO:HD3	2.27	0.49
53:D6:57:THR:O	53:D6:69:GLN:N	2.45	0.49
53:D6:90:LEU:O	53:D6:92:PRO:HD3	2.13	0.49
23:DB:1045:C:P	23:DB:1047:G:H5'	2.52	0.49
23:DB:1511:G:H2'	23:DB:1512:C:H6	1.77	0.49
23:DB:1885:A:H3'	23:DB:1886:U:C6	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:573:U:N3	23:DB:2031:A:OP1	2.42	0.49
23:DB:2216:G:H2'	23:DB:2217:G:C8	2.47	0.49
23:DB:2722:G:H2'	23:DB:2723:C:H6	1.77	0.49
23:DB:2828:G:O2'	23:DB:2829:A:H5'	2.11	0.49
23:DB:296:U:H2'	23:DB:297:G:H8	1.78	0.49
23:DB:863:A:H2'	23:DB:864:G:C8	2.47	0.49
23:DB:967:U:H2'	23:DB:968:C:C6	2.47	0.49
47:DF:66:ILE:HA	47:DF:85:GLY:O	2.12	0.49
48:DG:53:PRO:HG3	48:DG:61:TRP:N	2.27	0.49
23:DB:1099:G:H5''	24:DI:2:LYS:HB2	1.94	0.49
41:DJ:2:LYS:NZ	41:DJ:2:LYS:HB3	2.26	0.49
23:DB:1666:G:H4'	27:DK:6:THR:HG23	1.93	0.49
1:AA:1004:A:N7	1:AA:1025:U:H1'	2.27	0.49
1:AA:1172:C:O2'	1:AA:1173:U:H5'	2.13	0.49
1:AA:191:G:H2'	1:AA:192:A:H8	1.78	0.49
6:AG:74:VAL:HG12	6:AG:87:PRO:HB3	1.93	0.49
7:AH:42:GLU:HG3	7:AH:100:ILE:HD13	1.94	0.49
9:AJ:26:VAL:O	9:AJ:30:LYS:HG3	2.11	0.49
9:AJ:42:LEU:HB3	9:AJ:43:PRO:HD2	1.95	0.49
13:AN:41:TRP:HD1	13:AN:44:VAL:H	1.60	0.49
53:B6:38:LEU:HD22	53:B6:41:LEU:HD22	1.95	0.49
53:B6:52:LEU:HD21	53:B6:57:THR:HA	1.94	0.49
23:BB:1273:U:H4'	23:BB:1275:A:OP2	2.12	0.49
23:BB:1444:G:H2'	23:BB:1445:G:C8	2.46	0.49
23:BB:1613:G:O2'	36:B2:3:ARG:HD2	2.12	0.49
23:BB:2027:G:O2'	23:BB:2028:U:H5'	2.12	0.49
23:BB:2250:G:O5'	23:BB:2250:G:H8	1.94	0.49
23:BB:2271:G:C2'	23:BB:2272:U:H5'	2.42	0.49
23:BB:2339:C:H2'	23:BB:2340:A:H8	1.77	0.49
23:BB:664:G:H2'	23:BB:665:U:H6	1.77	0.49
25:BC:77:VAL:N	25:BC:93:VAL:HG23	2.26	0.49
26:BD:56:LYS:HD3	26:BD:58:ASN:HB3	1.93	0.49
29:BE:160:ALA:O	29:BE:161:ALA:HB3	2.12	0.49
47:BF:59:ILE:HG12	47:BF:137:PHE:CE2	2.47	0.49
38:BM:63:ILE:HG22	38:BM:64:TRP:N	2.26	0.49
38:BM:74:THR:O	38:BM:75:GLU:HG2	2.11	0.49
28:BP:45:VAL:H	28:BP:60:VAL:HG12	1.77	0.49
49:BR:14:VAL:CG2	49:BR:15:SER:N	2.74	0.49
1:CA:1004:A:N7	1:CA:1025:U:H1'	2.27	0.49
1:CA:1152:A:H2'	1:CA:1153:G:C8	2.46	0.49
1:CA:1298:U:H4'	1:CA:1299:A:N9	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:314:C:O2'	1:CA:315:A:H5'	2.12	0.49
1:CA:403:C:O2'	1:CA:404:G:H5'	2.12	0.49
1:CA:723:U:H5'	21:CU:48:LYS:HG2	1.94	0.49
20:CB:131:LYS:O	20:CB:135:MET:HE2	2.12	0.49
2:CC:129:PHE:CD2	2:CC:156:LEU:HD22	2.47	0.49
7:CH:85:TYR:CD2	7:CH:123:GLU:HB2	2.47	0.49
10:CK:86:LYS:O	10:CK:86:LYS:HG3	2.12	0.49
12:CM:106:ARG:HE	12:CM:112:ARG:NH1	2.09	0.49
22:DA:6:G:H2'	22:DA:7:G:H8	1.77	0.49
23:DB:1038:G:H2'	23:DB:1039:A:H8	1.76	0.49
23:DB:1149:G:H2'	23:DB:1150:C:H6	1.77	0.49
23:DB:1182:G:H2'	23:DB:1183:U:O4'	2.12	0.49
23:DB:1401:G:H2'	23:DB:1402:U:C6	2.47	0.49
23:DB:1666:G:H21	27:DK:3:GLN:HE22	1.58	0.49
23:DB:1914:C:H2'	23:DB:1915:U:C6	2.46	0.49
23:DB:1948:G:O2'	23:DB:1949:G:H5'	2.12	0.49
23:DB:2282:G:H4'	23:DB:2389:G:O2'	2.12	0.49
23:DB:2845:U:O2'	23:DB:2846:G:H5'	2.11	0.49
23:DB:630:G:H4'	23:DB:640:C:O2'	2.12	0.49
23:DB:5:A:H2'	23:DB:6:A:H8	1.76	0.49
25:DC:117:SER:CB	25:DC:128:THR:HB	2.42	0.49
25:DC:130:PRO:CG	25:DC:133:ASN:HD22	2.26	0.49
29:DE:3:LEU:HB2	29:DE:12:LEU:CB	2.43	0.49
47:DF:60:SER:HB2	47:DF:62:GLN:OE1	2.13	0.49
38:DM:105:MET:SD	38:DM:108:VAL:HG11	2.52	0.49
38:DM:34:LYS:HB2	38:DM:131:VAL:CG2	2.43	0.49
42:DN:45:ARG:O	42:DN:49:GLU:HG3	2.13	0.49
42:DN:49:GLU:HB2	42:DN:50:PRO:HD3	1.94	0.49
42:DN:51:LEU:HD21	42:DN:70:THR:CG2	2.43	0.49
44:DQ:57:ARG:HH11	44:DQ:61:ILE:HD11	1.77	0.49
46:DU:14:THR:HB	46:DU:68:ASN:HB3	1.95	0.49
1:AA:1152:A:H2'	1:AA:1153:G:C8	2.46	0.49
1:AA:821:G:H2'	1:AA:822:U:H6	1.77	0.49
3:AD:169:TRP:CD2	3:AD:185:PRO:HB3	2.47	0.49
8:AI:118:ARG:CZ	8:AI:122:ARG:HH21	2.24	0.49
8:AI:71:ILE:N	8:AI:71:ILE:HD12	2.27	0.49
9:AJ:15:HIS:HA	9:AJ:18:ILE:HG22	1.95	0.49
1:AA:1320:C:H41	18:AS:36:ARG:HB3	1.78	0.49
53:B6:69:GLN:CG	53:B6:98:ALA:HB2	2.42	0.49
23:BB:1511:G:H2'	23:BB:1512:C:H6	1.76	0.49
23:BB:1549:A:H2'	23:BB:1550:C:H6	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:2671:G:H2'	23:BB:2672:U:C6	2.47	0.49
23:BB:288:U:O2'	23:BB:289:G:H5'	2.12	0.49
23:BB:28:A:O2'	23:BB:583:G:H5'	2.13	0.49
23:BB:549:G:H3'	23:BB:549:G:P	2.53	0.49
23:BB:965:C:HO2'	23:BB:2272:U:H6	1.58	0.49
25:BC:203:VAL:O	25:BC:205:GLY:N	2.44	0.49
26:BD:8:LYS:HD3	26:BD:197:THR:H	1.77	0.49
29:BE:3:LEU:HB3	29:BE:120:VAL:HG11	1.93	0.49
23:BB:2314:A:H4'	47:BF:34:THR:HG21	1.94	0.49
22:BA:43:C:H4'	47:BF:91:ARG:CD	2.41	0.49
48:BG:136:ASP:HB3	48:BG:139:VAL:HB	1.94	0.49
48:BG:77:GLY:C	48:BG:79:THR:H	2.16	0.49
40:BH:114:GLU:O	40:BH:132:PHE:HA	2.13	0.49
27:BK:38:ILE:HD13	27:BK:61:VAL:HG12	1.94	0.49
38:BM:54:THR:O	38:BM:56:ALA:N	2.45	0.49
44:BQ:63:ARG:HH22	44:BQ:96:ASP:HA	1.76	0.49
50:BT:28:ASN:C	50:BT:29:THR:HG23	2.32	0.49
1:CA:1009:U:H2'	1:CA:1010:U:C6	2.48	0.49
1:CA:1225:A:H5'	1:CA:1226:C:OP2	2.12	0.49
1:CA:1499:A:O2'	1:CA:1500:A:H5'	2.13	0.49
1:CA:154:U:H2'	1:CA:155:A:H8	1.76	0.49
1:CA:204:G:H2'	1:CA:205:A:C8	2.48	0.49
1:CA:208:U:H1'	1:CA:212:G:N2	2.28	0.49
1:CA:457:G:H2'	1:CA:458:U:O4'	2.12	0.49
1:CA:475:C:O2'	1:CA:476:U:H5'	2.13	0.49
20:CB:79:VAL:HG22	20:CB:213:LEU:HD11	1.94	0.49
4:CE:132:PRO:O	4:CE:136:VAL:HG12	2.12	0.49
4:CE:23:THR:HG21	1:CA:1396:A:H2	1.78	0.49
7:CH:101:ALA:O	7:CH:103:VAL:HG23	2.12	0.49
11:CL:21:PRO:C	11:CL:23:LEU:H	2.15	0.49
11:CL:88:ASP:C	11:CL:89:LEU:HD22	2.31	0.49
15:CP:20:VAL:HG21	15:CP:32:PHE:CD2	2.48	0.49
16:CQ:78:VAL:O	16:CQ:79:GLU:HB2	2.12	0.49
18:CS:11:ASP:HB3	18:CS:13:HIS:CD2	2.47	0.49
18:CS:39:ILE:CD1	18:CS:68:HIS:HB2	2.41	0.49
31:D0:41:HIS:HB3	42:DN:99:LYS:CB	2.42	0.49
33:D1:29:LYS:HE2	33:D1:31:GLU:OE1	2.11	0.49
53:D6:56:ALA:HB2	53:D6:79:ILE:HD13	1.95	0.49
22:DA:24:G:N7	22:DA:56:G:H2'	2.26	0.49
23:DB:1019:U:OP1	23:DB:1120:G:N2	2.45	0.49
23:DB:2016:U:H1'	31:D0:2:VAL:HG11	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:233:A:N6	23:DB:428:A:H61	2.11	0.49
23:DB:2787:C:O2'	23:DB:2788:C:H5'	2.12	0.49
23:DB:919:U:H6	23:DB:919:U:O5'	1.95	0.49
25:DC:143:VAL:HB	25:DC:153:LEU:HB2	1.94	0.49
26:DD:62:LYS:N	26:DD:63:PRO:CD	2.76	0.49
29:DE:140:ASP:C	29:DE:142:ALA:H	2.14	0.49
47:DF:128:SER:HB3	47:DF:154:THR:OG1	2.13	0.49
40:DH:119:ASN:HD21	40:DH:121:VAL:HG13	1.78	0.49
24:DI:17:ALA:O	24:DI:18:ASN:HB3	2.12	0.49
41:DJ:101:ILE:O	41:DJ:105:VAL:HG13	2.12	0.49
37:DL:75:ALA:N	37:DL:105:ILE:HD12	2.27	0.49
38:DM:69:PRO:C	38:DM:71:LYS:H	2.16	0.49
43:DO:35:ILE:CG1	43:DO:102:ARG:HE	2.25	0.49
50:DT:27:SER:O	50:DT:28:ASN:HB3	2.12	0.49
52:DW:49:ASN:ND2	52:DW:50:VAL:N	2.61	0.49
39:DX:13:GLU:HA	39:DX:13:GLU:OE2	2.12	0.49
1:AA:1163:A:H2'	1:AA:1164:G:H8	1.77	0.49
1:AA:208:U:H1'	1:AA:212:G:N2	2.28	0.49
1:AA:415:A:H3'	1:AA:416:G:H8	1.78	0.49
1:AA:709:U:H2'	1:AA:710:G:H8	1.78	0.49
1:AA:973:G:H1'	9:AJ:56:HIS:HA	1.93	0.49
6:AG:108:ARG:HA	6:AG:115:MET:HE1	1.95	0.49
6:AG:21:LEU:N	6:AG:21:LEU:HD23	2.27	0.49
7:AH:118:ALA:HB3	7:AH:120:LEU:CD2	2.42	0.49
11:AL:21:PRO:C	11:AL:23:LEU:H	2.16	0.49
22:BA:31:C:H2'	22:BA:32:U:H6	1.78	0.49
23:BB:1203:U:H3'	23:BB:1204:A:C5'	2.42	0.49
23:BB:1401:G:H2'	23:BB:1402:U:C6	2.46	0.49
23:BB:1415:U:O2'	23:BB:1416:G:H4'	2.13	0.49
23:BB:1678:A:O2'	23:BB:1679:A:H5'	2.13	0.49
23:BB:962:G:H21	23:BB:2250:G:H1	1.60	0.49
23:BB:2867:G:N3	23:BB:2867:G:C2'	2.75	0.49
25:BC:109:LEU:H	25:BC:109:LEU:CD2	2.26	0.49
25:BC:128:THR:HG23	25:BC:190:THR:HG22	1.95	0.49
26:BD:14:ILE:HG21	26:BD:178:VAL:HG11	1.95	0.49
40:BH:11:ASN:O	40:BH:12:LEU:HD23	2.13	0.49
27:BK:34:GLY:O	27:BK:36:GLY:N	2.45	0.49
38:BM:26:VAL:HB	38:BM:104:GLU:OE2	2.12	0.49
38:BM:34:LYS:HB2	38:BM:131:VAL:CG2	2.42	0.49
42:BN:70:THR:HB	42:BN:75:ILE:HD11	1.93	0.49
28:BP:75:THR:CG2	28:BP:76:HIS:N	2.74	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BV:72:VAL:HG11	35:BV:93:ARG:HA	1.93	0.49
52:BW:70:VAL:HG13	52:BW:70:VAL:O	2.12	0.49
18:CS:3:SER:HB2	1:CA:1313:U:O4	2.13	0.49
1:CA:237:G:H2'	1:CA:238:A:C8	2.47	0.49
1:CA:410:G:H2'	1:CA:429:U:C4	2.47	0.49
1:CA:825:A:H2'	1:CA:826:C:C6	2.48	0.49
1:CA:839:C:H2'	1:CA:840:C:O4'	2.13	0.49
20:CB:10:LYS:H	20:CB:10:LYS:HD2	1.78	0.49
20:CB:147:LEU:O	20:CB:150:ILE:HG22	2.13	0.49
3:CD:36:ALA:C	3:CD:38:GLY:H	2.16	0.49
4:CE:14:LEU:HD23	4:CE:36:THR:HG22	1.93	0.49
6:CG:63:VAL:HA	6:CG:66:GLU:CD	2.32	0.49
6:CG:74:VAL:HG12	6:CG:87:PRO:HB3	1.94	0.49
8:CI:20:ILE:HA	8:CI:62:LEU:CD1	2.42	0.49
9:CJ:26:VAL:O	9:CJ:30:LYS:HG3	2.12	0.49
10:CK:85:VAL:HG21	10:CK:96:ILE:HD11	1.93	0.49
11:CL:121:PRO:HB2	11:CL:122:LYS:HE2	1.94	0.49
17:CR:20:ILE:HG22	17:CR:53:GLN:NE2	2.28	0.49
19:CT:63:LYS:HE2	1:CA:196:A:OP1	2.12	0.49
53:D6:39:LEU:O	53:D6:39:LEU:HD12	2.12	0.49
23:DB:1203:U:H3'	23:DB:1204:A:C5'	2.42	0.49
23:DB:1273:U:H4'	23:DB:1275:A:OP2	2.13	0.49
23:DB:1335:C:H2'	23:DB:1336:A:C8	2.48	0.49
23:DB:1550:C:H2'	23:DB:1551:A:H8	1.78	0.49
23:DB:2840:C:H2'	23:DB:2841:C:C6	2.47	0.49
23:DB:284:U:O2	23:DB:284:U:H2'	2.12	0.49
23:DB:2882:A:OP1	42:DN:96:ARG:HD2	2.13	0.49
23:DB:899:A:H3'	23:DB:900:A:H8	1.78	0.49
23:DB:909:A:H2'	23:DB:912:C:C5	2.46	0.49
23:DB:926:G:H2'	23:DB:927:A:H8	1.78	0.49
25:DC:90:ILE:HA	25:DC:103:ILE:O	2.13	0.49
23:DB:782:A:N7	25:DC:219:VAL:HG21	2.27	0.49
26:DD:136:ASN:HD21	26:DD:140:HIS:N	2.10	0.49
26:DD:55:LYS:HB3	26:DD:55:LYS:NZ	2.28	0.49
47:DF:121:PHE:HB3	47:DF:127:TYR:CE2	2.48	0.49
47:DF:7:TYR:O	47:DF:12:VAL:HG23	2.12	0.49
47:DF:1:ALA:HB2	47:DF:93:GLU:OE2	2.12	0.49
48:DG:87:GLN:HE22	48:DG:164:ALA:HB2	1.77	0.49
24:DI:11:GLN:HA	24:DI:55:PRO:HA	1.93	0.49
41:DJ:34:ARG:CD	41:DJ:39:LYS:HB3	2.43	0.49
41:DJ:69:ARG:O	41:DJ:90:GLU:HG3	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DL:3:LEU:O	37:DL:5:THR:N	2.45	0.49
28:DP:75:THR:CG2	28:DP:76:HIS:N	2.74	0.49
1:AA:1176:A:H2'	1:AA:1177:G:O4'	2.13	0.49
1:AA:1226:C:H5''	12:AM:101:THR:CB	2.42	0.49
1:AA:624:C:H2'	1:AA:625:U:C6	2.47	0.49
1:AA:86:G:H1'	1:AA:88:U:C4	2.48	0.49
20:AB:221:ARG:NH1	20:AB:221:ARG:HB3	2.20	0.49
2:AC:70:ALA:CA	2:AC:105:VAL:HG21	2.39	0.49
3:AD:94:GLU:CG	3:AD:185:PRO:HG3	2.43	0.49
5:AF:100:SER:HA	17:AR:23:LYS:CE	2.41	0.49
8:AI:49:GLN:N	8:AI:50:PRO:HD2	2.27	0.49
8:AI:51:LEU:HB3	8:AI:56:MET:HB3	1.94	0.49
8:AI:98:ARG:HA	8:AI:103:VAL:HG22	1.93	0.49
14:AO:30:ALA:HA	14:AO:85:LEU:HD21	1.95	0.49
34:B3:41:ARG:HA	34:B3:44:ARG:HH12	1.76	0.49
32:B4:1:MET:HE2	32:B4:1:MET:O	2.13	0.49
32:B4:36:ARG:HG2	32:B4:37:GLN:H	1.78	0.49
22:BA:32:U:C4'	22:BA:52:A:H62	2.25	0.49
23:BB:1819:A:H5''	25:BC:159:THR:HG21	1.93	0.49
23:BB:1845:G:O2'	23:BB:1846:G:H5'	2.13	0.49
23:BB:1922:G:H2'	23:BB:1923:U:C6	2.48	0.49
23:BB:1985:C:O2'	23:BB:1986:C:H5'	2.12	0.49
23:BB:2008:C:H2'	23:BB:2009:A:C8	2.47	0.49
23:BB:26:G:H1'	23:BB:514:A:N6	2.27	0.49
23:BB:2722:G:H2'	23:BB:2723:C:H6	1.78	0.49
23:BB:2746:U:H4'	48:BG:137:LYS:HG3	1.95	0.49
23:BB:2880:C:C1'	42:BN:91:ALA:HB3	2.43	0.49
23:BB:2893:A:C4'	23:BB:2894:G:H5'	2.43	0.49
23:BB:845:A:N3	23:BB:847:U:H1'	2.28	0.49
25:BC:141:HIS:CG	25:BC:142:ASN:H	2.30	0.49
37:BL:135:ILE:HG23	37:BL:136:GLU:H	1.78	0.49
23:BB:923:G:H1'	52:BW:23:LYS:HZ1	1.78	0.49
1:CA:1376:U:H2'	1:CA:1377:A:C8	2.48	0.49
6:CG:2:ARG:NH1	1:CA:1379:G:N7	2.60	0.49
1:CA:237:G:H2'	1:CA:238:A:H8	1.78	0.49
20:CB:166:ASP:OD1	20:CB:190:SER:HA	2.13	0.49
3:CD:152:SER:O	3:CD:155:LYS:HG2	2.12	0.49
3:CD:160:LEU:N	3:CD:160:LEU:HD13	2.23	0.49
4:CE:82:HIS:CE1	4:CE:146:MET:HA	2.47	0.49
8:CI:98:ARG:HA	8:CI:103:VAL:HG22	1.94	0.49
21:CU:52:VAL:HG13	21:CU:53:LYS:N	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:33:G:O2'	22:DA:34:A:H5'	2.13	0.49
23:DB:1443:U:H2'	23:DB:1444:G:H8	1.78	0.49
23:DB:1712:U:H2'	23:DB:1713:A:C8	2.48	0.49
23:DB:17:G:H2'	23:DB:18:U:H6	1.78	0.49
23:DB:2867:G:N3	23:DB:2867:G:C2'	2.75	0.49
23:DB:513:A:O5'	23:DB:513:A:H8	1.95	0.49
23:DB:679:C:O2'	23:DB:680:C:H5'	2.13	0.49
29:DE:58:LYS:HD3	29:DE:60:TRP:CD1	2.48	0.49
29:DE:60:TRP:CZ3	29:DE:62:GLN:HA	2.48	0.49
29:DE:4:VAL:HG12	29:DE:6:LYS:H	1.77	0.49
47:DF:8:LYS:HA	47:DF:12:VAL:HG21	1.95	0.49
40:DH:5:LEU:HD12	40:DH:17:ASP:HB3	1.95	0.49
40:DH:60:GLU:OE2	40:DH:63:ALA:HA	2.13	0.49
24:DI:57:VAL:HG23	24:DI:71:LYS:NZ	2.27	0.49
41:DJ:70:THR:HG22	41:DJ:90:GLU:OE2	2.12	0.49
27:DK:119:ALA:CB	27:DK:120:PRO:HD3	2.38	0.49
37:DL:134:ALA:HA	37:DL:137:ALA:HB3	1.93	0.49
42:DN:13:ASN:ND2	42:DN:13:ASN:H	2.10	0.49
44:DQ:63:ARG:HH22	44:DQ:96:ASP:HA	1.77	0.49
44:DQ:86:SER:O	44:DQ:88:GLU:N	2.46	0.49
50:DT:85:VAL:C	50:DT:86:THR:HG23	2.33	0.49
35:DV:42:LEU:H	35:DV:42:LEU:CD2	2.07	0.49
39:DX:7:ARG:HA	39:DX:7:ARG:CZ	2.43	0.49
51:DZ:5:CYS:HB3	51:DZ:10:LYS:H	1.78	0.49
1:AA:1010:U:H2'	1:AA:1011:C:C6	2.48	0.49
1:AA:279:A:H5''	1:AA:280:C:H3'	1.92	0.49
1:AA:411:A:C4	1:AA:413:G:H1'	2.47	0.49
3:AD:22:SER:H	3:AD:109:THR:HG22	1.78	0.49
4:AE:101:GLY:H	4:AE:121:ASN:HD21	1.59	0.49
4:AE:114:LEU:O	4:AE:119:VAL:HG23	2.12	0.49
4:AE:17:VAL:HG23	4:AE:33:THR:O	2.12	0.49
8:AI:10:ARG:HG3	8:AI:105:ARG:HH21	1.77	0.49
14:AO:17:ARG:O	14:AO:18:ASP:HB3	2.12	0.49
17:AR:38:ILE:H	17:AR:38:ILE:HD13	1.78	0.49
36:B2:44:VAL:O	36:B2:45:SER:C	2.50	0.49
53:B6:51:PRO:O	53:B6:53:ASN:N	2.46	0.49
53:B6:76:LEU:HB3	53:B6:77:LYS:NZ	2.26	0.49
23:BB:129:C:H2'	23:BB:130:C:C6	2.47	0.49
23:BB:146:A:H2'	23:BB:147:C:C6	2.48	0.49
23:BB:1487:U:H2'	23:BB:1488:C:H6	1.77	0.49
23:BB:1774:C:O2	23:BB:1774:C:H2'	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1912:A:H8	23:BB:1916:A:N6	2.10	0.49
23:BB:2339:C:H2'	23:BB:2340:A:C8	2.48	0.49
23:BB:2408:U:H2'	23:BB:2409:G:H8	1.78	0.49
23:BB:2415:G:H4'	37:BL:66:PHE:HB2	1.94	0.49
23:BB:2700:A:H2'	23:BB:2701:U:H6	1.77	0.49
23:BB:2785:C:H2'	23:BB:2786:U:C6	2.48	0.49
23:BB:340:A:H2'	23:BB:341:C:O4'	2.12	0.49
23:BB:564:C:O2'	23:BB:565:C:H5'	2.13	0.49
23:BB:709:U:H2'	23:BB:710:U:C6	2.48	0.49
23:BB:727:A:OP1	23:BB:1431:A:O2'	2.30	0.49
25:BC:128:THR:HA	25:BC:190:THR:CA	2.43	0.49
47:BF:11:VAL:HG12	47:BF:12:VAL:N	2.23	0.49
40:BH:114:GLU:HG3	40:BH:134:VAL:HA	1.95	0.49
40:BH:114:GLU:CB	40:BH:134:VAL:HA	2.43	0.49
40:BH:83:LYS:O	40:BH:91:PHE:N	2.46	0.49
41:BJ:44:TYR:CD2	44:BQ:59:LEU:HD21	2.48	0.49
23:BB:2261:C:N4	52:BW:10:ARG:HB3	2.28	0.49
30:BY:2:LYS:HD3	30:BY:2:LYS:H	1.77	0.49
1:CA:1298:U:H4'	1:CA:1299:A:C4	2.47	0.49
1:CA:250:A:H1'	1:CA:252:U:C5	2.47	0.49
1:CA:308:C:H2'	1:CA:309:A:C8	2.48	0.49
1:CA:415:A:H3'	1:CA:416:G:H8	1.77	0.49
1:CA:709:U:H2'	1:CA:710:G:C8	2.48	0.49
1:CA:747:A:H2'	1:CA:748:G:C4'	2.42	0.49
20:CB:212:TYR:O	20:CB:216:VAL:HG22	2.12	0.49
20:CB:221:ARG:CB	20:CB:221:ARG:HH11	2.21	0.49
2:CC:182:ASP:HB2	2:CC:203:LYS:HE2	1.94	0.49
2:CC:48:LYS:HD3	2:CC:48:LYS:H	1.77	0.49
3:CD:160:LEU:HA	3:CD:163:GLN:HB2	1.95	0.49
8:CI:20:ILE:HG23	8:CI:60:LEU:CD1	2.42	0.49
9:CJ:17:LEU:HD12	9:CJ:96:VAL:HG13	1.95	0.49
12:CM:58:GLU:O	12:CM:61:LYS:HG2	2.13	0.49
14:CO:47:LYS:O	14:CO:53:ARG:NH2	2.45	0.49
18:CS:36:ARG:O	18:CS:69:LYS:HD2	2.13	0.49
31:D0:38:LEU:HB3	31:D0:41:HIS:NE2	2.27	0.49
31:D0:51:ARG:O	31:D0:52:LYS:HB2	2.12	0.49
33:D1:24:LYS:HD3	33:D1:52:LYS:O	2.13	0.49
23:DB:1161:C:H2'	23:DB:1162:G:H8	1.78	0.49
23:DB:1275:A:N3	23:DB:1275:A:H2'	2.28	0.49
23:DB:1442:U:H2'	23:DB:1443:U:C6	2.47	0.49
23:DB:146:A:H2'	23:DB:147:C:C6	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:121:G:H4'	23:DB:149:A:H5'	1.94	0.49
23:DB:1585:C:H2'	23:DB:1586:A:O4'	2.13	0.49
23:DB:1590:A:H2'	23:DB:1591:A:C8	2.48	0.49
23:DB:1824:G:O3'	25:DC:246:PRO:HD3	2.13	0.49
23:DB:2772:C:H2'	23:DB:2773:C:H6	1.78	0.49
23:DB:452:G:OP1	29:DE:53:THR:HG23	2.12	0.49
23:DB:558:U:P	41:DJ:113:PRO:HG2	2.51	0.49
23:DB:786:C:O2'	23:DB:787:C:H5'	2.13	0.49
23:DB:845:A:N3	23:DB:847:U:H1'	2.27	0.49
26:DD:14:ILE:HG23	26:DD:22:ILE:HB	1.93	0.49
26:DD:55:LYS:H	26:DD:76:GLY:H	1.61	0.49
29:DE:145:ASP:OD2	29:DE:183:PHE:HA	2.13	0.49
48:DG:147:LEU:O	48:DG:150:TYR:HB2	2.13	0.49
48:DG:153:PRO:HG3	48:DG:162:ARG:HB3	1.94	0.49
40:DH:133:GLN:HA	40:DH:139:PHE:CB	2.42	0.49
38:DM:19:GLY:HA3	38:DM:38:ARG:HH22	1.78	0.49
43:DO:17:LYS:HE2	43:DO:21:LEU:HD21	1.95	0.49
30:DY:21:ALA:O	30:DY:24:LEU:HB3	2.12	0.49
1:AA:1009:U:H2'	1:AA:1010:U:C6	2.48	0.49
1:AA:1010:U:H2'	1:AA:1011:C:H6	1.78	0.49
1:AA:1151:A:O2'	1:AA:1152:A:H8	1.96	0.49
1:AA:1260:G:OP1	1:AA:1284:C:H4'	2.13	0.49
1:AA:202:G:H4'	1:AA:469:C:H5'	1.95	0.49
1:AA:462:G:H5''	1:AA:462:G:C8	2.48	0.49
1:AA:674:G:H2'	1:AA:675:A:C8	2.45	0.49
1:AA:818:G:C2'	1:AA:819:A:H5''	2.42	0.49
1:AA:909:A:H2'	1:AA:910:C:O4'	2.12	0.49
1:AA:1074:G:O2'	20:AB:101:THR:HG23	2.13	0.49
20:AB:99:MET:HA	20:AB:106:VAL:HG21	1.95	0.49
3:AD:96:ARG:HB3	3:AD:98:ASP:OD2	2.12	0.49
6:AG:129:ASN:HA	6:AG:134:VAL:HG21	1.93	0.49
9:AJ:10:LEU:HD11	9:AJ:25:ILE:HD12	1.94	0.49
12:AM:112:ARG:HB3	12:AM:114:PRO:HD3	1.95	0.49
12:AM:77:LYS:O	12:AM:80:MET:HB3	2.13	0.49
14:AO:43:PHE:CE1	14:AO:56:LEU:HD22	2.47	0.49
18:AS:63:ASP:O	18:AS:66:VAL:HG22	2.13	0.49
53:B6:30:THR:HG21	53:B6:179:LYS:HD2	1.94	0.49
23:BB:1351:C:O2'	23:BB:1571:A:H1'	2.13	0.49
23:BB:1444:G:H2'	23:BB:1445:G:H8	1.78	0.49
23:BB:1552:A:C2'	23:BB:1553:A:H5'	2.41	0.49
23:BB:1623:G:O2'	23:BB:1624:U:H5'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1760:C:H2'	23:BB:1761:C:O4'	2.12	0.49
23:BB:218:A:H2'	23:BB:219:A:O4'	2.13	0.49
23:BB:2651:C:O2'	23:BB:2652:C:H5'	2.13	0.49
25:BC:18:VAL:O	25:BC:18:VAL:HG13	2.13	0.49
25:BC:94:LEU:HD22	25:BC:100:ARG:NH1	2.27	0.49
24:BI:2:LYS:NZ	24:BI:2:LYS:HB3	2.27	0.49
24:BI:74:PRO:O	24:BI:77:VAL:HG22	2.12	0.49
44:BQ:77:LYS:HA	44:BQ:80:ASN:HB3	1.94	0.49
44:BQ:96:ASP:C	44:BQ:98:ALA:N	2.66	0.49
50:BT:18:GLU:O	50:BT:20:ALA:N	2.39	0.49
50:BT:28:ASN:HB2	50:BT:91:GLN:HE22	1.76	0.49
50:BT:85:VAL:C	50:BT:86:THR:HG23	2.34	0.49
52:BW:49:ASN:ND2	52:BW:50:VAL:N	2.61	0.49
30:BY:21:ALA:O	30:BY:24:LEU:HB3	2.13	0.49
51:BZ:47:VAL:HG23	51:BZ:47:VAL:O	2.13	0.49
1:CA:919:A:N3	1:CA:1080:A:H2	2.11	0.49
1:CA:1430:A:H2'	1:CA:1431:A:O4'	2.12	0.49
1:CA:169:C:O2'	1:CA:170:U:H5'	2.12	0.49
1:CA:920:U:H2'	1:CA:921:U:H6	1.76	0.49
9:CJ:56:HIS:HA	1:CA:973:G:H1'	1.94	0.49
15:CP:1:MET:HA	15:CP:1:MET:HE3	1.95	0.49
22:DA:109:A:H2'	22:DA:110:C:H6	1.76	0.49
23:DB:1360:G:H2'	23:DB:1361:G:H5'	1.93	0.49
23:DB:1548:A:H2'	23:DB:1549:A:H8	1.76	0.49
23:DB:1725:U:H2'	23:DB:1726:C:C6	2.48	0.49
23:DB:2182:U:H2'	23:DB:2183:A:H8	1.74	0.49
23:DB:2250:G:H8	23:DB:2250:G:O5'	1.96	0.49
23:DB:2756:U:H1'	23:DB:2757:A:H5''	1.95	0.49
23:DB:2814:A:H2'	23:DB:2815:C:H6	1.77	0.49
23:DB:2852:G:H2'	23:DB:2853:C:C6	2.47	0.49
23:DB:445:C:O2'	23:DB:446:G:H5'	2.12	0.49
23:DB:623:C:H2'	23:DB:624:C:C6	2.48	0.49
23:DB:623:C:H2'	23:DB:624:C:H6	1.78	0.49
23:DB:809:G:O2'	23:DB:810:U:H5'	2.13	0.49
23:DB:856:G:C1'	52:DW:23:LYS:HB3	2.38	0.49
25:DC:106:PRO:O	25:DC:109:LEU:HD13	2.13	0.49
25:DC:141:HIS:CG	25:DC:142:ASN:H	2.31	0.49
47:DF:11:VAL:HG12	47:DF:12:VAL:N	2.25	0.49
47:DF:59:ILE:HG12	47:DF:137:PHE:CE2	2.48	0.49
42:DN:96:ARG:HG2	42:DN:96:ARG:HH21	1.77	0.49
39:DX:18:LEU:O	39:DX:22:LEU:HB3	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DX:29:ARG:NH1	50:DT:12:ARG:HG2	2.28	0.49
1:AA:210:C:H1'	1:AA:211:G:N2	2.28	0.49
1:AA:35:G:H2'	1:AA:36:C:H6	1.78	0.49
1:AA:36:C:O3'	11:AL:119:LYS:HA	2.13	0.49
1:AA:586:C:C2'	1:AA:587:G:H5'	2.43	0.49
4:AE:84:VAL:CG1	4:AE:146:MET:HB3	2.43	0.49
6:AG:110:ARG:NE	6:AG:122:GLU:HB2	2.26	0.49
1:AA:1367:C:H5''	8:AI:115:VAL:HG23	1.93	0.49
10:AK:16:SER:HA	10:AK:77:GLY:O	2.13	0.49
11:AL:65:TYR:HB3	11:AL:95:HIS:CD2	2.48	0.49
22:BA:14:U:C1'	22:BA:106:G:H21	2.26	0.49
23:BB:1080:A:O2'	23:BB:1081:U:H5'	2.12	0.49
23:BB:1812:U:H4'	25:BC:44:ASN:OD1	2.12	0.49
23:BB:2217:G:O2'	23:BB:2218:G:H5'	2.13	0.49
23:BB:21:A:H2'	23:BB:22:C:C6	2.48	0.49
23:BB:459:U:O2'	23:BB:460:A:H5'	2.13	0.49
23:BB:623:C:H2'	23:BB:624:C:C6	2.48	0.49
23:BB:926:G:H2'	23:BB:927:A:H8	1.78	0.49
23:BB:1805:A:N3	25:BC:49:THR:CG2	2.76	0.49
47:BF:169:LEU:HB3	47:BF:174:PHE:CD1	2.48	0.49
47:BF:116:LEU:N	47:BF:177:ARG:HB2	2.27	0.49
40:BH:121:VAL:HG13	40:BH:128:HIS:NE2	2.28	0.49
40:BH:94:ILE:HG13	40:BH:146:VAL:HG22	1.95	0.49
42:BN:9:GLN:HA	42:BN:17:ARG:NE	2.28	0.49
28:BP:56:SER:HB2	28:BP:75:THR:HG22	1.95	0.49
45:BS:38:TYR:O	45:BS:39:THR:HG23	2.13	0.49
46:BU:81:ARG:HG3	46:BU:81:ARG:NH2	2.27	0.49
30:BY:4:ILE:HG12	30:BY:39:ASP:OD2	2.12	0.49
51:BZ:5:CYS:HB3	51:BZ:10:LYS:H	1.77	0.49
1:CA:1089:G:H1'	1:CA:1167:A:N6	2.28	0.49
1:CA:238:A:C2'	1:CA:239:U:H5''	2.41	0.49
1:CA:586:C:C2'	1:CA:587:G:H5'	2.43	0.49
1:CA:663:A:O2'	1:CA:664:G:H5'	2.13	0.49
3:CD:29:THR:HG22	3:CD:30:LYS:HD3	1.95	0.49
6:CG:144:ALA:O	6:CG:146:ALA:N	2.39	0.49
11:CL:35:ARG:HE	11:CL:36:VAL:H	1.61	0.49
11:CL:6:LEU:HD22	11:CL:11:ARG:HG2	1.94	0.49
12:CM:28:ARG:HB2	1:CA:1329:A:OP1	2.13	0.49
16:CQ:4:ILE:O	16:CQ:4:ILE:HD12	2.13	0.49
17:CR:38:ILE:H	17:CR:38:ILE:HD13	1.78	0.49
23:DB:1829:A:N3	25:DC:14:HIS:CE1	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1904:G:H1'	23:DB:1927:A:N1	2.27	0.49
23:DB:2049:G:O2'	23:DB:2050:C:H5'	2.13	0.49
23:DB:218:A:H2'	23:DB:219:A:O4'	2.13	0.49
23:DB:2290:G:H2'	23:DB:2291:U:C6	2.47	0.49
23:DB:2700:A:H2'	23:DB:2701:U:H6	1.77	0.49
23:DB:823:C:H2'	23:DB:824:U:C6	2.48	0.49
29:DE:5:LEU:HD13	29:DE:122:GLU:HG2	1.93	0.49
47:DF:177:ARG:CZ	47:DF:178:LYS:H	2.26	0.49
48:DG:136:ASP:HB3	48:DG:139:VAL:HB	1.95	0.49
40:DH:117:LEU:HG	40:DH:119:ASN:H	1.77	0.49
40:DH:83:LYS:H	40:DH:83:LYS:HD2	1.78	0.49
27:DK:34:GLY:O	27:DK:36:GLY:N	2.45	0.49
38:DM:12:MET:HB2	38:DM:72:PRO:HD2	1.95	0.49
28:DP:20:ARG:HG2	28:DP:20:ARG:HH21	1.77	0.49
44:DQ:86:SER:HB3	49:DR:50:GLY:O	2.13	0.49
49:DR:49:ILE:HG21	49:DR:53:PHE:C	2.33	0.49
46:DU:48:VAL:N	46:DU:53:GLN:HB2	2.16	0.49
35:DV:76:ASP:HA	38:DM:136:MET:HE3	1.94	0.49
1:AA:1225:A:H5'	1:AA:1226:C:OP2	2.13	0.48
1:AA:1237:C:H4'	1:AA:1334:G:N2	2.28	0.48
1:AA:412:A:O2'	1:AA:413:G:H5''	2.12	0.48
1:AA:724:G:O2'	1:AA:725:G:H5'	2.12	0.48
20:AB:23:ASN:C	20:AB:23:ASN:ND2	2.65	0.48
5:AF:6:ILE:HD11	5:AF:8:PHE:HD2	1.78	0.48
7:AH:74:ILE:O	7:AH:74:ILE:HG23	2.13	0.48
11:AL:121:PRO:HB2	11:AL:122:LYS:HE2	1.95	0.48
13:AN:15:LEU:HA	13:AN:18:LYS:HD2	1.94	0.48
14:AO:56:LEU:HA	14:AO:59:MET:CE	2.43	0.48
15:AP:36:VAL:HG13	15:AP:36:VAL:O	2.13	0.48
21:AU:16:ARG:NH2	21:AU:19:LYS:NZ	2.57	0.48
36:B2:19:ARG:NH2	36:B2:19:ARG:HB3	2.28	0.48
22:BA:32:U:H4'	22:BA:52:A:H62	1.76	0.48
23:BB:1050:A:H2'	23:BB:1051:G:C8	2.47	0.48
23:BB:1847:A:H4'	23:BB:1848:A:C8	2.48	0.48
23:BB:1915:U:H2'	23:BB:1916:A:C4'	2.42	0.48
23:BB:2286:G:H3'	33:B1:29:LYS:HZ1	1.78	0.48
23:BB:2557:G:H2'	23:BB:2558:C:H6	1.74	0.48
23:BB:2702:G:H2'	23:BB:2703:C:H6	1.78	0.48
23:BB:321:U:O4'	29:BE:159:LEU:HG	2.11	0.48
23:BB:527:C:O4'	23:BB:527:C:O2	2.26	0.48
23:BB:975:A:H1'	23:BB:990:A:C2	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BD:118:PHE:HZ	26:BD:123:LYS:NZ	2.10	0.48
26:BD:9:VAL:CA	26:BD:197:THR:HG23	2.32	0.48
47:BF:110:ILE:HG21	47:BF:113:PHE:HB3	1.95	0.48
47:BF:121:PHE:HB3	47:BF:127:TYR:CE2	2.48	0.48
48:BG:147:LEU:O	48:BG:150:TYR:HB2	2.13	0.48
48:BG:61:TRP:CE3	48:BG:61:TRP:HA	2.47	0.48
48:BG:30:GLY:CA	48:BG:78:VAL:HA	2.33	0.48
41:BJ:34:ARG:CD	41:BJ:39:LYS:HB3	2.43	0.48
41:BJ:69:ARG:O	41:BJ:90:GLU:HG3	2.13	0.48
41:BJ:8:PRO:HG3	41:BJ:48:VAL:HG22	1.94	0.48
37:BL:127:VAL:HG22	37:BL:128:THR:O	2.13	0.48
37:BL:77:ILE:O	37:BL:110:VAL:O	2.30	0.48
28:BP:25:VAL:HA	28:BP:85:VAL:HA	1.94	0.48
46:BU:10:VAL:O	46:BU:21:ARG:HA	2.12	0.48
52:BW:36:ILE:HB	52:BW:39:GLN:HE22	1.78	0.48
1:CA:1011:C:H2'	1:CA:1012:A:H8	1.78	0.48
1:CA:105:G:H2'	1:CA:106:C:C6	2.48	0.48
1:CA:109:A:H4'	1:CA:110:C:OP2	2.13	0.48
1:CA:202:G:H4'	1:CA:469:C:H5'	1.95	0.48
1:CA:65:A:C8	1:CA:381:C:N4	2.81	0.48
1:CA:735:C:O2'	1:CA:736:C:H5'	2.12	0.48
1:CA:96:U:H2'	1:CA:97:G:H8	1.78	0.48
20:CB:64:GLY:HA2	20:CB:158:ASP:OD1	2.12	0.48
2:CC:24:ASN:O	2:CC:26:LYS:N	2.45	0.48
5:CF:47:LEU:HD12	5:CF:55:HIS:HA	1.95	0.48
7:CH:77:VAL:HG23	7:CH:126:CYS:HA	1.95	0.48
8:CI:46:VAL:O	8:CI:49:GLN:HB2	2.13	0.48
8:CI:61:ASP:O	8:CI:62:LEU:HD13	2.13	0.48
9:CJ:40:ILE:HB	9:CJ:73:LEU:HB3	1.94	0.48
9:CJ:51:VAL:CG2	13:CN:80:ARG:HB2	2.40	0.48
15:CP:36:VAL:O	15:CP:36:VAL:HG13	2.13	0.48
23:DB:1259:G:H2'	23:DB:1260:A:C8	2.48	0.48
23:DB:189:G:H2'	23:DB:205:G:H22	1.77	0.48
23:DB:2300:C:H2'	23:DB:2301:C:H6	1.78	0.48
23:DB:2678:C:H2'	23:DB:2679:A:H8	1.78	0.48
23:DB:2840:C:H2'	23:DB:2841:C:H6	1.78	0.48
25:DC:109:LEU:H	25:DC:109:LEU:CD2	2.26	0.48
25:DC:118:GLY:H	25:DC:121:ALA:HB2	1.78	0.48
25:DC:137:GLY:H	25:DC:163:ILE:HB	1.78	0.48
26:DD:105:LYS:HA	26:DD:177:VAL:HG22	1.95	0.48
29:DE:104:ALA:O	29:DE:108:ILE:HG22	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DE:196:VAL:O	29:DE:200:LEU:HD23	2.12	0.48
40:DH:94:ILE:HB	40:DH:122:LEU:HG	1.94	0.48
24:DI:27:LEU:HD23	24:DI:27:LEU:N	2.20	0.48
37:DL:131:ALA:C	37:DL:133:ALA:H	2.16	0.48
38:DM:69:PRO:HA	38:DM:94:ALA:HB2	1.95	0.48
44:DQ:60:TRP:O	44:DQ:64:ILE:HG12	2.12	0.48
50:DT:40:LYS:HA	50:DT:43:ILE:CG2	2.43	0.48
1:AA:1085:U:H3'	1:AA:1086:U:C5	2.47	0.48
1:AA:1489:G:H2'	1:AA:1490:U:H6	1.78	0.48
1:AA:696:A:H1'	1:AA:786:G:O2'	2.13	0.48
1:AA:947:G:H5''	12:AM:106:ARG:HB2	1.95	0.48
2:AC:26:LYS:HG3	2:AC:27:GLU:H	1.78	0.48
1:AA:972:C:P	9:AJ:59:LYS:HD3	2.53	0.48
11:AL:107:LYS:H	11:AL:107:LYS:CD	2.25	0.48
11:AL:48:LEU:O	11:AL:50:LYS:HD2	2.13	0.48
12:AM:22:TYR:CD1	12:AM:65:GLU:HB3	2.48	0.48
21:AU:8:ASN:O	21:AU:9:GLU:HB3	2.12	0.48
31:B0:53:VAL:HG12	31:B0:54:ILE:H	1.77	0.48
22:BA:6:G:H2'	22:BA:7:G:H8	1.77	0.48
23:BB:1104:C:H2'	23:BB:1105:U:H6	1.77	0.48
23:BB:1727:C:H2'	23:BB:1728:C:H6	1.74	0.48
23:BB:2480:C:O2'	23:BB:2481:G:H5'	2.12	0.48
23:BB:2885:G:H21	31:B0:31:LYS:HG2	1.78	0.48
23:BB:480:A:H3'	23:BB:481:G:H5''	1.95	0.48
25:BC:196:ASN:O	25:BC:197:ALA:HB3	2.13	0.48
29:BE:15:SER:HB2	29:BE:197:GLU:OE2	2.12	0.48
23:BB:674:G:C1'	29:BE:69:ARG:HD2	2.40	0.48
47:BF:168:LEU:O	47:BF:169:LEU:HB2	2.13	0.48
47:BF:34:THR:O	47:BF:35:LEU:HB2	2.14	0.48
48:BG:6:ALA:HB3	48:BG:68:ARG:CD	2.43	0.48
40:BH:54:LEU:CD1	40:BH:55:GLU:H	2.20	0.48
40:BH:82:SER:HB2	40:BH:94:ILE:CD1	2.41	0.48
24:BI:33:ASN:HD21	24:BI:64:ARG:NH1	2.06	0.48
24:BI:62:ALA:C	24:BI:64:ARG:H	2.16	0.48
41:BJ:81:ILE:HG12	41:BJ:82:GLY:N	2.28	0.48
43:BO:16:ARG:HH21	43:BO:19:GLN:NE2	2.10	0.48
44:BQ:60:TRP:O	44:BQ:64:ILE:HG12	2.13	0.48
45:BS:43:ALA:O	45:BS:47:VAL:HG13	2.13	0.48
1:CA:1522:U:O2'	1:CA:1523:G:H5'	2.14	0.48
11:CL:119:LYS:HA	1:CA:36:C:O3'	2.13	0.48
1:CA:555:U:H2'	1:CA:556:C:H6	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:662:U:H2'	1:CA:663:A:C8	2.48	0.48
20:CB:216:VAL:HG23	20:CB:217:ALA:N	2.29	0.48
2:CC:70:ALA:HA	2:CC:105:VAL:CG1	2.42	0.48
6:CG:21:LEU:N	6:CG:21:LEU:HD23	2.28	0.48
11:CL:82:ARG:HB2	11:CL:97:VAL:HG22	1.95	0.48
12:CM:101:THR:CB	1:CA:1226:C:H5'	2.43	0.48
10:CK:115:ILE:HD11	17:CR:72:ARG:HH22	1.77	0.48
18:CS:63:ASP:O	18:CS:66:VAL:HG22	2.13	0.48
32:D4:17:VAL:HG12	32:D4:18:LYS:N	2.28	0.48
22:DA:61:G:H2'	22:DA:62:C:H6	1.78	0.48
23:DB:1386:C:H1'	23:DB:1470:A:H1'	1.94	0.48
23:DB:140:C:H4'	23:DB:141:G:C5	2.48	0.48
23:DB:1536:C:H1'	23:DB:1537:G:C2	2.48	0.48
23:DB:1727:C:H2'	23:DB:1728:C:H6	1.76	0.48
23:DB:1818:U:HO2'	23:DB:1819:A:P	2.37	0.48
23:DB:532:A:N1	23:DB:2020:A:H1'	2.28	0.48
23:DB:2737:G:H2'	23:DB:2738:A:C8	2.48	0.48
23:DB:499:U:H2'	23:DB:500:G:O4'	2.13	0.48
23:DB:538:A:N6	23:DB:555:G:O2'	2.46	0.48
23:DB:664:G:H2'	23:DB:665:U:H6	1.78	0.48
25:DC:128:THR:HA	25:DC:190:THR:CA	2.44	0.48
25:DC:128:THR:HG23	25:DC:190:THR:HG22	1.96	0.48
25:DC:6:LYS:CB	25:DC:8:THR:HG22	2.43	0.48
47:DF:98:PHE:O	47:DF:102:LEU:HD12	2.13	0.48
48:DG:24:THR:HB	48:DG:32:LEU:CD2	2.43	0.48
48:DG:77:GLY:C	48:DG:79:THR:H	2.17	0.48
40:DH:117:LEU:HD12	40:DH:118:PRO:CD	2.38	0.48
23:DB:958:U:O4	38:DM:16:ARG:HA	2.13	0.48
42:DN:55:ALA:HA	42:DN:80:PHE:CD1	2.47	0.48
50:DT:40:LYS:HG3	50:DT:60:THR:HG23	1.94	0.48
35:DV:62:THR:CG2	35:DV:71:LYS:HG2	2.42	0.48
52:DW:76:ARG:HB3	52:DW:78:PHE:CE2	2.48	0.48
1:AA:1095:U:H2'	1:AA:1096:C:C6	2.48	0.48
1:AA:1239:A:H4'	1:AA:1240:U:H5'	1.95	0.48
1:AA:425:G:H2'	1:AA:426:U:C6	2.49	0.48
1:AA:928:G:O2'	1:AA:929:G:H5'	2.13	0.48
20:AB:87:ASP:CB	20:AB:224:ARG:HH12	2.25	0.48
4:AE:22:LYS:O	4:AE:29:ILE:HB	2.13	0.48
5:AF:46:GLN:NE2	5:AF:56:LYS:HE3	2.28	0.48
6:AG:14:ASP:HB3	6:AG:18:GLY:H	1.77	0.48
6:AG:65:LEU:HB3	6:AG:69:ARG:HE	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AK:52:ARG:HA	10:AK:56:LYS:HB3	1.95	0.48
19:AT:66:ILE:HG22	19:AT:67:HIS:N	2.27	0.48
23:BB:1681:G:O2'	23:BB:1762:A:H1'	2.13	0.48
23:BB:2896:C:H2'	23:BB:2897:U:H6	1.74	0.48
23:BB:853:C:O2'	23:BB:854:C:H5'	2.13	0.48
23:BB:969:G:H2'	23:BB:970:U:H6	1.78	0.48
25:BC:255:LYS:C	25:BC:257:ARG:H	2.15	0.48
26:BD:130:GLN:O	26:BD:131:ASP:C	2.51	0.48
29:BE:47:LYS:HB3	29:BE:51:GLU:HB2	1.95	0.48
47:BF:66:ILE:HA	47:BF:85:GLY:O	2.12	0.48
40:BH:4:ILE:HG13	40:BH:37:VAL:HG13	1.95	0.48
40:BH:73:ASN:ND2	40:BH:73:ASN:N	2.59	0.48
24:BI:21:PRO:CB	24:BI:22:PRO:HD3	2.40	0.48
24:BI:52:LEU:HD12	24:BI:52:LEU:N	2.28	0.48
41:BJ:25:LEU:HD13	41:BJ:26:GLY:N	2.28	0.48
23:BB:2547:A:H5''	27:BK:29:HIS:NE2	2.28	0.48
44:BQ:16:ILE:HG22	44:BQ:17:LEU:N	2.28	0.48
23:BB:534:U:H1'	44:BQ:44:TYR:HB3	1.96	0.48
41:BJ:44:TYR:CD1	44:BQ:63:ARG:HD3	2.48	0.48
23:BB:996:A:OP2	49:BR:10:LYS:HG2	2.13	0.48
49:BR:4:VAL:HG22	49:BR:40:MET:HB2	1.96	0.48
50:BT:59:ASN:O	50:BT:84:TYR:HB2	2.13	0.48
30:BY:16:LEU:HD23	30:BY:19:HIS:CD2	2.48	0.48
51:BZ:33:LEU:H	51:BZ:52:SER:HB2	1.78	0.48
1:CA:1366:C:H2'	1:CA:1367:C:C6	2.48	0.48
1:CA:210:C:H1'	1:CA:211:G:N2	2.29	0.48
1:CA:250:A:H3'	1:CA:250:A:N3	2.27	0.48
1:CA:320:A:H2'	1:CA:321:A:C8	2.48	0.48
1:CA:624:C:H2'	1:CA:625:U:H6	1.78	0.48
1:CA:812:G:HO2'	1:CA:813:U:H6	1.54	0.48
1:CA:818:G:C2'	1:CA:819:A:H5''	2.42	0.48
20:CB:160:LEU:HD13	20:CB:175:ALA:HB2	1.95	0.48
20:CB:186:VAL:HB	20:CB:190:SER:HB2	1.95	0.48
3:CD:170:LEU:HD12	3:CD:170:LEU:O	2.13	0.48
5:CF:97:THR:O	5:CF:98:GLU:CB	2.60	0.48
8:CI:47:VAL:HG23	8:CI:48:ARG:N	2.29	0.48
53:D6:43:VAL:HG11	53:D6:79:ILE:HG12	1.95	0.48
23:DB:1038:G:O2'	23:DB:1039:A:H5'	2.13	0.48
23:DB:2085:U:O2'	23:DB:2086:U:H5'	2.13	0.48
23:DB:1372:U:O2'	23:DB:2212:A:H8	1.96	0.48
23:DB:2341:G:H2'	23:DB:2342:C:H6	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2702:G:H2'	23:DB:2703:C:H6	1.77	0.48
23:DB:2795:C:C2	23:DB:2796:U:H1'	2.48	0.48
23:DB:2794:C:H2'	23:DB:2795:C:H6	1.77	0.48
23:DB:675:A:N3	23:DB:2443:C:O2'	2.43	0.48
26:DD:97:SER:HB3	26:DD:99:GLU:CG	2.43	0.48
29:DE:58:LYS:HD3	29:DE:60:TRP:HD1	1.77	0.48
48:DG:32:LEU:HD23	48:DG:33:THR:H	1.78	0.48
48:DG:1:SER:O	48:DG:3:VAL:HG22	2.13	0.48
40:DH:42:LYS:O	40:DH:45:GLU:HB2	2.12	0.48
23:DB:1098:A:O3'	24:DI:4:VAL:O	2.31	0.48
23:DB:2358:A:H61	37:DL:54:GLN:HE22	1.59	0.48
37:DL:9:ALA:HB3	37:DL:12:SER:OG	2.13	0.48
23:DB:2379:G:H4'	43:DO:21:LEU:HD11	1.95	0.48
28:DP:19:PHE:O	28:DP:20:ARG:HB2	2.13	0.48
44:DQ:85:ALA:O	44:DQ:86:SER:C	2.51	0.48
35:DV:79:ARG:HB3	35:DV:79:ARG:NH1	2.26	0.48
30:DY:2:LYS:HG2	30:DY:3:THR:N	2.27	0.48
1:AA:1260:G:H4'	1:AA:1283:U:O2'	2.12	0.48
1:AA:437:U:H5''	3:AD:151:GLN:NE2	2.28	0.48
1:AA:658:C:O2'	1:AA:659:U:H5'	2.13	0.48
20:AB:10:LYS:H	20:AB:10:LYS:HD2	1.79	0.48
20:AB:163:ILE:CD1	20:AB:209:VAL:HG12	2.43	0.48
33:B1:29:LYS:HE2	33:B1:31:GLU:OE1	2.12	0.48
36:B2:33:ARG:HH21	36:B2:33:ARG:CB	2.25	0.48
53:B6:83:ILE:HG13	53:B6:92:PRO:HG2	1.95	0.48
23:BB:1548:A:H2'	23:BB:1549:A:H8	1.77	0.48
23:BB:1515:A:H5'	23:BB:1557:C:C5'	2.44	0.48
23:BB:1636:U:H2'	23:BB:1637:A:C8	2.49	0.48
23:BB:215:G:C4'	23:BB:216:A:H4'	2.42	0.48
23:BB:2845:U:O2'	23:BB:2846:G:H5'	2.13	0.48
23:BB:565:C:O2'	23:BB:566:U:H5'	2.13	0.48
23:BB:982:C:H2'	23:BB:982:C:O2	2.14	0.48
25:BC:129:LEU:O	25:BC:188:ARG:HA	2.14	0.48
25:BC:134:ILE:HD12	25:BC:135:PRO:O	2.14	0.48
25:BC:166:ARG:NH2	25:BC:166:ARG:HB2	2.28	0.48
26:BD:32:ASN:N	26:BD:96:ILE:O	2.45	0.48
26:BD:97:SER:HB3	26:BD:99:GLU:CG	2.44	0.48
29:BE:48:THR:HG23	29:BE:51:GLU:HG3	1.94	0.48
47:BF:8:LYS:HA	47:BF:12:VAL:HG21	1.95	0.48
40:BH:67:ALA:HB3	40:BH:71:LYS:NZ	2.28	0.48
41:BJ:42:ALA:O	41:BJ:44:TYR:N	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BK:2:ILE:HD12	27:BK:2:ILE:N	2.29	0.48
38:BM:69:PRO:C	38:BM:71:LYS:H	2.17	0.48
28:BP:63:ILE:H	28:BP:69:VAL:HG22	1.78	0.48
44:BQ:85:ALA:O	44:BQ:86:SER:C	2.51	0.48
52:BW:35:ILE:O	52:BW:37:VAL:N	2.46	0.48
1:CA:1010:U:H2'	1:CA:1011:C:C6	2.48	0.48
1:CA:1095:U:H2'	1:CA:1096:C:C6	2.48	0.48
1:CA:1132:C:O2'	1:CA:1133:G:H5'	2.13	0.48
1:CA:1406:U:H2'	1:CA:1407:C:O4'	2.14	0.48
1:CA:1411:C:H2'	1:CA:1412:C:C6	2.48	0.48
1:CA:1488:G:O2'	1:CA:1489:G:H5'	2.12	0.48
1:CA:411:A:C4	1:CA:413:G:H1'	2.48	0.48
1:CA:437:U:H2'	1:CA:438:U:O4'	2.13	0.48
1:CA:821:G:H2'	1:CA:822:U:C6	2.49	0.48
1:CA:929:G:H2'	1:CA:930:C:H6	1.76	0.48
20:CB:57:ASN:HA	20:CB:60:ALA:HB3	1.96	0.48
6:CG:26:VAL:HB	6:CG:42:VAL:HG21	1.95	0.48
18:CS:39:ILE:HG13	18:CS:68:HIS:O	2.13	0.48
21:CU:24:LYS:O	21:CU:28:LEU:HG	2.14	0.48
53:D6:75:ALA:O	53:D6:77:LYS:N	2.47	0.48
53:D6:52:LEU:HD11	53:D6:79:ILE:HG23	1.95	0.48
23:DB:1265:A:H8	23:DB:1265:A:OP1	1.96	0.48
23:DB:1386:C:H2'	23:DB:1387:A:H8	1.79	0.48
23:DB:1612:C:O2'	36:D2:3:ARG:HB2	2.12	0.48
23:DB:1736:U:H2'	23:DB:1737:G:O4'	2.14	0.48
23:DB:2181:U:H2'	23:DB:2182:U:H6	1.78	0.48
23:DB:2263:C:H4'	23:DB:2329:U:H4'	1.95	0.48
23:DB:770:G:O2'	23:DB:771:G:H5'	2.13	0.48
25:DC:196:ASN:O	25:DC:197:ALA:HB3	2.13	0.48
26:DD:101:PHE:O	26:DD:102:ALA:HB2	2.13	0.48
23:DB:673:C:H5''	29:DE:76:PRO:HD2	1.94	0.48
41:DJ:100:VAL:O	41:DJ:104:ALA:HB2	2.12	0.48
27:DK:103:VAL:O	27:DK:122:VAL:HB	2.13	0.48
27:DK:71:ARG:CG	27:DK:105:ARG:HH21	2.27	0.48
23:DB:810:U:O4	37:DL:30:THR:HG22	2.12	0.48
42:DN:100:CYS:O	42:DN:101:GLY:O	2.30	0.48
28:DP:45:VAL:H	28:DP:60:VAL:HG12	1.78	0.48
23:DB:994:C:H1'	49:DR:10:LYS:HE3	1.96	0.48
35:DV:62:THR:HA	35:DV:71:LYS:HA	1.96	0.48
35:DV:72:VAL:HG11	35:DV:93:ARG:HA	1.95	0.48
35:DV:80:HIS:HB2	35:DV:85:LYS:HG3	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DY:23:LEU:HD23	30:DY:50:VAL:HG11	1.94	0.48
30:DY:2:LYS:CG	30:DY:3:THR:H	2.20	0.48
30:DY:4:ILE:HG12	30:DY:39:ASP:OD2	2.13	0.48
1:AA:1132:C:O2'	1:AA:1133:G:H5'	2.13	0.48
1:AA:614:C:O2'	1:AA:615:G:H5'	2.13	0.48
1:AA:687:A:C2	1:AA:704:A:C5	3.02	0.48
20:AB:125:PHE:CD2	20:AB:126:ASP:N	2.81	0.48
5:AF:68:GLN:HA	5:AF:71:ILE:CG1	2.43	0.48
10:AK:57:SER:O	10:AK:90:PRO:HG3	2.13	0.48
13:AN:79:SER:HG	13:AN:82:LYS:HG2	1.78	0.48
12:AM:86:ARG:NH1	18:AS:2:ARG:HH22	2.12	0.48
13:AN:40:ARG:NH1	18:AS:6:LYS:HB2	2.28	0.48
19:AT:5:SER:C	19:AT:7:LYS:H	2.16	0.48
21:AU:24:LYS:HB3	21:AU:24:LYS:HZ2	1.78	0.48
32:B4:1:MET:HE1	32:B4:36:ARG:HB2	1.94	0.48
53:B6:79:ILE:H	53:B6:79:ILE:HD12	1.79	0.48
23:BB:1552:A:H2'	23:BB:1553:A:C5'	2.43	0.48
23:BB:1599:U:H2'	23:BB:1600:C:H6	1.77	0.48
23:BB:2100:G:H3'	23:BB:2101:A:H8	1.78	0.48
23:BB:2179:C:H2'	23:BB:2180:U:C6	2.48	0.48
23:BB:2643:G:O2'	23:BB:2644:G:H5'	2.14	0.48
23:BB:2752:C:H2'	23:BB:2752:C:O2	2.12	0.48
23:BB:754:U:H2'	23:BB:755:U:H6	1.79	0.48
29:BE:58:LYS:HD3	29:BE:60:TRP:CD1	2.49	0.48
28:BP:47:ILE:HG13	28:BP:48:ALA:N	2.28	0.48
28:BP:7:LEU:H	28:BP:7:LEU:CD1	2.23	0.48
28:BP:92:ARG:NH1	28:BP:92:ARG:HG3	2.27	0.48
52:BW:19:ARG:H	52:BW:19:ARG:NE	2.11	0.48
51:BZ:38:PHE:HZ	51:BZ:56:MET:HG2	1.79	0.48
1:CA:1491:G:H2'	1:CA:1492:A:C8	2.49	0.48
1:CA:415:A:N1	1:CA:428:G:O6	2.47	0.48
1:CA:60:A:H1'	1:CA:61:G:O4'	2.13	0.48
1:CA:987:G:O2'	1:CA:988:G:H5'	2.13	0.48
20:CB:216:VAL:HG23	20:CB:217:ALA:H	1.79	0.48
2:CC:46:LEU:HD21	2:CC:86:LEU:HD22	1.96	0.48
3:CD:88:ASN:O	3:CD:92:LEU:HD23	2.14	0.48
5:CF:25:TYR:O	5:CF:29:ILE:HG13	2.13	0.48
6:CG:129:ASN:HA	6:CG:134:VAL:HG21	1.94	0.48
6:CG:14:ASP:OD2	6:CG:15:PRO:HD2	2.13	0.48
7:CH:85:TYR:CG	1:CA:598:U:H4'	2.48	0.48
9:CJ:77:VAL:HG12	9:CJ:78:GLU:H	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:CQ:24:ILE:N	16:CQ:24:ILE:HD12	2.29	0.48
18:CS:78:THR:O	1:CA:957:U:H4'	2.13	0.48
33:D1:38:PHE:O	33:D1:40:PRO:HD3	2.13	0.48
33:D1:8:ILE:CG2	33:D1:51:ALA:HA	2.43	0.48
23:DB:592:A:N3	34:D3:3:ILE:HD11	2.29	0.48
23:DB:1400:U:H2'	23:DB:1401:G:H8	1.77	0.48
23:DB:1460:U:H5''	23:DB:1461:C:C5	2.48	0.48
23:DB:1576:U:O2'	23:DB:1577:C:H5'	2.14	0.48
23:DB:1979:U:O2'	23:DB:1980:G:H5'	2.13	0.48
23:DB:2088:A:H2'	23:DB:2089:C:H6	1.78	0.48
23:DB:2249:U:H4'	23:DB:2275:C:C5	2.48	0.48
23:DB:2331:G:H2'	23:DB:2332:C:C6	2.49	0.48
23:DB:2339:C:H2'	23:DB:2340:A:H8	1.78	0.48
26:DD:30:GLU:HB2	26:DD:52:THR:CG2	2.44	0.48
29:DE:106:LYS:HG3	29:DE:200:LEU:HD12	1.94	0.48
29:DE:194:LYS:O	29:DE:198:GLU:HG2	2.13	0.48
47:DF:135:ILE:HG13	47:DF:137:PHE:H	1.79	0.48
40:DH:53:GLU:OE1	40:DH:54:LEU:HG	2.13	0.48
27:DK:18:ARG:HD2	27:DK:45:GLU:HG3	1.95	0.48
37:DL:6:LEU:H	37:DL:6:LEU:CD2	2.26	0.48
37:DL:92:LEU:HD22	37:DL:124:GLY:HA3	1.95	0.48
38:DM:26:VAL:HB	38:DM:104:GLU:OE2	2.13	0.48
42:DN:30:ARG:HH12	42:DN:74:GLU:CD	2.17	0.48
28:DP:103:THR:HG22	28:DP:104:GLY:N	2.29	0.48
44:DQ:96:ASP:C	44:DQ:98:ALA:N	2.67	0.48
46:DU:86:PHE:CG	46:DU:87:GLU:N	2.82	0.48
35:DV:28:ALA:HB3	35:DV:42:LEU:HD21	1.95	0.48
52:DW:67:LYS:O	52:DW:68:PHE:HB2	2.13	0.48
1:AA:109:A:H4'	1:AA:110:C:OP2	2.14	0.48
1:AA:224:U:H2'	1:AA:225:C:C6	2.49	0.48
1:AA:542:G:O2'	1:AA:543:U:H5'	2.14	0.48
1:AA:658:C:H2'	1:AA:659:U:H6	1.78	0.48
3:AD:88:ASN:O	3:AD:92:LEU:HD23	2.12	0.48
4:AE:28:ARG:NH2	4:AE:30:PHE:HB3	2.28	0.48
11:AL:35:ARG:NE	11:AL:36:VAL:H	2.12	0.48
11:AL:6:LEU:HD22	11:AL:11:ARG:HG2	1.95	0.48
14:AO:88:ARG:HA	14:AO:88:ARG:NE	2.29	0.48
16:AQ:17:GLU:C	16:AQ:19:SER:H	2.16	0.48
33:B1:24:LYS:HD3	33:B1:52:LYS:O	2.13	0.48
33:B1:33:LEU:HB3	33:B1:51:ALA:HB3	1.94	0.48
53:B6:52:LEU:HG	53:B6:56:ALA:O	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1196:C:H2'	23:BB:1197:G:C8	2.49	0.48
23:BB:1410:G:H2'	23:BB:1411:U:C6	2.48	0.48
23:BB:1508:A:H3'	23:BB:1509:A:C4	2.48	0.48
23:BB:1736:U:H2'	23:BB:1737:G:C8	2.48	0.48
23:BB:2282:G:H5'	23:BB:2389:G:H1'	1.94	0.48
23:BB:2300:C:H2'	23:BB:2301:C:H6	1.78	0.48
23:BB:222:A:N1	23:BB:233:A:H5''	2.29	0.48
23:BB:648:G:H2'	23:BB:649:G:H8	1.78	0.48
25:BC:140:VAL:CG1	25:BC:189:ALA:HB1	2.44	0.48
26:BD:48:ILE:HG22	26:BD:82:PHE:O	2.13	0.48
26:BD:62:LYS:N	26:BD:63:PRO:CD	2.77	0.48
47:BF:60:SER:HB2	47:BF:62:GLN:OE1	2.14	0.48
48:BG:32:LEU:HD23	48:BG:33:THR:H	1.79	0.48
40:BH:54:LEU:HA	40:BH:58:LEU:CB	2.43	0.48
24:BI:52:LEU:HD21	24:BI:81:LYS:NZ	2.29	0.48
41:BJ:116:ARG:O	41:BJ:120:ARG:HG2	2.13	0.48
41:BJ:64:VAL:HG22	41:BJ:68:LYS:CD	2.43	0.48
27:BK:64:ARG:NH1	27:BK:101:GLY:HA3	2.28	0.48
37:BL:19:LEU:HD23	37:BL:31:GLY:HA3	1.95	0.48
37:BL:3:LEU:O	37:BL:5:THR:N	2.46	0.48
29:BE:32:VAL:HG21	37:BL:6:LEU:HD11	1.95	0.48
37:BL:89:VAL:HA	37:BL:121:THR:O	2.14	0.48
38:BM:12:MET:HB2	38:BM:72:PRO:HD2	1.94	0.48
42:BN:103:ARG:HG3	42:BN:104:ALA:N	2.29	0.48
46:BU:40:LEU:HB3	46:BU:59:GLU:CG	2.41	0.48
46:BU:48:VAL:O	46:BU:48:VAL:HG13	2.13	0.48
1:CA:24:U:O2'	1:CA:25:C:H5'	2.14	0.48
1:CA:797:C:O2'	1:CA:798:U:H5'	2.13	0.48
20:CB:40:ILE:CG2	20:CB:200:PRO:HB2	2.44	0.48
20:CB:63:LYS:HG2	20:CB:224:ARG:CZ	2.44	0.48
20:CB:75:ALA:CB	20:CB:209:VAL:HG11	2.44	0.48
5:CF:2:ARG:HG2	5:CF:92:THR:OG1	2.13	0.48
6:CG:14:ASP:HB3	6:CG:18:GLY:H	1.78	0.48
12:CM:2:ARG:HG3	12:CM:6:ILE:HA	1.95	0.48
21:CU:24:LYS:CG	21:CU:25:ALA:H	2.22	0.48
36:D2:29:GLN:O	36:D2:33:ARG:HB2	2.13	0.48
34:D3:18:LYS:HE3	34:D3:20:GLY:H	1.77	0.48
23:DB:1300:G:H4'	23:DB:1301:A:O5'	2.14	0.48
23:DB:1324:G:H1'	23:DB:1616:A:N6	2.29	0.48
23:DB:1361:G:H2'	23:DB:1362:C:C6	2.48	0.48
23:DB:1410:G:H2'	23:DB:1411:U:C6	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2188:U:C2'	23:DB:2189:U:H5'	2.44	0.48
23:DB:2282:G:OP1	23:DB:2283:C:H1'	2.14	0.48
23:DB:2408:U:H2'	23:DB:2409:G:H8	1.78	0.48
23:DB:347:A:H2'	23:DB:348:A:C8	2.49	0.48
23:DB:418:C:H2'	23:DB:419:U:C6	2.48	0.48
23:DB:927:A:H2'	23:DB:928:A:C8	2.49	0.48
29:DE:170:ARG:HH22	29:DE:176:ASP:HB2	1.77	0.48
47:DF:106:ALA:O	47:DF:135:ILE:HD13	2.14	0.48
47:DF:169:LEU:HB3	47:DF:174:PHE:CD1	2.48	0.48
47:DF:24:VAL:O	47:DF:27:VAL:HG22	2.13	0.48
47:DF:43:ILE:HG23	47:DF:44:ALA:N	2.21	0.48
48:DG:25:ILE:HG22	48:DG:78:VAL:HG21	1.96	0.48
42:DN:41:ALA:C	42:DN:43:GLU:N	2.66	0.48
28:DP:103:THR:N	28:DP:107:ALA:HB2	2.29	0.48
49:DR:78:ARG:HH21	49:DR:78:ARG:HG3	1.78	0.48
50:DT:11:LEU:HA	50:DT:34:VAL:HG12	1.95	0.48
50:DT:59:ASN:O	50:DT:84:TYR:HB2	2.14	0.48
35:DV:70:ILE:CD1	35:DV:70:ILE:H	2.27	0.48
1:AA:992:U:H2'	1:AA:1043:G:N7	2.28	0.48
1:AA:1192:C:H2'	1:AA:1193:G:O4'	2.14	0.48
1:AA:1430:A:H2'	1:AA:1431:A:O4'	2.13	0.48
1:AA:532:A:H8	2:AC:192:TYR:CD2	2.32	0.48
1:AA:659:U:H2'	1:AA:660:C:C6	2.48	0.48
20:AB:80:LYS:HB2	20:AB:90:PHE:CE1	2.49	0.48
2:AC:19:SER:HB3	2:AC:21:TRP:NE1	2.26	0.48
9:AJ:7:ARG:O	9:AJ:100:ILE:HA	2.13	0.48
9:AJ:7:ARG:HG2	9:AJ:75:ASP:OD2	2.14	0.48
11:AL:20:VAL:HG23	11:AL:20:VAL:O	2.14	0.48
18:AS:35:ARG:NH2	18:AS:52:ASN:HA	2.29	0.48
53:B6:84:ARG:HG3	53:B6:85:ASP:OD1	2.14	0.48
23:BB:1150:C:O2'	23:BB:1151:A:H5'	2.13	0.48
23:BB:191:A:H2'	23:BB:192:C:C6	2.48	0.48
23:BB:2098:U:H2'	23:BB:2099:U:O4'	2.14	0.48
23:BB:19:A:H2'	23:BB:20:C:H6	1.78	0.48
23:BB:2648:G:H2'	23:BB:2649:C:C6	2.48	0.48
23:BB:2861:U:H2'	23:BB:2862:G:C8	2.49	0.48
23:BB:485:C:H2'	23:BB:486:C:H6	1.79	0.48
23:BB:532:A:N3	23:BB:532:A:H2'	2.29	0.48
23:BB:78:U:H2'	23:BB:79:C:H6	1.77	0.48
26:BD:48:ILE:HG23	26:BD:82:PHE:HB2	1.96	0.48
26:BD:46:ARG:NH2	26:BD:88:GLU:HG3	2.27	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BE:149:ILE:O	29:BE:188:MET:HA	2.14	0.48
41:BJ:2:LYS:NZ	41:BJ:2:LYS:HB3	2.29	0.48
41:BJ:64:VAL:O	41:BJ:65:THR:HG22	2.14	0.48
27:BK:2:ILE:HA	27:BK:33:ALA:H	1.78	0.48
27:BK:43:ILE:HG21	27:BK:46:ALA:HB2	1.94	0.48
37:BL:21:ARG:HA	37:BL:21:ARG:HD3	1.73	0.48
37:BL:6:LEU:H	37:BL:6:LEU:CD2	2.27	0.48
38:BM:61:GLY:HA2	38:BM:107:GLY:HA3	1.95	0.48
44:BQ:91:ARG:NH1	49:BR:11:GLN:N	2.57	0.48
46:BU:41:VAL:HG22	46:BU:61:GLU:O	2.13	0.48
52:BW:49:ASN:HB3	52:BW:81:ILE:HG12	1.95	0.48
1:CA:455:G:O2'	1:CA:456:A:H5'	2.14	0.48
1:CA:624:C:H2'	1:CA:625:U:C6	2.48	0.48
1:CA:777:A:H2'	1:CA:778:G:H8	1.79	0.48
1:CA:842:U:H3'	1:CA:842:U:OP1	2.14	0.48
1:CA:999:C:H2'	1:CA:1000:A:H8	1.75	0.48
20:CB:217:ALA:O	20:CB:220:VAL:HB	2.13	0.48
3:CD:25:ARG:HD3	3:CD:25:ARG:C	2.34	0.48
4:CE:131:ASN:O	4:CE:135:VAL:HG23	2.14	0.48
5:CF:68:GLN:HA	5:CF:71:ILE:CG1	2.43	0.48
11:CL:107:LYS:N	11:CL:107:LYS:HZ3	2.08	0.48
11:CL:23:LEU:O	11:CL:25:ALA:N	2.47	0.48
11:CL:81:ILE:HG23	11:CL:94:TYR:HB3	1.95	0.48
15:CP:40:ASN:ND2	15:CP:43:ALA:N	2.61	0.48
16:CQ:14:ASP:HA	16:CQ:20:ILE:HD11	1.95	0.48
23:DB:1099:G:O2'	23:DB:1100:C:H5'	2.14	0.48
23:DB:125:A:H3'	23:DB:126:A:H5''	1.96	0.48
23:DB:2322:A:N6	23:DB:2333:A:H62	2.11	0.48
23:DB:2590:A:H2'	23:DB:2591:C:H6	1.79	0.48
23:DB:2862:G:H2'	23:DB:2863:C:C6	2.49	0.48
23:DB:2866:U:H4'	23:DB:2867:G:H4'	1.95	0.48
23:DB:319:G:H2'	23:DB:320:A:O4'	2.14	0.48
23:DB:26:G:H1'	23:DB:514:A:N6	2.28	0.48
23:DB:569:U:H5''	23:DB:821:A:C2	2.49	0.48
23:DB:90:U:H2'	23:DB:91:A:H2	1.75	0.48
25:DC:141:HIS:CG	25:DC:142:ASN:N	2.82	0.48
25:DC:173:LEU:HD22	25:DC:181:ARG:O	2.14	0.48
29:DE:28:VAL:O	29:DE:32:VAL:HG13	2.13	0.48
47:DF:119:LYS:C	47:DF:121:PHE:H	2.16	0.48
47:DF:11:VAL:O	47:DF:12:VAL:HB	2.13	0.48
47:DF:19:PHE:CZ	47:DF:164:GLU:HA	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DG:35:THR:HG21	48:DG:70:LEU:HD12	1.95	0.48
40:DH:62:LEU:HG	40:DH:66:ASN:HD21	1.78	0.48
40:DH:86:ASP:CB	40:DH:89:LYS:HD3	2.44	0.48
24:DI:129:GLU:HB3	24:DI:133:ARG:NH1	2.29	0.48
41:DJ:25:LEU:HD13	41:DJ:26:GLY:N	2.28	0.48
37:DL:77:ILE:O	37:DL:110:VAL:O	2.31	0.48
38:DM:54:THR:O	38:DM:56:ALA:N	2.45	0.48
43:DO:28:VAL:O	43:DO:28:VAL:HG13	2.13	0.48
52:DW:49:ASN:CB	52:DW:60:ALA:HA	2.35	0.48
52:DW:70:VAL:O	52:DW:70:VAL:HG13	2.13	0.48
1:AA:1137:C:O2'	1:AA:1138:G:H5''	2.14	0.48
1:AA:1329:A:OP1	12:AM:28:ARG:HB2	2.13	0.48
1:AA:1337:G:H5''	1:AA:1338:G:OP1	2.13	0.48
1:AA:337:G:H2'	1:AA:338:A:H8	1.76	0.48
1:AA:842:U:H3'	1:AA:842:U:OP1	2.13	0.48
20:AB:18:GLN:O	20:AB:37:VAL:HG23	2.12	0.48
20:AB:75:ALA:CB	20:AB:209:VAL:HG11	2.44	0.48
20:AB:63:LYS:HE3	20:AB:224:ARG:NH2	2.29	0.48
20:AB:57:ASN:HA	20:AB:60:ALA:HB3	1.96	0.48
2:AC:184:ASN:ND2	2:AC:185:THR:H	2.12	0.48
11:AL:20:VAL:HB	11:AL:94:TYR:CE1	2.49	0.48
12:AM:44:ILE:O	12:AM:47:LEU:HB2	2.14	0.48
31:B0:41:HIS:N	31:B0:41:HIS:CD2	2.81	0.48
23:BB:1063:G:H4'	24:BI:135:MET:HB3	1.95	0.48
23:BB:1353:A:H2'	23:BB:1354:A:C8	2.49	0.48
23:BB:1487:U:H2'	23:BB:1488:C:C6	2.49	0.48
23:BB:2247:A:H3'	56:BB:3268:HOH:O	2.14	0.48
23:BB:2263:C:H4'	23:BB:2329:U:H4'	1.96	0.48
23:BB:2331:G:H2'	23:BB:2332:C:C6	2.49	0.48
23:BB:2386:A:H2'	23:BB:2387:U:C6	2.49	0.48
23:BB:2545:G:O2'	23:BB:2546:U:H5'	2.13	0.48
23:BB:2678:C:H2'	23:BB:2679:A:C8	2.48	0.48
23:BB:351:C:H2'	23:BB:352:A:H8	1.79	0.48
23:BB:607:U:O4	23:BB:620:G:H5''	2.14	0.48
25:BC:118:GLY:H	25:BC:121:ALA:HB2	1.78	0.48
26:BD:111:GLY:H	26:BD:194:PRO:HG2	1.78	0.48
40:BH:47:PHE:HA	40:BH:50:ARG:NE	2.29	0.48
24:BI:56:VAL:CG2	24:BI:68:PHE:HB2	2.43	0.48
27:BK:18:ARG:HD2	27:BK:45:GLU:HG3	1.96	0.48
27:BK:24:VAL:HG12	27:BK:30:ARG:HH11	1.78	0.48
1:CA:1073:U:H2'	1:CA:1074:G:H8	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1121:U:O2'	1:CA:1122:U:H5'	2.13	0.48
1:CA:113:G:H2'	1:CA:114:U:C6	2.49	0.48
1:CA:1176:A:H2'	1:CA:1177:G:O4'	2.14	0.48
1:CA:1414:U:H2'	1:CA:1415:G:H8	1.79	0.48
1:CA:545:C:O2'	1:CA:546:A:H5'	2.14	0.48
7:CH:3:GLN:HA	1:CA:587:G:H4'	1.96	0.48
1:CA:65:A:C5	1:CA:381:C:N3	2.82	0.48
20:CB:17:HIS:HD2	20:CB:203:ASP:OD1	1.97	0.48
20:CB:163:ILE:CD1	20:CB:209:VAL:HG12	2.44	0.48
20:CB:93:HIS:HD2	20:CB:94:ARG:NH2	2.12	0.48
2:CC:110:LEU:HD11	2:CC:143:LEU:O	2.14	0.48
4:CE:84:VAL:CG1	4:CE:146:MET:HB3	2.42	0.48
4:CE:39:GLY:HA2	4:CE:44:ARG:O	2.14	0.48
5:CF:18:VAL:N	5:CF:19:PRO:HD2	2.29	0.48
5:CF:40:GLU:HB2	5:CF:61:LEU:HB2	1.95	0.48
8:CI:56:MET:CG	8:CI:57:VAL:N	2.77	0.48
13:CN:2:LYS:HB3	13:CN:5:MET:HB2	1.95	0.48
16:CQ:17:GLU:C	16:CQ:19:SER:H	2.16	0.48
53:D6:136:ALA:O	53:D6:139:LYS:HB2	2.13	0.48
23:DB:1030:C:O2'	23:DB:1031:G:H5'	2.14	0.48
23:DB:16:C:O2'	23:DB:17:G:H5'	2.14	0.48
23:DB:2547:A:H5'	23:DB:2566:A:C2	2.49	0.48
23:DB:480:A:H3'	23:DB:481:G:H5''	1.96	0.48
23:DB:741:U:H2'	23:DB:742:A:H8	1.77	0.48
23:DB:965:C:HO2'	23:DB:2272:U:H6	1.62	0.48
23:DB:968:C:H2'	23:DB:969:G:C8	2.47	0.48
26:DD:191:GLY:O	26:DD:192:ALA:HB3	2.14	0.48
29:DE:3:LEU:HB2	29:DE:12:LEU:HB2	1.94	0.48
47:DF:19:PHE:CZ	47:DF:164:GLU:HG2	2.48	0.48
40:DH:121:VAL:O	40:DH:122:LEU:HB2	2.14	0.48
40:DH:128:HIS:N	40:DH:144:VAL:O	2.46	0.48
24:DI:102:ARG:HG3	24:DI:141:ASP:CB	2.43	0.48
41:DJ:81:ILE:HG12	41:DJ:82:GLY:N	2.28	0.48
27:DK:2:ILE:HA	27:DK:33:ALA:H	1.77	0.48
27:DK:43:ILE:HG21	27:DK:46:ALA:HB2	1.94	0.48
37:DL:89:VAL:HA	37:DL:121:THR:O	2.14	0.48
28:DP:47:ILE:HG13	28:DP:48:ALA:N	2.29	0.48
28:DP:85:VAL:O	28:DP:87:ARG:N	2.45	0.48
45:DS:42:LYS:HA	45:DS:42:LYS:NZ	2.28	0.48
1:AA:1347:G:C8	8:AI:108:ARG:HB3	2.49	0.48
1:AA:1494:G:O2'	1:AA:1495:U:H5'	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:224:U:H2'	1:AA:225:C:H6	1.78	0.48
1:AA:437:U:H2'	1:AA:438:U:O4'	2.13	0.48
1:AA:373:A:H1'	1:AA:481:G:N3	2.29	0.48
1:AA:669:G:O2'	1:AA:670:G:H5'	2.14	0.48
1:AA:815:A:H4'	1:AA:817:C:C4	2.49	0.48
20:AB:216:VAL:HG23	20:AB:217:ALA:H	1.79	0.48
3:AD:115:GLN:HE21	3:AD:153:ARG:HH22	1.61	0.48
3:AD:21:LYS:O	3:AD:23:GLY:N	2.45	0.48
4:AE:14:LEU:HD23	4:AE:36:THR:HG22	1.96	0.48
6:AG:29:LEU:HD23	6:AG:29:LEU:O	2.14	0.48
1:AA:598:U:H4'	7:AH:85:TYR:CG	2.49	0.48
6:AG:147:ASN:CA	10:AK:55:ARG:HH21	2.27	0.48
12:AM:42:VAL:HB	12:AM:47:LEU:HD21	1.95	0.48
16:AQ:78:VAL:O	16:AQ:79:GLU:HB2	2.14	0.48
18:AS:24:SER:OG	18:AS:27:LYS:HE3	2.14	0.48
18:AS:30:LEU:HG	18:AS:47:THR:O	2.14	0.48
19:AT:80:ALA:HA	19:AT:83:ASN:ND2	2.29	0.48
31:B0:38:LEU:HB3	31:B0:41:HIS:NE2	2.29	0.48
32:B4:27:CYS:CB	32:B4:33:HIS:HB2	2.44	0.48
23:BB:1275:A:N3	23:BB:1275:A:H2'	2.28	0.48
23:BB:1335:C:H2'	23:BB:1336:A:C8	2.49	0.48
23:BB:2216:G:H2'	23:BB:2217:G:C8	2.47	0.48
23:BB:2311:A:C2	47:BF:84:ILE:HD11	2.49	0.48
23:BB:2391:G:P	34:B3:34:LYS:HZ3	2.35	0.48
23:BB:2838:G:H2'	23:BB:2839:G:C8	2.49	0.48
23:BB:465:G:H2'	23:BB:466:A:C8	2.49	0.48
23:BB:639:U:H2'	23:BB:640:C:H6	1.79	0.48
23:BB:2821:A:OP2	26:BD:115:GLY:HA3	2.13	0.48
26:BD:116:LYS:HB2	26:BD:165:MET:HB3	1.95	0.48
29:BE:134:LEU:O	29:BE:138:LEU:HG	2.14	0.48
29:BE:106:LYS:HG3	29:BE:200:LEU:HD12	1.95	0.48
47:BF:128:SER:HB3	47:BF:154:THR:OG1	2.14	0.48
47:BF:24:VAL:O	47:BF:27:VAL:HG22	2.13	0.48
48:BG:102:ILE:HD11	48:BG:116:LEU:HD21	1.96	0.48
41:BJ:17:VAL:CG2	41:BJ:137:PRO:HB2	2.36	0.48
42:BN:13:ASN:OD1	42:BN:15:SER:HB3	2.14	0.48
46:BU:40:LEU:H	46:BU:40:LEU:HD12	1.79	0.48
52:BW:67:LYS:O	52:BW:68:PHE:HB2	2.13	0.48
39:BX:47:ARG:HG3	39:BX:47:ARG:HH21	1.79	0.48
39:BX:7:ARG:CZ	39:BX:7:ARG:HA	2.43	0.48
1:CA:979:C:H1'	1:CA:1317:C:H41	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1521:C:H2'	1:CA:1522:U:H6	1.79	0.48
1:CA:470:C:H2'	1:CA:471:U:C6	2.48	0.48
1:CA:986:U:H2'	1:CA:987:G:C8	2.48	0.48
1:CA:986:U:H2'	1:CA:987:G:O4'	2.13	0.48
4:CE:61:LYS:HB3	4:CE:61:LYS:HZ3	1.79	0.48
6:CG:110:ARG:NE	6:CG:122:GLU:HB2	2.27	0.48
6:CG:46:LEU:HD11	6:CG:61:PHE:HB2	1.95	0.48
8:CI:46:VAL:HG23	8:CI:47:VAL:N	2.29	0.48
11:CL:80:LEU:O	11:CL:97:VAL:HG23	2.14	0.48
18:CS:43:MET:CB	18:CS:61:VAL:HG21	2.44	0.48
33:D1:35:LEU:O	33:D1:36:LYS:HB2	2.11	0.48
23:DB:1042:G:H2'	23:DB:1043:C:C6	2.48	0.48
23:DB:1373:A:H2'	23:DB:1374:G:O4'	2.13	0.48
23:DB:1517:G:O2'	23:DB:1518:C:H5'	2.14	0.48
23:DB:1351:C:O2'	23:DB:1571:A:H1'	2.14	0.48
23:DB:2076:U:O2	23:DB:2076:U:O4'	2.31	0.48
23:DB:2590:A:O2'	23:DB:2591:C:H5'	2.14	0.48
23:DB:2648:G:H2'	23:DB:2649:C:C6	2.49	0.48
23:DB:709:U:H2'	23:DB:710:U:C6	2.49	0.48
23:DB:754:U:H2'	23:DB:755:U:H6	1.78	0.48
23:DB:192:C:O2'	23:DB:802:A:N3	2.39	0.48
23:DB:870:U:O2'	23:DB:871:U:H5'	2.14	0.48
25:DC:153:LEU:HD13	25:DC:175:LEU:HD22	1.94	0.48
29:DE:134:LEU:O	29:DE:138:LEU:HG	2.13	0.48
29:DE:181:ILE:HG12	37:DL:2:ARG:NH2	2.29	0.48
24:DI:72:THR:CG2	24:DI:112:LYS:HD2	2.43	0.48
41:DJ:65:THR:HG23	41:DJ:66:GLY:N	2.29	0.48
42:DN:102:PHE:H	42:DN:109:PRO:HA	1.78	0.48
22:DA:28:C:OP1	43:DO:31:THR:HG21	2.14	0.48
35:DV:3:THR:HA	35:DV:62:THR:OG1	2.14	0.48
23:DB:2352:A:N1	52:DW:30:VAL:CG1	2.77	0.48
30:DY:16:LEU:HD23	30:DY:19:HIS:CD2	2.49	0.48
1:AA:1293:C:O2'	1:AA:1294:G:H5'	2.14	0.48
1:AA:1487:G:O2'	1:AA:1488:G:H5'	2.14	0.48
1:AA:555:U:H2'	1:AA:556:C:H6	1.77	0.48
1:AA:986:U:H2'	1:AA:987:G:O4'	2.13	0.48
20:AB:160:LEU:HD13	20:AB:175:ALA:HB2	1.96	0.48
2:AC:70:ALA:HA	2:AC:105:VAL:CG1	2.44	0.48
4:AE:103:GLY:O	4:AE:121:ASN:HA	2.14	0.48
6:AG:46:LEU:HD11	6:AG:61:PHE:HB2	1.95	0.48
11:AL:13:ARG:HB2	11:AL:14:LYS:H	1.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AR:23:LYS:HD2	17:AR:23:LYS:C	2.35	0.48
23:BB:2887:A:C4	31:B0:39:ARG:NH2	2.80	0.48
23:BB:1183:U:H2'	23:BB:1184:U:C6	2.49	0.48
23:BB:1600:C:OP1	50:BT:81:LYS:HE3	2.14	0.48
23:BB:1652:A:H62	42:BN:11:ASN:HD21	1.61	0.48
23:BB:1909:C:O2	23:BB:1909:C:C2'	2.62	0.48
23:BB:2023:C:H4'	23:BB:2617:U:O3'	2.13	0.48
23:BB:2749:A:P	23:BB:2750:A:H3'	2.54	0.48
23:BB:2899:A:H2'	23:BB:2900:A:H8	1.78	0.48
23:BB:596:U:H2'	23:BB:597:G:H8	1.78	0.48
40:BH:57:LYS:CG	40:BH:58:LEU:N	2.77	0.48
24:BI:116:MET:SD	24:BI:124:MET:HB2	2.54	0.48
37:BL:125:LEU:H	37:BL:143:GLU:HG3	1.79	0.48
23:BB:2360:G:H4'	37:BL:61:LEU:HD11	1.96	0.48
38:BM:71:LYS:HB3	38:BM:93:VAL:HG12	1.96	0.48
44:BQ:94:LEU:C	44:BQ:96:ASP:N	2.67	0.48
35:BV:48:MET:O	35:BV:51:GLN:HG3	2.13	0.48
30:BY:52:PHE:H	30:BY:52:PHE:HD1	1.62	0.48
1:CA:1451:U:H4'	1:CA:1452:C:OP1	2.09	0.48
1:CA:373:A:H1'	1:CA:481:G:N3	2.29	0.48
1:CA:71:A:HO2'	1:CA:72:A:H5''	1.78	0.48
1:CA:812:G:C4'	1:CA:812:G:OP1	2.62	0.48
1:CA:883:C:O2'	1:CA:884:U:H5'	2.14	0.48
2:CC:54:ILE:O	2:CC:54:ILE:HG23	2.14	0.48
3:CD:197:HIS:O	3:CD:201:GLU:HG3	2.14	0.48
3:CD:201:GLU:OE1	4:CE:104:ILE:HG22	2.13	0.48
4:CE:33:THR:HB	4:CE:49:TYR:CE1	2.48	0.48
6:CG:108:ARG:HA	6:CG:115:MET:HE1	1.96	0.48
8:CI:87:MET:HE1	8:CI:88:GLU:HA	1.95	0.48
8:CI:94:ARG:NH1	8:CI:94:ARG:HB3	2.15	0.48
9:CJ:59:LYS:O	9:CJ:62:ARG:HG2	2.14	0.48
11:CL:20:VAL:O	11:CL:20:VAL:HG23	2.14	0.48
23:DB:1110:G:H21	23:DB:1111:A:N6	2.12	0.48
23:DB:1693:U:H4'	23:DB:1694:C:OP2	2.14	0.48
23:DB:1813:G:C2	25:DC:49:THR:HG21	2.48	0.48
23:DB:1910:G:O2'	23:DB:1911:U:H5'	2.14	0.48
23:DB:1921:G:O2'	23:DB:1922:G:H5'	2.14	0.48
23:DB:1998:A:H2'	23:DB:1999:C:C6	2.49	0.48
23:DB:2064:C:H2'	23:DB:2065:C:H6	1.79	0.48
23:DB:2339:C:H2'	23:DB:2340:A:C8	2.49	0.48
23:DB:2590:A:H2'	23:DB:2591:C:C6	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2772:C:H2'	23:DB:2773:C:C6	2.49	0.48
23:DB:2831:G:OP1	23:DB:2834:G:H4'	2.13	0.48
23:DB:322:A:C2	23:DB:340:A:C6	3.02	0.48
23:DB:374:A:N6	23:DB:400:G:H1'	2.29	0.48
23:DB:901:C:H2'	23:DB:902:C:H6	1.79	0.48
25:DC:132:ARG:HA	25:DC:166:ARG:HH11	1.79	0.48
40:DH:3:VAL:HB	40:DH:38:PRO:HA	1.96	0.48
24:DI:100:ILE:O	24:DI:139:VAL:HG13	2.14	0.48
41:DJ:122:LEU:C	41:DJ:123:LYS:HD2	2.34	0.48
45:DS:12:SER:O	45:DS:13:SER:HB3	2.14	0.48
39:DX:27:ASN:N	39:DX:27:ASN:HD22	2.11	0.48
51:DZ:35:SER:HA	51:DZ:50:ARG:HA	1.94	0.48
1:AA:1272:G:H2'	1:AA:1273:C:C6	2.48	0.47
1:AA:1408:A:H4'	1:AA:1408:A:OP1	2.14	0.47
1:AA:240:G:C8	1:AA:240:G:H5'	2.47	0.47
1:AA:967:C:H2'	1:AA:968:A:C2	2.48	0.47
3:AD:160:LEU:N	3:AD:160:LEU:HD13	2.24	0.47
3:AD:36:ALA:C	3:AD:38:GLY:H	2.16	0.47
4:AE:80:LEU:HD11	4:AE:95:MET:HG2	1.94	0.47
5:AF:18:VAL:N	5:AF:19:PRO:HD2	2.29	0.47
5:AF:81:ASN:HB3	5:AF:84:VAL:CG1	2.42	0.47
6:AG:149:ALA:H	10:AK:55:ARG:HH22	1.62	0.47
10:AK:28:ASN:HB2	10:AK:56:LYS:NZ	2.29	0.47
12:AM:6:ILE:O	12:AM:7:ASN:C	2.51	0.47
19:AT:67:HIS:ND1	19:AT:68:LYS:N	2.57	0.47
34:B3:22:LYS:HA	34:B3:47:ALA:O	2.14	0.47
22:BA:95:U:H2'	22:BA:96:G:H8	1.79	0.47
23:BB:112:U:H2'	23:BB:113:U:H5'	1.96	0.47
23:BB:1813:G:H21	25:BC:49:THR:HG22	1.78	0.47
23:BB:1846:G:H3'	23:BB:1847:A:N3	2.29	0.47
23:BB:1924:C:H2'	23:BB:1925:C:H6	1.78	0.47
23:BB:2076:U:O4'	23:BB:2076:U:O2	2.31	0.47
23:BB:2078:C:H2'	23:BB:2079:U:C6	2.49	0.47
23:BB:2699:C:H2'	23:BB:2700:A:C8	2.49	0.47
23:BB:322:A:C2	23:BB:340:A:C6	3.02	0.47
23:BB:589:U:H2'	23:BB:590:A:C8	2.49	0.47
23:BB:912:C:O2'	23:BB:913:U:H5'	2.14	0.47
25:BC:106:PRO:O	25:BC:109:LEU:HD13	2.13	0.47
25:BC:27:LYS:HG2	25:BC:28:PRO:HD2	1.95	0.47
29:BE:136:GLN:HE22	29:BE:139:LYS:HD3	1.79	0.47
29:BE:52:VAL:HG21	29:BE:82:GLY:H	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BG:24:THR:HB	48:BG:32:LEU:CD2	2.43	0.47
48:BG:25:ILE:HG22	48:BG:78:VAL:HG21	1.96	0.47
40:BH:116:ARG:HB3	40:BH:131:SER:N	2.23	0.47
40:BH:3:VAL:HB	40:BH:38:PRO:HA	1.96	0.47
40:BH:8:LYS:O	40:BH:13:GLY:HA3	2.14	0.47
24:BI:85:ILE:CD1	24:BI:137:LEU:HD21	2.44	0.47
37:BL:134:ALA:HA	37:BL:137:ALA:HB3	1.95	0.47
34:B3:12:ARG:HD3	37:BL:61:LEU:O	2.13	0.47
38:BM:105:MET:SD	38:BM:108:VAL:HG11	2.54	0.47
38:BM:19:GLY:HA3	38:BM:38:ARG:HH22	1.79	0.47
50:BT:39:THR:HG23	50:BT:41:ALA:N	2.25	0.47
1:CA:1072:G:H2'	1:CA:1073:U:C6	2.49	0.47
1:CA:1163:A:H2'	1:CA:1164:G:C8	2.48	0.47
1:CA:1323:G:H2'	1:CA:1324:A:H8	1.71	0.47
1:CA:344:A:H4'	1:CA:345:C:OP2	2.14	0.47
1:CA:35:G:H2'	1:CA:36:C:H6	1.79	0.47
1:CA:629:A:H2'	1:CA:630:A:O4'	2.14	0.47
5:CF:18:VAL:O	5:CF:22:ILE:HG13	2.14	0.47
8:CI:43:ALA:O	8:CI:46:VAL:HG22	2.13	0.47
11:CL:86:VAL:CG1	11:CL:89:LEU:HD23	2.43	0.47
13:CN:40:ARG:HH12	18:CS:6:LYS:HG2	1.77	0.47
13:CN:50:LEU:CD2	13:CN:51:PRO:HD3	2.44	0.47
17:CR:23:LYS:C	17:CR:23:LYS:HD2	2.34	0.47
31:D0:53:VAL:HG12	31:D0:54:ILE:H	1.78	0.47
36:D2:19:ARG:HB3	36:D2:19:ARG:HH21	1.79	0.47
34:D3:7:ARG:NH1	34:D3:7:ARG:HG3	2.28	0.47
23:DB:1794:A:O2'	23:DB:1795:C:H5'	2.14	0.47
23:DB:1838:C:N4	23:DB:1898:U:H2'	2.28	0.47
23:DB:616:A:H4'	29:DE:101:TYR:CE2	2.49	0.47
23:DB:783:A:H2'	23:DB:784:G:O5'	2.14	0.47
26:DD:118:PHE:CZ	26:DD:123:LYS:HD2	2.49	0.47
26:DD:21:SER:CB	27:DK:73:ASP:HA	2.44	0.47
40:DH:94:ILE:HB	40:DH:122:LEU:CB	2.44	0.47
38:DM:63:ILE:HG22	38:DM:64:TRP:N	2.28	0.47
42:DN:19:ALA:HA	42:DN:22:ARG:HB3	1.95	0.47
43:DO:100:HIS:CA	43:DO:104:GLN:HB2	2.44	0.47
35:DV:9:ARG:HH22	35:DV:12:GLN:HA	1.74	0.47
1:AA:113:G:H2'	1:AA:114:U:C6	2.49	0.47
1:AA:1526:G:H2'	1:AA:1527:U:C6	2.50	0.47
1:AA:118:U:O4	1:AA:288:A:H2'	2.14	0.47
1:AA:403:C:O2'	1:AA:404:G:H5'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:712:A:O2'	1:AA:713:G:H5'	2.13	0.47
1:AA:777:A:H2'	1:AA:778:G:H8	1.79	0.47
20:AB:93:HIS:HD2	20:AB:94:ARG:NH2	2.12	0.47
4:AE:29:ILE:HG22	4:AE:29:ILE:O	2.14	0.47
5:AF:92:THR:HG22	5:AF:94:HIS:N	2.07	0.47
7:AH:91:LEU:HD12	7:AH:116:ARG:HB2	1.96	0.47
9:AJ:24:GLU:O	9:AJ:28:THR:HG23	2.15	0.47
11:AL:23:LEU:O	11:AL:25:ALA:N	2.47	0.47
13:AN:51:PRO:O	13:AN:52:ARG:HB3	2.14	0.47
19:AT:68:LYS:HZ3	19:AT:68:LYS:HA	1.77	0.47
33:B1:26:LYS:HD3	33:B1:52:LYS:O	2.14	0.47
33:B1:47:ILE:HD12	33:B1:47:ILE:N	2.28	0.47
23:BB:139:U:H5''	23:BB:140:C:C5	2.49	0.47
23:BB:1408:G:O2'	23:BB:1409:U:H5'	2.14	0.47
23:BB:1523:U:H5''	23:BB:1524:G:N7	2.30	0.47
23:BB:1641:A:H2'	23:BB:1642:G:O4'	2.14	0.47
23:BB:2147:A:H5''	23:BB:2148:G:C8	2.50	0.47
23:BB:2568:U:H2'	23:BB:2569:G:O4'	2.13	0.47
23:BB:673:C:C2'	23:BB:674:G:H5'	2.44	0.47
23:BB:771:G:O2'	23:BB:772:C:H5'	2.14	0.47
25:BC:155:ARG:HH11	25:BC:155:ARG:HB3	1.79	0.47
25:BC:245:THR:C	25:BC:247:TRP:H	2.17	0.47
23:BB:37:C:O2'	29:BE:45:ALA:HA	2.14	0.47
27:BK:47:ILE:CG1	27:BK:48:PRO:HD2	2.35	0.47
37:BL:17:LYS:HD2	37:BL:19:LEU:HD11	1.95	0.47
23:BB:2483:C:O2	38:BM:123:LYS:HD2	2.15	0.47
23:BB:871:U:H5''	38:BM:68:PHE:CZ	2.49	0.47
42:BN:20:MET:HG3	42:BN:21:PHE:N	2.29	0.47
41:BJ:44:TYR:CD1	44:BQ:59:LEU:HD11	2.49	0.47
44:BQ:78:PHE:CZ	44:BQ:82:LEU:HD11	2.49	0.47
52:BW:65:LYS:NZ	52:BW:84:GLU:HB2	2.29	0.47
51:BZ:35:SER:HA	51:BZ:50:ARG:HA	1.95	0.47
1:CA:1028:C:H2'	1:CA:1028:C:O2	2.14	0.47
1:CA:1238:A:C8	1:CA:1303:C:H1'	2.49	0.47
1:CA:1386:G:H2'	1:CA:1387:G:C8	2.43	0.47
1:CA:218:U:H2'	1:CA:219:U:C6	2.49	0.47
1:CA:317:U:H2'	1:CA:318:G:H8	1.78	0.47
1:CA:711:G:O2'	1:CA:712:A:H5'	2.13	0.47
1:CA:921:U:H2'	1:CA:922:G:O4'	2.14	0.47
20:CB:202:ASN:ND2	20:CB:204:ASP:N	2.49	0.47
2:CC:35:ASP:O	2:CC:39:ARG:HG3	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CF:68:GLN:O	5:CF:71:ILE:HG13	2.13	0.47
9:CJ:10:LEU:CD2	9:CJ:98:VAL:HG12	2.44	0.47
14:CO:74:ASP:OD1	14:CO:76:ALA:HB3	2.15	0.47
17:CR:57:ALA:HA	17:CR:60:ARG:HH11	1.78	0.47
31:D0:29:VAL:HG22	31:D0:30:ASP:H	1.79	0.47
32:D4:3:VAL:HG23	32:D4:4:ARG:H	1.78	0.47
23:DB:1023:U:H2'	23:DB:1024:G:H5'	1.96	0.47
23:DB:2355:G:H4'	52:DW:20:LEU:HD13	1.95	0.47
23:DB:2385:C:H2'	23:DB:2386:A:H8	1.79	0.47
23:DB:2849:U:N3	23:DB:2867:G:C8	2.83	0.47
23:DB:485:C:H2'	23:DB:486:C:H6	1.79	0.47
23:DB:607:U:O4	23:DB:619:G:H2'	2.14	0.47
23:DB:655:A:H4'	23:DB:656:G:H5'	1.96	0.47
23:DB:933:A:H5'	23:DB:934:U:OP2	2.14	0.47
25:DC:4:LYS:HE3	25:DC:13:ARG:O	2.13	0.47
41:DJ:25:LEU:HD23	41:DJ:101:ILE:HD13	1.96	0.47
41:DJ:42:ALA:O	41:DJ:44:TYR:N	2.46	0.47
41:DJ:59:ALA:CB	41:DJ:101:ILE:HG13	2.44	0.47
41:DJ:88:THR:HG22	41:DJ:91:GLU:OE1	2.14	0.47
37:DL:19:LEU:HD23	37:DL:31:GLY:HA3	1.95	0.47
31:D0:42:ILE:HG12	42:DN:99:LYS:O	2.13	0.47
28:DP:50:ARG:CB	28:DP:57:ALA:H	2.24	0.47
1:AA:415:A:N1	1:AA:428:G:O6	2.47	0.47
1:AA:575:G:H4'	1:AA:576:C:O5'	2.14	0.47
1:AA:820:U:H4'	1:AA:821:G:OP2	2.14	0.47
1:AA:833:G:O2'	1:AA:834:U:H5'	2.13	0.47
20:AB:23:ASN:HD22	20:AB:24:PRO:CD	2.27	0.47
20:AB:42:LEU:HA	20:AB:45:THR:OG1	2.14	0.47
2:AC:182:ASP:HB2	2:AC:203:LYS:HE2	1.97	0.47
5:AF:12:PRO:HG3	5:AF:54:LEU:HG	1.95	0.47
5:AF:61:LEU:HD13	5:AF:62:MET:H	1.80	0.47
1:AA:1240:U:H3	6:AG:29:LEU:HD23	1.79	0.47
8:AI:46:VAL:HG23	8:AI:47:VAL:N	2.30	0.47
8:AI:87:MET:CE	8:AI:91:GLU:HG2	2.44	0.47
11:AL:30:ARG:HB3	11:AL:57:THR:CG2	2.44	0.47
12:AM:5:GLY:O	12:AM:7:ASN:N	2.47	0.47
16:AQ:75:VAL:HG23	16:AQ:76:ARG:N	2.30	0.47
18:AS:43:MET:CB	18:AS:61:VAL:HG21	2.44	0.47
53:B6:30:THR:C	53:B6:32:ARG:N	2.66	0.47
23:BB:131:A:H2'	23:BB:132:G:C8	2.48	0.47
23:BB:1564:C:O2'	23:BB:1565:C:H5'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:2369:A:O2'	23:BB:2370:G:H5'	2.14	0.47
23:BB:350:G:H2'	23:BB:351:C:O4'	2.14	0.47
23:BB:354:A:H2'	23:BB:355:U:C6	2.49	0.47
23:BB:927:A:H2'	23:BB:928:A:C8	2.50	0.47
25:BC:54:GLY:O	25:BC:214:GLY:HA2	2.14	0.47
47:BF:135:ILE:HG13	47:BF:137:PHE:H	1.78	0.47
24:BI:135:MET:HG3	24:BI:137:LEU:HG	1.96	0.47
41:BJ:65:THR:HG23	41:BJ:66:GLY:N	2.29	0.47
38:BM:42:THR:O	38:BM:44:ARG:N	2.46	0.47
42:BN:30:ARG:HH12	42:BN:74:GLU:CD	2.18	0.47
43:BO:106:LEU:O	43:BO:109:ALA:HB3	2.14	0.47
44:BQ:59:LEU:C	44:BQ:59:LEU:HD13	2.35	0.47
49:BR:49:ILE:HG21	49:BR:53:PHE:C	2.35	0.47
50:BT:32:LEU:HG	50:BT:83:ALA:CB	2.45	0.47
46:BU:27:VAL:HB	46:BU:33:VAL:HG12	1.95	0.47
52:BW:27:GLY:O	52:BW:63:ASP:HA	2.14	0.47
30:BY:29:ARG:H	30:BY:33:HIS:CD2	2.32	0.47
1:CA:1038:C:H2'	1:CA:1039:G:H8	1.75	0.47
1:CA:1404:C:H2'	1:CA:1405:G:H8	1.78	0.47
20:CB:113:LEU:HD12	20:CB:147:LEU:HB2	1.95	0.47
20:CB:26:MET:SD	20:CB:192:PRO:HD3	2.54	0.47
3:CD:64:TYR:CD2	3:CD:93:LEU:HB3	2.50	0.47
9:CJ:7:ARG:O	9:CJ:100:ILE:HA	2.14	0.47
9:CJ:7:ARG:HG2	9:CJ:75:ASP:OD2	2.13	0.47
9:CJ:92:LEU:HD22	9:CJ:92:LEU:N	2.29	0.47
9:CJ:65:TYR:HB3	13:CN:95:LEU:HD11	1.96	0.47
34:D3:7:ARG:HG3	34:D3:7:ARG:HH11	1.78	0.47
23:DB:1031:G:H4'	32:D4:6:SER:HB3	1.95	0.47
32:D4:6:SER:O	32:D4:7:VAL:C	2.52	0.47
23:DB:1442:U:H2'	23:DB:1443:U:H6	1.79	0.47
23:DB:1678:A:O2'	23:DB:1679:A:H5'	2.14	0.47
23:DB:179:C:O2'	23:DB:180:G:H5'	2.14	0.47
23:DB:1813:G:H21	25:DC:49:THR:HG22	1.78	0.47
23:DB:1857:G:O2'	23:DB:1858:A:H8	1.97	0.47
23:DB:231:A:H3'	23:DB:232:G:C8	2.48	0.47
23:DB:2526:G:H2'	23:DB:2527:C:H6	1.80	0.47
23:DB:710:U:H2'	23:DB:711:G:C8	2.49	0.47
25:DC:6:LYS:O	25:DC:8:THR:HG23	2.14	0.47
29:DE:148:ILE:HD13	29:DE:187:VAL:CG2	2.43	0.47
29:DE:29:HIS:HA	29:DE:32:VAL:HG22	1.95	0.47
48:DG:10:VAL:HG21	48:DG:44:HIS:HE1	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DG:9:VAL:O	48:DG:11:PRO:HD3	2.13	0.47
41:DJ:74:TYR:HE2	41:DJ:103:ILE:HD11	1.79	0.47
37:DL:101:ILE:HG22	37:DL:102:GLY:N	2.29	0.47
37:DL:125:LEU:H	37:DL:143:GLU:HG3	1.79	0.47
43:DO:36:TYR:N	43:DO:36:TYR:CD2	2.82	0.47
44:DQ:109:VAL:CG1	44:DQ:113:LYS:HE3	2.43	0.47
49:DR:11:GLN:HE22	49:DR:39:LEU:HD11	1.78	0.47
49:DR:7:SER:OG	49:DR:8:GLY:N	2.47	0.47
52:DW:24:ARG:HA	52:DW:66:VAL:N	2.16	0.47
52:DW:30:VAL:O	52:DW:30:VAL:HG22	2.14	0.47
1:AA:1485:U:O2'	1:AA:1486:G:H5'	2.15	0.47
1:AA:488:C:O2'	1:AA:489:C:H5'	2.14	0.47
1:AA:632:U:H5''	1:AA:633:G:C8	2.49	0.47
20:AB:63:LYS:HG2	20:AB:224:ARG:CZ	2.45	0.47
2:AC:110:LEU:HD11	2:AC:143:LEU:O	2.14	0.47
4:AE:28:ARG:HH21	4:AE:30:PHE:CA	2.25	0.47
12:AM:56:ARG:O	12:AM:59:VAL:HG12	2.14	0.47
13:AN:2:LYS:HB3	13:AN:5:MET:HB2	1.95	0.47
13:AN:70:HIS:O	13:AN:71:GLY:C	2.53	0.47
33:B1:8:ILE:CG2	33:B1:51:ALA:HA	2.44	0.47
32:B4:15:LYS:O	32:B4:15:LYS:HE2	2.14	0.47
23:BB:1475:G:H1'	23:BB:1476:U:H5	1.78	0.47
23:BB:1590:A:H2'	23:BB:1591:A:C8	2.49	0.47
23:BB:1789:A:H2'	23:BB:1790:C:H6	1.80	0.47
23:BB:189:G:H2'	23:BB:205:G:H22	1.77	0.47
23:BB:2415:G:C4'	37:BL:66:PHE:HB2	2.44	0.47
23:BB:2606:C:O2'	23:BB:2607:G:H5'	2.14	0.47
23:BB:2866:U:H4'	23:BB:2867:G:H4'	1.96	0.47
23:BB:3:U:O2'	23:BB:4:U:P	2.72	0.47
23:BB:541:A:H2'	23:BB:542:C:C6	2.48	0.47
23:BB:90:U:H2'	23:BB:91:A:H2	1.77	0.47
25:BC:143:VAL:O	25:BC:151:GLY:HA2	2.14	0.47
23:BB:1824:G:O3'	25:BC:246:PRO:HD3	2.13	0.47
23:BB:452:G:OP1	29:BE:53:THR:HG23	2.13	0.47
47:BF:119:LYS:C	47:BF:121:PHE:H	2.17	0.47
47:BF:121:PHE:HA	47:BF:126:ASN:O	2.15	0.47
47:BF:131:VAL:O	47:BF:132:ARG:HB2	2.14	0.47
47:BF:19:PHE:CZ	47:BF:164:GLU:HA	2.49	0.47
47:BF:48:LEU:O	47:BF:51:ASN:HB2	2.15	0.47
48:BG:84:LYS:HB3	48:BG:132:LEU:O	2.15	0.47
41:BJ:105:VAL:HG21	41:BJ:122:LEU:HD22	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BJ:126:ALA:HB3	41:BJ:129:GLU:OE2	2.14	0.47
43:BO:100:HIS:CA	43:BO:104:GLN:HB2	2.44	0.47
43:BO:35:ILE:CG1	43:BO:102:ARG:HE	2.27	0.47
43:BO:36:TYR:CD2	43:BO:36:TYR:N	2.82	0.47
49:BR:39:LEU:HB3	49:BR:53:PHE:HA	1.96	0.47
52:BW:59:PHE:CD2	52:BW:61:LYS:HD2	2.50	0.47
39:BX:36:GLN:O	39:BX:37:LEU:O	2.32	0.47
30:BY:2:LYS:H	30:BY:2:LYS:CD	2.27	0.47
1:CA:1172:C:O2'	1:CA:1173:U:H5'	2.15	0.47
1:CA:1239:A:H4'	1:CA:1240:U:H5'	1.95	0.47
1:CA:1347:G:H22	1:CA:1373:G:H2'	1.77	0.47
1:CA:1509:C:O2'	1:CA:1510:C:H5'	2.14	0.47
1:CA:170:U:O2'	1:CA:171:A:H5'	2.14	0.47
1:CA:259:G:O2'	1:CA:260:G:H5'	2.14	0.47
1:CA:302:G:O2'	1:CA:303:A:H5'	2.14	0.47
1:CA:669:G:O2'	1:CA:670:G:H5'	2.14	0.47
20:CB:19:THR:HG23	20:CB:20:ARG:N	2.25	0.47
3:CD:77:GLU:HA	3:CD:80:ARG:HG2	1.96	0.47
6:CG:12:LEU:HD13	6:CG:13:PRO:HD2	1.96	0.47
11:CL:48:LEU:O	11:CL:50:LYS:HD2	2.14	0.47
12:CM:78:ARG:HH12	18:CS:68:HIS:CE1	2.31	0.47
21:CU:42:THR:HB	21:CU:46:ARG:NE	2.20	0.47
36:D2:43:THR:O	36:D2:45:SER:N	2.47	0.47
53:D6:107:THR:O	53:D6:111:ARG:HG3	2.14	0.47
53:D6:61:PRO:CD	53:D6:66:LEU:HA	2.45	0.47
53:D6:74:ASN:O	53:D6:77:LYS:HG2	2.14	0.47
23:DB:1117:C:H2'	23:DB:1118:C:C6	2.46	0.47
23:DB:1439:A:C8	23:DB:1440:U:C6	3.03	0.47
23:DB:1461:C:H2'	23:DB:1462:C:C6	2.50	0.47
23:DB:1587:G:O2'	23:DB:1588:G:H5'	2.15	0.47
23:DB:1688:U:O2	23:DB:1700:A:H5'	2.14	0.47
23:DB:2149:U:H6	23:DB:2149:U:O5'	1.97	0.47
23:DB:2227:A:H2'	23:DB:2228:G:O4'	2.14	0.47
23:DB:315:G:H2'	23:DB:316:C:H6	1.79	0.47
23:DB:852:U:H2'	23:DB:853:C:H6	1.78	0.47
23:DB:966:G:H1'	23:DB:2267:A:N6	2.30	0.47
23:DB:997:G:H5'	44:DQ:92:LYS:HZ3	1.79	0.47
25:DC:93:VAL:HG13	25:DC:94:LEU:N	2.29	0.47
26:DD:48:ILE:HG23	26:DD:82:PHE:HB2	1.96	0.47
26:DD:8:LYS:HD3	26:DD:197:THR:H	1.78	0.47
48:DG:132:LEU:HD23	48:DG:132:LEU:N	2.28	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DH:45:GLU:C	40:DH:47:PHE:H	2.18	0.47
24:DI:126:ARG:HB3	24:DI:126:ARG:NH1	2.28	0.47
41:DJ:20:ALA:HA	41:DJ:23:LYS:CG	2.43	0.47
27:DK:64:ARG:HG2	27:DK:79:PHE:CD2	2.50	0.47
37:DL:136:GLU:HA	37:DL:140:GLY:H	1.79	0.47
38:DM:40:ARG:HB2	38:DM:93:VAL:HG21	1.95	0.47
44:DQ:111:LYS:HD3	49:DR:48:LYS:NZ	2.30	0.47
41:DJ:44:TYR:CD2	44:DQ:59:LEU:HD21	2.48	0.47
44:DQ:91:ARG:HE	44:DQ:94:LEU:CD2	2.26	0.47
30:DY:51:SER:HA	30:DY:54:VAL:CG2	2.44	0.47
1:AA:1491:G:H2'	1:AA:1491:G:N3	2.29	0.47
1:AA:708:C:O2'	1:AA:709:U:H5'	2.14	0.47
1:AA:821:G:O2'	1:AA:822:U:H5'	2.14	0.47
2:AC:54:ILE:HG23	2:AC:54:ILE:O	2.15	0.47
1:AA:620:C:C1'	3:AD:131:ILE:HD13	2.44	0.47
3:AD:152:SER:O	3:AD:155:LYS:HG2	2.14	0.47
8:AI:56:MET:CG	8:AI:57:VAL:N	2.77	0.47
9:AJ:15:HIS:O	9:AJ:18:ILE:HG22	2.14	0.47
9:AJ:57:VAL:HG13	9:AJ:58:ASN:N	2.28	0.47
13:AN:73:LEU:HD12	13:AN:83:VAL:HG21	1.96	0.47
18:AS:48:ILE:HG21	18:AS:70:LEU:HD21	1.95	0.47
23:BB:1063:G:H4'	24:BI:135:MET:CB	2.45	0.47
23:BB:1429:G:O2'	23:BB:1430:G:H5'	2.15	0.47
23:BB:1688:U:O2	23:BB:1700:A:H5'	2.15	0.47
23:BB:1912:A:C6	23:BB:1918:A:N3	2.82	0.47
23:BB:2282:G:H4'	23:BB:2389:G:O2'	2.15	0.47
23:BB:2262:U:H4'	23:BB:2328:A:C2	2.49	0.47
23:BB:2590:A:H2'	23:BB:2591:C:C6	2.49	0.47
23:BB:2590:A:H2'	23:BB:2591:C:H6	1.79	0.47
23:BB:2811:G:O2'	23:BB:2812:G:H5'	2.14	0.47
23:BB:319:G:H2'	23:BB:320:A:O4'	2.15	0.47
23:BB:345:A:N3	23:BB:346:A:N1	2.62	0.47
23:BB:276:U:H1'	23:BB:362:A:H61	1.78	0.47
23:BB:717:C:C3'	23:BB:718:A:H5''	2.41	0.47
25:BC:189:ALA:C	25:BC:190:THR:HG23	2.34	0.47
25:BC:6:LYS:O	25:BC:8:THR:HG23	2.13	0.47
26:BD:55:LYS:HB3	26:BD:55:LYS:NZ	2.26	0.47
48:BG:88:LEU:O	48:BG:88:LEU:HD12	2.14	0.47
40:BH:106:ALA:C	40:BH:108:VAL:H	2.16	0.47
38:BM:66:ARG:HG3	38:BM:101:VAL:HG22	1.96	0.47
28:BP:32:VAL:O	28:BP:36:LYS:O	2.32	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BR:7:SER:OG	49:BR:8:GLY:N	2.48	0.47
45:BS:66:ILE:N	45:BS:66:ILE:HD13	2.20	0.47
45:BS:73:LYS:HE3	45:BS:74:ILE:N	2.30	0.47
23:BB:2013:A:N3	45:BS:88:ARG:NH1	2.61	0.47
50:BT:40:LYS:HA	50:BT:43:ILE:CG2	2.45	0.47
23:BB:2353:G:N3	52:BW:30:VAL:HG13	2.30	0.47
1:CA:1010:U:H2'	1:CA:1011:C:H6	1.79	0.47
1:CA:1097:C:H2'	1:CA:1098:C:C6	2.49	0.47
1:CA:118:U:O4	1:CA:288:A:H2'	2.13	0.47
1:CA:366:A:H2	1:CA:394:G:H1	1.60	0.47
1:CA:394:G:H2'	1:CA:395:C:C6	2.49	0.47
20:CB:80:LYS:HB2	20:CB:90:PHE:CE1	2.49	0.47
4:CE:28:ARG:NH2	4:CE:30:PHE:HB3	2.29	0.47
16:CQ:75:VAL:HG23	16:CQ:76:ARG:N	2.29	0.47
19:CT:67:HIS:ND1	19:CT:68:LYS:N	2.57	0.47
23:DB:2421:G:N7	34:D3:30:HIS:NE2	2.62	0.47
23:DB:1812:U:H4'	25:DC:44:ASN:OD1	2.14	0.47
23:DB:1919:A:N3	23:DB:1919:A:H2'	2.28	0.47
23:DB:2102:G:H2'	23:DB:2103:C:O4'	2.15	0.47
23:DB:21:A:H2'	23:DB:22:C:C6	2.49	0.47
23:DB:2282:G:H5''	23:DB:2283:C:O4'	2.14	0.47
23:DB:929:U:O2'	23:DB:930:G:H5'	2.14	0.47
23:DB:659:G:H4'	29:DE:95:LYS:HD2	1.97	0.47
24:DI:89:SER:HA	24:DI:97:VAL:HG11	1.97	0.47
37:DL:127:VAL:HG22	37:DL:128:THR:O	2.15	0.47
42:DN:12:ARG:HG3	42:DN:13:ASN:ND2	2.30	0.47
42:DN:63:ARG:O	42:DN:66:ALA:HB3	2.14	0.47
28:DP:32:VAL:O	28:DP:36:LYS:O	2.33	0.47
49:DR:39:LEU:HD23	49:DR:39:LEU:N	2.29	0.47
35:DV:72:VAL:CG1	35:DV:94:ALA:H	2.20	0.47
1:AA:1091:U:H2'	1:AA:1093:A:OP2	2.15	0.47
1:AA:317:U:H2'	1:AA:318:G:H8	1.79	0.47
1:AA:76:G:H2'	1:AA:77:A:C8	2.49	0.47
1:AA:857:C:H2'	1:AA:858:G:O4'	2.15	0.47
20:AB:48:MET:HE1	20:AB:198:VAL:HB	1.95	0.47
2:AC:156:LEU:HD11	2:AC:165:GLU:HB2	1.97	0.47
4:AE:100:GLU:HA	4:AE:121:ASN:ND2	2.29	0.47
4:AE:45:VAL:O	4:AE:71:ILE:HG22	2.15	0.47
6:AG:148:LYS:HA	6:AG:151:ALA:HB3	1.96	0.47
8:AI:36:GLN:CA	8:AI:36:GLN:HE21	2.27	0.47
8:AI:41:GLU:C	8:AI:43:ALA:H	2.18	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AJ:22:THR:OG1	9:AJ:72:ARG:HG3	2.14	0.47
9:AJ:92:LEU:N	9:AJ:92:LEU:HD22	2.30	0.47
22:BA:54:G:O2'	22:BA:55:U:H5'	2.15	0.47
22:BA:63:C:H2'	22:BA:64:G:H8	1.79	0.47
23:BB:1146:C:H2'	23:BB:1147:A:H8	1.77	0.47
23:BB:1349:C:H2'	23:BB:1350:C:H6	1.79	0.47
23:BB:1731:G:O2'	23:BB:1732:C:H5''	2.14	0.47
23:BB:1857:G:O2'	23:BB:1858:A:H8	1.97	0.47
23:BB:185:G:H4'	23:BB:218:A:H4'	1.96	0.47
23:BB:532:A:N1	23:BB:2020:A:H1'	2.30	0.47
23:BB:2660:A:H2'	23:BB:2661:G:O4'	2.15	0.47
23:BB:4:U:H2'	23:BB:5:A:H8	1.80	0.47
25:BC:141:HIS:CG	25:BC:142:ASN:N	2.81	0.47
25:BC:2:VAL:HG23	25:BC:3:VAL:N	2.30	0.47
23:BB:1568:G:H4'	25:BC:58:LYS:CB	2.45	0.47
25:BC:91:ALA:CB	25:BC:105:ALA:HB2	2.44	0.47
25:BC:93:VAL:HG13	25:BC:94:LEU:N	2.30	0.47
29:BE:148:ILE:HD13	29:BE:187:VAL:CG2	2.45	0.47
47:BF:29:ARG:H	47:BF:29:ARG:CD	2.28	0.47
24:BI:27:LEU:N	24:BI:27:LEU:HD23	2.20	0.47
38:BM:69:PRO:HA	38:BM:94:ALA:HB2	1.96	0.47
28:BP:96:LEU:HD12	28:BP:96:LEU:N	2.30	0.47
50:BT:29:THR:H	50:BT:91:GLN:HE22	1.61	0.47
30:BY:25:GLY:HA3	30:BY:46:MET:HE3	1.96	0.47
1:CA:1004:A:H2'	1:CA:1005:A:C8	2.50	0.47
1:CA:488:C:O2'	1:CA:489:C:H5'	2.15	0.47
20:CB:128:LEU:HD12	20:CB:129:THR:H	1.79	0.47
3:CD:89:LEU:O	3:CD:93:LEU:HD12	2.14	0.47
9:CJ:15:HIS:O	9:CJ:18:ILE:HG22	2.15	0.47
9:CJ:22:THR:OG1	9:CJ:72:ARG:HG3	2.13	0.47
9:CJ:76:ILE:HD12	9:CJ:76:ILE:O	2.14	0.47
10:CK:52:ARG:HA	10:CK:56:LYS:HB3	1.96	0.47
11:CL:30:ARG:HB3	11:CL:57:THR:CG2	2.44	0.47
12:CM:42:VAL:HB	12:CM:47:LEU:HD21	1.95	0.47
12:CM:49:GLU:O	12:CM:52:ILE:HB	2.14	0.47
13:CN:79:SER:HG	13:CN:82:LYS:HG2	1.79	0.47
53:D6:43:VAL:CG1	53:D6:79:ILE:HA	2.44	0.47
23:DB:1110:G:N2	23:DB:1111:A:N6	2.63	0.47
23:DB:130:C:O2'	23:DB:131:A:H5'	2.13	0.47
23:DB:160:A:H2'	23:DB:161:A:C8	2.50	0.47
23:DB:1636:U:H2'	23:DB:1637:A:C8	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1641:A:H2'	23:DB:1642:G:O4'	2.15	0.47
23:DB:1745:A:H2'	23:DB:1746:A:C8	2.50	0.47
23:DB:2281:A:O2'	23:DB:2282:G:H5'	2.15	0.47
23:DB:2399:G:O2'	23:DB:2400:G:H5'	2.14	0.47
23:DB:6:A:H2'	23:DB:7:G:H8	1.79	0.47
23:DB:833:A:H2'	23:DB:834:G:H8	1.79	0.47
25:DC:121:ALA:O	25:DC:122:ALA:HB2	2.15	0.47
48:DG:51:PHE:CD2	48:DG:68:ARG:HG2	2.50	0.47
23:DB:1060:U:OP2	24:DI:74:PRO:HA	2.15	0.47
41:DJ:98:GLU:HB3	41:DJ:124:VAL:HG21	1.96	0.47
41:DJ:44:TYR:CD1	44:DQ:59:LEU:HD11	2.49	0.47
27:DK:64:ARG:NH1	27:DK:101:GLY:HA3	2.30	0.47
50:DT:29:THR:CA	50:DT:86:THR:HA	2.41	0.47
46:DU:48:VAL:O	46:DU:48:VAL:HG13	2.13	0.47
46:DU:51:LEU:O	46:DU:52:ASN:C	2.52	0.47
35:DV:46:LYS:HA	35:DV:46:LYS:HE3	1.95	0.47
39:DX:17:GLU:O	39:DX:20:ASN:HB2	2.14	0.47
1:AA:1004:A:C8	1:AA:1025:U:H1'	2.48	0.47
1:AA:169:C:O2'	1:AA:170:U:H5'	2.14	0.47
1:AA:182:A:HO2'	1:AA:183:C:H3'	1.77	0.47
1:AA:358:U:H2'	1:AA:359:G:H8	1.77	0.47
1:AA:394:G:H2'	1:AA:395:C:C6	2.49	0.47
1:AA:503:C:O2'	1:AA:504:C:H5'	2.15	0.47
1:AA:633:G:H2'	1:AA:634:C:C6	2.49	0.47
1:AA:634:C:H2'	1:AA:635:A:H8	1.80	0.47
1:AA:656:G:O2'	1:AA:657:U:H5'	2.14	0.47
1:AA:957:U:H4'	18:AS:78:THR:O	2.15	0.47
20:AB:216:VAL:HG23	20:AB:217:ALA:N	2.29	0.47
3:AD:146:GLU:HA	3:AD:149:LYS:CG	2.42	0.47
3:AD:165:GLU:CG	3:AD:166:LYS:N	2.77	0.47
3:AD:35:GLN:O	3:AD:37:PRO:HD3	2.15	0.47
18:AS:65:MET:O	18:AS:65:MET:HG2	2.15	0.47
10:AK:124:LYS:O	21:AU:33:ARG:NE	2.47	0.47
23:BB:1550:C:H2'	23:BB:1551:A:H8	1.80	0.47
23:BB:1565:C:H5''	25:BC:17:LYS:HZ1	1.80	0.47
23:BB:1587:G:O2'	23:BB:1588:G:H5'	2.15	0.47
23:BB:1668:A:O2'	23:BB:1674:G:N7	2.45	0.47
23:BB:1681:G:H2'	23:BB:1757:A:N1	2.30	0.47
23:BB:1998:A:H2'	23:BB:1999:C:C6	2.50	0.47
23:BB:2748:A:H2'	23:BB:2749:A:C8	2.50	0.47
23:BB:2863:C:O2'	23:BB:2864:G:H5'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:374:A:N6	23:BB:400:G:H1'	2.30	0.47
23:BB:816:C:O2'	23:BB:817:C:H5'	2.14	0.47
47:BF:99:PHE:HA	47:BF:102:LEU:CD1	2.44	0.47
48:BG:51:PHE:CD2	48:BG:68:ARG:HG2	2.50	0.47
40:BH:57:LYS:HZ1	40:BH:58:LEU:HD22	1.79	0.47
24:BI:79:LEU:HD11	24:BI:131:THR:OG1	2.14	0.47
27:BK:64:ARG:HH12	27:BK:101:GLY:HA3	1.79	0.47
38:BM:72:PRO:O	38:BM:91:TYR:O	2.31	0.47
43:BO:4:LYS:O	43:BO:8:ILE:HG13	2.15	0.47
28:BP:83:ILE:HD13	28:BP:83:ILE:O	2.14	0.47
44:BQ:97:ILE:HD11	44:BQ:108:LEU:CD1	2.44	0.47
44:BQ:20:ALA:HA	44:BQ:23:TYR:CE1	2.50	0.47
44:BQ:91:ARG:HD3	49:BR:11:GLN:CG	2.45	0.47
23:BB:518:G:H4'	45:BS:18:ARG:NH2	2.29	0.47
35:BV:93:ARG:HH11	35:BV:93:ARG:HG3	1.80	0.47
1:CA:394:G:H2'	1:CA:395:C:H6	1.80	0.47
1:CA:398:U:H2'	1:CA:399:G:H8	1.80	0.47
1:CA:489:C:O2'	1:CA:490:C:H5'	2.15	0.47
1:CA:659:U:H2'	1:CA:660:C:C6	2.49	0.47
20:CB:40:ILE:HD13	20:CB:201:GLY:HA2	1.95	0.47
20:CB:31:PHE:HB2	20:CB:41:ASN:CA	2.44	0.47
2:CC:88:LYS:O	2:CC:88:LYS:HE3	2.14	0.47
3:CD:146:GLU:HA	3:CD:149:LYS:CG	2.43	0.47
11:CL:82:ARG:HG2	11:CL:82:ARG:HH11	1.79	0.47
11:CL:75:GLU:OE2	53:D6:104:PRO:HA	2.15	0.47
53:D6:29:ARG:HG2	53:D6:29:ARG:O	2.14	0.47
53:D6:75:ALA:C	53:D6:77:LYS:N	2.67	0.47
23:DB:1444:G:H2'	23:DB:1445:G:H8	1.80	0.47
23:DB:1985:C:O2'	23:DB:1986:C:H5'	2.14	0.47
23:DB:246:C:H2'	23:DB:247:G:C5'	2.44	0.47
23:DB:2553:G:H2'	23:DB:2554:U:O4'	2.14	0.47
23:DB:2568:U:H2'	23:DB:2569:G:O4'	2.13	0.47
23:DB:600:G:H2'	23:DB:601:C:C6	2.49	0.47
23:DB:745:G:H5'	23:DB:746:U:OP2	2.15	0.47
23:DB:812:C:H5''	23:DB:1250:G:O2'	2.14	0.47
23:DB:901:C:H2'	23:DB:902:C:C6	2.50	0.47
23:DB:912:C:O2'	23:DB:913:U:H5'	2.15	0.47
29:DE:149:ILE:O	29:DE:188:MET:HA	2.15	0.47
29:DE:164:LEU:HB2	29:DE:167:VAL:CG1	2.45	0.47
47:DF:99:PHE:HA	47:DF:102:LEU:CD1	2.45	0.47
47:DF:141:ASP:HB3	47:DF:144:LYS:HB2	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DF:48:LEU:O	47:DF:51:ASN:HB2	2.13	0.47
47:DF:72:SER:CB	47:DF:80:GLN:H	2.27	0.47
48:DG:84:LYS:HB3	48:DG:132:LEU:O	2.15	0.47
24:DI:23:VAL:HG12	24:DI:24:GLY:N	2.30	0.47
24:DI:27:LEU:HB2	24:DI:32:VAL:HG21	1.96	0.47
41:DJ:44:TYR:CE1	44:DQ:59:LEU:HD11	2.50	0.47
27:DK:71:ARG:HH21	27:DK:106:GLU:HG3	1.80	0.47
38:DM:102:LEU:N	38:DM:102:LEU:HD22	2.28	0.47
38:DM:72:PRO:O	38:DM:73:ILE:HB	2.15	0.47
42:DN:8:ARG:NH2	42:DN:39:PRO:HB3	2.29	0.47
28:DP:91:VAL:HG11	28:DP:96:LEU:CD1	2.33	0.47
45:DS:32:ALA:O	45:DS:36:LEU:HD23	2.15	0.47
50:DT:29:THR:CG2	50:DT:86:THR:HG22	2.45	0.47
46:DU:87:GLU:OE2	46:DU:88:ASP:HB2	2.14	0.47
35:DV:48:MET:O	35:DV:51:GLN:HG3	2.15	0.47
1:AA:191:G:H2'	1:AA:192:A:C8	2.50	0.47
1:AA:237:G:H5''	16:AQ:26:ARG:NH2	2.30	0.47
1:AA:251:G:N3	1:AA:266:G:O6	2.48	0.47
1:AA:426:U:H2'	1:AA:427:U:C6	2.49	0.47
8:AI:51:LEU:C	8:AI:53:LEU:H	2.18	0.47
9:AJ:12:ALA:HB3	9:AJ:18:ILE:HB	1.97	0.47
13:AN:14:ALA:HB1	13:AN:18:LYS:CE	2.45	0.47
21:AU:43:GLU:CG	21:AU:44:ARG:HH21	2.27	0.47
33:B1:38:PHE:O	33:B1:40:PRO:HD3	2.15	0.47
32:B4:6:SER:O	32:B4:7:VAL:C	2.53	0.47
53:B6:108:GLU:OE2	53:B6:111:ARG:HG2	2.15	0.47
53:B6:169:ILE:HG22	53:B6:170:ALA:N	2.30	0.47
53:B6:178:LYS:HA	53:B6:181:GLN:CG	2.44	0.47
23:BB:1244:A:H5''	37:BL:8:PRO:CD	2.42	0.47
23:BB:1689:A:O2'	23:BB:1690:A:H5'	2.14	0.47
23:BB:1946:U:H2'	23:BB:1947:C:C6	2.49	0.47
23:BB:2133:G:N3	23:BB:2133:G:C2'	2.77	0.47
23:BB:2144:G:N2	23:BB:2146:C:H1'	2.29	0.47
23:BB:2200:C:P	51:BZ:37:ARG:HB2	2.55	0.47
23:BB:2645:G:H3'	23:BB:2646:C:C5'	2.45	0.47
23:BB:2831:G:OP1	23:BB:2834:G:H4'	2.14	0.47
23:BB:279:A:C2	23:BB:362:A:H4'	2.50	0.47
23:BB:538:A:N6	23:BB:555:G:O2'	2.45	0.47
23:BB:851:C:H2'	23:BB:852:U:C6	2.49	0.47
23:BB:85:G:OP1	46:BU:6:ARG:N	2.47	0.47
25:BC:121:ALA:O	25:BC:122:ALA:HB2	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BE:58:LYS:CD	29:BE:58:LYS:H	2.28	0.47
41:BJ:64:VAL:O	41:BJ:68:LYS:HD2	2.15	0.47
27:BK:63:VAL:HG12	27:BK:64:ARG:HD3	1.96	0.47
37:BL:85:VAL:HG11	37:BL:90:VAL:HG22	1.96	0.47
38:BM:108:VAL:HG22	38:BM:112:LEU:HB3	1.97	0.47
38:BM:57:VAL:O	38:BM:60:GLN:HG2	2.15	0.47
43:BO:82:ALA:O	43:BO:87:ILE:HB	2.15	0.47
44:BQ:63:ARG:HH21	44:BQ:64:ILE:HD11	1.78	0.47
52:BW:30:VAL:O	52:BW:30:VAL:HG22	2.14	0.47
51:BZ:5:CYS:HG	51:BZ:52:SER:HG	1.62	0.47
1:CA:105:G:H2'	1:CA:106:C:H6	1.79	0.47
1:CA:1073:U:H2'	1:CA:1074:G:C8	2.50	0.47
1:CA:1272:G:H2'	1:CA:1273:C:C6	2.50	0.47
8:CI:71:ILE:HD13	1:CA:1289:A:H61	1.78	0.47
1:CA:235:C:H2'	1:CA:236:A:H8	1.79	0.47
1:CA:815:A:H4'	1:CA:817:C:C4	2.50	0.47
20:CB:125:PHE:HZ	20:CB:137:THR:OG1	1.98	0.47
2:CC:33:ASP:O	2:CC:36:PHE:HB3	2.14	0.47
3:CD:103:ARG:HH21	3:CD:110:ARG:NH2	2.12	0.47
3:CD:115:GLN:HG3	3:CD:119:HIS:CE1	2.50	0.47
3:CD:151:GLN:HE22	3:CD:153:ARG:NH1	2.13	0.47
3:CD:94:GLU:CG	3:CD:185:PRO:HG3	2.44	0.47
7:CH:74:ILE:O	7:CH:74:ILE:HG23	2.15	0.47
8:CI:115:VAL:CG2	9:CJ:62:ARG:HG3	2.44	0.47
8:CI:5:TYR:HD2	8:CI:88:GLU:CB	2.28	0.47
12:CM:56:ARG:O	12:CM:59:VAL:HG12	2.15	0.47
12:CM:7:ASN:ND2	12:CM:7:ASN:N	2.54	0.47
14:CO:35:GLN:O	14:CO:39:LEU:HB2	2.14	0.47
18:CS:36:ARG:HB3	1:CA:1320:C:H41	1.79	0.47
18:CS:4:LEU:O	18:CS:4:LEU:HD13	2.15	0.47
22:DA:32:U:H4'	22:DA:52:A:H62	1.79	0.47
23:DB:1407:G:H2'	23:DB:1408:G:C8	2.48	0.47
23:DB:1564:C:O2'	23:DB:1565:C:H5'	2.14	0.47
23:DB:1131:G:N7	23:DB:2025:C:H4'	2.30	0.47
23:DB:2336:A:C6	52:DW:40:ARG:HD2	2.49	0.47
23:DB:2756:U:C1'	23:DB:2757:A:H5''	2.45	0.47
23:DB:596:U:H2'	23:DB:597:G:H8	1.79	0.47
23:DB:648:G:H2'	23:DB:649:G:H8	1.79	0.47
25:DC:27:LYS:HG2	25:DC:28:PRO:HD2	1.96	0.47
26:DD:136:ASN:ND2	26:DD:140:HIS:ND1	2.62	0.47
26:DD:13:ARG:HD3	26:DD:15:PHE:CE1	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DF:161:SER:OG	47:DF:164:GLU:HG3	2.15	0.47
48:DG:8:VAL:HB	48:DG:49:LEU:H	1.79	0.47
24:DI:18:ASN:N	24:DI:19:PRO:CD	2.77	0.47
24:DI:69:VAL:O	24:DI:69:VAL:HG23	2.14	0.47
24:DI:78:LEU:HD23	24:DI:81:LYS:HE2	1.96	0.47
41:DJ:32:LEU:HD21	41:DJ:56:VAL:HG22	1.95	0.47
27:DK:19:VAL:HB	27:DK:41:ILE:CD1	2.45	0.47
38:DM:41:LEU:C	38:DM:43:ALA:H	2.18	0.47
42:DN:82:GLU:O	42:DN:85:PRO:HD2	2.15	0.47
44:DQ:94:LEU:C	44:DQ:96:ASP:N	2.67	0.47
49:DR:39:LEU:HB3	49:DR:53:PHE:HA	1.97	0.47
45:DS:24:ILE:CD1	45:DS:36:LEU:HD21	2.44	0.47
39:DX:51:ALA:O	39:DX:55:THR:N	2.42	0.47
51:DZ:51:VAL:O	51:DZ:52:SER:HB3	2.13	0.47
1:AA:1219:A:H2'	1:AA:1220:G:C8	2.50	0.47
1:AA:66:A:H5'	1:AA:173:U:O4	2.14	0.47
1:AA:313:A:H2'	1:AA:314:C:H6	1.78	0.47
1:AA:946:A:H2'	1:AA:947:G:H8	1.74	0.47
20:AB:186:VAL:HB	20:AB:190:SER:HB2	1.97	0.47
20:AB:75:ALA:O	20:AB:79:VAL:HG23	2.15	0.47
2:AC:91:ALA:HB1	2:AC:96:VAL:O	2.15	0.47
3:AD:160:LEU:H	3:AD:160:LEU:CD1	2.22	0.47
8:AI:11:ARG:HA	8:AI:105:ARG:NH1	2.30	0.47
9:AJ:59:LYS:O	9:AJ:62:ARG:HG2	2.15	0.47
10:AK:70:ALA:O	10:AK:74:LYS:HB2	2.15	0.47
12:AM:91:ARG:HG3	12:AM:92:ARG:N	2.30	0.47
15:AP:20:VAL:HG23	15:AP:35:ARG:HA	1.96	0.47
17:AR:57:ALA:HA	17:AR:60:ARG:HH11	1.79	0.47
21:AU:35:GLU:HB2	21:AU:37:TYR:CZ	2.50	0.47
33:B1:34:GLU:HG2	33:B1:49:LYS:HG3	1.95	0.47
23:BB:2590:A:O2'	23:BB:2591:C:H5'	2.14	0.47
23:BB:2720:U:H2'	23:BB:2721:A:H8	1.80	0.47
23:BB:289:G:H2'	23:BB:290:U:C6	2.49	0.47
23:BB:912:C:H2'	23:BB:913:U:C6	2.49	0.47
25:BC:4:LYS:HE3	25:BC:13:ARG:O	2.15	0.47
23:BB:2578:G:N2	26:BD:130:GLN:HE22	2.13	0.47
26:BD:14:ILE:HG23	26:BD:22:ILE:HB	1.95	0.47
29:BE:5:LEU:HD13	29:BE:122:GLU:HG2	1.96	0.47
29:BE:145:ASP:OD2	29:BE:183:PHE:HA	2.15	0.47
47:BF:161:SER:OG	47:BF:164:GLU:HG3	2.15	0.47
47:BF:19:PHE:HE1	47:BF:167:ALA:HB2	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BG:88:LEU:HD21	48:BG:95:ALA:HB2	1.96	0.47
41:BJ:20:ALA:HA	41:BJ:23:LYS:CG	2.43	0.47
44:BQ:94:LEU:HD21	49:BR:11:GLN:CB	2.43	0.47
49:BR:1:MET:O	49:BR:15:SER:HB3	2.15	0.47
51:BZ:39:TRP:NE1	51:BZ:41:GLU:HG2	2.29	0.47
1:CA:1004:A:C8	1:CA:1025:U:H1'	2.49	0.47
1:CA:1387:G:H2'	1:CA:1388:C:C6	2.49	0.47
16:CQ:26:ARG:NH2	1:CA:237:G:H5''	2.30	0.47
1:CA:476:U:H2'	1:CA:477:C:C6	2.49	0.47
1:CA:696:A:H1'	1:CA:786:G:O2'	2.14	0.47
1:CA:923:A:H2'	1:CA:924:C:H6	1.79	0.47
3:CD:154:VAL:HG23	3:CD:155:LYS:N	2.29	0.47
4:CE:100:GLU:HA	4:CE:121:ASN:ND2	2.30	0.47
4:CE:103:GLY:O	4:CE:121:ASN:HA	2.14	0.47
8:CI:51:LEU:C	8:CI:53:LEU:H	2.18	0.47
12:CM:14:ALA:HB1	12:CM:33:LEU:HD21	1.96	0.47
12:CM:44:ILE:O	12:CM:47:LEU:HB2	2.14	0.47
14:CO:88:ARG:HA	14:CO:88:ARG:NE	2.30	0.47
16:CQ:30:HIS:ND1	16:CQ:32:ILE:HG22	2.29	0.47
13:CN:40:ARG:NH1	18:CS:6:LYS:HB2	2.29	0.47
33:D1:47:ILE:HD12	33:D1:47:ILE:N	2.30	0.47
53:D6:43:VAL:HG11	53:D6:79:ILE:CG1	2.44	0.47
23:DB:1196:C:H2'	23:DB:1197:G:C8	2.50	0.47
23:DB:137:U:C5	23:DB:138:U:N3	2.83	0.47
23:DB:137:U:OP2	23:DB:138:U:O4	2.33	0.47
23:DB:1450:G:C6	23:DB:1451:C:N4	2.83	0.47
23:DB:2102:G:O2'	23:DB:2103:C:H5'	2.15	0.47
23:DB:215:G:C4'	23:DB:216:A:H4'	2.44	0.47
23:DB:2196:C:O2'	23:DB:2197:U:H5'	2.15	0.47
23:DB:2699:C:H2'	23:DB:2700:A:H8	1.80	0.47
23:DB:2758:A:H2'	23:DB:2759:G:H5'	1.96	0.47
23:DB:718:A:H2'	23:DB:719:C:H5'	1.97	0.47
25:DC:145:MET:HG3	25:DC:152:GLN:CD	2.35	0.47
29:DE:21:ARG:HH11	29:DE:106:LYS:CD	2.27	0.47
40:DH:114:GLU:HB3	40:DH:133:GLN:NE2	2.25	0.47
41:DJ:116:ARG:O	41:DJ:120:ARG:HG2	2.15	0.47
37:DL:17:LYS:HD2	37:DL:19:LEU:HD11	1.97	0.47
42:DN:73:ASN:HA	42:DN:76:VAL:CG2	2.44	0.47
41:DJ:44:TYR:CD1	44:DQ:63:ARG:HD3	2.49	0.47
44:DQ:78:PHE:CZ	44:DQ:82:LEU:HD11	2.50	0.47
50:DT:28:ASN:C	50:DT:29:THR:HG23	2.35	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:DT:30:ILE:O	50:DT:85:VAL:HG23	2.14	0.47
50:DT:29:THR:H	50:DT:91:GLN:HE22	1.62	0.47
52:DW:35:ILE:O	52:DW:37:VAL:N	2.48	0.47
52:DW:69:GLU:O	52:DW:77:LYS:HD3	2.14	0.47
39:DX:36:GLN:O	39:DX:37:LEU:O	2.32	0.47
1:AA:1072:G:H2'	1:AA:1073:U:C6	2.49	0.47
1:AA:113:G:H21	1:AA:353:A:H8	1.62	0.47
1:AA:979:C:H1'	1:AA:1317:C:H41	1.80	0.47
1:AA:921:U:H2'	1:AA:922:G:O4'	2.15	0.47
20:AB:75:ALA:HB2	20:AB:209:VAL:HG11	1.97	0.47
20:AB:31:PHE:HB2	20:AB:41:ASN:CA	2.43	0.47
20:AB:88:GLN:HE21	20:AB:88:GLN:HB2	1.56	0.47
8:AI:14:SER:HG	8:AI:69:GLY:HA3	1.79	0.47
12:AM:2:ARG:HG3	12:AM:6:ILE:HA	1.95	0.47
1:AA:196:A:OP1	19:AT:63:LYS:HE2	2.13	0.47
53:B6:70:SER:N	53:B6:97:ASP:O	2.48	0.47
22:BA:9:G:O2'	22:BA:10:G:H5'	2.15	0.47
23:BB:1300:G:H4'	23:BB:1301:A:O5'	2.15	0.47
23:BB:142:A:O2'	23:BB:143:C:H5'	2.15	0.47
23:BB:1585:C:H2'	23:BB:1586:A:O4'	2.14	0.47
23:BB:1725:U:H2'	23:BB:1726:C:H6	1.80	0.47
23:BB:1736:U:H2'	23:BB:1737:G:O4'	2.14	0.47
23:BB:2028:U:H2'	23:BB:2029:G:C8	2.50	0.47
23:BB:2144:G:O2'	23:BB:2146:C:H5'	2.14	0.47
23:BB:2815:C:H2'	23:BB:2816:G:H8	1.80	0.47
23:BB:576:U:H2'	23:BB:577:G:C8	2.49	0.47
23:BB:592:A:H2'	23:BB:593:U:C6	2.50	0.47
23:BB:718:A:H2'	23:BB:719:C:H5'	1.97	0.47
23:BB:828:U:H4'	23:BB:831:G:N1	2.30	0.47
26:BD:118:PHE:CZ	26:BD:123:LYS:HD2	2.49	0.47
29:BE:164:LEU:HB2	29:BE:167:VAL:CG1	2.45	0.47
29:BE:4:VAL:HG12	29:BE:6:LYS:H	1.79	0.47
47:BF:141:ASP:HB3	47:BF:144:LYS:HB2	1.96	0.47
47:BF:78:ILE:HA	47:BF:79:ARG:HE	1.78	0.47
48:BG:25:ILE:CG2	48:BG:78:VAL:HG21	2.45	0.47
40:BH:44:ILE:C	40:BH:46:PHE:N	2.68	0.47
37:BL:112:LEU:HD23	37:BL:112:LEU:O	2.15	0.47
38:BM:77:PRO:HB2	38:BM:80:VAL:HG11	1.95	0.47
42:BN:12:ARG:HG3	42:BN:13:ASN:ND2	2.30	0.47
43:BO:108:ASP:O	43:BO:112:GLU:HB2	2.15	0.47
28:BP:105:LYS:HA	28:BP:108:ARG:NE	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:2685:G:OP1	28:BP:72:VAL:HG11	2.15	0.47
44:BQ:84:LYS:O	44:BQ:86:SER:N	2.48	0.47
45:BS:24:ILE:CD1	45:BS:36:LEU:HD21	2.45	0.47
39:BX:27:ASN:N	39:BX:27:ASN:HD22	2.13	0.47
1:CA:1141:C:H2'	1:CA:1142:G:H8	1.79	0.47
1:CA:1151:A:O2'	1:CA:1152:A:H8	1.97	0.47
3:CD:131:ILE:HD13	1:CA:620:C:C1'	2.45	0.47
1:CA:709:U:H2'	1:CA:710:G:H8	1.79	0.47
20:CB:94:ARG:NE	20:CB:94:ARG:N	2.63	0.47
4:CE:53:ARG:HB3	4:CE:53:ARG:NH1	2.30	0.47
5:CF:81:ASN:HB3	5:CF:84:VAL:CG1	2.45	0.47
6:CG:112:ASP:HB3	6:CG:117:LEU:HD21	1.96	0.47
6:CG:3:ARG:HH11	1:CA:1092:A:H5''	1.80	0.47
11:CL:35:ARG:NE	11:CL:36:VAL:H	2.13	0.47
23:DB:1613:G:O2'	36:D2:3:ARG:HD2	2.15	0.47
32:D4:11:CYS:HB3	32:D4:33:HIS:CE1	2.49	0.47
23:DB:1690:A:H2'	23:DB:1691:C:O4'	2.14	0.47
23:DB:1720:U:C2'	23:DB:1721:G:H5'	2.44	0.47
23:DB:1681:G:O2'	23:DB:1762:A:H1'	2.14	0.47
23:DB:2179:C:H2'	23:DB:2180:U:C6	2.50	0.47
23:DB:2230:G:H2'	23:DB:2231:U:C6	2.50	0.47
23:DB:234:U:H2'	23:DB:235:U:H6	1.80	0.47
23:DB:2282:G:H5'	23:DB:2389:G:H1'	1.97	0.47
23:DB:565:C:O2'	23:DB:566:U:H5'	2.15	0.47
26:DD:97:SER:HB3	26:DD:99:GLU:HG3	1.97	0.47
47:DF:131:VAL:O	47:DF:132:ARG:HB2	2.15	0.47
47:DF:78:ILE:HA	47:DF:79:ARG:HE	1.79	0.47
23:DB:2529:G:H4'	48:DG:174:LYS:HG3	1.97	0.47
48:DG:26:LYS:HA	48:DG:32:LEU:HA	1.97	0.47
48:DG:9:VAL:HA	48:DG:48:THR:HA	1.97	0.47
24:DI:37:PHE:HB2	24:DI:66:PHE:CE2	2.49	0.47
24:DI:79:LEU:HD12	24:DI:135:MET:SD	2.54	0.47
38:DM:57:VAL:O	38:DM:60:GLN:HG2	2.15	0.47
43:DO:108:ASP:O	43:DO:112:GLU:HB2	2.15	0.47
28:DP:5:LYS:HZ1	28:DP:9:GLN:HB3	1.80	0.47
44:DQ:24:TYR:CG	44:DQ:25:GLY:N	2.83	0.47
45:DS:71:VAL:O	45:DS:71:VAL:HG22	2.15	0.47
50:DT:18:GLU:O	50:DT:20:ALA:N	2.41	0.47
46:DU:3:LYS:CB	46:DU:82:VAL:HG21	2.42	0.47
52:DW:65:LYS:HG3	52:DW:84:GLU:HB3	1.95	0.47
30:DY:2:LYS:CD	30:DY:2:LYS:H	2.28	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1023:U:H2'	1:AA:1024:G:H8	1.79	0.47
1:AA:105:G:H2'	1:AA:106:C:C6	2.49	0.47
1:AA:1281:C:H3'	1:AA:1282:C:H6	1.80	0.47
1:AA:1499:A:O2'	1:AA:1500:A:H5'	2.15	0.47
1:AA:394:G:H2'	1:AA:395:C:H6	1.80	0.47
1:AA:45:G:O2'	1:AA:46:G:H5'	2.15	0.47
1:AA:489:C:H2'	1:AA:490:C:H6	1.80	0.47
1:AA:68:G:H5'	1:AA:171:A:O2'	2.15	0.47
5:AF:98:GLU:CG	5:AF:99:ALA:N	2.77	0.47
8:AI:47:VAL:HG23	8:AI:48:ARG:N	2.30	0.47
8:AI:20:ILE:HG13	8:AI:62:LEU:HD11	1.97	0.47
12:AM:14:ALA:HB1	12:AM:33:LEU:HD21	1.98	0.47
15:AP:40:ASN:ND2	15:AP:43:ALA:N	2.62	0.47
18:AS:10:ILE:HB	18:AS:14:LEU:HD21	1.97	0.47
33:B1:3:GLY:O	33:B1:5:ARG:N	2.48	0.47
32:B4:16:ILE:HG13	32:B4:25:VAL:CG2	2.44	0.47
53:B6:86:SER:C	53:B6:88:LEU:H	2.17	0.47
23:BB:1439:A:C8	23:BB:1440:U:C6	3.03	0.47
23:BB:1885:A:H3'	23:BB:1886:U:C6	2.49	0.47
23:BB:2652:C:O2'	23:BB:2653:U:H5'	2.15	0.47
23:BB:65:U:H2'	23:BB:66:C:C6	2.49	0.47
23:BB:720:U:H2'	23:BB:721:A:H8	1.79	0.47
29:BE:37:ALA:O	29:BE:39:ALA:N	2.43	0.47
48:BG:34:ARG:N	48:BG:34:ARG:CD	2.78	0.47
42:BN:102:PHE:H	42:BN:109:PRO:HA	1.80	0.47
42:BN:41:ALA:C	42:BN:43:GLU:N	2.68	0.47
44:BQ:30:VAL:CG1	44:BQ:33:VAL:HG22	2.44	0.47
44:BQ:57:ARG:HH11	44:BQ:61:ILE:HD11	1.78	0.47
44:BQ:64:ILE:HD12	44:BQ:95:ALA:CB	2.45	0.47
50:BT:29:THR:CG2	50:BT:86:THR:HG22	2.45	0.47
52:BW:69:GLU:O	52:BW:77:LYS:HD3	2.15	0.47
30:BY:46:MET:HB3	30:BY:46:MET:HE2	1.83	0.47
30:BY:6:ILE:HG21	30:BY:26:LEU:HD13	1.96	0.47
18:CS:13:HIS:CG	1:CA:1014:A:H4'	2.49	0.47
1:CA:1219:A:H2'	1:CA:1220:G:C8	2.49	0.47
1:CA:1300:G:H1'	1:CA:1301:U:H5	1.79	0.47
1:CA:1417:G:H2'	1:CA:1482:G:N2	2.30	0.47
1:CA:78:A:O2'	1:CA:79:G:H5'	2.15	0.47
1:CA:821:G:H2'	1:CA:822:U:H6	1.80	0.47
5:CF:43:GLY:HA2	5:CF:58:HIS:CD2	2.49	0.47
8:CI:36:GLN:CA	8:CI:36:GLN:HE21	2.27	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CJ:24:GLU:O	9:CJ:28:THR:HG23	2.15	0.47
9:CJ:53:ILE:CG2	9:CJ:61:ALA:HB1	2.29	0.47
10:CK:16:SER:HA	10:CK:77:GLY:O	2.14	0.47
11:CL:34:THR:N	11:CL:53:ARG:O	2.48	0.47
17:CR:20:ILE:HA	17:CR:53:GLN:NE2	2.30	0.47
18:CS:18:VAL:HG13	18:CS:19:GLU:N	2.30	0.47
18:CS:35:ARG:NH2	18:CS:52:ASN:HA	2.30	0.47
18:CS:38:THR:HA	18:CS:69:LYS:HD3	1.97	0.47
32:D4:11:CYS:SG	32:D4:13:ASN:HB2	2.55	0.47
23:DB:1349:C:H2'	23:DB:1350:C:H6	1.80	0.47
23:DB:1487:U:H2'	23:DB:1488:C:H6	1.80	0.47
23:DB:1731:G:O2'	23:DB:1732:C:H5''	2.15	0.47
23:DB:2480:C:O2'	23:DB:2481:G:H5'	2.15	0.47
23:DB:321:U:OP2	29:DE:130:LYS:HA	2.15	0.47
23:DB:588:U:O4	23:DB:670:A:H1'	2.14	0.47
23:DB:588:U:H2'	23:DB:589:U:C6	2.50	0.47
23:DB:592:A:H2'	23:DB:593:U:C6	2.50	0.47
23:DB:771:G:O2'	23:DB:772:C:H5'	2.14	0.47
26:DD:55:LYS:C	26:DD:57:ALA:H	2.19	0.47
26:DD:53:GLY:C	26:DD:76:GLY:HA2	2.36	0.47
48:DG:10:VAL:CG1	48:DG:14:VAL:HB	2.32	0.47
48:DG:172:GLU:OE2	48:DG:175:LYS:HE2	2.15	0.47
40:DH:70:GLU:OE1	40:DH:71:LYS:HG3	2.14	0.47
44:DQ:94:LEU:CD1	49:DR:13:ARG:HB2	2.40	0.47
49:DR:20:VAL:HG12	49:DR:22:LEU:HD23	1.97	0.47
45:DS:73:LYS:HE3	45:DS:74:ILE:N	2.29	0.47
52:DW:19:ARG:NE	52:DW:19:ARG:H	2.09	0.47
1:AA:1499:A:H1'	1:AA:1520:C:H5'	1.96	0.46
1:AA:308:C:H2'	1:AA:309:A:C8	2.49	0.46
1:AA:708:C:H2'	1:AA:709:U:H6	1.80	0.46
2:AC:59:PRO:HG2	2:AC:62:SER:OG	2.15	0.46
7:AH:101:ALA:O	7:AH:103:VAL:HG23	2.16	0.46
8:AI:5:TYR:HD2	8:AI:88:GLU:CB	2.28	0.46
9:AJ:77:VAL:HG12	9:AJ:78:GLU:H	1.80	0.46
13:AN:50:LEU:H	13:AN:51:PRO:CD	2.24	0.46
14:AO:18:ASP:O	14:AO:19:ALA:HB2	2.15	0.46
16:AQ:14:ASP:HA	16:AQ:20:ILE:HD11	1.96	0.46
17:AR:20:ILE:HA	17:AR:53:GLN:NE2	2.30	0.46
18:AS:68:HIS:HB3	18:AS:72:GLU:CD	2.35	0.46
21:AU:11:PHE:O	21:AU:12:ASP:C	2.53	0.46
22:BA:43:C:H1'	47:BF:91:ARG:HH21	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1281:G:H2'	23:BB:1282:U:C6	2.50	0.46
23:BB:1691:C:O2'	23:BB:1692:U:H5'	2.15	0.46
23:BB:1720:U:C2'	23:BB:1721:G:H5'	2.45	0.46
23:BB:2148:G:H2'	23:BB:2149:U:O4'	2.15	0.46
23:BB:20:C:H2'	23:BB:21:A:H8	1.78	0.46
23:BB:2772:C:H2'	23:BB:2773:C:C6	2.49	0.46
23:BB:919:U:H6	23:BB:919:U:O5'	1.98	0.46
29:BE:109:LEU:HD12	29:BE:112:LEU:HD12	1.97	0.46
29:BE:46:GLN:HB3	29:BE:86:ALA:HA	1.97	0.46
48:BG:154:GLU:O	48:BG:156:TYR:N	2.41	0.46
40:BH:112:LYS:HE2	40:BH:113:SER:CA	2.45	0.46
40:BH:133:GLN:O	40:BH:134:VAL:O	2.33	0.46
41:BJ:93:ILE:O	41:BJ:97:PRO:HG3	2.15	0.46
37:BL:80:SER:HB3	37:BL:115:GLU:OE2	2.15	0.46
38:BM:53:MET:O	38:BM:57:VAL:HG23	2.15	0.46
42:BN:8:ARG:NH2	42:BN:39:PRO:HB3	2.29	0.46
28:BP:5:LYS:HD3	28:BP:9:GLN:OE1	2.16	0.46
45:BS:59:GLU:HA	45:BS:64:ALA:HA	1.97	0.46
46:BU:88:ASP:CG	46:BU:89:GLY:H	2.18	0.46
23:BB:857:G:H5'	52:BW:68:PHE:CD1	2.50	0.46
30:BY:2:LYS:HG2	30:BY:3:THR:N	2.28	0.46
30:BY:4:ILE:HG23	30:BY:56:VAL:HG13	1.97	0.46
1:CA:1097:C:H2'	1:CA:1098:C:H6	1.79	0.46
1:CA:1101:A:H4'	1:CA:1102:A:O5'	2.15	0.46
1:CA:1521:C:H2'	1:CA:1522:U:C6	2.50	0.46
1:CA:230:G:O2'	1:CA:231:U:H5'	2.15	0.46
1:CA:279:A:H5'	1:CA:281:G:C5'	2.45	0.46
1:CA:370:C:H2'	1:CA:371:A:H8	1.79	0.46
1:CA:51:A:H4'	1:CA:52:C:OP2	2.15	0.46
1:CA:885:G:O2'	1:CA:886:G:H5'	2.14	0.46
20:CB:46:VAL:N	20:CB:47:PRO:CD	2.78	0.46
3:CD:100:VAL:HG11	3:CD:142:VAL:HG21	1.97	0.46
9:CJ:12:ALA:HB3	9:CJ:18:ILE:HB	1.96	0.46
10:CK:57:SER:O	10:CK:90:PRO:HG3	2.15	0.46
12:CM:12:LYS:O	12:CM:43:LYS:HA	2.15	0.46
13:CN:20:PHE:O	13:CN:24:ALA:HB3	2.16	0.46
34:D3:50:SER:C	34:D3:52:GLY:H	2.18	0.46
32:D4:25:VAL:HG11	32:D4:35:GLN:HE21	1.79	0.46
53:D6:44:GLU:OE2	53:D6:48:ALA:N	2.48	0.46
22:DA:14:U:C1'	22:DA:106:G:H21	2.27	0.46
23:DB:443:A:C2	23:DB:1245:G:N3	2.83	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1309:G:H4'	36:D2:7:PRO:CB	2.36	0.46
23:DB:1376:C:H5''	56:DB:3282:HOH:O	2.15	0.46
23:DB:1689:A:O2'	23:DB:1690:A:H5'	2.15	0.46
23:DB:2080:A:H2'	23:DB:2081:U:C6	2.50	0.46
23:DB:2138:G:H2'	23:DB:2139:U:O4'	2.15	0.46
23:DB:2331:G:N2	23:DB:2336:A:C8	2.81	0.46
23:DB:235:U:H2'	23:DB:236:C:C6	2.49	0.46
23:DB:2660:A:H2'	23:DB:2661:G:O4'	2.14	0.46
23:DB:603:A:H4'	23:DB:604:G:O5'	2.15	0.46
23:DB:697:G:H2'	23:DB:698:C:C6	2.50	0.46
23:DB:730:A:H3'	56:DB:3612:HOH:O	2.15	0.46
23:DB:956:G:N2	23:DB:959:A:H3'	2.30	0.46
25:DC:110:LYS:HB3	25:DC:113:ASP:OD2	2.14	0.46
23:DB:2635:A:C5'	26:DD:79:LEU:HB2	2.44	0.46
26:DD:48:ILE:HG22	26:DD:82:PHE:O	2.14	0.46
47:DF:65:LEU:CD2	47:DF:87:LYS:HD2	2.45	0.46
41:DJ:105:VAL:HG21	41:DJ:122:LEU:HD22	1.97	0.46
41:DJ:64:VAL:HG22	41:DJ:68:LYS:CD	2.45	0.46
41:DJ:64:VAL:O	41:DJ:65:THR:HG22	2.15	0.46
37:DL:135:ILE:HG23	37:DL:136:GLU:H	1.78	0.46
43:DO:107:ALA:O	43:DO:111:ARG:HB2	2.14	0.46
44:DQ:57:ARG:HA	44:DQ:60:TRP:CE3	2.50	0.46
50:DT:50:LEU:C	50:DT:52:GLU:H	2.17	0.46
35:DV:14:LYS:HE2	35:DV:18:ARG:NH2	2.30	0.46
51:DZ:38:PHE:HZ	51:DZ:56:MET:HG2	1.79	0.46
1:AA:1028:C:H2'	1:AA:1028:C:O2	2.14	0.46
1:AA:1047:G:H21	1:AA:1215:G:C4'	2.28	0.46
1:AA:260:G:H2'	1:AA:261:U:C6	2.49	0.46
1:AA:308:C:H2'	1:AA:309:A:H8	1.80	0.46
1:AA:398:U:H2'	1:AA:399:G:H8	1.79	0.46
1:AA:691:G:H1'	1:AA:696:A:N6	2.30	0.46
1:AA:747:A:H2'	1:AA:748:G:C4'	2.45	0.46
20:AB:93:HIS:HB2	20:AB:145:ASN:O	2.15	0.46
2:AC:42:LEU:HD12	2:AC:67:ILE:HD11	1.96	0.46
3:AD:170:LEU:HD12	3:AD:170:LEU:O	2.15	0.46
3:AD:29:THR:HG22	3:AD:30:LYS:HD3	1.96	0.46
4:AE:101:GLY:H	4:AE:121:ASN:ND2	2.13	0.46
7:AH:17:GLN:OE1	7:AH:69:ALA:HB1	2.14	0.46
9:AJ:17:LEU:HD12	9:AJ:96:VAL:HG13	1.98	0.46
10:AK:108:ASN:HD21	21:AU:6:ARG:HG3	1.80	0.46
13:AN:30:ILE:HG21	13:AN:44:VAL:CG2	2.42	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:B3:18:LYS:HE3	34:B3:20:GLY:H	1.80	0.46
53:B6:10:THR:HG23	53:B6:136:ALA:HB2	1.96	0.46
53:B6:68:VAL:HB	53:B6:99:LEU:HB2	1.96	0.46
22:BA:33:G:O2'	22:BA:34:A:H5'	2.15	0.46
23:BB:150:U:H2'	23:BB:151:C:H6	1.77	0.46
23:BB:1640:A:O2'	23:BB:1641:A:H5'	2.15	0.46
23:BB:1739:A:H2'	23:BB:1740:G:C8	2.50	0.46
23:BB:1745:A:H2'	23:BB:1746:A:C8	2.51	0.46
23:BB:1907:G:H2'	23:BB:1908:C:C5	2.49	0.46
23:BB:2472:G:C2'	23:BB:2475:C:H42	2.21	0.46
23:BB:2657:A:H2'	23:BB:2658:C:O4'	2.15	0.46
23:BB:2800:A:N3	23:BB:2801:G:H1'	2.30	0.46
23:BB:506:G:H5''	23:BB:509:C:O2'	2.14	0.46
23:BB:679:C:O2'	23:BB:680:C:H5'	2.15	0.46
25:BC:153:LEU:HD13	25:BC:175:LEU:HD21	1.96	0.46
47:BF:98:PHE:C	47:BF:100:GLU:N	2.69	0.46
23:BB:1244:A:H5'	37:BL:7:SER:OG	2.16	0.46
44:BQ:94:LEU:HD23	49:BR:11:GLN:OE1	2.15	0.46
46:BU:48:VAL:N	46:BU:53:GLN:HB2	2.18	0.46
23:BB:923:G:H5'	52:BW:25:PHE:CZ	2.50	0.46
1:CA:1096:C:H2'	1:CA:1097:C:C6	2.51	0.46
1:CA:1137:C:O2'	1:CA:1138:G:H5''	2.14	0.46
1:CA:1436:U:H2'	1:CA:1437:A:C8	2.51	0.46
1:CA:219:U:H2'	1:CA:220:G:C8	2.50	0.46
1:CA:308:C:H2'	1:CA:309:A:H8	1.79	0.46
1:CA:376:G:O2'	1:CA:377:G:H5'	2.15	0.46
1:CA:640:A:O2'	1:CA:641:U:H5'	2.15	0.46
1:CA:656:G:O2'	1:CA:657:U:H5'	2.16	0.46
1:CA:833:G:O2'	1:CA:834:U:H5'	2.15	0.46
1:CA:83:C:H1'	1:CA:84:U:C5	2.50	0.46
2:CC:63:ILE:CD1	2:CC:94:ALA:HB3	2.42	0.46
4:CE:55:VAL:O	4:CE:59:ILE:HG13	2.15	0.46
7:CH:12:ARG:HB3	7:CH:24:VAL:HG21	1.98	0.46
9:CJ:7:ARG:HG3	9:CJ:102:LEU:O	2.15	0.46
12:CM:22:TYR:CD1	12:CM:65:GLU:HB3	2.49	0.46
13:CN:3:GLN:HB2	1:CA:1048:G:OP1	2.14	0.46
13:CN:51:PRO:O	13:CN:52:ARG:HB3	2.14	0.46
13:CN:70:HIS:O	13:CN:71:GLY:C	2.53	0.46
18:CS:24:SER:OG	18:CS:27:LYS:HE3	2.15	0.46
31:D0:50:GLY:O	31:D0:51:ARG:C	2.53	0.46
32:D4:16:ILE:HG13	32:D4:25:VAL:CG2	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:D6:80:GLU:HG3	53:D6:92:PRO:HB3	1.96	0.46
22:DA:32:U:C4'	22:DA:52:A:H62	2.28	0.46
23:DB:1444:G:H2'	23:DB:1445:G:C8	2.49	0.46
23:DB:152:A:H2'	23:DB:153:U:C6	2.50	0.46
23:DB:1552:A:H2'	23:DB:1553:A:C5'	2.43	0.46
23:DB:1515:A:H5'	23:DB:1557:C:C5'	2.44	0.46
23:DB:1845:G:O2'	23:DB:1846:G:H5'	2.15	0.46
23:DB:215:G:H4'	23:DB:216:A:OP1	2.15	0.46
23:DB:2246:G:H2'	23:DB:2247:A:H8	1.77	0.46
23:DB:2800:A:N3	23:DB:2801:G:H1'	2.29	0.46
23:DB:2812:G:H2'	23:DB:2813:A:C8	2.50	0.46
23:DB:2825:G:N3	23:DB:2825:G:H5''	2.30	0.46
23:DB:459:U:O2'	23:DB:460:A:H5'	2.14	0.46
23:DB:597:G:H21	37:DL:12:SER:HA	1.80	0.46
25:DC:18:VAL:O	25:DC:18:VAL:HG13	2.15	0.46
25:DC:141:HIS:HB3	25:DC:190:THR:HG1	1.79	0.46
47:DF:110:ILE:HG21	47:DF:113:PHE:HB3	1.95	0.46
47:DF:168:LEU:HD13	47:DF:169:LEU:H	1.79	0.46
47:DF:69:ALA:HB3	47:DF:80:GLN:O	2.15	0.46
48:DG:145:ALA:O	48:DG:148:ARG:HG3	2.15	0.46
48:DG:30:GLY:CA	48:DG:78:VAL:HA	2.34	0.46
23:DB:1278:C:O3'	42:DN:34:ILE:HG23	2.15	0.46
44:DQ:97:ILE:HD11	44:DQ:108:LEU:CD1	2.45	0.46
49:DR:2:TYR:N	49:DR:42:ALA:HB2	2.30	0.46
45:DS:9:HIS:H	45:DS:102:HIS:CE1	2.32	0.46
45:DS:13:SER:OG	45:DS:14:ALA:N	2.47	0.46
23:DB:494:G:OP1	45:DS:8:ARG:HD3	2.15	0.46
46:DU:27:VAL:CB	46:DU:33:VAL:HG12	2.46	0.46
46:DU:40:LEU:HB3	46:DU:59:GLU:CG	2.43	0.46
1:AA:1073:U:H2'	1:AA:1074:G:H8	1.80	0.46
1:AA:978:A:O2'	1:AA:1322:C:H5	1.99	0.46
1:AA:1366:C:H2'	1:AA:1367:C:C6	2.49	0.46
1:AA:1521:C:H2'	1:AA:1522:U:H6	1.80	0.46
1:AA:1525:G:O2'	1:AA:1526:G:H5'	2.16	0.46
1:AA:344:A:H4'	1:AA:345:C:OP2	2.14	0.46
1:AA:643:C:H2'	1:AA:644:U:H6	1.79	0.46
1:AA:735:C:O2'	1:AA:736:C:H5'	2.15	0.46
1:AA:80:A:H2'	1:AA:81:A:C1'	2.45	0.46
2:AC:38:VAL:O	2:AC:42:LEU:HD23	2.16	0.46
2:AC:46:LEU:HD21	2:AC:86:LEU:HD22	1.97	0.46
6:AG:71:THR:C	6:AG:90:VAL:HG22	2.35	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AH:45:ILE:C	7:AH:63:LYS:HE3	2.36	0.46
12:AM:64:VAL:O	12:AM:65:GLU:C	2.54	0.46
14:AO:19:ALA:C	14:AO:21:ASP:H	2.19	0.46
14:AO:61:SER:O	14:AO:65:LYS:HG3	2.15	0.46
15:AP:11:ALA:N	15:AP:14:ARG:O	2.48	0.46
15:AP:1:MET:HG3	15:AP:3:THR:HG23	1.96	0.46
1:AA:265:G:H5'	16:AQ:65:PRO:O	2.15	0.46
36:B2:43:THR:O	36:B2:45:SER:N	2.49	0.46
23:BB:1046:A:C3'	23:BB:1047:G:H5''	2.45	0.46
23:BB:1181:U:H2'	23:BB:1182:G:H8	1.81	0.46
23:BB:131:A:O2'	23:BB:132:G:H5'	2.16	0.46
23:BB:152:A:H2'	23:BB:153:U:C6	2.50	0.46
23:BB:1831:G:H2'	23:BB:1832:C:C6	2.50	0.46
23:BB:2133:G:H2'	23:BB:2133:G:N3	2.29	0.46
23:BB:966:G:H5'	23:BB:2272:U:C6	2.50	0.46
23:BB:2702:G:H2'	23:BB:2703:C:C6	2.50	0.46
23:BB:272:A:H2'	23:BB:273:G:C8	2.51	0.46
23:BB:832:U:O2'	37:BL:46:VAL:HG11	2.16	0.46
25:BC:124:LYS:O	25:BC:127:ASN:HB2	2.15	0.46
29:BE:150:THR:CG2	29:BE:153:LEU:HB2	2.45	0.46
47:BF:109:ARG:HD3	47:BF:109:ARG:C	2.35	0.46
22:BA:43:C:H1'	47:BF:91:ARG:NH2	2.30	0.46
48:BG:108:PHE:HE1	48:BG:150:TYR:O	1.99	0.46
40:BH:65:ALA:O	40:BH:68:ARG:HG2	2.15	0.46
40:BH:77:THR:HG22	40:BH:79:THR:HG23	1.96	0.46
24:BI:129:GLU:CB	24:BI:133:ARG:HH12	2.21	0.46
41:BJ:30:THR:O	41:BJ:34:ARG:HB2	2.15	0.46
41:BJ:44:TYR:HB2	44:BQ:63:ARG:CD	2.45	0.46
27:BK:105:ARG:O	27:BK:108:ARG:HG2	2.16	0.46
27:BK:63:VAL:HG21	27:BK:85:VAL:HG23	1.97	0.46
23:BB:1279:G:OP1	42:BN:35:LYS:HG3	2.16	0.46
43:BO:107:ALA:O	43:BO:111:ARG:HB2	2.16	0.46
1:AA:1432:G:H5'	28:BP:105:LYS:HG2	1.96	0.46
28:BP:50:ARG:CB	28:BP:57:ALA:H	2.23	0.46
23:BB:18:U:H5''	44:BQ:23:TYR:O	2.16	0.46
46:BU:86:PHE:CG	46:BU:87:GLU:N	2.83	0.46
35:BV:9:ARG:HH22	35:BV:12:GLN:HA	1.77	0.46
52:BW:45:HIS:N	52:BW:45:HIS:ND1	2.61	0.46
39:BX:17:GLU:OE1	39:BX:21:LEU:HD11	2.16	0.46
39:BX:23:ARG:HA	39:BX:26:PHE:HB3	1.97	0.46
1:CA:1384:C:H2'	1:CA:1385:G:C8	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:147:G:H2'	1:CA:148:G:C8	2.51	0.46
1:CA:668:G:O2'	1:CA:669:G:H5'	2.15	0.46
20:CB:18:GLN:HG2	20:CB:189:ASN:CG	2.36	0.46
8:CI:10:ARG:HG3	8:CI:105:ARG:HH21	1.80	0.46
13:CN:41:TRP:HD1	13:CN:44:VAL:H	1.63	0.46
15:CP:44:SER:OG	15:CP:46:LYS:HG2	2.16	0.46
16:CQ:63:CYS:SG	16:CQ:66:LEU:HD11	2.54	0.46
31:D0:47:TYR:CZ	31:D0:52:LYS:HG3	2.51	0.46
53:D6:62:ASP:OD2	53:D6:64:ARG:HD2	2.14	0.46
23:DB:2839:G:H2'	23:DB:2840:C:H6	1.80	0.46
23:DB:370:G:O2'	23:DB:423:A:H3'	2.16	0.46
23:DB:547:A:N7	23:DB:548:G:H1'	2.31	0.46
23:DB:962:G:N2	23:DB:2250:G:H1	2.13	0.46
23:DB:982:C:O2	23:DB:982:C:H2'	2.14	0.46
25:DC:141:HIS:HB2	25:DC:192:GLY:O	2.15	0.46
29:DE:111:GLU:HA	29:DE:114:ARG:CZ	2.46	0.46
23:DB:1256:G:H21	29:DE:77:ILE:HG23	1.79	0.46
47:DF:29:ARG:H	47:DF:29:ARG:CD	2.28	0.46
47:DF:2:LYS:NZ	47:DF:100:GLU:HG2	2.30	0.46
40:DH:41:LYS:O	40:DH:44:ILE:HG12	2.16	0.46
41:DJ:110:PRO:HB2	41:DJ:111:LYS:HD2	1.96	0.46
41:DJ:1:MET:SD	41:DJ:2:LYS:HE2	2.55	0.46
27:DK:38:ILE:HD13	27:DK:61:VAL:HG12	1.96	0.46
27:DK:60:ALA:HB2	27:DK:86:LEU:HA	1.98	0.46
37:DL:127:VAL:HG23	37:DL:131:ALA:HB3	1.95	0.46
37:DL:135:ILE:CG2	37:DL:136:GLU:N	2.78	0.46
38:DM:61:GLY:HA2	38:DM:107:GLY:HA3	1.97	0.46
30:DY:12:ALA:HB2	30:DY:53:MET:HE1	1.98	0.46
1:AA:1034:G:C2'	1:AA:1035:A:H5'	2.45	0.46
1:AA:1347:G:H22	1:AA:1373:G:H2'	1.78	0.46
1:AA:95:C:H2'	1:AA:95:C:O2	2.15	0.46
5:AF:6:ILE:HG23	5:AF:62:MET:CB	2.38	0.46
8:AI:71:ILE:CD1	8:AI:71:ILE:H	2.27	0.46
15:AP:28:ARG:NH1	15:AP:29:ASN:HB2	2.31	0.46
16:AQ:24:ILE:HD13	16:AQ:43:LEU:HD13	1.98	0.46
1:AA:1014:A:H4'	18:AS:13:HIS:CG	2.50	0.46
19:AT:66:ILE:HG23	19:AT:70:LYS:HB3	1.97	0.46
21:AU:24:LYS:HD2	21:AU:25:ALA:N	2.16	0.46
53:B6:142:LYS:HA	53:B6:142:LYS:HE3	1.97	0.46
53:B6:9:GLU:HG2	53:B6:13:HIS:CD2	2.50	0.46
23:BB:1119:U:OP1	35:BV:83:LYS:HE3	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1383:A:H2	23:BB:1405:U:O2	1.98	0.46
23:BB:1712:U:H2'	23:BB:1713:A:C8	2.50	0.46
23:BB:16:C:O2'	23:BB:17:G:H5'	2.15	0.46
25:BC:90:ILE:HA	25:BC:103:ILE:O	2.15	0.46
23:BB:1654:A:O2'	26:BD:118:PHE:HA	2.16	0.46
26:BD:191:GLY:O	26:BD:192:ALA:HB3	2.15	0.46
26:BD:53:GLY:C	26:BD:76:GLY:HA2	2.36	0.46
48:BG:174:LYS:HZ3	48:BG:176:LYS:HB3	1.80	0.46
37:BL:95:LEU:HD11	37:BL:125:LEU:HD11	1.97	0.46
23:BB:825:A:O2'	37:BL:54:GLN:HB3	2.15	0.46
49:BR:86:GLN:HE21	49:BR:86:GLN:HB2	1.52	0.46
35:BV:20:LEU:HD23	35:BV:25:LYS:HB3	1.97	0.46
39:BX:17:GLU:HB3	39:BX:53:VAL:CG1	2.42	0.46
1:CA:1188:A:H2'	1:CA:1189:U:O4'	2.16	0.46
1:CA:1283:U:H2'	1:CA:1284:C:H6	1.80	0.46
1:CA:191:G:H2'	1:CA:192:A:C8	2.51	0.46
1:CA:240:G:C8	1:CA:240:G:H5'	2.46	0.46
1:CA:251:G:N3	1:CA:266:G:O6	2.49	0.46
1:CA:279:A:H4'	1:CA:280:C:OP2	2.16	0.46
1:CA:893:C:H2'	1:CA:894:G:H8	1.80	0.46
8:CI:41:GLU:C	8:CI:43:ALA:H	2.18	0.46
8:CI:7:GLY:HA3	8:CI:85:ALA:HB2	1.96	0.46
9:CJ:82:LYS:HA	9:CJ:85:ASP:OD2	2.16	0.46
12:CM:1:ALA:O	12:CM:3:ILE:HG13	2.13	0.46
13:CN:14:ALA:HB1	13:CN:18:LYS:CE	2.43	0.46
14:CO:18:ASP:O	14:CO:19:ALA:HB2	2.14	0.46
14:CO:39:LEU:HD23	14:CO:43:PHE:CE1	2.48	0.46
33:D1:26:LYS:HD3	33:D1:52:LYS:O	2.16	0.46
53:D6:106:LEU:CG	53:D6:111:ARG:HE	2.15	0.46
53:D6:18:LEU:HG	53:D6:171:LYS:HZ1	1.78	0.46
53:D6:64:ARG:C	53:D6:103:ILE:HD13	2.35	0.46
23:DB:1093:G:O2'	23:DB:1094:U:H5'	2.15	0.46
23:DB:2073:C:C5'	25:DC:227:VAL:HG12	2.45	0.46
23:DB:2144:G:C3'	23:DB:2145:C:H5'	2.45	0.46
23:DB:2657:A:H2'	23:DB:2658:C:O4'	2.15	0.46
23:DB:523:C:H5''	23:DB:540:C:O2'	2.15	0.46
23:DB:682:G:H5'	36:D2:26:ASN:CG	2.34	0.46
23:DB:727:A:OP1	23:DB:1431:A:O2'	2.30	0.46
23:DB:853:C:O2'	23:DB:854:C:H5'	2.14	0.46
25:DC:2:VAL:HG23	25:DC:3:VAL:N	2.30	0.46
26:DD:113:SER:HB3	26:DD:167:ASN:N	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DE:118:LEU:HD21	29:DE:188:MET:HE3	1.96	0.46
47:DF:71:LYS:O	47:DF:72:SER:HB3	2.15	0.46
41:DJ:16:TYR:O	41:DJ:55:ILE:HG12	2.15	0.46
37:DL:111:ILE:HG22	37:DL:112:LEU:N	2.30	0.46
38:DM:52:ALA:HB2	38:DM:123:LYS:HE3	1.97	0.46
43:DO:105:ALA:O	43:DO:107:ALA:N	2.42	0.46
23:DB:2334:U:N3	43:DO:16:ARG:HG2	2.30	0.46
43:DO:16:ARG:HH21	43:DO:19:GLN:NE2	2.13	0.46
28:DP:3:ILE:C	28:DP:3:ILE:HD13	2.36	0.46
28:DP:63:ILE:H	28:DP:69:VAL:HG22	1.81	0.46
44:DQ:16:ILE:HG22	44:DQ:17:LEU:N	2.29	0.46
49:DR:11:GLN:NE2	49:DR:39:LEU:HD11	2.31	0.46
50:DT:50:LEU:O	50:DT:51:PHE:HB2	2.15	0.46
46:DU:40:LEU:H	46:DU:40:LEU:HD12	1.81	0.46
35:DV:1:MET:CE	35:DV:2:PHE:H	2.27	0.46
52:DW:49:ASN:HB3	52:DW:81:ILE:HG12	1.95	0.46
1:AA:1396:A:H2	4:AE:23:THR:HG21	1.80	0.46
1:AA:1437:A:H2'	1:AA:1438:G:C8	2.49	0.46
1:AA:556:C:O2'	1:AA:557:G:H5'	2.16	0.46
1:AA:84:U:H3'	1:AA:87:C:C2	2.51	0.46
20:AB:46:VAL:N	20:AB:47:PRO:CD	2.78	0.46
6:AG:12:LEU:HD13	6:AG:13:PRO:HD2	1.96	0.46
9:AJ:52:LEU:HB2	13:AN:80:ARG:NE	2.30	0.46
11:AL:17:LYS:O	11:AL:17:LYS:HD2	2.16	0.46
19:AT:57:VAL:HG23	19:AT:58:ASP:N	2.30	0.46
23:BB:1030:C:O2'	23:BB:1031:G:H5'	2.15	0.46
23:BB:1203:U:H1'	37:BL:4:ASN:ND2	2.13	0.46
23:BB:1323:C:OP1	45:BS:84:ARG:HD3	2.15	0.46
23:BB:1470:A:H2'	23:BB:1471:G:O4'	2.16	0.46
23:BB:1740:G:H2'	23:BB:1741:C:O4'	2.15	0.46
23:BB:2093:G:O2'	23:BB:2094:A:H5'	2.16	0.46
23:BB:2188:U:H2'	23:BB:2189:U:H6	1.80	0.46
23:BB:2729:G:H2'	23:BB:2730:C:H6	1.80	0.46
23:BB:315:G:H2'	23:BB:316:C:H6	1.77	0.46
23:BB:233:A:N6	23:BB:428:A:H61	2.14	0.46
23:BB:523:C:H4'	23:BB:540:C:O2	2.15	0.46
23:BB:607:U:O4	23:BB:619:G:H2'	2.16	0.46
25:BC:140:VAL:O	25:BC:141:HIS:HB2	2.16	0.46
26:BD:181:ASP:OD1	26:BD:181:ASP:C	2.53	0.46
47:BF:31:GLU:O	47:BF:32:LYS:O	2.32	0.46
47:BF:74:ALA:HB1	47:BF:76:PHE:HD2	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BL:111:ILE:HG22	37:BL:112:LEU:N	2.31	0.46
42:BN:63:ARG:O	42:BN:66:ALA:HB3	2.15	0.46
49:BR:40:MET:C	49:BR:41:ILE:HD13	2.36	0.46
49:BR:62:GLU:O	49:BR:96:VAL:HA	2.16	0.46
45:BS:71:VAL:HG22	45:BS:71:VAL:O	2.15	0.46
23:BB:309:A:H4'	46:BU:15:GLY:HA3	1.96	0.46
35:BV:14:LYS:HE2	35:BV:18:ARG:NH2	2.31	0.46
35:BV:64:VAL:HG13	35:BV:68:LYS:O	2.15	0.46
2:CC:156:LEU:HD11	2:CC:165:GLU:HB2	1.98	0.46
3:CD:187:ARG:HH12	3:CD:191:SER:HA	1.81	0.46
4:CE:29:ILE:HG22	4:CE:29:ILE:O	2.14	0.46
4:CE:61:LYS:HB3	4:CE:61:LYS:NZ	2.31	0.46
8:CI:87:MET:CE	8:CI:91:GLU:HG2	2.46	0.46
11:CL:13:ARG:HB2	11:CL:14:LYS:H	1.43	0.46
12:CM:90:HIS:HA	12:CM:108:ARG:HH22	1.81	0.46
13:CN:50:LEU:HD23	13:CN:51:PRO:HD3	1.98	0.46
19:CT:4:LYS:O	19:CT:7:LYS:N	2.46	0.46
34:D3:20:GLY:HA3	34:D3:48:MET:CE	2.45	0.46
53:D6:29:ARG:O	53:D6:114:LEU:HD21	2.16	0.46
23:DB:966:G:H5'	23:DB:2272:U:C6	2.50	0.46
23:DB:2729:G:H2'	23:DB:2730:C:H6	1.81	0.46
23:DB:524:G:O2'	23:DB:525:U:H5'	2.16	0.46
25:DC:91:ALA:CB	25:DC:105:ALA:HB2	2.46	0.46
29:DE:136:GLN:HE22	29:DE:139:LYS:HD3	1.81	0.46
29:DE:150:THR:CG2	29:DE:153:LEU:HB2	2.45	0.46
47:DF:42:ALA:O	47:DF:45:ASP:N	2.49	0.46
48:DG:10:VAL:HB	48:DG:47:ASN:CB	2.45	0.46
44:DQ:59:LEU:C	44:DQ:59:LEU:HD13	2.35	0.46
30:DY:4:ILE:CD1	30:DY:58:GLU:HG3	2.46	0.46
1:AA:1011:C:H2'	1:AA:1012:A:H8	1.79	0.46
1:AA:1141:C:H2'	1:AA:1142:G:H8	1.79	0.46
1:AA:1144:G:N2	1:AA:1146:A:H62	2.14	0.46
1:AA:1256:A:O4'	1:AA:1278:G:N2	2.49	0.46
1:AA:238:A:H3'	1:AA:239:U:H5''	1.98	0.46
1:AA:332:G:O2'	1:AA:333:U:H5'	2.16	0.46
1:AA:333:U:H2'	1:AA:334:C:H6	1.80	0.46
1:AA:587:G:H4'	7:AH:3:GLN:HA	1.97	0.46
3:AD:16:THR:HG22	3:AD:17:ASP:N	2.31	0.46
5:AF:18:VAL:O	5:AF:22:ILE:HG13	2.15	0.46
6:AG:112:ASP:HB3	6:AG:117:LEU:HD21	1.97	0.46
8:AI:22:PRO:HA	8:AI:60:LEU:CB	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AK:22:ILE:HD12	10:AK:85:VAL:HG22	1.98	0.46
15:AP:28:ARG:CZ	15:AP:29:ASN:HD22	2.29	0.46
15:AP:71:VAL:HG13	15:AP:72:ALA:N	2.31	0.46
18:AS:66:VAL:O	18:AS:68:HIS:N	2.49	0.46
23:BB:643:A:C2	33:B1:43:ARG:HD2	2.51	0.46
34:B3:50:SER:C	34:B3:52:GLY:H	2.18	0.46
22:BA:48:U:H2'	22:BA:49:C:H6	1.78	0.46
23:BB:1263:U:O2'	31:B0:7:PRO:HD2	2.15	0.46
23:BB:1370:C:O4'	23:BB:1810:A:H2	1.99	0.46
23:BB:1443:U:H2'	23:BB:1444:G:H8	1.80	0.46
23:BB:1724:G:H2'	23:BB:1725:U:C6	2.51	0.46
23:BB:1826:G:H2'	23:BB:1827:U:C6	2.49	0.46
23:BB:2196:C:O2'	23:BB:2197:U:H5'	2.15	0.46
23:BB:2605:U:H2'	23:BB:2606:C:C6	2.50	0.46
23:BB:2849:U:N3	23:BB:2867:G:C8	2.84	0.46
23:BB:2900:A:H2'	23:BB:2901:C:O4'	2.15	0.46
23:BB:370:G:O2'	23:BB:423:A:H3'	2.15	0.46
23:BB:402:A:H2'	23:BB:403:U:O4'	2.15	0.46
23:BB:68:G:H2'	23:BB:69:C:C6	2.51	0.46
26:BD:25:THR:HG21	26:BD:193:VAL:HG22	1.96	0.46
26:BD:201:LEU:C	26:BD:202:ILE:HD12	2.36	0.46
47:BF:71:LYS:O	47:BF:72:SER:HB3	2.14	0.46
40:BH:89:LYS:HA	40:BH:89:LYS:NZ	2.30	0.46
27:BK:111:LYS:C	27:BK:113:MET:H	2.19	0.46
37:BL:101:ILE:HG22	37:BL:102:GLY:N	2.30	0.46
43:BO:26:LEU:HD13	43:BO:39:VAL:HG22	1.98	0.46
28:BP:102:ARG:O	28:BP:103:THR:HB	2.15	0.46
44:BQ:79:ILE:HG23	44:BQ:79:ILE:O	2.15	0.46
49:BR:11:GLN:HE22	49:BR:39:LEU:HD11	1.81	0.46
45:BS:32:ALA:O	45:BS:36:LEU:HD23	2.15	0.46
46:BU:14:THR:HB	46:BU:68:ASN:HB3	1.98	0.46
1:CA:1206:G:H2'	1:CA:1207:G:O4'	2.15	0.46
1:CA:1499:A:H1'	1:CA:1520:C:H5'	1.97	0.46
1:CA:224:U:H2'	1:CA:225:C:C6	2.51	0.46
1:CA:575:G:O2'	1:CA:821:G:H5'	2.16	0.46
3:CD:145:ARG:HE	3:CD:147:LYS:HG2	1.80	0.46
3:CD:55:ARG:HG3	3:CD:55:ARG:HH11	1.81	0.46
8:CI:49:GLN:HB3	8:CI:102:PHE:CE1	2.50	0.46
10:CK:74:LYS:C	10:CK:76:TYR:H	2.18	0.46
12:CM:90:HIS:HA	12:CM:108:ARG:NH2	2.31	0.46
12:CM:9:PRO:O	12:CM:44:ILE:HD13	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CN:63:CYS:SG	13:CN:82:LYS:HG3	2.56	0.46
15:CP:11:ALA:N	15:CP:14:ARG:O	2.49	0.46
18:CS:68:HIS:HB3	18:CS:72:GLU:CD	2.36	0.46
53:D6:80:GLU:CD	53:D6:92:PRO:HB3	2.35	0.46
22:DA:94:A:OP1	35:DV:19:ARG:HD3	2.15	0.46
23:DB:1099:G:N7	24:DI:3:LYS:CD	2.79	0.46
23:DB:1831:G:H2'	23:DB:1832:C:C6	2.51	0.46
23:DB:2262:U:H4'	23:DB:2328:A:C2	2.51	0.46
23:DB:2383:G:H2'	23:DB:2384:U:C6	2.51	0.46
23:DB:776:G:H4'	23:DB:777:G:C5'	2.46	0.46
23:DB:912:C:H2'	23:DB:913:U:C6	2.50	0.46
47:DF:109:ARG:C	47:DF:109:ARG:HD3	2.36	0.46
47:DF:37:MET:SD	47:DF:52:ALA:HB1	2.55	0.46
40:DH:100:ALA:O	40:DH:101:ASP:C	2.54	0.46
40:DH:116:ARG:HB3	40:DH:116:ARG:HH11	1.78	0.46
37:DL:95:LEU:HD11	37:DL:125:LEU:HD11	1.98	0.46
29:DE:108:ILE:HG12	37:DL:2:ARG:HH22	1.80	0.46
42:DN:9:GLN:HA	42:DN:17:ARG:NE	2.31	0.46
43:DO:82:ALA:O	43:DO:87:ILE:HB	2.16	0.46
27:DK:102:PRO:HD3	28:DP:65:ASN:HB2	1.95	0.46
52:DW:44:PHE:HB3	52:DW:78:PHE:CD1	2.51	0.46
51:DZ:39:TRP:NE1	51:DZ:41:GLU:HG2	2.30	0.46
1:AA:1073:U:H2'	1:AA:1074:G:C8	2.51	0.46
1:AA:178:C:O2'	1:AA:179:A:H5'	2.15	0.46
1:AA:69:G:H2'	1:AA:70:U:C6	2.50	0.46
1:AA:96:U:H2'	1:AA:97:G:C8	2.51	0.46
20:AB:18:GLN:HG2	20:AB:189:ASN:HB3	1.98	0.46
5:AF:47:LEU:HD21	5:AF:57:ALA:CB	2.45	0.46
5:AF:62:MET:HG3	5:AF:64:VAL:CG2	2.45	0.46
5:AF:85:ILE:HG22	5:AF:86:ARG:H	1.81	0.46
8:AI:46:VAL:O	8:AI:49:GLN:HB2	2.15	0.46
11:AL:34:THR:N	11:AL:53:ARG:O	2.47	0.46
12:AM:113:LYS:N	12:AM:114:PRO:CD	2.79	0.46
16:AQ:28:VAL:HG12	16:AQ:37:ILE:O	2.16	0.46
53:B6:28:LEU:HD11	53:B6:121:TYR:CE2	2.49	0.46
53:B6:58:VAL:HG13	53:B6:68:VAL:HA	1.96	0.46
22:BA:28:C:OP1	43:BO:31:THR:HG21	2.15	0.46
23:BB:443:A:H2	23:BB:1245:G:N3	2.14	0.46
23:BB:1842:G:H2'	23:BB:1843:C:H6	1.79	0.46
23:BB:1889:A:H2'	23:BB:1890:A:H8	1.80	0.46
23:BB:1921:G:N2	23:BB:1922:G:O6	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:2085:U:O2'	23:BB:2086:U:H5'	2.16	0.46
23:BB:2399:G:O2'	23:BB:2400:G:H5'	2.16	0.46
23:BB:2678:C:H2'	23:BB:2679:A:H8	1.81	0.46
23:BB:2814:A:H2'	23:BB:2815:C:C6	2.51	0.46
23:BB:2875:C:H2'	23:BB:2876:G:H8	1.80	0.46
23:BB:770:G:O2'	23:BB:771:G:H5'	2.15	0.46
23:BB:823:C:H2'	23:BB:824:U:C6	2.51	0.46
23:BB:966:G:H1'	23:BB:2267:A:N6	2.31	0.46
26:BD:157:LYS:HB3	26:BD:157:LYS:HZ2	1.81	0.46
47:BF:102:LEU:HA	47:BF:106:ALA:CB	2.45	0.46
47:BF:71:LYS:C	47:BF:73:VAL:H	2.19	0.46
40:BH:41:LYS:O	40:BH:44:ILE:HG13	2.16	0.46
40:BH:90:LEU:HD13	40:BH:123:ARG:HB3	1.98	0.46
41:BJ:104:ALA:O	41:BJ:108:MET:HG2	2.16	0.46
38:BM:131:VAL:HG12	38:BM:132:THR:N	2.31	0.46
23:BB:519:U:H4'	45:BS:73:LYS:HZ3	1.78	0.46
35:BV:62:THR:CG2	35:BV:71:LYS:HG2	2.40	0.46
35:BV:8:VAL:HA	35:BV:39:ALA:O	2.16	0.46
18:CS:4:LEU:HD21	1:CA:1316:G:H1	1.81	0.46
1:CA:337:G:H2'	1:CA:338:A:H8	1.79	0.46
1:CA:426:U:H2'	1:CA:427:U:C6	2.51	0.46
1:CA:658:C:O2'	1:CA:659:U:H5'	2.16	0.46
1:CA:788:U:O2'	1:CA:789:U:H5'	2.14	0.46
20:CB:37:VAL:O	20:CB:37:VAL:HG13	2.15	0.46
2:CC:119:ILE:CG2	2:CC:197:VAL:HG11	2.46	0.46
3:CD:165:GLU:CG	3:CD:166:LYS:N	2.78	0.46
3:CD:68:GLU:HG2	1:CA:545:C:H5''	1.97	0.46
3:CD:96:ARG:HB3	3:CD:98:ASP:OD2	2.15	0.46
4:CE:95:MET:HA	4:CE:124:ALA:CB	2.45	0.46
6:CG:65:LEU:HB3	6:CG:69:ARG:HE	1.81	0.46
8:CI:123:ARG:O	1:CA:1343:G:H4'	2.15	0.46
8:CI:59:LYS:HB3	8:CI:60:LEU:HD23	1.97	0.46
8:CI:22:PRO:HA	8:CI:60:LEU:CB	2.45	0.46
13:CN:30:ILE:HG21	13:CN:44:VAL:CG2	2.41	0.46
16:CQ:14:ASP:HA	16:CQ:20:ILE:CD1	2.46	0.46
23:DB:1464:G:H2'	23:DB:1465:G:C8	2.48	0.46
23:DB:1725:U:H2'	23:DB:1726:C:H6	1.80	0.46
23:DB:1739:A:H2'	23:DB:1740:G:O4'	2.16	0.46
23:DB:1826:G:H2'	23:DB:1827:U:H6	1.80	0.46
23:DB:1905:C:O2'	23:DB:1929:G:H1'	2.16	0.46
23:DB:2198:A:H4'	23:DB:2199:A:OP1	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:303:G:H2'	23:DB:304:U:H6	1.76	0.46
23:DB:671:C:O2'	23:DB:672:C:H5'	2.15	0.46
23:DB:717:C:C3'	23:DB:718:A:H5''	2.40	0.46
25:DC:189:ALA:C	25:DC:190:THR:HG23	2.35	0.46
29:DE:109:LEU:HD12	29:DE:112:LEU:HD12	1.96	0.46
24:DI:70:THR:O	24:DI:70:THR:HG23	2.15	0.46
50:DT:53:VAL:HG12	50:DT:54:GLU:H	1.80	0.46
46:DU:46:LYS:HE3	46:DU:47:PRO:O	2.16	0.46
46:DU:64:ILE:HD11	46:DU:68:ASN:HD22	1.80	0.46
23:DB:2386:A:H2	52:DW:38:ARG:HB3	1.78	0.46
1:AA:1057:G:H4'	2:AC:196:GLY:H	1.81	0.46
1:AA:1390:U:H2'	1:AA:1391:U:H6	1.81	0.46
1:AA:1521:C:H2'	1:AA:1522:U:C6	2.50	0.46
1:AA:279:A:H5'	1:AA:281:G:C5'	2.46	0.46
1:AA:370:C:H2'	1:AA:371:A:H8	1.80	0.46
1:AA:398:U:H2'	1:AA:399:G:C8	2.51	0.46
1:AA:400:C:O2'	1:AA:401:C:H5'	2.16	0.46
1:AA:572:A:N3	1:AA:917:G:H1'	2.31	0.46
4:AE:39:GLY:HA2	4:AE:44:ARG:O	2.15	0.46
5:AF:12:PRO:C	5:AF:14:GLN:H	2.19	0.46
7:AH:14:ARG:NE	7:AH:75:GLN:HE21	2.13	0.46
11:AL:82:ARG:HB2	11:AL:97:VAL:HG22	1.97	0.46
13:AN:50:LEU:CD2	13:AN:51:PRO:HD3	2.46	0.46
13:AN:68:ARG:HH12	13:AN:71:GLY:H	1.64	0.46
16:AQ:24:ILE:HD12	16:AQ:24:ILE:N	2.31	0.46
16:AQ:30:HIS:ND1	16:AQ:32:ILE:HG22	2.30	0.46
17:AR:35:SER:HA	17:AR:71:ASP:OD2	2.15	0.46
18:AS:62:THR:HB	18:AS:64:GLU:OE1	2.16	0.46
18:AS:38:THR:HA	18:AS:68:HIS:O	2.16	0.46
21:AU:24:LYS:O	21:AU:28:LEU:HG	2.16	0.46
53:B6:51:PRO:C	53:B6:53:ASN:H	2.19	0.46
23:BB:11:C:H2'	23:BB:12:U:H5'	1.96	0.46
23:BB:1334:G:O2'	23:BB:1335:C:H5'	2.16	0.46
23:BB:1407:G:H2'	23:BB:1408:G:C8	2.50	0.46
23:BB:1439:A:N3	23:BB:1553:A:C6	2.84	0.46
23:BB:2363:G:O2'	23:BB:2364:C:H5'	2.15	0.46
23:BB:2834:G:H2'	23:BB:2879:A:H61	1.81	0.46
23:BB:2889:C:H2'	23:BB:2890:G:C8	2.51	0.46
23:BB:603:A:H4'	23:BB:604:G:O5'	2.15	0.46
23:BB:656:G:H2'	23:BB:657:U:C6	2.50	0.46
26:BD:202:ILE:HD12	26:BD:202:ILE:N	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BE:21:ARG:HH11	29:BE:106:LYS:CD	2.28	0.46
23:BB:615:U:O4	29:BE:39:ALA:HB2	2.16	0.46
47:BF:106:ALA:O	47:BF:135:ILE:HD13	2.16	0.46
47:BF:127:TYR:OH	47:BF:166:ARG:HG3	2.16	0.46
47:BF:41:GLU:HB2	47:BF:42:ALA:H	1.63	0.46
48:BG:96:ALA:O	48:BG:97:VAL:HB	2.16	0.46
48:BG:9:VAL:HA	48:BG:48:THR:HA	1.98	0.46
24:BI:72:THR:HG21	24:BI:111:THR:O	2.15	0.46
41:BJ:124:VAL:O	41:BJ:125:TYR:HB2	2.15	0.46
41:BJ:72:LYS:HB2	41:BJ:89:PHE:H	1.80	0.46
37:BL:69:ARG:HD3	37:BL:69:ARG:O	2.16	0.46
38:BM:57:VAL:HG13	38:BM:108:VAL:HG21	1.98	0.46
45:BS:13:SER:OG	45:BS:14:ALA:N	2.47	0.46
50:BT:39:THR:O	50:BT:41:ALA:N	2.49	0.46
50:BT:50:LEU:O	50:BT:51:PHE:HB2	2.15	0.46
30:BY:26:LEU:N	30:BY:46:MET:HE1	2.31	0.46
1:CA:1091:U:H2'	1:CA:1093:A:OP2	2.16	0.46
1:CA:113:G:H21	1:CA:353:A:H8	1.62	0.46
1:CA:1260:G:OP1	1:CA:1284:C:H4'	2.16	0.46
1:CA:1299:A:C8	1:CA:1301:U:H1'	2.51	0.46
1:CA:864:A:H2'	1:CA:865:A:C8	2.51	0.46
1:CA:992:U:H2'	1:CA:1043:G:N7	2.29	0.46
20:CB:130:LYS:HB2	1:CA:1160:G:C5'	2.46	0.46
20:CB:88:GLN:CG	20:CB:220:VAL:HG11	2.46	0.46
4:CE:45:VAL:O	4:CE:70:MET:HB3	2.16	0.46
5:CF:61:LEU:HD13	5:CF:62:MET:H	1.80	0.46
6:CG:77:ARG:O	6:CG:79:VAL:HG23	2.14	0.46
7:CH:94:VAL:HG23	7:CH:101:ALA:HB2	1.98	0.46
10:CK:28:ASN:HD21	10:CK:47:GLY:H	1.62	0.46
11:CL:2:THR:H	11:CL:5:GLN:HE21	1.64	0.46
15:CP:46:LYS:H	15:CP:46:LYS:HG3	1.45	0.46
16:CQ:16:MET:HB3	16:CQ:19:SER:HB2	1.98	0.46
33:D1:10:LEU:HD23	33:D1:35:LEU:HD21	1.98	0.46
23:DB:2392:A:H5''	34:D3:27:ASN:HD22	1.81	0.46
23:DB:1092:C:C2'	23:DB:1093:G:H5'	2.46	0.46
23:DB:1250:G:OP2	37:DL:21:ARG:NH2	2.48	0.46
23:DB:1292:G:O2'	23:DB:1293:C:H5'	2.16	0.46
23:DB:1335:C:H2'	23:DB:1336:A:H8	1.80	0.46
23:DB:2023:C:H4'	23:DB:2617:U:O3'	2.16	0.46
23:DB:2027:G:O2'	23:DB:2028:U:H5'	2.15	0.46
23:DB:2292:U:H2'	23:DB:2293:G:H8	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2295:C:O2'	23:DB:2296:U:H5'	2.16	0.46
23:DB:237:C:O2'	23:DB:238:C:H5'	2.15	0.46
23:DB:2617:U:O2'	23:DB:2618:G:H5'	2.16	0.46
23:DB:2645:G:H3'	23:DB:2646:C:C5'	2.45	0.46
23:DB:2702:G:H2'	23:DB:2703:C:C6	2.51	0.46
23:DB:39:G:H2'	23:DB:40:U:H6	1.80	0.46
23:DB:828:U:H4'	23:DB:831:G:N1	2.30	0.46
25:DC:143:VAL:O	25:DC:151:GLY:HA2	2.16	0.46
25:DC:68:ARG:HB2	25:DC:128:THR:HG21	1.96	0.46
47:DF:128:SER:HA	47:DF:153:ILE:O	2.16	0.46
48:DG:108:PHE:HE1	48:DG:150:TYR:O	1.98	0.46
24:DI:100:ILE:HG23	24:DI:104:GLN:OE1	2.16	0.46
24:DI:2:LYS:O	24:DI:3:LYS:HG3	2.14	0.46
41:DJ:41:LYS:HD2	41:DJ:50:THR:O	2.16	0.46
27:DK:47:ILE:HG23	27:DK:48:PRO:CD	2.46	0.46
38:DM:31:PHE:HA	38:DM:131:VAL:O	2.15	0.46
42:DN:72:ASP:OD2	42:DN:74:GLU:HB3	2.16	0.46
43:DO:67:ASN:HB3	43:DO:70:ALA:HB2	1.97	0.46
50:DT:32:LEU:HG	50:DT:83:ALA:CB	2.45	0.46
50:DT:34:VAL:HG21	50:DT:43:ILE:CD1	2.46	0.46
46:DU:43:LYS:HD3	46:DU:43:LYS:C	2.37	0.46
46:DU:60:LYS:HA	46:DU:60:LYS:HE2	1.98	0.46
52:DW:28:GLU:CG	52:DW:29:SER:H	2.28	0.46
52:DW:65:LYS:NZ	52:DW:84:GLU:HB2	2.31	0.46
30:DY:2:LYS:HD3	30:DY:2:LYS:H	1.80	0.46
1:AA:105:G:H2'	1:AA:106:C:H6	1.81	0.46
1:AA:1389:C:H2'	1:AA:1390:U:C6	2.51	0.46
1:AA:1399:C:H1'	56:AA:2372:HOH:O	2.14	0.46
1:AA:1410:A:H2'	1:AA:1411:C:C6	2.51	0.46
1:AA:545:C:H5"	3:AD:68:GLU:HG2	1.97	0.46
2:AC:63:ILE:CD1	2:AC:94:ALA:HB3	2.40	0.46
3:AD:101:VAL:HG13	3:AD:106:PHE:HB2	1.98	0.46
6:AG:77:ARG:O	6:AG:79:VAL:HG23	2.16	0.46
7:AH:76:ARG:HD2	7:AH:77:VAL:H	1.81	0.46
12:AM:11:HIS:H	12:AM:45:SER:CB	2.29	0.46
13:AN:17:ASP:O	13:AN:21:ALA:HB3	2.16	0.46
13:AN:63:CYS:SG	13:AN:82:LYS:HG3	2.56	0.46
17:AR:21:ASP:CG	17:AR:23:LYS:HG3	2.36	0.46
19:AT:34:VAL:CG1	19:AT:78:LEU:HD22	2.46	0.46
21:AU:42:THR:O	21:AU:46:ARG:N	2.48	0.46
53:B6:10:THR:HG22	53:B6:14:MET:CE	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:B6:174:GLN:HG2	53:B6:175:LEU:N	2.30	0.46
23:BB:1450:G:C6	23:BB:1451:C:N4	2.83	0.46
23:BB:1463:C:H2'	23:BB:1464:G:C8	2.51	0.46
23:BB:1687:G:H2'	23:BB:1688:U:C6	2.51	0.46
23:BB:2150:C:H2'	23:BB:2151:U:H6	1.78	0.46
23:BB:1372:U:O2'	23:BB:2212:A:H8	1.97	0.46
23:BB:48:G:N2	23:BB:177:G:H21	2.14	0.46
23:BB:710:U:H2'	23:BB:711:G:C8	2.50	0.46
23:BB:933:A:H5'	23:BB:934:U:OP2	2.15	0.46
25:BC:4:LYS:HD2	25:BC:5:CYS:N	2.31	0.46
26:BD:170:VAL:O	26:BD:170:VAL:HG23	2.16	0.46
29:BE:109:LEU:O	29:BE:112:LEU:HB2	2.14	0.46
29:BE:58:LYS:HD3	29:BE:60:TRP:HD1	1.80	0.46
48:BG:74:MET:O	48:BG:78:VAL:HG22	2.15	0.46
40:BH:25:TYR:CZ	40:BH:30:LEU:HD21	2.51	0.46
24:BI:44:LYS:O	24:BI:48:ILE:HG13	2.15	0.46
41:BJ:34:ARG:HG3	41:BJ:34:ARG:NH1	2.31	0.46
27:BK:19:VAL:HG23	27:BK:19:VAL:O	2.15	0.46
37:BL:2:ARG:HG2	37:BL:2:ARG:O	2.16	0.46
23:BB:1190:G:H5''	37:BL:32:GLY:HA2	1.97	0.46
37:BL:70:LYS:O	37:BL:73:ILE:HG12	2.15	0.46
46:BU:3:LYS:CB	46:BU:82:VAL:HG21	2.41	0.46
1:CA:1028:C:H3'	1:CA:1029:U:N3	2.31	0.46
1:CA:1324:A:H4'	1:CA:1363:A:OP1	2.15	0.46
1:CA:1386:G:O2'	1:CA:1387:G:H5'	2.16	0.46
1:CA:1464:U:H2'	1:CA:1465:A:C8	2.50	0.46
1:CA:597:G:H2'	1:CA:598:U:H5'	1.98	0.46
1:CA:837:U:H2'	1:CA:838:G:C8	2.46	0.46
6:CG:71:THR:HG22	6:CG:141:HIS:NE2	2.31	0.46
17:CR:21:ASP:CG	17:CR:23:LYS:HG3	2.36	0.46
23:DB:1124:G:H1'	32:D4:38:GLY:OXT	2.16	0.46
53:D6:52:LEU:HA	53:D6:55:ILE:CG2	2.44	0.46
23:DB:1323:C:H2'	23:DB:1324:G:H5'	1.97	0.46
23:DB:1348:C:H5'	23:DB:1349:C:OP2	2.15	0.46
23:DB:1640:A:O2'	23:DB:1641:A:H5'	2.15	0.46
23:DB:1720:U:O2'	23:DB:1721:G:H5'	2.16	0.46
23:DB:196:A:N3	23:DB:196:A:H2'	2.31	0.46
23:DB:2070:A:H2'	23:DB:2071:A:C8	2.51	0.46
23:DB:2393:U:O2'	23:DB:2394:C:H5'	2.16	0.46
23:DB:279:A:N6	23:DB:361:G:O2'	2.49	0.46
23:DB:991:C:H5'	23:DB:991:C:H6	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DC:124:LYS:O	25:DC:127:ASN:HB2	2.15	0.46
25:DC:270:ARG:HB3	25:DC:270:ARG:NH1	2.31	0.46
23:DB:1654:A:O2'	26:DD:118:PHE:CB	2.64	0.46
47:DF:102:LEU:HA	47:DF:106:ALA:CB	2.45	0.46
47:DF:15:LEU:HD22	47:DF:167:ALA:HB1	1.98	0.46
47:DF:31:GLU:O	47:DF:32:LYS:O	2.33	0.46
22:DA:43:C:H1'	47:DF:91:ARG:HH21	1.81	0.46
48:DG:102:ILE:HD11	48:DG:116:LEU:HD21	1.97	0.46
48:DG:140:ILE:O	48:DG:144:ALA:HB2	2.16	0.46
48:DG:32:LEU:CD2	48:DG:33:THR:H	2.29	0.46
40:DH:67:ALA:O	40:DH:70:GLU:HG3	2.16	0.46
24:DI:75:ALA:O	24:DI:79:LEU:HG	2.15	0.46
27:DK:105:ARG:O	27:DK:108:ARG:HG2	2.15	0.46
27:DK:111:LYS:C	27:DK:113:MET:H	2.19	0.46
28:DP:56:SER:HB2	28:DP:75:THR:HG22	1.98	0.46
44:DQ:104:ALA:C	44:DQ:106:THR:H	2.18	0.46
44:DQ:63:ARG:O	44:DQ:66:ALA:N	2.49	0.46
44:DQ:79:ILE:O	44:DQ:79:ILE:HG23	2.15	0.46
49:DR:62:GLU:O	49:DR:96:VAL:HA	2.16	0.46
50:DT:55:VAL:H	50:DT:87:LEU:HB3	1.80	0.46
46:DU:43:LYS:HZ2	46:DU:45:GLN:HA	1.81	0.46
52:DW:49:ASN:HD22	52:DW:60:ALA:H	1.63	0.46
52:DW:62:ALA:O	52:DW:81:ILE:HD12	2.15	0.46
39:DX:23:ARG:HA	39:DX:26:PHE:HB3	1.97	0.46
51:DZ:7:VAL:HG23	51:DZ:67:VAL:HG13	1.98	0.46
1:AA:1086:U:O4	1:AA:1099:G:N1	2.47	0.46
1:AA:1089:G:H2'	1:AA:1090:U:O4'	2.16	0.46
1:AA:1203:C:H4'	13:AN:66:THR:HG22	1.98	0.46
1:AA:1527:U:O2'	1:AA:1528:U:H5'	2.16	0.46
1:AA:668:G:O2'	1:AA:669:G:H5'	2.15	0.46
20:AB:88:GLN:CG	20:AB:220:VAL:HG11	2.45	0.46
20:AB:40:ILE:CG2	20:AB:200:PRO:HB2	2.46	0.46
20:AB:46:VAL:HA	20:AB:49:PHE:CG	2.51	0.46
4:AE:61:LYS:NZ	4:AE:61:LYS:HB3	2.31	0.46
5:AF:42:TRP:CZ2	5:AF:61:LEU:HD23	2.51	0.46
6:AG:14:ASP:O	6:AG:18:GLY:HA2	2.15	0.46
8:AI:46:VAL:HA	8:AI:49:GLN:OE1	2.16	0.46
13:AN:61:ASN:HB3	13:AN:72:PHE:CE2	2.51	0.46
14:AO:74:ASP:OD1	14:AO:76:ALA:HB3	2.15	0.46
18:AS:18:VAL:HG13	18:AS:19:GLU:N	2.30	0.46
1:AA:723:U:H5'	21:AU:48:LYS:HG2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:B6:14:MET:SD	53:B6:165:THR:HA	2.56	0.46
22:BA:13:G:H1'	22:BA:69:G:N2	2.31	0.46
22:BA:16:G:O2'	22:BA:17:C:H5'	2.16	0.46
22:BA:61:G:H2'	22:BA:62:C:H6	1.81	0.46
23:BB:1818:U:HO2'	23:BB:1819:A:P	2.39	0.46
23:BB:1948:G:O2'	23:BB:1949:G:H5'	2.16	0.46
23:BB:2099:U:H2'	23:BB:2100:G:H8	1.81	0.46
23:BB:2603:G:O2'	23:BB:2604:U:H5'	2.16	0.46
23:BB:1783:A:H5'	23:BB:2608:G:H4'	1.96	0.46
23:BB:274:C:H2'	23:BB:275:C:C6	2.51	0.46
23:BB:600:G:H2'	23:BB:601:C:C6	2.51	0.46
23:BB:74:A:H4'	23:BB:75:G:O5'	2.16	0.46
26:BD:55:LYS:C	26:BD:57:ALA:H	2.18	0.46
29:BE:111:GLU:HA	29:BE:114:ARG:CZ	2.46	0.46
47:BF:42:ALA:O	47:BF:45:ASP:N	2.49	0.46
48:BG:10:VAL:HB	48:BG:47:ASN:CB	2.46	0.46
40:BH:47:PHE:HA	40:BH:50:ARG:HE	1.81	0.46
24:BI:63:ASP:C	24:BI:65:SER:H	2.19	0.46
24:BI:5:GLN:HG2	24:BI:6:ALA:H	1.78	0.46
41:BJ:122:LEU:C	41:BJ:123:LYS:HD2	2.36	0.46
27:BK:64:ARG:HG2	27:BK:79:PHE:CD2	2.51	0.46
37:BL:85:VAL:O	37:BL:85:VAL:HG13	2.16	0.46
38:BM:41:LEU:C	38:BM:43:ALA:H	2.18	0.46
44:BQ:56:PHE:O	44:BQ:59:LEU:HB3	2.15	0.46
44:BQ:73:ILE:HD11	44:BQ:77:LYS:HB2	1.98	0.46
49:BR:24:LYS:HA	49:BR:94:THR:CG2	2.39	0.46
49:BR:39:LEU:N	49:BR:39:LEU:HD23	2.31	0.46
50:BT:39:THR:C	50:BT:41:ALA:N	2.68	0.46
1:CA:1017:U:H2'	1:CA:1018:G:C8	2.51	0.46
1:CA:1084:G:H5'	1:CA:1102:A:OP2	2.14	0.46
1:CA:1366:C:H2'	1:CA:1367:C:H6	1.79	0.46
1:CA:503:C:O2'	1:CA:504:C:H5'	2.16	0.46
1:CA:636:U:O2'	1:CA:637:C:H5'	2.16	0.46
2:CC:19:SER:HB3	2:CC:21:TRP:NE1	2.28	0.46
3:CD:2:ARG:HD2	3:CD:114:ARG:NE	2.30	0.46
3:CD:142:VAL:N	3:CD:179:GLY:O	2.49	0.46
4:CE:87:VAL:HG23	4:CE:91:SER:O	2.16	0.46
5:CF:4:TYR:CE2	5:CF:71:ILE:HG12	2.50	0.46
13:CN:68:ARG:HH12	13:CN:71:GLY:H	1.64	0.46
14:CO:18:ASP:CG	14:CO:19:ALA:H	2.19	0.46
16:CQ:47:ASP:OD2	16:CQ:51:GLU:HG2	2.17	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CS:10:ILE:HB	18:CS:14:LEU:HD21	1.98	0.46
19:CT:79:THR:O	19:CT:82:ILE:HG13	2.16	0.46
21:CU:42:THR:O	21:CU:46:ARG:N	2.49	0.46
22:DA:63:C:H2'	22:DA:64:G:C8	2.50	0.46
23:DB:1468:U:H2'	23:DB:1522:A:N6	2.30	0.46
23:DB:1523:U:H5''	23:DB:1524:G:N7	2.30	0.46
23:DB:1736:U:H2'	23:DB:1737:G:C8	2.51	0.46
23:DB:1865:U:HO2'	23:DB:1866:A:H8	1.63	0.46
23:DB:2000:C:O2'	23:DB:2001:C:H5'	2.16	0.46
23:DB:2471:A:O2'	23:DB:2472:G:O5'	2.34	0.46
23:DB:2526:G:H2'	23:DB:2527:C:C6	2.51	0.46
23:DB:2543:G:H21	23:DB:2646:C:H5''	1.81	0.46
23:DB:2811:G:O2'	23:DB:2812:G:H5'	2.16	0.46
23:DB:2861:U:H2'	23:DB:2862:G:C8	2.51	0.46
25:DC:245:THR:C	25:DC:247:TRP:H	2.19	0.46
47:DF:71:LYS:C	47:DF:73:VAL:H	2.18	0.46
40:DH:143:ILE:HG13	40:DH:143:ILE:H	1.49	0.46
23:DB:1060:U:H5	24:DI:131:THR:CG2	2.29	0.46
24:DI:138:VAL:HG12	24:DI:139:VAL:N	2.31	0.46
27:DK:19:VAL:HG23	27:DK:19:VAL:O	2.16	0.46
37:DL:116:VAL:CG1	37:DL:117:THR:H	2.26	0.46
37:DL:89:VAL:HG13	37:DL:89:VAL:O	2.16	0.46
42:DN:65:LEU:HD11	42:DN:69:ARG:CZ	2.46	0.46
49:DR:35:PHE:HB3	49:DR:37:GLU:OE1	2.16	0.46
35:DV:35:GLU:HG3	35:DV:93:ARG:NH1	2.31	0.46
52:DW:37:VAL:CG1	52:DW:38:ARG:N	2.75	0.46
52:DW:59:PHE:CD2	52:DW:61:LYS:HD2	2.50	0.46
39:DX:56:LEU:C	39:DX:58:ASN:H	2.19	0.46
1:AA:1097:C:H2'	1:AA:1098:C:C6	2.51	0.45
1:AA:1220:G:H2'	1:AA:1221:G:H8	1.81	0.45
1:AA:1316:G:H1	18:AS:4:LEU:HD21	1.81	0.45
1:AA:1464:U:H2'	1:AA:1465:A:C8	2.51	0.45
1:AA:17:U:O2'	1:AA:18:C:H5'	2.16	0.45
1:AA:216:U:H2'	1:AA:217:C:H6	1.81	0.45
1:AA:464:U:H2'	1:AA:466:A:OP2	2.15	0.45
1:AA:476:U:H2'	1:AA:477:C:C6	2.52	0.45
1:AA:537:G:H2'	1:AA:538:G:H8	1.81	0.45
1:AA:629:A:H2'	1:AA:630:A:O4'	2.16	0.45
1:AA:640:A:O2'	1:AA:641:U:H5'	2.16	0.45
1:AA:777:A:H2'	1:AA:778:G:C8	2.51	0.45
1:AA:843:U:H3'	1:AA:844:G:C5'	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AB:125:PHE:N	20:AB:125:PHE:CD2	2.84	0.45
20:AB:142:LYS:HA	20:AB:145:ASN:OD1	2.16	0.45
20:AB:185:ILE:HG23	20:AB:199:ILE:O	2.16	0.45
1:AA:1190:G:OP1	2:AC:3:LYS:HA	2.16	0.45
1:AA:543:U:P	3:AD:13:ARG:HH21	2.39	0.45
3:AD:64:TYR:CD2	3:AD:93:LEU:HB3	2.51	0.45
4:AE:131:ASN:O	4:AE:135:VAL:HG23	2.15	0.45
6:AG:146:ALA:C	10:AK:55:ARG:HH21	2.20	0.45
8:AI:42:THR:O	8:AI:45:MET:HG2	2.16	0.45
12:AM:90:HIS:HA	12:AM:108:ARG:NH2	2.31	0.45
12:AM:78:ARG:HG2	12:AM:82:LEU:HD12	1.98	0.45
14:AO:47:LYS:O	14:AO:53:ARG:NH2	2.49	0.45
15:AP:20:VAL:HG23	15:AP:34:GLU:O	2.17	0.45
23:BB:1161:C:H2'	23:BB:1162:G:H8	1.79	0.45
23:BB:1292:G:O2'	23:BB:1293:C:H5'	2.16	0.45
23:BB:1348:C:H5'	23:BB:1349:C:OP2	2.15	0.45
23:BB:179:C:O2'	23:BB:180:G:H5'	2.16	0.45
23:BB:2080:A:H2'	23:BB:2081:U:C6	2.50	0.45
23:BB:2531:A:H5''	48:BG:156:TYR:CZ	2.50	0.45
23:BB:2553:G:H2'	23:BB:2554:U:O4'	2.15	0.45
23:BB:378:C:O2'	23:BB:379:G:H5'	2.16	0.45
23:BB:942:G:O2'	23:BB:943:A:H5'	2.16	0.45
25:BC:166:ARG:CB	25:BC:171:VAL:HG22	2.43	0.45
29:BE:149:ILE:HG23	29:BE:188:MET:HA	1.98	0.45
23:BB:2444:G:OP2	29:BE:63:LYS:HD2	2.17	0.45
47:BF:102:LEU:C	47:BF:104:THR:H	2.19	0.45
47:BF:103:ILE:HD11	47:BF:174:PHE:CA	2.46	0.45
47:BF:128:SER:HA	47:BF:153:ILE:O	2.16	0.45
47:BF:168:LEU:HD13	47:BF:169:LEU:H	1.78	0.45
48:BG:106:LEU:O	48:BG:108:PHE:N	2.48	0.45
48:BG:8:VAL:HB	48:BG:49:LEU:H	1.80	0.45
40:BH:90:LEU:CG	40:BH:146:VAL:HG11	2.32	0.45
41:BJ:24:THR:O	41:BJ:25:LEU:HB3	2.15	0.45
27:BK:102:PRO:CA	27:BK:120:PRO:HB3	2.44	0.45
38:BM:97:GLN:HB2	38:BM:98:PRO:HD2	1.98	0.45
50:BT:55:VAL:H	50:BT:87:LEU:HB3	1.81	0.45
35:BV:1:MET:CE	35:BV:2:PHE:H	2.29	0.45
35:BV:62:THR:HA	35:BV:71:LYS:HA	1.98	0.45
30:BY:35:VAL:HG11	30:BY:37:ARG:NH1	2.30	0.45
1:CA:1307:U:H2'	1:CA:1308:U:H6	1.77	0.45
1:CA:1237:C:H4'	1:CA:1334:G:N2	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:182:A:HO2'	1:CA:183:C:H3'	1.78	0.45
1:CA:300:A:H2'	1:CA:301:G:O4'	2.16	0.45
1:CA:109:A:H2'	1:CA:326:G:N2	2.31	0.45
1:CA:113:G:H1'	1:CA:354:G:H5'	1.98	0.45
1:CA:77:A:O2'	1:CA:78:A:H5'	2.17	0.45
6:CG:10:LYS:NZ	6:CG:10:LYS:HB2	2.31	0.45
7:CH:65:PHE:CD2	7:CH:66:GLN:HG3	2.51	0.45
10:CK:19:VAL:HG12	10:CK:82:GLU:HB2	1.98	0.45
11:CL:45:ASN:HD22	11:CL:45:ASN:N	2.14	0.45
14:CO:19:ALA:C	14:CO:21:ASP:H	2.19	0.45
18:CS:62:THR:HB	18:CS:64:GLU:OE1	2.16	0.45
18:CS:66:VAL:O	18:CS:68:HIS:N	2.49	0.45
10:CK:108:ASN:HD21	21:CU:6:ARG:HG3	1.81	0.45
31:D0:39:ARG:O	31:D0:40:HIS:HB2	2.17	0.45
23:DB:1108:U:C2'	23:DB:1109:C:H5'	2.46	0.45
23:DB:1199:U:H5'	44:DQ:4:LYS:CD	2.46	0.45
23:DB:1429:G:O2'	23:DB:1430:G:H5'	2.16	0.45
23:DB:591:U:H1'	34:D3:1:PRO:H3	1.80	0.45
29:DE:145:ASP:HA	29:DE:166:LYS:HB3	1.99	0.45
29:DE:182:ALA:O	29:DE:183:PHE:HB2	2.16	0.45
29:DE:52:VAL:HG21	29:DE:82:GLY:H	1.81	0.45
47:DF:3:LEU:HD11	47:DF:172:PHE:CE1	2.51	0.45
24:DI:96:LYS:HD3	24:DI:138:VAL:HG21	1.97	0.45
23:DB:536:G:H21	41:DJ:47:HIS:CD2	2.34	0.45
38:DM:71:LYS:HB3	38:DM:93:VAL:HG12	1.98	0.45
43:DO:36:TYR:HD2	43:DO:36:TYR:N	2.14	0.45
28:DP:6:GLN:HA	28:DP:9:GLN:CD	2.37	0.45
28:DP:96:LEU:HD12	28:DP:96:LEU:N	2.30	0.45
35:DV:10:LYS:HG2	35:DV:11:GLU:HG3	1.98	0.45
52:DW:47:GLY:HA3	52:DW:80:SER:CB	2.46	0.45
1:AA:1015:G:O2'	1:AA:1016:A:H5'	2.16	0.45
1:AA:1017:U:H2'	1:AA:1018:G:C8	2.51	0.45
1:AA:1188:A:H2'	1:AA:1189:U:O4'	2.16	0.45
1:AA:252:U:C2	1:AA:253:A:N7	2.84	0.45
1:AA:87:C:C2'	1:AA:88:U:H4'	2.41	0.45
20:AB:22:TRP:HZ3	20:AB:27:LYS:HB2	1.81	0.45
3:AD:89:LEU:O	3:AD:93:LEU:HD12	2.17	0.45
6:AG:148:LYS:HA	6:AG:151:ALA:CB	2.46	0.45
8:AI:26:LYS:HA	8:AI:26:LYS:NZ	2.31	0.45
11:AL:81:ILE:HG23	11:AL:94:TYR:HB3	1.97	0.45
19:AT:79:THR:O	19:AT:82:ILE:HG13	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:B0:55:ALA:C	31:B0:56:LYS:HG3	2.36	0.45
53:B6:42:LYS:HG2	53:B6:51:PRO:HB3	1.97	0.45
23:BB:1616:A:H4'	23:BB:1617:C:OP2	2.16	0.45
23:BB:1708:C:O2'	23:BB:1709:U:H5'	2.16	0.45
23:BB:2333:A:H5'	23:BB:2335:A:H1'	1.97	0.45
23:BB:2362:C:OP1	34:B3:39:ARG:NH1	2.50	0.45
23:BB:2389:G:H5''	23:BB:2390:U:H5'	1.98	0.45
23:BB:2734:A:H2'	23:BB:2735:G:H5'	1.98	0.45
23:BB:2862:G:H2'	23:BB:2863:C:H6	1.80	0.45
23:BB:418:C:H2'	23:BB:419:U:H6	1.81	0.45
23:BB:533:G:H2'	23:BB:534:U:C6	2.51	0.45
23:BB:588:U:H2'	23:BB:589:U:C6	2.50	0.45
23:BB:588:U:O4	23:BB:670:A:H1'	2.15	0.45
23:BB:68:G:H2'	23:BB:69:C:H6	1.81	0.45
23:BB:870:U:O2'	23:BB:871:U:H5'	2.16	0.45
23:BB:974:G:H1'	23:BB:975:A:C8	2.51	0.45
25:BC:78:GLU:OE1	25:BC:100:ARG:HD3	2.16	0.45
25:BC:231:HIS:HA	25:BC:241:LYS:CE	2.40	0.45
26:BD:113:SER:HB3	26:BD:167:ASN:N	2.32	0.45
26:BD:30:GLU:HB2	26:BD:52:THR:CG2	2.46	0.45
29:BE:108:ILE:HD11	29:BE:181:ILE:CG1	2.35	0.45
24:BI:138:VAL:HG12	24:BI:139:VAL:N	2.31	0.45
41:BJ:32:LEU:HD21	41:BJ:56:VAL:HG22	1.97	0.45
27:BK:103:VAL:O	27:BK:122:VAL:HB	2.17	0.45
27:BK:56:ASP:HB3	27:BK:58:LEU:CD2	2.46	0.45
23:BB:832:U:P	37:BL:38:GLN:H	2.38	0.45
44:BQ:91:ARG:HD3	49:BR:11:GLN:HG3	1.96	0.45
45:BS:24:ILE:CG2	45:BS:32:ALA:HB1	2.47	0.45
50:BT:53:VAL:HG12	50:BT:54:GLU:H	1.80	0.45
22:BA:103:U:O2'	35:BV:75:GLN:NE2	2.49	0.45
30:BY:12:ALA:HB2	30:BY:53:MET:CE	2.45	0.45
51:BZ:5:CYS:SG	51:BZ:7:VAL:HG12	2.56	0.45
1:CA:129:A:H1'	1:CA:130:A:C8	2.51	0.45
1:CA:634:C:H2'	1:CA:635:A:H8	1.80	0.45
1:CA:818:G:C3'	1:CA:819:A:H5''	2.46	0.45
1:CA:865:A:C2	1:CA:918:A:H4'	2.50	0.45
1:CA:893:C:H2'	1:CA:894:G:C8	2.51	0.45
20:CB:93:HIS:HB2	20:CB:145:ASN:O	2.16	0.45
4:CE:23:THR:HG21	1:CA:1396:A:C2	2.51	0.45
4:CE:80:LEU:HG	4:CE:122:VAL:CG1	2.47	0.45
10:CK:22:ILE:CG2	10:CK:95:THR:HG21	2.36	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:D6:82:ALA:HA	53:D6:85:ASP:OD1	2.16	0.45
22:DA:103:U:O2'	22:DA:104:A:H5'	2.16	0.45
23:DB:1195:G:O2'	23:DB:1196:C:H5'	2.16	0.45
23:DB:1683:U:H2'	23:DB:1684:G:H8	1.81	0.45
23:DB:1740:G:H2'	23:DB:1741:C:O4'	2.15	0.45
23:DB:1882:U:O2'	23:DB:1883:U:H5'	2.16	0.45
23:DB:633:A:OP1	37:DL:68:SER:HB2	2.16	0.45
23:DB:662:G:O2'	23:DB:663:G:H5'	2.17	0.45
23:DB:975:A:H1'	23:DB:990:A:C2	2.51	0.45
25:DC:94:LEU:HD13	25:DC:100:ARG:HH11	1.82	0.45
23:DB:1693:U:O2'	25:DC:13:ARG:NH2	2.50	0.45
26:DD:111:GLY:H	26:DD:194:PRO:HG2	1.81	0.45
29:DE:60:TRP:HB3	29:DE:61:ARG:H	1.31	0.45
29:DE:46:GLN:HB3	29:DE:86:ALA:HA	1.97	0.45
47:DF:34:THR:O	47:DF:35:LEU:HB2	2.16	0.45
48:DG:106:LEU:O	48:DG:108:PHE:N	2.50	0.45
40:DH:49:ALA:HB3	40:DH:50:ARG:CZ	2.45	0.45
40:DH:55:GLU:C	40:DH:59:ALA:HB2	2.36	0.45
41:DJ:103:ILE:HA	41:DJ:106:LYS:HB3	1.99	0.45
27:DK:24:VAL:HG12	27:DK:30:ARG:HH11	1.80	0.45
27:DK:56:ASP:HB3	27:DK:58:LEU:CD2	2.47	0.45
45:DS:17:VAL:O	45:DS:19:LEU:N	2.48	0.45
52:DW:41:GLY:HA2	52:DW:44:PHE:CD2	2.51	0.45
39:DX:6:LEU:C	39:DX:8:GLU:H	2.19	0.45
23:DB:200:U:H5''	51:DZ:22:LEU:O	2.17	0.45
1:AA:1225:A:N3	1:AA:1225:A:H2'	2.31	0.45
1:AA:1289:A:H5''	1:AA:1290:G:C8	2.51	0.45
1:AA:1294:G:H2'	1:AA:1295:U:C6	2.52	0.45
1:AA:1343:G:H4'	8:AI:123:ARG:O	2.16	0.45
1:AA:1350:A:H2'	1:AA:1351:U:C6	2.51	0.45
1:AA:1366:C:H2'	1:AA:1367:C:H6	1.81	0.45
1:AA:1402:C:H2'	1:AA:1403:C:O4'	2.15	0.45
1:AA:195:A:H1'	1:AA:222:C:O2'	2.16	0.45
1:AA:24:U:O2'	1:AA:25:C:H5'	2.17	0.45
1:AA:585:G:O2'	1:AA:586:C:H5'	2.17	0.45
1:AA:986:U:H2'	1:AA:987:G:C8	2.51	0.45
20:AB:113:LEU:HD12	20:AB:147:LEU:HB2	1.98	0.45
20:AB:186:VAL:CG2	20:AB:198:VAL:HG13	2.47	0.45
2:AC:119:ILE:CG2	2:AC:197:VAL:HG11	2.45	0.45
1:AA:1206:G:C4'	2:AC:192:TYR:HA	2.43	0.45
3:AD:25:ARG:C	3:AD:25:ARG:HD3	2.35	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AD:30:LYS:N	3:AD:30:LYS:HD3	2.31	0.45
3:AD:57:LYS:HB2	3:AD:199:ILE:HB	1.98	0.45
3:AD:71:PHE:O	3:AD:74:TYR:HB2	2.16	0.45
10:AK:28:ASN:HD21	10:AK:47:GLY:H	1.63	0.45
11:AL:66:ILE:HG21	11:AL:71:HIS:HB3	1.98	0.45
13:AN:12:ARG:HH21	13:AN:58:ARG:NH1	2.12	0.45
33:B1:10:LEU:HD23	33:B1:35:LEU:HD21	1.98	0.45
33:B1:36:LYS:HA	33:B1:46:VAL:O	2.15	0.45
34:B3:20:GLY:HA3	34:B3:48:MET:HE3	1.97	0.45
23:BB:1726:C:H2'	23:BB:1727:C:H6	1.82	0.45
23:BB:1915:U:N3	23:BB:1916:A:H1'	2.31	0.45
23:BB:231:A:H3'	23:BB:232:G:C8	2.51	0.45
23:BB:2630:G:O2'	23:BB:2631:G:H5'	2.17	0.45
23:BB:614:A:H5''	23:BB:616:A:N6	2.31	0.45
23:BB:869:G:H2'	23:BB:870:U:H6	1.81	0.45
23:BB:929:U:O2'	23:BB:930:G:H5'	2.17	0.45
26:BD:101:PHE:O	26:BD:102:ALA:HB2	2.17	0.45
40:BH:135:HIS:C	40:BH:137:GLU:N	2.70	0.45
41:BJ:101:ILE:O	41:BJ:105:VAL:HG13	2.16	0.45
41:BJ:70:THR:HG22	41:BJ:90:GLU:OE2	2.16	0.45
27:BK:119:ALA:CB	27:BK:120:PRO:HD3	2.39	0.45
37:BL:135:ILE:CG2	37:BL:136:GLU:N	2.79	0.45
37:BL:75:ALA:N	37:BL:105:ILE:HD12	2.31	0.45
43:BO:36:TYR:HD2	43:BO:36:TYR:N	2.14	0.45
45:BS:31:GLN:C	45:BS:33:LEU:H	2.20	0.45
35:BV:61:LEU:CD1	35:BV:74:ALA:HB2	2.47	0.45
39:BX:41:HIS:O	39:BX:45:GLN:HG3	2.16	0.45
30:BY:15:ARG:HD2	30:BY:15:ARG:N	2.30	0.45
51:BZ:39:TRP:HB2	51:BZ:46:PHE:CE2	2.50	0.45
1:CA:1034:G:C2'	1:CA:1035:A:H5'	2.46	0.45
1:CA:1247:U:O2'	1:CA:1248:A:H5'	2.16	0.45
1:CA:1281:C:H3'	1:CA:1282:C:H6	1.82	0.45
1:CA:332:G:O2'	1:CA:333:U:H5'	2.16	0.45
1:CA:358:U:H2'	1:CA:359:G:H8	1.81	0.45
1:CA:489:C:H2'	1:CA:490:C:H6	1.82	0.45
1:CA:628:G:H2'	1:CA:629:A:C8	2.51	0.45
1:CA:845:A:H3'	1:CA:846:G:O4'	2.16	0.45
1:CA:865:A:H2'	1:CA:866:C:C6	2.51	0.45
2:CC:111:ASP:HB3	2:CC:114:LEU:HB2	1.97	0.45
2:CC:163:ARG:HG2	2:CC:163:ARG:HH11	1.82	0.45
7:CH:63:LYS:HD2	7:CH:70:VAL:HG21	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CI:20:ILE:HG13	8:CI:62:LEU:HD11	1.97	0.45
9:CJ:52:LEU:HB2	13:CN:80:ARG:NE	2.31	0.45
13:CN:73:LEU:HD12	13:CN:83:VAL:HG21	1.98	0.45
16:CQ:60:ILE:HD13	16:CQ:60:ILE:N	2.31	0.45
53:D6:53:ASN:ND2	53:D6:53:ASN:H	2.12	0.45
22:DA:9:G:O2'	22:DA:10:G:H5'	2.16	0.45
23:DB:1783:A:H5'	23:DB:2608:G:H4'	1.98	0.45
23:DB:2270:A:H2'	23:DB:2271:G:O4'	2.16	0.45
23:DB:2460:U:H2'	23:DB:2461:A:H8	1.82	0.45
23:DB:2730:C:H2'	23:DB:2731:G:H8	1.82	0.45
23:DB:2889:C:H2'	23:DB:2890:G:C8	2.51	0.45
23:DB:576:U:H2'	23:DB:577:G:C8	2.51	0.45
23:DB:672:C:O2'	23:DB:673:C:H5'	2.16	0.45
23:DB:6:A:H2'	23:DB:7:G:C8	2.52	0.45
23:DB:996:A:H4'	44:DQ:91:ARG:CG	2.46	0.45
47:DF:134:GLN:HB3	47:DF:149:ARG:HB2	1.99	0.45
47:DF:31:GLU:HB3	47:DF:156:THR:O	2.16	0.45
41:DJ:73:VAL:HG23	41:DJ:74:TYR:N	2.28	0.45
37:DL:2:ARG:O	37:DL:2:ARG:HG2	2.15	0.45
38:DM:108:VAL:HG22	38:DM:112:LEU:HB3	1.96	0.45
28:DP:103:THR:H	28:DP:107:ALA:HB2	1.80	0.45
28:DP:6:GLN:HA	28:DP:9:GLN:OE1	2.15	0.45
49:DR:58:VAL:HG22	49:DR:59:ILE:N	2.31	0.45
45:DS:81:SER:HB3	45:DS:99:ARG:HA	1.98	0.45
50:DT:11:LEU:CD2	50:DT:11:LEU:H	2.16	0.45
39:DX:29:ARG:NH1	50:DT:12:ARG:NE	2.63	0.45
50:DT:53:VAL:HG12	50:DT:54:GLU:N	2.31	0.45
46:DU:33:VAL:O	46:DU:63:ALA:HA	2.17	0.45
46:DU:73:ASN:HB2	46:DU:95:PHE:CD2	2.52	0.45
1:AA:1025:U:H4'	1:AA:1026:G:O5'	2.17	0.45
1:AA:109:A:H2'	1:AA:326:G:N2	2.32	0.45
1:AA:1101:A:H4'	1:AA:1102:A:O5'	2.17	0.45
1:AA:1206:G:C4'	2:AC:193:GLY:H	2.29	0.45
1:AA:1271:A:O2'	1:AA:1272:G:H5'	2.16	0.45
1:AA:1458:G:H2'	1:AA:1459:G:H8	1.82	0.45
1:AA:212:G:H2'	1:AA:213:G:H8	1.81	0.45
1:AA:263:A:H2'	1:AA:264:C:C6	2.51	0.45
1:AA:412:A:C1'	1:AA:413:G:H5''	2.41	0.45
1:AA:43:C:H2'	1:AA:44:A:O4'	2.15	0.45
1:AA:626:G:H2'	1:AA:627:G:C8	2.52	0.45
2:AC:106:ARG:C	2:AC:107:LYS:HE3	2.37	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AD:145:ARG:HE	3:AD:147:LYS:HG2	1.82	0.45
3:AD:66:VAL:HG12	3:AD:67:LEU:N	2.32	0.45
5:AF:43:GLY:HA2	5:AF:58:HIS:CD2	2.51	0.45
7:AH:65:PHE:CD2	7:AH:66:GLN:HG3	2.51	0.45
8:AI:27:ILE:HG21	8:AI:34:LEU:HD22	1.97	0.45
12:AM:32:ILE:HG23	12:AM:33:LEU:N	2.31	0.45
13:AN:20:PHE:HA	13:AN:24:ALA:H	1.81	0.45
13:AN:60:ARG:O	13:AN:62:ARG:N	2.50	0.45
14:AO:12:VAL:O	14:AO:16:GLY:HA3	2.17	0.45
14:AO:18:ASP:CG	14:AO:19:ALA:H	2.19	0.45
17:AR:20:ILE:HA	17:AR:53:GLN:HE21	1.81	0.45
21:AU:41:THR:O	21:AU:45:LYS:HD2	2.15	0.45
23:BB:2054:A:H2'	31:B0:4:GLN:HE22	1.80	0.45
31:B0:50:GLY:O	31:B0:51:ARG:C	2.54	0.45
23:BB:2286:G:H3'	33:B1:29:LYS:NZ	2.31	0.45
53:B6:130:ARG:HG3	53:B6:130:ARG:HH11	1.82	0.45
23:BB:1865:U:HO2'	23:BB:1866:A:H8	1.64	0.45
23:BB:1910:G:H8	23:BB:1910:G:O5'	1.98	0.45
23:BB:2526:G:H2'	23:BB:2527:C:H6	1.81	0.45
23:BB:2600:A:O2'	23:BB:2601:C:H5'	2.17	0.45
23:BB:279:A:H2'	23:BB:280:U:O5'	2.17	0.45
23:BB:2812:G:H2'	23:BB:2813:A:C8	2.51	0.45
23:BB:299:A:N6	23:BB:322:A:O2'	2.45	0.45
23:BB:39:G:H2'	23:BB:40:U:H6	1.80	0.45
23:BB:545:U:C2	23:BB:547:A:H5'	2.51	0.45
23:BB:711:G:O2'	23:BB:712:G:H5'	2.16	0.45
23:BB:962:G:N2	23:BB:2250:G:H1	2.13	0.45
25:BC:128:THR:HG22	25:BC:188:ARG:HB3	1.99	0.45
29:BE:67:ARG:HG2	29:BE:67:ARG:HH11	1.81	0.45
48:BG:132:LEU:HD23	48:BG:132:LEU:N	2.30	0.45
38:BM:55:ARG:HG3	38:BM:55:ARG:HH21	1.81	0.45
42:BN:35:LYS:HA	42:BN:111:ALA:O	2.16	0.45
28:BP:20:ARG:HH21	28:BP:20:ARG:HG2	1.80	0.45
28:BP:3:ILE:HD13	28:BP:3:ILE:C	2.37	0.45
28:BP:85:VAL:O	28:BP:87:ARG:N	2.47	0.45
44:BQ:109:VAL:O	44:BQ:113:LYS:HG3	2.16	0.45
44:BQ:57:ARG:HA	44:BQ:60:TRP:CE3	2.51	0.45
49:BR:39:LEU:O	49:BR:40:MET:HB2	2.16	0.45
45:BS:97:LEU:N	45:BS:97:LEU:HD22	2.31	0.45
23:BB:139:U:C2'	50:BT:1:MET:HA	2.46	0.45
46:BU:43:LYS:C	46:BU:43:LYS:HD3	2.36	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BW:76:ARG:HB3	52:BW:78:PHE:CE2	2.51	0.45
1:CA:1396:A:O4'	1:CA:1398:A:H1'	2.16	0.45
1:CA:1525:G:O2'	1:CA:1526:G:H5'	2.16	0.45
1:CA:398:U:H2'	1:CA:399:G:C8	2.51	0.45
1:CA:43:C:H2'	1:CA:44:A:O4'	2.16	0.45
1:CA:691:G:H1'	1:CA:696:A:N6	2.30	0.45
1:CA:821:G:O2'	1:CA:822:U:H5'	2.16	0.45
20:CB:22:TRP:HZ3	20:CB:27:LYS:HB2	1.80	0.45
2:CC:104:GLU:HG2	2:CC:105:VAL:H	1.81	0.45
3:CD:8:LEU:HD12	3:CD:31:CYS:SG	2.57	0.45
4:CE:11:GLN:HB3	4:CE:116:VAL:HG12	1.99	0.45
6:CG:14:ASP:O	6:CG:18:GLY:HA2	2.16	0.45
7:CH:94:VAL:CG2	7:CH:101:ALA:HB2	2.46	0.45
11:CL:107:LYS:HD2	11:CL:107:LYS:O	2.17	0.45
11:CL:17:LYS:HD2	11:CL:17:LYS:O	2.15	0.45
12:CM:64:VAL:O	12:CM:65:GLU:C	2.54	0.45
15:CP:1:MET:HG3	15:CP:3:THR:HG23	1.99	0.45
18:CS:30:LEU:HB2	18:CS:48:ILE:HA	1.98	0.45
36:D2:11:LYS:O	36:D2:15:SER:HB2	2.16	0.45
34:D3:24:LYS:O	37:DL:62:PRO:HD2	2.16	0.45
23:DB:2392:A:H4'	34:D3:27:ASN:HD21	1.82	0.45
22:DA:94:A:O2'	22:DA:95:U:H5'	2.16	0.45
23:DB:1847:A:H4'	23:DB:1848:A:C8	2.51	0.45
23:DB:1889:A:H2'	23:DB:1890:A:H8	1.79	0.45
23:DB:2287:A:O2'	23:DB:2288:A:H3'	2.17	0.45
23:DB:242:G:N2	23:DB:254:G:H2'	2.32	0.45
23:DB:2602:A:OP1	23:DB:2602:A:H3'	2.17	0.45
23:DB:494:G:O2'	23:DB:495:G:H5'	2.17	0.45
23:DB:708:G:H2'	23:DB:709:U:C6	2.50	0.45
25:DC:129:LEU:O	25:DC:188:ARG:HA	2.15	0.45
26:DD:136:ASN:HD21	26:DD:139:SER:C	2.18	0.45
29:DE:4:VAL:C	29:DE:6:LYS:H	2.20	0.45
22:DA:43:C:H1'	47:DF:91:ARG:NH2	2.30	0.45
48:DG:40:VAL:HG22	48:DG:64:ALA:HA	1.99	0.45
48:DG:96:ALA:O	48:DG:97:VAL:HB	2.15	0.45
40:DH:96:THR:HB	40:DH:112:LYS:CB	2.47	0.45
40:DH:125:THR:HA	40:DH:146:VAL:CB	2.29	0.45
23:DB:1666:G:O3'	27:DK:6:THR:HG23	2.17	0.45
28:DP:102:ARG:O	28:DP:103:THR:HB	2.15	0.45
35:DV:64:VAL:HG13	35:DV:68:LYS:O	2.16	0.45
52:DW:30:VAL:HG21	52:DW:59:PHE:CZ	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:323:U:H2'	1:AA:324:G:O4'	2.17	0.45
1:AA:837:U:H2'	1:AA:838:G:C8	2.46	0.45
1:AA:865:A:C2	1:AA:918:A:H4'	2.51	0.45
20:AB:37:VAL:HG13	20:AB:37:VAL:O	2.16	0.45
1:AA:532:A:H8	2:AC:192:TYR:HD2	1.65	0.45
3:AD:149:LYS:HB2	3:AD:177:MET:HG3	1.98	0.45
7:AH:81:GLY:O	7:AH:82:LEU:HB2	2.15	0.45
8:AI:115:VAL:CG2	9:AJ:62:ARG:HG3	2.45	0.45
9:AJ:76:ILE:O	9:AJ:76:ILE:HD12	2.16	0.45
13:AN:26:LEU:HA	13:AN:29:ILE:HD12	1.98	0.45
36:B2:11:LYS:O	36:B2:15:SER:HB2	2.17	0.45
53:B6:64:ARG:CA	53:B6:103:ILE:HB	2.43	0.45
53:B6:29:ARG:HG2	53:B6:32:ARG:CZ	2.47	0.45
23:BB:1464:G:H2'	23:BB:1465:G:C8	2.48	0.45
23:BB:1576:U:O2'	23:BB:1577:C:H5'	2.16	0.45
23:BB:1595:C:H2'	23:BB:1596:A:C8	2.52	0.45
23:BB:167:A:H2'	23:BB:168:G:O4'	2.15	0.45
23:BB:2109:U:O2	23:BB:2110:G:H5'	2.16	0.45
23:BB:2385:C:H2'	23:BB:2386:A:H8	1.81	0.45
23:BB:2699:C:H2'	23:BB:2700:A:H8	1.82	0.45
23:BB:2716:C:O2'	23:BB:2717:C:H5'	2.17	0.45
23:BB:2879:A:H4'	23:BB:2880:C:OP1	2.17	0.45
23:BB:328:U:O3'	46:BU:65:GLN:HG3	2.17	0.45
23:BB:337:C:H2'	23:BB:338:G:O4'	2.17	0.45
23:BB:498:G:H2'	23:BB:498:G:N3	2.31	0.45
23:BB:812:C:H5''	23:BB:1250:G:O2'	2.16	0.45
23:BB:948:C:H2'	23:BB:949:G:C8	2.52	0.45
47:BF:177:ARG:NH2	47:BF:178:LYS:H	2.14	0.45
47:BF:37:MET:SD	47:BF:52:ALA:HB1	2.57	0.45
48:BG:140:ILE:O	48:BG:144:ALA:HB2	2.16	0.45
40:BH:84:ALA:H	40:BH:148:ALA:HB2	1.79	0.45
40:BH:66:ASN:ND2	40:BH:67:ALA:N	2.64	0.45
40:BH:77:THR:HA	40:BH:143:ILE:HD11	1.99	0.45
24:BI:32:VAL:HG13	24:BI:66:PHE:CD2	2.51	0.45
41:BJ:44:TYR:CE1	44:BQ:59:LEU:HD11	2.51	0.45
27:BK:13:ASN:HD21	27:BK:98:ARG:H	1.65	0.45
42:BN:16:HIS:O	42:BN:18:GLN:N	2.47	0.45
28:BP:6:GLN:HA	28:BP:9:GLN:OE1	2.16	0.45
28:BP:74:GLN:O	28:BP:76:HIS:N	2.50	0.45
28:BP:7:LEU:HD12	28:BP:7:LEU:N	2.23	0.45
45:BS:81:SER:HB3	45:BS:99:ARG:HA	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BW:50:VAL:HG23	52:BW:61:LYS:HE3	1.98	0.45
30:BY:7:THR:HG22	30:BY:9:THR:H	1.81	0.45
1:CA:1070:U:H2'	1:CA:1071:C:H6	1.81	0.45
1:CA:1098:C:O2'	1:CA:1099:G:H5'	2.16	0.45
1:CA:1437:A:H2'	1:CA:1438:G:C8	2.49	0.45
1:CA:260:G:H2'	1:CA:261:U:C6	2.51	0.45
1:CA:27:G:O2'	1:CA:28:A:H5'	2.17	0.45
1:CA:515:G:O2'	1:CA:516:U:H5'	2.16	0.45
1:CA:820:U:H4'	1:CA:821:G:OP2	2.16	0.45
1:CA:857:C:H2'	1:CA:858:G:O4'	2.16	0.45
1:CA:930:C:H2'	1:CA:931:C:C6	2.51	0.45
1:CA:947:G:H2'	1:CA:948:C:C6	2.52	0.45
4:CE:125:LYS:HE3	1:CA:9:G:OP2	2.16	0.45
2:CC:3:LYS:HA	1:CA:1190:G:OP1	2.16	0.45
4:CE:14:LEU:HD13	4:CE:14:LEU:O	2.17	0.45
6:CG:46:LEU:HG	6:CG:57:GLU:HG3	1.98	0.45
8:CI:71:ILE:CD1	8:CI:71:ILE:H	2.28	0.45
12:CM:101:THR:HB	1:CA:1226:C:H5''	1.97	0.45
14:CO:24:SER:HB3	14:CO:27:VAL:CG2	2.46	0.45
18:CS:48:ILE:HG21	18:CS:70:LEU:HD21	1.97	0.45
19:CT:80:ALA:HA	19:CT:83:ASN:ND2	2.30	0.45
21:CU:16:ARG:NH2	21:CU:19:LYS:NZ	2.58	0.45
53:D6:41:LEU:O	53:D6:43:VAL:HG23	2.16	0.45
23:DB:1171:G:H2'	23:DB:1172:C:O4'	2.16	0.45
23:DB:1190:G:H5''	37:DL:32:GLY:HA2	1.98	0.45
23:DB:1564:C:H2'	23:DB:1565:C:C6	2.52	0.45
23:DB:1911:U:O2'	23:DB:1912:A:H5'	2.17	0.45
23:DB:2514:U:H2'	23:DB:2515:C:H6	1.81	0.45
23:DB:2667:C:H2'	23:DB:2668:G:O4'	2.16	0.45
23:DB:279:A:H61	23:DB:361:G:H1'	1.80	0.45
23:DB:402:A:H2'	23:DB:403:U:O4'	2.15	0.45
23:DB:614:A:H5''	23:DB:616:A:N6	2.31	0.45
23:DB:607:U:O4	23:DB:620:G:H5''	2.16	0.45
23:DB:639:U:H2'	23:DB:640:C:H6	1.77	0.45
23:DB:899:A:H2'	23:DB:900:A:C4'	2.46	0.45
23:DB:972:A:OP1	23:DB:974:G:H5'	2.16	0.45
26:DD:25:THR:HG21	26:DD:193:VAL:HG22	1.98	0.45
29:DE:155:GLU:CA	29:DE:158:PHE:HB3	2.41	0.45
29:DE:147:LEU:HD21	29:DE:179:SER:HB3	1.98	0.45
47:DF:177:ARG:NH2	47:DF:178:LYS:H	2.14	0.45
47:DF:74:ALA:HB1	47:DF:76:PHE:HD2	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DF:9:ASP:O	47:DF:13:LYS:HG2	2.17	0.45
38:DM:53:MET:O	38:DM:57:VAL:HG23	2.16	0.45
38:DM:69:PRO:O	38:DM:71:LYS:N	2.48	0.45
42:DN:35:LYS:HA	42:DN:111:ALA:O	2.16	0.45
43:DO:93:ASP:C	43:DO:95:SER:N	2.69	0.45
28:DP:13:LYS:CD	28:DP:76:HIS:HA	2.45	0.45
35:DV:8:VAL:HA	35:DV:39:ALA:O	2.17	0.45
30:DY:4:ILE:HG23	30:DY:56:VAL:HG13	1.99	0.45
51:DZ:36:HIS:O	51:DZ:48:THR:HA	2.17	0.45
1:AA:114:U:O2'	1:AA:115:G:H5'	2.17	0.45
1:AA:1226:C:H5''	12:AM:101:THR:HB	1.98	0.45
1:AA:1243:C:H2'	1:AA:1244:G:H8	1.82	0.45
1:AA:473:U:H2'	1:AA:474:G:C8	2.42	0.45
1:AA:516:U:O2'	1:AA:517:G:H5'	2.17	0.45
1:AA:537:G:H2'	1:AA:538:G:C8	2.52	0.45
20:AB:65:LYS:HB3	20:AB:157:PRO:HA	1.97	0.45
2:AC:71:ARG:O	2:AC:75:VAL:HG23	2.17	0.45
4:AE:95:MET:HA	4:AE:124:ALA:CB	2.46	0.45
4:AE:14:LEU:HD13	4:AE:14:LEU:O	2.17	0.45
5:AF:25:TYR:O	5:AF:29:ILE:HG13	2.16	0.45
7:AH:94:VAL:CG2	7:AH:101:ALA:HB2	2.47	0.45
8:AI:24:ASN:CG	8:AI:25:GLY:H	2.20	0.45
8:AI:94:ARG:CB	8:AI:94:ARG:HH11	2.16	0.45
13:AN:20:PHE:O	13:AN:24:ALA:HB3	2.16	0.45
18:AS:20:LYS:HE3	18:AS:20:LYS:HB3	1.80	0.45
53:B6:14:MET:HB3	53:B6:168:PHE:CG	2.51	0.45
53:B6:42:LYS:CA	53:B6:51:PRO:HA	2.29	0.45
22:BA:31:C:O2'	22:BA:32:U:H5'	2.17	0.45
23:BB:1026:G:H2'	23:BB:1027:A:C8	2.52	0.45
23:BB:1082:U:C2	23:BB:1086:A:N1	2.85	0.45
23:BB:139:U:C4	50:BT:1:MET:HB3	2.51	0.45
23:BB:1910:G:C2	23:BB:1911:U:N3	2.84	0.45
23:BB:196:A:H2'	23:BB:196:A:N3	2.32	0.45
23:BB:2362:C:OP1	34:B3:39:ARG:NE	2.45	0.45
23:BB:2391:G:OP1	34:B3:34:LYS:HE2	2.16	0.45
23:BB:2743:U:H2'	23:BB:2744:G:C4'	2.46	0.45
23:BB:2868:A:H2'	23:BB:2869:G:C8	2.52	0.45
23:BB:2902:C:O2'	23:BB:2903:U:H5'	2.17	0.45
23:BB:493:G:H2'	23:BB:494:G:O4'	2.17	0.45
23:BB:596:U:H2'	23:BB:597:G:C8	2.51	0.45
25:BC:15:VAL:HG22	25:BC:204:LEU:O	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BC:89:ASN:HD22	25:BC:89:ASN:HA	1.53	0.45
26:BD:14:ILE:O	26:BD:14:ILE:HG23	2.16	0.45
29:BE:60:TRP:O	29:BE:61:ARG:CB	2.63	0.45
47:BF:177:ARG:NH1	47:BF:177:ARG:HA	2.32	0.45
48:BG:123:GLU:HG2	48:BG:124:CYS:N	2.32	0.45
40:BH:27:ARG:HE	51:BZ:64:ILE:HD11	1.81	0.45
41:BJ:103:ILE:HA	41:BJ:106:LYS:HB3	1.99	0.45
37:BL:136:GLU:HA	37:BL:140:GLY:H	1.82	0.45
42:BN:24:MET:HG2	42:BN:44:LEU:HD22	1.98	0.45
42:BN:65:LEU:HD11	42:BN:69:ARG:CZ	2.46	0.45
44:BQ:104:ALA:C	44:BQ:106:THR:H	2.19	0.45
44:BQ:71:ASN:HD21	44:BQ:106:THR:HG23	1.80	0.45
46:BU:94:PHE:CB	46:BU:101:THR:HA	2.47	0.45
46:BU:72:PHE:HA	46:BU:78:LYS:O	2.17	0.45
46:BU:85:ARG:NH1	46:BU:86:PHE:N	2.61	0.45
52:BW:44:PHE:HB3	52:BW:78:PHE:CD1	2.51	0.45
1:CA:1089:G:H2'	1:CA:1090:U:O4'	2.17	0.45
1:CA:1402:C:H2'	1:CA:1403:C:O4'	2.17	0.45
1:CA:147:G:H2'	1:CA:148:G:H8	1.82	0.45
3:CD:151:GLN:NE2	1:CA:437:U:H5"	2.32	0.45
20:CB:42:LEU:HA	20:CB:45:THR:OG1	2.16	0.45
20:CB:85:SER:O	20:CB:86:CYS:HB2	2.17	0.45
20:CB:88:GLN:HB2	20:CB:88:GLN:HE21	1.55	0.45
2:CC:185:THR:HG22	2:CC:198:LYS:HG2	1.97	0.45
2:CC:26:LYS:HG3	2:CC:27:GLU:H	1.80	0.45
3:CD:54:LEU:O	3:CD:58:GLN:HB2	2.16	0.45
3:CD:82:LYS:NZ	3:CD:82:LYS:HB3	2.32	0.45
7:CH:14:ARG:NE	7:CH:75:GLN:HE21	2.14	0.45
8:CI:18:VAL:HG21	8:CI:82:ILE:HG13	1.98	0.45
12:CM:89:ARG:CB	12:CM:96:VAL:HG22	2.46	0.45
13:CN:17:ASP:O	13:CN:21:ALA:HB3	2.17	0.45
21:CU:11:PHE:O	21:CU:12:ASP:C	2.54	0.45
34:D3:44:ARG:N	34:D3:45:PRO:CD	2.78	0.45
32:D4:9:LYS:O	32:D4:10:LEU:HD23	2.16	0.45
53:D6:13:HIS:O	53:D6:16:LYS:HB2	2.17	0.45
23:DB:1026:G:H2'	23:DB:1027:A:C8	2.51	0.45
23:DB:1190:G:H2'	23:DB:1191:G:H8	1.82	0.45
23:DB:1463:C:H2'	23:DB:1464:G:C8	2.51	0.45
23:DB:175:G:H2'	23:DB:176:A:C8	2.52	0.45
23:DB:1992:G:N2	23:DB:1996:C:O2'	2.50	0.45
23:DB:2008:C:H2'	23:DB:2009:A:C8	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2267:A:H5''	23:DB:2268:A:C5'	2.44	0.45
23:DB:2467:C:H1'	38:DM:122:ALA:HB1	1.97	0.45
23:DB:2720:U:H2'	23:DB:2721:A:H8	1.81	0.45
23:DB:2834:G:H2'	23:DB:2879:A:H61	1.82	0.45
23:DB:362:A:H3'	23:DB:363:G:H8	1.81	0.45
23:DB:460:A:H2'	23:DB:461:C:O4'	2.17	0.45
23:DB:533:G:H2'	23:DB:534:U:C6	2.52	0.45
23:DB:546:U:O4'	23:DB:548:G:OP1	2.34	0.45
23:DB:558:U:O3'	41:DJ:111:LYS:HE2	2.16	0.45
23:DB:65:U:H2'	23:DB:66:C:C6	2.50	0.45
23:DB:969:G:H2'	23:DB:970:U:H6	1.78	0.45
23:DB:2598:A:C5'	25:DC:233:GLY:HA2	2.43	0.45
25:DC:6:LYS:HB3	25:DC:8:THR:HG22	1.98	0.45
26:DD:122:VAL:HA	26:DD:127:PHE:N	2.31	0.45
26:DD:181:ASP:OD2	26:DD:184:ARG:HD2	2.17	0.45
26:DD:202:ILE:HD12	26:DD:202:ILE:N	2.31	0.45
26:DD:31:ALA:HA	26:DD:97:SER:HA	1.98	0.45
29:DE:109:LEU:O	29:DE:112:LEU:HB2	2.16	0.45
47:DF:103:ILE:HD11	47:DF:174:PHE:CA	2.47	0.45
47:DF:169:LEU:HA	47:DF:172:PHE:HD2	1.82	0.45
41:DJ:114:LEU:O	41:DJ:118:MET:HG3	2.16	0.45
42:DN:63:ARG:HA	42:DN:80:PHE:CE2	2.51	0.45
43:DO:89:ASP:HA	43:DO:116:GLN:HB3	1.99	0.45
43:DO:26:LEU:HD13	43:DO:39:VAL:HG22	1.99	0.45
28:DP:21:PRO:HG3	28:DP:93:LYS:O	2.16	0.45
39:DX:17:GLU:OE1	39:DX:21:LEU:HD11	2.17	0.45
1:AA:1181:G:O2'	1:AA:1182:G:C8	2.70	0.45
1:AA:544:G:OP1	3:AD:55:ARG:NH2	2.50	0.45
1:AA:572:A:H5''	1:AA:917:G:H4'	1.97	0.45
1:AA:628:G:H2'	1:AA:629:A:C8	2.51	0.45
1:AA:635:A:H2'	1:AA:636:U:C6	2.51	0.45
20:AB:18:GLN:HG2	20:AB:189:ASN:CG	2.37	0.45
2:AC:113:LYS:HD3	2:AC:184:ASN:OD1	2.17	0.45
3:AD:142:VAL:N	3:AD:179:GLY:O	2.50	0.45
3:AD:44:LYS:NZ	3:AD:44:LYS:HB3	2.31	0.45
7:AH:40:LYS:CD	7:AH:47:ASP:HA	2.47	0.45
13:AN:52:ARG:C	13:AN:54:SER:H	2.20	0.45
15:AP:18:GLN:HE21	15:AP:35:ARG:HD3	1.82	0.45
16:AQ:16:MET:HB3	16:AQ:19:SER:HB2	1.98	0.45
33:B1:8:ILE:HG21	33:B1:51:ALA:CB	2.47	0.45
53:B6:25:LEU:HD22	53:B6:179:LYS:HG2	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:B6:72:ASP:OD1	53:B6:74:ASN:HB3	2.17	0.45
23:BB:1535:A:H3'	23:BB:1536:C:C6	2.52	0.45
23:BB:1637:A:H5'	23:BB:1760:C:O2'	2.16	0.45
23:BB:208:C:H2'	23:BB:209:C:C6	2.51	0.45
23:BB:2246:G:H2'	23:BB:2247:A:H8	1.77	0.45
23:BB:351:C:H2'	23:BB:352:A:C8	2.52	0.45
23:BB:401:A:H2'	23:BB:402:A:C8	2.52	0.45
23:BB:433:C:O2'	23:BB:434:U:H5'	2.17	0.45
23:BB:477:A:H2'	23:BB:478:A:C8	2.52	0.45
23:BB:554:U:H2'	23:BB:555:G:O4'	2.17	0.45
23:BB:569:U:H5''	23:BB:821:A:C2	2.52	0.45
25:BC:124:LYS:HB3	25:BC:124:LYS:NZ	2.31	0.45
47:BF:91:ARG:O	47:BF:92:GLY:C	2.55	0.45
48:BG:26:LYS:HA	48:BG:32:LEU:HA	1.97	0.45
24:BI:19:PRO:HG2	24:BI:22:PRO:HB2	1.99	0.45
24:BI:79:LEU:HD23	24:BI:108:ILE:CD1	2.47	0.45
37:BL:136:GLU:HG2	37:BL:140:GLY:O	2.16	0.45
38:BM:31:PHE:HA	38:BM:131:VAL:O	2.17	0.45
43:BO:28:VAL:HG21	43:BO:106:LEU:HD21	1.99	0.45
44:BQ:91:ARG:HE	44:BQ:94:LEU:CD2	2.27	0.45
46:BU:60:LYS:HA	46:BU:60:LYS:HE2	1.97	0.45
35:BV:72:VAL:CG1	35:BV:93:ARG:HA	2.46	0.45
52:BW:41:GLY:HA2	52:BW:44:PHE:CD2	2.52	0.45
52:BW:70:VAL:HG23	52:BW:75:ASN:ND2	2.32	0.45
30:BY:23:LEU:HD13	30:BY:28:LEU:HB2	1.99	0.45
1:CA:1090:U:H2'	1:CA:1091:U:C6	2.52	0.45
1:CA:1271:A:O2'	1:CA:1272:G:H5'	2.17	0.45
1:CA:252:U:C2	1:CA:253:A:N7	2.85	0.45
1:CA:389:A:H3'	1:CA:390:U:C6	2.50	0.45
1:CA:777:A:H2'	1:CA:778:G:C8	2.51	0.45
1:CA:977:A:N1	1:CA:1224:U:OP1	2.49	0.45
20:CB:23:ASN:HD22	20:CB:24:PRO:CD	2.29	0.45
6:CG:27:ASN:O	6:CG:30:MET:HB3	2.16	0.45
7:CH:40:LYS:CD	7:CH:47:ASP:HA	2.47	0.45
8:CI:71:ILE:HD12	8:CI:71:ILE:N	2.28	0.45
6:CG:149:ALA:HB1	10:CK:59:PRO:HB2	1.98	0.45
18:CS:27:LYS:NZ	18:CS:27:LYS:HB3	2.32	0.45
23:DB:126:A:O5'	36:D2:46:LYS:HE2	2.17	0.45
32:D4:36:ARG:O	32:D4:37:GLN:C	2.55	0.45
53:D6:62:ASP:C	53:D6:64:ARG:H	2.20	0.45
22:DA:30:C:H2'	22:DA:31:C:H5'	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:92:C:O2'	22:DA:93:C:H5'	2.17	0.45
23:DB:208:C:H2'	23:DB:209:C:C6	2.52	0.45
23:DB:2223:G:C2'	23:DB:2224:G:H5'	2.47	0.45
23:DB:2879:A:H4'	23:DB:2880:C:OP1	2.17	0.45
23:DB:304:U:H2'	23:DB:305:C:C6	2.52	0.45
48:DG:174:LYS:HZ3	48:DG:176:LYS:HB3	1.81	0.45
41:DJ:118:MET:HA	41:DJ:121:LYS:HE2	1.98	0.45
23:DB:536:G:H21	41:DJ:47:HIS:CG	2.35	0.45
41:DJ:93:ILE:O	41:DJ:97:PRO:HG3	2.17	0.45
38:DM:57:VAL:HG13	38:DM:108:VAL:HG21	1.99	0.45
38:DM:82:MET:HE2	38:DM:82:MET:HB3	1.80	0.45
38:DM:97:GLN:HB2	38:DM:98:PRO:HD2	1.98	0.45
42:DN:24:MET:HG2	42:DN:44:LEU:HD22	1.98	0.45
28:DP:74:GLN:O	28:DP:76:HIS:N	2.50	0.45
1:AA:103:U:H1'	1:AA:171:A:N1	2.31	0.45
1:AA:1283:U:H2'	1:AA:1284:C:H6	1.81	0.45
1:AA:1307:U:H2'	1:AA:1308:U:O4'	2.16	0.45
1:AA:1320:C:O2'	1:AA:1321:U:H5'	2.17	0.45
1:AA:202:G:H2'	1:AA:203:G:C8	2.51	0.45
1:AA:237:G:O2'	1:AA:238:A:H5'	2.17	0.45
20:AB:26:MET:SD	20:AB:192:PRO:HD3	2.56	0.45
2:AC:148:ILE:HG12	2:AC:149:LYS:N	2.31	0.45
2:AC:146:LYS:HE3	2:AC:202:PHE:HE2	1.81	0.45
4:AE:23:THR:HA	4:AE:28:ARG:HA	1.99	0.45
7:AH:117:GLN:C	7:AH:119:GLY:H	2.20	0.45
8:AI:18:VAL:HG21	8:AI:82:ILE:HG13	1.98	0.45
9:AJ:7:ARG:HG3	9:AJ:102:LEU:O	2.17	0.45
12:AM:90:HIS:HA	12:AM:108:ARG:HH22	1.81	0.45
12:AM:44:ILE:HA	12:AM:47:LEU:HB2	1.98	0.45
12:AM:38:ILE:HG13	12:AM:55:LEU:CD2	2.46	0.45
12:AM:79:LEU:HB2	12:AM:84:CYS:SG	2.57	0.45
13:AN:20:PHE:CB	13:AN:24:ALA:HB2	2.47	0.45
14:AO:39:LEU:HD23	14:AO:43:PHE:CE1	2.47	0.45
14:AO:77:ARG:O	14:AO:81:LEU:HB2	2.17	0.45
16:AQ:60:ILE:N	16:AQ:60:ILE:HD13	2.30	0.45
33:B1:35:LEU:HD23	33:B1:35:LEU:N	2.32	0.45
53:B6:92:PRO:HB3	53:B6:100:TYR:O	2.17	0.45
53:B6:139:LYS:O	53:B6:143:LEU:HD13	2.16	0.45
53:B6:76:LEU:HD23	53:B6:77:LYS:NZ	2.29	0.45
23:BB:2070:A:H2'	23:BB:2071:A:C8	2.51	0.45
23:BB:2100:G:H2'	23:BB:2101:A:O4'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:2227:A:H2'	23:BB:2228:G:O4'	2.16	0.45
23:BB:2338:C:H2'	23:BB:2339:C:C6	2.52	0.45
23:BB:2373:G:O2'	23:BB:2374:C:H5'	2.17	0.45
23:BB:2425:A:H4'	23:BB:2426:A:OP2	2.17	0.45
23:BB:2778:A:O2'	23:BB:2781:A:H5'	2.17	0.45
23:BB:2839:G:H2'	23:BB:2840:C:H6	1.80	0.45
23:BB:2840:C:H5''	42:BN:53:THR:OG1	2.16	0.45
23:BB:335:C:O2'	23:BB:336:C:H5'	2.16	0.45
23:BB:794:A:H2'	23:BB:795:C:H6	1.78	0.45
23:BB:948:C:H2'	23:BB:949:G:H8	1.81	0.45
29:BE:155:GLU:O	29:BE:159:LEU:HD13	2.17	0.45
29:BE:166:LYS:O	29:BE:167:VAL:CB	2.65	0.45
40:BH:127:GLU:HA	40:BH:145:ASN:OD1	2.17	0.45
41:BJ:69:ARG:O	41:BJ:89:PHE:HB3	2.17	0.45
41:BJ:74:TYR:HB2	41:BJ:87:ALA:O	2.17	0.45
23:BB:811:U:OP2	37:BL:20:GLY:HA2	2.17	0.45
37:BL:89:VAL:O	37:BL:89:VAL:HG13	2.16	0.45
38:BM:126:ILE:HD12	38:BM:126:ILE:N	2.30	0.45
52:BW:62:ALA:O	52:BW:81:ILE:HD12	2.16	0.45
52:BW:9:THR:OG1	52:BW:10:ARG:N	2.48	0.45
39:BX:51:ALA:O	39:BX:55:THR:N	2.43	0.45
39:BX:6:LEU:C	39:BX:8:GLU:H	2.19	0.45
30:BY:51:SER:HA	30:BY:54:VAL:CG2	2.46	0.45
2:CC:196:GLY:H	1:CA:1057:G:H4'	1.81	0.45
1:CA:238:A:C3'	1:CA:239:U:H5''	2.47	0.45
1:CA:45:G:O2'	1:CA:46:G:H5'	2.16	0.45
1:CA:830:G:H2'	1:CA:831:A:H8	1.81	0.45
20:CB:204:ASP:O	20:CB:205:ALA:HB3	2.17	0.45
20:CB:209:VAL:HG23	20:CB:210:THR:H	1.82	0.45
20:CB:221:ARG:HG3	20:CB:222:GLU:N	2.32	0.45
20:CB:86:CYS:C	20:CB:88:GLN:H	2.19	0.45
2:CC:106:ARG:C	2:CC:107:LYS:HE3	2.36	0.45
5:CF:81:ASN:O	5:CF:83:ALA:N	2.50	0.45
8:CI:26:LYS:HA	8:CI:26:LYS:NZ	2.31	0.45
10:CK:118:ASN:HB2	1:CA:718:A:H5'	1.99	0.45
11:CL:66:ILE:HG21	11:CL:71:HIS:HB3	1.99	0.45
13:CN:20:PHE:CB	13:CN:24:ALA:HB2	2.47	0.45
14:CO:11:ILE:HD11	14:CO:30:ALA:HB1	1.98	0.45
14:CO:43:PHE:CD1	14:CO:56:LEU:HD22	2.52	0.45
16:CQ:28:VAL:HG12	16:CQ:37:ILE:O	2.17	0.45
19:CT:34:VAL:CG1	19:CT:78:LEU:HD22	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:DB:46:TYR:C	53:DB:48:ALA:H	2.20	0.45
23:DB:1064:C:H2'	23:DB:1065:U:O4'	2.17	0.45
23:DB:1047:G:N2	23:DB:1110:G:O2'	2.49	0.45
23:DB:1183:U:H2'	23:DB:1184:U:C6	2.51	0.45
23:DB:1269:A:H2'	23:DB:1270:C:C6	2.52	0.45
23:DB:1356:G:H2'	23:DB:1357:C:H6	1.81	0.45
23:DB:1418:G:H1'	23:DB:1580:A:N6	2.32	0.45
23:DB:1507:C:H5'	23:DB:1508:A:OP2	2.17	0.45
23:DB:1724:G:H2'	23:DB:1725:U:C6	2.52	0.45
23:DB:2065:C:H2'	23:DB:2066:C:H6	1.82	0.45
23:DB:20:C:H2'	23:DB:21:A:C8	2.51	0.45
23:DB:2144:G:H3'	23:DB:2145:C:C5'	2.47	0.45
23:DB:2693:G:O2'	23:DB:2694:G:H5'	2.17	0.45
23:DB:2814:A:H2'	23:DB:2815:C:C6	2.52	0.45
23:DB:493:G:H2'	23:DB:494:G:O4'	2.16	0.45
23:DB:69:C:H2'	23:DB:70:G:C8	2.52	0.45
29:DE:31:VAL:HG21	29:DE:104:ALA:HB2	1.98	0.45
48:DG:10:VAL:HG21	48:DG:44:HIS:CE1	2.52	0.45
48:DG:83:THR:HA	48:DG:84:LYS:HZ3	1.82	0.45
48:DG:9:VAL:HG13	48:DG:47:ASN:OD1	2.17	0.45
40:DH:4:ILE:HG13	40:DH:37:VAL:HG13	1.97	0.45
40:DH:94:ILE:O	40:DH:122:LEU:HD23	2.17	0.45
24:DI:45:THR:O	24:DI:48:ILE:HG22	2.16	0.45
41:DJ:24:THR:O	41:DJ:25:LEU:HB3	2.16	0.45
27:DK:2:ILE:HD12	27:DK:2:ILE:N	2.32	0.45
44:DQ:56:PHE:O	44:DQ:59:LEU:HB3	2.17	0.45
44:DQ:91:ARG:NH2	44:DQ:93:ILE:HG21	2.32	0.45
46:DU:26:ASN:ND2	46:DU:34:ILE:HB	2.31	0.45
23:DB:2356:U:H4'	52:DW:16:GLU:HG3	1.98	0.45
30:DY:6:ILE:HG21	30:DY:26:LEU:HD13	1.99	0.45
1:AA:410:G:H1'	1:AA:432:A:N6	2.32	0.45
1:AA:622:A:H2'	1:AA:623:C:H5'	1.97	0.45
1:AA:636:U:O2'	1:AA:637:C:H5'	2.16	0.45
1:AA:818:G:C3'	1:AA:819:A:H5''	2.47	0.45
2:AC:40:GLN:HG3	2:AC:41:TYR:N	2.32	0.45
3:AD:117:VAL:HG12	3:AD:130:ASN:HA	1.99	0.45
3:AD:201:GLU:OE1	4:AE:104:ILE:HG22	2.17	0.45
6:AG:46:LEU:HG	6:AG:57:GLU:CG	2.46	0.45
10:AK:122:PRO:HB2	21:AU:33:ARG:O	2.17	0.45
10:AK:86:LYS:O	10:AK:86:LYS:HG3	2.15	0.45
11:AL:43:LYS:HE3	11:AL:44:PRO:CD	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AM:89:ARG:CB	12:AM:96:VAL:HG22	2.47	0.45
12:AM:89:ARG:HD2	12:AM:95:PRO:O	2.17	0.45
18:AS:39:ILE:HG13	18:AS:68:HIS:O	2.17	0.45
53:B6:10:THR:HG22	53:B6:14:MET:HE3	1.97	0.45
53:B6:63:PRO:O	53:B6:103:ILE:HB	2.17	0.45
23:BB:1091:G:O2'	23:BB:1092:C:H5'	2.17	0.45
23:BB:1690:A:H2'	23:BB:1691:C:O4'	2.17	0.45
23:BB:1739:A:H2'	23:BB:1740:G:O4'	2.17	0.45
23:BB:1992:G:N2	23:BB:1996:C:O2'	2.50	0.45
23:BB:1130:U:C2	23:BB:2025:C:H5''	2.52	0.45
23:BB:2065:C:H2'	23:BB:2066:C:H6	1.82	0.45
23:BB:2223:G:C2'	23:BB:2224:G:H5'	2.47	0.45
23:BB:2282:G:O3'	23:BB:2283:C:H4'	2.16	0.45
23:BB:235:U:H2'	23:BB:236:C:C6	2.52	0.45
23:BB:546:U:OP1	23:BB:547:A:OP2	2.35	0.45
23:BB:622:G:H2'	23:BB:623:C:C6	2.52	0.45
23:BB:696:G:O2'	23:BB:697:G:H5'	2.17	0.45
23:BB:922:C:H1'	52:BW:22:VAL:HG21	1.98	0.45
25:BC:68:ARG:HB2	25:BC:128:THR:HG21	1.97	0.45
26:BD:61:THR:O	26:BD:64:GLU:HB2	2.17	0.45
47:BF:65:LEU:CD2	47:BF:87:LYS:HD2	2.46	0.45
40:BH:116:ARG:CZ	40:BH:131:SER:HB2	2.46	0.45
24:BI:19:PRO:HB2	24:BI:22:PRO:HD2	1.99	0.45
24:BI:27:LEU:HB2	24:BI:32:VAL:HG21	1.98	0.45
23:BB:810:U:O4	37:BL:30:THR:HG22	2.17	0.45
38:BM:101:VAL:HG13	38:BM:101:VAL:O	2.17	0.45
38:BM:32:GLY:CA	38:BM:104:GLU:HA	2.47	0.45
42:BN:107:ASN:HD21	45:BS:40:ASN:ND2	2.08	0.45
45:BS:69:LEU:HD12	45:BS:69:LEU:HA	1.81	0.45
50:BT:43:ILE:CG2	50:BT:58:VAL:HG21	2.47	0.45
50:BT:57:VAL:HG22	50:BT:58:VAL:N	2.27	0.45
46:BU:85:ARG:CZ	46:BU:86:PHE:H	2.29	0.45
35:BV:23:ALA:O	35:BV:24:ASN:HB2	2.16	0.45
39:BX:56:LEU:O	39:BX:57:LEU:CB	2.65	0.45
1:CA:1390:U:H2'	1:CA:1391:U:H6	1.82	0.45
1:CA:585:G:O2'	1:CA:586:C:H5'	2.17	0.45
1:CA:643:C:H2'	1:CA:644:U:H6	1.82	0.45
5:CF:85:ILE:HG22	5:CF:86:ARG:H	1.81	0.45
9:CJ:8:ILE:HD12	9:CJ:74:VAL:HG11	1.99	0.45
12:CM:78:ARG:HG2	12:CM:82:LEU:HD12	1.98	0.45
15:CP:20:VAL:HG23	15:CP:35:ARG:HA	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CT:66:ILE:HG23	19:CT:70:LYS:HB3	1.99	0.45
36:D2:10:LEU:HD11	36:D2:14:ARG:CZ	2.47	0.45
36:D2:43:THR:O	36:D2:44:VAL:C	2.55	0.45
53:D6:62:ASP:O	53:D6:64:ARG:N	2.50	0.45
53:D6:81:LYS:HA	53:D6:84:ARG:NH2	2.32	0.45
23:DB:443:A:H1'	23:DB:1201:U:O4'	2.16	0.45
23:DB:1487:U:H2'	23:DB:1488:C:C6	2.51	0.45
23:DB:1920:C:O5'	23:DB:1920:C:H6	2.00	0.45
23:DB:2283:C:H2'	23:DB:2284:A:H5'	1.98	0.45
23:DB:2363:G:O2'	23:DB:2364:C:H5'	2.17	0.45
23:DB:2643:G:O2'	23:DB:2644:G:H5'	2.16	0.45
23:DB:2803:G:H2'	23:DB:2804:U:H6	1.82	0.45
23:DB:314:C:O2'	23:DB:315:G:H5'	2.17	0.45
23:DB:596:U:H2'	23:DB:597:G:C8	2.52	0.45
23:DB:622:G:H2'	23:DB:623:C:C6	2.51	0.45
23:DB:636:G:OP2	37:DL:128:THR:HA	2.17	0.45
25:DC:94:LEU:HG	25:DC:94:LEU:O	2.17	0.45
26:DD:201:LEU:C	26:DD:202:ILE:HD12	2.37	0.45
29:DE:44:ARG:CG	29:DE:44:ARG:HH21	2.21	0.45
29:DE:60:TRP:O	29:DE:61:ARG:CB	2.64	0.45
48:DG:123:GLU:HG2	48:DG:124:CYS:N	2.32	0.45
40:DH:115:VAL:HG23	40:DH:131:SER:O	2.16	0.45
24:DI:59:THR:O	24:DI:59:THR:HG23	2.17	0.45
37:DL:40:SER:OG	37:DL:41:ARG:HG3	2.16	0.45
23:DB:825:A:O2'	37:DL:54:GLN:HB3	2.17	0.45
37:DL:69:ARG:HD3	37:DL:69:ARG:O	2.16	0.45
42:DN:20:MET:HG3	42:DN:21:PHE:N	2.29	0.45
28:DP:100:ARG:C	28:DP:101:GLU:HG3	2.37	0.45
45:DS:36:LEU:HA	45:DS:39:THR:OG1	2.17	0.45
35:DV:29:ILE:HD13	35:DV:31:TYR:CE2	2.52	0.45
52:DW:27:GLY:O	52:DW:63:ASP:HA	2.16	0.45
39:DX:41:HIS:O	39:DX:45:GLN:HG3	2.17	0.45
1:AA:1295:U:H2'	1:AA:1296:C:C6	2.52	0.45
1:AA:238:A:C3'	1:AA:239:U:H5''	2.46	0.45
1:AA:740:U:O2'	1:AA:741:G:H5'	2.17	0.45
1:AA:788:U:O2'	1:AA:789:U:H5'	2.17	0.45
1:AA:847:G:H2'	1:AA:848:C:C6	2.52	0.45
1:AA:1074:G:H4'	20:AB:102:ASN:HB2	1.99	0.45
5:AF:81:ASN:O	5:AF:84:VAL:HG12	2.17	0.45
5:AF:81:ASN:O	5:AF:83:ALA:N	2.50	0.45
6:AG:125:ASP:HB3	6:AG:131:GLY:H	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AL:106:VAL:HA	11:AL:107:LYS:HZ3	1.82	0.45
14:AO:24:SER:HB3	14:AO:27:VAL:CG2	2.46	0.45
33:B1:34:GLU:CD	33:B1:49:LYS:HD2	2.37	0.45
33:B1:8:ILE:HG22	33:B1:9:LYS:N	2.30	0.45
22:BA:94:A:O2'	22:BA:95:U:H5'	2.16	0.45
23:BB:108:G:O2'	23:BB:109:C:H5'	2.17	0.45
23:BB:118:A:OP2	23:BB:119:A:H2'	2.17	0.45
23:BB:1386:C:H2'	23:BB:1387:A:H8	1.81	0.45
23:BB:2100:G:C6	23:BB:2190:G:C6	3.04	0.45
23:BB:219:A:H2	23:BB:234:U:O2	2.00	0.45
23:BB:244:A:H2'	23:BB:245:G:O4'	2.17	0.45
23:BB:553:G:O2'	23:BB:554:U:H5'	2.17	0.45
23:BB:809:G:O2'	23:BB:810:U:H5'	2.16	0.45
23:BB:873:C:H4'	38:BM:64:TRP:NE1	2.32	0.45
25:BC:110:LYS:HB3	25:BC:113:ASP:OD2	2.16	0.45
25:BC:175:LEU:HG	25:BC:181:ARG:HB2	1.99	0.45
23:BB:1844:C:OP1	25:BC:254:LYS:HA	2.17	0.45
26:BD:130:GLN:HG3	26:BD:140:HIS:O	2.17	0.45
23:BB:320:A:OP1	29:BE:130:LYS:HE3	2.16	0.45
47:BF:134:GLN:HB3	47:BF:149:ARG:HB2	1.98	0.45
47:BF:4:HIS:O	47:BF:7:TYR:HB3	2.16	0.45
48:BG:32:LEU:CD2	48:BG:33:THR:H	2.29	0.45
29:BE:32:VAL:HG21	37:BL:6:LEU:CD1	2.46	0.45
38:BM:78:LEU:HB3	38:BM:79:ALA:H	1.51	0.45
43:BO:105:ALA:O	43:BO:107:ALA:N	2.43	0.45
43:BO:93:ASP:C	43:BO:95:SER:N	2.70	0.45
28:BP:21:PRO:O	28:BP:91:VAL:HG21	2.17	0.45
28:BP:13:LYS:CD	28:BP:76:HIS:HA	2.46	0.45
44:BQ:73:ILE:HG13	44:BQ:74:SER:N	2.32	0.45
44:BQ:9:ALA:C	44:BQ:11:ALA:N	2.71	0.45
49:BR:58:VAL:HG22	49:BR:59:ILE:N	2.32	0.45
45:BS:63:GLY:O	45:BS:64:ALA:HB2	2.17	0.45
50:BT:30:ILE:O	50:BT:85:VAL:HG23	2.17	0.45
50:BT:34:VAL:HG21	50:BT:43:ILE:CD1	2.47	0.45
50:BT:53:VAL:HG12	50:BT:54:GLU:N	2.31	0.45
46:BU:51:LEU:H	46:BU:53:GLN:HE22	1.65	0.45
35:BV:29:ILE:HD13	35:BV:31:TYR:CE2	2.52	0.45
35:BV:35:GLU:HG3	35:BV:93:ARG:NH1	2.31	0.45
35:BV:70:ILE:H	35:BV:70:ILE:CD1	2.26	0.45
39:BX:56:LEU:C	39:BX:58:ASN:H	2.20	0.45
1:CA:143:A:H2	1:CA:220:G:H22	1.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:192:A:O2'	1:CA:193:C:H5'	2.17	0.45
1:CA:223:A:H2'	1:CA:224:U:H6	1.82	0.45
1:CA:224:U:H2'	1:CA:225:C:H6	1.81	0.45
1:CA:431:A:H2'	1:CA:432:A:O4'	2.17	0.45
1:CA:473:U:H2'	1:CA:474:G:C8	2.44	0.45
20:CB:125:PHE:CE1	20:CB:136:ARG:HB3	2.52	0.45
3:CD:57:LYS:HB2	3:CD:199:ILE:HB	1.99	0.45
9:CJ:77:VAL:HB	9:CJ:78:GLU:CD	2.38	0.45
14:CO:12:VAL:O	14:CO:16:GLY:HA3	2.17	0.45
16:CQ:75:VAL:CG2	16:CQ:76:ARG:N	2.80	0.45
18:CS:65:MET:O	18:CS:65:MET:HG2	2.17	0.45
53:D6:37:LEU:O	53:D6:38:LEU:HD23	2.17	0.45
53:D6:80:GLU:CD	53:D6:99:LEU:HD13	2.37	0.45
22:DA:116:G:H4'	43:DO:54:VAL:O	2.17	0.45
22:DA:95:U:H2'	22:DA:96:G:H8	1.81	0.45
23:DB:1681:G:H2'	23:DB:1757:A:N1	2.32	0.45
23:DB:1687:G:H2'	23:DB:1688:U:C6	2.52	0.45
23:DB:1726:C:H2'	23:DB:1727:C:H6	1.80	0.45
23:DB:2190:G:O2'	23:DB:2191:A:H5'	2.17	0.45
23:DB:506:G:H5''	23:DB:509:C:O2'	2.17	0.45
23:DB:656:G:H2'	23:DB:657:U:C6	2.52	0.45
25:DC:244:VAL:HB	25:DC:249:VAL:H	1.82	0.45
26:DD:116:LYS:HB2	26:DD:165:MET:HB3	1.99	0.45
29:DE:58:LYS:CD	29:DE:58:LYS:H	2.29	0.45
47:DF:91:ARG:O	47:DF:92:GLY:C	2.55	0.45
48:DG:88:LEU:HD21	48:DG:95:ALA:HB2	1.98	0.45
40:DH:41:LYS:N	40:DH:44:ILE:HG23	2.32	0.45
40:DH:78:VAL:O	40:DH:145:ASN:N	2.50	0.45
28:DP:105:LYS:HA	28:DP:108:ARG:NE	2.32	0.45
44:DQ:73:ILE:CG2	44:DQ:78:PHE:HB2	2.47	0.45
44:DQ:94:LEU:HD21	49:DR:11:GLN:CB	2.45	0.45
52:DW:70:VAL:C	52:DW:71:LYS:HD2	2.36	0.45
30:DY:6:ILE:O	30:DY:34:THR:HG23	2.17	0.45
1:AA:1133:G:H2'	1:AA:1134:G:C8	2.52	0.44
1:AA:1352:C:H2'	1:AA:1353:G:O4'	2.18	0.44
1:AA:199:A:H2'	1:AA:200:G:H8	1.81	0.44
1:AA:277:C:O2'	1:AA:278:G:H5'	2.18	0.44
1:AA:451:A:N6	1:AA:480:U:H2'	2.31	0.44
1:AA:489:C:O2'	1:AA:490:C:H5'	2.16	0.44
1:AA:597:G:H2'	1:AA:598:U:H5'	1.99	0.44
1:AA:737:C:H2'	1:AA:738:C:C6	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AB:204:ASP:O	20:AB:205:ALA:HB3	2.17	0.44
20:AB:45:THR:HG22	20:AB:49:PHE:CE1	2.52	0.44
2:AC:100:ILE:O	2:AC:100:ILE:HG23	2.17	0.44
2:AC:50:SER:HB2	2:AC:70:ALA:HB3	1.99	0.44
6:AG:62:GLU:OE2	6:AG:66:GLU:HG3	2.17	0.44
7:AH:94:VAL:HG23	7:AH:101:ALA:HB2	1.98	0.44
8:AI:66:VAL:HG22	8:AI:67:LYS:N	2.33	0.44
10:AK:74:LYS:C	10:AK:76:TYR:H	2.19	0.44
18:AS:14:LEU:HG	18:AS:15:LEU:N	2.32	0.44
19:AT:83:ASN:HB2	19:AT:84:LYS:HD2	1.98	0.44
23:BB:2284:A:OP1	33:B1:3:GLY:O	2.35	0.44
23:BB:171:U:H2'	23:BB:172:A:H8	1.80	0.44
23:BB:1746:A:H2'	23:BB:1747:U:C6	2.52	0.44
23:BB:2267:A:H5''	23:BB:2268:A:C5'	2.46	0.44
23:BB:2300:C:H2'	23:BB:2301:C:C6	2.52	0.44
23:BB:2389:G:H5''	23:BB:2390:U:O4'	2.16	0.44
23:BB:2543:G:H21	23:BB:2646:C:H5''	1.82	0.44
23:BB:276:U:HO2'	23:BB:277:G:H5'	1.80	0.44
23:BB:443:A:H1'	23:BB:1201:U:O4'	2.16	0.44
23:BB:522:A:H2'	23:BB:523:C:H6	1.77	0.44
23:BB:833:A:H2'	23:BB:834:G:H8	1.81	0.44
23:BB:911:A:N6	38:BM:11:LYS:O	2.50	0.44
25:BC:94:LEU:HG	25:BC:94:LEU:O	2.17	0.44
26:BD:32:ASN:HB3	26:BD:50:VAL:CG2	2.47	0.44
26:BD:31:ALA:HA	26:BD:97:SER:HA	1.99	0.44
24:BI:12:VAL:HG23	24:BI:41:PHE:CE2	2.53	0.44
41:BJ:102:GLU:O	41:BJ:105:VAL:HG22	2.17	0.44
27:BK:71:ARG:HH21	27:BK:106:GLU:HG3	1.81	0.44
37:BL:28:GLY:O	37:BL:29:LYS:C	2.55	0.44
42:BN:103:ARG:HG3	42:BN:104:ALA:H	1.82	0.44
44:BQ:8:ILE:O	44:BQ:11:ALA:HB3	2.17	0.44
35:BV:42:LEU:CD2	35:BV:42:LEU:H	2.11	0.44
35:BV:44:HIS:HE1	35:BV:86:LEU:H	1.65	0.44
35:BV:72:VAL:CG1	35:BV:94:ALA:H	2.18	0.44
52:BW:43:LYS:HE2	52:BW:68:PHE:HE1	1.82	0.44
51:BZ:36:HIS:O	51:BZ:48:THR:HA	2.17	0.44
1:CA:103:U:H1'	1:CA:171:A:N1	2.32	0.44
1:CA:1320:C:O2'	1:CA:1321:U:H5'	2.17	0.44
1:CA:153:C:O2'	1:CA:154:U:H5'	2.16	0.44
1:CA:370:C:H2'	1:CA:371:A:C8	2.52	0.44
1:CA:432:A:H2'	1:CA:433:G:H5'	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:843:U:H3'	1:CA:844:G:C5'	2.46	0.44
1:CA:856:C:O2'	1:CA:857:C:H5'	2.17	0.44
20:CB:65:LYS:HB3	20:CB:157:PRO:HA	1.98	0.44
20:CB:69:VAL:HB	20:CB:162:VAL:CB	2.46	0.44
20:CB:46:VAL:HA	20:CB:49:PHE:CG	2.51	0.44
2:CC:40:GLN:HG3	2:CC:41:TYR:N	2.32	0.44
3:CD:84:ASN:C	3:CD:84:ASN:ND2	2.68	0.44
7:CH:17:GLN:OE1	7:CH:69:ALA:HB1	2.17	0.44
14:CO:40:GLN:HE21	14:CO:40:GLN:HB3	1.53	0.44
10:CK:124:LYS:O	21:CU:33:ARG:NE	2.50	0.44
21:CU:8:ASN:O	21:CU:9:GLU:HB3	2.17	0.44
53:D6:31:GLY:HA2	53:D6:106:LEU:HD13	1.99	0.44
53:D6:109:GLU:CA	53:D6:112:LYS:HE3	2.38	0.44
53:D6:183:ILE:C	53:D6:185:GLY:H	2.21	0.44
53:D6:75:ALA:C	53:D6:77:LYS:H	2.20	0.44
53:D6:77:LYS:O	53:D6:81:LYS:HG3	2.17	0.44
23:DB:141:G:N2	23:DB:141:G:OP2	2.48	0.44
23:DB:1571:A:H2'	23:DB:1572:A:C8	2.52	0.44
23:DB:1998:A:H2'	23:DB:1999:C:H6	1.81	0.44
23:DB:2079:U:H2'	23:DB:2080:A:O4'	2.17	0.44
23:DB:2543:G:H2'	23:DB:2544:G:C8	2.52	0.44
23:DB:2901:C:H2'	23:DB:2902:C:H6	1.82	0.44
23:DB:40:U:O2'	23:DB:41:C:H5'	2.17	0.44
25:DC:76:VAL:O	25:DC:93:VAL:O	2.35	0.44
29:DE:161:ALA:C	29:DE:163:ASN:N	2.70	0.44
29:DE:62:GLN:HE21	29:DE:62:GLN:HB2	1.56	0.44
47:DF:127:TYR:OH	47:DF:166:ARG:HG3	2.17	0.44
47:DF:111:ARG:HH11	47:DF:135:ILE:HG21	1.82	0.44
48:DG:34:ARG:N	48:DG:34:ARG:CD	2.80	0.44
27:DK:109:SER:O	27:DK:113:MET:HG2	2.17	0.44
43:DO:62:LEU:CD1	43:DO:70:ALA:HA	2.47	0.44
44:DQ:73:ILE:HD11	44:DQ:77:LYS:HB2	1.98	0.44
49:DR:27:ILE:HG13	49:DR:33:VAL:HG11	1.98	0.44
45:DS:31:GLN:C	45:DS:33:LEU:H	2.20	0.44
23:DB:1322:A:H4'	45:DS:82:MET:HE1	1.99	0.44
39:DX:40:SER:C	39:DX:42:LEU:H	2.21	0.44
1:AA:102:G:H2'	1:AA:103:U:C6	2.52	0.44
1:AA:1245:C:H2'	1:AA:1246:A:H8	1.82	0.44
1:AA:141:G:O2'	1:AA:142:G:H5'	2.17	0.44
1:AA:431:A:H2'	1:AA:432:A:O4'	2.17	0.44
1:AA:613:C:P	3:AD:80:ARG:HH21	2.40	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:794:A:H2'	1:AA:795:C:C6	2.52	0.44
1:AA:845:A:H3'	1:AA:846:G:O4'	2.17	0.44
1:AA:865:A:H2'	1:AA:866:C:C6	2.52	0.44
2:AC:128:MET:HB2	2:AC:131:ARG:HH11	1.82	0.44
8:AI:49:GLN:HB3	8:AI:102:PHE:CE1	2.53	0.44
14:AO:11:ILE:HD11	14:AO:30:ALA:HB1	1.99	0.44
32:B4:9:LYS:O	32:B4:10:LEU:HD23	2.17	0.44
22:BA:14:U:H1'	22:BA:106:G:N2	2.33	0.44
23:BB:1063:G:O4'	24:BI:134:SER:O	2.34	0.44
23:BB:1117:C:H2'	23:BB:1118:C:C6	2.52	0.44
23:BB:1439:A:H1'	23:BB:1553:A:N6	2.32	0.44
23:BB:1571:A:H2'	23:BB:1572:A:C8	2.53	0.44
23:BB:1418:G:H1'	23:BB:1580:A:N6	2.32	0.44
23:BB:1716:U:H2'	23:BB:1717:A:H8	1.82	0.44
23:BB:1882:U:O2'	23:BB:1883:U:H5'	2.17	0.44
23:BB:1838:C:N4	23:BB:1898:U:H2'	2.32	0.44
23:BB:2341:G:H2'	23:BB:2342:C:H6	1.81	0.44
23:BB:234:U:H2'	23:BB:235:U:H6	1.82	0.44
23:BB:2514:U:H2'	23:BB:2515:C:H6	1.81	0.44
23:BB:2526:G:H2'	23:BB:2527:C:C6	2.53	0.44
23:BB:1760:C:OP1	23:BB:2712:C:H5	2.01	0.44
23:BB:2825:G:N3	23:BB:2825:G:H5''	2.32	0.44
23:BB:697:G:H2'	23:BB:698:C:C6	2.51	0.44
23:BB:69:C:H2'	23:BB:70:G:C8	2.53	0.44
23:BB:730:A:H3'	56:BB:3597:HOH:O	2.18	0.44
23:BB:873:C:H4'	38:BM:64:TRP:HE1	1.81	0.44
23:BB:898:C:H2'	23:BB:899:A:C1'	2.47	0.44
23:BB:2052:A:O4'	26:BD:147:GLY:HA3	2.17	0.44
47:BF:19:PHE:CE1	47:BF:164:GLU:HA	2.52	0.44
47:BF:87:LYS:CG	47:BF:88:VAL:H	2.27	0.44
48:BG:10:VAL:HG21	48:BG:44:HIS:HE1	1.82	0.44
48:BG:88:LEU:HD13	48:BG:93:TYR:HB3	2.00	0.44
40:BH:57:LYS:CG	40:BH:58:LEU:H	2.23	0.44
27:BK:43:ILE:CG2	27:BK:46:ALA:HB2	2.47	0.44
38:BM:69:PRO:O	38:BM:71:LYS:N	2.49	0.44
42:BN:73:ASN:HA	42:BN:76:VAL:CG2	2.46	0.44
43:BO:18:LEU:HD23	43:BO:25:ARG:HD3	1.99	0.44
43:BO:38:GLN:HB2	43:BO:47:VAL:HG11	1.99	0.44
28:BP:21:PRO:HG3	28:BP:93:LYS:O	2.17	0.44
28:BP:4:ILE:O	28:BP:6:GLN:N	2.49	0.44
28:BP:62:LYS:HB3	28:BP:69:VAL:CG2	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BR:2:TYR:N	49:BR:42:ALA:HB2	2.32	0.44
1:CA:632:U:H5''	1:CA:633:G:C8	2.52	0.44
2:CC:129:PHE:CG	2:CC:130:ARG:N	2.85	0.44
2:CC:50:SER:HB2	2:CC:70:ALA:HB3	1.98	0.44
2:CC:91:ALA:HB1	2:CC:96:VAL:O	2.17	0.44
6:CG:62:GLU:OE2	6:CG:66:GLU:HG3	2.17	0.44
8:CI:46:VAL:HA	8:CI:49:GLN:OE1	2.16	0.44
9:CJ:49:PHE:O	9:CJ:64:GLN:HA	2.17	0.44
12:CM:32:ILE:HG23	12:CM:33:LEU:N	2.31	0.44
22:DA:60:C:H2'	22:DA:61:G:H8	1.83	0.44
22:DA:63:C:H2'	22:DA:64:G:H8	1.82	0.44
23:DB:1774:C:O2	23:DB:1774:C:H2'	2.17	0.44
23:DB:1826:G:H2'	23:DB:1827:U:C6	2.52	0.44
23:DB:222:A:N1	23:DB:233:A:H5''	2.31	0.44
23:DB:2758:A:O2'	23:DB:2759:G:H5'	2.17	0.44
23:DB:2778:A:O2'	23:DB:2781:A:H5'	2.17	0.44
23:DB:288:U:C2	23:DB:289:G:C8	3.05	0.44
23:DB:498:G:H2'	23:DB:498:G:N3	2.31	0.44
23:DB:587:C:H4'	23:DB:588:U:C6	2.52	0.44
23:DB:1805:A:N3	25:DC:49:THR:CG2	2.79	0.44
26:DD:119:ALA:HB2	26:DD:163:GLY:C	2.37	0.44
26:DD:181:ASP:C	26:DD:181:ASP:OD1	2.54	0.44
23:DB:659:G:H21	29:DE:30:GLN:NE2	2.15	0.44
40:DH:11:ASN:O	40:DH:12:LEU:HD23	2.17	0.44
41:DJ:36:LEU:HD21	41:DJ:122:LEU:HD13	1.98	0.44
41:DJ:81:ILE:CG2	41:DJ:82:GLY:H	2.13	0.44
37:DL:6:LEU:N	37:DL:6:LEU:HD23	2.32	0.44
38:DM:101:VAL:HG13	38:DM:101:VAL:O	2.15	0.44
38:DM:55:ARG:HH21	38:DM:55:ARG:HG3	1.82	0.44
23:DB:2376:A:N1	43:DO:92:PHE:HD2	2.15	0.44
28:DP:52:ARG:HB2	28:DP:55:HIS:O	2.17	0.44
49:DR:32:THR:HG23	49:DR:61:ALA:O	2.17	0.44
30:DY:8:GLN:O	30:DY:53:MET:O	2.35	0.44
1:AA:1102:A:H2'	1:AA:1103:C:C6	2.53	0.44
1:AA:1238:A:C2	1:AA:1241:G:N3	2.84	0.44
1:AA:1324:A:H4'	1:AA:1363:A:OP1	2.17	0.44
1:AA:1514:G:H2'	1:AA:1515:G:H8	1.83	0.44
1:AA:51:A:H4'	1:AA:52:C:OP2	2.17	0.44
1:AA:694:A:H3'	1:AA:695:A:H5''	1.98	0.44
1:AA:6:G:H4'	1:AA:298:A:H4'	2.00	0.44
1:AA:842:U:H2'	1:AA:843:U:H4'	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:96:U:H2'	1:AA:97:G:H8	1.82	0.44
20:AB:44:LYS:O	20:AB:48:MET:HG3	2.18	0.44
2:AC:185:THR:CG2	2:AC:198:LYS:HG2	2.47	0.44
2:AC:23:ALA:HB3	2:AC:28:PHE:CD1	2.52	0.44
5:AF:18:VAL:HG11	5:AF:58:HIS:NE2	2.31	0.44
1:AA:718:A:H5'	10:AK:118:ASN:HB2	1.99	0.44
11:AL:32:VAL:HG23	11:AL:55:ARG:O	2.18	0.44
21:AU:34:ARG:HE	21:AU:36:PHE:N	2.14	0.44
32:B4:25:VAL:HG11	32:B4:35:GLN:HE21	1.80	0.44
53:B6:28:LEU:O	53:B6:30:THR:HG23	2.17	0.44
53:B6:60:ALA:HB2	53:B6:66:LEU:HG	1.99	0.44
22:BA:46:A:H2'	22:BA:47:C:O4'	2.18	0.44
23:BB:1221:C:H2'	23:BB:1222:U:H6	1.82	0.44
23:BB:160:A:H2'	23:BB:161:A:C8	2.52	0.44
23:BB:1739:A:H2'	23:BB:1740:G:H8	1.83	0.44
23:BB:1809:A:H2'	23:BB:1810:A:C8	2.53	0.44
23:BB:1906:G:OP2	23:BB:1930:G:H8	2.00	0.44
23:BB:1979:U:O2'	23:BB:1980:G:H5'	2.17	0.44
23:BB:2031:A:C6	23:BB:2498:C:H1'	2.53	0.44
23:BB:2292:U:H2'	23:BB:2293:G:H8	1.82	0.44
23:BB:2769:U:O2'	23:BB:2770:G:H5'	2.17	0.44
23:BB:781:A:OP1	25:BC:216:ARG:NH2	2.49	0.44
29:BE:128:ALA:O	29:BE:133:LEU:HD12	2.18	0.44
47:BF:31:GLU:HB3	47:BF:156:THR:O	2.17	0.44
47:BF:99:PHE:HA	47:BF:102:LEU:HD11	1.99	0.44
40:BH:111:ALA:HB3	40:BH:114:GLU:CG	2.48	0.44
40:BH:114:GLU:HB3	40:BH:134:VAL:N	2.32	0.44
24:BI:109:ALA:HB1	24:BI:124:MET:CG	2.47	0.44
41:BJ:98:GLU:HB3	41:BJ:124:VAL:HG21	1.99	0.44
23:BB:1669:A:C8	27:BK:5:GLN:HG3	2.52	0.44
43:BO:89:ASP:HA	43:BO:116:GLN:HB3	2.00	0.44
28:BP:100:ARG:C	28:BP:101:GLU:HG3	2.36	0.44
46:BU:33:VAL:O	46:BU:63:ALA:HA	2.18	0.44
35:BV:10:LYS:HG2	35:BV:11:GLU:HG3	1.98	0.44
1:CA:1270:G:H2'	1:CA:1271:A:H8	1.83	0.44
1:CA:1385:G:O2'	1:CA:1386:G:H5'	2.17	0.44
1:CA:1496:C:H2'	1:CA:1497:G:O4'	2.17	0.44
1:CA:1526:G:H2'	1:CA:1527:U:H6	1.82	0.44
1:CA:450:G:N7	1:CA:481:G:O6	2.51	0.44
1:CA:628:G:O2'	1:CA:629:A:H5'	2.17	0.44
2:CC:147:GLY:HA3	2:CC:171:ARG:O	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CC:192:TYR:HA	1:CA:1206:G:C4'	2.45	0.44
3:CD:26:ALA:HA	3:CD:30:LYS:CE	2.46	0.44
7:CH:4:ASP:CG	7:CH:76:ARG:HH12	2.21	0.44
9:CJ:42:LEU:CB	9:CJ:71:LEU:HD21	2.47	0.44
10:CK:15:VAL:HB	10:CK:78:ILE:CD1	2.48	0.44
12:CM:11:HIS:H	12:CM:45:SER:CB	2.30	0.44
13:CN:20:PHE:HA	13:CN:24:ALA:H	1.81	0.44
13:CN:61:ASN:HB3	13:CN:72:PHE:CE2	2.53	0.44
17:CR:20:ILE:HA	17:CR:53:GLN:HE21	1.81	0.44
33:D1:29:LYS:N	33:D1:30:PRO:HD3	2.32	0.44
33:D1:34:GLU:HG2	33:D1:49:LYS:HG3	1.99	0.44
33:D1:8:ILE:HG21	33:D1:51:ALA:CB	2.47	0.44
36:D2:16:HIS:HB2	36:D2:44:VAL:HG21	2.00	0.44
32:D4:10:LEU:HD12	32:D4:33:HIS:CA	2.40	0.44
32:D4:7:VAL:HB	32:D4:36:ARG:O	2.18	0.44
53:D6:19:GLU:HA	53:D6:22:GLU:OE1	2.17	0.44
22:DA:114:C:O2'	22:DA:115:A:H5'	2.18	0.44
23:DB:1098:A:H2'	24:DI:3:LYS:C	2.36	0.44
23:DB:1299:G:C4'	23:DB:1301:A:H1'	2.46	0.44
23:DB:1326:U:H2'	23:DB:1327:A:H8	1.82	0.44
23:DB:2093:G:O5'	40:DH:24:GLY:HA3	2.18	0.44
23:DB:2389:G:H5''	23:DB:2390:U:O4'	2.16	0.44
23:DB:2816:G:O2'	23:DB:2817:U:H5'	2.17	0.44
23:DB:948:C:H2'	23:DB:949:G:H8	1.83	0.44
25:DC:15:VAL:HG22	25:DC:204:LEU:O	2.17	0.44
25:DC:80:LEU:HD21	25:DC:109:LEU:HG	1.99	0.44
26:DD:23:PRO:HB2	26:DD:190:LYS:O	2.17	0.44
23:DB:2787:C:C1'	26:DD:63:PRO:HG3	2.36	0.44
29:DE:155:GLU:O	29:DE:159:LEU:HD13	2.17	0.44
23:DB:606:U:OP2	29:DE:99:LYS:HD2	2.18	0.44
47:DF:101:ARG:HH12	47:DF:138:PRO:CB	2.29	0.44
48:DG:148:ARG:CD	48:DG:152:ARG:HD3	2.48	0.44
48:DG:83:THR:HA	48:DG:84:LYS:HZ1	1.79	0.44
48:DG:88:LEU:O	48:DG:88:LEU:HD12	2.18	0.44
40:DH:65:ALA:O	40:DH:138:VAL:HG11	2.18	0.44
24:DI:128:ILE:HA	24:DI:131:THR:HG23	1.98	0.44
41:DJ:17:VAL:CG2	41:DJ:137:PRO:HB2	2.38	0.44
41:DJ:12:LYS:O	41:DJ:13:ARG:HB2	2.17	0.44
41:DJ:31:GLU:OE2	41:DJ:34:ARG:NH2	2.51	0.44
27:DK:64:ARG:HH12	27:DK:101:GLY:HA3	1.81	0.44
27:DK:43:ILE:CG2	27:DK:54:LYS:HA	2.43	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DD:21:SER:HB2	27:DK:73:ASP:HA	1.99	0.44
28:DP:25:VAL:HA	28:DP:85:VAL:CA	2.48	0.44
49:DR:27:ILE:HG22	49:DR:28:ALA:N	2.32	0.44
46:DU:48:VAL:O	46:DU:50:ALA:N	2.51	0.44
46:DU:81:ARG:HG3	46:DU:81:ARG:NH2	2.32	0.44
46:DU:85:ARG:NH1	46:DU:86:PHE:N	2.63	0.44
35:DV:53:LYS:HE2	35:DV:53:LYS:HA	1.97	0.44
51:DZ:51:VAL:HG12	51:DZ:52:SER:H	1.82	0.44
1:AA:1180:A:OP2	8:AI:98:ARG:NH2	2.50	0.44
1:AA:768:A:H5'	1:AA:1524:C:H1'	2.00	0.44
1:AA:192:A:O2'	1:AA:193:C:H5'	2.18	0.44
1:AA:376:G:H5''	15:AP:5:ARG:HB2	1.99	0.44
1:AA:512:U:H2'	1:AA:513:C:H6	1.81	0.44
1:AA:613:C:H2'	1:AA:614:C:C6	2.52	0.44
1:AA:719:C:H2'	17:AR:38:ILE:HD11	1.99	0.44
1:AA:916:U:H2'	1:AA:917:G:H8	1.81	0.44
20:AB:102:ASN:O	20:AB:106:VAL:HG23	2.17	0.44
20:AB:125:PHE:HD2	20:AB:125:PHE:N	2.14	0.44
20:AB:94:ARG:N	20:AB:94:ARG:NE	2.64	0.44
2:AC:129:PHE:CG	2:AC:130:ARG:N	2.85	0.44
3:AD:197:HIS:O	3:AD:201:GLU:HG3	2.18	0.44
8:AI:59:LYS:HB3	8:AI:60:LEU:HD23	1.99	0.44
8:AI:66:VAL:HG11	8:AI:78:ILE:HD11	1.99	0.44
9:AJ:77:VAL:HB	9:AJ:78:GLU:CD	2.37	0.44
12:AM:50:GLY:HA2	12:AM:53:ASP:OD1	2.18	0.44
17:AR:31:TYR:CB	17:AR:54:LEU:HD21	2.47	0.44
18:AS:38:THR:HA	18:AS:69:LYS:HD3	1.98	0.44
53:B6:10:THR:O	53:B6:14:MET:HB2	2.17	0.44
22:BA:28:C:H2'	22:BA:29:A:O4'	2.17	0.44
23:BB:1299:G:C4'	23:BB:1301:A:H1'	2.47	0.44
23:BB:1494:A:H2'	23:BB:1495:A:C8	2.53	0.44
23:BB:1704:C:O2'	23:BB:1705:A:H5'	2.18	0.44
23:BB:1923:U:H2'	23:BB:1924:C:C5	2.53	0.44
23:BB:2230:G:H2'	23:BB:2231:U:H6	1.83	0.44
23:BB:2553:G:H2'	23:BB:2554:U:C4'	2.47	0.44
23:BB:2678:C:H2'	23:BB:2679:A:O4'	2.18	0.44
23:BB:2680:U:OP2	26:BD:114:LYS:HD2	2.17	0.44
23:BB:26:G:H1'	23:BB:514:A:H61	1.83	0.44
23:BB:663:G:OP1	37:BL:17:LYS:HG2	2.18	0.44
23:BB:841:G:O2'	23:BB:842:U:H5'	2.17	0.44
23:BB:1797:G:O3'	25:BC:255:LYS:O	2.35	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BE:134:LEU:CD2	29:BE:161:ALA:HB2	2.46	0.44
40:BH:32:PRO:HG3	51:BZ:39:TRP:HB3	1.98	0.44
42:BN:51:LEU:O	42:BN:54:LEU:HB3	2.17	0.44
42:BN:62:ASN:O	42:BN:66:ALA:HB2	2.18	0.44
28:BP:103:THR:N	28:BP:107:ALA:HB2	2.33	0.44
28:BP:33:GLU:OE1	28:BP:33:GLU:HA	2.17	0.44
28:BP:5:LYS:HZ1	28:BP:9:GLN:HB3	1.82	0.44
45:BS:51:LEU:O	45:BS:54:ALA:HB3	2.18	0.44
46:BU:81:ARG:HG3	46:BU:81:ARG:HH21	1.81	0.44
52:BW:23:LYS:CG	52:BW:24:ARG:N	2.79	0.44
1:CA:1220:G:H2'	1:CA:1221:G:H8	1.81	0.44
1:CA:1426:G:H2'	1:CA:1427:C:H6	1.82	0.44
1:CA:17:U:O2'	1:CA:18:C:H5'	2.17	0.44
15:CP:5:ARG:HB2	1:CA:376:G:H5''	2.00	0.44
1:CA:622:A:H2'	1:CA:623:C:H5'	1.98	0.44
1:CA:687:A:C2	1:CA:704:A:C5	3.06	0.44
1:CA:749:A:O2'	1:CA:750:C:H5'	2.17	0.44
1:CA:697:U:O2	1:CA:798:U:H1'	2.17	0.44
1:CA:810:C:O2'	1:CA:811:C:H5'	2.17	0.44
20:CB:112:ARG:O	20:CB:116:LEU:HB2	2.18	0.44
2:CC:189:HIS:HD2	2:CC:194:VAL:HG13	1.81	0.44
2:CC:59:PRO:HG2	2:CC:62:SER:OG	2.17	0.44
6:CG:29:LEU:O	6:CG:29:LEU:HD23	2.16	0.44
7:CH:47:ASP:CG	7:CH:48:PHE:H	2.20	0.44
8:CI:24:ASN:CG	8:CI:25:GLY:H	2.21	0.44
10:CK:125:LYS:O	21:CU:33:ARG:NE	2.48	0.44
12:CM:84:CYS:SG	12:CM:86:ARG:HB2	2.57	0.44
12:CM:88:LEU:O	12:CM:91:ARG:HG3	2.18	0.44
14:CO:82:ILE:O	14:CO:86:GLY:N	2.50	0.44
19:CT:57:VAL:HG23	19:CT:58:ASP:N	2.32	0.44
31:D0:12:ARG:HD2	31:D0:16:ARG:NH2	2.32	0.44
53:D6:80:GLU:CG	53:D6:92:PRO:HB3	2.48	0.44
23:DB:1535:A:H3'	23:DB:1536:C:C6	2.52	0.44
23:DB:1570:A:H2'	23:DB:1571:A:C8	2.53	0.44
23:DB:167:A:H2'	23:DB:168:G:O4'	2.18	0.44
23:DB:1809:A:H2'	23:DB:1810:A:C8	2.53	0.44
23:DB:2013:A:N3	45:DS:88:ARG:NH1	2.65	0.44
23:DB:2104:C:H5	23:DB:2179:C:H5''	1.82	0.44
23:DB:2678:C:H2'	23:DB:2679:A:O4'	2.17	0.44
23:DB:2707:U:H2'	23:DB:2708:G:C8	2.52	0.44
23:DB:2875:C:H2'	23:DB:2876:G:H8	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:321:U:O4'	29:DE:159:LEU:HG	2.17	0.44
23:DB:35:G:H2'	23:DB:36:G:O4'	2.17	0.44
23:DB:853:C:H2'	23:DB:854:C:C6	2.52	0.44
23:DB:1805:A:H5''	25:DC:247:TRP:CE2	2.53	0.44
25:DC:86:ARG:HB3	25:DC:86:ARG:CZ	2.48	0.44
29:DE:188:MET:HG2	29:DE:193:VAL:HG22	2.00	0.44
40:DH:97:ARG:HD2	40:DH:97:ARG:N	2.32	0.44
41:DJ:126:ALA:HB3	41:DJ:129:GLU:OE2	2.17	0.44
41:DJ:23:LYS:HE3	41:DJ:142:ILE:HG12	1.99	0.44
37:DL:125:LEU:HB2	37:DL:143:GLU:OE2	2.18	0.44
42:DN:114:GLU:HG2	42:DN:115:LEU:O	2.18	0.44
42:DN:73:ASN:O	42:DN:76:VAL:HG22	2.18	0.44
28:DP:88:ARG:HB3	28:DP:88:ARG:NH2	2.32	0.44
49:DR:64:VAL:O	49:DR:95:ASP:HB2	2.18	0.44
45:DS:31:GLN:O	45:DS:35:ILE:HG12	2.17	0.44
45:DS:38:TYR:O	45:DS:39:THR:HG23	2.16	0.44
23:DB:2264:C:N4	52:DW:11:ASN:ND2	2.61	0.44
51:DZ:59:ILE:HG22	51:DZ:64:ILE:HG13	2.00	0.44
1:AA:1024:G:H2'	1:AA:1025:U:O4'	2.18	0.44
1:AA:1247:U:O2'	1:AA:1248:A:H5'	2.17	0.44
1:AA:1432:G:H5''	28:BP:105:LYS:HG3	1.98	0.44
1:AA:1444:U:H2'	1:AA:1445:U:C6	2.52	0.44
1:AA:410:G:H1'	1:AA:432:A:H61	1.82	0.44
1:AA:885:G:O2'	1:AA:886:G:H5'	2.17	0.44
1:AA:93:U:H2'	1:AA:95:C:H6	1.82	0.44
20:AB:86:CYS:C	20:AB:88:GLN:H	2.21	0.44
3:AD:116:LEU:HB3	3:AD:122:ILE:HD11	2.00	0.44
4:AE:100:GLU:HA	4:AE:121:ASN:HD22	1.83	0.44
7:AH:12:ARG:HB3	7:AH:24:VAL:HG21	2.00	0.44
9:AJ:8:ILE:HD12	9:AJ:74:VAL:HG11	1.98	0.44
1:AA:796:C:H4'	10:AK:126:ARG:HH21	1.81	0.44
16:AQ:47:ASP:OD2	16:AQ:51:GLU:HG2	2.18	0.44
18:AS:40:PHE:HB3	18:AS:41:PRO:HD2	2.00	0.44
18:AS:43:MET:HB3	18:AS:61:VAL:HG21	2.00	0.44
19:AT:34:VAL:HG12	19:AT:78:LEU:HD22	2.00	0.44
53:B6:2:THR:HG23	53:B6:5:GLU:OE1	2.18	0.44
23:BB:1185:G:H5''	23:BB:1186:G:OP1	2.18	0.44
23:BB:1335:C:H2'	23:BB:1336:A:H8	1.83	0.44
23:BB:1373:A:H2'	23:BB:1374:G:O4'	2.17	0.44
23:BB:2038:G:H2'	23:BB:2039:U:C6	2.52	0.44
23:BB:2079:U:H2'	23:BB:2080:A:O4'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:2179:C:O2'	23:BB:2180:U:H5'	2.18	0.44
23:BB:2270:A:H2'	23:BB:2271:G:O4'	2.18	0.44
23:BB:2676:C:O2'	23:BB:2677:G:H5'	2.17	0.44
23:BB:485:C:O2'	23:BB:486:C:H5'	2.18	0.44
25:BC:145:MET:HG3	25:BC:152:GLN:CD	2.38	0.44
25:BC:209:ALA:HA	25:BC:212:TRP:CE2	2.53	0.44
26:BD:68:PHE:C	26:BD:73:VAL:HB	2.37	0.44
26:BD:97:SER:HB3	26:BD:99:GLU:HG3	1.99	0.44
47:BF:111:ARG:HH11	47:BF:135:ILE:HG21	1.82	0.44
47:BF:78:ILE:HA	47:BF:79:ARG:HH11	1.83	0.44
48:BG:28:LYS:O	48:BG:30:GLY:N	2.51	0.44
48:BG:34:ARG:NH1	48:BG:34:ARG:H	2.00	0.44
41:BJ:3:THR:HB	41:BJ:44:TYR:HE1	1.82	0.44
42:BN:106:ASP:C	42:BN:108:ALA:N	2.69	0.44
43:BO:37:ALA:CB	43:BO:78:VAL:HG21	2.47	0.44
41:BJ:44:TYR:HA	44:BQ:59:LEU:HD21	2.00	0.44
46:BU:46:LYS:HE3	46:BU:47:PRO:O	2.18	0.44
52:BW:37:VAL:HG11	52:BW:38:ARG:NH1	2.32	0.44
39:BX:41:HIS:O	39:BX:44:LYS:HB3	2.17	0.44
1:CA:707:U:H2'	1:CA:708:C:C6	2.53	0.44
10:CK:126:ARG:HH21	1:CA:796:C:H4'	1.82	0.44
20:CB:65:LYS:HZ3	20:CB:153:MET:C	2.21	0.44
5:CF:81:ASN:O	5:CF:84:VAL:HG12	2.18	0.44
8:CI:98:ARG:NH2	1:CA:1180:A:OP2	2.51	0.44
11:CL:20:VAL:HB	11:CL:94:TYR:CE1	2.50	0.44
12:CM:29:SER:HA	12:CM:32:ILE:CG2	2.46	0.44
15:CP:22:ALA:CB	15:CP:32:PHE:HA	2.48	0.44
16:CQ:30:HIS:HD2	16:CQ:37:ILE:HD11	1.82	0.44
18:CS:64:GLU:N	18:CS:64:GLU:OE1	2.51	0.44
10:CK:122:PRO:HB2	21:CU:33:ARG:O	2.17	0.44
53:D6:35:PRO:HB2	53:D6:58:VAL:O	2.17	0.44
22:DA:28:C:H2'	22:DA:29:A:O4'	2.18	0.44
23:DB:1275:A:C2	23:DB:1276:A:H1'	2.53	0.44
23:DB:1550:C:H2'	23:DB:1551:A:C8	2.52	0.44
23:DB:1779:U:C5	23:DB:1784:A:N7	2.85	0.44
23:DB:1993:U:H4'	26:DD:133:THR:HG22	2.00	0.44
23:DB:2405:G:HO2'	23:DB:2406:A:P	2.41	0.44
23:DB:337:C:H2'	23:DB:338:G:O4'	2.16	0.44
23:DB:79:C:HO2'	23:DB:346:A:H1'	1.82	0.44
23:DB:497:A:H2'	23:DB:498:G:O4'	2.17	0.44
23:DB:68:G:H2'	23:DB:69:C:C6	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DC:78:GLU:OE1	25:DC:100:ARG:HD3	2.17	0.44
26:DD:108:ASP:OD2	26:DD:206:ALA:HA	2.18	0.44
47:DF:3:LEU:HD12	47:DF:96:TRP:HD1	1.81	0.44
24:DI:53:PRO:CG	24:DI:77:VAL:HG11	2.47	0.44
41:DJ:124:VAL:O	41:DJ:125:TYR:HB2	2.18	0.44
41:DJ:45:THR:H	41:DJ:46:PRO:CD	2.27	0.44
41:DJ:17:VAL:HG22	41:DJ:55:ILE:HD11	1.99	0.44
27:DK:105:ARG:N	27:DK:105:ARG:HD3	2.16	0.44
27:DK:119:ALA:O	27:DK:120:PRO:O	2.36	0.44
27:DK:19:VAL:CB	27:DK:41:ILE:HD11	2.45	0.44
34:D3:24:LYS:HB2	37:DL:64:PHE:CD2	2.52	0.44
37:DL:85:VAL:HG13	37:DL:85:VAL:O	2.17	0.44
43:DO:38:GLN:HB2	43:DO:47:VAL:HG11	1.98	0.44
41:DJ:44:TYR:HA	44:DQ:59:LEU:HD21	2.00	0.44
45:DS:59:GLU:HA	45:DS:64:ALA:HA	1.98	0.44
50:DT:39:THR:C	50:DT:41:ALA:N	2.71	0.44
39:DX:59:GLU:CD	39:DX:60:LYS:H	2.21	0.44
1:AA:1096:C:H2'	1:AA:1097:C:C6	2.52	0.44
1:AA:1246:A:H2'	1:AA:1247:U:C6	2.52	0.44
1:AA:300:A:H2'	1:AA:301:G:O4'	2.18	0.44
1:AA:338:A:H2'	1:AA:339:C:C6	2.53	0.44
1:AA:343:U:O2'	1:AA:344:A:H2'	2.17	0.44
1:AA:373:A:O4'	1:AA:481:G:H1'	2.18	0.44
1:AA:399:G:H2'	1:AA:400:C:H6	1.83	0.44
1:AA:635:A:H2'	1:AA:636:U:H6	1.83	0.44
1:AA:856:C:O2'	1:AA:857:C:H5'	2.18	0.44
20:AB:15:PHE:CD1	20:AB:16:GLY:N	2.86	0.44
3:AD:84:ASN:C	3:AD:84:ASN:ND2	2.69	0.44
4:AE:55:VAL:O	4:AE:59:ILE:HG13	2.18	0.44
6:AG:144:ALA:O	6:AG:146:ALA:N	2.42	0.44
6:AG:63:VAL:HA	6:AG:66:GLU:CD	2.37	0.44
9:AJ:6:ILE:O	9:AJ:75:ASP:HA	2.18	0.44
11:AL:119:LYS:H	11:AL:119:LYS:HG2	1.54	0.44
12:AM:29:SER:HA	12:AM:32:ILE:CG2	2.46	0.44
15:AP:28:ARG:NH1	15:AP:29:ASN:HD22	2.15	0.44
1:AA:1320:C:N4	18:AS:36:ARG:HB3	2.33	0.44
31:B0:47:TYR:CZ	31:B0:52:LYS:HG3	2.52	0.44
53:B6:113:ASP:HA	53:B6:116:ARG:HE	1.81	0.44
22:BA:74:U:H2'	22:BA:75:G:O4'	2.18	0.44
23:BB:1221:C:H2'	23:BB:1222:U:C6	2.52	0.44
23:BB:1326:U:H2'	23:BB:1327:A:H8	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1480:C:O2'	23:BB:1481:U:H5'	2.18	0.44
23:BB:1536:C:H1'	23:BB:1537:G:N2	2.33	0.44
23:BB:1789:A:H2'	23:BB:1790:C:C6	2.53	0.44
23:BB:1998:A:H2'	23:BB:1999:C:H6	1.82	0.44
23:BB:2262:U:H4'	23:BB:2328:A:H2	1.83	0.44
23:BB:2331:G:N2	23:BB:2336:A:C8	2.82	0.44
23:BB:2383:G:H2'	23:BB:2384:U:C6	2.53	0.44
23:BB:242:G:N2	23:BB:254:G:H2'	2.32	0.44
23:BB:2718:G:H4'	28:BP:95:LYS:HB2	1.98	0.44
23:BB:2843:G:O2'	23:BB:2844:G:H5'	2.16	0.44
23:BB:904:G:H2'	23:BB:905:A:H8	1.81	0.44
26:BD:122:VAL:HA	26:BD:127:PHE:N	2.31	0.44
26:BD:136:ASN:HD21	26:BD:139:SER:C	2.20	0.44
26:BD:105:LYS:HE3	26:BD:176:ASP:HB3	1.99	0.44
47:BF:3:LEU:HD11	47:BF:172:PHE:CE1	2.53	0.44
47:BF:72:SER:CB	47:BF:80:GLN:H	2.29	0.44
40:BH:128:HIS:C	40:BH:130:VAL:H	2.21	0.44
27:BK:13:ASN:ND2	27:BK:98:ARG:H	2.16	0.44
42:BN:63:ARG:HA	42:BN:80:PHE:CE2	2.52	0.44
45:BS:55:ILE:HD12	45:BS:107:VAL:HG11	2.00	0.44
23:BB:142:A:H1'	50:BT:2:ILE:HA	2.00	0.44
52:BW:47:GLY:HA3	52:BW:80:SER:CB	2.48	0.44
1:CA:1096:C:H2'	1:CA:1097:C:H6	1.83	0.44
1:CA:1477:U:H2'	1:CA:1478:U:H6	1.77	0.44
1:CA:6:G:H4'	1:CA:298:A:H4'	1.98	0.44
1:CA:412:A:C1'	1:CA:413:G:H5''	2.43	0.44
1:CA:551:U:H2'	1:CA:552:U:H6	1.81	0.44
1:CA:698:G:H2'	1:CA:699:C:H6	1.82	0.44
1:CA:766:A:H2'	1:CA:767:A:O4'	2.18	0.44
1:CA:901:A:N7	1:CA:902:G:H1'	2.33	0.44
20:CB:75:ALA:HB2	20:CB:209:VAL:HG11	1.99	0.44
3:CD:101:VAL:HG13	3:CD:106:PHE:HB2	2.00	0.44
3:CD:116:LEU:HB3	3:CD:122:ILE:HD11	2.00	0.44
5:CF:6:ILE:HG23	5:CF:62:MET:CB	2.42	0.44
8:CI:27:ILE:HG21	8:CI:34:LEU:HD22	1.99	0.44
8:CI:66:VAL:HG11	8:CI:78:ILE:HD11	2.00	0.44
10:CK:118:ASN:O	1:CA:716:A:N3	2.51	0.44
15:CP:71:VAL:HG13	15:CP:72:ALA:N	2.33	0.44
31:D0:55:ALA:C	31:D0:56:LYS:HG3	2.38	0.44
33:D1:36:LYS:HA	33:D1:46:VAL:O	2.16	0.44
32:D4:3:VAL:HG23	32:D4:4:ARG:N	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:D6:15:GLN:HB3	53:D6:16:LYS:NZ	2.32	0.44
23:DB:1082:U:C2	23:DB:1086:A:N1	2.85	0.44
23:DB:114:U:H2'	23:DB:114:U:O2	2.16	0.44
23:DB:1353:A:H2'	23:DB:1354:A:C8	2.52	0.44
23:DB:1356:G:H2'	23:DB:1357:C:C6	2.52	0.44
23:DB:1370:C:O4'	23:DB:1810:A:H2	2.00	0.44
23:DB:1739:A:H2'	23:DB:1740:G:C8	2.53	0.44
23:DB:1742:U:O2'	23:DB:1743:G:H5'	2.18	0.44
23:DB:2061:G:H5''	23:DB:2503:A:N1	2.32	0.44
23:DB:523:C:H4'	23:DB:540:C:O2	2.18	0.44
23:DB:997:G:OP1	44:DQ:92:LYS:HB2	2.18	0.44
26:DD:185:ASN:O	26:DD:186:LEU:HD12	2.18	0.44
47:DF:37:MET:SD	47:DF:56:LEU:HD23	2.58	0.44
48:DG:154:GLU:O	48:DG:156:TYR:N	2.41	0.44
48:DG:28:LYS:O	48:DG:30:GLY:N	2.51	0.44
40:DH:77:THR:CG2	40:DH:143:ILE:HB	2.30	0.44
40:DH:79:THR:CG2	40:DH:145:ASN:HB3	2.48	0.44
23:DB:1131:G:H4'	41:DJ:84:ILE:HG12	1.99	0.44
27:DK:72:PRO:O	27:DK:74:GLY:N	2.51	0.44
38:DM:131:VAL:HG12	38:DM:132:THR:N	2.33	0.44
38:DM:2:LEU:HD11	38:DM:68:PHE:HE1	1.82	0.44
42:DN:38:LEU:O	42:DN:42:LYS:HG3	2.17	0.44
42:DN:61:ALA:C	42:DN:63:ARG:N	2.71	0.44
28:DP:63:ILE:HG12	28:DP:68:GLY:CA	2.46	0.44
46:DU:48:VAL:O	46:DU:48:VAL:HG22	2.17	0.44
35:DV:26:PHE:CE2	35:DV:44:HIS:HA	2.53	0.44
35:DV:61:LEU:CD1	35:DV:74:ALA:HB2	2.47	0.44
1:AA:1097:C:H2'	1:AA:1098:C:H6	1.82	0.44
1:AA:1206:G:H2'	1:AA:1207:G:O4'	2.17	0.44
1:AA:1296:C:H4'	1:AA:1302:C:N4	2.33	0.44
1:AA:1299:A:C8	1:AA:1301:U:H1'	2.52	0.44
1:AA:1300:G:H1'	1:AA:1301:U:H5	1.82	0.44
1:AA:1313:U:H2'	1:AA:1314:C:C6	2.53	0.44
1:AA:1436:U:H2'	1:AA:1437:A:C8	2.53	0.44
1:AA:153:C:O2'	1:AA:154:U:H5'	2.16	0.44
1:AA:14:U:O2	1:AA:17:U:H5	2.00	0.44
1:AA:197:A:H4'	1:AA:198:G:O5'	2.18	0.44
1:AA:236:A:H2'	1:AA:237:G:H8	1.82	0.44
20:AB:17:HIS:HD2	20:AB:203:ASP:OD1	2.01	0.44
2:AC:147:GLY:HA3	2:AC:171:ARG:O	2.18	0.44
2:AC:76:ILE:O	2:AC:83:VAL:HG12	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AD:55:ARG:HG3	3:AD:55:ARG:HH11	1.82	0.44
9:AJ:82:LYS:HA	9:AJ:85:ASP:OD2	2.17	0.44
12:AM:12:LYS:O	12:AM:43:LYS:HA	2.17	0.44
12:AM:15:VAL:CG2	12:AM:40:GLU:HB3	2.47	0.44
15:AP:44:SER:OG	15:AP:46:LYS:HG2	2.17	0.44
18:AS:27:LYS:NZ	18:AS:27:LYS:HB3	2.32	0.44
18:AS:64:GLU:OE1	18:AS:64:GLU:N	2.50	0.44
19:AT:80:ALA:HA	19:AT:83:ASN:HD22	1.82	0.44
34:B3:12:ARG:NE	37:BL:58:TYR:O	2.51	0.44
32:B4:36:ARG:O	32:B4:37:GLN:C	2.55	0.44
23:BB:1064:C:O2'	23:BB:1065:U:H5'	2.18	0.44
23:BB:1072:C:N3	23:BB:1092:C:N4	2.64	0.44
23:BB:1296:G:O2'	23:BB:1297:C:H5'	2.18	0.44
23:BB:1356:G:H2'	23:BB:1357:C:C6	2.53	0.44
23:BB:1465:G:H2'	23:BB:1466:U:C6	2.52	0.44
23:BB:2322:A:N6	23:BB:2333:A:N6	2.65	0.44
23:BB:494:G:OP1	45:BS:8:ARG:HD3	2.17	0.44
25:BC:249:VAL:O	25:BC:250:GLN:C	2.56	0.44
26:BD:181:ASP:OD2	26:BD:184:ARG:HD2	2.17	0.44
26:BD:106:LYS:HB3	26:BD:206:ALA:CB	2.48	0.44
47:BF:7:TYR:O	47:BF:12:VAL:HG23	2.18	0.44
47:BF:33:ILE:HG21	47:BF:98:PHE:HE2	1.83	0.44
47:BF:3:LEU:HD12	47:BF:96:TRP:HD1	1.81	0.44
24:BI:14:ALA:HA	24:BI:45:THR:HG21	1.98	0.44
38:BM:97:GLN:N	38:BM:97:GLN:OE1	2.51	0.44
42:BN:96:ARG:HG2	42:BN:98:LEU:CD2	2.47	0.44
49:BR:18:GLN:O	49:BR:98:ILE:HD13	2.18	0.44
39:BX:59:GLU:CD	39:BX:60:LYS:H	2.21	0.44
1:CA:1246:A:H2'	1:CA:1247:U:C6	2.52	0.44
1:CA:1256:A:O4'	1:CA:1278:G:N2	2.51	0.44
1:CA:1294:G:H2'	1:CA:1295:U:C6	2.52	0.44
1:CA:1476:A:H2'	1:CA:1477:U:O4'	2.16	0.44
1:CA:1514:G:H2'	1:CA:1515:G:H8	1.83	0.44
1:CA:236:A:H2'	1:CA:237:G:H8	1.82	0.44
1:CA:237:G:O2'	1:CA:238:A:H5'	2.17	0.44
1:CA:434:U:H3'	1:CA:435:A:H8	1.83	0.44
3:CD:13:ARG:HH21	1:CA:543:U:P	2.41	0.44
20:CB:21:TYR:O	20:CB:22:TRP:O	2.36	0.44
2:CC:148:ILE:HG12	2:CC:149:LYS:N	2.33	0.44
3:CD:2:ARG:HB3	3:CD:114:ARG:NH2	2.33	0.44
3:CD:55:ARG:NH1	3:CD:55:ARG:HG3	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CD:66:VAL:HG12	3:CD:67:LEU:N	2.33	0.44
12:CM:91:ARG:HG3	12:CM:92:ARG:N	2.32	0.44
13:CN:15:LEU:HD23	13:CN:18:LYS:HD2	1.98	0.44
14:CO:24:SER:HB3	14:CO:27:VAL:HG23	1.99	0.44
14:CO:25:THR:HB	14:CO:70:LEU:HD23	1.99	0.44
15:CP:28:ARG:NH1	15:CP:29:ASN:HB2	2.33	0.44
16:CQ:65:PRO:HG2	1:CA:264:C:HO2'	1.81	0.44
33:D1:9:LYS:H	33:D1:9:LYS:HD3	1.83	0.44
53:D6:49:HIS:CD2	53:D6:49:HIS:N	2.86	0.44
53:D6:63:PRO:HB2	53:D6:64:ARG:NH2	2.33	0.44
23:DB:1098:A:C3'	24:DI:3:LYS:C	2.86	0.44
23:DB:1281:G:H2'	23:DB:1282:U:C6	2.52	0.44
23:DB:185:G:H4'	23:DB:218:A:H4'	1.98	0.44
1:CA:1484:C:O2'	23:DB:1961:C:H5'	2.17	0.44
23:DB:2015:A:C2	31:D0:2:VAL:HG22	2.52	0.44
23:DB:2234:G:O2'	23:DB:2235:G:H5'	2.18	0.44
23:DB:2772:C:H5'	26:DD:173:GLN:NE2	2.32	0.44
23:DB:2838:G:H2'	23:DB:2839:G:C8	2.53	0.44
23:DB:364:C:O2'	23:DB:365:U:H5'	2.17	0.44
23:DB:547:A:C8	23:DB:548:G:N3	2.86	0.44
23:DB:869:G:H2'	23:DB:870:U:H6	1.83	0.44
25:DC:131:MET:HA	25:DC:134:ILE:CG1	2.48	0.44
25:DC:140:VAL:O	25:DC:141:HIS:HB2	2.17	0.44
25:DC:153:LEU:HD13	25:DC:175:LEU:HD21	1.99	0.44
23:DB:600:G:H1'	29:DE:100:MET:HG2	2.00	0.44
47:DF:134:GLN:C	47:DF:136:ILE:H	2.21	0.44
48:DG:88:LEU:HD13	48:DG:93:TYR:HB3	2.00	0.44
37:DL:21:ARG:HD3	37:DL:21:ARG:HA	1.70	0.44
43:DO:4:LYS:O	43:DO:8:ILE:HG13	2.18	0.44
44:DQ:63:ARG:HH12	44:DQ:96:ASP:CB	2.31	0.44
46:DU:64:ILE:HD11	46:DU:68:ASN:ND2	2.31	0.44
52:DW:37:VAL:HG13	52:DW:55:ASP:C	2.38	0.44
30:DY:29:ARG:H	30:DY:33:HIS:CD2	2.36	0.44
1:AA:1077:G:N2	1:AA:1080:A:OP2	2.49	0.44
1:AA:1516:G:H2'	1:AA:1518:A:OP2	2.17	0.44
1:AA:175:C:H2'	1:AA:176:C:C6	2.53	0.44
1:AA:575:G:O2'	1:AA:821:G:H5'	2.17	0.44
1:AA:847:G:H2'	1:AA:848:C:H6	1.82	0.44
20:AB:46:VAL:CG1	20:AB:47:PRO:HD3	2.35	0.44
3:AD:2:ARG:HD2	3:AD:114:ARG:NE	2.33	0.44
4:AE:80:LEU:HG	4:AE:122:VAL:CG1	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AH:36:ALA:HA	7:AH:39:LEU:HD12	2.00	0.44
16:AQ:46:HIS:NE2	16:AQ:48:GLU:HG2	2.23	0.44
18:AS:30:LEU:HB2	18:AS:48:ILE:HA	2.00	0.44
31:B0:12:ARG:HD2	31:B0:16:ARG:NH2	2.32	0.44
31:B0:39:ARG:O	31:B0:40:HIS:HB2	2.18	0.44
22:BA:14:U:H5'	22:BA:71:C:O4'	2.18	0.44
23:BB:1100:C:H2'	23:BB:1101:U:C6	2.52	0.44
23:BB:2247:A:O2'	23:BB:2248:C:H5'	2.16	0.44
23:BB:2617:U:O2'	23:BB:2618:G:H5'	2.18	0.44
23:BB:2667:C:H2'	23:BB:2668:G:O4'	2.16	0.44
23:BB:2832:U:H5''	23:BB:2834:G:H5'	2.00	0.44
23:BB:783:A:H2'	23:BB:784:G:O5'	2.17	0.44
25:BC:169:ALA:O	25:BC:185:ALA:HB3	2.18	0.44
29:BE:191:ASP:O	29:BE:195:GLN:HG3	2.18	0.44
23:BB:588:U:H1'	29:BE:85:PHE:CG	2.53	0.44
47:BF:97:GLU:O	47:BF:100:GLU:HB3	2.17	0.44
48:BG:24:THR:HB	48:BG:32:LEU:HD21	1.99	0.44
48:BG:32:LEU:O	48:BG:33:THR:HG23	2.18	0.44
24:BI:11:GLN:NE2	24:BI:74:PRO:HG2	2.32	0.44
24:BI:63:ASP:O	24:BI:65:SER:N	2.50	0.44
37:BL:124:GLY:CA	37:BL:143:GLU:HG3	2.47	0.44
46:BU:64:ILE:CG1	46:BU:65:GLN:N	2.80	0.44
52:BW:28:GLU:H	52:BW:31:LEU:HG	1.83	0.44
39:BX:17:GLU:O	39:BX:20:ASN:HB2	2.17	0.44
30:BY:4:ILE:CD1	30:BY:58:GLU:HG3	2.48	0.44
1:CA:1025:U:H4'	1:CA:1026:G:O5'	2.18	0.44
1:CA:1225:A:H2'	1:CA:1225:A:N3	2.32	0.44
1:CA:1238:A:C2	1:CA:1241:G:N3	2.83	0.44
1:CA:1350:A:H2'	1:CA:1351:U:C6	2.53	0.44
1:CA:1397:C:HO2'	1:CA:1398:A:P	2.41	0.44
1:CA:199:A:H2'	1:CA:200:G:H8	1.82	0.44
1:CA:279:A:H5'	1:CA:281:G:H5'	2.00	0.44
1:CA:862:C:O2'	1:CA:863:U:H5'	2.18	0.44
20:CB:18:GLN:O	20:CB:37:VAL:HG23	2.17	0.44
20:CB:44:LYS:O	20:CB:48:MET:HG3	2.17	0.44
3:CD:149:LYS:HB2	3:CD:177:MET:HG3	1.98	0.44
3:CD:16:THR:HG22	3:CD:17:ASP:N	2.32	0.44
5:CF:46:GLN:NE2	5:CF:56:LYS:HE3	2.33	0.44
5:CF:47:LEU:HD21	5:CF:57:ALA:CB	2.48	0.44
5:CF:70:VAL:HG23	5:CF:71:ILE:N	2.32	0.44
8:CI:42:THR:O	8:CI:45:MET:HG2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CK:33:ILE:HG13	10:CK:73:VAL:HG21	1.99	0.44
14:CO:81:LEU:O	14:CO:85:LEU:HD13	2.18	0.44
34:D3:6:VAL:CB	34:D3:60:CYS:HB3	2.47	0.44
32:D4:27:CYS:HB3	32:D4:33:HIS:HB2	1.99	0.44
23:DB:1140:C:P	41:DJ:68:LYS:HZ3	2.40	0.44
23:DB:1159:U:O2'	23:DB:1160:G:H5'	2.18	0.44
23:DB:1454:C:O2	23:DB:1454:C:O4'	2.36	0.44
23:DB:1789:A:H2'	23:DB:1790:C:H6	1.82	0.44
23:DB:182:A:O2'	23:DB:183:C:H5'	2.18	0.44
23:DB:1870:C:H2'	23:DB:1871:A:C2	2.52	0.44
23:DB:1891:G:H2'	23:DB:1892:C:C6	2.53	0.44
23:DB:2241:A:H2'	23:DB:2242:G:C8	2.53	0.44
23:DB:729:G:C5	25:DC:206:LYS:HB2	2.53	0.44
26:DD:11:MET:CE	26:DD:192:ALA:H	2.31	0.44
26:DD:170:VAL:O	26:DD:170:VAL:HG23	2.16	0.44
26:DD:46:ARG:HB3	26:DD:46:ARG:HH11	1.83	0.44
29:DE:146:VAL:HB	29:DE:148:ILE:HD11	2.00	0.44
29:DE:61:ARG:HG3	29:DE:61:ARG:NH2	2.33	0.44
47:DF:1:ALA:HB1	47:DF:4:HIS:HB3	1.99	0.44
40:DH:72:ILE:O	40:DH:142:VAL:HG21	2.18	0.44
24:DI:2:LYS:N	24:DI:2:LYS:HD2	2.33	0.44
27:DK:99:ILE:HG12	27:DK:115:ILE:HG13	2.00	0.44
27:DK:42:THR:O	27:DK:43:ILE:C	2.57	0.44
38:DM:66:ARG:HB2	38:DM:101:VAL:HG13	2.00	0.44
38:DM:32:GLY:CA	38:DM:104:GLU:HA	2.48	0.44
46:DU:85:ARG:CZ	46:DU:86:PHE:H	2.30	0.44
35:DV:44:HIS:HE1	35:DV:86:LEU:H	1.63	0.44
35:DV:72:VAL:CG1	35:DV:93:ARG:HA	2.48	0.44
51:DZ:33:LEU:H	51:DZ:52:SER:CB	2.30	0.44
51:DZ:39:TRP:HB2	51:DZ:46:PHE:CE2	2.52	0.44
1:AA:1070:U:H2'	1:AA:1071:C:H6	1.80	0.44
1:AA:1238:A:C8	1:AA:1303:C:H1'	2.53	0.44
20:AB:127:LYS:HG2	20:AB:128:LEU:CD2	2.46	0.44
20:AB:17:HIS:NE2	20:AB:204:ASP:HB2	2.33	0.44
5:AF:70:VAL:HA	5:AF:73:GLU:HG3	2.00	0.44
6:AG:71:THR:HG22	6:AG:141:HIS:NE2	2.33	0.44
6:AG:90:VAL:HG23	6:AG:90:VAL:O	2.18	0.44
7:AH:24:VAL:O	7:AH:24:VAL:HG13	2.18	0.44
10:AK:13:LYS:HD2	10:AK:76:TYR:HE2	1.83	0.44
53:B6:19:GLU:HA	53:B6:22:GLU:OE2	2.18	0.44
22:BA:60:C:H2'	22:BA:61:G:H8	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1064:C:H2'	23:BB:1065:U:O4'	2.18	0.44
23:BB:1577:C:H2'	23:BB:1578:U:O4'	2.18	0.44
23:BB:1692:U:H2'	23:BB:1694:C:C5	2.53	0.44
23:BB:1755:A:H2'	23:BB:1756:G:H5'	2.00	0.44
23:BB:1805:A:H5''	25:BC:247:TRP:CE2	2.52	0.44
23:BB:2241:A:H2'	23:BB:2242:G:C8	2.53	0.44
23:BB:2900:A:H2'	23:BB:2901:C:C6	2.53	0.44
23:BB:460:A:H2'	23:BB:461:C:O4'	2.17	0.44
23:BB:853:C:H2'	23:BB:854:C:C6	2.52	0.44
23:BB:2073:C:C5'	25:BC:227:VAL:HG12	2.48	0.44
26:BD:24:VAL:HG23	26:BD:189:VAL:O	2.18	0.44
29:BE:147:LEU:HD21	29:BE:179:SER:HB3	2.00	0.44
29:BE:182:ALA:O	29:BE:183:PHE:HB2	2.17	0.44
40:BH:49:ALA:O	40:BH:53:GLU:N	2.51	0.44
40:BH:57:LYS:HZ1	40:BH:58:LEU:HD13	1.82	0.44
24:BI:38:CYS:O	24:BI:42:ASN:ND2	2.51	0.44
24:BI:4:VAL:HG13	24:BI:4:VAL:O	2.17	0.44
41:BJ:17:VAL:HG22	41:BJ:55:ILE:HD11	2.00	0.44
27:BK:60:ALA:HA	27:BK:87:LEU:HG	1.99	0.44
42:BN:100:CYS:O	42:BN:101:GLY:O	2.36	0.44
42:BN:102:PHE:N	42:BN:102:PHE:CD1	2.86	0.44
28:BP:47:ILE:HG13	28:BP:48:ALA:H	1.82	0.44
52:BW:50:VAL:O	52:BW:52:CYS:N	2.51	0.44
1:CA:1036:A:H2'	1:CA:1037:C:O4'	2.17	0.44
1:CA:1121:U:H2'	1:CA:1122:U:C6	2.52	0.44
1:CA:1182:G:H4'	1:CA:1183:U:H5'	2.00	0.44
1:CA:842:U:H2'	1:CA:843:U:H4'	1.98	0.44
20:CB:75:ALA:O	20:CB:79:VAL:HG23	2.18	0.44
4:CE:55:VAL:N	4:CE:56:PRO:CD	2.80	0.44
6:CG:125:ASP:HB3	6:CG:131:GLY:H	1.82	0.44
8:CI:26:LYS:H	8:CI:61:ASP:HB3	1.83	0.44
8:CI:14:SER:HG	8:CI:69:GLY:HA3	1.83	0.44
8:CI:6:TYR:CG	8:CI:7:GLY:N	2.85	0.44
11:CL:36:VAL:O	11:CL:36:VAL:HG23	2.18	0.44
11:CL:65:TYR:HB3	11:CL:95:HIS:CD2	2.53	0.44
12:CM:79:LEU:HB2	12:CM:84:CYS:SG	2.58	0.44
18:CS:38:THR:HA	18:CS:68:HIS:O	2.18	0.44
33:D1:8:ILE:HG22	33:D1:9:LYS:N	2.32	0.44
34:D3:35:LYS:HG2	34:D3:39:ARG:HH21	1.82	0.44
23:DB:1053:C:O2'	23:DB:1054:A:H5'	2.18	0.44
23:DB:1470:A:H2'	23:DB:1471:G:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1842:G:H2'	23:DB:1843:C:H6	1.81	0.44
23:DB:2074:U:H2'	23:DB:2075:U:C6	2.53	0.44
23:DB:2300:C:H2'	23:DB:2301:C:C6	2.53	0.44
23:DB:2813:A:O2'	23:DB:2814:A:H5'	2.17	0.44
23:DB:2874:C:H5''	42:DN:4:ARG:HH21	1.83	0.44
23:DB:305:C:H2'	23:DB:306:U:C6	2.53	0.44
23:DB:29:U:H2'	23:DB:30:G:C8	2.52	0.44
23:DB:40:U:H2'	23:DB:41:C:H6	1.82	0.44
23:DB:720:U:H2'	23:DB:721:A:H8	1.81	0.44
23:DB:674:G:O3'	29:DE:60:TRP:CZ2	2.71	0.44
48:DG:51:PHE:CE2	48:DG:68:ARG:HG2	2.53	0.44
24:DI:57:VAL:HG23	24:DI:71:LYS:HZ1	1.82	0.44
24:DI:91:LYS:HD2	24:DI:91:LYS:N	2.32	0.44
41:DJ:40:HIS:ND1	41:DJ:41:LYS:N	2.66	0.44
37:DL:40:SER:O	37:DL:41:ARG:HB2	2.18	0.44
28:DP:4:ILE:O	28:DP:5:LYS:HB3	2.18	0.44
28:DP:4:ILE:O	28:DP:6:GLN:N	2.50	0.44
45:DS:63:GLY:O	45:DS:64:ALA:HB2	2.17	0.44
50:DT:50:LEU:CD2	50:DT:50:LEU:H	2.24	0.44
46:DU:66:VAL:O	46:DU:69:VAL:HG22	2.18	0.44
1:AA:1031:C:H4'	1:AA:1032:G:C5'	2.46	0.43
1:AA:1270:G:H2'	1:AA:1271:A:H8	1.83	0.43
1:AA:434:U:H3'	1:AA:435:A:H8	1.83	0.43
1:AA:532:A:C8	2:AC:192:TYR:CD2	3.06	0.43
20:AB:40:ILE:HD13	20:AB:201:GLY:CA	2.48	0.43
2:AC:155:ARG:HD2	2:AC:155:ARG:HA	1.65	0.43
2:AC:39:ARG:CZ	2:AC:56:ILE:HD12	2.48	0.43
3:AD:151:GLN:HE22	3:AD:153:ARG:NH1	2.15	0.43
4:AE:33:THR:HB	4:AE:49:TYR:CE1	2.52	0.43
7:AH:63:LYS:HD2	7:AH:70:VAL:HG21	1.99	0.43
8:AI:87:MET:HG2	8:AI:91:GLU:HG2	1.99	0.43
12:AM:15:VAL:HG13	12:AM:33:LEU:HD12	1.99	0.43
13:AN:72:PHE:CG	13:AN:73:LEU:N	2.86	0.43
18:AS:4:LEU:HD13	18:AS:4:LEU:O	2.18	0.43
18:AS:49:ALA:O	18:AS:56:HIS:HB3	2.18	0.43
33:B1:9:LYS:H	33:B1:9:LYS:HD3	1.82	0.43
23:BB:1180:U:H2'	23:BB:1181:U:O4'	2.17	0.43
23:BB:1187:G:H5''	49:BR:83:TYR:CE2	2.53	0.43
23:BB:1309:G:H4'	36:B2:7:PRO:CB	2.35	0.43
23:BB:1716:U:H2'	23:BB:1717:A:C8	2.52	0.43
23:BB:1891:G:H2'	23:BB:1892:C:C6	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1930:G:HO2'	23:BB:1968:G:H1	1.51	0.43
23:BB:1966:A:N3	23:BB:2592:G:O2'	2.41	0.43
23:BB:2024:G:O2'	23:BB:2025:C:H5'	2.18	0.43
23:BB:2074:U:H2'	23:BB:2075:U:C6	2.53	0.43
23:BB:2183:A:C6	23:BB:2184:A:N6	2.86	0.43
23:BB:2198:A:H4'	23:BB:2199:A:OP1	2.18	0.43
23:BB:2412:A:H2'	23:BB:2413:G:O4'	2.18	0.43
23:BB:2532:G:N2	23:BB:2663:G:O2'	2.51	0.43
23:BB:2747:G:O6	23:BB:2754:U:H2'	2.18	0.43
23:BB:2803:G:H2'	23:BB:2804:U:H6	1.81	0.43
23:BB:298:G:H1'	23:BB:340:A:H61	1.83	0.43
23:BB:509:C:H5''	23:BB:510:C:OP2	2.18	0.43
47:BF:33:ILE:HG22	47:BF:90:LEU:HD23	1.99	0.43
47:BF:9:ASP:O	47:BF:13:LYS:HG2	2.18	0.43
41:BJ:12:LYS:O	41:BJ:13:ARG:HB2	2.18	0.43
27:BK:119:ALA:O	27:BK:120:PRO:O	2.35	0.43
37:BL:85:VAL:HG22	37:BL:94:THR:HG21	2.00	0.43
38:BM:26:VAL:HG21	38:BM:133:LYS:HA	2.00	0.43
49:BR:20:VAL:HG12	49:BR:22:LEU:HD23	2.00	0.43
49:BR:11:GLN:NE2	49:BR:39:LEU:HD11	2.32	0.43
39:BX:40:SER:C	39:BX:42:LEU:N	2.72	0.43
30:BY:6:ILE:O	30:BY:34:THR:HG23	2.17	0.43
1:CA:1085:U:H3'	1:CA:1086:U:C6	2.53	0.43
20:CB:138:ARG:NH2	1:CA:1170:A:OP1	2.51	0.43
1:CA:1275:A:H2'	1:CA:1276:G:O4'	2.18	0.43
1:CA:1295:U:H2'	1:CA:1296:C:C6	2.52	0.43
1:CA:1329:A:O2'	1:CA:1330:U:H5'	2.18	0.43
1:CA:1516:G:H2'	1:CA:1518:A:OP2	2.18	0.43
1:CA:301:G:H2'	1:CA:302:G:H8	1.83	0.43
1:CA:300:A:H1'	1:CA:565:U:O2	2.18	0.43
1:CA:737:C:H2'	1:CA:738:C:C6	2.53	0.43
1:CA:740:U:O2'	1:CA:741:G:H5'	2.18	0.43
20:CB:85:SER:H	20:CB:88:GLN:HE22	1.66	0.43
2:CC:106:ARG:O	2:CC:107:LYS:HE3	2.18	0.43
2:CC:65:VAL:HG21	2:CC:90:VAL:HG11	2.00	0.43
3:CD:71:PHE:O	3:CD:74:TYR:HB2	2.18	0.43
4:CE:104:ILE:HD11	4:CE:114:LEU:HB2	1.99	0.43
4:CE:100:GLU:HA	4:CE:121:ASN:HD22	1.83	0.43
5:CF:62:MET:HG3	5:CF:64:VAL:CG2	2.48	0.43
7:CH:45:ILE:C	7:CH:63:LYS:HE3	2.38	0.43
9:CJ:6:ILE:O	9:CJ:75:ASP:HA	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CK:91:GLY:O	10:CK:95:THR:HG22	2.18	0.43
12:CM:44:ILE:HA	12:CM:47:LEU:HB2	1.99	0.43
13:CN:63:CYS:C	13:CN:65:GLN:N	2.72	0.43
16:CQ:65:PRO:O	1:CA:265:G:H5'	2.18	0.43
19:CT:53:MET:O	19:CT:57:VAL:HG22	2.17	0.43
21:CU:42:THR:C	21:CU:46:ARG:HG3	2.38	0.43
53:D6:35:PRO:HB3	53:D6:59:THR:O	2.17	0.43
22:DA:48:U:H2'	22:DA:49:C:H6	1.80	0.43
22:DA:81:G:H2'	22:DA:82:U:C6	2.53	0.43
23:DB:1439:A:N1	23:DB:1552:A:N7	2.66	0.43
23:DB:1692:U:H2'	23:DB:1694:C:C5	2.53	0.43
23:DB:572:A:C2	23:DB:2033:A:C2	3.06	0.43
23:DB:2322:A:N6	23:DB:2333:A:N6	2.66	0.43
23:DB:2617:U:C2'	23:DB:2618:G:H5'	2.48	0.43
23:DB:302:C:H2'	23:DB:303:G:H8	1.83	0.43
23:DB:438:G:H2'	23:DB:439:A:H8	1.83	0.43
23:DB:553:G:O2'	23:DB:554:U:H5'	2.18	0.43
23:DB:74:A:H4'	23:DB:75:G:O5'	2.18	0.43
23:DB:948:C:H2'	23:DB:949:G:C8	2.53	0.43
25:DC:128:THR:HG22	25:DC:188:ARG:HB3	1.99	0.43
23:DB:1844:C:OP1	25:DC:254:LYS:HA	2.18	0.43
26:DD:9:VAL:CA	26:DD:197:THR:HG23	2.34	0.43
29:DE:21:ARG:HH11	29:DE:106:LYS:HD3	1.81	0.43
29:DE:67:ARG:HH11	29:DE:67:ARG:CG	2.30	0.43
47:DF:11:VAL:HG12	47:DF:15:LEU:HD11	2.00	0.43
24:DI:21:PRO:HB2	24:DI:22:PRO:CD	2.42	0.43
37:DL:112:LEU:O	37:DL:112:LEU:HD23	2.18	0.43
38:DM:20:LEU:N	38:DM:20:LEU:HD22	2.33	0.43
42:DN:102:PHE:N	42:DN:102:PHE:CD1	2.86	0.43
42:DN:76:VAL:HA	42:DN:79:LEU:HD12	1.99	0.43
43:DO:5:SER:HA	43:DO:8:ILE:HD12	2.00	0.43
49:DR:96:VAL:HG23	49:DR:98:ILE:CD1	2.48	0.43
35:DV:23:ALA:O	35:DV:24:ASN:HB2	2.17	0.43
30:DY:15:ARG:N	30:DY:15:ARG:HD2	2.32	0.43
1:AA:279:A:H4'	1:AA:280:C:OP2	2.18	0.43
1:AA:63:C:H5''	1:AA:383:A:H61	1.83	0.43
1:AA:545:C:O2'	1:AA:546:A:H5'	2.18	0.43
1:AA:803:G:H2'	1:AA:804:U:C6	2.53	0.43
1:AA:893:C:H2'	1:AA:894:G:C8	2.54	0.43
20:AB:86:CYS:N	20:AB:88:GLN:NE2	2.66	0.43
4:AE:55:VAL:N	4:AE:56:PRO:CD	2.80	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AF:70:VAL:HG23	5:AF:71:ILE:N	2.33	0.43
8:AI:83:THR:OG1	8:AI:97:LEU:HD22	2.18	0.43
9:AJ:49:PHE:O	9:AJ:64:GLN:HA	2.18	0.43
12:AM:9:PRO:O	12:AM:44:ILE:HD13	2.19	0.43
1:AA:1526:G:P	21:AU:38:GLU:HB3	2.58	0.43
34:B3:44:ARG:N	34:B3:45:PRO:CD	2.79	0.43
32:B4:7:VAL:HB	32:B4:36:ARG:O	2.17	0.43
22:BA:74:U:C4	22:BA:75:G:C5	3.07	0.43
23:BB:1040:A:H2'	23:BB:1041:G:H8	1.82	0.43
23:BB:1205:A:N1	29:BE:165:HIS:HB2	2.33	0.43
23:BB:1342:A:HO2'	23:BB:1344:U:P	2.41	0.43
23:BB:1356:G:H2'	23:BB:1357:C:H6	1.82	0.43
23:BB:1360:G:H2'	23:BB:1361:G:C5'	2.48	0.43
23:BB:1408:G:H2'	23:BB:1409:U:H6	1.82	0.43
23:BB:1506:U:H2'	23:BB:1507:C:C6	2.54	0.43
23:BB:1733:G:H2'	23:BB:1734:G:H8	1.80	0.43
23:BB:1746:A:O2'	23:BB:1747:U:H5'	2.18	0.43
23:BB:211:C:O2'	23:BB:212:G:H5'	2.18	0.43
23:BB:2419:U:OP2	34:B3:32:LEU:HD13	2.18	0.43
23:BB:246:C:H2'	23:BB:247:G:C5'	2.46	0.43
23:BB:2882:A:OP1	42:BN:96:ARG:CD	2.66	0.43
23:BB:76:C:O2'	23:BB:77:G:H5'	2.18	0.43
23:BB:827:U:H5'	23:BB:828:U:O5'	2.17	0.43
23:BB:901:C:H2'	23:BB:902:C:C6	2.54	0.43
23:BB:93:G:O2'	23:BB:94:A:H5'	2.18	0.43
23:BB:987:C:H2'	23:BB:988:A:O4'	2.18	0.43
29:BE:4:VAL:C	29:BE:6:LYS:H	2.22	0.43
47:BF:127:TYR:HB2	47:BF:155:ILE:CD1	2.46	0.43
47:BF:134:GLN:C	47:BF:136:ILE:H	2.21	0.43
23:BB:2748:A:H5''	48:BG:3:VAL:HG11	1.98	0.43
40:BH:90:LEU:HD13	40:BH:123:ARG:CB	2.48	0.43
24:BI:103:ALA:O	24:BI:107:GLU:HG3	2.18	0.43
24:BI:48:ILE:HG22	24:BI:49:GLU:HG2	1.99	0.43
24:BI:63:ASP:C	24:BI:65:SER:N	2.71	0.43
41:BJ:74:TYR:HE2	41:BJ:103:ILE:HD11	1.82	0.43
41:BJ:38:GLY:HA3	41:BJ:50:THR:O	2.18	0.43
26:BD:21:SER:CB	27:BK:73:ASP:HA	2.48	0.43
28:BP:77:SER:O	28:BP:80:VAL:HG12	2.18	0.43
23:BB:534:U:H5'	44:BQ:41:ALA:CB	2.48	0.43
44:BQ:73:ILE:CG2	44:BQ:78:PHE:HB2	2.48	0.43
50:BT:18:GLU:C	50:BT:20:ALA:H	2.20	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BU:94:PHE:HB2	46:BU:101:THR:H	1.83	0.43
4:CE:20:VAL:HG11	1:CA:1080:A:H5''	1.99	0.43
12:CM:113:LYS:HD3	1:CA:1228:C:OP1	2.18	0.43
1:CA:1307:U:H2'	1:CA:1308:U:O4'	2.17	0.43
20:CB:119:GLN:HE22	20:CB:124:THR:HG23	1.82	0.43
20:CB:186:VAL:CG2	20:CB:198:VAL:HG13	2.49	0.43
20:CB:63:LYS:HE3	20:CB:224:ARG:HH22	1.83	0.43
20:CB:98:GLY:C	20:CB:100:LEU:H	2.22	0.43
2:CC:71:ARG:O	2:CC:75:VAL:HG23	2.18	0.43
3:CD:148:ALA:O	3:CD:151:GLN:HB2	2.17	0.43
5:CF:63:ASN:ND2	5:CF:96:VAL:HB	2.33	0.43
5:CF:6:ILE:HD12	5:CF:7:VAL:N	2.32	0.43
7:CH:117:GLN:C	7:CH:119:GLY:H	2.21	0.43
7:CH:76:ARG:HD2	7:CH:77:VAL:H	1.82	0.43
8:CI:5:TYR:HD2	8:CI:88:GLU:HB2	1.83	0.43
11:CL:106:VAL:HA	11:CL:107:LYS:HZ3	1.82	0.43
11:CL:41:PRO:HB3	11:CL:49:ARG:NH1	2.34	0.43
12:CM:21:ILE:HB	12:CM:24:VAL:CG2	2.39	0.43
13:CN:60:ARG:O	13:CN:62:ARG:N	2.51	0.43
18:CS:39:ILE:HG13	18:CS:39:ILE:H	1.65	0.43
21:CU:16:ARG:NH1	21:CU:19:LYS:HZ3	2.10	0.43
31:D0:39:ARG:HG3	31:D0:39:ARG:HH11	1.82	0.43
33:D1:51:ALA:O	33:D1:52:LYS:C	2.57	0.43
22:DA:17:C:O2'	22:DA:18:G:H5'	2.18	0.43
23:DB:1360:G:H2'	23:DB:1361:G:C5'	2.48	0.43
23:DB:1396:U:O4'	23:DB:1396:U:O2	2.35	0.43
23:DB:1408:G:O2'	23:DB:1409:U:H5'	2.18	0.43
23:DB:1536:C:H1'	23:DB:1537:G:N2	2.32	0.43
23:DB:1742:U:H2'	23:DB:1743:G:C8	2.53	0.43
23:DB:1130:U:C2	23:DB:2025:C:H5''	2.53	0.43
23:DB:360:U:C4	23:DB:361:G:C6	3.07	0.43
23:DB:544:C:H2'	23:DB:545:U:C5	2.53	0.43
23:DB:589:U:H2'	23:DB:590:A:C8	2.53	0.43
23:DB:946:C:H2'	23:DB:947:A:C8	2.53	0.43
23:DB:987:C:H2'	23:DB:988:A:O4'	2.18	0.43
25:DC:4:LYS:HD2	25:DC:5:CYS:N	2.31	0.43
22:DA:41:G:O6	47:DF:68:LYS:HD3	2.18	0.43
47:DF:4:HIS:O	47:DF:7:TYR:HB3	2.17	0.43
40:DH:119:ASN:ND2	40:DH:121:VAL:HG13	2.32	0.43
40:DH:122:LEU:N	40:DH:122:LEU:HD22	2.32	0.43
40:DH:73:ASN:OD1	40:DH:142:VAL:HG22	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DI:129:GLU:CB	24:DI:133:ARG:HH12	2.30	0.43
41:DJ:44:TYR:O	41:DJ:45:THR:CB	2.65	0.43
27:DK:43:ILE:CG2	27:DK:46:ALA:HB2	2.48	0.43
37:DL:85:VAL:HG22	37:DL:94:THR:HG21	2.00	0.43
38:DM:74:THR:O	38:DM:75:GLU:HG2	2.17	0.43
23:DB:956:G:C4'	38:DM:82:MET:HE1	2.48	0.43
43:DO:37:ALA:CB	43:DO:78:VAL:HG21	2.49	0.43
44:DQ:20:ALA:HB1	44:DQ:27:ARG:O	2.19	0.43
23:DB:1252:G:N2	44:DQ:32:ARG:HB3	2.33	0.43
44:DQ:64:ILE:HD12	44:DQ:95:ALA:CB	2.48	0.43
44:DQ:73:ILE:HG13	44:DQ:74:SER:N	2.33	0.43
49:DR:78:ARG:NH2	49:DR:78:ARG:HG3	2.33	0.43
50:DT:21:SER:HB2	50:DT:31:VAL:CG2	2.49	0.43
50:DT:39:THR:HG23	50:DT:42:GLU:H	1.83	0.43
50:DT:50:LEU:O	50:DT:52:GLU:N	2.45	0.43
46:DU:94:PHE:CB	46:DU:101:THR:HA	2.48	0.43
52:DW:23:LYS:CG	52:DW:24:ARG:N	2.82	0.43
52:DW:70:VAL:HG23	52:DW:75:ASN:ND2	2.33	0.43
1:AA:1169:A:H2'	1:AA:1170:A:C8	2.53	0.43
1:AA:551:U:H2'	1:AA:552:U:H6	1.83	0.43
20:AB:15:PHE:HD1	20:AB:16:GLY:N	2.15	0.43
20:AB:221:ARG:HG3	20:AB:222:GLU:N	2.33	0.43
2:AC:137:VAL:HG11	2:AC:169:GLU:HG3	2.00	0.43
3:AD:82:LYS:NZ	3:AD:82:LYS:HB3	2.33	0.43
5:AF:4:TYR:CE2	5:AF:71:ILE:HG12	2.54	0.43
1:AA:716:A:N3	10:AK:118:ASN:O	2.51	0.43
1:AA:624:C:H4'	15:AP:10:GLY:O	2.19	0.43
15:AP:46:LYS:H	15:AP:46:LYS:HG3	1.45	0.43
16:AQ:10:ARG:HG3	16:AQ:10:ARG:O	2.17	0.43
18:AS:39:ILE:HG13	18:AS:39:ILE:H	1.66	0.43
23:BB:2016:U:H1'	31:B0:2:VAL:HG11	2.00	0.43
53:B6:68:VAL:HG11	53:B6:79:ILE:HB	2.01	0.43
53:B6:68:VAL:HG21	53:B6:99:LEU:HD12	2.00	0.43
23:BB:443:A:C2	23:BB:1245:G:N3	2.86	0.43
23:BB:2282:G:H5''	23:BB:2283:C:O4'	2.19	0.43
23:BB:2305:U:C5	47:BF:151:LEU:HA	2.53	0.43
23:BB:2543:G:H2'	23:BB:2544:G:O4'	2.18	0.43
23:BB:265:A:H2'	23:BB:266:G:O4'	2.17	0.43
23:BB:35:G:H2'	23:BB:36:G:O4'	2.17	0.43
23:BB:591:U:O2'	23:BB:592:A:H5'	2.18	0.43
23:BB:193:U:O3'	23:BB:803:U:H4'	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BC:229:HIS:ND1	25:BC:230:PRO:HD2	2.32	0.43
25:BC:238:ASN:O	25:BC:239:PHE:HB2	2.18	0.43
25:BC:86:ARG:HB3	25:BC:86:ARG:CZ	2.48	0.43
26:BD:121:THR:HB	26:BD:127:PHE:CD1	2.52	0.43
29:BE:188:MET:HG2	29:BE:193:VAL:HG22	2.00	0.43
29:BE:31:VAL:HG21	29:BE:104:ALA:HB2	1.99	0.43
47:BF:78:ILE:HD12	47:BF:79:ARG:HH11	1.83	0.43
48:BG:6:ALA:HA	48:BG:7:PRO:HD3	1.84	0.43
24:BI:29:GLN:HA	24:BI:29:GLN:NE2	2.32	0.43
37:BL:40:SER:O	37:BL:41:ARG:CB	2.66	0.43
44:BQ:9:ALA:O	44:BQ:11:ALA:N	2.51	0.43
39:BX:33:ALA:CB	50:BT:14:PRO:HD2	2.46	0.43
46:BU:9:GLU:HG3	46:BU:21:ARG:HD2	2.00	0.43
46:BU:73:ASN:HB2	46:BU:95:PHE:CD2	2.53	0.43
52:BW:37:VAL:HG13	52:BW:55:ASP:C	2.38	0.43
51:BZ:65:ASP:O	51:BZ:69:ALA:N	2.51	0.43
51:BZ:7:VAL:HG23	51:BZ:67:VAL:HG13	2.01	0.43
1:CA:113:G:H2'	1:CA:114:U:H6	1.82	0.43
1:CA:1047:G:H21	1:CA:1215:G:C4'	2.30	0.43
1:CA:202:G:H2'	1:CA:203:G:C8	2.53	0.43
1:CA:386:C:C2'	1:CA:387:U:H5'	2.48	0.43
3:CD:115:GLN:HE21	3:CD:153:ARG:HH22	1.66	0.43
3:CD:35:GLN:O	3:CD:37:PRO:HD3	2.18	0.43
5:CF:12:PRO:C	5:CF:14:GLN:H	2.21	0.43
7:CH:24:VAL:HG13	7:CH:24:VAL:O	2.18	0.43
10:CK:48:GLY:C	10:CK:50:GLY:H	2.22	0.43
12:CM:15:VAL:HG13	12:CM:33:LEU:HD12	2.00	0.43
16:CQ:10:ARG:CZ	16:CQ:12:VAL:HA	2.48	0.43
18:CS:43:MET:HB3	18:CS:61:VAL:HG21	2.00	0.43
53:D6:15:GLN:HG3	53:D6:19:GLU:OE1	2.17	0.43
23:DB:1099:G:OP2	24:DI:2:LYS:O	2.36	0.43
23:DB:1150:C:O2'	23:DB:1151:A:H5'	2.18	0.43
23:DB:1549:A:H2'	23:DB:1550:C:H6	1.80	0.43
23:DB:1577:C:H2'	23:DB:1578:U:O4'	2.18	0.43
23:DB:2007:U:O2'	23:DB:2008:C:H5'	2.18	0.43
23:DB:2543:G:H2'	23:DB:2544:G:O4'	2.18	0.43
23:DB:2559:C:O2'	23:DB:2560:A:H5'	2.18	0.43
23:DB:2686:G:H2'	23:DB:2687:U:C6	2.53	0.43
23:DB:546:U:C4'	23:DB:548:G:P	3.06	0.43
23:DB:876:C:H2'	23:DB:876:C:O2	2.17	0.43
23:DB:93:G:O2'	23:DB:94:A:H5'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:974:G:H1'	23:DB:975:A:C8	2.53	0.43
26:DD:106:LYS:HB3	26:DD:206:ALA:CB	2.48	0.43
29:DE:108:ILE:HD11	29:DE:181:ILE:CG1	2.37	0.43
23:DB:322:A:P	29:DE:163:ASN:HD22	2.42	0.43
29:DE:40:ARG:NH2	29:DE:92:HIS:NE2	2.67	0.43
47:DF:102:LEU:O	47:DF:102:LEU:HD13	2.18	0.43
47:DF:121:PHE:HA	47:DF:126:ASN:O	2.18	0.43
48:DG:24:THR:HB	48:DG:32:LEU:HD21	2.00	0.43
40:DH:62:LEU:HG	40:DH:66:ASN:ND2	2.33	0.43
43:DO:105:ALA:C	43:DO:107:ALA:N	2.72	0.43
43:DO:106:LEU:O	43:DO:109:ALA:HB3	2.18	0.43
28:DP:52:ARG:NH1	28:DP:52:ARG:HG2	2.32	0.43
46:DU:13:LEU:HD12	46:DU:13:LEU:N	2.34	0.43
52:DW:43:LYS:HE2	52:DW:68:PHE:HE1	1.84	0.43
1:AA:1036:A:H2'	1:AA:1037:C:O4'	2.17	0.43
1:AA:1057:G:H5''	2:AC:153:SER:CB	2.48	0.43
1:AA:1133:G:H2'	1:AA:1134:G:H8	1.82	0.43
1:AA:1163:A:H2'	1:AA:1164:G:C8	2.52	0.43
1:AA:1263:C:H2'	1:AA:1264:U:H6	1.83	0.43
1:AA:1275:A:H2'	1:AA:1276:G:O4'	2.19	0.43
1:AA:1480:A:H2'	1:AA:1481:U:O4'	2.18	0.43
1:AA:766:A:H2'	1:AA:767:A:O4'	2.18	0.43
1:AA:697:U:O2	1:AA:798:U:H1'	2.18	0.43
20:AB:69:VAL:HB	20:AB:162:VAL:CB	2.47	0.43
3:AD:115:GLN:NE2	3:AD:153:ARG:HH22	2.15	0.43
3:AD:66:VAL:HG12	3:AD:67:LEU:H	1.83	0.43
6:AG:149:ALA:HB1	10:AK:58:THR:HG21	2.01	0.43
13:AN:1:ALA:HB1	13:AN:6:LYS:HE2	2.01	0.43
13:AN:41:TRP:CD1	13:AN:43:ALA:HB3	2.52	0.43
14:AO:70:LEU:HD12	14:AO:78:TYR:HB2	2.00	0.43
16:AQ:10:ARG:CZ	16:AQ:12:VAL:HA	2.47	0.43
32:B4:8:LYS:HG3	32:B4:9:LYS:HD3	2.01	0.43
23:BB:1131:G:N7	23:BB:2025:C:H4'	2.33	0.43
23:BB:1573:G:H2'	23:BB:1574:C:H5'	2.00	0.43
23:BB:2498:C:H3'	56:BB:3587:HOH:O	2.18	0.43
23:BB:2683:C:H2'	23:BB:2684:U:C6	2.53	0.43
23:BB:2901:C:H2'	23:BB:2901:C:O2	2.17	0.43
23:BB:304:U:H2'	23:BB:305:C:C6	2.54	0.43
23:BB:314:C:O2'	23:BB:315:G:H5'	2.18	0.43
23:BB:745:G:H5'	23:BB:746:U:OP2	2.18	0.43
23:BB:819:A:OP2	23:BB:1187:G:N2	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BD:109:VAL:HG11	26:BD:193:VAL:CG1	2.49	0.43
23:BB:2025:C:H5'	26:BD:154:LYS:NZ	2.34	0.43
26:BD:55:LYS:NZ	26:BD:60:VAL:HG13	2.33	0.43
29:BE:146:VAL:HB	29:BE:148:ILE:HD11	1.99	0.43
48:BG:8:VAL:HG22	48:BG:68:ARG:HH11	1.82	0.43
40:BH:90:LEU:HD12	40:BH:90:LEU:N	2.33	0.43
24:BI:32:VAL:HG22	24:BI:60:VAL:CG2	2.49	0.43
27:BK:47:ILE:HG23	27:BK:48:PRO:CD	2.48	0.43
27:BK:64:ARG:HG2	27:BK:79:PHE:CG	2.54	0.43
42:BN:114:GLU:HG2	42:BN:115:LEU:O	2.19	0.43
42:BN:73:ASN:O	42:BN:76:VAL:HG22	2.17	0.43
43:BO:106:LEU:HG	43:BO:107:ALA:N	2.33	0.43
28:BP:52:ARG:HG2	28:BP:52:ARG:NH1	2.32	0.43
28:BP:62:LYS:O	28:BP:63:ILE:CB	2.66	0.43
44:BQ:63:ARG:NH2	44:BQ:96:ASP:HA	2.33	0.43
44:BQ:91:ARG:NH2	44:BQ:93:ILE:HG21	2.34	0.43
50:BT:1:MET:HB2	50:BT:2:ILE:H	1.60	0.43
46:BU:98:ASN:O	46:BU:99:SER:C	2.55	0.43
35:BV:53:LYS:HZ3	35:BV:54:ALA:HB3	1.82	0.43
1:CA:1169:A:H2'	1:CA:1170:A:C8	2.52	0.43
1:CA:1181:G:O2'	1:CA:1182:G:C8	2.71	0.43
1:CA:216:U:H2'	1:CA:217:C:H6	1.81	0.43
1:CA:238:A:H3'	1:CA:239:U:H5''	2.00	0.43
1:CA:323:U:H2'	1:CA:324:G:O4'	2.18	0.43
1:CA:363:A:O2'	1:CA:364:A:H5'	2.18	0.43
1:CA:400:C:O2'	1:CA:401:C:H5'	2.18	0.43
1:CA:410:G:H1'	1:CA:432:A:N6	2.33	0.43
1:CA:464:U:H2'	1:CA:466:A:OP2	2.18	0.43
1:CA:493:A:O4'	1:CA:493:A:N3	2.52	0.43
20:CB:15:PHE:HD1	20:CB:16:GLY:N	2.16	0.43
20:CB:25:LYS:O	20:CB:28:PRO:HD2	2.18	0.43
2:CC:137:VAL:HG11	2:CC:169:GLU:HG3	2.00	0.43
2:CC:153:SER:O	2:CC:164:THR:HA	2.19	0.43
3:CD:196:GLU:HG2	3:CD:197:HIS:N	2.34	0.43
4:CE:11:GLN:HB2	4:CE:39:GLY:O	2.18	0.43
6:CG:144:ALA:C	6:CG:146:ALA:N	2.72	0.43
10:CK:92:ARG:NH1	21:CU:20:ARG:NH2	2.65	0.43
22:DA:52:A:H2'	22:DA:53:A:O5'	2.17	0.43
23:DB:1080:A:O2'	23:DB:1081:U:H5'	2.18	0.43
23:DB:1161:C:H2'	23:DB:1162:G:C8	2.54	0.43
23:DB:1205:A:C6	29:DE:165:HIS:HB2	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:125:A:H3'	23:DB:126:A:C5'	2.49	0.43
23:DB:1464:G:O2'	23:DB:1465:G:H5'	2.18	0.43
23:DB:2024:G:O2'	23:DB:2025:C:H5'	2.19	0.43
23:DB:2038:G:H2'	23:DB:2039:U:O4'	2.18	0.43
23:DB:2260:C:O2'	23:DB:2261:C:H5'	2.18	0.43
23:DB:2489:U:O2'	23:DB:2490:G:H5'	2.18	0.43
23:DB:248:G:H5'	23:DB:250:G:N7	2.33	0.43
23:DB:2846:G:H2'	23:DB:2847:U:C6	2.54	0.43
23:DB:541:A:H2'	23:DB:542:C:H6	1.83	0.43
25:DC:166:ARG:HB2	25:DC:166:ARG:NH2	2.33	0.43
25:DC:62:ARG:O	25:DC:63:ILE:HG12	2.18	0.43
12:CM:74:MET:SD	47:DF:111:ARG:HA	2.58	0.43
47:DF:19:PHE:CE1	47:DF:164:GLU:HA	2.53	0.43
41:DJ:104:ALA:O	41:DJ:108:MET:HG2	2.19	0.43
41:DJ:72:LYS:HB2	41:DJ:89:PHE:H	1.82	0.43
38:DM:126:ILE:N	38:DM:126:ILE:HD12	2.32	0.43
28:DP:24:THR:HG22	28:DP:43:GLU:OE1	2.18	0.43
28:DP:75:THR:HG23	28:DP:76:HIS:ND1	2.33	0.43
28:DP:94:ALA:O	28:DP:95:LYS:HD2	2.18	0.43
44:DQ:71:ASN:HD21	44:DQ:106:THR:HG23	1.82	0.43
50:DT:57:VAL:O	50:DT:85:VAL:O	2.36	0.43
1:AA:1182:G:H4'	1:AA:1183:U:H5'	1.99	0.43
1:AA:1286:U:OP1	1:AA:1286:U:O2	2.37	0.43
1:AA:1371:G:O3'	8:AI:70:GLY:HA3	2.19	0.43
1:AA:1416:G:C2'	1:AA:1417:G:H5'	2.49	0.43
1:AA:186:C:H2'	1:AA:187:G:O4'	2.18	0.43
1:AA:450:G:N7	1:AA:481:G:O6	2.52	0.43
1:AA:754:C:H3'	1:AA:754:C:O2	2.18	0.43
1:AA:956:U:O2'	1:AA:957:U:H5'	2.18	0.43
20:AB:112:ARG:O	20:AB:116:LEU:HB2	2.19	0.43
2:AC:2:GLN:O	2:AC:3:LYS:HB2	2.19	0.43
3:AD:100:VAL:HG11	3:AD:142:VAL:HG21	2.00	0.43
8:AI:80:HIS:HE1	8:AI:103:VAL:O	2.01	0.43
9:AJ:12:ALA:N	9:AJ:18:ILE:HD13	2.34	0.43
9:AJ:41:PRO:HG2	9:AJ:42:LEU:H	1.83	0.43
10:AK:19:VAL:HG12	10:AK:82:GLU:HB2	2.00	0.43
12:AM:49:GLU:O	12:AM:52:ILE:HB	2.18	0.43
13:AN:12:ARG:HE	13:AN:58:ARG:HH11	1.67	0.43
14:AO:24:SER:HB3	14:AO:27:VAL:HG23	2.00	0.43
16:AQ:14:ASP:HA	16:AQ:20:ILE:CD1	2.48	0.43
5:AF:100:SER:HA	17:AR:23:LYS:HD3	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:B1:47:ILE:H	33:B1:47:ILE:HD12	1.83	0.43
36:B2:13:ASN:O	36:B2:17:GLY:N	2.51	0.43
34:B3:36:ALA:O	34:B3:39:ARG:HB3	2.18	0.43
22:BA:41:G:O6	47:BF:68:LYS:HD3	2.18	0.43
23:BB:139:U:O2'	50:BT:1:MET:HA	2.19	0.43
23:BB:1567:G:H2'	25:BC:84:PRO:HG3	2.01	0.43
23:BB:1824:G:HO2'	23:BB:1825:U:H5'	1.83	0.43
23:BB:1914:C:N3	53:B6:23:HIS:CE1	2.86	0.43
23:BB:2095:A:O2'	23:BB:2096:C:H5'	2.18	0.43
23:BB:766:U:H2'	23:BB:767:U:H6	1.81	0.43
23:BB:866:A:C2'	23:BB:867:C:H5'	2.48	0.43
25:BC:123:ILE:HD12	25:BC:135:PRO:CD	2.48	0.43
25:BC:91:ALA:HB3	25:BC:105:ALA:HB2	2.00	0.43
26:BD:11:MET:H	26:BD:25:THR:HA	1.83	0.43
26:BD:185:ASN:O	26:BD:186:LEU:HD12	2.19	0.43
26:BD:46:ARG:HH11	26:BD:46:ARG:HB3	1.83	0.43
29:BE:5:LEU:HG	29:BE:11:ALA:O	2.19	0.43
29:BE:70:SER:HB2	29:BE:78:TRP:CZ2	2.53	0.43
47:BF:151:LEU:HD12	47:BF:152:ASP:N	2.33	0.43
48:BG:7:PRO:O	48:BG:8:VAL:CB	2.66	0.43
41:BJ:16:TYR:O	41:BJ:55:ILE:HG12	2.18	0.43
27:BK:115:ILE:C	27:BK:117:SER:H	2.21	0.43
27:BK:99:ILE:HG12	27:BK:115:ILE:HG13	2.00	0.43
27:BK:71:ARG:HG3	27:BK:105:ARG:HH21	1.82	0.43
38:BM:20:LEU:N	38:BM:20:LEU:HD22	2.34	0.43
42:BN:82:GLU:O	42:BN:85:PRO:HD2	2.18	0.43
28:BP:114:ASN:HD22	28:BP:114:ASN:HA	1.62	0.43
28:BP:24:THR:HG22	28:BP:43:GLU:OE1	2.18	0.43
28:BP:7:LEU:HA	28:BP:10:GLU:CD	2.37	0.43
44:BQ:24:TYR:CG	44:BQ:25:GLY:N	2.85	0.43
49:BR:2:TYR:HB2	49:BR:42:ALA:CB	2.43	0.43
45:BS:17:VAL:O	45:BS:19:LEU:N	2.51	0.43
50:BT:5:GLU:HA	50:BT:8:LEU:HB2	1.99	0.43
46:BU:62:ALA:O	46:BU:63:ALA:HB3	2.19	0.43
1:CA:1296:C:H4'	1:CA:1302:C:N4	2.33	0.43
1:CA:1320:C:H2'	1:CA:1321:U:O4'	2.18	0.43
1:CA:1352:C:H2'	1:CA:1353:G:O4'	2.17	0.43
1:CA:1533:C:H2'	1:CA:1533:C:H6	1.67	0.43
1:CA:600:A:H2'	1:CA:601:G:C8	2.53	0.43
1:CA:626:G:H2'	1:CA:627:G:C8	2.54	0.43
1:CA:803:G:H2'	1:CA:804:U:C6	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:978:A:O2'	1:CA:1322:C:H5	2.01	0.43
20:CB:14:HIS:HD2	20:CB:202:ASN:H	1.66	0.43
3:CD:106:PHE:CD1	3:CD:144:ILE:HD11	2.53	0.43
3:CD:84:ASN:HD22	3:CD:85:THR:N	2.16	0.43
7:CH:39:LEU:HD21	7:CH:128:VAL:HG21	2.00	0.43
17:CR:38:ILE:HG12	17:CR:38:ILE:O	2.18	0.43
17:CR:35:SER:HA	17:CR:71:ASP:OD2	2.18	0.43
53:D6:126:ARG:O	53:D6:130:ARG:HG3	2.19	0.43
53:D6:126:ARG:HA	53:D6:129:ILE:HD12	1.99	0.43
53:D6:6:LEU:HD13	53:D6:161:ILE:HD11	2.00	0.43
23:DB:941:A:H2	23:DB:1189:A:C2	2.36	0.43
23:DB:1723:G:H2'	23:DB:1724:G:H5'	2.00	0.43
23:DB:2412:A:H2'	23:DB:2413:G:O4'	2.17	0.43
23:DB:2471:A:O2'	23:DB:2472:G:P	2.77	0.43
23:DB:265:A:H2'	23:DB:266:G:O4'	2.18	0.43
23:DB:2707:U:O2	42:DN:71:ARG:NH1	2.52	0.43
23:DB:2716:C:O2'	23:DB:2717:C:H5'	2.18	0.43
23:DB:765:C:H2'	23:DB:766:U:H6	1.83	0.43
23:DB:899:A:H2'	23:DB:900:A:C5'	2.48	0.43
23:DB:904:G:H2'	23:DB:905:A:H8	1.83	0.43
25:DC:7:PRO:C	25:DC:9:SER:H	2.22	0.43
26:DD:68:PHE:C	26:DD:73:VAL:HB	2.39	0.43
26:DD:33:ARG:CZ	26:DD:74:GLU:HB3	2.48	0.43
48:DG:91:VAL:HG23	48:DG:92:GLY:H	1.82	0.43
40:DH:101:ASP:O	40:DH:104:THR:HB	2.18	0.43
40:DH:41:LYS:HB2	40:DH:42:LYS:H	1.62	0.43
24:DI:72:THR:OG1	24:DI:73:PRO:HD2	2.18	0.43
41:DJ:102:GLU:O	41:DJ:105:VAL:HG22	2.17	0.43
38:DM:66:ARG:HG3	38:DM:101:VAL:HG22	2.00	0.43
38:DM:42:THR:O	38:DM:44:ARG:N	2.46	0.43
42:DN:70:THR:OG1	42:DN:70:THR:O	2.36	0.43
50:DT:43:ILE:CG2	50:DT:58:VAL:HG21	2.48	0.43
46:DU:78:LYS:CD	46:DU:79:ALA:H	2.29	0.43
46:DU:98:ASN:O	46:DU:99:SER:C	2.56	0.43
46:DU:9:GLU:HG3	46:DU:21:ARG:HD2	2.00	0.43
30:DY:8:GLN:HB3	30:DY:31:ILE:C	2.39	0.43
1:AA:1257:A:H3'	1:AA:1258:G:H5'	2.00	0.43
1:AA:1341:U:O2'	1:AA:1342:C:H5'	2.17	0.43
1:AA:369:G:O2'	1:AA:370:C:H5'	2.19	0.43
1:AA:628:G:H2'	1:AA:629:A:H8	1.84	0.43
1:AA:749:A:O2'	1:AA:750:C:H5'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:766:A:H2	1:AA:1525:G:N3	2.16	0.43
1:AA:830:G:H2'	1:AA:831:A:H8	1.83	0.43
2:AC:106:ARG:O	2:AC:107:LYS:HE3	2.19	0.43
6:AG:111:GLY:HA2	6:AG:118:ARG:NH1	2.34	0.43
8:AI:17:ARG:O	8:AI:64:ILE:HA	2.19	0.43
12:AM:84:CYS:O	12:AM:88:LEU:HG	2.19	0.43
11:AL:7:VAL:HG22	16:AQ:33:TYR:CD1	2.50	0.43
17:AR:20:ILE:HG13	17:AR:21:ASP:N	2.33	0.43
21:AU:42:THR:HB	21:AU:46:ARG:NE	2.21	0.43
36:B2:43:THR:O	36:B2:44:VAL:C	2.55	0.43
32:B4:3:VAL:HG23	32:B4:4:ARG:N	2.33	0.43
22:BA:76:G:O2'	22:BA:77:U:H5'	2.19	0.43
23:BB:2281:A:O2'	23:BB:2282:G:H5'	2.18	0.43
23:BB:2635:A:C5'	26:BD:79:LEU:HB2	2.48	0.43
23:BB:2659:G:C2	23:BB:2661:G:H5''	2.54	0.43
23:BB:265:A:O2'	23:BB:266:G:C4'	2.65	0.43
23:BB:2751:G:OP2	48:BG:2:ARG:HD2	2.18	0.43
23:BB:286:U:H2'	23:BB:287:G:C8	2.53	0.43
23:BB:523:C:H5''	23:BB:540:C:O2'	2.17	0.43
23:BB:6:A:O2'	23:BB:7:G:H5'	2.19	0.43
26:BD:114:LYS:HE3	26:BD:116:LYS:CG	2.49	0.43
26:BD:4:LEU:HD23	26:BD:101:PHE:CE1	2.54	0.43
29:BE:108:ILE:HG13	29:BE:181:ILE:HD11	2.00	0.43
47:BF:101:ARG:HH12	47:BF:138:PRO:CB	2.30	0.43
40:BH:134:VAL:CG1	40:BH:135:HIS:H	2.03	0.43
24:BI:126:ARG:HA	24:BI:129:GLU:OE2	2.18	0.43
41:BJ:73:VAL:O	41:BJ:74:TYR:HB2	2.18	0.43
27:BK:99:ILE:CD1	27:BK:118:LEU:HD22	2.42	0.43
37:BL:78:ARG:HB2	37:BL:113:ALA:HB2	2.00	0.43
23:BB:2496:C:OP1	38:BM:82:MET:HB2	2.18	0.43
44:BQ:24:TYR:CD1	44:BQ:25:GLY:N	2.87	0.43
44:BQ:87:VAL:HG12	44:BQ:89:ILE:HD13	2.01	0.43
52:BW:70:VAL:C	52:BW:71:LYS:HD2	2.39	0.43
52:BW:79:ILE:HG22	52:BW:80:SER:N	2.34	0.43
39:BX:6:LEU:HD22	39:BX:6:LEU:H	1.83	0.43
1:CA:141:G:O2'	1:CA:142:G:H5'	2.18	0.43
1:CA:1483:A:O5'	1:CA:1483:A:H8	2.01	0.43
1:CA:263:A:H2'	1:CA:264:C:C6	2.53	0.43
1:CA:955:U:O2'	1:CA:956:U:H5'	2.18	0.43
6:CG:12:LEU:HD13	6:CG:13:PRO:CD	2.49	0.43
9:CJ:37:ARG:HH11	9:CJ:37:ARG:HG3	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CN:68:ARG:NH1	13:CN:71:GLY:H	2.16	0.43
18:CS:14:LEU:HG	18:CS:15:LEU:N	2.33	0.43
18:CS:54:ARG:O	18:CS:55:GLN:HG2	2.19	0.43
33:D1:35:LEU:N	33:D1:35:LEU:HD23	2.34	0.43
22:DA:31:C:O2'	22:DA:32:U:H5'	2.18	0.43
23:DB:1081:U:H5'	24:DI:126:ARG:CZ	2.48	0.43
23:DB:1439:A:N3	23:DB:1553:A:C6	2.87	0.43
23:DB:1526:C:H2'	23:DB:1527:G:O4'	2.19	0.43
23:DB:1708:C:O2'	23:DB:1709:U:H5'	2.18	0.43
23:DB:1796:U:O2'	23:DB:1797:G:H5'	2.19	0.43
23:DB:1843:C:O2'	23:DB:1844:C:H5'	2.18	0.43
23:DB:219:A:H2	23:DB:234:U:O2	2.02	0.43
23:DB:2603:G:O2'	23:DB:2604:U:H5'	2.18	0.43
23:DB:2862:G:H2'	23:DB:2863:C:H6	1.83	0.43
23:DB:2868:A:H2'	23:DB:2869:G:C8	2.53	0.43
23:DB:322:A:OP1	29:DE:162:ARG:NH2	2.51	0.43
23:DB:298:G:H1'	23:DB:340:A:H61	1.83	0.43
23:DB:358:U:H2'	23:DB:359:G:H8	1.83	0.43
23:DB:965:C:O2'	23:DB:2272:U:H6	2.02	0.43
25:DC:140:VAL:CG1	25:DC:141:HIS:H	2.18	0.43
25:DC:56:GLY:HA2	25:DC:212:TRP:C	2.39	0.43
26:DD:4:LEU:HD21	26:DD:100:LEU:HB3	2.01	0.43
26:DD:109:VAL:HG11	26:DD:193:VAL:CG1	2.49	0.43
26:DD:13:ARG:HH12	28:DP:74:GLN:HE21	1.66	0.43
26:DD:32:ASN:HB3	26:DD:50:VAL:CG2	2.49	0.43
47:DF:102:LEU:C	47:DF:104:THR:H	2.21	0.43
48:DG:32:LEU:O	48:DG:33:THR:HG23	2.17	0.43
40:DH:79:THR:HG22	40:DH:145:ASN:O	2.18	0.43
40:DH:97:ARG:HG2	40:DH:98:ASP:N	2.33	0.43
41:DJ:59:ALA:HB1	41:DJ:101:ILE:CG1	2.48	0.43
37:DL:40:SER:O	37:DL:41:ARG:CB	2.66	0.43
38:DM:118:LYS:C	38:DM:120:ALA:N	2.72	0.43
52:DW:23:LYS:C	52:DW:66:VAL:HB	2.39	0.43
1:AA:1098:C:O2'	1:AA:1099:G:H5'	2.18	0.43
1:AA:1426:G:O2'	1:AA:1427:C:H5'	2.19	0.43
1:AA:301:G:H2'	1:AA:302:G:H8	1.84	0.43
1:AA:432:A:H2'	1:AA:433:G:H5'	1.99	0.43
1:AA:502:A:H4'	1:AA:550:G:H4'	2.00	0.43
1:AA:796:C:OP1	10:AK:127:ARG:HB3	2.18	0.43
1:AA:84:U:H6	1:AA:84:U:H2'	1.68	0.43
20:AB:59:ILE:HD12	20:AB:60:ALA:N	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AC:111:ASP:HB3	2:AC:114:LEU:HB2	2.01	0.43
3:AD:149:LYS:HD3	3:AD:177:MET:CG	2.48	0.43
6:AG:27:ASN:O	6:AG:30:MET:HB3	2.17	0.43
8:AI:126:PHE:CE1	8:AI:129:ARG:HG2	2.51	0.43
8:AI:51:LEU:HD13	8:AI:56:MET:HG2	2.01	0.43
10:AK:91:GLY:O	10:AK:95:THR:HG22	2.18	0.43
13:AN:14:ALA:O	13:AN:18:LYS:HG3	2.19	0.43
14:AO:25:THR:HB	14:AO:70:LEU:HD23	2.01	0.43
15:AP:7:ALA:O	15:AP:17:TYR:HA	2.18	0.43
19:AT:27:MET:O	19:AT:31:ILE:HG13	2.19	0.43
36:B2:37:LYS:HD3	36:B2:39:ARG:CD	2.48	0.43
53:B6:119:ARG:O	53:B6:122:ALA:HB3	2.19	0.43
23:BB:182:A:O2'	23:BB:183:C:H5'	2.19	0.43
23:BB:2283:C:H2'	23:BB:2284:A:H5'	2.01	0.43
23:BB:2405:G:HO2'	23:BB:2406:A:P	2.42	0.43
23:BB:2686:G:H2'	23:BB:2687:U:C6	2.54	0.43
23:BB:2707:U:H2'	23:BB:2708:G:C8	2.53	0.43
23:BB:2784:U:H2'	23:BB:2785:C:C6	2.54	0.43
23:BB:2875:C:H2'	23:BB:2876:G:C8	2.53	0.43
23:BB:308:G:H2'	23:BB:309:A:O4'	2.19	0.43
23:BB:453:A:H5''	56:BB:3384:HOH:O	2.19	0.43
23:BB:666:A:H2'	23:BB:667:U:C6	2.54	0.43
25:BC:255:LYS:C	25:BC:256:THR:HG23	2.39	0.43
26:BD:108:ASP:OD2	26:BD:206:ALA:HA	2.17	0.43
29:BE:30:GLN:O	29:BE:30:GLN:HG2	2.19	0.43
47:BF:69:ALA:HB3	47:BF:81:GLY:O	2.18	0.43
27:BK:105:ARG:HD3	27:BK:105:ARG:N	2.16	0.43
42:BN:51:LEU:HD21	42:BN:70:THR:CG2	2.49	0.43
28:BP:6:GLN:HA	28:BP:9:GLN:CD	2.39	0.43
23:BB:997:G:H5'	44:BQ:92:LYS:HZ3	1.83	0.43
44:BQ:93:ILE:HG23	44:BQ:94:LEU:N	2.34	0.43
35:BV:26:PHE:CE2	35:BV:44:HIS:HA	2.53	0.43
52:BW:23:LYS:C	52:BW:66:VAL:HB	2.39	0.43
1:CA:1293:C:O2'	1:CA:1294:G:H5'	2.19	0.43
1:CA:1464:U:O2'	1:CA:1465:A:H5'	2.18	0.43
1:CA:1488:G:H2'	1:CA:1489:G:H8	1.83	0.43
1:CA:14:U:O2	1:CA:17:U:H5	2.01	0.43
1:CA:766:A:H2	1:CA:1525:G:N3	2.17	0.43
20:CB:63:LYS:HG2	20:CB:224:ARG:NH2	2.34	0.43
2:CC:126:ARG:HD3	2:CC:126:ARG:HA	1.86	0.43
2:CC:38:VAL:O	2:CC:42:LEU:HD23	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CE:23:THR:HA	4:CE:28:ARG:HA	2.00	0.43
8:CI:26:LYS:HZ1	8:CI:26:LYS:HA	1.83	0.43
8:CI:51:LEU:HD13	8:CI:56:MET:HG2	2.01	0.43
9:CJ:14:ASP:OD1	9:CJ:17:LEU:HB2	2.18	0.43
12:CM:22:TYR:N	12:CM:22:TYR:CD2	2.85	0.43
12:CM:50:GLY:HA2	12:CM:53:ASP:OD1	2.19	0.43
16:CQ:66:LEU:HD12	16:CQ:71:SER:HA	2.00	0.43
16:CQ:74:LEU:HD13	16:CQ:74:LEU:C	2.39	0.43
19:CT:80:ALA:HA	19:CT:83:ASN:HD22	1.84	0.43
33:D1:31:GLU:H	33:D1:31:GLU:CD	2.22	0.43
33:D1:3:GLY:O	33:D1:5:ARG:N	2.52	0.43
23:DB:941:A:H2	23:DB:1189:A:H2	1.67	0.43
23:DB:1221:C:H2'	23:DB:1222:U:C6	2.54	0.43
23:DB:1281:G:O2'	23:DB:1282:U:H5'	2.18	0.43
23:DB:1328:A:H2'	23:DB:1330:C:C5	2.53	0.43
23:DB:1745:A:H2'	23:DB:1746:A:O4'	2.19	0.43
1:CA:1517:G:C8	23:DB:1920:C:OP1	2.72	0.43
23:DB:2025:C:H2'	23:DB:2026:U:H6	1.83	0.43
23:DB:2031:A:C6	23:DB:2498:C:H1'	2.54	0.43
23:DB:2371:G:C2'	23:DB:2372:U:H5''	2.48	0.43
23:DB:555:G:HO2'	23:DB:556:A:H8	1.66	0.43
25:DC:94:LEU:HD13	25:DC:100:ARG:NH1	2.32	0.43
26:DD:11:MET:HE1	26:DD:192:ALA:H	1.84	0.43
23:DB:2579:C:H4'	26:DD:139:SER:HB2	2.01	0.43
29:DE:128:ALA:O	29:DE:133:LEU:HD12	2.18	0.43
48:DG:38:ASP:CG	48:DG:39:ALA:H	2.22	0.43
48:DG:70:LEU:HD22	48:DG:70:LEU:HA	1.88	0.43
40:DH:41:LYS:O	40:DH:44:ILE:N	2.52	0.43
24:DI:54:ILE:O	24:DI:54:ILE:HG23	2.18	0.43
24:DI:90:GLY:C	24:DI:92:PRO:HD3	2.39	0.43
41:DJ:98:GLU:CD	41:DJ:98:GLU:H	2.22	0.43
38:DM:117:PHE:O	38:DM:120:ALA:HB3	2.18	0.43
42:DN:96:ARG:HG2	42:DN:98:LEU:CD2	2.48	0.43
28:DP:104:GLY:O	28:DP:105:LYS:HB2	2.19	0.43
23:DB:1199:U:H5'	44:DQ:4:LYS:CG	2.48	0.43
44:DQ:63:ARG:HH12	44:DQ:96:ASP:HB2	1.83	0.43
50:DT:2:ILE:N	50:DT:2:ILE:HD13	2.34	0.43
23:DB:2356:U:C5'	52:DW:16:GLU:HG3	2.48	0.43
1:AA:108:G:N3	1:AA:108:G:O4'	2.52	0.43
1:AA:1298:U:H5	6:AG:113:LYS:HD3	1.83	0.43
1:AA:143:A:H2	1:AA:220:G:H22	1.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:666:G:H5'	1:AA:726:C:H1'	2.00	0.43
1:AA:955:U:O2'	1:AA:956:U:H5'	2.19	0.43
1:AA:1206:G:O4'	2:AC:193:GLY:N	2.52	0.43
3:AD:61:ARG:HG3	3:AD:71:PHE:CG	2.54	0.43
3:AD:79:ALA:HA	3:AD:85:THR:OG1	2.19	0.43
4:AE:11:GLN:HB2	4:AE:39:GLY:O	2.18	0.43
8:AI:122:ARG:HH11	8:AI:122:ARG:HG3	1.83	0.43
8:AI:50:PRO:HD3	8:AI:79:ARG:CG	2.48	0.43
12:AM:90:HIS:CE1	12:AM:96:VAL:HG21	2.54	0.43
13:AN:61:ASN:O	13:AN:62:ARG:HB2	2.19	0.43
14:AO:81:LEU:O	14:AO:85:LEU:HD13	2.18	0.43
15:AP:22:ALA:CB	15:AP:32:PHE:HA	2.49	0.43
21:AU:16:ARG:NH1	21:AU:19:LYS:HD3	2.34	0.43
31:B0:39:ARG:HH11	31:B0:39:ARG:HG3	1.83	0.43
33:B1:29:LYS:N	33:B1:30:PRO:HD3	2.33	0.43
34:B3:31:ILE:O	34:B3:31:ILE:HG23	2.19	0.43
53:B6:130:ARG:HG3	53:B6:130:ARG:NH1	2.34	0.43
53:B6:16:LYS:HE3	53:B6:16:LYS:N	2.34	0.43
53:B6:22:GLU:O	53:B6:25:LEU:HB2	2.19	0.43
22:BA:103:U:O2'	22:BA:104:A:H5'	2.19	0.43
23:BB:141:G:OP2	23:BB:142:A:N6	2.52	0.43
23:BB:1507:C:H5'	23:BB:1508:A:OP2	2.19	0.43
23:BB:1523:U:H5''	23:BB:1524:G:C8	2.54	0.43
23:BB:1912:A:H3'	23:BB:1916:A:N6	2.34	0.43
23:BB:2038:G:H2'	23:BB:2039:U:O4'	2.19	0.43
23:BB:2072:C:H2'	23:BB:2073:C:H6	1.84	0.43
23:BB:2104:C:H2'	23:BB:2105:U:C6	2.54	0.43
23:BB:2463:C:O2'	23:BB:2464:G:H5'	2.19	0.43
23:BB:2852:G:H2'	23:BB:2853:C:H6	1.83	0.43
23:BB:524:G:O2'	23:BB:525:U:H5'	2.19	0.43
23:BB:671:C:O2'	23:BB:672:C:H5'	2.19	0.43
23:BB:716:A:H2'	23:BB:717:C:O4'	2.17	0.43
23:BB:795:C:O2'	23:BB:796:C:H5'	2.19	0.43
23:BB:901:C:H2'	23:BB:902:C:H6	1.83	0.43
23:BB:941:A:H2	23:BB:1189:A:C2	2.36	0.43
23:BB:1568:G:H4'	25:BC:58:LYS:HG2	1.99	0.43
26:BD:3:GLY:C	26:BD:4:LEU:HD22	2.39	0.43
24:BI:83:ALA:N	24:BI:100:ILE:HD11	2.33	0.43
41:BJ:36:LEU:HD21	41:BJ:122:LEU:HD13	2.00	0.43
27:BK:71:ARG:CG	27:BK:105:ARG:HH21	2.32	0.43
27:BK:72:PRO:O	27:BK:74:GLY:N	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BK:13:ASN:HD21	27:BK:97:THR:CG2	2.31	0.43
38:BM:40:ARG:HB2	38:BM:93:VAL:HG21	1.97	0.43
28:BP:23:ASP:HA	28:BP:88:ARG:HA	2.01	0.43
49:BR:55:ASP:OD2	49:BR:55:ASP:N	2.51	0.43
50:BT:40:LYS:HE3	50:BT:59:ASN:HA	2.00	0.43
9:CJ:68:ARG:HH22	1:CA:1115:U:P	2.42	0.43
1:CA:1308:U:O2'	1:CA:1309:G:H5'	2.19	0.43
18:CS:36:ARG:HB3	1:CA:1320:C:N4	2.34	0.43
1:CA:1444:U:H2'	1:CA:1445:U:C6	2.54	0.43
1:CA:1524:C:H2'	1:CA:1525:G:H8	1.81	0.43
16:CQ:15:LYS:HG2	1:CA:275:G:O5'	2.19	0.43
3:CD:112:GLU:HG3	1:CA:407:U:O2'	2.18	0.43
1:CA:916:U:H2'	1:CA:917:G:H8	1.84	0.43
20:CB:17:HIS:HB3	20:CB:187:ASP:OD2	2.19	0.43
3:CD:30:LYS:HD3	3:CD:30:LYS:N	2.34	0.43
3:CD:80:ARG:HH21	1:CA:613:C:P	2.41	0.43
4:CE:28:ARG:HH21	4:CE:30:PHE:CA	2.28	0.43
6:CG:113:LYS:HD3	1:CA:1298:U:H5	1.84	0.43
6:CG:126:ALA:C	6:CG:128:GLU:H	2.22	0.43
9:CJ:53:ILE:HD11	13:CN:84:ARG:NH2	2.34	0.43
16:CQ:10:ARG:HG3	16:CQ:10:ARG:O	2.18	0.43
17:CR:31:TYR:CB	17:CR:54:LEU:HD21	2.49	0.43
23:DB:104:A:H2'	23:DB:105:C:H6	1.83	0.43
23:DB:1099:G:N7	24:DI:3:LYS:HD3	2.34	0.43
23:DB:1150:C:H2'	23:DB:1151:A:C8	2.54	0.43
23:DB:1443:U:H2'	23:DB:1444:G:C8	2.53	0.43
23:DB:1745:A:H2'	23:DB:1746:A:H8	1.84	0.43
23:DB:191:A:H2'	23:DB:192:C:C6	2.53	0.43
23:DB:2485:G:O2'	23:DB:2486:C:H5'	2.19	0.43
23:DB:2676:C:O2'	23:DB:2677:G:H5'	2.19	0.43
23:DB:2714:G:H2'	23:DB:2715:C:H6	1.83	0.43
23:DB:301:G:O5'	46:DU:81:ARG:NH1	2.51	0.43
23:DB:392:U:H2'	23:DB:393:C:H6	1.83	0.43
23:DB:496:G:H1'	45:DS:61:ASN:HD21	1.84	0.43
23:DB:596:U:O2'	23:DB:597:G:H5'	2.18	0.43
23:DB:817:C:O2'	23:DB:839:U:H5''	2.19	0.43
23:DB:944:C:H5'	23:DB:945:A:C5'	2.49	0.43
25:DC:140:VAL:HG11	25:DC:143:VAL:HG22	2.01	0.43
25:DC:169:ALA:O	25:DC:185:ALA:HB3	2.19	0.43
23:DB:1568:G:H4'	25:DC:58:LYS:HG2	2.00	0.43
25:DC:63:ILE:HA	25:DC:63:ILE:HD13	1.93	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DD:105:LYS:HE3	26:DD:176:ASP:HB3	2.01	0.43
26:DD:14:ILE:HA	28:DP:11:GLN:HE22	1.82	0.43
23:DB:2635:A:H5'	26:DD:79:LEU:HB2	1.99	0.43
29:DE:30:GLN:O	29:DE:30:GLN:HG2	2.17	0.43
29:DE:37:ALA:O	29:DE:39:ALA:N	2.42	0.43
47:DF:34:THR:OG1	47:DF:154:THR:HB	2.18	0.43
47:DF:78:ILE:HA	47:DF:79:ARG:HH11	1.84	0.43
40:DH:113:SER:H	40:DH:132:PHE:HE1	1.67	0.43
41:DJ:98:GLU:O	41:DJ:102:GLU:HG3	2.19	0.43
37:DL:110:VAL:CG2	37:DL:127:VAL:HB	2.49	0.43
23:DB:811:U:N3	37:DL:21:ARG:NH2	2.66	0.43
23:DB:832:U:O2	37:DL:52:GLY:HA2	2.19	0.43
34:D3:53:ASP:HB2	37:DL:57:LEU:HD22	2.01	0.43
42:DN:51:LEU:CD2	42:DN:70:THR:HG21	2.49	0.43
1:CA:346:G:OP1	28:DP:38:ARG:NH1	2.52	0.43
28:DP:7:LEU:HD12	28:DP:7:LEU:N	2.25	0.43
44:DQ:24:TYR:CD1	44:DQ:25:GLY:N	2.86	0.43
46:DU:64:ILE:CG1	46:DU:65:GLN:N	2.82	0.43
35:DV:20:LEU:HD23	35:DV:25:LYS:HB3	2.00	0.43
35:DV:51:GLN:NE2	35:DV:57:TYR:OH	2.52	0.43
23:DB:2332:C:OP1	52:DW:41:GLY:HA3	2.19	0.43
52:DW:9:THR:OG1	52:DW:10:ARG:N	2.46	0.43
39:DX:59:GLU:N	39:DX:59:GLU:OE2	2.52	0.43
1:AA:100:G:H2'	1:AA:101:A:O4'	2.18	0.43
1:AA:1099:G:H2'	1:AA:1100:C:O4'	2.18	0.43
1:AA:113:G:H1'	1:AA:354:G:H5'	2.00	0.43
1:AA:1149:C:H2'	1:AA:1150:A:C8	2.54	0.43
1:AA:1169:A:C6	1:AA:1170:A:C6	3.07	0.43
1:AA:1313:U:OP2	18:AS:5:LYS:HA	2.18	0.43
1:AA:1442:G:H2'	1:AA:1443:C:C6	2.54	0.43
1:AA:495:A:H4'	1:AA:496:A:O5'	2.18	0.43
1:AA:735:C:H2'	1:AA:736:C:H6	1.83	0.43
1:AA:893:C:H2'	1:AA:894:G:H8	1.84	0.43
1:AA:947:G:H2'	1:AA:948:C:C6	2.54	0.43
20:AB:85:SER:O	20:AB:86:CYS:HB2	2.18	0.43
3:AD:106:PHE:CD1	3:AD:144:ILE:HD11	2.53	0.43
3:AD:149:LYS:HD3	3:AD:177:MET:HG2	2.00	0.43
7:AH:48:PHE:CB	7:AH:60:LEU:HD12	2.49	0.43
8:AI:6:TYR:CG	8:AI:7:GLY:N	2.86	0.43
10:AK:70:ALA:C	10:AK:72:ALA:N	2.72	0.43
15:AP:78:VAL:HG13	15:AP:78:VAL:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:B4:2:LYS:O	32:B4:35:GLN:HA	2.18	0.43
22:BA:19:C:H2'	22:BA:20:G:H8	1.84	0.43
23:BB:1195:G:O2'	23:BB:1196:C:H5'	2.18	0.43
23:BB:2338:C:H2'	23:BB:2339:C:H6	1.83	0.43
23:BB:2543:G:H2'	23:BB:2544:G:C8	2.54	0.43
23:BB:2649:C:O2'	23:BB:2650:U:H5'	2.18	0.43
23:BB:2749:A:C6	23:BB:2750:A:C6	3.07	0.43
23:BB:30:G:OP1	44:BQ:4:LYS:HD2	2.18	0.43
23:BB:372:G:N2	23:BB:401:A:OP2	2.52	0.43
23:BB:4:U:H2'	23:BB:5:A:C8	2.54	0.43
23:BB:875:G:H2'	23:BB:876:C:N3	2.34	0.43
25:BC:131:MET:HA	25:BC:134:ILE:CG1	2.47	0.43
26:BD:8:LYS:HG2	26:BD:9:VAL:N	2.34	0.43
29:BE:196:VAL:O	29:BE:200:LEU:HD23	2.18	0.43
48:BG:148:ARG:HG2	48:BG:163:TYR:CE1	2.53	0.43
48:BG:51:PHE:CE2	48:BG:68:ARG:HG2	2.54	0.43
48:BG:91:VAL:HG23	48:BG:92:GLY:H	1.83	0.43
40:BH:94:ILE:O	40:BH:121:VAL:HG11	2.18	0.43
40:BH:72:ILE:O	40:BH:72:ILE:HG23	2.19	0.43
41:BJ:41:LYS:HD2	41:BJ:50:THR:O	2.19	0.43
37:BL:125:LEU:HB2	37:BL:143:GLU:OE2	2.18	0.43
37:BL:93:ASN:O	37:BL:95:LEU:HD12	2.19	0.43
43:BO:67:ASN:HB3	43:BO:70:ALA:HB2	1.99	0.43
44:BQ:109:VAL:CG1	44:BQ:113:LYS:HE3	2.46	0.43
49:BR:27:ILE:HG13	49:BR:33:VAL:HG11	2.01	0.43
45:BS:81:SER:CB	45:BS:99:ARG:HA	2.49	0.43
50:BT:39:THR:HG23	50:BT:42:GLU:H	1.80	0.43
35:BV:10:LYS:C	35:BV:11:GLU:HG3	2.39	0.43
35:BV:51:GLN:HB2	35:BV:57:TYR:OH	2.19	0.43
30:BY:8:GLN:HB3	30:BY:31:ILE:C	2.39	0.43
6:CG:29:LEU:HD23	1:CA:1240:U:H3	1.84	0.43
8:CI:69:GLY:N	1:CA:1250:A:H4'	2.28	0.43
1:CA:152:A:N6	1:CA:170:U:C2	2.87	0.43
1:CA:195:A:H1'	1:CA:222:C:O2'	2.19	0.43
1:CA:613:C:H2'	1:CA:614:C:C6	2.53	0.43
1:CA:635:A:H2'	1:CA:636:U:C6	2.53	0.43
1:CA:754:C:H3'	1:CA:754:C:O2	2.19	0.43
1:CA:903:G:H2'	1:CA:904:U:C6	2.54	0.43
1:CA:940:C:H2'	1:CA:941:G:C8	2.53	0.43
20:CB:186:VAL:HB	20:CB:190:SER:CB	2.49	0.43
20:CB:59:ILE:HD12	20:CB:60:ALA:N	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CC:70:ALA:CA	2:CC:105:VAL:HG21	2.42	0.43
3:CD:44:LYS:HB3	3:CD:44:LYS:NZ	2.33	0.43
6:CG:6:ILE:CG2	6:CG:7:GLY:N	2.82	0.43
8:CI:80:HIS:HE1	8:CI:103:VAL:O	2.01	0.43
9:CJ:5:ARG:N	9:CJ:77:VAL:HA	2.34	0.43
13:CN:41:TRP:CD1	13:CN:43:ALA:HB3	2.54	0.43
13:CN:63:CYS:C	13:CN:65:GLN:H	2.22	0.43
14:CO:61:SER:O	14:CO:65:LYS:HG3	2.18	0.43
15:CP:28:ARG:CD	15:CP:28:ARG:N	2.82	0.43
16:CQ:32:ILE:HG23	16:CQ:33:TYR:CD2	2.54	0.43
5:CF:100:SER:HA	17:CR:23:LYS:HD3	2.01	0.43
19:CT:5:SER:C	19:CT:7:LYS:N	2.72	0.43
21:CU:24:LYS:HB3	21:CU:24:LYS:HZ2	1.81	0.43
53:D6:1:MET:CB	53:D6:143:LEU:HD11	2.48	0.43
53:D6:114:LEU:HB3	53:D6:183:ILE:HG21	2.00	0.43
53:D6:18:LEU:O	53:D6:21:LEU:HB3	2.19	0.43
22:DA:32:U:H2'	22:DA:33:G:C8	2.53	0.43
22:DA:43:C:C2'	47:DF:91:ARG:HD2	2.49	0.43
22:DA:55:U:H2'	22:DA:56:G:H8	1.84	0.43
23:DB:1287:A:H3'	23:DB:1288:G:H21	1.84	0.43
23:DB:173:A:H2'	23:DB:174:U:C6	2.54	0.43
23:DB:198:C:C2'	23:DB:199:A:H5''	2.49	0.43
23:DB:2144:G:C2'	23:DB:2144:G:N3	2.81	0.43
23:DB:2557:G:H2'	23:DB:2558:C:H6	1.80	0.43
23:DB:401:A:H2'	23:DB:402:A:C8	2.54	0.43
23:DB:425:G:O2'	23:DB:426:C:H5'	2.18	0.43
23:DB:554:U:H2'	23:DB:555:G:O4'	2.18	0.43
23:DB:942:G:O2'	23:DB:943:A:H5'	2.19	0.43
23:DB:950:G:H2'	23:DB:951:C:C6	2.54	0.43
26:DD:12:THR:O	26:DD:24:VAL:HG12	2.18	0.43
23:DB:2732:G:OP1	26:DD:208:LYS:HE3	2.19	0.43
29:DE:61:ARG:HD2	29:DE:61:ARG:O	2.18	0.43
47:DF:10:GLU:O	47:DF:13:LYS:HG3	2.19	0.43
40:DH:31:VAL:O	40:DH:33:GLN:N	2.52	0.43
40:DH:86:ASP:HB3	40:DH:87:GLU:OE2	2.18	0.43
24:DI:105:LEU:CD1	24:DI:129:GLU:HG2	2.45	0.43
24:DI:41:PHE:CE2	24:DI:45:THR:HG21	2.53	0.43
24:DI:54:ILE:HD11	24:DI:71:LYS:N	2.33	0.43
27:DK:19:VAL:C	27:DK:41:ILE:HD11	2.39	0.43
37:DL:70:LYS:O	37:DL:73:ILE:HG12	2.19	0.43
28:DP:7:LEU:HA	28:DP:10:GLU:CD	2.39	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DQ:93:ILE:HG23	44:DQ:94:LEU:N	2.33	0.43
45:DS:15:GLN:HA	45:DS:18:ARG:HG2	2.00	0.43
45:DS:81:SER:CB	45:DS:99:ARG:HA	2.49	0.43
52:DW:50:VAL:O	52:DW:52:CYS:N	2.52	0.43
1:AA:1121:U:H2'	1:AA:1122:U:C6	2.53	0.43
1:AA:117:G:O2'	1:AA:118:U:H5'	2.19	0.43
1:AA:1320:C:H2'	1:AA:1321:U:O4'	2.18	0.43
1:AA:177:G:N3	1:AA:177:G:O4'	2.52	0.43
1:AA:219:U:H2'	1:AA:220:G:C8	2.52	0.43
1:AA:455:G:O2'	1:AA:456:A:H5'	2.18	0.43
1:AA:562:U:H5''	1:AA:563:A:C4	2.54	0.43
1:AA:93:U:H3'	1:AA:94:G:C5'	2.46	0.43
20:AB:14:HIS:ND1	20:AB:15:PHE:N	2.66	0.43
20:AB:166:ASP:O	20:AB:169:HIS:HB3	2.19	0.43
20:AB:27:LYS:HB3	20:AB:28:PRO:HD3	2.00	0.43
2:AC:163:ARG:HG2	2:AC:163:ARG:HH11	1.84	0.43
2:AC:26:LYS:CG	2:AC:27:GLU:HG3	2.42	0.43
4:AE:56:PRO:HG2	4:AE:57:ALA:H	1.84	0.43
6:AG:4:ARG:HD2	6:AG:5:VAL:H	1.82	0.43
7:AH:40:LYS:HE3	7:AH:47:ASP:HA	2.01	0.43
7:AH:47:ASP:CG	7:AH:48:PHE:H	2.21	0.43
10:AK:28:ASN:HD22	10:AK:29:THR:H	1.67	0.43
11:AL:107:LYS:HD2	11:AL:107:LYS:O	2.18	0.43
13:AN:50:LEU:CG	13:AN:51:PRO:HD3	2.49	0.43
16:AQ:30:HIS:HD2	16:AQ:37:ILE:HD11	1.84	0.43
53:B6:108:GLU:O	53:B6:111:ARG:HB3	2.18	0.43
53:B6:7:TYR:HB3	53:B6:164:ILE:HD11	2.01	0.43
22:BA:81:G:H2'	22:BA:82:U:C6	2.54	0.43
23:BB:1275:A:C2	23:BB:1276:A:H1'	2.53	0.43
23:BB:1376:C:O2'	23:BB:1377:G:H5'	2.19	0.43
23:BB:1723:G:C4	23:BB:1724:G:C8	3.07	0.43
23:BB:1742:U:O2'	23:BB:1743:G:H5'	2.19	0.43
23:BB:2547:A:H5'	23:BB:2566:A:C2	2.54	0.43
23:BB:2714:G:H2'	23:BB:2715:C:H6	1.83	0.43
23:BB:2814:A:H4'	31:B0:25:THR:HG21	1.99	0.43
23:BB:381:G:O2'	23:BB:382:A:H5'	2.19	0.43
23:BB:657:U:H2'	23:BB:658:U:C6	2.54	0.43
23:BB:675:A:P	29:BE:60:TRP:HZ2	2.42	0.43
23:BB:92:U:H2'	23:BB:93:G:O4'	2.19	0.43
23:BB:941:A:H2	23:BB:1189:A:H2	1.66	0.43
25:BC:149:LYS:HG2	25:BC:152:GLN:NE2	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BD:23:PRO:HB2	26:BD:190:LYS:O	2.19	0.43
26:BD:33:ARG:CZ	26:BD:74:GLU:HB3	2.48	0.43
27:BK:24:VAL:HG13	27:BK:33:ALA:HB2	2.00	0.43
27:BK:63:VAL:HG11	27:BK:103:VAL:HG12	2.01	0.43
42:BN:102:PHE:HD1	42:BN:102:PHE:N	2.17	0.43
42:BN:24:MET:CG	42:BN:44:LEU:HD22	2.49	0.43
28:BP:91:VAL:HG21	28:BP:96:LEU:HD21	2.01	0.43
44:BQ:111:LYS:HD3	49:BR:48:LYS:HZ2	1.83	0.43
45:BS:7:HIS:HB2	45:BS:50:VAL:CG2	2.49	0.43
46:BU:3:LYS:HD3	46:BU:82:VAL:HB	2.01	0.43
46:BU:48:VAL:O	46:BU:48:VAL:HG22	2.17	0.43
46:BU:48:VAL:O	46:BU:50:ALA:N	2.52	0.43
52:BW:30:VAL:HG21	52:BW:59:PHE:CZ	2.53	0.43
30:BY:43:ILE:O	30:BY:47:ILE:HG12	2.18	0.43
1:CA:1243:C:H2'	1:CA:1244:G:H8	1.83	0.43
1:CA:1286:U:OP1	1:CA:1286:U:O2	2.37	0.43
1:CA:333:U:O2'	1:CA:334:C:H5'	2.19	0.43
1:CA:355:C:O2'	1:CA:356:A:H5'	2.19	0.43
1:CA:476:U:H2'	1:CA:477:C:H6	1.84	0.43
1:CA:512:U:H2'	1:CA:513:C:H6	1.80	0.43
1:CA:516:U:O2'	1:CA:517:G:H5'	2.18	0.43
1:CA:502:A:H4'	1:CA:550:G:H4'	2.00	0.43
1:CA:829:G:O2'	1:CA:830:G:H5'	2.18	0.43
1:CA:861:G:O2'	1:CA:862:C:H5'	2.18	0.43
2:CC:172:VAL:O	2:CC:174:LEU:HD12	2.19	0.43
2:CC:23:ALA:HB3	2:CC:28:PHE:CD1	2.53	0.43
3:CD:114:ARG:HD3	1:CA:404:G:OP1	2.19	0.43
3:CD:117:VAL:HG12	3:CD:130:ASN:HA	2.00	0.43
4:CE:80:LEU:HG	4:CE:122:VAL:HG11	2.01	0.43
8:CI:66:VAL:HG22	8:CI:67:LYS:N	2.33	0.43
13:CN:72:PHE:CG	13:CN:73:LEU:N	2.87	0.43
14:CO:77:ARG:O	14:CO:81:LEU:HB2	2.18	0.43
19:CT:27:MET:O	19:CT:31:ILE:HG13	2.19	0.43
23:DB:1146:C:H2'	23:DB:1147:A:H8	1.81	0.43
23:DB:1376:C:O2'	23:DB:1377:G:H5'	2.19	0.43
23:DB:1711:A:O2'	23:DB:1712:U:H5'	2.19	0.43
23:DB:1771:C:H2'	23:DB:1772:A:H8	1.83	0.43
23:DB:2065:C:O2'	23:DB:2066:C:H5'	2.19	0.43
25:DC:255:LYS:C	25:DC:256:THR:HG23	2.39	0.43
29:DE:147:LEU:O	29:DE:168:ASP:O	2.37	0.43
29:DE:191:ASP:O	29:DE:195:GLN:HG3	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DF:102:LEU:C	47:DF:102:LEU:HD13	2.38	0.43
47:DF:142:TYR:C	47:DF:144:LYS:H	2.22	0.43
37:DL:61:LEU:N	37:DL:61:LEU:CD1	2.82	0.43
37:DL:82:LEU:C	37:DL:84:LYS:N	2.72	0.43
42:DN:103:ARG:HG3	42:DN:104:ALA:H	1.84	0.43
42:DN:16:HIS:O	42:DN:18:GLN:N	2.49	0.43
28:DP:33:GLU:HB3	28:DP:34:GLY:H	1.55	0.43
28:DP:47:ILE:HG13	28:DP:48:ALA:H	1.84	0.43
28:DP:91:VAL:HG21	28:DP:96:LEU:HD21	2.00	0.43
41:DJ:44:TYR:HB2	44:DQ:63:ARG:CD	2.49	0.43
45:DS:24:ILE:HD11	45:DS:36:LEU:HD21	2.01	0.43
45:DS:43:ALA:O	45:DS:47:VAL:HG13	2.18	0.43
50:DT:5:GLU:HA	50:DT:8:LEU:HB2	2.01	0.43
1:AA:1416:G:H2'	1:AA:1417:G:H5'	2.00	0.42
1:AA:236:A:H2'	1:AA:237:G:C8	2.54	0.42
1:AA:413:G:H2'	1:AA:428:G:H21	1.83	0.42
1:AA:493:A:N3	1:AA:493:A:O4'	2.52	0.42
1:AA:796:C:H2'	1:AA:797:C:C6	2.51	0.42
20:AB:119:GLN:HA	20:AB:124:THR:O	2.19	0.42
2:AC:102:ILE:HD12	2:AC:102:ILE:N	2.34	0.42
3:AD:54:LEU:O	3:AD:58:GLN:HB2	2.19	0.42
4:AE:156:ARG:HB2	4:AE:157:GLY:H	1.56	0.42
4:AE:80:LEU:HG	4:AE:122:VAL:HG11	2.01	0.42
11:AL:98:ARG:HB2	11:AL:116:TYR:CA	2.48	0.42
12:AM:78:ARG:HH12	18:AS:68:HIS:CE1	2.37	0.42
12:AM:84:CYS:SG	12:AM:86:ARG:HB2	2.59	0.42
14:AO:82:ILE:O	14:AO:86:GLY:N	2.52	0.42
18:AS:49:ALA:HA	18:AS:57:VAL:O	2.19	0.42
53:B6:7:TYR:OH	53:B6:157:ALA:HA	2.19	0.42
53:B6:31:GLY:O	53:B6:33:ALA:N	2.52	0.42
53:B6:69:GLN:CD	53:B6:98:ALA:HB2	2.38	0.42
23:BB:1387:A:H5'	23:BB:1469:A:H1'	2.00	0.42
23:BB:1468:U:H2'	23:BB:1522:A:H61	1.84	0.42
23:BB:1438:U:C4	23:BB:1552:A:N6	2.87	0.42
23:BB:1564:C:H2'	23:BB:1565:C:C6	2.54	0.42
23:BB:1771:C:H2'	23:BB:1772:A:H8	1.83	0.42
23:BB:1936:A:C2	23:BB:1943:U:H5	2.37	0.42
23:BB:2072:C:O2'	23:BB:2073:C:H5'	2.18	0.42
23:BB:2191:A:H2'	23:BB:2192:U:C6	2.54	0.42
23:BB:2199:A:H3'	23:BB:2200:C:H6	1.83	0.42
23:BB:2471:A:O2'	23:BB:2472:G:O5'	2.36	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:2522:U:O2'	23:BB:2523:G:H5'	2.19	0.42
23:BB:322:A:H2'	29:BE:163:ASN:HD21	1.84	0.42
25:BC:221:GLY:O	25:BC:224:MET:HG3	2.19	0.42
23:BB:1795:C:O2	25:BC:252:LYS:HE2	2.18	0.42
26:BD:55:LYS:H	26:BD:75:ALA:HB1	1.84	0.42
47:BF:102:LEU:HD13	47:BF:102:LEU:C	2.40	0.42
47:BF:13:LYS:HB2	47:BF:13:LYS:NZ	2.34	0.42
48:BG:148:ARG:CD	48:BG:152:ARG:HD3	2.47	0.42
40:BH:3:VAL:CG1	40:BH:38:PRO:HA	2.49	0.42
24:BI:15:GLY:O	24:BI:16:MET:HB2	2.19	0.42
41:BJ:121:LYS:HB2	41:BJ:121:LYS:HE3	1.76	0.42
41:BJ:93:ILE:HG22	41:BJ:94:ALA:N	2.34	0.42
41:BJ:96:ARG:N	41:BJ:97:PRO:HD3	2.33	0.42
37:BL:82:LEU:C	37:BL:84:LYS:N	2.72	0.42
38:BM:82:MET:HE2	38:BM:82:MET:HB3	1.82	0.42
44:BQ:87:VAL:O	44:BQ:88:GLU:O	2.36	0.42
49:BR:32:THR:HG23	49:BR:61:ALA:O	2.19	0.42
50:BT:50:LEU:O	50:BT:52:GLU:N	2.45	0.42
35:BV:40:ILE:HD13	35:BV:40:ILE:N	2.28	0.42
39:BX:17:GLU:O	39:BX:21:LEU:HG	2.19	0.42
39:BX:40:SER:C	39:BX:42:LEU:H	2.22	0.42
23:BB:75:G:H4'	39:BX:48:ARG:HH12	1.83	0.42
1:CA:1341:U:O2'	1:CA:1342:C:H5'	2.19	0.42
1:CA:410:G:H1'	1:CA:432:A:H61	1.84	0.42
1:CA:847:G:H2'	1:CA:848:C:C6	2.54	0.42
20:CB:113:LEU:CD1	20:CB:147:LEU:HB2	2.49	0.42
3:CD:57:LYS:HE3	3:CD:61:ARG:HD3	2.01	0.42
4:CE:52:ALA:HB2	4:CE:61:LYS:CE	2.40	0.42
8:CI:87:MET:HG2	8:CI:91:GLU:HG2	2.01	0.42
10:CK:125:LYS:O	10:CK:126:ARG:O	2.37	0.42
11:CL:7:VAL:HG22	16:CQ:33:TYR:CD1	2.50	0.42
13:CN:42:ASN:HD21	13:CN:46:LYS:NZ	2.17	0.42
14:CO:45:GLU:O	14:CO:46:HIS:CB	2.67	0.42
15:CP:18:GLN:HE21	15:CP:35:ARG:HD3	1.84	0.42
32:D4:8:LYS:HG3	32:D4:9:LYS:HD3	2.01	0.42
53:D6:84:ARG:CZ	53:D6:92:PRO:HG2	2.48	0.42
23:DB:1047:G:H1'	23:DB:1110:G:H22	1.84	0.42
23:DB:1256:G:H21	29:DE:77:ILE:CG2	2.32	0.42
23:DB:1438:U:C4	23:DB:1552:A:N6	2.87	0.42
23:DB:1607:C:H4'	23:DB:1608:A:O5'	2.19	0.42
23:DB:1616:A:H4'	23:DB:1617:C:OP2	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1789:A:H2'	23:DB:1790:C:C6	2.54	0.42
23:DB:197:A:H4'	23:DB:2069:G:OP2	2.19	0.42
23:DB:2292:U:H2'	23:DB:2293:G:C8	2.54	0.42
23:DB:2393:U:H2'	23:DB:2394:C:O4'	2.19	0.42
23:DB:2455:G:H2'	23:DB:2456:C:H6	1.83	0.42
23:DB:363:G:H2'	23:DB:364:C:H6	1.82	0.42
23:DB:716:A:H2'	23:DB:717:C:O4'	2.19	0.42
25:DC:238:ASN:O	25:DC:239:PHE:HB2	2.18	0.42
29:DE:134:LEU:CD2	29:DE:161:ALA:HB2	2.48	0.42
47:DF:98:PHE:C	47:DF:100:GLU:N	2.70	0.42
24:DI:12:VAL:HG13	24:DI:41:PHE:CE2	2.54	0.42
24:DI:99:LYS:HB2	24:DI:140:GLU:OE1	2.19	0.42
37:DL:96:LYS:HD3	37:DL:103:ILE:HA	2.00	0.42
28:DP:102:ARG:O	28:DP:103:THR:CB	2.67	0.42
28:DP:62:LYS:O	28:DP:63:ILE:CB	2.66	0.42
28:DP:7:LEU:CD1	28:DP:7:LEU:H	2.25	0.42
44:DQ:63:ARG:NH2	44:DQ:96:ASP:HA	2.34	0.42
45:DS:24:ILE:CG2	45:DS:32:ALA:HB1	2.45	0.42
45:DS:97:LEU:N	45:DS:97:LEU:HD22	2.34	0.42
52:DW:30:VAL:HG21	52:DW:59:PHE:CE1	2.54	0.42
52:DW:59:PHE:CD2	52:DW:60:ALA:N	2.87	0.42
1:AA:12:U:H4'	1:AA:526:C:H4'	2.00	0.42
1:AA:129:A:H1'	1:AA:130:A:C8	2.54	0.42
1:AA:1479:C:O2'	1:AA:1480:A:H5'	2.20	0.42
1:AA:265:G:H4'	16:AQ:67:SER:HA	2.02	0.42
1:AA:515:G:O2'	1:AA:516:U:H5'	2.18	0.42
1:AA:812:G:HO2'	1:AA:813:U:H6	1.59	0.42
1:AA:862:C:O2'	1:AA:863:U:H5'	2.19	0.42
20:AB:21:TYR:O	20:AB:22:TRP:O	2.36	0.42
20:AB:68:PHE:HA	20:AB:161:PHE:O	2.19	0.42
20:AB:87:ASP:HB2	20:AB:224:ARG:HH22	1.84	0.42
3:AD:103:ARG:HH21	3:AD:110:ARG:HH21	1.66	0.42
3:AD:26:ALA:HA	3:AD:30:LYS:CE	2.48	0.42
7:AH:1:SER:O	7:AH:3:GLN:HG3	2.19	0.42
8:AI:44:ARG:HH11	8:AI:44:ARG:HG2	1.84	0.42
8:AI:80:HIS:O	8:AI:83:THR:HG22	2.20	0.42
12:AM:71:GLU:HA	12:AM:74:MET:HG3	2.02	0.42
13:AN:63:CYS:C	13:AN:65:GLN:H	2.22	0.42
1:AA:275:G:O5'	16:AQ:15:LYS:HG2	2.19	0.42
19:AT:5:SER:C	19:AT:7:LYS:N	2.73	0.42
19:AT:73:ARG:HG3	19:AT:74:HIS:N	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AT:85:LEU:HD23	19:AT:85:LEU:N	2.33	0.42
33:B1:3:GLY:C	33:B1:5:ARG:N	2.72	0.42
34:B3:31:ILE:HG13	34:B3:34:LYS:HG2	2.01	0.42
32:B4:9:LYS:H	32:B4:9:LYS:HD3	1.84	0.42
53:B6:58:VAL:HG22	53:B6:68:VAL:HA	2.01	0.42
22:BA:7:G:O2'	22:BA:8:C:H5'	2.19	0.42
23:BB:1060:U:C1'	23:BB:1062:G:H5'	2.49	0.42
23:BB:1207:C:H2'	23:BB:1208:C:H6	1.84	0.42
23:BB:1577:C:H2'	23:BB:1578:U:C6	2.54	0.42
23:BB:1704:C:H2'	23:BB:1705:A:C8	2.53	0.42
23:BB:1821:A:H2'	23:BB:1822:C:C6	2.54	0.42
23:BB:2287:A:O2'	23:BB:2288:A:H3'	2.19	0.42
23:BB:497:A:H2'	23:BB:498:G:O4'	2.18	0.42
23:BB:852:U:H2'	23:BB:853:C:H6	1.81	0.42
25:BC:147:PRO:HD3	25:BC:184:GLU:HB2	2.02	0.42
26:BD:125:TRP:CG	26:BD:160:LYS:HB3	2.55	0.42
26:BD:107:VAL:N	26:BD:206:ALA:H	2.16	0.42
47:BF:11:VAL:HG12	47:BF:15:LEU:HD11	2.01	0.42
48:BG:28:LYS:O	48:BG:29:ASN:HB3	2.20	0.42
40:BH:59:ALA:C	40:BH:62:LEU:HD11	2.39	0.42
40:BH:90:LEU:HD11	40:BH:124:THR:N	2.35	0.42
41:BJ:13:ARG:O	41:BJ:14:ASP:HB2	2.19	0.42
41:BJ:1:MET:SD	41:BJ:2:LYS:HE2	2.59	0.42
37:BL:95:LEU:HB2	37:BL:101:ILE:HG13	2.01	0.42
38:BM:55:ARG:NH2	38:BM:55:ARG:HG3	2.35	0.42
22:BA:51:G:H5''	43:BO:64:TYR:CD2	2.54	0.42
28:BP:25:VAL:HA	28:BP:85:VAL:CA	2.49	0.42
28:BP:24:THR:N	28:BP:87:ARG:O	2.50	0.42
44:BQ:63:ARG:HH12	44:BQ:96:ASP:HB2	1.84	0.42
46:BU:26:ASN:ND2	46:BU:34:ILE:HB	2.35	0.42
52:BW:54:ARG:HH11	52:BW:54:ARG:HB2	1.84	0.42
52:BW:30:VAL:HG21	52:BW:59:PHE:CE1	2.54	0.42
23:BB:2366:A:H4'	52:BW:61:LYS:HE2	2.01	0.42
1:CA:994:A:N1	1:CA:1047:G:H4'	2.34	0.42
1:CA:1533:C:C6	1:CA:1534:A:H3'	2.55	0.42
1:CA:17:U:O2'	1:CA:1079:G:H1'	2.18	0.42
1:CA:236:A:H2'	1:CA:237:G:C8	2.54	0.42
1:CA:333:U:H2'	1:CA:334:C:H6	1.81	0.42
1:CA:658:C:H2'	1:CA:659:U:C6	2.54	0.42
1:CA:81:A:O2'	1:CA:82:G:H5'	2.19	0.42
20:CB:153:MET:O	20:CB:155:GLY:N	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CB:46:VAL:CG1	20:CB:47:PRO:HD3	2.34	0.42
2:CC:140:ALA:CB	2:CC:148:ILE:HD12	2.47	0.42
8:CI:29:ILE:CG1	8:CI:64:ILE:HD13	2.49	0.42
10:CK:22:ILE:HD13	10:CK:95:THR:CG2	2.49	0.42
12:CM:22:TYR:O	12:CM:69:ARG:NH2	2.52	0.42
13:CN:58:ARG:HH12	1:CA:980:C:H4'	1.82	0.42
19:CT:34:VAL:HG12	19:CT:78:LEU:HD22	2.01	0.42
22:DA:35:C:H2'	22:DA:36:C:C5'	2.48	0.42
23:DB:1092:C:H2'	23:DB:1093:G:C5'	2.48	0.42
23:DB:1192:G:C2'	23:DB:1193:G:H5'	2.49	0.42
23:DB:1416:G:O2'	23:DB:1417:C:H6	2.02	0.42
23:DB:1445:G:O2'	23:DB:1446:C:H5'	2.19	0.42
23:DB:1755:A:H2'	23:DB:1756:G:H5'	2.01	0.42
23:DB:231:A:H3'	23:DB:232:G:H8	1.83	0.42
23:DB:510:C:O2'	23:DB:1236:G:H5'	2.19	0.42
23:DB:26:G:H1'	23:DB:514:A:H61	1.84	0.42
23:DB:4:U:H2'	23:DB:5:A:H8	1.84	0.42
23:DB:827:U:H5'	23:DB:828:U:O5'	2.19	0.42
26:DD:100:LEU:HD13	26:DD:100:LEU:O	2.19	0.42
29:DE:2:GLU:C	29:DE:3:LEU:HD22	2.38	0.42
47:DF:33:ILE:HG22	47:DF:90:LEU:HD23	2.00	0.42
48:DG:28:LYS:O	48:DG:29:ASN:HB3	2.20	0.42
48:DG:7:PRO:O	48:DG:8:VAL:CB	2.67	0.42
40:DH:62:LEU:O	40:DH:63:ALA:C	2.56	0.42
40:DH:83:LYS:HA	40:DH:149:GLU:HB2	2.01	0.42
41:DJ:1:MET:HG2	41:DJ:2:LYS:HZ3	1.83	0.42
41:DJ:73:VAL:O	41:DJ:74:TYR:HB2	2.18	0.42
41:DJ:69:ARG:O	41:DJ:89:PHE:HB3	2.17	0.42
37:DL:4:ASN:HD22	37:DL:4:ASN:N	2.17	0.42
37:DL:78:ARG:HB2	37:DL:113:ALA:HB2	2.00	0.42
38:DM:123:LYS:O	38:DM:124:LEU:HG	2.18	0.42
38:DM:39:GLY:HA3	38:DM:126:ILE:HD11	2.01	0.42
42:DN:102:PHE:HD1	42:DN:102:PHE:N	2.17	0.42
45:DS:44:ALA:C	45:DS:46:LEU:H	2.21	0.42
45:DS:73:LYS:HE3	45:DS:74:ILE:H	1.84	0.42
23:DB:2336:A:N6	52:DW:40:ARG:HB2	2.34	0.42
51:DZ:71:LEU:HA	51:DZ:71:LEU:HD22	1.90	0.42
1:AA:977:A:N1	1:AA:1224:U:OP1	2.52	0.42
1:AA:1325:C:H2'	1:AA:1326:U:H6	1.84	0.42
1:AA:153:C:H2'	1:AA:154:U:C6	2.55	0.42
1:AA:291:U:O2'	1:AA:292:G:H5'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:957:U:H2'	1:AA:959:A:OP2	2.19	0.42
6:AG:70:PRO:HA	6:AG:141:HIS:CE1	2.55	0.42
6:AG:145:GLU:CD	6:AG:148:LYS:HD2	2.40	0.42
8:AI:34:LEU:HD11	8:AI:47:VAL:HG21	2.02	0.42
10:AK:15:VAL:HB	10:AK:78:ILE:CD1	2.50	0.42
36:B2:21:ARG:HG2	36:B2:31:LEU:HD21	2.00	0.42
22:BA:6:G:H2'	22:BA:7:G:C8	2.54	0.42
23:BB:1719:G:O2'	23:BB:1720:U:H5'	2.19	0.42
23:BB:1742:U:H2'	23:BB:1743:G:C8	2.54	0.42
23:BB:1745:A:H2'	23:BB:1746:A:H8	1.85	0.42
23:BB:1788:C:O2'	23:BB:1789:A:H5'	2.19	0.42
23:BB:1829:A:N3	25:BC:14:HIS:CE1	2.87	0.42
23:BB:1947:C:H2'	23:BB:1948:G:C8	2.54	0.42
23:BB:1993:U:H4'	26:BD:133:THR:HG22	2.01	0.42
23:BB:2098:U:O2'	23:BB:2099:U:H5'	2.19	0.42
23:BB:2142:A:H2'	23:BB:2143:C:O4'	2.20	0.42
23:BB:2144:G:N2	23:BB:2147:A:H5'	2.34	0.42
23:BB:2658:C:P	48:BG:159:LYS:HZ2	2.42	0.42
23:BB:2722:G:H4'	42:BN:4:ARG:HB2	2.01	0.42
23:BB:416:U:H2'	23:BB:417:C:H6	1.84	0.42
23:BB:6:A:H2'	23:BB:7:G:H8	1.83	0.42
25:BC:56:GLY:HA2	25:BC:212:TRP:C	2.39	0.42
29:BE:2:GLU:C	29:BE:3:LEU:HD22	2.39	0.42
47:BF:168:LEU:O	47:BF:169:LEU:CB	2.67	0.42
23:BB:2306:C:N4	47:BF:38:GLY:O	2.49	0.42
47:BF:90:LEU:HB3	47:BF:95:MET:HA	2.01	0.42
48:BG:54:ARG:O	48:BG:56:GLY:N	2.52	0.42
40:BH:90:LEU:CD2	40:BH:146:VAL:HG21	2.49	0.42
41:BJ:44:TYR:O	41:BJ:45:THR:CB	2.66	0.42
27:BK:60:ALA:HB2	27:BK:86:LEU:HA	2.00	0.42
23:BB:1250:G:OP2	37:BL:21:ARG:NH2	2.52	0.42
38:BM:124:LEU:HA	38:BM:125:PRO:HD3	1.90	0.42
38:BM:72:PRO:O	38:BM:73:ILE:HB	2.18	0.42
28:BP:92:ARG:O	28:BP:92:ARG:HG2	2.19	0.42
44:BQ:63:ARG:HH12	44:BQ:96:ASP:CB	2.32	0.42
45:BS:24:ILE:HD11	45:BS:36:LEU:HD11	2.01	0.42
52:BW:28:GLU:CG	52:BW:29:SER:H	2.29	0.42
52:BW:49:ASN:ND2	52:BW:60:ALA:N	2.67	0.42
23:BB:72:U:O4'	39:BX:51:ALA:HA	2.19	0.42
39:BX:56:LEU:HD13	39:BX:56:LEU:HA	1.90	0.42
39:BX:6:LEU:N	39:BX:6:LEU:HD22	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:BZ:20:HIS:O	51:BZ:21:ALA:HB3	2.20	0.42
51:BZ:71:LEU:HA	51:BZ:71:LEU:HD22	1.89	0.42
1:CA:1024:G:H2'	1:CA:1025:U:O4'	2.18	0.42
1:CA:1459:G:O2'	1:CA:1460:C:H5'	2.20	0.42
1:CA:373:A:O4'	1:CA:481:G:H1'	2.19	0.42
1:CA:495:A:H4'	1:CA:496:A:O5'	2.19	0.42
2:CC:76:ILE:O	2:CC:83:VAL:HG12	2.20	0.42
3:CD:25:ARG:O	3:CD:27:ILE:HG13	2.19	0.42
4:CE:113:VAL:CG2	4:CE:114:LEU:N	2.82	0.42
4:CE:114:LEU:HD13	4:CE:122:VAL:HG21	2.00	0.42
8:CI:17:ARG:O	8:CI:64:ILE:HA	2.20	0.42
9:CJ:59:LYS:HB2	9:CJ:62:ARG:NH2	2.34	0.42
13:CN:52:ARG:C	13:CN:54:SER:H	2.22	0.42
14:CO:55:GLY:O	14:CO:59:MET:HG3	2.19	0.42
15:CP:22:ALA:HB2	15:CP:32:PHE:HA	2.00	0.42
18:CS:51:HIS:CA	18:CS:56:HIS:HA	2.44	0.42
53:D6:129:ILE:O	53:D6:132:ILE:HB	2.19	0.42
22:DA:6:G:H2'	22:DA:7:G:C8	2.54	0.42
23:DB:102:U:HO2'	23:DB:103:A:P	2.41	0.42
23:DB:1099:G:C5'	24:DI:4:VAL:HG12	2.50	0.42
23:DB:110:G:O2'	23:DB:111:A:H5'	2.20	0.42
23:DB:1241:A:O4'	23:DB:1241:A:N3	2.52	0.42
23:DB:2674:G:H4'	27:DK:30:ARG:CD	2.49	0.42
23:DB:2720:U:H5''	28:DP:52:ARG:HH21	1.83	0.42
23:DB:2839:G:H2'	23:DB:2840:C:C6	2.54	0.42
23:DB:295:G:O2'	23:DB:296:U:H5'	2.19	0.42
23:DB:416:U:O2'	23:DB:417:C:H5'	2.18	0.42
23:DB:622:G:H2'	23:DB:623:C:H6	1.83	0.42
23:DB:816:C:O2'	23:DB:817:C:H5'	2.19	0.42
23:DB:92:U:H2'	23:DB:93:G:O4'	2.19	0.42
26:DD:114:LYS:HE3	26:DD:116:LYS:NZ	2.34	0.42
29:DE:149:ILE:HG23	29:DE:188:MET:HA	2.01	0.42
47:DF:121:PHE:HA	47:DF:127:TYR:HA	2.02	0.42
47:DF:128:SER:HB3	47:DF:154:THR:HG23	2.02	0.42
24:DI:72:THR:HG23	24:DI:112:LYS:HD2	2.01	0.42
24:DI:52:LEU:HD13	24:DI:81:LYS:NZ	2.34	0.42
41:DJ:55:ILE:HB	41:DJ:123:LYS:HB2	2.00	0.42
41:DJ:72:LYS:HD2	41:DJ:73:VAL:H	1.84	0.42
27:DK:13:ASN:HD21	27:DK:97:THR:CG2	2.32	0.42
43:DO:28:VAL:HG21	43:DO:106:LEU:HD21	2.01	0.42
28:DP:21:PRO:O	28:DP:91:VAL:HG21	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DS:17:VAL:O	45:DS:20:VAL:HG12	2.19	0.42
50:DT:34:VAL:HG11	50:DT:43:ILE:CD1	2.49	0.42
52:DW:67:LYS:HG3	52:DW:69:GLU:HG3	2.01	0.42
39:DX:2:LYS:H	39:DX:2:LYS:HG3	1.62	0.42
39:DX:6:LEU:HD22	39:DX:6:LEU:H	1.83	0.42
1:AA:27:G:O2'	1:AA:28:A:H5'	2.19	0.42
1:AA:489:C:H2'	1:AA:490:C:C6	2.55	0.42
1:AA:51:A:H5''	1:AA:52:C:C5'	2.46	0.42
1:AA:531:U:C6	1:AA:531:U:H5'	2.50	0.42
1:AA:677:U:H2'	1:AA:678:U:H6	1.84	0.42
1:AA:82:G:O6	1:AA:83:C:O2	2.36	0.42
1:AA:852:G:H2'	1:AA:853:C:C6	2.55	0.42
1:AA:948:C:O2'	1:AA:949:A:H5'	2.19	0.42
20:AB:209:VAL:HG23	20:AB:210:THR:H	1.84	0.42
2:AC:57:GLU:HB2	2:AC:64:ARG:CB	2.49	0.42
2:AC:78:LYS:CG	2:AC:81:GLU:HG2	2.26	0.42
3:AD:138:PRO:C	3:AD:140:ASP:H	2.23	0.42
3:AD:154:VAL:HG23	3:AD:155:LYS:N	2.31	0.42
4:AE:11:GLN:HB3	4:AE:116:VAL:HG12	2.02	0.42
4:AE:54:GLU:HB3	4:AE:56:PRO:HD2	2.01	0.42
6:AG:126:ALA:C	6:AG:128:GLU:H	2.23	0.42
14:AO:43:PHE:CD1	14:AO:56:LEU:HD22	2.54	0.42
53:B6:14:MET:CG	53:B6:129:ILE:HG23	2.48	0.42
53:B6:72:ASP:C	53:B6:74:ASN:H	2.23	0.42
53:B6:83:ILE:HG21	53:B6:90:LEU:HB2	2.00	0.42
53:B6:86:SER:C	53:B6:88:LEU:N	2.72	0.42
23:BB:1076:C:H2'	23:BB:1077:A:H8	1.84	0.42
23:BB:1241:A:O4'	23:BB:1241:A:N3	2.52	0.42
23:BB:1341:G:C2	23:BB:1398:C:H4'	2.54	0.42
23:BB:1654:A:O2'	26:BD:118:PHE:CB	2.68	0.42
23:BB:1665:A:O2'	23:BB:1666:G:H5'	2.19	0.42
23:BB:1779:U:C5	23:BB:1784:A:N7	2.84	0.42
23:BB:1792:G:O2'	23:BB:1793:C:H5'	2.19	0.42
23:BB:1927:A:H2'	23:BB:1928:A:C8	2.53	0.42
23:BB:237:C:O2'	23:BB:238:C:H5'	2.19	0.42
23:BB:2477:U:O2'	32:B4:2:LYS:HE3	2.19	0.42
23:BB:303:G:H2'	23:BB:304:U:H6	1.82	0.42
23:BB:265:A:N6	23:BB:427:U:O2'	2.52	0.42
26:BD:100:LEU:HD13	26:BD:100:LEU:O	2.18	0.42
26:BD:14:ILE:HA	28:BP:11:GLN:HE22	1.84	0.42
26:BD:46:ARG:HH22	26:BD:87:GLY:N	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BE:21:ARG:HH11	29:BE:106:LYS:HD3	1.84	0.42
23:BB:1081:U:C5'	24:BI:126:ARG:HD2	2.48	0.42
24:BI:14:ALA:CB	24:BI:50:LYS:HA	2.49	0.42
41:BJ:59:ALA:CB	41:BJ:101:ILE:HG13	2.49	0.42
37:BL:61:LEU:HA	37:BL:62:PRO:HD3	1.89	0.42
43:BO:35:ILE:HD11	43:BO:102:ARG:NE	2.34	0.42
28:BP:4:ILE:O	28:BP:5:LYS:HB3	2.18	0.42
49:BR:35:PHE:HB3	49:BR:37:GLU:OE1	2.19	0.42
23:BB:142:A:N3	50:BT:2:ILE:O	2.53	0.42
51:BZ:20:HIS:CD2	51:BZ:21:ALA:H	2.38	0.42
1:CA:100:G:H2'	1:CA:101:A:O4'	2.20	0.42
1:CA:1160:G:O2'	1:CA:1161:C:H5'	2.20	0.42
1:CA:1049:U:H1'	1:CA:1201:A:C5	2.54	0.42
1:CA:1451:U:O3'	1:CA:1452:C:H6	2.01	0.42
1:CA:338:A:H2'	1:CA:339:C:C6	2.54	0.42
1:CA:413:G:H2'	1:CA:428:G:H21	1.84	0.42
1:CA:812:G:C2'	1:CA:812:G:N3	2.81	0.42
20:CB:18:GLN:HG2	20:CB:189:ASN:HB3	2.00	0.42
20:CB:87:ASP:HB2	20:CB:224:ARG:HH22	1.83	0.42
6:CG:21:LEU:HG	6:CG:22:LEU:N	2.33	0.42
18:CS:49:ALA:HA	18:CS:57:VAL:O	2.20	0.42
18:CS:63:ASP:C	18:CS:65:MET:N	2.73	0.42
21:CU:34:ARG:HE	21:CU:36:PHE:N	2.16	0.42
21:CU:34:ARG:NE	21:CU:35:GLU:O	2.53	0.42
31:D0:27:LEU:H	31:D0:27:LEU:HD12	1.84	0.42
23:DB:1174:U:OP2	23:DB:1174:U:H6	2.02	0.42
23:DB:1299:G:H4'	23:DB:1301:A:C1'	2.50	0.42
23:DB:1516:G:O2'	23:DB:1517:G:H5'	2.19	0.42
23:DB:1439:A:C6	23:DB:1552:A:C5	3.08	0.42
23:DB:173:A:H2'	23:DB:174:U:H6	1.84	0.42
23:DB:2072:C:O2'	23:DB:2073:C:H5'	2.18	0.42
23:DB:2331:G:H2'	23:DB:2332:C:H6	1.85	0.42
23:DB:2832:U:H5''	23:DB:2834:G:H5'	2.00	0.42
23:DB:591:U:O2'	23:DB:592:A:H5'	2.19	0.42
23:DB:666:A:H2'	23:DB:667:U:C6	2.54	0.42
23:DB:670:A:H4'	37:DL:42:SER:HB2	2.01	0.42
23:DB:77:G:O4'	39:DX:55:THR:HG21	2.20	0.42
23:DB:81:G:H2'	23:DB:82:U:O4'	2.19	0.42
25:DC:270:ARG:HG2	25:DC:271:SER:N	2.34	0.42
12:CM:70:ARG:CZ	47:DF:136:ILE:HB	2.50	0.42
47:DF:151:LEU:HD12	47:DF:152:ASP:N	2.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DF:89:THR:O	47:DF:91:ARG:CZ	2.68	0.42
48:DG:120:ILE:HG12	48:DG:121:THR:N	2.35	0.42
48:DG:122:ALA:CA	48:DG:132:LEU:HA	2.47	0.42
24:DI:2:LYS:HB3	24:DI:2:LYS:HZ2	1.83	0.42
24:DI:49:GLU:HB3	24:DI:52:LEU:HD12	2.01	0.42
38:DM:112:LEU:O	38:DM:113:ALA:C	2.57	0.42
49:DR:2:TYR:CB	49:DR:42:ALA:HB2	2.42	0.42
44:DQ:111:LYS:HB2	49:DR:48:LYS:NZ	2.35	0.42
45:DS:55:ILE:HD12	45:DS:107:VAL:HG11	2.01	0.42
46:DU:51:LEU:H	46:DU:53:GLN:HE22	1.67	0.42
52:DW:39:GLN:HE21	52:DW:42:THR:HB	1.84	0.42
1:AA:596:A:H2'	1:AA:597:G:H8	1.84	0.42
1:AA:698:G:H2'	1:AA:699:C:H6	1.84	0.42
1:AA:708:C:H2'	1:AA:709:U:C6	2.55	0.42
1:AA:919:A:O2'	1:AA:920:U:H5'	2.19	0.42
1:AA:963:G:H2'	1:AA:964:A:H8	1.84	0.42
3:AD:196:GLU:HG2	3:AD:197:HIS:N	2.34	0.42
3:AD:55:ARG:HG3	3:AD:55:ARG:NH1	2.34	0.42
4:AE:52:ALA:HB2	4:AE:61:LYS:CE	2.41	0.42
8:AI:56:MET:C	8:AI:58:GLU:N	2.72	0.42
8:AI:15:ALA:O	8:AI:66:VAL:HA	2.20	0.42
11:AL:36:VAL:O	11:AL:36:VAL:HG23	2.19	0.42
13:AN:68:ARG:NH1	13:AN:71:GLY:H	2.17	0.42
16:AQ:75:VAL:CG2	16:AQ:76:ARG:N	2.82	0.42
23:BB:175:G:H2'	23:BB:176:A:C8	2.55	0.42
23:BB:1915:U:C4	23:BB:1916:A:H1'	2.55	0.42
23:BB:2236:U:O2'	23:BB:2237:G:H5'	2.18	0.42
23:BB:2291:U:H2'	23:BB:2292:U:H6	1.80	0.42
23:BB:2457:U:O2'	23:BB:2458:G:H5'	2.19	0.42
23:BB:2693:G:O2'	23:BB:2694:G:H5'	2.20	0.42
23:BB:494:G:O2'	23:BB:495:G:H5'	2.20	0.42
23:BB:817:C:H2'	23:BB:818:G:O4'	2.19	0.42
25:BC:66:PHE:HB3	25:BC:142:ASN:HD21	1.84	0.42
29:BE:147:LEU:O	29:BE:168:ASP:O	2.37	0.42
29:BE:160:ALA:C	29:BE:162:ARG:N	2.73	0.42
47:BF:37:MET:SD	47:BF:56:LEU:HD23	2.59	0.42
24:BI:37:PHE:HB2	24:BI:66:PHE:CZ	2.55	0.42
41:BJ:123:LYS:HB3	41:BJ:124:VAL:H	1.69	0.42
41:BJ:45:THR:H	41:BJ:46:PRO:CD	2.27	0.42
37:BL:61:LEU:CD1	37:BL:61:LEU:N	2.83	0.42
38:BM:66:ARG:HB2	38:BM:101:VAL:HG13	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BM:47:GLU:CD	38:BM:50:ARG:HH11	2.23	0.42
43:BO:62:LEU:CD1	43:BO:70:ALA:HA	2.48	0.42
50:BT:69:ARG:NE	50:BT:70:HIS:H	2.16	0.42
50:BT:9:LYS:N	50:BT:9:LYS:HD2	2.31	0.42
23:BB:1118:C:OP1	35:BV:84:PRO:HD2	2.19	0.42
52:BW:67:LYS:HG3	52:BW:69:GLU:HG3	2.01	0.42
51:BZ:71:LEU:O	51:BZ:74:ARG:HG2	2.19	0.42
1:CA:1326:U:H2'	1:CA:1327:C:C6	2.54	0.42
1:CA:1360:A:H2'	1:CA:1361:G:O4'	2.20	0.42
1:CA:1414:U:H2'	1:CA:1415:G:C8	2.54	0.42
1:CA:177:G:N3	1:CA:177:G:O4'	2.51	0.42
1:CA:255:G:H2'	1:CA:256:U:C6	2.54	0.42
1:CA:343:U:O2'	1:CA:344:A:H2'	2.18	0.42
1:CA:58:C:O2'	1:CA:59:A:H5'	2.19	0.42
1:CA:628:G:H2'	1:CA:629:A:H8	1.84	0.42
1:CA:708:C:H2'	1:CA:709:U:H6	1.83	0.42
1:CA:794:A:H2'	1:CA:795:C:C6	2.55	0.42
20:CB:27:LYS:HB3	20:CB:28:PRO:HD3	2.01	0.42
3:CD:115:GLN:HE22	1:CA:406:G:N2	2.14	0.42
3:CD:10:LEU:HD22	3:CD:62:ARG:CZ	2.50	0.42
3:CD:80:ARG:HG3	3:CD:81:LEU:N	2.35	0.42
6:CG:46:LEU:HG	6:CG:57:GLU:CG	2.49	0.42
7:CH:15:ASN:OD1	1:CA:875:U:H1'	2.19	0.42
7:CH:48:PHE:CB	7:CH:60:LEU:HD12	2.50	0.42
16:CQ:25:GLU:OE2	16:CQ:38:LYS:HD3	2.20	0.42
17:CR:20:ILE:HG13	17:CR:21:ASP:N	2.34	0.42
19:CT:56:ILE:O	19:CT:60:GLN:HG2	2.20	0.42
19:CT:85:LEU:N	19:CT:85:LEU:HD23	2.35	0.42
36:D2:13:ASN:O	36:D2:17:GLY:N	2.51	0.42
23:DB:1021:A:O2'	23:DB:1023:U:H5'	2.19	0.42
23:DB:124:G:O2'	23:DB:125:A:H5''	2.20	0.42
23:DB:138:U:O3'	23:DB:140:C:OP2	2.38	0.42
23:DB:1792:G:O2'	23:DB:1793:C:H5'	2.19	0.42
23:DB:1808:A:H5''	23:DB:1809:A:OP2	2.19	0.42
1:CA:1517:G:H1'	23:DB:1919:A:O3'	2.20	0.42
23:DB:193:U:O3'	23:DB:803:U:H4'	2.19	0.42
23:DB:2344:U:H4'	23:DB:2345:G:OP1	2.18	0.42
23:DB:2380:C:H2'	23:DB:2381:A:C8	2.54	0.42
23:DB:2553:G:H2'	23:DB:2554:U:C4'	2.49	0.42
23:DB:591:U:H1'	34:D3:1:PRO:N	2.34	0.42
23:DB:920:A:H2'	23:DB:921:C:C6	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DD:10:GLY:HA2	26:DD:26:VAL:HB	2.01	0.42
29:DE:46:GLN:CG	29:DE:87:ALA:HB3	2.48	0.42
47:DF:174:PHE:HB3	47:DF:176:PHE:HD1	1.84	0.42
47:DF:97:GLU:O	47:DF:100:GLU:HB3	2.19	0.42
40:DH:112:LYS:HA	40:DH:132:PHE:CE1	2.54	0.42
41:DJ:34:ARG:HG3	41:DJ:34:ARG:NH1	2.34	0.42
37:DL:28:GLY:O	37:DL:29:LYS:C	2.58	0.42
28:DP:92:ARG:HG2	28:DP:92:ARG:O	2.18	0.42
49:DR:55:ASP:OD2	49:DR:55:ASP:N	2.50	0.42
49:DR:86:GLN:HB2	49:DR:86:GLN:HE21	1.52	0.42
52:DW:45:HIS:ND1	52:DW:45:HIS:N	2.62	0.42
52:DW:79:ILE:HG22	52:DW:80:SER:N	2.34	0.42
52:DW:8:SER:O	52:DW:9:THR:CB	2.68	0.42
39:DX:40:SER:C	39:DX:42:LEU:N	2.71	0.42
23:DB:96:C:H4'	39:DX:41:HIS:CE1	2.54	0.42
23:DB:929:U:H1'	30:DY:25:GLY:O	2.18	0.42
1:AA:1004:A:H2'	1:AA:1005:A:C8	2.54	0.42
1:AA:1368:A:H5''	13:AN:100:TRP:HZ2	1.84	0.42
1:AA:152:A:N6	1:AA:170:U:C2	2.88	0.42
1:AA:370:C:H2'	1:AA:371:A:C8	2.54	0.42
1:AA:600:A:H2'	1:AA:601:G:C8	2.54	0.42
1:AA:707:U:H2'	1:AA:708:C:C6	2.54	0.42
1:AA:923:A:H2'	1:AA:924:C:H6	1.83	0.42
1:AA:960:U:O2'	1:AA:1223:C:H4'	2.20	0.42
20:AB:113:LEU:CD1	20:AB:147:LEU:HB2	2.50	0.42
20:AB:184:ALA:HB3	20:AB:195:VAL:CG2	2.46	0.42
2:AC:104:GLU:HG2	2:AC:105:VAL:H	1.85	0.42
2:AC:187:GLU:HB3	2:AC:194:VAL:CG1	2.50	0.42
4:AE:113:VAL:CG1	4:AE:136:VAL:HG23	2.47	0.42
5:AF:15:SER:HA	5:AF:18:VAL:HG23	2.01	0.42
6:AG:21:LEU:HG	6:AG:22:LEU:N	2.34	0.42
7:AH:68:LYS:HG3	7:AH:69:ALA:N	2.35	0.42
10:AK:22:ILE:HD13	10:AK:95:THR:CG2	2.50	0.42
16:AQ:74:LEU:HD13	16:AQ:74:LEU:C	2.40	0.42
18:AS:63:ASP:C	18:AS:65:MET:N	2.73	0.42
23:BB:2359:C:H4'	34:B3:53:ASP:OD2	2.19	0.42
32:B4:2:LYS:HG2	32:B4:4:ARG:HG3	2.01	0.42
53:B6:110:ARG:HG3	53:B6:110:ARG:HH11	1.85	0.42
53:B6:109:GLU:HG2	53:B6:112:LYS:NZ	2.35	0.42
53:B6:61:PRO:HG2	53:B6:67:VAL:HG13	2.00	0.42
22:BA:35:C:H2'	22:BA:36:C:C5'	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:578:G:H5'	23:BB:1254:A:OP1	2.19	0.42
23:BB:1289:C:H2'	23:BB:1290:C:H6	1.85	0.42
23:BB:1550:C:H2'	23:BB:1551:A:C8	2.54	0.42
23:BB:1720:U:O2'	23:BB:1721:G:H5'	2.20	0.42
23:BB:1759:A:H4'	23:BB:2715:C:O4'	2.20	0.42
23:BB:1853:A:H61	23:BB:2087:G:H1'	1.85	0.42
23:BB:2457:U:C2'	23:BB:2458:G:H5'	2.49	0.42
23:BB:2617:U:C2'	23:BB:2618:G:H5'	2.49	0.42
23:BB:2800:A:H2'	23:BB:2801:G:H1'	2.02	0.42
23:BB:291:G:O2'	23:BB:292:U:H5'	2.19	0.42
23:BB:972:A:OP1	23:BB:974:G:H5'	2.20	0.42
25:BC:140:VAL:HG11	25:BC:143:VAL:HG22	2.02	0.42
25:BC:245:THR:C	25:BC:247:TRP:N	2.73	0.42
26:BD:10:GLY:HA2	26:BD:26:VAL:HB	2.01	0.42
29:BE:145:ASP:HA	29:BE:166:LYS:HB3	2.00	0.42
29:BE:152:GLU:O	29:BE:153:LEU:HB3	2.18	0.42
47:BF:142:TYR:C	47:BF:144:LYS:H	2.23	0.42
47:BF:15:LEU:HD22	47:BF:167:ALA:HB1	2.01	0.42
48:BG:60:GLY:O	48:BG:62:ALA:N	2.51	0.42
40:BH:103:VAL:HG21	40:BH:110:VAL:N	2.29	0.42
40:BH:103:VAL:CG2	40:BH:110:VAL:HG22	2.49	0.42
40:BH:111:ALA:HB1	40:BH:114:GLU:OE2	2.19	0.42
41:BJ:72:LYS:HD2	41:BJ:73:VAL:H	1.85	0.42
41:BJ:77:HIS:CD2	41:BJ:83:GLY:HA3	2.55	0.42
37:BL:110:VAL:CG2	37:BL:127:VAL:HB	2.49	0.42
37:BL:40:SER:O	37:BL:41:ARG:HB2	2.19	0.42
28:BP:103:THR:HG22	28:BP:104:GLY:H	1.84	0.42
28:BP:6:GLN:O	28:BP:9:GLN:HG2	2.19	0.42
28:BP:75:THR:HG23	28:BP:76:HIS:ND1	2.34	0.42
45:BS:31:GLN:O	45:BS:35:ILE:HG12	2.20	0.42
45:BS:29:VAL:CA	45:BS:32:ALA:HB3	2.46	0.42
50:BT:69:ARG:HB3	50:BT:74:ILE:HA	2.01	0.42
52:BW:16:GLU:HB2	52:BW:17:ALA:H	1.75	0.42
23:BB:2353:G:H1'	52:BW:30:VAL:HG12	2.01	0.42
52:BW:22:VAL:HA	52:BW:68:PHE:HE2	1.83	0.42
1:CA:1015:G:O2'	1:CA:1016:A:H5'	2.19	0.42
1:CA:1053:G:H4'	1:CA:1054:C:H5'	2.02	0.42
1:CA:1058:G:H2'	1:CA:1059:C:H6	1.84	0.42
1:CA:1099:G:H2'	1:CA:1100:C:O4'	2.19	0.42
1:CA:1160:G:H2'	1:CA:1161:C:H6	1.85	0.42
1:CA:1245:C:H2'	1:CA:1246:A:H8	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1262:C:H2'	1:CA:1263:C:H6	1.85	0.42
1:CA:1268:G:H2'	1:CA:1269:A:C8	2.54	0.42
1:CA:1289:A:H5''	1:CA:1290:G:C8	2.54	0.42
1:CA:1521:C:O2'	1:CA:1522:U:H5'	2.20	0.42
1:CA:186:C:H2'	1:CA:187:G:O4'	2.19	0.42
1:CA:212:G:H2'	1:CA:213:G:H8	1.82	0.42
1:CA:556:C:O2'	1:CA:557:G:H5'	2.20	0.42
1:CA:966:G:H2'	1:CA:967:C:C6	2.55	0.42
20:CB:59:ILE:HG13	20:CB:59:ILE:H	1.74	0.42
20:CB:93:HIS:O	20:CB:94:ARG:C	2.57	0.42
2:CC:100:ILE:HG23	2:CC:100:ILE:O	2.18	0.42
2:CC:69:THR:O	2:CC:105:VAL:HG13	2.20	0.42
2:CC:48:LYS:CE	2:CC:48:LYS:H	2.33	0.42
3:CD:97:LEU:HD23	3:CD:117:VAL:CG1	2.49	0.42
5:CF:18:VAL:HG11	5:CF:58:HIS:NE2	2.35	0.42
8:CI:122:ARG:HG3	8:CI:122:ARG:HH11	1.83	0.42
11:CL:113:ARG:NH2	11:CL:120:ARG:HB3	2.35	0.42
13:CN:14:ALA:O	13:CN:18:LYS:HG3	2.19	0.42
15:CP:20:VAL:HG21	15:CP:32:PHE:CG	2.54	0.42
16:CQ:23:ALA:C	16:CQ:24:ILE:HD12	2.40	0.42
17:CR:32:ILE:HG22	17:CR:33:THR:O	2.19	0.42
17:CR:38:ILE:HD11	1:CA:719:C:H2'	2.02	0.42
34:D3:39:ARG:O	34:D3:43:LEU:HG	2.19	0.42
32:D4:7:VAL:HG13	32:D4:8:LYS:N	2.22	0.42
53:D6:19:GLU:HA	53:D6:22:GLU:CG	2.49	0.42
22:DA:14:U:H1'	22:DA:106:G:N2	2.34	0.42
23:DB:1275:A:C2'	23:DB:1276:A:O4'	2.67	0.42
23:DB:1515:A:H5'	23:DB:1557:C:H5'	2.00	0.42
23:DB:1733:G:H2'	23:DB:1734:G:H8	1.82	0.42
23:DB:1746:A:H2'	23:DB:1747:U:C6	2.54	0.42
23:DB:1637:A:H5'	23:DB:1760:C:O2'	2.19	0.42
23:DB:1947:C:H2'	23:DB:1948:G:C8	2.55	0.42
23:DB:2078:C:H2'	23:DB:2079:U:H6	1.82	0.42
23:DB:2144:G:H3'	23:DB:2145:C:H4'	2.02	0.42
23:DB:2199:A:H3'	23:DB:2200:C:H6	1.84	0.42
23:DB:374:A:H61	23:DB:400:G:H1'	1.83	0.42
23:DB:68:G:H2'	23:DB:69:C:H6	1.84	0.42
23:DB:766:U:H2'	23:DB:767:U:H6	1.84	0.42
23:DB:1820:U:OP1	25:DC:176:ARG:HD2	2.20	0.42
25:DC:221:GLY:O	25:DC:224:MET:HG3	2.19	0.42
25:DC:250:GLN:HG2	25:DC:254:LYS:CG	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DD:55:LYS:H	26:DD:75:ALA:HB1	1.85	0.42
29:DE:147:LEU:HD12	29:DE:149:ILE:HB	2.02	0.42
23:DB:674:G:C1'	29:DE:69:ARG:HD2	2.49	0.42
47:DF:69:ALA:HB3	47:DF:81:GLY:O	2.19	0.42
40:DH:30:LEU:O	40:DH:36:ALA:N	2.53	0.42
24:DI:140:GLU:CD	24:DI:140:GLU:H	2.23	0.42
41:DJ:123:LYS:HB3	41:DJ:124:VAL:H	1.69	0.42
27:DK:60:ALA:HA	27:DK:87:LEU:HG	2.00	0.42
37:DL:80:SER:HB3	37:DL:115:GLU:OE2	2.20	0.42
37:DL:124:GLY:CA	37:DL:143:GLU:HG3	2.46	0.42
37:DL:94:THR:O	37:DL:97:ALA:N	2.53	0.42
38:DM:41:LEU:CD1	38:DM:46:ILE:HG22	2.50	0.42
28:DP:27:VAL:HG12	28:DP:29:VAL:HG13	2.02	0.42
28:DP:4:ILE:CG2	28:DP:5:LYS:N	2.75	0.42
44:DQ:8:ILE:O	44:DQ:11:ALA:HB3	2.18	0.42
44:DQ:9:ALA:C	44:DQ:11:ALA:N	2.72	0.42
45:DS:7:HIS:HB3	45:DS:103:ILE:HB	2.00	0.42
46:DU:27:VAL:HB	46:DU:33:VAL:HG12	2.02	0.42
35:DV:11:GLU:HB2	35:DV:16:ALA:HB2	2.02	0.42
52:DW:42:THR:O	52:DW:43:LYS:HD3	2.19	0.42
51:DZ:65:ASP:O	51:DZ:69:ALA:N	2.51	0.42
1:AA:1308:U:O2'	1:AA:1309:G:H5'	2.18	0.42
1:AA:1329:A:O2'	1:AA:1330:U:H5'	2.20	0.42
1:AA:1396:A:C2	4:AE:23:THR:HG21	2.54	0.42
1:AA:546:A:H4'	1:AA:548:G:O3'	2.20	0.42
1:AA:656:G:H2'	1:AA:657:U:H6	1.85	0.42
1:AA:663:A:O2'	1:AA:664:G:H5'	2.19	0.42
1:AA:1107:C:OP1	2:AC:171:ARG:HB2	2.20	0.42
2:AC:65:VAL:HG21	2:AC:90:VAL:HG11	2.02	0.42
2:AC:91:ALA:HB2	2:AC:98:ALA:HB3	2.01	0.42
2:AC:63:ILE:O	2:AC:98:ALA:HA	2.20	0.42
3:AD:36:ALA:C	3:AD:38:GLY:N	2.73	0.42
5:AF:2:ARG:HG2	5:AF:3:HIS:H	1.85	0.42
9:AJ:5:ARG:N	9:AJ:77:VAL:HA	2.35	0.42
11:AL:106:VAL:CG2	11:AL:116:TYR:HB3	2.49	0.42
13:AN:49:THR:O	13:AN:50:LEU:HB3	2.20	0.42
13:AN:50:LEU:HG	13:AN:51:PRO:CD	2.49	0.42
15:AP:28:ARG:N	15:AP:28:ARG:CD	2.82	0.42
34:B3:37:THR:HA	34:B3:40:LYS:CE	2.48	0.42
23:BB:1021:A:O2'	23:BB:1023:U:H5'	2.20	0.42
23:BB:141:G:H5''	23:BB:142:A:N7	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1454:C:O2	23:BB:1454:C:O4'	2.35	0.42
23:BB:1582:C:H3'	23:BB:1583:A:C8	2.54	0.42
23:BB:15:G:O2'	23:BB:16:C:H5'	2.19	0.42
23:BB:1723:G:H2'	23:BB:1724:G:H5'	2.02	0.42
23:BB:1794:A:O2'	23:BB:1795:C:H5'	2.19	0.42
23:BB:1803:A:H2'	23:BB:1804:C:O4'	2.19	0.42
23:BB:1924:C:H6	23:BB:1924:C:O5'	2.03	0.42
23:BB:2379:G:H2'	23:BB:2380:C:C6	2.55	0.42
23:BB:2745:C:H3'	23:BB:2746:U:C6	2.55	0.42
23:BB:345:A:C1'	23:BB:346:A:H2	2.24	0.42
23:BB:392:U:H2'	23:BB:393:C:H6	1.84	0.42
23:BB:490:C:H3'	23:BB:491:G:H5''	2.01	0.42
23:BB:587:C:H4'	23:BB:588:U:C6	2.55	0.42
23:BB:649:G:H2'	23:BB:650:C:H6	1.82	0.42
23:BB:674:G:HO2'	29:BE:60:TRP:HH2	1.65	0.42
23:BB:682:G:H5'	36:B2:26:ASN:OD1	2.19	0.42
23:BB:950:G:H2'	23:BB:951:C:C6	2.55	0.42
25:BC:94:LEU:HD13	25:BC:100:ARG:HH11	1.85	0.42
26:BD:18:ASP:OD1	26:BD:19:GLY:N	2.53	0.42
47:BF:174:PHE:HB3	47:BF:176:PHE:HD1	1.84	0.42
40:BH:132:PHE:O	40:BH:140:ALA:HB3	2.20	0.42
40:BH:90:LEU:HD11	40:BH:124:THR:O	2.20	0.42
40:BH:94:ILE:HG22	40:BH:99:ILE:CD1	2.49	0.42
41:BJ:114:LEU:O	41:BJ:118:MET:HG3	2.20	0.42
27:BK:109:SER:O	27:BK:113:MET:HG2	2.19	0.42
1:AA:1422:G:H5'	27:BK:48:PRO:HB3	2.01	0.42
38:BM:112:LEU:O	38:BM:113:ALA:C	2.57	0.42
38:BM:67:VAL:HG13	38:BM:102:LEU:HA	2.01	0.42
43:BO:26:LEU:O	43:BO:26:LEU:HG	2.19	0.42
43:BO:30:ARG:HB3	43:BO:97:PHE:CE1	2.55	0.42
23:BB:533:G:H5'	44:BQ:23:TYR:CE2	2.54	0.42
45:BS:73:LYS:HD2	45:BS:73:LYS:HA	1.85	0.42
50:BT:2:ILE:N	50:BT:2:ILE:HD13	2.33	0.42
30:BY:8:GLN:O	30:BY:10:ARG:N	2.52	0.42
51:BZ:29:PHE:N	51:BZ:29:PHE:CD1	2.88	0.42
51:BZ:51:VAL:HG12	51:BZ:52:SER:H	1.83	0.42
1:CA:102:G:H2'	1:CA:103:U:C6	2.53	0.42
1:CA:108:G:N3	1:CA:108:G:O4'	2.52	0.42
1:CA:1133:G:H2'	1:CA:1134:G:H8	1.85	0.42
13:CN:66:THR:HG22	1:CA:1203:C:H4'	2.00	0.42
1:CA:1296:C:H4'	1:CA:1302:C:H41	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1426:G:H2'	1:CA:1427:C:C6	2.54	0.42
1:CA:537:G:H2'	1:CA:538:G:C8	2.55	0.42
1:CA:665:A:H2'	1:CA:725:G:N2	2.35	0.42
1:CA:911:U:H2'	1:CA:912:C:C6	2.55	0.42
20:CB:119:GLN:HE21	20:CB:119:GLN:HB3	1.66	0.42
5:CF:29:ILE:HG22	5:CF:34:GLY:CA	2.45	0.42
5:CF:4:TYR:CD2	5:CF:71:ILE:HG21	2.54	0.42
8:CI:44:ARG:HG2	8:CI:44:ARG:HH11	1.85	0.42
8:CI:80:HIS:O	8:CI:83:THR:HG22	2.19	0.42
11:CL:98:ARG:CB	11:CL:116:TYR:HA	2.47	0.42
11:CL:79:ILE:HD12	11:CL:96:THR:HG22	2.00	0.42
12:CM:38:ILE:HG13	12:CM:55:LEU:CD2	2.49	0.42
15:CP:20:VAL:HG23	15:CP:34:GLU:O	2.20	0.42
17:CR:31:TYR:C	17:CR:39:VAL:HG22	2.40	0.42
31:D0:39:ARG:HG3	31:D0:39:ARG:NH1	2.34	0.42
34:D3:31:ILE:HG23	34:D3:31:ILE:O	2.19	0.42
32:D4:2:LYS:O	32:D4:35:GLN:HA	2.20	0.42
53:D6:48:ALA:O	53:D6:50:VAL:HG22	2.20	0.42
22:DA:54:G:O2'	22:DA:55:U:H5'	2.20	0.42
22:DA:13:G:H1'	22:DA:69:G:N2	2.35	0.42
23:DB:1433:A:H2'	23:DB:1434:A:O4'	2.19	0.42
23:DB:1480:C:O2'	23:DB:1481:U:H5'	2.19	0.42
23:DB:1506:U:H2'	23:DB:1507:C:C6	2.54	0.42
23:DB:2026:U:H2'	23:DB:2027:G:C8	2.55	0.42
23:DB:2262:U:H4'	23:DB:2328:A:H2	1.85	0.42
23:DB:2600:A:O2'	23:DB:2601:C:H5'	2.19	0.42
23:DB:416:U:H2'	23:DB:417:C:H6	1.81	0.42
23:DB:637:A:H4'	23:DB:638:G:O5'	2.19	0.42
29:DE:152:GLU:O	29:DE:153:LEU:HB3	2.19	0.42
29:DE:48:THR:HG23	29:DE:51:GLU:CG	2.49	0.42
29:DE:62:GLN:HG2	29:DE:63:LYS:HG3	2.00	0.42
40:DH:109:GLU:O	40:DH:110:VAL:C	2.58	0.42
24:DI:131:THR:O	24:DI:135:MET:HG3	2.19	0.42
37:DL:103:ILE:H	37:DL:103:ILE:CD1	2.24	0.42
42:DN:101:GLY:O	42:DN:102:PHE:HB2	2.19	0.42
43:DO:26:LEU:HG	43:DO:26:LEU:O	2.20	0.42
28:DP:6:GLN:HA	28:DP:9:GLN:CG	2.49	0.42
49:DR:18:GLN:O	49:DR:98:ILE:HD13	2.19	0.42
50:DT:69:ARG:NE	50:DT:70:HIS:H	2.18	0.42
23:DB:470:A:N6	50:DT:72:GLN:HE22	2.12	0.42
39:DX:45:GLN:O	39:DX:47:ARG:N	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:DZ:20:HIS:CD2	51:DZ:21:ALA:H	2.38	0.42
1:AA:1028:C:H3'	1:AA:1029:U:N3	2.35	0.42
1:AA:1296:C:H4'	1:AA:1302:C:H41	1.84	0.42
1:AA:251:G:N2	1:AA:266:G:O6	2.52	0.42
1:AA:376:G:O2'	1:AA:377:G:H5'	2.19	0.42
1:AA:564:C:H1'	16:AQ:32:ILE:O	2.20	0.42
1:AA:58:C:O2'	1:AA:59:A:H5'	2.20	0.42
1:AA:602:A:H2'	1:AA:603:U:C6	2.54	0.42
1:AA:810:C:O2'	1:AA:811:C:H5'	2.20	0.42
1:AA:812:G:OP1	1:AA:812:G:C4'	2.65	0.42
1:AA:940:C:H2'	1:AA:941:G:C8	2.55	0.42
3:AD:156:ALA:O	3:AD:159:GLU:HB2	2.19	0.42
1:AA:429:U:C3'	3:AD:8:LEU:HD23	2.46	0.42
7:AH:4:ASP:CG	7:AH:76:ARG:HH12	2.23	0.42
9:AJ:31:ARG:HE	9:AJ:31:ARG:HB2	1.53	0.42
12:AM:75:SER:O	12:AM:78:ARG:HB3	2.20	0.42
21:AU:42:THR:C	21:AU:46:ARG:HG3	2.39	0.42
23:BB:2390:U:H3'	34:B3:34:LYS:HZ1	1.84	0.42
53:B6:133:ARG:O	53:B6:136:ALA:HB3	2.20	0.42
53:B6:77:LYS:O	53:B6:81:LYS:HG2	2.20	0.42
22:BA:78:A:H2'	22:BA:79:G:O4'	2.20	0.42
22:BA:92:C:O2'	22:BA:93:C:H5'	2.20	0.42
23:BB:1408:G:H2'	23:BB:1409:U:C6	2.54	0.42
23:BB:142:A:OP2	23:BB:142:A:H8	2.02	0.42
23:BB:1418:G:C2'	23:BB:1580:A:H61	2.32	0.42
23:BB:162:U:H6	23:BB:162:U:OP1	2.03	0.42
23:BB:1912:A:H61	23:BB:1918:A:H1'	1.84	0.42
23:BB:1987:A:H2'	23:BB:1988:G:H8	1.84	0.42
23:BB:2730:C:H2'	23:BB:2731:G:H8	1.83	0.42
23:BB:2893:A:C3'	23:BB:2894:G:H5'	2.50	0.42
23:BB:299:A:H2	23:BB:319:G:N3	2.18	0.42
23:BB:355:U:H2'	23:BB:356:G:C8	2.55	0.42
25:BC:134:ILE:CD1	25:BC:163:ILE:HG13	2.50	0.42
29:BE:2:GLU:HA	29:BE:2:GLU:OE1	2.19	0.42
27:BK:42:THR:O	27:BK:43:ILE:C	2.58	0.42
37:BL:132:ARG:HA	37:BL:135:ILE:HG21	2.02	0.42
22:BA:51:G:OP2	43:BO:64:TYR:HD2	2.02	0.42
28:BP:52:ARG:HB2	28:BP:55:HIS:O	2.19	0.42
49:BR:64:VAL:O	49:BR:95:ASP:HB2	2.20	0.42
45:BS:44:ALA:C	45:BS:46:LEU:H	2.23	0.42
50:BT:21:SER:O	50:BT:25:GLU:N	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BT:68:LYS:O	50:BT:69:ARG:HB3	2.19	0.42
52:BW:42:THR:O	52:BW:43:LYS:HD3	2.19	0.42
52:BW:46:ALA:O	52:BW:49:ASN:O	2.38	0.42
20:CB:96:LEU:HD22	1:CA:1103:C:OP1	2.19	0.42
1:CA:1257:A:H3'	1:CA:1258:G:H5'	2.01	0.42
1:CA:1426:G:O2'	1:CA:1427:C:H5'	2.20	0.42
1:CA:596:A:H2'	1:CA:597:G:H8	1.85	0.42
1:CA:830:G:H2'	1:CA:831:A:C8	2.55	0.42
20:CB:116:LEU:HA	20:CB:116:LEU:HD23	1.88	0.42
20:CB:68:PHE:HA	20:CB:161:PHE:O	2.19	0.42
2:CC:128:MET:HB2	2:CC:131:ARG:HH11	1.85	0.42
2:CC:146:LYS:HE3	2:CC:202:PHE:HE2	1.85	0.42
2:CC:155:ARG:HD2	2:CC:155:ARG:HA	1.66	0.42
8:CI:56:MET:C	8:CI:58:GLU:N	2.73	0.42
8:CI:83:THR:OG1	8:CI:97:LEU:HD22	2.19	0.42
13:CN:60:ARG:HG3	13:CN:62:ARG:CG	2.49	0.42
19:CT:2:ASN:CG	19:CT:3:ILE:N	2.73	0.42
34:D3:37:THR:HA	34:D3:40:LYS:CE	2.49	0.42
34:D3:54:LEU:O	34:D3:58:ILE:HG13	2.19	0.42
53:D6:150:SER:O	53:D6:151:GLU:C	2.57	0.42
23:DB:1198:U:O2'	44:DQ:3:VAL:HG13	2.20	0.42
23:DB:1275:A:N6	23:DB:1296:G:C4'	2.83	0.42
23:DB:1567:G:H2'	25:DC:84:PRO:HG3	2.02	0.42
23:DB:1723:G:C4	23:DB:1724:G:C8	3.07	0.42
23:DB:1936:A:C2	23:DB:1943:U:H5	2.37	0.42
23:DB:204:A:H4'	23:DB:205:G:OP1	2.19	0.42
23:DB:2098:U:H2'	23:DB:2099:U:O4'	2.19	0.42
23:DB:2236:U:O2'	23:DB:2237:G:H5'	2.19	0.42
23:DB:2329:U:H2'	23:DB:2330:G:H8	1.85	0.42
23:DB:2497:A:H5''	56:DB:3702:HOH:O	2.20	0.42
23:DB:2838:G:C4	23:DB:2839:G:C8	3.08	0.42
23:DB:660:C:H2'	23:DB:661:A:H8	1.83	0.42
23:DB:752:A:C6	23:DB:1781:U:H1'	2.55	0.42
29:DE:4:VAL:HG12	29:DE:6:LYS:N	2.35	0.42
47:DF:34:THR:O	47:DF:35:LEU:O	2.37	0.42
47:DF:64:PRO:HA	47:DF:88:VAL:HG21	2.00	0.42
40:DH:59:ALA:O	40:DH:62:LEU:HD22	2.20	0.42
27:DK:102:PRO:CA	27:DK:120:PRO:HB3	2.44	0.42
27:DK:64:ARG:HG2	27:DK:79:PHE:CG	2.54	0.42
38:DM:42:THR:C	38:DM:44:ARG:N	2.72	0.42
42:DN:118:ARG:HE	42:DN:118:ARG:HB3	1.63	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DP:23:ASP:HA	28:DP:88:ARG:HA	2.02	0.42
23:DB:534:U:H5'	44:DQ:41:ALA:HB1	2.02	0.42
35:DV:10:LYS:C	35:DV:11:GLU:HG3	2.40	0.42
52:DW:28:GLU:H	52:DW:31:LEU:HG	1.84	0.42
30:DY:7:THR:HG22	30:DY:9:THR:H	1.85	0.42
1:AA:113:G:H2'	1:AA:114:U:H6	1.83	0.42
1:AA:300:A:H1'	1:AA:565:U:O2	2.20	0.42
1:AA:386:C:C2'	1:AA:387:U:H5'	2.50	0.42
1:AA:68:G:H5'	1:AA:171:A:H1'	2.02	0.42
20:AB:112:ARG:HA	20:AB:115:ASP:OD2	2.20	0.42
20:AB:124:THR:C	20:AB:127:LYS:HE2	2.40	0.42
4:AE:125:LYS:HD2	4:AE:126:ALA:N	2.35	0.42
4:AE:156:ARG:HA	4:AE:158:LYS:HZ3	1.81	0.42
1:AA:1382:C:H4'	6:AG:78:ARG:NH1	2.34	0.42
8:AI:26:LYS:H	8:AI:61:ASP:HB3	1.84	0.42
10:AK:91:GLY:HA2	10:AK:94:SER:HB3	2.00	0.42
11:AL:2:THR:H	11:AL:5:GLN:HE21	1.66	0.42
11:AL:45:ASN:N	11:AL:45:ASN:HD22	2.18	0.42
23:BB:2815:C:HO2'	31:B0:40:HIS:CE1	2.37	0.42
53:B6:146:GLU:C	53:B6:148:HIS:H	2.22	0.42
23:BB:1785:A:H2'	23:BB:1787:A:N7	2.34	0.42
23:BB:207:A:H2'	23:BB:208:C:O4'	2.20	0.42
23:BB:215:G:H4'	23:BB:216:A:OP1	2.20	0.42
23:BB:755:U:H2'	23:BB:756:A:C8	2.55	0.42
22:BA:100:G:N2	23:BB:863:A:O3'	2.51	0.42
47:BF:34:THR:OG1	47:BF:154:THR:HB	2.19	0.42
40:BH:89:LYS:HB3	40:BH:90:LEU:H	1.62	0.42
41:BJ:73:VAL:HG23	41:BJ:74:TYR:N	2.29	0.42
23:BB:2641:G:H5''	41:BJ:78:THR:HB	2.02	0.42
37:BL:129:LYS:HA	37:BL:132:ARG:HG2	2.01	0.42
42:BN:31:HIS:C	42:BN:33:ILE:H	2.23	0.42
42:BN:43:GLU:O	42:BN:47:VAL:HG23	2.20	0.42
28:BP:89:GLY:HA2	28:BP:111:GLU:HA	2.02	0.42
49:BR:78:ARG:HG3	49:BR:78:ARG:HH21	1.85	0.42
50:BT:83:ALA:O	50:BT:84:TYR:HB2	2.19	0.42
1:CA:1102:A:H2'	1:CA:1103:C:C6	2.55	0.42
2:CC:193:GLY:H	1:CA:1206:G:C4'	2.32	0.42
1:CA:251:G:N2	1:CA:266:G:O6	2.53	0.42
1:CA:291:U:O2'	1:CA:292:G:H5'	2.20	0.42
1:CA:123:U:OP1	1:CA:312:C:H5'	2.20	0.42
2:CC:166:TRP:HB3	2:CC:167:TYR:H	1.63	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CC:57:GLU:HB2	2:CC:64:ARG:CB	2.50	0.42
3:CD:149:LYS:HD3	3:CD:177:MET:CG	2.50	0.42
6:CG:70:PRO:HA	6:CG:141:HIS:CE1	2.55	0.42
8:CI:20:ILE:HG23	8:CI:60:LEU:HD12	2.02	0.42
9:CJ:12:ALA:N	9:CJ:18:ILE:HD13	2.35	0.42
9:CJ:41:PRO:HG2	9:CJ:42:LEU:H	1.85	0.42
12:CM:56:ARG:HA	12:CM:59:VAL:HG12	2.02	0.42
13:CN:26:LEU:HA	13:CN:29:ILE:HD12	2.02	0.42
13:CN:61:ASN:O	13:CN:62:ARG:HB2	2.19	0.42
19:CT:64:GLY:O	19:CT:66:ILE:N	2.53	0.42
22:DA:46:A:H2'	22:DA:47:C:O4'	2.20	0.42
23:DB:1173:U:O2	23:DB:1176:U:O4	2.38	0.42
23:DB:1213:A:C6	23:DB:1237:A:H1'	2.55	0.42
23:DB:1439:A:H1'	23:DB:1553:A:N6	2.35	0.42
23:DB:1934:C:H4'	23:DB:1974:C:O3'	2.20	0.42
23:DB:20:C:O2'	23:DB:21:A:H5'	2.18	0.42
23:DB:2297:A:N6	23:DB:2319:G:H1'	2.34	0.42
23:DB:2461:A:H2'	23:DB:2462:C:H6	1.79	0.42
23:DB:2843:G:O2'	23:DB:2844:G:H5'	2.19	0.42
23:DB:381:G:O2'	23:DB:382:A:H5'	2.20	0.42
25:DC:175:LEU:HG	25:DC:181:ARG:HB2	2.00	0.42
25:DC:249:VAL:O	25:DC:250:GLN:C	2.58	0.42
23:DB:2811:G:P	26:DD:62:LYS:HD2	2.60	0.42
26:DD:8:LYS:HG2	26:DD:9:VAL:N	2.34	0.42
47:DF:118:ALA:HA	47:DF:176:PHE:CE2	2.55	0.42
47:DF:148:VAL:HG23	47:DF:149:ARG:N	2.34	0.42
41:DJ:64:VAL:O	41:DJ:65:THR:CB	2.68	0.42
27:DK:120:PRO:HA	28:DP:65:ASN:ND2	2.35	0.42
27:DK:24:VAL:HG13	27:DK:33:ALA:HB2	2.01	0.42
27:DK:58:LEU:N	27:DK:58:LEU:HD23	2.35	0.42
27:DK:63:VAL:HG21	27:DK:85:VAL:HG23	2.01	0.42
27:DK:59:LYS:HE3	27:DK:89:ASN:ND2	2.35	0.42
28:DP:62:LYS:HB3	28:DP:69:VAL:CG2	2.50	0.42
44:DQ:87:VAL:HG12	44:DQ:89:ILE:HD13	2.02	0.42
44:DQ:9:ALA:O	44:DQ:11:ALA:N	2.53	0.42
50:DT:12:ARG:O	50:DT:13:ALA:HB2	2.20	0.42
46:DU:81:ARG:HB3	46:DU:82:VAL:H	1.67	0.42
35:DV:65:VAL:O	35:DV:67:GLY:N	2.52	0.42
23:DB:200:U:H4'	51:DZ:22:LEU:HB2	2.02	0.42
1:AA:1230:C:H2'	1:AA:1231:G:H8	1.85	0.42
1:AA:1323:G:H4'	1:AA:1362:A:C5	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1426:G:H2'	1:AA:1427:C:H6	1.85	0.42
1:AA:1468:A:O2'	1:AA:1469:C:H5'	2.20	0.42
1:AA:179:A:H2'	1:AA:180:U:O4'	2.20	0.42
1:AA:554:A:H2'	1:AA:555:U:H6	1.84	0.42
1:AA:730:G:O2'	1:AA:766:A:H5'	2.20	0.42
2:AC:55:VAL:HG12	2:AC:56:ILE:N	2.35	0.42
3:AD:194:ILE:O	3:AD:194:ILE:HG23	2.20	0.42
3:AD:36:ALA:O	3:AD:38:GLY:N	2.53	0.42
4:AE:131:ASN:HD22	4:AE:134:ASN:H	1.67	0.42
4:AE:48:GLY:HA3	4:AE:66:ALA:HB2	2.01	0.42
6:AG:144:ALA:C	6:AG:146:ALA:N	2.74	0.42
18:AS:45:GLY:HA2	18:AS:60:PHE:CD1	2.55	0.42
19:AT:84:LYS:HD2	19:AT:84:LYS:N	2.35	0.42
31:B0:3:GLN:HE21	31:B0:3:GLN:HB3	1.63	0.42
33:B1:31:GLU:H	33:B1:31:GLU:CD	2.23	0.42
53:B6:147:LEU:HB2	53:B6:149:LEU:CD2	2.50	0.42
23:BB:1281:G:O2'	23:BB:1282:U:H5'	2.20	0.42
23:BB:1351:C:H2'	23:BB:1352:U:O4'	2.20	0.42
23:BB:1396:U:O2	23:BB:1396:U:O4'	2.36	0.42
23:BB:1443:U:H2'	23:BB:1444:G:C8	2.55	0.42
23:BB:2191:A:H2'	23:BB:2192:U:O4'	2.19	0.42
23:BB:2292:U:H2'	23:BB:2293:G:C8	2.55	0.42
23:BB:2461:A:H2'	23:BB:2462:C:H6	1.83	0.42
23:BB:2503:A:N3	23:BB:2503:A:H5'	2.35	0.42
23:BB:2598:A:OP1	25:BC:233:GLY:HA2	2.20	0.42
23:BB:2698:U:H2'	23:BB:2699:C:C6	2.55	0.42
23:BB:40:U:O2'	23:BB:41:C:H5'	2.19	0.42
23:BB:81:G:H2'	23:BB:82:U:O4'	2.20	0.42
23:BB:926:G:H2'	23:BB:927:A:C8	2.54	0.42
25:BC:270:ARG:HG2	25:BC:271:SER:N	2.34	0.42
26:BD:114:LYS:HE3	26:BD:116:LYS:NZ	2.35	0.42
29:BE:46:GLN:HG3	29:BE:87:ALA:CB	2.49	0.42
47:BF:105:ILE:O	47:BF:109:ARG:HB2	2.20	0.42
47:BF:71:LYS:HZ3	47:BF:73:VAL:HB	1.84	0.42
47:BF:79:ARG:HE	47:BF:79:ARG:N	2.18	0.42
48:BG:23:ILE:O	48:BG:34:ARG:HA	2.20	0.42
40:BH:139:PHE:O	40:BH:140:ALA:HB2	2.20	0.42
40:BH:78:VAL:HB	40:BH:143:ILE:HG13	2.01	0.42
41:BJ:40:HIS:ND1	41:BJ:41:LYS:N	2.67	0.42
38:BM:52:ALA:HB2	38:BM:123:LYS:HE3	2.01	0.42
38:BM:50:ARG:O	38:BM:53:MET:HB3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BN:38:LEU:O	42:BN:42:LYS:HG3	2.19	0.42
44:BQ:64:ILE:HD12	44:BQ:95:ALA:HB1	2.02	0.42
52:BW:32:ALA:O	52:BW:34:SER:N	2.52	0.42
52:BW:24:ARG:CZ	52:BW:65:LYS:HE3	2.50	0.42
52:BW:8:SER:O	52:BW:9:THR:CB	2.67	0.42
39:BX:35:GLY:O	39:BX:36:GLN:O	2.38	0.42
1:CA:1144:G:N2	1:CA:1146:A:H62	2.17	0.42
1:CA:114:U:O2'	1:CA:115:G:H5'	2.20	0.42
1:CA:1163:A:O2'	1:CA:1164:G:H5'	2.20	0.42
1:CA:1314:C:H2'	1:CA:1315:U:H6	1.84	0.42
1:CA:201:G:O2'	1:CA:202:G:H5'	2.20	0.42
1:CA:678:U:O2'	1:CA:679:C:H5'	2.19	0.42
1:CA:735:C:H2'	1:CA:736:C:H6	1.85	0.42
1:CA:747:A:C4	1:CA:748:G:H1'	2.55	0.42
1:CA:748:G:H2'	1:CA:749:A:H8	1.85	0.42
20:CB:145:ASN:N	20:CB:145:ASN:ND2	2.68	0.42
20:CB:94:ARG:HG2	20:CB:94:ARG:O	2.19	0.42
2:CC:137:VAL:HG13	2:CC:148:ILE:CG2	2.50	0.42
2:CC:181:ILE:HD12	2:CC:181:ILE:N	2.35	0.42
6:CG:129:ASN:HD22	6:CG:137:ARG:HH22	1.68	0.42
7:CH:36:ALA:HA	7:CH:39:LEU:HD12	2.02	0.42
7:CH:63:LYS:CD	7:CH:70:VAL:HG21	2.50	0.42
13:CN:12:ARG:HH21	13:CN:58:ARG:NH1	2.15	0.42
15:CP:51:ARG:NH1	15:CP:51:ARG:HG2	2.35	0.42
17:CR:44:THR:OG1	17:CR:46:THR:HG22	2.19	0.42
1:CA:1526:G:P	21:CU:38:GLU:HB3	2.59	0.42
53:D6:171:LYS:HZ3	53:D6:175:LEU:HD21	1.85	0.42
22:DA:31:C:C2	22:DA:32:U:C5	3.08	0.42
23:DB:1348:C:C3'	23:DB:1349:C:H5'	2.50	0.42
23:DB:1424:G:H2'	23:DB:1425:G:C8	2.54	0.42
23:DB:1581:G:O2'	23:DB:1582:C:H5'	2.20	0.42
23:DB:2075:U:H2'	23:DB:2238:G:N2	2.35	0.42
23:DB:208:C:H2'	23:DB:209:C:H6	1.83	0.42
23:DB:2233:U:H2'	23:DB:2234:G:C8	2.55	0.42
23:DB:2291:U:H2'	23:DB:2292:U:H6	1.79	0.42
23:DB:2457:U:O2'	23:DB:2458:G:H5'	2.19	0.42
23:DB:244:A:H2'	23:DB:245:G:O4'	2.19	0.42
23:DB:2628:C:O2'	23:DB:2781:A:H2'	2.19	0.42
23:DB:2784:U:H2'	23:DB:2785:C:C6	2.55	0.42
23:DB:360:U:H2'	23:DB:361:G:O4'	2.20	0.42
23:DB:711:G:O2'	23:DB:712:G:H5'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CO:89:ARG:NH2	23:DB:715:A:H5''	2.30	0.42
23:DB:738:G:H2'	23:DB:739:A:C8	2.55	0.42
23:DB:796:C:H2'	23:DB:797:G:C8	2.55	0.42
25:DC:74:PRO:HG2	25:DC:96:LYS:CG	2.49	0.42
25:DC:7:PRO:O	25:DC:9:SER:N	2.53	0.42
26:DD:114:LYS:HE3	26:DD:116:LYS:CG	2.50	0.42
26:DD:15:PHE:CD2	28:DP:77:SER:HA	2.55	0.42
26:DD:187:LEU:HD21	26:DD:203:VAL:HG21	2.01	0.42
47:DF:48:LEU:N	47:DF:48:LEU:HD23	2.35	0.42
48:DG:23:ILE:O	48:DG:34:ARG:HA	2.20	0.42
48:DG:60:GLY:O	48:DG:62:ALA:N	2.53	0.42
41:DJ:23:LYS:CE	41:DJ:142:ILE:HG12	2.50	0.42
41:DJ:74:TYR:HB2	41:DJ:87:ALA:O	2.20	0.42
27:DK:10:VAL:HG12	27:DK:12:ASP:H	1.85	0.42
27:DK:13:ASN:HD21	27:DK:98:ARG:H	1.68	0.42
37:DL:109:LYS:HB2	37:DL:111:ILE:HD11	2.02	0.42
38:DM:67:VAL:HG13	38:DM:102:LEU:HA	2.00	0.42
42:DN:106:ASP:C	42:DN:108:ALA:N	2.70	0.42
42:DN:24:MET:CG	42:DN:44:LEU:HD22	2.50	0.42
28:DP:89:GLY:HA2	28:DP:111:GLU:HA	2.02	0.42
44:DQ:94:LEU:O	44:DQ:97:ILE:HG23	2.19	0.42
49:DR:49:ILE:HG21	49:DR:54:VAL:N	2.34	0.42
50:DT:1:MET:HB2	50:DT:2:ILE:H	1.59	0.42
46:DU:3:LYS:HD3	46:DU:82:VAL:HB	2.02	0.42
52:DW:22:VAL:HA	52:DW:68:PHE:HE2	1.84	0.42
30:DY:12:ALA:HB2	30:DY:53:MET:CE	2.49	0.42
1:AA:1085:U:H3'	1:AA:1086:U:C6	2.55	0.41
1:AA:647:C:H2'	1:AA:648:A:H8	1.84	0.41
1:AA:929:G:O2'	1:AA:930:C:H5'	2.19	0.41
20:AB:98:GLY:C	20:AB:100:LEU:H	2.23	0.41
2:AC:137:VAL:HG13	2:AC:148:ILE:CG2	2.50	0.41
3:AD:10:LEU:HD22	3:AD:62:ARG:CZ	2.50	0.41
4:AE:114:LEU:HD13	4:AE:122:VAL:HG21	2.02	0.41
4:AE:151:MET:O	4:AE:154:ALA:HB3	2.19	0.41
5:AF:3:HIS:N	5:AF:3:HIS:CD2	2.87	0.41
7:AH:14:ARG:HE	7:AH:75:GLN:NE2	2.18	0.41
7:AH:9:MET:O	7:AH:13:ILE:HG13	2.20	0.41
11:AL:17:LYS:C	11:AL:17:LYS:HD2	2.40	0.41
11:AL:28:GLN:HB3	11:AL:28:GLN:HE21	1.57	0.41
16:AQ:30:HIS:C	16:AQ:32:ILE:H	2.23	0.41
16:AQ:32:ILE:HG23	16:AQ:33:TYR:CD2	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:B3:21:PHE:CE1	34:B3:58:ILE:HG12	2.55	0.41
23:BB:2390:U:H3'	34:B3:34:LYS:NZ	2.35	0.41
53:B6:2:THR:OG1	53:B6:5:GLU:HG3	2.20	0.41
22:BA:13:G:H2'	22:BA:70:C:O2'	2.20	0.41
23:BB:1278:C:O2'	23:BB:1279:G:H5'	2.20	0.41
23:BB:1439:A:C6	23:BB:1552:A:C5	3.08	0.41
23:BB:1910:G:C5	23:BB:1921:G:N2	2.88	0.41
23:BB:2346:A:O4'	23:BB:2383:G:O4'	2.38	0.41
23:BB:2380:C:H2'	23:BB:2381:A:C8	2.54	0.41
23:BB:2839:G:H2'	23:BB:2840:C:C6	2.55	0.41
23:BB:587:C:C6	23:BB:671:C:H1'	2.54	0.41
23:BB:922:C:HO2'	52:BW:25:PHE:HZ	1.64	0.41
25:BC:132:ARG:O	25:BC:132:ARG:HG3	2.19	0.41
25:BC:43:ASN:ND2	25:BC:44:ASN:N	2.65	0.41
26:BD:35:THR:N	26:BD:49:GLN:O	2.53	0.41
29:BE:147:LEU:HD12	29:BE:149:ILE:HB	2.01	0.41
29:BE:37:ALA:C	29:BE:39:ALA:N	2.73	0.41
47:BF:169:LEU:HA	47:BF:172:PHE:HD2	1.84	0.41
47:BF:89:THR:O	47:BF:91:ARG:CZ	2.68	0.41
27:BK:115:ILE:C	27:BK:117:SER:N	2.74	0.41
38:BM:42:THR:C	38:BM:44:ARG:N	2.73	0.41
23:BB:1454:C:O2	42:BN:63:ARG:HG2	2.19	0.41
42:BN:76:VAL:HA	42:BN:79:LEU:HD12	2.00	0.41
44:BQ:89:ILE:HB	49:BR:11:GLN:NE2	2.34	0.41
45:BS:24:ILE:O	45:BS:25:ARG:C	2.58	0.41
50:BT:11:LEU:CD2	50:BT:11:LEU:H	2.16	0.41
46:BU:11:ILE:O	46:BU:12:VAL:CB	2.68	0.41
52:BW:39:GLN:O	52:BW:56:HIS:HB3	2.20	0.41
52:BW:49:ASN:CB	52:BW:81:ILE:HG12	2.50	0.41
51:BZ:70:GLU:HA	51:BZ:73:ALA:CB	2.50	0.41
1:CA:1263:C:H2'	1:CA:1264:U:H6	1.85	0.41
1:CA:537:G:H2'	1:CA:538:G:H8	1.85	0.41
1:CA:633:G:H2'	1:CA:634:C:H6	1.85	0.41
1:CA:784:A:H2'	1:CA:785:G:H8	1.84	0.41
1:CA:663:A:H5'	1:CA:836:G:OP1	2.19	0.41
1:CA:947:G:H2'	1:CA:948:C:H6	1.85	0.41
20:CB:10:LYS:CB	20:CB:211:LEU:HD21	2.50	0.41
20:CB:14:HIS:ND1	20:CB:15:PHE:N	2.67	0.41
20:CB:45:THR:HG22	20:CB:49:PHE:CE1	2.55	0.41
3:CD:149:LYS:HD3	3:CD:177:MET:HG2	2.02	0.41
3:CD:61:ARG:HG3	3:CD:71:PHE:CG	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CE:148:SER:HB2	4:CE:149:PRO:HD2	2.02	0.41
10:CK:113:THR:HG21	21:CU:28:LEU:CD1	2.49	0.41
14:CO:70:LEU:HD12	14:CO:78:TYR:HB2	2.01	0.41
16:CQ:28:VAL:O	16:CQ:36:PHE:HA	2.20	0.41
18:CS:40:PHE:HB3	18:CS:41:PRO:HD2	2.01	0.41
18:CS:45:GLY:HA2	18:CS:60:PHE:CD1	2.55	0.41
53:D6:73:GLN:O	53:D6:76:LEU:HB2	2.20	0.41
23:DB:1060:U:O4	24:DI:131:THR:HG22	2.20	0.41
23:DB:1068:G:C6	23:DB:1069:A:N6	2.88	0.41
23:DB:1317:G:H2'	23:DB:1318:U:C6	2.54	0.41
23:DB:1565:C:H5''	25:DC:17:LYS:HZ3	1.83	0.41
23:DB:1577:C:H2'	23:DB:1578:U:C6	2.55	0.41
23:DB:2022:U:O2'	23:DB:2617:U:H5'	2.20	0.41
23:DB:2023:C:O2'	23:DB:2024:G:H5'	2.19	0.41
23:DB:2056:G:N3	23:DB:2056:G:H2'	2.35	0.41
23:DB:2383:G:H2'	23:DB:2384:U:H6	1.85	0.41
23:DB:2766:A:N3	23:DB:2766:A:H2'	2.35	0.41
23:DB:2815:C:H2'	23:DB:2816:G:H8	1.84	0.41
23:DB:696:G:O2'	23:DB:697:G:H5'	2.20	0.41
23:DB:925:A:O2'	23:DB:926:G:H5'	2.20	0.41
26:DD:14:ILE:O	26:DD:14:ILE:HG23	2.20	0.41
26:DD:24:VAL:HA	26:DD:189:VAL:O	2.20	0.41
26:DD:4:LEU:HD23	26:DD:101:PHE:CE1	2.55	0.41
26:DD:61:THR:O	26:DD:64:GLU:HB2	2.20	0.41
26:DD:31:ALA:HA	26:DD:96:ILE:O	2.20	0.41
29:DE:187:VAL:O	29:DE:188:MET:HB3	2.20	0.41
29:DE:37:ALA:C	29:DE:39:ALA:N	2.73	0.41
47:DF:110:ILE:HD12	47:DF:112:ASP:CA	2.50	0.41
47:DF:127:TYR:HB2	47:DF:155:ILE:CD1	2.48	0.41
48:DG:82:PHE:HB2	48:DG:134:GLY:O	2.20	0.41
40:DH:133:GLN:HA	40:DH:139:PHE:CA	2.49	0.41
40:DH:94:ILE:HG22	40:DH:94:ILE:O	2.20	0.41
40:DH:99:ILE:H	40:DH:99:ILE:HG13	1.64	0.41
41:DJ:96:ARG:N	41:DJ:97:PRO:HD3	2.34	0.41
38:DM:26:VAL:HG21	38:DM:133:LYS:HA	2.00	0.41
38:DM:55:ARG:O	38:DM:55:ARG:HG2	2.20	0.41
28:DP:49:ILE:CD1	28:DP:50:ARG:HG2	2.50	0.41
27:DK:76:VAL:HB	28:DP:72:VAL:CG2	2.50	0.41
46:DU:73:ASN:ND2	46:DU:74:ALA:N	2.68	0.41
35:DV:63:ILE:N	35:DV:63:ILE:HD12	2.35	0.41
1:AA:1053:G:H4'	1:AA:1054:C:H5'	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:117:G:H2'	1:AA:118:U:O4'	2.19	0.41
1:AA:366:A:H1'	1:AA:395:C:O2	2.20	0.41
1:AA:827:U:H2'	1:AA:870:U:O4	2.20	0.41
1:AA:903:G:H2'	1:AA:904:U:C6	2.55	0.41
1:AA:920:U:H2'	1:AA:921:U:H6	1.77	0.41
1:AA:966:G:H2'	1:AA:967:C:C6	2.55	0.41
4:AE:104:ILE:HD11	4:AE:114:LEU:HB2	2.01	0.41
11:AL:113:ARG:NH2	11:AL:120:ARG:HB3	2.35	0.41
13:AN:60:ARG:NH2	13:AN:69:PRO:HB3	2.36	0.41
36:B2:9:VAL:HG13	36:B2:10:LEU:N	2.36	0.41
34:B3:20:GLY:HA3	34:B3:48:MET:CE	2.49	0.41
53:B6:83:ILE:HG22	53:B6:90:LEU:N	2.32	0.41
22:BA:47:C:H5'	22:BA:48:U:OP2	2.20	0.41
23:BB:1007:C:H4'	41:BJ:110:PRO:HB3	2.02	0.41
23:BB:1080:A:H2'	23:BB:1081:U:C6	2.54	0.41
23:BB:1210:G:H5''	23:BB:1211:C:H3'	2.03	0.41
23:BB:1220:G:H2'	23:BB:1221:C:H6	1.85	0.41
23:BB:1228:G:O2'	23:BB:1229:C:H5'	2.20	0.41
23:BB:1607:C:H4'	23:BB:1608:A:O5'	2.20	0.41
23:BB:2049:G:O2'	23:BB:2050:C:H5'	2.19	0.41
23:BB:2060:A:HO2'	23:BB:2061:G:P	2.42	0.41
23:BB:2329:U:H2'	23:BB:2330:G:H8	1.85	0.41
23:BB:2371:G:C2'	23:BB:2372:U:H5''	2.48	0.41
23:BB:2372:U:H6	23:BB:2372:U:H5'	1.85	0.41
23:BB:2489:U:O2'	23:BB:2490:G:H5'	2.20	0.41
23:BB:2602:A:H3'	23:BB:2602:A:OP1	2.20	0.41
23:BB:672:C:O2'	23:BB:673:C:H5'	2.20	0.41
23:BB:686:U:O2	36:B2:8:SER:HB3	2.20	0.41
23:BB:947:A:H2'	23:BB:948:C:H6	1.85	0.41
23:BB:965:C:O2'	23:BB:2272:U:H6	2.02	0.41
23:BB:988:A:H2'	30:BY:13:ILE:HD11	2.02	0.41
25:BC:29:PHE:C	25:BC:31:PRO:HD2	2.40	0.41
26:BD:131:ASP:C	26:BD:133:THR:H	2.23	0.41
47:BF:134:GLN:HE21	47:BF:134:GLN:HB3	1.53	0.41
24:BI:32:VAL:HG22	24:BI:60:VAL:HG21	2.02	0.41
24:BI:91:LYS:O	24:BI:94:LYS:HB2	2.20	0.41
37:BL:6:LEU:N	37:BL:6:LEU:HD23	2.33	0.41
38:BM:2:LEU:HD11	38:BM:68:PHE:HE1	1.84	0.41
28:BP:103:THR:H	28:BP:107:ALA:HB2	1.85	0.41
28:BP:27:VAL:HG12	28:BP:29:VAL:HG13	2.01	0.41
49:BR:41:ILE:HG12	49:BR:47:VAL:HB	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:923:G:N3	52:BW:23:LYS:HE3	2.35	0.41
1:CA:1133:G:H2'	1:CA:1134:G:C8	2.54	0.41
9:CJ:41:PRO:HB2	1:CA:1151:A:O4'	2.19	0.41
1:CA:179:A:H2'	1:CA:180:U:C6	2.56	0.41
1:CA:63:C:H5'	1:CA:64:G:OP2	2.20	0.41
1:CA:832:G:O2'	1:CA:833:G:H5'	2.20	0.41
1:CA:929:G:O2'	1:CA:930:C:H5'	2.20	0.41
1:CA:963:G:H2'	1:CA:964:A:H8	1.85	0.41
20:CB:112:ARG:HA	20:CB:115:ASP:OD2	2.19	0.41
20:CB:138:ARG:HA	20:CB:141:GLU:CD	2.40	0.41
6:CG:49:LEU:CD2	6:CG:60:ALA:HB1	2.43	0.41
6:CG:63:VAL:HA	6:CG:66:GLU:OE2	2.20	0.41
8:CI:34:LEU:HD11	8:CI:47:VAL:HG21	2.02	0.41
9:CJ:40:ILE:O	9:CJ:72:ARG:HA	2.20	0.41
12:CM:47:LEU:HD13	12:CM:48:SER:H	1.85	0.41
13:CN:1:ALA:H2	1:CA:1049:U:H5	1.69	0.41
15:CP:78:VAL:O	15:CP:78:VAL:HG13	2.19	0.41
19:CT:73:ARG:HG3	19:CT:74:HIS:N	2.34	0.41
32:D4:13:ASN:OD1	32:D4:29:ALA:HB2	2.20	0.41
23:DB:1019:U:O2'	23:DB:1021:A:C2	2.71	0.41
23:DB:1099:G:C8	24:DI:3:LYS:O	2.73	0.41
23:DB:1389:G:O2'	23:DB:1390:U:H5'	2.19	0.41
23:DB:694:U:OP1	23:DB:1569:A:H1'	2.20	0.41
23:DB:198:C:H2'	23:DB:199:A:H5"	2.01	0.41
23:DB:2659:G:C2	23:DB:2661:G:H5"	2.55	0.41
23:DB:418:C:H2'	23:DB:419:U:H6	1.84	0.41
23:DB:492:A:H2'	23:DB:493:G:O4'	2.20	0.41
25:DC:196:ASN:HB3	25:DC:197:ALA:H	1.68	0.41
25:DC:244:VAL:HB	25:DC:249:VAL:N	2.34	0.41
26:DD:107:VAL:O	26:DD:174:SER:O	2.38	0.41
23:DB:2578:G:N2	26:DD:130:GLN:HE22	2.16	0.41
26:DD:61:THR:CB	26:DD:63:PRO:HD2	2.50	0.41
29:DE:21:ARG:HE	29:DE:106:LYS:HB3	1.85	0.41
29:DE:160:ALA:C	29:DE:162:ARG:N	2.73	0.41
29:DE:200:LEU:O	29:DE:201:ALA:HB3	2.21	0.41
40:DH:32:PRO:HB3	51:DZ:39:TRP:HB3	2.02	0.41
41:DJ:1:MET:C	41:DJ:2:LYS:HZ3	2.24	0.41
41:DJ:83:GLY:O	41:DJ:84:ILE:C	2.59	0.41
27:DK:115:ILE:C	27:DK:117:SER:N	2.74	0.41
27:DK:99:ILE:CD1	27:DK:118:LEU:HD22	2.43	0.41
38:DM:11:LYS:HD3	38:DM:86:LYS:HG2	2.00	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DO:111:ARG:HH21	43:DO:117:PHE:C	2.22	0.41
28:DP:24:THR:N	28:DP:87:ARG:O	2.52	0.41
44:DQ:77:LYS:HE2	44:DQ:116:LEU:CD2	2.50	0.41
44:DQ:69:ARG:HH21	44:DQ:69:ARG:HB2	1.85	0.41
45:DS:73:LYS:HD2	45:DS:73:LYS:HA	1.81	0.41
39:DX:33:ALA:CB	50:DT:14:PRO:HD2	2.49	0.41
46:DU:13:LEU:HA	46:DU:18:LYS:HD3	2.02	0.41
46:DU:88:ASP:CG	46:DU:89:GLY:N	2.73	0.41
35:DV:29:ILE:HD13	35:DV:31:TYR:HE2	1.85	0.41
30:DY:46:MET:HB3	30:DY:46:MET:HE2	1.84	0.41
30:DY:43:ILE:O	30:DY:47:ILE:HG12	2.19	0.41
51:DZ:70:GLU:HA	51:DZ:73:ALA:CB	2.51	0.41
1:AA:1103:C:O5'	1:AA:1103:C:H6	2.03	0.41
1:AA:922:G:O2'	1:AA:1398:A:N1	2.44	0.41
1:AA:271:C:H2'	1:AA:272:C:H6	1.84	0.41
1:AA:279:A:H5'	1:AA:281:G:H5'	2.03	0.41
1:AA:402:G:O2'	1:AA:403:C:H5'	2.21	0.41
1:AA:293:G:H4'	1:AA:609:A:N1	2.35	0.41
1:AA:643:C:H2'	1:AA:644:U:C6	2.56	0.41
1:AA:578:C:O2	1:AA:728:A:H2	2.04	0.41
20:AB:31:PHE:HB3	20:AB:39:ILE:O	2.20	0.41
7:AH:39:LEU:HD21	7:AH:128:VAL:HG21	2.02	0.41
8:AI:87:MET:HB2	8:AI:94:ARG:HD3	2.02	0.41
11:AL:72:ASN:ND2	11:AL:104:SER:HB3	2.32	0.41
13:AN:50:LEU:HD23	13:AN:51:PRO:HD3	2.01	0.41
16:AQ:25:GLU:OE2	16:AQ:38:LYS:HD3	2.20	0.41
16:AQ:28:VAL:O	16:AQ:36:PHE:HA	2.20	0.41
19:AT:81:GLN:C	19:AT:83:ASN:H	2.23	0.41
31:B0:27:LEU:HD12	31:B0:27:LEU:H	1.85	0.41
53:B6:7:TYR:CZ	53:B6:160:GLU:HG2	2.55	0.41
53:B6:92:PRO:HG3	53:B6:101:ILE:HG12	2.02	0.41
23:BB:120:U:H5''	23:BB:122:G:OP2	2.21	0.41
23:BB:1324:G:H1'	23:BB:1616:A:C6	2.56	0.41
23:BB:1460:U:H5''	23:BB:1461:C:C6	2.55	0.41
23:BB:1526:C:H2'	23:BB:1527:G:O4'	2.21	0.41
23:BB:1958:C:O2'	23:BB:1959:G:H5'	2.20	0.41
23:BB:2038:G:H2'	23:BB:2039:U:H6	1.86	0.41
23:BB:204:A:H4'	23:BB:205:G:OP1	2.21	0.41
23:BB:2751:G:H3'	23:BB:2752:C:H6	1.85	0.41
23:BB:920:A:H2'	23:BB:921:C:C6	2.55	0.41
26:BD:4:LEU:HD21	26:BD:100:LEU:HB3	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BE:130:LYS:HB2	29:BE:133:LEU:HG	2.01	0.41
29:BE:188:MET:HG2	29:BE:193:VAL:CG2	2.50	0.41
29:BE:46:GLN:CG	29:BE:87:ALA:HB3	2.50	0.41
47:BF:102:LEU:HD13	47:BF:102:LEU:O	2.20	0.41
47:BF:10:GLU:O	47:BF:13:LYS:HG3	2.20	0.41
47:BF:7:TYR:HA	47:BF:11:VAL:HB	2.01	0.41
47:BF:90:LEU:HB3	47:BF:95:MET:CB	2.51	0.41
40:BH:116:ARG:CD	40:BH:131:SER:HB2	2.51	0.41
40:BH:27:ARG:HH11	51:BZ:64:ILE:HD11	1.85	0.41
27:BK:104:THR:HB	27:BK:106:GLU:OE1	2.20	0.41
27:BK:10:VAL:HG12	27:BK:12:ASP:H	1.85	0.41
27:BK:35:VAL:HG12	27:BK:69:VAL:HG22	2.01	0.41
22:BA:48:U:O2'	43:BO:100:HIS:HE1	2.04	0.41
23:BB:996:A:H4'	44:BQ:91:ARG:HG2	2.03	0.41
49:BR:49:ILE:HG21	49:BR:54:VAL:N	2.36	0.41
45:BS:36:LEU:HA	45:BS:39:THR:OG1	2.19	0.41
45:BS:59:GLU:H	45:BS:59:GLU:HG2	1.76	0.41
50:BT:22:THR:O	50:BT:26:LYS:HG2	2.20	0.41
50:BT:7:LEU:HD22	50:BT:9:LYS:HE3	2.02	0.41
46:BU:86:PHE:HD1	46:BU:90:LYS:HB2	1.83	0.41
52:BW:65:LYS:HZ3	52:BW:84:GLU:HB2	1.85	0.41
30:BY:16:LEU:HD23	30:BY:19:HIS:NE2	2.35	0.41
1:CA:1291:U:H2'	1:CA:1292:G:C8	2.55	0.41
1:CA:1325:C:H2'	1:CA:1326:U:H6	1.85	0.41
1:CA:178:C:O2'	1:CA:179:A:H5'	2.20	0.41
1:CA:23:C:O2'	1:CA:24:U:H5'	2.21	0.41
1:CA:316:C:H2'	1:CA:317:U:C6	2.54	0.41
1:CA:572:A:N3	1:CA:917:G:H1'	2.36	0.41
1:CA:647:C:H2'	1:CA:648:A:H8	1.85	0.41
1:CA:731:G:O2'	1:CA:732:C:H5'	2.20	0.41
20:CB:17:HIS:NE2	20:CB:204:ASP:HB2	2.35	0.41
20:CB:93:HIS:O	20:CB:94:ARG:O	2.38	0.41
3:CD:36:ALA:O	3:CD:38:GLY:N	2.53	0.41
5:CF:3:HIS:CD2	5:CF:3:HIS:N	2.88	0.41
7:CH:23:ALA:HA	7:CH:62:LEU:H	1.85	0.41
10:CK:81:LEU:HD21	10:CK:104:PHE:HB3	2.03	0.41
11:CL:23:LEU:C	11:CL:25:ALA:H	2.23	0.41
12:CM:84:CYS:HA	18:CS:72:GLU:O	2.20	0.41
16:CQ:30:HIS:C	16:CQ:32:ILE:H	2.23	0.41
18:CS:20:LYS:HE3	18:CS:20:LYS:HB3	1.80	0.41
32:D4:9:LYS:H	32:D4:9:LYS:HD3	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:48:U:O2'	43:DO:100:HIS:HE1	2.03	0.41
22:DA:76:G:O2'	22:DA:77:U:H5'	2.20	0.41
23:DB:1013:C:H2'	23:DB:1014:A:H8	1.84	0.41
23:DB:1035:U:O2'	23:DB:1036:G:H5'	2.20	0.41
23:DB:1038:G:H2'	23:DB:1039:A:C8	2.53	0.41
23:DB:1176:U:OP2	23:DB:1176:U:H6	2.03	0.41
23:DB:1197:G:C4	23:DB:1198:U:C5	3.08	0.41
23:DB:1716:U:H2'	23:DB:1717:A:C8	2.55	0.41
23:DB:1759:A:H4'	23:DB:2715:C:O4'	2.20	0.41
23:DB:1853:A:H61	23:DB:2087:G:H1'	1.85	0.41
23:DB:2252:G:H2'	23:DB:2253:G:O4'	2.20	0.41
23:DB:233:A:O2'	23:DB:234:U:H5'	2.19	0.41
23:DB:2463:C:O2'	23:DB:2464:G:H5'	2.20	0.41
23:DB:2520:C:C6	23:DB:2567:G:H1'	2.55	0.41
23:DB:308:G:H2'	23:DB:309:A:O4'	2.20	0.41
23:DB:318:C:O2'	23:DB:319:G:H5'	2.20	0.41
23:DB:415:A:H2'	23:DB:416:U:C6	2.55	0.41
23:DB:438:G:H2'	23:DB:439:A:C8	2.55	0.41
23:DB:438:G:O2'	23:DB:439:A:H5'	2.21	0.41
23:DB:704:G:O2'	23:DB:726:G:N2	2.54	0.41
23:DB:962:G:H2'	23:DB:963:U:H6	1.82	0.41
25:DC:67:LYS:HE2	25:DC:149:LYS:O	2.20	0.41
25:DC:23:LEU:HA	25:DC:23:LEU:HD12	1.83	0.41
25:DC:245:THR:C	25:DC:247:TRP:N	2.74	0.41
25:DC:29:PHE:C	25:DC:31:PRO:HD2	2.40	0.41
47:DF:90:LEU:HB3	47:DF:95:MET:HA	2.01	0.41
40:DH:96:THR:HB	40:DH:112:LYS:HB2	2.03	0.41
23:DB:1060:U:C4	24:DI:131:THR:HG22	2.55	0.41
27:DK:47:ILE:HG23	27:DK:48:PRO:N	2.35	0.41
23:DB:661:A:H1'	37:DL:12:SER:O	2.20	0.41
38:DM:72:PRO:O	38:DM:91:TYR:O	2.38	0.41
43:DO:106:LEU:HG	43:DO:107:ALA:N	2.36	0.41
28:DP:63:ILE:O	28:DP:63:ILE:HG22	2.20	0.41
44:DQ:87:VAL:O	44:DQ:88:GLU:O	2.38	0.41
44:DQ:92:LYS:O	44:DQ:95:ALA:HB3	2.20	0.41
45:DS:24:ILE:O	45:DS:25:ARG:C	2.59	0.41
45:DS:59:GLU:HB2	45:DS:60:HIS:H	1.50	0.41
50:DT:68:LYS:O	50:DT:69:ARG:HB3	2.20	0.41
50:DT:68:LYS:HB2	50:DT:69:ARG:H	1.57	0.41
46:DU:73:ASN:OD1	46:DU:76:THR:HG23	2.21	0.41
46:DU:72:PHE:HA	46:DU:78:LYS:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:DW:13:ARG:HD2	52:DW:13:ARG:HA	1.90	0.41
30:DY:35:VAL:HG11	30:DY:37:ARG:NH1	2.35	0.41
51:DZ:33:LEU:O	51:DZ:34:HIS:CG	2.73	0.41
1:AA:1058:G:H2'	1:AA:1059:C:H6	1.85	0.41
1:AA:115:G:H1'	1:AA:116:A:N7	2.36	0.41
1:AA:1173:U:H2'	1:AA:1174:G:O4'	2.20	0.41
1:AA:259:G:O2'	1:AA:260:G:H5'	2.21	0.41
1:AA:113:G:O4'	1:AA:354:G:H4'	2.19	0.41
1:AA:488:C:H2'	1:AA:489:C:C6	2.55	0.41
1:AA:493:A:H2'	1:AA:494:G:O4'	2.20	0.41
1:AA:551:U:O2'	1:AA:552:U:H5'	2.21	0.41
1:AA:676:A:H2'	1:AA:677:U:C6	2.56	0.41
1:AA:830:G:H2'	1:AA:831:A:C8	2.56	0.41
1:AA:16:A:N1	1:AA:919:A:H2	2.18	0.41
20:AB:162:VAL:CG1	20:AB:184:ALA:HB2	2.50	0.41
20:AB:93:HIS:O	20:AB:94:ARG:C	2.58	0.41
3:AD:187:ARG:HH12	3:AD:191:SER:HA	1.83	0.41
1:AA:10:A:OP2	4:AE:130:THR:HB	2.19	0.41
1:AA:1151:A:O4'	9:AJ:41:PRO:HB2	2.21	0.41
9:AJ:59:LYS:HB2	9:AJ:62:ARG:NH2	2.36	0.41
10:AK:125:LYS:O	21:AU:33:ARG:NE	2.50	0.41
12:AM:15:VAL:N	12:AM:33:LEU:HD11	2.36	0.41
12:AM:56:ARG:HA	12:AM:59:VAL:HG12	2.01	0.41
9:AJ:53:ILE:HD11	13:AN:84:ARG:NH2	2.35	0.41
15:AP:38:PHE:CZ	15:AP:51:ARG:HD3	2.55	0.41
16:AQ:30:HIS:O	16:AQ:32:ILE:N	2.51	0.41
18:AS:36:ARG:O	18:AS:69:LYS:HD2	2.20	0.41
19:AT:4:LYS:O	19:AT:7:LYS:N	2.47	0.41
33:B1:42:VAL:HG12	33:B1:42:VAL:O	2.20	0.41
36:B2:16:HIS:HB2	36:B2:44:VAL:HG21	2.01	0.41
32:B4:11:CYS:SG	32:B4:33:HIS:CE1	3.13	0.41
53:B6:18:LEU:HD13	53:B6:171:LYS:HB3	2.01	0.41
53:B6:18:LEU:HG	53:B6:22:GLU:OE2	2.21	0.41
22:BA:104:A:H5'	35:BV:75:GLN:NE2	2.34	0.41
22:BA:32:U:H2'	22:BA:33:G:C8	2.55	0.41
23:BB:1048:A:H2'	23:BB:1049:C:O4'	2.20	0.41
23:BB:1076:C:H2'	23:BB:1077:A:C8	2.55	0.41
23:BB:1192:G:C2'	23:BB:1193:G:H5'	2.50	0.41
23:BB:1252:G:N2	44:BQ:32:ARG:HB3	2.35	0.41
23:BB:1439:A:N1	23:BB:1552:A:N7	2.68	0.41
23:BB:1795:C:O2'	23:BB:1796:U:H5'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1808:A:H5''	23:BB:1809:A:OP2	2.21	0.41
23:BB:572:A:C2	23:BB:2033:A:C2	3.08	0.41
23:BB:2097:A:O2'	23:BB:2098:U:H5'	2.21	0.41
23:BB:2244:U:H1'	23:BB:2434:A:C4	2.56	0.41
23:BB:2846:G:H2'	23:BB:2847:U:C6	2.55	0.41
23:BB:2855:C:H2'	23:BB:2856:A:H8	1.85	0.41
23:BB:425:G:O2'	23:BB:426:C:H5'	2.20	0.41
23:BB:519:U:H4'	45:BS:73:LYS:HZ1	1.84	0.41
23:BB:664:G:H2'	23:BB:665:U:C6	2.55	0.41
23:BB:944:C:H5'	23:BB:945:A:C5'	2.50	0.41
26:BD:116:LYS:HA	26:BD:116:LYS:HD3	1.96	0.41
47:BF:32:LYS:HA	47:BF:95:MET:CG	2.47	0.41
48:BG:10:VAL:HG21	48:BG:44:HIS:CE1	2.56	0.41
27:BK:107:LEU:HD12	27:BK:107:LEU:N	2.36	0.41
37:BL:123:ARG:HA	37:BL:143:GLU:CB	2.48	0.41
38:BM:26:VAL:HG22	38:BM:133:LYS:HA	2.02	0.41
42:BN:8:ARG:HB2	42:BN:8:ARG:HE	1.65	0.41
43:BO:5:SER:HA	43:BO:8:ILE:HD12	2.03	0.41
28:BP:104:GLY:O	28:BP:105:LYS:HB2	2.19	0.41
26:BD:13:ARG:HH12	28:BP:74:GLN:HE21	1.68	0.41
23:BB:1199:U:H5'	44:BQ:4:LYS:HG2	2.02	0.41
45:BS:42:LYS:HA	45:BS:42:LYS:HZ2	1.84	0.41
35:BV:6:ALA:HB3	35:BV:65:VAL:HG12	2.02	0.41
51:BZ:59:ILE:HG22	51:BZ:64:ILE:HG13	2.02	0.41
1:CA:1072:G:H2'	1:CA:1073:U:H6	1.85	0.41
2:CC:193:GLY:N	1:CA:1206:G:O4'	2.53	0.41
6:CG:78:ARG:NH1	1:CA:1382:C:H4'	2.35	0.41
1:CA:1487:G:O2'	1:CA:1488:G:H5'	2.20	0.41
1:CA:386:C:H2'	1:CA:387:U:H5'	2.02	0.41
1:CA:408:A:H3'	1:CA:409:U:H6	1.86	0.41
7:CH:3:GLN:NE2	1:CA:586:C:O2'	2.52	0.41
1:CA:666:G:H5'	1:CA:726:C:H1'	2.01	0.41
4:CE:54:GLU:HB3	4:CE:56:PRO:HD2	2.01	0.41
5:CF:15:SER:HA	5:CF:18:VAL:HG23	2.03	0.41
5:CF:97:THR:O	5:CF:98:GLU:CD	2.59	0.41
8:CI:126:PHE:CE1	8:CI:129:ARG:HG2	2.52	0.41
8:CI:15:ALA:O	8:CI:66:VAL:HA	2.19	0.41
11:CL:82:ARG:HG2	11:CL:82:ARG:NH1	2.34	0.41
11:CL:41:PRO:HA	11:CL:88:ASP:O	2.21	0.41
15:CP:28:ARG:CZ	15:CP:29:ASN:HD22	2.33	0.41
34:D3:36:ALA:O	34:D3:39:ARG:HB3	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1076:C:O2'	23:DB:1077:A:H5'	2.20	0.41
23:DB:1098:A:HO2'	24:DI:4:VAL:C	2.22	0.41
23:DB:1268:A:H2'	23:DB:1269:A:O4'	2.20	0.41
23:DB:1827:U:O2'	23:DB:1828:G:H5'	2.19	0.41
23:DB:1930:G:O2'	23:DB:1931:U:OP2	2.38	0.41
23:DB:2038:G:H2'	23:DB:2039:U:C6	2.56	0.41
23:DB:2365:G:H4'	52:DW:59:PHE:HD1	1.84	0.41
23:DB:2522:U:O2'	23:DB:2523:G:H5'	2.20	0.41
23:DB:2594:C:O2'	23:DB:2595:G:H5'	2.20	0.41
23:DB:2786:U:O2'	23:DB:2787:C:H5'	2.21	0.41
23:DB:923:G:O2'	23:DB:924:G:H5'	2.20	0.41
23:DB:997:G:H5'	44:DQ:92:LYS:NZ	2.35	0.41
25:DC:147:PRO:HD3	25:DC:184:GLU:HB2	2.02	0.41
25:DC:184:GLU:C	25:DC:186:ASP:H	2.23	0.41
25:DC:209:ALA:HA	25:DC:212:TRP:CE2	2.54	0.41
25:DC:230:PRO:HA	56:DC:303:HOH:O	2.18	0.41
25:DC:36:ASN:HD21	25:DC:85:ASN:ND2	2.19	0.41
29:DE:108:ILE:HG13	29:DE:181:ILE:HD11	2.02	0.41
48:DG:54:ARG:O	48:DG:56:GLY:N	2.52	0.41
48:DG:66:THR:HG23	48:DG:67:ALA:N	2.35	0.41
24:DI:108:ILE:CG2	24:DI:128:ILE:HD13	2.50	0.41
41:DJ:3:THR:HB	41:DJ:44:TYR:HE1	1.82	0.41
27:DK:107:LEU:HD12	27:DK:107:LEU:N	2.36	0.41
37:DL:30:THR:O	37:DL:30:THR:OG1	2.38	0.41
42:DN:62:ASN:O	42:DN:66:ALA:HB2	2.20	0.41
44:DQ:40:LYS:HD2	44:DQ:44:TYR:CE1	2.54	0.41
50:DT:83:ALA:O	50:DT:84:TYR:HB2	2.19	0.41
46:DU:84:PHE:O	46:DU:85:ARG:CB	2.66	0.41
35:DV:6:ALA:HB3	35:DV:65:VAL:HG12	2.01	0.41
39:DX:17:GLU:O	39:DX:21:LEU:HG	2.20	0.41
39:DX:56:LEU:O	39:DX:57:LEU:CB	2.66	0.41
30:DY:51:SER:HA	30:DY:54:VAL:HG22	2.01	0.41
1:AA:1194:U:H2'	1:AA:1195:C:C6	2.55	0.41
1:AA:1195:C:H5''	1:AA:1196:A:OP2	2.20	0.41
1:AA:1232:U:H2'	1:AA:1233:G:O4'	2.20	0.41
1:AA:1494:G:H2'	1:AA:1495:U:C6	2.55	0.41
1:AA:142:G:N3	1:AA:196:A:H2	2.19	0.41
1:AA:66:A:O5'	1:AA:66:A:H8	2.03	0.41
1:AA:66:A:O2'	1:AA:67:C:H5'	2.20	0.41
1:AA:901:A:N7	1:AA:902:G:H1'	2.35	0.41
1:AA:991:U:H2'	1:AA:1212:U:O2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AB:147:LEU:O	20:AB:148:GLY:C	2.59	0.41
2:AC:13:ILE:C	2:AC:15:LYS:H	2.24	0.41
2:AC:148:ILE:HA	2:AC:200:TRP:O	2.21	0.41
2:AC:194:VAL:HG12	2:AC:195:ILE:N	2.36	0.41
3:AD:150:LYS:HA	3:AD:150:LYS:HD3	1.88	0.41
3:AD:185:PRO:HB2	3:AD:190:LEU:HG	2.01	0.41
3:AD:84:ASN:HD22	3:AD:85:THR:N	2.17	0.41
6:AG:134:VAL:O	6:AG:137:ARG:HB3	2.20	0.41
13:AN:63:CYS:C	13:AN:65:GLN:N	2.72	0.41
16:AQ:5:ARG:O	16:AQ:6:THR:HG23	2.20	0.41
33:B1:8:ILE:CG2	33:B1:9:LYS:N	2.84	0.41
53:B6:164:ILE:O	53:B6:168:PHE:HD1	2.02	0.41
22:BA:89:U:H5'	22:BA:90:C:C6	2.55	0.41
23:BB:1220:G:O2'	23:BB:1221:C:H5'	2.20	0.41
23:BB:129:C:H4'	23:BB:1348:C:O2'	2.19	0.41
23:BB:1373:A:OP1	23:BB:2213:U:O4	2.39	0.41
23:BB:1693:U:H4'	23:BB:1694:C:OP2	2.20	0.41
23:BB:1771:C:H2'	23:BB:1772:A:C8	2.55	0.41
23:BB:2311:A:H3'	23:BB:2312:U:C6	2.55	0.41
23:BB:2471:A:O2'	23:BB:2472:G:P	2.79	0.41
23:BB:2594:C:O2'	23:BB:2595:G:H5'	2.20	0.41
23:BB:510:C:O2'	23:BB:1236:G:H5'	2.21	0.41
23:BB:523:C:O2'	23:BB:524:G:H5'	2.20	0.41
23:BB:662:G:O2'	23:BB:663:G:H5'	2.21	0.41
23:BB:832:U:O2	37:BL:52:GLY:HA2	2.21	0.41
25:BC:5:CYS:HB2	25:BC:15:VAL:O	2.21	0.41
26:BD:11:MET:HE1	26:BD:192:ALA:N	2.24	0.41
47:BF:109:ARG:O	47:BF:109:ARG:HD3	2.21	0.41
47:BF:121:PHE:HA	47:BF:127:TYR:HA	2.02	0.41
47:BF:48:LEU:N	47:BF:48:LEU:HD23	2.36	0.41
47:BF:77:LYS:HG3	47:BF:79:ARG:NH1	2.35	0.41
24:BI:35:MET:C	24:BI:35:MET:SD	2.98	0.41
24:BI:91:LYS:O	24:BI:91:LYS:HG3	2.20	0.41
37:BL:116:VAL:CG1	37:BL:117:THR:H	2.26	0.41
38:BM:41:LEU:CD1	38:BM:46:ILE:HG22	2.51	0.41
42:BN:61:ALA:C	42:BN:63:ARG:N	2.72	0.41
44:BQ:63:ARG:O	44:BQ:66:ALA:N	2.53	0.41
44:BQ:94:LEU:O	44:BQ:96:ASP:N	2.53	0.41
45:BS:24:ILE:HD11	45:BS:36:LEU:HD21	2.03	0.41
46:BU:73:ASN:ND2	46:BU:74:ALA:N	2.68	0.41
39:BX:48:ARG:O	39:BX:51:ALA:HB3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:175:C:H2'	1:CA:176:C:C6	2.55	0.41
1:CA:197:A:N1	1:CA:220:G:O2'	2.51	0.41
1:CA:233:C:H2'	1:CA:234:C:H6	1.85	0.41
1:CA:366:A:H1'	1:CA:395:C:O2	2.20	0.41
1:CA:625:U:H2'	1:CA:626:G:C8	2.56	0.41
1:CA:849:G:H4'	1:CA:849:G:OP1	2.21	0.41
20:CB:15:PHE:CD1	20:CB:16:GLY:N	2.88	0.41
20:CB:73:ARG:HH11	20:CB:73:ARG:HG2	1.85	0.41
2:CC:48:LYS:HE2	2:CC:48:LYS:N	2.35	0.41
3:CD:25:ARG:HD3	3:CD:26:ALA:HB2	2.02	0.41
3:CD:25:ARG:NH1	3:CD:26:ALA:H	1.98	0.41
4:CE:56:PRO:HG2	4:CE:57:ALA:H	1.86	0.41
4:CE:45:VAL:HG23	4:CE:71:ILE:CG2	2.51	0.41
4:CE:95:MET:HG3	4:CE:124:ALA:CB	2.49	0.41
11:CL:17:LYS:HD2	11:CL:17:LYS:C	2.40	0.41
13:CN:49:THR:O	13:CN:50:LEU:HB3	2.20	0.41
13:CN:50:LEU:CG	13:CN:51:PRO:HD3	2.49	0.41
16:CQ:5:ARG:O	16:CQ:6:THR:HG23	2.20	0.41
53:D6:22:GLU:HG2	53:D6:175:LEU:HD21	2.03	0.41
23:DB:1062:G:H2'	23:DB:1063:G:H8	1.85	0.41
23:DB:1323:C:C2'	23:DB:1324:G:H5'	2.51	0.41
23:DB:1401:G:H2'	23:DB:1402:U:H6	1.85	0.41
23:DB:1494:A:H2'	23:DB:1495:A:C8	2.54	0.41
23:DB:2026:U:H2'	23:DB:2027:G:H8	1.86	0.41
23:DB:2368:C:H2'	23:DB:2369:A:H8	1.85	0.41
23:DB:3:U:H2'	23:DB:4:U:C6	2.54	0.41
25:DC:66:PHE:HB3	25:DC:142:ASN:HD21	1.85	0.41
26:DD:107:VAL:N	26:DD:206:ALA:H	2.18	0.41
47:DF:33:ILE:HG21	47:DF:98:PHE:HE2	1.83	0.41
47:DF:78:ILE:HD12	47:DF:79:ARG:HH11	1.86	0.41
47:DF:99:PHE:HA	47:DF:102:LEU:HD11	2.02	0.41
40:DH:7:ASP:CG	40:DH:8:LYS:N	2.73	0.41
24:DI:105:LEU:HD11	24:DI:139:VAL:CG2	2.44	0.41
41:DJ:58:ASN:C	41:DJ:60:ASP:H	2.24	0.41
27:DK:35:VAL:HG12	27:DK:69:VAL:HG22	2.02	0.41
37:DL:85:VAL:HG21	37:DL:90:VAL:HA	2.03	0.41
37:DL:95:LEU:HB2	37:DL:101:ILE:HG13	2.03	0.41
38:DM:29:GLY:HA2	38:DM:106:ASP:HB2	2.02	0.41
38:DM:55:ARG:HG3	38:DM:55:ARG:NH2	2.35	0.41
42:DN:49:GLU:OE2	42:DN:95:THR:HG22	2.19	0.41
28:DP:61:ARG:HD3	28:DP:70:GLU:CG	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2685:G:OP1	28:DP:72:VAL:HG11	2.21	0.41
50:DT:40:LYS:HG2	50:DT:58:VAL:HG13	2.01	0.41
46:DU:21:ARG:HD3	46:DU:72:PHE:CG	2.56	0.41
35:DV:19:ARG:O	35:DV:22:ALA:HB3	2.20	0.41
35:DV:9:ARG:CD	35:DV:41:GLU:HB3	2.50	0.41
52:DW:66:VAL:HA	52:DW:81:ILE:HG22	2.02	0.41
30:DY:8:GLN:O	30:DY:10:ARG:N	2.53	0.41
1:AA:1077:G:N1	1:AA:1080:A:OP2	2.52	0.41
1:AA:1342:C:O2'	8:AI:125:GLN:HB3	2.21	0.41
1:AA:1384:C:O2'	1:AA:1385:G:H5'	2.20	0.41
1:AA:1514:G:O2'	1:AA:1515:G:H5'	2.20	0.41
1:AA:800:G:HO2'	1:AA:801:U:H6	1.64	0.41
1:AA:1073:U:O2'	20:AB:102:ASN:OD1	2.36	0.41
20:AB:153:MET:O	20:AB:155:GLY:N	2.51	0.41
20:AB:17:HIS:HB3	20:AB:187:ASP:OD2	2.20	0.41
20:AB:224:ARG:H	20:AB:224:ARG:HG2	1.60	0.41
20:AB:25:LYS:O	20:AB:28:PRO:HD2	2.19	0.41
3:AD:145:ARG:HH21	3:AD:147:LYS:HE2	1.85	0.41
4:AE:136:VAL:HG13	4:AE:137:ARG:N	2.36	0.41
17:AR:31:TYR:C	17:AR:39:VAL:HG22	2.40	0.41
1:AA:719:C:H2'	17:AR:38:ILE:CD1	2.50	0.41
18:AS:66:VAL:C	18:AS:68:HIS:N	2.74	0.41
1:AA:323:U:C1'	19:AT:13:SER:HB2	2.49	0.41
19:AT:64:GLY:O	19:AT:66:ILE:N	2.54	0.41
10:AK:92:ARG:NH1	21:AU:20:ARG:NH2	2.69	0.41
53:B6:174:GLN:HE21	53:B6:174:GLN:HB3	1.51	0.41
53:B6:83:ILE:O	53:B6:89:GLY:N	2.53	0.41
22:BA:95:U:H2'	22:BA:96:G:C8	2.55	0.41
23:BB:1081:U:O2'	23:BB:1082:U:H5'	2.21	0.41
23:BB:1355:G:O2'	23:BB:1356:G:H5'	2.20	0.41
23:BB:123:G:O3'	23:BB:1376:C:H4'	2.20	0.41
23:BB:1462:C:O2'	23:BB:2702:G:H1'	2.20	0.41
23:BB:2249:U:H4'	23:BB:2275:C:H5	1.85	0.41
23:BB:2260:C:O2'	23:BB:2261:C:H5'	2.21	0.41
23:BB:2243:U:O2	23:BB:2434:A:C2	2.74	0.41
23:BB:2520:C:C6	23:BB:2567:G:H1'	2.55	0.41
23:BB:2836:U:H2'	23:BB:2837:A:H8	1.85	0.41
23:BB:2852:G:H2'	23:BB:2853:C:O4'	2.21	0.41
23:BB:6:A:H2'	23:BB:7:G:C8	2.55	0.41
23:BB:875:G:C6	23:BB:876:C:N4	2.89	0.41
23:BB:923:G:O2'	23:BB:924:G:H5'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BC:7:PRO:C	25:BC:9:SER:H	2.24	0.41
29:BE:4:VAL:HG12	29:BE:6:LYS:N	2.36	0.41
29:BE:62:GLN:HG2	29:BE:63:LYS:HG3	2.02	0.41
47:BF:102:LEU:CB	47:BF:106:ALA:HB3	2.50	0.41
47:BF:150:GLY:O	47:BF:151:LEU:HB3	2.20	0.41
48:BG:38:ASP:CG	48:BG:39:ALA:H	2.22	0.41
40:BH:142:VAL:HG12	40:BH:143:ILE:N	2.36	0.41
40:BH:50:ARG:N	40:BH:50:ARG:NE	2.66	0.41
40:BH:58:LEU:HD12	40:BH:58:LEU:HA	1.90	0.41
23:BB:8:C:H5''	41:BJ:53:TYR:OH	2.20	0.41
28:BP:49:ILE:HG22	28:BP:95:LYS:NZ	2.35	0.41
49:BR:27:ILE:HG22	49:BR:28:ALA:N	2.35	0.41
45:BS:7:HIS:HB3	45:BS:103:ILE:HB	2.02	0.41
52:BW:69:GLU:HB3	52:BW:70:VAL:H	1.70	0.41
51:BZ:33:LEU:H	51:BZ:52:SER:CB	2.32	0.41
1:CA:117:G:H2'	1:CA:118:U:O4'	2.20	0.41
1:CA:1195:C:H5''	1:CA:1196:A:OP2	2.20	0.41
1:CA:1238:A:N3	1:CA:1238:A:H2'	2.35	0.41
1:CA:1262:C:H2'	1:CA:1263:C:C6	2.56	0.41
1:CA:125:U:O2'	1:CA:126:G:H5'	2.21	0.41
1:CA:179:A:H2'	1:CA:180:U:O4'	2.21	0.41
1:CA:271:C:H2'	1:CA:272:C:H6	1.86	0.41
1:CA:531:U:H5'	1:CA:531:U:C6	2.51	0.41
1:CA:611:C:H2'	1:CA:612:C:C6	2.56	0.41
15:CP:46:LYS:CE	1:CA:617:G:H4'	2.50	0.41
1:CA:578:C:O2	1:CA:728:A:H2	2.04	0.41
1:CA:744:C:H2'	1:CA:745:G:C8	2.55	0.41
20:CB:40:ILE:HD13	20:CB:201:GLY:CA	2.50	0.41
2:CC:111:ASP:O	2:CC:112:ALA:C	2.59	0.41
2:CC:13:ILE:C	2:CC:15:LYS:H	2.24	0.41
3:CD:138:PRO:C	3:CD:140:ASP:H	2.24	0.41
3:CD:36:ALA:C	3:CD:38:GLY:N	2.73	0.41
4:CE:156:ARG:HG2	4:CE:156:ARG:H	1.62	0.41
6:CG:134:VAL:O	6:CG:137:ARG:HB3	2.21	0.41
9:CJ:70:HIS:CD2	9:CJ:70:HIS:H	2.39	0.41
11:CL:106:VAL:CG2	11:CL:116:TYR:HB3	2.50	0.41
12:CM:10:ASP:HA	12:CM:44:ILE:CD1	2.46	0.41
16:CQ:37:ILE:HG22	16:CQ:38:LYS:N	2.35	0.41
17:CR:54:LEU:O	17:CR:58:ILE:HG13	2.21	0.41
18:CS:49:ALA:O	18:CS:56:HIS:HB3	2.20	0.41
18:CS:63:ASP:O	18:CS:65:MET:N	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:D1:20:TYR:CD2	33:D1:37:LYS:HD3	2.56	0.41
33:D1:46:VAL:HG13	33:D1:47:ILE:N	2.35	0.41
33:D1:34:GLU:CD	33:D1:49:LYS:HD2	2.40	0.41
32:D4:27:CYS:SG	32:D4:29:ALA:HB3	2.61	0.41
53:D6:19:GLU:CA	53:D6:22:GLU:HG3	2.50	0.41
53:D6:80:GLU:HA	53:D6:83:ILE:CG1	2.45	0.41
23:DB:1213:A:N1	23:DB:1237:A:H1'	2.35	0.41
23:DB:1228:G:O2'	23:DB:1229:C:H5'	2.21	0.41
23:DB:1259:G:O2'	23:DB:1260:A:H5'	2.19	0.41
23:DB:1275:A:N6	23:DB:1296:G:H4'	2.36	0.41
23:DB:1590:A:O2'	23:DB:1591:A:H5'	2.20	0.41
23:DB:1595:C:H2'	23:DB:1596:A:C8	2.55	0.41
23:DB:1716:U:H2'	23:DB:1717:A:H8	1.86	0.41
23:DB:1719:G:O2'	23:DB:1720:U:H5'	2.21	0.41
23:DB:2016:U:H1'	31:D0:2:VAL:CG1	2.50	0.41
23:DB:2143:C:H2'	23:DB:2144:G:C5'	2.50	0.41
23:DB:2320:U:O2'	23:DB:2322:A:N7	2.48	0.41
23:DB:2338:C:H2'	23:DB:2339:C:C6	2.55	0.41
23:DB:463:G:N2	23:DB:466:A:OP2	2.52	0.41
23:DB:495:G:H4'	45:DS:4:ILE:O	2.21	0.41
23:DB:76:C:O2'	23:DB:77:G:H5'	2.20	0.41
23:DB:834:G:H4'	34:D3:52:GLY:O	2.20	0.41
23:DB:957:C:N4	23:DB:2459:A:C8	2.89	0.41
26:DD:125:TRP:CG	26:DD:160:LYS:HB3	2.55	0.41
29:DE:188:MET:HG2	29:DE:193:VAL:CG2	2.51	0.41
29:DE:61:ARG:O	29:DE:63:LYS:O	2.39	0.41
47:DF:119:LYS:HA	47:DF:121:PHE:CE1	2.55	0.41
47:DF:163:GLU:O	47:DF:166:ARG:HB2	2.20	0.41
47:DF:40:GLY:O	47:DF:42:ALA:N	2.54	0.41
23:DB:1099:G:H3'	24:DI:2:LYS:CB	2.51	0.41
24:DI:63:ASP:O	24:DI:63:ASP:OD1	2.39	0.41
41:DJ:93:ILE:HG22	41:DJ:94:ALA:N	2.34	0.41
37:DL:29:LYS:HG2	49:DR:82:HIS:CE1	2.55	0.41
38:DM:78:LEU:HB3	38:DM:79:ALA:H	1.50	0.41
49:DR:4:VAL:CG2	49:DR:40:MET:HB2	2.51	0.41
45:DS:40:ASN:N	45:DS:40:ASN:OD1	2.53	0.41
23:DB:96:C:H4'	39:DX:41:HIS:CD2	2.55	0.41
30:DY:23:LEU:HA	30:DY:23:LEU:HD22	1.87	0.41
51:DZ:71:LEU:O	51:DZ:74:ARG:HG2	2.21	0.41
1:AA:1090:U:H2'	1:AA:1091:U:C6	2.55	0.41
1:AA:1142:G:H2'	1:AA:1143:G:H5'	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1163:A:O2'	1:AA:1164:G:H5'	2.20	0.41
1:AA:784:A:H2'	1:AA:785:G:H8	1.85	0.41
1:AA:935:A:H61	6:AG:2:ARG:HD2	1.86	0.41
20:AB:136:ARG:H	20:AB:136:ARG:HG2	1.58	0.41
3:AD:97:LEU:HD23	3:AD:117:VAL:CG1	2.50	0.41
4:AE:35:LEU:HD22	4:AE:133:ILE:HA	2.02	0.41
4:AE:155:LYS:H	4:AE:155:LYS:HG3	1.68	0.41
1:AA:1080:A:OP1	4:AE:51:LYS:HD2	2.20	0.41
4:AE:85:LYS:HE2	4:AE:92:ARG:NH2	2.36	0.41
5:AF:44:ARG:HG3	5:AF:44:ARG:HH11	1.85	0.41
6:AG:12:LEU:HD13	6:AG:13:PRO:CD	2.50	0.41
8:AI:5:TYR:HD2	8:AI:88:GLU:HB2	1.84	0.41
9:AJ:40:ILE:O	9:AJ:72:ARG:HA	2.20	0.41
11:AL:37:TYR:HB3	11:AL:38:THR:H	1.72	0.41
14:AO:60:VAL:HG21	23:BB:715:A:C1'	2.50	0.41
16:AQ:4:ILE:HD12	16:AQ:4:ILE:O	2.20	0.41
33:B1:51:ALA:O	33:B1:52:LYS:C	2.59	0.41
23:BB:242:G:H5''	34:B3:63:TYR:CE2	2.56	0.41
53:B6:34:ASN:HB2	53:B6:35:PRO:HD2	2.02	0.41
23:BB:1068:G:C6	23:BB:1069:A:N6	2.88	0.41
23:BB:1161:C:H2'	23:BB:1162:G:C8	2.55	0.41
23:BB:1201:U:H2'	23:BB:1202:G:H8	1.85	0.41
23:BB:1268:A:H2'	23:BB:1269:A:O4'	2.19	0.41
23:BB:1348:C:C3'	23:BB:1349:C:H5'	2.51	0.41
23:BB:1513:U:O2'	23:BB:1514:G:H5'	2.21	0.41
23:BB:2010:G:H5''	45:BS:42:LYS:HB2	2.03	0.41
23:BB:2262:U:H2'	23:BB:2263:C:H6	1.84	0.41
23:BB:2751:G:H5'	48:BG:2:ARG:HD3	2.03	0.41
23:BB:305:C:H2'	23:BB:306:U:C6	2.55	0.41
23:BB:29:U:H2'	23:BB:30:G:C8	2.56	0.41
23:BB:386:G:H4'	23:BB:387:U:OP2	2.20	0.41
23:BB:374:A:H61	23:BB:400:G:H1'	1.84	0.41
23:BB:622:G:H2'	23:BB:623:C:H6	1.86	0.41
23:BB:6:A:N3	41:BJ:135:GLN:NE2	2.68	0.41
23:BB:855:G:C6	23:BB:923:G:C6	3.09	0.41
25:BC:131:MET:CE	25:BC:183:VAL:HG11	2.51	0.41
23:BB:1657:U:O2'	26:BD:138:LEU:HD12	2.21	0.41
29:BE:5:LEU:HB2	29:BE:10:SER:H	1.86	0.41
29:BE:176:ASP:HA	29:BE:177:PRO:HD3	1.95	0.41
47:BF:40:GLY:O	47:BF:42:ALA:N	2.54	0.41
48:BG:40:VAL:HG22	48:BG:64:ALA:HA	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BH:106:ALA:HB3	40:BH:108:VAL:HG23	2.03	0.41
40:BH:108:VAL:HG12	40:BH:109:GLU:N	2.36	0.41
40:BH:90:LEU:O	40:BH:123:ARG:CZ	2.69	0.41
41:BJ:127:GLY:H	41:BJ:129:GLU:CD	2.24	0.41
37:BL:3:LEU:O	37:BL:5:THR:HG23	2.21	0.41
38:BM:29:GLY:HA2	38:BM:106:ASP:HB2	2.02	0.41
38:BM:55:ARG:O	38:BM:55:ARG:HG2	2.20	0.41
42:BN:49:GLU:N	42:BN:50:PRO:CD	2.84	0.41
42:BN:74:GLU:O	42:BN:77:ALA:HB3	2.21	0.41
42:BN:96:ARG:CG	42:BN:98:LEU:HD22	2.50	0.41
28:BP:50:ARG:HD2	28:BP:56:SER:HB3	2.03	0.41
28:BP:88:ARG:HB3	28:BP:88:ARG:NH2	2.36	0.41
23:BB:1011:G:H5''	44:BQ:76:SER:OG	2.19	0.41
44:BQ:86:SER:HB3	49:BR:51:VAL:HA	2.02	0.41
46:BU:81:ARG:HB2	46:BU:96:LYS:HG3	2.03	0.41
35:BV:2:PHE:CE2	35:BV:56:PHE:HA	2.55	0.41
51:BZ:27:ARG:HG3	51:BZ:28:ARG:H	1.85	0.41
1:CA:865:A:H5'	1:CA:1078:U:C5	2.56	0.41
1:CA:1217:C:H2'	1:CA:1218:C:H6	1.86	0.41
1:CA:1324:A:H2'	1:CA:1325:C:H6	1.85	0.41
1:CA:1332:A:H2'	1:CA:1333:A:H8	1.86	0.41
1:CA:1441:A:H2'	1:CA:1442:G:H8	1.86	0.41
1:CA:1458:G:H2'	1:CA:1459:G:H8	1.86	0.41
1:CA:56:U:H6	1:CA:56:U:O5'	2.04	0.41
1:CA:657:U:O2'	1:CA:658:C:H5'	2.20	0.41
1:CA:16:A:N1	1:CA:919:A:H2	2.19	0.41
2:CC:152:VAL:O	2:CC:164:THR:HG23	2.21	0.41
5:CF:1:MET:HG3	5:CF:67:PRO:CD	2.50	0.41
10:CK:43:TRP:HA	10:CK:69:CYS:SG	2.61	0.41
11:CL:78:VAL:O	11:CL:102:ASP:HB2	2.21	0.41
11:CL:98:ARG:HB2	11:CL:116:TYR:CA	2.47	0.41
12:CM:30:LYS:HG2	12:CM:40:GLU:OE2	2.21	0.41
21:CU:34:ARG:NH2	21:CU:36:PHE:CD2	2.89	0.41
53:D6:112:LYS:O	53:D6:115:VAL:HG23	2.20	0.41
23:DB:1298:C:O2'	23:DB:1301:A:O2'	2.38	0.41
23:DB:1383:A:H2	23:DB:1405:U:O2	2.03	0.41
23:DB:1445:G:H2'	23:DB:1446:C:C6	2.56	0.41
23:DB:2072:C:H2'	23:DB:2073:C:H6	1.85	0.41
23:DB:2135:A:H3'	23:DB:2136:G:C8	2.53	0.41
23:DB:2139:U:O2'	23:DB:2140:G:H5'	2.20	0.41
23:DB:2236:U:C2'	23:DB:2237:G:H5'	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2262:U:H2'	23:DB:2263:C:H6	1.86	0.41
23:DB:2372:U:H6	23:DB:2372:U:H5'	1.85	0.41
23:DB:2496:C:C2'	23:DB:2497:A:H5'	2.50	0.41
23:DB:2683:C:H2'	23:DB:2684:U:C6	2.56	0.41
23:DB:2698:U:H2'	23:DB:2699:C:C6	2.55	0.41
23:DB:2818:U:O2'	23:DB:2819:G:H5'	2.21	0.41
23:DB:823:C:H2'	23:DB:824:U:H6	1.84	0.41
25:DC:124:LYS:NZ	25:DC:124:LYS:HB3	2.33	0.41
47:DF:79:ARG:HE	47:DF:79:ARG:N	2.18	0.41
48:DG:8:VAL:CG1	48:DG:49:LEU:HB2	2.51	0.41
27:DK:110:GLU:N	27:DK:111:LYS:HZ3	2.19	0.41
37:DL:85:VAL:O	37:DL:85:VAL:HG22	2.21	0.41
42:DN:107:ASN:HD21	45:DS:40:ASN:ND2	2.07	0.41
44:DQ:94:LEU:CD2	49:DR:11:GLN:HB2	2.49	0.41
45:DS:2:GLU:O	45:DS:3:THR:O	2.38	0.41
50:DT:21:SER:O	50:DT:25:GLU:N	2.54	0.41
52:DW:32:ALA:O	52:DW:58:LEU:O	2.39	0.41
52:DW:37:VAL:HG11	52:DW:38:ARG:NH1	2.32	0.41
23:DB:2364:C:OP1	52:DW:54:ARG:HD3	2.21	0.41
39:DX:56:LEU:HD13	39:DX:56:LEU:HA	1.90	0.41
1:AA:1245:C:H2'	1:AA:1246:A:C8	2.56	0.41
1:AA:1407:C:H2'	1:AA:1408:A:O4'	2.21	0.41
1:AA:1451:U:O3'	1:AA:1452:C:H6	2.02	0.41
1:AA:674:G:O2'	1:AA:675:A:H5'	2.21	0.41
1:AA:747:A:C4	1:AA:748:G:H1'	2.56	0.41
20:AB:111:LYS:O	20:AB:114:LYS:HB2	2.21	0.41
20:AB:14:HIS:HD2	20:AB:202:ASN:H	1.67	0.41
3:AD:29:THR:HB	3:AD:30:LYS:HZ2	1.81	0.41
3:AD:57:LYS:HE3	3:AD:61:ARG:HD3	2.02	0.41
4:AE:85:LYS:HE2	4:AE:92:ARG:HH22	1.85	0.41
9:AJ:7:ARG:NH1	9:AJ:7:ARG:HB2	2.36	0.41
11:AL:41:PRO:HB3	11:AL:49:ARG:NH1	2.36	0.41
53:B6:137:LEU:O	53:B6:140:LEU:HB3	2.20	0.41
23:BB:1591:A:H2'	23:BB:1592:C:O4'	2.21	0.41
23:BB:1655:A:H2	23:BB:2049:G:O3'	2.03	0.41
23:BB:2026:U:H2'	23:BB:2027:G:C8	2.56	0.41
23:BB:20:C:H2'	23:BB:21:A:C8	2.54	0.41
23:BB:2200:C:O2'	23:BB:2201:G:H5'	2.20	0.41
23:BB:2455:G:H2'	23:BB:2456:C:H6	1.84	0.41
23:BB:2604:U:O2'	23:BB:2605:U:H5'	2.20	0.41
23:BB:2813:A:O2'	23:BB:2814:A:H5'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:2869:G:H2'	23:BB:2870:C:H6	1.82	0.41
23:BB:468:G:N7	36:B2:39:ARG:NH2	2.67	0.41
23:BB:694:U:OP1	23:BB:1569:A:H1'	2.21	0.41
25:BC:158:GLY:H	25:BC:194:VAL:HG13	1.86	0.41
25:BC:80:LEU:HD23	25:BC:91:ALA:CB	2.46	0.41
25:BC:94:LEU:HD13	25:BC:100:ARG:NH1	2.36	0.41
29:BE:157:LEU:O	29:BE:160:ALA:HB3	2.20	0.41
47:BF:128:SER:HB3	47:BF:154:THR:HG23	2.03	0.41
22:BA:43:C:C2'	47:BF:91:ARG:HD2	2.51	0.41
48:BG:134:GLY:HA3	48:BG:140:ILE:CG2	2.51	0.41
40:BH:53:GLU:HA	40:BH:57:LYS:HG2	2.03	0.41
24:BI:48:ILE:O	24:BI:49:GLU:HB3	2.20	0.41
41:BJ:110:PRO:HB2	41:BJ:111:LYS:HD2	2.03	0.41
41:BJ:32:LEU:HD13	41:BJ:105:VAL:HG11	2.02	0.41
41:BJ:3:THR:CB	41:BJ:44:TYR:OH	2.67	0.41
38:BM:39:GLY:HA3	38:BM:126:ILE:HD11	2.02	0.41
45:BS:59:GLU:HB2	45:BS:60:HIS:H	1.51	0.41
35:BV:92:VAL:HG12	35:BV:92:VAL:O	2.21	0.41
39:BX:59:GLU:OE2	39:BX:59:GLU:N	2.53	0.41
1:CA:1464:U:H2'	1:CA:1465:A:H8	1.86	0.41
1:CA:317:U:H2'	1:CA:318:G:C8	2.55	0.41
1:CA:435:A:H2'	1:CA:435:A:N3	2.35	0.41
1:CA:79:G:H2'	1:CA:80:A:H8	1.86	0.41
1:CA:957:U:H2'	1:CA:959:A:OP2	2.21	0.41
20:CB:162:VAL:CG1	20:CB:184:ALA:HB2	2.51	0.41
2:CC:78:LYS:CG	2:CC:81:GLU:HG2	2.28	0.41
3:CD:115:GLN:NE2	3:CD:153:ARG:HH22	2.17	0.41
3:CD:145:ARG:HH21	3:CD:147:LYS:HE2	1.86	0.41
3:CD:47:LEU:HG	3:CD:51:GLY:HA3	2.02	0.41
3:CD:66:VAL:HG12	3:CD:67:LEU:H	1.86	0.41
4:CE:136:VAL:HG13	4:CE:137:ARG:N	2.35	0.41
8:CI:74:GLN:HE21	8:CI:74:GLN:CA	2.32	0.41
11:CL:32:VAL:HG23	11:CL:55:ARG:O	2.20	0.41
11:CL:46:SER:O	11:CL:47:ALA:HB2	2.21	0.41
12:CM:16:ILE:HG23	12:CM:17:ALA:H	1.86	0.41
12:CM:84:CYS:O	12:CM:88:LEU:HG	2.21	0.41
13:CN:77:GLY:C	13:CN:78:LEU:HD12	2.41	0.41
15:CP:10:GLY:HA3	15:CP:15:PRO:C	2.41	0.41
15:CP:38:PHE:CZ	15:CP:51:ARG:HD3	2.56	0.41
16:CQ:17:GLU:O	16:CQ:18:LYS:HB2	2.21	0.41
19:CT:68:LYS:HA	19:CT:68:LYS:HZ2	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:D4:27:CYS:CB	32:D4:33:HIS:HB2	2.50	0.41
23:DB:1026:G:H2'	23:DB:1027:A:H8	1.86	0.41
23:DB:1109:C:H2'	23:DB:1110:G:O4'	2.20	0.41
23:DB:178:G:O2'	23:DB:179:C:H5'	2.21	0.41
23:DB:1936:A:C2	23:DB:1943:U:C5	3.07	0.41
23:DB:2243:U:H2'	23:DB:2244:U:H6	1.80	0.41
23:DB:2350:C:O2'	23:DB:2351:G:H5'	2.20	0.41
23:DB:2605:U:H2'	23:DB:2606:C:C6	2.55	0.41
23:DB:2685:G:O2'	23:DB:2686:G:H5'	2.20	0.41
23:DB:2893:A:C3'	23:DB:2894:G:H5'	2.51	0.41
23:DB:405:U:H4'	23:DB:405:U:OP2	2.21	0.41
23:DB:465:G:H2'	23:DB:466:A:C8	2.56	0.41
23:DB:633:A:H2'	23:DB:634:C:C5'	2.50	0.41
23:DB:817:C:H2'	23:DB:818:G:O4'	2.20	0.41
26:DD:11:MET:H	26:DD:25:THR:HA	1.85	0.41
29:DE:133:LEU:O	29:DE:136:GLN:N	2.54	0.41
29:DE:195:GLN:C	29:DE:197:GLU:N	2.71	0.41
47:DF:168:LEU:O	47:DF:169:LEU:CB	2.68	0.41
40:DH:3:VAL:CG1	40:DH:38:PRO:HA	2.50	0.41
24:DI:14:ALA:HB3	24:DI:51:GLY:H	1.86	0.41
24:DI:52:LEU:HD13	24:DI:81:LYS:HZ3	1.86	0.41
37:DL:78:ARG:HD3	37:DL:80:SER:HG	1.86	0.41
37:DL:93:ASN:O	37:DL:95:LEU:HD12	2.21	0.41
28:DP:103:THR:HG22	28:DP:104:GLY:H	1.85	0.41
45:DS:29:VAL:CA	45:DS:32:ALA:HB3	2.48	0.41
52:DW:39:GLN:O	52:DW:56:HIS:HB3	2.21	0.41
39:DX:25:GLN:O	39:DX:29:ARG:HG3	2.20	0.41
39:DX:41:HIS:O	39:DX:44:LYS:HB3	2.21	0.41
39:DX:6:LEU:HD22	39:DX:6:LEU:N	2.36	0.41
51:DZ:63:GLY:C	51:DZ:65:ASP:N	2.73	0.41
1:AA:994:A:N1	1:AA:1047:G:H4'	2.35	0.41
1:AA:1346:A:N1	1:AA:1374:A:H5''	2.36	0.41
1:AA:223:A:H2'	1:AA:224:U:H6	1.85	0.41
1:AA:82:G:C6	1:AA:88:U:O2	2.74	0.41
1:AA:93:U:H2'	1:AA:94:G:H4'	2.02	0.41
20:AB:118:THR:HA	20:AB:121:GLN:NE2	2.36	0.41
2:AC:2:GLN:CA	2:AC:2:GLN:HE21	2.33	0.41
2:AC:86:LEU:O	2:AC:90:VAL:HG23	2.21	0.41
5:AF:38:ARG:O	5:AF:62:MET:O	2.39	0.41
5:AF:98:GLU:O	5:AF:99:ALA:HB3	2.21	0.41
9:AJ:42:LEU:CB	9:AJ:71:LEU:HD21	2.48	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AK:113:THR:HG21	21:AU:28:LEU:CD1	2.50	0.41
11:AL:80:LEU:O	11:AL:97:VAL:HG23	2.21	0.41
12:AM:103:THR:O	12:AM:104:ASN:HB2	2.21	0.41
12:AM:21:ILE:HB	12:AM:24:VAL:CG2	2.41	0.41
15:AP:20:VAL:HG21	15:AP:32:PHE:CG	2.56	0.41
18:AS:54:ARG:O	18:AS:55:GLN:HG2	2.21	0.41
23:BB:1419:A:H2	23:BB:2211:A:N1	2.18	0.41
23:BB:1436:G:O2'	23:BB:1437:C:H5'	2.21	0.41
23:BB:1745:A:H2'	23:BB:1746:A:O4'	2.20	0.41
23:BB:173:A:H2'	23:BB:174:U:C6	2.56	0.41
23:BB:178:G:O2'	23:BB:179:C:H5'	2.21	0.41
23:BB:208:C:H2'	23:BB:209:C:H6	1.84	0.41
23:BB:2093:G:H1'	23:BB:2198:A:C2	2.56	0.41
23:BB:12:U:O2	23:BB:2626:C:H4'	2.20	0.41
23:BB:2838:G:C4	23:BB:2839:G:C8	3.08	0.41
23:BB:492:A:H2'	23:BB:493:G:O4'	2.21	0.41
23:BB:537:G:H1'	23:BB:556:A:N6	2.36	0.41
23:BB:637:A:H4'	23:BB:638:G:O5'	2.20	0.41
23:BB:978:G:O4'	23:BB:1001:A:H2	2.04	0.41
25:BC:6:LYS:HA	25:BC:7:PRO:HD3	1.91	0.41
48:BG:122:ALA:CA	48:BG:132:LEU:HA	2.47	0.41
40:BH:31:VAL:O	40:BH:33:GLN:N	2.53	0.41
40:BH:76:GLU:N	40:BH:76:GLU:CD	2.74	0.41
41:BJ:118:MET:HA	41:BJ:121:LYS:HE2	2.02	0.41
41:BJ:58:ASN:C	41:BJ:60:ASP:H	2.24	0.41
41:BJ:83:GLY:O	41:BJ:84:ILE:C	2.59	0.41
27:BK:34:GLY:O	27:BK:35:VAL:C	2.59	0.41
27:BK:47:ILE:HG23	27:BK:48:PRO:N	2.35	0.41
27:BK:58:LEU:N	27:BK:58:LEU:HD23	2.36	0.41
37:BL:79:LEU:HG	37:BL:111:ILE:O	2.20	0.41
37:BL:96:LYS:HD3	37:BL:103:ILE:HA	2.02	0.41
45:BS:29:VAL:HG23	45:BS:70:LYS:CA	2.50	0.41
45:BS:34:ASP:HA	45:BS:37:THR:OG1	2.21	0.41
23:BB:748:G:C8	45:BS:89:ALA:HB1	2.56	0.41
46:BU:65:GLN:O	46:BU:68:ASN:HB2	2.21	0.41
52:BW:39:GLN:HG3	52:BW:42:THR:CB	2.40	0.41
51:BZ:30:LEU:HA	51:BZ:31:PRO:HD3	1.94	0.41
51:BZ:63:GLY:C	51:BZ:65:ASP:N	2.74	0.41
1:CA:1149:C:H2'	1:CA:1150:A:C8	2.55	0.41
1:CA:115:G:H1'	1:CA:116:A:N7	2.36	0.41
1:CA:316:C:H2'	1:CA:317:U:H6	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:591:U:H2'	1:CA:592:G:H8	1.84	0.41
1:CA:635:A:H2'	1:CA:636:U:H6	1.86	0.41
1:CA:667:G:H2'	1:CA:668:G:H8	1.86	0.41
1:CA:73:C:O2'	1:CA:74:A:H5'	2.21	0.41
1:CA:834:U:H2'	1:CA:835:U:C6	2.55	0.41
1:CA:852:G:H2'	1:CA:853:C:C6	2.56	0.41
20:CB:113:LEU:HD23	20:CB:113:LEU:O	2.21	0.41
2:CC:86:LEU:O	2:CC:90:VAL:HG23	2.20	0.41
2:CC:91:ALA:HB2	2:CC:98:ALA:HB3	2.02	0.41
5:CF:42:TRP:CZ2	5:CF:61:LEU:HD23	2.55	0.41
5:CF:14:GLN:HE21	5:CF:83:ALA:HB2	1.86	0.41
6:CG:110:ARG:HH11	6:CG:110:ARG:HB3	1.85	0.41
6:CG:111:GLY:HA2	6:CG:118:ARG:NH1	2.36	0.41
7:CH:9:MET:O	7:CH:13:ILE:HG13	2.20	0.41
10:CK:81:LEU:HD22	10:CK:104:PHE:HB3	2.03	0.41
12:CM:84:CYS:HB2	18:CS:72:GLU:OE1	2.21	0.41
13:CN:42:ASN:O	13:CN:46:LYS:HG2	2.19	0.41
14:CO:39:LEU:HD22	14:CO:59:MET:CE	2.51	0.41
15:CP:68:SER:H	15:CP:71:VAL:CG1	2.34	0.41
21:CU:42:THR:CB	21:CU:46:ARG:HH21	2.33	0.41
53:D6:106:LEU:CD2	53:D6:106:LEU:H	2.34	0.41
53:D6:18:LEU:HA	53:D6:18:LEU:HD12	1.86	0.41
23:DB:1059:G:H4'	24:DI:116:MET:HE2	2.02	0.41
23:DB:1060:U:OP1	24:DI:75:ALA:HB3	2.20	0.41
23:DB:1215:G:O2'	23:DB:1216:G:H5'	2.21	0.41
23:DB:2263:C:N4	52:DW:11:ASN:ND2	2.69	0.41
23:DB:2518:A:N3	23:DB:2518:A:H2'	2.35	0.41
23:DB:2769:U:O2'	23:DB:2770:G:H5'	2.21	0.41
23:DB:341:C:H2'	23:DB:342:A:C8	2.56	0.41
23:DB:587:C:N3	37:DL:33:ARG:NH2	2.65	0.41
23:DB:657:U:H2'	23:DB:658:U:C6	2.55	0.41
23:DB:685:A:N1	23:DB:787:C:H1'	2.36	0.41
25:DC:54:GLY:O	25:DC:214:GLY:HA2	2.21	0.41
25:DC:52:HIS:NE2	25:DC:218:THR:HG23	2.36	0.41
25:DC:262:THR:C	25:DC:264:LYS:H	2.23	0.41
25:DC:91:ALA:HB3	25:DC:105:ALA:HB2	2.03	0.41
29:DE:128:ALA:HA	29:DE:156:ASN:HD21	1.86	0.41
29:DE:186:VAL:HG13	29:DE:186:VAL:O	2.20	0.41
47:DF:39:VAL:HG13	47:DF:40:GLY:H	1.85	0.41
40:DH:16:GLY:HA2	40:DH:47:PHE:CE1	2.56	0.41
40:DH:14:SER:OG	40:DH:17:ASP:HB2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DI:10:LEU:C	24:DI:10:LEU:HD12	2.40	0.41
24:DI:68:PHE:N	24:DI:68:PHE:CD1	2.89	0.41
41:DJ:23:LYS:HE3	41:DJ:142:ILE:CG2	2.49	0.41
27:DK:10:VAL:HG21	27:DK:16:ALA:HA	2.02	0.41
37:DL:132:ARG:HA	37:DL:135:ILE:HG21	2.02	0.41
37:DL:14:LYS:O	37:DL:15:ALA:C	2.59	0.41
38:DM:41:LEU:HD13	38:DM:46:ILE:HG22	2.03	0.41
43:DO:35:ILE:HD11	43:DO:102:ARG:NE	2.35	0.41
45:DS:13:SER:OG	45:DS:16:LYS:HB2	2.21	0.41
45:DS:69:LEU:HD12	45:DS:69:LEU:HA	1.81	0.41
46:DU:94:PHE:HB2	46:DU:101:THR:H	1.84	0.41
1:AA:1049:U:H1'	1:AA:1201:A:C5	2.56	0.41
1:AA:1268:G:H2'	1:AA:1269:A:C8	2.55	0.41
1:AA:435:A:N3	1:AA:435:A:H2'	2.35	0.41
1:AA:532:A:H62	2:AC:191:THR:CG2	2.34	0.41
1:AA:829:G:O2'	1:AA:830:G:H5'	2.21	0.41
1:AA:1074:G:C4'	20:AB:102:ASN:HB2	2.50	0.41
20:AB:113:LEU:O	20:AB:113:LEU:HD23	2.20	0.41
3:AD:25:ARG:O	3:AD:27:ILE:HG13	2.20	0.41
4:AE:113:VAL:CG2	4:AE:114:LEU:N	2.83	0.41
5:AF:4:TYR:CD2	5:AF:71:ILE:HG21	2.55	0.41
5:AF:97:THR:O	5:AF:98:GLU:CD	2.59	0.41
9:AJ:41:PRO:O	9:AJ:42:LEU:HB2	2.20	0.41
10:AK:125:LYS:O	10:AK:126:ARG:O	2.39	0.41
10:AK:81:LEU:HD21	10:AK:104:PHE:HB3	2.02	0.41
11:AL:98:ARG:CB	11:AL:116:TYR:HA	2.48	0.41
1:AA:1048:G:OP1	13:AN:3:GLN:HB2	2.21	0.41
13:AN:52:ARG:C	13:AN:54:SER:N	2.74	0.41
14:AO:85:LEU:N	14:AO:85:LEU:CD1	2.84	0.41
15:AP:10:GLY:HA3	15:AP:15:PRO:C	2.41	0.41
7:AH:81:GLY:HA2	16:AQ:35:LYS:HZ2	1.85	0.41
18:AS:62:THR:H	18:AS:65:MET:HB3	1.86	0.41
34:B3:54:LEU:O	34:B3:58:ILE:HG13	2.20	0.41
53:B6:171:LYS:HA	53:B6:174:GLN:NE2	2.35	0.41
22:BA:52:A:H2'	22:BA:53:A:O5'	2.20	0.41
23:BB:1079:C:C2	23:BB:1080:A:C8	3.09	0.41
23:BB:1401:G:H2'	23:BB:1402:U:H6	1.85	0.41
23:BB:1416:G:O2'	23:BB:1417:C:H6	2.04	0.41
23:BB:1581:G:O2'	23:BB:1582:C:H5'	2.21	0.41
23:BB:1824:G:H1'	25:BC:251:THR:CG2	2.50	0.41
23:BB:1880:U:H2'	23:BB:1881:C:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1906:G:C8	23:BB:1929:G:H2'	2.56	0.41
23:BB:1930:G:O2'	23:BB:1931:U:OP2	2.38	0.41
23:BB:438:G:H2'	23:BB:439:A:H8	1.86	0.41
23:BB:817:C:O2'	23:BB:839:U:H5''	2.20	0.41
25:BC:262:THR:C	25:BC:264:LYS:H	2.24	0.41
25:BC:75:ALA:O	25:BC:114:GLN:HA	2.20	0.41
26:BD:117:GLY:HA2	26:BD:164:GLN:NE2	2.36	0.41
26:BD:31:ALA:HA	26:BD:96:ILE:O	2.21	0.41
48:BG:68:ARG:HD2	48:BG:68:ARG:C	2.41	0.41
40:BH:76:GLU:H	40:BH:76:GLU:CD	2.23	0.41
40:BH:96:THR:O	40:BH:97:ARG:C	2.59	0.41
24:BI:37:PHE:HZ	24:BI:56:VAL:HG11	1.86	0.41
41:BJ:1:MET:C	41:BJ:2:LYS:HZ3	2.23	0.41
38:BM:40:ARG:HB3	38:BM:95:LEU:HD12	2.02	0.41
43:BO:111:ARG:HH21	43:BO:117:PHE:C	2.24	0.41
22:BA:116:G:H4'	43:BO:54:VAL:O	2.20	0.41
43:BO:62:LEU:HA	43:BO:62:LEU:HD13	1.87	0.41
44:BQ:77:LYS:HE2	44:BQ:116:LEU:CD2	2.50	0.41
45:BS:72:THR:HG21	45:BS:108:SER:OG	2.21	0.41
46:BU:21:ARG:HD3	46:BU:72:PHE:CG	2.55	0.41
35:BV:70:ILE:HD13	35:BV:70:ILE:N	2.31	0.41
39:BX:29:ARG:NH1	50:BT:12:ARG:HG2	2.36	0.41
39:BX:35:GLY:O	39:BX:36:GLN:C	2.59	0.41
30:BY:44:ARG:HA	30:BY:44:ARG:HD3	1.96	0.41
1:CA:1136:C:H3'	1:CA:1138:G:O6	2.21	0.41
13:CN:100:TRP:HZ2	1:CA:1368:A:H5''	1.85	0.41
1:CA:277:C:O2'	1:CA:278:G:H5'	2.21	0.41
1:CA:451:A:N6	1:CA:480:U:H2'	2.35	0.41
1:CA:538:G:O2'	1:CA:539:A:H5'	2.21	0.41
1:CA:552:U:H2'	1:CA:553:A:H8	1.86	0.41
1:CA:562:U:H5''	1:CA:563:A:C4	2.56	0.41
1:CA:911:U:O2'	1:CA:912:C:H5'	2.21	0.41
20:CB:11:ALA:C	20:CB:13:VAL:N	2.75	0.41
20:CB:144:GLU:O	20:CB:148:GLY:HA3	2.20	0.41
20:CB:218:ALA:O	20:CB:221:ARG:HG2	2.21	0.41
20:CB:86:CYS:N	20:CB:88:GLN:NE2	2.68	0.41
2:CC:185:THR:CG2	2:CC:198:LYS:HG2	2.51	0.41
2:CC:9:ILE:O	2:CC:9:ILE:HG13	2.20	0.41
3:CD:64:TYR:N	3:CD:64:TYR:CD1	2.89	0.41
4:CE:35:LEU:HD22	4:CE:133:ILE:HA	2.02	0.41
5:CF:98:GLU:O	5:CF:99:ALA:HB3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CJ:92:LEU:HB2	9:CJ:93:ALA:H	1.75	0.41
11:CL:119:LYS:HB3	11:CL:119:LYS:HE3	1.98	0.41
12:CM:89:ARG:HD2	12:CM:95:PRO:O	2.21	0.41
14:CO:32:LEU:HD13	14:CO:32:LEU:HA	1.95	0.41
16:CQ:30:HIS:CE1	16:CQ:32:ILE:HG22	2.56	0.41
17:CR:33:THR:HG22	17:CR:39:VAL:HG12	2.02	0.41
36:D2:21:ARG:HG2	36:D2:31:LEU:HD21	2.03	0.41
53:D6:18:LEU:HD21	53:D6:171:LYS:CG	2.51	0.41
23:DB:12:U:O2	23:DB:2626:C:H4'	2.21	0.41
23:DB:1462:C:H4'	23:DB:2703:C:O4'	2.21	0.41
23:DB:1676:A:H2'	23:DB:1677:A:O4'	2.21	0.41
23:DB:1764:C:H2'	23:DB:1765:U:H6	1.86	0.41
23:DB:1936:A:H2	23:DB:1943:U:H5	1.69	0.41
23:DB:2341:G:O2'	23:DB:2342:C:H5'	2.21	0.41
23:DB:2373:G:O2'	23:DB:2374:C:H5'	2.21	0.41
23:DB:2630:G:O2'	23:DB:2631:G:H5'	2.21	0.41
23:DB:2636:C:O5'	26:DD:81:GLU:HB2	2.21	0.41
23:DB:1462:C:O2'	23:DB:2702:G:H1'	2.21	0.41
23:DB:2852:G:H2'	23:DB:2853:C:O4'	2.21	0.41
23:DB:2867:G:HO2'	23:DB:2868:A:H8	1.62	0.41
23:DB:289:G:H3'	23:DB:289:G:OP2	2.20	0.41
23:DB:299:A:H2	23:DB:319:G:N3	2.18	0.41
23:DB:391:A:H1'	23:DB:411:G:O4'	2.21	0.41
23:DB:453:A:H4'	23:DB:472:A:N6	2.36	0.41
23:DB:866:A:C2'	23:DB:867:C:H5'	2.50	0.41
25:DC:166:ARG:CB	25:DC:171:VAL:HG22	2.44	0.41
25:DC:32:LEU:HD22	25:DC:63:ILE:HG13	2.03	0.41
26:DD:76:GLY:O	26:DD:77:ARG:C	2.59	0.41
29:DE:108:ILE:HG12	37:DL:2:ARG:NH2	2.35	0.41
29:DE:12:LEU:HD12	29:DE:14:VAL:CG1	2.50	0.41
47:DF:160:LYS:HE2	47:DF:161:SER:HB3	2.03	0.41
47:DF:90:LEU:HB3	47:DF:95:MET:CB	2.51	0.41
48:DG:103:ASN:HA	48:DG:113:ASP:HA	2.03	0.41
48:DG:34:ARG:HH11	48:DG:34:ARG:CG	2.34	0.41
48:DG:44:HIS:CE1	48:DG:47:ASN:HA	2.56	0.41
48:DG:91:VAL:HG23	48:DG:92:GLY:N	2.36	0.41
40:DH:60:GLU:HA	40:DH:62:LEU:CD2	2.51	0.41
27:DK:66:LYS:HA	27:DK:79:PHE:O	2.21	0.41
38:DM:57:VAL:O	38:DM:58:LYS:HB2	2.20	0.41
42:DN:51:LEU:O	42:DN:54:LEU:HB3	2.21	0.41
28:DP:33:GLU:OE1	28:DP:33:GLU:HA	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:DT:39:THR:O	50:DT:41:ALA:N	2.54	0.41
50:DT:40:LYS:HE3	50:DT:59:ASN:HA	2.02	0.41
46:DU:53:GLN:OE1	46:DU:53:GLN:N	2.53	0.41
52:DW:50:VAL:HG23	52:DW:61:LYS:CE	2.50	0.41
39:DX:46:VAL:CA	39:DX:49:ASP:HB2	2.51	0.41
1:AA:1100:C:O2	1:AA:1102:A:H5'	2.21	0.41
1:AA:1509:C:O2'	1:AA:1510:C:H5'	2.21	0.41
1:AA:179:A:H2'	1:AA:180:U:C6	2.56	0.41
1:AA:499:A:H4'	1:AA:500:G:OP1	2.20	0.41
1:AA:591:U:H2'	1:AA:592:G:H8	1.85	0.41
1:AA:620:C:H1'	3:AD:131:ILE:HG21	2.03	0.41
1:AA:628:G:O2'	1:AA:629:A:H5'	2.21	0.41
1:AA:658:C:H2'	1:AA:659:U:C6	2.56	0.41
1:AA:880:C:O2'	1:AA:881:G:H5'	2.21	0.41
2:AC:147:GLY:HA2	2:AC:170:GLY:HA3	2.03	0.41
2:AC:179:ALA:CB	2:AC:181:ILE:HD11	2.49	0.41
3:AD:97:LEU:HD12	3:AD:136:VAL:CG2	2.51	0.41
4:AE:44:ARG:HA	4:AE:71:ILE:O	2.21	0.41
7:AH:63:LYS:CD	7:AH:70:VAL:HG21	2.51	0.41
13:AN:60:ARG:HG3	13:AN:62:ARG:CG	2.49	0.41
13:AN:72:PHE:CD1	13:AN:73:LEU:N	2.89	0.41
1:AA:617:G:H4'	15:AP:46:LYS:CE	2.50	0.41
32:B4:30:GLU:HA	32:B4:31:PRO:HD3	1.94	0.41
22:BA:93:C:O2'	22:BA:94:A:H5'	2.21	0.41
23:BB:1276:A:O2'	23:BB:1277:G:H5'	2.20	0.41
23:BB:139:U:OP2	23:BB:140:C:N3	2.54	0.41
23:BB:1433:A:H2'	23:BB:1434:A:O4'	2.20	0.41
23:BB:143:C:H2'	23:BB:144:A:C1'	2.51	0.41
23:BB:1516:G:O2'	23:BB:1517:G:H5'	2.21	0.41
23:BB:1553:A:H2'	23:BB:1555:G:N7	2.36	0.41
23:BB:1570:A:H2'	23:BB:1571:A:C8	2.56	0.41
23:BB:1607:C:N4	23:BB:1622:G:OP2	2.47	0.41
23:BB:1907:G:H2'	23:BB:1908:C:C6	2.55	0.41
23:BB:198:C:C2'	23:BB:199:A:H5''	2.51	0.41
23:BB:2393:U:H2'	23:BB:2394:C:O4'	2.20	0.41
23:BB:2518:A:H2'	23:BB:2518:A:N3	2.36	0.41
23:BB:2886:A:N7	31:B0:39:ARG:NE	2.66	0.41
23:BB:415:A:H2'	23:BB:416:U:C6	2.56	0.41
23:BB:660:C:H2'	23:BB:661:A:H8	1.86	0.41
23:BB:670:A:H3'	37:BL:43:GLY:H	1.86	0.41
25:BC:130:PRO:HA	25:BC:188:ARG:HA	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BC:7:PRO:O	25:BC:9:SER:N	2.54	0.41
26:BD:121:THR:HG22	26:BD:125:TRP:HD1	1.86	0.41
26:BD:8:LYS:HG2	26:BD:9:VAL:H	1.86	0.41
29:BE:3:LEU:CD2	29:BE:14:VAL:HG22	2.51	0.41
47:BF:110:ILE:HD12	47:BF:112:ASP:CA	2.51	0.41
47:BF:118:ALA:HA	47:BF:176:PHE:CE2	2.56	0.41
47:BF:174:PHE:HA	47:BF:175:PRO:HD2	1.88	0.41
40:BH:105:ALA:C	40:BH:107:GLY:H	2.25	0.41
40:BH:117:LEU:HD13	40:BH:121:VAL:HG23	2.03	0.41
27:BK:19:VAL:HB	27:BK:41:ILE:CD1	2.51	0.41
23:BB:1952:A:OP1	27:BK:42:THR:HG21	2.21	0.41
42:BN:87:PHE:HB3	42:BN:90:ARG:CB	2.51	0.41
42:BN:96:ARG:HG2	42:BN:96:ARG:HH21	1.86	0.41
49:BR:87:GLN:HG2	49:BR:88:GLY:N	2.36	0.41
50:BT:60:THR:HA	50:BT:82:LYS:O	2.21	0.41
46:BU:66:VAL:O	46:BU:69:VAL:HG22	2.21	0.41
35:BV:19:ARG:O	35:BV:22:ALA:HB3	2.21	0.41
39:BX:46:VAL:CA	39:BX:49:ASP:HB2	2.51	0.41
1:CA:1472:U:H2'	1:CA:1473:G:C8	2.56	0.41
1:CA:602:A:H2'	1:CA:603:U:C6	2.55	0.41
1:CA:720:C:O5'	1:CA:720:C:H6	2.04	0.41
1:CA:75:G:H3'	1:CA:76:G:H8	1.86	0.41
20:CB:31:PHE:HB3	20:CB:39:ILE:O	2.21	0.41
20:CB:96:LEU:HB2	20:CB:99:MET:CE	2.48	0.41
2:CC:163:ARG:HG2	2:CC:163:ARG:NH1	2.35	0.41
8:CI:23:GLY:H	8:CI:60:LEU:HA	1.86	0.41
12:CM:102:LYS:HE2	1:CA:952:U:C4	2.56	0.41
13:CN:60:ARG:HH21	13:CN:69:PRO:HD3	1.86	0.41
18:CS:6:LYS:HD2	18:CS:6:LYS:N	2.36	0.41
53:D6:9:GLU:HG2	53:D6:13:HIS:CE1	2.56	0.41
53:D6:80:GLU:O	53:D6:83:ILE:HG12	2.21	0.41
23:DB:1029:A:H2'	23:DB:1030:C:O4'	2.21	0.41
23:DB:1220:G:H2'	23:DB:1221:C:C6	2.56	0.41
23:DB:1278:C:O2'	23:DB:1279:G:H5'	2.20	0.41
23:DB:1323:C:OP1	45:DS:84:ARG:HD3	2.20	0.41
23:DB:1408:G:H2'	23:DB:1409:U:C6	2.56	0.41
23:DB:1601:G:O2'	23:DB:1602:U:H5'	2.20	0.41
23:DB:1918:A:C2	23:DB:1919:A:N6	2.89	0.41
23:DB:1957:C:H2'	23:DB:1958:C:C6	2.56	0.41
23:DB:2303:G:H4'	47:DF:121:PHE:O	2.20	0.41
23:DB:2457:U:C2'	23:DB:2458:G:H5'	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2660:A:H2'	23:DB:2661:G:C8	2.56	0.41
23:DB:386:G:H4'	23:DB:387:U:OP2	2.20	0.41
23:DB:545:U:C6	23:DB:548:G:OP1	2.74	0.41
23:DB:671:C:H3'	37:DL:42:SER:HB3	2.02	0.41
23:DB:671:C:H5'	37:DL:42:SER:CB	2.50	0.41
23:DB:1797:G:O3'	25:DC:255:LYS:O	2.40	0.41
23:DB:2680:U:OP2	26:DD:114:LYS:HD2	2.21	0.41
29:DE:106:LYS:HE3	29:DE:200:LEU:HD12	2.03	0.41
29:DE:46:GLN:HG3	29:DE:87:ALA:CB	2.46	0.41
40:DH:60:GLU:O	40:DH:63:ALA:HB2	2.21	0.41
24:DI:129:GLU:O	24:DI:133:ARG:HG3	2.21	0.41
27:DK:69:VAL:HG11	27:DK:106:GLU:CD	2.41	0.41
37:DL:141:LYS:C	37:DL:142:ILE:HD12	2.42	0.41
38:DM:71:LYS:HA	38:DM:72:PRO:HD3	1.95	0.41
28:DP:96:LEU:HA	28:DP:98:TYR:CE1	2.56	0.41
35:DV:2:PHE:CE2	35:DV:56:PHE:HA	2.56	0.41
30:DY:23:LEU:HD13	30:DY:28:LEU:HB2	2.03	0.41
1:AA:1142:G:C2'	1:AA:1143:G:H5'	2.51	0.40
1:AA:1217:C:H2'	1:AA:1218:C:H6	1.86	0.40
1:AA:1238:A:N3	1:AA:1238:A:H2'	2.36	0.40
1:AA:1258:G:H2'	1:AA:1259:C:C6	2.56	0.40
1:AA:1263:C:H2'	1:AA:1264:U:C6	2.56	0.40
1:AA:1328:C:O2'	1:AA:1329:A:H5'	2.20	0.40
1:AA:152:A:H2'	1:AA:153:C:O4'	2.20	0.40
1:AA:255:G:H2'	1:AA:256:U:C6	2.56	0.40
1:AA:317:U:H2'	1:AA:318:G:C8	2.56	0.40
1:AA:338:A:H2'	1:AA:339:C:H6	1.86	0.40
1:AA:408:A:H3'	1:AA:409:U:H6	1.87	0.40
1:AA:538:G:O2'	1:AA:539:A:H5'	2.21	0.40
1:AA:599:C:O2'	1:AA:600:A:H5'	2.21	0.40
2:AC:172:VAL:O	2:AC:174:LEU:HD12	2.20	0.40
3:AD:53:GLN:HB3	3:AD:202:LEU:HB2	2.03	0.40
4:AE:59:ILE:O	4:AE:63:MET:HG2	2.21	0.40
4:AE:81:GLN:CD	4:AE:148:SER:HA	2.42	0.40
5:AF:43:GLY:O	5:AF:58:HIS:HA	2.20	0.40
5:AF:4:TYR:O	5:AF:63:ASN:HA	2.21	0.40
6:AG:132:THR:HA	6:AG:135:LYS:HB2	2.03	0.40
9:AJ:37:ARG:HA	9:AJ:37:ARG:CZ	2.51	0.40
9:AJ:47:GLU:O	9:AJ:66:GLU:HA	2.21	0.40
13:AN:23:ARG:O	13:AN:26:LEU:HB3	2.21	0.40
14:AO:70:LEU:HD13	14:AO:70:LEU:O	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AR:32:ILE:HG22	17:AR:33:THR:O	2.21	0.40
18:AS:63:ASP:O	18:AS:65:MET:N	2.54	0.40
19:AT:57:VAL:HG23	19:AT:58:ASP:H	1.86	0.40
36:B2:17:GLY:O	36:B2:21:ARG:HB2	2.21	0.40
22:BA:17:C:O2'	22:BA:18:G:H5'	2.21	0.40
23:BB:1059:G:H2'	23:BB:1060:U:C5	2.56	0.40
23:BB:1063:G:O2'	23:BB:1064:C:H5'	2.21	0.40
23:BB:1445:G:H2'	23:BB:1446:C:C6	2.56	0.40
23:BB:1737:G:OP2	23:BB:1737:G:H8	2.04	0.40
23:BB:2223:G:O2'	23:BB:2224:G:H5'	2.21	0.40
23:BB:2233:U:H2'	23:BB:2234:G:C8	2.56	0.40
23:BB:226:A:H1'	23:BB:230:G:N2	2.36	0.40
23:BB:2445:G:OP1	29:BE:69:ARG:NH2	2.52	0.40
23:BB:2468:A:H2'	23:BB:2476:A:C6	2.56	0.40
23:BB:2636:C:O2'	23:BB:2637:U:H5'	2.21	0.40
23:BB:2745:C:H3'	23:BB:2746:U:C5	2.56	0.40
23:BB:2756:U:H4'	23:BB:2757:A:O5'	2.20	0.40
23:BB:2883:A:OP1	31:B0:48:TYR:CE1	2.74	0.40
23:BB:302:C:H2'	23:BB:303:G:H8	1.86	0.40
23:BB:378:C:C2'	23:BB:379:G:H5'	2.51	0.40
23:BB:388:G:N7	23:BB:390:U:H2'	2.36	0.40
23:BB:438:G:H2'	23:BB:439:A:C8	2.56	0.40
23:BB:592:A:C2	34:B3:3:ILE:HD11	2.56	0.40
23:BB:705:A:O2'	23:BB:706:A:H5'	2.20	0.40
23:BB:739:A:H1'	23:BB:740:C:H5	1.87	0.40
23:BB:925:A:O2'	23:BB:926:G:H5'	2.21	0.40
25:BC:109:LEU:N	25:BC:109:LEU:CD2	2.84	0.40
25:BC:259:ASN:C	25:BC:261:ARG:H	2.25	0.40
23:BB:2513:A:H2	26:BD:148:GLN:OE1	2.04	0.40
26:BD:125:TRP:CD1	26:BD:160:LYS:HB3	2.56	0.40
26:BD:55:LYS:HB2	26:BD:75:ALA:HB1	2.03	0.40
29:BE:106:LYS:HE3	29:BE:200:LEU:HD12	2.03	0.40
29:BE:161:ALA:C	29:BE:163:ASN:N	2.72	0.40
29:BE:173:THR:C	29:BE:175:ILE:H	2.25	0.40
29:BE:186:VAL:HG13	29:BE:186:VAL:O	2.21	0.40
29:BE:195:GLN:C	29:BE:197:GLU:N	2.72	0.40
47:BF:110:ILE:HG13	47:BF:111:ARG:N	2.35	0.40
47:BF:43:ILE:HA	47:BF:46:LYS:HE2	2.04	0.40
27:BK:4:GLU:OE2	27:BK:23:LYS:HA	2.21	0.40
37:BL:14:LYS:O	37:BL:15:ALA:C	2.58	0.40
37:BL:56:PRO:O	37:BL:60:ARG:HG3	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BL:94:THR:O	37:BL:97:ALA:N	2.54	0.40
38:BM:18:ARG:HD2	38:BM:18:ARG:HA	1.87	0.40
38:BM:57:VAL:O	38:BM:58:LYS:HB2	2.21	0.40
42:BN:52:ILE:CD1	42:BN:83:LEU:HD23	2.50	0.40
27:BK:76:VAL:HB	28:BP:72:VAL:CG2	2.51	0.40
49:BR:7:SER:OG	49:BR:12:HIS:CE1	2.74	0.40
49:BR:6:GLN:HE22	49:BR:9:GLY:C	2.24	0.40
46:BU:10:VAL:HG21	46:BU:35:VAL:CG2	2.52	0.40
52:BW:32:ALA:O	52:BW:58:LEU:O	2.38	0.40
51:BZ:64:ILE:CD1	51:BZ:64:ILE:H	2.21	0.40
1:CA:1313:U:H2'	1:CA:1314:C:C6	2.56	0.40
1:CA:372:C:H4'	1:CA:373:A:C5'	2.49	0.40
1:CA:432:A:C2'	1:CA:433:G:H5'	2.51	0.40
3:CD:55:ARG:NH2	1:CA:544:G:OP1	2.55	0.40
15:CP:10:GLY:O	1:CA:624:C:H4'	2.21	0.40
1:CA:674:G:O2'	1:CA:675:A:H5'	2.21	0.40
1:CA:828:U:OP1	1:CA:828:U:H4'	2.20	0.40
1:CA:960:U:O2	1:CA:960:U:H2'	2.21	0.40
1:CA:982:U:H4'	1:CA:983:A:O4'	2.21	0.40
5:CF:2:ARG:HG2	5:CF:3:HIS:H	1.86	0.40
6:CG:151:ALA:HB3	6:CG:153:TYR:CE1	2.57	0.40
7:CH:40:LYS:HE3	7:CH:47:ASP:HA	2.02	0.40
14:CO:37:ASN:HA	14:CO:40:GLN:HG3	2.03	0.40
15:CP:48:GLU:CG	15:CP:49:GLY:N	2.84	0.40
19:CT:57:VAL:HG23	19:CT:58:ASP:H	1.87	0.40
21:CU:3:ILE:O	21:CU:3:ILE:HG22	2.21	0.40
33:D1:24:LYS:HE3	33:D1:29:LYS:O	2.21	0.40
34:D3:21:PHE:CE1	34:D3:58:ILE:HG12	2.56	0.40
32:D4:2:LYS:CD	32:D4:4:ARG:HE	2.17	0.40
53:D6:137:LEU:CD1	53:D6:161:ILE:HG21	2.49	0.40
22:DA:85:G:H2'	22:DA:86:G:H8	1.87	0.40
23:DB:1063:G:O2'	23:DB:1064:C:H5'	2.21	0.40
23:DB:1076:C:H2'	23:DB:1077:A:H8	1.86	0.40
23:DB:1210:G:H5'	23:DB:1212:G:C5'	2.51	0.40
23:DB:1221:C:H2'	23:DB:1222:U:H6	1.85	0.40
23:DB:1276:A:O2'	23:DB:1277:G:H5'	2.21	0.40
23:DB:1290:C:O2'	23:DB:1291:C:H5'	2.21	0.40
23:DB:1328:A:H2'	23:DB:1330:C:C4	2.56	0.40
23:DB:1508:A:H3'	23:DB:1509:A:C5	2.56	0.40
23:DB:1916:A:H3'	23:DB:1917:U:C6	2.56	0.40
23:DB:2358:A:H2'	23:DB:2359:C:C6	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2544:G:O2'	23:DB:2545:G:H5'	2.21	0.40
23:DB:255:A:C2	23:DB:256:A:H1'	2.56	0.40
23:DB:2641:G:H5''	41:DJ:78:THR:HB	2.03	0.40
23:DB:2649:C:O2'	23:DB:2650:U:H5'	2.21	0.40
23:DB:2650:U:O2'	23:DB:2651:C:H5'	2.21	0.40
23:DB:2675:A:H4'	27:DK:29:HIS:HB2	2.03	0.40
23:DB:2714:G:H2'	23:DB:2715:C:C6	2.56	0.40
23:DB:2836:U:H2'	23:DB:2837:A:H8	1.86	0.40
23:DB:2869:G:H2'	23:DB:2870:C:H6	1.85	0.40
23:DB:2875:C:H2'	23:DB:2876:G:C8	2.55	0.40
23:DB:28:A:N6	23:DB:512:G:O2'	2.54	0.40
23:DB:477:A:H2'	23:DB:478:A:C8	2.56	0.40
23:DB:490:C:H3'	23:DB:491:G:H5''	2.03	0.40
23:DB:528:A:H8	23:DB:528:A:H3'	1.85	0.40
23:DB:962:G:H2'	23:DB:963:U:C6	2.56	0.40
25:DC:120:ASP:O	25:DC:121:ALA:C	2.59	0.40
23:DB:1791:A:O3'	25:DC:204:LEU:HB2	2.21	0.40
23:DB:2513:A:H2	26:DD:148:GLN:OE1	2.04	0.40
29:DE:118:LEU:HD21	29:DE:188:MET:CE	2.50	0.40
29:DE:2:GLU:OE1	29:DE:2:GLU:HA	2.21	0.40
29:DE:37:ALA:HB1	29:DE:92:HIS:O	2.21	0.40
47:DF:105:ILE:O	47:DF:109:ARG:HB2	2.20	0.40
47:DF:7:TYR:HA	47:DF:11:VAL:HB	2.03	0.40
47:DF:177:ARG:HA	47:DF:177:ARG:NH1	2.37	0.40
48:DG:123:GLU:HG2	48:DG:124:CYS:H	1.86	0.40
48:DG:36:LEU:N	48:DG:36:LEU:HD22	2.36	0.40
48:DG:49:LEU:HB3	48:DG:51:PHE:CZ	2.56	0.40
48:DG:98:LYS:O	48:DG:101:VAL:HG22	2.21	0.40
41:DJ:13:ARG:O	41:DJ:14:ASP:HB2	2.21	0.40
23:DB:663:G:OP1	37:DL:17:LYS:HG2	2.21	0.40
43:DO:27:VAL:HG21	43:DO:40:ILE:HD12	2.03	0.40
43:DO:30:ARG:HG2	43:DO:35:ILE:HD13	2.03	0.40
28:DP:103:THR:O	28:DP:107:ALA:N	2.47	0.40
49:DR:15:SER:H	49:DR:18:GLN:NE2	2.19	0.40
49:DR:49:ILE:HB	49:DR:51:VAL:O	2.21	0.40
49:DR:53:PHE:CD1	49:DR:53:PHE:N	2.89	0.40
45:DS:61:ASN:HD22	45:DS:61:ASN:HA	1.61	0.40
50:DT:60:THR:HA	50:DT:82:LYS:O	2.21	0.40
23:DB:2336:A:N6	52:DW:40:ARG:CB	2.85	0.40
52:DW:49:ASN:CB	52:DW:81:ILE:HG12	2.51	0.40
30:DY:16:LEU:N	30:DY:16:LEU:HD22	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:DZ:27:ARG:HG3	51:DZ:28:ARG:H	1.85	0.40
1:AA:123:U:OP1	1:AA:312:C:H5'	2.21	0.40
1:AA:1279:G:H5''	9:AJ:9:ARG:NH2	2.36	0.40
1:AA:230:G:O2'	1:AA:231:U:H5'	2.21	0.40
1:AA:620:C:H2'	1:AA:621:A:C8	2.56	0.40
1:AA:677:U:H1'	10:AK:120:CYS:SG	2.60	0.40
1:AA:677:U:H2'	1:AA:678:U:C6	2.56	0.40
1:AA:720:C:H6	1:AA:720:C:O5'	2.04	0.40
1:AA:81:A:N3	1:AA:82:G:N7	2.70	0.40
2:AC:155:ARG:H	2:AC:162:ALA:HA	1.86	0.40
4:AE:125:LYS:HD2	4:AE:126:ALA:H	1.86	0.40
5:AF:5:GLU:HA	5:AF:63:ASN:HA	2.04	0.40
10:AK:28:ASN:ND2	10:AK:29:THR:N	2.68	0.40
10:AK:33:ILE:HG13	10:AK:73:VAL:HG21	2.02	0.40
11:AL:6:LEU:HD21	11:AL:11:ARG:NE	2.37	0.40
13:AN:77:GLY:C	13:AN:78:LEU:HD12	2.41	0.40
15:AP:38:PHE:CE2	15:AP:51:ARG:HD3	2.56	0.40
31:B0:39:ARG:HG3	31:B0:39:ARG:NH1	2.35	0.40
53:B6:60:ALA:CA	53:B6:66:LEU:HG	2.51	0.40
23:BB:1172:C:H2'	23:BB:1173:U:O4'	2.21	0.40
23:BB:1275:A:C2'	23:BB:1276:A:O4'	2.69	0.40
23:BB:1328:A:H2'	23:BB:1330:C:C5	2.57	0.40
23:BB:1425:G:H2'	23:BB:1426:G:C8	2.56	0.40
23:BB:197:A:H4'	23:BB:2069:G:OP2	2.21	0.40
23:BB:19:A:O2'	23:BB:20:C:H5'	2.22	0.40
23:BB:2331:G:H2'	23:BB:2332:C:H6	1.86	0.40
23:BB:2485:G:O2'	23:BB:2486:C:H5'	2.22	0.40
23:BB:278:A:H2'	23:BB:278:A:N3	2.36	0.40
23:BB:2839:G:O2'	23:BB:2840:C:H5'	2.21	0.40
25:BC:123:ILE:O	25:BC:123:ILE:HG23	2.21	0.40
25:BC:62:ARG:O	25:BC:63:ILE:HG12	2.21	0.40
26:BD:148:GLN:CB	26:BD:152:PRO:HG2	2.52	0.40
29:BE:135:ALA:HA	29:BE:138:LEU:HD12	2.03	0.40
47:BF:39:VAL:HG13	47:BF:40:GLY:H	1.85	0.40
48:BG:95:ALA:HB3	48:BG:124:CYS:SG	2.62	0.40
48:BG:36:LEU:N	48:BG:36:LEU:HD22	2.35	0.40
41:BJ:102:GLU:HG3	41:BJ:124:VAL:HG11	2.03	0.40
41:BJ:64:VAL:HG13	41:BJ:68:LYS:HB2	2.02	0.40
56:BB:3459:HOH:O	37:BL:99:ASN:HB3	2.21	0.40
23:BB:958:U:N3	38:BM:16:ARG:HB3	2.16	0.40
38:BM:66:ARG:HB3	38:BM:66:ARG:NH1	2.32	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BP:54:LEU:HA	28:BP:76:HIS:CD2	2.46	0.40
45:BS:95:ARG:HA	45:BS:95:ARG:NE	2.37	0.40
50:BT:44:LYS:C	50:BT:46:ALA:H	2.25	0.40
52:BW:37:VAL:C	52:BW:38:ARG:HG2	2.42	0.40
40:BH:32:PRO:CG	51:BZ:39:TRP:HB3	2.52	0.40
1:CA:1039:G:O2'	1:CA:1040:U:H5'	2.22	0.40
1:CA:1173:U:H2'	1:CA:1174:G:O4'	2.21	0.40
1:CA:1230:C:H2'	1:CA:1231:G:H8	1.87	0.40
1:CA:1253:G:N1	1:CA:1285:A:N6	2.70	0.40
8:CI:125:GLN:HB3	1:CA:1342:C:O2'	2.21	0.40
1:CA:1361:G:C2'	1:CA:1362:A:H5''	2.47	0.40
1:CA:576:C:OP2	1:CA:576:C:H3'	2.20	0.40
1:CA:948:C:O2'	1:CA:949:A:H5'	2.21	0.40
20:CB:98:GLY:HA2	20:CB:101:THR:HG22	2.04	0.40
20:CB:108:GLN:O	20:CB:111:LYS:HB3	2.21	0.40
2:CC:187:GLU:HB3	2:CC:194:VAL:CG1	2.51	0.40
2:CC:194:VAL:HG12	2:CC:195:ILE:N	2.36	0.40
2:CC:39:ARG:HE	2:CC:54:ILE:CG2	2.33	0.40
2:CC:61:LYS:O	2:CC:62:SER:HB3	2.21	0.40
3:CD:79:ALA:HA	3:CD:85:THR:OG1	2.20	0.40
4:CE:44:ARG:HA	4:CE:71:ILE:O	2.20	0.40
6:CG:16:LYS:HB3	6:CG:17:PHE:CD1	2.56	0.40
8:CI:103:VAL:HG23	8:CI:104:THR:N	2.36	0.40
9:CJ:74:VAL:O	9:CJ:75:ASP:O	2.40	0.40
11:CL:87:LYS:HE2	1:CA:525:C:OP1	2.21	0.40
13:CN:42:ASN:HD21	13:CN:46:LYS:HZ1	1.68	0.40
23:DB:2361:G:OP1	34:D3:25:HIS:HA	2.21	0.40
23:DB:2742:G:OP1	32:D4:36:ARG:NH1	2.55	0.40
53:D6:150:SER:OG	53:D6:153:GLU:HG3	2.21	0.40
23:DB:1033:U:H5	32:D4:15:LYS:HE3	1.86	0.40
23:DB:1165:A:H2'	23:DB:1166:G:H8	1.86	0.40
23:DB:1177:G:C6	23:DB:1178:C:N4	2.89	0.40
23:DB:1408:G:H2'	23:DB:1409:U:H6	1.86	0.40
23:DB:1553:A:H2'	23:DB:1555:G:N7	2.36	0.40
23:DB:1885:A:H3'	23:DB:1886:U:H6	1.85	0.40
23:DB:1973:G:H2'	23:DB:1974:C:C6	2.56	0.40
23:DB:211:C:O2'	23:DB:212:G:H5'	2.22	0.40
23:DB:964:C:O2'	23:DB:2273:A:H1'	2.21	0.40
23:DB:233:A:C2'	23:DB:234:U:H5'	2.51	0.40
23:DB:299:A:H2'	23:DB:300:A:C8	2.56	0.40
23:DB:372:G:N2	23:DB:401:A:OP2	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:584:C:O2'	23:DB:585:G:H5'	2.21	0.40
23:DB:664:G:H2'	23:DB:665:U:C6	2.56	0.40
23:DB:857:G:H2'	23:DB:858:G:H5'	2.00	0.40
23:DB:900:A:H2'	23:DB:901:C:H6	1.86	0.40
23:DB:855:G:C6	23:DB:923:G:C6	3.09	0.40
25:DC:131:MET:CE	25:DC:183:VAL:HG11	2.51	0.40
25:DC:89:ASN:HA	25:DC:89:ASN:HD22	1.53	0.40
26:DD:51:THR:HG22	26:DD:76:GLY:HA3	2.00	0.40
29:DE:198:GLU:O	29:DE:199:MET:C	2.59	0.40
47:DF:139:GLU:CD	47:DF:140:ILE:N	2.74	0.40
41:DJ:33:ALA:HB2	41:DJ:108:MET:HB2	2.03	0.40
27:DK:115:ILE:C	27:DK:117:SER:H	2.23	0.40
37:DL:79:LEU:HG	37:DL:112:LEU:HA	2.03	0.40
37:DL:129:LYS:HA	37:DL:132:ARG:HG2	2.03	0.40
23:DB:2485:G:H5''	38:DM:45:GLN:HE21	1.85	0.40
38:DM:4:PRO:CG	38:DM:70:ASP:HA	2.51	0.40
42:DN:70:THR:O	42:DN:72:ASP:N	2.52	0.40
42:DN:96:ARG:CG	42:DN:98:LEU:HD22	2.50	0.40
43:DO:110:ALA:O	43:DO:115:LEU:HB2	2.21	0.40
23:DB:1199:U:H5'	44:DQ:4:LYS:HG2	2.03	0.40
44:DQ:89:ILE:HB	44:DQ:90:ASP:H	1.76	0.40
44:DQ:111:LYS:CD	49:DR:48:LYS:HZ2	2.34	0.40
45:DS:2:GLU:O	45:DS:3:THR:C	2.60	0.40
45:DS:95:ARG:HA	45:DS:95:ARG:NE	2.37	0.40
50:DT:7:LEU:HD22	50:DT:9:LYS:HE3	2.03	0.40
52:DW:46:ALA:O	52:DW:49:ASN:O	2.39	0.40
52:DW:54:ARG:HB2	52:DW:54:ARG:HH11	1.86	0.40
23:DB:96:C:H4'	39:DX:41:HIS:NE2	2.37	0.40
1:AA:1096:C:H2'	1:AA:1097:C:H6	1.86	0.40
1:AA:1136:C:H3'	1:AA:1138:G:O6	2.21	0.40
1:AA:1291:U:H2'	1:AA:1292:G:C8	2.56	0.40
1:AA:1346:A:H61	1:AA:1374:A:H3'	1.86	0.40
1:AA:1426:G:H2'	1:AA:1427:C:C6	2.56	0.40
1:AA:1488:G:O2'	1:AA:1489:G:H5'	2.21	0.40
1:AA:154:U:O2'	1:AA:155:A:H5'	2.21	0.40
2:AC:9:ILE:HG23	2:AC:10:ARG:HG3	2.03	0.40
3:AD:62:ARG:HG2	3:AD:62:ARG:H	1.75	0.40
5:AF:4:TYR:HA	5:AF:90:MET:O	2.22	0.40
1:AA:1297:G:O2'	6:AG:113:LYS:HE3	2.19	0.40
7:AH:29:SER:O	7:AH:30:LYS:C	2.59	0.40
12:AM:2:ARG:HA	12:AM:6:ILE:O	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AP:22:ALA:HB2	15:AP:32:PHE:HA	2.02	0.40
21:AU:3:ILE:HG21	21:AU:18:PHE:HB3	2.03	0.40
34:B3:35:LYS:HG2	34:B3:39:ARG:HH21	1.86	0.40
34:B3:21:PHE:HE1	34:B3:58:ILE:HG12	1.86	0.40
53:B6:48:ALA:O	53:B6:50:VAL:HG22	2.22	0.40
23:BB:1197:G:C4	23:BB:1198:U:C5	3.10	0.40
23:BB:1231:U:H2'	23:BB:1232:G:H8	1.86	0.40
23:BB:1313:U:H4'	23:BB:1332:G:H4'	2.03	0.40
23:BB:1323:C:H2'	23:BB:1324:G:H5'	2.02	0.40
23:BB:1358:G:N2	23:BB:1372:U:C5	2.89	0.40
23:BB:1341:G:N2	23:BB:1398:C:H4'	2.36	0.40
23:BB:1445:G:O2'	23:BB:1446:C:H5'	2.22	0.40
23:BB:1585:C:O2'	23:BB:1586:A:H5'	2.22	0.40
23:BB:2023:C:O2'	23:BB:2024:G:H5'	2.22	0.40
23:BB:2025:C:H2'	23:BB:2026:U:H6	1.85	0.40
23:BB:2266:A:O4'	23:BB:2272:U:O4	2.40	0.40
23:BB:2304:G:H4'	47:BF:128:SER:O	2.21	0.40
23:BB:2368:C:H2'	23:BB:2369:A:H8	1.86	0.40
23:BB:2751:G:H3'	23:BB:2752:C:C6	2.56	0.40
23:BB:2834:G:H2'	23:BB:2879:A:N6	2.37	0.40
23:BB:2900:A:H2'	23:BB:2901:C:C1'	2.52	0.40
23:BB:401:A:O2'	23:BB:402:A:H5'	2.20	0.40
23:BB:587:C:N3	37:BL:33:ARG:NH2	2.67	0.40
23:BB:680:C:H2'	23:BB:681:G:C8	2.56	0.40
23:BB:685:A:H1'	23:BB:688:U:O4	2.22	0.40
25:BC:120:ASP:O	25:BC:121:ALA:C	2.59	0.40
23:BB:1490:A:H2'	25:BC:97:ASP:OD2	2.22	0.40
23:BB:2680:U:P	26:BD:114:LYS:HB3	2.61	0.40
23:BB:2579:C:H4'	26:BD:139:SER:HB2	2.03	0.40
23:BB:322:A:P	29:BE:163:ASN:HD22	2.43	0.40
29:BE:40:ARG:NH2	29:BE:92:HIS:NE2	2.70	0.40
48:BG:127:GLN:HB3	48:BG:127:GLN:HE21	1.69	0.40
40:BH:135:HIS:O	40:BH:137:GLU:N	2.55	0.40
40:BH:66:ASN:N	40:BH:66:ASN:ND2	2.67	0.40
40:BH:98:ASP:OD2	40:BH:99:ILE:HG12	2.22	0.40
41:BJ:98:GLU:O	41:BJ:102:GLU:HG3	2.21	0.40
41:BJ:11:VAL:CG1	41:BJ:12:LYS:N	2.84	0.40
27:BK:110:GLU:N	27:BK:111:LYS:HZ3	2.19	0.40
23:BB:1279:G:H4'	42:BN:31:HIS:CD2	2.56	0.40
50:BT:57:VAL:O	50:BT:85:VAL:O	2.40	0.40
23:BB:1340:U:H5'	50:BT:61:LEU:HD22	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BV:51:GLN:NE2	35:BV:57:TYR:OH	2.54	0.40
52:BW:23:LYS:CE	52:BW:24:ARG:HG3	2.51	0.40
30:BY:51:SER:HA	30:BY:54:VAL:HG22	2.04	0.40
4:CE:22:LYS:CB	1:CA:1081:A:OP1	2.68	0.40
1:CA:1140:C:H2'	1:CA:1141:C:C6	2.56	0.40
1:CA:1422:G:H5''	27:DK:48:PRO:CB	2.52	0.40
3:CD:8:LEU:CD2	1:CA:429:U:H3'	2.47	0.40
2:CC:155:ARG:H	2:CC:162:ALA:HA	1.86	0.40
2:CC:63:ILE:O	2:CC:98:ALA:HA	2.21	0.40
3:CD:194:ILE:O	3:CD:194:ILE:HG23	2.21	0.40
3:CD:89:LEU:HD22	3:CD:199:ILE:HD11	2.03	0.40
3:CD:53:GLN:HB3	3:CD:202:LEU:HB2	2.03	0.40
5:CF:43:GLY:O	5:CF:58:HIS:HA	2.21	0.40
5:CF:5:GLU:HA	5:CF:63:ASN:HA	2.03	0.40
10:CK:115:ILE:HD12	10:CK:115:ILE:H	1.86	0.40
11:CL:83:GLY:HA2	11:CL:94:TYR:HD1	1.85	0.40
13:CN:51:PRO:HG2	13:CN:52:ARG:H	1.87	0.40
14:CO:70:LEU:HD13	14:CO:70:LEU:O	2.21	0.40
17:CR:25:ILE:HG13	17:CR:26:ALA:N	2.37	0.40
31:D0:3:GLN:HB3	31:D0:3:GLN:HE21	1.63	0.40
33:D1:8:ILE:CG2	33:D1:9:LYS:N	2.85	0.40
34:D3:31:ILE:HG13	34:D3:34:LYS:HG2	2.03	0.40
22:DA:55:U:H2'	22:DA:56:G:C8	2.57	0.40
23:DB:978:G:O4'	23:DB:1001:A:H2	2.04	0.40
23:DB:1201:U:H2'	23:DB:1202:G:H8	1.86	0.40
23:DB:1287:A:O2'	23:DB:1288:G:H5'	2.21	0.40
23:DB:1460:U:H5''	23:DB:1461:C:C6	2.57	0.40
23:DB:1582:C:H3'	23:DB:1583:A:C8	2.55	0.40
23:DB:1707:G:H2'	23:DB:1708:C:C6	2.57	0.40
23:DB:1734:G:H2'	23:DB:1735:A:H8	1.86	0.40
23:DB:2213:U:H2'	23:DB:2214:C:H5'	2.03	0.40
23:DB:2247:A:O2'	23:DB:2248:C:H5'	2.21	0.40
23:DB:33:C:H6	23:DB:33:C:H2'	1.75	0.40
23:DB:79:C:HO2'	23:DB:346:A:C1'	2.34	0.40
23:DB:6:A:O2'	23:DB:7:G:H5'	2.21	0.40
23:DB:725:G:H2'	23:DB:726:G:C1'	2.52	0.40
23:DB:796:C:H2'	23:DB:797:G:H8	1.86	0.40
25:DC:123:ILE:O	25:DC:123:ILE:HG23	2.20	0.40
25:DC:140:VAL:CG1	25:DC:141:HIS:N	2.83	0.40
26:DD:121:THR:HB	26:DD:127:PHE:CD1	2.55	0.40
23:DB:675:A:P	29:DE:60:TRP:HZ2	2.44	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DF:110:ILE:HG13	47:DF:111:ARG:N	2.36	0.40
47:DF:131:VAL:C	47:DF:133:GLU:H	2.25	0.40
40:DH:90:LEU:HD23	40:DH:94:ILE:HD13	2.03	0.40
24:DI:73:PRO:CG	24:DI:78:LEU:HD21	2.47	0.40
41:DJ:127:GLY:H	41:DJ:129:GLU:CD	2.25	0.40
27:DK:34:GLY:O	27:DK:35:VAL:C	2.59	0.40
42:DN:31:HIS:C	42:DN:33:ILE:H	2.25	0.40
28:DP:58:PHE:CD2	28:DP:58:PHE:N	2.89	0.40
44:DQ:50:ARG:HG2	44:DQ:50:ARG:HH11	1.87	0.40
49:DR:40:MET:C	49:DR:41:ILE:HD13	2.41	0.40
45:DS:24:ILE:HG12	45:DS:36:LEU:HD21	2.03	0.40
46:DU:8:ASP:O	46:DU:23:LYS:HA	2.22	0.40
1:AA:1477:U:O2'	1:AA:1478:U:H5'	2.20	0.40
1:AA:1526:G:H2'	1:AA:1527:U:H6	1.86	0.40
1:AA:343:U:H2'	1:AA:345:C:C4	2.56	0.40
1:AA:346:G:H2'	1:AA:347:G:O4'	2.22	0.40
1:AA:413:G:C2'	1:AA:428:G:H21	2.34	0.40
20:AB:163:ILE:HD11	20:AB:209:VAL:HG12	2.04	0.40
3:AD:14:GLU:HG3	3:AD:18:LEU:HD21	2.04	0.40
11:AL:23:LEU:C	11:AL:25:ALA:H	2.25	0.40
1:AA:974:A:P	13:AN:68:ARG:HH22	2.44	0.40
14:AO:37:ASN:HA	14:AO:40:GLN:HG3	2.02	0.40
16:AQ:17:GLU:O	16:AQ:18:LYS:HB2	2.21	0.40
17:AR:33:THR:HG22	17:AR:39:VAL:HG12	2.03	0.40
18:AS:6:LYS:HD2	18:AS:6:LYS:N	2.35	0.40
19:AT:2:ASN:CG	19:AT:3:ILE:N	2.74	0.40
21:AU:3:ILE:HG23	21:AU:18:PHE:HD1	1.86	0.40
21:AU:34:ARG:NH2	21:AU:36:PHE:CD2	2.89	0.40
23:BB:2015:A:C2	31:B0:2:VAL:HG22	2.56	0.40
33:B1:24:LYS:HE3	33:B1:29:LYS:O	2.22	0.40
36:B2:10:LEU:HD11	36:B2:14:ARG:CZ	2.51	0.40
23:BB:1076:C:O2'	23:BB:1077:A:H5'	2.22	0.40
23:BB:122:G:O2'	23:BB:123:G:H5'	2.21	0.40
23:BB:1910:G:C8	23:BB:1910:G:O5'	2.74	0.40
23:BB:1957:C:H2'	23:BB:1958:C:C6	2.56	0.40
23:BB:2195:U:O2'	23:BB:2196:C:H5'	2.21	0.40
23:BB:2261:C:O2'	23:BB:2262:U:H5'	2.21	0.40
23:BB:231:A:H3'	23:BB:232:G:H8	1.87	0.40
23:BB:2419:U:H2'	23:BB:2420:C:C6	2.56	0.40
23:BB:2692:G:H1'	23:BB:2847:U:O2'	2.21	0.40
23:BB:2714:G:H2'	23:BB:2715:C:C6	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:2752:C:H3'	23:BB:2753:A:H8	1.86	0.40
23:BB:2719:G:H4'	23:BB:2846:G:O3'	2.22	0.40
23:BB:541:A:H2'	23:BB:542:C:H6	1.84	0.40
23:BB:596:U:O2'	23:BB:597:G:H5'	2.21	0.40
23:BB:680:C:H2'	23:BB:681:G:H8	1.85	0.40
23:BB:704:G:O2'	23:BB:727:A:N6	2.55	0.40
23:BB:708:G:H2'	23:BB:709:U:H6	1.86	0.40
23:BB:973:A:OP1	23:BB:973:A:H8	2.05	0.40
25:BC:184:GLU:C	25:BC:186:ASP:H	2.24	0.40
25:BC:142:ASN:O	25:BC:189:ALA:HA	2.21	0.40
25:BC:76:VAL:O	25:BC:93:VAL:O	2.39	0.40
29:BE:194:LYS:HB2	29:BE:194:LYS:HE2	1.98	0.40
29:BE:21:ARG:HE	29:BE:106:LYS:HB3	1.86	0.40
47:BF:119:LYS:HA	47:BF:121:PHE:CE1	2.55	0.40
40:BH:7:ASP:CG	40:BH:8:LYS:N	2.74	0.40
24:BI:23:VAL:CG2	24:BI:24:GLY:H	2.32	0.40
41:BJ:29:ALA:O	41:BJ:32:LEU:HB2	2.21	0.40
37:BL:116:VAL:O	37:BL:118:THR:N	2.54	0.40
38:BM:117:PHE:O	38:BM:120:ALA:HB3	2.21	0.40
23:BB:2002:G:OP1	42:BN:13:ASN:HA	2.22	0.40
28:BP:103:THR:O	28:BP:104:GLY:C	2.60	0.40
26:BD:15:PHE:CD2	28:BP:77:SER:HA	2.56	0.40
23:BB:17:G:H5''	44:BQ:24:TYR:HE1	1.85	0.40
23:BB:535:G:O4'	44:BQ:48:ASP:HB3	2.21	0.40
49:BR:29:THR:O	49:BR:29:THR:HG22	2.21	0.40
45:BS:14:ALA:O	45:BS:17:VAL:N	2.53	0.40
23:BB:98:G:H22	46:BU:6:ARG:HH12	1.69	0.40
35:BV:9:ARG:CD	35:BV:41:GLU:HB3	2.52	0.40
52:BW:29:SER:O	52:BW:30:VAL:HB	2.22	0.40
1:CA:1468:A:O5'	1:CA:1468:A:H8	2.05	0.40
1:CA:343:U:H2'	1:CA:345:C:C4	2.57	0.40
1:CA:367:U:OP1	1:CA:395:C:H1'	2.22	0.40
1:CA:488:C:H2'	1:CA:489:C:C6	2.56	0.40
1:CA:620:C:H2'	1:CA:621:A:C8	2.57	0.40
1:CA:656:G:H2'	1:CA:657:U:H6	1.86	0.40
1:CA:93:U:H2'	1:CA:94:G:H5'	2.03	0.40
1:CA:984:C:H2'	1:CA:985:C:C6	2.57	0.40
1:CA:985:C:H2'	1:CA:986:U:C6	2.56	0.40
2:CC:152:VAL:HB	2:CC:156:LEU:HD21	2.02	0.40
2:CC:62:SER:HA	2:CC:96:VAL:HB	2.03	0.40
3:CD:35:GLN:HE21	3:CD:35:GLN:HB2	1.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CE:131:ASN:HD22	4:CE:134:ASN:H	1.69	0.40
7:CH:29:SER:O	7:CH:30:LYS:C	2.59	0.40
7:CH:47:ASP:CG	7:CH:48:PHE:N	2.75	0.40
8:CI:50:PRO:HD3	8:CI:79:ARG:CG	2.48	0.40
11:CL:23:LEU:C	11:CL:25:ALA:N	2.74	0.40
12:CM:37:GLY:O	12:CM:38:ILE:HD13	2.22	0.40
12:CM:15:VAL:CG2	12:CM:40:GLU:HB3	2.50	0.40
13:CN:12:ARG:HD3	13:CN:58:ARG:HB3	2.03	0.40
14:CO:36:ILE:CD1	14:CO:59:MET:HB2	2.42	0.40
15:CP:7:ALA:O	15:CP:17:TYR:HA	2.21	0.40
18:CS:38:THR:HG22	18:CS:39:ILE:N	2.36	0.40
21:CU:43:GLU:CG	21:CU:44:ARG:HH21	2.32	0.40
33:D1:42:VAL:HG12	33:D1:42:VAL:O	2.21	0.40
32:D4:15:LYS:C	32:D4:16:ILE:HD12	2.42	0.40
32:D4:2:LYS:HG2	32:D4:4:ARG:HG3	2.04	0.40
32:D4:36:ARG:HG2	32:D4:37:GLN:N	2.36	0.40
53:D6:103:ILE:HD12	53:D6:103:ILE:N	2.37	0.40
22:DA:14:U:H5'	22:DA:71:C:O4'	2.22	0.40
22:DA:20:G:O2'	22:DA:21:G:H5'	2.22	0.40
23:DB:1057:A:H62	23:DB:1086:A:H2'	1.86	0.40
23:DB:116:C:H5''	23:DB:128:C:H5	1.86	0.40
23:DB:1220:G:H2'	23:DB:1221:C:H6	1.85	0.40
23:DB:1501:G:O2'	23:DB:1502:A:H5'	2.20	0.40
23:DB:1704:C:H2'	23:DB:1705:A:C8	2.56	0.40
23:DB:1878:G:H2'	23:DB:1879:C:C6	2.56	0.40
23:DB:2188:U:H2'	23:DB:2189:U:O4'	2.22	0.40
23:DB:2618:G:H2'	23:DB:2619:C:H6	1.87	0.40
23:DB:2652:C:O2'	23:DB:2653:U:H5'	2.21	0.40
23:DB:302:C:H2'	23:DB:303:G:C8	2.57	0.40
23:DB:37:C:O2'	23:DB:38:A:H5'	2.22	0.40
23:DB:265:A:N6	23:DB:427:U:O2'	2.55	0.40
23:DB:573:U:O2'	23:DB:574:A:H3'	2.22	0.40
23:DB:715:A:H2'	23:DB:716:A:C8	2.57	0.40
23:DB:834:G:O2'	23:DB:835:C:H5'	2.21	0.40
25:DC:142:ASN:O	25:DC:189:ALA:HA	2.21	0.40
25:DC:259:ASN:C	25:DC:261:ARG:H	2.25	0.40
25:DC:7:PRO:C	25:DC:9:SER:N	2.74	0.40
26:DD:3:GLY:C	26:DD:4:LEU:HD22	2.42	0.40
26:DD:8:LYS:HG2	26:DD:9:VAL:H	1.86	0.40
29:DE:25:GLU:O	29:DE:28:VAL:HG22	2.21	0.40
47:DF:160:LYS:HZ3	47:DF:164:GLU:HG3	1.87	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DF:43:ILE:HA	47:DF:46:LYS:HE2	2.03	0.40
48:DG:134:GLY:HA3	48:DG:140:ILE:CG2	2.51	0.40
41:DJ:32:LEU:HD13	41:DJ:105:VAL:HG11	2.04	0.40
41:DJ:77:HIS:CD2	41:DJ:83:GLY:HA3	2.56	0.40
28:DP:77:SER:O	28:DP:80:VAL:HG12	2.21	0.40
49:DR:87:GLN:HG2	49:DR:88:GLY:N	2.36	0.40
50:DT:44:LYS:C	50:DT:46:ALA:H	2.24	0.40
50:DT:69:ARG:HA	50:DT:69:ARG:NE	2.36	0.40
50:DT:69:ARG:HB3	50:DT:74:ILE:HA	2.02	0.40
50:DT:55:VAL:CG2	50:DT:87:LEU:HD23	2.49	0.40
35:DV:62:THR:HG22	35:DV:71:LYS:HZ2	1.87	0.40
51:DZ:33:LEU:HA	51:DZ:51:VAL:O	2.22	0.40
51:DZ:6:GLN:HE22	51:DZ:77:LYS:HZ2	1.68	0.40
1:AA:1045:C:H2'	1:AA:1046:A:O4'	2.21	0.40
1:AA:1073:U:H4'	20:AB:104:LYS:CE	2.51	0.40
1:AA:1332:A:H2'	1:AA:1333:A:H8	1.87	0.40
1:AA:1349:A:OP1	8:AI:121:ARG:HB2	2.22	0.40
1:AA:1424:U:H2'	1:AA:1425:U:C6	2.57	0.40
1:AA:1417:G:N2	1:AA:1482:G:H2'	2.37	0.40
1:AA:1493:A:N3	1:AA:1494:G:N7	2.70	0.40
1:AA:793:U:O2	1:AA:1516:G:H4'	2.21	0.40
1:AA:355:C:O2'	1:AA:356:A:H5'	2.20	0.40
1:AA:518:C:H2'	1:AA:530:G:H8	1.87	0.40
1:AA:621:A:H2'	1:AA:622:A:H8	1.84	0.40
1:AA:667:G:H2'	1:AA:668:G:H8	1.86	0.40
1:AA:693:G:H2'	1:AA:694:A:O4'	2.22	0.40
1:AA:812:G:O2'	1:AA:813:U:C6	2.71	0.40
1:AA:892:A:N7	1:AA:906:A:H2	2.19	0.40
1:AA:916:U:H2'	1:AA:917:G:C8	2.56	0.40
1:AA:984:C:H2'	1:AA:985:C:C6	2.57	0.40
20:AB:11:ALA:C	20:AB:13:VAL:N	2.73	0.40
20:AB:128:LEU:HA	20:AB:128:LEU:HD13	1.95	0.40
20:AB:22:TRP:CZ3	20:AB:24:PRO:HA	2.56	0.40
20:AB:94:ARG:HG2	20:AB:94:ARG:O	2.22	0.40
2:AC:21:TRP:CH2	2:AC:31:ASN:HB3	2.57	0.40
2:AC:54:ILE:O	2:AC:54:ILE:HG12	2.22	0.40
2:AC:61:LYS:O	2:AC:62:SER:HB3	2.22	0.40
4:AE:95:MET:HG3	4:AE:124:ALA:CB	2.49	0.40
8:AI:10:ARG:H	8:AI:80:HIS:HD2	1.68	0.40
10:AK:108:ASN:ND2	21:AU:6:ARG:HB2	2.36	0.40
11:AL:23:LEU:C	11:AL:25:ALA:N	2.75	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:522:C:N4	11:AL:49:ARG:HH22	2.09	0.40
11:AL:66:ILE:HG21	11:AL:71:HIS:CB	2.51	0.40
12:AM:13:HIS:HB3	12:AM:40:GLU:O	2.22	0.40
12:AM:47:LEU:HD13	12:AM:48:SER:H	1.87	0.40
13:AN:32:ASP:HB3	13:AN:34:ASN:OD1	2.21	0.40
13:AN:51:PRO:HG2	13:AN:52:ARG:H	1.87	0.40
17:AR:38:ILE:HG12	17:AR:38:ILE:O	2.21	0.40
5:AF:49:TYR:HE1	17:AR:62:ARG:O	2.05	0.40
18:AS:12:LEU:O	18:AS:13:HIS:C	2.60	0.40
12:AM:84:CYS:HA	18:AS:72:GLU:O	2.20	0.40
21:AU:52:VAL:CG1	21:AU:53:LYS:N	2.84	0.40
32:B4:15:LYS:C	32:B4:16:ILE:HD12	2.42	0.40
53:B6:113:ASP:HA	53:B6:116:ARG:CZ	2.51	0.40
53:B6:29:ARG:HG2	53:B6:32:ARG:NH1	2.36	0.40
53:B6:4:LYS:HE2	53:B6:4:LYS:HB3	1.91	0.40
53:B6:88:LEU:HB3	53:B6:90:LEU:HD12	2.03	0.40
23:BB:1349:C:H2'	23:BB:1350:C:C6	2.56	0.40
23:BB:1501:G:O2'	23:BB:1502:A:H5'	2.20	0.40
23:BB:1310:G:H1'	23:BB:1611:C:H5'	2.03	0.40
23:BB:1669:A:N3	23:BB:1669:A:H2'	2.36	0.40
23:BB:1816:C:H3'	25:BC:61:TYR:HE2	1.86	0.40
23:BB:2093:G:O5'	40:BH:24:GLY:HA3	2.22	0.40
23:BB:2191:A:H2'	23:BB:2192:U:H6	1.87	0.40
23:BB:1420:A:H8	23:BB:2211:A:H62	1.66	0.40
23:BB:2472:G:H1	23:BB:2477:U:P	2.44	0.40
23:BB:2564:A:OP1	23:BB:2648:G:H4'	2.21	0.40
23:BB:537:G:H1'	23:BB:556:A:H61	1.86	0.40
26:BD:119:ALA:HB2	26:BD:163:GLY:C	2.42	0.40
26:BD:24:VAL:HA	26:BD:189:VAL:O	2.20	0.40
29:BE:15:SER:HB3	29:BE:18:THR:OG1	2.21	0.40
29:BE:48:THR:HG22	29:BE:86:ALA:CB	2.48	0.40
47:BF:137:PHE:O	47:BF:138:PRO:C	2.60	0.40
47:BF:166:ARG:O	47:BF:170:ALA:HB2	2.22	0.40
48:BG:120:ILE:HG12	48:BG:121:THR:N	2.37	0.40
40:BH:112:LYS:C	40:BH:114:GLU:N	2.75	0.40
37:BL:85:VAL:O	37:BL:85:VAL:HG22	2.21	0.40
42:BN:118:ARG:HB3	42:BN:118:ARG:HE	1.64	0.40
27:BK:79:PHE:CD2	28:BP:69:VAL:HG12	2.56	0.40
41:BJ:44:TYR:CG	44:BQ:59:LEU:HD11	2.57	0.40
45:BS:73:LYS:HE3	45:BS:74:ILE:H	1.86	0.40
46:BU:36:GLU:O	46:BU:37:GLY:C	2.60	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BU:86:PHE:HB2	46:BU:92:VAL:HB	2.02	0.40
35:BV:53:LYS:HA	35:BV:53:LYS:HE2	2.02	0.40
1:CA:1045:C:H2'	1:CA:1046:A:O4'	2.21	0.40
4:CE:130:THR:HB	1:CA:10:A:OP2	2.22	0.40
1:CA:1100:C:O2	1:CA:1102:A:H5'	2.21	0.40
1:CA:1232:U:H2'	1:CA:1233:G:O4'	2.21	0.40
1:CA:1277:C:H1'	1:CA:1282:C:O2	2.21	0.40
1:CA:12:U:H4'	1:CA:526:C:H4'	2.04	0.40
1:CA:1442:G:H2'	1:CA:1443:C:C6	2.57	0.40
1:CA:927:G:H4'	1:CA:1503:A:N7	2.37	0.40
1:CA:399:G:H2'	1:CA:400:C:H6	1.84	0.40
1:CA:51:A:H5''	1:CA:52:C:C5'	2.49	0.40
1:CA:552:U:H2'	1:CA:553:A:C8	2.57	0.40
1:CA:625:U:H2'	1:CA:626:G:H8	1.86	0.40
1:CA:768:A:C2'	1:CA:769:G:H5'	2.51	0.40
1:CA:892:A:N7	1:CA:906:A:H2	2.19	0.40
3:CD:103:ARG:HH21	3:CD:110:ARG:HH21	1.69	0.40
6:CG:129:ASN:ND2	6:CG:137:ARG:HH22	2.20	0.40
8:CI:64:ILE:HG22	8:CI:65:THR:N	2.37	0.40
11:CL:66:ILE:HG21	11:CL:71:HIS:CB	2.51	0.40
12:CM:15:VAL:N	12:CM:33:LEU:HD11	2.37	0.40
13:CN:1:ALA:HB1	13:CN:6:LYS:HE2	2.03	0.40
15:CP:56:ARG:HD2	15:CP:56:ARG:HA	1.87	0.40
19:CT:73:ARG:NH1	1:CA:263:A:OP1	2.55	0.40
53:D6:147:LEU:HB2	53:D6:149:LEU:HG	2.02	0.40
23:DB:1025:G:H1'	23:DB:1135:C:O5'	2.22	0.40
23:DB:86:G:O2'	23:DB:104:A:H4'	2.21	0.40
23:DB:1099:G:O4'	24:DI:3:LYS:O	2.39	0.40
23:DB:1151:A:H2'	23:DB:1152:C:C6	2.57	0.40
23:DB:1438:U:H2'	23:DB:1439:A:O4'	2.22	0.40
23:DB:1495:A:O2'	23:DB:1496:A:H5'	2.21	0.40
23:DB:1513:U:O2'	23:DB:1514:G:H5'	2.22	0.40
23:DB:1771:C:H2'	23:DB:1772:A:C8	2.55	0.40
23:DB:2147:A:H4'	23:DB:2148:G:O4'	2.22	0.40
23:DB:248:G:O5'	23:DB:249:C:H5''	2.20	0.40
23:DB:2564:A:OP1	23:DB:2648:G:H4'	2.21	0.40
23:DB:2844:G:O2'	23:DB:2845:U:H5'	2.21	0.40
23:DB:765:C:O2'	23:DB:766:U:H5'	2.21	0.40
23:DB:569:U:H5''	23:DB:821:A:N1	2.36	0.40
23:DB:2595:G:O6	25:DC:238:ASN:OD1	2.40	0.40
26:DD:119:ALA:CB	26:DD:163:GLY:C	2.89	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:574:A:H2	26:DD:150:GLN:OE1	2.04	0.40
26:DD:125:TRP:CD1	26:DD:160:LYS:HB3	2.56	0.40
29:DE:176:ASP:OD1	29:DE:176:ASP:C	2.60	0.40
29:DE:48:THR:HG22	29:DE:86:ALA:CB	2.48	0.40
47:DF:121:PHE:HB3	47:DF:127:TYR:CZ	2.56	0.40
48:DG:148:ARG:HG2	48:DG:163:TYR:CE1	2.56	0.40
48:DG:44:HIS:O	48:DG:45:ALA:HB3	2.20	0.40
40:DH:118:PRO:O	40:DH:119:ASN:CB	2.70	0.40
24:DI:56:VAL:CG2	24:DI:68:PHE:HB2	2.51	0.40
37:DL:84:LYS:C	37:DL:86:GLU:H	2.25	0.40
38:DM:26:VAL:HG22	38:DM:133:LYS:HA	2.02	0.40
38:DM:19:GLY:C	38:DM:20:LEU:HD22	2.42	0.40
38:DM:42:THR:OG1	38:DM:45:GLN:HG3	2.21	0.40
42:DN:62:ASN:O	42:DN:80:PHE:HZ	2.04	0.40
28:DP:50:ARG:O	28:DP:51:ASN:HB2	2.22	0.40
28:DP:89:GLY:HA2	28:DP:111:GLU:C	2.42	0.40
23:DB:812:C:H4'	44:DQ:12:ARG:HH22	1.86	0.40
44:DQ:78:PHE:O	44:DQ:82:LEU:HG	2.21	0.40
44:DQ:94:LEU:O	44:DQ:96:ASP:N	2.54	0.40
45:DS:29:VAL:HG23	45:DS:70:LYS:CA	2.50	0.40
45:DS:48:LYS:O	45:DS:52:GLU:HG2	2.22	0.40
45:DS:72:THR:HG21	45:DS:108:SER:OG	2.21	0.40
50:DT:24:MET:O	50:DT:28:ASN:O	2.40	0.40
46:DU:21:ARG:HG3	46:DU:21:ARG:NH1	2.37	0.40
46:DU:62:ALA:O	46:DU:63:ALA:HB3	2.21	0.40
30:DY:52:PHE:H	30:DY:52:PHE:HD1	1.65	0.40
51:DZ:45:ARG:CG	51:DZ:46:PHE:N	2.85	0.40

There are no symmetry-related clashes.

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	AC	204/232 (88%)	152 (74%)	36 (18%)	16 (8%)	1	6
2	CC	204/232 (88%)	151 (74%)	37 (18%)	16 (8%)	1	6
3	AD	203/205 (99%)	151 (74%)	39 (19%)	13 (6%)	1	9
3	CD	203/205 (99%)	150 (74%)	41 (20%)	12 (6%)	1	10
4	AE	148/166 (89%)	125 (84%)	20 (14%)	3 (2%)	7	32
4	CE	148/166 (89%)	125 (84%)	20 (14%)	3 (2%)	7	32
5	AF	98/135 (73%)	71 (72%)	18 (18%)	9 (9%)	1	4
5	CF	98/135 (73%)	69 (70%)	21 (21%)	8 (8%)	1	5
6	AG	148/178 (83%)	114 (77%)	28 (19%)	6 (4%)	3	17
6	CG	150/178 (84%)	118 (79%)	25 (17%)	7 (5%)	2	14
7	AH	127/129 (98%)	106 (84%)	17 (13%)	4 (3%)	4	23
7	CH	127/129 (98%)	105 (83%)	18 (14%)	4 (3%)	4	23
8	AI	125/129 (97%)	92 (74%)	28 (22%)	5 (4%)	3	18
8	CI	125/129 (97%)	93 (74%)	28 (22%)	4 (3%)	4	22
9	AJ	96/103 (93%)	73 (76%)	13 (14%)	10 (10%)	0	3
9	CJ	96/103 (93%)	74 (77%)	12 (12%)	10 (10%)	0	3
10	AK	115/128 (90%)	85 (74%)	25 (22%)	5 (4%)	2	16
10	CK	115/128 (90%)	84 (73%)	25 (22%)	6 (5%)	2	13
11	AL	121/123 (98%)	84 (69%)	28 (23%)	9 (7%)	1	7
11	CL	121/123 (98%)	86 (71%)	25 (21%)	10 (8%)	1	5
12	AM	112/117 (96%)	85 (76%)	16 (14%)	11 (10%)	0	3
12	CM	111/117 (95%)	83 (75%)	17 (15%)	11 (10%)	0	3
13	AN	92/100 (92%)	65 (71%)	19 (21%)	8 (9%)	1	5
13	CN	92/100 (92%)	66 (72%)	18 (20%)	8 (9%)	1	5
14	AO	86/89 (97%)	68 (79%)	15 (17%)	3 (4%)	3	21
14	CO	86/89 (97%)	70 (81%)	14 (16%)	2 (2%)	6	29
15	AP	80/82 (98%)	62 (78%)	10 (12%)	8 (10%)	0	3
15	CP	78/82 (95%)	61 (78%)	11 (14%)	6 (8%)	1	6
16	AQ	78/83 (94%)	59 (76%)	15 (19%)	4 (5%)	2	13
16	CQ	79/83 (95%)	60 (76%)	15 (19%)	4 (5%)	2	13
17	AR	53/74 (72%)	48 (91%)	5 (9%)	0	100	100
17	CR	53/74 (72%)	48 (91%)	5 (9%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
18	AS	77/91 (85%)	59 (77%)	12 (16%)	6 (8%)	1	6
18	CS	78/91 (86%)	61 (78%)	11 (14%)	6 (8%)	1	6
19	AT	83/86 (96%)	64 (77%)	15 (18%)	4 (5%)	2	14
19	CT	83/86 (96%)	65 (78%)	14 (17%)	4 (5%)	2	14
20	AB	216/240 (90%)	153 (71%)	48 (22%)	15 (7%)	1	8
20	CB	216/240 (90%)	150 (69%)	49 (23%)	17 (8%)	1	6
21	AU	49/70 (70%)	31 (63%)	10 (20%)	8 (16%)	0	1
21	CU	49/70 (70%)	31 (63%)	10 (20%)	8 (16%)	0	1
24	BI	139/141 (99%)	119 (86%)	15 (11%)	5 (4%)	3	20
24	DI	139/141 (99%)	114 (82%)	21 (15%)	4 (3%)	4	24
25	BC	269/272 (99%)	176 (65%)	61 (23%)	32 (12%)	0	2
25	DC	269/272 (99%)	177 (66%)	59 (22%)	33 (12%)	0	1
26	BD	207/209 (99%)	123 (59%)	56 (27%)	28 (14%)	0	1
26	DD	207/209 (99%)	122 (59%)	55 (27%)	30 (14%)	0	1
27	BK	119/123 (97%)	80 (67%)	25 (21%)	14 (12%)	0	2
27	DK	119/123 (97%)	81 (68%)	24 (20%)	14 (12%)	0	2
28	BP	112/114 (98%)	68 (61%)	29 (26%)	15 (13%)	0	1
28	DP	112/114 (98%)	69 (62%)	28 (25%)	15 (13%)	0	1
29	BE	199/201 (99%)	126 (63%)	54 (27%)	19 (10%)	0	4
29	DE	199/201 (99%)	127 (64%)	52 (26%)	20 (10%)	0	3
30	BY	56/58 (97%)	39 (70%)	11 (20%)	6 (11%)	0	3
30	DY	56/58 (97%)	39 (70%)	11 (20%)	6 (11%)	0	3
31	B0	54/56 (96%)	40 (74%)	5 (9%)	9 (17%)	0	1
31	D0	54/56 (96%)	40 (74%)	5 (9%)	9 (17%)	0	1
32	B4	36/38 (95%)	22 (61%)	5 (14%)	9 (25%)	0	0
32	D4	36/38 (95%)	22 (61%)	5 (14%)	9 (25%)	0	0
33	B1	48/54 (89%)	37 (77%)	6 (12%)	5 (10%)	0	3
33	D1	48/54 (89%)	36 (75%)	7 (15%)	5 (10%)	0	3
34	B3	62/64 (97%)	42 (68%)	14 (23%)	6 (10%)	0	3
34	D3	62/64 (97%)	42 (68%)	14 (23%)	6 (10%)	0	3
35	BV	92/94 (98%)	71 (77%)	18 (20%)	3 (3%)	4	22

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
35	DV	92/94 (98%)	71 (77%)	18 (20%)	3 (3%)	4	22
36	B2	44/46 (96%)	36 (82%)	7 (16%)	1 (2%)	6	29
36	D2	44/46 (96%)	35 (80%)	7 (16%)	2 (4%)	2	15
37	BL	141/144 (98%)	92 (65%)	31 (22%)	18 (13%)	0	1
37	DL	141/144 (98%)	94 (67%)	28 (20%)	19 (14%)	0	1
38	BM	134/136 (98%)	90 (67%)	24 (18%)	20 (15%)	0	1
38	DM	134/136 (98%)	90 (67%)	24 (18%)	20 (15%)	0	1
39	BX	61/63 (97%)	40 (66%)	17 (28%)	4 (7%)	1	8
39	DX	61/63 (97%)	39 (64%)	18 (30%)	4 (7%)	1	8
40	BH	147/149 (99%)	74 (50%)	50 (34%)	23 (16%)	0	1
40	DH	147/149 (99%)	92 (63%)	38 (26%)	17 (12%)	0	2
41	BJ	140/142 (99%)	96 (69%)	31 (22%)	13 (9%)	0	4
41	DJ	140/142 (99%)	95 (68%)	32 (23%)	13 (9%)	0	4
42	BN	118/127 (93%)	84 (71%)	25 (21%)	9 (8%)	1	6
42	DN	118/127 (93%)	82 (70%)	25 (21%)	11 (9%)	0	4
43	BO	114/117 (97%)	87 (76%)	21 (18%)	6 (5%)	2	12
43	DO	114/117 (97%)	86 (75%)	21 (18%)	7 (6%)	1	10
44	BQ	115/117 (98%)	81 (70%)	21 (18%)	13 (11%)	0	2
44	DQ	115/117 (98%)	81 (70%)	22 (19%)	12 (10%)	0	3
45	BS	108/110 (98%)	72 (67%)	21 (19%)	15 (14%)	0	1
45	DS	108/110 (98%)	73 (68%)	20 (18%)	15 (14%)	0	1
46	BU	100/103 (97%)	58 (58%)	27 (27%)	15 (15%)	0	1
46	DU	100/103 (97%)	58 (58%)	27 (27%)	15 (15%)	0	1
47	BF	176/178 (99%)	106 (60%)	36 (20%)	34 (19%)	0	1
47	DF	176/178 (99%)	106 (60%)	36 (20%)	34 (19%)	0	1
48	BG	174/176 (99%)	108 (62%)	41 (24%)	25 (14%)	0	1
48	DG	174/176 (99%)	109 (63%)	39 (22%)	26 (15%)	0	1
49	BR	101/103 (98%)	74 (73%)	16 (16%)	11 (11%)	0	2
49	DR	101/103 (98%)	73 (72%)	17 (17%)	11 (11%)	0	2
50	BT	91/100 (91%)	52 (57%)	23 (25%)	16 (18%)	0	1
50	DT	91/100 (91%)	52 (57%)	24 (26%)	15 (16%)	0	1

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
51	BZ	75/78 (96%)	50 (67%)	16 (21%)	9 (12%)	0	2
51	DZ	75/78 (96%)	50 (67%)	17 (23%)	8 (11%)	0	3
52	BW	77/84 (92%)	32 (42%)	20 (26%)	25 (32%)	0	0
52	DW	77/84 (92%)	33 (43%)	18 (23%)	26 (34%)	0	0
53	B6	183/185 (99%)	140 (76%)	36 (20%)	7 (4%)	3	19
53	D6	183/185 (99%)	146 (80%)	28 (15%)	9 (5%)	2	14
All	All	11607/12284 (94%)	8146 (70%)	2335 (20%)	1126 (10%)	0	3

All (1126) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AC	14	VAL
2	AC	25	THR
2	AC	54	ILE
2	AC	100	ILE
2	AC	104	GLU
2	AC	153	SER
3	AD	31	CYS
5	AF	92	THR
7	AH	66	GLN
8	AI	8	THR
8	AI	57	VAL
9	AJ	57	VAL
9	AJ	75	ASP
10	AK	126	ARG
11	AL	13	ARG
11	AL	23	LEU
11	AL	42	LYS
11	AL	121	PRO
12	AM	15	VAL
12	AM	65	GLU
12	AM	111	PRO
13	AN	50	LEU
13	AN	70	HIS
15	AP	44	SER
16	AQ	32	ILE
20	AB	9	LEU
20	AB	15	PHE
20	AB	19	THR
20	AB	22	TRP

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Mol	Chain	Res	Type
20	AB	94	ARG
21	AU	35	GLU
24	BI	18	ASN
25	BC	4	LYS
25	BC	107	LYS
25	BC	141	HIS
25	BC	149	LYS
26	BD	9	VAL
26	BD	10	GLY
26	BD	74	GLU
26	BD	102	ALA
26	BD	106	LYS
26	BD	122	VAL
26	BD	169	ARG
27	BK	35	VAL
27	BK	72	PRO
27	BK	119	ALA
27	BK	120	PRO
28	BP	25	VAL
28	BP	50	ARG
28	BP	64	SER
28	BP	75	THR
29	BE	45	ALA
29	BE	79	ARG
29	BE	167	VAL
30	BY	2	LYS
31	B0	23	ALA
31	B0	42	ILE
31	B0	51	ARG
31	B0	52	LYS
32	B4	7	VAL
34	B3	31	ILE
34	B3	50	SER
36	B2	45	SER
37	BL	31	GLY
37	BL	89	VAL
37	BL	100	ILE
37	BL	111	ILE
37	BL	116	VAL
38	BM	30	SER
38	BM	36	VAL
38	BM	78	LEU

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Mol	Chain	Res	Type
39	BX	2	LYS
39	BX	36	GLN
39	BX	37	LEU
40	BH	3	VAL
40	BH	10	ALA
40	BH	32	PRO
40	BH	33	GLN
40	BH	41	LYS
40	BH	54	LEU
40	BH	125	THR
40	BH	132	PHE
40	BH	134	VAL
41	BJ	44	TYR
41	BJ	45	THR
41	BJ	81	ILE
41	BJ	111	LYS
41	BJ	124	VAL
42	BN	11	ASN
44	BQ	30	VAL
44	BQ	71	ASN
45	BS	3	THR
45	BS	13	SER
45	BS	40	ASN
45	BS	61	ASN
46	BU	6	ARG
46	BU	18	LYS
46	BU	49	PRO
46	BU	50	ALA
47	BF	32	LYS
47	BF	43	ILE
47	BF	77	LYS
47	BF	87	LYS
47	BF	103	ILE
47	BF	112	ASP
47	BF	138	PRO
48	BG	11	PRO
48	BG	85	LYS
48	BG	91	VAL
49	BR	55	ASP
50	BT	16	VAL
50	BT	39	THR
50	BT	58	VAL

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Mol	Chain	Res	Type
50	BT	64	LYS
50	BT	88	LYS
51	BZ	33	LEU
51	BZ	51	VAL
52	BW	9	THR
52	BW	16	GLU
52	BW	30	VAL
52	BW	31	LEU
52	BW	50	VAL
52	BW	59	PHE
52	BW	60	ALA
2	CC	14	VAL
2	CC	25	THR
2	CC	54	ILE
2	CC	100	ILE
2	CC	153	SER
3	CD	31	CYS
5	CF	92	THR
7	CH	66	GLN
7	CH	82	LEU
8	CI	8	THR
8	CI	57	VAL
9	CJ	57	VAL
9	CJ	75	ASP
10	CK	126	ARG
11	CL	13	ARG
11	CL	23	LEU
11	CL	42	LYS
11	CL	121	PRO
12	CM	15	VAL
12	CM	65	GLU
12	CM	111	PRO
13	CN	50	LEU
13	CN	70	HIS
15	CP	44	SER
16	CQ	32	ILE
20	CB	15	PHE
20	CB	19	THR
20	CB	22	TRP
20	CB	94	ARG
21	CU	23	GLU
21	CU	35	GLU

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Mol	Chain	Res	Type
24	DI	5	GLN
24	DI	18	ASN
25	DC	4	LYS
25	DC	53	ILE
25	DC	77	VAL
25	DC	107	LYS
25	DC	141	HIS
25	DC	149	LYS
26	DD	9	VAL
26	DD	10	GLY
26	DD	74	GLU
26	DD	102	ALA
26	DD	106	LYS
26	DD	122	VAL
26	DD	169	ARG
27	DK	35	VAL
27	DK	72	PRO
27	DK	119	ALA
27	DK	120	PRO
28	DP	25	VAL
28	DP	50	ARG
28	DP	64	SER
28	DP	75	THR
29	DE	45	ALA
29	DE	79	ARG
29	DE	167	VAL
30	DY	2	LYS
31	D0	23	ALA
31	D0	42	ILE
31	D0	51	ARG
31	D0	52	LYS
32	D4	7	VAL
34	D3	31	ILE
34	D3	50	SER
36	D2	45	SER
37	DL	31	GLY
37	DL	89	VAL
37	DL	100	ILE
37	DL	111	ILE
37	DL	116	VAL
38	DM	30	SER
38	DM	36	VAL

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Mol	Chain	Res	Type
38	DM	78	LEU
39	DX	2	LYS
39	DX	36	GLN
39	DX	37	LEU
40	DH	3	VAL
40	DH	10	ALA
40	DH	32	PRO
40	DH	33	GLN
40	DH	110	VAL
40	DH	134	VAL
41	DJ	44	TYR
41	DJ	45	THR
41	DJ	81	ILE
41	DJ	111	LYS
41	DJ	124	VAL
42	DN	11	ASN
44	DQ	30	VAL
44	DQ	71	ASN
45	DS	3	THR
45	DS	13	SER
45	DS	61	ASN
46	DU	6	ARG
46	DU	18	LYS
46	DU	49	PRO
46	DU	50	ALA
47	DF	32	LYS
47	DF	43	ILE
47	DF	77	LYS
47	DF	87	LYS
47	DF	103	ILE
47	DF	112	ASP
47	DF	138	PRO
48	DG	11	PRO
48	DG	85	LYS
48	DG	91	VAL
49	DR	55	ASP
50	DT	16	VAL
50	DT	39	THR
50	DT	64	LYS
50	DT	88	LYS
51	DZ	33	LEU
51	DZ	51	VAL

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Mol	Chain	Res	Type
52	DW	9	THR
52	DW	16	GLU
52	DW	30	VAL
52	DW	31	LEU
52	DW	50	VAL
52	DW	59	PHE
52	DW	60	ALA
53	D6	84	ARG
53	D6	88	LEU
2	AC	145	ALA
2	AC	205	GLU
3	AD	22	SER
3	AD	35	GLN
3	AD	191	SER
4	AE	20	VAL
4	AE	108	GLY
5	AF	54	LEU
5	AF	85	ILE
6	AG	5	VAL
6	AG	112	ASP
7	AH	82	LEU
9	AJ	36	VAL
9	AJ	74	VAL
10	AK	88	PRO
11	AL	24	GLU
11	AL	70	GLY
11	AL	117	GLY
12	AM	66	GLY
12	AM	105	ALA
13	AN	61	ASN
14	AO	18	ASP
14	AO	76	ALA
15	AP	28	ARG
15	AP	47	GLU
15	AP	79	ASN
16	AQ	79	GLU
20	AB	18	GLN
20	AB	95	TRP
20	AB	150	ILE
20	AB	188	THR
21	AU	23	GLU
21	AU	34	ARG

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Mol	Chain	Res	Type
24	BI	14	ALA
24	BI	64	ARG
25	BC	18	VAL
25	BC	35	LYS
25	BC	36	ASN
25	BC	53	ILE
25	BC	63	ILE
25	BC	77	VAL
25	BC	123	ILE
25	BC	140	VAL
25	BC	237	ARG
25	BC	239	PHE
26	BD	34	VAL
26	BD	93	GLY
26	BD	107	VAL
26	BD	136	ASN
26	BD	140	HIS
26	BD	145	SER
26	BD	162	ALA
26	BD	164	GLN
26	BD	170	VAL
26	BD	182	ALA
27	BK	6	THR
27	BK	18	ARG
27	BK	73	ASP
28	BP	31	VAL
28	BP	32	VAL
28	BP	83	ILE
28	BP	104	GLY
29	BE	7	ASP
29	BE	40	ARG
29	BE	42	GLY
29	BE	187	VAL
30	BY	4	ILE
30	BY	49	ALA
31	B0	48	TYR
32	B4	8	LYS
33	B1	4	ILE
33	B1	50	GLU
34	B3	29	ARG
35	BV	71	LYS
37	BL	117	THR

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Mol	Chain	Res	Type
38	BM	19	GLY
38	BM	20	LEU
38	BM	56	ALA
38	BM	59	ARG
38	BM	69	PRO
38	BM	72	PRO
40	BH	8	LYS
40	BH	62	LEU
40	BH	65	ALA
41	BJ	43	GLU
42	BN	98	LEU
42	BN	100	CYS
42	BN	101	GLY
42	BN	119	SER
43	BO	99	TYR
44	BQ	10	ARG
44	BQ	18	LYS
44	BQ	85	ALA
44	BQ	86	SER
44	BQ	87	VAL
44	BQ	88	GLU
45	BS	14	ALA
45	BS	25	ARG
45	BS	64	ALA
45	BS	96	ILE
46	BU	12	VAL
46	BU	62	ALA
46	BU	85	ARG
46	BU	92	VAL
46	BU	96	LYS
47	BF	78	ILE
47	BF	80	GLN
47	BF	84	ILE
47	BF	92	GLY
47	BF	136	ILE
47	BF	145	VAL
47	BF	148	VAL
47	BF	149	ARG
48	BG	9	VAL
48	BG	55	ASP
48	BG	94	ARG
48	BG	117	PRO

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Mol	Chain	Res	Type
48	BG	118	ALA
48	BG	170	THR
49	BR	28	ALA
49	BR	40	MET
49	BR	43	ASN
49	BR	65	ALA
50	BT	38	ALA
50	BT	49	LYS
50	BT	83	ALA
50	BT	91	GLN
51	BZ	77	LYS
52	BW	17	ALA
52	BW	34	SER
52	BW	36	ILE
52	BW	51	GLY
52	BW	62	ALA
52	BW	77	LYS
53	B6	22	GLU
53	B6	32	ARG
53	B6	41	LEU
53	B6	52	LEU
2	CC	104	GLU
2	CC	145	ALA
2	CC	205	GLU
3	CD	22	SER
3	CD	35	GLN
3	CD	191	SER
4	CE	20	VAL
4	CE	108	GLY
5	CF	54	LEU
5	CF	85	ILE
6	CG	112	ASP
6	CG	151	ALA
9	CJ	36	VAL
9	CJ	74	VAL
10	CK	88	PRO
11	CL	24	GLU
11	CL	117	GLY
12	CM	6	ILE
12	CM	66	GLY
12	CM	105	ALA
13	CN	61	ASN

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Mol	Chain	Res	Type
14	CO	18	ASP
15	CP	28	ARG
15	CP	47	GLU
16	CQ	79	GLU
20	CB	18	GLN
20	CB	95	TRP
20	CB	150	ILE
20	CB	188	THR
25	DC	18	VAL
25	DC	35	LYS
25	DC	36	ASN
25	DC	63	ILE
25	DC	123	ILE
25	DC	140	VAL
25	DC	237	ARG
25	DC	239	PHE
26	DD	34	VAL
26	DD	93	GLY
26	DD	95	SER
26	DD	107	VAL
26	DD	121	THR
26	DD	136	ASN
26	DD	140	HIS
26	DD	145	SER
26	DD	162	ALA
26	DD	164	GLN
26	DD	170	VAL
26	DD	182	ALA
27	DK	6	THR
27	DK	18	ARG
27	DK	73	ASP
28	DP	31	VAL
28	DP	32	VAL
28	DP	83	ILE
28	DP	104	GLY
29	DE	7	ASP
29	DE	40	ARG
29	DE	42	GLY
29	DE	62	GLN
29	DE	187	VAL
30	DY	4	ILE
31	D0	48	TYR

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Mol	Chain	Res	Type
32	D4	8	LYS
33	D1	4	ILE
33	D1	50	GLU
34	D3	29	ARG
35	DV	71	LYS
37	DL	101	ILE
37	DL	117	THR
38	DM	19	GLY
38	DM	20	LEU
38	DM	56	ALA
38	DM	59	ARG
38	DM	69	PRO
38	DM	70	ASP
38	DM	72	PRO
40	DH	41	LYS
40	DH	119	ASN
41	DJ	43	GLU
42	DN	98	LEU
42	DN	100	CYS
42	DN	101	GLY
42	DN	119	SER
43	DO	99	TYR
44	DQ	18	LYS
44	DQ	85	ALA
44	DQ	86	SER
44	DQ	87	VAL
44	DQ	88	GLU
45	DS	14	ALA
45	DS	25	ARG
45	DS	40	ASN
45	DS	64	ALA
45	DS	96	ILE
46	DU	12	VAL
46	DU	62	ALA
46	DU	85	ARG
46	DU	92	VAL
46	DU	96	LYS
47	DF	35	LEU
47	DF	41	GLU
47	DF	66	ILE
47	DF	78	ILE
47	DF	80	GLN

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Mol	Chain	Res	Type
47	DF	84	ILE
47	DF	92	GLY
47	DF	136	ILE
47	DF	145	VAL
47	DF	148	VAL
47	DF	149	ARG
48	DG	9	VAL
48	DG	55	ASP
48	DG	94	ARG
48	DG	117	PRO
48	DG	118	ALA
49	DR	65	ALA
50	DT	38	ALA
50	DT	58	VAL
50	DT	83	ALA
50	DT	91	GLN
51	DZ	77	LYS
52	DW	17	ALA
52	DW	34	SER
52	DW	37	VAL
52	DW	51	GLY
52	DW	58	LEU
52	DW	62	ALA
52	DW	75	ASN
52	DW	77	LYS
53	D6	30	THR
53	D6	41	LEU
53	D6	42	LYS
3	AD	165	GLU
5	AF	82	ASP
6	AG	71	THR
8	AI	24	ASN
9	AJ	34	ALA
9	AJ	56	HIS
9	AJ	62	ARG
9	AJ	93	ALA
10	AK	14	GLN
11	AL	43	LYS
12	AM	6	ILE
12	AM	7	ASN
13	AN	2	LYS
15	AP	52	LEU

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Mol	Chain	Res	Type
16	AQ	28	VAL
18	AS	27	LYS
18	AS	53	GLY
18	AS	64	GLU
18	AS	67	GLY
19	AT	65	LEU
19	AT	85	LEU
20	AB	14	HIS
21	AU	12	ASP
21	AU	22	CYS
21	AU	36	PHE
24	BI	23	VAL
25	BC	34	GLU
25	BC	37	SER
25	BC	52	HIS
25	BC	94	LEU
25	BC	122	ALA
25	BC	246	PRO
26	BD	31	ALA
26	BD	95	SER
26	BD	113	SER
26	BD	121	THR
26	BD	131	ASP
27	BK	4	GLU
27	BK	14	SER
27	BK	17	ARG
27	BK	92	GLU
28	BP	30	TRP
28	BP	38	ARG
28	BP	59	THR
29	BE	62	GLN
29	BE	69	ARG
29	BE	188	MET
30	BY	50	VAL
31	B0	26	SER
32	B4	20	ASP
34	B3	22	LYS
37	BL	3	LEU
37	BL	5	THR
37	BL	9	ALA
37	BL	19	LEU
37	BL	36	LYS

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Mol	Chain	Res	Type
37	BL	53	GLY
37	BL	94	THR
37	BL	101	ILE
38	BM	70	ASP
38	BM	77	PRO
38	BM	116	ALA
38	BM	134	THR
39	BX	9	LYS
40	BH	12	LEU
40	BH	16	GLY
40	BH	83	LYS
41	BJ	41	LYS
42	BN	10	LEU
42	BN	92	GLY
44	BQ	6	GLY
44	BQ	91	ARG
44	BQ	95	ALA
45	BS	18	ARG
45	BS	65	ASP
46	BU	47	PRO
47	BF	9	ASP
47	BF	35	LEU
47	BF	41	GLU
47	BF	66	ILE
47	BF	113	PHE
48	BG	84	LYS
48	BG	151	ARG
50	BT	19	LYS
50	BT	28	ASN
50	BT	29	THR
50	BT	36	LYS
51	BZ	35	SER
51	BZ	70	GLU
51	BZ	71	LEU
52	BW	11	ASN
52	BW	14	ASP
52	BW	18	LYS
52	BW	37	VAL
52	BW	58	LEU
52	BW	70	VAL
52	BW	75	ASN
53	B6	29	ARG

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Mol	Chain	Res	Type
2	CC	3	LYS
5	CF	82	ASP
8	CI	24	ASN
9	CJ	56	HIS
9	CJ	61	ALA
9	CJ	62	ARG
9	CJ	93	ALA
10	CK	14	GLN
10	CK	49	SER
11	CL	43	LYS
11	CL	70	GLY
12	CM	7	ASN
13	CN	2	LYS
14	CO	76	ALA
15	CP	52	LEU
16	CQ	28	VAL
18	CS	27	LYS
18	CS	64	GLU
18	CS	67	GLY
19	CT	65	LEU
19	CT	85	LEU
20	CB	14	HIS
20	CB	119	GLN
20	CB	128	LEU
21	CU	12	ASP
21	CU	22	CYS
21	CU	34	ARG
21	CU	36	PHE
24	DI	23	VAL
25	DC	37	SER
25	DC	52	HIS
25	DC	94	LEU
25	DC	122	ALA
25	DC	151	GLY
25	DC	246	PRO
25	DC	254	LYS
26	DD	31	ALA
26	DD	131	ASP
27	DK	4	GLU
27	DK	14	SER
27	DK	17	ARG
27	DK	92	GLU

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Mol	Chain	Res	Type
28	DP	30	TRP
28	DP	38	ARG
28	DP	59	THR
29	DE	43	THR
29	DE	69	ARG
30	DY	49	ALA
31	D0	26	SER
32	D4	4	ARG
32	D4	20	ASP
34	D3	22	LYS
37	DL	3	LEU
37	DL	5	THR
37	DL	9	ALA
37	DL	19	LEU
37	DL	94	THR
38	DM	79	ALA
38	DM	116	ALA
38	DM	134	THR
39	DX	9	LYS
40	DH	8	LYS
40	DH	9	VAL
40	DH	12	LEU
40	DH	16	GLY
40	DH	113	SER
41	DJ	41	LYS
41	DJ	112	GLY
42	DN	10	LEU
42	DN	92	GLY
44	DQ	6	GLY
44	DQ	10	ARG
44	DQ	91	ARG
44	DQ	95	ALA
45	DS	18	ARG
45	DS	65	ASP
46	DU	47	PRO
47	DF	9	ASP
47	DF	113	PHE
48	DG	84	LYS
48	DG	151	ARG
48	DG	170	THR
49	DR	28	ALA
49	DR	40	MET

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Mol	Chain	Res	Type
49	DR	43	ASN
50	DT	19	LYS
50	DT	28	ASN
50	DT	29	THR
50	DT	36	LYS
50	DT	49	LYS
51	DZ	35	SER
51	DZ	70	GLU
51	DZ	71	LEU
52	DW	11	ASN
52	DW	14	ASP
52	DW	18	LYS
52	DW	36	ILE
52	DW	70	VAL
53	D6	63	PRO
2	AC	3	LYS
2	AC	60	ALA
2	AC	65	VAL
2	AC	107	LYS
3	AD	159	GLU
3	AD	192	ALA
5	AF	35	LYS
5	AF	98	GLU
9	AJ	61	ALA
10	AK	49	SER
11	AL	72	ASN
12	AM	3	ILE
12	AM	68	LEU
13	AN	71	GLY
18	AS	63	ASP
19	AT	67	HIS
20	AB	86	CYS
21	AU	9	GLU
21	AU	37	TYR
25	BC	3	VAL
25	BC	8	THR
25	BC	121	ALA
25	BC	151	GLY
25	BC	189	ALA
25	BC	254	LYS
26	BD	109	VAL
26	BD	144	GLY

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Mol	Chain	Res	Type
26	BD	175	LEU
26	BD	197	THR
27	BK	46	ALA
28	BP	63	ILE
28	BP	113	LEU
29	BE	43	THR
30	BY	9	THR
30	BY	34	THR
32	B4	4	ARG
32	B4	16	ILE
32	B4	36	ARG
32	B4	37	GLN
33	B1	36	LYS
34	B3	59	ALA
35	BV	25	LYS
37	BL	4	ASN
37	BL	15	ALA
37	BL	66	PHE
38	BM	42	THR
38	BM	55	ARG
38	BM	79	ALA
38	BM	83	GLY
40	BH	9	VAL
40	BH	31	VAL
40	BH	73	ASN
40	BH	102	ALA
40	BH	147	VAL
41	BJ	13	ARG
41	BJ	32	LEU
41	BJ	112	GLY
42	BN	18	GLN
43	BO	68	LYS
43	BO	100	HIS
45	BS	27	LYS
45	BS	109	ASP
46	BU	61	GLU
47	BF	28	PRO
47	BF	42	ALA
47	BF	70	ARG
47	BF	82	TYR
47	BF	135	ILE
47	BF	147	ARG

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Mol	Chain	Res	Type
47	BF	158	THR
48	BG	45	ALA
48	BG	61	TRP
49	BR	24	LYS
49	BR	101	ILE
50	BT	86	THR
51	BZ	28	ARG
52	BW	27	GLY
52	BW	61	LYS
53	B6	49	HIS
2	CC	59	PRO
2	CC	60	ALA
2	CC	65	VAL
2	CC	107	LYS
2	CC	180	ASP
3	CD	26	ALA
3	CD	192	ALA
5	CF	98	GLU
6	CG	71	THR
7	CH	24	VAL
9	CJ	34	ALA
11	CL	72	ASN
12	CM	3	ILE
12	CM	22	TYR
12	CM	68	LEU
12	CM	104	ASN
13	CN	71	GLY
13	CN	75	LYS
15	CP	33	ILE
18	CS	53	GLY
18	CS	63	ASP
19	CT	67	HIS
20	CB	86	CYS
21	CU	9	GLU
21	CU	37	TYR
25	DC	3	VAL
25	DC	8	THR
25	DC	34	GLU
25	DC	121	ALA
26	DD	109	VAL
26	DD	113	SER
26	DD	144	GLY

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Mol	Chain	Res	Type
26	DD	175	LEU
26	DD	197	THR
27	DK	46	ALA
28	DP	63	ILE
28	DP	113	LEU
29	DE	188	MET
30	DY	9	THR
30	DY	34	THR
30	DY	50	VAL
31	D0	44	ALA
32	D4	16	ILE
32	D4	36	ARG
32	D4	37	GLN
33	D1	36	LYS
33	D1	46	VAL
34	D3	59	ALA
35	DV	25	LYS
37	DL	4	ASN
37	DL	15	ALA
37	DL	36	LYS
37	DL	53	GLY
37	DL	66	PHE
38	DM	42	THR
38	DM	55	ARG
38	DM	77	PRO
40	DH	31	VAL
41	DJ	13	ARG
41	DJ	32	LEU
42	DN	18	GLN
42	DN	71	ARG
43	DO	68	LYS
43	DO	79	ALA
43	DO	98	GLN
43	DO	100	HIS
45	DS	27	LYS
45	DS	109	ASP
46	DU	61	GLU
47	DF	28	PRO
47	DF	42	ALA
47	DF	70	ARG
47	DF	82	TYR
47	DF	86	CYS

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Mol	Chain	Res	Type
47	DF	135	ILE
47	DF	140	ILE
47	DF	147	ARG
48	DG	32	LEU
48	DG	45	ALA
48	DG	61	TRP
49	DR	8	GLY
49	DR	24	LYS
49	DR	101	ILE
50	DT	86	THR
51	DZ	28	ARG
51	DZ	34	HIS
52	DW	23	LYS
52	DW	28	GLU
52	DW	61	LYS
53	D6	76	LEU
53	D6	95	LYS
2	AC	59	PRO
2	AC	180	ASP
3	AD	26	ALA
3	AD	68	GLU
4	AE	69	ASN
5	AF	95	ALA
6	AG	129	ASN
8	AI	119	LYS
10	AK	125	LYS
12	AM	22	TYR
12	AM	104	ASN
13	AN	20	PHE
13	AN	52	ARG
13	AN	75	LYS
14	AO	74	ASP
15	AP	33	ILE
16	AQ	31	PRO
19	AT	3	ILE
20	AB	200	PRO
20	AB	205	ALA
24	BI	49	GLU
25	BC	58	LYS
25	BC	105	ALA
26	BD	183	GLU
27	BK	93	GLN

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Mol	Chain	Res	Type
28	BP	37	LYS
29	BE	6	LYS
29	BE	70	SER
31	B0	44	ALA
31	B0	54	ILE
33	B1	35	LEU
33	B1	46	VAL
35	BV	84	PRO
37	BL	85	VAL
38	BM	35	ALA
38	BM	73	ILE
40	BH	44	ILE
40	BH	136	SER
41	BJ	4	PHE
43	BO	13	ARG
43	BO	79	ALA
43	BO	98	GLN
44	BQ	34	ALA
46	BU	78	LYS
47	BF	140	ILE
48	BG	15	ASP
48	BG	30	GLY
48	BG	32	LEU
48	BG	68	ARG
48	BG	152	ARG
48	BG	168	VAL
49	BR	8	GLY
51	BZ	34	HIS
51	BZ	52	SER
52	BW	23	LYS
52	BW	74	LYS
52	BW	78	PHE
2	CC	26	LYS
3	CD	68	GLU
3	CD	159	GLU
3	CD	165	GLU
4	CE	69	ASN
5	CF	35	LYS
5	CF	95	ALA
6	CG	66	GLU
6	CG	129	ASN
10	CK	26	PHE

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Mol	Chain	Res	Type
10	CK	125	LYS
13	CN	52	ARG
16	CQ	31	PRO
20	CB	200	PRO
20	CB	205	ALA
24	DI	14	ALA
25	DC	58	LYS
25	DC	105	ALA
25	DC	189	ALA
26	DD	167	ASN
26	DD	183	GLU
29	DE	6	LYS
29	DE	70	SER
29	DE	162	ARG
31	D0	54	ILE
32	D4	34	LYS
35	DV	84	PRO
36	D2	8	SER
37	DL	85	VAL
38	DM	35	ALA
38	DM	73	ILE
38	DM	83	GLY
40	DH	121	VAL
43	DO	13	ARG
46	DU	63	ALA
46	DU	78	LYS
47	DF	158	THR
48	DG	15	ASP
48	DG	30	GLY
48	DG	68	ARG
48	DG	152	ARG
48	DG	168	VAL
49	DR	91	GLN
49	DR	98	ILE
50	DT	55	VAL
52	DW	27	GLY
52	DW	74	LYS
52	DW	78	PHE
2	AC	26	LYS
2	AC	167	TYR
3	AD	29	THR
5	AF	51	ILE

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Mol	Chain	Res	Type
5	AF	53	LYS
6	AG	70	PRO
7	AH	24	VAL
7	AH	30	LYS
9	AJ	41	PRO
25	BC	150	GLY
29	BE	83	VAL
29	BE	96	VAL
29	BE	123	LYS
29	BE	129	PRO
29	BE	162	ARG
32	B4	34	LYS
40	BH	111	ALA
46	BU	63	ALA
47	BF	86	CYS
47	BF	88	VAL
47	BF	110	ILE
48	BG	3	VAL
48	BG	16	VAL
48	BG	97	VAL
48	BG	107	GLY
49	BR	3	ALA
49	BR	52	PRO
49	BR	98	ILE
50	BT	40	LYS
50	BT	55	VAL
2	CC	167	TYR
3	CD	34	GLU
5	CF	51	ILE
6	CG	70	PRO
6	CG	127	ALA
7	CH	30	LYS
13	CN	20	PHE
19	CT	3	ILE
20	CB	127	LYS
25	DC	111	ALA
25	DC	150	GLY
26	DD	11	MET
27	DK	93	GLN
28	DP	37	LYS
29	DE	83	VAL
29	DE	96	VAL

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Mol	Chain	Res	Type
29	DE	123	LYS
29	DE	129	PRO
29	DE	153	LEU
33	D1	35	LEU
41	DJ	2	LYS
41	DJ	84	ILE
43	DO	94	ARG
46	DU	15	GLY
47	DF	11	VAL
47	DF	88	VAL
47	DF	110	ILE
48	DG	3	VAL
48	DG	38	ASP
48	DG	97	VAL
49	DR	52	PRO
3	AD	107	GLY
20	AB	154	GLY
25	BC	31	PRO
25	BC	147	PRO
41	BJ	84	ILE
45	BS	24	ILE
47	BF	11	VAL
9	CJ	41	PRO
20	CB	154	GLY
25	DC	31	PRO
25	DC	147	PRO
27	DK	43	ILE
45	DS	24	ILE
48	DG	16	VAL
6	AG	7	GLY
15	AP	10	GLY
27	BK	43	ILE
29	BE	59	PRO
34	B3	20	GLY
44	BQ	89	ILE
46	BU	82	VAL
3	CD	27	ILE
3	CD	107	GLY
8	CI	71	ILE
25	DC	148	GLY
29	DE	59	PRO
31	D0	46	GLY

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Mol	Chain	Res	Type
44	DQ	89	ILE
45	DS	45	VAL
47	DF	73	VAL
48	DG	107	GLY
3	AD	27	ILE
8	AI	71	ILE
18	AS	29	PRO
20	AB	70	GLY
25	BC	148	GLY
26	BD	143	PRO
31	B0	46	GLY
32	B4	21	GLY
38	BM	87	GLY
47	BF	73	VAL
47	BF	105	ILE
48	BG	155	PRO
15	CP	10	GLY
20	CB	70	GLY
26	DD	143	PRO
32	D4	21	GLY
34	D3	20	GLY
40	DH	88	GLY
40	DH	108	VAL
41	DJ	73	VAL
46	DU	82	VAL
47	DF	105	ILE
48	DG	155	PRO
3	AD	175	GLY
28	BP	4	ILE
41	BJ	73	VAL
42	BN	47	VAL
45	BS	29	VAL
45	BS	45	VAL
48	BG	8	VAL
53	B6	55	ILE
18	CS	29	PRO
28	DP	4	ILE
37	DL	28	GLY
38	DM	87	GLY
42	DN	47	VAL
42	DN	93	GLY
53	D6	47	GLY

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Mol	Chain	Res	Type
15	AP	42	ILE
46	BU	15	GLY
11	CL	10	PRO
45	DS	29	VAL
48	DG	8	VAL

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	AC	170/189 (90%)	145 (85%)	25 (15%)	3	14
2	CC	170/189 (90%)	145 (85%)	25 (15%)	3	14
3	AD	172/172 (100%)	138 (80%)	34 (20%)	1	5
3	CD	172/172 (100%)	138 (80%)	34 (20%)	1	5
4	AE	113/125 (90%)	99 (88%)	14 (12%)	4	19
4	CE	113/125 (90%)	99 (88%)	14 (12%)	4	19
5	AF	87/116 (75%)	70 (80%)	17 (20%)	1	5
5	CF	87/116 (75%)	70 (80%)	17 (20%)	1	5
6	AG	123/146 (84%)	101 (82%)	22 (18%)	2	8
6	CG	125/146 (86%)	103 (82%)	22 (18%)	2	8
7	AH	104/104 (100%)	95 (91%)	9 (9%)	10	34
7	CH	104/104 (100%)	96 (92%)	8 (8%)	13	38
8	AI	105/106 (99%)	86 (82%)	19 (18%)	1	7
8	CI	105/106 (99%)	86 (82%)	19 (18%)	1	7
9	AJ	86/90 (96%)	75 (87%)	11 (13%)	4	18
9	CJ	86/90 (96%)	76 (88%)	10 (12%)	5	22
10	AK	90/98 (92%)	74 (82%)	16 (18%)	2	8
10	CK	90/98 (92%)	74 (82%)	16 (18%)	2	8
11	AL	103/103 (100%)	87 (84%)	16 (16%)	2	12
11	CL	103/103 (100%)	87 (84%)	16 (16%)	2	12

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
12	AM	92/95 (97%)	71 (77%)	21 (23%)	1	3
12	CM	91/95 (96%)	69 (76%)	22 (24%)	0	2
13	AN	79/83 (95%)	71 (90%)	8 (10%)	7	27
13	CN	79/83 (95%)	71 (90%)	8 (10%)	7	27
14	AO	76/77 (99%)	70 (92%)	6 (8%)	12	37
14	CO	76/77 (99%)	70 (92%)	6 (8%)	12	37
15	AP	65/65 (100%)	57 (88%)	8 (12%)	4	20
15	CP	65/65 (100%)	56 (86%)	9 (14%)	3	16
16	AQ	74/77 (96%)	59 (80%)	15 (20%)	1	5
16	CQ	75/77 (97%)	60 (80%)	15 (20%)	1	5
17	AR	48/64 (75%)	43 (90%)	5 (10%)	7	25
17	CR	48/64 (75%)	43 (90%)	5 (10%)	7	25
18	AS	70/78 (90%)	53 (76%)	17 (24%)	0	2
18	CS	71/78 (91%)	55 (78%)	16 (22%)	1	3
19	AT	65/65 (100%)	54 (83%)	11 (17%)	2	9
19	CT	65/65 (100%)	54 (83%)	11 (17%)	2	9
20	AB	180/198 (91%)	145 (81%)	35 (19%)	1	5
20	CB	180/198 (91%)	144 (80%)	36 (20%)	1	5
21	AU	44/60 (73%)	28 (64%)	16 (36%)	0	0
21	CU	44/60 (73%)	27 (61%)	17 (39%)	0	0
24	BI	109/109 (100%)	107 (98%)	2 (2%)	59	78
24	DI	109/109 (100%)	103 (94%)	6 (6%)	21	52
25	BC	216/217 (100%)	186 (86%)	30 (14%)	3	16
25	DC	216/217 (100%)	187 (87%)	29 (13%)	4	16
26	BD	164/164 (100%)	146 (89%)	18 (11%)	6	24
26	DD	164/164 (100%)	148 (90%)	16 (10%)	8	29
27	BK	102/104 (98%)	84 (82%)	18 (18%)	2	8
27	DK	102/104 (98%)	84 (82%)	18 (18%)	2	8
28	BP	99/99 (100%)	78 (79%)	21 (21%)	1	4
28	DP	99/99 (100%)	78 (79%)	21 (21%)	1	4
29	BE	165/165 (100%)	136 (82%)	29 (18%)	2	8

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
29	DE	165/165 (100%)	137 (83%)	28 (17%)	2	9
30	BY	48/48 (100%)	41 (85%)	7 (15%)	3	14
30	DY	48/48 (100%)	41 (85%)	7 (15%)	3	14
31	B0	47/47 (100%)	37 (79%)	10 (21%)	1	4
31	D0	47/47 (100%)	37 (79%)	10 (21%)	1	4
32	B4	34/34 (100%)	26 (76%)	8 (24%)	1	3
32	D4	34/34 (100%)	26 (76%)	8 (24%)	1	3
33	B1	45/48 (94%)	39 (87%)	6 (13%)	4	17
33	D1	45/48 (94%)	39 (87%)	6 (13%)	4	17
34	B3	51/51 (100%)	47 (92%)	4 (8%)	12	38
34	D3	51/51 (100%)	47 (92%)	4 (8%)	12	38
35	BV	78/78 (100%)	59 (76%)	19 (24%)	0	2
35	DV	78/78 (100%)	59 (76%)	19 (24%)	0	2
36	B2	38/38 (100%)	32 (84%)	6 (16%)	2	11
36	D2	38/38 (100%)	32 (84%)	6 (16%)	2	11
37	BL	102/103 (99%)	92 (90%)	10 (10%)	8	29
37	DL	102/103 (99%)	92 (90%)	10 (10%)	8	29
38	BM	109/109 (100%)	90 (83%)	19 (17%)	2	8
38	DM	109/109 (100%)	90 (83%)	19 (17%)	2	8
39	BX	55/55 (100%)	43 (78%)	12 (22%)	1	4
39	DX	55/55 (100%)	43 (78%)	12 (22%)	1	4
40	BH	114/114 (100%)	79 (69%)	35 (31%)	0	1
40	DH	114/114 (100%)	82 (72%)	32 (28%)	0	1
41	BJ	116/116 (100%)	96 (83%)	20 (17%)	2	9
41	DJ	116/116 (100%)	98 (84%)	18 (16%)	2	12
42	BN	100/103 (97%)	84 (84%)	16 (16%)	2	11
42	DN	100/103 (97%)	84 (84%)	16 (16%)	2	11
43	BO	86/87 (99%)	74 (86%)	12 (14%)	3	16
43	DO	86/87 (99%)	72 (84%)	14 (16%)	2	10
44	BQ	89/89 (100%)	78 (88%)	11 (12%)	4	19
44	DQ	89/89 (100%)	78 (88%)	11 (12%)	4	19

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
45	BS	93/93 (100%)	82 (88%)	11 (12%)	5	21
45	DS	93/93 (100%)	82 (88%)	11 (12%)	5	21
46	BU	83/84 (99%)	71 (86%)	12 (14%)	3	14
46	DU	83/84 (99%)	70 (84%)	13 (16%)	2	12
47	BF	149/149 (100%)	114 (76%)	35 (24%)	1	3
47	DF	149/149 (100%)	115 (77%)	34 (23%)	1	3
48	BG	137/137 (100%)	106 (77%)	31 (23%)	1	3
48	DG	137/137 (100%)	105 (77%)	32 (23%)	1	3
49	BR	84/84 (100%)	71 (84%)	13 (16%)	2	12
49	DR	84/84 (100%)	71 (84%)	13 (16%)	2	12
50	BT	80/84 (95%)	59 (74%)	21 (26%)	0	2
50	DT	80/84 (95%)	59 (74%)	21 (26%)	0	2
51	BZ	67/68 (98%)	52 (78%)	15 (22%)	1	3
51	DZ	67/68 (98%)	52 (78%)	15 (22%)	1	3
52	BW	59/62 (95%)	42 (71%)	17 (29%)	0	1
52	DW	59/62 (95%)	43 (73%)	16 (27%)	0	1
53	B6	157/157 (100%)	126 (80%)	31 (20%)	1	5
53	D6	157/157 (100%)	121 (77%)	36 (23%)	1	3
All	All	9647/10014 (96%)	7996 (83%)	1651 (17%)	2	9

All (1651) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AC	2	GLN
2	AC	13	ILE
2	AC	20	THR
2	AC	26	LYS
2	AC	27	GLU
2	AC	41	TYR
2	AC	48	LYS
2	AC	63	ILE
2	AC	81	GLU
2	AC	88	LYS
2	AC	96	VAL
2	AC	106	ARG
2	AC	107	LYS

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Mol	Chain	Res	Type
2	AC	118	SER
2	AC	120	THR
2	AC	130	ARG
2	AC	131	ARG
2	AC	138	GLN
2	AC	143	LEU
2	AC	166	TRP
2	AC	168	ARG
2	AC	171	ARG
2	AC	184	ASN
2	AC	192	TYR
2	AC	206	ILE
3	AD	4	LEU
3	AD	7	LYS
3	AD	18	LEU
3	AD	25	ARG
3	AD	27	ILE
3	AD	28	ASP
3	AD	32	LYS
3	AD	35	GLN
3	AD	39	GLN
3	AD	40	HIS
3	AD	49	ASP
3	AD	55	ARG
3	AD	57	LYS
3	AD	58	GLN
3	AD	60	VAL
3	AD	80	ARG
3	AD	84	ASN
3	AD	87	GLU
3	AD	106	PHE
3	AD	123	MET
3	AD	141	VAL
3	AD	146	GLU
3	AD	147	LYS
3	AD	160	LEU
3	AD	164	ARG
3	AD	176	LYS
3	AD	186	GLU
3	AD	187	ARG
3	AD	190	LEU
3	AD	191	SER

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Mol	Chain	Res	Type
3	AD	193	ASP
3	AD	195	ASN
3	AD	196	GLU
3	AD	199	ILE
4	AE	9	GLU
4	AE	21	SER
4	AE	23	THR
4	AE	25	LYS
4	AE	30	PHE
4	AE	45	VAL
4	AE	51	LYS
4	AE	61	LYS
4	AE	95	MET
4	AE	119	VAL
4	AE	123	LEU
4	AE	127	TYR
4	AE	147	ASN
4	AE	156	ARG
5	AF	6	ILE
5	AF	9	MET
5	AF	39	LEU
5	AF	51	ILE
5	AF	53	LYS
5	AF	54	LEU
5	AF	55	HIS
5	AF	61	LEU
5	AF	62	MET
5	AF	65	GLU
5	AF	69	GLU
5	AF	82	ASP
5	AF	86	ARG
5	AF	87	SER
5	AF	90	MET
5	AF	98	GLU
5	AF	100	SER
6	AG	5	VAL
6	AG	12	LEU
6	AG	19	SER
6	AG	22	LEU
6	AG	26	VAL
6	AG	27	ASN
6	AG	47	GLU

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Mol	Chain	Res	Type
6	AG	55	LYS
6	AG	57	GLU
6	AG	62	GLU
6	AG	75	LYS
6	AG	78	ARG
6	AG	83	THR
6	AG	94	ARG
6	AG	109	LYS
6	AG	110	ARG
6	AG	112	ASP
6	AG	117	LEU
6	AG	132	THR
6	AG	136	LYS
6	AG	147	ASN
6	AG	148	LYS
7	AH	28	SER
7	AH	37	ASN
7	AH	55	LYS
7	AH	57	GLU
7	AH	72	GLU
7	AH	73	SER
7	AH	87	ARG
7	AH	111	THR
7	AH	113	ARG
8	AI	10	ARG
8	AI	26	LYS
8	AI	31	GLN
8	AI	36	GLN
8	AI	45	MET
8	AI	53	LEU
8	AI	56	MET
8	AI	58	GLU
8	AI	59	LYS
8	AI	61	ASP
8	AI	67	LYS
8	AI	74	GLN
8	AI	84	ARG
8	AI	87	MET
8	AI	94	ARG
8	AI	98	ARG
8	AI	106	ASP
8	AI	109	GLN

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Mol	Chain	Res	Type
8	AI	114	LYS
9	AJ	17	LEU
9	AJ	47	GLU
9	AJ	57	VAL
9	AJ	60	ASP
9	AJ	75	ASP
9	AJ	77	VAL
9	AJ	85	ASP
9	AJ	88	MET
9	AJ	91	ASP
9	AJ	92	LEU
9	AJ	99	GLN
10	AK	12	ARG
10	AK	25	SER
10	AK	28	ASN
10	AK	31	VAL
10	AK	34	THR
10	AK	51	PHE
10	AK	55	ARG
10	AK	75	GLU
10	AK	80	ASN
10	AK	84	MET
10	AK	105	ARG
10	AK	115	ILE
10	AK	118	ASN
10	AK	121	ARG
10	AK	126	ARG
10	AK	128	VAL
11	AL	4	ASN
11	AL	13	ARG
11	AL	14	LYS
11	AL	17	LYS
11	AL	28	GLN
11	AL	33	CYS
11	AL	38	THR
11	AL	39	THR
11	AL	43	LYS
11	AL	49	ARG
11	AL	77	SER
11	AL	80	LEU
11	AL	107	LYS
11	AL	113	ARG

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Mol	Chain	Res	Type
11	AL	119	LYS
11	AL	122	LYS
12	AM	2	ARG
12	AM	15	VAL
12	AM	18	LEU
12	AM	28	ARG
12	AM	30	LYS
12	AM	41	ASP
12	AM	44	ILE
12	AM	46	GLU
12	AM	47	LEU
12	AM	54	THR
12	AM	57	ASP
12	AM	62	PHE
12	AM	65	GLU
12	AM	69	ARG
12	AM	77	LYS
12	AM	82	LEU
12	AM	89	ARG
12	AM	91	ARG
12	AM	92	ARG
12	AM	106	ARG
12	AM	113	LYS
13	AN	3	GLN
13	AN	26	LEU
13	AN	27	LYS
13	AN	48	GLN
13	AN	50	LEU
13	AN	53	ASP
13	AN	59	GLN
13	AN	65	GLN
14	AO	21	ASP
14	AO	40	GLN
14	AO	54	ARG
14	AO	81	LEU
14	AO	88	ARG
14	AO	89	ARG
15	AP	5	ARG
15	AP	12	LYS
15	AP	28	ARG
15	AP	45	GLU
15	AP	46	LYS

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Mol	Chain	Res	Type
15	AP	51	ARG
15	AP	66	THR
15	AP	68	SER
16	AQ	6	THR
16	AQ	10	ARG
16	AQ	15	LYS
16	AQ	39	ARG
16	AQ	48	GLU
16	AQ	50	ASN
16	AQ	56	ASP
16	AQ	60	ILE
16	AQ	64	ARG
16	AQ	66	LEU
16	AQ	74	LEU
16	AQ	76	ARG
16	AQ	78	VAL
16	AQ	79	GLU
16	AQ	80	LYS
17	AR	21	ASP
17	AR	23	LYS
17	AR	33	THR
17	AR	38	ILE
17	AR	46	THR
18	AS	3	SER
18	AS	4	LEU
18	AS	5	LYS
18	AS	11	ASP
18	AS	12	LEU
18	AS	15	LEU
18	AS	20	LYS
18	AS	27	LYS
18	AS	28	LYS
18	AS	39	ILE
18	AS	42	ASN
18	AS	47	THR
18	AS	59	VAL
18	AS	60	PHE
18	AS	64	GLU
18	AS	66	VAL
18	AS	80	ARG
19	AT	4	LYS
19	AT	7	LYS

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Mol	Chain	Res	Type
19	AT	13	SER
19	AT	35	TYR
19	AT	38	ILE
19	AT	43	LYS
19	AT	53	MET
19	AT	59	ARG
19	AT	68	LYS
19	AT	69	ASN
19	AT	77	ASN
20	AB	14	HIS
20	AB	18	GLN
20	AB	23	ASN
20	AB	27	LYS
20	AB	46	VAL
20	AB	50	ASN
20	AB	57	ASN
20	AB	58	LYS
20	AB	67	LEU
20	AB	72	LYS
20	AB	80	LYS
20	AB	87	ASP
20	AB	88	GLN
20	AB	94	ARG
20	AB	95	TRP
20	AB	104	LYS
20	AB	121	GLN
20	AB	122	ASP
20	AB	125	PHE
20	AB	127	LYS
20	AB	136	ARG
20	AB	137	THR
20	AB	138	ARG
20	AB	140	LEU
20	AB	144	GLU
20	AB	156	LEU
20	AB	177	ASN
20	AB	196	ASP
20	AB	202	ASN
20	AB	209	VAL
20	AB	212	TYR
20	AB	219	THR
20	AB	221	ARG

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Mol	Chain	Res	Type
20	AB	222	GLU
20	AB	224	ARG
21	AU	4	LYS
21	AU	6	ARG
21	AU	11	PHE
21	AU	12	ASP
21	AU	15	LEU
21	AU	16	ARG
21	AU	20	ARG
21	AU	21	SER
21	AU	24	LYS
21	AU	27	VAL
21	AU	34	ARG
21	AU	36	PHE
21	AU	38	GLU
21	AU	41	THR
21	AU	44	ARG
21	AU	48	LYS
24	BI	63	ASP
24	BI	96	LYS
25	BC	8	THR
25	BC	12	ARG
25	BC	23	LEU
25	BC	43	ASN
25	BC	52	HIS
25	BC	62	ARG
25	BC	65	ASP
25	BC	89	ASN
25	BC	94	LEU
25	BC	109	LEU
25	BC	110	LYS
25	BC	129	LEU
25	BC	155	ARG
25	BC	166	ARG
25	BC	172	THR
25	BC	173	LEU
25	BC	176	ARG
25	BC	180	MET
25	BC	181	ARG
25	BC	187	CYS
25	BC	190	THR
25	BC	191	LEU

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Mol	Chain	Res	Type
25	BC	212	TRP
25	BC	224	MET
25	BC	235	GLU
25	BC	250	GLN
25	BC	251	THR
25	BC	252	LYS
25	BC	257	ARG
25	BC	270	ARG
26	BD	12	THR
26	BD	40	LEU
26	BD	46	ARG
26	BD	56	LYS
26	BD	59	ARG
26	BD	81	GLU
26	BD	84	LEU
26	BD	89	GLU
26	BD	98	VAL
26	BD	99	GLU
26	BD	114	LYS
26	BD	124	ARG
26	BD	130	GLN
26	BD	138	LEU
26	BD	148	GLN
26	BD	154	LYS
26	BD	159	LYS
26	BD	173	GLN
27	BK	2	ILE
27	BK	21	CYS
27	BK	32	TYR
27	BK	47	ILE
27	BK	53	LYS
27	BK	54	LYS
27	BK	58	LEU
27	BK	67	LYS
27	BK	72	PRO
27	BK	80	ASP
27	BK	86	LEU
27	BK	87	LEU
27	BK	88	ASN
27	BK	89	ASN
27	BK	105	ARG
27	BK	111	LYS

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Mol	Chain	Res	Type
27	BK	120	PRO
27	BK	121	GLU
28	BP	3	ILE
28	BP	6	GLN
28	BP	13	LYS
28	BP	19	PHE
28	BP	20	ARG
28	BP	25	VAL
28	BP	33	GLU
28	BP	37	LYS
28	BP	39	LEU
28	BP	43	GLU
28	BP	46	VAL
28	BP	58	PHE
28	BP	60	VAL
28	BP	61	ARG
28	BP	83	ILE
28	BP	84	SER
28	BP	100	ARG
28	BP	111	GLU
28	BP	112	ARG
28	BP	113	LEU
28	BP	114	ASN
29	BE	2	GLU
29	BE	6	LYS
29	BE	7	ASP
29	BE	12	LEU
29	BE	21	ARG
29	BE	22	ASP
29	BE	24	ASN
29	BE	40	ARG
29	BE	48	THR
29	BE	58	LYS
29	BE	60	TRP
29	BE	61	ARG
29	BE	62	GLN
29	BE	67	ARG
29	BE	70	SER
29	BE	78	TRP
29	BE	79	ARG
29	BE	108	ILE
29	BE	116	ASP

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Mol	Chain	Res	Type
29	BE	118	LEU
29	BE	122	GLU
29	BE	147	LEU
29	BE	148	ILE
29	BE	150	THR
29	BE	153	LEU
29	BE	159	LEU
29	BE	169	VAL
29	BE	170	ARG
29	BE	198	GLU
30	BY	2	LYS
30	BY	15	ARG
30	BY	23	LEU
30	BY	37	ARG
30	BY	39	ASP
30	BY	43	ILE
30	BY	48	ASN
31	B0	3	GLN
31	B0	10	SER
31	B0	27	LEU
31	B0	37	HIS
31	B0	38	LEU
31	B0	41	HIS
31	B0	45	ASP
31	B0	51	ARG
31	B0	53	VAL
31	B0	56	LYS
32	B4	1	MET
32	B4	9	LYS
32	B4	13	ASN
32	B4	15	LYS
32	B4	20	ASP
32	B4	25	VAL
32	B4	28	SER
32	B4	35	GLN
33	B1	6	GLU
33	B1	9	LYS
33	B1	27	ARG
33	B1	35	LEU
33	B1	44	GLN
33	B1	49	LYS
34	B3	7	ARG

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Mol	Chain	Res	Type
34	B3	14	LYS
34	B3	18	LYS
34	B3	30	HIS
35	BV	5	ASN
35	BV	11	GLU
35	BV	18	ARG
35	BV	20	LEU
35	BV	29	ILE
35	BV	34	LYS
35	BV	40	ILE
35	BV	42	LEU
35	BV	45	ASP
35	BV	46	LYS
35	BV	51	GLN
35	BV	53	LYS
35	BV	55	GLU
35	BV	68	LYS
35	BV	70	ILE
35	BV	75	GLN
35	BV	79	ARG
35	BV	87	GLN
35	BV	92	VAL
36	B2	21	ARG
36	B2	25	LYS
36	B2	28	ARG
36	B2	33	ARG
36	B2	39	ARG
36	B2	46	LYS
37	BL	40	SER
37	BL	60	ARG
37	BL	69	ARG
37	BL	78	ARG
37	BL	82	LEU
37	BL	91	ASP
37	BL	92	LEU
37	BL	95	LEU
37	BL	118	THR
37	BL	123	ARG
38	BM	1	MET
38	BM	18	ARG
38	BM	20	LEU
38	BM	25	ASP

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Mol	Chain	Res	Type
38	BM	27	SER
38	BM	47	GLU
38	BM	59	ARG
38	BM	66	ARG
38	BM	70	ASP
38	BM	78	LEU
38	BM	81	ARG
38	BM	82	MET
38	BM	90	GLU
38	BM	93	VAL
38	BM	110	GLU
38	BM	111	GLU
38	BM	115	GLU
38	BM	123	LYS
38	BM	127	LYS
39	BX	1	MET
39	BX	2	LYS
39	BX	7	ARG
39	BX	15	ASN
39	BX	18	LEU
39	BX	21	LEU
39	BX	24	GLU
39	BX	48	ARG
39	BX	49	ASP
39	BX	57	LEU
39	BX	59	GLU
39	BX	60	LYS
40	BH	3	VAL
40	BH	4	ILE
40	BH	12	LEU
40	BH	15	LEU
40	BH	19	VAL
40	BH	28	ASN
40	BH	31	VAL
40	BH	32	PRO
40	BH	41	LYS
40	BH	44	ILE
40	BH	46	PHE
40	BH	47	PHE
40	BH	48	GLU
40	BH	50	ARG
40	BH	54	LEU

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Mol	Chain	Res	Type
40	BH	57	LYS
40	BH	62	LEU
40	BH	66	ASN
40	BH	68	ARG
40	BH	70	GLU
40	BH	71	LYS
40	BH	73	ASN
40	BH	75	LEU
40	BH	89	LYS
40	BH	98	ASP
40	BH	109	GLU
40	BH	112	LYS
40	BH	114	GLU
40	BH	116	ARG
40	BH	125	THR
40	BH	128	HIS
40	BH	133	GLN
40	BH	136	SER
40	BH	138	VAL
40	BH	141	LYS
41	BJ	2	LYS
41	BJ	3	THR
41	BJ	5	THR
41	BJ	12	LYS
41	BJ	28	LEU
41	BJ	34	ARG
41	BJ	35	ARG
41	BJ	36	LEU
41	BJ	44	TYR
41	BJ	60	ASP
41	BJ	65	THR
41	BJ	78	THR
41	BJ	93	ILE
41	BJ	95	ARG
41	BJ	106	LYS
41	BJ	111	LYS
41	BJ	120	ARG
41	BJ	122	LEU
41	BJ	124	VAL
41	BJ	129	GLU
42	BN	2	ARG
42	BN	11	ASN

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Mol	Chain	Res	Type
42	BN	18	GLN
42	BN	20	MET
42	BN	32	GLU
42	BN	35	LYS
42	BN	40	LYS
42	BN	69	ARG
42	BN	71	ARG
42	BN	73	ASN
42	BN	74	GLU
42	BN	82	GLU
42	BN	98	LEU
42	BN	107	ASN
42	BN	114	GLU
42	BN	120	GLU
43	BO	3	LYS
43	BO	9	ARG
43	BO	17	LYS
43	BO	31	THR
43	BO	36	TYR
43	BO	80	GLU
43	BO	98	GLN
43	BO	100	HIS
43	BO	104	GLN
43	BO	106	LEU
43	BO	112	GLU
43	BO	115	LEU
44	BQ	4	LYS
44	BQ	10	ARG
44	BQ	13	HIS
44	BQ	49	ARG
44	BQ	50	ARG
44	BQ	69	ARG
44	BQ	79	ILE
44	BQ	83	LYS
44	BQ	88	GLU
44	BQ	94	LEU
44	BQ	96	ASP
45	BS	6	LYS
45	BS	42	LYS
45	BS	59	GLU
45	BS	66	ILE
45	BS	69	LEU

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Mol	Chain	Res	Type
45	BS	84	ARG
45	BS	86	MET
45	BS	88	ARG
45	BS	99	ARG
45	BS	108	SER
45	BS	109	ASP
46	BU	6	ARG
46	BU	11	ILE
46	BU	13	LEU
46	BU	21	ARG
46	BU	26	ASN
46	BU	49	PRO
46	BU	52	ASN
46	BU	60	LYS
46	BU	73	ASN
46	BU	78	LYS
46	BU	80	ASP
46	BU	85	ARG
47	BF	13	LYS
47	BF	17	THR
47	BF	18	GLU
47	BF	29	ARG
47	BF	32	LYS
47	BF	41	GLU
47	BF	49	LEU
47	BF	55	ASP
47	BF	56	LEU
47	BF	70	ARG
47	BF	76	PHE
47	BF	79	ARG
47	BF	87	LYS
47	BF	89	THR
47	BF	91	ARG
47	BF	96	TRP
47	BF	97	GLU
47	BF	102	LEU
47	BF	103	ILE
47	BF	109	ARG
47	BF	111	ARG
47	BF	112	ASP
47	BF	121	PHE
47	BF	126	ASN

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Mol	Chain	Res	Type
47	BF	128	SER
47	BF	129	MET
47	BF	134	GLN
47	BF	137	PHE
47	BF	138	PRO
47	BF	141	ASP
47	BF	142	TYR
47	BF	149	ARG
47	BF	160	LYS
47	BF	174	PHE
47	BF	178	LYS
48	BG	2	ARG
48	BG	17	LYS
48	BG	28	LYS
48	BG	31	GLU
48	BG	32	LEU
48	BG	33	THR
48	BG	34	ARG
48	BG	37	ASN
48	BG	54	ARG
48	BG	68	ARG
48	BG	70	LEU
48	BG	72	ASN
48	BG	74	MET
48	BG	84	LYS
48	BG	85	LYS
48	BG	86	LEU
48	BG	87	GLN
48	BG	94	ARG
48	BG	106	LEU
48	BG	113	ASP
48	BG	120	ILE
48	BG	124	CYS
48	BG	127	GLN
48	BG	132	LEU
48	BG	138	GLN
48	BG	146	ASP
48	BG	147	LEU
48	BG	154	GLU
48	BG	162	ARG
48	BG	163	TYR
48	BG	166	GLU

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Mol	Chain	Res	Type
49	BR	14	VAL
49	BR	22	LEU
49	BR	39	LEU
49	BR	40	MET
49	BR	41	ILE
49	BR	48	LYS
49	BR	53	PHE
49	BR	55	ASP
49	BR	70	GLU
49	BR	71	LYS
49	BR	84	ARG
49	BR	86	GLN
49	BR	97	LYS
50	BT	1	MET
50	BT	2	ILE
50	BT	3	ARG
50	BT	8	LEU
50	BT	9	LYS
50	BT	11	LEU
50	BT	12	ARG
50	BT	22	THR
50	BT	24	MET
50	BT	29	THR
50	BT	32	LEU
50	BT	36	LYS
50	BT	50	LEU
50	BT	61	LEU
50	BT	64	LYS
50	BT	68	LYS
50	BT	69	ARG
50	BT	73	ARG
50	BT	79	ASP
50	BT	86	THR
50	BT	87	LEU
51	BZ	4	VAL
51	BZ	25	THR
51	BZ	27	ARG
51	BZ	28	ARG
51	BZ	30	LEU
51	BZ	32	ASN
51	BZ	37	ARG
51	BZ	41	GLU

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Mol	Chain	Res	Type
51	BZ	46	PHE
51	BZ	48	THR
51	BZ	50	ARG
51	BZ	64	ILE
51	BZ	70	GLU
51	BZ	71	LEU
51	BZ	78	TYR
52	BW	10	ARG
52	BW	14	ASP
52	BW	18	LYS
52	BW	19	ARG
52	BW	23	LYS
52	BW	24	ARG
52	BW	25	PHE
52	BW	38	ARG
52	BW	39	GLN
52	BW	40	ARG
52	BW	49	ASN
52	BW	50	VAL
52	BW	54	ARG
52	BW	63	ASP
52	BW	68	PHE
52	BW	75	ASN
52	BW	77	LYS
53	B6	1	MET
53	B6	10	THR
53	B6	16	LYS
53	B6	17	SER
53	B6	22	GLU
53	B6	24	ASN
53	B6	37	LEU
53	B6	39	LEU
53	B6	52	LEU
53	B6	59	THR
53	B6	64	ARG
53	B6	66	LEU
53	B6	71	TRP
53	B6	73	GLN
53	B6	77	LYS
53	B6	84	ARG
53	B6	88	LEU
53	B6	90	LEU

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Mol	Chain	Res	Type
53	B6	97	ASP
53	B6	102	ASN
53	B6	106	LEU
53	B6	113	ASP
53	B6	134	ARG
53	B6	137	LEU
53	B6	138	ASP
53	B6	142	LYS
53	B6	156	ARG
53	B6	162	GLN
53	B6	169	ILE
53	B6	174	GLN
53	B6	181	GLN
2	CC	2	GLN
2	CC	13	ILE
2	CC	20	THR
2	CC	26	LYS
2	CC	27	GLU
2	CC	41	TYR
2	CC	48	LYS
2	CC	63	ILE
2	CC	81	GLU
2	CC	88	LYS
2	CC	96	VAL
2	CC	106	ARG
2	CC	107	LYS
2	CC	118	SER
2	CC	120	THR
2	CC	130	ARG
2	CC	131	ARG
2	CC	138	GLN
2	CC	143	LEU
2	CC	166	TRP
2	CC	168	ARG
2	CC	171	ARG
2	CC	184	ASN
2	CC	192	TYR
2	CC	206	ILE
3	CD	4	LEU
3	CD	7	LYS
3	CD	18	LEU
3	CD	25	ARG

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Mol	Chain	Res	Type
3	CD	27	ILE
3	CD	28	ASP
3	CD	32	LYS
3	CD	35	GLN
3	CD	39	GLN
3	CD	40	HIS
3	CD	49	ASP
3	CD	55	ARG
3	CD	57	LYS
3	CD	58	GLN
3	CD	60	VAL
3	CD	80	ARG
3	CD	84	ASN
3	CD	87	GLU
3	CD	106	PHE
3	CD	119	HIS
3	CD	123	MET
3	CD	141	VAL
3	CD	146	GLU
3	CD	147	LYS
3	CD	160	LEU
3	CD	164	ARG
3	CD	176	LYS
3	CD	183	ARG
3	CD	187	ARG
3	CD	190	LEU
3	CD	191	SER
3	CD	193	ASP
3	CD	195	ASN
3	CD	199	ILE
4	CE	9	GLU
4	CE	21	SER
4	CE	23	THR
4	CE	25	LYS
4	CE	30	PHE
4	CE	45	VAL
4	CE	51	LYS
4	CE	61	LYS
4	CE	95	MET
4	CE	119	VAL
4	CE	123	LEU
4	CE	127	TYR

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Mol	Chain	Res	Type
4	CE	147	ASN
4	CE	156	ARG
5	CF	6	ILE
5	CF	9	MET
5	CF	39	LEU
5	CF	51	ILE
5	CF	53	LYS
5	CF	54	LEU
5	CF	55	HIS
5	CF	61	LEU
5	CF	62	MET
5	CF	65	GLU
5	CF	69	GLU
5	CF	82	ASP
5	CF	86	ARG
5	CF	87	SER
5	CF	90	MET
5	CF	98	GLU
5	CF	100	SER
6	CG	8	GLN
6	CG	12	LEU
6	CG	19	SER
6	CG	22	LEU
6	CG	26	VAL
6	CG	27	ASN
6	CG	47	GLU
6	CG	55	LYS
6	CG	57	GLU
6	CG	62	GLU
6	CG	75	LYS
6	CG	78	ARG
6	CG	83	THR
6	CG	94	ARG
6	CG	109	LYS
6	CG	110	ARG
6	CG	117	LEU
6	CG	132	THR
6	CG	136	LYS
6	CG	147	ASN
6	CG	148	LYS
6	CG	153	TYR
7	CH	28	SER

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Mol	Chain	Res	Type
7	CH	37	ASN
7	CH	55	LYS
7	CH	57	GLU
7	CH	72	GLU
7	CH	87	ARG
7	CH	111	THR
7	CH	113	ARG
8	CI	10	ARG
8	CI	26	LYS
8	CI	31	GLN
8	CI	36	GLN
8	CI	45	MET
8	CI	53	LEU
8	CI	56	MET
8	CI	58	GLU
8	CI	59	LYS
8	CI	61	ASP
8	CI	67	LYS
8	CI	74	GLN
8	CI	84	ARG
8	CI	87	MET
8	CI	94	ARG
8	CI	98	ARG
8	CI	106	ASP
8	CI	109	GLN
8	CI	114	LYS
9	CJ	17	LEU
9	CJ	47	GLU
9	CJ	57	VAL
9	CJ	60	ASP
9	CJ	75	ASP
9	CJ	85	ASP
9	CJ	88	MET
9	CJ	91	ASP
9	CJ	92	LEU
9	CJ	99	GLN
10	CK	12	ARG
10	CK	25	SER
10	CK	28	ASN
10	CK	31	VAL
10	CK	34	THR
10	CK	51	PHE

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Mol	Chain	Res	Type
10	CK	55	ARG
10	CK	75	GLU
10	CK	80	ASN
10	CK	84	MET
10	CK	105	ARG
10	CK	115	ILE
10	CK	118	ASN
10	CK	121	ARG
10	CK	126	ARG
10	CK	128	VAL
11	CL	4	ASN
11	CL	13	ARG
11	CL	14	LYS
11	CL	17	LYS
11	CL	28	GLN
11	CL	33	CYS
11	CL	38	THR
11	CL	39	THR
11	CL	43	LYS
11	CL	49	ARG
11	CL	77	SER
11	CL	80	LEU
11	CL	107	LYS
11	CL	113	ARG
11	CL	119	LYS
11	CL	122	LYS
12	CM	2	ARG
12	CM	7	ASN
12	CM	15	VAL
12	CM	18	LEU
12	CM	28	ARG
12	CM	30	LYS
12	CM	41	ASP
12	CM	44	ILE
12	CM	46	GLU
12	CM	47	LEU
12	CM	52	ILE
12	CM	54	THR
12	CM	57	ASP
12	CM	62	PHE
12	CM	65	GLU
12	CM	69	ARG

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Mol	Chain	Res	Type
12	CM	77	LYS
12	CM	82	LEU
12	CM	89	ARG
12	CM	91	ARG
12	CM	92	ARG
12	CM	106	ARG
13	CN	3	GLN
13	CN	26	LEU
13	CN	27	LYS
13	CN	48	GLN
13	CN	50	LEU
13	CN	53	ASP
13	CN	59	GLN
13	CN	65	GLN
14	CO	21	ASP
14	CO	40	GLN
14	CO	54	ARG
14	CO	81	LEU
14	CO	88	ARG
14	CO	89	ARG
15	CP	5	ARG
15	CP	12	LYS
15	CP	28	ARG
15	CP	45	GLU
15	CP	46	LYS
15	CP	51	ARG
15	CP	66	THR
15	CP	68	SER
15	CP	80	LYS
16	CQ	6	THR
16	CQ	10	ARG
16	CQ	15	LYS
16	CQ	39	ARG
16	CQ	48	GLU
16	CQ	50	ASN
16	CQ	56	ASP
16	CQ	60	ILE
16	CQ	64	ARG
16	CQ	66	LEU
16	CQ	74	LEU
16	CQ	76	ARG
16	CQ	78	VAL

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Mol	Chain	Res	Type
16	CQ	79	GLU
16	CQ	80	LYS
17	CR	21	ASP
17	CR	23	LYS
17	CR	33	THR
17	CR	38	ILE
17	CR	46	THR
18	CS	2	ARG
18	CS	4	LEU
18	CS	11	ASP
18	CS	12	LEU
18	CS	15	LEU
18	CS	20	LYS
18	CS	27	LYS
18	CS	28	LYS
18	CS	39	ILE
18	CS	42	ASN
18	CS	47	THR
18	CS	59	VAL
18	CS	60	PHE
18	CS	64	GLU
18	CS	66	VAL
18	CS	80	ARG
19	CT	4	LYS
19	CT	7	LYS
19	CT	13	SER
19	CT	35	TYR
19	CT	38	ILE
19	CT	43	LYS
19	CT	53	MET
19	CT	59	ARG
19	CT	68	LYS
19	CT	69	ASN
19	CT	77	ASN
20	CB	8	MET
20	CB	14	HIS
20	CB	18	GLN
20	CB	23	ASN
20	CB	27	LYS
20	CB	46	VAL
20	CB	50	ASN
20	CB	57	ASN

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Mol	Chain	Res	Type
20	CB	58	LYS
20	CB	67	LEU
20	CB	72	LYS
20	CB	80	LYS
20	CB	87	ASP
20	CB	88	GLN
20	CB	94	ARG
20	CB	95	TRP
20	CB	104	LYS
20	CB	122	ASP
20	CB	126	ASP
20	CB	127	LYS
20	CB	128	LEU
20	CB	131	LYS
20	CB	132	GLU
20	CB	136	ARG
20	CB	138	ARG
20	CB	140	LEU
20	CB	144	GLU
20	CB	156	LEU
20	CB	177	ASN
20	CB	196	ASP
20	CB	202	ASN
20	CB	212	TYR
20	CB	219	THR
20	CB	221	ARG
20	CB	222	GLU
20	CB	224	ARG
21	CU	4	LYS
21	CU	6	ARG
21	CU	11	PHE
21	CU	12	ASP
21	CU	15	LEU
21	CU	16	ARG
21	CU	20	ARG
21	CU	21	SER
21	CU	22	CYS
21	CU	24	LYS
21	CU	27	VAL
21	CU	34	ARG
21	CU	36	PHE
21	CU	38	GLU

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Mol	Chain	Res	Type
21	CU	41	THR
21	CU	44	ARG
21	CU	48	LYS
24	DI	2	LYS
24	DI	54	ILE
24	DI	91	LYS
24	DI	99	LYS
24	DI	121	ILE
24	DI	140	GLU
25	DC	8	THR
25	DC	12	ARG
25	DC	23	LEU
25	DC	43	ASN
25	DC	52	HIS
25	DC	62	ARG
25	DC	65	ASP
25	DC	89	ASN
25	DC	94	LEU
25	DC	109	LEU
25	DC	110	LYS
25	DC	129	LEU
25	DC	155	ARG
25	DC	166	ARG
25	DC	172	THR
25	DC	173	LEU
25	DC	176	ARG
25	DC	180	MET
25	DC	181	ARG
25	DC	190	THR
25	DC	191	LEU
25	DC	212	TRP
25	DC	224	MET
25	DC	235	GLU
25	DC	250	GLN
25	DC	251	THR
25	DC	252	LYS
25	DC	257	ARG
25	DC	270	ARG
26	DD	12	THR
26	DD	40	LEU
26	DD	46	ARG
26	DD	56	LYS

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Mol	Chain	Res	Type
26	DD	59	ARG
26	DD	81	GLU
26	DD	84	LEU
26	DD	89	GLU
26	DD	98	VAL
26	DD	99	GLU
26	DD	114	LYS
26	DD	124	ARG
26	DD	138	LEU
26	DD	148	GLN
26	DD	154	LYS
26	DD	173	GLN
27	DK	2	ILE
27	DK	21	CYS
27	DK	32	TYR
27	DK	47	ILE
27	DK	53	LYS
27	DK	54	LYS
27	DK	58	LEU
27	DK	67	LYS
27	DK	72	PRO
27	DK	80	ASP
27	DK	86	LEU
27	DK	87	LEU
27	DK	88	ASN
27	DK	89	ASN
27	DK	105	ARG
27	DK	111	LYS
27	DK	120	PRO
27	DK	121	GLU
28	DP	3	ILE
28	DP	6	GLN
28	DP	13	LYS
28	DP	19	PHE
28	DP	20	ARG
28	DP	25	VAL
28	DP	33	GLU
28	DP	37	LYS
28	DP	39	LEU
28	DP	43	GLU
28	DP	46	VAL
28	DP	58	PHE

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Mol	Chain	Res	Type
28	DP	60	VAL
28	DP	61	ARG
28	DP	83	ILE
28	DP	84	SER
28	DP	100	ARG
28	DP	111	GLU
28	DP	112	ARG
28	DP	113	LEU
28	DP	114	ASN
29	DE	2	GLU
29	DE	6	LYS
29	DE	7	ASP
29	DE	12	LEU
29	DE	21	ARG
29	DE	22	ASP
29	DE	24	ASN
29	DE	40	ARG
29	DE	48	THR
29	DE	58	LYS
29	DE	60	TRP
29	DE	61	ARG
29	DE	62	GLN
29	DE	67	ARG
29	DE	70	SER
29	DE	78	TRP
29	DE	79	ARG
29	DE	108	ILE
29	DE	116	ASP
29	DE	118	LEU
29	DE	122	GLU
29	DE	147	LEU
29	DE	150	THR
29	DE	153	LEU
29	DE	159	LEU
29	DE	169	VAL
29	DE	170	ARG
29	DE	198	GLU
30	DY	2	LYS
30	DY	15	ARG
30	DY	23	LEU
30	DY	37	ARG
30	DY	39	ASP

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Mol	Chain	Res	Type
30	DY	43	ILE
30	DY	48	ASN
31	D0	3	GLN
31	D0	10	SER
31	D0	27	LEU
31	D0	37	HIS
31	D0	38	LEU
31	D0	41	HIS
31	D0	45	ASP
31	D0	51	ARG
31	D0	53	VAL
31	D0	56	LYS
32	D4	1	MET
32	D4	9	LYS
32	D4	13	ASN
32	D4	15	LYS
32	D4	20	ASP
32	D4	25	VAL
32	D4	28	SER
32	D4	35	GLN
33	D1	6	GLU
33	D1	9	LYS
33	D1	27	ARG
33	D1	35	LEU
33	D1	44	GLN
33	D1	49	LYS
34	D3	7	ARG
34	D3	14	LYS
34	D3	18	LYS
34	D3	30	HIS
35	DV	5	ASN
35	DV	11	GLU
35	DV	18	ARG
35	DV	20	LEU
35	DV	29	ILE
35	DV	34	LYS
35	DV	40	ILE
35	DV	42	LEU
35	DV	45	ASP
35	DV	46	LYS
35	DV	51	GLN
35	DV	53	LYS

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Mol	Chain	Res	Type
35	DV	55	GLU
35	DV	68	LYS
35	DV	70	ILE
35	DV	75	GLN
35	DV	79	ARG
35	DV	87	GLN
35	DV	92	VAL
36	D2	21	ARG
36	D2	25	LYS
36	D2	28	ARG
36	D2	33	ARG
36	D2	39	ARG
36	D2	46	LYS
37	DL	40	SER
37	DL	60	ARG
37	DL	69	ARG
37	DL	78	ARG
37	DL	82	LEU
37	DL	91	ASP
37	DL	92	LEU
37	DL	95	LEU
37	DL	118	THR
37	DL	123	ARG
38	DM	1	MET
38	DM	18	ARG
38	DM	20	LEU
38	DM	25	ASP
38	DM	27	SER
38	DM	47	GLU
38	DM	59	ARG
38	DM	66	ARG
38	DM	70	ASP
38	DM	78	LEU
38	DM	81	ARG
38	DM	82	MET
38	DM	90	GLU
38	DM	93	VAL
38	DM	110	GLU
38	DM	111	GLU
38	DM	115	GLU
38	DM	123	LYS
38	DM	127	LYS

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Mol	Chain	Res	Type
39	DX	1	MET
39	DX	2	LYS
39	DX	7	ARG
39	DX	15	ASN
39	DX	18	LEU
39	DX	21	LEU
39	DX	24	GLU
39	DX	48	ARG
39	DX	49	ASP
39	DX	57	LEU
39	DX	59	GLU
39	DX	60	LYS
40	DH	3	VAL
40	DH	4	ILE
40	DH	12	LEU
40	DH	15	LEU
40	DH	19	VAL
40	DH	28	ASN
40	DH	31	VAL
40	DH	32	PRO
40	DH	40	THR
40	DH	44	ILE
40	DH	47	PHE
40	DH	48	GLU
40	DH	50	ARG
40	DH	53	GLU
40	DH	55	GLU
40	DH	75	LEU
40	DH	80	ILE
40	DH	83	LYS
40	DH	87	GLU
40	DH	89	LYS
40	DH	97	ARG
40	DH	99	ILE
40	DH	112	LYS
40	DH	116	ARG
40	DH	119	ASN
40	DH	121	VAL
40	DH	124	THR
40	DH	129	GLU
40	DH	133	GLN
40	DH	139	PHE

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Mol	Chain	Res	Type
40	DH	142	VAL
40	DH	149	GLU
41	DJ	2	LYS
41	DJ	3	THR
41	DJ	5	THR
41	DJ	12	LYS
41	DJ	28	LEU
41	DJ	34	ARG
41	DJ	35	ARG
41	DJ	36	LEU
41	DJ	44	TYR
41	DJ	60	ASP
41	DJ	65	THR
41	DJ	93	ILE
41	DJ	95	ARG
41	DJ	106	LYS
41	DJ	120	ARG
41	DJ	122	LEU
41	DJ	124	VAL
41	DJ	129	GLU
42	DN	2	ARG
42	DN	11	ASN
42	DN	18	GLN
42	DN	20	MET
42	DN	32	GLU
42	DN	35	LYS
42	DN	40	LYS
42	DN	69	ARG
42	DN	71	ARG
42	DN	73	ASN
42	DN	74	GLU
42	DN	82	GLU
42	DN	98	LEU
42	DN	107	ASN
42	DN	114	GLU
42	DN	120	GLU
43	DO	3	LYS
43	DO	9	ARG
43	DO	17	LYS
43	DO	18	LEU
43	DO	31	THR
43	DO	36	TYR

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Mol	Chain	Res	Type
43	DO	80	GLU
43	DO	98	GLN
43	DO	100	HIS
43	DO	104	GLN
43	DO	106	LEU
43	DO	112	GLU
43	DO	115	LEU
43	DO	116	GLN
44	DQ	4	LYS
44	DQ	10	ARG
44	DQ	13	HIS
44	DQ	49	ARG
44	DQ	50	ARG
44	DQ	69	ARG
44	DQ	79	ILE
44	DQ	83	LYS
44	DQ	88	GLU
44	DQ	94	LEU
44	DQ	96	ASP
45	DS	6	LYS
45	DS	42	LYS
45	DS	59	GLU
45	DS	66	ILE
45	DS	69	LEU
45	DS	84	ARG
45	DS	86	MET
45	DS	88	ARG
45	DS	99	ARG
45	DS	108	SER
45	DS	109	ASP
46	DU	6	ARG
46	DU	11	ILE
46	DU	13	LEU
46	DU	21	ARG
46	DU	26	ASN
46	DU	49	PRO
46	DU	52	ASN
46	DU	60	LYS
46	DU	73	ASN
46	DU	78	LYS
46	DU	80	ASP
46	DU	85	ARG

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Mol	Chain	Res	Type
46	DU	98	ASN
47	DF	13	LYS
47	DF	17	THR
47	DF	18	GLU
47	DF	29	ARG
47	DF	32	LYS
47	DF	41	GLU
47	DF	49	LEU
47	DF	50	ASP
47	DF	55	ASP
47	DF	56	LEU
47	DF	70	ARG
47	DF	79	ARG
47	DF	87	LYS
47	DF	89	THR
47	DF	91	ARG
47	DF	96	TRP
47	DF	97	GLU
47	DF	102	LEU
47	DF	103	ILE
47	DF	109	ARG
47	DF	111	ARG
47	DF	112	ASP
47	DF	121	PHE
47	DF	126	ASN
47	DF	128	SER
47	DF	129	MET
47	DF	134	GLN
47	DF	137	PHE
47	DF	138	PRO
47	DF	142	TYR
47	DF	149	ARG
47	DF	160	LYS
47	DF	174	PHE
47	DF	178	LYS
48	DG	2	ARG
48	DG	17	LYS
48	DG	28	LYS
48	DG	31	GLU
48	DG	32	LEU
48	DG	33	THR
48	DG	34	ARG

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Mol	Chain	Res	Type
48	DG	37	ASN
48	DG	54	ARG
48	DG	68	ARG
48	DG	70	LEU
48	DG	72	ASN
48	DG	74	MET
48	DG	84	LYS
48	DG	85	LYS
48	DG	86	LEU
48	DG	87	GLN
48	DG	94	ARG
48	DG	106	LEU
48	DG	113	ASP
48	DG	120	ILE
48	DG	124	CYS
48	DG	127	GLN
48	DG	132	LEU
48	DG	138	GLN
48	DG	146	ASP
48	DG	147	LEU
48	DG	154	GLU
48	DG	162	ARG
48	DG	163	TYR
48	DG	166	GLU
48	DG	167	VAL
49	DR	14	VAL
49	DR	22	LEU
49	DR	39	LEU
49	DR	40	MET
49	DR	41	ILE
49	DR	48	LYS
49	DR	53	PHE
49	DR	55	ASP
49	DR	70	GLU
49	DR	71	LYS
49	DR	84	ARG
49	DR	86	GLN
49	DR	97	LYS
50	DT	1	MET
50	DT	2	ILE
50	DT	3	ARG
50	DT	8	LEU

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Mol	Chain	Res	Type
50	DT	9	LYS
50	DT	11	LEU
50	DT	12	ARG
50	DT	22	THR
50	DT	24	MET
50	DT	29	THR
50	DT	32	LEU
50	DT	36	LYS
50	DT	50	LEU
50	DT	61	LEU
50	DT	64	LYS
50	DT	68	LYS
50	DT	69	ARG
50	DT	73	ARG
50	DT	79	ASP
50	DT	86	THR
50	DT	87	LEU
51	DZ	4	VAL
51	DZ	25	THR
51	DZ	27	ARG
51	DZ	28	ARG
51	DZ	30	LEU
51	DZ	32	ASN
51	DZ	37	ARG
51	DZ	41	GLU
51	DZ	46	PHE
51	DZ	48	THR
51	DZ	50	ARG
51	DZ	64	ILE
51	DZ	70	GLU
51	DZ	71	LEU
51	DZ	78	TYR
52	DW	10	ARG
52	DW	14	ASP
52	DW	18	LYS
52	DW	19	ARG
52	DW	23	LYS
52	DW	24	ARG
52	DW	25	PHE
52	DW	38	ARG
52	DW	39	GLN
52	DW	49	ASN

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Mol	Chain	Res	Type
52	DW	50	VAL
52	DW	54	ARG
52	DW	63	ASP
52	DW	68	PHE
52	DW	75	ASN
52	DW	77	LYS
53	D6	1	MET
53	D6	2	THR
53	D6	6	LEU
53	D6	12	SER
53	D6	16	LYS
53	D6	17	SER
53	D6	29	ARG
53	D6	42	LYS
53	D6	44	GLU
53	D6	50	VAL
53	D6	52	LEU
53	D6	53	ASN
53	D6	54	GLN
53	D6	64	ARG
53	D6	71	TRP
53	D6	73	GLN
53	D6	74	ASN
53	D6	84	ARG
53	D6	85	ASP
53	D6	87	ASP
53	D6	94	ASN
53	D6	106	LEU
53	D6	107	THR
53	D6	108	GLU
53	D6	109	GLU
53	D6	110	ARG
53	D6	114	LEU
53	D6	115	VAL
53	D6	119	ARG
53	D6	121	TYR
53	D6	134	ARG
53	D6	137	LEU
53	D6	143	LEU
53	D6	146	GLU
53	D6	156	ARG
53	D6	174	GLN

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (342) such sidechains are listed below:

Mol	Chain	Res	Type
2	AC	2	GLN
2	AC	139	ASN
2	AC	184	ASN
2	AC	189	HIS
3	AD	35	GLN
3	AD	39	GLN
3	AD	53	GLN
3	AD	58	GLN
3	AD	84	ASN
3	AD	115	GLN
3	AD	119	HIS
3	AD	135	GLN
3	AD	151	GLN
4	AE	81	GLN
4	AE	82	HIS
4	AE	131	ASN
5	AF	46	GLN
6	AG	27	ASN
6	AG	67	ASN
6	AG	121	ASN
6	AG	147	ASN
7	AH	3	GLN
7	AH	66	GLN
7	AH	75	GLN
7	AH	117	GLN
8	AI	30	ASN
8	AI	36	GLN
8	AI	74	GLN
8	AI	80	HIS
9	AJ	20	GLN
9	AJ	35	GLN
10	AK	28	ASN
10	AK	39	ASN
11	AL	5	GLN
11	AL	28	GLN
11	AL	45	ASN
11	AL	111	GLN
12	AM	7	ASN
13	AN	42	ASN
13	AN	61	ASN
13	AN	65	GLN

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Mol	Chain	Res	Type
14	AO	37	ASN
14	AO	40	GLN
15	AP	26	ASN
15	AP	29	ASN
15	AP	40	ASN
16	AQ	50	ASN
17	AR	53	GLN
18	AS	42	ASN
18	AS	68	HIS
19	AT	12	GLN
19	AT	51	ASN
20	AB	23	ASN
20	AB	57	ASN
20	AB	88	GLN
20	AB	119	GLN
20	AB	121	GLN
20	AB	202	ASN
24	BI	11	GLN
24	BI	29	GLN
24	BI	33	ASN
24	BI	93	ASN
25	BC	14	HIS
25	BC	43	ASN
25	BC	45	ASN
25	BC	59	GLN
25	BC	85	ASN
25	BC	89	ASN
25	BC	133	ASN
25	BC	152	GLN
25	BC	162	GLN
25	BC	238	ASN
26	BD	32	ASN
26	BD	67	HIS
26	BD	126	ASN
26	BD	130	GLN
26	BD	136	ASN
27	BK	3	GLN
27	BK	5	GLN
27	BK	13	ASN
28	BP	6	GLN
28	BP	11	GLN
28	BP	40	GLN

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Mol	Chain	Res	Type
28	BP	114	ASN
29	BE	9	GLN
29	BE	24	ASN
29	BE	29	HIS
29	BE	30	GLN
29	BE	62	GLN
29	BE	136	GLN
29	BE	163	ASN
29	BE	195	GLN
30	BY	33	HIS
30	BY	48	ASN
31	B0	3	GLN
32	B4	13	ASN
32	B4	37	GLN
33	B1	25	ASN
34	B3	27	ASN
35	BV	44	HIS
35	BV	51	GLN
35	BV	75	GLN
35	BV	80	HIS
35	BV	88	HIS
36	B2	13	ASN
36	B2	16	HIS
37	BL	4	ASN
37	BL	54	GLN
37	BL	99	ASN
37	BL	104	GLN
38	BM	22	GLN
38	BM	60	GLN
38	BM	88	ASN
39	BX	25	GLN
39	BX	27	ASN
39	BX	31	GLN
39	BX	39	GLN
39	BX	41	HIS
39	BX	58	ASN
40	BH	28	ASN
40	BH	43	ASN
40	BH	66	ASN
40	BH	73	ASN
40	BH	133	GLN
41	BJ	130	HIS

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Mol	Chain	Res	Type
41	BJ	136	GLN
41	BJ	138	GLN
42	BN	11	ASN
42	BN	62	ASN
42	BN	73	ASN
42	BN	107	ASN
43	BO	19	GLN
43	BO	38	GLN
44	BQ	43	GLN
44	BQ	51	GLN
44	BQ	71	ASN
44	BQ	80	ASN
45	BS	40	ASN
45	BS	57	ASN
45	BS	61	ASN
46	BU	26	ASN
46	BU	65	GLN
46	BU	68	ASN
46	BU	73	ASN
47	BF	51	ASN
47	BF	126	ASN
47	BF	134	GLN
48	BG	44	HIS
48	BG	63	GLN
48	BG	87	GLN
48	BG	110	HIS
48	BG	127	GLN
49	BR	6	GLN
49	BR	12	HIS
49	BR	43	ASN
49	BR	86	GLN
50	BT	48	GLN
50	BT	72	GLN
50	BT	91	GLN
50	BT	92	ASN
51	BZ	20	HIS
51	BZ	23	ASN
51	BZ	32	ASN
51	BZ	34	HIS
51	BZ	36	HIS
52	BW	11	ASN
52	BW	39	GLN

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Mol	Chain	Res	Type
52	BW	49	ASN
52	BW	75	ASN
53	B6	13	HIS
53	B6	24	ASN
53	B6	91	ASN
53	B6	94	ASN
53	B6	102	ASN
53	B6	174	GLN
2	CC	2	GLN
2	CC	139	ASN
2	CC	189	HIS
3	CD	35	GLN
3	CD	39	GLN
3	CD	53	GLN
3	CD	58	GLN
3	CD	84	ASN
3	CD	115	GLN
3	CD	119	HIS
3	CD	135	GLN
3	CD	151	GLN
4	CE	81	GLN
4	CE	82	HIS
4	CE	131	ASN
5	CF	17	GLN
5	CF	46	GLN
6	CG	8	GLN
6	CG	27	ASN
6	CG	67	ASN
6	CG	121	ASN
6	CG	147	ASN
7	CH	3	GLN
7	CH	66	GLN
7	CH	75	GLN
7	CH	117	GLN
8	CI	30	ASN
8	CI	36	GLN
8	CI	74	GLN
8	CI	80	HIS
9	CJ	20	GLN
9	CJ	35	GLN
10	CK	28	ASN
10	CK	39	ASN

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Mol	Chain	Res	Type
11	CL	5	GLN
11	CL	28	GLN
11	CL	45	ASN
11	CL	111	GLN
12	CM	7	ASN
13	CN	42	ASN
13	CN	61	ASN
13	CN	65	GLN
14	CO	37	ASN
14	CO	40	GLN
15	CP	26	ASN
15	CP	40	ASN
16	CQ	50	ASN
17	CR	53	GLN
18	CS	42	ASN
18	CS	68	HIS
19	CT	20	ASN
19	CT	51	ASN
20	CB	17	HIS
20	CB	18	GLN
20	CB	23	ASN
20	CB	57	ASN
20	CB	88	GLN
20	CB	119	GLN
20	CB	121	GLN
20	CB	202	ASN
24	DI	5	GLN
24	DI	11	GLN
24	DI	29	GLN
24	DI	33	ASN
25	DC	14	HIS
25	DC	43	ASN
25	DC	45	ASN
25	DC	59	GLN
25	DC	85	ASN
25	DC	89	ASN
25	DC	133	ASN
25	DC	152	GLN
25	DC	162	GLN
25	DC	238	ASN
26	DD	32	ASN
26	DD	67	HIS

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Mol	Chain	Res	Type
26	DD	126	ASN
26	DD	130	GLN
26	DD	136	ASN
27	DK	3	GLN
27	DK	5	GLN
27	DK	13	ASN
28	DP	6	GLN
28	DP	11	GLN
28	DP	40	GLN
28	DP	114	ASN
29	DE	9	GLN
29	DE	24	ASN
29	DE	30	GLN
29	DE	62	GLN
29	DE	136	GLN
29	DE	163	ASN
30	DY	33	HIS
30	DY	48	ASN
31	D0	3	GLN
31	D0	37	HIS
32	D4	13	ASN
32	D4	37	GLN
33	D1	25	ASN
34	D3	27	ASN
34	D3	42	HIS
35	DV	44	HIS
35	DV	51	GLN
35	DV	80	HIS
35	DV	88	HIS
36	D2	13	ASN
36	D2	16	HIS
37	DL	4	ASN
37	DL	54	GLN
37	DL	99	ASN
38	DM	22	GLN
38	DM	60	GLN
38	DM	88	ASN
39	DX	25	GLN
39	DX	27	ASN
39	DX	31	GLN
39	DX	39	GLN
39	DX	41	HIS

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Mol	Chain	Res	Type
40	DH	28	ASN
40	DH	133	GLN
41	DJ	130	HIS
41	DJ	136	GLN
41	DJ	138	GLN
42	DN	11	ASN
42	DN	62	ASN
42	DN	73	ASN
42	DN	107	ASN
43	DO	19	GLN
43	DO	38	GLN
43	DO	67	ASN
44	DQ	43	GLN
44	DQ	51	GLN
44	DQ	71	ASN
44	DQ	80	ASN
45	DS	40	ASN
45	DS	57	ASN
45	DS	61	ASN
46	DU	26	ASN
46	DU	65	GLN
46	DU	68	ASN
46	DU	73	ASN
47	DF	51	ASN
47	DF	126	ASN
47	DF	134	GLN
48	DG	44	HIS
48	DG	63	GLN
48	DG	87	GLN
48	DG	127	GLN
49	DR	6	GLN
49	DR	43	ASN
49	DR	86	GLN
50	DT	48	GLN
50	DT	72	GLN
50	DT	91	GLN
50	DT	92	ASN
51	DZ	20	HIS
51	DZ	23	ASN
51	DZ	34	HIS
51	DZ	36	HIS
52	DW	11	ASN

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Mol	Chain	Res	Type
52	DW	39	GLN
52	DW	49	ASN
52	DW	75	ASN
53	D6	49	HIS
53	D6	53	ASN
53	D6	74	ASN
53	D6	174	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1529/1542 (99%)	248 (16%)	28 (1%)
1	CA	1529/1542 (99%)	239 (15%)	25 (1%)
22	BA	116/120 (96%)	18 (15%)	0
22	DA	116/120 (96%)	19 (16%)	0
23	BB	2837/2904 (97%)	448 (15%)	20 (0%)
23	DB	2837/2904 (97%)	432 (15%)	19 (0%)
All	All	8964/9132 (98%)	1404 (15%)	92 (1%)

All (1404) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	9	G
1	AA	14	U
1	AA	15	G
1	AA	31	G
1	AA	32	A
1	AA	39	G
1	AA	41	G
1	AA	47	C
1	AA	48	C
1	AA	52	C
1	AA	54	C
1	AA	55	A
1	AA	61	G
1	AA	66	A
1	AA	67	C
1	AA	70	U
1	AA	71	A
1	AA	72	A
1	AA	73	C

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Mol	Chain	Res	Type
1	AA	74	A
1	AA	78	A
1	AA	81	A
1	AA	83	C
1	AA	84	U
1	AA	85	U
1	AA	86	G
1	AA	88	U
1	AA	89	U
1	AA	91	U
1	AA	92	U
1	AA	93	U
1	AA	94	G
1	AA	95	C
1	AA	108	G
1	AA	121	U
1	AA	131	A
1	AA	151	A
1	AA	182	A
1	AA	183	C
1	AA	197	A
1	AA	209	U
1	AA	210	C
1	AA	213	G
1	AA	239	U
1	AA	240	G
1	AA	243	A
1	AA	244	U
1	AA	245	U
1	AA	247	G
1	AA	250	A
1	AA	251	G
1	AA	257	G
1	AA	258	G
1	AA	266	G
1	AA	267	C
1	AA	280	C
1	AA	289	G
1	AA	301	G
1	AA	328	C
1	AA	329	A
1	AA	330	C

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Mol	Chain	Res	Type
1	AA	332	G
1	AA	349	A
1	AA	352	C
1	AA	354	G
1	AA	367	U
1	AA	372	C
1	AA	373	A
1	AA	374	A
1	AA	381	C
1	AA	397	A
1	AA	398	U
1	AA	406	G
1	AA	408	A
1	AA	409	U
1	AA	411	A
1	AA	412	A
1	AA	413	G
1	AA	415	A
1	AA	421	U
1	AA	422	C
1	AA	424	G
1	AA	429	U
1	AA	430	A
1	AA	435	A
1	AA	461	A
1	AA	462	G
1	AA	463	U
1	AA	464	U
1	AA	465	A
1	AA	466	A
1	AA	467	U
1	AA	468	A
1	AA	482	A
1	AA	484	G
1	AA	485	U
1	AA	486	U
1	AA	493	A
1	AA	511	C
1	AA	518	C
1	AA	527	G
1	AA	532	A
1	AA	547	A

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Mol	Chain	Res	Type
1	AA	559	A
1	AA	562	U
1	AA	572	A
1	AA	573	A
1	AA	576	C
1	AA	577	G
1	AA	596	A
1	AA	639	G
1	AA	653	U
1	AA	665	A
1	AA	695	A
1	AA	700	G
1	AA	721	G
1	AA	723	U
1	AA	724	G
1	AA	731	G
1	AA	733	G
1	AA	747	A
1	AA	748	G
1	AA	755	G
1	AA	777	A
1	AA	793	U
1	AA	794	A
1	AA	812	G
1	AA	815	A
1	AA	817	C
1	AA	818	G
1	AA	819	A
1	AA	821	G
1	AA	828	U
1	AA	841	C
1	AA	842	U
1	AA	843	U
1	AA	844	G
1	AA	845	A
1	AA	848	C
1	AA	849	G
1	AA	914	A
1	AA	926	G
1	AA	927	G
1	AA	934	C
1	AA	935	A

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Mol	Chain	Res	Type
1	AA	960	U
1	AA	961	U
1	AA	966	G
1	AA	969	A
1	AA	974	A
1	AA	975	A
1	AA	976	G
1	AA	977	A
1	AA	984	C
1	AA	992	U
1	AA	993	G
1	AA	994	A
1	AA	1004	A
1	AA	1009	U
1	AA	1010	U
1	AA	1020	G
1	AA	1025	U
1	AA	1026	G
1	AA	1029	U
1	AA	1030	U
1	AA	1031	C
1	AA	1033	G
1	AA	1035	A
1	AA	1050	G
1	AA	1054	C
1	AA	1065	U
1	AA	1066	C
1	AA	1085	U
1	AA	1094	G
1	AA	1095	U
1	AA	1101	A
1	AA	1118	U
1	AA	1124	G
1	AA	1129	C
1	AA	1136	C
1	AA	1137	C
1	AA	1138	G
1	AA	1139	G
1	AA	1158	C
1	AA	1167	A
1	AA	1168	U
1	AA	1169	A

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Mol	Chain	Res	Type
1	AA	1178	G
1	AA	1179	A
1	AA	1181	G
1	AA	1183	U
1	AA	1184	G
1	AA	1196	A
1	AA	1197	A
1	AA	1201	A
1	AA	1202	U
1	AA	1211	U
1	AA	1212	U
1	AA	1213	A
1	AA	1214	C
1	AA	1225	A
1	AA	1226	C
1	AA	1227	A
1	AA	1238	A
1	AA	1240	U
1	AA	1241	G
1	AA	1256	A
1	AA	1257	A
1	AA	1258	G
1	AA	1270	G
1	AA	1278	G
1	AA	1279	G
1	AA	1280	A
1	AA	1281	C
1	AA	1286	U
1	AA	1289	A
1	AA	1300	G
1	AA	1301	U
1	AA	1302	C
1	AA	1305	G
1	AA	1316	G
1	AA	1317	C
1	AA	1319	A
1	AA	1320	C
1	AA	1323	G
1	AA	1336	C
1	AA	1353	G
1	AA	1363	A
1	AA	1364	U

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Mol	Chain	Res	Type
1	AA	1381	U
1	AA	1398	A
1	AA	1408	A
1	AA	1411	C
1	AA	1432	G
1	AA	1446	A
1	AA	1452	C
1	AA	1489	G
1	AA	1493	A
1	AA	1497	G
1	AA	1503	A
1	AA	1506	U
1	AA	1517	G
1	AA	1519	A
1	AA	1520	C
1	AA	1529	G
1	AA	1530	G
1	AA	1533	C
1	AA	1534	A
22	BA	12	C
22	BA	13	G
22	BA	16	G
22	BA	25	U
22	BA	26	C
22	BA	30	C
22	BA	35	C
22	BA	36	C
22	BA	42	C
22	BA	52	A
22	BA	53	A
22	BA	56	G
22	BA	66	A
22	BA	88	C
22	BA	89	U
22	BA	90	C
22	BA	99	A
22	BA	109	A
23	BB	2	G
23	BB	4	U
23	BB	12	U
23	BB	34	U
23	BB	35	G

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Mol	Chain	Res	Type
23	BB	46	G
23	BB	51	G
23	BB	63	A
23	BB	64	A
23	BB	71	A
23	BB	74	A
23	BB	75	G
23	BB	91	A
23	BB	96	C
23	BB	100	U
23	BB	101	A
23	BB	102	U
23	BB	103	A
23	BB	110	G
23	BB	118	A
23	BB	119	A
23	BB	120	U
23	BB	125	A
23	BB	128	C
23	BB	135	U
23	BB	137	U
23	BB	140	C
23	BB	141	G
23	BB	142	A
23	BB	144	A
23	BB	160	A
23	BB	162	U
23	BB	163	C
23	BB	181	A
23	BB	196	A
23	BB	199	A
23	BB	216	A
23	BB	221	A
23	BB	222	A
23	BB	223	A
23	BB	230	G
23	BB	248	G
23	BB	252	G
23	BB	255	A
23	BB	265	A
23	BB	266	G
23	BB	267	C

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Mol	Chain	Res	Type
23	BB	277	G
23	BB	278	A
23	BB	279	A
23	BB	280	U
23	BB	295	G
23	BB	299	A
23	BB	311	A
23	BB	323	C
23	BB	329	G
23	BB	330	A
23	BB	333	G
23	BB	346	A
23	BB	353	C
23	BB	354	A
23	BB	371	A
23	BB	372	G
23	BB	386	G
23	BB	387	U
23	BB	396	G
23	BB	399	U
23	BB	411	G
23	BB	412	A
23	BB	424	G
23	BB	444	C
23	BB	455	C
23	BB	456	C
23	BB	457	A
23	BB	479	A
23	BB	480	A
23	BB	481	G
23	BB	490	C
23	BB	491	G
23	BB	504	A
23	BB	505	A
23	BB	508	A
23	BB	509	C
23	BB	512	G
23	BB	527	C
23	BB	532	A
23	BB	533	G
23	BB	544	C
23	BB	546	U

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Mol	Chain	Res	Type
23	BB	547	A
23	BB	548	G
23	BB	549	G
23	BB	550	C
23	BB	563	A
23	BB	573	U
23	BB	575	A
23	BB	588	U
23	BB	603	A
23	BB	613	A
23	BB	614	A
23	BB	615	U
23	BB	616	A
23	BB	627	A
23	BB	637	A
23	BB	645	C
23	BB	646	U
23	BB	654	A
23	BB	655	A
23	BB	671	C
23	BB	686	U
23	BB	717	C
23	BB	718	A
23	BB	719	C
23	BB	730	A
23	BB	747	U
23	BB	757	G
23	BB	765	C
23	BB	775	G
23	BB	782	A
23	BB	784	G
23	BB	785	G
23	BB	805	G
23	BB	812	C
23	BB	819	A
23	BB	827	U
23	BB	828	U
23	BB	846	U
23	BB	847	U
23	BB	859	G
23	BB	872	U
23	BB	875	G

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Mol	Chain	Res	Type
23	BB	876	C
23	BB	877	A
23	BB	878	A
23	BB	899	A
23	BB	910	A
23	BB	912	C
23	BB	931	U
23	BB	932	U
23	BB	933	A
23	BB	941	A
23	BB	946	C
23	BB	961	C
23	BB	973	A
23	BB	974	G
23	BB	983	A
23	BB	989	G
23	BB	990	A
23	BB	991	C
23	BB	995	C
23	BB	996	A
23	BB	1012	U
23	BB	1013	C
23	BB	1022	G
23	BB	1025	G
23	BB	1033	U
23	BB	1045	C
23	BB	1046	A
23	BB	1047	G
23	BB	1062	G
23	BB	1070	A
23	BB	1088	A
23	BB	1090	A
23	BB	1110	G
23	BB	1112	G
23	BB	1126	A
23	BB	1132	U
23	BB	1133	A
23	BB	1135	C
23	BB	1136	G
23	BB	1142	A
23	BB	1170	C
23	BB	1172	C

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Mol	Chain	Res	Type
23	BB	1173	U
23	BB	1174	U
23	BB	1175	A
23	BB	1179	G
23	BB	1180	U
23	BB	1205	A
23	BB	1206	G
23	BB	1211	C
23	BB	1212	G
23	BB	1237	A
23	BB	1241	A
23	BB	1242	U
23	BB	1247	A
23	BB	1248	G
23	BB	1250	G
23	BB	1253	A
23	BB	1256	G
23	BB	1266	G
23	BB	1271	G
23	BB	1272	A
23	BB	1275	A
23	BB	1300	G
23	BB	1301	A
23	BB	1302	A
23	BB	1325	U
23	BB	1337	G
23	BB	1341	G
23	BB	1352	U
23	BB	1365	A
23	BB	1368	G
23	BB	1379	U
23	BB	1383	A
23	BB	1384	A
23	BB	1396	U
23	BB	1397	U
23	BB	1416	G
23	BB	1419	A
23	BB	1426	G
23	BB	1427	A
23	BB	1428	C
23	BB	1453	A
23	BB	1454	C

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Mol	Chain	Res	Type
23	BB	1455	G
23	BB	1459	G
23	BB	1460	U
23	BB	1461	C
23	BB	1476	U
23	BB	1477	A
23	BB	1478	G
23	BB	1482	G
23	BB	1490	A
23	BB	1493	C
23	BB	1504	A
23	BB	1505	A
23	BB	1507	C
23	BB	1508	A
23	BB	1509	A
23	BB	1510	G
23	BB	1524	G
23	BB	1535	A
23	BB	1537	G
23	BB	1538	G
23	BB	1540	G
23	BB	1552	A
23	BB	1558	C
23	BB	1559	U
23	BB	1566	A
23	BB	1569	A
23	BB	1578	U
23	BB	1583	A
23	BB	1585	C
23	BB	1608	A
23	BB	1610	A
23	BB	1634	A
23	BB	1635	A
23	BB	1640	A
23	BB	1647	U
23	BB	1648	U
23	BB	1649	G
23	BB	1654	A
23	BB	1674	G
23	BB	1700	A
23	BB	1701	A
23	BB	1703	G

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Mol	Chain	Res	Type
23	BB	1706	C
23	BB	1713	A
23	BB	1714	U
23	BB	1715	G
23	BB	1723	G
23	BB	1724	G
23	BB	1730	C
23	BB	1731	G
23	BB	1733	G
23	BB	1738	G
23	BB	1739	A
23	BB	1756	G
23	BB	1758	U
23	BB	1764	C
23	BB	1773	A
23	BB	1800	C
23	BB	1801	A
23	BB	1816	C
23	BB	1829	A
23	BB	1857	G
23	BB	1869	G
23	BB	1870	C
23	BB	1871	A
23	BB	1872	A
23	BB	1876	A
23	BB	1884	G
23	BB	1906	G
23	BB	1907	G
23	BB	1909	C
23	BB	1910	G
23	BB	1912	A
23	BB	1913	A
23	BB	1914	C
23	BB	1915	U
23	BB	1918	A
23	BB	1919	A
23	BB	1922	G
23	BB	1927	A
23	BB	1929	G
23	BB	1930	G
23	BB	1931	U
23	BB	1937	A

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Mol	Chain	Res	Type
23	BB	1938	A
23	BB	1939	U
23	BB	1940	U
23	BB	1955	U
23	BB	1963	U
23	BB	1967	C
23	BB	1970	A
23	BB	1971	U
23	BB	1972	G
23	BB	1991	U
23	BB	1993	U
23	BB	1997	C
23	BB	2022	U
23	BB	2023	C
23	BB	2031	A
23	BB	2032	G
23	BB	2033	A
23	BB	2043	C
23	BB	2055	C
23	BB	2056	G
23	BB	2057	G
23	BB	2060	A
23	BB	2061	G
23	BB	2062	A
23	BB	2069	G
23	BB	2101	A
23	BB	2102	G
23	BB	2103	C
23	BB	2104	C
23	BB	2107	G
23	BB	2108	A
23	BB	2110	G
23	BB	2134	A
23	BB	2137	U
23	BB	2139	U
23	BB	2143	C
23	BB	2144	G
23	BB	2145	C
23	BB	2147	A
23	BB	2148	G
23	BB	2149	U
23	BB	2152	G

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Mol	Chain	Res	Type
23	BB	2153	C
23	BB	2154	A
23	BB	2155	U
23	BB	2156	G
23	BB	2157	G
23	BB	2181	U
23	BB	2183	A
23	BB	2184	A
23	BB	2190	G
23	BB	2192	U
23	BB	2198	A
23	BB	2203	U
23	BB	2204	G
23	BB	2211	A
23	BB	2212	A
23	BB	2225	A
23	BB	2238	G
23	BB	2239	G
23	BB	2250	G
23	BB	2268	A
23	BB	2283	C
23	BB	2287	A
23	BB	2288	A
23	BB	2305	U
23	BB	2307	G
23	BB	2308	G
23	BB	2309	A
23	BB	2311	A
23	BB	2315	G
23	BB	2320	U
23	BB	2321	U
23	BB	2322	A
23	BB	2325	G
23	BB	2333	A
23	BB	2335	A
23	BB	2336	A
23	BB	2337	G
23	BB	2347	C
23	BB	2361	G
23	BB	2372	U
23	BB	2379	G
23	BB	2383	G

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Mol	Chain	Res	Type
23	BB	2385	C
23	BB	2396	G
23	BB	2402	U
23	BB	2406	A
23	BB	2423	U
23	BB	2426	A
23	BB	2429	G
23	BB	2430	A
23	BB	2434	A
23	BB	2441	U
23	BB	2448	A
23	BB	2472	G
23	BB	2476	A
23	BB	2491	U
23	BB	2502	G
23	BB	2505	G
23	BB	2506	U
23	BB	2518	A
23	BB	2529	G
23	BB	2535	G
23	BB	2554	U
23	BB	2566	A
23	BB	2567	G
23	BB	2585	U
23	BB	2586	U
23	BB	2609	U
23	BB	2610	C
23	BB	2613	U
23	BB	2629	U
23	BB	2654	A
23	BB	2661	G
23	BB	2682	A
23	BB	2689	U
23	BB	2690	U
23	BB	2714	G
23	BB	2725	A
23	BB	2726	A
23	BB	2739	U
23	BB	2744	G
23	BB	2750	A
23	BB	2751	G
23	BB	2752	C

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Mol	Chain	Res	Type
23	BB	2757	A
23	BB	2765	A
23	BB	2778	A
23	BB	2791	G
23	BB	2796	U
23	BB	2798	U
23	BB	2799	A
23	BB	2800	A
23	BB	2801	G
23	BB	2808	G
23	BB	2820	A
23	BB	2821	A
23	BB	2823	A
23	BB	2832	U
23	BB	2836	U
23	BB	2850	A
23	BB	2867	G
23	BB	2872	A
23	BB	2873	A
23	BB	2883	A
23	BB	2894	G
23	BB	2901	C
23	BB	2903	U
1	CA	9	G
1	CA	14	U
1	CA	15	G
1	CA	31	G
1	CA	32	A
1	CA	39	G
1	CA	41	G
1	CA	47	C
1	CA	48	C
1	CA	52	C
1	CA	54	C
1	CA	55	A
1	CA	61	G
1	CA	71	A
1	CA	75	G
1	CA	76	G
1	CA	83	C
1	CA	84	U
1	CA	87	C

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Mol	Chain	Res	Type
1	CA	94	G
1	CA	108	G
1	CA	121	U
1	CA	131	A
1	CA	151	A
1	CA	182	A
1	CA	183	C
1	CA	196	A
1	CA	197	A
1	CA	209	U
1	CA	210	C
1	CA	213	G
1	CA	239	U
1	CA	240	G
1	CA	243	A
1	CA	244	U
1	CA	245	U
1	CA	247	G
1	CA	250	A
1	CA	251	G
1	CA	257	G
1	CA	258	G
1	CA	266	G
1	CA	267	C
1	CA	280	C
1	CA	289	G
1	CA	301	G
1	CA	328	C
1	CA	329	A
1	CA	330	C
1	CA	332	G
1	CA	349	A
1	CA	352	C
1	CA	354	G
1	CA	367	U
1	CA	373	A
1	CA	374	A
1	CA	381	C
1	CA	397	A
1	CA	398	U
1	CA	406	G
1	CA	408	A

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Mol	Chain	Res	Type
1	CA	409	U
1	CA	411	A
1	CA	412	A
1	CA	413	G
1	CA	415	A
1	CA	421	U
1	CA	422	C
1	CA	424	G
1	CA	429	U
1	CA	430	A
1	CA	435	A
1	CA	461	A
1	CA	462	G
1	CA	463	U
1	CA	464	U
1	CA	465	A
1	CA	466	A
1	CA	467	U
1	CA	468	A
1	CA	482	A
1	CA	484	G
1	CA	485	U
1	CA	486	U
1	CA	493	A
1	CA	511	C
1	CA	518	C
1	CA	527	G
1	CA	532	A
1	CA	547	A
1	CA	559	A
1	CA	562	U
1	CA	572	A
1	CA	573	A
1	CA	576	C
1	CA	577	G
1	CA	596	A
1	CA	639	G
1	CA	653	U
1	CA	665	A
1	CA	695	A
1	CA	700	G
1	CA	721	G

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Mol	Chain	Res	Type
1	CA	723	U
1	CA	724	G
1	CA	731	G
1	CA	733	G
1	CA	747	A
1	CA	748	G
1	CA	755	G
1	CA	777	A
1	CA	793	U
1	CA	794	A
1	CA	812	G
1	CA	813	U
1	CA	815	A
1	CA	817	C
1	CA	818	G
1	CA	819	A
1	CA	821	G
1	CA	828	U
1	CA	841	C
1	CA	842	U
1	CA	843	U
1	CA	844	G
1	CA	845	A
1	CA	848	C
1	CA	849	G
1	CA	914	A
1	CA	926	G
1	CA	927	G
1	CA	934	C
1	CA	935	A
1	CA	960	U
1	CA	961	U
1	CA	966	G
1	CA	969	A
1	CA	974	A
1	CA	975	A
1	CA	976	G
1	CA	977	A
1	CA	984	C
1	CA	992	U
1	CA	993	G
1	CA	994	A

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Mol	Chain	Res	Type
1	CA	1004	A
1	CA	1009	U
1	CA	1010	U
1	CA	1020	G
1	CA	1025	U
1	CA	1026	G
1	CA	1029	U
1	CA	1030	U
1	CA	1031	C
1	CA	1033	G
1	CA	1035	A
1	CA	1050	G
1	CA	1054	C
1	CA	1065	U
1	CA	1066	C
1	CA	1085	U
1	CA	1094	G
1	CA	1095	U
1	CA	1101	A
1	CA	1118	U
1	CA	1124	G
1	CA	1129	C
1	CA	1136	C
1	CA	1137	C
1	CA	1138	G
1	CA	1139	G
1	CA	1158	C
1	CA	1167	A
1	CA	1168	U
1	CA	1169	A
1	CA	1178	G
1	CA	1179	A
1	CA	1181	G
1	CA	1183	U
1	CA	1184	G
1	CA	1196	A
1	CA	1197	A
1	CA	1201	A
1	CA	1202	U
1	CA	1211	U
1	CA	1212	U
1	CA	1213	A

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Mol	Chain	Res	Type
1	CA	1214	C
1	CA	1225	A
1	CA	1226	C
1	CA	1227	A
1	CA	1238	A
1	CA	1240	U
1	CA	1241	G
1	CA	1250	A
1	CA	1256	A
1	CA	1257	A
1	CA	1258	G
1	CA	1270	G
1	CA	1278	G
1	CA	1279	G
1	CA	1280	A
1	CA	1281	C
1	CA	1286	U
1	CA	1289	A
1	CA	1300	G
1	CA	1301	U
1	CA	1302	C
1	CA	1305	G
1	CA	1316	G
1	CA	1317	C
1	CA	1319	A
1	CA	1320	C
1	CA	1323	G
1	CA	1336	C
1	CA	1338	G
1	CA	1353	G
1	CA	1363	A
1	CA	1364	U
1	CA	1379	G
1	CA	1381	U
1	CA	1398	A
1	CA	1419	G
1	CA	1432	G
1	CA	1446	A
1	CA	1452	C
1	CA	1475	G
1	CA	1493	A
1	CA	1497	G

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Mol	Chain	Res	Type
1	CA	1503	A
1	CA	1505	G
1	CA	1506	U
1	CA	1517	G
1	CA	1519	A
1	CA	1520	C
1	CA	1529	G
1	CA	1530	G
1	CA	1533	C
1	CA	1534	A
22	DA	12	C
22	DA	13	G
22	DA	16	G
22	DA	25	U
22	DA	26	C
22	DA	27	C
22	DA	30	C
22	DA	35	C
22	DA	36	C
22	DA	42	C
22	DA	52	A
22	DA	53	A
22	DA	56	G
22	DA	66	A
22	DA	88	C
22	DA	89	U
22	DA	90	C
22	DA	99	A
22	DA	109	A
23	DB	12	U
23	DB	34	U
23	DB	35	G
23	DB	46	G
23	DB	51	G
23	DB	63	A
23	DB	64	A
23	DB	71	A
23	DB	74	A
23	DB	75	G
23	DB	91	A
23	DB	96	C
23	DB	100	U

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Mol	Chain	Res	Type
23	DB	101	A
23	DB	102	U
23	DB	103	A
23	DB	119	A
23	DB	120	U
23	DB	125	A
23	DB	126	A
23	DB	139	U
23	DB	140	C
23	DB	141	G
23	DB	143	C
23	DB	160	A
23	DB	162	U
23	DB	163	C
23	DB	181	A
23	DB	196	A
23	DB	199	A
23	DB	216	A
23	DB	221	A
23	DB	222	A
23	DB	223	A
23	DB	230	G
23	DB	248	G
23	DB	252	G
23	DB	255	A
23	DB	265	A
23	DB	266	G
23	DB	267	C
23	DB	277	G
23	DB	278	A
23	DB	281	C
23	DB	282	A
23	DB	283	G
23	DB	288	U
23	DB	289	G
23	DB	295	G
23	DB	299	A
23	DB	311	A
23	DB	323	C
23	DB	329	G
23	DB	330	A
23	DB	333	G

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Mol	Chain	Res	Type
23	DB	349	U
23	DB	353	C
23	DB	359	G
23	DB	360	U
23	DB	361	G
23	DB	362	A
23	DB	363	G
23	DB	371	A
23	DB	372	G
23	DB	386	G
23	DB	387	U
23	DB	396	G
23	DB	411	G
23	DB	412	A
23	DB	424	G
23	DB	444	C
23	DB	455	C
23	DB	456	C
23	DB	457	A
23	DB	479	A
23	DB	480	A
23	DB	481	G
23	DB	490	C
23	DB	491	G
23	DB	504	A
23	DB	505	A
23	DB	508	A
23	DB	509	C
23	DB	512	G
23	DB	527	C
23	DB	531	C
23	DB	532	A
23	DB	544	C
23	DB	545	U
23	DB	546	U
23	DB	547	A
23	DB	548	G
23	DB	549	G
23	DB	563	A
23	DB	573	U
23	DB	575	A
23	DB	588	U

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Mol	Chain	Res	Type
23	DB	603	A
23	DB	613	A
23	DB	614	A
23	DB	615	U
23	DB	616	A
23	DB	627	A
23	DB	637	A
23	DB	645	C
23	DB	646	U
23	DB	654	A
23	DB	655	A
23	DB	671	C
23	DB	686	U
23	DB	717	C
23	DB	718	A
23	DB	719	C
23	DB	730	A
23	DB	747	U
23	DB	757	G
23	DB	765	C
23	DB	775	G
23	DB	782	A
23	DB	784	G
23	DB	785	G
23	DB	805	G
23	DB	812	C
23	DB	819	A
23	DB	827	U
23	DB	828	U
23	DB	846	U
23	DB	847	U
23	DB	859	G
23	DB	872	U
23	DB	875	G
23	DB	876	C
23	DB	877	A
23	DB	899	A
23	DB	900	A
23	DB	910	A
23	DB	912	C
23	DB	931	U
23	DB	932	U

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Mol	Chain	Res	Type
23	DB	933	A
23	DB	941	A
23	DB	946	C
23	DB	961	C
23	DB	973	A
23	DB	974	G
23	DB	983	A
23	DB	985	C
23	DB	989	G
23	DB	990	A
23	DB	991	C
23	DB	995	C
23	DB	996	A
23	DB	1012	U
23	DB	1013	C
23	DB	1022	G
23	DB	1025	G
23	DB	1033	U
23	DB	1046	A
23	DB	1047	G
23	DB	1051	G
23	DB	1070	A
23	DB	1088	A
23	DB	1090	A
23	DB	1098	A
23	DB	1104	C
23	DB	1105	U
23	DB	1108	U
23	DB	1109	C
23	DB	1112	G
23	DB	1116	G
23	DB	1126	A
23	DB	1132	U
23	DB	1133	A
23	DB	1135	C
23	DB	1136	G
23	DB	1142	A
23	DB	1143	A
23	DB	1175	A
23	DB	1176	U
23	DB	1178	C
23	DB	1205	A

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Mol	Chain	Res	Type
23	DB	1206	G
23	DB	1211	C
23	DB	1212	G
23	DB	1237	A
23	DB	1241	A
23	DB	1242	U
23	DB	1247	A
23	DB	1248	G
23	DB	1250	G
23	DB	1253	A
23	DB	1256	G
23	DB	1266	G
23	DB	1271	G
23	DB	1272	A
23	DB	1275	A
23	DB	1300	G
23	DB	1301	A
23	DB	1302	A
23	DB	1325	U
23	DB	1337	G
23	DB	1341	G
23	DB	1352	U
23	DB	1365	A
23	DB	1368	G
23	DB	1379	U
23	DB	1383	A
23	DB	1384	A
23	DB	1396	U
23	DB	1397	U
23	DB	1416	G
23	DB	1419	A
23	DB	1426	G
23	DB	1427	A
23	DB	1428	C
23	DB	1453	A
23	DB	1454	C
23	DB	1459	G
23	DB	1460	U
23	DB	1461	C
23	DB	1476	U
23	DB	1477	A
23	DB	1478	G

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Mol	Chain	Res	Type
23	DB	1482	G
23	DB	1490	A
23	DB	1491	G
23	DB	1493	C
23	DB	1504	A
23	DB	1505	A
23	DB	1507	C
23	DB	1508	A
23	DB	1509	A
23	DB	1510	G
23	DB	1524	G
23	DB	1535	A
23	DB	1537	G
23	DB	1538	G
23	DB	1540	G
23	DB	1552	A
23	DB	1558	C
23	DB	1559	U
23	DB	1566	A
23	DB	1569	A
23	DB	1578	U
23	DB	1583	A
23	DB	1585	C
23	DB	1608	A
23	DB	1610	A
23	DB	1634	A
23	DB	1635	A
23	DB	1640	A
23	DB	1647	U
23	DB	1648	U
23	DB	1649	G
23	DB	1654	A
23	DB	1674	G
23	DB	1700	A
23	DB	1701	A
23	DB	1706	C
23	DB	1713	A
23	DB	1714	U
23	DB	1715	G
23	DB	1723	G
23	DB	1724	G
23	DB	1730	C

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Mol	Chain	Res	Type
23	DB	1731	G
23	DB	1733	G
23	DB	1738	G
23	DB	1739	A
23	DB	1756	G
23	DB	1758	U
23	DB	1764	C
23	DB	1773	A
23	DB	1800	C
23	DB	1801	A
23	DB	1816	C
23	DB	1829	A
23	DB	1857	G
23	DB	1869	G
23	DB	1870	C
23	DB	1871	A
23	DB	1872	A
23	DB	1876	A
23	DB	1884	G
23	DB	1906	G
23	DB	1913	A
23	DB	1914	C
23	DB	1916	A
23	DB	1927	A
23	DB	1929	G
23	DB	1930	G
23	DB	1931	U
23	DB	1937	A
23	DB	1938	A
23	DB	1939	U
23	DB	1940	U
23	DB	1955	U
23	DB	1963	U
23	DB	1967	C
23	DB	1970	A
23	DB	1971	U
23	DB	1972	G
23	DB	1991	U
23	DB	1993	U
23	DB	1997	C
23	DB	2022	U
23	DB	2023	C

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Mol	Chain	Res	Type
23	DB	2031	A
23	DB	2032	G
23	DB	2033	A
23	DB	2043	C
23	DB	2055	C
23	DB	2056	G
23	DB	2060	A
23	DB	2061	G
23	DB	2062	A
23	DB	2069	G
23	DB	2096	C
23	DB	2097	A
23	DB	2098	U
23	DB	2105	U
23	DB	2106	U
23	DB	2107	G
23	DB	2108	A
23	DB	2109	U
23	DB	2110	G
23	DB	2135	A
23	DB	2139	U
23	DB	2144	G
23	DB	2145	C
23	DB	2146	C
23	DB	2147	A
23	DB	2149	U
23	DB	2156	G
23	DB	2157	G
23	DB	2180	U
23	DB	2184	A
23	DB	2186	G
23	DB	2193	G
23	DB	2198	A
23	DB	2203	U
23	DB	2204	G
23	DB	2211	A
23	DB	2212	A
23	DB	2225	A
23	DB	2238	G
23	DB	2239	G
23	DB	2250	G
23	DB	2268	A

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Mol	Chain	Res	Type
23	DB	2283	C
23	DB	2287	A
23	DB	2288	A
23	DB	2305	U
23	DB	2307	G
23	DB	2308	G
23	DB	2309	A
23	DB	2311	A
23	DB	2315	G
23	DB	2320	U
23	DB	2321	U
23	DB	2322	A
23	DB	2325	G
23	DB	2333	A
23	DB	2335	A
23	DB	2336	A
23	DB	2337	G
23	DB	2347	C
23	DB	2361	G
23	DB	2372	U
23	DB	2379	G
23	DB	2383	G
23	DB	2385	C
23	DB	2396	G
23	DB	2402	U
23	DB	2406	A
23	DB	2423	U
23	DB	2426	A
23	DB	2429	G
23	DB	2430	A
23	DB	2434	A
23	DB	2441	U
23	DB	2448	A
23	DB	2472	G
23	DB	2476	A
23	DB	2491	U
23	DB	2498	C
23	DB	2502	G
23	DB	2505	G
23	DB	2506	U
23	DB	2518	A
23	DB	2529	G

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Mol	Chain	Res	Type
23	DB	2535	G
23	DB	2554	U
23	DB	2566	A
23	DB	2567	G
23	DB	2585	U
23	DB	2586	U
23	DB	2609	U
23	DB	2610	C
23	DB	2613	U
23	DB	2629	U
23	DB	2654	A
23	DB	2682	A
23	DB	2689	U
23	DB	2690	U
23	DB	2714	G
23	DB	2725	A
23	DB	2726	A
23	DB	2739	U
23	DB	2744	G
23	DB	2748	A
23	DB	2757	A
23	DB	2765	A
23	DB	2778	A
23	DB	2791	G
23	DB	2796	U
23	DB	2798	U
23	DB	2799	A
23	DB	2800	A
23	DB	2801	G
23	DB	2808	G
23	DB	2820	A
23	DB	2821	A
23	DB	2832	U
23	DB	2836	U
23	DB	2850	A
23	DB	2867	G
23	DB	2872	A
23	DB	2873	A
23	DB	2883	A
23	DB	2894	G
23	DB	2903	U

All (92) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	51	A
1	AA	60	A
1	AA	88	U
1	AA	239	U
1	AA	243	A
1	AA	279	A
1	AA	328	C
1	AA	366	A
1	AA	372	C
1	AA	428	G
1	AA	429	U
1	AA	462	G
1	AA	484	G
1	AA	485	U
1	AA	576	C
1	AA	819	A
1	AA	960	U
1	AA	975	A
1	AA	1025	U
1	AA	1049	U
1	AA	1065	U
1	AA	1168	U
1	AA	1201	A
1	AA	1213	A
1	AA	1226	C
1	AA	1362	A
1	AA	1397	C
1	AA	1451	U
23	BB	63	A
23	BB	162	U
23	BB	508	A
23	BB	546	U
23	BB	670	A
23	BB	858	G
23	BB	1047	G
23	BB	1205	A
23	BB	1210	G
23	BB	1301	A
23	BB	1419	A
23	BB	1913	A
23	BB	1930	G
23	BB	2213	U
23	BB	2282	G

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Mol	Chain	Res	Type
23	BB	2336	A
23	BB	2425	A
23	BB	2756	U
23	BB	2873	A
23	BB	2894	G
1	CA	51	A
1	CA	60	A
1	CA	239	U
1	CA	243	A
1	CA	279	A
1	CA	328	C
1	CA	366	A
1	CA	372	C
1	CA	428	G
1	CA	429	U
1	CA	462	G
1	CA	484	G
1	CA	819	A
1	CA	960	U
1	CA	975	A
1	CA	1025	U
1	CA	1049	U
1	CA	1065	U
1	CA	1168	U
1	CA	1201	A
1	CA	1213	A
1	CA	1226	C
1	CA	1362	A
1	CA	1397	C
1	CA	1451	U
23	DB	63	A
23	DB	139	U
23	DB	162	U
23	DB	508	A
23	DB	544	C
23	DB	670	A
23	DB	858	G
23	DB	1205	A
23	DB	1210	G
23	DB	1301	A
23	DB	1419	A
23	DB	1930	G

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Mol	Chain	Res	Type
23	DB	2213	U
23	DB	2282	G
23	DB	2336	A
23	DB	2425	A
23	DB	2756	U
23	DB	2873	A
23	DB	2894	G

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

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

5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

5.6 Ligand geometry [i](#)

Of 345 ligands modelled in this entry, 345 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 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	1530/1542 (99%)	-0.10	22 (1%) 75 75	20, 68, 149, 180	0
1	CA	1530/1542 (99%)	-0.20	9 (0%) 89 90	10, 51, 126, 180	0
2	AC	206/232 (88%)	0.45	8 (3%) 39 37	24, 58, 114, 180	0
2	CC	206/232 (88%)	0.36	5 (2%) 59 56	28, 67, 117, 175	0
3	AD	205/205 (100%)	0.51	12 (5%) 22 22	22, 77, 137, 154	0
3	CD	205/205 (100%)	0.19	3 (1%) 73 72	15, 53, 129, 160	0
4	AE	150/166 (90%)	0.41	9 (6%) 21 21	16, 62, 116, 154	0
4	CE	150/166 (90%)	0.40	6 (4%) 38 36	20, 50, 105, 159	0
5	AF	100/135 (74%)	0.58	10 (10%) 7 7	33, 73, 126, 163	0
5	CF	100/135 (74%)	0.24	1 (1%) 82 82	20, 63, 115, 146	0
6	AG	150/178 (84%)	0.76	25 (16%) 1 1	40, 87, 140, 168	0
6	CG	152/178 (85%)	0.74	20 (13%) 3 3	21, 80, 132, 169	0
7	AH	129/129 (100%)	0.90	22 (17%) 1 1	34, 71, 116, 137	0
7	CH	129/129 (100%)	0.46	8 (6%) 20 20	18, 50, 96, 131	0
8	AI	127/129 (98%)	1.01	27 (21%) 0 1	23, 81, 151, 180	0
8	CI	127/129 (98%)	0.73	15 (11%) 4 4	26, 82, 135, 180	0
9	AJ	98/103 (95%)	1.13	18 (18%) 1 1	21, 74, 134, 180	0
9	CJ	98/103 (95%)	1.30	25 (25%) 0 0	34, 83, 136, 163	0
10	AK	117/128 (91%)	0.39	7 (5%) 21 21	19, 57, 100, 155	0
10	CK	117/128 (91%)	0.20	2 (1%) 70 68	18, 48, 100, 142	0
11	AL	123/123 (100%)	0.92	14 (11%) 5 4	29, 68, 124, 169	0
11	CL	123/123 (100%)	0.46	4 (3%) 46 44	10, 44, 107, 159	0
12	AM	114/117 (97%)	1.10	23 (20%) 1 1	48, 105, 157, 171	0
12	CM	113/117 (96%)	0.86	16 (14%) 2 2	44, 98, 149, 166	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	AN	96/100 (96%)	0.93	15 (15%) 2 2	31, 77, 136, 171	0
13	CN	96/100 (96%)	0.82	10 (10%) 6 6	31, 78, 137, 161	0
14	AO	88/89 (98%)	0.35	2 (2%) 60 59	33, 67, 119, 173	0
14	CO	88/89 (98%)	0.05	0 100 100	18, 53, 105, 133	0
15	AP	82/82 (100%)	1.16	13 (15%) 1 2	38, 78, 140, 157	0
15	CP	80/82 (97%)	1.29	18 (22%) 0 1	16, 44, 124, 180	0
16	AQ	80/83 (96%)	0.78	6 (7%) 14 13	47, 86, 139, 155	0
16	CQ	81/83 (97%)	0.63	6 (7%) 14 14	25, 56, 117, 151	0
17	AR	55/74 (74%)	0.78	4 (7%) 15 15	27, 66, 125, 149	0
17	CR	55/74 (74%)	0.57	3 (5%) 25 23	24, 51, 105, 154	0
18	AS	79/91 (86%)	1.98	37 (46%) 0 0	61, 116, 158, 179	0
18	CS	80/91 (87%)	1.96	36 (45%) 0 0	54, 107, 165, 177	0
19	AT	85/86 (98%)	1.22	18 (21%) 0 1	52, 92, 133, 180	0
19	CT	85/86 (98%)	0.77	10 (11%) 4 4	24, 52, 103, 156	0
20	AB	218/240 (90%)	0.83	32 (14%) 2 2	29, 88, 139, 180	0
20	CB	218/240 (90%)	0.75	34 (15%) 2 2	40, 92, 143, 161	0
21	AU	51/70 (72%)	0.98	8 (15%) 2 2	36, 90, 150, 153	0
21	CU	51/70 (72%)	0.97	10 (19%) 1 1	26, 74, 136, 174	0
22	BA	117/120 (97%)	-0.26	3 (2%) 56 53	46, 80, 115, 168	0
22	DA	117/120 (97%)	-0.10	4 (3%) 45 43	35, 69, 110, 178	0
23	BB	2841/2904 (97%)	-0.04	51 (1%) 68 67	16, 56, 145, 180	0
23	DB	2841/2904 (97%)	-0.07	35 (1%) 79 78	7, 45, 142, 180	0
24	BI	141/141 (100%)	2.92	90 (63%) 0 0	62, 152, 180, 180	0
24	DI	141/141 (100%)	3.47	98 (69%) 0 0	85, 155, 180, 180	0
25	BC	271/272 (99%)	0.43	3 (1%) 80 81	9, 45, 87, 170	0
25	DC	271/272 (99%)	0.37	5 (1%) 68 67	5, 37, 75, 125	0
26	BD	209/209 (100%)	0.62	16 (7%) 13 12	22, 66, 124, 167	0
26	DD	209/209 (100%)	0.49	14 (6%) 17 17	10, 44, 112, 139	0
27	BK	121/123 (98%)	0.84	14 (11%) 4 4	16, 67, 120, 154	0
27	DK	121/123 (98%)	0.35	2 (1%) 70 68	8, 39, 93, 152	0
28	BP	114/114 (100%)	1.17	32 (28%) 0 0	27, 77, 122, 160	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
28	DP	114/114 (100%)	0.43	5 (4%) 34 33	5, 42, 104, 160	0
29	BE	201/201 (100%)	0.64	19 (9%) 8 8	16, 67, 132, 148	0
29	DE	201/201 (100%)	0.56	22 (10%) 5 5	5, 65, 124, 156	0
30	BY	58/58 (100%)	0.78	7 (12%) 4 3	42, 73, 129, 143	0
30	DY	58/58 (100%)	0.58	3 (5%) 27 25	9, 58, 127, 150	0
31	B0	56/56 (100%)	0.61	6 (10%) 6 5	33, 71, 126, 141	0
31	D0	56/56 (100%)	0.53	3 (5%) 25 24	11, 45, 122, 170	0
32	B4	38/38 (100%)	1.04	7 (18%) 1 1	23, 75, 134, 149	0
32	D4	38/38 (100%)	0.82	4 (10%) 6 6	29, 54, 106, 125	0
33	B1	50/54 (92%)	0.97	6 (12%) 4 3	43, 79, 117, 132	0
33	D1	50/54 (92%)	0.82	4 (8%) 12 11	34, 66, 111, 135	0
34	B3	64/64 (100%)	0.73	8 (12%) 3 3	31, 51, 91, 115	0
34	D3	64/64 (100%)	0.47	1 (1%) 72 70	20, 40, 75, 110	0
35	BV	94/94 (100%)	0.72	7 (7%) 14 14	32, 90, 135, 169	0
35	DV	94/94 (100%)	0.52	7 (7%) 14 14	28, 74, 131, 167	0
36	B2	46/46 (100%)	0.52	1 (2%) 62 60	13, 40, 87, 121	0
36	D2	46/46 (100%)	0.28	0 100 100	11, 32, 67, 131	0
37	BL	143/144 (99%)	0.58	8 (5%) 24 23	13, 64, 117, 161	0
37	DL	143/144 (99%)	0.41	5 (3%) 44 42	13, 54, 108, 133	0
38	BM	136/136 (100%)	0.88	22 (16%) 1 2	24, 68, 124, 174	0
38	DM	136/136 (100%)	0.57	7 (5%) 28 26	13, 46, 109, 131	0
39	BX	63/63 (100%)	0.74	7 (11%) 5 5	20, 86, 141, 171	0
39	DX	63/63 (100%)	0.48	4 (6%) 20 20	38, 84, 134, 172	0
40	BH	149/149 (100%)	1.73	50 (33%) 0 0	37, 121, 160, 180	0
40	DH	149/149 (100%)	1.42	42 (28%) 0 0	20, 108, 147, 180	0
41	BJ	142/142 (100%)	0.76	13 (9%) 9 9	25, 73, 126, 137	0
41	DJ	142/142 (100%)	0.68	13 (9%) 9 9	19, 55, 104, 167	0
42	BN	120/127 (94%)	0.45	7 (5%) 23 22	20, 65, 117, 173	0
42	DN	120/127 (94%)	0.42	4 (3%) 46 44	8, 40, 80, 125	0
43	BO	116/117 (99%)	1.40	35 (30%) 0 0	27, 82, 128, 179	0
43	DO	116/117 (99%)	0.87	14 (12%) 4 3	19, 68, 119, 144	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	BQ	117/117 (100%)	0.53	7 (5%) 21 21	5, 64, 111, 163	0
44	DQ	117/117 (100%)	0.42	8 (6%) 17 17	14, 48, 96, 180	0
45	BS	110/110 (100%)	0.62	9 (8%) 11 11	15, 58, 112, 161	0
45	DS	110/110 (100%)	0.56	3 (2%) 54 52	8, 42, 101, 132	0
46	BU	102/103 (99%)	1.08	20 (19%) 1 1	26, 75, 130, 171	0
46	DU	102/103 (99%)	0.99	16 (15%) 2 2	27, 83, 143, 180	0
47	BF	178/178 (100%)	1.30	44 (24%) 0 0	42, 113, 160, 180	0
47	DF	178/178 (100%)	1.06	34 (19%) 1 1	38, 97, 155, 180	0
48	BG	176/176 (100%)	1.13	42 (23%) 0 0	51, 103, 141, 162	0
48	DG	176/176 (100%)	0.87	28 (15%) 1 2	34, 91, 142, 169	0
49	BR	103/103 (100%)	1.43	27 (26%) 0 0	27, 86, 128, 157	0
49	DR	103/103 (100%)	0.71	9 (8%) 10 10	18, 76, 122, 148	0
50	BT	93/100 (93%)	1.24	24 (25%) 0 0	31, 70, 134, 164	0
50	DT	93/100 (93%)	1.25	21 (22%) 0 1	21, 66, 136, 173	0
51	BZ	77/78 (98%)	0.68	2 (2%) 56 53	22, 50, 93, 129	0
51	DZ	77/78 (98%)	0.38	5 (6%) 18 18	17, 46, 95, 130	0
52	BW	79/84 (94%)	1.05	13 (16%) 1 2	29, 81, 126, 153	0
52	DW	79/84 (94%)	1.14	13 (16%) 1 2	20, 59, 119, 135	0
53	B6	185/185 (100%)	2.71	93 (50%) 0 0	33, 116, 167, 180	0
53	D6	185/185 (100%)	1.65	58 (31%) 0 0	19, 88, 157, 180	0
All	All	20787/21416 (97%)	0.44	1757 (8%) 10 10	5, 63, 142, 180	0

All (1757) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
15	AP	81	ALA	13.1
53	D6	72	ASP	11.6
24	BI	1	ALA	11.3
24	DI	85	ILE	10.8
24	DI	99	LYS	10.6
24	DI	82	ALA	10.5
24	DI	83	ALA	10.4
24	DI	81	LYS	10.3
24	BI	70	THR	10.2
24	BI	60	VAL	10.1

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Mol	Chain	Res	Type	RSRZ
24	BI	58	ILE	9.6
53	B6	68	VAL	9.3
24	BI	6	ALA	9.3
53	B6	86	SER	9.2
17	AR	19	GLU	9.2
24	BI	59	THR	9.2
24	DI	115	ASP	9.0
40	BH	85	GLY	8.9
53	D6	42	LYS	8.8
53	B6	93	SER	8.7
53	B6	67	VAL	8.6
40	BH	84	ALA	8.5
53	B6	49	HIS	8.4
40	BH	80	ILE	8.3
20	AB	188	THR	8.3
53	B6	95	LYS	8.3
40	BH	92	GLY	8.2
50	DT	90	GLY	8.2
53	B6	84	ARG	8.1
6	AG	6	ILE	8.1
24	DI	7	TYR	8.1
53	B6	46	TYR	7.9
53	B6	91	ASN	7.8
53	D6	75	ALA	7.6
24	BI	54	ILE	7.6
24	BI	2	LYS	7.5
53	B6	69	GLN	7.5
24	BI	4	VAL	7.4
23	DB	2133	G	7.3
24	DI	110	GLN	7.3
53	D6	43	VAL	7.3
24	DI	124	MET	7.2
1	AA	86	G	7.1
23	BB	2147	A	7.1
53	B6	38	LEU	7.1
24	DI	84	GLY	7.1
24	DI	79	LEU	7.0
52	BW	45	HIS	7.0
24	BI	11	GLN	7.0
53	B6	85	ASP	7.0
40	DH	116	ARG	6.9
22	DA	88	C	6.9

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Mol	Chain	Res	Type	RSRZ
24	BI	68	PHE	6.9
24	DI	52	LEU	6.9
53	B6	36	ALA	6.9
47	DF	140	ILE	6.8
15	CP	47	GLU	6.8
23	BB	613	A	6.8
24	BI	5	GLN	6.8
24	DI	125	THR	6.8
24	DI	80	LYS	6.8
53	B6	57	THR	6.8
23	DB	1175	A	6.8
24	BI	52	LEU	6.8
53	D6	76	LEU	6.7
40	BH	142	VAL	6.7
53	D6	73	GLN	6.7
48	BG	42	VAL	6.6
53	B6	54	GLN	6.6
40	BH	46	PHE	6.6
53	B6	89	GLY	6.6
53	D6	98	ALA	6.6
11	AL	123	ALA	6.6
9	CJ	79	PRO	6.5
24	DI	138	VAL	6.5
53	D6	37	LEU	6.5
47	DF	10	GLU	6.5
23	BB	139	U	6.5
24	DI	49	GLU	6.5
24	DI	111	THR	6.5
53	B6	34	ASN	6.4
24	DI	117	THR	6.4
24	BI	3	LYS	6.4
6	AG	4	ARG	6.4
53	B6	73	GLN	6.4
53	B6	48	ALA	6.4
24	BI	8	VAL	6.4
40	DH	133	GLN	6.3
53	B6	35	PRO	6.3
24	DI	89	SER	6.3
53	D6	46	TYR	6.3
50	DT	91	GLN	6.3
24	BI	32	VAL	6.2
53	D6	93	SER	6.2

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Mol	Chain	Res	Type	RSRZ
53	B6	53	ASN	6.1
53	B6	41	LEU	6.1
33	D1	52	LYS	6.1
23	BB	1459	G	6.1
18	AS	2	ARG	6.1
53	B6	98	ALA	6.1
23	BB	1914	C	6.0
53	B6	40	HIS	6.0
24	DI	107	GLU	6.0
53	B6	87	ASP	6.0
1	AA	78	A	6.0
12	AM	79	LEU	5.9
18	CS	2	ARG	5.9
53	B6	78	ALA	5.9
18	AS	30	LEU	5.9
6	AG	78	ARG	5.9
53	B6	100	TYR	5.8
53	B6	51	PRO	5.8
24	BI	47	SER	5.8
23	DB	139	U	5.8
24	DI	97	VAL	5.7
18	CS	26	ASP	5.7
40	DH	72	ILE	5.7
13	AN	20	PHE	5.7
3	AD	178	GLU	5.7
53	B6	80	GLU	5.7
24	DI	114	ALA	5.7
53	B6	59	THR	5.7
24	DI	47	SER	5.7
24	DI	137	LEU	5.7
24	BI	7	TYR	5.6
53	B6	75	ALA	5.6
24	DI	116	MET	5.6
40	BH	93	SER	5.6
18	CS	29	PRO	5.6
22	BA	88	C	5.6
53	B6	60	ALA	5.6
23	DB	645	C	5.6
53	D6	49	HIS	5.6
23	BB	137	U	5.5
24	BI	48	ILE	5.5
1	CA	1534	A	5.5

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Mol	Chain	Res	Type	RSRZ
50	BT	16	VAL	5.5
53	D6	44	GLU	5.5
20	AB	192	PRO	5.5
23	BB	140	C	5.5
53	B6	92	PRO	5.4
18	AS	32	THR	5.4
12	CM	79	LEU	5.4
24	DI	104	GLN	5.4
23	DB	2134	A	5.4
41	BJ	1	MET	5.4
47	BF	140	ILE	5.4
18	AS	40	PHE	5.4
24	DI	106	GLN	5.4
47	DF	173	ASP	5.4
53	B6	62	ASP	5.4
53	B6	157	ALA	5.4
24	DI	98	GLY	5.4
24	DI	48	ILE	5.4
53	B6	56	ALA	5.4
53	D6	94	ASN	5.3
11	AL	24	GLU	5.3
40	DH	94	ILE	5.3
53	B6	63	PRO	5.3
18	AS	22	VAL	5.3
50	BT	2	ILE	5.3
24	BI	18	ASN	5.3
8	CI	129	ARG	5.3
40	DH	110	VAL	5.3
49	BR	37	GLU	5.2
53	B6	74	ASN	5.2
19	AT	35	TYR	5.2
53	B6	97	ASP	5.2
53	B6	42	LYS	5.2
53	B6	71	TRP	5.2
15	CP	80	LYS	5.2
53	B6	66	LEU	5.2
53	B6	96	GLY	5.2
53	B6	184	LEU	5.2
23	DB	2104	C	5.2
23	BB	1915	U	5.2
40	BH	91	PHE	5.2
40	BH	86	ASP	5.1

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Mol	Chain	Res	Type	RSRZ
53	D6	40	HIS	5.1
33	B1	52	LYS	5.1
24	DI	78	LEU	5.1
24	DI	132	ALA	5.1
50	BT	3	ARG	5.0
24	DI	113	ALA	5.0
53	B6	43	VAL	5.0
24	DI	109	ALA	5.0
53	B6	61	PRO	5.0
48	BG	19	ASN	5.0
23	BB	1175	A	5.0
38	BM	136	MET	5.0
53	B6	83	ILE	5.0
15	AP	82	ALA	5.0
24	BI	29	GLN	5.0
39	BX	63	ALA	5.0
29	DE	155	GLU	4.9
1	AA	1493	A	4.9
12	AM	83	GLY	4.9
53	B6	65	THR	4.9
38	BM	103	TYR	4.9
53	B6	45	TYR	4.9
24	DI	1	ALA	4.9
47	BF	131	VAL	4.9
24	DI	20	SER	4.9
9	AJ	36	VAL	4.9
40	BH	45	GLU	4.9
15	AP	80	LYS	4.9
53	D6	41	LEU	4.8
6	AG	61	PHE	4.8
41	DJ	44	TYR	4.8
21	CU	10	PRO	4.8
13	AN	40	ARG	4.8
2	AC	167	TYR	4.8
53	D6	79	ILE	4.8
12	CM	44	ILE	4.7
46	BU	14	THR	4.7
53	D6	32	ARG	4.7
18	CS	65	MET	4.7
40	DH	140	ALA	4.7
16	AQ	6	THR	4.7
24	DI	46	ASP	4.7

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Mol	Chain	Res	Type	RSRZ
39	DX	63	ALA	4.7
18	CS	55	GLN	4.7
53	D6	74	ASN	4.7
17	CR	19	GLU	4.7
12	AM	87	GLY	4.7
19	AT	85	LEU	4.7
53	B6	99	LEU	4.7
40	BH	105	ALA	4.7
24	BI	15	GLY	4.7
29	BE	155	GLU	4.7
6	AG	7	GLY	4.7
21	CU	36	PHE	4.7
20	AB	87	ASP	4.7
1	AA	79	G	4.6
24	DI	121	ILE	4.6
6	CG	152	HIS	4.6
53	B6	113	ASP	4.6
24	DI	29	GLN	4.6
53	B6	72	ASP	4.6
24	DI	72	THR	4.6
8	AI	129	ARG	4.6
48	DG	176	LYS	4.6
47	DF	19	PHE	4.6
12	CM	78	ARG	4.6
48	BG	132	LEU	4.6
24	DI	118	GLY	4.6
47	BF	153	ILE	4.5
43	BO	114	GLY	4.5
12	CM	82	LEU	4.5
53	D6	66	LEU	4.5
18	AS	65	MET	4.5
53	B6	55	ILE	4.5
23	BB	1174	U	4.5
13	CN	28	ALA	4.5
53	D6	50	VAL	4.5
24	DI	6	ALA	4.5
23	DB	613	A	4.5
1	AA	466	A	4.4
18	AS	38	THR	4.4
48	BG	102	ILE	4.4
47	BF	116	LEU	4.4
53	B6	88	LEU	4.4

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Mol	Chain	Res	Type	RSRZ
53	B6	79	ILE	4.4
43	BO	91	SER	4.4
18	AS	64	GLU	4.4
18	CS	31	ARG	4.4
40	BH	81	ALA	4.4
24	BI	69	VAL	4.4
53	B6	82	ALA	4.4
23	DB	2799	A	4.3
13	CN	46	LYS	4.3
53	D6	45	TYR	4.3
20	AB	193	ASP	4.3
47	BF	124	ARG	4.3
53	D6	99	LEU	4.3
23	BB	1921	G	4.3
18	AS	14	LEU	4.3
43	DO	97	PHE	4.3
18	AS	31	ARG	4.3
20	AB	163	ILE	4.3
40	BH	146	VAL	4.3
23	BB	2148	G	4.3
53	B6	37	LEU	4.3
24	DI	43	ALA	4.3
47	DF	171	ALA	4.2
23	BB	1176	U	4.2
53	D6	65	THR	4.2
24	BI	86	LYS	4.2
11	AL	91	GLY	4.2
49	BR	12	HIS	4.2
48	DG	55	ASP	4.2
8	CI	127	SER	4.2
24	DI	44	LYS	4.2
53	B6	70	SER	4.2
49	BR	20	VAL	4.2
29	DE	148	ILE	4.2
40	BH	130	VAL	4.2
24	DI	53	PRO	4.2
53	D6	38	LEU	4.2
9	AJ	6	ILE	4.2
28	BP	47	ILE	4.2
53	D6	54	GLN	4.2
23	BB	1537	G	4.2
23	DB	846	U	4.2

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Mol	Chain	Res	Type	RSRZ
8	AI	39	GLY	4.2
53	D6	83	ILE	4.2
49	BR	3	ALA	4.2
31	D0	56	LYS	4.2
24	BI	12	VAL	4.2
24	BI	77	VAL	4.2
48	DG	88	LEU	4.1
47	BF	155	ILE	4.1
23	BB	645	C	4.1
18	CS	61	VAL	4.1
53	D6	57	THR	4.1
9	AJ	76	ILE	4.1
53	D6	51	PRO	4.1
13	CN	42	ASN	4.1
53	B6	102	ASN	4.1
47	BF	139	GLU	4.1
18	AS	48	ILE	4.1
50	BT	91	GLN	4.1
12	CM	83	GLY	4.1
18	CS	74	ALA	4.1
24	BI	45	THR	4.1
24	DI	103	ALA	4.1
50	DT	3	ARG	4.1
38	BM	33	LEU	4.1
18	AS	43	MET	4.1
43	BO	117	PHE	4.0
6	AG	86	VAL	4.0
49	BR	35	PHE	4.0
33	B1	15	GLY	4.0
46	BU	51	LEU	4.0
23	BB	2145	C	4.0
24	BI	51	GLY	4.0
48	DG	41	GLU	4.0
53	B6	47	GLY	4.0
47	DF	21	TYR	4.0
53	B6	3	LEU	4.0
53	B6	44	GLU	4.0
8	AI	29	ILE	4.0
23	DB	1459	G	4.0
24	DI	33	ASN	4.0
53	D6	87	ASP	4.0
23	BB	1728	C	4.0

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Mol	Chain	Res	Type	RSRZ
43	BO	113	ALA	4.0
47	BF	115	GLY	4.0
9	CJ	65	TYR	4.0
24	BI	115	ASP	4.0
53	B6	33	ALA	4.0
18	CS	73	PHE	4.0
52	DW	84	GLU	3.9
6	AG	79	VAL	3.9
18	CS	70	LEU	3.9
24	BI	87	SER	3.9
47	BF	35	LEU	3.9
53	D6	95	LYS	3.9
53	D6	70	SER	3.9
18	CS	43	MET	3.9
49	DR	46	GLU	3.9
18	AS	61	VAL	3.9
24	DI	95	ASP	3.9
48	BG	104	LEU	3.9
8	AI	15	ALA	3.9
43	BO	84	GLU	3.9
24	DI	21	PRO	3.9
12	CM	42	VAL	3.9
53	D6	47	GLY	3.9
43	DO	37	ALA	3.9
53	B6	77	LYS	3.9
52	DW	40	ARG	3.9
9	CJ	34	ALA	3.9
53	D6	67	VAL	3.9
24	BI	66	PHE	3.9
19	CT	67	HIS	3.9
1	AA	1362	A	3.9
24	DI	108	ILE	3.9
50	BT	1	MET	3.9
24	BI	112	LYS	3.8
24	BI	97	VAL	3.8
45	DS	32	ALA	3.8
53	D6	105	PRO	3.8
49	BR	95	ASP	3.8
51	DZ	78	TYR	3.8
47	BF	132	ARG	3.8
1	CA	466	A	3.8
24	DI	35	MET	3.8

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Mol	Chain	Res	Type	RSRZ
46	DU	35	VAL	3.8
48	DG	89	VAL	3.8
49	DR	95	ASP	3.8
15	CP	52	LEU	3.8
20	AB	195	VAL	3.8
24	BI	17	ALA	3.8
24	DI	141	ASP	3.8
40	BH	90	LEU	3.8
44	DQ	90	ASP	3.8
29	DE	169	VAL	3.8
24	BI	109	ALA	3.8
9	CJ	18	ILE	3.8
18	AS	49	ALA	3.8
1	CA	461	A	3.8
52	DW	45	HIS	3.8
53	B6	90	LEU	3.7
7	AH	102	VAL	3.7
40	DH	141	LYS	3.7
9	CJ	84	VAL	3.7
26	BD	111	GLY	3.7
29	BE	11	ALA	3.7
8	CI	8	THR	3.7
18	AS	74	ALA	3.7
7	AH	60	LEU	3.7
49	BR	25	LEU	3.7
6	CG	74	VAL	3.7
12	AM	42	VAL	3.7
13	CN	20	PHE	3.7
19	AT	30	PHE	3.7
23	BB	1727	C	3.7
24	BI	33	ASN	3.7
28	BP	70	GLU	3.7
40	DH	85	GLY	3.7
7	AH	127	TYR	3.7
43	DO	2	ASP	3.7
47	BF	151	LEU	3.7
28	BP	91	VAL	3.7
33	B1	16	THR	3.7
40	DH	77	THR	3.7
24	BI	35	MET	3.7
9	AJ	37	ARG	3.7
20	AB	75	ALA	3.7

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Mol	Chain	Res	Type	RSRZ
24	BI	79	LEU	3.7
46	BU	75	ALA	3.7
23	DB	100	U	3.7
44	DQ	87	VAL	3.7
4	CE	158	LYS	3.7
7	AH	71	VAL	3.7
43	BO	90	VAL	3.7
6	CG	70	PRO	3.7
40	DH	122	LEU	3.7
46	BU	49	PRO	3.7
48	DG	161	VAL	3.7
40	DH	113	SER	3.6
8	AI	16	ALA	3.6
53	B6	104	PRO	3.6
32	B4	7	VAL	3.6
48	BG	80	GLU	3.6
18	CS	30	LEU	3.6
40	BH	60	GLU	3.6
31	B0	51	ARG	3.6
24	BI	135	MET	3.6
17	CR	63	TYR	3.6
23	DB	1870	C	3.6
48	DG	106	LEU	3.6
15	AP	39	PHE	3.6
47	DF	139	GLU	3.6
40	DH	123	ARG	3.6
43	BO	106	LEU	3.6
6	AG	150	PHE	3.6
47	BF	78	ILE	3.6
52	BW	14	ASP	3.6
52	BW	42	THR	3.6
24	BI	78	LEU	3.6
24	BI	37	PHE	3.6
21	AU	3	ILE	3.6
40	DH	81	ALA	3.6
47	DF	178	LYS	3.6
47	BF	33	ILE	3.6
48	BG	17	LYS	3.6
53	B6	58	VAL	3.6
24	DI	67	THR	3.6
48	DG	165	ASP	3.6
29	DE	119	ILE	3.5

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Mol	Chain	Res	Type	RSRZ
24	BI	137	LEU	3.5
40	DH	12	LEU	3.5
43	BO	51	ALA	3.5
24	DI	37	PHE	3.5
46	DU	33	VAL	3.5
49	BR	46	GLU	3.5
8	CI	20	ILE	3.5
18	CS	48	ILE	3.5
53	B6	50	VAL	3.5
53	B6	94	ASN	3.5
29	BE	144	GLU	3.5
40	BH	134	VAL	3.5
9	CJ	102	LEU	3.5
40	BH	144	VAL	3.5
47	BF	44	ALA	3.5
27	BK	17	ARG	3.5
27	BK	18	ARG	3.5
48	DG	175	LYS	3.5
23	BB	1916	A	3.5
24	BI	34	ILE	3.5
9	CJ	88	MET	3.5
18	AS	47	THR	3.5
18	AS	73	PHE	3.5
6	AG	84	TYR	3.5
9	CJ	73	LEU	3.5
12	AM	18	LEU	3.5
53	D6	53	ASN	3.5
24	BI	76	ALA	3.5
28	BP	107	ALA	3.5
48	DG	48	THR	3.5
53	D6	82	ALA	3.5
19	AT	19	HIS	3.5
24	DI	41	PHE	3.5
47	BF	89	THR	3.5
20	CB	163	ILE	3.5
43	BO	89	ASP	3.5
9	CJ	81	GLU	3.5
24	DI	25	PRO	3.5
29	DE	149	ILE	3.5
41	BJ	59	ALA	3.5
1	AA	88	U	3.4
1	AA	121	U	3.4

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Mol	Chain	Res	Type	RSRZ
40	BH	147	VAL	3.4
46	DU	38	ILE	3.4
39	BX	10	SER	3.4
7	AH	126	CYS	3.4
14	AO	89	ARG	3.4
40	DH	142	VAL	3.4
43	BO	99	TYR	3.4
53	B6	110	ARG	3.4
43	BO	92	PHE	3.4
10	AK	99	LEU	3.4
41	BJ	44	TYR	3.4
18	CS	46	LEU	3.4
47	DF	90	LEU	3.4
49	BR	2	TYR	3.4
19	CT	3	ILE	3.4
24	BI	95	ASP	3.4
39	BX	62	GLY	3.4
5	AF	62	MET	3.4
37	BL	6	LEU	3.4
24	DI	129	GLU	3.4
25	DC	271	SER	3.4
40	DH	4	ILE	3.4
48	BG	23	ILE	3.4
53	D6	80	GLU	3.4
24	BI	73	PRO	3.4
53	B6	28	LEU	3.4
21	AU	10	PRO	3.4
47	BF	30	VAL	3.4
8	AI	128	LYS	3.4
23	DB	2402	U	3.4
53	D6	97	ASP	3.4
50	DT	70	HIS	3.4
1	AA	461	A	3.3
18	CS	40	PHE	3.3
11	CL	24	GLU	3.3
24	DI	39	LYS	3.3
35	BV	93	ARG	3.3
40	DH	137	GLU	3.3
46	BU	60	LYS	3.3
6	CG	83	THR	3.3
24	BI	125	THR	3.3
24	DI	45	THR	3.3

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Mol	Chain	Res	Type	RSRZ
24	BI	119	ALA	3.3
9	AJ	100	ILE	3.3
2	CC	165	GLU	3.3
11	AL	111	GLN	3.3
47	BF	65	LEU	3.3
24	DI	73	PRO	3.3
29	DE	201	ALA	3.3
1	AA	77	A	3.3
46	DU	28	LEU	3.3
18	CS	56	HIS	3.3
41	BJ	6	ALA	3.3
23	BB	2146	C	3.3
53	B6	39	LEU	3.3
24	BI	124	MET	3.3
29	BE	124	PHE	3.3
48	BG	12	ALA	3.3
38	BM	32	GLY	3.3
53	D6	61	PRO	3.3
24	DI	120	ASP	3.3
7	AH	74	ILE	3.3
18	CS	39	ILE	3.3
50	DT	2	ILE	3.3
39	DX	62	GLY	3.3
31	B0	56	LYS	3.3
24	DI	77	VAL	3.3
13	AN	28	ALA	3.3
23	DB	62	U	3.3
40	DH	114	GLU	3.3
29	BE	60	TRP	3.3
32	B4	29	ALA	3.3
44	BQ	97	ILE	3.3
1	AA	87	C	3.3
20	CB	123	GLY	3.3
8	AI	56	MET	3.3
1	AA	80	A	3.3
23	DB	1067	A	3.3
43	BO	26	LEU	3.3
46	BU	52	ASN	3.3
9	CJ	36	VAL	3.3
20	AB	24	PRO	3.3
33	B1	14	ALA	3.3
41	DJ	20	ALA	3.3

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Mol	Chain	Res	Type	RSRZ
9	AJ	73	LEU	3.3
28	BP	25	VAL	3.3
47	BF	62	GLN	3.3
48	BG	164	ALA	3.3
39	BX	60	LYS	3.3
23	DB	548	G	3.2
40	BH	61	VAL	3.2
50	DT	4	GLU	3.2
49	DR	50	GLY	3.2
8	CI	40	ARG	3.2
46	DU	84	PHE	3.2
28	BP	21	PRO	3.2
24	DI	131	THR	3.2
39	DX	23	ARG	3.2
40	BH	132	PHE	3.2
46	DU	19	GLY	3.2
18	CS	47	THR	3.2
6	CG	100	MET	3.2
19	AT	86	ALA	3.2
24	DI	123	ALA	3.2
40	DH	105	ALA	3.2
1	AA	1079	G	3.2
43	DO	3	LYS	3.2
15	CP	6	LEU	3.2
20	AB	74	ALA	3.2
39	BX	7	ARG	3.2
26	BD	118	PHE	3.2
1	AA	1080	A	3.2
6	CG	68	VAL	3.2
28	BP	89	GLY	3.2
43	BO	35	ILE	3.2
53	B6	114	LEU	3.2
20	CB	216	VAL	3.2
47	DF	73	VAL	3.2
53	B6	109	GLU	3.2
8	AI	127	SER	3.2
16	AQ	9	GLY	3.2
38	BM	19	GLY	3.2
3	AD	1	ALA	3.2
41	DJ	52	ASP	3.2
8	AI	20	ILE	3.2
50	DT	87	LEU	3.2

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Mol	Chain	Res	Type	RSRZ
24	BI	19	PRO	3.2
20	AB	190	SER	3.2
32	B4	35	GLN	3.2
40	DH	144	VAL	3.2
7	CH	35	ILE	3.1
43	BO	8	ILE	3.1
40	DH	149	GLU	3.1
53	B6	158	GLU	3.1
20	AB	100	LEU	3.1
28	BP	54	LEU	3.1
28	BP	96	LEU	3.1
18	CS	10	ILE	3.1
1	AA	83	C	3.1
23	BB	2144	G	3.1
24	BI	84	GLY	3.1
46	DU	89	GLY	3.1
53	D6	96	GLY	3.1
47	DF	174	PHE	3.1
18	AS	72	GLU	3.1
40	DH	130	VAL	3.1
48	DG	45	ALA	3.1
24	BI	10	LEU	3.1
3	AD	177	MET	3.1
43	BO	103	VAL	3.1
15	CP	20	VAL	3.1
52	DW	18	LYS	3.1
28	BP	43	GLU	3.1
33	B1	10	LEU	3.1
24	DI	101	SER	3.1
18	AS	58	PRO	3.1
47	BF	73	VAL	3.1
24	DI	102	ARG	3.1
40	DH	51	ARG	3.1
24	DI	105	LEU	3.1
53	B6	52	LEU	3.1
4	AE	69	ASN	3.1
35	BV	91	PHE	3.1
15	AP	71	VAL	3.1
21	CU	35	GLU	3.1
24	DI	4	VAL	3.1
53	B6	23	HIS	3.1
1	AA	1492	A	3.1

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Mol	Chain	Res	Type	RSRZ
53	D6	104	PRO	3.1
23	DB	1730	C	3.1
44	DQ	117	ALA	3.1
48	BG	43	LYS	3.1
46	BU	86	PHE	3.1
46	BU	61	GLU	3.1
18	CS	8	PRO	3.1
15	AP	6	LEU	3.1
20	AB	95	TRP	3.1
1	AA	81	A	3.1
24	BI	108	ILE	3.1
24	DI	128	ILE	3.1
47	BF	174	PHE	3.1
20	CB	69	VAL	3.1
32	B4	17	VAL	3.1
20	CB	38	HIS	3.1
24	BI	81	LYS	3.1
43	BO	88	LYS	3.1
12	AM	7	ASN	3.1
20	AB	113	LEU	3.1
24	DI	38	CYS	3.1
9	AJ	10	LEU	3.1
24	BI	26	ALA	3.1
52	BW	75	ASN	3.1
53	D6	60	ALA	3.1
8	AI	38	PHE	3.1
7	AH	128	VAL	3.1
18	AS	50	VAL	3.1
24	BI	49	GLU	3.1
6	AG	77	ARG	3.1
26	BD	186	LEU	3.1
9	CJ	29	ALA	3.1
18	CS	38	THR	3.0
23	BB	1731	G	3.0
47	BF	90	LEU	3.0
24	BI	21	PRO	3.0
38	BM	67	VAL	3.0
19	AT	67	HIS	3.0
15	AP	47	GLU	3.0
5	AF	61	LEU	3.0
38	BM	129	THR	3.0
42	BN	1	MET	3.0

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Mol	Chain	Res	Type	RSRZ
29	DE	60	TRP	3.0
50	BT	21	SER	3.0
1	CA	121	U	3.0
20	AB	197	PHE	3.0
47	DF	157	THR	3.0
49	BR	36	ALA	3.0
20	CB	99	MET	3.0
48	BG	165	ASP	3.0
49	BR	93	PHE	3.0
26	BD	25	THR	3.0
38	BM	31	PHE	3.0
46	BU	59	GLU	3.0
24	BI	53	PRO	3.0
6	CG	78	ARG	3.0
42	BN	66	ALA	3.0
49	BR	15	SER	3.0
26	BD	4	LEU	3.0
47	BF	138	PRO	3.0
18	AS	11	ASP	3.0
24	DI	136	GLY	3.0
20	AB	199	ILE	3.0
28	BP	48	ALA	3.0
48	BG	130	ILE	3.0
8	CI	31	GLN	3.0
10	AK	125	LYS	3.0
47	BF	99	PHE	3.0
50	BT	72	GLN	3.0
46	DU	27	VAL	3.0
20	CB	45	THR	3.0
47	DF	172	PHE	3.0
21	AU	35	GLU	3.0
24	DI	88	GLY	3.0
50	DT	5	GLU	3.0
34	B3	58	ILE	3.0
6	AG	21	LEU	3.0
35	DV	47	VAL	3.0
23	DB	1098	A	3.0
8	AI	31	GLN	3.0
3	AD	203	TYR	2.9
6	AG	5	VAL	2.9
40	BH	65	ALA	2.9
47	BF	96	TRP	2.9

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Mol	Chain	Res	Type	RSRZ
9	CJ	80	THR	2.9
52	BW	41	GLY	2.9
7	AH	62	LEU	2.9
20	CB	67	LEU	2.9
48	BG	85	LYS	2.9
24	DI	122	GLU	2.9
25	DC	34	GLU	2.9
20	CB	124	THR	2.9
18	CS	14	LEU	2.9
53	D6	48	ALA	2.9
24	DI	22	PRO	2.9
24	DI	100	ILE	2.9
24	DI	139	VAL	2.9
40	DH	99	ILE	2.9
43	BO	28	VAL	2.9
3	AD	3	TYR	2.9
23	BB	1730	C	2.9
28	BP	58	PHE	2.9
50	BT	4	GLU	2.9
46	DU	69	VAL	2.9
20	CB	160	LEU	2.9
24	BI	27	LEU	2.9
26	DD	118	PHE	2.9
41	DJ	45	THR	2.9
46	BU	76	THR	2.9
19	CT	65	LEU	2.9
43	BO	77	ALA	2.9
46	BU	58	VAL	2.9
11	AL	12	ALA	2.9
13	CN	19	TYR	2.9
24	BI	14	ALA	2.9
48	DG	150	TYR	2.9
6	AG	36	SER	2.9
40	BH	82	SER	2.9
8	AI	8	THR	2.9
8	AI	47	VAL	2.9
40	DH	117	LEU	2.9
6	CG	153	TYR	2.9
13	AN	55	SER	2.9
23	BB	1171	G	2.9
16	CQ	82	VAL	2.9
23	BB	1913	A	2.9

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Mol	Chain	Res	Type	RSRZ
43	DO	61	GLN	2.9
16	CQ	10	ARG	2.9
24	BI	71	LYS	2.9
6	AG	46	LEU	2.9
33	D1	35	LEU	2.9
43	DO	35	ILE	2.9
30	BY	7	THR	2.9
40	BH	125	THR	2.9
19	AT	52	GLU	2.9
47	BF	71	LYS	2.9
15	CP	57	ILE	2.8
40	BH	94	ILE	2.8
24	DI	75	ALA	2.8
39	BX	5	GLU	2.8
23	BB	1919	A	2.8
48	DG	104	LEU	2.8
4	AE	94	PHE	2.8
18	CS	49	ALA	2.8
24	BI	80	LYS	2.8
26	DD	32	ASN	2.8
8	AI	51	LEU	2.8
47	BF	152	ASP	2.8
35	DV	70	ILE	2.8
46	BU	33	VAL	2.8
20	AB	183	PHE	2.8
7	AH	73	SER	2.8
23	BB	1538	G	2.8
49	DR	86	GLN	2.8
45	BS	75	PHE	2.8
53	B6	103	ILE	2.8
20	CB	33	ALA	2.8
28	BP	98	TYR	2.8
12	AM	28	ARG	2.8
18	AS	57	VAL	2.8
48	DG	42	VAL	2.8
43	BO	2	ASP	2.8
48	DG	160	GLY	2.8
53	B6	106	LEU	2.8
20	CB	209	VAL	2.8
28	DP	91	VAL	2.8
52	BW	36	ILE	2.8
53	D6	55	ILE	2.8

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Mol	Chain	Res	Type	RSRZ
3	AD	174	ALA	2.8
23	DB	1065	U	2.8
24	BI	44	LYS	2.8
29	BE	153	LEU	2.8
48	BG	25	ILE	2.8
49	BR	5	PHE	2.8
48	BG	24	THR	2.8
15	CP	17	TYR	2.8
23	BB	2797	U	2.8
40	DH	5	LEU	2.8
18	AS	75	PRO	2.8
20	CB	213	LEU	2.8
37	BL	77	ILE	2.8
48	BG	171	LYS	2.8
52	DW	24	ARG	2.8
24	BI	116	MET	2.8
18	AS	76	THR	2.8
19	AT	37	ALA	2.8
31	D0	34	GLY	2.8
40	BH	124	THR	2.8
53	B6	76	LEU	2.8
18	CS	11	ASP	2.8
27	BK	10	VAL	2.8
49	BR	98	ILE	2.8
43	BO	65	THR	2.8
23	BB	1920	C	2.8
43	DO	28	VAL	2.8
52	DW	14	ASP	2.8
9	CJ	101	SER	2.7
17	AR	28	LEU	2.7
50	DT	16	VAL	2.7
53	D6	68	VAL	2.7
53	D6	100	TYR	2.7
9	CJ	40	ILE	2.7
18	CS	32	THR	2.7
19	AT	12	GLN	2.7
38	BM	128	THR	2.7
48	DG	147	LEU	2.7
12	CM	96	VAL	2.7
28	BP	69	VAL	2.7
30	DY	1	ALA	2.7
31	B0	55	ALA	2.7

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Mol	Chain	Res	Type	RSRZ
18	AS	44	ILE	2.7
49	BR	74	ILE	2.7
53	B6	105	PRO	2.7
38	BM	105	MET	2.7
9	AJ	38	GLY	2.7
41	BJ	54	ILE	2.7
28	DP	50	ARG	2.7
50	DT	49	LYS	2.7
23	DB	654	A	2.7
9	CJ	26	VAL	2.7
21	CU	37	TYR	2.7
24	BI	139	VAL	2.7
9	CJ	7	ARG	2.7
21	CU	24	LYS	2.7
30	BY	55	LYS	2.7
45	BS	51	LEU	2.7
50	BT	15	HIS	2.7
20	CB	49	PHE	2.7
9	CJ	25	ILE	2.7
15	AP	48	GLU	2.7
12	AM	29	SER	2.7
23	BB	62	U	2.7
24	BI	41	PHE	2.7
29	DE	150	THR	2.7
34	B3	13	PHE	2.7
40	DH	98	ASP	2.7
48	BG	121	THR	2.7
6	AG	140	VAL	2.7
15	CP	7	ALA	2.7
6	AG	76	SER	2.7
50	DT	1	MET	2.7
28	BP	42	PHE	2.7
26	BD	26	VAL	2.7
27	BK	104	THR	2.7
28	BP	61	ARG	2.7
12	AM	3	ILE	2.7
13	AN	48	GLN	2.7
29	BE	143	LEU	2.7
29	DE	159	LEU	2.7
53	D6	69	GLN	2.7
40	DH	120	GLY	2.7
12	CM	7	ASN	2.7

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Mol	Chain	Res	Type	RSRZ
23	BB	546	U	2.7
53	B6	64	ARG	2.7
9	CJ	83	THR	2.7
26	BD	75	ALA	2.7
41	DJ	63	ALA	2.7
53	B6	122	ALA	2.7
27	BK	8	LEU	2.7
19	CT	57	VAL	2.7
47	DF	30	VAL	2.7
49	BR	58	VAL	2.7
18	AS	42	ASN	2.7
29	DE	11	ALA	2.7
44	BQ	90	ASP	2.7
8	AI	40	ARG	2.7
43	BO	38	GLN	2.7
41	BJ	17	VAL	2.7
2	AC	41	TYR	2.7
43	BO	107	ALA	2.7
4	CE	155	LYS	2.7
7	AH	98	LEU	2.7
23	BB	2799	A	2.7
23	BB	1172	C	2.7
1	AA	82	G	2.7
3	AD	108	ALA	2.7
20	CB	40	ILE	2.7
24	DI	71	LYS	2.6
28	BP	1	SER	2.6
53	D6	36	ALA	2.7
29	DE	153	LEU	2.6
9	AJ	63	ASP	2.6
30	BY	8	GLN	2.6
48	DG	122	ALA	2.6
8	CI	126	PHE	2.6
24	BI	16	MET	2.6
37	BL	114	GLY	2.6
1	CA	1362	A	2.6
44	BQ	100	PHE	2.6
12	AM	33	LEU	2.6
32	D4	23	ILE	2.6
42	DN	98	LEU	2.6
23	BB	654	A	2.6
24	BI	20	SER	2.6

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Mol	Chain	Res	Type	RSRZ
21	AU	20	ARG	2.6
24	BI	56	VAL	2.6
24	DI	15	GLY	2.6
52	DW	19	ARG	2.6
6	AG	85	GLN	2.6
40	BH	18	GLN	2.6
50	BT	59	ASN	2.6
3	CD	190	LEU	2.6
35	BV	82	TYR	2.6
40	BH	12	LEU	2.6
50	DT	30	ILE	2.6
23	BB	136	G	2.6
4	AE	30	PHE	2.6
34	B3	22	LYS	2.6
8	CI	103	VAL	2.6
20	CB	195	VAL	2.6
24	BI	57	VAL	2.6
48	BG	136	ASP	2.6
12	CM	18	LEU	2.6
12	AM	114	PRO	2.6
15	CP	38	PHE	2.6
12	AM	84	CYS	2.6
23	BB	2138	G	2.6
24	DI	36	GLU	2.6
39	DX	46	VAL	2.6
29	BE	188	MET	2.6
49	BR	1	MET	2.6
53	D6	71	TRP	2.6
12	CM	94	LEU	2.6
26	DD	27	ILE	2.6
4	AE	147	ASN	2.6
47	BF	7	TYR	2.6
50	BT	83	ALA	2.6
53	D6	91	ASN	2.6
4	AE	128	GLY	2.6
38	BM	131	VAL	2.6
48	DG	172	GLU	2.6
52	BW	51	GLY	2.6
24	DI	5	GLN	2.6
35	DV	38	LEU	2.6
47	DF	71	LYS	2.6
37	DL	91	ASP	2.6

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Mol	Chain	Res	Type	RSRZ
47	BF	141	ASP	2.6
15	CP	66	THR	2.6
22	BA	52	A	2.6
20	CB	186	VAL	2.6
21	CU	23	GLU	2.6
49	BR	72	VAL	2.6
53	D6	21	LEU	2.6
38	DM	60	GLN	2.6
47	DF	91	ARG	2.6
50	DT	92	ASN	2.6
8	CI	128	LYS	2.6
43	BO	12	THR	2.6
5	CF	90	MET	2.6
23	BB	715	A	2.6
23	BB	1536	C	2.6
24	BI	121	ILE	2.6
42	DN	83	LEU	2.6
3	AD	106	PHE	2.6
29	DE	9	GLN	2.6
24	BI	89	SER	2.6
10	AK	118	ASN	2.6
25	DC	64	VAL	2.6
16	AQ	7	LEU	2.6
42	BN	83	LEU	2.6
48	BG	18	ILE	2.6
6	CG	61	PHE	2.6
20	CB	68	PHE	2.6
40	BH	102	ALA	2.6
43	BO	116	GLN	2.6
23	BB	2320	U	2.6
40	BH	114	GLU	2.6
43	DO	60	GLU	2.6
47	DF	27	VAL	2.6
49	BR	7	SER	2.6
52	BW	40	ARG	2.6
38	BM	20	LEU	2.6
43	BO	48	LEU	2.6
19	AT	38	ILE	2.6
31	B0	54	ILE	2.6
7	AH	44	PHE	2.5
28	DP	58	PHE	2.5
20	AB	159	ALA	2.5

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Mol	Chain	Res	Type	RSRZ
24	DI	112	LYS	2.5
40	BH	87	GLU	2.5
15	CP	37	GLY	2.5
41	DJ	64	VAL	2.5
5	AF	39	LEU	2.5
20	AB	26	MET	2.5
16	AQ	27	PHE	2.5
53	D6	101	ILE	2.5
24	DI	140	GLU	2.5
2	AC	90	VAL	2.5
8	CI	34	LEU	2.5
12	AM	82	LEU	2.5
15	CP	39	PHE	2.5
18	AS	29	PRO	2.5
47	DF	78	ILE	2.5
7	CH	129	ALA	2.5
18	CS	64	GLU	2.5
47	BF	156	THR	2.5
25	BC	17	LYS	2.5
5	AF	8	PHE	2.5
23	BB	1173	U	2.5
46	BU	84	PHE	2.5
26	DD	77	ARG	2.5
12	AM	4	ALA	2.5
6	AG	58	LEU	2.5
13	AN	15	LEU	2.5
29	DE	188	MET	2.5
35	DV	91	PHE	2.5
43	BO	36	TYR	2.5
2	AC	86	LEU	2.5
10	AK	95	THR	2.5
48	DG	158	GLY	2.5
18	AS	10	ILE	2.5
9	AJ	82	LYS	2.5
38	BM	37	GLY	2.5
25	DC	43	ASN	2.5
7	AH	125	ILE	2.5
26	BD	27	ILE	2.5
44	DQ	73	ILE	2.5
20	AB	86	CYS	2.5
35	BV	10	LYS	2.5
8	AI	66	VAL	2.5

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Mol	Chain	Res	Type	RSRZ
19	CT	35	TYR	2.5
43	BO	37	ALA	2.5
47	DF	82	TYR	2.5
31	B0	49	ARG	2.5
40	DH	27	ARG	2.5
43	BO	25	ARG	2.5
47	DF	155	ILE	2.5
24	DI	30	GLN	2.5
48	BG	172	GLU	2.5
2	AC	106	ARG	2.5
26	DD	100	LEU	2.5
48	BG	8	VAL	2.5
48	BG	168	VAL	2.5
49	BR	64	VAL	2.5
6	CG	8	GLN	2.5
40	DH	17	ASP	2.5
51	BZ	77	LYS	2.5
52	BW	44	PHE	2.5
12	AM	38	ILE	2.5
15	CP	67	ILE	2.5
31	D0	54	ILE	2.5
38	BM	65	ILE	2.5
1	AA	842	U	2.5
8	AI	34	LEU	2.5
19	AT	71	ALA	2.5
24	DI	40	ALA	2.5
48	DG	4	ALA	2.5
8	AI	19	PHE	2.5
46	DU	32	LYS	2.5
52	DW	59	PHE	2.5
23	DB	2147	A	2.5
29	BE	32	VAL	2.5
29	BE	196	VAL	2.5
30	BY	26	LEU	2.5
29	DE	168	ASP	2.5
52	BW	39	GLN	2.5
7	AH	13	ILE	2.5
24	BI	128	ILE	2.5
5	AF	35	LYS	2.4
12	CM	15	VAL	2.4
2	CC	167	TYR	2.4
40	BH	79	THR	2.4

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Mol	Chain	Res	Type	RSRZ
43	BO	109	ALA	2.4
13	AN	62	ARG	2.4
20	AB	43	GLU	2.4
28	BP	83	ILE	2.4
45	BS	74	ILE	2.4
30	BY	19	HIS	2.4
11	AL	103	CYS	2.4
40	DH	104	THR	2.4
13	AN	25	GLU	2.4
15	CP	4	ILE	2.4
16	AQ	58	VAL	2.4
18	AS	70	LEU	2.4
24	DI	65	SER	2.4
24	DI	127	SER	2.4
49	DR	96	VAL	2.4
42	BN	12	ARG	2.4
8	AI	65	THR	2.4
20	AB	66	ILE	2.4
53	D6	92	PRO	2.4
51	DZ	49	LEU	2.4
24	DI	14	ALA	2.4
44	BQ	105	PHE	2.4
11	AL	42	LYS	2.4
13	AN	30	ILE	2.4
48	DG	102	ILE	2.4
24	BI	25	PRO	2.4
29	BE	193	VAL	2.4
47	BF	168	LEU	2.4
47	BF	169	LEU	2.4
47	DF	111	ARG	2.4
23	DB	1099	G	2.4
23	DB	1537	G	2.4
28	BP	23	ASP	2.4
43	BO	97	PHE	2.4
7	AH	1	SER	2.4
13	AN	31	SER	2.4
41	BJ	121	LYS	2.4
50	BT	68	LYS	2.4
50	BT	84	TYR	2.4
10	AK	128	VAL	2.4
18	AS	78	THR	2.4
40	BH	32	PRO	2.4

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Mol	Chain	Res	Type	RSRZ
41	DJ	105	VAL	2.4
47	DF	70	ARG	2.4
13	AN	46	LYS	2.4
24	BI	141	ASP	2.4
27	BK	84	CYS	2.4
23	BB	1910	G	2.4
27	BK	45	GLU	2.4
28	BP	109	ILE	2.4
6	CG	90	VAL	2.4
7	AH	58	LEU	2.4
47	DF	80	GLN	2.4
20	AB	99	MET	2.4
29	DE	32	VAL	2.4
40	BH	107	GLY	2.4
53	D6	59	THR	2.4
33	B1	51	ALA	2.4
13	AN	23	ARG	2.4
18	CS	3	SER	2.4
7	AH	24	VAL	2.4
19	CT	60	GLN	2.4
20	AB	198	VAL	2.4
44	DQ	55	GLN	2.4
28	BP	44	GLY	2.4
48	DG	167	VAL	2.4
1	AA	212	G	2.4
48	BG	35	THR	2.4
6	CG	4	ARG	2.4
6	CG	89	GLU	2.4
30	BY	58	GLU	2.4
40	DH	69	ALA	2.4
31	B0	42	ILE	2.4
44	BQ	101	ASP	2.4
49	BR	70	GLU	2.4
53	B6	101	ILE	2.4
32	B4	25	VAL	2.4
40	DH	136	SER	2.4
46	BU	48	VAL	2.4
48	BG	49	LEU	2.4
53	B6	140	LEU	2.4
24	BI	67	THR	2.4
1	CA	1032	G	2.4
9	CJ	85	ASP	2.4

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Mol	Chain	Res	Type	RSRZ
24	DI	54	ILE	2.4
3	AD	83	GLY	2.4
8	AI	4	GLN	2.4
18	AS	18	VAL	2.4
28	BP	19	PHE	2.4
52	DW	44	PHE	2.4
21	CU	43	GLU	2.4
13	AN	27	LYS	2.4
24	BI	114	ALA	2.4
40	BH	23	ALA	2.4
18	AS	39	ILE	2.4
43	DO	58	ILE	2.4
48	BG	120	ILE	2.4
9	AJ	35	GLN	2.4
13	CN	23	ARG	2.4
19	AT	81	GLN	2.4
23	DB	1173	U	2.4
15	CP	45	GLU	2.4
20	AB	181	PRO	2.4
37	BL	144	GLU	2.4
20	CB	212	TYR	2.4
11	AL	81	ILE	2.4
16	CQ	6	THR	2.4
19	CT	2	ASN	2.4
28	BP	90	ALA	2.4
35	BV	30	ILE	2.4
38	DM	113	ALA	2.4
4	AE	92	ARG	2.3
23	DB	899	A	2.3
48	DG	16	VAL	2.3
49	BR	96	VAL	2.3
50	DT	69	ARG	2.3
1	CA	1286	U	2.3
19	CT	52	GLU	2.3
21	AU	23	GLU	2.3
23	BB	653	U	2.3
46	DU	59	GLU	2.3
5	AF	6	ILE	2.3
23	DB	2148	G	2.3
49	DR	2	TYR	2.3
20	CB	56	LEU	2.3
6	CG	69	ARG	2.3

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Mol	Chain	Res	Type	RSRZ
24	BI	117	THR	2.3
25	BC	64	VAL	2.3
40	BH	128	HIS	2.3
50	BT	57	VAL	2.3
21	AU	36	PHE	2.3
27	BK	112	PHE	2.3
11	AL	43	LYS	2.3
5	AF	36	ILE	2.3
23	DB	1082	U	2.3
29	DE	59	PRO	2.3
35	BV	57	TYR	2.3
41	DJ	54	ILE	2.3
45	BS	103	ILE	2.3
41	BJ	35	ARG	2.3
18	AS	71	GLY	2.3
28	DP	114	ASN	2.3
40	DH	47	PHE	2.3
41	BJ	112	GLY	2.3
47	BF	157	THR	2.3
48	BG	160	GLY	2.3
48	BG	15	ASP	2.3
9	AJ	72	ARG	2.3
35	DV	30	ILE	2.3
46	BU	93	ARG	2.3
18	CS	58	PRO	2.3
5	AF	96	VAL	2.3
7	AH	81	GLY	2.3
9	AJ	74	VAL	2.3
28	BP	46	VAL	2.3
50	DT	53	VAL	2.3
52	BW	77	LYS	2.3
41	DJ	80	HIS	2.3
18	CS	62	THR	2.3
33	D1	6	GLU	2.3
49	BR	13	ARG	2.3
21	AU	37	TYR	2.3
40	BH	148	ALA	2.3
38	BM	36	VAL	2.3
46	DU	97	SER	2.3
48	BG	167	VAL	2.3
5	AF	5	GLU	2.3
40	BH	145	ASN	2.3

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Mol	Chain	Res	Type	RSRZ
41	DJ	1	MET	2.3
10	AK	110	THR	2.3
21	CU	34	ARG	2.3
24	DI	70	THR	2.3
26	DD	202	ILE	2.3
43	DO	62	LEU	2.3
48	BG	118	ALA	2.3
53	B6	21	LEU	2.3
13	CN	76	PHE	2.3
15	CP	24	SER	2.3
24	BI	55	PRO	2.3
26	BD	5	VAL	2.3
40	DH	16	GLY	2.3
9	CJ	99	GLN	2.3
24	BI	96	LYS	2.3
48	BG	87	GLN	2.3
42	DN	112	TYR	2.3
47	DF	169	LEU	2.3
18	CS	9	PHE	2.3
43	BO	39	VAL	2.3
49	BR	47	VAL	2.3
50	DT	31	VAL	2.3
50	DT	55	VAL	2.3
39	BX	13	GLU	2.3
47	BF	56	LEU	2.3
7	AH	129	ALA	2.3
27	DK	104	THR	2.3
29	BE	187	VAL	2.3
47	BF	12	VAL	2.3
53	D6	115	VAL	2.3
21	CU	20	ARG	2.3
47	BF	125	GLY	2.3
32	D4	2	LYS	2.3
40	BH	131	SER	2.3
25	DC	109	LEU	2.3
12	CM	22	TYR	2.3
35	DV	63	ILE	2.3
37	BL	111	ILE	2.3
29	DE	128	ALA	2.3
30	BY	54	VAL	2.3
52	BW	78	PHE	2.3
9	AJ	75	ASP	2.3

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Mol	Chain	Res	Type	RSRZ
53	D6	34	ASN	2.3
38	BM	34	LYS	2.3
50	BT	66	LYS	2.3
6	AG	19	SER	2.3
40	BH	117	LEU	2.3
2	AC	99	GLN	2.3
6	CG	51	GLN	2.3
11	AL	51	VAL	2.3
12	AM	78	ARG	2.3
47	BF	135	ILE	2.3
47	DF	33	ILE	2.3
18	AS	59	VAL	2.3
34	D3	13	PHE	2.3
23	BB	1170	C	2.3
8	AI	58	GLU	2.3
7	CH	92	PRO	2.3
15	CP	1	MET	2.3
22	DA	52	A	2.3
40	BH	133	GLN	2.3
44	BQ	63	ARG	2.3
47	DF	84	ILE	2.3
18	CS	57	VAL	2.3
20	AB	175	ALA	2.3
43	DO	117	PHE	2.3
48	DG	171	LYS	2.3
49	DR	67	GLY	2.3
20	CB	35	ASN	2.3
23	BB	2402	U	2.3
26	BD	35	THR	2.3
40	DH	1	MET	2.3
48	BG	88	LEU	2.3
52	BW	19	ARG	2.3
20	AB	68	PHE	2.3
53	B6	81	LYS	2.3
40	BH	109	GLU	2.2
34	B3	60	CYS	2.2
10	CK	55	ARG	2.2
40	BH	27	ARG	2.2
3	CD	106	PHE	2.2
12	AM	8	ILE	2.2
30	DY	4	ILE	2.2
36	B2	46	LYS	2.2

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Mol	Chain	Res	Type	RSRZ
52	DW	43	LYS	2.2
51	DZ	51	VAL	2.2
26	DD	59	ARG	2.2
28	BP	112	ARG	2.2
48	BG	169	ARG	2.2
26	BD	108	ASP	2.2
26	DD	91	THR	2.2
8	AI	50	PRO	2.2
8	CI	18	VAL	2.2
23	DB	1174	U	2.2
29	BE	119	ILE	2.2
29	DE	146	VAL	2.2
42	BN	102	PHE	2.2
48	DG	23	ILE	2.2
9	AJ	86	ALA	2.2
48	BG	150	TYR	2.2
50	BT	35	ALA	2.2
53	D6	78	ALA	2.2
9	AJ	9	ARG	2.2
51	DZ	77	LYS	2.2
1	CA	1441	A	2.2
19	AT	26	MET	2.2
18	AS	60	PHE	2.2
23	BB	1535	A	2.2
44	DQ	105	PHE	2.2
24	DI	19	PRO	2.2
45	DS	47	VAL	2.2
6	AG	80	GLY	2.2
20	CB	217	ALA	2.2
53	B6	26	ALA	2.2
23	BB	1726	C	2.2
38	DM	1	MET	2.2
4	CE	71	ILE	2.2
26	DD	14	ILE	2.2
9	CJ	72	ARG	2.2
2	CC	166	TRP	2.2
43	BO	115	LEU	2.2
37	BL	68	SER	2.2
7	CH	44	PHE	2.2
7	CH	71	VAL	2.2
20	CB	39	ILE	2.2
32	B4	12	ARG	2.2

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Mol	Chain	Res	Type	RSRZ
37	DL	123	ARG	2.2
41	BJ	56	VAL	2.2
51	DZ	47	VAL	2.2
6	AG	39	GLU	2.2
12	AM	67	ASP	2.2
43	DO	89	ASP	2.2
26	BD	209	ALA	2.2
43	DO	110	ALA	2.2
47	BF	21	TYR	2.2
49	BR	67	GLY	2.2
22	DA	25	U	2.2
23	DB	1094	U	2.2
8	AI	64	ILE	2.2
24	DI	12	VAL	2.2
50	BT	31	VAL	2.2
38	BM	110	GLU	2.2
2	CC	41	TYR	2.2
47	BF	130	GLY	2.2
19	AT	46	ALA	2.2
16	CQ	69	THR	2.2
29	DE	5	LEU	2.2
42	BN	70	THR	2.2
20	AB	8	MET	2.2
23	BB	2139	U	2.2
23	DB	1101	U	2.2
40	BH	42	LYS	2.2
48	BG	51	PHE	2.2
46	DU	11	ILE	2.2
49	BR	73	LYS	2.2
8	AI	101	GLY	2.2
40	DH	129	GLU	2.2
4	AE	109	ALA	2.2
40	BH	111	ALA	2.2
29	DE	3	LEU	2.2
20	CB	94	ARG	2.2
23	DB	1059	G	2.2
28	BP	50	ARG	2.2
52	DW	65	LYS	2.2
53	B6	30	THR	2.2
18	CS	50	VAL	2.2
28	BP	76	HIS	2.2
24	BI	28	GLY	2.2

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Mol	Chain	Res	Type	RSRZ
47	DF	69	ALA	2.2
48	BG	147	LEU	2.2
41	BJ	97	PRO	2.2
14	AO	59	MET	2.2
26	DD	151	THR	2.2
20	AB	186	VAL	2.2
29	BE	149	ILE	2.2
13	CN	62	ARG	2.2
17	AR	63	TYR	2.2
23	BB	138	U	2.2
40	BH	64	ALA	2.2
43	DO	109	ALA	2.2
45	DS	12	SER	2.2
47	BF	142	TYR	2.2
18	CS	75	PRO	2.2
38	DM	31	PHE	2.2
15	AP	21	VAL	2.2
15	AP	67	ILE	2.2
27	BK	35	VAL	2.2
33	D1	16	THR	2.2
26	BD	195	GLY	2.2
26	DD	53	GLY	2.2
8	AI	21	LYS	2.2
8	AI	48	ARG	2.2
12	CM	108	ARG	2.2
21	CU	46	ARG	2.2
8	CI	93	LEU	2.2
9	CJ	90	LEU	2.2
40	BH	100	ALA	2.2
24	BI	38	CYS	2.2
15	AP	1	MET	2.2
29	BE	169	VAL	2.2
37	BL	110	VAL	2.2
42	DN	29	VAL	2.2
3	AD	43	ARG	2.2
8	CI	118	ARG	2.2
12	CM	91	ARG	2.2
40	BH	83	LYS	2.2
43	BO	100	HIS	2.2
46	BU	42	LYS	2.2
50	BT	70	HIS	2.2
51	BZ	49	LEU	2.1

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Mol	Chain	Res	Type	RSRZ
24	DI	13	ALA	2.1
32	B4	6	SER	2.1
27	DK	35	VAL	2.1
37	DL	85	VAL	2.1
50	DT	14	PRO	2.1
9	CJ	59	LYS	2.1
13	AN	52	ARG	2.1
20	CB	127	LYS	2.1
24	DI	24	GLY	2.1
7	CH	39	LEU	2.1
17	CR	66	LEU	2.1
18	CS	13	HIS	2.1
49	DR	43	ASN	2.1
24	BI	82	ALA	2.1
48	DG	57	TYR	2.1
28	DP	19	PHE	2.1
34	B3	21	PHE	2.1
38	DM	117	PHE	2.1
13	CN	48	GLN	2.1
38	BM	60	GLN	2.1
20	CB	46	VAL	2.1
24	BI	22	PRO	2.1
37	BL	76	GLU	2.1
47	DF	163	GLU	2.1
9	AJ	85	ASP	2.1
46	DU	17	ASP	2.1
6	CG	84	TYR	2.1
24	DI	18	ASN	2.1
47	BF	106	ALA	2.1
48	BG	114	HIS	2.1
38	BM	6	ARG	2.1
48	BG	34	ARG	2.1
12	CM	6	ILE	2.1
47	DF	24	VAL	2.1
50	BT	5	GLU	2.1
24	BI	31	GLY	2.1
26	BD	3	GLY	2.1
9	CJ	87	LEU	2.1
20	CB	147	LEU	2.1
44	DQ	94	LEU	2.1
46	BU	40	LEU	2.1
47	DF	141	ASP	2.1

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Mol	Chain	Res	Type	RSRZ
50	DT	11	LEU	2.1
11	AL	58	ASN	2.1
19	AT	2	ASN	2.1
20	AB	184	ALA	2.1
20	CB	125	PHE	2.1
35	BV	83	LYS	2.1
38	BM	35	ALA	2.1
8	CI	64	ILE	2.1
28	BP	63	ILE	2.1
4	CE	50	GLY	2.1
12	AM	45	SER	2.1
46	BU	15	GLY	2.1
47	DF	83	PRO	2.1
48	BG	20	GLY	2.1
1	AA	207	C	2.1
3	AD	72	ARG	2.1
4	AE	127	TYR	2.1
23	DB	1100	C	2.1
50	BT	19	LYS	2.1
24	BI	93	ASN	2.1
26	BD	185	ASN	2.1
7	CH	120	LEU	2.1
12	AM	47	LEU	2.1
12	AM	93	GLY	2.1
6	AG	75	LYS	2.1
29	DE	10	SER	2.1
15	AP	38	PHE	2.1
47	BF	114	ARG	2.1
23	BB	2602	A	2.1
43	BO	110	ALA	2.1
3	AD	122	ILE	2.1
15	CP	19	VAL	2.1
11	CL	96	THR	2.1
19	CT	66	ILE	2.1
23	DB	544	C	2.1
38	DM	126	ILE	2.1
48	BG	161	VAL	2.1
24	BI	72	THR	2.1
24	BI	118	GLY	2.1
40	DH	18	GLN	2.1
29	BE	12	LEU	2.1
5	AF	66	ALA	2.1

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Mol	Chain	Res	Type	RSRZ
8	CI	89	TYR	2.1
2	CC	55	VAL	2.1
46	DU	87	GLU	2.1
53	B6	180	GLU	2.1
47	BF	59	ILE	2.1
7	AH	110	MET	2.1
9	CJ	35	GLN	2.1
11	AL	11	ARG	2.1
12	CM	92	ARG	2.1
23	BB	2141	G	2.1
27	BK	49	ARG	2.1
41	DJ	57	LEU	2.1
47	BF	8	LYS	2.1
24	DI	62	ALA	2.1
41	BJ	20	ALA	2.1
50	DT	83	ALA	2.1
6	AG	35	LYS	2.1
6	CG	41	ILE	2.1
18	CS	18	VAL	2.1
20	CB	126	ASP	2.1
26	DD	104	VAL	2.1
32	D4	15	LYS	2.1
41	DJ	101	ILE	2.1
45	BS	71	VAL	2.1
49	BR	4	VAL	2.1
18	AS	68	HIS	2.1
49	DR	12	HIS	2.1
52	DW	36	ILE	2.1
7	CH	62	LEU	2.1
12	AM	55	LEU	2.1
27	BK	86	LEU	2.1
41	DJ	82	GLY	2.1
50	BT	11	LEU	2.1
53	B6	29	ARG	2.1
22	BA	87	U	2.1
24	DI	9	LYS	2.1
24	DI	119	ALA	2.1
11	CL	68	GLY	2.1
20	CB	14	HIS	2.1
38	DM	102	LEU	2.1
53	B6	143	LEU	2.1
45	BS	39	THR	2.1

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Mol	Chain	Res	Type	RSRZ
9	AJ	39	PRO	2.1
10	AK	65	ALA	2.1
11	AL	92	VAL	2.1
26	DD	75	ALA	2.1
29	BE	120	VAL	2.1
35	DV	72	VAL	2.1
12	AM	44	ILE	2.1
17	AR	38	ILE	2.1
38	BM	96	ILE	2.1
6	CG	119	LEU	2.1
20	AB	158	ASP	2.1
34	B3	32	LEU	2.1
42	BN	98	LEU	2.1
4	CE	30	PHE	2.1
2	AC	155	ARG	2.1
7	AH	57	GLU	2.1
19	CT	14	GLU	2.1
15	AP	22	ALA	2.1
29	BE	59	PRO	2.1
45	BS	21	ALA	2.1
48	DG	40	VAL	2.1
50	DT	85	VAL	2.1
20	CB	156	LEU	2.1
40	DH	15	LEU	2.1
41	BJ	140	LEU	2.1
44	BQ	17	LEU	2.1
18	AS	55	GLN	2.0
23	BB	2104	C	2.1
29	BE	98	LYS	2.0
24	BI	111	THR	2.0
24	DI	69	VAL	2.0
40	DH	146	VAL	2.0
43	BO	50	ALA	2.0
47	DF	20	ASN	2.0
27	BK	39	ILE	2.0
50	BT	14	PRO	2.0
1	CA	1493	A	2.0
18	CS	20	LYS	2.0
20	CB	104	LYS	2.0
26	BD	114	LYS	2.0
6	AG	3	ARG	2.0
25	BC	250	GLN	2.0

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Mol	Chain	Res	Type	RSRZ
34	B3	50	SER	2.0
45	BS	95	ARG	2.0
24	BI	107	GLU	2.0
3	CD	36	ALA	2.0
37	DL	110	VAL	2.0
46	BU	27	VAL	2.0
50	BT	58	VAL	2.0
13	CN	15	LEU	2.0
16	CQ	66	LEU	2.0
19	AT	65	LEU	2.0
28	BP	3	ILE	2.0
4	AE	158	LYS	2.0
21	AU	24	LYS	2.0
22	DA	87	U	2.0
20	CB	153	MET	2.0
6	CG	64	ALA	2.0
37	DL	89	VAL	2.0
26	DD	52	THR	2.0
27	BK	9	ASN	2.0
40	DH	68	ARG	2.0
46	DU	5	ARG	2.0
50	BT	69	ARG	2.0
52	DW	33	GLY	2.0
6	CG	25	PHE	2.0
44	DQ	100	PHE	2.0
1	AA	1078	U	2.0
23	DB	646	U	2.0
20	AB	55	GLU	2.0
20	CB	93	HIS	2.0
27	BK	85	VAL	2.0
30	DY	50	VAL	2.0
40	BH	101	ASP	2.0
47	BF	117	SER	2.0
10	CK	128	VAL	2.0
28	BP	99	LEU	2.0
53	D6	3	LEU	2.0
8	AI	102	PHE	2.0
16	CQ	36	PHE	2.0
20	AB	200	PRO	2.0
28	BP	75	THR	2.0
47	DF	62	GLN	2.0
11	AL	86	VAL	2.0

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Mol	Chain	Res	Type	RSRZ
2	AC	156	LEU	2.0
11	CL	37	TYR	2.0
34	B3	23	HIS	2.0
45	BS	7	HIS	2.0
47	DF	68	LYS	2.0
7	AH	6	ILE	2.0
29	DE	190	ALA	2.0
40	DH	75	LEU	2.0
32	D4	38	GLY	2.0
48	DG	20	GLY	2.0
13	AN	76	PHE	2.0
23	DB	1913	A	2.0
28	BP	26	GLU	2.0
16	AQ	38	LYS	2.0
19	AT	18	LYS	2.0
38	BM	42	THR	2.0
40	BH	104	THR	2.0
48	BG	33	THR	2.0
53	B6	107	THR	2.0
46	BU	45	GLN	2.0
4	CE	10	LEU	2.0
6	AG	42	VAL	2.0
7	AH	39	LEU	2.0
19	AT	23	ARG	2.0
48	BG	40	VAL	2.0

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

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

6.3 Carbohydrates ⓘ

There are no carbohydrates in this entry.

6.4 Ligands ⓘ

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(\AA^2)	Q<0.9
54	MG	BB	3093	1/1	0.21	0.64	38,38,38,38	1
54	MG	DB	3059	1/1	0.39	0.15	65,65,65,65	1
54	MG	AA	2025	1/1	0.42	0.70	54,54,54,54	1
54	MG	DB	3060	1/1	0.48	0.10	89,89,89,89	0
54	MG	AA	2059	1/1	0.51	2.00	127,127,127,127	0
54	MG	BB	3100	1/1	0.51	0.58	75,75,75,75	1
54	MG	AA	2039	1/1	0.52	0.37	108,108,108,108	0
54	MG	DB	3052	1/1	0.55	0.35	114,114,114,114	0
54	MG	BB	3010	1/1	0.61	0.15	70,70,70,70	0
54	MG	BB	3081	1/1	0.62	0.23	35,35,35,35	0
54	MG	BB	3042	1/1	0.63	0.10	123,123,123,123	0
54	MG	DB	3066	1/1	0.65	0.28	63,63,63,63	1
54	MG	BB	3097	1/1	0.65	0.13	101,101,101,101	0
54	MG	BB	3037	1/1	0.68	0.10	23,23,23,23	0
54	MG	AA	2037	1/1	0.69	1.61	139,139,139,139	0
54	MG	AA	2014	1/1	0.69	0.13	101,101,101,101	0
54	MG	DB	3030	1/1	0.69	0.35	47,47,47,47	0
55	ZN	B4	101	1/1	0.70	0.09	55,55,55,55	0
54	MG	BB	3046	1/1	0.70	0.17	69,69,69,69	0
54	MG	AA	2023	1/1	0.71	0.30	32,32,32,32	1
54	MG	AA	2043	1/1	0.71	0.11	42,42,42,42	0
54	MG	DB	3058	1/1	0.71	2.01	145,145,145,145	0
54	MG	BB	3008	1/1	0.72	0.24	93,93,93,93	0
54	MG	CA	1634	1/1	0.72	0.11	32,32,32,32	0
54	MG	BB	3049	1/1	0.73	0.14	26,26,26,26	0
54	MG	AA	2026	1/1	0.75	0.16	5,5,5,5	1
54	MG	DB	3015	1/1	0.75	0.11	60,60,60,60	0
54	MG	CA	1623	1/1	0.75	0.18	101,101,101,101	0
54	MG	DB	3022	1/1	0.76	0.17	32,32,32,32	0
54	MG	BB	3090	1/1	0.76	0.18	78,78,78,78	0
54	MG	CA	1615	1/1	0.77	0.14	121,121,121,121	0
54	MG	CA	1641	1/1	0.77	0.21	61,61,61,61	0
54	MG	CA	1654	1/1	0.78	0.15	52,52,52,52	0
54	MG	CA	1633	1/1	0.78	0.12	42,42,42,42	0
54	MG	DB	3064	1/1	0.78	0.15	37,37,37,37	0
54	MG	AA	2042	1/1	0.78	0.12	32,32,32,32	0
54	MG	AA	2022	1/1	0.79	0.29	77,77,77,77	0
54	MG	AA	2053	1/1	0.79	0.17	46,46,46,46	0
54	MG	CA	1622	1/1	0.80	0.08	46,46,46,46	0
54	MG	CA	1619	1/1	0.80	0.10	51,51,51,51	0
54	MG	BB	3073	1/1	0.80	0.17	70,70,70,70	0
54	MG	DB	3085	1/1	0.81	0.12	5,5,5,5	0
54	MG	CA	1608	1/1	0.82	0.11	106,106,106,106	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	BB	3079	1/1	0.82	0.12	63,63,63,63	0
54	MG	BB	3094	1/1	0.83	0.09	21,21,21,21	0
54	MG	DB	3034	1/1	0.83	0.19	82,82,82,82	0
54	MG	CA	1635	1/1	0.83	0.07	55,55,55,55	0
54	MG	AA	2002	1/1	0.83	0.14	85,85,85,85	0
54	MG	DB	3074	1/1	0.83	0.08	30,30,30,30	0
54	MG	AA	2008	1/1	0.84	0.16	94,94,94,94	0
54	MG	DB	3013	1/1	0.84	0.22	47,47,47,47	0
54	MG	BB	3047	1/1	0.84	0.11	70,70,70,70	0
54	MG	AA	2050	1/1	0.84	0.12	101,101,101,101	0
54	MG	AA	2012	1/1	0.84	0.06	63,63,63,63	0
54	MG	DB	3110	1/1	0.84	0.26	40,40,40,40	0
54	MG	CA	1648	1/1	0.84	0.15	47,47,47,47	0
54	MG	AA	2030	1/1	0.84	0.09	102,102,102,102	0
54	MG	DB	3100	1/1	0.84	0.11	17,17,17,17	0
54	MG	BB	3031	1/1	0.84	0.11	46,46,46,46	0
54	MG	BB	3051	1/1	0.84	0.11	35,35,35,35	0
54	MG	AA	2018	1/1	0.84	0.07	78,78,78,78	0
54	MG	BB	3017	1/1	0.84	0.15	59,59,59,59	0
54	MG	DB	3063	1/1	0.85	0.15	28,28,28,28	0
54	MG	AA	2019	1/1	0.85	0.13	120,120,120,120	0
54	MG	BB	3014	1/1	0.85	0.14	58,58,58,58	0
54	MG	AA	2032	1/1	0.85	0.43	64,64,64,64	0
54	MG	AA	2045	1/1	0.85	0.07	63,63,63,63	0
54	MG	AA	2049	1/1	0.85	0.08	90,90,90,90	0
54	MG	BB	3102	1/1	0.86	0.09	38,38,38,38	0
54	MG	CA	1627	1/1	0.86	0.37	5,5,5,5	1
54	MG	BB	3053	1/1	0.86	0.07	61,61,61,61	0
54	MG	BB	3028	1/1	0.86	0.17	46,46,46,46	0
54	MG	CA	1652	1/1	0.86	0.09	54,54,54,54	0
54	MG	AA	2047	1/1	0.86	0.48	126,126,126,126	0
54	MG	DB	3025	1/1	0.87	0.13	28,28,28,28	0
54	MG	BB	3099	1/1	0.87	0.12	51,51,51,51	0
54	MG	BB	3054	1/1	0.87	0.10	57,57,57,57	0
54	MG	DB	3048	1/1	0.87	0.11	41,41,41,41	0
54	MG	DB	3083	1/1	0.87	0.14	72,72,72,72	0
54	MG	BB	3087	1/1	0.87	0.25	100,100,100,100	0
54	MG	DB	3068	1/1	0.87	0.16	8,8,8,8	0
54	MG	BB	3044	1/1	0.87	0.14	70,70,70,70	0
54	MG	BB	3061	1/1	0.87	0.07	38,38,38,38	0
54	MG	CA	1660	1/1	0.88	0.08	96,96,96,96	0
54	MG	BB	3104	1/1	0.88	0.14	20,20,20,20	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	BB	3077	1/1	0.88	0.07	36,36,36,36	0
54	MG	DB	3045	1/1	0.88	0.08	61,61,61,61	0
54	MG	DB	3097	1/1	0.88	0.13	32,32,32,32	0
54	MG	CA	1611	1/1	0.88	0.11	81,81,81,81	0
54	MG	AA	2035	1/1	0.88	0.10	102,102,102,102	0
54	MG	BB	3052	1/1	0.89	0.09	25,25,25,25	0
54	MG	CA	1616	1/1	0.89	0.09	42,42,42,42	0
54	MG	DB	3029	1/1	0.89	0.15	67,67,67,67	0
54	MG	BB	3038	1/1	0.89	0.10	98,98,98,98	0
54	MG	DB	3057	1/1	0.89	0.09	40,40,40,40	0
54	MG	DB	3003	1/1	0.89	0.16	29,29,29,29	0
54	MG	AA	2044	1/1	0.89	0.09	47,47,47,47	0
54	MG	AA	2046	1/1	0.89	0.09	46,46,46,46	0
54	MG	CA	1638	1/1	0.89	0.12	90,90,90,90	0
54	MG	BB	3009	1/1	0.89	0.14	87,87,87,87	0
54	MG	BB	3016	1/1	0.89	0.18	34,34,34,34	0
54	MG	CA	1644	1/1	0.89	0.11	52,52,52,52	0
54	MG	BB	3033	1/1	0.89	0.19	94,94,94,94	0
54	MG	DB	3033	1/1	0.89	0.12	20,20,20,20	0
54	MG	CA	1643	1/1	0.89	0.08	20,20,20,20	0
54	MG	DB	3032	1/1	0.89	0.12	33,33,33,33	0
54	MG	BB	3032	1/1	0.89	0.12	34,34,34,34	0
54	MG	BB	3110	1/1	0.90	0.14	56,56,56,56	0
54	MG	DB	3055	1/1	0.90	0.12	17,17,17,17	0
54	MG	BB	3068	1/1	0.90	0.12	43,43,43,43	0
54	MG	BB	3056	1/1	0.90	0.07	31,31,31,31	0
54	MG	AA	2006	1/1	0.90	0.06	71,71,71,71	0
54	MG	AA	2057	1/1	0.90	0.62	93,93,93,93	0
54	MG	AA	2028	1/1	0.90	0.10	66,66,66,66	0
54	MG	CA	1637	1/1	0.90	0.10	53,53,53,53	0
54	MG	BB	3070	1/1	0.90	0.10	35,35,35,35	0
54	MG	BB	3007	1/1	0.91	0.11	74,74,74,74	0
54	MG	DB	3090	1/1	0.91	0.07	49,49,49,49	0
54	MG	CE	201	1/1	0.91	0.20	102,102,102,102	0
54	MG	DB	3050	1/1	0.91	0.05	70,70,70,70	0
54	MG	BB	3059	1/1	0.91	0.11	32,32,32,32	0
54	MG	BB	3076	1/1	0.91	0.07	43,43,43,43	0
54	MG	BB	3062	1/1	0.91	0.18	41,41,41,41	0
54	MG	AA	2027	1/1	0.91	0.21	62,62,62,62	0
54	MG	DB	3017	1/1	0.91	0.13	18,18,18,18	0
54	MG	AA	2060	1/1	0.91	0.05	75,75,75,75	0
54	MG	BB	3034	1/1	0.91	0.13	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	DB	3018	1/1	0.91	0.12	23,23,23,23	0
54	MG	CA	1658	1/1	0.91	0.19	33,33,33,33	0
54	MG	DB	3095	1/1	0.91	0.38	19,19,19,19	1
54	MG	BB	3039	1/1	0.91	0.15	43,43,43,43	0
54	MG	CA	1628	1/1	0.91	0.11	38,38,38,38	0
54	MG	CA	1657	1/1	0.91	0.12	62,62,62,62	0
54	MG	BB	3063	1/1	0.91	0.14	52,52,52,52	0
54	MG	AA	2056	1/1	0.91	0.32	46,46,46,46	0
54	MG	BB	3015	1/1	0.92	0.10	40,40,40,40	0
54	MG	BB	3005	1/1	0.92	0.10	24,24,24,24	0
54	MG	DB	3108	1/1	0.92	0.11	11,11,11,11	0
54	MG	CA	1624	1/1	0.92	0.10	22,22,22,22	0
54	MG	CA	1621	1/1	0.92	0.41	110,110,110,110	0
54	MG	BB	3003	1/1	0.92	0.11	47,47,47,47	0
54	MG	CA	1661	1/1	0.92	0.06	49,49,49,49	0
54	MG	AA	2031	1/1	0.92	0.09	51,51,51,51	0
54	MG	DB	3073	1/1	0.92	0.10	29,29,29,29	0
54	MG	DB	3079	1/1	0.92	0.08	34,34,34,34	0
54	MG	BB	3085	1/1	0.92	0.16	56,56,56,56	0
54	MG	AA	2051	1/1	0.92	0.11	80,80,80,80	0
54	MG	DB	3054	1/1	0.92	0.08	25,25,25,25	0
54	MG	CA	1659	1/1	0.92	0.11	64,64,64,64	0
54	MG	CA	1620	1/1	0.92	0.06	58,58,58,58	0
54	MG	AA	2058	1/1	0.92	0.06	88,88,88,88	0
54	MG	BB	3025	1/1	0.92	0.13	49,49,49,49	0
54	MG	DB	3056	1/1	0.92	0.10	11,11,11,11	0
54	MG	CA	1629	1/1	0.92	0.07	20,20,20,20	1
54	MG	CA	1626	1/1	0.93	0.30	42,42,42,42	1
54	MG	DB	3109	1/1	0.93	0.09	35,35,35,35	0
54	MG	CA	1610	1/1	0.93	0.07	56,56,56,56	0
54	MG	BB	3078	1/1	0.93	0.10	47,47,47,47	0
54	MG	DB	3037	1/1	0.93	0.16	45,45,45,45	0
54	MG	AA	2021	1/1	0.93	0.08	52,52,52,52	0
54	MG	AA	2038	1/1	0.93	0.11	63,63,63,63	0
54	MG	DB	3024	1/1	0.93	0.13	30,30,30,30	0
54	MG	DB	3082	1/1	0.93	0.10	21,21,21,21	0
54	MG	BB	3108	1/1	0.93	0.11	37,37,37,37	0
54	MG	CA	1636	1/1	0.93	0.12	63,63,63,63	0
54	MG	DB	3080	1/1	0.93	0.15	29,29,29,29	0
54	MG	BB	3057	1/1	0.93	0.27	37,37,37,37	0
54	MG	DB	3102	1/1	0.93	0.13	15,15,15,15	0
54	MG	AA	2011	1/1	0.93	0.08	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	BB	3089	1/1	0.93	0.08	38,38,38,38	0
54	MG	BB	3084	1/1	0.93	0.14	38,38,38,38	0
54	MG	DB	3062	1/1	0.93	0.08	41,41,41,41	0
54	MG	DB	3099	1/1	0.93	0.18	15,15,15,15	0
54	MG	AA	2020	1/1	0.93	0.09	84,84,84,84	0
54	MG	DB	3077	1/1	0.93	0.17	51,51,51,51	0
54	MG	BB	3024	1/1	0.93	0.10	47,47,47,47	0
54	MG	BB	3030	1/1	0.93	0.07	40,40,40,40	0
54	MG	DB	3006	1/1	0.93	0.15	26,26,26,26	0
54	MG	BB	3029	1/1	0.93	0.11	28,28,28,28	0
54	MG	CA	1656	1/1	0.93	0.10	22,22,22,22	0
54	MG	BB	3101	1/1	0.94	0.10	22,22,22,22	0
54	MG	AA	2015	1/1	0.94	0.13	86,86,86,86	0
54	MG	BB	3095	1/1	0.94	0.07	25,25,25,25	0
54	MG	BB	3027	1/1	0.94	0.14	34,34,34,34	0
54	MG	BB	3045	1/1	0.94	0.05	41,41,41,41	0
54	MG	DB	3011	1/1	0.94	0.17	16,16,16,16	0
54	MG	BB	3072	1/1	0.94	0.10	44,44,44,44	0
54	MG	AA	2034	1/1	0.94	0.11	40,40,40,40	0
54	MG	AA	2052	1/1	0.94	0.07	50,50,50,50	0
54	MG	DB	3012	1/1	0.94	0.18	23,23,23,23	0
54	MG	CA	1606	1/1	0.94	0.09	59,59,59,59	0
54	MG	DB	3051	1/1	0.94	0.17	25,25,25,25	0
54	MG	DB	3088	1/1	0.94	0.12	28,28,28,28	0
54	MG	DB	3091	1/1	0.94	0.12	29,29,29,29	0
54	MG	DB	3016	1/1	0.94	0.09	28,28,28,28	0
54	MG	BB	3018	1/1	0.94	0.14	45,45,45,45	0
54	MG	AA	2013	1/1	0.94	0.10	85,85,85,85	0
54	MG	BB	3002	1/1	0.94	0.11	12,12,12,12	0
54	MG	BB	3006	1/1	0.94	0.08	28,28,28,28	0
54	MG	BB	3069	1/1	0.94	0.08	17,17,17,17	0
54	MG	CA	1601	1/1	0.94	0.11	9,9,9,9	0
54	MG	BB	3040	1/1	0.94	0.19	60,60,60,60	0
54	MG	BB	3092	1/1	0.94	0.05	51,51,51,51	0
54	MG	AA	2016	1/1	0.94	0.10	50,50,50,50	0
54	MG	DB	3039	1/1	0.94	0.07	34,34,34,34	0
54	MG	CA	1605	1/1	0.94	0.13	38,38,38,38	0
54	MG	DB	3092	1/1	0.94	0.11	65,65,65,65	0
54	MG	AA	2024	1/1	0.94	0.08	61,61,61,61	0
54	MG	DB	3106	1/1	0.94	0.10	9,9,9,9	0
54	MG	BB	3106	1/1	0.94	0.10	36,36,36,36	0
54	MG	BB	3096	1/1	0.94	0.07	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	AA	2041	1/1	0.94	0.04	40,40,40,40	0
54	MG	DB	3026	1/1	0.94	0.14	41,41,41,41	0
54	MG	AA	2055	1/1	0.94	0.11	54,54,54,54	0
54	MG	DB	3104	1/1	0.94	0.09	28,28,28,28	0
54	MG	BB	3019	1/1	0.94	0.07	37,37,37,37	0
54	MG	BB	3080	1/1	0.94	0.09	57,57,57,57	0
54	MG	DB	3020	1/1	0.95	0.20	14,14,14,14	0
54	MG	BB	3013	1/1	0.95	0.08	36,36,36,36	0
54	MG	CA	1647	1/1	0.95	0.09	102,102,102,102	0
54	MG	DB	3096	1/1	0.95	0.16	30,30,30,30	0
54	MG	AA	2017	1/1	0.95	0.29	75,75,75,75	0
54	MG	BB	3035	1/1	0.95	0.10	41,41,41,41	0
54	MG	DB	3094	1/1	0.95	0.09	39,39,39,39	0
54	MG	AA	2029	1/1	0.95	0.08	40,40,40,40	0
54	MG	CA	1603	1/1	0.95	0.10	29,29,29,29	0
54	MG	DB	3061	1/1	0.95	0.05	51,51,51,51	0
54	MG	CA	1614	1/1	0.95	0.12	58,58,58,58	0
54	MG	DB	3028	1/1	0.95	0.14	29,29,29,29	0
54	MG	BB	3050	1/1	0.95	0.11	28,28,28,28	0
54	MG	DB	3004	1/1	0.95	0.15	17,17,17,17	0
54	MG	BB	3048	1/1	0.95	0.08	30,30,30,30	0
54	MG	BB	3055	1/1	0.95	0.18	41,41,41,41	0
54	MG	AA	2005	1/1	0.95	0.07	36,36,36,36	0
54	MG	CA	1640	1/1	0.95	0.11	43,43,43,43	0
54	MG	AA	2010	1/1	0.95	0.07	36,36,36,36	0
54	MG	BB	3026	1/1	0.95	0.09	28,28,28,28	0
54	MG	DB	3070	1/1	0.95	0.12	26,26,26,26	0
54	MG	DB	3049	1/1	0.95	0.11	26,26,26,26	0
54	MG	CA	1617	1/1	0.95	0.12	21,21,21,21	0
54	MG	BB	3065	1/1	0.95	0.06	40,40,40,40	0
54	MG	CA	1609	1/1	0.95	0.11	56,56,56,56	0
54	MG	BB	3001	1/1	0.95	0.08	35,35,35,35	0
54	MG	DB	3023	1/1	0.95	0.09	33,33,33,33	0
54	MG	BB	3004	1/1	0.95	0.09	52,52,52,52	0
54	MG	BB	3071	1/1	0.96	0.07	25,25,25,25	0
54	MG	CA	1613	1/1	0.96	0.07	39,39,39,39	0
54	MG	DB	3053	1/1	0.96	0.09	28,28,28,28	0
54	MG	CA	1642	1/1	0.96	0.04	63,63,63,63	0
54	MG	BB	3109	1/1	0.96	0.09	42,42,42,42	0
54	MG	BB	3088	1/1	0.96	0.09	75,75,75,75	0
54	MG	CA	1607	1/1	0.96	0.06	37,37,37,37	0
54	MG	DB	3019	1/1	0.96	0.07	21,21,21,21	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	BB	3011	1/1	0.96	0.09	30,30,30,30	0
54	MG	AA	2048	1/1	0.96	0.11	27,27,27,27	0
54	MG	CA	1650	1/1	0.96	0.16	41,41,41,41	0
54	MG	DB	3093	1/1	0.96	0.12	6,6,6,6	0
54	MG	CA	1630	1/1	0.96	0.10	39,39,39,39	0
54	MG	DB	3071	1/1	0.96	0.13	57,57,57,57	0
54	MG	BB	3022	1/1	0.96	0.05	44,44,44,44	0
54	MG	CA	1632	1/1	0.96	0.18	41,41,41,41	0
54	MG	CA	1651	1/1	0.96	0.07	50,50,50,50	0
54	MG	CA	1612	1/1	0.96	0.08	46,46,46,46	0
54	MG	BB	3103	1/1	0.96	0.09	20,20,20,20	0
54	MG	BB	3021	1/1	0.96	0.12	43,43,43,43	0
54	MG	DB	3078	1/1	0.96	0.11	45,45,45,45	0
54	MG	DB	3008	1/1	0.96	0.14	33,33,33,33	0
54	MG	CA	1646	1/1	0.96	0.11	46,46,46,46	0
54	MG	DB	3084	1/1	0.96	0.20	34,34,34,34	0
54	MG	BB	3064	1/1	0.96	0.10	31,31,31,31	0
54	MG	DB	3072	1/1	0.96	0.10	23,23,23,23	0
54	MG	BB	3075	1/1	0.96	0.14	37,37,37,37	0
54	MG	DB	3107	1/1	0.96	0.06	34,34,34,34	0
54	MG	AA	2040	1/1	0.96	0.10	56,56,56,56	0
54	MG	DB	3065	1/1	0.96	0.09	12,12,12,12	0
54	MG	DB	3101	1/1	0.96	0.16	5,5,5,5	0
54	MG	DB	3046	1/1	0.96	0.06	22,22,22,22	0
54	MG	BB	3082	1/1	0.96	0.15	38,38,38,38	0
54	MG	BB	3107	1/1	0.96	0.08	31,31,31,31	0
54	MG	DB	3005	1/1	0.96	0.05	56,56,56,56	0
54	MG	AA	2054	1/1	0.96	0.05	49,49,49,49	0
54	MG	BB	3067	1/1	0.96	0.09	45,45,45,45	0
54	MG	BB	3074	1/1	0.96	0.14	21,21,21,21	0
54	MG	DB	3042	1/1	0.96	0.11	45,45,45,45	0
54	MG	DB	3044	1/1	0.97	0.06	12,12,12,12	0
54	MG	BB	3036	1/1	0.97	0.08	39,39,39,39	0
54	MG	AA	2004	1/1	0.97	0.19	36,36,36,36	0
54	MG	DB	3086	1/1	0.97	0.19	26,26,26,26	0
54	MG	BB	3105	1/1	0.97	0.16	65,65,65,65	0
54	MG	DB	3089	1/1	0.97	0.21	50,50,50,50	0
54	MG	AA	2009	1/1	0.97	0.12	21,21,21,21	0
54	MG	DB	3111	1/1	0.97	0.19	51,51,51,51	0
54	MG	CA	1625	1/1	0.97	0.10	19,19,19,19	0
54	MG	BB	3083	1/1	0.97	0.10	30,30,30,30	0
55	ZN	D4	101	1/1	0.97	0.07	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	BB	3066	1/1	0.97	0.07	21,21,21,21	0
54	MG	DB	3103	1/1	0.97	0.09	26,26,26,26	0
54	MG	AA	2033	1/1	0.97	0.07	40,40,40,40	0
54	MG	BB	3043	1/1	0.97	0.16	53,53,53,53	0
54	MG	BB	3023	1/1	0.97	0.07	23,23,23,23	0
54	MG	DB	3014	1/1	0.97	0.07	21,21,21,21	0
54	MG	DB	3038	1/1	0.97	0.15	26,26,26,26	0
54	MG	CA	1645	1/1	0.97	0.09	45,45,45,45	0
54	MG	DB	3067	1/1	0.97	0.09	18,18,18,18	0
54	MG	BB	3091	1/1	0.97	0.11	31,31,31,31	0
54	MG	DB	3069	1/1	0.97	0.13	21,21,21,21	0
54	MG	CA	1631	1/1	0.97	0.09	38,38,38,38	0
54	MG	BB	3020	1/1	0.97	0.12	20,20,20,20	0
54	MG	DB	3031	1/1	0.97	0.09	17,17,17,17	0
54	MG	BB	3086	1/1	0.97	0.20	45,45,45,45	0
54	MG	BB	3041	1/1	0.97	0.10	22,22,22,22	0
54	MG	BB	3058	1/1	0.97	0.14	33,33,33,33	0
54	MG	AA	2007	1/1	0.97	0.08	42,42,42,42	0
54	MG	CA	1618	1/1	0.97	0.07	18,18,18,18	0
54	MG	DB	3010	1/1	0.97	0.10	19,19,19,19	0
54	MG	CA	1655	1/1	0.97	0.09	28,28,28,28	0
54	MG	CA	1653	1/1	0.97	0.04	55,55,55,55	0
54	MG	DB	3040	1/1	0.98	0.09	9,9,9,9	0
54	MG	DB	3041	1/1	0.98	0.13	36,36,36,36	0
54	MG	BB	3012	1/1	0.98	0.09	32,32,32,32	0
54	MG	DB	3105	1/1	0.98	0.08	32,32,32,32	0
54	MG	CA	1602	1/1	0.98	0.20	34,34,34,34	0
54	MG	DB	3087	1/1	0.98	0.11	54,54,54,54	0
54	MG	CA	1649	1/1	0.98	0.07	80,80,80,80	0
54	MG	BB	3098	1/1	0.98	0.13	30,30,30,30	0
54	MG	AA	2036	1/1	0.98	0.10	65,65,65,65	0
54	MG	AA	2003	1/1	0.98	0.13	31,31,31,31	0
54	MG	DB	3001	1/1	0.98	0.11	9,9,9,9	0
54	MG	DB	3002	1/1	0.98	0.06	11,11,11,11	0
54	MG	DB	3043	1/1	0.98	0.10	8,8,8,8	0
54	MG	DB	3027	1/1	0.98	0.19	27,27,27,27	0
54	MG	DB	3035	1/1	0.98	0.11	57,57,57,57	0
54	MG	DB	3021	1/1	0.98	0.12	21,21,21,21	0
54	MG	AA	2001	1/1	0.98	0.07	29,29,29,29	0
54	MG	DB	3081	1/1	0.99	0.11	17,17,17,17	0
54	MG	DB	3098	1/1	0.99	0.10	29,29,29,29	0
54	MG	DB	3047	1/1	0.99	0.15	13,13,13,13	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	BB	3060	1/1	0.99	0.10	47,47,47,47	0
54	MG	DB	3075	1/1	0.99	0.06	33,33,33,33	0
54	MG	DB	3009	1/1	0.99	0.15	17,17,17,17	0
54	MG	DB	3007	1/1	0.99	0.08	30,30,30,30	0
54	MG	CA	1604	1/1	0.99	0.10	36,36,36,36	0
54	MG	CA	1639	1/1	0.99	0.12	24,24,24,24	0
54	MG	DB	3036	1/1	0.99	0.12	25,25,25,25	0
54	MG	DB	3076	1/1	0.99	0.07	17,17,17,17	0

6.5 Other polymers [i](#)

There are no such residues in this entry.