



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 20, 2026 – 09:12 AM UTC

PDB ID : 4V64 / pdb_00004v64
Title : Crystal structure of the bacterial ribosome from Escherichia coli in complex with hygromycin B.
Authors : Borovinskaya, M.A.; Shoji, S.; Fredrick, K.; Cate, J.H.D.
Deposited on : 2008-06-11
Resolution : 3.50 Å(reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

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

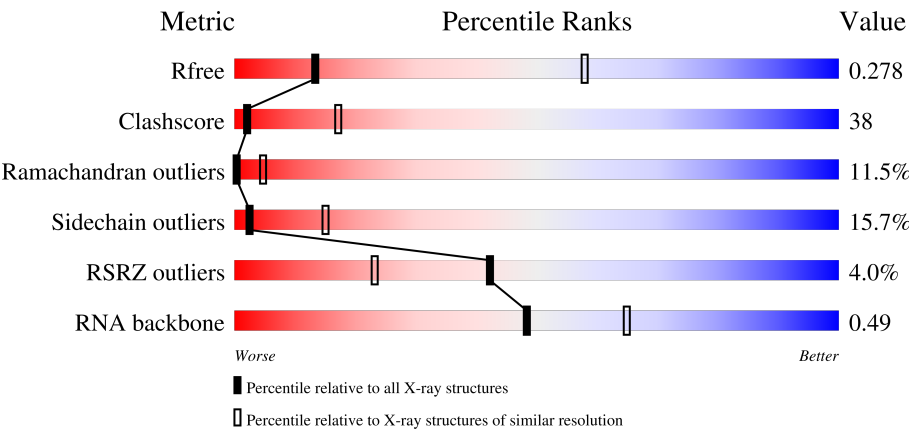
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.50 Å.

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



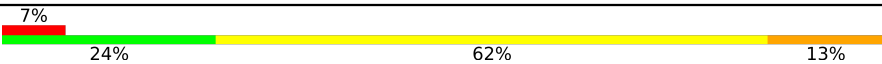
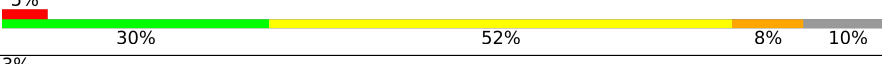
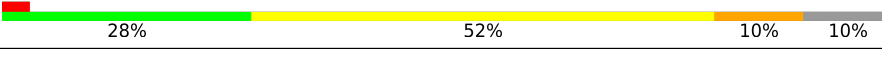
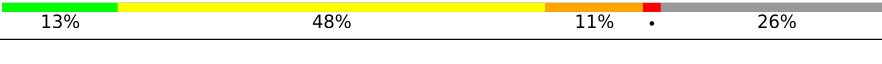
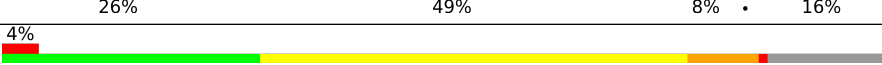
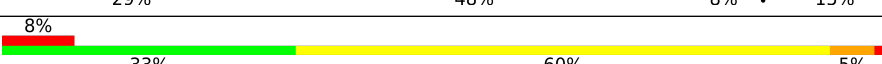
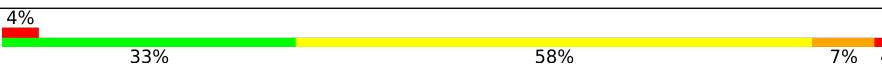
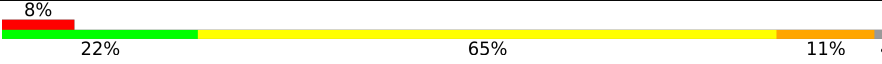
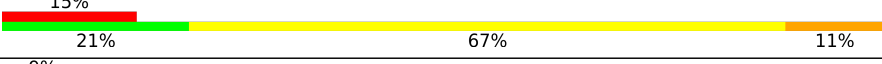
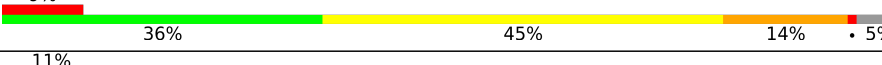
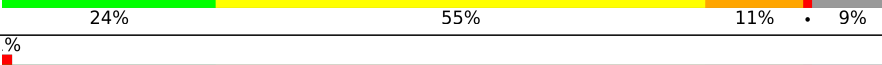
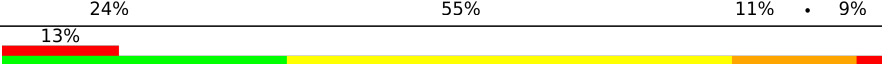
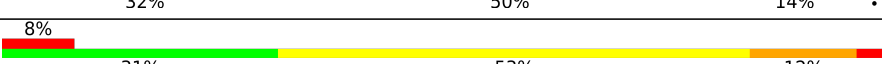
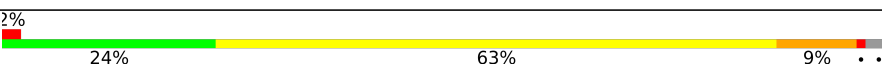
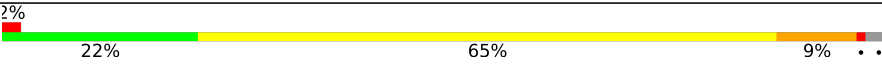
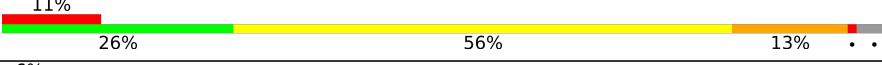
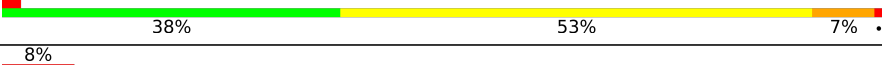
Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R _{free}	180053	1085 (3.54-3.46)
Clashscore	190562	1140 (3.54-3.46)
Ramachandran outliers	187476	1113 (3.54-3.46)
Sidechain outliers	187428	1114 (3.54-3.46)
RSRZ outliers	180081	1084 (3.54-3.46)
RNA backbone	3983	1010 (3.98-3.02)

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

Mol	Chain	Length	Quality of chain
1	AA	1542	2% 22%63%13%..
1	CA	1542	2% 21%65%13%..
2	AC	232	4% 31%42%14%.11%
2	CC	232	30%43%14%.11%

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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	71	
21	CU	71	
22	BA	120	
22	DA	120	
23	BB	2904	
23	DB	2904	
24	BV	94	
24	DV	94	
25	BC	273	
25	DC	273	
26	BD	209	
26	DD	209	
27	BE	201	
27	DE	201	

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Mol	Chain	Length	Quality of chain
28	BF	178	
28	DF	178	
29	BG	176	
29	DG	176	
30	BH	149	
30	DH	149	
31	BJ	142	
31	DJ	142	
32	BK	123	
32	DK	123	
33	BL	144	
33	DL	144	
34	BM	136	
34	DM	136	
35	BN	127	
35	DN	127	
36	BO	117	
36	DO	117	
37	BP	114	
37	DP	114	
38	BQ	117	
38	DQ	117	
39	BR	103	
39	DR	103	
40	BS	110	

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Mol	Chain	Length	Quality of chain
40	DS	110	
41	BT	100	
41	DT	100	
42	BU	103	
42	DU	103	
43	BW	84	
43	DW	84	
44	BX	63	
44	DX	63	
45	BY	58	
45	DY	58	
46	BZ	78	
46	DZ	78	
47	B0	56	
47	D0	56	
48	B1	54	
48	D1	54	
49	B2	46	
49	D2	46	
50	B3	64	
50	D3	64	
51	B4	38	
51	D4	38	
52	BI	141	
52	DI	141	

2 Entry composition

There are 56 unique types of molecules in this entry. The entry contains 284077 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 ribosomal RNA.

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
			715	440	146	128	1			
14	CO	88	Total	C	N	O	S	0	0	0
			715	440	146	128	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
			656	417	122	114	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 ribosomal RNA.

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 ribosomal RNA.

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 L25.

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

- 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 L4.

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

- Molecule 28 is a protein called 50S ribosomal protein L5.

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

- Molecule 29 is a protein called 50S ribosomal protein L6.

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

- Molecule 30 is a protein called 50S ribosomal protein L9.

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

- Molecule 31 is a protein called 50S ribosomal protein L13.

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

- Molecule 32 is a protein called 50S ribosomal protein L14.

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

- Molecule 33 is a protein called 50S ribosomal protein L15.

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

- Molecule 34 is a protein called 50S ribosomal protein L16.

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

- Molecule 35 is a protein called 50S ribosomal protein L17.

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

- Molecule 36 is a protein called 50S ribosomal protein L18.

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

- Molecule 37 is a protein called 50S ribosomal protein L19.

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

- Molecule 38 is a protein called 50S ribosomal protein L20.

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

- Molecule 39 is a protein called 50S ribosomal protein L21.

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

- Molecule 40 is a protein called 50S ribosomal protein L22.

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

- Molecule 41 is a protein called 50S ribosomal protein L23.

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

- Molecule 42 is a protein called 50S ribosomal protein L24.

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

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

- Molecule 43 is a protein called 50S ribosomal protein L27.

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

- Molecule 44 is a protein called 50S ribosomal protein L29.

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

- Molecule 45 is a protein called 50S ribosomal protein L30.

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

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

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

- Molecule 47 is a protein called 50S ribosomal protein L32.

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

- Molecule 48 is a protein called 50S ribosomal protein L33.

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

- Molecule 49 is a protein called 50S ribosomal protein L34.

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

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

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

- Molecule 51 is a protein called 50S ribosomal protein L36.

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

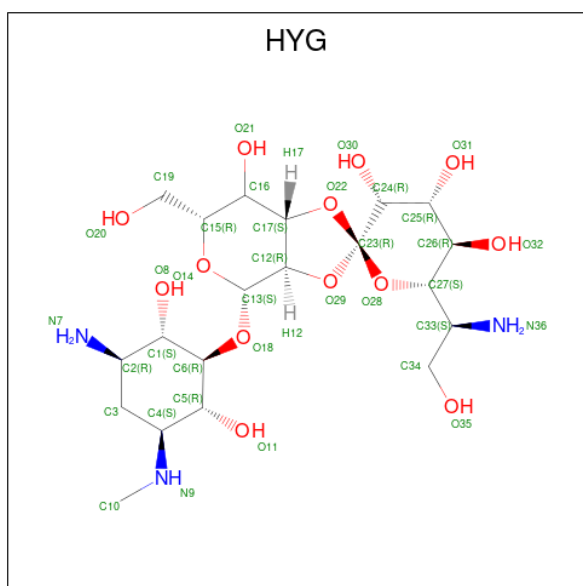
- Molecule 52 is a protein called 50S ribosomal protein L11.

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

- Molecule 53 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
53	AA	58	Total	Mg	0	0
			58	58		
53	AE	1	Total	Mg	0	0
			1	1		
53	AN	1	Total	Mg	0	0
			1	1		
53	BB	110	Total	Mg	0	0
			110	110		
53	CA	61	Total	Mg	0	0
			61	61		
53	CE	1	Total	Mg	0	0
			1	1		
53	DB	111	Total	Mg	0	0
			111	111		

- Molecule 54 is HYGROMYCIN B (CCD ID: HYG) (formula: $C_{20}H_{37}N_3O_{13}$).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
54	AA	1	Total	C	N	O	0	0
			36	20	3	13		
54	CA	1	Total	C	N	O	0	0
			36	20	3	13		

- Molecule 55 is ZINC ION (CCD ID: ZN) (formula: Zn).

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

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

- Molecule 56 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	AA	282	Total 282	O 282	0	0
56	AE	4	Total 4	O 4	0	0
56	AK	2	Total 2	O 2	0	0
56	AL	5	Total 5	O 5	0	0
56	AN	4	Total 4	O 4	0	0
56	AT	3	Total 3	O 3	0	0
56	BB	492	Total 492	O 492	0	0
56	BC	8	Total 8	O 8	0	0
56	BD	1	Total 1	O 1	0	0
56	BE	2	Total 2	O 2	0	0
56	BH	1	Total 1	O 1	0	0
56	BL	2	Total 2	O 2	0	0
56	B2	1	Total 1	O 1	0	0
56	CA	294	Total 294	O 294	0	0
56	CE	4	Total 4	O 4	0	0
56	CI	1	Total 1	O 1	0	0
56	CK	1	Total 1	O 1	0	0
56	CL	3	Total 3	O 3	0	0

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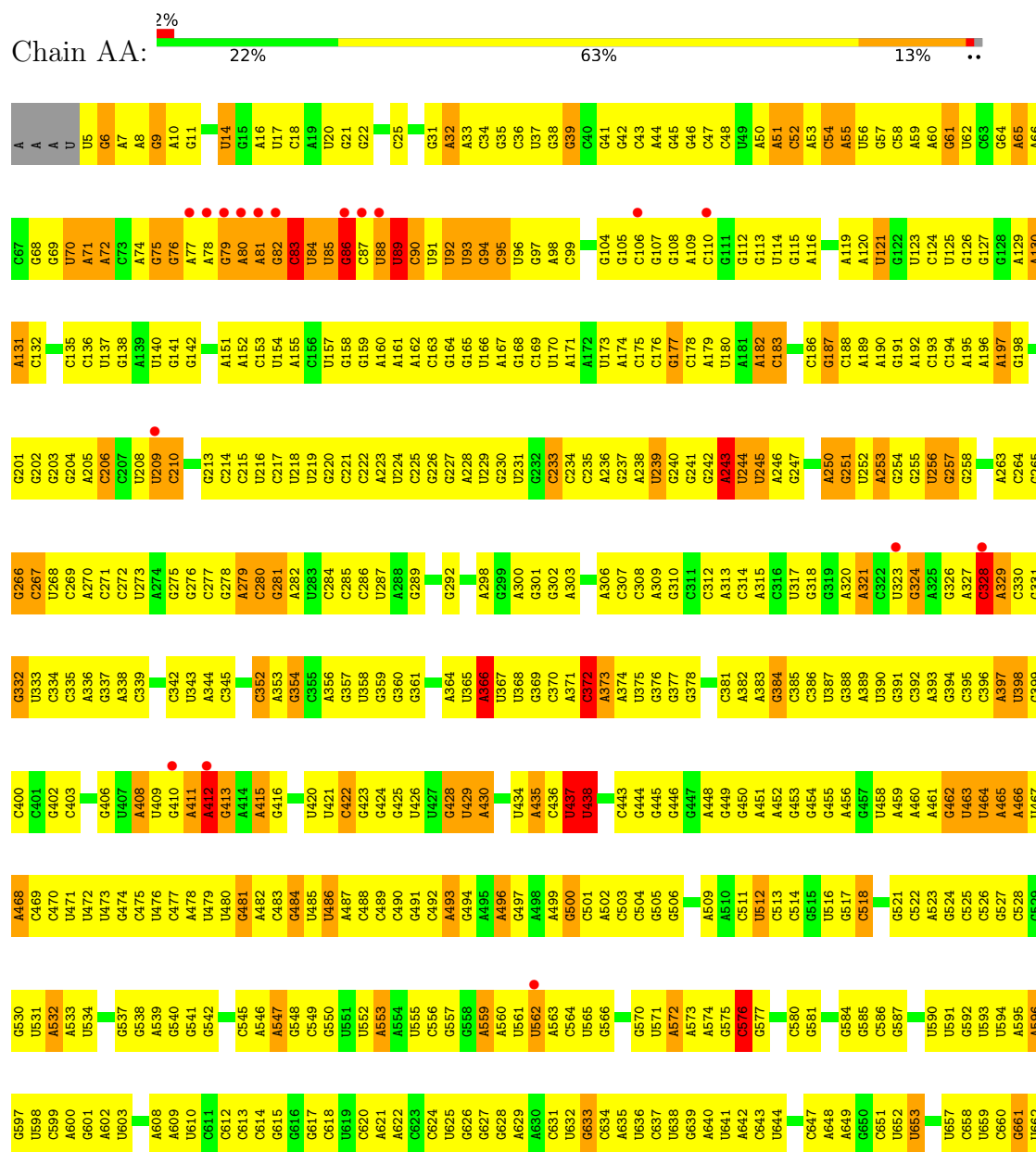
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	CN	3	Total 3	O 3	0	0
56	CT	1	Total 1	O 1	0	0
56	DB	499	Total 499	O 499	0	0
56	DC	5	Total 5	O 5	0	0
56	DD	1	Total 1	O 1	0	0
56	DE	1	Total 1	O 1	0	0
56	DL	5	Total 5	O 5	0	0
56	DP	1	Total 1	O 1	0	0
56	D2	1	Total 1	O 1	0	0

3 Residue-property plots

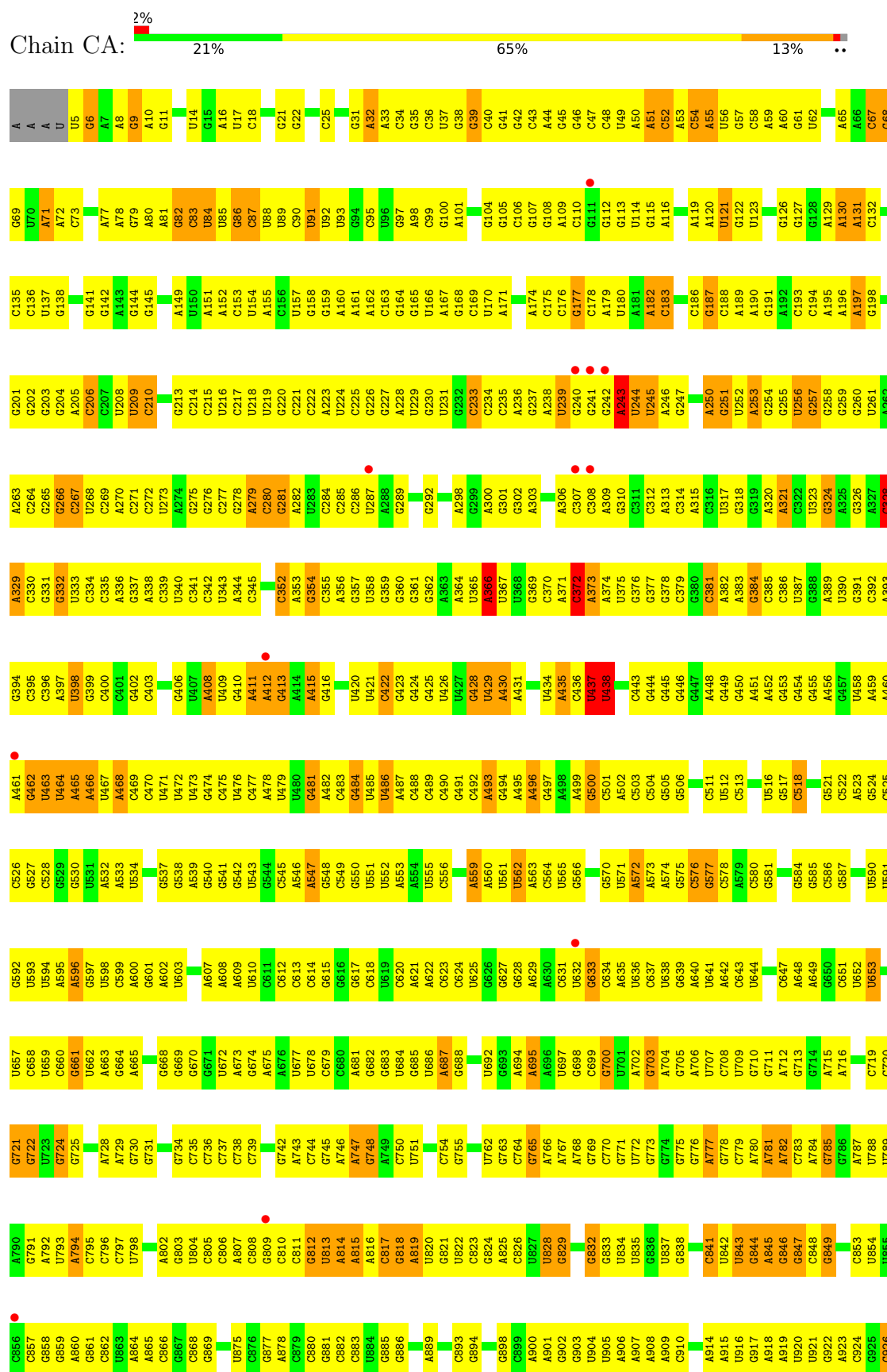
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density.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

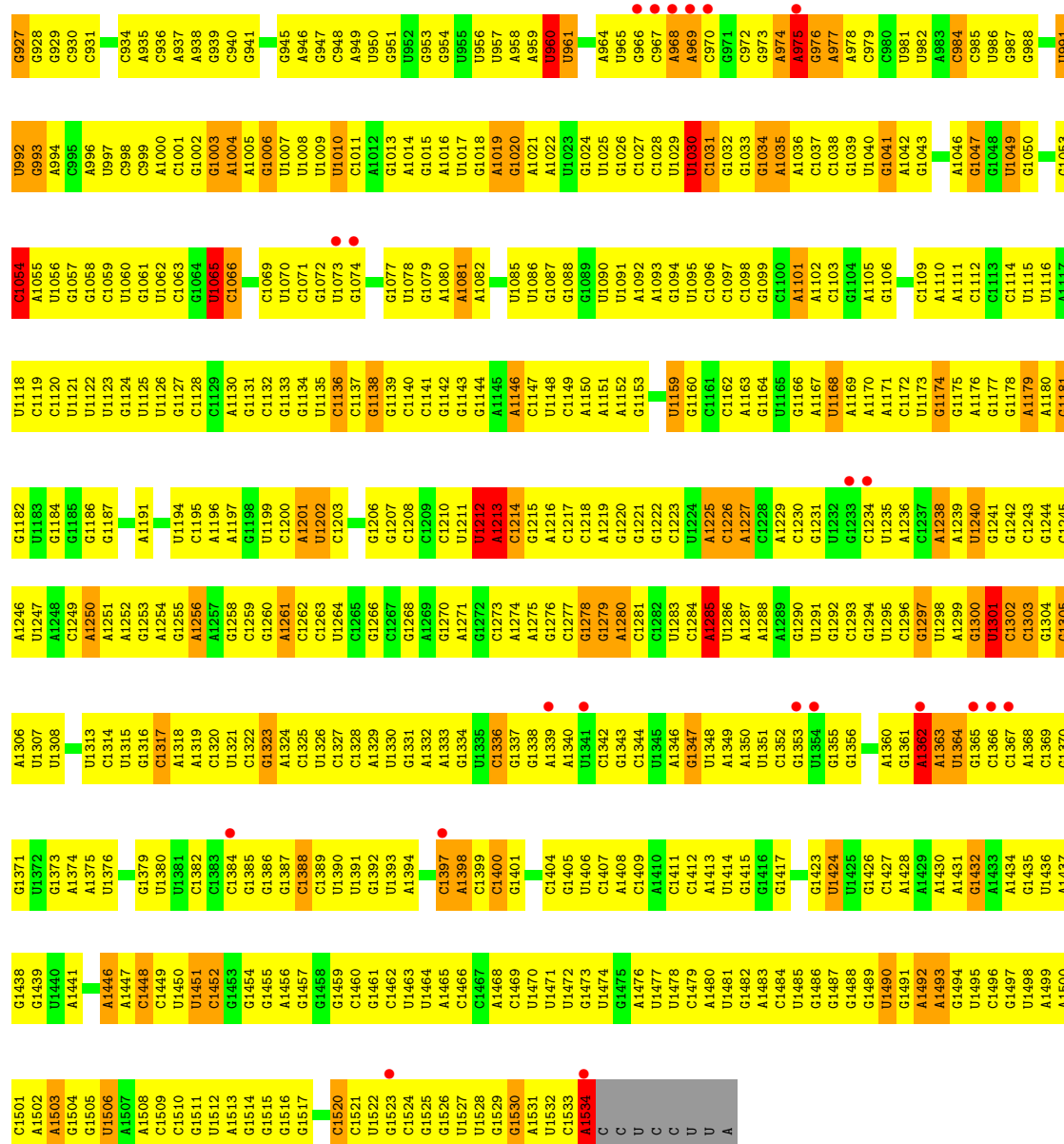
- Molecule 1: 16S ribosomal RNA



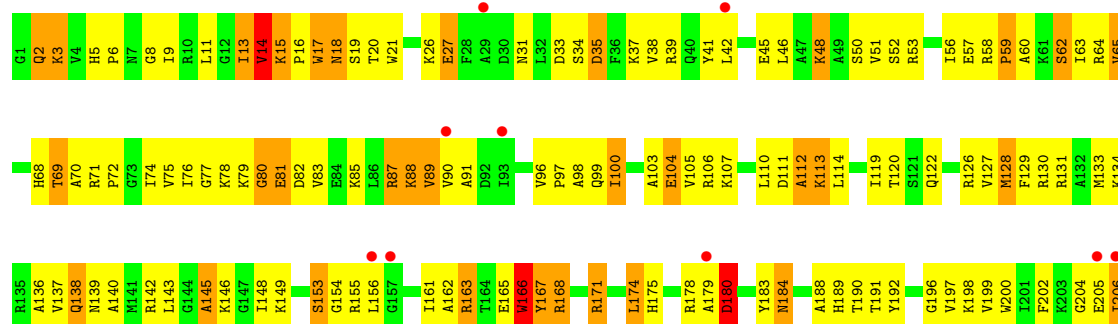
G1515	C1452	C1384	U1321	C1259	A1197	C1129	C1063	G1002	A937	A865	C797	G730	A663
G1516	A1456	G1386	C1322	G1260	G1198	G1130	G1064	G1003	A938	C866	U798	G731	A665
G1517	G1457	G1387	A1324	C1262	U1199	G1131	U1065	A1004	G939	C867	A802	G734	G668
A1518	C1458	C1388	C1325	C1263	C1200	G1132	C1066	A1005	C940	C868	G803	C735	G669
C1520	G1459	C1389	U1326	U1264	U1202	G1134	G1068	U1007	G941	C869	U804	C736	G670
C1521	U1460	U1390	C1327	C1265	C1203	U1135	C1069	U1008	G945	U875	C805	C737	G671
G1522	G1461	C1391	C1328	G1266	G1206	C1136	U1070	U1009	A946	A878	C806	C738	G672
C1523	C1462	G1392	A1329	C1267	G1207	G1137	C1071	U1010	G947	C879	U807	C739	U672
G1524	U1463	U1393	U1330	C1268	C1208	G1138	G1072	C1011	C948	C878	C808	G673	G674
G1525	U1464	A1394	G1331	A1269	G1209	U1073	U1073	A1012	A949	C880	G809	G674	A675
G1526	A1465	A1394	A1332	G1270	C1209	C1140	G1074	G1013	U950	C881	C810	A743	A676
U1527	C1466	C1397	C1333	A1271	C1210	C1141	G1075	A1014	G951	C882	C811	C744	A677
U1528	C1467	A1398	C1334	G1272	U1211	G1142	U1077	G1015	U952	C883	G812	G745	U678
G1529	A1468	C1399	U1335	C1273	U1212	G1143	C1078	A1016	G953	U884	U813	A746	U679
G1530	C1469	C1400	C1336	A1274	A1213	G1144	G1079	U1017	G954	C885	A814	A747	C679
A1531	U1470	G1401	G1337	A1275	C1214	A1145	A1080	G1018	U955	C886	A815	G748	C680
U1532	U1471	A1405	G1338	G1276	G1215	A1146	A1081	A1019	U956	A889	A816	A749	A681
C1533	U1472	G1406	C1339	C1277	A1216	C1147	A1082	G1020	U957	U890	C817	C750	G682
C	G1473	U1406	A1340	G1278	C1217	U1148	G1078	A1021	A958	U891	C818	C751	G683
C	U1474	C1407	C1342	G1279	C1218	C1149	U1085	A1022	A959	C893	G819	G752	U684
G	G1475	A1408	C1342	A1280	A1219	A1150	U1086	U1023	U960	C894	U820	A753	G685
U	A1476	C1409	G1343	C1281	G1220	A1151	U1087	G1024	U961	C895	G821	C754	U686
U	U1477	A1410	C1344	C1282	G1221	A1152	U1088	U1025	U962	C896	U822	G755	A687
C	U1478	C1411	U1345	C1283	G1222	A1153	U1089	U1026	A964	C897	C823	G761	U682
C	U1479	C1412	A1346	C1284	C1223	U1159	A1092	C1027	U965	A900	G824	G762	G693
U	A1480	A1413	G1347	A1285	U1224	U1160	A1093	C1028	A966	A901	A825	U762	A694
U	U1481	U1414	U1348	U1286	G1225	C1162	G1094	U1029	C967	A902	C826	G763	A695
U	A1482	G1415	A1349	A1287	C1226	C1163	U1095	U1030	A968	G903	U827	C764	A696
A1483	G1416	G1416	A1350	A1288	A1227	A1163	C1096	C1031	A969	U904	U828	G765	A696
	G1417	C1417	C1351	A1289	C1228	G1164	C1097	G1032	C970	U905	G829	A766	A697
			C1352	G1290	U1229	U1165	C1098	G1033	A906	A906	G832	A767	G698
			G1353	U1291	C1230	C1166	C1099	G1034	A907	A907	G833	A768	C699
			C1354	C1292	G1231	A1167	C1100	A1035	A908	A909	U834	C770	G700
			G1355	C1293		C1168	A1101	C1036	A974	A909	U835	C771	G701
			C1356	G1294		A1169	A1102	C1037	G976	C910	U836	C772	G702
				U1295	C1234	C1170	C1103	C1038	A977		G836	U772	G703
			A1360	C1296	U1235	A1171	A1104	G1039	A978	A914	U837	G773	A704
			C1361	C1297	A1236	C1171	U1105	U1040	C979	A915	U838	G774	A705
			A1362	G1298	C1237	C1172	C1106	G1041	A980	A916	U839	G775	A706
			C1363	A1299	U1238	U1173	C1107	A1042	U981	U917	U840	G776	A707
			U1364	C1300	C1239	G1174	C1108	G1043	U982	A918	U841	A777	C708
			C1365	U1301	U1240	G1175	C1109	A1044	A983	A919	U842	A778	U709
			G1366	C1302	G1241	A1176	C1110	C1045	A984	U920	U843	G778	G710
			C1367	G1303	C1242	G1177	A1110	A1046	C985	U921	G844	C779	G711
			A1368	G1304	G1243	C1178	C1113	G1047	U986	A922	A845	U921	A712
			C1369	G1305	C1244	A1179	U1114	A1048	A987	A923	G846	A781	G713
			G1370	A1306	C1245	A1180	C1115	U1048	G987	A924	G847	A782	G714
			C1371	C1307	A1246	G1181	U1115	U1049	G988	C924	C783	A783	A715
			U1372	U1308	U1247	C1182	U1118	G1050		G925	C784	A784	A716
			C1373		C1248	U1183	C1119	G1053	U991	G926	U849	A785	A716
			C1374	U1312	A1249	C1184	C1120	C1054	U992	G927	G885	G786	C719
			A1375	C1313	C1250	G1186	C1121	A1055	A994	G928	C856	A787	C720
			U1376	C1314	A1251	C1187	U1122	U1056	C995	G929	C857	U788	G721
				U1315	A1252	G1187	C1123	C930	C930	C930	G858		G722
			G1379	C1316	G1253	C1188	U1124	G1057	A996	C931	G859	G791	U723
			U1380	C1317	A1254	C1189	U1125	C1058	A997	C932	A860	A792	G724
			U1381	A1318	C1255	C1190	U1126	C1059	C998	G933	G861	U793	G725
			C1382	C1319	A1256	U1194	U1127	U1060	C999	C934	C862	A794	G726
			C1383	C1320	A1257	C1195	C1127	G1061	A1000	A935	U863	C795	A728
				U1321	C1258	C1196	C1128	U1062	C936	C936	A864	C796	A729

● Molecule 1: 16S ribosomal RNA





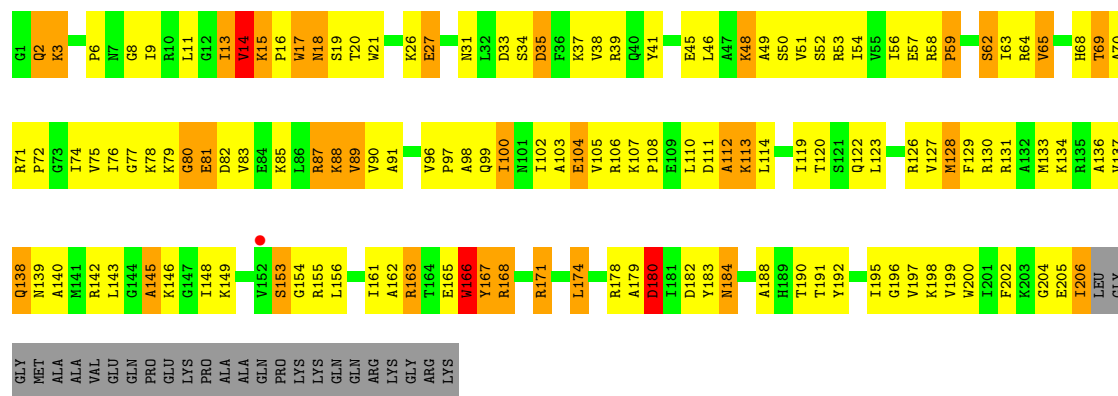
• Molecule 2: 30S ribosomal protein S3



LEU
GLY
GLY
MET
ALA
ALA
VAL
GLU
GLN
PRO
GLY
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LYS
LYS
GLN
GLN
ARG
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GLY
ARG
LYS

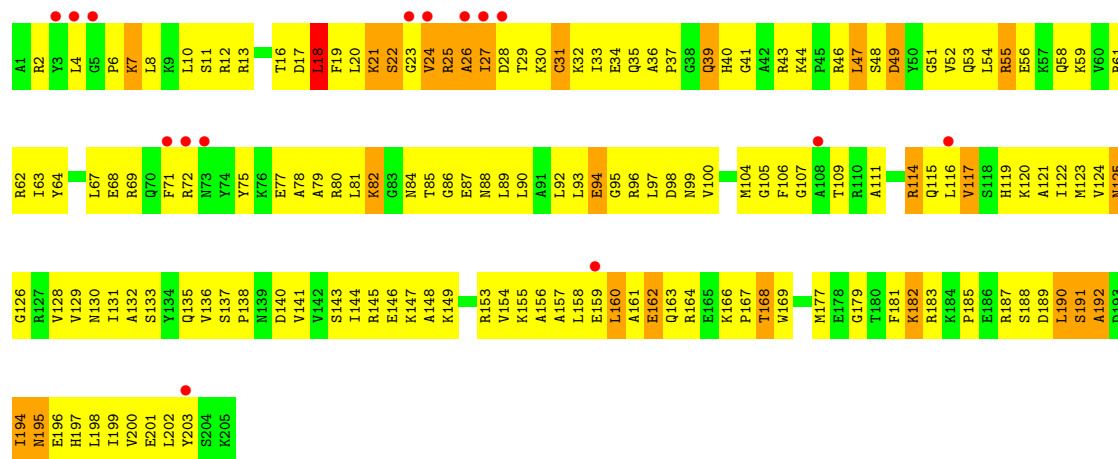
• Molecule 2: 30S ribosomal protein S3

Chain CC: 30% 43% 14% • 11%



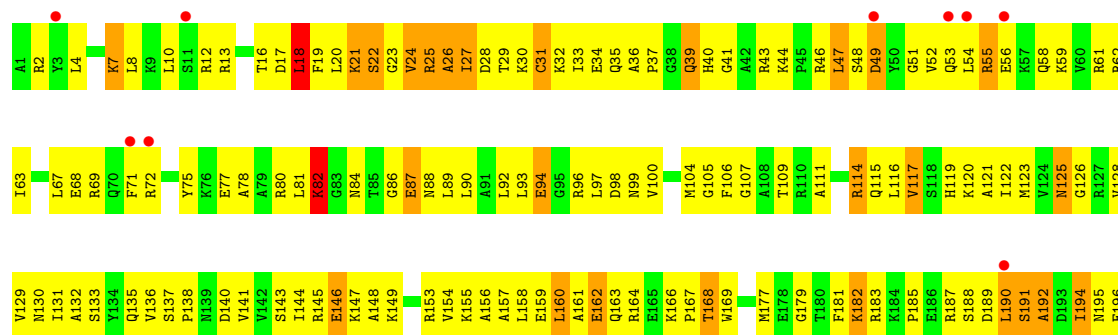
• Molecule 3: 30S ribosomal protein S4

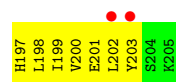
Chain AD: 7% 24% 62% 13%



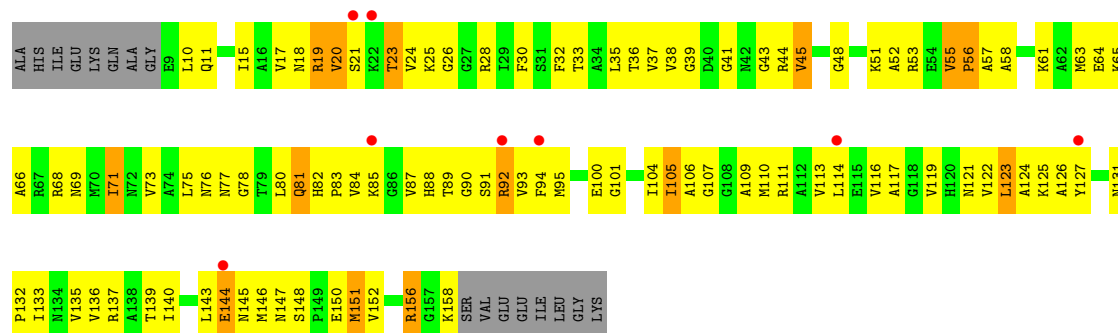
• Molecule 3: 30S ribosomal protein S4

Chain CD: 5% 28% 59% 13%

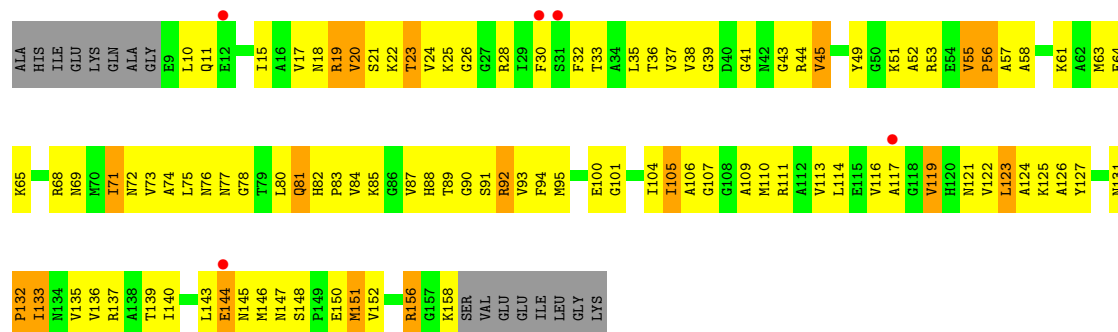




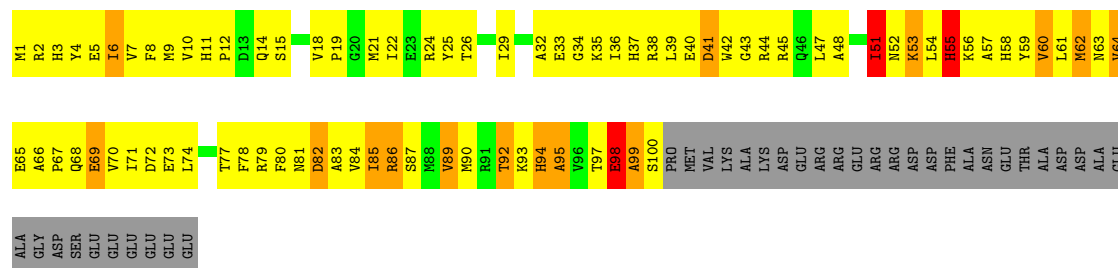
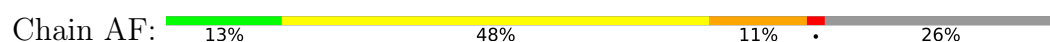
• Molecule 4: 30S ribosomal protein S5



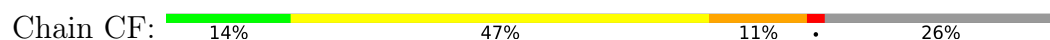
• Molecule 4: 30S ribosomal protein S5

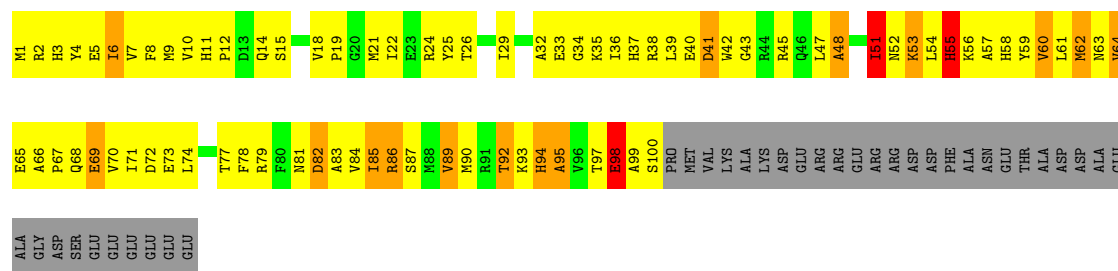


• Molecule 5: 30S ribosomal protein S6

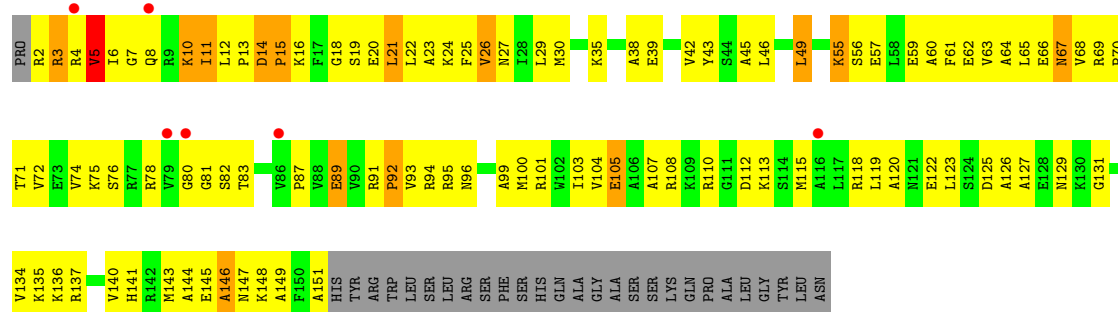


• Molecule 5: 30S ribosomal protein S6

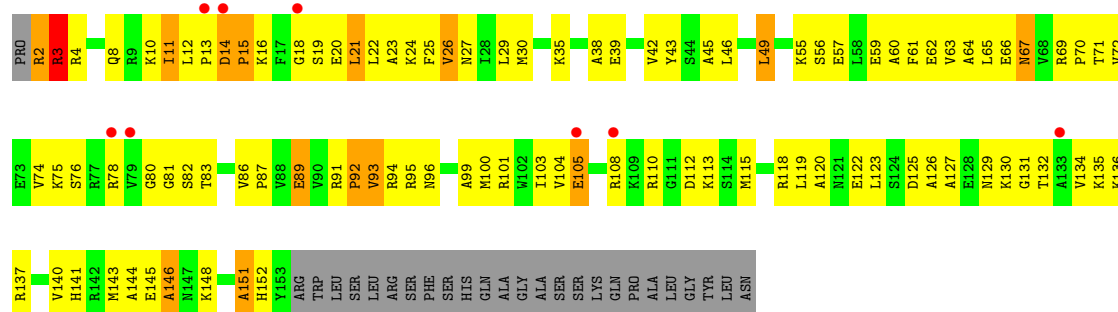




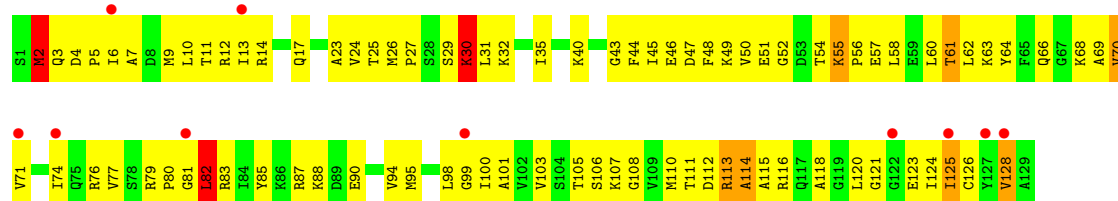
• Molecule 6: 30S ribosomal protein S7



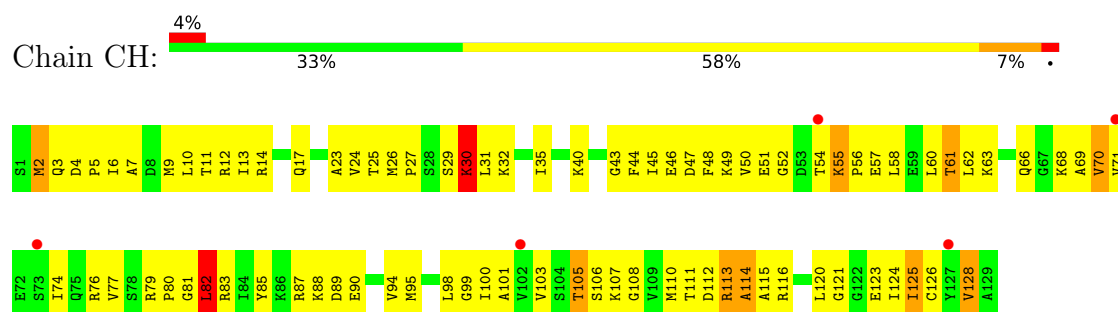
• Molecule 6: 30S ribosomal protein S7



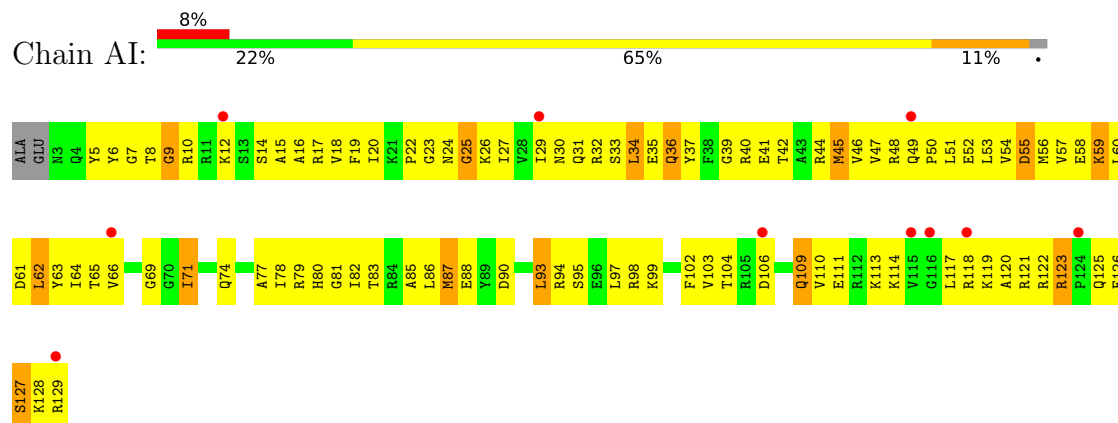
• Molecule 7: 30S ribosomal protein S8



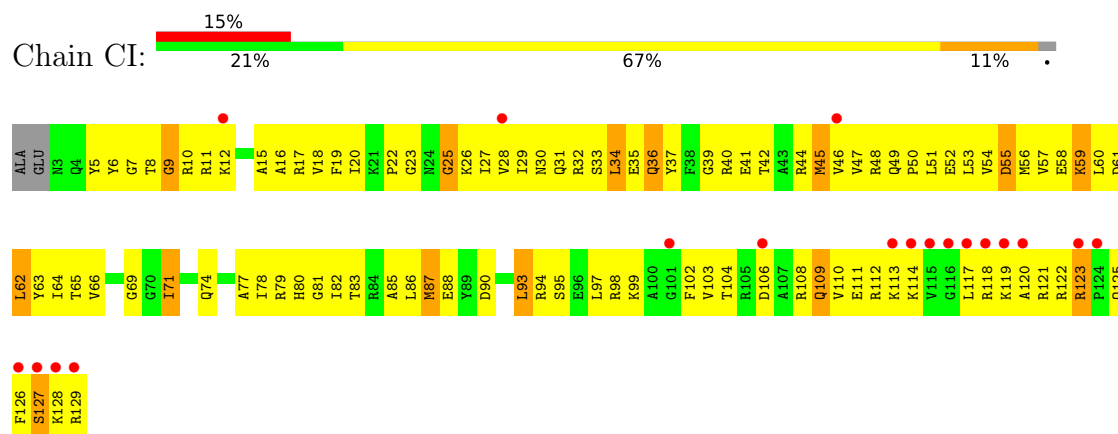
• Molecule 7: 30S ribosomal protein S8



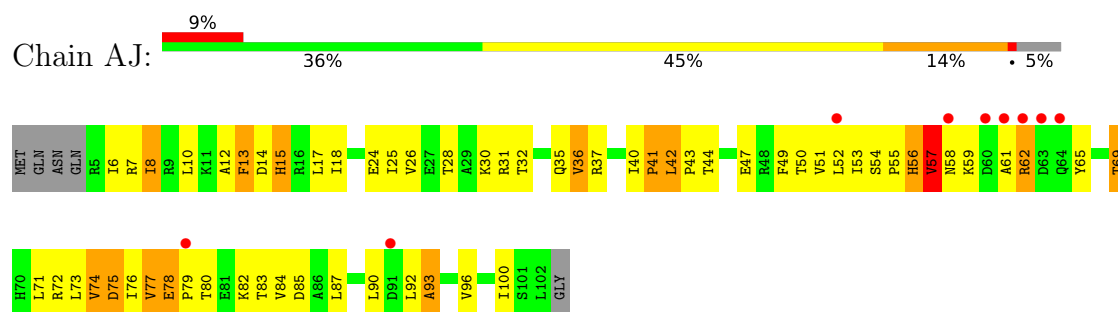
- Molecule 8: 30S ribosomal protein S9



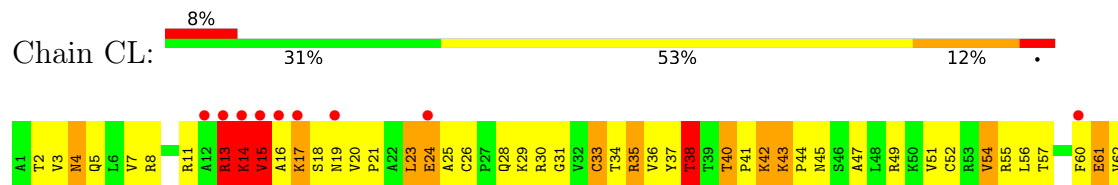
- Molecule 8: 30S ribosomal protein S9

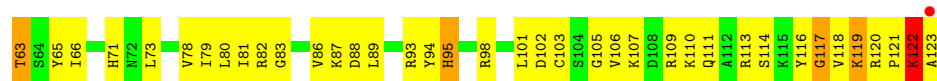


- Molecule 9: 30S ribosomal protein S10



- Molecule 9: 30S ribosomal protein S10





- Molecule 12: 30S ribosomal protein S13



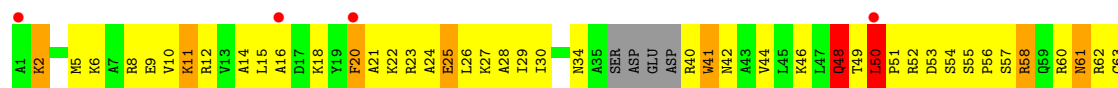
- Molecule 12: 30S ribosomal protein S13



- Molecule 13: 30S ribosomal protein S14

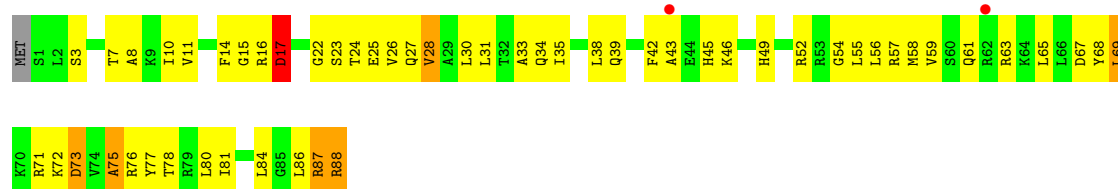


- Molecule 13: 30S ribosomal protein S14

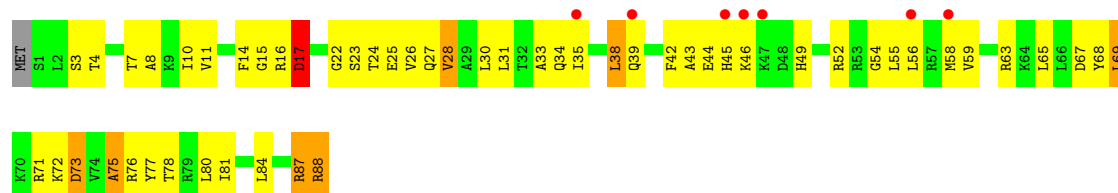
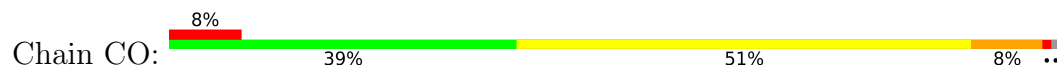


- Molecule 14: 30S ribosomal protein S15

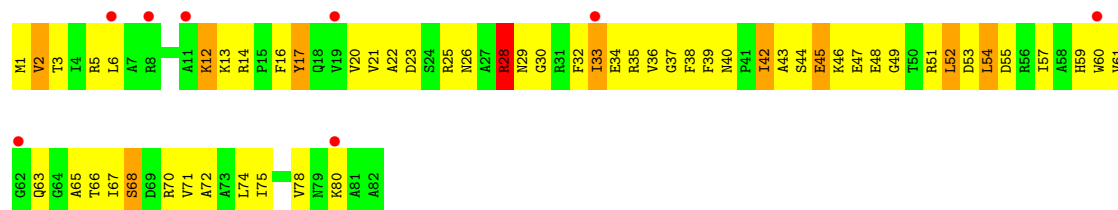




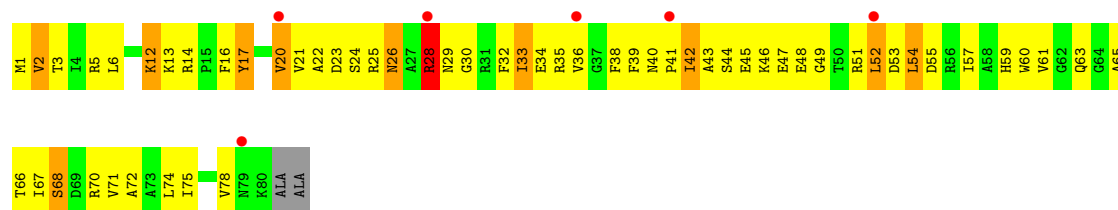
• Molecule 14: 30S ribosomal protein S15



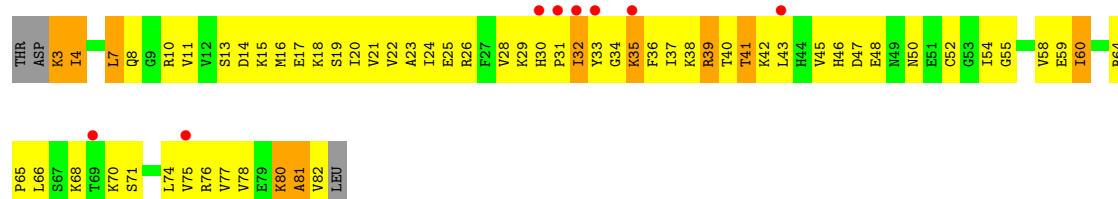
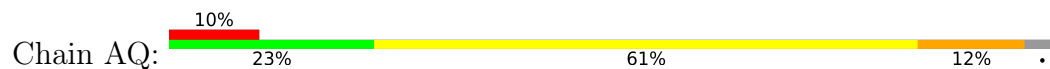
• Molecule 15: 30S ribosomal protein S16



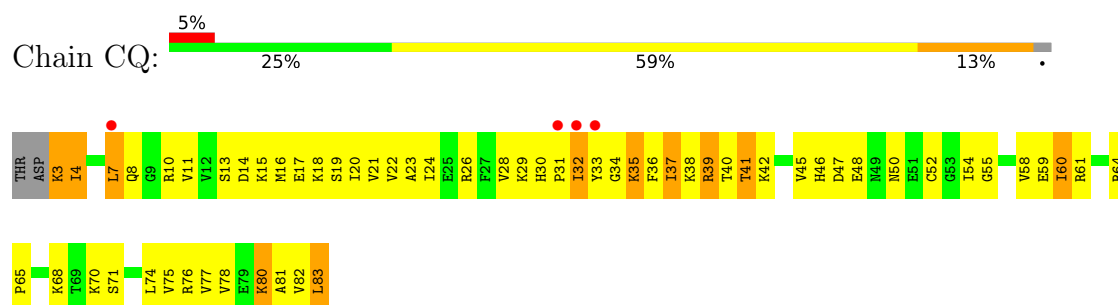
• Molecule 15: 30S ribosomal protein S16



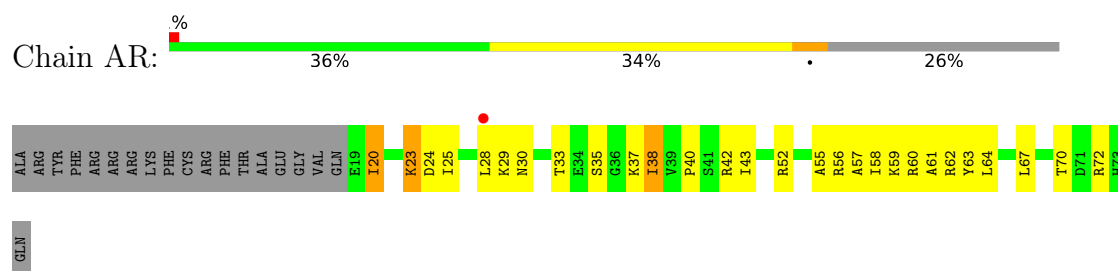
• Molecule 16: 30S ribosomal protein S17



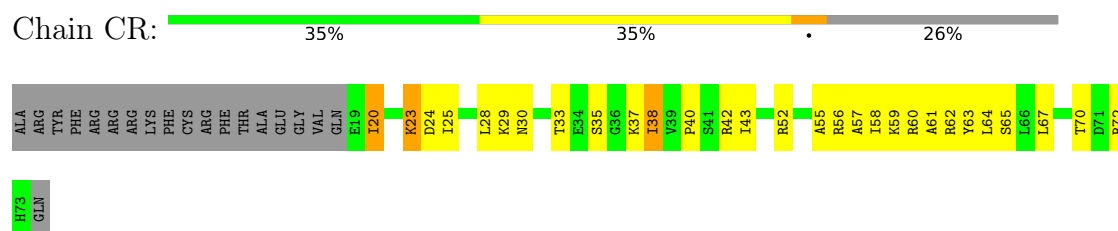
- Molecule 16: 30S ribosomal protein S17



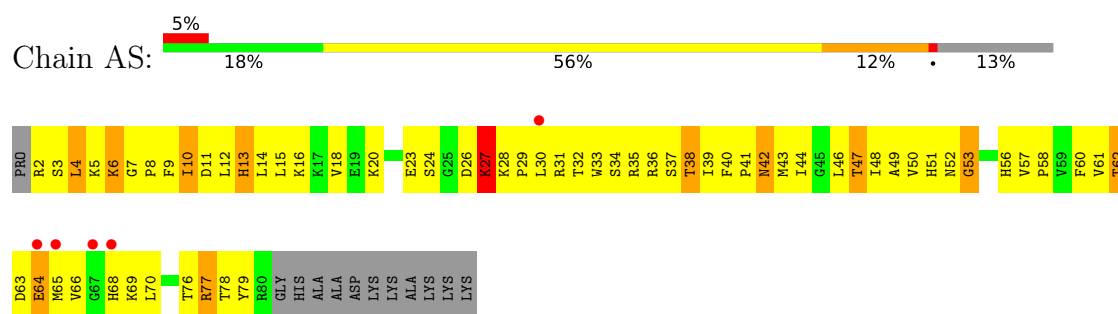
- Molecule 17: 30S ribosomal protein S18



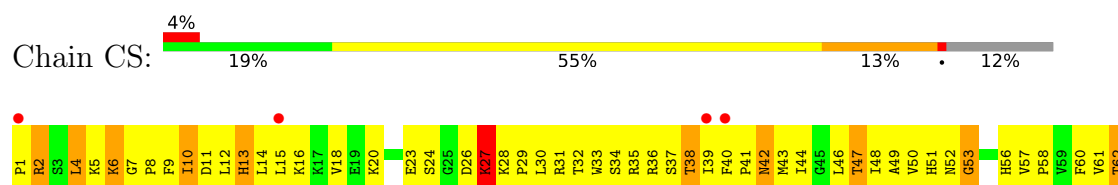
- Molecule 17: 30S ribosomal protein S18

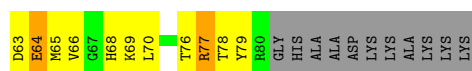


- Molecule 18: 30S ribosomal protein S19

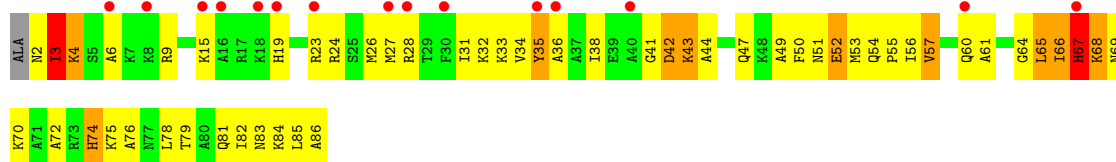


- Molecule 18: 30S ribosomal protein S19

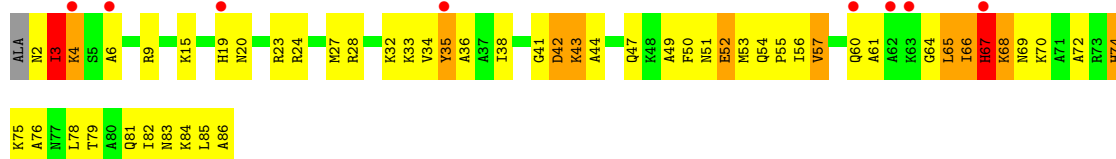




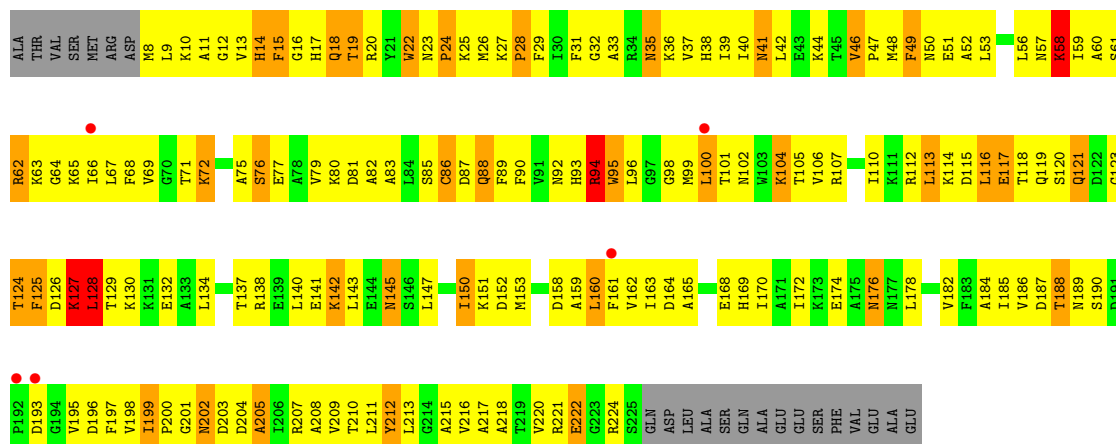
• Molecule 19: 30S ribosomal protein S20



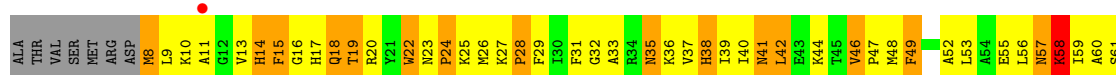
• Molecule 19: 30S ribosomal protein S20



• Molecule 20: 30S ribosomal protein S2

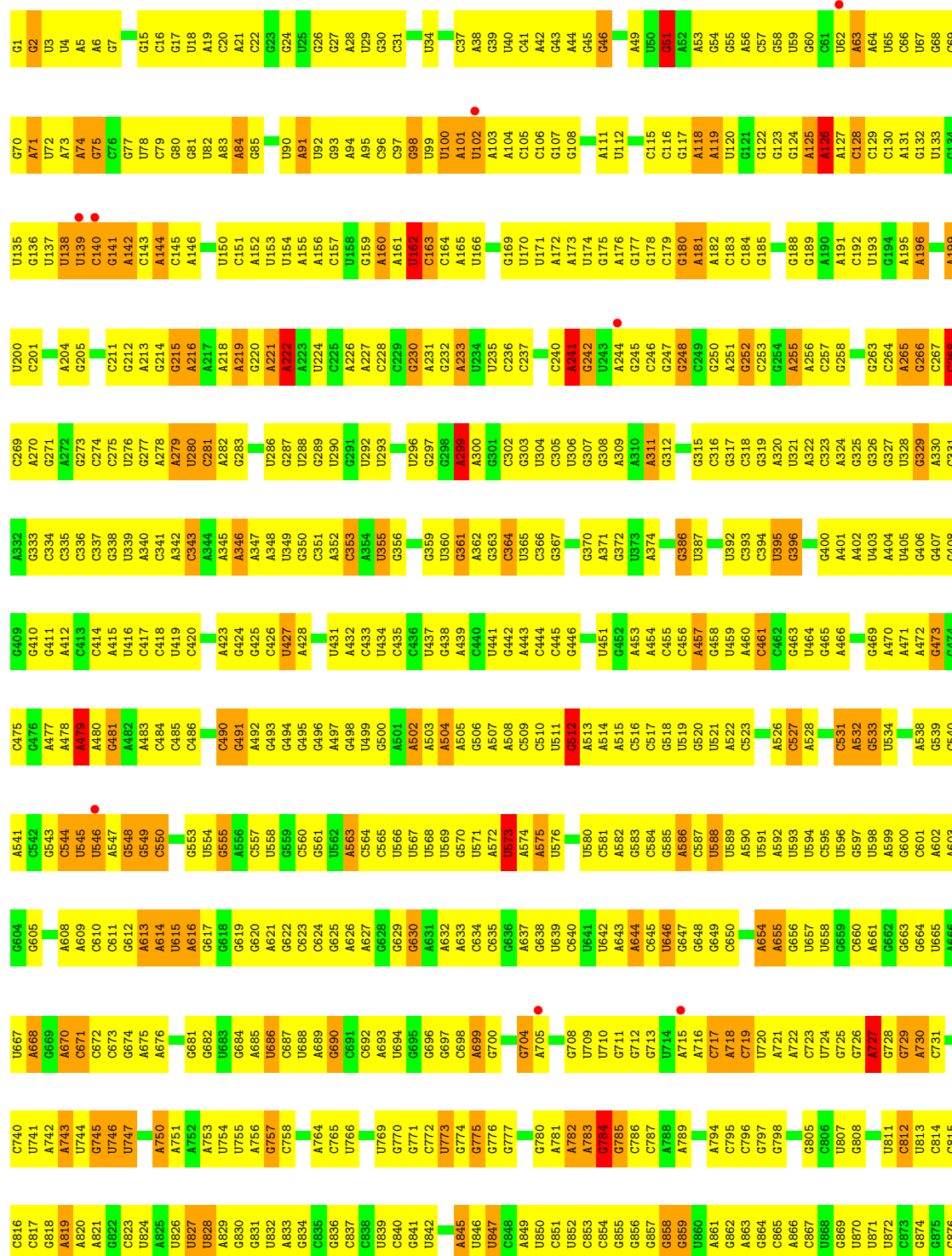


• Molecule 20: 30S ribosomal protein S2



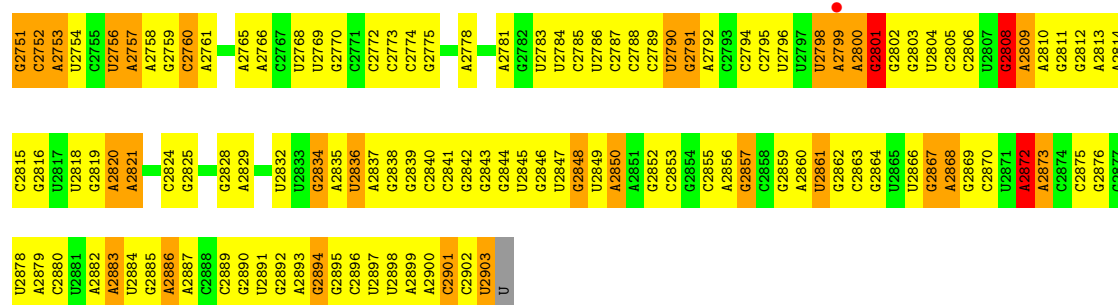


• Molecule 23: 23S ribosomal RNA

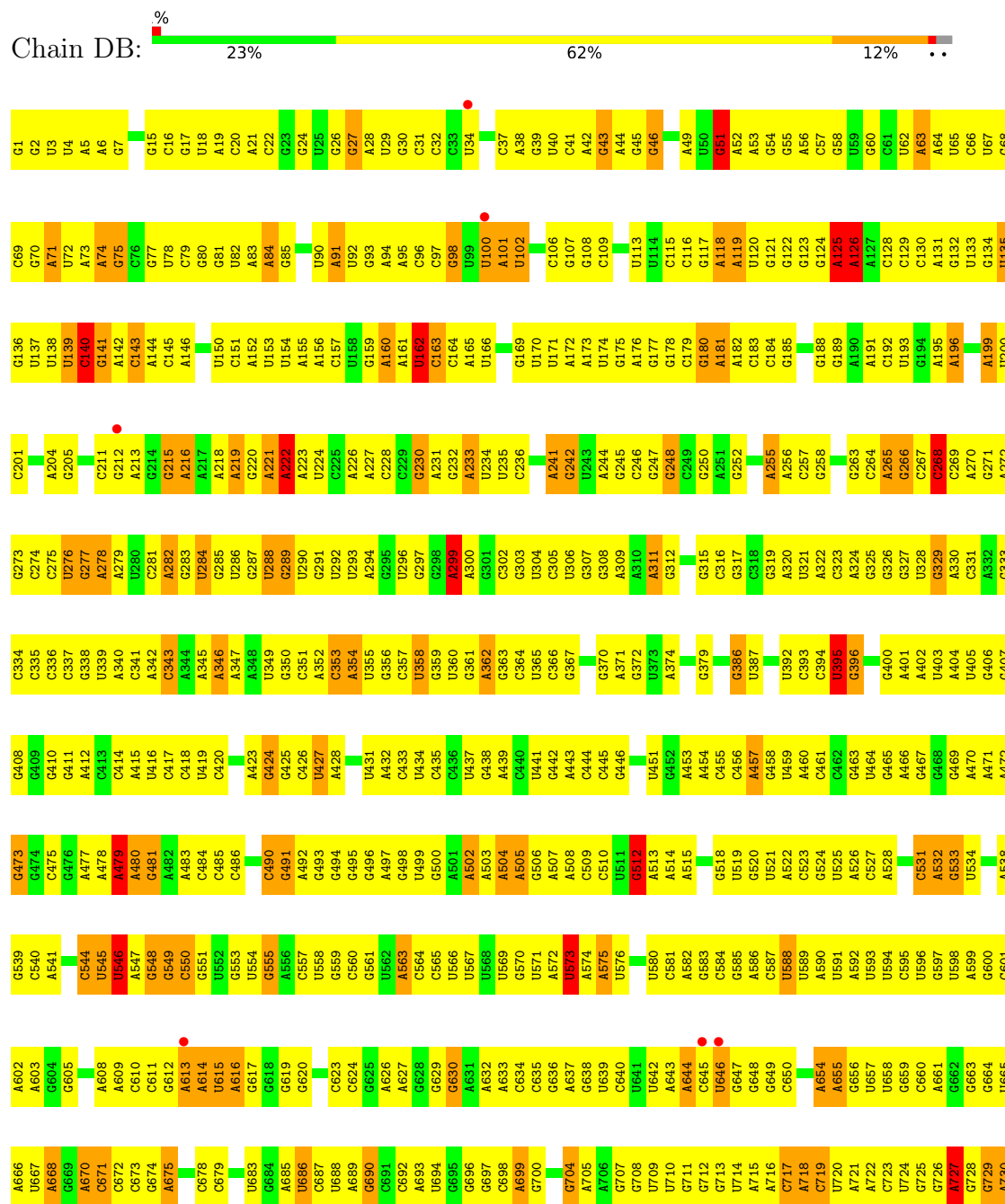


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U1688	A1610	U1487	G1425	G1355	A1285	G1216	C1153	U1083	G1016	A941	G
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A1690	A1352	A1427	G1428	A1357	A1288	U1219	A1155	A1085	U1018	A943	G
C1691	A1563	G1429	G1430	A1366	C1283	G1220	A1086	A1086	U1019	C944	G
G1695	G1491	G1431	G1432	A1367	C1290	G1221	C1161	G1087	A1020	A945	G
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G1710	A1505	A1505	U1442	G1380	G1299	G1235	C1100	C1030	C1030	C962	U
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G1723	C1518	C1518	U1458	A1393	A1321	G1250	U1184	G1047	G1047	A909	G
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C1728	C1526	C1526	C1463	C1398	U1326	H1255	C1053	C982	C982	G914	G
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A1801	U1530	U1530	U1467	U1402	C1330	G1259	U1057	U919	U919	U919	G
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G1804	C1533	C1533	A1470	U1405	G1335	A1262	U1060	C922	C922	C922	G
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A1821	G1543	G1543	U1481	G1418	C1348	U1276	C1072	A933	A933	A933	G
C1822	A1544	A1544	U1482	A1419	C1349	G1280	C1076	U934	U934	U934	G
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WORLDWIDE
PDB
PROTEIN DATA BANK

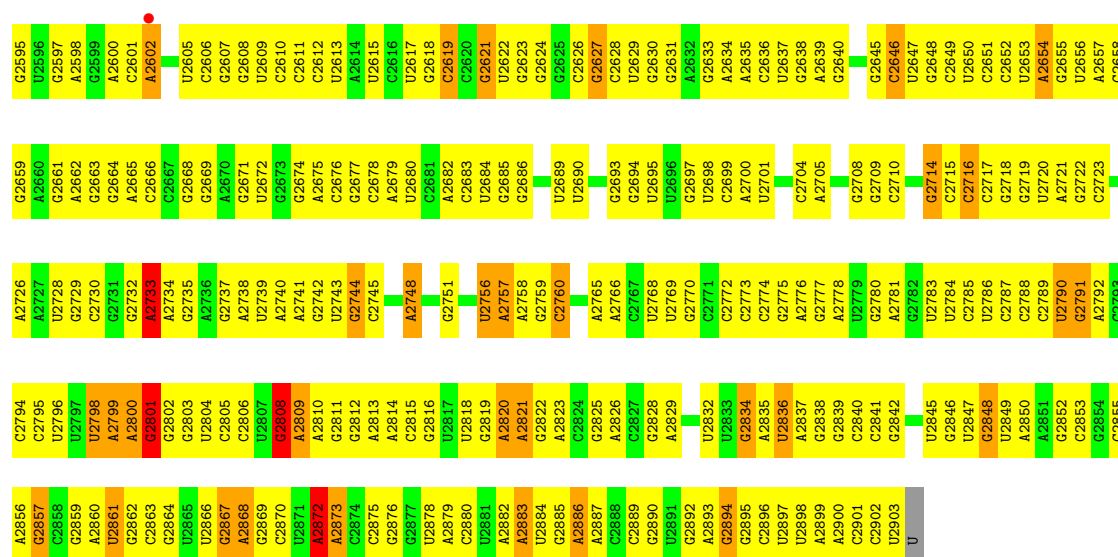


• Molecule 23: 23S ribosomal RNA



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A1610	A1544	U1481	A1420	C1351	A1284	G1215	C1153	G1087	U1014	G940	A877	C817	U746
G1613	G1545	G1482	G1421	C1352	A1285	G1216	G1154	A1088	U1015	A941	A878	C818	U747
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A1665	U1584	G1518	U1454	U1393	C1323	U1254	G1190	A1126	G1056	A983	C917	C853	G785
A1666	C1585	G1519	U1458	A1394	G1324	U1255	G1191	A1127	A1057	A984	A917	C854	C786
A1667	G1588	U1523	G1459	A1395	U1325	G1256	G1192	U1130	U1058	C987	U918	G855	A789
A1668	U1589	G1524	U1460	U1396	U1326	C1257	A1193	G1131	G1059	A988	A920	G856	
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A1671	U1592	C1527	C1463	C1399	U1329	C1261	G1197	U1134	G1062	C991	G923	U860	C796
A1672	G1593	G1530	G1464	U1400	C1330	A1262	U1198	C1135	G1063	C992	A861	C924	G797
G1673	U1594	C1531	U1465	G1401	G1334	G1266	U1199	G1136	U1064	C993	A925	G925	G798
G1674	A1595	A1532	U1466	C1402	C1335	U1267	G1200	G1137	U1065	C994	G926	A863	U803
G1675	C1596	C1533	U1467	A1403	G1336	A1268	U1201	G1138	G1068	C995	A927	C864	A804
A1676	A1597	U1534	U1468	U1406	C1337	A1269	U1202	G1139	A1069	A996	A928	C865	G805
A1677	U1598	A1535	G1407	U1407	G1338	C1270	A1204	C1140	A1070	C997	U929	A866	C806
A1678	A1599	G1471	G1408	G1408	U1340	G1271	A1205	U1141	C1076	C998	G930	C867	U807
		G1472	U1409	U1409	A1272	A1273	C1206	A1142	A1077	A1000	U931	U868	G808

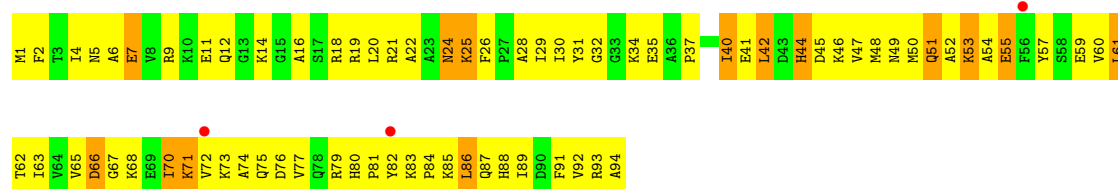




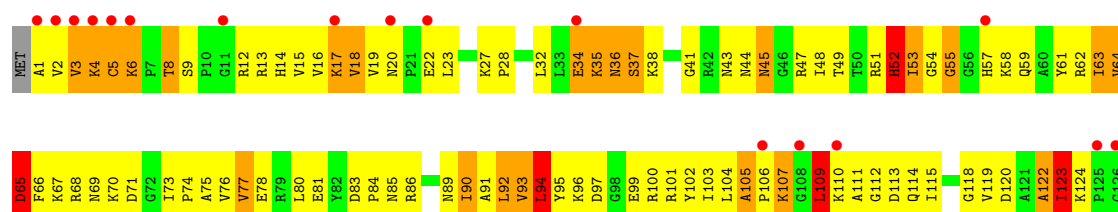
• Molecule 24: 50S ribosomal protein L25

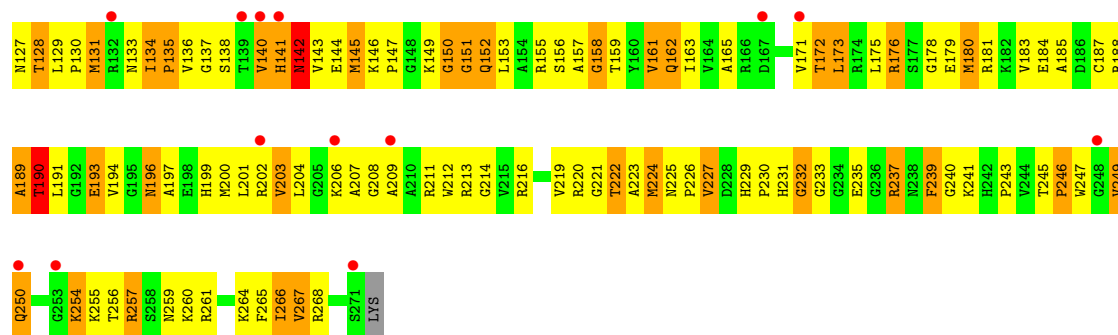


• Molecule 24: 50S ribosomal protein L25

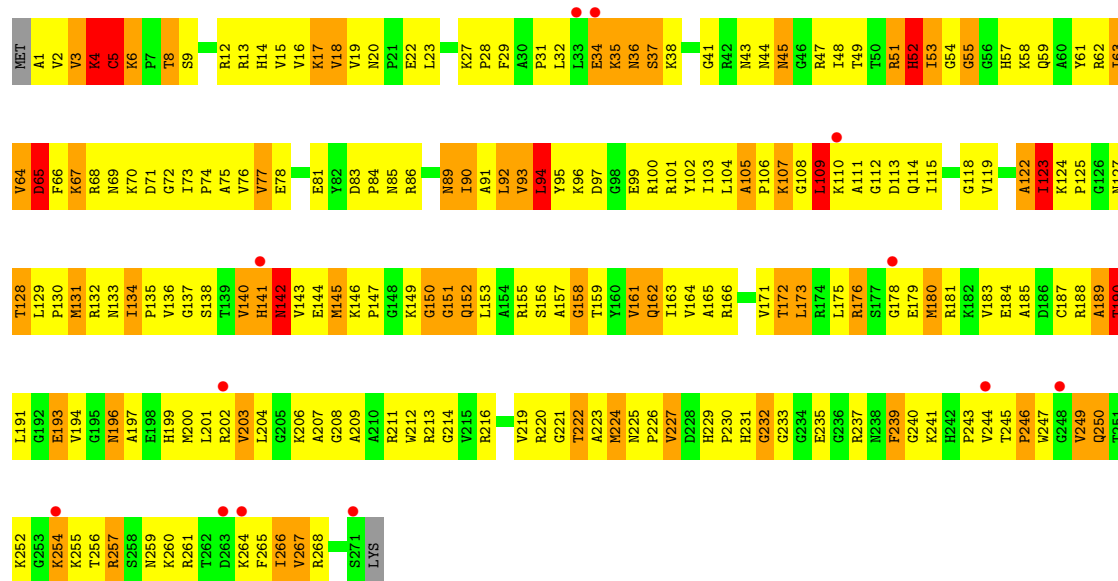


• Molecule 25: 50S ribosomal protein L2

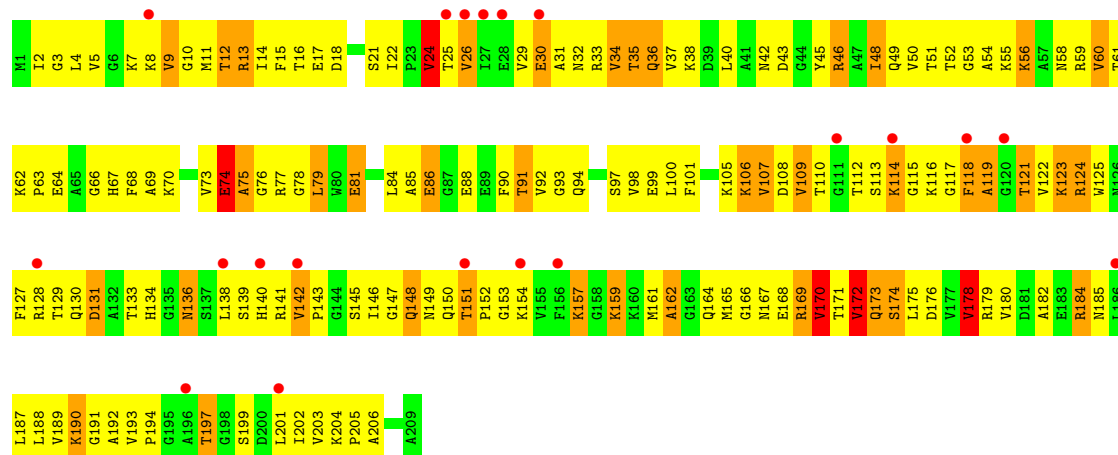




• Molecule 25: 50S ribosomal protein L2



• Molecule 26: 50S ribosomal protein L3



Chain DD:

9% 22% 58% 18%

Values: H1, I2, G3, L4, V5, G6, K7, K8, V9, G10, M11, T12, R13, I14, F15, T16, E17, D18, G19, V20, S21, I22, P23, V24, T25, V26, I27, V28, E28, V29, F30, A31, N32, R33, V34, T35, Q36, K38, D39, L40, A41, N42, Y45, R46, A47, T48, Q49, V50, T51, T52, G53, A54, K55, R56, A57, N58, R59, T60, T61, K62, P63, G66, H67, F68, A69, K70, A71, G72, V73, F74, A75, G76, R77, L78, G79, R80, E81, L84, A85, E86, G87, E88, E89, F90, T91, V92, G93, Q94, S97, V98, E99, L100, F101, K105, K106, V107, D108, V109, T110, G111, T112, S113, K114, G115, K116, G117, F118, A119, G120, T121, V122, K123, R124, T125, V126, F127, R128, T129, Q130, D131, A132, T133, H134, G135, N136, S137, L138, S139, H140, R141, V142, P143, G144, S145, I146, Q147, A148, Q149, N149, Q150, T151, P152, G153, K154, V155, F156, K157, G158, K159, R160, M161, A162, G163, Q164, M165, G166, M167, E168, R169, V170, T171, V172, Q173, S174, L175, D176, V177, V178, R179, V180, D181, A182, E183, R184, M185, T186, L187, L188, V189, K190, G191, A192, V193, P194, T197, G198, S199, E200, L201, I202, V203, K204, P205, A206, A209

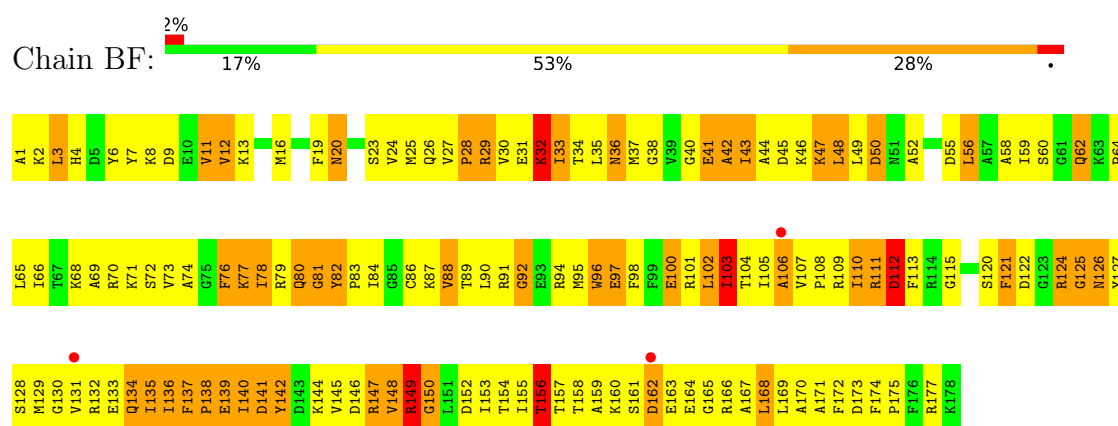
Chain BE:

4% 25% 58% 16%

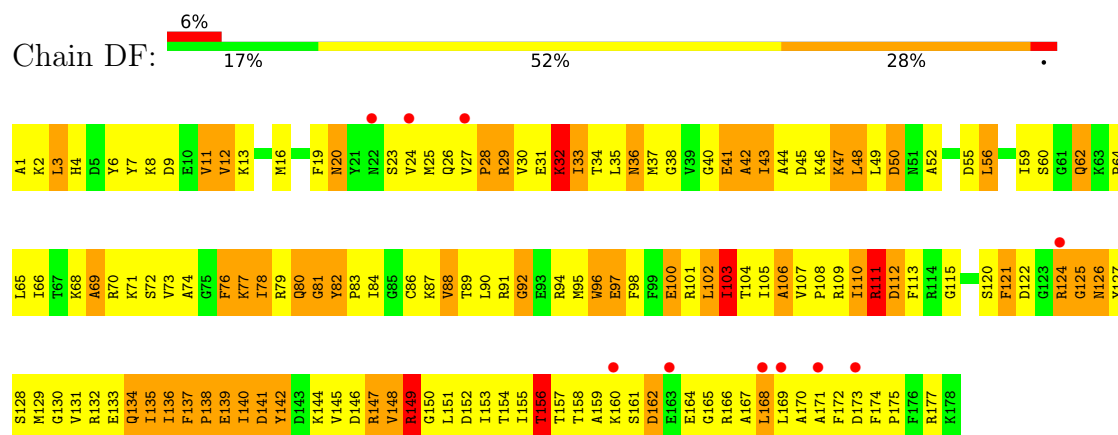
Category	Value
M1	4%
E2	4%
L3	4%
V4	4%
L5	4%
K6	4%
D7	4%
A8	4%
Q9	4%
S10	4%
A11	4%
L12	4%
T13	4%
V14	4%
S15	4%
E16	4%
T17	4%
T18	4%
R21	4%
D22	4%
F23	4%
N24	4%
L27	4%
H28	4%
V29	4%
Q30	4%
V31	4%
V32	4%
V33	4%
A34	4%
V35	4%
A36	4%
A37	4%
G38	4%
A39	4%
R40	4%
Q41	4%
G42	4%
T43	4%
R44	4%
A45	4%
Q46	4%
K47	4%
T48	4%
R49	4%
A50	4%
E51	4%
K58	4%
P59	4%
M60	4%
R61	4%
Q62	4%
K63	4%
G64	4%
R67	4%
A68	4%
R69	4%
S70	4%
G71	4%
S72	4%
T73	4%
K74	4%
S75	4%
P76	4%
L77	4%
W78	4%
R79	4%
S80	4%
G81	4%
G82	4%
W83	4%
T84	4%
F85	4%
A86	4%
A87	4%
R88	4%
P89	4%
Q90	4%
D91	4%
H92	4%
S93	4%
Q94	4%
R95	4%
V96	4%
A97	4%
K98	4%
K99	4%
M100	4%
V101	4%
R102	4%
G103	4%
A104	4%
L105	4%
K106	4%
R107	4%
G108	4%
L109	4%
S110	4%
E111	4%
L112	4%
V113	4%
R114	4%
Q115	4%
D116	4%
R117	4%
L118	4%
L119	4%
E122	4%
E127	4%
A128	4%
P129	4%
K130	4%
T131	4%
V132	4%
L133	4%
L134	4%
A135	4%
Q136	4%
K137	4%
M141	4%
A142	4%
L143	4%
V146	4%
L147	4%
L148	4%
T149	4%
T150	4%
G151	4%
E152	4%
L153	4%
D154	4%
E155	4%
N156	4%
L157	4%
F158	4%
L159	4%
A160	4%
A161	4%
R162	4%
N163	4%
L164	4%
H165	4%
K166	4%
V167	4%
D168	4%
V169	4%
R170	4%
D171	4%
A172	4%
T173	4%
G174	4%
L175	4%
D176	4%
P177	4%
V178	4%
S179	4%
L180	4%
L181	4%
A182	4%
F183	4%
D184	4%
K185	4%
V186	4%
V187	4%
M188	4%
T189	4%
A192	4%
V193	4%
K194	4%
Q195	4%
V196	4%
E197	4%
E198	4%
M199	4%
L200	4%
A201	4%

Chain DE: 4% 29% 52% 17%

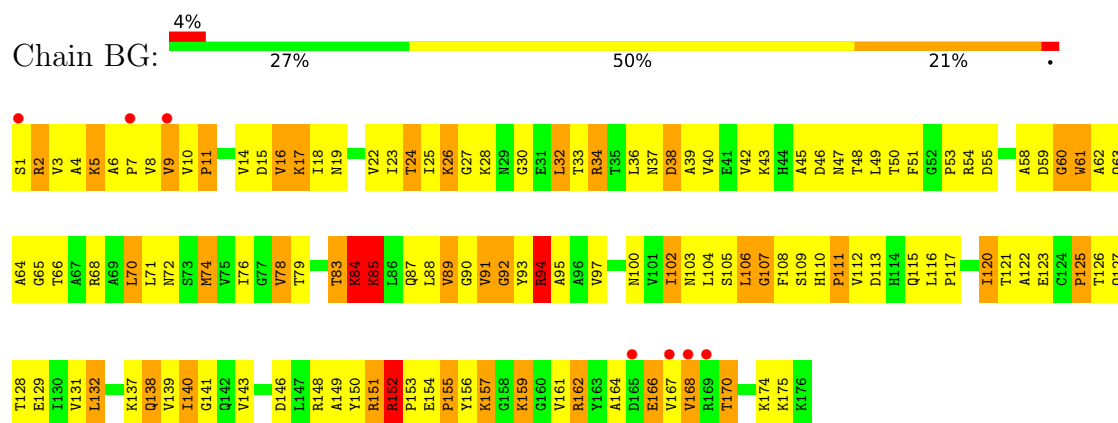
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E2	Yellow
L3	Yellow
V4	Yellow
L5	Yellow
K6	Yellow
D7	Yellow
A8	Green
Q9	Green
S10	Green
A11	Green
L12	Green
T13	Green
V14	Green
S15	Green
E16	Green
T17	Green
T18	Green
R21	Yellow
D22	Yellow
H29	Yellow
Q30	Yellow
V31	Yellow
V32	Yellow
V33	Yellow
A34	Yellow
Y35	Yellow
A36	Yellow
A37	Yellow
G38	Yellow
A39	Yellow
R40	Yellow
Q41	Yellow
G42	Yellow
T43	Yellow
R44	Green
A45	Green
Q46	Yellow
K47	Yellow
T48	Yellow
R49	Green
A50	Yellow
E51	Yellow
V52	Yellow
K58	Yellow
P59	Yellow
W60	Yellow
R61	Yellow
G62	Red
K63	Yellow
G64	Green
T65	Green
G66	Green
R67	Yellow
A68	Yellow
R69	Yellow
S70	Yellow
T73	Yellow
P76	Yellow
I77	Yellow
W78	Yellow
R79	Yellow
S80	Green
G81	Green
G82	Green
V83	Green
A86	Yellow
A87	Yellow
D91	Yellow
H92	Yellow
S93	Yellow
Q94	Yellow
K95	Yellow
V96	Yellow
Y97	Yellow
K98	Yellow
K99	Yellow
M100	Yellow
I101	Yellow
R102	Yellow
G103	Green
A104	Yellow
L105	Yellow
K106	Yellow
S107	Green
I108	Yellow
L109	Yellow
S110	Yellow
E111	Yellow
L112	Yellow
V113	Yellow
R114	Yellow
Q115	Yellow
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R117	Yellow
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I119	Yellow
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K123	Yellow
E127	Yellow
A128	Yellow
P129	Yellow
K130	Yellow
T131	Green
K132	Green
L133	Green
L134	Green
A135	Yellow
Q136	Yellow
K137	Yellow
M141	Yellow
L142	Yellow
L143	Yellow
V146	Yellow
L147	Yellow
L148	Yellow
L149	Yellow
T150	Yellow
G151	Yellow
E152	Yellow
L153	Yellow
D154	Yellow
E155	Yellow
M156	Yellow
L157	Yellow
F158	Yellow
L159	Yellow
A160	Yellow
A161	Yellow
R162	Yellow
M163	Yellow
L164	Yellow
H165	Yellow
K166	Yellow
V167	Yellow
D168	Yellow
V169	Yellow
R170	Yellow
D171	Yellow
A172	Yellow
D176	Yellow
P177	Yellow
V178	Yellow
S179	Yellow
L181	Yellow
A182	Yellow
F183	Yellow
D184	Yellow
K185	Yellow
L186	Yellow
V187	Yellow
M188	Yellow
T189	Yellow
A192	Yellow
V193	Yellow
K194	Yellow
Q195	Yellow
P196	Yellow
V197	Yellow
E198	Yellow
M199	Yellow
L200	Yellow
A201	Yellow



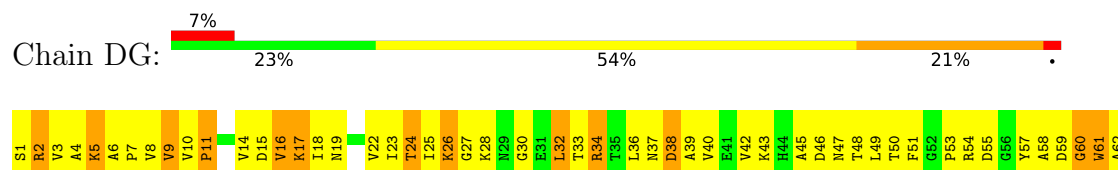
• Molecule 28: 50S ribosomal protein L5

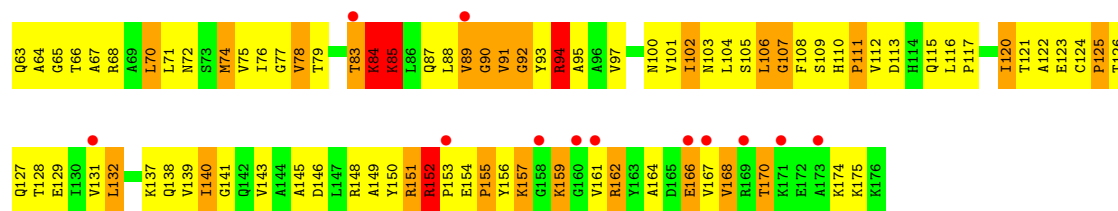


• Molecule 29: 50S ribosomal protein L6

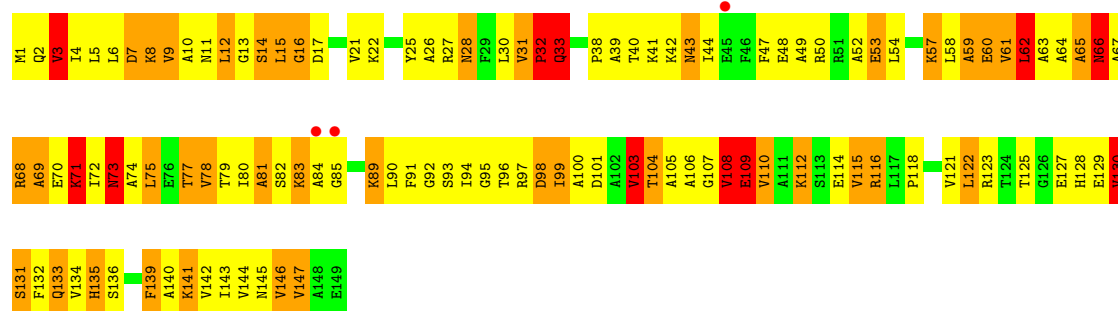
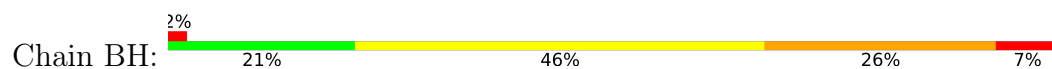


• Molecule 29: 50S ribosomal protein L6

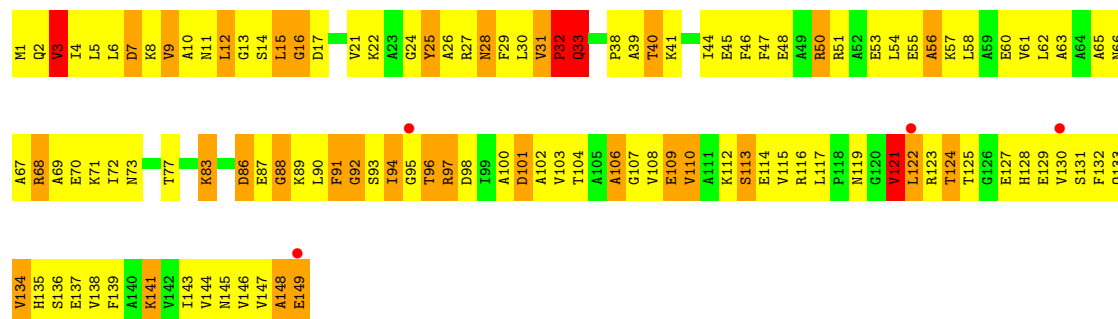




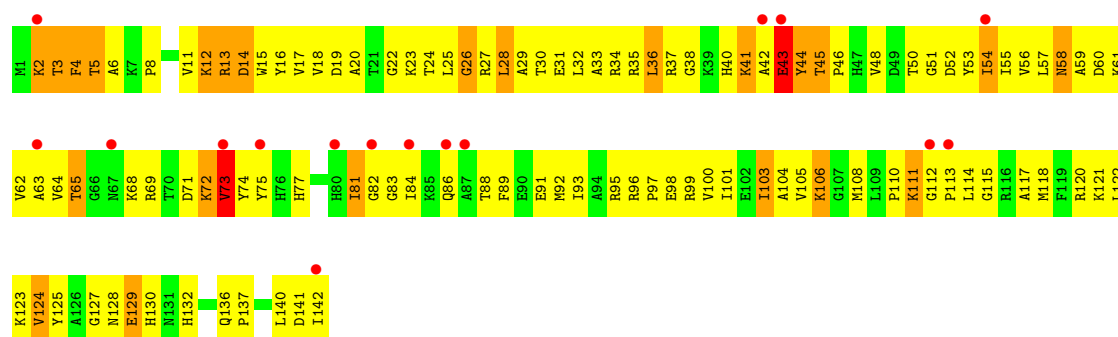
• Molecule 30: 50S ribosomal protein L9



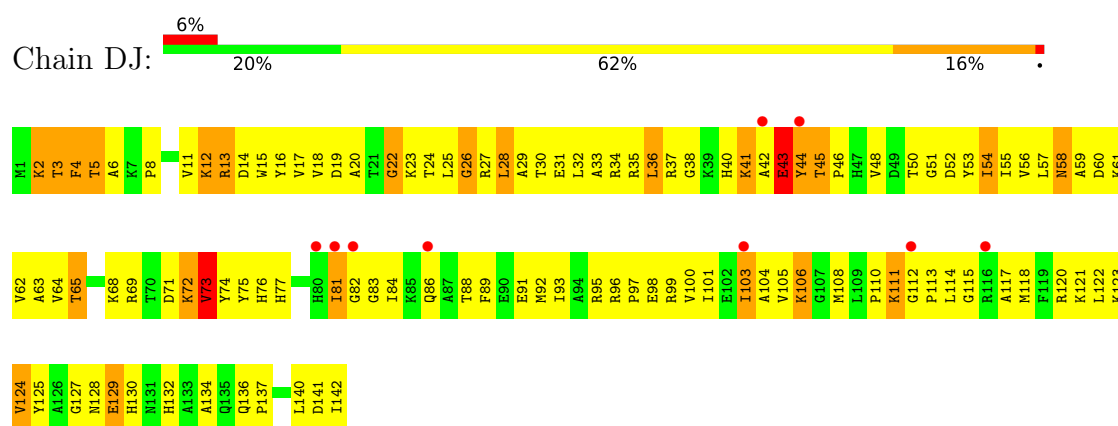
• Molecule 30: 50S ribosomal protein L9



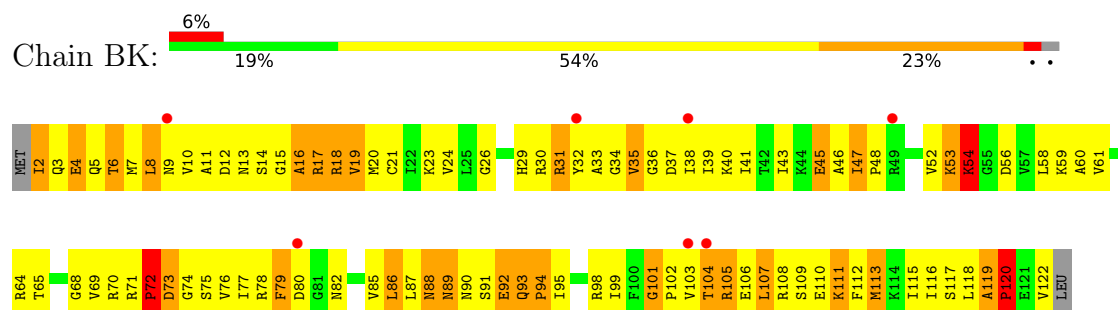
• Molecule 31: 50S ribosomal protein L13



• Molecule 31: 50S ribosomal protein L13



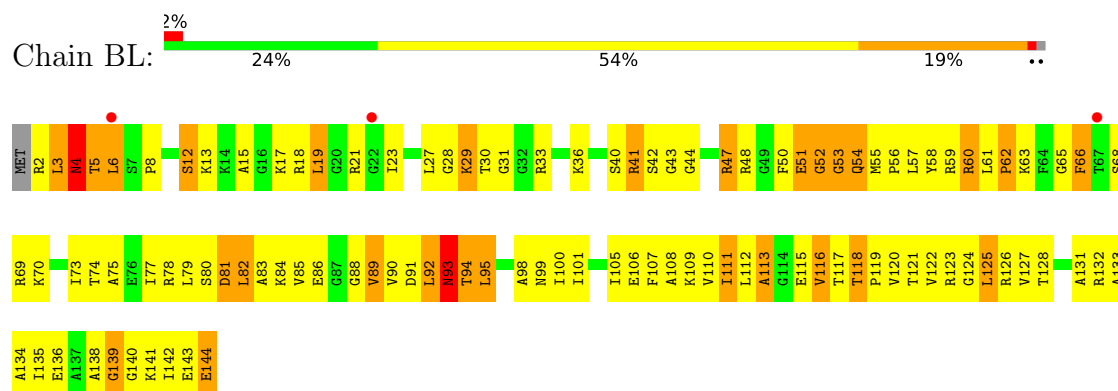
- Molecule 32: 50S ribosomal protein L14



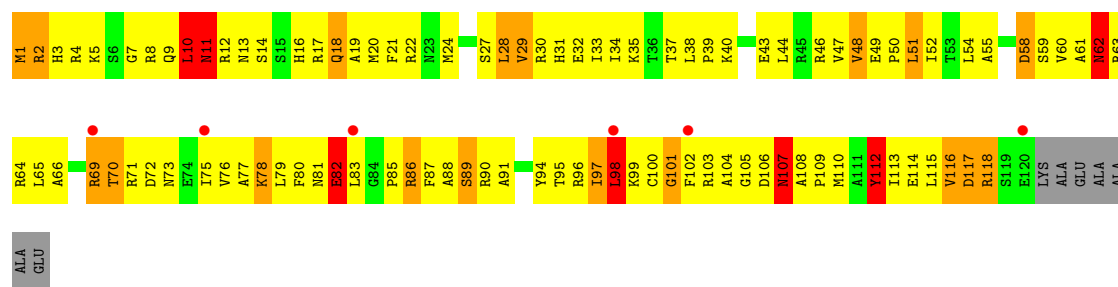
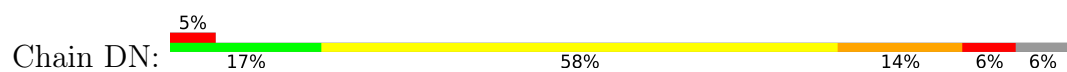
- Molecule 32: 50S ribosomal protein L14



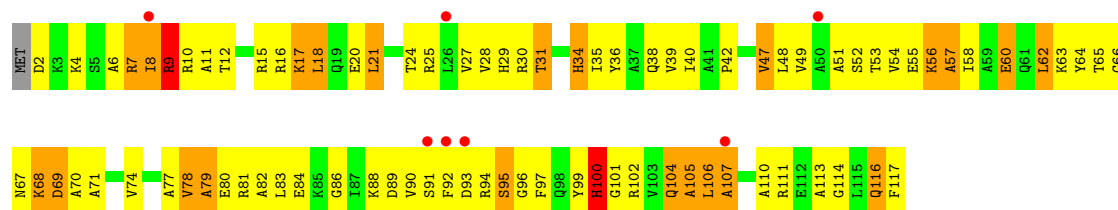
- Molecule 33: 50S ribosomal protein L15



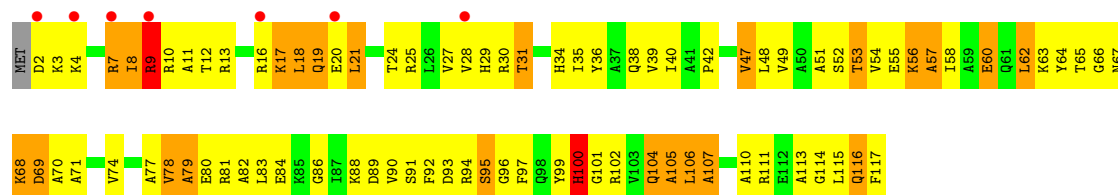
- Molecule 33: 50S ribosomal protein L15



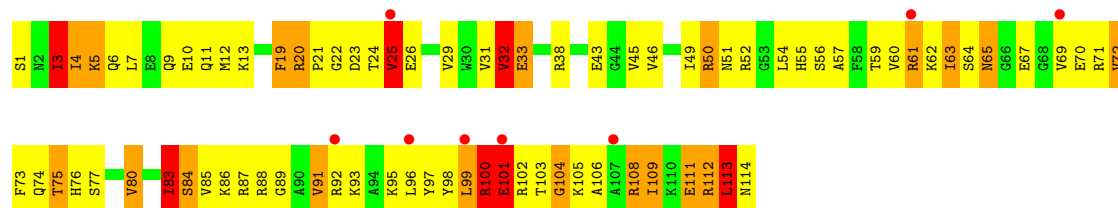
• Molecule 36: 50S ribosomal protein L18



• Molecule 36: 50S ribosomal protein L18



• Molecule 37: 50S ribosomal protein L19

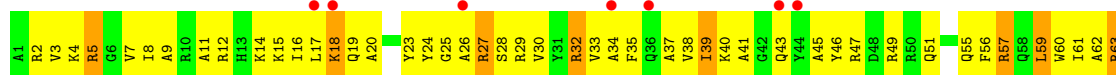


• Molecule 37: 50S ribosomal protein L19





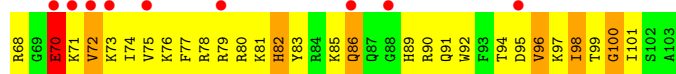
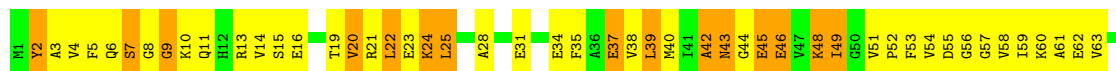
- Molecule 38: 50S ribosomal protein L20



- Molecule 38: 50S ribosomal protein L20



- Molecule 39: 50S ribosomal protein L21

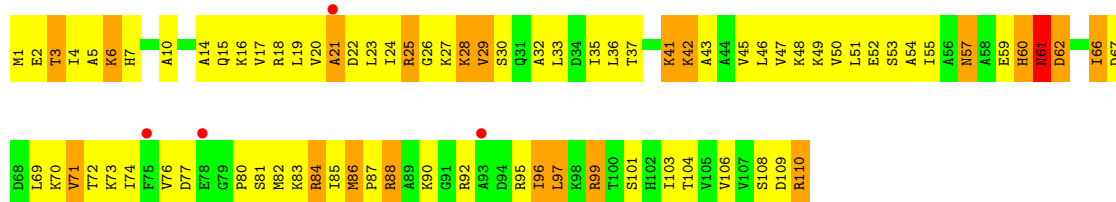


- Molecule 39: 50S ribosomal protein L21

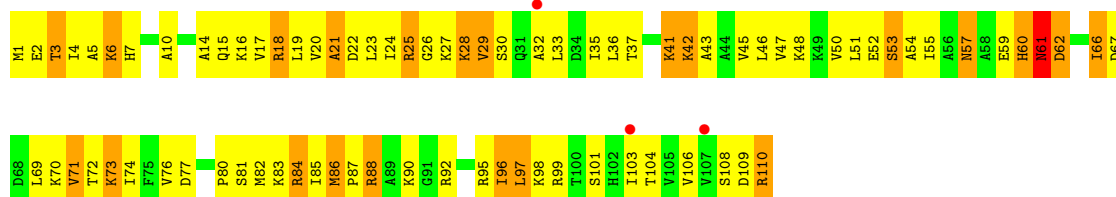


- Molecule 40: 50S ribosomal protein L22

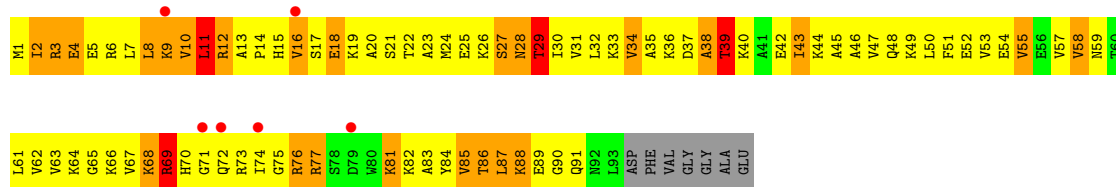
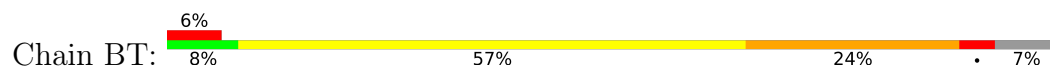




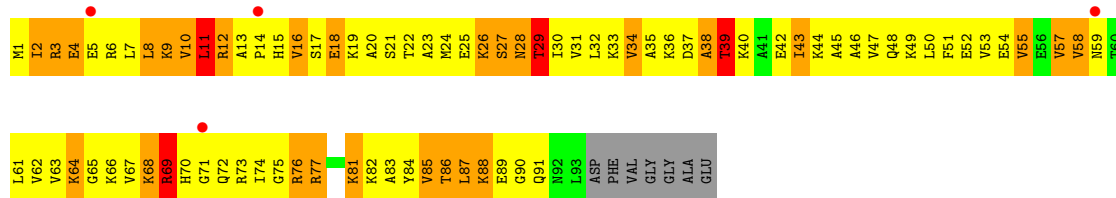
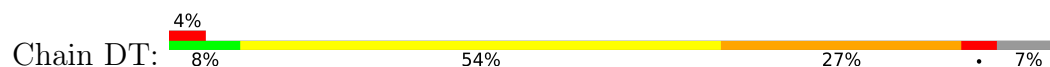
• Molecule 40: 50S ribosomal protein L22



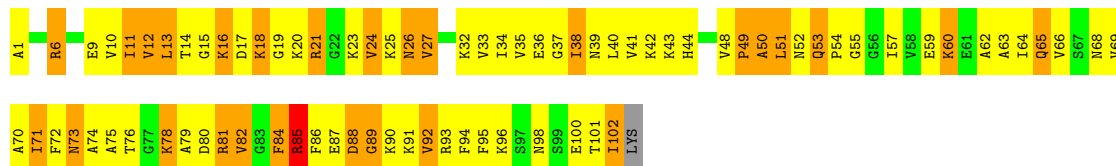
• Molecule 41: 50S ribosomal protein L23



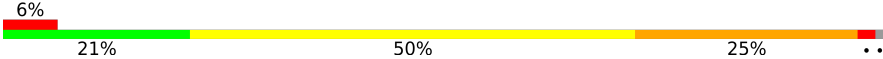
• Molecule 41: 50S ribosomal protein L23

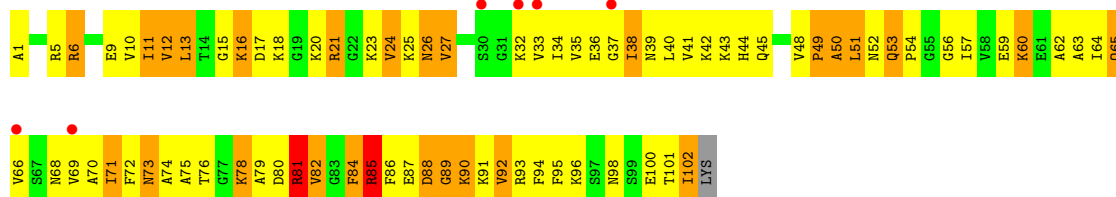


• Molecule 42: 50S ribosomal protein L24



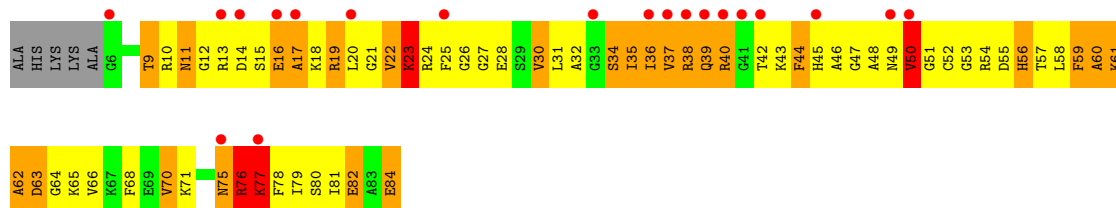
• Molecule 42: 50S ribosomal protein L24

Chain DU: 



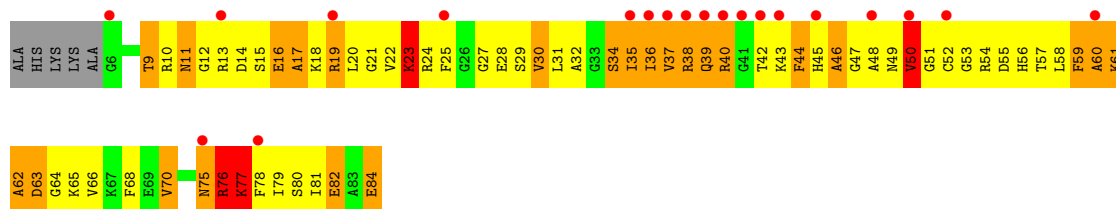
- Molecule 43: 50S ribosomal protein L27

Chain BW: 

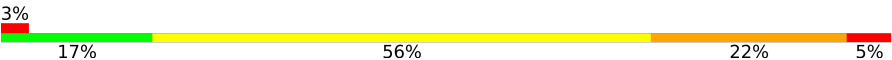


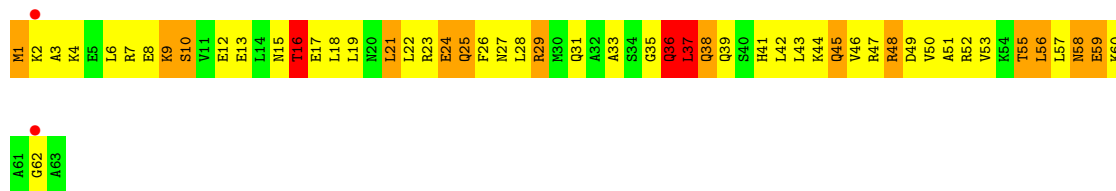
- Molecule 43: 50S ribosomal protein L27

Chain DW: 

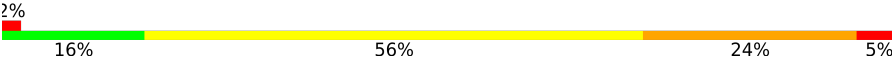


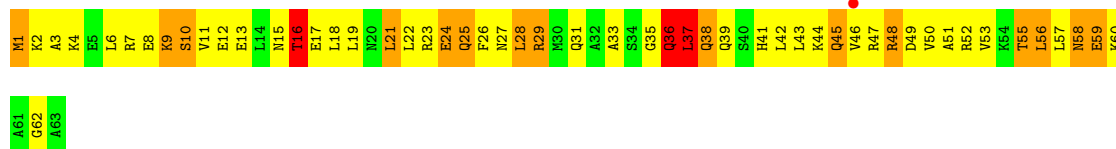
- Molecule 44: 50S ribosomal protein L29

Chain BX: 

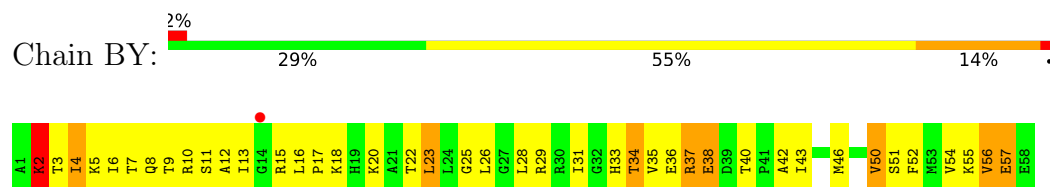


- Molecule 44: 50S ribosomal protein L29

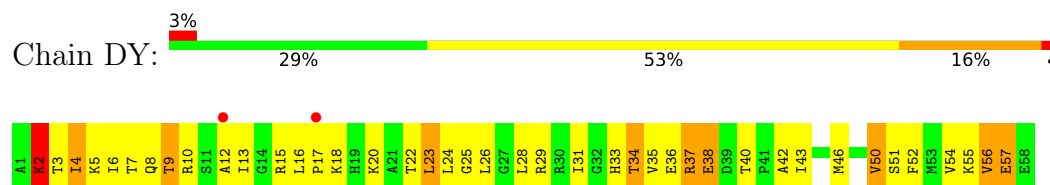
Chain DX: 



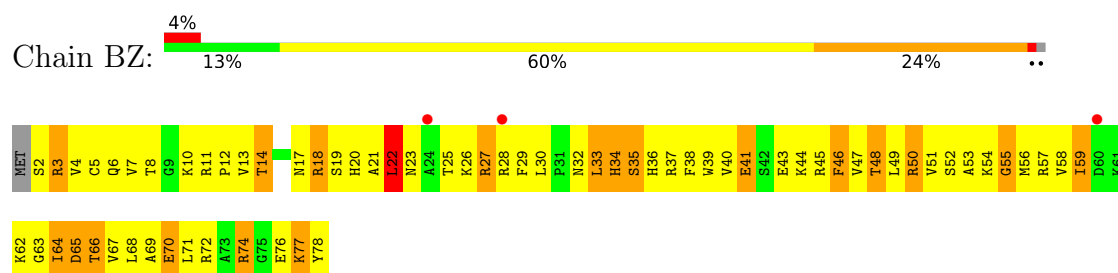
- Molecule 45: 50S ribosomal protein L30



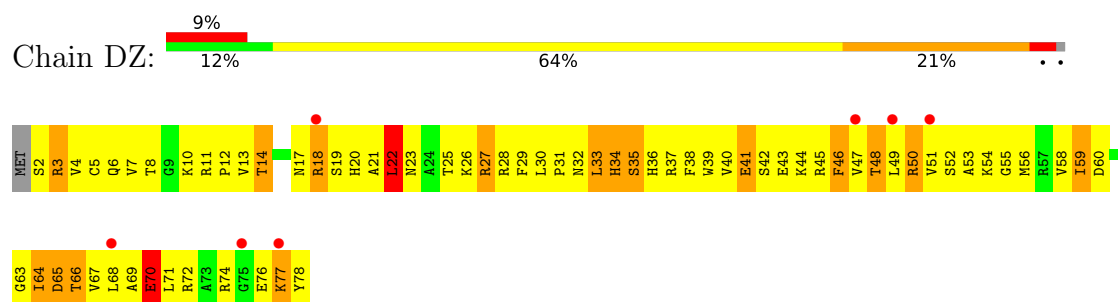
- Molecule 45: 50S ribosomal protein L30



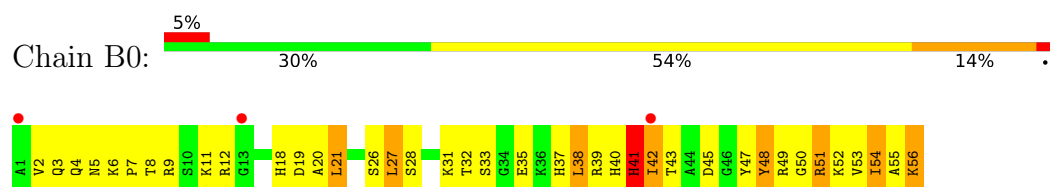
- Molecule 46: 50S ribosomal protein L28



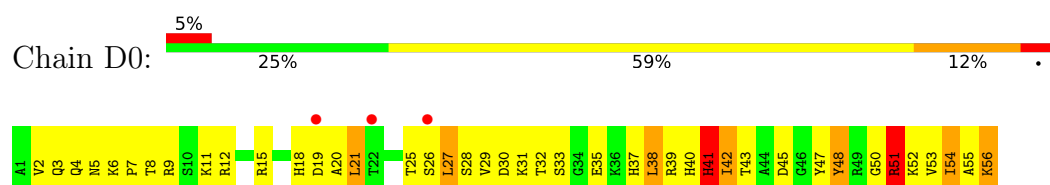
- Molecule 46: 50S ribosomal protein L28



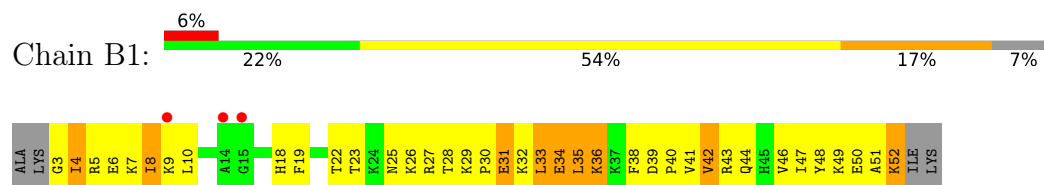
- Molecule 47: 50S ribosomal protein L32



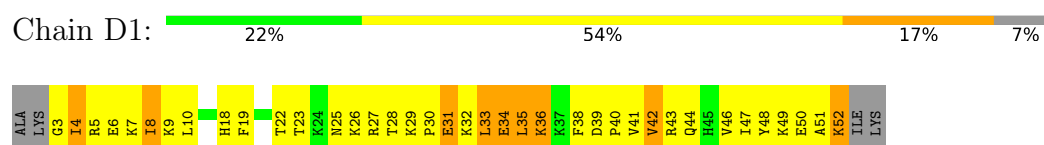
- Molecule 47: 50S ribosomal protein L32



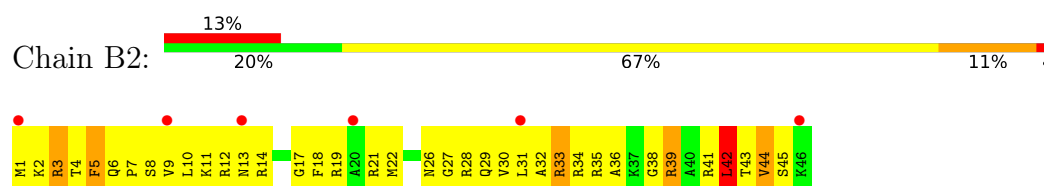
- Molecule 48: 50S ribosomal protein L33



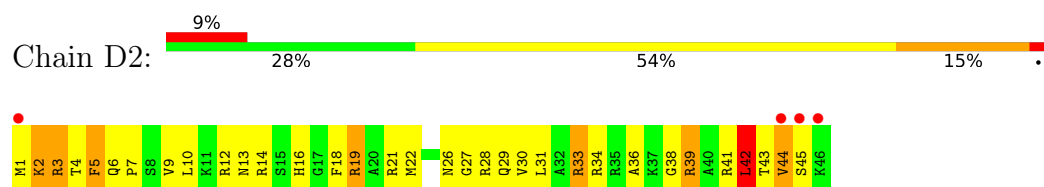
- Molecule 48: 50S ribosomal protein L33



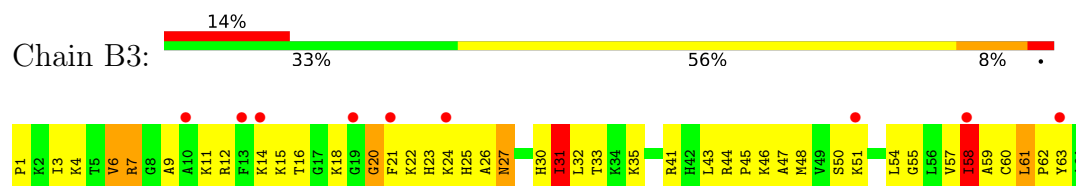
- Molecule 49: 50S ribosomal protein L34



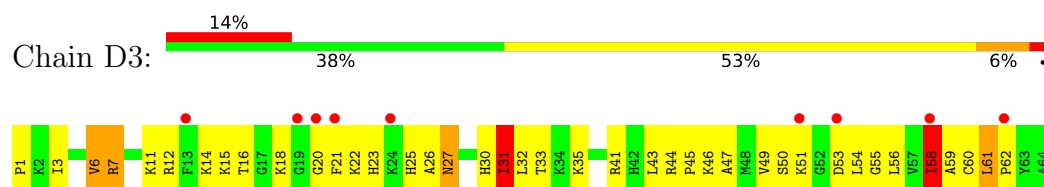
- Molecule 49: 50S ribosomal protein L34



- Molecule 50: 50S ribosomal protein L35



- Molecule 50: 50S ribosomal protein L35

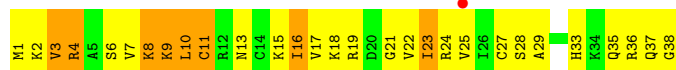


- Molecule 51: 50S ribosomal protein L36

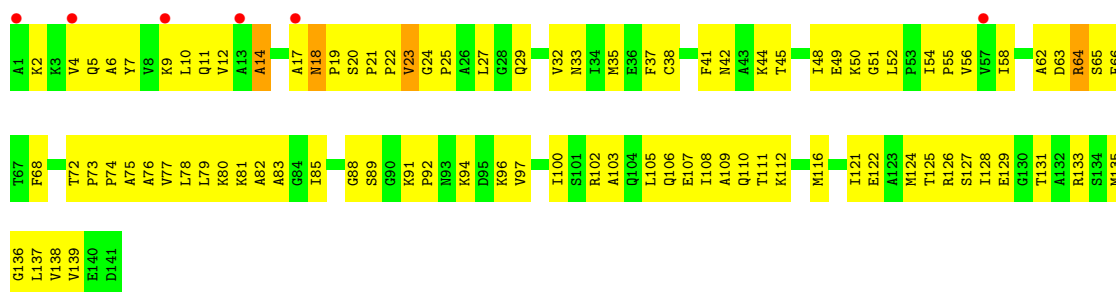




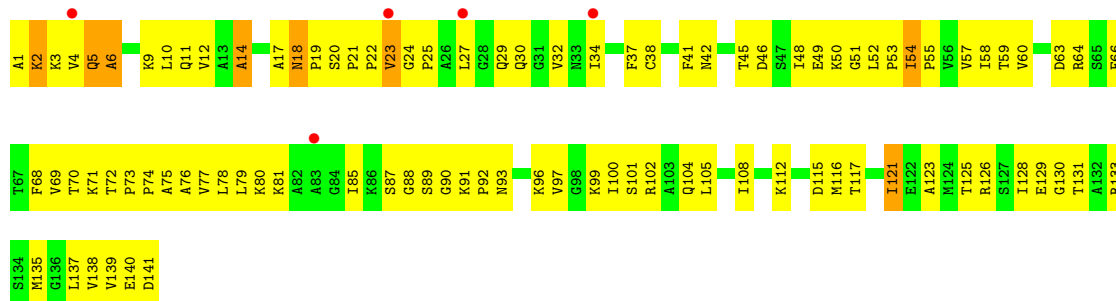
- Molecule 51: 50S ribosomal protein L36



- Molecule 52: 50S ribosomal protein L11



- Molecule 52: 50S ribosomal protein L11



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	208.70Å 379.50Å 739.30Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	70.00 – 3.50 70.00 – 3.50	Depositor EDS
% Data completeness (in resolution range)	62.1 (70.00-3.50) 62.3 (70.00-3.50)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	0.07	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.88 (at 3.49Å)	Xtriage
Refinement program	CNS	Depositor
R, R_{free}	0.269 , 0.318 0.234 , 0.278	Depositor DCC
R_{free} test set	22229 reflections (4.89%)	wwPDB-VP
Wilson B-factor (Å ²)	117.9	Xtriage
Anisotropy	0.294	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.27 , 41.2	EDS
L-test for twinning ²	$\langle L \rangle = 0.50$, $\langle L^2 \rangle = 0.33$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.92	EDS
Total number of atoms	284077	wwPDB-VP
Average B, all atoms (Å ²)	70.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.15% 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 [i](#)

5.1 Standard geometry [i](#)

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	AA	0.27	0/36762	0.63	35/57350 (0.1%)
1	CA	0.27	0/36762	0.64	32/57350 (0.1%)
2	AC	0.27	0/1651	0.69	0/2225
2	CC	0.27	0/1651	0.69	0/2225
3	AD	0.26	0/1665	0.71	0/2227
3	CD	0.26	0/1665	0.71	0/2227
4	AE	0.27	0/1118	0.73	0/1504
4	CE	0.27	0/1118	0.72	0/1504
5	AF	0.28	0/835	0.69	0/1128
5	CF	0.28	0/835	0.69	0/1128
6	AG	0.27	0/1187	0.75	2/1591 (0.1%)
6	CG	0.27	0/1211	0.74	2/1624 (0.1%)
7	AH	0.26	0/989	0.71	0/1326
7	CH	0.27	0/989	0.71	0/1326
8	AI	0.27	0/1034	0.67	0/1375
8	CI	0.27	0/1034	0.67	0/1375
9	AJ	0.29	0/796	0.76	1/1077 (0.1%)
9	CJ	0.29	0/796	0.76	1/1077 (0.1%)
10	AK	0.30	0/893	0.74	0/1205
10	CK	0.30	0/893	0.74	0/1205
11	AL	0.28	0/969	0.75	0/1300
11	CL	0.28	0/969	0.75	0/1300
12	AM	0.26	0/892	0.68	0/1193
12	CM	0.26	0/884	0.68	0/1181
13	AN	0.27	0/785	0.72	0/1043
13	CN	0.27	0/785	0.72	0/1043
14	AO	0.26	0/723	0.69	0/966
14	CO	0.26	0/723	0.69	0/966
15	AP	0.29	0/659	0.73	0/884
15	CP	0.28	0/648	0.71	0/870
16	AQ	0.26	0/657	0.70	0/881
16	CQ	0.26	0/665	0.70	0/892

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	AR	0.29	0/462	0.71	0/621
17	CR	0.28	0/462	0.70	0/621
18	AS	0.28	0/652	0.72	0/877
18	CS	0.28	0/660	0.73	0/888
19	AT	0.27	0/671	0.69	0/888
19	CT	0.28	0/671	0.69	0/888
20	AB	0.29	0/1735	0.71	0/2338
20	CB	0.30	0/1735	0.71	0/2338
21	AU	0.29	0/430	0.81	1/570 (0.2%)
21	CU	0.28	0/430	0.80	1/570 (0.2%)
22	BA	0.28	0/2803	0.65	2/4371 (0.0%)
22	DA	0.28	0/2803	0.65	2/4371 (0.0%)
23	BB	0.27	1/68314 (0.0%)	0.64	75/106569 (0.1%)
23	DB	0.27	1/68314 (0.0%)	0.65	86/106569 (0.1%)
24	BV	0.26	0/766	0.68	0/1025
24	DV	0.26	0/766	0.68	0/1025
25	BC	0.28	0/2121	0.74	0/2852
25	DC	0.28	0/2121	0.73	0/2852
26	BD	0.28	0/1586	0.71	2/2134 (0.1%)
26	DD	0.28	0/1586	0.71	2/2134 (0.1%)
27	BE	0.26	0/1571	0.76	1/2113 (0.0%)
27	DE	0.26	0/1571	0.76	1/2113 (0.0%)
28	BF	0.28	0/1444	0.82	1/1937 (0.1%)
28	DF	0.28	0/1444	0.83	2/1937 (0.1%)
29	BG	0.27	0/1343	0.73	0/1816
29	DG	0.27	0/1343	0.72	0/1816
30	BH	0.29	0/1122	0.71	0/1515
30	DH	0.28	0/1122	0.71	1/1515 (0.1%)
31	BJ	0.28	0/1152	0.71	0/1551
31	DJ	0.28	0/1152	0.71	0/1551
32	BK	0.28	0/939	0.81	1/1258 (0.1%)
32	DK	0.28	0/939	0.81	1/1258 (0.1%)
33	BL	0.27	0/1054	0.76	0/1403
33	DL	0.27	0/1054	0.76	0/1403
34	BM	0.27	0/1093	0.73	0/1460
34	DM	0.27	0/1093	0.73	0/1460
35	BN	0.27	0/973	0.84	2/1301 (0.2%)
35	DN	0.27	0/973	0.84	2/1301 (0.2%)
36	BO	0.26	0/902	0.82	3/1209 (0.2%)
36	DO	0.26	0/902	0.82	3/1209 (0.2%)
37	BP	0.28	0/929	0.76	2/1242 (0.2%)
37	DP	0.28	0/929	0.76	2/1242 (0.2%)
38	BQ	0.27	0/960	0.81	0/1278

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	DQ	0.27	0/960	0.80	0/1278
39	BR	0.25	0/829	0.65	0/1107
39	DR	0.25	0/829	0.65	0/1107
40	BS	0.28	0/864	0.83	1/1156 (0.1%)
40	DS	0.27	0/864	0.83	1/1156 (0.1%)
41	BT	0.26	0/744	0.82	3/994 (0.3%)
41	DT	0.27	0/744	0.83	3/994 (0.3%)
42	BU	0.28	0/787	0.68	0/1051
42	DU	0.28	0/787	0.69	1/1051 (0.1%)
43	BW	0.28	0/603	0.69	0/797
43	DW	0.28	0/603	0.69	0/797
44	BX	0.25	0/510	0.84	3/677 (0.4%)
44	DX	0.25	0/510	0.84	3/677 (0.4%)
45	BY	0.30	0/453	0.87	1/605 (0.2%)
45	DY	0.30	0/453	0.87	1/605 (0.2%)
46	BZ	0.26	0/635	0.83	2/848 (0.2%)
46	DZ	0.27	0/635	0.85	2/848 (0.2%)
47	B0	0.25	0/450	0.76	1/599 (0.2%)
47	D0	0.25	0/450	0.76	1/599 (0.2%)
48	B1	0.29	0/416	0.71	0/554
48	D1	0.28	0/416	0.71	0/554
49	B2	0.29	0/380	0.90	0/498
49	D2	0.29	0/380	0.90	0/498
50	B3	0.29	0/513	0.73	0/676
50	D3	0.30	0/513	0.73	0/676
51	B4	0.27	0/303	0.76	0/397
51	D4	0.27	0/303	0.76	0/397
52	BI	0.32	0/1046	0.80	0/1410
52	DI	0.34	0/1046	0.82	0/1410
All	All	0.27	2/306361 (0.0%)	0.67	289/457973 (0.1%)

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	13
1	CA	0	13
23	BB	0	36
23	DB	0	38
All	All	0	100

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	DB	1086	A	C5-C6	-7.26	1.26	1.41
23	BB	1086	A	C5-C6	-7.25	1.26	1.41

All (289) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	BB	2791	G	O5'-P-OP1	-11.85	72.45	108.00
23	DB	2791	G	O5'-P-OP2	-11.66	73.01	108.00
23	DB	2204	G	O5'-P-OP1	-10.96	75.12	108.00
1	AA	1213	A	O5'-P-OP2	-10.93	75.21	108.00
23	BB	2204	G	O5'-P-OP2	-10.44	76.69	108.00
1	CA	1212	U	OP1-P-O3'	10.39	139.18	108.00
28	DF	111	ARG	N-CA-C	-10.00	103.22	114.62
1	CA	1213	A	O5'-P-OP1	-9.57	79.28	108.00
23	DB	2203	U	OP1-P-O3'	9.54	136.63	108.00
1	AA	1212	U	OP2-P-O3'	9.52	136.56	108.00
23	DB	2790	U	OP2-P-O3'	9.48	136.44	108.00
23	BB	2203	U	OP2-P-O3'	9.40	136.19	108.00
1	CA	1534	A	C2'-C3'-O3'	-8.78	96.33	109.50
23	BB	2790	U	OP1-P-O3'	8.77	134.30	108.00
1	AA	1212	U	O3'-P-O5'	-8.56	91.16	104.00
1	CA	1212	U	O3'-P-O5'	-8.15	91.78	104.00
23	BB	773	U	C5'-C4'-C3'	-8.10	103.86	116.00
23	DB	2204	G	O5'-P-OP2	8.07	132.22	108.00
23	DB	2106	U	C4'-C3'-O3'	-8.05	100.92	113.00
23	DB	2282	G	C2'-C3'-O3'	7.99	121.49	109.50
23	BB	1552	A	C4'-C3'-O3'	7.99	124.98	113.00
23	BB	2204	G	O5'-P-OP1	7.98	131.94	108.00
1	CA	1213	A	O5'-P-OP2	7.95	131.86	108.00
23	DB	242	G	C4'-C3'-O3'	-7.95	97.48	109.40
23	BB	2808	G	C4'-C3'-O3'	-7.76	101.36	113.00
23	BB	479	A	C4'-C3'-O3'	-7.75	97.77	109.40
23	DB	773	U	C5'-C4'-C3'	-7.62	104.57	116.00
1	AA	1213	A	O5'-P-OP1	7.62	130.85	108.00
44	BX	55	THR	N-CA-C	-7.58	102.96	111.07
23	BB	2501	C	C4'-C3'-O3'	-7.54	101.70	113.00
23	DB	2808	G	C4'-C3'-O3'	-7.51	101.73	113.00
23	BB	242	G	C4'-C3'-O3'	-7.50	98.15	109.40
23	DB	2790	U	C4'-C3'-O3'	7.49	124.23	113.00
23	BB	2282	G	C2'-C3'-O3'	7.45	120.68	109.50
22	DA	66	A	C4'-C3'-O3'	-7.44	101.84	113.00
23	DB	1552	A	C4'-C3'-O3'	7.44	124.16	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	BB	2791	G	O5'-P-OP2	7.40	130.19	108.00
23	DB	2471	A	C4'-C3'-O3'	7.38	120.47	109.40
44	DX	55	THR	N-CA-C	-7.32	103.00	110.97
23	DB	2203	U	O3'-P-O5'	-7.30	93.06	104.00
1	CA	975	A	C5'-C4'-C3'	-7.20	104.41	115.20
23	DB	1552	A	N9-C1'-C2'	-7.19	101.21	112.00
23	BB	1552	A	N9-C1'-C2'	-7.16	101.26	112.00
1	CA	1030	U	C4'-C3'-O3'	7.08	120.03	109.40
23	DB	745	G	C5'-C4'-C3'	-7.05	105.42	116.00
22	BA	66	A	C4'-C3'-O3'	-7.03	102.46	113.00
23	DB	1350	C	C5'-C4'-C3'	-6.99	105.52	116.00
23	DB	2501	C	C4'-C3'-O3'	-6.97	102.54	113.00
23	DB	479	A	C4'-C3'-O3'	-6.96	98.95	109.40
23	DB	2791	G	O5'-P-OP1	6.92	128.77	108.00
23	BB	745	G	C5'-C4'-C3'	-6.90	105.66	116.00
23	DB	2610	C	C4'-C3'-O3'	-6.88	99.08	109.40
23	BB	690	G	C5'-C4'-C3'	-6.85	105.72	116.00
1	AA	576	C	C5'-C4'-C3'	6.79	125.39	115.20
1	AA	1030	U	C4'-C3'-O3'	6.79	119.58	109.40
1	AA	481	G	C4'-C3'-O3'	-6.72	102.92	113.00
23	BB	2203	U	O3'-P-O5'	-6.71	93.93	104.00
1	CA	481	G	C4'-C3'-O3'	-6.70	102.95	113.00
23	BB	2790	U	O3'-P-O5'	-6.70	93.95	104.00
1	AA	975	A	C5'-C4'-C3'	-6.68	105.17	115.20
1	AA	328	C	C2'-C3'-O3'	6.66	119.48	109.50
1	CA	328	C	C2'-C3'-O3'	6.62	119.42	109.50
1	CA	1424	U	C5'-C4'-C3'	-6.52	106.23	116.00
23	DB	2480	C	C5'-C4'-C3'	6.51	125.77	116.00
23	DB	573	U	C4'-C3'-O3'	-6.50	99.65	109.40
23	DB	2199	A	C5'-C4'-C3'	-6.47	106.29	116.00
1	CA	1065	U	C2'-C3'-O3'	6.47	119.20	109.50
1	AA	1065	U	C2'-C3'-O3'	6.46	119.19	109.50
1	CA	960	U	C2'-C3'-O3'	6.46	119.19	109.50
23	BB	2447	G	C4'-C3'-O3'	-6.46	99.71	109.40
1	AA	960	U	C2'-C3'-O3'	6.43	119.15	109.50
23	BB	545	U	C4'-C3'-O3'	6.35	122.52	113.00
23	BB	2471	A	C4'-C3'-O3'	6.35	118.92	109.40
23	DB	2109	U	C4'-C3'-O3'	6.34	122.51	113.00
1	CA	366	A	C2'-C3'-O3'	6.33	118.99	109.50
1	CA	243	A	C2'-C3'-O3'	6.32	118.98	109.50
1	AA	366	A	C2'-C3'-O3'	6.30	118.95	109.50
1	AA	243	A	C2'-C3'-O3'	6.29	118.94	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	BB	573	U	C4'-C3'-O3'	-6.29	99.97	109.40
23	DB	2096	C	C5'-C4'-C3'	-6.27	106.60	116.00
23	DB	690	G	C5'-C4'-C3'	-6.26	106.61	116.00
23	BB	126	A	C4'-C3'-O3'	-6.21	103.69	113.00
23	DB	1340	U	C4'-C3'-O3'	-6.21	103.69	113.00
23	DB	126	A	C5'-C4'-C3'	6.20	125.30	116.00
23	BB	99	U	C4'-C3'-O3'	-6.17	103.75	113.00
47	B0	41	HIS	N-CA-C	6.17	117.90	108.52
47	D0	41	HIS	N-CA-C	6.16	117.88	108.52
44	BX	56	LEU	N-CA-C	-6.16	102.56	110.19
23	BB	1318	U	C5'-C4'-C3'	-6.15	106.77	116.00
44	DX	56	LEU	N-CA-C	-6.15	102.57	110.19
23	BB	2610	C	C4'-C3'-O3'	-6.13	100.21	109.40
23	DB	1757	A	C4'-C3'-O3'	-6.12	103.81	113.00
23	BB	162	U	C4'-C3'-O3'	6.09	118.54	109.40
1	AA	765	G	C4'-C3'-O3'	6.09	122.13	113.00
28	DF	33	ILE	N-CA-C	-6.09	103.41	110.05
23	BB	1251	C	C5'-C4'-C3'	-6.08	106.08	115.20
28	BF	33	ILE	N-CA-C	-6.08	103.43	110.05
1	CA	765	G	C4'-C3'-O3'	6.07	122.11	113.00
23	DB	2447	G	C4'-C3'-O3'	-6.07	100.29	109.40
1	AA	1212	U	C4'-C3'-O3'	-6.07	103.89	113.00
1	CA	1362	A	C5'-C4'-C3'	6.06	124.30	115.20
23	BB	2480	C	C5'-C4'-C3'	6.05	125.08	116.00
6	CG	143	MET	N-CA-C	-6.04	104.60	111.07
6	AG	143	MET	N-CA-C	-6.04	104.60	111.07
23	DB	546	U	C4'-C3'-O3'	-6.02	103.96	113.00
23	DB	2790	U	O3'-P-O5'	-6.01	94.98	104.00
23	BB	1340	U	C4'-C3'-O3'	-6.01	103.98	113.00
27	BE	39	ALA	N-CA-C	-5.97	106.09	113.19
23	DB	162	U	C4'-C3'-O3'	5.96	118.34	109.40
27	DE	39	ALA	N-CA-C	-5.95	106.11	113.19
35	BN	78	LYS	N-CA-C	-5.94	104.81	111.28
23	DB	1318	U	C5'-C4'-C3'	-5.93	107.10	116.00
35	DN	78	LYS	N-CA-C	-5.93	104.81	111.28
23	BB	2199	A	C5'-C4'-C3'	-5.92	107.12	116.00
1	CA	437	U	N1-C1'-C2'	5.91	120.86	112.00
1	AA	437	U	N1-C1'-C2'	5.90	120.85	112.00
1	AA	722	G	C4'-C3'-O3'	-5.89	104.16	113.00
23	BB	241	A	C5'-C4'-C3'	-5.88	106.38	115.20
1	CA	1054	C	C4'-C3'-O3'	-5.86	104.21	113.00
1	AA	975	A	C2'-C3'-O3'	5.79	118.19	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	243	A	C4'-C3'-O3'	5.79	118.08	109.40
1	CA	67	C	C5'-C4'-C3'	-5.78	107.33	116.00
23	BB	2894	G	C5'-C4'-C3'	-5.77	107.34	116.00
41	DT	26	LYS	N-CA-C	-5.77	106.22	113.20
23	BB	1912	A	C4'-C3'-O3'	5.76	121.65	113.00
23	DB	2619	C	C5'-C4'-C3'	-5.76	107.35	116.00
23	DB	704	G	C4'-C3'-O3'	-5.76	104.36	113.00
23	BB	1382	G	C5'-C4'-C3'	5.75	124.63	116.00
23	DB	1251	C	C5'-C4'-C3'	-5.75	106.57	115.20
1	AA	86	G	N9-C1'-C2'	5.75	122.62	114.00
23	DB	140	C	C5'-C4'-C3'	5.75	124.62	116.00
1	CA	975	A	C2'-C3'-O3'	5.74	118.11	109.50
41	BT	26	LYS	N-CA-C	-5.74	106.25	113.20
23	DB	1654	A	C5'-C4'-C3'	-5.74	107.40	116.00
23	BB	2716	C	C5'-C4'-C3'	5.73	124.59	116.00
44	DX	38	GLN	N-CA-C	-5.73	106.06	113.16
26	DD	174	SER	CB-CA-C	-5.73	109.99	116.63
23	BB	1350	C	C5'-C4'-C3'	-5.72	107.41	116.00
23	BB	1757	A	C4'-C3'-O3'	-5.72	104.41	113.00
41	DT	27	SER	N-CA-C	-5.72	106.84	113.88
41	BT	85	VAL	N-CA-C	5.72	116.37	110.82
23	BB	1439	A	N9-C1'-C2'	-5.71	103.44	112.00
42	DU	81	ARG	CB-CA-C	-5.71	109.98	116.54
44	BX	38	GLN	N-CA-C	-5.70	106.09	113.16
41	DT	85	VAL	N-CA-C	5.70	116.35	110.82
26	DD	22	ILE	N-CA-C	5.70	114.15	107.77
1	AA	89	U	C4'-C3'-O3'	-5.70	104.46	113.00
23	DB	1280	G	C5'-C4'-C3'	-5.69	107.46	116.00
26	BD	174	SER	CB-CA-C	-5.69	110.03	116.63
23	DB	1439	A	N9-C1'-C2'	-5.69	103.47	112.00
1	CA	1301	U	N1-C1'-C2'	5.68	120.52	112.00
1	AA	1054	C	C4'-C3'-O3'	-5.68	104.48	113.00
26	BD	22	ILE	N-CA-C	5.67	114.12	107.77
1	AA	1301	U	N1-C1'-C2'	5.66	120.49	112.00
1	CA	243	A	C4'-C3'-O3'	5.66	117.88	109.40
1	AA	1362	A	C5'-C4'-C3'	5.64	123.67	115.20
23	DB	1382	G	C5'-C4'-C3'	5.63	124.45	116.00
23	DB	2138	G	C5'-C4'-C3'	-5.63	107.55	116.00
23	BB	555	G	C4'-C3'-O3'	-5.62	104.58	113.00
45	BY	38	GLU	CB-CA-C	-5.61	108.99	117.07
45	DY	38	GLU	CB-CA-C	-5.59	109.02	117.07
23	BB	2134	A	C5'-C4'-C3'	5.56	124.34	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	AG	146	ALA	N-CA-C	-5.55	106.34	113.01
1	CA	1049	U	C2'-C3'-O3'	5.55	117.83	109.50
6	CG	146	ALA	N-CA-C	-5.55	106.35	113.01
46	DZ	70	GLU	N-CA-C	-5.54	103.33	110.19
23	DB	1397	U	C5'-C4'-C3'	-5.53	106.91	115.20
22	BA	30	C	C5'-C4'-C3'	-5.53	107.71	116.00
23	DB	555	G	C4'-C3'-O3'	-5.51	104.73	113.00
23	DB	2716	C	C5'-C4'-C3'	5.51	124.27	116.00
23	DB	1254	A	C4'-C3'-O3'	-5.50	104.75	113.00
23	DB	781	A	C4'-C3'-O3'	-5.50	104.75	113.00
23	DB	750	A	C4'-C3'-O3'	-5.49	104.76	113.00
1	AA	372	C	C2'-C3'-O3'	5.49	117.73	109.50
1	CA	372	C	C2'-C3'-O3'	5.48	117.72	109.50
23	DB	668	A	C4'-C3'-O3'	-5.48	104.78	113.00
1	CA	1285	A	C4'-C3'-O3'	-5.47	104.80	113.00
21	AU	24	LYS	CB-CA-C	-5.45	110.31	116.63
23	BB	1211	C	C4'-C3'-O3'	-5.45	104.83	113.00
23	DB	1714	U	C4'-C3'-O3'	5.45	117.57	109.40
9	AJ	8	ILE	N-CA-C	5.44	112.03	106.21
23	BB	704	G	C4'-C3'-O3'	-5.44	104.84	113.00
21	CU	24	LYS	CB-CA-C	-5.44	110.32	116.63
23	BB	268	C	C5'-C4'-C3'	-5.41	107.89	116.00
23	DB	1392	A	C4'-C3'-O3'	-5.41	104.89	113.00
23	DB	2894	G	C5'-C4'-C3'	-5.41	107.09	115.20
9	CJ	8	ILE	N-CA-C	5.40	111.99	106.21
23	DB	512	G	C4'-C3'-O3'	-5.40	104.90	113.00
23	DB	395	U	C4'-C3'-O3'	-5.39	104.91	113.00
23	DB	747	U	C5'-C4'-C3'	5.38	124.08	116.00
1	CA	1065	U	C4'-C3'-O3'	5.38	117.47	109.40
1	AA	1285	A	C4'-C3'-O3'	-5.38	104.94	113.00
40	DS	53	SER	N-CA-C	-5.37	106.11	113.30
23	BB	668	A	C4'-C3'-O3'	-5.36	104.95	113.00
23	BB	2580	U	C4'-C3'-O3'	-5.36	104.96	113.00
37	DP	49	ILE	N-CA-C	5.35	115.26	107.88
22	DA	30	C	C5'-C4'-C3'	-5.35	107.98	116.00
37	DP	3	ILE	N-CA-C	-5.34	105.33	110.72
37	BP	49	ILE	N-CA-C	5.33	115.24	107.88
23	DB	134	G	C5'-C4'-C3'	-5.33	108.00	116.00
23	BB	974	G	C4'-C3'-O3'	-5.32	101.41	109.40
32	BK	5	GLN	CB-CA-C	-5.32	109.99	117.23
32	DK	5	GLN	CB-CA-C	-5.32	110.00	117.23
23	BB	644	A	C4'-C3'-O3'	-5.31	105.03	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
46	BZ	66	THR	N-CA-C	-5.31	104.92	111.40
23	DB	974	G	C4'-C3'-O3'	-5.30	101.44	109.40
23	BB	2194	U	C5'-C4'-C3'	-5.29	108.06	116.00
46	DZ	66	THR	N-CA-C	-5.29	104.94	111.40
23	BB	144	A	C5'-C4'-C3'	-5.29	108.07	116.00
1	CA	814	A	C5'-C4'-C3'	5.29	123.93	116.00
23	BB	512	G	C4'-C3'-O3'	-5.28	105.08	113.00
1	CA	813	U	C4'-C3'-O3'	-5.28	105.07	113.00
41	BT	27	SER	N-CA-C	-5.28	106.90	113.55
1	CA	1347	G	C4'-C3'-O3'	-5.28	101.48	109.40
23	BB	2203	U	C2'-C3'-O3'	-5.27	105.79	113.70
23	DB	2203	U	C4'-C3'-O3'	-5.27	105.09	113.00
23	BB	2471	A	C5'-C4'-C3'	-5.27	107.30	115.20
1	CA	40	C	C5'-C4'-C3'	-5.27	108.10	116.00
23	BB	1714	U	C4'-C3'-O3'	5.26	117.29	109.40
23	DB	2580	U	C4'-C3'-O3'	-5.26	105.12	113.00
23	DB	43	G	C5'-C4'-C3'	-5.25	108.12	116.00
23	DB	1314	C	C5'-C4'-C3'	-5.25	108.13	116.00
1	CA	722	G	C4'-C3'-O3'	-5.24	105.14	113.00
23	DB	1664	A	C5'-C4'-C3'	-5.24	108.14	116.00
23	DB	2335	A	C4'-C3'-O3'	-5.24	105.14	113.00
1	AA	855	U	C5'-C4'-C3'	-5.24	108.14	116.00
23	BB	784	G	C4'-C3'-O3'	-5.24	105.14	113.00
40	BS	53	SER	N-CA-C	-5.24	106.13	112.88
1	CA	326	G	C4'-C3'-O3'	-5.23	105.16	113.00
1	AA	1065	U	C4'-C3'-O3'	5.22	117.22	109.40
1	AA	326	G	C4'-C3'-O3'	-5.21	105.18	113.00
23	DB	268	C	C5'-C4'-C3'	-5.21	108.19	116.00
30	DH	25	TYR	N-CA-C	-5.21	107.06	113.41
23	DB	1211	C	C4'-C3'-O3'	-5.20	105.20	113.00
23	BB	461	C	C5'-C4'-C3'	-5.19	108.21	116.00
1	AA	813	U	C4'-C3'-O3'	-5.19	105.22	113.00
23	BB	845	A	C4'-C3'-O3'	5.18	120.78	113.00
37	BP	3	ILE	N-CA-C	-5.18	105.33	110.62
36	BO	34	HIS	N-CA-C	5.18	115.89	108.74
23	DB	644	A	C4'-C3'-O3'	-5.18	105.23	113.00
23	BB	2733	A	N9-C1'-C2'	-5.18	104.23	112.00
23	BB	1392	A	C4'-C3'-O3'	-5.17	105.24	113.00
23	BB	2872	A	C4'-C3'-O3'	5.17	117.15	109.40
23	DB	2585	U	C4'-C3'-O3'	-5.17	101.65	109.40
36	DO	34	HIS	N-CA-C	5.17	115.87	108.74
23	BB	1237	A	C4'-C3'-O3'	-5.16	105.25	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DB	2471	A	C5'-C4'-C3'	-5.16	107.47	115.20
23	BB	727	A	N9-C1'-C2'	5.15	119.73	112.00
23	DB	727	A	N9-C1'-C2'	5.15	119.73	112.00
23	DB	2155	U	C4'-C3'-O3'	5.15	120.73	113.00
23	DB	2872	A	C4'-C3'-O3'	5.15	117.12	109.40
23	BB	2790	U	C4'-C3'-O3'	5.14	120.71	113.00
23	DB	2243	U	C5'-C4'-C3'	-5.13	108.30	116.00
35	BN	62	ASN	N-CA-C	-5.13	106.71	112.87
23	BB	2619	C	C5'-C4'-C3'	-5.12	108.32	116.00
23	BB	1280	G	C5'-C4'-C3'	-5.11	108.34	116.00
23	BB	773	U	C4'-C3'-O3'	-5.10	105.34	113.00
35	DN	62	ASN	N-CA-C	-5.09	106.76	112.87
23	BB	1397	U	C5'-C4'-C3'	-5.09	107.56	115.20
23	DB	219	A	C5'-C4'-C3'	-5.09	108.37	116.00
23	DB	2733	A	N9-C1'-C2'	-5.09	104.37	112.00
1	AA	1398	A	C5'-C4'-C3'	-5.08	108.37	116.00
1	AA	553	A	C5'-C4'-C3'	-5.08	108.38	116.00
23	BB	750	A	C4'-C3'-O3'	-5.08	105.38	113.00
23	DB	27	G	C4'-C3'-O3'	-5.08	105.38	113.00
23	DB	125	A	C2'-C3'-O3'	5.08	117.12	109.50
23	DB	1808	A	C4'-C3'-O3'	-5.08	105.38	113.00
23	BB	747	U	C5'-C4'-C3'	5.08	123.62	116.00
23	DB	1634	A	C5'-C4'-C3'	-5.08	107.58	115.20
23	BB	2801	G	C4'-C3'-O3'	-5.07	105.40	113.00
23	DB	845	A	C4'-C3'-O3'	5.07	120.60	113.00
36	BO	104	GLN	N-CA-C	-5.06	105.77	111.28
23	DB	2030	A	C4'-C3'-O3'	-5.06	101.82	109.40
36	DO	104	GLN	N-CA-C	-5.05	105.77	111.28
23	BB	747	U	C4'-C3'-O3'	-5.05	105.43	113.00
23	BB	1254	A	C4'-C3'-O3'	-5.05	105.43	113.00
23	DB	675	A	C4'-C3'-O3'	-5.05	105.43	113.00
1	AA	1384	C	C4'-C3'-O3'	5.04	120.57	113.00
23	DB	2422	C	C4'-C3'-O3'	-5.04	105.44	113.00
23	DB	2627	G	C5'-C4'-C3'	-5.04	108.44	116.00
1	AA	1049	U	C2'-C3'-O3'	5.03	117.05	109.50
23	BB	219	A	C5'-C4'-C3'	-5.02	108.47	116.00
23	DB	2801	G	N9-C1'-C2'	5.01	119.52	112.00
36	DO	105	ALA	N-CA-C	-5.01	104.25	110.41
36	BO	105	ALA	N-CA-C	-5.01	104.25	110.41
23	BB	2801	G	N9-C1'-C2'	5.01	119.51	112.00
1	AA	412	A	C4'-C3'-O3'	5.00	116.91	109.40
23	BB	980	A	C4'-C3'-O3'	-5.00	105.50	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
46	BZ	55	GLY	N-CA-C	-5.00	107.58	113.99

There are no chirality outliers.

All (100) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	AA	1006	G	Sidechain
1	AA	1047	G	Sidechain
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	496	A	Sidechain
1	AA	703	G	Sidechain
1	AA	83	C	Sidechain
1	AA	832	G	Sidechain
1	AA	992	U	Sidechain
23	BB	1047	G	Sidechain
23	BB	1060	U	Sidechain
23	BB	1086	A	Sidechain
23	BB	1088	A	Sidechain
23	BB	1111	A	Sidechain
23	BB	1439	A	Sidechain
23	BB	1533	C	Sidechain
23	BB	1538	G	Sidechain
23	BB	1546	G	Sidechain
23	BB	1572	A	Sidechain
23	BB	1645	G	Sidechain
23	BB	1734	G	Sidechain
23	BB	1792	G	Sidechain
23	BB	1814	G	Sidechain
23	BB	1828	G	Sidechain
23	BB	2062	A	Sidechain
23	BB	2108	A	Sidechain
23	BB	221	A	Sidechain
23	BB	222	A	Sidechain
23	BB	2272	U	Sidechain
23	BB	2319	G	Sidechain
23	BB	2471	A	Sidechain
23	BB	2503	A	Sidechain

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Mol	Chain	Res	Type	Group
23	BB	2638	G	Sidechain
23	BB	2733	A	Sidechain
23	BB	2848	G	Sidechain
23	BB	2857	G	Sidechain
23	BB	2868	A	Sidechain
23	BB	299	A	Sidechain
23	BB	361	G	Sidechain
23	BB	427	U	Sidechain
23	BB	51	G	Sidechain
23	BB	630	G	Sidechain
23	BB	727	A	Sidechain
23	BB	729	G	Sidechain
23	BB	757	G	Sidechain
1	CA	1006	G	Sidechain
1	CA	1047	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	496	A	Sidechain
1	CA	703	G	Sidechain
1	CA	82	G	Sidechain
1	CA	832	G	Sidechain
1	CA	992	U	Sidechain
23	DB	1047	G	Sidechain
23	DB	1060	U	Sidechain
23	DB	1086	A	Sidechain
23	DB	1088	A	Sidechain
23	DB	1439	A	Sidechain
23	DB	1533	C	Sidechain
23	DB	1538	G	Sidechain
23	DB	1546	G	Sidechain
23	DB	1572	A	Sidechain
23	DB	1645	G	Sidechain
23	DB	1734	G	Sidechain
23	DB	1792	G	Sidechain
23	DB	1814	G	Sidechain
23	DB	1828	G	Sidechain
23	DB	2062	A	Sidechain
23	DB	2109	U	Sidechain

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Mol	Chain	Res	Type	Group
23	DB	2135	A	Sidechain
23	DB	2136	G	Sidechain
23	DB	2155	U	Sidechain
23	DB	221	A	Sidechain
23	DB	222	A	Sidechain
23	DB	2272	U	Sidechain
23	DB	2319	G	Sidechain
23	DB	2471	A	Sidechain
23	DB	2503	A	Sidechain
23	DB	2638	G	Sidechain
23	DB	2733	A	Sidechain
23	DB	2848	G	Sidechain
23	DB	2857	G	Sidechain
23	DB	2868	A	Sidechain
23	DB	299	A	Sidechain
23	DB	356	G	Sidechain
23	DB	427	U	Sidechain
23	DB	51	G	Sidechain
23	DB	630	G	Sidechain
23	DB	727	A	Sidechain
23	DB	729	G	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	1357	0
1	CA	32831	0	16521	1382	0
2	AC	1624	0	1699	143	0
2	CC	1624	0	1699	152	0
3	AD	1643	0	1710	177	0
3	CD	1643	0	1710	171	0
4	AE	1105	0	1148	109	0
4	CE	1105	0	1148	120	0
5	AF	817	0	808	103	0
5	CF	817	0	808	94	0
6	AG	1174	0	1230	121	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
6	CG	1196	0	1246	112	0
7	AH	979	0	1034	102	0
7	CH	979	0	1034	103	0
8	AI	1022	0	1070	157	0
8	CI	1022	0	1070	154	0
9	AJ	786	0	828	79	0
9	CJ	786	0	828	84	0
10	AK	877	0	887	101	0
10	CK	877	0	887	103	0
11	AL	955	0	1019	93	0
11	CL	955	0	1019	96	0
12	AM	883	0	944	113	0
12	CM	876	0	937	113	0
13	AN	774	0	827	102	0
13	CN	774	0	827	94	0
14	AO	715	0	742	54	0
14	CO	715	0	742	49	0
15	AP	649	0	666	61	0
15	CP	638	0	656	62	0
16	AQ	648	0	691	80	0
16	CQ	656	0	702	79	0
17	AR	455	0	478	37	0
17	CR	455	0	478	38	0
18	AS	637	0	665	103	0
18	CS	644	0	675	100	0
19	AT	665	0	714	54	0
19	CT	665	0	714	54	0
20	AB	1704	0	1732	220	0
20	CB	1704	0	1732	220	0
21	AU	425	0	449	79	0
21	CU	425	0	449	70	0
22	BA	2507	0	1270	110	0
22	DA	2507	0	1270	111	0
23	BB	60995	0	30678	2410	0
23	DB	60995	0	30677	2500	0
24	BV	753	0	780	93	0
24	DV	753	0	780	93	0
25	BC	2082	0	2157	270	0
25	DC	2082	0	2157	283	0
26	BD	1565	0	1616	224	0
26	DD	1565	0	1616	233	0
27	BE	1552	0	1619	191	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
27	DE	1552	0	1619	180	0
28	BF	1420	0	1460	249	0
28	DF	1420	0	1460	250	0
29	BG	1323	0	1374	172	0
29	DG	1323	0	1374	170	0
30	BH	1111	0	1148	184	0
30	DH	1111	0	1148	156	0
31	BJ	1129	0	1162	158	0
31	DJ	1129	0	1162	160	0
32	BK	930	0	1000	131	0
32	DK	930	0	1000	142	0
33	BL	1045	0	1117	161	0
33	DL	1045	0	1117	163	0
34	BM	1074	0	1157	123	0
34	DM	1074	0	1157	121	0
35	BN	960	0	1000	146	0
35	DN	960	0	1000	138	0
36	BO	892	0	923	102	0
36	DO	892	0	923	108	0
37	BP	917	0	965	116	0
37	DP	917	0	965	118	0
38	BQ	947	0	1022	166	0
38	DQ	947	0	1022	176	0
39	BR	816	0	839	130	0
39	DR	816	0	839	144	0
40	BS	857	0	922	95	0
40	DS	857	0	922	98	0
41	BT	738	0	807	135	0
41	DT	738	0	807	129	0
42	BU	779	0	834	135	0
42	DU	779	0	834	123	0
43	BW	596	0	610	134	0
43	DW	596	0	610	141	0
44	BX	509	0	543	59	0
44	DX	509	0	543	56	0
45	BY	449	0	491	50	0
45	DY	449	0	491	52	0
46	BZ	625	0	652	95	0
46	DZ	625	0	652	97	0
47	B0	444	0	461	43	0
47	D0	444	0	461	45	0
48	B1	409	0	440	58	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
48	D1	409	0	440	44	0
49	B2	377	0	418	48	0
49	D2	377	0	418	47	0
50	B3	504	0	574	45	0
50	D3	504	0	574	44	0
51	B4	302	0	340	41	0
51	D4	302	0	340	37	0
52	BI	1032	0	1088	121	0
52	DI	1032	0	1088	189	0
53	AA	58	0	0	0	0
53	AE	1	0	0	0	0
53	AN	1	0	0	0	0
53	BB	110	0	0	0	0
53	CA	61	0	0	0	0
53	CE	1	0	0	0	0
53	DB	111	0	0	0	0
54	AA	36	0	37	2	0
54	CA	36	0	37	1	0
55	B4	1	0	0	0	0
55	D4	1	0	0	0	0
56	AA	282	0	0	4	0
56	AE	4	0	0	0	0
56	AK	2	0	0	0	0
56	AL	5	0	0	0	0
56	AN	4	0	0	0	0
56	AT	3	0	0	0	0
56	B2	1	0	0	0	0
56	BB	492	0	0	5	0
56	BC	8	0	0	0	0
56	BD	1	0	0	0	0
56	BE	2	0	0	0	0
56	BH	1	0	0	0	0
56	BL	2	0	0	0	0
56	CA	294	0	0	0	0
56	CE	4	0	0	0	0
56	CI	1	0	0	0	0
56	CK	1	0	0	0	0
56	CL	3	0	0	0	0
56	CN	3	0	0	0	0
56	CT	1	0	0	0	0
56	D2	1	0	0	0	0
56	DB	499	0	0	8	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	DC	5	0	0	0	0
56	DD	1	0	0	0	0
56	DE	1	0	0	0	0
56	DL	5	0	0	1	0
56	DP	1	0	0	0	0
All	All	284077	0	190751	17785	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 38.

All (17785) 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	52:DI:3:LYS:N	1.38	1.20
23:BB:855:G:H21	43:BW:23:LYS:HG2	1.08	1.15
42:DU:85:ARG:HD3	42:DU:86:PHE:H	1.13	1.14
41:DT:5:GLU:HA	41:DT:8:LEU:HB2	1.25	1.13
42:BU:85:ARG:HD3	42:BU:86:PHE:H	1.11	1.12
41:BT:5:GLU:HA	41:BT:8:LEU:HB2	1.25	1.12
1:CA:1533:C:H2'	1:CA:1534:A:H3'	1.34	1.08
23:DB:545:U:H5''	23:DB:546:U:H4'	1.25	1.08
23:DB:1098:A:H3'	52:DI:3:LYS:HA	1.38	1.05
21:AU:16:ARG:HA	21:AU:16:ARG:HE	1.20	1.04
23:BB:1338:G:H4'	41:BT:18:GLU:HG3	1.40	1.04
23:DB:1099:G:C8	52:DI:3:LYS:N	2.26	1.04
26:BD:106:LYS:HB3	26:BD:206:ALA:H	1.23	1.03
1:AA:1221:G:H4'	18:AS:76:THR:HG21	1.40	1.03
31:DJ:58:ASN:HA	31:DJ:127:GLY:HA2	1.40	1.03
31:BJ:58:ASN:HA	31:BJ:127:GLY:HA2	1.38	1.03
45:DY:8:GLN:HG2	45:DY:31:ILE:HA	1.40	1.02
8:AI:20:ILE:HA	8:AI:62:LEU:HD12	1.37	1.02
23:DB:1099:G:O5'	52:DI:4:VAL:N	1.92	1.02
28:DF:36:ASN:HD22	28:DF:152:ASP:HB2	1.24	1.02
1:CA:1221:G:H4'	18:CS:76:THR:HG21	1.41	1.02
23:DB:1098:A:H3'	52:DI:3:LYS:CA	1.87	1.02
32:DK:35:VAL:HG23	32:DK:36:GLY:H	1.23	1.02
21:CU:16:ARG:HA	21:CU:16:ARG:HE	1.23	1.02
32:BK:35:VAL:HG23	32:BK:36:GLY:H	1.24	1.01
8:CI:20:ILE:HA	8:CI:62:LEU:HD12	1.37	1.01
28:DF:126:ASN:HD22	28:DF:156:THR:HG23	1.20	1.01
42:BU:80:ASP:HB3	42:BU:96:LYS:H	1.25	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BF:126:ASN:HD22	28:BF:156:THR:HG23	1.20	1.01
35:BN:2:ARG:HA	35:BN:5:LYS:HD3	1.43	1.01
23:DB:1812:U:H1'	25:DC:43:ASN:HD21	1.23	1.01
31:DJ:17:VAL:HG23	31:DJ:137:PRO:HB2	1.42	1.01
23:BB:1812:U:H1'	25:BC:43:ASN:HD21	1.25	1.01
23:DB:1338:G:H4'	41:DT:18:GLU:HG3	1.40	1.01
28:BF:65:LEU:H	28:BF:88:VAL:HG22	1.24	1.00
35:DN:29:VAL:HG12	35:DN:83:LEU:HD21	1.40	1.00
1:AA:1086:U:H3	1:AA:1099:G:H22	1.10	1.00
25:BC:77:VAL:HG23	25:BC:112:GLY:H	1.23	1.00
31:BJ:17:VAL:HG23	31:BJ:137:PRO:HB2	1.39	1.00
45:BY:8:GLN:HG2	45:BY:31:ILE:HA	1.42	1.00
23:DB:137:U:H2'	23:DB:138:U:O4'	1.59	1.00
23:DB:1244:A:H5''	33:DL:8:PRO:HD3	1.41	1.00
38:DQ:63:ARG:HH22	38:DQ:96:ASP:HA	1.26	1.00
13:AN:51:PRO:HB2	13:AN:54:SER:HB3	1.44	1.00
28:BF:36:ASN:HD22	28:BF:152:ASP:HB2	1.26	1.00
35:BN:96:ARG:HH11	35:BN:116:VAL:HG23	1.24	1.00
42:BU:38:ILE:HG23	42:BU:39:ASN:H	1.25	1.00
20:CB:202:ASN:HD22	20:CB:204:ASP:H	1.06	1.00
42:DU:80:ASP:HB3	42:DU:96:LYS:H	1.22	1.00
5:CF:92:THR:HG22	5:CF:94:HIS:H	1.26	1.00
25:DC:77:VAL:HG23	25:DC:112:GLY:H	1.23	1.00
30:BH:7:ASP:HA	30:BH:15:LEU:HD22	1.44	0.99
23:DB:1174:U:H1'	23:DB:1176:U:H1'	1.43	0.99
35:BN:2:ARG:HG2	35:BN:5:LYS:HB2	1.43	0.99
30:DH:127:GLU:HA	30:DH:145:ASN:HA	1.44	0.99
10:CK:33:ILE:HB	10:CK:73:VAL:HG11	1.42	0.99
23:BB:1203:U:H1'	33:BL:4:ASN:HD21	1.21	0.99
35:DN:2:ARG:HA	35:DN:5:LYS:HD3	1.44	0.99
26:DD:106:LYS:HB3	26:DD:206:ALA:H	1.24	0.98
42:DU:38:ILE:HG23	42:DU:39:ASN:H	1.26	0.98
20:CB:46:VAL:HG13	20:CB:47:PRO:HD3	1.45	0.98
40:BS:24:ILE:HD11	40:BS:36:LEU:HD11	1.43	0.98
1:CA:1086:U:H3	1:CA:1099:G:H22	1.11	0.98
13:CN:51:PRO:HB2	13:CN:54:SER:HB3	1.45	0.98
2:AC:128:MET:HB2	2:AC:131:ARG:HB2	1.46	0.98
30:DH:7:ASP:HA	30:DH:15:LEU:HD22	1.45	0.98
38:BQ:63:ARG:HH22	38:BQ:96:ASP:HA	1.28	0.98
31:BJ:112:GLY:H	31:BJ:113:PRO:HD2	1.29	0.97
33:DL:79:LEU:HB2	33:DL:113:ALA:HB3	1.45	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CC:48:LYS:HE2	2:CC:48:LYS:H	1.29	0.97
5:AF:92:THR:HG22	5:AF:94:HIS:H	1.26	0.97
35:BN:29:VAL:HG12	35:BN:83:LEU:HD21	1.43	0.97
25:DC:144:GLU:HG3	25:DC:151:GLY:H	1.23	0.97
31:DJ:112:GLY:H	31:DJ:113:PRO:HD2	1.28	0.97
20:AB:202:ASN:HD22	20:AB:204:ASP:H	1.07	0.96
23:DB:1654:A:O2'	26:DD:118:PHE:HB2	1.65	0.96
10:AK:33:ILE:HB	10:AK:73:VAL:HG11	1.44	0.96
33:BL:79:LEU:HB2	33:BL:113:ALA:HB3	1.47	0.96
1:CA:465:A:H2'	1:CA:466:A:H3'	1.46	0.96
20:AB:46:VAL:HG13	20:AB:47:PRO:HD3	1.47	0.96
23:BB:1420:A:H2'	23:BB:2211:A:H62	1.28	0.96
25:BC:144:GLU:HG3	25:BC:151:GLY:H	1.28	0.96
23:BB:460:A:H4'	41:BT:72:GLN:HB2	1.45	0.96
2:CC:69:THR:HG21	2:CC:75:VAL:HG21	1.48	0.96
28:DF:65:LEU:H	28:DF:88:VAL:HG22	1.25	0.96
23:DB:1420:A:H2'	23:DB:2211:A:H62	1.28	0.95
23:BB:962:G:H21	23:BB:2250:G:H22	1.13	0.95
23:BB:2502:G:H5'	23:BB:2503:A:H5''	1.49	0.95
33:DL:29:LYS:HG3	33:DL:30:THR:HG23	1.48	0.95
1:AA:1399:C:H4'	1:AA:1400:C:H5''	1.48	0.95
34:BM:40:ARG:HD3	34:BM:93:VAL:HG21	1.48	0.95
34:DM:40:ARG:HD3	34:DM:93:VAL:HG21	1.45	0.95
2:AC:69:THR:HG21	2:AC:75:VAL:HG21	1.48	0.95
25:BC:183:VAL:HG13	25:BC:185:ALA:H	1.29	0.95
5:CF:29:ILE:HG21	5:CF:64:VAL:HG11	1.48	0.95
35:DN:2:ARG:HG2	35:DN:5:LYS:HB2	1.47	0.95
23:BB:1244:A:H5''	33:BL:8:PRO:HD3	1.48	0.95
18:AS:18:VAL:HG21	18:AS:43:MET:HG2	1.48	0.95
23:DB:2502:G:H5'	23:DB:2503:A:H5''	1.47	0.95
25:DC:27:LYS:HG3	25:DC:28:PRO:HD2	1.46	0.94
15:AP:28:ARG:HD2	15:AP:29:ASN:H	1.32	0.94
25:DC:183:VAL:HG13	25:DC:185:ALA:H	1.28	0.94
1:AA:465:A:H2'	1:AA:466:A:H3'	1.49	0.94
5:AF:29:ILE:HG21	5:AF:64:VAL:HG11	1.49	0.94
23:BB:1283:G:H22	23:BB:1286:A:H5'	1.31	0.94
25:BC:146:LYS:HB3	25:BC:147:PRO:HD2	1.47	0.94
1:CA:1399:C:H4'	1:CA:1400:C:H5''	1.48	0.94
23:DB:1099:G:H8	52:DI:3:LYS:H	1.01	0.94
44:DX:39:GLN:HB3	44:DX:42:LEU:HD13	1.48	0.94
2:CC:128:MET:HB2	2:CC:131:ARG:HB2	1.46	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:855:G:H21	43:DW:23:LYS:HG2	1.33	0.93
25:BC:27:LYS:HG3	25:BC:28:PRO:HD2	1.49	0.93
21:CU:24:LYS:HZ3	21:CU:25:ALA:H	1.17	0.93
23:DB:1283:G:H22	23:DB:1286:A:H5'	1.29	0.93
10:AK:88:PRO:HD3	21:AU:28:LEU:HD11	1.49	0.93
40:DS:24:ILE:HD11	40:DS:36:LEU:HD11	1.48	0.93
46:DZ:40:VAL:HG21	46:DZ:43:GLU:HB3	1.50	0.93
23:BB:855:G:N2	43:BW:23:LYS:HG2	1.82	0.93
33:BL:29:LYS:HG3	33:BL:30:THR:HG23	1.50	0.93
20:CB:65:LYS:HB2	20:CB:158:ASP:H	1.34	0.93
26:BD:114:LYS:HZ2	26:BD:116:LYS:HZ2	0.97	0.93
3:CD:116:LEU:HB3	3:CD:122:ILE:HD11	1.50	0.93
26:DD:106:LYS:HB3	26:DD:206:ALA:N	1.84	0.93
44:BX:39:GLN:HB3	44:BX:42:LEU:HD13	1.49	0.92
1:CA:1003:G:H21	1:CA:1005:A:H5'	1.33	0.92
1:AA:1432:G:H5''	37:BP:105:LYS:HG2	1.47	0.92
12:CM:21:ILE:HB	12:CM:24:VAL:HG22	1.48	0.92
2:AC:48:LYS:HE2	2:AC:48:LYS:H	1.33	0.92
10:CK:88:PRO:HD3	21:CU:28:LEU:HD11	1.50	0.92
35:DN:37:THR:HG22	35:DN:39:PRO:HD2	1.50	0.92
28:BF:62:GLN:HE22	28:BF:90:LEU:HD13	1.35	0.92
15:CP:28:ARG:HD2	15:CP:29:ASN:H	1.33	0.92
25:DC:146:LYS:HB3	25:DC:147:PRO:HD2	1.48	0.92
3:CD:90:LEU:HA	3:CD:93:LEU:HD12	1.50	0.92
12:AM:21:ILE:HB	12:AM:24:VAL:HG22	1.49	0.92
22:BA:54:G:H21	28:BF:25:MET:HE3	1.35	0.92
26:BD:106:LYS:HB3	26:BD:206:ALA:N	1.83	0.92
1:AA:1003:G:N2	1:AA:1005:A:H5'	1.85	0.91
30:BH:31:VAL:HB	30:BH:32:PRO:HD3	1.50	0.91
28:DF:43:ILE:HG23	28:DF:44:ALA:H	1.34	0.91
43:DW:51:GLY:HA3	43:DW:59:PHE:HB2	1.53	0.91
23:BB:856:G:H1'	43:BW:23:LYS:HB3	1.53	0.91
23:DB:2365:G:H4'	43:DW:59:PHE:HE1	1.34	0.91
52:DI:11:GLN:HG2	52:DI:55:PRO:HB3	1.52	0.91
25:BC:128:THR:HA	25:BC:190:THR:HG22	1.52	0.91
30:BH:128:HIS:HB2	30:BH:144:VAL:HB	1.51	0.91
3:AD:116:LEU:HB3	3:AD:122:ILE:HD11	1.51	0.91
28:DF:62:GLN:HE22	28:DF:90:LEU:HD13	1.33	0.91
5:AF:3:HIS:ND1	5:AF:92:THR:HG23	1.85	0.91
26:BD:5:VAL:H	26:BD:32:ASN:HD21	1.13	0.91
30:DH:131:SER:HB2	30:DH:141:LYS:HA	1.52	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AB:65:LYS:HB2	20:AB:158:ASP:H	1.34	0.91
26:BD:113:SER:HB3	26:BD:168:GLU:H	1.36	0.91
23:BB:2787:C:H1'	26:BD:63:PRO:HG3	1.50	0.91
31:BJ:72:LYS:HB2	31:BJ:89:PHE:HB2	1.53	0.91
5:CF:38:ARG:HH21	5:CF:63:ASN:ND2	1.69	0.91
1:AA:1003:G:H21	1:AA:1005:A:H5'	1.33	0.90
23:BB:470:A:H61	41:BT:72:GLN:HE22	1.12	0.90
8:AI:5:TYR:HB2	8:AI:20:ILE:HB	1.51	0.90
32:BK:47:ILE:HG12	32:BK:48:PRO:HD2	1.53	0.90
8:CI:5:TYR:HB2	8:CI:20:ILE:HB	1.51	0.90
22:DA:54:G:H21	28:DF:25:MET:HE3	1.36	0.90
30:DH:31:VAL:HB	30:DH:32:PRO:HD3	1.51	0.90
30:DH:48:GLU:HB2	30:DH:51:ARG:HH21	1.34	0.90
28:BF:11:VAL:HG12	28:BF:12:VAL:H	1.36	0.90
28:BF:43:ILE:HG23	28:BF:44:ALA:H	1.34	0.90
23:BB:547:A:H3'	23:BB:548:G:H8	1.35	0.90
27:BE:58:LYS:HD3	27:BE:58:LYS:H	1.34	0.90
23:DB:962:G:H21	23:DB:2250:G:H22	1.13	0.90
30:BH:116:ARG:HH11	30:BH:116:ARG:HB2	1.36	0.90
43:BW:18:LYS:HA	43:BW:36:ILE:HG12	1.54	0.90
28:DF:3:LEU:HD21	28:DF:172:PHE:HB3	1.53	0.90
16:AQ:74:LEU:HD22	16:AQ:75:VAL:H	1.35	0.90
40:BS:26:GLY:H	40:BS:71:VAL:HG13	1.37	0.90
1:AA:699:C:H2'	1:AA:700:G:H5''	1.49	0.90
1:CA:1003:G:N2	1:CA:1005:A:H5'	1.87	0.90
5:CF:3:HIS:ND1	5:CF:92:THR:HG23	1.86	0.90
20:CB:85:SER:HB3	20:CB:221:ARG:HD3	1.54	0.90
26:DD:5:VAL:H	26:DD:32:ASN:HD21	1.11	0.90
23:DB:1060:U:N3	23:DB:1088:A:N7	2.20	0.90
3:AD:160:LEU:H	3:AD:160:LEU:HD13	1.37	0.90
6:AG:3:ARG:HD3	6:AG:3:ARG:H	1.36	0.90
23:BB:858:G:N3	23:BB:2268:A:H2'	1.87	0.90
43:DW:9:THR:HG23	43:DW:10:ARG:HD3	1.52	0.90
46:DZ:6:GLN:HE22	46:DZ:50:ARG:H	1.17	0.90
21:AU:24:LYS:HZ3	21:AU:25:ALA:H	1.16	0.89
27:DE:58:LYS:HD3	27:DE:58:LYS:H	1.36	0.89
3:AD:90:LEU:HA	3:AD:93:LEU:HD12	1.51	0.89
23:BB:136:G:H2'	23:BB:137:U:C6	2.07	0.89
18:CS:18:VAL:HG21	18:CS:43:MET:HG2	1.51	0.89
23:BB:2356:U:H5''	43:BW:16:GLU:HG3	1.54	0.89
38:BQ:79:ILE:HA	38:BQ:82:LEU:HD12	1.53	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DN:32:GLU:HG3	35:DN:115:LEU:HD12	1.51	0.89
30:BH:116:ARG:HE	30:BH:139:PHE:HB2	1.37	0.89
1:AA:812:G:HO2'	1:AA:813:U:H6	0.91	0.89
20:AB:112:ARG:HD2	20:AB:116:LEU:HD12	1.54	0.89
23:BB:1173:U:H2'	23:BB:1174:U:H4'	1.52	0.89
3:CD:160:LEU:HD13	3:CD:160:LEU:H	1.36	0.89
1:AA:600:A:H5''	7:AH:88:LYS:HD2	1.54	0.89
8:AI:34:LEU:HD21	8:AI:48:ARG:HH21	1.37	0.89
35:BN:37:THR:HG22	35:BN:39:PRO:HD2	1.53	0.89
23:DB:1024:G:H3'	23:DB:1025:G:H5''	1.53	0.89
31:DJ:36:LEU:HD21	31:DJ:122:LEU:HB2	1.53	0.89
35:DN:96:ARG:HH11	35:DN:116:VAL:HG23	1.35	0.89
4:CE:21:SER:HB2	4:CE:28:ARG:HE	1.37	0.89
23:DB:79:C:HO2'	23:DB:346:A:H8	1.20	0.89
23:DB:117:G:H5'	23:DB:126:A:H8	1.36	0.89
26:DD:113:SER:HB3	26:DD:168:GLU:H	1.37	0.89
23:BB:1060:U:N3	23:BB:1088:A:N7	2.20	0.89
23:BB:1654:A:O2'	26:BD:118:PHE:HB2	1.72	0.89
23:BB:2305:U:H5''	28:BF:130:GLY:HA3	1.55	0.89
28:BF:3:LEU:HD21	28:BF:172:PHE:HB3	1.54	0.89
25:DC:128:THR:HA	25:DC:190:THR:HG22	1.53	0.89
33:BL:57:LEU:HD12	33:BL:60:ARG:HH22	1.36	0.89
24:DV:44:HIS:HE1	24:DV:86:LEU:H	1.20	0.89
40:DS:26:GLY:H	40:DS:71:VAL:HG13	1.34	0.89
16:CQ:74:LEU:HD22	16:CQ:75:VAL:H	1.38	0.89
12:AM:52:ILE:HD12	12:AM:55:LEU:HD12	1.54	0.88
46:BZ:40:VAL:HG21	46:BZ:43:GLU:HB3	1.53	0.88
28:DF:11:VAL:HG12	28:DF:12:VAL:H	1.36	0.88
31:DJ:72:LYS:HB2	31:DJ:89:PHE:HB2	1.53	0.88
1:CA:812:G:HO2'	1:CA:813:U:H6	0.93	0.88
27:DE:98:LYS:HZ1	27:DE:99:LYS:HG2	1.38	0.88
1:AA:429:U:H5'	3:AD:8:LEU:HG	1.56	0.88
23:BB:27:G:H22	23:BB:512:G:H2'	1.38	0.88
52:BI:129:GLU:HB3	52:BI:133:ARG:HH12	1.35	0.88
23:DB:27:G:H22	23:DB:512:G:H2'	1.38	0.88
23:DB:858:G:N3	23:DB:2268:A:H2'	1.88	0.88
5:CF:3:HIS:HB2	5:CF:92:THR:HA	1.55	0.88
20:CB:112:ARG:HD2	20:CB:116:LEU:HD12	1.55	0.88
25:DC:180:MET:HB2	25:DC:268:ARG:HB2	1.56	0.88
5:AF:3:HIS:HB2	5:AF:92:THR:HA	1.56	0.88
20:AB:85:SER:HB3	20:AB:221:ARG:HD3	1.52	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BH:73:ASN:HD22	30:BH:74:ALA:H	1.21	0.88
31:BJ:36:LEU:HD21	31:BJ:122:LEU:HB2	1.54	0.88
1:CA:699:C:H2'	1:CA:700:G:H5''	1.53	0.88
23:DB:2882:A:H4'	35:DN:97:ILE:HD11	1.56	0.88
30:DH:31:VAL:HB	30:DH:32:PRO:CD	2.04	0.88
27:BE:98:LYS:HZ1	27:BE:99:LYS:HG2	1.36	0.88
6:CG:14:ASP:H	6:CG:23:ALA:HB2	1.38	0.88
6:CG:46:LEU:HG	6:CG:57:GLU:HB3	1.56	0.88
37:DP:4:ILE:HG22	37:DP:5:LYS:H	1.39	0.88
8:CI:34:LEU:HD21	8:CI:48:ARG:HH21	1.37	0.87
19:CT:24:ARG:HG3	19:CT:65:LEU:HD11	1.55	0.87
39:DR:14:VAL:HG22	39:DR:15:SER:H	1.36	0.87
43:BW:9:THR:HG23	43:BW:10:ARG:HD3	1.53	0.87
48:D1:7:LYS:HA	48:D1:23:THR:HG22	1.57	0.87
6:AG:14:ASP:H	6:AG:23:ALA:HB2	1.37	0.87
12:AM:70:ARG:HH12	28:BF:112:ASP:HB2	1.37	0.87
26:BD:29:VAL:HB	26:BD:98:VAL:HG22	1.56	0.87
3:AD:105:GLY:HA3	3:AD:158:LEU:HD23	1.55	0.87
43:BW:51:GLY:HA3	43:BW:59:PHE:HB2	1.55	0.87
23:DB:2179:C:O2	23:DB:2179:C:H2'	1.75	0.87
30:BH:31:VAL:HB	30:BH:32:PRO:CD	2.04	0.87
1:AA:981:U:H4'	13:AN:60:ARG:HD2	1.55	0.87
37:BP:4:ILE:HG22	37:BP:5:LYS:H	1.39	0.87
42:DU:81:ARG:H	42:DU:81:ARG:HH21	1.22	0.87
29:DG:8:VAL:HG11	29:DG:49:LEU:HB3	1.57	0.87
23:BB:470:A:H61	41:BT:72:GLN:NE2	1.72	0.86
24:BV:44:HIS:HE1	24:BV:86:LEU:H	1.21	0.86
40:DS:29:VAL:HG11	40:DS:55:ILE:HD13	1.54	0.86
1:CA:817:C:H1'	1:CA:819:A:H5'	1.57	0.86
23:DB:1084:A:H1'	23:DB:1106:G:H5'	1.55	0.86
4:AE:81:GLN:HG2	4:AE:148:SER:HA	1.57	0.86
48:B1:7:LYS:HA	48:B1:23:THR:HG22	1.54	0.86
1:CA:600:A:H5''	7:CH:88:LYS:HD2	1.57	0.86
32:DK:47:ILE:HG12	32:DK:48:PRO:HD2	1.54	0.86
33:DL:57:LEU:HD12	33:DL:60:ARG:HH22	1.40	0.86
52:BI:27:LEU:HD23	52:BI:27:LEU:H	1.40	0.86
1:AA:72:A:H61	1:AA:99:C:H1'	1.41	0.86
6:CG:129:ASN:HA	6:CG:134:VAL:HG11	1.57	0.86
23:DB:2787:C:H1'	26:DD:63:PRO:HG3	1.58	0.86
24:BV:72:VAL:HG12	24:BV:93:ARG:HA	1.58	0.86
1:CA:981:U:H4'	13:CN:60:ARG:HD2	1.58	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1437:C:H2'	23:DB:1438:U:C6	2.10	0.86
20:AB:125:PHE:HD2	20:AB:125:PHE:H	1.24	0.86
23:BB:2723:C:H5''	35:BN:1:MET:HE2	1.58	0.86
23:DB:996:A:H4'	38:DQ:91:ARG:HD2	1.56	0.86
26:DD:29:VAL:HB	26:DD:98:VAL:HG22	1.57	0.86
39:DR:19:THR:HG22	39:DR:97:LYS:HA	1.58	0.86
46:BZ:6:GLN:HE22	46:BZ:50:ARG:H	1.21	0.86
1:CA:1328:C:H5''	12:CM:27:THR:HG21	1.56	0.86
6:AG:149:ALA:H	10:AK:55:ARG:NH2	1.73	0.86
10:AK:86:LYS:HB3	10:AK:112:VAL:HG23	1.58	0.86
15:AP:61:VAL:HA	15:AP:65:ALA:HB3	1.57	0.86
35:BN:102:PHE:H	35:BN:109:PRO:HA	1.40	0.86
23:BB:1024:G:H3'	23:BB:1025:G:H5''	1.57	0.85
23:BB:2769:U:H2'	23:BB:2770:G:H8	1.39	0.85
42:BU:81:ARG:HH21	42:BU:81:ARG:H	1.23	0.85
38:DQ:105:PHE:HA	38:DQ:108:LEU:HD13	1.57	0.85
48:B1:26:LYS:HD3	48:B1:52:LYS:HB3	1.56	0.85
23:DB:2269:G:H4'	43:DW:19:ARG:HH12	1.41	0.85
26:DD:148:GLN:HB2	26:DD:152:PRO:HG2	1.58	0.85
39:BR:19:THR:HG22	39:BR:97:LYS:HA	1.58	0.85
1:CA:426:U:H4'	3:CD:39:GLN:HA	1.59	0.85
23:BB:546:U:H4'	23:BB:547:A:OP1	1.77	0.85
29:BG:8:VAL:HG11	29:BG:49:LEU:HB3	1.56	0.85
37:BP:20:ARG:HD2	37:BP:21:PRO:HD2	1.56	0.85
49:B2:30:VAL:HG22	49:B2:33:ARG:HH22	1.41	0.85
3:AD:138:PRO:HA	3:AD:181:PHE:HD2	1.42	0.85
25:BC:180:MET:HB2	25:BC:268:ARG:HB2	1.58	0.85
30:BH:100:ALA:HA	30:BH:110:VAL:HG22	1.56	0.85
31:BJ:25:LEU:HD22	31:BJ:26:GLY:H	1.39	0.85
1:CA:429:U:H5'	3:CD:8:LEU:HG	1.56	0.85
15:CP:40:ASN:HD21	15:CP:43:ALA:N	1.74	0.85
26:DD:14:ILE:HA	37:DP:11:GLN:HE22	1.41	0.85
35:DN:102:PHE:H	35:DN:109:PRO:HA	1.39	0.85
41:DT:11:LEU:HD22	41:DT:11:LEU:H	1.42	0.85
6:AG:46:LEU:HG	6:AG:57:GLU:HB3	1.56	0.85
9:AJ:42:LEU:HD11	9:AJ:73:LEU:HB2	1.58	0.85
37:DP:20:ARG:HD2	37:DP:21:PRO:HD2	1.58	0.85
32:BK:71:ARG:HD2	32:BK:105:ARG:HE	1.40	0.85
39:BR:14:VAL:HG22	39:BR:15:SER:H	1.40	0.85
8:CI:26:LYS:H	8:CI:61:ASP:HB3	1.42	0.85
34:DM:19:GLY:HA2	34:DM:97:GLN:HB2	1.58	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DW:18:LYS:HA	43:DW:36:ILE:HG12	1.56	0.85
20:AB:221:ARG:HG3	20:AB:222:GLU:HG2	1.57	0.85
24:DV:72:VAL:HG12	24:DV:93:ARG:HA	1.55	0.85
29:BG:15:ASP:HB3	29:BG:26:LYS:H	1.41	0.85
41:BT:53:VAL:HG11	41:BT:87:LEU:HD13	1.58	0.85
1:CA:120:A:H2'	1:CA:121:U:H5''	1.57	0.85
27:DE:31:VAL:HG21	27:DE:104:ALA:HB2	1.59	0.85
33:DL:6:LEU:H	33:DL:6:LEU:HD23	1.42	0.85
19:AT:24:ARG:HG3	19:AT:65:LEU:HD11	1.57	0.85
1:CA:1323:G:H2'	1:CA:1324:A:C8	2.12	0.85
34:DM:55:ARG:HA	34:DM:55:ARG:HH21	1.42	0.85
36:DO:11:ALA:HB3	36:DO:96:GLY:H	1.42	0.85
3:CD:105:GLY:HA3	3:CD:158:LEU:HD23	1.58	0.84
29:DG:26:LYS:HA	29:DG:32:LEU:H	1.40	0.84
6:AG:129:ASN:HA	6:AG:134:VAL:HG11	1.57	0.84
15:AP:40:ASN:HD21	15:AP:43:ALA:N	1.75	0.84
9:CJ:42:LEU:HD11	9:CJ:73:LEU:HB2	1.59	0.84
32:DK:71:ARG:HD2	32:DK:105:ARG:HE	1.40	0.84
41:DT:57:VAL:HG22	41:DT:58:VAL:H	1.42	0.84
1:AA:1493:A:H1'	54:AA:2059:HYG:H362	1.41	0.84
23:BB:2039:U:H2'	23:BB:2040:G:H8	1.43	0.84
23:BB:532:A:H2'	38:BQ:27:ARG:HH22	1.41	0.84
20:CB:221:ARG:HG3	20:CB:222:GLU:HG2	1.58	0.84
1:AA:1060:U:H4'	9:AJ:54:SER:HB2	1.57	0.84
8:AI:26:LYS:H	8:AI:61:ASP:HB3	1.41	0.84
15:CP:61:VAL:HA	15:CP:65:ALA:HB3	1.58	0.84
23:DB:2769:U:H2'	23:DB:2770:G:H8	1.43	0.84
1:AA:1323:G:H2'	1:AA:1324:A:C8	2.13	0.84
23:BB:140:C:H4'	23:BB:141:G:H21	1.40	0.84
23:BB:1437:C:H2'	23:BB:1438:U:C6	2.13	0.84
32:BK:86:LEU:HD23	32:BK:86:LEU:H	1.42	0.84
1:AA:781:A:H2'	1:AA:782:A:H5'	1.59	0.84
29:BG:26:LYS:HA	29:BG:32:LEU:H	1.41	0.84
49:B2:10:LEU:HD21	49:B2:14:ARG:HH11	1.41	0.84
34:DM:19:GLY:H	34:DM:38:ARG:HH12	1.26	0.84
41:DT:29:THR:HA	41:DT:86:THR:HA	1.59	0.84
4:AE:21:SER:HB2	4:AE:28:ARG:HE	1.40	0.84
14:AO:88:ARG:HA	14:AO:88:ARG:HH11	1.43	0.84
1:AA:120:A:H2'	1:AA:121:U:H5''	1.59	0.83
21:CU:36:PHE:HB3	21:CU:40:PRO:HD3	1.59	0.83
25:DC:131:MET:HE2	25:DC:189:ALA:HB2	1.59	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BM:19:GLY:H	34:BM:38:ARG:HH12	1.26	0.83
41:BT:57:VAL:HG22	41:BT:58:VAL:H	1.43	0.83
1:CA:1060:U:H4'	9:CJ:54:SER:HB2	1.59	0.83
23:DB:2743:U:H2'	23:DB:2744:G:H5''	1.58	0.83
2:AC:70:ALA:HA	2:AC:105:VAL:HG21	1.59	0.83
23:BB:1674:G:H21	23:BB:1677:A:H61	1.26	0.83
10:CK:105:ARG:HH21	21:CU:10:PRO:HD3	1.43	0.83
23:DB:1099:G:H5''	52:DI:3:LYS:N	1.93	0.83
41:DT:39:THR:HG22	41:DT:42:GLU:H	1.43	0.83
28:BF:42:ALA:HA	28:BF:48:LEU:HD21	1.58	0.83
28:BF:42:ALA:H	28:BF:48:LEU:HD11	1.42	0.83
41:BT:29:THR:HA	41:BT:86:THR:HA	1.57	0.83
23:DB:704:G:H2'	23:DB:726:G:H22	1.41	0.83
49:D2:10:LEU:HD21	49:D2:14:ARG:HH11	1.41	0.83
41:BT:39:THR:HG22	41:BT:42:GLU:H	1.41	0.83
23:DB:2039:U:H2'	23:DB:2040:G:H8	1.44	0.83
23:BB:979:A:H2'	23:BB:982:C:H41	1.42	0.83
34:BM:55:ARG:HH21	34:BM:55:ARG:HA	1.42	0.83
39:BR:16:GLU:HA	39:BR:98:ILE:HG22	1.60	0.83
44:BX:17:GLU:HB3	44:BX:53:VAL:HG11	1.61	0.83
11:AL:13:ARG:HD2	11:AL:13:ARG:H	1.44	0.83
20:CB:116:LEU:HD22	20:CB:140:LEU:HD11	1.61	0.83
48:D1:26:LYS:HD3	48:D1:52:LYS:HB3	1.60	0.83
52:DI:27:LEU:H	52:DI:27:LEU:HD23	1.44	0.83
17:AR:40:PRO:HD2	17:AR:43:ILE:HD12	1.59	0.83
23:BB:75:G:H4'	44:BX:48:ARG:HH22	1.44	0.83
34:BM:19:GLY:HA2	34:BM:97:GLN:HB2	1.61	0.83
3:CD:138:PRO:HA	3:CD:181:PHE:HD2	1.42	0.83
4:CE:81:GLN:HG2	4:CE:148:SER:HA	1.60	0.83
16:CQ:16:MET:HB2	16:CQ:19:SER:HB2	1.59	0.83
31:DJ:25:LEU:HD22	31:DJ:26:GLY:H	1.42	0.83
6:AG:4:ARG:HG3	6:AG:5:VAL:H	1.44	0.83
10:AK:105:ARG:HH21	21:AU:10:PRO:HD3	1.42	0.83
23:BB:1082:U:C4	23:BB:1086:A:C2	2.66	0.83
27:DE:161:ALA:HA	27:DE:164:LEU:HB2	1.61	0.83
1:AA:426:U:H4'	3:AD:39:GLN:HA	1.60	0.82
24:DV:72:VAL:HG21	24:DV:91:PHE:HB3	1.61	0.82
26:DD:116:LYS:HE2	35:DN:1:MET:HE1	1.59	0.82
23:BB:1060:U:C2	23:BB:1088:A:N7	2.48	0.82
28:DF:42:ALA:H	28:DF:48:LEU:HD11	1.43	0.82
1:CA:18:C:H4'	1:CA:1078:U:O2	1.78	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CB:19:THR:HG23	20:CB:20:ARG:H	1.44	0.82
35:DN:101:GLY:HA2	35:DN:110:MET:N	1.95	0.82
46:BZ:7:VAL:HG13	46:BZ:8:THR:HG23	1.61	0.82
28:DF:42:ALA:HA	28:DF:48:LEU:HD21	1.60	0.82
38:BQ:105:PHE:HA	38:BQ:108:LEU:HD13	1.60	0.82
12:CM:52:ILE:HD12	12:CM:55:LEU:HD12	1.58	0.82
23:DB:979:A:H2'	23:DB:982:C:H41	1.44	0.82
10:AK:22:ILE:HD13	10:AK:85:VAL:HG22	1.61	0.82
21:AU:36:PHE:HB3	21:AU:40:PRO:HD3	1.59	0.82
30:DH:68:ARG:HG3	30:DH:134:VAL:HG21	1.58	0.82
38:DQ:63:ARG:NH2	38:DQ:96:ASP:HA	1.95	0.82
33:BL:6:LEU:HD23	33:BL:6:LEU:H	1.42	0.82
40:BS:29:VAL:HG11	40:BS:55:ILE:HD13	1.59	0.82
41:BT:67:VAL:HB	41:BT:76:ARG:HG2	1.61	0.82
2:CC:70:ALA:HA	2:CC:105:VAL:HG21	1.59	0.82
14:CO:88:ARG:HA	14:CO:88:ARG:HH11	1.42	0.82
17:CR:40:PRO:HD2	17:CR:43:ILE:HD12	1.61	0.82
23:DB:62:U:H2'	23:DB:63:A:O4'	1.80	0.82
23:DB:1099:G:H5''	52:DI:2:LYS:C	2.03	0.82
6:AG:62:GLU:HG2	6:AG:69:ARG:HH21	1.44	0.82
25:BC:131:MET:HE2	25:BC:189:ALA:HB2	1.61	0.82
36:BO:11:ALA:HB3	36:BO:96:GLY:H	1.43	0.82
10:AK:31:VAL:HG21	10:AK:66:ALA:HA	1.62	0.82
41:BT:11:LEU:H	41:BT:11:LEU:HD22	1.45	0.82
1:CA:841:C:H3'	1:CA:843:U:OP2	1.79	0.82
23:DB:1475:G:H1'	23:DB:1514:G:O6	1.79	0.82
23:BB:321:U:OP2	27:BE:130:LYS:HA	1.80	0.82
26:BD:148:GLN:HB2	26:BD:152:PRO:HG2	1.58	0.82
45:BY:35:VAL:HG22	45:BY:36:GLU:H	1.45	0.82
10:CK:124:LYS:HA	21:CU:34:ARG:HB3	1.61	0.82
23:DB:1082:U:C4	23:DB:1086:A:C2	2.67	0.82
23:DB:1099:G:P	52:DI:3:LYS:HA	2.20	0.82
46:DZ:33:LEU:HA	46:DZ:52:SER:HA	1.62	0.82
1:AA:817:C:H1'	1:AA:819:A:H5'	1.61	0.81
5:AF:86:ARG:NH1	17:AR:63:TYR:HB3	1.94	0.81
19:AT:34:VAL:HG11	19:AT:78:LEU:HD22	1.61	0.81
23:BB:958:U:H3	34:BM:16:ARG:HB3	1.45	0.81
37:BP:57:ALA:HA	37:BP:73:PHE:O	1.80	0.81
10:CK:86:LYS:HB3	10:CK:112:VAL:HG23	1.60	0.81
27:DE:147:LEU:HB3	27:DE:186:VAL:HG23	1.62	0.81
32:DK:24:VAL:HA	32:DK:39:ILE:HD12	1.62	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DT:53:VAL:HG11	41:DT:87:LEU:HD13	1.59	0.81
52:DI:121:ILE:HD13	52:DI:121:ILE:H	1.45	0.81
23:BB:704:G:H2'	23:BB:726:G:H22	1.43	0.81
35:BN:101:GLY:HA2	35:BN:110:MET:N	1.95	0.81
3:CD:29:THR:H	3:CD:33:ILE:HG21	1.45	0.81
10:CK:31:VAL:HG21	10:CK:66:ALA:HA	1.60	0.81
11:CL:13:ARG:HD2	11:CL:13:ARG:H	1.43	0.81
23:DB:1060:U:C2	23:DB:1088:A:N7	2.48	0.81
23:DB:1509:A:H5'	23:DB:1510:G:H5'	1.60	0.81
29:DG:15:ASP:HB3	29:DG:26:LYS:H	1.43	0.81
16:AQ:16:MET:HB2	16:AQ:19:SER:HB2	1.61	0.81
23:BB:322:A:H5'	23:BB:340:A:H1'	1.62	0.81
23:BB:1594:U:H2'	23:BB:1595:C:C6	2.16	0.81
25:BC:161:VAL:HG12	25:BC:162:GLN:H	1.46	0.81
30:BH:127:GLU:HG3	30:BH:143:ILE:HB	1.62	0.81
32:BK:87:LEU:HB2	32:BK:93:GLN:O	1.80	0.81
30:DH:86:ASP:HB2	30:DH:89:LYS:HD3	1.62	0.81
41:DT:67:VAL:HB	41:DT:76:ARG:HG2	1.62	0.81
23:BB:2579:C:O2'	26:BD:136:ASN:HA	1.79	0.81
1:CA:1361:G:H2'	1:CA:1362:A:H5''	1.61	0.81
30:DH:135:HIS:HB3	30:DH:138:VAL:HB	1.60	0.81
5:CF:86:ARG:NH1	17:CR:63:TYR:HB3	1.95	0.81
29:DG:84:LYS:HG2	29:DG:85:LYS:H	1.44	0.81
23:BB:1475:G:H1'	23:BB:1514:G:O6	1.81	0.81
23:BB:1509:A:H5'	23:BB:1510:G:H5'	1.61	0.81
23:BB:1729:U:H2'	23:BB:1730:C:H4'	1.62	0.81
31:BJ:81:ILE:HG23	31:BJ:82:GLY:H	1.46	0.81
12:CM:47:LEU:HD13	12:CM:51:GLN:HB3	1.63	0.81
23:DB:1203:U:H1'	33:DL:4:ASN:HD21	1.46	0.81
38:DQ:79:ILE:HA	38:DQ:82:LEU:HD12	1.60	0.81
1:AA:1328:C:H5''	12:AM:27:THR:HG21	1.61	0.81
23:BB:1178:C:H2'	23:BB:1179:G:C8	2.14	0.81
23:BB:2306:C:H3'	23:BB:2307:G:H5'	1.63	0.81
27:BE:31:VAL:HG21	27:BE:104:ALA:HB2	1.61	0.81
35:BN:97:ILE:HD12	35:BN:98:LEU:H	1.46	0.81
12:CM:2:ARG:HB2	12:CM:56:ARG:HH22	1.46	0.81
18:CS:51:HIS:HA	18:CS:56:HIS:HA	1.63	0.81
32:DK:87:LEU:HB2	32:DK:93:GLN:O	1.81	0.81
5:AF:38:ARG:HH21	5:AF:63:ASN:ND2	1.78	0.81
8:AI:39:GLY:HA2	8:AI:44:ARG:HD3	1.62	0.81
20:AB:19:THR:HG23	20:AB:20:ARG:H	1.45	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BC:140:VAL:HG12	25:BC:141:HIS:H	1.45	0.81
27:BE:147:LEU:HB3	27:BE:186:VAL:HG23	1.61	0.81
45:DY:35:VAL:HG22	45:DY:36:GLU:H	1.45	0.81
12:AM:47:LEU:HD13	12:AM:51:GLN:HB3	1.62	0.80
30:BH:84:ALA:HA	30:BH:90:LEU:HA	1.63	0.80
1:AA:935:A:N6	6:AG:2:ARG:HD2	1.96	0.80
29:BG:84:LYS:HG2	29:BG:85:LYS:H	1.43	0.80
30:BH:83:LYS:HB3	30:BH:91:PHE:HB2	1.61	0.80
1:CA:1343:G:H1'	8:CI:122:ARG:HH12	1.46	0.80
37:DP:23:ASP:HA	37:DP:88:ARG:HA	1.62	0.80
37:DP:57:ALA:HA	37:DP:73:PHE:O	1.80	0.80
46:DZ:7:VAL:HG13	46:DZ:8:THR:HG23	1.62	0.80
18:AS:51:HIS:HA	18:AS:56:HIS:HA	1.63	0.80
23:DB:2306:C:H3'	23:DB:2307:G:H5'	1.63	0.80
25:DC:144:GLU:HA	25:DC:151:GLY:HA2	1.63	0.80
52:DI:21:PRO:HB2	52:DI:22:PRO:HD3	1.64	0.80
2:AC:137:VAL:HA	2:AC:148:ILE:HD13	1.63	0.80
22:BA:104:A:H2'	22:BA:105:G:O4'	1.81	0.80
31:DJ:81:ILE:HG23	31:DJ:82:GLY:H	1.44	0.80
1:AA:841:C:H3'	1:AA:843:U:OP2	1.81	0.80
6:CG:2:ARG:NH1	6:CG:2:ARG:HB3	1.97	0.80
23:DB:322:A:H5'	23:DB:340:A:H1'	1.63	0.80
23:DB:2153:C:H2'	23:DB:2154:A:H8	1.47	0.80
49:D2:30:VAL:HG22	49:D2:33:ARG:HH22	1.47	0.80
1:AA:1343:G:H1'	8:AI:122:ARG:HH12	1.47	0.80
2:CC:137:VAL:HA	2:CC:148:ILE:HD13	1.61	0.80
23:DB:479:A:O2'	23:DB:481:G:H5'	1.82	0.80
23:DB:2723:C:H5''	35:DN:1:MET:HE2	1.63	0.80
39:DR:16:GLU:HA	39:DR:98:ILE:HG22	1.63	0.80
23:BB:1141:U:H4'	23:BB:1142:A:O4'	1.82	0.80
42:BU:85:ARG:HD3	42:BU:86:PHE:N	1.94	0.80
46:BZ:33:LEU:HA	46:BZ:52:SER:HA	1.63	0.80
23:DB:1451:C:H4'	23:DB:1452:G:H5'	1.64	0.80
32:DK:86:LEU:H	32:DK:86:LEU:HD23	1.45	0.80
35:DN:38:LEU:HB3	35:DN:39:PRO:HD3	1.63	0.80
32:BK:13:ASN:HD21	32:BK:98:ARG:H	1.30	0.80
23:DB:1141:U:H4'	23:DB:1142:A:O4'	1.81	0.80
29:BG:122:ALA:HB2	29:BG:132:LEU:HB3	1.64	0.80
20:CB:32:GLY:H	20:CB:39:ILE:HB	1.46	0.80
1:AA:1361:G:H2'	1:AA:1362:A:H5''	1.64	0.80
35:BN:38:LEU:HB3	35:BN:39:PRO:HD3	1.62	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DN:97:ILE:HD12	35:DN:98:LEU:H	1.46	0.80
29:DG:40:VAL:HG22	29:DG:64:ALA:HA	1.62	0.79
6:AG:21:LEU:HD23	6:AG:21:LEU:H	1.46	0.79
23:BB:100:U:H2'	23:BB:100:U:O2	1.81	0.79
27:BE:161:ALA:HA	27:BE:164:LEU:HB2	1.62	0.79
41:BT:7:LEU:HA	41:BT:9:LYS:HZ1	1.45	0.79
13:CN:15:LEU:HB3	13:CN:54:SER:HB2	1.64	0.79
22:DA:98:G:H1	24:DV:14:LYS:HB2	1.47	0.79
29:DG:122:ALA:HB2	29:DG:132:LEU:HB3	1.64	0.79
10:AK:124:LYS:HA	21:AU:34:ARG:HB3	1.63	0.79
12:AM:44:ILE:H	12:AM:44:ILE:HD12	1.48	0.79
23:BB:1925:C:H2'	23:BB:1926:U:H5''	1.64	0.79
23:DB:1099:G:OP2	52:DI:3:LYS:HA	1.81	0.79
24:DV:66:ASP:HB2	24:DV:68:LYS:HE3	1.64	0.79
28:DF:141:ASP:HB3	28:DF:144:LYS:HB3	1.62	0.79
34:DM:60:GLN:H	34:DM:60:GLN:NE2	1.80	0.79
38:DQ:57:ARG:HH11	38:DQ:57:ARG:HB3	1.46	0.79
23:BB:2151:U:H2'	23:BB:2152:G:C8	2.16	0.79
23:BB:2680:U:OP2	26:BD:114:LYS:HB3	1.82	0.79
24:BV:66:ASP:HB2	24:BV:68:LYS:HE3	1.64	0.79
14:AO:35:ILE:HD11	14:AO:58:MET:HG3	1.65	0.79
8:CI:29:ILE:HG12	8:CI:64:ILE:HB	1.63	0.79
23:DB:532:A:H2'	38:DQ:27:ARG:HH22	1.46	0.79
25:DC:140:VAL:HG12	25:DC:141:HIS:H	1.46	0.79
11:AL:20:VAL:HG12	11:AL:93:ARG:HB3	1.63	0.79
23:BB:855:G:H21	43:BW:23:LYS:CG	1.94	0.79
28:BF:65:LEU:HD23	28:BF:87:LYS:HD2	1.63	0.79
1:CA:1032:G:H2'	1:CA:1033:G:O4'	1.83	0.79
8:CI:39:GLY:HA2	8:CI:44:ARG:HD3	1.64	0.79
13:CN:87:ALA:HB2	13:CN:92:ILE:HD12	1.65	0.79
23:DB:2356:U:H5''	43:DW:16:GLU:HG3	1.64	0.79
32:DK:13:ASN:HD21	32:DK:98:ARG:H	1.29	0.79
23:BB:2748:A:H1'	29:BG:66:THR:HB	1.63	0.79
28:BF:141:ASP:HB3	28:BF:144:LYS:HB3	1.63	0.79
43:BW:39:GLN:HG2	43:BW:40:ARG:N	1.97	0.79
22:DA:104:A:H2'	22:DA:105:G:O4'	1.81	0.79
23:DB:1674:G:H21	23:DB:1677:A:H61	1.27	0.79
1:AA:264:C:H4'	16:AQ:64:ARG:HD2	1.64	0.79
2:AC:122:GLN:HB3	2:AC:127:VAL:HG21	1.63	0.79
22:BA:75:G:H1	22:BA:102:G:N2	1.79	0.79
31:BJ:77:HIS:HD2	31:BJ:84:ILE:H	1.31	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BI:21:PRO:HB2	52:BI:22:PRO:HD3	1.62	0.79
19:CT:34:VAL:HG11	19:CT:78:LEU:HD22	1.63	0.79
1:AA:1032:G:H2'	1:AA:1033:G:O4'	1.83	0.79
20:AB:116:LEU:HD22	20:AB:140:LEU:HD11	1.64	0.79
42:DU:85:ARG:HD3	42:DU:86:PHE:N	1.96	0.79
20:AB:32:GLY:H	20:AB:39:ILE:HB	1.48	0.79
25:BC:226:PRO:HG3	25:BC:233:GLY:H	1.48	0.79
35:BN:32:GLU:HG3	35:BN:115:LEU:HD12	1.64	0.79
23:DB:90:U:H3'	23:DB:91:A:H5''	1.64	0.79
4:AE:104:ILE:HG23	4:AE:111:ARG:HH12	1.47	0.78
25:BC:144:GLU:HA	25:BC:151:GLY:HA2	1.65	0.78
52:BI:33:ASN:HD21	52:BI:64:ARG:HH11	1.31	0.78
37:DP:97:TYR:O	37:DP:100:ARG:HB2	1.83	0.78
13:AN:87:ALA:HB2	13:AN:92:ILE:HD12	1.65	0.78
23:BB:364:C:H2'	23:BB:365:U:C6	2.18	0.78
38:BQ:65:ASN:HB2	38:BQ:75:TYR:HB2	1.65	0.78
23:DB:899:A:H2'	23:DB:900:A:O4'	1.82	0.78
25:DC:161:VAL:HG12	25:DC:162:GLN:H	1.49	0.78
23:BB:62:U:H2'	23:BB:63:A:O4'	1.83	0.78
23:BB:172:A:H2'	23:BB:173:A:C8	2.18	0.78
23:BB:1060:U:OP2	52:BI:74:PRO:HA	1.84	0.78
6:CG:62:GLU:HG2	6:CG:69:ARG:HH21	1.48	0.78
22:DA:116:G:H4'	36:DO:54:VAL:HG22	1.64	0.78
12:AM:89:ARG:HH22	12:AM:94:LEU:HD12	1.48	0.78
37:BP:7:LEU:HD12	37:BP:7:LEU:H	1.47	0.78
37:BP:97:TYR:O	37:BP:100:ARG:HB2	1.84	0.78
38:BQ:63:ARG:NH2	38:BQ:96:ASP:HA	1.97	0.78
6:CG:91:ARG:HD2	6:CG:91:ARG:H	1.46	0.78
25:DC:226:PRO:HG3	25:DC:233:GLY:H	1.47	0.78
2:CC:122:GLN:HB3	2:CC:127:VAL:HG21	1.64	0.78
15:CP:3:THR:HG22	15:CP:66:THR:HB	1.65	0.78
23:DB:958:U:H3	34:DM:16:ARG:HB3	1.44	0.78
23:BB:2734:A:H2'	23:BB:2735:G:H5'	1.65	0.78
1:CA:781:A:H2'	1:CA:782:A:H5'	1.63	0.78
43:DW:39:GLN:HG3	43:DW:42:THR:HB	1.66	0.78
44:DX:17:GLU:HB3	44:DX:53:VAL:HG11	1.65	0.78
3:AD:29:THR:H	3:AD:33:ILE:HG21	1.47	0.78
8:AI:29:ILE:HG12	8:AI:64:ILE:HB	1.64	0.78
13:AN:15:LEU:HB3	13:AN:54:SER:HB2	1.65	0.78
23:BB:479:A:O2'	23:BB:481:G:H5'	1.84	0.78
7:CH:103:VAL:HG22	7:CH:124:ILE:HA	1.65	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AG:91:ARG:HD2	6:AG:91:ARG:H	1.49	0.78
29:BG:126:THR:HB	29:BG:129:GLU:HG3	1.64	0.78
52:BI:55:PRO:HD3	52:BI:74:PRO:HD3	1.65	0.78
1:CA:1144:G:N2	1:CA:1146:A:H62	1.82	0.78
23:DB:2365:G:H4'	43:DW:59:PHE:CE1	2.17	0.78
28:DF:65:LEU:HD23	28:DF:87:LYS:HD2	1.66	0.78
22:BA:116:G:H4'	36:BO:54:VAL:HG22	1.64	0.78
23:BB:1322:A:H4'	40:BS:82:MET:HE1	1.66	0.78
11:CL:20:VAL:HG12	11:CL:93:ARG:HB3	1.65	0.78
23:DB:1099:G:H8	52:DI:3:LYS:CA	1.97	0.78
23:DB:1729:U:H2'	23:DB:1730:C:H4'	1.65	0.78
19:AT:85:LEU:HD23	19:AT:86:ALA:H	1.49	0.78
23:BB:2010:G:H5''	40:BS:42:LYS:HB2	1.66	0.78
34:BM:21:ALA:HB1	34:BM:100:LYS:HE2	1.65	0.78
37:BP:23:ASP:HA	37:BP:88:ARG:HA	1.64	0.78
12:AM:19:THR:HA	12:AM:24:VAL:HG23	1.66	0.77
23:BB:996:A:H4'	38:BQ:91:ARG:HD2	1.66	0.77
29:BG:40:VAL:HG22	29:BG:64:ALA:HA	1.66	0.77
42:BU:26:ASN:HD21	42:BU:34:ILE:HD12	1.49	0.77
48:B1:33:LEU:HB3	48:B1:51:ALA:HB3	1.64	0.77
1:AA:108:G:H5'	1:AA:109:A:H5''	1.66	0.77
39:DR:60:LYS:H	39:DR:100:GLY:HA3	1.50	0.77
43:DW:17:ALA:HA	43:DW:35:ILE:HG23	1.64	0.77
52:DI:45:THR:HA	52:DI:48:ILE:HG22	1.66	0.77
24:DV:75:GLN:HG2	24:DV:92:VAL:HG23	1.66	0.77
39:DR:24:LYS:HA	39:DR:94:THR:HG23	1.66	0.77
43:DW:39:GLN:HG2	43:DW:40:ARG:N	1.98	0.77
1:AA:1057:G:H4'	2:AC:196:GLY:H	1.50	0.77
25:BC:32:LEU:O	25:BC:63:ILE:HG12	1.85	0.77
29:BG:148:ARG:HA	29:BG:161:VAL:HB	1.67	0.77
37:BP:20:ARG:HE	37:BP:91:VAL:HG21	1.47	0.77
46:BZ:30:LEU:HD23	46:BZ:30:LEU:H	1.47	0.77
23:DB:2734:A:H2'	23:DB:2735:G:H5'	1.65	0.77
46:DZ:30:LEU:H	46:DZ:30:LEU:HD23	1.47	0.77
23:BB:2769:U:H2'	23:BB:2770:G:C8	2.20	0.77
1:CA:83:C:O2'	1:CA:84:U:H3'	1.85	0.77
23:DB:608:A:H2'	23:DB:609:A:C8	2.20	0.77
23:DB:918:A:H2'	23:DB:919:U:H5'	1.66	0.77
12:CM:44:ILE:HD12	12:CM:44:ILE:H	1.48	0.77
23:DB:172:A:H2'	23:DB:173:A:C8	2.20	0.77
23:BB:90:U:H3'	23:BB:91:A:H5''	1.65	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1993:U:H4'	26:BD:133:THR:CG2	2.14	0.77
23:BB:2185:U:H2'	23:BB:2186:G:H8	1.50	0.77
24:BV:72:VAL:HG21	24:BV:91:PHE:HB3	1.64	0.77
30:BH:57:LYS:HE2	30:BH:58:LEU:HB2	1.66	0.77
34:BM:60:GLN:NE2	34:BM:60:GLN:H	1.83	0.77
23:DB:532:A:H3'	38:DQ:27:ARG:HH12	1.50	0.77
8:AI:27:ILE:HD12	8:AI:34:LEU:HD22	1.67	0.77
10:AK:106:ILE:HG13	10:AK:107:THR:H	1.50	0.77
1:CA:1057:G:H4'	2:CC:196:GLY:H	1.50	0.77
18:CS:30:LEU:HB2	18:CS:48:ILE:HG23	1.66	0.77
23:DB:1594:U:H2'	23:DB:1595:C:C6	2.20	0.77
37:DP:88:ARG:HB2	37:DP:112:ARG:NH1	2.00	0.77
51:D4:16:ILE:HG12	51:D4:25:VAL:HG22	1.66	0.77
6:AG:74:VAL:HA	6:AG:87:PRO:HA	1.67	0.77
22:BA:98:G:H1	24:BV:14:LYS:HB2	1.50	0.77
43:BW:17:ALA:HA	43:BW:35:ILE:HG23	1.67	0.77
1:CA:1078:U:H4'	4:CE:137:ARG:NH1	2.00	0.77
20:CB:202:ASN:ND2	20:CB:204:ASP:H	1.81	0.77
2:AC:26:LYS:HG3	2:AC:27:GLU:HG3	1.65	0.77
34:BM:11:LYS:HD3	34:BM:86:LYS:HG2	1.67	0.77
38:BQ:104:ALA:HA	39:BR:46:GLU:CD	2.10	0.77
7:CH:17:GLN:HG2	7:CH:62:LEU:HD23	1.65	0.77
35:DN:72:ASP:HB3	35:DN:75:ILE:HG12	1.67	0.77
39:DR:2:TYR:HB2	39:DR:42:ALA:HB2	1.66	0.77
25:BC:129:LEU:HD22	25:BC:134:ILE:HG22	1.67	0.76
26:BD:25:THR:HG21	26:BD:193:VAL:HG22	1.67	0.76
42:BU:42:LYS:HG3	42:BU:57:ILE:HG21	1.67	0.76
18:CS:40:PHE:HB2	18:CS:43:MET:HE3	1.65	0.76
23:DB:1099:G:O4'	52:DI:3:LYS:C	2.27	0.76
7:AH:103:VAL:HG22	7:AH:124:ILE:HA	1.65	0.76
23:BB:38:A:O2'	27:BE:43:THR:HA	1.85	0.76
23:BB:62:U:H3'	23:BB:63:A:C8	2.19	0.76
32:BK:24:VAL:HA	32:BK:39:ILE:HD12	1.67	0.76
1:CA:1160:G:H4'	20:CB:130:LYS:HB2	1.65	0.76
2:CC:130:ARG:HA	2:CC:133:MET:HE3	1.67	0.76
15:CP:25:ARG:HD3	15:CP:25:ARG:H	1.50	0.76
23:DB:1166:G:H2'	23:DB:1167:C:C6	2.21	0.76
27:DE:58:LYS:HE2	27:DE:60:TRP:HD1	1.50	0.76
39:DR:7:SER:HB2	39:DR:22:LEU:HB3	1.68	0.76
28:BF:110:ILE:HA	28:BF:111:ARG:CZ	2.15	0.76
8:CI:27:ILE:HD12	8:CI:34:LEU:HD22	1.67	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CO:35:ILE:HD11	14:CO:58:MET:HG3	1.66	0.76
23:DB:161:A:H3'	23:DB:162:U:H5''	1.67	0.76
1:AA:243:A:H4'	1:AA:244:U:H5'	1.67	0.76
27:BE:157:LEU:HG	27:BE:169:VAL:HG11	1.68	0.76
40:BS:70:LYS:HD3	40:BS:110:ARG:HA	1.67	0.76
2:CC:77:GLY:HA3	2:CC:81:GLU:HB3	1.68	0.76
23:DB:354:A:H2'	23:DB:355:U:C6	2.20	0.76
23:DB:2305:U:H5''	28:DF:130:GLY:HA3	1.68	0.76
30:DH:31:VAL:O	30:DH:33:GLN:N	2.18	0.76
45:BY:54:VAL:HB	45:BY:56:VAL:HG23	1.67	0.76
6:CG:21:LEU:HD23	6:CG:21:LEU:H	1.49	0.76
30:DH:133:GLN:HB3	30:DH:139:PHE:HA	1.67	0.76
31:DJ:29:ALA:HA	31:DJ:32:LEU:HD12	1.67	0.76
18:AS:40:PHE:HB2	18:AS:43:MET:HE3	1.67	0.76
20:AB:163:ILE:HG23	20:AB:164:ASP:H	1.49	0.76
23:BB:1082:U:N3	23:BB:1086:A:C2	2.53	0.76
23:BB:1469:A:H2'	23:BB:1470:A:C8	2.21	0.76
24:BV:75:GLN:HG2	24:BV:92:VAL:HG23	1.66	0.76
39:BR:2:TYR:HB2	39:BR:42:ALA:HB2	1.66	0.76
1:CA:238:A:H2'	1:CA:239:U:H5''	1.67	0.76
1:CA:1306:A:H61	1:CA:1331:G:H1'	1.50	0.76
6:CG:14:ASP:HB3	6:CG:19:SER:H	1.51	0.76
23:DB:3:U:H2'	23:DB:4:U:C6	2.20	0.76
23:DB:62:U:H3'	23:DB:63:A:C8	2.21	0.76
23:DB:1019:U:H2'	23:DB:1020:A:C8	2.20	0.76
23:DB:1283:G:N2	23:DB:1286:A:H5'	2.01	0.76
31:DJ:112:GLY:H	31:DJ:113:PRO:CD	1.97	0.76
15:AP:3:THR:HG22	15:AP:66:THR:HB	1.68	0.76
23:BB:1166:G:H2'	23:BB:1167:C:C6	2.20	0.76
1:CA:243:A:H4'	1:CA:244:U:H5'	1.66	0.76
3:CD:13:ARG:HA	3:CD:37:PRO:HB3	1.67	0.76
8:CI:46:VAL:HA	8:CI:49:GLN:HG3	1.68	0.76
10:CK:106:ILE:HG13	10:CK:107:THR:H	1.51	0.76
24:DV:79:ARG:HA	24:DV:86:LEU:HA	1.68	0.76
37:DP:1:SER:HA	37:DP:4:ILE:HB	1.68	0.76
48:D1:49:LYS:HG2	48:D1:50:GLU:H	1.51	0.76
23:BB:2653:U:H3'	23:BB:2654:A:H2'	1.67	0.76
31:BJ:112:GLY:H	31:BJ:113:PRO:CD	1.98	0.76
1:CA:423:G:H2'	1:CA:424:G:O4'	1.85	0.76
15:CP:52:LEU:HD21	15:CP:75:ILE:HG12	1.67	0.76
23:DB:1248:G:H2'	38:DQ:2:ARG:HA	1.67	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1437:C:H2'	23:DB:1438:U:H6	1.49	0.76
32:DK:35:VAL:HG23	32:DK:36:GLY:N	2.01	0.76
2:CC:26:LYS:HG3	2:CC:27:GLU:HG3	1.68	0.76
19:CT:85:LEU:HD23	19:CT:86:ALA:H	1.51	0.76
23:DB:2021:C:OP1	47:D0:8:THR:HG21	1.86	0.76
34:DM:78:LEU:HD12	34:DM:78:LEU:H	1.51	0.76
41:DT:7:LEU:HA	41:DT:9:LYS:HZ1	1.50	0.76
1:AA:410:G:OP2	3:AD:25:ARG:HD2	1.85	0.76
3:AD:24:VAL:HA	3:AD:27:ILE:HD11	1.66	0.76
21:AU:10:PRO:HB2	2:CC:71:ARG:HE	1.49	0.76
6:CG:2:ARG:HB3	6:CG:2:ARG:HH11	1.51	0.76
10:CK:22:ILE:HD13	10:CK:85:VAL:HG22	1.68	0.76
28:DF:168:LEU:HD13	28:DF:169:LEU:H	1.51	0.76
43:DW:37:VAL:HG12	43:DW:38:ARG:H	1.50	0.76
48:D1:33:LEU:HB3	48:D1:51:ALA:HB3	1.67	0.76
12:AM:2:ARG:HB2	12:AM:56:ARG:HH22	1.49	0.75
23:BB:2143:C:H2'	23:BB:2144:G:O4'	1.87	0.75
25:BC:91:ALA:HB2	25:BC:105:ALA:HB2	1.68	0.75
43:BW:24:ARG:HD3	43:BW:65:LYS:HG2	1.68	0.75
23:DB:1099:G:P	52:DI:4:VAL:H	2.09	0.75
1:AA:238:A:H2'	1:AA:239:U:H5''	1.65	0.75
23:BB:90:U:H3'	23:BB:91:A:C5'	2.16	0.75
23:BB:2328:A:H2'	23:BB:2329:U:C6	2.21	0.75
28:BF:168:LEU:HD13	28:BF:169:LEU:H	1.52	0.75
38:BQ:8:ILE:H	38:BQ:8:ILE:HD12	1.49	0.75
1:CA:437:U:H2'	1:CA:438:U:O4'	1.86	0.75
34:DM:21:ALA:HB1	34:DM:100:LYS:HE2	1.68	0.75
1:AA:1133:G:H2'	1:AA:1134:G:O4'	1.87	0.75
8:AI:33:SER:HB3	8:AI:36:GLN:HB2	1.68	0.75
23:BB:2269:G:H4'	43:BW:19:ARG:HH12	1.50	0.75
1:CA:264:C:H4'	16:CQ:64:ARG:HD2	1.67	0.75
23:DB:742:A:H2'	23:DB:743:A:C8	2.21	0.75
34:DM:11:LYS:HD3	34:DM:86:LYS:HG2	1.68	0.75
37:DP:13:LYS:HD3	37:DP:76:HIS:HA	1.67	0.75
1:AA:1306:A:H61	1:AA:1331:G:H1'	1.50	0.75
27:BE:130:LYS:HB2	27:BE:133:LEU:HG	1.67	0.75
30:BH:31:VAL:O	30:BH:33:GLN:N	2.20	0.75
39:BR:24:LYS:HA	39:BR:94:THR:HG23	1.67	0.75
4:CE:44:ARG:HA	4:CE:71:ILE:O	1.87	0.75
23:DB:2010:G:H5''	40:DS:42:LYS:HB2	1.68	0.75
23:DB:2619:C:H5'	26:DD:157:LYS:HD3	1.69	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DF:65:LEU:N	28:DF:88:VAL:HG22	1.99	0.75
32:BK:38:ILE:HD13	32:BK:61:VAL:HG12	1.66	0.75
34:BM:78:LEU:H	34:BM:78:LEU:HD12	1.50	0.75
3:CD:24:VAL:HA	3:CD:27:ILE:HD11	1.68	0.75
23:DB:1469:A:H2'	23:DB:1470:A:C8	2.21	0.75
42:DU:84:PHE:O	42:DU:85:ARG:HB2	1.86	0.75
2:AC:119:ILE:HG21	2:AC:197:VAL:HG11	1.69	0.75
36:BO:49:VAL:HG11	36:BO:82:ALA:HA	1.69	0.75
43:BW:66:VAL:HA	43:BW:81:ILE:HG22	1.69	0.75
23:DB:287:G:H2'	23:DB:288:U:C6	2.21	0.75
52:DI:9:LYS:HG2	52:DI:57:VAL:HG13	1.69	0.75
22:DA:2:G:H2'	22:DA:3:C:C6	2.21	0.75
1:AA:269:C:H2'	1:AA:270:A:C8	2.22	0.75
1:AA:674:G:H2'	1:AA:675:A:H8	1.52	0.75
23:BB:2258:C:H5'	23:BB:2259:U:H5	1.52	0.75
28:BF:65:LEU:N	28:BF:88:VAL:HG22	1.99	0.75
39:BR:60:LYS:H	39:BR:100:GLY:HA3	1.50	0.75
41:BT:28:ASN:HA	41:BT:91:GLN:HE22	1.52	0.75
9:CJ:10:LEU:HD11	9:CJ:25:ILE:HD12	1.68	0.75
23:DB:2653:U:H3'	23:DB:2654:A:H2'	1.69	0.75
27:DE:157:LEU:HG	27:DE:169:VAL:HG11	1.69	0.75
37:DP:20:ARG:HE	37:DP:91:VAL:HG21	1.50	0.75
42:DU:42:LYS:HG3	42:DU:57:ILE:HG21	1.67	0.75
1:AA:423:G:H2'	1:AA:424:G:O4'	1.86	0.75
1:AA:1348:U:H4'	8:AI:121:ARG:HG3	1.69	0.75
6:AG:2:ARG:HB3	6:AG:3:ARG:HH11	1.50	0.75
29:BG:167:VAL:HG23	29:BG:168:VAL:H	1.51	0.75
39:BR:7:SER:HB2	39:BR:22:LEU:HB3	1.69	0.75
43:BW:37:VAL:HG12	43:BW:38:ARG:H	1.51	0.75
23:DB:877:A:N6	23:DB:898:C:H2'	2.01	0.75
23:DB:2756:U:H1'	23:DB:2757:A:H5''	1.67	0.75
32:DK:38:ILE:HD13	32:DK:61:VAL:HG12	1.67	0.75
33:DL:109:LYS:HG2	33:DL:126:ARG:HB2	1.67	0.75
52:DI:72:THR:HG21	52:DI:112:LYS:HA	1.69	0.75
23:BB:161:A:H3'	23:BB:162:U:H5''	1.68	0.74
23:BB:1283:G:N2	23:BB:1286:A:H5'	2.01	0.74
28:BF:177:ARG:CZ	28:BF:177:ARG:HA	2.16	0.74
1:CA:946:A:H2'	1:CA:947:G:C8	2.22	0.74
1:CA:979:C:H1'	1:CA:1317:C:H41	1.51	0.74
20:CB:163:ILE:HG23	20:CB:164:ASP:H	1.52	0.74
21:CU:16:ARG:HA	21:CU:16:ARG:NE	2.01	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:404:A:H4'	23:DB:405:U:H5'	1.69	0.74
23:DB:1168:G:H2'	23:DB:1169:A:C8	2.22	0.74
28:DF:177:ARG:CZ	28:DF:177:ARG:HA	2.16	0.74
25:BC:156:SER:O	25:BC:194:VAL:HG11	1.87	0.74
38:BQ:107:ALA:HB1	39:BR:48:LYS:HE2	1.67	0.74
1:CA:108:G:H5'	1:CA:109:A:H5''	1.69	0.74
13:CN:68:ARG:HH12	13:CN:70:HIS:HB2	1.53	0.74
23:DB:856:G:H1'	43:DW:23:LYS:HB3	1.68	0.74
37:DP:7:LEU:H	37:DP:7:LEU:HD12	1.50	0.74
8:AI:99:LYS:HE3	9:CJ:80:THR:HA	1.68	0.74
23:BB:2882:A:H4'	35:BN:97:ILE:HD11	1.67	0.74
38:BQ:65:ASN:HD21	38:BQ:69:ARG:HH11	1.33	0.74
40:BS:66:ILE:H	40:BS:66:ILE:HD13	1.51	0.74
41:BT:76:ARG:NH2	41:BT:77:ARG:HB2	2.01	0.74
41:BT:82:LYS:HD3	41:BT:84:TYR:HE1	1.51	0.74
52:BI:27:LEU:HD12	52:BI:32:VAL:HG11	1.69	0.74
23:DB:1322:A:H4'	40:DS:82:MET:HE1	1.68	0.74
34:DM:63:ILE:HG23	34:DM:105:MET:HG3	1.68	0.74
1:AA:979:C:H1'	1:AA:1317:C:H41	1.52	0.74
1:AA:1144:G:N2	1:AA:1146:A:H62	1.84	0.74
4:AE:105:ILE:HG13	4:AE:123:LEU:HA	1.69	0.74
9:AJ:36:VAL:HG22	9:AJ:76:ILE:HG22	1.68	0.74
20:AB:59:ILE:H	20:AB:59:ILE:HD12	1.52	0.74
30:BH:116:ARG:HD2	30:BH:133:GLN:HB3	1.69	0.74
38:BQ:57:ARG:HH11	38:BQ:57:ARG:HB3	1.52	0.74
9:CJ:36:VAL:HG22	9:CJ:76:ILE:HG22	1.67	0.74
23:DB:90:U:H3'	23:DB:91:A:C5'	2.16	0.74
23:DB:2354:C:H4'	43:DW:31:LEU:HD23	1.67	0.74
23:DB:2579:C:O2'	26:DD:136:ASN:HA	1.88	0.74
23:DB:2901:C:H2'	23:DB:2902:C:C6	2.23	0.74
27:DE:130:LYS:HB2	27:DE:133:LEU:HG	1.67	0.74
38:DQ:86:SER:HB3	39:DR:51:VAL:HA	1.68	0.74
41:DT:28:ASN:HA	41:DT:91:GLN:HE22	1.52	0.74
1:AA:1472:U:H2'	1:AA:1473:G:C8	2.23	0.74
2:AC:77:GLY:HA3	2:AC:81:GLU:HB3	1.69	0.74
3:AD:13:ARG:HA	3:AD:37:PRO:HB3	1.69	0.74
23:BB:591:U:H1'	50:B3:1:PRO:N	2.03	0.74
23:BB:2153:C:H2'	23:BB:2154:A:C8	2.23	0.74
23:BB:2185:U:H2'	23:BB:2186:G:C8	2.23	0.74
29:BG:26:LYS:HB3	29:BG:26:LYS:HZ2	1.52	0.74
23:DB:1082:U:N3	23:DB:1086:A:C2	2.55	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DG:148:ARG:HA	29:DG:161:VAL:HB	1.70	0.74
29:DG:167:VAL:HG23	29:DG:168:VAL:H	1.51	0.74
40:DS:28:LYS:HD2	40:DS:29:VAL:H	1.52	0.74
52:DI:105:LEU:HD13	52:DI:129:GLU:HG2	1.68	0.74
2:AC:57:GLU:HB2	2:AC:64:ARG:HB2	1.68	0.74
10:AK:22:ILE:HG21	10:AK:95:THR:HG21	1.68	0.74
10:AK:91:GLY:HA2	10:AK:94:SER:HB3	1.70	0.74
17:AR:38:ILE:HD13	17:AR:38:ILE:H	1.51	0.74
23:BB:2333:A:H4'	23:BB:2334:U:H5''	1.68	0.74
33:BL:109:LYS:HG2	33:BL:126:ARG:HB2	1.68	0.74
34:BM:63:ILE:HG23	34:BM:105:MET:HG3	1.69	0.74
51:B4:16:ILE:HG12	51:B4:25:VAL:HG22	1.68	0.74
1:CA:269:C:H2'	1:CA:270:A:C8	2.23	0.74
1:CA:674:G:H2'	1:CA:675:A:H8	1.50	0.74
4:CE:105:ILE:HG13	4:CE:123:LEU:HA	1.70	0.74
23:DB:2352:A:C6	43:DW:30:VAL:HG11	2.21	0.74
23:DB:2376:A:H1'	36:DO:111:ARG:HH22	1.52	0.74
24:DV:63:ILE:HB	24:DV:70:ILE:HD11	1.70	0.74
29:DG:126:THR:HB	29:DG:129:GLU:HG3	1.68	0.74
31:DJ:77:HIS:HD2	31:DJ:84:ILE:H	1.36	0.74
45:DY:54:VAL:HB	45:DY:56:VAL:HG23	1.68	0.74
13:AN:5:MET:HE3	13:AN:60:ARG:NH1	2.03	0.74
19:AT:38:ILE:HD11	19:AT:82:ILE:HG22	1.68	0.74
22:BA:75:G:H1	22:BA:102:G:H22	1.34	0.74
23:BB:608:A:H2'	23:BB:609:A:C8	2.22	0.74
25:BC:35:LYS:HG2	25:BC:36:ASN:H	1.52	0.74
26:BD:51:THR:HG22	26:BD:52:THR:H	1.51	0.74
23:DB:2748:A:H1'	29:DG:66:THR:HB	1.69	0.74
9:AJ:51:VAL:HG23	13:AN:80:ARG:HB2	1.69	0.74
20:AB:202:ASN:ND2	20:AB:204:ASP:H	1.84	0.74
43:BW:39:GLN:HG3	43:BW:42:THR:HB	1.70	0.74
45:BY:23:LEU:HD13	45:BY:28:LEU:HB2	1.70	0.74
9:CJ:51:VAL:HG23	13:CN:80:ARG:HB2	1.69	0.74
10:CK:20:ALA:HB2	10:CK:81:LEU:HD12	1.70	0.74
10:CK:22:ILE:HG21	10:CK:95:THR:HG21	1.69	0.74
17:CR:38:ILE:H	17:CR:38:ILE:HD13	1.51	0.74
19:CT:43:LYS:HE2	19:CT:44:ALA:H	1.50	0.74
20:CB:61:SER:HB2	20:CB:62:ARG:HH11	1.52	0.74
23:DB:224:U:O4	23:DB:420:C:H5'	1.88	0.74
23:DB:1301:A:O2'	23:DB:1302:A:H3'	1.87	0.74
30:DH:54:LEU:HD23	30:DH:58:LEU:HD12	1.70	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DU:81:ARG:HH21	42:DU:81:ARG:N	1.86	0.74
43:DW:51:GLY:CA	43:DW:59:PHE:HB2	2.17	0.74
15:AP:25:ARG:HD3	15:AP:25:ARG:H	1.53	0.74
25:BC:64:VAL:O	25:BC:65:ASP:HB3	1.88	0.74
1:CA:410:G:OP2	3:CD:25:ARG:HD2	1.88	0.74
19:CT:47:GLN:HG2	19:CT:82:ILE:HD12	1.70	0.74
23:DB:571:U:H3'	39:DR:80:ARG:NH1	2.03	0.74
23:DB:1097:U:H2'	23:DB:1098:A:O4'	1.87	0.74
26:DD:25:THR:HG21	26:DD:193:VAL:HG22	1.68	0.74
26:DD:51:THR:HG22	26:DD:52:THR:H	1.53	0.74
23:BB:404:A:H4'	23:BB:405:U:H5'	1.68	0.74
23:BB:2834:G:H1'	23:BB:2883:A:N6	2.02	0.74
28:BF:126:ASN:HB3	28:BF:156:THR:HA	1.70	0.74
31:BJ:29:ALA:HA	31:BJ:32:LEU:HD12	1.69	0.74
52:BI:77:VAL:HA	52:BI:80:LYS:HE2	1.70	0.74
23:DB:1454:C:H5'	35:DN:63:ARG:HE	1.53	0.74
29:DG:148:ARG:HD3	29:DG:152:ARG:CZ	2.17	0.74
38:DQ:27:ARG:HG2	38:DQ:37:ALA:HB2	1.69	0.74
45:DY:6:ILE:HA	45:DY:56:VAL:HG22	1.70	0.74
23:BB:479:A:N3	23:BB:481:G:H5''	2.03	0.73
23:BB:1287:A:OP1	35:BN:104:ALA:HB3	1.88	0.73
23:BB:1451:C:H4'	23:BB:1452:G:H5'	1.68	0.73
35:BN:33:ILE:HG22	35:BN:114:GLU:HB2	1.69	0.73
6:CG:74:VAL:HA	6:CG:87:PRO:HA	1.70	0.73
23:DB:2393:U:H5''	33:DL:62:PRO:HG3	1.70	0.73
31:DJ:6:ALA:HB3	31:DJ:45:THR:HG21	1.70	0.73
3:AD:137:SER:HB2	3:AD:138:PRO:HD2	1.70	0.73
23:BB:1019:U:H2'	23:BB:1020:A:C8	2.23	0.73
28:BF:48:LEU:H	28:BF:48:LEU:HD23	1.53	0.73
29:BG:37:ASN:HD22	29:BG:40:VAL:HB	1.53	0.73
31:BJ:124:VAL:HG23	31:BJ:125:TYR:H	1.52	0.73
35:BN:116:VAL:O	35:BN:117:ASP:HB3	1.88	0.73
37:BP:91:VAL:HG23	37:BP:92:ARG:H	1.52	0.73
42:BU:84:PHE:O	42:BU:85:ARG:HB2	1.88	0.73
47:B0:32:THR:OG1	47:B0:50:GLY:HA2	1.88	0.73
2:CC:57:GLU:HB2	2:CC:64:ARG:HB2	1.69	0.73
23:DB:143:C:H2'	23:DB:144:A:H8	1.52	0.73
23:DB:743:A:O2'	23:DB:744:U:H5'	1.88	0.73
23:DB:1868:C:H2'	23:DB:1869:G:O4'	1.88	0.73
23:DB:2769:U:H2'	23:DB:2770:G:C8	2.23	0.73
24:DV:9:ARG:HH22	24:DV:12:GLN:HA	1.54	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DF:48:LEU:HD23	28:DF:48:LEU:H	1.52	0.73
35:DN:33:ILE:HG22	35:DN:114:GLU:HB2	1.69	0.73
38:DQ:8:ILE:HD12	38:DQ:8:ILE:H	1.51	0.73
1:AA:842:U:H3'	1:AA:843:U:H4'	1.68	0.73
1:AA:1220:G:H3'	18:AS:36:ARG:HH21	1.53	0.73
1:AA:1472:U:H2'	1:AA:1473:G:H8	1.51	0.73
4:AE:44:ARG:HA	4:AE:71:ILE:O	1.88	0.73
8:AI:46:VAL:HA	8:AI:49:GLN:HG3	1.70	0.73
9:AJ:10:LEU:HD11	9:AJ:25:ILE:HD12	1.68	0.73
23:BB:616:A:H3'	23:BB:617:G:H8	1.53	0.73
23:BB:2109:U:H2'	23:BB:2110:G:H5'	1.70	0.73
1:CA:1323:G:H2'	1:CA:1324:A:H8	1.54	0.73
19:CT:38:ILE:HD11	19:CT:82:ILE:HG22	1.68	0.73
20:CB:96:LEU:HD23	20:CB:99:MET:HE3	1.70	0.73
23:DB:1925:C:H2'	23:DB:1926:U:H5''	1.68	0.73
25:DC:156:SER:O	25:DC:194:VAL:HG11	1.89	0.73
28:DF:72:SER:HA	28:DF:80:GLN:H	1.53	0.73
23:DB:171:U:H2'	23:DB:172:A:C8	2.23	0.73
23:DB:2258:C:H5'	23:DB:2259:U:H5	1.54	0.73
23:DB:2333:A:H4'	23:DB:2334:U:H5''	1.69	0.73
28:DF:62:GLN:NE2	28:DF:90:LEU:HD13	2.03	0.73
38:DQ:65:ASN:HB2	38:DQ:75:TYR:HB2	1.70	0.73
43:DW:49:ASN:HB3	43:DW:81:ILE:HD11	1.69	0.73
43:DW:66:VAL:HA	43:DW:81:ILE:HG22	1.70	0.73
46:DZ:64:ILE:H	46:DZ:64:ILE:HD12	1.51	0.73
23:BB:532:A:H3'	38:BQ:27:ARG:HH12	1.53	0.73
23:BB:2241:A:H2'	23:BB:2242:G:C8	2.22	0.73
34:BM:34:LYS:HE2	34:BM:99:GLY:HA2	1.70	0.73
42:BU:81:ARG:HH21	42:BU:81:ARG:N	1.87	0.73
13:CN:52:ARG:HH11	13:CN:58:ARG:HH21	1.37	0.73
23:DB:580:U:H2'	23:DB:581:C:H6	1.54	0.73
25:DC:64:VAL:O	25:DC:65:ASP:HB3	1.86	0.73
30:DH:94:ILE:O	30:DH:122:LEU:HB2	1.88	0.73
13:AN:52:ARG:HH11	13:AN:58:ARG:HH21	1.36	0.73
21:AU:43:GLU:HG3	21:AU:44:ARG:HH21	1.54	0.73
23:BB:362:A:H3'	23:BB:363:G:H8	1.54	0.73
30:BH:81:ALA:HA	30:BH:146:VAL:HA	1.70	0.73
1:CA:842:U:H3'	1:CA:843:U:H4'	1.69	0.73
13:CN:50:LEU:H	13:CN:51:PRO:HD2	1.53	0.73
23:BB:547:A:H2'	23:BB:548:G:H5'	1.71	0.73
24:BV:9:ARG:HH22	24:BV:12:GLN:HA	1.54	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BD:114:LYS:NZ	26:BD:116:LYS:HZ2	1.83	0.73
46:BZ:64:ILE:HD12	46:BZ:64:ILE:H	1.53	0.73
1:CA:1391:U:H2'	1:CA:1392:G:C8	2.23	0.73
23:DB:38:A:O2'	27:DE:43:THR:HA	1.89	0.73
23:DB:1080:A:H2'	23:DB:1081:U:H6	1.52	0.73
25:DC:91:ALA:HB2	25:DC:105:ALA:HB2	1.71	0.73
32:DK:19:VAL:HG12	32:DK:41:ILE:HG12	1.70	0.73
38:DQ:43:GLN:NE2	39:DR:77:PHE:HB3	2.03	0.73
40:DS:70:LYS:HD3	40:DS:110:ARG:HA	1.69	0.73
12:AM:92:ARG:HH12	18:AS:79:TYR:HD2	1.37	0.73
14:AO:7:THR:O	14:AO:10:ILE:HG22	1.88	0.73
23:BB:125:A:H3'	23:BB:126:A:H5''	1.71	0.73
23:BB:2292:U:H2'	23:BB:2293:G:H8	1.52	0.73
28:BF:72:SER:HA	28:BF:80:GLN:H	1.52	0.73
34:BM:40:ARG:HB2	34:BM:93:VAL:HG22	1.70	0.73
1:CA:957:U:H4'	18:CS:78:THR:HB	1.70	0.73
1:CA:1026:G:H2'	1:CA:1027:C:H6	1.54	0.73
20:CB:19:THR:HA	20:CB:37:VAL:HA	1.70	0.73
20:CB:61:SER:HB2	20:CB:62:ARG:NH1	2.03	0.73
23:DB:580:U:H2'	23:DB:581:C:C6	2.24	0.73
23:DB:836:G:H2'	23:DB:837:C:C6	2.23	0.73
23:DB:2264:C:H41	43:DW:11:ASN:HD21	1.36	0.73
28:DF:8:LYS:HA	28:DF:12:VAL:HG21	1.71	0.73
29:DG:37:ASN:HD22	29:DG:40:VAL:HB	1.53	0.73
44:DX:3:ALA:HA	44:DX:6:LEU:HD23	1.71	0.73
15:AP:34:GLU:CD	15:AP:60:TRP:HE1	1.97	0.73
19:AT:47:GLN:HG2	19:AT:82:ILE:HD12	1.70	0.73
24:BV:79:ARG:HA	24:BV:86:LEU:HA	1.69	0.73
26:BD:24:VAL:HG21	26:BD:188:LEU:HB3	1.70	0.73
32:BK:15:GLY:HA3	32:BK:52:VAL:HG23	1.70	0.73
35:BN:72:ASP:HB3	35:BN:75:ILE:HG12	1.69	0.73
38:BQ:27:ARG:HG2	38:BQ:37:ALA:HB2	1.71	0.73
40:BS:15:GLN:HA	40:BS:18:ARG:HG2	1.71	0.73
43:BW:23:LYS:HD2	43:BW:24:ARG:HB3	1.69	0.73
45:BY:6:ILE:HA	45:BY:56:VAL:HG22	1.71	0.73
12:CM:19:THR:HA	12:CM:24:VAL:HG23	1.69	0.73
14:CO:7:THR:O	14:CO:10:ILE:HG22	1.88	0.73
23:DB:1098:A:H2'	52:DI:4:VAL:N	2.02	0.73
26:DD:124:ARG:HA	26:DD:165:MET:HE3	1.71	0.73
28:DF:126:ASN:HB3	28:DF:156:THR:HA	1.70	0.73
29:DG:157:LYS:HB3	29:DG:159:LYS:HG3	1.71	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DQ:65:ASN:HD21	38:DQ:69:ARG:HH11	1.35	0.73
1:AA:84:U:O2	1:AA:84:U:H2'	1.88	0.73
21:AU:36:PHE:CB	21:AU:40:PRO:HD3	2.19	0.73
28:BF:62:GLN:NE2	28:BF:90:LEU:HD13	2.04	0.73
29:BG:148:ARG:HD3	29:BG:152:ARG:CZ	2.19	0.73
40:BS:28:LYS:HD2	40:BS:29:VAL:H	1.53	0.73
40:BS:30:SER:HA	40:BS:33:LEU:HD12	1.71	0.73
1:CA:17:U:H2'	1:CA:18:C:C6	2.24	0.73
1:CA:1320:C:H41	18:CS:36:ARG:HG2	1.54	0.73
9:CJ:12:ALA:HB2	9:CJ:96:VAL:HG12	1.69	0.73
12:CM:89:ARG:HH22	12:CM:94:LEU:HD12	1.54	0.73
23:DB:30:G:H2'	23:DB:31:C:C6	2.24	0.73
23:DB:2243:U:H2'	23:DB:2244:U:C6	2.24	0.73
30:DH:67:ALA:O	30:DH:70:GLU:HG3	1.89	0.73
31:DJ:124:VAL:HG23	31:DJ:125:TYR:H	1.54	0.73
34:DM:40:ARG:HB2	34:DM:93:VAL:HG22	1.69	0.73
35:DN:116:VAL:O	35:DN:117:ASP:HB3	1.87	0.73
52:DI:55:PRO:HD3	52:DI:74:PRO:HD3	1.69	0.73
6:AG:3:ARG:HD3	6:AG:3:ARG:N	2.03	0.72
8:AI:126:PHE:HE1	8:AI:129:ARG:HD3	1.54	0.72
28:BF:128:SER:HB3	28:BF:154:THR:HG23	1.70	0.72
32:BK:99:ILE:HB	32:BK:118:LEU:HD22	1.71	0.72
37:BP:1:SER:HA	37:BP:4:ILE:HB	1.69	0.72
48:B1:49:LYS:HG2	48:B1:50:GLU:H	1.53	0.72
4:CE:104:ILE:HG23	4:CE:111:ARG:HH12	1.53	0.72
6:CG:110:ARG:HD2	6:CG:122:GLU:HB2	1.70	0.72
11:CL:37:TYR:HB2	11:CL:51:VAL:HB	1.71	0.72
23:DB:140:C:OP1	41:DT:2:ILE:HG23	1.88	0.72
25:DC:129:LEU:HD23	25:DC:130:PRO:HD2	1.71	0.72
40:DS:66:ILE:HD13	40:DS:66:ILE:H	1.54	0.72
6:AG:110:ARG:HD2	6:AG:122:GLU:HB2	1.69	0.72
20:AB:61:SER:HB2	20:AB:62:ARG:HH11	1.53	0.72
23:BB:2867:G:H2'	23:BB:2867:G:N3	2.04	0.72
1:CA:337:G:H2'	1:CA:338:A:C8	2.24	0.72
20:CB:15:PHE:HA	20:CB:42:LEU:HD21	1.71	0.72
36:DO:49:VAL:HG11	36:DO:82:ALA:HA	1.71	0.72
41:DT:82:LYS:HD3	41:DT:84:TYR:HE1	1.52	0.72
2:AC:130:ARG:HA	2:AC:133:MET:HE3	1.70	0.72
5:AF:64:VAL:HG12	5:AF:65:GLU:H	1.52	0.72
7:AH:74:ILE:HG13	7:AH:128:VAL:HG22	1.72	0.72
21:AU:16:ARG:HE	21:AU:16:ARG:CA	2.01	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:812:C:H4'	38:BQ:12:ARG:HH22	1.54	0.72
27:BE:108:ILE:HG13	33:BL:2:ARG:NH2	2.04	0.72
34:BM:66:ARG:CZ	34:BM:101:VAL:HG11	2.18	0.72
41:BT:73:ARG:HH21	41:BT:73:ARG:HA	1.54	0.72
43:BW:51:GLY:CA	43:BW:59:PHE:HB2	2.20	0.72
1:CA:859:G:H2'	1:CA:860:A:C8	2.23	0.72
9:CJ:8:ILE:HG13	9:CJ:100:ILE:HG22	1.71	0.72
13:CN:63:CYS:HB2	13:CN:79:SER:HB3	1.71	0.72
24:DV:44:HIS:CE1	24:DV:86:LEU:H	2.07	0.72
24:DV:62:THR:HA	24:DV:71:LYS:HA	1.71	0.72
25:DC:196:ASN:ND2	25:DC:199:HIS:HB2	2.04	0.72
29:DG:166:GLU:HG2	29:DG:168:VAL:HG23	1.71	0.72
34:DM:34:LYS:HE2	34:DM:99:GLY:HA2	1.70	0.72
35:DN:17:ARG:HA	35:DN:20:MET:HB3	1.70	0.72
38:DQ:68:ALA:HB1	38:DQ:73:ILE:HG23	1.71	0.72
1:AA:1118:U:H2'	1:AA:1119:C:C6	2.24	0.72
1:AA:1320:C:H41	18:AS:36:ARG:HG2	1.53	0.72
2:AC:149:LYS:HB3	2:AC:200:TRP:HB2	1.71	0.72
2:AC:156:LEU:HD12	2:AC:163:ARG:HD2	1.70	0.72
12:AM:67:ASP:O	12:AM:71:GLU:HB2	1.89	0.72
13:AN:30:ILE:HB	13:AN:44:VAL:HG11	1.71	0.72
18:AS:30:LEU:HB2	18:AS:48:ILE:HG23	1.72	0.72
23:BB:329:G:H22	42:BU:16:LYS:HE3	1.54	0.72
27:BE:58:LYS:HE2	27:BE:60:TRP:HD1	1.53	0.72
30:BH:73:ASN:HB3	30:BH:141:LYS:NZ	2.04	0.72
32:BK:35:VAL:HG23	32:BK:36:GLY:N	2.03	0.72
1:CA:1472:U:H2'	1:CA:1473:G:C8	2.25	0.72
23:DB:992:C:H4'	39:DR:74:ILE:HD13	1.71	0.72
23:DB:2386:A:C2	43:DW:38:ARG:HB3	2.24	0.72
24:DV:62:THR:HG22	24:DV:71:LYS:HG2	1.71	0.72
37:DP:91:VAL:HG23	37:DP:92:ARG:H	1.53	0.72
38:DQ:107:ALA:HB1	39:DR:48:LYS:HE2	1.71	0.72
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.24	0.72
20:AB:120:SER:HA	20:AB:125:PHE:CG	2.25	0.72
23:BB:191:A:H2'	23:BB:192:C:C6	2.24	0.72
23:BB:856:G:C1'	43:BW:23:LYS:HB3	2.20	0.72
23:BB:1105:U:H2'	23:BB:1106:G:C8	2.24	0.72
23:BB:1301:A:O2'	23:BB:1302:A:H3'	1.89	0.72
20:CB:66:ILE:HD13	20:CB:159:ALA:HB3	1.71	0.72
21:CU:36:PHE:CB	21:CU:40:PRO:HD3	2.19	0.72
23:DB:616:A:H3'	23:DB:617:G:H8	1.54	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:855:G:N2	43:DW:23:LYS:HG2	2.05	0.72
23:DB:878:A:N3	23:DB:878:A:H2'	2.04	0.72
23:DB:1168:G:H2'	23:DB:1169:A:H8	1.53	0.72
23:DB:2292:U:H2'	23:DB:2293:G:H8	1.52	0.72
26:DD:69:ALA:HA	26:DD:73:VAL:HB	1.72	0.72
28:DF:110:ILE:HA	28:DF:111:ARG:CZ	2.18	0.72
30:DH:63:ALA:HA	30:DH:66:ASN:HD22	1.52	0.72
42:DU:24:VAL:HA	42:DU:35:VAL:HA	1.72	0.72
1:AA:946:A:H2'	1:AA:947:G:C8	2.24	0.72
1:AA:1292:G:H2'	1:AA:1293:C:C6	2.25	0.72
9:AJ:8:ILE:HG13	9:AJ:100:ILE:HG22	1.72	0.72
10:AK:20:ALA:HB2	10:AK:81:LEU:HD12	1.71	0.72
12:AM:10:ASP:HA	12:AM:44:ILE:HD13	1.70	0.72
23:BB:743:A:O2'	23:BB:744:U:H5'	1.89	0.72
23:BB:2353:G:H1'	43:BW:30:VAL:CG1	2.18	0.72
26:BD:69:ALA:HA	26:BD:73:VAL:HB	1.71	0.72
32:BK:17:ARG:HB3	32:BK:45:GLU:HG3	1.71	0.72
1:CA:193:C:H2'	1:CA:194:C:C6	2.25	0.72
1:CA:1348:U:H4'	8:CI:121:ARG:HG3	1.70	0.72
2:CC:149:LYS:HB3	2:CC:200:TRP:HB2	1.72	0.72
20:CB:99:MET:HA	20:CB:106:VAL:HG21	1.72	0.72
23:DB:28:A:H61	23:DB:512:G:H1'	1.55	0.72
32:DK:15:GLY:HA3	32:DK:52:VAL:HG23	1.70	0.72
37:DP:85:VAL:HG21	37:DP:88:ARG:HH11	1.52	0.72
52:DI:20:SER:HB3	52:DI:21:PRO:HD3	1.69	0.72
23:BB:2591:C:H2'	23:BB:2592:G:C8	2.25	0.72
25:BC:129:LEU:HD23	25:BC:130:PRO:HD2	1.71	0.72
48:B1:46:VAL:HG22	48:B1:47:ILE:H	1.52	0.72
1:CA:279:A:H5''	1:CA:280:C:H3'	1.71	0.72
23:DB:1412:U:H2'	23:DB:1413:A:H8	1.55	0.72
30:DH:83:LYS:HG3	30:DH:149:GLU:HG2	1.69	0.72
32:DK:99:ILE:HB	32:DK:118:LEU:HD22	1.71	0.72
2:AC:16:PRO:HG2	2:AC:53:ARG:HH12	1.54	0.72
21:AU:38:GLU:C	21:AU:40:PRO:HD2	2.14	0.72
23:BB:2794:C:H2'	23:BB:2795:C:C6	2.24	0.72
25:BC:81:GLU:HB2	25:BC:90:ILE:HG22	1.70	0.72
1:CA:1004:A:H3'	1:CA:1024:G:H22	1.53	0.72
20:CB:59:ILE:H	20:CB:59:ILE:HD12	1.54	0.72
23:DB:1060:U:C4	23:DB:1088:A:N6	2.58	0.72
23:DB:2241:A:H2'	23:DB:2242:G:C8	2.25	0.72
23:DB:2800:A:N3	23:DB:2801:G:H1'	2.05	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2834:G:H1'	23:DB:2883:A:N6	2.04	0.72
30:DH:122:LEU:HD11	30:DH:130:VAL:HG21	1.70	0.72
40:DS:30:SER:HA	40:DS:33:LEU:HD12	1.72	0.72
8:AI:25:GLY:HA2	8:AI:60:LEU:O	1.90	0.72
23:BB:28:A:H61	23:BB:512:G:H1'	1.54	0.72
23:BB:141:G:O6	41:BT:2:ILE:HD12	1.90	0.72
23:BB:2331:G:H21	23:BB:2336:A:H8	1.37	0.72
23:BB:2886:A:H3'	23:BB:2887:A:H8	1.55	0.72
34:BM:19:GLY:HA2	34:BM:98:PRO:HD2	1.72	0.72
1:CA:1133:G:H2'	1:CA:1134:G:O4'	1.89	0.72
23:DB:191:A:H2'	23:DB:192:C:C6	2.24	0.72
23:DB:1274:A:N3	23:DB:1297:C:H1'	2.05	0.72
25:DC:129:LEU:HD22	25:DC:134:ILE:HG22	1.70	0.72
28:DF:126:ASN:HA	28:DF:157:THR:HG22	1.72	0.72
38:DQ:91:ARG:HH12	39:DR:10:LYS:HB3	1.55	0.72
7:AH:17:GLN:HG2	7:AH:62:LEU:HD23	1.70	0.72
23:BB:571:U:H3'	39:BR:80:ARG:NH1	2.05	0.72
23:BB:2091:C:H1'	46:BZ:34:HIS:CD2	2.25	0.72
24:BV:21:ARG:HE	24:BV:87:GLN:HB3	1.55	0.72
26:BD:116:LYS:HE2	35:BN:1:MET:HE1	1.71	0.72
43:BW:43:LYS:HD2	43:BW:79:ILE:HD11	1.71	0.72
43:BW:49:ASN:HB3	43:BW:81:ILE:HD11	1.72	0.72
1:CA:462:G:H5'	1:CA:463:U:OP2	1.90	0.72
1:CA:1292:G:H2'	1:CA:1293:C:C6	2.25	0.72
2:CC:104:GLU:HG2	2:CC:105:VAL:H	1.53	0.72
4:CE:76:ASN:HB2	4:CE:81:GLN:NE2	2.05	0.72
6:AG:87:PRO:HG2	6:AG:151:ALA:HB2	1.69	0.71
15:AP:28:ARG:CD	15:AP:29:ASN:H	2.03	0.71
20:AB:66:ILE:HD13	20:AB:159:ALA:HB3	1.72	0.71
23:BB:1868:C:H2'	23:BB:1869:G:O4'	1.89	0.71
24:BV:63:ILE:HB	24:BV:70:ILE:HD11	1.72	0.71
28:BF:8:LYS:HA	28:BF:12:VAL:HG21	1.72	0.71
32:BK:19:VAL:HG12	32:BK:41:ILE:HG12	1.73	0.71
48:B1:32:LYS:HA	48:B1:51:ALA:O	1.90	0.71
52:BI:106:GLN:O	52:BI:110:GLN:HG3	1.90	0.71
8:CI:33:SER:HB3	8:CI:36:GLN:HB2	1.72	0.71
23:DB:1464:G:H2'	23:DB:1465:G:H8	1.53	0.71
35:DN:83:LEU:HA	35:DN:86:ARG:HG3	1.70	0.71
41:DT:73:ARG:HH21	41:DT:73:ARG:HA	1.55	0.71
38:BQ:68:ALA:HB1	38:BQ:73:ILE:HG23	1.71	0.71
31:DJ:112:GLY:N	31:DJ:113:PRO:HD2	2.04	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DM:19:GLY:HA2	34:DM:98:PRO:HD2	1.73	0.71
1:AA:337:G:H2'	1:AA:338:A:C8	2.26	0.71
1:AA:408:A:OP1	3:AD:111:ALA:HB3	1.90	0.71
1:AA:764:C:H2'	1:AA:765:G:H5'	1.71	0.71
13:AN:68:ARG:HH12	13:AN:70:HIS:HB2	1.53	0.71
23:BB:62:U:H3'	23:BB:63:A:H8	1.54	0.71
23:BB:181:A:H2'	23:BB:182:A:C8	2.24	0.71
23:BB:1056:G:H1'	23:BB:1103:A:N6	2.06	0.71
23:BB:1354:A:H2'	23:BB:1355:G:O4'	1.90	0.71
23:BB:2146:C:H1'	23:BB:2147:A:H5'	1.71	0.71
23:BB:2153:C:H2'	23:BB:2154:A:H8	1.53	0.71
23:BB:2749:A:H3'	23:BB:2750:A:H5''	1.71	0.71
24:BV:62:THR:HA	24:BV:71:LYS:HA	1.72	0.71
29:BG:166:GLU:HG2	29:BG:168:VAL:HG23	1.71	0.71
37:BP:88:ARG:HB2	37:BP:112:ARG:NH1	2.03	0.71
41:BT:32:LEU:H	41:BT:83:ALA:HB3	1.55	0.71
52:BI:20:SER:HB3	52:BI:21:PRO:HD3	1.71	0.71
1:CA:408:A:OP1	3:CD:111:ALA:HB3	1.90	0.71
1:CA:882:C:O2'	1:CA:883:C:H5'	1.91	0.71
1:CA:1142:G:H2'	1:CA:1143:G:O4'	1.90	0.71
23:DB:1080:A:O2'	52:DI:126:ARG:HD2	1.90	0.71
23:DB:2591:C:H2'	23:DB:2592:G:C8	2.25	0.71
23:DB:2867:G:H2'	23:DB:2867:G:N3	2.04	0.71
25:DC:43:ASN:ND2	25:DC:44:ASN:H	1.88	0.71
28:DF:92:GLY:HA2	28:DF:95:MET:HE3	1.72	0.71
40:DS:24:ILE:HG22	40:DS:71:VAL:HG11	1.72	0.71
2:AC:63:ILE:HD12	2:AC:98:ALA:HB2	1.71	0.71
13:AN:50:LEU:H	13:AN:51:PRO:HD2	1.53	0.71
21:AU:9:GLU:HG2	2:CC:108:PRO:HG3	1.73	0.71
23:BB:580:U:H2'	23:BB:581:C:C6	2.24	0.71
23:BB:742:A:H2'	23:BB:743:A:C8	2.24	0.71
23:BB:836:G:H2'	23:BB:837:C:C6	2.25	0.71
23:BB:2880:C:O4'	35:BN:91:ALA:HB3	1.91	0.71
1:CA:797:C:OP1	10:CK:125:LYS:HE3	1.91	0.71
6:CG:115:MET:HA	6:CG:118:ARG:HD2	1.72	0.71
22:DA:32:U:H4'	22:DA:52:A:H62	1.55	0.71
22:DA:98:G:N1	24:DV:14:LYS:HB2	2.04	0.71
31:DJ:17:VAL:HG22	31:DJ:55:ILE:HD11	1.69	0.71
41:DT:76:ARG:NH2	41:DT:77:ARG:HB2	2.05	0.71
3:AD:196:GLU:O	3:AD:199:ILE:HG13	1.90	0.71
8:AI:26:LYS:H	8:AI:61:ASP:CB	2.03	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AQ:20:ILE:HD13	16:AQ:47:ASP:HB3	1.73	0.71
19:AT:43:LYS:HE2	19:AT:44:ALA:H	1.55	0.71
23:BB:918:A:H2'	23:BB:919:U:H5'	1.70	0.71
25:BC:202:ARG:HH11	25:BC:213:ARG:HE	1.36	0.71
28:BF:126:ASN:HA	28:BF:157:THR:HG22	1.73	0.71
36:BO:51:ALA:HB3	36:BO:78:VAL:HG22	1.72	0.71
1:CA:764:C:H2'	1:CA:765:G:H5'	1.72	0.71
1:CA:1472:U:H2'	1:CA:1473:G:H8	1.53	0.71
23:DB:1440:U:H2'	23:DB:1441:G:H8	1.55	0.71
27:DE:58:LYS:HE2	27:DE:60:TRP:CD1	2.26	0.71
42:DU:26:ASN:HD21	42:DU:34:ILE:HD12	1.54	0.71
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.24	0.71
20:AB:205:ALA:HB3	20:AB:208:ALA:HB3	1.72	0.71
23:BB:27:G:N2	23:BB:512:G:H2'	2.05	0.71
23:BB:590:A:H2'	23:BB:591:U:C6	2.26	0.71
23:BB:1060:U:C4	23:BB:1088:A:N6	2.58	0.71
29:BG:157:LYS:HB3	29:BG:159:LYS:HG3	1.72	0.71
52:BI:122:GLU:O	52:BI:126:ARG:HG3	1.91	0.71
15:CP:34:GLU:CD	15:CP:60:TRP:HE1	1.99	0.71
21:CU:38:GLU:C	21:CU:40:PRO:HD2	2.14	0.71
23:DB:329:G:H22	42:DU:16:LYS:HE3	1.53	0.71
23:DB:1447:C:H2'	23:DB:1448:G:H8	1.56	0.71
38:DQ:63:ARG:HH22	38:DQ:96:ASP:CA	2.02	0.71
1:AA:559:A:H4'	1:AA:560:A:H3'	1.73	0.71
1:AA:1412:C:H2'	1:AA:1413:A:H8	1.55	0.71
2:AC:148:ILE:HA	2:AC:200:TRP:O	1.90	0.71
4:AE:36:THR:HG21	4:AE:63:MET:HG2	1.72	0.71
9:AJ:12:ALA:HB2	9:AJ:96:VAL:HG12	1.70	0.71
20:AB:19:THR:HA	20:AB:37:VAL:HA	1.72	0.71
20:AB:96:LEU:HD23	20:AB:99:MET:HE3	1.73	0.71
23:BB:773:U:H5'	23:BB:774:G:OP2	1.91	0.71
28:BF:34:THR:HG22	28:BF:89:THR:HG22	1.72	0.71
28:BF:34:THR:HA	28:BF:89:THR:HA	1.72	0.71
31:BJ:77:HIS:CD2	31:BJ:84:ILE:H	2.08	0.71
35:BN:83:LEU:HA	35:BN:86:ARG:HG3	1.71	0.71
9:CJ:57:VAL:HG22	9:CJ:58:ASN:H	1.56	0.71
10:CK:75:GLU:CD	10:CK:75:GLU:H	1.98	0.71
13:CN:30:ILE:HB	13:CN:44:VAL:HG11	1.71	0.71
23:DB:200:U:H5''	46:DZ:22:LEU:O	1.90	0.71
23:DB:919:U:H2'	23:DB:920:A:C8	2.25	0.71
23:DB:1354:A:H2'	23:DB:1355:G:O4'	1.91	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2071:A:H2'	23:DB:2072:C:C6	2.25	0.71
24:DV:51:GLN:NE2	24:DV:79:ARG:HH22	1.89	0.71
25:DC:81:GLU:HB2	25:DC:90:ILE:HG22	1.71	0.71
1:AA:677:U:H2'	1:AA:678:U:C6	2.26	0.71
1:AA:957:U:H4'	18:AS:78:THR:HB	1.71	0.71
1:AA:1477:U:H2'	1:AA:1478:U:C6	2.26	0.71
6:AG:14:ASP:HB3	6:AG:19:SER:H	1.54	0.71
29:BG:71:LEU:HA	29:BG:74:MET:SD	2.31	0.71
46:BZ:59:ILE:HG22	46:BZ:64:ILE:HA	1.72	0.71
1:CA:764:C:C2'	1:CA:765:G:H5'	2.21	0.71
10:CK:91:GLY:HA2	10:CK:94:SER:HB3	1.72	0.71
21:CU:43:GLU:HG3	21:CU:44:ARG:HH21	1.56	0.71
23:DB:742:A:H2'	23:DB:743:A:H8	1.54	0.71
31:DJ:93:ILE:O	31:DJ:97:PRO:HG3	1.91	0.71
36:DO:11:ALA:CB	36:DO:96:GLY:H	2.03	0.71
38:DQ:104:ALA:HA	39:DR:46:GLU:CD	2.16	0.71
20:AB:61:SER:HB2	20:AB:62:ARG:NH1	2.05	0.71
21:AU:42:THR:O	21:AU:46:ARG:HG3	1.91	0.71
23:BB:224:U:O4	23:BB:420:C:H5'	1.91	0.71
29:BG:43:LYS:HB2	29:BG:50:THR:HB	1.71	0.71
1:CA:1118:U:H2'	1:CA:1119:C:C6	2.25	0.71
13:CN:5:MET:HE3	13:CN:60:ARG:NH1	2.05	0.71
34:DM:66:ARG:CZ	34:DM:101:VAL:HG11	2.20	0.71
37:DP:4:ILE:C	37:DP:6:GLN:H	1.99	0.71
43:DW:23:LYS:HD2	43:DW:24:ARG:HB3	1.72	0.71
46:DZ:59:ILE:HG22	46:DZ:64:ILE:HA	1.73	0.71
1:AA:1072:G:N2	20:AB:105:THR:HG21	2.06	0.71
23:BB:2071:A:H2'	23:BB:2072:C:C6	2.25	0.71
23:BB:2872:A:O2'	23:BB:2873:A:H5''	1.91	0.71
28:BF:126:ASN:HA	28:BF:157:THR:H	1.55	0.71
31:BJ:93:ILE:O	31:BJ:97:PRO:HG3	1.90	0.71
23:DB:62:U:H3'	23:DB:63:A:H8	1.55	0.71
23:DB:362:A:H3'	23:DB:363:G:H8	1.56	0.71
23:DB:1857:G:H1'	23:DB:1885:A:H61	1.56	0.71
23:DB:1949:G:H2'	23:DB:1950:G:C8	2.25	0.71
23:DB:2328:A:H2'	23:DB:2329:U:C6	2.25	0.71
20:AB:53:LEU:HA	20:AB:56:LEU:HD13	1.73	0.70
23:BB:30:G:H2'	23:BB:31:C:C6	2.25	0.70
23:BB:171:U:H2'	23:BB:172:A:C8	2.26	0.70
23:BB:1001:A:H2'	23:BB:1002:G:O4'	1.91	0.70
26:BD:114:LYS:HZ2	26:BD:116:LYS:NZ	1.84	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BX:3:ALA:HA	44:BX:6:LEU:HD23	1.73	0.70
1:CA:522:C:H41	11:CL:49:ARG:HH22	1.39	0.70
1:CA:617:G:H4'	15:CP:46:LYS:HE2	1.73	0.70
1:CA:695:A:H61	1:CA:797:C:H1'	1.56	0.70
1:CA:1132:C:H2'	1:CA:1133:G:H8	1.55	0.70
8:CI:93:LEU:HD13	8:CI:97:LEU:HD11	1.71	0.70
23:DB:1001:A:H2'	23:DB:1002:G:O4'	1.91	0.70
23:DB:1287:A:OP1	35:DN:104:ALA:HB3	1.91	0.70
23:DB:2438:U:O2'	23:DB:2439:A:H5''	1.91	0.70
30:DH:27:ARG:NH1	46:DZ:60:ASP:HA	2.06	0.70
41:DT:15:HIS:H	41:DT:32:LEU:HA	1.55	0.70
1:AA:108:G:C6	19:AT:9:ARG:HG2	2.26	0.70
1:AA:437:U:H2'	1:AA:438:U:O4'	1.90	0.70
1:AA:764:C:C2'	1:AA:765:G:H5'	2.22	0.70
1:AA:1142:G:H2'	1:AA:1143:G:O4'	1.91	0.70
2:AC:112:ALA:HB1	2:AC:184:ASN:HB2	1.72	0.70
8:AI:93:LEU:HD13	8:AI:97:LEU:HD11	1.73	0.70
23:BB:1437:C:H2'	23:BB:1438:U:H6	1.54	0.70
23:BB:2297:A:N6	23:BB:2319:G:H1'	2.06	0.70
31:BJ:29:ALA:HA	31:BJ:32:LEU:HB2	1.73	0.70
12:CM:86:ARG:HG3	12:CM:96:VAL:HG11	1.73	0.70
12:CM:90:HIS:HA	12:CM:108:ARG:NH2	2.06	0.70
15:CP:57:ILE:O	15:CP:61:VAL:HG23	1.90	0.70
20:CB:137:THR:O	20:CB:141:GLU:HG3	1.92	0.70
23:DB:27:G:N2	23:DB:512:G:H2'	2.06	0.70
23:DB:96:C:H4'	44:DX:41:HIS:ND1	2.06	0.70
23:DB:849:A:H2'	23:DB:850:U:C6	2.26	0.70
28:DF:126:ASN:HA	28:DF:157:THR:H	1.56	0.70
28:DF:128:SER:HB3	28:DF:154:THR:HG23	1.73	0.70
41:DT:11:LEU:HD21	41:DT:46:ALA:HB1	1.71	0.70
1:AA:90:C:H2'	1:AA:91:U:C5	2.27	0.70
1:AA:475:C:H2'	1:AA:476:U:C6	2.25	0.70
7:AH:44:PHE:HA	7:AH:70:VAL:HG11	1.72	0.70
23:BB:287:G:H2'	23:BB:288:U:C6	2.25	0.70
36:BO:24:THR:HG22	36:BO:42:PRO:HD3	1.72	0.70
48:B1:9:LYS:HD3	48:B1:9:LYS:H	1.57	0.70
1:CA:235:C:H2'	1:CA:236:A:C8	2.27	0.70
2:CC:112:ALA:HB1	2:CC:184:ASN:HB2	1.73	0.70
8:CI:64:ILE:HD12	8:CI:64:ILE:H	1.57	0.70
13:CN:30:ILE:HG22	13:CN:41:TRP:HB2	1.74	0.70
20:CB:53:LEU:HA	20:CB:56:LEU:HD13	1.72	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2720:U:H5''	37:DP:52:ARG:HH21	1.55	0.70
25:DC:32:LEU:O	25:DC:63:ILE:HG12	1.90	0.70
25:DC:202:ARG:HH11	25:DC:213:ARG:HE	1.38	0.70
18:AS:62:THR:HB	18:AS:64:GLU:OE1	1.92	0.70
20:AB:99:MET:HA	20:AB:106:VAL:HG21	1.72	0.70
23:BB:2021:C:OP1	47:B0:8:THR:HG21	1.91	0.70
25:BC:43:ASN:ND2	25:BC:44:ASN:H	1.89	0.70
30:BH:73:ASN:HD22	30:BH:74:ALA:N	1.87	0.70
34:BM:59:ARG:NH1	34:BM:60:GLN:HB3	2.07	0.70
37:BP:45:VAL:H	37:BP:60:VAL:HB	1.56	0.70
2:CC:63:ILE:HD12	2:CC:98:ALA:HB2	1.72	0.70
3:CD:47:LEU:HB2	3:CD:51:GLY:HA3	1.72	0.70
3:CD:197:HIS:O	3:CD:200:VAL:HG22	1.91	0.70
10:CK:33:ILE:HG13	10:CK:73:VAL:HG21	1.72	0.70
13:CN:86:ALA:HB1	13:CN:91:GLU:HB2	1.73	0.70
29:DG:84:LYS:HB3	29:DG:132:LEU:O	1.91	0.70
4:AE:76:ASN:HB2	4:AE:81:GLN:NE2	2.07	0.70
14:AO:34:GLN:HB2	14:AO:58:MET:HE1	1.74	0.70
22:BA:32:U:H4'	22:BA:52:A:H62	1.55	0.70
23:BB:1412:U:H2'	23:BB:1413:A:H8	1.56	0.70
23:BB:1464:G:H2'	23:BB:1465:G:H8	1.55	0.70
32:BK:102:PRO:HA	32:BK:120:PRO:HB3	1.74	0.70
23:DB:2872:A:O2'	23:DB:2873:A:H5''	1.92	0.70
25:DC:35:LYS:HG2	25:DC:36:ASN:H	1.54	0.70
29:DG:71:LEU:HA	29:DG:74:MET:SD	2.31	0.70
40:DS:17:VAL:C	40:DS:19:LEU:H	1.99	0.70
40:DS:26:GLY:N	40:DS:71:VAL:HG13	2.06	0.70
47:D0:32:THR:OG1	47:D0:50:GLY:HA2	1.90	0.70
48:D1:46:VAL:HG22	48:D1:47:ILE:H	1.53	0.70
3:AD:58:GLN:O	3:AD:62:ARG:HG2	1.92	0.70
16:AQ:30:HIS:CE1	16:AQ:32:ILE:HG22	2.27	0.70
16:AQ:74:LEU:HD22	16:AQ:75:VAL:N	2.06	0.70
23:BB:1454:C:H5'	35:BN:63:ARG:HE	1.55	0.70
23:BB:2557:G:H2'	23:BB:2558:C:C6	2.27	0.70
30:BH:90:LEU:HD11	30:BH:146:VAL:HG11	1.71	0.70
44:BX:8:GLU:O	44:BX:12:GLU:HB2	1.92	0.70
2:CC:156:LEU:HD12	2:CC:163:ARG:HD2	1.72	0.70
21:CU:42:THR:O	21:CU:46:ARG:HG3	1.92	0.70
23:DB:215:G:H4'	23:DB:216:A:H4'	1.74	0.70
23:DB:2109:U:H2'	23:DB:2110:G:H5''	1.73	0.70
23:DB:2794:C:H2'	23:DB:2795:C:C6	2.26	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AI:64:ILE:H	8:AI:64:ILE:HD12	1.57	0.70
16:AQ:59:GLU:O	16:AQ:75:VAL:HG22	1.91	0.70
20:AB:76:SER:HA	20:AB:92:ASN:HB2	1.73	0.70
23:BB:1447:C:H2'	23:BB:1448:G:H8	1.56	0.70
23:BB:1461:C:H2'	23:BB:1462:C:H6	1.56	0.70
23:BB:2512:C:H2'	23:BB:2513:A:O4'	1.91	0.70
24:BV:62:THR:HG22	24:BV:71:LYS:HG2	1.73	0.70
41:BT:12:ARG:HA	44:BX:29:ARG:HH22	1.57	0.70
1:CA:522:C:H41	11:CL:49:ARG:NH2	1.90	0.70
1:CA:974:A:H4'	1:CA:975:A:H5'	1.74	0.70
23:DB:871:U:H2'	23:DB:872:U:H6	1.56	0.70
23:DB:2645:G:H3'	23:DB:2646:C:H5'	1.74	0.70
24:DV:21:ARG:HE	24:DV:87:GLN:HB3	1.56	0.70
27:DE:192:ALA:HA	27:DE:195:GLN:HE21	1.56	0.70
1:AA:964:A:H2'	1:AA:965:U:H5''	1.72	0.70
23:BB:1056:G:H1'	23:BB:1103:A:H62	1.56	0.70
23:BB:1287:A:H3'	23:BB:1288:G:N2	2.07	0.70
23:BB:2645:G:H3'	23:BB:2646:C:H5'	1.74	0.70
30:BH:132:PHE:H	30:BH:142:VAL:HG23	1.56	0.70
20:CB:60:ALA:HA	20:CB:64:GLY:HA3	1.73	0.70
20:CB:76:SER:HA	20:CB:92:ASN:HB2	1.74	0.70
23:DB:591:U:H1'	50:D3:1:PRO:N	2.06	0.70
23:DB:1592:C:H2'	23:DB:1593:A:H8	1.57	0.70
23:DB:2366:A:H4'	43:DW:61:LYS:HE2	1.73	0.70
27:DE:117:ARG:HH12	33:DL:2:ARG:HB2	1.57	0.70
28:DF:34:THR:HA	28:DF:89:THR:HA	1.74	0.70
41:DT:32:LEU:H	41:DT:83:ALA:HB3	1.56	0.70
1:AA:974:A:H4'	1:AA:975:A:H5'	1.74	0.70
12:AM:86:ARG:HG3	12:AM:96:VAL:HG11	1.74	0.70
16:AQ:45:VAL:HG12	16:AQ:46:HIS:H	1.55	0.70
20:AB:15:PHE:HA	20:AB:42:LEU:HD21	1.72	0.70
23:BB:643:A:N3	48:B1:43:ARG:HD2	2.07	0.70
23:BB:1440:U:H2'	23:BB:1441:G:H8	1.57	0.70
23:BB:2060:A:H2'	27:BE:63:LYS:HE2	1.72	0.70
23:BB:2800:A:N3	23:BB:2801:G:H1'	2.07	0.70
26:BD:124:ARG:HA	26:BD:165:MET:HE3	1.74	0.70
31:BJ:18:VAL:HG22	31:BJ:19:ASP:H	1.57	0.70
33:BL:112:LEU:HG	33:BL:113:ALA:H	1.56	0.70
3:CD:137:SER:HB2	3:CD:138:PRO:HD2	1.73	0.70
23:DB:27:G:H1'	23:DB:513:A:N6	2.07	0.70
23:DB:458:G:N2	23:DB:469:G:H2'	2.07	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:807:U:H2'	23:DB:808:G:H8	1.56	0.70
23:DB:1535:A:O2'	23:DB:1536:C:H5'	1.92	0.70
42:DU:38:ILE:HG23	42:DU:39:ASN:N	2.05	0.70
44:DX:23:ARG:HD2	44:DX:27:ASN:HD21	1.57	0.70
15:AP:52:LEU:HD21	15:AP:75:ILE:HG12	1.71	0.70
23:BB:1178:C:H2'	23:BB:1179:G:H8	1.55	0.70
37:BP:85:VAL:HG21	37:BP:88:ARG:HH11	1.55	0.70
3:CD:196:GLU:O	3:CD:199:ILE:HG13	1.91	0.70
5:CF:26:THR:HA	5:CF:29:ILE:HD12	1.73	0.70
7:CH:44:PHE:HA	7:CH:70:VAL:HG11	1.72	0.70
11:CL:122:LYS:HD2	11:CL:123:ALA:N	2.06	0.70
16:CQ:45:VAL:HG12	16:CQ:46:HIS:H	1.56	0.70
23:DB:773:U:H5'	23:DB:774:G:OP2	1.92	0.70
30:DH:48:GLU:HB2	30:DH:51:ARG:NH2	2.06	0.70
31:DJ:77:HIS:CD2	31:DJ:84:ILE:H	2.10	0.70
31:DJ:117:ALA:HA	31:DJ:120:ARG:HD2	1.74	0.70
39:DR:14:VAL:HG22	39:DR:15:SER:N	2.07	0.70
39:DR:16:GLU:H	39:DR:101:ILE:HG13	1.57	0.70
1:AA:920:U:H2'	1:AA:921:U:C6	2.27	0.69
20:AB:60:ALA:HA	20:AB:64:GLY:HA3	1.74	0.69
23:BB:919:U:H2'	23:BB:920:A:C8	2.27	0.69
23:BB:2751:G:H2'	23:BB:2751:G:N3	2.07	0.69
28:BF:62:GLN:NE2	28:BF:90:LEU:HA	2.07	0.69
30:BH:68:ARG:NH1	30:BH:110:VAL:HG12	2.07	0.69
35:BN:17:ARG:HA	35:BN:20:MET:HB3	1.72	0.69
41:BT:15:HIS:H	41:BT:32:LEU:HA	1.57	0.69
6:CG:66:GLU:HA	6:CG:69:ARG:HD2	1.74	0.69
11:CL:51:VAL:HG12	11:CL:52:CYS:H	1.57	0.69
11:CL:66:ILE:HG21	11:CL:71:HIS:HB3	1.72	0.69
12:CM:92:ARG:HH12	18:CS:79:TYR:HD2	1.40	0.69
23:DB:1993:U:H4'	26:DD:133:THR:CG2	2.22	0.69
36:DO:24:THR:HG22	36:DO:42:PRO:HD3	1.73	0.69
1:AA:193:C:H2'	1:AA:194:C:C6	2.26	0.69
2:AC:171:ARG:HB2	2:AC:171:ARG:HH11	1.57	0.69
3:AD:29:THR:HB	3:AD:30:LYS:NZ	2.06	0.69
3:AD:153:ARG:HG3	3:AD:154:VAL:N	2.08	0.69
4:AE:32:PHE:O	4:AE:51:LYS:HB2	1.91	0.69
23:BB:215:G:H4'	23:BB:216:A:H4'	1.74	0.69
23:BB:580:U:H2'	23:BB:581:C:H6	1.57	0.69
23:BB:1274:A:N3	23:BB:1297:C:H1'	2.06	0.69
23:BB:2619:C:H5'	26:BD:157:LYS:HD3	1.72	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BU:24:VAL:HA	42:BU:35:VAL:HA	1.73	0.69
42:BU:86:PHE:HB2	42:BU:92:VAL:HB	1.73	0.69
20:CB:205:ALA:HB3	20:CB:208:ALA:HB3	1.73	0.69
23:DB:45:G:H5'	23:DB:46:G:H5'	1.73	0.69
23:DB:350:G:H2'	23:DB:351:C:O4'	1.92	0.69
23:DB:571:U:H3'	39:DR:80:ARG:HH12	1.57	0.69
26:DD:13:ARG:HD2	37:DP:55:HIS:ND1	2.07	0.69
30:DH:88:GLY:HA3	30:DH:125:THR:OG1	1.93	0.69
31:DJ:18:VAL:HG22	31:DJ:19:ASP:H	1.55	0.69
31:DJ:45:THR:H	31:DJ:46:PRO:HD3	1.56	0.69
1:AA:17:U:H2'	1:AA:18:C:C6	2.27	0.69
1:AA:239:U:OP1	1:AA:239:U:H4'	1.90	0.69
1:AA:1026:G:H2'	1:AA:1027:C:H6	1.55	0.69
2:AC:104:GLU:HG2	2:AC:105:VAL:H	1.56	0.69
5:AF:26:THR:HA	5:AF:29:ILE:HD12	1.74	0.69
7:AH:63:LYS:HD2	7:AH:70:VAL:HG21	1.74	0.69
9:AJ:57:VAL:HG22	9:AJ:58:ASN:H	1.56	0.69
12:AM:90:HIS:HA	12:AM:108:ARG:NH2	2.08	0.69
13:AN:30:ILE:HG22	13:AN:41:TRP:HB2	1.73	0.69
23:BB:1038:G:H2'	23:BB:1039:A:C8	2.28	0.69
33:BL:57:LEU:O	33:BL:61:LEU:HD13	1.93	0.69
2:CC:148:ILE:HA	2:CC:200:TRP:O	1.92	0.69
7:CH:124:ILE:HG22	7:CH:125:ILE:H	1.55	0.69
12:CM:67:ASP:O	12:CM:71:GLU:HB2	1.92	0.69
23:DB:142:A:H2'	23:DB:143:C:C6	2.26	0.69
23:DB:2732:G:H5'	23:DB:2733:A:O4'	1.92	0.69
41:DT:12:ARG:HA	44:DX:29:ARG:HH22	1.58	0.69
52:DI:85:ILE:HD13	52:DI:137:LEU:HD21	1.73	0.69
1:AA:449:G:H2'	1:AA:450:G:C8	2.28	0.69
1:AA:859:G:H2'	1:AA:860:A:C8	2.25	0.69
11:AL:66:ILE:HG21	11:AL:71:HIS:HB3	1.72	0.69
22:BA:29:A:H3'	22:BA:30:C:H6	1.58	0.69
34:BM:4:PRO:HG3	34:BM:68:PHE:HE2	1.58	0.69
37:BP:29:VAL:HG12	37:BP:80:VAL:HA	1.74	0.69
39:BR:16:GLU:H	39:BR:101:ILE:HG13	1.57	0.69
51:B4:2:LYS:HE3	51:B4:4:ARG:HH21	1.58	0.69
4:CE:36:THR:HG21	4:CE:63:MET:HG2	1.73	0.69
11:CL:86:VAL:HG11	11:CL:89:LEU:HD23	1.74	0.69
12:CM:28:ARG:NH2	12:CM:62:PHE:HB2	2.08	0.69
18:CS:62:THR:HB	18:CS:64:GLU:OE1	1.90	0.69
29:DG:85:LYS:HB2	29:DG:164:ALA:HB3	1.75	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DS:15:GLN:HA	40:DS:18:ARG:HG2	1.74	0.69
51:D4:2:LYS:HE3	51:D4:4:ARG:HH21	1.56	0.69
1:AA:462:G:H5'	1:AA:463:U:OP2	1.93	0.69
1:AA:522:C:H41	11:AL:49:ARG:HH22	1.40	0.69
1:AA:617:G:H4'	15:AP:46:LYS:HE2	1.73	0.69
1:AA:797:C:OP1	10:AK:125:LYS:HE3	1.92	0.69
13:AN:63:CYS:HB2	13:AN:79:SER:HB3	1.74	0.69
20:AB:199:ILE:HD13	20:AB:212:TYR:HE2	1.58	0.69
23:BB:620:G:N3	23:BB:620:G:H5'	2.08	0.69
1:CA:964:A:H2'	1:CA:965:U:H5''	1.74	0.69
4:CE:84:VAL:HG11	4:CE:146:MET:HB3	1.75	0.69
23:DB:2512:C:H2'	23:DB:2513:A:O4'	1.92	0.69
29:DG:26:LYS:HZ2	29:DG:26:LYS:HB3	1.58	0.69
29:DG:53:PRO:HG3	29:DG:61:TRP:HA	1.75	0.69
32:DK:54:LYS:H	32:DK:54:LYS:HD2	1.57	0.69
37:DP:45:VAL:H	37:DP:60:VAL:HB	1.56	0.69
38:DQ:26:ALA:HA	38:DQ:29:ARG:HG2	1.75	0.69
38:DQ:81:GLY:HA2	38:DQ:84:LYS:HB3	1.74	0.69
1:AA:1004:A:H3'	1:AA:1024:G:H22	1.56	0.69
26:BD:62:LYS:H	26:BD:62:LYS:HD2	1.57	0.69
26:BD:113:SER:CB	26:BD:168:GLU:H	2.06	0.69
26:BD:172:VAL:HG11	26:BD:175:LEU:HD12	1.74	0.69
28:BF:30:VAL:HG21	28:BF:96:TRP:HE1	1.57	0.69
1:CA:229:U:H2'	1:CA:230:G:H8	1.58	0.69
1:CA:982:U:H5''	13:CN:5:MET:HE2	1.73	0.69
8:CI:25:GLY:HA2	8:CI:60:LEU:O	1.93	0.69
23:DB:721:A:H2'	23:DB:722:A:C8	2.27	0.69
23:DB:1911:U:H2'	23:DB:1918:A:C2	2.28	0.69
23:DB:2097:A:H2'	23:DB:2098:U:C6	2.28	0.69
23:DB:2722:G:H4'	35:DN:4:ARG:HB2	1.73	0.69
30:DH:96:THR:HG23	30:DH:97:ARG:H	1.56	0.69
52:DI:105:LEU:HD11	52:DI:139:VAL:HG21	1.72	0.69
1:AA:522:C:H41	11:AL:49:ARG:NH2	1.89	0.69
1:AA:1060:U:C4'	9:AJ:54:SER:HB2	2.23	0.69
6:AG:66:GLU:HA	6:AG:69:ARG:HD2	1.75	0.69
23:BB:458:G:N2	23:BB:469:G:H2'	2.07	0.69
23:BB:1486:U:H2'	23:BB:1487:U:C6	2.28	0.69
27:BE:192:ALA:HA	27:BE:195:GLN:HE21	1.56	0.69
29:BG:85:LYS:HB2	29:BG:164:ALA:HB3	1.75	0.69
43:BW:35:ILE:HA	43:BW:57:THR:HG23	1.73	0.69
3:CD:58:GLN:O	3:CD:62:ARG:HG2	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:140:C:H5'	23:DB:141:G:N7	2.08	0.69
23:DB:674:G:H1'	27:DE:69:ARG:HE	1.57	0.69
23:DB:1098:A:H2'	52:DI:4:VAL:CA	2.21	0.69
23:DB:1827:U:O2'	23:DB:1828:G:H5'	1.93	0.69
32:DK:20:MET:O	32:DK:41:ILE:HG13	1.93	0.69
1:AA:532:A:H62	2:AC:191:THR:CB	2.05	0.69
6:AG:115:MET:HA	6:AG:118:ARG:HD2	1.74	0.69
11:AL:51:VAL:HG12	11:AL:52:CYS:H	1.57	0.69
23:BB:871:U:H2'	23:BB:872:U:H6	1.57	0.69
23:BB:1935:G:H1'	23:BB:1964:G:N2	2.08	0.69
40:BS:24:ILE:HG22	40:BS:71:VAL:HG11	1.73	0.69
1:CA:475:C:H2'	1:CA:476:U:C6	2.28	0.69
1:CA:920:U:H2'	1:CA:921:U:C6	2.27	0.69
2:CC:119:ILE:HG21	2:CC:197:VAL:HG11	1.72	0.69
8:CI:126:PHE:HE1	8:CI:129:ARG:HD3	1.57	0.69
20:CB:88:GLN:OE1	20:CB:221:ARG:HB3	1.93	0.69
23:DB:3:U:H2'	23:DB:4:U:H6	1.57	0.69
23:DB:1654:A:H2'	23:DB:1655:A:H8	1.58	0.69
30:DH:53:GLU:OE2	30:DH:54:LEU:HG	1.93	0.69
37:DP:29:VAL:HG12	37:DP:80:VAL:HA	1.75	0.69
41:DT:8:LEU:HD13	41:DT:49:LYS:HD2	1.75	0.69
1:AA:662:U:H2'	1:AA:663:A:C8	2.27	0.69
1:AA:1026:G:H2'	1:AA:1027:C:C6	2.28	0.69
3:AD:122:ILE:O	3:AD:128:VAL:HG23	1.93	0.69
20:AB:69:VAL:HB	20:AB:162:VAL:HG23	1.73	0.69
21:AU:16:ARG:HA	21:AU:16:ARG:NE	2.00	0.69
23:BB:2438:U:O2'	23:BB:2439:A:H5''	1.93	0.69
33:BL:116:VAL:HG13	33:BL:117:THR:H	1.58	0.69
37:BP:19:PHE:O	37:BP:20:ARG:HB2	1.92	0.69
39:BR:20:VAL:HG12	39:BR:21:ARG:H	1.58	0.69
20:CB:69:VAL:HB	20:CB:162:VAL:HG23	1.74	0.69
23:DB:973:A:H5''	39:DR:81:LYS:HD2	1.75	0.69
25:DC:145:MET:HB2	25:DC:152:GLN:HE22	1.58	0.69
28:DF:62:GLN:NE2	28:DF:90:LEU:HA	2.08	0.69
31:DJ:20:ALA:HB1	31:DJ:23:LYS:HB2	1.73	0.69
31:DJ:29:ALA:HA	31:DJ:32:LEU:HB2	1.75	0.69
39:DR:71:LYS:HG2	39:DR:73:LYS:NZ	2.08	0.69
42:DU:34:ILE:HG12	42:DU:63:ALA:HB2	1.75	0.69
45:DY:23:LEU:HD13	45:DY:28:LEU:HB2	1.74	0.69
10:AK:75:GLU:CD	10:AK:75:GLU:H	2.00	0.69
11:AL:86:VAL:HG11	11:AL:89:LEU:HD23	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AB:145:ASN:N	20:AB:145:ASN:HD22	1.88	0.69
23:BB:2866:U:H4'	23:BB:2867:G:H4'	1.75	0.69
28:BF:102:LEU:HD22	28:BF:103:ILE:N	2.08	0.69
31:BJ:6:ALA:HB3	31:BJ:45:THR:HG21	1.75	0.69
1:CA:337:G:H2'	1:CA:338:A:H8	1.58	0.69
1:CA:677:U:H2'	1:CA:678:U:C6	2.27	0.69
8:CI:26:LYS:H	8:CI:61:ASP:CB	2.05	0.69
8:CI:71:ILE:H	8:CI:71:ILE:HD12	1.56	0.69
15:CP:28:ARG:HD2	15:CP:29:ASN:N	2.08	0.69
23:DB:18:U:H2'	23:DB:19:A:C8	2.28	0.69
23:DB:479:A:N3	23:DB:481:G:H5''	2.07	0.69
32:DK:118:LEU:C	32:DK:120:PRO:HD2	2.18	0.69
7:AH:124:ILE:HG22	7:AH:125:ILE:H	1.57	0.68
16:AQ:77:VAL:HG11	16:AQ:80:LYS:HB3	1.75	0.68
23:BB:729:G:OP1	25:BC:12:ARG:HB2	1.93	0.68
23:BB:1060:U:O2	23:BB:1088:A:N7	2.26	0.68
23:BB:1788:C:O2'	23:BB:1789:A:H5'	1.92	0.68
23:BB:1857:G:H1'	23:BB:1885:A:H61	1.56	0.68
38:BQ:26:ALA:HA	38:BQ:29:ARG:HG2	1.76	0.68
1:CA:195:A:H1'	1:CA:222:C:O2'	1.93	0.68
1:CA:449:G:H2'	1:CA:450:G:C8	2.28	0.68
7:CH:74:ILE:HG13	7:CH:128:VAL:HG22	1.74	0.68
8:CI:51:LEU:HD13	8:CI:56:MET:HG2	1.75	0.68
9:CJ:7:ARG:O	9:CJ:100:ILE:HA	1.93	0.68
16:CQ:77:VAL:HG11	16:CQ:80:LYS:HB3	1.74	0.68
23:DB:278:A:H1'	23:DB:362:A:C2	2.28	0.68
43:DW:24:ARG:HD3	43:DW:65:LYS:HG2	1.73	0.68
48:D1:9:LYS:HD3	48:D1:9:LYS:H	1.58	0.68
23:BB:200:U:H5''	46:BZ:22:LEU:O	1.92	0.68
23:BB:721:A:H2'	23:BB:722:A:C8	2.28	0.68
25:BC:4:LYS:HD2	25:BC:5:CYS:N	2.09	0.68
35:BN:19:ALA:HA	35:BN:22:ARG:HB3	1.75	0.68
52:BI:10:LEU:HD13	52:BI:12:VAL:HG13	1.74	0.68
1:CA:1026:G:H2'	1:CA:1027:C:C6	2.27	0.68
1:CA:1220:G:H3'	18:CS:36:ARG:HH21	1.56	0.68
2:CC:2:GLN:H	2:CC:2:GLN:NE2	1.92	0.68
23:DB:2893:A:H5''	23:DB:2894:G:H5'	1.74	0.68
29:DG:43:LYS:HB2	29:DG:50:THR:HB	1.73	0.68
31:DJ:55:ILE:HB	31:DJ:123:LYS:HB2	1.74	0.68
34:DM:10:ARG:HE	34:DM:89:VAL:HG21	1.58	0.68
34:DM:59:ARG:NH1	34:DM:60:GLN:HB3	2.08	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DN:19:ALA:HA	35:DN:22:ARG:HB3	1.76	0.68
2:AC:51:VAL:HA	2:AC:69:THR:HA	1.75	0.68
4:AE:85:LYS:HG3	4:AE:93:VAL:O	1.92	0.68
7:AH:11:THR:HG22	7:AH:14:ARG:HH22	1.59	0.68
23:BB:163:C:H2'	23:BB:164:C:O4'	1.93	0.68
23:BB:192:C:H2'	23:BB:193:U:H5'	1.73	0.68
23:BB:222:A:N6	23:BB:232:G:H1'	2.09	0.68
23:BB:1248:G:H2'	38:BQ:2:ARG:HA	1.76	0.68
25:BC:14:HIS:O	25:BC:203:VAL:HG11	1.93	0.68
27:BE:181:ILE:HG13	33:BL:2:ARG:HB3	1.75	0.68
30:BH:96:THR:HB	30:BH:112:LYS:HB2	1.75	0.68
31:BJ:57:LEU:HD11	31:BJ:129:GLU:H	1.57	0.68
31:BJ:112:GLY:N	31:BJ:113:PRO:HD2	2.04	0.68
31:BJ:117:ALA:HA	31:BJ:120:ARG:HD2	1.75	0.68
36:BO:67:ASN:H	36:BO:70:ALA:HB3	1.58	0.68
37:BP:4:ILE:C	37:BP:6:GLN:H	2.00	0.68
41:BT:8:LEU:HD13	41:BT:49:LYS:HD2	1.75	0.68
42:BU:34:ILE:HG12	42:BU:63:ALA:HB2	1.75	0.68
16:CQ:30:HIS:CE1	16:CQ:32:ILE:HG22	2.27	0.68
16:CQ:83:LEU:H	16:CQ:83:LEU:HD22	1.57	0.68
39:DR:20:VAL:HG12	39:DR:21:ARG:H	1.57	0.68
40:DS:52:GLU:HA	40:DS:55:ILE:HG22	1.76	0.68
1:AA:532:A:H62	2:AC:191:THR:HB	1.58	0.68
1:AA:935:A:H61	6:AG:2:ARG:HD2	1.57	0.68
20:AB:88:GLN:OE1	20:AB:221:ARG:HB3	1.92	0.68
23:BB:27:G:H1'	23:BB:513:A:N6	2.09	0.68
23:BB:129:C:H2'	23:BB:130:C:H6	1.58	0.68
23:BB:807:U:H2'	23:BB:808:G:H8	1.59	0.68
38:BQ:81:GLY:HA2	38:BQ:84:LYS:HB3	1.73	0.68
39:BR:71:LYS:HG2	39:BR:73:LYS:NZ	2.08	0.68
41:BT:67:VAL:C	41:BT:68:LYS:HD3	2.19	0.68
49:B2:30:VAL:HA	49:B2:33:ARG:NH2	2.08	0.68
1:CA:17:U:H2'	1:CA:18:C:H6	1.57	0.68
1:CA:176:C:H2'	1:CA:177:G:N3	2.07	0.68
2:CC:16:PRO:HG2	2:CC:53:ARG:HH12	1.58	0.68
12:CM:10:ASP:HA	12:CM:44:ILE:HD13	1.73	0.68
23:DB:1778:U:H2'	23:DB:1784:A:H62	1.57	0.68
23:DB:2199:A:H5'	23:DB:2200:C:OP2	1.93	0.68
32:DK:102:PRO:HA	32:DK:120:PRO:HB3	1.74	0.68
1:AA:1288:A:N1	1:AA:1371:G:H1'	2.08	0.68
1:AA:1306:A:N6	1:AA:1331:G:H1'	2.08	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AN:52:ARG:NH1	13:AN:58:ARG:HH21	1.92	0.68
18:AS:38:THR:HA	18:AS:69:LYS:HA	1.75	0.68
25:BC:76:VAL:HA	25:BC:113:ASP:O	1.93	0.68
27:BE:58:LYS:HE2	27:BE:60:TRP:CD1	2.28	0.68
28:BF:78:ILE:HA	28:BF:82:TYR:CD1	2.29	0.68
1:CA:451:A:H5'	15:CP:70:ARG:HH22	1.58	0.68
14:CO:28:VAL:HG11	14:CO:80:LEU:HD21	1.75	0.68
23:DB:775:G:H4'	23:DB:776:G:H5'	1.75	0.68
23:DB:1386:C:H2'	23:DB:1387:A:C8	2.29	0.68
28:DF:78:ILE:HA	28:DF:82:TYR:CD1	2.29	0.68
31:DJ:25:LEU:HD13	31:DJ:26:GLY:N	2.08	0.68
36:DO:67:ASN:H	36:DO:70:ALA:HB3	1.57	0.68
38:DQ:34:ALA:O	38:DQ:37:ALA:HB3	1.93	0.68
1:AA:176:C:H2'	1:AA:177:G:N3	2.09	0.68
25:BC:74:PRO:HG2	25:BC:96:LYS:HG3	1.76	0.68
31:BJ:20:ALA:HB1	31:BJ:23:LYS:HB2	1.74	0.68
31:BJ:55:ILE:HB	31:BJ:123:LYS:HB2	1.75	0.68
38:BQ:97:ILE:HG13	38:BQ:105:PHE:HB2	1.74	0.68
2:CC:149:LYS:HA	2:CC:168:ARG:HB2	1.76	0.68
20:CB:145:ASN:HD22	20:CB:145:ASN:N	1.90	0.68
23:DB:352:A:H3'	23:DB:353:C:H6	1.59	0.68
23:DB:2461:A:H2'	23:DB:2462:C:C6	2.29	0.68
27:DE:108:ILE:HD11	27:DE:181:ILE:HB	1.75	0.68
30:DH:2:GLN:O	30:DH:3:VAL:HG22	1.94	0.68
30:DH:94:ILE:HG13	30:DH:98:ASP:HB3	1.75	0.68
19:AT:61:ALA:HA	19:AT:67:HIS:H	1.58	0.68
23:BB:1028:A:H2'	23:BB:1029:A:C8	2.29	0.68
23:BB:1041:G:H2'	23:BB:1042:G:C8	2.29	0.68
29:BG:84:LYS:HB3	29:BG:132:LEU:O	1.94	0.68
40:BS:73:LYS:HE3	40:BS:74:ILE:H	1.58	0.68
40:BS:81:SER:HA	40:BS:99:ARG:HA	1.76	0.68
1:CA:89:U:H2'	1:CA:90:C:C6	2.28	0.68
1:CA:108:G:C6	19:CT:9:ARG:HG2	2.29	0.68
1:CA:559:A:H4'	1:CA:560:A:H3'	1.76	0.68
2:CC:51:VAL:HA	2:CC:69:THR:HA	1.74	0.68
23:DB:499:U:H5'	42:DU:44:HIS:HE1	1.58	0.68
23:DB:858:G:H21	23:DB:2268:A:H3'	1.59	0.68
25:DC:14:HIS:O	25:DC:203:VAL:HG11	1.93	0.68
25:DC:74:PRO:HG2	25:DC:96:LYS:HG3	1.76	0.68
37:DP:3:ILE:HD13	37:DP:7:LEU:HD11	1.74	0.68
44:DX:31:GLN:HG2	44:DX:37:LEU:HB2	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DY:8:GLN:CG	45:DY:31:ILE:HA	2.19	0.68
1:AA:108:G:O6	19:AT:9:ARG:HG2	1.93	0.68
4:AE:84:VAL:HG11	4:AE:146:MET:HB3	1.74	0.68
20:AB:9:LEU:H	20:AB:9:LEU:HD12	1.57	0.68
23:BB:2732:G:H5'	23:BB:2733:A:O4'	1.93	0.68
24:BV:40:ILE:HD13	24:BV:40:ILE:H	1.59	0.68
1:CA:97:G:H2'	1:CA:98:A:O4'	1.94	0.68
1:CA:812:G:O2'	1:CA:813:U:H6	1.70	0.68
1:CA:1134:G:C2	1:CA:1135:U:H1'	2.29	0.68
1:CA:1238:A:H5'	1:CA:1336:C:H41	1.59	0.68
1:CA:1505:G:H4'	1:CA:1506:U:H5''	1.73	0.68
19:CT:61:ALA:HA	19:CT:67:HIS:H	1.59	0.68
23:DB:171:U:H2'	23:DB:172:A:H8	1.57	0.68
23:DB:2153:C:H2'	23:DB:2154:A:C8	2.29	0.68
47:D0:38:LEU:HB3	47:D0:41:HIS:NE2	2.09	0.68
52:DI:73:PRO:HG2	52:DI:78:LEU:HD21	1.74	0.68
1:AA:1513:A:H2'	1:AA:1514:G:C8	2.29	0.68
23:BB:1021:A:H61	23:BB:1142:A:N6	1.92	0.68
23:BB:2340:A:H2'	23:BB:2341:G:H8	1.59	0.68
23:BB:2365:G:H4'	43:BW:59:PHE:HE1	1.57	0.68
28:BF:134:GLN:NE2	28:BF:136:ILE:HD13	2.08	0.68
37:BP:13:LYS:HD3	37:BP:76:HIS:HA	1.75	0.68
1:CA:344:A:H4'	1:CA:345:C:OP2	1.93	0.68
5:CF:64:VAL:HG12	5:CF:65:GLU:H	1.57	0.68
26:DD:24:VAL:HG21	26:DD:188:LEU:HB3	1.75	0.68
37:DP:61:ARG:HD3	37:DP:70:GLU:HG3	1.76	0.68
42:DU:86:PHE:HB2	42:DU:92:VAL:HB	1.73	0.68
23:BB:1353:A:H2'	23:BB:1354:A:C8	2.29	0.68
23:BB:2064:C:H2'	23:BB:2065:C:C6	2.29	0.68
25:BC:16:VAL:H	25:BC:203:VAL:HG12	1.59	0.68
29:BG:140:ILE:HA	29:BG:143:VAL:HG22	1.76	0.68
31:BJ:17:VAL:HG22	31:BJ:55:ILE:HD11	1.76	0.68
34:BM:10:ARG:HE	34:BM:89:VAL:HG21	1.59	0.68
40:BS:52:GLU:HA	40:BS:55:ILE:HG22	1.76	0.68
41:BT:38:ALA:HB3	41:BT:81:LYS:NZ	2.09	0.68
43:BW:24:ARG:HA	43:BW:66:VAL:H	1.59	0.68
1:CA:239:U:H4'	1:CA:239:U:OP1	1.92	0.68
1:CA:1234:C:O2'	1:CA:1235:U:H5'	1.94	0.68
1:CA:1412:C:H2'	1:CA:1413:A:H8	1.59	0.68
1:CA:1414:U:H2'	1:CA:1415:G:H8	1.60	0.68
6:CG:91:ARG:HB3	6:CG:92:PRO:HD2	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CL:49:ARG:HG2	11:CL:89:LEU:HD21	1.75	0.68
16:CQ:16:MET:CB	16:CQ:19:SER:HB2	2.23	0.68
18:CS:31:ARG:HA	18:CS:49:ALA:HB3	1.76	0.68
25:DC:76:VAL:HA	25:DC:113:ASP:O	1.94	0.68
29:DG:103:ASN:HD21	29:DG:111:PRO:HB3	1.58	0.68
34:DM:4:PRO:HG3	34:DM:68:PHE:HE2	1.59	0.68
1:AA:279:A:H5''	1:AA:280:C:H3'	1.74	0.67
1:AA:451:A:H5'	15:AP:70:ARG:HH22	1.59	0.67
1:AA:1486:G:H2'	1:AA:1487:G:O4'	1.94	0.67
3:AD:47:LEU:HB2	3:AD:51:GLY:HA3	1.77	0.67
11:AL:106:VAL:HG23	11:AL:116:TYR:HB3	1.76	0.67
13:AN:86:ALA:HB1	13:AN:91:GLU:HB2	1.74	0.67
23:BB:742:A:H2'	23:BB:743:A:H8	1.59	0.67
23:BB:1102:C:O2'	23:BB:1103:A:H5'	1.94	0.67
23:BB:1447:C:H2'	23:BB:1448:G:C8	2.29	0.67
23:BB:2658:C:H5'	29:BG:159:LYS:HZ2	1.59	0.67
24:BV:44:HIS:CE1	24:BV:86:LEU:H	2.08	0.67
31:BJ:89:PHE:HE1	31:BJ:93:ILE:HD13	1.57	0.67
34:BM:64:TRP:HB2	34:BM:104:GLU:HB2	1.76	0.67
43:BW:23:LYS:HD2	43:BW:24:ARG:H	1.59	0.67
1:CA:810:C:O2'	1:CA:811:C:H5'	1.93	0.67
1:CA:973:G:H3'	1:CA:974:A:H5''	1.76	0.67
1:CA:1306:A:N6	1:CA:1331:G:H1'	2.09	0.67
1:CA:1513:A:H2'	1:CA:1514:G:C8	2.29	0.67
3:CD:56:GLU:HG2	3:CD:198:LEU:HD12	1.77	0.67
12:CM:70:ARG:O	12:CM:74:MET:HG2	1.94	0.67
23:DB:143:C:H2'	23:DB:144:A:C8	2.28	0.67
23:DB:277:G:H4'	23:DB:278:A:C5	2.29	0.67
23:DB:1592:C:H2'	23:DB:1593:A:C8	2.29	0.67
23:DB:2866:U:H4'	23:DB:2867:G:H4'	1.75	0.67
24:DV:20:LEU:HB3	24:DV:25:LYS:O	1.94	0.67
26:DD:37:VAL:HG23	26:DD:91:THR:HA	1.76	0.67
36:DO:88:LYS:HD2	36:DO:89:ASP:N	2.09	0.67
1:AA:80:A:H3'	1:AA:81:A:H8	1.57	0.67
1:AA:195:A:H1'	1:AA:222:C:O2'	1.94	0.67
2:AC:2:GLN:H	2:AC:2:GLN:NE2	1.92	0.67
16:AQ:16:MET:CB	16:AQ:19:SER:HB2	2.24	0.67
21:AU:10:PRO:HG3	2:CC:71:ARG:HH21	1.59	0.67
23:BB:145:C:H2'	23:BB:146:A:H8	1.59	0.67
23:BB:152:A:H2'	23:BB:153:U:C6	2.30	0.67
27:BE:47:LYS:HB3	27:BE:51:GLU:HB2	1.75	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BJ:37:ARG:HE	31:BJ:110:PRO:HG3	1.59	0.67
31:BJ:43:GLU:O	31:BJ:45:THR:N	2.27	0.67
1:CA:1060:U:C4'	9:CJ:54:SER:HB2	2.24	0.67
20:CB:199:ILE:HD13	20:CB:212:TYR:HE2	1.59	0.67
23:DB:222:A:N6	23:DB:232:G:H1'	2.09	0.67
23:DB:729:G:H2'	23:DB:1775:U:H1'	1.76	0.67
23:DB:1866:A:H2'	23:DB:1867:G:O4'	1.94	0.67
23:DB:2108:A:H2'	23:DB:2108:A:N3	2.09	0.67
23:DB:2400:G:O2'	23:DB:2401:U:H5'	1.94	0.67
23:DB:2886:A:H3'	23:DB:2887:A:H8	1.59	0.67
33:DL:116:VAL:HG13	33:DL:117:THR:H	1.57	0.67
39:DR:60:LYS:H	39:DR:100:GLY:CA	2.07	0.67
1:AA:763:G:H2'	1:AA:764:C:H6	1.59	0.67
11:AL:37:TYR:HB2	11:AL:51:VAL:HB	1.75	0.67
15:AP:28:ARG:HD2	15:AP:29:ASN:N	2.06	0.67
23:BB:246:C:C2'	23:BB:247:G:H5'	2.24	0.67
23:BB:460:A:H2'	23:BB:461:C:O4'	1.94	0.67
23:BB:545:U:H3	23:BB:548:G:P	2.17	0.67
31:BJ:45:THR:H	31:BJ:46:PRO:HD3	1.59	0.67
41:BT:11:LEU:HD21	41:BT:46:ALA:HB1	1.75	0.67
1:CA:376:G:H5''	15:CP:5:ARG:HB2	1.76	0.67
3:CD:153:ARG:HG3	3:CD:154:VAL:N	2.07	0.67
8:CI:29:ILE:HA	8:CI:64:ILE:O	1.95	0.67
14:CO:34:GLN:HB2	14:CO:58:MET:HE1	1.76	0.67
23:DB:152:A:H2'	23:DB:153:U:C6	2.30	0.67
23:DB:181:A:H2'	23:DB:182:A:C8	2.30	0.67
23:DB:729:G:OP1	25:DC:12:ARG:HB2	1.95	0.67
23:DB:2336:A:H61	43:DW:40:ARG:CD	2.07	0.67
26:DD:172:VAL:HG11	26:DD:175:LEU:HD12	1.76	0.67
38:DQ:63:ARG:HA	38:DQ:66:ALA:HB3	1.75	0.67
1:AA:98:A:H2'	1:AA:99:C:O4'	1.94	0.67
1:AA:973:G:H3'	1:AA:974:A:H5''	1.75	0.67
1:AA:1132:C:H2'	1:AA:1133:G:H8	1.58	0.67
1:AA:1148:U:H5'	8:AI:6:TYR:OH	1.94	0.67
23:BB:2292:U:H2'	23:BB:2293:G:C8	2.29	0.67
29:BG:89:VAL:HB	29:BG:159:LYS:HA	1.76	0.67
22:DA:75:G:H1'	24:DV:29:ILE:HG12	1.76	0.67
35:DN:49:GLU:OE2	35:DN:95:THR:HG22	1.94	0.67
37:DP:5:LYS:HE2	37:DP:5:LYS:HA	1.75	0.67
3:AD:36:ALA:HA	3:AD:41:GLY:HA3	1.75	0.67
8:AI:71:ILE:H	8:AI:71:ILE:HD12	1.59	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:322:A:H3'	27:BE:163:ASN:HD21	1.59	0.67
23:BB:571:U:H3'	39:BR:80:ARG:HH12	1.59	0.67
23:BB:634:C:H2'	23:BB:635:C:H6	1.60	0.67
23:BB:729:G:H2'	23:BB:1775:U:H1'	1.75	0.67
25:BC:16:VAL:HB	25:BC:203:VAL:HB	1.77	0.67
26:BD:117:GLY:HA2	26:BD:164:GLN:CD	2.19	0.67
29:BG:103:ASN:HD21	29:BG:111:PRO:HB3	1.58	0.67
1:CA:108:G:O6	19:CT:9:ARG:HG2	1.95	0.67
16:CQ:20:ILE:HD13	16:CQ:47:ASP:HB3	1.76	0.67
23:DB:1447:C:H2'	23:DB:1448:G:C8	2.29	0.67
23:DB:1486:U:H2'	23:DB:1487:U:C6	2.28	0.67
23:DB:2039:U:H2'	23:DB:2040:G:C8	2.29	0.67
26:DD:136:ASN:HD21	26:DD:139:SER:C	2.03	0.67
43:DW:43:LYS:HD2	43:DW:79:ILE:HD11	1.76	0.67
1:AA:1297:G:H1'	1:AA:1298:U:H5	1.60	0.67
1:AA:1323:G:H2'	1:AA:1324:A:H8	1.55	0.67
12:AM:28:ARG:NH2	12:AM:62:PHE:HB2	2.09	0.67
21:AU:9:GLU:HG2	2:CC:108:PRO:CG	2.24	0.67
25:BC:180:MET:HB3	25:BC:267:VAL:HB	1.77	0.67
27:BE:188:MET:HG2	27:BE:193:VAL:HG22	1.75	0.67
23:DB:95:A:H4'	44:DX:38:GLN:O	1.94	0.67
23:DB:145:C:H2'	23:DB:146:A:H8	1.59	0.67
31:DJ:32:LEU:O	31:DJ:36:LEU:HD23	1.95	0.67
31:DJ:57:LEU:HD11	31:DJ:129:GLU:H	1.58	0.67
32:DK:71:ARG:HD2	32:DK:105:ARG:NE	2.07	0.67
1:AA:337:G:H2'	1:AA:338:A:H8	1.60	0.67
1:AA:882:C:O2'	1:AA:883:C:H5'	1.93	0.67
12:AM:64:VAL:HA	12:AM:68:LEU:HD11	1.75	0.67
18:AS:41:PRO:O	18:AS:44:ILE:HG22	1.95	0.67
23:BB:125:A:H3'	23:BB:126:A:C5'	2.24	0.67
23:BB:575:A:O2'	23:BB:576:U:H5'	1.94	0.67
23:BB:1050:A:H2'	23:BB:1051:G:H8	1.59	0.67
23:BB:1911:U:H2'	23:BB:1918:A:C2	2.30	0.67
23:BB:2425:A:H5'	23:BB:2427:C:O4'	1.94	0.67
40:BS:17:VAL:C	40:BS:19:LEU:H	2.01	0.67
6:CG:23:ALA:O	6:CG:26:VAL:HG22	1.95	0.67
18:CS:38:THR:HA	18:CS:69:LYS:HA	1.77	0.67
23:DB:812:C:H4'	38:DQ:12:ARG:HH22	1.59	0.67
23:DB:1287:A:H3'	23:DB:1288:G:N2	2.09	0.67
23:DB:2298:A:OP1	28:DF:70:ARG:HD3	1.94	0.67
25:DC:127:ASN:O	25:DC:190:THR:HA	1.95	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DD:62:LYS:HD2	26:DD:62:LYS:H	1.60	0.67
26:DD:141:ARG:O	26:DD:141:ARG:HG3	1.95	0.67
40:DS:81:SER:HA	40:DS:99:ARG:HA	1.76	0.67
46:DZ:6:GLN:HE22	46:DZ:50:ARG:N	1.90	0.67
1:AA:982:U:H5''	13:AN:5:MET:HE2	1.77	0.67
1:AA:1258:G:H2'	1:AA:1259:C:C6	2.30	0.67
14:AO:28:VAL:HG11	14:AO:80:LEU:HD21	1.77	0.67
23:BB:280:U:H2'	23:BB:281:C:C6	2.29	0.67
23:BB:1654:A:H2'	23:BB:1655:A:H8	1.59	0.67
28:BF:104:THR:C	28:BF:108:PRO:HG2	2.20	0.67
30:BH:116:ARG:NE	30:BH:139:PHE:HB2	2.10	0.67
30:BH:127:GLU:HA	30:BH:144:VAL:O	1.94	0.67
36:BO:11:ALA:CB	36:BO:96:GLY:H	2.06	0.67
2:CC:171:ARG:HH11	2:CC:171:ARG:HB2	1.58	0.67
13:CN:68:ARG:NH1	13:CN:71:GLY:H	1.92	0.67
20:CB:113:LEU:HD13	20:CB:147:LEU:HB2	1.75	0.67
23:DB:634:C:H2'	23:DB:635:C:H6	1.59	0.67
23:DB:636:G:H3'	33:DL:128:THR:HG21	1.75	0.67
23:DB:1461:C:H2'	23:DB:1462:C:H6	1.58	0.67
23:DB:2312:U:O2	28:DF:38:GLY:HA3	1.95	0.67
28:DF:16:MET:O	28:DF:20:ASN:HA	1.95	0.67
41:DT:67:VAL:C	41:DT:68:LYS:HD3	2.19	0.67
50:D3:41:ARG:HA	50:D3:44:ARG:HH21	1.58	0.67
1:AA:344:A:H4'	1:AA:345:C:OP2	1.94	0.67
1:AA:373:A:H2'	1:AA:374:A:H8	1.59	0.67
1:AA:539:A:H2'	1:AA:540:G:C8	2.30	0.67
2:AC:149:LYS:HA	2:AC:168:ARG:HB2	1.77	0.67
12:AM:89:ARG:HG3	12:AM:96:VAL:HG13	1.76	0.67
20:AB:113:LEU:HD13	20:AB:147:LEU:HB2	1.76	0.67
23:BB:18:U:H2'	23:BB:19:A:C8	2.30	0.67
23:BB:1032:A:H1'	51:B4:23:ILE:HD13	1.77	0.67
24:BV:51:GLN:NE2	24:BV:79:ARG:HH22	1.92	0.67
26:BD:107:VAL:HG13	26:BD:203:VAL:HG23	1.76	0.67
38:BQ:63:ARG:HA	38:BQ:66:ALA:HB3	1.76	0.67
1:CA:865:A:H2	1:CA:918:A:H4'	1.60	0.67
23:DB:163:C:H2'	23:DB:164:C:O4'	1.94	0.67
23:DB:528:A:C2	23:DB:2042:A:H2'	2.30	0.67
26:DD:5:VAL:N	26:DD:32:ASN:HD21	1.90	0.67
26:DD:33:ARG:NE	26:DD:74:GLU:HB3	2.10	0.67
35:DN:34:ILE:HB	35:DN:113:ILE:HG22	1.77	0.67
42:DU:81:ARG:H	42:DU:81:ARG:NH2	1.93	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1513:A:H2'	1:AA:1514:G:H8	1.58	0.67
6:AG:72:VAL:HG12	6:AG:89:GLU:HB3	1.76	0.67
9:AJ:7:ARG:O	9:AJ:100:ILE:HA	1.95	0.67
23:BB:718:A:H2'	23:BB:719:C:H5'	1.77	0.67
23:BB:849:A:H2'	23:BB:850:U:C6	2.30	0.67
23:BB:1000:A:H2'	23:BB:1001:A:C8	2.30	0.67
23:BB:1440:U:H2'	23:BB:1441:G:C8	2.30	0.67
25:BC:196:ASN:ND2	25:BC:199:HIS:HB2	2.10	0.67
27:BE:108:ILE:HD11	27:BE:181:ILE:HB	1.76	0.67
28:BF:135:ILE:HD11	28:BF:137:PHE:HB3	1.77	0.67
32:BK:54:LYS:HD2	32:BK:54:LYS:H	1.58	0.67
38:BQ:104:ALA:HA	39:BR:46:GLU:OE1	1.93	0.67
43:BW:47:GLY:HA3	43:BW:80:SER:HA	1.77	0.67
1:CA:157:U:O2'	1:CA:158:G:H5'	1.94	0.67
23:DB:1060:U:O2	23:DB:1088:A:N7	2.27	0.67
35:DN:78:LYS:HG3	35:DN:83:LEU:HG	1.76	0.67
37:DP:19:PHE:O	37:DP:20:ARG:HB2	1.93	0.67
44:DX:1:MET:HB3	44:DX:4:LYS:HB3	1.77	0.67
48:D1:32:LYS:HA	48:D1:51:ALA:O	1.95	0.67
1:AA:235:C:H2'	1:AA:236:A:C8	2.29	0.66
23:BB:547:A:H3'	23:BB:548:G:C8	2.25	0.66
23:BB:858:G:H21	23:BB:2268:A:H3'	1.59	0.66
26:BD:105:LYS:H	26:BD:106:LYS:HZ3	1.41	0.66
26:BD:136:ASN:HD21	26:BD:139:SER:C	2.03	0.66
1:CA:229:U:H2'	1:CA:230:G:C8	2.30	0.66
8:CI:87:MET:HA	8:CI:93:LEU:HD11	1.77	0.66
23:DB:309:A:H4'	42:DU:15:GLY:CA	2.25	0.66
23:DB:329:G:H1	42:DU:16:LYS:HG2	1.60	0.66
23:DB:361:G:O2'	23:DB:362:A:H5'	1.94	0.66
25:DC:36:ASN:HD21	25:DC:85:ASN:ND2	1.93	0.66
27:DE:127:GLU:HB2	27:DE:133:LEU:HD13	1.77	0.66
33:DL:101:ILE:HG22	33:DL:105:ILE:HG13	1.77	0.66
1:AA:17:U:H2'	1:AA:18:C:H6	1.60	0.66
1:AA:157:U:O2'	1:AA:158:G:H5'	1.95	0.66
12:AM:2:ARG:HD3	12:AM:2:ARG:H	1.58	0.66
23:BB:2243:U:H2'	23:BB:2244:U:C6	2.31	0.66
23:BB:2400:G:O2'	23:BB:2401:U:H5'	1.95	0.66
28:BF:101:ARG:HA	28:BF:105:ILE:HD13	1.76	0.66
30:BH:90:LEU:HD21	30:BH:146:VAL:HG11	1.76	0.66
30:BH:133:GLN:HB2	30:BH:139:PHE:HA	1.77	0.66
32:BK:70:ARG:HB3	32:BK:76:VAL:HG22	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BT:54:GLU:HG3	41:BT:90:GLY:H	1.57	0.66
1:CA:21:G:H2'	1:CA:22:G:C8	2.30	0.66
1:CA:415:A:H3'	1:CA:416:G:H8	1.60	0.66
1:CA:706:A:H4'	10:CK:30:ILE:HD11	1.77	0.66
1:CA:1388:C:H2'	1:CA:1389:C:H6	1.60	0.66
23:DB:246:C:C2'	23:DB:247:G:H5'	2.26	0.66
23:DB:545:U:C5	23:DB:547:A:H5''	2.31	0.66
23:DB:620:G:H5'	23:DB:620:G:N3	2.10	0.66
30:DH:48:GLU:HA	30:DH:51:ARG:HE	1.60	0.66
31:DJ:56:VAL:HG12	31:DJ:57:LEU:H	1.60	0.66
32:DK:17:ARG:HB3	32:DK:45:GLU:HG3	1.75	0.66
34:DM:66:ARG:NE	34:DM:101:VAL:HG11	2.09	0.66
40:DS:32:ALA:O	40:DS:35:ILE:HB	1.95	0.66
41:DT:54:GLU:HG3	41:DT:90:GLY:H	1.58	0.66
43:DW:77:LYS:O	43:DW:78:PHE:HB2	1.95	0.66
1:AA:21:G:H2'	1:AA:22:G:C8	2.31	0.66
1:AA:841:C:O5'	1:AA:842:U:H5''	1.95	0.66
6:AG:91:ARG:HB3	6:AG:92:PRO:HD2	1.76	0.66
23:BB:222:A:H61	23:BB:232:G:H1'	1.57	0.66
23:BB:528:A:C2	23:BB:2042:A:H2'	2.29	0.66
23:BB:1812:U:H2'	23:BB:1813:G:H8	1.61	0.66
23:BB:2443:C:H2'	23:BB:2444:G:H8	1.59	0.66
26:BD:14:ILE:HA	37:BP:11:GLN:HE22	1.60	0.66
32:BK:68:GLY:HA3	32:BK:78:ARG:HB3	1.77	0.66
33:BL:79:LEU:HD23	33:BL:82:LEU:HD11	1.76	0.66
38:BQ:34:ALA:O	38:BQ:37:ALA:HB3	1.95	0.66
42:BU:87:GLU:OE2	42:BU:88:ASP:HB3	1.95	0.66
47:B0:38:LEU:HB3	47:B0:41:HIS:NE2	2.11	0.66
1:CA:6:G:H3'	1:CA:6:G:N3	2.09	0.66
1:CA:1382:C:H4'	6:CG:78:ARG:CZ	2.25	0.66
4:CE:82:HIS:NE2	7:CH:95:MET:HE2	2.10	0.66
6:CG:72:VAL:HG12	6:CG:89:GLU:HB3	1.78	0.66
10:CK:83:VAL:HG21	10:CK:109:ILE:HG12	1.76	0.66
13:CN:52:ARG:NH1	13:CN:58:ARG:HH21	1.92	0.66
23:DB:812:C:H4'	38:DQ:12:ARG:HH12	1.60	0.66
23:DB:1464:G:H2'	23:DB:1465:G:C8	2.31	0.66
23:DB:2591:C:H2'	23:DB:2592:G:H8	1.60	0.66
24:DV:40:ILE:H	24:DV:40:ILE:HD13	1.60	0.66
28:DF:30:VAL:HG21	28:DF:96:TRP:HE1	1.59	0.66
36:DO:51:ALA:HB3	36:DO:78:VAL:HG22	1.76	0.66
1:AA:1152:A:H2'	1:AA:1153:G:H8	1.61	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1343:G:H1'	8:AI:122:ARG:NH1	2.10	0.66
1:AA:1432:G:H5''	37:BP:105:LYS:CG	2.25	0.66
7:AH:6:ILE:HD11	7:AH:31:LEU:HD23	1.78	0.66
7:AH:51:GLU:HG2	7:AH:52:GLY:H	1.61	0.66
11:AL:122:LYS:HD2	11:AL:123:ALA:N	2.10	0.66
20:AB:119:GLN:O	20:AB:124:THR:HG23	1.96	0.66
20:AB:209:VAL:HG23	20:AB:210:THR:H	1.61	0.66
23:BB:499:U:H5'	42:BU:44:HIS:HE1	1.60	0.66
23:BB:1486:U:H2'	23:BB:1487:U:H6	1.60	0.66
23:BB:1676:A:H2'	23:BB:1677:A:O4'	1.95	0.66
23:BB:1866:A:H2'	23:BB:1867:G:O4'	1.96	0.66
23:BB:2461:A:H2'	23:BB:2462:C:C6	2.30	0.66
26:BD:68:PHE:HB3	26:BD:73:VAL:HA	1.77	0.66
27:BE:189:THR:O	27:BE:193:VAL:HG23	1.96	0.66
34:BM:78:LEU:O	34:BM:80:VAL:HG12	1.95	0.66
38:BQ:91:ARG:NH2	39:BR:11:GLN:H	1.94	0.66
1:CA:1288:A:N1	1:CA:1371:G:H1'	2.10	0.66
20:CB:212:TYR:HA	20:CB:215:ALA:HB3	1.78	0.66
23:DB:414:C:H2'	23:DB:415:A:C8	2.30	0.66
27:DE:47:LYS:HB3	27:DE:51:GLU:HB2	1.78	0.66
30:DH:63:ALA:HA	30:DH:66:ASN:ND2	2.10	0.66
48:D1:26:LYS:HB2	48:D1:52:LYS:HZ2	1.61	0.66
1:AA:129:A:H1'	1:AA:130:A:C8	2.31	0.66
1:AA:865:A:H2	1:AA:918:A:H4'	1.59	0.66
1:AA:1391:U:H2'	1:AA:1392:G:H8	1.61	0.66
10:AK:33:ILE:HG13	10:AK:73:VAL:HG21	1.77	0.66
23:BB:634:C:H2'	23:BB:635:C:C6	2.30	0.66
23:BB:2039:U:H2'	23:BB:2040:G:C8	2.28	0.66
23:BB:2376:A:H61	36:BO:94:ARG:HD3	1.60	0.66
27:BE:127:GLU:HB2	27:BE:133:LEU:HD13	1.78	0.66
32:BK:71:ARG:HD2	32:BK:105:ARG:NE	2.08	0.66
44:BX:23:ARG:HD2	44:BX:27:ASN:HD21	1.60	0.66
1:CA:1078:U:H4'	4:CE:137:ARG:HH12	1.57	0.66
1:CA:1080:A:H2'	1:CA:1081:A:H5'	1.78	0.66
1:CA:1412:C:H2'	1:CA:1413:A:C8	2.29	0.66
15:CP:28:ARG:CD	15:CP:29:ASN:H	2.05	0.66
20:CB:68:PHE:HA	20:CB:161:PHE:O	1.96	0.66
23:DB:2471:A:O2'	23:DB:2472:G:H8	1.78	0.66
28:DF:107:VAL:HG11	28:DF:175:PRO:HG3	1.77	0.66
28:DF:135:ILE:HD11	28:DF:137:PHE:HB3	1.76	0.66
42:DU:10:VAL:O	42:DU:21:ARG:HA	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:473:U:H2'	1:AA:474:G:C8	2.31	0.66
22:BA:6:G:H2'	22:BA:7:G:H8	1.60	0.66
23:BB:45:G:H5'	23:BB:46:G:H5'	1.78	0.66
23:BB:138:U:C1'	41:BT:1:MET:H2	2.08	0.66
23:BB:857:G:O2'	43:BW:19:ARG:HD2	1.96	0.66
23:BB:2649:C:H2'	23:BB:2650:U:H6	1.61	0.66
24:BV:80:HIS:CD2	24:BV:83:LYS:H	2.13	0.66
38:BQ:43:GLN:NE2	39:BR:77:PHE:HB3	2.11	0.66
39:BR:39:LEU:HA	39:BR:53:PHE:HA	1.78	0.66
39:BR:60:LYS:H	39:BR:100:GLY:CA	2.08	0.66
1:CA:208:U:H2'	1:CA:210:C:C4	2.30	0.66
1:CA:1342:C:H2'	1:CA:1343:G:C8	2.30	0.66
3:CD:96:ARG:HB3	3:CD:98:ASP:OD2	1.95	0.66
4:CE:32:PHE:O	4:CE:51:LYS:HB2	1.94	0.66
23:DB:192:C:H2'	23:DB:193:U:H5'	1.78	0.66
23:DB:460:A:H2'	23:DB:461:C:O4'	1.96	0.66
23:DB:575:A:O2'	23:DB:576:U:H5'	1.95	0.66
23:DB:1124:G:H1'	51:D4:38:GLY:OXT	1.94	0.66
30:DH:133:GLN:NE2	30:DH:139:PHE:HB3	2.10	0.66
39:DR:78:ARG:HB3	39:DR:83:TYR:HB3	1.77	0.66
43:DW:35:ILE:HA	43:DW:57:THR:HG23	1.76	0.66
46:DZ:6:GLN:NE2	46:DZ:50:ARG:H	1.90	0.66
1:AA:6:G:H3'	1:AA:6:G:N3	2.09	0.66
1:AA:86:G:H1'	1:AA:87:C:C5	2.30	0.66
1:AA:1080:A:H2'	1:AA:1081:A:H5'	1.78	0.66
8:AI:10:ARG:HA	8:AI:77:ALA:HB1	1.76	0.66
8:AI:87:MET:HA	8:AI:93:LEU:HD11	1.77	0.66
23:BB:1387:A:C4'	23:BB:1469:A:H1'	2.26	0.66
23:BB:1993:U:H4'	26:BD:133:THR:HG21	1.75	0.66
35:BN:101:GLY:HA2	35:BN:110:MET:H	1.58	0.66
37:BP:45:VAL:N	37:BP:60:VAL:HB	2.10	0.66
50:B3:54:LEU:O	50:B3:58:ILE:HG13	1.96	0.66
52:BI:121:ILE:HA	52:BI:124:MET:HE3	1.76	0.66
1:CA:266:G:O2'	1:CA:267:C:H3'	1.96	0.66
1:CA:384:G:H2'	1:CA:385:C:C6	2.30	0.66
1:CA:1095:U:H2'	1:CA:1096:C:C6	2.30	0.66
1:CA:1417:G:H22	1:CA:1482:G:H2'	1.60	0.66
5:CF:9:MET:HE1	17:CR:64:LEU:HA	1.77	0.66
23:DB:162:U:H4'	23:DB:163:C:OP1	1.96	0.66
23:DB:634:C:H2'	23:DB:635:C:C6	2.31	0.66
23:DB:784:G:N1	25:DC:227:VAL:HG11	2.10	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1440:U:H2'	23:DB:1441:G:C8	2.30	0.66
23:DB:1676:A:H2'	23:DB:1677:A:O4'	1.94	0.66
23:DB:2292:U:H2'	23:DB:2293:G:C8	2.29	0.66
23:DB:2340:A:H2'	23:DB:2341:G:H8	1.59	0.66
23:DB:2352:A:H2'	23:DB:2353:G:O4'	1.95	0.66
27:DE:58:LYS:O	27:DE:60:TRP:N	2.29	0.66
31:DJ:43:GLU:O	31:DJ:45:THR:N	2.29	0.66
33:DL:56:PRO:HD2	33:DL:59:ARG:HG3	1.78	0.66
34:DM:78:LEU:O	34:DM:80:VAL:HG12	1.95	0.66
42:DU:82:VAL:HG13	42:DU:93:ARG:HB3	1.78	0.66
43:DW:24:ARG:HA	43:DW:66:VAL:H	1.61	0.66
1:AA:384:G:H2'	1:AA:385:C:C6	2.31	0.66
1:AA:1141:C:H2'	1:AA:1142:G:H8	1.61	0.66
10:AK:108:ASN:ND2	21:AU:6:ARG:HB2	2.11	0.66
23:BB:279:A:C2	23:BB:362:A:H4'	2.30	0.66
23:BB:1939:U:H5'	23:BB:1939:U:H6	1.59	0.66
26:BD:5:VAL:N	26:BD:32:ASN:HD21	1.90	0.66
26:BD:37:VAL:HG23	26:BD:91:THR:HA	1.76	0.66
27:BE:69:ARG:O	27:BE:70:SER:HB3	1.94	0.66
27:BE:97:ASN:HD21	27:BE:100:MET:HG3	1.59	0.66
33:BL:101:ILE:HG22	33:BL:105:ILE:HG13	1.76	0.66
37:BP:20:ARG:HB3	37:BP:23:ASP:OD2	1.96	0.66
1:CA:673:A:H2'	1:CA:674:G:C8	2.31	0.66
8:CI:10:ARG:HA	8:CI:77:ALA:HB1	1.76	0.66
9:CJ:80:THR:HG21	9:CJ:82:LYS:HZ1	1.61	0.66
22:DA:56:G:H4'	22:DA:57:A:H5'	1.78	0.66
23:DB:974:G:OP2	39:DR:78:ARG:HD3	1.96	0.66
23:DB:1684:G:H2'	23:DB:1685:C:C6	2.31	0.66
23:DB:2144:G:N3	23:DB:2146:C:H5'	2.11	0.66
28:DF:102:LEU:HD22	28:DF:103:ILE:N	2.09	0.66
1:AA:1095:U:H2'	1:AA:1096:C:C6	2.31	0.66
2:AC:48:LYS:HE2	2:AC:48:LYS:N	2.09	0.66
12:AM:89:ARG:NH2	12:AM:94:LEU:HD12	2.11	0.66
20:AB:212:TYR:HA	20:AB:215:ALA:HB3	1.78	0.66
23:BB:1947:C:H2'	23:BB:1948:G:H8	1.59	0.66
23:BB:2473:U:O2	23:BB:2473:U:H2'	1.96	0.66
30:BH:1:MET:HE3	30:BH:26:ALA:HB3	1.78	0.66
32:BK:112:PHE:O	32:BK:115:ILE:HG22	1.95	0.66
35:BN:34:ILE:HB	35:BN:113:ILE:HG22	1.78	0.66
44:BX:1:MET:HB3	44:BX:4:LYS:HB3	1.78	0.66
1:CA:575:G:H4'	1:CA:576:C:O5'	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1152:A:H2'	1:CA:1153:G:H8	1.61	0.66
4:CE:45:VAL:HG12	4:CE:116:VAL:HG23	1.78	0.66
16:CQ:74:LEU:HD22	16:CQ:75:VAL:N	2.08	0.66
23:DB:28:A:N6	23:DB:512:G:H1'	2.11	0.66
23:DB:65:U:H2'	23:DB:66:C:H6	1.61	0.66
23:DB:222:A:H61	23:DB:232:G:H1'	1.58	0.66
23:DB:445:C:O2'	23:DB:446:G:H5'	1.96	0.66
23:DB:1099:G:C5'	52:DI:3:LYS:N	2.59	0.66
23:DB:1412:U:H2'	23:DB:1413:A:C8	2.30	0.66
23:DB:2073:C:H5''	25:DC:227:VAL:HG12	1.78	0.66
23:DB:2680:U:OP2	26:DD:114:LYS:HB3	1.95	0.66
25:DC:16:VAL:HB	25:DC:203:VAL:HB	1.77	0.66
28:DF:87:LYS:HG3	28:DF:88:VAL:H	1.60	0.66
30:DH:1:MET:HE3	30:DH:26:ALA:HB3	1.78	0.66
40:DS:4:ILE:HG22	40:DS:106:VAL:HG13	1.77	0.66
43:DW:23:LYS:HD2	43:DW:24:ARG:H	1.61	0.66
3:AD:197:HIS:O	3:AD:200:VAL:HG22	1.96	0.66
4:AE:82:HIS:NE2	7:AH:95:MET:HE2	2.11	0.66
12:AM:63:VAL:O	12:AM:68:LEU:HD21	1.96	0.66
20:AB:68:PHE:HA	20:AB:161:PHE:O	1.96	0.66
23:BB:2:G:H2'	23:BB:3:U:C6	2.30	0.66
23:BB:1827:U:O2'	23:BB:1828:G:H5'	1.95	0.66
26:BD:182:ALA:O	26:BD:184:ARG:HG2	1.95	0.66
27:BE:58:LYS:O	27:BE:60:TRP:N	2.29	0.66
28:BF:111:ARG:NH2	28:BF:113:PHE:HB2	2.10	0.66
35:BN:99:LYS:HB2	47:B0:41:HIS:HB3	1.77	0.66
38:BQ:94:LEU:HD21	39:BR:11:GLN:HB2	1.77	0.66
40:BS:26:GLY:N	40:BS:71:VAL:HG13	2.09	0.66
1:CA:1343:G:H1'	8:CI:122:ARG:NH1	2.10	0.66
12:CM:89:ARG:HG3	12:CM:96:VAL:HG13	1.77	0.66
16:CQ:75:VAL:HG23	16:CQ:76:ARG:HG2	1.77	0.66
23:DB:590:A:H2'	23:DB:591:U:C6	2.31	0.66
23:DB:718:A:H2'	23:DB:719:C:H5'	1.77	0.66
25:DC:16:VAL:H	25:DC:203:VAL:HG12	1.60	0.66
26:DD:107:VAL:H	26:DD:205:PRO:HA	1.61	0.66
44:DX:8:GLU:O	44:DX:12:GLU:HB2	1.96	0.66
1:AA:335:C:H2'	1:AA:336:A:H8	1.62	0.65
1:AA:1382:C:H4'	6:AG:78:ARG:CZ	2.26	0.65
8:AI:29:ILE:HA	8:AI:64:ILE:O	1.96	0.65
23:BB:1386:C:H2'	23:BB:1387:A:C8	2.30	0.65
23:BB:1535:A:O2'	23:BB:1536:C:H5'	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:2213:U:H2'	23:BB:2213:U:O2	1.94	0.65
23:BB:2591:C:H2'	23:BB:2592:G:H8	1.60	0.65
26:BD:109:VAL:HG11	26:BD:193:VAL:HB	1.78	0.65
28:BF:92:GLY:HA2	28:BF:95:MET:HE3	1.78	0.65
29:BG:152:ARG:NH1	29:BG:162:ARG:HA	2.11	0.65
36:BO:88:LYS:HD2	36:BO:89:ASP:N	2.11	0.65
38:BQ:60:TRP:O	38:BQ:64:ILE:HG12	1.96	0.65
42:BU:10:VAL:O	42:BU:21:ARG:HA	1.95	0.65
52:BI:129:GLU:HB3	52:BI:133:ARG:NH1	2.09	0.65
23:DB:1000:A:H2'	23:DB:1001:A:C8	2.31	0.65
23:DB:1788:C:O2'	23:DB:1789:A:H5'	1.97	0.65
23:DB:2143:C:H3'	23:DB:2144:G:H8	1.61	0.65
28:DF:31:GLU:O	28:DF:32:LYS:HD3	1.97	0.65
12:AM:70:ARG:O	12:AM:74:MET:HG2	1.94	0.65
20:AB:71:THR:CG2	20:AB:94:ARG:H	2.10	0.65
23:BB:557:C:H2'	23:BB:558:U:C6	2.31	0.65
23:BB:2457:U:H2'	23:BB:2458:G:H5'	1.77	0.65
25:BC:173:LEU:H	25:BC:173:LEU:HD13	1.61	0.65
28:BF:90:LEU:C	28:BF:91:ARG:HD3	2.21	0.65
30:BH:2:GLN:O	30:BH:3:VAL:HG22	1.95	0.65
36:BO:83:LEU:HD21	36:BO:114:GLY:HA3	1.79	0.65
39:BR:78:ARG:HH21	39:BR:78:ARG:HG3	1.61	0.65
41:BT:2:ILE:N	41:BT:2:ILE:HD13	2.11	0.65
42:BU:81:ARG:H	42:BU:81:ARG:NH2	1.93	0.65
49:B2:33:ARG:CB	49:B2:33:ARG:HH21	2.09	0.65
1:CA:825:A:H2'	1:CA:826:C:H6	1.60	0.65
1:CA:1149:C:H2'	1:CA:1150:A:H8	1.61	0.65
1:CA:1513:A:H2'	1:CA:1514:G:H8	1.60	0.65
4:CE:152:VAL:HG21	7:CH:98:LEU:HB3	1.78	0.65
6:CG:56:SER:HB3	6:CG:59:GLU:HG3	1.77	0.65
20:CB:114:LYS:HE2	20:CB:151:LYS:HZ1	1.61	0.65
20:CB:209:VAL:HG23	20:CB:210:THR:H	1.60	0.65
23:DB:1098:A:OP2	52:DI:3:LYS:HG2	1.97	0.65
23:DB:1203:U:O4'	33:DL:3:LEU:HD12	1.96	0.65
23:DB:1939:U:H5'	23:DB:1939:U:H6	1.61	0.65
25:DC:180:MET:HB3	25:DC:267:VAL:HB	1.78	0.65
6:AG:23:ALA:O	6:AG:26:VAL:HG22	1.97	0.65
6:AG:49:LEU:HD21	6:AG:60:ALA:HB3	1.78	0.65
18:AS:30:LEU:HD12	18:AS:48:ILE:HG12	1.78	0.65
19:AT:4:LYS:HZ1	19:AT:6:ALA:HB2	1.60	0.65
23:BB:532:A:H4'	23:BB:533:G:C8	2.32	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:718:A:H3'	23:BB:719:C:H6	1.61	0.65
23:BB:1993:U:H4'	26:BD:133:THR:HG22	1.79	0.65
23:BB:2086:U:H2'	23:BB:2087:G:C8	2.31	0.65
23:BB:2199:A:H5'	23:BB:2200:C:OP2	1.96	0.65
23:BB:2472:G:H2'	23:BB:2475:C:H42	1.62	0.65
28:BF:107:VAL:HG11	28:BF:175:PRO:HG3	1.77	0.65
29:BG:53:PRO:HG3	29:BG:61:TRP:HA	1.78	0.65
30:BH:27:ARG:HH11	46:BZ:64:ILE:HD11	1.61	0.65
45:BY:6:ILE:HA	45:BY:56:VAL:HG13	1.78	0.65
1:CA:841:C:O5'	1:CA:842:U:H5''	1.96	0.65
12:CM:64:VAL:HA	12:CM:68:LEU:HD11	1.77	0.65
23:DB:2649:C:H2'	23:DB:2650:U:H6	1.61	0.65
28:DF:104:THR:C	28:DF:108:PRO:HG2	2.21	0.65
29:DG:140:ILE:HA	29:DG:143:VAL:HG22	1.79	0.65
32:DK:60:ALA:HA	32:DK:87:LEU:HD23	1.78	0.65
52:DI:1:ALA:HB1	52:DI:2:LYS:HD2	1.78	0.65
10:AK:83:VAL:HG21	10:AK:109:ILE:HG12	1.77	0.65
23:BB:28:A:N6	23:BB:512:G:H1'	2.12	0.65
23:BB:973:A:H5''	39:BR:81:LYS:HD2	1.79	0.65
23:BB:2751:G:H5'	29:BG:2:ARG:HD3	1.78	0.65
24:BV:20:LEU:HB3	24:BV:25:LYS:O	1.96	0.65
36:BO:7:ARG:HA	36:BO:10:ARG:CZ	2.25	0.65
37:BP:3:ILE:HD13	37:BP:7:LEU:HD11	1.77	0.65
43:BW:18:LYS:H	43:BW:35:ILE:HG23	1.61	0.65
46:BZ:70:GLU:C	46:BZ:72:ARG:H	2.03	0.65
1:CA:1070:U:H2'	1:CA:1071:C:C6	2.31	0.65
1:CA:1297:G:H1'	1:CA:1298:U:H5	1.61	0.65
12:CM:63:VAL:O	12:CM:68:LEU:HD21	1.97	0.65
20:CB:195:VAL:HG12	20:CB:197:PHE:H	1.61	0.65
23:DB:18:U:H2'	23:DB:19:A:H8	1.62	0.65
23:DB:1722:A:H2'	23:DB:1723:G:C8	2.31	0.65
23:DB:2229:U:H2'	23:DB:2230:G:H8	1.62	0.65
23:DB:2901:C:H2'	23:DB:2902:C:H6	1.59	0.65
30:DH:125:THR:HA	30:DH:146:VAL:HB	1.77	0.65
37:DP:45:VAL:N	37:DP:60:VAL:HB	2.11	0.65
38:DQ:97:ILE:HG13	38:DQ:105:PHE:HB2	1.77	0.65
1:AA:1320:C:N4	18:AS:36:ARG:HG2	2.11	0.65
20:AB:195:VAL:HG12	20:AB:197:PHE:H	1.62	0.65
23:BB:643:A:C2	48:B1:43:ARG:HD2	2.31	0.65
23:BB:1461:C:H2'	23:BB:1462:C:C6	2.32	0.65
31:BJ:13:ARG:O	31:BJ:52:ASP:HA	1.97	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BJ:25:LEU:HD13	31:BJ:26:GLY:N	2.12	0.65
35:BN:78:LYS:HG3	35:BN:83:LEU:HG	1.76	0.65
1:CA:373:A:H2'	1:CA:374:A:H8	1.61	0.65
1:CA:1085:U:H3'	1:CA:1086:U:C5	2.31	0.65
12:CM:2:ARG:HD3	12:CM:2:ARG:H	1.59	0.65
18:CS:30:LEU:HD12	18:CS:48:ILE:HG12	1.78	0.65
23:DB:1241:A:H2'	23:DB:1242:U:H5'	1.79	0.65
23:DB:1381:G:H2'	23:DB:1382:G:H5'	1.79	0.65
23:DB:2457:U:H2'	23:DB:2458:G:H5'	1.77	0.65
25:DC:4:LYS:HD2	25:DC:5:CYS:N	2.12	0.65
26:DD:107:VAL:HG13	26:DD:203:VAL:HG23	1.77	0.65
26:DD:182:ALA:O	26:DD:184:ARG:HG2	1.96	0.65
32:DK:112:PHE:O	32:DK:115:ILE:HG22	1.97	0.65
49:D2:30:VAL:HA	49:D2:33:ARG:NH2	2.11	0.65
1:AA:677:U:H2'	1:AA:678:U:H6	1.61	0.65
1:AA:1270:G:H2'	1:AA:1271:A:H8	1.61	0.65
1:AA:1307:U:H2'	1:AA:1308:U:C6	2.32	0.65
1:AA:1347:G:N2	1:AA:1373:G:H2'	2.11	0.65
3:AD:84:ASN:ND2	4:AE:101:GLY:HA3	2.12	0.65
3:AD:123:MET:SD	3:AD:145:ARG:HD2	2.37	0.65
10:AK:28:ASN:HD21	10:AK:46:ALA:HB3	1.61	0.65
16:AQ:13:SER:HB3	16:AQ:21:VAL:HB	1.77	0.65
20:AB:65:LYS:H	20:AB:158:ASP:CG	2.04	0.65
23:BB:118:A:OP2	23:BB:119:A:H2'	1.97	0.65
23:BB:162:U:H4'	23:BB:163:C:OP1	1.96	0.65
23:BB:329:G:H1	42:BU:16:LYS:HE3	1.60	0.65
23:BB:1549:A:H2'	23:BB:1550:C:C6	2.32	0.65
23:BB:1949:G:H2'	23:BB:1950:G:C8	2.32	0.65
23:BB:2502:G:H5'	23:BB:2503:A:C5'	2.26	0.65
32:BK:20:MET:O	32:BK:41:ILE:HG13	1.97	0.65
33:BL:56:PRO:HD2	33:BL:59:ARG:HG3	1.79	0.65
39:BR:78:ARG:HB3	39:BR:83:TYR:HB3	1.78	0.65
45:BY:12:ALA:HA	45:BY:15:ARG:HD3	1.79	0.65
51:B4:9:LYS:HD3	51:B4:9:LYS:H	1.60	0.65
1:CA:473:U:H2'	1:CA:474:G:C8	2.31	0.65
1:CA:834:U:H2'	1:CA:835:U:C6	2.31	0.65
1:CA:1103:C:H5''	20:CB:96:LEU:HD12	1.79	0.65
14:CO:7:THR:O	14:CO:11:VAL:HG23	1.96	0.65
16:CQ:59:GLU:O	16:CQ:75:VAL:HG22	1.96	0.65
20:CB:14:HIS:HB2	20:CB:208:ALA:HB2	1.79	0.65
23:DB:784:G:O2'	23:DB:785:G:H5''	1.97	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2557:G:H2'	23:DB:2558:C:C6	2.31	0.65
28:DF:134:GLN:NE2	28:DF:136:ILE:HD13	2.11	0.65
39:DR:49:ILE:HD13	39:DR:53:PHE:N	2.11	0.65
14:AO:7:THR:O	14:AO:11:VAL:HG23	1.96	0.65
23:BB:329:G:H1	42:BU:16:LYS:HG2	1.60	0.65
23:BB:962:G:H21	23:BB:2250:G:N2	1.92	0.65
28:BF:87:LYS:HG3	28:BF:88:VAL:H	1.61	0.65
28:BF:139:GLU:HG2	28:BF:140:ILE:N	2.11	0.65
30:BH:81:ALA:HA	30:BH:147:VAL:H	1.60	0.65
30:BH:104:THR:HG23	30:BH:105:ALA:H	1.59	0.65
32:BK:60:ALA:HA	32:BK:87:LEU:HD23	1.79	0.65
43:BW:39:GLN:NE2	43:BW:43:LYS:HB2	2.12	0.65
44:BX:31:GLN:HG2	44:BX:37:LEU:HB2	1.79	0.65
3:CD:122:ILE:O	3:CD:128:VAL:HG23	1.96	0.65
13:CN:58:ARG:HH11	13:CN:58:ARG:HB3	1.62	0.65
18:CS:42:ASN:N	18:CS:42:ASN:HD22	1.95	0.65
23:DB:1387:A:C4'	23:DB:1469:A:H1'	2.26	0.65
23:DB:2086:U:H2'	23:DB:2087:G:C8	2.32	0.65
23:DB:2895:G:H2'	23:DB:2896:C:C6	2.32	0.65
28:DF:90:LEU:C	28:DF:91:ARG:HD3	2.21	0.65
29:DG:84:LYS:HG3	29:DG:131:VAL:CA	2.27	0.65
35:DN:70:THR:HB	35:DN:75:ILE:HD11	1.78	0.65
36:DO:83:LEU:HD21	36:DO:114:GLY:HA3	1.78	0.65
37:DP:93:LYS:HB3	37:DP:96:LEU:HD12	1.79	0.65
42:DU:25:LYS:HE3	42:DU:36:GLU:HA	1.79	0.65
1:AA:78:A:H3'	1:AA:79:G:C8	2.31	0.65
1:AA:706:A:H4'	10:AK:30:ILE:HD11	1.79	0.65
1:AA:810:C:O2'	1:AA:811:C:H5'	1.96	0.65
23:BB:145:C:H2'	23:BB:146:A:C8	2.32	0.65
23:BB:1241:A:H2'	23:BB:1242:U:H5'	1.77	0.65
23:BB:2834:G:H1'	23:BB:2883:A:H61	1.61	0.65
32:BK:118:LEU:C	32:BK:120:PRO:HD2	2.22	0.65
34:BM:66:ARG:NE	34:BM:101:VAL:HG11	2.11	0.65
37:BP:61:ARG:HD3	37:BP:70:GLU:HG3	1.78	0.65
40:BS:4:ILE:HG22	40:BS:106:VAL:HG13	1.79	0.65
18:CS:41:PRO:O	18:CS:44:ILE:HG22	1.97	0.65
23:DB:1028:A:H2'	23:DB:1029:A:C8	2.31	0.65
23:DB:2624:G:H1'	47:D0:18:HIS:NE2	2.12	0.65
25:DC:142:ASN:HA	25:DC:153:LEU:O	1.97	0.65
25:DC:173:LEU:HD13	25:DC:173:LEU:H	1.60	0.65
26:DD:91:THR:HG23	26:DD:92:VAL:H	1.60	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DD:114:LYS:CD	26:DD:116:LYS:HZ2	2.09	0.65
34:DM:21:ALA:CB	34:DM:100:LYS:HG2	2.26	0.65
1:AA:208:U:H2'	1:AA:210:C:C4	2.31	0.65
1:AA:673:A:H2'	1:AA:674:G:C8	2.32	0.65
1:AA:1213:A:H2'	1:AA:1215:G:N7	2.12	0.65
5:AF:3:HIS:CE1	5:AF:95:ALA:H	2.15	0.65
10:AK:28:ASN:ND2	10:AK:46:ALA:HB3	2.12	0.65
12:AM:3:ILE:O	12:AM:56:ARG:HG3	1.97	0.65
22:BA:46:A:H2'	22:BA:47:C:O4'	1.96	0.65
23:BB:419:U:H2'	23:BB:420:C:C6	2.32	0.65
23:BB:496:G:H1'	40:BS:61:ASN:HD21	1.62	0.65
25:BC:123:ILE:HD12	25:BC:191:LEU:HD13	1.79	0.65
26:BD:33:ARG:NE	26:BD:74:GLU:HB3	2.12	0.65
31:BJ:32:LEU:O	31:BJ:36:LEU:HD23	1.97	0.65
45:BY:26:LEU:HG	45:BY:46:MET:HE2	1.79	0.65
1:CA:51:A:H5''	1:CA:52:C:H5''	1.78	0.65
1:CA:678:U:H2'	1:CA:679:C:C6	2.32	0.65
1:CA:1391:U:H2'	1:CA:1392:G:H8	1.60	0.65
1:CA:1432:G:H5''	37:DP:105:LYS:HG2	1.79	0.65
3:CD:36:ALA:HA	3:CD:41:GLY:HA3	1.77	0.65
33:DL:112:LEU:HG	33:DL:113:ALA:H	1.62	0.65
40:DS:73:LYS:HE3	40:DS:74:ILE:H	1.61	0.65
43:DW:18:LYS:H	43:DW:35:ILE:HG23	1.62	0.65
1:AA:695:A:H61	1:AA:797:C:H1'	1.59	0.65
3:AD:25:ARG:CZ	3:AD:26:ALA:HB2	2.26	0.65
20:AB:14:HIS:HB2	20:AB:208:ALA:HB2	1.79	0.65
23:BB:532:A:H3'	38:BQ:27:ARG:NH1	2.12	0.65
23:BB:1046:A:C3'	23:BB:1047:G:H5''	2.27	0.65
28:BF:62:GLN:OE1	28:BF:94:ARG:HG2	1.96	0.65
31:BJ:56:VAL:HG12	31:BJ:57:LEU:H	1.62	0.65
31:BJ:115:GLY:HA2	31:BJ:118:MET:HE3	1.78	0.65
34:BM:96:ILE:HD11	34:BM:126:ILE:HG12	1.79	0.65
39:BR:14:VAL:HG22	39:BR:15:SER:N	2.10	0.65
39:BR:49:ILE:HD13	39:BR:53:PHE:N	2.12	0.65
45:BY:7:THR:HB	45:BY:55:LYS:H	1.61	0.65
48:B1:26:LYS:HB2	48:B1:52:LYS:HZ2	1.61	0.65
5:CF:38:ARG:HH21	5:CF:63:ASN:HD21	1.43	0.65
7:CH:63:LYS:HD2	7:CH:70:VAL:HG21	1.78	0.65
8:CI:25:GLY:HA3	8:CI:57:VAL:CA	2.27	0.65
11:CL:106:VAL:HG23	11:CL:116:TYR:HB3	1.79	0.65
16:CQ:13:SER:HB3	16:CQ:21:VAL:HB	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:70:G:H3'	23:DB:113:U:H4'	1.79	0.65
23:DB:1346:G:O2'	23:DB:1347:A:H5'	1.97	0.65
23:DB:1439:A:C6	23:DB:1552:A:N7	2.65	0.65
23:DB:1674:G:H21	23:DB:1677:A:N6	1.94	0.65
23:DB:1911:U:H2'	23:DB:1918:A:N1	2.11	0.65
27:DE:69:ARG:O	27:DE:70:SER:HB3	1.97	0.65
36:DO:7:ARG:HA	36:DO:10:ARG:CZ	2.27	0.65
1:AA:82:G:H2'	1:AA:83:C:O4'	1.98	0.64
1:AA:802:A:H2'	1:AA:803:G:O4'	1.97	0.64
1:AA:1072:G:H21	20:AB:105:THR:HG21	1.62	0.64
1:AA:1423:G:H2'	1:AA:1424:U:C6	2.32	0.64
13:AN:68:ARG:NH1	13:AN:71:GLY:H	1.95	0.64
15:AP:57:ILE:O	15:AP:61:VAL:HG23	1.96	0.64
23:BB:720:U:H2'	23:BB:721:A:C8	2.32	0.64
23:BB:2188:U:H2'	23:BB:2189:U:C6	2.31	0.64
26:BD:141:ARG:O	26:BD:141:ARG:HG3	1.95	0.64
29:BG:87:GLN:HE21	29:BG:164:ALA:HA	1.61	0.64
30:BH:78:VAL:HB	30:BH:143:ILE:HG12	1.78	0.64
45:BY:16:LEU:HD22	45:BY:16:LEU:H	1.61	0.64
1:CA:662:U:H2'	1:CA:663:A:C8	2.31	0.64
4:CE:85:LYS:HG3	4:CE:93:VAL:O	1.96	0.64
6:CG:45:ALA:HB1	6:CG:120:ALA:HB2	1.79	0.64
23:DB:807:U:H2'	23:DB:808:G:C8	2.31	0.64
23:DB:2693:G:H2'	23:DB:2694:G:H8	1.61	0.64
24:DV:80:HIS:CD2	24:DV:83:LYS:H	2.15	0.64
26:DD:117:GLY:HA2	26:DD:164:GLN:CD	2.21	0.64
32:DK:68:GLY:HA3	32:DK:78:ARG:HB3	1.77	0.64
35:DN:32:GLU:O	35:DN:114:GLU:HA	1.97	0.64
37:DP:52:ARG:HH11	37:DP:52:ARG:HG2	1.62	0.64
38:DQ:60:TRP:O	38:DQ:64:ILE:HG12	1.96	0.64
1:AA:218:U:H2'	1:AA:219:U:C6	2.30	0.64
1:AA:229:U:H2'	1:AA:230:G:C8	2.31	0.64
9:AJ:52:LEU:H	9:AJ:52:LEU:HD12	1.63	0.64
20:AB:186:VAL:HB	20:AB:190:SER:CB	2.28	0.64
23:BB:65:U:H2'	23:BB:66:C:H6	1.61	0.64
23:BB:273:G:O2'	23:BB:274:C:H5'	1.97	0.64
23:BB:775:G:H4'	23:BB:776:G:H5'	1.77	0.64
23:BB:2471:A:O2'	23:BB:2472:G:H8	1.79	0.64
30:BH:69:ALA:C	30:BH:140:ALA:HB2	2.22	0.64
42:BU:70:ALA:HB1	42:BU:79:ALA:CB	2.28	0.64
1:CA:1258:G:H2'	1:CA:1259:C:C6	2.33	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CC:48:LYS:HE2	2:CC:48:LYS:N	2.07	0.64
8:CI:20:ILE:H	8:CI:20:ILE:HD12	1.62	0.64
23:DB:106:C:H2'	23:DB:107:G:H8	1.61	0.64
23:DB:155:A:H2'	23:DB:156:A:H8	1.62	0.64
23:DB:1324:G:H1'	23:DB:1616:A:N6	2.12	0.64
23:DB:1771:C:H2'	23:DB:1772:A:C8	2.32	0.64
23:DB:1947:C:H2'	23:DB:1948:G:H8	1.62	0.64
34:DM:60:GLN:H	34:DM:60:GLN:HE21	1.44	0.64
39:DR:78:ARG:HG3	39:DR:78:ARG:HH21	1.61	0.64
1:AA:78:A:H3'	1:AA:79:G:H8	1.62	0.64
1:AA:376:G:H5''	15:AP:5:ARG:HB2	1.77	0.64
5:AF:40:GLU:HB2	5:AF:61:LEU:HB2	1.79	0.64
8:AI:51:LEU:HD13	8:AI:56:MET:HG2	1.79	0.64
23:BB:17:G:H2'	23:BB:18:U:C6	2.32	0.64
23:BB:171:U:H2'	23:BB:172:A:H8	1.61	0.64
23:BB:2861:U:H2'	23:BB:2862:G:H8	1.61	0.64
26:BD:107:VAL:H	26:BD:205:PRO:HA	1.62	0.64
40:BS:32:ALA:O	40:BS:35:ILE:HB	1.97	0.64
44:BX:1:MET:HB3	44:BX:4:LYS:HD3	1.78	0.64
46:BZ:40:VAL:CG2	46:BZ:45:ARG:H	2.09	0.64
1:CA:658:C:H2'	1:CA:659:U:H6	1.62	0.64
1:CA:707:U:H2'	1:CA:708:C:C6	2.33	0.64
1:CA:1132:C:H2'	1:CA:1133:G:C8	2.32	0.64
1:CA:1270:G:H2'	1:CA:1271:A:H8	1.62	0.64
5:CF:40:GLU:HB2	5:CF:61:LEU:HB2	1.80	0.64
10:CK:108:ASN:ND2	21:CU:6:ARG:HB2	2.12	0.64
21:CU:16:ARG:HE	21:CU:16:ARG:CA	2.01	0.64
23:DB:173:A:H2'	23:DB:174:U:C6	2.33	0.64
23:DB:532:A:H3'	38:DQ:27:ARG:NH1	2.11	0.64
23:DB:962:G:H21	23:DB:2250:G:N2	1.92	0.64
23:DB:1856:U:H2'	23:DB:1857:G:O4'	1.97	0.64
23:DB:2331:G:H21	23:DB:2336:A:H8	1.44	0.64
26:DD:118:PHE:O	26:DD:119:ALA:HB3	1.97	0.64
33:DL:141:LYS:HD3	33:DL:142:ILE:H	1.61	0.64
38:DQ:63:ARG:HH12	38:DQ:96:ASP:HA	1.63	0.64
38:DQ:91:ARG:HG2	38:DQ:93:ILE:HG22	1.79	0.64
39:DR:39:LEU:HA	39:DR:53:PHE:HA	1.78	0.64
40:DS:36:LEU:H	40:DS:36:LEU:HD22	1.62	0.64
1:AA:1342:C:H2'	1:AA:1343:G:C8	2.32	0.64
2:AC:13:ILE:O	2:AC:14:VAL:HG22	1.97	0.64
2:AC:59:PRO:HG2	2:AC:62:SER:OG	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1412:U:H2'	23:BB:1413:A:C8	2.31	0.64
23:BB:1464:G:H2'	23:BB:1465:G:C8	2.33	0.64
23:BB:2893:A:H5''	23:BB:2894:G:H5'	1.79	0.64
26:BD:113:SER:HB3	26:BD:168:GLU:N	2.12	0.64
29:BG:84:LYS:HG3	29:BG:131:VAL:CA	2.26	0.64
35:BN:32:GLU:O	35:BN:114:GLU:HA	1.97	0.64
38:BQ:63:ARG:HH22	38:BQ:96:ASP:CA	2.04	0.64
38:BQ:91:ARG:HH12	39:BR:10:LYS:HB3	1.62	0.64
49:B2:33:ARG:HH21	49:B2:33:ARG:HB2	1.62	0.64
1:CA:71:A:O2'	1:CA:72:A:H5''	1.98	0.64
1:CA:825:A:H2'	1:CA:826:C:C6	2.33	0.64
1:CA:927:G:H4'	1:CA:1503:A:N7	2.12	0.64
8:CI:79:ARG:NH2	8:CI:102:PHE:HA	2.11	0.64
11:CL:113:ARG:HG2	11:CL:118:VAL:HB	1.80	0.64
23:DB:72:U:O2'	23:DB:73:A:H5'	1.97	0.64
23:DB:132:G:H2'	23:DB:133:U:C6	2.32	0.64
23:DB:1021:A:H61	23:DB:1142:A:N6	1.95	0.64
23:DB:2473:U:H2'	23:DB:2473:U:O2	1.96	0.64
23:DB:2502:G:H5'	23:DB:2503:A:C5'	2.23	0.64
32:DK:64:ARG:O	32:DK:82:ASN:HA	1.98	0.64
1:AA:1432:G:H1'	1:AA:1468:A:N6	2.13	0.64
5:AF:18:VAL:HG21	5:AF:58:HIS:ND1	2.13	0.64
23:BB:1060:U:O4	52:BI:131:THR:HG22	1.97	0.64
23:BB:1485:U:H2'	23:BB:1486:U:C6	2.32	0.64
23:BB:2229:U:H2'	23:BB:2230:G:H8	1.62	0.64
29:BG:115:GLN:CD	29:BG:115:GLN:H	2.06	0.64
42:BU:25:LYS:HE3	42:BU:36:GLU:HA	1.79	0.64
52:BI:25:PRO:O	52:BI:29:GLN:HG2	1.98	0.64
1:CA:735:C:O2'	1:CA:736:C:H5'	1.97	0.64
1:CA:763:G:H2'	1:CA:764:C:H6	1.62	0.64
23:DB:365:U:H2'	23:DB:366:C:C6	2.31	0.64
23:DB:1690:A:H2'	23:DB:1691:C:O4'	1.97	0.64
23:DB:1812:U:H2'	23:DB:1813:G:H8	1.61	0.64
23:DB:2182:U:H2'	23:DB:2183:A:C8	2.32	0.64
23:DB:2425:A:H5'	23:DB:2427:C:O4'	1.96	0.64
28:DF:139:GLU:HG2	28:DF:140:ILE:N	2.10	0.64
29:DG:152:ARG:HG3	29:DG:153:PRO:HD2	1.80	0.64
42:DU:11:ILE:HG22	42:DU:70:ALA:HB3	1.80	0.64
1:AA:845:A:H5''	1:AA:846:G:N7	2.12	0.64
23:BB:72:U:O2'	23:BB:73:A:H5'	1.97	0.64
23:BB:246:C:H2'	23:BB:247:G:H5'	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:587:C:O2'	33:BL:19:LEU:HD13	1.98	0.64
23:BB:1220:G:H2'	23:BB:1221:C:C6	2.33	0.64
37:BP:61:ARG:HH21	37:BP:61:ARG:HB3	1.61	0.64
50:B3:41:ARG:HA	50:B3:44:ARG:HH21	1.60	0.64
1:CA:131:A:H2'	1:CA:132:C:H6	1.62	0.64
3:CD:106:PHE:CD1	3:CD:144:ILE:HD11	2.32	0.64
43:DW:49:ASN:HB2	43:DW:61:LYS:H	1.60	0.64
45:DY:16:LEU:H	45:DY:16:LEU:HD22	1.61	0.64
1:AA:859:G:H2'	1:AA:860:A:H8	1.63	0.64
23:BB:154:U:H2'	23:BB:155:A:C8	2.33	0.64
23:BB:2019:A:H2	23:BB:2035:G:H22	1.42	0.64
26:BD:8:LYS:HB2	26:BD:201:LEU:HD21	1.78	0.64
30:BH:80:ILE:HD12	30:BH:144:VAL:HG22	1.79	0.64
40:BS:90:LYS:HD2	40:BS:92:ARG:HH12	1.62	0.64
1:CA:1008:U:H5''	13:CN:23:ARG:NH2	2.13	0.64
3:CD:29:THR:HB	3:CD:30:LYS:NZ	2.12	0.64
4:CE:125:LYS:HD2	4:CE:126:ALA:N	2.12	0.64
20:CB:115:ASP:O	20:CB:119:GLN:HG2	1.97	0.64
23:DB:2213:U:O2	23:DB:2213:U:H2'	1.95	0.64
23:DB:2804:U:H2'	23:DB:2805:C:H6	1.62	0.64
27:DE:176:ASP:HB3	27:DE:179:SER:HB2	1.80	0.64
31:DJ:136:GLN:N	31:DJ:137:PRO:HD3	2.13	0.64
37:DP:61:ARG:HB3	37:DP:61:ARG:HH21	1.61	0.64
38:DQ:104:ALA:HA	39:DR:46:GLU:OE1	1.97	0.64
49:D2:10:LEU:HD11	49:D2:14:ARG:NH1	2.13	0.64
51:D4:9:LYS:HD3	51:D4:9:LYS:H	1.62	0.64
1:AA:229:U:H2'	1:AA:230:G:H8	1.62	0.64
1:AA:415:A:H3'	1:AA:416:G:H8	1.63	0.64
1:AA:1437:A:H2'	1:AA:1438:G:H8	1.63	0.64
3:AD:88:ASN:O	3:AD:92:LEU:HD23	1.98	0.64
6:AG:56:SER:HB3	6:AG:59:GLU:HG3	1.80	0.64
22:BA:56:G:H4'	22:BA:57:A:H5'	1.78	0.64
23:BB:173:A:H2'	23:BB:174:U:C6	2.32	0.64
23:BB:414:C:H2'	23:BB:415:A:C8	2.32	0.64
23:BB:1654:A:H2'	23:BB:1655:A:C8	2.33	0.64
23:BB:1802:A:H2'	23:BB:1803:A:C8	2.33	0.64
23:BB:2352:A:H2'	23:BB:2353:G:O4'	1.98	0.64
27:BE:117:ARG:O	27:BE:186:VAL:HG12	1.98	0.64
32:BK:105:ARG:HD3	32:BK:106:GLU:OE1	1.98	0.64
35:BN:77:ALA:O	35:BN:81:ASN:HB2	1.98	0.64
1:CA:845:A:H5''	1:CA:846:G:N7	2.13	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CE:105:ILE:HD11	4:CE:123:LEU:HB3	1.80	0.64
7:CH:6:ILE:HD11	7:CH:31:LEU:HD23	1.79	0.64
7:CH:51:GLU:HG2	7:CH:52:GLY:H	1.61	0.64
10:CK:28:ASN:ND2	10:CK:46:ALA:HB3	2.12	0.64
13:CN:11:LYS:HZ3	13:CN:11:LYS:N	1.95	0.64
20:CB:186:VAL:HB	20:CB:190:SER:CB	2.28	0.64
23:DB:145:C:H2'	23:DB:146:A:C8	2.32	0.64
23:DB:1163:G:H4'	39:DR:92:TRP:NE1	2.13	0.64
23:DB:1407:G:H2'	23:DB:1408:G:H8	1.63	0.64
23:DB:2269:G:C4'	43:DW:19:ARG:HH12	2.11	0.64
25:DC:131:MET:HE1	25:DC:143:VAL:HG13	1.80	0.64
26:DD:34:VAL:HB	26:DD:48:ILE:HD11	1.80	0.64
27:DE:33:VAL:O	27:DE:36:ALA:HB3	1.97	0.64
27:DE:189:THR:O	27:DE:193:VAL:HG23	1.96	0.64
41:DT:38:ALA:HB3	41:DT:81:LYS:NZ	2.12	0.64
49:D2:1:MET:HG2	49:D2:2:LYS:H	1.63	0.64
1:AA:270:A:H2'	1:AA:271:C:C6	2.32	0.64
1:AA:1070:U:H2'	1:AA:1071:C:C6	2.33	0.64
8:AI:23:GLY:H	8:AI:60:LEU:HA	1.63	0.64
13:AN:58:ARG:HH11	13:AN:58:ARG:HB3	1.63	0.64
20:AB:128:LEU:HD12	20:AB:132:GLU:HB3	1.79	0.64
23:BB:155:A:H2'	23:BB:156:A:H8	1.63	0.64
23:BB:2720:U:H5''	37:BP:52:ARG:HH21	1.62	0.64
23:BB:2804:U:H2'	23:BB:2805:C:H6	1.63	0.64
26:BD:91:THR:HG23	26:BD:92:VAL:H	1.62	0.64
26:BD:115:GLY:HA2	26:BD:167:ASN:HB2	1.79	0.64
37:BP:5:LYS:HE2	37:BP:5:LYS:HA	1.80	0.64
40:BS:36:LEU:HD22	40:BS:36:LEU:H	1.61	0.64
1:CA:69:G:N2	1:CA:71:A:H62	1.96	0.64
1:CA:412:A:H4'	1:CA:413:G:OP1	1.98	0.64
1:CA:1320:C:N4	18:CS:36:ARG:HG2	2.13	0.64
1:CA:1323:G:H4'	1:CA:1362:A:C4	2.33	0.64
3:CD:25:ARG:CZ	3:CD:26:ALA:HB2	2.26	0.64
12:CM:3:ILE:O	12:CM:56:ARG:HG3	1.98	0.64
23:DB:1100:C:H2'	23:DB:1101:U:H6	1.62	0.64
23:DB:1292:G:H2'	23:DB:1293:C:C6	2.32	0.64
23:DB:2443:C:H2'	23:DB:2444:G:H8	1.63	0.64
26:DD:113:SER:CB	26:DD:168:GLU:H	2.10	0.64
29:DG:132:LEU:HD23	29:DG:132:LEU:H	1.63	0.64
49:D2:33:ARG:CB	49:D2:33:ARG:HH21	2.11	0.64
7:AH:94:VAL:HG23	7:AH:101:ALA:HB2	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AJ:52:LEU:HA	9:AJ:62:ARG:HA	1.79	0.64
20:AB:115:ASP:O	20:AB:119:GLN:HG2	1.97	0.64
23:BB:2749:A:C3'	23:BB:2750:A:H5''	2.28	0.64
25:BC:142:ASN:HA	25:BC:153:LEU:O	1.98	0.64
26:BD:51:THR:CG2	26:BD:76:GLY:HA3	2.28	0.64
26:BD:118:PHE:O	26:BD:119:ALA:HB3	1.97	0.64
30:BH:131:SER:HB3	30:BH:141:LYS:HA	1.79	0.64
30:BH:133:GLN:HB2	30:BH:139:PHE:CB	2.27	0.64
46:BZ:71:LEU:HD13	46:BZ:76:GLU:HB3	1.80	0.64
1:CA:129:A:H1'	1:CA:130:A:C8	2.33	0.64
1:CA:131:A:H2'	1:CA:132:C:C6	2.33	0.64
1:CA:524:G:H2'	1:CA:525:C:C6	2.33	0.64
1:CA:1404:C:H2'	1:CA:1405:G:C8	2.33	0.64
3:CD:153:ARG:HG3	3:CD:154:VAL:H	1.63	0.64
5:CF:47:LEU:HD21	5:CF:57:ALA:HB3	1.80	0.64
8:CI:42:THR:HA	8:CI:45:MET:SD	2.37	0.64
9:CJ:52:LEU:HA	9:CJ:62:ARG:HA	1.80	0.64
20:CB:62:ARG:HD2	20:CB:62:ARG:H	1.63	0.64
26:DD:51:THR:CG2	26:DD:76:GLY:HA3	2.28	0.64
29:DG:87:GLN:HE21	29:DG:164:ALA:HA	1.63	0.64
33:DL:60:ARG:HH21	33:DL:60:ARG:HB2	1.63	0.64
1:AA:499:A:H4'	1:AA:500:G:H5'	1.80	0.63
1:AA:763:G:H2'	1:AA:764:C:C6	2.32	0.63
1:AA:921:U:H2'	1:AA:922:G:C8	2.33	0.63
1:AA:1210:C:H1'	1:AA:1214:C:H2'	1.80	0.63
21:AU:33:ARG:HG2	21:AU:34:ARG:H	1.64	0.63
23:BB:287:G:H2'	23:BB:288:U:H6	1.63	0.63
23:BB:401:A:H2'	23:BB:402:A:C8	2.33	0.63
23:BB:547:A:C2'	23:BB:548:G:H5'	2.26	0.63
23:BB:1324:G:H1'	23:BB:1616:A:N6	2.13	0.63
25:BC:145:MET:HB2	25:BC:152:GLN:HE22	1.64	0.63
28:BF:16:MET:O	28:BF:20:ASN:HA	1.97	0.63
33:BL:60:ARG:HH21	33:BL:60:ARG:HB2	1.63	0.63
34:BM:21:ALA:CB	34:BM:100:LYS:HG2	2.28	0.63
1:CA:958:A:H61	18:CS:53:GLY:HA3	1.64	0.63
1:CA:1004:A:H3'	1:CA:1024:G:N2	2.12	0.63
1:CA:1148:U:H5'	8:CI:6:TYR:OH	1.98	0.63
1:CA:1347:G:N2	1:CA:1373:G:H2'	2.13	0.63
22:DA:7:G:H1'	36:DO:38:GLN:HE22	1.63	0.63
23:DB:720:U:H2'	23:DB:721:A:C8	2.32	0.63
23:DB:1047:G:H1'	23:DB:1110:G:N2	2.12	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1486:U:H2'	23:DB:1487:U:H6	1.62	0.63
23:DB:2019:A:H2	23:DB:2035:G:H22	1.44	0.63
23:DB:2183:A:H2'	23:DB:2184:A:C8	2.33	0.63
26:DD:13:ARG:HH12	37:DP:74:GLN:NE2	1.96	0.63
28:DF:101:ARG:HA	28:DF:105:ILE:HD13	1.78	0.63
35:DN:101:GLY:HA2	35:DN:110:MET:H	1.59	0.63
42:DU:85:ARG:CD	42:DU:86:PHE:H	2.02	0.63
1:AA:41:G:H2'	1:AA:42:G:C8	2.33	0.63
1:AA:865:A:C2	1:AA:918:A:H4'	2.33	0.63
5:AF:9:MET:HE1	17:AR:64:LEU:HA	1.80	0.63
23:BB:549:G:H3'	23:BB:549:G:OP2	1.98	0.63
23:BB:1439:A:C6	23:BB:1552:A:N7	2.66	0.63
32:BK:64:ARG:O	32:BK:82:ASN:HA	1.97	0.63
44:BX:39:GLN:O	44:BX:42:LEU:HB2	1.98	0.63
3:CD:25:ARG:NH1	3:CD:26:ALA:HB2	2.12	0.63
6:CG:49:LEU:HD21	6:CG:60:ALA:HB3	1.79	0.63
22:DA:28:C:OP1	36:DO:31:THR:HG21	1.98	0.63
23:DB:189:G:H2'	23:DB:205:G:N2	2.13	0.63
23:DB:300:A:H2'	23:DB:334:C:H1'	1.80	0.63
23:DB:699:A:H4'	23:DB:1634:A:N7	2.12	0.63
23:DB:1060:U:O4	23:DB:1088:A:N6	2.31	0.63
23:DB:1935:G:H1'	23:DB:1964:G:N2	2.13	0.63
31:DJ:13:ARG:O	31:DJ:52:ASP:HA	1.98	0.63
41:DT:18:GLU:C	41:DT:20:ALA:H	2.06	0.63
52:DI:41:PHE:O	52:DI:45:THR:HG23	1.98	0.63
1:AA:51:A:H5''	1:AA:52:C:H5''	1.80	0.63
1:AA:865:A:H5'	1:AA:1078:U:O4	1.99	0.63
1:AA:918:A:H2'	1:AA:919:A:C8	2.32	0.63
4:AE:37:VAL:HG11	4:AE:113:VAL:HG12	1.81	0.63
8:AI:27:ILE:HB	8:AI:34:LEU:HB2	1.81	0.63
22:BA:98:G:N1	24:BV:14:LYS:HB2	2.12	0.63
23:BB:98:G:H1	42:BU:6:ARG:HH12	1.47	0.63
23:BB:968:C:H2'	23:BB:969:G:H8	1.63	0.63
23:BB:1341:G:H3'	23:BB:1397:U:O2	1.99	0.63
23:BB:2393:U:H5''	33:BL:62:PRO:HG3	1.80	0.63
23:BB:2443:C:H2'	23:BB:2444:G:C8	2.34	0.63
25:BC:77:VAL:HG22	25:BC:113:ASP:H	1.63	0.63
29:BG:39:ALA:C	29:BG:54:ARG:HB2	2.24	0.63
37:BP:24:THR:O	37:BP:25:VAL:HG22	1.98	0.63
41:BT:1:MET:HB2	41:BT:2:ILE:HD13	1.80	0.63
43:BW:77:LYS:O	43:BW:78:PHE:HB2	1.97	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:370:C:O2'	1:CA:371:A:H5'	1.99	0.63
1:CA:437:U:H4'	3:CD:153:ARG:HH12	1.63	0.63
1:CA:492:C:H2'	1:CA:493:A:N3	2.12	0.63
1:CA:859:G:H2'	1:CA:860:A:H8	1.61	0.63
1:CA:1330:U:H4'	12:CM:69:ARG:HH12	1.63	0.63
2:CC:62:SER:HA	2:CC:97:PRO:O	1.98	0.63
11:CL:40:THR:HG22	11:CL:41:PRO:HD2	1.79	0.63
20:CB:101:THR:HG22	20:CB:174:GLU:OE1	1.98	0.63
22:DA:15:A:H3'	22:DA:15:A:OP2	1.97	0.63
22:DA:46:A:H2'	22:DA:47:C:O4'	1.98	0.63
23:DB:1050:A:H2'	23:DB:1051:G:O4'	1.98	0.63
23:DB:1098:A:H3'	52:DI:3:LYS:C	2.24	0.63
23:DB:2861:U:H2'	23:DB:2862:G:H8	1.62	0.63
23:DB:2898:U:H2'	23:DB:2899:A:H8	1.63	0.63
26:DD:114:LYS:HD2	26:DD:116:LYS:HZ2	1.63	0.63
26:DD:178:VAL:HG12	26:DD:179:ARG:H	1.64	0.63
27:DE:97:ASN:HD21	27:DE:100:MET:HG3	1.62	0.63
31:DJ:89:PHE:HE1	31:DJ:93:ILE:HD13	1.64	0.63
32:DK:43:ILE:HG21	32:DK:46:ALA:HB2	1.80	0.63
33:DL:57:LEU:O	33:DL:61:LEU:HD13	1.98	0.63
36:DO:40:ILE:HA	36:DO:47:VAL:HA	1.80	0.63
45:DY:6:ILE:HA	45:DY:56:VAL:HG13	1.79	0.63
1:AA:978:A:H5'	1:AA:1362:A:N6	2.14	0.63
3:AD:25:ARG:NH1	3:AD:26:ALA:HB2	2.14	0.63
13:AN:9:GLU:HB2	13:AN:62:ARG:NE	2.13	0.63
13:AN:26:LEU:HA	13:AN:29:ILE:HD12	1.81	0.63
23:BB:2144:G:O2'	23:BB:2146:C:H5'	1.99	0.63
25:BC:158:GLY:N	25:BC:194:VAL:HG13	2.13	0.63
29:BG:89:VAL:HG12	29:BG:90:GLY:H	1.63	0.63
41:BT:50:LEU:C	41:BT:52:GLU:H	2.06	0.63
43:BW:23:LYS:HZ3	43:BW:24:ARG:HG3	1.62	0.63
1:CA:1342:C:H2'	1:CA:1343:G:H8	1.63	0.63
23:DB:2353:G:H1'	43:DW:30:VAL:CG1	2.28	0.63
25:DC:77:VAL:HG22	25:DC:113:ASP:H	1.64	0.63
26:DD:68:PHE:HB3	26:DD:73:VAL:HA	1.80	0.63
26:DD:105:LYS:H	26:DD:106:LYS:HZ3	1.43	0.63
42:DU:27:VAL:HG23	42:DU:33:VAL:HG12	1.80	0.63
43:DW:44:PHE:O	43:DW:78:PHE:HA	1.98	0.63
46:DZ:70:GLU:C	46:DZ:72:ARG:H	2.05	0.63
8:AI:20:ILE:H	8:AI:20:ILE:HD12	1.62	0.63
23:BB:1346:G:O2'	23:BB:1347:A:H5'	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:2331:G:N2	23:BB:2336:A:H8	1.96	0.63
23:BB:2895:G:H2'	23:BB:2896:C:C6	2.34	0.63
32:BK:7:MET:SD	32:BK:20:MET:HB2	2.39	0.63
43:BW:44:PHE:O	43:BW:78:PHE:HA	1.99	0.63
51:B4:2:LYS:HG2	51:B4:3:VAL:H	1.64	0.63
11:CL:122:LYS:HD2	11:CL:123:ALA:H	1.64	0.63
18:CS:5:LYS:O	18:CS:6:LYS:HD2	1.97	0.63
23:DB:548:G:H2'	23:DB:548:G:N3	2.12	0.63
23:DB:1220:G:H2'	23:DB:1221:C:C6	2.34	0.63
23:DB:1508:A:H5'	23:DB:1509:A:N6	2.14	0.63
23:DB:1735:A:H2'	23:DB:1736:U:C6	2.34	0.63
28:DF:60:SER:HB2	28:DF:62:GLN:OE1	1.99	0.63
44:DX:26:PHE:HD1	44:DX:27:ASN:HD22	1.44	0.63
1:AA:1173:U:H2'	1:AA:1174:G:C8	2.33	0.63
1:AA:1258:G:H2'	1:AA:1259:C:H6	1.64	0.63
3:AD:138:PRO:HA	3:AD:181:PHE:CD2	2.31	0.63
4:AE:125:LYS:HD2	4:AE:126:ALA:N	2.13	0.63
11:AL:49:ARG:HG2	11:AL:89:LEU:HD21	1.80	0.63
23:BB:155:A:H2'	23:BB:156:A:C8	2.34	0.63
23:BB:2313:C:H4'	28:BF:87:LYS:HB3	1.80	0.63
23:BB:2658:C:H5'	29:BG:159:LYS:NZ	2.14	0.63
23:BB:2752:C:H3'	23:BB:2753:A:H8	1.63	0.63
23:BB:2800:A:H2'	23:BB:2801:G:O4'	1.99	0.63
25:BC:20:ASN:HB3	25:BC:23:LEU:HD22	1.79	0.63
38:BQ:63:ARG:HH12	38:BQ:96:ASP:HA	1.63	0.63
1:CA:1307:U:H2'	1:CA:1308:U:C6	2.33	0.63
1:CA:1380:U:O4	6:CG:2:ARG:HB2	1.99	0.63
3:CD:160:LEU:HA	3:CD:163:GLN:HG3	1.80	0.63
10:CK:70:ALA:C	10:CK:72:ALA:H	2.05	0.63
13:CN:42:ASN:O	13:CN:46:LYS:HG2	1.99	0.63
21:CU:48:LYS:HA	21:CU:51:ALA:HB3	1.80	0.63
23:DB:195:A:H1'	23:DB:250:G:N2	2.12	0.63
23:DB:1205:A:H4'	23:DB:1206:G:OP2	1.98	0.63
23:DB:1654:A:H2'	23:DB:1655:A:C8	2.33	0.63
23:DB:1812:U:H1'	25:DC:43:ASN:ND2	2.06	0.63
29:DG:89:VAL:HB	29:DG:159:LYS:HA	1.81	0.63
31:DJ:37:ARG:HE	31:DJ:110:PRO:HG3	1.63	0.63
1:AA:1234:C:O2'	1:AA:1235:U:H5'	1.99	0.63
1:AA:1236:A:H4'	1:AA:1304:G:H4'	1.81	0.63
4:AE:106:ALA:HB1	4:AE:110:MET:HB3	1.81	0.63
5:AF:42:TRP:HB2	5:AF:59:TYR:HB2	1.78	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AK:70:ALA:C	10:AK:72:ALA:H	2.07	0.63
23:BB:37:C:H4'	23:BB:451:U:OP1	1.98	0.63
23:BB:350:G:H2'	23:BB:351:C:O4'	1.99	0.63
23:BB:1373:A:H2'	23:BB:1374:G:O4'	1.98	0.63
23:BB:1551:A:H3'	23:BB:1552:A:H5''	1.81	0.63
23:BB:1735:A:H2'	23:BB:1736:U:C6	2.33	0.63
26:BD:97:SER:HB3	26:BD:99:GLU:HG2	1.80	0.63
38:BQ:91:ARG:HG2	38:BQ:93:ILE:HG22	1.79	0.63
8:CI:23:GLY:H	8:CI:60:LEU:HA	1.62	0.63
9:CJ:56:HIS:O	9:CJ:57:VAL:HG12	1.99	0.63
17:CR:55:ALA:HA	17:CR:58:ILE:HD13	1.80	0.63
24:DV:28:ALA:HA	24:DV:88:HIS:CE1	2.33	0.63
38:DQ:86:SER:O	39:DR:51:VAL:HA	1.99	0.63
46:DZ:71:LEU:HD13	46:DZ:76:GLU:HB3	1.81	0.63
1:AA:412:A:H4'	1:AA:413:G:OP1	1.99	0.63
1:AA:825:A:H2'	1:AA:826:C:H6	1.62	0.63
1:AA:950:U:H2'	1:AA:951:G:C8	2.33	0.63
12:AM:63:VAL:HG13	12:AM:67:ASP:HB2	1.81	0.63
13:AN:63:CYS:HB3	13:AN:67:GLY:H	1.64	0.63
21:AU:48:LYS:HA	21:AU:51:ALA:HB3	1.79	0.63
22:BA:28:C:OP1	36:BO:31:THR:HG21	1.99	0.63
23:BB:140:C:H4'	23:BB:141:G:N2	2.12	0.63
23:BB:654:A:H2'	23:BB:655:A:H5''	1.81	0.63
23:BB:1060:U:O4	23:BB:1088:A:N6	2.31	0.63
23:BB:1722:A:H2'	23:BB:1723:G:C8	2.34	0.63
23:BB:1856:U:H2'	23:BB:1857:G:O4'	1.99	0.63
23:BB:2748:A:H5''	29:BG:3:VAL:HG21	1.81	0.63
33:BL:141:LYS:HD3	33:BL:142:ILE:H	1.63	0.63
35:BN:70:THR:HB	35:BN:75:ILE:HD11	1.78	0.63
44:BX:56:LEU:C	44:BX:58:ASN:H	2.06	0.63
1:CA:950:U:H2'	1:CA:951:G:C8	2.34	0.63
10:CK:28:ASN:HD21	10:CK:46:ALA:HB3	1.62	0.63
20:CB:44:LYS:C	20:CB:47:PRO:HD2	2.24	0.63
22:DA:6:G:H2'	22:DA:7:G:H8	1.64	0.63
23:DB:286:U:H2'	23:DB:287:G:H8	1.63	0.63
23:DB:2080:A:H4'	46:DZ:19:SER:OG	1.98	0.63
23:DB:2428:G:H21	33:DL:60:ARG:HE	1.47	0.63
25:DC:20:ASN:HB3	25:DC:23:LEU:HD22	1.81	0.63
35:DN:24:MET:HE1	35:DN:40:LYS:HD2	1.81	0.63
41:DT:32:LEU:N	41:DT:83:ALA:HB3	2.13	0.63
41:DT:50:LEU:C	41:DT:52:GLU:H	2.06	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DZ:40:VAL:CG2	46:DZ:45:ARG:H	2.11	0.63
49:D2:27:GLY:O	49:D2:30:VAL:HB	1.99	0.63
4:AE:45:VAL:HG12	4:AE:116:VAL:HG23	1.79	0.63
23:BB:274:C:H2'	23:BB:275:C:O4'	1.99	0.63
23:BB:1723:G:N7	23:BB:1737:G:N2	2.47	0.63
23:BB:2834:G:H2'	23:BB:2879:A:N6	2.13	0.63
26:BD:40:LEU:HA	26:BD:45:TYR:N	2.14	0.63
42:BU:27:VAL:HG23	42:BU:33:VAL:HG12	1.79	0.63
45:BY:8:GLN:CG	45:BY:31:ILE:HA	2.21	0.63
1:CA:204:G:H2'	1:CA:205:A:C8	2.34	0.63
1:CA:376:G:H2'	1:CA:377:G:H8	1.64	0.63
1:CA:462:G:H2'	1:CA:462:G:N3	2.13	0.63
1:CA:620:C:C2	3:CD:131:ILE:HD13	2.33	0.63
1:CA:677:U:H2'	1:CA:678:U:H6	1.63	0.63
3:CD:29:THR:HG22	3:CD:30:LYS:H	1.64	0.63
7:CH:94:VAL:HG23	7:CH:101:ALA:HB2	1.80	0.63
23:DB:401:A:H2'	23:DB:402:A:C8	2.33	0.63
23:DB:521:U:H2'	23:DB:522:A:C8	2.34	0.63
23:DB:594:U:H2'	23:DB:595:C:H6	1.64	0.63
23:DB:963:U:H5''	56:DB:3697:HOH:O	1.99	0.63
23:DB:1080:A:H2'	23:DB:1081:U:C6	2.32	0.63
23:DB:1593:A:H2'	23:DB:1594:U:C6	2.34	0.63
23:DB:1796:U:H2'	23:DB:1797:G:H8	1.63	0.63
35:DN:77:ALA:O	35:DN:81:ASN:HB2	1.99	0.63
36:DO:17:LYS:O	36:DO:21:LEU:HB2	1.99	0.63
45:DY:12:ALA:HA	45:DY:15:ARG:HD3	1.81	0.63
47:D0:8:THR:HG23	47:D0:11:LYS:H	1.64	0.63
52:DI:72:THR:HG22	52:DI:115:ASP:OD2	1.98	0.63
52:DI:78:LEU:HA	52:DI:81:LYS:HE2	1.81	0.63
1:AA:154:U:H2'	1:AA:155:A:C8	2.33	0.62
1:AA:208:U:H2'	1:AA:210:C:N3	2.14	0.62
1:AA:437:U:H4'	3:AD:153:ARG:HH12	1.62	0.62
1:AA:1134:G:C2	1:AA:1135:U:H1'	2.33	0.62
8:AI:42:THR:HA	8:AI:45:MET:SD	2.38	0.62
23:BB:1166:G:H2'	23:BB:1167:C:H6	1.64	0.62
23:BB:1309:G:OP1	49:B2:9:VAL:HG12	1.99	0.62
23:BB:1508:A:H5'	23:BB:1509:A:N6	2.13	0.62
23:BB:1678:A:H2'	23:BB:1679:A:H8	1.64	0.62
23:BB:2277:G:H5''	34:BM:86:LYS:HB2	1.81	0.62
23:BB:2841:C:H2'	23:BB:2842:G:C8	2.33	0.62
24:BV:80:HIS:CD2	24:BV:83:LYS:HB2	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BC:202:ARG:HH11	25:BC:213:ARG:NE	1.96	0.62
34:BM:34:LYS:HB3	34:BM:129:THR:HG22	1.80	0.62
38:BQ:14:LYS:O	38:BQ:18:LYS:HB2	1.98	0.62
8:CI:25:GLY:HA3	8:CI:57:VAL:N	2.13	0.62
9:CJ:28:THR:O	9:CJ:32:THR:HG22	1.98	0.62
9:CJ:52:LEU:H	9:CJ:52:LEU:HD12	1.64	0.62
23:DB:414:C:H2'	23:DB:415:A:H8	1.63	0.62
23:DB:581:C:H2'	23:DB:582:A:C8	2.33	0.62
23:DB:1080:A:H4'	52:DI:126:ARG:HD3	1.81	0.62
32:DK:7:MET:SD	32:DK:20:MET:HB2	2.39	0.62
1:AA:462:G:H2'	1:AA:462:G:N3	2.12	0.62
1:AA:750:C:O2	14:AO:22:GLY:HA3	2.00	0.62
23:BB:1244:A:H5''	33:BL:8:PRO:CD	2.27	0.62
23:BB:1341:G:N2	23:BB:1398:C:H4'	2.13	0.62
23:BB:1690:A:H2'	23:BB:1691:C:O4'	1.98	0.62
23:BB:2898:U:H2'	23:BB:2899:A:H8	1.64	0.62
24:BV:28:ALA:HA	24:BV:88:HIS:CE1	2.34	0.62
26:BD:179:ARG:HH11	26:BD:179:ARG:HB3	1.64	0.62
28:BF:102:LEU:HD22	28:BF:103:ILE:H	1.65	0.62
29:BG:152:ARG:HG3	29:BG:153:PRO:HD2	1.81	0.62
30:BH:58:LEU:O	30:BH:62:LEU:HG	1.99	0.62
1:CA:600:A:H2'	1:CA:601:G:H8	1.63	0.62
1:CA:978:A:HO2'	1:CA:1322:C:H5	1.46	0.62
20:CB:65:LYS:H	20:CB:158:ASP:CG	2.07	0.62
22:DA:29:A:H3'	22:DA:30:C:H6	1.64	0.62
23:DB:639:U:H2'	23:DB:640:C:H6	1.64	0.62
23:DB:1287:A:N7	35:DN:105:GLY:HA3	2.13	0.62
23:DB:1853:A:N1	23:DB:2087:G:H1'	2.14	0.62
23:DB:2141:G:H2'	23:DB:2142:A:C8	2.34	0.62
33:DL:85:VAL:HG21	33:DL:94:THR:HB	1.81	0.62
52:DI:121:ILE:HD13	52:DI:121:ILE:N	2.13	0.62
1:AA:792:A:H1'	1:AA:794:A:N7	2.14	0.62
1:AA:1278:G:H4'	1:AA:1279:G:C5'	2.29	0.62
3:AD:56:GLU:HG2	3:AD:198:LEU:HD12	1.81	0.62
7:AH:6:ILE:HB	7:AH:76:ARG:NH1	2.15	0.62
7:AH:25:THR:HA	7:AH:58:LEU:O	1.99	0.62
9:AJ:28:THR:O	9:AJ:32:THR:HG22	1.99	0.62
13:AN:42:ASN:O	13:AN:46:LYS:HG2	1.99	0.62
18:AS:31:ARG:HA	18:AS:49:ALA:HB3	1.81	0.62
23:BB:135:U:O2'	23:BB:136:G:H5'	1.99	0.62
23:BB:988:A:H3'	45:BY:13:ILE:HD11	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1847:A:H4'	23:BB:1848:A:C8	2.34	0.62
23:BB:2563:U:H2'	23:BB:2565:A:OP2	2.00	0.62
25:BC:36:ASN:HD21	25:BC:85:ASN:ND2	1.97	0.62
28:BF:168:LEU:HD13	28:BF:169:LEU:N	2.14	0.62
30:BH:5:LEU:O	30:BH:6:LEU:HD12	1.99	0.62
52:BI:105:LEU:HD11	52:BI:139:VAL:HG11	1.80	0.62
6:CG:14:ASP:CB	6:CG:19:SER:H	2.12	0.62
6:CG:86:VAL:HG13	6:CG:151:ALA:O	1.98	0.62
9:CJ:24:GLU:HG3	9:CJ:90:LEU:HD11	1.81	0.62
23:DB:264:C:C2'	23:DB:265:A:H5''	2.28	0.62
23:DB:718:A:H3'	23:DB:719:C:H6	1.64	0.62
23:DB:784:G:C6	25:DC:227:VAL:HG11	2.34	0.62
23:DB:987:C:H2'	23:DB:988:A:O4'	1.99	0.62
23:DB:2841:C:H2'	23:DB:2842:G:C8	2.34	0.62
23:DB:2898:U:H2'	23:DB:2899:A:C8	2.35	0.62
25:DC:136:VAL:HG12	25:DC:137:GLY:H	1.64	0.62
26:DD:8:LYS:HB2	26:DD:201:LEU:HD21	1.80	0.62
28:DF:168:LEU:HD13	28:DF:169:LEU:N	2.14	0.62
30:DH:53:GLU:HB2	30:DH:57:LYS:HB3	1.82	0.62
33:DL:79:LEU:HD23	33:DL:82:LEU:HD11	1.81	0.62
42:DU:87:GLU:OE2	42:DU:88:ASP:HB3	1.98	0.62
50:D3:54:LEU:O	50:D3:58:ILE:HG13	1.98	0.62
52:DI:27:LEU:HD12	52:DI:32:VAL:HG11	1.79	0.62
2:AC:62:SER:HA	2:AC:97:PRO:O	1.99	0.62
5:AF:47:LEU:HD21	5:AF:57:ALA:HB3	1.81	0.62
6:AG:45:ALA:HB1	6:AG:120:ALA:HB2	1.79	0.62
9:AJ:55:PRO:HA	13:AN:80:ARG:NH2	2.15	0.62
14:AO:52:ARG:HD2	23:BB:715:A:N6	2.13	0.62
23:BB:195:A:H1'	23:BB:250:G:N2	2.14	0.62
23:BB:1407:G:H2'	23:BB:1408:G:H8	1.63	0.62
23:BB:1535:A:H5''	23:BB:1536:C:H5	1.64	0.62
26:BD:178:VAL:HG12	26:BD:179:ARG:H	1.64	0.62
36:BO:17:LYS:O	36:BO:21:LEU:HB2	1.99	0.62
41:BT:38:ALA:HB3	41:BT:81:LYS:HZ3	1.64	0.62
42:BU:11:ILE:HG22	42:BU:70:ALA:HB3	1.80	0.62
1:CA:750:C:O2	14:CO:22:GLY:HA3	1.98	0.62
1:CA:1144:G:H21	1:CA:1146:A:H62	1.46	0.62
18:CS:10:ILE:HD12	18:CS:15:LEU:HG	1.81	0.62
23:DB:1341:G:N2	23:DB:1398:C:H4'	2.13	0.62
23:DB:1353:A:H2'	23:DB:1354:A:C8	2.34	0.62
23:DB:2654:A:N1	23:DB:2665:A:H5''	2.14	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DD:109:VAL:HG11	26:DD:193:VAL:HB	1.81	0.62
26:DD:115:GLY:HA2	26:DD:167:ASN:HB2	1.81	0.62
29:DG:89:VAL:HG12	29:DG:90:GLY:H	1.64	0.62
31:DJ:40:HIS:ND1	31:DJ:41:LYS:HG3	2.14	0.62
31:DJ:115:GLY:HA2	31:DJ:118:MET:HE3	1.81	0.62
32:DK:38:ILE:O	32:DK:39:ILE:HD13	2.00	0.62
42:DU:71:ILE:HD11	42:DU:82:VAL:HG22	1.82	0.62
1:AA:97:G:H2'	1:AA:98:A:O4'	1.99	0.62
1:AA:1004:A:H3'	1:AA:1024:G:N2	2.14	0.62
1:AA:1085:U:H3'	1:AA:1086:U:C5	2.34	0.62
11:AL:40:THR:HG22	11:AL:41:PRO:HD2	1.81	0.62
22:BA:7:G:H1'	36:BO:38:GLN:HE22	1.63	0.62
22:BA:74:U:H2'	22:BA:75:G:C8	2.33	0.62
23:BB:445:C:O2'	23:BB:446:G:H5'	1.99	0.62
23:BB:495:G:H1'	40:BS:57:ASN:ND2	2.15	0.62
23:BB:946:C:H2'	23:BB:947:A:H8	1.65	0.62
23:BB:1260:A:H2'	23:BB:1261:C:C6	2.34	0.62
23:BB:2066:C:O2'	23:BB:2067:G:H5'	1.98	0.62
23:BB:2810:A:H2'	23:BB:2811:G:O4'	1.99	0.62
25:BC:221:GLY:C	25:BC:223:ALA:H	2.07	0.62
32:BK:38:ILE:O	32:BK:39:ILE:HD13	1.99	0.62
1:CA:946:A:H2'	1:CA:947:G:H8	1.63	0.62
1:CA:1053:G:H4'	1:CA:1054:C:H5'	1.81	0.62
2:CC:59:PRO:HG2	2:CC:62:SER:OG	2.00	0.62
23:DB:545:U:H4'	23:DB:550:C:O2	2.00	0.62
23:DB:1198:U:H2'	23:DB:1199:U:C6	2.35	0.62
26:DD:105:LYS:HE3	26:DD:176:ASP:OD1	1.99	0.62
28:DF:62:GLN:OE1	28:DF:94:ARG:HG2	2.00	0.62
30:DH:41:LYS:O	30:DH:44:ILE:HG12	1.99	0.62
32:DK:70:ARG:HB3	32:DK:76:VAL:HG22	1.82	0.62
38:DQ:57:ARG:HH11	38:DQ:57:ARG:CB	2.12	0.62
38:DQ:74:SER:OG	38:DQ:77:LYS:HD3	2.00	0.62
6:AG:14:ASP:N	6:AG:23:ALA:HB2	2.13	0.62
8:AI:126:PHE:CE1	8:AI:129:ARG:HD3	2.35	0.62
11:AL:113:ARG:HG2	11:AL:118:VAL:HB	1.82	0.62
19:AT:24:ARG:HD2	19:AT:28:ARG:NH2	2.14	0.62
23:BB:172:A:H2'	23:BB:173:A:H8	1.63	0.62
23:BB:639:U:H2'	23:BB:640:C:H6	1.64	0.62
23:BB:675:A:H4'	27:BE:62:GLN:HE22	1.63	0.62
23:BB:1593:A:H2'	23:BB:1594:U:C6	2.35	0.62
23:BB:1704:C:O2'	23:BB:1705:A:H5'	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BC:131:MET:HE1	25:BC:143:VAL:HG13	1.81	0.62
31:BJ:23:LYS:HE2	31:BJ:142:ILE:HA	1.82	0.62
32:BK:43:ILE:HG21	32:BK:46:ALA:HB2	1.80	0.62
36:BO:53:THR:HB	36:BO:65:THR:HG22	1.81	0.62
1:CA:162:A:H2'	1:CA:163:C:O4'	2.00	0.62
1:CA:482:A:H2'	1:CA:483:C:O4'	2.00	0.62
1:CA:763:G:H2'	1:CA:764:C:C6	2.34	0.62
4:CE:37:VAL:HG11	4:CE:113:VAL:HG12	1.82	0.62
8:CI:18:VAL:HG11	8:CI:82:ILE:HG12	1.81	0.62
13:CN:26:LEU:HA	13:CN:29:ILE:HD12	1.82	0.62
20:CB:205:ALA:O	20:CB:209:VAL:HG22	1.98	0.62
23:DB:2064:C:H2'	23:DB:2065:C:C6	2.33	0.62
23:DB:2102:G:H2'	23:DB:2103:C:O4'	1.99	0.62
25:DC:94:LEU:HA	25:DC:100:ARG:HB3	1.80	0.62
26:DD:53:GLY:C	26:DD:76:GLY:HA2	2.24	0.62
28:DF:72:SER:HA	28:DF:80:GLN:N	2.15	0.62
34:DM:71:LYS:HB3	34:DM:93:VAL:HG12	1.81	0.62
37:DP:24:THR:O	37:DP:25:VAL:HG22	1.99	0.62
38:DQ:14:LYS:O	38:DQ:18:LYS:HB2	1.99	0.62
38:DQ:108:LEU:HD11	39:DR:40:MET:HE1	1.80	0.62
44:DX:1:MET:HB3	44:DX:4:LYS:HD3	1.80	0.62
1:AA:46:G:O2'	1:AA:365:U:H1'	1.99	0.62
1:AA:1323:G:H4'	1:AA:1362:A:C4	2.35	0.62
3:AD:96:ARG:HB3	3:AD:98:ASP:OD2	2.00	0.62
23:BB:189:G:H2'	23:BB:205:G:N2	2.14	0.62
23:BB:784:G:N1	25:BC:227:VAL:HG11	2.15	0.62
23:BB:1133:A:H4'	23:BB:1134:A:O5'	2.00	0.62
23:BB:1406:U:H2'	23:BB:1407:G:C8	2.35	0.62
23:BB:1657:U:O2'	23:BB:1658:C:H5'	2.00	0.62
23:BB:1674:G:H21	23:BB:1677:A:N6	1.96	0.62
23:BB:2312:U:O2	28:BF:38:GLY:HA3	1.99	0.62
26:BD:53:GLY:C	26:BD:76:GLY:HA2	2.25	0.62
28:BF:36:ASN:HA	28:BF:87:LYS:HA	1.82	0.62
29:BG:132:LEU:HD23	29:BG:132:LEU:H	1.64	0.62
38:BQ:65:ASN:CB	38:BQ:75:TYR:HB2	2.29	0.62
46:BZ:6:GLN:NE2	46:BZ:50:ARG:H	1.94	0.62
1:CA:154:U:H2'	1:CA:155:A:C8	2.35	0.62
1:CA:1092:A:H5''	6:CG:3:ARG:HH11	1.64	0.62
3:CD:84:ASN:ND2	4:CE:101:GLY:HA3	2.14	0.62
12:CM:63:VAL:HG13	12:CM:67:ASP:HB2	1.82	0.62
13:CN:63:CYS:HB3	13:CN:67:GLY:H	1.63	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:522:A:H2'	23:DB:523:C:C6	2.35	0.62
23:DB:2834:G:H1'	23:DB:2883:A:H61	1.63	0.62
32:DK:104:THR:H	32:DK:107:LEU:HD12	1.64	0.62
34:DM:64:TRP:HB2	34:DM:104:GLU:HB2	1.81	0.62
1:AA:131:A:H2'	1:AA:132:C:C6	2.34	0.62
1:AA:678:U:H2'	1:AA:679:C:C6	2.35	0.62
1:AA:1132:C:H2'	1:AA:1133:G:C8	2.34	0.62
1:AA:1414:U:H2'	1:AA:1415:G:H8	1.65	0.62
6:AG:78:ARG:HH11	6:AG:81:GLY:H	1.47	0.62
23:BB:1760:C:H2'	23:BB:1761:C:O4'	1.99	0.62
23:BB:1778:U:H2'	23:BB:1784:A:H62	1.64	0.62
23:BB:2073:C:H5''	25:BC:227:VAL:HG12	1.80	0.62
23:BB:2737:G:H2'	23:BB:2738:A:C8	2.34	0.62
23:BB:2772:C:H2'	23:BB:2773:C:H6	1.64	0.62
23:BB:2820:A:H4'	35:BN:3:HIS:ND1	2.15	0.62
28:BF:41:GLU:O	28:BF:43:ILE:HG22	2.00	0.62
28:BF:72:SER:HA	28:BF:80:GLN:N	2.15	0.62
30:BH:32:PRO:O	30:BH:33:GLN:HB2	1.99	0.62
31:BJ:136:GLN:N	31:BJ:137:PRO:HD3	2.15	0.62
42:BU:11:ILE:O	42:BU:12:VAL:HB	2.00	0.62
46:BZ:45:ARG:HE	46:BZ:47:VAL:CG1	2.13	0.62
1:CA:865:A:C2	1:CA:918:A:H4'	2.34	0.62
11:CL:14:LYS:HG2	11:CL:16:ALA:H	1.63	0.62
20:CB:71:THR:CG2	20:CB:94:ARG:H	2.12	0.62
23:DB:557:C:H2'	23:DB:558:U:C6	2.35	0.62
23:DB:946:C:H2'	23:DB:947:A:H8	1.64	0.62
23:DB:947:A:H2'	23:DB:948:C:C6	2.35	0.62
23:DB:1549:A:H2'	23:DB:1550:C:C6	2.34	0.62
23:DB:1760:C:H2'	23:DB:1761:C:O4'	1.98	0.62
23:DB:1778:U:H2'	23:DB:1784:A:N6	2.15	0.62
23:DB:2156:G:H2'	23:DB:2157:G:H4'	1.81	0.62
23:DB:2443:C:H2'	23:DB:2444:G:C8	2.35	0.62
36:DO:67:ASN:HB3	36:DO:70:ALA:HB2	1.82	0.62
36:DO:111:ARG:HD2	36:DO:117:PHE:O	2.00	0.62
38:DQ:91:ARG:HH12	39:DR:10:LYS:CB	2.12	0.62
42:DU:9:GLU:HG3	42:DU:21:ARG:HD2	1.81	0.62
44:DX:56:LEU:C	44:DX:58:ASN:H	2.08	0.62
45:DY:7:THR:HB	45:DY:55:LYS:H	1.64	0.62
1:AA:266:G:O2'	1:AA:267:C:H3'	1.99	0.62
1:AA:658:C:H2'	1:AA:659:U:H6	1.63	0.62
1:AA:806:C:H2'	1:AA:807:A:C8	2.35	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:834:U:H2'	1:AA:835:U:C6	2.35	0.62
1:AA:1151:A:HO2'	1:AA:1152:A:H8	1.45	0.62
1:AA:1238:A:H5'	1:AA:1336:C:H41	1.64	0.62
18:AS:42:ASN:N	18:AS:42:ASN:HD22	1.95	0.62
20:AB:62:ARG:HD2	20:AB:62:ARG:H	1.65	0.62
20:AB:221:ARG:HG3	20:AB:222:GLU:N	2.15	0.62
21:AU:40:PRO:HA	21:AU:44:ARG:HB2	1.80	0.62
23:BB:18:U:H2'	23:BB:19:A:H8	1.64	0.62
23:BB:1149:G:H2'	23:BB:1150:C:C6	2.35	0.62
23:BB:1287:A:H3'	23:BB:1288:G:H21	1.64	0.62
23:BB:2269:G:C4'	43:BW:19:ARG:HH12	2.12	0.62
23:BB:2898:U:H2'	23:BB:2899:A:C8	2.35	0.62
33:BL:19:LEU:O	33:BL:21:ARG:HG2	2.00	0.62
35:BN:1:MET:HE3	35:BN:3:HIS:HD2	1.65	0.62
52:BI:85:ILE:HD13	52:BI:137:LEU:HD21	1.82	0.62
1:CA:487:A:H2'	1:CA:488:C:O4'	2.00	0.62
5:CF:3:HIS:CE1	5:CF:95:ALA:H	2.18	0.62
23:DB:704:G:H2'	23:DB:726:G:N2	2.14	0.62
24:DV:80:HIS:CD2	24:DV:83:LYS:HB2	2.35	0.62
25:DC:36:ASN:HD21	25:DC:85:ASN:HD21	1.46	0.62
25:DC:70:LYS:HE2	25:DC:99:GLU:HB3	1.82	0.62
30:DH:83:LYS:O	30:DH:90:LEU:HA	2.00	0.62
31:DJ:40:HIS:CE1	31:DJ:41:LYS:HG3	2.35	0.62
32:DK:71:ARG:HG3	32:DK:105:ARG:HH21	1.65	0.62
43:DW:39:GLN:NE2	43:DW:43:LYS:HB2	2.14	0.62
1:AA:335:C:H2'	1:AA:336:A:C8	2.34	0.62
1:AA:482:A:H2'	1:AA:483:C:O4'	2.00	0.62
1:AA:1053:G:H4'	1:AA:1054:C:H5'	1.82	0.62
1:AA:1296:C:H4'	1:AA:1302:C:N3	2.15	0.62
1:AA:1463:U:H2'	1:AA:1464:U:C6	2.34	0.62
16:AQ:58:VAL:HG12	16:AQ:77:VAL:HA	1.80	0.62
20:AB:72:LYS:HE3	20:AB:203:ASP:O	2.00	0.62
22:BA:75:G:H1'	24:BV:29:ILE:HG12	1.81	0.62
23:BB:1109:C:H2'	23:BB:1110:G:C4	2.35	0.62
23:BB:2693:G:H2'	23:BB:2694:G:H8	1.63	0.62
28:BF:31:GLU:O	28:BF:32:LYS:HD3	2.00	0.62
36:BO:40:ILE:HA	36:BO:47:VAL:HA	1.80	0.62
41:BT:32:LEU:N	41:BT:83:ALA:HB3	2.13	0.62
43:BW:35:ILE:O	43:BW:36:ILE:C	2.43	0.62
1:CA:255:G:H2'	1:CA:256:U:C6	2.34	0.62
1:CA:539:A:H2'	1:CA:540:G:C8	2.35	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:678:U:H2'	1:CA:679:C:H6	1.64	0.62
1:CA:909:A:H2'	1:CA:910:C:O4'	1.99	0.62
1:CA:1141:C:H2'	1:CA:1142:G:H8	1.65	0.62
1:CA:1149:C:H2'	1:CA:1150:A:C8	2.35	0.62
1:CA:1432:G:H1'	1:CA:1468:A:N6	2.14	0.62
6:CG:14:ASP:N	6:CG:23:ALA:HB2	2.14	0.62
22:DA:32:U:H4'	22:DA:52:A:N6	2.15	0.62
23:DB:62:U:O2'	23:DB:63:A:H5'	1.98	0.62
23:DB:64:A:H2'	23:DB:65:U:C6	2.35	0.62
23:DB:321:U:OP2	27:DE:130:LYS:HD3	2.00	0.62
23:DB:359:G:H2'	23:DB:360:U:H5''	1.80	0.62
23:DB:721:A:H2'	23:DB:722:A:H8	1.65	0.62
23:DB:1024:G:C3'	23:DB:1025:G:H5''	2.28	0.62
23:DB:1149:G:H2'	23:DB:1150:C:C6	2.34	0.62
23:DB:1485:U:H2'	23:DB:1486:U:C6	2.35	0.62
23:DB:1518:C:H2'	23:DB:1519:G:C8	2.35	0.62
23:DB:1557:C:H3'	23:DB:1558:C:H5''	1.82	0.62
23:DB:1802:A:H2'	23:DB:1803:A:C8	2.35	0.62
23:DB:2815:C:H2'	23:DB:2816:G:H8	1.65	0.62
23:DB:2895:G:H2'	23:DB:2896:C:H6	1.64	0.62
27:DE:188:MET:HG2	27:DE:193:VAL:HG22	1.82	0.62
28:DF:41:GLU:O	28:DF:43:ILE:HG22	1.99	0.62
51:D4:2:LYS:HG2	51:D4:3:VAL:H	1.64	0.62
1:AA:735:C:O2'	1:AA:736:C:H5'	1.99	0.61
3:AD:12:ARG:HA	3:AD:33:ILE:HD12	1.82	0.61
18:AS:5:LYS:O	18:AS:6:LYS:HD2	2.00	0.61
23:BB:592:A:H2'	23:BB:593:U:C6	2.35	0.61
23:BB:717:C:H3'	23:BB:718:A:H5''	1.82	0.61
23:BB:753:A:H2'	23:BB:754:U:C6	2.35	0.61
23:BB:2264:C:H41	43:BW:11:ASN:HD21	1.48	0.61
23:BB:2743:U:H2'	23:BB:2744:G:O4'	1.99	0.61
25:BC:127:ASN:O	25:BC:190:THR:HA	1.99	0.61
26:BD:13:ARG:HD3	26:BD:15:PHE:HE1	1.65	0.61
27:BE:117:ARG:HH12	33:BL:2:ARG:HB2	1.64	0.61
52:BI:18:ASN:N	52:BI:19:PRO:HD2	2.14	0.61
3:CD:123:MET:HB3	3:CD:128:VAL:HA	1.82	0.61
4:CE:93:VAL:HG13	4:CE:126:ALA:HB2	1.82	0.61
6:CG:2:ARG:HH11	6:CG:2:ARG:CB	2.13	0.61
9:CJ:53:ILE:HG22	9:CJ:61:ALA:HB1	1.82	0.61
23:DB:37:C:O2'	27:DE:45:ALA:HA	2.00	0.61
23:DB:63:A:H8	23:DB:63:A:OP2	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:155:A:H2'	23:DB:156:A:C8	2.34	0.61
23:DB:419:U:H2'	23:DB:420:C:C6	2.35	0.61
23:DB:441:U:H2'	23:DB:442:G:H8	1.65	0.61
23:DB:1013:C:H2'	23:DB:1014:A:H8	1.64	0.61
42:DU:70:ALA:HB1	42:DU:79:ALA:CB	2.30	0.61
1:AA:600:A:H2'	1:AA:601:G:H8	1.64	0.61
1:AA:1179:A:H2'	1:AA:1180:A:O4'	2.01	0.61
56:AA:2260:HOH:O	8:AI:110:VAL:HG13	1.99	0.61
3:AD:29:THR:HG22	3:AD:30:LYS:HD3	1.80	0.61
8:AI:7:GLY:HA2	8:AI:85:ALA:HB2	1.82	0.61
12:AM:89:ARG:HD3	12:AM:95:PRO:O	1.99	0.61
20:AB:202:ASN:HD22	20:AB:204:ASP:N	1.90	0.61
23:BB:633:A:OP1	33:BL:68:SER:HB2	2.00	0.61
23:BB:987:C:H2'	23:BB:988:A:O4'	2.00	0.61
23:BB:1591:A:H2'	23:BB:1592:C:O4'	2.00	0.61
34:BM:54:THR:C	34:BM:56:ALA:H	2.08	0.61
41:BT:11:LEU:HD22	41:BT:11:LEU:N	2.15	0.61
46:BZ:6:GLN:HE22	46:BZ:50:ARG:N	1.95	0.61
1:CA:46:G:O2'	1:CA:365:U:H1'	2.00	0.61
5:CF:36:ILE:HG13	5:CF:64:VAL:HG13	1.81	0.61
16:CQ:58:VAL:HG12	16:CQ:77:VAL:HA	1.82	0.61
19:CT:79:THR:HA	19:CT:82:ILE:HG12	1.82	0.61
21:CU:33:ARG:HG2	21:CU:34:ARG:H	1.65	0.61
23:DB:27:G:H1'	23:DB:513:A:H61	1.63	0.61
23:DB:441:U:H2'	23:DB:442:G:C8	2.36	0.61
23:DB:443:A:C5	27:DE:40:ARG:HD3	2.34	0.61
23:DB:1373:A:H2'	23:DB:1374:G:O4'	1.99	0.61
23:DB:2810:A:H2'	23:DB:2811:G:O4'	1.99	0.61
26:DD:40:LEU:HA	26:DD:45:TYR:N	2.14	0.61
26:DD:113:SER:HB3	26:DD:168:GLU:N	2.13	0.61
28:DF:37:MET:HB2	28:DF:56:LEU:HD21	1.82	0.61
30:DH:3:VAL:HG12	30:DH:38:PRO:HA	1.81	0.61
34:DM:54:THR:C	34:DM:56:ALA:H	2.08	0.61
36:DO:53:THR:HB	36:DO:65:THR:HG22	1.81	0.61
44:DX:49:ASP:O	44:DX:53:VAL:HG23	1.99	0.61
1:AA:131:A:H2'	1:AA:132:C:H6	1.64	0.61
1:AA:812:G:O2'	1:AA:813:U:H6	1.72	0.61
1:AA:1239:A:H4'	1:AA:1240:U:H5'	1.82	0.61
1:AA:1342:C:H2'	1:AA:1343:G:H8	1.63	0.61
8:AI:25:GLY:HA3	8:AI:57:VAL:CA	2.30	0.61
18:AS:50:VAL:O	18:AS:57:VAL:HG22	1.99	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AB:187:ASP:HB3	20:AB:201:GLY:O	2.01	0.61
23:BB:300:A:H2'	23:BB:334:C:H1'	1.81	0.61
23:BB:355:U:H2'	23:BB:356:G:H8	1.65	0.61
23:BB:670:A:H4'	33:BL:42:SER:HB2	1.82	0.61
23:BB:1535:A:H5''	23:BB:1536:C:C5	2.35	0.61
23:BB:1857:G:HO2'	23:BB:1858:A:H8	1.46	0.61
23:BB:2366:A:H2'	23:BB:2367:G:O4'	2.01	0.61
25:BC:136:VAL:HG12	25:BC:137:GLY:H	1.64	0.61
35:BN:24:MET:HG3	35:BN:44:LEU:HD22	1.82	0.61
38:BQ:93:ILE:HG23	38:BQ:94:LEU:HD22	1.81	0.61
42:BU:81:ARG:HB2	42:BU:96:LYS:CG	2.29	0.61
49:B2:27:GLY:O	49:B2:30:VAL:HB	2.00	0.61
1:CA:410:G:P	3:CD:25:ARG:HD2	2.40	0.61
1:CA:1244:G:H2'	1:CA:1245:C:C6	2.35	0.61
1:CA:1409:C:H4'	23:DB:1915:U:O4	2.00	0.61
21:CU:40:PRO:HA	21:CU:44:ARG:HB2	1.82	0.61
23:DB:233:A:H61	23:DB:428:A:N6	1.98	0.61
23:DB:417:C:H2'	23:DB:418:C:C6	2.36	0.61
23:DB:851:C:O2	45:DY:42:ALA:HB1	2.00	0.61
23:DB:1591:A:H2'	23:DB:1592:C:O4'	2.00	0.61
28:DF:71:LYS:HE2	28:DF:73:VAL:HB	1.81	0.61
42:DU:26:ASN:HD22	42:DU:26:ASN:N	1.96	0.61
1:AA:253:A:H2'	1:AA:254:G:C8	2.35	0.61
1:AA:512:U:H2'	1:AA:513:C:C6	2.36	0.61
1:AA:825:A:H2'	1:AA:826:C:C6	2.34	0.61
1:AA:1029:U:H1'	1:AA:1032:G:O6	2.00	0.61
4:AE:61:LYS:O	4:AE:65:LYS:HG2	2.01	0.61
4:AE:105:ILE:HD11	4:AE:123:LEU:HB3	1.83	0.61
6:AG:2:ARG:HB3	6:AG:3:ARG:NH1	2.15	0.61
20:AB:163:ILE:HG23	20:AB:164:ASP:N	2.15	0.61
23:BB:27:G:H1'	23:BB:513:A:H61	1.65	0.61
23:BB:49:A:H5''	23:BB:51:G:O4'	2.01	0.61
23:BB:233:A:H61	23:BB:428:A:N6	1.98	0.61
23:BB:1024:G:C3'	23:BB:1025:G:H5''	2.30	0.61
23:BB:1518:C:H2'	23:BB:1519:G:C8	2.35	0.61
23:BB:1592:C:H2'	23:BB:1593:A:H8	1.65	0.61
23:BB:1684:G:H2'	23:BB:1685:C:C6	2.35	0.61
25:BC:94:LEU:HA	25:BC:100:ARG:HB3	1.81	0.61
25:BC:103:ILE:HG22	25:BC:105:ALA:H	1.64	0.61
31:BJ:40:HIS:ND1	31:BJ:41:LYS:HG3	2.15	0.61
31:BJ:101:ILE:O	31:BJ:105:VAL:HG22	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BJ:111:LYS:HB3	31:BJ:113:PRO:HD2	1.81	0.61
35:BN:85:PRO:HA	35:BN:88:ALA:HB2	1.82	0.61
38:BQ:79:ILE:O	38:BQ:82:LEU:HB2	2.00	0.61
41:BT:45:ALA:HA	41:BT:48:GLN:HB2	1.82	0.61
50:B3:54:LEU:HG	50:B3:58:ILE:HD11	1.82	0.61
1:CA:1029:U:H1'	1:CA:1032:G:O6	2.00	0.61
1:CA:1382:C:H4'	6:CG:78:ARG:NH2	2.15	0.61
1:CA:1463:U:H2'	1:CA:1464:U:C6	2.36	0.61
8:CI:17:ARG:O	8:CI:64:ILE:HA	2.00	0.61
19:CT:66:ILE:HG22	19:CT:67:HIS:N	2.15	0.61
23:DB:402:A:H2'	23:DB:403:U:O4'	1.99	0.61
23:DB:639:U:H2'	23:DB:640:C:C6	2.35	0.61
23:DB:1100:C:OP2	52:DI:2:LYS:HB3	2.00	0.61
23:DB:1847:A:H4'	23:DB:1848:A:C8	2.35	0.61
23:DB:1917:U:H2'	23:DB:1918:A:H5'	1.82	0.61
23:DB:2041:U:H2'	23:DB:2042:A:C8	2.35	0.61
25:DC:202:ARG:HH11	25:DC:213:ARG:NE	1.97	0.61
35:DN:9:GLN:HA	35:DN:17:ARG:NE	2.15	0.61
39:DR:4:VAL:HG21	39:DR:39:LEU:HG	1.81	0.61
52:DI:128:ILE:HA	52:DI:131:THR:HG23	1.81	0.61
1:AA:958:A:H61	18:AS:53:GLY:HA3	1.65	0.61
1:AA:1343:G:H2'	1:AA:1344:C:C6	2.36	0.61
16:AQ:75:VAL:HG23	16:AQ:76:ARG:HG2	1.82	0.61
20:AB:101:THR:HG22	20:AB:174:GLU:OE1	1.99	0.61
22:BA:24:G:O2'	22:BA:25:U:H5''	2.01	0.61
23:BB:63:A:H8	23:BB:63:A:OP2	1.83	0.61
23:BB:1485:U:H2'	23:BB:1486:U:H6	1.66	0.61
41:BT:18:GLU:C	41:BT:20:ALA:H	2.07	0.61
1:CA:41:G:H2'	1:CA:42:G:C8	2.35	0.61
1:CA:335:C:H2'	1:CA:336:A:H8	1.64	0.61
1:CA:978:A:H5'	1:CA:1362:A:N6	2.14	0.61
1:CA:987:G:O2'	1:CA:988:G:H5'	2.00	0.61
4:CE:81:GLN:H	4:CE:146:MET:CE	2.14	0.61
5:CF:42:TRP:HB2	5:CF:59:TYR:HB2	1.82	0.61
8:CI:29:ILE:HD13	8:CI:78:ILE:HD13	1.81	0.61
13:CN:9:GLU:HB2	13:CN:62:ARG:NE	2.15	0.61
18:CS:62:THR:HG22	18:CS:63:ASP:H	1.66	0.61
23:DB:246:C:H2'	23:DB:247:G:H5'	1.81	0.61
23:DB:401:A:H2'	23:DB:402:A:H8	1.66	0.61
23:DB:1550:C:H2'	23:DB:1551:A:C8	2.36	0.61
23:DB:1579:A:H2'	23:DB:1580:A:C8	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2366:A:H2'	23:DB:2367:G:O4'	2.01	0.61
23:DB:2415:G:H4'	33:DL:66:PHE:HB2	1.81	0.61
23:DB:2472:G:H2'	23:DB:2475:C:H42	1.66	0.61
31:DJ:20:ALA:HA	31:DJ:23:LYS:HG2	1.81	0.61
31:DJ:101:ILE:O	31:DJ:105:VAL:HG22	2.00	0.61
33:DL:19:LEU:O	33:DL:21:ARG:HG2	2.00	0.61
34:DM:36:VAL:HB	34:DM:127:LYS:O	2.01	0.61
39:DR:5:PHE:O	39:DR:11:GLN:HA	2.00	0.61
1:AA:473:U:H2'	1:AA:474:G:H8	1.65	0.61
3:AD:153:ARG:HG3	3:AD:154:VAL:H	1.65	0.61
23:BB:2639:A:H2'	23:BB:2640:G:O4'	1.99	0.61
25:BC:70:LYS:HE2	25:BC:99:GLU:HB3	1.83	0.61
29:BG:137:LYS:HA	29:BG:140:ILE:HD11	1.81	0.61
30:BH:79:THR:HG22	30:BH:145:ASN:CG	2.25	0.61
1:CA:668:G:O2'	14:CO:45:HIS:HB3	2.00	0.61
1:CA:792:A:H1'	1:CA:794:A:N7	2.15	0.61
1:CA:1213:A:H2'	1:CA:1215:G:N7	2.16	0.61
18:CS:30:LEU:H	18:CS:48:ILE:HA	1.66	0.61
23:DB:1152:C:O2'	23:DB:1153:C:H5'	2.01	0.61
23:DB:1335:C:H2'	23:DB:1336:A:H8	1.65	0.61
23:DB:1461:C:H2'	23:DB:1462:C:C6	2.34	0.61
24:DV:2:PHE:HD1	24:DV:50:MET:HE2	1.66	0.61
25:DC:104:LEU:O	25:DC:105:ALA:HB3	2.01	0.61
25:DC:145:MET:HB2	25:DC:152:GLN:NE2	2.14	0.61
25:DC:158:GLY:N	25:DC:194:VAL:HG13	2.15	0.61
25:DC:221:GLY:C	25:DC:223:ALA:H	2.08	0.61
26:DD:97:SER:HB3	26:DD:99:GLU:HG2	1.81	0.61
29:DG:152:ARG:NH1	29:DG:162:ARG:HA	2.15	0.61
31:DJ:72:LYS:O	31:DJ:73:VAL:HG13	2.00	0.61
37:DP:6:GLN:HA	37:DP:9:GLN:HG2	1.82	0.61
41:DT:45:ALA:HA	41:DT:48:GLN:HB2	1.81	0.61
43:DW:24:ARG:HD2	43:DW:25:PHE:N	2.16	0.61
52:DI:20:SER:O	52:DI:25:PRO:HD2	2.00	0.61
1:AA:204:G:H2'	1:AA:205:A:C8	2.36	0.61
1:AA:524:G:H2'	1:AA:525:C:C6	2.36	0.61
3:AD:106:PHE:CD1	3:AD:144:ILE:HD11	2.36	0.61
5:AF:79:ARG:NH2	5:AF:87:SER:HB3	2.14	0.61
23:BB:62:U:O2'	23:BB:63:A:H5'	2.00	0.61
23:BB:581:C:H2'	23:BB:582:A:C8	2.35	0.61
23:BB:1013:C:H2'	23:BB:1014:A:H8	1.66	0.61
23:BB:1381:G:H2'	23:BB:1382:G:H5'	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BL:70:LYS:O	33:BL:73:ILE:HG12	2.01	0.61
41:BT:11:LEU:HA	41:BT:34:VAL:HG12	1.81	0.61
44:BX:26:PHE:HD1	44:BX:27:ASN:HD22	1.48	0.61
49:B2:1:MET:HG2	49:B2:2:LYS:H	1.65	0.61
52:BI:7:TYR:HB2	52:BI:58:ILE:O	2.00	0.61
52:BI:20:SER:O	52:BI:25:PRO:HD2	2.01	0.61
1:CA:335:C:H2'	1:CA:336:A:C8	2.36	0.61
1:CA:1210:C:H1'	1:CA:1214:C:H2'	1.83	0.61
12:CM:79:LEU:HD21	12:CM:86:ARG:HH21	1.65	0.61
20:CB:20:ARG:HA	20:CB:38:HIS:HE1	1.65	0.61
23:DB:138:U:O3'	23:DB:139:U:H3'	1.99	0.61
23:DB:593:U:H2'	23:DB:594:U:C6	2.35	0.61
23:DB:1550:C:H2'	23:DB:1551:A:H8	1.66	0.61
23:DB:1871:A:H2'	23:DB:1872:A:C8	2.35	0.61
23:DB:2097:A:H2'	23:DB:2098:U:H6	1.65	0.61
23:DB:2457:U:C2'	23:DB:2458:G:H5'	2.31	0.61
27:DE:117:ARG:O	27:DE:186:VAL:HG12	2.00	0.61
30:DH:5:LEU:O	30:DH:6:LEU:HD12	2.01	0.61
43:DW:35:ILE:O	43:DW:36:ILE:C	2.43	0.61
44:DX:39:GLN:O	44:DX:42:LEU:HB2	2.00	0.61
48:D1:29:LYS:HE2	48:D1:31:GLU:OE1	2.00	0.61
50:D3:51:LYS:HA	50:D3:54:LEU:HB2	1.81	0.61
52:DI:25:PRO:O	52:DI:29:GLN:HG3	2.00	0.61
52:DI:42:ASN:HA	52:DI:45:THR:OG1	1.99	0.61
1:AA:1486:G:H2'	1:AA:1487:G:C1'	2.30	0.61
3:AD:169:TRP:CE2	3:AD:185:PRO:HB3	2.35	0.61
4:AE:28:ARG:NH1	4:AE:30:PHE:HB3	2.15	0.61
23:BB:402:A:H2'	23:BB:403:U:O4'	2.01	0.61
23:BB:967:U:H2'	23:BB:968:C:C6	2.36	0.61
23:BB:1130:U:C2	23:BB:2025:C:H5''	2.36	0.61
23:BB:1287:A:N7	35:BN:105:GLY:HA3	2.15	0.61
23:BB:1843:C:H5''	25:BC:250:GLN:HE21	1.66	0.61
23:BB:2722:G:H2'	23:BB:2723:C:C6	2.36	0.61
25:BC:75:ALA:HB2	25:BC:95:TYR:HA	1.83	0.61
31:BJ:8:PRO:HG3	31:BJ:48:VAL:HG22	1.83	0.61
32:BK:104:THR:H	32:BK:107:LEU:HD12	1.65	0.61
34:BM:71:LYS:HB3	34:BM:93:VAL:HG12	1.81	0.61
37:BP:4:ILE:HG22	37:BP:5:LYS:N	2.14	0.61
1:CA:512:U:H2'	1:CA:513:C:C6	2.36	0.61
1:CA:1278:G:H4'	1:CA:1279:G:C5'	2.29	0.61
5:CF:100:SER:HA	17:CR:23:LYS:CE	2.30	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CM:89:ARG:NH2	12:CM:94:LEU:HD12	2.15	0.61
23:DB:154:U:H2'	23:DB:155:A:C8	2.35	0.61
23:DB:1061:U:O4'	23:DB:1070:A:H1'	2.00	0.61
23:DB:1812:U:H2'	23:DB:1813:G:C8	2.36	0.61
23:DB:2626:C:O2'	23:DB:2627:G:H5'	2.00	0.61
23:DB:2639:A:H2'	23:DB:2640:G:O4'	2.00	0.61
26:DD:136:ASN:HD21	26:DD:140:HIS:N	1.99	0.61
34:DM:19:GLY:H	34:DM:38:ARG:NH1	1.98	0.61
36:DO:94:ARG:O	36:DO:97:PHE:HB2	2.00	0.61
38:DQ:86:SER:HB3	39:DR:51:VAL:CA	2.30	0.61
40:DS:36:LEU:HB3	40:DS:48:LYS:HB2	1.81	0.61
40:DS:86:MET:HE2	40:DS:87:PRO:HD2	1.80	0.61
42:DU:11:ILE:O	42:DU:12:VAL:HB	2.01	0.61
1:AA:253:A:H2'	1:AA:254:G:H8	1.66	0.61
1:AA:946:A:H2'	1:AA:947:G:H8	1.65	0.61
1:AA:1144:G:H21	1:AA:1146:A:H62	1.48	0.61
1:AA:1271:A:H5'	1:AA:1314:C:H5''	1.83	0.61
1:AA:1411:C:O2'	1:AA:1412:C:H5'	2.00	0.61
9:AJ:24:GLU:HG3	9:AJ:90:LEU:HD11	1.83	0.61
22:BA:94:A:H2'	22:BA:95:U:O4'	2.00	0.61
23:BB:807:U:H2'	23:BB:808:G:C8	2.35	0.61
23:BB:975:A:H1'	23:BB:990:A:C2	2.36	0.61
23:BB:1597:A:H5''	23:BB:1598:A:H5'	1.83	0.61
35:BN:49:GLU:OE2	35:BN:95:THR:HG22	2.00	0.61
37:BP:52:ARG:HG2	37:BP:52:ARG:HH11	1.65	0.61
47:B0:8:THR:HG23	47:B0:11:LYS:H	1.66	0.61
14:CO:72:LYS:O	14:CO:73:ASP:HB2	2.01	0.61
23:DB:2091:C:H1'	46:DZ:34:HIS:CD2	2.35	0.61
23:DB:2353:G:N3	43:DW:30:VAL:HG13	2.16	0.61
23:DB:2529:G:H4'	29:DG:174:LYS:CD	2.31	0.61
35:DN:34:ILE:O	35:DN:112:TYR:HA	2.01	0.61
43:DW:47:GLY:HA3	43:DW:80:SER:HA	1.81	0.61
1:AA:87:C:H2'	1:AA:88:U:H4'	1.83	0.61
1:AA:651:C:H2'	1:AA:652:U:C6	2.36	0.61
1:AA:1038:C:H2'	1:AA:1039:G:C8	2.36	0.61
3:AD:123:MET:HB3	3:AD:128:VAL:HA	1.82	0.61
4:AE:143:LEU:O	4:AE:146:MET:HG2	2.00	0.61
9:AJ:56:HIS:O	9:AJ:57:VAL:HG12	2.01	0.61
12:AM:21:ILE:HB	12:AM:24:VAL:CG2	2.29	0.61
23:BB:64:A:H2'	23:BB:65:U:C6	2.36	0.61
23:BB:1419:A:H2'	23:BB:1421:G:N7	2.16	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1592:C:H2'	23:BB:1593:A:C8	2.35	0.61
23:BB:1914:C:H2'	23:BB:1915:U:O4'	2.01	0.61
23:BB:2852:G:H2'	23:BB:2853:C:C6	2.36	0.61
31:BJ:40:HIS:CE1	31:BJ:41:LYS:HG3	2.36	0.61
40:BS:36:LEU:HB3	40:BS:48:LYS:HB2	1.83	0.61
42:BU:82:VAL:HG13	42:BU:93:ARG:HB3	1.83	0.61
47:B0:38:LEU:HD23	47:B0:39:ARG:H	1.65	0.61
50:B3:51:LYS:HA	50:B3:54:LEU:HB2	1.82	0.61
2:CC:13:ILE:O	2:CC:14:VAL:HG22	2.00	0.61
7:CH:11:THR:HG22	7:CH:14:ARG:HH22	1.65	0.61
23:DB:1133:A:H4'	23:DB:1134:A:O5'	2.01	0.61
23:DB:1164:C:H2'	23:DB:1165:A:C8	2.36	0.61
23:DB:2088:A:H2'	23:DB:2089:C:C6	2.36	0.61
31:DJ:111:LYS:HB3	31:DJ:113:PRO:HD2	1.82	0.61
43:DW:37:VAL:HG11	43:DW:38:ARG:HH11	1.66	0.61
52:DI:27:LEU:H	52:DI:27:LEU:CD2	2.14	0.61
1:AA:195:A:H2'	1:AA:196:A:C8	2.36	0.60
1:AA:255:G:H2'	1:AA:256:U:C6	2.36	0.60
1:AA:751:U:H4'	14:AO:23:SER:HA	1.82	0.60
3:AD:160:LEU:HA	3:AD:163:GLN:HG3	1.83	0.60
8:AI:18:VAL:HG11	8:AI:82:ILE:HG12	1.83	0.60
14:AO:72:LYS:O	14:AO:73:ASP:HB2	2.01	0.60
18:AS:18:VAL:CG2	18:AS:43:MET:HG2	2.29	0.60
19:AT:79:THR:HA	19:AT:82:ILE:HG12	1.83	0.60
23:BB:417:C:H2'	23:BB:418:C:C6	2.35	0.60
23:BB:639:U:H2'	23:BB:640:C:C6	2.35	0.60
23:BB:992:C:H4'	39:BR:74:ILE:HD13	1.82	0.60
23:BB:2369:A:O2'	23:BB:2370:G:H5'	2.00	0.60
25:BC:76:VAL:HG12	25:BC:114:GLN:HG2	1.83	0.60
27:BE:29:HIS:NE2	33:BL:8:PRO:HG3	2.16	0.60
27:BE:104:ALA:O	27:BE:108:ILE:HG22	2.01	0.60
27:BE:176:ASP:HB3	27:BE:179:SER:HB2	1.82	0.60
28:BF:125:GLY:HA2	28:BF:162:ASP:HA	1.82	0.60
35:BN:9:GLN:HA	35:BN:17:ARG:NE	2.16	0.60
37:BP:93:LYS:HB3	37:BP:96:LEU:HD12	1.82	0.60
43:BW:37:VAL:HG11	43:BW:38:ARG:HH11	1.66	0.60
44:BX:48:ARG:O	44:BX:51:ALA:HB3	2.00	0.60
44:BX:49:ASP:O	44:BX:53:VAL:HG23	2.01	0.60
52:BI:11:GLN:HA	52:BI:55:PRO:HA	1.82	0.60
1:CA:1071:C:H2'	1:CA:1072:G:H8	1.65	0.60
1:CA:1296:C:H4'	1:CA:1302:C:C4	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CN:41:TRP:HB3	13:CN:44:VAL:HB	1.83	0.60
18:CS:50:VAL:O	18:CS:57:VAL:HG22	2.00	0.60
20:CB:221:ARG:HG3	20:CB:222:GLU:N	2.15	0.60
23:DB:17:G:H2'	23:DB:18:U:C6	2.36	0.60
23:DB:360:U:H2'	23:DB:361:G:O4'	2.01	0.60
26:DD:169:ARG:O	26:DD:170:VAL:HG22	2.00	0.60
30:DH:69:ALA:HB1	30:DH:73:ASN:ND2	2.16	0.60
31:DJ:24:THR:HA	31:DJ:63:ALA:HB3	1.83	0.60
44:DX:57:LEU:H	44:DX:60:LYS:HG3	1.66	0.60
52:DI:123:ALA:HA	52:DI:126:ARG:HH12	1.66	0.60
1:AA:620:C:C2	3:AD:131:ILE:HD13	2.36	0.60
1:AA:707:U:H2'	1:AA:708:C:C6	2.36	0.60
13:AN:14:ALA:O	13:AN:18:LYS:HG2	2.01	0.60
18:AS:62:THR:HG22	18:AS:63:ASP:H	1.66	0.60
23:BB:3:U:H2'	23:BB:4:U:C6	2.36	0.60
23:BB:45:G:H5'	23:BB:46:G:OP1	2.02	0.60
23:BB:125:A:H5'	49:B2:19:ARG:HG3	1.82	0.60
23:BB:1771:C:H2'	23:BB:1772:A:C8	2.36	0.60
23:BB:2101:A:C3'	23:BB:2102:G:H5''	2.31	0.60
23:BB:2297:A:H61	23:BB:2319:G:H1'	1.66	0.60
23:BB:2457:U:C2'	23:BB:2458:G:H5'	2.31	0.60
25:BC:77:VAL:CG2	25:BC:112:GLY:H	2.06	0.60
26:BD:178:VAL:HB	26:BD:188:LEU:HB2	1.82	0.60
33:BL:79:LEU:HB3	33:BL:115:GLU:O	2.01	0.60
33:BL:93:ASN:O	33:BL:95:LEU:N	2.35	0.60
36:BO:94:ARG:O	36:BO:97:PHE:HB2	2.00	0.60
37:BP:89:GLY:HA2	37:BP:111:GLU:C	2.26	0.60
1:CA:195:A:H2'	1:CA:196:A:C8	2.36	0.60
1:CA:218:U:H2'	1:CA:219:U:C6	2.36	0.60
1:CA:253:A:H2'	1:CA:254:G:C8	2.36	0.60
1:CA:1238:A:H2'	1:CA:1238:A:N3	2.16	0.60
1:CA:1388:C:H2'	1:CA:1389:C:C6	2.35	0.60
8:CI:7:GLY:HA2	8:CI:85:ALA:HB2	1.82	0.60
10:CK:70:ALA:O	10:CK:74:LYS:HB2	2.01	0.60
10:CK:81:LEU:HD11	10:CK:99:LEU:HD23	1.81	0.60
23:DB:660:C:H2'	23:DB:661:A:H8	1.66	0.60
23:DB:1199:U:H2'	23:DB:1200:C:H6	1.66	0.60
23:DB:2497:A:H5''	56:DB:3696:HOH:O	2.01	0.60
23:DB:2737:G:H2'	23:DB:2738:A:C8	2.36	0.60
26:DD:179:ARG:HB2	26:DD:188:LEU:HD12	1.83	0.60
28:DF:155:ILE:O	28:DF:156:THR:HB	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DH:32:PRO:O	30:DH:33:GLN:HB2	2.01	0.60
33:DL:70:LYS:O	33:DL:73:ILE:HG12	2.02	0.60
1:AA:10:A:H2'	1:AA:11:G:C8	2.37	0.60
1:AA:487:A:H2'	1:AA:488:C:O4'	2.00	0.60
1:AA:909:A:H2'	1:AA:910:C:O4'	2.01	0.60
1:AA:1249:C:H4'	8:AI:37:TYR:OH	2.00	0.60
1:AA:1405:G:O4'	1:AA:1519:A:H4'	2.01	0.60
18:AS:16:LYS:O	18:AS:20:LYS:HB2	2.01	0.60
22:BA:6:G:H2'	22:BA:7:G:C8	2.36	0.60
23:BB:264:C:C2'	23:BB:265:A:H5''	2.31	0.60
23:BB:716:A:H2'	23:BB:717:C:H5''	1.83	0.60
23:BB:1443:U:H2'	23:BB:1444:G:C8	2.37	0.60
27:BE:111:GLU:HB3	33:BL:2:ARG:HH12	1.66	0.60
35:BN:96:ARG:NH1	35:BN:116:VAL:HG23	2.08	0.60
40:BS:29:VAL:HG23	40:BS:70:LYS:HA	1.83	0.60
40:BS:72:THR:OG1	40:BS:108:SER:HB3	2.01	0.60
40:BS:86:MET:HE2	40:BS:87:PRO:HD2	1.82	0.60
45:BY:37:ARG:HG2	45:BY:43:ILE:HD11	1.84	0.60
49:B2:3:ARG:HE	49:B2:4:THR:HG22	1.66	0.60
1:CA:17:U:O2'	1:CA:1079:G:H1'	2.01	0.60
1:CA:1343:G:H4'	8:CI:123:ARG:O	2.01	0.60
5:CF:18:VAL:HG21	5:CF:58:HIS:ND1	2.16	0.60
7:CH:46:GLU:HB2	7:CH:61:THR:HB	1.82	0.60
10:CK:81:LEU:HD21	10:CK:104:PHE:HB3	1.83	0.60
12:CM:95:PRO:N	12:CM:108:ARG:HG2	2.16	0.60
19:CT:19:HIS:O	19:CT:23:ARG:HG2	2.01	0.60
20:CB:20:ARG:HA	20:CB:38:HIS:CE1	2.36	0.60
22:DA:28:C:H2'	22:DA:29:A:O4'	2.01	0.60
23:DB:395:U:H2'	23:DB:396:G:N7	2.16	0.60
23:DB:594:U:H2'	23:DB:595:C:C6	2.36	0.60
23:DB:1015:U:H2'	23:DB:1016:G:C8	2.36	0.60
23:DB:1419:A:H2'	23:DB:1421:G:N7	2.16	0.60
23:DB:1535:A:H3'	23:DB:1536:C:H6	1.66	0.60
23:DB:1704:C:O2'	23:DB:1705:A:H5'	2.02	0.60
25:DC:75:ALA:O	25:DC:114:GLN:HA	2.01	0.60
28:DF:125:GLY:HA2	28:DF:162:ASP:HA	1.81	0.60
30:DH:117:LEU:HB2	30:DH:130:VAL:HG13	1.84	0.60
35:DN:33:ILE:HD12	35:DN:33:ILE:O	2.01	0.60
41:DT:31:VAL:HA	41:DT:84:TYR:H	1.66	0.60
42:DU:95:PHE:CE1	42:DU:102:ILE:HB	2.36	0.60
50:D3:44:ARG:N	50:D3:45:PRO:HD2	2.17	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:239:U:H6	1:AA:239:U:C5'	2.14	0.60
1:AA:376:G:H2'	1:AA:377:G:H8	1.65	0.60
8:AI:17:ARG:O	8:AI:64:ILE:HA	2.01	0.60
23:BB:79:C:O2'	23:BB:346:A:H1'	2.01	0.60
23:BB:136:G:H2'	23:BB:137:U:H6	1.64	0.60
23:BB:594:U:H2'	23:BB:595:C:H6	1.65	0.60
23:BB:820:A:H1'	23:BB:943:A:O2'	2.01	0.60
23:BB:2025:C:H2'	23:BB:2026:U:C6	2.36	0.60
23:BB:2626:C:O2'	23:BB:2627:G:H5'	2.01	0.60
32:BK:13:ASN:ND2	32:BK:98:ARG:H	1.99	0.60
35:BN:34:ILE:O	35:BN:112:TYR:HA	2.01	0.60
38:BQ:86:SER:HB3	39:BR:51:VAL:HA	1.82	0.60
43:BW:49:ASN:HB2	43:BW:61:LYS:H	1.65	0.60
6:CG:145:GLU:HA	6:CG:148:LYS:HB2	1.84	0.60
8:CI:25:GLY:HA3	8:CI:57:VAL:H	1.65	0.60
11:CL:26:CYS:SG	11:CL:29:LYS:HE2	2.41	0.60
23:DB:1060:U:C5	52:DI:131:THR:HG22	2.36	0.60
23:DB:1443:U:H2'	23:DB:1444:G:C8	2.37	0.60
23:DB:2078:C:H2'	23:DB:2079:U:C6	2.36	0.60
31:DJ:8:PRO:HG3	31:DJ:48:VAL:HG22	1.84	0.60
31:DJ:57:LEU:HD21	31:DJ:128:ASN:HA	1.84	0.60
43:DW:35:ILE:HG13	43:DW:57:THR:OG1	2.01	0.60
1:AA:162:A:H2'	1:AA:163:C:O4'	2.01	0.60
1:AA:719:C:O2'	17:AR:37:LYS:HB2	2.02	0.60
3:AD:29:THR:HB	3:AD:30:LYS:HZ3	1.66	0.60
23:BB:184:C:H2'	23:BB:185:G:H8	1.66	0.60
23:BB:248:G:H5'	23:BB:250:G:N7	2.16	0.60
23:BB:1082:U:N3	23:BB:1086:A:C6	2.70	0.60
23:BB:1240:U:O2'	23:BB:1241:A:H5''	2.02	0.60
23:BB:2041:U:H2'	23:BB:2042:A:C8	2.35	0.60
23:BB:2100:G:H2'	23:BB:2101:A:O4'	2.00	0.60
23:BB:2758:A:H2'	23:BB:2759:G:O4'	2.02	0.60
26:BD:92:VAL:O	26:BD:94:GLN:N	2.34	0.60
26:BD:136:ASN:HD21	26:BD:140:HIS:N	1.99	0.60
42:BU:9:GLU:HG3	42:BU:21:ARG:HD2	1.82	0.60
52:BI:89:SER:HA	52:BI:97:VAL:HG21	1.83	0.60
1:CA:1427:C:H2'	1:CA:1428:A:C8	2.37	0.60
6:CG:62:GLU:O	6:CG:66:GLU:HG3	2.01	0.60
13:CN:30:ILE:HG21	13:CN:44:VAL:HG21	1.83	0.60
18:CS:16:LYS:O	18:CS:20:LYS:HB2	2.01	0.60
20:CB:72:LYS:HE3	20:CB:203:ASP:O	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:94:A:H2'	22:DA:95:U:O4'	2.01	0.60
23:DB:96:C:H4'	44:DX:41:HIS:CE1	2.36	0.60
23:DB:172:A:H2'	23:DB:173:A:H8	1.64	0.60
23:DB:717:C:H3'	23:DB:718:A:H5''	1.82	0.60
23:DB:1291:C:O2'	23:DB:1292:G:H5'	2.02	0.60
35:DN:85:PRO:HA	35:DN:88:ALA:HB2	1.83	0.60
35:DN:103:ARG:HG2	35:DN:104:ALA:H	1.66	0.60
43:DW:18:LYS:HG3	43:DW:19:ARG:NE	2.16	0.60
43:DW:37:VAL:HG13	43:DW:55:ASP:O	2.02	0.60
49:D2:33:ARG:HH21	49:D2:33:ARG:HB2	1.65	0.60
1:AA:35:G:H2'	1:AA:36:C:C6	2.36	0.60
1:AA:1492:A:H2'	23:BB:1913:A:C2	2.36	0.60
8:AI:79:ARG:NH2	8:AI:102:PHE:HA	2.15	0.60
12:AM:77:LYS:HG2	12:AM:81:ASP:OD2	2.01	0.60
20:AB:16:GLY:HA3	20:AB:39:ILE:HA	1.82	0.60
20:AB:205:ALA:O	20:AB:209:VAL:HG22	2.01	0.60
23:BB:1292:G:H2'	23:BB:1293:C:C6	2.36	0.60
23:BB:1857:G:H1'	23:BB:1885:A:N6	2.16	0.60
24:BV:24:ASN:O	24:BV:44:HIS:HB2	2.01	0.60
25:BC:161:VAL:HG12	25:BC:162:GLN:N	2.16	0.60
26:BD:29:VAL:O	26:BD:185:ASN:HB3	2.01	0.60
26:BD:55:LYS:NZ	26:BD:59:ARG:HD2	2.16	0.60
28:BF:60:SER:HB2	28:BF:62:GLN:OE1	2.01	0.60
28:BF:62:GLN:CB	28:BF:91:ARG:HE	2.15	0.60
1:CA:270:A:H2'	1:CA:271:C:C6	2.35	0.60
1:CA:473:U:H2'	1:CA:474:G:H8	1.66	0.60
4:CE:106:ALA:HB1	4:CE:110:MET:HB3	1.84	0.60
6:CG:26:VAL:HB	6:CG:39:GLU:HG2	1.83	0.60
18:CS:52:ASN:CG	18:CS:53:GLY:H	2.09	0.60
23:DB:716:A:H2'	23:DB:717:C:H5''	1.83	0.60
23:DB:1199:U:H2'	23:DB:1200:C:C6	2.36	0.60
23:DB:1843:C:H5''	25:DC:250:GLN:HE21	1.67	0.60
23:DB:2143:C:H3'	23:DB:2144:G:C8	2.36	0.60
23:DB:2229:U:H2'	23:DB:2230:G:C8	2.37	0.60
23:DB:2387:U:H1'	43:DW:38:ARG:CZ	2.32	0.60
23:DB:2804:U:H2'	23:DB:2805:C:C6	2.36	0.60
23:DB:2899:A:H2'	23:DB:2900:A:C8	2.36	0.60
24:DV:65:VAL:C	24:DV:67:GLY:H	2.09	0.60
26:DD:178:VAL:HB	26:DD:188:LEU:HB2	1.83	0.60
28:DF:32:LYS:HA	28:DF:95:MET:HE2	1.84	0.60
30:DH:21:VAL:HG22	30:DH:22:LYS:H	1.67	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DS:42:LYS:O	40:DS:45:VAL:HG22	2.01	0.60
43:DW:49:ASN:HD22	43:DW:59:PHE:HB3	1.66	0.60
23:BB:751:A:H5'	40:BS:90:LYS:HA	1.84	0.60
23:BB:1490:A:H2'	25:BC:97:ASP:OD1	2.02	0.60
23:BB:1842:G:H2'	23:BB:1843:C:C6	2.37	0.60
23:BB:1871:A:H2'	23:BB:1872:A:C8	2.37	0.60
23:BB:2064:C:H2'	23:BB:2065:C:H6	1.66	0.60
23:BB:2277:G:C5'	34:BM:86:LYS:HB2	2.32	0.60
23:BB:2649:C:H2'	23:BB:2650:U:C6	2.37	0.60
28:BF:111:ARG:HH22	28:BF:113:PHE:HB2	1.65	0.60
30:BH:50:ARG:NE	30:BH:50:ARG:H	2.00	0.60
33:BL:80:SER:HA	33:BL:115:GLU:HB2	1.83	0.60
43:BW:24:ARG:HD3	43:BW:65:LYS:CG	2.31	0.60
1:CA:91:U:H2'	1:CA:92:U:C6	2.36	0.60
1:CA:208:U:H2'	1:CA:210:C:N3	2.16	0.60
4:CE:143:LEU:O	4:CE:146:MET:HG2	2.02	0.60
23:DB:191:A:H2'	23:DB:192:C:H6	1.65	0.60
23:DB:1406:U:H2'	23:DB:1407:G:C8	2.36	0.60
23:DB:1484:U:H2'	23:DB:1485:U:C6	2.36	0.60
23:DB:1513:U:O2'	23:DB:1514:G:H5'	2.00	0.60
23:DB:2645:G:H3'	23:DB:2646:C:C5'	2.32	0.60
25:DC:123:ILE:HD12	25:DC:191:LEU:HD13	1.84	0.60
29:DG:72:ASN:O	29:DG:76:ILE:HG12	2.02	0.60
34:DM:34:LYS:HB3	34:DM:129:THR:HG22	1.82	0.60
45:DY:26:LEU:HG	45:DY:46:MET:HE2	1.81	0.60
1:AA:532:A:N6	2:AC:191:THR:HB	2.16	0.60
1:AA:919:A:O2'	1:AA:920:U:H5'	2.01	0.60
1:AA:1149:C:H2'	1:AA:1150:A:H8	1.65	0.60
5:AF:29:ILE:HG23	5:AF:66:ALA:HB2	1.82	0.60
13:AN:30:ILE:HG21	13:AN:44:VAL:HG21	1.83	0.60
18:AS:52:ASN:CG	18:AS:53:GLY:H	2.08	0.60
23:BB:594:U:H2'	23:BB:595:C:C6	2.36	0.60
23:BB:1535:A:H3'	23:BB:1536:C:H6	1.65	0.60
23:BB:2359:C:H2'	23:BB:2360:G:C8	2.37	0.60
23:BB:2654:A:N1	23:BB:2665:A:H5''	2.16	0.60
30:BH:27:ARG:NH1	46:BZ:64:ILE:HD11	2.16	0.60
41:BT:14:PRO:HD2	44:BX:33:ALA:HB3	1.83	0.60
41:BT:31:VAL:HA	41:BT:84:TYR:H	1.66	0.60
41:BT:76:ARG:HH21	41:BT:77:ARG:HB2	1.67	0.60
43:BW:64:GLY:HA2	43:BW:84:GLU:HG2	1.84	0.60
1:CA:276:G:H5'	16:CQ:16:MET:SD	2.42	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:923:A:H2'	1:CA:924:C:C6	2.37	0.60
1:CA:1001:C:H2'	1:CA:1002:G:C8	2.36	0.60
1:CA:1437:A:H2'	1:CA:1438:G:H8	1.67	0.60
4:CE:100:GLU:HA	4:CE:121:ASN:ND2	2.16	0.60
6:CG:24:LYS:HA	6:CG:27:ASN:HD22	1.66	0.60
7:CH:25:THR:HA	7:CH:58:LEU:O	2.01	0.60
8:CI:9:GLY:HA3	8:CI:81:GLY:H	1.67	0.60
23:DB:592:A:H2'	23:DB:593:U:C6	2.37	0.60
23:DB:1857:G:H1'	23:DB:1885:A:N6	2.15	0.60
23:DB:2103:C:H3'	23:DB:2104:C:C2	2.37	0.60
23:DB:2720:U:H5''	37:DP:52:ARG:NH2	2.16	0.60
26:DD:55:LYS:NZ	26:DD:59:ARG:HD2	2.17	0.60
38:DQ:94:LEU:C	38:DQ:96:ASP:H	2.09	0.60
40:DS:90:LYS:HD2	40:DS:92:ARG:HH12	1.65	0.60
1:AA:1001:C:H2'	1:AA:1002:G:C8	2.37	0.60
1:AA:1218:C:H2'	1:AA:1219:A:C8	2.37	0.60
1:AA:1330:U:H4'	12:AM:69:ARG:HH12	1.67	0.60
5:AF:86:ARG:HH12	17:AR:63:TYR:HB3	1.66	0.60
8:AI:29:ILE:HD13	8:AI:78:ILE:HD13	1.82	0.60
10:AK:70:ALA:O	10:AK:74:LYS:HB2	2.01	0.60
12:AM:58:GLU:O	12:AM:61:LYS:HG2	2.02	0.60
18:AS:10:ILE:HD12	18:AS:15:LEU:HG	1.82	0.60
23:BB:191:A:H2'	23:BB:192:C:H6	1.66	0.60
23:BB:521:U:H2'	23:BB:522:A:C8	2.37	0.60
23:BB:1054:A:H2'	23:BB:1055:G:C8	2.37	0.60
23:BB:1220:G:H2'	23:BB:1221:C:H6	1.67	0.60
23:BB:1796:U:H2'	23:BB:1797:G:H8	1.65	0.60
24:BV:30:ILE:HG13	24:BV:40:ILE:HD12	1.84	0.60
26:BD:176:ASP:HB2	26:BD:190:LYS:HG2	1.84	0.60
29:BG:155:PRO:HA	29:BG:170:THR:HA	1.84	0.60
35:BN:62:ASN:N	35:BN:62:ASN:HD22	2.00	0.60
38:BQ:94:LEU:C	38:BQ:96:ASP:H	2.09	0.60
1:CA:35:G:H2'	1:CA:36:C:C6	2.37	0.60
1:CA:190:A:O5'	1:CA:190:A:H8	1.85	0.60
1:CA:1236:A:H4'	1:CA:1304:G:H4'	1.81	0.60
1:CA:1302:C:H5'	12:CM:16:ILE:HG13	1.84	0.60
1:CA:1386:G:H2'	1:CA:1387:G:H8	1.67	0.60
11:CL:7:VAL:HG22	16:CQ:33:TYR:HD1	1.66	0.60
12:CM:79:LEU:HD11	12:CM:86:ARG:HH21	1.66	0.60
20:CB:187:ASP:HB3	20:CB:201:GLY:O	2.02	0.60
20:CB:202:ASN:HD22	20:CB:204:ASP:N	1.88	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1535:A:H5''	23:DB:1536:C:H5	1.66	0.60
23:DB:2376:A:N1	36:DO:92:PHE:HD2	2.00	0.60
23:DB:2852:G:H2'	23:DB:2853:C:C6	2.37	0.60
25:DC:76:VAL:HG12	25:DC:114:GLN:HG2	1.84	0.60
29:DG:68:ARG:HH12	29:DG:72:ASN:HD22	1.49	0.60
29:DG:115:GLN:CD	29:DG:115:GLN:H	2.10	0.60
32:DK:54:LYS:HD2	32:DK:54:LYS:N	2.17	0.60
40:DS:72:THR:OG1	40:DS:108:SER:HB3	2.01	0.60
1:AA:411:A:H62	1:AA:413:G:H21	1.49	0.60
1:AA:492:C:H2'	1:AA:493:A:N3	2.16	0.60
1:AA:538:G:H5''	11:AL:110:LYS:HG2	1.83	0.60
1:AA:1090:U:H2'	1:AA:1091:U:C6	2.37	0.60
1:AA:1238:A:N3	1:AA:1238:A:H2'	2.16	0.60
1:AA:1382:C:H4'	6:AG:78:ARG:NH2	2.16	0.60
3:AD:22:SER:H	3:AD:109:THR:HG22	1.66	0.60
11:AL:35:ARG:NH1	11:AL:35:ARG:HA	2.17	0.60
23:BB:784:G:O2'	23:BB:785:G:H5''	2.01	0.60
23:BB:1198:U:H2'	23:BB:1199:U:C6	2.36	0.60
23:BB:1491:G:H5'	25:BC:97:ASP:OD1	2.02	0.60
23:BB:1501:G:O2'	23:BB:1502:A:H5'	2.01	0.60
23:BB:1925:C:C2'	23:BB:1926:U:H5''	2.31	0.60
23:BB:2073:C:O2'	23:BB:2074:U:H5'	2.02	0.60
23:BB:2488:G:O2'	23:BB:2489:U:H5'	2.02	0.60
23:BB:2498:C:O2'	23:BB:2499:C:H5'	2.02	0.60
23:BB:2635:A:H4'	26:BD:79:LEU:HB2	1.84	0.60
31:BJ:45:THR:HG21	31:BJ:50:THR:HG21	1.83	0.60
34:BM:108:VAL:HG11	34:BM:112:LEU:HD12	1.84	0.60
1:CA:1417:G:N2	1:CA:1482:G:H2'	2.17	0.60
3:CD:29:THR:HG22	3:CD:30:LYS:HD3	1.83	0.60
5:CF:79:ARG:NH2	5:CF:87:SER:HB3	2.17	0.60
7:CH:24:VAL:HG12	7:CH:60:LEU:O	2.01	0.60
23:DB:1082:U:N3	23:DB:1086:A:C6	2.69	0.60
23:DB:1647:U:H3'	23:DB:1647:U:P	2.42	0.60
23:DB:2458:G:H1'	23:DB:2460:U:O4	2.02	0.60
25:DC:141:HIS:CG	25:DC:142:ASN:H	2.20	0.60
29:DG:2:ARG:H	29:DG:5:LYS:HE2	1.67	0.60
31:DJ:100:VAL:O	31:DJ:104:ALA:HB2	2.02	0.60
32:DK:105:ARG:HD3	32:DK:106:GLU:OE1	2.01	0.60
35:DN:62:ASN:N	35:DN:62:ASN:HD22	1.99	0.60
41:DT:29:THR:CA	41:DT:86:THR:HA	2.30	0.60
45:DY:35:VAL:HG22	45:DY:36:GLU:N	2.16	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:D0:38:LEU:HD23	47:D0:39:ARG:H	1.67	0.60
1:AA:410:G:P	3:AD:25:ARG:HD2	2.42	0.59
1:AA:685:G:O2'	1:AA:686:U:H5'	2.02	0.59
1:AA:1329:A:OP1	12:AM:28:ARG:HB2	2.02	0.59
1:AA:1508:A:H2'	1:AA:1509:C:C6	2.37	0.59
8:AI:93:LEU:O	8:AI:97:LEU:HG	2.02	0.59
23:BB:150:U:H2'	23:BB:151:C:C6	2.37	0.59
23:BB:181:A:H2'	23:BB:182:A:H8	1.64	0.59
23:BB:279:A:H2'	23:BB:280:U:H5'	1.84	0.59
23:BB:282:A:H2'	23:BB:283:G:H8	1.66	0.59
23:BB:401:A:H2'	23:BB:402:A:H8	1.64	0.59
23:BB:545:U:C4	23:BB:547:A:H5''	2.37	0.59
23:BB:741:U:H2'	23:BB:742:A:C8	2.37	0.59
23:BB:1268:A:H2'	23:BB:1269:A:O4'	2.02	0.59
23:BB:1425:G:H2'	23:BB:1426:G:C8	2.37	0.59
23:BB:2651:C:O2'	23:BB:2652:C:H5'	2.02	0.59
23:BB:2728:U:H2'	23:BB:2729:G:H8	1.67	0.59
27:BE:108:ILE:HG13	33:BL:2:ARG:HH22	1.66	0.59
31:BJ:25:LEU:HB2	31:BJ:62:VAL:CG2	2.32	0.59
31:BJ:100:VAL:O	31:BJ:104:ALA:HB2	2.02	0.59
43:BW:49:ASN:HD22	43:BW:59:PHE:HB3	1.67	0.59
47:B0:39:ARG:O	47:B0:40:HIS:HB2	2.02	0.59
48:B1:29:LYS:HE2	48:B1:31:GLU:OE1	2.02	0.59
1:CA:182:A:O2'	1:CA:183:C:H3'	2.02	0.59
1:CA:1271:A:H5'	1:CA:1314:C:H5''	1.83	0.59
3:CD:138:PRO:HA	3:CD:181:PHE:CD2	2.31	0.59
13:CN:20:PHE:C	13:CN:22:LYS:H	2.10	0.59
20:CB:31:PHE:N	20:CB:39:ILE:O	2.34	0.59
23:DB:196:A:H5''	33:DL:47:ARG:HH12	1.66	0.59
23:DB:233:A:H61	23:DB:428:A:H61	1.48	0.59
23:DB:1130:U:C2	23:DB:2025:C:H5''	2.37	0.59
23:DB:1178:C:H2'	23:DB:1179:G:H8	1.66	0.59
23:DB:2025:C:H2'	23:DB:2026:U:C6	2.37	0.59
23:DB:2031:A:C6	23:DB:2498:C:H1'	2.37	0.59
23:DB:2392:A:H2'	23:DB:2392:A:N3	2.17	0.59
23:DB:2834:G:H2'	23:DB:2879:A:N6	2.17	0.59
29:DG:39:ALA:C	29:DG:54:ARG:HB2	2.27	0.59
32:DK:60:ALA:HA	32:DK:87:LEU:CD2	2.32	0.59
45:DY:6:ILE:O	45:DY:34:THR:HG23	2.02	0.59
1:AA:1301:U:O2	1:AA:1301:U:H2'	2.01	0.59
3:AD:29:THR:HG22	3:AD:30:LYS:H	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AI:25:GLY:HA3	8:AI:57:VAL:N	2.16	0.59
9:AJ:53:ILE:HG22	9:AJ:61:ALA:HB1	1.83	0.59
12:AM:39:ALA:HB3	12:AM:42:VAL:HG13	1.84	0.59
13:AN:16:ALA:HB2	13:AN:55:SER:N	2.17	0.59
20:AB:99:MET:HA	20:AB:106:VAL:HG11	1.84	0.59
23:BB:131:A:H2'	23:BB:132:G:C8	2.37	0.59
23:BB:1205:A:H4'	23:BB:1206:G:OP2	2.01	0.59
23:BB:1281:G:H2'	23:BB:1282:U:C6	2.37	0.59
23:BB:1484:U:H2'	23:BB:1485:U:C6	2.38	0.59
23:BB:1853:A:N1	23:BB:2087:G:H1'	2.17	0.59
23:BB:2229:U:H2'	23:BB:2230:G:C8	2.37	0.59
23:BB:2598:A:H5''	25:BC:233:GLY:CA	2.32	0.59
23:BB:2884:U:H2'	23:BB:2885:G:C8	2.37	0.59
24:BV:80:HIS:HD2	24:BV:83:LYS:H	1.48	0.59
28:BF:42:ALA:HA	28:BF:48:LEU:CD2	2.31	0.59
28:BF:71:LYS:HE2	28:BF:73:VAL:HB	1.83	0.59
29:BG:15:ASP:CB	29:BG:26:LYS:H	2.12	0.59
31:BJ:72:LYS:O	31:BJ:73:VAL:HG13	2.02	0.59
32:BK:11:ALA:HB3	32:BK:85:VAL:HG22	1.84	0.59
35:BN:103:ARG:HG2	35:BN:104:ALA:H	1.65	0.59
1:CA:10:A:H2'	1:CA:11:G:C8	2.37	0.59
1:CA:1151:A:HO2'	1:CA:1152:A:H8	1.49	0.59
1:CA:1301:U:H2'	1:CA:1301:U:O2	2.02	0.59
3:CD:169:TRP:CE2	3:CD:185:PRO:HB3	2.36	0.59
8:CI:126:PHE:CE1	8:CI:129:ARG:HD3	2.37	0.59
10:CK:51:PHE:HB2	10:CK:55:ARG:HB3	1.84	0.59
20:CB:163:ILE:HG23	20:CB:164:ASP:N	2.17	0.59
23:DB:712:G:H2'	23:DB:713:G:O4'	2.03	0.59
23:DB:857:G:O2'	23:DB:858:G:H5'	2.02	0.59
23:DB:1316:U:O2'	23:DB:1317:G:H5'	2.02	0.59
23:DB:1993:U:H4'	26:DD:133:THR:HG22	1.83	0.59
23:DB:2651:C:O2'	23:DB:2652:C:H5'	2.03	0.59
27:DE:3:LEU:H	27:DE:13:THR:H	1.50	0.59
28:DF:102:LEU:HA	28:DF:106:ALA:CB	2.32	0.59
33:DL:93:ASN:O	33:DL:95:LEU:N	2.36	0.59
37:DP:13:LYS:CD	37:DP:76:HIS:HA	2.31	0.59
44:DX:48:ARG:O	44:DX:51:ALA:HB3	2.02	0.59
47:D0:39:ARG:O	47:D0:40:HIS:HB2	2.01	0.59
1:AA:370:C:O2'	1:AA:371:A:H5'	2.02	0.59
4:AE:81:GLN:H	4:AE:146:MET:CE	2.15	0.59
4:AE:82:HIS:HB2	4:AE:83:PRO:HD2	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AK:51:PHE:HB2	10:AK:55:ARG:HB3	1.85	0.59
10:AK:81:LEU:HD11	10:AK:99:LEU:HD23	1.82	0.59
23:BB:321:U:OP2	27:BE:130:LYS:HD3	2.02	0.59
23:BB:365:U:H2'	23:BB:366:C:C6	2.36	0.59
23:BB:1487:U:H2'	23:BB:1488:C:C6	2.37	0.59
23:BB:2015:A:N3	47:B0:2:VAL:HG22	2.18	0.59
23:BB:2216:G:H2'	23:BB:2217:G:H8	1.68	0.59
23:BB:2377:A:H2'	23:BB:2378:A:C8	2.37	0.59
23:BB:2530:A:H3'	29:BG:156:TYR:OH	2.01	0.59
23:BB:2848:G:H22	23:BB:2867:G:N2	2.00	0.59
24:BV:2:PHE:HD1	24:BV:50:MET:HE2	1.68	0.59
25:BC:243:PRO:O	25:BC:250:GLN:HA	2.02	0.59
29:BG:59:ASP:O	29:BG:63:GLN:HB2	2.01	0.59
32:BK:71:ARG:HG3	32:BK:105:ARG:HH21	1.67	0.59
34:BM:36:VAL:HB	34:BM:127:LYS:O	2.01	0.59
39:BR:5:PHE:O	39:BR:11:GLN:HA	2.01	0.59
1:CA:824:G:O2'	1:CA:825:A:H5'	2.02	0.59
1:CA:1179:A:H2'	1:CA:1180:A:O4'	2.02	0.59
1:CA:1258:G:H2'	1:CA:1259:C:H6	1.68	0.59
1:CA:1296:C:H4'	1:CA:1302:C:N3	2.18	0.59
8:CI:27:ILE:HB	8:CI:34:LEU:HB2	1.84	0.59
20:CB:42:LEU:O	20:CB:46:VAL:HG12	2.02	0.59
22:DA:106:G:H2'	22:DA:107:G:O4'	2.03	0.59
23:DB:125:A:O2'	49:D2:13:ASN:HB3	2.02	0.59
23:DB:1552:A:H2'	23:DB:1553:A:H5'	1.83	0.59
23:DB:1993:U:H4'	26:DD:133:THR:HG21	1.84	0.59
23:DB:2037:A:H2'	23:DB:2038:G:C8	2.37	0.59
25:DC:1:ALA:HB3	25:DC:19:VAL:HG23	1.84	0.59
27:DE:104:ALA:O	27:DE:108:ILE:HG22	2.01	0.59
28:DF:134:GLN:C	28:DF:136:ILE:H	2.10	0.59
32:DK:37:ASP:O	32:DK:61:VAL:HA	2.03	0.59
35:DN:24:MET:HG3	35:DN:44:LEU:HD22	1.83	0.59
37:DP:56:SER:O	37:DP:74:GLN:HA	2.03	0.59
41:DT:65:GLY:HA3	41:DT:76:ARG:HH22	1.67	0.59
52:DI:112:LYS:O	52:DI:116:MET:HG3	2.02	0.59
1:AA:845:A:H3'	1:AA:846:G:C8	2.37	0.59
2:AC:8:GLY:HA2	2:AC:11:LEU:HG	1.83	0.59
5:AF:3:HIS:NE2	5:AF:95:ALA:HB2	2.18	0.59
5:AF:98:GLU:HG2	5:AF:99:ALA:N	2.17	0.59
6:AG:64:ALA:HA	6:AG:127:ALA:HA	1.84	0.59
13:AN:20:PHE:C	13:AN:22:LYS:H	2.10	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AN:68:ARG:NH1	13:AN:70:HIS:HB2	2.16	0.59
19:AT:66:ILE:HG22	19:AT:67:HIS:N	2.16	0.59
23:BB:30:G:H2'	23:BB:31:C:H6	1.68	0.59
23:BB:233:A:H61	23:BB:428:A:H61	1.49	0.59
23:BB:969:G:OP1	45:BY:17:PRO:HG3	2.02	0.59
23:BB:1063:G:O2'	52:BI:88:GLY:HA3	2.02	0.59
23:BB:1164:C:H2'	23:BB:1165:A:C8	2.38	0.59
23:BB:1552:A:H2'	23:BB:1553:A:H5'	1.85	0.59
23:BB:2666:C:O4'	23:BB:2666:C:O2	2.20	0.59
28:BF:32:LYS:HA	28:BF:95:MET:HE2	1.83	0.59
28:BF:134:GLN:C	28:BF:136:ILE:H	2.11	0.59
29:BG:34:ARG:HH11	29:BG:34:ARG:HG2	1.67	0.59
30:BH:53:GLU:HA	30:BH:57:LYS:HG2	1.83	0.59
31:BJ:25:LEU:HD22	31:BJ:26:GLY:N	2.16	0.59
38:BQ:91:ARG:CZ	39:BR:11:GLN:H	2.14	0.59
48:B1:3:GLY:C	48:B1:5:ARG:H	2.11	0.59
1:CA:751:U:H4'	14:CO:23:SER:HA	1.83	0.59
1:CA:806:C:H2'	1:CA:807:A:C8	2.36	0.59
1:CA:918:A:H2'	1:CA:919:A:C8	2.38	0.59
12:CM:58:GLU:O	12:CM:61:LYS:HG2	2.01	0.59
20:CB:23:ASN:HD22	20:CB:24:PRO:HD2	1.67	0.59
23:DB:150:U:H2'	23:DB:151:C:C6	2.37	0.59
23:DB:1400:U:H2'	23:DB:1401:G:H8	1.67	0.59
23:DB:1551:A:H3'	23:DB:1552:A:H5''	1.83	0.59
23:DB:1771:C:H2'	23:DB:1772:A:H8	1.65	0.59
23:DB:1790:C:O2'	25:DC:207:ALA:HB2	2.02	0.59
28:DF:66:ILE:HA	28:DF:86:CYS:HB3	1.84	0.59
29:DG:34:ARG:HH11	29:DG:34:ARG:HG2	1.67	0.59
33:DL:4:ASN:ND2	33:DL:4:ASN:N	2.50	0.59
38:DQ:91:ARG:CZ	39:DR:11:GLN:H	2.15	0.59
1:AA:182:A:O2'	1:AA:183:C:H3'	2.03	0.59
1:AA:275:G:H5'	16:AQ:15:LYS:HD3	1.84	0.59
2:AC:183:TYR:HA	2:AC:199:VAL:O	2.02	0.59
4:AE:152:VAL:HG21	7:AH:98:LEU:HB3	1.82	0.59
6:AG:24:LYS:HA	6:AG:27:ASN:HD22	1.67	0.59
11:AL:14:LYS:HG2	11:AL:16:ALA:H	1.66	0.59
12:AM:79:LEU:HD11	12:AM:86:ARG:NH2	2.18	0.59
14:AO:43:ALA:O	14:AO:46:LYS:HE3	2.03	0.59
20:AB:31:PHE:N	20:AB:39:ILE:O	2.34	0.59
23:BB:78:U:H2'	23:BB:79:C:C6	2.37	0.59
23:BB:528:A:N1	23:BB:2042:A:H2'	2.18	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:721:A:H2'	23:BB:722:A:H8	1.68	0.59
23:BB:1061:U:H4'	23:BB:1070:A:O3'	2.03	0.59
23:BB:1551:A:H2'	23:BB:1552:A:O4'	2.01	0.59
23:BB:2458:G:H1'	23:BB:2460:U:O4	2.02	0.59
25:BC:71:ASP:OD2	25:BC:118:GLY:HA2	2.02	0.59
25:BC:141:HIS:CG	25:BC:142:ASN:H	2.20	0.59
29:BG:72:ASN:O	29:BG:76:ILE:HG12	2.03	0.59
31:BJ:24:THR:HA	31:BJ:63:ALA:HB3	1.84	0.59
32:BK:37:ASP:O	32:BK:61:VAL:HA	2.02	0.59
33:BL:30:THR:O	33:BL:33:ARG:HG2	2.01	0.59
36:BO:55:GLU:HB2	36:BO:58:ILE:HD12	1.84	0.59
42:BU:26:ASN:N	42:BU:26:ASN:HD22	1.98	0.59
43:BW:23:LYS:HD2	43:BW:24:ARG:N	2.16	0.59
1:CA:336:A:O2'	1:CA:337:G:H5'	2.03	0.59
1:CA:699:C:C2'	1:CA:700:G:H5''	2.30	0.59
8:CI:93:LEU:O	8:CI:97:LEU:HG	2.02	0.59
12:CM:43:LYS:H	12:CM:43:LYS:HD2	1.68	0.59
16:CQ:45:VAL:HG12	16:CQ:46:HIS:N	2.18	0.59
23:DB:1326:U:H2'	23:DB:1327:A:H8	1.65	0.59
23:DB:1657:U:O2'	23:DB:1658:C:H5'	2.01	0.59
23:DB:2498:C:O2'	23:DB:2499:C:H5'	2.02	0.59
28:DF:62:GLN:CB	28:DF:91:ARG:HE	2.14	0.59
28:DF:102:LEU:HD22	28:DF:103:ILE:H	1.68	0.59
34:DM:40:ARG:HB2	34:DM:93:VAL:CG2	2.32	0.59
34:DM:60:GLN:HG2	34:DM:108:VAL:HG23	1.84	0.59
36:DO:2:ASP:OD2	36:DO:4:LYS:HB3	2.03	0.59
37:DP:20:ARG:HB3	37:DP:23:ASP:OD2	2.02	0.59
39:DR:4:VAL:HG23	39:DR:39:LEU:H	1.68	0.59
39:DR:71:LYS:HG2	39:DR:73:LYS:HZ3	1.65	0.59
39:DR:79:ARG:CD	39:DR:80:ARG:HH21	2.15	0.59
46:DZ:45:ARG:HE	46:DZ:47:VAL:CG1	2.16	0.59
50:D3:22:LYS:HA	50:D3:47:ALA:O	2.01	0.59
1:AA:699:C:C2'	1:AA:700:G:H5''	2.26	0.59
1:AA:746:A:H2'	1:AA:747:A:C8	2.36	0.59
1:AA:996:A:H2'	1:AA:997:U:C6	2.37	0.59
1:AA:1213:A:O2'	1:AA:1214:C:H5''	2.03	0.59
22:BA:32:U:H4'	22:BA:52:A:N6	2.17	0.59
22:BA:43:C:H1'	28:BF:91:ARG:HH21	1.66	0.59
23:BB:176:A:O2'	23:BB:177:G:H5'	2.02	0.59
23:BB:458:G:H22	23:BB:469:G:H2'	1.66	0.59
23:BB:569:U:H2'	23:BB:570:G:O4'	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:704:G:H2'	23:BB:726:G:N2	2.16	0.59
23:BB:1326:U:H2'	23:BB:1327:A:H8	1.66	0.59
23:BB:1550:C:H2'	23:BB:1551:A:H8	1.68	0.59
24:BV:42:LEU:HD11	24:BV:89:ILE:HD11	1.85	0.59
27:BE:29:HIS:HE2	33:BL:8:PRO:HG3	1.67	0.59
30:BH:73:ASN:ND2	30:BH:74:ALA:H	1.95	0.59
30:BH:85:GLY:HA3	30:BH:91:PHE:HE1	1.67	0.59
30:BH:141:LYS:HD3	30:BH:141:LYS:N	2.18	0.59
33:BL:42:SER:C	33:BL:44:GLY:H	2.10	0.59
34:BM:40:ARG:HB2	34:BM:93:VAL:CG2	2.32	0.59
34:BM:41:LEU:HB2	34:BM:94:ALA:HB3	1.84	0.59
35:BN:33:ILE:O	35:BN:33:ILE:HD12	2.02	0.59
35:BN:76:VAL:HA	35:BN:79:LEU:HD12	1.85	0.59
44:BX:45:GLN:O	44:BX:47:ARG:N	2.34	0.59
1:CA:239:U:H6	1:CA:239:U:C5'	2.15	0.59
1:CA:499:A:H4'	1:CA:500:G:H5'	1.85	0.59
1:CA:1058:G:OP1	2:CC:198:LYS:HE3	2.03	0.59
8:CI:120:ALA:O	8:CI:121:ARG:HG2	2.02	0.59
12:CM:22:TYR:HB2	12:CM:65:GLU:HA	1.83	0.59
23:DB:722:A:H2'	23:DB:723:C:C6	2.38	0.59
23:DB:1082:U:C2	23:DB:1086:A:C6	2.90	0.59
23:DB:1739:A:H2'	23:DB:1740:G:O4'	2.02	0.59
23:DB:2066:C:O2'	23:DB:2067:G:H5'	2.02	0.59
23:DB:2598:A:H5''	25:DC:233:GLY:CA	2.32	0.59
23:DB:2772:C:H2'	23:DB:2773:C:H6	1.68	0.59
24:DV:24:ASN:O	24:DV:44:HIS:HB2	2.02	0.59
27:DE:29:HIS:O	27:DE:33:VAL:HG23	2.03	0.59
27:DE:48:THR:HG22	27:DE:86:ALA:HB3	1.83	0.59
27:DE:111:GLU:HB3	33:DL:2:ARG:HH12	1.65	0.59
28:DF:34:THR:HG22	28:DF:89:THR:HG22	1.83	0.59
28:DF:111:ARG:NH2	28:DF:113:PHE:HB2	2.17	0.59
33:DL:55:MET:HE3	33:DL:56:PRO:HD2	1.84	0.59
33:DL:80:SER:HA	33:DL:115:GLU:HB2	1.84	0.59
33:DL:85:VAL:CG2	33:DL:94:THR:HB	2.32	0.59
40:DS:28:LYS:HD2	40:DS:29:VAL:N	2.18	0.59
42:DU:35:VAL:O	42:DU:38:ILE:HG22	2.02	0.59
50:D3:54:LEU:HG	50:D3:58:ILE:HD11	1.84	0.59
13:AN:41:TRP:HB3	13:AN:44:VAL:HB	1.84	0.59
15:AP:20:VAL:HG23	15:AP:35:ARG:HA	1.85	0.59
16:AQ:26:ARG:HG2	16:AQ:39:ARG:O	2.02	0.59
20:AB:20:ARG:HA	20:AB:38:HIS:CE1	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AB:42:LEU:O	20:AB:46:VAL:HG12	2.02	0.59
20:AB:110:ILE:HG23	20:AB:151:LYS:HA	1.84	0.59
23:BB:233:A:N6	23:BB:428:A:H61	2.00	0.59
23:BB:345:A:H1'	23:BB:346:A:C2	2.37	0.59
23:BB:419:U:H2'	23:BB:420:C:H6	1.67	0.59
23:BB:1015:U:H2'	23:BB:1016:G:C8	2.37	0.59
23:BB:2037:A:H2'	23:BB:2038:G:C8	2.37	0.59
23:BB:2328:A:H2'	23:BB:2329:U:H6	1.68	0.59
23:BB:2784:U:H2'	23:BB:2785:C:C6	2.38	0.59
25:BC:93:VAL:HG13	25:BC:94:LEU:N	2.17	0.59
27:BE:46:GLN:HG3	27:BE:87:ALA:HB3	1.83	0.59
37:BP:13:LYS:CD	37:BP:76:HIS:HA	2.32	0.59
37:BP:20:ARG:HB3	37:BP:23:ASP:CG	2.28	0.59
42:BU:94:PHE:CB	42:BU:101:THR:HA	2.33	0.59
46:BZ:40:VAL:HG22	46:BZ:45:ARG:H	1.67	0.59
50:B3:44:ARG:N	50:B3:45:PRO:HD2	2.17	0.59
1:CA:1239:A:H4'	1:CA:1240:U:H5'	1.84	0.59
1:CA:1296:C:H4'	1:CA:1302:C:N4	2.17	0.59
2:CC:82:ASP:HA	2:CC:85:LYS:HB3	1.85	0.59
12:CM:70:ARG:NH1	28:DF:142:TYR:HB2	2.17	0.59
23:DB:65:U:H2'	23:DB:66:C:C6	2.38	0.59
23:DB:309:A:H4'	42:DU:15:GLY:HA2	1.85	0.59
23:DB:630:G:N2	23:DB:632:A:H3'	2.16	0.59
23:DB:636:G:O5'	33:DL:128:THR:HG22	2.03	0.59
23:DB:1535:A:H5''	23:DB:1536:C:C5	2.37	0.59
23:DB:1723:G:N7	23:DB:1737:G:N2	2.51	0.59
23:DB:2241:A:H2'	23:DB:2242:G:H8	1.68	0.59
23:DB:2394:C:OP1	33:DL:63:LYS:HG2	2.03	0.59
23:DB:2784:U:H2'	23:DB:2785:C:C6	2.37	0.59
24:DV:80:HIS:HD2	24:DV:83:LYS:H	1.49	0.59
28:DF:36:ASN:HA	28:DF:87:LYS:HA	1.84	0.59
28:DF:40:GLY:HA2	28:DF:84:ILE:HG23	1.85	0.59
29:DG:26:LYS:HG2	29:DG:27:GLY:H	1.67	0.59
41:DT:14:PRO:HD2	44:DX:33:ALA:HB3	1.84	0.59
1:AA:1007:U:H2'	1:AA:1008:U:C6	2.37	0.59
1:AA:1302:C:H5'	12:AM:16:ILE:HG13	1.85	0.59
7:AH:46:GLU:HB2	7:AH:61:THR:HB	1.85	0.59
11:AL:35:ARG:HA	11:AL:35:ARG:CZ	2.33	0.59
15:AP:68:SER:OG	15:AP:71:VAL:HG12	2.02	0.59
16:AQ:45:VAL:HG12	16:AQ:46:HIS:N	2.18	0.59
23:BB:138:U:C4	23:BB:140:C:H1'	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:573:U:O2'	23:BB:574:A:H3'	2.02	0.59
23:BB:722:A:H2'	23:BB:723:C:C6	2.38	0.59
23:BB:1219:U:H2'	23:BB:1220:G:H8	1.68	0.59
23:BB:2376:A:N6	36:BO:94:ARG:HD3	2.18	0.59
30:BH:130:VAL:C	30:BH:142:VAL:HB	2.27	0.59
31:BJ:20:ALA:HA	31:BJ:23:LYS:HG2	1.85	0.59
37:BP:7:LEU:HA	37:BP:10:GLU:HG2	1.85	0.59
37:BP:56:SER:O	37:BP:74:GLN:HA	2.03	0.59
44:BX:6:LEU:C	44:BX:8:GLU:H	2.11	0.59
45:BY:6:ILE:O	45:BY:34:THR:HG23	2.03	0.59
1:CA:72:A:H5'	1:CA:73:C:OP2	2.02	0.59
1:CA:501:C:H2'	1:CA:502:A:C8	2.37	0.59
5:CF:3:HIS:NE2	5:CF:95:ALA:HB2	2.18	0.59
12:CM:79:LEU:HD11	12:CM:86:ARG:NH2	2.17	0.59
20:CB:16:GLY:CA	20:CB:40:ILE:H	2.16	0.59
23:DB:967:U:H2'	23:DB:968:C:C6	2.38	0.59
23:DB:968:C:H2'	23:DB:969:G:H8	1.66	0.59
23:DB:2359:C:H2'	23:DB:2360:G:C8	2.38	0.59
23:DB:2722:G:H2'	23:DB:2723:C:C6	2.38	0.59
26:DD:121:THR:C	26:DD:123:LYS:H	2.09	0.59
29:DG:137:LYS:HA	29:DG:140:ILE:HD11	1.84	0.59
34:DM:96:ILE:HD11	34:DM:126:ILE:HG12	1.84	0.59
34:DM:108:VAL:HG11	34:DM:112:LEU:HD12	1.83	0.59
36:DO:88:LYS:HD2	36:DO:89:ASP:HB2	1.85	0.59
41:DT:2:ILE:HD13	41:DT:2:ILE:N	2.18	0.59
42:DU:80:ASP:HB3	42:DU:96:LYS:N	2.06	0.59
44:DX:6:LEU:C	44:DX:8:GLU:H	2.10	0.59
51:D4:8:LYS:HG2	51:D4:9:LYS:H	1.67	0.59
52:DI:126:ARG:HH11	52:DI:126:ARG:HB3	1.68	0.59
1:AA:628:G:H2'	1:AA:629:A:C8	2.38	0.59
1:AA:1294:G:H2'	1:AA:1295:U:C6	2.38	0.59
6:AG:78:ARG:HD2	6:AG:78:ARG:C	2.28	0.59
10:AK:17:ASP:C	10:AK:36:ARG:HH12	2.11	0.59
18:AS:30:LEU:H	18:AS:48:ILE:HA	1.67	0.59
20:AB:140:LEU:H	20:AB:140:LEU:HD12	1.68	0.59
23:BB:141:G:C6	41:BT:2:ILE:HD12	2.38	0.59
23:BB:282:A:H2'	23:BB:283:G:C8	2.38	0.59
23:BB:395:U:H2'	23:BB:396:G:N7	2.16	0.59
23:BB:1245:G:OP1	33:BL:13:LYS:HE3	2.02	0.59
23:BB:2815:C:H2'	23:BB:2816:G:H8	1.67	0.59
24:BV:4:ILE:O	24:BV:63:ILE:HA	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BC:66:PHE:HB2	25:BC:150:GLY:O	2.02	0.59
26:BD:169:ARG:O	26:BD:170:VAL:HG22	2.02	0.59
28:BF:30:VAL:HG21	28:BF:96:TRP:NE1	2.18	0.59
28:BF:90:LEU:HD12	28:BF:95:MET:HA	1.84	0.59
30:BH:72:ILE:HD13	30:BH:142:VAL:HG22	1.85	0.59
30:BH:122:LEU:H	30:BH:122:LEU:HD12	1.68	0.59
34:BM:19:GLY:N	34:BM:38:ARG:HH22	2.01	0.59
36:BO:2:ASP:OD2	36:BO:4:LYS:HB3	2.02	0.59
39:BR:34:GLU:HA	39:BR:59:ILE:O	2.03	0.59
1:CA:621:A:H2'	1:CA:622:A:C8	2.38	0.59
7:CH:17:GLN:HE21	7:CH:62:LEU:HB3	1.68	0.59
12:CM:21:ILE:HB	12:CM:24:VAL:CG2	2.27	0.59
18:CS:43:MET:HB2	18:CS:61:VAL:HG11	1.84	0.59
20:CB:32:GLY:N	20:CB:39:ILE:HB	2.16	0.59
22:DA:6:G:H2'	22:DA:7:G:C8	2.38	0.59
22:DA:43:C:H1'	28:DF:91:ARG:HH21	1.68	0.59
23:DB:37:C:H4'	23:DB:451:U:OP1	2.02	0.59
23:DB:825:A:H1'	33:DL:54:GLN:HE21	1.68	0.59
23:DB:856:G:C1'	43:DW:23:LYS:HB3	2.33	0.59
23:DB:2061:G:H5''	23:DB:2503:A:C2	2.37	0.59
23:DB:2179:C:O2	23:DB:2179:C:C2'	2.48	0.59
23:DB:2384:U:H5''	23:DB:2386:A:OP1	2.03	0.59
23:DB:2800:A:H2'	23:DB:2801:G:O4'	2.02	0.59
23:DB:2813:A:H2'	23:DB:2814:A:C8	2.38	0.59
25:DC:171:VAL:HB	25:DC:183:VAL:HG12	1.85	0.59
26:DD:36:GLN:O	26:DD:36:GLN:HG3	2.01	0.59
26:DD:92:VAL:O	26:DD:94:GLN:N	2.36	0.59
27:DE:108:ILE:HG13	33:DL:2:ARG:NH2	2.18	0.59
30:DH:117:LEU:HD22	30:DH:130:VAL:HG13	1.85	0.59
30:DH:128:HIS:HB2	30:DH:144:VAL:HG23	1.85	0.59
31:DJ:25:LEU:HB2	31:DJ:62:VAL:CG2	2.33	0.59
32:DK:8:LEU:HD12	32:DK:8:LEU:N	2.17	0.59
5:AF:100:SER:HA	17:AR:23:LYS:CE	2.32	0.59
6:AG:26:VAL:HB	6:AG:39:GLU:HG2	1.84	0.59
6:AG:62:GLU:O	6:AG:66:GLU:HG3	2.03	0.59
10:AK:81:LEU:HD21	10:AK:104:PHE:HB3	1.85	0.59
23:BB:660:C:H2'	23:BB:661:A:H8	1.67	0.59
23:BB:1812:U:H2'	23:BB:1813:G:C8	2.37	0.59
27:BE:33:VAL:O	27:BE:36:ALA:HB3	2.02	0.59
30:BH:21:VAL:HG22	30:BH:22:LYS:H	1.66	0.59
31:BJ:45:THR:OG1	31:BJ:48:VAL:HB	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BJ:124:VAL:O	31:BJ:125:TYR:HB2	2.02	0.59
36:BO:27:VAL:HG21	36:BO:40:ILE:HD12	1.85	0.59
36:BO:67:ASN:HB3	36:BO:70:ALA:HB2	1.83	0.59
51:B4:7:VAL:HG13	51:B4:8:LYS:N	2.18	0.59
52:BI:96:LYS:N	52:BI:96:LYS:HD2	2.18	0.59
1:CA:332:G:OP2	19:CT:4:LYS:HB2	2.03	0.59
1:CA:719:C:O2'	17:CR:37:LYS:HB2	2.03	0.59
1:CA:802:A:H2'	1:CA:803:G:O4'	2.03	0.59
1:CA:1478:U:H2'	1:CA:1479:C:C6	2.38	0.59
12:CM:77:LYS:HG2	12:CM:81:ASP:OD2	2.02	0.59
16:CQ:26:ARG:HG2	16:CQ:39:ARG:O	2.03	0.59
20:CB:99:MET:HA	20:CB:106:VAL:HG11	1.85	0.59
22:DA:13:G:C2'	22:DA:14:U:H5''	2.32	0.59
23:DB:233:A:N6	23:DB:428:A:H61	2.00	0.59
23:DB:569:U:H2'	23:DB:570:G:O4'	2.03	0.59
23:DB:782:A:H5'	23:DB:783:A:C2	2.38	0.59
23:DB:1454:C:H5'	35:DN:63:ARG:NE	2.18	0.59
23:DB:1551:A:H2'	23:DB:1552:A:O4'	2.03	0.59
23:DB:2258:C:O2'	23:DB:2426:A:H4'	2.02	0.59
23:DB:2334:U:H1'	36:DO:13:ARG:HA	1.85	0.59
23:DB:2354:C:H4'	43:DW:31:LEU:CD2	2.32	0.59
23:DB:2758:A:H2'	23:DB:2759:G:O4'	2.03	0.59
25:DC:122:ALA:O	25:DC:123:ILE:C	2.46	0.59
32:DK:109:SER:C	32:DK:111:LYS:H	2.11	0.59
34:DM:41:LEU:HB2	34:DM:94:ALA:HB3	1.85	0.59
35:DN:1:MET:HE3	35:DN:3:HIS:HD2	1.68	0.59
38:DQ:91:ARG:NH2	39:DR:11:GLN:H	2.01	0.59
40:DS:29:VAL:HG11	40:DS:55:ILE:CD1	2.32	0.59
41:DT:44:LYS:O	41:DT:48:GLN:HG2	2.02	0.59
42:DU:81:ARG:HB2	42:DU:96:LYS:CG	2.33	0.59
45:DY:2:LYS:HD3	45:DY:2:LYS:H	1.67	0.59
1:AA:264:C:O2'	16:AQ:65:PRO:HG2	2.03	0.58
1:AA:922:G:H4'	4:AE:24:VAL:HA	1.85	0.58
1:AA:1270:G:H2'	1:AA:1271:A:C8	2.38	0.58
2:AC:82:ASP:HA	2:AC:85:LYS:HB3	1.84	0.58
17:AR:55:ALA:HA	17:AR:58:ILE:HD13	1.84	0.58
19:AT:19:HIS:O	19:AT:23:ARG:HG2	2.02	0.58
23:BB:1406:U:H2'	23:BB:1407:G:H8	1.68	0.58
23:BB:1557:C:H3'	23:BB:1558:C:H5''	1.85	0.58
23:BB:2277:G:H5''	34:BM:86:LYS:CB	2.33	0.58
25:BC:122:ALA:O	25:BC:123:ILE:C	2.46	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BD:7:LYS:O	26:BD:9:VAL:HG12	2.03	0.58
40:BS:42:LYS:O	40:BS:45:VAL:HG22	2.03	0.58
41:BT:48:GLN:HE21	41:BT:48:GLN:HA	1.68	0.58
41:BT:57:VAL:HG13	41:BT:58:VAL:N	2.18	0.58
45:BY:2:LYS:HD3	45:BY:2:LYS:H	1.67	0.58
48:B1:34:GLU:HA	48:B1:48:TYR:O	2.03	0.58
1:CA:545:C:H5''	3:CD:68:GLU:HG2	1.85	0.58
1:CA:1249:C:H4'	8:CI:37:TYR:OH	2.03	0.58
1:CA:1270:G:H2'	1:CA:1271:A:C8	2.38	0.58
7:CH:124:ILE:HG22	7:CH:125:ILE:N	2.16	0.58
11:CL:35:ARG:HA	11:CL:35:ARG:NH1	2.18	0.58
20:CB:16:GLY:HA3	20:CB:39:ILE:HA	1.84	0.58
23:DB:2264:C:H41	43:DW:11:ASN:ND2	1.99	0.58
23:DB:2573:C:H3'	56:DB:3631:HOH:O	2.03	0.58
23:DB:2633:G:H2'	23:DB:2634:A:O4'	2.02	0.58
23:DB:2859:G:H2'	23:DB:2860:A:C8	2.38	0.58
26:DD:13:ARG:HD3	26:DD:15:PHE:HE1	1.67	0.58
28:DF:43:ILE:HG23	28:DF:44:ALA:N	2.13	0.58
29:DG:59:ASP:O	29:DG:63:GLN:HB2	2.03	0.58
32:DK:70:ARG:HA	32:DK:76:VAL:HA	1.85	0.58
42:DU:94:PHE:CB	42:DU:101:THR:HA	2.33	0.58
43:DW:9:THR:OG1	43:DW:10:ARG:N	2.32	0.58
45:DY:37:ARG:HG2	45:DY:43:ILE:HD11	1.85	0.58
52:DI:32:VAL:HG22	52:DI:60:VAL:HG21	1.85	0.58
1:AA:68:G:H5'	1:AA:171:A:H1'	1.84	0.58
1:AA:812:G:N3	1:AA:812:G:H2'	2.18	0.58
1:AA:1008:U:H5''	13:AN:23:ARG:NH2	2.17	0.58
4:AE:11:GLN:HE22	4:AE:41:GLY:HA3	1.69	0.58
8:AI:25:GLY:HA3	8:AI:57:VAL:H	1.68	0.58
20:AB:126:ASP:O	20:AB:127:LYS:HB3	2.03	0.58
23:BB:782:A:N7	25:BC:219:VAL:HG21	2.18	0.58
23:BB:1171:G:H2'	23:BB:1172:C:C6	2.37	0.58
23:BB:1320:C:H5	23:BB:1329:U:H5''	1.68	0.58
23:BB:1739:A:H2'	23:BB:1740:G:O4'	2.04	0.58
23:BB:2088:A:H2'	23:BB:2089:C:C6	2.38	0.58
23:BB:2384:U:H5''	23:BB:2386:A:OP1	2.03	0.58
23:BB:2624:G:H1'	47:B0:18:HIS:NE2	2.17	0.58
24:BV:35:GLU:OE1	24:BV:93:ARG:HD3	2.03	0.58
25:BC:171:VAL:HB	25:BC:183:VAL:HG12	1.85	0.58
27:BE:5:LEU:HB2	27:BE:11:ALA:N	2.18	0.58
28:BF:102:LEU:HA	28:BF:106:ALA:CB	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BM:19:GLY:H	34:BM:38:ARG:NH1	1.98	0.58
35:BN:72:ASP:OD1	35:BN:75:ILE:HG23	2.03	0.58
37:BP:6:GLN:O	37:BP:9:GLN:HG2	2.03	0.58
41:BT:29:THR:CA	41:BT:86:THR:HA	2.30	0.58
42:BU:35:VAL:O	42:BU:38:ILE:HG22	2.03	0.58
45:BY:5:LYS:HG3	45:BY:57:GLU:HB2	1.85	0.58
1:CA:411:A:H62	1:CA:413:G:H21	1.50	0.58
1:CA:451:A:H5'	15:CP:70:ARG:NH2	2.17	0.58
1:CA:638:U:H2'	1:CA:639:G:O4'	2.02	0.58
2:CC:154:GLY:HA3	2:CC:162:ALA:HB1	1.86	0.58
5:CF:86:ARG:HH12	17:CR:63:TYR:HB3	1.66	0.58
6:CG:78:ARG:HD2	6:CG:78:ARG:C	2.28	0.58
10:CK:124:LYS:HA	21:CU:34:ARG:CB	2.30	0.58
13:CN:68:ARG:NH1	13:CN:70:HIS:HB2	2.17	0.58
20:CB:150:ILE:HG13	20:CB:153:MET:HE3	1.86	0.58
22:DA:24:G:O2'	22:DA:25:U:H5''	2.02	0.58
23:DB:674:G:H4'	27:DE:69:ARG:HB3	1.85	0.58
23:DB:825:A:H1'	33:DL:54:GLN:NE2	2.18	0.58
23:DB:1443:U:H2'	23:DB:1444:G:H8	1.68	0.58
23:DB:2468:A:H2'	23:DB:2476:A:C6	2.38	0.58
38:DQ:105:PHE:O	38:DQ:109:VAL:HG23	2.03	0.58
39:DR:39:LEU:CA	39:DR:49:ILE:HG12	2.34	0.58
1:AA:370:C:H2'	1:AA:371:A:H8	1.67	0.58
1:AA:539:A:H2'	1:AA:540:G:H8	1.67	0.58
1:AA:728:A:H2'	1:AA:729:A:C8	2.39	0.58
1:AA:881:G:P	11:AL:8:ARG:HH12	2.26	0.58
6:AG:78:ARG:NH1	6:AG:81:GLY:H	2.01	0.58
11:AL:26:CYS:SG	11:AL:29:LYS:HE2	2.43	0.58
11:AL:109:ARG:HB3	11:AL:118:VAL:HG21	1.85	0.58
15:AP:40:ASN:HD21	15:AP:42:ILE:C	2.11	0.58
18:AS:11:ASP:H	18:AS:14:LEU:HD21	1.67	0.58
18:AS:43:MET:HB2	18:AS:61:VAL:HG11	1.84	0.58
21:AU:3:ILE:HD12	21:AU:3:ILE:N	2.18	0.58
22:BA:13:G:C2'	22:BA:14:U:H5''	2.34	0.58
22:BA:15:A:H3'	22:BA:15:A:OP2	2.03	0.58
23:BB:470:A:N6	41:BT:72:GLN:HE22	1.93	0.58
23:BB:1172:C:H3'	23:BB:1173:U:C5	2.38	0.58
23:BB:1400:U:H2'	23:BB:1401:G:C8	2.38	0.58
23:BB:1785:A:H2'	23:BB:1787:A:N7	2.18	0.58
23:BB:1882:U:O2'	23:BB:1883:U:H5'	2.04	0.58
23:BB:2241:A:H2'	23:BB:2242:G:H8	1.65	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:2633:G:H2'	23:BB:2634:A:O4'	2.03	0.58
23:BB:2804:U:H2'	23:BB:2805:C:C6	2.38	0.58
28:BF:37:MET:HB2	28:BF:56:LEU:HD21	1.85	0.58
29:BG:2:ARG:H	29:BG:5:LYS:HE2	1.67	0.58
29:BG:68:ARG:HH12	29:BG:72:ASN:HD22	1.51	0.58
31:BJ:57:LEU:HG	31:BJ:128:ASN:H	1.68	0.58
31:BJ:59:ALA:C	31:BJ:61:LYS:H	2.10	0.58
34:BM:60:GLN:HG2	34:BM:108:VAL:HG23	1.85	0.58
40:BS:1:MET:SD	40:BS:62:ASP:HB2	2.43	0.58
41:BT:44:LYS:O	41:BT:48:GLN:HG2	2.02	0.58
43:BW:17:ALA:HB1	43:BW:36:ILE:HA	1.85	0.58
43:BW:24:ARG:HD2	43:BW:25:PHE:N	2.18	0.58
1:CA:268:U:H2'	1:CA:269:C:C6	2.38	0.58
1:CA:555:U:H2'	1:CA:556:C:H6	1.68	0.58
1:CA:685:G:O2'	1:CA:686:U:H5'	2.02	0.58
1:CA:845:A:H3'	1:CA:846:G:C8	2.37	0.58
1:CA:1218:C:H2'	1:CA:1219:A:C8	2.37	0.58
3:CD:123:MET:HB2	3:CD:126:GLY:O	2.03	0.58
5:CF:67:PRO:HG2	5:CF:70:VAL:HG22	1.85	0.58
8:CI:32:ARG:HH21	8:CI:36:GLN:HG3	1.68	0.58
11:CL:109:ARG:HB3	11:CL:118:VAL:HG21	1.85	0.58
20:CB:15:PHE:O	20:CB:40:ILE:HD12	2.03	0.58
23:DB:57:C:H2'	23:DB:58:G:O4'	2.03	0.58
23:DB:78:U:H2'	23:DB:79:C:C6	2.38	0.58
23:DB:309:A:H4'	42:DU:15:GLY:HA3	1.86	0.58
23:DB:360:U:H2'	23:DB:361:G:C1'	2.34	0.58
23:DB:1281:G:H2'	23:DB:1282:U:C6	2.37	0.58
23:DB:2884:U:H2'	23:DB:2885:G:C8	2.38	0.58
23:DB:2897:U:H2'	23:DB:2898:U:C6	2.38	0.58
25:DC:75:ALA:HB2	25:DC:95:TYR:HA	1.84	0.58
25:DC:103:ILE:HG22	25:DC:105:ALA:H	1.68	0.58
25:DC:196:ASN:HD22	25:DC:199:HIS:HB2	1.69	0.58
29:DG:83:THR:HA	29:DG:84:LYS:NZ	2.18	0.58
31:DJ:23:LYS:HE2	31:DJ:142:ILE:HA	1.86	0.58
31:DJ:45:THR:N	31:DJ:46:PRO:HD3	2.18	0.58
32:DK:2:ILE:HA	32:DK:33:ALA:H	1.68	0.58
45:DY:40:THR:O	45:DY:43:ILE:HG22	2.03	0.58
1:AA:93:U:O2'	1:AA:94:G:H5'	2.04	0.58
1:AA:625:U:H4'	15:AP:16:PHE:CZ	2.38	0.58
1:AA:1149:C:H2'	1:AA:1150:A:C8	2.38	0.58
23:BB:57:C:H2'	23:BB:58:G:O4'	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:182:A:H2'	23:BB:183:C:C6	2.39	0.58
23:BB:947:A:H2'	23:BB:948:C:C6	2.38	0.58
23:BB:1082:U:C2	23:BB:1086:A:C6	2.91	0.58
23:BB:1097:U:H2'	23:BB:1098:A:H5'	1.85	0.58
23:BB:1203:U:O4'	33:BL:3:LEU:HD12	2.03	0.58
23:BB:1400:U:H2'	23:BB:1401:G:H8	1.67	0.58
23:BB:2054:A:H2'	47:B0:4:GLN:OE1	2.04	0.58
26:BD:117:GLY:O	26:BD:164:GLN:HA	2.03	0.58
31:BJ:16:TYR:O	31:BJ:55:ILE:HG12	2.04	0.58
32:BK:20:MET:C	32:BK:41:ILE:HG13	2.29	0.58
38:BQ:91:ARG:HH22	39:BR:10:LYS:HB3	1.67	0.58
42:BU:71:ILE:HD11	42:BU:82:VAL:HG22	1.85	0.58
1:CA:472:U:H2'	1:CA:473:U:C6	2.39	0.58
1:CA:576:C:OP2	1:CA:576:C:H3'	2.03	0.58
1:CA:742:G:H2'	1:CA:743:A:H8	1.68	0.58
1:CA:746:A:H2'	1:CA:747:A:C8	2.38	0.58
4:CE:82:HIS:HB2	4:CE:83:PRO:HD2	1.85	0.58
10:CK:16:SER:HA	10:CK:77:GLY:O	2.03	0.58
11:CL:35:ARG:HA	11:CL:35:ARG:CZ	2.34	0.58
14:CO:27:GLN:O	14:CO:31:LEU:HD23	2.02	0.58
15:CP:40:ASN:HD21	15:CP:42:ILE:C	2.11	0.58
20:CB:117:GLU:HA	20:CB:140:LEU:HD21	1.85	0.58
23:DB:176:A:O2'	23:DB:177:G:H5'	2.03	0.58
23:DB:1018:U:O2'	23:DB:1019:U:H5'	2.02	0.58
23:DB:1092:C:H2'	23:DB:1093:G:H5'	1.86	0.58
23:DB:2331:G:N2	23:DB:2336:A:H8	2.00	0.58
23:DB:2472:G:O6	23:DB:2476:A:H4'	2.04	0.58
23:DB:2848:G:H22	23:DB:2867:G:N2	2.02	0.58
24:DV:30:ILE:HG13	24:DV:40:ILE:HD12	1.83	0.58
31:DJ:59:ALA:C	31:DJ:61:LYS:H	2.12	0.58
34:DM:19:GLY:N	34:DM:38:ARG:HH22	2.01	0.58
34:DM:63:ILE:H	34:DM:63:ILE:HD12	1.67	0.58
37:DP:89:GLY:HA2	37:DP:111:GLU:C	2.29	0.58
39:DR:28:ALA:O	39:DR:63:VAL:HG21	2.03	0.58
43:DW:17:ALA:HB1	43:DW:36:ILE:HA	1.85	0.58
45:DY:15:ARG:HD2	45:DY:15:ARG:N	2.18	0.58
48:D1:3:GLY:C	48:D1:5:ARG:H	2.11	0.58
52:DI:116:MET:HE1	52:DI:128:ILE:HG13	1.84	0.58
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.39	0.58
1:AA:1071:C:H2'	1:AA:1072:G:H8	1.69	0.58
6:AG:14:ASP:CB	6:AG:19:SER:H	2.15	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AH:17:GLN:HE21	7:AH:62:LEU:HB3	1.69	0.58
13:AN:9:GLU:HB2	13:AN:62:ARG:CZ	2.33	0.58
18:AS:11:ASP:O	18:AS:14:LEU:HG	2.02	0.58
20:AB:172:ILE:HG22	20:AB:176:ASN:HD21	1.69	0.58
23:BB:65:U:H2'	23:BB:66:C:C6	2.38	0.58
23:BB:1443:U:H2'	23:BB:1444:G:H8	1.68	0.58
23:BB:2291:U:H2'	23:BB:2292:U:C6	2.38	0.58
23:BB:2370:G:H2'	23:BB:2371:G:O4'	2.03	0.58
26:BD:179:ARG:HB2	26:BD:188:LEU:HD12	1.86	0.58
27:BE:137:LYS:HE2	27:BE:141:MET:SD	2.43	0.58
30:BH:80:ILE:HD13	30:BH:99:ILE:HD13	1.84	0.58
1:CA:390:U:H2'	1:CA:391:G:C8	2.39	0.58
1:CA:620:C:O2	3:CD:131:ILE:HG21	2.03	0.58
1:CA:728:A:H2'	1:CA:729:A:C8	2.38	0.58
1:CA:1008:U:H5''	13:CN:23:ARG:HH22	1.69	0.58
7:CH:6:ILE:HB	7:CH:76:ARG:NH1	2.18	0.58
22:DA:95:U:H2'	22:DA:96:G:C8	2.39	0.58
23:DB:654:A:H2'	23:DB:655:A:H5''	1.84	0.58
23:DB:1381:G:C2'	23:DB:1382:G:H5'	2.33	0.58
23:DB:1485:U:H2'	23:DB:1486:U:H6	1.69	0.58
23:DB:2144:G:O2'	23:DB:2146:C:H5''	2.03	0.58
23:DB:2649:C:H2'	23:DB:2650:U:C6	2.36	0.58
24:DV:70:ILE:H	24:DV:70:ILE:HD13	1.69	0.58
25:DC:146:LYS:HB3	25:DC:147:PRO:CD	2.28	0.58
26:DD:176:ASP:HB2	26:DD:190:LYS:HG2	1.85	0.58
27:DE:46:GLN:HG3	27:DE:87:ALA:HB3	1.85	0.58
30:DH:31:VAL:O	30:DH:32:PRO:C	2.47	0.58
38:DQ:65:ASN:CB	38:DQ:75:TYR:HB2	2.32	0.58
38:DQ:79:ILE:O	38:DQ:82:LEU:HB2	2.03	0.58
40:DS:18:ARG:HB3	40:DS:76:VAL:CG2	2.33	0.58
41:DT:7:LEU:HA	41:DT:9:LYS:NZ	2.19	0.58
41:DT:57:VAL:HG13	41:DT:58:VAL:N	2.18	0.58
46:DZ:70:GLU:O	46:DZ:71:LEU:HB3	2.03	0.58
48:D1:6:GLU:CD	48:D1:6:GLU:H	2.12	0.58
1:AA:352:C:H4'	1:AA:354:G:OP1	2.03	0.58
1:AA:596:A:H2'	1:AA:597:G:H8	1.69	0.58
1:AA:1461:G:H2'	1:AA:1462:C:H6	1.69	0.58
6:AG:72:VAL:HG12	6:AG:89:GLU:HA	1.85	0.58
7:AH:45:ILE:HG22	7:AH:62:LEU:HA	1.86	0.58
10:AK:124:LYS:HA	21:AU:34:ARG:CB	2.33	0.58
14:AO:27:GLN:O	14:AO:31:LEU:HD23	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AB:44:LYS:C	20:AB:47:PRO:HD2	2.27	0.58
20:AB:93:HIS:CD2	20:AB:145:ASN:HB3	2.39	0.58
20:AB:114:LYS:HE2	20:AB:151:LYS:HZ1	1.67	0.58
23:BB:15:G:O2'	23:BB:16:C:H5'	2.03	0.58
23:BB:118:A:H5'	23:BB:119:A:H8	1.68	0.58
23:BB:443:A:C5	27:BE:40:ARG:HD3	2.38	0.58
23:BB:712:G:H2'	23:BB:713:G:O4'	2.04	0.58
23:BB:770:G:H5''	49:B2:10:LEU:HD12	1.84	0.58
23:BB:1550:C:H2'	23:BB:1551:A:C8	2.39	0.58
23:BB:2820:A:OP1	35:BN:4:ARG:HA	2.03	0.58
27:BE:48:THR:HG22	27:BE:86:ALA:HB3	1.84	0.58
30:BH:89:LYS:HA	30:BH:89:LYS:HE3	1.85	0.58
31:BJ:57:LEU:HD21	31:BJ:128:ASN:HA	1.86	0.58
34:BM:71:LYS:HG2	34:BM:73:ILE:HD11	1.85	0.58
45:BY:40:THR:O	45:BY:43:ILE:HG22	2.03	0.58
50:B3:30:HIS:O	50:B3:31:ILE:HG12	2.02	0.58
52:BI:27:LEU:H	52:BI:27:LEU:CD2	2.15	0.58
1:CA:628:G:H2'	1:CA:629:A:C8	2.38	0.58
1:CA:651:C:H2'	1:CA:652:U:C6	2.39	0.58
1:CA:777:A:H2'	1:CA:778:G:C8	2.37	0.58
1:CA:921:U:H2'	1:CA:922:G:C8	2.38	0.58
1:CA:950:U:H2'	1:CA:951:G:H8	1.68	0.58
1:CA:1090:U:H2'	1:CA:1091:U:C6	2.37	0.58
1:CA:1461:G:H2'	1:CA:1462:C:H6	1.68	0.58
5:CF:79:ARG:HH21	5:CF:87:SER:HB3	1.69	0.58
20:CB:80:LYS:HG3	20:CB:81:ASP:H	1.69	0.58
23:DB:572:A:H5''	23:DB:573:U:OP2	2.03	0.58
23:DB:1042:G:H2'	23:DB:1043:C:C6	2.38	0.58
23:DB:1429:G:O2'	23:DB:1430:G:H5'	2.04	0.58
23:DB:1450:G:H21	23:DB:1452:G:H1	1.51	0.58
23:DB:1678:A:H2'	23:DB:1679:A:H8	1.68	0.58
23:DB:2377:A:H2'	23:DB:2378:A:C8	2.39	0.58
25:DC:93:VAL:HG13	25:DC:94:LEU:N	2.18	0.58
33:DL:51:GLU:HG2	50:D3:56:LEU:HD21	1.85	0.58
34:DM:97:GLN:HB2	34:DM:98:PRO:HD2	1.85	0.58
52:DI:121:ILE:H	52:DI:121:ILE:CD1	2.14	0.58
1:AA:328:C:H4'	1:AA:329:A:H5''	1.84	0.58
1:AA:472:U:H2'	1:AA:473:U:C6	2.39	0.58
18:AS:27:LYS:NZ	18:AS:27:LYS:HB3	2.19	0.58
20:AB:23:ASN:HD22	20:AB:24:PRO:HD2	1.67	0.58
23:BB:131:A:H2'	23:BB:132:G:H8	1.69	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:142:A:H2'	23:BB:143:C:O4'	2.02	0.58
23:BB:414:C:H2'	23:BB:415:A:H8	1.67	0.58
23:BB:593:U:H2'	23:BB:594:U:C6	2.38	0.58
23:BB:857:G:O2'	23:BB:858:G:H5'	2.04	0.58
23:BB:877:A:H3'	23:BB:899:A:N1	2.18	0.58
23:BB:1458:U:H2'	23:BB:1459:G:H5''	1.85	0.58
23:BB:1747:U:H2'	23:BB:1748:C:C6	2.39	0.58
23:BB:2700:A:H2'	23:BB:2701:U:H6	1.68	0.58
24:BV:53:LYS:HE2	24:BV:53:LYS:HA	1.86	0.58
27:BE:5:LEU:HD12	27:BE:10:SER:HB2	1.86	0.58
32:BK:70:ARG:CB	32:BK:76:VAL:HG22	2.34	0.58
33:BL:85:VAL:HG21	33:BL:94:THR:HB	1.84	0.58
38:BQ:4:LYS:HE3	38:BQ:8:ILE:HD11	1.86	0.58
43:BW:35:ILE:HG13	43:BW:57:THR:OG1	2.02	0.58
47:B0:38:LEU:HB3	47:B0:41:HIS:CD2	2.38	0.58
1:CA:16:A:O2'	1:CA:17:U:H5'	2.03	0.58
1:CA:1054:C:O2'	1:CA:1055:A:H5''	2.04	0.58
3:CD:22:SER:H	3:CD:109:THR:HG22	1.68	0.58
3:CD:123:MET:SD	3:CD:145:ARG:HD2	2.43	0.58
12:CM:39:ALA:HB3	12:CM:42:VAL:HG13	1.86	0.58
13:CN:60:ARG:NE	13:CN:62:ARG:HG2	2.19	0.58
20:CB:217:ALA:O	20:CB:221:ARG:HG2	2.03	0.58
23:DB:124:G:O2'	23:DB:125:A:H5''	2.04	0.58
23:DB:248:G:H5'	23:DB:250:G:N7	2.18	0.58
23:DB:370:G:O2'	23:DB:423:A:H3'	2.04	0.58
23:DB:532:A:H4'	23:DB:533:G:C8	2.38	0.58
23:DB:929:U:O2	45:DY:25:GLY:HA2	2.02	0.58
23:DB:996:A:C4'	38:DQ:91:ARG:HD2	2.31	0.58
23:DB:1407:G:H2'	23:DB:1408:G:C8	2.39	0.58
23:DB:1487:U:H2'	23:DB:1488:C:C6	2.38	0.58
23:DB:2054:A:H2'	47:D0:4:GLN:OE1	2.03	0.58
23:DB:2346:A:H3'	23:DB:2347:C:H5''	1.84	0.58
23:DB:2718:G:H4'	37:DP:95:LYS:HB2	1.85	0.58
25:DC:161:VAL:HG12	25:DC:162:GLN:N	2.17	0.58
31:DJ:16:TYR:O	31:DJ:55:ILE:HG12	2.03	0.58
39:DR:78:ARG:HG3	39:DR:78:ARG:NH2	2.18	0.58
49:D2:3:ARG:HE	49:D2:4:THR:HG22	1.69	0.58
1:AA:190:A:H8	1:AA:190:A:O5'	1.87	0.58
1:AA:208:U:H4'	1:AA:209:U:C5	2.38	0.58
1:AA:265:G:H2'	1:AA:267:C:H5	1.68	0.58
1:AA:313:A:H2'	1:AA:314:C:C6	2.39	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:621:A:H2'	1:AA:622:A:C8	2.38	0.58
1:AA:1250:A:H2'	1:AA:1251:A:C8	2.39	0.58
1:AA:1338:G:H2'	1:AA:1339:A:C8	2.39	0.58
2:AC:18:ASN:OD1	2:AC:53:ARG:HD2	2.04	0.58
2:AC:154:GLY:HA3	2:AC:162:ALA:HB1	1.86	0.58
3:AD:7:LYS:O	3:AD:20:LEU:HD12	2.04	0.58
3:AD:123:MET:HB2	3:AD:126:GLY:O	2.04	0.58
6:AG:65:LEU:O	6:AG:69:ARG:HG3	2.04	0.58
10:AK:16:SER:HA	10:AK:77:GLY:O	2.02	0.58
12:AM:79:LEU:HD21	12:AM:86:ARG:HH21	1.67	0.58
20:AB:83:ALA:CB	20:AB:90:PHE:HB3	2.34	0.58
23:BB:141:G:H5''	23:BB:142:A:C5	2.38	0.58
23:BB:279:A:N6	23:BB:361:G:H1'	2.19	0.58
23:BB:1203:U:H1'	33:BL:4:ASN:ND2	2.06	0.58
23:BB:2060:A:H62	27:BE:69:ARG:HH12	1.50	0.58
26:BD:34:VAL:CG1	26:BD:94:GLN:H	2.15	0.58
30:BH:68:ARG:HH12	30:BH:110:VAL:HG12	1.68	0.58
31:BJ:13:ARG:HB3	31:BJ:53:TYR:HD2	1.68	0.58
42:BU:38:ILE:HG23	42:BU:39:ASN:N	2.06	0.58
1:CA:328:C:H4'	1:CA:329:A:H5''	1.86	0.58
1:CA:538:G:H5''	11:CL:110:LYS:HG2	1.84	0.58
1:CA:922:G:H4'	4:CE:24:VAL:HA	1.84	0.58
13:CN:79:SER:OG	13:CN:82:LYS:HG2	2.04	0.58
18:CS:62:THR:H	18:CS:65:MET:HB2	1.69	0.58
23:DB:30:G:H2'	23:DB:31:C:H6	1.66	0.58
23:DB:352:A:H3'	23:DB:353:C:C6	2.39	0.58
23:DB:1882:U:O2'	23:DB:1883:U:H5'	2.04	0.58
23:DB:2271:G:H2'	23:DB:2272:U:C6	2.39	0.58
33:DL:116:VAL:HG13	33:DL:117:THR:N	2.19	0.58
35:DN:9:GLN:O	35:DN:11:ASN:N	2.37	0.58
36:DO:55:GLU:HB2	36:DO:58:ILE:HD12	1.86	0.58
38:DQ:26:ALA:HB1	38:DQ:30:VAL:HB	1.85	0.58
48:D1:8:ILE:HD12	48:D1:51:ALA:HA	1.85	0.58
49:D2:34:ARG:HE	49:D2:39:ARG:HG2	1.69	0.58
1:AA:60:A:H4'	1:AA:61:G:OP1	2.03	0.58
1:AA:276:G:H5'	16:AQ:16:MET:SD	2.44	0.58
1:AA:1141:C:H2'	1:AA:1142:G:C8	2.39	0.58
4:AE:125:LYS:HD2	4:AE:126:ALA:H	1.69	0.58
12:AM:2:ARG:HB2	12:AM:56:ARG:NH2	2.18	0.58
12:AM:95:PRO:N	12:AM:108:ARG:HG2	2.18	0.58
17:AR:25:ILE:O	17:AR:29:LYS:HG3	2.02	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AB:32:GLY:N	20:AB:39:ILE:HB	2.18	0.58
23:BB:1812:U:H1'	25:BC:43:ASN:ND2	2.08	0.58
26:BD:36:GLN:O	26:BD:36:GLN:HG3	2.02	0.58
29:BG:9:VAL:HA	29:BG:48:THR:HG22	1.86	0.58
32:BK:70:ARG:HA	32:BK:76:VAL:HA	1.84	0.58
35:BN:9:GLN:O	35:BN:11:ASN:N	2.37	0.58
39:BR:78:ARG:HG3	39:BR:78:ARG:NH2	2.18	0.58
45:BY:35:VAL:HG22	45:BY:36:GLU:N	2.16	0.58
1:CA:182:A:H1'	1:CA:183:C:C5	2.38	0.58
1:CA:501:C:H2'	1:CA:502:A:H8	1.68	0.58
1:CA:1448:C:H2'	1:CA:1449:C:C6	2.38	0.58
2:CC:31:ASN:ND2	2:CC:58:ARG:HE	2.01	0.58
20:CB:107:ARG:HA	20:CB:110:ILE:HD12	1.86	0.58
20:CB:172:ILE:HG22	20:CB:176:ASN:HD21	1.69	0.58
23:DB:730:A:O2'	23:DB:731:C:H5'	2.04	0.58
23:DB:753:A:H2'	23:DB:754:U:C6	2.39	0.58
23:DB:2052:A:O4'	26:DD:147:GLY:HA3	2.04	0.58
23:DB:2144:G:O2'	23:DB:2145:C:H5'	2.03	0.58
30:DH:133:GLN:HB3	30:DH:139:PHE:CA	2.32	0.58
33:DL:109:LYS:O	33:DL:111:ILE:HG12	2.04	0.58
37:DP:98:TYR:C	37:DP:100:ARG:H	2.11	0.58
39:DR:34:GLU:HA	39:DR:59:ILE:O	2.03	0.58
46:DZ:40:VAL:HG22	46:DZ:45:ARG:H	1.67	0.58
1:AA:668:G:O2'	14:AO:45:HIS:HB3	2.03	0.58
1:AA:950:U:H2'	1:AA:951:G:H8	1.67	0.58
1:AA:1244:G:H2'	1:AA:1245:C:C6	2.38	0.58
1:AA:1427:C:H2'	1:AA:1428:A:C8	2.38	0.58
3:AD:77:GLU:O	3:AD:81:LEU:HG	2.04	0.58
3:AD:201:GLU:OE1	4:AE:104:ILE:HG22	2.04	0.58
4:AE:73:VAL:HB	4:AE:75:LEU:HD21	1.86	0.58
6:AG:72:VAL:HA	6:AG:89:GLU:HA	1.86	0.58
8:AI:9:GLY:HA3	8:AI:81:GLY:H	1.69	0.58
11:AL:13:ARG:H	11:AL:13:ARG:CD	2.16	0.58
18:AS:24:SER:HB2	18:AS:27:LYS:HE3	1.86	0.58
23:BB:1353:A:H2'	23:BB:1354:A:H8	1.69	0.58
23:BB:1355:G:O2'	23:BB:1356:G:H5'	2.03	0.58
23:BB:2015:A:C2	47:B0:2:VAL:HG22	2.38	0.58
23:BB:2031:A:C6	23:BB:2498:C:H1'	2.38	0.58
25:BC:239:PHE:O	25:BC:241:LYS:HG3	2.04	0.58
32:BK:88:ASN:HB3	32:BK:92:GLU:O	2.03	0.58
40:BS:81:SER:HB3	40:BS:99:ARG:HB3	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:518:C:H2'	1:CA:530:G:H8	1.69	0.58
1:CA:580:C:H2'	1:CA:581:G:O4'	2.04	0.58
1:CA:747:A:H2'	1:CA:748:G:O4'	2.04	0.58
2:CC:13:ILE:HD13	2:CC:13:ILE:H	1.68	0.58
2:CC:88:LYS:O	2:CC:88:LYS:HE3	2.03	0.58
5:CF:98:GLU:HG2	5:CF:99:ALA:N	2.19	0.58
10:CK:17:ASP:C	10:CK:36:ARG:HH12	2.11	0.58
19:CT:43:LYS:HE2	19:CT:44:ALA:N	2.18	0.58
23:DB:322:A:H5'	23:DB:340:A:C1'	2.34	0.58
23:DB:609:A:H2'	23:DB:610:C:O4'	2.04	0.58
23:DB:1054:A:H2'	23:DB:1055:G:H8	1.67	0.58
23:DB:2194:U:H2'	23:DB:2195:U:H6	1.69	0.58
23:DB:2291:U:H2'	23:DB:2292:U:C6	2.39	0.58
23:DB:2563:U:H2'	23:DB:2565:A:OP2	2.03	0.58
23:DB:2636:C:O5'	26:DD:81:GLU:HB2	2.03	0.58
23:DB:2678:C:H2'	23:DB:2679:A:H8	1.69	0.58
25:DC:239:PHE:O	25:DC:241:LYS:HG3	2.04	0.58
27:DE:106:LYS:HE2	27:DE:200:LEU:HB3	1.86	0.58
28:DF:11:VAL:HG12	28:DF:12:VAL:N	2.15	0.58
32:DK:88:ASN:HB3	32:DK:92:GLU:O	2.03	0.58
34:DM:35:ALA:HB3	34:DM:99:GLY:N	2.19	0.58
36:DO:35:ILE:CG1	36:DO:102:ARG:HE	2.16	0.58
41:DT:11:LEU:HD22	41:DT:11:LEU:N	2.15	0.58
41:DT:48:GLN:HA	41:DT:48:GLN:HE21	1.69	0.58
46:DZ:65:ASP:HA	46:DZ:68:LEU:HB2	1.85	0.58
51:D4:7:VAL:HG13	51:D4:8:LYS:N	2.19	0.58
1:AA:791:G:C6	1:AA:792:A:N7	2.72	0.57
1:AA:987:G:O2'	1:AA:988:G:H5'	2.03	0.57
1:AA:1057:G:H5''	2:AC:153:SER:HB2	1.86	0.57
5:AF:36:ILE:HG13	5:AF:64:VAL:HG13	1.86	0.57
17:AR:58:ILE:HD12	17:AR:58:ILE:H	1.69	0.57
20:AB:20:ARG:HA	20:AB:38:HIS:HE1	1.68	0.57
20:AB:117:GLU:HA	20:AB:140:LEU:HD21	1.86	0.57
23:BB:572:A:H5''	23:BB:573:U:OP2	2.04	0.57
23:BB:693:A:OP1	25:BC:38:LYS:HG2	2.04	0.57
23:BB:709:U:H2'	23:BB:710:U:C6	2.39	0.57
23:BB:1647:U:P	23:BB:1647:U:H3'	2.42	0.57
23:BB:2339:C:H2'	23:BB:2340:A:C8	2.39	0.57
23:BB:2718:G:H4'	37:BP:95:LYS:HB2	1.86	0.57
23:BB:2801:G:H3'	23:BB:2802:G:H8	1.69	0.57
25:BC:146:LYS:HB3	25:BC:147:PRO:CD	2.28	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BD:105:LYS:HE3	26:BD:176:ASP:OD1	2.03	0.57
26:BD:121:THR:C	26:BD:123:LYS:H	2.11	0.57
28:BF:66:ILE:HA	28:BF:86:CYS:HB3	1.84	0.57
28:BF:155:ILE:O	28:BF:156:THR:HB	2.03	0.57
34:BM:4:PRO:HG2	34:BM:70:ASP:HA	1.85	0.57
37:BP:6:GLN:HA	37:BP:9:GLN:HG2	1.85	0.57
38:BQ:91:ARG:HH12	39:BR:10:LYS:CB	2.17	0.57
39:BR:8:GLY:HA3	39:BR:23:GLU:HB2	1.86	0.57
40:BS:5:ALA:HB3	40:BS:54:ALA:HB2	1.86	0.57
1:CA:235:C:H2'	1:CA:236:A:H8	1.67	0.57
1:CA:285:C:H2'	1:CA:286:C:H6	1.68	0.57
1:CA:920:U:H2'	1:CA:921:U:H6	1.69	0.57
1:CA:1004:A:N7	1:CA:1025:U:H1'	2.19	0.57
1:CA:1160:G:H4'	20:CB:130:LYS:CB	2.34	0.57
1:CA:1343:G:H2'	1:CA:1344:C:C6	2.39	0.57
3:CD:24:VAL:HG13	3:CD:160:LEU:HB3	1.86	0.57
3:CD:29:THR:HB	3:CD:30:LYS:HZ3	1.69	0.57
3:CD:44:LYS:HD2	3:CD:46:ARG:HG2	1.86	0.57
7:CH:10:LEU:HD22	7:CH:74:ILE:HD11	1.86	0.57
8:CI:22:PRO:HA	8:CI:60:LEU:HB2	1.87	0.57
11:CL:82:ARG:HH11	11:CL:82:ARG:HG2	1.68	0.57
19:CT:15:LYS:HE2	19:CT:15:LYS:HA	1.84	0.57
19:CT:24:ARG:HD2	19:CT:28:ARG:NH2	2.19	0.57
23:DB:182:A:H2'	23:DB:183:C:C6	2.38	0.57
23:DB:833:A:H2'	23:DB:834:G:C8	2.39	0.57
23:DB:1287:A:H3'	23:DB:1288:G:H21	1.66	0.57
23:DB:1341:G:H3'	23:DB:1397:U:O2	2.03	0.57
23:DB:1400:U:H2'	23:DB:1401:G:C8	2.37	0.57
26:DD:136:ASN:OD1	26:DD:139:SER:HB2	2.04	0.57
29:DG:84:LYS:HG2	29:DG:85:LYS:N	2.18	0.57
41:DT:11:LEU:HA	41:DT:34:VAL:HG12	1.85	0.57
43:DW:23:LYS:HD2	43:DW:24:ARG:N	2.19	0.57
43:DW:50:VAL:HG23	43:DW:61:LYS:HE3	1.86	0.57
50:D3:30:HIS:O	50:D3:31:ILE:HG12	2.04	0.57
1:AA:285:C:H2'	1:AA:286:C:H6	1.68	0.57
1:AA:518:C:H2'	1:AA:530:G:H8	1.69	0.57
1:AA:638:U:H2'	1:AA:639:G:O4'	2.03	0.57
1:AA:1091:U:H2'	1:AA:1093:A:OP2	2.03	0.57
2:AC:33:ASP:O	2:AC:37:LYS:HG3	2.04	0.57
10:AK:58:THR:HB	10:AK:59:PRO:HD2	1.86	0.57
11:AL:3:VAL:O	11:AL:7:VAL:HG23	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AM:70:ARG:HH12	28:BF:112:ASP:CB	2.13	0.57
21:AU:36:PHE:HA	21:AU:39:LYS:HE2	1.85	0.57
23:BB:1857:G:H2'	23:BB:1884:G:N2	2.19	0.57
23:BB:2149:U:O2'	23:BB:2150:C:H5'	2.04	0.57
23:BB:2393:U:O2'	23:BB:2394:C:H5'	2.04	0.57
25:BC:131:MET:HA	25:BC:134:ILE:HG23	1.86	0.57
27:BE:155:GLU:HA	27:BE:158:PHE:HB3	1.86	0.57
29:BG:84:LYS:HG2	29:BG:85:LYS:N	2.17	0.57
32:BK:113:MET:HE2	32:BK:113:MET:HA	1.84	0.57
33:BL:4:ASN:ND2	33:BL:4:ASN:N	2.51	0.57
33:BL:18:ARG:C	33:BL:19:LEU:HD12	2.29	0.57
33:BL:57:LEU:HA	33:BL:60:ARG:NH2	2.19	0.57
35:BN:7:GLY:HA2	35:BN:46:ARG:NH1	2.19	0.57
36:BO:88:LYS:HD2	36:BO:89:ASP:HB2	1.85	0.57
42:BU:40:LEU:HD23	42:BU:59:GLU:HG2	1.86	0.57
44:BX:19:LEU:O	44:BX:24:GLU:HB2	2.03	0.57
48:B1:8:ILE:HD12	48:B1:51:ALA:HA	1.86	0.57
51:B4:13:ASN:HB3	51:B4:28:SER:H	1.69	0.57
1:CA:769:G:H4'	1:CA:1513:A:H4'	1.86	0.57
1:CA:777:A:H2'	1:CA:778:G:H8	1.68	0.57
1:CA:1004:A:H5'	1:CA:1024:G:N2	2.18	0.57
4:CE:11:GLN:HE22	4:CE:41:GLY:HA3	1.69	0.57
8:CI:18:VAL:HA	8:CI:64:ILE:HG13	1.86	0.57
14:CO:43:ALA:O	14:CO:46:LYS:HE3	2.04	0.57
20:CB:110:ILE:HG23	20:CB:151:LYS:HA	1.85	0.57
20:CB:112:ARG:HH11	20:CB:116:LEU:HG	1.69	0.57
21:CU:36:PHE:HB3	21:CU:39:LYS:HB2	1.86	0.57
22:DA:2:G:H2'	22:DA:3:C:H6	1.65	0.57
23:DB:709:U:H2'	23:DB:710:U:C6	2.39	0.57
23:DB:1164:C:H2'	23:DB:1165:A:H8	1.69	0.57
23:DB:1260:A:H2'	23:DB:1261:C:C6	2.39	0.57
23:DB:2194:U:H2'	23:DB:2195:U:C6	2.39	0.57
23:DB:2369:A:O2'	23:DB:2370:G:H5'	2.04	0.57
24:DV:53:LYS:HE2	24:DV:53:LYS:HA	1.85	0.57
25:DC:71:ASP:OD2	25:DC:118:GLY:HA2	2.03	0.57
26:DD:34:VAL:CG1	26:DD:94:GLN:H	2.17	0.57
28:DF:37:MET:CG	28:DF:52:ALA:HB1	2.35	0.57
31:DJ:45:THR:HG21	31:DJ:50:THR:HG21	1.85	0.57
32:DK:20:MET:C	32:DK:41:ILE:HG13	2.29	0.57
32:DK:24:VAL:HG13	32:DK:33:ALA:HB2	1.85	0.57
33:DL:55:MET:HE3	33:DL:55:MET:HA	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DR:4:VAL:CG2	39:DR:39:LEU:HG	2.34	0.57
44:DX:45:GLN:O	44:DX:47:ARG:N	2.36	0.57
52:DI:99:LYS:HD3	52:DI:99:LYS:H	1.69	0.57
1:AA:476:U:O2'	1:AA:477:C:H5'	2.03	0.57
1:AA:678:U:H2'	1:AA:679:C:H6	1.67	0.57
3:AD:77:GLU:HA	3:AD:80:ARG:HG2	1.87	0.57
4:AE:39:GLY:HA2	4:AE:45:VAL:HA	1.86	0.57
5:AF:79:ARG:HH21	5:AF:87:SER:HB3	1.69	0.57
8:AI:61:ASP:C	8:AI:62:LEU:HD13	2.29	0.57
12:AM:48:SER:O	12:AM:52:ILE:HG22	2.05	0.57
12:AM:79:LEU:HD11	12:AM:86:ARG:HH21	1.68	0.57
23:BB:609:A:H2'	23:BB:610:C:O4'	2.04	0.57
23:BB:630:G:N2	23:BB:632:A:H3'	2.18	0.57
23:BB:1429:G:H2'	23:BB:1430:G:H8	1.68	0.57
23:BB:2621:G:P	26:BD:124:ARG:HH22	2.27	0.57
23:BB:2813:A:H2'	23:BB:2814:A:C8	2.39	0.57
25:BC:211:ARG:C	25:BC:213:ARG:H	2.12	0.57
27:BE:29:HIS:HA	27:BE:32:VAL:HG22	1.87	0.57
28:BF:106:ALA:HA	28:BF:135:ILE:HD13	1.86	0.57
30:BH:72:ILE:HG13	30:BH:75:LEU:HD11	1.85	0.57
30:BH:73:ASN:HB3	30:BH:141:LYS:HZ3	1.69	0.57
33:BL:90:VAL:HB	33:BL:122:VAL:HG13	1.86	0.57
36:BO:62:LEU:HD11	36:BO:70:ALA:HA	1.86	0.57
38:BQ:71:ASN:HD22	38:BQ:73:ILE:HG22	1.69	0.57
40:BS:18:ARG:HB3	40:BS:76:VAL:HG22	1.86	0.57
1:CA:1405:G:O2'	1:CA:1406:U:H5'	2.04	0.57
2:CC:183:TYR:HA	2:CC:199:VAL:O	2.04	0.57
3:CD:201:GLU:OE1	4:CE:104:ILE:HG22	2.04	0.57
6:CG:64:ALA:HA	6:CG:127:ALA:HA	1.85	0.57
12:CM:48:SER:O	12:CM:52:ILE:HG22	2.03	0.57
19:CT:68:LYS:HA	19:CT:68:LYS:NZ	2.19	0.57
20:CB:58:LYS:HB3	20:CB:58:LYS:NZ	2.19	0.57
23:DB:553:G:O2'	23:DB:554:U:H5'	2.05	0.57
23:DB:947:A:H2'	23:DB:948:C:H6	1.69	0.57
23:DB:1166:G:H2'	23:DB:1167:C:H6	1.67	0.57
23:DB:1923:U:H2'	23:DB:1924:C:C6	2.39	0.57
23:DB:2393:U:O2'	23:DB:2394:C:H5'	2.04	0.57
23:DB:2784:U:H4'	26:DD:42:ASN:O	2.05	0.57
26:DD:117:GLY:O	26:DD:164:GLN:HA	2.05	0.57
26:DD:133:THR:HG23	26:DD:134:HIS:N	2.19	0.57
28:DF:74:ALA:HB1	28:DF:76:PHE:CD2	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DJ:103:ILE:HA	31:DJ:106:LYS:HB3	1.86	0.57
35:DN:24:MET:HE3	35:DN:40:LYS:HB3	1.86	0.57
36:DO:111:ARG:HD2	36:DO:117:PHE:C	2.29	0.57
4:AE:93:VAL:HG13	4:AE:126:ALA:HB2	1.85	0.57
8:AI:19:PHE:O	8:AI:62:LEU:HA	2.04	0.57
23:BB:83:A:H5''	42:BU:1:ALA:N	2.19	0.57
23:BB:192:C:C2'	23:BB:193:U:H5'	2.34	0.57
23:BB:364:C:H2'	23:BB:365:U:H6	1.70	0.57
23:BB:1139:G:O2'	23:BB:1140:C:H5'	2.05	0.57
23:BB:1347:A:H2'	23:BB:1348:C:O4'	2.04	0.57
23:BB:1513:U:O2'	23:BB:1514:G:H5'	2.03	0.57
23:BB:2199:A:H5''	23:BB:2200:C:H5	1.69	0.57
23:BB:2261:C:N4	43:BW:10:ARG:HB3	2.19	0.57
23:BB:2472:G:O6	23:BB:2476:A:H4'	2.03	0.57
31:BJ:23:LYS:HE3	31:BJ:142:ILE:HG12	1.87	0.57
31:BJ:45:THR:N	31:BJ:46:PRO:HD3	2.18	0.57
34:BM:97:GLN:HB2	34:BM:98:PRO:HD2	1.86	0.57
37:BP:112:ARG:HH11	37:BP:112:ARG:HB2	1.69	0.57
39:BR:4:VAL:HG23	39:BR:39:LEU:H	1.69	0.57
42:BU:85:ARG:CD	42:BU:86:PHE:H	2.01	0.57
50:B3:22:LYS:HA	50:B3:47:ALA:O	2.05	0.57
1:CA:709:U:H2'	1:CA:710:G:H8	1.69	0.57
1:CA:1351:U:O2'	1:CA:1352:C:H5'	2.05	0.57
3:CD:84:ASN:ND2	3:CD:86:GLY:H	2.03	0.57
12:CM:86:ARG:HA	12:CM:96:VAL:HG11	1.87	0.57
18:CS:27:LYS:NZ	18:CS:27:LYS:HB3	2.20	0.57
20:CB:93:HIS:CD2	20:CB:145:ASN:HB3	2.39	0.57
23:DB:71:A:H5''	23:DB:73:A:C8	2.40	0.57
23:DB:458:G:H22	23:DB:469:G:H2'	1.67	0.57
23:DB:654:A:H2'	23:DB:654:A:N3	2.18	0.57
23:DB:722:A:H2'	23:DB:723:C:H6	1.68	0.57
23:DB:828:U:H4'	23:DB:831:G:N1	2.18	0.57
23:DB:971:G:H2'	23:DB:972:A:O4'	2.05	0.57
23:DB:1240:U:O2'	23:DB:1241:A:H5''	2.03	0.57
23:DB:2150:C:H2'	23:DB:2151:U:C6	2.39	0.57
23:DB:2187:U:H2'	23:DB:2188:U:C6	2.40	0.57
27:DE:155:GLU:HA	27:DE:158:PHE:HB3	1.87	0.57
28:DF:64:PRO:HA	28:DF:88:VAL:CG2	2.35	0.57
33:DL:30:THR:O	33:DL:33:ARG:HG2	2.04	0.57
40:DS:66:ILE:HG12	40:DS:67:ASP:N	2.20	0.57
44:DX:19:LEU:O	44:DX:24:GLU:HB2	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:D1:34:GLU:HA	48:D1:48:TYR:O	2.04	0.57
52:DI:108:ILE:HG22	52:DI:128:ILE:HD13	1.87	0.57
1:AA:451:A:H5'	15:AP:70:ARG:NH2	2.18	0.57
1:AA:600:A:H2'	1:AA:601:G:C8	2.39	0.57
2:AC:71:ARG:O	2:AC:74:ILE:HG22	2.04	0.57
14:AO:78:THR:HA	14:AO:81:ILE:HD12	1.86	0.57
21:AU:36:PHE:HB3	21:AU:39:LYS:HB2	1.87	0.57
23:BB:335:C:H5''	42:BU:81:ARG:NH1	2.19	0.57
23:BB:591:U:H1'	50:B3:1:PRO:H3	1.68	0.57
23:BB:2539:C:H4'	51:B4:36:ARG:NH2	2.20	0.57
25:BC:222:THR:HA	25:BC:231:HIS:O	2.03	0.57
33:BL:55:MET:HE3	33:BL:55:MET:HA	1.86	0.57
43:BW:18:LYS:HG3	43:BW:19:ARG:NE	2.18	0.57
1:CA:1006:G:H2'	1:CA:1007:U:H6	1.69	0.57
1:CA:1007:U:H2'	1:CA:1008:U:C6	2.40	0.57
1:CA:1152:A:H2'	1:CA:1153:G:C8	2.39	0.57
1:CA:1162:C:H2'	1:CA:1163:A:C8	2.39	0.57
1:CA:1253:G:N1	1:CA:1285:A:N6	2.52	0.57
4:CE:39:GLY:HA2	4:CE:45:VAL:HA	1.85	0.57
5:CF:29:ILE:HG23	5:CF:66:ALA:HB2	1.85	0.57
6:CG:78:ARG:HH11	6:CG:81:GLY:H	1.50	0.57
9:CJ:40:ILE:HD12	9:CJ:73:LEU:HD12	1.87	0.57
12:CM:2:ARG:HB2	12:CM:56:ARG:NH2	2.16	0.57
12:CM:89:ARG:HD3	12:CM:95:PRO:O	2.05	0.57
13:CN:16:ALA:HB2	13:CN:55:SER:N	2.19	0.57
15:CP:68:SER:OG	15:CP:71:VAL:HG12	2.04	0.57
18:CS:11:ASP:O	18:CS:14:LEU:HG	2.04	0.57
23:DB:784:G:H5''	25:DC:225:ASN:OD1	2.04	0.57
23:DB:2385:C:H2'	23:DB:2386:A:H8	1.69	0.57
23:DB:2539:C:O2'	23:DB:2540:C:H5'	2.03	0.57
23:DB:2815:C:H2'	23:DB:2816:G:C8	2.39	0.57
26:DD:179:ARG:HH11	26:DD:179:ARG:HB3	1.68	0.57
29:DG:30:GLY:CA	29:DG:78:VAL:HA	2.35	0.57
29:DG:116:LEU:HD23	29:DG:120:ILE:HD13	1.86	0.57
30:DH:112:LYS:HA	30:DH:132:PHE:CE1	2.39	0.57
36:DO:27:VAL:HG21	36:DO:40:ILE:HD12	1.86	0.57
40:DS:5:ALA:HB3	40:DS:54:ALA:HB2	1.86	0.57
1:AA:32:A:H2'	1:AA:33:A:C8	2.38	0.57
1:AA:272:C:H2'	1:AA:273:U:C6	2.39	0.57
1:AA:580:C:H2'	1:AA:581:G:O4'	2.05	0.57
1:AA:736:C:H2'	1:AA:737:C:C6	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:860:A:H2'	1:AA:861:G:O4'	2.05	0.57
1:AA:920:U:H2'	1:AA:921:U:H6	1.68	0.57
8:AI:6:TYR:HB2	8:AI:19:PHE:CE1	2.39	0.57
10:AK:34:THR:HA	10:AK:41:LEU:HG	1.86	0.57
18:AS:43:MET:O	18:AS:61:VAL:HB	2.05	0.57
19:AT:15:LYS:HE2	19:AT:15:LYS:HA	1.86	0.57
22:BA:28:C:H2'	22:BA:29:A:O4'	2.04	0.57
22:BA:95:U:H2'	22:BA:96:G:C8	2.39	0.57
22:BA:106:G:H2'	22:BA:107:G:O4'	2.05	0.57
23:BB:129:C:H2'	23:BB:130:C:C6	2.37	0.57
23:BB:654:A:H2'	23:BB:654:A:N3	2.20	0.57
23:BB:722:A:H2'	23:BB:723:C:H6	1.68	0.57
23:BB:782:A:H5'	23:BB:783:A:C2	2.40	0.57
23:BB:1567:G:H2'	25:BC:84:PRO:HG3	1.87	0.57
23:BB:2264:C:H41	43:BW:11:ASN:ND2	2.03	0.57
23:BB:2772:C:H2'	23:BB:2773:C:C6	2.40	0.57
24:BV:70:ILE:HD13	24:BV:70:ILE:H	1.69	0.57
25:BC:1:ALA:HB3	25:BC:19:VAL:HG23	1.85	0.57
25:BC:129:LEU:HD23	25:BC:130:PRO:CD	2.33	0.57
25:BC:143:VAL:HB	25:BC:153:LEU:HB2	1.87	0.57
26:BD:5:VAL:H	26:BD:32:ASN:ND2	1.93	0.57
28:BF:74:ALA:HB1	28:BF:76:PHE:CD2	2.40	0.57
30:BH:73:ASN:HB3	30:BH:141:LYS:HZ1	1.70	0.57
30:BH:133:GLN:HB2	30:BH:139:PHE:CA	2.35	0.57
50:B3:7:ARG:O	50:B3:11:LYS:HG3	2.04	0.57
1:CA:194:C:O2'	1:CA:195:A:H5'	2.04	0.57
1:CA:778:G:H2'	1:CA:779:C:C6	2.40	0.57
1:CA:928:G:H2'	1:CA:929:G:H8	1.69	0.57
1:CA:1173:U:H2'	1:CA:1174:G:C8	2.39	0.57
1:CA:1213:A:O2'	1:CA:1214:C:H5''	2.04	0.57
1:CA:1446:A:H2'	1:CA:1447:A:H5''	1.87	0.57
3:CD:7:LYS:O	3:CD:20:LEU:HD12	2.03	0.57
13:CN:60:ARG:HD3	13:CN:62:ARG:CZ	2.35	0.57
23:DB:566:U:H5''	33:DL:29:LYS:NZ	2.19	0.57
23:DB:770:G:H5''	49:D2:10:LEU:HD12	1.86	0.57
23:DB:917:A:H2'	23:DB:918:A:O4'	2.05	0.57
23:DB:1429:G:H2'	23:DB:1430:G:H8	1.68	0.57
23:DB:1831:G:H2'	23:DB:1832:C:C6	2.40	0.57
23:DB:2199:A:H5''	23:DB:2200:C:H5	1.70	0.57
23:DB:2700:A:H2'	23:DB:2701:U:H6	1.70	0.57
27:DE:161:ALA:HA	27:DE:164:LEU:HD12	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DJ:57:LEU:HG	31:DJ:128:ASN:H	1.68	0.57
31:DJ:58:ASN:HA	31:DJ:127:GLY:CA	2.27	0.57
32:DK:105:ARG:HD2	32:DK:122:VAL:CG1	2.34	0.57
33:DL:79:LEU:HB3	33:DL:115:GLU:O	2.04	0.57
38:DQ:93:ILE:HG23	38:DQ:94:LEU:HD22	1.86	0.57
40:DS:18:ARG:HB3	40:DS:76:VAL:HG22	1.87	0.57
44:DX:56:LEU:O	44:DX:57:LEU:HB3	2.04	0.57
46:DZ:20:HIS:O	46:DZ:21:ALA:HB3	2.05	0.57
1:AA:1123:U:O2'	1:AA:1124:G:H5'	2.04	0.57
1:AA:1296:C:H4'	1:AA:1302:C:C4	2.38	0.57
1:AA:1477:U:H2'	1:AA:1478:U:H6	1.69	0.57
7:AH:24:VAL:HG12	7:AH:60:LEU:O	2.04	0.57
10:AK:22:ILE:HD12	10:AK:84:MET:O	2.03	0.57
10:AK:34:THR:HB	10:AK:40:ALA:HA	1.86	0.57
16:AQ:39:ARG:HH11	16:AQ:39:ARG:HG3	1.69	0.57
21:AU:28:LEU:HD23	21:AU:29:ALA:N	2.19	0.57
22:BA:88:C:H2'	22:BA:88:C:OP1	2.05	0.57
23:BB:856:G:H2'	23:BB:857:G:C8	2.39	0.57
23:BB:1082:U:O4	23:BB:1086:A:C2	2.58	0.57
23:BB:1262:A:N3	47:B0:6:LYS:HE3	2.20	0.57
23:BB:2023:C:O2'	23:BB:2024:G:H5'	2.05	0.57
23:BB:2151:U:H2'	23:BB:2152:G:H8	1.67	0.57
23:BB:2598:A:H5''	25:BC:233:GLY:HA2	1.87	0.57
23:BB:2678:C:H2'	23:BB:2679:A:H8	1.69	0.57
23:BB:2899:A:H2'	23:BB:2900:A:C8	2.39	0.57
25:BC:104:LEU:O	25:BC:105:ALA:HB3	2.03	0.57
26:BD:34:VAL:HB	26:BD:48:ILE:HD11	1.85	0.57
29:BG:10:VAL:O	29:BG:10:VAL:HG12	2.05	0.57
30:BH:116:ARG:HH11	30:BH:116:ARG:CB	2.15	0.57
41:BT:65:GLY:HA3	41:BT:76:ARG:HH22	1.70	0.57
44:BX:57:LEU:H	44:BX:60:LYS:HG3	1.68	0.57
1:CA:1014:A:H4'	18:CS:13:HIS:CE1	2.39	0.57
1:CA:1057:G:H5''	2:CC:153:SER:HB2	1.87	0.57
1:CA:1512:U:H2'	1:CA:1513:A:H8	1.68	0.57
18:CS:18:VAL:CG2	18:CS:43:MET:HG2	2.32	0.57
20:CB:83:ALA:CB	20:CB:90:PHE:HB3	2.34	0.57
23:DB:573:U:O2'	23:DB:574:A:H3'	2.04	0.57
23:DB:820:A:H1'	23:DB:943:A:O2'	2.04	0.57
23:DB:1015:U:H2'	23:DB:1016:G:H8	1.70	0.57
23:DB:1098:A:H3'	52:DI:3:LYS:CB	2.35	0.57
23:DB:1220:G:H2'	23:DB:1221:C:H6	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1640:A:H2'	23:DB:1641:A:C8	2.39	0.57
23:DB:1914:C:H2'	23:DB:1915:U:C6	2.39	0.57
23:DB:2074:U:H2'	23:DB:2075:U:C6	2.39	0.57
23:DB:2398:U:H2'	23:DB:2399:G:H8	1.70	0.57
23:DB:2774:C:H2'	23:DB:2775:G:O4'	2.04	0.57
28:DF:30:VAL:HG21	28:DF:96:TRP:NE1	2.20	0.57
40:DS:29:VAL:HG23	40:DS:70:LYS:HA	1.86	0.57
1:AA:336:A:O2'	1:AA:337:G:H5'	2.05	0.57
1:AA:437:U:H4'	3:AD:153:ARG:NH1	2.20	0.57
1:AA:518:C:H2'	1:AA:530:G:C8	2.40	0.57
1:AA:545:C:H5''	3:AD:68:GLU:HG2	1.86	0.57
1:AA:923:A:H2'	1:AA:924:C:C6	2.40	0.57
1:AA:1004:A:N7	1:AA:1025:U:H1'	2.20	0.57
4:AE:18:ASN:HB2	4:AE:33:THR:OG1	2.05	0.57
23:BB:1105:U:H2'	23:BB:1106:G:H8	1.68	0.57
23:BB:1381:G:C2'	23:BB:1382:G:H5'	2.35	0.57
23:BB:2745:C:H4'	29:BG:141:GLY:O	2.05	0.57
23:BB:2885:G:N2	47:B0:31:LYS:HG2	2.19	0.57
24:BV:80:HIS:HD2	24:BV:82:TYR:H	1.52	0.57
26:BD:13:ARG:HD2	37:BP:55:HIS:ND1	2.20	0.57
26:BD:46:ARG:NH1	26:BD:85:ALA:HA	2.20	0.57
32:BK:60:ALA:HA	32:BK:87:LEU:CD2	2.34	0.57
33:BL:17:LYS:HD2	33:BL:19:LEU:HD11	1.86	0.57
33:BL:116:VAL:HG13	33:BL:117:THR:N	2.19	0.57
42:BU:70:ALA:HB1	42:BU:79:ALA:HB2	1.87	0.57
1:CA:505:G:H2'	1:CA:506:G:H8	1.70	0.57
1:CA:881:G:P	11:CL:8:ARG:HH12	2.27	0.57
1:CA:1081:A:P	4:CE:22:LYS:HB2	2.44	0.57
1:CA:1379:G:N7	6:CG:2:ARG:CZ	2.68	0.57
1:CA:1486:G:H2'	1:CA:1487:G:O4'	2.05	0.57
1:CA:1508:A:H2'	1:CA:1509:C:C6	2.39	0.57
2:CC:70:ALA:HA	2:CC:105:VAL:CG2	2.34	0.57
8:CI:19:PHE:O	8:CI:62:LEU:HA	2.04	0.57
13:CN:5:MET:HE3	13:CN:60:ARG:HH11	1.70	0.57
23:DB:5:A:H2'	23:DB:6:A:C8	2.40	0.57
23:DB:741:U:H2'	23:DB:742:A:C8	2.40	0.57
23:DB:1098:A:P	52:DI:3:LYS:HG2	2.44	0.57
23:DB:1490:A:H2'	25:DC:97:ASP:OD1	2.04	0.57
23:DB:1684:G:H2'	23:DB:1685:C:H6	1.68	0.57
23:DB:1714:U:H3'	23:DB:1715:G:C5'	2.35	0.57
23:DB:2094:A:H2'	23:DB:2095:A:C8	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2728:U:H2'	23:DB:2729:G:H8	1.68	0.57
23:DB:2786:U:C5'	26:DD:70:LYS:HG3	2.34	0.57
23:DB:2801:G:H3'	23:DB:2802:G:H8	1.69	0.57
29:DG:9:VAL:HA	29:DG:48:THR:HG22	1.85	0.57
29:DG:93:TYR:C	29:DG:94:ARG:HG3	2.29	0.57
29:DG:155:PRO:HA	29:DG:170:THR:HA	1.86	0.57
30:DH:94:ILE:HG13	30:DH:98:ASP:CB	2.34	0.57
31:DJ:15:TRP:HB3	31:DJ:137:PRO:HG3	1.87	0.57
38:DQ:91:ARG:HH22	39:DR:10:LYS:HB3	1.70	0.57
40:DS:41:LYS:HB3	40:DS:41:LYS:NZ	2.20	0.57
42:DU:35:VAL:HB	42:DU:38:ILE:HG21	1.85	0.57
47:D0:53:VAL:O	47:D0:54:ILE:HB	2.04	0.57
1:AA:10:A:H2'	1:AA:11:G:H8	1.69	0.57
1:AA:373:A:H1'	1:AA:481:G:N3	2.20	0.57
1:AA:843:U:H5'	1:AA:844:G:N7	2.20	0.57
10:AK:14:GLN:HA	10:AK:77:GLY:HA3	1.87	0.57
10:AK:27:ASN:O	10:AK:56:LYS:HE3	2.05	0.57
13:AN:71:GLY:O	13:AN:79:SER:HA	2.05	0.57
18:AS:14:LEU:O	18:AS:18:VAL:HG12	2.05	0.57
23:BB:522:A:H2'	23:BB:523:C:C6	2.39	0.57
23:BB:718:A:H3'	23:BB:719:C:C6	2.40	0.57
23:BB:962:G:N2	23:BB:2250:G:H22	1.95	0.57
23:BB:1354:A:OP1	25:BC:35:LYS:HE2	2.05	0.57
23:BB:1842:G:H2'	23:BB:1843:C:H6	1.69	0.57
23:BB:2078:C:O2'	23:BB:2079:U:H5'	2.05	0.57
23:BB:2859:G:H2'	23:BB:2860:A:C8	2.40	0.57
23:BB:2886:A:H3'	23:BB:2887:A:C8	2.39	0.57
24:BV:44:HIS:NE2	24:BV:85:LYS:HB2	2.20	0.57
26:BD:133:THR:HG23	26:BD:134:HIS:N	2.18	0.57
27:BE:58:LYS:HD3	27:BE:58:LYS:N	2.14	0.57
29:BG:93:TYR:C	29:BG:94:ARG:HG3	2.29	0.57
29:BG:116:LEU:HD23	29:BG:120:ILE:HD13	1.85	0.57
30:BH:77:THR:HG22	30:BH:79:THR:HG23	1.87	0.57
30:BH:121:VAL:HG22	30:BH:128:HIS:NE2	2.19	0.57
32:BK:54:LYS:HD2	32:BK:54:LYS:N	2.19	0.57
32:BK:109:SER:C	32:BK:111:LYS:H	2.12	0.57
33:BL:111:ILE:HG22	33:BL:112:LEU:N	2.20	0.57
38:BQ:56:PHE:HA	38:BQ:59:LEU:HB3	1.86	0.57
39:BR:4:VAL:HG21	39:BR:39:LEU:HG	1.85	0.57
46:BZ:35:SER:HA	46:BZ:50:ARG:HA	1.86	0.57
1:CA:31:G:H5'	1:CA:306:A:C2	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:275:G:H5'	16:CQ:15:LYS:HD3	1.85	0.57
1:CA:430:A:OP1	3:CD:8:LEU:HB2	2.03	0.57
1:CA:996:A:H2'	1:CA:997:U:C6	2.40	0.57
1:CA:1492:A:H5'	1:CA:1493:A:OP2	2.05	0.57
3:CD:12:ARG:HA	3:CD:33:ILE:HD12	1.87	0.57
8:CI:50:PRO:HB3	8:CI:83:THR:HB	1.87	0.57
10:CK:74:LYS:C	10:CK:76:TYR:H	2.12	0.57
22:DA:88:C:H2'	22:DA:88:C:OP1	2.05	0.57
23:DB:521:U:H2'	23:DB:522:A:H8	1.69	0.57
23:DB:2008:C:H2'	23:DB:2009:A:H8	1.70	0.57
23:DB:2353:G:H1'	43:DW:30:VAL:HG12	1.87	0.57
23:DB:2385:C:H2'	23:DB:2386:A:C8	2.40	0.57
23:DB:2460:U:H2'	23:DB:2461:A:H8	1.70	0.57
23:DB:2488:G:O2'	23:DB:2489:U:H5'	2.05	0.57
25:DC:77:VAL:CG2	25:DC:112:GLY:H	2.07	0.57
27:DE:2:GLU:HA	27:DE:13:THR:OG1	2.05	0.57
34:DM:4:PRO:HG2	34:DM:70:ASP:HA	1.85	0.57
35:DN:72:ASP:OD1	35:DN:75:ILE:HG23	2.04	0.57
45:DY:5:LYS:HG3	45:DY:57:GLU:HB2	1.85	0.57
47:D0:38:LEU:HB3	47:D0:41:HIS:CD2	2.39	0.57
1:AA:272:C:H2'	1:AA:273:U:H6	1.70	0.57
1:AA:1152:A:H2'	1:AA:1153:G:C8	2.38	0.57
5:AF:67:PRO:HG2	5:AF:70:VAL:HG22	1.86	0.57
8:AI:113:LYS:HA	8:AI:120:ALA:HB2	1.87	0.57
10:AK:86:LYS:HA	10:AK:113:THR:OG1	2.05	0.57
12:AM:22:TYR:HB2	12:AM:65:GLU:HA	1.86	0.57
23:BB:688:U:O2'	23:BB:689:A:H5'	2.05	0.57
23:BB:850:U:H2'	23:BB:851:C:C6	2.39	0.57
23:BB:2398:U:H2'	23:BB:2399:G:H8	1.69	0.57
23:BB:2615:U:C2	47:B0:3:GLN:HA	2.40	0.57
23:BB:2897:U:H2'	23:BB:2898:U:C6	2.40	0.57
28:BF:11:VAL:HG21	28:BF:172:PHE:CE1	2.40	0.57
30:BH:3:VAL:HG12	30:BH:38:PRO:HA	1.86	0.57
30:BH:47:PHE:HA	30:BH:50:ARG:HE	1.70	0.57
34:BM:67:VAL:HG11	34:BM:102:LEU:HD22	1.86	0.57
35:BN:1:MET:HE3	35:BN:3:HIS:CD2	2.40	0.57
1:CA:32:A:H2'	1:CA:33:A:C8	2.39	0.57
1:CA:600:A:H2'	1:CA:601:G:C8	2.39	0.57
1:CA:1038:C:H2'	1:CA:1039:G:C8	2.40	0.57
5:CF:92:THR:HG22	5:CF:93:LYS:N	2.19	0.57
6:CG:25:PHE:HZ	6:CG:119:LEU:HD11	1.70	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CH:45:ILE:HG22	7:CH:62:LEU:HA	1.87	0.57
18:CS:1:PRO:O	18:CS:2:ARG:HB2	2.05	0.57
23:DB:523:C:H4'	23:DB:540:C:O2	2.04	0.57
23:DB:845:A:N1	23:DB:847:U:H1'	2.20	0.57
23:DB:850:U:H2'	23:DB:851:C:C6	2.40	0.57
23:DB:1338:G:H4'	41:DT:18:GLU:CG	2.24	0.57
23:DB:2064:C:H2'	23:DB:2065:C:H6	1.70	0.57
23:DB:2355:G:O3'	43:DW:20:LEU:HD13	2.05	0.57
23:DB:2439:A:N7	23:DB:2586:U:H4'	2.20	0.57
23:DB:2875:C:H2'	23:DB:2876:G:H8	1.70	0.57
25:DC:66:PHE:HB2	25:DC:150:GLY:O	2.05	0.57
31:DJ:13:ARG:HB3	31:DJ:53:TYR:HD2	1.68	0.57
35:DN:106:ASP:C	35:DN:108:ALA:H	2.12	0.57
42:DU:43:LYS:O	42:DU:57:ILE:HA	2.04	0.57
1:AA:624:C:H2'	1:AA:625:U:H6	1.70	0.56
1:AA:1054:C:O2'	1:AA:1055:A:H5''	2.05	0.56
2:AC:149:LYS:HB2	2:AC:168:ARG:HG3	1.87	0.56
11:AL:7:VAL:HG22	16:AQ:33:TYR:HD1	1.70	0.56
13:AN:11:LYS:HZ3	13:AN:11:LYS:N	2.03	0.56
23:BB:296:U:H2'	23:BB:297:G:H8	1.70	0.56
23:BB:988:A:C8	45:BY:13:ILE:HD12	2.39	0.56
23:BB:1316:U:O2'	23:BB:1317:G:H5'	2.05	0.56
23:BB:1508:A:H5'	23:BB:1509:A:C6	2.40	0.56
23:BB:1553:A:O2'	23:BB:1554:U:H2'	2.05	0.56
23:BB:2258:C:O2'	23:BB:2426:A:H4'	2.05	0.56
23:BB:2392:A:H2'	23:BB:2392:A:N3	2.19	0.56
23:BB:2516:A:O2'	23:BB:2517:C:H5'	2.05	0.56
23:BB:2774:C:H2'	23:BB:2775:G:O4'	2.05	0.56
25:BC:75:ALA:O	25:BC:114:GLN:HA	2.05	0.56
28:BF:12:VAL:O	28:BF:16:MET:HG2	2.05	0.56
29:BG:26:LYS:HG2	29:BG:27:GLY:H	1.70	0.56
32:BK:2:ILE:HA	32:BK:33:ALA:H	1.68	0.56
41:BT:54:GLU:HG3	41:BT:90:GLY:N	2.20	0.56
45:BY:29:ARG:H	45:BY:33:HIS:HD2	1.53	0.56
1:CA:253:A:H2'	1:CA:254:G:H8	1.69	0.56
1:CA:975:A:H4'	1:CA:976:G:O5'	2.05	0.56
1:CA:1294:G:H2'	1:CA:1295:U:C6	2.40	0.56
2:CC:71:ARG:O	2:CC:74:ILE:HG22	2.05	0.56
3:CD:100:VAL:O	3:CD:104:MET:HG3	2.04	0.56
6:CG:65:LEU:O	6:CG:69:ARG:HG3	2.05	0.56
10:CK:58:THR:HB	10:CK:59:PRO:HD2	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CB:140:LEU:H	20:CB:140:LEU:HD12	1.68	0.56
23:DB:548:G:N3	23:DB:548:G:C2'	2.68	0.56
23:DB:1518:C:H2'	23:DB:1519:G:H8	1.69	0.56
23:DB:2189:U:H2'	23:DB:2190:G:O4'	2.05	0.56
25:DC:222:THR:HA	25:DC:231:HIS:O	2.03	0.56
25:DC:226:PRO:CG	25:DC:233:GLY:H	2.17	0.56
27:DE:5:LEU:HB2	27:DE:11:ALA:N	2.20	0.56
29:DG:25:ILE:HG22	29:DG:78:VAL:HG21	1.87	0.56
32:DK:13:ASN:ND2	32:DK:98:ARG:H	1.99	0.56
46:DZ:40:VAL:CG2	46:DZ:43:GLU:HB3	2.31	0.56
1:AA:82:G:H1'	1:AA:89:U:O2	2.06	0.56
1:AA:811:C:H4'	1:AA:900:A:N6	2.20	0.56
1:AA:1417:G:H22	1:AA:1482:G:H2'	1.70	0.56
6:AG:129:ASN:ND2	6:AG:137:ARG:HH22	2.03	0.56
7:AH:124:ILE:HG22	7:AH:125:ILE:N	2.19	0.56
8:AI:50:PRO:HB3	8:AI:83:THR:HB	1.86	0.56
13:AN:5:MET:HE3	13:AN:60:ARG:HH11	1.69	0.56
20:AB:40:ILE:HD13	20:AB:201:GLY:HA2	1.88	0.56
23:BB:477:A:H2'	23:BB:478:A:C8	2.40	0.56
23:BB:570:G:H2'	23:BB:2030:A:N7	2.20	0.56
23:BB:974:G:OP2	39:BR:78:ARG:HD3	2.05	0.56
23:BB:1018:U:O2'	23:BB:1019:U:H5'	2.05	0.56
23:BB:1056:G:H4'	23:BB:1086:A:H8	1.69	0.56
23:BB:1790:C:O2'	25:BC:207:ALA:HB2	2.04	0.56
23:BB:2298:A:OP1	28:BF:70:ARG:HD3	2.05	0.56
23:BB:2303:G:H4'	28:BF:121:PHE:O	2.05	0.56
23:BB:2439:A:N7	23:BB:2586:U:H4'	2.20	0.56
23:BB:2468:A:H2'	23:BB:2476:A:C6	2.40	0.56
24:BV:7:GLU:O	24:BV:41:GLU:HG2	2.05	0.56
27:BE:192:ALA:HA	27:BE:195:GLN:NE2	2.19	0.56
38:BQ:105:PHE:O	38:BQ:109:VAL:HG23	2.05	0.56
1:CA:920:U:O2'	1:CA:1081:A:H4'	2.05	0.56
1:CA:1338:G:H2'	1:CA:1339:A:C8	2.40	0.56
1:CA:1450:U:H2'	1:CA:1452:C:C5	2.40	0.56
2:CC:8:GLY:HA2	2:CC:11:LEU:HG	1.87	0.56
3:CD:29:THR:HG22	3:CD:30:LYS:N	2.20	0.56
3:CD:77:GLU:HA	3:CD:80:ARG:HG2	1.87	0.56
8:CI:61:ASP:C	8:CI:62:LEU:HD13	2.30	0.56
13:CN:50:LEU:N	13:CN:51:PRO:HD2	2.20	0.56
16:CQ:37:ILE:HG22	16:CQ:38:LYS:H	1.70	0.56
23:DB:15:G:O2'	23:DB:16:C:H5'	2.04	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:286:U:H2'	23:DB:287:G:C8	2.39	0.56
23:DB:601:C:H2'	23:DB:602:A:H8	1.70	0.56
23:DB:1355:G:O2'	23:DB:1356:G:H5'	2.04	0.56
23:DB:1406:U:H2'	23:DB:1407:G:H8	1.68	0.56
23:DB:1567:G:H2'	25:DC:84:PRO:HG3	1.87	0.56
23:DB:1597:A:H5''	23:DB:1598:A:H5'	1.85	0.56
23:DB:1785:A:H2'	23:DB:1787:A:N7	2.20	0.56
23:DB:2141:G:H2'	23:DB:2142:A:H8	1.69	0.56
24:DV:63:ILE:HD12	24:DV:63:ILE:N	2.21	0.56
25:DC:131:MET:HA	25:DC:134:ILE:HG23	1.86	0.56
25:DC:243:PRO:O	25:DC:250:GLN:HA	2.04	0.56
35:DN:59:SER:O	35:DN:63:ARG:HB2	2.05	0.56
37:DP:112:ARG:HB2	37:DP:112:ARG:HH11	1.70	0.56
40:DS:81:SER:HB3	40:DS:99:ARG:HB3	1.86	0.56
41:DT:69:ARG:CZ	41:DT:69:ARG:HA	2.36	0.56
42:DU:85:ARG:HA	42:DU:85:ARG:NE	2.20	0.56
1:AA:90:C:H2'	1:AA:91:U:C6	2.40	0.56
1:AA:190:A:H2'	1:AA:191:G:O4'	2.05	0.56
1:AA:390:U:H2'	1:AA:391:G:C8	2.40	0.56
1:AA:505:G:H2'	1:AA:506:G:H8	1.68	0.56
1:AA:734:G:H21	17:AR:63:TYR:HE1	1.53	0.56
1:AA:922:G:N3	1:AA:1398:A:H2	2.03	0.56
1:AA:1078:U:H2'	1:AA:1079:G:O4'	2.05	0.56
1:AA:1296:C:H4'	1:AA:1302:C:N4	2.21	0.56
1:AA:1317:C:OP1	13:AN:56:PRO:HD2	2.05	0.56
4:AE:56:PRO:HG2	4:AE:57:ALA:H	1.70	0.56
4:AE:82:HIS:CD2	7:AH:95:MET:HG3	2.41	0.56
6:AG:145:GLU:HA	6:AG:148:LYS:HB2	1.86	0.56
8:AI:27:ILE:HG21	8:AI:34:LEU:HD13	1.88	0.56
9:AJ:40:ILE:HB	9:AJ:73:LEU:HB3	1.87	0.56
23:BB:286:U:H2'	23:BB:287:G:H8	1.69	0.56
23:BB:523:C:H4'	23:BB:540:C:O2	2.05	0.56
23:BB:784:G:H5''	25:BC:225:ASN:OD1	2.05	0.56
23:BB:898:C:H2'	23:BB:899:A:C4	2.41	0.56
23:BB:1709:U:H2'	23:BB:1710:G:H8	1.71	0.56
23:BB:1923:U:H2'	23:BB:1924:C:C6	2.40	0.56
23:BB:2485:G:H5''	34:BM:125:PRO:HG3	1.87	0.56
23:BB:2645:G:H3'	23:BB:2646:C:C5'	2.32	0.56
23:BB:2714:G:O2'	23:BB:2715:C:H5'	2.06	0.56
23:BB:2720:U:H5''	37:BP:52:ARG:NH2	2.20	0.56
23:BB:2774:C:OP1	26:BD:169:ARG:HG3	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BV:9:ARG:NH2	24:BV:12:GLN:HA	2.19	0.56
24:BV:65:VAL:C	24:BV:67:GLY:H	2.12	0.56
25:BC:75:ALA:CB	25:BC:95:TYR:HA	2.35	0.56
26:BD:149:ASN:C	26:BD:152:PRO:HD2	2.29	0.56
30:BH:31:VAL:O	30:BH:32:PRO:C	2.47	0.56
36:BO:35:ILE:CG1	36:BO:102:ARG:HE	2.17	0.56
38:BQ:26:ALA:C	38:BQ:28:SER:H	2.13	0.56
38:BQ:60:TRP:C	38:BQ:64:ILE:HG12	2.31	0.56
38:BQ:79:ILE:O	38:BQ:79:ILE:HD13	2.06	0.56
39:BR:4:VAL:CG2	39:BR:39:LEU:HG	2.35	0.56
40:BS:48:LYS:HE2	40:BS:52:GLU:OE1	2.05	0.56
42:BU:95:PHE:CE1	42:BU:102:ILE:HB	2.39	0.56
46:BZ:65:ASP:HA	46:BZ:68:LEU:HB2	1.86	0.56
49:B2:22:MET:HE2	49:B2:31:LEU:CD1	2.36	0.56
51:B4:13:ASN:O	51:B4:27:CYS:HA	2.04	0.56
1:CA:251:G:H1	1:CA:271:C:H41	1.53	0.56
1:CA:352:C:H4'	1:CA:354:G:OP1	2.06	0.56
1:CA:518:C:H2'	1:CA:530:G:C8	2.41	0.56
1:CA:1320:C:H42	18:CS:35:ARG:HD3	1.70	0.56
1:CA:1512:U:H2'	1:CA:1513:A:C8	2.40	0.56
2:CC:6:PRO:HA	2:CC:9:ILE:HG22	1.88	0.56
4:CE:61:LYS:O	4:CE:65:LYS:HG2	2.05	0.56
4:CE:125:LYS:HD2	4:CE:126:ALA:H	1.69	0.56
4:CE:140:ILE:HG22	4:CE:144:GLU:OE1	2.06	0.56
8:CI:10:ARG:HB3	8:CI:15:ALA:HA	1.87	0.56
9:CJ:53:ILE:CG2	9:CJ:61:ALA:HB1	2.36	0.56
10:CK:34:THR:HA	10:CK:41:LEU:HG	1.87	0.56
11:CL:20:VAL:HB	11:CL:94:TYR:CE1	2.40	0.56
15:CP:40:ASN:ND2	15:CP:42:ILE:H	2.04	0.56
15:CP:74:LEU:O	15:CP:78:VAL:HG12	2.05	0.56
21:CU:24:LYS:NZ	21:CU:25:ALA:H	1.98	0.56
23:DB:21:A:H2'	23:DB:22:C:C6	2.40	0.56
23:DB:53:A:N6	23:DB:117:G:H1'	2.21	0.56
23:DB:455:C:N3	23:DB:473:G:H5'	2.21	0.56
23:DB:483:A:H4'	42:DU:45:GLN:O	2.05	0.56
23:DB:570:G:H2'	23:DB:2030:A:N7	2.19	0.56
23:DB:659:G:H21	27:DE:30:GLN:NE2	2.03	0.56
23:DB:857:G:C2'	23:DB:858:G:H5'	2.34	0.56
23:DB:899:A:H3'	23:DB:900:A:H8	1.70	0.56
23:DB:1061:U:H4'	23:DB:1070:A:O3'	2.04	0.56
23:DB:1080:A:H4'	52:DI:126:ARG:CD	2.34	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1438:U:H2'	23:DB:1439:A:O4'	2.06	0.56
23:DB:1709:U:H2'	23:DB:1710:G:C8	2.40	0.56
23:DB:1965:C:H5''	23:DB:1966:A:H2'	1.87	0.56
23:DB:2081:U:OP1	46:DZ:19:SER:HB3	2.05	0.56
23:DB:2088:A:H2'	23:DB:2089:C:H6	1.71	0.56
23:DB:2137:U:O2'	23:DB:2138:G:H5'	2.04	0.56
23:DB:2336:A:H61	43:DW:40:ARG:CG	2.19	0.56
24:DV:44:HIS:NE2	24:DV:85:LYS:HB2	2.19	0.56
25:DC:161:VAL:O	25:DC:162:GLN:HB2	2.04	0.56
26:DD:12:THR:HG22	26:DD:13:ARG:H	1.69	0.56
27:DE:5:LEU:HD12	27:DE:10:SER:HB2	1.87	0.56
27:DE:117:ARG:NH1	33:DL:2:ARG:HB2	2.20	0.56
28:DF:11:VAL:HG21	28:DF:172:PHE:CE1	2.40	0.56
32:DK:113:MET:HE2	32:DK:113:MET:HA	1.86	0.56
32:DK:118:LEU:O	32:DK:120:PRO:HD2	2.04	0.56
33:DL:3:LEU:O	33:DL:5:THR:N	2.39	0.56
35:DN:96:ARG:HG2	35:DN:96:ARG:HH21	1.71	0.56
35:DN:102:PHE:N	35:DN:109:PRO:HA	2.17	0.56
35:DN:109:PRO:C	35:DN:110:MET:HE2	2.31	0.56
40:DS:1:MET:SD	40:DS:62:ASP:HB2	2.45	0.56
40:DS:17:VAL:C	40:DS:19:LEU:N	2.64	0.56
40:DS:48:LYS:HE2	40:DS:52:GLU:OE1	2.04	0.56
43:DW:32:ALA:C	43:DW:34:SER:H	2.12	0.56
52:DI:37:PHE:CZ	52:DI:58:ILE:HD11	2.40	0.56
1:AA:33:A:H2'	1:AA:34:C:H6	1.70	0.56
1:AA:224:U:H2'	1:AA:225:C:C6	2.39	0.56
1:AA:505:G:H4'	1:AA:534:U:C4	2.40	0.56
1:AA:1058:G:OP1	2:AC:198:LYS:HE3	2.05	0.56
12:AM:43:LYS:HD2	12:AM:43:LYS:H	1.70	0.56
13:AN:79:SER:OG	13:AN:82:LYS:HG2	2.05	0.56
15:AP:40:ASN:ND2	15:AP:42:ILE:H	2.04	0.56
22:BA:50:A:OP1	36:BO:68:LYS:HG3	2.04	0.56
23:BB:5:A:H2'	23:BB:6:A:C8	2.41	0.56
23:BB:633:A:H8	23:BB:633:A:O5'	1.89	0.56
23:BB:828:U:H4'	23:BB:831:G:N1	2.19	0.56
23:BB:1291:C:O2'	23:BB:1292:G:H5'	2.06	0.56
23:BB:1579:A:H2'	23:BB:1580:A:C8	2.40	0.56
25:BC:36:ASN:HD21	25:BC:85:ASN:HD21	1.53	0.56
25:BC:43:ASN:HB3	25:BC:45:ASN:HD22	1.70	0.56
25:BC:43:ASN:HB3	25:BC:45:ASN:ND2	2.21	0.56
29:BG:10:VAL:HG13	29:BG:16:VAL:HG21	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BG:19:ASN:HB2	29:BG:22:VAL:HB	1.87	0.56
31:BJ:58:ASN:HA	31:BJ:127:GLY:CA	2.26	0.56
38:BQ:71:ASN:HD21	38:BQ:109:VAL:HG11	1.70	0.56
40:BS:28:LYS:HD2	40:BS:29:VAL:N	2.19	0.56
42:BU:81:ARG:HB2	42:BU:96:LYS:HG3	1.86	0.56
48:B1:6:GLU:CD	48:B1:6:GLU:H	2.13	0.56
52:BI:58:ILE:HD12	52:BI:58:ILE:N	2.20	0.56
1:CA:135:C:O2	15:CP:1:MET:HB2	2.06	0.56
1:CA:313:A:H2'	1:CA:314:C:C6	2.41	0.56
1:CA:1004:A:C8	1:CA:1025:U:H1'	2.40	0.56
1:CA:1250:A:H4'	8:CI:69:GLY:O	2.06	0.56
2:CC:33:ASP:O	2:CC:37:LYS:HG3	2.05	0.56
2:CC:149:LYS:HB2	2:CC:168:ARG:HG3	1.87	0.56
8:CI:18:VAL:HG13	8:CI:64:ILE:HG13	1.87	0.56
8:CI:109:GLN:NE2	8:CI:110:VAL:H	2.03	0.56
9:CJ:55:PRO:HA	13:CN:80:ARG:NH2	2.20	0.56
23:DB:1796:U:H2'	23:DB:1797:G:C8	2.40	0.56
23:DB:2370:G:H2'	23:DB:2371:G:O4'	2.05	0.56
23:DB:2469:A:H2'	23:DB:2470:G:O4'	2.04	0.56
23:DB:2849:U:N3	23:DB:2867:G:C8	2.74	0.56
35:DN:2:ARG:C	35:DN:2:ARG:HE	2.14	0.56
35:DN:7:GLY:HA2	35:DN:46:ARG:NH1	2.19	0.56
49:D2:43:THR:O	49:D2:44:VAL:C	2.47	0.56
50:D3:3:ILE:HG21	50:D3:62:PRO:HG2	1.88	0.56
51:D4:13:ASN:O	51:D4:27:CYS:HA	2.06	0.56
51:D4:13:ASN:HB3	51:D4:28:SER:H	1.69	0.56
1:AA:135:C:O2	15:AP:1:MET:HB2	2.04	0.56
1:AA:555:U:H2'	1:AA:556:C:H6	1.70	0.56
1:AA:975:A:H4'	1:AA:976:G:O5'	2.04	0.56
1:AA:1004:A:H5'	1:AA:1024:G:N2	2.20	0.56
4:AE:19:ARG:HH11	4:AE:28:ARG:HH22	1.53	0.56
7:AH:13:ILE:HD11	7:AH:60:LEU:HD21	1.87	0.56
10:AK:74:LYS:C	10:AK:76:TYR:H	2.14	0.56
19:AT:49:ALA:C	19:AT:52:GLU:HB3	2.31	0.56
20:AB:58:LYS:NZ	20:AB:58:LYS:HB3	2.20	0.56
22:BA:76:G:O2'	22:BA:77:U:H5'	2.06	0.56
23:BB:664:G:H2'	23:BB:665:U:C6	2.40	0.56
23:BB:1518:C:H2'	23:BB:1519:G:H8	1.70	0.56
23:BB:1838:C:N4	23:BB:1898:U:H2'	2.21	0.56
23:BB:2895:G:H2'	23:BB:2896:C:H6	1.68	0.56
26:BD:178:VAL:O	26:BD:180:VAL:HG23	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BG:146:ASP:O	29:BG:150:TYR:HD1	1.89	0.56
30:BH:31:VAL:CB	30:BH:32:PRO:CD	2.82	0.56
30:BH:81:ALA:HA	30:BH:147:VAL:N	2.20	0.56
32:BK:10:VAL:HG21	32:BK:16:ALA:HA	1.86	0.56
34:BM:63:ILE:H	34:BM:63:ILE:HD12	1.69	0.56
38:BQ:71:ASN:ND2	38:BQ:109:VAL:HG11	2.20	0.56
50:B3:3:ILE:HG21	50:B3:62:PRO:HG2	1.86	0.56
1:CA:230:G:H2'	1:CA:231:U:O4'	2.06	0.56
1:CA:370:C:H2'	1:CA:371:A:H8	1.69	0.56
4:CE:28:ARG:NH1	4:CE:30:PHE:HB3	2.21	0.56
13:CN:71:GLY:O	13:CN:79:SER:HA	2.05	0.56
23:DB:1098:A:C8	52:DI:3:LYS:HB3	2.40	0.56
23:DB:1259:G:H2'	23:DB:1260:A:H8	1.69	0.56
23:DB:1501:G:O2'	23:DB:1502:A:H5'	2.05	0.56
28:DF:90:LEU:HD12	28:DF:95:MET:HA	1.86	0.56
29:DG:84:LYS:HG3	29:DG:132:LEU:N	2.20	0.56
29:DG:132:LEU:HD23	29:DG:132:LEU:N	2.21	0.56
31:DJ:23:LYS:HE3	31:DJ:142:ILE:HG12	1.87	0.56
31:DJ:56:VAL:HG12	31:DJ:57:LEU:N	2.21	0.56
31:DJ:124:VAL:O	31:DJ:125:TYR:HB2	2.04	0.56
33:DL:122:VAL:HG12	33:DL:143:GLU:OE2	2.06	0.56
52:DI:54:ILE:HD13	52:DI:54:ILE:C	2.29	0.56
1:AA:562:U:H2'	1:AA:562:U:OP2	2.05	0.56
1:AA:672:U:H2'	1:AA:673:A:C8	2.40	0.56
1:AA:777:A:H2'	1:AA:778:G:C8	2.40	0.56
1:AA:824:G:O2'	1:AA:825:A:H5'	2.05	0.56
1:AA:933:G:N7	6:AG:2:ARG:NH1	2.54	0.56
1:AA:1347:G:H22	1:AA:1373:G:H2'	1.71	0.56
1:AA:1508:A:H2'	1:AA:1509:C:H6	1.70	0.56
11:AL:122:LYS:HD2	11:AL:123:ALA:H	1.69	0.56
19:AT:85:LEU:HD23	19:AT:86:ALA:N	2.21	0.56
22:BA:49:C:H2'	22:BA:50:A:H8	1.71	0.56
23:BB:2704:C:H2'	23:BB:2705:A:O4'	2.06	0.56
27:BE:3:LEU:H	27:BE:13:THR:H	1.53	0.56
30:BH:26:ALA:C	30:BH:28:ASN:H	2.14	0.56
32:BK:24:VAL:HG13	32:BK:33:ALA:HB2	1.88	0.56
35:BN:49:GLU:HA	35:BN:94:TYR:HD2	1.70	0.56
36:BO:111:ARG:HD2	36:BO:117:PHE:C	2.31	0.56
46:BZ:77:LYS:O	46:BZ:78:TYR:HB3	2.05	0.56
47:B0:53:VAL:O	47:B0:54:ILE:HB	2.05	0.56
49:B2:43:THR:O	49:B2:44:VAL:C	2.48	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BI:75:ALA:HB2	52:BI:112:LYS:HE2	1.85	0.56
1:CA:546:A:OP1	3:CD:69:ARG:HB2	2.05	0.56
1:CA:811:C:H4'	1:CA:900:A:N6	2.21	0.56
1:CA:1250:A:H2'	1:CA:1251:A:C8	2.40	0.56
1:CA:1349:A:H2'	1:CA:1350:A:O4'	2.05	0.56
1:CA:1508:A:H2'	1:CA:1509:C:H6	1.70	0.56
4:CE:152:VAL:O	4:CE:156:ARG:HG2	2.05	0.56
15:CP:46:LYS:C	15:CP:48:GLU:H	2.12	0.56
22:DA:76:G:O2'	22:DA:77:U:H5'	2.05	0.56
23:DB:642:U:O2	23:DB:644:A:H3'	2.05	0.56
23:DB:782:A:N3	25:DC:224:MET:HB3	2.21	0.56
23:DB:1476:U:H4'	23:DB:1732:C:O2'	2.05	0.56
23:DB:2415:G:H2'	23:DB:2416:C:C6	2.40	0.56
26:DD:79:LEU:N	26:DD:79:LEU:HD22	2.21	0.56
30:DH:90:LEU:HD22	30:DH:122:LEU:O	2.06	0.56
33:DL:17:LYS:HD2	33:DL:19:LEU:HD11	1.88	0.56
33:DL:42:SER:C	33:DL:44:GLY:H	2.13	0.56
33:DL:57:LEU:HA	33:DL:60:ARG:NH2	2.21	0.56
33:DL:78:ARG:HG2	33:DL:113:ALA:HB2	1.86	0.56
38:DQ:56:PHE:HA	38:DQ:59:LEU:HB3	1.87	0.56
42:DU:12:VAL:HG22	42:DU:69:VAL:HG12	1.88	0.56
42:DU:17:ASP:HB3	42:DU:20:LYS:HE3	1.87	0.56
1:AA:1332:A:H2'	1:AA:1333:A:H8	1.69	0.56
1:AA:1351:U:O2'	1:AA:1352:C:H5'	2.05	0.56
3:AD:40:HIS:HB3	3:AD:43:ARG:HG2	1.87	0.56
23:BB:823:C:O2'	23:BB:824:U:H5'	2.05	0.56
23:BB:857:G:C2'	23:BB:858:G:H5'	2.36	0.56
23:BB:1119:U:OP1	24:BV:83:LYS:HE3	2.05	0.56
23:BB:1640:A:H2'	23:BB:1641:A:C8	2.40	0.56
23:BB:2567:G:H2'	23:BB:2568:U:C6	2.41	0.56
23:BB:2815:C:H2'	23:BB:2816:G:C8	2.40	0.56
23:BB:2841:C:H2'	23:BB:2842:G:H8	1.71	0.56
25:BC:245:THR:C	25:BC:247:TRP:H	2.14	0.56
26:BD:136:ASN:OD1	26:BD:139:SER:HB2	2.06	0.56
27:BE:21:ARG:HG3	27:BE:22:ASP:N	2.21	0.56
27:BE:112:LEU:C	27:BE:114:ARG:H	2.13	0.56
30:BH:68:ARG:HB2	30:BH:134:VAL:CG2	2.34	0.56
33:BL:85:VAL:CG2	33:BL:94:THR:HB	2.35	0.56
44:BX:23:ARG:HA	44:BX:27:ASN:ND2	2.20	0.56
52:BI:105:LEU:HD11	52:BI:139:VAL:CG1	2.36	0.56
52:BI:116:MET:HE1	52:BI:124:MET:O	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:314:C:O2'	1:CA:315:A:H5'	2.06	0.56
1:CA:474:G:H2'	1:CA:475:C:C6	2.41	0.56
1:CA:778:G:H2'	1:CA:779:C:H6	1.70	0.56
1:CA:1329:A:OP1	12:CM:28:ARG:HB2	2.06	0.56
4:CE:148:SER:OG	4:CE:151:MET:HB2	2.06	0.56
6:CG:78:ARG:HG2	6:CG:83:THR:HG22	1.86	0.56
13:CN:9:GLU:HB2	13:CN:62:ARG:CZ	2.35	0.56
18:CS:11:ASP:H	18:CS:14:LEU:HD21	1.70	0.56
23:DB:106:C:H2'	23:DB:107:G:C8	2.41	0.56
23:DB:184:C:H2'	23:DB:185:G:H8	1.70	0.56
23:DB:845:A:C2	23:DB:847:U:H1'	2.41	0.56
23:DB:871:U:H2'	23:DB:872:U:C6	2.39	0.56
23:DB:996:A:H4'	38:DQ:91:ARG:CD	2.32	0.56
23:DB:1747:U:H2'	23:DB:1748:C:C6	2.41	0.56
23:DB:2389:G:H5''	23:DB:2390:U:H5'	1.88	0.56
23:DB:2412:A:H2'	23:DB:2413:G:O4'	2.06	0.56
25:DC:211:ARG:C	25:DC:213:ARG:H	2.13	0.56
26:DD:8:LYS:CG	26:DD:197:THR:H	2.19	0.56
27:DE:40:ARG:NH2	27:DE:92:HIS:NE2	2.54	0.56
27:DE:192:ALA:HA	27:DE:195:GLN:NE2	2.20	0.56
29:DG:154:GLU:C	29:DG:156:TYR:H	2.13	0.56
36:DO:52:SER:OG	36:DO:54:VAL:HG12	2.05	0.56
39:DR:31:GLU:H	39:DR:63:VAL:CG2	2.18	0.56
39:DR:79:ARG:NE	39:DR:80:ARG:HH21	2.04	0.56
43:DW:36:ILE:HB	43:DW:39:GLN:NE2	2.21	0.56
1:AA:1171:A:H2'	1:AA:1172:C:C6	2.40	0.56
3:AD:44:LYS:HD2	3:AD:46:ARG:HG2	1.88	0.56
6:AG:25:PHE:HZ	6:AG:119:LEU:HD11	1.71	0.56
8:AI:126:PHE:O	8:AI:128:LYS:N	2.39	0.56
13:AN:63:CYS:HB3	13:AN:67:GLY:N	2.20	0.56
23:BB:71:A:H5''	23:BB:73:A:C8	2.41	0.56
23:BB:1778:U:H2'	23:BB:1784:A:N6	2.20	0.56
23:BB:1821:A:H2'	23:BB:1822:C:C6	2.41	0.56
23:BB:2145:C:O4'	23:BB:2145:C:O2	2.23	0.56
23:BB:2415:G:H2'	23:BB:2416:C:C6	2.40	0.56
23:BB:2860:A:H8	23:BB:2860:A:O5'	1.87	0.56
25:BC:196:ASN:HD22	25:BC:199:HIS:HB2	1.69	0.56
27:BE:97:ASN:ND2	27:BE:100:MET:HG3	2.21	0.56
33:BL:55:MET:HE3	33:BL:56:PRO:HD2	1.86	0.56
33:BL:92:LEU:HD21	33:BL:123:ARG:NH1	2.20	0.56
34:BM:103:TYR:O	34:BM:104:GLU:HG3	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BU:43:LYS:O	42:BU:57:ILE:HA	2.06	0.56
45:BY:37:ARG:HG3	45:BY:38:GLU:OE1	2.05	0.56
46:BZ:70:GLU:O	46:BZ:71:LEU:HB3	2.06	0.56
49:B2:31:LEU:HD22	49:B2:42:LEU:HD12	1.88	0.56
1:CA:215:C:H2'	1:CA:216:U:C6	2.41	0.56
1:CA:264:C:O2'	16:CQ:65:PRO:HG2	2.06	0.56
1:CA:1021:A:H2'	1:CA:1022:A:O4'	2.06	0.56
1:CA:1091:U:H2'	1:CA:1093:A:OP2	2.05	0.56
3:CD:88:ASN:O	3:CD:92:LEU:HD23	2.05	0.56
4:CE:82:HIS:CD2	7:CH:95:MET:HG3	2.41	0.56
6:CG:144:ALA:O	6:CG:146:ALA:N	2.37	0.56
13:CN:63:CYS:HB3	13:CN:67:GLY:N	2.20	0.56
23:DB:781:A:OP1	25:DC:216:ARG:NH2	2.39	0.56
23:DB:1351:C:H2'	23:DB:1352:U:O4'	2.05	0.56
23:DB:1857:G:H2'	23:DB:1884:G:N2	2.21	0.56
23:DB:2339:C:H2'	23:DB:2340:A:C8	2.40	0.56
29:DG:10:VAL:HG13	29:DG:16:VAL:HG21	1.88	0.56
35:DN:103:ARG:CG	35:DN:104:ALA:H	2.19	0.56
46:DZ:35:SER:HA	46:DZ:50:ARG:HA	1.87	0.56
51:D4:2:LYS:HG2	51:D4:3:VAL:N	2.21	0.56
1:AA:45:G:H2'	1:AA:46:G:H8	1.71	0.56
1:AA:576:C:H3'	1:AA:576:C:OP2	2.06	0.56
1:AA:715:A:H2'	1:AA:716:A:C8	2.41	0.56
1:AA:1534:A:H3'	1:AA:1534:A:N3	2.21	0.56
3:AD:2:ARG:HH22	3:AD:132:ALA:HB3	1.71	0.56
3:AD:55:ARG:HH11	3:AD:55:ARG:HG3	1.70	0.56
8:AI:55:ASP:CB	8:AI:59:LYS:HG3	2.36	0.56
15:AP:74:LEU:O	15:AP:78:VAL:HG12	2.06	0.56
19:AT:49:ALA:HA	19:AT:52:GLU:HB3	1.87	0.56
19:AT:68:LYS:HA	19:AT:68:LYS:NZ	2.21	0.56
20:AB:15:PHE:O	20:AB:40:ILE:HD12	2.05	0.56
20:AB:16:GLY:CA	20:AB:40:ILE:H	2.19	0.56
20:AB:65:LYS:HG2	20:AB:89:PHE:HE1	1.71	0.56
20:AB:112:ARG:HH11	20:AB:116:LEU:HG	1.71	0.56
20:AB:145:ASN:N	20:AB:145:ASN:ND2	2.53	0.56
20:AB:150:ILE:HG13	20:AB:153:MET:HE3	1.88	0.56
23:BB:222:A:N1	23:BB:233:A:H5''	2.21	0.56
23:BB:661:A:H1'	33:BL:12:SER:O	2.06	0.56
23:BB:673:C:H5''	27:BE:76:PRO:HD2	1.86	0.56
23:BB:832:U:H2'	23:BB:833:A:C8	2.41	0.56
23:BB:1061:U:O4'	23:BB:1070:A:H1'	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1179:G:H2'	23:BB:1180:U:O4'	2.06	0.56
23:BB:1351:C:H2'	23:BB:1352:U:O4'	2.06	0.56
23:BB:1441:G:H2'	23:BB:1442:U:C6	2.39	0.56
23:BB:2213:U:O2	23:BB:2213:U:C2'	2.54	0.56
23:BB:2469:A:H2'	23:BB:2470:G:O4'	2.06	0.56
23:BB:2786:U:O2'	26:BD:66:GLY:HA3	2.06	0.56
24:BV:80:HIS:HB3	24:BV:83:LYS:O	2.06	0.56
29:BG:154:GLU:C	29:BG:156:TYR:H	2.13	0.56
30:BH:38:PRO:O	30:BH:40:THR:HG23	2.06	0.56
35:BN:102:PHE:N	35:BN:109:PRO:HA	2.18	0.56
40:BS:24:ILE:HD11	40:BS:36:LEU:CD1	2.27	0.56
42:BU:12:VAL:HG22	42:BU:69:VAL:HG12	1.87	0.56
42:BU:90:LYS:HB3	42:BU:92:VAL:HG23	1.87	0.56
43:BW:37:VAL:HG13	43:BW:55:ASP:O	2.05	0.56
1:CA:10:A:H2'	1:CA:11:G:H8	1.69	0.56
1:CA:373:A:H1'	1:CA:481:G:N3	2.21	0.56
1:CA:796:C:OP1	10:CK:127:ARG:HB3	2.06	0.56
1:CA:812:G:H2'	1:CA:812:G:N3	2.19	0.56
1:CA:1488:G:O2'	1:CA:1489:G:H5'	2.06	0.56
7:CH:76:ARG:HG3	7:CH:77:VAL:N	2.21	0.56
9:CJ:30:LYS:NZ	9:CJ:36:VAL:HB	2.21	0.56
10:CK:86:LYS:HA	10:CK:113:THR:OG1	2.05	0.56
22:DA:13:G:H2'	22:DA:14:U:H5''	1.88	0.56
23:DB:49:A:H5''	23:DB:51:G:O4'	2.05	0.56
23:DB:643:A:H61	23:DB:2370:G:H1'	1.71	0.56
23:DB:670:A:H4'	33:DL:42:SER:HB2	1.87	0.56
23:DB:1082:U:O4	23:DB:1086:A:C2	2.57	0.56
23:DB:1099:G:C8	52:DI:3:LYS:CA	2.84	0.56
23:DB:1320:C:H5	23:DB:1329:U:H5''	1.71	0.56
23:DB:1709:U:H2'	23:DB:1710:G:H8	1.69	0.56
23:DB:2213:U:O2	23:DB:2213:U:C2'	2.54	0.56
23:DB:2600:A:O2'	23:DB:2601:C:H5'	2.06	0.56
25:DC:143:VAL:HB	25:DC:153:LEU:HB2	1.88	0.56
27:DE:137:LYS:HE2	27:DE:141:MET:SD	2.46	0.56
29:DG:8:VAL:HG11	29:DG:49:LEU:CB	2.34	0.56
32:DK:19:VAL:C	32:DK:41:ILE:HD11	2.31	0.56
35:DN:76:VAL:HA	35:DN:79:LEU:HD12	1.88	0.56
38:DQ:94:LEU:HD21	39:DR:11:GLN:HB2	1.87	0.56
41:DT:1:MET:HB2	41:DT:2:ILE:HD13	1.88	0.56
48:D1:35:LEU:O	48:D1:36:LYS:HB2	2.05	0.56
1:AA:41:G:H2'	1:AA:42:G:H8	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:216:U:H2'	1:AA:217:C:C6	2.41	0.56
1:AA:465:A:O2'	1:AA:466:A:H5'	2.06	0.56
1:AA:501:C:H2'	1:AA:502:A:C8	2.41	0.56
1:AA:778:G:H2'	1:AA:779:C:H6	1.71	0.56
1:AA:811:C:H4'	1:AA:900:A:H62	1.72	0.56
1:AA:1343:G:H4'	8:AI:123:ARG:O	2.06	0.56
1:AA:1397:C:H4'	1:AA:1398:A:OP2	2.05	0.56
4:AE:92:ARG:HH11	4:AE:92:ARG:HB3	1.70	0.56
5:AF:15:SER:HA	5:AF:18:VAL:HG23	1.88	0.56
14:AO:28:VAL:HB	14:AO:80:LEU:HD11	1.88	0.56
18:AS:39:ILE:HB	18:AS:65:MET:O	2.06	0.56
20:AB:112:ARG:HA	20:AB:115:ASP:OD2	2.06	0.56
20:AB:199:ILE:HG21	20:AB:212:TYR:CE2	2.41	0.56
22:BA:91:C:H2'	22:BA:92:C:H6	1.71	0.56
23:BB:730:A:O2'	23:BB:731:C:H5'	2.06	0.56
23:BB:1021:A:H62	23:BB:1141:U:H3	1.54	0.56
23:BB:1086:A:H4'	23:BB:1103:A:N1	2.21	0.56
23:BB:2102:G:C2'	23:BB:2103:C:H5'	2.35	0.56
23:BB:2197:U:O2'	23:BB:2198:A:H2'	2.05	0.56
23:BB:2605:U:H2'	23:BB:2606:C:C6	2.41	0.56
23:BB:2849:U:H4'	23:BB:2850:A:H5'	1.88	0.56
25:BC:89:ASN:O	25:BC:105:ALA:HB3	2.06	0.56
36:BO:47:VAL:HG12	36:BO:48:LEU:H	1.72	0.56
52:BI:76:ALA:O	52:BI:80:LYS:HG3	2.05	0.56
1:CA:476:U:O2'	1:CA:477:C:H5'	2.06	0.56
1:CA:672:U:H2'	1:CA:673:A:C8	2.40	0.56
1:CA:738:C:H2'	1:CA:739:C:C6	2.41	0.56
1:CA:843:U:H5'	1:CA:844:G:N7	2.21	0.56
1:CA:1320:C:H5''	18:CS:2:ARG:NH2	2.20	0.56
1:CA:1430:A:H2'	1:CA:1431:A:O4'	2.06	0.56
5:CF:22:ILE:HD11	5:CF:60:VAL:HG11	1.88	0.56
6:CG:91:ARG:HD2	6:CG:91:ARG:N	2.19	0.56
19:CT:53:MET:HA	19:CT:56:ILE:HD12	1.88	0.56
21:CU:28:LEU:HD23	21:CU:29:ALA:N	2.20	0.56
23:DB:1397:U:H5''	23:DB:1398:C:H5	1.70	0.56
23:DB:2666:C:O4'	23:DB:2666:C:O2	2.20	0.56
23:DB:2860:A:H8	23:DB:2860:A:O5'	1.89	0.56
24:DV:80:HIS:HB3	24:DV:83:LYS:O	2.06	0.56
25:DC:245:THR:C	25:DC:247:TRP:H	2.14	0.56
27:DE:18:THR:O	27:DE:110:SER:HB2	2.05	0.56
29:DG:74:MET:O	29:DG:78:VAL:HG22	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DL:78:ARG:HG2	33:DL:113:ALA:CB	2.36	0.56
37:DP:88:ARG:HB2	37:DP:112:ARG:CZ	2.35	0.56
43:DW:24:ARG:HD3	43:DW:65:LYS:CG	2.35	0.56
45:DY:29:ARG:H	45:DY:33:HIS:HD2	1.54	0.56
1:AA:182:A:H1'	1:AA:183:C:C5	2.40	0.55
1:AA:189:A:H2'	1:AA:190:A:C8	2.41	0.55
1:AA:332:G:OP2	19:AT:4:LYS:HB2	2.06	0.55
5:AF:92:THR:HG22	5:AF:93:LYS:N	2.20	0.55
18:AS:6:LYS:O	18:AS:8:PRO:HD3	2.05	0.55
22:BA:3:C:H2'	22:BA:4:C:C6	2.41	0.55
23:BB:500:G:N2	23:BB:502:A:H3'	2.21	0.55
23:BB:1210:G:H5'	23:BB:1212:G:H5''	1.87	0.55
23:BB:1450:G:H21	23:BB:1452:G:H1	1.53	0.55
23:BB:2008:C:H2'	23:BB:2009:A:H8	1.71	0.55
23:BB:2092:U:H4'	23:BB:2093:G:H5''	1.88	0.55
23:BB:2186:G:H2'	23:BB:2187:U:C6	2.41	0.55
23:BB:2722:G:H2'	23:BB:2723:C:H6	1.71	0.55
28:BF:64:PRO:HA	28:BF:88:VAL:CG2	2.35	0.55
31:BJ:103:ILE:HA	31:BJ:106:LYS:HB3	1.88	0.55
35:BN:106:ASP:C	35:BN:108:ALA:H	2.13	0.55
43:BW:59:PHE:CE2	43:BW:61:LYS:HG3	2.40	0.55
52:BI:17:ALA:O	52:BI:18:ASN:HB3	2.05	0.55
1:CA:434:U:H3'	1:CA:435:A:H8	1.71	0.55
1:CA:1504:G:H4'	1:CA:1505:G:C4	2.41	0.55
9:CJ:80:THR:HG21	9:CJ:82:LYS:NZ	2.21	0.55
17:CR:25:ILE:O	17:CR:29:LYS:HG3	2.05	0.55
20:CB:95:TRP:CH2	20:CB:100:LEU:HB2	2.40	0.55
23:DB:1163:G:H4'	39:DR:92:TRP:HE1	1.69	0.55
23:DB:2598:A:H5''	25:DC:233:GLY:HA2	1.87	0.55
23:DB:2836:U:H2'	23:DB:2837:A:C8	2.40	0.55
24:DV:4:ILE:O	24:DV:63:ILE:HA	2.06	0.55
24:DV:31:TYR:HA	24:DV:93:ARG:HH21	1.71	0.55
26:DD:29:VAL:O	26:DD:185:ASN:HB3	2.05	0.55
28:DF:177:ARG:HA	28:DF:177:ARG:NH1	2.21	0.55
30:DH:1:MET:HB3	30:DH:21:VAL:O	2.06	0.55
36:DO:62:LEU:HD11	36:DO:70:ALA:HA	1.88	0.55
40:DS:10:ALA:HB3	40:DS:101:SER:OG	2.06	0.55
43:DW:64:GLY:HA2	43:DW:84:GLU:HG2	1.86	0.55
1:AA:45:G:H2'	1:AA:46:G:C8	2.41	0.55
1:AA:490:C:H2'	1:AA:491:G:C8	2.41	0.55
1:AA:709:U:H2'	1:AA:710:G:H8	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:778:G:H2'	1:AA:779:C:C6	2.41	0.55
2:AC:68:HIS:HA	2:AC:103:ALA:HB3	1.88	0.55
7:AH:11:THR:HA	7:AH:14:ARG:CZ	2.36	0.55
18:AS:41:PRO:HA	18:AS:66:VAL:HG11	1.88	0.55
19:AT:53:MET:O	19:AT:57:VAL:HG22	2.07	0.55
23:BB:948:C:H2'	23:BB:949:G:H8	1.71	0.55
23:BB:1205:A:N1	27:BE:165:HIS:HB2	2.20	0.55
23:BB:2698:U:H2'	23:BB:2699:C:C6	2.41	0.55
23:BB:2828:G:O2'	23:BB:2829:A:H5'	2.05	0.55
25:BC:105:ALA:HB1	25:BC:109:LEU:HD11	1.87	0.55
25:BC:250:GLN:HG2	25:BC:250:GLN:O	2.06	0.55
26:BD:116:LYS:HG3	26:BD:165:MET:SD	2.46	0.55
28:BF:37:MET:CG	28:BF:52:ALA:HB1	2.36	0.55
28:BF:91:ARG:O	28:BF:92:GLY:C	2.49	0.55
30:BH:122:LEU:HD12	30:BH:122:LEU:N	2.21	0.55
36:BO:56:LYS:O	36:BO:57:ALA:C	2.49	0.55
37:BP:98:TYR:C	37:BP:100:ARG:H	2.13	0.55
38:BQ:57:ARG:HH11	38:BQ:57:ARG:CB	2.19	0.55
38:BQ:63:ARG:NH1	38:BQ:96:ASP:HA	2.22	0.55
39:BR:28:ALA:O	39:BR:63:VAL:HG21	2.06	0.55
41:BT:7:LEU:HA	41:BT:9:LYS:NZ	2.19	0.55
41:BT:13:ALA:O	41:BT:32:LEU:HB2	2.06	0.55
41:BT:69:ARG:CZ	41:BT:69:ARG:HA	2.36	0.55
1:CA:168:G:O2'	1:CA:169:C:H5'	2.07	0.55
1:CA:555:U:H2'	1:CA:556:C:C6	2.42	0.55
1:CA:560:A:N1	1:CA:566:G:H5'	2.21	0.55
1:CA:663:A:O2'	1:CA:664:G:H5'	2.06	0.55
1:CA:1078:U:H2'	1:CA:1079:G:O4'	2.07	0.55
1:CA:1085:U:H3'	1:CA:1086:U:H5	1.70	0.55
1:CA:1118:U:H2'	1:CA:1119:C:H6	1.70	0.55
1:CA:1448:C:H2'	1:CA:1449:C:H6	1.71	0.55
3:CD:169:TRP:HB2	3:CD:183:ARG:O	2.06	0.55
12:CM:17:ALA:CB	12:CM:44:ILE:HD11	2.36	0.55
20:CB:33:ALA:HA	20:CB:38:HIS:HA	1.87	0.55
22:DA:49:C:H2'	22:DA:50:A:H8	1.71	0.55
23:DB:299:A:N6	23:DB:322:A:O2'	2.39	0.55
23:DB:1386:C:H2'	23:DB:1387:A:H8	1.71	0.55
23:DB:1458:U:H2'	23:DB:1459:G:H5''	1.88	0.55
23:DB:2450:A:O2'	23:DB:2451:A:H5'	2.06	0.55
23:DB:2788:C:H2'	23:DB:2789:C:C6	2.40	0.55
25:DC:86:ARG:CZ	25:DC:86:ARG:HB3	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DF:106:ALA:HA	28:DF:135:ILE:HD13	1.89	0.55
29:DG:10:VAL:HG12	29:DG:10:VAL:O	2.05	0.55
32:DK:11:ALA:HB3	32:DK:85:VAL:HG22	1.88	0.55
40:DS:6:LYS:HB2	40:DS:103:ILE:O	2.06	0.55
42:DU:21:ARG:HH11	42:DU:21:ARG:HG3	1.71	0.55
50:D3:55:GLY:HA2	50:D3:58:ILE:HD12	1.89	0.55
52:DI:45:THR:CA	52:DI:48:ILE:HG22	2.35	0.55
1:AA:77:A:OP1	1:AA:88:U:H5''	2.06	0.55
1:AA:546:A:OP1	3:AD:69:ARG:HB2	2.07	0.55
1:AA:1021:A:H2'	1:AA:1022:A:O4'	2.06	0.55
9:AJ:40:ILE:HD12	9:AJ:73:LEU:HD12	1.88	0.55
20:AB:119:GLN:C	20:AB:125:PHE:HB3	2.31	0.55
23:BB:2539:C:O2'	23:BB:2540:C:H5'	2.07	0.55
23:BB:2636:C:O2'	23:BB:2637:U:H5'	2.05	0.55
23:BB:2659:G:N2	23:BB:2661:G:H5''	2.22	0.55
23:BB:2795:C:H2'	23:BB:2796:U:O4'	2.07	0.55
23:BB:2901:C:H2'	23:BB:2902:C:H5'	1.88	0.55
25:BC:226:PRO:CG	25:BC:233:GLY:H	2.18	0.55
28:BF:31:GLU:O	28:BF:32:LYS:O	2.24	0.55
33:BL:122:VAL:HG12	33:BL:143:GLU:OE2	2.07	0.55
34:BM:35:ALA:HB3	34:BM:99:GLY:N	2.20	0.55
37:BP:1:SER:O	37:BP:5:LYS:HB2	2.07	0.55
51:B4:2:LYS:HG2	51:B4:3:VAL:N	2.20	0.55
51:B4:8:LYS:HG2	51:B4:9:LYS:H	1.71	0.55
1:CA:562:U:H1'	11:CL:11:ARG:HD2	1.87	0.55
1:CA:1121:U:H2'	1:CA:1122:U:O4'	2.07	0.55
1:CA:1123:U:O2'	1:CA:1124:G:H5'	2.07	0.55
10:CK:30:ILE:HG22	10:CK:45:THR:OG1	2.07	0.55
14:CO:63:ARG:HH12	14:CO:87:ARG:HH22	1.54	0.55
23:DB:289:G:H2'	23:DB:290:U:C6	2.40	0.55
23:DB:920:A:H2'	23:DB:921:C:C6	2.41	0.55
23:DB:2756:U:H4'	23:DB:2757:A:OP1	2.06	0.55
25:DC:43:ASN:HB3	25:DC:45:ASN:ND2	2.21	0.55
25:DC:142:ASN:O	25:DC:142:ASN:CG	2.49	0.55
27:DE:12:LEU:HD12	27:DE:14:VAL:HG22	1.87	0.55
27:DE:147:LEU:HD12	27:DE:149:ILE:HB	1.87	0.55
28:DF:42:ALA:HA	28:DF:48:LEU:CD2	2.33	0.55
30:DH:135:HIS:CG	30:DH:136:SER:N	2.73	0.55
32:DK:107:LEU:HB2	32:DK:116:ILE:CG2	2.37	0.55
33:DL:18:ARG:C	33:DL:19:LEU:HD12	2.31	0.55
41:DT:54:GLU:HG3	41:DT:90:GLY:N	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:33:A:H2'	1:AA:34:C:C6	2.41	0.55
1:AA:168:G:O2'	1:AA:169:C:H5'	2.06	0.55
1:AA:484:G:H5'	1:AA:486:U:H5'	1.87	0.55
1:AA:590:U:H2'	1:AA:591:U:H6	1.72	0.55
1:AA:692:U:O2	1:AA:694:A:H5''	2.07	0.55
1:AA:742:G:H2'	1:AA:743:A:H8	1.71	0.55
1:AA:1246:A:H2'	1:AA:1247:U:O4'	2.05	0.55
1:AA:1432:G:H1'	1:AA:1468:A:H61	1.70	0.55
2:AC:16:PRO:CG	2:AC:53:ARG:HH12	2.20	0.55
7:AH:47:ASP:CG	7:AH:48:PHE:H	2.15	0.55
23:BB:845:A:N1	23:BB:847:U:H1'	2.21	0.55
23:BB:1947:C:H2'	23:BB:1948:G:C8	2.42	0.55
23:BB:1969:A:H2'	23:BB:1972:G:H21	1.71	0.55
23:BB:2037:A:H2'	23:BB:2038:G:H8	1.70	0.55
23:BB:2285:C:OP2	48:B1:5:ARG:HD3	2.06	0.55
23:BB:2466:C:OP1	51:B4:4:ARG:HB3	2.07	0.55
23:BB:2592:G:H2'	23:BB:2593:U:O4'	2.06	0.55
23:BB:2788:C:H2'	23:BB:2789:C:C6	2.41	0.55
28:BF:28:PRO:HG3	28:BF:159:ALA:HB2	1.87	0.55
28:BF:78:ILE:HA	28:BF:82:TYR:CE1	2.42	0.55
35:BN:24:MET:HE1	35:BN:40:LYS:HD2	1.89	0.55
42:BU:35:VAL:HB	42:BU:38:ILE:HG21	1.87	0.55
42:BU:85:ARG:NE	42:BU:85:ARG:HA	2.22	0.55
43:BW:18:LYS:N	43:BW:35:ILE:HG23	2.21	0.55
52:BI:109:ALA:HB1	52:BI:124:MET:HG3	1.89	0.55
1:CA:470:C:H2'	1:CA:471:U:C6	2.41	0.55
1:CA:625:U:H4'	15:CP:16:PHE:CZ	2.42	0.55
1:CA:1069:C:H5''	4:CE:25:LYS:HZ3	1.72	0.55
1:CA:1397:C:H4'	1:CA:1398:A:OP2	2.05	0.55
2:CC:39:ARG:HG3	2:CC:56:ILE:HD11	1.88	0.55
3:CD:55:ARG:HH11	3:CD:55:ARG:HG3	1.72	0.55
12:CM:33:LEU:HD13	12:CM:39:ALA:O	2.06	0.55
19:CT:72:ALA:HA	19:CT:75:LYS:HD3	1.89	0.55
23:DB:558:U:OP1	31:DJ:114:LEU:HB2	2.06	0.55
23:DB:572:A:C2	23:DB:2033:A:C2	2.94	0.55
23:DB:870:U:O2'	23:DB:871:U:H5'	2.06	0.55
23:DB:936:A:H2'	23:DB:937:C:C6	2.42	0.55
23:DB:2015:A:C2	47:D0:2:VAL:HG22	2.42	0.55
23:DB:2049:G:N2	26:DD:161:MET:HE2	2.21	0.55
23:DB:2313:C:H4'	28:DF:87:LYS:HB3	1.87	0.55
32:DK:79:PHE:HD2	37:DP:69:VAL:HG12	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DP:4:ILE:HG22	37:DP:5:LYS:N	2.15	0.55
38:DQ:79:ILE:O	38:DQ:79:ILE:HD13	2.06	0.55
52:DI:17:ALA:O	52:DI:18:ASN:CB	2.53	0.55
1:AA:179:A:H2'	1:AA:180:U:C6	2.41	0.55
1:AA:1320:C:H42	18:AS:35:ARG:HD3	1.70	0.55
2:AC:6:PRO:HA	2:AC:9:ILE:HG22	1.87	0.55
12:AM:18:LEU:HB2	12:AM:29:SER:OG	2.06	0.55
12:AM:86:ARG:HA	12:AM:96:VAL:HG11	1.88	0.55
20:AB:80:LYS:HG3	20:AB:81:ASP:H	1.71	0.55
20:AB:95:TRP:CH2	20:AB:100:LEU:HB2	2.41	0.55
23:BB:161:A:C3'	23:BB:162:U:H5''	2.37	0.55
23:BB:729:G:C8	25:BC:206:LYS:HE3	2.42	0.55
23:BB:870:U:O2'	23:BB:871:U:H5'	2.05	0.55
23:BB:1407:G:H2'	23:BB:1408:G:C8	2.40	0.55
23:BB:1771:C:H2'	23:BB:1772:A:H8	1.70	0.55
23:BB:1979:U:O2'	23:BB:1980:G:H5'	2.07	0.55
23:BB:2097:A:H2'	23:BB:2098:U:C6	2.41	0.55
23:BB:2149:U:H2'	23:BB:2150:C:H6	1.71	0.55
23:BB:2185:U:C2	23:BB:2186:G:N7	2.74	0.55
23:BB:2271:G:H2'	23:BB:2272:U:C6	2.41	0.55
23:BB:2772:C:H4'	26:BD:171:THR:HG21	1.89	0.55
25:BC:4:LYS:HD2	25:BC:5:CYS:H	1.71	0.55
26:BD:62:LYS:HB2	26:BD:63:PRO:HD3	1.88	0.55
30:BH:1:MET:HB3	30:BH:21:VAL:O	2.07	0.55
42:BU:64:ILE:HG13	42:BU:65:GLN:N	2.21	0.55
42:BU:94:PHE:HA	42:BU:101:THR:HA	1.89	0.55
45:BY:6:ILE:N	45:BY:35:VAL:O	2.39	0.55
46:BZ:40:VAL:HG22	46:BZ:45:ARG:O	2.07	0.55
48:B1:26:LYS:HD2	48:B1:30:PRO:HA	1.89	0.55
48:B1:35:LEU:O	48:B1:36:LYS:HB2	2.06	0.55
1:CA:858:G:O6	1:CA:869:G:H3'	2.07	0.55
1:CA:1127:G:H5'	1:CA:1280:A:O2'	2.06	0.55
3:CD:77:GLU:O	3:CD:81:LEU:HG	2.06	0.55
6:CG:78:ARG:NH1	6:CG:81:GLY:H	2.04	0.55
8:CI:6:TYR:HB2	8:CI:19:PHE:CE1	2.42	0.55
8:CI:49:GLN:N	8:CI:50:PRO:HD2	2.21	0.55
8:CI:113:LYS:HA	8:CI:120:ALA:HB2	1.89	0.55
11:CL:13:ARG:O	11:CL:14:LYS:HB3	2.06	0.55
16:CQ:83:LEU:H	16:CQ:83:LEU:HD13	1.71	0.55
18:CS:29:PRO:HA	18:CS:47:THR:O	2.05	0.55
23:DB:6:A:O2'	23:DB:7:G:H5'	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:45:G:H5'	23:DB:46:G:OP1	2.07	0.55
23:DB:138:U:H2'	23:DB:140:C:O4'	2.06	0.55
23:DB:635:C:O2'	23:DB:639:U:H5''	2.06	0.55
23:DB:919:U:H2'	23:DB:920:A:H8	1.69	0.55
23:DB:1013:C:H2'	23:DB:1014:A:C8	2.40	0.55
23:DB:1064:C:H5'	52:DI:88:GLY:HA3	1.89	0.55
23:DB:1838:C:N4	23:DB:1898:U:H2'	2.21	0.55
23:DB:1842:G:H2'	23:DB:1843:C:C6	2.41	0.55
23:DB:2024:G:O2'	23:DB:2025:C:H5'	2.07	0.55
23:DB:2340:A:H2'	23:DB:2341:G:C8	2.41	0.55
23:DB:2415:G:H2'	23:DB:2416:C:H6	1.72	0.55
23:DB:2516:A:O2'	23:DB:2517:C:H5'	2.07	0.55
23:DB:2816:G:O3'	35:DN:99:LYS:HE3	2.06	0.55
23:DB:2836:U:H2'	23:DB:2837:A:H8	1.71	0.55
27:DE:110:SER:O	27:DE:114:ARG:HG3	2.07	0.55
28:DF:7:TYR:HA	28:DF:11:VAL:CG2	2.36	0.55
30:DH:53:GLU:HA	30:DH:57:LYS:HB3	1.89	0.55
41:DT:7:LEU:HD13	41:DT:7:LEU:O	2.07	0.55
42:DU:73:ASN:C	42:DU:75:ALA:H	2.15	0.55
46:DZ:66:THR:O	46:DZ:69:ALA:HB3	2.06	0.55
51:D4:3:VAL:HG23	51:D4:4:ARG:H	1.72	0.55
1:AA:34:C:H2'	1:AA:35:G:C8	2.42	0.55
1:AA:1085:U:H3'	1:AA:1086:U:H5	1.72	0.55
8:AI:49:GLN:N	8:AI:50:PRO:HD2	2.22	0.55
15:AP:38:PHE:CD2	15:AP:51:ARG:HB2	2.41	0.55
21:AU:39:LYS:N	21:AU:40:PRO:HD2	2.21	0.55
23:BB:441:U:H2'	23:BB:442:G:C8	2.41	0.55
23:BB:664:G:H2'	23:BB:665:U:H6	1.70	0.55
23:BB:833:A:H2'	23:BB:834:G:C8	2.42	0.55
23:BB:871:U:H2'	23:BB:872:U:C6	2.40	0.55
23:BB:997:G:O2'	23:BB:998:C:H5'	2.07	0.55
23:BB:1820:U:OP1	25:BC:176:ARG:HD2	2.06	0.55
23:BB:1841:U:H2'	23:BB:1842:G:H8	1.72	0.55
23:BB:2080:A:H4'	46:BZ:19:SER:OG	2.06	0.55
24:BV:24:ASN:HB3	24:BV:44:HIS:HB3	1.89	0.55
24:BV:31:TYR:HA	24:BV:93:ARG:HH21	1.71	0.55
25:BC:142:ASN:CG	25:BC:142:ASN:O	2.49	0.55
27:BE:166:LYS:O	27:BE:167:VAL:HB	2.06	0.55
28:BF:7:TYR:HA	28:BF:11:VAL:CG2	2.37	0.55
35:BN:49:GLU:HB2	35:BN:50:PRO:HD3	1.89	0.55
38:BQ:111:LYS:HZ2	38:BQ:111:LYS:HB2	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BU:80:ASP:HB2	42:BU:95:PHE:HD2	1.72	0.55
44:BX:41:HIS:O	44:BX:44:LYS:HB3	2.07	0.55
1:CA:252:U:H2'	1:CA:253:A:C8	2.42	0.55
1:CA:284:C:H2'	1:CA:285:C:H6	1.71	0.55
1:CA:393:A:O2'	1:CA:394:G:H5'	2.06	0.55
1:CA:784:A:H2'	1:CA:785:G:C8	2.42	0.55
7:CH:31:LEU:O	7:CH:35:ILE:HG13	2.06	0.55
8:CI:55:ASP:CB	8:CI:59:LYS:HG3	2.36	0.55
23:DB:132:G:H2'	23:DB:133:U:H6	1.70	0.55
23:DB:296:U:H2'	23:DB:297:G:H8	1.72	0.55
23:DB:394:C:H2'	23:DB:395:U:O4'	2.07	0.55
23:DB:704:G:H1'	23:DB:727:A:H61	1.72	0.55
23:DB:782:A:N7	25:DC:219:VAL:HG21	2.21	0.55
23:DB:1139:G:O2'	23:DB:1140:C:H5'	2.06	0.55
23:DB:1335:C:H2'	23:DB:1336:A:C8	2.42	0.55
23:DB:2101:A:O2'	23:DB:2102:G:H5'	2.07	0.55
23:DB:2665:A:H2'	23:DB:2666:C:O2	2.06	0.55
28:DF:91:ARG:O	28:DF:92:GLY:C	2.49	0.55
29:DG:24:THR:HA	29:DG:33:THR:O	2.07	0.55
29:DG:30:GLY:HA3	29:DG:78:VAL:HA	1.87	0.55
33:DL:3:LEU:HA	33:DL:6:LEU:HD21	1.88	0.55
36:DO:56:LYS:O	36:DO:57:ALA:C	2.49	0.55
36:DO:107:ALA:O	36:DO:111:ARG:HG3	2.07	0.55
39:DR:3:ALA:O	39:DR:13:ARG:HA	2.07	0.55
39:DR:62:GLU:O	39:DR:96:VAL:HA	2.06	0.55
42:DU:90:LYS:HB3	42:DU:92:VAL:HG23	1.87	0.55
52:DI:125:THR:O	52:DI:129:GLU:HG3	2.07	0.55
1:AA:430:A:OP1	3:AD:8:LEU:HB2	2.06	0.55
1:AA:620:C:O2	3:AD:131:ILE:HG21	2.07	0.55
1:AA:845:A:H3'	1:AA:846:G:H8	1.71	0.55
1:AA:1226:C:H4'	1:AA:1227:A:OP1	2.06	0.55
2:AC:2:GLN:H	2:AC:2:GLN:HE21	1.55	0.55
2:AC:171:ARG:HB2	2:AC:171:ARG:NH1	2.22	0.55
4:AE:158:LYS:NZ	7:AH:63:LYS:HD3	2.22	0.55
5:AF:69:GLU:OE1	5:AF:70:VAL:HG13	2.07	0.55
6:AG:4:ARG:HG3	6:AG:5:VAL:N	2.18	0.55
13:AN:60:ARG:HD3	13:AN:62:ARG:CZ	2.37	0.55
22:BA:11:C:H5'	43:BW:71:LYS:HG3	1.86	0.55
23:BB:6:A:O2'	23:BB:7:G:H5'	2.06	0.55
23:BB:441:U:H2'	23:BB:442:G:H8	1.72	0.55
23:BB:917:A:H2'	23:BB:918:A:O4'	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:936:A:H2'	23:BB:937:C:C6	2.42	0.55
23:BB:2021:C:P	47:B0:8:THR:HG21	2.47	0.55
23:BB:2364:C:H2'	23:BB:2365:G:O4'	2.06	0.55
23:BB:2678:C:H2'	23:BB:2679:A:C8	2.42	0.55
25:BC:5:CYS:HB2	25:BC:15:VAL:O	2.06	0.55
27:BE:12:LEU:HD12	27:BE:14:VAL:HG22	1.88	0.55
27:BE:48:THR:C	27:BE:50:ALA:H	2.13	0.55
28:BF:126:ASN:HB3	28:BF:156:THR:CA	2.36	0.55
30:BH:99:ILE:HG13	30:BH:130:VAL:HG11	1.89	0.55
33:BL:57:LEU:C	33:BL:59:ARG:H	2.14	0.55
37:BP:25:VAL:HA	37:BP:85:VAL:C	2.32	0.55
38:BQ:86:SER:O	39:BR:51:VAL:HA	2.06	0.55
38:BQ:94:LEU:CD2	39:BR:11:GLN:HB2	2.37	0.55
41:BT:69:ARG:HB2	41:BT:75:GLY:N	2.22	0.55
1:CA:34:C:H2'	1:CA:35:G:C8	2.42	0.55
1:CA:1226:C:H4'	1:CA:1227:A:OP1	2.06	0.55
2:CC:68:HIS:HA	2:CC:103:ALA:HB3	1.88	0.55
4:CE:18:ASN:HB2	4:CE:33:THR:OG1	2.07	0.55
4:CE:19:ARG:NH1	4:CE:28:ARG:HH22	2.04	0.55
4:CE:23:THR:HA	4:CE:28:ARG:HA	1.88	0.55
6:CG:129:ASN:ND2	6:CG:137:ARG:HH22	2.04	0.55
10:CK:34:THR:HB	10:CK:40:ALA:HA	1.87	0.55
14:CO:78:THR:HA	14:CO:81:ILE:HD12	1.87	0.55
14:CO:80:LEU:HD21	14:CO:84:LEU:HD22	1.89	0.55
16:CQ:83:LEU:HD22	16:CQ:83:LEU:N	2.21	0.55
23:DB:228:C:O2	23:DB:418:C:H4'	2.06	0.55
23:DB:660:C:H2'	23:DB:661:A:C8	2.41	0.55
23:DB:1351:C:O2'	23:DB:1571:A:H1'	2.07	0.55
23:DB:1731:G:O2'	23:DB:1732:C:H5''	2.06	0.55
23:DB:1774:C:H2'	23:DB:1774:C:O2	2.06	0.55
23:DB:2008:C:H2'	23:DB:2009:A:C8	2.42	0.55
23:DB:2648:G:H2'	23:DB:2649:C:C6	2.41	0.55
23:DB:2674:G:H4'	32:DK:30:ARG:HG3	1.88	0.55
23:DB:2678:C:H2'	23:DB:2679:A:C8	2.42	0.55
23:DB:2863:C:O2'	23:DB:2864:G:H5'	2.07	0.55
25:DC:130:PRO:HG2	25:DC:133:ASN:ND2	2.22	0.55
32:DK:53:LYS:HD3	32:DK:56:ASP:OD2	2.07	0.55
38:DQ:63:ARG:NH1	38:DQ:96:ASP:HA	2.20	0.55
38:DQ:71:ASN:HD22	38:DQ:73:ILE:HG22	1.70	0.55
40:DS:24:ILE:CD1	40:DS:36:LEU:HD21	2.36	0.55
45:DY:6:ILE:N	45:DY:35:VAL:O	2.38	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:D3:16:THR:C	50:D3:18:LYS:H	2.14	0.55
52:DI:71:LYS:HB3	52:DI:115:ASP:OD2	2.06	0.55
1:AA:16:A:O2'	1:AA:17:U:H5'	2.07	0.55
1:AA:137:U:H2'	1:AA:138:G:C8	2.42	0.55
1:AA:642:A:H2'	1:AA:643:C:H6	1.72	0.55
1:AA:692:U:C2	1:AA:694:A:H5''	2.42	0.55
1:AA:769:G:H4'	1:AA:1513:A:H4'	1.87	0.55
1:AA:1006:G:H2'	1:AA:1007:U:H6	1.71	0.55
1:AA:1438:G:O2'	1:AA:1439:G:H5'	2.06	0.55
1:AA:1448:C:H2'	1:AA:1449:C:C6	2.42	0.55
3:AD:29:THR:HG22	3:AD:30:LYS:N	2.22	0.55
6:AG:78:ARG:HG2	6:AG:83:THR:HG22	1.88	0.55
7:AH:76:ARG:HG3	7:AH:77:VAL:N	2.21	0.55
13:AN:60:ARG:NE	13:AN:62:ARG:HG2	2.21	0.55
15:AP:59:HIS:O	15:AP:63:GLN:HG3	2.07	0.55
16:AQ:7:LEU:O	16:AQ:60:ILE:HD13	2.06	0.55
18:AS:62:THR:H	18:AS:65:MET:HB2	1.71	0.55
20:AB:53:LEU:HD11	20:AB:216:VAL:HA	1.88	0.55
23:BB:416:U:H2'	23:BB:417:C:C6	2.42	0.55
23:BB:616:A:H4'	27:BE:101:TYR:CE2	2.42	0.55
23:BB:1021:A:H61	23:BB:1142:A:H61	1.55	0.55
23:BB:1152:C:O2'	23:BB:1153:C:H5'	2.07	0.55
23:BB:1210:G:N3	23:BB:1212:G:N2	2.55	0.55
23:BB:1260:A:H2'	23:BB:1261:C:H6	1.70	0.55
23:BB:1549:A:H2'	23:BB:1550:C:H6	1.70	0.55
23:BB:2537:U:H2'	23:BB:2538:C:C6	2.42	0.55
23:BB:2868:A:H2'	23:BB:2869:G:C8	2.42	0.55
27:BE:110:SER:O	27:BE:114:ARG:HG3	2.07	0.55
27:BE:149:ILE:O	27:BE:188:MET:HA	2.07	0.55
29:BG:74:MET:O	29:BG:78:VAL:HG22	2.07	0.55
29:BG:83:THR:HA	29:BG:84:LYS:NZ	2.22	0.55
29:BG:85:LYS:HB2	29:BG:164:ALA:CB	2.37	0.55
33:BL:78:ARG:HG2	33:BL:113:ALA:HB2	1.88	0.55
33:BL:135:ILE:HG12	33:BL:140:GLY:CA	2.36	0.55
38:BQ:26:ALA:HB1	38:BQ:30:VAL:HB	1.88	0.55
38:BQ:74:SER:OG	38:BQ:77:LYS:HD3	2.06	0.55
40:BS:83:LYS:HB3	40:BS:95:ARG:NH1	2.21	0.55
42:BU:17:ASP:HB3	42:BU:20:LYS:HE3	1.88	0.55
43:BW:37:VAL:HG12	43:BW:38:ARG:N	2.22	0.55
47:B0:52:LYS:NZ	47:B0:56:LYS:H	2.05	0.55
50:B3:7:ARG:HH11	50:B3:7:ARG:HG3	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BI:14:ALA:HB1	52:BI:50:LYS:HA	1.88	0.55
1:CA:845:A:H3'	1:CA:846:G:H8	1.71	0.55
11:CL:3:VAL:O	11:CL:7:VAL:HG23	2.07	0.55
20:CB:122:ASP:OD2	20:CB:125:PHE:HB2	2.07	0.55
21:CU:3:ILE:HD13	21:CU:19:LYS:HA	1.89	0.55
23:DB:438:G:H2'	23:DB:439:A:H8	1.72	0.55
23:DB:1230:A:H2'	23:DB:1231:U:C6	2.42	0.55
23:DB:2049:G:H21	26:DD:161:MET:HE2	1.71	0.55
23:DB:2714:G:O2'	23:DB:2715:C:H5'	2.05	0.55
23:DB:2720:U:H2'	23:DB:2721:A:C8	2.42	0.55
25:DC:75:ALA:CB	25:DC:95:TYR:HA	2.37	0.55
34:DM:21:ALA:HB2	34:DM:100:LYS:HG2	1.88	0.55
43:DW:18:LYS:N	43:DW:35:ILE:HG23	2.22	0.55
52:DI:1:ALA:C	52:DI:2:LYS:HD2	2.32	0.55
52:DI:2:LYS:C	52:DI:3:LYS:HD2	2.32	0.55
1:AA:230:G:H2'	1:AA:231:U:O4'	2.07	0.55
1:AA:747:A:H2'	1:AA:748:G:O4'	2.07	0.55
1:AA:858:G:O6	1:AA:869:G:H3'	2.07	0.55
1:AA:1004:A:C8	1:AA:1025:U:H1'	2.42	0.55
1:AA:1147:C:H2'	1:AA:1148:U:C6	2.42	0.55
1:AA:1332:A:H2'	1:AA:1333:A:C8	2.42	0.55
3:AD:24:VAL:HG13	3:AD:160:LEU:HB3	1.87	0.55
4:AE:148:SER:OG	4:AE:151:MET:HB2	2.07	0.55
8:AI:46:VAL:O	8:AI:79:ARG:HG3	2.06	0.55
11:AL:41:PRO:HB3	11:AL:49:ARG:NH1	2.22	0.55
19:AT:53:MET:HA	19:AT:56:ILE:HD12	1.89	0.55
20:AB:33:ALA:HA	20:AB:38:HIS:HA	1.87	0.55
20:AB:205:ALA:HB3	20:AB:208:ALA:CB	2.37	0.55
23:BB:83:A:C6	23:BB:101:A:H5'	2.42	0.55
23:BB:782:A:N3	25:BC:224:MET:HB3	2.21	0.55
23:BB:909:A:H2'	23:BB:912:C:H5	1.71	0.55
23:BB:1714:U:H3'	23:BB:1715:G:C5'	2.36	0.55
23:BB:1831:G:H2'	23:BB:1832:C:C6	2.42	0.55
24:BV:9:ARG:CZ	24:BV:20:LEU:HD11	2.37	0.55
25:BC:145:MET:HB2	25:BC:152:GLN:NE2	2.21	0.55
30:BH:73:ASN:HD22	30:BH:73:ASN:N	2.04	0.55
31:BJ:89:PHE:CE1	31:BJ:93:ILE:HD13	2.40	0.55
52:BI:5:GLN:HG2	52:BI:6:ALA:N	2.22	0.55
52:BI:10:LEU:O	52:BI:10:LEU:HD12	2.06	0.55
1:CA:189:A:H2'	1:CA:190:A:C8	2.41	0.55
1:CA:522:C:H2'	1:CA:523:A:O4'	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:782:A:H2'	1:CA:783:C:O4'	2.06	0.55
3:CD:2:ARG:HH22	3:CD:132:ALA:HB3	1.72	0.55
6:CG:72:VAL:HG12	6:CG:89:GLU:HA	1.88	0.55
18:CS:63:ASP:O	18:CS:66:VAL:HG22	2.07	0.55
21:CU:3:ILE:HD12	21:CU:3:ILE:N	2.21	0.55
21:CU:39:LYS:N	21:CU:40:PRO:HD2	2.21	0.55
22:DA:14:U:H5'	22:DA:70:C:O2'	2.07	0.55
23:DB:496:G:H1'	40:DS:61:ASN:HD21	1.71	0.55
23:DB:2037:A:H2'	23:DB:2038:G:H8	1.71	0.55
23:DB:2106:U:H2'	23:DB:2107:G:H8	1.72	0.55
23:DB:2216:G:H2'	23:DB:2217:G:H8	1.72	0.55
23:DB:2247:A:H3'	56:DB:3580:HOH:O	2.06	0.55
23:DB:2547:A:H2'	23:DB:2548:U:C6	2.42	0.55
23:DB:2704:C:H2'	23:DB:2705:A:O4'	2.07	0.55
23:DB:2803:G:H2'	23:DB:2804:U:H6	1.72	0.55
24:DV:80:HIS:HD2	24:DV:82:TYR:H	1.54	0.55
25:DC:43:ASN:HB3	25:DC:45:ASN:HD22	1.71	0.55
25:DC:105:ALA:HB1	25:DC:109:LEU:HD11	1.87	0.55
27:DE:29:HIS:HA	27:DE:32:VAL:HG22	1.89	0.55
30:DH:94:ILE:HG22	30:DH:122:LEU:HB3	1.88	0.55
30:DH:131:SER:OG	30:DH:132:PHE:N	2.40	0.55
31:DJ:55:ILE:CB	31:DJ:123:LYS:HB2	2.37	0.55
34:DM:35:ALA:HB2	34:DM:100:LYS:HB2	1.89	0.55
39:DR:39:LEU:HA	39:DR:49:ILE:HG12	1.89	0.55
39:DR:68:ARG:NH2	39:DR:90:ARG:HG2	2.22	0.55
41:DT:69:ARG:HB2	41:DT:75:GLY:N	2.22	0.55
44:DX:23:ARG:HA	44:DX:27:ASN:ND2	2.21	0.55
46:DZ:5:CYS:HB2	46:DZ:10:LYS:HB2	1.89	0.55
48:D1:26:LYS:HD2	48:D1:30:PRO:HA	1.89	0.55
52:DI:129:GLU:HB3	52:DI:133:ARG:HH12	1.71	0.55
1:AA:80:A:N3	1:AA:81:A:H1'	2.22	0.55
1:AA:153:C:H2'	1:AA:154:U:C6	2.42	0.55
1:AA:235:C:H2'	1:AA:236:A:H8	1.69	0.55
1:AA:474:G:H2'	1:AA:475:C:H6	1.72	0.55
1:AA:1349:A:H2'	1:AA:1350:A:O4'	2.07	0.55
2:AC:142:ARG:HH21	2:AC:143:LEU:HD21	1.72	0.55
9:AJ:53:ILE:CG2	9:AJ:61:ALA:HB1	2.37	0.55
11:AL:13:ARG:O	11:AL:14:LYS:HB3	2.06	0.55
23:BB:126:A:O5'	49:B2:19:ARG:HB2	2.07	0.55
23:BB:132:G:H2'	23:BB:133:U:C6	2.41	0.55
23:BB:417:C:H2'	23:BB:418:C:H6	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:438:G:H2'	23:BB:439:A:H8	1.72	0.55
23:BB:699:A:H4'	23:BB:1634:A:N7	2.22	0.55
23:BB:812:C:H4'	38:BQ:12:ARG:NH2	2.22	0.55
23:BB:1133:A:H5'	23:BB:1134:A:OP1	2.07	0.55
23:BB:1709:U:H2'	23:BB:1710:G:C8	2.42	0.55
28:BF:106:ALA:HA	28:BF:135:ILE:CD1	2.37	0.55
29:BG:25:ILE:HG22	29:BG:78:VAL:HG21	1.88	0.55
29:BG:34:ARG:HG2	29:BG:34:ARG:NH1	2.21	0.55
29:BG:84:LYS:HG3	29:BG:132:LEU:N	2.21	0.55
31:BJ:4:PHE:CG	31:BJ:5:THR:N	2.75	0.55
36:BO:56:LYS:C	36:BO:60:GLU:HG2	2.32	0.55
40:BS:6:LYS:HB2	40:BS:103:ILE:O	2.07	0.55
46:BZ:20:HIS:O	46:BZ:21:ALA:HB3	2.07	0.55
1:CA:17:U:O2'	1:CA:18:C:H5'	2.06	0.55
1:CA:484:G:H5'	1:CA:486:U:H5'	1.88	0.55
1:CA:674:G:H2'	1:CA:675:A:C8	2.38	0.55
1:CA:709:U:H2'	1:CA:710:G:C8	2.41	0.55
1:CA:736:C:H2'	1:CA:737:C:C6	2.42	0.55
12:CM:18:LEU:HB2	12:CM:29:SER:OG	2.05	0.55
18:CS:24:SER:HB2	18:CS:27:LYS:HE3	1.88	0.55
20:CB:75:ALA:O	20:CB:79:VAL:HG23	2.07	0.55
22:DA:49:C:H2'	22:DA:50:A:C8	2.42	0.55
23:DB:189:G:H2'	23:DB:205:G:H22	1.72	0.55
23:DB:596:U:H2'	23:DB:597:G:H8	1.72	0.55
23:DB:638:G:H2'	23:DB:639:U:C6	2.42	0.55
23:DB:1098:A:C2'	52:DI:4:VAL:N	2.70	0.55
23:DB:1495:A:O2'	23:DB:1496:A:H5'	2.07	0.55
23:DB:1508:A:H5'	23:DB:1509:A:C6	2.42	0.55
23:DB:1553:A:O2'	23:DB:1554:U:H2'	2.06	0.55
23:DB:2455:G:H2'	23:DB:2456:C:C6	2.42	0.55
26:DD:8:LYS:HG2	26:DD:197:THR:H	1.72	0.55
26:DD:149:ASN:C	26:DD:152:PRO:HD2	2.32	0.55
29:DG:8:VAL:CG1	29:DG:49:LEU:HB3	2.32	0.55
29:DG:85:LYS:HB2	29:DG:164:ALA:CB	2.36	0.55
31:DJ:19:ASP:CG	31:DJ:57:LEU:HB3	2.31	0.55
33:DL:41:ARG:HG2	33:DL:41:ARG:HH21	1.73	0.55
33:DL:91:ASP:OD1	33:DL:92:LEU:HG	2.07	0.55
34:DM:67:VAL:HG11	34:DM:102:LEU:HD22	1.88	0.55
34:DM:126:ILE:HD12	34:DM:126:ILE:N	2.22	0.55
40:DS:95:ARG:HG3	40:DS:97:LEU:HD13	1.89	0.55
42:DU:66:VAL:O	42:DU:69:VAL:HG22	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DW:31:LEU:N	43:DW:60:ALA:HB3	2.22	0.55
46:DZ:41:GLU:O	46:DZ:44:LYS:HD2	2.06	0.55
1:AA:474:G:H2'	1:AA:475:C:C6	2.42	0.54
1:AA:528:C:H41	11:AL:45:ASN:CG	2.16	0.54
1:AA:777:A:H2'	1:AA:778:G:H8	1.72	0.54
3:AD:24:VAL:CG1	3:AD:160:LEU:HB3	2.37	0.54
3:AD:90:LEU:HD11	3:AD:194:ILE:CD1	2.37	0.54
7:AH:123:GLU:HG2	7:AH:124:ILE:O	2.07	0.54
9:AJ:93:ALA:HB3	9:AJ:96:VAL:HG22	1.89	0.54
12:AM:89:ARG:HB3	12:AM:96:VAL:HG22	1.90	0.54
16:AQ:37:ILE:HG22	16:AQ:38:LYS:H	1.70	0.54
23:BB:418:C:H2'	23:BB:419:U:C6	2.42	0.54
23:BB:971:G:H2'	23:BB:972:A:O4'	2.07	0.54
23:BB:1438:U:H2'	23:BB:1439:A:O4'	2.08	0.54
23:BB:1570:A:H2'	23:BB:1571:A:C8	2.42	0.54
23:BB:2135:A:C2	23:BB:2136:G:H1'	2.42	0.54
30:BH:128:HIS:O	30:BH:143:ILE:HA	2.07	0.54
34:BM:60:GLN:H	34:BM:60:GLN:HE21	1.51	0.54
40:BS:18:ARG:HB3	40:BS:76:VAL:CG2	2.37	0.54
48:B1:39:ASP:OD1	48:B1:42:VAL:HG23	2.08	0.54
1:CA:41:G:H2'	1:CA:42:G:H8	1.72	0.54
3:CD:24:VAL:CG1	3:CD:160:LEU:HB3	2.37	0.54
4:CE:80:LEU:HA	4:CE:146:MET:HE1	1.89	0.54
9:CJ:40:ILE:HB	9:CJ:73:LEU:HB3	1.89	0.54
10:CK:83:VAL:HB	10:CK:109:ILE:HG23	1.90	0.54
20:CB:172:ILE:HD12	20:CB:172:ILE:H	1.71	0.54
23:DB:321:U:OP2	27:DE:130:LYS:HA	2.07	0.54
23:DB:823:C:O2'	23:DB:824:U:H5'	2.07	0.54
23:DB:1197:G:H2'	23:DB:1198:U:H6	1.72	0.54
23:DB:1198:U:H2'	23:DB:1199:U:H6	1.72	0.54
23:DB:1531:C:H2'	23:DB:1532:A:C8	2.42	0.54
23:DB:2828:G:O2'	23:DB:2829:A:H5'	2.08	0.54
25:DC:209:ALA:O	25:DC:213:ARG:HB2	2.07	0.54
28:DF:78:ILE:HD12	28:DF:78:ILE:N	2.22	0.54
29:DG:34:ARG:HG2	29:DG:34:ARG:NH1	2.21	0.54
30:DH:39:ALA:C	30:DH:41:LYS:H	2.16	0.54
31:DJ:45:THR:OG1	31:DJ:48:VAL:HB	2.07	0.54
33:DL:111:ILE:HG22	33:DL:112:LEU:N	2.22	0.54
37:DP:20:ARG:HB3	37:DP:23:ASP:CG	2.32	0.54
39:DR:14:VAL:CG2	39:DR:15:SER:H	2.16	0.54
40:DS:96:ILE:HG23	40:DS:96:ILE:O	2.06	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DW:23:LYS:HZ3	43:DW:24:ARG:HG3	1.71	0.54
1:AA:251:G:H1	1:AA:271:C:H41	1.53	0.54
2:AC:78:LYS:C	2:AC:80:GLY:H	2.14	0.54
8:AI:18:VAL:HA	8:AI:64:ILE:HG13	1.88	0.54
8:AI:22:PRO:HA	8:AI:60:LEU:HB2	1.87	0.54
15:AP:25:ARG:HD3	15:AP:25:ARG:N	2.22	0.54
19:AT:54:GLN:N	19:AT:55:PRO:HD2	2.22	0.54
23:BB:513:A:H8	23:BB:513:A:O5'	1.91	0.54
23:BB:566:U:H5''	33:BL:29:LYS:NZ	2.22	0.54
23:BB:1930:G:H2'	23:BB:1968:G:H1	1.71	0.54
23:BB:2196:C:O2'	23:BB:2197:U:H5'	2.07	0.54
25:BC:77:VAL:CG2	25:BC:113:ASP:H	2.19	0.54
25:BC:78:GLU:HB2	25:BC:92:LEU:HD23	1.89	0.54
25:BC:209:ALA:O	25:BC:213:ARG:HB2	2.07	0.54
32:BK:8:LEU:HD12	32:BK:8:LEU:N	2.22	0.54
33:BL:4:ASN:N	33:BL:4:ASN:HD22	2.04	0.54
34:BM:17:ASN:HD21	34:BM:95:LEU:HG	1.72	0.54
35:BN:29:VAL:O	35:BN:78:LYS:HE3	2.07	0.54
37:BP:88:ARG:HB2	37:BP:112:ARG:CZ	2.37	0.54
39:BR:79:ARG:CD	39:BR:80:ARG:HH21	2.20	0.54
42:BU:80:ASP:HB3	42:BU:96:LYS:N	2.08	0.54
50:B3:16:THR:C	50:B3:18:LYS:H	2.15	0.54
52:BI:52:LEU:HD21	52:BI:81:LYS:HZ2	1.72	0.54
1:CA:17:U:H4'	1:CA:1079:G:O2'	2.08	0.54
1:CA:490:C:H2'	1:CA:491:G:C8	2.42	0.54
1:CA:734:G:H21	17:CR:63:TYR:HE1	1.54	0.54
1:CA:1275:A:H2'	1:CA:1276:G:O4'	2.07	0.54
1:CA:1317:C:OP1	13:CN:56:PRO:HD2	2.06	0.54
2:CC:156:LEU:HD11	2:CC:165:GLU:HB2	1.89	0.54
4:CE:73:VAL:HB	4:CE:75:LEU:HD21	1.88	0.54
7:CH:9:MET:HE1	7:CH:35:ILE:HB	1.88	0.54
12:CM:17:ALA:HB2	12:CM:44:ILE:HD11	1.89	0.54
20:CB:13:VAL:HG11	20:CB:207:ARG:HG2	1.87	0.54
23:DB:226:A:H1'	23:DB:230:G:N2	2.22	0.54
23:DB:856:G:H2'	23:DB:857:G:C8	2.41	0.54
23:DB:1441:G:H2'	23:DB:1442:U:C6	2.41	0.54
23:DB:1925:C:C2'	23:DB:1926:U:H5''	2.34	0.54
23:DB:2741:A:H2'	23:DB:2742:G:O4'	2.06	0.54
23:DB:2772:C:H2'	23:DB:2773:C:C6	2.42	0.54
23:DB:2840:C:H2'	23:DB:2841:C:H6	1.72	0.54
23:DB:2861:U:H2'	23:DB:2862:G:C8	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DC:250:GLN:CD	25:DC:254:LYS:HG2	2.33	0.54
25:DC:250:GLN:HG2	25:DC:250:GLN:O	2.06	0.54
26:DD:62:LYS:HB2	26:DD:63:PRO:HD3	1.89	0.54
27:DE:21:ARG:HG3	27:DE:22:ASP:N	2.21	0.54
28:DF:56:LEU:HD22	28:DF:59:ILE:HD12	1.88	0.54
29:DG:36:LEU:N	29:DG:36:LEU:HD22	2.22	0.54
34:DM:17:ASN:HD21	34:DM:95:LEU:HG	1.71	0.54
36:DO:100:HIS:HA	36:DO:104:GLN:HE21	1.71	0.54
37:DP:3:ILE:HD13	37:DP:3:ILE:C	2.32	0.54
37:DP:7:LEU:HA	37:DP:10:GLU:HG2	1.88	0.54
38:DQ:91:ARG:HB2	39:DR:11:GLN:OE1	2.07	0.54
46:DZ:6:GLN:NE2	46:DZ:50:ARG:N	2.54	0.54
46:DZ:7:VAL:HG21	46:DZ:59:ILE:CD1	2.37	0.54
1:AA:31:G:H5'	1:AA:306:A:C2	2.42	0.54
1:AA:343:U:O2'	1:AA:344:A:H2'	2.07	0.54
1:AA:555:U:H2'	1:AA:556:C:C6	2.42	0.54
1:AA:978:A:HO2'	1:AA:1322:C:H5	1.52	0.54
1:AA:1166:G:H2'	1:AA:1168:U:OP2	2.07	0.54
1:AA:1524:C:H2'	1:AA:1525:G:C8	2.42	0.54
4:AE:80:LEU:HA	4:AE:146:MET:HE1	1.89	0.54
12:AM:33:LEU:HD13	12:AM:39:ALA:O	2.07	0.54
12:AM:50:GLY:O	12:AM:54:THR:HG23	2.08	0.54
22:BA:30:C:O2	22:BA:30:C:H2'	2.07	0.54
23:BB:154:U:H2'	23:BB:155:A:H8	1.72	0.54
23:BB:528:A:C2	23:BB:2043:C:H4'	2.42	0.54
23:BB:753:A:H2'	23:BB:754:U:H6	1.70	0.54
23:BB:934:U:H2'	23:BB:935:C:C6	2.42	0.54
23:BB:1168:G:H2'	23:BB:1169:A:H8	1.72	0.54
23:BB:2547:A:H2'	23:BB:2548:U:C6	2.43	0.54
23:BB:2665:A:H2'	23:BB:2666:C:O2	2.07	0.54
23:BB:2741:A:H2'	23:BB:2742:G:O4'	2.08	0.54
23:BB:2746:U:H5'	29:BG:138:GLN:HA	1.89	0.54
24:BV:72:VAL:HG21	24:BV:91:PHE:CB	2.37	0.54
26:BD:13:ARG:HH12	37:BP:74:GLN:NE2	2.06	0.54
29:BG:24:THR:HA	29:BG:33:THR:O	2.08	0.54
30:BH:83:LYS:HD2	30:BH:91:PHE:CG	2.43	0.54
32:BK:15:GLY:HA2	32:BK:46:ALA:HA	1.89	0.54
35:BN:97:ILE:HD12	35:BN:98:LEU:N	2.20	0.54
40:BS:24:ILE:HG23	40:BS:32:ALA:HB1	1.90	0.54
48:B1:33:LEU:HB3	48:B1:51:ALA:CB	2.36	0.54
1:CA:179:A:H2'	1:CA:180:U:C6	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:272:C:H2'	1:CA:273:U:C6	2.42	0.54
1:CA:596:A:H2'	1:CA:597:G:H8	1.73	0.54
1:CA:1261:A:H1'	1:CA:1275:A:C2	2.43	0.54
1:CA:1326:U:H2'	1:CA:1327:C:H6	1.72	0.54
1:CA:1477:U:H2'	1:CA:1478:U:C6	2.42	0.54
4:CE:56:PRO:HG2	4:CE:57:ALA:H	1.71	0.54
7:CH:123:GLU:HG2	7:CH:124:ILE:O	2.07	0.54
10:CK:22:ILE:HD12	10:CK:84:MET:O	2.07	0.54
13:CN:60:ARG:HD3	13:CN:62:ARG:NH2	2.22	0.54
17:CR:58:ILE:H	17:CR:58:ILE:HD12	1.72	0.54
19:CT:4:LYS:HZ1	19:CT:6:ALA:HB2	1.72	0.54
23:DB:416:U:H2'	23:DB:417:C:C6	2.42	0.54
23:DB:692:C:H2'	23:DB:693:A:H8	1.72	0.54
23:DB:2784:U:H2'	23:DB:2785:C:H6	1.72	0.54
24:DV:42:LEU:HD11	24:DV:89:ILE:HD11	1.88	0.54
26:DD:114:LYS:NZ	26:DD:116:LYS:HZ2	2.05	0.54
35:DN:117:ASP:C	35:DN:117:ASP:OD2	2.51	0.54
38:DQ:78:PHE:O	38:DQ:82:LEU:HG	2.06	0.54
39:DR:8:GLY:HA3	39:DR:23:GLU:HB2	1.88	0.54
48:D1:25:ASN:OD1	48:D1:27:ARG:HB2	2.07	0.54
52:DI:2:LYS:HB3	52:DI:2:LYS:NZ	2.22	0.54
1:AA:5:U:H4'	1:AA:6:G:H5'	1.90	0.54
1:AA:90:C:H2'	1:AA:91:U:H5	1.72	0.54
1:AA:224:U:H2'	1:AA:225:C:H6	1.71	0.54
1:AA:384:G:H2'	1:AA:385:C:H6	1.73	0.54
1:AA:499:A:H4'	1:AA:500:G:OP1	2.07	0.54
1:AA:1446:A:H2'	1:AA:1447:A:H5''	1.89	0.54
1:AA:1450:U:H2'	1:AA:1452:C:C5	2.42	0.54
2:AC:31:ASN:ND2	2:AC:58:ARG:HE	2.05	0.54
20:AB:75:ALA:O	20:AB:79:VAL:HG23	2.07	0.54
23:BB:642:U:O2	23:BB:644:A:H3'	2.07	0.54
23:BB:674:G:H1'	27:BE:69:ARG:HE	1.73	0.54
23:BB:927:A:H2'	23:BB:928:A:C8	2.43	0.54
23:BB:1476:U:H4'	23:BB:1732:C:O2'	2.08	0.54
23:BB:2186:G:H2'	23:BB:2187:U:H6	1.73	0.54
23:BB:2852:G:H2'	23:BB:2853:C:H6	1.69	0.54
27:BE:161:ALA:HA	27:BE:164:LEU:HD12	1.89	0.54
28:BF:72:SER:CA	28:BF:80:GLN:H	2.21	0.54
29:BG:132:LEU:HD23	29:BG:132:LEU:N	2.22	0.54
30:BH:69:ALA:O	30:BH:140:ALA:HB2	2.08	0.54
35:BN:98:LEU:HG	47:B0:42:ILE:HD11	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BO:111:ARG:HD2	36:BO:117:PHE:O	2.07	0.54
39:BR:68:ARG:NH2	39:BR:90:ARG:HG2	2.22	0.54
39:BR:79:ARG:NE	39:BR:80:ARG:HH21	2.05	0.54
46:BZ:18:ARG:HG3	46:BZ:22:LEU:HA	1.88	0.54
46:BZ:41:GLU:O	46:BZ:44:LYS:HD2	2.07	0.54
52:BI:112:LYS:O	52:BI:116:MET:HG3	2.07	0.54
1:CA:190:A:H2'	1:CA:191:G:O4'	2.08	0.54
1:CA:437:U:H4'	3:CD:153:ARG:NH1	2.21	0.54
1:CA:552:U:O2'	1:CA:553:A:H5'	2.07	0.54
1:CA:1525:G:O2'	1:CA:1526:G:H5'	2.07	0.54
3:CD:72:ARG:HD3	3:CD:203:TYR:CZ	2.42	0.54
10:CK:124:LYS:CA	21:CU:34:ARG:HB3	2.36	0.54
20:CB:199:ILE:HG21	20:CB:212:TYR:CE2	2.42	0.54
23:DB:285:G:H2'	23:DB:286:U:O4'	2.08	0.54
23:DB:997:G:O2'	23:DB:998:C:H5'	2.07	0.54
23:DB:1268:A:H2'	23:DB:1269:A:O4'	2.07	0.54
23:DB:1657:U:O2'	26:DD:138:LEU:HD12	2.07	0.54
23:DB:2083:G:H2'	23:DB:2084:C:H6	1.71	0.54
23:DB:2333:A:H4'	23:DB:2334:U:C5'	2.37	0.54
23:DB:2615:U:C2	47:D0:3:GLN:HA	2.43	0.54
24:DV:35:GLU:OE1	24:DV:93:ARG:HD3	2.07	0.54
25:DC:77:VAL:CG2	25:DC:113:ASP:H	2.20	0.54
25:DC:129:LEU:HD23	25:DC:130:PRO:CD	2.35	0.54
27:DE:112:LEU:C	27:DE:114:ARG:H	2.14	0.54
28:DF:62:GLN:HG3	28:DF:91:ARG:HH11	1.72	0.54
32:DK:71:ARG:CG	32:DK:105:ARG:HH21	2.21	0.54
35:DN:1:MET:HE3	35:DN:3:HIS:CD2	2.43	0.54
38:DQ:111:LYS:HB2	38:DQ:111:LYS:HZ2	1.73	0.54
41:DT:76:ARG:HH21	41:DT:77:ARG:HB2	1.72	0.54
46:DZ:63:GLY:O	46:DZ:67:VAL:HG23	2.07	0.54
48:D1:3:GLY:O	48:D1:4:ILE:HG12	2.07	0.54
48:D1:39:ASP:OD1	48:D1:42:VAL:HG23	2.07	0.54
52:DI:1:ALA:CB	52:DI:2:LYS:HD2	2.38	0.54
52:DI:5:GLN:O	52:DI:6:ALA:HB3	2.05	0.54
52:DI:49:GLU:CB	52:DI:52:LEU:HD12	2.38	0.54
1:AA:1275:A:H2'	1:AA:1276:G:O4'	2.07	0.54
2:AC:39:ARG:HG3	2:AC:56:ILE:HD11	1.90	0.54
5:AF:22:ILE:HD11	5:AF:60:VAL:HG11	1.90	0.54
8:AI:20:ILE:HD12	8:AI:20:ILE:N	2.22	0.54
11:AL:98:ARG:HB2	11:AL:116:TYR:HA	1.90	0.54
23:BB:638:G:H2'	23:BB:639:U:C6	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:784:G:C6	25:BC:227:VAL:HG11	2.42	0.54
23:BB:1230:A:H2'	23:BB:1231:U:C6	2.42	0.54
23:BB:1319:C:O2'	23:BB:1320:C:H5'	2.08	0.54
23:BB:2074:U:H2'	23:BB:2075:U:C6	2.42	0.54
23:BB:2199:A:H3'	23:BB:2200:C:H6	1.72	0.54
23:BB:2346:A:H3'	23:BB:2347:C:H5''	1.87	0.54
23:BB:2412:A:H2'	23:BB:2413:G:O4'	2.07	0.54
26:BD:165:MET:HG2	26:BD:166:GLY:N	2.23	0.54
29:BG:8:VAL:CG1	29:BG:49:LEU:HB3	2.34	0.54
29:BG:122:ALA:HA	29:BG:132:LEU:HA	1.90	0.54
31:BJ:64:VAL:HG22	31:BJ:68:LYS:HD3	1.90	0.54
32:BK:105:ARG:HD2	32:BK:122:VAL:CG1	2.37	0.54
37:BP:103:THR:HG22	37:BP:104:GLY:H	1.72	0.54
42:BU:73:ASN:C	42:BU:75:ALA:H	2.16	0.54
47:B0:5:ASN:O	47:B0:7:PRO:HD3	2.08	0.54
50:B3:55:GLY:HA2	50:B3:58:ILE:HD12	1.90	0.54
51:B4:10:LEU:HD22	51:B4:33:HIS:CD2	2.42	0.54
1:CA:1062:U:H2'	1:CA:1063:C:C6	2.41	0.54
1:CA:1081:A:OP1	4:CE:22:LYS:HB2	2.06	0.54
1:CA:1147:C:H2'	1:CA:1148:U:C6	2.42	0.54
1:CA:1314:C:H3'	18:CS:5:LYS:NZ	2.23	0.54
11:CL:7:VAL:HG22	16:CQ:33:TYR:CD1	2.42	0.54
14:CO:28:VAL:HB	14:CO:80:LEU:HD11	1.88	0.54
15:CP:6:LEU:HB3	15:CP:17:TYR:HB3	1.89	0.54
18:CS:41:PRO:HA	18:CS:66:VAL:HG11	1.89	0.54
23:DB:115:C:O2'	23:DB:116:C:H5'	2.08	0.54
23:DB:497:A:H2'	23:DB:498:G:O4'	2.07	0.54
23:DB:528:A:N1	23:DB:2042:A:H2'	2.21	0.54
23:DB:927:A:H2'	23:DB:928:A:C8	2.43	0.54
23:DB:931:U:H3	23:DB:1166:G:N2	2.06	0.54
23:DB:936:A:H2'	23:DB:937:C:H6	1.72	0.54
23:DB:1880:U:H2'	23:DB:1881:C:C6	2.42	0.54
23:DB:2364:C:H2'	23:DB:2365:G:O4'	2.07	0.54
23:DB:2722:G:H2'	23:DB:2723:C:H6	1.73	0.54
27:DE:1:MET:O	27:DE:13:THR:HA	2.07	0.54
28:DF:102:LEU:O	28:DF:103:ILE:HB	2.07	0.54
32:DK:60:ALA:HB2	32:DK:86:LEU:HA	1.90	0.54
35:DN:49:GLU:HB2	35:DN:50:PRO:HD3	1.88	0.54
38:DQ:89:ILE:C	38:DQ:91:ARG:H	2.16	0.54
45:DY:37:ARG:HG3	45:DY:38:GLU:OE1	2.08	0.54
1:AA:194:C:O2'	1:AA:195:A:H5'	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:389:A:H2'	1:AA:389:A:N3	2.23	0.54
1:AA:1014:A:H4'	18:AS:13:HIS:CE1	2.42	0.54
1:AA:1118:U:H2'	1:AA:1119:C:H6	1.69	0.54
1:AA:1324:A:H2'	1:AA:1325:C:O4'	2.08	0.54
1:AA:1437:A:H2'	1:AA:1438:G:C8	2.43	0.54
3:AD:84:ASN:ND2	3:AD:86:GLY:H	2.05	0.54
3:AD:192:ALA:C	3:AD:194:ILE:H	2.16	0.54
4:AE:19:ARG:NH1	4:AE:28:ARG:HH22	2.05	0.54
10:AK:90:PRO:C	10:AK:92:ARG:H	2.15	0.54
11:AL:20:VAL:O	11:AL:20:VAL:HG23	2.08	0.54
15:AP:46:LYS:C	15:AP:48:GLU:H	2.16	0.54
20:AB:172:ILE:H	20:AB:172:ILE:HD12	1.71	0.54
22:BA:43:C:C4'	28:BF:91:ARG:HD2	2.38	0.54
23:BB:138:U:C5	23:BB:140:C:H1'	2.43	0.54
23:BB:545:U:H2'	23:BB:547:A:OP1	2.08	0.54
23:BB:635:C:O2'	23:BB:639:U:H5''	2.08	0.54
23:BB:1164:C:H2'	23:BB:1165:A:H8	1.71	0.54
23:BB:1168:G:H2'	23:BB:1169:A:C8	2.43	0.54
23:BB:1335:C:H2'	23:BB:1336:A:H8	1.72	0.54
23:BB:1401:G:H2'	23:BB:1402:U:C6	2.42	0.54
23:BB:1857:G:O2'	23:BB:1858:A:H8	1.91	0.54
23:BB:2354:C:H4'	43:BW:31:LEU:HD23	1.90	0.54
23:BB:2570:G:H2'	23:BB:2571:U:O4'	2.08	0.54
23:BB:2751:G:H5'	29:BG:2:ARG:CD	2.37	0.54
23:BB:2819:G:H2'	23:BB:2821:A:N7	2.23	0.54
25:BC:12:ARG:HA	25:BC:15:VAL:HG23	1.89	0.54
25:BC:57:HIS:ND1	25:BC:58:LYS:N	2.56	0.54
26:BD:114:LYS:HB2	26:BD:116:LYS:HE3	1.89	0.54
28:BF:78:ILE:HD12	28:BF:78:ILE:N	2.22	0.54
29:BG:17:LYS:O	29:BG:23:ILE:HG23	2.08	0.54
36:BO:100:HIS:HA	36:BO:104:GLN:HE21	1.72	0.54
39:BR:31:GLU:H	39:BR:63:VAL:CG2	2.20	0.54
39:BR:35:PHE:C	39:BR:58:VAL:HG23	2.33	0.54
40:BS:41:LYS:NZ	40:BS:41:LYS:HB3	2.23	0.54
1:CA:265:G:H2'	1:CA:267:C:H5	1.72	0.54
1:CA:817:C:H1'	1:CA:819:A:C5'	2.35	0.54
1:CA:968:A:C8	1:CA:1062:U:H4'	2.42	0.54
1:CA:1171:A:H2'	1:CA:1172:C:C6	2.42	0.54
1:CA:1332:A:H2'	1:CA:1333:A:H8	1.72	0.54
7:CH:47:ASP:CG	7:CH:48:PHE:H	2.16	0.54
10:CK:27:ASN:O	10:CK:56:LYS:HE3	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:43:C:C4'	28:DF:91:ARG:HD2	2.38	0.54
23:DB:67:U:H2'	23:DB:68:G:H8	1.72	0.54
23:DB:794:A:H2'	23:DB:795:C:C6	2.43	0.54
23:DB:794:A:H2'	23:DB:795:C:H6	1.72	0.54
23:DB:1081:U:H5'	52:DI:126:ARG:NH1	2.22	0.54
23:DB:1820:U:OP1	25:DC:176:ARG:HD2	2.07	0.54
25:DC:69:ASN:O	25:DC:70:LYS:C	2.50	0.54
25:DC:89:ASN:O	25:DC:105:ALA:HB3	2.07	0.54
25:DC:93:VAL:HG12	25:DC:101:ARG:O	2.07	0.54
26:DD:178:VAL:O	26:DD:180:VAL:HG23	2.08	0.54
29:DG:26:LYS:HG2	29:DG:27:GLY:N	2.23	0.54
36:DO:47:VAL:HG12	36:DO:48:LEU:H	1.72	0.54
40:DS:83:LYS:HB3	40:DS:95:ARG:NH1	2.22	0.54
41:DT:13:ALA:O	41:DT:32:LEU:HB2	2.07	0.54
49:D2:22:MET:HE2	49:D2:31:LEU:CD1	2.38	0.54
50:D3:7:ARG:O	50:D3:11:LYS:HG3	2.08	0.54
52:DI:79:LEU:HD11	52:DI:131:THR:OG1	2.07	0.54
1:AA:95:C:H2'	1:AA:96:U:H6	1.73	0.54
1:AA:501:C:H2'	1:AA:502:A:H8	1.73	0.54
1:AA:1017:U:H2'	1:AA:1018:G:C8	2.42	0.54
1:AA:1349:A:OP1	8:AI:121:ARG:HB2	2.08	0.54
1:AA:1441:A:C2	37:BP:113:LEU:HD13	2.43	0.54
1:AA:1512:U:H2'	1:AA:1513:A:C8	2.43	0.54
5:AF:70:VAL:HA	5:AF:73:GLU:HG3	1.89	0.54
7:AH:94:VAL:CG2	7:AH:101:ALA:HB2	2.37	0.54
8:AI:18:VAL:HG13	8:AI:64:ILE:HG13	1.88	0.54
9:AJ:52:LEU:HB2	13:AN:80:ARG:HE	1.73	0.54
18:AS:18:VAL:HG21	18:AS:43:MET:HE2	1.90	0.54
18:AS:38:THR:HG22	18:AS:68:HIS:O	2.08	0.54
19:AT:65:LEU:HG	19:AT:66:ILE:HD13	1.90	0.54
21:AU:35:GLU:HB2	21:AU:37:TYR:CZ	2.43	0.54
22:BA:13:G:H2'	22:BA:14:U:H5''	1.89	0.54
23:BB:497:A:H2'	23:BB:498:G:O4'	2.07	0.54
23:BB:854:C:O2'	23:BB:855:G:H5'	2.08	0.54
23:BB:1013:C:H2'	23:BB:1014:A:C8	2.42	0.54
23:BB:1076:C:H4'	52:BI:94:LYS:HE3	1.88	0.54
23:BB:1320:C:C5	23:BB:1329:U:H5''	2.42	0.54
23:BB:2008:C:H2'	23:BB:2009:A:C8	2.43	0.54
23:BB:2543:G:H5'	23:BB:2543:G:H8	1.73	0.54
23:BB:2722:G:H4'	35:BN:4:ARG:HB2	1.90	0.54
23:BB:2803:G:H2'	23:BB:2804:U:C6	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BV:1:MET:O	24:BV:62:THR:HG23	2.08	0.54
26:BD:175:LEU:HD21	26:BD:191:GLY:O	2.07	0.54
27:BE:18:THR:O	27:BE:110:SER:HB2	2.06	0.54
34:BM:2:LEU:HD23	34:BM:46:ILE:HD11	1.90	0.54
37:BP:103:THR:HG22	37:BP:104:GLY:N	2.23	0.54
1:CA:8:A:H61	3:CD:53:GLN:HE22	1.56	0.54
1:CA:79:G:H2'	1:CA:80:A:C8	2.42	0.54
1:CA:678:U:H4'	1:CA:778:G:OP1	2.07	0.54
1:CA:715:A:H2'	1:CA:716:A:C8	2.43	0.54
1:CA:961:U:O4'	1:CA:961:U:O2	2.26	0.54
6:CG:129:ASN:HA	6:CG:134:VAL:HG21	1.90	0.54
8:CI:109:GLN:CD	8:CI:110:VAL:H	2.16	0.54
8:CI:126:PHE:O	8:CI:128:LYS:N	2.41	0.54
22:DA:50:A:OP1	36:DO:68:LYS:HG3	2.06	0.54
22:DA:88:C:H1'	22:DA:89:U:C6	2.43	0.54
23:DB:265:A:O2'	23:DB:266:G:H4'	2.08	0.54
23:DB:345:A:N3	23:DB:346:A:N1	2.56	0.54
23:DB:1347:A:H2'	23:DB:1348:C:O4'	2.08	0.54
23:DB:1425:G:H2'	23:DB:1426:G:C8	2.43	0.54
23:DB:2360:G:H4'	33:DL:61:LEU:HD11	1.89	0.54
28:DF:31:GLU:O	28:DF:32:LYS:O	2.24	0.54
30:DH:133:GLN:HB3	30:DH:139:PHE:HB3	1.90	0.54
32:DK:15:GLY:HA2	32:DK:46:ALA:HA	1.88	0.54
33:DL:65:GLY:O	33:DL:66:PHE:HB3	2.08	0.54
34:DM:126:ILE:HD12	34:DM:126:ILE:H	1.73	0.54
35:DN:99:LYS:HB2	47:D0:41:HIS:HB3	1.88	0.54
38:DQ:4:LYS:HE3	38:DQ:8:ILE:HD11	1.90	0.54
51:D4:10:LEU:HD13	51:D4:33:HIS:HA	1.90	0.54
1:AA:443:C:H2'	1:AA:444:G:C8	2.43	0.54
1:AA:562:U:H1'	11:AL:11:ARG:HD2	1.90	0.54
1:AA:565:U:H3'	1:AA:566:G:H2'	1.90	0.54
1:AA:1261:A:H1'	1:AA:1275:A:C2	2.43	0.54
1:AA:1262:C:H2'	1:AA:1263:C:C6	2.43	0.54
4:AE:152:VAL:O	4:AE:156:ARG:HG2	2.08	0.54
4:AE:156:ARG:HB2	7:AH:43:GLY:HA3	1.90	0.54
13:AN:20:PHE:HB2	13:AN:54:SER:OG	2.07	0.54
15:AP:6:LEU:HB3	15:AP:17:TYR:HB3	1.89	0.54
23:BB:278:A:N3	23:BB:278:A:H2'	2.23	0.54
23:BB:917:A:C2	23:BB:918:A:H1'	2.43	0.54
23:BB:1100:C:H2'	23:BB:1101:U:H6	1.72	0.54
23:BB:1242:U:H2'	23:BB:1243:C:C6	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1259:G:H2'	23:BB:1260:A:H8	1.72	0.54
23:BB:1565:C:H5''	25:BC:17:LYS:HE2	1.90	0.54
23:BB:1604:C:H5''	56:BB:3373:HOH:O	2.08	0.54
23:BB:1796:U:H2'	23:BB:1797:G:C8	2.42	0.54
23:BB:1828:G:O6	25:BC:220:ARG:HD2	2.08	0.54
23:BB:2101:A:H2'	23:BB:2102:G:H5''	1.90	0.54
23:BB:2408:U:O2'	23:BB:2409:G:H5'	2.08	0.54
23:BB:2875:C:H2'	23:BB:2876:G:H8	1.72	0.54
29:BG:30:GLY:CA	29:BG:78:VAL:HA	2.38	0.54
33:BL:58:TYR:HB2	50:B3:9:ALA:HA	1.90	0.54
33:BL:91:ASP:OD1	33:BL:92:LEU:HG	2.07	0.54
36:BO:30:ARG:HG3	36:BO:30:ARG:HH11	1.72	0.54
36:BO:93:ASP:C	36:BO:95:SER:H	2.16	0.54
42:BU:41:VAL:HG22	42:BU:60:LYS:O	2.08	0.54
52:BI:91:LYS:HB2	52:BI:94:LYS:HD2	1.87	0.54
1:CA:238:A:C2'	1:CA:239:U:H5''	2.38	0.54
1:CA:642:A:H2'	1:CA:643:C:H6	1.73	0.54
1:CA:762:U:H2'	1:CA:763:G:C8	2.43	0.54
1:CA:811:C:H4'	1:CA:900:A:H62	1.73	0.54
1:CA:1246:A:H2'	1:CA:1247:U:O4'	2.08	0.54
1:CA:1300:G:H1'	1:CA:1301:U:H5	1.73	0.54
1:CA:1326:U:H2'	1:CA:1327:C:C6	2.43	0.54
2:CC:18:ASN:OD1	2:CC:53:ARG:HD2	2.07	0.54
4:CE:19:ARG:HH11	4:CE:28:ARG:HH22	1.56	0.54
4:CE:92:ARG:HH11	4:CE:92:ARG:HB3	1.73	0.54
6:CG:72:VAL:HA	6:CG:89:GLU:HA	1.89	0.54
7:CH:13:ILE:HD11	7:CH:60:LEU:HD21	1.89	0.54
7:CH:94:VAL:CG2	7:CH:101:ALA:HB2	2.37	0.54
10:CK:14:GLN:HA	10:CK:77:GLY:HA3	1.89	0.54
17:CR:35:SER:O	17:CR:70:THR:HA	2.08	0.54
19:CT:49:ALA:C	19:CT:52:GLU:HB3	2.33	0.54
21:CU:35:GLU:HB2	21:CU:37:TYR:CE2	2.42	0.54
23:DB:307:G:N2	23:DB:309:A:H3'	2.23	0.54
23:DB:308:G:H2'	23:DB:309:A:O4'	2.08	0.54
23:DB:587:C:O2'	33:DL:19:LEU:HD13	2.08	0.54
23:DB:744:U:H2'	23:DB:745:G:O4'	2.08	0.54
23:DB:1491:G:H5'	25:DC:97:ASP:OD1	2.08	0.54
23:DB:2487:G:H2'	23:DB:2488:G:C8	2.42	0.54
23:DB:2605:U:H2'	23:DB:2606:C:C6	2.43	0.54
23:DB:2679:A:O2'	23:DB:2680:U:H5'	2.08	0.54
25:DC:57:HIS:ND1	25:DC:58:LYS:N	2.55	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DD:175:LEU:HD21	26:DD:191:GLY:O	2.08	0.54
27:DE:48:THR:C	27:DE:50:ALA:H	2.16	0.54
28:DF:169:LEU:HB3	28:DF:174:PHE:CD1	2.42	0.54
30:DH:65:ALA:O	30:DH:68:ARG:HB2	2.08	0.54
31:DJ:18:VAL:HG12	31:DJ:54:ILE:HD11	1.89	0.54
35:DN:29:VAL:O	35:DN:78:LYS:HE3	2.08	0.54
36:DO:56:LYS:C	36:DO:60:GLU:HG2	2.33	0.54
38:DQ:26:ALA:C	38:DQ:28:SER:H	2.14	0.54
42:DU:48:VAL:O	42:DU:50:ALA:N	2.41	0.54
42:DU:70:ALA:HB1	42:DU:79:ALA:HB2	1.90	0.54
43:DW:49:ASN:HA	43:DW:61:LYS:HB2	1.88	0.54
1:AA:268:U:H2'	1:AA:269:C:C6	2.42	0.54
1:AA:844:G:H2'	1:AA:846:G:C8	2.43	0.54
1:AA:1124:G:H4'	9:AJ:40:ILE:HG12	1.89	0.54
1:AA:1492:A:H5'	1:AA:1493:A:OP2	2.08	0.54
3:AD:100:VAL:O	3:AD:104:MET:HG3	2.08	0.54
4:AE:140:ILE:HG22	4:AE:144:GLU:OE1	2.07	0.54
6:AG:2:ARG:HG2	6:AG:3:ARG:HD3	1.90	0.54
6:AG:13:PRO:O	6:AG:14:ASP:O	2.26	0.54
11:AL:52:CYS:SG	11:AL:66:ILE:HD11	2.48	0.54
23:BB:475:C:H4'	23:BB:509:C:H2'	1.90	0.54
23:BB:946:C:H2'	23:BB:947:A:C8	2.43	0.54
23:BB:1219:U:H2'	23:BB:1220:G:C8	2.42	0.54
23:BB:1283:G:N2	23:BB:1285:A:H3'	2.23	0.54
23:BB:1779:U:C5	23:BB:1784:A:N7	2.76	0.54
23:BB:2460:U:H2'	23:BB:2461:A:H8	1.73	0.54
26:BD:12:THR:HG22	26:BD:13:ARG:H	1.71	0.54
27:BE:46:GLN:HB3	27:BE:86:ALA:HA	1.90	0.54
29:BG:26:LYS:CA	29:BG:32:LEU:H	2.17	0.54
29:BG:36:LEU:HD22	29:BG:36:LEU:N	2.22	0.54
31:BJ:3:THR:HG21	38:BQ:60:TRP:HE1	1.73	0.54
31:BJ:36:LEU:HD13	31:BJ:121:LYS:HE3	1.90	0.54
32:BK:98:ARG:C	32:BK:99:ILE:HD12	2.33	0.54
33:BL:47:ARG:HB3	33:BL:47:ARG:HH21	1.73	0.54
40:BS:95:ARG:HG3	40:BS:97:LEU:HD13	1.90	0.54
44:BX:56:LEU:O	44:BX:57:LEU:HB3	2.06	0.54
1:CA:528:C:H41	11:CL:45:ASN:CG	2.15	0.54
1:CA:692:U:C2	1:CA:694:A:H5''	2.42	0.54
1:CA:692:U:O2	1:CA:694:A:H5''	2.07	0.54
1:CA:1278:G:H4'	1:CA:1279:G:H5'	1.89	0.54
1:CA:1384:C:H2'	1:CA:1385:G:H8	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1464:U:H2'	1:CA:1465:A:H8	1.73	0.54
7:CH:11:THR:HA	7:CH:14:ARG:CZ	2.38	0.54
10:CK:124:LYS:HA	21:CU:34:ARG:HG2	1.89	0.54
11:CL:2:THR:HG22	11:CL:5:GLN:NE2	2.23	0.54
13:CN:14:ALA:O	13:CN:18:LYS:HG2	2.07	0.54
19:CT:54:GLN:N	19:CT:55:PRO:HD2	2.23	0.54
20:CB:101:THR:HA	20:CB:178:LEU:HD21	1.90	0.54
23:DB:45:G:C5'	23:DB:46:G:H5'	2.37	0.54
23:DB:303:G:H2'	23:DB:304:U:C6	2.43	0.54
23:DB:2538:C:O2'	23:DB:2539:C:H5'	2.08	0.54
23:DB:2698:U:H2'	23:DB:2699:C:C6	2.42	0.54
24:DV:9:ARG:NH2	24:DV:12:GLN:HA	2.21	0.54
26:DD:51:THR:HG21	26:DD:76:GLY:HA3	1.90	0.54
27:DE:166:LYS:O	27:DE:167:VAL:HB	2.07	0.54
28:DF:31:GLU:C	28:DF:32:LYS:HD3	2.33	0.54
29:DG:146:ASP:O	29:DG:150:TYR:HD1	1.91	0.54
30:DH:53:GLU:CA	30:DH:57:LYS:HB3	2.38	0.54
31:DJ:44:TYR:CE2	38:DQ:59:LEU:HD11	2.43	0.54
35:DN:81:ASN:O	35:DN:85:PRO:HD2	2.08	0.54
36:DO:84:GLU:C	36:DO:86:GLY:H	2.14	0.54
38:DQ:68:ALA:HA	38:DQ:71:ASN:HB3	1.89	0.54
39:DR:35:PHE:C	39:DR:58:VAL:HG23	2.33	0.54
1:AA:613:C:H2'	1:AA:614:C:C6	2.43	0.54
1:AA:1127:G:H5'	1:AA:1280:A:O2'	2.07	0.54
3:AD:75:TYR:HE1	3:AD:200:VAL:HA	1.73	0.54
4:AE:53:ARG:HB3	4:AE:53:ARG:NH1	2.23	0.54
4:AE:100:GLU:HA	4:AE:121:ASN:ND2	2.22	0.54
6:AG:14:ASP:OD2	6:AG:22:LEU:HB3	2.08	0.54
6:AG:70:PRO:O	6:AG:95:ARG:HG3	2.08	0.54
13:AN:50:LEU:N	13:AN:51:PRO:HD2	2.20	0.54
20:AB:107:ARG:HA	20:AB:110:ILE:HD12	1.90	0.54
23:BB:21:A:H2'	23:BB:22:C:C6	2.43	0.54
23:BB:67:U:H2'	23:BB:68:G:H8	1.73	0.54
23:BB:322:A:H5'	23:BB:340:A:C1'	2.33	0.54
23:BB:532:A:H2'	38:BQ:27:ARG:NH2	2.16	0.54
23:BB:2258:C:H4'	23:BB:2259:U:OP2	2.07	0.54
24:BV:70:ILE:HD13	24:BV:70:ILE:N	2.23	0.54
30:BH:100:ALA:HB1	30:BH:110:VAL:O	2.07	0.54
31:BJ:52:ASP:O	31:BJ:54:ILE:HG22	2.07	0.54
33:BL:3:LEU:HA	33:BL:6:LEU:HD21	1.90	0.54
36:BO:18:LEU:HD23	36:BO:25:ARG:HD2	1.91	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BO:84:GLU:C	36:BO:86:GLY:H	2.15	0.54
40:BS:15:GLN:HA	40:BS:18:ARG:CG	2.38	0.54
43:BW:32:ALA:C	43:BW:34:SER:H	2.16	0.54
43:BW:36:ILE:HB	43:BW:39:GLN:NE2	2.23	0.54
43:BW:36:ILE:O	43:BW:39:GLN:HB3	2.08	0.54
49:B2:34:ARG:HB3	49:B2:39:ARG:HB2	1.88	0.54
52:BI:77:VAL:HA	52:BI:80:LYS:CE	2.38	0.54
1:CA:89:U:H2'	1:CA:90:C:O4'	2.08	0.54
1:CA:193:C:H2'	1:CA:194:C:H6	1.71	0.54
1:CA:1070:U:H2'	1:CA:1071:C:H6	1.72	0.54
1:CA:1438:G:O2'	1:CA:1439:G:H5'	2.08	0.54
2:CC:78:LYS:C	2:CC:80:GLY:H	2.16	0.54
10:CK:75:GLU:CD	10:CK:75:GLU:N	2.66	0.54
20:CB:8:MET:C	20:CB:9:LEU:HD12	2.33	0.54
23:DB:181:A:H2'	23:DB:182:A:H8	1.73	0.54
23:DB:305:C:H2'	23:DB:306:U:C6	2.43	0.54
23:DB:633:A:H8	23:DB:633:A:O5'	1.89	0.54
23:DB:1150:C:H2'	23:DB:1151:A:H8	1.73	0.54
23:DB:2258:C:H4'	23:DB:2259:U:OP2	2.06	0.54
23:DB:2803:G:H2'	23:DB:2804:U:C6	2.42	0.54
25:DC:18:VAL:O	25:DC:18:VAL:HG13	2.08	0.54
27:DE:4:VAL:HG12	27:DE:6:LYS:H	1.73	0.54
27:DE:97:ASN:ND2	27:DE:100:MET:HG3	2.23	0.54
31:DJ:96:ARG:O	31:DJ:99:ARG:HG3	2.07	0.54
32:DK:120:PRO:HA	37:DP:65:ASN:ND2	2.23	0.54
34:DM:103:TYR:O	34:DM:104:GLU:HG3	2.08	0.54
37:DP:4:ILE:C	37:DP:6:GLN:N	2.66	0.54
37:DP:103:THR:HG22	37:DP:104:GLY:H	1.72	0.54
41:DT:10:VAL:HG21	41:DT:42:GLU:HG3	1.89	0.54
42:DU:41:VAL:O	42:DU:59:GLU:HA	2.08	0.54
46:DZ:18:ARG:HG3	46:DZ:22:LEU:HA	1.90	0.54
46:DZ:53:ALA:O	46:DZ:55:GLY:N	2.37	0.54
1:AA:560:A:H4'	1:AA:561:U:H5''	1.88	0.53
1:AA:1253:G:N1	1:AA:1285:A:N6	2.56	0.53
2:AC:70:ALA:HA	2:AC:105:VAL:CG2	2.33	0.53
8:AI:10:ARG:HB3	8:AI:15:ALA:HA	1.89	0.53
9:AJ:28:THR:O	9:AJ:31:ARG:HG2	2.09	0.53
20:AB:186:VAL:HB	20:AB:190:SER:HB2	1.88	0.53
22:BA:49:C:H2'	22:BA:50:A:C8	2.42	0.53
22:BA:88:C:H1'	22:BA:89:U:C6	2.43	0.53
23:BB:3:U:H2'	23:BB:4:U:H6	1.72	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:41:C:O2'	23:BB:42:A:H5'	2.08	0.53
23:BB:643:A:H61	23:BB:2370:G:H1'	1.74	0.53
23:BB:845:A:C2	23:BB:847:U:H1'	2.42	0.53
23:BB:1138:G:H2'	23:BB:1139:G:O4'	2.08	0.53
23:BB:1244:A:O2'	23:BB:1245:G:H5'	2.08	0.53
23:BB:1257:C:O2'	27:BE:79:ARG:HB2	2.08	0.53
23:BB:1351:C:O2'	23:BB:1571:A:H1'	2.08	0.53
23:BB:2193:G:H2'	23:BB:2194:U:H6	1.73	0.53
28:BF:40:GLY:HA2	28:BF:84:ILE:HG23	1.89	0.53
28:BF:131:VAL:O	28:BF:132:ARG:HB2	2.07	0.53
29:BG:154:GLU:CD	29:BG:156:TYR:HB2	2.33	0.53
34:BM:35:ALA:HB2	34:BM:100:LYS:HB2	1.90	0.53
37:BP:89:GLY:HA2	37:BP:112:ARG:N	2.23	0.53
39:BR:39:LEU:CA	39:BR:49:ILE:HG12	2.37	0.53
40:BS:10:ALA:HB3	40:BS:101:SER:OG	2.08	0.53
40:BS:96:ILE:O	40:BS:96:ILE:HG23	2.08	0.53
41:BT:15:HIS:O	41:BT:16:VAL:C	2.51	0.53
43:BW:9:THR:OG1	43:BW:10:ARG:N	2.34	0.53
46:BZ:67:VAL:O	46:BZ:70:GLU:HG3	2.07	0.53
1:CA:208:U:H4'	1:CA:209:U:C5	2.42	0.53
1:CA:474:G:H2'	1:CA:475:C:H6	1.72	0.53
1:CA:624:C:H2'	1:CA:625:U:H6	1.73	0.53
1:CA:1141:C:H2'	1:CA:1142:G:C8	2.42	0.53
1:CA:1262:C:H2'	1:CA:1263:C:C6	2.43	0.53
3:CD:40:HIS:HB3	3:CD:43:ARG:HG2	1.88	0.53
12:CM:82:LEU:HD11	18:CS:64:GLU:HB2	1.90	0.53
17:CR:52:ARG:O	17:CR:56:ARG:HG3	2.08	0.53
20:CB:53:LEU:HD11	20:CB:216:VAL:HA	1.88	0.53
23:DB:41:C:O2'	23:DB:42:A:H5'	2.08	0.53
23:DB:275:C:H2'	23:DB:276:U:C6	2.42	0.53
23:DB:365:U:H2'	23:DB:366:C:H6	1.73	0.53
23:DB:419:U:H2'	23:DB:420:C:H6	1.71	0.53
23:DB:972:A:OP2	23:DB:974:G:H5''	2.08	0.53
23:DB:1178:C:H2'	23:DB:1179:G:C8	2.42	0.53
23:DB:1495:A:H2'	23:DB:1496:A:C8	2.43	0.53
23:DB:2096:C:H2'	23:DB:2097:A:C8	2.43	0.53
23:DB:2841:C:H2'	23:DB:2842:G:H8	1.73	0.53
25:DC:209:ALA:HA	25:DC:212:TRP:NE1	2.23	0.53
25:DC:261:ARG:HG2	25:DC:261:ARG:O	2.08	0.53
29:DG:84:LYS:HG3	29:DG:131:VAL:C	2.32	0.53
30:DH:95:GLY:H	30:DH:98:ASP:HB2	1.72	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DJ:4:PHE:CG	31:DJ:5:THR:N	2.76	0.53
33:DL:55:MET:HE2	33:DL:59:ARG:HB3	1.89	0.53
34:DM:31:PHE:O	34:DM:131:VAL:HG23	2.08	0.53
35:DN:37:THR:HB	35:DN:40:LYS:HG3	1.91	0.53
37:DP:89:GLY:HA2	37:DP:112:ARG:N	2.23	0.53
38:DQ:78:PHE:CE2	38:DQ:82:LEU:HD11	2.43	0.53
39:DR:16:GLU:HA	39:DR:98:ILE:O	2.08	0.53
46:DZ:77:LYS:O	46:DZ:78:TYR:HB3	2.07	0.53
49:D2:34:ARG:HB3	49:D2:39:ARG:HB2	1.89	0.53
1:AA:453:G:H2'	1:AA:454:G:C8	2.44	0.53
1:AA:590:U:H2'	1:AA:591:U:C6	2.43	0.53
1:AA:961:U:O4'	1:AA:961:U:O2	2.26	0.53
1:AA:1162:C:H2'	1:AA:1163:A:C8	2.43	0.53
1:AA:1273:C:H2'	1:AA:1274:A:O4'	2.09	0.53
7:AH:10:LEU:HD22	7:AH:74:ILE:HD11	1.90	0.53
11:AL:20:VAL:HB	11:AL:94:TYR:CE1	2.43	0.53
20:AB:18:GLN:O	20:AB:37:VAL:HG23	2.07	0.53
23:BB:83:A:N6	23:BB:101:A:H5'	2.24	0.53
23:BB:329:G:N1	42:BU:16:LYS:HG2	2.23	0.53
23:BB:660:C:H2'	23:BB:661:A:C8	2.42	0.53
23:BB:1442:U:H2'	23:BB:1443:U:C6	2.44	0.53
23:BB:1684:G:H2'	23:BB:1685:C:H6	1.74	0.53
23:BB:2306:C:C3'	23:BB:2307:G:H5'	2.36	0.53
23:BB:2340:A:H2'	23:BB:2341:G:C8	2.41	0.53
23:BB:2840:C:H2'	23:BB:2841:C:H6	1.72	0.53
23:BB:2840:C:H2'	23:BB:2841:C:C6	2.43	0.53
25:BC:209:ALA:HA	25:BC:212:TRP:CE2	2.44	0.53
27:BE:40:ARG:NH2	27:BE:92:HIS:NE2	2.56	0.53
31:BJ:56:VAL:HG12	31:BJ:57:LEU:N	2.23	0.53
33:BL:65:GLY:O	33:BL:66:PHE:HB3	2.09	0.53
36:BO:36:TYR:HA	36:BO:52:SER:HB3	1.90	0.53
36:BO:107:ALA:O	36:BO:111:ARG:HG3	2.07	0.53
37:BP:50:ARG:HB3	37:BP:57:ALA:H	1.72	0.53
44:BX:23:ARG:O	44:BX:27:ASN:N	2.42	0.53
1:CA:95:C:H2'	1:CA:95:C:O2	2.06	0.53
1:CA:343:U:O2'	1:CA:344:A:H2'	2.07	0.53
1:CA:512:U:O2'	1:CA:513:C:H5'	2.08	0.53
1:CA:590:U:H2'	1:CA:591:U:C6	2.43	0.53
1:CA:734:G:H2'	1:CA:735:C:H6	1.72	0.53
1:CA:1352:C:H2'	1:CA:1353:G:C8	2.43	0.53
3:CD:7:LYS:HB2	3:CD:21:LYS:HE2	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CD:90:LEU:HD11	3:CD:194:ILE:CD1	2.38	0.53
8:CI:33:SER:CB	8:CI:36:GLN:HB2	2.37	0.53
23:DB:62:U:C2'	23:DB:63:A:H5'	2.39	0.53
23:DB:126:A:H5'	49:D2:19:ARG:CG	2.37	0.53
23:DB:470:A:H61	41:DT:72:GLN:NE2	2.06	0.53
23:DB:477:A:H2'	23:DB:478:A:C8	2.43	0.53
23:DB:545:U:H3'	23:DB:546:U:O3'	2.08	0.53
23:DB:819:A:H5'	23:DB:973:A:N1	2.23	0.53
23:DB:839:U:H2'	23:DB:840:C:C6	2.42	0.53
23:DB:853:C:O2'	23:DB:854:C:H5'	2.09	0.53
23:DB:899:A:H3'	23:DB:900:A:C8	2.43	0.53
23:DB:1841:U:H2'	23:DB:1842:G:H8	1.74	0.53
23:DB:1930:G:H2'	23:DB:1968:G:H1	1.73	0.53
23:DB:2512:C:OP2	26:DD:128:ARG:HD2	2.09	0.53
23:DB:2840:C:H2'	23:DB:2841:C:C6	2.44	0.53
24:DV:7:GLU:O	24:DV:41:GLU:HG2	2.09	0.53
24:DV:77:VAL:CG1	34:DM:136:MET:HB3	2.37	0.53
27:DE:4:VAL:HG12	27:DE:5:LEU:N	2.23	0.53
27:DE:149:ILE:O	27:DE:188:MET:HA	2.07	0.53
27:DE:181:ILE:HG13	33:DL:2:ARG:HB3	1.90	0.53
28:DF:78:ILE:HA	28:DF:82:TYR:CE1	2.43	0.53
31:DJ:18:VAL:HG22	31:DJ:19:ASP:N	2.21	0.53
33:DL:119:PRO:HA	33:DL:138:ALA:O	2.08	0.53
39:DR:28:ALA:HB3	39:DR:31:GLU:HB2	1.90	0.53
40:DS:24:ILE:HD11	40:DS:36:LEU:HD21	1.90	0.53
41:DT:32:LEU:O	41:DT:83:ALA:HB2	2.09	0.53
44:DX:41:HIS:O	44:DX:44:LYS:HB3	2.07	0.53
51:D4:27:CYS:SG	51:D4:29:ALA:HB3	2.48	0.53
1:AA:205:A:H2'	1:AA:206:C:C6	2.43	0.53
1:AA:301:G:H2'	1:AA:302:G:H8	1.73	0.53
1:AA:505:G:H2'	1:AA:506:G:C8	2.43	0.53
1:AA:734:G:O2'	17:AR:59:LYS:HD3	2.08	0.53
2:AC:190:THR:HG22	2:AC:191:THR:N	2.23	0.53
4:AE:28:ARG:CZ	4:AE:30:PHE:HB3	2.39	0.53
18:AS:44:ILE:HG13	18:AS:62:THR:HA	1.89	0.53
20:AB:13:VAL:HG11	20:AB:207:ARG:HG2	1.89	0.53
20:AB:23:ASN:C	20:AB:25:LYS:H	2.16	0.53
20:AB:27:LYS:HB3	20:AB:28:PRO:HD3	1.91	0.53
23:BB:4:U:H2'	23:BB:5:A:C8	2.43	0.53
23:BB:972:A:OP2	23:BB:974:G:H5''	2.08	0.53
23:BB:1429:G:O2'	23:BB:1430:G:H5'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1531:C:H2'	23:BB:1532:A:C8	2.44	0.53
23:BB:2861:U:H2'	23:BB:2862:G:C8	2.41	0.53
25:BC:261:ARG:O	25:BC:261:ARG:HG2	2.08	0.53
26:BD:79:LEU:N	26:BD:79:LEU:HD22	2.23	0.53
26:BD:149:ASN:O	26:BD:152:PRO:HD2	2.09	0.53
26:BD:172:VAL:HG12	26:BD:173:GLN:N	2.24	0.53
30:BH:8:LYS:HE3	1:CA:494:G:O3'	2.07	0.53
32:BK:53:LYS:HD3	32:BK:56:ASP:OD2	2.09	0.53
33:BL:119:PRO:HA	33:BL:138:ALA:O	2.09	0.53
34:BM:134:THR:HG22	34:BM:136:MET:H	1.71	0.53
41:BT:28:ASN:CA	41:BT:91:GLN:HE22	2.19	0.53
46:BZ:5:CYS:HB2	46:BZ:10:LYS:HB2	1.90	0.53
1:CA:9:G:OP2	4:CE:125:LYS:HD3	2.07	0.53
1:CA:254:G:H4'	16:CQ:19:SER:OG	2.07	0.53
1:CA:465:A:O2'	1:CA:466:A:H5'	2.07	0.53
1:CA:860:A:H2'	1:CA:861:G:O4'	2.07	0.53
2:CC:146:LYS:HD3	2:CC:204:GLY:HA2	1.91	0.53
3:CD:10:LEU:HD12	3:CD:20:LEU:HD11	1.89	0.53
7:CH:9:MET:O	7:CH:13:ILE:HG13	2.08	0.53
7:CH:17:GLN:NE2	7:CH:62:LEU:HB3	2.23	0.53
8:CI:78:ILE:O	8:CI:82:ILE:HG13	2.08	0.53
10:CK:81:LEU:HD23	10:CK:81:LEU:N	2.23	0.53
11:CL:24:GLU:HB2	11:CL:26:CYS:SG	2.48	0.53
22:DA:54:G:N2	28:DF:25:MET:HE3	2.17	0.53
23:DB:433:C:H2'	23:DB:434:U:C6	2.43	0.53
23:DB:564:C:O2'	23:DB:565:C:H5'	2.08	0.53
23:DB:598:U:H2'	23:DB:599:A:H8	1.73	0.53
23:DB:783:A:H2'	23:DB:784:G:O5'	2.08	0.53
23:DB:1917:U:C2'	23:DB:1918:A:H5'	2.39	0.53
23:DB:2023:C:O2'	23:DB:2024:G:H5'	2.08	0.53
23:DB:2508:G:H2'	23:DB:2509:G:H8	1.73	0.53
23:DB:2869:G:H2'	23:DB:2870:C:O4'	2.09	0.53
23:DB:2885:G:N2	47:D0:31:LYS:HG2	2.24	0.53
28:DF:126:ASN:HB3	28:DF:156:THR:CA	2.37	0.53
29:DG:154:GLU:CD	29:DG:156:TYR:HB2	2.33	0.53
30:DH:31:VAL:CB	30:DH:32:PRO:CD	2.81	0.53
37:DP:1:SER:O	37:DP:5:LYS:HB2	2.09	0.53
37:DP:88:ARG:HB2	37:DP:112:ARG:HH12	1.74	0.53
41:DT:27:SER:O	41:DT:28:ASN:HB3	2.09	0.53
52:DI:52:LEU:HD22	52:DI:81:LYS:HD3	1.90	0.53
1:AA:284:C:H2'	1:AA:285:C:H6	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:470:C:H2'	1:AA:471:U:C6	2.43	0.53
1:AA:1018:G:H2'	1:AA:1019:A:C8	2.43	0.53
1:AA:1258:G:O2'	1:AA:1259:C:H5'	2.09	0.53
1:AA:1277:C:O2'	1:AA:1279:G:H1'	2.08	0.53
1:AA:1278:G:H4'	1:AA:1279:G:H5'	1.89	0.53
1:AA:1511:G:O2'	1:AA:1512:U:H5'	2.08	0.53
1:AA:1525:G:O2'	1:AA:1526:G:H5'	2.08	0.53
2:AC:13:ILE:H	2:AC:13:ILE:HD13	1.74	0.53
6:AG:91:ARG:HD2	6:AG:91:ARG:N	2.22	0.53
15:AP:54:LEU:HD13	15:AP:80:LYS:HG3	1.90	0.53
16:AQ:75:VAL:HG23	16:AQ:76:ARG:N	2.23	0.53
18:AS:43:MET:O	18:AS:46:LEU:HB2	2.09	0.53
23:BB:138:U:O4'	41:BT:1:MET:N	2.39	0.53
23:BB:346:A:H5'	23:BB:346:A:N3	2.23	0.53
23:BB:490:C:H3'	23:BB:491:G:H5''	1.91	0.53
23:BB:1015:U:H2'	23:BB:1016:G:H8	1.73	0.53
23:BB:1046:A:H3'	23:BB:1047:G:H5''	1.90	0.53
23:BB:1623:G:O2'	23:BB:1624:U:H5'	2.08	0.53
23:BB:2152:G:H2'	23:BB:2152:G:N3	2.23	0.53
23:BB:2239:G:O2'	23:BB:2240:U:H5'	2.08	0.53
23:BB:2333:A:H4'	23:BB:2334:U:C5'	2.39	0.53
23:BB:2882:A:C3'	23:BB:2883:A:H5''	2.38	0.53
25:BC:69:ASN:O	25:BC:70:LYS:C	2.51	0.53
25:BC:239:PHE:HD1	25:BC:241:LYS:H	1.57	0.53
27:BE:1:MET:HB2	27:BE:16:GLU:HB2	1.89	0.53
31:BJ:25:LEU:O	31:BJ:27:ARG:N	2.41	0.53
39:BR:49:ILE:HB	39:BR:53:PHE:O	2.08	0.53
39:BR:72:VAL:HG23	39:BR:89:HIS:O	2.08	0.53
42:BU:66:VAL:O	42:BU:69:VAL:HG22	2.07	0.53
45:BY:15:ARG:N	45:BY:15:ARG:HD2	2.22	0.53
51:B4:3:VAL:HG23	51:B4:4:ARG:H	1.74	0.53
1:CA:90:C:H2'	1:CA:91:U:C6	2.44	0.53
1:CA:106:C:O2'	1:CA:107:G:H5'	2.08	0.53
1:CA:499:A:H4'	1:CA:500:G:OP1	2.08	0.53
1:CA:652:U:H1'	1:CA:653:U:C5	2.43	0.53
1:CA:928:G:H2'	1:CA:929:G:C8	2.44	0.53
3:CD:94:GLU:HG3	3:CD:99:ASN:HD21	1.73	0.53
5:CF:15:SER:HA	5:CF:18:VAL:HG23	1.90	0.53
8:CI:46:VAL:O	8:CI:79:ARG:HG3	2.08	0.53
11:CL:20:VAL:HG23	11:CL:20:VAL:O	2.07	0.53
12:CM:15:VAL:O	12:CM:19:THR:HG23	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CP:38:PHE:CD2	15:CP:51:ARG:HB2	2.43	0.53
17:CR:60:ARG:O	17:CR:64:LEU:HD13	2.08	0.53
18:CS:44:ILE:HG13	18:CS:62:THR:HA	1.90	0.53
20:CB:75:ALA:C	20:CB:79:VAL:HG23	2.33	0.53
22:DA:32:U:C4'	22:DA:52:A:H62	2.21	0.53
22:DA:35:C:O2	22:DA:35:C:H3'	2.08	0.53
23:DB:69:C:H2'	23:DB:70:G:C8	2.42	0.53
23:DB:596:U:H2'	23:DB:597:G:C8	2.44	0.53
23:DB:812:C:H4'	38:DQ:12:ARG:NH1	2.24	0.53
23:DB:948:C:H2'	23:DB:949:G:H8	1.73	0.53
23:DB:1149:G:H2'	23:DB:1150:C:H6	1.73	0.53
23:DB:1210:G:H5'	23:DB:1212:G:H5''	1.91	0.53
23:DB:2239:G:O2'	23:DB:2240:U:H5'	2.07	0.53
23:DB:2439:A:H4'	23:DB:2440:C:O5'	2.08	0.53
23:DB:2537:U:H2'	23:DB:2538:C:C6	2.44	0.53
33:DL:4:ASN:N	33:DL:4:ASN:HD22	2.04	0.53
38:DQ:60:TRP:C	38:DQ:64:ILE:HG12	2.33	0.53
1:AA:796:C:OP1	10:AK:127:ARG:HB3	2.08	0.53
1:AA:1060:U:H5''	9:AJ:53:ILE:HG12	1.90	0.53
3:AD:169:TRP:HB2	3:AD:183:ARG:O	2.09	0.53
5:AF:37:HIS:O	5:AF:97:THR:HG23	2.09	0.53
5:AF:74:LEU:HG	5:AF:78:PHE:CE1	2.43	0.53
8:AI:32:ARG:HH21	8:AI:36:GLN:HG3	1.73	0.53
9:AJ:8:ILE:HD11	9:AJ:76:ILE:HG13	1.91	0.53
10:AK:30:ILE:HG22	10:AK:45:THR:OG1	2.08	0.53
13:AN:26:LEU:HD12	13:AN:44:VAL:HG13	1.89	0.53
13:AN:60:ARG:HD3	13:AN:62:ARG:NH2	2.22	0.53
16:AQ:24:ILE:O	16:AQ:40:THR:HA	2.09	0.53
21:AU:10:PRO:HB2	2:CC:71:ARG:NE	2.19	0.53
22:BA:14:U:H5'	22:BA:70:C:O2'	2.09	0.53
22:BA:51:G:OP1	36:BO:63:LYS:HE3	2.08	0.53
23:BB:100:U:O2	23:BB:100:U:C2'	2.54	0.53
23:BB:819:A:H5'	23:BB:973:A:N1	2.23	0.53
23:BB:1061:U:H5'	52:BI:9:LYS:HZ1	1.73	0.53
23:BB:1061:U:H5'	52:BI:9:LYS:NZ	2.24	0.53
23:BB:1847:A:H4'	23:BB:1848:A:H8	1.73	0.53
23:BB:1930:G:H2'	23:BB:1968:G:N1	2.23	0.53
23:BB:2455:G:H2'	23:BB:2456:C:C6	2.44	0.53
23:BB:2512:C:OP2	26:BD:128:ARG:HD2	2.08	0.53
23:BB:2728:U:H2'	23:BB:2729:G:C8	2.44	0.53
23:BB:2742:G:P	51:B4:24:ARG:HH12	2.31	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:2809:A:H2'	23:BB:2810:A:C8	2.44	0.53
23:BB:2846:G:H2'	23:BB:2847:U:C6	2.44	0.53
25:BC:86:ARG:CZ	25:BC:86:ARG:HB3	2.39	0.53
25:BC:183:VAL:HG22	25:BC:184:GLU:H	1.74	0.53
26:BD:8:LYS:CG	26:BD:197:THR:H	2.22	0.53
27:BE:4:VAL:HG12	27:BE:5:LEU:N	2.23	0.53
27:BE:153:LEU:HG	27:BE:154:ASP:N	2.24	0.53
28:BF:46:LYS:HZ1	28:BF:83:PRO:HD2	1.73	0.53
31:BJ:25:LEU:HB2	31:BJ:62:VAL:HG22	1.89	0.53
31:BJ:130:HIS:HD2	31:BJ:132:HIS:HB2	1.73	0.53
32:BK:105:ARG:HD2	32:BK:105:ARG:H	1.72	0.53
37:BP:26:GLU:HB3	37:BP:84:SER:HB3	1.90	0.53
43:BW:9:THR:O	43:BW:10:ARG:HB2	2.09	0.53
1:CA:82:G:H2'	1:CA:83:C:O4'	2.08	0.53
1:CA:188:C:H2'	1:CA:189:A:O4'	2.09	0.53
1:CA:620:C:C2	3:CD:131:ILE:HG21	2.44	0.53
1:CA:627:G:H2'	1:CA:628:G:C8	2.42	0.53
5:CF:53:LYS:HZ2	5:CF:53:LYS:H	1.55	0.53
9:CJ:8:ILE:HD12	9:CJ:8:ILE:N	2.24	0.53
11:CL:98:ARG:HB2	11:CL:116:TYR:HA	1.89	0.53
13:CN:2:LYS:O	13:CN:6:LYS:HG3	2.09	0.53
13:CN:5:MET:HB3	13:CN:62:ARG:HH12	1.73	0.53
20:CB:142:LYS:HA	20:CB:145:ASN:OD1	2.09	0.53
22:DA:43:C:H4'	28:DF:91:ARG:HD2	1.90	0.53
23:DB:81:G:H2'	23:DB:82:U:O4'	2.08	0.53
23:DB:93:G:H2'	23:DB:94:A:O4'	2.09	0.53
23:DB:598:U:H2'	23:DB:599:A:C8	2.44	0.53
23:DB:1022:G:N2	23:DB:1142:A:C2	2.76	0.53
23:DB:1031:G:H4'	51:D4:6:SER:OG	2.08	0.53
23:DB:1320:C:C5	23:DB:1329:U:H5''	2.44	0.53
23:DB:1526:C:H2'	23:DB:1527:G:O4'	2.08	0.53
23:DB:2284:A:OP2	48:D1:5:ARG:HG3	2.09	0.53
23:DB:2852:G:H2'	23:DB:2853:C:H6	1.70	0.53
25:DC:2:VAL:HG23	25:DC:3:VAL:H	1.74	0.53
29:DG:17:LYS:O	29:DG:23:ILE:HG23	2.09	0.53
30:DH:88:GLY:O	30:DH:124:THR:HA	2.08	0.53
33:DL:90:VAL:HB	33:DL:122:VAL:HG13	1.89	0.53
34:DM:71:LYS:HG2	34:DM:73:ILE:HD11	1.90	0.53
34:DM:71:LYS:HG2	34:DM:93:VAL:HG12	1.89	0.53
43:DW:49:ASN:O	43:DW:50:VAL:HG13	2.07	0.53
46:DZ:17:ASN:HB2	46:DZ:25:THR:OG1	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DZ:39:TRP:HB2	46:DZ:46:PHE:CE2	2.44	0.53
50:D3:32:LEU:HA	50:D3:35:LYS:HD2	1.90	0.53
52:DI:54:ILE:HD13	52:DI:55:PRO:N	2.23	0.53
1:AA:652:U:H1'	1:AA:653:U:C5	2.44	0.53
1:AA:1020:G:H2'	1:AA:1021:A:H5'	1.90	0.53
1:AA:1326:U:H2'	1:AA:1327:C:H6	1.74	0.53
2:AC:19:SER:HB2	2:AC:39:ARG:HH22	1.74	0.53
3:AD:96:ARG:NH1	3:AD:133:SER:HA	2.24	0.53
5:AF:6:ILE:HG23	5:AF:62:MET:HB3	1.91	0.53
13:AN:50:LEU:HG	13:AN:51:PRO:HD3	1.91	0.53
18:AS:35:ARG:HB3	18:AS:50:VAL:HG13	1.90	0.53
22:BA:43:C:H4'	28:BF:91:ARG:HD2	1.89	0.53
23:BB:182:A:H2'	23:BB:183:C:H6	1.74	0.53
23:BB:296:U:H2'	23:BB:297:G:C8	2.43	0.53
23:BB:370:G:O2'	23:BB:423:A:H3'	2.09	0.53
23:BB:1495:A:O2'	23:BB:1496:A:H5'	2.09	0.53
23:BB:1948:G:O2'	23:BB:1949:G:H5'	2.09	0.53
23:BB:2329:U:H2'	23:BB:2330:G:C8	2.44	0.53
23:BB:2366:A:H4'	43:BW:61:LYS:HE2	1.90	0.53
23:BB:2478:A:OP1	51:B4:32:LYS:HE2	2.08	0.53
26:BD:164:GLN:HG3	26:BD:165:MET:N	2.23	0.53
28:BF:56:LEU:HD22	28:BF:59:ILE:HD12	1.89	0.53
33:BL:110:VAL:HB	33:BL:127:VAL:HG23	1.89	0.53
44:BX:17:GLU:HB3	44:BX:53:VAL:CG1	2.36	0.53
49:B2:10:LEU:HD11	49:B2:14:ARG:NH1	2.23	0.53
1:CA:33:A:H2'	1:CA:34:C:C6	2.44	0.53
1:CA:153:C:H2'	1:CA:154:U:C6	2.43	0.53
1:CA:922:G:N3	1:CA:1398:A:H2	2.06	0.53
1:CA:1097:C:H2'	1:CA:1098:C:C6	2.44	0.53
23:DB:192:C:C2'	23:DB:193:U:H5'	2.37	0.53
23:DB:591:U:H1'	50:D3:1:PRO:H3	1.72	0.53
23:DB:633:A:OP1	33:DL:68:SER:HB2	2.08	0.53
23:DB:1131:G:N2	23:DB:2024:G:H21	2.06	0.53
23:DB:1442:U:H2'	23:DB:1443:U:C6	2.43	0.53
23:DB:1849:G:H2'	23:DB:1850:G:H8	1.74	0.53
23:DB:1872:A:H8	23:DB:1872:A:O5'	1.92	0.53
23:DB:2395:C:H2'	23:DB:2396:G:O4'	2.08	0.53
23:DB:2795:C:H2'	23:DB:2796:U:O4'	2.08	0.53
23:DB:2819:G:H2'	23:DB:2821:A:N7	2.24	0.53
25:DC:259:ASN:C	25:DC:261:ARG:H	2.16	0.53
29:DG:15:ASP:CB	29:DG:26:LYS:H	2.16	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DG:25:ILE:CG2	29:DG:78:VAL:HG21	2.39	0.53
31:DJ:130:HIS:HD2	31:DJ:132:HIS:HB2	1.73	0.53
32:DK:70:ARG:CB	32:DK:76:VAL:HG22	2.38	0.53
33:DL:57:LEU:C	33:DL:59:ARG:H	2.16	0.53
33:DL:110:VAL:HB	33:DL:127:VAL:HG23	1.91	0.53
38:DQ:63:ARG:CZ	38:DQ:96:ASP:HA	2.39	0.53
39:DR:6:GLN:HE22	39:DR:9:GLY:CA	2.22	0.53
8:AI:33:SER:CB	8:AI:36:GLN:HB2	2.38	0.53
21:AU:35:GLU:HB2	21:AU:37:TYR:CE2	2.43	0.53
22:BA:35:C:H3'	22:BA:35:C:O2	2.08	0.53
23:BB:123:G:H2'	23:BB:124:G:H8	1.74	0.53
23:BB:543:G:H2'	23:BB:544:C:H5''	1.91	0.53
23:BB:757:G:H2'	23:BB:758:C:H5'	1.90	0.53
23:BB:813:U:H2'	23:BB:814:C:H6	1.74	0.53
24:BV:44:HIS:CE1	24:BV:85:LYS:HB2	2.43	0.53
26:BD:13:ARG:HD3	26:BD:15:PHE:CE1	2.44	0.53
27:BE:147:LEU:HD12	27:BE:149:ILE:HB	1.89	0.53
32:BK:35:VAL:CG2	32:BK:36:GLY:H	2.08	0.53
35:BN:37:THR:HB	35:BN:40:LYS:HG3	1.91	0.53
37:BP:31:VAL:HG12	37:BP:38:ARG:O	2.09	0.53
41:BT:7:LEU:HD13	41:BT:7:LEU:O	2.08	0.53
52:BI:18:ASN:N	52:BI:19:PRO:CD	2.71	0.53
1:CA:33:A:H2'	1:CA:34:C:H6	1.72	0.53
1:CA:98:A:H2'	1:CA:99:C:H6	1.74	0.53
1:CA:707:U:H2'	1:CA:708:C:H6	1.71	0.53
1:CA:1238:A:H2	1:CA:1241:G:N3	2.06	0.53
1:CA:1291:U:H2'	1:CA:1292:G:C8	2.44	0.53
1:CA:1432:G:H1'	1:CA:1468:A:H61	1.72	0.53
2:CC:50:SER:HB2	2:CC:70:ALA:HB3	1.91	0.53
18:CS:14:LEU:O	18:CS:18:VAL:HG12	2.08	0.53
18:CS:43:MET:O	18:CS:61:VAL:HB	2.08	0.53
19:CT:53:MET:O	19:CT:57:VAL:HG22	2.08	0.53
20:CB:102:ASN:ND2	20:CB:105:THR:HB	2.22	0.53
21:CU:3:ILE:HB	21:CU:19:LYS:HD2	1.90	0.53
22:DA:89:U:O2	23:DB:958:U:H2'	2.08	0.53
23:DB:276:U:H2'	23:DB:278:A:N7	2.24	0.53
23:DB:291:G:H2'	23:DB:292:U:H6	1.74	0.53
23:DB:1381:G:H1'	23:DB:1571:A:N1	2.24	0.53
23:DB:1549:A:H2'	23:DB:1550:C:H6	1.74	0.53
23:DB:1733:G:H2'	23:DB:1734:G:C8	2.43	0.53
23:DB:2306:C:C3'	23:DB:2307:G:H5'	2.35	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2415:G:C4'	33:DL:66:PHE:HB2	2.38	0.53
23:DB:2740:A:H2'	23:DB:2741:A:C8	2.43	0.53
25:DC:5:CYS:HB2	25:DC:15:VAL:O	2.09	0.53
29:DG:106:LEU:O	29:DG:108:PHE:N	2.41	0.53
29:DG:122:ALA:HA	29:DG:132:LEU:HA	1.90	0.53
34:DM:2:LEU:HD23	34:DM:46:ILE:HD11	1.90	0.53
40:DS:20:VAL:C	40:DS:22:ASP:H	2.16	0.53
42:DU:40:LEU:HD23	42:DU:59:GLU:HG2	1.91	0.53
43:DW:30:VAL:HG13	43:DW:30:VAL:O	2.08	0.53
46:DZ:67:VAL:O	46:DZ:70:GLU:HG3	2.09	0.53
52:DI:79:LEU:HD12	52:DI:135:MET:SD	2.48	0.53
52:DI:99:LYS:HD3	52:DI:99:LYS:N	2.24	0.53
1:AA:370:C:H2'	1:AA:371:A:C8	2.44	0.53
1:AA:738:C:H2'	1:AA:739:C:C6	2.44	0.53
1:AA:787:A:O2'	1:AA:788:U:H5'	2.08	0.53
1:AA:1101:A:C8	20:AB:170:ILE:HD12	2.43	0.53
14:AO:80:LEU:HD21	14:AO:84:LEU:HD22	1.91	0.53
23:BB:143:C:H2'	23:BB:144:A:H8	1.73	0.53
23:BB:564:C:O2'	23:BB:565:C:H5'	2.09	0.53
23:BB:947:A:O2'	23:BB:984:A:H2	1.92	0.53
23:BB:1526:C:H2'	23:BB:1527:G:O4'	2.09	0.53
23:BB:1731:G:O2'	23:BB:1732:C:H5''	2.09	0.53
23:BB:1854:A:N6	23:BB:1888:G:H1'	2.24	0.53
23:BB:2022:U:O2'	23:BB:2617:U:H5'	2.09	0.53
23:BB:2216:G:H2'	23:BB:2217:G:C8	2.43	0.53
25:BC:2:VAL:HG23	25:BC:3:VAL:H	1.73	0.53
27:BE:181:ILE:HD13	33:BL:3:LEU:HD23	1.90	0.53
28:BF:31:GLU:C	28:BF:32:LYS:HD3	2.34	0.53
28:BF:46:LYS:NZ	28:BF:83:PRO:HD2	2.24	0.53
28:BF:105:ILE:C	28:BF:108:PRO:HD2	2.34	0.53
29:BG:30:GLY:HA3	29:BG:78:VAL:HA	1.90	0.53
31:BJ:18:VAL:HG22	31:BJ:19:ASP:N	2.24	0.53
39:BR:43:ASN:HD21	39:BR:45:GLU:HG2	1.74	0.53
43:BW:31:LEU:N	43:BW:60:ALA:HB3	2.24	0.53
1:CA:384:G:H2'	1:CA:385:C:H6	1.73	0.53
1:CA:1221:G:O2'	1:CA:1222:G:H5'	2.09	0.53
2:CC:2:GLN:H	2:CC:2:GLN:HE21	1.55	0.53
4:CE:158:LYS:NZ	7:CH:63:LYS:HD3	2.23	0.53
23:DB:256:A:H2'	23:DB:257:C:C6	2.44	0.53
23:DB:417:C:H2'	23:DB:418:C:H6	1.72	0.53
23:DB:854:C:O2'	23:DB:855:G:H5'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:934:U:H2'	23:DB:935:C:C6	2.44	0.53
23:DB:1032:A:H1'	51:D4:23:ILE:HD13	1.91	0.53
23:DB:1063:G:C5'	52:DI:135:MET:HG2	2.39	0.53
23:DB:1570:A:H2'	23:DB:1571:A:C8	2.44	0.53
23:DB:1576:U:O2'	23:DB:1577:C:H5'	2.09	0.53
23:DB:1821:A:H2'	23:DB:1822:C:C6	2.43	0.53
23:DB:1846:G:H2'	23:DB:1847:A:O4'	2.08	0.53
23:DB:1973:G:H2'	23:DB:1974:C:C6	2.44	0.53
23:DB:2199:A:H3'	23:DB:2200:C:H6	1.73	0.53
23:DB:2277:G:H5''	34:DM:86:LYS:HB2	1.91	0.53
23:DB:2305:U:H2'	23:DB:2306:C:C6	2.44	0.53
23:DB:2621:G:P	26:DD:124:ARG:HH22	2.31	0.53
23:DB:2821:A:OP2	26:DD:115:GLY:HA3	2.08	0.53
24:DV:24:ASN:HB3	24:DV:44:HIS:HB3	1.91	0.53
27:DE:149:ILE:HG23	27:DE:188:MET:CA	2.39	0.53
27:DE:176:ASP:OD1	27:DE:178:VAL:HG12	2.09	0.53
28:DF:106:ALA:HA	28:DF:135:ILE:CD1	2.39	0.53
28:DF:122:ASP:OD2	28:DF:126:ASN:HB2	2.08	0.53
34:DM:94:ALA:O	34:DM:96:ILE:HG23	2.09	0.53
38:DQ:104:ALA:O	38:DQ:105:PHE:HB3	2.09	0.53
1:AA:312:C:H2'	1:AA:313:A:C8	2.43	0.53
1:AA:678:U:H4'	1:AA:778:G:OP1	2.09	0.53
1:AA:820:U:H4'	1:AA:821:G:OP2	2.09	0.53
1:AA:1250:A:H4'	8:AI:69:GLY:O	2.08	0.53
4:AE:23:THR:HA	4:AE:28:ARG:HA	1.90	0.53
6:AG:131:GLY:O	6:AG:134:VAL:HG22	2.09	0.53
23:BB:256:A:H2'	23:BB:257:C:C6	2.43	0.53
23:BB:1747:U:H2'	23:BB:1748:C:H6	1.72	0.53
23:BB:2078:C:H2'	23:BB:2079:U:C6	2.43	0.53
23:BB:2186:G:H2'	23:BB:2187:U:O4'	2.09	0.53
23:BB:2508:G:H2'	23:BB:2509:G:H8	1.73	0.53
23:BB:2784:U:H2'	23:BB:2785:C:H6	1.72	0.53
25:BC:140:VAL:HG12	25:BC:141:HIS:N	2.20	0.53
25:BC:159:THR:O	25:BC:194:VAL:HG12	2.09	0.53
26:BD:56:LYS:HG3	26:BD:58:ASN:HB2	1.91	0.53
26:BD:187:LEU:HD12	26:BD:188:LEU:H	1.74	0.53
29:BG:25:ILE:CG2	29:BG:78:VAL:HG21	2.39	0.53
31:BJ:38:GLY:HA3	31:BJ:50:THR:O	2.09	0.53
31:BJ:96:ARG:O	31:BJ:99:ARG:HG3	2.09	0.53
31:BJ:123:LYS:HG2	31:BJ:132:HIS:NE2	2.23	0.53
32:BK:107:LEU:HB2	32:BK:116:ILE:CG2	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BL:41:ARG:HH21	33:BL:41:ARG:HG2	1.74	0.53
39:BR:28:ALA:HB3	39:BR:31:GLU:HB2	1.90	0.53
40:BS:17:VAL:C	40:BS:19:LEU:N	2.66	0.53
41:BT:57:VAL:HG12	41:BT:86:THR:OG1	2.09	0.53
41:BT:81:LYS:HG3	41:BT:82:LYS:N	2.23	0.53
48:B1:3:GLY:O	48:B1:4:ILE:HG12	2.08	0.53
1:CA:590:U:H2'	1:CA:591:U:H6	1.72	0.53
1:CA:1168:U:H4'	1:CA:1169:A:OP2	2.08	0.53
1:CA:1277:C:O2'	1:CA:1279:G:H1'	2.09	0.53
1:CA:1332:A:H2'	1:CA:1333:A:C8	2.44	0.53
3:CD:22:SER:HB2	3:CD:109:THR:HG22	1.91	0.53
5:CF:4:TYR:CE2	5:CF:71:ILE:HD13	2.44	0.53
7:CH:100:ILE:HG13	7:CH:128:VAL:O	2.08	0.53
8:CI:52:GLU:C	8:CI:53:LEU:HD22	2.33	0.53
13:CN:50:LEU:CD2	13:CN:51:PRO:HD3	2.39	0.53
18:CS:18:VAL:HG21	18:CS:43:MET:HE2	1.89	0.53
20:CB:23:ASN:HD22	20:CB:24:PRO:CD	2.21	0.53
21:CU:35:GLU:HB2	21:CU:37:TYR:CZ	2.43	0.53
23:DB:513:A:H8	23:DB:513:A:O5'	1.92	0.53
23:DB:1099:G:H4'	52:DI:4:VAL:CG1	2.39	0.53
23:DB:1210:G:N3	23:DB:1212:G:N2	2.56	0.53
23:DB:1244:A:O2'	23:DB:1245:G:H5'	2.09	0.53
23:DB:1623:G:O2'	23:DB:1624:U:H5'	2.08	0.53
23:DB:1792:G:O2'	23:DB:1793:C:H5'	2.09	0.53
23:DB:2846:G:H2'	23:DB:2847:U:C6	2.43	0.53
26:DD:165:MET:HG2	26:DD:166:GLY:N	2.24	0.53
26:DD:172:VAL:HG12	26:DD:173:GLN:N	2.23	0.53
27:DE:150:THR:HG21	27:DE:153:LEU:HA	1.91	0.53
32:DK:19:VAL:HG12	32:DK:41:ILE:CG1	2.39	0.53
34:DM:19:GLY:N	34:DM:38:ARG:HH12	2.02	0.53
38:DQ:68:ALA:O	38:DQ:71:ASN:HB3	2.09	0.53
40:DS:57:ASN:O	40:DS:61:ASN:HB2	2.09	0.53
42:DU:41:VAL:HG22	42:DU:60:LYS:O	2.09	0.53
42:DU:64:ILE:HG13	42:DU:65:GLN:N	2.23	0.53
44:DX:23:ARG:O	44:DX:27:ASN:N	2.41	0.53
51:D4:7:VAL:HG13	51:D4:8:LYS:H	1.74	0.53
1:AA:320:A:H2'	1:AA:321:A:C8	2.44	0.53
1:AA:429:U:H3'	3:AD:8:LEU:HD23	1.91	0.53
1:AA:462:G:H3'	1:AA:463:U:C6	2.44	0.53
1:AA:546:A:OP2	3:AD:67:LEU:HB3	2.09	0.53
1:AA:632:U:H3'	1:AA:633:G:H5'	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:709:U:H2'	1:AA:710:G:C8	2.43	0.53
1:AA:784:A:H2'	1:AA:785:G:C8	2.44	0.53
5:AF:53:LYS:H	5:AF:53:LYS:HZ2	1.57	0.53
6:AG:29:LEU:O	6:AG:29:LEU:HD23	2.09	0.53
7:AH:31:LEU:O	7:AH:35:ILE:HG13	2.09	0.53
9:AJ:76:ILE:HD13	9:AJ:79:PRO:HB3	1.91	0.53
11:AL:17:LYS:N	11:AL:17:LYS:HZ1	2.07	0.53
16:AQ:29:LYS:HG3	16:AQ:34:GLY:HA2	1.90	0.53
20:AB:101:THR:HA	20:AB:178:LEU:HD21	1.91	0.53
22:BA:89:U:O2	23:BB:958:U:H2'	2.08	0.53
23:BB:948:C:H2'	23:BB:949:G:C8	2.44	0.53
23:BB:1198:U:H2'	23:BB:1199:U:H6	1.74	0.53
23:BB:1229:C:H2'	23:BB:1230:A:C8	2.44	0.53
23:BB:1792:G:O2'	23:BB:1793:C:H5'	2.09	0.53
23:BB:2415:G:H2'	23:BB:2416:C:H6	1.74	0.53
23:BB:2600:A:O2'	23:BB:2601:C:H5'	2.09	0.53
23:BB:2648:G:H2'	23:BB:2649:C:C6	2.43	0.53
23:BB:2803:G:H2'	23:BB:2804:U:H6	1.72	0.53
25:BC:115:ILE:HA	25:BC:124:LYS:NZ	2.24	0.53
25:BC:209:ALA:HA	25:BC:212:TRP:NE1	2.24	0.53
26:BD:90:PHE:N	26:BD:94:GLN:OE1	2.42	0.53
27:BE:2:GLU:HA	27:BE:13:THR:OG1	2.09	0.53
29:BG:106:LEU:O	29:BG:108:PHE:N	2.41	0.53
33:BL:142:ILE:HG22	33:BL:143:GLU:N	2.24	0.53
36:BO:7:ARG:HA	36:BO:10:ARG:NH2	2.24	0.53
39:BR:3:ALA:O	39:BR:13:ARG:HA	2.09	0.53
41:BT:32:LEU:O	41:BT:83:ALA:HB2	2.09	0.53
46:BZ:66:THR:O	46:BZ:69:ALA:HB3	2.08	0.53
1:CA:91:U:H2'	1:CA:92:U:H6	1.72	0.53
1:CA:312:C:H2'	1:CA:313:A:C8	2.44	0.53
1:CA:505:G:H2'	1:CA:506:G:C8	2.44	0.53
1:CA:539:A:H2'	1:CA:540:G:H8	1.72	0.53
1:CA:1245:C:H2'	1:CA:1246:A:C8	2.43	0.53
2:CC:57:GLU:O	2:CC:63:ILE:HA	2.09	0.53
2:CC:190:THR:HG22	2:CC:191:THR:N	2.24	0.53
16:CQ:7:LEU:O	16:CQ:60:ILE:HD13	2.09	0.53
16:CQ:24:ILE:O	16:CQ:40:THR:HA	2.09	0.53
18:CS:39:ILE:HB	18:CS:65:MET:O	2.09	0.53
20:CB:23:ASN:C	20:CB:25:LYS:H	2.17	0.53
21:CU:36:PHE:HA	21:CU:39:LYS:HE2	1.91	0.53
23:DB:346:A:H2'	23:DB:347:A:O4'	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:584:C:OP1	38:DQ:5:ARG:HB3	2.07	0.53
23:DB:674:G:H1'	27:DE:69:ARG:NE	2.24	0.53
23:DB:705:A:N6	23:DB:726:G:O2'	2.41	0.53
23:DB:947:A:O2'	23:DB:984:A:H2	1.92	0.53
23:DB:1193:G:H2'	23:DB:1194:A:H5''	1.90	0.53
23:DB:1949:G:H2'	23:DB:1950:G:H8	1.69	0.53
23:DB:2021:C:P	47:D0:8:THR:HG21	2.49	0.53
23:DB:2774:C:OP1	26:DD:169:ARG:HG3	2.08	0.53
24:DV:72:VAL:HG21	24:DV:91:PHE:CB	2.34	0.53
25:DC:12:ARG:HA	25:DC:15:VAL:HG23	1.90	0.53
26:DD:114:LYS:HZ2	26:DD:116:LYS:NZ	2.06	0.53
27:DE:5:LEU:HD22	27:DE:122:GLU:HG3	1.91	0.53
27:DE:46:GLN:HB3	27:DE:86:ALA:HA	1.91	0.53
27:DE:128:ALA:H	27:DE:133:LEU:CD1	2.22	0.53
28:DF:12:VAL:O	28:DF:16:MET:HG2	2.09	0.53
28:DF:28:PRO:HG3	28:DF:159:ALA:HB2	1.90	0.53
31:DJ:123:LYS:HG2	31:DJ:132:HIS:NE2	2.23	0.53
37:DP:6:GLN:O	37:DP:9:GLN:HG2	2.09	0.53
40:DS:17:VAL:HG11	40:DS:103:ILE:HG12	1.91	0.53
41:DT:23:ALA:C	41:DT:25:GLU:H	2.17	0.53
1:AA:8:A:H61	3:AD:53:GLN:HE22	1.56	0.52
1:AA:9:G:OP2	4:AE:125:LYS:HD3	2.09	0.52
1:AA:434:U:H3'	1:AA:435:A:H8	1.72	0.52
1:AA:806:C:H2'	1:AA:807:A:H8	1.73	0.52
1:AA:930:C:H2'	1:AA:931:C:O4'	2.08	0.52
3:AD:53:GLN:HB3	3:AD:202:LEU:HB2	1.91	0.52
6:AG:15:PRO:HG2	6:AG:43:TYR:OH	2.10	0.52
8:AI:44:ARG:O	8:AI:47:VAL:HG22	2.08	0.52
23:BB:123:G:H2'	23:BB:124:G:C8	2.44	0.52
23:BB:189:G:H2'	23:BB:205:G:H22	1.72	0.52
23:BB:553:G:O2'	23:BB:554:U:H5'	2.10	0.52
23:BB:674:G:O3'	27:BE:60:TRP:CZ2	2.62	0.52
23:BB:1145:C:O2'	23:BB:1146:C:H5'	2.08	0.52
23:BB:1746:A:H2'	23:BB:1747:U:C6	2.45	0.52
23:BB:2386:A:H2'	23:BB:2387:U:C6	2.44	0.52
23:BB:2389:G:H5''	23:BB:2390:U:H5'	1.91	0.52
23:BB:2814:A:H2'	23:BB:2815:C:H6	1.74	0.52
27:BE:106:LYS:HE2	27:BE:200:LEU:HB3	1.91	0.52
28:BF:11:VAL:HG12	28:BF:12:VAL:N	2.15	0.52
32:BK:101:GLY:HA2	37:BP:65:ASN:HB2	1.90	0.52
34:BM:126:ILE:HD12	34:BM:126:ILE:N	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BN:2:ARG:C	35:BN:2:ARG:HE	2.16	0.52
46:BZ:5:CYS:SG	46:BZ:8:THR:HG23	2.49	0.52
52:BI:2:LYS:HB3	52:BI:2:LYS:NZ	2.24	0.52
52:BI:81:LYS:HG3	52:BI:82:ALA:N	2.23	0.52
1:CA:55:A:OP2	1:CA:352:C:N4	2.41	0.52
1:CA:546:A:OP2	3:CD:67:LEU:HB3	2.09	0.52
1:CA:1018:G:H2'	1:CA:1019:A:C8	2.45	0.52
2:CC:166:TRP:HA	2:CC:166:TRP:CE3	2.44	0.52
8:CI:27:ILE:HG21	8:CI:34:LEU:HD13	1.91	0.52
10:CK:90:PRO:C	10:CK:92:ARG:H	2.16	0.52
19:CT:49:ALA:HA	19:CT:52:GLU:HB3	1.89	0.52
20:CB:27:LYS:HB3	20:CB:28:PRO:HD3	1.91	0.52
23:DB:418:C:H2'	23:DB:419:U:C6	2.44	0.52
23:DB:581:C:H2'	23:DB:582:A:H8	1.73	0.52
23:DB:832:U:H2'	23:DB:833:A:C8	2.44	0.52
23:DB:851:C:H2'	23:DB:852:U:H6	1.74	0.52
23:DB:909:A:H2'	23:DB:912:C:H5	1.72	0.52
23:DB:969:G:OP1	45:DY:17:PRO:HG3	2.08	0.52
23:DB:1771:C:O2'	23:DB:1772:A:H5'	2.09	0.52
23:DB:1947:C:H2'	23:DB:1948:G:C8	2.44	0.52
23:DB:2106:U:H2'	23:DB:2107:G:C8	2.44	0.52
23:DB:2471:A:O2'	23:DB:2472:G:O5'	2.27	0.52
23:DB:2597:G:H5'	25:DC:240:GLY:HA3	1.92	0.52
25:DC:20:ASN:OD1	25:DC:22:GLU:HG2	2.08	0.52
28:DF:133:GLU:HA	28:DF:150:GLY:HA2	1.90	0.52
31:DJ:25:LEU:HB2	31:DJ:62:VAL:HG22	1.90	0.52
35:DN:8:ARG:HG2	35:DN:10:LEU:HD22	1.91	0.52
37:DP:3:ILE:CD1	37:DP:7:LEU:HD11	2.38	0.52
37:DP:6:GLN:O	37:DP:10:GLU:HG2	2.10	0.52
42:DU:81:ARG:HB2	42:DU:96:LYS:HG3	1.91	0.52
46:DZ:69:ALA:HA	46:DZ:72:ARG:NH2	2.24	0.52
52:DI:57:VAL:HG23	52:DI:71:LYS:NZ	2.24	0.52
1:AA:169:C:O2'	1:AA:170:U:H5'	2.09	0.52
1:AA:269:C:H2'	1:AA:270:A:H8	1.73	0.52
1:AA:490:C:H2'	1:AA:491:G:H8	1.73	0.52
1:AA:782:A:H2'	1:AA:783:C:O4'	2.09	0.52
2:AC:156:LEU:HD11	2:AC:165:GLU:HB2	1.91	0.52
4:AE:110:MET:HE1	4:AE:125:LYS:HA	1.90	0.52
11:AL:7:VAL:HG22	16:AQ:33:TYR:CD1	2.44	0.52
12:AM:17:ALA:CB	12:AM:44:ILE:HD11	2.39	0.52
23:BB:37:C:O2'	27:BE:45:ALA:HA	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:77:G:H5'	44:BX:52:ARG:HG2	1.91	0.52
23:BB:196:A:H2'	23:BB:196:A:N3	2.23	0.52
23:BB:247:G:H4'	23:BB:386:G:C5	2.44	0.52
23:BB:1170:C:H2'	23:BB:1171:G:C8	2.45	0.52
23:BB:1369:G:O2'	23:BB:1370:C:H5'	2.09	0.52
23:BB:1387:A:H2'	23:BB:1388:G:H8	1.74	0.52
23:BB:1511:G:H2'	23:BB:1512:C:H6	1.74	0.52
23:BB:1733:G:H2'	23:BB:1734:G:C8	2.43	0.52
24:BV:63:ILE:HD12	24:BV:63:ILE:N	2.25	0.52
29:BG:84:LYS:HG3	29:BG:131:VAL:C	2.33	0.52
30:BH:110:VAL:HB	30:BH:132:PHE:CZ	2.44	0.52
30:BH:112:LYS:C	30:BH:112:LYS:HE3	2.34	0.52
31:BJ:19:ASP:CG	31:BJ:57:LEU:HB3	2.34	0.52
31:BJ:44:TYR:C	31:BJ:44:TYR:CD2	2.88	0.52
32:BK:71:ARG:CG	32:BK:105:ARG:HH21	2.22	0.52
33:BL:135:ILE:HG12	33:BL:140:GLY:HA3	1.91	0.52
35:BN:99:LYS:O	47:B0:42:ILE:HG12	2.08	0.52
38:BQ:59:LEU:O	38:BQ:62:ALA:HB3	2.08	0.52
1:CA:370:C:H2'	1:CA:371:A:C8	2.45	0.52
1:CA:390:U:H2'	1:CA:391:G:H8	1.74	0.52
1:CA:455:G:O2'	1:CA:456:A:H5'	2.08	0.52
1:CA:657:U:O2'	1:CA:658:C:H5'	2.09	0.52
1:CA:1124:G:H4'	9:CJ:40:ILE:HG12	1.91	0.52
1:CA:1324:A:H2'	1:CA:1325:C:O4'	2.10	0.52
1:CA:1423:G:H2'	1:CA:1424:U:H6	1.73	0.52
1:CA:1521:C:H2'	1:CA:1522:U:C6	2.44	0.52
2:CC:155:ARG:NH2	2:CC:192:TYR:HB2	2.24	0.52
3:CD:117:VAL:O	3:CD:130:ASN:HA	2.10	0.52
6:CG:104:VAL:O	6:CG:108:ARG:HG3	2.09	0.52
13:CN:50:LEU:HG	13:CN:51:PRO:HD3	1.92	0.52
16:CQ:75:VAL:HG23	16:CQ:76:ARG:N	2.25	0.52
20:CB:65:LYS:HG2	20:CB:89:PHE:HE1	1.74	0.52
23:DB:163:C:O4'	23:DB:163:C:O2	2.25	0.52
23:DB:931:U:H3	23:DB:1166:G:H21	1.56	0.52
23:DB:989:G:OP2	45:DY:13:ILE:HD11	2.10	0.52
23:DB:993:G:H1'	39:DR:91:GLN:NE2	2.25	0.52
23:DB:2028:U:H2'	23:DB:2029:G:C8	2.44	0.52
23:DB:2092:U:H4'	23:DB:2093:G:H5''	1.90	0.52
23:DB:2882:A:C3'	23:DB:2883:A:H5''	2.39	0.52
23:DB:2886:A:H3'	23:DB:2887:A:C8	2.42	0.52
24:DV:16:ALA:HA	24:DV:19:ARG:HE	1.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DD:5:VAL:H	26:DD:32:ASN:ND2	1.94	0.52
26:DD:7:LYS:O	26:DD:9:VAL:HG12	2.08	0.52
26:DD:46:ARG:NH1	26:DD:85:ALA:HA	2.24	0.52
29:DG:6:ALA:HB3	29:DG:68:ARG:NE	2.24	0.52
29:DG:19:ASN:HB2	29:DG:22:VAL:HB	1.90	0.52
30:DH:133:GLN:HB3	30:DH:139:PHE:CB	2.39	0.52
31:DJ:25:LEU:HD22	31:DJ:26:GLY:N	2.18	0.52
36:DO:52:SER:C	36:DO:54:VAL:H	2.17	0.52
38:DQ:91:ARG:HB2	39:DR:11:GLN:CD	2.35	0.52
41:DT:28:ASN:CA	41:DT:91:GLN:HE22	2.20	0.52
41:DT:29:THR:HA	41:DT:86:THR:CA	2.35	0.52
42:DU:82:VAL:CG1	42:DU:93:ARG:HB3	2.39	0.52
47:D0:52:LYS:NZ	47:D0:56:LYS:H	2.06	0.52
1:AA:79:G:H8	1:AA:79:G:OP2	1.93	0.52
1:AA:927:G:O2'	1:AA:928:G:H5'	2.09	0.52
1:AA:1320:C:C5	18:AS:36:ARG:HA	2.45	0.52
8:AI:55:ASP:HB2	8:AI:59:LYS:HG3	1.92	0.52
20:AB:75:ALA:C	20:AB:79:VAL:HG23	2.33	0.52
23:BB:126:A:O2'	23:BB:127:A:H5'	2.09	0.52
23:BB:527:C:H5'	56:BB:3416:HOH:O	2.09	0.52
23:BB:936:A:H2'	23:BB:937:C:H6	1.73	0.52
23:BB:1000:A:H2'	23:BB:1001:A:H8	1.71	0.52
23:BB:1131:G:N2	23:BB:2024:G:H21	2.07	0.52
23:BB:1287:A:P	35:BN:104:ALA:HB3	2.49	0.52
23:BB:1386:C:OP2	23:BB:1396:U:H5	1.93	0.52
23:BB:1571:A:H2'	23:BB:1572:A:C8	2.44	0.52
23:BB:1846:G:H2'	23:BB:1847:A:O4'	2.10	0.52
23:BB:2352:A:C6	43:BW:30:VAL:HG11	2.44	0.52
23:BB:2411:A:H2'	23:BB:2412:A:C8	2.44	0.52
26:BD:16:THR:HB	26:BD:18:ASP:OD1	2.09	0.52
30:BH:132:PHE:N	30:BH:142:VAL:HG23	2.24	0.52
31:BJ:55:ILE:CB	31:BJ:123:LYS:HB2	2.37	0.52
35:BN:59:SER:O	35:BN:63:ARG:HB2	2.08	0.52
38:BQ:68:ALA:HA	38:BQ:71:ASN:HB3	1.91	0.52
39:BR:14:VAL:HG21	39:BR:98:ILE:HG12	1.91	0.52
39:BR:16:GLU:H	39:BR:101:ILE:CG1	2.22	0.52
41:BT:12:ARG:HG2	44:BX:29:ARG:HH12	1.74	0.52
51:B4:10:LEU:HD13	51:B4:33:HIS:HA	1.90	0.52
1:CA:45:G:H2'	1:CA:46:G:H8	1.74	0.52
1:CA:165:G:O2'	1:CA:166:U:H5'	2.09	0.52
1:CA:443:C:H2'	1:CA:444:G:C8	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:814:A:H5'	1:CA:1511:G:H4'	1.90	0.52
1:CA:900:A:H2'	1:CA:901:A:C8	2.44	0.52
1:CA:1302:C:H4'	1:CA:1303:C:OP2	2.09	0.52
1:CA:1379:G:O2'	1:CA:1380:U:H5'	2.09	0.52
2:CC:35:ASP:HB3	2:CC:39:ARG:HH12	1.75	0.52
3:CD:157:ALA:O	3:CD:160:LEU:HD22	2.09	0.52
6:CG:15:PRO:HG2	6:CG:43:TYR:OH	2.09	0.52
8:CI:32:ARG:NH1	8:CI:37:TYR:HA	2.24	0.52
9:CJ:28:THR:O	9:CJ:31:ARG:HG2	2.10	0.52
15:CP:1:MET:HA	15:CP:1:MET:HE3	1.90	0.52
23:DB:75:G:H4'	44:DX:48:ARG:HH22	1.75	0.52
23:DB:196:A:H2'	23:DB:196:A:N3	2.24	0.52
23:DB:500:G:N2	23:DB:502:A:H3'	2.24	0.52
23:DB:528:A:C2	23:DB:2043:C:H4'	2.44	0.52
23:DB:812:C:H5''	23:DB:1250:G:O2'	2.09	0.52
23:DB:912:C:O2'	23:DB:913:U:H5'	2.09	0.52
23:DB:1790:C:H2'	23:DB:1791:A:C8	2.44	0.52
23:DB:1923:U:H2'	23:DB:1924:C:H6	1.74	0.52
23:DB:2015:A:N3	47:D0:2:VAL:HG22	2.23	0.52
23:DB:2572:A:OP2	26:DD:151:THR:HB	2.09	0.52
23:DB:2659:G:N2	23:DB:2661:G:H5''	2.23	0.52
23:DB:2662:A:H2'	23:DB:2663:G:O4'	2.09	0.52
25:DC:159:THR:O	25:DC:194:VAL:HG12	2.09	0.52
26:DD:114:LYS:HB2	26:DD:116:LYS:HE3	1.91	0.52
29:DG:7:PRO:O	29:DG:8:VAL:HB	2.09	0.52
29:DG:88:LEU:HD12	29:DG:88:LEU:O	2.09	0.52
31:DJ:84:ILE:O	31:DJ:84:ILE:HG23	2.08	0.52
36:DO:25:ARG:HD2	36:DO:93:ASP:HB2	1.90	0.52
36:DO:30:ARG:HH11	36:DO:30:ARG:HG3	1.74	0.52
37:DP:25:VAL:HA	37:DP:85:VAL:C	2.34	0.52
38:DQ:59:LEU:O	38:DQ:62:ALA:HB3	2.09	0.52
38:DQ:71:ASN:ND2	38:DQ:73:ILE:HG22	2.24	0.52
38:DQ:71:ASN:ND2	38:DQ:109:VAL:HG11	2.24	0.52
47:D0:5:ASN:O	47:D0:7:PRO:HD3	2.09	0.52
52:DI:75:ALA:O	52:DI:79:LEU:HG	2.10	0.52
1:AA:399:G:H2'	1:AA:400:C:C6	2.44	0.52
1:AA:552:U:O2'	1:AA:553:A:H5'	2.10	0.52
1:AA:586:C:O2'	1:AA:878:A:H4'	2.10	0.52
1:AA:1070:U:H2'	1:AA:1071:C:H6	1.73	0.52
2:AC:78:LYS:HE3	2:AC:79:LYS:HZ3	1.73	0.52
3:AD:55:ARG:HG3	3:AD:55:ARG:NH1	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AK:75:GLU:CD	10:AK:75:GLU:N	2.68	0.52
10:AK:124:LYS:HA	21:AU:34:ARG:HG2	1.91	0.52
10:AK:126:ARG:NE	10:AK:126:ARG:HA	2.24	0.52
11:AL:43:LYS:NZ	11:AL:44:PRO:HD3	2.24	0.52
12:AM:44:ILE:HA	12:AM:47:LEU:HD23	1.90	0.52
13:AN:5:MET:HB3	13:AN:62:ARG:HH12	1.74	0.52
17:AR:60:ARG:O	17:AR:64:LEU:HD13	2.09	0.52
23:BB:308:G:H2'	23:BB:309:A:O4'	2.09	0.52
23:BB:1050:A:H2'	23:BB:1051:G:C8	2.42	0.52
23:BB:1060:U:O2	23:BB:1088:A:C8	2.63	0.52
23:BB:1097:U:C2'	23:BB:1098:A:H5'	2.38	0.52
23:BB:1117:C:H2'	23:BB:1118:C:H6	1.74	0.52
23:BB:1196:C:H2'	23:BB:1197:G:C8	2.44	0.52
23:BB:1442:U:H2'	23:BB:1443:U:H6	1.73	0.52
23:BB:2547:A:H4'	32:BK:29:HIS:CE1	2.45	0.52
25:BC:91:ALA:CB	25:BC:105:ALA:HB2	2.37	0.52
25:BC:93:VAL:HG12	25:BC:101:ARG:O	2.09	0.52
27:BE:5:LEU:HD22	27:BE:122:GLU:HG3	1.90	0.52
28:BF:177:ARG:HA	28:BF:177:ARG:NH1	2.24	0.52
33:BL:109:LYS:O	33:BL:111:ILE:HG12	2.09	0.52
35:BN:103:ARG:CG	35:BN:104:ALA:H	2.22	0.52
36:BO:52:SER:OG	36:BO:54:VAL:HG12	2.10	0.52
38:BQ:78:PHE:CE2	38:BQ:82:LEU:HD11	2.44	0.52
44:BX:56:LEU:O	44:BX:58:ASN:N	2.41	0.52
46:BZ:68:LEU:HB3	46:BZ:78:TYR:HE1	1.75	0.52
49:B2:19:ARG:HG2	49:B2:19:ARG:HH21	1.73	0.52
49:B2:30:VAL:HA	49:B2:33:ARG:HH21	1.73	0.52
51:B4:7:VAL:HG13	51:B4:8:LYS:H	1.74	0.52
1:CA:160:A:H2'	1:CA:161:A:O4'	2.09	0.52
1:CA:252:U:H2'	1:CA:253:A:H8	1.74	0.52
1:CA:562:U:H2'	1:CA:562:U:OP2	2.09	0.52
1:CA:1207:G:O2'	1:CA:1208:C:H5'	2.09	0.52
1:CA:1386:G:H2'	1:CA:1387:G:C8	2.45	0.52
1:CA:1434:A:H2'	1:CA:1435:G:C8	2.44	0.52
4:CE:15:ILE:HD12	4:CE:35:LEU:HG	1.90	0.52
5:CF:74:LEU:HG	5:CF:78:PHE:CE1	2.45	0.52
6:CG:126:ALA:HA	6:CG:134:VAL:HG13	1.90	0.52
16:CQ:3:LYS:HE2	16:CQ:3:LYS:HA	1.91	0.52
18:CS:12:LEU:O	18:CS:15:LEU:HB2	2.10	0.52
20:CB:186:VAL:HB	20:CB:190:SER:HB2	1.90	0.52
23:DB:718:A:H3'	23:DB:719:C:C6	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:729:G:C8	25:DC:206:LYS:HE3	2.44	0.52
23:DB:1021:A:H61	23:DB:1142:A:H61	1.58	0.52
23:DB:1196:C:H2'	23:DB:1197:G:C8	2.44	0.52
24:DV:1:MET:O	24:DV:62:THR:HG23	2.09	0.52
28:DF:131:VAL:O	28:DF:132:ARG:HB2	2.09	0.52
31:DJ:42:ALA:O	31:DJ:44:TYR:N	2.43	0.52
34:DM:97:GLN:HB2	34:DM:98:PRO:CD	2.39	0.52
37:DP:31:VAL:HG12	37:DP:38:ARG:O	2.09	0.52
44:DX:3:ALA:O	44:DX:6:LEU:HB2	2.09	0.52
1:AA:151:A:H5'	1:AA:152:A:OP2	2.09	0.52
1:AA:215:C:H2'	1:AA:216:U:C6	2.45	0.52
1:AA:312:C:H2'	1:AA:313:A:H8	1.74	0.52
1:AA:314:C:O2'	1:AA:315:A:H5'	2.09	0.52
1:AA:608:A:H3'	56:AA:2292:HOH:O	2.09	0.52
1:AA:1300:G:H1'	1:AA:1301:U:H5	1.73	0.52
1:AA:1461:G:H2'	1:AA:1462:C:C6	2.44	0.52
2:AC:34:SER:O	2:AC:38:VAL:HG22	2.10	0.52
3:AD:117:VAL:O	3:AD:130:ASN:HA	2.10	0.52
7:AH:9:MET:HE1	7:AH:35:ILE:HB	1.91	0.52
8:AI:35:GLU:HG3	8:AI:44:ARG:HD3	1.92	0.52
10:AK:81:LEU:HD23	10:AK:81:LEU:N	2.24	0.52
12:AM:10:ASP:CA	12:AM:44:ILE:HD13	2.39	0.52
21:AU:3:ILE:HD13	21:AU:19:LYS:HA	1.91	0.52
22:BA:39:A:O2'	22:BA:40:U:H5'	2.10	0.52
23:BB:394:C:H2'	23:BB:395:U:O4'	2.10	0.52
23:BB:499:U:H5'	42:BU:44:HIS:CE1	2.44	0.52
23:BB:704:G:H1'	23:BB:727:A:H61	1.74	0.52
23:BB:812:C:H4'	38:BQ:12:ARG:HH12	1.75	0.52
23:BB:1453:A:OP1	23:BB:1453:A:H4'	2.09	0.52
23:BB:2365:G:H4'	43:BW:59:PHE:CE1	2.41	0.52
24:BV:14:LYS:HE3	24:BV:18:ARG:NH2	2.25	0.52
33:BL:61:LEU:HD12	33:BL:61:LEU:N	2.25	0.52
33:BL:78:ARG:HG2	33:BL:113:ALA:CB	2.39	0.52
38:BQ:59:LEU:HD13	38:BQ:60:TRP:N	2.25	0.52
38:BQ:108:LEU:HD11	39:BR:40:MET:HE1	1.90	0.52
39:BR:43:ASN:CG	39:BR:45:GLU:H	2.17	0.52
46:BZ:68:LEU:HB3	46:BZ:78:TYR:CE1	2.44	0.52
1:CA:5:U:H4'	1:CA:6:G:H5'	1.91	0.52
1:CA:1004:A:H5'	1:CA:1024:G:H22	1.74	0.52
1:CA:1384:C:H2'	1:CA:1385:G:C8	2.44	0.52
3:CD:75:TYR:HE1	3:CD:200:VAL:HA	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CG:61:PHE:O	6:CG:65:LEU:HD13	2.10	0.52
8:CI:44:ARG:O	8:CI:47:VAL:HG22	2.09	0.52
9:CJ:12:ALA:HB3	9:CJ:18:ILE:HB	1.91	0.52
20:CB:112:ARG:HA	20:CB:115:ASP:OD2	2.09	0.52
23:DB:283:G:H2'	23:DB:284:U:O4'	2.10	0.52
23:DB:405:U:OP2	23:DB:405:U:H4'	2.10	0.52
23:DB:753:A:H2'	23:DB:754:U:H6	1.72	0.52
23:DB:1130:U:O2	23:DB:2025:C:H5''	2.10	0.52
23:DB:1442:U:H2'	23:DB:1443:U:H6	1.73	0.52
23:DB:1642:G:O2'	23:DB:1643:G:H5'	2.10	0.52
23:DB:1828:G:O6	25:DC:220:ARG:HD2	2.10	0.52
23:DB:1847:A:H4'	23:DB:1848:A:H8	1.74	0.52
23:DB:1854:A:N6	23:DB:1888:G:H1'	2.24	0.52
23:DB:2529:G:H4'	29:DG:174:LYS:HD2	1.90	0.52
23:DB:2543:G:H8	23:DB:2543:G:H5'	1.74	0.52
23:DB:2592:G:H2'	23:DB:2593:U:O4'	2.10	0.52
23:DB:2813:A:H2'	23:DB:2814:A:H8	1.74	0.52
25:DC:6:LYS:HB3	25:DC:8:THR:HG22	1.92	0.52
26:DD:13:ARG:HD3	26:DD:15:PHE:CE1	2.45	0.52
26:DD:90:PHE:N	26:DD:94:GLN:OE1	2.42	0.52
26:DD:154:LYS:HD3	26:DD:154:LYS:H	1.74	0.52
28:DF:72:SER:CA	28:DF:80:GLN:H	2.20	0.52
32:DK:105:ARG:HD2	32:DK:122:VAL:HG11	1.91	0.52
38:DQ:96:ASP:C	38:DQ:98:ALA:H	2.18	0.52
39:DR:21:ARG:C	39:DR:22:LEU:HD23	2.35	0.52
1:AA:252:U:H2'	1:AA:253:A:C8	2.45	0.52
1:AA:411:A:C4	1:AA:413:G:H1'	2.45	0.52
1:AA:560:A:N1	1:AA:566:G:H5'	2.24	0.52
1:AA:957:U:O2	1:AA:959:A:H8	1.92	0.52
1:AA:1121:U:H2'	1:AA:1122:U:O4'	2.09	0.52
1:AA:1121:U:O2'	1:AA:1122:U:H5'	2.10	0.52
1:AA:1127:G:O2'	1:AA:1128:C:H5'	2.09	0.52
1:AA:1521:C:H2'	1:AA:1522:U:C6	2.45	0.52
2:AC:35:ASP:HB3	2:AC:39:ARG:HH12	1.75	0.52
2:AC:88:LYS:HE3	2:AC:88:LYS:O	2.09	0.52
3:AD:157:ALA:O	3:AD:160:LEU:HD22	2.10	0.52
21:AU:40:PRO:HA	21:AU:44:ARG:HD2	1.91	0.52
23:BB:228:C:O2	23:BB:418:C:H4'	2.09	0.52
23:BB:705:A:N6	23:BB:726:G:O2'	2.42	0.52
23:BB:815:C:OP2	39:BR:85:LYS:HE2	2.10	0.52
23:BB:1043:C:O2'	23:BB:1044:C:H5'	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1397:U:H5''	23:BB:1398:C:H5	1.74	0.52
23:BB:2083:G:H2'	23:BB:2084:C:H6	1.74	0.52
23:BB:2098:U:H2'	23:BB:2099:U:H6	1.75	0.52
23:BB:2487:G:H2'	23:BB:2488:G:C8	2.45	0.52
26:BD:8:LYS:HB2	26:BD:201:LEU:HD11	1.91	0.52
26:BD:180:VAL:HG22	26:BD:187:LEU:CD1	2.40	0.52
27:BE:182:ALA:O	27:BE:183:PHE:HB2	2.09	0.52
28:BF:62:GLN:HE22	28:BF:90:LEU:HA	1.75	0.52
28:BF:133:GLU:HA	28:BF:150:GLY:HA2	1.90	0.52
30:BH:26:ALA:C	30:BH:28:ASN:N	2.66	0.52
30:BH:27:ARG:HG2	30:BH:27:ARG:HH21	1.75	0.52
32:BK:17:ARG:HB3	32:BK:45:GLU:CG	2.38	0.52
34:BM:94:ALA:O	34:BM:96:ILE:HG23	2.09	0.52
41:BT:59:ASN:O	41:BT:84:TYR:HB2	2.08	0.52
52:BI:122:GLU:CD	52:BI:122:GLU:H	2.18	0.52
1:CA:301:G:H2'	1:CA:302:G:H8	1.75	0.52
1:CA:1273:C:H2'	1:CA:1274:A:O4'	2.09	0.52
7:CH:55:LYS:HA	7:CH:55:LYS:NZ	2.25	0.52
8:CI:46:VAL:HG23	8:CI:47:VAL:H	1.74	0.52
10:CK:95:THR:HG23	10:CK:96:ILE:N	2.25	0.52
14:CO:35:ILE:CD1	14:CO:58:MET:HG3	2.39	0.52
15:CP:25:ARG:HD3	15:CP:25:ARG:N	2.21	0.52
15:CP:59:HIS:O	15:CP:63:GLN:HG3	2.08	0.52
23:DB:100:U:OP1	23:DB:100:U:H3'	2.09	0.52
23:DB:138:U:H5''	23:DB:139:U:OP1	2.09	0.52
23:DB:693:A:H2'	23:DB:694:U:C6	2.44	0.52
23:DB:812:C:H4'	38:DQ:12:ARG:NH2	2.23	0.52
23:DB:1453:A:H4'	23:DB:1453:A:OP1	2.10	0.52
23:DB:1607:C:H4'	23:DB:1608:A:O5'	2.09	0.52
23:DB:2144:G:C2	23:DB:2146:C:H5'	2.44	0.52
23:DB:2298:A:H2'	23:DB:2299:U:O4'	2.09	0.52
23:DB:2657:A:H2'	23:DB:2658:C:O4'	2.10	0.52
24:DV:9:ARG:CZ	24:DV:20:LEU:HD11	2.40	0.52
26:DD:116:LYS:HB3	26:DD:118:PHE:CZ	2.44	0.52
28:DF:3:LEU:HD11	28:DF:172:PHE:CG	2.45	0.52
32:DK:98:ARG:C	32:DK:99:ILE:HD12	2.35	0.52
32:DK:101:GLY:HA2	37:DP:65:ASN:HB2	1.92	0.52
35:DN:28:LEU:HD12	35:DN:48:VAL:HG21	1.91	0.52
35:DN:49:GLU:HA	35:DN:94:TYR:HD2	1.74	0.52
38:DQ:18:LYS:C	38:DQ:20:ALA:H	2.15	0.52
41:DT:81:LYS:HG3	41:DT:82:LYS:N	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DW:17:ALA:HA	43:DW:35:ILE:CG2	2.38	0.52
43:DW:59:PHE:CE2	43:DW:61:LYS:HG3	2.45	0.52
49:D2:30:VAL:HA	49:D2:33:ARG:HH21	1.75	0.52
1:AA:398:U:H2'	1:AA:399:G:C8	2.45	0.52
1:AA:1029:U:O3'	1:AA:1030:U:H3'	2.10	0.52
1:AA:1326:U:H2'	1:AA:1327:C:C6	2.44	0.52
2:AC:178:ARG:HG2	2:AC:206:ILE:HA	1.90	0.52
3:AD:94:GLU:HG3	3:AD:99:ASN:HD21	1.75	0.52
4:AE:158:LYS:HZ1	7:AH:63:LYS:HD3	1.73	0.52
12:AM:22:TYR:CD1	12:AM:65:GLU:HA	2.45	0.52
18:AS:12:LEU:O	18:AS:15:LEU:HB2	2.09	0.52
19:AT:66:ILE:HG23	19:AT:70:LYS:HB3	1.92	0.52
23:BB:93:G:H2'	23:BB:94:A:O4'	2.10	0.52
23:BB:1487:U:H2'	23:BB:1488:C:H6	1.74	0.52
23:BB:1576:U:O2'	23:BB:1577:C:H5'	2.09	0.52
23:BB:1607:C:H4'	23:BB:1608:A:O5'	2.10	0.52
23:BB:2276:G:OP2	34:BM:85:GLY:N	2.40	0.52
23:BB:2598:A:OP1	25:BC:233:GLY:HA3	2.10	0.52
23:BB:2814:A:H2'	23:BB:2815:C:C6	2.45	0.52
24:BV:57:TYR:HA	24:BV:74:ALA:HB3	1.91	0.52
25:BC:179:GLU:CD	25:BC:266:ILE:HD11	2.35	0.52
28:BF:62:GLN:HG3	28:BF:91:ARG:HH11	1.75	0.52
29:BG:152:ARG:HH11	29:BG:162:ARG:HA	1.74	0.52
30:BH:65:ALA:C	30:BH:67:ALA:H	2.16	0.52
31:BJ:15:TRP:HB3	31:BJ:137:PRO:HG3	1.92	0.52
31:BJ:71:ASP:HA	31:BJ:88:THR:OG1	2.10	0.52
32:BK:4:GLU:OE2	32:BK:23:LYS:HD2	2.10	0.52
34:BM:31:PHE:O	34:BM:131:VAL:HG23	2.09	0.52
37:BP:20:ARG:NE	37:BP:91:VAL:HG21	2.21	0.52
38:BQ:80:ASN:C	38:BQ:82:LEU:H	2.17	0.52
38:BQ:104:ALA:O	38:BQ:105:PHE:HB3	2.08	0.52
41:BT:29:THR:HA	41:BT:86:THR:CA	2.34	0.52
42:BU:53:GLN:CD	42:BU:53:GLN:H	2.18	0.52
43:BW:49:ASN:O	43:BW:50:VAL:HG13	2.09	0.52
46:BZ:69:ALA:HA	46:BZ:72:ARG:NH2	2.24	0.52
1:CA:469:C:H2'	1:CA:470:C:H6	1.75	0.52
1:CA:818:G:C3'	1:CA:819:A:H5''	2.40	0.52
3:CD:187:ARG:NH1	3:CD:191:SER:HB3	2.25	0.52
4:CE:113:VAL:HG23	4:CE:114:LEU:N	2.25	0.52
8:CI:46:VAL:HG23	8:CI:47:VAL:N	2.25	0.52
9:CJ:76:ILE:HD13	9:CJ:79:PRO:HB3	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CJ:93:ALA:HB3	9:CJ:96:VAL:HG22	1.91	0.52
11:CL:41:PRO:HB3	11:CL:49:ARG:NH1	2.24	0.52
13:CN:16:ALA:HA	13:CN:20:PHE:HB2	1.92	0.52
23:DB:161:A:C3'	23:DB:162:U:H5''	2.37	0.52
23:DB:296:U:H2'	23:DB:297:G:C8	2.44	0.52
23:DB:553:G:HO2'	23:DB:554:U:H5'	1.74	0.52
23:DB:587:C:N3	33:DL:33:ARG:NH2	2.57	0.52
23:DB:946:C:H2'	23:DB:947:A:C8	2.44	0.52
23:DB:1826:G:H2'	23:DB:1827:U:H6	1.75	0.52
23:DB:2083:G:H2'	23:DB:2084:C:C6	2.45	0.52
23:DB:2329:U:H2'	23:DB:2330:G:C8	2.44	0.52
23:DB:2617:U:C2'	23:DB:2618:G:H5'	2.39	0.52
29:DG:152:ARG:HH11	29:DG:162:ARG:HA	1.75	0.52
30:DH:5:LEU:HD13	30:DH:13:GLY:HA2	1.92	0.52
33:DL:73:ILE:O	33:DL:105:ILE:HG23	2.09	0.52
33:DL:92:LEU:HD21	33:DL:123:ARG:NH1	2.25	0.52
35:DN:63:ARG:O	35:DN:66:ALA:HB3	2.09	0.52
37:DP:50:ARG:HB3	37:DP:56:SER:HB3	1.92	0.52
41:DT:59:ASN:O	41:DT:84:TYR:HB2	2.10	0.52
1:AA:1207:G:O2'	1:AA:1208:C:H5'	2.10	0.52
6:AG:135:LYS:HE2	6:AG:136:LYS:N	2.24	0.52
11:AL:49:ARG:HH12	11:AL:88:ASP:CB	2.23	0.52
13:AN:50:LEU:CD2	13:AN:51:PRO:HD3	2.40	0.52
18:AS:63:ASP:O	18:AS:66:VAL:HG22	2.10	0.52
20:AB:134:LEU:HA	20:AB:137:THR:HG23	1.90	0.52
21:AU:11:PHE:HA	2:CC:70:ALA:O	2.09	0.52
23:BB:286:U:H2'	23:BB:287:G:C8	2.44	0.52
23:BB:781:A:OP1	25:BC:216:ARG:NH2	2.42	0.52
23:BB:1080:A:H1'	52:BI:127:SER:HA	1.90	0.52
23:BB:1199:U:H2'	23:BB:1200:C:C6	2.45	0.52
23:BB:1454:C:H5'	35:BN:63:ARG:NE	2.22	0.52
23:BB:1774:C:H2'	23:BB:1774:C:O2	2.10	0.52
23:BB:2757:A:H2'	23:BB:2757:A:N3	2.23	0.52
23:BB:2836:U:H2'	23:BB:2837:A:C8	2.45	0.52
24:BV:16:ALA:HA	24:BV:19:ARG:HE	1.74	0.52
25:BC:259:ASN:C	25:BC:261:ARG:H	2.18	0.52
26:BD:34:VAL:HG12	26:BD:94:GLN:H	1.74	0.52
26:BD:51:THR:HG21	26:BD:76:GLY:HA3	1.91	0.52
32:BK:112:PHE:O	32:BK:113:MET:C	2.53	0.52
33:BL:124:GLY:N	33:BL:143:GLU:HG3	2.25	0.52
35:BN:28:LEU:HD12	35:BN:48:VAL:HG21	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BQ:18:LYS:C	38:BQ:20:ALA:H	2.17	0.52
38:BQ:78:PHE:O	38:BQ:82:LEU:HG	2.10	0.52
41:BT:27:SER:O	41:BT:28:ASN:HB3	2.10	0.52
46:BZ:39:TRP:HB2	46:BZ:46:PHE:CE2	2.44	0.52
46:BZ:70:GLU:C	46:BZ:72:ARG:N	2.67	0.52
52:BI:17:ALA:O	52:BI:18:ASN:CB	2.58	0.52
52:BI:23:VAL:HG23	52:BI:24:GLY:N	2.25	0.52
52:BI:48:ILE:HG22	52:BI:49:GLU:HG2	1.91	0.52
1:CA:436:C:O2'	1:CA:437:U:H5'	2.10	0.52
1:CA:803:G:H2'	1:CA:804:U:O4'	2.09	0.52
1:CA:806:C:H2'	1:CA:807:A:H8	1.74	0.52
1:CA:1427:C:H2'	1:CA:1428:A:H8	1.74	0.52
2:CC:35:ASP:HB3	2:CC:39:ARG:NH1	2.25	0.52
3:CD:33:ILE:O	3:CD:35:GLN:HG3	2.10	0.52
5:CF:37:HIS:O	5:CF:97:THR:HG23	2.10	0.52
6:CG:21:LEU:HG	6:CG:22:LEU:H	1.74	0.52
8:CI:44:ARG:HE	8:CI:48:ARG:HH22	1.57	0.52
9:CJ:52:LEU:HB2	13:CN:80:ARG:HE	1.74	0.52
10:CK:28:ASN:HD21	10:CK:47:GLY:H	1.56	0.52
12:CM:111:PRO:O	12:CM:113:LYS:HG3	2.10	0.52
16:CQ:29:LYS:HG3	16:CQ:34:GLY:HA2	1.91	0.52
17:CR:58:ILE:O	17:CR:62:ARG:HG3	2.10	0.52
20:CB:31:PHE:HB2	20:CB:41:ASN:HA	1.91	0.52
21:CU:40:PRO:HA	21:CU:44:ARG:HD2	1.92	0.52
23:DB:257:C:H2'	23:DB:258:G:O4'	2.09	0.52
23:DB:338:G:N2	23:DB:339:U:H1'	2.24	0.52
23:DB:582:A:H2'	23:DB:583:G:H8	1.74	0.52
23:DB:1219:U:H2'	23:DB:1220:G:H8	1.73	0.52
23:DB:1395:A:H4'	23:DB:1397:U:C5	2.45	0.52
23:DB:1886:U:H2'	23:DB:1887:C:C6	2.45	0.52
23:DB:1979:U:O2'	23:DB:1980:G:H5'	2.10	0.52
23:DB:2548:U:H1'	32:DK:23:LYS:NZ	2.24	0.52
25:DC:183:VAL:HG22	25:DC:184:GLU:H	1.75	0.52
28:DF:104:THR:HB	28:DF:105:ILE:HD12	1.92	0.52
29:DG:84:LYS:H	29:DG:85:LYS:HD2	1.75	0.52
30:DH:72:ILE:HG23	30:DH:108:VAL:HG11	1.92	0.52
31:DJ:81:ILE:HG23	31:DJ:82:GLY:N	2.21	0.52
33:DL:73:ILE:HD12	33:DL:106:GLU:HB2	1.90	0.52
35:DN:114:GLU:CD	35:DN:118:ARG:HH11	2.18	0.52
36:DO:24:THR:O	36:DO:90:VAL:HB	2.10	0.52
38:DQ:71:ASN:HD21	38:DQ:109:VAL:HG11	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DS:24:ILE:HG23	40:DS:32:ALA:HB1	1.91	0.52
41:DT:85:VAL:C	41:DT:86:THR:HG23	2.35	0.52
46:DZ:63:GLY:HA3	46:DZ:66:THR:OG1	2.10	0.52
52:DI:63:ASP:O	52:DI:64:ARG:HB2	2.09	0.52
52:DI:126:ARG:HB3	52:DI:126:ARG:NH1	2.24	0.52
1:AA:17:U:O2'	1:AA:18:C:H5'	2.10	0.52
1:AA:36:C:H4'	11:AL:118:VAL:O	2.09	0.52
1:AA:165:G:O2'	1:AA:166:U:H5'	2.10	0.52
1:AA:398:U:H2'	1:AA:399:G:H8	1.73	0.52
1:AA:455:G:O2'	1:AA:456:A:H5'	2.10	0.52
1:AA:1168:U:H4'	1:AA:1169:A:OP2	2.10	0.52
1:AA:1238:A:H2	1:AA:1241:G:N3	2.07	0.52
1:AA:1245:C:H2'	1:AA:1246:A:C8	2.45	0.52
1:AA:1483:A:H1'	23:BB:1948:G:H1'	1.90	0.52
2:AC:120:THR:HG22	2:AC:188:ALA:HB2	1.92	0.52
2:AC:166:TRP:HA	2:AC:166:TRP:CE3	2.45	0.52
5:AF:52:ASN:HA	5:AF:53:LYS:HZ3	1.75	0.52
14:AO:35:ILE:CD1	14:AO:58:MET:HG3	2.38	0.52
21:AU:40:PRO:O	21:AU:44:ARG:HB2	2.10	0.52
23:BB:433:C:H2'	23:BB:434:U:C6	2.45	0.52
23:BB:644:A:H2'	23:BB:644:A:N3	2.24	0.52
23:BB:1107:G:H2'	23:BB:1108:U:H6	1.74	0.52
23:BB:1210:G:C5'	23:BB:1212:G:H5''	2.39	0.52
23:BB:1849:G:H2'	23:BB:1850:G:H8	1.75	0.52
29:BG:6:ALA:HB3	29:BG:68:ARG:NE	2.24	0.52
34:BM:21:ALA:HB2	34:BM:100:LYS:HG2	1.90	0.52
34:BM:126:ILE:HD12	34:BM:126:ILE:H	1.75	0.52
40:BS:20:VAL:C	40:BS:22:ASP:H	2.18	0.52
43:BW:23:LYS:NZ	43:BW:24:ARG:HG3	2.25	0.52
1:CA:151:A:H5'	1:CA:152:A:OP2	2.09	0.52
1:CA:636:U:H2'	1:CA:637:C:C6	2.45	0.52
1:CA:1020:G:H2'	1:CA:1021:A:H5'	1.91	0.52
1:CA:1166:G:H2'	1:CA:1168:U:OP2	2.09	0.52
1:CA:1436:U:H2'	1:CA:1437:A:H8	1.75	0.52
2:CC:19:SER:HB2	2:CC:39:ARG:HH22	1.74	0.52
2:CC:165:GLU:HG3	2:CC:166:TRP:H	1.75	0.52
12:CM:86:ARG:CG	12:CM:96:VAL:HG11	2.40	0.52
18:CS:44:ILE:O	18:CS:44:ILE:HG23	2.10	0.52
19:CT:2:ASN:CG	19:CT:3:ILE:N	2.67	0.52
22:DA:30:C:H2'	22:DA:30:C:O2	2.09	0.52
23:DB:182:A:H2'	23:DB:183:C:H6	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:438:G:H2'	23:DB:439:A:C8	2.45	0.52
23:DB:519:U:H2'	23:DB:520:G:H8	1.74	0.52
23:DB:857:G:O2'	43:DW:19:ARG:HD2	2.10	0.52
23:DB:1099:G:H5''	52:DI:2:LYS:HB2	1.92	0.52
23:DB:1221:C:O2'	23:DB:1222:U:H5'	2.10	0.52
23:DB:1387:A:H2'	23:DB:1388:G:H8	1.73	0.52
23:DB:1688:U:H2'	23:DB:1698:A:N6	2.25	0.52
23:DB:1720:U:O2'	23:DB:1721:G:H5'	2.10	0.52
23:DB:1863:G:H2'	23:DB:1864:U:O4'	2.09	0.52
23:DB:2577:A:H5''	23:DB:2578:G:H5'	1.90	0.52
26:DD:16:THR:HB	26:DD:18:ASP:OD1	2.10	0.52
26:DD:180:VAL:HG22	26:DD:187:LEU:CD1	2.40	0.52
30:DH:26:ALA:C	30:DH:28:ASN:H	2.15	0.52
33:DL:61:LEU:HD12	33:DL:61:LEU:N	2.25	0.52
43:DW:36:ILE:O	43:DW:39:GLN:HB3	2.09	0.52
46:DZ:21:ALA:HB3	46:DZ:23:ASN:HD21	1.73	0.52
52:DI:32:VAL:HG22	52:DI:60:VAL:CG2	2.40	0.52
1:AA:376:G:H2'	1:AA:377:G:C8	2.45	0.52
1:AA:469:C:H2'	1:AA:470:C:H6	1.75	0.52
1:AA:547:A:H4'	1:AA:548:G:O5'	2.10	0.52
1:AA:707:U:H4'	10:AK:21:HIS:CD2	2.45	0.52
3:AD:33:ILE:HG13	3:AD:34:GLU:N	2.25	0.52
3:AD:199:ILE:HD12	3:AD:200:VAL:N	2.25	0.52
7:AH:17:GLN:NE2	7:AH:62:LEU:HB3	2.25	0.52
13:AN:50:LEU:H	13:AN:51:PRO:CD	2.23	0.52
14:AO:52:ARG:HD2	23:BB:715:A:H61	1.75	0.52
17:AR:63:TYR:N	17:AR:63:TYR:CD2	2.77	0.52
20:AB:204:ASP:O	20:AB:208:ALA:HB3	2.09	0.52
23:BB:142:A:C2	41:BT:2:ILE:HG22	2.44	0.52
23:BB:265:A:O2'	23:BB:266:G:H4'	2.10	0.52
23:BB:839:U:H2'	23:BB:840:C:C6	2.45	0.52
23:BB:920:A:H2'	23:BB:921:C:C6	2.45	0.52
23:BB:1060:U:P	52:BI:74:PRO:HA	2.49	0.52
23:BB:1373:A:H5''	23:BB:2213:U:O4	2.10	0.52
23:BB:2636:C:O5'	26:BD:81:GLU:HB2	2.09	0.52
26:BD:69:ALA:CA	26:BD:73:VAL:HB	2.40	0.52
26:BD:154:LYS:HD3	26:BD:154:LYS:H	1.74	0.52
27:BE:149:ILE:HG23	27:BE:188:MET:CA	2.40	0.52
28:BF:29:ARG:CD	28:BF:29:ARG:H	2.23	0.52
31:BJ:84:ILE:O	31:BJ:84:ILE:HG23	2.09	0.52
33:BL:110:VAL:HG23	33:BL:126:ARG:O	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BN:96:ARG:HG2	35:BN:96:ARG:HH21	1.74	0.52
37:BP:3:ILE:HD13	37:BP:3:ILE:C	2.35	0.52
38:BQ:71:ASN:ND2	38:BQ:73:ILE:HG22	2.25	0.52
39:BR:39:LEU:HA	39:BR:49:ILE:HG12	1.92	0.52
40:BS:71:VAL:HG22	40:BS:71:VAL:O	2.10	0.52
42:BU:48:VAL:O	42:BU:50:ALA:N	2.43	0.52
46:BZ:17:ASN:HB2	46:BZ:25:THR:OG1	2.08	0.52
48:B1:25:ASN:OD1	48:B1:27:ARG:HB2	2.09	0.52
1:CA:45:G:H2'	1:CA:46:G:C8	2.45	0.52
1:CA:169:C:O2'	1:CA:170:U:H5'	2.09	0.52
1:CA:505:G:H4'	1:CA:534:U:C4	2.45	0.52
1:CA:1092:A:H5''	6:CG:3:ARG:NH1	2.25	0.52
3:CD:123:MET:HE2	3:CD:144:ILE:O	2.10	0.52
3:CD:188:SER:C	3:CD:190:LEU:H	2.18	0.52
6:CG:13:PRO:O	6:CG:14:ASP:O	2.27	0.52
18:CS:43:MET:O	18:CS:46:LEU:HB2	2.09	0.52
18:CS:49:ALA:O	18:CS:56:HIS:HD2	1.93	0.52
20:CB:18:GLN:O	20:CB:37:VAL:HG23	2.09	0.52
22:DA:14:U:H4'	22:DA:70:C:O2	2.09	0.52
23:DB:41:C:H2'	23:DB:42:A:H8	1.74	0.52
23:DB:925:A:O2'	23:DB:926:G:H5'	2.10	0.52
23:DB:964:C:O2'	23:DB:2273:A:H1'	2.09	0.52
23:DB:1100:C:H2'	23:DB:1101:U:C6	2.42	0.52
23:DB:1259:G:H2'	23:DB:1260:A:C8	2.45	0.52
23:DB:1373:A:H5''	23:DB:2213:U:O4	2.10	0.52
23:DB:1482:G:H2'	23:DB:1483:G:H8	1.75	0.52
23:DB:1571:A:H2'	23:DB:1572:A:C8	2.45	0.52
23:DB:2336:A:H61	43:DW:40:ARG:HG3	1.74	0.52
23:DB:2751:G:OP2	29:DG:2:ARG:HD2	2.10	0.52
23:DB:2805:C:O2'	23:DB:2806:C:H5'	2.10	0.52
26:DD:164:GLN:HG3	26:DD:165:MET:N	2.23	0.52
32:DK:34:GLY:O	32:DK:36:GLY:N	2.43	0.52
38:DQ:80:ASN:C	38:DQ:82:LEU:H	2.18	0.52
41:DT:11:LEU:CD2	41:DT:46:ALA:HB1	2.40	0.52
48:D1:8:ILE:HD11	48:D1:52:LYS:HG3	1.90	0.52
52:DI:45:THR:HA	52:DI:48:ILE:CG2	2.40	0.52
1:AA:160:A:H2'	1:AA:161:A:O4'	2.10	0.51
1:AA:730:G:O2'	1:AA:766:A:H5'	2.09	0.51
1:AA:1101:A:H4'	1:AA:1102:A:O5'	2.10	0.51
1:AA:1120:C:H2'	1:AA:1121:U:C6	2.46	0.51
1:AA:1151:A:O2'	1:AA:1152:A:H8	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AD:185:PRO:HB2	3:AD:190:LEU:HD12	1.91	0.51
6:AG:42:VAL:O	6:AG:46:LEU:HB2	2.10	0.51
6:AG:99:ALA:O	6:AG:103:ILE:HG13	2.10	0.51
6:AG:129:ASN:HA	6:AG:134:VAL:HG21	1.92	0.51
8:AI:71:ILE:HD12	8:AI:71:ILE:N	2.25	0.51
11:AL:106:VAL:CG2	11:AL:116:TYR:HB3	2.40	0.51
13:AN:26:LEU:HA	13:AN:29:ILE:HB	1.93	0.51
17:AR:23:LYS:HG3	17:AR:24:ASP:N	2.26	0.51
21:AU:24:LYS:NZ	21:AU:25:ALA:H	1.98	0.51
22:BA:70:C:O2'	22:BA:71:C:H5'	2.10	0.51
23:BB:41:C:H2'	23:BB:42:A:H8	1.75	0.51
23:BB:136:G:H2'	23:BB:137:U:C5	2.44	0.51
23:BB:299:A:N6	23:BB:322:A:O2'	2.42	0.51
23:BB:504:A:H2'	23:BB:504:A:N3	2.24	0.51
23:BB:947:A:H2'	23:BB:948:C:H6	1.74	0.51
23:BB:2436:G:O2'	23:BB:2437:G:H5'	2.11	0.51
23:BB:2543:G:H2'	23:BB:2544:G:C8	2.45	0.51
23:BB:2653:U:O2'	29:BG:109:SER:HB2	2.10	0.51
26:BD:25:THR:HG21	26:BD:193:VAL:CG2	2.39	0.51
30:BH:25:TYR:CG	30:BH:30:LEU:HG	2.45	0.51
30:BH:31:VAL:CB	30:BH:32:PRO:HD3	2.33	0.51
32:BK:12:ASP:OD2	32:BK:85:VAL:HG13	2.09	0.51
33:BL:73:ILE:O	33:BL:105:ILE:HG23	2.10	0.51
33:BL:81:ASP:HA	33:BL:84:LYS:HD2	1.91	0.51
35:BN:83:LEU:HA	35:BN:86:ARG:HB2	1.92	0.51
39:BR:16:GLU:CA	39:BR:98:ILE:HG22	2.37	0.51
39:BR:19:THR:CG2	39:BR:97:LYS:HD2	2.40	0.51
47:B0:43:THR:HG21	47:B0:47:TYR:HB2	1.91	0.51
52:BI:100:ILE:O	52:BI:139:VAL:HA	2.10	0.51
1:CA:205:A:H2'	1:CA:206:C:C6	2.45	0.51
1:CA:1347:G:H22	1:CA:1373:G:H2'	1.72	0.51
1:CA:1461:G:H2'	1:CA:1462:C:C6	2.43	0.51
1:CA:1524:C:H2'	1:CA:1525:G:C8	2.45	0.51
4:CE:156:ARG:HB2	7:CH:43:GLY:HA3	1.91	0.51
5:CF:70:VAL:HA	5:CF:73:GLU:HG3	1.91	0.51
7:CH:17:GLN:OE1	7:CH:69:ALA:HB1	2.10	0.51
13:CN:68:ARG:HH11	13:CN:71:GLY:H	1.57	0.51
14:CO:80:LEU:O	14:CO:84:LEU:HD13	2.10	0.51
18:CS:61:VAL:HA	18:CS:65:MET:SD	2.49	0.51
20:CB:27:LYS:C	20:CB:29:PHE:H	2.18	0.51
21:CU:40:PRO:O	21:CU:44:ARG:HB2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:141:G:H3'	23:DB:141:G:N3	2.24	0.51
23:DB:165:A:H2'	23:DB:166:U:C6	2.45	0.51
23:DB:245:G:H2'	23:DB:246:C:H6	1.75	0.51
23:DB:2151:U:O2'	23:DB:2152:G:H5'	2.10	0.51
23:DB:2570:G:H2'	23:DB:2571:U:O4'	2.10	0.51
23:DB:2786:U:H5''	26:DD:70:LYS:HG3	1.92	0.51
23:DB:2809:A:H2'	23:DB:2810:A:C8	2.45	0.51
23:DB:2868:A:H2'	23:DB:2869:G:C8	2.45	0.51
24:DV:70:ILE:HD13	24:DV:70:ILE:N	2.23	0.51
24:DV:77:VAL:HA	24:DV:89:ILE:HG22	1.90	0.51
27:DE:161:ALA:CA	27:DE:164:LEU:HB2	2.35	0.51
38:DQ:90:ASP:O	38:DQ:94:LEU:HB2	2.09	0.51
39:DR:60:LYS:N	39:DR:100:GLY:HA3	2.23	0.51
41:DT:57:VAL:HG12	41:DT:86:THR:OG1	2.09	0.51
42:DU:53:GLN:CD	42:DU:53:GLN:H	2.18	0.51
1:AA:238:A:C2'	1:AA:239:U:H5''	2.36	0.51
1:AA:458:U:H2'	1:AA:459:A:H8	1.75	0.51
1:AA:724:G:O2'	1:AA:725:G:H5'	2.10	0.51
1:AA:996:A:H2	1:AA:1045:C:HO2'	1.56	0.51
1:AA:1073:U:O2'	20:AB:102:ASN:OD1	2.28	0.51
1:AA:1220:G:H2'	1:AA:1221:G:H8	1.74	0.51
1:AA:1478:U:H2'	1:AA:1479:C:C6	2.45	0.51
1:AA:1530:G:H2'	1:AA:1531:A:H8	1.75	0.51
4:AE:35:LEU:HD22	4:AE:133:ILE:HA	1.92	0.51
4:AE:113:VAL:HG11	4:AE:136:VAL:HG23	1.90	0.51
5:AF:73:GLU:O	5:AF:77:THR:HG23	2.10	0.51
7:AH:100:ILE:HG13	7:AH:128:VAL:O	2.10	0.51
15:AP:72:ALA:HA	15:AP:75:ILE:HD12	1.92	0.51
18:AS:29:PRO:HA	18:AS:47:THR:O	2.11	0.51
23:BB:7:G:H4'	31:BJ:15:TRP:CZ2	2.46	0.51
23:BB:279:A:H61	23:BB:361:G:H1'	1.75	0.51
23:BB:861:A:H2'	23:BB:862:G:O4'	2.10	0.51
23:BB:1495:A:H2'	23:BB:1496:A:C8	2.46	0.51
23:BB:2662:A:H2'	23:BB:2663:G:O4'	2.11	0.51
24:BV:80:HIS:HA	24:BV:87:GLN:OE1	2.10	0.51
25:BC:6:LYS:HB3	25:BC:8:THR:HG22	1.92	0.51
25:BC:18:VAL:O	25:BC:18:VAL:HG13	2.09	0.51
30:BH:83:LYS:O	30:BH:91:PHE:N	2.43	0.51
34:BM:73:ILE:HG13	34:BM:93:VAL:HB	1.92	0.51
37:BP:4:ILE:C	37:BP:6:GLN:N	2.67	0.51
40:BS:57:ASN:O	40:BS:61:ASN:HB2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BT:23:ALA:C	41:BT:25:GLU:H	2.17	0.51
46:BZ:6:GLN:NE2	46:BZ:50:ARG:N	2.57	0.51
48:B1:29:LYS:N	48:B1:30:PRO:HD3	2.26	0.51
1:CA:224:U:H2'	1:CA:225:C:C6	2.45	0.51
1:CA:501:C:H1'	1:CA:549:C:H1'	1.91	0.51
1:CA:584:G:O2'	1:CA:585:G:H5'	2.10	0.51
1:CA:1097:C:H2'	1:CA:1098:C:H6	1.76	0.51
1:CA:1150:A:O2'	1:CA:1151:A:H5'	2.10	0.51
1:CA:1349:A:OP1	8:CI:121:ARG:HB2	2.11	0.51
1:CA:1459:G:H2'	1:CA:1460:C:H6	1.75	0.51
1:CA:1521:C:H2'	1:CA:1522:U:H6	1.75	0.51
2:CC:13:ILE:HD13	2:CC:13:ILE:N	2.24	0.51
13:CN:64:ARG:HB2	13:CN:77:GLY:O	2.11	0.51
17:CR:63:TYR:CD2	17:CR:63:TYR:N	2.78	0.51
21:CU:39:LYS:O	21:CU:43:GLU:HB3	2.10	0.51
23:DB:299:A:H2'	23:DB:300:A:C8	2.46	0.51
23:DB:504:A:H2'	23:DB:504:A:N3	2.24	0.51
23:DB:980:A:C6	23:DB:981:A:N1	2.79	0.51
23:DB:1021:A:H62	23:DB:1141:U:H3	1.57	0.51
23:DB:1063:G:H4'	52:DI:135:MET:HG2	1.91	0.51
23:DB:1260:A:H2'	23:DB:1261:C:H6	1.75	0.51
23:DB:1454:C:C5	35:DN:64:ARG:HG2	2.45	0.51
23:DB:1857:G:O2'	23:DB:1858:A:H8	1.92	0.51
23:DB:2674:G:H2'	23:DB:2675:A:C8	2.46	0.51
28:DF:62:GLN:HE22	28:DF:90:LEU:HA	1.75	0.51
30:DH:135:HIS:CG	30:DH:136:SER:H	2.29	0.51
34:DM:134:THR:HG22	34:DM:136:MET:H	1.74	0.51
38:DQ:94:LEU:CD2	39:DR:11:GLN:HB2	2.40	0.51
39:DR:49:ILE:HB	39:DR:53:PHE:O	2.10	0.51
41:DT:15:HIS:O	41:DT:16:VAL:C	2.51	0.51
43:DW:45:HIS:HB3	43:DW:52:CYS:HB2	1.92	0.51
46:DZ:40:VAL:HG22	46:DZ:45:ARG:O	2.10	0.51
51:D4:8:LYS:O	51:D4:25:VAL:HG21	2.10	0.51
1:AA:254:G:H4'	16:AQ:19:SER:OG	2.10	0.51
1:AA:1229:A:H2'	1:AA:1230:C:C6	2.45	0.51
2:AC:35:ASP:HB3	2:AC:39:ARG:NH1	2.26	0.51
4:AE:10:LEU:HA	4:AE:39:GLY:O	2.10	0.51
5:AF:5:GLU:HA	5:AF:63:ASN:HA	1.92	0.51
11:AL:82:ARG:HH11	11:AL:82:ARG:HG2	1.75	0.51
23:BB:60:G:C6	23:BB:74:A:N6	2.78	0.51
23:BB:62:U:C2'	23:BB:63:A:H5'	2.39	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:165:A:H2'	23:BB:166:U:C6	2.44	0.51
23:BB:1203:U:H3'	23:BB:1204:A:H5''	1.92	0.51
23:BB:1430:G:H2'	23:BB:1431:A:O4'	2.10	0.51
23:BB:1794:A:O2'	23:BB:1795:C:H5'	2.10	0.51
23:BB:2395:C:H2'	23:BB:2396:G:O4'	2.10	0.51
28:BF:103:ILE:HD11	28:BF:174:PHE:CG	2.46	0.51
28:BF:103:ILE:HD11	28:BF:174:PHE:HA	1.92	0.51
28:BF:104:THR:HB	28:BF:105:ILE:HD12	1.92	0.51
33:BL:3:LEU:O	33:BL:5:THR:N	2.43	0.51
34:BM:97:GLN:HB2	34:BM:98:PRO:CD	2.40	0.51
51:B4:3:VAL:HB	51:B4:37:GLN:HE22	1.75	0.51
52:BI:125:THR:O	52:BI:129:GLU:HG3	2.10	0.51
1:CA:60:A:H4'	1:CA:61:G:O5'	2.10	0.51
1:CA:81:A:O2'	1:CA:82:G:H5'	2.09	0.51
1:CA:98:A:H2'	1:CA:99:C:C6	2.45	0.51
1:CA:279:A:C5'	1:CA:280:C:H3'	2.40	0.51
1:CA:844:G:H2'	1:CA:846:G:C8	2.45	0.51
1:CA:1006:G:H2'	1:CA:1007:U:C6	2.45	0.51
1:CA:1320:C:C5	18:CS:36:ARG:HA	2.46	0.51
3:CD:162:GLU:C	3:CD:164:ARG:H	2.19	0.51
3:CD:185:PRO:HB2	3:CD:190:LEU:HD12	1.92	0.51
4:CE:55:VAL:N	4:CE:56:PRO:HD2	2.25	0.51
8:CI:35:GLU:HG3	8:CI:44:ARG:HD3	1.91	0.51
10:CK:126:ARG:HA	10:CK:126:ARG:NE	2.24	0.51
12:CM:36:ALA:HB1	12:CM:54:THR:HB	1.92	0.51
20:CB:130:LYS:HZ3	20:CB:130:LYS:HA	1.75	0.51
23:DB:154:U:H2'	23:DB:155:A:H8	1.74	0.51
23:DB:199:A:O2'	23:DB:200:U:H5'	2.10	0.51
23:DB:495:G:H1'	40:DS:57:ASN:ND2	2.25	0.51
23:DB:526:A:N6	23:DB:2626:C:H4'	2.26	0.51
23:DB:545:U:H4'	23:DB:550:C:C2	2.45	0.51
23:DB:644:A:H2'	23:DB:644:A:N3	2.24	0.51
23:DB:664:G:H2'	23:DB:665:U:C6	2.45	0.51
23:DB:720:U:H2'	23:DB:721:A:H8	1.75	0.51
23:DB:2336:A:N6	43:DW:40:ARG:HG3	2.25	0.51
23:DB:2411:A:H2'	23:DB:2412:A:C8	2.45	0.51
23:DB:2728:U:H2'	23:DB:2729:G:C8	2.45	0.51
23:DB:2880:C:O4'	35:DN:91:ALA:HB3	2.10	0.51
25:DC:53:ILE:O	25:DC:53:ILE:HG23	2.10	0.51
25:DC:145:MET:HE2	25:DC:153:LEU:HG	1.92	0.51
27:DE:58:LYS:HD3	27:DE:58:LYS:N	2.16	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DE:153:LEU:HG	27:DE:154:ASP:N	2.25	0.51
31:DJ:106:LYS:HA	31:DJ:106:LYS:HE3	1.93	0.51
32:DK:112:PHE:O	32:DK:113:MET:C	2.53	0.51
33:DL:142:ILE:HG22	33:DL:143:GLU:N	2.24	0.51
42:DU:48:VAL:O	42:DU:48:VAL:HG13	2.10	0.51
43:DW:37:VAL:CG1	43:DW:38:ARG:HH11	2.22	0.51
46:DZ:68:LEU:HB3	46:DZ:78:TYR:CE1	2.46	0.51
1:AA:104:G:O2'	1:AA:105:G:H5'	2.11	0.51
1:AA:501:C:H1'	1:AA:549:C:H1'	1.91	0.51
1:AA:522:C:H2'	1:AA:523:A:O4'	2.10	0.51
1:AA:636:U:H2'	1:AA:637:C:C6	2.45	0.51
1:AA:1136:C:OP1	1:AA:1136:C:H3'	2.10	0.51
1:AA:1297:G:H1'	1:AA:1298:U:C5	2.43	0.51
1:AA:1430:A:H2'	1:AA:1431:A:O4'	2.10	0.51
1:AA:1471:U:O2'	1:AA:1472:U:H5'	2.10	0.51
2:AC:50:SER:HB2	2:AC:70:ALA:HB3	1.91	0.51
7:AH:4:ASP:OD1	7:AH:7:ALA:HB2	2.11	0.51
10:AK:110:THR:HA	21:AU:3:ILE:O	2.10	0.51
18:AS:10:ILE:HG22	18:AS:37:SER:HB3	1.91	0.51
19:AT:49:ALA:O	19:AT:52:GLU:HB3	2.11	0.51
20:AB:27:LYS:C	20:AB:29:PHE:H	2.17	0.51
22:BA:74:U:H2'	22:BA:75:G:H8	1.73	0.51
23:BB:107:G:H2'	23:BB:108:G:H8	1.76	0.51
23:BB:329:G:N2	42:BU:16:LYS:HE3	2.25	0.51
23:BB:438:G:H2'	23:BB:439:A:C8	2.46	0.51
23:BB:596:U:H2'	23:BB:597:G:H8	1.75	0.51
23:BB:674:G:H5''	27:BE:71:GLY:N	2.26	0.51
23:BB:744:U:H2'	23:BB:745:G:O4'	2.11	0.51
23:BB:1511:G:H2'	23:BB:1512:C:C6	2.45	0.51
23:BB:1793:C:H2'	23:BB:1794:A:C8	2.46	0.51
23:BB:1973:G:H2'	23:BB:1974:C:C6	2.45	0.51
23:BB:2085:U:O2'	23:BB:2086:U:H5'	2.11	0.51
23:BB:2538:C:O2'	23:BB:2539:C:H5'	2.11	0.51
23:BB:2556:C:H2'	23:BB:2557:G:O4'	2.11	0.51
23:BB:2740:A:H2'	23:BB:2741:A:C8	2.46	0.51
23:BB:2772:C:H4'	26:BD:171:THR:CG2	2.41	0.51
24:BV:77:VAL:HA	24:BV:89:ILE:HG22	1.92	0.51
27:BE:29:HIS:O	27:BE:33:VAL:HG23	2.10	0.51
30:BH:96:THR:C	30:BH:98:ASP:H	2.17	0.51
35:BN:81:ASN:O	35:BN:85:PRO:HD2	2.10	0.51
37:BP:50:ARG:HB3	37:BP:56:SER:HB3	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BQ:56:PHE:O	38:BQ:59:LEU:HB3	2.10	0.51
39:BR:16:GLU:HA	39:BR:98:ILE:O	2.09	0.51
40:BS:66:ILE:HG12	40:BS:67:ASP:N	2.24	0.51
48:B1:8:ILE:HD11	48:B1:52:LYS:HG3	1.92	0.51
51:B4:27:CYS:SG	51:B4:29:ALA:HB3	2.51	0.51
2:CC:34:SER:O	2:CC:38:VAL:HG22	2.10	0.51
4:CE:113:VAL:HG11	4:CE:136:VAL:HG23	1.92	0.51
5:CF:100:SER:HA	17:CR:23:LYS:HE2	1.91	0.51
6:CG:131:GLY:O	6:CG:134:VAL:HG22	2.11	0.51
6:CG:135:LYS:HE2	6:CG:136:LYS:N	2.25	0.51
7:CH:11:THR:HA	7:CH:14:ARG:NH1	2.25	0.51
11:CL:49:ARG:HH12	11:CL:88:ASP:CB	2.24	0.51
15:CP:20:VAL:HG23	15:CP:35:ARG:HA	1.92	0.51
19:CT:85:LEU:HD23	19:CT:86:ALA:N	2.23	0.51
23:DB:117:G:H5'	23:DB:126:A:C8	2.29	0.51
23:DB:188:G:OP1	46:DZ:14:THR:HG23	2.10	0.51
23:DB:281:C:H2'	23:DB:282:A:C8	2.44	0.51
23:DB:693:A:OP1	25:DC:38:LYS:HG2	2.11	0.51
23:DB:836:G:H2'	23:DB:837:C:H6	1.70	0.51
23:DB:839:U:H2'	23:DB:840:C:H6	1.76	0.51
23:DB:948:C:H2'	23:DB:949:G:C8	2.45	0.51
23:DB:975:A:H1'	23:DB:990:A:C2	2.45	0.51
23:DB:1256:G:H21	27:DE:77:ILE:HG22	1.74	0.51
23:DB:1820:U:H4'	23:DB:1821:A:OP2	2.11	0.51
23:DB:2352:A:N1	43:DW:30:VAL:HG11	2.25	0.51
24:DV:57:TYR:HA	24:DV:74:ALA:HB3	1.92	0.51
26:DD:9:VAL:O	26:DD:9:VAL:HG13	2.11	0.51
29:DG:25:ILE:HD13	29:DG:74:MET:HE2	1.91	0.51
30:DH:26:ALA:C	30:DH:28:ASN:N	2.68	0.51
37:DP:103:THR:HG22	37:DP:104:GLY:N	2.25	0.51
39:DR:80:ARG:O	39:DR:81:LYS:HD3	2.11	0.51
43:DW:70:VAL:HG22	43:DW:70:VAL:O	2.11	0.51
46:DZ:33:LEU:O	46:DZ:34:HIS:CG	2.64	0.51
49:D2:31:LEU:HD22	49:D2:42:LEU:HD12	1.92	0.51
1:AA:79:G:H2'	1:AA:80:A:N7	2.25	0.51
1:AA:762:U:H2'	1:AA:763:G:C8	2.45	0.51
5:AF:38:ARG:HH21	5:AF:63:ASN:HD21	1.53	0.51
5:AF:100:SER:HA	17:AR:23:LYS:HE2	1.91	0.51
9:AJ:30:LYS:NZ	9:AJ:36:VAL:HB	2.25	0.51
15:AP:25:ARG:H	15:AP:25:ARG:CD	2.23	0.51
18:AS:11:ASP:OD1	18:AS:34:SER:HA	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AT:43:LYS:HE2	19:AT:44:ALA:N	2.22	0.51
20:AB:119:GLN:O	20:AB:125:PHE:HB3	2.10	0.51
21:AU:39:LYS:O	21:AU:43:GLU:HB3	2.09	0.51
23:BB:81:G:H2'	23:BB:82:U:O4'	2.09	0.51
23:BB:241:A:H8	23:BB:241:A:OP1	1.93	0.51
23:BB:297:G:H5''	42:BU:84:PHE:HB3	1.93	0.51
23:BB:492:A:H2'	23:BB:493:G:O4'	2.10	0.51
23:BB:544:C:H2'	23:BB:545:U:C5	2.45	0.51
23:BB:1580:A:H2'	23:BB:1581:G:O4'	2.11	0.51
23:BB:2188:U:H2'	23:BB:2189:U:H6	1.73	0.51
23:BB:2674:G:H2'	23:BB:2675:A:C8	2.45	0.51
23:BB:2745:C:O3'	29:BG:141:GLY:HA3	2.10	0.51
23:BB:2869:G:H2'	23:BB:2870:C:O4'	2.10	0.51
26:BD:51:THR:HG22	26:BD:52:THR:N	2.24	0.51
27:BE:1:MET:O	27:BE:13:THR:HA	2.09	0.51
27:BE:117:ARG:NH1	33:BL:2:ARG:HB2	2.25	0.51
30:BH:49:ALA:HB3	30:BH:50:ARG:CZ	2.41	0.51
39:BR:39:LEU:HD23	39:BR:39:LEU:N	2.26	0.51
40:BS:73:LYS:HE3	40:BS:74:ILE:N	2.25	0.51
43:BW:45:HIS:HB3	43:BW:52:CYS:HB2	1.93	0.51
44:BX:13:GLU:HA	44:BX:16:THR:OG1	2.11	0.51
45:BY:50:VAL:HA	45:BY:52:PHE:CE1	2.45	0.51
46:BZ:5:CYS:SG	46:BZ:7:VAL:HG12	2.50	0.51
46:BZ:7:VAL:HG21	46:BZ:59:ILE:CD1	2.40	0.51
1:CA:137:U:H2'	1:CA:138:G:C8	2.45	0.51
1:CA:452:A:H2'	1:CA:453:G:O4'	2.09	0.51
1:CA:1361:G:C2'	1:CA:1362:A:H5''	2.36	0.51
1:CA:1477:U:H2'	1:CA:1478:U:H6	1.75	0.51
12:CM:76:ILE:HG23	12:CM:79:LEU:HD12	1.93	0.51
20:CB:95:TRP:HH2	20:CB:100:LEU:HB2	1.75	0.51
20:CB:212:TYR:O	20:CB:216:VAL:HG22	2.11	0.51
23:DB:4:U:H2'	23:DB:5:A:C8	2.45	0.51
23:DB:38:A:N3	27:DE:43:THR:HB	2.25	0.51
23:DB:58:G:N3	23:DB:73:A:H2	2.08	0.51
23:DB:200:U:O2'	46:DZ:22:LEU:HD12	2.10	0.51
23:DB:455:C:N3	23:DB:472:A:H2'	2.26	0.51
23:DB:1117:C:H2'	23:DB:1118:C:C6	2.46	0.51
23:DB:1565:C:H5''	25:DC:17:LYS:HE2	1.92	0.51
23:DB:1969:A:O2'	23:DB:1972:G:N3	2.40	0.51
23:DB:2634:A:H2'	23:DB:2635:A:C8	2.45	0.51
25:DC:141:HIS:NE2	25:DC:194:VAL:HB	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DE:1:MET:HB2	27:DE:16:GLU:HB2	1.91	0.51
27:DE:29:HIS:NE2	33:DL:8:PRO:HG3	2.24	0.51
28:DF:62:GLN:HG3	28:DF:91:ARG:NH1	2.25	0.51
44:DX:18:LEU:O	44:DX:22:LEU:HB3	2.10	0.51
1:AA:218:U:H2'	1:AA:219:U:H6	1.74	0.51
1:AA:531:U:H3	1:AA:1208:C:H5''	1.76	0.51
1:AA:968:A:C8	1:AA:1062:U:H4'	2.44	0.51
1:AA:1314:C:H3'	18:AS:5:LYS:HZ2	1.75	0.51
1:AA:1512:U:H2'	1:AA:1513:A:H8	1.75	0.51
7:AH:11:THR:HA	7:AH:14:ARG:NH1	2.25	0.51
12:AM:14:ALA:HB2	12:AM:42:VAL:HG23	1.92	0.51
22:BA:42:C:C6	28:BF:65:LEU:HD13	2.46	0.51
23:BB:526:A:N6	23:BB:2626:C:H4'	2.26	0.51
23:BB:1022:G:N2	23:BB:1142:A:C2	2.76	0.51
23:BB:1203:U:H3'	23:BB:1204:A:C5'	2.40	0.51
23:BB:1247:A:O2'	23:BB:1248:G:H5'	2.11	0.51
23:BB:1541:C:H2'	23:BB:1542:U:O4'	2.11	0.51
23:BB:1921:G:H2'	23:BB:1922:G:H8	1.76	0.51
23:BB:1965:C:H5''	23:BB:1966:A:H2'	1.92	0.51
23:BB:2075:U:H2'	23:BB:2238:G:N2	2.26	0.51
23:BB:2098:U:H2'	23:BB:2099:U:C6	2.45	0.51
23:BB:2246:G:H2'	23:BB:2247:A:C8	2.46	0.51
23:BB:2700:A:H2'	23:BB:2701:U:C6	2.46	0.51
23:BB:2882:A:H3'	23:BB:2883:A:H5''	1.92	0.51
25:BC:93:VAL:HG13	25:BC:94:LEU:H	1.75	0.51
25:BC:130:PRO:HG2	25:BC:133:ASN:ND2	2.25	0.51
26:BD:141:ARG:O	26:BD:142:VAL:HG13	2.10	0.51
27:BE:32:VAL:HG23	27:BE:33:VAL:N	2.25	0.51
27:BE:150:THR:HG21	27:BE:153:LEU:HA	1.92	0.51
32:BK:60:ALA:HB2	32:BK:86:LEU:HA	1.93	0.51
32:BK:79:PHE:CD1	32:BK:79:PHE:N	2.78	0.51
35:BN:109:PRO:C	35:BN:110:MET:HE2	2.35	0.51
38:BQ:24:TYR:CG	38:BQ:25:GLY:N	2.78	0.51
43:BW:18:LYS:HG3	43:BW:19:ARG:H	1.76	0.51
46:BZ:63:GLY:O	46:BZ:67:VAL:HG23	2.11	0.51
1:CA:394:G:H2'	1:CA:395:C:H6	1.74	0.51
1:CA:398:U:H2'	1:CA:399:G:H8	1.76	0.51
1:CA:420:U:H2'	1:CA:422:C:C5	2.46	0.51
1:CA:448:A:H2'	1:CA:449:G:C8	2.46	0.51
1:CA:919:A:O2'	1:CA:920:U:H5'	2.11	0.51
1:CA:1464:U:H2'	1:CA:1465:A:C8	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CD:199:ILE:HD12	3:CD:200:VAL:N	2.26	0.51
7:CH:51:GLU:HB3	7:CH:57:GLU:HB3	1.91	0.51
22:DA:54:G:O2'	22:DA:55:U:H5'	2.10	0.51
22:DA:109:A:H2'	22:DA:110:C:O4'	2.10	0.51
23:DB:544:C:H2'	23:DB:545:U:C5	2.45	0.51
23:DB:664:G:H2'	23:DB:665:U:H6	1.76	0.51
23:DB:813:U:H2'	23:DB:814:C:H6	1.76	0.51
23:DB:877:A:H2'	23:DB:900:A:N6	2.26	0.51
23:DB:1041:G:C2	23:DB:1042:G:N7	2.79	0.51
23:DB:1098:A:H2'	52:DI:4:VAL:C	2.36	0.51
23:DB:2015:A:H2'	23:DB:2016:U:O4'	2.10	0.51
23:DB:2093:G:O5'	30:DH:24:GLY:HA3	2.10	0.51
23:DB:2471:A:O2'	23:DB:2472:G:C8	2.59	0.51
27:DE:182:ALA:O	27:DE:183:PHE:HB2	2.11	0.51
28:DF:47:LYS:HA	28:DF:50:ASP:OD1	2.10	0.51
28:DF:134:GLN:HB3	28:DF:149:ARG:HB3	1.93	0.51
29:DG:10:VAL:CG1	29:DG:16:VAL:HG21	2.40	0.51
30:DH:65:ALA:HA	30:DH:68:ARG:CG	2.40	0.51
33:DL:81:ASP:HA	33:DL:84:LYS:HD2	1.92	0.51
35:DN:38:LEU:CB	35:DN:39:PRO:HD3	2.38	0.51
36:DO:66:GLY:HA2	36:DO:102:ARG:NE	2.26	0.51
37:DP:20:ARG:NE	37:DP:91:VAL:HG21	2.22	0.51
40:DS:24:ILE:HD11	40:DS:36:LEU:CD1	2.31	0.51
43:DW:30:VAL:HA	43:DW:60:ALA:O	2.10	0.51
47:D0:18:HIS:C	47:D0:20:ALA:H	2.19	0.51
49:D2:19:ARG:HG2	49:D2:19:ARG:HH21	1.74	0.51
52:DI:85:ILE:CD1	52:DI:137:LEU:HD21	2.40	0.51
1:AA:176:C:H3'	1:AA:177:G:H21	1.76	0.51
1:AA:188:C:H2'	1:AA:189:A:O4'	2.10	0.51
1:AA:285:C:H2'	1:AA:286:C:C6	2.45	0.51
1:AA:797:C:O2'	1:AA:798:U:H5'	2.10	0.51
1:AA:1008:U:H5''	13:AN:23:ARG:HH22	1.75	0.51
1:AA:1219:A:H2'	1:AA:1220:G:C8	2.46	0.51
3:AD:187:ARG:NH1	3:AD:191:SER:HB3	2.26	0.51
4:AE:15:ILE:HD12	4:AE:35:LEU:HG	1.92	0.51
6:AG:61:PHE:O	6:AG:65:LEU:HD13	2.11	0.51
9:AJ:12:ALA:HB3	9:AJ:18:ILE:HB	1.92	0.51
14:AO:52:ARG:HG3	14:AO:56:LEU:HD13	1.92	0.51
18:AS:49:ALA:O	18:AS:56:HIS:HD2	1.93	0.51
20:AB:69:VAL:HB	20:AB:162:VAL:CG2	2.40	0.51
21:AU:13:VAL:O	21:AU:13:VAL:HG13	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:315:G:H2'	23:BB:316:C:C6	2.46	0.51
23:BB:794:A:H2'	23:BB:795:C:H6	1.76	0.51
23:BB:836:G:H2'	23:BB:837:C:H6	1.72	0.51
23:BB:1193:G:H2'	23:BB:1194:A:H5''	1.93	0.51
23:BB:1256:G:H21	27:BE:77:ILE:HG22	1.75	0.51
23:BB:1688:U:H2'	23:BB:1698:A:N6	2.26	0.51
23:BB:1949:G:H2'	23:BB:1950:G:H8	1.75	0.51
23:BB:2065:C:H1'	23:BB:2449:U:O2	2.11	0.51
23:BB:2449:U:H4'	23:BB:2450:A:OP1	2.11	0.51
23:BB:2634:A:H2'	23:BB:2635:A:C8	2.46	0.51
25:BC:53:ILE:O	25:BC:53:ILE:HG23	2.11	0.51
25:BC:245:THR:OG1	25:BC:249:VAL:HG23	2.10	0.51
27:BE:128:ALA:H	27:BE:133:LEU:CD1	2.24	0.51
28:BF:43:ILE:HG23	28:BF:44:ALA:N	2.13	0.51
30:BH:83:LYS:HD2	30:BH:91:PHE:CD1	2.45	0.51
30:BH:103:VAL:HG12	30:BH:106:ALA:HB3	1.91	0.51
31:BJ:36:LEU:O	31:BJ:51:GLY:HA3	2.10	0.51
31:BJ:42:ALA:O	31:BJ:44:TYR:N	2.43	0.51
31:BJ:44:TYR:CD2	38:BQ:59:LEU:HD21	2.45	0.51
36:BO:52:SER:C	36:BO:54:VAL:H	2.19	0.51
36:BO:84:GLU:C	36:BO:86:GLY:N	2.69	0.51
38:BQ:80:ASN:ND2	38:BQ:81:GLY:H	2.09	0.51
41:BT:12:ARG:HE	44:BX:29:ARG:NH1	2.09	0.51
52:BI:29:GLN:HE21	52:BI:29:GLN:HA	1.75	0.51
1:CA:285:C:H2'	1:CA:286:C:C6	2.45	0.51
1:CA:369:G:O2'	1:CA:370:C:H5'	2.10	0.51
1:CA:462:G:H3'	1:CA:463:U:C6	2.45	0.51
1:CA:730:G:O2'	1:CA:766:A:H5'	2.09	0.51
3:CD:53:GLN:HB3	3:CD:202:LEU:HB2	1.93	0.51
6:CG:20:GLU:O	6:CG:23:ALA:HB3	2.11	0.51
6:CG:99:ALA:O	6:CG:103:ILE:HG13	2.10	0.51
6:CG:110:ARG:HD3	6:CG:118:ARG:HA	1.92	0.51
7:CH:115:ALA:O	7:CH:120:LEU:HD23	2.11	0.51
9:CJ:41:PRO:HA	9:CJ:72:ARG:HD3	1.93	0.51
11:CL:43:LYS:NZ	11:CL:44:PRO:HD3	2.25	0.51
11:CL:113:ARG:HE	11:CL:120:ARG:HA	1.75	0.51
20:CB:130:LYS:O	20:CB:134:LEU:HB2	2.10	0.51
20:CB:205:ALA:HB3	20:CB:208:ALA:CB	2.39	0.51
23:DB:289:G:H2'	23:DB:290:U:H6	1.76	0.51
23:DB:757:G:H2'	23:DB:758:C:H5'	1.92	0.51
23:DB:973:A:O4'	23:DB:1188:U:C6	2.64	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1000:A:H2'	23:DB:1001:A:H8	1.74	0.51
23:DB:1163:G:H4'	39:DR:92:TRP:CD1	2.45	0.51
23:DB:1219:U:H2'	23:DB:1220:G:C8	2.46	0.51
23:DB:2078:C:O2'	23:DB:2079:U:H5'	2.11	0.51
23:DB:2398:U:H2'	23:DB:2399:G:C8	2.45	0.51
24:DV:44:HIS:CE1	24:DV:85:LYS:HB2	2.46	0.51
25:DC:43:ASN:HB2	25:DC:49:THR:CG2	2.40	0.51
28:DF:102:LEU:HA	28:DF:106:ALA:HB3	1.91	0.51
28:DF:105:ILE:C	28:DF:108:PRO:HD2	2.34	0.51
30:DH:70:GLU:CD	30:DH:71:LYS:N	2.69	0.51
31:DJ:71:ASP:HA	31:DJ:88:THR:OG1	2.11	0.51
31:DJ:89:PHE:CE1	31:DJ:93:ILE:HD13	2.45	0.51
36:DO:84:GLU:C	36:DO:86:GLY:N	2.69	0.51
36:DO:110:ALA:HA	36:DO:113:ALA:HB3	1.92	0.51
37:DP:56:SER:HB2	37:DP:75:THR:HB	1.93	0.51
46:DZ:2:SER:O	46:DZ:4:VAL:HG13	2.11	0.51
52:DI:78:LEU:HD13	52:DI:108:ILE:HG23	1.92	0.51
1:AA:610:U:O2	1:AA:610:U:O4'	2.29	0.51
1:AA:1427:C:H2'	1:AA:1428:A:H8	1.75	0.51
6:AG:13:PRO:O	6:AG:14:ASP:C	2.53	0.51
14:AO:42:PHE:CE1	14:AO:55:LEU:HD22	2.46	0.51
14:AO:63:ARG:HH12	14:AO:87:ARG:HH22	1.57	0.51
23:BB:69:C:H2'	23:BB:70:G:C8	2.46	0.51
23:BB:199:A:O2'	23:BB:200:U:H5'	2.11	0.51
23:BB:596:U:H2'	23:BB:597:G:C8	2.45	0.51
23:BB:964:C:O2'	23:BB:2273:A:H1'	2.11	0.51
23:BB:1150:C:H2'	23:BB:1151:A:H8	1.76	0.51
23:BB:1642:G:O2'	23:BB:1643:G:H5'	2.11	0.51
23:BB:1858:A:H2'	23:BB:1859:U:O4'	2.11	0.51
23:BB:1880:U:H2'	23:BB:1881:C:C6	2.45	0.51
23:BB:2233:U:H2'	23:BB:2234:G:C8	2.46	0.51
23:BB:2258:C:H5'	23:BB:2259:U:C5	2.39	0.51
23:BB:2379:G:H2'	23:BB:2380:C:C6	2.46	0.51
23:BB:2398:U:H2'	23:BB:2399:G:C8	2.46	0.51
25:BC:14:HIS:O	25:BC:16:VAL:HG23	2.10	0.51
25:BC:173:LEU:HD13	25:BC:173:LEU:N	2.25	0.51
26:BD:117:GLY:O	26:BD:119:ALA:N	2.44	0.51
27:BE:153:LEU:HG	27:BE:154:ASP:H	1.76	0.51
29:BG:7:PRO:O	29:BG:8:VAL:HB	2.10	0.51
29:BG:33:THR:C	29:BG:34:ARG:HD3	2.35	0.51
29:BG:91:VAL:O	29:BG:93:TYR:N	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BK:18:ARG:O	32:BK:45:GLU:HB2	2.11	0.51
32:BK:87:LEU:HB2	32:BK:93:GLN:C	2.35	0.51
33:BL:2:ARG:HG2	33:BL:2:ARG:O	2.11	0.51
35:BN:8:ARG:HG2	35:BN:10:LEU:HD22	1.93	0.51
37:BP:112:ARG:NH1	37:BP:112:ARG:HB2	2.26	0.51
39:BR:6:GLN:HE22	39:BR:9:GLY:CA	2.23	0.51
41:BT:12:ARG:CD	44:BX:29:ARG:HH12	2.23	0.51
41:BT:85:VAL:C	41:BT:86:THR:HG23	2.36	0.51
49:B2:39:ARG:HH11	49:B2:39:ARG:HG3	1.76	0.51
1:CA:58:C:O2'	1:CA:59:A:H5'	2.11	0.51
1:CA:272:C:H2'	1:CA:273:U:H6	1.74	0.51
1:CA:389:A:N3	1:CA:389:A:H2'	2.24	0.51
1:CA:738:C:H2'	1:CA:739:C:H6	1.75	0.51
1:CA:1118:U:H1'	1:CA:1179:A:C4	2.46	0.51
3:CD:18:LEU:HG	3:CD:63:ILE:HG12	1.92	0.51
3:CD:31:CYS:SG	3:CD:33:ILE:HB	2.51	0.51
4:CE:10:LEU:HA	4:CE:39:GLY:O	2.11	0.51
11:CL:17:LYS:N	11:CL:17:LYS:HZ2	2.09	0.51
13:CN:61:ASN:HB3	13:CN:72:PHE:CE2	2.46	0.51
14:CO:52:ARG:HG3	14:CO:56:LEU:HD13	1.93	0.51
21:CU:43:GLU:HA	21:CU:46:ARG:NE	2.26	0.51
22:DA:42:C:C6	28:DF:65:LEU:HD13	2.46	0.51
23:DB:464:U:H2'	23:DB:465:G:O4'	2.11	0.51
23:DB:855:G:H21	43:DW:23:LYS:CG	2.15	0.51
23:DB:1046:A:H3'	23:DB:1047:G:C5'	2.41	0.51
23:DB:1319:C:O2'	23:DB:1320:C:H5'	2.11	0.51
23:DB:1726:C:H2'	23:DB:1727:C:C6	2.46	0.51
23:DB:2070:A:H2'	23:DB:2071:A:C8	2.46	0.51
23:DB:2514:U:H2'	23:DB:2515:C:C6	2.46	0.51
23:DB:2634:A:H2'	23:DB:2635:A:H8	1.76	0.51
25:DC:115:ILE:HA	25:DC:124:LYS:NZ	2.26	0.51
26:DD:10:GLY:HA2	37:DP:4:ILE:HD11	1.91	0.51
26:DD:34:VAL:HG12	26:DD:94:GLN:H	1.75	0.51
29:DG:33:THR:C	29:DG:34:ARG:HD3	2.36	0.51
32:DK:47:ILE:CG1	32:DK:48:PRO:HD2	2.36	0.51
32:DK:115:ILE:HG23	32:DK:116:ILE:N	2.26	0.51
35:DN:115:LEU:O	35:DN:117:ASP:N	2.44	0.51
36:DO:36:TYR:HA	36:DO:52:SER:HB3	1.92	0.51
36:DO:93:ASP:C	36:DO:95:SER:H	2.16	0.51
38:DQ:59:LEU:HD13	38:DQ:60:TRP:N	2.26	0.51
39:DR:49:ILE:HD12	39:DR:49:ILE:O	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DU:11:ILE:O	42:DU:11:ILE:HD13	2.11	0.51
43:DW:23:LYS:NZ	43:DW:24:ARG:HG3	2.26	0.51
1:AA:620:C:C2	3:AD:131:ILE:HG21	2.46	0.51
1:AA:663:A:O2'	1:AA:664:G:H5'	2.11	0.51
1:AA:1302:C:H4'	1:AA:1303:C:OP2	2.10	0.51
1:AA:1432:G:C5'	37:BP:105:LYS:HG2	2.31	0.51
3:AD:72:ARG:HD3	3:AD:203:TYR:CZ	2.45	0.51
6:AG:126:ALA:HA	6:AG:134:VAL:HG13	1.92	0.51
7:AH:27:PRO:HA	7:AH:56:PRO:O	2.11	0.51
10:AK:28:ASN:HD21	10:AK:47:GLY:H	1.59	0.51
12:AM:3:ILE:HD12	12:AM:9:PRO:HD2	1.93	0.51
20:AB:95:TRP:HH2	20:AB:100:LEU:HB2	1.76	0.51
23:BB:263:G:H2'	23:BB:264:C:O4'	2.11	0.51
23:BB:1120:G:O2'	23:BB:1121:C:H5'	2.11	0.51
23:BB:1335:C:H2'	23:BB:1336:A:C8	2.46	0.51
23:BB:1863:G:H2'	23:BB:1864:U:O4'	2.10	0.51
23:BB:2597:G:H5'	25:BC:240:GLY:HA3	1.93	0.51
23:BB:2630:G:H2'	23:BB:2631:G:H8	1.76	0.51
25:BC:128:THR:CA	25:BC:190:THR:HG22	2.35	0.51
26:BD:8:LYS:HG2	26:BD:197:THR:H	1.76	0.51
28:BF:91:ARG:HD3	28:BF:91:ARG:N	2.26	0.51
28:BF:122:ASP:OD2	28:BF:126:ASN:HB2	2.10	0.51
30:BH:73:ASN:ND2	30:BH:73:ASN:N	2.57	0.51
32:BK:26:GLY:O	32:BK:30:ARG:HD2	2.10	0.51
39:BR:49:ILE:HD12	39:BR:49:ILE:O	2.11	0.51
43:BW:17:ALA:HB1	43:BW:37:VAL:H	1.76	0.51
43:BW:48:ALA:HB3	43:BW:81:ILE:HG13	1.93	0.51
45:BY:20:LYS:HA	45:BY:23:LEU:HB2	1.93	0.51
52:BI:33:ASN:HD21	52:BI:64:ARG:NH1	2.03	0.51
1:CA:176:C:H3'	1:CA:177:G:H21	1.76	0.51
1:CA:254:G:O2'	1:CA:255:G:H5'	2.11	0.51
1:CA:565:U:H3'	1:CA:566:G:H2'	1.92	0.51
1:CA:791:G:C6	1:CA:792:A:N7	2.79	0.51
1:CA:1136:C:OP1	1:CA:1136:C:H3'	2.10	0.51
2:CC:171:ARG:HB2	2:CC:171:ARG:NH1	2.25	0.51
8:CI:55:ASP:HB2	8:CI:59:LYS:HG3	1.93	0.51
15:CP:39:PHE:CG	15:CP:40:ASN:N	2.78	0.51
16:CQ:30:HIS:HB3	16:CQ:33:TYR:HB2	1.93	0.51
20:CB:16:GLY:HA2	20:CB:40:ILE:HG13	1.93	0.51
22:DA:51:G:OP1	36:DO:63:LYS:HE3	2.11	0.51
23:DB:1098:A:C3'	52:DI:4:VAL:N	2.73	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1242:U:H2'	23:DB:1243:C:C6	2.46	0.51
23:DB:1584:U:H5''	23:DB:1585:C:C5	2.46	0.51
23:DB:1827:U:C2'	23:DB:1828:G:H5'	2.41	0.51
23:DB:2258:C:H5'	23:DB:2259:U:C5	2.40	0.51
23:DB:2283:C:H5''	23:DB:2389:G:O2'	2.11	0.51
23:DB:2394:C:H2'	23:DB:2395:C:C6	2.46	0.51
23:DB:2408:U:O2'	23:DB:2409:G:H5'	2.11	0.51
23:DB:2460:U:O5'	23:DB:2460:U:H6	1.93	0.51
25:DC:136:VAL:HG12	25:DC:137:GLY:N	2.26	0.51
26:DD:151:THR:HB	26:DD:152:PRO:HD3	1.93	0.51
29:DG:123:GLU:O	29:DG:125:PRO:HD3	2.11	0.51
30:DH:94:ILE:HG22	30:DH:122:LEU:CB	2.40	0.51
30:DH:103:VAL:HG22	30:DH:108:VAL:O	2.11	0.51
31:DJ:58:ASN:C	31:DJ:60:ASP:H	2.18	0.51
32:DK:43:ILE:CG2	32:DK:46:ALA:HB2	2.41	0.51
32:DK:105:ARG:HD2	32:DK:105:ARG:H	1.76	0.51
36:DO:58:ILE:O	36:DO:62:LEU:HB2	2.11	0.51
39:DR:7:SER:HB2	39:DR:22:LEU:CB	2.40	0.51
40:DS:23:LEU:HD21	47:D0:21:LEU:HB3	1.92	0.51
40:DS:41:LYS:O	40:DS:42:LYS:C	2.54	0.51
41:DT:38:ALA:HB3	41:DT:81:LYS:HZ3	1.74	0.51
44:DX:26:PHE:HD1	44:DX:27:ASN:ND2	2.07	0.51
52:DI:85:ILE:HD12	52:DI:87:SER:O	2.10	0.51
1:AA:512:U:H2'	1:AA:513:C:H6	1.75	0.51
1:AA:772:U:H2'	1:AA:773:G:C8	2.46	0.51
1:AA:807:A:H2'	1:AA:808:C:C6	2.45	0.51
1:AA:1225:A:H5'	1:AA:1226:C:OP2	2.11	0.51
1:AA:1352:C:H2'	1:AA:1353:G:C8	2.46	0.51
1:AA:1448:C:H2'	1:AA:1449:C:H6	1.76	0.51
4:AE:77:ASN:CG	4:AE:78:GLY:H	2.17	0.51
5:AF:21:MET:HB3	5:AF:25:TYR:CZ	2.46	0.51
8:AI:120:ALA:O	8:AI:121:ARG:HG2	2.11	0.51
11:AL:113:ARG:HE	11:AL:120:ARG:HA	1.75	0.51
13:AN:2:LYS:O	13:AN:6:LYS:HG3	2.11	0.51
13:AN:50:LEU:HD23	13:AN:51:PRO:HD3	1.93	0.51
19:AT:2:ASN:CG	19:AT:3:ILE:N	2.69	0.51
20:AB:143:LEU:HB3	20:AB:147:LEU:HD12	1.93	0.51
22:BA:60:C:H2'	22:BA:61:G:H8	1.76	0.51
23:BB:4:U:H2'	23:BB:5:A:H8	1.76	0.51
23:BB:674:G:H4'	27:BE:69:ARG:HB3	1.92	0.51
23:BB:1149:G:H2'	23:BB:1150:C:H6	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1324:G:C6	23:BB:1331:G:C6	2.98	0.51
23:BB:2101:A:H3'	23:BB:2102:G:H5''	1.92	0.51
23:BB:2405:G:H1'	23:BB:2412:A:H61	1.76	0.51
23:BB:2529:G:H4'	29:BG:174:LYS:HB2	1.91	0.51
24:BV:16:ALA:CA	24:BV:19:ARG:HH21	2.25	0.51
25:BC:35:LYS:HG2	25:BC:36:ASN:N	2.23	0.51
26:BD:116:LYS:HD2	26:BD:123:LYS:HE2	1.93	0.51
31:BJ:58:ASN:C	31:BJ:60:ASP:H	2.18	0.51
32:BK:79:PHE:HD2	37:BP:69:VAL:HG12	1.75	0.51
32:BK:120:PRO:HA	37:BP:65:ASN:ND2	2.25	0.51
34:BM:105:MET:HE3	34:BM:117:PHE:CZ	2.46	0.51
35:BN:55:ALA:HA	35:BN:80:PHE:CE1	2.46	0.51
36:BO:111:ARG:HG2	36:BO:117:PHE:CZ	2.46	0.51
39:BR:4:VAL:O	39:BR:38:VAL:HA	2.11	0.51
39:BR:22:LEU:HD12	39:BR:25:LEU:HD23	1.91	0.51
41:BT:10:VAL:HG21	41:BT:42:GLU:HG3	1.92	0.51
46:BZ:2:SER:O	46:BZ:4:VAL:HG13	2.10	0.51
51:B4:15:LYS:O	51:B4:16:ILE:HB	2.11	0.51
1:CA:79:G:H2'	1:CA:80:A:H8	1.75	0.51
1:CA:612:C:H2'	1:CA:613:C:C6	2.46	0.51
1:CA:734:G:H2'	1:CA:735:C:C6	2.45	0.51
1:CA:1238:A:H5'	1:CA:1336:C:N4	2.26	0.51
1:CA:1471:U:O2'	1:CA:1472:U:H5'	2.10	0.51
1:CA:1515:G:O2'	1:CA:1516:G:H5'	2.11	0.51
3:CD:192:ALA:C	3:CD:194:ILE:H	2.18	0.51
8:CI:25:GLY:HA3	8:CI:57:VAL:HA	1.92	0.51
20:CB:69:VAL:HB	20:CB:162:VAL:CG2	2.40	0.51
23:DB:460:A:H4'	41:DT:72:GLN:HB2	1.92	0.51
23:DB:1098:A:C4	52:DI:3:LYS:O	2.63	0.51
23:DB:1245:G:OP1	33:DL:13:LYS:HE3	2.11	0.51
23:DB:1742:U:H2'	23:DB:1743:G:C8	2.45	0.51
23:DB:1792:G:P	25:DC:204:LEU:HD12	2.51	0.51
23:DB:2269:G:H4'	43:DW:19:ARG:NH1	2.20	0.51
25:DC:91:ALA:CB	25:DC:105:ALA:HB2	2.40	0.51
26:DD:10:GLY:O	26:DD:11:MET:HB2	2.11	0.51
28:DF:62:GLN:HB2	28:DF:91:ARG:HH11	1.75	0.51
31:DJ:25:LEU:O	31:DJ:27:ARG:N	2.43	0.51
31:DJ:44:TYR:O	31:DJ:45:THR:HB	2.10	0.51
31:DJ:64:VAL:HG22	31:DJ:68:LYS:HD3	1.93	0.51
33:DL:2:ARG:HG2	33:DL:2:ARG:O	2.10	0.51
33:DL:110:VAL:HG23	33:DL:126:ARG:O	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DL:124:GLY:N	33:DL:143:GLU:HG3	2.24	0.51
33:DL:135:ILE:HG12	33:DL:140:GLY:CA	2.40	0.51
35:DN:61:ALA:C	35:DN:63:ARG:H	2.19	0.51
41:DT:61:LEU:C	41:DT:61:LEU:HD12	2.36	0.51
1:AA:584:G:O2'	1:AA:585:G:H5'	2.11	0.50
1:AA:658:C:H2'	1:AA:659:U:C6	2.45	0.50
1:AA:1283:U:H2'	1:AA:1284:C:C6	2.46	0.50
1:AA:1361:G:C2'	1:AA:1362:A:H5''	2.39	0.50
1:AA:1417:G:N2	1:AA:1482:G:H2'	2.25	0.50
1:AA:1500:A:H2'	1:AA:1501:C:H5'	1.93	0.50
4:AE:132:PRO:O	4:AE:136:VAL:HG12	2.11	0.50
5:AF:51:ILE:HD11	5:AF:86:ARG:HG3	1.93	0.50
6:AG:20:GLU:O	6:AG:23:ALA:HB3	2.11	0.50
7:AH:55:LYS:HA	7:AH:55:LYS:NZ	2.27	0.50
8:AI:25:GLY:HA3	8:AI:57:VAL:HA	1.93	0.50
13:AN:16:ALA:HA	13:AN:20:PHE:HB2	1.93	0.50
15:AP:43:ALA:HA	15:AP:46:LYS:HE3	1.93	0.50
20:AB:23:ASN:HD22	20:AB:24:PRO:CD	2.23	0.50
20:AB:212:TYR:O	20:AB:216:VAL:HG22	2.10	0.50
22:BA:7:G:O2'	22:BA:8:C:H5'	2.10	0.50
23:BB:79:C:HO2'	23:BB:346:A:H1'	1.75	0.50
23:BB:184:C:H2'	23:BB:185:G:C8	2.45	0.50
23:BB:307:G:N2	23:BB:309:A:H3'	2.25	0.50
23:BB:521:U:H2'	23:BB:522:A:H8	1.74	0.50
23:BB:718:A:H5'	23:BB:719:C:C5	2.46	0.50
23:BB:794:A:H2'	23:BB:795:C:C6	2.46	0.50
23:BB:1023:U:H2'	23:BB:1024:G:H5'	1.93	0.50
23:BB:1744:A:H2'	23:BB:1745:A:C8	2.46	0.50
23:BB:1872:A:H8	23:BB:1872:A:O5'	1.95	0.50
23:BB:2721:A:H2'	23:BB:2722:G:H8	1.76	0.50
26:BD:148:GLN:HG3	26:BD:152:PRO:CB	2.41	0.50
29:BG:8:VAL:HG11	29:BG:49:LEU:CB	2.34	0.50
30:BH:130:VAL:O	30:BH:142:VAL:HB	2.11	0.50
39:BR:60:LYS:N	39:BR:100:GLY:HA3	2.24	0.50
39:BR:62:GLU:O	39:BR:96:VAL:HA	2.10	0.50
40:BS:29:VAL:HG11	40:BS:55:ILE:CD1	2.37	0.50
52:BI:49:GLU:CG	52:BI:54:ILE:HD11	2.41	0.50
1:CA:317:U:H2'	1:CA:318:G:H8	1.75	0.50
1:CA:458:U:H2'	1:CA:459:A:H8	1.76	0.50
1:CA:493:A:H3'	1:CA:494:G:C8	2.46	0.50
1:CA:784:A:H2'	1:CA:785:G:H8	1.75	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1229:A:H2'	1:CA:1230:C:C6	2.46	0.50
1:CA:1283:U:H2'	1:CA:1284:C:C6	2.45	0.50
1:CA:1484:C:H2'	1:CA:1485:U:O4'	2.11	0.50
2:CC:178:ARG:HG2	2:CC:206:ILE:HA	1.93	0.50
5:CF:69:GLU:OE1	5:CF:70:VAL:HG13	2.11	0.50
6:CG:13:PRO:O	6:CG:14:ASP:C	2.53	0.50
8:CI:71:ILE:HD12	8:CI:71:ILE:N	2.24	0.50
9:CJ:44:THR:HG23	9:CJ:69:THR:O	2.11	0.50
10:CK:110:THR:HA	21:CU:3:ILE:O	2.12	0.50
10:CK:111:ASP:HB2	21:CU:19:LYS:HE3	1.91	0.50
13:CN:50:LEU:HD23	13:CN:51:PRO:HD3	1.92	0.50
13:CN:97:LYS:HZ3	13:CN:97:LYS:HB3	1.76	0.50
14:CO:42:PHE:CE1	14:CO:55:LEU:HD22	2.46	0.50
18:CS:6:LYS:O	18:CS:8:PRO:HD3	2.10	0.50
18:CS:20:LYS:O	18:CS:23:GLU:HG3	2.11	0.50
23:DB:212:G:H2'	23:DB:213:A:H8	1.76	0.50
23:DB:623:C:H2'	23:DB:624:C:C6	2.46	0.50
23:DB:815:C:OP2	39:DR:85:LYS:HE2	2.11	0.50
23:DB:917:A:C2	23:DB:918:A:H1'	2.46	0.50
23:DB:942:G:H2'	23:DB:943:A:H8	1.76	0.50
23:DB:1099:G:O2'	23:DB:1100:C:H5'	2.11	0.50
23:DB:1401:G:H2'	23:DB:1402:U:C6	2.46	0.50
23:DB:1430:G:H2'	23:DB:1431:A:O4'	2.10	0.50
23:DB:1509:A:H5''	23:DB:1509:A:C8	2.46	0.50
23:DB:2838:G:H2'	23:DB:2839:G:H8	1.76	0.50
23:DB:2885:G:H2'	23:DB:2886:A:C4'	2.41	0.50
25:DC:43:ASN:HD22	25:DC:44:ASN:H	1.59	0.50
25:DC:171:VAL:HG23	25:DC:185:ALA:HB2	1.92	0.50
26:DD:8:LYS:HB2	26:DD:201:LEU:HD11	1.93	0.50
26:DD:35:THR:OG1	26:DD:49:GLN:HG2	2.11	0.50
27:DE:32:VAL:HG23	27:DE:33:VAL:N	2.25	0.50
28:DF:86:CYS:O	28:DF:88:VAL:HG23	2.12	0.50
29:DG:148:ARG:HD3	29:DG:152:ARG:NE	2.26	0.50
30:DH:48:GLU:CB	30:DH:51:ARG:HH21	2.15	0.50
31:DJ:44:TYR:CD2	31:DJ:44:TYR:C	2.89	0.50
32:DK:8:LEU:HD12	32:DK:8:LEU:H	1.76	0.50
32:DK:17:ARG:HB3	32:DK:45:GLU:CG	2.40	0.50
32:DK:79:PHE:CD1	32:DK:79:PHE:N	2.78	0.50
33:DL:29:LYS:C	33:DL:31:GLY:H	2.19	0.50
34:DM:40:ARG:HB3	34:DM:95:LEU:HD12	1.92	0.50
38:DQ:94:LEU:HD12	39:DR:13:ARG:HB2	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DS:84:ARG:HB3	40:DS:96:ILE:HG23	1.93	0.50
42:DU:11:ILE:HA	42:DU:21:ARG:HG2	1.93	0.50
44:DX:17:GLU:HB3	44:DX:53:VAL:CG1	2.40	0.50
51:D4:10:LEU:HD22	51:D4:33:HIS:CD2	2.46	0.50
1:AA:394:G:H2'	1:AA:395:C:H6	1.75	0.50
1:AA:448:A:H2'	1:AA:449:G:C8	2.46	0.50
1:AA:464:U:H2'	1:AA:466:A:OP2	2.11	0.50
1:AA:575:G:H4'	1:AA:576:C:O5'	2.11	0.50
1:AA:586:C:H5''	7:AH:81:GLY:HA2	1.93	0.50
1:AA:627:G:H2'	1:AA:628:G:C8	2.47	0.50
1:AA:708:C:O2'	1:AA:709:U:H5'	2.10	0.50
1:AA:1314:C:H3'	18:AS:5:LYS:NZ	2.26	0.50
1:AA:1434:A:H2'	1:AA:1435:G:C8	2.46	0.50
3:AD:123:MET:HE2	3:AD:144:ILE:O	2.11	0.50
3:AD:162:GLU:C	3:AD:164:ARG:H	2.19	0.50
8:AI:78:ILE:HG22	8:AI:82:ILE:HD11	1.93	0.50
9:AJ:8:ILE:HD12	9:AJ:8:ILE:N	2.25	0.50
14:AO:55:LEU:O	14:AO:59:VAL:HG23	2.11	0.50
22:BA:43:C:O2'	28:BF:91:ARG:HD2	2.11	0.50
23:BB:122:G:O2'	23:BB:123:G:H5'	2.11	0.50
23:BB:200:U:O2'	46:BZ:22:LEU:HD12	2.11	0.50
23:BB:257:C:H2'	23:BB:258:G:O4'	2.10	0.50
23:BB:693:A:H2'	23:BB:694:U:C6	2.47	0.50
23:BB:968:C:H2'	23:BB:969:G:C8	2.44	0.50
23:BB:1458:U:C2'	23:BB:1459:G:H5''	2.41	0.50
23:BB:1799:G:C5	25:BC:175:LEU:HD13	2.46	0.50
23:BB:1857:G:H2'	23:BB:1884:G:H22	1.75	0.50
23:BB:1998:A:OP2	26:BD:141:ARG:NH2	2.43	0.50
23:BB:2460:U:H6	23:BB:2460:U:O5'	1.94	0.50
23:BB:2674:G:H4'	32:BK:30:ARG:HG3	1.93	0.50
28:BF:71:LYS:O	28:BF:72:SER:HB3	2.11	0.50
29:BG:140:ILE:HA	29:BG:143:VAL:CG2	2.41	0.50
30:BH:14:SER:C	30:BH:16:GLY:H	2.20	0.50
32:BK:115:ILE:HG23	32:BK:116:ILE:N	2.26	0.50
33:BL:95:LEU:H	33:BL:95:LEU:HD12	1.76	0.50
33:BL:131:ALA:O	33:BL:134:ALA:HB3	2.12	0.50
34:BM:42:THR:O	34:BM:45:GLN:HB2	2.12	0.50
35:BN:114:GLU:CD	35:BN:118:ARG:HH11	2.19	0.50
40:BS:41:LYS:O	40:BS:42:LYS:C	2.54	0.50
1:CA:547:A:H4'	1:CA:548:G:O5'	2.11	0.50
1:CA:586:C:O2'	1:CA:878:A:H4'	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:807:A:H2'	1:CA:808:C:C6	2.47	0.50
1:CA:974:A:OP1	1:CA:974:A:H8	1.93	0.50
1:CA:1101:A:H4'	1:CA:1102:A:O5'	2.11	0.50
1:CA:1500:A:H2'	1:CA:1501:C:H5'	1.93	0.50
2:CC:96:VAL:HB	2:CC:97:PRO:HD2	1.93	0.50
2:CC:161:ILE:HD12	2:CC:161:ILE:N	2.26	0.50
4:CE:35:LEU:HD22	4:CE:133:ILE:HA	1.94	0.50
4:CE:87:VAL:HG23	4:CE:92:ARG:HA	1.93	0.50
5:CF:52:ASN:HA	5:CF:53:LYS:HZ3	1.76	0.50
14:CO:30:LEU:HD23	14:CO:30:LEU:C	2.36	0.50
16:CQ:39:ARG:HG3	16:CQ:39:ARG:HH11	1.75	0.50
20:CB:83:ALA:HA	20:CB:88:GLN:NE2	2.26	0.50
20:CB:143:LEU:HB3	20:CB:147:LEU:HD12	1.94	0.50
23:DB:230:G:H2'	23:DB:231:A:H8	1.75	0.50
23:DB:832:U:O2	33:DL:52:GLY:HA2	2.11	0.50
23:DB:1930:G:H2'	23:DB:1968:G:N1	2.26	0.50
23:DB:2544:G:O2'	23:DB:2545:G:H5'	2.11	0.50
23:DB:2567:G:H2'	23:DB:2568:U:C6	2.46	0.50
23:DB:2798:U:H5''	23:DB:2799:A:OP1	2.11	0.50
23:DB:2811:G:O2'	23:DB:2812:G:H5'	2.11	0.50
23:DB:2875:C:H2'	23:DB:2876:G:C8	2.46	0.50
25:DC:128:THR:CA	25:DC:190:THR:HG22	2.36	0.50
25:DC:209:ALA:HA	25:DC:212:TRP:CE2	2.47	0.50
27:DE:1:MET:HB3	27:DE:14:VAL:O	2.11	0.50
27:DE:48:THR:HG23	27:DE:51:GLU:OE2	2.10	0.50
30:DH:114:GLU:CB	30:DH:133:GLN:HG3	2.40	0.50
31:DJ:57:LEU:CD2	31:DJ:128:ASN:HA	2.40	0.50
32:DK:4:GLU:OE2	32:DK:23:LYS:HD2	2.11	0.50
36:DO:111:ARG:HG2	36:DO:117:PHE:CZ	2.47	0.50
37:DP:112:ARG:NH1	37:DP:112:ARG:HB2	2.27	0.50
42:DU:80:ASP:HB2	42:DU:95:PHE:HD2	1.75	0.50
45:DY:37:ARG:HG2	45:DY:43:ILE:CD1	2.42	0.50
46:DZ:53:ALA:C	46:DZ:55:GLY:H	2.19	0.50
1:AA:239:U:H6	1:AA:239:U:H5'	1.74	0.50
1:AA:734:G:H2'	1:AA:735:C:H6	1.76	0.50
1:AA:1006:G:H2'	1:AA:1007:U:C6	2.46	0.50
1:AA:1097:C:H2'	1:AA:1098:C:C6	2.46	0.50
1:AA:1150:A:H4'	9:AJ:43:PRO:HB3	1.94	0.50
1:AA:1150:A:O2'	1:AA:1151:A:H5'	2.12	0.50
1:AA:1379:G:O2'	1:AA:1380:U:H5'	2.11	0.50
1:AA:1493:A:H1'	54:AA:2059:HYG:N36	2.19	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1515:G:O2'	1:AA:1516:G:H5'	2.11	0.50
1:AA:1521:C:H2'	1:AA:1522:U:H6	1.75	0.50
2:AC:57:GLU:O	2:AC:63:ILE:HA	2.10	0.50
12:AM:15:VAL:O	12:AM:19:THR:HG23	2.11	0.50
15:AP:39:PHE:CG	15:AP:40:ASN:N	2.79	0.50
20:AB:116:LEU:HA	20:AB:119:GLN:HG3	1.93	0.50
21:AU:20:ARG:N	21:AU:20:ARG:HD2	2.27	0.50
23:BB:41:C:H2'	23:BB:42:A:C8	2.45	0.50
23:BB:137:U:H2'	23:BB:138:U:O4'	2.10	0.50
23:BB:163:C:O4'	23:BB:163:C:O2	2.25	0.50
23:BB:201:C:H1'	23:BB:250:G:O6	2.11	0.50
23:BB:305:C:H2'	23:BB:306:U:C6	2.45	0.50
23:BB:839:U:H1'	23:BB:1191:G:H1'	1.94	0.50
23:BB:850:U:O2'	45:BY:22:THR:HG22	2.11	0.50
23:BB:1197:G:H2'	23:BB:1198:U:H6	1.75	0.50
23:BB:1439:A:N7	23:BB:1440:U:N1	2.59	0.50
23:BB:1838:C:H4'	23:BB:1839:G:H8	1.76	0.50
23:BB:1881:C:H2'	23:BB:1882:U:O4'	2.10	0.50
23:BB:2137:U:H2'	23:BB:2138:G:O4'	2.11	0.50
23:BB:2189:U:O2'	23:BB:2190:G:H5'	2.12	0.50
23:BB:2298:A:H2'	23:BB:2299:U:O4'	2.12	0.50
23:BB:2657:A:H2'	23:BB:2658:C:O4'	2.10	0.50
23:BB:2684:U:H2'	23:BB:2685:G:O4'	2.11	0.50
23:BB:2747:G:H2'	23:BB:2748:A:C8	2.46	0.50
23:BB:2867:G:N3	23:BB:2867:G:C2'	2.74	0.50
24:BV:51:GLN:HB2	24:BV:57:TYR:OH	2.10	0.50
25:BC:43:ASN:HD22	25:BC:44:ASN:H	1.59	0.50
25:BC:161:VAL:O	25:BC:162:GLN:HB2	2.11	0.50
29:BG:26:LYS:HG2	29:BG:27:GLY:N	2.25	0.50
30:BH:72:ILE:HG13	30:BH:75:LEU:HD21	1.92	0.50
31:BJ:57:LEU:CD2	31:BJ:128:ASN:HA	2.41	0.50
42:BU:21:ARG:HG3	42:BU:21:ARG:HH11	1.76	0.50
43:BW:17:ALA:HA	43:BW:35:ILE:CG2	2.40	0.50
45:BY:23:LEU:CD1	45:BY:28:LEU:HB2	2.41	0.50
52:BI:11:GLN:O	52:BI:11:GLN:HG3	2.10	0.50
52:BI:23:VAL:HG23	52:BI:24:GLY:H	1.76	0.50
1:CA:34:C:H2'	1:CA:35:G:H8	1.76	0.50
1:CA:663:A:O3'	17:CR:52:ARG:NH2	2.43	0.50
1:CA:720:C:OP1	17:CR:40:PRO:HG3	2.11	0.50
1:CA:1017:U:H2'	1:CA:1018:G:C8	2.45	0.50
1:CA:1258:G:O2'	1:CA:1259:C:H5'	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1314:C:H3'	18:CS:5:LYS:HZ2	1.77	0.50
4:CE:35:LEU:HD21	4:CE:136:VAL:HG11	1.93	0.50
7:CH:7:ALA:O	7:CH:11:THR:HG23	2.11	0.50
10:CK:33:ILE:HG12	10:CK:69:CYS:SG	2.51	0.50
20:CB:145:ASN:N	20:CB:145:ASN:ND2	2.54	0.50
22:DA:60:C:H2'	22:DA:61:G:H8	1.77	0.50
23:DB:358:U:H2'	23:DB:359:G:C8	2.46	0.50
23:DB:425:G:O2'	23:DB:426:C:H5'	2.12	0.50
23:DB:591:U:H1'	50:D3:1:PRO:H2	1.76	0.50
23:DB:920:A:H2'	23:DB:921:C:H6	1.76	0.50
23:DB:1140:C:H2'	23:DB:1141:U:H5'	1.94	0.50
23:DB:1197:G:O2'	23:DB:1198:U:H5'	2.12	0.50
23:DB:1881:C:H2'	23:DB:1882:U:O4'	2.12	0.50
23:DB:2391:G:HO2'	23:DB:2424:C:H41	1.59	0.50
23:DB:2515:C:H2'	23:DB:2516:A:H8	1.76	0.50
23:DB:2543:G:H2'	23:DB:2544:G:C8	2.46	0.50
24:DV:16:ALA:CA	24:DV:19:ARG:HH21	2.24	0.50
26:DD:114:LYS:HZ2	26:DD:116:LYS:CG	2.25	0.50
30:DH:48:GLU:HA	30:DH:51:ARG:NE	2.26	0.50
30:DH:113:SER:N	30:DH:132:PHE:CZ	2.79	0.50
32:DK:107:LEU:C	32:DK:109:SER:H	2.20	0.50
41:DT:4:GLU:OE1	41:DT:5:GLU:HG2	2.11	0.50
42:DU:94:PHE:HA	42:DU:101:THR:HA	1.93	0.50
43:DW:9:THR:HG23	43:DW:10:ARG:CD	2.34	0.50
43:DW:27:GLY:O	43:DW:63:ASP:HA	2.11	0.50
44:DX:13:GLU:HA	44:DX:16:THR:OG1	2.11	0.50
48:D1:6:GLU:HB2	48:D1:52:LYS:HZ3	1.77	0.50
1:AA:531:U:H3	1:AA:1208:C:C5'	2.24	0.50
1:AA:720:C:OP1	17:AR:40:PRO:HG3	2.12	0.50
1:AA:974:A:H8	1:AA:974:A:OP1	1.95	0.50
1:AA:1074:G:C4'	20:AB:102:ASN:HB2	2.42	0.50
1:AA:1291:U:H2'	1:AA:1292:G:C8	2.46	0.50
1:AA:1389:C:H2'	1:AA:1390:U:C6	2.47	0.50
3:AD:48:SER:O	3:AD:52:VAL:HG23	2.11	0.50
5:AF:51:ILE:O	5:AF:51:ILE:HG23	2.11	0.50
6:AG:74:VAL:HG12	6:AG:87:PRO:HB3	1.93	0.50
7:AH:17:GLN:OE1	7:AH:69:ALA:HB1	2.11	0.50
8:AI:32:ARG:NH1	8:AI:37:TYR:HA	2.27	0.50
10:AK:106:ILE:HG13	10:AK:107:THR:N	2.22	0.50
11:AL:42:LYS:HB3	11:AL:44:PRO:HD2	1.93	0.50
14:AO:16:ARG:HH11	14:AO:16:ARG:HA	1.75	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AP:12:LYS:HD2	15:AP:13:LYS:HG3	1.93	0.50
20:AB:46:VAL:O	20:AB:49:PHE:HB2	2.12	0.50
20:AB:68:PHE:HE1	20:AB:88:GLN:HB3	1.77	0.50
22:BA:109:A:H2'	22:BA:110:C:O4'	2.11	0.50
23:BB:58:G:N3	23:BB:73:A:H2	2.09	0.50
23:BB:175:G:O2'	23:BB:176:A:H5'	2.11	0.50
23:BB:1820:U:H4'	23:BB:1821:A:OP2	2.12	0.50
23:BB:1886:U:H2'	23:BB:1887:C:C6	2.46	0.50
23:BB:2450:A:O2'	23:BB:2451:A:H5'	2.11	0.50
23:BB:2811:G:O2'	23:BB:2812:G:H5'	2.10	0.50
23:BB:2849:U:N3	23:BB:2867:G:C8	2.79	0.50
25:BC:136:VAL:HG12	25:BC:137:GLY:N	2.26	0.50
25:BC:221:GLY:O	25:BC:224:MET:HG3	2.11	0.50
28:BF:162:ASP:C	28:BF:166:ARG:HH11	2.19	0.50
29:BG:102:ILE:HG13	29:BG:116:LEU:HD11	1.94	0.50
31:BJ:64:VAL:O	31:BJ:68:LYS:HD2	2.11	0.50
35:BN:117:ASP:C	35:BN:117:ASP:OD2	2.55	0.50
36:BO:110:ALA:HA	36:BO:113:ALA:HB3	1.93	0.50
38:BQ:89:ILE:C	38:BQ:91:ARG:H	2.19	0.50
38:BQ:90:ASP:O	38:BQ:94:LEU:HB2	2.10	0.50
40:BS:24:ILE:CD1	40:BS:36:LEU:HD21	2.41	0.50
41:BT:39:THR:O	41:BT:39:THR:HG23	2.10	0.50
42:BU:78:LYS:CD	42:BU:79:ALA:H	2.24	0.50
43:BW:23:LYS:CG	43:BW:24:ARG:N	2.75	0.50
43:BW:46:ALA:HB2	43:BW:78:PHE:HD1	1.76	0.50
1:CA:538:G:OP2	11:CL:111:GLN:HB2	2.11	0.50
1:CA:560:A:H4'	1:CA:561:U:H5''	1.92	0.50
1:CA:779:C:H5''	10:CK:123:PRO:HB3	1.93	0.50
1:CA:957:U:O2	1:CA:959:A:H8	1.94	0.50
1:CA:1029:U:O3'	1:CA:1030:U:H3'	2.11	0.50
1:CA:1124:G:H5''	9:CJ:37:ARG:O	2.12	0.50
1:CA:1125:U:HO2'	1:CA:1126:U:H2'	1.75	0.50
1:CA:1150:A:H4'	9:CJ:43:PRO:HB3	1.93	0.50
1:CA:1151:A:O2'	1:CA:1152:A:H8	1.94	0.50
1:CA:1220:G:H2'	1:CA:1221:G:H8	1.76	0.50
2:CC:106:ARG:HH11	2:CC:106:ARG:HG2	1.77	0.50
6:CG:29:LEU:O	6:CG:29:LEU:HD23	2.11	0.50
6:CG:42:VAL:O	6:CG:46:LEU:HB2	2.11	0.50
8:CI:52:GLU:O	8:CI:53:LEU:HD13	2.11	0.50
10:CK:70:ALA:C	10:CK:72:ALA:N	2.69	0.50
11:CL:33:CYS:H	11:CL:54:VAL:HG13	1.75	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:CR:23:LYS:HG3	17:CR:24:ASP:N	2.26	0.50
18:CS:39:ILE:HG21	18:CS:61:VAL:HG13	1.93	0.50
21:CU:26:GLY:C	21:CU:28:LEU:H	2.18	0.50
22:DA:7:G:O2'	22:DA:8:C:H5'	2.11	0.50
23:DB:588:U:H2'	23:DB:589:U:C6	2.46	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:H6	1.75	0.50
23:DB:1796:U:O2'	23:DB:1797:G:H5'	2.11	0.50
23:DB:1858:A:H2'	23:DB:1859:U:O4'	2.11	0.50
23:DB:2072:C:O2'	23:DB:2073:C:H5'	2.11	0.50
23:DB:2421:G:N7	50:D3:30:HIS:NE2	2.58	0.50
23:DB:2849:U:H4'	23:DB:2850:A:H5'	1.93	0.50
23:DB:2872:A:H1'	23:DB:2873:A:C8	2.46	0.50
25:DC:173:LEU:HD13	25:DC:173:LEU:N	2.25	0.50
25:DC:246:PRO:HB2	25:DC:247:TRP:CZ3	2.46	0.50
27:DE:170:ARG:NH2	27:DE:176:ASP:HB2	2.26	0.50
32:DK:10:VAL:HG21	32:DK:16:ALA:HA	1.92	0.50
33:DL:47:ARG:HB3	33:DL:47:ARG:HH21	1.76	0.50
39:DR:43:ASN:CG	39:DR:45:GLU:H	2.18	0.50
1:AA:137:U:H2'	1:AA:138:G:H8	1.75	0.50
1:AA:193:C:H2'	1:AA:194:C:H6	1.75	0.50
1:AA:600:A:OP2	7:AH:87:ARG:HG2	2.11	0.50
1:AA:602:A:O2'	1:AA:603:U:H5'	2.11	0.50
1:AA:634:C:H2'	1:AA:635:A:H8	1.76	0.50
1:AA:1243:C:O2'	1:AA:1244:G:H5'	2.11	0.50
1:AA:1500:A:C2'	1:AA:1501:C:H5'	2.41	0.50
3:AD:7:LYS:HB2	3:AD:21:LYS:HE2	1.94	0.50
5:AF:18:VAL:HG21	5:AF:58:HIS:CE1	2.46	0.50
10:AK:83:VAL:HG22	10:AK:106:ILE:HD11	1.93	0.50
10:AK:95:THR:HG23	10:AK:96:ILE:N	2.27	0.50
12:AM:36:ALA:HB1	12:AM:54:THR:HB	1.92	0.50
12:AM:106:ARG:HD3	12:AM:111:PRO:HA	1.94	0.50
14:AO:30:LEU:HD23	14:AO:30:LEU:C	2.36	0.50
22:BA:76:G:H1	22:BA:101:A:N6	2.10	0.50
23:BB:130:C:O2'	23:BB:131:A:H5'	2.11	0.50
23:BB:406:G:O2'	23:BB:407:G:H5'	2.12	0.50
23:BB:455:C:N3	23:BB:473:G:H5'	2.26	0.50
23:BB:519:U:H2'	23:BB:520:G:H8	1.77	0.50
23:BB:581:C:H2'	23:BB:582:A:H8	1.77	0.50
23:BB:931:U:H3	23:BB:1166:G:H21	1.60	0.50
23:BB:1083:U:H2'	23:BB:1085:A:OP2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1150:C:O2'	23:BB:1151:A:H5'	2.11	0.50
23:BB:1199:U:H2'	23:BB:1200:C:H6	1.76	0.50
23:BB:1374:G:H2'	23:BB:1375:U:C6	2.47	0.50
24:BV:89:ILE:HD12	24:BV:89:ILE:O	2.12	0.50
28:BF:1:ALA:O	28:BF:4:HIS:HB3	2.11	0.50
28:BF:107:VAL:N	28:BF:108:PRO:CD	2.75	0.50
31:BJ:48:VAL:HG12	31:BJ:50:THR:HG23	1.94	0.50
32:BK:105:ARG:H	32:BK:105:ARG:CD	2.24	0.50
33:BL:80:SER:HB3	33:BL:115:GLU:CD	2.37	0.50
34:BM:90:GLU:HA	34:BM:90:GLU:OE1	2.12	0.50
42:BU:81:ARG:HB2	42:BU:96:LYS:HG2	1.92	0.50
1:CA:1219:A:H2'	1:CA:1220:G:C8	2.46	0.50
3:CD:96:ARG:NH1	3:CD:133:SER:HA	2.25	0.50
5:CF:73:GLU:O	5:CF:77:THR:HG23	2.12	0.50
8:CI:20:ILE:HD12	8:CI:20:ILE:N	2.24	0.50
12:CM:29:SER:O	12:CM:33:LEU:HG	2.11	0.50
13:CN:26:LEU:HA	13:CN:29:ILE:HB	1.94	0.50
13:CN:60:ARG:HE	13:CN:62:ARG:HG2	1.76	0.50
14:CO:55:LEU:O	14:CO:59:VAL:HG23	2.11	0.50
17:CR:42:ARG:HG3	17:CR:43:ILE:N	2.27	0.50
18:CS:35:ARG:HB3	18:CS:50:VAL:HG13	1.91	0.50
20:CB:127:LYS:HD2	20:CB:128:LEU:HD13	1.94	0.50
22:DA:3:C:H2'	22:DA:4:C:C6	2.47	0.50
22:DA:43:C:O2'	28:DF:91:ARG:HD2	2.12	0.50
23:DB:204:A:H4'	23:DB:205:G:OP1	2.11	0.50
23:DB:288:U:C2'	23:DB:289:G:H5'	2.41	0.50
23:DB:490:C:H3'	23:DB:491:G:H5''	1.94	0.50
23:DB:1064:C:H5''	52:DI:87:SER:OG	2.11	0.50
23:DB:1099:G:H3'	52:DI:2:LYS:HA	1.93	0.50
23:DB:1210:G:C5'	23:DB:1212:G:H5''	2.42	0.50
23:DB:1229:C:H2'	23:DB:1230:A:C8	2.47	0.50
23:DB:1794:A:O2'	23:DB:1795:C:H5'	2.12	0.50
26:DD:148:GLN:HG3	26:DD:152:PRO:CB	2.42	0.50
28:DF:33:ILE:HG12	28:DF:155:ILE:HG13	1.94	0.50
28:DF:71:LYS:O	28:DF:72:SER:HB3	2.11	0.50
29:DG:26:LYS:CA	29:DG:32:LEU:H	2.16	0.50
29:DG:116:LEU:HD23	29:DG:121:THR:HA	1.94	0.50
30:DH:27:ARG:CZ	46:DZ:60:ASP:HA	2.41	0.50
31:DJ:36:LEU:HD13	31:DJ:121:LYS:HE3	1.93	0.50
35:DN:55:ALA:HA	35:DN:80:PHE:CE1	2.47	0.50
41:DT:57:VAL:HG22	41:DT:58:VAL:N	2.20	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DT:66:LYS:N	41:DT:76:ARG:NH2	2.59	0.50
1:AA:114:U:H2'	1:AA:115:G:C8	2.47	0.50
1:AA:390:U:H2'	1:AA:391:G:H8	1.76	0.50
1:AA:1029:U:H5''	1:AA:1030:U:C5	2.47	0.50
1:AA:1118:U:H1'	1:AA:1179:A:C4	2.47	0.50
3:AD:149:LYS:HB2	3:AD:177:MET:HG3	1.94	0.50
6:AG:21:LEU:HG	6:AG:22:LEU:H	1.76	0.50
6:AG:67:ASN:HB2	6:AG:134:VAL:HG12	1.93	0.50
8:AI:109:GLN:CD	8:AI:110:VAL:H	2.19	0.50
12:AM:17:ALA:HB2	12:AM:44:ILE:HD11	1.93	0.50
14:AO:80:LEU:O	14:AO:84:LEU:HD13	2.11	0.50
17:AR:42:ARG:HG3	17:AR:43:ILE:N	2.27	0.50
20:AB:10:LYS:O	20:AB:13:VAL:HG23	2.12	0.50
23:BB:219:A:O2'	23:BB:220:G:H5'	2.12	0.50
23:BB:338:G:N2	23:BB:339:U:H1'	2.26	0.50
23:BB:626:A:H2'	33:BL:78:ARG:NH1	2.27	0.50
23:BB:1163:G:O2'	23:BB:1164:C:H5'	2.12	0.50
23:BB:1403:A:H2'	23:BB:1404:C:C6	2.46	0.50
23:BB:1482:G:H2'	23:BB:1483:G:H8	1.76	0.50
23:BB:2072:C:O2'	23:BB:2073:C:H5'	2.12	0.50
25:BC:90:ILE:HD12	25:BC:102:TYR:HB3	1.93	0.50
27:BE:5:LEU:CD1	27:BE:10:SER:HB2	2.41	0.50
27:BE:91:ASP:C	27:BE:93:SER:H	2.19	0.50
35:BN:38:LEU:CB	35:BN:39:PRO:HD3	2.37	0.50
39:BR:21:ARG:C	39:BR:22:LEU:HD23	2.36	0.50
52:BI:62:ALA:C	52:BI:64:ARG:H	2.20	0.50
1:CA:86:G:H1'	1:CA:87:C:O4'	2.12	0.50
1:CA:312:C:H2'	1:CA:313:A:H8	1.77	0.50
1:CA:724:G:O2'	1:CA:725:G:H5'	2.10	0.50
1:CA:1387:G:H2'	1:CA:1388:C:C6	2.46	0.50
1:CA:1459:G:H2'	1:CA:1460:C:C6	2.45	0.50
3:CD:55:ARG:HG3	3:CD:55:ARG:NH1	2.26	0.50
4:CE:87:VAL:HG22	4:CE:88:HIS:N	2.26	0.50
6:CG:12:LEU:HD22	6:CG:13:PRO:HD2	1.94	0.50
11:CL:15:VAL:O	11:CL:16:ALA:C	2.54	0.50
12:CM:3:ILE:HD12	12:CM:9:PRO:HD2	1.93	0.50
12:CM:70:ARG:CZ	28:DF:142:TYR:HB2	2.42	0.50
23:DB:41:C:H2'	23:DB:42:A:C8	2.45	0.50
23:DB:279:A:N6	23:DB:361:G:O2'	2.44	0.50
23:DB:475:C:H4'	23:DB:509:C:H2'	1.94	0.50
23:DB:688:U:O2'	23:DB:689:A:H5'	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:696:G:O2'	23:DB:697:G:H5'	2.11	0.50
23:DB:1047:G:H1'	23:DB:1111:A:N6	2.27	0.50
23:DB:1779:U:C5	23:DB:1784:A:N7	2.79	0.50
23:DB:1812:U:O2'	25:DC:43:ASN:ND2	2.44	0.50
23:DB:1841:U:C2	23:DB:1842:G:C8	3.00	0.50
23:DB:1857:G:H2'	23:DB:1884:G:H22	1.76	0.50
23:DB:2294:G:P	36:DO:94:ARG:HH11	2.35	0.50
23:DB:2341:G:H2'	23:DB:2342:C:C6	2.46	0.50
24:DV:30:ILE:HG23	24:DV:72:VAL:HG11	1.92	0.50
26:DD:56:LYS:HG3	26:DD:58:ASN:HB2	1.93	0.50
27:DE:5:LEU:CD1	27:DE:10:SER:HB2	2.42	0.50
27:DE:67:ARG:HD2	27:DE:68:ALA:O	2.11	0.50
34:DM:73:ILE:HG13	34:DM:93:VAL:HB	1.94	0.50
38:DQ:80:ASN:ND2	38:DQ:81:GLY:H	2.09	0.50
39:DR:16:GLU:CA	39:DR:98:ILE:HG22	2.39	0.50
39:DR:19:THR:CG2	39:DR:97:LYS:HD2	2.42	0.50
41:DT:9:LYS:HG2	41:DT:9:LYS:O	2.12	0.50
41:DT:68:LYS:O	41:DT:69:ARG:CB	2.59	0.50
48:D1:6:GLU:HB2	48:D1:52:LYS:CE	2.42	0.50
1:AA:452:A:H2'	1:AA:453:G:O4'	2.11	0.50
1:AA:767:A:H2'	1:AA:768:A:C8	2.47	0.50
2:AC:146:LYS:HD3	2:AC:204:GLY:HA2	1.92	0.50
3:AD:16:THR:HG22	3:AD:17:ASP:N	2.27	0.50
5:AF:12:PRO:C	5:AF:14:GLN:H	2.20	0.50
8:AI:109:GLN:NE2	8:AI:110:VAL:H	2.09	0.50
12:AM:21:ILE:HG22	12:AM:23:GLY:H	1.76	0.50
12:AM:29:SER:O	12:AM:33:LEU:HG	2.12	0.50
17:AR:42:ARG:HG3	17:AR:43:ILE:H	1.76	0.50
18:AS:39:ILE:HG21	18:AS:61:VAL:HG13	1.92	0.50
23:BB:588:U:H2'	23:BB:589:U:C6	2.46	0.50
23:BB:671:C:O2'	23:BB:672:C:H5'	2.12	0.50
23:BB:692:C:H2'	23:BB:693:A:H8	1.77	0.50
23:BB:784:G:OP1	23:BB:2588:G:H5''	2.12	0.50
23:BB:1117:C:H2'	23:BB:1118:C:C6	2.46	0.50
23:BB:1141:U:H5''	31:BJ:27:ARG:HH21	1.76	0.50
23:BB:1563:U:O2'	23:BB:1564:C:H5'	2.11	0.50
23:BB:2269:G:H4'	43:BW:19:ARG:NH1	2.22	0.50
23:BB:2355:G:O3'	43:BW:20:LEU:HD13	2.11	0.50
23:BB:2577:A:H5''	23:BB:2578:G:H5'	1.94	0.50
24:BV:53:LYS:HD2	24:BV:55:GLU:OE1	2.12	0.50
26:BD:9:VAL:O	26:BD:9:VAL:HG13	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BD:106:LYS:O	26:BD:107:VAL:HB	2.12	0.50
28:BF:47:LYS:HA	28:BF:50:ASP:OD1	2.11	0.50
28:BF:134:GLN:O	28:BF:136:ILE:N	2.44	0.50
32:BK:34:GLY:O	32:BK:36:GLY:N	2.44	0.50
34:BM:35:ALA:O	34:BM:36:VAL:HB	2.12	0.50
34:BM:56:ALA:C	34:BM:58:LYS:H	2.18	0.50
36:BO:7:ARG:O	36:BO:96:GLY:HA3	2.11	0.50
37:BP:31:VAL:O	37:BP:32:VAL:HG12	2.12	0.50
38:BQ:63:ARG:CZ	38:BQ:96:ASP:HA	2.41	0.50
42:BU:11:ILE:HA	42:BU:21:ARG:HG2	1.94	0.50
1:CA:9:G:H2'	1:CA:10:A:H8	1.77	0.50
1:CA:216:U:H2'	1:CA:217:C:C6	2.47	0.50
1:CA:399:G:H2'	1:CA:400:C:C6	2.47	0.50
1:CA:453:G:H2'	1:CA:454:G:C8	2.47	0.50
1:CA:643:C:H2'	1:CA:644:U:H6	1.77	0.50
1:CA:1254:A:H2'	1:CA:1255:G:C8	2.47	0.50
1:CA:1530:G:H2'	1:CA:1531:A:H8	1.77	0.50
4:CE:95:MET:HA	4:CE:124:ALA:HB2	1.94	0.50
6:CG:3:ARG:HH11	6:CG:3:ARG:HG3	1.76	0.50
14:CO:16:ARG:HA	14:CO:16:ARG:HH11	1.76	0.50
18:CS:51:HIS:HB2	18:CS:56:HIS:CE1	2.47	0.50
19:CT:65:LEU:HG	19:CT:66:ILE:HD13	1.93	0.50
19:CT:66:ILE:HG23	19:CT:70:LYS:HB3	1.92	0.50
23:DB:315:G:H2'	23:DB:316:C:C6	2.46	0.50
23:DB:358:U:O5'	23:DB:358:U:H6	1.94	0.50
23:DB:817:C:H2'	23:DB:818:G:O4'	2.12	0.50
23:DB:992:C:H2'	23:DB:993:G:H8	1.76	0.50
23:DB:1049:C:O2	23:DB:1113:U:H4'	2.12	0.50
23:DB:1747:U:H2'	23:DB:1748:C:H6	1.76	0.50
23:DB:2246:G:H2'	23:DB:2247:A:C8	2.47	0.50
23:DB:2487:G:H2'	23:DB:2488:G:H8	1.77	0.50
23:DB:2519:U:C6	23:DB:2542:A:N6	2.80	0.50
23:DB:2734:A:H2'	23:DB:2735:G:C5'	2.40	0.50
28:DF:62:GLN:HB2	28:DF:91:ARG:HE	1.77	0.50
29:DG:42:VAL:HG23	29:DG:50:THR:O	2.12	0.50
29:DG:51:PHE:CD2	29:DG:68:ARG:HG2	2.47	0.50
31:DJ:36:LEU:O	31:DJ:51:GLY:HA3	2.11	0.50
31:DJ:52:ASP:O	31:DJ:54:ILE:HG22	2.11	0.50
32:DK:18:ARG:O	32:DK:45:GLU:HB2	2.11	0.50
33:DL:120:VAL:HG12	33:DL:121:THR:N	2.27	0.50
48:D1:29:LYS:N	48:D1:30:PRO:HD3	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:DI:128:ILE:HA	52:DI:131:THR:CG2	2.41	0.50
52:DI:131:THR:O	52:DI:135:MET:HG3	2.11	0.50
1:AA:493:A:H3'	1:AA:494:G:C8	2.47	0.50
1:AA:657:U:O2'	1:AA:658:C:H5'	2.11	0.50
2:AC:139:ASN:O	2:AC:143:LEU:HD23	2.11	0.50
3:AD:71:PHE:CE1	3:AD:89:LEU:HD11	2.46	0.50
3:AD:77:GLU:OE2	3:AD:81:LEU:HD21	2.12	0.50
4:AE:35:LEU:HD21	4:AE:136:VAL:HG11	1.93	0.50
4:AE:55:VAL:N	4:AE:56:PRO:HD2	2.26	0.50
7:AH:51:GLU:HB3	7:AH:57:GLU:HB3	1.94	0.50
10:AK:103:GLY:HA2	2:CC:74:ILE:HD13	1.93	0.50
11:AL:13:ARG:HG2	11:AL:14:LYS:H	1.77	0.50
11:AL:14:LYS:HG2	11:AL:15:VAL:N	2.27	0.50
12:AM:82:LEU:HD11	18:AS:64:GLU:HB2	1.92	0.50
16:AQ:3:LYS:HE2	16:AQ:3:LYS:HA	1.92	0.50
20:AB:216:VAL:O	20:AB:220:VAL:HG23	2.12	0.50
23:BB:598:U:H2'	23:BB:599:A:H8	1.76	0.50
23:BB:1259:G:H2'	23:BB:1260:A:C8	2.47	0.50
23:BB:2034:U:O2'	23:BB:2035:G:H5'	2.12	0.50
23:BB:2798:U:H5''	23:BB:2799:A:OP1	2.10	0.50
28:BF:98:PHE:C	28:BF:100:GLU:N	2.69	0.50
28:BF:102:LEU:HA	28:BF:106:ALA:HB3	1.92	0.50
30:BH:68:ARG:C	30:BH:134:VAL:HB	2.36	0.50
31:BJ:44:TYR:O	31:BJ:45:THR:HB	2.12	0.50
31:BJ:64:VAL:HG11	31:BJ:69:ARG:HB2	1.93	0.50
32:BK:107:LEU:C	32:BK:109:SER:H	2.20	0.50
32:BK:118:LEU:O	32:BK:120:PRO:HD2	2.12	0.50
36:BO:24:THR:O	36:BO:90:VAL:HB	2.12	0.50
51:B4:4:ARG:N	51:B4:37:GLN:HE22	2.09	0.50
1:CA:490:C:H2'	1:CA:491:G:H8	1.75	0.50
1:CA:613:C:H2'	1:CA:614:C:C6	2.46	0.50
1:CA:632:U:H3'	1:CA:633:G:H5'	1.94	0.50
1:CA:640:A:O2'	1:CA:641:U:H5'	2.12	0.50
1:CA:893:C:H2'	1:CA:894:G:C8	2.47	0.50
1:CA:1005:A:H4'	1:CA:1037:C:O2	2.12	0.50
1:CA:1121:U:O2'	1:CA:1122:U:H5'	2.11	0.50
8:CI:56:MET:O	8:CI:57:VAL:HB	2.10	0.50
9:CJ:12:ALA:CB	9:CJ:96:VAL:HG12	2.41	0.50
15:CP:25:ARG:H	15:CP:25:ARG:CD	2.21	0.50
16:CQ:30:HIS:HE1	16:CQ:32:ILE:HG22	1.77	0.50
20:CB:16:GLY:HA2	20:CB:40:ILE:CG1	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CB:128:LEU:HD23	20:CB:132:GLU:HB3	1.94	0.50
23:DB:132:G:O2'	23:DB:133:U:H5'	2.11	0.50
23:DB:291:G:H2'	23:DB:292:U:C6	2.46	0.50
23:DB:704:G:H1'	23:DB:727:A:N6	2.26	0.50
23:DB:710:U:H2'	23:DB:711:G:H8	1.77	0.50
23:DB:968:C:H2'	23:DB:969:G:C8	2.46	0.50
23:DB:1349:C:H2'	23:DB:1350:C:H6	1.77	0.50
23:DB:1746:A:H2'	23:DB:1747:U:C6	2.46	0.50
23:DB:1992:G:N2	23:DB:1996:C:O2'	2.45	0.50
23:DB:2305:U:H4'	28:DF:132:ARG:NE	2.27	0.50
23:DB:2783:U:H2'	23:DB:2784:U:C6	2.47	0.50
25:DC:77:VAL:HG23	25:DC:112:GLY:N	2.08	0.50
26:DD:117:GLY:O	26:DD:119:ALA:N	2.44	0.50
28:DF:107:VAL:N	28:DF:108:PRO:CD	2.75	0.50
28:DF:134:GLN:O	28:DF:136:ILE:N	2.43	0.50
29:DG:87:GLN:HG2	29:DG:164:ALA:HA	1.94	0.50
29:DG:93:TYR:O	29:DG:94:ARG:HG3	2.12	0.50
30:DH:14:SER:C	30:DH:16:GLY:H	2.18	0.50
30:DH:31:VAL:CB	30:DH:32:PRO:HD3	2.33	0.50
30:DH:77:THR:HG22	30:DH:143:ILE:HB	1.92	0.50
31:DJ:104:ALA:O	31:DJ:108:MET:HG2	2.12	0.50
36:DO:51:ALA:CB	36:DO:81:ARG:HH11	2.25	0.50
38:DQ:81:GLY:HA3	38:DQ:116:LEU:CD1	2.42	0.50
39:DR:2:TYR:HB2	39:DR:42:ALA:CB	2.40	0.50
41:DT:43:ILE:O	41:DT:47:VAL:HG23	2.12	0.50
42:DU:78:LYS:CD	42:DU:79:ALA:H	2.24	0.50
49:D2:34:ARG:NE	49:D2:39:ARG:HG2	2.26	0.50
52:DI:21:PRO:CB	52:DI:22:PRO:HD3	2.38	0.50
52:DI:102:ARG:HG3	52:DI:141:ASP:HB2	1.94	0.50
1:AA:538:G:OP2	11:AL:111:GLN:HB2	2.12	0.50
1:AA:1057:G:O3'	2:AC:196:GLY:HA3	2.11	0.50
1:AA:1081:A:O2'	1:AA:1082:A:H5'	2.12	0.50
1:AA:1432:G:O2'	1:AA:1468:A:N6	2.45	0.50
1:AA:1451:U:O2	1:AA:1451:U:H2'	2.12	0.50
5:AF:80:PHE:CZ	25:BC:123:ILE:HG12	2.47	0.50
13:AN:61:ASN:HB3	13:AN:72:PHE:CE2	2.47	0.50
18:AS:20:LYS:O	18:AS:23:GLU:HG3	2.11	0.50
20:AB:8:MET:HB3	20:AB:46:VAL:HB	1.93	0.50
22:BA:32:U:C4'	22:BA:52:A:H62	2.22	0.50
22:BA:78:A:H2'	22:BA:79:G:O4'	2.12	0.50
23:BB:24:G:H1'	40:BS:77:ASP:HB3	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:601:C:H2'	23:BB:602:A:H8	1.76	0.50
23:BB:1173:U:HO2'	23:BB:1176:U:H3	1.60	0.50
23:BB:1395:A:H4'	23:BB:1397:U:C5	2.47	0.50
23:BB:1509:A:C8	23:BB:1509:A:H5''	2.46	0.50
23:BB:1742:U:H2'	23:BB:1743:G:C8	2.47	0.50
23:BB:1794:A:H2'	23:BB:1795:C:H6	1.77	0.50
23:BB:1817:G:OP1	25:BC:86:ARG:NH2	2.45	0.50
23:BB:1911:U:H2'	23:BB:1918:A:N1	2.27	0.50
23:BB:2295:C:O2'	23:BB:2296:U:H5'	2.12	0.50
23:BB:2405:G:H1'	23:BB:2412:A:N6	2.26	0.50
23:BB:2519:U:C6	23:BB:2542:A:N6	2.80	0.50
23:BB:2527:C:O3'	51:B4:31:PRO:HB2	2.12	0.50
23:BB:2720:U:H2'	23:BB:2721:A:C8	2.47	0.50
23:BB:2872:A:H1'	23:BB:2873:A:C8	2.47	0.50
25:BC:119:VAL:HA	25:BC:133:ASN:ND2	2.27	0.50
29:BG:84:LYS:HG3	29:BG:131:VAL:HA	1.94	0.50
29:BG:148:ARG:HD3	29:BG:152:ARG:NE	2.27	0.50
31:BJ:44:TYR:CE2	38:BQ:59:LEU:HD11	2.47	0.50
32:BK:19:VAL:C	32:BK:41:ILE:HD11	2.36	0.50
34:BM:74:THR:O	34:BM:75:GLU:HB2	2.11	0.50
43:BW:50:VAL:HG23	43:BW:61:LYS:HE3	1.92	0.50
44:BX:18:LEU:O	44:BX:22:LEU:HB3	2.12	0.50
44:BX:56:LEU:C	44:BX:58:ASN:N	2.70	0.50
45:BY:37:ARG:HG2	45:BY:43:ILE:CD1	2.42	0.50
48:B1:6:GLU:HB2	48:B1:52:LYS:HZ3	1.77	0.50
1:CA:83:C:HO2'	1:CA:84:U:H3'	1.77	0.50
1:CA:658:C:H2'	1:CA:659:U:C6	2.44	0.50
1:CA:1379:G:O6	6:CG:2:ARG:HD3	2.12	0.50
1:CA:1437:A:H2'	1:CA:1438:G:C8	2.46	0.50
2:CC:14:VAL:O	2:CC:15:LYS:HD2	2.11	0.50
2:CC:149:LYS:HE3	2:CC:166:TRP:CH2	2.47	0.50
4:CE:28:ARG:CZ	4:CE:30:PHE:HB3	2.42	0.50
5:CF:5:GLU:HA	5:CF:63:ASN:HA	1.94	0.50
5:CF:52:ASN:O	5:CF:52:ASN:CG	2.54	0.50
7:CH:111:THR:H	7:CH:114:ALA:HB3	1.76	0.50
8:CI:30:ASN:O	8:CI:31:GLN:HB2	2.11	0.50
8:CI:56:MET:SD	8:CI:57:VAL:HG23	2.52	0.50
9:CJ:36:VAL:HA	9:CJ:76:ILE:HA	1.94	0.50
12:CM:89:ARG:HB3	12:CM:96:VAL:HG22	1.94	0.50
20:CB:46:VAL:O	20:CB:49:PHE:HB2	2.12	0.50
22:DA:71:C:H2'	22:DA:72:G:O4'	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:156:A:O2'	23:DB:157:C:H5'	2.12	0.50
23:DB:747:U:OP2	40:DS:90:LYS:NZ	2.43	0.50
23:DB:1283:G:N2	23:DB:1285:A:H3'	2.27	0.50
23:DB:1439:A:N7	23:DB:1440:U:N1	2.59	0.50
23:DB:1487:U:H2'	23:DB:1488:C:H6	1.76	0.50
23:DB:1678:A:H2'	23:DB:1679:A:C8	2.47	0.50
23:DB:1838:C:H4'	23:DB:1839:G:H8	1.76	0.50
23:DB:1948:G:O2'	23:DB:1949:G:H5'	2.12	0.50
23:DB:2196:C:O2'	23:DB:2197:U:H5'	2.11	0.50
23:DB:2835:A:N6	23:DB:2878:U:H2'	2.26	0.50
24:DV:53:LYS:HD2	24:DV:55:GLU:OE1	2.12	0.50
25:DC:119:VAL:HA	25:DC:133:ASN:ND2	2.27	0.50
28:DF:43:ILE:HA	28:DF:46:LYS:CE	2.42	0.50
28:DF:111:ARG:HH22	28:DF:113:PHE:HB2	1.76	0.50
30:DH:60:GLU:C	30:DH:62:LEU:N	2.68	0.50
32:DK:61:VAL:HG11	32:DK:112:PHE:CZ	2.47	0.50
34:DM:53:MET:HE1	34:DM:103:TYR:CD2	2.47	0.50
43:DW:37:VAL:HG12	43:DW:38:ARG:N	2.22	0.50
1:AA:9:G:H2'	1:AA:10:A:H8	1.76	0.49
1:AA:512:U:O2'	1:AA:513:C:H5'	2.12	0.49
1:AA:636:U:H2'	1:AA:637:C:H6	1.77	0.49
1:AA:1317:C:H3'	1:AA:1318:A:H8	1.76	0.49
2:AC:155:ARG:NH2	2:AC:192:TYR:HB2	2.26	0.49
5:AF:2:ARG:O	5:AF:65:GLU:HA	2.12	0.49
7:AH:113:ARG:NH2	7:AH:114:ALA:HA	2.27	0.49
8:AI:46:VAL:HG23	8:AI:47:VAL:H	1.77	0.49
9:AJ:36:VAL:HA	9:AJ:76:ILE:HA	1.93	0.49
10:AK:30:ILE:HG22	10:AK:45:THR:CB	2.42	0.49
11:AL:15:VAL:O	11:AL:16:ALA:C	2.54	0.49
15:AP:43:ALA:CA	15:AP:46:LYS:HE3	2.42	0.49
18:AS:44:ILE:O	18:AS:44:ILE:HG23	2.11	0.49
20:AB:212:TYR:O	20:AB:216:VAL:HG13	2.12	0.49
23:BB:45:G:C5'	23:BB:46:G:H5'	2.40	0.49
23:BB:138:U:H2'	23:BB:140:C:O4'	2.11	0.49
23:BB:934:U:H2'	23:BB:935:C:H6	1.77	0.49
23:BB:1173:U:O5'	23:BB:1173:U:H6	1.95	0.49
23:BB:1175:A:H2'	23:BB:1176:U:H5'	1.94	0.49
23:BB:1436:G:O2'	23:BB:1437:C:H5'	2.12	0.49
23:BB:2215:C:H2'	23:BB:2216:G:H8	1.77	0.49
23:BB:2760:C:O2'	23:BB:2761:A:H5'	2.12	0.49
23:BB:2786:U:C5'	26:BD:70:LYS:HG3	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:2885:G:H2'	23:BB:2886:A:C4'	2.42	0.49
25:BC:106:PRO:O	25:BC:109:LEU:HD13	2.12	0.49
27:BE:188:MET:HE3	27:BE:193:VAL:HG13	1.94	0.49
28:BF:71:LYS:HD3	28:BF:73:VAL:O	2.12	0.49
28:BF:86:CYS:O	28:BF:88:VAL:HG23	2.12	0.49
32:BK:40:LYS:NZ	32:BK:59:LYS:HE3	2.26	0.49
32:BK:43:ILE:CG2	32:BK:46:ALA:HB2	2.42	0.49
32:BK:113:MET:HA	32:BK:116:ILE:HD11	1.94	0.49
33:BL:6:LEU:H	33:BL:6:LEU:CD2	2.20	0.49
33:BL:120:VAL:HG12	33:BL:121:THR:N	2.26	0.49
41:BT:68:LYS:O	41:BT:69:ARG:CB	2.59	0.49
42:BU:64:ILE:HG13	42:BU:68:ASN:HD22	1.77	0.49
43:BW:30:VAL:O	43:BW:30:VAL:HG13	2.12	0.49
1:CA:239:U:H6	1:CA:239:U:H5'	1.76	0.49
1:CA:772:U:H2'	1:CA:773:G:C8	2.46	0.49
4:CE:53:ARG:HB3	4:CE:53:ARG:CZ	2.42	0.49
8:CI:78:ILE:HG22	8:CI:82:ILE:HD11	1.92	0.49
9:CJ:6:ILE:HB	9:CJ:76:ILE:HD11	1.94	0.49
12:CM:44:ILE:HA	12:CM:47:LEU:HD23	1.93	0.49
15:CP:28:ARG:HD3	15:CP:29:ASN:HD22	1.76	0.49
18:CS:10:ILE:HG22	18:CS:37:SER:HB3	1.94	0.49
18:CS:11:ASP:OD1	18:CS:34:SER:HA	2.12	0.49
23:DB:142:A:N3	41:DT:2:ILE:HG22	2.27	0.49
23:DB:264:C:O2'	23:DB:265:A:H5''	2.12	0.49
23:DB:272:A:H2'	23:DB:273:G:C8	2.47	0.49
23:DB:1145:C:O2'	23:DB:1146:C:H5'	2.10	0.49
23:DB:1820:U:H3	25:DC:197:ALA:HA	1.76	0.49
23:DB:2216:G:H2'	23:DB:2217:G:C8	2.47	0.49
23:DB:2234:G:O2'	23:DB:2235:G:H5'	2.13	0.49
23:DB:2332:C:H1'	23:DB:2336:A:C8	2.47	0.49
23:DB:2556:C:H2'	23:DB:2557:G:O4'	2.12	0.49
25:DC:36:ASN:ND2	25:DC:85:ASN:HD21	2.08	0.49
25:DC:185:ALA:C	25:DC:187:CYS:H	2.19	0.49
28:DF:55:ASP:O	28:DF:59:ILE:HG13	2.12	0.49
28:DF:113:PHE:CZ	28:DF:175:PRO:HB2	2.48	0.49
28:DF:155:ILE:HG22	28:DF:156:THR:N	2.26	0.49
29:DG:91:VAL:O	29:DG:93:TYR:N	2.44	0.49
42:DU:81:ARG:HB2	42:DU:96:LYS:HG2	1.94	0.49
1:AA:113:G:O4'	1:AA:354:G:H4'	2.12	0.49
1:AA:921:U:H2'	1:AA:922:G:H8	1.75	0.49
2:AC:161:ILE:HD12	2:AC:161:ILE:N	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AE:53:ARG:HB3	4:AE:53:ARG:CZ	2.41	0.49
4:AE:113:VAL:HG23	4:AE:114:LEU:N	2.27	0.49
8:AI:30:ASN:O	8:AI:31:GLN:HB2	2.12	0.49
20:AB:59:ILE:HG21	20:AB:158:ASP:HB3	1.94	0.49
23:BB:685:A:H1'	23:BB:688:U:O4	2.13	0.49
23:BB:729:G:H5''	23:BB:730:A:H5''	1.93	0.49
23:BB:925:A:O2'	23:BB:926:G:H5'	2.12	0.49
23:BB:1386:C:H2'	23:BB:1387:A:H8	1.72	0.49
23:BB:1590:A:H2'	23:BB:1591:A:C8	2.48	0.49
23:BB:1843:C:H5''	25:BC:250:GLN:NE2	2.25	0.49
23:BB:2394:C:OP1	33:BL:63:LYS:HG2	2.12	0.49
23:BB:2805:C:O2'	23:BB:2806:C:H5'	2.12	0.49
25:BC:20:ASN:OD1	25:BC:22:GLU:HG2	2.12	0.49
26:BD:174:SER:O	26:BD:175:LEU:HB2	2.11	0.49
27:BE:161:ALA:CA	27:BE:164:LEU:HB2	2.37	0.49
35:BN:63:ARG:O	35:BN:66:ALA:HB3	2.11	0.49
37:BP:3:ILE:CD1	37:BP:7:LEU:HD11	2.42	0.49
41:BT:29:THR:CG2	41:BT:86:THR:HG22	2.42	0.49
43:BW:37:VAL:CG1	43:BW:38:ARG:HH11	2.24	0.49
44:BX:55:THR:O	44:BX:58:ASN:HB3	2.13	0.49
46:BZ:21:ALA:HB3	46:BZ:23:ASN:HD21	1.77	0.49
51:B4:8:LYS:O	51:B4:25:VAL:HG21	2.12	0.49
52:BI:72:THR:HG21	52:BI:111:THR:O	2.12	0.49
1:CA:643:C:H2'	1:CA:644:U:C6	2.47	0.49
1:CA:1069:C:H5''	4:CE:25:LYS:NZ	2.27	0.49
1:CA:1134:G:N2	1:CA:1135:U:H1'	2.26	0.49
1:CA:1317:C:H3'	1:CA:1318:A:H8	1.77	0.49
3:CD:120:LYS:O	3:CD:145:ARG:HG3	2.12	0.49
4:CE:15:ILE:HB	4:CE:35:LEU:O	2.12	0.49
7:CH:108:GLY:O	7:CH:110:MET:HG3	2.12	0.49
8:CI:34:LEU:HD21	8:CI:48:ARG:NH2	2.18	0.49
11:CL:13:ARG:HG2	11:CL:14:LYS:H	1.76	0.49
12:CM:43:LYS:HD2	12:CM:43:LYS:N	2.26	0.49
15:CP:36:VAL:O	15:CP:36:VAL:HG13	2.12	0.49
16:CQ:29:LYS:HG3	16:CQ:34:GLY:O	2.12	0.49
17:CR:56:ARG:O	17:CR:60:ARG:HG2	2.12	0.49
17:CR:63:TYR:C	17:CR:64:LEU:HD12	2.37	0.49
18:CS:10:ILE:HB	18:CS:14:LEU:HD11	1.94	0.49
23:DB:7:G:H4'	31:DJ:15:TRP:CZ2	2.47	0.49
23:DB:140:C:H5'	23:DB:141:G:C5	2.47	0.49
23:DB:311:A:H3'	23:DB:312:G:H8	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:502:A:H5'	23:DB:503:A:OP2	2.11	0.49
23:DB:861:A:H2'	23:DB:862:G:O4'	2.12	0.49
23:DB:1511:G:H2'	23:DB:1512:C:C6	2.48	0.49
23:DB:1541:C:H2'	23:DB:1542:U:O4'	2.12	0.49
23:DB:2143:C:N3	23:DB:2144:G:H1'	2.26	0.49
23:DB:2684:U:H2'	23:DB:2685:G:O4'	2.12	0.49
25:DC:105:ALA:HB1	25:DC:109:LEU:CD1	2.42	0.49
26:DD:108:ASP:OD2	26:DD:206:ALA:HA	2.12	0.49
28:DF:140:ILE:O	28:DF:141:ASP:C	2.56	0.49
28:DF:162:ASP:C	28:DF:166:ARG:HH11	2.20	0.49
30:DH:14:SER:C	30:DH:16:GLY:N	2.67	0.49
30:DH:60:GLU:C	30:DH:62:LEU:H	2.19	0.49
31:DJ:13:ARG:HB3	31:DJ:53:TYR:CD2	2.46	0.49
34:DM:35:ALA:O	34:DM:36:VAL:HB	2.11	0.49
34:DM:56:ALA:C	34:DM:58:LYS:H	2.18	0.49
39:DR:39:LEU:N	39:DR:39:LEU:HD23	2.26	0.49
39:DR:61:ALA:HB1	39:DR:96:VAL:HB	1.94	0.49
42:DU:26:ASN:N	42:DU:26:ASN:ND2	2.61	0.49
46:DZ:56:MET:O	46:DZ:59:ILE:HG12	2.12	0.49
50:D3:54:LEU:CG	50:D3:58:ILE:HD11	2.42	0.49
1:AA:393:A:O2'	1:AA:394:G:H5'	2.12	0.49
1:AA:411:A:N6	1:AA:413:G:H21	2.09	0.49
1:AA:1073:U:H2'	1:AA:1074:G:H8	1.77	0.49
1:AA:1464:U:H2'	1:AA:1465:A:C8	2.47	0.49
1:AA:1480:A:H2'	1:AA:1481:U:O4'	2.12	0.49
1:AA:1522:U:H2'	1:AA:1523:G:H8	1.77	0.49
2:AC:14:VAL:O	2:AC:15:LYS:HD2	2.12	0.49
3:AD:120:LYS:O	3:AD:145:ARG:HG3	2.12	0.49
4:AE:136:VAL:HG13	4:AE:137:ARG:N	2.27	0.49
6:AG:144:ALA:O	6:AG:146:ALA:N	2.38	0.49
8:AI:56:MET:HA	8:AI:59:LYS:HB2	1.94	0.49
11:AL:34:THR:O	11:AL:35:ARG:HD2	2.12	0.49
12:AM:90:HIS:CE1	12:AM:96:VAL:HG21	2.47	0.49
16:AQ:29:LYS:HG3	16:AQ:34:GLY:O	2.12	0.49
17:AR:63:TYR:N	17:AR:63:TYR:HD2	2.10	0.49
21:AU:26:GLY:C	21:AU:28:LEU:N	2.71	0.49
22:BA:55:U:H2'	22:BA:56:G:C8	2.47	0.49
23:BB:37:C:O2'	23:BB:38:A:H5'	2.13	0.49
23:BB:725:G:H2'	23:BB:726:G:C1'	2.43	0.49
23:BB:764:A:H5''	25:BC:208:GLY:HA2	1.94	0.49
23:BB:853:C:O2'	23:BB:854:C:H5'	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1789:A:OP1	25:BC:220:ARG:HD3	2.12	0.49
23:BB:1893:C:H2'	23:BB:1894:C:O4'	2.12	0.49
23:BB:1914:C:H2'	23:BB:1915:U:C6	2.47	0.49
23:BB:2247:A:H3'	56:BB:3266:HOH:O	2.11	0.49
23:BB:2443:C:O2'	23:BB:2444:G:H5'	2.13	0.49
26:BD:204:LYS:HB2	26:BD:205:PRO:HD2	1.93	0.49
28:BF:98:PHE:C	28:BF:100:GLU:H	2.20	0.49
28:BF:169:LEU:HB3	28:BF:174:PHE:CD1	2.47	0.49
29:BG:10:VAL:CG1	29:BG:16:VAL:HG21	2.41	0.49
29:BG:148:ARG:HB2	29:BG:152:ARG:HH11	1.76	0.49
30:BH:73:ASN:ND2	30:BH:74:ALA:N	2.56	0.49
31:BJ:35:ARG:HA	31:BJ:40:HIS:NE2	2.27	0.49
31:BJ:106:LYS:HE3	31:BJ:106:LYS:HA	1.94	0.49
32:BK:87:LEU:HD12	32:BK:92:GLU:C	2.37	0.49
34:BM:40:ARG:HB3	34:BM:95:LEU:HD12	1.93	0.49
35:BN:24:MET:HE3	35:BN:40:LYS:HB3	1.93	0.49
38:BQ:38:VAL:O	38:BQ:39:ILE:C	2.56	0.49
39:BR:5:PHE:HB2	39:BR:37:GLU:OE1	2.12	0.49
40:BS:23:LEU:HD21	47:B0:21:LEU:HB3	1.93	0.49
41:BT:4:GLU:OE1	41:BT:5:GLU:HG2	2.12	0.49
41:BT:43:ILE:O	41:BT:46:ALA:HB3	2.13	0.49
47:B0:42:ILE:HG22	47:B0:43:THR:O	2.12	0.49
1:CA:429:U:OP2	3:CD:31:CYS:HB2	2.13	0.49
1:CA:1029:U:H5''	1:CA:1030:U:C5	2.47	0.49
1:CA:1030:U:H4'	1:CA:1031:C:OP2	2.12	0.49
1:CA:1163:A:H2'	1:CA:1164:G:H8	1.77	0.49
1:CA:1250:A:H2	1:CA:1370:G:H1'	1.77	0.49
1:CA:1432:G:O2'	1:CA:1468:A:N6	2.45	0.49
1:CA:1510:C:H2'	1:CA:1511:G:C8	2.47	0.49
2:CC:142:ARG:HH21	2:CC:143:LEU:HD21	1.77	0.49
7:CH:27:PRO:HA	7:CH:56:PRO:O	2.12	0.49
7:CH:45:ILE:HB	7:CH:61:THR:O	2.13	0.49
10:CK:30:ILE:HG22	10:CK:45:THR:CB	2.42	0.49
10:CK:106:ILE:HG13	10:CK:107:THR:N	2.23	0.49
16:CQ:74:LEU:HD13	16:CQ:75:VAL:N	2.28	0.49
22:DA:52:A:OP1	22:DA:52:A:H4'	2.12	0.49
23:DB:345:A:H1'	23:DB:346:A:C2	2.48	0.49
23:DB:765:C:H2'	23:DB:766:U:H6	1.77	0.49
23:DB:785:G:H2'	23:DB:786:C:C6	2.47	0.49
23:DB:851:C:H2'	23:DB:852:U:C6	2.48	0.49
23:DB:2295:C:OP2	36:DO:10:ARG:HG2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2328:A:H2'	23:DB:2329:U:H6	1.73	0.49
23:DB:2598:A:OP1	25:DC:233:GLY:HA3	2.12	0.49
23:DB:2636:C:H2'	23:DB:2637:U:C6	2.47	0.49
23:DB:2814:A:H2'	23:DB:2815:C:C6	2.48	0.49
25:DC:90:ILE:HD12	25:DC:102:TYR:HB3	1.93	0.49
25:DC:175:LEU:HD11	25:DC:181:ARG:HG3	1.94	0.49
26:DD:69:ALA:CA	26:DD:73:VAL:HB	2.41	0.49
27:DE:38:GLY:C	27:DE:40:ARG:H	2.19	0.49
27:DE:153:LEU:HG	27:DE:154:ASP:H	1.76	0.49
28:DF:29:ARG:CD	28:DF:29:ARG:H	2.25	0.49
30:DH:61:VAL:C	30:DH:63:ALA:H	2.20	0.49
31:DJ:75:TYR:CD1	31:DJ:86:GLN:HB3	2.47	0.49
33:DL:142:ILE:N	33:DL:142:ILE:HD12	2.28	0.49
35:DN:97:ILE:HD12	35:DN:98:LEU:N	2.21	0.49
36:DO:7:ARG:O	36:DO:96:GLY:HA3	2.12	0.49
38:DQ:107:ALA:C	39:DR:48:LYS:HD3	2.37	0.49
44:DX:55:THR:O	44:DX:58:ASN:HB3	2.12	0.49
1:AA:55:A:OP2	1:AA:352:C:N4	2.44	0.49
1:AA:898:G:N2	1:AA:900:A:H3'	2.28	0.49
1:AA:1124:G:H5''	9:AJ:37:ARG:O	2.13	0.49
3:AD:188:SER:C	3:AD:190:LEU:H	2.19	0.49
9:AJ:15:HIS:O	9:AJ:18:ILE:HG22	2.13	0.49
17:AR:56:ARG:O	17:AR:60:ARG:HG2	2.12	0.49
20:AB:128:LEU:HD13	20:AB:129:THR:H	1.77	0.49
22:BA:88:C:H1'	22:BA:89:U:C5	2.46	0.49
23:BB:289:G:H2'	23:BB:290:U:O4'	2.12	0.49
23:BB:329:G:O6	42:BU:16:LYS:HG2	2.11	0.49
23:BB:337:C:H2'	23:BB:338:G:O4'	2.12	0.49
23:BB:2027:G:C6	23:BB:2028:U:C4	3.00	0.49
23:BB:2353:G:H1'	43:BW:30:VAL:HG12	1.91	0.49
23:BB:2838:G:H2'	23:BB:2839:G:H8	1.77	0.49
23:BB:2899:A:H5'	31:BJ:136:GLN:OE1	2.12	0.49
31:BJ:13:ARG:HB3	31:BJ:53:TYR:CD2	2.45	0.49
38:BQ:57:ARG:HA	38:BQ:60:TRP:CE3	2.47	0.49
41:BT:7:LEU:C	41:BT:9:LYS:H	2.20	0.49
46:BZ:7:VAL:HG13	46:BZ:8:THR:CG2	2.39	0.49
1:CA:320:A:H2'	1:CA:321:A:C8	2.47	0.49
1:CA:429:U:H3'	3:CD:8:LEU:HD23	1.93	0.49
1:CA:464:U:H2'	1:CA:466:A:OP2	2.11	0.49
1:CA:598:U:H4'	7:CH:85:TYR:CG	2.46	0.49
1:CA:634:C:H2'	1:CA:635:A:H8	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:636:U:H2'	1:CA:637:C:H6	1.78	0.49
1:CA:767:A:H2'	1:CA:768:A:C8	2.47	0.49
1:CA:1118:U:H1'	1:CA:1179:A:C5	2.47	0.49
1:CA:1127:G:O2'	1:CA:1128:C:H5'	2.12	0.49
1:CA:1413:A:O2'	1:CA:1414:U:H5'	2.12	0.49
9:CJ:15:HIS:O	9:CJ:18:ILE:HG22	2.11	0.49
12:CM:50:GLY:O	12:CM:54:THR:HG23	2.11	0.49
20:CB:129:THR:C	20:CB:131:LYS:N	2.69	0.49
22:DA:91:C:H2'	22:DA:92:C:H6	1.77	0.49
23:DB:175:G:O2'	23:DB:176:A:H5'	2.12	0.49
23:DB:1040:A:H2'	23:DB:1041:G:O4'	2.12	0.49
23:DB:1083:U:H2'	23:DB:1085:A:OP2	2.12	0.49
23:DB:1655:A:H2'	23:DB:1656:C:O4'	2.11	0.49
23:DB:2461:A:H2'	23:DB:2462:C:H6	1.77	0.49
24:DV:75:GLN:HA	24:DV:75:GLN:OE1	2.11	0.49
28:DF:45:ASP:HB3	28:DF:48:LEU:CD2	2.42	0.49
30:DH:25:TYR:CG	30:DH:30:LEU:HG	2.47	0.49
30:DH:114:GLU:HB3	30:DH:133:GLN:HG3	1.94	0.49
31:DJ:44:TYR:CD2	38:DQ:59:LEU:HD21	2.47	0.49
31:DJ:64:VAL:HG11	31:DJ:69:ARG:HB2	1.92	0.49
37:DP:50:ARG:HB3	37:DP:57:ALA:H	1.77	0.49
39:DR:95:ASP:O	39:DR:96:VAL:HG13	2.13	0.49
47:D0:42:ILE:HG22	47:D0:43:THR:O	2.12	0.49
47:D0:43:THR:HG21	47:D0:47:TYR:HB2	1.93	0.49
52:DI:17:ALA:C	52:DI:19:PRO:HD3	2.37	0.49
1:AA:106:C:O2'	1:AA:107:G:H5'	2.13	0.49
1:AA:233:C:H2'	1:AA:234:C:H6	1.77	0.49
1:AA:1030:U:H4'	1:AA:1031:C:OP2	2.12	0.49
2:AC:72:PRO:O	2:AC:76:ILE:HG12	2.12	0.49
2:AC:190:THR:HG22	2:AC:191:THR:H	1.75	0.49
3:AD:97:LEU:HD13	3:AD:136:VAL:HG11	1.93	0.49
5:AF:2:ARG:HB3	5:AF:92:THR:OG1	2.11	0.49
9:AJ:41:PRO:O	9:AJ:42:LEU:HB2	2.12	0.49
22:BA:14:U:H4'	22:BA:70:C:O2	2.13	0.49
23:BB:83:A:OP1	42:BU:91:LYS:HD2	2.12	0.49
23:BB:211:C:O2'	23:BB:212:G:H5'	2.12	0.49
23:BB:991:C:H5'	23:BB:991:C:H6	1.78	0.49
23:BB:1229:C:H2'	23:BB:1230:A:H8	1.76	0.49
23:BB:1531:C:H2'	23:BB:1532:A:H8	1.78	0.49
23:BB:1729:U:C2'	23:BB:1730:C:H4'	2.36	0.49
23:BB:2088:A:H2'	23:BB:2089:C:H6	1.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:2813:A:H2'	23:BB:2814:A:H8	1.76	0.49
28:BF:31:GLU:HB3	28:BF:156:THR:O	2.13	0.49
29:BG:94:ARG:HG2	29:BG:127:GLN:HE21	1.78	0.49
30:BH:53:GLU:HG3	30:BH:57:LYS:HD3	1.94	0.49
31:BJ:12:LYS:HG3	31:BJ:41:LYS:NZ	2.27	0.49
31:BJ:35:ARG:HA	31:BJ:40:HIS:CD2	2.47	0.49
32:BK:105:ARG:HD2	32:BK:122:VAL:HG11	1.94	0.49
33:BL:3:LEU:O	33:BL:5:THR:HG23	2.13	0.49
35:BN:115:LEU:O	35:BN:117:ASP:N	2.45	0.49
42:BU:48:VAL:O	42:BU:48:VAL:HG13	2.12	0.49
43:BW:49:ASN:HA	43:BW:61:LYS:HB2	1.94	0.49
46:BZ:21:ALA:C	46:BZ:22:LEU:HG	2.37	0.49
52:BI:135:MET:HE2	52:BI:137:LEU:HD11	1.95	0.49
1:CA:50:A:N6	1:CA:361:G:H4'	2.28	0.49
1:CA:366:A:O2'	1:CA:394:G:N2	2.45	0.49
1:CA:664:G:H5''	17:CR:52:ARG:HE	1.77	0.49
1:CA:984:C:O2'	1:CA:985:C:H5'	2.12	0.49
1:CA:1101:A:H62	20:CB:173:LYS:HE3	1.77	0.49
1:CA:1500:A:C2'	1:CA:1501:C:H5'	2.42	0.49
2:CC:129:PHE:CE2	2:CC:156:LEU:HD13	2.47	0.49
3:CD:77:GLU:OE2	3:CD:81:LEU:HD21	2.12	0.49
3:CD:160:LEU:HA	3:CD:163:GLN:CG	2.41	0.49
10:CK:86:LYS:HB2	10:CK:113:THR:HA	1.94	0.49
11:CL:14:LYS:HG2	11:CL:15:VAL:N	2.26	0.49
12:CM:22:TYR:CD1	12:CM:65:GLU:HA	2.46	0.49
13:CN:50:LEU:H	13:CN:51:PRO:CD	2.22	0.49
15:CP:6:LEU:N	15:CP:6:LEU:HD12	2.27	0.49
20:CB:11:ALA:C	20:CB:13:VAL:H	2.20	0.49
23:DB:201:C:H1'	23:DB:250:G:O6	2.13	0.49
23:DB:263:G:H2'	23:DB:264:C:O4'	2.11	0.49
23:DB:274:C:H2'	23:DB:275:C:O4'	2.13	0.49
23:DB:904:G:H2'	23:DB:905:A:H8	1.78	0.49
23:DB:1175:A:H2'	23:DB:1176:U:H5'	1.94	0.49
23:DB:1210:G:H1'	23:DB:1212:G:C2	2.48	0.49
23:DB:1262:A:N3	47:D0:6:LYS:HE3	2.27	0.49
23:DB:1386:C:OP2	23:DB:1396:U:H5	1.94	0.49
23:DB:1531:C:H2'	23:DB:1532:A:H8	1.77	0.49
23:DB:1745:A:H2'	23:DB:1746:A:O4'	2.12	0.49
23:DB:1973:G:O2'	23:DB:1974:C:H5'	2.13	0.49
23:DB:2882:A:H3'	23:DB:2883:A:H5''	1.93	0.49
29:DG:89:VAL:HG12	29:DG:90:GLY:N	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DK:61:VAL:HG11	32:DK:112:PHE:CE2	2.48	0.49
38:DQ:24:TYR:CG	38:DQ:25:GLY:N	2.80	0.49
38:DQ:80:ASN:O	38:DQ:116:LEU:HD11	2.13	0.49
41:DT:39:THR:O	41:DT:39:THR:HG23	2.12	0.49
45:DY:4:ILE:HG22	45:DY:56:VAL:CG1	2.43	0.49
51:D4:15:LYS:O	51:D4:16:ILE:HB	2.13	0.49
1:AA:252:U:H2'	1:AA:253:A:H8	1.77	0.49
1:AA:847:G:H2'	1:AA:848:C:C6	2.47	0.49
1:AA:1163:A:H2'	1:AA:1164:G:H8	1.77	0.49
1:AA:1346:A:N1	1:AA:1374:A:H5''	2.27	0.49
2:AC:59:PRO:HD2	2:AC:62:SER:O	2.11	0.49
2:AC:96:VAL:HB	2:AC:97:PRO:HD2	1.93	0.49
10:AK:28:ASN:ND2	10:AK:29:THR:H	2.11	0.49
11:AL:2:THR:HG22	11:AL:5:GLN:NE2	2.27	0.49
22:BA:54:G:H21	28:BF:25:MET:CE	2.17	0.49
23:BB:230:G:H2'	23:BB:231:A:H8	1.76	0.49
23:BB:418:C:H2'	23:BB:419:U:H6	1.78	0.49
23:BB:785:G:H2'	23:BB:786:C:C6	2.46	0.49
23:BB:989:G:OP2	45:BY:13:ILE:HD11	2.12	0.49
23:BB:1080:A:O2'	23:BB:1081:U:H5'	2.12	0.49
23:BB:1230:A:H2'	23:BB:1231:U:H6	1.77	0.49
23:BB:2617:U:C2'	23:BB:2618:G:H5'	2.42	0.49
25:BC:141:HIS:NE2	25:BC:194:VAL:HB	2.28	0.49
25:BC:185:ALA:C	25:BC:187:CYS:H	2.20	0.49
25:BC:250:GLN:CD	25:BC:254:LYS:HG2	2.37	0.49
26:BD:10:GLY:O	26:BD:11:MET:HB2	2.11	0.49
26:BD:148:GLN:HG3	26:BD:152:PRO:HB3	1.95	0.49
28:BF:102:LEU:O	28:BF:103:ILE:HB	2.11	0.49
29:BG:132:LEU:HD12	29:BG:140:ILE:HG22	1.93	0.49
30:BH:21:VAL:HG22	30:BH:22:LYS:N	2.28	0.49
34:BM:31:PHE:HB3	34:BM:130:PHE:CZ	2.48	0.49
34:BM:69:PRO:HA	34:BM:94:ALA:HA	1.94	0.49
35:BN:33:ILE:C	35:BN:34:ILE:HG13	2.37	0.49
36:BO:66:GLY:HA2	36:BO:102:ARG:NE	2.27	0.49
38:BQ:65:ASN:CG	38:BQ:75:TYR:HB2	2.37	0.49
42:BU:62:ALA:O	42:BU:63:ALA:HB3	2.12	0.49
46:BZ:53:ALA:O	46:BZ:55:GLY:N	2.36	0.49
46:BZ:53:ALA:C	46:BZ:55:GLY:H	2.18	0.49
1:CA:602:A:H2'	1:CA:603:U:C6	2.47	0.49
1:CA:602:A:O2'	1:CA:603:U:H5'	2.12	0.49
1:CA:1057:G:O3'	2:CC:196:GLY:HA3	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1085:U:H3'	1:CA:1086:U:C6	2.48	0.49
2:CC:16:PRO:CG	2:CC:53:ARG:HH12	2.23	0.49
2:CC:120:THR:HG22	2:CC:188:ALA:HB2	1.94	0.49
3:CD:22:SER:N	3:CD:109:THR:HG22	2.28	0.49
12:CM:14:ALA:HB2	12:CM:42:VAL:HG23	1.95	0.49
12:CM:90:HIS:HA	12:CM:108:ARG:HH22	1.74	0.49
16:CQ:83:LEU:HD13	16:CQ:83:LEU:N	2.27	0.49
18:CS:40:PHE:O	18:CS:43:MET:HG3	2.11	0.49
22:DA:88:C:H1'	22:DA:89:U:C5	2.47	0.49
23:DB:725:G:H2'	23:DB:726:G:C1'	2.42	0.49
23:DB:1306:C:O2'	23:DB:1307:A:H5'	2.12	0.49
23:DB:2636:C:O2'	23:DB:2637:U:H5'	2.13	0.49
23:DB:2729:G:H2'	23:DB:2730:C:C6	2.48	0.49
23:DB:2786:U:O2'	26:DD:66:GLY:HA3	2.12	0.49
25:DC:4:LYS:HD2	25:DC:5:CYS:H	1.75	0.49
26:DD:187:LEU:O	26:DD:188:LEU:HD23	2.13	0.49
28:DF:19:PHE:CE2	28:DF:164:GLU:HG2	2.47	0.49
28:DF:91:ARG:HD3	28:DF:91:ARG:N	2.27	0.49
30:DH:27:ARG:HG2	30:DH:27:ARG:HH21	1.78	0.49
30:DH:97:ARG:HB3	30:DH:112:LYS:HG2	1.94	0.49
30:DH:114:GLU:HB2	30:DH:133:GLN:O	2.12	0.49
35:DN:33:ILE:C	35:DN:34:ILE:HG13	2.38	0.49
35:DN:98:LEU:HG	47:D0:42:ILE:HD11	1.95	0.49
37:DP:24:THR:HB	37:DP:86:LYS:HB3	1.93	0.49
37:DP:26:GLU:HB3	37:DP:84:SER:HB3	1.94	0.49
42:DU:32:LYS:HG3	42:DU:65:GLN:HA	1.95	0.49
43:DW:19:ARG:CD	43:DW:19:ARG:H	2.26	0.49
1:AA:80:A:H3'	1:AA:81:A:C8	2.44	0.49
1:AA:724:G:H2'	1:AA:725:G:H8	1.78	0.49
1:AA:728:A:H2'	1:AA:729:A:H8	1.78	0.49
1:AA:784:A:H2'	1:AA:785:G:H8	1.77	0.49
1:AA:1005:A:H4'	1:AA:1037:C:O2	2.13	0.49
1:AA:1159:U:O4'	1:AA:1182:G:N2	2.45	0.49
1:AA:1299:A:H2'	1:AA:1301:U:H1'	1.95	0.49
5:AF:53:LYS:HB2	5:AF:54:LEU:HD22	1.94	0.49
7:AH:115:ALA:O	7:AH:120:LEU:HD23	2.13	0.49
8:AI:78:ILE:O	8:AI:82:ILE:HG13	2.12	0.49
12:AM:64:VAL:HA	12:AM:68:LEU:CD1	2.40	0.49
13:AN:25:GLU:O	13:AN:29:ILE:HG13	2.12	0.49
16:AQ:30:HIS:HB3	16:AQ:33:TYR:HB2	1.93	0.49
18:AS:33:TRP:C	18:AS:35:ARG:H	2.20	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AS:48:ILE:O	18:AS:58:PRO:HA	2.12	0.49
21:AU:26:GLY:C	21:AU:28:LEU:H	2.19	0.49
21:AU:43:GLU:HA	21:AU:46:ARG:NE	2.28	0.49
23:BB:582:A:H2'	23:BB:583:G:H8	1.78	0.49
23:BB:931:U:H3	23:BB:1166:G:N2	2.11	0.49
23:BB:1057:A:H62	23:BB:1086:A:H2'	1.78	0.49
23:BB:1294:U:C2'	23:BB:1295:C:H5'	2.42	0.49
23:BB:1584:U:H5''	23:BB:1585:C:C5	2.47	0.49
23:BB:1794:A:H2'	23:BB:1795:C:C6	2.47	0.49
23:BB:2590:A:H5''	25:BC:237:ARG:NH2	2.27	0.49
23:BB:2836:U:H2'	23:BB:2837:A:H8	1.77	0.49
25:BC:43:ASN:HD22	25:BC:44:ASN:N	2.10	0.49
25:BC:199:HIS:C	25:BC:201:LEU:H	2.21	0.49
26:BD:59:ARG:O	26:BD:59:ARG:HD3	2.13	0.49
28:BF:76:PHE:HD2	28:BF:78:ILE:HD13	1.77	0.49
28:BF:160:LYS:HG3	28:BF:161:SER:N	2.28	0.49
29:BG:42:VAL:HG23	29:BG:50:THR:O	2.12	0.49
29:BG:71:LEU:HD13	29:BG:74:MET:SD	2.53	0.49
30:BH:12:LEU:O	30:BH:12:LEU:HG	2.13	0.49
34:BM:53:MET:HE1	34:BM:103:TYR:CD2	2.47	0.49
36:BO:58:ILE:O	36:BO:62:LEU:HB2	2.13	0.49
43:BW:27:GLY:O	43:BW:63:ASP:HA	2.12	0.49
43:BW:58:LEU:HG	43:BW:79:ILE:HD12	1.94	0.49
46:BZ:7:VAL:HG11	46:BZ:51:VAL:HG13	1.93	0.49
47:B0:18:HIS:C	47:B0:20:ALA:H	2.21	0.49
50:B3:7:ARG:HG3	50:B3:7:ARG:NH1	2.28	0.49
52:BI:21:PRO:CB	52:BI:22:PRO:HD3	2.39	0.49
52:BI:56:VAL:CG2	52:BI:68:PHE:HB2	2.43	0.49
52:BI:74:PRO:O	52:BI:77:VAL:HG22	2.13	0.49
1:CA:376:G:H2'	1:CA:377:G:C8	2.45	0.49
1:CA:1009:U:H2'	1:CA:1010:U:C6	2.48	0.49
1:CA:1527:U:O2'	1:CA:1528:U:H5'	2.13	0.49
3:CD:20:LEU:C	3:CD:21:LYS:HD2	2.38	0.49
6:CG:14:ASP:OD2	6:CG:22:LEU:HB3	2.11	0.49
7:CH:4:ASP:OD1	7:CH:7:ALA:HB2	2.13	0.49
7:CH:113:ARG:NH2	7:CH:114:ALA:HA	2.28	0.49
9:CJ:8:ILE:HD11	9:CJ:76:ILE:HG13	1.93	0.49
12:CM:86:ARG:HA	12:CM:96:VAL:CG1	2.42	0.49
13:CN:25:GLU:O	13:CN:29:ILE:HG13	2.12	0.49
13:CN:29:ILE:HB	13:CN:30:ILE:HD12	1.93	0.49
21:CU:13:VAL:O	21:CU:13:VAL:HG13	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:19:A:H2'	23:DB:20:C:C6	2.47	0.49
23:DB:278:A:O3'	23:DB:279:A:H8	1.95	0.49
23:DB:1099:G:C8	52:DI:3:LYS:HB2	2.48	0.49
23:DB:1433:A:H2'	23:DB:1434:A:O4'	2.12	0.49
23:DB:1838:C:H4'	23:DB:1839:G:C8	2.48	0.49
23:DB:2295:C:O2'	23:DB:2296:U:H5'	2.12	0.49
26:DD:55:LYS:HB2	26:DD:60:VAL:HG13	1.94	0.49
28:DF:87:LYS:CG	28:DF:88:VAL:H	2.24	0.49
33:DL:77:ILE:HG12	33:DL:95:LEU:HD22	1.95	0.49
35:DN:75:ILE:O	35:DN:79:LEU:HD12	2.12	0.49
36:DO:106:LEU:HG	36:DO:107:ALA:N	2.28	0.49
39:DR:10:LYS:N	39:DR:10:LYS:HD2	2.27	0.49
40:DS:4:ILE:CG2	40:DS:106:VAL:HG13	2.41	0.49
40:DS:47:VAL:HG23	40:DS:48:LYS:N	2.27	0.49
42:DU:40:LEU:HA	42:DU:60:LYS:O	2.13	0.49
45:DY:20:LYS:HA	45:DY:23:LEU:HB2	1.93	0.49
46:DZ:7:VAL:HG23	46:DZ:67:VAL:HG11	1.94	0.49
48:D1:3:GLY:C	48:D1:5:ARG:N	2.71	0.49
48:D1:7:LYS:HD3	50:D3:33:THR:HG21	1.94	0.49
1:AA:17:U:H1'	1:AA:1080:A:N3	2.28	0.49
1:AA:79:G:C2	1:AA:80:A:N6	2.80	0.49
1:AA:420:U:H2'	1:AA:422:C:C5	2.47	0.49
1:AA:844:G:H3'	1:AA:844:G:OP2	2.13	0.49
1:AA:846:G:H2'	1:AA:846:G:N3	2.27	0.49
1:AA:1074:G:H4'	20:AB:102:ASN:HB2	1.94	0.49
1:AA:1343:G:H2'	1:AA:1344:C:H6	1.76	0.49
2:AC:78:LYS:HE3	2:AC:79:LYS:NZ	2.28	0.49
4:AE:92:ARG:HB3	4:AE:92:ARG:NH1	2.27	0.49
10:AK:60:PHE:O	10:AK:64:VAL:HG12	2.13	0.49
10:AK:83:VAL:HB	10:AK:109:ILE:HG23	1.93	0.49
16:AQ:74:LEU:HD13	16:AQ:75:VAL:N	2.28	0.49
22:BA:52:A:H3'	22:BA:53:A:H8	1.76	0.49
23:BB:309:A:H4'	42:BU:15:GLY:CA	2.42	0.49
23:BB:454:A:H3'	23:BB:455:C:H5'	1.95	0.49
23:BB:670:A:H4'	23:BB:671:C:O5'	2.13	0.49
23:BB:751:A:C5'	40:BS:90:LYS:HA	2.42	0.49
23:BB:817:C:H2'	23:BB:818:G:O4'	2.13	0.49
23:BB:1470:A:H3'	23:BB:1471:G:H8	1.77	0.49
23:BB:2015:A:H2'	23:BB:2016:U:O4'	2.13	0.49
23:BB:2734:A:H2'	23:BB:2735:G:C5'	2.41	0.49
23:BB:2875:C:H2'	23:BB:2876:G:C8	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BD:107:VAL:HA	26:BD:204:LYS:O	2.13	0.49
27:BE:170:ARG:NH2	27:BE:176:ASP:HB2	2.28	0.49
28:BF:3:LEU:HD11	28:BF:172:PHE:CG	2.47	0.49
28:BF:45:ASP:HB3	28:BF:48:LEU:CD2	2.43	0.49
28:BF:111:ARG:HD2	28:BF:111:ARG:N	2.28	0.49
28:BF:165:GLY:O	28:BF:169:LEU:HD12	2.12	0.49
38:BQ:7:VAL:O	38:BQ:8:ILE:C	2.56	0.49
38:BQ:80:ASN:ND2	38:BQ:81:GLY:N	2.61	0.49
38:BQ:91:ARG:HB2	39:BR:11:GLN:CD	2.38	0.49
41:BT:43:ILE:O	41:BT:47:VAL:HG23	2.13	0.49
46:BZ:33:LEU:O	46:BZ:34:HIS:CG	2.66	0.49
1:CA:398:U:H2'	1:CA:399:G:C8	2.47	0.49
1:CA:780:A:O2'	1:CA:781:A:H5''	2.13	0.49
1:CA:1206:G:H4'	2:CC:191:THR:O	2.13	0.49
1:CA:1320:C:N4	18:CS:35:ARG:HD3	2.28	0.49
1:CA:1339:A:H2'	1:CA:1340:A:O4'	2.12	0.49
1:CA:1423:G:H2'	1:CA:1424:U:C6	2.48	0.49
1:CA:1511:G:O2'	1:CA:1512:U:H5'	2.12	0.49
3:CD:16:THR:HG22	3:CD:17:ASP:N	2.28	0.49
5:CF:18:VAL:HG21	5:CF:58:HIS:CE1	2.48	0.49
5:CF:51:ILE:HG23	5:CF:51:ILE:O	2.12	0.49
5:CF:53:LYS:HB2	5:CF:54:LEU:HD22	1.93	0.49
7:CH:95:MET:HG2	7:CH:98:LEU:HB2	1.93	0.49
9:CJ:76:ILE:O	9:CJ:76:ILE:HD12	2.11	0.49
12:CM:21:ILE:HG22	12:CM:23:GLY:H	1.77	0.49
13:CN:50:LEU:N	13:CN:51:PRO:CD	2.76	0.49
20:CB:128:LEU:HD23	20:CB:132:GLU:CB	2.42	0.49
22:DA:28:C:H2'	22:DA:29:A:C8	2.48	0.49
23:DB:37:C:H1'	27:DE:45:ALA:HB2	1.93	0.49
23:DB:616:A:H3'	23:DB:617:G:C8	2.43	0.49
23:DB:655:A:H4'	23:DB:656:G:H5'	1.95	0.49
23:DB:1168:G:O2'	23:DB:1169:A:H5'	2.11	0.49
23:DB:1580:A:H2'	23:DB:1581:G:O4'	2.13	0.49
23:DB:1792:G:OP1	25:DC:204:LEU:HD12	2.13	0.49
23:DB:1985:C:O2'	23:DB:1986:C:H5'	2.13	0.49
23:DB:2221:G:O2'	23:DB:2222:C:H5'	2.13	0.49
23:DB:2818:U:H4'	23:DB:2837:A:O4'	2.13	0.49
26:DD:36:GLN:HB3	26:DD:67:HIS:HE1	1.78	0.49
26:DD:51:THR:HG23	26:DD:78:GLY:O	2.12	0.49
26:DD:116:LYS:CE	35:DN:1:MET:HE1	2.37	0.49
26:DD:149:ASN:O	26:DD:152:PRO:HD2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DF:71:LYS:HD3	28:DF:73:VAL:O	2.13	0.49
29:DG:11:PRO:O	29:DG:14:VAL:HG22	2.13	0.49
30:DH:65:ALA:HB1	30:DH:138:VAL:HG11	1.94	0.49
33:DL:141:LYS:C	33:DL:142:ILE:HD12	2.38	0.49
35:DN:12:ARG:HG3	35:DN:13:ASN:H	1.78	0.49
37:DP:24:THR:N	37:DP:87:ARG:O	2.46	0.49
39:DR:16:GLU:H	39:DR:101:ILE:CG1	2.23	0.49
39:DR:72:VAL:HG23	39:DR:89:HIS:O	2.12	0.49
42:DU:53:GLN:N	42:DU:54:PRO:CD	2.76	0.49
43:DW:9:THR:O	43:DW:10:ARG:HB2	2.12	0.49
48:D1:33:LEU:HB3	48:D1:51:ALA:CB	2.40	0.49
52:DI:24:GLY:HA2	52:DI:34:ILE:HD12	1.95	0.49
52:DI:140:GLU:H	52:DI:140:GLU:CD	2.21	0.49
1:AA:34:C:H2'	1:AA:35:G:H8	1.77	0.49
1:AA:36:C:O3'	11:AL:119:LYS:HA	2.12	0.49
1:AA:66:A:H5'	1:AA:173:U:O4	2.13	0.49
1:AA:715:A:H2'	1:AA:716:A:H8	1.78	0.49
1:AA:1060:U:H2'	1:AA:1061:G:H8	1.77	0.49
3:AD:2:ARG:HG3	3:AD:114:ARG:NH1	2.28	0.49
8:AI:46:VAL:HG23	8:AI:47:VAL:N	2.27	0.49
10:AK:108:ASN:HD21	21:AU:6:ARG:HD2	1.78	0.49
13:AN:23:ARG:C	13:AN:25:GLU:H	2.21	0.49
18:AS:10:ILE:HB	18:AS:14:LEU:HD11	1.95	0.49
19:AT:68:LYS:HA	19:AT:68:LYS:HZ3	1.78	0.49
20:AB:186:VAL:O	20:AB:200:PRO:HA	2.13	0.49
21:AU:20:ARG:HD2	21:AU:20:ARG:H	1.78	0.49
22:BA:42:C:C5	28:BF:65:LEU:HD22	2.47	0.49
22:BA:54:G:N2	28:BF:25:MET:HE3	2.16	0.49
23:BB:245:G:H2'	23:BB:246:C:H6	1.77	0.49
23:BB:256:A:H2'	23:BB:257:C:H6	1.78	0.49
23:BB:670:A:C4'	33:BL:42:SER:HB2	2.42	0.49
23:BB:704:G:H1'	23:BB:727:A:N6	2.27	0.49
23:BB:922:C:H1'	43:BW:22:VAL:HG21	1.94	0.49
23:BB:2394:C:H2'	23:BB:2395:C:C6	2.48	0.49
23:BB:2462:C:H2'	23:BB:2463:C:C6	2.48	0.49
23:BB:2589:A:H2'	23:BB:2590:A:H8	1.77	0.49
23:BB:2863:C:O2'	23:BB:2864:G:H5'	2.12	0.49
24:BV:30:ILE:O	24:BV:37:PRO:HA	2.12	0.49
25:BC:92:LEU:HG	25:BC:93:VAL:H	1.78	0.49
25:BC:153:LEU:HD13	25:BC:175:LEU:HD21	1.94	0.49
26:BD:108:ASP:OD2	26:BD:206:ALA:HA	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BE:118:LEU:O	27:BE:119:ILE:HD13	2.12	0.49
28:BF:62:GLN:HB2	28:BF:91:ARG:HH11	1.78	0.49
29:BG:84:LYS:H	29:BG:85:LYS:HD2	1.77	0.49
29:BG:89:VAL:HG12	29:BG:90:GLY:N	2.26	0.49
30:BH:9:VAL:CG1	30:BH:12:LEU:HG	2.43	0.49
36:BO:106:LEU:HG	36:BO:107:ALA:N	2.26	0.49
49:B2:34:ARG:HE	49:B2:39:ARG:HG2	1.78	0.49
1:CA:69:G:N2	1:CA:71:A:N6	2.61	0.49
1:CA:104:G:O2'	1:CA:105:G:H5'	2.13	0.49
1:CA:137:U:H2'	1:CA:138:G:H8	1.78	0.49
1:CA:394:G:O2'	1:CA:395:C:H5'	2.13	0.49
1:CA:502:A:H2'	1:CA:503:C:H6	1.76	0.49
1:CA:916:U:O2'	1:CA:917:G:H5'	2.12	0.49
1:CA:1216:A:H2'	1:CA:1217:C:C6	2.47	0.49
1:CA:1297:G:H1'	1:CA:1298:U:C5	2.44	0.49
2:CC:156:LEU:CD1	2:CC:165:GLU:HB2	2.43	0.49
4:CE:88:HIS:CE1	4:CE:137:ARG:HD2	2.48	0.49
5:CF:6:ILE:O	5:CF:6:ILE:HG13	2.13	0.49
8:CI:22:PRO:HA	8:CI:60:LEU:CB	2.43	0.49
13:CN:79:SER:O	13:CN:83:VAL:HG23	2.13	0.49
16:CQ:60:ILE:HD13	16:CQ:60:ILE:H	1.78	0.49
23:DB:222:A:N1	23:DB:233:A:H5''	2.28	0.49
23:DB:303:G:H2'	23:DB:304:U:H6	1.78	0.49
23:DB:1033:U:H5	51:D4:15:LYS:HE2	1.78	0.49
23:DB:1099:G:H4'	52:DI:4:VAL:HG12	1.95	0.49
23:DB:1150:C:O2'	23:DB:1151:A:H5'	2.12	0.49
23:DB:2307:G:O6	28:DF:40:GLY:HA3	2.12	0.49
23:DB:2443:C:O2'	23:DB:2444:G:H5'	2.13	0.49
23:DB:2756:U:C1'	23:DB:2757:A:H5''	2.40	0.49
25:DC:138:SER:O	25:DC:162:GLN:HA	2.13	0.49
25:DC:149:LYS:HD3	25:DC:152:GLN:HE22	1.78	0.49
25:DC:264:LYS:HG3	25:DC:265:PHE:CD2	2.48	0.49
28:DF:103:ILE:HD11	28:DF:174:PHE:HA	1.94	0.49
28:DF:126:ASN:ND2	28:DF:156:THR:HG23	2.06	0.49
32:DK:113:MET:HA	32:DK:116:ILE:HD11	1.95	0.49
34:DM:105:MET:HE3	34:DM:117:PHE:CZ	2.47	0.49
35:DN:31:HIS:C	35:DN:33:ILE:H	2.21	0.49
39:DR:6:GLN:HE22	39:DR:9:GLY:C	2.21	0.49
40:DS:25:ARG:HE	40:DS:74:ILE:CG2	2.25	0.49
43:DW:18:LYS:HG3	43:DW:19:ARG:H	1.77	0.49
46:DZ:5:CYS:HG	46:DZ:52:SER:HG	1.61	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:50:A:N6	1:AA:361:G:H4'	2.28	0.49
1:AA:153:C:H2'	1:AA:154:U:H6	1.78	0.49
1:AA:242:G:H2'	1:AA:243:A:H5''	1.94	0.49
1:AA:382:A:H2'	1:AA:383:A:C8	2.48	0.49
1:AA:602:A:H2'	1:AA:603:U:C6	2.48	0.49
1:AA:674:G:H2'	1:AA:675:A:C8	2.40	0.49
1:AA:1114:C:O2'	1:AA:1115:U:H5'	2.13	0.49
1:AA:1464:U:H2'	1:AA:1465:A:H8	1.77	0.49
2:AC:165:GLU:HG3	2:AC:166:TRP:H	1.77	0.49
3:AD:90:LEU:HD13	3:AD:93:LEU:HD12	1.94	0.49
4:AE:15:ILE:HB	4:AE:35:LEU:O	2.13	0.49
5:AF:54:LEU:HD22	5:AF:54:LEU:N	2.28	0.49
7:AH:111:THR:H	7:AH:114:ALA:HB3	1.76	0.49
9:AJ:76:ILE:HD12	9:AJ:76:ILE:O	2.13	0.49
10:AK:47:GLY:C	10:AK:49:SER:H	2.21	0.49
12:AM:44:ILE:O	12:AM:47:LEU:HB2	2.12	0.49
12:AM:68:LEU:O	12:AM:72:ILE:HG22	2.13	0.49
13:AN:50:LEU:N	13:AN:51:PRO:CD	2.76	0.49
13:AN:88:MET:HA	13:AN:88:MET:HE2	1.94	0.49
16:AQ:28:VAL:O	16:AQ:36:PHE:HA	2.13	0.49
20:AB:31:PHE:HB2	20:AB:41:ASN:HA	1.94	0.49
23:BB:150:U:H2'	23:BB:151:C:H6	1.76	0.49
23:BB:311:A:H3'	23:BB:312:G:H8	1.78	0.49
23:BB:392:U:H2'	23:BB:393:C:H6	1.78	0.49
23:BB:1444:G:H2'	23:BB:1445:G:C8	2.47	0.49
23:BB:1951:U:H2'	23:BB:1953:A:OP2	2.13	0.49
23:BB:2073:C:C5'	25:BC:227:VAL:HG12	2.43	0.49
23:BB:2101:A:H2'	23:BB:2102:G:O4'	2.13	0.49
23:BB:2284:A:OP1	48:B1:4:ILE:HG12	2.12	0.49
23:BB:2721:A:H2'	23:BB:2722:G:C8	2.48	0.49
25:BC:77:VAL:HG23	25:BC:112:GLY:N	2.08	0.49
25:BC:255:LYS:C	25:BC:256:THR:HG23	2.38	0.49
26:BD:30:GLU:OE1	26:BD:53:GLY:HA2	2.13	0.49
27:BE:176:ASP:OD1	27:BE:178:VAL:HG12	2.12	0.49
27:BE:181:ILE:HG13	33:BL:2:ARG:HE	1.78	0.49
28:BF:102:LEU:HD13	28:BF:103:ILE:HB	1.93	0.49
29:BG:42:VAL:HA	29:BG:50:THR:O	2.13	0.49
31:BJ:110:PRO:HB2	31:BJ:111:LYS:HE3	1.94	0.49
33:BL:105:ILE:HG22	33:BL:106:GLU:N	2.28	0.49
38:BQ:63:ARG:HH21	38:BQ:64:ILE:HD13	1.78	0.49
38:BQ:94:LEU:C	38:BQ:96:ASP:N	2.71	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:B0:47:TYR:O	47:B0:48:TYR:HB2	2.11	0.49
50:B3:25:HIS:HB2	50:B3:43:LEU:O	2.13	0.49
1:CA:660:C:H2'	1:CA:661:G:O4'	2.13	0.49
1:CA:847:G:H2'	1:CA:848:C:C6	2.48	0.49
1:CA:1225:A:H5'	1:CA:1226:C:OP2	2.13	0.49
1:CA:1238:A:C8	1:CA:1303:C:H1'	2.48	0.49
3:CD:106:PHE:CE1	3:CD:158:LEU:HD21	2.48	0.49
4:CE:110:MET:HE1	4:CE:125:LYS:HA	1.95	0.49
4:CE:132:PRO:HG2	4:CE:133:ILE:H	1.78	0.49
4:CE:136:VAL:HG13	4:CE:137:ARG:H	1.78	0.49
5:CF:12:PRO:C	5:CF:14:GLN:H	2.21	0.49
11:CL:81:ILE:HG23	11:CL:94:TYR:HB3	1.95	0.49
15:CP:72:ALA:HA	15:CP:75:ILE:HD12	1.95	0.49
16:CQ:47:ASP:CG	16:CQ:50:ASN:HA	2.38	0.49
20:CB:14:HIS:HD2	20:CB:202:ASN:H	1.60	0.49
20:CB:142:LYS:HA	20:CB:145:ASN:CG	2.38	0.49
23:DB:138:U:H2'	23:DB:140:C:C4'	2.42	0.49
23:DB:545:U:H5''	23:DB:546:U:C4'	2.19	0.49
23:DB:545:U:H2'	23:DB:547:A:OP1	2.13	0.49
23:DB:626:A:H2'	33:DL:78:ARG:NH1	2.28	0.49
23:DB:1256:G:H21	27:DE:77:ILE:CG2	2.26	0.49
23:DB:2223:G:C2'	23:DB:2224:G:H5'	2.43	0.49
23:DB:2240:U:O2'	23:DB:2241:A:H5'	2.12	0.49
23:DB:2772:C:H4'	26:DD:171:THR:HG21	1.95	0.49
28:DF:33:ILE:HB	28:DF:90:LEU:HG	1.95	0.49
28:DF:98:PHE:C	28:DF:100:GLU:H	2.20	0.49
31:DJ:16:TYR:CD2	31:DJ:140:LEU:HD12	2.48	0.49
31:DJ:38:GLY:HA3	31:DJ:50:THR:O	2.13	0.49
33:DL:125:LEU:H	33:DL:143:GLU:HG3	1.78	0.49
35:DN:90:ARG:HB3	35:DN:94:TYR:HE1	1.78	0.49
43:DW:51:GLY:N	43:DW:59:PHE:HB2	2.28	0.49
44:DX:21:LEU:HD23	44:DX:21:LEU:H	1.78	0.49
46:DZ:68:LEU:HB3	46:DZ:78:TYR:HE1	1.76	0.49
47:D0:47:TYR:O	47:D0:48:TYR:HB2	2.12	0.49
50:D3:15:LYS:HA	50:D3:21:PHE:HA	1.95	0.49
52:DI:19:PRO:HB2	52:DI:22:PRO:HD2	1.95	0.49
1:AA:136:C:H1'	15:AP:1:MET:HE1	1.95	0.48
1:AA:598:U:H4'	7:AH:85:TYR:CG	2.48	0.48
1:AA:815:A:H4'	1:AA:817:C:C4	2.48	0.48
1:AA:922:G:H2'	1:AA:923:A:C8	2.49	0.48
1:AA:1109:C:H2'	1:AA:1110:A:O4'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1221:G:O2'	1:AA:1222:G:H5'	2.13	0.48
1:AA:1239:A:H4'	1:AA:1240:U:C5'	2.43	0.48
1:AA:1254:A:H2'	1:AA:1255:G:C8	2.48	0.48
3:AD:22:SER:HB2	3:AD:109:THR:HG22	1.94	0.48
7:AH:9:MET:O	7:AH:13:ILE:HG13	2.13	0.48
8:AI:44:ARG:HE	8:AI:48:ARG:HH22	1.61	0.48
8:AI:52:GLU:C	8:AI:53:LEU:HD22	2.38	0.48
10:AK:86:LYS:HB2	10:AK:113:THR:HA	1.94	0.48
12:AM:86:ARG:HA	12:AM:96:VAL:CG1	2.43	0.48
13:AN:79:SER:O	13:AN:83:VAL:HG23	2.13	0.48
23:BB:796:C:H2'	23:BB:797:G:H8	1.78	0.48
23:BB:904:G:H2'	23:BB:905:A:H8	1.77	0.48
23:BB:992:C:H2'	23:BB:993:G:H8	1.78	0.48
23:BB:1729:U:O4	23:BB:1733:G:H1'	2.12	0.48
23:BB:1985:C:O2'	23:BB:1986:C:H5'	2.13	0.48
23:BB:2070:A:H2'	23:BB:2071:A:C8	2.49	0.48
23:BB:2234:G:O2'	23:BB:2235:G:H5'	2.13	0.48
23:BB:2783:U:H2'	23:BB:2784:U:C6	2.47	0.48
23:BB:2849:U:H4'	23:BB:2850:A:C5'	2.43	0.48
28:BF:33:ILE:HB	28:BF:90:LEU:HG	1.95	0.48
28:BF:140:ILE:O	28:BF:141:ASP:C	2.56	0.48
29:BG:93:TYR:O	29:BG:94:ARG:HG3	2.11	0.48
29:BG:116:LEU:HD23	29:BG:121:THR:HA	1.94	0.48
30:BH:53:GLU:HA	30:BH:53:GLU:OE1	2.12	0.48
30:BH:66:ASN:N	30:BH:66:ASN:HD22	2.12	0.48
30:BH:80:ILE:H	30:BH:145:ASN:H	1.61	0.48
30:BH:108:VAL:HG12	30:BH:109:GLU:H	1.78	0.48
34:BM:35:ALA:HB3	34:BM:99:GLY:H	1.78	0.48
34:BM:86:LYS:HG3	34:BM:87:GLY:N	2.27	0.48
35:BN:61:ALA:C	35:BN:63:ARG:N	2.71	0.48
38:BQ:35:PHE:O	38:BQ:39:ILE:HG12	2.13	0.48
38:BQ:96:ASP:C	38:BQ:98:ALA:H	2.19	0.48
41:BT:50:LEU:HD22	41:BT:50:LEU:N	2.28	0.48
44:BX:3:ALA:O	44:BX:6:LEU:HB2	2.12	0.48
47:B0:18:HIS:H	47:B0:18:HIS:HD1	1.59	0.48
52:BI:89:SER:HA	52:BI:97:VAL:CG2	2.43	0.48
1:CA:591:U:H2'	1:CA:592:G:H8	1.78	0.48
1:CA:724:G:H2'	1:CA:725:G:H8	1.77	0.48
1:CA:728:A:H2'	1:CA:729:A:H8	1.77	0.48
3:CD:48:SER:O	3:CD:49:ASP:C	2.56	0.48
7:CH:12:ARG:HG3	7:CH:12:ARG:HH11	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CM:9:PRO:HB2	12:CM:17:ALA:HB1	1.95	0.48
16:CQ:10:ARG:NH2	16:CQ:55:GLY:HA2	2.28	0.48
18:CS:33:TRP:C	18:CS:35:ARG:H	2.21	0.48
20:CB:40:ILE:HD13	20:CB:201:GLY:HA2	1.93	0.48
20:CB:113:LEU:HD23	20:CB:114:LYS:N	2.28	0.48
22:DA:39:A:O2'	22:DA:40:U:H5'	2.13	0.48
22:DA:74:U:H2'	22:DA:75:G:C8	2.48	0.48
23:DB:519:U:H2'	23:DB:520:G:C8	2.48	0.48
23:DB:685:A:H1'	23:DB:688:U:O4	2.13	0.48
23:DB:1098:A:HO2'	52:DI:4:VAL:C	2.21	0.48
23:DB:1348:C:H2'	23:DB:1349:C:H5'	1.94	0.48
23:DB:1794:A:H2'	23:DB:1795:C:C6	2.48	0.48
23:DB:1826:G:H2'	23:DB:1827:U:C6	2.48	0.48
23:DB:1939:U:O2	23:DB:1967:C:H4'	2.13	0.48
23:DB:2405:G:H1'	23:DB:2412:A:H61	1.78	0.48
25:DC:239:PHE:HD1	25:DC:241:LYS:H	1.59	0.48
26:DD:171:THR:HG23	26:DD:172:VAL:H	1.77	0.48
27:DE:30:GLN:NE2	27:DE:100:MET:HE1	2.27	0.48
28:DF:79:ARG:HB2	28:DF:82:TYR:CE2	2.48	0.48
29:DG:58:ALA:C	29:DG:60:GLY:H	2.21	0.48
32:DK:35:VAL:H	32:DK:65:THR:HG21	1.78	0.48
35:DN:90:ARG:HB3	35:DN:94:TYR:CE1	2.48	0.48
38:DQ:91:ARG:HE	38:DQ:94:LEU:HD23	1.77	0.48
50:D3:25:HIS:HB2	50:D3:43:LEU:O	2.13	0.48
1:AA:264:C:HO2'	16:AQ:65:PRO:HG2	1.78	0.48
1:AA:317:U:H2'	1:AA:318:G:H8	1.78	0.48
1:AA:908:A:H2'	1:AA:909:A:H8	1.78	0.48
1:AA:1001:C:H2'	1:AA:1002:G:H8	1.78	0.48
1:AA:1234:C:H1'	1:AA:1364:U:O2	2.14	0.48
1:AA:1414:U:H2'	1:AA:1415:G:C8	2.48	0.48
1:AA:1424:U:H2'	1:AA:1425:U:C6	2.47	0.48
2:AC:13:ILE:HD13	2:AC:13:ILE:N	2.29	0.48
2:AC:149:LYS:O	2:AC:200:TRP:HE3	1.95	0.48
3:AD:24:VAL:O	3:AD:27:ILE:HG13	2.13	0.48
4:AE:71:ILE:HG21	4:AE:144:GLU:OE2	2.12	0.48
4:AE:148:SER:HB2	4:AE:150:GLU:OE1	2.13	0.48
6:AG:12:LEU:HD22	6:AG:13:PRO:HD2	1.94	0.48
6:AG:120:ALA:O	6:AG:123:LEU:HB2	2.13	0.48
6:AG:136:LYS:O	6:AG:140:VAL:HG23	2.13	0.48
8:AI:127:SER:O	8:AI:129:ARG:HG3	2.12	0.48
12:AM:90:HIS:HA	12:AM:108:ARG:HH22	1.76	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AO:55:LEU:O	14:AO:58:MET:HG2	2.14	0.48
16:AQ:47:ASP:CG	16:AQ:50:ASN:HA	2.38	0.48
17:AR:63:TYR:C	17:AR:64:LEU:HD12	2.37	0.48
18:AS:62:THR:O	18:AS:66:VAL:HG13	2.13	0.48
22:BA:91:C:H2'	22:BA:92:C:C6	2.48	0.48
23:BB:623:C:H2'	23:BB:624:C:C6	2.48	0.48
23:BB:710:U:H2'	23:BB:711:G:H8	1.79	0.48
23:BB:851:C:H2'	23:BB:852:U:H6	1.78	0.48
23:BB:1059:G:H2'	23:BB:1060:U:C5	2.48	0.48
23:BB:1210:G:H1'	23:BB:1212:G:C2	2.48	0.48
23:BB:1716:U:H2'	23:BB:1717:A:H8	1.78	0.48
23:BB:1838:C:H4'	23:BB:1839:G:C8	2.48	0.48
23:BB:2282:G:OP1	23:BB:2283:C:H1'	2.13	0.48
23:BB:2531:A:H4'	29:BG:156:TYR:CD1	2.48	0.48
23:BB:2569:G:O2'	23:BB:2570:G:H5'	2.13	0.48
23:BB:2820:A:H4'	35:BN:3:HIS:CG	2.48	0.48
26:BD:55:LYS:HB2	26:BD:60:VAL:HG13	1.94	0.48
26:BD:116:LYS:HB3	26:BD:118:PHE:CZ	2.47	0.48
30:BH:64:ALA:O	30:BH:65:ALA:HB2	2.13	0.48
31:BJ:75:TYR:CD1	31:BJ:86:GLN:HB3	2.48	0.48
32:BK:35:VAL:H	32:BK:65:THR:HG21	1.78	0.48
35:BN:11:ASN:O	35:BN:12:ARG:HB2	2.13	0.48
36:BO:39:VAL:HB	36:BO:49:VAL:HG22	1.96	0.48
37:BP:24:THR:N	37:BP:87:ARG:O	2.47	0.48
39:BR:61:ALA:HB1	39:BR:96:VAL:HB	1.95	0.48
40:BS:17:VAL:HG11	40:BS:103:ILE:HG12	1.93	0.48
45:BY:29:ARG:H	45:BY:33:HIS:CD2	2.30	0.48
46:BZ:76:GLU:HG3	46:BZ:77:LYS:H	1.77	0.48
50:B3:58:ILE:HG13	50:B3:58:ILE:H	1.39	0.48
1:CA:114:U:H2'	1:CA:115:G:C8	2.48	0.48
1:CA:386:C:C2'	1:CA:387:U:H5'	2.44	0.48
1:CA:734:G:O2'	17:CR:59:LYS:HD3	2.13	0.48
1:CA:820:U:H4'	1:CA:821:G:OP2	2.12	0.48
1:CA:846:G:N3	1:CA:846:G:H2'	2.28	0.48
2:CC:155:ARG:H	2:CC:162:ALA:HA	1.78	0.48
3:CD:8:LEU:HD12	3:CD:31:CYS:SG	2.53	0.48
5:CF:68:GLN:HA	5:CF:71:ILE:HD11	1.95	0.48
8:CI:50:PRO:HD3	8:CI:79:ARG:CG	2.43	0.48
14:CO:68:TYR:HA	14:CO:71:ARG:HE	1.77	0.48
19:CT:69:ASN:O	19:CT:70:LYS:C	2.57	0.48
20:CB:93:HIS:O	20:CB:94:ARG:O	2.30	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:492:A:H2'	23:DB:493:G:O4'	2.13	0.48
23:DB:636:G:H3'	33:DL:128:THR:CG2	2.42	0.48
23:DB:796:C:O2'	23:DB:797:G:H5'	2.13	0.48
23:DB:1387:A:H5'	23:DB:1469:A:H1'	1.95	0.48
23:DB:1445:G:H2'	23:DB:1446:C:O4'	2.13	0.48
23:DB:1467:U:O2'	23:DB:1468:U:H5'	2.13	0.48
23:DB:1794:A:H2'	23:DB:1795:C:H6	1.77	0.48
23:DB:1885:A:H2'	23:DB:1886:U:O4'	2.14	0.48
23:DB:2466:C:O2'	23:DB:2467:C:H5'	2.12	0.48
27:DE:37:ALA:C	27:DE:39:ALA:H	2.20	0.48
31:DJ:16:TYR:N	31:DJ:137:PRO:HB3	2.29	0.48
32:DK:87:LEU:HB2	32:DK:93:GLN:C	2.36	0.48
33:DL:125:LEU:HD23	33:DL:126:ARG:N	2.28	0.48
35:DN:61:ALA:C	35:DN:63:ARG:N	2.68	0.48
38:DQ:7:VAL:O	38:DQ:8:ILE:C	2.56	0.48
38:DQ:80:ASN:ND2	38:DQ:81:GLY:N	2.61	0.48
40:DS:76:VAL:HG12	40:DS:103:ILE:HA	1.95	0.48
41:DT:14:PRO:HA	41:DT:32:LEU:CB	2.44	0.48
1:AA:251:G:N3	1:AA:266:G:O6	2.46	0.48
1:AA:1178:G:H3'	8:AI:98:ARG:NH2	2.29	0.48
3:AD:31:CYS:SG	3:AD:33:ILE:HB	2.53	0.48
12:AM:15:VAL:HG22	12:AM:33:LEU:CD1	2.44	0.48
15:AP:6:LEU:HD12	15:AP:6:LEU:N	2.28	0.48
23:BB:204:A:H4'	23:BB:205:G:OP1	2.13	0.48
23:BB:286:U:O2'	23:BB:287:G:H5'	2.12	0.48
23:BB:320:A:H2'	27:BE:131:THR:OG1	2.13	0.48
23:BB:464:U:H2'	23:BB:465:G:O4'	2.13	0.48
23:BB:571:U:O2'	23:BB:573:U:O5'	2.31	0.48
23:BB:598:U:H2'	23:BB:599:A:C8	2.47	0.48
23:BB:816:C:O2'	23:BB:817:C:H5'	2.13	0.48
23:BB:1711:A:O2'	23:BB:1712:U:H5'	2.13	0.48
23:BB:2083:G:H2'	23:BB:2084:C:C6	2.48	0.48
23:BB:2385:C:H2'	23:BB:2386:A:C8	2.47	0.48
23:BB:2472:G:C2'	23:BB:2475:C:H42	2.27	0.48
23:BB:2539:C:H4'	51:B4:36:ARG:HH21	1.77	0.48
25:BC:12:ARG:HA	25:BC:15:VAL:CG2	2.44	0.48
28:BF:43:ILE:HA	28:BF:46:LYS:HE2	1.95	0.48
28:BF:62:GLN:HG3	28:BF:91:ARG:NH1	2.29	0.48
29:BG:28:LYS:HG2	29:BG:79:THR:HA	1.95	0.48
30:BH:5:LEU:HD13	30:BH:13:GLY:HA2	1.94	0.48
34:BM:10:ARG:HH21	34:BM:10:ARG:HG3	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BQ:68:ALA:O	38:BQ:71:ASN:HB3	2.13	0.48
38:BQ:91:ARG:HE	38:BQ:94:LEU:HD23	1.77	0.48
39:BR:10:LYS:N	39:BR:10:LYS:HD2	2.27	0.48
40:BS:25:ARG:HE	40:BS:74:ILE:HG23	1.79	0.48
42:BU:11:ILE:O	42:BU:11:ILE:HD13	2.12	0.48
42:BU:26:ASN:N	42:BU:26:ASN:ND2	2.62	0.48
42:BU:41:VAL:O	42:BU:59:GLU:HA	2.13	0.48
46:BZ:40:VAL:CG2	46:BZ:43:GLU:HB3	2.34	0.48
46:BZ:45:ARG:HE	46:BZ:47:VAL:HG12	1.77	0.48
1:CA:794:A:H2'	1:CA:795:C:C6	2.48	0.48
1:CA:908:A:H2'	1:CA:909:A:H8	1.79	0.48
1:CA:958:A:N1	18:CS:53:GLY:C	2.71	0.48
1:CA:1001:C:H2'	1:CA:1002:G:H8	1.77	0.48
2:CC:129:PHE:HD2	2:CC:156:LEU:HD22	1.78	0.48
2:CC:149:LYS:HG3	2:CC:168:ARG:HB2	1.96	0.48
3:CD:129:VAL:HG12	3:CD:131:ILE:H	1.78	0.48
4:CE:53:ARG:HB3	4:CE:53:ARG:NH1	2.28	0.48
6:CG:67:ASN:HB2	6:CG:134:VAL:HG12	1.95	0.48
6:CG:70:PRO:O	6:CG:95:ARG:HG3	2.13	0.48
7:CH:106:SER:C	7:CH:107:LYS:HE2	2.38	0.48
11:CL:42:LYS:HB3	11:CL:44:PRO:HD2	1.94	0.48
13:CN:5:MET:SD	13:CN:8:ARG:HD3	2.53	0.48
17:CR:42:ARG:HG3	17:CR:43:ILE:H	1.78	0.48
20:CB:209:VAL:HG23	20:CB:210:THR:N	2.27	0.48
22:DA:30:C:H2'	22:DA:31:C:H5'	1.95	0.48
23:DB:1290:C:O2'	23:DB:1291:C:H5'	2.13	0.48
23:DB:1292:G:H2'	23:DB:1293:C:H6	1.77	0.48
23:DB:1793:C:H2'	23:DB:1794:A:C8	2.48	0.48
23:DB:2074:U:O2'	23:DB:2075:U:H5'	2.13	0.48
23:DB:2663:G:H2'	23:DB:2664:G:O4'	2.13	0.48
23:DB:2675:A:N1	23:DB:2732:G:O6	2.47	0.48
23:DB:2708:G:O2'	23:DB:2709:G:H5'	2.11	0.48
23:DB:2897:U:H2'	23:DB:2898:U:H6	1.76	0.48
25:DC:43:ASN:HD22	25:DC:44:ASN:N	2.11	0.48
25:DC:57:HIS:CG	25:DC:58:LYS:H	2.31	0.48
26:DD:106:LYS:O	26:DD:107:VAL:HB	2.13	0.48
26:DD:107:VAL:N	26:DD:206:ALA:H	2.11	0.48
30:DH:87:GLU:HB2	30:DH:89:LYS:NZ	2.27	0.48
30:DH:113:SER:N	30:DH:132:PHE:HZ	2.11	0.48
31:DJ:64:VAL:O	31:DJ:68:LYS:HD2	2.12	0.48
34:DM:55:ARG:HH22	34:DM:58:LYS:HA	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DX:56:LEU:C	44:DX:58:ASN:N	2.72	0.48
47:D0:55:ALA:C	47:D0:56:LYS:HG3	2.38	0.48
52:DI:11:GLN:HA	52:DI:55:PRO:HA	1.94	0.48
52:DI:100:ILE:O	52:DI:139:VAL:HA	2.14	0.48
1:AA:56:U:H2'	1:AA:57:G:H8	1.79	0.48
1:AA:87:C:H2'	1:AA:88:U:O3'	2.13	0.48
1:AA:175:C:H2'	1:AA:176:C:H6	1.78	0.48
1:AA:591:U:OP2	7:AH:30:LYS:HE2	2.14	0.48
1:AA:624:C:H2'	1:AA:625:U:C6	2.48	0.48
1:AA:814:A:H5'	1:AA:1511:G:H4'	1.96	0.48
1:AA:1390:U:O2'	1:AA:1391:U:H5'	2.14	0.48
2:AC:149:LYS:HE3	2:AC:166:TRP:CH2	2.49	0.48
3:AD:104:MET:SD	3:AD:179:GLY:HA3	2.54	0.48
4:AE:87:VAL:HG22	4:AE:88:HIS:N	2.28	0.48
4:AE:143:LEU:C	4:AE:145:ASN:H	2.22	0.48
5:AF:52:ASN:O	5:AF:52:ASN:CG	2.55	0.48
11:AL:33:CYS:HA	11:AL:54:VAL:HA	1.96	0.48
17:AR:58:ILE:O	17:AR:62:ARG:HG3	2.14	0.48
21:AU:39:LYS:HD3	21:AU:39:LYS:H	1.78	0.48
23:BB:196:A:H5''	33:BL:47:ARG:HH12	1.78	0.48
23:BB:235:U:H2'	23:BB:236:C:C6	2.47	0.48
23:BB:392:U:O2'	23:BB:393:C:H5'	2.14	0.48
23:BB:783:A:H2'	23:BB:784:G:O5'	2.12	0.48
23:BB:812:C:H5''	23:BB:1250:G:O2'	2.12	0.48
23:BB:939:G:O2'	23:BB:940:G:H5'	2.13	0.48
23:BB:979:A:H2'	23:BB:982:C:N4	2.20	0.48
23:BB:1387:A:H5'	23:BB:1469:A:H1'	1.95	0.48
23:BB:2286:G:H4'	23:BB:2287:A:O4'	2.13	0.48
23:BB:2557:G:H2'	23:BB:2558:C:H6	1.74	0.48
23:BB:2716:C:H2'	23:BB:2717:C:C6	2.48	0.48
24:BV:72:VAL:HG21	24:BV:91:PHE:CG	2.48	0.48
24:BV:77:VAL:CG1	34:BM:136:MET:HB3	2.43	0.48
26:BD:171:THR:HG23	26:BD:172:VAL:H	1.78	0.48
27:BE:104:ALA:C	27:BE:106:LYS:H	2.21	0.48
28:BF:70:ARG:HA	28:BF:80:GLN:NE2	2.29	0.48
28:BF:87:LYS:C	28:BF:88:VAL:HG23	2.38	0.48
28:BF:126:ASN:ND2	28:BF:156:THR:HG23	2.05	0.48
29:BG:10:VAL:HG23	29:BG:48:THR:HA	1.94	0.48
31:BJ:59:ALA:C	31:BJ:61:LYS:N	2.71	0.48
33:BL:73:ILE:HD12	33:BL:106:GLU:HB2	1.95	0.48
33:BL:77:ILE:HG12	33:BL:95:LEU:HD22	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BO:49:VAL:HG11	36:BO:82:ALA:CA	2.41	0.48
42:BU:53:GLN:N	42:BU:54:PRO:CD	2.76	0.48
42:BU:82:VAL:CG1	42:BU:93:ARG:HB3	2.43	0.48
43:BW:30:VAL:HA	43:BW:60:ALA:O	2.12	0.48
44:BX:35:GLY:O	44:BX:36:GLN:C	2.57	0.48
46:BZ:56:MET:O	46:BZ:59:ILE:HG12	2.13	0.48
1:CA:233:C:H2'	1:CA:234:C:H6	1.78	0.48
1:CA:308:C:H2'	1:CA:309:A:H8	1.78	0.48
1:CA:474:G:O2'	1:CA:475:C:H5'	2.13	0.48
1:CA:475:C:H2'	1:CA:476:U:H6	1.78	0.48
1:CA:586:C:H2'	1:CA:587:G:H5'	1.95	0.48
1:CA:775:G:H2'	1:CA:776:G:H8	1.78	0.48
1:CA:815:A:H4'	1:CA:817:C:C4	2.49	0.48
1:CA:1060:U:H5''	9:CJ:53:ILE:HG12	1.94	0.48
5:CF:6:ILE:HG23	5:CF:62:MET:HB3	1.95	0.48
5:CF:21:MET:HB3	5:CF:25:TYR:CZ	2.48	0.48
11:CL:2:THR:HG22	11:CL:5:GLN:HE21	1.79	0.48
11:CL:98:ARG:HD2	11:CL:103:CYS:SG	2.53	0.48
13:CN:97:LYS:HB3	13:CN:97:LYS:NZ	2.28	0.48
23:DB:559:G:H21	38:DQ:51:GLN:NE2	2.11	0.48
23:DB:1098:A:C3'	52:DI:3:LYS:HA	2.26	0.48
23:DB:1369:G:O2'	23:DB:1370:C:H5'	2.14	0.48
23:DB:1436:G:O2'	23:DB:1437:C:H5'	2.13	0.48
23:DB:1716:U:H2'	23:DB:1717:A:H8	1.78	0.48
23:DB:1729:U:O4	23:DB:1733:G:H1'	2.13	0.48
23:DB:2144:G:H2'	23:DB:2145:C:O3'	2.13	0.48
23:DB:2462:C:H2'	23:DB:2463:C:C6	2.47	0.48
23:DB:2617:U:O2'	23:DB:2618:G:H5'	2.13	0.48
24:DV:14:LYS:HE3	24:DV:18:ARG:NH2	2.29	0.48
25:DC:14:HIS:O	25:DC:16:VAL:HG23	2.13	0.48
25:DC:35:LYS:HG2	25:DC:36:ASN:N	2.25	0.48
25:DC:64:VAL:HG11	25:DC:66:PHE:CE2	2.49	0.48
25:DC:93:VAL:HG13	25:DC:94:LEU:H	1.77	0.48
26:DD:25:THR:HG21	26:DD:193:VAL:CG2	2.39	0.48
26:DD:33:ARG:HG2	26:DD:33:ARG:HH21	1.78	0.48
26:DD:171:THR:HG23	26:DD:172:VAL:N	2.28	0.48
27:DE:106:LYS:CE	27:DE:200:LEU:HB3	2.42	0.48
29:DG:166:GLU:CG	29:DG:168:VAL:HG23	2.43	0.48
30:DH:47:PHE:CE1	30:DH:51:ARG:HD3	2.48	0.48
33:DL:95:LEU:H	33:DL:95:LEU:HD12	1.78	0.48
36:DO:67:ASN:O	36:DO:69:ASP:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DP:52:ARG:HG2	37:DP:52:ARG:NH1	2.27	0.48
38:DQ:18:LYS:C	38:DQ:20:ALA:N	2.71	0.48
38:DQ:56:PHE:O	38:DQ:59:LEU:HB3	2.12	0.48
47:D0:18:HIS:HD1	47:D0:18:HIS:H	1.61	0.48
1:AA:36:C:O2'	1:AA:37:U:H5'	2.14	0.48
1:AA:69:G:H2'	1:AA:70:U:C6	2.48	0.48
1:AA:309:A:O2'	1:AA:310:G:H5'	2.12	0.48
1:AA:409:U:OP1	3:AD:23:GLY:HA3	2.13	0.48
1:AA:957:U:H2'	1:AA:959:A:OP2	2.13	0.48
1:AA:1320:C:N4	18:AS:35:ARG:HD3	2.28	0.48
2:AC:21:TRP:CH2	2:AC:31:ASN:HB3	2.49	0.48
2:AC:91:ALA:HB2	2:AC:98:ALA:H	1.78	0.48
3:AD:10:LEU:HD12	3:AD:20:LEU:HD11	1.96	0.48
7:AH:7:ALA:O	7:AH:11:THR:HG23	2.14	0.48
7:AH:95:MET:HG2	7:AH:98:LEU:HB2	1.95	0.48
8:AI:32:ARG:HD3	8:AI:37:TYR:CD1	2.49	0.48
12:AM:89:ARG:CB	12:AM:96:VAL:HG22	2.43	0.48
13:AN:29:ILE:HB	13:AN:30:ILE:HD12	1.95	0.48
15:AP:36:VAL:O	15:AP:36:VAL:HG13	2.14	0.48
16:AQ:16:MET:HE3	16:AQ:19:SER:O	2.14	0.48
16:AQ:60:ILE:HG22	16:AQ:74:LEU:HA	1.95	0.48
19:AT:61:ALA:HB1	19:AT:67:HIS:HA	1.95	0.48
20:AB:63:LYS:HA	20:AB:224:ARG:NH1	2.29	0.48
21:AU:33:ARG:HG2	21:AU:34:ARG:N	2.27	0.48
23:BB:1059:G:O2'	52:BI:112:LYS:HE2	2.14	0.48
23:BB:1606:C:H5''	23:BB:1607:C:OP1	2.14	0.48
23:BB:1678:A:H2'	23:BB:1679:A:C8	2.45	0.48
23:BB:1682:G:H2'	23:BB:1683:U:C6	2.49	0.48
23:BB:1848:A:H2'	23:BB:1849:G:C8	2.47	0.48
23:BB:2025:C:H2'	23:BB:2026:U:H6	1.77	0.48
23:BB:2305:U:H2'	23:BB:2306:C:C6	2.47	0.48
23:BB:2471:A:O2'	23:BB:2472:G:O5'	2.30	0.48
23:BB:2583:G:H2'	23:BB:2584:U:O4'	2.14	0.48
23:BB:2835:A:N6	23:BB:2878:U:H2'	2.29	0.48
25:BC:43:ASN:HB2	25:BC:49:THR:CG2	2.43	0.48
25:BC:54:GLY:O	25:BC:214:GLY:HA2	2.14	0.48
25:BC:105:ALA:HB1	25:BC:109:LEU:CD1	2.43	0.48
26:BD:36:GLN:HB3	26:BD:67:HIS:HE1	1.79	0.48
26:BD:201:LEU:C	26:BD:202:ILE:HD12	2.38	0.48
28:BF:33:ILE:O	28:BF:90:LEU:HB2	2.14	0.48
29:BG:88:LEU:O	29:BG:88:LEU:HD12	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BH:9:VAL:HG11	30:BH:12:LEU:HG	1.95	0.48
40:BS:14:ALA:C	40:BS:16:LYS:H	2.22	0.48
1:CA:546:A:P	3:CD:68:GLU:HB3	2.53	0.48
1:CA:923:A:H2'	1:CA:924:C:H6	1.77	0.48
2:CC:59:PRO:HD2	2:CC:62:SER:O	2.13	0.48
8:CI:32:ARG:HD3	8:CI:37:TYR:CD1	2.47	0.48
11:CL:66:ILE:HD12	11:CL:66:ILE:N	2.28	0.48
13:CN:68:ARG:HH11	13:CN:68:ARG:HG2	1.78	0.48
19:CT:70:LYS:O	19:CT:74:HIS:HB2	2.13	0.48
20:CB:10:LYS:O	20:CB:13:VAL:HG23	2.13	0.48
23:DB:69:C:H2'	23:DB:70:G:H8	1.78	0.48
23:DB:659:G:H21	27:DE:30:GLN:CD	2.21	0.48
23:DB:969:G:H2'	23:DB:970:U:C6	2.49	0.48
23:DB:1199:U:H5''	56:DB:3623:HOH:O	2.12	0.48
23:DB:1247:A:O2'	23:DB:1248:G:H5'	2.13	0.48
23:DB:1266:G:OP1	47:D0:15:ARG:NE	2.42	0.48
23:DB:1309:G:OP1	49:D2:9:VAL:HG12	2.14	0.48
23:DB:1403:A:H2'	23:DB:1404:C:C6	2.49	0.48
23:DB:1534:U:H2'	23:DB:1536:C:C5	2.49	0.48
23:DB:2336:A:H61	43:DW:40:ARG:HD2	1.75	0.48
23:DB:2590:A:H5''	25:DC:237:ARG:NH2	2.28	0.48
23:DB:2811:G:OP1	26:DD:61:THR:HB	2.12	0.48
27:DE:34:ALA:HA	27:DE:94:GLN:NE2	2.28	0.48
29:DG:25:ILE:HD12	29:DG:25:ILE:N	2.29	0.48
29:DG:49:LEU:HD23	29:DG:51:PHE:CZ	2.48	0.48
31:DJ:3:THR:HG21	38:DQ:60:TRP:HE1	1.78	0.48
38:DQ:68:ALA:C	38:DQ:71:ASN:HB3	2.38	0.48
39:DR:34:GLU:HB3	39:DR:58:VAL:HG21	1.95	0.48
41:DT:18:GLU:C	41:DT:20:ALA:N	2.71	0.48
42:DU:78:LYS:CG	42:DU:79:ALA:H	2.27	0.48
43:DW:49:ASN:CB	43:DW:61:LYS:H	2.25	0.48
46:DZ:5:CYS:SG	46:DZ:8:THR:HG23	2.54	0.48
46:DZ:45:ARG:HE	46:DZ:47:VAL:HG12	1.77	0.48
48:D1:49:LYS:O	48:D1:50:GLU:HB3	2.14	0.48
1:AA:517:G:H22	1:AA:533:A:P	2.37	0.48
1:AA:660:C:H2'	1:AA:661:G:O4'	2.13	0.48
3:AD:10:LEU:HD13	3:AD:62:ARG:HD3	1.95	0.48
3:AD:160:LEU:H	3:AD:160:LEU:CD1	2.16	0.48
6:AG:4:ARG:CG	6:AG:5:VAL:H	2.22	0.48
8:AI:12:LYS:HA	8:AI:109:GLN:HG2	1.94	0.48
8:AI:17:ARG:HB2	8:AI:65:THR:HB	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AI:119:LYS:C	8:AI:121:ARG:H	2.22	0.48
11:AL:33:CYS:H	11:AL:54:VAL:HG13	1.79	0.48
11:AL:65:TYR:HB3	11:AL:95:HIS:CD2	2.48	0.48
11:AL:81:ILE:HG23	11:AL:94:TYR:HB3	1.95	0.48
12:AM:52:ILE:HA	12:AM:55:LEU:HG	1.96	0.48
16:AQ:3:LYS:HG3	16:AQ:4:ILE:H	1.78	0.48
22:BA:76:G:H1	22:BA:101:A:H61	1.60	0.48
23:BB:543:G:H2'	23:BB:544:C:C5'	2.43	0.48
23:BB:1196:C:H2'	23:BB:1197:G:H8	1.78	0.48
23:BB:1463:C:H2'	23:BB:1464:G:C8	2.49	0.48
23:BB:1508:A:H3'	23:BB:1509:A:C2	2.48	0.48
23:BB:1655:A:H2'	23:BB:1656:C:O4'	2.13	0.48
23:BB:1945:G:H2'	23:BB:1946:U:C6	2.49	0.48
23:BB:2027:G:O2'	23:BB:2028:U:H5'	2.13	0.48
23:BB:2150:C:O2'	23:BB:2151:U:H5'	2.13	0.48
23:BB:2273:A:H2'	23:BB:2274:A:C8	2.48	0.48
23:BB:2385:C:H2'	23:BB:2386:A:H8	1.78	0.48
23:BB:2821:A:OP2	35:BN:3:HIS:NE2	2.47	0.48
26:BD:107:VAL:N	26:BD:206:ALA:H	2.11	0.48
27:BE:172:ALA:HB2	27:BE:195:GLN:NE2	2.29	0.48
28:BF:55:ASP:O	28:BF:59:ILE:HG13	2.13	0.48
30:BH:131:SER:HA	30:BH:142:VAL:N	2.27	0.48
31:BJ:98:GLU:HB3	31:BJ:124:VAL:HG21	1.95	0.48
32:BK:77:ILE:HD11	37:BP:71:ARG:CZ	2.43	0.48
36:BO:30:ARG:HG3	36:BO:30:ARG:NH1	2.29	0.48
38:BQ:7:VAL:HG23	38:BQ:8:ILE:N	2.29	0.48
41:BT:51:PHE:HB3	41:BT:53:VAL:HG23	1.95	0.48
41:BT:74:ILE:HG13	41:BT:75:GLY:N	2.29	0.48
44:BX:21:LEU:HD23	44:BX:21:LEU:H	1.77	0.48
46:BZ:7:VAL:HG23	46:BZ:67:VAL:HG11	1.95	0.48
50:B3:11:LYS:C	50:B3:12:ARG:HG3	2.39	0.48
52:BI:124:MET:O	52:BI:128:ILE:HG12	2.13	0.48
1:CA:113:G:O4'	1:CA:354:G:H4'	2.13	0.48
1:CA:1009:U:H1'	1:CA:1021:A:C2	2.49	0.48
2:CC:71:ARG:O	2:CC:75:VAL:HG23	2.13	0.48
2:CC:146:LYS:HB2	2:CC:202:PHE:CD2	2.49	0.48
3:CD:121:ALA:C	3:CD:122:ILE:HD13	2.39	0.48
3:CD:149:LYS:HB2	3:CD:177:MET:HG3	1.94	0.48
4:CE:17:VAL:HG23	4:CE:33:THR:O	2.14	0.48
4:CE:37:VAL:HG11	4:CE:113:VAL:CG1	2.43	0.48
4:CE:136:VAL:HG13	4:CE:137:ARG:N	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CI:29:ILE:HG23	8:CI:64:ILE:C	2.39	0.48
20:CB:68:PHE:HE1	20:CB:88:GLN:HB3	1.79	0.48
22:DA:42:C:C5	28:DF:65:LEU:HD22	2.49	0.48
23:DB:7:G:OP1	31:DJ:132:HIS:HE1	1.96	0.48
23:DB:470:A:H61	41:DT:72:GLN:HE22	1.60	0.48
23:DB:659:G:H4'	27:DE:95:LYS:CD	2.43	0.48
23:DB:950:G:H2'	23:DB:951:C:C6	2.48	0.48
23:DB:992:C:O2'	23:DB:993:G:H5'	2.14	0.48
23:DB:1048:A:H8	23:DB:1048:A:P	2.36	0.48
23:DB:1063:G:H5'	52:DI:135:MET:HG2	1.94	0.48
23:DB:1101:U:O2'	23:DB:1102:C:H5'	2.13	0.48
23:DB:1460:U:H3'	23:DB:1461:C:H5'	1.96	0.48
23:DB:1799:G:C5	25:DC:175:LEU:HD13	2.49	0.48
23:DB:2063:C:O2	23:DB:2450:A:N1	2.47	0.48
23:DB:2867:G:N3	23:DB:2867:G:C2'	2.74	0.48
24:DV:61:LEU:O	24:DV:71:LYS:HA	2.14	0.48
24:DV:72:VAL:HG21	24:DV:91:PHE:CG	2.48	0.48
25:DC:157:ALA:C	25:DC:159:THR:H	2.22	0.48
26:DD:114:LYS:NZ	26:DD:116:LYS:NZ	2.62	0.48
26:DD:171:THR:O	26:DD:172:VAL:HG23	2.12	0.48
26:DD:197:THR:C	26:DD:199:SER:H	2.21	0.48
28:DF:98:PHE:C	28:DF:100:GLU:N	2.69	0.48
28:DF:121:PHE:HB3	28:DF:127:TYR:CD2	2.49	0.48
28:DF:160:LYS:HG3	28:DF:161:SER:N	2.29	0.48
29:DG:10:VAL:HG23	29:DG:48:THR:HA	1.96	0.48
29:DG:42:VAL:HA	29:DG:50:THR:O	2.14	0.48
30:DH:4:ILE:HG21	30:DH:47:PHE:CE1	2.49	0.48
41:DT:29:THR:CG2	41:DT:86:THR:HG22	2.44	0.48
41:DT:50:LEU:N	41:DT:50:LEU:HD22	2.28	0.48
43:DW:48:ALA:HB3	43:DW:81:ILE:HG13	1.95	0.48
45:DY:29:ARG:H	45:DY:33:HIS:CD2	2.30	0.48
50:D3:11:LYS:C	50:D3:12:ARG:HG3	2.38	0.48
1:AA:95:C:H2'	1:AA:96:U:C6	2.48	0.48
1:AA:308:C:H2'	1:AA:309:A:H8	1.79	0.48
1:AA:369:G:O2'	1:AA:370:C:H5'	2.13	0.48
1:AA:373:A:H2'	1:AA:374:A:C8	2.46	0.48
1:AA:436:C:O2'	1:AA:437:U:H5'	2.12	0.48
1:AA:612:C:H2'	1:AA:613:C:C6	2.48	0.48
1:AA:613:C:H2'	1:AA:614:C:H6	1.78	0.48
1:AA:687:A:C2	1:AA:704:A:C5	3.01	0.48
1:AA:893:C:H2'	1:AA:894:G:C8	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:945:G:H21	1:AA:1334:G:H4'	1.79	0.48
1:AA:1293:C:O2'	1:AA:1294:G:H5'	2.13	0.48
1:AA:1388:C:H2'	1:AA:1389:C:C6	2.48	0.48
1:AA:1479:C:O2'	1:AA:1480:A:H5'	2.14	0.48
3:AD:129:VAL:HG12	3:AD:131:ILE:H	1.78	0.48
4:AE:37:VAL:HG11	4:AE:113:VAL:CG1	2.43	0.48
5:AF:85:ILE:HG22	5:AF:86:ARG:H	1.78	0.48
7:AH:45:ILE:HB	7:AH:61:THR:O	2.14	0.48
8:AI:16:ALA:HA	8:AI:66:VAL:HA	1.96	0.48
8:AI:74:GLN:O	8:AI:78:ILE:HG13	2.13	0.48
12:AM:14:ALA:O	12:AM:17:ALA:HB3	2.14	0.48
12:AM:83:GLY:O	12:AM:88:LEU:HD21	2.14	0.48
20:AB:71:THR:HG23	20:AB:94:ARG:H	1.78	0.48
20:AB:83:ALA:O	20:AB:88:GLN:HB2	2.14	0.48
20:AB:113:LEU:HD23	20:AB:114:LYS:N	2.28	0.48
20:AB:217:ALA:O	20:AB:221:ARG:HG2	2.14	0.48
23:BB:572:A:C2	23:BB:2033:A:C2	3.02	0.48
23:BB:942:G:O2'	23:BB:943:A:H5'	2.14	0.48
23:BB:1940:U:H5''	23:BB:1940:U:O2	2.14	0.48
23:BB:2571:U:O3'	26:BD:151:THR:HB	2.13	0.48
23:BB:2589:A:H2'	23:BB:2590:A:C8	2.48	0.48
23:BB:2677:G:H2'	23:BB:2678:C:C6	2.49	0.48
28:BF:74:ALA:C	28:BF:76:PHE:H	2.21	0.48
28:BF:113:PHE:CZ	28:BF:175:PRO:HB2	2.48	0.48
29:BG:87:GLN:HG2	29:BG:164:ALA:HA	1.94	0.48
29:BG:123:GLU:O	29:BG:125:PRO:HD3	2.13	0.48
32:BK:11:ALA:HB3	32:BK:85:VAL:CG2	2.43	0.48
32:BK:99:ILE:HD13	32:BK:118:LEU:HD22	1.96	0.48
33:BL:125:LEU:H	33:BL:143:GLU:HG3	1.78	0.48
34:BM:101:VAL:HG22	34:BM:101:VAL:O	2.13	0.48
40:BS:60:HIS:O	40:BS:61:ASN:CB	2.62	0.48
42:BU:13:LEU:HD12	42:BU:68:ASN:O	2.13	0.48
1:CA:54:C:H2'	1:CA:352:C:H41	1.78	0.48
1:CA:411:A:C4	1:CA:413:G:H1'	2.49	0.48
1:CA:481:G:HO2'	1:CA:482:A:H8	1.61	0.48
1:CA:610:U:O2	1:CA:610:U:O4'	2.30	0.48
1:CA:614:C:O2'	1:CA:615:G:H5'	2.14	0.48
1:CA:1320:C:OP2	18:CS:69:LYS:HE3	2.13	0.48
4:CE:95:MET:HA	4:CE:124:ALA:CB	2.44	0.48
5:CF:2:ARG:O	5:CF:65:GLU:HA	2.14	0.48
5:CF:8:PHE:O	5:CF:60:VAL:HG23	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CI:56:MET:SD	8:CI:57:VAL:N	2.87	0.48
8:CI:98:ARG:NE	8:CI:103:VAL:HG21	2.28	0.48
10:CK:37:GLN:HB2	10:CK:39:ASN:HD22	1.79	0.48
12:CM:38:ILE:HD12	12:CM:47:LEU:HD11	1.95	0.48
14:CO:88:ARG:HH22	23:DB:715:A:H5''	1.78	0.48
23:DB:141:G:N3	23:DB:141:G:H5''	2.29	0.48
23:DB:471:A:OP1	27:DE:79:ARG:NH1	2.47	0.48
23:DB:544:C:H2'	23:DB:545:U:C4	2.48	0.48
23:DB:956:G:C4'	34:DM:82:MET:HE1	2.44	0.48
23:DB:1060:U:OP1	52:DI:75:ALA:HB3	2.14	0.48
23:DB:1063:G:C4'	52:DI:135:MET:HG2	2.44	0.48
23:DB:1353:A:H2'	23:DB:1354:A:H8	1.78	0.48
23:DB:1478:G:O2'	23:DB:1479:G:H5'	2.14	0.48
23:DB:1789:A:P	25:DC:220:ARG:HH11	2.36	0.48
23:DB:2034:U:O2'	23:DB:2035:G:H5'	2.13	0.48
23:DB:2073:C:O2'	23:DB:2074:U:H5'	2.13	0.48
23:DB:2233:U:H2'	23:DB:2234:G:C8	2.48	0.48
23:DB:2271:G:H2'	23:DB:2272:U:H6	1.77	0.48
23:DB:2355:G:H4'	43:DW:20:LEU:HD13	1.94	0.48
23:DB:2436:G:O2'	23:DB:2437:G:H5'	2.13	0.48
23:DB:2589:A:H2'	23:DB:2590:A:H8	1.78	0.48
25:DC:144:GLU:OE2	25:DC:188:ARG:HG3	2.14	0.48
26:DD:204:LYS:HB2	26:DD:205:PRO:HD2	1.96	0.48
27:DE:118:LEU:O	27:DE:119:ILE:HD13	2.13	0.48
28:DF:43:ILE:HA	28:DF:46:LYS:HE2	1.96	0.48
28:DF:102:LEU:HD13	28:DF:103:ILE:HB	1.94	0.48
31:DJ:110:PRO:HB2	31:DJ:111:LYS:HE3	1.95	0.48
34:DM:31:PHE:HB3	34:DM:130:PHE:CZ	2.49	0.48
35:DN:83:LEU:HA	35:DN:86:ARG:HB2	1.94	0.48
38:DQ:63:ARG:HH21	38:DQ:64:ILE:HD13	1.78	0.48
39:DR:79:ARG:NE	39:DR:80:ARG:NH2	2.61	0.48
40:DS:73:LYS:HE3	40:DS:74:ILE:N	2.26	0.48
42:DU:98:ASN:OD1	42:DU:100:GLU:HB2	2.13	0.48
1:AA:208:U:O2'	1:AA:209:U:H3'	2.13	0.48
1:AA:643:C:H2'	1:AA:644:U:H6	1.79	0.48
1:AA:734:G:H2'	1:AA:735:C:C6	2.48	0.48
1:AA:868:C:H2'	1:AA:869:G:O4'	2.14	0.48
1:AA:1216:A:H2'	1:AA:1217:C:C6	2.48	0.48
1:AA:1459:G:H2'	1:AA:1460:C:C6	2.48	0.48
20:AB:11:ALA:C	20:AB:13:VAL:H	2.22	0.48
23:BB:56:A:H2'	23:BB:57:C:C6	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:405:U:OP2	23:BB:405:U:H4'	2.13	0.48
23:BB:502:A:H5'	23:BB:503:A:OP2	2.13	0.48
23:BB:566:U:H5''	33:BL:29:LYS:HZ2	1.79	0.48
23:BB:912:C:O2'	23:BB:913:U:H5'	2.13	0.48
23:BB:1258:U:H2'	23:BB:1259:G:C8	2.49	0.48
23:BB:1551:A:C3'	23:BB:1552:A:H5''	2.43	0.48
23:BB:1720:U:O2'	23:BB:1721:G:H5'	2.13	0.48
23:BB:1841:U:C2	23:BB:1842:G:C8	3.01	0.48
23:BB:2572:A:OP2	26:BD:151:THR:HB	2.13	0.48
25:BC:183:VAL:HG22	25:BC:187:CYS:SG	2.53	0.48
26:BD:171:THR:HG23	26:BD:172:VAL:N	2.29	0.48
28:BF:29:ARG:HB2	28:BF:158:THR:HG21	1.96	0.48
29:BG:37:ASN:HD22	29:BG:40:VAL:CB	2.24	0.48
33:BL:100:ILE:O	33:BL:100:ILE:HG12	2.13	0.48
34:BM:71:LYS:HG2	34:BM:93:VAL:HG12	1.95	0.48
38:BQ:64:ILE:HD12	38:BQ:95:ALA:HB3	1.95	0.48
41:BT:66:LYS:N	41:BT:76:ARG:NH2	2.62	0.48
45:BY:25:GLY:HA3	45:BY:46:MET:HE1	1.95	0.48
52:BI:52:LEU:HD12	52:BI:52:LEU:N	2.29	0.48
1:CA:624:C:H2'	1:CA:625:U:C6	2.48	0.48
1:CA:1234:C:H1'	1:CA:1364:U:O2	2.13	0.48
1:CA:1263:C:O2'	1:CA:1264:U:H5'	2.14	0.48
1:CA:1451:U:H2'	1:CA:1451:U:O2	2.13	0.48
1:CA:1522:U:H2'	1:CA:1523:G:H8	1.79	0.48
15:CP:12:LYS:HD2	15:CP:13:LYS:HG3	1.96	0.48
15:CP:20:VAL:HG21	15:CP:32:PHE:CG	2.48	0.48
15:CP:43:ALA:HA	15:CP:46:LYS:HE3	1.96	0.48
18:CS:41:PRO:C	18:CS:43:MET:H	2.22	0.48
18:CS:62:THR:O	18:CS:66:VAL:HG13	2.14	0.48
20:CB:63:LYS:HA	20:CB:224:ARG:NH1	2.29	0.48
20:CB:212:TYR:O	20:CB:216:VAL:HG13	2.13	0.48
21:CU:20:ARG:HD2	21:CU:20:ARG:N	2.29	0.48
23:DB:324:A:H2'	23:DB:325:G:O4'	2.14	0.48
23:DB:1230:A:H2'	23:DB:1231:U:H6	1.79	0.48
23:DB:1405:U:H2'	23:DB:1406:U:C6	2.49	0.48
23:DB:1541:C:O2'	23:DB:1542:U:H5'	2.13	0.48
23:DB:1786:A:H1'	23:DB:1938:A:N6	2.29	0.48
23:DB:1969:A:H2'	23:DB:1972:G:H21	1.79	0.48
23:DB:2022:U:O2'	23:DB:2617:U:H5'	2.14	0.48
23:DB:2301:C:H2'	23:DB:2302:U:H6	1.79	0.48
23:DB:2428:G:H21	33:DL:60:ARG:NE	2.09	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2485:G:H5'	34:DM:125:PRO:HG3	1.94	0.48
24:DV:77:VAL:HG12	34:DM:136:MET:HG2	1.94	0.48
25:DC:106:PRO:O	25:DC:109:LEU:HD13	2.14	0.48
26:DD:107:VAL:HA	26:DD:204:LYS:O	2.14	0.48
26:DD:118:PHE:O	26:DD:119:ALA:CB	2.62	0.48
27:DE:132:LYS:O	27:DE:135:ALA:HB3	2.13	0.48
27:DE:192:ALA:O	27:DE:196:VAL:HG23	2.14	0.48
28:DF:102:LEU:HA	28:DF:106:ALA:HB2	1.96	0.48
29:DG:84:LYS:HG3	29:DG:131:VAL:HA	1.96	0.48
31:DJ:48:VAL:HG12	31:DJ:50:THR:HG23	1.96	0.48
31:DJ:59:ALA:C	31:DJ:61:LYS:N	2.72	0.48
33:DL:51:GLU:HG2	50:D3:56:LEU:CD2	2.43	0.48
39:DR:20:VAL:HG12	39:DR:21:ARG:N	2.26	0.48
41:DT:40:LYS:HA	41:DT:43:ILE:HB	1.95	0.48
43:DW:61:LYS:O	43:DW:62:ALA:O	2.31	0.48
1:AA:537:G:H2'	1:AA:538:G:H8	1.78	0.48
1:AA:586:C:H2'	1:AA:587:G:H5'	1.95	0.48
1:AA:794:A:H2'	1:AA:795:C:C6	2.48	0.48
1:AA:847:G:H2'	1:AA:848:C:H6	1.79	0.48
1:AA:875:U:O2'	7:AH:14:ARG:HD2	2.14	0.48
1:AA:981:U:C4'	13:AN:60:ARG:HD2	2.37	0.48
6:AG:72:VAL:HG12	6:AG:89:GLU:CB	2.43	0.48
10:AK:122:PRO:HG2	21:AU:34:ARG:HA	1.95	0.48
12:AM:13:HIS:O	12:AM:17:ALA:HB2	2.13	0.48
13:AN:68:ARG:HH11	13:AN:71:GLY:H	1.60	0.48
15:AP:28:ARG:HD3	15:AP:29:ASN:HD22	1.77	0.48
18:AS:4:LEU:HD11	18:AS:9:PHE:HB3	1.96	0.48
20:AB:93:HIS:O	20:AB:94:ARG:O	2.32	0.48
22:BA:43:C:H1'	28:BF:91:ARG:NH2	2.29	0.48
23:BB:39:G:H2'	23:BB:40:U:C6	2.49	0.48
23:BB:98:G:H22	42:BU:6:ARG:NH1	2.11	0.48
23:BB:226:A:H1'	23:BB:230:G:N2	2.29	0.48
23:BB:1349:C:H2'	23:BB:1350:C:H6	1.79	0.48
23:BB:1789:A:P	25:BC:220:ARG:HH11	2.37	0.48
23:BB:2081:U:OP1	46:BZ:19:SER:HB3	2.14	0.48
23:BB:2247:A:H2'	23:BB:2248:C:C6	2.48	0.48
26:BD:151:THR:HB	26:BD:152:PRO:HD3	1.94	0.48
29:BG:25:ILE:HD13	29:BG:74:MET:HE2	1.95	0.48
30:BH:25:TYR:CD1	30:BH:30:LEU:HG	2.49	0.48
30:BH:54:LEU:O	30:BH:58:LEU:HB3	2.13	0.48
30:BH:66:ASN:HA	30:BH:134:VAL:HG21	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BT:9:LYS:O	41:BT:9:LYS:HG2	2.12	0.48
42:BU:10:VAL:HB	42:BU:69:VAL:HB	1.96	0.48
43:BW:55:ASP:C	43:BW:57:THR:H	2.21	0.48
47:B0:55:ALA:C	47:B0:56:LYS:HG3	2.37	0.48
52:BI:89:SER:HB2	52:BI:136:GLY:HA3	1.95	0.48
1:CA:130:A:H1'	1:CA:263:A:O2'	2.13	0.48
1:CA:599:C:H4'	7:CH:121:GLY:HA3	1.96	0.48
1:CA:1004:A:H2'	1:CA:1005:A:O4'	2.14	0.48
1:CA:1180:A:OP1	8:CI:104:THR:HG22	2.14	0.48
1:CA:1406:U:C2'	1:CA:1407:C:H5'	2.43	0.48
2:CC:139:ASN:O	2:CC:143:LEU:HD23	2.13	0.48
8:CI:12:LYS:HA	8:CI:109:GLN:HG2	1.95	0.48
8:CI:74:GLN:O	8:CI:78:ILE:HG13	2.14	0.48
8:CI:129:ARG:CZ	8:CI:129:ARG:HB2	2.43	0.48
12:CM:83:GLY:O	12:CM:88:LEU:HD21	2.14	0.48
13:CN:20:PHE:HB2	13:CN:54:SER:OG	2.13	0.48
13:CN:23:ARG:C	13:CN:25:GLU:H	2.20	0.48
20:CB:19:THR:HG23	20:CB:20:ARG:N	2.23	0.48
23:DB:129:C:H2'	23:DB:130:C:C6	2.49	0.48
23:DB:924:G:H2'	23:DB:925:A:H8	1.79	0.48
23:DB:1163:G:O2'	23:DB:1164:C:H5'	2.14	0.48
23:DB:1181:U:H2'	23:DB:1182:G:H8	1.78	0.48
23:DB:1193:G:H2'	23:DB:1194:A:O4'	2.14	0.48
23:DB:1196:C:H2'	23:DB:1197:G:H8	1.78	0.48
23:DB:1374:G:H2'	23:DB:1375:U:C6	2.49	0.48
23:DB:1485:U:O2'	23:DB:1486:U:H5'	2.14	0.48
23:DB:1789:A:OP1	25:DC:220:ARG:HD3	2.14	0.48
25:DC:43:ASN:ND2	25:DC:44:ASN:N	2.60	0.48
26:DD:161:MET:O	26:DD:162:ALA:C	2.57	0.48
28:DF:111:ARG:N	28:DF:111:ARG:HD2	2.29	0.48
30:DH:87:GLU:CD	30:DH:87:GLU:H	2.22	0.48
30:DH:131:SER:CB	30:DH:141:LYS:HA	2.34	0.48
30:DH:135:HIS:HB3	30:DH:138:VAL:CB	2.36	0.48
33:DL:3:LEU:O	33:DL:5:THR:HG23	2.14	0.48
33:DL:23:ILE:HD12	33:DL:23:ILE:N	2.29	0.48
33:DL:122:VAL:HB	33:DL:143:GLU:OE1	2.13	0.48
33:DL:135:ILE:HG12	33:DL:140:GLY:HA3	1.96	0.48
34:DM:30:SER:HA	34:DM:133:LYS:HB2	1.95	0.48
34:DM:74:THR:O	34:DM:75:GLU:HB2	2.14	0.48
38:DQ:65:ASN:CG	38:DQ:75:TYR:HB2	2.39	0.48
40:DS:42:LYS:HG3	40:DS:43:ALA:N	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DW:43:LYS:HB3	43:DW:79:ILE:HD11	1.96	0.48
49:D2:3:ARG:HG2	49:D2:3:ARG:HH21	1.78	0.48
1:AA:72:A:N6	1:AA:99:C:H1'	2.20	0.48
1:AA:270:A:H2'	1:AA:271:C:O4'	2.14	0.48
1:AA:502:A:H2'	1:AA:503:C:H6	1.78	0.48
1:AA:546:A:P	3:AD:68:GLU:HB3	2.54	0.48
1:AA:599:C:H4'	7:AH:121:GLY:HA3	1.94	0.48
1:AA:1009:U:H2'	1:AA:1010:U:C6	2.48	0.48
2:AC:119:ILE:CG2	2:AC:120:THR:N	2.76	0.48
3:AD:125:ASN:OD1	3:AD:140:ASP:HA	2.14	0.48
4:AE:17:VAL:HG23	4:AE:33:THR:O	2.14	0.48
7:AH:94:VAL:HG12	7:AH:99:GLY:HA3	1.96	0.48
8:AI:56:MET:O	8:AI:57:VAL:HB	2.12	0.48
12:AM:43:LYS:HD2	12:AM:43:LYS:N	2.28	0.48
18:AS:42:ASN:N	18:AS:42:ASN:ND2	2.62	0.48
20:AB:142:LYS:HA	20:AB:145:ASN:OD1	2.13	0.48
23:BB:299:A:H2'	23:BB:300:A:C8	2.48	0.48
23:BB:558:U:OP1	31:BJ:113:PRO:HB2	2.13	0.48
23:BB:942:G:H2'	23:BB:943:A:H8	1.77	0.48
23:BB:1107:G:H2'	23:BB:1108:U:C6	2.48	0.48
23:BB:1222:U:P	39:BR:90:ARG:HH22	2.37	0.48
23:BB:1490:A:H2'	25:BC:97:ASP:CG	2.39	0.48
23:BB:1564:C:O2'	23:BB:1565:C:H5'	2.13	0.48
23:BB:1826:G:H2'	23:BB:1827:U:H6	1.79	0.48
23:BB:2063:C:O2	23:BB:2450:A:N1	2.46	0.48
23:BB:2281:A:O2'	23:BB:2282:G:H5'	2.13	0.48
23:BB:2341:G:H2'	23:BB:2342:C:C6	2.49	0.48
23:BB:2663:G:H2'	23:BB:2664:G:O4'	2.13	0.48
25:BC:129:LEU:HD21	25:BC:133:ASN:HB2	1.95	0.48
26:BD:8:LYS:CA	26:BD:201:LEU:HD11	2.43	0.48
26:BD:33:ARG:HG2	26:BD:33:ARG:HH21	1.79	0.48
26:BD:171:THR:O	26:BD:172:VAL:HG23	2.13	0.48
27:BE:58:LYS:H	27:BE:58:LYS:CD	2.13	0.48
28:BF:139:GLU:O	28:BF:141:ASP:N	2.47	0.48
29:BG:51:PHE:CD2	29:BG:68:ARG:HG2	2.49	0.48
29:BG:58:ALA:C	29:BG:60:GLY:H	2.21	0.48
29:BG:156:TYR:O	29:BG:157:LYS:HD2	2.14	0.48
30:BH:133:GLN:HB2	30:BH:139:PHE:HB3	1.95	0.48
31:BJ:104:ALA:O	31:BJ:108:MET:HG2	2.14	0.48
32:BK:19:VAL:HG13	32:BK:43:ILE:HA	1.96	0.48
36:BO:25:ARG:HD2	36:BO:93:ASP:HB2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BW:70:VAL:HG22	43:BW:70:VAL:O	2.14	0.48
45:BY:4:ILE:HG22	45:BY:56:VAL:CG1	2.43	0.48
46:BZ:63:GLY:HA3	46:BZ:66:THR:OG1	2.14	0.48
1:CA:708:C:O2'	1:CA:709:U:H5'	2.14	0.48
1:CA:828:U:OP1	1:CA:828:U:H4'	2.14	0.48
1:CA:1346:A:N1	1:CA:1374:A:H5''	2.29	0.48
5:CF:51:ILE:HD11	5:CF:86:ARG:HG3	1.96	0.48
5:CF:90:MET:HE1	17:CR:60:ARG:HH21	1.79	0.48
8:CI:83:THR:OG1	8:CI:97:LEU:HD22	2.14	0.48
10:CK:60:PHE:O	10:CK:64:VAL:HG12	2.14	0.48
14:CO:55:LEU:O	14:CO:58:MET:HG2	2.14	0.48
21:CU:20:ARG:C	21:CU:22:CYS:H	2.22	0.48
22:DA:102:G:O2'	22:DA:103:U:H5'	2.14	0.48
23:DB:589:U:H2'	23:DB:590:A:C8	2.49	0.48
23:DB:675:A:H4'	27:DE:62:GLN:HE22	1.79	0.48
23:DB:979:A:H2'	23:DB:982:C:N4	2.23	0.48
23:DB:1120:G:O2'	23:DB:1121:C:H5'	2.14	0.48
23:DB:1274:A:C2	23:DB:1297:C:H1'	2.49	0.48
23:DB:1508:A:H3'	23:DB:1509:A:C2	2.49	0.48
23:DB:1656:C:H2'	23:DB:1657:U:H6	1.79	0.48
23:DB:1700:A:H2'	23:DB:1701:A:H5'	1.96	0.48
23:DB:2070:A:C2	23:DB:2442:C:C2	3.02	0.48
23:DB:2405:G:H1'	23:DB:2412:A:N6	2.29	0.48
25:DC:74:PRO:HG2	25:DC:96:LYS:CG	2.43	0.48
25:DC:76:VAL:CG1	25:DC:114:GLN:HG2	2.44	0.48
28:DF:36:ASN:ND2	28:DF:152:ASP:HB2	2.08	0.48
33:DL:75:ALA:HB3	33:DL:108:ALA:HB2	1.96	0.48
33:DL:93:ASN:O	33:DL:95:LEU:HD12	2.14	0.48
38:DQ:4:LYS:CE	38:DQ:7:VAL:HG22	2.44	0.48
39:DR:4:VAL:O	39:DR:38:VAL:HA	2.13	0.48
40:DS:15:GLN:HA	40:DS:18:ARG:CG	2.43	0.48
43:DW:17:ALA:HB1	43:DW:37:VAL:H	1.78	0.48
52:DI:100:ILE:O	52:DI:139:VAL:HG13	2.14	0.48
1:AA:429:U:H3'	3:AD:8:LEU:CD2	2.44	0.47
1:AA:643:C:H2'	1:AA:644:U:C6	2.49	0.47
1:AA:716:A:N3	10:AK:118:ASN:O	2.47	0.47
1:AA:818:G:C3'	1:AA:819:A:H5''	2.43	0.47
1:AA:1016:A:H4'	1:AA:1218:C:H4'	1.95	0.47
1:AA:1263:C:O2'	1:AA:1264:U:H5'	2.14	0.47
1:AA:1423:G:H2'	1:AA:1424:U:H6	1.77	0.47
3:AD:106:PHE:CE1	3:AD:158:LEU:HD21	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AG:104:VAL:O	6:AG:108:ARG:HG3	2.14	0.47
8:AI:98:ARG:NE	8:AI:103:VAL:HG21	2.29	0.47
12:AM:76:ILE:HG23	12:AM:79:LEU:HD12	1.95	0.47
16:AQ:34:GLY:O	16:AQ:35:LYS:C	2.57	0.47
18:AS:41:PRO:C	18:AS:43:MET:H	2.22	0.47
23:BB:68:G:O2'	23:BB:69:C:H5'	2.14	0.47
23:BB:919:U:H2'	23:BB:920:A:H8	1.73	0.47
23:BB:1080:A:H2'	23:BB:1081:U:H6	1.79	0.47
23:BB:1221:C:O2'	23:BB:1222:U:H5'	2.13	0.47
23:BB:1745:A:H2'	23:BB:1746:A:O4'	2.14	0.47
23:BB:1792:G:P	25:BC:204:LEU:HD12	2.54	0.47
23:BB:2193:G:H2'	23:BB:2194:U:C6	2.48	0.47
23:BB:2419:U:OP2	50:B3:32:LEU:HD13	2.14	0.47
23:BB:2439:A:H4'	23:BB:2440:C:O5'	2.13	0.47
25:BC:74:PRO:HG2	25:BC:96:LYS:CG	2.42	0.47
28:BF:23:SER:O	28:BF:26:GLN:HB2	2.14	0.47
28:BF:62:GLN:HB2	28:BF:91:ARG:HE	1.78	0.47
29:BG:25:ILE:HD12	29:BG:25:ILE:N	2.29	0.47
29:BG:66:THR:O	29:BG:70:LEU:HB2	2.14	0.47
30:BH:114:GLU:HB3	30:BH:133:GLN:O	2.14	0.47
33:BL:23:ILE:HG13	39:BR:82:HIS:CE1	2.49	0.47
34:BM:29:GLY:HA2	34:BM:106:ASP:HB2	1.96	0.47
37:BP:24:THR:HB	37:BP:86:LYS:HB3	1.95	0.47
38:BQ:16:ILE:C	38:BQ:18:LYS:H	2.20	0.47
42:BU:78:LYS:CG	42:BU:79:ALA:H	2.27	0.47
1:CA:454:G:H2'	1:CA:455:G:H8	1.79	0.47
1:CA:468:A:H3'	1:CA:469:C:C6	2.49	0.47
1:CA:754:C:H3'	1:CA:754:C:O2	2.14	0.47
1:CA:1040:U:H2'	1:CA:1041:G:C8	2.49	0.47
1:CA:1299:A:H2'	1:CA:1301:U:H1'	1.96	0.47
4:CE:132:PRO:O	4:CE:136:VAL:HG12	2.14	0.47
5:CF:54:LEU:C	5:CF:56:LYS:H	2.22	0.47
5:CF:97:THR:O	5:CF:98:GLU:CD	2.57	0.47
6:CG:78:ARG:NH1	6:CG:80:GLY:H	2.11	0.47
6:CG:129:ASN:HA	6:CG:134:VAL:CG1	2.38	0.47
7:CH:82:LEU:HD13	7:CH:82:LEU:O	2.13	0.47
7:CH:94:VAL:HG21	7:CH:100:ILE:O	2.13	0.47
8:CI:127:SER:O	8:CI:129:ARG:HG3	2.14	0.47
11:CL:79:ILE:C	11:CL:101:LEU:HD12	2.39	0.47
12:CM:14:ALA:O	12:CM:17:ALA:HB3	2.14	0.47
19:CT:3:ILE:H	19:CT:3:ILE:HG13	1.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CT:68:LYS:HA	19:CT:68:LYS:HZ3	1.79	0.47
20:CB:95:TRP:HZ3	20:CB:174:GLU:CD	2.22	0.47
20:CB:116:LEU:O	20:CB:119:GLN:HB2	2.13	0.47
20:CB:204:ASP:O	20:CB:208:ALA:HB3	2.14	0.47
22:DA:35:C:H2'	22:DA:36:C:O4'	2.14	0.47
23:DB:137:U:H6	23:DB:137:U:O5'	1.97	0.47
23:DB:785:G:H2'	23:DB:786:C:H6	1.79	0.47
23:DB:991:C:H5'	23:DB:991:C:H6	1.78	0.47
23:DB:1060:U:OP2	52:DI:74:PRO:HA	2.13	0.47
23:DB:1133:A:H5'	23:DB:1134:A:OP1	2.13	0.47
23:DB:1222:U:O2'	23:DB:1223:G:H5'	2.14	0.47
23:DB:1439:A:N7	23:DB:1440:U:C6	2.82	0.47
23:DB:1484:U:H2'	23:DB:1485:U:H6	1.79	0.47
23:DB:1607:C:N4	23:DB:1622:G:OP2	2.46	0.47
23:DB:1842:G:H2'	23:DB:1843:C:H6	1.78	0.47
23:DB:2286:G:H4'	23:DB:2287:A:O4'	2.14	0.47
23:DB:2379:G:H2'	23:DB:2380:C:C6	2.49	0.47
23:DB:2449:U:H4'	23:DB:2450:A:OP1	2.14	0.47
23:DB:2559:C:H2'	23:DB:2560:A:H8	1.79	0.47
24:DV:21:ARG:NE	24:DV:87:GLN:HB3	2.28	0.47
25:DC:52:HIS:O	25:DC:53:ILE:HB	2.14	0.47
26:DD:141:ARG:O	26:DD:142:VAL:HG13	2.14	0.47
27:DE:91:ASP:C	27:DE:93:SER:H	2.21	0.47
32:DK:26:GLY:O	32:DK:30:ARG:HD2	2.14	0.47
32:DK:77:ILE:HD11	37:DP:71:ARG:CZ	2.44	0.47
37:DP:4:ILE:O	37:DP:6:GLN:N	2.45	0.47
37:DP:77:SER:O	37:DP:80:VAL:HG12	2.14	0.47
38:DQ:51:GLN:O	38:DQ:55:GLN:HG3	2.13	0.47
44:DX:43:LEU:O	44:DX:47:ARG:HG3	2.14	0.47
52:DI:90:GLY:C	52:DI:91:LYS:HD2	2.38	0.47
1:AA:142:G:N3	1:AA:196:A:H2	2.12	0.47
1:AA:738:C:H2'	1:AA:739:C:H6	1.78	0.47
1:AA:949:A:H2'	1:AA:950:U:O4'	2.14	0.47
1:AA:1004:A:H5'	1:AA:1024:G:H22	1.77	0.47
1:AA:1032:G:H5''	1:AA:1032:G:N3	2.29	0.47
1:AA:1252:A:H2'	1:AA:1253:G:O4'	2.14	0.47
1:AA:1436:U:H2'	1:AA:1437:A:H8	1.78	0.47
6:AG:72:VAL:HG12	6:AG:89:GLU:CA	2.43	0.47
8:AI:18:VAL:HA	8:AI:64:ILE:HA	1.96	0.47
14:AO:67:ASP:O	14:AO:71:ARG:HG3	2.13	0.47
14:AO:88:ARG:HH11	14:AO:88:ARG:CA	2.22	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:55:U:H2'	22:BA:56:G:H8	1.79	0.47
22:BA:60:C:O2'	22:BA:61:G:H5'	2.13	0.47
23:BB:615:U:O4	27:BE:39:ALA:HB2	2.14	0.47
23:BB:786:C:H5''	23:BB:1780:A:N7	2.28	0.47
23:BB:1046:A:C4'	23:BB:1047:G:H5''	2.44	0.47
23:BB:1274:A:C2	23:BB:1297:C:H1'	2.49	0.47
23:BB:1726:C:H2'	23:BB:1727:C:C6	2.49	0.47
23:BB:1958:C:H2'	23:BB:1959:G:H8	1.79	0.47
23:BB:2630:G:O2'	23:BB:2631:G:H5'	2.14	0.47
23:BB:2848:G:H1	23:BB:2867:G:N2	2.11	0.47
24:BV:76:ASP:HA	34:BM:136:MET:HE3	1.96	0.47
27:BE:30:GLN:NE2	27:BE:100:MET:HE1	2.29	0.47
28:BF:19:PHE:CE2	28:BF:164:GLU:HG2	2.48	0.47
33:BL:29:LYS:C	33:BL:31:GLY:H	2.22	0.47
35:BN:12:ARG:HG3	35:BN:13:ASN:H	1.78	0.47
38:BQ:18:LYS:C	38:BQ:20:ALA:N	2.72	0.47
38:BQ:26:ALA:C	38:BQ:28:SER:N	2.72	0.47
38:BQ:33:VAL:HG23	38:BQ:34:ALA:H	1.78	0.47
38:BQ:51:GLN:O	38:BQ:55:GLN:HG3	2.14	0.47
38:BQ:64:ILE:HD12	38:BQ:95:ALA:CB	2.44	0.47
43:BW:30:VAL:O	43:BW:30:VAL:HG22	2.13	0.47
52:BI:32:VAL:HG13	52:BI:66:PHE:CD2	2.49	0.47
1:CA:36:C:O3'	11:CL:119:LYS:HA	2.14	0.47
1:CA:443:C:H2'	1:CA:444:G:H8	1.79	0.47
1:CA:549:C:H2'	1:CA:550:G:C8	2.49	0.47
1:CA:898:G:N2	1:CA:900:A:H3'	2.29	0.47
1:CA:1109:C:H2'	1:CA:1110:A:O4'	2.14	0.47
1:CA:1317:C:H3'	1:CA:1318:A:C8	2.49	0.47
2:CC:129:PHE:CD2	2:CC:156:LEU:HD22	2.48	0.47
3:CD:123:MET:CB	3:CD:128:VAL:HA	2.44	0.47
4:CE:77:ASN:CG	4:CE:78:GLY:H	2.19	0.47
6:CG:75:LYS:HD3	6:CG:76:SER:N	2.28	0.47
6:CG:125:ASP:HB3	6:CG:131:GLY:H	1.78	0.47
7:CH:58:LEU:HD22	7:CH:60:LEU:HB2	1.96	0.47
9:CJ:13:PHE:CD2	9:CJ:69:THR:HG23	2.49	0.47
10:CK:74:LYS:HG3	10:CK:104:PHE:CZ	2.49	0.47
11:CL:113:ARG:NE	11:CL:120:ARG:HA	2.29	0.47
13:CN:27:LYS:HG3	13:CN:28:ALA:H	1.79	0.47
16:CQ:11:VAL:HG13	16:CQ:20:ILE:HG23	1.94	0.47
18:CS:52:ASN:CG	18:CS:53:GLY:N	2.72	0.47
19:CT:49:ALA:O	19:CT:52:GLU:HB3	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CB:8:MET:HG3	20:CB:9:LEU:HD12	1.95	0.47
20:CB:216:VAL:O	20:CB:220:VAL:HG23	2.14	0.47
21:CU:20:ARG:HD2	21:CU:20:ARG:H	1.79	0.47
22:DA:70:C:O2'	22:DA:71:C:H5'	2.14	0.47
23:DB:19:A:H2'	23:DB:20:C:H6	1.79	0.47
23:DB:77:G:O2'	23:DB:78:U:H5'	2.13	0.47
23:DB:138:U:H2'	23:DB:140:C:C1'	2.44	0.47
23:DB:275:C:H2'	23:DB:276:U:C1'	2.43	0.47
23:DB:364:C:H2'	23:DB:365:U:C6	2.49	0.47
23:DB:531:C:O2'	23:DB:563:A:H5''	2.13	0.47
23:DB:786:C:H5''	23:DB:1780:A:N7	2.29	0.47
23:DB:1190:G:OP1	33:DL:32:GLY:HA2	2.14	0.47
23:DB:1470:A:H3'	23:DB:1471:G:H8	1.78	0.47
23:DB:1668:A:N3	23:DB:1670:C:C4	2.82	0.47
23:DB:2273:A:H2'	23:DB:2274:A:C8	2.49	0.47
23:DB:2709:G:H2'	23:DB:2710:C:C6	2.49	0.47
24:DV:30:ILE:O	24:DV:37:PRO:HA	2.13	0.47
24:DV:80:HIS:HA	24:DV:87:GLN:OE1	2.14	0.47
25:DC:229:HIS:ND1	25:DC:230:PRO:HD2	2.28	0.47
25:DC:245:THR:OG1	25:DC:249:VAL:HG23	2.14	0.47
26:DD:30:GLU:OE1	26:DD:53:GLY:HA2	2.14	0.47
26:DD:101:PHE:O	26:DD:180:VAL:HG11	2.14	0.47
28:DF:115:GLY:HA3	28:DF:177:ARG:HB2	1.95	0.47
28:DF:137:PHE:N	28:DF:137:PHE:CD2	2.82	0.47
29:DG:94:ARG:HG2	29:DG:127:GLN:HE21	1.80	0.47
30:DH:122:LEU:HD11	30:DH:130:VAL:CG2	2.40	0.47
32:DK:12:ASP:OD2	32:DK:85:VAL:HG13	2.15	0.47
34:DM:86:LYS:HG3	34:DM:87:GLY:N	2.29	0.47
36:DO:28:VAL:HG12	36:DO:93:ASP:O	2.14	0.47
38:DQ:91:ARG:NH1	39:DR:10:LYS:HB3	2.25	0.47
38:DQ:111:LYS:H	39:DR:48:LYS:HZ3	1.62	0.47
41:DT:51:PHE:HB3	41:DT:53:VAL:HG23	1.96	0.47
42:DU:38:ILE:HG13	42:DU:39:ASN:N	2.29	0.47
42:DU:51:LEU:HD22	42:DU:52:ASN:OD1	2.14	0.47
43:DW:46:ALA:HB2	43:DW:78:PHE:HD1	1.78	0.47
43:DW:55:ASP:C	43:DW:57:THR:H	2.22	0.47
43:DW:58:LEU:HG	43:DW:79:ILE:HD12	1.95	0.47
46:DZ:7:VAL:HG11	46:DZ:51:VAL:HG13	1.95	0.47
48:D1:6:GLU:HB2	48:D1:52:LYS:NZ	2.29	0.47
52:DI:52:LEU:HD13	52:DI:81:LYS:HZ3	1.78	0.47
1:AA:82:G:H1'	1:AA:89:U:H1'	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:109:A:H4'	1:AA:110:C:OP2	2.14	0.47
1:AA:366:A:O2'	1:AA:394:G:N2	2.48	0.47
1:AA:443:C:H2'	1:AA:444:G:H8	1.78	0.47
1:AA:591:U:H2'	1:AA:592:G:H8	1.77	0.47
1:AA:805:C:O2'	1:AA:806:C:H5'	2.13	0.47
1:AA:814:A:H2'	1:AA:816:A:O5'	2.14	0.47
8:AI:22:PRO:HA	8:AI:60:LEU:CB	2.44	0.47
9:AJ:41:PRO:HA	9:AJ:72:ARG:HD3	1.96	0.47
13:AN:64:ARG:HB2	13:AN:77:GLY:O	2.13	0.47
16:AQ:11:VAL:HG13	16:AQ:20:ILE:HG23	1.95	0.47
16:AQ:59:GLU:HG3	16:AQ:78:VAL:HG21	1.95	0.47
19:AT:4:LYS:HZ1	19:AT:6:ALA:CB	2.28	0.47
20:AB:53:LEU:HD13	20:AB:216:VAL:HG12	1.96	0.47
21:AU:3:ILE:HB	21:AU:19:LYS:HD2	1.96	0.47
21:AU:20:ARG:HG3	21:AU:24:LYS:HG3	1.97	0.47
22:BA:11:C:H5'	43:BW:71:LYS:CG	2.44	0.47
22:BA:71:C:H2'	22:BA:72:G:O4'	2.14	0.47
22:BA:91:C:O2'	22:BA:92:C:H5'	2.14	0.47
23:BB:297:G:OP1	42:BU:91:LYS:HD3	2.14	0.47
23:BB:558:U:OP1	31:BJ:114:LEU:HB2	2.14	0.47
23:BB:648:G:O2'	23:BB:649:G:H5'	2.15	0.47
23:BB:696:G:O2'	23:BB:697:G:H5'	2.14	0.47
23:BB:758:C:O2	23:BB:1981:A:H2	1.96	0.47
23:BB:1100:C:H2'	23:BB:1101:U:C6	2.48	0.47
23:BB:1405:U:H2'	23:BB:1406:U:C6	2.49	0.47
23:BB:1593:A:H2'	23:BB:1594:U:H6	1.75	0.47
23:BB:1640:A:H2'	23:BB:1641:A:H8	1.79	0.47
23:BB:2101:A:C2'	23:BB:2102:G:H5''	2.44	0.47
23:BB:2444:G:OP2	27:BE:63:LYS:HD2	2.13	0.47
23:BB:2709:G:H2'	23:BB:2710:C:C6	2.49	0.47
25:BC:144:GLU:CA	25:BC:151:GLY:HA2	2.42	0.47
27:BE:37:ALA:C	27:BE:39:ALA:H	2.20	0.47
28:BF:87:LYS:CG	28:BF:88:VAL:H	2.25	0.47
30:BH:14:SER:C	30:BH:16:GLY:N	2.69	0.47
30:BH:40:THR:O	30:BH:42:LYS:N	2.40	0.47
35:BN:73:ASN:O	35:BN:76:VAL:HG22	2.14	0.47
38:BQ:23:TYR:CD2	38:BQ:23:TYR:N	2.81	0.47
38:BQ:80:ASN:O	38:BQ:116:LEU:HD11	2.14	0.47
40:BS:47:VAL:HG23	40:BS:48:LYS:N	2.28	0.47
44:BX:26:PHE:HD1	44:BX:27:ASN:ND2	2.10	0.47
50:B3:54:LEU:CG	50:B3:58:ILE:HD11	2.43	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:242:G:H2'	1:CA:243:A:H5''	1.96	0.47
1:CA:269:C:H2'	1:CA:270:A:H8	1.74	0.47
1:CA:309:A:O2'	1:CA:310:G:H5'	2.14	0.47
1:CA:411:A:N6	1:CA:413:G:H21	2.10	0.47
1:CA:1035:A:H2'	1:CA:1036:A:C8	2.49	0.47
1:CA:1510:C:H2'	1:CA:1511:G:H8	1.79	0.47
3:CD:44:LYS:HD2	3:CD:46:ARG:CG	2.44	0.47
3:CD:94:GLU:HG3	3:CD:99:ASN:ND2	2.29	0.47
13:CN:79:SER:HG	13:CN:82:LYS:HG2	1.79	0.47
14:CO:88:ARG:HH11	14:CO:88:ARG:CA	2.20	0.47
22:DA:55:U:H2'	22:DA:56:G:C8	2.48	0.47
23:DB:53:A:H61	23:DB:117:G:H1'	1.79	0.47
23:DB:247:G:H4'	23:DB:386:G:C5	2.50	0.47
23:DB:335:C:O2'	23:DB:336:C:H5'	2.14	0.47
23:DB:335:C:H5''	42:DU:81:ARG:NH1	2.29	0.47
23:DB:337:C:H2'	23:DB:338:G:O4'	2.13	0.47
23:DB:659:G:H4'	27:DE:95:LYS:HD3	1.96	0.47
23:DB:754:U:H2'	23:DB:755:U:C6	2.48	0.47
23:DB:934:U:H2'	23:DB:935:C:H6	1.80	0.47
23:DB:1059:G:H4'	52:DI:116:MET:HE3	1.96	0.47
23:DB:1162:G:H1'	39:DR:23:GLU:OE2	2.14	0.47
23:DB:1222:U:P	39:DR:90:ARG:HH22	2.38	0.47
23:DB:1266:G:N2	23:DB:2012:G:H2'	2.29	0.47
23:DB:1970:A:H1'	23:DB:1972:G:C8	2.48	0.47
23:DB:2065:C:H1'	23:DB:2449:U:O2	2.13	0.47
23:DB:2520:C:O2'	23:DB:2521:C:H5'	2.14	0.47
23:DB:2553:G:H2'	23:DB:2554:U:H4'	1.96	0.47
23:DB:2814:A:H2'	23:DB:2815:C:H6	1.78	0.47
25:DC:68:ARG:HB3	25:DC:128:THR:OG1	2.14	0.47
25:DC:141:HIS:O	25:DC:143:VAL:HG23	2.14	0.47
27:DE:104:ALA:C	27:DE:106:LYS:H	2.22	0.47
28:DF:87:LYS:C	28:DF:88:VAL:HG23	2.39	0.47
30:DH:53:GLU:CB	30:DH:57:LYS:HB3	2.44	0.47
31:DJ:88:THR:HG22	31:DJ:91:GLU:OE1	2.14	0.47
32:DK:120:PRO:HA	37:DP:65:ASN:HD21	1.80	0.47
35:DN:54:LEU:HD11	35:DN:62:ASN:HB3	1.96	0.47
35:DN:99:LYS:O	47:D0:42:ILE:HG12	2.14	0.47
36:DO:9:ARG:HA	36:DO:12:THR:OG1	2.13	0.47
37:DP:50:ARG:CB	37:DP:56:SER:HB3	2.43	0.47
38:DQ:85:ALA:HB2	38:DQ:115:ALA:HB1	1.95	0.47
41:DT:2:ILE:HG13	41:DT:3:ARG:CZ	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DT:7:LEU:C	41:DT:9:LYS:H	2.21	0.47
41:DT:43:ILE:O	41:DT:46:ALA:HB3	2.13	0.47
43:DW:23:LYS:CG	43:DW:24:ARG:N	2.76	0.47
46:DZ:36:HIS:O	46:DZ:48:THR:HA	2.15	0.47
52:DI:92:PRO:O	52:DI:93:ASN:HB2	2.12	0.47
1:AA:251:G:H1	1:AA:271:C:N4	2.12	0.47
1:AA:366:A:H1'	1:AA:395:C:O2	2.14	0.47
1:AA:454:G:H2'	1:AA:455:G:H8	1.78	0.47
1:AA:562:U:H4'	1:AA:563:A:O5'	2.15	0.47
1:AA:1300:G:H1'	1:AA:1301:U:C5	2.49	0.47
1:AA:1499:A:O2'	1:AA:1500:A:H5'	2.14	0.47
3:AD:22:SER:N	3:AD:109:THR:HG22	2.29	0.47
6:AG:144:ALA:O	6:AG:145:GLU:HB3	2.15	0.47
9:AJ:80:THR:HB	9:AJ:83:THR:OG1	2.15	0.47
13:AN:27:LYS:HG3	13:AN:28:ALA:H	1.79	0.47
20:AB:19:THR:HG23	20:AB:20:ARG:N	2.23	0.47
20:AB:83:ALA:HA	20:AB:88:GLN:NE2	2.29	0.47
20:AB:163:ILE:HD12	20:AB:185:ILE:HD12	1.97	0.47
22:BA:30:C:H2'	22:BA:31:C:H5'	1.97	0.47
23:BB:533:G:H5'	38:BQ:23:TYR:CD2	2.49	0.47
23:BB:771:G:OP1	49:B2:14:ARG:HD2	2.14	0.47
23:BB:859:G:HO2'	23:BB:916:G:H1	1.61	0.47
23:BB:1038:G:H2'	23:BB:1039:A:H8	1.76	0.47
23:BB:1126:A:H4'	23:BB:1127:A:O5'	2.14	0.47
23:BB:1130:U:O2	23:BB:2025:C:H5''	2.15	0.47
23:BB:1197:G:O2'	23:BB:1198:U:H5'	2.14	0.47
23:BB:1222:U:O2'	23:BB:1223:G:H5'	2.14	0.47
23:BB:1717:A:H2'	23:BB:1718:G:O4'	2.15	0.47
23:BB:2070:A:C2	23:BB:2442:C:C2	3.01	0.47
23:BB:2602:A:OP1	23:BB:2602:A:H3'	2.14	0.47
23:BB:2811:G:OP1	26:BD:62:LYS:HD2	2.14	0.47
23:BB:2818:U:H4'	23:BB:2837:A:O4'	2.15	0.47
26:BD:197:THR:C	26:BD:199:SER:H	2.21	0.47
27:BE:146:VAL:HA	27:BE:185:LYS:O	2.14	0.47
30:BH:49:ALA:HB3	30:BH:50:ARG:NH1	2.29	0.47
30:BH:110:VAL:HB	30:BH:132:PHE:CE1	2.49	0.47
31:BJ:43:GLU:O	31:BJ:45:THR:HG22	2.15	0.47
31:BJ:55:ILE:CG2	31:BJ:123:LYS:HB2	2.44	0.47
34:BM:19:GLY:N	34:BM:38:ARG:HH12	2.03	0.47
34:BM:30:SER:HA	34:BM:133:LYS:HB2	1.96	0.47
38:BQ:96:ASP:C	38:BQ:98:ALA:N	2.71	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BS:66:ILE:HD13	40:BS:66:ILE:N	2.26	0.47
42:BU:60:LYS:HA	42:BU:60:LYS:HE2	1.95	0.47
46:BZ:33:LEU:HD23	46:BZ:52:SER:HB3	1.96	0.47
1:CA:65:A:C6	1:CA:381:C:N3	2.83	0.47
1:CA:208:U:O2'	1:CA:209:U:H3'	2.13	0.47
1:CA:702:A:C8	23:DB:1848:A:H1'	2.50	0.47
1:CA:1060:U:H2'	1:CA:1061:G:H8	1.78	0.47
1:CA:1086:U:H3	1:CA:1099:G:N2	1.94	0.47
1:CA:1125:U:O2'	1:CA:1126:U:H2'	2.15	0.47
1:CA:1363:A:H2'	1:CA:1363:A:N3	2.30	0.47
3:CD:33:ILE:HD12	3:CD:34:GLU:H	1.79	0.47
3:CD:47:LEU:HD13	3:CD:52:VAL:HG22	1.96	0.47
8:CI:18:VAL:HA	8:CI:64:ILE:HA	1.96	0.47
13:CN:26:LEU:HD12	13:CN:44:VAL:HG13	1.96	0.47
14:CO:67:ASP:O	14:CO:71:ARG:HG3	2.14	0.47
23:DB:140:C:H4'	23:DB:141:G:C6	2.50	0.47
23:DB:1138:G:H2'	23:DB:1139:G:O4'	2.14	0.47
23:DB:1444:G:H2'	23:DB:1445:G:C8	2.49	0.47
23:DB:2840:C:O2'	23:DB:2841:C:H5'	2.14	0.47
25:DC:183:VAL:HG22	25:DC:187:CYS:SG	2.54	0.47
27:DE:172:ALA:HB2	27:DE:195:GLN:NE2	2.30	0.47
28:DF:141:ASP:O	28:DF:144:LYS:N	2.47	0.47
29:DG:83:THR:C	29:DG:84:LYS:HD3	2.39	0.47
31:DJ:30:THR:O	31:DJ:33:ALA:HB3	2.15	0.47
34:DM:69:PRO:HA	34:DM:94:ALA:HA	1.95	0.47
34:DM:69:PRO:HG2	34:DM:70:ASP:H	1.79	0.47
35:DN:7:GLY:HA2	35:DN:46:ARG:HH12	1.79	0.47
35:DN:58:ASP:O	35:DN:59:SER:HB3	2.15	0.47
35:DN:83:LEU:HA	35:DN:86:ARG:CG	2.44	0.47
39:DR:5:PHE:HB2	39:DR:37:GLU:OE1	2.14	0.47
43:DW:16:GLU:CD	43:DW:16:GLU:H	2.20	0.47
46:DZ:21:ALA:C	46:DZ:22:LEU:HG	2.39	0.47
46:DZ:70:GLU:C	46:DZ:72:ARG:N	2.69	0.47
52:DI:76:ALA:O	52:DI:135:MET:HE1	2.14	0.47
52:DI:76:ALA:HA	52:DI:135:MET:SD	2.54	0.47
1:AA:86:G:H1'	1:AA:87:C:H5	1.77	0.47
1:AA:386:C:C2'	1:AA:387:U:H5'	2.45	0.47
1:AA:916:U:O2'	1:AA:917:G:H5'	2.14	0.47
1:AA:1339:A:H2'	1:AA:1340:A:O4'	2.14	0.47
2:AC:111:ASP:HB3	2:AC:114:LEU:HD12	1.97	0.47
3:AD:33:ILE:O	3:AD:35:GLN:HG3	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AD:162:GLU:HA	3:AD:166:LYS:NZ	2.29	0.47
5:AF:34:GLY:C	5:AF:35:LYS:HD2	2.40	0.47
6:AG:78:ARG:NH1	6:AG:80:GLY:H	2.13	0.47
9:AJ:44:THR:HG23	9:AJ:69:THR:O	2.13	0.47
12:AM:86:ARG:CG	12:AM:96:VAL:HG11	2.43	0.47
17:AR:35:SER:O	17:AR:70:THR:HA	2.15	0.47
20:AB:35:ASN:HD22	20:AB:35:ASN:HA	1.54	0.47
22:BA:82:U:O2'	22:BA:83:G:H5'	2.14	0.47
23:BB:138:U:H1'	41:BT:1:MET:H2	1.78	0.47
23:BB:303:G:H2'	23:BB:304:U:C6	2.50	0.47
23:BB:324:A:H2'	23:BB:325:G:O4'	2.14	0.47
23:BB:431:U:O2'	23:BB:432:A:H5'	2.14	0.47
23:BB:519:U:H2'	23:BB:520:G:C8	2.50	0.47
23:BB:996:A:C4'	38:BQ:91:ARG:HD2	2.41	0.47
23:BB:1027:A:N6	23:BB:1126:A:H1'	2.29	0.47
23:BB:1193:G:H2'	23:BB:1194:A:O4'	2.13	0.47
23:BB:1445:G:H2'	23:BB:1446:C:O4'	2.15	0.47
23:BB:1496:A:H2'	23:BB:1498:C:C5	2.49	0.47
23:BB:1790:C:H2'	23:BB:1791:A:C8	2.49	0.47
23:BB:1969:A:O2'	23:BB:1972:G:N3	2.41	0.47
23:BB:2052:A:O4'	26:BD:147:GLY:HA3	2.14	0.47
23:BB:2061:G:H5''	23:BB:2503:A:C2	2.50	0.47
23:BB:2230:G:H2'	23:BB:2231:U:C6	2.50	0.47
23:BB:2515:C:H2'	23:BB:2516:A:H8	1.80	0.47
23:BB:2553:G:H2'	23:BB:2554:U:C4'	2.44	0.47
23:BB:2880:C:H1'	35:BN:93:GLY:H	1.79	0.47
28:BF:134:GLN:HB3	28:BF:149:ARG:HB3	1.96	0.47
29:BG:10:VAL:CG2	29:BG:48:THR:HA	2.45	0.47
30:BH:67:ALA:C	30:BH:69:ALA:H	2.21	0.47
32:BK:119:ALA:O	32:BK:120:PRO:O	2.33	0.47
33:BL:81:ASP:O	33:BL:83:ALA:N	2.48	0.47
33:BL:118:THR:O	33:BL:120:VAL:HG23	2.14	0.47
37:BP:6:GLN:O	37:BP:10:GLU:HG2	2.13	0.47
39:BR:6:GLN:HE21	39:BR:6:GLN:C	2.23	0.47
40:BS:4:ILE:CG2	40:BS:106:VAL:HG13	2.44	0.47
48:B1:3:GLY:C	48:B1:5:ARG:N	2.71	0.47
52:BI:63:ASP:C	52:BI:65:SER:H	2.22	0.47
1:CA:286:C:H2'	1:CA:287:U:C6	2.50	0.47
1:CA:382:A:H2'	1:CA:383:A:C8	2.49	0.47
1:CA:502:A:H2'	1:CA:503:C:C6	2.49	0.47
1:CA:512:U:H2'	1:CA:513:C:H6	1.75	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:545:C:O2'	1:CA:546:A:H5'	2.15	0.47
1:CA:904:U:H2'	1:CA:905:U:C6	2.50	0.47
1:CA:1414:U:H2'	1:CA:1415:G:C8	2.44	0.47
2:CC:119:ILE:CG2	2:CC:120:THR:N	2.76	0.47
5:CF:85:ILE:HG22	5:CF:86:ARG:H	1.80	0.47
8:CI:30:ASN:HD22	8:CI:65:THR:HA	1.79	0.47
20:CB:46:VAL:HA	20:CB:49:PHE:CD2	2.50	0.47
23:DB:288:U:H2'	23:DB:289:G:H5'	1.96	0.47
23:DB:512:G:OP1	23:DB:512:G:H4'	2.15	0.47
23:DB:572:A:OP2	39:DR:80:ARG:NH2	2.47	0.47
23:DB:776:G:H4'	23:DB:777:G:O5'	2.14	0.47
23:DB:929:U:H1'	45:DY:25:GLY:O	2.14	0.47
23:DB:1057:A:H62	23:DB:1086:A:H2'	1.80	0.47
23:DB:1064:C:H2'	23:DB:1065:U:O4'	2.14	0.47
23:DB:1551:A:C3'	23:DB:1552:A:H5''	2.44	0.47
23:DB:1557:C:H3'	23:DB:1558:C:C5'	2.45	0.47
23:DB:1590:A:H2'	23:DB:1591:A:C8	2.49	0.47
23:DB:1672:A:C6	23:DB:1673:G:C6	3.02	0.47
23:DB:1682:G:H2'	23:DB:1683:U:C6	2.49	0.47
23:DB:2197:U:O2'	23:DB:2198:A:H2'	2.14	0.47
23:DB:2247:A:H2'	23:DB:2248:C:C6	2.50	0.47
23:DB:2700:A:H2'	23:DB:2701:U:C6	2.48	0.47
23:DB:2822:G:H5''	26:DD:164:GLN:HE22	1.78	0.47
25:DC:140:VAL:CG2	25:DC:163:ILE:HG12	2.45	0.47
26:DD:174:SER:O	26:DD:175:LEU:HB2	2.14	0.47
26:DD:187:LEU:HD12	26:DD:188:LEU:H	1.79	0.47
31:DJ:58:ASN:CA	31:DJ:127:GLY:HA2	2.29	0.47
33:DL:51:GLU:O	33:DL:53:GLY:N	2.47	0.47
34:DM:63:ILE:HD12	34:DM:63:ILE:N	2.28	0.47
42:DU:90:LYS:O	42:DU:92:VAL:HG23	2.14	0.47
52:DI:10:LEU:HD12	52:DI:10:LEU:O	2.13	0.47
52:DI:129:GLU:HB3	52:DI:133:ARG:NH1	2.29	0.47
1:AA:394:G:O2'	1:AA:395:C:H5'	2.15	0.47
1:AA:811:C:O2'	1:AA:901:A:N1	2.46	0.47
1:AA:1062:U:H2'	1:AA:1063:C:C5	2.50	0.47
2:AC:156:LEU:CD1	2:AC:165:GLU:HB2	2.44	0.47
4:AE:45:VAL:HG11	4:AE:117:ALA:HB2	1.97	0.47
4:AE:87:VAL:HG23	4:AE:92:ARG:HA	1.96	0.47
5:AF:4:TYR:CE2	5:AF:71:ILE:HD13	2.50	0.47
5:AF:32:ALA:O	5:AF:33:GLU:HB2	2.15	0.47
7:AH:77:VAL:HG23	7:AH:126:CYS:HA	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AH:94:VAL:HG21	7:AH:100:ILE:O	2.14	0.47
8:AI:56:MET:SD	8:AI:57:VAL:N	2.87	0.47
11:AL:66:ILE:HD12	11:AL:66:ILE:N	2.30	0.47
18:AS:40:PHE:O	18:AS:43:MET:HG3	2.15	0.47
23:BB:499:U:H2'	23:BB:500:G:O4'	2.14	0.47
23:BB:531:C:O2'	23:BB:563:A:H5''	2.14	0.47
23:BB:1381:G:H1'	23:BB:1571:A:N1	2.29	0.47
23:BB:2233:U:H2'	23:BB:2234:G:H8	1.80	0.47
23:BB:2544:G:O2'	23:BB:2545:G:H5'	2.14	0.47
23:BB:2679:A:O2'	23:BB:2680:U:H5'	2.14	0.47
23:BB:2697:G:H2'	23:BB:2698:U:O4'	2.15	0.47
23:BB:2708:G:O2'	23:BB:2709:G:H5'	2.14	0.47
27:BE:48:THR:HG23	27:BE:51:GLU:OE2	2.15	0.47
27:BE:115:GLN:O	27:BE:117:ARG:HG3	2.14	0.47
27:BE:157:LEU:O	27:BE:160:ALA:HB3	2.15	0.47
28:BF:42:ALA:O	28:BF:43:ILE:C	2.57	0.47
28:BF:137:PHE:CD2	28:BF:137:PHE:N	2.83	0.47
28:BF:155:ILE:HG22	28:BF:156:THR:N	2.30	0.47
29:BG:94:ARG:HA	29:BG:128:THR:HG22	1.97	0.47
29:BG:106:LEU:O	29:BG:108:PHE:HD1	1.97	0.47
30:BH:81:ALA:HB2	30:BH:147:VAL:HG23	1.95	0.47
31:BJ:81:ILE:HG23	31:BJ:82:GLY:N	2.23	0.47
32:BK:104:THR:H	32:BK:107:LEU:CD1	2.26	0.47
33:BL:138:ALA:O	33:BL:139:GLY:C	2.57	0.47
37:BP:113:LEU:C	37:BP:114:ASN:HD22	2.22	0.47
41:BT:50:LEU:C	41:BT:52:GLU:N	2.72	0.47
42:BU:85:ARG:HH11	42:BU:86:PHE:N	2.13	0.47
1:CA:44:A:O2'	1:CA:45:G:H5'	2.14	0.47
1:CA:142:G:N3	1:CA:196:A:H2	2.12	0.47
1:CA:197:A:H4'	1:CA:198:G:O5'	2.13	0.47
1:CA:358:U:H2'	1:CA:359:G:C8	2.50	0.47
1:CA:435:A:H2'	1:CA:435:A:N3	2.30	0.47
1:CA:659:U:O2'	1:CA:660:C:H5'	2.15	0.47
1:CA:844:G:H3'	1:CA:844:G:OP2	2.14	0.47
1:CA:967:C:H4'	8:CI:129:ARG:HG2	1.96	0.47
1:CA:1120:C:H2'	1:CA:1121:U:C6	2.49	0.47
1:CA:1406:U:H2'	1:CA:1407:C:H5'	1.96	0.47
2:CC:190:THR:HG22	2:CC:191:THR:H	1.78	0.47
6:CG:144:ALA:O	6:CG:145:GLU:HB3	2.14	0.47
7:CH:10:LEU:CD2	7:CH:74:ILE:HD11	2.44	0.47
8:CI:19:PHE:HB2	8:CI:63:TYR:HB3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:CR:63:TYR:N	17:CR:63:TYR:HD2	2.11	0.47
18:CS:48:ILE:O	18:CS:58:PRO:HA	2.14	0.47
20:CB:80:LYS:HG3	20:CB:81:ASP:N	2.29	0.47
20:CB:130:LYS:HA	20:CB:130:LYS:NZ	2.29	0.47
23:DB:28:A:O2'	23:DB:583:G:H5'	2.15	0.47
23:DB:37:C:O2'	23:DB:38:A:H5'	2.15	0.47
23:DB:184:C:H2'	23:DB:185:G:C8	2.49	0.47
23:DB:241:A:OP1	23:DB:241:A:H8	1.97	0.47
23:DB:269:C:H2'	23:DB:270:A:H8	1.79	0.47
23:DB:335:C:H2'	23:DB:336:C:H6	1.79	0.47
23:DB:615:U:O4	27:DE:39:ALA:HB2	2.14	0.47
23:DB:692:C:H2'	23:DB:693:A:C8	2.49	0.47
23:DB:784:G:HO2'	23:DB:785:G:H5''	1.79	0.47
23:DB:1203:U:H3'	23:DB:1204:A:C5'	2.44	0.47
23:DB:1729:U:C2'	23:DB:1730:C:H4'	2.39	0.47
23:DB:2589:A:H2'	23:DB:2590:A:C8	2.49	0.47
23:DB:2635:A:H4'	26:DD:79:LEU:HB2	1.96	0.47
24:DV:76:ASP:HA	34:DM:136:MET:HE3	1.96	0.47
26:DD:123:LYS:HD3	26:DD:165:MET:SD	2.54	0.47
26:DD:150:GLN:O	26:DD:151:THR:C	2.58	0.47
29:DG:95:ALA:HA	29:DG:104:LEU:HD23	1.96	0.47
29:DG:148:ARG:HB2	29:DG:152:ARG:HH11	1.79	0.47
30:DH:9:VAL:CG1	30:DH:12:LEU:HG	2.45	0.47
30:DH:21:VAL:HG22	30:DH:22:LYS:N	2.29	0.47
32:DK:59:LYS:HD2	32:DK:89:ASN:O	2.15	0.47
33:DL:89:VAL:O	33:DL:89:VAL:HG13	2.15	0.47
38:DQ:96:ASP:C	38:DQ:98:ALA:N	2.70	0.47
38:DQ:112:ALA:O	38:DQ:113:LYS:C	2.57	0.47
40:DS:52:GLU:HA	40:DS:55:ILE:CG2	2.43	0.47
41:DT:54:GLU:HB3	41:DT:88:LYS:HB2	1.95	0.47
42:DU:60:LYS:HE2	42:DU:60:LYS:HA	1.97	0.47
52:DI:18:ASN:HB2	52:DI:38:CYS:SG	2.54	0.47
52:DI:18:ASN:N	52:DI:19:PRO:CD	2.77	0.47
1:AA:57:G:H2'	1:AA:58:C:C6	2.49	0.47
1:AA:222:C:H2'	1:AA:223:A:H8	1.79	0.47
1:AA:246:A:C2	1:AA:282:A:C5	3.03	0.47
1:AA:377:G:H2'	1:AA:378:G:H8	1.80	0.47
1:AA:462:G:H5'	1:AA:463:U:P	2.55	0.47
1:AA:889:A:N1	1:AA:907:A:H5''	2.29	0.47
1:AA:900:A:H2'	1:AA:901:A:C8	2.50	0.47
1:AA:953:G:H2'	1:AA:954:G:O4'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:958:A:N1	18:AS:53:GLY:C	2.73	0.47
1:AA:1009:U:H1'	1:AA:1021:A:C2	2.49	0.47
1:AA:1024:G:H2'	1:AA:1025:U:C6	2.50	0.47
1:AA:1071:C:O2'	1:AA:1072:G:H5'	2.15	0.47
1:AA:1097:C:H2'	1:AA:1098:C:H6	1.79	0.47
1:AA:1169:A:H2'	1:AA:1170:A:C8	2.50	0.47
1:AA:1486:G:C2'	1:AA:1487:G:O4'	2.63	0.47
2:AC:71:ARG:O	2:AC:75:VAL:HG23	2.14	0.47
2:AC:87:ARG:HD3	2:AC:88:LYS:N	2.30	0.47
2:AC:112:ALA:O	2:AC:113:LYS:C	2.58	0.47
3:AD:44:LYS:HD2	3:AD:46:ARG:CG	2.44	0.47
4:AE:88:HIS:CE1	4:AE:137:ARG:HD2	2.49	0.47
5:AF:1:MET:HG2	5:AF:67:PRO:HD3	1.97	0.47
6:AG:30:MET:HA	6:AG:38:ALA:CB	2.44	0.47
6:AG:110:ARG:HD3	6:AG:118:ARG:HA	1.96	0.47
7:AH:58:LEU:HD22	7:AH:60:LEU:HB2	1.96	0.47
8:AI:117:LEU:HD22	8:AI:123:ARG:HG2	1.96	0.47
10:AK:37:GLN:HB2	10:AK:39:ASN:ND2	2.29	0.47
10:AK:83:VAL:CG2	10:AK:106:ILE:HD11	2.45	0.47
11:AL:51:VAL:HG12	11:AL:63:THR:HG22	1.96	0.47
13:AN:60:ARG:HE	13:AN:62:ARG:HG2	1.79	0.47
15:AP:46:LYS:C	15:AP:48:GLU:N	2.73	0.47
19:AT:3:ILE:H	19:AT:3:ILE:HG13	1.46	0.47
20:AB:46:VAL:HA	20:AB:49:PHE:CD2	2.49	0.47
20:AB:116:LEU:HA	20:AB:119:GLN:CG	2.45	0.47
20:AB:120:SER:HA	20:AB:125:PHE:CD1	2.49	0.47
20:AB:142:LYS:HA	20:AB:145:ASN:CG	2.40	0.47
23:BB:63:A:OP2	23:BB:63:A:H2'	2.15	0.47
23:BB:97:C:H2'	23:BB:98:G:O4'	2.15	0.47
23:BB:115:C:O2'	23:BB:116:C:H5'	2.14	0.47
23:BB:131:A:O2'	23:BB:132:G:H5'	2.15	0.47
23:BB:510:C:O2'	23:BB:1236:G:H5'	2.15	0.47
23:BB:538:A:N6	23:BB:555:G:O2'	2.46	0.47
23:BB:589:U:H2'	23:BB:590:A:C8	2.49	0.47
23:BB:656:G:O2'	23:BB:657:U:H5'	2.14	0.47
23:BB:920:A:H2'	23:BB:921:C:H6	1.79	0.47
23:BB:1010:A:N3	23:BB:1153:C:H1'	2.29	0.47
23:BB:1324:G:N1	23:BB:1331:G:C6	2.83	0.47
23:BB:1374:G:O2'	23:BB:1375:U:H5'	2.15	0.47
23:BB:1419:A:H2'	23:BB:1421:G:C8	2.50	0.47
23:BB:1438:U:C4	23:BB:1552:A:N6	2.83	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1516:G:O2'	23:BB:1517:G:H5'	2.14	0.47
23:BB:1607:C:N4	23:BB:1622:G:OP2	2.48	0.47
23:BB:2179:C:H2'	23:BB:2180:U:H6	1.79	0.47
23:BB:2261:C:O2'	23:BB:2262:U:H5'	2.14	0.47
23:BB:2391:G:HO2'	23:BB:2392:A:P	2.37	0.47
23:BB:2586:U:H2'	23:BB:2587:A:C8	2.50	0.47
23:BB:2895:G:O2'	23:BB:2896:C:H5'	2.15	0.47
23:BB:2897:U:H2'	23:BB:2898:U:H6	1.79	0.47
25:BC:75:ALA:HB1	25:BC:93:VAL:HG22	1.97	0.47
25:BC:129:LEU:CD2	25:BC:133:ASN:HB2	2.45	0.47
26:BD:55:LYS:HZ1	26:BD:59:ARG:HD2	1.78	0.47
27:BE:97:ASN:OD1	27:BE:97:ASN:N	2.48	0.47
28:BF:79:ARG:HB2	28:BF:82:TYR:CE2	2.50	0.47
29:BG:95:ALA:HA	29:BG:104:LEU:HD23	1.95	0.47
29:BG:104:LEU:HB3	29:BG:106:LEU:HD21	1.96	0.47
31:BJ:16:TYR:N	31:BJ:137:PRO:HB3	2.29	0.47
32:BK:119:ALA:HB3	32:BK:120:PRO:HD3	1.97	0.47
33:BL:17:LYS:O	33:BL:18:ARG:HG2	2.13	0.47
34:BM:55:ARG:HH22	34:BM:58:LYS:HA	1.80	0.47
34:BM:69:PRO:HG2	34:BM:70:ASP:H	1.79	0.47
35:BN:61:ALA:C	35:BN:63:ARG:H	2.22	0.47
36:BO:28:VAL:HG12	36:BO:93:ASP:O	2.15	0.47
37:BP:19:PHE:CE2	37:BP:83:ILE:HD11	2.50	0.47
38:BQ:49:ARG:HH11	38:BQ:49:ARG:HG2	1.79	0.47
39:BR:7:SER:HB2	39:BR:22:LEU:CB	2.42	0.47
39:BR:15:SER:O	39:BR:16:GLU:C	2.58	0.47
39:BR:31:GLU:O	39:BR:63:VAL:HG22	2.14	0.47
40:BS:25:ARG:HE	40:BS:74:ILE:CG2	2.27	0.47
43:BW:16:GLU:CD	43:BW:16:GLU:H	2.21	0.47
46:BZ:64:ILE:HG22	46:BZ:68:LEU:CD1	2.44	0.47
50:B3:32:LEU:HA	50:B3:35:LYS:HD2	1.97	0.47
1:CA:36:C:H4'	11:CL:118:VAL:O	2.15	0.47
1:CA:92:U:H2'	1:CA:93:U:C6	2.49	0.47
1:CA:119:A:H4'	1:CA:120:A:O4'	2.15	0.47
1:CA:213:G:H3'	1:CA:214:C:H6	1.79	0.47
1:CA:284:C:H2'	1:CA:285:C:C6	2.49	0.47
1:CA:342:C:O2'	1:CA:343:U:H5'	2.15	0.47
1:CA:429:U:H3'	3:CD:8:LEU:CD2	2.45	0.47
1:CA:692:U:H2'	1:CA:694:A:OP2	2.15	0.47
1:CA:762:U:H2'	1:CA:763:G:H8	1.79	0.47
1:CA:1073:U:H2'	1:CA:1074:G:H8	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1216:A:H2'	1:CA:1217:C:H6	1.80	0.47
2:CC:21:TRP:CH2	2:CC:31:ASN:HB3	2.50	0.47
2:CC:110:LEU:HD21	2:CC:140:ALA:O	2.14	0.47
2:CC:110:LEU:HD22	2:CC:145:ALA:HB2	1.97	0.47
4:CE:92:ARG:HB3	4:CE:92:ARG:NH1	2.29	0.47
5:CF:2:ARG:HB3	5:CF:92:THR:OG1	2.14	0.47
5:CF:11:HIS:CG	5:CF:12:PRO:HD2	2.49	0.47
5:CF:36:ILE:HD12	5:CF:36:ILE:N	2.30	0.47
5:CF:54:LEU:HD22	5:CF:54:LEU:N	2.28	0.47
6:CG:30:MET:HA	6:CG:38:ALA:CB	2.45	0.47
8:CI:16:ALA:HA	8:CI:66:VAL:HA	1.96	0.47
8:CI:123:ARG:CZ	8:CI:123:ARG:HB3	2.44	0.47
9:CJ:41:PRO:O	9:CJ:42:LEU:HB2	2.15	0.47
10:CK:61:ALA:O	10:CK:64:VAL:HG13	2.13	0.47
12:CM:77:LYS:O	12:CM:80:MET:HG2	2.13	0.47
13:CN:63:CYS:HB3	13:CN:68:ARG:H	1.80	0.47
13:CN:88:MET:HE2	13:CN:88:MET:HA	1.96	0.47
15:CP:3:THR:CG2	15:CP:66:THR:HB	2.41	0.47
15:CP:21:VAL:HG12	15:CP:33:ILE:HD12	1.97	0.47
22:DA:73:A:H2'	22:DA:73:A:N3	2.29	0.47
22:DA:78:A:H2'	22:DA:79:G:O4'	2.13	0.47
22:DA:82:U:O2'	22:DA:83:G:H5'	2.14	0.47
22:DA:95:U:H2'	22:DA:96:G:H8	1.78	0.47
23:DB:20:C:H2'	23:DB:21:A:H8	1.80	0.47
23:DB:27:G:HO2'	23:DB:28:A:H8	1.55	0.47
23:DB:97:C:H2'	23:DB:98:G:O4'	2.15	0.47
23:DB:235:U:H2'	23:DB:236:C:C6	2.50	0.47
23:DB:392:U:O2'	23:DB:393:C:H5'	2.14	0.47
23:DB:437:U:H2'	23:DB:438:G:C8	2.50	0.47
23:DB:547:A:OP1	23:DB:547:A:H3'	2.13	0.47
23:DB:580:U:O3'	38:DQ:30:VAL:HG13	2.15	0.47
23:DB:632:A:H2'	23:DB:633:A:C8	2.49	0.47
23:DB:648:G:O2'	23:DB:649:G:H5'	2.15	0.47
23:DB:657:U:H2'	23:DB:658:U:C6	2.50	0.47
23:DB:718:A:H5'	23:DB:719:C:C5	2.50	0.47
23:DB:728:G:O2'	23:DB:730:A:H8	1.97	0.47
23:DB:758:C:O2	23:DB:1981:A:H2	1.98	0.47
23:DB:816:C:O2'	23:DB:817:C:H5'	2.15	0.47
23:DB:993:G:H5''	38:DQ:49:ARG:NH1	2.29	0.47
23:DB:1098:A:C3'	52:DI:3:LYS:C	2.88	0.47
23:DB:1225:G:P	39:DR:71:LYS:HZ2	2.38	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1253:A:H4'	23:DB:1254:A:OP2	2.14	0.47
23:DB:1299:G:H5''	23:DB:1300:G:OP1	2.14	0.47
23:DB:1324:G:H1'	23:DB:1616:A:C6	2.49	0.47
23:DB:1376:C:H3'	56:DB:3279:HOH:O	2.14	0.47
23:DB:1439:A:N7	23:DB:1440:U:C2	2.83	0.47
23:DB:1845:G:O2'	23:DB:1846:G:H5'	2.15	0.47
23:DB:1998:A:OP2	26:DD:141:ARG:NH2	2.48	0.47
23:DB:2085:U:O2'	23:DB:2086:U:H5'	2.15	0.47
23:DB:2094:A:H2'	23:DB:2095:A:H8	1.79	0.47
23:DB:2138:G:H2'	23:DB:2139:U:O4'	2.14	0.47
23:DB:2281:A:O2'	23:DB:2282:G:H5'	2.15	0.47
23:DB:2331:G:O2'	23:DB:2332:C:H5'	2.15	0.47
23:DB:2362:C:OP2	50:D3:43:LEU:HD21	2.15	0.47
23:DB:2583:G:H2'	23:DB:2584:U:O4'	2.15	0.47
23:DB:2655:G:O2'	23:DB:2656:U:P	2.72	0.47
23:DB:2683:C:O2'	23:DB:2684:U:H5'	2.14	0.47
23:DB:2848:G:H1	23:DB:2867:G:N2	2.13	0.47
23:DB:2892:G:H5''	23:DB:2894:G:N2	2.30	0.47
24:DV:51:GLN:HB2	24:DV:57:TYR:OH	2.13	0.47
25:DC:102:TYR:O	25:DC:103:ILE:HG13	2.15	0.47
25:DC:123:ILE:O	25:DC:123:ILE:HG13	2.15	0.47
25:DC:208:GLY:O	25:DC:209:ALA:C	2.57	0.47
25:DC:255:LYS:C	25:DC:256:THR:HG23	2.39	0.47
26:DD:116:LYS:HG3	26:DD:165:MET:SD	2.54	0.47
27:DE:97:ASN:OD1	27:DE:97:ASN:N	2.47	0.47
27:DE:137:LYS:O	27:DE:141:MET:HG3	2.15	0.47
27:DE:154:ASP:C	27:DE:156:ASN:H	2.23	0.47
28:DF:74:ALA:HB3	28:DF:77:LYS:O	2.15	0.47
32:DK:85:VAL:HG21	32:DK:115:ILE:HD11	1.97	0.47
33:DL:100:ILE:HG12	33:DL:100:ILE:O	2.15	0.47
34:DM:42:THR:O	34:DM:45:GLN:HB2	2.14	0.47
35:DN:8:ARG:HB3	35:DN:43:GLU:OE2	2.14	0.47
35:DN:11:ASN:HD22	35:DN:11:ASN:HA	1.55	0.47
35:DN:94:TYR:C	35:DN:116:VAL:HG12	2.40	0.47
36:DO:4:LYS:O	36:DO:8:ILE:HG13	2.15	0.47
38:DQ:109:VAL:HG12	38:DQ:113:LYS:HE3	1.97	0.47
39:DR:31:GLU:H	39:DR:63:VAL:HG22	1.80	0.47
40:DS:46:LEU:O	40:DS:50:VAL:HG23	2.15	0.47
40:DS:47:VAL:HG12	40:DS:103:ILE:HG21	1.97	0.47
40:DS:60:HIS:O	40:DS:61:ASN:CB	2.62	0.47
40:DS:71:VAL:HG22	40:DS:71:VAL:O	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DT:68:LYS:HD3	41:DT:68:LYS:N	2.29	0.47
42:DU:10:VAL:HB	42:DU:69:VAL:HB	1.95	0.47
42:DU:90:LYS:O	42:DU:91:LYS:C	2.58	0.47
43:DW:18:LYS:HE3	43:DW:19:ARG:NH2	2.29	0.47
45:DY:23:LEU:CD1	45:DY:28:LEU:HB2	2.43	0.47
45:DY:50:VAL:O	45:DY:54:VAL:HG22	2.15	0.47
46:DZ:76:GLU:HG3	46:DZ:77:LYS:H	1.79	0.47
48:D1:39:ASP:OD1	48:D1:41:VAL:HB	2.13	0.47
52:DI:2:LYS:O	52:DI:3:LYS:HG3	2.14	0.47
52:DI:17:ALA:O	52:DI:18:ASN:HB3	2.13	0.47
52:DI:37:PHE:HB2	52:DI:66:PHE:CE2	2.50	0.47
52:DI:129:GLU:CB	52:DI:133:ARG:HH12	2.27	0.47
1:AA:323:U:H2'	1:AA:324:G:O4'	2.14	0.47
1:AA:373:A:C1'	1:AA:481:G:H1'	2.45	0.47
1:AA:468:A:H3'	1:AA:469:C:C6	2.50	0.47
1:AA:586:C:C2'	1:AA:587:G:H5'	2.45	0.47
1:AA:981:U:H2'	1:AA:982:U:C5	2.50	0.47
1:AA:1222:G:C2'	1:AA:1223:C:H5'	2.44	0.47
1:AA:1320:C:OP2	18:AS:69:LYS:HE3	2.14	0.47
5:AF:90:MET:HE1	17:AR:60:ARG:HH21	1.80	0.47
13:AN:70:HIS:O	13:AN:71:GLY:C	2.58	0.47
15:AP:20:VAL:HG21	15:AP:32:PHE:CG	2.50	0.47
20:AB:93:HIS:HA	20:AB:94:ARG:NH2	2.30	0.47
20:AB:95:TRP:HZ3	20:AB:174:GLU:CD	2.23	0.47
22:BA:16:G:O2'	22:BA:17:C:H5'	2.15	0.47
22:BA:32:U:H2'	22:BA:33:G:O4'	2.14	0.47
23:BB:27:G:HO2'	23:BB:28:A:H8	1.56	0.47
23:BB:68:G:H2'	23:BB:69:C:C6	2.49	0.47
23:BB:98:G:H1	42:BU:6:ARG:NH1	2.11	0.47
23:BB:352:A:H3'	23:BB:353:C:H6	1.80	0.47
23:BB:425:G:O2'	23:BB:426:C:H5'	2.13	0.47
23:BB:971:G:OP2	23:BB:974:G:N2	2.47	0.47
23:BB:993:G:H5''	38:BQ:49:ARG:NH1	2.29	0.47
23:BB:1396:U:H5'	23:BB:1396:U:O2	2.15	0.47
23:BB:2305:U:H2'	23:BB:2306:C:O4'	2.15	0.47
23:BB:2553:G:H2'	23:BB:2554:U:H4'	1.97	0.47
23:BB:2675:A:N1	23:BB:2732:G:O6	2.47	0.47
24:BV:19:ARG:O	24:BV:22:ALA:HB3	2.15	0.47
24:BV:30:ILE:HG23	24:BV:72:VAL:HG11	1.97	0.47
25:BC:157:ALA:C	25:BC:159:THR:H	2.22	0.47
25:BC:229:HIS:ND1	25:BC:230:PRO:HD2	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BE:179:SER:HA	27:BE:182:ALA:HB3	1.96	0.47
28:BF:33:ILE:HG12	28:BF:155:ILE:HG13	1.97	0.47
33:BL:123:ARG:HD2	33:BL:124:GLY:N	2.30	0.47
35:BN:83:LEU:O	35:BN:86:ARG:HB2	2.15	0.47
36:BO:4:LYS:O	36:BO:8:ILE:HG13	2.14	0.47
38:BQ:85:ALA:HB2	38:BQ:115:ALA:HB1	1.96	0.47
39:BR:75:VAL:O	39:BR:76:LYS:HD2	2.15	0.47
43:BW:23:LYS:C	43:BW:66:VAL:HB	2.40	0.47
43:BW:51:GLY:N	43:BW:59:PHE:HB2	2.29	0.47
1:CA:202:G:H2'	1:CA:203:G:H8	1.80	0.47
1:CA:224:U:H2'	1:CA:225:C:H6	1.80	0.47
1:CA:429:U:H1'	1:CA:430:A:H5''	1.96	0.47
1:CA:811:C:O2'	1:CA:901:A:N1	2.48	0.47
1:CA:1016:A:H4'	1:CA:1218:C:H4'	1.96	0.47
1:CA:1222:G:C2'	1:CA:1223:C:H5'	2.45	0.47
9:CJ:59:LYS:C	9:CJ:61:ALA:H	2.23	0.47
10:CK:88:PRO:HD3	21:CU:28:LEU:CD1	2.34	0.47
11:CL:33:CYS:HA	11:CL:54:VAL:HA	1.97	0.47
13:CN:53:ASP:HA	13:CN:58:ARG:NE	2.30	0.47
20:CB:116:LEU:HA	20:CB:119:GLN:HG3	1.97	0.47
20:CB:186:VAL:O	20:CB:200:PRO:HA	2.14	0.47
22:DA:55:U:H2'	22:DA:56:G:H8	1.79	0.47
23:DB:4:U:H2'	23:DB:5:A:H8	1.80	0.47
23:DB:292:U:O2'	23:DB:293:U:H5'	2.14	0.47
23:DB:406:G:O2'	23:DB:407:G:H5'	2.15	0.47
23:DB:693:A:H2'	23:DB:694:U:H6	1.80	0.47
23:DB:1287:A:P	35:DN:104:ALA:HB3	2.55	0.47
23:DB:1336:A:H3'	23:DB:1337:G:H8	1.80	0.47
23:DB:1599:U:H2'	23:DB:1600:C:C6	2.49	0.47
23:DB:2258:C:O2'	23:DB:2427:C:OP2	2.32	0.47
25:DC:78:GLU:HB2	25:DC:92:LEU:HD23	1.96	0.47
25:DC:255:LYS:C	25:DC:257:ARG:H	2.23	0.47
27:DE:68:ALA:O	27:DE:69:ARG:C	2.58	0.47
28:DF:65:LEU:CD2	28:DF:87:LYS:HD2	2.42	0.47
29:DG:71:LEU:HD13	29:DG:74:MET:SD	2.55	0.47
29:DG:140:ILE:HA	29:DG:143:VAL:CG2	2.44	0.47
30:DH:92:GLY:O	30:DH:93:SER:HB2	2.15	0.47
31:DJ:98:GLU:HB3	31:DJ:124:VAL:HG21	1.96	0.47
32:DK:104:THR:H	32:DK:107:LEU:CD1	2.28	0.47
33:DL:132:ARG:O	33:DL:135:ILE:HG22	2.14	0.47
34:DM:38:ARG:HH11	34:DM:38:ARG:HG2	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DN:2:ARG:O	35:DN:2:ARG:NE	2.45	0.47
36:DO:68:LYS:H	36:DO:102:ARG:HD3	1.79	0.47
38:DQ:57:ARG:HA	38:DQ:60:TRP:CE3	2.50	0.47
41:DT:50:LEU:O	41:DT:52:GLU:N	2.47	0.47
43:DW:56:HIS:O	43:DW:57:THR:C	2.57	0.47
1:AA:76:G:H8	1:AA:76:G:OP2	1.97	0.47
1:AA:475:C:H2'	1:AA:476:U:H6	1.76	0.47
1:AA:1187:G:OP1	8:AI:114:LYS:HE3	2.15	0.47
1:AA:1510:C:H2'	1:AA:1511:G:C8	2.49	0.47
2:AC:110:LEU:HD22	2:AC:145:ALA:HB2	1.96	0.47
7:AH:87:ARG:HD3	7:AH:90:GLU:OE1	2.15	0.47
8:AI:123:ARG:HB3	8:AI:123:ARG:CZ	2.45	0.47
12:AM:38:ILE:HD12	12:AM:47:LEU:HD11	1.95	0.47
12:AM:84:CYS:O	12:AM:88:LEU:HG	2.15	0.47
18:AS:2:ARG:HD3	18:AS:3:SER:N	2.29	0.47
20:AB:118:THR:HA	20:AB:121:GLN:HB2	1.95	0.47
20:AB:172:ILE:HD12	20:AB:172:ILE:N	2.30	0.47
22:BA:73:A:N3	22:BA:73:A:H2'	2.30	0.47
23:BB:922:C:H1'	43:BW:22:VAL:CG2	2.44	0.47
23:BB:1000:A:H4'	45:BY:10:ARG:HH22	1.80	0.47
23:BB:1439:A:N7	23:BB:1440:U:C2	2.82	0.47
23:BB:1478:G:O2'	23:BB:1479:G:H5'	2.14	0.47
23:BB:1670:C:H2'	23:BB:1671:U:O4'	2.15	0.47
23:BB:1998:A:H2'	23:BB:1999:C:H6	1.80	0.47
23:BB:2153:C:O5'	23:BB:2153:C:H6	1.97	0.47
23:BB:2271:G:H2'	23:BB:2272:U:H6	1.79	0.47
23:BB:2634:A:H2'	23:BB:2635:A:H8	1.78	0.47
23:BB:2729:G:H2'	23:BB:2730:C:C6	2.49	0.47
23:BB:2847:U:OP1	37:BP:95:LYS:HD3	2.15	0.47
25:BC:36:ASN:ND2	25:BC:61:TYR:HB2	2.30	0.47
25:BC:188:ARG:HG2	25:BC:188:ARG:HH21	1.80	0.47
26:BD:114:LYS:HG3	26:BD:116:LYS:HG2	1.97	0.47
28:BF:121:PHE:HB3	28:BF:127:TYR:CD2	2.50	0.47
28:BF:168:LEU:O	28:BF:170:ALA:N	2.48	0.47
32:BK:47:ILE:CG1	32:BK:48:PRO:HD2	2.35	0.47
33:BL:93:ASN:O	33:BL:95:LEU:HD12	2.14	0.47
1:CA:364:A:H2'	1:CA:365:U:O2	2.14	0.47
1:CA:960:U:H6	1:CA:1222:G:O2'	1.98	0.47
1:CA:1242:G:H2'	1:CA:1243:C:O4'	2.14	0.47
2:CC:91:ALA:HB2	2:CC:98:ALA:H	1.80	0.47
8:CI:11:ARG:HH21	8:CI:12:LYS:HD2	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CJ:6:ILE:O	9:CJ:75:ASP:HA	2.15	0.47
10:CK:83:VAL:HG22	10:CK:106:ILE:HD11	1.95	0.47
12:CM:90:HIS:CE1	12:CM:96:VAL:HG21	2.49	0.47
12:CM:92:ARG:NH1	18:CS:79:TYR:HD2	2.12	0.47
14:CO:35:ILE:HG12	14:CO:58:MET:HE2	1.96	0.47
15:CP:26:ASN:HD22	15:CP:26:ASN:HA	1.59	0.47
19:CT:56:ILE:O	19:CT:60:GLN:HG2	2.15	0.47
21:CU:15:LEU:C	21:CU:17:ARG:H	2.21	0.47
22:DA:48:U:O2'	36:DO:100:HIS:HE1	1.98	0.47
22:DA:83:G:H4'	45:DY:52:PHE:CD2	2.50	0.47
23:DB:277:G:H4'	23:DB:278:A:N7	2.29	0.47
23:DB:418:C:H2'	23:DB:419:U:H6	1.80	0.47
23:DB:532:A:H2'	38:DQ:27:ARG:NH2	2.21	0.47
23:DB:663:G:OP1	33:DL:17:LYS:HG2	2.15	0.47
23:DB:753:A:O2'	23:DB:754:U:H5'	2.13	0.47
23:DB:770:G:O2'	23:DB:771:G:H5'	2.13	0.47
23:DB:1028:A:N3	23:DB:2486:C:O2'	2.41	0.47
23:DB:1324:G:C6	23:DB:1331:G:C6	3.03	0.47
23:DB:1419:A:H2'	23:DB:1421:G:C8	2.49	0.47
23:DB:1541:C:H2'	23:DB:1542:U:C6	2.50	0.47
23:DB:1744:A:H2'	23:DB:1745:A:C8	2.49	0.47
23:DB:1893:C:H2'	23:DB:1894:C:O4'	2.15	0.47
23:DB:2261:C:N4	43:DW:10:ARG:HB3	2.30	0.47
23:DB:2526:G:H5'	23:DB:2742:G:O2'	2.15	0.47
23:DB:2526:G:H2'	23:DB:2527:C:H6	1.80	0.47
23:DB:2569:G:O2'	23:DB:2570:G:H5'	2.15	0.47
23:DB:2716:C:H2'	23:DB:2717:C:C6	2.49	0.47
25:DC:129:LEU:CD2	25:DC:133:ASN:HB2	2.45	0.47
27:DE:73:ILE:HG12	27:DE:73:ILE:O	2.15	0.47
27:DE:179:SER:HA	27:DE:182:ALA:HB3	1.95	0.47
28:DF:76:PHE:HD2	28:DF:78:ILE:HD13	1.78	0.47
28:DF:103:ILE:HD11	28:DF:174:PHE:CG	2.50	0.47
29:DG:14:VAL:O	29:DG:16:VAL:HG23	2.14	0.47
30:DH:12:LEU:HG	30:DH:12:LEU:O	2.15	0.47
31:DJ:35:ARG:HA	31:DJ:40:HIS:CD2	2.50	0.47
31:DJ:114:LEU:HD23	31:DJ:118:MET:HE2	1.97	0.47
32:DK:119:ALA:HB3	32:DK:120:PRO:HD3	1.97	0.47
33:DL:40:SER:C	33:DL:41:ARG:HG3	2.39	0.47
33:DL:81:ASP:O	33:DL:83:ALA:N	2.48	0.47
37:DP:83:ILE:HD13	37:DP:83:ILE:O	2.15	0.47
50:D3:58:ILE:HG13	50:D3:58:ILE:H	1.41	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:D4:8:LYS:HG2	51:D4:9:LYS:HD3	1.97	0.47
52:DI:49:GLU:HB3	52:DI:52:LEU:HD12	1.97	0.47
1:AA:5:U:H1'	1:AA:6:G:C2	2.50	0.47
1:AA:130:A:H1'	1:AA:263:A:O2'	2.14	0.47
1:AA:279:A:C5'	1:AA:280:C:H3'	2.43	0.47
1:AA:332:G:H2'	1:AA:333:U:H6	1.80	0.47
1:AA:429:U:OP2	3:AD:31:CYS:HB2	2.15	0.47
1:AA:1072:G:H2'	1:AA:1073:U:C6	2.51	0.47
1:AA:1118:U:H1'	1:AA:1179:A:C5	2.49	0.47
1:AA:1238:A:C8	1:AA:1303:C:H1'	2.50	0.47
1:AA:1302:C:H5'	1:AA:1302:C:H6	1.80	0.47
3:AD:123:MET:CB	3:AD:128:VAL:HA	2.45	0.47
6:AG:101:ARG:HG2	6:AG:105:GLU:OE2	2.15	0.47
6:AG:125:ASP:HB3	6:AG:131:GLY:H	1.78	0.47
7:AH:83:ARG:HB3	7:AH:85:TYR:CE1	2.50	0.47
8:AI:87:MET:HA	8:AI:90:ASP:O	2.15	0.47
10:AK:37:GLN:HB2	10:AK:39:ASN:HD22	1.80	0.47
12:AM:37:GLY:O	12:AM:38:ILE:HD13	2.15	0.47
18:AS:51:HIS:HB2	18:AS:56:HIS:CE1	2.49	0.47
20:AB:80:LYS:HG3	20:AB:81:ASP:N	2.30	0.47
21:AU:20:ARG:C	21:AU:22:CYS:H	2.21	0.47
23:BB:126:A:H5'	49:B2:19:ARG:CG	2.45	0.47
23:BB:129:C:H4'	23:BB:1348:C:O2'	2.15	0.47
23:BB:512:G:H4'	23:BB:512:G:OP1	2.14	0.47
23:BB:720:U:H2'	23:BB:721:A:H8	1.77	0.47
23:BB:754:U:H2'	23:BB:755:U:C6	2.50	0.47
23:BB:924:G:H2'	23:BB:925:A:H8	1.80	0.47
23:BB:1082:U:C2	23:BB:1086:A:N1	2.83	0.47
23:BB:1140:C:H2'	23:BB:1141:U:H5'	1.96	0.47
23:BB:1172:C:H2'	23:BB:1173:U:O5'	2.15	0.47
23:BB:1403:A:H2'	23:BB:1404:C:H6	1.80	0.47
23:BB:1433:A:H2'	23:BB:1434:A:O4'	2.15	0.47
23:BB:1506:U:H2'	23:BB:1507:C:C6	2.50	0.47
23:BB:1672:A:C6	23:BB:1673:G:C6	3.03	0.47
23:BB:1922:G:H2'	23:BB:1923:U:O4'	2.15	0.47
23:BB:2355:G:H4'	43:BW:20:LEU:CD1	2.44	0.47
23:BB:2386:A:C2	43:BW:38:ARG:HB3	2.49	0.47
23:BB:2756:U:H1'	23:BB:2757:A:H5''	1.96	0.47
28:BF:33:ILE:HG23	28:BF:155:ILE:HD12	1.97	0.47
28:BF:65:LEU:CD2	28:BF:87:LYS:HD2	2.40	0.47
28:BF:102:LEU:HA	28:BF:106:ALA:HB2	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BG:33:THR:HG21	29:BG:74:MET:HB3	1.96	0.47
31:BJ:45:THR:O	31:BJ:45:THR:HG23	2.15	0.47
33:BL:23:ILE:HD12	33:BL:23:ILE:N	2.30	0.47
34:BM:18:ARG:C	34:BM:38:ARG:HH22	2.23	0.47
37:BP:83:ILE:HD13	37:BP:83:ILE:O	2.15	0.47
38:BQ:16:ILE:O	38:BQ:18:LYS:N	2.43	0.47
38:BQ:45:ALA:O	38:BQ:49:ARG:N	2.46	0.47
38:BQ:108:LEU:N	39:BR:48:LYS:HD3	2.30	0.47
40:BS:84:ARG:HB3	40:BS:96:ILE:HG23	1.96	0.47
50:B3:31:ILE:C	50:B3:32:LEU:HG	2.40	0.47
51:B4:2:LYS:HD3	51:B4:4:ARG:HE	1.80	0.47
1:CA:193:C:H2'	1:CA:194:C:C5	2.49	0.47
1:CA:571:U:O2	1:CA:918:A:H5'	2.14	0.47
1:CA:586:C:C2'	1:CA:587:G:H5'	2.44	0.47
1:CA:716:A:N3	10:CK:118:ASN:O	2.48	0.47
1:CA:861:G:H2'	1:CA:862:C:H6	1.80	0.47
1:CA:908:A:H2'	1:CA:909:A:C8	2.50	0.47
1:CA:1081:A:OP1	4:CE:21:SER:O	2.33	0.47
1:CA:1239:A:H4'	1:CA:1240:U:C5'	2.44	0.47
2:CC:72:PRO:O	2:CC:76:ILE:HG12	2.13	0.47
3:CD:123:MET:HG3	3:CD:143:SER:OG	2.15	0.47
8:CI:9:GLY:HA3	8:CI:81:GLY:N	2.30	0.47
8:CI:78:ILE:HG22	8:CI:82:ILE:CD1	2.45	0.47
10:CK:15:VAL:C	10:CK:17:ASP:H	2.23	0.47
11:CL:106:VAL:CG2	11:CL:116:TYR:HB3	2.44	0.47
12:CM:68:LEU:O	12:CM:72:ILE:HG22	2.15	0.47
16:CQ:34:GLY:O	16:CQ:35:LYS:C	2.57	0.47
20:CB:83:ALA:C	20:CB:85:SER:H	2.23	0.47
20:CB:131:LYS:HG3	20:CB:132:GLU:N	2.30	0.47
21:CU:11:PHE:CE1	21:CU:13:VAL:HG12	2.50	0.47
23:DB:121:G:H2'	23:DB:122:G:C8	2.49	0.47
23:DB:218:A:O2'	23:DB:219:A:H5'	2.15	0.47
23:DB:392:U:H2'	23:DB:393:C:H6	1.80	0.47
23:DB:540:C:O2'	23:DB:541:A:H5'	2.15	0.47
23:DB:862:G:H2'	23:DB:863:A:O4'	2.15	0.47
23:DB:974:G:H1'	23:DB:975:A:C8	2.50	0.47
23:DB:1294:U:C2'	23:DB:1295:C:H5'	2.44	0.47
23:DB:2562:U:H2'	23:DB:2563:U:H5'	1.97	0.47
23:DB:2628:C:O2'	23:DB:2781:A:H2'	2.15	0.47
25:DC:41:GLY:O	25:DC:48:ILE:HA	2.15	0.47
26:DD:125:TRP:HA	26:DD:125:TRP:CE3	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DF:3:LEU:HD11	28:DF:172:PHE:CD1	2.50	0.47
28:DF:31:GLU:HB3	28:DF:156:THR:O	2.14	0.47
29:DG:106:LEU:O	29:DG:108:PHE:HD1	1.98	0.47
30:DH:25:TYR:CD1	30:DH:30:LEU:HG	2.50	0.47
30:DH:89:LYS:N	30:DH:89:LYS:HD2	2.30	0.47
30:DH:125:THR:HA	30:DH:146:VAL:CB	2.45	0.47
31:DJ:20:ALA:C	31:DJ:22:GLY:N	2.73	0.47
35:DN:116:VAL:O	35:DN:117:ASP:CB	2.60	0.47
37:DP:31:VAL:O	37:DP:32:VAL:HG12	2.14	0.47
38:DQ:7:VAL:HG23	38:DQ:8:ILE:N	2.30	0.47
38:DQ:108:LEU:N	39:DR:48:LYS:HD3	2.29	0.47
40:DS:2:GLU:O	40:DS:3:THR:C	2.58	0.47
44:DX:35:GLY:O	44:DX:36:GLN:C	2.57	0.47
47:D0:26:SER:HB3	47:D0:39:ARG:NH2	2.29	0.47
49:D2:10:LEU:HD11	49:D2:14:ARG:CZ	2.46	0.47
1:AA:220:G:O2'	1:AA:221:C:H5'	2.16	0.46
1:AA:286:C:H2'	1:AA:287:U:C6	2.51	0.46
1:AA:556:C:O2'	1:AA:557:G:H5'	2.14	0.46
1:AA:1040:U:H2'	1:AA:1041:G:C8	2.50	0.46
1:AA:1225:A:H3'	1:AA:1226:C:C6	2.50	0.46
3:AD:90:LEU:HD11	3:AD:194:ILE:HD11	1.95	0.46
4:AE:156:ARG:HB3	7:AH:43:GLY:O	2.15	0.46
5:AF:6:ILE:O	5:AF:6:ILE:HG13	2.15	0.46
5:AF:11:HIS:CG	5:AF:12:PRO:HD2	2.51	0.46
8:AI:50:PRO:HD3	8:AI:79:ARG:CG	2.45	0.46
9:AJ:13:PHE:CD2	9:AJ:69:THR:HG23	2.50	0.46
11:AL:79:ILE:C	11:AL:101:LEU:HD12	2.40	0.46
14:AO:68:TYR:HA	14:AO:71:ARG:HE	1.79	0.46
19:AT:81:GLN:C	19:AT:83:ASN:H	2.23	0.46
22:BA:3:C:H2'	22:BA:4:C:H6	1.79	0.46
23:BB:512:G:OP2	23:BB:1234:U:O2'	2.31	0.46
23:BB:950:G:H2'	23:BB:951:C:C6	2.50	0.46
23:BB:1169:A:H8	23:BB:1169:A:O5'	1.98	0.46
23:BB:1429:G:H2'	23:BB:1430:G:C8	2.49	0.46
23:BB:1477:A:H2'	23:BB:1478:G:O4'	2.15	0.46
23:BB:1485:U:O2'	23:BB:1486:U:H5'	2.15	0.46
23:BB:1687:G:O2'	23:BB:1688:U:H5'	2.14	0.46
23:BB:1812:U:O2'	25:BC:43:ASN:ND2	2.48	0.46
23:BB:2023:C:H4'	23:BB:2617:U:O3'	2.14	0.46
23:BB:2249:U:H4'	23:BB:2275:C:C5	2.50	0.46
23:BB:2628:C:O2'	23:BB:2781:A:H2'	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:2889:C:O2'	23:BB:2890:G:H5'	2.15	0.46
25:BC:57:HIS:CG	25:BC:58:LYS:H	2.32	0.46
26:BD:51:THR:HG23	26:BD:78:GLY:O	2.15	0.46
26:BD:107:VAL:HG12	26:BD:109:VAL:HG23	1.97	0.46
27:BE:61:ARG:O	27:BE:62:GLN:C	2.58	0.46
27:BE:73:ILE:O	27:BE:73:ILE:HG12	2.15	0.46
32:BK:61:VAL:HG11	32:BK:112:PHE:CZ	2.50	0.46
32:BK:64:ARG:NH2	37:BP:67:GLU:HG3	2.29	0.46
33:BL:78:ARG:NH2	33:BL:113:ALA:HB1	2.29	0.46
34:BM:28:PHE:HB3	34:BM:64:TRP:CE2	2.50	0.46
35:BN:83:LEU:HA	35:BN:86:ARG:CG	2.43	0.46
35:BN:87:PHE:C	35:BN:89:SER:H	2.23	0.46
36:BO:67:ASN:O	36:BO:69:ASP:N	2.47	0.46
40:BS:52:GLU:HA	40:BS:55:ILE:CG2	2.44	0.46
41:BT:40:LYS:HA	41:BT:43:ILE:HB	1.96	0.46
42:BU:86:PHE:CD2	42:BU:92:VAL:HG21	2.50	0.46
42:BU:96:LYS:C	42:BU:98:ASN:H	2.23	0.46
47:B0:9:ARG:HB2	47:B0:12:ARG:NH2	2.30	0.46
48:B1:6:GLU:HB2	48:B1:52:LYS:CE	2.45	0.46
48:B1:18:HIS:NE2	48:B1:40:PRO:HD2	2.30	0.46
51:B4:8:LYS:HG2	51:B4:9:LYS:HD3	1.98	0.46
1:CA:201:G:O2'	1:CA:469:C:H4'	2.15	0.46
1:CA:373:A:C1'	1:CA:481:G:H1'	2.45	0.46
1:CA:664:G:P	17:CR:52:ARG:HH21	2.38	0.46
1:CA:697:U:H2'	1:CA:698:G:H5'	1.98	0.46
1:CA:787:A:O2'	1:CA:788:U:H5'	2.15	0.46
1:CA:1147:C:H2'	1:CA:1148:U:H6	1.80	0.46
1:CA:1169:A:H2'	1:CA:1170:A:C8	2.50	0.46
1:CA:1245:C:H2'	1:CA:1246:A:H8	1.80	0.46
1:CA:1266:G:N2	1:CA:1268:G:H3'	2.29	0.46
1:CA:1360:A:H2'	1:CA:1361:G:O4'	2.16	0.46
1:CA:1465:A:H2'	1:CA:1466:C:C6	2.50	0.46
10:CK:112:VAL:HA	17:CR:72:ARG:HH21	1.80	0.46
11:CL:60:PHE:O	11:CL:62:VAL:N	2.48	0.46
15:CP:43:ALA:CA	15:CP:46:LYS:HE3	2.45	0.46
19:CT:75:LYS:O	19:CT:76:ALA:C	2.59	0.46
21:CU:26:GLY:C	21:CU:28:LEU:N	2.71	0.46
23:DB:499:U:H2'	23:DB:500:G:O4'	2.15	0.46
23:DB:643:A:C5	23:DB:644:A:N7	2.83	0.46
23:DB:705:A:N6	23:DB:726:G:H1'	2.30	0.46
23:DB:1062:G:H2'	23:DB:1063:G:H8	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1176:U:H2'	23:DB:1177:G:C8	2.50	0.46
23:DB:1354:A:OP1	25:DC:35:LYS:HE2	2.14	0.46
23:DB:1477:A:H2'	23:DB:1478:G:O4'	2.15	0.46
23:DB:1936:A:H2	23:DB:1943:U:C5	2.33	0.46
23:DB:2386:A:H2'	23:DB:2387:U:C6	2.51	0.46
23:DB:2462:C:H2'	23:DB:2463:C:H6	1.80	0.46
23:DB:2808:G:O2'	23:DB:2809:A:H8	1.98	0.46
24:DV:1:MET:HG3	24:DV:2:PHE:CD2	2.50	0.46
24:DV:21:ARG:HE	24:DV:87:GLN:CB	2.24	0.46
29:DG:91:VAL:HG23	29:DG:92:GLY:H	1.80	0.46
29:DG:148:ARG:HD3	29:DG:152:ARG:NH1	2.29	0.46
32:DK:79:PHE:CD2	37:DP:69:VAL:HG12	2.49	0.46
33:DL:98:ALA:O	33:DL:99:ASN:C	2.59	0.46
36:DO:88:LYS:HE3	36:DO:88:LYS:HB3	1.66	0.46
38:DQ:64:ILE:HD12	38:DQ:95:ALA:CB	2.45	0.46
46:DZ:35:SER:HA	46:DZ:49:LEU:O	2.14	0.46
48:D1:33:LEU:HD12	48:D1:34:GLU:N	2.30	0.46
1:AA:193:C:H2'	1:AA:194:C:C5	2.51	0.46
1:AA:202:G:H2'	1:AA:203:G:H8	1.79	0.46
2:AC:129:PHE:CE2	2:AC:156:LEU:HD13	2.50	0.46
2:AC:146:LYS:HB2	2:AC:202:PHE:CD2	2.49	0.46
4:AE:136:VAL:HG13	4:AE:137:ARG:H	1.79	0.46
6:AG:71:THR:H	6:AG:141:HIS:CE1	2.33	0.46
8:AI:83:THR:OG1	8:AI:97:LEU:HD22	2.15	0.46
16:AQ:64:ARG:HG2	16:AQ:65:PRO:HD2	1.95	0.46
19:AT:64:GLY:O	19:AT:66:ILE:N	2.47	0.46
20:AB:23:ASN:O	20:AB:25:LYS:N	2.48	0.46
21:AU:10:PRO:CB	2:CC:71:ARG:HE	2.22	0.46
21:AU:44:ARG:HH11	21:AU:44:ARG:HG3	1.81	0.46
22:BA:54:G:O2'	22:BA:55:U:H5'	2.15	0.46
23:BB:242:G:N7	50:B3:4:LYS:HG2	2.30	0.46
23:BB:329:G:C6	42:BU:16:LYS:HG2	2.50	0.46
23:BB:455:C:N3	23:BB:472:A:H2'	2.31	0.46
23:BB:785:G:H2'	23:BB:786:C:H6	1.80	0.46
23:BB:988:A:H3'	45:BY:13:ILE:CD1	2.44	0.46
23:BB:1210:G:H5'	23:BB:1212:G:O4'	2.15	0.46
23:BB:1596:A:O2'	23:BB:1597:A:H5'	2.16	0.46
23:BB:1749:A:H2'	23:BB:1750:G:C8	2.50	0.46
23:BB:1885:A:H2'	23:BB:1886:U:O4'	2.14	0.46
23:BB:2230:G:H5''	46:BZ:30:LEU:HD11	1.97	0.46
23:BB:2307:G:O6	28:BF:40:GLY:HA3	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:2636:C:H2'	23:BB:2637:U:C6	2.51	0.46
23:BB:2845:U:O2'	23:BB:2846:G:H5'	2.14	0.46
25:BC:119:VAL:HG13	25:BC:133:ASN:ND2	2.30	0.46
27:BE:48:THR:C	27:BE:50:ALA:N	2.73	0.46
27:BE:106:LYS:CE	27:BE:200:LEU:HB3	2.45	0.46
27:BE:176:ASP:O	27:BE:180:LEU:HG	2.15	0.46
29:BG:88:LEU:HD13	29:BG:93:TYR:HB3	1.96	0.46
30:BH:133:GLN:O	30:BH:133:GLN:HG2	2.11	0.46
31:BJ:128:ASN:O	31:BJ:129:GLU:HB3	2.16	0.46
33:BL:123:ARG:HD2	33:BL:123:ARG:C	2.40	0.46
33:BL:132:ARG:O	33:BL:135:ILE:HG22	2.14	0.46
34:BM:68:PHE:CG	34:BM:69:PRO:HD2	2.51	0.46
38:BQ:107:ALA:C	39:BR:48:LYS:HD3	2.40	0.46
39:BR:34:GLU:HB3	39:BR:58:VAL:HG21	1.95	0.46
41:BT:50:LEU:O	41:BT:52:GLU:N	2.49	0.46
41:BT:55:VAL:HG22	41:BT:87:LEU:CD2	2.45	0.46
43:BW:15:SER:O	43:BW:16:GLU:C	2.58	0.46
43:BW:43:LYS:HB3	43:BW:79:ILE:HD11	1.97	0.46
46:BZ:27:ARG:HD2	46:BZ:29:PHE:CE1	2.50	0.46
47:B0:9:ARG:O	47:B0:12:ARG:HB3	2.16	0.46
49:B2:30:VAL:HG22	49:B2:33:ARG:NH2	2.20	0.46
51:B4:1:MET:HE2	51:B4:35:GLN:O	2.15	0.46
51:B4:17:VAL:HG11	51:B4:19:ARG:HE	1.80	0.46
52:BI:19:PRO:HB2	52:BI:22:PRO:HD2	1.97	0.46
1:CA:687:A:C2	1:CA:704:A:C5	3.04	0.46
1:CA:805:C:O2'	1:CA:806:C:H5'	2.15	0.46
1:CA:817:C:C2	1:CA:819:A:O4'	2.68	0.46
1:CA:953:G:H2'	1:CA:954:G:O4'	2.16	0.46
1:CA:1175:G:O2'	1:CA:1176:A:H5'	2.14	0.46
1:CA:1241:G:O2'	1:CA:1242:G:H5'	2.15	0.46
1:CA:1300:G:H1'	1:CA:1301:U:C5	2.49	0.46
1:CA:1302:C:H5'	1:CA:1302:C:H6	1.80	0.46
1:CA:1390:U:O2'	1:CA:1391:U:H5'	2.15	0.46
3:CD:159:GLU:C	3:CD:161:ALA:H	2.24	0.46
3:CD:187:ARG:CZ	3:CD:191:SER:HB3	2.46	0.46
7:CH:83:ARG:HB3	7:CH:85:TYR:CE1	2.49	0.46
9:CJ:18:ILE:HG13	9:CJ:72:ARG:HG2	1.97	0.46
10:CK:65:ALA:O	10:CK:68:ARG:HB3	2.15	0.46
12:CM:43:LYS:C	12:CM:45:SER:N	2.74	0.46
15:CP:46:LYS:C	15:CP:48:GLU:N	2.70	0.46
19:CT:61:ALA:HB1	19:CT:67:HIS:HA	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:150:U:H2'	23:DB:151:C:H6	1.78	0.46
23:DB:962:G:H2'	23:DB:963:U:H6	1.80	0.46
23:DB:962:G:N2	23:DB:2250:G:H22	1.95	0.46
23:DB:1439:A:H1'	23:DB:1553:A:N6	2.30	0.46
23:DB:1640:A:H2'	23:DB:1641:A:H8	1.77	0.46
23:DB:2339:C:H2'	23:DB:2340:A:H8	1.79	0.46
25:DC:165:ALA:HB3	25:DC:172:THR:HG23	1.96	0.46
25:DC:221:GLY:O	25:DC:224:MET:HG3	2.15	0.46
26:DD:33:ARG:NH1	26:DD:53:GLY:O	2.48	0.46
26:DD:114:LYS:HG3	26:DD:116:LYS:HG2	1.96	0.46
26:DD:121:THR:C	26:DD:123:LYS:N	2.72	0.46
26:DD:125:TRP:HE1	26:DD:161:MET:H	1.63	0.46
27:DE:134:LEU:HD21	27:DE:161:ALA:HB2	1.97	0.46
27:DE:176:ASP:O	27:DE:180:LEU:HG	2.15	0.46
28:DF:29:ARG:HB2	28:DF:158:THR:HG21	1.97	0.46
30:DH:44:ILE:O	30:DH:48:GLU:HB3	2.16	0.46
30:DH:147:VAL:HG12	30:DH:148:ALA:N	2.29	0.46
33:DL:138:ALA:O	33:DL:139:GLY:C	2.58	0.46
34:DM:18:ARG:C	34:DM:38:ARG:HH22	2.23	0.46
36:DO:30:ARG:HG3	36:DO:30:ARG:NH1	2.30	0.46
36:DO:74:VAL:O	36:DO:77:ALA:HB3	2.15	0.46
36:DO:100:HIS:HA	36:DO:104:GLN:NE2	2.29	0.46
39:DR:43:ASN:ND2	39:DR:44:GLY:N	2.63	0.46
41:DT:67:VAL:HG22	41:DT:74:ILE:HD11	1.97	0.46
42:DU:62:ALA:O	42:DU:63:ALA:HB3	2.15	0.46
1:AA:429:U:H1'	1:AA:430:A:H5''	1.98	0.46
1:AA:521:G:O2'	1:AA:522:C:H5'	2.16	0.46
1:AA:549:C:H2'	1:AA:550:G:C8	2.51	0.46
1:AA:599:C:O2'	1:AA:600:A:H5'	2.15	0.46
1:AA:1465:A:H2'	1:AA:1466:C:C6	2.51	0.46
2:AC:149:LYS:HG3	2:AC:168:ARG:HB2	1.97	0.46
3:AD:61:ARG:HG3	3:AD:71:PHE:CD2	2.50	0.46
3:AD:160:LEU:HA	3:AD:163:GLN:CG	2.44	0.46
5:AF:9:MET:HB3	5:AF:59:TYR:CD2	2.50	0.46
5:AF:36:ILE:HD12	5:AF:36:ILE:N	2.30	0.46
6:AG:75:LYS:HD3	6:AG:76:SER:N	2.30	0.46
6:AG:137:ARG:HE	6:AG:137:ARG:HB3	1.52	0.46
7:AH:12:ARG:HH11	7:AH:12:ARG:HG3	1.80	0.46
11:AL:17:LYS:N	11:AL:17:LYS:NZ	2.64	0.46
12:AM:3:ILE:H	12:AM:56:ARG:NH2	2.13	0.46
12:AM:3:ILE:HA	12:AM:56:ARG:HB2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AO:23:SER:HB3	14:AO:26:VAL:CG2	2.45	0.46
15:AP:22:ALA:HA	15:AP:33:ILE:HG13	1.97	0.46
20:AB:116:LEU:O	20:AB:119:GLN:HB2	2.15	0.46
22:BA:102:G:O2'	22:BA:103:U:H5'	2.15	0.46
23:BB:159:G:O2'	23:BB:160:A:H5''	2.15	0.46
23:BB:826:U:H5''	23:BB:2428:G:O3'	2.14	0.46
23:BB:945:A:OP2	23:BB:945:A:H4'	2.15	0.46
23:BB:1253:A:H4'	23:BB:1254:A:OP2	2.15	0.46
23:BB:1759:A:N3	23:BB:1759:A:H2'	2.30	0.46
23:BB:1854:A:H2	23:BB:2087:G:N3	2.13	0.46
23:BB:1912:A:HO2'	23:BB:1913:A:C5'	2.28	0.46
23:BB:2149:U:H2'	23:BB:2150:C:C6	2.49	0.46
23:BB:2212:A:C8	23:BB:2214:C:N4	2.83	0.46
23:BB:2256:G:O2'	23:BB:2257:U:H5'	2.15	0.46
23:BB:2355:G:H4'	43:BW:20:LEU:HD13	1.98	0.46
23:BB:2514:U:H2'	23:BB:2515:C:C6	2.50	0.46
25:BC:45:ASN:ND2	25:BC:45:ASN:H	2.12	0.46
25:BC:107:LYS:O	25:BC:109:LEU:HD22	2.15	0.46
25:BC:221:GLY:C	25:BC:223:ALA:N	2.72	0.46
26:BD:101:PHE:CZ	26:BD:204:LYS:HA	2.49	0.46
26:BD:121:THR:C	26:BD:123:LYS:N	2.73	0.46
27:BE:34:ALA:HA	27:BE:94:GLN:NE2	2.31	0.46
28:BF:135:ILE:HG13	28:BF:137:PHE:H	1.80	0.46
29:BG:1:SER:O	29:BG:3:VAL:N	2.49	0.46
30:BH:128:HIS:CB	30:BH:144:VAL:HB	2.34	0.46
33:BL:47:ARG:HH21	33:BL:47:ARG:CB	2.28	0.46
33:BL:98:ALA:O	33:BL:99:ASN:C	2.58	0.46
37:BP:75:THR:O	37:BP:80:VAL:HG11	2.15	0.46
38:BQ:112:ALA:O	38:BQ:113:LYS:C	2.58	0.46
39:BR:20:VAL:HG12	39:BR:21:ARG:N	2.28	0.46
40:BS:24:ILE:O	40:BS:25:ARG:C	2.58	0.46
41:BT:69:ARG:HA	41:BT:69:ARG:NH1	2.31	0.46
42:BU:32:LYS:HG3	42:BU:65:GLN:HA	1.97	0.46
1:CA:86:G:O2'	1:CA:87:C:O5'	2.27	0.46
1:CA:220:G:O2'	1:CA:221:C:H5'	2.15	0.46
1:CA:270:A:H2'	1:CA:271:C:O4'	2.16	0.46
1:CA:308:C:H2'	1:CA:309:A:C8	2.51	0.46
1:CA:814:A:H2'	1:CA:816:A:O5'	2.14	0.46
1:CA:945:G:H21	1:CA:1334:G:H4'	1.80	0.46
1:CA:984:C:H2'	1:CA:985:C:C6	2.51	0.46
1:CA:1040:U:H2'	1:CA:1041:G:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1291:U:H2'	1:CA:1292:G:H8	1.79	0.46
1:CA:1343:G:H2'	1:CA:1344:C:H6	1.80	0.46
8:CI:82:ILE:O	8:CI:86:LEU:HB2	2.16	0.46
10:CK:108:ASN:HD21	21:CU:6:ARG:HD2	1.80	0.46
11:CL:78:VAL:O	11:CL:102:ASP:HB2	2.16	0.46
20:CB:59:ILE:HG21	20:CB:158:ASP:HB3	1.97	0.46
20:CB:134:LEU:HD12	20:CB:134:LEU:HA	1.82	0.46
20:CB:172:ILE:HD12	20:CB:172:ILE:N	2.30	0.46
22:DA:91:C:O2'	22:DA:92:C:H5'	2.15	0.46
23:DB:19:A:O2'	23:DB:20:C:H5'	2.15	0.46
23:DB:311:A:H3'	23:DB:312:G:C8	2.50	0.46
23:DB:431:U:O2'	23:DB:432:A:H5'	2.15	0.46
23:DB:510:C:O2'	23:DB:1236:G:H5'	2.16	0.46
23:DB:1173:U:H2'	23:DB:1174:U:C5	2.50	0.46
23:DB:1174:U:H1'	23:DB:1176:U:O2	2.15	0.46
23:DB:1214:A:H2'	23:DB:1215:G:H8	1.81	0.46
23:DB:1245:G:H4'	27:DE:33:VAL:HG13	1.96	0.46
23:DB:1490:A:H2'	25:DC:97:ASP:CG	2.41	0.46
23:DB:1854:A:H2	23:DB:2087:G:N3	2.13	0.46
23:DB:2630:G:H2'	23:DB:2631:G:H8	1.81	0.46
26:DD:116:LYS:HD2	26:DD:123:LYS:HE2	1.97	0.46
28:DF:147:ARG:HD2	28:DF:148:VAL:HG22	1.96	0.46
31:DJ:4:PHE:HB3	31:DJ:44:TYR:CD1	2.51	0.46
31:DJ:45:THR:O	31:DJ:45:THR:HG23	2.15	0.46
32:DK:41:ILE:HG13	32:DK:42:THR:H	1.80	0.46
34:DM:101:VAL:HG22	34:DM:101:VAL:O	2.15	0.46
37:DP:100:ARG:HB3	37:DP:101:GLU:OE2	2.15	0.46
38:DQ:35:PHE:O	38:DQ:39:ILE:HG12	2.16	0.46
41:DT:48:GLN:HA	41:DT:48:GLN:NE2	2.30	0.46
41:DT:54:GLU:CB	41:DT:88:LYS:HB2	2.45	0.46
50:D3:14:LYS:O	50:D3:15:LYS:C	2.58	0.46
52:DI:2:LYS:HD2	52:DI:2:LYS:N	2.31	0.46
52:DI:89:SER:HA	52:DI:97:VAL:HG11	1.98	0.46
1:AA:451:A:H4'	1:AA:452:A:O4'	2.16	0.46
1:AA:669:G:H2'	1:AA:670:G:C8	2.50	0.46
1:AA:707:U:H2'	1:AA:708:C:H6	1.79	0.46
1:AA:984:C:O2'	1:AA:985:C:H5'	2.15	0.46
1:AA:1242:G:H2'	1:AA:1243:C:O4'	2.14	0.46
1:AA:1278:G:H4'	1:AA:1279:G:O4'	2.16	0.46
1:AA:1369:C:H2'	1:AA:1370:G:C8	2.51	0.46
3:AD:75:TYR:CE1	3:AD:200:VAL:HA	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AH:46:GLU:N	7:AH:63:LYS:HB2	2.31	0.46
7:AH:68:LYS:HG3	7:AH:69:ALA:N	2.29	0.46
8:AI:129:ARG:CZ	8:AI:129:ARG:HB2	2.45	0.46
13:AN:97:LYS:NZ	13:AN:97:LYS:HB3	2.31	0.46
19:AT:70:LYS:O	19:AT:74:HIS:HB2	2.14	0.46
20:AB:75:ALA:O	20:AB:76:SER:C	2.59	0.46
22:BA:52:A:OP1	22:BA:52:A:H4'	2.15	0.46
23:BB:923:G:N3	43:BW:23:LYS:HE3	2.31	0.46
23:BB:1439:A:N7	23:BB:1440:U:C6	2.83	0.46
23:BB:1441:G:H2'	23:BB:1442:U:H6	1.80	0.46
23:BB:1669:A:H2'	23:BB:1669:A:N3	2.30	0.46
23:BB:2074:U:O2'	23:BB:2075:U:H5'	2.16	0.46
23:BB:2240:U:O2'	23:BB:2241:A:H5'	2.15	0.46
23:BB:2537:U:H2'	23:BB:2538:C:H6	1.79	0.46
23:BB:2626:C:H2'	23:BB:2627:G:C8	2.50	0.46
24:BV:21:ARG:HE	24:BV:87:GLN:CB	2.24	0.46
25:BC:43:ASN:ND2	25:BC:44:ASN:N	2.60	0.46
25:BC:189:ALA:C	25:BC:190:THR:HG23	2.40	0.46
26:BD:150:GLN:O	26:BD:151:THR:C	2.58	0.46
27:BE:67:ARG:HD2	27:BE:68:ALA:O	2.15	0.46
30:BH:47:PHE:CA	30:BH:50:ARG:HH21	2.28	0.46
30:BH:78:VAL:HB	30:BH:143:ILE:CG1	2.44	0.46
30:BH:129:GLU:C	30:BH:131:SER:H	2.24	0.46
31:BJ:30:THR:O	31:BJ:33:ALA:HB3	2.16	0.46
33:BL:51:GLU:O	33:BL:53:GLY:N	2.48	0.46
34:BM:53:MET:O	34:BM:57:VAL:HG23	2.16	0.46
37:BP:52:ARG:HG2	37:BP:52:ARG:NH1	2.29	0.46
48:B1:33:LEU:HD12	48:B1:34:GLU:N	2.31	0.46
52:BI:63:ASP:C	52:BI:65:SER:N	2.73	0.46
1:CA:425:G:H2'	1:CA:426:U:C6	2.50	0.46
1:CA:984:C:H2'	1:CA:985:C:H6	1.80	0.46
1:CA:1130:A:H2'	1:CA:1131:G:C8	2.50	0.46
1:CA:1212:U:H4'	1:CA:1213:A:C8	2.50	0.46
1:CA:1476:A:H2'	1:CA:1477:U:O4'	2.14	0.46
3:CD:40:HIS:O	3:CD:43:ARG:HG2	2.15	0.46
4:CE:45:VAL:HG11	4:CE:117:ALA:HB2	1.97	0.46
8:CI:16:ALA:HA	8:CI:66:VAL:HG23	1.97	0.46
11:CL:17:LYS:N	11:CL:17:LYS:NZ	2.64	0.46
12:CM:13:HIS:O	12:CM:17:ALA:HB2	2.15	0.46
12:CM:44:ILE:O	12:CM:47:LEU:HB2	2.15	0.46
14:CO:69:LEU:HD11	14:CO:76:ARG:CB	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CP:42:ILE:HG22	15:CP:43:ALA:N	2.31	0.46
22:DA:75:G:H2'	22:DA:76:G:C8	2.51	0.46
23:DB:39:G:H2'	23:DB:40:U:C6	2.50	0.46
23:DB:211:C:O2'	23:DB:212:G:H5'	2.16	0.46
23:DB:233:A:N6	23:DB:428:A:N6	2.62	0.46
23:DB:454:A:H3'	23:DB:455:C:H5'	1.97	0.46
23:DB:839:U:H1'	23:DB:1191:G:H1'	1.97	0.46
23:DB:1126:A:H4'	23:DB:1127:A:O5'	2.16	0.46
23:DB:1749:A:H2'	23:DB:1750:G:C8	2.50	0.46
23:DB:1823:G:O2'	23:DB:1824:G:H5'	2.15	0.46
23:DB:1945:G:H2'	23:DB:1946:U:C6	2.50	0.46
23:DB:1958:C:H2'	23:DB:1959:G:H8	1.81	0.46
23:DB:2075:U:H2'	23:DB:2238:G:N2	2.29	0.46
23:DB:2355:G:H4'	43:DW:20:LEU:CD1	2.45	0.46
23:DB:2579:C:H1'	26:DD:130:GLN:HE22	1.81	0.46
23:DB:2720:U:H2'	23:DB:2721:A:H8	1.80	0.46
24:DV:9:ARG:NE	24:DV:20:LEU:HD11	2.29	0.46
25:DC:71:ASP:O	25:DC:73:ILE:HG12	2.15	0.46
25:DC:115:ILE:HA	25:DC:124:LYS:HZ2	1.79	0.46
25:DC:119:VAL:HG13	25:DC:133:ASN:ND2	2.29	0.46
26:DD:55:LYS:HZ1	26:DD:59:ARG:HD2	1.79	0.46
28:DF:19:PHE:HE1	28:DF:167:ALA:HB2	1.80	0.46
29:DG:122:ALA:HA	29:DG:131:VAL:O	2.15	0.46
32:DK:105:ARG:H	32:DK:105:ARG:CD	2.28	0.46
34:DM:29:GLY:HA2	34:DM:106:ASP:HB2	1.97	0.46
35:DN:79:LEU:C	35:DN:81:ASN:H	2.22	0.46
38:DQ:92:LYS:O	38:DQ:95:ALA:HB3	2.15	0.46
42:DU:12:VAL:HA	42:DU:69:VAL:HA	1.98	0.46
1:AA:16:A:N1	1:AA:919:A:H2	2.13	0.46
1:AA:189:A:O2'	1:AA:190:A:H5'	2.16	0.46
1:AA:197:A:H4'	1:AA:198:G:O5'	2.16	0.46
1:AA:640:A:O2'	1:AA:641:U:H5'	2.16	0.46
1:AA:659:U:O2'	1:AA:660:C:H5'	2.16	0.46
1:AA:948:C:O2'	1:AA:949:A:H5'	2.16	0.46
1:AA:1147:C:H2'	1:AA:1148:U:H6	1.81	0.46
1:AA:1180:A:OP1	8:AI:104:THR:HG22	2.16	0.46
2:AC:63:ILE:HD12	2:AC:90:VAL:HG12	1.96	0.46
2:AC:78:LYS:C	2:AC:80:GLY:N	2.73	0.46
8:AI:34:LEU:HD21	8:AI:48:ARG:NH2	2.18	0.46
13:AN:12:ARG:NE	13:AN:58:ARG:HH12	2.13	0.46
15:AP:1:MET:HE2	15:AP:2:VAL:O	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AP:12:LYS:C	15:AP:14:ARG:H	2.23	0.46
18:AS:52:ASN:CG	18:AS:53:GLY:N	2.71	0.46
19:AT:72:ALA:HA	19:AT:75:LYS:HD3	1.96	0.46
20:AB:218:ALA:C	20:AB:220:VAL:H	2.24	0.46
22:BA:116:G:H4'	36:BO:54:VAL:CG2	2.39	0.46
23:BB:38:A:N3	27:BE:43:THR:HB	2.31	0.46
23:BB:39:G:H2'	23:BB:40:U:H6	1.80	0.46
23:BB:111:A:H2'	23:BB:112:U:C6	2.50	0.46
23:BB:236:C:O2'	23:BB:237:C:H5'	2.16	0.46
23:BB:581:C:OP1	38:BQ:32:ARG:HG3	2.15	0.46
23:BB:902:C:H2'	23:BB:903:C:C6	2.50	0.46
23:BB:1290:C:O2'	23:BB:1291:C:H5'	2.15	0.46
23:BB:1930:G:H2'	23:BB:1968:G:C6	2.51	0.46
23:BB:2248:C:H2'	23:BB:2249:U:O4'	2.15	0.46
23:BB:2339:C:H2'	23:BB:2340:A:H8	1.78	0.46
23:BB:2758:A:C2'	23:BB:2759:G:H5'	2.45	0.46
24:BV:80:HIS:HB2	24:BV:85:LYS:HG3	1.98	0.46
25:BC:76:VAL:CG1	25:BC:114:GLN:HG2	2.45	0.46
25:BC:144:GLU:OE2	25:BC:188:ARG:HG3	2.16	0.46
26:BD:36:GLN:HE21	26:BD:36:GLN:HB2	1.53	0.46
27:BE:68:ALA:O	27:BE:69:ARG:C	2.58	0.46
29:BG:49:LEU:HD23	29:BG:51:PHE:CZ	2.50	0.46
30:BH:90:LEU:CB	30:BH:123:ARG:HD2	2.45	0.46
31:BJ:18:VAL:HG12	31:BJ:54:ILE:HD11	1.96	0.46
32:BK:8:LEU:HD12	32:BK:8:LEU:H	1.79	0.46
32:BK:95:ILE:O	32:BK:95:ILE:HG13	2.15	0.46
33:BL:55:MET:HE2	33:BL:59:ARG:HB3	1.97	0.46
33:BL:122:VAL:HB	33:BL:143:GLU:OE1	2.15	0.46
35:BN:31:HIS:C	35:BN:33:ILE:H	2.22	0.46
35:BN:54:LEU:HD11	35:BN:62:ASN:HB3	1.98	0.46
36:BO:88:LYS:HB3	36:BO:88:LYS:HE3	1.66	0.46
38:BQ:91:ARG:HB2	39:BR:11:GLN:OE1	2.16	0.46
40:BS:4:ILE:CG2	40:BS:106:VAL:HG22	2.45	0.46
50:B3:14:LYS:O	50:B3:15:LYS:C	2.58	0.46
1:CA:16:A:H2	1:CA:1080:A:N3	2.14	0.46
1:CA:204:G:H2'	1:CA:205:A:H8	1.79	0.46
1:CA:333:U:H2'	1:CA:334:C:C6	2.51	0.46
1:CA:707:U:H4'	10:CK:21:HIS:CD2	2.50	0.46
1:CA:1095:U:H5''	1:CA:1109:C:O2	2.16	0.46
1:CA:1125:U:C6	9:CJ:40:ILE:HD13	2.51	0.46
1:CA:1178:G:H3'	8:CI:98:ARG:NH2	2.29	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1181:G:H1'	1:CA:1182:G:C5	2.51	0.46
1:CA:1293:C:O2'	1:CA:1294:G:H5'	2.14	0.46
3:CD:75:TYR:CE1	3:CD:200:VAL:HA	2.50	0.46
6:CG:59:GLU:O	6:CG:63:VAL:HG23	2.15	0.46
6:CG:71:THR:H	6:CG:141:HIS:CE1	2.33	0.46
6:CG:74:VAL:HG12	6:CG:87:PRO:HB3	1.98	0.46
7:CH:68:LYS:HG3	7:CH:69:ALA:N	2.30	0.46
9:CJ:8:ILE:HD12	9:CJ:8:ILE:H	1.80	0.46
16:CQ:3:LYS:HG3	16:CQ:4:ILE:H	1.79	0.46
20:CB:93:HIS:HA	20:CB:94:ARG:NH2	2.30	0.46
20:CB:129:THR:O	20:CB:131:LYS:N	2.48	0.46
23:DB:68:G:H2'	23:DB:69:C:C6	2.51	0.46
23:DB:485:C:O2'	23:DB:486:C:H5'	2.15	0.46
23:DB:493:G:O2'	40:DS:7:HIS:HA	2.15	0.46
23:DB:596:U:O2'	23:DB:597:G:H5'	2.15	0.46
23:DB:935:C:H2'	23:DB:936:A:C8	2.50	0.46
23:DB:1010:A:N3	23:DB:1153:C:H1'	2.30	0.46
23:DB:1023:U:H2'	23:DB:1024:G:H5'	1.98	0.46
23:DB:1092:C:C2'	23:DB:1093:G:H5'	2.45	0.46
23:DB:1387:A:H2'	23:DB:1388:G:C8	2.51	0.46
23:DB:1429:G:H2'	23:DB:1430:G:C8	2.49	0.46
23:DB:1458:U:C2'	23:DB:1459:G:H5''	2.45	0.46
23:DB:1848:A:H2'	23:DB:1849:G:C8	2.50	0.46
23:DB:1919:A:N3	23:DB:1919:A:H2'	2.31	0.46
23:DB:2305:U:H2'	23:DB:2306:C:O4'	2.16	0.46
23:DB:2674:G:H2'	23:DB:2675:A:H8	1.80	0.46
26:DD:106:LYS:HD3	26:DD:106:LYS:N	2.30	0.46
26:DD:201:LEU:C	26:DD:202:ILE:HD12	2.41	0.46
27:DE:137:LYS:HG3	27:DE:141:MET:SD	2.56	0.46
28:DF:42:ALA:O	28:DF:43:ILE:C	2.58	0.46
30:DH:87:GLU:HB2	30:DH:89:LYS:HZ2	1.81	0.46
30:DH:117:LEU:HD22	30:DH:130:VAL:CG1	2.45	0.46
32:DK:40:LYS:NZ	32:DK:59:LYS:HE3	2.31	0.46
33:DL:123:ARG:HD2	33:DL:124:GLY:N	2.30	0.46
33:DL:132:ARG:O	33:DL:136:GLU:HG2	2.15	0.46
34:DM:35:ALA:HB3	34:DM:99:GLY:H	1.78	0.46
36:DO:18:LEU:HD23	36:DO:25:ARG:CD	2.45	0.46
38:DQ:26:ALA:HA	38:DQ:29:ARG:CG	2.45	0.46
38:DQ:38:VAL:O	38:DQ:39:ILE:C	2.56	0.46
39:DR:6:GLN:C	39:DR:6:GLN:HE21	2.23	0.46
41:DT:14:PRO:HA	41:DT:32:LEU:HB2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DX:56:LEU:O	44:DX:58:ASN:N	2.42	0.46
45:DY:50:VAL:HA	45:DY:52:PHE:CE1	2.51	0.46
1:AA:119:A:H4'	1:AA:120:A:O4'	2.14	0.46
1:AA:279:A:H5'	1:AA:281:G:O4'	2.15	0.46
1:AA:600:A:OP1	7:AH:87:ARG:HB3	2.16	0.46
1:AA:669:G:H2'	1:AA:670:G:H8	1.80	0.46
1:AA:697:U:H2'	1:AA:698:G:H5'	1.97	0.46
1:AA:1125:U:C6	9:AJ:40:ILE:HD13	2.51	0.46
1:AA:1216:A:H2'	1:AA:1217:C:H6	1.81	0.46
4:AE:132:PRO:HG2	4:AE:133:ILE:H	1.79	0.46
5:AF:7:VAL:O	5:AF:7:VAL:HG13	2.15	0.46
6:AG:57:GLU:CD	6:AG:57:GLU:H	2.24	0.46
7:AH:40:LYS:HD3	7:AH:48:PHE:CE1	2.49	0.46
8:AI:99:LYS:HE3	9:CJ:80:THR:CA	2.41	0.46
9:AJ:53:ILE:HG13	13:AN:84:ARG:CZ	2.46	0.46
13:AN:20:PHE:CD1	13:AN:24:ALA:HB2	2.51	0.46
21:AU:11:PHE:CE1	21:AU:13:VAL:HG12	2.50	0.46
23:BB:188:G:OP1	46:BZ:14:THR:HG23	2.15	0.46
23:BB:359:G:O2'	23:BB:360:U:H5'	2.15	0.46
23:BB:643:A:H1'	48:B1:43:ARG:NH2	2.31	0.46
23:BB:657:U:H2'	23:BB:658:U:C6	2.51	0.46
23:BB:851:C:H2'	23:BB:852:U:C6	2.51	0.46
23:BB:921:C:H2'	23:BB:922:C:H6	1.81	0.46
23:BB:1030:C:O2'	23:BB:1031:G:H5'	2.15	0.46
23:BB:2559:C:H2'	23:BB:2560:A:H8	1.80	0.46
23:BB:2578:G:O2'	23:BB:2579:C:H5'	2.15	0.46
23:BB:2617:U:O2'	23:BB:2618:G:H5'	2.15	0.46
24:BV:9:ARG:NE	24:BV:20:LEU:HD11	2.30	0.46
25:BC:83:ASP:HB3	25:BC:86:ARG:HG2	1.97	0.46
25:BC:138:SER:O	25:BC:162:GLN:HA	2.14	0.46
25:BC:255:LYS:C	25:BC:257:ARG:H	2.23	0.46
26:BD:106:LYS:HD3	26:BD:106:LYS:N	2.31	0.46
28:BF:59:ILE:HG12	28:BF:137:PHE:CE2	2.50	0.46
30:BH:48:GLU:HG2	30:BH:49:ALA:N	2.29	0.46
34:BM:38:ARG:HH11	34:BM:38:ARG:HG2	1.81	0.46
37:BP:77:SER:O	37:BP:80:VAL:HG12	2.15	0.46
40:BS:41:LYS:O	40:BS:43:ALA:N	2.49	0.46
42:BU:11:ILE:HG12	42:BU:20:LYS:O	2.16	0.46
42:BU:23:LYS:HD2	42:BU:23:LYS:H	1.80	0.46
43:BW:61:LYS:O	43:BW:62:ALA:O	2.33	0.46
46:BZ:36:HIS:O	46:BZ:48:THR:HA	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:B1:39:ASP:OD1	48:B1:41:VAL:HB	2.15	0.46
1:CA:36:C:O2'	1:CA:37:U:H5'	2.16	0.46
1:CA:251:G:H1	1:CA:271:C:N4	2.13	0.46
1:CA:373:A:H2'	1:CA:374:A:C8	2.47	0.46
1:CA:586:C:H5''	7:CH:81:GLY:HA2	1.98	0.46
1:CA:893:C:H2'	1:CA:894:G:H8	1.81	0.46
1:CA:1102:A:H2'	1:CA:1103:C:C6	2.51	0.46
1:CA:1308:U:H3'	12:CM:97:ARG:NH1	2.31	0.46
3:CD:2:ARG:HG3	3:CD:114:ARG:NH1	2.31	0.46
3:CD:24:VAL:O	3:CD:27:ILE:HG13	2.14	0.46
3:CD:90:LEU:HD13	3:CD:93:LEU:HD12	1.97	0.46
5:CF:10:VAL:HG12	5:CF:11:HIS:N	2.31	0.46
10:CK:37:GLN:HB2	10:CK:39:ASN:ND2	2.31	0.46
16:CQ:64:ARG:HG2	16:CQ:65:PRO:HD2	1.97	0.46
18:CS:43:MET:C	18:CS:46:LEU:HD23	2.40	0.46
20:CB:127:LYS:HD2	20:CB:127:LYS:C	2.40	0.46
22:DA:75:G:N1	22:DA:102:G:N2	2.63	0.46
23:DB:5:A:H2'	23:DB:6:A:H8	1.81	0.46
23:DB:63:A:OP2	23:DB:63:A:H2'	2.15	0.46
23:DB:754:U:H2'	23:DB:755:U:H6	1.81	0.46
23:DB:771:G:O2'	23:DB:772:C:H5'	2.16	0.46
23:DB:899:A:C2	23:DB:900:A:H1'	2.51	0.46
23:DB:1082:U:C2	23:DB:1086:A:N1	2.83	0.46
23:DB:1547:C:H2'	23:DB:1548:A:C8	2.50	0.46
23:DB:1872:A:H2'	23:DB:1873:G:O4'	2.15	0.46
23:DB:2314:A:O4'	28:DF:154:THR:HG21	2.16	0.46
23:DB:2334:U:O3'	36:DO:13:ARG:HB2	2.14	0.46
23:DB:2379:G:C5'	36:DO:21:LEU:HD11	2.46	0.46
23:DB:2489:U:O2'	23:DB:2490:G:H5'	2.15	0.46
23:DB:2492:U:O2'	23:DB:2493:U:H5'	2.15	0.46
23:DB:2820:A:H4'	35:DN:3:HIS:ND1	2.30	0.46
24:DV:16:ALA:HA	24:DV:19:ARG:HH21	1.81	0.46
25:DC:64:VAL:O	25:DC:65:ASP:CB	2.62	0.46
33:DL:133:ALA:HA	33:DL:136:GLU:HB2	1.98	0.46
34:DM:101:VAL:O	34:DM:101:VAL:HG13	2.16	0.46
38:DQ:64:ILE:HD12	38:DQ:95:ALA:HB3	1.97	0.46
40:DS:88:ARG:HH21	40:DS:88:ARG:HG3	1.81	0.46
42:DU:86:PHE:CD2	42:DU:92:VAL:HG21	2.50	0.46
42:DU:88:ASP:CG	42:DU:89:GLY:N	2.73	0.46
46:DZ:5:CYS:SG	46:DZ:7:VAL:HG12	2.56	0.46
1:AA:87:C:C2'	1:AA:88:U:H4'	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:106:C:HO2'	1:AA:107:G:H5'	1.80	0.46
1:AA:503:C:H2'	1:AA:504:C:C6	2.51	0.46
1:AA:762:U:H2'	1:AA:763:G:H8	1.80	0.46
1:AA:803:G:H2'	1:AA:804:U:O4'	2.15	0.46
1:AA:1317:C:H3'	1:AA:1318:A:C8	2.49	0.46
1:AA:1360:A:H2'	1:AA:1361:G:O4'	2.15	0.46
1:AA:1392:G:H2'	1:AA:1393:U:C6	2.51	0.46
5:AF:54:LEU:C	5:AF:56:LYS:H	2.24	0.46
5:AF:80:PHE:CE1	25:BC:135:PRO:HG2	2.51	0.46
9:AJ:6:ILE:O	9:AJ:8:ILE:HD12	2.16	0.46
10:AK:15:VAL:C	10:AK:17:ASP:H	2.24	0.46
11:AL:78:VAL:O	11:AL:102:ASP:HB2	2.16	0.46
15:AP:52:LEU:CD2	15:AP:75:ILE:HA	2.45	0.46
19:AT:69:ASN:O	19:AT:70:LYS:C	2.58	0.46
22:BA:32:U:H1'	22:BA:52:A:N7	2.31	0.46
23:BB:265:A:O2'	23:BB:266:G:C4'	2.64	0.46
23:BB:572:A:OP2	39:BR:80:ARG:NH2	2.49	0.46
23:BB:969:G:H2'	23:BB:970:U:C6	2.50	0.46
23:BB:1028:A:N3	23:BB:2486:C:O2'	2.39	0.46
23:BB:1460:U:H3'	23:BB:1461:C:H5'	1.98	0.46
23:BB:1505:A:H2'	23:BB:1506:U:C6	2.51	0.46
23:BB:1936:A:H2	23:BB:1943:U:C5	2.34	0.46
23:BB:2756:U:C1'	23:BB:2757:A:H5''	2.45	0.46
26:BD:15:PHE:H	26:BD:15:PHE:HD1	1.64	0.46
28:BF:11:VAL:HG21	28:BF:172:PHE:HE1	1.81	0.46
28:BF:28:PRO:O	28:BF:168:LEU:HG	2.16	0.46
28:BF:43:ILE:HA	28:BF:46:LYS:CE	2.45	0.46
28:BF:43:ILE:HG13	28:BF:44:ALA:N	2.31	0.46
28:BF:65:LEU:O	28:BF:86:CYS:HA	2.15	0.46
31:BJ:16:TYR:CD2	31:BJ:140:LEU:HD12	2.51	0.46
31:BJ:64:VAL:O	31:BJ:65:THR:HG22	2.16	0.46
34:BM:19:GLY:N	34:BM:38:ARG:NH2	2.63	0.46
35:BN:13:ASN:OD1	35:BN:16:HIS:HB2	2.15	0.46
35:BN:58:ASP:O	35:BN:59:SER:HB3	2.15	0.46
35:BN:94:TYR:C	35:BN:116:VAL:HG12	2.41	0.46
36:BO:18:LEU:HD23	36:BO:25:ARG:CD	2.44	0.46
37:BP:54:LEU:HD12	37:BP:76:HIS:HB2	1.98	0.46
38:BQ:86:SER:HB3	39:BR:51:VAL:CA	2.46	0.46
41:BT:1:MET:C	41:BT:2:ILE:HD13	2.40	0.46
42:BU:12:VAL:HA	42:BU:69:VAL:HA	1.98	0.46
42:BU:71:ILE:HD11	42:BU:81:ARG:O	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BU:85:ARG:NH1	42:BU:86:PHE:N	2.64	0.46
46:BZ:2:SER:O	46:BZ:3:ARG:C	2.58	0.46
1:CA:562:U:H4'	1:CA:563:A:O5'	2.15	0.46
1:CA:751:U:O2'	14:CO:24:THR:HG23	2.16	0.46
1:CA:1499:A:O2'	1:CA:1500:A:H5'	2.16	0.46
2:CC:50:SER:CB	2:CC:70:ALA:HB3	2.46	0.46
2:CC:134:LYS:HA	2:CC:167:TYR:HE2	1.81	0.46
4:CE:143:LEU:C	4:CE:145:ASN:H	2.23	0.46
6:CG:136:LYS:O	6:CG:140:VAL:HG23	2.16	0.46
8:CI:49:GLN:HA	8:CI:52:GLU:HG2	1.98	0.46
9:CJ:8:ILE:HA	9:CJ:100:ILE:HG22	1.97	0.46
9:CJ:12:ALA:H	9:CJ:18:ILE:HD13	1.81	0.46
10:CK:28:ASN:ND2	10:CK:29:THR:H	2.14	0.46
12:CM:80:MET:C	12:CM:82:LEU:H	2.24	0.46
20:CB:102:ASN:HD21	20:CB:105:THR:HB	1.81	0.46
20:CB:160:LEU:HD22	20:CB:182:VAL:HA	1.97	0.46
21:CU:33:ARG:HG2	21:CU:34:ARG:N	2.28	0.46
23:DB:533:G:H5'	38:DQ:23:TYR:CD2	2.51	0.46
23:DB:796:C:H2'	23:DB:797:G:H8	1.79	0.46
23:DB:877:A:H2'	23:DB:877:A:N3	2.30	0.46
23:DB:1099:G:OP2	52:DI:2:LYS:O	2.33	0.46
23:DB:1733:G:H8	23:DB:1733:G:H5'	1.81	0.46
23:DB:1999:C:H2'	23:DB:2000:C:O4'	2.16	0.46
23:DB:2009:A:O4'	35:DN:107:ASN:HB2	2.16	0.46
23:DB:2148:G:O3'	23:DB:2149:U:H6	1.99	0.46
23:DB:2648:G:H2'	23:DB:2649:C:H6	1.79	0.46
23:DB:2849:U:H4'	23:DB:2850:A:C5'	2.44	0.46
24:DV:80:HIS:HB2	24:DV:85:LYS:HG3	1.97	0.46
25:DC:153:LEU:HD13	25:DC:175:LEU:HD21	1.97	0.46
28:DF:33:ILE:O	28:DF:90:LEU:HB2	2.15	0.46
28:DF:102:LEU:HD13	28:DF:102:LEU:C	2.41	0.46
28:DF:139:GLU:O	28:DF:141:ASP:N	2.49	0.46
29:DG:37:ASN:HD22	29:DG:40:VAL:CB	2.25	0.46
30:DH:95:GLY:O	30:DH:98:ASP:N	2.49	0.46
32:DK:11:ALA:HB3	32:DK:85:VAL:CG2	2.46	0.46
32:DK:87:LEU:HD12	32:DK:92:GLU:C	2.40	0.46
33:DL:105:ILE:HG22	33:DL:106:GLU:N	2.31	0.46
35:DN:11:ASN:O	35:DN:12:ARG:HB2	2.15	0.46
35:DN:48:VAL:O	35:DN:51:LEU:N	2.49	0.46
36:DO:3:LYS:H	36:DO:3:LYS:HG2	1.50	0.46
39:DR:54:VAL:HG13	39:DR:56:GLY:O	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DR:59:ILE:HA	39:DR:100:GLY:HA3	1.97	0.46
39:DR:63:VAL:O	39:DR:63:VAL:HG23	2.16	0.46
41:DT:40:LYS:O	41:DT:43:ILE:HB	2.15	0.46
42:DU:11:ILE:HB	42:DU:72:PHE:HD1	1.81	0.46
42:DU:96:LYS:C	42:DU:98:ASN:H	2.23	0.46
45:DY:55:LYS:O	45:DY:56:VAL:C	2.59	0.46
49:D2:21:ARG:HG2	49:D2:31:LEU:HD21	1.98	0.46
50:D3:26:ALA:O	50:D3:27:ASN:C	2.59	0.46
52:DI:23:VAL:HG12	52:DI:24:GLY:N	2.31	0.46
1:AA:313:A:H2'	1:AA:314:C:H6	1.80	0.46
1:AA:502:A:H2'	1:AA:503:C:C6	2.50	0.46
1:AA:545:C:O2'	1:AA:546:A:H5'	2.15	0.46
1:AA:861:G:H2'	1:AA:862:C:H6	1.80	0.46
1:AA:918:A:C6	1:AA:919:A:C6	3.04	0.46
2:AC:106:ARG:HH11	2:AC:106:ARG:HG2	1.81	0.46
3:AD:20:LEU:C	3:AD:21:LYS:HD2	2.41	0.46
6:AG:80:GLY:C	6:AG:82:SER:H	2.24	0.46
8:AI:16:ALA:HA	8:AI:66:VAL:HG23	1.98	0.46
8:AI:56:MET:SD	8:AI:57:VAL:HG23	2.55	0.46
8:AI:78:ILE:HG22	8:AI:82:ILE:CD1	2.46	0.46
9:AJ:8:ILE:HD12	9:AJ:8:ILE:H	1.81	0.46
12:AM:19:THR:HG22	12:AM:29:SER:HB3	1.98	0.46
12:AM:43:LYS:C	12:AM:45:SER:H	2.24	0.46
15:AP:34:GLU:CD	15:AP:60:TRP:NE1	2.71	0.46
20:AB:117:GLU:HA	20:AB:140:LEU:CD2	2.45	0.46
20:AB:151:LYS:HG3	20:AB:152:ASP:N	2.30	0.46
22:BA:48:U:O2'	36:BO:100:HIS:HE1	1.99	0.46
22:BA:106:G:H2'	22:BA:107:G:C8	2.51	0.46
23:BB:28:A:N6	23:BB:512:G:O2'	2.48	0.46
23:BB:309:A:H4'	42:BU:15:GLY:HA2	1.97	0.46
23:BB:348:A:H2'	23:BB:349:U:C6	2.51	0.46
23:BB:434:U:H1'	23:BB:435:C:H5	1.81	0.46
23:BB:583:G:H2'	23:BB:584:C:H6	1.79	0.46
23:BB:663:G:OP1	33:BL:17:LYS:HG2	2.16	0.46
23:BB:740:C:H5''	23:BB:1784:A:OP1	2.15	0.46
23:BB:942:G:H2'	23:BB:943:A:O4'	2.16	0.46
23:BB:974:G:H1'	23:BB:975:A:C8	2.50	0.46
23:BB:1482:G:N2	23:BB:1508:A:H1'	2.31	0.46
23:BB:1737:G:H5'	23:BB:1738:G:OP2	2.16	0.46
23:BB:2024:G:O2'	23:BB:2025:C:H5'	2.15	0.46
23:BB:2391:G:HO2'	23:BB:2424:C:H41	1.63	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:2635:A:H5'	26:BD:79:LEU:HD23	1.98	0.46
23:BB:2655:G:O2'	23:BB:2656:U:P	2.74	0.46
23:BB:2658:C:H2'	23:BB:2659:G:H5'	1.97	0.46
26:BD:125:TRP:HE1	26:BD:161:MET:H	1.63	0.46
27:BE:148:ILE:HA	27:BE:187:VAL:CG2	2.46	0.46
27:BE:198:GLU:O	27:BE:199:MET:C	2.59	0.46
29:BG:109:SER:O	29:BG:110:HIS:HB3	2.16	0.46
31:BJ:63:ALA:HA	31:BJ:69:ARG:HH22	1.80	0.46
32:BK:59:LYS:HD2	32:BK:89:ASN:O	2.16	0.46
34:BM:63:ILE:HD12	34:BM:63:ILE:N	2.30	0.46
35:BN:8:ARG:HB3	35:BN:43:GLU:OE2	2.15	0.46
38:BQ:4:LYS:HZ1	38:BQ:7:VAL:HG22	1.81	0.46
39:BR:70:GLU:O	39:BR:90:ARG:HD2	2.16	0.46
41:BT:14:PRO:HA	41:BT:32:LEU:CB	2.46	0.46
1:CA:9:G:H5'	4:CE:107:GLY:HA3	1.98	0.46
1:CA:395:C:H2'	1:CA:396:C:C6	2.50	0.46
1:CA:517:G:H22	1:CA:533:A:P	2.39	0.46
1:CA:775:G:H2'	1:CA:776:G:C8	2.51	0.46
1:CA:1252:A:H2'	1:CA:1253:G:O4'	2.16	0.46
1:CA:1363:A:O2'	1:CA:1365:G:N7	2.45	0.46
2:CC:112:ALA:O	2:CC:113:LYS:C	2.58	0.46
2:CC:122:GLN:O	2:CC:127:VAL:HG13	2.16	0.46
2:CC:149:LYS:O	2:CC:200:TRP:HE3	1.98	0.46
8:CI:17:ARG:HB2	8:CI:65:THR:HB	1.96	0.46
9:CJ:35:GLN:HG2	9:CJ:78:GLU:OE2	2.14	0.46
10:CK:47:GLY:C	10:CK:49:SER:H	2.24	0.46
11:CL:51:VAL:HG12	11:CL:52:CYS:N	2.29	0.46
11:CL:51:VAL:HG12	11:CL:63:THR:HG22	1.97	0.46
12:CM:3:ILE:H	12:CM:56:ARG:NH2	2.13	0.46
13:CN:20:PHE:CD1	13:CN:24:ALA:HB2	2.50	0.46
23:DB:353:C:O2	23:DB:353:C:H2'	2.15	0.46
23:DB:582:A:H2'	23:DB:583:G:C8	2.50	0.46
23:DB:623:C:H2'	23:DB:624:C:H6	1.81	0.46
23:DB:950:G:H2'	23:DB:951:C:H6	1.81	0.46
23:DB:1054:A:H2'	23:DB:1055:G:C8	2.49	0.46
23:DB:1745:A:H2'	23:DB:1746:A:C8	2.51	0.46
23:DB:2023:C:H4'	23:DB:2617:U:O3'	2.16	0.46
23:DB:2223:G:H2'	23:DB:2224:G:H5'	1.97	0.46
23:DB:2626:C:H2'	23:DB:2627:G:C8	2.51	0.46
23:DB:2668:G:O2'	23:DB:2669:G:H5'	2.16	0.46
24:DV:65:VAL:C	24:DV:67:GLY:N	2.73	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DD:107:VAL:HG12	26:DD:109:VAL:HG23	1.98	0.46
27:DE:181:ILE:HD13	33:DL:3:LEU:HD23	1.97	0.46
28:DF:33:ILE:H	28:DF:95:MET:HG3	1.81	0.46
28:DF:102:LEU:O	28:DF:103:ILE:CB	2.63	0.46
29:DG:1:SER:O	29:DG:3:VAL:N	2.49	0.46
30:DH:60:GLU:O	30:DH:62:LEU:HD23	2.16	0.46
32:DK:117:SER:C	32:DK:118:LEU:HD12	2.41	0.46
32:DK:119:ALA:O	32:DK:120:PRO:O	2.33	0.46
38:DQ:26:ALA:C	38:DQ:28:SER:N	2.72	0.46
45:DY:25:GLY:HA3	45:DY:46:MET:HE1	1.98	0.46
46:DZ:2:SER:O	46:DZ:3:ARG:C	2.58	0.46
50:D3:31:ILE:C	50:D3:32:LEU:HG	2.41	0.46
51:D4:2:LYS:HD3	51:D4:4:ARG:HE	1.81	0.46
52:DI:69:VAL:O	52:DI:69:VAL:HG23	2.15	0.46
1:AA:113:G:O2'	1:AA:354:G:H5'	2.16	0.46
1:AA:373:A:O2'	1:AA:374:A:H5'	2.16	0.46
1:AA:631:C:H3'	1:AA:632:U:H5'	1.97	0.46
1:AA:828:U:OP1	1:AA:828:U:H4'	2.14	0.46
1:AA:1125:U:HO2'	1:AA:1126:U:H2'	1.81	0.46
2:AC:155:ARG:H	2:AC:162:ALA:HA	1.80	0.46
3:AD:48:SER:O	3:AD:49:ASP:C	2.59	0.46
3:AD:148:ALA:O	3:AD:154:VAL:HG11	2.16	0.46
4:AE:107:GLY:C	4:AE:109:ALA:H	2.24	0.46
5:AF:93:LYS:O	5:AF:94:HIS:HB2	2.15	0.46
6:AG:2:ARG:HG2	6:AG:3:ARG:CD	2.46	0.46
6:AG:46:LEU:HG	6:AG:57:GLU:CB	2.38	0.46
9:AJ:35:GLN:HG2	9:AJ:78:GLU:OE2	2.16	0.46
10:AK:124:LYS:CA	21:AU:34:ARG:HB3	2.39	0.46
14:AO:55:LEU:HD21	23:BB:715:A:C2	2.51	0.46
16:AQ:60:ILE:HD13	16:AQ:60:ILE:H	1.80	0.46
23:BB:90:U:OP2	23:BB:91:A:H3'	2.15	0.46
23:BB:244:A:H1'	23:BB:255:A:N6	2.31	0.46
23:BB:544:C:H2'	23:BB:545:U:C6	2.51	0.46
23:BB:655:A:H4'	23:BB:656:G:H5'	1.96	0.46
23:BB:730:A:H3'	56:BB:3593:HOH:O	2.16	0.46
23:BB:813:U:H2'	23:BB:814:C:C6	2.50	0.46
23:BB:839:U:H2'	23:BB:840:C:H6	1.80	0.46
23:BB:1515:A:H2'	23:BB:1516:G:O4'	2.16	0.46
23:BB:1568:G:H4'	25:BC:58:LYS:HB3	1.97	0.46
23:BB:2019:A:H4'	38:BQ:33:VAL:HG11	1.97	0.46
23:BB:2392:A:OP1	50:B3:30:HIS:HB3	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:2419:U:H2'	23:BB:2420:C:C6	2.51	0.46
23:BB:2733:A:H2'	23:BB:2734:A:O4'	2.16	0.46
23:BB:2868:A:H2'	23:BB:2869:G:H8	1.81	0.46
24:BV:48:MET:O	24:BV:51:GLN:HG3	2.16	0.46
24:BV:77:VAL:HG23	24:BV:89:ILE:CG2	2.45	0.46
25:BC:103:ILE:HG22	25:BC:105:ALA:N	2.30	0.46
25:BC:119:VAL:HG13	25:BC:133:ASN:HD21	1.81	0.46
26:BD:8:LYS:HZ2	26:BD:25:THR:CG2	2.29	0.46
27:BE:4:VAL:HG12	27:BE:6:LYS:H	1.80	0.46
27:BE:38:GLY:C	27:BE:40:ARG:H	2.22	0.46
27:BE:112:LEU:C	27:BE:114:ARG:N	2.74	0.46
34:BM:61:GLY:HA2	34:BM:107:GLY:C	2.41	0.46
35:BN:79:LEU:C	35:BN:81:ASN:H	2.24	0.46
36:BO:16:ARG:C	36:BO:18:LEU:N	2.74	0.46
37:BP:62:LYS:HB3	37:BP:69:VAL:CG2	2.45	0.46
38:BQ:68:ALA:C	38:BQ:71:ASN:HB3	2.41	0.46
38:BQ:78:PHE:CZ	38:BQ:82:LEU:HD11	2.51	0.46
41:BT:28:ASN:C	41:BT:29:THR:HG23	2.41	0.46
42:BU:86:PHE:CG	42:BU:87:GLU:N	2.84	0.46
1:CA:62:U:H5''	1:CA:385:C:O2'	2.15	0.46
1:CA:67:C:H2'	1:CA:68:G:C8	2.51	0.46
1:CA:167:A:O2'	1:CA:168:G:H5'	2.16	0.46
1:CA:241:G:O2'	1:CA:242:G:H5'	2.15	0.46
1:CA:599:C:O2'	1:CA:600:A:H5'	2.15	0.46
1:CA:744:C:H2'	1:CA:745:G:C8	2.50	0.46
1:CA:868:C:H2'	1:CA:869:G:O4'	2.16	0.46
1:CA:1276:G:H2'	1:CA:1277:C:C6	2.51	0.46
1:CA:1318:A:H4'	18:CS:9:PHE:CE1	2.50	0.46
1:CA:1369:C:H2'	1:CA:1370:G:C8	2.51	0.46
4:CE:158:LYS:HZ1	7:CH:63:LYS:HD3	1.81	0.46
5:CF:7:VAL:O	5:CF:7:VAL:HG13	2.15	0.46
7:CH:46:GLU:N	7:CH:63:LYS:HB2	2.31	0.46
7:CH:77:VAL:HG23	7:CH:126:CYS:HA	1.98	0.46
13:CN:10:VAL:C	13:CN:11:LYS:HZ3	2.23	0.46
19:CT:42:ASP:OD1	19:CT:44:ALA:HB3	2.16	0.46
22:DA:16:G:O2'	22:DA:17:C:H5'	2.16	0.46
23:DB:60:G:C6	23:DB:74:A:N6	2.84	0.46
23:DB:558:U:OP1	31:DJ:113:PRO:HB2	2.16	0.46
23:DB:730:A:H3'	56:DB:3612:HOH:O	2.15	0.46
23:DB:852:U:H2'	23:DB:853:C:C6	2.51	0.46
23:DB:878:A:N3	23:DB:878:A:C2'	2.77	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1093:G:O2'	23:DB:1094:U:H5'	2.16	0.46
23:DB:1203:U:H3'	23:DB:1204:A:H5''	1.98	0.46
23:DB:1717:A:H2'	23:DB:1718:G:O4'	2.16	0.46
23:DB:1849:G:H2'	23:DB:1850:G:C8	2.50	0.46
25:DC:12:ARG:HA	25:DC:15:VAL:CG2	2.46	0.46
27:DE:61:ARG:O	27:DE:62:GLN:C	2.58	0.46
27:DE:146:VAL:HA	27:DE:185:LYS:O	2.16	0.46
28:DF:74:ALA:C	28:DF:76:PHE:H	2.23	0.46
31:DJ:128:ASN:O	31:DJ:129:GLU:HB3	2.16	0.46
33:DL:17:LYS:O	33:DL:18:ARG:HG2	2.16	0.46
33:DL:118:THR:O	33:DL:120:VAL:HG23	2.15	0.46
34:DM:90:GLU:HA	34:DM:90:GLU:OE1	2.14	0.46
35:DN:21:PHE:HA	35:DN:24:MET:HB2	1.98	0.46
39:DR:31:GLU:O	39:DR:63:VAL:HG22	2.16	0.46
39:DR:49:ILE:CG2	39:DR:54:VAL:HB	2.45	0.46
40:DS:85:ILE:HD12	40:DS:85:ILE:N	2.31	0.46
42:DU:64:ILE:HG13	42:DU:68:ASN:HD22	1.81	0.46
43:DW:15:SER:O	43:DW:16:GLU:C	2.58	0.46
47:D0:9:ARG:O	47:D0:12:ARG:HB3	2.15	0.46
49:D2:3:ARG:CZ	49:D2:3:ARG:HA	2.46	0.46
1:AA:572:A:N3	1:AA:917:G:H1'	2.31	0.46
1:AA:677:U:H3	1:AA:713:G:H22	1.63	0.46
5:AF:43:GLY:HA2	5:AF:58:HIS:CD2	2.51	0.46
7:AH:82:LEU:HD13	7:AH:82:LEU:O	2.16	0.46
9:AJ:6:ILE:HB	9:AJ:76:ILE:HD11	1.98	0.46
11:AL:113:ARG:NE	11:AL:120:ARG:HA	2.30	0.46
14:AO:69:LEU:HD11	14:AO:76:ARG:CB	2.46	0.46
20:AB:83:ALA:C	20:AB:85:SER:H	2.24	0.46
22:BA:52:A:H3'	22:BA:53:A:C8	2.51	0.46
23:BB:20:C:H2'	23:BB:21:A:H8	1.80	0.46
23:BB:218:A:C2'	23:BB:219:A:H5'	2.46	0.46
23:BB:233:A:N6	23:BB:428:A:N6	2.62	0.46
23:BB:534:U:O2'	38:BQ:45:ALA:HA	2.15	0.46
23:BB:540:C:O2'	23:BB:541:A:H5'	2.16	0.46
23:BB:776:G:H4'	23:BB:777:G:O5'	2.16	0.46
23:BB:1401:G:H2'	23:BB:1402:U:H6	1.80	0.46
23:BB:1417:C:O5'	23:BB:1588:G:H1'	2.16	0.46
23:BB:2332:C:H1'	23:BB:2336:A:C8	2.50	0.46
23:BB:2768:U:H2'	23:BB:2769:U:O4'	2.16	0.46
26:BD:125:TRP:CE3	26:BD:125:TRP:HA	2.51	0.46
28:BF:34:THR:CG2	28:BF:89:THR:HG22	2.44	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BH:66:ASN:O	30:BH:134:VAL:HG11	2.16	0.46
31:BJ:111:LYS:CB	31:BJ:113:PRO:HD2	2.46	0.46
33:BL:133:ALA:HA	33:BL:136:GLU:HB2	1.97	0.46
34:BM:108:VAL:HG22	34:BM:109:PRO:HD2	1.97	0.46
39:BR:80:ARG:O	39:BR:81:LYS:HD3	2.15	0.46
40:BS:24:ILE:HD11	40:BS:36:LEU:HD21	1.97	0.46
43:BW:56:HIS:O	43:BW:57:THR:C	2.59	0.46
52:BI:29:GLN:HA	52:BI:29:GLN:NE2	2.31	0.46
1:CA:175:C:H2'	1:CA:176:C:H6	1.78	0.46
1:CA:450:G:N7	1:CA:481:G:O6	2.49	0.46
1:CA:462:G:H5'	1:CA:463:U:P	2.55	0.46
1:CA:593:U:O2'	1:CA:594:U:H5'	2.16	0.46
1:CA:627:G:H2'	1:CA:628:G:H8	1.81	0.46
1:CA:642:A:C5	7:CH:106:SER:HA	2.51	0.46
1:CA:865:A:H2'	1:CA:866:C:C6	2.51	0.46
1:CA:970:C:H42	8:CI:128:LYS:HG2	1.79	0.46
1:CA:1096:C:H2'	1:CA:1097:C:H6	1.81	0.46
1:CA:1250:A:C2	1:CA:1370:G:H1'	2.51	0.46
1:CA:1495:U:O2'	1:CA:1496:C:H5'	2.16	0.46
3:CD:25:ARG:HD3	3:CD:26:ALA:HB3	1.97	0.46
3:CD:61:ARG:HG3	3:CD:71:PHE:CD2	2.51	0.46
5:CF:3:HIS:CD2	5:CF:65:GLU:HG3	2.49	0.46
5:CF:32:ALA:O	5:CF:33:GLU:HB2	2.16	0.46
6:CG:129:ASN:HD22	6:CG:137:ARG:HH22	1.64	0.46
12:CM:10:ASP:CA	12:CM:44:ILE:HD13	2.42	0.46
12:CM:106:ARG:HD3	12:CM:111:PRO:HA	1.97	0.46
13:CN:12:ARG:NE	13:CN:58:ARG:HH12	2.14	0.46
19:CT:64:GLY:O	19:CT:66:ILE:N	2.48	0.46
20:CB:18:GLN:C	20:CB:37:VAL:HG23	2.41	0.46
23:DB:129:C:H2'	23:DB:130:C:H6	1.81	0.46
23:DB:418:C:O2'	23:DB:419:U:H5'	2.16	0.46
23:DB:560:C:H2'	23:DB:561:G:O4'	2.16	0.46
23:DB:1365:A:O3'	46:DZ:11:ARG:NH1	2.49	0.46
23:DB:1506:U:H2'	23:DB:1507:C:C6	2.51	0.46
23:DB:1523:U:H5''	23:DB:1524:G:C8	2.51	0.46
23:DB:1541:C:H2'	23:DB:1542:U:H6	1.80	0.46
23:DB:1601:G:O2'	23:DB:1602:U:H5'	2.15	0.46
23:DB:1846:G:N2	23:DB:1848:A:N6	2.64	0.46
23:DB:1940:U:O2	23:DB:1940:U:H5''	2.16	0.46
23:DB:2386:A:N3	43:DW:38:ARG:HB3	2.30	0.46
24:DV:48:MET:O	24:DV:51:GLN:HG3	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DF:1:ALA:O	28:DF:4:HIS:HB3	2.16	0.46
28:DF:165:GLY:O	28:DF:169:LEU:HD12	2.16	0.46
29:DG:9:VAL:HA	29:DG:48:THR:CG2	2.46	0.46
30:DH:9:VAL:HG11	30:DH:12:LEU:HG	1.98	0.46
30:DH:119:ASN:ND2	30:DH:121:VAL:HG22	2.31	0.46
32:DK:99:ILE:HD13	32:DK:118:LEU:HD22	1.97	0.46
33:DL:29:LYS:C	33:DL:31:GLY:N	2.72	0.46
33:DL:80:SER:HB3	33:DL:115:GLU:CD	2.41	0.46
34:DM:68:PHE:CG	34:DM:69:PRO:HD2	2.51	0.46
36:DO:16:ARG:C	36:DO:18:LEU:N	2.74	0.46
37:DP:19:PHE:CE2	37:DP:83:ILE:HD11	2.50	0.46
41:DT:55:VAL:HG13	41:DT:85:VAL:HG12	1.97	0.46
43:DW:18:LYS:HA	43:DW:18:LYS:HD2	1.71	0.46
43:DW:32:ALA:O	43:DW:34:SER:N	2.48	0.46
43:DW:65:LYS:N	43:DW:84:GLU:HB3	2.31	0.46
44:DX:1:MET:HE3	44:DX:1:MET:N	2.31	0.46
49:D2:41:ARG:O	49:D2:42:LEU:C	2.59	0.46
1:AA:25:C:H5'	1:AA:524:G:H1'	1.98	0.45
1:AA:89:U:H3'	1:AA:90:C:C6	2.50	0.45
1:AA:213:G:H3'	1:AA:214:C:H6	1.81	0.45
1:AA:571:U:O2	1:AA:918:A:H5'	2.15	0.45
1:AA:936:C:H2'	1:AA:937:A:O4'	2.16	0.45
1:AA:960:U:H6	1:AA:1222:G:O2'	1.99	0.45
1:AA:1130:A:H2'	1:AA:1131:G:C8	2.51	0.45
1:AA:1226:C:H3'	12:AM:101:THR:OG1	2.16	0.45
1:AA:1415:G:O2'	1:AA:1416:G:H5'	2.16	0.45
4:AE:106:ALA:HB1	4:AE:110:MET:CB	2.47	0.45
11:AL:24:GLU:HB2	11:AL:26:CYS:SG	2.57	0.45
12:AM:2:ARG:HD3	12:AM:2:ARG:N	2.30	0.45
12:AM:9:PRO:HB2	12:AM:17:ALA:HB1	1.97	0.45
14:AO:39:GLN:HE22	23:BB:716:A:H1'	1.81	0.45
14:AO:80:LEU:HD23	14:AO:80:LEU:C	2.41	0.45
23:BB:990:A:H1'	23:BB:1156:A:C2	2.51	0.45
23:BB:1258:U:H2'	23:BB:1259:G:H8	1.81	0.45
23:BB:1534:U:H2'	23:BB:1536:C:C5	2.51	0.45
23:BB:1545:A:H2'	23:BB:1546:G:O4'	2.15	0.45
23:BB:1845:G:O2'	23:BB:1846:G:H5'	2.16	0.45
25:BC:171:VAL:HG23	25:BC:185:ALA:HB2	1.97	0.45
28:BF:115:GLY:HA3	28:BF:177:ARG:HB2	1.97	0.45
30:BH:40:THR:C	30:BH:42:LYS:H	2.21	0.45
30:BH:68:ARG:HB2	30:BH:134:VAL:HB	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BJ:43:GLU:O	31:BJ:44:TYR:C	2.58	0.45
32:BK:61:VAL:HG11	32:BK:112:PHE:CE2	2.50	0.45
32:BK:75:SER:HA	37:BP:72:VAL:O	2.16	0.45
33:BL:120:VAL:O	33:BL:135:ILE:HD11	2.16	0.45
35:BN:12:ARG:HA	35:BN:12:ARG:HD2	1.71	0.45
42:BU:40:LEU:HA	42:BU:60:LYS:O	2.15	0.45
46:BZ:35:SER:HA	46:BZ:49:LEU:O	2.16	0.45
46:BZ:65:ASP:O	46:BZ:69:ALA:HB2	2.16	0.45
48:B1:49:LYS:O	48:B1:50:GLU:HB3	2.16	0.45
49:B2:3:ARG:HH21	49:B2:3:ARG:HG2	1.82	0.45
52:BI:35:MET:SD	52:BI:35:MET:C	2.99	0.45
1:CA:255:G:H5'	16:CQ:17:GLU:O	2.16	0.45
1:CA:292:G:O2'	1:CA:609:A:N6	2.49	0.45
1:CA:373:A:H1'	1:CA:481:G:H1'	1.98	0.45
1:CA:821:G:O2'	1:CA:822:U:H5'	2.16	0.45
1:CA:940:C:H2'	1:CA:941:G:C8	2.52	0.45
1:CA:1072:G:H2'	1:CA:1073:U:C6	2.51	0.45
1:CA:1278:G:H4'	1:CA:1279:G:O4'	2.15	0.45
1:CA:1456:A:H2'	1:CA:1457:G:O4'	2.17	0.45
2:CC:63:ILE:O	2:CC:65:VAL:HG23	2.16	0.45
4:CE:131:ASN:O	4:CE:135:VAL:HG23	2.16	0.45
6:CG:80:GLY:C	6:CG:82:SER:H	2.25	0.45
10:CK:122:PRO:HG2	21:CU:34:ARG:HA	1.97	0.45
10:CK:124:LYS:HA	21:CU:34:ARG:CG	2.46	0.45
11:CL:82:ARG:HG2	11:CL:82:ARG:NH1	2.29	0.45
12:CM:30:LYS:HG3	12:CM:40:GLU:OE1	2.16	0.45
13:CN:26:LEU:HD23	13:CN:27:LYS:N	2.31	0.45
20:CB:18:GLN:HB2	20:CB:188:THR:OG1	2.16	0.45
20:CB:71:THR:HG23	20:CB:94:ARG:H	1.78	0.45
20:CB:75:ALA:O	20:CB:76:SER:C	2.59	0.45
20:CB:151:LYS:HG3	20:CB:152:ASP:N	2.31	0.45
20:CB:187:ASP:OD1	20:CB:203:ASP:HB3	2.16	0.45
21:CU:20:ARG:HG3	21:CU:24:LYS:HG3	1.99	0.45
22:DA:7:G:H5''	36:DO:29:HIS:CD2	2.51	0.45
23:DB:571:U:O2'	23:DB:573:U:O5'	2.34	0.45
23:DB:935:C:H2'	23:DB:936:A:H8	1.81	0.45
23:DB:1060:U:H5	52:DI:131:THR:CG2	2.29	0.45
23:DB:1100:C:H41	52:DI:1:ALA:N	2.13	0.45
23:DB:1197:G:H2'	23:DB:1198:U:C6	2.51	0.45
23:DB:1259:G:O2'	23:DB:1260:A:H5'	2.16	0.45
23:DB:2345:G:H4'	23:DB:2346:A:O5'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2500:U:H5'	23:DB:2501:C:OP2	2.16	0.45
23:DB:2547:A:H4'	32:DK:29:HIS:CE1	2.51	0.45
23:DB:2553:G:H2'	23:DB:2554:U:C4'	2.46	0.45
23:DB:2580:U:H5'	26:DD:136:ASN:H	1.81	0.45
23:DB:2591:C:OP1	25:DC:237:ARG:HG3	2.16	0.45
27:DE:141:MET:O	27:DE:143:LEU:HG	2.16	0.45
28:DF:23:SER:O	28:DF:26:GLN:HB2	2.16	0.45
28:DF:31:GLU:HB2	28:DF:158:THR:HG22	1.98	0.45
28:DF:34:THR:OG1	28:DF:154:THR:HB	2.16	0.45
28:DF:81:GLY:O	28:DF:82:TYR:C	2.59	0.45
28:DF:83:PRO:O	28:DF:84:ILE:HD12	2.16	0.45
28:DF:168:LEU:O	28:DF:170:ALA:N	2.49	0.45
29:DG:10:VAL:CG2	29:DG:48:THR:HA	2.46	0.45
29:DG:102:ILE:HG13	29:DG:116:LEU:HD11	1.98	0.45
31:DJ:43:GLU:O	31:DJ:45:THR:HG22	2.16	0.45
33:DL:131:ALA:O	33:DL:134:ALA:HB3	2.16	0.45
35:DN:14:SER:O	35:DN:18:GLN:HB2	2.15	0.45
35:DN:24:MET:CE	35:DN:40:LYS:HB3	2.45	0.45
35:DN:29:VAL:HG21	35:DN:75:ILE:HB	1.98	0.45
36:DO:39:VAL:HB	36:DO:49:VAL:HG22	1.98	0.45
39:DR:60:LYS:H	39:DR:100:GLY:N	2.14	0.45
39:DR:61:ALA:CB	39:DR:98:ILE:H	2.29	0.45
41:DT:61:LEU:HG	41:DT:82:LYS:HB2	1.97	0.45
44:DX:39:GLN:HB2	44:DX:42:LEU:HD22	1.98	0.45
52:DI:72:THR:CG2	52:DI:112:LYS:HD2	2.46	0.45
1:AA:54:C:H2'	1:AA:352:C:H41	1.80	0.45
1:AA:245:U:H2'	1:AA:246:A:H5'	1.98	0.45
1:AA:328:C:H4'	1:AA:329:A:C5'	2.46	0.45
1:AA:562:U:H5''	1:AA:563:A:C4	2.51	0.45
1:AA:780:A:O2'	1:AA:781:A:H5''	2.16	0.45
1:AA:833:G:O2'	1:AA:834:U:H5'	2.16	0.45
1:AA:1181:G:H1'	1:AA:1182:G:C5	2.50	0.45
1:AA:1206:G:H4'	2:AC:191:THR:O	2.15	0.45
1:AA:1299:A:C2'	1:AA:1301:U:H1'	2.46	0.45
3:AD:159:GLU:C	3:AD:161:ALA:H	2.24	0.45
4:AE:19:ARG:O	4:AE:20:VAL:HB	2.16	0.45
5:AF:55:HIS:CD2	5:AF:56:LYS:HE3	2.51	0.45
10:AK:72:ALA:O	10:AK:75:GLU:HG2	2.17	0.45
10:AK:106:ILE:O	10:AK:107:THR:HG23	2.17	0.45
22:BA:74:U:H2'	22:BA:75:G:O4'	2.16	0.45
23:BB:322:A:H2'	27:BE:163:ASN:OD1	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:418:C:O2'	23:BB:419:U:H5'	2.16	0.45
23:BB:586:A:H5'	27:BE:84:THR:OG1	2.15	0.45
23:BB:830:G:H1	23:BB:2446:G:C4'	2.29	0.45
23:BB:862:G:H2'	23:BB:863:A:O4'	2.16	0.45
23:BB:1056:G:H8	23:BB:1056:G:O5'	2.00	0.45
23:BB:1061:U:O4	52:BI:10:LEU:HA	2.16	0.45
23:BB:1249:U:C4'	38:BQ:3:VAL:HG21	2.46	0.45
23:BB:1324:G:H1'	23:BB:1616:A:C6	2.51	0.45
23:BB:1387:A:H2'	23:BB:1388:G:C8	2.51	0.45
23:BB:1465:G:H2'	23:BB:1466:U:C6	2.50	0.45
23:BB:1541:C:H2'	23:BB:1542:U:C6	2.51	0.45
23:BB:1541:C:H2'	23:BB:1542:U:H6	1.81	0.45
23:BB:1970:A:H1'	23:BB:1972:G:C8	2.51	0.45
23:BB:2227:A:H5''	25:BC:260:LYS:HD2	1.98	0.45
23:BB:2840:C:H5''	35:BN:53:THR:HG21	1.97	0.45
23:BB:2892:G:H5''	23:BB:2894:G:N2	2.31	0.45
24:BV:61:LEU:O	24:BV:71:LYS:HA	2.16	0.45
26:BD:118:PHE:O	26:BD:119:ALA:CB	2.62	0.45
26:BD:161:MET:O	26:BD:162:ALA:C	2.58	0.45
27:BE:141:MET:O	27:BE:143:LEU:HG	2.16	0.45
28:BF:19:PHE:HE1	28:BF:167:ALA:HB2	1.81	0.45
28:BF:147:ARG:HD2	28:BF:148:VAL:HG22	1.97	0.45
31:BJ:11:VAL:HG21	31:BJ:13:ARG:NH1	2.32	0.45
32:BK:86:LEU:H	32:BK:86:LEU:CD2	2.20	0.45
32:BK:88:ASN:ND2	32:BK:89:ASN:N	2.64	0.45
32:BK:99:ILE:HG12	32:BK:115:ILE:HG13	1.99	0.45
33:BL:29:LYS:C	33:BL:31:GLY:N	2.74	0.45
33:BL:54:GLN:O	33:BL:56:PRO:HD3	2.16	0.45
36:BO:51:ALA:CB	36:BO:81:ARG:HH11	2.29	0.45
38:BQ:26:ALA:HA	38:BQ:29:ARG:CG	2.45	0.45
39:BR:49:ILE:CG2	39:BR:54:VAL:HB	2.47	0.45
39:BR:79:ARG:NE	39:BR:80:ARG:NH2	2.64	0.45
40:BS:47:VAL:HG12	40:BS:103:ILE:HG21	1.98	0.45
42:BU:38:ILE:HG13	42:BU:39:ASN:N	2.31	0.45
43:BW:9:THR:HG23	43:BW:10:ARG:CD	2.36	0.45
46:BZ:32:ASN:O	46:BZ:33:LEU:O	2.34	0.45
49:B2:22:MET:HE2	49:B2:31:LEU:HD12	1.98	0.45
1:CA:79:G:O2'	1:CA:80:A:H5'	2.16	0.45
1:CA:81:A:C2'	1:CA:82:G:H5'	2.46	0.45
1:CA:545:C:H2'	1:CA:546:A:C8	2.51	0.45
1:CA:574:A:H1'	1:CA:883:C:O4'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:677:U:H3	1:CA:713:G:H22	1.62	0.45
1:CA:847:G:H2'	1:CA:848:C:H6	1.81	0.45
1:CA:922:G:H2'	1:CA:923:A:C8	2.50	0.45
1:CA:1163:A:H2'	1:CA:1164:G:C8	2.52	0.45
1:CA:1451:U:O3'	1:CA:1452:C:H6	2.00	0.45
6:CG:120:ALA:O	6:CG:123:LEU:HB2	2.16	0.45
6:CG:137:ARG:HG2	6:CG:141:HIS:NE2	2.31	0.45
7:CH:23:ALA:CB	7:CH:61:THR:HA	2.46	0.45
7:CH:94:VAL:HG12	7:CH:99:GLY:HA3	1.98	0.45
8:CI:9:GLY:HA2	8:CI:80:HIS:CD2	2.51	0.45
8:CI:56:MET:HA	8:CI:59:LYS:HB2	1.97	0.45
8:CI:87:MET:HA	8:CI:90:ASP:O	2.16	0.45
11:CL:66:ILE:CG2	11:CL:71:HIS:HB3	2.44	0.45
16:CQ:18:LYS:HG2	16:CQ:48:GLU:O	2.16	0.45
20:CB:172:ILE:CG2	20:CB:176:ASN:HD21	2.28	0.45
22:DA:42:C:C4	28:DF:65:LEU:HD22	2.51	0.45
22:DA:60:C:O2'	22:DA:61:G:H5'	2.17	0.45
23:DB:98:G:H1	42:DU:6:ARG:HH12	1.64	0.45
23:DB:244:A:H1'	23:DB:255:A:N6	2.31	0.45
23:DB:434:U:H1'	23:DB:435:C:H5	1.81	0.45
23:DB:858:G:H21	23:DB:2268:A:C3'	2.29	0.45
23:DB:988:A:H3'	45:DY:13:ILE:HD11	1.97	0.45
23:DB:1052:C:O2'	23:DB:1053:C:H5'	2.16	0.45
23:DB:1283:G:H22	23:DB:1286:A:C5'	2.13	0.45
23:DB:1463:C:H2'	23:DB:1464:G:C8	2.51	0.45
23:DB:1544:A:H2'	23:DB:1545:A:C8	2.51	0.45
23:DB:1547:C:H2'	23:DB:1548:A:H8	1.81	0.45
23:DB:1687:G:O2'	23:DB:1688:U:H5'	2.15	0.45
23:DB:1915:U:H2'	23:DB:1916:A:C8	2.52	0.45
24:DV:77:VAL:HG23	24:DV:89:ILE:CG2	2.47	0.45
25:DC:107:LYS:O	25:DC:109:LEU:HD22	2.17	0.45
25:DC:109:LEU:O	25:DC:110:LYS:C	2.59	0.45
27:DE:112:LEU:C	27:DE:114:ARG:N	2.75	0.45
29:DG:33:THR:HG21	29:DG:74:MET:HB3	1.98	0.45
31:DJ:20:ALA:CB	31:DJ:23:LYS:HB2	2.45	0.45
32:DK:2:ILE:HD12	32:DK:2:ILE:N	2.31	0.45
33:DL:78:ARG:NH2	33:DL:113:ALA:HB1	2.30	0.45
35:DN:73:ASN:O	35:DN:76:VAL:HG22	2.17	0.45
35:DN:87:PHE:C	35:DN:89:SER:H	2.25	0.45
41:DT:62:VAL:HG12	41:DT:63:VAL:H	1.82	0.45
42:DU:51:LEU:O	42:DU:52:ASN:C	2.60	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DU:95:PHE:HE1	42:DU:102:ILE:HB	1.81	0.45
46:DZ:68:LEU:HD22	46:DZ:78:TYR:CE1	2.52	0.45
48:D1:28:THR:C	48:D1:30:PRO:HD3	2.41	0.45
52:DI:10:LEU:HD12	52:DI:10:LEU:C	2.40	0.45
52:DI:46:ASP:HA	52:DI:50:LYS:HE2	1.97	0.45
1:AA:9:G:H5'	4:AE:107:GLY:HA3	1.98	0.45
1:AA:14:U:H5''	56:AA:2180:HOH:O	2.16	0.45
1:AA:254:G:O2'	1:AA:255:G:H5'	2.15	0.45
1:AA:754:C:H3'	1:AA:754:C:O2	2.16	0.45
1:AA:908:A:H2'	1:AA:909:A:C8	2.51	0.45
1:AA:1004:A:H2'	1:AA:1005:A:O4'	2.16	0.45
1:AA:1261:A:H1'	1:AA:1275:A:N1	2.31	0.45
5:AF:97:THR:HG22	5:AF:98:GLU:N	2.31	0.45
7:AH:12:ARG:NH1	7:AH:26:MET:HB3	2.31	0.45
8:AI:52:GLU:O	8:AI:53:LEU:HD13	2.16	0.45
10:AK:19:VAL:HG22	10:AK:34:THR:O	2.17	0.45
16:AQ:18:LYS:HG2	16:AQ:48:GLU:O	2.17	0.45
19:AT:32:LYS:O	19:AT:33:LYS:C	2.59	0.45
19:AT:35:TYR:CG	19:AT:36:ALA:N	2.84	0.45
20:AB:209:VAL:HG23	20:AB:210:THR:N	2.28	0.45
22:BA:30:C:H1'	22:BA:58:A:N1	2.32	0.45
22:BA:95:U:H2'	22:BA:96:G:H8	1.79	0.45
23:BB:275:C:C2'	23:BB:276:U:H5'	2.46	0.45
23:BB:345:A:H1'	23:BB:346:A:H2	1.80	0.45
23:BB:545:U:H2'	23:BB:547:A:P	2.57	0.45
23:BB:545:U:O5'	23:BB:545:U:H6	2.00	0.45
23:BB:584:C:N4	23:BB:585:G:C6	2.84	0.45
23:BB:643:A:C4	48:B1:43:ARG:HD2	2.50	0.45
23:BB:855:G:N3	43:BW:23:LYS:HE3	2.31	0.45
23:BB:921:C:H2'	23:BB:922:C:C6	2.51	0.45
23:BB:1025:G:OP1	23:BB:1025:G:H8	1.98	0.45
23:BB:1252:G:O3'	38:BQ:32:ARG:NH1	2.50	0.45
23:BB:1488:C:O2'	23:BB:1489:C:H5'	2.17	0.45
23:BB:1601:G:O2'	23:BB:1602:U:H5'	2.17	0.45
23:BB:2199:A:H3'	23:BB:2200:C:C6	2.51	0.45
23:BB:2221:G:O2'	23:BB:2222:C:H5'	2.15	0.45
23:BB:2411:A:H2'	23:BB:2412:A:H8	1.81	0.45
23:BB:2674:G:H2'	23:BB:2675:A:H8	1.81	0.45
23:BB:2729:G:H1'	26:BD:192:ALA:HB3	1.98	0.45
23:BB:2751:G:N3	23:BB:2751:G:C2'	2.76	0.45
24:BV:16:ALA:HA	24:BV:19:ARG:HH21	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BC:140:VAL:CG2	25:BC:163:ILE:HG12	2.46	0.45
25:BC:165:ALA:HB3	25:BC:172:THR:HG23	1.99	0.45
26:BD:26:VAL:HG13	26:BD:188:LEU:CD2	2.46	0.45
27:BE:150:THR:O	27:BE:192:ALA:HB2	2.17	0.45
28:BF:34:THR:OG1	28:BF:154:THR:HB	2.15	0.45
28:BF:103:ILE:HD11	28:BF:174:PHE:CD1	2.51	0.45
30:BH:127:GLU:HG3	30:BH:143:ILE:CB	2.39	0.45
33:BL:42:SER:C	33:BL:44:GLY:N	2.74	0.45
36:BO:111:ARG:HG2	36:BO:117:PHE:CE2	2.50	0.45
37:BP:56:SER:HB2	37:BP:75:THR:HB	1.98	0.45
39:BR:95:ASP:O	39:BR:96:VAL:HG13	2.16	0.45
42:BU:26:ASN:ND2	42:BU:34:ILE:HD12	2.23	0.45
42:BU:90:LYS:O	42:BU:92:VAL:HG23	2.16	0.45
49:B2:34:ARG:NE	49:B2:39:ARG:HG2	2.30	0.45
52:BI:135:MET:HG3	52:BI:137:LEU:HG	1.98	0.45
1:CA:889:A:N1	1:CA:907:A:H5''	2.32	0.45
1:CA:1024:G:H2'	1:CA:1025:U:C6	2.52	0.45
1:CA:1305:G:H22	1:CA:1331:G:H2'	1.81	0.45
1:CA:1480:A:O2'	1:CA:1481:U:H5'	2.17	0.45
3:CD:7:LYS:HB3	3:CD:20:LEU:HB3	1.97	0.45
3:CD:33:ILE:HG13	3:CD:34:GLU:N	2.30	0.45
5:CF:18:VAL:N	5:CF:19:PRO:HD2	2.31	0.45
8:CI:20:ILE:HD13	8:CI:85:ALA:HB3	1.99	0.45
15:CP:1:MET:HE2	15:CP:2:VAL:O	2.17	0.45
18:CS:4:LEU:HD11	18:CS:9:PHE:HB3	1.97	0.45
18:CS:42:ASN:N	18:CS:42:ASN:ND2	2.62	0.45
21:CU:25:ALA:O	21:CU:27:VAL:N	2.49	0.45
22:DA:27:C:C2'	22:DA:28:C:H5'	2.46	0.45
22:DA:32:U:H2'	22:DA:33:G:C8	2.51	0.45
22:DA:76:G:H1	22:DA:101:A:N6	2.15	0.45
23:DB:55:G:H2'	23:DB:56:A:H8	1.81	0.45
23:DB:160:A:H1'	23:DB:2208:C:O2'	2.17	0.45
23:DB:256:A:H2'	23:DB:257:C:H6	1.81	0.45
23:DB:717:C:C3'	23:DB:718:A:H5''	2.46	0.45
23:DB:765:C:H2'	23:DB:766:U:C6	2.51	0.45
23:DB:769:U:H2'	23:DB:770:G:C8	2.51	0.45
23:DB:1596:A:O2'	23:DB:1597:A:H5'	2.17	0.45
23:DB:1708:C:O2'	23:DB:1709:U:H5'	2.17	0.45
23:DB:2256:G:O2'	23:DB:2257:U:H5'	2.16	0.45
23:DB:2452:C:C4	23:DB:2453:A:C6	3.04	0.45
23:DB:2496:C:H2'	23:DB:2497:A:H5'	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DD:3:GLY:HA2	26:DD:101:PHE:CZ	2.52	0.45
26:DD:51:THR:HG22	26:DD:52:THR:N	2.27	0.45
28:DF:135:ILE:HG13	28:DF:137:PHE:H	1.81	0.45
29:DG:83:THR:HA	29:DG:84:LYS:HZ3	1.81	0.45
29:DG:88:LEU:HD13	29:DG:93:TYR:HB3	1.97	0.45
31:DJ:35:ARG:HA	31:DJ:40:HIS:NE2	2.32	0.45
35:DN:114:GLU:HG2	35:DN:115:LEU:N	2.32	0.45
36:DO:51:ALA:HB3	36:DO:78:VAL:HG13	1.97	0.45
36:DO:68:LYS:H	36:DO:102:ARG:CD	2.30	0.45
39:DR:22:LEU:HD12	39:DR:25:LEU:HD23	1.97	0.45
39:DR:43:ASN:HD21	39:DR:45:GLU:HG2	1.81	0.45
46:DZ:68:LEU:HD22	46:DZ:78:TYR:HE1	1.80	0.45
46:DZ:77:LYS:HG3	46:DZ:78:TYR:H	1.81	0.45
51:D4:3:VAL:HB	51:D4:37:GLN:HE22	1.81	0.45
52:DI:52:LEU:HD13	52:DI:81:LYS:NZ	2.31	0.45
52:DI:138:VAL:HG12	52:DI:139:VAL:N	2.32	0.45
1:AA:85:U:H4'	1:AA:86:G:OP1	2.16	0.45
1:AA:202:G:H2'	1:AA:203:G:C8	2.51	0.45
1:AA:255:G:H5'	16:AQ:17:GLU:O	2.16	0.45
1:AA:373:A:H1'	1:AA:481:G:H1'	1.98	0.45
1:AA:634:C:H2'	1:AA:635:A:C8	2.51	0.45
1:AA:993:G:H21	1:AA:996:A:N6	2.14	0.45
1:AA:1007:U:H2'	1:AA:1008:U:H6	1.80	0.45
1:AA:1060:U:H2'	1:AA:1061:G:C8	2.51	0.45
1:AA:1096:C:H2'	1:AA:1097:C:H6	1.81	0.45
1:AA:1122:U:H2'	1:AA:1123:U:C6	2.51	0.45
1:AA:1127:G:C2'	1:AA:1128:C:H5'	2.46	0.45
2:AC:6:PRO:HB3	2:AC:174:LEU:HD21	1.99	0.45
2:AC:134:LYS:HA	2:AC:167:TYR:HE2	1.82	0.45
4:AE:95:MET:HE1	4:AE:139:THR:CG2	2.46	0.45
6:AG:59:GLU:O	6:AG:63:VAL:HG23	2.17	0.45
7:AH:11:THR:HG22	7:AH:14:ARG:NH2	2.30	0.45
7:AH:23:ALA:CB	7:AH:61:THR:HA	2.46	0.45
7:AH:106:SER:C	7:AH:107:LYS:HE2	2.42	0.45
8:AI:29:ILE:HG23	8:AI:64:ILE:HB	1.98	0.45
8:AI:30:ASN:HD22	8:AI:65:THR:HA	1.82	0.45
10:AK:101:ALA:C	10:AK:103:GLY:H	2.24	0.45
13:AN:5:MET:SD	13:AN:8:ARG:HD3	2.56	0.45
23:BB:137:U:H3'	23:BB:138:U:C6	2.51	0.45
23:BB:437:U:H2'	23:BB:438:G:C8	2.51	0.45
23:BB:643:A:H1'	48:B1:43:ARG:HH21	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1432:G:H2'	23:BB:1433:A:C8	2.52	0.45
23:BB:1475:G:OP1	23:BB:1475:G:H3'	2.17	0.45
23:BB:1484:U:H2'	23:BB:1485:U:H6	1.80	0.45
23:BB:1657:U:O2'	26:BD:138:LEU:HD12	2.16	0.45
23:BB:1734:G:O2'	23:BB:1735:A:H5'	2.16	0.45
23:BB:1846:G:N2	23:BB:1848:A:N6	2.63	0.45
24:BV:65:VAL:C	24:BV:67:GLY:N	2.74	0.45
30:BH:112:LYS:HE3	30:BH:112:LYS:O	2.16	0.45
37:BP:54:LEU:HA	37:BP:76:HIS:HD2	1.81	0.45
41:BT:2:ILE:HG13	41:BT:3:ARG:CZ	2.47	0.45
41:BT:61:LEU:C	41:BT:61:LEU:HD12	2.40	0.45
41:BT:67:VAL:HG22	41:BT:74:ILE:HD11	1.99	0.45
49:B2:41:ARG:O	49:B2:42:LEU:C	2.59	0.45
50:B3:15:LYS:HA	50:B3:21:PHE:HA	1.97	0.45
1:CA:174:A:O2'	1:CA:175:C:H5'	2.17	0.45
1:CA:189:A:O2'	1:CA:190:A:H5'	2.16	0.45
1:CA:255:G:P	16:CQ:70:LYS:HZ3	2.40	0.45
1:CA:833:G:O2'	1:CA:834:U:H5'	2.17	0.45
1:CA:1122:U:H2'	1:CA:1123:U:C6	2.52	0.45
1:CA:1296:C:H4'	1:CA:1302:C:H42	1.82	0.45
4:CE:21:SER:CB	4:CE:28:ARG:HE	2.20	0.45
5:CF:18:VAL:O	5:CF:22:ILE:HG13	2.15	0.45
5:CF:45:ARG:NH2	17:CR:25:ILE:HD13	2.31	0.45
8:CI:10:ARG:CB	8:CI:15:ALA:HA	2.46	0.45
11:CL:31:GLY:HA3	11:CL:54:VAL:HG11	1.97	0.45
18:CS:52:ASN:HB2	18:CS:76:THR:HG22	1.98	0.45
23:DB:56:A:H2'	23:DB:57:C:C6	2.50	0.45
23:DB:465:G:H4'	49:D2:16:HIS:CD2	2.51	0.45
23:DB:566:U:H2'	23:DB:567:U:O4'	2.17	0.45
23:DB:813:U:H2'	23:DB:814:C:C6	2.52	0.45
23:DB:902:C:H2'	23:DB:903:C:C6	2.51	0.45
23:DB:1059:G:N2	52:DI:130:GLY:HA3	2.31	0.45
23:DB:1721:G:H22	23:DB:1738:G:HO2'	1.63	0.45
23:DB:2236:U:O2'	23:DB:2237:G:H5'	2.16	0.45
23:DB:2820:A:OP1	35:DN:4:ARG:HA	2.16	0.45
24:DV:19:ARG:O	24:DV:22:ALA:HB3	2.15	0.45
25:DC:264:LYS:HG3	25:DC:265:PHE:HD2	1.81	0.45
26:DD:10:GLY:HA3	26:DD:26:VAL:H	1.82	0.45
27:DE:187:VAL:HG12	27:DE:188:MET:N	2.31	0.45
28:DF:65:LEU:O	28:DF:86:CYS:HA	2.16	0.45
29:DG:23:ILE:HG22	29:DG:25:ILE:HD11	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DG:66:THR:O	29:DG:70:LEU:HB2	2.16	0.45
29:DG:132:LEU:HD12	29:DG:140:ILE:HG22	1.98	0.45
30:DH:116:ARG:HB2	30:DH:131:SER:OG	2.16	0.45
31:DJ:43:GLU:O	31:DJ:44:TYR:C	2.58	0.45
31:DJ:74:TYR:HE2	31:DJ:103:ILE:HD11	1.81	0.45
33:DL:99:ASN:HA	56:DL:201:HOH:O	2.15	0.45
35:DN:83:LEU:O	35:DN:86:ARG:HB2	2.17	0.45
36:DO:105:ALA:C	36:DO:107:ALA:H	2.24	0.45
41:DT:12:ARG:HG2	44:DX:29:ARG:HH12	1.81	0.45
44:DX:23:ARG:HD2	44:DX:27:ASN:ND2	2.28	0.45
51:D4:17:VAL:HG11	51:D4:19:ARG:HE	1.80	0.45
1:AA:175:C:H2'	1:AA:176:C:C6	2.51	0.45
1:AA:227:G:H2'	1:AA:228:A:C8	2.51	0.45
1:AA:1040:U:H2'	1:AA:1041:G:O4'	2.16	0.45
1:AA:1057:G:H5''	2:AC:153:SER:CB	2.46	0.45
1:AA:1085:U:H3'	1:AA:1086:U:C6	2.52	0.45
1:AA:1096:C:H2'	1:AA:1097:C:C6	2.51	0.45
5:AF:8:PHE:O	5:AF:60:VAL:HG23	2.16	0.45
10:AK:65:ALA:O	10:AK:68:ARG:HB3	2.16	0.45
11:AL:105:GLY:HA3	11:AL:117:GLY:O	2.17	0.45
12:AM:100:ARG:HD3	12:AM:103:THR:OG1	2.16	0.45
20:AB:18:GLN:C	20:AB:37:VAL:HG23	2.42	0.45
20:AB:120:SER:HA	20:AB:125:PHE:CB	2.47	0.45
23:BB:43:G:H2'	23:BB:44:A:O4'	2.16	0.45
23:BB:77:G:O2'	23:BB:78:U:H5'	2.16	0.45
23:BB:279:A:H2'	23:BB:280:U:C5'	2.46	0.45
23:BB:592:A:H2'	23:BB:593:U:H6	1.81	0.45
23:BB:611:C:H2'	23:BB:612:G:O4'	2.17	0.45
23:BB:1072:C:N3	23:BB:1092:C:N4	2.64	0.45
23:BB:1171:G:H2'	23:BB:1172:C:H6	1.80	0.45
23:BB:1173:U:H1'	23:BB:1177:G:C2	2.52	0.45
23:BB:1472:C:H2'	23:BB:1473:G:C8	2.52	0.45
23:BB:1668:A:N3	23:BB:1670:C:C4	2.85	0.45
23:BB:1877:A:H2'	23:BB:1878:G:C8	2.51	0.45
23:BB:2148:G:H3'	23:BB:2149:U:C6	2.51	0.45
23:BB:2236:U:O2'	23:BB:2237:G:H5'	2.16	0.45
23:BB:2284:A:OP2	48:B1:5:ARG:HG3	2.15	0.45
23:BB:2594:C:O2'	23:BB:2595:G:H5'	2.17	0.45
23:BB:2648:G:H2'	23:BB:2649:C:H6	1.81	0.45
25:BC:245:THR:C	25:BC:247:TRP:N	2.75	0.45
25:BC:264:LYS:HG3	25:BC:265:PHE:CD2	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BD:33:ARG:NH1	26:BD:53:GLY:O	2.49	0.45
27:BE:4:VAL:HA	27:BE:11:ALA:HA	1.99	0.45
27:BE:116:ASP:O	27:BE:119:ILE:HD11	2.16	0.45
28:BF:109:ARG:HB3	28:BF:135:ILE:HD12	1.99	0.45
28:BF:111:ARG:N	28:BF:111:ARG:CD	2.80	0.45
29:BG:11:PRO:O	29:BG:14:VAL:HG22	2.16	0.45
30:BH:70:GLU:O	30:BH:71:LYS:C	2.59	0.45
32:BK:93:GLN:CD	32:BK:94:PRO:HD2	2.41	0.45
33:BL:135:ILE:HG12	33:BL:140:GLY:HA2	1.99	0.45
34:BM:26:VAL:HG22	34:BM:133:LYS:HA	1.98	0.45
36:BO:51:ALA:HB3	36:BO:78:VAL:HG13	1.98	0.45
37:BP:50:ARG:CB	37:BP:56:SER:HB3	2.45	0.45
38:BQ:33:VAL:HG23	38:BQ:34:ALA:N	2.31	0.45
39:BR:6:GLN:HE22	39:BR:9:GLY:C	2.25	0.45
41:BT:36:LYS:HD3	41:BT:36:LYS:C	2.42	0.45
41:BT:48:GLN:HA	41:BT:48:GLN:NE2	2.30	0.45
42:BU:89:GLY:O	42:BU:90:LYS:HG3	2.16	0.45
43:BW:19:ARG:H	43:BW:19:ARG:CD	2.30	0.45
43:BW:45:HIS:ND1	43:BW:45:HIS:N	2.64	0.45
47:B0:41:HIS:CD2	47:B0:41:HIS:N	2.85	0.45
1:CA:53:A:C2	1:CA:54:C:H1'	2.50	0.45
1:CA:109:A:H4'	1:CA:110:C:OP2	2.16	0.45
1:CA:112:G:O2'	1:CA:113:G:H5'	2.17	0.45
1:CA:323:U:H2'	1:CA:324:G:O4'	2.16	0.45
1:CA:1225:A:H3'	1:CA:1226:C:C6	2.52	0.45
1:CA:1260:G:OP1	1:CA:1284:C:H4'	2.17	0.45
1:CA:1392:G:H2'	1:CA:1393:U:C6	2.51	0.45
1:CA:1432:G:H5''	37:DP:105:LYS:CG	2.45	0.45
1:CA:1435:G:H2'	1:CA:1436:U:C6	2.52	0.45
3:CD:97:LEU:HD13	3:CD:136:VAL:HG11	1.98	0.45
4:CE:19:ARG:O	4:CE:20:VAL:HB	2.16	0.45
8:CI:29:ILE:HG23	8:CI:64:ILE:HB	1.97	0.45
9:CJ:6:ILE:O	9:CJ:8:ILE:HD12	2.16	0.45
9:CJ:80:THR:HB	9:CJ:83:THR:OG1	2.16	0.45
12:CM:64:VAL:HA	12:CM:68:LEU:CD1	2.43	0.45
13:CN:20:PHE:CD2	13:CN:55:SER:HA	2.52	0.45
13:CN:30:ILE:CG2	13:CN:41:TRP:HB2	2.45	0.45
13:CN:56:PRO:C	13:CN:58:ARG:H	2.25	0.45
23:DB:121:G:H2'	23:DB:122:G:H8	1.81	0.45
23:DB:274:C:H6	23:DB:274:C:O5'	2.00	0.45
23:DB:277:G:H4'	23:DB:278:A:C6	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:942:G:H2'	23:DB:943:A:O4'	2.16	0.45
23:DB:1098:A:H2'	52:DI:3:LYS:C	2.41	0.45
23:DB:1432:G:O2'	23:DB:1433:A:H5'	2.17	0.45
23:DB:2261:C:O2'	23:DB:2262:U:H5'	2.17	0.45
23:DB:2306:C:C5	23:DB:2307:G:H2'	2.52	0.45
23:DB:2655:G:N2	23:DB:2664:G:H2'	2.32	0.45
24:DV:42:LEU:HD23	24:DV:42:LEU:N	2.32	0.45
25:DC:129:LEU:HD21	25:DC:133:ASN:HB2	1.99	0.45
27:DE:48:THR:O	27:DE:52:VAL:HG23	2.17	0.45
27:DE:149:ILE:HG23	27:DE:188:MET:HA	1.99	0.45
28:DF:45:ASP:C	28:DF:47:LYS:H	2.25	0.45
29:DG:156:TYR:O	29:DG:157:LYS:HD2	2.17	0.45
31:DJ:57:LEU:HG	31:DJ:128:ASN:N	2.31	0.45
31:DJ:83:GLY:O	31:DJ:84:ILE:C	2.60	0.45
35:DN:65:LEU:HD11	35:DN:69:ARG:NH2	2.31	0.45
38:DQ:23:TYR:CD2	38:DQ:23:TYR:N	2.83	0.45
40:DS:41:LYS:O	40:DS:43:ALA:N	2.49	0.45
42:DU:26:ASN:ND2	42:DU:34:ILE:HD12	2.28	0.45
50:D3:61:LEU:N	50:D3:62:PRO:HD3	2.32	0.45
1:AA:154:U:H2'	1:AA:155:A:H8	1.77	0.45
1:AA:1260:G:OP1	1:AA:1284:C:H4'	2.16	0.45
2:AC:110:LEU:HD21	2:AC:140:ALA:O	2.16	0.45
5:AF:68:GLN:HA	5:AF:71:ILE:HD11	1.98	0.45
7:AH:58:LEU:CD2	7:AH:60:LEU:HB2	2.47	0.45
8:AI:49:GLN:HA	8:AI:52:GLU:HG2	1.99	0.45
13:AN:10:VAL:C	13:AN:11:LYS:HZ3	2.24	0.45
16:AQ:39:ARG:HG3	16:AQ:39:ARG:NH1	2.29	0.45
21:AU:26:GLY:O	21:AU:30:GLU:HB3	2.16	0.45
23:BB:877:A:C2	23:BB:900:A:N7	2.84	0.45
23:BB:1177:G:H2'	23:BB:1178:C:C6	2.52	0.45
23:BB:1444:G:H2'	23:BB:1445:G:H8	1.80	0.45
23:BB:1523:U:H5''	23:BB:1524:G:C8	2.51	0.45
23:BB:1849:G:H2'	23:BB:1850:G:C8	2.51	0.45
23:BB:2146:C:C1'	23:BB:2147:A:H5'	2.45	0.45
25:BC:41:GLY:O	25:BC:48:ILE:HA	2.16	0.45
26:BD:101:PHE:O	26:BD:180:VAL:HG11	2.16	0.45
27:BE:5:LEU:HB2	27:BE:11:ALA:H	1.82	0.45
27:BE:152:GLU:O	27:BE:153:LEU:HB3	2.16	0.45
28:BF:126:ASN:HB3	28:BF:156:THR:CB	2.47	0.45
29:BG:39:ALA:O	29:BG:54:ARG:HB2	2.17	0.45
29:BG:91:VAL:HG23	29:BG:92:GLY:H	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BG:148:ARG:HA	29:BG:161:VAL:CB	2.43	0.45
30:BH:61:VAL:O	30:BH:63:ALA:N	2.49	0.45
31:BJ:140:LEU:HD23	31:BJ:141:ASP:N	2.32	0.45
36:BO:51:ALA:CB	36:BO:78:VAL:HG13	2.47	0.45
36:BO:68:LYS:H	36:BO:102:ARG:HD3	1.82	0.45
37:BP:4:ILE:O	37:BP:6:GLN:N	2.46	0.45
39:BR:2:TYR:HB2	39:BR:42:ALA:CB	2.40	0.45
40:BS:2:GLU:O	40:BS:3:THR:C	2.60	0.45
42:BU:11:ILE:CG2	42:BU:70:ALA:HB3	2.45	0.45
43:BW:23:LYS:O	43:BW:66:VAL:HB	2.17	0.45
50:B3:26:ALA:O	50:B3:27:ASN:C	2.59	0.45
1:CA:16:A:N1	1:CA:919:A:H2	2.15	0.45
1:CA:25:C:C5'	1:CA:524:G:H1'	2.47	0.45
1:CA:409:U:OP1	3:CD:23:GLY:HA3	2.16	0.45
1:CA:429:U:H5'	3:CD:8:LEU:CG	2.38	0.45
1:CA:936:C:H2'	1:CA:937:A:O4'	2.16	0.45
1:CA:1013:G:H2'	1:CA:1015:G:OP2	2.16	0.45
1:CA:1014:A:N3	1:CA:1219:A:H1'	2.31	0.45
1:CA:1159:U:O4'	1:CA:1182:G:N2	2.50	0.45
1:CA:1527:U:H2'	1:CA:1528:U:C6	2.52	0.45
3:CD:125:ASN:OD1	3:CD:140:ASP:HA	2.17	0.45
3:CD:162:GLU:HA	3:CD:166:LYS:NZ	2.32	0.45
5:CF:47:LEU:HD21	5:CF:57:ALA:CB	2.47	0.45
5:CF:93:LYS:O	5:CF:94:HIS:HB2	2.16	0.45
6:CG:72:VAL:HG12	6:CG:89:GLU:CA	2.47	0.45
8:CI:9:GLY:HA2	8:CI:80:HIS:HD2	1.81	0.45
12:CM:15:VAL:HG22	12:CM:33:LEU:CD1	2.47	0.45
15:CP:2:VAL:O	15:CP:65:ALA:HA	2.16	0.45
15:CP:12:LYS:C	15:CP:14:ARG:H	2.24	0.45
20:CB:117:GLU:HA	20:CB:140:LEU:CD2	2.45	0.45
23:DB:117:G:C5'	23:DB:126:A:H8	2.20	0.45
23:DB:178:G:O2'	23:DB:179:C:H5'	2.17	0.45
23:DB:307:G:H2'	23:DB:309:A:OP2	2.16	0.45
23:DB:503:A:C2	23:DB:505:A:C4	3.05	0.45
23:DB:904:G:H2'	23:DB:905:A:C8	2.51	0.45
23:DB:990:A:H1'	23:DB:1156:A:C2	2.52	0.45
23:DB:1056:G:H5''	23:DB:1057:A:H5'	1.98	0.45
23:DB:1482:G:N2	23:DB:1508:A:H1'	2.31	0.45
23:DB:1515:A:H2'	23:DB:1516:G:O4'	2.16	0.45
23:DB:1565:C:H5''	25:DC:17:LYS:HZ1	1.81	0.45
23:DB:1737:G:H5'	23:DB:1738:G:OP2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2109:U:C2	23:DB:2110:G:H5''	2.51	0.45
23:DB:2557:G:H2'	23:DB:2558:C:H6	1.79	0.45
23:DB:2594:C:O2'	23:DB:2595:G:H5'	2.17	0.45
25:DC:189:ALA:C	25:DC:190:THR:HG23	2.41	0.45
27:DE:115:GLN:O	27:DE:117:ARG:HG3	2.16	0.45
27:DE:198:GLU:O	27:DE:199:MET:C	2.60	0.45
30:DH:119:ASN:O	30:DH:121:VAL:HG23	2.16	0.45
30:DH:121:VAL:C	30:DH:122:LEU:HD22	2.41	0.45
32:DK:109:SER:OG	32:DK:111:LYS:HG2	2.17	0.45
33:DL:50:PHE:CE2	33:DL:53:GLY:HA2	2.52	0.45
34:DM:19:GLY:C	34:DM:97:GLN:HG3	2.41	0.45
35:DN:31:HIS:O	35:DN:32:GLU:HB2	2.17	0.45
36:DO:18:LEU:HD23	36:DO:25:ARG:HD2	1.99	0.45
38:DQ:16:ILE:C	38:DQ:18:LYS:H	2.24	0.45
39:DR:38:VAL:O	39:DR:53:PHE:HB3	2.16	0.45
43:DW:50:VAL:HG23	43:DW:51:GLY:H	1.80	0.45
46:DZ:70:GLU:O	46:DZ:72:ARG:N	2.46	0.45
1:AA:53:A:C2	1:AA:54:C:H1'	2.52	0.45
1:AA:79:G:C2'	1:AA:80:A:N7	2.79	0.45
1:AA:241:G:O2'	1:AA:242:G:H5'	2.16	0.45
1:AA:333:U:H2'	1:AA:334:C:C6	2.52	0.45
1:AA:364:A:H2'	1:AA:365:U:O2	2.16	0.45
1:AA:496:A:H2'	1:AA:497:G:C8	2.51	0.45
1:AA:552:U:H5'	11:AL:82:ARG:HH11	1.81	0.45
1:AA:1266:G:N2	1:AA:1268:G:H3'	2.32	0.45
1:AA:1363:A:N3	1:AA:1363:A:H2'	2.31	0.45
6:AG:13:PRO:O	6:AG:18:GLY:HA2	2.17	0.45
8:AI:9:GLY:HA2	8:AI:80:HIS:CD2	2.51	0.45
10:AK:122:PRO:HD2	21:AU:35:GLU:HG2	1.99	0.45
12:AM:80:MET:C	12:AM:82:LEU:H	2.24	0.45
19:AT:50:PHE:C	19:AT:52:GLU:H	2.24	0.45
20:AB:94:ARG:HE	20:AB:94:ARG:N	2.15	0.45
20:AB:160:LEU:HD22	20:AB:182:VAL:HA	1.97	0.45
23:BB:26:G:H1'	23:BB:514:A:N6	2.31	0.45
23:BB:111:A:H2'	23:BB:112:U:O4'	2.16	0.45
23:BB:160:A:H1'	23:BB:2208:C:O2'	2.16	0.45
23:BB:220:G:H1	23:BB:427:U:H2'	1.82	0.45
23:BB:242:G:H5'	50:B3:63:TYR:CD1	2.52	0.45
23:BB:705:A:N6	23:BB:726:G:H1'	2.31	0.45
23:BB:726:G:H5''	23:BB:1432:G:O2'	2.17	0.45
23:BB:770:G:OP2	49:B2:11:LYS:HE2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1207:C:H2'	23:BB:1208:C:H6	1.82	0.45
23:BB:1689:A:O2'	23:BB:1690:A:H5'	2.17	0.45
23:BB:1730:C:H1'	23:BB:1731:G:N2	2.32	0.45
23:BB:2201:G:O2'	23:BB:2202:U:H5'	2.16	0.45
23:BB:2489:U:O2'	23:BB:2490:G:H5'	2.16	0.45
23:BB:2808:G:O2'	23:BB:2809:A:H8	1.99	0.45
24:BV:49:ASN:O	24:BV:52:ALA:HB3	2.17	0.45
25:BC:6:LYS:O	25:BC:8:THR:HG23	2.16	0.45
25:BC:115:ILE:HA	25:BC:124:LYS:HZ1	1.79	0.45
27:BE:148:ILE:HA	27:BE:187:VAL:HB	1.98	0.45
27:BE:155:GLU:O	27:BE:159:LEU:HB2	2.17	0.45
27:BE:176:ASP:OD1	27:BE:176:ASP:C	2.59	0.45
28:BF:94:ARG:HD3	28:BF:97:GLU:OE2	2.17	0.45
28:BF:169:LEU:O	28:BF:174:PHE:HB2	2.16	0.45
30:BH:89:LYS:HE2	30:BH:123:ARG:HB3	1.98	0.45
30:BH:114:GLU:HB2	30:BH:132:PHE:CE1	2.52	0.45
32:BK:35:VAL:HG12	32:BK:69:VAL:CG2	2.47	0.45
32:BK:117:SER:C	32:BK:118:LEU:HD12	2.42	0.45
32:BK:120:PRO:HA	37:BP:65:ASN:HD21	1.81	0.45
35:BN:31:HIS:O	35:BN:32:GLU:HB2	2.15	0.45
38:BQ:4:LYS:CE	38:BQ:7:VAL:HG22	2.46	0.45
39:BR:43:ASN:ND2	39:BR:44:GLY:N	2.64	0.45
39:BR:68:ARG:HG2	39:BR:92:TRP:HA	1.99	0.45
40:BS:14:ALA:C	40:BS:16:LYS:N	2.75	0.45
41:BT:57:VAL:HG22	41:BT:58:VAL:N	2.21	0.45
42:BU:86:PHE:HB3	42:BU:90:LYS:O	2.17	0.45
42:BU:90:LYS:O	42:BU:91:LYS:C	2.59	0.45
43:BW:70:VAL:O	43:BW:70:VAL:HG13	2.16	0.45
45:BY:55:LYS:O	45:BY:56:VAL:C	2.59	0.45
52:BI:52:LEU:HD21	52:BI:81:LYS:NZ	2.31	0.45
52:BI:107:GLU:HA	52:BI:110:GLN:OE1	2.16	0.45
1:CA:246:A:C2	1:CA:282:A:C5	3.05	0.45
1:CA:250:A:H1'	1:CA:252:U:C5	2.52	0.45
1:CA:445:G:H2'	1:CA:446:G:O4'	2.17	0.45
1:CA:708:C:H2'	1:CA:709:U:C6	2.52	0.45
1:CA:818:G:H3'	1:CA:819:A:H5''	1.99	0.45
1:CA:864:A:H2'	1:CA:865:A:C8	2.52	0.45
1:CA:949:A:H2'	1:CA:950:U:O4'	2.15	0.45
2:CC:19:SER:HB2	2:CC:39:ARG:NH2	2.32	0.45
2:CC:45:GLU:C	2:CC:46:LEU:HD22	2.42	0.45
5:CF:1:MET:HG2	5:CF:67:PRO:HD3	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CF:34:GLY:C	5:CF:35:LYS:HD2	2.42	0.45
5:CF:47:LEU:HD13	5:CF:51:ILE:HG22	1.99	0.45
8:CI:40:ARG:C	8:CI:41:GLU:HG3	2.41	0.45
8:CI:117:LEU:HD22	8:CI:123:ARG:HG2	1.98	0.45
11:CL:60:PHE:O	11:CL:62:VAL:HG13	2.17	0.45
12:CM:52:ILE:HA	12:CM:55:LEU:HG	1.97	0.45
15:CP:67:ILE:O	15:CP:67:ILE:HG23	2.17	0.45
20:CB:83:ALA:HA	20:CB:88:GLN:HE21	1.80	0.45
23:DB:140:C:OP1	41:DT:2:ILE:HD12	2.16	0.45
23:DB:219:A:O2'	23:DB:220:G:H5'	2.17	0.45
23:DB:992:C:H2'	23:DB:993:G:C8	2.52	0.45
23:DB:1181:U:O2'	23:DB:1182:G:H5'	2.16	0.45
23:DB:1390:U:O2'	23:DB:1391:U:H5'	2.17	0.45
23:DB:1439:A:C5	23:DB:1552:A:N6	2.85	0.45
23:DB:1472:C:H2'	23:DB:1473:G:C8	2.52	0.45
23:DB:1516:G:O2'	23:DB:1517:G:H5'	2.16	0.45
23:DB:1565:C:H5''	25:DC:17:LYS:CE	2.47	0.45
23:DB:1606:C:H5''	23:DB:1607:C:OP1	2.16	0.45
23:DB:2050:C:H1'	26:DD:161:MET:CE	2.47	0.45
23:DB:2078:C:H2'	23:DB:2079:U:H6	1.81	0.45
23:DB:2219:U:H2'	23:DB:2220:U:C6	2.52	0.45
23:DB:2428:G:H5''	23:DB:2429:G:OP1	2.17	0.45
25:DC:144:GLU:HG3	25:DC:151:GLY:N	2.08	0.45
25:DC:249:VAL:O	25:DC:250:GLN:C	2.59	0.45
26:DD:15:PHE:HD1	26:DD:15:PHE:H	1.63	0.45
26:DD:61:THR:OG1	26:DD:63:PRO:HD2	2.17	0.45
26:DD:148:GLN:CB	26:DD:152:PRO:HG2	2.40	0.45
27:DE:157:LEU:O	27:DE:160:ALA:HB3	2.17	0.45
28:DF:11:VAL:HG21	28:DF:172:PHE:HE1	1.81	0.45
29:DG:94:ARG:HA	29:DG:128:THR:HG22	1.98	0.45
30:DH:125:THR:HA	30:DH:146:VAL:CG1	2.45	0.45
31:DJ:63:ALA:HA	31:DJ:69:ARG:HH22	1.81	0.45
32:DK:95:ILE:O	32:DK:95:ILE:HG13	2.17	0.45
32:DK:105:ARG:H	32:DK:122:VAL:HG12	1.82	0.45
33:DL:123:ARG:HD2	33:DL:123:ARG:C	2.41	0.45
35:DN:12:ARG:HG2	35:DN:16:HIS:ND1	2.31	0.45
40:DS:24:ILE:O	40:DS:25:ARG:C	2.58	0.45
40:DS:41:LYS:HB3	40:DS:41:LYS:HZ3	1.80	0.45
42:DU:85:ARG:NH1	42:DU:86:PHE:N	2.65	0.45
42:DU:85:ARG:HH11	42:DU:86:PHE:N	2.14	0.45
43:DW:28:GLU:H	43:DW:31:LEU:HG	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DY:9:THR:HB	45:DY:10:ARG:H	1.59	0.45
46:DZ:53:ALA:C	46:DZ:55:GLY:N	2.75	0.45
46:DZ:65:ASP:O	46:DZ:69:ALA:HB2	2.17	0.45
52:DI:57:VAL:HG23	52:DI:71:LYS:HZ1	1.80	0.45
1:AA:967:C:H5'	8:AI:129:ARG:HA	1.99	0.45
1:AA:1056:U:H2'	1:AA:1057:G:H8	1.81	0.45
2:AC:63:ILE:O	2:AC:65:VAL:HG23	2.15	0.45
3:AD:2:ARG:HG3	3:AD:114:ARG:CZ	2.47	0.45
3:AD:11:SER:HA	3:AD:18:LEU:HD22	1.99	0.45
9:AJ:59:LYS:C	9:AJ:61:ALA:H	2.25	0.45
13:AN:26:LEU:HD23	13:AN:27:LYS:H	1.81	0.45
17:AR:52:ARG:O	17:AR:56:ARG:HG3	2.17	0.45
19:AT:26:MET:HE3	19:AT:26:MET:HB3	1.88	0.45
20:AB:44:LYS:O	20:AB:48:MET:HE3	2.17	0.45
23:BB:587:C:N3	33:BL:33:ARG:NH2	2.64	0.45
23:BB:2215:C:H2'	23:BB:2216:G:C8	2.52	0.45
23:BB:2344:U:H2'	48:B1:35:LEU:O	2.16	0.45
23:BB:2428:G:H5''	23:BB:2429:G:OP1	2.17	0.45
23:BB:2885:G:H21	47:B0:31:LYS:HG2	1.82	0.45
24:BV:26:PHE:CE2	24:BV:44:HIS:HA	2.52	0.45
25:BC:102:TYR:O	25:BC:103:ILE:HG13	2.17	0.45
25:BC:141:HIS:O	25:BC:143:VAL:HG23	2.17	0.45
27:BE:154:ASP:C	27:BE:156:ASN:H	2.24	0.45
28:BF:102:LEU:O	28:BF:103:ILE:CB	2.64	0.45
28:BF:139:GLU:O	28:BF:140:ILE:C	2.60	0.45
29:BG:122:ALA:HA	29:BG:131:VAL:O	2.16	0.45
30:BH:90:LEU:HB3	30:BH:123:ARG:HD2	1.98	0.45
31:BJ:64:VAL:HG11	31:BJ:69:ARG:H	1.82	0.45
35:BN:116:VAL:O	35:BN:116:VAL:HG13	2.17	0.45
36:BO:68:LYS:H	36:BO:102:ARG:CD	2.30	0.45
39:BR:61:ALA:CB	39:BR:98:ILE:H	2.30	0.45
40:BS:42:LYS:HG3	40:BS:43:ALA:N	2.32	0.45
41:BT:68:LYS:HD3	41:BT:68:LYS:N	2.32	0.45
43:BW:37:VAL:C	43:BW:38:ARG:HG2	2.42	0.45
43:BW:44:PHE:CE2	43:BW:76:ARG:HD3	2.51	0.45
43:BW:49:ASN:CB	43:BW:61:LYS:H	2.28	0.45
49:B2:4:THR:O	49:B2:5:PHE:HB2	2.17	0.45
52:BI:116:MET:SD	52:BI:124:MET:HB2	2.56	0.45
1:CA:136:C:H1'	15:CP:1:MET:HE1	1.99	0.45
1:CA:175:C:H2'	1:CA:176:C:C6	2.52	0.45
1:CA:201:G:O2'	1:CA:202:G:H5'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:332:G:H2'	1:CA:333:U:H6	1.82	0.45
1:CA:1057:G:H5''	2:CC:153:SER:CB	2.47	0.45
1:CA:1152:A:H4'	9:CJ:15:HIS:CD2	2.52	0.45
3:CD:104:MET:SD	3:CD:179:GLY:HA3	2.56	0.45
3:CD:106:PHE:CD1	3:CD:158:LEU:HD21	2.52	0.45
4:CE:89:THR:HG22	4:CE:90:GLY:N	2.31	0.45
4:CE:107:GLY:C	4:CE:109:ALA:H	2.25	0.45
10:CK:83:VAL:CG2	10:CK:106:ILE:HD11	2.47	0.45
14:CO:23:SER:HB3	14:CO:26:VAL:CG2	2.47	0.45
20:CB:23:ASN:O	20:CB:25:LYS:N	2.49	0.45
20:CB:53:LEU:HD13	20:CB:216:VAL:HG12	1.98	0.45
20:CB:86:CYS:SG	20:CB:87:ASP:N	2.87	0.45
20:CB:95:TRP:CH2	20:CB:100:LEU:HD13	2.52	0.45
20:CB:221:ARG:HG3	20:CB:222:GLU:H	1.81	0.45
23:DB:135:U:H2'	23:DB:136:G:C8	2.52	0.45
23:DB:329:G:N1	42:DU:16:LYS:HG2	2.31	0.45
23:DB:771:G:OP1	49:D2:14:ARG:HD2	2.17	0.45
23:DB:826:U:H2'	23:DB:828:U:O4'	2.16	0.45
23:DB:1417:C:O5'	23:DB:1588:G:H1'	2.16	0.45
23:DB:2489:U:H2'	23:DB:2490:G:O4'	2.17	0.45
23:DB:2733:A:H2'	23:DB:2734:A:O4'	2.16	0.45
23:DB:2773:C:O2'	23:DB:2774:C:H5'	2.16	0.45
24:DV:26:PHE:CE2	24:DV:44:HIS:HA	2.52	0.45
25:DC:54:GLY:O	25:DC:214:GLY:HA2	2.16	0.45
26:DD:108:ASP:N	26:DD:204:LYS:O	2.49	0.45
26:DD:180:VAL:HG22	26:DD:187:LEU:HD12	1.99	0.45
27:DE:29:HIS:HE2	33:DL:8:PRO:HG3	1.81	0.45
27:DE:199:MET:HE2	27:DE:199:MET:HB2	1.82	0.45
28:DF:64:PRO:HA	28:DF:88:VAL:HG22	1.99	0.45
29:DG:109:SER:O	29:DG:110:HIS:HB3	2.17	0.45
30:DH:41:LYS:O	30:DH:45:GLU:HG3	2.17	0.45
31:DJ:64:VAL:HG11	31:DJ:69:ARG:H	1.82	0.45
32:DK:6:THR:O	32:DK:7:MET:HG2	2.17	0.45
33:DL:115:GLU:N	33:DL:115:GLU:OE1	2.49	0.45
35:DN:30:ARG:NH2	35:DN:72:ASP:OD1	2.50	0.45
36:DO:52:SER:H	36:DO:55:GLU:HG3	1.82	0.45
37:DP:20:ARG:C	37:DP:22:GLY:H	2.25	0.45
38:DQ:111:LYS:HB2	39:DR:48:LYS:HD2	1.98	0.45
39:DR:70:GLU:O	39:DR:90:ARG:HD2	2.16	0.45
41:DT:13:ALA:O	41:DT:33:LYS:N	2.50	0.45
41:DT:38:ALA:HB3	41:DT:81:LYS:HZ1	1.79	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DT:55:VAL:HG22	41:DT:87:LEU:CD2	2.47	0.45
42:DU:11:ILE:HG12	42:DU:20:LYS:O	2.17	0.45
48:D1:46:VAL:HG13	48:D1:47:ILE:N	2.32	0.45
1:AA:222:C:H2'	1:AA:223:A:C8	2.52	0.45
1:AA:358:U:H2'	1:AA:359:G:C8	2.52	0.45
1:AA:454:G:O2'	1:AA:455:G:H5'	2.17	0.45
1:AA:859:G:O2'	1:AA:860:A:H5'	2.16	0.45
1:AA:865:A:H5'	1:AA:1078:U:C4	2.52	0.45
1:AA:968:A:H3'	1:AA:969:A:C5'	2.47	0.45
1:AA:1148:U:O4'	8:AI:17:ARG:HD3	2.17	0.45
1:AA:1352:C:H2'	1:AA:1353:G:H8	1.82	0.45
1:AA:1459:G:H2'	1:AA:1460:C:H6	1.80	0.45
4:AE:89:THR:HG22	4:AE:90:GLY:N	2.31	0.45
6:AG:21:LEU:H	6:AG:21:LEU:CD2	2.24	0.45
8:AI:9:GLY:HA2	8:AI:80:HIS:HD2	1.81	0.45
10:AK:111:ASP:HB2	21:AU:19:LYS:HE3	1.99	0.45
16:AQ:52:CYS:SG	16:AQ:77:VAL:HG22	2.57	0.45
20:AB:48:MET:O	20:AB:52:ALA:HB3	2.17	0.45
23:BB:292:U:H2'	23:BB:293:U:O4'	2.17	0.45
23:BB:584:C:OP1	38:BQ:5:ARG:HB3	2.16	0.45
23:BB:632:A:H2'	23:BB:633:A:C8	2.52	0.45
23:BB:728:G:O2'	23:BB:730:A:H8	2.00	0.45
23:BB:911:A:N6	34:BM:9:PHE:HB3	2.32	0.45
23:BB:989:G:H5''	45:BY:13:ILE:HD11	1.99	0.45
23:BB:1064:C:H2'	23:BB:1065:U:O4'	2.17	0.45
23:BB:1207:C:H2'	23:BB:1208:C:C6	2.52	0.45
23:BB:1599:U:H2'	23:BB:1600:C:C6	2.52	0.45
23:BB:1695:G:N7	25:BC:13:ARG:NH2	2.65	0.45
23:BB:1796:U:O2'	23:BB:1797:G:H5'	2.17	0.45
23:BB:2211:A:OP2	23:BB:2211:A:H4'	2.16	0.45
23:BB:2315:G:H2'	23:BB:2316:G:H8	1.82	0.45
23:BB:2478:A:H2'	23:BB:2479:U:O4'	2.17	0.45
23:BB:2591:C:OP1	25:BC:237:ARG:HG3	2.17	0.45
25:BC:175:LEU:HD11	25:BC:181:ARG:HG3	1.98	0.45
26:BD:10:GLY:HA3	26:BD:26:VAL:H	1.82	0.45
26:BD:46:ARG:HH22	26:BD:86:GLU:N	2.15	0.45
26:BD:114:LYS:HZ1	26:BD:116:LYS:HG3	1.81	0.45
27:BE:4:VAL:HG12	27:BE:5:LEU:H	1.81	0.45
28:BF:2:LYS:O	28:BF:6:TYR:HB2	2.17	0.45
28:BF:3:LEU:HD11	28:BF:172:PHE:CD1	2.52	0.45
28:BF:141:ASP:O	28:BF:144:LYS:N	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BG:23:ILE:HG22	29:BG:25:ILE:HD11	1.99	0.45
30:BH:8:LYS:HE3	1:CA:495:A:P	2.57	0.45
30:BH:92:GLY:HA3	1:CA:360:G:OP1	2.17	0.45
33:BL:77:ILE:HD12	33:BL:125:LEU:HD21	1.99	0.45
35:BN:90:ARG:HB3	35:BN:94:TYR:CE1	2.52	0.45
38:BQ:60:TRP:O	38:BQ:63:ARG:HG3	2.16	0.45
40:BS:24:ILE:CG2	40:BS:71:VAL:HG11	2.45	0.45
40:BS:88:ARG:HH21	40:BS:88:ARG:HG3	1.82	0.45
46:BZ:49:LEU:HB2	46:BZ:51:VAL:HG23	1.99	0.45
52:BI:135:MET:HE2	52:BI:137:LEU:CD1	2.47	0.45
1:CA:356:A:H2'	1:CA:357:G:O4'	2.17	0.45
1:CA:586:C:O2'	1:CA:587:G:H5'	2.17	0.45
1:CA:614:C:C2'	1:CA:615:G:H5'	2.47	0.45
1:CA:721:G:H4'	1:CA:722:G:O4'	2.17	0.45
1:CA:743:A:H2'	1:CA:744:C:H6	1.80	0.45
1:CA:1020:G:H2'	1:CA:1020:G:N3	2.32	0.45
1:CA:1243:C:O2'	1:CA:1244:G:H5'	2.16	0.45
1:CA:1330:U:H2'	1:CA:1331:G:O4'	2.17	0.45
1:CA:1342:C:O2'	8:CI:125:GLN:HB3	2.17	0.45
4:CE:19:ARG:HH12	4:CE:28:ARG:HH12	1.65	0.45
6:CG:11:ILE:HG22	6:CG:12:LEU:N	2.32	0.45
7:CH:87:ARG:HD3	7:CH:90:GLU:OE1	2.17	0.45
16:CQ:80:LYS:O	16:CQ:80:LYS:HD2	2.16	0.45
20:CB:88:GLN:H	20:CB:88:GLN:HG3	1.49	0.45
21:CU:48:LYS:HG3	21:CU:49:ALA:N	2.31	0.45
23:DB:125:A:H4'	23:DB:126:A:OP2	2.17	0.45
23:DB:218:A:C2'	23:DB:219:A:H5'	2.47	0.45
23:DB:512:G:OP2	23:DB:1234:U:O2'	2.31	0.45
23:DB:1563:U:O2'	23:DB:1564:C:H5'	2.16	0.45
23:DB:1669:A:H2'	23:DB:1669:A:N3	2.31	0.45
23:DB:2472:G:C2'	23:DB:2475:C:H42	2.29	0.45
25:DC:83:ASP:HB3	25:DC:86:ARG:HG2	1.99	0.45
25:DC:107:LYS:N	25:DC:193:GLU:O	2.50	0.45
28:DF:28:PRO:O	28:DF:168:LEU:HG	2.17	0.45
28:DF:108:PRO:O	28:DF:110:ILE:HG23	2.17	0.45
28:DF:135:ILE:CD1	28:DF:137:PHE:HB3	2.44	0.45
33:DL:55:MET:HE3	33:DL:56:PRO:CD	2.45	0.45
36:DO:7:ARG:HA	36:DO:10:ARG:NH2	2.31	0.45
36:DO:88:LYS:HD2	36:DO:89:ASP:CB	2.46	0.45
39:DR:15:SER:O	39:DR:16:GLU:C	2.59	0.45
39:DR:48:LYS:O	39:DR:49:ILE:C	2.60	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DT:28:ASN:C	41:DT:29:THR:HG23	2.42	0.45
43:DW:45:HIS:N	43:DW:45:HIS:ND1	2.65	0.45
44:DX:59:GLU:CD	44:DX:60:LYS:N	2.75	0.45
48:D1:36:LYS:HG2	48:D1:47:ILE:HA	1.99	0.45
51:D4:4:ARG:N	51:D4:37:GLN:HE22	2.15	0.45
1:AA:435:A:N3	1:AA:435:A:H2'	2.31	0.45
1:AA:474:G:O2'	1:AA:475:C:H5'	2.17	0.45
1:AA:593:U:O2'	1:AA:594:U:H5'	2.17	0.45
1:AA:642:A:C5	7:AH:106:SER:HA	2.52	0.45
1:AA:664:G:H5''	17:AR:52:ARG:HE	1.82	0.45
1:AA:744:C:H2'	1:AA:745:G:C8	2.52	0.45
1:AA:864:A:H2'	1:AA:865:A:C8	2.52	0.45
1:AA:865:A:O2'	1:AA:866:C:H5'	2.17	0.45
1:AA:1152:A:H4'	9:AJ:15:HIS:CD2	2.52	0.45
4:AE:131:ASN:O	4:AE:135:VAL:HG23	2.16	0.45
7:AH:74:ILE:CG1	7:AH:128:VAL:HG22	2.45	0.45
9:AJ:6:ILE:O	9:AJ:75:ASP:HA	2.17	0.45
9:AJ:55:PRO:O	9:AJ:56:HIS:HB3	2.17	0.45
10:AK:80:ASN:HB3	10:AK:105:ARG:HB3	1.99	0.45
13:AN:26:LEU:HD23	13:AN:27:LYS:N	2.32	0.45
20:AB:120:SER:HA	20:AB:125:PHE:HB3	1.99	0.45
22:BA:42:C:C4	28:BF:65:LEU:HD22	2.51	0.45
22:BA:112:G:O2'	22:BA:113:C:H5'	2.17	0.45
23:BB:322:A:C2	23:BB:340:A:C6	3.05	0.45
23:BB:681:G:H2'	23:BB:682:G:H8	1.82	0.45
23:BB:746:U:O3'	40:BS:90:LYS:NZ	2.50	0.45
23:BB:753:A:O2'	23:BB:754:U:H5'	2.17	0.45
23:BB:1010:A:OP1	38:BQ:61:ILE:HG22	2.17	0.45
23:BB:1047:G:O2'	23:BB:1110:G:N2	2.43	0.45
23:BB:1076:C:H2'	23:BB:1077:A:C8	2.52	0.45
23:BB:1163:G:H4'	39:BR:92:TRP:HE1	1.81	0.45
23:BB:1472:C:H2'	23:BB:1473:G:H8	1.82	0.45
23:BB:1872:A:H2'	23:BB:1873:G:O4'	2.17	0.45
23:BB:2247:A:H2'	23:BB:2248:C:H6	1.82	0.45
23:BB:2448:A:H4'	23:BB:2449:U:OP2	2.17	0.45
26:BD:8:LYS:O	26:BD:197:THR:HA	2.17	0.45
26:BD:179:ARG:HB3	26:BD:179:ARG:NH1	2.31	0.45
27:BE:102:ARG:O	27:BE:106:LYS:HG3	2.17	0.45
27:BE:132:LYS:O	27:BE:135:ALA:HB3	2.17	0.45
30:BH:59:ALA:O	30:BH:60:GLU:HB3	2.17	0.45
36:BO:7:ARG:CG	36:BO:7:ARG:HH11	2.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BS:73:LYS:HD2	40:BS:73:LYS:HA	1.67	0.45
43:BW:65:LYS:N	43:BW:84:GLU:HB3	2.31	0.45
48:B1:47:ILE:H	48:B1:47:ILE:HD12	1.82	0.45
52:BI:44:LYS:O	52:BI:48:ILE:HG13	2.16	0.45
1:CA:233:C:O2'	1:CA:234:C:H5'	2.17	0.45
1:CA:313:A:H2'	1:CA:314:C:H6	1.81	0.45
1:CA:503:C:H2'	1:CA:504:C:C6	2.52	0.45
1:CA:885:G:O2'	1:CA:886:G:H5'	2.16	0.45
1:CA:921:U:H2'	1:CA:922:G:H8	1.82	0.45
1:CA:1283:U:H2'	1:CA:1284:C:H6	1.82	0.45
1:CA:1411:C:O2'	1:CA:1412:C:H5'	2.17	0.45
3:CD:90:LEU:HD11	3:CD:194:ILE:HD11	1.99	0.45
3:CD:197:HIS:CE1	3:CD:198:LEU:HG	2.52	0.45
4:CE:64:GLU:O	4:CE:68:ARG:HG2	2.17	0.45
4:CE:71:ILE:HD12	4:CE:73:VAL:CG2	2.47	0.45
5:CF:97:THR:HG22	5:CF:98:GLU:N	2.32	0.45
8:CI:20:ILE:CD1	8:CI:85:ALA:HB3	2.47	0.45
10:CK:72:ALA:O	10:CK:75:GLU:HG2	2.17	0.45
11:CL:34:THR:O	11:CL:35:ARG:HD2	2.17	0.45
13:CN:70:HIS:O	13:CN:71:GLY:C	2.60	0.45
15:CP:52:LEU:CD2	15:CP:75:ILE:HA	2.46	0.45
19:CT:81:GLN:C	19:CT:83:ASN:H	2.24	0.45
20:CB:83:ALA:O	20:CB:88:GLN:HB2	2.16	0.45
23:DB:212:G:H2'	23:DB:213:A:C8	2.52	0.45
23:DB:264:C:H2'	23:DB:265:A:H5''	1.98	0.45
23:DB:561:G:H8	23:DB:561:G:O5'	2.00	0.45
23:DB:671:C:O2'	23:DB:672:C:H5'	2.17	0.45
23:DB:750:A:H2'	23:DB:751:A:H5''	1.99	0.45
23:DB:962:G:H2'	23:DB:963:U:C6	2.51	0.45
23:DB:1488:C:O2'	23:DB:1489:C:H5'	2.16	0.45
23:DB:1666:G:H4'	32:DK:6:THR:HG23	1.99	0.45
23:DB:1877:A:H2'	23:DB:1878:G:C8	2.52	0.45
23:DB:1904:G:H1'	23:DB:1927:A:N1	2.32	0.45
23:DB:2227:A:H5''	25:DC:260:LYS:HD2	1.97	0.45
23:DB:2296:U:H4'	23:DB:2297:A:OP1	2.16	0.45
23:DB:2386:A:H2	43:DW:38:ARG:HB3	1.80	0.45
23:DB:2473:U:O2	23:DB:2473:U:C2'	2.65	0.45
23:DB:2537:U:H2'	23:DB:2538:C:H6	1.81	0.45
23:DB:2591:C:O2'	23:DB:2592:G:H5'	2.17	0.45
24:DV:60:VAL:HG22	24:DV:73:LYS:HE2	1.99	0.45
26:DD:8:LYS:CA	26:DD:201:LEU:HD11	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DD:130:GLN:HB2	26:DD:139:SER:O	2.16	0.45
27:DE:128:ALA:O	27:DE:133:LEU:HD12	2.16	0.45
28:DF:139:GLU:OE2	28:DF:142:TYR:HA	2.17	0.45
32:DK:15:GLY:HA3	32:DK:52:VAL:CG2	2.45	0.45
32:DK:35:VAL:HG12	32:DK:69:VAL:CG2	2.46	0.45
36:DO:111:ARG:HG2	36:DO:117:PHE:CE2	2.52	0.45
41:DT:66:LYS:N	41:DT:76:ARG:HH21	2.15	0.45
42:DU:11:ILE:CG2	42:DU:70:ALA:HB3	2.45	0.45
42:DU:49:PRO:O	42:DU:50:ALA:HB2	2.17	0.45
43:DW:77:LYS:HD3	43:DW:77:LYS:HA	1.82	0.45
49:D2:6:GLN:HA	49:D2:6:GLN:NE2	2.32	0.45
49:D2:22:MET:HE2	49:D2:31:LEU:HD12	1.99	0.45
52:DI:5:GLN:HB2	52:DI:30:GLN:OE1	2.17	0.45
52:DI:23:VAL:HG12	52:DI:27:LEU:HD21	1.97	0.45
1:AA:64:G:OP1	1:AA:64:G:H3'	2.17	0.44
1:AA:477:C:H2'	1:AA:478:A:C8	2.51	0.44
1:AA:503:C:H2'	1:AA:504:C:H6	1.81	0.44
1:AA:668:G:O2'	1:AA:669:G:H5'	2.16	0.44
1:AA:861:G:H2'	1:AA:862:C:C6	2.52	0.44
1:AA:1313:U:OP2	18:AS:5:LYS:HA	2.17	0.44
1:AA:1469:C:H2'	1:AA:1470:U:O4'	2.16	0.44
1:AA:1498:U:O5'	1:AA:1498:U:H6	1.99	0.44
1:AA:1499:A:H1'	1:AA:1520:C:OP1	2.17	0.44
1:AA:1514:G:H2'	1:AA:1515:G:H8	1.82	0.44
1:AA:1527:U:O2'	1:AA:1528:U:H5'	2.16	0.44
2:AC:129:PHE:CD2	2:AC:156:LEU:HD22	2.52	0.44
2:AC:171:ARG:HH11	2:AC:171:ARG:CB	2.25	0.44
3:AD:29:THR:CG2	3:AD:30:LYS:HD3	2.47	0.44
4:AE:95:MET:HA	4:AE:124:ALA:HB2	1.98	0.44
6:AG:125:ASP:HB3	6:AG:131:GLY:N	2.33	0.44
8:AI:20:ILE:HD13	8:AI:85:ALA:HB3	1.99	0.44
15:AP:2:VAL:O	15:AP:65:ALA:HA	2.17	0.44
19:AT:75:LYS:O	19:AT:76:ALA:C	2.60	0.44
20:AB:99:MET:CA	20:AB:106:VAL:HG21	2.43	0.44
21:AU:25:ALA:O	21:AU:27:VAL:N	2.50	0.44
23:BB:218:A:O2'	23:BB:219:A:H5'	2.17	0.44
23:BB:441:U:O2'	23:BB:442:G:H5'	2.17	0.44
23:BB:453:A:H1'	23:BB:457:A:O2'	2.18	0.44
23:BB:561:G:H8	23:BB:561:G:O5'	2.00	0.44
23:BB:904:G:H2'	23:BB:905:A:C8	2.50	0.44
23:BB:1249:U:O4'	38:BQ:3:VAL:HG21	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1708:C:O2'	23:BB:1709:U:H5'	2.17	0.44
23:BB:1733:G:H5'	23:BB:1733:G:H8	1.82	0.44
23:BB:2102:G:H2'	23:BB:2103:C:H5'	1.99	0.44
23:BB:2439:A:C8	23:BB:2586:U:H4'	2.53	0.44
23:BB:2683:C:O2'	23:BB:2684:U:H5'	2.17	0.44
23:BB:2852:G:H2'	23:BB:2853:C:O4'	2.17	0.44
25:BC:221:GLY:O	25:BC:223:ALA:N	2.50	0.44
25:BC:249:VAL:O	25:BC:250:GLN:C	2.60	0.44
26:BD:109:VAL:CG1	26:BD:193:VAL:HB	2.47	0.44
28:BF:29:ARG:HD3	28:BF:158:THR:OG1	2.16	0.44
28:BF:68:LYS:HZ2	28:BF:81:GLY:C	2.25	0.44
28:BF:126:ASN:CB	28:BF:156:THR:HA	2.44	0.44
30:BH:143:ILE:O	30:BH:144:VAL:HG23	2.17	0.44
31:BJ:35:ARG:HG3	31:BJ:40:HIS:HE2	1.82	0.44
33:BL:55:MET:HE3	33:BL:56:PRO:CD	2.46	0.44
33:BL:125:LEU:HD23	33:BL:126:ARG:N	2.32	0.44
33:BL:142:ILE:HD12	33:BL:142:ILE:N	2.31	0.44
35:BN:7:GLY:HA2	35:BN:46:ARG:HH12	1.79	0.44
36:BO:100:HIS:HA	36:BO:104:GLN:NE2	2.32	0.44
38:BQ:57:ARG:HH12	38:BQ:61:ILE:CD1	2.30	0.44
41:BT:55:VAL:HG13	41:BT:85:VAL:HG12	2.00	0.44
41:BT:67:VAL:HG23	41:BT:75:GLY:C	2.41	0.44
1:CA:87:C:H2'	1:CA:88:U:C6	2.51	0.44
1:CA:202:G:H2'	1:CA:203:G:C8	2.52	0.44
1:CA:669:G:H2'	1:CA:670:G:C8	2.52	0.44
1:CA:797:C:O2'	1:CA:798:U:H5'	2.17	0.44
1:CA:968:A:H3'	1:CA:969:A:C5'	2.47	0.44
1:CA:1002:G:H2'	1:CA:1003:G:O4'	2.17	0.44
1:CA:1071:C:O2'	1:CA:1072:G:H5'	2.16	0.44
1:CA:1436:U:H2'	1:CA:1437:A:C8	2.52	0.44
1:CA:1454:G:H2'	1:CA:1455:G:H8	1.81	0.44
5:CF:40:GLU:CB	5:CF:61:LEU:HB2	2.46	0.44
6:CG:14:ASP:HB2	6:CG:19:SER:O	2.17	0.44
6:CG:101:ARG:HG2	6:CG:105:GLU:OE2	2.17	0.44
8:CI:87:MET:HE1	8:CI:88:GLU:HG2	1.99	0.44
10:CK:88:PRO:HG3	21:CU:28:LEU:HD21	1.99	0.44
13:CN:16:ALA:O	13:CN:20:PHE:HB3	2.17	0.44
18:CS:5:LYS:C	18:CS:6:LYS:HD2	2.42	0.44
20:CB:138:ARG:O	20:CB:141:GLU:HB2	2.17	0.44
23:DB:522:A:H2'	23:DB:523:C:H6	1.80	0.44
23:DB:643:A:N7	23:DB:644:A:N7	2.65	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:673:C:H5''	27:DE:76:PRO:HD2	1.99	0.44
23:DB:817:C:O2'	23:DB:839:U:H5''	2.16	0.44
23:DB:921:C:H2'	23:DB:922:C:C6	2.52	0.44
23:DB:1251:C:O2'	23:DB:1252:G:H3'	2.17	0.44
23:DB:1505:A:H2'	23:DB:1506:U:C6	2.52	0.44
23:DB:1734:G:O2'	23:DB:1735:A:H5'	2.17	0.44
23:DB:1932:A:H2'	23:DB:1933:G:O4'	2.17	0.44
23:DB:2107:G:H3'	23:DB:2108:A:H8	1.82	0.44
23:DB:2215:C:H2'	23:DB:2216:G:H8	1.81	0.44
23:DB:2439:A:C8	23:DB:2586:U:H4'	2.52	0.44
23:DB:2578:G:O2'	23:DB:2579:C:H5'	2.16	0.44
23:DB:2680:U:O2'	26:DD:11:MET:HE3	2.17	0.44
23:DB:2742:G:O2'	23:DB:2743:U:H5'	2.17	0.44
24:DV:28:ALA:HA	24:DV:88:HIS:ND1	2.32	0.44
24:DV:89:ILE:O	24:DV:89:ILE:HD12	2.17	0.44
25:DC:176:ARG:C	25:DC:178:GLY:H	2.25	0.44
26:DD:101:PHE:CZ	26:DD:204:LYS:HA	2.51	0.44
27:DE:3:LEU:O	27:DE:12:LEU:N	2.50	0.44
31:DJ:18:VAL:CG1	31:DJ:54:ILE:HD11	2.46	0.44
35:DN:80:PHE:O	35:DN:85:PRO:HD3	2.18	0.44
37:DP:31:VAL:CG1	37:DP:38:ARG:HB2	2.48	0.44
37:DP:61:ARG:HD3	37:DP:70:GLU:CG	2.45	0.44
37:DP:75:THR:O	37:DP:80:VAL:HG11	2.16	0.44
42:DU:86:PHE:CG	42:DU:87:GLU:N	2.85	0.44
52:DI:102:ARG:HG3	52:DI:141:ASP:CB	2.47	0.44
1:AA:25:C:C5'	1:AA:524:G:H1'	2.47	0.44
1:AA:58:C:O2'	1:AA:59:A:H5'	2.17	0.44
1:AA:284:C:O2'	1:AA:285:C:H5'	2.17	0.44
1:AA:303:A:H1'	1:AA:555:U:HO2'	1.82	0.44
1:AA:653:U:C6	7:AH:55:LYS:HE2	2.52	0.44
1:AA:967:C:H4'	8:AI:129:ARG:HG2	1.99	0.44
1:AA:1020:G:H2'	1:AA:1020:G:N3	2.32	0.44
1:AA:1035:A:H2'	1:AA:1036:A:C8	2.51	0.44
1:AA:1138:G:H3'	1:AA:1138:G:N3	2.32	0.44
1:AA:1194:U:H2'	1:AA:1195:C:C6	2.53	0.44
1:AA:1276:G:H2'	1:AA:1277:C:C6	2.53	0.44
1:AA:1342:C:O2'	8:AI:125:GLN:HB3	2.17	0.44
1:AA:1408:A:O2'	1:AA:1409:C:H5'	2.17	0.44
2:AC:35:ASP:O	2:AC:39:ARG:HG3	2.16	0.44
2:AC:45:GLU:C	2:AC:46:LEU:HD22	2.43	0.44
3:AD:23:GLY:O	3:AD:24:VAL:C	2.60	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AF:3:HIS:HA	5:AF:64:VAL:O	2.17	0.44
5:AF:45:ARG:NH2	17:AR:25:ILE:HD13	2.32	0.44
6:AG:147:ASN:C	10:AK:55:ARG:HH21	2.24	0.44
7:AH:77:VAL:C	7:AH:79:ARG:H	2.25	0.44
8:AI:20:ILE:CD1	8:AI:85:ALA:HB3	2.48	0.44
8:AI:29:ILE:HG23	8:AI:64:ILE:C	2.41	0.44
12:AM:77:LYS:O	12:AM:80:MET:HG2	2.16	0.44
17:AR:57:ALA:O	17:AR:60:ARG:HG3	2.16	0.44
19:AT:56:ILE:O	19:AT:60:GLN:HG2	2.16	0.44
20:AB:14:HIS:HD2	20:AB:202:ASN:H	1.64	0.44
22:BA:35:C:H2'	22:BA:36:C:O4'	2.17	0.44
22:BA:93:C:O2'	22:BA:94:A:H5'	2.16	0.44
23:BB:19:A:H2'	23:BB:20:C:C6	2.52	0.44
23:BB:156:A:O2'	23:BB:157:C:H5'	2.18	0.44
23:BB:533:G:H2'	23:BB:534:U:C6	2.53	0.44
23:BB:616:A:H5''	56:BB:3449:HOH:O	2.16	0.44
23:BB:729:G:C5	25:BC:206:LYS:HB2	2.52	0.44
23:BB:786:C:H5''	23:BB:1780:A:C8	2.52	0.44
23:BB:1060:U:C4	52:BI:131:THR:HG22	2.51	0.44
23:BB:2300:C:H2'	23:BB:2301:C:H6	1.81	0.44
23:BB:2743:U:H3'	23:BB:2744:G:H5''	1.99	0.44
23:BB:2816:G:O3'	35:BN:99:LYS:HE3	2.16	0.44
23:BB:2884:U:H4'	47:B0:49:ARG:NH2	2.32	0.44
25:BC:145:MET:HE2	25:BC:153:LEU:HG	1.98	0.44
26:BD:16:THR:HG22	26:BD:17:GLU:N	2.33	0.44
26:BD:35:THR:OG1	26:BD:49:GLN:HG2	2.17	0.44
26:BD:51:THR:HG22	26:BD:76:GLY:HA3	1.99	0.44
26:BD:110:THR:HG21	26:BD:169:ARG:HH11	1.83	0.44
27:BE:149:ILE:HG23	27:BE:188:MET:HA	1.99	0.44
28:BF:81:GLY:O	28:BF:82:TYR:C	2.60	0.44
28:BF:129:MET:HE3	28:BF:153:ILE:HB	1.99	0.44
29:BG:94:ARG:HB2	29:BG:127:GLN:HG2	1.98	0.44
30:BH:27:ARG:HH11	46:BZ:64:ILE:CD1	2.30	0.44
30:BH:69:ALA:C	30:BH:71:LYS:H	2.26	0.44
31:BJ:103:ILE:HG13	31:BJ:104:ALA:N	2.32	0.44
34:BM:32:GLY:HA2	34:BM:117:PHE:CZ	2.52	0.44
36:BO:9:ARG:HA	36:BO:12:THR:OG1	2.17	0.44
36:BO:52:SER:H	36:BO:55:GLU:HG3	1.82	0.44
39:BR:60:LYS:H	39:BR:100:GLY:N	2.15	0.44
47:B0:18:HIS:HD1	47:B0:18:HIS:N	2.14	0.44
48:B1:7:LYS:NZ	50:B3:33:THR:HG22	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:B1:28:THR:C	48:B1:30:PRO:HD3	2.42	0.44
50:B3:6:VAL:HB	50:B3:60:CYS:HB3	1.98	0.44
52:BI:64:ARG:C	52:BI:64:ARG:HD2	2.42	0.44
1:CA:227:G:H2'	1:CA:228:A:C8	2.53	0.44
1:CA:366:A:H1'	1:CA:395:C:O2	2.16	0.44
1:CA:454:G:O2'	1:CA:455:G:H5'	2.17	0.44
1:CA:473:U:O5'	1:CA:473:U:H6	2.00	0.44
1:CA:526:C:OP2	11:CL:87:LYS:HE3	2.18	0.44
1:CA:647:C:H2'	1:CA:648:A:C8	2.51	0.44
1:CA:716:A:H1'	10:CK:119:GLY:HA2	1.99	0.44
1:CA:1081:A:O2'	1:CA:1082:A:H5'	2.17	0.44
1:CA:1138:G:H3'	1:CA:1138:G:N3	2.33	0.44
1:CA:1313:U:OP2	18:CS:5:LYS:HA	2.17	0.44
2:CC:63:ILE:HD12	2:CC:90:VAL:HG12	1.99	0.44
5:CF:3:HIS:HA	5:CF:64:VAL:O	2.17	0.44
8:CI:120:ALA:C	8:CI:121:ARG:HG2	2.43	0.44
11:CL:49:ARG:N	11:CL:49:ARG:HD2	2.32	0.44
19:CT:32:LYS:O	19:CT:33:LYS:C	2.60	0.44
20:CB:16:GLY:HA2	20:CB:40:ILE:H	1.80	0.44
22:DA:94:A:O2'	22:DA:95:U:H5'	2.17	0.44
23:DB:131:A:H2'	23:DB:132:G:H8	1.82	0.44
23:DB:265:A:O2'	23:DB:266:G:C4'	2.64	0.44
23:DB:599:A:H2'	23:DB:600:G:H8	1.83	0.44
23:DB:746:U:O3'	40:DS:90:LYS:NZ	2.49	0.44
23:DB:1210:G:H5'	23:DB:1212:G:O4'	2.17	0.44
23:DB:1374:G:O2'	23:DB:1375:U:H5'	2.18	0.44
23:DB:1641:A:H2'	23:DB:1642:G:O4'	2.18	0.44
23:DB:1874:C:H2'	23:DB:1875:G:O4'	2.18	0.44
23:DB:2027:G:O2'	23:DB:2028:U:H5'	2.18	0.44
23:DB:2156:G:C2'	23:DB:2157:G:H4'	2.45	0.44
23:DB:2230:G:H2'	23:DB:2231:U:C6	2.52	0.44
23:DB:2369:A:H2'	23:DB:2370:G:H8	1.83	0.44
23:DB:2611:C:O2'	23:DB:2612:C:H5'	2.18	0.44
23:DB:2869:G:H2'	23:DB:2870:C:C6	2.52	0.44
25:DC:6:LYS:O	25:DC:8:THR:HG23	2.17	0.44
25:DC:221:GLY:C	25:DC:223:ALA:N	2.73	0.44
25:DC:245:THR:C	25:DC:247:TRP:N	2.75	0.44
27:DE:108:ILE:HG13	33:DL:2:ARG:HH22	1.80	0.44
30:DH:100:ALA:O	30:DH:101:ASP:C	2.60	0.44
31:DJ:101:ILE:O	31:DJ:104:ALA:HB3	2.16	0.44
37:DP:113:LEU:C	37:DP:114:ASN:HD22	2.25	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DQ:33:VAL:HG23	38:DQ:34:ALA:H	1.81	0.44
38:DQ:89:ILE:C	38:DQ:91:ARG:N	2.74	0.44
39:DR:14:VAL:HG21	39:DR:98:ILE:HG12	2.00	0.44
42:DU:13:LEU:HD12	42:DU:68:ASN:O	2.17	0.44
42:DU:20:LYS:HB3	42:DU:21:ARG:H	1.62	0.44
47:D0:9:ARG:HB2	47:D0:12:ARG:NH2	2.33	0.44
48:D1:47:ILE:H	48:D1:47:ILE:HD12	1.82	0.44
52:DI:27:LEU:HD23	52:DI:27:LEU:N	2.22	0.44
52:DI:80:LYS:HG3	52:DI:135:MET:HE1	1.99	0.44
52:DI:100:ILE:HG23	52:DI:104:GLN:OE1	2.17	0.44
1:AA:203:G:H1'	1:AA:465:A:N6	2.32	0.44
1:AA:237:G:H2'	1:AA:238:A:C8	2.51	0.44
1:AA:395:C:H2'	1:AA:396:C:C6	2.52	0.44
1:AA:513:C:H2'	1:AA:514:C:H6	1.83	0.44
1:AA:626:G:H2'	1:AA:627:G:C8	2.53	0.44
1:AA:677:U:H1'	10:AK:120:CYS:SG	2.58	0.44
1:AA:781:A:H2'	1:AA:782:A:C5'	2.40	0.44
1:AA:817:C:H1'	1:AA:819:A:C5'	2.40	0.44
1:AA:1163:A:H2'	1:AA:1164:G:C8	2.51	0.44
1:AA:1212:U:H4'	1:AA:1213:A:C8	2.53	0.44
1:AA:1222:G:H2'	1:AA:1223:C:H5'	1.99	0.44
1:AA:1451:U:O3'	1:AA:1452:C:H6	2.00	0.44
3:AD:97:LEU:HD13	3:AD:136:VAL:CG1	2.47	0.44
9:AJ:8:ILE:HA	9:AJ:100:ILE:HG22	1.99	0.44
9:AJ:80:THR:HG21	9:AJ:82:LYS:NZ	2.32	0.44
10:AK:70:ALA:C	10:AK:72:ALA:N	2.71	0.44
23:BB:118:A:N3	23:BB:178:G:H1'	2.31	0.44
23:BB:240:C:H5''	23:BB:241:A:H5''	1.98	0.44
23:BB:264:C:H2'	23:BB:265:A:H5''	2.00	0.44
23:BB:342:A:H2'	23:BB:343:C:O4'	2.17	0.44
23:BB:674:G:O3'	27:BE:60:TRP:HZ2	2.01	0.44
23:BB:817:C:O2'	23:BB:839:U:H5''	2.17	0.44
23:BB:1372:U:O2'	23:BB:1373:A:H5'	2.17	0.44
23:BB:1544:A:H2'	23:BB:1545:A:C8	2.52	0.44
23:BB:1727:C:H2'	23:BB:1728:C:H6	1.83	0.44
23:BB:1792:G:OP1	25:BC:204:LEU:HD12	2.17	0.44
23:BB:1803:A:H4'	25:BC:256:THR:OG1	2.17	0.44
23:BB:1932:A:H2'	23:BB:1933:G:O4'	2.18	0.44
23:BB:2217:G:H2'	23:BB:2218:G:H8	1.83	0.44
23:BB:2246:G:H2'	23:BB:2247:A:H8	1.81	0.44
23:BB:2306:C:C5	23:BB:2307:G:H2'	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BV:66:ASP:HB2	24:BV:68:LYS:CE	2.42	0.44
26:BD:11:MET:H	26:BD:25:THR:HA	1.82	0.44
26:BD:108:ASP:N	26:BD:204:LYS:O	2.51	0.44
28:BF:62:GLN:HE21	28:BF:91:ARG:NE	2.15	0.44
29:BG:83:THR:C	29:BG:84:LYS:HD3	2.42	0.44
30:BH:58:LEU:HG	30:BH:62:LEU:HD23	2.00	0.44
32:BK:85:VAL:HG21	32:BK:115:ILE:HD11	1.99	0.44
32:BK:109:SER:C	32:BK:111:LYS:N	2.76	0.44
38:BQ:38:VAL:O	38:BQ:41:ALA:N	2.51	0.44
38:BQ:81:GLY:HA3	38:BQ:116:LEU:CD1	2.48	0.44
39:BR:39:LEU:CA	39:BR:53:PHE:HA	2.44	0.44
41:BT:54:GLU:HB3	41:BT:88:LYS:HB2	1.99	0.44
41:BT:83:ALA:O	41:BT:84:TYR:HB2	2.17	0.44
42:BU:88:ASP:CG	42:BU:89:GLY:N	2.73	0.44
43:BW:18:LYS:H	43:BW:35:ILE:CG2	2.29	0.44
43:BW:50:VAL:HG23	43:BW:51:GLY:H	1.82	0.44
50:B3:61:LEU:N	50:B3:62:PRO:HD3	2.32	0.44
1:CA:564:C:C4	16:CQ:32:ILE:HD11	2.52	0.44
1:CA:837:U:H2'	1:CA:838:G:H8	1.82	0.44
1:CA:859:G:O2'	1:CA:860:A:H5'	2.16	0.44
1:CA:938:A:H1'	1:CA:1376:U:O2'	2.17	0.44
1:CA:1498:U:H6	1:CA:1498:U:O5'	2.00	0.44
1:CA:1514:G:H2'	1:CA:1515:G:H8	1.83	0.44
2:CC:154:GLY:HA2	2:CC:163:ARG:H	1.82	0.44
3:CD:13:ARG:HG3	3:CD:55:ARG:NH1	2.33	0.44
4:CE:33:THR:HG22	4:CE:51:LYS:CB	2.46	0.44
6:CG:49:LEU:HD21	6:CG:60:ALA:CB	2.46	0.44
6:CG:67:ASN:ND2	6:CG:127:ALA:HA	2.32	0.44
12:CM:43:LYS:C	12:CM:45:SER:H	2.24	0.44
13:CN:26:LEU:HD23	13:CN:27:LYS:H	1.81	0.44
18:CS:38:THR:HG22	18:CS:68:HIS:O	2.16	0.44
23:DB:53:A:H2'	23:DB:54:G:O4'	2.17	0.44
23:DB:80:G:O5'	23:DB:346:A:H1'	2.16	0.44
23:DB:138:U:O2'	23:DB:140:C:OP1	2.34	0.44
23:DB:1098:A:O5'	52:DI:3:LYS:HG2	2.17	0.44
23:DB:1161:C:H4'	39:DR:8:GLY:O	2.17	0.44
23:DB:1244:A:H5''	33:DL:8:PRO:CD	2.29	0.44
23:DB:1444:G:H2'	23:DB:1445:G:H8	1.82	0.44
23:DB:1727:C:H2'	23:DB:1728:C:H6	1.82	0.44
23:DB:1803:A:O3'	25:DC:256:THR:HB	2.17	0.44
23:DB:2199:A:H3'	23:DB:2200:C:C6	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2252:G:O2'	23:DB:2253:G:H5'	2.17	0.44
23:DB:2262:U:O2'	23:DB:2263:C:H5'	2.18	0.44
23:DB:2282:G:H5''	23:DB:2283:C:O4'	2.17	0.44
23:DB:2768:U:H2'	23:DB:2769:U:O4'	2.17	0.44
23:DB:2886:A:H2'	23:DB:2887:A:O4'	2.17	0.44
23:DB:2901:C:O2'	23:DB:2902:C:H5'	2.18	0.44
25:DC:221:GLY:O	25:DC:223:ALA:N	2.51	0.44
26:DD:7:LYS:HD2	26:DD:198:GLY:HA2	2.00	0.44
26:DD:114:LYS:HZ2	26:DD:116:LYS:HZ2	1.64	0.44
26:DD:178:VAL:HB	26:DD:188:LEU:CB	2.48	0.44
27:DE:150:THR:O	27:DE:192:ALA:HB2	2.17	0.44
27:DE:176:ASP:OD1	27:DE:176:ASP:C	2.59	0.44
28:DF:47:LYS:C	28:DF:49:LEU:H	2.25	0.44
28:DF:71:LYS:O	28:DF:71:LYS:HG2	2.18	0.44
28:DF:121:PHE:HB2	28:DF:126:ASN:O	2.18	0.44
28:DF:126:ASN:CB	28:DF:156:THR:HA	2.46	0.44
30:DH:39:ALA:O	30:DH:41:LYS:N	2.49	0.44
31:DJ:11:VAL:HG21	31:DJ:13:ARG:NH1	2.33	0.44
32:DK:35:VAL:CG2	32:DK:36:GLY:H	2.07	0.44
37:DP:105:LYS:HA	37:DP:105:LYS:HD3	1.81	0.44
38:DQ:57:ARG:HH12	38:DQ:61:ILE:CD1	2.31	0.44
38:DQ:81:GLY:O	38:DQ:85:ALA:N	2.50	0.44
39:DR:49:ILE:HD13	39:DR:53:PHE:H	1.82	0.44
43:DW:19:ARG:NE	43:DW:19:ARG:H	2.15	0.44
43:DW:30:VAL:O	43:DW:30:VAL:HG22	2.16	0.44
50:D3:6:VAL:HB	50:D3:60:CYS:HB3	1.99	0.44
52:DI:70:THR:O	52:DI:70:THR:HG23	2.17	0.44
1:AA:338:A:H2'	1:AA:339:C:C6	2.53	0.44
1:AA:473:U:H6	1:AA:473:U:O5'	2.00	0.44
1:AA:488:C:O2'	1:AA:489:C:H5'	2.18	0.44
1:AA:596:A:H2'	1:AA:597:G:C8	2.52	0.44
1:AA:938:A:H1'	1:AA:1376:U:O2'	2.18	0.44
1:AA:993:G:N2	1:AA:996:A:N6	2.65	0.44
1:AA:1178:G:H2'	1:AA:1180:A:OP2	2.17	0.44
1:AA:1314:C:H2'	1:AA:1315:U:C6	2.52	0.44
1:AA:1390:U:H2'	1:AA:1391:U:C6	2.51	0.44
2:AC:174:LEU:HD11	2:AC:200:TRP:NE1	2.32	0.44
5:AF:67:PRO:O	5:AF:70:VAL:HG22	2.17	0.44
6:AG:55:LYS:H	6:AG:55:LYS:HG2	1.62	0.44
9:AJ:12:ALA:H	9:AJ:18:ILE:HD13	1.82	0.44
11:AL:60:PHE:O	11:AL:62:VAL:HG13	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AL:71:HIS:HD2	11:AL:73:LEU:HG	1.82	0.44
13:AN:20:PHE:CD2	13:AN:55:SER:HA	2.51	0.44
13:AN:30:ILE:CG2	13:AN:41:TRP:HB2	2.44	0.44
16:AQ:10:ARG:NH2	16:AQ:55:GLY:HA2	2.33	0.44
18:AS:39:ILE:HG12	18:AS:70:LEU:CD1	2.48	0.44
18:AS:43:MET:C	18:AS:46:LEU:HD23	2.43	0.44
20:AB:16:GLY:HA2	20:AB:40:ILE:H	1.81	0.44
20:AB:201:GLY:O	20:AB:202:ASN:C	2.60	0.44
21:AU:15:LEU:C	21:AU:17:ARG:H	2.24	0.44
23:BB:26:G:H2'	23:BB:27:G:C1'	2.48	0.44
23:BB:84:A:H4'	23:BB:85:G:O5'	2.16	0.44
23:BB:143:C:H2'	23:BB:144:A:C8	2.51	0.44
23:BB:329:G:N1	42:BU:16:LYS:HE3	2.30	0.44
23:BB:591:U:H1'	50:B3:1:PRO:H2	1.77	0.44
23:BB:841:G:O2'	23:BB:842:U:H5'	2.17	0.44
23:BB:1059:G:H2'	23:BB:1060:U:C6	2.52	0.44
23:BB:1173:U:N3	23:BB:1174:U:H1'	2.32	0.44
23:BB:1341:G:O4'	41:BT:61:LEU:HD23	2.16	0.44
23:BB:1387:A:H4'	23:BB:1469:A:H1'	1.98	0.44
23:BB:1541:C:O2'	23:BB:1542:U:H5'	2.17	0.44
23:BB:1640:A:O2'	23:BB:1641:A:H5'	2.18	0.44
23:BB:1870:C:H3'	23:BB:1871:A:C8	2.52	0.44
23:BB:2526:G:H5'	23:BB:2742:G:O2'	2.16	0.44
23:BB:2880:C:C1'	35:BN:91:ALA:HB3	2.46	0.44
23:BB:2886:A:H2'	23:BB:2887:A:O4'	2.16	0.44
25:BC:68:ARG:HB3	25:BC:128:THR:OG1	2.17	0.44
25:BC:109:LEU:O	25:BC:110:LYS:C	2.60	0.44
26:BD:3:GLY:HA2	26:BD:101:PHE:CZ	2.53	0.44
26:BD:117:GLY:O	26:BD:118:PHE:C	2.60	0.44
28:BF:69:ALA:HB3	28:BF:80:GLN:O	2.18	0.44
29:BG:94:ARG:HH21	29:BG:105:SER:H	1.63	0.44
29:BG:126:THR:O	29:BG:127:GLN:C	2.60	0.44
31:BJ:4:PHE:HB3	31:BJ:44:TYR:CD1	2.53	0.44
33:BL:132:ARG:O	33:BL:136:GLU:HG2	2.17	0.44
35:BN:80:PHE:O	35:BN:85:PRO:HD3	2.17	0.44
37:BP:31:VAL:CG1	37:BP:38:ARG:HB2	2.47	0.44
37:BP:33:GLU:OE2	37:BP:38:ARG:NE	2.49	0.44
37:BP:61:ARG:HD3	37:BP:70:GLU:CG	2.47	0.44
38:BQ:108:LEU:HA	39:BR:48:LYS:HD3	1.99	0.44
39:BR:38:VAL:O	39:BR:53:PHE:HB3	2.17	0.44
39:BR:48:LYS:O	39:BR:49:ILE:C	2.60	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BR:71:LYS:HG2	39:BR:73:LYS:HZ3	1.79	0.44
42:BU:51:LEU:O	42:BU:52:ASN:C	2.60	0.44
42:BU:84:PHE:O	42:BU:85:ARG:CB	2.63	0.44
44:BX:7:ARG:HA	44:BX:7:ARG:HD2	1.83	0.44
1:CA:106:C:HO2'	1:CA:107:G:H5'	1.81	0.44
1:CA:175:C:O2	1:CA:1447:A:H2	2.01	0.44
1:CA:631:C:H3'	1:CA:632:U:H5'	1.99	0.44
1:CA:634:C:H2'	1:CA:635:A:C8	2.52	0.44
1:CA:939:G:H2'	1:CA:940:C:C6	2.52	0.44
1:CA:1329:A:O2'	1:CA:1330:U:H5'	2.17	0.44
2:CC:17:TRP:C	2:CC:19:SER:H	2.26	0.44
2:CC:78:LYS:HE3	2:CC:79:LYS:NZ	2.32	0.44
4:CE:68:ARG:O	4:CE:69:ASN:HB2	2.16	0.44
5:CF:45:ARG:HH22	17:CR:25:ILE:HD13	1.81	0.44
8:CI:30:ASN:ND2	8:CI:65:THR:HA	2.32	0.44
10:CK:122:PRO:HD2	21:CU:35:GLU:HG2	2.00	0.44
10:CK:126:ARG:HB2	21:CU:33:ARG:HD2	2.00	0.44
12:CM:37:GLY:O	12:CM:38:ILE:HD13	2.18	0.44
13:CN:60:ARG:NH2	13:CN:69:PRO:HB3	2.32	0.44
13:CN:86:ALA:HA	13:CN:91:GLU:HG3	1.99	0.44
16:CQ:60:ILE:HG22	16:CQ:74:LEU:HA	1.99	0.44
19:CT:50:PHE:C	19:CT:52:GLU:H	2.25	0.44
22:DA:116:G:H4'	36:DO:54:VAL:CG2	2.40	0.44
23:DB:67:U:H2'	23:DB:68:G:C8	2.52	0.44
23:DB:108:G:O2'	23:DB:109:C:H5'	2.17	0.44
23:DB:159:G:O2'	23:DB:160:A:H5''	2.17	0.44
23:DB:246:C:O2'	23:DB:247:G:H5'	2.17	0.44
23:DB:714:U:H2'	23:DB:716:A:OP2	2.18	0.44
23:DB:993:G:N3	39:DR:91:GLN:NE2	2.57	0.44
23:DB:1092:C:H2'	23:DB:1093:G:C5'	2.46	0.44
23:DB:1258:U:H2'	23:DB:1259:G:C8	2.52	0.44
23:DB:1344:U:O2'	23:DB:1385:A:H2'	2.18	0.44
23:DB:1525:A:H2'	23:DB:1526:C:O4'	2.18	0.44
23:DB:1711:A:O2'	23:DB:1712:U:H5'	2.17	0.44
23:DB:2104:C:H3'	23:DB:2104:C:H6	1.81	0.44
23:DB:2531:A:O2'	23:DB:2532:G:H5'	2.17	0.44
23:DB:2693:G:H2'	23:DB:2694:G:C8	2.48	0.44
25:DC:216:ARG:HH11	25:DC:216:ARG:HG3	1.81	0.44
28:DF:3:LEU:HD13	28:DF:3:LEU:O	2.17	0.44
28:DF:43:ILE:HG13	28:DF:44:ALA:N	2.33	0.44
28:DF:70:ARG:HA	28:DF:80:GLN:NE2	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DH:101:ASP:O	30:DH:104:THR:HB	2.17	0.44
30:DH:112:LYS:HA	30:DH:132:PHE:HE1	1.81	0.44
31:DJ:40:HIS:HE1	31:DJ:41:LYS:HE3	1.82	0.44
32:DK:35:VAL:HG12	32:DK:69:VAL:HG22	1.98	0.44
34:DM:10:ARG:HH21	34:DM:10:ARG:HG3	1.83	0.44
34:DM:56:ALA:C	34:DM:58:LYS:N	2.74	0.44
34:DM:61:GLY:HA2	34:DM:107:GLY:C	2.41	0.44
41:DT:65:GLY:HA3	41:DT:76:ARG:NH2	2.33	0.44
48:D1:18:HIS:NE2	48:D1:40:PRO:HD2	2.31	0.44
49:D2:39:ARG:HG3	49:D2:39:ARG:HH11	1.81	0.44
1:AA:458:U:H2'	1:AA:459:A:C8	2.53	0.44
1:AA:486:U:O2'	1:AA:487:A:H5'	2.18	0.44
1:AA:537:G:H2'	1:AA:538:G:C8	2.52	0.44
1:AA:586:C:O2'	1:AA:587:G:H5'	2.17	0.44
1:AA:751:U:O2'	14:AO:24:THR:HG23	2.18	0.44
1:AA:940:C:H2'	1:AA:941:G:C8	2.52	0.44
1:AA:1014:A:N3	1:AA:1219:A:H1'	2.33	0.44
1:AA:1080:A:O3'	4:AE:20:VAL:HG11	2.17	0.44
1:AA:1219:A:H2'	1:AA:1220:G:H8	1.82	0.44
1:AA:1388:C:H2'	1:AA:1389:C:H6	1.83	0.44
1:AA:1510:C:H2'	1:AA:1511:G:H8	1.82	0.44
2:AC:5:HIS:ND1	13:AN:88:MET:HB3	2.33	0.44
2:AC:17:TRP:C	2:AC:19:SER:H	2.25	0.44
3:AD:25:ARG:HD3	3:AD:26:ALA:HB3	1.99	0.44
3:AD:123:MET:HA	3:AD:128:VAL:HA	1.99	0.44
8:AI:10:ARG:CB	8:AI:15:ALA:HA	2.48	0.44
8:AI:19:PHE:HB2	8:AI:63:TYR:HB3	1.99	0.44
10:AK:74:LYS:HG3	10:AK:104:PHE:CZ	2.52	0.44
10:AK:112:VAL:HA	17:AR:72:ARG:HH21	1.82	0.44
13:AN:86:ALA:HA	13:AN:91:GLU:HG3	1.99	0.44
20:AB:18:GLN:HB2	20:AB:188:THR:OG1	2.17	0.44
20:AB:218:ALA:O	20:AB:222:GLU:N	2.51	0.44
21:AU:39:LYS:N	21:AU:40:PRO:CD	2.81	0.44
23:BB:124:G:C5	49:B2:19:ARG:NH1	2.85	0.44
23:BB:264:C:O2'	23:BB:265:A:H5''	2.18	0.44
23:BB:601:C:O2	23:BB:605:G:H4'	2.17	0.44
23:BB:629:G:O2'	23:BB:630:G:H5'	2.18	0.44
23:BB:935:C:H2'	23:BB:936:A:C8	2.52	0.44
23:BB:1091:G:O2'	23:BB:1092:C:H5'	2.17	0.44
23:BB:1163:G:H4'	39:BR:92:TRP:NE1	2.31	0.44
23:BB:1183:U:O2'	23:BB:1184:U:H5'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1309:G:H4'	49:B2:7:PRO:HB2	1.99	0.44
23:BB:1439:A:H1'	23:BB:1553:A:N6	2.33	0.44
23:BB:2300:C:H2'	23:BB:2301:C:C6	2.52	0.44
27:BE:29:HIS:CD2	33:BL:8:PRO:HA	2.52	0.44
30:BH:114:GLU:O	30:BH:115:VAL:HG13	2.17	0.44
31:BJ:20:ALA:C	31:BJ:22:GLY:N	2.75	0.44
31:BJ:44:TYR:HB2	38:BQ:63:ARG:HD2	1.99	0.44
31:BJ:57:LEU:HG	31:BJ:128:ASN:N	2.31	0.44
35:BN:9:GLN:O	35:BN:17:ARG:HD3	2.17	0.44
38:BQ:91:ARG:HE	38:BQ:94:LEU:CD2	2.30	0.44
39:BR:39:LEU:HD22	39:BR:53:PHE:CD1	2.53	0.44
41:BT:18:GLU:C	41:BT:20:ALA:N	2.72	0.44
42:BU:11:ILE:N	42:BU:70:ALA:O	2.45	0.44
42:BU:94:PHE:HB2	42:BU:101:THR:HA	2.00	0.44
49:B2:19:ARG:O	49:B2:22:MET:HB2	2.18	0.44
1:CA:49:U:O2	1:CA:362:G:H1'	2.18	0.44
1:CA:254:G:OP1	16:CQ:68:LYS:O	2.36	0.44
1:CA:770:C:O2'	1:CA:771:G:H5'	2.17	0.44
1:CA:923:A:OP1	4:CE:25:LYS:HB3	2.17	0.44
1:CA:1299:A:C2'	1:CA:1301:U:H1'	2.47	0.44
1:CA:1454:G:H2'	1:CA:1455:G:C8	2.53	0.44
1:CA:1502:A:HO2'	1:CA:1503:A:P	2.40	0.44
4:CE:148:SER:HB2	4:CE:150:GLU:OE1	2.18	0.44
7:CH:5:PRO:HB2	7:CH:32:LYS:NZ	2.32	0.44
8:CI:48:ARG:O	8:CI:52:GLU:HG2	2.16	0.44
9:CJ:32:THR:HG23	9:CJ:32:THR:O	2.17	0.44
9:CJ:50:THR:HG22	9:CJ:62:ARG:HD2	2.00	0.44
11:CL:89:LEU:N	11:CL:89:LEU:HD22	2.33	0.44
12:CM:57:ASP:O	12:CM:61:LYS:HE2	2.16	0.44
13:CN:50:LEU:CG	13:CN:51:PRO:HD3	2.48	0.44
18:CS:40:PHE:HB3	18:CS:41:PRO:HD2	1.98	0.44
20:CB:31:PHE:HB3	20:CB:39:ILE:CG2	2.48	0.44
20:CB:189:ASN:O	20:CB:189:ASN:CG	2.60	0.44
23:DB:84:A:H4'	23:DB:85:G:O5'	2.18	0.44
23:DB:188:G:H5''	46:DZ:14:THR:CG2	2.47	0.44
23:DB:302:C:H2'	23:DB:303:G:H8	1.83	0.44
23:DB:309:A:N3	23:DB:329:G:O2'	2.45	0.44
23:DB:407:G:O2'	23:DB:408:G:H5'	2.16	0.44
23:DB:644:A:H2	23:DB:646:U:O4	1.99	0.44
23:DB:1100:C:H41	52:DI:1:ALA:H2	1.66	0.44
23:DB:1153:C:H2'	23:DB:1154:G:O4'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1183:U:O2'	23:DB:1184:U:H5'	2.18	0.44
23:DB:1403:A:H2'	23:DB:1404:C:H6	1.83	0.44
23:DB:1465:G:H2'	23:DB:1466:U:C6	2.52	0.44
23:DB:1496:A:H2'	23:DB:1498:C:C5	2.53	0.44
23:DB:1593:A:H2'	23:DB:1594:U:H6	1.78	0.44
23:DB:1904:G:O2'	23:DB:1905:C:H5'	2.18	0.44
23:DB:2246:G:H2'	23:DB:2247:A:H8	1.83	0.44
23:DB:2419:U:OP2	50:DB:32:LEU:HD13	2.17	0.44
23:DB:2448:A:H4'	23:DB:2449:U:OP2	2.16	0.44
23:DB:2456:C:H2'	23:DB:2457:U:O4'	2.17	0.44
24:DV:71:LYS:HB2	24:DV:94:ALA:OXT	2.16	0.44
25:DC:140:VAL:HG12	25:DC:141:HIS:N	2.22	0.44
26:DD:33:ARG:HG2	26:DD:33:ARG:NH2	2.32	0.44
27:DE:38:GLY:C	27:DE:40:ARG:N	2.75	0.44
28:DF:29:ARG:HD3	28:DF:158:THR:OG1	2.17	0.44
28:DF:46:LYS:NZ	28:DF:83:PRO:HD2	2.33	0.44
28:DF:59:ILE:HG12	28:DF:137:PHE:CE2	2.53	0.44
29:DG:154:GLU:OE1	29:DG:157:LYS:HB2	2.18	0.44
30:DH:57:LYS:HG3	30:DH:58:LEU:N	2.32	0.44
30:DH:87:GLU:CD	30:DH:87:GLU:N	2.76	0.44
30:DH:90:LEU:HD13	30:DH:123:ARG:C	2.42	0.44
33:DL:42:SER:C	33:DL:44:GLY:N	2.76	0.44
34:DM:54:THR:C	34:DM:56:ALA:N	2.74	0.44
39:DR:75:VAL:O	39:DR:76:LYS:HD2	2.17	0.44
40:DS:4:ILE:CG2	40:DS:106:VAL:HG22	2.48	0.44
40:DS:60:HIS:O	40:DS:60:HIS:ND1	2.50	0.44
40:DS:61:ASN:HB3	40:DS:62:ASP:H	1.56	0.44
42:DU:84:PHE:HE2	42:DU:93:ARG:HG2	1.82	0.44
43:DW:23:LYS:C	43:DW:66:VAL:HB	2.42	0.44
47:D0:18:HIS:HD1	47:D0:18:HIS:N	2.16	0.44
52:DI:21:PRO:HB2	52:DI:22:PRO:CD	2.43	0.44
52:DI:101:SER:HG	52:DI:104:GLN:HG3	1.83	0.44
1:AA:44:A:O2'	1:AA:45:G:H5'	2.18	0.44
1:AA:107:G:O6	19:AT:9:ARG:HD3	2.17	0.44
1:AA:356:A:H2'	1:AA:357:G:O4'	2.18	0.44
1:AA:618:C:N3	1:AA:622:A:N6	2.63	0.44
1:AA:1105:A:O2'	1:AA:1106:G:H5'	2.17	0.44
1:AA:1134:G:N2	1:AA:1135:U:H1'	2.32	0.44
1:AA:1175:G:O2'	1:AA:1176:A:H5'	2.18	0.44
1:AA:1318:A:H4'	18:AS:9:PHE:CE1	2.53	0.44
1:AA:1456:A:H2'	1:AA:1457:G:O4'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AC:129:PHE:HD2	2:AC:156:LEU:HD22	1.83	0.44
4:AE:104:ILE:CG2	4:AE:111:ARG:HH12	2.23	0.44
5:AF:35:LYS:HB2	5:AF:65:GLU:HB3	2.00	0.44
9:AJ:18:ILE:HG13	9:AJ:72:ARG:HG2	1.98	0.44
13:AN:56:PRO:C	13:AN:58:ARG:H	2.26	0.44
20:AB:187:ASP:OD1	20:AB:203:ASP:HB3	2.17	0.44
23:BB:182:A:H1'	23:BB:434:U:H5'	2.00	0.44
23:BB:212:G:H2'	23:BB:213:A:H8	1.81	0.44
23:BB:309:A:N3	23:BB:329:G:O2'	2.48	0.44
23:BB:311:A:H3'	23:BB:312:G:C8	2.52	0.44
23:BB:483:A:H2'	23:BB:484:C:H5'	2.00	0.44
23:BB:538:A:H2'	23:BB:539:G:O4'	2.17	0.44
23:BB:599:A:H2'	23:BB:600:G:H8	1.82	0.44
23:BB:1286:A:H1'	23:BB:1288:G:OP2	2.18	0.44
23:BB:1637:A:H5'	23:BB:1760:C:O2'	2.17	0.44
23:BB:2301:C:H2'	23:BB:2302:U:H6	1.82	0.44
23:BB:2389:G:H5''	23:BB:2390:U:O4'	2.18	0.44
23:BB:2571:U:O2'	26:BD:152:PRO:HG3	2.18	0.44
23:BB:2646:C:H2'	23:BB:2647:U:O4'	2.18	0.44
25:BC:110:LYS:O	25:BC:111:ALA:C	2.59	0.44
25:BC:180:MET:O	25:BC:267:VAL:HG23	2.17	0.44
30:BH:69:ALA:C	30:BH:71:LYS:N	2.73	0.44
32:BK:106:GLU:OE1	32:BK:106:GLU:N	2.47	0.44
36:BO:36:TYR:N	36:BO:36:TYR:CD2	2.86	0.44
37:BP:20:ARG:C	37:BP:22:GLY:H	2.25	0.44
37:BP:31:VAL:C	37:BP:33:GLU:H	2.25	0.44
39:BR:6:GLN:HE22	39:BR:9:GLY:N	2.16	0.44
39:BR:59:ILE:HA	39:BR:100:GLY:HA3	1.99	0.44
41:BT:11:LEU:CD2	41:BT:46:ALA:HB1	2.44	0.44
41:BT:54:GLU:CB	41:BT:88:LYS:HB2	2.48	0.44
42:BU:49:PRO:O	42:BU:50:ALA:HB2	2.16	0.44
42:BU:73:ASN:HD21	42:BU:76:THR:H	1.66	0.44
43:BW:70:VAL:CG2	43:BW:75:ASN:HD21	2.31	0.44
44:BX:9:LYS:O	44:BX:10:SER:C	2.61	0.44
46:BZ:68:LEU:HD22	46:BZ:78:TYR:CE1	2.53	0.44
48:B1:3:GLY:O	48:B1:5:ARG:N	2.50	0.44
49:B2:39:ARG:HG3	49:B2:39:ARG:NH1	2.32	0.44
1:CA:57:G:H2'	1:CA:58:C:C6	2.52	0.44
1:CA:570:G:H2'	1:CA:571:U:C6	2.53	0.44
1:CA:594:U:O2'	1:CA:595:A:H5'	2.17	0.44
1:CA:861:G:H2'	1:CA:862:C:C6	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:948:C:O2'	1:CA:949:A:H5'	2.17	0.44
1:CA:1105:A:O2'	1:CA:1106:G:H5'	2.18	0.44
1:CA:1261:A:H1'	1:CA:1275:A:N1	2.32	0.44
1:CA:1296:C:H5'	12:CM:13:HIS:CE1	2.53	0.44
2:CC:35:ASP:O	2:CC:39:ARG:HG3	2.17	0.44
5:CF:66:ALA:HB1	5:CF:70:VAL:HG21	2.00	0.44
6:CG:11:ILE:HD12	6:CG:11:ILE:N	2.33	0.44
8:CI:118:ARG:NH1	8:CI:122:ARG:HE	2.16	0.44
12:CM:84:CYS:O	12:CM:88:LEU:HG	2.16	0.44
12:CM:89:ARG:CB	12:CM:96:VAL:HG22	2.47	0.44
23:DB:83:A:H5''	42:DU:1:ALA:N	2.33	0.44
23:DB:179:C:H2'	23:DB:180:G:O4'	2.17	0.44
23:DB:231:A:H3'	23:DB:232:G:C8	2.53	0.44
23:DB:550:C:H2'	23:DB:551:G:H8	1.82	0.44
23:DB:601:C:O2	23:DB:605:G:H4'	2.17	0.44
23:DB:1062:G:H2'	23:DB:1063:G:C8	2.53	0.44
23:DB:1063:G:O2'	52:DI:88:GLY:HA3	2.17	0.44
23:DB:1201:U:O2'	23:DB:1202:G:H5'	2.18	0.44
23:DB:1535:A:C5'	23:DB:1536:C:H5	2.30	0.44
23:DB:2049:G:O2'	23:DB:2050:C:H5'	2.18	0.44
23:DB:2233:U:H2'	23:DB:2234:G:H8	1.83	0.44
23:DB:2247:A:H2'	23:DB:2248:C:H6	1.83	0.44
23:DB:2304:G:H2'	23:DB:2304:G:N3	2.31	0.44
23:DB:2409:G:H2'	23:DB:2410:G:O4'	2.16	0.44
23:DB:2730:C:H4'	26:DD:174:SER:HB3	1.99	0.44
23:DB:2786:U:H5'	26:DD:70:LYS:HG3	1.99	0.44
26:DD:51:THR:HG22	26:DD:76:GLY:HA3	1.97	0.44
26:DD:202:ILE:HG22	26:DD:202:ILE:O	2.16	0.44
27:DE:200:LEU:HD22	27:DE:200:LEU:N	2.33	0.44
29:DG:84:LYS:HB2	29:DG:132:LEU:H	1.83	0.44
30:DH:90:LEU:O	30:DH:91:PHE:C	2.61	0.44
31:DJ:64:VAL:O	31:DJ:65:THR:HG22	2.17	0.44
32:DK:119:ALA:O	32:DK:120:PRO:C	2.61	0.44
33:DL:75:ALA:HB2	33:DL:101:ILE:HG23	2.00	0.44
33:DL:125:LEU:HD23	33:DL:126:ARG:H	1.82	0.44
40:DS:81:SER:CA	40:DS:99:ARG:HA	2.46	0.44
43:DW:23:LYS:O	43:DW:66:VAL:HB	2.18	0.44
45:DY:3:THR:HB	45:DY:36:GLU:CG	2.48	0.44
46:DZ:32:ASN:O	46:DZ:33:LEU:O	2.35	0.44
48:D1:38:PHE:O	48:D1:40:PRO:HD3	2.18	0.44
49:D2:26:ASN:HA	49:D2:29:GLN:HB3	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:244:U:O4	1:AA:906:A:H1'	2.17	0.44
1:AA:342:C:O2'	1:AA:343:U:H5'	2.18	0.44
1:AA:502:A:H2'	1:AA:503:C:O4'	2.17	0.44
1:AA:599:C:H4'	7:AH:121:GLY:CA	2.48	0.44
1:AA:647:C:H2'	1:AA:648:A:C8	2.52	0.44
2:AC:52:SER:O	2:AC:113:LYS:HG2	2.18	0.44
3:AD:2:ARG:HH22	3:AD:132:ALA:CB	2.30	0.44
6:AG:67:ASN:ND2	6:AG:127:ALA:HA	2.32	0.44
7:AH:29:SER:OG	7:AH:32:LYS:HG3	2.17	0.44
11:AL:49:ARG:HD2	11:AL:49:ARG:N	2.32	0.44
18:AS:10:ILE:HB	18:AS:14:LEU:HD21	2.00	0.44
19:AT:49:ALA:CA	19:AT:52:GLU:HB3	2.47	0.44
20:AB:16:GLY:HA2	20:AB:40:ILE:CG1	2.48	0.44
20:AB:16:GLY:HA2	20:AB:40:ILE:HG13	2.00	0.44
20:AB:40:ILE:HD13	20:AB:201:GLY:CA	2.47	0.44
20:AB:64:GLY:HA2	20:AB:158:ASP:OD1	2.17	0.44
23:BB:28:A:O2'	23:BB:583:G:H5'	2.17	0.44
23:BB:64:A:H2'	23:BB:65:U:H6	1.81	0.44
23:BB:83:A:N1	23:BB:101:A:H5'	2.32	0.44
23:BB:137:U:H2'	41:BT:1:MET:N	2.33	0.44
23:BB:364:C:O5'	23:BB:364:C:H6	2.01	0.44
23:BB:613:A:H4'	23:BB:614:A:OP2	2.18	0.44
23:BB:765:C:H2'	23:BB:766:U:H6	1.83	0.44
23:BB:1076:C:H2'	23:BB:1077:A:H8	1.82	0.44
23:BB:1147:A:O2'	23:BB:1148:U:H5'	2.18	0.44
23:BB:1439:A:C5	23:BB:1552:A:N6	2.85	0.44
23:BB:1591:A:O2'	23:BB:1592:C:H5'	2.17	0.44
23:BB:1656:C:H2'	23:BB:1657:U:H6	1.82	0.44
23:BB:1826:G:H2'	23:BB:1827:U:C6	2.51	0.44
23:BB:2459:A:H2'	23:BB:2459:A:N3	2.33	0.44
23:BB:2466:C:O2'	23:BB:2467:C:H5'	2.18	0.44
23:BB:2618:G:H2'	23:BB:2619:C:H6	1.83	0.44
23:BB:2848:G:N2	23:BB:2867:G:C2	2.86	0.44
25:BC:176:ARG:C	25:BC:178:GLY:H	2.26	0.44
26:BD:8:LYS:HA	26:BD:201:LEU:HD11	1.99	0.44
26:BD:14:ILE:HG23	26:BD:14:ILE:O	2.18	0.44
28:BF:24:VAL:O	28:BF:27:VAL:HG22	2.18	0.44
28:BF:43:ILE:CG2	28:BF:44:ALA:H	2.16	0.44
29:BG:38:ASP:CG	29:BG:39:ALA:H	2.26	0.44
30:BH:105:ALA:C	30:BH:107:GLY:H	2.26	0.44
33:BL:89:VAL:O	33:BL:89:VAL:HG13	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BL:93:ASN:HB2	33:BL:94:THR:H	1.66	0.44
37:BP:26:GLU:HB2	37:BP:86:LYS:HD3	2.00	0.44
38:BQ:104:ALA:HA	39:BR:46:GLU:OE2	2.18	0.44
41:BT:12:ARG:HA	44:BX:29:ARG:NH2	2.26	0.44
41:BT:61:LEU:HG	41:BT:82:LYS:HB2	1.99	0.44
42:BU:51:LEU:HD22	42:BU:52:ASN:OD1	2.17	0.44
43:BW:18:LYS:HA	43:BW:18:LYS:HD2	1.72	0.44
43:BW:37:VAL:HB	43:BW:38:ARG:HD3	1.98	0.44
45:BY:50:VAL:O	45:BY:54:VAL:HG22	2.17	0.44
47:B0:26:SER:HB3	47:B0:39:ARG:NH2	2.33	0.44
52:BI:102:ARG:HA	52:BI:105:LEU:HD12	1.99	0.44
1:CA:338:A:H2'	1:CA:339:C:C6	2.53	0.44
1:CA:600:A:OP2	7:CH:87:ARG:HG2	2.18	0.44
1:CA:669:G:H2'	1:CA:670:G:H8	1.83	0.44
1:CA:686:U:O4	1:CA:703:G:H1'	2.18	0.44
3:CD:25:ARG:O	3:CD:27:ILE:N	2.51	0.44
5:CF:81:ASN:O	5:CF:84:VAL:HG12	2.18	0.44
9:CJ:49:PHE:HB2	9:CJ:65:TYR:HB2	1.99	0.44
9:CJ:80:THR:O	9:CJ:84:VAL:HG23	2.18	0.44
11:CL:105:GLY:HA3	11:CL:117:GLY:O	2.17	0.44
12:CM:18:LEU:C	12:CM:20:SER:N	2.75	0.44
14:CO:24:THR:O	14:CO:25:GLU:C	2.61	0.44
18:CS:52:ASN:ND2	18:CS:53:GLY:H	2.15	0.44
21:CU:39:LYS:N	21:CU:40:PRO:CD	2.81	0.44
22:DA:65:U:C2'	22:DA:66:A:H5'	2.48	0.44
23:DB:24:G:H1'	40:DS:77:ASP:HB3	2.00	0.44
23:DB:39:G:O2'	23:DB:40:U:H5'	2.18	0.44
23:DB:357:C:H2'	23:DB:358:U:C6	2.53	0.44
23:DB:729:G:H5''	23:DB:730:A:H5''	1.98	0.44
23:DB:1286:A:H1'	23:DB:1288:G:OP2	2.18	0.44
23:DB:1537:G:N3	23:DB:1537:G:H5''	2.33	0.44
23:DB:1749:A:H2'	23:DB:1750:G:H8	1.83	0.44
23:DB:1754:A:OP1	37:DP:93:LYS:HD3	2.18	0.44
23:DB:1851:U:H2'	23:DB:1852:U:H6	1.83	0.44
23:DB:2073:C:C5'	25:DC:227:VAL:HG12	2.45	0.44
23:DB:2156:G:H2'	23:DB:2157:G:C4'	2.45	0.44
23:DB:2248:C:H2'	23:DB:2249:U:O4'	2.18	0.44
23:DB:2580:U:C5'	26:DD:136:ASN:H	2.31	0.44
23:DB:2693:G:O2'	23:DB:2694:G:H5'	2.18	0.44
23:DB:2723:C:C5'	35:DN:1:MET:HE2	2.43	0.44
24:DV:1:MET:HE3	24:DV:2:PHE:N	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DC:199:HIS:C	25:DC:201:LEU:H	2.25	0.44
27:DE:162:ARG:C	27:DE:164:LEU:N	2.76	0.44
28:DF:42:ALA:O	28:DF:44:ALA:N	2.50	0.44
28:DF:111:ARG:N	28:DF:111:ARG:CD	2.80	0.44
29:DG:28:LYS:O	29:DG:30:GLY:N	2.50	0.44
31:DJ:20:ALA:CB	31:DJ:28:LEU:HD22	2.48	0.44
32:DK:19:VAL:HG13	32:DK:43:ILE:HA	1.99	0.44
39:DR:26:ASP:O	39:DR:27:ILE:HD13	2.18	0.44
39:DR:86:GLN:HE21	39:DR:86:GLN:HB2	1.53	0.44
40:DS:14:ALA:C	40:DS:16:LYS:H	2.25	0.44
42:DU:86:PHE:HE1	42:DU:88:ASP:OD1	2.01	0.44
46:DZ:25:THR:O	46:DZ:26:LYS:C	2.60	0.44
51:D4:1:MET:HE2	51:D4:35:GLN:O	2.18	0.44
1:AA:570:G:H2'	1:AA:571:U:C6	2.52	0.44
1:AA:643:C:H5'	7:AH:31:LEU:HD13	2.00	0.44
1:AA:708:C:H2'	1:AA:709:U:C6	2.53	0.44
1:AA:1245:C:H2'	1:AA:1246:A:H8	1.81	0.44
2:AC:122:GLN:O	2:AC:127:VAL:HG13	2.17	0.44
4:AE:21:SER:CB	4:AE:28:ARG:HE	2.22	0.44
5:AF:71:ILE:HG13	5:AF:72:ASP:N	2.33	0.44
5:AF:97:THR:O	5:AF:98:GLU:CD	2.61	0.44
6:AG:46:LEU:O	6:AG:57:GLU:HG3	2.18	0.44
6:AG:129:ASN:HD22	6:AG:137:ARG:HH22	1.63	0.44
7:AH:47:ASP:CG	7:AH:48:PHE:N	2.76	0.44
8:AI:82:ILE:O	8:AI:86:LEU:HB2	2.17	0.44
12:AM:18:LEU:C	12:AM:20:SER:N	2.74	0.44
12:AM:57:ASP:O	12:AM:61:LYS:HE2	2.17	0.44
18:AS:77:ARG:H	18:AS:77:ARG:HG2	1.56	0.44
20:AB:23:ASN:C	20:AB:25:LYS:N	2.76	0.44
20:AB:46:VAL:HA	20:AB:49:PHE:HD2	1.82	0.44
23:BB:59:U:H5'	23:BB:73:A:N1	2.33	0.44
23:BB:231:A:H3'	23:BB:232:G:C8	2.53	0.44
23:BB:866:A:O2'	23:BB:867:C:H5'	2.18	0.44
23:BB:1210:G:H5'	23:BB:1212:G:C4'	2.47	0.44
23:BB:1336:A:H3'	23:BB:1337:G:H8	1.81	0.44
23:BB:1463:C:H2'	23:BB:1464:G:H8	1.82	0.44
23:BB:1821:A:H2'	23:BB:1822:C:H6	1.81	0.44
23:BB:1933:G:H2'	23:BB:1934:C:C6	2.53	0.44
23:BB:1998:A:H2'	23:BB:1999:C:C6	2.53	0.44
23:BB:2369:A:H2'	23:BB:2370:G:H8	1.83	0.44
23:BB:2462:C:H2'	23:BB:2463:C:H6	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:2487:G:H2'	23:BB:2488:G:H8	1.83	0.44
23:BB:2699:C:H2'	23:BB:2700:A:C8	2.53	0.44
28:BF:64:PRO:HA	28:BF:88:VAL:HG22	1.99	0.44
28:BF:135:ILE:CD1	28:BF:137:PHE:HB3	2.45	0.44
30:BH:140:ALA:C	30:BH:141:LYS:HD3	2.43	0.44
34:BM:10:ARG:HH11	34:BM:89:VAL:HG23	1.83	0.44
35:BN:90:ARG:HB3	35:BN:94:TYR:HE1	1.82	0.44
37:BP:88:ARG:HB2	37:BP:112:ARG:HH12	1.78	0.44
40:BS:66:ILE:H	40:BS:66:ILE:CD1	2.26	0.44
44:BX:59:GLU:N	44:BX:59:GLU:OE2	2.51	0.44
46:BZ:49:LEU:HD11	46:BZ:68:LEU:HD21	2.00	0.44
49:B2:6:GLN:NE2	49:B2:6:GLN:HA	2.33	0.44
1:CA:865:A:O2'	1:CA:866:C:H5'	2.17	0.44
2:CC:6:PRO:HB3	2:CC:174:LEU:HD21	1.99	0.44
2:CC:46:LEU:HB3	2:CC:49:ALA:CB	2.48	0.44
4:CE:11:GLN:HB2	4:CE:116:VAL:HB	2.00	0.44
6:CG:22:LEU:O	6:CG:25:PHE:HB3	2.18	0.44
6:CG:72:VAL:HG12	6:CG:89:GLU:CB	2.45	0.44
6:CG:87:PRO:O	6:CG:152:HIS:HB3	2.18	0.44
9:CJ:8:ILE:CD1	9:CJ:76:ILE:HG13	2.48	0.44
20:CB:16:GLY:HA3	20:CB:40:ILE:H	1.83	0.44
20:CB:99:MET:CA	20:CB:106:VAL:HG21	2.44	0.44
20:CB:112:ARG:O	20:CB:116:LEU:HB2	2.17	0.44
20:CB:150:ILE:HG12	20:CB:150:ILE:O	2.17	0.44
21:CU:44:ARG:HG3	21:CU:44:ARG:HH11	1.83	0.44
23:DB:4:U:O2'	23:DB:5:A:H5'	2.17	0.44
23:DB:28:A:N6	23:DB:512:G:O2'	2.51	0.44
23:DB:30:G:OP1	38:DQ:4:LYS:HG2	2.17	0.44
23:DB:52:A:C5	23:DB:118:A:C2	3.06	0.44
23:DB:64:A:H2'	23:DB:65:U:H6	1.79	0.44
23:DB:101:A:O2'	23:DB:102:U:P	2.75	0.44
23:DB:107:G:O2'	23:DB:108:G:H5'	2.17	0.44
23:DB:177:G:H3'	23:DB:178:G:H8	1.83	0.44
23:DB:181:A:H1'	23:DB:435:C:H5'	1.98	0.44
23:DB:538:A:N6	23:DB:555:G:O2'	2.51	0.44
23:DB:540:C:H2'	23:DB:541:A:H8	1.83	0.44
23:DB:576:U:H5	56:DB:3400:HOH:O	2.01	0.44
23:DB:600:G:H1'	27:DE:100:MET:CG	2.48	0.44
23:DB:859:G:HO2'	23:DB:916:G:H1	1.65	0.44
23:DB:1324:G:N1	23:DB:1331:G:C6	2.86	0.44
23:DB:1387:A:H4'	23:DB:1469:A:H1'	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1599:U:H2'	23:DB:1600:C:H6	1.82	0.44
23:DB:2393:U:H2'	23:DB:2394:C:C6	2.52	0.44
23:DB:2450:A:C2'	23:DB:2451:A:H5'	2.47	0.44
23:DB:2646:C:H2'	23:DB:2647:U:O4'	2.17	0.44
24:DV:80:HIS:CD2	24:DV:81:PRO:HD2	2.53	0.44
25:DC:63:ILE:HD13	25:DC:63:ILE:HA	1.77	0.44
25:DC:110:LYS:O	25:DC:111:ALA:C	2.60	0.44
27:DE:148:ILE:HA	27:DE:187:VAL:HB	1.99	0.44
31:DJ:29:ALA:HB3	31:DJ:108:MET:HE2	2.00	0.44
34:DM:108:VAL:HG22	34:DM:109:PRO:HD2	1.98	0.44
35:DN:118:ARG:HE	35:DN:118:ARG:HB3	1.50	0.44
37:DP:54:LEU:HD12	37:DP:76:HIS:HB2	1.99	0.44
37:DP:74:GLN:O	37:DP:75:THR:C	2.60	0.44
37:DP:98:TYR:C	37:DP:100:ARG:N	2.73	0.44
42:DU:89:GLY:O	42:DU:90:LYS:HG3	2.17	0.44
43:DW:18:LYS:H	43:DW:35:ILE:CG2	2.29	0.44
47:D0:41:HIS:CD2	47:D0:41:HIS:N	2.85	0.44
52:DI:78:LEU:HD23	52:DI:81:LYS:HE2	2.00	0.44
1:AA:159:G:N1	1:AA:163:C:N4	2.66	0.44
1:AA:167:A:O2'	1:AA:168:G:H5'	2.17	0.44
1:AA:186:C:H2'	1:AA:187:G:O4'	2.18	0.44
1:AA:284:C:H2'	1:AA:285:C:C6	2.52	0.44
1:AA:308:C:H2'	1:AA:309:A:C8	2.52	0.44
1:AA:584:G:H2'	1:AA:585:G:H8	1.83	0.44
1:AA:683:G:O2'	1:AA:684:U:H5'	2.17	0.44
1:AA:746:A:N1	1:AA:747:A:N6	2.66	0.44
1:AA:915:A:H2'	1:AA:916:U:H5'	2.00	0.44
1:AA:1057:G:H4'	2:AC:196:GLY:N	2.27	0.44
1:AA:1086:U:H3	1:AA:1099:G:N2	1.94	0.44
3:AD:187:ARG:CZ	3:AD:191:SER:HB3	2.48	0.44
4:AE:95:MET:HA	4:AE:124:ALA:CB	2.47	0.44
6:AG:30:MET:HG3	6:AG:35:LYS:HA	2.00	0.44
10:AK:57:SER:O	10:AK:90:PRO:HG3	2.18	0.44
11:AL:98:ARG:HD2	11:AL:103:CYS:SG	2.58	0.44
18:AS:10:ILE:CD1	18:AS:14:LEU:HD11	2.47	0.44
20:AB:22:TRP:CZ3	20:AB:24:PRO:HA	2.53	0.44
20:AB:102:ASN:ND2	20:AB:105:THR:HB	2.32	0.44
23:BB:4:U:O2'	23:BB:5:A:H5'	2.18	0.44
23:BB:30:G:OP1	38:BQ:4:LYS:HG2	2.18	0.44
23:BB:58:G:O2'	23:BB:73:A:N1	2.46	0.44
23:BB:69:C:H2'	23:BB:70:G:H8	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:152:A:H2'	23:BB:153:U:C5	2.53	0.44
23:BB:177:G:H3'	23:BB:178:G:H8	1.83	0.44
23:BB:470:A:H2'	23:BB:471:A:C8	2.53	0.44
23:BB:1171:G:H2'	23:BB:1172:C:O4'	2.18	0.44
23:BB:1292:G:H2'	23:BB:1293:C:H6	1.82	0.44
23:BB:1338:G:H4'	41:BT:18:GLU:CG	2.29	0.44
23:BB:1708:C:H2'	23:BB:1709:U:H6	1.82	0.44
23:BB:2860:A:H2'	23:BB:2861:U:O4'	2.18	0.44
25:BC:64:VAL:HG22	25:BC:90:ILE:HD11	2.00	0.44
28:BF:65:LEU:HD23	28:BF:87:LYS:CD	2.43	0.44
28:BF:74:ALA:HB3	28:BF:77:LYS:O	2.17	0.44
29:BG:89:VAL:HG21	29:BG:162:ARG:HH11	1.83	0.44
29:BG:154:GLU:O	29:BG:156:TYR:N	2.51	0.44
30:BH:141:LYS:HE2	30:BH:141:LYS:HB2	1.75	0.44
34:BM:56:ALA:C	34:BM:58:LYS:N	2.74	0.44
34:BM:101:VAL:O	34:BM:101:VAL:HG13	2.18	0.44
36:BO:105:ALA:C	36:BO:107:ALA:H	2.24	0.44
42:BU:11:ILE:HB	42:BU:72:PHE:HD1	1.83	0.44
44:BX:21:LEU:HD23	44:BX:21:LEU:N	2.33	0.44
52:BI:129:GLU:CB	52:BI:133:ARG:HH12	2.18	0.44
1:CA:5:U:H1'	1:CA:6:G:C2	2.53	0.44
1:CA:83:C:H4'	1:CA:83:C:OP1	2.18	0.44
1:CA:503:C:H2'	1:CA:504:C:H6	1.82	0.44
1:CA:607:A:H2'	1:CA:608:A:C8	2.53	0.44
2:CC:78:LYS:C	2:CC:80:GLY:N	2.75	0.44
2:CC:126:ARG:HA	2:CC:126:ARG:NE	2.33	0.44
5:CF:71:ILE:HG13	5:CF:72:ASP:N	2.33	0.44
8:CI:42:THR:O	8:CI:46:VAL:HG22	2.18	0.44
11:CL:54:VAL:CG2	11:CL:79:ILE:HD11	2.48	0.44
11:CL:65:TYR:HB3	11:CL:95:HIS:CD2	2.52	0.44
12:CM:2:ARG:HD3	12:CM:2:ARG:N	2.31	0.44
12:CM:18:LEU:HD13	12:CM:33:LEU:HD21	2.00	0.44
12:CM:96:VAL:C	12:CM:98:GLY:H	2.26	0.44
18:CS:12:LEU:O	18:CS:16:LYS:HE2	2.17	0.44
18:CS:64:GLU:CD	18:CS:64:GLU:H	2.25	0.44
18:CS:77:ARG:HE	18:CS:77:ARG:HB3	1.64	0.44
19:CT:82:ILE:C	19:CT:85:LEU:HD22	2.42	0.44
21:CU:40:PRO:HG2	21:CU:41:THR:H	1.83	0.44
22:DA:32:U:H2'	22:DA:33:G:O4'	2.18	0.44
22:DA:43:C:H1'	28:DF:91:ARG:NH2	2.31	0.44
22:DA:111:U:H2'	22:DA:112:G:C8	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:90:U:OP2	23:DB:91:A:H3'	2.18	0.44
23:DB:784:G:OP1	23:DB:2588:G:H5''	2.18	0.44
23:DB:1563:U:H2'	23:DB:1564:C:C6	2.53	0.44
23:DB:1764:C:H2'	23:DB:1765:U:H6	1.83	0.44
23:DB:1774:C:O2	23:DB:1774:C:C2'	2.66	0.44
23:DB:1843:C:H5''	25:DC:250:GLN:NE2	2.30	0.44
23:DB:2277:G:C5'	34:DM:86:LYS:HB2	2.48	0.44
23:DB:2654:A:N6	23:DB:2666:C:OP2	2.50	0.44
25:DC:103:ILE:HG22	25:DC:105:ALA:N	2.32	0.44
26:DD:11:MET:H	26:DD:25:THR:HA	1.83	0.44
27:DE:101:TYR:O	27:DE:104:ALA:HB3	2.17	0.44
28:DF:55:ASP:OD2	28:DF:149:ARG:HD2	2.18	0.44
30:DH:14:SER:HB2	30:DH:17:ASP:CB	2.47	0.44
30:DH:27:ARG:HG3	46:DZ:60:ASP:CG	2.43	0.44
32:DK:75:SER:HA	37:DP:72:VAL:O	2.17	0.44
34:DM:69:PRO:HA	34:DM:94:ALA:CA	2.48	0.44
36:DO:51:ALA:CB	36:DO:78:VAL:HG13	2.48	0.44
37:DP:46:VAL:HA	37:DP:60:VAL:HG12	2.00	0.44
39:DR:6:GLN:HE22	39:DR:9:GLY:N	2.16	0.44
41:DT:39:THR:HG22	41:DT:42:GLU:HG2	2.00	0.44
42:DU:32:LYS:HD3	42:DU:32:LYS:H	1.83	0.44
43:DW:37:VAL:HB	43:DW:38:ARG:HD3	2.00	0.44
44:DX:24:GLU:O	44:DX:28:LEU:HD23	2.18	0.44
46:DZ:10:LYS:O	46:DZ:31:PRO:HG2	2.18	0.44
46:DZ:53:ALA:O	46:DZ:54:LYS:HB3	2.18	0.44
49:D2:4:THR:O	49:D2:5:PHE:HB2	2.16	0.44
50:D3:7:ARG:HH11	50:D3:7:ARG:HG3	1.82	0.44
52:DI:90:GLY:C	52:DI:92:PRO:HD3	2.43	0.44
1:AA:90:C:H6	1:AA:90:C:OP2	2.01	0.43
1:AA:178:C:O2'	1:AA:179:A:H5'	2.17	0.43
1:AA:201:G:O2'	1:AA:469:C:H4'	2.17	0.43
1:AA:516:U:O2'	1:AA:517:G:H5'	2.17	0.43
1:AA:791:G:C5	1:AA:792:A:N7	2.86	0.43
1:AA:837:U:H2'	1:AA:838:G:H8	1.83	0.43
1:AA:845:A:H5''	1:AA:846:G:C8	2.53	0.43
1:AA:878:A:C5'	7:AH:80:PRO:HG2	2.48	0.43
1:AA:885:G:O2'	1:AA:886:G:H5'	2.17	0.43
1:AA:987:G:H2'	1:AA:988:G:H8	1.83	0.43
1:AA:1102:A:H2'	1:AA:1103:C:C6	2.53	0.43
1:AA:1200:C:H4'	1:AA:1201:A:H3'	2.00	0.43
1:AA:1406:U:O2'	1:AA:1407:C:H5'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AD:7:LYS:HB3	3:AD:20:LEU:HB3	1.99	0.43
3:AD:123:MET:HG3	3:AD:143:SER:OG	2.18	0.43
5:AF:18:VAL:N	5:AF:19:PRO:HD2	2.32	0.43
7:AH:111:THR:O	7:AH:112:ASP:C	2.61	0.43
8:AI:20:ILE:H	8:AI:20:ILE:CD1	2.30	0.43
10:AK:126:ARG:HB2	21:AU:33:ARG:HD2	1.99	0.43
11:AL:54:VAL:CG2	11:AL:79:ILE:HD11	2.48	0.43
13:AN:50:LEU:CG	13:AN:51:PRO:HD3	2.47	0.43
13:AN:69:PRO:HG2	13:AN:70:HIS:H	1.83	0.43
15:AP:21:VAL:HG12	15:AP:33:ILE:HD12	1.98	0.43
15:AP:40:ASN:ND2	15:AP:43:ALA:HB2	2.33	0.43
18:AS:52:ASN:ND2	18:AS:53:GLY:H	2.16	0.43
21:AU:40:PRO:HG2	21:AU:41:THR:H	1.83	0.43
22:BA:22:U:H2'	22:BA:23:G:C8	2.53	0.43
22:BA:27:C:C2'	22:BA:28:C:H5'	2.48	0.43
22:BA:75:G:N1	22:BA:102:G:N2	2.47	0.43
22:BA:115:A:O2'	22:BA:116:G:H5'	2.17	0.43
23:BB:55:G:H2'	23:BB:56:A:H8	1.83	0.43
23:BB:67:U:H2'	23:BB:68:G:C8	2.53	0.43
23:BB:560:C:H2'	23:BB:561:G:O4'	2.19	0.43
23:BB:588:U:H1'	27:BE:85:PHE:CG	2.53	0.43
23:BB:596:U:O2'	23:BB:597:G:H5'	2.18	0.43
23:BB:643:A:C5	23:BB:644:A:N7	2.86	0.43
23:BB:1241:A:O4'	23:BB:1241:A:N3	2.51	0.43
23:BB:1244:A:C5'	33:BL:8:PRO:HD3	2.34	0.43
23:BB:1299:G:H5''	23:BB:1300:G:OP1	2.17	0.43
23:BB:1565:C:H5''	25:BC:17:LYS:HZ1	1.82	0.43
23:BB:1902:C:H2'	23:BB:1903:G:O4'	2.18	0.43
23:BB:1904:G:H1'	23:BB:1927:A:N1	2.32	0.43
23:BB:1912:A:H4'	23:BB:1913:A:OP1	2.18	0.43
23:BB:2133:G:C2'	23:BB:2133:G:N3	2.80	0.43
23:BB:2140:G:H8	23:BB:2140:G:OP2	2.01	0.43
25:BC:54:GLY:O	25:BC:55:GLY:C	2.60	0.43
25:BC:226:PRO:HA	25:BC:232:GLY:HA3	2.00	0.43
27:BE:134:LEU:HD21	27:BE:161:ALA:HB2	2.00	0.43
28:BF:33:ILE:H	28:BF:95:MET:HG3	1.83	0.43
28:BF:148:VAL:O	28:BF:149:ARG:HG2	2.18	0.43
34:BM:114:ARG:C	34:BM:116:ALA:H	2.26	0.43
39:BR:6:GLN:HE21	39:BR:7:SER:C	2.26	0.43
39:BR:19:THR:HG22	39:BR:97:LYS:HD2	2.00	0.43
40:BS:81:SER:CA	40:BS:99:ARG:HA	2.46	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BY:35:VAL:HG21	45:BY:37:ARG:NH2	2.33	0.43
49:B2:18:PHE:CD1	49:B2:18:PHE:C	2.97	0.43
52:BI:4:VAL:O	52:BI:4:VAL:HG13	2.17	0.43
52:BI:7:TYR:CD1	52:BI:7:TYR:C	2.96	0.43
52:BI:12:VAL:HG23	52:BI:41:PHE:CE2	2.54	0.43
1:CA:69:G:H21	1:CA:71:A:H62	1.65	0.43
1:CA:317:U:H2'	1:CA:318:G:C8	2.53	0.43
1:CA:328:C:H4'	1:CA:329:A:C5'	2.47	0.43
1:CA:599:C:H4'	7:CH:121:GLY:CA	2.47	0.43
1:CA:926:G:H3'	1:CA:1505:G:H21	1.82	0.43
1:CA:993:G:O2'	1:CA:994:A:N7	2.51	0.43
1:CA:993:G:N2	1:CA:996:A:N6	2.66	0.43
1:CA:1065:U:H1'	1:CA:1066:C:OP2	2.18	0.43
1:CA:1114:C:O2'	1:CA:1115:U:H5'	2.18	0.43
1:CA:1473:G:O2'	1:CA:1474:U:H5'	2.18	0.43
3:CD:123:MET:HA	3:CD:128:VAL:HA	2.00	0.43
3:CD:160:LEU:H	3:CD:160:LEU:CD1	2.16	0.43
5:CF:47:LEU:HD13	5:CF:51:ILE:CG2	2.47	0.43
8:CI:119:LYS:C	8:CI:121:ARG:H	2.25	0.43
10:CK:23:HIS:HB3	10:CK:30:ILE:HG12	2.00	0.43
11:CL:54:VAL:HG12	11:CL:55:ARG:H	1.83	0.43
12:CM:5:GLY:O	12:CM:6:ILE:HB	2.18	0.43
21:CU:36:PHE:HB3	21:CU:40:PRO:CD	2.41	0.43
21:CU:39:LYS:HD3	21:CU:39:LYS:H	1.82	0.43
22:DA:30:C:H1'	22:DA:58:A:N1	2.33	0.43
22:DA:106:G:H2'	22:DA:107:G:C8	2.53	0.43
23:DB:139:U:O2'	41:DT:1:MET:HB3	2.18	0.43
23:DB:327:G:O2'	23:DB:328:U:H5'	2.18	0.43
23:DB:470:A:H2'	23:DB:471:A:C8	2.53	0.43
23:DB:483:A:H5'	42:DU:44:HIS:O	2.18	0.43
23:DB:704:G:O2'	23:DB:727:A:N6	2.51	0.43
23:DB:939:G:O2'	23:DB:940:G:H5'	2.18	0.43
23:DB:963:U:H2'	23:DB:964:C:C6	2.52	0.43
23:DB:1249:U:C4'	38:DQ:3:VAL:HG21	2.47	0.43
23:DB:1315:C:O2'	23:DB:1316:U:H5'	2.18	0.43
23:DB:1495:A:H2'	23:DB:1496:A:H8	1.82	0.43
23:DB:1767:G:O2'	23:DB:1768:C:H5'	2.18	0.43
23:DB:1817:G:OP1	25:DC:86:ARG:NH2	2.50	0.43
23:DB:2496:C:C2'	23:DB:2497:A:H5'	2.48	0.43
23:DB:2617:U:H2'	23:DB:2618:G:H5'	1.99	0.43
23:DB:2716:C:H2'	23:DB:2717:C:H6	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DC:77:VAL:HG23	25:DC:77:VAL:O	2.18	0.43
25:DC:78:GLU:OE1	25:DC:94:LEU:HD22	2.18	0.43
25:DC:226:PRO:HA	25:DC:232:GLY:HA3	2.00	0.43
25:DC:230:PRO:C	25:DC:232:GLY:H	2.26	0.43
26:DD:8:LYS:O	26:DD:197:THR:HA	2.18	0.43
26:DD:34:VAL:HG23	26:DD:48:ILE:HG13	2.00	0.43
26:DD:91:THR:HG23	26:DD:92:VAL:N	2.32	0.43
26:DD:148:GLN:HG3	26:DD:152:PRO:HB3	1.98	0.43
28:DF:62:GLN:HE21	28:DF:91:ARG:NE	2.15	0.43
29:DG:4:ALA:HA	29:DG:65:GLY:HA2	2.00	0.43
30:DH:4:ILE:HG23	30:DH:17:ASP:N	2.33	0.43
32:DK:7:MET:CE	32:DK:18:ARG:HB3	2.48	0.43
32:DK:24:VAL:CG1	32:DK:33:ALA:HB2	2.47	0.43
32:DK:31:ARG:HH11	32:DK:31:ARG:HG3	1.83	0.43
34:DM:53:MET:O	34:DM:57:VAL:HG23	2.17	0.43
36:DO:67:ASN:O	36:DO:67:ASN:CG	2.61	0.43
38:DQ:13:HIS:O	38:DQ:14:LYS:C	2.61	0.43
38:DQ:38:VAL:O	38:DQ:41:ALA:N	2.52	0.43
39:DR:76:LYS:HB2	39:DR:85:LYS:HB3	2.00	0.43
41:DT:74:ILE:HG13	41:DT:75:GLY:N	2.32	0.43
43:DW:35:ILE:HA	43:DW:57:THR:HA	2.00	0.43
43:DW:49:ASN:CB	43:DW:61:LYS:HB2	2.48	0.43
45:DY:6:ILE:HG23	45:DY:56:VAL:HG22	1.99	0.43
46:DZ:27:ARG:CG	46:DZ:28:ARG:N	2.81	0.43
46:DZ:40:VAL:O	46:DZ:42:SER:N	2.51	0.43
46:DZ:65:ASP:OD2	46:DZ:65:ASP:N	2.51	0.43
1:AA:389:A:C6	1:AA:390:U:H1'	2.53	0.43
1:AA:736:C:H2'	1:AA:737:C:H6	1.83	0.43
1:AA:893:C:H2'	1:AA:894:G:H8	1.82	0.43
1:AA:923:A:OP1	4:AE:25:LYS:HB3	2.18	0.43
2:AC:179:ALA:O	2:AC:180:ASP:O	2.36	0.43
3:AD:24:VAL:HA	3:AD:27:ILE:CD1	2.45	0.43
4:AE:64:GLU:O	4:AE:68:ARG:HG2	2.18	0.43
5:AF:40:GLU:CB	5:AF:61:LEU:HB2	2.46	0.43
5:AF:47:LEU:HD13	5:AF:51:ILE:HG22	2.00	0.43
6:AG:137:ARG:HG2	6:AG:141:HIS:NE2	2.32	0.43
8:AI:95:SER:O	8:AI:99:LYS:HB2	2.18	0.43
9:AJ:8:ILE:CD1	9:AJ:76:ILE:HG13	2.47	0.43
12:AM:43:LYS:C	12:AM:45:SER:N	2.73	0.43
19:AT:42:ASP:OD1	19:AT:44:ALA:HB3	2.18	0.43
20:AB:17:HIS:CG	20:AB:18:GLN:H	2.36	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AB:17:HIS:CG	20:AB:18:GLN:N	2.86	0.43
21:AU:24:LYS:HZ3	21:AU:24:LYS:HB3	1.83	0.43
22:BA:28:C:H2'	22:BA:29:A:C8	2.53	0.43
23:BB:127:A:H5''	23:BB:128:C:C6	2.54	0.43
23:BB:623:C:H2'	23:BB:624:C:H6	1.83	0.43
23:BB:1182:G:H2'	23:BB:1183:U:O4'	2.18	0.43
23:BB:1387:A:C5'	23:BB:1469:A:H1'	2.48	0.43
23:BB:1745:A:H2'	23:BB:1746:A:C8	2.53	0.43
23:BB:1973:G:O2'	23:BB:1974:C:H5'	2.18	0.43
23:BB:2485:G:O2'	23:BB:2486:C:H5'	2.18	0.43
23:BB:2667:C:H1'	29:BG:108:PHE:CD2	2.53	0.43
25:BC:64:VAL:HG11	25:BC:66:PHE:CE2	2.52	0.43
25:BC:208:GLY:O	25:BC:209:ALA:C	2.61	0.43
26:BD:171:THR:OG1	26:BD:172:VAL:N	2.50	0.43
27:BE:12:LEU:C	27:BE:12:LEU:HD13	2.43	0.43
27:BE:24:ASN:OD1	27:BE:27:LEU:HB2	2.19	0.43
27:BE:181:ILE:HD11	33:BL:2:ARG:C	2.44	0.43
27:BE:192:ALA:O	27:BE:196:VAL:HG23	2.18	0.43
28:BF:102:LEU:HD13	28:BF:102:LEU:C	2.43	0.43
32:BK:19:VAL:HG12	32:BK:41:ILE:CG1	2.44	0.43
33:BL:143:GLU:O	33:BL:144:GLU:HB2	2.18	0.43
35:BN:104:ALA:C	35:BN:106:ASP:H	2.26	0.43
36:BO:74:VAL:O	36:BO:77:ALA:HB3	2.18	0.43
41:BT:62:VAL:HG12	41:BT:63:VAL:H	1.83	0.43
42:BU:21:ARG:HD3	42:BU:72:PHE:CG	2.53	0.43
46:BZ:17:ASN:O	46:BZ:18:ARG:C	2.60	0.43
46:BZ:68:LEU:HD22	46:BZ:78:TYR:HE1	1.83	0.43
48:B1:6:GLU:HB2	48:B1:52:LYS:NZ	2.32	0.43
52:BI:51:GLY:C	52:BI:52:LEU:HD12	2.43	0.43
1:CA:35:G:H2'	1:CA:36:C:H6	1.80	0.43
1:CA:1062:U:H2'	1:CA:1063:C:C5	2.53	0.43
1:CA:1314:C:H2'	1:CA:1315:U:C6	2.53	0.43
2:CC:133:MET:HE1	2:CC:165:GLU:HG2	1.99	0.43
3:CD:169:TRP:O	3:CD:182:LYS:HB2	2.17	0.43
4:CE:87:VAL:HG23	4:CE:91:SER:O	2.18	0.43
4:CE:95:MET:HE1	4:CE:139:THR:CG2	2.48	0.43
5:CF:36:ILE:HD12	5:CF:36:ILE:H	1.83	0.43
5:CF:41:ASP:C	5:CF:43:GLY:H	2.26	0.43
5:CF:67:PRO:O	5:CF:70:VAL:HG22	2.17	0.43
7:CH:58:LEU:CD2	7:CH:60:LEU:HB2	2.47	0.43
13:CN:48:GLN:H	13:CN:48:GLN:HG3	1.68	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CO:42:PHE:CD1	14:CO:55:LEU:HD22	2.53	0.43
14:CO:80:LEU:HD23	14:CO:80:LEU:C	2.42	0.43
15:CP:1:MET:HE3	15:CP:2:VAL:N	2.34	0.43
16:CQ:45:VAL:HG11	16:CQ:60:ILE:HG21	2.00	0.43
23:DB:484:C:H2'	23:DB:485:C:H6	1.83	0.43
23:DB:493:G:H2'	23:DB:494:G:O4'	2.17	0.43
23:DB:538:A:H2'	23:DB:539:G:O4'	2.18	0.43
23:DB:619:G:H2'	23:DB:620:G:H5''	2.00	0.43
23:DB:755:U:H2'	23:DB:756:A:C8	2.53	0.43
23:DB:958:U:OP2	34:DM:14:LYS:NZ	2.51	0.43
23:DB:1124:G:H1'	51:D4:38:GLY:C	2.42	0.43
23:DB:1182:G:H2'	23:DB:1183:U:O4'	2.18	0.43
23:DB:1309:G:H4'	49:D2:7:PRO:HB2	2.00	0.43
23:DB:1322:A:C2'	23:DB:1323:C:H5'	2.48	0.43
23:DB:1472:C:H2'	23:DB:1473:G:H8	1.82	0.43
23:DB:1528:A:H2'	23:DB:1529:G:O4'	2.18	0.43
23:DB:2630:G:O2'	23:DB:2631:G:H5'	2.18	0.43
23:DB:2760:C:O2	23:DB:2760:C:H2'	2.18	0.43
23:DB:2860:A:H2'	23:DB:2861:U:O4'	2.18	0.43
24:DV:48:MET:SD	24:DV:85:LYS:HA	2.59	0.43
25:DC:54:GLY:O	25:DC:55:GLY:C	2.59	0.43
27:DE:48:THR:C	27:DE:50:ALA:N	2.76	0.43
28:DF:19:PHE:CE1	28:DF:167:ALA:HB2	2.53	0.43
28:DF:79:ARG:O	28:DF:81:GLY:N	2.51	0.43
29:DG:104:LEU:HB3	29:DG:106:LEU:HD21	1.99	0.43
32:DK:91:SER:O	32:DK:92:GLU:C	2.61	0.43
32:DK:109:SER:C	32:DK:111:LYS:N	2.75	0.43
33:DL:135:ILE:HG12	33:DL:140:GLY:HA2	2.00	0.43
34:DM:135:VAL:O	34:DM:135:VAL:HG12	2.18	0.43
38:DQ:9:ALA:C	38:DQ:11:ALA:N	2.76	0.43
38:DQ:33:VAL:HG23	38:DQ:34:ALA:N	2.34	0.43
38:DQ:78:PHE:CZ	38:DQ:82:LEU:HD11	2.53	0.43
41:DT:22:THR:O	41:DT:25:GLU:HB3	2.18	0.43
46:DZ:17:ASN:O	46:DZ:18:ARG:C	2.61	0.43
46:DZ:43:GLU:HG2	46:DZ:43:GLU:O	2.18	0.43
46:DZ:49:LEU:HB2	46:DZ:51:VAL:HG23	2.00	0.43
51:D4:2:LYS:HD3	51:D4:4:ARG:HG3	2.00	0.43
1:AA:138:G:C6	1:AA:226:G:C6	3.06	0.43
1:AA:152:A:H3'	1:AA:153:C:C6	2.54	0.43
1:AA:182:A:HO2'	1:AA:183:C:H3'	1.82	0.43
1:AA:1069:C:O4'	1:AA:1191:A:H2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1148:U:C4'	8:AI:17:ARG:HD3	2.48	0.43
1:AA:1241:G:O2'	1:AA:1242:G:H5'	2.18	0.43
1:AA:1292:G:H2'	1:AA:1293:C:H6	1.78	0.43
1:AA:1320:C:H41	18:AS:36:ARG:HA	1.83	0.43
3:AD:18:LEU:C	3:AD:20:LEU:H	2.26	0.43
3:AD:40:HIS:O	3:AD:43:ARG:HG2	2.18	0.43
3:AD:47:LEU:HD13	3:AD:52:VAL:HG22	1.98	0.43
3:AD:84:ASN:ND2	3:AD:84:ASN:C	2.76	0.43
3:AD:169:TRP:O	3:AD:182:LYS:HB2	2.18	0.43
5:AF:45:ARG:HH22	17:AR:25:ILE:HD13	1.83	0.43
5:AF:80:PHE:CE2	25:BC:123:ILE:HG12	2.53	0.43
5:AF:98:GLU:CG	5:AF:99:ALA:N	2.80	0.43
6:AG:22:LEU:O	6:AG:25:PHE:HB3	2.18	0.43
7:AH:45:ILE:C	7:AH:63:LYS:HB2	2.43	0.43
8:AI:56:MET:C	8:AI:58:GLU:H	2.26	0.43
11:AL:31:GLY:HA3	11:AL:54:VAL:HG11	2.00	0.43
11:AL:51:VAL:HG12	11:AL:52:CYS:N	2.30	0.43
23:BB:443:A:H1'	23:BB:1201:U:O4'	2.18	0.43
23:BB:566:U:H2'	23:BB:567:U:O4'	2.18	0.43
23:BB:643:A:N3	48:B1:43:ARG:NH2	2.65	0.43
23:BB:672:C:H2'	23:BB:673:C:C6	2.54	0.43
23:BB:686:U:O4	49:B2:12:ARG:HB2	2.18	0.43
23:BB:743:A:C2'	23:BB:744:U:H5'	2.47	0.43
23:BB:1432:G:O2'	23:BB:1433:A:H5'	2.17	0.43
23:BB:1820:U:H3	25:BC:197:ALA:HA	1.83	0.43
23:BB:1946:U:O2'	23:BB:1947:C:H5'	2.18	0.43
23:BB:2037:A:C6	23:BB:2038:G:C6	3.07	0.43
23:BB:2096:C:H2'	23:BB:2097:A:H8	1.84	0.43
23:BB:2492:U:O2'	23:BB:2493:U:H5'	2.18	0.43
23:BB:2500:U:H5'	23:BB:2501:C:OP2	2.18	0.43
23:BB:2773:C:O2'	23:BB:2774:C:H5'	2.18	0.43
24:BV:21:ARG:NE	24:BV:87:GLN:HB3	2.28	0.43
25:BC:123:ILE:O	25:BC:123:ILE:HG13	2.17	0.43
26:BD:24:VAL:HG23	26:BD:189:VAL:N	2.34	0.43
26:BD:33:ARG:HG2	26:BD:33:ARG:NH2	2.33	0.43
26:BD:55:LYS:HE3	26:BD:59:ARG:HB3	2.00	0.43
26:BD:130:GLN:HB2	26:BD:139:SER:O	2.17	0.43
27:BE:38:GLY:C	27:BE:40:ARG:N	2.76	0.43
28:BF:19:PHE:CE1	28:BF:167:ALA:HB2	2.54	0.43
28:BF:74:ALA:CB	28:BF:78:ILE:HD13	2.48	0.43
29:BG:60:GLY:O	29:BG:62:ALA:N	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BG:154:GLU:OE1	29:BG:157:LYS:HB2	2.18	0.43
30:BH:133:GLN:CB	30:BH:139:PHE:HA	2.45	0.43
31:BJ:101:ILE:O	31:BJ:104:ALA:HB3	2.18	0.43
34:BM:21:ALA:HB3	34:BM:99:GLY:O	2.18	0.43
35:BN:48:VAL:O	35:BN:51:LEU:N	2.52	0.43
39:BR:49:ILE:HD13	39:BR:53:PHE:H	1.81	0.43
40:BS:24:ILE:HG23	40:BS:32:ALA:CB	2.48	0.43
42:BU:23:LYS:HD2	42:BU:23:LYS:N	2.34	0.43
42:BU:38:ILE:CG2	42:BU:39:ASN:H	2.07	0.43
42:BU:94:PHE:CA	42:BU:101:THR:HA	2.48	0.43
46:BZ:43:GLU:HG2	46:BZ:43:GLU:O	2.18	0.43
48:B1:26:LYS:HB2	48:B1:52:LYS:NZ	2.33	0.43
1:CA:153:C:H2'	1:CA:154:U:H6	1.79	0.43
1:CA:307:C:H2'	1:CA:308:C:H6	1.83	0.43
1:CA:394:G:H2'	1:CA:395:C:C6	2.53	0.43
1:CA:795:C:H1'	1:CA:1506:U:C5	2.53	0.43
1:CA:1057:G:H4'	2:CC:196:GLY:N	2.27	0.43
1:CA:1080:A:H4'	4:CE:20:VAL:HG13	1.98	0.43
1:CA:1407:C:O2'	1:CA:1408:A:H5'	2.17	0.43
1:CA:1500:A:OP1	1:CA:1505:G:OP1	2.36	0.43
11:CL:43:LYS:CD	11:CL:44:PRO:HD3	2.48	0.43
13:CN:51:PRO:HB2	13:CN:54:SER:CB	2.33	0.43
16:CQ:30:HIS:CG	16:CQ:33:TYR:HB2	2.53	0.43
16:CQ:60:ILE:HD13	16:CQ:60:ILE:N	2.33	0.43
20:CB:14:HIS:O	20:CB:15:PHE:C	2.61	0.43
20:CB:46:VAL:HA	20:CB:49:PHE:HD2	1.84	0.43
20:CB:94:ARG:HE	20:CB:94:ARG:N	2.16	0.43
20:CB:218:ALA:C	20:CB:220:VAL:H	2.26	0.43
21:CU:26:GLY:O	21:CU:30:GLU:HB3	2.17	0.43
22:DA:64:G:O2'	22:DA:65:U:H5'	2.19	0.43
23:DB:102:U:P	23:DB:102:U:O4'	2.76	0.43
23:DB:611:C:H2'	23:DB:612:G:O4'	2.17	0.43
23:DB:719:C:O2'	23:DB:720:U:H5'	2.17	0.43
23:DB:1112:G:H2'	23:DB:1113:U:O4'	2.18	0.43
23:DB:1387:A:C5'	23:DB:1469:A:H1'	2.48	0.43
23:DB:1528:A:H2'	23:DB:1529:G:H5'	2.00	0.43
23:DB:1674:G:N2	23:DB:1677:A:N1	2.67	0.43
23:DB:1973:G:H2'	23:DB:1974:C:H6	1.83	0.43
23:DB:2025:C:H2'	23:DB:2026:U:H6	1.78	0.43
23:DB:2211:A:H4'	23:DB:2211:A:OP2	2.18	0.43
23:DB:2459:A:H2'	23:DB:2459:A:N3	2.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2697:G:H2'	23:DB:2698:U:O4'	2.17	0.43
25:DC:92:LEU:HG	25:DC:93:VAL:H	1.82	0.43
26:DD:117:GLY:O	26:DD:118:PHE:C	2.59	0.43
28:DF:2:LYS:HB2	28:DF:100:GLU:CD	2.44	0.43
28:DF:68:LYS:HZ2	28:DF:81:GLY:C	2.26	0.43
29:DG:28:LYS:HG2	29:DG:79:THR:HA	1.99	0.43
33:DL:61:LEU:N	33:DL:61:LEU:CD1	2.81	0.43
33:DL:120:VAL:O	33:DL:135:ILE:HD11	2.17	0.43
34:DM:28:PHE:HB3	34:DM:64:TRP:CE2	2.52	0.43
36:DO:8:ILE:HG13	36:DO:8:ILE:H	1.67	0.43
36:DO:67:ASN:H	36:DO:70:ALA:CB	2.29	0.43
38:DQ:45:ALA:O	38:DQ:49:ARG:N	2.47	0.43
39:DR:39:LEU:CA	39:DR:53:PHE:HA	2.44	0.43
41:DT:32:LEU:H	41:DT:83:ALA:CB	2.30	0.43
41:DT:50:LEU:C	41:DT:52:GLU:N	2.72	0.43
42:DU:94:PHE:HB2	42:DU:101:THR:HA	1.99	0.43
49:D2:18:PHE:CD1	49:D2:18:PHE:C	2.96	0.43
51:D4:18:LYS:HE3	51:D4:21:GLY:HA2	2.00	0.43
52:DI:11:GLN:NE2	52:DI:74:PRO:HG3	2.33	0.43
1:AA:394:G:H2'	1:AA:395:C:C6	2.53	0.43
1:AA:1002:G:H2'	1:AA:1003:G:O4'	2.18	0.43
1:AA:1042:A:H2'	1:AA:1043:G:O4'	2.18	0.43
1:AA:1150:A:O3'	9:AJ:43:PRO:HA	2.19	0.43
1:AA:1381:U:O2'	1:AA:1382:C:H5'	2.18	0.43
1:AA:1426:G:H2'	1:AA:1427:C:O4'	2.19	0.43
4:AE:68:ARG:O	4:AE:69:ASN:HB2	2.17	0.43
5:AF:10:VAL:HG12	5:AF:11:HIS:N	2.33	0.43
6:AG:11:ILE:HG22	6:AG:12:LEU:N	2.33	0.43
8:AI:18:VAL:HG12	8:AI:19:PHE:N	2.33	0.43
8:AI:42:THR:O	8:AI:46:VAL:HG22	2.18	0.43
9:AJ:49:PHE:HB2	9:AJ:65:TYR:HB2	1.99	0.43
11:AL:60:PHE:O	11:AL:62:VAL:N	2.51	0.43
12:AM:30:LYS:HG3	12:AM:40:GLU:OE1	2.19	0.43
12:AM:102:LYS:HB2	12:AM:102:LYS:NZ	2.33	0.43
19:AT:50:PHE:C	19:AT:52:GLU:N	2.76	0.43
20:AB:31:PHE:HB3	20:AB:39:ILE:CG2	2.48	0.43
20:AB:48:MET:H	20:AB:48:MET:HG2	1.58	0.43
21:AU:44:ARG:HG3	21:AU:44:ARG:NH1	2.33	0.43
23:BB:95:A:H4'	44:BX:38:GLN:O	2.18	0.43
23:BB:252:G:O2'	23:BB:253:C:H5'	2.18	0.43
23:BB:416:U:H2'	23:BB:417:C:H6	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:514:A:N6	23:BB:515:A:N6	2.66	0.43
23:BB:673:C:C5'	27:BE:76:PRO:HD2	2.47	0.43
23:BB:826:U:H2'	23:BB:828:U:O4'	2.18	0.43
23:BB:967:U:H2'	23:BB:968:C:H6	1.82	0.43
23:BB:1053:C:H2'	23:BB:1054:A:C8	2.53	0.43
23:BB:1411:U:H2'	23:BB:1412:U:C6	2.54	0.43
23:BB:1706:C:H2'	23:BB:1757:A:OP2	2.18	0.43
23:BB:2304:G:N3	23:BB:2304:G:H2'	2.33	0.43
23:BB:2547:A:H2'	23:BB:2548:U:H6	1.82	0.43
23:BB:2800:A:H2'	23:BB:2801:G:C1'	2.49	0.43
24:BV:60:VAL:HG22	24:BV:73:LYS:HE2	2.00	0.43
25:BC:120:ASP:OD2	25:BC:120:ASP:N	2.50	0.43
26:BD:109:VAL:HG11	26:BD:193:VAL:CB	2.48	0.43
26:BD:202:ILE:O	26:BD:202:ILE:HG22	2.17	0.43
27:BE:1:MET:HB3	27:BE:14:VAL:O	2.19	0.43
28:BF:47:LYS:C	28:BF:49:LEU:H	2.27	0.43
31:BJ:83:GLY:O	31:BJ:84:ILE:C	2.61	0.43
32:BK:79:PHE:CD2	37:BP:69:VAL:HG12	2.52	0.43
32:BK:91:SER:O	32:BK:92:GLU:C	2.61	0.43
33:BL:74:THR:HA	33:BL:107:PHE:O	2.19	0.43
34:BM:19:GLY:C	34:BM:97:GLN:HG3	2.43	0.43
35:BN:24:MET:CG	35:BN:44:LEU:HD22	2.48	0.43
35:BN:29:VAL:HG21	35:BN:75:ILE:HB	2.01	0.43
44:BX:22:LEU:O	44:BX:24:GLU:N	2.51	0.43
51:B4:3:VAL:O	51:B4:4:ARG:HB2	2.19	0.43
52:BI:85:ILE:CD1	52:BI:137:LEU:HD21	2.47	0.43
52:BI:138:VAL:HG12	52:BI:139:VAL:N	2.33	0.43
1:CA:78:A:H2'	1:CA:79:G:C8	2.53	0.43
1:CA:409:U:O2'	1:CA:410:G:H5'	2.18	0.43
1:CA:451:A:H4'	1:CA:452:A:O4'	2.18	0.43
1:CA:496:A:H2'	1:CA:497:G:C8	2.52	0.43
1:CA:502:A:H2'	1:CA:503:C:O4'	2.19	0.43
1:CA:845:A:H5''	1:CA:846:G:C8	2.53	0.43
1:CA:880:C:H2'	1:CA:881:G:H8	1.84	0.43
1:CA:902:G:H2'	1:CA:903:G:H8	1.84	0.43
3:CD:21:LYS:C	3:CD:23:GLY:H	2.25	0.43
3:CD:84:ASN:ND2	3:CD:84:ASN:C	2.75	0.43
3:CD:146:GLU:CD	3:CD:146:GLU:H	2.26	0.43
4:CE:11:GLN:O	4:CE:38:VAL:HA	2.18	0.43
5:CF:43:GLY:HA2	5:CF:58:HIS:CD2	2.53	0.43
7:CH:105:THR:HG21	7:CH:110:MET:SD	2.59	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CI:123:ARG:HB3	8:CI:123:ARG:NH1	2.32	0.43
9:CJ:5:ARG:N	9:CJ:76:ILE:O	2.52	0.43
12:CM:19:THR:HG22	12:CM:29:SER:HB3	2.01	0.43
16:CQ:16:MET:HE3	16:CQ:19:SER:O	2.18	0.43
20:CB:27:LYS:C	20:CB:27:LYS:HD2	2.43	0.43
20:CB:104:LYS:HB2	20:CB:104:LYS:NZ	2.33	0.43
20:CB:116:LEU:HA	20:CB:119:GLN:CG	2.48	0.43
20:CB:129:THR:C	20:CB:131:LYS:H	2.25	0.43
23:DB:91:A:H1'	23:DB:92:U:C6	2.54	0.43
23:DB:96:C:H2'	23:DB:97:C:H6	1.83	0.43
23:DB:183:C:O2'	23:DB:184:C:H5'	2.19	0.43
23:DB:342:A:H2'	23:DB:343:C:O4'	2.19	0.43
23:DB:699:A:H2'	23:DB:700:G:O4'	2.19	0.43
23:DB:708:G:N2	23:DB:724:U:H1'	2.33	0.43
23:DB:937:C:H2'	23:DB:938:G:H8	1.84	0.43
23:DB:1042:G:H2'	23:DB:1043:C:H6	1.82	0.43
23:DB:1099:G:O5'	52:DI:4:VAL:HG12	2.18	0.43
23:DB:1103:A:H2'	23:DB:1103:A:N3	2.34	0.43
23:DB:1124:G:N3	51:D4:38:GLY:O	2.51	0.43
23:DB:1184:U:O2'	23:DB:1185:G:H5'	2.19	0.43
23:DB:1370:C:H2'	23:DB:1371:G:O4'	2.19	0.43
23:DB:1545:A:H2'	23:DB:1546:G:O4'	2.19	0.43
23:DB:2249:U:H4'	23:DB:2275:C:C5	2.54	0.43
23:DB:2297:A:H61	23:DB:2319:G:H1'	1.83	0.43
23:DB:2315:G:H2'	23:DB:2316:G:H8	1.83	0.43
23:DB:2466:C:OP1	51:D4:4:ARG:HB3	2.18	0.43
23:DB:2572:A:P	26:DD:151:THR:HB	2.59	0.43
23:DB:2766:A:H2'	23:DB:2766:A:N3	2.33	0.43
23:DB:2857:G:N2	23:DB:2859:G:H3'	2.33	0.43
25:DC:75:ALA:HB1	25:DC:93:VAL:HG22	1.99	0.43
25:DC:244:VAL:HB	25:DC:249:VAL:H	1.82	0.43
26:DD:55:LYS:HE3	26:DD:59:ARG:HB3	1.99	0.43
28:DF:24:VAL:O	28:DF:27:VAL:HG22	2.18	0.43
28:DF:126:ASN:HB3	28:DF:156:THR:CB	2.49	0.43
30:DH:131:SER:OG	30:DH:141:LYS:HE3	2.18	0.43
31:DJ:55:ILE:O	31:DJ:55:ILE:HG13	2.16	0.43
35:DN:96:ARG:HG2	35:DN:96:ARG:NH2	2.33	0.43
39:DR:6:GLN:HE21	39:DR:7:SER:C	2.26	0.43
41:DT:1:MET:C	41:DT:2:ILE:HD13	2.44	0.43
44:DX:9:LYS:O	44:DX:10:SER:C	2.61	0.43
50:D3:16:THR:C	50:D3:18:LYS:N	2.75	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:DI:54:ILE:HD11	52:DI:71:LYS:N	2.33	0.43
1:AA:808:C:O2'	1:AA:809:G:H5'	2.18	0.43
1:AA:1250:A:H2	1:AA:1370:G:H1'	1.82	0.43
1:AA:1261:A:N7	1:AA:1274:A:H2	2.17	0.43
1:AA:1337:G:H5''	1:AA:1338:G:OP1	2.18	0.43
1:AA:1439:G:OP2	19:AT:32:LYS:HE2	2.18	0.43
2:AC:8:GLY:HA3	13:AN:88:MET:SD	2.58	0.43
2:AC:19:SER:HB2	2:AC:39:ARG:NH2	2.32	0.43
3:AD:25:ARG:HE	3:AD:25:ARG:HB2	1.57	0.43
3:AD:115:GLN:HG3	3:AD:119:HIS:CE1	2.53	0.43
9:AJ:12:ALA:CB	9:AJ:96:VAL:HG12	2.43	0.43
10:AK:61:ALA:O	10:AK:64:VAL:HG13	2.19	0.43
10:AK:88:PRO:HD3	21:AU:28:LEU:CD1	2.34	0.43
11:AL:21:PRO:HG2	11:AL:94:TYR:OH	2.18	0.43
18:AS:40:PHE:HB3	18:AS:41:PRO:HD2	1.98	0.43
20:AB:160:LEU:HG	20:AB:161:PHE:N	2.34	0.43
20:AB:184:ALA:HB3	20:AB:195:VAL:HG21	2.01	0.43
23:BB:612:G:H2'	23:BB:614:A:H5''	2.00	0.43
23:BB:674:G:C4'	27:BE:69:ARG:HB3	2.48	0.43
23:BB:1203:U:C4'	33:BL:3:LEU:HD12	2.49	0.43
23:BB:1369:G:H2'	23:BB:1370:C:O4'	2.19	0.43
23:BB:1496:A:H1'	23:BB:1577:C:O2'	2.17	0.43
23:BB:1525:A:H2'	23:BB:1526:C:O4'	2.18	0.43
23:BB:1573:G:H2'	23:BB:1574:C:H5'	2.01	0.43
23:BB:1704:C:H2'	23:BB:1705:A:H8	1.84	0.43
23:BB:1749:A:H2'	23:BB:1750:G:H8	1.84	0.43
23:BB:1874:C:H2'	23:BB:1875:G:O4'	2.17	0.43
23:BB:1933:G:H2'	23:BB:1934:C:H6	1.82	0.43
23:BB:2104:C:HO2'	23:BB:2105:U:H5	1.64	0.43
23:BB:2147:A:H5''	23:BB:2148:G:O4'	2.18	0.43
23:BB:2496:C:H2'	23:BB:2497:A:H5'	2.01	0.43
23:BB:2784:U:H4'	26:BD:42:ASN:O	2.18	0.43
25:BC:52:HIS:O	25:BC:53:ILE:HB	2.17	0.43
25:BC:71:ASP:O	25:BC:73:ILE:HG12	2.18	0.43
25:BC:77:VAL:HG23	25:BC:77:VAL:O	2.19	0.43
25:BC:149:LYS:HD3	25:BC:152:GLN:HE22	1.81	0.43
25:BC:259:ASN:OD1	25:BC:261:ARG:HB3	2.18	0.43
26:BD:13:ARG:HH12	37:BP:74:GLN:HE21	1.67	0.43
28:BF:3:LEU:HD13	28:BF:3:LEU:O	2.18	0.43
29:BG:152:ARG:NE	29:BG:152:ARG:HA	2.33	0.43
29:BG:152:ARG:HA	29:BG:152:ARG:HE	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BH:104:THR:HA	30:BH:109:GLU:OE2	2.18	0.43
32:BK:54:LYS:H	32:BK:54:LYS:CD	2.29	0.43
33:BL:4:ASN:O	33:BL:5:THR:C	2.61	0.43
34:BM:33:LEU:HD22	34:BM:128:THR:HB	2.00	0.43
37:BP:74:GLN:O	37:BP:75:THR:C	2.60	0.43
38:BQ:63:ARG:HG3	38:BQ:63:ARG:H	1.60	0.43
38:BQ:93:ILE:O	38:BQ:96:ASP:HB3	2.18	0.43
41:BT:14:PRO:HA	41:BT:32:LEU:HB2	1.99	0.43
43:BW:54:ARG:HB3	43:BW:54:ARG:NH1	2.34	0.43
44:BX:51:ALA:O	44:BX:55:THR:N	2.46	0.43
51:B4:9:LYS:HD3	51:B4:9:LYS:N	2.31	0.43
1:CA:6:G:N3	1:CA:6:G:C3'	2.81	0.43
1:CA:215:C:H2'	1:CA:216:U:H6	1.82	0.43
1:CA:222:C:H2'	1:CA:223:A:H8	1.82	0.43
1:CA:237:G:H2'	1:CA:238:A:C8	2.53	0.43
1:CA:521:G:O2'	1:CA:522:C:H5'	2.18	0.43
1:CA:642:A:H2'	1:CA:643:C:C6	2.53	0.43
1:CA:981:U:H2'	1:CA:982:U:C5	2.53	0.43
1:CA:1026:G:O2'	1:CA:1027:C:H5'	2.19	0.43
1:CA:1060:U:H2'	1:CA:1061:G:C8	2.52	0.43
1:CA:1290:G:H2'	1:CA:1291:U:C6	2.54	0.43
1:CA:1393:U:O2'	1:CA:1394:A:H2'	2.19	0.43
3:CD:47:LEU:HD22	3:CD:51:GLY:O	2.18	0.43
6:CG:129:ASN:CA	6:CG:134:VAL:HG21	2.47	0.43
7:CH:9:MET:HG3	7:CH:26:MET:SD	2.58	0.43
7:CH:77:VAL:C	7:CH:79:ARG:H	2.26	0.43
9:CJ:42:LEU:CD1	9:CJ:73:LEU:HB2	2.39	0.43
10:CK:111:ASP:HB3	21:CU:3:ILE:N	2.34	0.43
11:CL:31:GLY:HA3	11:CL:54:VAL:CG1	2.49	0.43
11:CL:33:CYS:N	11:CL:54:VAL:HG13	2.33	0.43
13:CN:30:ILE:O	13:CN:40:ARG:HA	2.18	0.43
15:CP:21:VAL:O	15:CP:33:ILE:HB	2.18	0.43
16:CQ:28:VAL:O	16:CQ:36:PHE:HA	2.18	0.43
22:DA:52:A:H3'	22:DA:53:A:H8	1.82	0.43
23:DB:29:U:H2'	23:DB:30:G:C8	2.54	0.43
23:DB:277:G:H1'	23:DB:361:G:O6	2.19	0.43
23:DB:322:A:C2	23:DB:340:A:C6	3.07	0.43
23:DB:483:A:O2'	42:DU:56:GLY:N	2.52	0.43
23:DB:725:G:H2'	23:DB:726:G:O4'	2.19	0.43
23:DB:1098:A:C2'	52:DI:4:VAL:C	2.91	0.43
23:DB:1708:C:H2'	23:DB:1709:U:H6	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1742:U:H2'	23:DB:1743:G:H8	1.82	0.43
23:DB:1930:G:C2'	23:DB:1931:U:OP2	2.67	0.43
23:DB:2217:G:H2'	23:DB:2218:G:H8	1.82	0.43
23:DB:2320:U:H4'	23:DB:2321:U:C2	2.54	0.43
23:DB:2341:G:H2'	23:DB:2342:C:H6	1.81	0.43
23:DB:2636:C:H2'	23:DB:2637:U:H6	1.83	0.43
23:DB:2676:C:O2'	23:DB:2677:G:H5'	2.19	0.43
23:DB:2677:G:H2'	23:DB:2678:C:C6	2.53	0.43
23:DB:2748:A:H5'	29:DG:3:VAL:HG21	2.00	0.43
23:DB:2835:A:H61	23:DB:2878:U:H2'	1.83	0.43
23:DB:2852:G:H2'	23:DB:2853:C:O4'	2.18	0.43
26:DD:2:ILE:O	26:DD:2:ILE:HD12	2.18	0.43
27:DE:12:LEU:HD13	27:DE:12:LEU:C	2.43	0.43
28:DF:76:PHE:O	28:DF:77:LYS:HB2	2.18	0.43
32:DK:106:GLU:OE1	32:DK:106:GLU:N	2.49	0.43
34:DM:19:GLY:N	34:DM:38:ARG:NH2	2.64	0.43
34:DM:37:GLY:HA3	34:DM:126:ILE:HG23	2.00	0.43
36:DO:35:ILE:HG13	36:DO:102:ARG:HE	1.81	0.43
39:DR:2:TYR:N	39:DR:42:ALA:HB2	2.34	0.43
40:DS:20:VAL:HG13	40:DS:21:ALA:N	2.34	0.43
40:DS:25:ARG:HE	40:DS:74:ILE:HG23	1.82	0.43
46:DZ:7:VAL:HG13	46:DZ:8:THR:CG2	2.39	0.43
46:DZ:33:LEU:HD23	46:DZ:52:SER:HB3	2.01	0.43
49:D2:36:ALA:C	49:D2:38:GLY:N	2.77	0.43
50:D3:44:ARG:N	50:D3:45:PRO:CD	2.82	0.43
52:DI:59:THR:O	52:DI:59:THR:HG23	2.19	0.43
1:AA:332:G:O2'	1:AA:333:U:H5'	2.19	0.43
1:AA:541:G:H2'	1:AA:542:G:H8	1.84	0.43
1:AA:642:A:H2'	1:AA:643:C:C6	2.52	0.43
1:AA:721:G:H4'	1:AA:722:G:O4'	2.18	0.43
1:AA:767:A:H2'	1:AA:768:A:H8	1.84	0.43
1:AA:975:A:H61	9:AJ:50:THR:HG21	1.83	0.43
1:AA:1421:G:N2	1:AA:1479:C:O2	2.51	0.43
9:AJ:50:THR:HG22	9:AJ:62:ARG:HD2	2.00	0.43
11:AL:30:ARG:O	11:AL:57:THR:HG23	2.18	0.43
11:AL:86:VAL:HG12	11:AL:89:LEU:H	1.82	0.43
11:AL:89:LEU:N	11:AL:89:LEU:HD22	2.33	0.43
12:AM:63:VAL:HG13	12:AM:67:ASP:CB	2.48	0.43
20:AB:14:HIS:O	20:AB:15:PHE:C	2.60	0.43
20:AB:95:TRP:CH2	20:AB:100:LEU:HD13	2.53	0.43
20:AB:172:ILE:CG2	20:AB:176:ASN:HD21	2.31	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:51:G:H5''	36:BO:64:TYR:CD2	2.53	0.43
23:BB:705:A:O2'	25:BC:6:LYS:HD2	2.18	0.43
23:BB:1270:C:H5''	23:BB:1271:G:O5'	2.17	0.43
23:BB:1467:U:O2'	23:BB:1468:U:H5'	2.18	0.43
23:BB:1708:C:H2'	23:BB:1709:U:C6	2.53	0.43
23:BB:1805:A:H5''	25:BC:247:TRP:CE2	2.54	0.43
23:BB:2026:U:H2'	23:BB:2027:G:H8	1.83	0.43
23:BB:2694:G:H2'	23:BB:2695:U:C6	2.54	0.43
23:BB:2716:C:H2'	23:BB:2717:C:H6	1.82	0.43
23:BB:2742:G:O2'	23:BB:2743:U:H5'	2.19	0.43
25:BC:156:SER:HB3	25:BC:159:THR:HG21	2.00	0.43
25:BC:224:MET:SD	25:BC:229:HIS:HB2	2.58	0.43
27:BE:162:ARG:C	27:BE:164:LEU:N	2.75	0.43
27:BE:188:MET:HG2	27:BE:193:VAL:CG2	2.44	0.43
28:BF:107:VAL:HB	28:BF:108:PRO:HD3	2.01	0.43
30:BH:131:SER:CB	30:BH:141:LYS:HA	2.46	0.43
31:BJ:30:THR:N	31:BJ:108:MET:HE3	2.32	0.43
31:BJ:64:VAL:HG22	31:BJ:68:LYS:CD	2.49	0.43
32:BK:2:ILE:HD12	32:BK:2:ILE:N	2.33	0.43
32:BK:7:MET:CE	32:BK:18:ARG:HB3	2.49	0.43
32:BK:72:PRO:C	32:BK:74:GLY:H	2.26	0.43
32:BK:115:ILE:C	32:BK:117:SER:H	2.25	0.43
34:BM:49:ALA:HA	34:BM:123:LYS:HG3	2.00	0.43
37:BP:19:PHE:O	37:BP:20:ARG:CB	2.66	0.43
37:BP:100:ARG:HB3	37:BP:101:GLU:OE2	2.19	0.43
38:BQ:77:LYS:O	38:BQ:80:ASN:HB3	2.19	0.43
39:BR:39:LEU:H	39:BR:39:LEU:HD23	1.82	0.43
41:BT:40:LYS:O	41:BT:43:ILE:HB	2.18	0.43
41:BT:58:VAL:O	41:BT:58:VAL:HG13	2.19	0.43
42:BU:73:ASN:ND2	42:BU:74:ALA:N	2.67	0.43
43:BW:28:GLU:H	43:BW:31:LEU:HG	1.84	0.43
45:BY:6:ILE:HG23	45:BY:56:VAL:HG22	2.01	0.43
46:BZ:70:GLU:O	46:BZ:72:ARG:N	2.42	0.43
46:BZ:77:LYS:HG3	46:BZ:78:TYR:H	1.84	0.43
52:BI:56:VAL:HG13	52:BI:58:ILE:HD11	2.01	0.43
1:CA:126:G:H2'	1:CA:127:G:O4'	2.18	0.43
1:CA:186:C:H2'	1:CA:187:G:O4'	2.19	0.43
1:CA:375:U:O2'	1:CA:376:G:H5'	2.19	0.43
1:CA:386:C:O2'	1:CA:387:U:H5'	2.18	0.43
1:CA:562:U:H5''	1:CA:563:A:C4	2.54	0.43
1:CA:828:U:H2'	1:CA:829:G:O5'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:948:C:H2'	1:CA:949:A:H8	1.83	0.43
1:CA:1077:G:N1	1:CA:1081:A:C6	2.87	0.43
1:CA:1096:C:H2'	1:CA:1097:C:C6	2.52	0.43
1:CA:1222:G:H2'	1:CA:1223:C:H5'	2.00	0.43
3:CD:2:ARG:HG3	3:CD:114:ARG:CZ	2.49	0.43
6:CG:30:MET:HG3	6:CG:35:LYS:HA	2.00	0.43
6:CG:63:VAL:HA	6:CG:66:GLU:CD	2.44	0.43
7:CH:12:ARG:HG3	7:CH:12:ARG:NH1	2.34	0.43
10:CK:91:GLY:O	10:CK:95:THR:HG22	2.19	0.43
11:CL:37:TYR:O	11:CL:38:THR:HG23	2.18	0.43
17:CR:57:ALA:O	17:CR:60:ARG:HG3	2.18	0.43
20:CB:8:MET:SD	20:CB:9:LEU:N	2.92	0.43
20:CB:35:ASN:HD22	20:CB:35:ASN:HA	1.53	0.43
20:CB:165:ALA:HB3	20:CB:186:VAL:HG11	2.01	0.43
23:DB:39:G:H2'	23:DB:40:U:H6	1.82	0.43
23:DB:463:G:N1	23:DB:467:G:C6	2.87	0.43
23:DB:672:C:H2'	23:DB:673:C:C6	2.54	0.43
23:DB:811:U:OP2	33:DL:20:GLY:HA2	2.19	0.43
23:DB:989:G:H5''	45:DY:13:ILE:HD11	2.00	0.43
23:DB:1030:C:O2'	23:DB:1031:G:H5'	2.18	0.43
23:DB:1438:U:O2'	23:DB:1439:A:H5'	2.18	0.43
23:DB:1704:C:H2'	23:DB:1705:A:H8	1.83	0.43
23:DB:1795:C:H2'	23:DB:1796:U:C6	2.53	0.43
23:DB:1797:G:O3'	25:DC:255:LYS:O	2.37	0.43
23:DB:1831:G:H2'	23:DB:1832:C:H6	1.82	0.43
23:DB:2485:G:O2'	23:DB:2486:C:H5'	2.19	0.43
23:DB:2655:G:H1'	23:DB:2656:U:H5	1.84	0.43
23:DB:2722:G:O2'	23:DB:2723:C:H5'	2.19	0.43
23:DB:2743:U:C2'	23:DB:2744:G:H5''	2.37	0.43
24:DV:49:ASN:O	24:DV:52:ALA:HB3	2.17	0.43
26:DD:8:LYS:HA	26:DD:201:LEU:HD11	2.01	0.43
26:DD:33:ARG:HE	26:DD:74:GLU:HB3	1.83	0.43
26:DD:34:VAL:CG2	26:DD:48:ILE:HG13	2.49	0.43
27:DE:188:MET:HE3	27:DE:193:VAL:HG13	2.01	0.43
29:DG:38:ASP:CG	29:DG:39:ALA:H	2.27	0.43
29:DG:94:ARG:C	29:DG:94:ARG:HE	2.27	0.43
33:DL:4:ASN:O	33:DL:5:THR:C	2.61	0.43
33:DL:54:GLN:O	33:DL:56:PRO:HD3	2.18	0.43
34:DM:32:GLY:HA2	34:DM:117:PHE:CZ	2.54	0.43
35:DN:116:VAL:O	35:DN:116:VAL:HG13	2.19	0.43
36:DO:35:ILE:HG21	36:DO:71:ALA:HB1	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DO:51:ALA:HB2	36:DO:81:ARG:HH11	1.84	0.43
36:DO:116:GLN:O	36:DO:117:PHE:HB3	2.18	0.43
38:DQ:9:ALA:O	38:DQ:12:ARG:N	2.51	0.43
38:DQ:30:VAL:HG12	38:DQ:33:VAL:HG22	1.99	0.43
40:DS:6:LYS:HB3	40:DS:104:THR:HA	2.01	0.43
41:DT:12:ARG:HA	44:DX:29:ARG:NH2	2.30	0.43
41:DT:58:VAL:O	41:DT:58:VAL:HG13	2.18	0.43
43:DW:37:VAL:C	43:DW:38:ARG:HG2	2.44	0.43
43:DW:70:VAL:O	43:DW:70:VAL:HG13	2.19	0.43
48:D1:18:HIS:CG	48:D1:19:PHE:N	2.86	0.43
48:D1:46:VAL:HG22	48:D1:47:ILE:HD12	2.01	0.43
1:AA:71:A:O2'	1:AA:72:A:H5'	2.18	0.43
1:AA:82:G:H1'	1:AA:89:U:C2	2.54	0.43
1:AA:187:G:N2	1:AA:189:A:H3'	2.34	0.43
1:AA:191:G:H2'	1:AA:192:A:H8	1.84	0.43
1:AA:263:A:H2'	1:AA:264:C:C6	2.53	0.43
1:AA:386:C:O2'	1:AA:387:U:H5'	2.18	0.43
1:AA:594:U:O2'	1:AA:595:A:H5'	2.17	0.43
1:AA:716:A:H1'	10:AK:119:GLY:HA2	2.01	0.43
1:AA:1140:C:O2'	1:AA:1141:C:H5'	2.18	0.43
1:AA:1329:A:O2'	1:AA:1330:U:H5'	2.18	0.43
1:AA:1409:C:H4'	23:BB:1915:U:O4	2.19	0.43
2:AC:2:GLN:O	2:AC:3:LYS:HB2	2.19	0.43
2:AC:50:SER:CB	2:AC:70:ALA:HB3	2.48	0.43
3:AD:106:PHE:CD1	3:AD:158:LEU:HD21	2.54	0.43
5:AF:6:ILE:HG23	5:AF:62:MET:CB	2.48	0.43
5:AF:81:ASN:O	5:AF:84:VAL:HG12	2.18	0.43
8:AI:9:GLY:HA3	8:AI:81:GLY:N	2.32	0.43
8:AI:54:VAL:HG21	8:AI:86:LEU:HD21	2.00	0.43
8:AI:66:VAL:HG11	8:AI:78:ILE:HD11	2.01	0.43
9:AJ:8:ILE:HB	9:AJ:74:VAL:HB	2.01	0.43
12:AM:72:ILE:O	12:AM:76:ILE:HG13	2.18	0.43
15:AP:45:GLU:C	15:AP:47:GLU:H	2.27	0.43
23:BB:5:A:H2'	23:BB:6:A:H8	1.82	0.43
23:BB:510:C:H2'	23:BB:511:U:O4'	2.19	0.43
23:BB:697:G:O2'	23:BB:698:C:H5'	2.18	0.43
23:BB:741:U:H2'	23:BB:742:A:H8	1.84	0.43
23:BB:771:G:O2'	23:BB:772:C:H5'	2.19	0.43
23:BB:852:U:H2'	23:BB:853:C:C6	2.53	0.43
23:BB:950:G:H2'	23:BB:951:C:H6	1.84	0.43
23:BB:1233:C:O2'	23:BB:1234:U:H5'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1405:U:H2'	23:BB:1406:U:H6	1.83	0.43
23:BB:1459:G:N3	23:BB:1459:G:O5'	2.52	0.43
23:BB:1528:A:H2'	23:BB:1529:G:H5'	2.00	0.43
23:BB:1563:U:H2'	23:BB:1564:C:C6	2.53	0.43
23:BB:1742:U:H2'	23:BB:1743:G:H8	1.83	0.43
23:BB:1797:G:O3'	25:BC:255:LYS:O	2.37	0.43
23:BB:1798:U:H5''	25:BC:257:ARG:HB2	2.01	0.43
23:BB:1939:U:H5'	23:BB:1939:U:C6	2.47	0.43
23:BB:1973:G:H2'	23:BB:1974:C:H6	1.84	0.43
23:BB:2526:G:H2'	23:BB:2527:C:H6	1.83	0.43
23:BB:2786:U:H5'	26:BD:70:LYS:HG3	2.00	0.43
23:BB:2869:G:H2'	23:BB:2870:C:C6	2.53	0.43
25:BC:36:ASN:ND2	25:BC:85:ASN:HD21	2.15	0.43
25:BC:226:PRO:HG3	25:BC:233:GLY:N	2.26	0.43
26:BD:187:LEU:O	26:BD:188:LEU:HD23	2.19	0.43
28:BF:121:PHE:HE1	28:BF:162:ASP:CB	2.32	0.43
29:BG:9:VAL:HA	29:BG:48:THR:CG2	2.47	0.43
30:BH:78:VAL:HG11	30:BH:142:VAL:CG1	2.49	0.43
31:BJ:88:THR:HG22	31:BJ:91:GLU:OE1	2.19	0.43
33:BL:109:LYS:HE3	33:BL:111:ILE:HD11	2.01	0.43
35:BN:19:ALA:HA	35:BN:22:ARG:CB	2.47	0.43
37:BP:104:GLY:C	37:BP:106:ALA:H	2.25	0.43
43:BW:54:ARG:C	43:BW:56:HIS:H	2.27	0.43
46:BZ:56:MET:C	46:BZ:58:VAL:N	2.76	0.43
48:B1:7:LYS:HD3	50:B3:33:THR:HG21	2.00	0.43
51:B4:2:LYS:HD3	51:B4:4:ARG:HG3	2.01	0.43
52:BI:49:GLU:HG3	52:BI:54:ILE:HD11	2.00	0.43
1:CA:25:C:H5'	1:CA:524:G:H1'	2.00	0.43
1:CA:59:A:H3'	1:CA:331:G:H22	1.83	0.43
1:CA:113:G:O2'	1:CA:354:G:H5'	2.19	0.43
1:CA:251:G:N3	1:CA:266:G:O6	2.51	0.43
1:CA:389:A:C6	1:CA:390:U:H1'	2.53	0.43
1:CA:488:C:O2'	1:CA:489:C:H5'	2.19	0.43
1:CA:957:U:H2'	1:CA:959:A:OP2	2.19	0.43
1:CA:1111:A:O2'	1:CA:1112:C:H5'	2.19	0.43
1:CA:1366:C:H2'	1:CA:1367:C:H6	1.83	0.43
1:CA:1390:U:H2'	1:CA:1391:U:C6	2.53	0.43
1:CA:1469:C:H2'	1:CA:1470:U:O4'	2.18	0.43
2:CC:154:GLY:HA2	2:CC:163:ARG:N	2.34	0.43
3:CD:18:LEU:C	3:CD:20:LEU:H	2.27	0.43
3:CD:31:CYS:O	3:CD:32:LYS:HB2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CH:40:LYS:HD3	7:CH:48:PHE:CE1	2.53	0.43
7:CH:54:THR:HG23	7:CH:55:LYS:HG2	2.00	0.43
9:CJ:37:ARG:NH1	9:CJ:77:VAL:HG11	2.34	0.43
10:CK:36:ARG:HH11	10:CK:36:ARG:HG3	1.83	0.43
10:CK:59:PRO:HA	10:CK:90:PRO:HB2	2.00	0.43
10:CK:106:ILE:O	10:CK:107:THR:HG23	2.18	0.43
16:CQ:30:HIS:CB	16:CQ:33:TYR:HB2	2.49	0.43
19:CT:64:GLY:H	19:CT:67:HIS:CD2	2.37	0.43
20:CB:44:LYS:O	20:CB:47:PRO:HD2	2.18	0.43
22:DA:91:C:H2'	22:DA:92:C:C6	2.52	0.43
23:DB:43:G:H2'	23:DB:44:A:O4'	2.19	0.43
23:DB:533:G:H2'	23:DB:534:U:C6	2.53	0.43
23:DB:1025:G:OP1	23:DB:1025:G:H8	2.01	0.43
23:DB:1027:A:N6	23:DB:1126:A:H1'	2.33	0.43
23:DB:1059:G:H2'	23:DB:1060:U:C5	2.53	0.43
23:DB:1708:C:H2'	23:DB:1709:U:C6	2.54	0.43
23:DB:1803:A:H4'	25:DC:256:THR:OG1	2.18	0.43
23:DB:1930:G:H2'	23:DB:1968:G:C6	2.54	0.43
23:DB:2052:A:N7	26:DD:146:ILE:HD11	2.34	0.43
23:DB:2800:A:C2	23:DB:2801:G:H1'	2.53	0.43
23:DB:2882:A:OP1	35:DN:96:ARG:HD2	2.18	0.43
25:DC:36:ASN:ND2	25:DC:61:TYR:HB2	2.34	0.43
25:DC:211:ARG:C	25:DC:213:ARG:N	2.77	0.43
27:DE:134:LEU:CD2	27:DE:161:ALA:HB2	2.49	0.43
31:DJ:103:ILE:HG13	31:DJ:104:ALA:N	2.33	0.43
32:DK:54:LYS:H	32:DK:54:LYS:CD	2.28	0.43
32:DK:88:ASN:ND2	32:DK:89:ASN:N	2.66	0.43
35:DN:79:LEU:HA	35:DN:83:LEU:HD12	2.00	0.43
37:DP:104:GLY:C	37:DP:106:ALA:H	2.26	0.43
38:DQ:63:ARG:HH12	38:DQ:96:ASP:HB2	1.84	0.43
39:DR:39:LEU:H	39:DR:39:LEU:HD23	1.82	0.43
41:DT:39:THR:O	41:DT:40:LYS:HB3	2.18	0.43
41:DT:69:ARG:HA	41:DT:69:ARG:NH1	2.33	0.43
42:DU:73:ASN:ND2	42:DU:74:ALA:N	2.67	0.43
43:DW:70:VAL:CG2	43:DW:75:ASN:HD21	2.32	0.43
45:DY:23:LEU:HD23	45:DY:50:VAL:HG11	2.00	0.43
46:DZ:64:ILE:HG22	46:DZ:68:LEU:CD1	2.48	0.43
48:D1:3:GLY:O	48:D1:5:ARG:N	2.51	0.43
1:AA:704:A:C2	1:AA:705:G:H1'	2.54	0.43
1:AA:1120:C:H2'	1:AA:1121:U:H6	1.82	0.43
1:AA:1305:G:H22	1:AA:1331:G:H2'	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1527:U:H2'	1:AA:1528:U:C6	2.54	0.43
5:AF:3:HIS:CD2	5:AF:65:GLU:HG3	2.53	0.43
6:AG:100:MET:O	6:AG:104:VAL:HG23	2.18	0.43
8:AI:118:ARG:NH1	8:AI:122:ARG:HE	2.17	0.43
12:AM:18:LEU:HD13	12:AM:33:LEU:HD21	2.01	0.43
15:AP:43:ALA:HB1	15:AP:46:LYS:HE3	2.01	0.43
16:AQ:74:LEU:HD13	16:AQ:74:LEU:C	2.44	0.43
19:AT:32:LYS:O	19:AT:35:TYR:N	2.51	0.43
20:AB:189:ASN:O	20:AB:189:ASN:CG	2.60	0.43
23:BB:19:A:O2'	23:BB:20:C:H5'	2.19	0.43
23:BB:63:A:C8	23:BB:63:A:OP2	2.69	0.43
23:BB:582:A:H2'	23:BB:583:G:C8	2.54	0.43
23:BB:754:U:H2'	23:BB:755:U:H6	1.84	0.43
23:BB:1153:C:H2'	23:BB:1154:G:O4'	2.19	0.43
23:BB:1454:C:C5	35:BN:64:ARG:HG2	2.54	0.43
23:BB:1636:U:O2'	23:BB:1637:A:H5'	2.18	0.43
23:BB:2219:U:O2'	23:BB:2220:U:H5'	2.17	0.43
24:BV:40:ILE:H	24:BV:40:ILE:CD1	2.30	0.43
24:BV:71:LYS:HB2	24:BV:94:ALA:OXT	2.19	0.43
24:BV:80:HIS:CD2	24:BV:81:PRO:HD2	2.54	0.43
26:BD:117:GLY:HA2	26:BD:164:GLN:NE2	2.34	0.43
28:BF:36:ASN:ND2	28:BF:152:ASP:HB2	2.10	0.43
28:BF:111:ARG:O	28:BF:112:ASP:HB2	2.18	0.43
29:BG:24:THR:C	29:BG:25:ILE:HD12	2.44	0.43
29:BG:107:GLY:HA3	29:BG:151:ARG:NH2	2.34	0.43
29:BG:148:ARG:HD3	29:BG:152:ARG:NH1	2.33	0.43
30:BH:68:ARG:HB3	30:BH:132:PHE:HE2	1.84	0.43
30:BH:82:SER:HB2	30:BH:94:ILE:HG12	2.01	0.43
31:BJ:42:ALA:C	31:BJ:44:TYR:H	2.27	0.43
33:BL:50:PHE:CE2	33:BL:53:GLY:HA2	2.54	0.43
36:BO:34:HIS:HB3	36:BO:36:TYR:CE2	2.54	0.43
36:BO:67:ASN:O	36:BO:67:ASN:CG	2.62	0.43
36:BO:78:VAL:HA	36:BO:81:ARG:HB3	2.00	0.43
38:BQ:24:TYR:CD1	38:BQ:25:GLY:N	2.86	0.43
41:BT:25:GLU:C	41:BT:27:SER:H	2.27	0.43
44:BX:1:MET:CG	44:BX:4:LYS:HD3	2.49	0.43
46:BZ:65:ASP:OD2	46:BZ:65:ASP:N	2.52	0.43
47:B0:27:LEU:H	47:B0:27:LEU:HD12	1.83	0.43
1:CA:38:G:O2'	1:CA:39:G:H5'	2.19	0.43
1:CA:116:A:H8	1:CA:116:A:O5'	2.02	0.43
1:CA:138:G:C6	1:CA:226:G:C6	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:282:A:H2'	1:CA:282:A:N3	2.33	0.43
1:CA:300:A:H2'	1:CA:301:G:O4'	2.19	0.43
1:CA:542:G:O2'	1:CA:543:U:H5'	2.19	0.43
1:CA:967:C:H5'	8:CI:129:ARG:HA	2.01	0.43
1:CA:993:G:H21	1:CA:996:A:N6	2.17	0.43
1:CA:1186:G:H4'	8:CI:111:GLU:OE1	2.19	0.43
1:CA:1313:U:O2'	1:CA:1314:C:H5'	2.18	0.43
1:CA:1368:A:O2'	1:CA:1369:C:H5'	2.19	0.43
1:CA:1484:C:O2'	1:CA:1485:U:H5'	2.19	0.43
2:CC:18:ASN:HB2	13:CN:90:GLY:HA3	1.99	0.43
2:CC:178:ARG:HG2	2:CC:178:ARG:O	2.18	0.43
3:CD:17:ASP:C	3:CD:19:PHE:H	2.26	0.43
3:CD:197:HIS:O	3:CD:201:GLU:HG3	2.18	0.43
6:CG:46:LEU:HG	6:CG:57:GLU:CB	2.38	0.43
9:CJ:57:VAL:HG13	9:CJ:58:ASN:N	2.33	0.43
10:CK:19:VAL:HG22	10:CK:34:THR:O	2.18	0.43
10:CK:33:ILE:CG1	10:CK:73:VAL:HG21	2.46	0.43
11:CL:86:VAL:HG12	11:CL:89:LEU:H	1.83	0.43
14:CO:54:GLY:O	14:CO:58:MET:HG2	2.19	0.43
16:CQ:80:LYS:HD2	16:CQ:80:LYS:C	2.44	0.43
19:CT:35:TYR:CG	19:CT:36:ALA:N	2.85	0.43
20:CB:17:HIS:CG	20:CB:18:GLN:H	2.37	0.43
20:CB:46:VAL:CG1	20:CB:47:PRO:HD3	2.33	0.43
20:CB:48:MET:O	20:CB:52:ALA:HB3	2.19	0.43
20:CB:140:LEU:C	20:CB:142:LYS:N	2.77	0.43
23:DB:118:A:OP2	23:DB:119:A:H5''	2.18	0.43
23:DB:219:A:HO2'	23:DB:220:G:H5'	1.84	0.43
23:DB:426:C:O2'	23:DB:427:U:H5'	2.17	0.43
23:DB:523:C:O2'	23:DB:524:G:H5'	2.18	0.43
23:DB:560:C:H3'	23:DB:561:G:C8	2.54	0.43
23:DB:866:A:H61	23:DB:913:U:C1'	2.32	0.43
23:DB:876:C:H2'	23:DB:877:A:C1'	2.49	0.43
23:DB:1060:U:O4	52:DI:131:THR:HG22	2.18	0.43
23:DB:1897:G:O2'	23:DB:1898:U:H5'	2.19	0.43
23:DB:1994:C:O2'	23:DB:1995:U:H5'	2.19	0.43
23:DB:2571:U:O3'	26:DD:151:THR:HB	2.18	0.43
23:DB:2618:G:H2'	23:DB:2619:C:H6	1.84	0.43
23:DB:2658:C:H2'	23:DB:2659:G:H5'	2.00	0.43
23:DB:2893:A:C5'	23:DB:2894:G:H5'	2.47	0.43
25:DC:45:ASN:ND2	25:DC:45:ASN:H	2.15	0.43
25:DC:70:LYS:HB2	25:DC:101:ARG:NH2	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DD:59:ARG:HD3	26:DD:59:ARG:O	2.19	0.43
28:DF:107:VAL:HB	28:DF:108:PRO:HD3	2.01	0.43
30:DH:56:ALA:O	30:DH:60:GLU:HB3	2.18	0.43
30:DH:110:VAL:HG22	30:DH:110:VAL:O	2.17	0.43
32:DK:64:ARG:NH2	37:DP:67:GLU:HG3	2.34	0.43
33:DL:47:ARG:HH21	33:DL:47:ARG:CB	2.31	0.43
33:DL:57:LEU:HD22	50:D3:53:ASP:HB3	2.01	0.43
38:DQ:68:ALA:HB1	38:DQ:73:ILE:CG2	2.46	0.43
38:DQ:81:GLY:HA3	38:DQ:116:LEU:HD11	2.00	0.43
41:DT:83:ALA:O	41:DT:84:TYR:HB2	2.19	0.43
42:DU:86:PHE:HB3	42:DU:90:LYS:O	2.19	0.43
43:DW:54:ARG:C	43:DW:56:HIS:H	2.26	0.43
47:D0:18:HIS:C	47:D0:20:ALA:N	2.76	0.43
1:AA:152:A:H3'	1:AA:153:C:H6	1.84	0.43
1:AA:307:C:H2'	1:AA:308:C:H6	1.84	0.43
1:AA:425:G:H2'	1:AA:426:U:C6	2.54	0.43
1:AA:523:A:H61	11:AL:88:ASP:HB2	1.83	0.43
1:AA:574:A:H1'	1:AA:883:C:O4'	2.18	0.43
1:AA:779:C:H5''	10:AK:123:PRO:HB3	2.00	0.43
1:AA:904:U:H2'	1:AA:905:U:C6	2.53	0.43
1:AA:956:U:O2'	1:AA:957:U:H5'	2.19	0.43
1:AA:1065:U:H1'	1:AA:1066:C:OP2	2.19	0.43
1:AA:1313:U:OP1	18:AS:6:LYS:HD3	2.19	0.43
1:AA:1488:G:H2'	1:AA:1489:G:O4'	2.19	0.43
1:AA:1495:U:O2'	1:AA:1496:C:H5'	2.19	0.43
6:AG:149:ALA:HB2	10:AK:55:ARG:CZ	2.48	0.43
11:AL:23:LEU:C	11:AL:25:ALA:N	2.77	0.43
16:AQ:45:VAL:HG11	16:AQ:60:ILE:HG21	2.00	0.43
20:AB:82:ALA:HB3	20:AB:213:LEU:HD22	2.00	0.43
20:AB:128:LEU:CD1	20:AB:132:GLU:HB3	2.48	0.43
21:AU:9:GLU:CG	2:CC:108:PRO:HG3	2.47	0.43
23:BB:91:A:H1'	23:BB:92:U:C6	2.54	0.43
23:BB:1474:U:H2'	23:BB:1475:G:H5''	2.00	0.43
23:BB:2219:U:H2'	23:BB:2220:U:C6	2.54	0.43
23:BB:2231:U:O2'	23:BB:2232:C:H5'	2.19	0.43
23:BB:2258:C:O2'	23:BB:2427:C:OP2	2.35	0.43
23:BB:2456:C:H2'	23:BB:2457:U:O4'	2.19	0.43
23:BB:2515:C:O2'	23:BB:2516:A:H5'	2.19	0.43
23:BB:2548:U:H1'	32:BK:23:LYS:NZ	2.34	0.43
23:BB:2840:C:O2'	23:BB:2841:C:H5'	2.18	0.43
23:BB:2891:U:O2'	23:BB:2892:G:H5'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:2902:C:O2'	23:BB:2903:U:H5'	2.19	0.43
26:BD:35:THR:N	26:BD:49:GLN:O	2.50	0.43
26:BD:202:ILE:HD12	26:BD:202:ILE:N	2.34	0.43
28:BF:134:GLN:C	28:BF:136:ILE:N	2.76	0.43
29:BG:4:ALA:HA	29:BG:65:GLY:HA2	1.99	0.43
29:BG:166:GLU:CG	29:BG:168:VAL:HG23	2.43	0.43
30:BH:65:ALA:O	30:BH:67:ALA:N	2.49	0.43
30:BH:94:ILE:HG23	30:BH:98:ASP:OD2	2.19	0.43
31:BJ:29:ALA:HB3	31:BJ:108:MET:HE2	2.00	0.43
33:BL:47:ARG:HG3	33:BL:48:ARG:N	2.32	0.43
34:BM:54:THR:C	34:BM:56:ALA:N	2.74	0.43
38:BQ:47:ARG:O	38:BQ:51:GLN:HG3	2.18	0.43
44:BX:1:MET:HG2	44:BX:4:LYS:HD3	2.00	0.43
46:BZ:25:THR:O	46:BZ:26:LYS:C	2.62	0.43
49:B2:3:ARG:CZ	49:B2:3:ARG:HA	2.48	0.43
52:BI:19:PRO:HG2	52:BI:22:PRO:HB2	2.01	0.43
52:BI:63:ASP:O	52:BI:65:SER:N	2.52	0.43
1:CA:8:A:H1'	4:CE:106:ALA:O	2.18	0.43
1:CA:373:A:O2'	1:CA:374:A:H5'	2.19	0.43
1:CA:402:G:O2'	1:CA:403:C:H5'	2.19	0.43
1:CA:537:G:H2'	1:CA:538:G:H8	1.84	0.43
1:CA:591:U:OP2	7:CH:30:LYS:HE2	2.18	0.43
1:CA:618:C:H3'	1:CA:620:C:OP2	2.19	0.43
1:CA:647:C:H2'	1:CA:648:A:H8	1.84	0.43
1:CA:715:A:H2'	1:CA:716:A:H8	1.80	0.43
1:CA:875:U:O2'	7:CH:14:ARG:HD2	2.17	0.43
3:CD:71:PHE:CE1	3:CD:89:LEU:HD11	2.54	0.43
5:CF:53:LYS:NZ	5:CF:53:LYS:N	2.66	0.43
6:CG:129:ASN:C	6:CG:134:VAL:HG21	2.44	0.43
8:CI:11:ARG:NH2	8:CI:12:LYS:HD2	2.34	0.43
10:CK:80:ASN:HB3	10:CK:105:ARG:HB3	2.00	0.43
11:CL:21:PRO:HG2	11:CL:94:TYR:OH	2.19	0.43
11:CL:23:LEU:C	11:CL:25:ALA:N	2.76	0.43
12:CM:100:ARG:HD3	12:CM:103:THR:OG1	2.19	0.43
14:CO:49:HIS:O	14:CO:52:ARG:HB3	2.19	0.43
16:CQ:74:LEU:HD13	16:CQ:74:LEU:C	2.44	0.43
20:CB:119:GLN:O	20:CB:121:GLN:N	2.41	0.43
20:CB:128:LEU:HB3	20:CB:132:GLU:HB2	2.01	0.43
23:DB:31:C:C4	23:DB:32:C:C5	3.07	0.43
23:DB:123:G:O3'	23:DB:1376:C:H4'	2.19	0.43
23:DB:164:C:H2'	23:DB:165:A:H5'	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:277:G:O5'	23:DB:278:A:N7	2.51	0.43
23:DB:443:A:H1'	23:DB:1201:U:O4'	2.19	0.43
23:DB:495:G:H4'	40:DS:4:ILE:O	2.19	0.43
23:DB:876:C:H2'	23:DB:877:A:H1'	2.00	0.43
23:DB:1195:G:O2'	23:DB:1196:C:H5'	2.19	0.43
23:DB:1229:C:H2'	23:DB:1230:A:H8	1.81	0.43
23:DB:2685:G:O2'	23:DB:2686:G:H5'	2.19	0.43
23:DB:2885:G:H2'	23:DB:2886:A:H4'	2.01	0.43
25:DC:34:GLU:O	25:DC:34:GLU:HG3	2.19	0.43
26:DD:114:LYS:HZ2	26:DD:116:LYS:HG3	1.82	0.43
27:DE:4:VAL:HG12	27:DE:5:LEU:H	1.84	0.43
27:DE:4:VAL:HA	27:DE:11:ALA:HA	1.99	0.43
27:DE:116:ASP:O	27:DE:119:ILE:HD11	2.18	0.43
28:DF:33:ILE:HG23	28:DF:155:ILE:HD12	2.00	0.43
29:DG:95:ALA:HB3	29:DG:124:CYS:SG	2.59	0.43
31:DJ:12:LYS:O	31:DJ:13:ARG:HB2	2.19	0.43
31:DJ:19:ASP:CG	31:DJ:58:ASN:H	2.27	0.43
32:DK:64:ARG:HD2	32:DK:102:PRO:O	2.19	0.43
33:DL:6:LEU:H	33:DL:6:LEU:CD2	2.20	0.43
34:DM:38:ARG:HG3	34:DM:98:PRO:HD3	2.00	0.43
38:DQ:94:LEU:O	38:DQ:97:ILE:HG23	2.19	0.43
39:DR:45:GLU:O	39:DR:46:GLU:C	2.62	0.43
41:DT:36:LYS:HD3	41:DT:36:LYS:C	2.44	0.43
50:D3:60:CYS:C	50:D3:62:PRO:HD3	2.44	0.43
1:AA:59:A:H3'	1:AA:331:G:H22	1.84	0.43
1:AA:250:A:H1'	1:AA:252:U:C5	2.54	0.43
1:AA:256:U:H3'	1:AA:257:G:H8	1.84	0.43
1:AA:970:C:H42	8:AI:128:LYS:HG2	1.84	0.43
1:AA:994:A:C5	1:AA:1216:A:H4'	2.54	0.43
1:AA:1113:C:O2'	1:AA:1114:C:H5'	2.19	0.43
1:AA:1296:C:H4'	1:AA:1302:C:H42	1.83	0.43
1:AA:1464:U:OP2	37:BP:108:ARG:NH2	2.52	0.43
2:AC:130:ARG:HA	2:AC:130:ARG:HD2	1.90	0.43
3:AD:78:ALA:HA	3:AD:81:LEU:HD12	2.01	0.43
3:AD:94:GLU:HG3	3:AD:99:ASN:ND2	2.33	0.43
3:AD:97:LEU:HA	3:AD:100:VAL:CG2	2.49	0.43
6:AG:14:ASP:HB2	6:AG:19:SER:O	2.19	0.43
9:AJ:32:THR:O	9:AJ:32:THR:HG23	2.18	0.43
9:AJ:57:VAL:HG13	9:AJ:58:ASN:N	2.34	0.43
9:AJ:80:THR:O	9:AJ:84:VAL:HG23	2.18	0.43
11:AL:28:GLN:HE21	11:AL:28:GLN:HB3	1.50	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AL:43:LYS:CD	11:AL:44:PRO:HD3	2.49	0.43
13:AN:30:ILE:O	13:AN:40:ARG:HA	2.18	0.43
14:AO:10:ILE:O	14:AO:14:PHE:HD1	2.02	0.43
14:AO:42:PHE:CD1	14:AO:55:LEU:HD22	2.53	0.43
15:AP:1:MET:HA	15:AP:1:MET:HE3	1.99	0.43
16:AQ:30:HIS:CB	16:AQ:33:TYR:HB2	2.49	0.43
23:BB:506:G:H1'	23:BB:507:A:C8	2.54	0.43
23:BB:687:C:H2'	23:BB:688:U:O4'	2.19	0.43
23:BB:915:C:H3'	23:BB:916:G:H8	1.83	0.43
23:BB:1557:C:H3'	23:BB:1558:C:C5'	2.46	0.43
23:BB:1641:A:H2'	23:BB:1642:G:O4'	2.19	0.43
23:BB:1939:U:O2	23:BB:1967:C:H4'	2.19	0.43
23:BB:2052:A:N7	26:BD:146:ILE:HD11	2.34	0.43
23:BB:2461:A:H2'	23:BB:2462:C:H6	1.80	0.43
23:BB:2473:U:O2	23:BB:2473:U:C2'	2.65	0.43
23:BB:2668:G:O2'	23:BB:2669:G:H5'	2.19	0.43
23:BB:2757:A:H2	29:BG:63:GLN:HE22	1.67	0.43
23:BB:2819:G:C6	23:BB:2828:G:C6	3.07	0.43
23:BB:2821:A:OP2	26:BD:115:GLY:HA3	2.19	0.43
24:BV:1:MET:HE3	24:BV:2:PHE:N	2.34	0.43
27:BE:101:TYR:O	27:BE:104:ALA:HB3	2.19	0.43
28:BF:120:SER:OG	28:BF:129:MET:HB3	2.19	0.43
29:BG:14:VAL:O	29:BG:16:VAL:HG23	2.19	0.43
30:BH:1:MET:HE3	30:BH:26:ALA:CB	2.47	0.43
32:BK:119:ALA:O	32:BK:120:PRO:C	2.61	0.43
40:BS:60:HIS:O	40:BS:60:HIS:ND1	2.50	0.43
41:BT:39:THR:HG22	41:BT:42:GLU:HG2	2.01	0.43
44:BX:43:LEU:O	44:BX:47:ARG:HG3	2.17	0.43
47:B0:27:LEU:HB2	47:B0:28:SER:H	1.63	0.43
48:B1:36:LYS:HG2	48:B1:47:ILE:HA	2.01	0.43
1:CA:218:U:H2'	1:CA:219:U:H6	1.80	0.43
1:CA:377:G:H2'	1:CA:378:G:H8	1.84	0.43
1:CA:493:A:H3'	1:CA:494:G:H8	1.83	0.43
1:CA:643:C:H5'	7:CH:31:LEU:HD13	2.00	0.43
1:CA:857:C:H2'	1:CA:858:G:O4'	2.19	0.43
1:CA:994:A:N3	1:CA:994:A:H2'	2.34	0.43
1:CA:1172:C:O2'	1:CA:1173:U:H5'	2.19	0.43
1:CA:1226:C:H3'	12:CM:101:THR:OG1	2.18	0.43
2:CC:54:ILE:HG23	2:CC:54:ILE:O	2.19	0.43
3:CD:23:GLY:O	3:CD:24:VAL:C	2.61	0.43
4:CE:82:HIS:HE1	4:CE:147:ASN:H	1.67	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CF:79:ARG:HA	5:CF:79:ARG:HD3	1.89	0.43
6:CG:78:ARG:HH11	6:CG:80:GLY:H	1.67	0.43
8:CI:53:LEU:HD22	8:CI:53:LEU:N	2.34	0.43
11:CL:30:ARG:O	11:CL:57:THR:HG23	2.19	0.43
20:CB:17:HIS:CG	20:CB:18:GLN:N	2.87	0.43
20:CB:23:ASN:C	20:CB:25:LYS:N	2.76	0.43
20:CB:95:TRP:HH2	20:CB:100:LEU:HD22	1.83	0.43
20:CB:160:LEU:HG	20:CB:161:PHE:N	2.33	0.43
20:CB:163:ILE:HD12	20:CB:185:ILE:HD12	2.00	0.43
20:CB:165:ALA:H	20:CB:186:VAL:HG12	1.83	0.43
22:DA:15:A:OP1	22:DA:108:A:H5'	2.19	0.43
22:DA:22:U:H2'	22:DA:23:G:C8	2.54	0.43
23:DB:716:A:C2'	23:DB:717:C:H5''	2.48	0.43
23:DB:755:U:H2'	23:DB:756:A:H8	1.83	0.43
23:DB:864:G:O2'	23:DB:865:C:H5'	2.18	0.43
23:DB:930:G:H1'	45:DY:24:LEU:HD11	2.01	0.43
23:DB:1241:A:N3	23:DB:1241:A:O4'	2.51	0.43
23:DB:1411:U:H2'	23:DB:1412:U:C6	2.54	0.43
23:DB:1474:U:H2'	23:DB:1475:G:H5''	2.01	0.43
23:DB:1633:G:O2'	23:DB:1634:A:H5''	2.19	0.43
23:DB:1946:U:O2'	23:DB:1947:C:H5'	2.18	0.43
23:DB:2149:U:H2'	23:DB:2150:C:O4'	2.18	0.43
23:DB:2780:G:H4'	23:DB:2781:A:OP2	2.18	0.43
24:DV:32:GLY:O	24:DV:93:ARG:HB2	2.19	0.43
25:DC:180:MET:O	25:DC:267:VAL:HG23	2.19	0.43
28:DF:31:GLU:HB2	28:DF:158:THR:CG2	2.48	0.43
28:DF:36:ASN:HD22	28:DF:152:ASP:CB	2.12	0.43
30:DH:83:LYS:HG3	30:DH:149:GLU:CG	2.46	0.43
31:DJ:29:ALA:O	31:DJ:32:LEU:HB2	2.19	0.43
34:DM:26:VAL:HG22	34:DM:133:LYS:HA	2.00	0.43
34:DM:126:ILE:HG22	34:DM:127:LYS:N	2.34	0.43
35:DN:13:ASN:OD1	35:DN:16:HIS:HB2	2.19	0.43
37:DP:31:VAL:C	37:DP:33:GLU:H	2.26	0.43
38:DQ:63:ARG:NH2	38:DQ:95:ALA:O	2.52	0.43
38:DQ:93:ILE:HG23	38:DQ:94:LEU:H	1.84	0.43
44:DX:6:LEU:C	44:DX:8:GLU:N	2.76	0.43
44:DX:59:GLU:N	44:DX:59:GLU:OE2	2.52	0.43
49:D2:30:VAL:HG22	49:D2:33:ARG:NH2	2.24	0.43
52:DI:72:THR:OG1	52:DI:73:PRO:HD2	2.18	0.43
52:DI:126:ARG:NH1	52:DI:126:ARG:CB	2.82	0.43
1:AA:402:G:O2'	1:AA:403:C:H5'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:429:U:H5'	3:AD:8:LEU:CG	2.38	0.42
1:AA:878:A:OP1	7:AH:80:PRO:HG2	2.18	0.42
1:AA:927:G:H2'	1:AA:928:G:H8	1.83	0.42
16:AQ:18:LYS:H	16:AQ:50:ASN:HD21	1.67	0.42
16:AQ:59:GLU:C	16:AQ:75:VAL:HG22	2.43	0.42
18:AS:30:LEU:HG	18:AS:47:THR:O	2.19	0.42
20:AB:93:HIS:O	20:AB:94:ARG:HG2	2.19	0.42
22:BA:49:C:OP1	36:BO:101:GLY:HA3	2.19	0.42
23:BB:302:C:H2'	23:BB:303:G:H8	1.84	0.42
23:BB:327:G:O2'	23:BB:328:U:H5'	2.19	0.42
23:BB:554:U:H2'	23:BB:555:G:O4'	2.19	0.42
23:BB:621:A:H2'	23:BB:622:G:O4'	2.19	0.42
23:BB:692:C:H2'	23:BB:693:A:C8	2.54	0.42
23:BB:909:A:H2'	23:BB:912:C:C5	2.53	0.42
23:BB:937:C:H2'	23:BB:938:G:H8	1.84	0.42
23:BB:962:G:H2'	23:BB:963:U:H6	1.84	0.42
23:BB:1208:C:C2'	23:BB:1209:U:H5'	2.49	0.42
23:BB:1238:G:O2'	23:BB:1239:G:H5'	2.19	0.42
23:BB:1535:A:C5'	23:BB:1536:C:H5	2.30	0.42
23:BB:1637:A:H2'	23:BB:1638:C:C6	2.54	0.42
23:BB:2146:C:O2'	23:BB:2147:A:H5'	2.17	0.42
23:BB:2590:A:O2'	23:BB:2591:C:H5'	2.18	0.42
23:BB:2655:G:N2	23:BB:2664:G:H2'	2.34	0.42
24:BV:2:PHE:HD2	24:BV:59:GLU:OE1	2.02	0.42
24:BV:77:VAL:HG12	34:BM:136:MET:HG2	2.00	0.42
26:BD:150:GLN:O	26:BD:153:GLY:N	2.52	0.42
27:BE:12:LEU:HD11	27:BE:14:VAL:HG13	2.00	0.42
27:BE:148:ILE:HG22	27:BE:148:ILE:O	2.18	0.42
28:BF:45:ASP:C	28:BF:47:LYS:H	2.27	0.42
28:BF:76:PHE:O	28:BF:77:LYS:HB2	2.19	0.42
29:BG:1:SER:HA	29:BG:61:TRP:CZ3	2.54	0.42
34:BM:124:LEU:HA	34:BM:125:PRO:HD3	1.87	0.42
35:BN:116:VAL:O	35:BN:117:ASP:CB	2.59	0.42
36:BO:88:LYS:HD2	36:BO:89:ASP:CB	2.48	0.42
36:BO:92:PHE:HB2	36:BO:117:PHE:CE1	2.53	0.42
37:BP:100:ARG:O	37:BP:102:ARG:N	2.52	0.42
39:BR:54:VAL:HG13	39:BR:56:GLY:O	2.18	0.42
39:BR:63:VAL:HG23	39:BR:63:VAL:O	2.19	0.42
41:BT:10:VAL:O	41:BT:11:LEU:C	2.62	0.42
41:BT:29:THR:HB	41:BT:86:THR:HG22	2.01	0.42
42:BU:80:ASP:HB2	42:BU:95:PHE:CD2	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BU:84:PHE:HE2	42:BU:93:ARG:HG2	1.84	0.42
42:BU:85:ARG:HH11	42:BU:86:PHE:H	1.65	0.42
43:BW:35:ILE:HA	43:BW:57:THR:HA	2.01	0.42
46:BZ:11:ARG:HB3	46:BZ:12:PRO:HD2	2.00	0.42
48:B1:18:HIS:CG	48:B1:19:PHE:N	2.87	0.42
1:CA:51:A:H61	1:CA:314:C:H1'	1.83	0.42
1:CA:201:G:H2'	1:CA:202:G:C8	2.53	0.42
1:CA:623:C:H2'	1:CA:624:C:C6	2.54	0.42
1:CA:695:A:H61	1:CA:797:C:C1'	2.28	0.42
1:CA:822:U:H2'	1:CA:823:C:H6	1.84	0.42
1:CA:915:A:H2'	1:CA:916:U:H5'	2.01	0.42
1:CA:977:A:O2'	1:CA:1223:C:N4	2.52	0.42
1:CA:986:U:H2'	1:CA:987:G:C8	2.54	0.42
1:CA:1014:A:C2	1:CA:1219:A:H1'	2.54	0.42
1:CA:1056:U:H2'	1:CA:1057:G:H8	1.84	0.42
1:CA:1187:G:OP1	8:CI:114:LYS:HE3	2.19	0.42
1:CA:1320:C:H41	18:CS:36:ARG:HA	1.84	0.42
1:CA:1352:C:H2'	1:CA:1353:G:H8	1.81	0.42
2:CC:174:LEU:HD23	2:CC:174:LEU:O	2.18	0.42
4:CE:94:PHE:O	4:CE:124:ALA:HB1	2.19	0.42
5:CF:9:MET:HB3	5:CF:59:TYR:CD2	2.54	0.42
6:CG:13:PRO:O	6:CG:18:GLY:HA2	2.19	0.42
11:CL:35:ARG:NH2	11:CL:36:VAL:HG22	2.34	0.42
16:CQ:39:ARG:HG3	16:CQ:39:ARG:NH1	2.33	0.42
19:CT:54:GLN:O	19:CT:57:VAL:HG23	2.19	0.42
23:DB:554:U:H2'	23:DB:555:G:O4'	2.18	0.42
23:DB:616:A:H4'	27:DE:101:TYR:CE2	2.54	0.42
23:DB:687:C:H2'	23:DB:688:U:O4'	2.19	0.42
23:DB:760:G:C2'	23:DB:761:A:H5'	2.49	0.42
23:DB:862:G:H2'	23:DB:863:A:C8	2.54	0.42
23:DB:1109:C:H2'	23:DB:1110:G:C4	2.53	0.42
23:DB:1205:A:N1	27:DE:165:HIS:HB2	2.34	0.42
23:DB:1270:C:H5''	23:DB:1271:G:O5'	2.19	0.42
23:DB:1759:A:H2'	23:DB:1759:A:N3	2.34	0.42
23:DB:1812:U:H4'	25:DC:44:ASN:OD1	2.18	0.42
23:DB:1851:U:O2'	23:DB:1852:U:H5'	2.19	0.42
23:DB:2227:A:H2'	23:DB:2228:G:O4'	2.19	0.42
23:DB:2811:G:OP1	26:DD:62:LYS:HD2	2.19	0.42
23:DB:2845:U:O2'	23:DB:2846:G:H5'	2.19	0.42
25:DC:138:SER:O	25:DC:140:VAL:HG23	2.19	0.42
25:DC:164:VAL:O	25:DC:165:ALA:HB2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DD:13:ARG:HH21	37:DP:55:HIS:HA	1.84	0.42
27:DE:148:ILE:HG22	27:DE:148:ILE:O	2.18	0.42
29:DG:60:GLY:O	29:DG:62:ALA:N	2.52	0.42
30:DH:40:THR:O	30:DH:41:LYS:HB2	2.17	0.42
30:DH:138:VAL:O	30:DH:138:VAL:HG12	2.18	0.42
31:DJ:42:ALA:C	31:DJ:44:TYR:H	2.27	0.42
35:DN:10:LEU:HD21	35:DN:43:GLU:HG3	2.01	0.42
37:DP:100:ARG:O	37:DP:102:ARG:N	2.51	0.42
39:DR:79:ARG:O	39:DR:81:LYS:HG2	2.19	0.42
49:D2:19:ARG:O	49:D2:22:MET:HB2	2.19	0.42
52:DI:68:PHE:N	52:DI:68:PHE:CD1	2.87	0.42
52:DI:96:LYS:HD3	52:DI:138:VAL:HG21	2.00	0.42
1:AA:174:A:O2'	1:AA:175:C:H5'	2.19	0.42
1:AA:175:C:O2	1:AA:1447:A:H2	2.03	0.42
1:AA:445:G:H2'	1:AA:446:G:O4'	2.18	0.42
1:AA:1078:U:H2'	1:AA:1079:G:C8	2.54	0.42
1:AA:1229:A:H2'	1:AA:1230:C:H6	1.82	0.42
1:AA:1324:A:H4'	1:AA:1363:A:OP1	2.19	0.42
2:AC:119:ILE:CG2	2:AC:197:VAL:HG11	2.46	0.42
3:AD:8:LEU:HD12	3:AD:31:CYS:SG	2.59	0.42
3:AD:47:LEU:HD22	3:AD:51:GLY:O	2.19	0.42
4:AE:11:GLN:O	4:AE:38:VAL:HA	2.19	0.42
5:AF:92:THR:CG2	5:AF:94:HIS:H	2.14	0.42
6:AG:11:ILE:HD12	6:AG:11:ILE:N	2.33	0.42
6:AG:129:ASN:HA	6:AG:134:VAL:CG1	2.39	0.42
7:AH:112:ASP:HB2	7:AH:116:ARG:NH2	2.35	0.42
10:AK:88:PRO:HG3	21:AU:28:LEU:HD21	2.00	0.42
11:AL:66:ILE:CG2	11:AL:71:HIS:HB3	2.44	0.42
12:AM:5:GLY:O	12:AM:6:ILE:HB	2.19	0.42
13:AN:45:LEU:O	13:AN:45:LEU:HD23	2.19	0.42
14:AO:15:GLY:C	14:AO:17:ASP:N	2.76	0.42
14:AO:73:ASP:OD1	14:AO:75:ALA:HB3	2.19	0.42
15:AP:42:ILE:HG22	15:AP:43:ALA:N	2.33	0.42
20:AB:138:ARG:O	20:AB:141:GLU:HB2	2.19	0.42
21:AU:48:LYS:C	21:AU:50:SER:N	2.76	0.42
22:BA:94:A:O2'	22:BA:95:U:H5'	2.18	0.42
23:BB:346:A:H2'	23:BB:347:A:O4'	2.19	0.42
23:BB:407:G:O2'	23:BB:408:G:H5'	2.20	0.42
23:BB:463:G:N2	23:BB:466:A:OP2	2.52	0.42
23:BB:649:G:H2'	23:BB:650:C:C6	2.54	0.42
23:BB:693:A:H2'	23:BB:694:U:H6	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:725:G:H2'	23:BB:726:G:O4'	2.19	0.42
23:BB:962:G:H2'	23:BB:963:U:C6	2.54	0.42
23:BB:2311:A:H3'	23:BB:2312:U:C6	2.54	0.42
23:BB:2722:G:O2'	23:BB:2723:C:H5'	2.18	0.42
27:BE:194:LYS:O	27:BE:197:GLU:HB3	2.19	0.42
30:BH:68:ARG:CB	30:BH:134:VAL:HB	2.49	0.42
30:BH:121:VAL:O	30:BH:121:VAL:HG23	2.19	0.42
33:BL:83:ALA:C	33:BL:85:VAL:H	2.26	0.42
33:BL:95:LEU:HB2	33:BL:101:ILE:CG1	2.48	0.42
35:BN:14:SER:O	35:BN:18:GLN:HB2	2.20	0.42
35:BN:24:MET:CE	35:BN:40:LYS:HB3	2.49	0.42
35:BN:118:ARG:HE	35:BN:118:ARG:HB3	1.52	0.42
36:BO:52:SER:HA	36:BO:74:VAL:CG1	2.48	0.42
39:BR:45:GLU:O	39:BR:46:GLU:C	2.62	0.42
43:BW:18:LYS:HE3	43:BW:19:ARG:NH2	2.34	0.42
52:BI:5:GLN:HG2	52:BI:6:ALA:H	1.81	0.42
52:BI:52:LEU:O	52:BI:54:ILE:HG13	2.19	0.42
1:CA:42:G:H2'	1:CA:43:C:C6	2.53	0.42
1:CA:56:U:H2'	1:CA:57:G:H8	1.84	0.42
1:CA:541:G:H2'	1:CA:542:G:H8	1.84	0.42
1:CA:677:U:H1'	10:CK:120:CYS:SG	2.58	0.42
1:CA:826:C:H4'	7:CH:12:ARG:NE	2.34	0.42
1:CA:878:A:OP1	7:CH:80:PRO:HG2	2.19	0.42
1:CA:979:C:H1'	1:CA:1317:C:N4	2.26	0.42
1:CA:1035:A:H2'	1:CA:1036:A:H8	1.84	0.42
1:CA:1150:A:O3'	9:CJ:43:PRO:HA	2.18	0.42
1:CA:1230:C:H2'	1:CA:1231:G:H8	1.85	0.42
1:CA:1446:A:C2'	1:CA:1447:A:H5''	2.48	0.42
3:CD:2:ARG:HH22	3:CD:132:ALA:CB	2.32	0.42
3:CD:199:ILE:C	3:CD:201:GLU:N	2.77	0.42
6:CG:67:ASN:O	6:CG:134:VAL:HA	2.19	0.42
7:CH:29:SER:O	7:CH:30:LYS:C	2.62	0.42
7:CH:112:ASP:HB2	7:CH:116:ARG:NH2	2.34	0.42
9:CJ:6:ILE:HD12	9:CJ:76:ILE:HD11	1.99	0.42
10:CK:126:ARG:HA	10:CK:126:ARG:HE	1.84	0.42
18:CS:39:ILE:HG12	18:CS:70:LEU:CD1	2.49	0.42
23:DB:656:G:O2'	23:DB:657:U:H5'	2.19	0.42
23:DB:1011:G:O2'	23:DB:1013:C:H5''	2.19	0.42
23:DB:1106:G:H2'	23:DB:1107:G:H8	1.83	0.42
23:DB:1214:A:H2'	23:DB:1215:G:C8	2.54	0.42
23:DB:1297:C:O2'	23:DB:1302:A:N1	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1366:A:H2'	23:DB:1367:A:O4'	2.20	0.42
23:DB:1389:G:O2'	23:DB:1390:U:H5'	2.19	0.42
23:DB:1479:G:O2'	23:DB:1480:C:H5'	2.19	0.42
23:DB:1636:U:O2'	23:DB:1637:A:H5'	2.18	0.42
23:DB:1683:U:O2'	23:DB:1684:G:H5'	2.19	0.42
23:DB:1764:C:H2'	23:DB:1765:U:C6	2.54	0.42
23:DB:1891:G:H2'	23:DB:1892:C:C6	2.54	0.42
23:DB:2081:U:P	46:DZ:19:SER:HB3	2.59	0.42
23:DB:2201:G:O2'	23:DB:2202:U:H5'	2.20	0.42
23:DB:2734:A:C2'	23:DB:2735:G:H5'	2.44	0.42
26:DD:110:THR:HG21	26:DD:169:ARG:HH11	1.85	0.42
26:DD:138:LEU:N	26:DD:138:LEU:HD22	2.34	0.42
27:DE:152:GLU:O	27:DE:153:LEU:HB3	2.18	0.42
27:DE:172:ALA:O	27:DE:199:MET:HE3	2.19	0.42
28:DF:121:PHE:HE1	28:DF:162:ASP:CB	2.33	0.42
28:DF:129:MET:HE3	28:DF:153:ILE:HB	2.00	0.42
30:DH:103:VAL:HA	30:DH:106:ALA:HB3	2.00	0.42
30:DH:119:ASN:CG	30:DH:121:VAL:HG22	2.44	0.42
31:DJ:36:LEU:CD1	31:DJ:121:LYS:HE3	2.49	0.42
31:DJ:55:ILE:CG2	31:DJ:123:LYS:HB2	2.49	0.42
32:DK:93:GLN:CD	32:DK:94:PRO:HD2	2.44	0.42
35:DN:106:ASP:C	35:DN:108:ALA:N	2.77	0.42
36:DO:79:ALA:O	36:DO:83:LEU:HD13	2.19	0.42
36:DO:92:PHE:HB2	36:DO:117:PHE:CE1	2.55	0.42
38:DQ:85:ALA:O	38:DQ:86:SER:C	2.62	0.42
40:DS:24:ILE:HG23	40:DS:32:ALA:CB	2.49	0.42
40:DS:60:HIS:O	40:DS:61:ASN:HB2	2.19	0.42
45:DY:6:ILE:HD13	45:DY:56:VAL:CG1	2.49	0.42
52:DI:128:ILE:CA	52:DI:131:THR:HG23	2.49	0.42
1:AA:43:C:H2'	1:AA:44:A:O4'	2.19	0.42
1:AA:74:A:H2'	1:AA:75:G:H5'	2.01	0.42
1:AA:731:G:H5'	1:AA:766:A:H4'	2.02	0.42
1:AA:775:G:H2'	1:AA:776:G:H8	1.84	0.42
1:AA:848:C:H2'	1:AA:849:G:O4'	2.18	0.42
1:AA:923:A:H2'	1:AA:924:C:H6	1.82	0.42
1:AA:1290:G:H2'	1:AA:1291:U:C6	2.53	0.42
2:AC:119:ILE:HD13	2:AC:136:ALA:HB2	2.00	0.42
3:AD:64:TYR:CE2	3:AD:93:LEU:HB3	2.54	0.42
3:AD:162:GLU:HB2	3:AD:166:LYS:HZ1	1.84	0.42
5:AF:36:ILE:HD12	5:AF:36:ILE:H	1.84	0.42
5:AF:68:GLN:HA	5:AF:71:ILE:HG12	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AI:48:ARG:O	8:AI:52:GLU:HG2	2.19	0.42
12:AM:85:TYR:HA	12:AM:88:LEU:CD1	2.49	0.42
13:AN:79:SER:HG	13:AN:82:LYS:HG2	1.83	0.42
14:AO:24:THR:O	14:AO:25:GLU:C	2.62	0.42
14:AO:54:GLY:O	14:AO:58:MET:HG2	2.19	0.42
16:AQ:10:ARG:O	16:AQ:10:ARG:HG3	2.18	0.42
16:AQ:23:ALA:HA	16:AQ:41:THR:O	2.19	0.42
16:AQ:81:ALA:O	16:AQ:82:VAL:HB	2.19	0.42
19:AT:52:GLU:O	19:AT:52:GLU:HG2	2.18	0.42
20:AB:165:ALA:HB3	20:AB:186:VAL:HG11	2.00	0.42
23:BB:107:G:O2'	23:BB:108:G:H5'	2.20	0.42
23:BB:182:A:O2'	23:BB:183:C:H5'	2.19	0.42
23:BB:465:G:N2	23:BB:684:G:H1'	2.34	0.42
23:BB:673:C:OP1	27:BE:49:ARG:HD2	2.19	0.42
23:BB:992:C:H2'	23:BB:993:G:C8	2.54	0.42
23:BB:1197:G:H2'	23:BB:1198:U:C6	2.53	0.42
23:BB:1366:A:H2'	23:BB:1367:A:O4'	2.19	0.42
23:BB:1547:C:H2'	23:BB:1548:A:C8	2.54	0.42
23:BB:1565:C:H5''	25:BC:17:LYS:CE	2.49	0.42
23:BB:1727:C:H2'	23:BB:1728:C:O4'	2.20	0.42
23:BB:1767:G:O2'	23:BB:1768:C:H5'	2.18	0.42
23:BB:1803:A:O3'	25:BC:256:THR:HB	2.19	0.42
23:BB:2363:G:O2'	23:BB:2364:C:H5'	2.19	0.42
23:BB:2552:U:C2	23:BB:2554:U:H5'	2.55	0.42
27:BE:29:HIS:O	27:BE:32:VAL:HG22	2.19	0.42
27:BE:148:ILE:HB	27:BE:169:VAL:HG12	2.01	0.42
28:BF:7:TYR:O	28:BF:11:VAL:HB	2.20	0.42
29:BG:94:ARG:C	29:BG:94:ARG:HE	2.27	0.42
29:BG:167:VAL:HG23	29:BG:168:VAL:N	2.26	0.42
30:BH:80:ILE:CD1	30:BH:99:ILE:HG23	2.49	0.42
32:BK:26:GLY:C	32:BK:30:ARG:HD2	2.44	0.42
34:BM:26:VAL:CG2	34:BM:133:LYS:HA	2.50	0.42
34:BM:26:VAL:HB	34:BM:104:GLU:OE2	2.19	0.42
35:BN:28:LEU:HD23	35:BN:28:LEU:HA	1.85	0.42
37:BP:61:ARG:HE	37:BP:100:ARG:HD2	1.83	0.42
37:BP:99:LEU:HD22	37:BP:99:LEU:HA	1.92	0.42
42:BU:85:ARG:HH11	42:BU:86:PHE:C	2.26	0.42
42:BU:86:PHE:HE1	42:BU:88:ASP:OD1	2.02	0.42
42:BU:98:ASN:OD1	42:BU:100:GLU:HB2	2.19	0.42
44:BX:1:MET:CB	44:BX:4:LYS:HD3	2.47	0.42
45:BY:40:THR:HG22	45:BY:42:ALA:H	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:378:G:H2'	1:CA:379:C:C6	2.54	0.42
1:CA:438:U:H4'	3:CD:119:HIS:HD2	1.84	0.42
1:CA:848:C:H2'	1:CA:849:G:O4'	2.19	0.42
1:CA:974:A:H4'	1:CA:975:A:C5'	2.46	0.42
1:CA:1058:G:H2'	1:CA:1059:C:C6	2.55	0.42
1:CA:1078:U:H2'	1:CA:1079:G:C8	2.54	0.42
2:CC:2:GLN:O	2:CC:3:LYS:HB2	2.19	0.42
3:CD:24:VAL:HA	3:CD:27:ILE:CD1	2.46	0.42
4:CE:52:ALA:H	4:CE:58:ALA:HB2	1.84	0.42
4:CE:106:ALA:HB1	4:CE:110:MET:CB	2.49	0.42
5:CF:90:MET:HE1	17:CR:60:ARG:NH2	2.34	0.42
7:CH:47:ASP:CG	7:CH:48:PHE:N	2.77	0.42
7:CH:125:ILE:HG22	7:CH:126:CYS:SG	2.59	0.42
9:CJ:14:ASP:OD1	9:CJ:17:LEU:HB2	2.18	0.42
9:CJ:17:LEU:HD22	9:CJ:96:VAL:HG13	2.01	0.42
10:CK:42:GLY:HA3	10:CK:73:VAL:HG13	2.00	0.42
10:CK:57:SER:O	10:CK:90:PRO:HG3	2.19	0.42
12:CM:48:SER:O	12:CM:49:GLU:C	2.62	0.42
13:CN:69:PRO:HG2	13:CN:70:HIS:H	1.83	0.42
14:CO:69:LEU:HD11	14:CO:76:ARG:HB2	2.02	0.42
15:CP:45:GLU:C	15:CP:47:GLU:H	2.27	0.42
16:CQ:32:ILE:HG23	16:CQ:33:TYR:CD2	2.54	0.42
16:CQ:40:THR:HG22	16:CQ:41:THR:N	2.34	0.42
18:CS:2:ARG:NE	18:CS:2:ARG:HA	2.35	0.42
18:CS:39:ILE:HD13	18:CS:65:MET:HB3	2.01	0.42
20:CB:55:GLU:O	20:CB:58:LYS:HB2	2.19	0.42
23:DB:21:A:H2'	23:DB:22:C:H6	1.83	0.42
23:DB:80:G:HO2'	23:DB:294:A:H2	1.65	0.42
23:DB:177:G:H3'	23:DB:178:G:C8	2.54	0.42
23:DB:423:A:H5''	23:DB:424:G:H5'	2.00	0.42
23:DB:566:U:H5''	33:DL:29:LYS:HZ2	1.82	0.42
23:DB:2026:U:H2'	23:DB:2027:G:H8	1.84	0.42
23:DB:2365:G:C4'	43:DW:59:PHE:HE1	2.17	0.42
23:DB:2898:U:O2	31:DJ:134:ALA:HB1	2.19	0.42
25:DC:92:LEU:HD12	25:DC:101:ARG:O	2.19	0.42
25:DC:141:HIS:CG	25:DC:142:ASN:N	2.87	0.42
25:DC:179:GLU:CD	25:DC:266:ILE:HD11	2.43	0.42
26:DD:3:GLY:HA2	26:DD:101:PHE:HZ	1.83	0.42
28:DF:72:SER:CB	28:DF:80:GLN:H	2.32	0.42
29:DG:1:SER:HA	29:DG:61:TRP:CZ3	2.55	0.42
29:DG:24:THR:C	29:DG:25:ILE:HD12	2.44	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DG:140:ILE:HD12	29:DG:141:GLY:N	2.34	0.42
29:DG:175:LYS:HD3	29:DG:175:LYS:HA	1.85	0.42
30:DH:133:GLN:HB2	30:DH:138:VAL:O	2.19	0.42
32:DK:71:ARG:HG3	32:DK:105:ARG:NH2	2.33	0.42
32:DK:72:PRO:C	32:DK:74:GLY:H	2.27	0.42
34:DM:10:ARG:HH11	34:DM:89:VAL:HG23	1.84	0.42
35:DN:98:LEU:O	35:DN:112:TYR:HB2	2.19	0.42
38:DQ:91:ARG:HE	38:DQ:94:LEU:CD2	2.32	0.42
42:DU:21:ARG:HG3	42:DU:21:ARG:NH1	2.34	0.42
45:DY:2:LYS:H	45:DY:2:LYS:CD	2.29	0.42
49:D2:9:VAL:HG13	49:D2:10:LEU:N	2.34	0.42
52:DI:53:PRO:CG	52:DI:77:VAL:HG11	2.49	0.42
1:AA:292:G:O2'	1:AA:609:A:N6	2.53	0.42
1:AA:372:C:H1'	1:AA:373:A:OP2	2.19	0.42
1:AA:602:A:H2'	1:AA:603:U:H6	1.84	0.42
1:AA:1011:C:H2'	1:AA:1012:A:C8	2.54	0.42
1:AA:1172:C:O2'	1:AA:1173:U:H5'	2.19	0.42
1:AA:1178:G:H3'	8:AI:98:ARG:HH21	1.85	0.42
1:AA:1302:C:H6	12:AM:16:ILE:HG13	1.84	0.42
1:AA:1366:C:H2'	1:AA:1367:C:H6	1.84	0.42
7:AH:6:ILE:CD1	7:AH:31:LEU:HD23	2.48	0.42
7:AH:108:GLY:O	7:AH:110:MET:HG3	2.18	0.42
8:AI:62:LEU:N	8:AI:62:LEU:HD22	2.34	0.42
10:AK:14:GLN:HA	10:AK:76:TYR:O	2.19	0.42
11:AL:43:LYS:N	11:AL:44:PRO:HD2	2.34	0.42
13:AN:16:ALA:O	13:AN:20:PHE:HB3	2.19	0.42
13:AN:20:PHE:HB2	13:AN:54:SER:HG	1.83	0.42
14:AO:15:GLY:C	14:AO:17:ASP:H	2.26	0.42
14:AO:69:LEU:HD11	14:AO:76:ARG:HB2	2.02	0.42
15:AP:67:ILE:O	15:AP:67:ILE:HG23	2.18	0.42
16:AQ:68:LYS:C	16:AQ:70:LYS:H	2.26	0.42
23:BB:1:G:H2'	23:BB:1:G:N3	2.35	0.42
23:BB:80:G:N7	23:BB:102:U:O4	2.52	0.42
23:BB:246:C:O2'	23:BB:247:G:H5'	2.20	0.42
23:BB:276:U:O2'	23:BB:278:A:N7	2.51	0.42
23:BB:404:A:H4'	23:BB:405:U:C5'	2.45	0.42
23:BB:570:G:C4	23:BB:2030:A:N7	2.87	0.42
23:BB:750:A:H2'	23:BB:751:A:H5''	2.00	0.42
23:BB:912:C:H2'	23:BB:913:U:C6	2.54	0.42
23:BB:1666:G:H4'	32:BK:6:THR:HG23	2.00	0.42
23:BB:1688:U:N3	23:BB:1698:A:C2	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1930:G:C2'	23:BB:1931:U:OP2	2.67	0.42
23:BB:1931:U:H2'	23:BB:1932:A:H8	1.84	0.42
23:BB:2572:A:P	26:BD:151:THR:HB	2.59	0.42
23:BB:2885:G:H2'	23:BB:2886:A:H4'	2.02	0.42
24:BV:35:GLU:HG2	24:BV:93:ARG:NH1	2.35	0.42
24:BV:75:GLN:OE1	24:BV:75:GLN:HA	2.18	0.42
25:BC:138:SER:O	25:BC:140:VAL:HG23	2.20	0.42
27:BE:147:LEU:O	27:BE:168:ASP:O	2.37	0.42
28:BF:94:ARG:O	28:BF:98:PHE:N	2.45	0.42
28:BF:124:ARG:HH11	28:BF:124:ARG:HG2	1.84	0.42
29:BG:34:ARG:HD3	29:BG:34:ARG:N	2.34	0.42
30:BH:96:THR:OG1	30:BH:112:LYS:HD2	2.19	0.42
30:BH:122:LEU:H	30:BH:122:LEU:CD1	2.31	0.42
32:BK:35:VAL:HG12	32:BK:69:VAL:HG22	2.01	0.42
46:BZ:76:GLU:HG3	46:BZ:77:LYS:N	2.35	0.42
48:B1:46:VAL:HG13	48:B1:47:ILE:N	2.34	0.42
49:B2:26:ASN:HA	49:B2:29:GLN:HB3	2.01	0.42
52:BI:103:ALA:O	52:BI:107:GLU:HG3	2.20	0.42
52:BI:109:ALA:HB1	52:BI:124:MET:CG	2.49	0.42
1:CA:256:U:H3'	1:CA:257:G:H8	1.84	0.42
1:CA:260:G:H2'	1:CA:261:U:C6	2.54	0.42
1:CA:263:A:H2'	1:CA:264:C:C6	2.55	0.42
1:CA:458:U:H2'	1:CA:459:A:C8	2.54	0.42
1:CA:477:C:H2'	1:CA:478:A:C8	2.55	0.42
1:CA:602:A:H2'	1:CA:603:U:H6	1.85	0.42
1:CA:706:A:C4'	10:CK:30:ILE:HD11	2.48	0.42
1:CA:808:C:O2'	1:CA:809:G:H5'	2.19	0.42
1:CA:1046:A:H2'	1:CA:1047:G:O4'	2.18	0.42
1:CA:1170:A:H3'	1:CA:1171:A:H8	1.84	0.42
1:CA:1492:A:H2'	23:DB:1913:A:C2	2.54	0.42
2:CC:119:ILE:HD13	2:CC:136:ALA:HB2	2.01	0.42
3:CD:78:ALA:HA	3:CD:81:LEU:HD12	2.02	0.42
3:CD:157:ALA:C	3:CD:159:GLU:N	2.77	0.42
5:CF:47:LEU:HB3	17:CR:65:SER:OG	2.19	0.42
5:CF:66:ALA:HB1	5:CF:67:PRO:HD2	2.01	0.42
8:CI:36:GLN:HE21	8:CI:36:GLN:N	2.17	0.42
12:CM:96:VAL:C	12:CM:98:GLY:N	2.76	0.42
14:CO:73:ASP:OD1	14:CO:75:ALA:HB3	2.19	0.42
15:CP:40:ASN:ND2	15:CP:43:ALA:HB2	2.34	0.42
18:CS:10:ILE:CD1	18:CS:14:LEU:HD11	2.49	0.42
19:CT:49:ALA:CA	19:CT:52:GLU:HB3	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CB:82:ALA:HB3	20:CB:213:LEU:HD22	2.01	0.42
23:DB:583:G:H2'	23:DB:584:C:H6	1.84	0.42
23:DB:636:G:P	33:DL:128:THR:HG22	2.59	0.42
23:DB:643:A:C2	48:D1:43:ARG:HD2	2.54	0.42
23:DB:740:C:H5''	23:DB:1784:A:OP1	2.19	0.42
23:DB:814:C:OP1	39:DR:85:LYS:HA	2.19	0.42
23:DB:974:G:H2'	23:DB:974:G:N3	2.35	0.42
23:DB:1372:U:O2'	23:DB:1373:A:H5'	2.20	0.42
23:DB:1396:U:O2	23:DB:1396:U:H5'	2.19	0.42
23:DB:2300:C:H2'	23:DB:2301:C:C6	2.55	0.42
23:DB:2311:A:H3'	23:DB:2312:U:C6	2.55	0.42
23:DB:2547:A:H2'	23:DB:2548:U:H6	1.82	0.42
26:DD:101:PHE:HE1	26:DD:203:VAL:HG13	1.85	0.42
26:DD:109:VAL:HG11	26:DD:193:VAL:CB	2.49	0.42
27:DE:21:ARG:HB2	27:DE:21:ARG:NH2	2.34	0.42
27:DE:148:ILE:HA	27:DE:187:VAL:CG2	2.49	0.42
28:DF:7:TYR:O	28:DF:11:VAL:HB	2.19	0.42
28:DF:169:LEU:O	28:DF:174:PHE:HB2	2.20	0.42
29:DG:9:VAL:HG12	29:DG:11:PRO:HD3	2.01	0.42
29:DG:84:LYS:HG3	29:DG:131:VAL:CB	2.50	0.42
29:DG:107:GLY:HA3	29:DG:151:ARG:NH2	2.34	0.42
29:DG:154:GLU:O	29:DG:156:TYR:N	2.52	0.42
30:DH:83:LYS:N	30:DH:83:LYS:HD2	2.34	0.42
37:DP:89:GLY:N	37:DP:112:ARG:NH1	2.67	0.42
38:DQ:60:TRP:O	38:DQ:63:ARG:HG3	2.18	0.42
38:DQ:68:ALA:CA	38:DQ:71:ASN:HB3	2.49	0.42
38:DQ:93:ILE:O	38:DQ:96:ASP:HB3	2.19	0.42
39:DR:7:SER:CA	39:DR:22:LEU:HD13	2.49	0.42
41:DT:30:ILE:O	41:DT:85:VAL:HG23	2.20	0.42
43:DW:66:VAL:HG22	43:DW:81:ILE:HG22	2.01	0.42
52:DI:12:VAL:HG13	52:DI:41:PHE:CE2	2.55	0.42
52:DI:101:SER:OG	52:DI:104:GLN:HG3	2.19	0.42
1:AA:9:G:H2'	1:AA:10:A:C8	2.55	0.42
1:AA:61:G:H2'	1:AA:62:U:C6	2.54	0.42
1:AA:204:G:H2'	1:AA:205:A:H8	1.81	0.42
1:AA:254:G:OP1	16:AQ:68:LYS:O	2.38	0.42
1:AA:493:A:H3'	1:AA:494:G:H8	1.83	0.42
1:AA:991:U:H2'	1:AA:1212:U:O2	2.19	0.42
1:AA:1077:G:N1	1:AA:1081:A:C6	2.88	0.42
1:AA:1305:G:O2'	1:AA:1332:A:N6	2.53	0.42
1:AA:1330:U:H2'	1:AA:1331:G:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AC:99:GLN:O	2:AC:100:ILE:HB	2.19	0.42
2:AC:154:GLY:HA2	2:AC:163:ARG:N	2.34	0.42
3:AD:25:ARG:C	3:AD:25:ARG:CD	2.92	0.42
6:AG:89:GLU:H	6:AG:89:GLU:HG3	1.61	0.42
7:AH:49:LYS:HA	7:AH:49:LYS:HD2	1.89	0.42
9:AJ:92:LEU:N	9:AJ:92:LEU:HD22	2.34	0.42
10:AK:91:GLY:O	10:AK:95:THR:HG22	2.20	0.42
11:AL:2:THR:HG22	11:AL:5:GLN:HE21	1.83	0.42
11:AL:31:GLY:HA3	11:AL:54:VAL:CG1	2.50	0.42
13:AN:15:LEU:HB3	13:AN:54:SER:CB	2.44	0.42
16:AQ:80:LYS:H	16:AQ:80:LYS:NZ	2.17	0.42
17:AR:57:ALA:HA	17:AR:60:ARG:HH11	1.84	0.42
19:AT:64:GLY:H	19:AT:67:HIS:CD2	2.37	0.42
20:AB:134:LEU:HA	20:AB:137:THR:CG2	2.49	0.42
22:BA:75:G:H2'	22:BA:76:G:C8	2.55	0.42
23:BB:179:C:H2'	23:BB:180:G:O4'	2.19	0.42
23:BB:307:G:H2'	23:BB:309:A:OP2	2.19	0.42
23:BB:780:G:H2'	23:BB:782:A:N7	2.34	0.42
23:BB:1296:G:O2'	23:BB:1297:C:H5'	2.20	0.42
23:BB:1633:G:O2'	23:BB:1634:A:H5''	2.19	0.42
23:BB:1662:U:H2'	23:BB:1663:G:O4'	2.20	0.42
23:BB:1771:C:O2'	23:BB:1772:A:H5'	2.19	0.42
23:BB:1784:A:H4'	23:BB:1785:A:O5'	2.18	0.42
23:BB:1824:G:O2'	23:BB:1825:U:H5'	2.19	0.42
23:BB:2028:U:H2'	23:BB:2029:G:C8	2.54	0.42
23:BB:2095:A:H2'	23:BB:2096:C:C6	2.54	0.42
23:BB:2301:C:O2'	23:BB:2302:U:H5'	2.20	0.42
23:BB:2331:G:O2'	23:BB:2332:C:H5'	2.19	0.42
23:BB:2432:A:H2'	23:BB:2433:A:C8	2.55	0.42
23:BB:2636:C:H2'	23:BB:2637:U:H6	1.85	0.42
23:BB:2855:C:O2'	23:BB:2856:A:H5'	2.19	0.42
25:BC:264:LYS:HG3	25:BC:265:PHE:HD2	1.84	0.42
26:BD:3:GLY:HA2	26:BD:101:PHE:HZ	1.84	0.42
26:BD:178:VAL:HB	26:BD:188:LEU:CB	2.47	0.42
27:BE:162:ARG:C	27:BE:164:LEU:H	2.27	0.42
29:BG:9:VAL:HG12	29:BG:11:PRO:HD3	2.00	0.42
30:BH:73:ASN:HD22	30:BH:73:ASN:H	1.67	0.42
34:BM:19:GLY:N	34:BM:38:ARG:NH1	2.65	0.42
35:BN:75:ILE:O	35:BN:79:LEU:HD12	2.19	0.42
37:BP:54:LEU:HA	37:BP:76:HIS:CD2	2.55	0.42
38:BQ:109:VAL:HG12	38:BQ:113:LYS:HE3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BR:72:VAL:CG2	39:BR:89:HIS:HB3	2.49	0.42
40:BS:76:VAL:HG12	40:BS:103:ILE:HA	2.01	0.42
43:BW:19:ARG:NE	43:BW:19:ARG:H	2.17	0.42
44:BX:23:ARG:O	44:BX:27:ASN:HB2	2.19	0.42
1:CA:372:C:H1'	1:CA:373:A:OP2	2.20	0.42
1:CA:878:A:C5'	7:CH:80:PRO:HG2	2.49	0.42
1:CA:1152:A:H4'	9:CJ:15:HIS:HD2	1.84	0.42
1:CA:1219:A:H2'	1:CA:1220:G:H8	1.84	0.42
1:CA:1370:G:O2'	1:CA:1371:G:H5'	2.18	0.42
2:CC:52:SER:O	2:CC:113:LYS:HG2	2.19	0.42
2:CC:154:GLY:HA2	2:CC:163:ARG:C	2.44	0.42
2:CC:166:TRP:HA	2:CC:166:TRP:HE3	1.84	0.42
8:CI:62:LEU:HD22	8:CI:62:LEU:N	2.34	0.42
12:CM:13:HIS:HB2	12:CM:16:ILE:HG22	2.02	0.42
19:CT:27:MET:HE2	19:CT:27:MET:HB3	1.88	0.42
20:CB:16:GLY:HA2	20:CB:40:ILE:HD12	2.02	0.42
22:DA:8:C:O2'	36:DO:40:ILE:HD13	2.19	0.42
22:DA:57:A:O2'	28:DF:26:GLN:NE2	2.53	0.42
23:DB:1248:G:C5	38:DQ:2:ARG:HD2	2.54	0.42
23:DB:1252:G:O4'	38:DQ:32:ARG:HG2	2.20	0.42
23:DB:1496:A:H1'	23:DB:1577:C:O2'	2.19	0.42
23:DB:1591:A:O2'	23:DB:1592:C:H5'	2.19	0.42
23:DB:1640:A:O2'	23:DB:1641:A:H5'	2.19	0.42
23:DB:1745:A:H2'	23:DB:1746:A:H8	1.85	0.42
23:DB:1937:A:N7	23:DB:1939:U:H2'	2.34	0.42
23:DB:1984:G:O2'	23:DB:1985:C:H5'	2.18	0.42
23:DB:2012:G:OP1	40:DS:98:LYS:HG2	2.20	0.42
23:DB:2300:C:H2'	23:DB:2301:C:H6	1.84	0.42
23:DB:2376:A:N6	36:DO:94:ARG:HD3	2.34	0.42
23:DB:2855:C:O2'	23:DB:2856:A:H5'	2.19	0.42
23:DB:2895:G:O2'	23:DB:2896:C:H5'	2.20	0.42
26:DD:55:LYS:HZ2	26:DD:59:ARG:HD2	1.84	0.42
26:DD:171:THR:OG1	26:DD:172:VAL:N	2.50	0.42
27:DE:150:THR:HG22	27:DE:170:ARG:O	2.20	0.42
27:DE:160:ALA:C	27:DE:162:ARG:H	2.26	0.42
28:DF:2:LYS:O	28:DF:6:TYR:HB2	2.18	0.42
30:DH:115:VAL:HG23	30:DH:131:SER:O	2.19	0.42
31:DJ:111:LYS:CB	31:DJ:113:PRO:HD2	2.47	0.42
32:DK:76:VAL:HB	37:DP:72:VAL:CG2	2.50	0.42
33:DL:83:ALA:C	33:DL:85:VAL:H	2.28	0.42
36:DO:78:VAL:HA	36:DO:81:ARG:HB3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DP:109:ILE:HD12	37:DP:109:ILE:O	2.19	0.42
39:DR:66:HIS:CG	39:DR:94:THR:HG22	2.54	0.42
41:DT:25:GLU:C	41:DT:27:SER:H	2.27	0.42
44:DX:21:LEU:HD23	44:DX:21:LEU:N	2.35	0.42
47:D0:41:HIS:O	47:D0:42:ILE:O	2.36	0.42
47:D0:53:VAL:O	47:D0:54:ILE:CB	2.67	0.42
50:D3:30:HIS:O	50:D3:31:ILE:O	2.38	0.42
51:D4:2:LYS:CE	51:D4:4:ARG:HE	2.33	0.42
1:AA:51:A:H61	1:AA:314:C:H1'	1.85	0.42
1:AA:98:A:O2'	1:AA:99:C:H5'	2.19	0.42
1:AA:152:A:N6	1:AA:170:U:C2	2.88	0.42
1:AA:160:A:H2'	1:AA:161:A:C8	2.55	0.42
1:AA:770:C:O2'	1:AA:771:G:H5'	2.19	0.42
1:AA:795:C:H1'	1:AA:1506:U:C5	2.54	0.42
1:AA:1029:U:H2'	1:AA:1031:C:C2	2.55	0.42
1:AA:1186:G:H4'	8:AI:111:GLU:OE1	2.19	0.42
2:AC:42:LEU:O	2:AC:46:LEU:HB2	2.20	0.42
4:AE:33:THR:HG22	4:AE:51:LYS:CB	2.49	0.42
5:AF:36:ILE:HA	5:AF:64:VAL:HG13	2.01	0.42
5:AF:53:LYS:NZ	5:AF:53:LYS:N	2.67	0.42
7:AH:54:THR:HG23	7:AH:55:LYS:HG2	2.01	0.42
8:AI:35:GLU:HG3	8:AI:44:ARG:CD	2.49	0.42
8:AI:36:GLN:N	8:AI:36:GLN:HE21	2.17	0.42
9:AJ:18:ILE:CG1	9:AJ:72:ARG:HG2	2.50	0.42
9:AJ:35:GLN:HG2	9:AJ:77:VAL:HG23	2.01	0.42
12:AM:92:ARG:NH1	18:AS:79:TYR:HD2	2.10	0.42
13:AN:12:ARG:NE	13:AN:58:ARG:NH1	2.68	0.42
15:AP:21:VAL:O	15:AP:33:ILE:HB	2.19	0.42
16:AQ:68:LYS:C	16:AQ:70:LYS:N	2.75	0.42
18:AS:61:VAL:HA	18:AS:65:MET:SD	2.59	0.42
20:AB:150:ILE:O	20:AB:150:ILE:HG12	2.18	0.42
23:BB:125:A:H5'	49:B2:19:ARG:CG	2.49	0.42
23:BB:282:A:O2'	23:BB:283:G:H5'	2.19	0.42
23:BB:335:C:O2'	23:BB:336:C:H5'	2.19	0.42
23:BB:786:C:O2'	23:BB:787:C:H5'	2.20	0.42
23:BB:827:U:H5'	23:BB:828:U:O5'	2.18	0.42
23:BB:929:U:O2	45:BY:25:GLY:HA2	2.20	0.42
23:BB:1479:G:O2'	23:BB:1480:C:H5'	2.20	0.42
23:BB:1552:A:H2'	23:BB:1553:A:C5'	2.49	0.42
23:BB:1789:A:H2'	23:BB:1790:C:O4'	2.19	0.42
23:BB:2314:A:H2'	23:BB:2315:G:H8	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:2352:A:N1	43:BW:30:VAL:HG11	2.34	0.42
23:BB:2526:G:N3	51:B4:1:MET:N	2.67	0.42
23:BB:2751:G:H2'	23:BB:2751:G:OP1	2.20	0.42
23:BB:2766:A:N3	23:BB:2766:A:H2'	2.35	0.42
24:BV:42:LEU:N	24:BV:42:LEU:HD23	2.34	0.42
25:BC:245:THR:HG23	25:BC:249:VAL:O	2.19	0.42
30:BH:100:ALA:HA	30:BH:110:VAL:CG2	2.39	0.42
31:BJ:24:THR:O	31:BJ:25:LEU:HB3	2.19	0.42
32:BK:105:ARG:HH11	32:BK:122:VAL:CG1	2.33	0.42
33:BL:4:ASN:HB2	33:BL:5:THR:H	1.71	0.42
33:BL:40:SER:C	33:BL:41:ARG:HG3	2.44	0.42
33:BL:88:GLY:HA2	33:BL:120:VAL:HG13	2.02	0.42
35:BN:9:GLN:C	35:BN:17:ARG:HD3	2.43	0.42
37:BP:46:VAL:HA	37:BP:60:VAL:HG12	2.01	0.42
40:BS:6:LYS:HB3	40:BS:104:THR:HA	2.02	0.42
42:BU:18:LYS:HB3	42:BU:19:GLY:H	1.68	0.42
47:B0:53:VAL:O	47:B0:54:ILE:CB	2.68	0.42
52:BI:79:LEU:HD23	52:BI:108:ILE:CD1	2.50	0.42
1:CA:9:G:H2'	1:CA:10:A:C8	2.55	0.42
1:CA:36:C:H5''	11:CL:119:LYS:HD2	2.01	0.42
1:CA:82:G:H21	1:CA:84:U:H3	1.67	0.42
1:CA:972:C:P	9:CJ:59:LYS:HD3	2.59	0.42
1:CA:1069:C:O4'	1:CA:1191:A:H2	2.01	0.42
1:CA:1374:A:H2'	1:CA:1375:A:H8	1.85	0.42
2:CC:31:ASN:ND2	2:CC:58:ARG:NE	2.66	0.42
2:CC:184:ASN:HD22	2:CC:184:ASN:HA	1.60	0.42
3:CD:115:GLN:HG3	3:CD:119:HIS:CE1	2.54	0.42
6:CG:57:GLU:CD	6:CG:57:GLU:H	2.27	0.42
6:CG:125:ASP:HB3	6:CG:131:GLY:N	2.34	0.42
8:CI:66:VAL:HG11	8:CI:78:ILE:HD11	2.02	0.42
9:CJ:55:PRO:O	9:CJ:56:HIS:HB3	2.19	0.42
13:CN:46:LYS:NZ	18:CS:10:ILE:HG13	2.34	0.42
20:CB:59:ILE:O	20:CB:62:ARG:HD2	2.20	0.42
21:CU:48:LYS:C	21:CU:50:SER:N	2.75	0.42
23:DB:193:U:O3'	23:DB:803:U:H4'	2.20	0.42
23:DB:416:U:H2'	23:DB:417:C:H6	1.82	0.42
23:DB:518:G:H2'	23:DB:519:U:C6	2.54	0.42
23:DB:599:A:O2'	23:DB:600:G:H5'	2.19	0.42
23:DB:629:G:O2'	23:DB:630:G:H5'	2.20	0.42
23:DB:659:G:N2	27:DE:30:GLN:NE2	2.67	0.42
23:DB:743:A:C2'	23:DB:744:U:H5'	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:784:G:H1	25:DC:227:VAL:HG11	1.80	0.42
23:DB:850:U:O2'	45:DY:22:THR:HG22	2.18	0.42
23:DB:1055:G:H2'	23:DB:1056:G:O4'	2.20	0.42
23:DB:1405:U:H2'	23:DB:1406:U:H6	1.84	0.42
23:DB:1539:U:O2	23:DB:1539:U:H2'	2.19	0.42
23:DB:1670:C:H2'	23:DB:1671:U:O4'	2.19	0.42
23:DB:1707:G:O2'	23:DB:1708:C:H5'	2.19	0.42
23:DB:1870:C:H3'	23:DB:1871:A:C8	2.54	0.42
23:DB:1916:A:H2'	23:DB:1917:U:O4'	2.20	0.42
23:DB:2389:G:H5''	23:DB:2390:U:O4'	2.19	0.42
23:DB:2411:A:H2'	23:DB:2412:A:H8	1.84	0.42
23:DB:2719:G:O2'	23:DB:2846:G:H4'	2.19	0.42
23:DB:2786:U:H2'	23:DB:2787:C:H6	1.84	0.42
23:DB:2828:G:H2'	23:DB:2829:A:H8	1.85	0.42
25:DC:124:LYS:HG2	25:DC:125:PRO:N	2.35	0.42
26:DD:16:THR:HG22	26:DD:17:GLU:N	2.35	0.42
27:DE:148:ILE:HB	27:DE:169:VAL:HG12	2.00	0.42
28:DF:69:ALA:HB3	28:DF:80:GLN:O	2.20	0.42
28:DF:94:ARG:O	28:DF:98:PHE:N	2.46	0.42
29:DG:39:ALA:O	29:DG:54:ARG:HB2	2.19	0.42
34:DM:32:GLY:HA3	34:DM:103:TYR:O	2.19	0.42
34:DM:65:ILE:C	34:DM:67:VAL:H	2.26	0.42
37:DP:62:LYS:O	37:DP:63:ILE:HB	2.19	0.42
38:DQ:59:LEU:HD13	38:DQ:59:LEU:C	2.45	0.42
45:DY:18:LYS:O	45:DY:22:THR:HG23	2.20	0.42
46:DZ:30:LEU:H	46:DZ:30:LEU:CD2	2.27	0.42
1:AA:36:C:C2'	1:AA:37:U:H5'	2.50	0.42
1:AA:141:G:H2'	1:AA:142:G:O4'	2.19	0.42
1:AA:585:G:H4'	11:AL:4:ASN:HD21	1.85	0.42
1:AA:663:A:O3'	17:AR:52:ARG:NH2	2.49	0.42
1:AA:696:A:O2'	1:AA:697:U:H5'	2.20	0.42
1:AA:1446:A:C2'	1:AA:1447:A:H5''	2.50	0.42
2:AC:52:SER:HA	2:AC:113:LYS:HG2	2.01	0.42
2:AC:85:LYS:O	2:AC:89:VAL:HG23	2.20	0.42
4:AE:107:GLY:C	4:AE:109:ALA:N	2.77	0.42
5:AF:90:MET:HE1	17:AR:60:ARG:NH2	2.35	0.42
7:AH:5:PRO:HB2	7:AH:32:LYS:NZ	2.34	0.42
10:AK:46:ALA:HA	10:AK:65:ALA:HB2	2.00	0.42
15:AP:1:MET:HE3	15:AP:2:VAL:N	2.35	0.42
18:AS:52:ASN:HB2	18:AS:76:THR:HG22	2.02	0.42
19:AT:82:ILE:C	19:AT:85:LEU:HD22	2.45	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AB:83:ALA:HA	20:AB:88:GLN:HE21	1.84	0.42
23:BB:37:C:H1'	27:BE:45:ALA:HB2	2.02	0.42
23:BB:485:C:O2'	23:BB:486:C:H5'	2.20	0.42
23:BB:493:G:H2'	23:BB:494:G:O4'	2.19	0.42
23:BB:644:A:H2	23:BB:646:U:O4	2.03	0.42
23:BB:814:C:OP1	39:BR:85:LYS:HA	2.19	0.42
23:BB:1041:G:H2'	23:BB:1042:G:H8	1.77	0.42
23:BB:1348:C:H2'	23:BB:1349:C:H5'	2.01	0.42
23:BB:1505:A:H2'	23:BB:1506:U:H6	1.85	0.42
23:BB:1553:A:H2'	23:BB:1555:G:N7	2.35	0.42
23:BB:1736:U:H2'	23:BB:1737:G:O4'	2.19	0.42
23:BB:2231:U:H2'	23:BB:2232:C:H6	1.85	0.42
23:BB:2305:U:H5'	28:BF:152:ASP:OD2	2.19	0.42
23:BB:2489:U:H2'	23:BB:2490:G:O4'	2.19	0.42
23:BB:2654:A:N6	23:BB:2666:C:OP2	2.51	0.42
23:BB:2699:C:H2'	23:BB:2700:A:H8	1.85	0.42
23:BB:2742:G:OP2	51:B4:24:ARG:NH1	2.52	0.42
23:BB:2773:C:H5''	26:BD:169:ARG:HB3	2.01	0.42
24:BV:1:MET:HG3	24:BV:2:PHE:CD2	2.54	0.42
24:BV:28:ALA:HA	24:BV:88:HIS:ND1	2.34	0.42
25:BC:188:ARG:HG2	25:BC:188:ARG:NH2	2.35	0.42
26:BD:10:GLY:HA2	37:BP:4:ILE:HD11	2.01	0.42
26:BD:21:SER:HB2	32:BK:73:ASP:HA	2.00	0.42
26:BD:123:LYS:HD3	26:BD:165:MET:SD	2.59	0.42
27:BE:3:LEU:O	27:BE:12:LEU:N	2.53	0.42
27:BE:136:GLN:O	27:BE:137:LYS:C	2.63	0.42
27:BE:187:VAL:HG12	27:BE:188:MET:N	2.34	0.42
28:BF:42:ALA:O	28:BF:44:ALA:N	2.53	0.42
28:BF:79:ARG:O	28:BF:81:GLY:N	2.53	0.42
30:BH:14:SER:HB2	30:BH:17:ASP:HB3	2.01	0.42
30:BH:41:LYS:C	30:BH:43:ASN:H	2.26	0.42
31:BJ:84:ILE:O	31:BJ:84:ILE:HG13	2.19	0.42
33:BL:75:ALA:HB3	33:BL:108:ALA:HB2	2.00	0.42
36:BO:8:ILE:HG13	36:BO:8:ILE:H	1.70	0.42
37:BP:86:LYS:HB3	37:BP:87:ARG:H	1.54	0.42
43:BW:28:GLU:H	43:BW:31:LEU:CD1	2.33	0.42
46:BZ:54:LYS:C	46:BZ:56:MET:N	2.77	0.42
46:BZ:54:LYS:O	46:BZ:57:ARG:HB2	2.20	0.42
46:BZ:69:ALA:C	46:BZ:70:GLU:O	2.61	0.42
48:B1:18:HIS:ND1	48:B1:19:PHE:N	2.68	0.42
51:B4:7:VAL:HG23	51:B4:35:GLN:CB	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BI:78:LEU:HD13	52:BI:108:ILE:HG23	2.00	0.42
1:CA:77:A:H2'	1:CA:78:A:C8	2.55	0.42
1:CA:244:U:O4	1:CA:906:A:H1'	2.20	0.42
1:CA:301:G:H2'	1:CA:302:G:C8	2.53	0.42
1:CA:683:G:O2'	1:CA:684:U:H5'	2.20	0.42
1:CA:708:C:H2'	1:CA:709:U:H6	1.84	0.42
1:CA:1355:G:O2'	1:CA:1356:G:H5'	2.19	0.42
1:CA:1426:G:H2'	1:CA:1427:C:O4'	2.20	0.42
2:CC:13:ILE:C	2:CC:15:LYS:H	2.27	0.42
8:CI:95:SER:O	8:CI:99:LYS:HB2	2.19	0.42
12:CM:95:PRO:CA	12:CM:108:ARG:HG2	2.50	0.42
15:CP:28:ARG:HD3	15:CP:29:ASN:ND2	2.35	0.42
16:CQ:39:ARG:CZ	16:CQ:39:ARG:HA	2.50	0.42
20:CB:31:PHE:HB3	20:CB:39:ILE:HG22	2.01	0.42
20:CB:64:GLY:HA2	20:CB:158:ASP:OD1	2.20	0.42
23:DB:70:G:H3'	23:DB:113:U:C4'	2.49	0.42
23:DB:584:C:N4	23:DB:585:G:C6	2.87	0.42
23:DB:1223:G:OP2	39:DR:90:ARG:NH1	2.53	0.42
23:DB:1921:G:O2'	23:DB:1922:G:H5'	2.19	0.42
23:DB:2282:G:OP1	23:DB:2283:C:H1'	2.20	0.42
23:DB:2349:G:OP2	50:D3:41:ARG:HD3	2.20	0.42
23:DB:2363:G:O2'	23:DB:2364:C:H5'	2.18	0.42
23:DB:2602:A:OP1	23:DB:2602:A:H3'	2.20	0.42
23:DB:2757:A:H2'	23:DB:2757:A:N3	2.34	0.42
26:DD:178:VAL:HG12	26:DD:179:ARG:N	2.33	0.42
26:DD:186:LEU:HD21	37:DP:7:LEU:HD21	2.02	0.42
27:DE:78:TRP:O	27:DE:79:ARG:C	2.62	0.42
27:DE:109:LEU:HD13	27:DE:180:LEU:HD13	2.00	0.42
27:DE:147:LEU:O	27:DE:168:ASP:O	2.38	0.42
28:DF:3:LEU:HB2	28:DF:100:GLU:OE1	2.19	0.42
28:DF:79:ARG:O	28:DF:80:GLN:C	2.62	0.42
29:DG:46:ASP:CG	29:DG:47:ASN:H	2.28	0.42
29:DG:112:VAL:O	29:DG:113:ASP:HB2	2.19	0.42
30:DH:109:GLU:O	30:DH:110:VAL:C	2.62	0.42
30:DH:117:LEU:HD13	30:DH:130:VAL:HA	2.02	0.42
33:DL:23:ILE:HD12	33:DL:23:ILE:H	1.84	0.42
33:DL:95:LEU:HB2	33:DL:101:ILE:CG1	2.49	0.42
34:DM:33:LEU:HD22	34:DM:128:THR:HB	2.02	0.42
35:DN:28:LEU:HD21	35:DN:113:ILE:HG23	2.02	0.42
37:DP:38:ARG:NH2	37:DP:38:ARG:HB3	2.35	0.42
37:DP:54:LEU:HA	37:DP:76:HIS:HD2	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DQ:24:TYR:CD1	38:DQ:25:GLY:N	2.87	0.42
38:DQ:49:ARG:HH11	38:DQ:49:ARG:HG2	1.85	0.42
42:DU:85:ARG:HH11	42:DU:86:PHE:C	2.27	0.42
52:DI:27:LEU:HB2	52:DI:32:VAL:HG21	2.01	0.42
1:AA:36:C:H5''	11:AL:119:LYS:HD2	2.01	0.42
1:AA:64:G:H4'	1:AA:65:A:H3'	2.02	0.42
1:AA:126:G:H2'	1:AA:127:G:O4'	2.20	0.42
1:AA:277:C:O2'	1:AA:278:G:H5'	2.18	0.42
1:AA:301:G:H2'	1:AA:302:G:C8	2.52	0.42
1:AA:939:G:H2'	1:AA:940:C:C6	2.54	0.42
1:AA:993:G:O2'	1:AA:994:A:N7	2.53	0.42
1:AA:1320:C:N4	18:AS:36:ARG:HA	2.34	0.42
1:AA:1451:U:O5'	1:AA:1452:C:H5	2.03	0.42
2:AC:154:GLY:HA2	2:AC:163:ARG:H	1.84	0.42
3:AD:18:LEU:HG	3:AD:63:ILE:HG12	2.02	0.42
3:AD:78:ALA:HB1	3:AD:85:THR:O	2.19	0.42
4:AE:82:HIS:HE1	4:AE:147:ASN:H	1.68	0.42
6:AG:49:LEU:HD21	6:AG:60:ALA:CB	2.46	0.42
6:AG:67:ASN:O	6:AG:134:VAL:HA	2.19	0.42
8:AI:35:GLU:O	8:AI:39:GLY:HA3	2.20	0.42
9:AJ:6:ILE:HD12	9:AJ:76:ILE:HD11	2.01	0.42
9:AJ:52:LEU:HB2	13:AN:80:ARG:NE	2.35	0.42
15:AP:20:VAL:HG21	15:AP:32:PHE:CD2	2.54	0.42
16:AQ:30:HIS:CG	16:AQ:33:TYR:HB2	2.54	0.42
16:AQ:60:ILE:HD13	16:AQ:60:ILE:N	2.34	0.42
18:AS:39:ILE:HD13	18:AS:65:MET:HB3	2.01	0.42
23:BB:19:A:H2'	23:BB:20:C:H6	1.85	0.42
23:BB:68:G:H2'	23:BB:69:C:H6	1.85	0.42
23:BB:170:U:O2'	23:BB:171:U:H5'	2.19	0.42
23:BB:183:C:O2	23:BB:432:A:H2	2.02	0.42
23:BB:230:G:H2'	23:BB:231:A:C8	2.55	0.42
23:BB:625:G:O2'	23:BB:626:A:H5'	2.20	0.42
23:BB:708:G:N2	23:BB:724:U:H1'	2.34	0.42
23:BB:924:G:H2'	23:BB:925:A:C8	2.54	0.42
23:BB:1234:U:H2'	23:BB:1235:G:O4'	2.20	0.42
23:BB:2082:A:N6	23:BB:2237:G:H1'	2.35	0.42
23:BB:2846:G:H2'	23:BB:2847:U:O4'	2.20	0.42
25:BC:141:HIS:CG	25:BC:142:ASN:N	2.87	0.42
27:BE:102:ARG:HH21	27:BE:102:ARG:HG3	1.84	0.42
27:BE:109:LEU:HD13	27:BE:180:LEU:HD13	2.02	0.42
27:BE:128:ALA:O	27:BE:133:LEU:HD12	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BE:200:LEU:N	27:BE:200:LEU:HD22	2.35	0.42
28:BF:31:GLU:HB2	28:BF:158:THR:HG22	2.00	0.42
31:BJ:57:LEU:HD11	31:BJ:129:GLU:N	2.29	0.42
31:BJ:74:TYR:HE2	31:BJ:103:ILE:HD11	1.84	0.42
31:BJ:77:HIS:HD2	31:BJ:84:ILE:N	2.09	0.42
32:BK:7:MET:HE3	32:BK:18:ARG:HB3	2.02	0.42
32:BK:111:LYS:N	32:BK:111:LYS:HD3	2.35	0.42
35:BN:30:ARG:NH2	35:BN:72:ASP:OD1	2.53	0.42
38:BQ:83:LYS:HA	38:BQ:87:VAL:O	2.19	0.42
41:BT:22:THR:O	41:BT:25:GLU:HB3	2.19	0.42
43:BW:23:LYS:HZ3	43:BW:24:ARG:CG	2.28	0.42
43:BW:59:PHE:CD2	43:BW:61:LYS:HG3	2.55	0.42
46:BZ:18:ARG:HA	46:BZ:23:ASN:O	2.19	0.42
47:B0:18:HIS:C	47:B0:20:ALA:N	2.77	0.42
52:BI:92:PRO:C	52:BI:94:LYS:H	2.27	0.42
1:CA:87:C:H2'	1:CA:88:U:C5	2.55	0.42
1:CA:279:A:H5'	1:CA:281:G:O4'	2.19	0.42
1:CA:523:A:H61	11:CL:88:ASP:HB2	1.85	0.42
1:CA:553:A:O2'	11:CL:25:ALA:HB1	2.20	0.42
1:CA:688:G:O3'	10:CK:45:THR:HG21	2.20	0.42
1:CA:1007:U:H2'	1:CA:1008:U:H6	1.84	0.42
1:CA:1033:G:H2'	1:CA:1034:G:H5''	2.01	0.42
1:CA:1306:A:C2'	1:CA:1307:U:H5'	2.49	0.42
1:CA:1476:A:O2'	1:CA:1477:U:H5'	2.20	0.42
8:CI:26:LYS:C	8:CI:27:ILE:HG13	2.45	0.42
14:CO:15:GLY:C	14:CO:17:ASP:H	2.27	0.42
16:CQ:68:LYS:C	16:CQ:70:LYS:N	2.77	0.42
19:CT:32:LYS:O	19:CT:35:TYR:N	2.52	0.42
20:CB:201:GLY:O	20:CB:202:ASN:C	2.61	0.42
23:DB:26:G:H1'	23:DB:514:A:N6	2.34	0.42
23:DB:215:G:C4'	23:DB:216:A:H4'	2.47	0.42
23:DB:329:G:H1	42:DU:16:LYS:HE3	1.84	0.42
23:DB:346:A:H3'	23:DB:347:A:H8	1.84	0.42
23:DB:374:A:N6	23:DB:400:G:H1'	2.35	0.42
23:DB:548:G:O2'	23:DB:549:G:H5''	2.20	0.42
23:DB:912:C:H2'	23:DB:913:U:C6	2.54	0.42
23:DB:981:A:H4'	23:DB:2037:A:H5'	2.02	0.42
23:DB:1891:G:H2'	23:DB:1892:C:H6	1.85	0.42
23:DB:2215:C:H2'	23:DB:2216:G:C8	2.55	0.42
23:DB:2283:C:H2'	23:DB:2284:A:H5'	2.01	0.42
23:DB:2721:A:H2'	23:DB:2722:G:H8	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2838:G:C4	23:DB:2839:G:C8	3.07	0.42
23:DB:2847:U:OP1	37:DP:95:LYS:HD3	2.19	0.42
25:DC:119:VAL:HG13	25:DC:133:ASN:HD21	1.84	0.42
25:DC:153:LEU:HD22	25:DC:175:LEU:HD22	2.01	0.42
25:DC:220:ARG:O	25:DC:224:MET:HE3	2.20	0.42
27:DE:42:GLY:O	27:DE:43:THR:C	2.62	0.42
28:DF:11:VAL:HG13	28:DF:171:ALA:HB1	2.01	0.42
28:DF:33:ILE:HB	28:DF:90:LEU:CG	2.49	0.42
28:DF:90:LEU:HB3	28:DF:95:MET:HB2	2.02	0.42
28:DF:109:ARG:HB3	28:DF:135:ILE:HD12	2.00	0.42
31:DJ:6:ALA:HB3	31:DJ:45:THR:CG2	2.44	0.42
31:DJ:20:ALA:C	31:DJ:22:GLY:H	2.27	0.42
32:DK:115:ILE:C	32:DK:117:SER:H	2.26	0.42
34:DM:66:ARG:HB3	34:DM:101:VAL:HG13	2.01	0.42
34:DM:108:VAL:CG1	34:DM:112:LEU:HD12	2.49	0.42
35:DN:33:ILE:HG22	35:DN:114:GLU:CB	2.44	0.42
35:DN:47:VAL:O	35:DN:51:LEU:HD13	2.20	0.42
36:DO:100:HIS:ND1	36:DO:101:GLY:N	2.68	0.42
37:DP:89:GLY:N	37:DP:112:ARG:HH12	2.17	0.42
38:DQ:15:LYS:HD2	38:DQ:15:LYS:C	2.44	0.42
38:DQ:75:TYR:O	38:DQ:76:SER:C	2.63	0.42
38:DQ:110:GLU:O	38:DQ:111:LYS:C	2.62	0.42
39:DR:19:THR:HG22	39:DR:97:LYS:HD2	2.01	0.42
40:DS:14:ALA:C	40:DS:16:LYS:N	2.78	0.42
42:DU:85:ARG:O	42:DU:92:VAL:HB	2.20	0.42
46:DZ:38:PHE:CE2	46:DZ:51:VAL:HG21	2.55	0.42
48:D1:10:LEU:HB3	48:D1:48:TYR:HB3	2.02	0.42
1:AA:300:A:H2'	1:AA:301:G:O4'	2.19	0.42
1:AA:438:U:H4'	3:AD:119:HIS:HD2	1.85	0.42
1:AA:564:C:C4	16:AQ:32:ILE:HD11	2.55	0.42
1:AA:614:C:O2'	1:AA:615:G:H5'	2.20	0.42
1:AA:706:A:C4'	10:AK:30:ILE:HD11	2.48	0.42
1:AA:821:G:O2'	1:AA:822:U:H5'	2.20	0.42
1:AA:984:C:H2'	1:AA:985:C:H6	1.85	0.42
1:AA:1036:A:H2'	1:AA:1037:C:O4'	2.19	0.42
1:AA:1136:C:O2	1:AA:1136:C:H2'	2.19	0.42
1:AA:1202:U:H2'	1:AA:1203:C:H5'	2.02	0.42
3:AD:21:LYS:C	3:AD:23:GLY:H	2.27	0.42
5:AF:44:ARG:HA	5:AF:57:ALA:O	2.20	0.42
5:AF:47:LEU:HD13	5:AF:51:ILE:CG2	2.50	0.42
5:AF:51:ILE:CD1	5:AF:86:ARG:HG3	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AG:63:VAL:HA	6:AG:66:GLU:CD	2.45	0.42
6:AG:129:ASN:CA	6:AG:134:VAL:HG21	2.49	0.42
8:AI:93:LEU:HD13	8:AI:97:LEU:CD1	2.47	0.42
10:AK:124:LYS:HA	21:AU:34:ARG:CG	2.49	0.42
11:AL:82:ARG:HG2	11:AL:82:ARG:NH1	2.35	0.42
14:AO:49:HIS:O	14:AO:52:ARG:HB3	2.20	0.42
19:AT:54:GLN:O	19:AT:57:VAL:HG23	2.20	0.42
20:AB:137:THR:O	20:AB:141:GLU:HG3	2.20	0.42
23:BB:20:C:H2'	23:BB:21:A:C8	2.54	0.42
23:BB:104:A:H2'	23:BB:105:C:O4'	2.19	0.42
23:BB:106:C:H2'	23:BB:107:G:C8	2.54	0.42
23:BB:212:G:H2'	23:BB:213:A:C8	2.54	0.42
23:BB:335:C:H2'	23:BB:336:C:H6	1.85	0.42
23:BB:560:C:H3'	23:BB:561:G:C8	2.55	0.42
23:BB:670:A:H5''	33:BL:42:SER:HB2	2.01	0.42
23:BB:717:C:C3'	23:BB:718:A:H5''	2.48	0.42
23:BB:1060:U:C1'	23:BB:1062:G:H5'	2.50	0.42
23:BB:1161:C:H2'	23:BB:1162:G:H8	1.85	0.42
23:BB:1214:A:H2'	23:BB:1215:G:H8	1.85	0.42
23:BB:1344:U:O2'	23:BB:1385:A:H2'	2.20	0.42
23:BB:1714:U:HO2'	23:BB:1715:G:P	2.43	0.42
23:BB:1910:G:H2'	23:BB:1911:U:O4'	2.19	0.42
23:BB:2081:U:H2'	23:BB:2082:A:C8	2.55	0.42
23:BB:2409:G:H2'	23:BB:2410:G:O4'	2.19	0.42
23:BB:2676:C:O2'	23:BB:2677:G:H5'	2.20	0.42
23:BB:2733:A:C8	23:BB:2733:A:H3'	2.54	0.42
23:BB:2795:C:O5'	23:BB:2795:C:H6	2.03	0.42
27:BE:150:THR:HG22	27:BE:170:ARG:O	2.20	0.42
27:BE:160:ALA:C	27:BE:162:ARG:H	2.27	0.42
28:BF:1:ALA:HB1	28:BF:4:HIS:HB3	2.01	0.42
28:BF:33:ILE:HB	28:BF:90:LEU:CG	2.50	0.42
28:BF:83:PRO:O	28:BF:84:ILE:HD12	2.20	0.42
28:BF:137:PHE:O	28:BF:139:GLU:N	2.53	0.42
29:BG:33:THR:HB	29:BG:74:MET:HG2	2.02	0.42
30:BH:8:LYS:HE3	1:CA:495:A:OP1	2.19	0.42
30:BH:68:ARG:HB2	30:BH:134:VAL:HG23	2.02	0.42
31:BJ:14:ASP:O	31:BJ:53:TYR:N	2.51	0.42
31:BJ:38:GLY:O	31:BJ:43:GLU:HB2	2.20	0.42
33:BL:75:ALA:HB2	33:BL:101:ILE:HG23	2.02	0.42
35:BN:83:LEU:C	35:BN:86:ARG:HB2	2.45	0.42
37:BP:50:ARG:O	37:BP:51:ASN:HB2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BR:86:GLN:HE21	39:BR:86:GLN:HB2	1.54	0.42
40:BS:60:HIS:O	40:BS:61:ASN:HB2	2.19	0.42
40:BS:85:ILE:HD12	40:BS:85:ILE:N	2.34	0.42
41:BT:62:VAL:HG12	41:BT:63:VAL:N	2.34	0.42
41:BT:66:LYS:N	41:BT:76:ARG:HH21	2.18	0.42
42:BU:14:THR:HG23	42:BU:15:GLY:N	2.35	0.42
42:BU:43:LYS:HD3	42:BU:44:HIS:N	2.33	0.42
43:BW:35:ILE:O	43:BW:37:VAL:N	2.53	0.42
44:BX:23:ARG:HD2	44:BX:27:ASN:ND2	2.32	0.42
46:BZ:58:VAL:O	46:BZ:62:LYS:N	2.43	0.42
47:B0:33:SER:C	47:B0:35:GLU:H	2.27	0.42
49:B2:9:VAL:HG13	49:B2:10:LEU:N	2.34	0.42
52:BI:11:GLN:NE2	52:BI:74:PRO:HG2	2.35	0.42
1:CA:152:A:H3'	1:CA:153:C:H6	1.85	0.42
1:CA:430:A:C2'	1:CA:431:A:H5'	2.50	0.42
1:CA:586:C:O2'	7:CH:3:GLN:NE2	2.53	0.42
3:CD:44:LYS:C	3:CD:44:LYS:HD3	2.44	0.42
4:CE:25:LYS:HG3	4:CE:26:GLY:H	1.85	0.42
4:CE:71:ILE:HG21	4:CE:144:GLU:OE2	2.20	0.42
6:CG:14:ASP:C	6:CG:16:LYS:H	2.28	0.42
7:CH:24:VAL:CG1	7:CH:60:LEU:HB3	2.49	0.42
8:CI:19:PHE:HB2	8:CI:63:TYR:O	2.19	0.42
12:CM:72:ILE:O	12:CM:76:ILE:HG13	2.19	0.42
14:CO:8:ALA:O	14:CO:11:VAL:HB	2.20	0.42
20:CB:127:LYS:CD	20:CB:128:LEU:HD13	2.50	0.42
23:DB:1:G:H2'	23:DB:2:G:C8	2.54	0.42
23:DB:26:G:H2'	23:DB:27:G:C1'	2.50	0.42
23:DB:55:G:H2'	23:DB:56:A:C8	2.55	0.42
23:DB:169:G:O2'	23:DB:170:U:H5'	2.19	0.42
23:DB:227:A:H61	23:DB:410:G:H1'	1.84	0.42
23:DB:321:U:O4'	27:DE:159:LEU:HG	2.19	0.42
23:DB:850:U:O3'	45:DY:22:THR:HG22	2.19	0.42
23:DB:969:G:H2'	23:DB:970:U:H6	1.85	0.42
23:DB:1028:A:N6	23:DB:1125:G:H2'	2.35	0.42
23:DB:1099:G:C8	52:DI:3:LYS:CB	3.03	0.42
23:DB:1210:G:H5'	23:DB:1212:G:C4'	2.49	0.42
23:DB:1280:G:C2'	23:DB:1281:G:H5'	2.49	0.42
23:DB:1401:G:H2'	23:DB:1402:U:H6	1.85	0.42
23:DB:1441:G:H2'	23:DB:1442:U:H6	1.83	0.42
23:DB:1662:U:H2'	23:DB:1663:G:O4'	2.20	0.42
23:DB:1831:G:C6	23:DB:1832:C:N4	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1847:A:H1'	23:DB:1848:A:N7	2.35	0.42
23:DB:1914:C:O2'	23:DB:1915:U:C5'	2.68	0.42
23:DB:2260:C:O2'	23:DB:2261:C:H5'	2.20	0.42
23:DB:2419:U:H2'	23:DB:2420:C:C6	2.55	0.42
23:DB:2622:U:O2'	23:DB:2825:G:N7	2.53	0.42
26:DD:26:VAL:HG13	26:DD:188:LEU:CD2	2.50	0.42
26:DD:27:ILE:HG23	26:DD:201:LEU:HD12	2.02	0.42
27:DE:147:LEU:O	27:DE:147:LEU:HD13	2.20	0.42
28:DF:141:ASP:O	28:DF:142:TYR:C	2.62	0.42
29:DG:89:VAL:HG21	29:DG:162:ARG:HH11	1.84	0.42
32:DK:26:GLY:C	32:DK:30:ARG:HD2	2.45	0.42
32:DK:41:ILE:CG1	32:DK:42:THR:N	2.82	0.42
34:DM:124:LEU:HA	34:DM:125:PRO:HD3	1.87	0.42
35:DN:48:VAL:O	35:DN:49:GLU:C	2.63	0.42
36:DO:36:TYR:N	36:DO:36:TYR:CD2	2.87	0.42
37:DP:4:ILE:O	37:DP:5:LYS:HB2	2.20	0.42
38:DQ:71:ASN:ND2	38:DQ:72:GLY:N	2.68	0.42
38:DQ:87:VAL:HB	39:DR:52:PRO:HG3	2.02	0.42
40:DS:57:ASN:HD22	40:DS:57:ASN:HA	1.59	0.42
43:DW:18:LYS:HG3	43:DW:19:ARG:CZ	2.49	0.42
51:D4:3:VAL:O	51:D4:4:ARG:HB2	2.19	0.42
1:AA:317:U:H2'	1:AA:318:G:C8	2.54	0.42
1:AA:450:G:N7	1:AA:481:G:O6	2.52	0.42
1:AA:564:C:H1'	16:AQ:32:ILE:O	2.19	0.42
1:AA:647:C:H2'	1:AA:648:A:H8	1.85	0.42
1:AA:828:U:H2'	1:AA:829:G:O5'	2.20	0.42
1:AA:978:A:H5'	1:AA:1362:A:H62	1.84	0.42
1:AA:1013:G:H2'	1:AA:1015:G:OP2	2.20	0.42
1:AA:1046:A:H2'	1:AA:1047:G:O4'	2.20	0.42
1:AA:1194:U:H5'	4:AE:26:GLY:O	2.20	0.42
1:AA:1225:A:H5''	1:AA:1226:C:C5	2.55	0.42
2:AC:13:ILE:C	2:AC:15:LYS:H	2.27	0.42
2:AC:38:VAL:HG23	2:AC:39:ARG:N	2.34	0.42
6:AG:70:PRO:HD2	6:AG:95:ARG:O	2.20	0.42
7:AH:9:MET:HA	7:AH:26:MET:HE1	2.00	0.42
8:AI:19:PHE:HB2	8:AI:63:TYR:O	2.20	0.42
8:AI:87:MET:HE1	8:AI:88:GLU:HG2	2.02	0.42
9:AJ:26:VAL:HG12	9:AJ:30:LYS:HG3	2.02	0.42
9:AJ:85:ASP:C	9:AJ:87:LEU:H	2.28	0.42
10:AK:125:LYS:O	21:AU:33:ARG:NH2	2.53	0.42
14:AO:35:ILE:HG12	14:AO:58:MET:HE2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AP:28:ARG:C	15:AP:30:GLY:H	2.28	0.42
18:AS:5:LYS:C	18:AS:6:LYS:HD2	2.45	0.42
20:AB:8:MET:O	20:AB:11:ALA:HB3	2.20	0.42
20:AB:68:PHE:CE1	20:AB:88:GLN:HB3	2.55	0.42
20:AB:98:GLY:C	20:AB:106:VAL:HG21	2.45	0.42
20:AB:164:ASP:OD1	20:AB:186:VAL:HA	2.20	0.42
21:AU:36:PHE:CE1	21:AU:44:ARG:HD3	2.55	0.42
23:BB:7:G:OP1	31:BJ:132:HIS:HE1	2.02	0.42
23:BB:279:A:H8	23:BB:279:A:P	2.43	0.42
23:BB:616:A:H3'	23:BB:617:G:C8	2.43	0.42
23:BB:709:U:H2'	23:BB:710:U:H6	1.85	0.42
23:BB:727:A:H2'	23:BB:728:G:C8	2.55	0.42
23:BB:995:C:H42	31:BJ:2:LYS:HB2	1.84	0.42
23:BB:1116:G:H2'	23:BB:1117:C:H6	1.85	0.42
23:BB:1795:C:H2'	23:BB:1796:U:C6	2.55	0.42
23:BB:1936:A:H2	23:BB:1943:U:O4	2.03	0.42
23:BB:2000:C:O2'	23:BB:2001:C:H5'	2.19	0.42
23:BB:2069:G:O2'	23:BB:2070:A:H5'	2.20	0.42
23:BB:2669:G:O2'	23:BB:2670:A:H5'	2.20	0.42
23:BB:2840:C:H5''	35:BN:53:THR:CG2	2.50	0.42
23:BB:2899:A:H2'	23:BB:2900:A:H8	1.84	0.42
25:BC:245:THR:O	25:BC:247:TRP:N	2.53	0.42
27:BE:31:VAL:O	27:BE:34:ALA:HB3	2.20	0.42
27:BE:118:LEU:HA	27:BE:186:VAL:HG13	2.02	0.42
28:BF:37:MET:HG3	28:BF:52:ALA:HB1	2.01	0.42
31:BJ:36:LEU:HD11	31:BJ:121:LYS:HB2	2.02	0.42
33:BL:81:ASP:HA	33:BL:84:LYS:CD	2.49	0.42
34:BM:126:ILE:HG22	34:BM:127:LYS:N	2.35	0.42
35:BN:19:ALA:C	35:BN:21:PHE:N	2.76	0.42
38:BQ:79:ILE:HD13	38:BQ:79:ILE:C	2.45	0.42
39:BR:71:LYS:HG2	39:BR:73:LYS:HZ1	1.81	0.42
40:BS:33:LEU:HD23	40:BS:51:LEU:HD23	2.01	0.42
40:BS:55:ILE:HD12	40:BS:69:LEU:HD23	2.00	0.42
46:BZ:53:ALA:O	46:BZ:54:LYS:HB3	2.19	0.42
51:B4:11:CYS:HB3	51:B4:33:HIS:HE1	1.84	0.42
1:CA:58:C:C2'	1:CA:59:A:H5'	2.50	0.42
1:CA:152:A:H3'	1:CA:153:C:C6	2.55	0.42
1:CA:277:C:O2'	1:CA:278:G:H5'	2.19	0.42
1:CA:499:A:C2	1:CA:546:A:N3	2.88	0.42
1:CA:704:A:C2	1:CA:705:G:H1'	2.54	0.42
1:CA:711:G:O2'	1:CA:712:A:H5'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:822:U:H2'	1:CA:823:C:C6	2.54	0.42
1:CA:853:C:O2'	1:CA:854:U:H5'	2.19	0.42
1:CA:1229:A:H2'	1:CA:1230:C:H6	1.83	0.42
1:CA:1346:A:H61	1:CA:1374:A:H3'	1.84	0.42
1:CA:1499:A:H1'	1:CA:1520:C:OP1	2.20	0.42
2:CC:38:VAL:HG23	2:CC:39:ARG:N	2.35	0.42
2:CC:76:ILE:O	2:CC:82:ASP:N	2.53	0.42
2:CC:111:ASP:HB3	2:CC:114:LEU:HD12	2.02	0.42
3:CD:48:SER:O	3:CD:52:VAL:HG23	2.19	0.42
6:CG:130:LYS:N	6:CG:134:VAL:HG21	2.35	0.42
7:CH:45:ILE:C	7:CH:63:LYS:HB2	2.44	0.42
8:CI:32:ARG:HD3	8:CI:37:TYR:HD1	1.85	0.42
9:CJ:92:LEU:N	9:CJ:92:LEU:HD22	2.35	0.42
11:CL:113:ARG:O	11:CL:114:SER:C	2.63	0.42
14:CO:15:GLY:C	14:CO:17:ASP:N	2.77	0.42
16:CQ:52:CYS:SG	16:CQ:77:VAL:HG22	2.60	0.42
20:CB:102:ASN:CG	20:CB:105:THR:HB	2.45	0.42
22:DA:32:U:H2'	22:DA:33:G:H8	1.85	0.42
23:DB:68:G:O2'	23:DB:69:C:H5'	2.19	0.42
23:DB:234:U:H2'	23:DB:235:U:H6	1.85	0.42
23:DB:256:A:O2'	23:DB:257:C:H5'	2.19	0.42
23:DB:404:A:H4'	23:DB:405:U:C5'	2.44	0.42
23:DB:441:U:O2'	23:DB:442:G:H5'	2.20	0.42
23:DB:776:G:N1	23:DB:2072:C:OP1	2.41	0.42
23:DB:841:G:O2'	23:DB:842:U:H5'	2.20	0.42
23:DB:924:G:H2'	23:DB:925:A:C8	2.54	0.42
23:DB:936:A:O2'	23:DB:937:C:H5'	2.20	0.42
23:DB:1207:C:H2'	23:DB:1208:C:C6	2.55	0.42
23:DB:1448:G:H2'	23:DB:1449:G:H8	1.85	0.42
23:DB:1637:A:H2'	23:DB:1638:C:C6	2.55	0.42
23:DB:2301:C:H2'	23:DB:2302:U:C6	2.55	0.42
25:DC:67:LYS:O	25:DC:188:ARG:HD3	2.20	0.42
25:DC:128:THR:HG22	25:DC:188:ARG:HB3	2.02	0.42
25:DC:197:ALA:C	25:DC:199:HIS:H	2.28	0.42
26:DD:35:THR:N	26:DD:49:GLN:O	2.51	0.42
27:DE:37:ALA:C	27:DE:39:ALA:N	2.78	0.42
28:DF:83:PRO:C	28:DF:84:ILE:HD12	2.44	0.42
28:DF:134:GLN:HB3	28:DF:134:GLN:HE21	1.62	0.42
29:DG:18:ILE:HA	29:DG:22:VAL:O	2.20	0.42
30:DH:65:ALA:O	30:DH:66:ASN:C	2.62	0.42
31:DJ:75:TYR:O	31:DJ:76:HIS:HB3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DK:72:PRO:C	32:DK:74:GLY:N	2.78	0.42
32:DK:99:ILE:HG12	32:DK:115:ILE:HG13	2.01	0.42
33:DL:61:LEU:HD23	50:D3:23:HIS:CG	2.55	0.42
35:DN:110:MET:N	35:DN:110:MET:HE2	2.35	0.42
36:DO:7:ARG:HH11	36:DO:7:ARG:CG	2.33	0.42
38:DQ:93:ILE:HG23	38:DQ:94:LEU:N	2.35	0.42
39:DR:79:ARG:HD2	39:DR:80:ARG:HH21	1.84	0.42
47:D0:50:GLY:C	47:D0:51:ARG:HG2	2.45	0.42
1:AA:33:A:O2'	1:AA:34:C:H5'	2.20	0.41
1:AA:35:G:H2'	1:AA:36:C:H6	1.80	0.41
1:AA:560:A:H5'	1:AA:566:G:N2	2.35	0.41
1:AA:742:G:H2'	1:AA:743:A:C8	2.53	0.41
1:AA:817:C:C2	1:AA:819:A:O4'	2.73	0.41
1:AA:878:A:H5''	7:AH:80:PRO:HG2	2.02	0.41
1:AA:1152:A:H4'	9:AJ:15:HIS:HD2	1.85	0.41
1:AA:1386:G:H2'	1:AA:1387:G:H8	1.85	0.41
1:AA:1408:A:HO2'	23:BB:1916:A:H61	1.67	0.41
1:AA:1504:G:H3'	56:AA:2144:HOH:O	2.20	0.41
5:AF:6:ILE:HD12	5:AF:7:VAL:N	2.34	0.41
7:AH:118:ALA:HB3	7:AH:120:LEU:CD2	2.50	0.41
9:AJ:42:LEU:CD1	9:AJ:73:LEU:HB2	2.39	0.41
11:AL:53:ARG:HG2	11:AL:61:GLU:OE1	2.20	0.41
11:AL:56:LEU:HG	11:AL:60:PHE:O	2.20	0.41
12:AM:26:LYS:O	12:AM:30:LYS:HB2	2.20	0.41
12:AM:48:SER:O	12:AM:49:GLU:C	2.63	0.41
13:AN:53:ASP:HA	13:AN:58:ARG:NE	2.35	0.41
18:AS:42:ASN:HD22	18:AS:42:ASN:H	1.67	0.41
20:AB:25:LYS:HD3	20:AB:193:ASP:OD2	2.20	0.41
20:AB:46:VAL:CG1	20:AB:47:PRO:HD3	2.34	0.41
20:AB:165:ALA:H	20:AB:186:VAL:HG12	1.85	0.41
22:BA:97:C:O2	23:BB:918:A:H4'	2.20	0.41
23:BB:96:C:H2'	23:BB:97:C:H6	1.85	0.41
23:BB:100:U:H2'	23:BB:101:A:C8	2.55	0.41
23:BB:116:C:H2'	23:BB:117:G:C8	2.55	0.41
23:BB:135:U:H2'	23:BB:136:G:C8	2.55	0.41
23:BB:235:U:H2'	23:BB:236:C:H6	1.84	0.41
23:BB:445:C:H4'	23:BB:1248:G:O6	2.20	0.41
23:BB:1046:A:H3'	23:BB:1047:G:C5'	2.49	0.41
23:BB:1306:C:O2'	23:BB:1307:A:H5'	2.19	0.41
23:BB:1409:U:O2'	23:BB:1410:G:H5'	2.19	0.41
23:BB:1681:G:N3	23:BB:1762:A:H2'	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1827:U:C2'	23:BB:1828:G:H5'	2.50	0.41
23:BB:2335:A:H2'	23:BB:2336:A:H5''	2.02	0.41
23:BB:2349:G:OP2	50:B3:41:ARG:HD3	2.19	0.41
23:BB:2655:G:H1'	23:BB:2656:U:H5	1.84	0.41
23:BB:2745:C:H3'	23:BB:2746:U:C5	2.54	0.41
26:BD:61:THR:OG1	26:BD:64:GLU:HB2	2.19	0.41
26:BD:76:GLY:O	26:BD:77:ARG:C	2.62	0.41
27:BE:34:ALA:CB	27:BE:96:VAL:HG21	2.50	0.41
27:BE:74:LYS:O	27:BE:75:SER:C	2.63	0.41
28:BF:29:ARG:H	28:BF:29:ARG:HD3	1.85	0.41
28:BF:105:ILE:O	28:BF:109:ARG:HB2	2.20	0.41
30:BH:4:ILE:HG23	30:BH:17:ASP:N	2.35	0.41
32:BK:13:ASN:HD21	32:BK:98:ARG:N	2.07	0.41
33:BL:61:LEU:HD23	50:B3:23:HIS:CG	2.55	0.41
34:BM:59:ARG:CZ	34:BM:60:GLN:HB3	2.49	0.41
35:BN:65:LEU:HD11	35:BN:69:ARG:NH2	2.35	0.41
36:BO:35:ILE:HG21	36:BO:71:ALA:HB1	2.02	0.41
37:BP:91:VAL:HG23	37:BP:92:ARG:N	2.26	0.41
38:BQ:59:LEU:HD13	38:BQ:59:LEU:C	2.45	0.41
38:BQ:92:LYS:O	38:BQ:95:ALA:HB3	2.20	0.41
38:BQ:93:ILE:HG23	38:BQ:94:LEU:H	1.85	0.41
42:BU:43:LYS:HD3	42:BU:43:LYS:C	2.45	0.41
45:BY:6:ILE:HD13	45:BY:56:VAL:CG1	2.50	0.41
48:B1:38:PHE:O	48:B1:40:PRO:HD3	2.20	0.41
49:B2:19:ARG:HG2	49:B2:19:ARG:NH2	2.34	0.41
52:BI:38:CYS:O	52:BI:42:ASN:ND2	2.53	0.41
1:CA:43:C:H2'	1:CA:44:A:O4'	2.20	0.41
1:CA:54:C:N4	1:CA:352:C:H2'	2.35	0.41
1:CA:67:C:H2'	1:CA:68:G:H8	1.84	0.41
1:CA:222:C:H2'	1:CA:223:A:C8	2.55	0.41
1:CA:635:A:H2'	1:CA:636:U:C6	2.54	0.41
1:CA:926:G:N2	1:CA:1505:G:H2'	2.35	0.41
1:CA:998:C:H2'	1:CA:999:C:C6	2.56	0.41
1:CA:1162:C:H2'	1:CA:1163:A:O4'	2.20	0.41
3:CD:155:LYS:HG3	3:CD:156:ALA:N	2.35	0.41
7:CH:9:MET:HA	7:CH:26:MET:HE1	2.02	0.41
7:CH:55:LYS:HA	7:CH:55:LYS:HZ1	1.85	0.41
20:CB:25:LYS:HD3	20:CB:193:ASP:OD2	2.20	0.41
21:CU:40:PRO:C	21:CU:42:THR:H	2.28	0.41
23:DB:451:U:C2	23:DB:453:A:N7	2.88	0.41
23:DB:612:G:H2'	23:DB:614:A:H5''	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:649:G:H2'	23:DB:650:C:C6	2.55	0.41
23:DB:811:U:O2	23:DB:1250:G:H3'	2.19	0.41
23:DB:1180:U:H2'	23:DB:1181:U:O4'	2.20	0.41
23:DB:1187:G:H5''	39:DR:83:TYR:CE2	2.55	0.41
23:DB:1334:G:O2'	23:DB:1335:C:H5'	2.20	0.41
23:DB:1706:C:H2'	23:DB:1757:A:OP2	2.19	0.41
23:DB:1727:C:H2'	23:DB:1728:C:O4'	2.20	0.41
23:DB:1998:A:H2'	23:DB:1999:C:H6	1.84	0.41
23:DB:2219:U:H2'	23:DB:2220:U:H6	1.85	0.41
23:DB:2314:A:H2'	23:DB:2315:G:H8	1.84	0.41
23:DB:2478:A:H2'	23:DB:2479:U:O4'	2.20	0.41
23:DB:2586:U:H2'	23:DB:2587:A:C8	2.54	0.41
23:DB:2743:U:H2'	23:DB:2744:G:C5'	2.41	0.41
26:DD:110:THR:O	26:DD:201:LEU:HA	2.20	0.41
27:DE:59:PRO:O	27:DE:67:ARG:NH2	2.53	0.41
27:DE:150:THR:OG1	27:DE:151:GLY:N	2.52	0.41
28:DF:8:LYS:HA	28:DF:12:VAL:CG2	2.45	0.41
28:DF:65:LEU:HD23	28:DF:87:LYS:CD	2.45	0.41
28:DF:115:GLY:C	28:DF:177:ARG:HB2	2.45	0.41
29:DG:126:THR:O	29:DG:127:GLN:C	2.62	0.41
30:DH:39:ALA:C	30:DH:41:LYS:N	2.75	0.41
30:DH:90:LEU:N	30:DH:90:LEU:HD12	2.35	0.41
31:DJ:35:ARG:HG3	31:DJ:40:HIS:HE2	1.85	0.41
32:DK:6:THR:HG22	32:DK:7:MET:H	1.84	0.41
32:DK:105:ARG:HH11	32:DK:122:VAL:CG1	2.33	0.41
33:DL:118:THR:HA	33:DL:119:PRO:HD3	1.91	0.41
34:DM:26:VAL:CG2	34:DM:133:LYS:HA	2.50	0.41
36:DO:19:GLN:HE21	36:DO:19:GLN:HB3	1.62	0.41
36:DO:49:VAL:HG11	36:DO:82:ALA:CA	2.44	0.41
37:DP:86:LYS:HB3	37:DP:87:ARG:H	1.54	0.41
39:DR:39:LEU:HD22	39:DR:53:PHE:CD1	2.55	0.41
40:DS:51:LEU:C	40:DS:53:SER:H	2.26	0.41
41:DT:45:ALA:HA	41:DT:48:GLN:CG	2.50	0.41
41:DT:67:VAL:HG23	41:DT:75:GLY:C	2.44	0.41
42:DU:71:ILE:HD11	42:DU:81:ARG:O	2.19	0.41
44:DX:51:ALA:O	44:DX:52:ARG:C	2.63	0.41
45:DY:51:SER:HA	45:DY:54:VAL:CG2	2.50	0.41
49:D2:21:ARG:CD	49:D2:43:THR:HG21	2.50	0.41
50:D3:49:VAL:HG11	50:D3:54:LEU:HA	2.02	0.41
51:D4:11:CYS:HB3	51:D4:33:HIS:HE1	1.84	0.41
1:AA:91:U:H2'	1:AA:92:U:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:285:C:O2'	1:AA:286:C:H5'	2.20	0.41
1:AA:621:A:H2'	1:AA:622:A:H8	1.83	0.41
1:AA:697:U:O2	1:AA:798:U:H1'	2.20	0.41
1:AA:857:C:H2'	1:AA:858:G:O4'	2.21	0.41
1:AA:1170:A:H3'	1:AA:1171:A:H8	1.85	0.41
1:AA:1201:A:H4'	1:AA:1202:U:O5'	2.20	0.41
1:AA:1258:G:C2	1:AA:1278:G:N2	2.88	0.41
1:AA:1269:A:N6	1:AA:1313:U:H5'	2.35	0.41
1:AA:1355:G:O2'	1:AA:1356:G:H5'	2.20	0.41
2:AC:87:ARG:HB2	2:AC:100:ILE:HG22	2.02	0.41
4:AE:20:VAL:HG12	4:AE:21:SER:N	2.35	0.41
4:AE:104:ILE:HG13	4:AE:122:VAL:HG23	2.02	0.41
5:AF:42:TRP:HE1	5:AF:61:LEU:CD2	2.33	0.41
5:AF:81:ASN:OD1	5:AF:83:ALA:HB3	2.20	0.41
6:AG:12:LEU:C	6:AG:12:LEU:HD13	2.45	0.41
7:AH:10:LEU:CD2	7:AH:74:ILE:HD11	2.49	0.41
8:AI:30:ASN:ND2	8:AI:65:THR:HA	2.35	0.41
8:AI:123:ARG:HB3	8:AI:123:ARG:NH1	2.34	0.41
11:AL:43:LYS:H	11:AL:43:LYS:HG3	1.65	0.41
13:AN:55:SER:HB2	13:AN:58:ARG:HD2	2.02	0.41
16:AQ:39:ARG:CZ	16:AQ:39:ARG:HA	2.50	0.41
18:AS:35:ARG:HB3	18:AS:50:VAL:CG1	2.49	0.41
20:AB:95:TRP:HH2	20:AB:100:LEU:HD22	1.86	0.41
22:BA:65:U:C2'	22:BA:66:A:H5'	2.49	0.41
23:BB:191:A:O2'	23:BB:192:C:H5'	2.20	0.41
23:BB:250:G:H2'	23:BB:251:A:C8	2.55	0.41
23:BB:288:U:O2'	23:BB:289:G:H5'	2.19	0.41
23:BB:317:G:H2'	23:BB:318:C:H6	1.85	0.41
23:BB:829:A:H5'	23:BB:831:G:N7	2.34	0.41
23:BB:993:G:H1'	39:BR:91:GLN:NE2	2.35	0.41
23:BB:1184:U:O2'	23:BB:1185:G:H5'	2.20	0.41
23:BB:1210:G:H4'	23:BB:1211:C:OP2	2.21	0.41
23:BB:1222:U:OP2	39:BR:90:ARG:NH2	2.53	0.41
23:BB:1248:G:C5	38:BQ:2:ARG:HD2	2.54	0.41
23:BB:1904:G:O2'	23:BB:1905:C:H5'	2.20	0.41
23:BB:2218:G:O2'	23:BB:2219:U:H5'	2.20	0.41
23:BB:2223:G:C2'	23:BB:2224:G:H5'	2.49	0.41
23:BB:2857:G:N2	23:BB:2859:G:H3'	2.34	0.41
24:BV:42:LEU:HB2	24:BV:47:VAL:HG21	2.02	0.41
24:BV:59:GLU:CD	24:BV:60:VAL:N	2.79	0.41
26:BD:38:LYS:HD3	26:BD:45:TYR:OH	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BD:110:THR:O	26:BD:201:LEU:HA	2.19	0.41
28:BF:79:ARG:O	28:BF:80:GLN:C	2.63	0.41
29:BG:84:LYS:HG3	29:BG:131:VAL:CB	2.50	0.41
29:BG:84:LYS:C	29:BG:85:LYS:HD2	2.45	0.41
29:BG:175:LYS:HA	29:BG:175:LYS:HD3	1.83	0.41
34:BM:135:VAL:HG12	34:BM:135:VAL:O	2.20	0.41
35:BN:49:GLU:N	35:BN:50:PRO:CD	2.83	0.41
35:BN:51:LEU:O	35:BN:54:LEU:HB3	2.20	0.41
35:BN:65:LEU:O	35:BN:68:ALA:HB3	2.21	0.41
39:BR:79:ARG:O	39:BR:81:LYS:HG2	2.20	0.41
45:BY:7:THR:O	45:BY:54:VAL:HG12	2.19	0.41
47:B0:41:HIS:O	47:B0:42:ILE:O	2.38	0.41
52:BI:37:PHE:HZ	52:BI:56:VAL:HG11	1.85	0.41
1:CA:551:U:H2'	1:CA:552:U:C6	2.54	0.41
1:CA:921:U:O2	4:CE:23:THR:HG23	2.20	0.41
1:CA:977:A:H1'	1:CA:982:U:O4	2.20	0.41
1:CA:1029:U:H2'	1:CA:1031:C:C2	2.55	0.41
1:CA:1148:U:H2'	1:CA:1149:C:O4'	2.20	0.41
2:CC:75:VAL:O	2:CC:82:ASP:HB2	2.20	0.41
2:CC:154:GLY:HA2	2:CC:163:ARG:O	2.20	0.41
3:CD:21:LYS:C	3:CD:23:GLY:N	2.78	0.41
3:CD:181:PHE:O	3:CD:182:LYS:C	2.63	0.41
4:CE:19:ARG:NH1	4:CE:28:ARG:HH12	2.18	0.41
7:CH:124:ILE:O	7:CH:125:ILE:HG13	2.20	0.41
8:CI:35:GLU:O	8:CI:39:GLY:HA3	2.20	0.41
9:CJ:18:ILE:CG1	9:CJ:72:ARG:HG2	2.50	0.41
9:CJ:53:ILE:HG13	13:CN:84:ARG:CZ	2.49	0.41
9:CJ:85:ASP:C	9:CJ:87:LEU:H	2.28	0.41
10:CK:46:ALA:HA	10:CK:65:ALA:HB2	2.01	0.41
16:CQ:30:HIS:C	16:CQ:32:ILE:H	2.29	0.41
20:CB:22:TRP:CZ3	20:CB:24:PRO:HA	2.55	0.41
20:CB:93:HIS:O	20:CB:94:ARG:HG2	2.19	0.41
23:DB:68:G:H2'	23:DB:69:C:H6	1.85	0.41
23:DB:268:C:O2	23:DB:268:C:H2'	2.19	0.41
23:DB:459:U:O2'	23:DB:460:A:H5'	2.20	0.41
23:DB:499:U:H5'	42:DU:44:HIS:CE1	2.46	0.41
23:DB:1098:A:H3'	52:DI:3:LYS:HB3	2.00	0.41
23:DB:1173:U:H2'	23:DB:1174:U:C6	2.56	0.41
23:DB:1207:C:H2'	23:DB:1208:C:H6	1.85	0.41
23:DB:1552:A:H2'	23:DB:1553:A:C5'	2.49	0.41
23:DB:1637:A:H5'	23:DB:1760:C:O2'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2013:A:H2'	23:DB:2014:A:H5'	2.02	0.41
23:DB:2018:G:H2'	23:DB:2019:A:H8	1.85	0.41
23:DB:2191:A:H2'	23:DB:2192:U:O4'	2.20	0.41
25:DC:166:ARG:HH21	25:DC:166:ARG:HG3	1.85	0.41
28:DF:35:LEU:HD13	28:DF:56:LEU:HD13	2.03	0.41
28:DF:124:ARG:HG2	28:DF:124:ARG:HH11	1.85	0.41
28:DF:139:GLU:O	28:DF:140:ILE:C	2.62	0.41
29:DG:84:LYS:CB	29:DG:132:LEU:H	2.33	0.41
29:DG:91:VAL:HG23	29:DG:92:GLY:N	2.36	0.41
30:DH:61:VAL:C	30:DH:63:ALA:N	2.77	0.41
30:DH:86:ASP:HB2	30:DH:89:LYS:CD	2.42	0.41
31:DJ:38:GLY:O	31:DJ:43:GLU:HB2	2.21	0.41
34:DM:40:ARG:HD3	34:DM:93:VAL:CG2	2.33	0.41
36:DO:56:LYS:O	36:DO:60:GLU:HG2	2.20	0.41
37:DP:4:ILE:HA	37:DP:7:LEU:CD1	2.50	0.41
37:DP:20:ARG:HG3	37:DP:91:VAL:HG11	2.01	0.41
37:DP:21:PRO:O	37:DP:96:LEU:HD22	2.20	0.41
37:DP:98:TYR:CE2	37:DP:99:LEU:HD23	2.55	0.41
41:DT:17:SER:N	41:DT:21:SER:OG	2.52	0.41
41:DT:18:GLU:O	41:DT:20:ALA:N	2.53	0.41
41:DT:29:THR:HB	41:DT:86:THR:HG22	2.03	0.41
42:DU:78:LYS:HD3	42:DU:79:ALA:H	1.85	0.41
43:DW:18:LYS:HE3	43:DW:19:ARG:CD	2.51	0.41
44:DX:25:GLN:HE21	44:DX:25:GLN:HB3	1.53	0.41
45:DY:35:VAL:HG21	45:DY:37:ARG:NH2	2.34	0.41
47:D0:29:VAL:HG22	47:D0:30:ASP:N	2.35	0.41
49:D2:6:GLN:HA	49:D2:7:PRO:HD2	1.89	0.41
1:AA:637:C:H2'	1:AA:638:U:C6	2.55	0.41
1:AA:692:U:H2'	1:AA:694:A:OP2	2.20	0.41
1:AA:708:C:H2'	1:AA:709:U:H6	1.84	0.41
1:AA:720:C:H6	1:AA:720:C:O5'	2.03	0.41
1:AA:775:G:H2'	1:AA:776:G:C8	2.55	0.41
1:AA:1058:G:H2'	1:AA:1059:C:C6	2.56	0.41
1:AA:1238:A:H5'	1:AA:1336:C:N4	2.30	0.41
1:AA:1256:A:O4'	1:AA:1278:G:N2	2.54	0.41
3:AD:25:ARG:O	3:AD:27:ILE:N	2.53	0.41
3:AD:55:ARG:HA	3:AD:55:ARG:NE	2.36	0.41
3:AD:95:GLY:O	3:AD:136:VAL:HG22	2.20	0.41
4:AE:48:GLY:H	4:AE:66:ALA:CB	2.34	0.41
7:AH:63:LYS:HG2	7:AH:64:TYR:N	2.35	0.41
8:AI:98:ARG:HG3	8:AI:103:VAL:HG22	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AJ:65:TYR:C	13:AN:98:ALA:HB2	2.46	0.41
11:AL:54:VAL:HG12	11:AL:55:ARG:H	1.85	0.41
14:AO:8:ALA:O	14:AO:11:VAL:HB	2.21	0.41
20:AB:114:LYS:O	20:AB:117:GLU:HB3	2.21	0.41
20:AB:187:ASP:O	20:AB:189:ASN:N	2.53	0.41
23:BB:85:G:OP1	42:BU:6:ARG:N	2.53	0.41
23:BB:177:G:H3'	23:BB:178:G:C8	2.55	0.41
23:BB:484:C:H2'	23:BB:485:C:H6	1.84	0.41
23:BB:550:C:H2'	23:BB:550:C:O2	2.20	0.41
23:BB:567:U:H2'	23:BB:568:U:O4'	2.20	0.41
23:BB:600:G:H1'	27:BE:100:MET:CG	2.50	0.41
23:BB:619:G:H2'	23:BB:620:G:H5''	2.02	0.41
23:BB:675:A:C6	23:BB:676:A:C6	3.08	0.41
23:BB:922:C:H2'	23:BB:923:G:H8	1.85	0.41
23:BB:939:G:C2'	23:BB:940:G:H5'	2.50	0.41
23:BB:1370:C:H2'	23:BB:1371:G:O4'	2.20	0.41
23:BB:1408:G:H2'	23:BB:1409:U:C6	2.55	0.41
23:BB:2353:G:H1'	43:BW:30:VAL:HG13	2.01	0.41
24:BV:48:MET:SD	24:BV:85:LYS:HA	2.60	0.41
25:BC:197:ALA:C	25:BC:199:HIS:H	2.28	0.41
25:BC:211:ARG:C	25:BC:213:ARG:N	2.76	0.41
26:BD:169:ARG:C	26:BD:170:VAL:HG13	2.45	0.41
28:BF:80:GLN:O	28:BF:81:GLY:C	2.63	0.41
28:BF:121:PHE:HB2	28:BF:126:ASN:O	2.20	0.41
28:BF:141:ASP:O	28:BF:142:TYR:C	2.63	0.41
30:BH:14:SER:HB2	30:BH:17:ASP:CB	2.50	0.41
30:BH:58:LEU:O	30:BH:60:GLU:N	2.53	0.41
30:BH:63:ALA:HA	30:BH:66:ASN:HD21	1.85	0.41
31:BJ:18:VAL:CG1	31:BJ:54:ILE:HD11	2.50	0.41
31:BJ:20:ALA:HA	31:BJ:23:LYS:CG	2.51	0.41
31:BJ:58:ASN:O	31:BJ:59:ALA:HB3	2.20	0.41
31:BJ:72:LYS:HB3	31:BJ:73:VAL:H	1.52	0.41
33:BL:61:LEU:N	33:BL:61:LEU:CD1	2.82	0.41
33:BL:89:VAL:HA	33:BL:121:THR:OG1	2.21	0.41
34:BM:53:MET:O	34:BM:56:ALA:HB3	2.21	0.41
34:BM:69:PRO:HA	34:BM:94:ALA:CA	2.49	0.41
35:BN:10:LEU:HD21	35:BN:43:GLU:HG3	2.01	0.41
38:BQ:91:ARG:NH1	39:BR:10:LYS:HB3	2.33	0.41
38:BQ:93:ILE:HG23	38:BQ:94:LEU:N	2.35	0.41
41:BT:39:THR:O	41:BT:40:LYS:HB3	2.19	0.41
41:BT:65:GLY:HA3	41:BT:76:ARG:NH2	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BU:26:ASN:ND2	42:BU:26:ASN:O	2.54	0.41
44:BX:39:GLN:HB2	44:BX:42:LEU:HD22	2.02	0.41
45:BY:3:THR:HB	45:BY:36:GLU:CG	2.51	0.41
46:BZ:38:PHE:CE2	46:BZ:51:VAL:HG21	2.56	0.41
50:B3:30:HIS:C	50:B3:31:ILE:HG23	2.45	0.41
1:CA:6:G:C8	4:CE:123:LEU:HD21	2.55	0.41
1:CA:298:A:OP1	1:CA:298:A:H8	2.02	0.41
1:CA:301:G:O2'	1:CA:302:G:H5'	2.19	0.41
1:CA:371:A:O2'	1:CA:372:C:H5'	2.20	0.41
1:CA:448:A:H2'	1:CA:449:G:H8	1.85	0.41
1:CA:681:A:H2'	1:CA:682:G:C8	2.56	0.41
1:CA:824:G:C6	1:CA:877:G:C6	3.08	0.41
1:CA:991:U:H2'	1:CA:1212:U:O2	2.20	0.41
1:CA:1015:G:H2'	1:CA:1016:A:C8	2.56	0.41
1:CA:1127:G:C2'	1:CA:1128:C:H5'	2.50	0.41
1:CA:1503:A:H5'	1:CA:1531:A:H1'	2.02	0.41
2:CC:17:TRP:HZ2	13:CN:95:LEU:O	2.03	0.41
4:CE:107:GLY:C	4:CE:109:ALA:N	2.78	0.41
6:CG:70:PRO:HD2	6:CG:95:ARG:O	2.20	0.41
12:CM:43:LYS:O	12:CM:47:LEU:HD23	2.20	0.41
15:CP:20:VAL:HG21	15:CP:32:PHE:CD2	2.56	0.41
23:DB:574:A:H1'	23:DB:2055:C:C5	2.55	0.41
23:DB:833:A:H1'	33:DL:52:GLY:N	2.35	0.41
23:DB:921:C:H2'	23:DB:922:C:H6	1.83	0.41
23:DB:937:C:H2'	23:DB:938:G:C8	2.55	0.41
23:DB:956:G:H4'	34:DM:82:MET:HE1	2.01	0.41
23:DB:1040:A:O2'	23:DB:1041:G:H5'	2.20	0.41
23:DB:1161:C:H2'	23:DB:1162:G:H8	1.85	0.41
23:DB:1168:G:C6	23:DB:1182:G:C6	3.08	0.41
23:DB:1430:G:H2'	23:DB:1431:A:C8	2.55	0.41
23:DB:1723:G:H2'	23:DB:1724:G:H5'	2.02	0.41
23:DB:1951:U:H2'	23:DB:1953:A:OP2	2.19	0.41
23:DB:2019:A:H4'	38:DQ:33:VAL:HG11	2.02	0.41
23:DB:2305:U:C1'	28:DF:132:ARG:HA	2.50	0.41
23:DB:2733:A:H3'	23:DB:2733:A:C8	2.55	0.41
23:DB:2889:C:O2'	23:DB:2890:G:H5'	2.20	0.41
25:DC:149:LYS:HD3	25:DC:152:GLN:NE2	2.35	0.41
26:DD:150:GLN:O	26:DD:153:GLY:N	2.53	0.41
27:DE:9:GLN:O	27:DE:9:GLN:HG3	2.21	0.41
27:DE:59:PRO:HB2	27:DE:67:ARG:NH2	2.35	0.41
29:DG:77:GLY:C	29:DG:79:THR:H	2.28	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DG:94:ARG:HH21	29:DG:105:SER:H	1.68	0.41
31:DJ:54:ILE:HD12	31:DJ:55:ILE:H	1.84	0.41
35:DN:9:GLN:O	35:DN:17:ARG:HD3	2.20	0.41
35:DN:60:VAL:O	35:DN:63:ARG:HB3	2.20	0.41
36:DO:52:SER:C	36:DO:54:VAL:N	2.78	0.41
36:DO:52:SER:HA	36:DO:74:VAL:CG1	2.50	0.41
41:DT:25:GLU:HA	41:DT:28:ASN:O	2.20	0.41
42:DU:23:LYS:H	42:DU:23:LYS:HD2	1.86	0.41
42:DU:41:VAL:N	42:DU:60:LYS:O	2.53	0.41
44:DX:46:VAL:O	44:DX:50:VAL:HG23	2.19	0.41
1:AA:8:A:H1'	4:AE:106:ALA:O	2.20	0.41
1:AA:54:C:N4	1:AA:352:C:H2'	2.35	0.41
1:AA:125:U:H2'	1:AA:126:G:C8	2.56	0.41
1:AA:282:A:N3	1:AA:282:A:H2'	2.35	0.41
1:AA:526:C:OP2	11:AL:87:LYS:HE3	2.20	0.41
1:AA:766:A:H2'	1:AA:767:A:C8	2.55	0.41
1:AA:902:G:H2'	1:AA:903:G:H8	1.85	0.41
1:AA:1314:C:N4	18:AS:3:SER:HB3	2.35	0.41
1:AA:1329:A:H5''	12:AM:24:VAL:HA	2.02	0.41
1:AA:1394:A:C5	1:AA:1501:C:H4'	2.55	0.41
2:AC:154:GLY:HA2	2:AC:163:ARG:O	2.20	0.41
3:AD:25:ARG:HD3	3:AD:25:ARG:C	2.45	0.41
3:AD:79:ALA:N	3:AD:85:THR:HG23	2.35	0.41
4:AE:19:ARG:HH12	4:AE:28:ARG:HH12	1.67	0.41
4:AE:52:ALA:H	4:AE:58:ALA:HB2	1.85	0.41
5:AF:79:ARG:HA	5:AF:79:ARG:HD3	1.89	0.41
7:AH:12:ARG:HG3	7:AH:12:ARG:NH1	2.35	0.41
8:AI:53:LEU:HD22	8:AI:53:LEU:N	2.34	0.41
12:AM:63:VAL:CG1	12:AM:67:ASP:HB2	2.49	0.41
12:AM:96:VAL:C	12:AM:98:GLY:N	2.77	0.41
14:AO:87:ARG:NE	14:AO:87:ARG:HA	2.35	0.41
16:AQ:30:HIS:C	16:AQ:32:ILE:H	2.28	0.41
16:AQ:80:LYS:O	16:AQ:80:LYS:HD2	2.21	0.41
20:AB:59:ILE:O	20:AB:62:ARG:HD2	2.21	0.41
20:AB:112:ARG:O	20:AB:116:LEU:HB2	2.20	0.41
23:BB:214:G:N2	23:BB:216:A:N3	2.64	0.41
23:BB:269:C:H2'	23:BB:270:A:H8	1.86	0.41
23:BB:518:G:H2'	23:BB:519:U:C6	2.56	0.41
23:BB:548:G:H4'	23:BB:549:G:N1	2.35	0.41
23:BB:583:G:H2'	23:BB:584:C:C6	2.55	0.41
23:BB:866:A:H61	23:BB:913:U:Cl'	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:1283:G:H22	23:BB:1286:A:C5'	2.15	0.41
23:BB:1547:C:H2'	23:BB:1548:A:H8	1.86	0.41
23:BB:1848:A:H2'	23:BB:1849:G:H8	1.84	0.41
23:BB:2562:U:H2'	23:BB:2563:U:H5'	2.03	0.41
23:BB:2617:U:H2'	23:BB:2618:G:H5'	2.02	0.41
23:BB:2787:C:O2'	23:BB:2788:C:H5'	2.20	0.41
25:BC:203:VAL:O	25:BC:204:LEU:HB2	2.20	0.41
26:BD:113:SER:HB3	26:BD:167:ASN:CA	2.51	0.41
27:BE:9:GLN:O	27:BE:9:GLN:HG3	2.20	0.41
27:BE:174:GLY:O	27:BE:175:ILE:C	2.64	0.41
28:BF:31:GLU:HB2	28:BF:158:THR:CG2	2.50	0.41
28:BF:134:GLN:HE22	28:BF:136:ILE:HD13	1.81	0.41
29:BG:43:LYS:CB	29:BG:50:THR:HB	2.46	0.41
29:BG:112:VAL:O	29:BG:113:ASP:HB2	2.19	0.41
34:BM:29:GLY:O	34:BM:133:LYS:HD2	2.21	0.41
34:BM:41:LEU:CD2	34:BM:124:LEU:HD22	2.50	0.41
34:BM:108:VAL:CG1	34:BM:112:LEU:HD12	2.51	0.41
35:BN:12:ARG:HG2	35:BN:16:HIS:ND1	2.36	0.41
36:BO:93:ASP:C	36:BO:95:SER:N	2.77	0.41
37:BP:89:GLY:N	37:BP:112:ARG:NH1	2.67	0.41
38:BQ:75:TYR:O	38:BQ:76:SER:C	2.63	0.41
40:BS:57:ASN:HD22	40:BS:57:ASN:HA	1.59	0.41
42:BU:39:ASN:HB3	42:BU:62:ALA:HB3	2.02	0.41
43:BW:25:PHE:C	43:BW:27:GLY:N	2.77	0.41
43:BW:47:GLY:C	43:BW:49:ASN:N	2.78	0.41
43:BW:61:LYS:O	43:BW:62:ALA:C	2.63	0.41
46:BZ:27:ARG:CG	46:BZ:28:ARG:N	2.82	0.41
46:BZ:71:LEU:HA	46:BZ:74:ARG:HE	1.85	0.41
47:B0:43:THR:HG23	47:B0:47:TYR:C	2.46	0.41
50:B3:30:HIS:O	50:B3:31:ILE:O	2.38	0.41
1:CA:100:G:N7	1:CA:101:A:C5	2.88	0.41
1:CA:154:U:H2'	1:CA:155:A:H8	1.80	0.41
1:CA:261:U:H2'	1:CA:263:A:OP2	2.19	0.41
1:CA:493:A:H5'	1:CA:494:G:OP2	2.19	0.41
1:CA:956:U:O2'	1:CA:957:U:H5'	2.20	0.41
1:CA:1200:C:H4'	1:CA:1201:A:H3'	2.03	0.41
1:CA:1202:U:H2'	1:CA:1203:C:H5'	2.02	0.41
1:CA:1313:U:OP1	18:CS:6:LYS:HD3	2.20	0.41
1:CA:1337:G:H5''	1:CA:1338:G:OP1	2.20	0.41
1:CA:1531:A:H2'	1:CA:1532:U:H5'	2.02	0.41
3:CD:25:ARG:CD	3:CD:25:ARG:C	2.94	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CL:30:ARG:HA	11:CL:80:LEU:HD12	2.02	0.41
12:CM:3:ILE:HA	12:CM:56:ARG:HB2	2.01	0.41
15:CP:12:LYS:O	15:CP:13:LYS:HB2	2.20	0.41
16:CQ:23:ALA:HA	16:CQ:41:THR:O	2.19	0.41
20:CB:98:GLY:C	20:CB:106:VAL:HG21	2.46	0.41
22:DA:32:U:H1'	22:DA:52:A:N7	2.35	0.41
23:DB:230:G:H2'	23:DB:231:A:C8	2.55	0.41
23:DB:235:U:H2'	23:DB:236:C:H6	1.85	0.41
23:DB:325:G:O2'	23:DB:326:G:H5'	2.20	0.41
23:DB:341:C:O2'	23:DB:342:A:H5'	2.21	0.41
23:DB:460:A:P	49:D2:41:ARG:HH12	2.44	0.41
23:DB:506:G:H1'	23:DB:507:A:C8	2.55	0.41
23:DB:532:A:H2'	23:DB:532:A:N3	2.34	0.41
23:DB:570:G:C4	23:DB:2030:A:N7	2.88	0.41
23:DB:686:U:O4	49:D2:12:ARG:HB2	2.20	0.41
23:DB:1716:U:H2'	23:DB:1717:A:C8	2.56	0.41
23:DB:1789:A:H2'	23:DB:1790:C:O4'	2.20	0.41
23:DB:1798:U:H5''	25:DC:257:ARG:HB2	2.02	0.41
23:DB:2219:U:O2'	23:DB:2220:U:H5'	2.20	0.41
23:DB:2437:G:H2'	23:DB:2438:U:C6	2.56	0.41
23:DB:2607:G:O2'	23:DB:2608:G:H5'	2.20	0.41
23:DB:2769:U:O2'	23:DB:2770:G:H5'	2.20	0.41
25:DC:29:PHE:CE2	25:DC:31:PRO:HG2	2.55	0.41
25:DC:144:GLU:CA	25:DC:151:GLY:HA2	2.40	0.41
26:DD:15:PHE:HA	26:DD:20:VAL:O	2.21	0.41
26:DD:62:LYS:N	26:DD:63:PRO:CD	2.84	0.41
26:DD:76:GLY:O	26:DD:77:ARG:C	2.61	0.41
27:DE:194:LYS:O	27:DE:197:GLU:HB3	2.21	0.41
28:DF:148:VAL:O	28:DF:149:ARG:HG2	2.20	0.41
29:DG:148:ARG:HA	29:DG:161:VAL:CB	2.45	0.41
30:DH:54:LEU:CD2	30:DH:58:LEU:HD12	2.46	0.41
30:DH:58:LEU:O	30:DH:61:VAL:HG12	2.20	0.41
31:DJ:44:TYR:HB2	38:DQ:63:ARG:HD2	2.01	0.41
31:DJ:140:LEU:HD23	31:DJ:141:ASP:N	2.34	0.41
34:DM:26:VAL:HB	34:DM:104:GLU:OE2	2.19	0.41
34:DM:100:LYS:HA	34:DM:100:LYS:HD3	1.87	0.41
35:DN:12:ARG:HD2	35:DN:12:ARG:HA	1.72	0.41
36:DO:36:TYR:HA	36:DO:52:SER:CB	2.50	0.41
38:DQ:48:ASP:HA	38:DQ:51:GLN:HG3	2.03	0.41
38:DQ:108:LEU:HA	39:DR:48:LYS:HD3	2.01	0.41
40:DS:55:ILE:HD12	40:DS:69:LEU:HD23	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DT:5:GLU:N	41:DT:8:LEU:HD12	2.35	0.41
41:DT:22:THR:O	41:DT:26:LYS:N	2.44	0.41
41:DT:68:LYS:HB2	41:DT:68:LYS:HE3	1.81	0.41
42:DU:32:LYS:HD3	42:DU:32:LYS:N	2.34	0.41
44:DX:23:ARG:O	44:DX:27:ASN:HB2	2.20	0.41
46:DZ:7:VAL:CG2	46:DZ:67:VAL:HG11	2.50	0.41
46:DZ:11:ARG:HB3	46:DZ:12:PRO:HD2	2.01	0.41
46:DZ:27:ARG:HD2	46:DZ:29:PHE:CE1	2.55	0.41
47:D0:33:SER:C	47:D0:35:GLU:H	2.28	0.41
48:D1:18:HIS:ND1	48:D1:19:PHE:N	2.68	0.41
52:DI:99:LYS:HB2	52:DI:140:GLU:OE1	2.20	0.41
1:AA:298:A:H8	1:AA:298:A:OP1	2.03	0.41
1:AA:356:A:H1'	1:AA:368:U:O2'	2.20	0.41
1:AA:415:A:N1	1:AA:428:G:O6	2.54	0.41
1:AA:493:A:H5'	1:AA:494:G:OP2	2.20	0.41
1:AA:553:A:O2'	11:AL:25:ALA:HB1	2.20	0.41
1:AA:825:A:H4'	7:AH:2:MET:HE1	2.02	0.41
1:AA:856:C:O2'	1:AA:857:C:H5'	2.20	0.41
1:AA:1269:A:H2	1:AA:1312:G:H21	1.67	0.41
1:AA:1285:A:HO2'	1:AA:1286:U:P	2.44	0.41
1:AA:1436:U:H2'	1:AA:1437:A:C8	2.55	0.41
2:AC:133:MET:O	2:AC:137:VAL:HG23	2.20	0.41
2:AC:134:LYS:HE3	2:AC:138:GLN:HG2	2.03	0.41
2:AC:154:GLY:HA2	2:AC:163:ARG:C	2.45	0.41
3:AD:157:ALA:C	3:AD:159:GLU:N	2.77	0.41
5:AF:66:ALA:HB1	5:AF:67:PRO:HD2	2.03	0.41
5:AF:66:ALA:HB1	5:AF:70:VAL:HG21	2.01	0.41
10:AK:35:ASP:OD1	10:AK:37:GLN:HB2	2.20	0.41
12:AM:96:VAL:C	12:AM:98:GLY:H	2.28	0.41
13:AN:73:LEU:HD12	13:AN:83:VAL:HG21	2.03	0.41
20:AB:85:SER:O	20:AB:86:CYS:HB2	2.21	0.41
20:AB:104:LYS:HB2	20:AB:104:LYS:NZ	2.35	0.41
21:AU:40:PRO:C	21:AU:42:THR:H	2.27	0.41
23:BB:215:G:C4'	23:BB:216:A:H4'	2.47	0.41
23:BB:522:A:H2'	23:BB:523:C:H6	1.84	0.41
23:BB:935:C:H2'	23:BB:936:A:H8	1.85	0.41
23:BB:973:A:O4'	23:BB:1188:U:C6	2.74	0.41
23:BB:1054:A:H2'	23:BB:1055:G:H8	1.82	0.41
23:BB:1266:G:N2	23:BB:2012:G:H2'	2.36	0.41
23:BB:1389:G:O2'	23:BB:1390:U:H5'	2.21	0.41
23:BB:1806:C:O2'	23:BB:1807:G:H5'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:2496:C:C2'	23:BB:2497:A:H5'	2.50	0.41
23:BB:2518:A:N3	23:BB:2518:A:H5'	2.35	0.41
23:BB:2685:G:O2'	23:BB:2686:G:H5'	2.20	0.41
23:BB:2751:G:OP2	29:BG:2:ARG:HD2	2.20	0.41
23:BB:2794:C:H2'	23:BB:2795:C:C5	2.55	0.41
24:BV:24:ASN:O	24:BV:26:PHE:N	2.54	0.41
25:BC:107:LYS:N	25:BC:193:GLU:O	2.51	0.41
25:BC:146:LYS:HB2	25:BC:149:LYS:HB2	2.02	0.41
28:BF:4:HIS:O	28:BF:7:TYR:HB3	2.21	0.41
28:BF:71:LYS:O	28:BF:71:LYS:HG2	2.18	0.41
30:BH:77:THR:CG2	30:BH:79:THR:HG23	2.49	0.41
30:BH:90:LEU:CD1	30:BH:146:VAL:HG11	2.45	0.41
30:BH:132:PHE:O	30:BH:140:ALA:HB3	2.20	0.41
37:BP:4:ILE:O	37:BP:5:LYS:HB2	2.20	0.41
37:BP:38:ARG:HB3	37:BP:38:ARG:NH2	2.35	0.41
37:BP:89:GLY:N	37:BP:112:ARG:HH12	2.18	0.41
38:BQ:9:ALA:O	38:BQ:12:ARG:N	2.53	0.41
38:BQ:94:LEU:O	38:BQ:97:ILE:HG23	2.20	0.41
41:BT:13:ALA:O	41:BT:33:LYS:N	2.54	0.41
44:BX:1:MET:HE3	44:BX:1:MET:N	2.36	0.41
44:BX:51:ALA:O	44:BX:52:ARG:C	2.63	0.41
44:BX:59:GLU:CD	44:BX:60:LYS:N	2.78	0.41
46:BZ:64:ILE:HG22	46:BZ:68:LEU:HD11	2.01	0.41
50:B3:18:LYS:HE3	50:B3:20:GLY:H	1.85	0.41
52:BI:17:ALA:C	52:BI:19:PRO:HD2	2.46	0.41
52:BI:126:ARG:HA	52:BI:129:GLU:OE2	2.20	0.41
1:CA:355:C:O2'	1:CA:356:A:H5'	2.21	0.41
1:CA:702:A:N6	23:DB:1848:A:C6	2.88	0.41
1:CA:975:A:H61	9:CJ:50:THR:HG21	1.85	0.41
1:CA:1140:C:O2'	1:CA:1141:C:H5'	2.20	0.41
1:CA:1261:A:N7	1:CA:1274:A:H2	2.17	0.41
1:CA:1314:C:H2'	1:CA:1315:U:H6	1.86	0.41
1:CA:1320:C:N4	18:CS:36:ARG:HA	2.36	0.41
1:CA:1330:U:H4'	12:CM:69:ARG:NH1	2.33	0.41
2:CC:112:ALA:HB2	2:CC:182:ASP:C	2.45	0.41
5:CF:48:ALA:N	17:CR:65:SER:OG	2.54	0.41
6:CG:46:LEU:O	6:CG:57:GLU:HG3	2.20	0.41
7:CH:29:SER:OG	7:CH:32:LYS:HG3	2.20	0.41
7:CH:49:LYS:HA	7:CH:49:LYS:HD2	1.88	0.41
8:CI:18:VAL:HG12	8:CI:19:PHE:N	2.36	0.41
11:CL:43:LYS:N	11:CL:44:PRO:HD2	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CM:26:LYS:O	12:CM:30:LYS:HB2	2.20	0.41
15:CP:53:ASP:O	15:CP:54:LEU:C	2.62	0.41
16:CQ:7:LEU:HD21	16:CQ:24:ILE:HG21	2.01	0.41
20:CB:62:ARG:HH11	20:CB:62:ARG:HG3	1.86	0.41
21:CU:33:ARG:NE	21:CU:34:ARG:HG3	2.36	0.41
22:DA:25:U:OP1	22:DA:25:U:H3'	2.20	0.41
22:DA:27:C:H2'	22:DA:28:C:H5'	2.02	0.41
23:DB:20:C:H2'	23:DB:21:A:C8	2.55	0.41
23:DB:346:A:N3	23:DB:346:A:O4'	2.54	0.41
23:DB:661:A:H1'	33:DL:12:SER:O	2.21	0.41
23:DB:828:U:H2'	23:DB:829:A:C8	2.54	0.41
23:DB:1369:G:H2'	23:DB:1370:C:O4'	2.20	0.41
23:DB:1423:G:H2'	23:DB:1424:G:H8	1.85	0.41
23:DB:2327:A:H2'	23:DB:2328:A:C8	2.56	0.41
23:DB:2335:A:H2'	23:DB:2336:A:H5''	2.02	0.41
23:DB:2386:A:H4'	43:DW:54:ARG:O	2.19	0.41
23:DB:2407:A:H2'	23:DB:2408:U:C6	2.56	0.41
23:DB:2800:A:H2'	23:DB:2801:G:C1'	2.50	0.41
24:DV:77:VAL:HG12	34:DM:136:MET:CE	2.50	0.41
25:DC:58:LYS:HD2	25:DC:58:LYS:HA	1.95	0.41
25:DC:124:LYS:CG	25:DC:125:PRO:HD2	2.50	0.41
25:DC:136:VAL:C	25:DC:138:SER:N	2.79	0.41
28:DF:82:TYR:O	28:DF:84:ILE:HD13	2.21	0.41
28:DF:107:VAL:O	28:DF:110:ILE:HG22	2.21	0.41
29:DG:50:THR:HG22	29:DG:51:PHE:N	2.36	0.41
29:DG:94:ARG:HB2	29:DG:127:GLN:HG2	2.01	0.41
31:DJ:84:ILE:O	31:DJ:84:ILE:HG13	2.21	0.41
34:DM:21:ALA:HB3	34:DM:99:GLY:O	2.21	0.41
34:DM:43:ALA:O	34:DM:47:GLU:HB2	2.21	0.41
38:DQ:63:ARG:HH12	38:DQ:96:ASP:CA	2.32	0.41
40:DS:73:LYS:HD2	40:DS:73:LYS:HA	1.66	0.41
42:DU:43:LYS:HD3	42:DU:44:HIS:N	2.35	0.41
42:DU:53:GLN:CD	42:DU:53:GLN:N	2.79	0.41
42:DU:73:ASN:HD21	42:DU:76:THR:H	1.67	0.41
43:DW:49:ASN:CA	43:DW:61:LYS:HB2	2.50	0.41
46:DZ:19:SER:O	46:DZ:20:HIS:C	2.64	0.41
46:DZ:51:VAL:HG12	46:DZ:52:SER:N	2.36	0.41
50:D3:30:HIS:C	50:D3:31:ILE:HG23	2.44	0.41
51:D4:22:VAL:O	51:D4:24:ARG:N	2.54	0.41
52:DI:108:ILE:CG2	52:DI:128:ILE:HD13	2.50	0.41
1:AA:38:G:O2'	1:AA:39:G:H5'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:80:A:C4	1:AA:81:A:H1'	2.56	0.41
1:AA:360:G:O2'	1:AA:361:G:H5'	2.20	0.41
1:AA:648:A:O2'	1:AA:649:A:H5'	2.21	0.41
1:AA:865:A:H2'	1:AA:866:C:C6	2.55	0.41
1:AA:1291:U:H2'	1:AA:1292:G:H8	1.84	0.41
1:AA:1320:C:N3	18:AS:35:ARG:NH1	2.69	0.41
1:AA:1370:G:O2'	1:AA:1371:G:H5'	2.21	0.41
2:AC:76:ILE:O	2:AC:82:ASP:N	2.53	0.41
2:AC:120:THR:CG2	2:AC:188:ALA:HB2	2.51	0.41
3:AD:13:ARG:HG3	3:AD:55:ARG:NH1	2.36	0.41
3:AD:17:ASP:C	3:AD:19:PHE:H	2.28	0.41
3:AD:115:GLN:HE21	3:AD:119:HIS:CE1	2.37	0.41
4:AE:87:VAL:HG23	4:AE:91:SER:O	2.20	0.41
8:AI:40:ARG:C	8:AI:41:GLU:HG3	2.45	0.41
12:AM:15:VAL:N	12:AM:33:LEU:HD11	2.36	0.41
16:AQ:65:PRO:HA	16:AQ:71:SER:OG	2.20	0.41
18:AS:64:GLU:CD	18:AS:64:GLU:H	2.27	0.41
20:AB:185:ILE:HA	20:AB:199:ILE:O	2.20	0.41
21:AU:39:LYS:N	21:AU:39:LYS:HD3	2.36	0.41
22:BA:8:C:O2'	36:BO:40:ILE:HD13	2.20	0.41
22:BA:29:A:H3'	22:BA:30:C:C6	2.47	0.41
22:BA:32:U:H2'	22:BA:33:G:C8	2.55	0.41
22:BA:64:G:O2'	22:BA:65:U:H5'	2.21	0.41
23:BB:245:G:H2'	23:BB:246:C:C6	2.56	0.41
23:BB:426:C:O2'	23:BB:427:U:H5'	2.20	0.41
23:BB:493:G:O2'	40:BS:7:HIS:HA	2.21	0.41
23:BB:755:U:H2'	23:BB:756:A:C8	2.56	0.41
23:BB:757:G:C2'	23:BB:758:C:H5'	2.51	0.41
23:BB:910:A:C6	23:BB:911:A:C6	3.09	0.41
23:BB:963:U:H2'	23:BB:964:C:C6	2.55	0.41
23:BB:1259:G:O2'	23:BB:1260:A:H5'	2.21	0.41
23:BB:1481:U:H2'	23:BB:1482:G:H4'	2.03	0.41
23:BB:1870:C:H2'	23:BB:1871:A:C8	2.56	0.41
23:BB:1979:U:C2'	23:BB:1980:G:H5'	2.51	0.41
23:BB:2734:A:C2'	23:BB:2735:G:H5'	2.43	0.41
23:BB:2747:G:H1	23:BB:2754:U:H2'	1.86	0.41
26:BD:2:ILE:HD12	26:BD:2:ILE:O	2.21	0.41
26:BD:51:THR:HG21	26:BD:75:ALA:O	2.20	0.41
27:BE:37:ALA:C	27:BE:39:ALA:N	2.79	0.41
27:BE:137:LYS:HG3	27:BE:141:MET:SD	2.60	0.41
32:BK:15:GLY:HA3	32:BK:52:VAL:CG2	2.47	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BN:47:VAL:O	35:BN:51:LEU:HD13	2.21	0.41
35:BN:114:GLU:HG2	35:BN:115:LEU:N	2.34	0.41
36:BO:67:ASN:H	36:BO:70:ALA:CB	2.29	0.41
36:BO:67:ASN:N	36:BO:70:ALA:HB3	2.32	0.41
36:BO:116:GLN:O	36:BO:117:PHE:HB3	2.19	0.41
37:BP:62:LYS:O	37:BP:63:ILE:HB	2.20	0.41
39:BR:2:TYR:N	39:BR:42:ALA:HB2	2.35	0.41
39:BR:52:PRO:C	39:BR:53:PHE:CG	2.98	0.41
40:BS:46:LEU:O	40:BS:50:VAL:HG23	2.20	0.41
41:BT:21:SER:O	41:BT:22:THR:C	2.63	0.41
42:BU:78:LYS:HD3	42:BU:79:ALA:H	1.85	0.41
43:BW:25:PHE:O	43:BW:26:GLY:C	2.63	0.41
50:B3:60:CYS:C	50:B3:62:PRO:HD3	2.45	0.41
52:BI:89:SER:C	52:BI:91:LYS:H	2.29	0.41
1:CA:152:A:N6	1:CA:170:U:C2	2.88	0.41
1:CA:203:G:H1'	1:CA:465:A:N6	2.35	0.41
1:CA:501:C:OP1	11:CL:113:ARG:NH2	2.54	0.41
1:CA:577:G:O2'	1:CA:578:C:H5'	2.21	0.41
1:CA:613:C:H2'	1:CA:614:C:H6	1.82	0.41
1:CA:832:G:H2'	1:CA:833:G:H8	1.86	0.41
1:CA:1087:G:O2'	1:CA:1088:G:H5'	2.20	0.41
1:CA:1096:C:O2'	1:CA:1097:C:H5'	2.21	0.41
1:CA:1258:G:C4	1:CA:1278:G:N2	2.89	0.41
1:CA:1320:C:N3	18:CS:35:ARG:NH1	2.69	0.41
1:CA:1320:C:H2'	1:CA:1321:U:O4'	2.20	0.41
1:CA:1325:C:H2'	1:CA:1326:U:H6	1.84	0.41
1:CA:1483:A:H2'	1:CA:1484:C:O4'	2.20	0.41
2:CC:179:ALA:O	2:CC:180:ASP:O	2.39	0.41
3:CD:89:LEU:HD22	3:CD:199:ILE:HD11	2.03	0.41
4:CE:156:ARG:HB3	7:CH:43:GLY:O	2.21	0.41
6:CG:3:ARG:HB3	6:CG:4:ARG:H	1.71	0.41
6:CG:45:ALA:CB	6:CG:120:ALA:HB2	2.49	0.41
7:CH:88:LYS:CG	7:CH:89:ASP:H	2.33	0.41
8:CI:18:VAL:CG1	8:CI:82:ILE:HG12	2.48	0.41
10:CK:74:LYS:C	10:CK:76:TYR:N	2.78	0.41
11:CL:71:HIS:HD2	11:CL:73:LEU:HG	1.86	0.41
14:CO:38:LEU:O	14:CO:39:GLN:C	2.63	0.41
14:CO:44:GLU:O	14:CO:46:LYS:N	2.51	0.41
18:CS:51:HIS:HB2	18:CS:56:HIS:NE2	2.35	0.41
19:CT:27:MET:HE1	19:CT:66:ILE:HD11	2.03	0.41
20:CB:57:ASN:HA	20:CB:60:ALA:HB3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CB:204:ASP:O	20:CB:209:VAL:HG13	2.21	0.41
22:DA:61:G:H2'	22:DA:62:C:H6	1.84	0.41
22:DA:112:G:O2'	22:DA:113:C:H5'	2.19	0.41
23:DB:182:A:O2'	23:DB:183:C:H5'	2.20	0.41
23:DB:183:C:O2	23:DB:432:A:H2	2.04	0.41
23:DB:289:G:H3'	23:DB:289:G:OP2	2.20	0.41
23:DB:319:G:H2'	23:DB:320:A:O4'	2.21	0.41
23:DB:480:A:H2	23:DB:499:U:O2	2.03	0.41
23:DB:547:A:OP1	23:DB:548:G:OP2	2.39	0.41
23:DB:697:G:H2'	23:DB:698:C:C6	2.56	0.41
23:DB:780:G:H2'	23:DB:782:A:N7	2.35	0.41
23:DB:866:A:O2'	23:DB:867:C:H5'	2.20	0.41
23:DB:1060:U:C1'	23:DB:1062:G:H5'	2.50	0.41
23:DB:1161:C:O2'	23:DB:1162:G:H5'	2.20	0.41
23:DB:1295:C:H2'	23:DB:1296:G:C8	2.55	0.41
23:DB:1446:C:H2'	23:DB:1447:C:C6	2.55	0.41
23:DB:1654:A:O2'	23:DB:1655:A:H5'	2.21	0.41
23:DB:2052:A:C4	26:DD:155:VAL:HG23	2.56	0.41
23:DB:2069:G:O2'	23:DB:2070:A:H5'	2.20	0.41
23:DB:2526:G:H2'	23:DB:2527:C:C6	2.55	0.41
24:DV:24:ASN:O	24:DV:26:PHE:N	2.54	0.41
27:DE:3:LEU:H	27:DE:13:THR:N	2.18	0.41
27:DE:62:GLN:HE21	27:DE:62:GLN:HB2	1.60	0.41
27:DE:109:LEU:O	27:DE:113:VAL:HG23	2.21	0.41
27:DE:155:GLU:O	27:DE:159:LEU:HB2	2.20	0.41
28:DF:133:GLU:HA	28:DF:150:GLY:CA	2.51	0.41
29:DG:71:LEU:O	29:DG:75:VAL:HG23	2.21	0.41
29:DG:149:ALA:C	29:DG:151:ARG:H	2.28	0.41
32:DK:13:ASN:HD21	32:DK:98:ARG:N	2.08	0.41
32:DK:33:ALA:CB	32:DK:39:ILE:HD11	2.50	0.41
32:DK:47:ILE:HG23	32:DK:48:PRO:CD	2.51	0.41
34:DM:40:ARG:NH2	34:DM:73:ILE:HD12	2.35	0.41
35:DN:27:SER:O	35:DN:30:ARG:HB2	2.20	0.41
36:DO:16:ARG:C	36:DO:18:LEU:H	2.28	0.41
38:DQ:77:LYS:O	38:DQ:80:ASN:HB3	2.20	0.41
38:DQ:94:LEU:C	38:DQ:96:ASP:N	2.72	0.41
40:DS:24:ILE:CG2	40:DS:71:VAL:HG11	2.44	0.41
43:DW:18:LYS:CA	43:DW:36:ILE:HG12	2.40	0.41
43:DW:47:GLY:C	43:DW:49:ASN:N	2.78	0.41
44:DX:59:GLU:CD	44:DX:60:LYS:H	2.28	0.41
45:DY:40:THR:HG22	45:DY:42:ALA:H	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:D1:8:ILE:HG21	48:D1:51:ALA:CB	2.51	0.41
49:D2:19:ARG:HG2	49:D2:19:ARG:NH2	2.35	0.41
52:DI:54:ILE:O	52:DI:54:ILE:HG23	2.19	0.41
1:AA:112:G:O2'	1:AA:113:G:H5'	2.20	0.41
1:AA:173:U:H5'	1:AA:197:A:O4'	2.21	0.41
1:AA:237:G:H2'	1:AA:238:A:H8	1.85	0.41
1:AA:324:G:N1	1:AA:327:A:OP2	2.50	0.41
1:AA:618:C:H3'	1:AA:620:C:OP2	2.21	0.41
1:AA:635:A:H2'	1:AA:636:U:C6	2.56	0.41
1:AA:711:G:O2'	1:AA:712:A:H5'	2.20	0.41
1:AA:751:U:H2'	1:AA:752:G:O4'	2.21	0.41
1:AA:796:C:H5'	10:AK:128:VAL:HG13	2.03	0.41
1:AA:1119:C:O2'	1:AA:1120:C:H5'	2.21	0.41
1:AA:1230:C:H2'	1:AA:1231:G:H8	1.86	0.41
1:AA:1313:U:O2'	1:AA:1314:C:H5'	2.20	0.41
1:AA:1320:C:H2'	1:AA:1321:U:O4'	2.21	0.41
2:AC:59:PRO:HB2	2:AC:60:ALA:H	1.74	0.41
3:AD:44:LYS:HD3	3:AD:44:LYS:C	2.45	0.41
4:AE:93:VAL:HG22	4:AE:126:ALA:CB	2.51	0.41
6:AG:64:ALA:O	6:AG:68:VAL:HG23	2.21	0.41
8:AI:18:VAL:CG1	8:AI:82:ILE:HG12	2.51	0.41
8:AI:44:ARG:HB3	8:AI:48:ARG:NH2	2.35	0.41
10:AK:59:PRO:HA	10:AK:90:PRO:HB2	2.02	0.41
12:AM:7:ASN:N	12:AM:7:ASN:HD22	2.18	0.41
15:AP:53:ASP:O	15:AP:54:LEU:C	2.63	0.41
15:AP:67:ILE:HD11	15:AP:75:ILE:HD11	2.02	0.41
18:AS:12:LEU:HA	18:AS:15:LEU:HD12	2.02	0.41
20:AB:16:GLY:HA2	20:AB:40:ILE:HD12	2.02	0.41
20:AB:83:ALA:C	20:AB:85:SER:N	2.79	0.41
20:AB:85:SER:CB	20:AB:221:ARG:HD3	2.38	0.41
20:AB:140:LEU:C	20:AB:142:LYS:N	2.78	0.41
23:BB:327:G:H2'	23:BB:328:U:C6	2.56	0.41
23:BB:704:G:O2'	23:BB:727:A:N6	2.53	0.41
23:BB:765:C:H2'	23:BB:766:U:C6	2.55	0.41
23:BB:820:A:H2'	23:BB:821:A:O4'	2.20	0.41
23:BB:839:U:O2'	23:BB:1191:G:H1'	2.20	0.41
23:BB:1577:C:H2'	23:BB:1578:U:C6	2.55	0.41
23:BB:1716:U:H2'	23:BB:1717:A:C8	2.55	0.41
23:BB:1829:A:N6	23:BB:1977:A:N6	2.68	0.41
23:BB:2018:G:O2'	23:BB:2019:A:H5'	2.21	0.41
23:BB:2076:U:O2	23:BB:2076:U:O4'	2.39	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:2336:A:H61	43:BW:40:ARG:CD	2.34	0.41
23:BB:2356:U:H2'	23:BB:2357:G:O4'	2.21	0.41
23:BB:2671:G:H2'	23:BB:2672:U:C6	2.56	0.41
23:BB:2720:U:H2'	23:BB:2721:A:H8	1.86	0.41
25:BC:20:ASN:O	25:BC:23:LEU:HB2	2.21	0.41
25:BC:90:ILE:HD13	25:BC:90:ILE:HA	1.93	0.41
26:BD:98:VAL:C	26:BD:100:LEU:N	2.77	0.41
27:BE:46:GLN:HB2	27:BE:87:ALA:O	2.20	0.41
29:BG:18:ILE:HA	29:BG:22:VAL:O	2.21	0.41
30:BH:5:LEU:HD12	30:BH:17:ASP:HB3	2.03	0.41
30:BH:70:GLU:O	30:BH:72:ILE:N	2.54	0.41
30:BH:135:HIS:O	30:BH:136:SER:C	2.63	0.41
31:BJ:12:LYS:O	31:BJ:13:ARG:HB2	2.19	0.41
31:BJ:55:ILE:O	31:BJ:55:ILE:HG13	2.19	0.41
31:BJ:58:ASN:CA	31:BJ:127:GLY:HA2	2.26	0.41
32:BK:99:ILE:CB	32:BK:118:LEU:HD22	2.47	0.41
33:BL:23:ILE:HD12	33:BL:23:ILE:H	1.84	0.41
35:BN:28:LEU:HD21	35:BN:113:ILE:HG23	2.01	0.41
35:BN:70:THR:O	35:BN:70:THR:OG1	2.38	0.41
35:BN:72:ASP:C	35:BN:74:GLU:H	2.29	0.41
36:BO:56:LYS:O	36:BO:60:GLU:HG2	2.19	0.41
36:BO:79:ALA:O	36:BO:83:LEU:HD13	2.20	0.41
37:BP:50:ARG:HB3	37:BP:57:ALA:N	2.36	0.41
38:BQ:4:LYS:HE3	38:BQ:8:ILE:CD1	2.49	0.41
41:BT:50:LEU:O	41:BT:51:PHE:HB2	2.21	0.41
42:BU:25:LYS:N	42:BU:34:ILE:O	2.54	0.41
43:BW:66:VAL:HG22	43:BW:81:ILE:HG22	2.03	0.41
45:BY:18:LYS:O	45:BY:22:THR:HG23	2.21	0.41
49:B2:13:ASN:O	49:B2:17:GLY:HA3	2.20	0.41
1:CA:126:G:H4'	1:CA:634:C:O2	2.21	0.41
1:CA:187:G:N2	1:CA:189:A:H3'	2.36	0.41
1:CA:245:U:H2'	1:CA:246:A:H5'	2.03	0.41
1:CA:409:U:H2'	1:CA:410:G:C8	2.55	0.41
1:CA:486:U:O2'	1:CA:487:A:H5'	2.21	0.41
1:CA:516:U:O2'	1:CA:517:G:H5'	2.20	0.41
1:CA:572:A:N3	1:CA:917:G:H1'	2.35	0.41
1:CA:637:C:H2'	1:CA:638:U:C6	2.56	0.41
1:CA:746:A:N1	1:CA:747:A:N6	2.68	0.41
1:CA:1036:A:H2'	1:CA:1037:C:O4'	2.20	0.41
1:CA:1120:C:H2'	1:CA:1121:U:H6	1.84	0.41
1:CA:1125:U:H1'	1:CA:1126:U:H6	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1226:C:H5''	12:CM:94:LEU:HD11	2.03	0.41
1:CA:1240:U:H3	6:CG:29:LEU:HD23	1.85	0.41
1:CA:1336:C:O4'	1:CA:1337:G:C2	2.74	0.41
2:CC:63:ILE:HD12	2:CC:98:ALA:CB	2.48	0.41
2:CC:87:ARG:HB2	2:CC:100:ILE:CG2	2.51	0.41
2:CC:149:LYS:CB	2:CC:168:ARG:HG3	2.51	0.41
2:CC:188:ALA:HB3	2:CC:195:ILE:HB	2.02	0.41
3:CD:84:ASN:OD1	3:CD:87:GLU:HB2	2.20	0.41
6:CG:132:THR:HA	6:CG:135:LYS:HB3	2.03	0.41
7:CH:12:ARG:NH1	7:CH:26:MET:HB3	2.35	0.41
8:CI:112:ARG:HD2	13:CN:100:TRP:OXT	2.21	0.41
10:CK:70:ALA:O	10:CK:72:ALA:N	2.53	0.41
12:CM:66:GLY:O	12:CM:67:ASP:C	2.64	0.41
13:CN:15:LEU:HB3	13:CN:54:SER:CB	2.44	0.41
14:CO:10:ILE:O	14:CO:14:PHE:HD1	2.03	0.41
16:CQ:18:LYS:H	16:CQ:50:ASN:HD21	1.69	0.41
16:CQ:22:VAL:O	16:CQ:42:LYS:HA	2.21	0.41
16:CQ:80:LYS:H	16:CQ:80:LYS:NZ	2.18	0.41
20:CB:75:ALA:O	20:CB:78:ALA:N	2.53	0.41
20:CB:77:GLU:O	20:CB:77:GLU:HG2	2.21	0.41
20:CB:164:ASP:OD1	20:CB:186:VAL:HA	2.20	0.41
21:CU:44:ARG:HG3	21:CU:44:ARG:NH1	2.35	0.41
23:DB:116:C:O2'	23:DB:126:A:C8	2.69	0.41
23:DB:246:C:H2'	23:DB:247:G:C5'	2.50	0.41
23:DB:324:A:H61	23:DB:338:G:C2'	2.33	0.41
23:DB:453:A:N3	23:DB:457:A:O2'	2.53	0.41
23:DB:764:A:H5''	25:DC:208:GLY:HA2	2.02	0.41
23:DB:810:U:O2'	33:DL:20:GLY:HA3	2.21	0.41
23:DB:995:C:H42	31:DJ:2:LYS:HB2	1.86	0.41
23:DB:1243:C:O2'	23:DB:1244:A:H5'	2.21	0.41
23:DB:1248:G:C4	38:DQ:2:ARG:HD2	2.56	0.41
23:DB:1258:U:H2'	23:DB:1259:G:H8	1.85	0.41
23:DB:1280:G:H2'	23:DB:1281:G:H5'	2.02	0.41
23:DB:1572:A:O2'	23:DB:1573:G:H5'	2.21	0.41
23:DB:1666:G:O3'	32:DK:6:THR:HG23	2.21	0.41
23:DB:1704:C:H2'	23:DB:1705:A:C8	2.56	0.41
23:DB:1889:A:H2'	23:DB:1890:A:C8	2.56	0.41
23:DB:1901:A:OP2	25:DC:252:LYS:NZ	2.53	0.41
23:DB:2143:C:H5''	23:DB:2144:G:C8	2.55	0.41
23:DB:2186:G:H2'	23:DB:2187:U:O4'	2.21	0.41
23:DB:2208:C:O2'	23:DB:2209:G:H5'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2301:C:O2'	23:DB:2302:U:H5'	2.20	0.41
23:DB:2352:A:H8	23:DB:2352:A:O5'	2.04	0.41
23:DB:2623:G:O5'	23:DB:2826:A:H1'	2.20	0.41
23:DB:2671:G:H2'	23:DB:2672:U:C6	2.56	0.41
23:DB:2694:G:H2'	23:DB:2695:U:C6	2.55	0.41
24:DV:59:GLU:CD	24:DV:60:VAL:N	2.78	0.41
24:DV:62:THR:CG2	24:DV:71:LYS:HG2	2.46	0.41
25:DC:107:LYS:HB3	25:DC:108:GLY:H	1.68	0.41
25:DC:156:SER:HB3	25:DC:159:THR:HG21	2.02	0.41
25:DC:245:THR:O	25:DC:247:TRP:N	2.53	0.41
27:DE:21:ARG:HG3	27:DE:22:ASP:O	2.21	0.41
28:DF:11:VAL:CG1	28:DF:12:VAL:H	2.18	0.41
28:DF:37:MET:SD	28:DF:52:ALA:HB1	2.60	0.41
28:DF:105:ILE:O	28:DF:109:ARG:HB2	2.20	0.41
29:DG:34:ARG:HD3	29:DG:34:ARG:N	2.35	0.41
30:DH:5:LEU:HD12	30:DH:17:ASP:HB3	2.03	0.41
30:DH:83:LYS:HD2	30:DH:83:LYS:H	1.85	0.41
32:DK:87:LEU:O	32:DK:88:ASN:C	2.64	0.41
33:DL:61:LEU:HA	33:DL:62:PRO:HD3	1.92	0.41
34:DM:73:ILE:HG21	34:DM:91:TYR:CE2	2.56	0.41
34:DM:114:ARG:C	34:DM:116:ALA:H	2.28	0.41
38:DQ:73:ILE:HD11	38:DQ:77:LYS:HB3	2.03	0.41
39:DR:51:VAL:O	39:DR:52:PRO:C	2.63	0.41
40:DS:3:THR:HG23	40:DS:3:THR:O	2.21	0.41
40:DS:61:ASN:HD22	40:DS:61:ASN:HA	1.55	0.41
40:DS:66:ILE:CG1	40:DS:67:ASP:N	2.84	0.41
41:DT:89:GLU:C	41:DT:91:GLN:H	2.29	0.41
42:DU:25:LYS:N	42:DU:34:ILE:O	2.54	0.41
43:DW:24:ARG:HH11	43:DW:65:LYS:HA	1.86	0.41
43:DW:28:GLU:H	43:DW:31:LEU:CD1	2.34	0.41
43:DW:35:ILE:O	43:DW:37:VAL:N	2.53	0.41
47:D0:25:THR:O	47:D0:39:ARG:NH2	2.53	0.41
1:AA:998:C:H2'	1:AA:999:C:C6	2.56	0.41
1:AA:1220:G:H2'	1:AA:1221:G:C8	2.55	0.41
1:AA:1220:G:O3'	18:AS:35:ARG:HD2	2.19	0.41
1:AA:1226:C:H5''	12:AM:94:LEU:HD11	2.02	0.41
1:AA:1258:G:C4	1:AA:1278:G:N2	2.89	0.41
1:AA:1348:U:C4'	8:AI:121:ARG:HG3	2.46	0.41
1:AA:1473:G:O2'	1:AA:1474:U:H5'	2.21	0.41
1:AA:1514:G:H2'	1:AA:1515:G:C8	2.55	0.41
2:AC:87:ARG:HB2	2:AC:100:ILE:CG2	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AD:191:SER:O	3:AD:192:ALA:HB2	2.20	0.41
3:AD:197:HIS:CE1	3:AD:198:LEU:HG	2.56	0.41
5:AF:47:LEU:HD21	5:AF:57:ALA:CB	2.48	0.41
7:AH:29:SER:O	7:AH:30:LYS:C	2.63	0.41
10:AK:23:HIS:HB3	10:AK:30:ILE:HG12	2.03	0.41
11:AL:113:ARG:O	11:AL:114:SER:C	2.64	0.41
14:AO:77:TYR:CZ	14:AO:81:ILE:HD11	2.54	0.41
15:AP:28:ARG:HD3	15:AP:29:ASN:ND2	2.36	0.41
18:AS:44:ILE:HD12	18:AS:63:ASP:HA	2.03	0.41
20:AB:31:PHE:HB3	20:AB:39:ILE:HG22	2.03	0.41
20:AB:218:ALA:C	20:AB:220:VAL:N	2.78	0.41
21:AU:33:ARG:O	21:AU:34:ARG:C	2.62	0.41
22:BA:113:C:H2'	22:BA:114:C:C6	2.56	0.41
23:BB:7:G:H4'	31:BJ:15:TRP:HZ2	1.85	0.41
23:BB:164:C:H2'	23:BB:165:A:H5'	2.03	0.41
23:BB:181:A:H1'	23:BB:435:C:H5'	2.03	0.41
23:BB:528:A:H3'	23:BB:528:A:H8	1.85	0.41
23:BB:689:A:H2'	23:BB:690:G:H8	1.86	0.41
23:BB:705:A:H8	23:BB:705:A:O5'	2.02	0.41
23:BB:776:G:N1	23:BB:2072:C:OP1	2.43	0.41
23:BB:833:A:H1'	33:BL:52:GLY:N	2.35	0.41
23:BB:974:G:N3	23:BB:974:G:H2'	2.35	0.41
23:BB:988:A:H5''	45:BY:11:SER:HB3	2.02	0.41
23:BB:1423:G:H2'	23:BB:1424:G:H8	1.86	0.41
23:BB:2391:G:O6	23:BB:2427:C:H1'	2.21	0.41
23:BB:2465:C:O2'	23:BB:2466:C:H5'	2.19	0.41
23:BB:2526:G:O2'	51:B4:34:LYS:HE3	2.21	0.41
23:BB:2693:G:H2'	23:BB:2694:G:C8	2.50	0.41
23:BB:2786:U:H2'	23:BB:2787:C:H6	1.85	0.41
24:BV:32:GLY:O	24:BV:93:ARG:HB2	2.21	0.41
24:BV:75:GLN:HG2	24:BV:92:VAL:CG2	2.44	0.41
25:BC:153:LEU:HD22	25:BC:175:LEU:HD22	2.02	0.41
26:BD:24:VAL:HG23	26:BD:189:VAL:H	1.85	0.41
28:BF:163:GLU:HA	28:BF:166:ARG:NH1	2.36	0.41
29:BG:40:VAL:CG2	29:BG:64:ALA:HA	2.45	0.41
29:BG:46:ASP:CG	29:BG:47:ASN:H	2.28	0.41
29:BG:89:VAL:CG1	29:BG:90:GLY:H	2.27	0.41
31:BJ:33:ALA:O	31:BJ:34:ARG:C	2.63	0.41
32:BK:6:THR:HG22	32:BK:7:MET:H	1.85	0.41
34:BM:73:ILE:HG21	34:BM:91:TYR:CE2	2.55	0.41
36:BO:15:ARG:HH21	36:BO:95:SER:HB3	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BO:63:LYS:HD2	36:BO:64:TYR:HB2	2.03	0.41
38:BQ:81:GLY:O	38:BQ:85:ALA:N	2.52	0.41
38:BQ:111:LYS:HB2	38:BQ:111:LYS:NZ	2.34	0.41
40:BS:3:THR:O	40:BS:3:THR:HG23	2.21	0.41
41:BT:17:SER:N	41:BT:21:SER:OG	2.53	0.41
41:BT:53:VAL:HG12	41:BT:54:GLU:N	2.36	0.41
48:B1:22:THR:OG1	48:B1:23:THR:N	2.53	0.41
49:B2:21:ARG:HG2	49:B2:31:LEU:HD21	2.02	0.41
50:B3:44:ARG:N	50:B3:45:PRO:CD	2.82	0.41
52:BI:91:LYS:O	52:BI:94:LYS:HB2	2.21	0.41
1:CA:259:G:O2'	1:CA:260:G:H5'	2.20	0.41
1:CA:415:A:N1	1:CA:428:G:O6	2.54	0.41
1:CA:585:G:H4'	11:CL:4:ASN:HD21	1.86	0.41
1:CA:599:C:H2'	1:CA:600:A:H8	1.85	0.41
1:CA:600:A:OP1	7:CH:87:ARG:HB3	2.21	0.41
1:CA:621:A:H2'	1:CA:622:A:H8	1.84	0.41
1:CA:987:G:H2'	1:CA:988:G:H8	1.85	0.41
1:CA:1053:G:C6	1:CA:1199:U:H2'	2.56	0.41
1:CA:1178:G:H2'	1:CA:1180:A:OP2	2.20	0.41
1:CA:1366:C:H2'	1:CA:1367:C:C6	2.55	0.41
2:CC:123:LEU:HD12	2:CC:188:ALA:CB	2.51	0.41
2:CC:134:LYS:HE3	2:CC:138:GLN:HG2	2.02	0.41
3:CD:116:LEU:O	3:CD:121:ALA:HB3	2.20	0.41
5:CF:6:ILE:HD12	5:CF:7:VAL:N	2.35	0.41
9:CJ:17:LEU:HD13	9:CJ:96:VAL:HG13	2.01	0.41
10:CK:92:ARG:HH11	10:CK:92:ARG:HG2	1.84	0.41
16:CQ:52:CYS:SG	16:CQ:74:LEU:HG	2.61	0.41
18:CS:20:LYS:NZ	18:CS:24:SER:HB3	2.36	0.41
19:CT:38:ILE:HD11	19:CT:82:ILE:HA	2.03	0.41
19:CT:50:PHE:C	19:CT:52:GLU:N	2.76	0.41
20:CB:211:LEU:HD13	20:CB:211:LEU:C	2.46	0.41
21:CU:36:PHE:CD1	21:CU:44:ARG:HD3	2.56	0.41
23:DB:191:A:O2'	23:DB:192:C:H5'	2.21	0.41
23:DB:275:C:H2'	23:DB:276:U:O4'	2.20	0.41
23:DB:316:C:O2'	23:DB:317:G:H5'	2.20	0.41
23:DB:379:G:N1	23:DB:396:G:C6	2.89	0.41
23:DB:466:A:N3	23:DB:683:U:H1'	2.36	0.41
23:DB:514:A:N6	23:DB:515:A:N6	2.68	0.41
23:DB:667:U:H2'	23:DB:668:A:O4'	2.21	0.41
23:DB:1099:G:N7	52:DI:3:LYS:CD	2.84	0.41
23:DB:1126:A:H4'	23:DB:1127:A:C5'	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1174:U:O2	23:DB:1174:U:H2'	2.20	0.41
23:DB:1187:G:H5''	39:DR:83:TYR:CZ	2.55	0.41
23:DB:1243:C:O2	33:DL:4:ASN:HA	2.20	0.41
23:DB:1322:A:C5	23:DB:1323:C:C5	3.09	0.41
23:DB:1475:G:H3'	23:DB:1475:G:OP1	2.21	0.41
23:DB:1577:C:H2'	23:DB:1578:U:C6	2.55	0.41
23:DB:1636:U:H2'	23:DB:1637:A:C8	2.56	0.41
23:DB:2039:U:O2'	23:DB:2040:G:H5'	2.21	0.41
23:DB:2262:U:H2'	23:DB:2263:C:H6	1.86	0.41
23:DB:2336:A:N6	43:DW:40:ARG:CG	2.81	0.41
23:DB:2358:A:H61	33:DL:54:GLN:HE22	1.68	0.41
23:DB:2369:A:H2'	23:DB:2370:G:C8	2.55	0.41
23:DB:2391:G:HO2'	23:DB:2392:A:P	2.43	0.41
23:DB:2393:U:H5'	33:DL:60:ARG:O	2.21	0.41
23:DB:2623:G:O2'	23:DB:2624:G:H5'	2.21	0.41
23:DB:2675:A:H4'	32:DK:29:HIS:HB2	2.02	0.41
23:DB:2721:A:H2'	23:DB:2722:G:C8	2.55	0.41
23:DB:2751:G:H2'	23:DB:2751:G:N3	2.35	0.41
24:DV:2:PHE:HD2	24:DV:59:GLU:OE1	2.03	0.41
25:DC:132:ARG:O	25:DC:132:ARG:HG3	2.20	0.41
25:DC:203:VAL:O	25:DC:204:LEU:HB2	2.21	0.41
26:DD:38:LYS:HD3	26:DD:45:TYR:OH	2.21	0.41
29:DG:33:THR:HA	29:DG:34:ARG:NH1	2.36	0.41
29:DG:67:ALA:O	29:DG:71:LEU:HD23	2.21	0.41
30:DH:14:SER:HB2	30:DH:17:ASP:HB3	2.03	0.41
31:DJ:20:ALA:HA	31:DJ:23:LYS:CG	2.50	0.41
31:DJ:24:THR:O	31:DJ:25:LEU:HB3	2.20	0.41
31:DJ:45:THR:H	31:DJ:46:PRO:CD	2.28	0.41
32:DK:109:SER:O	32:DK:111:LYS:N	2.54	0.41
35:DN:82:GLU:HB3	35:DN:83:LEU:H	1.63	0.41
36:DO:63:LYS:HD2	36:DO:64:TYR:HB2	2.03	0.41
36:DO:88:LYS:HA	36:DO:115:LEU:HD13	2.03	0.41
38:DQ:109:VAL:CG1	38:DQ:113:LYS:HE3	2.50	0.41
41:DT:72:GLN:H	41:DT:72:GLN:HG2	1.68	0.41
43:DW:44:PHE:CE2	43:DW:76:ARG:HD3	2.56	0.41
45:DY:6:ILE:HB	45:DY:35:VAL:HG12	2.03	0.41
49:D2:39:ARG:HG3	49:D2:39:ARG:NH1	2.36	0.41
52:DI:91:LYS:HD2	52:DI:91:LYS:N	2.35	0.41
1:AA:51:A:H4'	1:AA:52:C:C5'	2.51	0.41
1:AA:237:G:H5''	16:AQ:26:ARG:NH2	2.36	0.41
1:AA:397:A:H3'	1:AA:397:A:N3	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:488:C:H2'	1:AA:489:C:H6	1.86	0.41
1:AA:509:A:H5'	3:AD:51:GLY:HA2	2.02	0.41
1:AA:586:C:O2'	7:AH:3:GLN:NE2	2.54	0.41
1:AA:641:U:H1'	1:AA:642:A:N7	2.35	0.41
1:AA:664:G:P	17:AR:52:ARG:HH21	2.44	0.41
1:AA:975:A:N1	9:AJ:50:THR:HB	2.36	0.41
1:AA:984:C:H2'	1:AA:985:C:C6	2.55	0.41
1:AA:1073:U:O2'	1:AA:1074:G:H5'	2.21	0.41
1:AA:1095:U:H5''	1:AA:1109:C:O2	2.19	0.41
1:AA:1098:C:O2'	1:AA:1099:G:H5'	2.20	0.41
1:AA:1162:C:H2'	1:AA:1163:A:O4'	2.21	0.41
1:AA:1170:A:H2'	1:AA:1171:A:O4'	2.21	0.41
1:AA:1254:A:H2'	1:AA:1255:G:O4'	2.21	0.41
1:AA:1307:U:H2'	1:AA:1308:U:H6	1.82	0.41
1:AA:1325:C:H2'	1:AA:1326:U:H6	1.85	0.41
2:AC:63:ILE:CD1	2:AC:98:ALA:HB2	2.46	0.41
2:AC:126:ARG:HA	2:AC:126:ARG:NE	2.36	0.41
2:AC:133:MET:HE1	2:AC:165:GLU:HG2	2.03	0.41
3:AD:31:CYS:O	3:AD:32:LYS:HB2	2.20	0.41
3:AD:72:ARG:O	3:AD:75:TYR:HB3	2.21	0.41
3:AD:138:PRO:C	3:AD:140:ASP:H	2.29	0.41
3:AD:155:LYS:HG3	3:AD:156:ALA:N	2.36	0.41
4:AE:11:GLN:HB2	4:AE:116:VAL:HB	2.03	0.41
5:AF:18:VAL:O	5:AF:22:ILE:HG13	2.20	0.41
6:AG:129:ASN:C	6:AG:134:VAL:HG21	2.45	0.41
6:AG:148:LYS:HG3	6:AG:151:ALA:HB3	2.02	0.41
6:AG:149:ALA:H	10:AK:55:ARG:HH21	1.63	0.41
8:AI:14:SER:HB2	8:AI:69:GLY:HA3	2.01	0.41
8:AI:48:ARG:HA	8:AI:51:LEU:HD12	2.02	0.41
8:AI:64:ILE:HD12	8:AI:64:ILE:N	2.31	0.41
9:AJ:53:ILE:HG23	9:AJ:54:SER:N	2.36	0.41
10:AK:51:PHE:HD1	10:AK:51:PHE:O	2.03	0.41
11:AL:66:ILE:O	11:AL:66:ILE:HG22	2.21	0.41
12:AM:15:VAL:HG22	12:AM:33:LEU:HD12	2.02	0.41
13:AN:27:LYS:HA	13:AN:31:SER:HB2	2.03	0.41
13:AN:68:ARG:HH11	13:AN:68:ARG:HG2	1.86	0.41
13:AN:78:LEU:HD23	13:AN:82:LYS:HB3	2.03	0.41
16:AQ:25:GLU:HA	16:AQ:39:ARG:O	2.21	0.41
16:AQ:75:VAL:CG2	16:AQ:76:ARG:N	2.83	0.41
18:AS:13:HIS:HD2	18:AS:34:SER:HB3	1.86	0.41
19:AT:27:MET:O	19:AT:31:ILE:HG13	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AB:129:THR:O	20:AB:130:LYS:C	2.63	0.41
23:BB:141:G:H5''	23:BB:142:A:C6	2.56	0.41
23:BB:227:A:H61	23:BB:410:G:H1'	1.85	0.41
23:BB:268:C:O2	23:BB:268:C:H2'	2.21	0.41
23:BB:319:G:H2'	23:BB:320:A:O4'	2.21	0.41
23:BB:325:G:O2'	23:BB:326:G:H5'	2.20	0.41
23:BB:670:A:H3'	33:BL:43:GLY:H	1.86	0.41
23:BB:699:A:H2'	23:BB:700:G:O4'	2.21	0.41
23:BB:769:U:H2'	23:BB:770:G:C8	2.55	0.41
23:BB:949:G:O2'	23:BB:950:G:H5'	2.21	0.41
23:BB:1076:C:H4'	52:BI:94:LYS:CE	2.50	0.41
23:BB:1188:U:O2'	23:BB:1189:A:H5'	2.21	0.41
23:BB:1341:G:C2	23:BB:1398:C:H4'	2.56	0.41
23:BB:1537:G:H5''	23:BB:1537:G:N3	2.36	0.41
23:BB:1562:U:H2'	23:BB:1563:U:C6	2.55	0.41
23:BB:1773:A:H2'	23:BB:1774:C:O4'	2.20	0.41
23:BB:1831:G:C6	23:BB:1832:C:N4	2.89	0.41
23:BB:1859:U:H2'	23:BB:1860:G:H8	1.86	0.41
23:BB:1948:G:C6	23:BB:1959:G:C6	3.09	0.41
23:BB:2049:G:H21	26:BD:161:MET:HE2	1.86	0.41
23:BB:2471:A:O2'	23:BB:2472:G:C8	2.60	0.41
23:BB:2531:A:H5''	29:BG:156:TYR:CE2	2.56	0.41
23:BB:2580:U:H5'	26:BD:136:ASN:H	1.86	0.41
23:BB:2635:A:C5'	26:BD:79:LEU:HB2	2.51	0.41
23:BB:2800:A:H2'	23:BB:2801:G:C4'	2.51	0.41
23:BB:2800:A:C2	23:BB:2801:G:H1'	2.56	0.41
23:BB:2835:A:H61	23:BB:2878:U:H2'	1.86	0.41
23:BB:2848:G:N3	23:BB:2849:U:H5	2.18	0.41
24:BV:4:ILE:HB	24:BV:63:ILE:HA	2.02	0.41
24:BV:14:LYS:HE3	24:BV:18:ARG:HH21	1.85	0.41
25:BC:80:LEU:HD21	25:BC:109:LEU:HG	2.03	0.41
25:BC:83:ASP:HA	25:BC:84:PRO:HD3	1.89	0.41
25:BC:128:THR:HG22	25:BC:188:ARG:HB3	2.03	0.41
27:BE:46:GLN:HB3	27:BE:86:ALA:CA	2.51	0.41
27:BE:166:LYS:O	27:BE:167:VAL:CB	2.69	0.41
27:BE:181:ILE:CG1	33:BL:2:ARG:HB3	2.46	0.41
28:BF:11:VAL:HG13	28:BF:171:ALA:HB1	2.03	0.41
28:BF:107:VAL:O	28:BF:110:ILE:HG22	2.20	0.41
28:BF:133:GLU:HA	28:BF:150:GLY:CA	2.50	0.41
29:BG:84:LYS:HB2	29:BG:132:LEU:H	1.86	0.41
30:BH:58:LEU:HB3	30:BH:59:ALA:H	1.73	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BH:141:LYS:N	30:BH:141:LYS:CD	2.83	0.41
32:BK:33:ALA:CB	32:BK:39:ILE:HD11	2.51	0.41
33:BL:56:PRO:O	33:BL:59:ARG:HB2	2.21	0.41
35:BN:79:LEU:HA	35:BN:83:LEU:HD12	2.03	0.41
35:BN:80:PHE:N	35:BN:84:GLY:HA3	2.36	0.41
38:BQ:9:ALA:C	38:BQ:11:ALA:N	2.77	0.41
38:BQ:89:ILE:C	38:BQ:91:ARG:N	2.76	0.41
38:BQ:110:GLU:O	38:BQ:111:LYS:C	2.64	0.41
40:BS:20:VAL:HG13	40:BS:21:ALA:N	2.36	0.41
41:BT:39:THR:HB	41:BT:42:GLU:CD	2.45	0.41
41:BT:63:VAL:HG12	41:BT:65:GLY:H	1.86	0.41
44:BX:25:GLN:HE21	44:BX:25:GLN:HB3	1.53	0.41
44:BX:49:ASP:O	44:BX:50:VAL:C	2.64	0.41
48:B1:35:LEU:N	48:B1:35:LEU:CD2	2.84	0.41
48:B1:39:ASP:O	48:B1:43:ARG:N	2.53	0.41
48:B1:46:VAL:HG22	48:B1:47:ILE:N	2.28	0.41
52:BI:14:ALA:CB	52:BI:50:LYS:HA	2.50	0.41
52:BI:63:ASP:C	52:BI:64:ARG:HG3	2.46	0.41
52:BI:83:ALA:N	52:BI:100:ILE:HD11	2.35	0.41
1:CA:141:G:H2'	1:CA:142:G:O4'	2.20	0.41
1:CA:170:U:O2'	1:CA:171:A:H5'	2.20	0.41
1:CA:264:C:H2'	1:CA:265:G:O4'	2.21	0.41
1:CA:284:C:O2'	1:CA:285:C:H5'	2.21	0.41
1:CA:451:A:H1'	1:CA:452:A:C8	2.56	0.41
1:CA:538:G:O3'	11:CL:110:LYS:HG3	2.21	0.41
1:CA:599:C:H4'	7:CH:121:GLY:C	2.46	0.41
1:CA:601:G:O2'	1:CA:602:A:H5'	2.21	0.41
1:CA:653:U:C6	7:CH:55:LYS:HE2	2.56	0.41
1:CA:736:C:H2'	1:CA:737:C:H6	1.85	0.41
1:CA:986:U:H2'	1:CA:987:G:O4'	2.21	0.41
1:CA:1073:U:OP1	4:CE:61:LYS:HE3	2.21	0.41
1:CA:1115:U:H2'	1:CA:1116:U:C6	2.56	0.41
1:CA:1125:U:H5'	9:CJ:40:ILE:HD11	2.03	0.41
1:CA:1174:G:O2'	1:CA:1175:G:H5'	2.20	0.41
1:CA:1194:U:H2'	1:CA:1195:C:C6	2.56	0.41
1:CA:1258:G:C2	1:CA:1278:G:N2	2.89	0.41
1:CA:1296:C:C5'	1:CA:1302:C:H42	2.34	0.41
1:CA:1319:A:H4'	1:CA:1320:C:OP1	2.20	0.41
2:CC:85:LYS:O	2:CC:89:VAL:HG23	2.21	0.41
2:CC:102:ILE:N	2:CC:102:ILE:HD12	2.36	0.41
2:CC:112:ALA:CB	2:CC:184:ASN:HB2	2.47	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CD:7:LYS:HD2	3:CD:21:LYS:NZ	2.35	0.41
3:CD:29:THR:CG2	3:CD:30:LYS:HD3	2.49	0.41
3:CD:141:VAL:HA	3:CD:179:GLY:O	2.20	0.41
3:CD:148:ALA:O	3:CD:154:VAL:HG11	2.21	0.41
4:CE:117:ALA:HB3	4:CE:119:VAL:HG23	2.03	0.41
5:CF:36:ILE:HA	5:CF:64:VAL:HG13	2.02	0.41
5:CF:68:GLN:HA	5:CF:71:ILE:HG12	2.02	0.41
8:CI:28:VAL:HA	8:CI:32:ARG:O	2.21	0.41
8:CI:44:ARG:NE	8:CI:48:ARG:HH22	2.19	0.41
8:CI:50:PRO:HD3	8:CI:79:ARG:HG3	2.03	0.41
8:CI:87:MET:SD	8:CI:88:GLU:N	2.93	0.41
9:CJ:8:ILE:O	9:CJ:74:VAL:HB	2.20	0.41
12:CM:29:SER:HA	12:CM:32:ILE:HG22	2.03	0.41
18:CS:35:ARG:HB3	18:CS:50:VAL:CG1	2.51	0.41
20:CB:26:MET:HG3	20:CB:188:THR:O	2.19	0.41
20:CB:165:ALA:H	20:CB:186:VAL:CG1	2.34	0.41
21:CU:33:ARG:O	21:CU:34:ARG:C	2.63	0.41
22:DA:17:C:O2'	22:DA:18:G:H5'	2.21	0.41
22:DA:49:C:O2'	22:DA:50:A:H5'	2.21	0.41
23:DB:524:G:O2'	23:DB:525:U:H5'	2.20	0.41
23:DB:597:G:H2'	23:DB:598:U:C6	2.55	0.41
23:DB:707:G:O2'	23:DB:708:G:H5'	2.20	0.41
23:DB:783:A:C2'	23:DB:784:G:O5'	2.68	0.41
23:DB:858:G:C2	23:DB:2268:A:C4	3.09	0.41
23:DB:942:G:O2'	23:DB:943:A:H5'	2.21	0.41
23:DB:1032:A:H4'	51:D4:16:ILE:HD13	2.01	0.41
23:DB:1058:U:H1'	52:DI:117:THR:HG22	2.03	0.41
23:DB:1068:G:C6	23:DB:1069:A:N6	2.89	0.41
23:DB:1080:A:O2'	23:DB:1081:U:H5'	2.21	0.41
23:DB:1159:U:O2'	23:DB:1160:G:H5'	2.20	0.41
23:DB:1210:G:H4'	23:DB:1211:C:OP2	2.20	0.41
23:DB:1233:C:O2'	23:DB:1234:U:H5'	2.21	0.41
23:DB:1392:A:H2'	23:DB:1393:A:C8	2.56	0.41
23:DB:1409:U:O2'	23:DB:1410:G:H5'	2.21	0.41
23:DB:1463:C:H2'	23:DB:1464:G:H8	1.85	0.41
23:DB:1513:U:H2'	23:DB:1514:G:O4'	2.20	0.41
23:DB:1568:G:H4'	25:DC:58:LYS:HB3	2.03	0.41
23:DB:1573:G:H2'	23:DB:1574:C:H5'	2.02	0.41
23:DB:1689:A:O2'	23:DB:1690:A:H5'	2.20	0.41
23:DB:1736:U:H2'	23:DB:1737:G:O4'	2.21	0.41
23:DB:1824:G:O2'	23:DB:1825:U:H5'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:1862:G:O2'	23:DB:1863:G:H5'	2.21	0.41
23:DB:1902:C:H2'	23:DB:1903:G:O4'	2.19	0.41
23:DB:1914:C:O2'	23:DB:1915:U:H5'	2.21	0.41
23:DB:2081:U:H2'	23:DB:2082:A:C8	2.56	0.41
23:DB:2143:C:H3'	23:DB:2144:G:O4'	2.21	0.41
23:DB:2212:A:C8	23:DB:2214:C:N4	2.88	0.41
23:DB:2305:U:C5	28:DF:151:LEU:HA	2.56	0.41
23:DB:2393:U:H5''	33:DL:62:PRO:CG	2.44	0.41
23:DB:2455:G:H2'	23:DB:2456:C:H6	1.85	0.41
23:DB:2480:C:O2'	23:DB:2481:G:H5'	2.21	0.41
23:DB:2818:U:O5'	23:DB:2837:A:H1'	2.21	0.41
24:DV:1:MET:HE3	24:DV:2:PHE:CA	2.51	0.41
24:DV:29:ILE:HD12	24:DV:29:ILE:O	2.20	0.41
24:DV:42:LEU:HB2	24:DV:47:VAL:HG21	2.02	0.41
25:DC:72:GLY:O	25:DC:73:ILE:HD13	2.20	0.41
25:DC:115:ILE:O	25:DC:115:ILE:HG13	2.20	0.41
25:DC:146:LYS:CB	25:DC:147:PRO:HD2	2.32	0.41
25:DC:259:ASN:OD1	25:DC:261:ARG:HB3	2.21	0.41
26:DD:21:SER:HB2	32:DK:73:ASP:HA	2.02	0.41
26:DD:68:PHE:CB	26:DD:73:VAL:HG23	2.51	0.41
26:DD:151:THR:CB	26:DD:152:PRO:HD3	2.51	0.41
27:DE:136:GLN:O	27:DE:137:LYS:C	2.62	0.41
28:DF:46:LYS:HZ1	28:DF:83:PRO:HD2	1.86	0.41
29:DG:49:LEU:HG	29:DG:50:THR:H	1.86	0.41
29:DG:120:ILE:HD13	29:DG:120:ILE:C	2.46	0.41
30:DH:50:ARG:HG3	30:DH:54:LEU:HD11	2.03	0.41
31:DJ:6:ALA:CB	31:DJ:45:THR:HG21	2.46	0.41
31:DJ:25:LEU:HA	31:DJ:28:LEU:HD23	2.03	0.41
31:DJ:72:LYS:HB3	31:DJ:73:VAL:H	1.52	0.41
33:DL:81:ASP:HA	33:DL:84:LYS:CD	2.50	0.41
33:DL:93:ASN:O	33:DL:94:THR:C	2.64	0.41
33:DL:124:GLY:CA	33:DL:143:GLU:HG3	2.50	0.41
35:DN:104:ALA:C	35:DN:106:ASP:H	2.29	0.41
41:DT:27:SER:O	41:DT:28:ASN:CB	2.69	0.41
42:DU:21:ARG:HD3	42:DU:72:PHE:CG	2.56	0.41
43:DW:65:LYS:H	43:DW:84:GLU:HB3	1.86	0.41
46:DZ:36:HIS:HB3	46:DZ:38:PHE:CE2	2.56	0.41
50:D3:7:ARG:HG3	50:D3:7:ARG:NH1	2.36	0.41
1:AA:20:U:H2'	1:AA:21:G:O4'	2.21	0.41
1:AA:176:C:H3'	1:AA:177:G:N2	2.35	0.41
1:AA:270:A:H2'	1:AA:271:C:H6	1.82	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:334:C:H2'	1:AA:335:C:C6	2.56	0.41
1:AA:402:G:H5'	1:AA:621:A:H1'	2.02	0.41
1:AA:451:A:N6	1:AA:480:U:H2'	2.36	0.41
1:AA:1072:G:H2'	1:AA:1073:U:H6	1.85	0.41
1:AA:1176:A:H2'	1:AA:1177:G:O4'	2.21	0.41
3:AD:124:VAL:HA	3:AD:141:VAL:O	2.21	0.41
5:AF:97:THR:O	5:AF:98:GLU:O	2.38	0.41
8:AI:32:ARG:HH11	8:AI:37:TYR:HD1	1.69	0.41
9:AJ:14:ASP:OD1	9:AJ:17:LEU:HB2	2.20	0.41
10:AK:42:GLY:HA3	10:AK:73:VAL:HG13	2.02	0.41
12:AM:82:LEU:HD21	18:AS:64:GLU:OE1	2.20	0.41
14:AO:38:LEU:O	14:AO:39:GLN:C	2.64	0.41
15:AP:3:THR:CG2	15:AP:66:THR:HB	2.44	0.41
16:AQ:58:VAL:HB	16:AQ:74:LEU:CD2	2.51	0.41
21:AU:48:LYS:HG3	21:AU:49:ALA:N	2.34	0.41
23:BB:83:A:H2	23:BB:103:A:N7	2.19	0.41
23:BB:142:A:C8	23:BB:142:A:O5'	2.74	0.41
23:BB:345:A:N3	23:BB:346:A:N1	2.69	0.41
23:BB:729:G:H5''	23:BB:730:A:C5'	2.51	0.41
23:BB:940:G:H2'	23:BB:941:A:O4'	2.21	0.41
23:BB:1064:C:O2'	23:BB:1065:U:H5'	2.21	0.41
23:BB:1079:C:O2'	52:BI:133:ARG:NH2	2.53	0.41
23:BB:1392:A:H2'	23:BB:1393:A:C8	2.56	0.41
23:BB:1528:A:H2'	23:BB:1529:G:O4'	2.21	0.41
23:BB:1723:G:H2'	23:BB:1724:G:H5'	2.02	0.41
23:BB:1841:U:O2'	23:BB:1842:G:H5'	2.21	0.41
23:BB:1859:U:H2'	23:BB:1860:G:C8	2.56	0.41
23:BB:1889:A:H2'	23:BB:1890:A:C8	2.56	0.41
23:BB:2314:A:H2'	23:BB:2315:G:C8	2.56	0.41
23:BB:2317:A:C2'	23:BB:2318:G:H5'	2.51	0.41
25:BC:18:VAL:O	25:BC:18:VAL:HG22	2.21	0.41
25:BC:92:LEU:HD12	25:BC:101:ARG:O	2.21	0.41
25:BC:136:VAL:C	25:BC:138:SER:N	2.79	0.41
26:BD:54:ALA:HA	26:BD:76:GLY:N	2.36	0.41
26:BD:90:PHE:HD2	26:BD:94:GLN:HG3	1.86	0.41
26:BD:138:LEU:N	26:BD:138:LEU:HD22	2.36	0.41
27:BE:137:LYS:O	27:BE:141:MET:HG3	2.21	0.41
28:BF:83:PRO:C	28:BF:84:ILE:HD12	2.46	0.41
29:BG:154:GLU:C	29:BG:156:TYR:N	2.79	0.41
30:BH:26:ALA:O	30:BH:28:ASN:N	2.54	0.41
31:BJ:6:ALA:HB3	31:BJ:45:THR:CG2	2.48	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BJ:20:ALA:CB	31:BJ:23:LYS:HB2	2.45	0.41
31:BJ:45:THR:N	31:BJ:46:PRO:CD	2.84	0.41
32:BK:24:VAL:CG1	32:BK:33:ALA:HB2	2.51	0.41
33:BL:141:LYS:C	33:BL:142:ILE:HD12	2.45	0.41
34:BM:42:THR:H	34:BM:45:GLN:HB2	1.86	0.41
34:BM:63:ILE:HA	34:BM:104:GLU:O	2.20	0.41
37:BP:101:GLU:OE2	37:BP:101:GLU:N	2.54	0.41
37:BP:109:ILE:O	37:BP:109:ILE:HD12	2.21	0.41
38:BQ:73:ILE:HD11	38:BQ:77:LYS:HB3	2.03	0.41
40:BS:26:GLY:O	40:BS:28:LYS:N	2.53	0.41
45:BY:6:ILE:HA	45:BY:56:VAL:CG2	2.48	0.41
46:BZ:53:ALA:C	46:BZ:55:GLY:N	2.74	0.41
49:B2:10:LEU:HD11	49:B2:14:ARG:CZ	2.51	0.41
51:B4:2:LYS:CE	51:B4:4:ARG:HE	2.34	0.41
1:CA:51:A:H4'	1:CA:52:C:C5'	2.50	0.41
1:CA:159:G:N1	1:CA:163:C:N4	2.69	0.41
1:CA:178:C:O2'	1:CA:179:A:H5'	2.21	0.41
1:CA:242:G:H2'	1:CA:243:A:C5'	2.51	0.41
1:CA:332:G:O2'	1:CA:333:U:H5'	2.21	0.41
1:CA:742:G:H2'	1:CA:743:A:C8	2.52	0.41
1:CA:842:U:O2'	1:CA:846:G:N1	2.54	0.41
1:CA:878:A:H5''	7:CH:80:PRO:HG2	2.03	0.41
1:CA:1042:A:H2'	1:CA:1043:G:O4'	2.20	0.41
1:CA:1260:G:H4'	1:CA:1283:U:O2'	2.20	0.41
1:CA:1347:G:H8	8:CI:108:ARG:HB3	1.85	0.41
1:CA:1531:A:C2'	1:CA:1532:U:H5'	2.51	0.41
2:CC:99:GLN:O	2:CC:100:ILE:HB	2.21	0.41
2:CC:171:ARG:HH11	2:CC:171:ARG:CB	2.27	0.41
4:CE:105:ILE:HG12	4:CE:122:VAL:O	2.21	0.41
5:CF:81:ASN:OD1	5:CF:83:ALA:HB3	2.21	0.41
8:CI:56:MET:C	8:CI:58:GLU:H	2.26	0.41
10:CK:111:ASP:HB2	21:CU:19:LYS:CE	2.51	0.41
14:CO:31:LEU:O	14:CO:35:ILE:HG12	2.21	0.41
16:CQ:61:ARG:O	16:CQ:61:ARG:HD2	2.21	0.41
16:CQ:65:PRO:HA	16:CQ:71:SER:OG	2.21	0.41
16:CQ:68:LYS:C	16:CQ:70:LYS:H	2.29	0.41
16:CQ:75:VAL:CG2	16:CQ:76:ARG:N	2.83	0.41
22:DA:93:C:O2'	22:DA:94:A:H5'	2.21	0.41
23:DB:269:C:C2	23:DB:270:A:C8	3.09	0.41
23:DB:453:A:H1'	23:DB:457:A:O2'	2.21	0.41
23:DB:581:C:OP1	38:DQ:32:ARG:HG3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:585:G:H2'	23:DB:1251:C:H42	1.86	0.41
23:DB:678:C:H2'	23:DB:679:C:H6	1.86	0.41
23:DB:729:G:C5	25:DC:206:LYS:HB2	2.56	0.41
23:DB:1174:U:H2'	23:DB:1176:U:OP2	2.21	0.41
23:DB:1338:G:O2'	23:DB:1339:G:H5'	2.21	0.41
23:DB:1389:G:H2'	23:DB:1390:U:O4'	2.21	0.41
23:DB:1408:G:H2'	23:DB:1409:U:C6	2.56	0.41
23:DB:1900:A:N1	23:DB:1970:A:C6	2.89	0.41
23:DB:1911:U:O4	23:DB:1918:A:H2'	2.21	0.41
23:DB:1939:U:H5'	23:DB:1939:U:C6	2.49	0.41
23:DB:2082:A:N6	23:DB:2237:G:H1'	2.36	0.41
23:DB:2391:G:O6	23:DB:2427:C:H1'	2.21	0.41
23:DB:2590:A:O2'	23:DB:2591:C:H5'	2.21	0.41
23:DB:2776:A:H4'	23:DB:2777:G:C5'	2.51	0.41
25:DC:16:VAL:N	25:DC:203:VAL:HG12	2.33	0.41
25:DC:51:ARG:NH2	25:DC:246:PRO:HG2	2.36	0.41
25:DC:226:PRO:HG3	25:DC:233:GLY:N	2.24	0.41
26:DD:130:GLN:HE21	26:DD:130:GLN:HB3	1.74	0.41
27:DE:12:LEU:HD11	27:DE:14:VAL:HG13	2.02	0.41
27:DE:122:GLU:O	27:DE:123:LYS:HB2	2.20	0.41
29:DG:24:THR:CG2	29:DG:32:LEU:HD22	2.51	0.41
29:DG:101:VAL:HG12	29:DG:115:GLN:HB3	2.02	0.41
29:DG:167:VAL:HG23	29:DG:168:VAL:N	2.27	0.41
31:DJ:42:ALA:C	31:DJ:44:TYR:N	2.79	0.41
35:DN:49:GLU:N	35:DN:50:PRO:CD	2.83	0.41
37:DP:85:VAL:HG21	37:DP:88:ARG:NH1	2.29	0.41
41:DT:53:VAL:HG12	41:DT:54:GLU:N	2.36	0.41
47:D0:27:LEU:HD12	47:D0:27:LEU:H	1.85	0.41
50:D3:54:LEU:O	50:D3:55:GLY:C	2.63	0.41
1:AA:6:G:N3	1:AA:6:G:C3'	2.81	0.40
1:AA:56:U:H2'	1:AA:57:G:C8	2.54	0.40
1:AA:451:A:C1'	1:AA:452:A:C8	3.05	0.40
1:AA:681:A:H2'	1:AA:682:G:C8	2.56	0.40
1:AA:766:A:H2'	1:AA:767:A:O4'	2.21	0.40
1:AA:1073:U:H2'	1:AA:1074:G:C8	2.56	0.40
1:AA:1167:A:O2'	1:AA:1168:U:H2'	2.21	0.40
1:AA:1314:C:H2'	1:AA:1315:U:H6	1.85	0.40
1:AA:1317:C:O2'	13:AN:49:THR:HG23	2.21	0.40
3:AD:56:GLU:OE1	3:AD:195:ASN:HB2	2.21	0.40
4:AE:25:LYS:HG3	4:AE:26:GLY:N	2.36	0.40
6:AG:14:ASP:C	6:AG:16:LYS:H	2.28	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AG:92:PRO:HG2	6:AG:93:VAL:H	1.86	0.40
10:AK:74:LYS:C	10:AK:76:TYR:N	2.79	0.40
10:AK:111:ASP:HB3	21:AU:3:ILE:N	2.36	0.40
11:AL:16:ALA:C	11:AL:17:LYS:HZ1	2.29	0.40
12:AM:18:LEU:C	12:AM:20:SER:H	2.29	0.40
13:AN:20:PHE:C	13:AN:22:LYS:N	2.75	0.40
18:AS:4:LEU:HD22	18:AS:7:GLY:O	2.21	0.40
20:AB:50:ASN:O	20:AB:51:GLU:C	2.64	0.40
20:AB:77:GLU:O	20:AB:77:GLU:HG2	2.21	0.40
21:AU:33:ARG:NE	21:AU:34:ARG:HG3	2.36	0.40
22:BA:17:C:O2'	22:BA:18:G:H5'	2.21	0.40
22:BA:87:U:H2'	22:BA:88:C:O5'	2.21	0.40
23:BB:29:U:H2'	23:BB:30:G:C8	2.56	0.40
23:BB:53:A:H2'	23:BB:54:G:O4'	2.21	0.40
23:BB:116:C:O2'	23:BB:117:G:H5'	2.21	0.40
23:BB:317:G:H2'	23:BB:318:C:C6	2.55	0.40
23:BB:340:A:H2'	23:BB:341:C:O4'	2.21	0.40
23:BB:516:C:O2'	23:BB:517:C:H5'	2.21	0.40
23:BB:575:A:C2'	23:BB:576:U:H5'	2.51	0.40
23:BB:1878:G:H2'	23:BB:1879:C:O4'	2.22	0.40
23:BB:1999:C:H2'	23:BB:2000:C:O4'	2.21	0.40
23:BB:2013:A:H2'	23:BB:2014:A:H5'	2.04	0.40
23:BB:2098:U:O2'	23:BB:2099:U:H5'	2.21	0.40
23:BB:2282:G:H5'	23:BB:2389:G:H1'	2.03	0.40
23:BB:2306:C:O5'	23:BB:2306:C:H6	2.04	0.40
23:BB:2317:A:H2'	23:BB:2318:G:O4'	2.21	0.40
23:BB:2341:G:H2'	23:BB:2342:C:H6	1.85	0.40
23:BB:2345:G:H4'	23:BB:2346:A:O5'	2.21	0.40
23:BB:2838:G:H1'	35:BN:45:ARG:CZ	2.51	0.40
23:BB:2843:G:O2'	23:BB:2844:G:H5'	2.20	0.40
23:BB:2843:G:H2'	23:BB:2844:G:O4'	2.20	0.40
25:BC:137:GLY:N	25:BC:163:ILE:O	2.54	0.40
25:BC:246:PRO:HB2	25:BC:247:TRP:CZ3	2.57	0.40
26:BD:148:GLN:CB	26:BD:152:PRO:HG2	2.41	0.40
28:BF:35:LEU:HD12	28:BF:88:VAL:O	2.21	0.40
30:BH:103:VAL:HG21	30:BH:110:VAL:HG13	2.03	0.40
31:BJ:31:GLU:C	31:BJ:33:ALA:N	2.78	0.40
32:BK:71:ARG:HG3	32:BK:105:ARG:NH2	2.34	0.40
33:BL:65:GLY:O	33:BL:66:PHE:CB	2.69	0.40
33:BL:93:ASN:O	33:BL:94:THR:C	2.64	0.40
33:BL:111:ILE:HG22	33:BL:112:LEU:H	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BL:115:GLU:OE1	33:BL:115:GLU:N	2.54	0.40
34:BM:2:LEU:O	34:BM:69:PRO:HG3	2.21	0.40
34:BM:18:ARG:HA	34:BM:18:ARG:HD2	1.95	0.40
34:BM:45:GLN:C	34:BM:47:GLU:N	2.78	0.40
34:BM:65:ILE:C	34:BM:67:VAL:H	2.29	0.40
35:BN:48:VAL:O	35:BN:49:GLU:C	2.64	0.40
35:BN:96:ARG:CG	35:BN:98:LEU:HD13	2.51	0.40
36:BO:16:ARG:C	36:BO:18:LEU:H	2.28	0.40
37:BP:12:MET:HG2	37:BP:76:HIS:CD2	2.56	0.40
38:BQ:46:TYR:CE1	39:BR:76:LYS:HE3	2.56	0.40
41:BT:30:ILE:O	41:BT:85:VAL:HG23	2.21	0.40
41:BT:45:ALA:HA	41:BT:48:GLN:CB	2.51	0.40
48:B1:33:LEU:HD12	48:B1:34:GLU:H	1.86	0.40
50:B3:16:THR:C	50:B3:18:LYS:N	2.76	0.40
1:CA:33:A:O2'	1:CA:34:C:H5'	2.21	0.40
1:CA:78:A:O2'	1:CA:79:G:H5'	2.22	0.40
1:CA:107:G:O6	19:CT:9:ARG:HD3	2.21	0.40
1:CA:122:G:C2'	1:CA:123:U:H5'	2.52	0.40
1:CA:160:A:H2'	1:CA:161:A:C8	2.56	0.40
1:CA:340:U:O2'	1:CA:341:C:H5'	2.21	0.40
1:CA:450:G:H4'	15:CP:41:PRO:HB2	2.03	0.40
1:CA:451:A:C1'	1:CA:452:A:C8	3.04	0.40
1:CA:488:C:H2'	1:CA:489:C:H6	1.86	0.40
1:CA:584:G:H2'	1:CA:585:G:H8	1.85	0.40
1:CA:633:G:H2'	1:CA:634:C:C6	2.56	0.40
1:CA:648:A:O2'	1:CA:649:A:H5'	2.21	0.40
1:CA:660:C:H2'	1:CA:661:G:C8	2.57	0.40
1:CA:975:A:N1	9:CJ:50:THR:HB	2.36	0.40
1:CA:999:C:H2'	1:CA:1000:A:C8	2.57	0.40
1:CA:1058:G:H2'	1:CA:1059:C:H6	1.86	0.40
1:CA:1071:C:H2'	1:CA:1072:G:C8	2.51	0.40
1:CA:1225:A:H5''	1:CA:1226:C:C5	2.55	0.40
2:CC:106:ARG:HG2	2:CC:106:ARG:NH1	2.35	0.40
3:CD:25:ARG:HD3	3:CD:25:ARG:C	2.46	0.40
3:CD:97:LEU:HD13	3:CD:136:VAL:CG1	2.51	0.40
4:CE:74:ALA:C	4:CE:75:LEU:HD23	2.46	0.40
5:CF:81:ASN:O	5:CF:82:ASP:C	2.64	0.40
6:CG:16:LYS:HB3	6:CG:43:TYR:CE1	2.56	0.40
6:CG:100:MET:O	6:CG:104:VAL:HG23	2.21	0.40
7:CH:111:THR:O	7:CH:112:ASP:C	2.63	0.40
8:CI:44:ARG:O	8:CI:48:ARG:HG3	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CI:58:GLU:O	8:CI:59:LYS:HD2	2.20	0.40
8:CI:93:LEU:HD13	8:CI:97:LEU:CD1	2.46	0.40
10:CK:14:GLN:HA	10:CK:76:TYR:O	2.21	0.40
10:CK:101:ALA:C	10:CK:103:GLY:H	2.28	0.40
11:CL:23:LEU:O	11:CL:25:ALA:N	2.54	0.40
16:CQ:13:SER:HB3	16:CQ:21:VAL:CB	2.50	0.40
17:CR:28:LEU:C	17:CR:30:ASN:N	2.79	0.40
20:CB:114:LYS:O	20:CB:117:GLU:HB3	2.22	0.40
22:DA:14:U:C2'	22:DA:107:G:HO2'	2.33	0.40
23:DB:689:A:H2'	23:DB:690:G:C8	2.57	0.40
23:DB:957:C:N4	23:DB:2459:A:C8	2.88	0.40
23:DB:1029:A:H2'	23:DB:1030:C:O4'	2.21	0.40
23:DB:1159:U:H2'	23:DB:1160:G:H8	1.85	0.40
23:DB:1249:U:O4'	38:DQ:3:VAL:HG21	2.20	0.40
23:DB:1346:G:C6	23:DB:1601:G:C6	3.08	0.40
23:DB:1635:A:H2'	23:DB:1636:U:C5'	2.52	0.40
23:DB:1703:G:H2'	23:DB:1704:C:C6	2.56	0.40
23:DB:1742:U:O2'	23:DB:1743:G:H5'	2.21	0.40
23:DB:1777:U:O2'	23:DB:1778:U:H5'	2.21	0.40
23:DB:1798:U:OP1	25:DC:257:ARG:HB2	2.21	0.40
23:DB:1810:A:H2'	23:DB:1811:G:O4'	2.21	0.40
23:DB:2016:U:C4	23:DB:2017:U:C4	3.09	0.40
23:DB:2282:G:H5'	23:DB:2389:G:H1'	2.03	0.40
23:DB:2331:G:N2	23:DB:2385:C:C4	2.90	0.40
23:DB:2353:G:N3	43:DW:30:VAL:CG1	2.81	0.40
23:DB:2518:A:H5'	23:DB:2518:A:N3	2.36	0.40
23:DB:2684:U:O4'	32:DK:70:ARG:NH2	2.55	0.40
23:DB:2745:C:O3'	29:DG:141:GLY:HA3	2.21	0.40
23:DB:2846:G:OP1	37:DP:52:ARG:NH1	2.48	0.40
24:DV:1:MET:HE3	24:DV:2:PHE:CG	2.56	0.40
26:DD:54:ALA:HA	26:DD:76:GLY:N	2.35	0.40
26:DD:55:LYS:C	26:DD:57:ALA:H	2.29	0.40
26:DD:169:ARG:C	26:DD:170:VAL:HG13	2.46	0.40
28:DF:94:ARG:HD3	28:DF:97:GLU:OE2	2.21	0.40
29:DG:8:VAL:HG11	29:DG:49:LEU:C	2.46	0.40
29:DG:152:ARG:HG3	29:DG:153:PRO:CD	2.50	0.40
31:DJ:20:ALA:HB2	31:DJ:28:LEU:HD22	2.02	0.40
31:DJ:33:ALA:O	31:DJ:34:ARG:C	2.63	0.40
31:DJ:58:ASN:O	31:DJ:59:ALA:HB3	2.21	0.40
32:DK:111:LYS:N	32:DK:111:LYS:HD3	2.36	0.40
34:DM:2:LEU:O	34:DM:69:PRO:HG3	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DN:9:GLN:C	35:DN:17:ARG:HD3	2.47	0.40
36:DO:93:ASP:C	36:DO:95:SER:N	2.77	0.40
37:DP:6:GLN:CA	37:DP:9:GLN:HG2	2.48	0.40
38:DQ:47:ARG:O	38:DQ:51:GLN:HG3	2.21	0.40
47:D0:25:THR:O	47:D0:26:SER:HB3	2.21	0.40
52:DI:5:GLN:O	52:DI:6:ALA:CB	2.68	0.40
52:DI:112:LYS:HB2	52:DI:116:MET:SD	2.61	0.40
1:AA:126:G:H4'	1:AA:634:C:O2	2.22	0.40
1:AA:264:C:H2'	1:AA:265:G:O4'	2.22	0.40
1:AA:327:A:O2'	1:AA:329:A:H5''	2.21	0.40
1:AA:585:G:O3'	16:AQ:35:LYS:NZ	2.54	0.40
1:AA:665:A:H2'	1:AA:725:G:N2	2.36	0.40
1:AA:883:C:O2'	1:AA:884:U:H5'	2.20	0.40
1:AA:1096:C:O2'	1:AA:1097:C:H5'	2.20	0.40
1:AA:1288:A:H2'	1:AA:1289:A:O4'	2.21	0.40
1:AA:1308:U:H3'	12:AM:97:ARG:NH1	2.36	0.40
1:AA:1313:U:H6	1:AA:1313:U:O5'	2.04	0.40
2:AC:31:ASN:ND2	2:AC:58:ARG:NE	2.69	0.40
2:AC:174:LEU:O	2:AC:174:LEU:HD23	2.21	0.40
3:AD:196:GLU:HG3	3:AD:197:HIS:N	2.36	0.40
6:AG:107:ALA:O	6:AG:118:ARG:HB3	2.22	0.40
7:AH:57:GLU:HG3	7:AH:58:LEU:H	1.86	0.40
13:AN:63:CYS:HB3	13:AN:68:ARG:H	1.86	0.40
14:AO:77:TYR:O	14:AO:81:ILE:HG13	2.21	0.40
15:AP:75:ILE:H	15:AP:75:ILE:HG13	1.73	0.40
16:AQ:66:LEU:HB2	16:AQ:70:LYS:HG2	2.04	0.40
18:AS:12:LEU:O	18:AS:16:LYS:HE2	2.21	0.40
20:AB:71:THR:HG21	20:AB:94:ARG:H	1.85	0.40
21:AU:16:ARG:CZ	21:AU:19:LYS:HD3	2.51	0.40
22:BA:2:G:H2'	22:BA:2:G:N3	2.37	0.40
23:BB:65:U:C2	23:BB:66:C:C5	3.09	0.40
23:BB:137:U:H2'	41:BT:1:MET:H2	1.86	0.40
23:BB:139:U:OP1	23:BB:139:U:H2'	2.21	0.40
23:BB:169:G:O2'	23:BB:170:U:H5'	2.21	0.40
23:BB:858:G:C2	23:BB:2268:A:C4	3.08	0.40
23:BB:864:G:O2'	23:BB:865:C:H5'	2.21	0.40
23:BB:999:U:O2'	23:BB:1000:A:H5'	2.21	0.40
23:BB:1165:A:O2'	23:BB:1166:G:H5'	2.22	0.40
23:BB:1190:G:O2'	23:BB:1191:G:H5'	2.21	0.40
23:BB:1280:G:C2'	23:BB:1281:G:H5'	2.51	0.40
23:BB:1513:U:H2'	23:BB:1514:G:O4'	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:2143:C:H6	23:BB:2143:C:O5'	2.04	0.40
23:BB:2199:A:O2'	46:BZ:36:HIS:CE1	2.74	0.40
23:BB:2248:C:C2'	23:BB:2249:U:H5'	2.52	0.40
23:BB:2415:G:H4'	33:BL:66:PHE:HB2	2.03	0.40
23:BB:2580:U:H3'	23:BB:2581:G:C2	2.57	0.40
23:BB:2591:C:O2'	23:BB:2592:G:H5'	2.20	0.40
23:BB:2667:C:H1'	29:BG:108:PHE:HD2	1.87	0.40
23:BB:2758:A:H2'	23:BB:2759:G:H5'	2.03	0.40
25:BC:63:ILE:HD13	25:BC:63:ILE:HA	1.79	0.40
27:BE:21:ARG:HG3	27:BE:22:ASP:O	2.22	0.40
27:BE:129:PRO:HG3	27:BE:156:ASN:OD1	2.21	0.40
28:BF:3:LEU:HB2	28:BF:100:GLU:OE1	2.21	0.40
28:BF:108:PRO:O	28:BF:110:ILE:HG23	2.22	0.40
31:BJ:29:ALA:O	31:BJ:32:LEU:HB2	2.21	0.40
32:BK:10:VAL:CG2	32:BK:16:ALA:HA	2.52	0.40
32:BK:31:ARG:HG3	32:BK:31:ARG:HH11	1.85	0.40
36:BO:52:SER:C	36:BO:54:VAL:N	2.79	0.40
38:BQ:85:ALA:O	38:BQ:86:SER:C	2.63	0.40
39:BR:6:GLN:C	39:BR:6:GLN:NE2	2.80	0.40
41:BT:20:ALA:O	41:BT:21:SER:C	2.63	0.40
42:BU:54:PRO:HG2	42:BU:55:GLY:H	1.87	0.40
43:BW:17:ALA:CA	43:BW:35:ILE:HG23	2.46	0.40
51:B4:1:MET:SD	51:B4:36:ARG:HG3	2.61	0.40
51:B4:18:LYS:HE3	51:B4:21:GLY:HA2	2.02	0.40
51:B4:22:VAL:O	51:B4:24:ARG:HG3	2.21	0.40
52:BI:73:PRO:HA	52:BI:74:PRO:HD3	1.99	0.40
52:BI:79:LEU:HD11	52:BI:131:THR:OG1	2.20	0.40
1:CA:303:A:H1'	1:CA:555:U:HO2'	1.86	0.40
1:CA:360:G:O2'	1:CA:361:G:H5'	2.22	0.40
1:CA:537:G:H2'	1:CA:538:G:C8	2.55	0.40
1:CA:789:U:H2'	1:CA:791:G:OP2	2.20	0.40
1:CA:1080:A:H5''	4:CE:20:VAL:HG11	2.03	0.40
1:CA:1211:U:H5'	1:CA:1212:U:H5'	2.03	0.40
1:CA:1296:C:H5''	1:CA:1302:C:H42	1.86	0.40
1:CA:1493:A:H1'	54:CA:2062:HYG:H362	1.86	0.40
1:CA:1520:C:H2'	1:CA:1521:C:C6	2.57	0.40
2:CC:46:LEU:HB3	2:CC:49:ALA:HB3	2.03	0.40
3:CD:97:LEU:HA	3:CD:100:VAL:CG2	2.51	0.40
3:CD:117:VAL:HA	3:CD:122:ILE:HG12	2.03	0.40
4:CE:25:LYS:HG3	4:CE:26:GLY:N	2.36	0.40
4:CE:104:ILE:HG13	4:CE:122:VAL:HG23	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CF:55:HIS:CD2	5:CF:56:LYS:HE3	2.57	0.40
6:CG:3:ARG:NH1	6:CG:3:ARG:HG3	2.36	0.40
8:CI:48:ARG:HA	8:CI:51:LEU:HD12	2.03	0.40
11:CL:56:LEU:HD12	11:CL:60:PHE:HB2	2.04	0.40
11:CL:73:LEU:HD21	11:CL:103:CYS:CB	2.50	0.40
12:CM:22:TYR:N	12:CM:22:TYR:CD2	2.88	0.40
12:CM:102:LYS:HB2	12:CM:102:LYS:NZ	2.37	0.40
14:CO:69:LEU:HD12	14:CO:77:TYR:HB2	2.01	0.40
15:CP:22:ALA:HA	15:CP:33:ILE:HG13	2.03	0.40
17:CR:61:ALA:HB3	17:CR:67:LEU:HD12	2.04	0.40
20:CB:48:MET:SD	20:CB:200:PRO:HD2	2.61	0.40
20:CB:168:GLU:O	20:CB:169:HIS:C	2.63	0.40
21:CU:42:THR:O	21:CU:45:LYS:N	2.54	0.40
22:DA:47:C:H5'	22:DA:48:U:OP2	2.21	0.40
22:DA:63:C:H2'	22:DA:64:G:H8	1.86	0.40
23:DB:126:A:H5'	49:D2:19:ARG:HB2	2.03	0.40
23:DB:613:A:H4'	23:DB:614:A:OP2	2.21	0.40
23:DB:666:A:O2'	23:DB:667:U:H5'	2.21	0.40
23:DB:818:G:H4'	23:DB:838:C:O3'	2.22	0.40
23:DB:1076:C:H2'	23:DB:1077:A:C8	2.57	0.40
23:DB:1076:C:H2'	23:DB:1077:A:H8	1.86	0.40
23:DB:1870:C:H2'	23:DB:1871:A:C8	2.56	0.40
23:DB:2026:U:C2	23:DB:2027:G:C8	3.08	0.40
23:DB:2027:G:C6	23:DB:2028:U:C4	3.09	0.40
23:DB:2252:G:H2'	23:DB:2253:G:C8	2.56	0.40
23:DB:2376:A:O2'	36:DO:111:ARG:NH2	2.54	0.40
23:DB:2515:C:O2'	23:DB:2516:A:H5'	2.20	0.40
23:DB:2536:G:H2'	23:DB:2537:U:O4'	2.22	0.40
23:DB:2579:C:H6	23:DB:2579:C:O5'	2.04	0.40
23:DB:2699:C:H2'	23:DB:2700:A:C8	2.56	0.40
23:DB:2772:C:H4'	26:DD:171:THR:CG2	2.51	0.40
23:DB:2848:G:N2	23:DB:2867:G:C2	2.89	0.40
25:DC:254:LYS:HB3	25:DC:255:LYS:H	1.72	0.40
26:DD:2:ILE:H	26:DD:2:ILE:HG13	1.69	0.40
28:DF:137:PHE:O	28:DF:139:GLU:N	2.55	0.40
30:DH:57:LYS:O	30:DH:61:VAL:N	2.50	0.40
30:DH:108:VAL:HG12	30:DH:110:VAL:HG12	2.03	0.40
31:DJ:64:VAL:HG22	31:DJ:68:LYS:CD	2.50	0.40
32:DK:7:MET:HE3	32:DK:18:ARG:HB3	2.02	0.40
33:DL:74:THR:HA	33:DL:107:PHE:O	2.21	0.40
34:DM:71:LYS:HB3	34:DM:93:VAL:O	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DP:101:GLU:OE2	37:DP:101:GLU:N	2.53	0.40
39:DR:49:ILE:HG22	39:DR:54:VAL:HB	2.02	0.40
39:DR:54:VAL:O	39:DR:55:ASP:C	2.64	0.40
40:DS:36:LEU:HD22	40:DS:36:LEU:N	2.33	0.40
41:DT:45:ALA:HA	41:DT:48:GLN:CB	2.50	0.40
42:DU:65:GLN:H	42:DU:65:GLN:HG2	1.54	0.40
46:DZ:54:LYS:C	46:DZ:56:MET:N	2.75	0.40
46:DZ:56:MET:C	46:DZ:58:VAL:N	2.77	0.40
46:DZ:76:GLU:HG3	46:DZ:77:LYS:N	2.36	0.40
49:D2:21:ARG:HD3	49:D2:43:THR:HG21	2.04	0.40
51:D4:7:VAL:HG23	51:D4:35:GLN:CB	2.51	0.40
1:AA:81:A:OP2	1:AA:81:A:O4'	2.39	0.40
1:AA:105:G:H2'	1:AA:106:C:C6	2.57	0.40
1:AA:116:A:O5'	1:AA:116:A:H8	2.04	0.40
1:AA:123:U:H2'	1:AA:124:C:C6	2.57	0.40
1:AA:191:G:H2'	1:AA:192:A:C8	2.57	0.40
1:AA:201:G:O2'	1:AA:202:G:H5'	2.22	0.40
1:AA:201:G:H2'	1:AA:202:G:C8	2.56	0.40
1:AA:818:G:H3'	1:AA:819:A:H5''	2.04	0.40
1:AA:880:C:H2'	1:AA:881:G:H8	1.85	0.40
1:AA:1033:G:H2'	1:AA:1034:G:H5''	2.03	0.40
1:AA:1067:A:H4'	1:AA:1068:G:O5'	2.21	0.40
3:AD:121:ALA:C	3:AD:122:ILE:HD13	2.45	0.40
3:AD:195:ASN:HD22	3:AD:195:ASN:HA	1.57	0.40
4:AE:105:ILE:HG12	4:AE:122:VAL:O	2.21	0.40
5:AF:81:ASN:O	5:AF:82:ASP:C	2.65	0.40
8:AI:29:ILE:HG12	8:AI:64:ILE:HD13	2.03	0.40
13:AN:30:ILE:CG2	13:AN:44:VAL:HG21	2.49	0.40
14:AO:57:ARG:CZ	14:AO:61:GLN:HE22	2.34	0.40
14:AO:69:LEU:HD12	14:AO:77:TYR:HB2	2.03	0.40
16:AQ:13:SER:HB3	16:AQ:21:VAL:CB	2.49	0.40
16:AQ:22:VAL:O	16:AQ:42:LYS:HA	2.22	0.40
18:AS:77:ARG:HE	18:AS:77:ARG:HB3	1.64	0.40
20:AB:8:MET:HE3	20:AB:11:ALA:HB3	2.02	0.40
20:AB:26:MET:HG3	20:AB:188:THR:O	2.21	0.40
20:AB:68:PHE:HD1	20:AB:89:PHE:O	2.05	0.40
21:AU:42:THR:O	21:AU:45:LYS:N	2.55	0.40
23:BB:548:G:C8	23:BB:548:G:OP2	2.74	0.40
23:BB:580:U:O3'	38:BQ:30:VAL:HG13	2.21	0.40
23:BB:711:G:O2'	23:BB:712:G:H5'	2.22	0.40
23:BB:755:U:H2'	23:BB:756:A:H8	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:783:A:H4'	23:BB:1779:U:O2	2.22	0.40
23:BB:858:G:H21	23:BB:2268:A:C3'	2.29	0.40
23:BB:1179:G:C2'	23:BB:1180:U:H5'	2.51	0.40
23:BB:1390:U:O2'	23:BB:1391:U:H5'	2.21	0.40
23:BB:1446:C:H2'	23:BB:1447:C:C6	2.56	0.40
23:BB:1616:A:H4'	23:BB:1617:C:OP2	2.22	0.40
23:BB:1688:U:O2	23:BB:1700:A:H8	2.05	0.40
23:BB:1992:G:N2	23:BB:1996:C:O2'	2.54	0.40
23:BB:1997:C:OP2	26:BD:129:THR:HB	2.21	0.40
23:BB:2387:U:H1'	43:BW:38:ARG:CZ	2.52	0.40
23:BB:2437:G:H2'	23:BB:2438:U:C6	2.57	0.40
23:BB:2622:U:O2'	23:BB:2825:G:N7	2.54	0.40
23:BB:2769:U:O2'	23:BB:2770:G:H5'	2.21	0.40
23:BB:2840:C:OP1	35:BN:50:PRO:HA	2.21	0.40
25:BC:34:GLU:HG3	25:BC:34:GLU:O	2.22	0.40
27:BE:173:THR:C	27:BE:175:ILE:N	2.80	0.40
28:BF:8:LYS:HA	28:BF:12:VAL:CG2	2.46	0.40
28:BF:139:GLU:OE2	28:BF:142:TYR:HA	2.20	0.40
29:BG:106:LEU:N	29:BG:106:LEU:HD23	2.37	0.40
29:BG:149:ALA:C	29:BG:151:ARG:H	2.29	0.40
32:BK:72:PRO:C	32:BK:74:GLY:N	2.78	0.40
32:BK:105:ARG:CD	32:BK:105:ARG:N	2.84	0.40
34:BM:38:ARG:HG3	34:BM:98:PRO:HD3	2.02	0.40
34:BM:61:GLY:HA2	34:BM:107:GLY:HA3	2.04	0.40
35:BN:21:PHE:HA	35:BN:24:MET:HB2	2.04	0.40
35:BN:49:GLU:HA	35:BN:94:TYR:CD2	2.55	0.40
36:BO:36:TYR:HA	36:BO:52:SER:CB	2.51	0.40
40:BS:49:LYS:HA	40:BS:52:GLU:HG2	2.04	0.40
41:BT:12:ARG:CG	44:BX:29:ARG:HH12	2.33	0.40
41:BT:89:GLU:C	41:BT:91:GLN:H	2.29	0.40
42:BU:21:ARG:HD3	42:BU:72:PHE:CB	2.51	0.40
43:BW:18:LYS:CA	43:BW:36:ILE:HG12	2.38	0.40
47:B0:18:HIS:N	47:B0:18:HIS:ND1	2.70	0.40
48:B1:10:LEU:HD23	48:B1:35:LEU:HD21	2.03	0.40
49:B2:8:SER:O	49:B2:9:VAL:C	2.64	0.40
49:B2:32:ALA:HA	49:B2:35:ARG:HB2	2.03	0.40
49:B2:36:ALA:C	49:B2:38:GLY:N	2.79	0.40
50:B3:54:LEU:O	50:B3:55:GLY:C	2.64	0.40
52:BI:49:GLU:OE1	52:BI:52:LEU:HD22	2.21	0.40
1:CA:176:C:H3'	1:CA:177:G:N2	2.35	0.40
1:CA:549:C:H2'	1:CA:550:G:H8	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:625:U:H4'	15:CP:16:PHE:CE1	2.56	0.40
1:CA:668:G:O2'	1:CA:669:G:H5'	2.22	0.40
1:CA:812:G:O2'	1:CA:813:U:C6	2.56	0.40
1:CA:930:C:H2'	1:CA:931:C:C6	2.56	0.40
1:CA:994:A:C5	1:CA:1216:A:H4'	2.56	0.40
1:CA:1176:A:H2'	1:CA:1177:G:O4'	2.22	0.40
1:CA:1220:G:O3'	18:CS:35:ARG:HD2	2.20	0.40
1:CA:1238:A:C2	1:CA:1241:G:N3	2.88	0.40
1:CA:1271:A:H5'	1:CA:1314:C:C5'	2.49	0.40
1:CA:1324:A:H4'	1:CA:1363:A:OP1	2.22	0.40
1:CA:1329:A:H5''	12:CM:24:VAL:HA	2.03	0.40
1:CA:1489:G:H2'	1:CA:1490:U:C6	2.55	0.40
3:CD:81:LEU:O	3:CD:82:LYS:C	2.65	0.40
3:CD:196:GLU:HG3	3:CD:197:HIS:N	2.35	0.40
4:CE:84:VAL:CG1	4:CE:146:MET:HB3	2.49	0.40
6:CG:92:PRO:HG2	6:CG:93:VAL:H	1.86	0.40
7:CH:74:ILE:CG1	7:CH:128:VAL:HG22	2.47	0.40
8:CI:44:ARG:HB3	8:CI:48:ARG:NH2	2.36	0.40
9:CJ:8:ILE:HB	9:CJ:74:VAL:HB	2.02	0.40
9:CJ:26:VAL:HG12	9:CJ:30:LYS:HG3	2.04	0.40
10:CK:51:PHE:O	10:CK:51:PHE:HD1	2.04	0.40
10:CK:107:THR:HB	10:CK:108:ASN:OD1	2.20	0.40
11:CL:33:CYS:H	11:CL:54:VAL:CG1	2.33	0.40
11:CL:73:LEU:HD21	11:CL:103:CYS:HB2	2.04	0.40
12:CM:85:TYR:HA	12:CM:88:LEU:CD1	2.52	0.40
14:CO:3:SER:O	14:CO:4:THR:C	2.64	0.40
15:CP:28:ARG:C	15:CP:30:GLY:H	2.29	0.40
16:CQ:58:VAL:HB	16:CQ:74:LEU:CD2	2.51	0.40
16:CQ:59:GLU:HG3	16:CQ:78:VAL:HG21	2.02	0.40
18:CS:40:PHE:C	18:CS:43:MET:HG3	2.46	0.40
22:DA:3:C:H2'	22:DA:4:C:H6	1.85	0.40
22:DA:42:C:O2'	28:DF:91:ARG:NH1	2.54	0.40
22:DA:49:C:OP1	36:DO:101:GLY:HA3	2.22	0.40
23:DB:689:A:H2'	23:DB:690:G:H8	1.86	0.40
23:DB:760:G:H2'	23:DB:761:A:O4'	2.21	0.40
23:DB:1126:A:H4'	23:DB:1127:A:H5''	2.03	0.40
23:DB:1204:A:N1	23:DB:1241:A:C2	2.89	0.40
23:DB:1420:A:C2'	23:DB:2211:A:H62	2.15	0.40
23:DB:1805:A:H5''	25:DC:247:TRP:CE2	2.55	0.40
23:DB:1933:G:H2'	23:DB:1934:C:H6	1.86	0.40
23:DB:2142:A:H2'	23:DB:2143:C:O4'	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:2484:G:O2'	23:DB:2485:G:H5'	2.21	0.40
23:DB:2846:G:H2'	23:DB:2847:U:O4'	2.21	0.40
25:DC:4:LYS:HE3	25:DC:13:ARG:O	2.22	0.40
25:DC:20:ASN:O	25:DC:23:LEU:HB2	2.22	0.40
25:DC:86:ARG:HB3	25:DC:86:ARG:NH1	2.36	0.40
26:DD:98:VAL:C	26:DD:100:LEU:N	2.78	0.40
27:DE:29:HIS:O	27:DE:32:VAL:HG22	2.21	0.40
29:DG:39:ALA:HB2	29:DG:57:TYR:CD2	2.57	0.40
30:DH:38:PRO:O	30:DH:40:THR:HG23	2.22	0.40
31:DJ:25:LEU:HB2	31:DJ:62:VAL:HG21	2.02	0.40
32:DK:60:ALA:CB	32:DK:86:LEU:HA	2.51	0.40
32:DK:86:LEU:H	32:DK:86:LEU:CD2	2.23	0.40
34:DM:42:THR:H	34:DM:45:GLN:HB2	1.87	0.40
37:DP:61:ARG:HE	37:DP:100:ARG:HD2	1.87	0.40
37:DP:109:ILE:H	37:DP:109:ILE:HG13	1.67	0.40
39:DR:7:SER:HA	39:DR:22:LEU:HD13	2.02	0.40
39:DR:101:ILE:HG22	39:DR:101:ILE:O	2.22	0.40
43:DW:61:LYS:O	43:DW:62:ALA:C	2.64	0.40
46:DZ:40:VAL:HG22	46:DZ:45:ARG:N	2.36	0.40
47:D0:27:LEU:HB2	47:D0:28:SER:H	1.65	0.40
48:D1:22:THR:OG1	48:D1:23:THR:N	2.53	0.40
50:D3:31:ILE:CG1	50:D3:35:LYS:HE3	2.51	0.40
1:AA:78:A:H8	1:AA:78:A:O5'	2.03	0.40
1:AA:140:U:H2'	1:AA:141:G:H8	1.86	0.40
1:AA:177:G:N3	1:AA:177:G:O4'	2.54	0.40
1:AA:430:A:P	3:AD:6:PRO:HA	2.61	0.40
1:AA:761:G:O2'	1:AA:762:U:H5'	2.21	0.40
1:AA:832:G:H2'	1:AA:833:G:H8	1.86	0.40
1:AA:1107:C:C4	1:AA:1108:G:N7	2.89	0.40
1:AA:1336:C:O4'	1:AA:1337:G:C2	2.74	0.40
2:AC:18:ASN:HB2	13:AN:90:GLY:HA3	2.04	0.40
4:AE:94:PHE:O	4:AE:124:ALA:HB1	2.22	0.40
6:AG:10:LYS:HB2	6:AG:10:LYS:NZ	2.35	0.40
6:AG:147:ASN:CA	10:AK:55:ARG:HH21	2.35	0.40
9:AJ:71:LEU:H	9:AJ:71:LEU:HD23	1.87	0.40
12:AM:22:TYR:N	12:AM:22:TYR:CD2	2.88	0.40
16:AQ:32:ILE:HG23	16:AQ:33:TYR:CD2	2.56	0.40
17:AR:61:ALA:HB3	17:AR:67:LEU:HD12	2.02	0.40
18:AS:20:LYS:O	18:AS:20:LYS:HD2	2.20	0.40
18:AS:33:TRP:CE3	18:AS:33:TRP:N	2.90	0.40
20:AB:168:GLU:O	20:AB:169:HIS:C	2.64	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:28:A:O2'	23:BB:29:U:H5'	2.20	0.40
23:BB:459:U:O2'	23:BB:460:A:H5'	2.21	0.40
23:BB:719:C:O2'	23:BB:720:U:H5'	2.20	0.40
23:BB:981:A:H4'	23:BB:2037:A:H5'	2.03	0.40
23:BB:996:A:H4'	38:BQ:91:ARG:CD	2.43	0.40
23:BB:1295:C:H2'	23:BB:1296:G:C8	2.56	0.40
23:BB:1316:U:H2'	23:BB:1317:G:C8	2.57	0.40
23:BB:1495:A:H2'	23:BB:1496:A:H8	1.85	0.40
23:BB:2027:G:C2	23:BB:2028:U:C2	3.09	0.40
23:BB:2104:C:H3'	23:BB:2104:C:H6	1.87	0.40
23:BB:2208:C:O2'	23:BB:2209:G:H5'	2.21	0.40
23:BB:2525:G:C2	23:BB:2539:C:C2	3.10	0.40
23:BB:2818:U:O5'	23:BB:2837:A:H1'	2.21	0.40
26:BD:118:PHE:HE2	35:BN:1:MET:SD	2.44	0.40
27:BE:78:TRP:O	27:BE:79:ARG:C	2.63	0.40
27:BE:102:ARG:HG3	27:BE:102:ARG:NH2	2.36	0.40
28:BF:42:ALA:O	28:BF:45:ASP:N	2.48	0.40
30:BH:48:GLU:CG	30:BH:49:ALA:N	2.84	0.40
31:BJ:20:ALA:CB	31:BJ:28:LEU:HD22	2.51	0.40
31:BJ:36:LEU:CD1	31:BJ:121:LYS:HE3	2.50	0.40
31:BJ:42:ALA:C	31:BJ:44:TYR:N	2.80	0.40
31:BJ:44:TYR:C	31:BJ:44:TYR:HD2	2.28	0.40
33:BL:50:PHE:O	33:BL:52:GLY:N	2.54	0.40
34:BM:17:ASN:HB3	34:BM:38:ARG:NH1	2.36	0.40
35:BN:106:ASP:C	35:BN:108:ALA:N	2.78	0.40
36:BO:6:ALA:HB3	36:BO:10:ARG:HH11	1.86	0.40
36:BO:100:HIS:ND1	36:BO:101:GLY:N	2.69	0.40
41:BT:68:LYS:HE3	41:BT:68:LYS:HB2	1.79	0.40
42:BU:19:GLY:O	42:BU:20:LYS:HD3	2.22	0.40
42:BU:32:LYS:H	42:BU:32:LYS:HD3	1.87	0.40
46:BZ:5:CYS:HB3	46:BZ:10:LYS:N	2.36	0.40
46:BZ:19:SER:O	46:BZ:20:HIS:C	2.64	0.40
50:B3:20:GLY:HA3	50:B3:48:MET:HE3	2.04	0.40
52:BI:14:ALA:HA	52:BI:45:THR:HG21	2.02	0.40
52:BI:27:LEU:HB2	52:BI:32:VAL:HG21	2.02	0.40
1:CA:95:C:O2	1:CA:95:C:C2'	2.69	0.40
1:CA:120:A:C2'	1:CA:121:U:H5''	2.40	0.40
1:CA:144:G:H2'	1:CA:145:G:O4'	2.22	0.40
1:CA:618:C:N3	1:CA:622:A:N6	2.64	0.40
1:CA:926:G:H5'	1:CA:927:G:C5'	2.51	0.40
1:CA:1148:U:O4'	8:CI:17:ARG:HD3	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1256:A:O4'	1:CA:1278:G:N2	2.54	0.40
1:CA:1320:C:H41	18:CS:36:ARG:CG	2.30	0.40
1:CA:1514:G:H2'	1:CA:1515:G:C8	2.55	0.40
4:CE:33:THR:HB	4:CE:49:TYR:CE1	2.57	0.40
8:CI:54:VAL:HG21	8:CI:86:LEU:HD21	2.03	0.40
10:CK:18:GLY:HA2	10:CK:36:ARG:NH1	2.37	0.40
11:CL:56:LEU:HG	11:CL:60:PHE:O	2.21	0.40
12:CM:88:LEU:O	12:CM:92:ARG:HG3	2.22	0.40
16:CQ:11:VAL:HG13	16:CQ:20:ILE:CG2	2.52	0.40
18:CS:4:LEU:HD22	18:CS:7:GLY:O	2.21	0.40
21:CU:48:LYS:C	21:CU:50:SER:H	2.30	0.40
22:DA:43:C:C1'	28:DF:91:ARG:HD2	2.51	0.40
23:DB:63:A:C8	23:DB:63:A:OP2	2.69	0.40
23:DB:122:G:O2'	23:DB:123:G:H5'	2.21	0.40
23:DB:130:C:O2'	23:DB:131:A:H5'	2.21	0.40
23:DB:329:G:N2	42:DU:16:LYS:HE3	2.29	0.40
23:DB:483:A:N7	23:DB:497:A:H2	2.19	0.40
23:DB:673:C:C2'	23:DB:674:G:H5'	2.52	0.40
23:DB:726:G:H5''	23:DB:1432:G:O2'	2.22	0.40
23:DB:960:A:C4'	23:DB:2457:U:H4'	2.51	0.40
23:DB:1022:G:N2	23:DB:1142:A:N1	2.69	0.40
23:DB:1459:G:N3	23:DB:1459:G:O5'	2.54	0.40
23:DB:1702:G:H2'	23:DB:1703:G:O4'	2.21	0.40
23:DB:1829:A:H3'	23:DB:1830:C:H6	1.87	0.40
23:DB:2305:U:H1'	28:DF:132:ARG:HA	2.03	0.40
23:DB:2582:G:O2'	23:DB:2583:G:H5'	2.22	0.40
24:DV:5:ASN:O	24:DV:6:ALA:HB2	2.22	0.40
24:DV:80:HIS:HA	24:DV:81:PRO:HD3	1.96	0.40
27:DE:34:ALA:CB	27:DE:96:VAL:HG21	2.51	0.40
27:DE:162:ARG:C	27:DE:164:LEU:H	2.28	0.40
28:DF:74:ALA:CB	28:DF:78:ILE:HD13	2.51	0.40
28:DF:120:SER:OG	28:DF:129:MET:HB3	2.22	0.40
30:DH:14:SER:O	30:DH:16:GLY:N	2.54	0.40
31:DJ:45:THR:N	31:DJ:46:PRO:CD	2.83	0.40
31:DJ:77:HIS:HD2	31:DJ:83:GLY:HA3	1.87	0.40
35:DN:99:LYS:O	47:D0:41:HIS:HB2	2.21	0.40
37:DP:50:ARG:O	37:DP:51:ASN:HB2	2.22	0.40
38:DQ:3:VAL:CG1	38:DQ:4:LYS:N	2.84	0.40
38:DQ:79:ILE:HD13	38:DQ:79:ILE:C	2.46	0.40
40:DS:26:GLY:O	40:DS:28:LYS:N	2.54	0.40
41:DT:62:VAL:HG12	41:DT:63:VAL:N	2.37	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DT:87:LEU:HB2	41:DT:91:GLN:HG2	2.02	0.40
44:DX:7:ARG:HD2	44:DX:7:ARG:HA	1.84	0.40
44:DX:22:LEU:O	44:DX:24:GLU:N	2.52	0.40
52:DI:14:ALA:HB3	52:DI:51:GLY:H	1.87	0.40
1:AA:7:A:H2'	4:AE:123:LEU:HB2	2.03	0.40
1:AA:58:C:O2'	1:AA:388:G:N7	2.49	0.40
1:AA:80:A:OP2	1:AA:81:A:N7	2.54	0.40
1:AA:242:G:H2'	1:AA:243:A:C5'	2.52	0.40
1:AA:375:U:O2'	1:AA:376:G:H5'	2.22	0.40
1:AA:448:A:H2'	1:AA:449:G:H8	1.85	0.40
1:AA:977:A:H1'	1:AA:982:U:O4	2.21	0.40
1:AA:1053:G:C6	1:AA:1199:U:H2'	2.57	0.40
1:AA:1058:G:H2'	1:AA:1059:C:H6	1.87	0.40
1:AA:1147:C:H4'	8:AI:6:TYR:CE1	2.56	0.40
1:AA:1386:G:O2'	1:AA:1387:G:H5'	2.21	0.40
3:AD:89:LEU:HD22	3:AD:199:ILE:HD11	2.04	0.40
4:AE:25:LYS:HG3	4:AE:26:GLY:H	1.87	0.40
4:AE:71:ILE:HD12	4:AE:73:VAL:CG2	2.52	0.40
5:AF:41:ASP:C	5:AF:43:GLY:H	2.29	0.40
6:AG:14:ASP:OD2	6:AG:22:LEU:HD22	2.22	0.40
7:AH:24:VAL:CG1	7:AH:60:LEU:HB3	2.52	0.40
7:AH:80:PRO:C	7:AH:82:LEU:N	2.77	0.40
8:AI:24:ASN:O	8:AI:60:LEU:N	2.55	0.40
8:AI:42:THR:O	8:AI:45:MET:HG2	2.22	0.40
9:AJ:71:LEU:O	9:AJ:72:ARG:HD3	2.22	0.40
12:AM:29:SER:HA	12:AM:32:ILE:HG22	2.04	0.40
13:AN:46:LYS:HA	13:AN:46:LYS:HD3	1.87	0.40
14:AO:31:LEU:O	14:AO:35:ILE:HG12	2.21	0.40
14:AO:81:ILE:HG23	14:AO:86:LEU:HB2	2.04	0.40
16:AQ:11:VAL:HG13	16:AQ:20:ILE:CG2	2.52	0.40
16:AQ:30:HIS:HE1	16:AQ:32:ILE:HG22	1.78	0.40
16:AQ:40:THR:HG22	16:AQ:41:THR:N	2.36	0.40
16:AQ:43:LEU:HD12	16:AQ:43:LEU:N	2.37	0.40
17:AR:28:LEU:C	17:AR:30:ASN:N	2.80	0.40
20:AB:10:LYS:C	20:AB:12:GLY:N	2.79	0.40
22:BA:7:G:H5''	36:BO:29:HIS:CD2	2.57	0.40
23:BB:78:U:H2'	23:BB:79:C:H6	1.83	0.40
23:BB:275:C:H2'	23:BB:276:U:O4'	2.21	0.40
23:BB:324:A:H61	23:BB:338:G:C2'	2.35	0.40
23:BB:374:A:N6	23:BB:400:G:H1'	2.36	0.40
23:BB:667:U:H2'	23:BB:668:A:O4'	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:821:A:H2'	23:BB:946:C:O4'	2.21	0.40
23:BB:1063:G:O2'	23:BB:1064:C:H5'	2.22	0.40
23:BB:1068:G:C6	23:BB:1069:A:N6	2.89	0.40
23:BB:1180:U:H2'	23:BB:1181:U:C6	2.56	0.40
23:BB:1210:G:H5'	23:BB:1212:G:C5'	2.50	0.40
23:BB:1539:U:O2	23:BB:1539:U:H2'	2.19	0.40
23:BB:1654:A:O2'	23:BB:1655:A:H5'	2.22	0.40
23:BB:1923:U:H2'	23:BB:1924:C:C5	2.56	0.40
23:BB:2033:A:H1'	23:BB:2035:G:OP2	2.22	0.40
23:BB:2049:G:N2	26:BD:161:MET:HE2	2.36	0.40
23:BB:2438:U:O3'	23:BB:2439:A:H3'	2.22	0.40
23:BB:2719:G:O2'	23:BB:2846:G:H4'	2.21	0.40
23:BB:2737:G:H2'	23:BB:2738:A:H8	1.85	0.40
23:BB:2824:C:C4	23:BB:2825:G:C5	3.10	0.40
24:BV:83:LYS:HA	24:BV:84:PRO:HD3	1.93	0.40
25:BC:115:ILE:O	25:BC:115:ILE:HG13	2.21	0.40
26:BD:2:ILE:H	26:BD:2:ILE:HG13	1.69	0.40
26:BD:38:LYS:HB3	26:BD:43:ASP:CG	2.46	0.40
26:BD:109:VAL:HG11	26:BD:193:VAL:CG1	2.51	0.40
27:BE:29:HIS:CA	27:BE:32:VAL:HG22	2.52	0.40
28:BF:55:ASP:O	28:BF:58:ALA:HB3	2.21	0.40
30:BH:39:ALA:C	30:BH:41:LYS:H	2.29	0.40
30:BH:103:VAL:CG2	30:BH:109:GLU:HA	2.52	0.40
33:BL:111:ILE:CG2	33:BL:112:LEU:N	2.85	0.40
34:BM:120:ALA:C	34:BM:122:ALA:N	2.79	0.40
35:BN:44:LEU:O	35:BN:48:VAL:HG23	2.22	0.40
35:BN:96:ARG:HG3	35:BN:98:LEU:HD13	2.04	0.40
36:BO:29:HIS:HB3	36:BO:36:TYR:HB2	2.03	0.40
36:BO:35:ILE:HD11	36:BO:102:ARG:NE	2.36	0.40
38:BQ:15:LYS:C	38:BQ:15:LYS:HD2	2.47	0.40
39:BR:51:VAL:O	39:BR:52:PRO:C	2.63	0.40
41:BT:45:ALA:HA	41:BT:48:GLN:CG	2.51	0.40
45:BY:2:LYS:H	45:BY:2:LYS:CD	2.30	0.40
45:BY:51:SER:HA	45:BY:54:VAL:CG2	2.52	0.40
48:B1:10:LEU:HB3	48:B1:48:TYR:HB3	2.04	0.40
48:B1:33:LEU:CB	48:B1:51:ALA:HB3	2.44	0.40
50:B3:51:LYS:HD2	50:B3:54:LEU:HD22	2.04	0.40
1:CA:105:G:H2'	1:CA:106:C:C6	2.56	0.40
1:CA:261:U:OP2	19:CT:70:LYS:HE2	2.21	0.40
1:CA:423:G:N3	1:CA:423:G:H3'	2.37	0.40
1:CA:469:C:O2'	1:CA:470:C:H5'	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1388:C:O2'	1:CA:1389:C:H5'	2.21	0.40
2:CC:134:LYS:HA	2:CC:167:TYR:CE2	2.56	0.40
4:CE:110:MET:O	4:CE:113:VAL:HG22	2.22	0.40
9:CJ:71:LEU:H	9:CJ:71:LEU:HD23	1.87	0.40
10:CK:34:THR:HA	10:CK:41:LEU:CG	2.50	0.40
13:CN:78:LEU:HD23	13:CN:82:LYS:HB3	2.02	0.40
14:CO:77:TYR:CZ	14:CO:81:ILE:HD11	2.56	0.40
15:CP:43:ALA:HB1	15:CP:46:LYS:HE3	2.03	0.40
15:CP:71:VAL:HG13	15:CP:72:ALA:N	2.37	0.40
18:CS:2:ARG:NE	18:CS:2:ARG:CA	2.85	0.40
19:CT:20:ASN:O	19:CT:24:ARG:HB2	2.22	0.40
20:CB:184:ALA:HB3	20:CB:195:VAL:HG21	2.03	0.40
20:CB:185:ILE:HA	20:CB:199:ILE:O	2.20	0.40
20:CB:218:ALA:O	20:CB:222:GLU:N	2.53	0.40
22:DA:87:U:H2'	22:DA:88:C:O5'	2.21	0.40
23:DB:78:U:H2'	23:DB:79:C:H6	1.84	0.40
23:DB:182:A:H1'	23:DB:434:U:H5'	2.02	0.40
23:DB:584:C:OP1	38:DQ:5:ARG:CB	2.70	0.40
23:DB:656:G:H2'	23:DB:657:U:O4'	2.22	0.40
23:DB:821:A:H2'	23:DB:946:C:O4'	2.22	0.40
23:DB:901:C:H3'	23:DB:902:C:H6	1.87	0.40
23:DB:1328:A:H2'	23:DB:1330:C:C4	2.56	0.40
23:DB:1437:C:O2'	23:DB:1516:G:H4'	2.21	0.40
23:DB:1481:U:H2'	23:DB:1482:G:H4'	2.03	0.40
23:DB:1710:G:H2'	23:DB:1711:A:C8	2.57	0.40
23:DB:1797:G:C6	23:DB:1823:G:C6	3.09	0.40
23:DB:1843:C:O2'	23:DB:1844:C:H5'	2.21	0.40
23:DB:1859:U:H2'	23:DB:1860:G:C8	2.57	0.40
23:DB:1998:A:H2'	23:DB:1999:C:C6	2.56	0.40
23:DB:2255:G:H2'	23:DB:2256:G:O4'	2.22	0.40
23:DB:2314:A:H2'	23:DB:2315:G:C8	2.56	0.40
23:DB:2379:G:H5'	36:DO:21:LEU:HD21	2.03	0.40
24:DV:51:GLN:C	24:DV:53:LYS:H	2.29	0.40
25:DC:184:GLU:O	25:DC:185:ALA:HB3	2.21	0.40
27:DE:102:ARG:O	27:DE:106:LYS:HG3	2.21	0.40
29:DG:145:ALA:O	29:DG:148:ARG:HG3	2.20	0.40
30:DH:67:ALA:O	30:DH:68:ARG:C	2.64	0.40
30:DH:117:LEU:HD13	30:DH:130:VAL:HG22	2.03	0.40
33:DL:70:LYS:C	33:DL:72:ALA:N	2.79	0.40
34:DM:59:ARG:CZ	34:DM:60:GLN:HB3	2.52	0.40
35:DN:52:ILE:HB	35:DN:94:TYR:CD2	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DN:96:ARG:CG	35:DN:98:LEU:HD13	2.52	0.40
37:DP:62:LYS:HB3	37:DP:69:VAL:CG2	2.51	0.40
46:DZ:30:LEU:HA	46:DZ:31:PRO:HD3	1.95	0.40
52:DI:45:THR:O	52:DI:48:ILE:HG22	2.21	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	AC	204/232 (88%)	147 (72%)	40 (20%)	17 (8%)	0	7
2	CC	204/232 (88%)	148 (72%)	40 (20%)	16 (8%)	1	8
3	AD	203/205 (99%)	136 (67%)	52 (26%)	15 (7%)	1	9
3	CD	203/205 (99%)	134 (66%)	54 (27%)	15 (7%)	1	9
4	AE	148/166 (89%)	117 (79%)	27 (18%)	4 (3%)	4	27
4	CE	148/166 (89%)	117 (79%)	25 (17%)	6 (4%)	2	19
5	AF	98/135 (73%)	66 (67%)	21 (21%)	11 (11%)	0	5
5	CF	98/135 (73%)	67 (68%)	21 (21%)	10 (10%)	0	6
6	AG	148/178 (83%)	122 (82%)	18 (12%)	8 (5%)	1	14
6	CG	150/178 (84%)	124 (83%)	20 (13%)	6 (4%)	2	19
7	AH	127/129 (98%)	92 (72%)	26 (20%)	9 (7%)	1	10
7	CH	127/129 (98%)	90 (71%)	28 (22%)	9 (7%)	1	10
8	AI	125/129 (97%)	88 (70%)	29 (23%)	8 (6%)	1	11
8	CI	125/129 (97%)	88 (70%)	29 (23%)	8 (6%)	1	11
9	AJ	96/103 (93%)	69 (72%)	17 (18%)	10 (10%)	0	5
9	CJ	96/103 (93%)	68 (71%)	18 (19%)	10 (10%)	0	5

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
10	AK	115/128 (90%)	81 (70%)	26 (23%)	8 (7%)	1	10
10	CK	115/128 (90%)	80 (70%)	27 (24%)	8 (7%)	1	10
11	AL	121/123 (98%)	78 (64%)	29 (24%)	14 (12%)	0	4
11	CL	121/123 (98%)	79 (65%)	28 (23%)	14 (12%)	0	4
12	AM	112/117 (96%)	72 (64%)	36 (32%)	4 (4%)	2	22
12	CM	111/117 (95%)	69 (62%)	38 (34%)	4 (4%)	2	22
13	AN	92/100 (92%)	57 (62%)	25 (27%)	10 (11%)	0	5
13	CN	92/100 (92%)	56 (61%)	26 (28%)	10 (11%)	0	5
14	AO	86/89 (97%)	65 (76%)	16 (19%)	5 (6%)	1	13
14	CO	86/89 (97%)	65 (76%)	16 (19%)	5 (6%)	1	13
15	AP	80/82 (98%)	56 (70%)	15 (19%)	9 (11%)	0	5
15	CP	78/82 (95%)	53 (68%)	15 (19%)	10 (13%)	0	3
16	AQ	78/83 (94%)	56 (72%)	17 (22%)	5 (6%)	1	11
16	CQ	79/83 (95%)	56 (71%)	17 (22%)	6 (8%)	1	8
17	AR	53/74 (72%)	41 (77%)	10 (19%)	2 (4%)	2	20
17	CR	53/74 (72%)	41 (77%)	10 (19%)	2 (4%)	2	20
18	AS	77/91 (85%)	58 (75%)	17 (22%)	2 (3%)	4	27
18	CS	78/91 (86%)	58 (74%)	18 (23%)	2 (3%)	4	27
19	AT	83/86 (96%)	59 (71%)	19 (23%)	5 (6%)	1	12
19	CT	83/86 (96%)	59 (71%)	19 (23%)	5 (6%)	1	12
20	AB	216/240 (90%)	143 (66%)	53 (24%)	20 (9%)	0	6
20	CB	216/240 (90%)	148 (68%)	46 (21%)	22 (10%)	0	6
21	AU	49/71 (69%)	28 (57%)	14 (29%)	7 (14%)	0	3
21	CU	49/71 (69%)	28 (57%)	14 (29%)	7 (14%)	0	3
24	BV	92/94 (98%)	63 (68%)	23 (25%)	6 (6%)	1	11
24	DV	92/94 (98%)	62 (67%)	24 (26%)	6 (6%)	1	11
25	BC	269/273 (98%)	158 (59%)	65 (24%)	46 (17%)	0	2
25	DC	269/273 (98%)	158 (59%)	65 (24%)	46 (17%)	0	2
26	BD	207/209 (99%)	121 (58%)	56 (27%)	30 (14%)	0	3
26	DD	207/209 (99%)	123 (59%)	52 (25%)	32 (16%)	0	2
27	BE	199/201 (99%)	120 (60%)	56 (28%)	23 (12%)	0	4

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
27	DE	199/201 (99%)	120 (60%)	56 (28%)	23 (12%)	0	4
28	BF	176/178 (99%)	103 (58%)	39 (22%)	34 (19%)	0	1
28	DF	176/178 (99%)	101 (57%)	41 (23%)	34 (19%)	0	1
29	BG	174/176 (99%)	105 (60%)	37 (21%)	32 (18%)	0	1
29	DG	174/176 (99%)	105 (60%)	36 (21%)	33 (19%)	0	1
30	BH	147/149 (99%)	68 (46%)	43 (29%)	36 (24%)	0	0
30	DH	147/149 (99%)	88 (60%)	32 (22%)	27 (18%)	0	1
31	BJ	140/142 (99%)	85 (61%)	39 (28%)	16 (11%)	0	5
31	DJ	140/142 (99%)	83 (59%)	40 (29%)	17 (12%)	0	4
32	BK	119/123 (97%)	70 (59%)	28 (24%)	21 (18%)	0	1
32	DK	119/123 (97%)	69 (58%)	27 (23%)	23 (19%)	0	1
33	BL	141/144 (98%)	75 (53%)	40 (28%)	26 (18%)	0	1
33	DL	141/144 (98%)	75 (53%)	40 (28%)	26 (18%)	0	1
34	BM	134/136 (98%)	77 (58%)	38 (28%)	19 (14%)	0	3
34	DM	134/136 (98%)	78 (58%)	35 (26%)	21 (16%)	0	2
35	BN	118/127 (93%)	73 (62%)	33 (28%)	12 (10%)	0	6
35	DN	118/127 (93%)	73 (62%)	32 (27%)	13 (11%)	0	5
36	BO	114/117 (97%)	83 (73%)	21 (18%)	10 (9%)	0	7
36	DO	114/117 (97%)	83 (73%)	20 (18%)	11 (10%)	0	6
37	BP	112/114 (98%)	59 (53%)	35 (31%)	18 (16%)	0	2
37	DP	112/114 (98%)	58 (52%)	36 (32%)	18 (16%)	0	2
38	BQ	115/117 (98%)	79 (69%)	27 (24%)	9 (8%)	1	8
38	DQ	115/117 (98%)	75 (65%)	32 (28%)	8 (7%)	1	10
39	BR	101/103 (98%)	60 (59%)	31 (31%)	10 (10%)	0	6
39	DR	101/103 (98%)	61 (60%)	29 (29%)	11 (11%)	0	5
40	BS	108/110 (98%)	75 (69%)	21 (19%)	12 (11%)	0	5
40	DS	108/110 (98%)	75 (69%)	20 (18%)	13 (12%)	0	4
41	BT	91/100 (91%)	47 (52%)	25 (28%)	19 (21%)	0	1
41	DT	91/100 (91%)	47 (52%)	23 (25%)	21 (23%)	0	0
42	BU	100/103 (97%)	53 (53%)	35 (35%)	12 (12%)	0	4
42	DU	100/103 (97%)	51 (51%)	35 (35%)	14 (14%)	0	3

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
43	BW	77/84 (92%)	29 (38%)	23 (30%)	25 (32%)	0	0
43	DW	77/84 (92%)	29 (38%)	22 (29%)	26 (34%)	0	0
44	BX	61/63 (97%)	37 (61%)	14 (23%)	10 (16%)	0	2
44	DX	61/63 (97%)	37 (61%)	14 (23%)	10 (16%)	0	2
45	BY	56/58 (97%)	40 (71%)	11 (20%)	5 (9%)	0	7
45	DY	56/58 (97%)	40 (71%)	11 (20%)	5 (9%)	0	7
46	BZ	75/78 (96%)	47 (63%)	20 (27%)	8 (11%)	0	5
46	DZ	75/78 (96%)	48 (64%)	19 (25%)	8 (11%)	0	5
47	B0	54/56 (96%)	33 (61%)	16 (30%)	5 (9%)	0	6
47	D0	54/56 (96%)	33 (61%)	16 (30%)	5 (9%)	0	6
48	B1	48/54 (89%)	34 (71%)	12 (25%)	2 (4%)	2	19
48	D1	48/54 (89%)	34 (71%)	12 (25%)	2 (4%)	2	19
49	B2	44/46 (96%)	31 (70%)	9 (20%)	4 (9%)	0	7
49	D2	44/46 (96%)	30 (68%)	8 (18%)	6 (14%)	0	3
50	B3	62/64 (97%)	41 (66%)	15 (24%)	6 (10%)	0	6
50	D3	62/64 (97%)	42 (68%)	14 (23%)	6 (10%)	0	6
51	B4	36/38 (95%)	21 (58%)	10 (28%)	5 (14%)	0	3
51	D4	36/38 (95%)	21 (58%)	9 (25%)	6 (17%)	0	2
52	BI	139/141 (99%)	119 (86%)	16 (12%)	4 (3%)	3	26
52	DI	139/141 (99%)	115 (83%)	19 (14%)	5 (4%)	2	22
All	All	11241/11918 (94%)	7279 (65%)	2673 (24%)	1289 (12%)	0	5

All (1289) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AC	112	ALA
2	AC	180	ASP
2	AC	205	GLU
4	AE	20	VAL
5	AF	98	GLU
6	AG	6	ILE
6	AG	14	ASP
8	AI	127	SER
9	AJ	36	VAL
9	AJ	57	VAL

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Mol	Chain	Res	Type
10	AK	126	ARG
11	AL	13	ARG
11	AL	38	THR
11	AL	121	PRO
13	AN	50	LEU
14	AO	73	ASP
15	AP	44	SER
16	AQ	32	ILE
20	AB	22	TRP
20	AB	58	LYS
20	AB	94	ARG
20	AB	188	THR
25	BC	18	VAL
25	BC	53	ILE
25	BC	107	LYS
25	BC	109	LEU
25	BC	123	ILE
26	BD	9	VAL
26	BD	74	GLU
26	BD	93	GLY
26	BD	106	LYS
26	BD	112	THR
26	BD	118	PHE
26	BD	122	VAL
26	BD	169	ARG
26	BD	170	VAL
26	BD	172	VAL
27	BE	7	ASP
27	BE	62	GLN
27	BE	69	ARG
27	BE	79	ARG
27	BE	167	VAL
28	BF	32	LYS
28	BF	43	ILE
28	BF	77	LYS
28	BF	78	ILE
28	BF	92	GLY
28	BF	112	ASP
28	BF	135	ILE
28	BF	138	PRO
28	BF	140	ILE
28	BF	148	VAL

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Mol	Chain	Res	Type
29	BG	9	VAL
29	BG	85	LYS
29	BG	91	VAL
29	BG	94	ARG
29	BG	117	PRO
29	BG	125	PRO
30	BH	3	VAL
30	BH	8	LYS
30	BH	10	ALA
30	BH	31	VAL
30	BH	32	PRO
30	BH	33	GLN
30	BH	60	GLU
30	BH	62	LEU
30	BH	65	ALA
30	BH	69	ALA
30	BH	125	THR
31	BJ	4	PHE
31	BJ	44	TYR
31	BJ	45	THR
31	BJ	73	VAL
32	BK	18	ARG
32	BK	31	ARG
32	BK	35	VAL
32	BK	89	ASN
32	BK	92	GLU
32	BK	119	ALA
32	BK	120	PRO
33	BL	36	LYS
33	BL	81	ASP
33	BL	89	VAL
33	BL	94	THR
33	BL	111	ILE
33	BL	116	VAL
34	BM	30	SER
34	BM	78	LEU
35	BN	11	ASN
35	BN	58	ASP
35	BN	82	GLU
35	BN	116	VAL
35	BN	117	ASP
36	BO	56	LYS

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Mol	Chain	Res	Type
37	BP	20	ARG
37	BP	25	VAL
37	BP	50	ARG
37	BP	75	THR
37	BP	100	ARG
39	BR	7	SER
39	BR	70	GLU
40	BS	3	THR
40	BS	27	LYS
40	BS	42	LYS
40	BS	59	GLU
40	BS	61	ASN
41	BT	16	VAL
41	BT	39	THR
41	BT	58	VAL
41	BT	77	ARG
41	BT	88	LYS
42	BU	6	ARG
42	BU	38	ILE
42	BU	49	PRO
42	BU	50	ALA
43	BW	30	VAL
43	BW	36	ILE
43	BW	50	VAL
43	BW	59	PHE
43	BW	60	ALA
43	BW	62	ALA
44	BX	2	LYS
45	BY	56	VAL
46	BZ	33	LEU
47	B0	42	ILE
47	B0	48	TYR
49	B2	44	VAL
52	BI	18	ASN
2	CC	112	ALA
2	CC	180	ASP
2	CC	205	GLU
4	CE	20	VAL
5	CF	41	ASP
5	CF	98	GLU
6	CG	14	ASP
8	CI	127	SER

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Mol	Chain	Res	Type
9	CJ	36	VAL
9	CJ	57	VAL
10	CK	126	ARG
11	CL	13	ARG
11	CL	38	THR
11	CL	121	PRO
13	CN	50	LEU
14	CO	73	ASP
15	CP	44	SER
16	CQ	32	ILE
16	CQ	82	VAL
20	CB	22	TRP
20	CB	58	LYS
20	CB	94	ARG
20	CB	188	THR
21	CU	23	GLU
25	DC	18	VAL
25	DC	53	ILE
25	DC	107	LYS
25	DC	109	LEU
25	DC	123	ILE
25	DC	162	GLN
26	DD	9	VAL
26	DD	74	GLU
26	DD	106	LYS
26	DD	112	THR
26	DD	118	PHE
26	DD	122	VAL
26	DD	169	ARG
26	DD	170	VAL
26	DD	172	VAL
27	DE	7	ASP
27	DE	62	GLN
27	DE	69	ARG
27	DE	79	ARG
27	DE	167	VAL
28	DF	32	LYS
28	DF	43	ILE
28	DF	77	LYS
28	DF	78	ILE
28	DF	80	GLN
28	DF	92	GLY

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Mol	Chain	Res	Type
28	DF	112	ASP
28	DF	135	ILE
28	DF	138	PRO
28	DF	140	ILE
28	DF	148	VAL
29	DG	9	VAL
29	DG	85	LYS
29	DG	91	VAL
29	DG	94	ARG
29	DG	117	PRO
29	DG	125	PRO
30	DH	3	VAL
30	DH	8	LYS
30	DH	10	ALA
30	DH	31	VAL
30	DH	32	PRO
30	DH	33	GLN
30	DH	86	ASP
30	DH	121	VAL
31	DJ	4	PHE
31	DJ	44	TYR
31	DJ	45	THR
31	DJ	73	VAL
32	DK	18	ARG
32	DK	31	ARG
32	DK	35	VAL
32	DK	89	ASN
32	DK	92	GLU
32	DK	119	ALA
32	DK	120	PRO
33	DL	36	LYS
33	DL	81	ASP
33	DL	89	VAL
33	DL	94	THR
33	DL	111	ILE
33	DL	116	VAL
34	DM	30	SER
34	DM	78	LEU
35	DN	11	ASN
35	DN	58	ASP
35	DN	82	GLU
35	DN	116	VAL

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Mol	Chain	Res	Type
35	DN	117	ASP
36	DO	56	LYS
37	DP	25	VAL
37	DP	50	ARG
37	DP	75	THR
37	DP	100	ARG
39	DR	7	SER
39	DR	70	GLU
40	DS	3	THR
40	DS	27	LYS
40	DS	42	LYS
40	DS	59	GLU
40	DS	61	ASN
41	DT	16	VAL
41	DT	39	THR
41	DT	58	VAL
41	DT	77	ARG
41	DT	88	LYS
42	DU	6	ARG
42	DU	38	ILE
42	DU	49	PRO
42	DU	50	ALA
42	DU	85	ARG
43	DW	30	VAL
43	DW	36	ILE
43	DW	50	VAL
43	DW	59	PHE
43	DW	60	ALA
43	DW	62	ALA
43	DW	70	VAL
44	DX	2	LYS
45	DY	2	LYS
45	DY	56	VAL
46	DZ	33	LEU
47	D0	42	ILE
47	D0	48	TYR
49	D2	44	VAL
52	DI	5	GLN
52	DI	18	ASN
2	AC	14	VAL
2	AC	59	PRO
2	AC	100	ILE

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Mol	Chain	Res	Type
2	AC	153	SER
3	AD	107	GLY
3	AD	191	SER
3	AD	192	ALA
5	AF	41	ASP
5	AF	92	THR
6	AG	5	VAL
7	AH	2	MET
7	AH	66	GLN
7	AH	70	VAL
7	AH	82	LEU
7	AH	114	ALA
8	AI	8	THR
9	AJ	74	VAL
9	AJ	75	ASP
10	AK	124	LYS
11	AL	14	LYS
11	AL	42	LYS
11	AL	61	GLU
11	AL	117	GLY
12	AM	3	ILE
12	AM	47	LEU
12	AM	104	ASN
13	AN	2	LYS
13	AN	70	HIS
13	AN	71	GLY
14	AO	17	ASP
15	AP	52	LEU
16	AQ	81	ALA
19	AT	41	GLY
19	AT	65	LEU
20	AB	14	HIS
20	AB	19	THR
20	AB	121	GLN
20	AB	150	ILE
21	AU	23	GLU
21	AU	25	ALA
21	AU	34	ARG
21	AU	35	GLU
24	BV	25	LYS
25	BC	3	VAL
25	BC	93	VAL

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Mol	Chain	Res	Type
25	BC	135	PRO
25	BC	140	VAL
25	BC	142	ASN
25	BC	151	GLY
25	BC	162	GLN
25	BC	222	THR
25	BC	232	GLY
25	BC	239	PHE
26	BD	24	VAL
26	BD	107	VAL
26	BD	119	ALA
26	BD	121	THR
26	BD	136	ASN
26	BD	184	ARG
26	BD	197	THR
27	BE	42	GLY
27	BE	45	ALA
27	BE	165	HIS
28	BF	11	VAL
28	BF	36	ASN
28	BF	80	GLN
28	BF	141	ASP
28	BF	149	ARG
29	BG	2	ARG
29	BG	32	LEU
29	BG	84	LYS
29	BG	89	VAL
29	BG	92	GLY
29	BG	107	GLY
30	BH	52	ALA
30	BH	59	ALA
30	BH	130	VAL
31	BJ	5	THR
31	BJ	41	LYS
31	BJ	43	GLU
31	BJ	81	ILE
31	BJ	124	VAL
31	BJ	129	GLU
32	BK	108	ARG
32	BK	113	MET
33	BL	3	LEU
33	BL	5	THR

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Mol	Chain	Res	Type
33	BL	28	GLY
33	BL	29	LYS
33	BL	51	GLU
33	BL	52	GLY
33	BL	93	ASN
33	BL	113	ALA
34	BM	20	LEU
34	BM	36	VAL
34	BM	59	ARG
34	BM	69	PRO
34	BM	79	ALA
35	BN	89	SER
35	BN	100	CYS
35	BN	101	GLY
36	BO	57	ALA
36	BO	79	ALA
36	BO	107	ALA
37	BP	32	VAL
37	BP	84	SER
37	BP	101	GLU
37	BP	108	ARG
38	BQ	87	VAL
38	BQ	91	ARG
39	BR	42	ALA
39	BR	49	ILE
39	BR	100	GLY
40	BS	25	ARG
40	BS	96	ILE
40	BS	109	ASP
41	BT	28	ASN
41	BT	35	ALA
41	BT	38	ALA
41	BT	69	ARG
42	BU	12	VAL
42	BU	85	ARG
42	BU	92	VAL
43	BW	12	GLY
43	BW	14	ASP
43	BW	23	LYS
43	BW	40	ARG
43	BW	61	LYS
43	BW	70	VAL

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Mol	Chain	Res	Type
43	BW	76	ARG
43	BW	77	LYS
44	BX	10	SER
44	BX	36	GLN
45	BY	2	LYS
46	BZ	3	ARG
46	BZ	77	LYS
47	B0	51	ARG
48	B1	4	ILE
49	B2	42	LEU
50	B3	31	ILE
52	BI	14	ALA
52	BI	23	VAL
52	BI	64	ARG
2	CC	14	VAL
2	CC	59	PRO
2	CC	100	ILE
3	CD	26	ALA
3	CD	107	GLY
3	CD	168	THR
3	CD	189	ASP
3	CD	191	SER
3	CD	192	ALA
5	CF	51	ILE
5	CF	92	THR
7	CH	2	MET
7	CH	66	GLN
7	CH	70	VAL
7	CH	82	LEU
8	CI	8	THR
9	CJ	74	VAL
9	CJ	75	ASP
10	CK	124	LYS
11	CL	14	LYS
11	CL	42	LYS
11	CL	61	GLU
11	CL	117	GLY
12	CM	3	ILE
12	CM	47	LEU
12	CM	104	ASN
13	CN	2	LYS
13	CN	70	HIS

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Mol	Chain	Res	Type
13	CN	71	GLY
14	CO	17	ASP
15	CP	52	LEU
16	CQ	81	ALA
17	CR	20	ILE
19	CT	65	LEU
20	CB	14	HIS
20	CB	19	THR
20	CB	121	GLN
20	CB	128	LEU
20	CB	131	LYS
20	CB	150	ILE
21	CU	25	ALA
21	CU	26	GLY
21	CU	34	ARG
21	CU	35	GLU
24	DV	25	LYS
25	DC	3	VAL
25	DC	52	HIS
25	DC	93	VAL
25	DC	135	PRO
25	DC	140	VAL
25	DC	142	ASN
25	DC	151	GLY
25	DC	222	THR
25	DC	232	GLY
25	DC	239	PHE
26	DD	24	VAL
26	DD	93	GLY
26	DD	107	VAL
26	DD	119	ALA
26	DD	121	THR
26	DD	136	ASN
26	DD	184	ARG
26	DD	197	THR
27	DE	42	GLY
27	DE	45	ALA
27	DE	165	HIS
28	DF	11	VAL
28	DF	36	ASN
28	DF	141	ASP
28	DF	142	TYR

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Mol	Chain	Res	Type
28	DF	149	ARG
29	DG	2	ARG
29	DG	84	LYS
29	DG	89	VAL
29	DG	92	GLY
29	DG	107	GLY
29	DG	170	THR
30	DH	40	THR
30	DH	96	THR
30	DH	102	ALA
30	DH	106	ALA
30	DH	109	GLU
30	DH	110	VAL
30	DH	113	SER
30	DH	148	ALA
31	DJ	5	THR
31	DJ	41	LYS
31	DJ	43	GLU
31	DJ	81	ILE
31	DJ	124	VAL
31	DJ	129	GLU
32	DK	108	ARG
32	DK	110	GLU
32	DK	113	MET
33	DL	3	LEU
33	DL	4	ASN
33	DL	5	THR
33	DL	28	GLY
33	DL	29	LYS
33	DL	51	GLU
33	DL	52	GLY
33	DL	93	ASN
33	DL	113	ALA
34	DM	20	LEU
34	DM	36	VAL
34	DM	59	ARG
34	DM	69	PRO
34	DM	79	ALA
34	DM	134	THR
35	DN	10	LEU
35	DN	89	SER
35	DN	100	CYS

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Mol	Chain	Res	Type
35	DN	101	GLY
36	DO	57	ALA
36	DO	68	LYS
36	DO	79	ALA
36	DO	107	ALA
37	DP	20	ARG
37	DP	32	VAL
37	DP	84	SER
37	DP	101	GLU
37	DP	108	ARG
38	DQ	87	VAL
39	DR	42	ALA
39	DR	49	ILE
39	DR	100	GLY
40	DS	25	ARG
40	DS	96	ILE
40	DS	109	ASP
41	DT	19	LYS
41	DT	28	ASN
41	DT	35	ALA
41	DT	38	ALA
41	DT	69	ARG
42	DU	12	VAL
42	DU	92	VAL
43	DW	12	GLY
43	DW	14	ASP
43	DW	23	LYS
43	DW	40	ARG
43	DW	76	ARG
43	DW	77	LYS
44	DX	10	SER
44	DX	36	GLN
46	DZ	3	ARG
46	DZ	77	LYS
47	D0	51	ARG
48	D1	4	ILE
49	D2	42	LEU
50	D3	31	ILE
2	AC	81	GLU
2	AC	104	GLU
3	AD	24	VAL
3	AD	26	ALA

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Mol	Chain	Res	Type
3	AD	31	CYS
3	AD	168	THR
3	AD	182	LYS
3	AD	189	ASP
4	AE	144	GLU
5	AF	51	ILE
8	AI	9	GLY
9	AJ	56	HIS
9	AJ	93	ALA
10	AK	88	PRO
10	AK	125	LYS
11	AL	23	LEU
11	AL	47	ALA
13	AN	21	ALA
14	AO	33	ALA
16	AQ	14	ASP
17	AR	20	ILE
19	AT	42	ASP
19	AT	67	HIS
20	AB	15	PHE
20	AB	18	GLN
20	AB	41	ASN
20	AB	76	SER
20	AB	127	LYS
20	AB	205	ALA
21	AU	22	CYS
21	AU	26	GLY
24	BV	71	LYS
25	BC	17	LYS
25	BC	34	GLU
25	BC	35	LYS
25	BC	37	SER
25	BC	52	HIS
25	BC	94	LEU
25	BC	122	ALA
25	BC	141	HIS
25	BC	145	MET
25	BC	190	THR
25	BC	200	MET
25	BC	250	GLN
25	BC	254	LYS
26	BD	127	PHE

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Mol	Chain	Res	Type
26	BD	143	PRO
26	BD	145	SER
26	BD	159	LYS
26	BD	162	ALA
26	BD	194	PRO
27	BE	13	THR
27	BE	81	GLY
27	BE	86	ALA
27	BE	97	ASN
27	BE	127	GLU
27	BE	166	LYS
28	BF	9	ASP
28	BF	28	PRO
28	BF	42	ALA
28	BF	81	GLY
28	BF	110	ILE
28	BF	125	GLY
28	BF	142	TYR
29	BG	11	PRO
29	BG	38	ASP
29	BG	61	TRP
29	BG	102	ILE
29	BG	170	THR
30	BH	7	ASP
30	BH	11	ASN
30	BH	66	ASN
30	BH	71	LYS
30	BH	77	THR
30	BH	83	LYS
30	BH	108	VAL
30	BH	122	LEU
31	BJ	14	ASP
31	BJ	72	LYS
31	BJ	111	LYS
32	BK	72	PRO
32	BK	101	GLY
32	BK	110	GLU
33	BL	4	ASN
33	BL	54	GLN
33	BL	82	LEU
34	BM	13	HIS
34	BM	60	GLN

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Mol	Chain	Res	Type
34	BM	77	PRO
34	BM	134	THR
35	BN	10	LEU
35	BN	70	THR
35	BN	98	LEU
36	BO	9	ARG
36	BO	68	LYS
36	BO	95	SER
36	BO	100	HIS
37	BP	64	SER
37	BP	104	GLY
37	BP	113	LEU
38	BQ	17	LEU
38	BQ	32	ARG
38	BQ	69	ARG
38	BQ	72	GLY
38	BQ	88	GLU
39	BR	24	LYS
39	BR	57	GLY
40	BS	60	HIS
40	BS	80	PRO
41	BT	10	VAL
41	BT	19	LYS
42	BU	16	LYS
42	BU	89	GLY
43	BW	9	THR
43	BW	13	ARG
43	BW	17	ALA
43	BW	82	GLU
44	BX	45	GLN
44	BX	62	GLY
46	BZ	35	SER
49	B2	5	PHE
51	B4	8	LYS
2	CC	81	GLU
2	CC	104	GLU
2	CC	153	SER
3	CD	24	VAL
3	CD	31	CYS
3	CD	182	LYS
4	CE	144	GLU
6	CG	3	ARG

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Mol	Chain	Res	Type
6	CG	112	ASP
6	CG	151	ALA
7	CH	114	ALA
8	CI	9	GLY
8	CI	34	LEU
8	CI	106	ASP
9	CJ	56	HIS
9	CJ	93	ALA
10	CK	71	ASP
10	CK	88	PRO
10	CK	125	LYS
11	CL	47	ALA
13	CN	21	ALA
14	CO	33	ALA
16	CQ	14	ASP
19	CT	41	GLY
19	CT	42	ASP
19	CT	67	HIS
20	CB	15	PHE
20	CB	18	GLN
20	CB	41	ASN
20	CB	76	SER
20	CB	120	SER
20	CB	130	LYS
20	CB	205	ALA
21	CU	22	CYS
24	DV	71	LYS
25	DC	17	LYS
25	DC	34	GLU
25	DC	35	LYS
25	DC	37	SER
25	DC	51	ARG
25	DC	94	LEU
25	DC	145	MET
25	DC	190	THR
25	DC	250	GLN
25	DC	254	LYS
26	DD	127	PHE
26	DD	143	PRO
26	DD	145	SER
26	DD	159	LYS
26	DD	162	ALA

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Mol	Chain	Res	Type
26	DD	194	PRO
27	DE	13	THR
27	DE	81	GLY
27	DE	86	ALA
27	DE	97	ASN
27	DE	127	GLU
27	DE	166	LYS
28	DF	9	ASP
28	DF	28	PRO
28	DF	42	ALA
28	DF	81	GLY
28	DF	125	GLY
29	DG	11	PRO
29	DG	32	LEU
29	DG	38	ASP
29	DG	61	TRP
29	DG	159	LYS
30	DH	7	ASP
30	DH	11	ASN
30	DH	12	LEU
30	DH	56	ALA
30	DH	88	GLY
31	DJ	14	ASP
31	DJ	72	LYS
31	DJ	111	LYS
32	DK	72	PRO
33	DL	82	LEU
34	DM	35	ALA
34	DM	60	GLN
34	DM	77	PRO
35	DN	98	LEU
36	DO	9	ARG
36	DO	95	SER
36	DO	100	HIS
37	DP	64	SER
38	DQ	69	ARG
38	DQ	72	GLY
38	DQ	88	GLU
38	DQ	91	ARG
39	DR	24	LYS
40	DS	60	HIS
40	DS	80	PRO

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Mol	Chain	Res	Type
42	DU	5	ARG
42	DU	16	LYS
42	DU	89	GLY
43	DW	9	THR
43	DW	13	ARG
43	DW	17	ALA
43	DW	61	LYS
43	DW	82	GLU
44	DX	62	GLY
45	DY	34	THR
46	DZ	35	SER
49	D2	5	PHE
50	D3	6	VAL
51	D4	8	LYS
52	DI	23	VAL
2	AC	3	LYS
2	AC	166	TRP
3	AD	27	ILE
3	AD	167	PRO
5	AF	48	ALA
5	AF	89	VAL
6	AG	8	GLN
6	AG	112	ASP
8	AI	25	GLY
8	AI	34	LEU
8	AI	106	ASP
10	AK	71	ASP
10	AK	107	THR
11	AL	24	GLU
11	AL	33	CYS
11	AL	122	LYS
12	AM	15	VAL
13	AN	34	ASN
13	AN	48	GLN
13	AN	61	ASN
14	AO	75	ALA
16	AQ	35	LYS
20	AB	86	CYS
20	AB	128	LEU
20	AB	211	LEU
21	AU	9	GLU
25	BC	51	ARG

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Mol	Chain	Res	Type
25	BC	59	GLN
25	BC	64	VAL
25	BC	92	LEU
25	BC	131	MET
25	BC	189	ALA
25	BC	196	ASN
26	BD	31	ALA
27	BE	92	HIS
28	BF	82	TYR
28	BF	103	ILE
28	BF	106	ALA
28	BF	124	ARG
29	BG	45	ALA
29	BG	83	THR
29	BG	100	ASN
29	BG	111	PRO
30	BH	9	VAL
30	BH	12	LEU
30	BH	73	ASN
30	BH	97	ARG
30	BH	109	GLU
30	BH	118	PRO
30	BH	146	VAL
31	BJ	26	GLY
31	BJ	58	ASN
32	BK	14	SER
32	BK	54	LYS
32	BK	90	ASN
32	BK	94	PRO
33	BL	12	SER
33	BL	15	ALA
33	BL	19	LEU
33	BL	53	GLY
34	BM	27	SER
34	BM	35	ALA
34	BM	55	ARG
34	BM	75	GLU
34	BM	106	ASP
35	BN	112	TYR
36	BO	99	TYR
37	BP	65	ASN
39	BR	98	ILE

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Mol	Chain	Res	Type
41	BT	8	LEU
41	BT	11	LEU
41	BT	37	ASP
41	BT	86	THR
43	BW	21	GLY
43	BW	34	SER
43	BW	75	ASN
44	BX	16	THR
44	BX	37	LEU
44	BX	58	ASN
45	BY	4	ILE
45	BY	34	THR
46	BZ	22	LEU
46	BZ	34	HIS
48	B1	36	LYS
50	B3	6	VAL
50	B3	20	GLY
50	B3	50	SER
50	B3	58	ILE
50	B3	59	ALA
51	B4	4	ARG
2	CC	3	LYS
2	CC	166	TRP
3	CD	18	LEU
3	CD	22	SER
3	CD	27	ILE
3	CD	59	LYS
3	CD	82	LYS
3	CD	167	PRO
5	CF	48	ALA
5	CF	89	VAL
7	CH	30	LYS
8	CI	25	GLY
9	CJ	13	PHE
10	CK	107	THR
11	CL	23	LEU
11	CL	24	GLU
11	CL	33	CYS
11	CL	122	LYS
13	CN	34	ASN
13	CN	57	SER
13	CN	61	ASN

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Mol	Chain	Res	Type
15	CP	17	TYR
15	CP	54	LEU
16	CQ	35	LYS
20	CB	38	HIS
20	CB	86	CYS
21	CU	9	GLU
24	DV	44	HIS
25	DC	59	GLN
25	DC	64	VAL
25	DC	92	LEU
25	DC	122	ALA
25	DC	131	MET
25	DC	141	HIS
25	DC	150	GLY
25	DC	161	VAL
25	DC	189	ALA
25	DC	196	ASN
25	DC	200	MET
26	DD	31	ALA
26	DD	75	ALA
27	DE	92	HIS
28	DF	20	ASN
28	DF	41	GLU
28	DF	82	TYR
28	DF	103	ILE
28	DF	106	ALA
28	DF	110	ILE
29	DG	45	ALA
29	DG	78	VAL
29	DG	83	THR
29	DG	100	ASN
29	DG	102	ILE
29	DG	111	PRO
29	DG	151	ARG
30	DH	9	VAL
30	DH	92	GLY
32	DK	14	SER
32	DK	16	ALA
32	DK	54	LYS
32	DK	90	ASN
32	DK	94	PRO
33	DL	15	ALA

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Mol	Chain	Res	Type
33	DL	19	LEU
33	DL	53	GLY
33	DL	54	GLN
34	DM	13	HIS
34	DM	26	VAL
34	DM	27	SER
34	DM	55	ARG
34	DM	87	GLY
34	DM	106	ASP
35	DN	70	THR
36	DO	99	TYR
37	DP	65	ASN
37	DP	104	GLY
37	DP	113	LEU
38	DQ	17	LEU
40	DS	21	ALA
41	DT	8	LEU
41	DT	11	LEU
41	DT	18	GLU
41	DT	29	THR
41	DT	37	ASP
41	DT	64	LYS
41	DT	86	THR
43	DW	21	GLY
43	DW	34	SER
43	DW	75	ASN
44	DX	16	THR
44	DX	45	GLN
44	DX	58	ASN
45	DY	4	ILE
46	DZ	22	LEU
46	DZ	34	HIS
47	D0	19	ASP
48	D1	36	LYS
50	D3	50	SER
50	D3	59	ALA
51	D4	4	ARG
51	D4	23	ILE
2	AC	107	LYS
2	AC	145	ALA
2	AC	189	HIS
3	AD	18	LEU

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Mol	Chain	Res	Type
3	AD	22	SER
3	AD	59	LYS
4	AE	43	GLY
4	AE	56	PRO
5	AF	85	ILE
5	AF	95	ALA
6	AG	7	GLY
7	AH	30	LYS
9	AJ	13	PHE
9	AJ	62	ARG
10	AK	14	GLN
10	AK	119	GLY
11	AL	83	GLY
13	AN	57	SER
13	AN	67	GLY
15	AP	17	TYR
15	AP	28	ARG
15	AP	54	LEU
16	AQ	31	PRO
17	AR	33	THR
20	AB	24	PRO
24	BV	44	HIS
24	BV	54	ALA
25	BC	5	CYS
25	BC	36	ASN
25	BC	105	ALA
25	BC	150	GLY
25	BC	161	VAL
25	BC	237	ARG
26	BD	75	ALA
26	BD	109	VAL
26	BD	131	ASP
27	BE	4	VAL
27	BE	12	LEU
27	BE	46	GLN
27	BE	59	PRO
27	BE	129	PRO
28	BF	20	ASN
28	BF	41	GLU
28	BF	156	THR
29	BG	78	VAL
29	BG	97	VAL

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Mol	Chain	Res	Type
29	BG	151	ARG
29	BG	157	LYS
29	BG	159	LYS
29	BG	168	VAL
30	BH	14	SER
30	BH	16	GLY
30	BH	81	ALA
30	BH	95	GLY
31	BJ	13	ARG
32	BK	3	GLN
32	BK	16	ALA
32	BK	17	ARG
32	BK	93	GLN
33	BL	41	ARG
33	BL	66	PHE
33	BL	86	GLU
34	BM	73	ILE
34	BM	87	GLY
36	BO	8	ILE
37	BP	59	THR
38	BQ	27	ARG
39	BR	46	GLU
41	BT	18	GLU
41	BT	29	THR
42	BU	37	GLY
43	BW	56	HIS
44	BX	9	LYS
46	BZ	18	ARG
47	B0	19	ASP
47	B0	54	ILE
49	B2	45	SER
51	B4	16	ILE
51	B4	23	ILE
2	CC	83	VAL
2	CC	107	LYS
2	CC	145	ALA
2	CC	167	TYR
4	CE	43	GLY
5	CF	55	HIS
5	CF	85	ILE
5	CF	95	ALA
8	CI	55	ASP

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Mol	Chain	Res	Type
9	CJ	62	ARG
10	CK	119	GLY
12	CM	15	VAL
13	CN	48	GLN
13	CN	67	GLY
14	CO	75	ALA
16	CQ	31	PRO
17	CR	33	THR
18	CS	27	LYS
20	CB	24	PRO
20	CB	211	LEU
24	DV	45	ASP
24	DV	54	ALA
25	DC	5	CYS
25	DC	36	ASN
25	DC	55	GLY
25	DC	65	ASP
25	DC	77	VAL
25	DC	105	ALA
26	DD	109	VAL
26	DD	131	ASP
26	DD	156	PHE
26	DD	173	GLN
27	DE	12	LEU
27	DE	37	ALA
27	DE	46	GLN
27	DE	59	PRO
28	DF	69	ALA
28	DF	124	ARG
28	DF	156	THR
29	DG	97	VAL
29	DG	157	LYS
29	DG	168	VAL
30	DH	16	GLY
30	DH	91	PHE
30	DH	107	GLY
31	DJ	13	ARG
31	DJ	26	GLY
31	DJ	58	ASN
32	DK	17	ARG
32	DK	45	GLU
32	DK	46	ALA

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Mol	Chain	Res	Type
32	DK	73	ASP
32	DK	93	GLN
32	DK	101	GLY
33	DL	12	SER
33	DL	30	THR
33	DL	41	ARG
33	DL	66	PHE
33	DL	86	GLU
34	DM	66	ARG
34	DM	73	ILE
34	DM	75	GLU
35	DN	107	ASN
35	DN	112	TYR
36	DO	8	ILE
36	DO	53	THR
37	DP	59	THR
38	DQ	27	ARG
39	DR	57	GLY
39	DR	82	HIS
39	DR	98	ILE
42	DU	24	VAL
43	DW	29	SER
44	DX	9	LYS
44	DX	37	LEU
46	DZ	18	ARG
47	D0	54	ILE
49	D2	45	SER
50	D3	20	GLY
50	D3	58	ILE
52	DI	6	ALA
52	DI	14	ALA
2	AC	83	VAL
2	AC	167	TYR
3	AD	82	LYS
5	AF	55	HIS
5	AF	94	HIS
5	AF	99	ALA
8	AI	55	ASP
18	AS	27	LYS
18	AS	53	GLY
20	AB	123	GLY
24	BV	45	ASP

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Mol	Chain	Res	Type
24	BV	84	PRO
25	BC	65	ASP
26	BD	173	GLN
27	BE	37	ALA
27	BE	83	VAL
28	BF	88	VAL
29	BG	155	PRO
32	BK	73	ASP
37	BP	4	ILE
39	BR	9	GLY
40	BS	21	ALA
40	BS	29	VAL
41	BT	55	VAL
41	BT	71	GLY
4	CE	56	PRO
5	CF	94	HIS
7	CH	71	VAL
10	CK	16	SER
11	CL	83	GLY
15	CP	24	SER
15	CP	28	ARG
18	CS	53	GLY
24	DV	84	PRO
25	DC	4	LYS
27	DE	83	VAL
27	DE	129	PRO
28	DF	12	VAL
28	DF	88	VAL
29	DG	60	GLY
29	DG	155	PRO
30	DH	29	PHE
33	DL	62	PRO
37	DP	4	ILE
38	DQ	32	ARG
39	DR	9	GLY
40	DS	18	ARG
40	DS	29	VAL
41	DT	10	VAL
41	DT	55	VAL
42	DU	37	GLY
42	DU	90	LYS
43	DW	46	ALA

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Mol	Chain	Res	Type
49	D2	2	LYS
49	D2	19	ARG
51	D4	11	CYS
51	D4	16	ILE
6	AG	15	PRO
9	AJ	41	PRO
9	AJ	42	LEU
15	AP	42	ILE
19	AT	3	ILE
20	AB	28	PRO
25	BC	55	GLY
25	BC	77	VAL
27	BE	96	VAL
28	BF	12	VAL
30	BH	61	VAL
30	BH	103	VAL
33	BL	62	PRO
34	BM	26	VAL
37	BP	63	ILE
42	BU	24	VAL
43	BW	53	GLY
45	BY	50	VAL
51	B4	3	VAL
6	CG	15	PRO
8	CI	71	ILE
9	CJ	42	LEU
15	CP	33	ILE
15	CP	42	ILE
25	DC	158	GLY
28	DF	145	VAL
37	DP	63	ILE
41	DT	71	GLY
45	DY	50	VAL
51	D4	3	VAL
6	AG	92	PRO
7	AH	71	VAL
7	AH	128	VAL
8	AI	71	ILE
25	BC	158	GLY
25	BC	246	PRO
28	BF	136	ILE
28	BF	145	VAL

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Mol	Chain	Res	Type
29	BG	60	GLY
4	CE	133	ILE
6	CG	92	PRO
9	CJ	41	PRO
15	CP	49	GLY
19	CT	3	ILE
20	CB	28	PRO
25	DC	246	PRO
26	DD	60	VAL
27	DE	4	VAL
27	DE	96	VAL
28	DF	136	ILE
43	DW	22	VAL
43	DW	53	GLY
14	AO	28	VAL
15	AP	33	ILE
29	BG	16	VAL
29	BG	152	ARG
30	BH	78	VAL
37	BP	91	VAL
43	BW	22	VAL
46	BZ	64	ILE
4	CE	132	PRO
7	CH	125	ILE
7	CH	128	VAL
14	CO	28	VAL
26	DD	178	VAL
29	DG	16	VAL
29	DG	152	ARG
34	DM	72	PRO
37	DP	91	VAL
43	DW	37	VAL
46	DZ	64	ILE
7	AH	125	ILE
11	AL	15	VAL
15	AP	37	GLY
15	AP	49	GLY
26	BD	60	VAL
26	BD	178	VAL
29	BG	139	VAL
33	BL	139	GLY
37	BP	83	ILE

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Mol	Chain	Res	Type
42	BU	82	VAL
43	BW	37	VAL
44	BX	46	VAL
11	CL	15	VAL
15	CP	20	VAL
29	DG	139	VAL
37	DP	83	ILE
39	DR	101	ILE
42	DU	82	VAL
44	DX	11	VAL
2	AC	80	GLY
28	BF	150	GLY
38	BQ	39	ILE
2	CC	80	GLY
26	DD	163	GLY
29	DG	90	GLY
31	DJ	22	GLY
32	DK	43	ILE
41	DT	57	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%)	141 (83%)	29 (17%)	2	12
2	CC	170/189 (90%)	142 (84%)	28 (16%)	2	13
3	AD	172/172 (100%)	146 (85%)	26 (15%)	3	16
3	CD	172/172 (100%)	146 (85%)	26 (15%)	3	16
4	AE	113/125 (90%)	100 (88%)	13 (12%)	5	24
4	CE	113/125 (90%)	99 (88%)	14 (12%)	4	22
5	AF	87/116 (75%)	73 (84%)	14 (16%)	2	14
5	CF	87/116 (75%)	73 (84%)	14 (16%)	2	14
6	AG	123/146 (84%)	109 (89%)	14 (11%)	5	24

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
6	CG	125/146 (86%)	109 (87%)	16 (13%)	4	21
7	AH	104/104 (100%)	96 (92%)	8 (8%)	12	37
7	CH	104/104 (100%)	96 (92%)	8 (8%)	12	37
8	AI	105/106 (99%)	96 (91%)	9 (9%)	10	33
8	CI	105/106 (99%)	96 (91%)	9 (9%)	10	33
9	AJ	86/90 (96%)	80 (93%)	6 (7%)	14	39
9	CJ	86/90 (96%)	80 (93%)	6 (7%)	14	39
10	AK	90/98 (92%)	78 (87%)	12 (13%)	4	20
10	CK	90/98 (92%)	78 (87%)	12 (13%)	4	20
11	AL	103/103 (100%)	83 (81%)	20 (19%)	1	8
11	CL	103/103 (100%)	84 (82%)	19 (18%)	1	9
12	AM	92/95 (97%)	81 (88%)	11 (12%)	5	23
12	CM	91/95 (96%)	81 (89%)	10 (11%)	6	26
13	AN	79/83 (95%)	69 (87%)	10 (13%)	4	21
13	CN	79/83 (95%)	69 (87%)	10 (13%)	4	21
14	AO	76/77 (99%)	70 (92%)	6 (8%)	11	36
14	CO	76/77 (99%)	70 (92%)	6 (8%)	11	36
15	AP	65/65 (100%)	57 (88%)	8 (12%)	4	22
15	CP	65/65 (100%)	58 (89%)	7 (11%)	6	26
16	AQ	74/77 (96%)	65 (88%)	9 (12%)	5	22
16	CQ	75/77 (97%)	64 (85%)	11 (15%)	3	17
17	AR	48/64 (75%)	45 (94%)	3 (6%)	16	42
17	CR	48/64 (75%)	45 (94%)	3 (6%)	16	42
18	AS	70/78 (90%)	55 (79%)	15 (21%)	1	6
18	CS	71/78 (91%)	55 (78%)	16 (22%)	1	5
19	AT	65/65 (100%)	53 (82%)	12 (18%)	1	9
19	CT	65/65 (100%)	53 (82%)	12 (18%)	1	9
20	AB	180/198 (91%)	148 (82%)	32 (18%)	2	10
20	CB	180/198 (91%)	146 (81%)	34 (19%)	1	9
21	AU	44/61 (72%)	33 (75%)	11 (25%)	0	4
21	CU	44/61 (72%)	33 (75%)	11 (25%)	0	4

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
24	BV	78/78 (100%)	64 (82%)	14 (18%)	2	10
24	DV	78/78 (100%)	64 (82%)	14 (18%)	2	10
25	BC	216/218 (99%)	181 (84%)	35 (16%)	2	14
25	DC	216/218 (99%)	179 (83%)	37 (17%)	2	12
26	BD	164/164 (100%)	131 (80%)	33 (20%)	1	7
26	DD	164/164 (100%)	133 (81%)	31 (19%)	1	9
27	BE	165/165 (100%)	146 (88%)	19 (12%)	5	24
27	DE	165/165 (100%)	145 (88%)	20 (12%)	5	22
28	BF	149/149 (100%)	119 (80%)	30 (20%)	1	7
28	DF	149/149 (100%)	119 (80%)	30 (20%)	1	7
29	BG	137/137 (100%)	118 (86%)	19 (14%)	3	19
29	DG	137/137 (100%)	118 (86%)	19 (14%)	3	19
30	BH	114/114 (100%)	79 (69%)	35 (31%)	0	2
30	DH	114/114 (100%)	93 (82%)	21 (18%)	1	9
31	BJ	116/116 (100%)	103 (89%)	13 (11%)	6	25
31	DJ	116/116 (100%)	102 (88%)	14 (12%)	5	22
32	BK	102/104 (98%)	78 (76%)	24 (24%)	1	4
32	DK	102/104 (98%)	79 (78%)	23 (22%)	1	5
33	BL	102/103 (99%)	89 (87%)	13 (13%)	4	21
33	DL	102/103 (99%)	88 (86%)	14 (14%)	3	19
34	BM	109/109 (100%)	85 (78%)	24 (22%)	1	5
34	DM	109/109 (100%)	85 (78%)	24 (22%)	1	5
35	BN	100/103 (97%)	80 (80%)	20 (20%)	1	7
35	DN	100/103 (97%)	80 (80%)	20 (20%)	1	7
36	BO	86/87 (99%)	69 (80%)	17 (20%)	1	7
36	DO	86/87 (99%)	68 (79%)	18 (21%)	1	6
37	BP	99/99 (100%)	81 (82%)	18 (18%)	2	10
37	DP	99/99 (100%)	82 (83%)	17 (17%)	2	12
38	BQ	89/89 (100%)	77 (86%)	12 (14%)	4	20
38	DQ	89/89 (100%)	78 (88%)	11 (12%)	4	22
39	BR	84/84 (100%)	68 (81%)	16 (19%)	1	8

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
39	DR	84/84 (100%)	69 (82%)	15 (18%)	2	10
40	BS	93/93 (100%)	78 (84%)	15 (16%)	2	14
40	DS	93/93 (100%)	78 (84%)	15 (16%)	2	14
41	BT	80/84 (95%)	61 (76%)	19 (24%)	1	4
41	DT	80/84 (95%)	61 (76%)	19 (24%)	1	4
42	BU	83/84 (99%)	65 (78%)	18 (22%)	1	6
42	DU	83/84 (99%)	65 (78%)	18 (22%)	1	6
43	BW	59/62 (95%)	44 (75%)	15 (25%)	0	3
43	DW	59/62 (95%)	44 (75%)	15 (25%)	0	3
44	BX	55/55 (100%)	43 (78%)	12 (22%)	1	6
44	DX	55/55 (100%)	43 (78%)	12 (22%)	1	6
45	BY	48/48 (100%)	43 (90%)	5 (10%)	7	27
45	DY	48/48 (100%)	43 (90%)	5 (10%)	7	27
46	BZ	67/68 (98%)	54 (81%)	13 (19%)	1	8
46	DZ	67/68 (98%)	54 (81%)	13 (19%)	1	8
47	B0	47/47 (100%)	39 (83%)	8 (17%)	2	12
47	D0	47/47 (100%)	39 (83%)	8 (17%)	2	12
48	B1	45/48 (94%)	37 (82%)	8 (18%)	2	10
48	D1	45/48 (94%)	37 (82%)	8 (18%)	2	10
49	B2	38/38 (100%)	33 (87%)	5 (13%)	4	20
49	D2	38/38 (100%)	33 (87%)	5 (13%)	4	20
50	B3	51/51 (100%)	43 (84%)	8 (16%)	2	15
50	D3	51/51 (100%)	45 (88%)	6 (12%)	5	23
51	B4	34/34 (100%)	31 (91%)	3 (9%)	9	32
51	D4	34/34 (100%)	31 (91%)	3 (9%)	9	32
52	BI	109/109 (100%)	109 (100%)	0	100	100
52	DI	109/109 (100%)	106 (97%)	3 (3%)	38	61
All	All	9333/9704 (96%)	7864 (84%)	1469 (16%)	2	15

All (1469) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AC	2	GLN

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Mol	Chain	Res	Type
2	AC	13	ILE
2	AC	14	VAL
2	AC	15	LYS
2	AC	17	TRP
2	AC	18	ASN
2	AC	20	THR
2	AC	27	GLU
2	AC	35	ASP
2	AC	41	TYR
2	AC	48	LYS
2	AC	62	SER
2	AC	65	VAL
2	AC	69	THR
2	AC	87	ARG
2	AC	88	LYS
2	AC	89	VAL
2	AC	113	LYS
2	AC	128	MET
2	AC	138	GLN
2	AC	163	ARG
2	AC	166	TRP
2	AC	168	ARG
2	AC	171	ARG
2	AC	174	LEU
2	AC	175	HIS
2	AC	180	ASP
2	AC	184	ASN
2	AC	206	ILE
3	AD	4	LEU
3	AD	7	LYS
3	AD	18	LEU
3	AD	21	LYS
3	AD	25	ARG
3	AD	28	ASP
3	AD	39	GLN
3	AD	47	LEU
3	AD	49	ASP
3	AD	54	LEU
3	AD	55	ARG
3	AD	82	LYS
3	AD	87	GLU
3	AD	94	GLU

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Mol	Chain	Res	Type
3	AD	114	ARG
3	AD	117	VAL
3	AD	125	ASN
3	AD	135	GLN
3	AD	146	GLU
3	AD	147	LYS
3	AD	160	LEU
3	AD	162	GLU
3	AD	168	THR
3	AD	190	LEU
3	AD	194	ILE
3	AD	195	ASN
4	AE	19	ARG
4	AE	23	THR
4	AE	45	VAL
4	AE	55	VAL
4	AE	71	ILE
4	AE	81	GLN
4	AE	92	ARG
4	AE	105	ILE
4	AE	119	VAL
4	AE	123	LEU
4	AE	127	TYR
4	AE	151	MET
4	AE	156	ARG
5	AF	6	ILE
5	AF	24	ARG
5	AF	39	LEU
5	AF	51	ILE
5	AF	53	LYS
5	AF	55	HIS
5	AF	60	VAL
5	AF	62	MET
5	AF	64	VAL
5	AF	69	GLU
5	AF	82	ASP
5	AF	86	ARG
5	AF	89	VAL
5	AF	98	GLU
6	AG	3	ARG
6	AG	5	VAL
6	AG	10	LYS

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Mol	Chain	Res	Type
6	AG	11	ILE
6	AG	21	LEU
6	AG	26	VAL
6	AG	49	LEU
6	AG	55	LYS
6	AG	67	ASN
6	AG	89	GLU
6	AG	94	ARG
6	AG	96	ASN
6	AG	105	GLU
6	AG	113	LYS
7	AH	2	MET
7	AH	30	LYS
7	AH	50	VAL
7	AH	55	LYS
7	AH	61	THR
7	AH	82	LEU
7	AH	105	THR
7	AH	113	ARG
8	AI	36	GLN
8	AI	45	MET
8	AI	59	LYS
8	AI	62	LEU
8	AI	87	MET
8	AI	93	LEU
8	AI	94	ARG
8	AI	109	GLN
8	AI	123	ARG
9	AJ	15	HIS
9	AJ	47	GLU
9	AJ	57	VAL
9	AJ	69	THR
9	AJ	77	VAL
9	AJ	78	GLU
10	AK	22	ILE
10	AK	31	VAL
10	AK	34	THR
10	AK	51	PHE
10	AK	55	ARG
10	AK	64	VAL
10	AK	75	GLU
10	AK	82	GLU

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Mol	Chain	Res	Type
10	AK	83	VAL
10	AK	107	THR
10	AK	115	ILE
10	AK	121	ARG
11	AL	4	ASN
11	AL	13	ARG
11	AL	14	LYS
11	AL	15	VAL
11	AL	17	LYS
11	AL	18	SER
11	AL	19	ASN
11	AL	28	GLN
11	AL	35	ARG
11	AL	38	THR
11	AL	40	THR
11	AL	43	LYS
11	AL	54	VAL
11	AL	61	GLU
11	AL	63	THR
11	AL	95	HIS
11	AL	107	LYS
11	AL	113	ARG
11	AL	119	LYS
11	AL	122	LYS
12	AM	15	VAL
12	AM	16	ILE
12	AM	41	ASP
12	AM	43	LYS
12	AM	55	LEU
12	AM	71	GLU
12	AM	80	MET
12	AM	82	LEU
12	AM	88	LEU
12	AM	96	VAL
12	AM	102	LYS
13	AN	11	LYS
13	AN	20	PHE
13	AN	25	GLU
13	AN	41	TRP
13	AN	48	GLN
13	AN	49	THR
13	AN	50	LEU

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Mol	Chain	Res	Type
13	AN	58	ARG
13	AN	65	GLN
13	AN	97	LYS
14	AO	3	SER
14	AO	17	ASP
14	AO	65	LEU
14	AO	69	LEU
14	AO	87	ARG
14	AO	88	ARG
15	AP	2	VAL
15	AP	12	LYS
15	AP	23	ASP
15	AP	26	ASN
15	AP	28	ARG
15	AP	45	GLU
15	AP	55	ASP
15	AP	68	SER
16	AQ	3	LYS
16	AQ	4	ILE
16	AQ	7	LEU
16	AQ	8	GLN
16	AQ	39	ARG
16	AQ	41	THR
16	AQ	54	ILE
16	AQ	60	ILE
16	AQ	80	LYS
17	AR	20	ILE
17	AR	23	LYS
17	AR	38	ILE
18	AS	4	LEU
18	AS	6	LYS
18	AS	10	ILE
18	AS	13	HIS
18	AS	26	ASP
18	AS	27	LYS
18	AS	28	LYS
18	AS	32	THR
18	AS	38	THR
18	AS	42	ASN
18	AS	47	THR
18	AS	60	PHE
18	AS	62	THR

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Mol	Chain	Res	Type
18	AS	64	GLU
18	AS	77	ARG
19	AT	3	ILE
19	AT	4	LYS
19	AT	35	TYR
19	AT	43	LYS
19	AT	51	ASN
19	AT	52	GLU
19	AT	57	VAL
19	AT	66	ILE
19	AT	67	HIS
19	AT	68	LYS
19	AT	74	HIS
19	AT	84	LYS
20	AB	35	ASN
20	AB	36	LYS
20	AB	46	VAL
20	AB	49	PHE
20	AB	57	ASN
20	AB	58	LYS
20	AB	62	ARG
20	AB	67	LEU
20	AB	72	LYS
20	AB	87	ASP
20	AB	88	GLN
20	AB	94	ARG
20	AB	95	TRP
20	AB	100	LEU
20	AB	104	LYS
20	AB	113	LEU
20	AB	116	LEU
20	AB	117	GLU
20	AB	124	THR
20	AB	125	PHE
20	AB	127	LYS
20	AB	128	LEU
20	AB	142	LYS
20	AB	145	ASN
20	AB	160	LEU
20	AB	176	ASN
20	AB	196	ASP
20	AB	198	VAL

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Mol	Chain	Res	Type
20	AB	199	ILE
20	AB	202	ASN
20	AB	212	TYR
20	AB	222	GLU
21	AU	11	PHE
21	AU	15	LEU
21	AU	16	ARG
21	AU	22	CYS
21	AU	24	LYS
21	AU	32	ARG
21	AU	34	ARG
21	AU	38	GLU
21	AU	41	THR
21	AU	44	ARG
21	AU	53	LYS
24	BV	7	GLU
24	BV	11	GLU
24	BV	24	ASN
24	BV	34	LYS
24	BV	40	ILE
24	BV	42	LEU
24	BV	46	LYS
24	BV	51	GLN
24	BV	53	LYS
24	BV	55	GLU
24	BV	61	LEU
24	BV	66	ASP
24	BV	70	ILE
24	BV	86	LEU
25	BC	4	LYS
25	BC	6	LYS
25	BC	8	THR
25	BC	9	SER
25	BC	37	SER
25	BC	45	ASN
25	BC	47	ARG
25	BC	52	HIS
25	BC	62	ARG
25	BC	63	ILE
25	BC	65	ASP
25	BC	67	LYS
25	BC	90	ILE

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Mol	Chain	Res	Type
25	BC	94	LEU
25	BC	109	LEU
25	BC	123	ILE
25	BC	128	THR
25	BC	134	ILE
25	BC	142	ASN
25	BC	152	GLN
25	BC	155	ARG
25	BC	172	THR
25	BC	173	LEU
25	BC	176	ARG
25	BC	180	MET
25	BC	190	THR
25	BC	193	GLU
25	BC	203	VAL
25	BC	224	MET
25	BC	227	VAL
25	BC	235	GLU
25	BC	249	VAL
25	BC	257	ARG
25	BC	266	ILE
25	BC	267	VAL
26	BD	4	LEU
26	BD	12	THR
26	BD	13	ARG
26	BD	24	VAL
26	BD	26	VAL
26	BD	30	GLU
26	BD	34	VAL
26	BD	35	THR
26	BD	36	GLN
26	BD	46	ARG
26	BD	48	ILE
26	BD	50	VAL
26	BD	56	LYS
26	BD	74	GLU
26	BD	79	LEU
26	BD	81	GLU
26	BD	84	LEU
26	BD	86	GLU
26	BD	88	GLU
26	BD	91	THR

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Mol	Chain	Res	Type
26	BD	114	LYS
26	BD	123	LYS
26	BD	124	ARG
26	BD	131	ASP
26	BD	142	VAL
26	BD	148	GLN
26	BD	151	THR
26	BD	157	LYS
26	BD	159	LYS
26	BD	170	VAL
26	BD	172	VAL
26	BD	178	VAL
26	BD	190	LYS
27	BE	3	LEU
27	BE	5	LEU
27	BE	14	VAL
27	BE	21	ARG
27	BE	48	THR
27	BE	58	LYS
27	BE	60	TRP
27	BE	61	ARG
27	BE	62	GLN
27	BE	63	LYS
27	BE	67	ARG
27	BE	97	ASN
27	BE	111	GLU
27	BE	113	VAL
27	BE	118	LEU
27	BE	122	GLU
27	BE	147	LEU
27	BE	152	GLU
27	BE	159	LEU
28	BF	3	LEU
28	BF	13	LYS
28	BF	29	ARG
28	BF	32	LYS
28	BF	47	LYS
28	BF	48	LEU
28	BF	50	ASP
28	BF	56	LEU
28	BF	62	GLN
28	BF	76	PHE

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Mol	Chain	Res	Type
28	BF	96	TRP
28	BF	97	GLU
28	BF	100	GLU
28	BF	102	LEU
28	BF	103	ILE
28	BF	111	ARG
28	BF	112	ASP
28	BF	121	PHE
28	BF	126	ASN
28	BF	134	GLN
28	BF	137	PHE
28	BF	138	PRO
28	BF	139	GLU
28	BF	146	ASP
28	BF	147	ARG
28	BF	149	ARG
28	BF	156	THR
28	BF	162	ASP
28	BF	168	LEU
28	BF	173	ASP
29	BG	5	LYS
29	BG	17	LYS
29	BG	24	THR
29	BG	26	LYS
29	BG	34	ARG
29	BG	55	ASP
29	BG	70	LEU
29	BG	74	MET
29	BG	84	LYS
29	BG	85	LYS
29	BG	94	ARG
29	BG	106	LEU
29	BG	120	ILE
29	BG	132	LEU
29	BG	138	GLN
29	BG	140	ILE
29	BG	152	ARG
29	BG	162	ARG
29	BG	166	GLU
30	BH	3	VAL
30	BH	15	LEU
30	BH	28	ASN

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Mol	Chain	Res	Type
30	BH	32	PRO
30	BH	33	GLN
30	BH	43	ASN
30	BH	44	ILE
30	BH	53	GLU
30	BH	57	LYS
30	BH	62	LEU
30	BH	66	ASN
30	BH	68	ARG
30	BH	71	LYS
30	BH	73	ASN
30	BH	75	LEU
30	BH	89	LYS
30	BH	93	SER
30	BH	98	ASP
30	BH	99	ILE
30	BH	101	ASP
30	BH	103	VAL
30	BH	104	THR
30	BH	108	VAL
30	BH	109	GLU
30	BH	110	VAL
30	BH	112	LYS
30	BH	115	VAL
30	BH	116	ARG
30	BH	130	VAL
30	BH	131	SER
30	BH	133	GLN
30	BH	135	HIS
30	BH	139	PHE
30	BH	141	LYS
30	BH	147	VAL
31	BJ	2	LYS
31	BJ	3	THR
31	BJ	12	LYS
31	BJ	28	LEU
31	BJ	36	LEU
31	BJ	43	GLU
31	BJ	54	ILE
31	BJ	65	THR
31	BJ	73	VAL
31	BJ	92	MET

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Mol	Chain	Res	Type
31	BJ	95	ARG
31	BJ	103	ILE
31	BJ	106	LYS
32	BK	2	ILE
32	BK	4	GLU
32	BK	6	THR
32	BK	8	LEU
32	BK	9	ASN
32	BK	19	VAL
32	BK	21	CYS
32	BK	32	TYR
32	BK	45	GLU
32	BK	47	ILE
32	BK	53	LYS
32	BK	54	LYS
32	BK	58	LEU
32	BK	72	PRO
32	BK	79	PHE
32	BK	80	ASP
32	BK	86	LEU
32	BK	88	ASN
32	BK	103	VAL
32	BK	104	THR
32	BK	105	ARG
32	BK	107	LEU
32	BK	111	LYS
32	BK	120	PRO
33	BL	4	ASN
33	BL	6	LEU
33	BL	27	LEU
33	BL	47	ARG
33	BL	60	ARG
33	BL	69	ARG
33	BL	92	LEU
33	BL	93	ASN
33	BL	95	LEU
33	BL	118	THR
33	BL	125	LEU
33	BL	128	THR
33	BL	144	GLU
34	BM	20	LEU
34	BM	25	ASP

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Mol	Chain	Res	Type
34	BM	26	VAL
34	BM	40	ARG
34	BM	55	ARG
34	BM	57	VAL
34	BM	60	GLN
34	BM	63	ILE
34	BM	65	ILE
34	BM	70	ASP
34	BM	78	LEU
34	BM	81	ARG
34	BM	82	MET
34	BM	89	VAL
34	BM	90	GLU
34	BM	93	VAL
34	BM	95	LEU
34	BM	100	LYS
34	BM	108	VAL
34	BM	110	GLU
34	BM	114	ARG
34	BM	115	GLU
34	BM	131	VAL
34	BM	136	MET
35	BN	1	MET
35	BN	2	ARG
35	BN	10	LEU
35	BN	11	ASN
35	BN	18	GLN
35	BN	28	LEU
35	BN	29	VAL
35	BN	35	LYS
35	BN	48	VAL
35	BN	51	LEU
35	BN	62	ASN
35	BN	69	ARG
35	BN	71	ARG
35	BN	82	GLU
35	BN	86	ARG
35	BN	97	ILE
35	BN	98	LEU
35	BN	107	ASN
35	BN	112	TYR
35	BN	118	ARG

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Mol	Chain	Res	Type
36	BO	7	ARG
36	BO	9	ARG
36	BO	17	LYS
36	BO	18	LEU
36	BO	20	GLU
36	BO	21	LEU
36	BO	31	THR
36	BO	47	VAL
36	BO	60	GLU
36	BO	62	LEU
36	BO	69	ASP
36	BO	78	VAL
36	BO	80	GLU
36	BO	91	SER
36	BO	100	HIS
36	BO	106	LEU
36	BO	116	GLN
37	BP	3	ILE
37	BP	5	LYS
37	BP	19	PHE
37	BP	25	VAL
37	BP	32	VAL
37	BP	33	GLU
37	BP	43	GLU
37	BP	61	ARG
37	BP	72	VAL
37	BP	80	VAL
37	BP	83	ILE
37	BP	99	LEU
37	BP	100	ARG
37	BP	101	GLU
37	BP	109	ILE
37	BP	111	GLU
37	BP	112	ARG
37	BP	113	LEU
38	BQ	5	ARG
38	BQ	18	LYS
38	BQ	19	GLN
38	BQ	40	LYS
38	BQ	57	ARG
38	BQ	59	LEU
38	BQ	63	ARG

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Mol	Chain	Res	Type
38	BQ	79	ILE
38	BQ	83	LYS
38	BQ	88	GLU
38	BQ	96	ASP
38	BQ	111	LYS
39	BR	2	TYR
39	BR	20	VAL
39	BR	22	LEU
39	BR	25	LEU
39	BR	37	GLU
39	BR	39	LEU
39	BR	43	ASN
39	BR	45	GLU
39	BR	48	LYS
39	BR	55	ASP
39	BR	70	GLU
39	BR	72	VAL
39	BR	82	HIS
39	BR	86	GLN
39	BR	96	VAL
39	BR	99	THR
40	BS	6	LYS
40	BS	28	LYS
40	BS	37	THR
40	BS	41	LYS
40	BS	57	ASN
40	BS	61	ASN
40	BS	62	ASP
40	BS	66	ILE
40	BS	71	VAL
40	BS	84	ARG
40	BS	86	MET
40	BS	88	ARG
40	BS	97	LEU
40	BS	99	ARG
40	BS	110	ARG
41	BT	2	ILE
41	BT	3	ARG
41	BT	4	GLU
41	BT	6	ARG
41	BT	9	LYS
41	BT	11	LEU

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Mol	Chain	Res	Type
41	BT	12	ARG
41	BT	24	MET
41	BT	29	THR
41	BT	34	VAL
41	BT	39	THR
41	BT	43	ILE
41	BT	64	LYS
41	BT	68	LYS
41	BT	69	ARG
41	BT	70	HIS
41	BT	76	ARG
41	BT	81	LYS
41	BT	87	LEU
42	BU	11	ILE
42	BU	13	LEU
42	BU	18	LYS
42	BU	21	ARG
42	BU	26	ASN
42	BU	27	VAL
42	BU	51	LEU
42	BU	53	GLN
42	BU	60	LYS
42	BU	65	GLN
42	BU	71	ILE
42	BU	73	ASN
42	BU	78	LYS
42	BU	81	ARG
42	BU	84	PHE
42	BU	85	ARG
42	BU	88	ASP
42	BU	102	ILE
43	BW	11	ASN
43	BW	16	GLU
43	BW	19	ARG
43	BW	23	LYS
43	BW	35	ILE
43	BW	38	ARG
43	BW	39	GLN
43	BW	44	PHE
43	BW	50	VAL
43	BW	63	ASP
43	BW	68	PHE

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Mol	Chain	Res	Type
43	BW	76	ARG
43	BW	77	LYS
43	BW	82	GLU
43	BW	84	GLU
44	BX	1	MET
44	BX	15	ASN
44	BX	16	THR
44	BX	21	LEU
44	BX	24	GLU
44	BX	25	GLN
44	BX	28	LEU
44	BX	29	ARG
44	BX	36	GLN
44	BX	37	LEU
44	BX	48	ARG
44	BX	59	GLU
45	BY	2	LYS
45	BY	9	THR
45	BY	23	LEU
45	BY	37	ARG
45	BY	57	GLU
46	BZ	13	VAL
46	BZ	14	THR
46	BZ	22	LEU
46	BZ	27	ARG
46	BZ	37	ARG
46	BZ	41	GLU
46	BZ	46	PHE
46	BZ	48	THR
46	BZ	50	ARG
46	BZ	59	ILE
46	BZ	65	ASP
46	BZ	70	GLU
46	BZ	74	ARG
47	B0	21	LEU
47	B0	27	LEU
47	B0	37	HIS
47	B0	38	LEU
47	B0	41	HIS
47	B0	45	ASP
47	B0	51	ARG
47	B0	56	LYS

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Mol	Chain	Res	Type
48	B1	8	ILE
48	B1	31	GLU
48	B1	33	LEU
48	B1	34	GLU
48	B1	35	LEU
48	B1	42	VAL
48	B1	44	GLN
48	B1	52	LYS
49	B2	3	ARG
49	B2	28	ARG
49	B2	33	ARG
49	B2	39	ARG
49	B2	42	LEU
50	B3	7	ARG
50	B3	24	LYS
50	B3	27	ASN
50	B3	31	ILE
50	B3	46	LYS
50	B3	57	VAL
50	B3	58	ILE
50	B3	61	LEU
51	B4	9	LYS
51	B4	10	LEU
51	B4	36	ARG
2	CC	2	GLN
2	CC	13	ILE
2	CC	14	VAL
2	CC	15	LYS
2	CC	17	TRP
2	CC	18	ASN
2	CC	20	THR
2	CC	27	GLU
2	CC	35	ASP
2	CC	41	TYR
2	CC	48	LYS
2	CC	62	SER
2	CC	65	VAL
2	CC	69	THR
2	CC	87	ARG
2	CC	88	LYS
2	CC	89	VAL
2	CC	113	LYS

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Mol	Chain	Res	Type
2	CC	128	MET
2	CC	138	GLN
2	CC	163	ARG
2	CC	166	TRP
2	CC	168	ARG
2	CC	171	ARG
2	CC	174	LEU
2	CC	180	ASP
2	CC	184	ASN
2	CC	206	ILE
3	CD	4	LEU
3	CD	7	LYS
3	CD	18	LEU
3	CD	21	LYS
3	CD	25	ARG
3	CD	28	ASP
3	CD	39	GLN
3	CD	47	LEU
3	CD	49	ASP
3	CD	54	LEU
3	CD	55	ARG
3	CD	82	LYS
3	CD	87	GLU
3	CD	94	GLU
3	CD	114	ARG
3	CD	117	VAL
3	CD	125	ASN
3	CD	135	GLN
3	CD	146	GLU
3	CD	147	LYS
3	CD	160	LEU
3	CD	162	GLU
3	CD	168	THR
3	CD	190	LEU
3	CD	194	ILE
3	CD	195	ASN
4	CE	19	ARG
4	CE	23	THR
4	CE	45	VAL
4	CE	55	VAL
4	CE	71	ILE
4	CE	72	ASN

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Mol	Chain	Res	Type
4	CE	81	GLN
4	CE	92	ARG
4	CE	105	ILE
4	CE	119	VAL
4	CE	123	LEU
4	CE	127	TYR
4	CE	151	MET
4	CE	156	ARG
5	CF	6	ILE
5	CF	24	ARG
5	CF	39	LEU
5	CF	51	ILE
5	CF	53	LYS
5	CF	55	HIS
5	CF	60	VAL
5	CF	62	MET
5	CF	64	VAL
5	CF	69	GLU
5	CF	82	ASP
5	CF	86	ARG
5	CF	89	VAL
5	CF	98	GLU
6	CG	2	ARG
6	CG	3	ARG
6	CG	8	GLN
6	CG	10	LYS
6	CG	11	ILE
6	CG	21	LEU
6	CG	26	VAL
6	CG	49	LEU
6	CG	55	LYS
6	CG	67	ASN
6	CG	89	GLU
6	CG	93	VAL
6	CG	94	ARG
6	CG	96	ASN
6	CG	105	GLU
6	CG	113	LYS
7	CH	2	MET
7	CH	30	LYS
7	CH	50	VAL
7	CH	55	LYS

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Mol	Chain	Res	Type
7	CH	61	THR
7	CH	82	LEU
7	CH	105	THR
7	CH	113	ARG
8	CI	36	GLN
8	CI	45	MET
8	CI	59	LYS
8	CI	62	LEU
8	CI	87	MET
8	CI	93	LEU
8	CI	94	ARG
8	CI	109	GLN
8	CI	123	ARG
9	CJ	15	HIS
9	CJ	47	GLU
9	CJ	57	VAL
9	CJ	69	THR
9	CJ	77	VAL
9	CJ	78	GLU
10	CK	22	ILE
10	CK	31	VAL
10	CK	34	THR
10	CK	51	PHE
10	CK	55	ARG
10	CK	64	VAL
10	CK	75	GLU
10	CK	82	GLU
10	CK	83	VAL
10	CK	107	THR
10	CK	115	ILE
10	CK	121	ARG
11	CL	4	ASN
11	CL	13	ARG
11	CL	14	LYS
11	CL	15	VAL
11	CL	17	LYS
11	CL	18	SER
11	CL	19	ASN
11	CL	28	GLN
11	CL	35	ARG
11	CL	38	THR
11	CL	40	THR

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Mol	Chain	Res	Type
11	CL	43	LYS
11	CL	54	VAL
11	CL	61	GLU
11	CL	63	THR
11	CL	95	HIS
11	CL	107	LYS
11	CL	119	LYS
11	CL	122	LYS
12	CM	15	VAL
12	CM	16	ILE
12	CM	41	ASP
12	CM	43	LYS
12	CM	71	GLU
12	CM	80	MET
12	CM	82	LEU
12	CM	88	LEU
12	CM	96	VAL
12	CM	102	LYS
13	CN	11	LYS
13	CN	20	PHE
13	CN	25	GLU
13	CN	41	TRP
13	CN	48	GLN
13	CN	49	THR
13	CN	50	LEU
13	CN	58	ARG
13	CN	65	GLN
13	CN	97	LYS
14	CO	17	ASP
14	CO	38	LEU
14	CO	65	LEU
14	CO	69	LEU
14	CO	87	ARG
14	CO	88	ARG
15	CP	2	VAL
15	CP	12	LYS
15	CP	23	ASP
15	CP	26	ASN
15	CP	28	ARG
15	CP	55	ASP
15	CP	68	SER
16	CQ	3	LYS

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Mol	Chain	Res	Type
16	CQ	4	ILE
16	CQ	7	LEU
16	CQ	8	GLN
16	CQ	37	ILE
16	CQ	39	ARG
16	CQ	41	THR
16	CQ	54	ILE
16	CQ	60	ILE
16	CQ	80	LYS
16	CQ	83	LEU
17	CR	20	ILE
17	CR	23	LYS
17	CR	38	ILE
18	CS	2	ARG
18	CS	4	LEU
18	CS	6	LYS
18	CS	10	ILE
18	CS	13	HIS
18	CS	26	ASP
18	CS	27	LYS
18	CS	28	LYS
18	CS	32	THR
18	CS	38	THR
18	CS	42	ASN
18	CS	47	THR
18	CS	60	PHE
18	CS	62	THR
18	CS	64	GLU
18	CS	77	ARG
19	CT	3	ILE
19	CT	4	LYS
19	CT	35	TYR
19	CT	43	LYS
19	CT	51	ASN
19	CT	52	GLU
19	CT	57	VAL
19	CT	66	ILE
19	CT	67	HIS
19	CT	68	LYS
19	CT	74	HIS
19	CT	84	LYS
20	CB	8	MET

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Mol	Chain	Res	Type
20	CB	35	ASN
20	CB	36	LYS
20	CB	42	LEU
20	CB	46	VAL
20	CB	49	PHE
20	CB	57	ASN
20	CB	58	LYS
20	CB	62	ARG
20	CB	67	LEU
20	CB	72	LYS
20	CB	87	ASP
20	CB	88	GLN
20	CB	94	ARG
20	CB	95	TRP
20	CB	100	LEU
20	CB	104	LYS
20	CB	113	LEU
20	CB	116	LEU
20	CB	117	GLU
20	CB	126	ASP
20	CB	127	LYS
20	CB	130	LYS
20	CB	134	LEU
20	CB	142	LYS
20	CB	145	ASN
20	CB	160	LEU
20	CB	176	ASN
20	CB	196	ASP
20	CB	198	VAL
20	CB	199	ILE
20	CB	202	ASN
20	CB	212	TYR
20	CB	222	GLU
21	CU	11	PHE
21	CU	15	LEU
21	CU	16	ARG
21	CU	22	CYS
21	CU	24	LYS
21	CU	32	ARG
21	CU	34	ARG
21	CU	38	GLU
21	CU	41	THR

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Mol	Chain	Res	Type
21	CU	44	ARG
21	CU	53	LYS
24	DV	7	GLU
24	DV	11	GLU
24	DV	24	ASN
24	DV	34	LYS
24	DV	40	ILE
24	DV	42	LEU
24	DV	46	LYS
24	DV	51	GLN
24	DV	53	LYS
24	DV	55	GLU
24	DV	61	LEU
24	DV	66	ASP
24	DV	70	ILE
24	DV	86	LEU
25	DC	4	LYS
25	DC	5	CYS
25	DC	6	LYS
25	DC	8	THR
25	DC	9	SER
25	DC	37	SER
25	DC	45	ASN
25	DC	47	ARG
25	DC	52	HIS
25	DC	62	ARG
25	DC	63	ILE
25	DC	65	ASP
25	DC	67	LYS
25	DC	89	ASN
25	DC	90	ILE
25	DC	94	LEU
25	DC	109	LEU
25	DC	123	ILE
25	DC	128	THR
25	DC	134	ILE
25	DC	142	ASN
25	DC	152	GLN
25	DC	155	ARG
25	DC	172	THR
25	DC	173	LEU
25	DC	176	ARG

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Mol	Chain	Res	Type
25	DC	180	MET
25	DC	190	THR
25	DC	193	GLU
25	DC	203	VAL
25	DC	224	MET
25	DC	227	VAL
25	DC	235	GLU
25	DC	249	VAL
25	DC	257	ARG
25	DC	266	ILE
25	DC	267	VAL
26	DD	12	THR
26	DD	13	ARG
26	DD	24	VAL
26	DD	26	VAL
26	DD	30	GLU
26	DD	34	VAL
26	DD	35	THR
26	DD	36	GLN
26	DD	46	ARG
26	DD	50	VAL
26	DD	56	LYS
26	DD	74	GLU
26	DD	79	LEU
26	DD	81	GLU
26	DD	84	LEU
26	DD	86	GLU
26	DD	88	GLU
26	DD	91	THR
26	DD	114	LYS
26	DD	123	LYS
26	DD	124	ARG
26	DD	131	ASP
26	DD	142	VAL
26	DD	148	GLN
26	DD	151	THR
26	DD	157	LYS
26	DD	159	LYS
26	DD	170	VAL
26	DD	172	VAL
26	DD	178	VAL
26	DD	190	LYS

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Mol	Chain	Res	Type
27	DE	3	LEU
27	DE	5	LEU
27	DE	7	ASP
27	DE	14	VAL
27	DE	21	ARG
27	DE	48	THR
27	DE	58	LYS
27	DE	60	TRP
27	DE	61	ARG
27	DE	62	GLN
27	DE	63	LYS
27	DE	67	ARG
27	DE	97	ASN
27	DE	111	GLU
27	DE	113	VAL
27	DE	118	LEU
27	DE	122	GLU
27	DE	147	LEU
27	DE	152	GLU
27	DE	159	LEU
28	DF	3	LEU
28	DF	13	LYS
28	DF	29	ARG
28	DF	32	LYS
28	DF	47	LYS
28	DF	48	LEU
28	DF	50	ASP
28	DF	56	LEU
28	DF	62	GLN
28	DF	76	PHE
28	DF	96	TRP
28	DF	97	GLU
28	DF	100	GLU
28	DF	102	LEU
28	DF	103	ILE
28	DF	111	ARG
28	DF	112	ASP
28	DF	121	PHE
28	DF	126	ASN
28	DF	134	GLN
28	DF	137	PHE
28	DF	138	PRO

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Mol	Chain	Res	Type
28	DF	139	GLU
28	DF	146	ASP
28	DF	147	ARG
28	DF	149	ARG
28	DF	156	THR
28	DF	162	ASP
28	DF	168	LEU
28	DF	173	ASP
29	DG	5	LYS
29	DG	17	LYS
29	DG	24	THR
29	DG	26	LYS
29	DG	34	ARG
29	DG	55	ASP
29	DG	70	LEU
29	DG	74	MET
29	DG	84	LYS
29	DG	85	LYS
29	DG	94	ARG
29	DG	106	LEU
29	DG	120	ILE
29	DG	132	LEU
29	DG	138	GLN
29	DG	140	ILE
29	DG	152	ARG
29	DG	162	ARG
29	DG	166	GLU
30	DH	3	VAL
30	DH	15	LEU
30	DH	28	ASN
30	DH	32	PRO
30	DH	33	GLN
30	DH	46	PHE
30	DH	50	ARG
30	DH	55	GLU
30	DH	68	ARG
30	DH	83	LYS
30	DH	94	ILE
30	DH	97	ARG
30	DH	101	ASP
30	DH	121	VAL
30	DH	122	LEU

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Mol	Chain	Res	Type
30	DH	124	THR
30	DH	129	GLU
30	DH	134	VAL
30	DH	137	GLU
30	DH	141	LYS
30	DH	149	GLU
31	DJ	2	LYS
31	DJ	3	THR
31	DJ	12	LYS
31	DJ	28	LEU
31	DJ	31	GLU
31	DJ	36	LEU
31	DJ	43	GLU
31	DJ	54	ILE
31	DJ	65	THR
31	DJ	73	VAL
31	DJ	92	MET
31	DJ	95	ARG
31	DJ	103	ILE
31	DJ	106	LYS
32	DK	2	ILE
32	DK	4	GLU
32	DK	6	THR
32	DK	8	LEU
32	DK	9	ASN
32	DK	19	VAL
32	DK	21	CYS
32	DK	32	TYR
32	DK	47	ILE
32	DK	53	LYS
32	DK	54	LYS
32	DK	58	LEU
32	DK	72	PRO
32	DK	79	PHE
32	DK	80	ASP
32	DK	86	LEU
32	DK	88	ASN
32	DK	103	VAL
32	DK	104	THR
32	DK	105	ARG
32	DK	107	LEU
32	DK	111	LYS

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Mol	Chain	Res	Type
32	DK	120	PRO
33	DL	4	ASN
33	DL	6	LEU
33	DL	27	LEU
33	DL	47	ARG
33	DL	60	ARG
33	DL	69	ARG
33	DL	92	LEU
33	DL	93	ASN
33	DL	95	LEU
33	DL	118	THR
33	DL	125	LEU
33	DL	128	THR
33	DL	141	LYS
33	DL	144	GLU
34	DM	20	LEU
34	DM	25	ASP
34	DM	26	VAL
34	DM	40	ARG
34	DM	55	ARG
34	DM	57	VAL
34	DM	60	GLN
34	DM	63	ILE
34	DM	65	ILE
34	DM	70	ASP
34	DM	78	LEU
34	DM	81	ARG
34	DM	82	MET
34	DM	89	VAL
34	DM	90	GLU
34	DM	93	VAL
34	DM	95	LEU
34	DM	100	LYS
34	DM	108	VAL
34	DM	110	GLU
34	DM	114	ARG
34	DM	115	GLU
34	DM	131	VAL
34	DM	136	MET
35	DN	1	MET
35	DN	2	ARG
35	DN	10	LEU

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Mol	Chain	Res	Type
35	DN	11	ASN
35	DN	18	GLN
35	DN	28	LEU
35	DN	29	VAL
35	DN	35	LYS
35	DN	48	VAL
35	DN	51	LEU
35	DN	62	ASN
35	DN	69	ARG
35	DN	71	ARG
35	DN	82	GLU
35	DN	86	ARG
35	DN	97	ILE
35	DN	98	LEU
35	DN	107	ASN
35	DN	112	TYR
35	DN	118	ARG
36	DO	7	ARG
36	DO	9	ARG
36	DO	17	LYS
36	DO	18	LEU
36	DO	19	GLN
36	DO	20	GLU
36	DO	21	LEU
36	DO	31	THR
36	DO	47	VAL
36	DO	60	GLU
36	DO	62	LEU
36	DO	69	ASP
36	DO	78	VAL
36	DO	80	GLU
36	DO	91	SER
36	DO	100	HIS
36	DO	106	LEU
36	DO	116	GLN
37	DP	3	ILE
37	DP	5	LYS
37	DP	19	PHE
37	DP	25	VAL
37	DP	32	VAL
37	DP	33	GLU
37	DP	61	ARG

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Mol	Chain	Res	Type
37	DP	72	VAL
37	DP	80	VAL
37	DP	83	ILE
37	DP	99	LEU
37	DP	100	ARG
37	DP	101	GLU
37	DP	109	ILE
37	DP	111	GLU
37	DP	112	ARG
37	DP	113	LEU
38	DQ	5	ARG
38	DQ	19	GLN
38	DQ	40	LYS
38	DQ	57	ARG
38	DQ	59	LEU
38	DQ	63	ARG
38	DQ	79	ILE
38	DQ	83	LYS
38	DQ	88	GLU
38	DQ	96	ASP
38	DQ	111	LYS
39	DR	2	TYR
39	DR	22	LEU
39	DR	25	LEU
39	DR	37	GLU
39	DR	39	LEU
39	DR	43	ASN
39	DR	45	GLU
39	DR	48	LYS
39	DR	55	ASP
39	DR	70	GLU
39	DR	72	VAL
39	DR	82	HIS
39	DR	86	GLN
39	DR	96	VAL
39	DR	99	THR
40	DS	6	LYS
40	DS	28	LYS
40	DS	37	THR
40	DS	41	LYS
40	DS	57	ASN
40	DS	61	ASN

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Mol	Chain	Res	Type
40	DS	62	ASP
40	DS	66	ILE
40	DS	71	VAL
40	DS	73	LYS
40	DS	84	ARG
40	DS	86	MET
40	DS	88	ARG
40	DS	97	LEU
40	DS	110	ARG
41	DT	2	ILE
41	DT	3	ARG
41	DT	4	GLU
41	DT	6	ARG
41	DT	9	LYS
41	DT	11	LEU
41	DT	12	ARG
41	DT	24	MET
41	DT	29	THR
41	DT	34	VAL
41	DT	39	THR
41	DT	43	ILE
41	DT	64	LYS
41	DT	68	LYS
41	DT	69	ARG
41	DT	70	HIS
41	DT	76	ARG
41	DT	81	LYS
41	DT	87	LEU
42	DU	11	ILE
42	DU	13	LEU
42	DU	18	LYS
42	DU	21	ARG
42	DU	26	ASN
42	DU	27	VAL
42	DU	51	LEU
42	DU	53	GLN
42	DU	60	LYS
42	DU	65	GLN
42	DU	71	ILE
42	DU	73	ASN
42	DU	78	LYS
42	DU	81	ARG

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Mol	Chain	Res	Type
42	DU	84	PHE
42	DU	85	ARG
42	DU	88	ASP
42	DU	102	ILE
43	DW	11	ASN
43	DW	16	GLU
43	DW	19	ARG
43	DW	23	LYS
43	DW	35	ILE
43	DW	38	ARG
43	DW	39	GLN
43	DW	44	PHE
43	DW	50	VAL
43	DW	63	ASP
43	DW	68	PHE
43	DW	76	ARG
43	DW	77	LYS
43	DW	82	GLU
43	DW	84	GLU
44	DX	1	MET
44	DX	15	ASN
44	DX	16	THR
44	DX	21	LEU
44	DX	24	GLU
44	DX	25	GLN
44	DX	28	LEU
44	DX	29	ARG
44	DX	36	GLN
44	DX	37	LEU
44	DX	48	ARG
44	DX	59	GLU
45	DY	2	LYS
45	DY	9	THR
45	DY	23	LEU
45	DY	37	ARG
45	DY	57	GLU
46	DZ	13	VAL
46	DZ	14	THR
46	DZ	22	LEU
46	DZ	27	ARG
46	DZ	37	ARG
46	DZ	41	GLU

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Mol	Chain	Res	Type
46	DZ	46	PHE
46	DZ	48	THR
46	DZ	50	ARG
46	DZ	59	ILE
46	DZ	65	ASP
46	DZ	70	GLU
46	DZ	74	ARG
47	D0	21	LEU
47	D0	27	LEU
47	D0	37	HIS
47	D0	38	LEU
47	D0	41	HIS
47	D0	45	ASP
47	D0	51	ARG
47	D0	56	LYS
48	D1	8	ILE
48	D1	31	GLU
48	D1	33	LEU
48	D1	34	GLU
48	D1	35	LEU
48	D1	42	VAL
48	D1	44	GLN
48	D1	52	LYS
49	D2	3	ARG
49	D2	28	ARG
49	D2	33	ARG
49	D2	39	ARG
49	D2	42	LEU
50	D3	7	ARG
50	D3	27	ASN
50	D3	31	ILE
50	D3	46	LYS
50	D3	58	ILE
50	D3	61	LEU
51	D4	9	LYS
51	D4	10	LEU
51	D4	36	ARG
52	DI	2	LYS
52	DI	54	ILE
52	DI	121	ILE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (388) such sidechains are listed below:

Mol	Chain	Res	Type
2	AC	2	GLN
2	AC	7	ASN
2	AC	24	ASN
2	AC	31	ASN
2	AC	68	HIS
2	AC	122	GLN
2	AC	139	ASN
2	AC	184	ASN
3	AD	35	GLN
3	AD	53	GLN
3	AD	70	GLN
3	AD	115	GLN
3	AD	135	GLN
3	AD	195	ASN
4	AE	18	ASN
4	AE	72	ASN
4	AE	81	GLN
4	AE	82	HIS
5	AF	17	GLN
5	AF	46	GLN
6	AG	27	ASN
6	AG	67	ASN
6	AG	121	ASN
6	AG	129	ASN
6	AG	141	HIS
7	AH	3	GLN
7	AH	66	GLN
7	AH	75	GLN
7	AH	117	GLN
8	AI	30	ASN
8	AI	31	GLN
8	AI	36	GLN
8	AI	80	HIS
8	AI	109	GLN
9	AJ	20	GLN
9	AJ	56	HIS
10	AK	14	GLN
10	AK	21	HIS
10	AK	28	ASN
10	AK	39	ASN
10	AK	100	ASN
10	AK	117	HIS
11	AL	5	GLN

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Mol	Chain	Res	Type
11	AL	28	GLN
11	AL	45	ASN
11	AL	71	HIS
11	AL	74	GLN
11	AL	111	GLN
12	AM	7	ASN
13	AN	34	ASN
13	AN	48	GLN
13	AN	61	ASN
14	AO	36	ASN
14	AO	39	GLN
14	AO	61	GLN
15	AP	9	HIS
15	AP	18	GLN
15	AP	29	ASN
15	AP	40	ASN
16	AQ	50	ASN
17	AR	51	GLN
17	AR	53	GLN
17	AR	73	HIS
18	AS	42	ASN
18	AS	56	HIS
18	AS	68	HIS
19	AT	20	ASN
19	AT	67	HIS
19	AT	74	HIS
20	AB	14	HIS
20	AB	23	ASN
20	AB	35	ASN
20	AB	38	HIS
20	AB	41	ASN
20	AB	119	GLN
20	AB	145	ASN
20	AB	169	HIS
20	AB	202	ASN
24	BV	44	HIS
24	BV	51	GLN
24	BV	80	HIS
25	BC	36	ASN
25	BC	43	ASN
25	BC	45	ASN
25	BC	59	GLN

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Mol	Chain	Res	Type
25	BC	85	ASN
25	BC	114	GLN
25	BC	133	ASN
25	BC	152	GLN
25	BC	162	GLN
25	BC	196	ASN
26	BD	32	ASN
26	BD	36	GLN
26	BD	49	GLN
26	BD	126	ASN
26	BD	136	ASN
26	BD	148	GLN
26	BD	173	GLN
27	BE	24	ASN
27	BE	29	HIS
27	BE	30	GLN
27	BE	62	GLN
27	BE	90	GLN
27	BE	94	GLN
27	BE	195	GLN
28	BF	26	GLN
28	BF	36	ASN
28	BF	51	ASN
28	BF	62	GLN
28	BF	80	GLN
28	BF	126	ASN
28	BF	134	GLN
29	BG	29	ASN
29	BG	63	GLN
29	BG	87	GLN
29	BG	103	ASN
29	BG	127	GLN
30	BH	18	GLN
30	BH	20	ASN
30	BH	28	ASN
30	BH	66	ASN
30	BH	73	ASN
31	BJ	86	GLN
31	BJ	128	ASN
31	BJ	130	HIS
31	BJ	138	GLN
32	BK	5	GLN

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Mol	Chain	Res	Type
32	BK	13	ASN
32	BK	89	ASN
33	BL	4	ASN
33	BL	38	GLN
33	BL	54	GLN
33	BL	104	GLN
34	BM	17	ASN
34	BM	60	GLN
34	BM	88	ASN
35	BN	11	ASN
35	BN	23	ASN
35	BN	62	ASN
35	BN	107	ASN
36	BO	19	GLN
36	BO	29	HIS
36	BO	38	GLN
36	BO	61	GLN
36	BO	100	HIS
36	BO	104	GLN
37	BP	6	GLN
37	BP	11	GLN
37	BP	40	GLN
37	BP	76	HIS
37	BP	114	ASN
38	BQ	51	GLN
38	BQ	71	ASN
38	BQ	80	ASN
39	BR	6	GLN
39	BR	82	HIS
39	BR	86	GLN
40	BS	15	GLN
40	BS	31	GLN
40	BS	61	ASN
41	BT	48	GLN
41	BT	59	ASN
41	BT	72	GLN
41	BT	91	GLN
41	BT	92	ASN
42	BU	26	ASN
42	BU	65	GLN
42	BU	68	ASN
42	BU	73	ASN

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Mol	Chain	Res	Type
43	BW	11	ASN
43	BW	49	ASN
43	BW	56	HIS
43	BW	75	ASN
44	BX	20	ASN
44	BX	25	GLN
44	BX	27	ASN
44	BX	31	GLN
44	BX	39	GLN
44	BX	58	ASN
45	BY	33	HIS
45	BY	48	ASN
46	BZ	6	GLN
46	BZ	17	ASN
46	BZ	23	ASN
46	BZ	36	HIS
47	B0	3	GLN
47	B0	5	ASN
49	B2	6	GLN
49	B2	29	GLN
50	B3	42	HIS
51	B4	35	GLN
52	BI	11	GLN
52	BI	29	GLN
52	BI	33	ASN
52	BI	93	ASN
2	CC	2	GLN
2	CC	7	ASN
2	CC	24	ASN
2	CC	31	ASN
2	CC	68	HIS
2	CC	122	GLN
2	CC	139	ASN
2	CC	184	ASN
3	CD	35	GLN
3	CD	53	GLN
3	CD	70	GLN
3	CD	115	GLN
3	CD	135	GLN
3	CD	195	ASN
4	CE	18	ASN
4	CE	72	ASN

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Mol	Chain	Res	Type
4	CE	81	GLN
4	CE	82	HIS
5	CF	17	GLN
5	CF	46	GLN
6	CG	27	ASN
6	CG	67	ASN
6	CG	121	ASN
6	CG	129	ASN
6	CG	141	HIS
7	CH	3	GLN
7	CH	75	GLN
7	CH	117	GLN
8	CI	4	GLN
8	CI	30	ASN
8	CI	31	GLN
8	CI	36	GLN
8	CI	80	HIS
8	CI	109	GLN
9	CJ	20	GLN
9	CJ	56	HIS
9	CJ	70	HIS
10	CK	14	GLN
10	CK	28	ASN
10	CK	39	ASN
10	CK	100	ASN
11	CL	5	GLN
11	CL	28	GLN
11	CL	45	ASN
11	CL	74	GLN
11	CL	111	GLN
12	CM	7	ASN
13	CN	34	ASN
13	CN	48	GLN
13	CN	61	ASN
14	CO	36	ASN
14	CO	39	GLN
14	CO	61	GLN
15	CP	9	HIS
15	CP	18	GLN
15	CP	29	ASN
15	CP	40	ASN
16	CQ	50	ASN

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Mol	Chain	Res	Type
17	CR	51	GLN
17	CR	53	GLN
17	CR	73	HIS
18	CS	42	ASN
18	CS	56	HIS
19	CT	20	ASN
19	CT	67	HIS
19	CT	74	HIS
20	CB	14	HIS
20	CB	23	ASN
20	CB	35	ASN
20	CB	41	ASN
20	CB	119	GLN
20	CB	121	GLN
20	CB	145	ASN
20	CB	169	HIS
20	CB	202	ASN
24	DV	44	HIS
24	DV	49	ASN
24	DV	51	GLN
24	DV	80	HIS
24	DV	88	HIS
25	DC	36	ASN
25	DC	43	ASN
25	DC	45	ASN
25	DC	59	GLN
25	DC	114	GLN
25	DC	133	ASN
25	DC	152	GLN
25	DC	162	GLN
26	DD	32	ASN
26	DD	36	GLN
26	DD	49	GLN
26	DD	126	ASN
26	DD	136	ASN
26	DD	173	GLN
27	DE	24	ASN
27	DE	30	GLN
27	DE	62	GLN
27	DE	90	GLN
27	DE	94	GLN
27	DE	195	GLN

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Mol	Chain	Res	Type
28	DF	26	GLN
28	DF	36	ASN
28	DF	51	ASN
28	DF	62	GLN
28	DF	80	GLN
28	DF	126	ASN
28	DF	134	GLN
29	DG	29	ASN
29	DG	37	ASN
29	DG	87	GLN
29	DG	103	ASN
29	DG	127	GLN
29	DG	142	GLN
30	DH	18	GLN
30	DH	20	ASN
30	DH	28	ASN
30	DH	43	ASN
30	DH	66	ASN
30	DH	133	GLN
31	DJ	77	HIS
31	DJ	86	GLN
31	DJ	128	ASN
31	DJ	130	HIS
31	DJ	138	GLN
32	DK	5	GLN
32	DK	13	ASN
32	DK	89	ASN
33	DL	4	ASN
33	DL	38	GLN
33	DL	54	GLN
34	DM	17	ASN
34	DM	60	GLN
34	DM	88	ASN
35	DN	11	ASN
35	DN	23	ASN
35	DN	62	ASN
35	DN	107	ASN
36	DO	19	GLN
36	DO	29	HIS
36	DO	38	GLN
36	DO	61	GLN
36	DO	100	HIS

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Mol	Chain	Res	Type
36	DO	104	GLN
37	DP	6	GLN
37	DP	9	GLN
37	DP	11	GLN
37	DP	40	GLN
37	DP	74	GLN
37	DP	76	HIS
37	DP	114	ASN
38	DQ	19	GLN
38	DQ	51	GLN
38	DQ	71	ASN
38	DQ	80	ASN
39	DR	6	GLN
39	DR	82	HIS
39	DR	86	GLN
40	DS	31	GLN
40	DS	61	ASN
41	DT	48	GLN
41	DT	72	GLN
41	DT	91	GLN
41	DT	92	ASN
42	DU	26	ASN
42	DU	65	GLN
42	DU	68	ASN
42	DU	73	ASN
43	DW	11	ASN
43	DW	49	ASN
43	DW	56	HIS
43	DW	75	ASN
44	DX	20	ASN
44	DX	25	GLN
44	DX	27	ASN
44	DX	31	GLN
44	DX	39	GLN
44	DX	58	ASN
45	DY	33	HIS
45	DY	48	ASN
46	DZ	6	GLN
46	DZ	16	ASN
46	DZ	17	ASN
46	DZ	23	ASN
46	DZ	36	HIS

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Mol	Chain	Res	Type
47	D0	3	GLN
47	D0	5	ASN
49	D2	6	GLN
49	D2	16	HIS
50	D3	42	HIS
51	D4	35	GLN
52	DI	5	GLN
52	DI	29	GLN
52	DI	33	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1529/1542 (99%)	257 (16%)	27 (1%)
1	CA	1529/1542 (99%)	240 (15%)	27 (1%)
22	BA	116/120 (96%)	22 (18%)	0
22	DA	116/120 (96%)	22 (18%)	0
23	BB	2837/2904 (97%)	461 (16%)	17 (0%)
23	DB	2837/2904 (97%)	462 (16%)	21 (0%)
All	All	8964/9132 (98%)	1464 (16%)	92 (1%)

All (1464) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	6	G
1	AA	9	G
1	AA	14	U
1	AA	32	A
1	AA	39	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	65	A
1	AA	70	U
1	AA	71	A
1	AA	72	A
1	AA	75	G
1	AA	76	G

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Mol	Chain	Res	Type
1	AA	79	G
1	AA	80	A
1	AA	81	A
1	AA	82	G
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	90	C
1	AA	92	U
1	AA	93	U
1	AA	94	G
1	AA	95	C
1	AA	121	U
1	AA	130	A
1	AA	131	A
1	AA	164	G
1	AA	177	G
1	AA	182	A
1	AA	183	C
1	AA	197	A
1	AA	206	C
1	AA	209	U
1	AA	210	C
1	AA	233	C
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	253	A
1	AA	256	U
1	AA	257	G
1	AA	258	G
1	AA	266	G
1	AA	267	C
1	AA	280	C

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Mol	Chain	Res	Type
1	AA	289	G
1	AA	321	A
1	AA	328	C
1	AA	329	A
1	AA	330	C
1	AA	332	G
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	367	U
1	AA	372	C
1	AA	373	A
1	AA	381	C
1	AA	384	G
1	AA	392	C
1	AA	397	A
1	AA	398	U
1	AA	406	G
1	AA	408	A
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	429	U
1	AA	430	A
1	AA	435	A
1	AA	438	U
1	AA	460	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	479	U
1	AA	484	G
1	AA	485	U
1	AA	486	U

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Mol	Chain	Res	Type
1	AA	493	A
1	AA	500	G
1	AA	511	C
1	AA	512	U
1	AA	518	C
1	AA	527	G
1	AA	532	A
1	AA	547	A
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	633	G
1	AA	653	U
1	AA	661	G
1	AA	665	A
1	AA	687	A
1	AA	695	A
1	AA	700	G
1	AA	721	G
1	AA	724	G
1	AA	731	G
1	AA	747	A
1	AA	748	G
1	AA	755	G
1	AA	777	A
1	AA	781	A
1	AA	782	A
1	AA	785	G
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	828	U
1	AA	829	G
1	AA	841	C

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Mol	Chain	Res	Type
1	AA	843	U
1	AA	844	G
1	AA	845	A
1	AA	846	G
1	AA	847	G
1	AA	849	G
1	AA	914	A
1	AA	926	G
1	AA	927	G
1	AA	931	C
1	AA	933	G
1	AA	934	C
1	AA	935	A
1	AA	960	U
1	AA	961	U
1	AA	966	G
1	AA	968	A
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	991	U
1	AA	992	U
1	AA	993	G
1	AA	1003	G
1	AA	1004	A
1	AA	1010	U
1	AA	1019	A
1	AA	1020	G
1	AA	1028	C
1	AA	1030	U
1	AA	1031	C
1	AA	1034	G
1	AA	1035	A
1	AA	1041	G
1	AA	1049	U
1	AA	1050	G
1	AA	1054	C
1	AA	1065	U
1	AA	1066	C

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Mol	Chain	Res	Type
1	AA	1081	A
1	AA	1094	G
1	AA	1101	A
1	AA	1136	C
1	AA	1137	C
1	AA	1138	G
1	AA	1139	G
1	AA	1146	A
1	AA	1159	U
1	AA	1167	A
1	AA	1168	U
1	AA	1174	G
1	AA	1179	A
1	AA	1181	G
1	AA	1184	G
1	AA	1196	A
1	AA	1197	A
1	AA	1202	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	1250	A
1	AA	1256	A
1	AA	1261	A
1	AA	1278	G
1	AA	1279	G
1	AA	1280	A
1	AA	1281	C
1	AA	1285	A
1	AA	1286	U
1	AA	1287	A
1	AA	1297	G
1	AA	1300	G
1	AA	1301	U
1	AA	1302	C
1	AA	1303	C
1	AA	1305	G

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Mol	Chain	Res	Type
1	AA	1316	G
1	AA	1317	C
1	AA	1323	G
1	AA	1336	C
1	AA	1362	A
1	AA	1363	A
1	AA	1364	U
1	AA	1398	A
1	AA	1400	C
1	AA	1401	G
1	AA	1410	A
1	AA	1432	G
1	AA	1446	A
1	AA	1448	C
1	AA	1452	C
1	AA	1475	G
1	AA	1490	U
1	AA	1491	G
1	AA	1492	A
1	AA	1493	A
1	AA	1494	G
1	AA	1497	G
1	AA	1503	A
1	AA	1506	U
1	AA	1517	G
1	AA	1520	C
1	AA	1529	G
1	AA	1530	G
1	AA	1533	C
1	AA	1534	A
22	BA	11	C
22	BA	12	C
22	BA	13	G
22	BA	16	G
22	BA	26	C
22	BA	29	A
22	BA	30	C
22	BA	35	C
22	BA	42	C
22	BA	44	G
22	BA	57	A
22	BA	66	A

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Mol	Chain	Res	Type
22	BA	67	G
22	BA	74	U
22	BA	88	C
22	BA	90	C
22	BA	96	G
22	BA	99	A
22	BA	108	A
22	BA	109	A
22	BA	112	G
22	BA	116	G
23	BB	2	G
23	BB	34	U
23	BB	46	G
23	BB	51	G
23	BB	63	A
23	BB	71	A
23	BB	74	A
23	BB	75	G
23	BB	84	A
23	BB	91	A
23	BB	98	G
23	BB	100	U
23	BB	101	A
23	BB	102	U
23	BB	118	A
23	BB	119	A
23	BB	120	U
23	BB	125	A
23	BB	126	A
23	BB	128	C
23	BB	138	U
23	BB	139	U
23	BB	140	C
23	BB	141	G
23	BB	142	A
23	BB	160	A
23	BB	162	U
23	BB	163	C
23	BB	180	G
23	BB	181	A
23	BB	196	A
23	BB	199	A

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Mol	Chain	Res	Type
23	BB	215	G
23	BB	216	A
23	BB	221	A
23	BB	222	A
23	BB	230	G
23	BB	233	A
23	BB	241	A
23	BB	248	G
23	BB	252	G
23	BB	255	A
23	BB	265	A
23	BB	266	G
23	BB	267	C
23	BB	268	C
23	BB	271	G
23	BB	277	G
23	BB	279	A
23	BB	280	U
23	BB	281	C
23	BB	299	A
23	BB	311	A
23	BB	323	C
23	BB	329	G
23	BB	330	A
23	BB	331	C
23	BB	333	G
23	BB	343	C
23	BB	346	A
23	BB	353	C
23	BB	355	U
23	BB	364	C
23	BB	367	G
23	BB	371	A
23	BB	372	G
23	BB	386	G
23	BB	387	U
23	BB	395	U
23	BB	396	G
23	BB	411	G
23	BB	412	A
23	BB	424	G
23	BB	444	C

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Mol	Chain	Res	Type
23	BB	456	C
23	BB	457	A
23	BB	473	G
23	BB	479	A
23	BB	480	A
23	BB	481	G
23	BB	490	C
23	BB	491	G
23	BB	502	A
23	BB	504	A
23	BB	505	A
23	BB	508	A
23	BB	512	G
23	BB	527	C
23	BB	531	C
23	BB	532	A
23	BB	533	G
23	BB	544	C
23	BB	546	U
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	586	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	647	G
23	BB	654	A
23	BB	655	A
23	BB	671	C
23	BB	686	U
23	BB	699	A

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Mol	Chain	Res	Type
23	BB	717	C
23	BB	718	A
23	BB	719	C
23	BB	727	A
23	BB	730	A
23	BB	743	A
23	BB	746	U
23	BB	747	U
23	BB	775	G
23	BB	782	A
23	BB	783	A
23	BB	784	G
23	BB	785	G
23	BB	789	A
23	BB	798	G
23	BB	805	G
23	BB	811	U
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	869	G
23	BB	874	G
23	BB	876	C
23	BB	899	A
23	BB	910	A
23	BB	912	C
23	BB	919	U
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	974	G
23	BB	982	C
23	BB	983	A
23	BB	991	C
23	BB	995	C

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Mol	Chain	Res	Type
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	1043	C
23	BB	1046	A
23	BB	1047	G
23	BB	1056	G
23	BB	1062	G
23	BB	1070	A
23	BB	1088	A
23	BB	1090	A
23	BB	1110	G
23	BB	1111	A
23	BB	1112	G
23	BB	1132	U
23	BB	1133	A
23	BB	1134	A
23	BB	1135	C
23	BB	1136	G
23	BB	1139	G
23	BB	1142	A
23	BB	1156	A
23	BB	1171	G
23	BB	1172	C
23	BB	1173	U
23	BB	1174	U
23	BB	1176	U
23	BB	1177	G
23	BB	1181	U
23	BB	1186	G
23	BB	1194	A
23	BB	1205	A
23	BB	1211	C
23	BB	1212	G
23	BB	1218	G
23	BB	1237	A
23	BB	1241	A
23	BB	1242	U
23	BB	1248	G

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Mol	Chain	Res	Type
23	BB	1249	U
23	BB	1250	G
23	BB	1251	C
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	1276	A
23	BB	1301	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	1371	G
23	BB	1379	U
23	BB	1383	A
23	BB	1384	A
23	BB	1386	C
23	BB	1396	U
23	BB	1397	U
23	BB	1416	G
23	BB	1419	A
23	BB	1420	A
23	BB	1426	G
23	BB	1427	A
23	BB	1428	C
23	BB	1434	A
23	BB	1451	C
23	BB	1453	A
23	BB	1454	C
23	BB	1458	U
23	BB	1459	G
23	BB	1460	U
23	BB	1461	C
23	BB	1470	A
23	BB	1475	G
23	BB	1476	U
23	BB	1477	A

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Mol	Chain	Res	Type
23	BB	1482	G
23	BB	1490	A
23	BB	1493	C
23	BB	1494	A
23	BB	1504	A
23	BB	1507	C
23	BB	1508	A
23	BB	1509	A
23	BB	1510	G
23	BB	1519	G
23	BB	1524	G
23	BB	1535	A
23	BB	1537	G
23	BB	1540	G
23	BB	1552	A
23	BB	1558	C
23	BB	1559	U
23	BB	1560	G
23	BB	1569	A
23	BB	1578	U
23	BB	1583	A
23	BB	1584	U
23	BB	1585	C
23	BB	1608	A
23	BB	1610	A
23	BB	1613	G
23	BB	1616	A
23	BB	1619	G
23	BB	1634	A
23	BB	1635	A
23	BB	1647	U
23	BB	1648	U
23	BB	1674	G
23	BB	1700	A
23	BB	1714	U
23	BB	1715	G
23	BB	1722	A
23	BB	1723	G
23	BB	1729	U
23	BB	1730	C
23	BB	1733	G
23	BB	1738	G

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Mol	Chain	Res	Type
23	BB	1756	G
23	BB	1758	U
23	BB	1764	C
23	BB	1772	A
23	BB	1773	A
23	BB	1800	C
23	BB	1816	C
23	BB	1829	A
23	BB	1857	G
23	BB	1870	C
23	BB	1906	G
23	BB	1913	A
23	BB	1914	C
23	BB	1919	A
23	BB	1926	U
23	BB	1929	G
23	BB	1930	G
23	BB	1938	A
23	BB	1939	U
23	BB	1940	U
23	BB	1955	U
23	BB	1966	A
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	1996	C
23	BB	1997	C
23	BB	2022	U
23	BB	2023	C
23	BB	2031	A
23	BB	2043	C
23	BB	2055	C
23	BB	2056	G
23	BB	2060	A
23	BB	2061	G
23	BB	2062	A
23	BB	2069	G
23	BB	2093	G
23	BB	2102	G

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Mol	Chain	Res	Type
23	BB	2103	C
23	BB	2104	C
23	BB	2105	U
23	BB	2109	U
23	BB	2140	G
23	BB	2144	G
23	BB	2145	C
23	BB	2147	A
23	BB	2148	G
23	BB	2149	U
23	BB	2152	G
23	BB	2153	C
23	BB	2157	G
23	BB	2181	U
23	BB	2183	A
23	BB	2185	U
23	BB	2187	U
23	BB	2192	U
23	BB	2198	A
23	BB	2199	A
23	BB	2203	U
23	BB	2204	G
23	BB	2211	A
23	BB	2212	A
23	BB	2213	U
23	BB	2214	C
23	BB	2225	A
23	BB	2238	G
23	BB	2239	G
23	BB	2266	A
23	BB	2272	U
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	2319	G
23	BB	2321	U
23	BB	2322	A

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Mol	Chain	Res	Type
23	BB	2324	U
23	BB	2325	G
23	BB	2333	A
23	BB	2334	U
23	BB	2335	A
23	BB	2336	A
23	BB	2345	G
23	BB	2347	C
23	BB	2353	G
23	BB	2357	G
23	BB	2358	A
23	BB	2361	G
23	BB	2383	G
23	BB	2385	C
23	BB	2392	A
23	BB	2396	G
23	BB	2402	U
23	BB	2406	A
23	BB	2423	U
23	BB	2426	A
23	BB	2427	C
23	BB	2429	G
23	BB	2430	A
23	BB	2431	U
23	BB	2435	A
23	BB	2441	U
23	BB	2446	G
23	BB	2448	A
23	BB	2472	G
23	BB	2474	U
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	2530	A
23	BB	2531	A
23	BB	2535	G
23	BB	2554	U
23	BB	2556	C

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Mol	Chain	Res	Type
23	BB	2566	A
23	BB	2567	G
23	BB	2573	C
23	BB	2574	G
23	BB	2586	U
23	BB	2602	A
23	BB	2609	U
23	BB	2613	U
23	BB	2621	G
23	BB	2629	U
23	BB	2646	C
23	BB	2654	A
23	BB	2682	A
23	BB	2689	U
23	BB	2690	U
23	BB	2714	G
23	BB	2726	A
23	BB	2739	U
23	BB	2744	G
23	BB	2750	A
23	BB	2751	G
23	BB	2752	C
23	BB	2753	A
23	BB	2756	U
23	BB	2757	A
23	BB	2760	C
23	BB	2765	A
23	BB	2778	A
23	BB	2790	U
23	BB	2791	G
23	BB	2792	A
23	BB	2798	U
23	BB	2799	A
23	BB	2800	A
23	BB	2801	G
23	BB	2808	G
23	BB	2809	A
23	BB	2820	A
23	BB	2821	A
23	BB	2832	U
23	BB	2834	G
23	BB	2836	U

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Mol	Chain	Res	Type
23	BB	2850	A
23	BB	2861	U
23	BB	2867	G
23	BB	2872	A
23	BB	2873	A
23	BB	2883	A
23	BB	2886	A
23	BB	2901	C
23	BB	2903	U
1	CA	6	G
1	CA	9	G
1	CA	14	U
1	CA	32	A
1	CA	39	G
1	CA	47	C
1	CA	48	C
1	CA	52	C
1	CA	54	C
1	CA	55	A
1	CA	68	G
1	CA	71	A
1	CA	83	C
1	CA	84	U
1	CA	85	U
1	CA	86	G
1	CA	87	C
1	CA	91	U
1	CA	121	U
1	CA	130	A
1	CA	131	A
1	CA	149	A
1	CA	164	G
1	CA	177	G
1	CA	182	A
1	CA	183	C
1	CA	197	A
1	CA	206	C
1	CA	209	U
1	CA	210	C
1	CA	233	C
1	CA	239	U
1	CA	240	G

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Mol	Chain	Res	Type
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	253	A
1	CA	256	U
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	321	A
1	CA	328	C
1	CA	329	A
1	CA	330	C
1	CA	332	G
1	CA	352	C
1	CA	353	A
1	CA	354	G
1	CA	367	U
1	CA	372	C
1	CA	373	A
1	CA	381	C
1	CA	384	G
1	CA	392	C
1	CA	397	A
1	CA	398	U
1	CA	406	G
1	CA	408	A
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	429	U
1	CA	430	A
1	CA	435	A
1	CA	438	U

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Mol	Chain	Res	Type
1	CA	460	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	479	U
1	CA	484	G
1	CA	485	U
1	CA	486	U
1	CA	493	A
1	CA	500	G
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	633	G
1	CA	653	U
1	CA	661	G
1	CA	665	A
1	CA	687	A
1	CA	695	A
1	CA	700	G
1	CA	721	G
1	CA	724	G
1	CA	731	G
1	CA	747	A
1	CA	748	G
1	CA	755	G
1	CA	777	A
1	CA	781	A

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Mol	Chain	Res	Type
1	CA	782	A
1	CA	785	G
1	CA	793	U
1	CA	794	A
1	CA	812	G
1	CA	815	A
1	CA	817	C
1	CA	818	G
1	CA	819	A
1	CA	828	U
1	CA	829	G
1	CA	841	C
1	CA	843	U
1	CA	844	G
1	CA	845	A
1	CA	846	G
1	CA	847	G
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	968	A
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	991	U
1	CA	992	U
1	CA	993	G
1	CA	1003	G
1	CA	1004	A
1	CA	1010	U
1	CA	1011	C
1	CA	1019	A
1	CA	1020	G

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Mol	Chain	Res	Type
1	CA	1028	C
1	CA	1030	U
1	CA	1031	C
1	CA	1034	G
1	CA	1035	A
1	CA	1041	G
1	CA	1049	U
1	CA	1050	G
1	CA	1054	C
1	CA	1065	U
1	CA	1066	C
1	CA	1081	A
1	CA	1094	G
1	CA	1101	A
1	CA	1136	C
1	CA	1137	C
1	CA	1138	G
1	CA	1139	G
1	CA	1146	A
1	CA	1159	U
1	CA	1167	A
1	CA	1168	U
1	CA	1174	G
1	CA	1179	A
1	CA	1181	G
1	CA	1184	G
1	CA	1196	A
1	CA	1197	A
1	CA	1202	U
1	CA	1212	U
1	CA	1213	A
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	1250	A
1	CA	1256	A
1	CA	1261	A
1	CA	1278	G
1	CA	1279	G

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Mol	Chain	Res	Type
1	CA	1280	A
1	CA	1281	C
1	CA	1285	A
1	CA	1286	U
1	CA	1287	A
1	CA	1297	G
1	CA	1300	G
1	CA	1301	U
1	CA	1302	C
1	CA	1303	C
1	CA	1305	G
1	CA	1316	G
1	CA	1317	C
1	CA	1323	G
1	CA	1336	C
1	CA	1362	A
1	CA	1363	A
1	CA	1364	U
1	CA	1388	C
1	CA	1398	A
1	CA	1400	C
1	CA	1401	G
1	CA	1432	G
1	CA	1446	A
1	CA	1448	C
1	CA	1452	C
1	CA	1490	U
1	CA	1491	G
1	CA	1492	A
1	CA	1493	A
1	CA	1494	G
1	CA	1497	G
1	CA	1503	A
1	CA	1506	U
1	CA	1517	G
1	CA	1520	C
1	CA	1529	G
1	CA	1530	G
1	CA	1534	A
22	DA	11	C
22	DA	12	C
22	DA	13	G

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Mol	Chain	Res	Type
22	DA	16	G
22	DA	26	C
22	DA	29	A
22	DA	30	C
22	DA	35	C
22	DA	42	C
22	DA	44	G
22	DA	57	A
22	DA	66	A
22	DA	67	G
22	DA	88	C
22	DA	90	C
22	DA	96	G
22	DA	99	A
22	DA	108	A
22	DA	109	A
22	DA	112	G
22	DA	116	G
22	DA	118	C
23	DB	34	U
23	DB	46	G
23	DB	51	G
23	DB	63	A
23	DB	71	A
23	DB	74	A
23	DB	75	G
23	DB	84	A
23	DB	91	A
23	DB	98	G
23	DB	100	U
23	DB	101	A
23	DB	102	U
23	DB	118	A
23	DB	119	A
23	DB	120	U
23	DB	125	A
23	DB	126	A
23	DB	128	C
23	DB	135	U
23	DB	139	U
23	DB	140	C
23	DB	141	G

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Mol	Chain	Res	Type
23	DB	143	C
23	DB	160	A
23	DB	162	U
23	DB	163	C
23	DB	180	G
23	DB	181	A
23	DB	196	A
23	DB	199	A
23	DB	215	G
23	DB	216	A
23	DB	221	A
23	DB	222	A
23	DB	223	A
23	DB	230	G
23	DB	233	A
23	DB	241	A
23	DB	242	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	268	C
23	DB	271	G
23	DB	276	U
23	DB	277	G
23	DB	278	A
23	DB	282	A
23	DB	284	U
23	DB	288	U
23	DB	289	G
23	DB	299	A
23	DB	311	A
23	DB	323	C
23	DB	329	G
23	DB	330	A
23	DB	331	C
23	DB	333	G
23	DB	343	C
23	DB	346	A
23	DB	349	U

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Mol	Chain	Res	Type
23	DB	353	C
23	DB	354	A
23	DB	358	U
23	DB	362	A
23	DB	367	G
23	DB	371	A
23	DB	372	G
23	DB	386	G
23	DB	387	U
23	DB	395	U
23	DB	396	G
23	DB	411	G
23	DB	412	A
23	DB	424	G
23	DB	444	C
23	DB	456	C
23	DB	457	A
23	DB	473	G
23	DB	479	A
23	DB	480	A
23	DB	481	G
23	DB	490	C
23	DB	491	G
23	DB	502	A
23	DB	504	A
23	DB	505	A
23	DB	508	A
23	DB	512	G
23	DB	527	C
23	DB	531	C
23	DB	532	A
23	DB	533	G
23	DB	544	C
23	DB	545	U
23	DB	546	U
23	DB	548	G
23	DB	549	G
23	DB	550	C
23	DB	563	A
23	DB	573	U
23	DB	575	A
23	DB	586	A

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Mol	Chain	Res	Type
23	DB	588	U
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	647	G
23	DB	654	A
23	DB	655	A
23	DB	671	C
23	DB	686	U
23	DB	699	A
23	DB	717	C
23	DB	718	A
23	DB	719	C
23	DB	727	A
23	DB	730	A
23	DB	743	A
23	DB	746	U
23	DB	747	U
23	DB	775	G
23	DB	782	A
23	DB	783	A
23	DB	784	G
23	DB	785	G
23	DB	789	A
23	DB	798	G
23	DB	805	G
23	DB	806	C
23	DB	811	U
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	869	G

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Mol	Chain	Res	Type
23	DB	874	G
23	DB	877	A
23	DB	878	A
23	DB	899	A
23	DB	910	A
23	DB	912	C
23	DB	919	U
23	DB	931	U
23	DB	932	U
23	DB	933	A
23	DB	941	A
23	DB	946	C
23	DB	961	C
23	DB	974	G
23	DB	982	C
23	DB	983	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	1070	A
23	DB	1088	A
23	DB	1090	A
23	DB	1098	A
23	DB	1110	G
23	DB	1111	A
23	DB	1112	G
23	DB	1116	G
23	DB	1118	C
23	DB	1132	U
23	DB	1133	A
23	DB	1134	A
23	DB	1135	C
23	DB	1136	G
23	DB	1139	G
23	DB	1142	A

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Mol	Chain	Res	Type
23	DB	1156	A
23	DB	1172	C
23	DB	1173	U
23	DB	1174	U
23	DB	1176	U
23	DB	1186	G
23	DB	1194	A
23	DB	1205	A
23	DB	1211	C
23	DB	1212	G
23	DB	1218	G
23	DB	1237	A
23	DB	1241	A
23	DB	1242	U
23	DB	1248	G
23	DB	1249	U
23	DB	1250	G
23	DB	1251	C
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	1276	A
23	DB	1301	A
23	DB	1324	G
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	1386	C
23	DB	1396	U
23	DB	1397	U
23	DB	1416	G
23	DB	1419	A
23	DB	1420	A

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Mol	Chain	Res	Type
23	DB	1426	G
23	DB	1428	C
23	DB	1434	A
23	DB	1451	C
23	DB	1453	A
23	DB	1454	C
23	DB	1458	U
23	DB	1459	G
23	DB	1460	U
23	DB	1461	C
23	DB	1470	A
23	DB	1475	G
23	DB	1476	U
23	DB	1477	A
23	DB	1482	G
23	DB	1490	A
23	DB	1493	C
23	DB	1494	A
23	DB	1504	A
23	DB	1507	C
23	DB	1508	A
23	DB	1509	A
23	DB	1510	G
23	DB	1519	G
23	DB	1524	G
23	DB	1535	A
23	DB	1537	G
23	DB	1540	G
23	DB	1552	A
23	DB	1558	C
23	DB	1559	U
23	DB	1560	G
23	DB	1569	A
23	DB	1578	U
23	DB	1583	A
23	DB	1584	U
23	DB	1585	C
23	DB	1608	A
23	DB	1610	A
23	DB	1613	G
23	DB	1619	G
23	DB	1634	A

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Mol	Chain	Res	Type
23	DB	1635	A
23	DB	1647	U
23	DB	1648	U
23	DB	1674	G
23	DB	1700	A
23	DB	1714	U
23	DB	1715	G
23	DB	1723	G
23	DB	1729	U
23	DB	1730	C
23	DB	1733	G
23	DB	1738	G
23	DB	1756	G
23	DB	1758	U
23	DB	1764	C
23	DB	1772	A
23	DB	1773	A
23	DB	1800	C
23	DB	1816	C
23	DB	1829	A
23	DB	1848	A
23	DB	1857	G
23	DB	1870	C
23	DB	1906	G
23	DB	1913	A
23	DB	1914	C
23	DB	1915	U
23	DB	1916	A
23	DB	1926	U
23	DB	1929	G
23	DB	1930	G
23	DB	1938	A
23	DB	1939	U
23	DB	1940	U
23	DB	1955	U
23	DB	1966	A
23	DB	1967	C
23	DB	1970	A
23	DB	1971	U
23	DB	1972	G
23	DB	1991	U
23	DB	1993	U

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Mol	Chain	Res	Type
23	DB	1996	C
23	DB	1997	C
23	DB	2022	U
23	DB	2023	C
23	DB	2031	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	2093	G
23	DB	2095	A
23	DB	2096	C
23	DB	2100	G
23	DB	2101	A
23	DB	2102	G
23	DB	2106	U
23	DB	2107	G
23	DB	2108	A
23	DB	2109	U
23	DB	2110	G
23	DB	2144	G
23	DB	2145	C
23	DB	2147	A
23	DB	2150	C
23	DB	2155	U
23	DB	2156	G
23	DB	2157	G
23	DB	2180	U
23	DB	2181	U
23	DB	2188	U
23	DB	2193	G
23	DB	2198	A
23	DB	2199	A
23	DB	2203	U
23	DB	2204	G
23	DB	2211	A
23	DB	2212	A
23	DB	2213	U
23	DB	2214	C

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Mol	Chain	Res	Type
23	DB	2225	A
23	DB	2238	G
23	DB	2239	G
23	DB	2266	A
23	DB	2272	U
23	DB	2283	C
23	DB	2287	A
23	DB	2288	A
23	DB	2297	A
23	DB	2305	U
23	DB	2307	G
23	DB	2308	G
23	DB	2309	A
23	DB	2311	A
23	DB	2319	G
23	DB	2321	U
23	DB	2322	A
23	DB	2324	U
23	DB	2325	G
23	DB	2333	A
23	DB	2334	U
23	DB	2335	A
23	DB	2336	A
23	DB	2345	G
23	DB	2347	C
23	DB	2357	G
23	DB	2361	G
23	DB	2383	G
23	DB	2385	C
23	DB	2392	A
23	DB	2396	G
23	DB	2402	U
23	DB	2406	A
23	DB	2423	U
23	DB	2426	A
23	DB	2427	C
23	DB	2429	G
23	DB	2430	A
23	DB	2431	U
23	DB	2435	A
23	DB	2441	U
23	DB	2446	G

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Mol	Chain	Res	Type
23	DB	2448	A
23	DB	2472	G
23	DB	2474	U
23	DB	2476	A
23	DB	2491	U
23	DB	2502	G
23	DB	2505	G
23	DB	2506	U
23	DB	2518	A
23	DB	2529	G
23	DB	2530	A
23	DB	2531	A
23	DB	2535	G
23	DB	2554	U
23	DB	2556	C
23	DB	2566	A
23	DB	2567	G
23	DB	2573	C
23	DB	2574	G
23	DB	2586	U
23	DB	2602	A
23	DB	2609	U
23	DB	2613	U
23	DB	2621	G
23	DB	2629	U
23	DB	2646	C
23	DB	2654	A
23	DB	2682	A
23	DB	2689	U
23	DB	2690	U
23	DB	2714	G
23	DB	2726	A
23	DB	2739	U
23	DB	2744	G
23	DB	2748	A
23	DB	2757	A
23	DB	2760	C
23	DB	2765	A
23	DB	2778	A
23	DB	2790	U
23	DB	2791	G
23	DB	2792	A

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Mol	Chain	Res	Type
23	DB	2798	U
23	DB	2799	A
23	DB	2800	A
23	DB	2801	G
23	DB	2808	G
23	DB	2809	A
23	DB	2820	A
23	DB	2821	A
23	DB	2823	A
23	DB	2832	U
23	DB	2834	G
23	DB	2836	U
23	DB	2861	U
23	DB	2867	G
23	DB	2872	A
23	DB	2873	A
23	DB	2883	A
23	DB	2886	A
23	DB	2903	U

All (92) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	51	A
1	AA	81	A
1	AA	84	U
1	AA	243	A
1	AA	279	A
1	AA	328	C
1	AA	366	A
1	AA	372	C
1	AA	412	A
1	AA	428	G
1	AA	429	U
1	AA	484	G
1	AA	576	C
1	AA	960	U
1	AA	975	A
1	AA	1030	U
1	AA	1049	U
1	AA	1065	U
1	AA	1201	A

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Mol	Chain	Res	Type
1	AA	1213	A
1	AA	1226	C
1	AA	1285	A
1	AA	1302	C
1	AA	1362	A
1	AA	1397	C
1	AA	1451	U
1	AA	1492	A
23	BB	63	A
23	BB	162	U
23	BB	670	A
23	BB	858	G
23	BB	1133	A
23	BB	1210	G
23	BB	1419	A
23	BB	1509	A
23	BB	1912	A
23	BB	2213	U
23	BB	2282	G
23	BB	2286	G
23	BB	2425	A
23	BB	2430	A
23	BB	2756	U
23	BB	2808	G
23	BB	2873	A
1	CA	51	A
1	CA	239	U
1	CA	243	A
1	CA	266	G
1	CA	279	A
1	CA	328	C
1	CA	366	A
1	CA	372	C
1	CA	412	A
1	CA	428	G
1	CA	429	U
1	CA	484	G
1	CA	960	U
1	CA	975	A
1	CA	1030	U
1	CA	1049	U
1	CA	1065	U

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Mol	Chain	Res	Type
1	CA	1201	A
1	CA	1212	U
1	CA	1213	A
1	CA	1226	C
1	CA	1285	A
1	CA	1302	C
1	CA	1362	A
1	CA	1397	C
1	CA	1451	U
1	CA	1492	A
23	DB	63	A
23	DB	125	A
23	DB	162	U
23	DB	241	A
23	DB	544	C
23	DB	670	A
23	DB	858	G
23	DB	1133	A
23	DB	1210	G
23	DB	1419	A
23	DB	1509	A
23	DB	1914	C
23	DB	2180	U
23	DB	2213	U
23	DB	2282	G
23	DB	2286	G
23	DB	2425	A
23	DB	2430	A
23	DB	2756	U
23	DB	2808	G
23	DB	2873	A

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry

Of 347 ligands modelled in this entry, 345 are monoatomic - leaving 2 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
54	HYG	AA	2059	-	36,39,39	1.36	6 (16%)	44,60,60	1.48	6 (13%)
54	HYG	CA	2062	-	36,39,39	1.38	6 (16%)	44,60,60	1.48	6 (13%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
54	HYG	AA	2059	-	-	9/12/87/87	0/4/4/4
54	HYG	CA	2062	-	-	10/12/87/87	0/4/4/4

All (12) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
54	CA	2062	HYG	O28-C23	2.99	1.44	1.40
54	AA	2059	HYG	O28-C23	2.97	1.44	1.40
54	AA	2059	HYG	C27-C33	2.77	1.56	1.52
54	CA	2062	HYG	C27-C33	2.76	1.56	1.52
54	CA	2062	HYG	O22-C17	-2.43	1.38	1.43
54	CA	2062	HYG	C3-C4	2.24	1.56	1.53
54	AA	2059	HYG	C3-C4	2.23	1.56	1.53
54	CA	2062	HYG	C16-C15	2.17	1.57	1.53
54	AA	2059	HYG	C16-C15	2.12	1.57	1.53
54	AA	2059	HYG	C1-C6	2.08	1.57	1.52
54	CA	2062	HYG	C1-C6	2.07	1.57	1.52
54	AA	2059	HYG	O22-C17	-2.02	1.39	1.43

All (12) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	CA	2062	HYG	O22-C17-C16	4.61	122.21	111.22
54	AA	2059	HYG	O22-C17-C16	4.55	122.08	111.22
54	CA	2062	HYG	O8-C1-C2	-4.34	101.78	109.90
54	AA	2059	HYG	O8-C1-C2	-4.32	101.81	109.90
54	CA	2062	HYG	O35-C34-C33	-3.51	103.94	111.55
54	AA	2059	HYG	O35-C34-C33	-3.50	103.97	111.55
54	AA	2059	HYG	O29-C23-O22	2.12	108.31	105.90
54	AA	2059	HYG	C26-C25-C24	-2.08	108.22	111.18
54	CA	2062	HYG	O29-C23-O22	2.06	108.24	105.90
54	CA	2062	HYG	C26-C25-C24	-2.05	108.26	111.18
54	AA	2059	HYG	C23-O28-C27	2.03	115.86	112.00
54	CA	2062	HYG	C23-O28-C27	2.02	115.84	112.00

There are no chirality outliers.

All (19) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
54	AA	2059	HYG	C5-C4-N9-C10
54	AA	2059	HYG	N36-C33-C34-O35
54	CA	2062	HYG	C3-C4-N9-C10
54	CA	2062	HYG	N36-C33-C34-O35
54	CA	2062	HYG	O14-C15-C19-O20
54	CA	2062	HYG	C16-C15-C19-O20
54	AA	2059	HYG	O14-C15-C19-O20
54	AA	2059	HYG	C16-C15-C19-O20
54	AA	2059	HYG	C3-C4-N9-C10
54	AA	2059	HYG	C27-C33-C34-O35
54	CA	2062	HYG	C27-C33-C34-O35
54	AA	2059	HYG	C12-C13-O18-C6
54	CA	2062	HYG	C5-C4-N9-C10
54	CA	2062	HYG	C12-C13-O18-C6
54	CA	2062	HYG	O14-C13-O18-C6
54	AA	2059	HYG	O14-C13-O18-C6
54	CA	2062	HYG	C5-C6-O18-C13
54	AA	2059	HYG	C5-C6-O18-C13
54	CA	2062	HYG	C1-C6-O18-C13

There are no ring outliers.

2 monomers are involved in 3 short contacts:

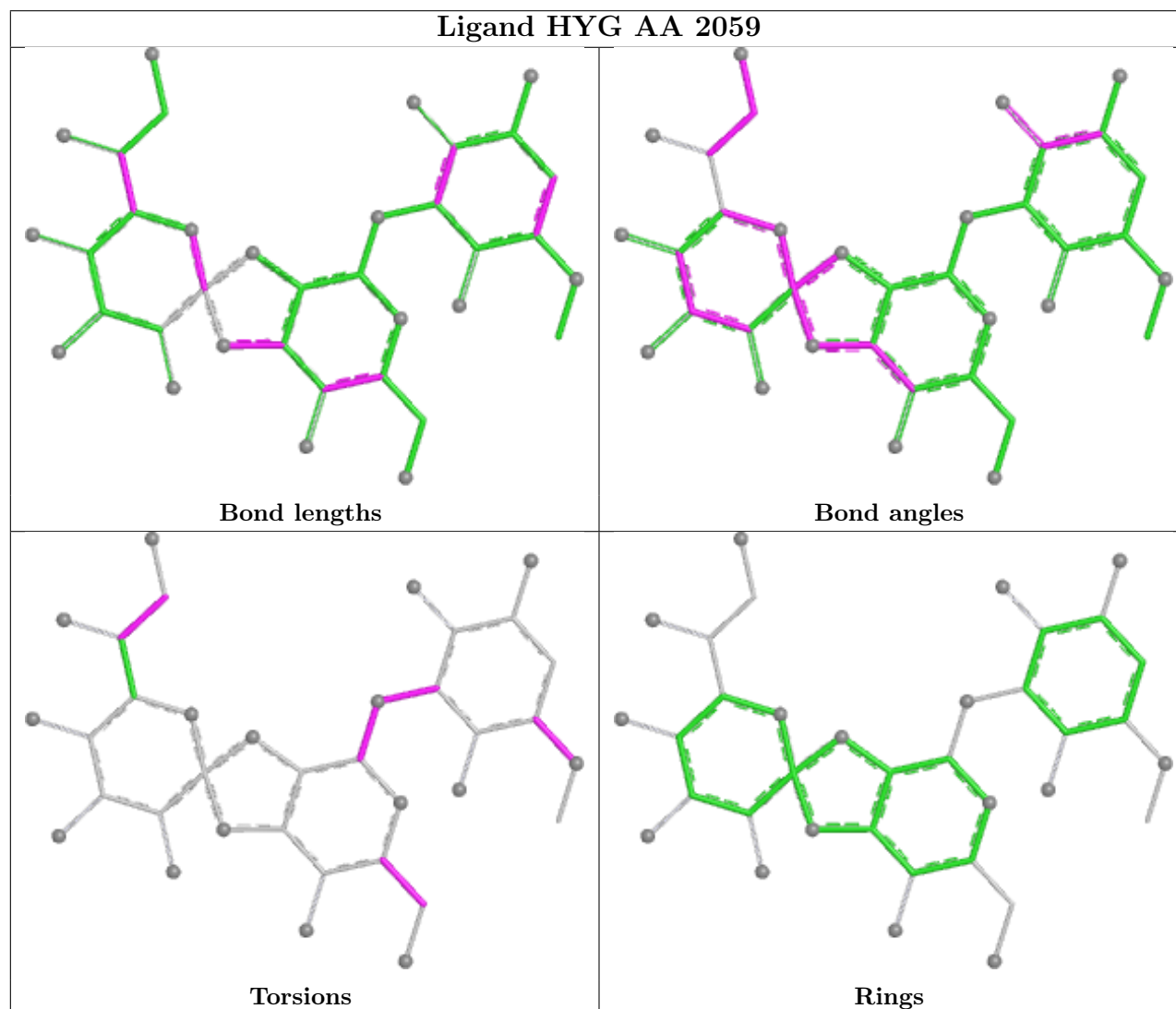
Mol	Chain	Res	Type	Clashes	Symm-Clashes
54	AA	2059	HYG	2	0

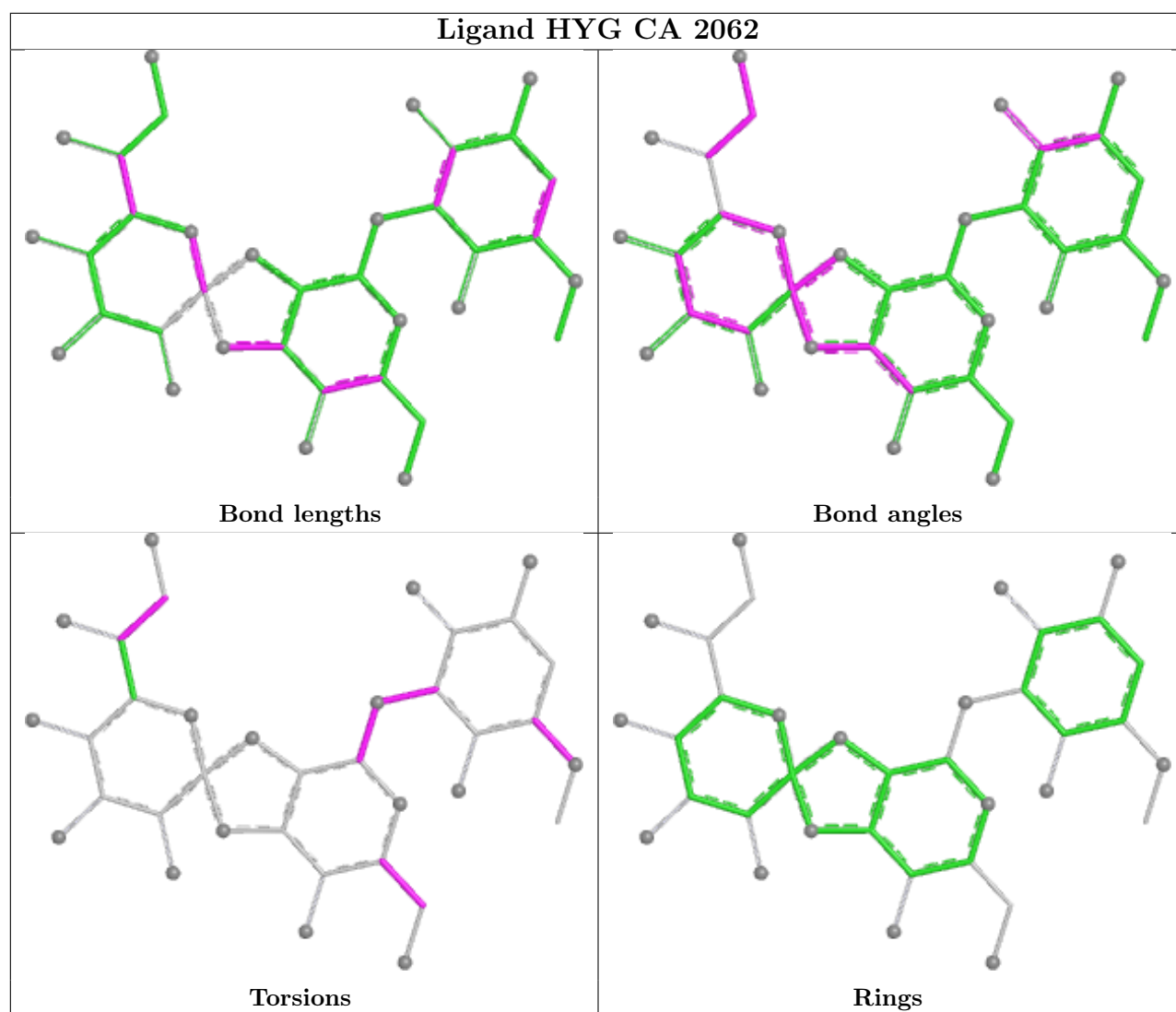
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Mol	Chain	Res	Type	Clashes	Symm-Clashes
54	CA	2062	HYG	1	0

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





5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	AA	1530/1542 (99%)	-0.19	26 (1%) 69 43	16, 85, 158, 180	0
1	CA	1530/1542 (99%)	-0.27	34 (2%) 62 37	8, 57, 142, 180	0
2	AC	206/232 (88%)	0.02	9 (4%) 39 21	8, 89, 145, 180	0
2	CC	206/232 (88%)	-0.26	1 (0%) 87 68	15, 81, 138, 180	0
3	AD	205/205 (100%)	0.47	15 (7%) 21 13	19, 97, 160, 180	0
3	CD	205/205 (100%)	0.28	11 (5%) 31 18	5, 63, 135, 180	0
4	AE	150/166 (90%)	0.26	8 (5%) 32 18	5, 76, 136, 167	0
4	CE	150/166 (90%)	0.12	5 (3%) 49 28	5, 62, 135, 175	0
5	AF	100/135 (74%)	-0.15	0 100 100	13, 81, 137, 180	0
5	CF	100/135 (74%)	-0.30	0 100 100	14, 78, 126, 166	0
6	AG	150/178 (84%)	0.10	6 (4%) 42 23	41, 110, 166, 180	0
6	CG	152/178 (85%)	0.03	8 (5%) 32 18	27, 98, 156, 177	0
7	AH	129/129 (100%)	0.38	10 (7%) 19 12	26, 91, 148, 180	0
7	CH	129/129 (100%)	0.08	5 (3%) 43 23	5, 53, 117, 153	0
8	AI	127/129 (98%)	0.29	10 (7%) 18 12	32, 103, 160, 180	0
8	CI	127/129 (98%)	0.60	19 (14%) 5 5	32, 103, 162, 180	0
9	AJ	98/103 (95%)	0.53	9 (9%) 14 9	34, 106, 162, 180	0
9	CJ	98/103 (95%)	0.68	11 (11%) 10 7	42, 107, 156, 180	0
10	AK	117/128 (91%)	-0.17	1 (0%) 81 58	5, 71, 122, 174	0
10	CK	117/128 (91%)	-0.08	1 (0%) 81 58	5, 57, 112, 179	0
11	AL	123/123 (100%)	0.71	16 (13%) 7 6	15, 82, 132, 153	0
11	CL	123/123 (100%)	0.26	10 (8%) 18 12	5, 44, 109, 165	0
12	AM	114/117 (97%)	0.17	2 (1%) 67 42	68, 130, 178, 180	0
12	CM	113/117 (96%)	-0.02	2 (1%) 67 42	32, 108, 156, 180	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	AN	96/100 (96%)	0.46	11 (11%) 9 6	32, 103, 161, 180	0
13	CN	96/100 (96%)	0.60	6 (6%) 26 15	38, 99, 137, 171	0
14	AO	88/89 (98%)	-0.07	2 (2%) 61 37	35, 83, 132, 180	0
14	CO	88/89 (98%)	0.09	7 (7%) 18 12	8, 54, 111, 165	0
15	AP	82/82 (100%)	0.75	8 (9%) 13 9	43, 99, 163, 180	0
15	CP	80/82 (97%)	0.64	6 (7%) 20 13	5, 51, 143, 164	0
16	AQ	80/83 (96%)	0.30	8 (10%) 12 8	49, 106, 156, 177	0
16	CQ	81/83 (97%)	-0.06	4 (4%) 35 19	5, 51, 121, 157	0
17	AR	55/74 (74%)	-0.08	1 (1%) 67 42	16, 78, 142, 152	0
17	CR	55/74 (74%)	-0.17	0 100 100	13, 69, 132, 149	0
18	AS	79/91 (86%)	0.41	5 (6%) 26 15	67, 128, 175, 180	0
18	CS	80/91 (87%)	0.37	4 (5%) 34 19	49, 113, 171, 180	0
19	AT	85/86 (98%)	0.69	15 (17%) 4 4	43, 100, 153, 175	0
19	CT	85/86 (98%)	0.41	8 (9%) 14 9	14, 58, 121, 177	0
20	AB	218/240 (90%)	-0.06	5 (2%) 61 37	30, 102, 152, 180	0
20	CB	218/240 (90%)	0.01	8 (3%) 45 25	26, 106, 160, 180	0
21	AU	51/71 (71%)	0.62	6 (11%) 9 6	26, 102, 172, 180	0
21	CU	51/71 (71%)	1.17	12 (23%) 2 2	19, 85, 151, 180	0
22	BA	117/120 (97%)	-0.13	4 (3%) 48 27	43, 83, 131, 172	0
22	DA	117/120 (97%)	0.05	5 (4%) 40 21	32, 75, 118, 180	0
23	BB	2841/2904 (97%)	-0.28	36 (1%) 75 50	6, 56, 146, 180	0
23	DB	2841/2904 (97%)	-0.37	30 (1%) 78 54	5, 40, 139, 180	0
24	BV	94/94 (100%)	-0.07	2 (2%) 63 38	11, 96, 146, 176	0
24	DV	94/94 (100%)	-0.12	3 (3%) 50 29	14, 86, 143, 180	0
25	BC	271/273 (99%)	0.46	30 (11%) 10 7	7, 48, 104, 170	0
25	DC	271/273 (99%)	0.22	12 (4%) 39 21	5, 28, 81, 120	0
26	BD	209/209 (100%)	0.57	20 (9%) 13 9	5, 73, 138, 180	0
26	DD	209/209 (100%)	0.38	19 (9%) 15 10	5, 42, 118, 180	0
27	BE	201/201 (100%)	0.12	9 (4%) 38 20	5, 65, 142, 180	0
27	DE	201/201 (100%)	0.15	9 (4%) 38 20	5, 67, 135, 180	0
28	BF	178/178 (100%)	-0.02	3 (1%) 69 43	50, 116, 175, 180	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
28	DF	178/178 (100%)	0.23	10 (5%) 30 17	7, 101, 172, 180	0
29	BG	176/176 (100%)	0.12	7 (3%) 42 23	23, 102, 155, 180	0
29	DG	176/176 (100%)	0.11	12 (6%) 23 14	24, 90, 161, 180	0
30	BH	149/149 (100%)	0.17	3 (2%) 65 39	14, 117, 177, 180	0
30	DH	149/149 (100%)	-0.01	4 (2%) 56 33	11, 100, 156, 180	0
31	BJ	142/142 (100%)	0.59	16 (11%) 10 7	6, 80, 141, 171	0
31	DJ	142/142 (100%)	0.41	9 (6%) 26 15	5, 60, 119, 164	0
32	BK	121/123 (98%)	0.46	7 (5%) 29 17	5, 73, 135, 180	0
32	DK	121/123 (98%)	0.18	3 (2%) 58 35	5, 35, 102, 145	0
33	BL	143/144 (99%)	0.22	3 (2%) 63 38	10, 64, 128, 180	0
33	DL	143/144 (99%)	0.22	6 (4%) 40 22	5, 54, 118, 162	0
34	BM	136/136 (100%)	0.02	2 (1%) 72 47	8, 70, 129, 172	0
34	DM	136/136 (100%)	0.44	6 (4%) 39 21	5, 51, 114, 168	0
35	BN	120/127 (94%)	0.36	10 (8%) 17 11	7, 66, 132, 163	0
35	DN	120/127 (94%)	0.27	6 (5%) 34 19	5, 42, 86, 145	0
36	BO	116/117 (99%)	0.33	7 (6%) 27 16	27, 87, 135, 156	0
36	DO	116/117 (99%)	0.32	7 (6%) 27 16	17, 78, 142, 180	0
37	BP	114/114 (100%)	0.54	8 (7%) 22 14	20, 85, 149, 178	0
37	DP	114/114 (100%)	0.20	7 (6%) 27 16	5, 48, 107, 159	0
38	BQ	117/117 (100%)	0.34	9 (7%) 19 13	5, 63, 127, 180	0
38	DQ	117/117 (100%)	0.63	11 (9%) 14 9	5, 48, 116, 150	0
39	BR	103/103 (100%)	0.23	9 (8%) 16 10	16, 82, 145, 158	0
39	DR	103/103 (100%)	0.42	9 (8%) 16 10	5, 73, 136, 180	0
40	BS	110/110 (100%)	0.01	4 (3%) 46 25	5, 53, 116, 142	0
40	DS	110/110 (100%)	0.17	3 (2%) 56 33	5, 42, 116, 146	0
41	BT	93/100 (93%)	0.24	6 (6%) 25 15	6, 72, 139, 179	0
41	DT	93/100 (93%)	0.45	4 (4%) 40 21	11, 64, 156, 180	0
42	BU	102/103 (99%)	0.14	0 100 100	5, 78, 144, 178	0
42	DU	102/103 (99%)	0.25	6 (5%) 28 16	10, 90, 154, 180	0
43	BW	79/84 (94%)	1.09	20 (25%) 1 2	10, 79, 157, 163	0
43	DW	79/84 (94%)	1.25	20 (25%) 1 2	5, 75, 131, 174	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å ²)	Q<0.9
44	BX	63/63 (100%)	-0.14	2 (3%)	50	29	9, 74, 146, 179	0
44	DX	63/63 (100%)	0.01	1 (1%)	70	45	17, 96, 147, 180	0
45	BY	58/58 (100%)	0.11	1 (1%)	69	43	14, 78, 135, 170	0
45	DY	58/58 (100%)	0.40	2 (3%)	48	27	10, 73, 129, 160	0
46	BZ	77/78 (98%)	0.37	3 (3%)	43	23	5, 49, 121, 160	0
46	DZ	77/78 (98%)	0.45	7 (9%)	15	10	5, 42, 107, 141	0
47	B0	56/56 (100%)	0.21	3 (5%)	31	18	5, 77, 144, 166	0
47	D0	56/56 (100%)	0.42	3 (5%)	31	18	8, 52, 128, 160	0
48	B1	50/54 (92%)	0.13	3 (6%)	27	16	51, 99, 149, 165	0
48	D1	50/54 (92%)	-0.12	0	100	100	43, 93, 138, 171	0
49	B2	46/46 (100%)	0.61	6 (13%)	7	6	7, 49, 103, 135	0
49	D2	46/46 (100%)	0.35	4 (8%)	16	10	5, 28, 99, 180	0
50	B3	64/64 (100%)	1.05	9 (14%)	6	5	16, 56, 110, 137	0
50	D3	64/64 (100%)	0.80	9 (14%)	6	5	5, 43, 112, 152	0
51	B4	38/38 (100%)	1.32	9 (23%)	2	2	33, 92, 143, 146	0
51	D4	38/38 (100%)	0.50	1 (2%)	57	33	5, 68, 112, 150	0
52	BI	141/141 (100%)	0.27	6 (4%)	40	21	67, 169, 180, 180	0
52	DI	141/141 (100%)	0.26	5 (3%)	47	26	91, 160, 180, 180	0
All	All	20417/21050 (96%)	0.02	825 (4%)	42	23	5, 70, 153, 180	0

All (825) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
22	DA	88	C	15.9
11	AL	13	ARG	11.2
1	AA	79	G	10.0
11	AL	14	LYS	8.5
1	AA	80	A	7.7
1	AA	78	A	7.4
21	CU	35	GLU	7.4
1	AA	86	G	7.1
37	BP	99	LEU	7.1
8	CI	129	ARG	7.1
11	CL	24	GLU	6.9
1	AA	412	A	6.9
22	BA	88	C	6.5

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Mol	Chain	Res	Type	RSRZ
27	DE	61	ARG	6.5
11	AL	15	VAL	6.5
11	AL	12	ALA	6.3
23	DB	645	C	6.2
8	CI	127	SER	6.2
39	DR	73	LYS	6.1
38	DQ	19	GLN	6.1
43	BW	42	THR	6.0
28	DF	163	GLU	6.0
28	DF	27	VAL	6.0
7	AH	81	GLY	5.9
25	BC	1	ALA	5.8
23	BB	2154	A	5.8
43	BW	41	GLY	5.7
50	B3	13	PHE	5.7
3	AD	24	VAL	5.7
11	CL	14	LYS	5.7
1	CA	1362	A	5.5
43	DW	45	HIS	5.5
36	DO	2	ASP	5.5
26	BD	142	VAL	5.5
26	DD	77	ARG	5.5
16	AQ	31	PRO	5.5
23	DB	2157	G	5.4
4	AE	85	LYS	5.4
11	AL	9	LYS	5.4
35	BN	12	ARG	5.3
35	BN	21	PHE	5.3
13	CN	16	ALA	5.3
8	CI	118	ARG	5.3
11	AL	3	VAL	5.2
3	AD	4	LEU	5.2
1	CA	975	A	5.2
11	CL	15	VAL	5.1
50	D3	51	LYS	5.1
50	D3	19	GLY	5.1
21	CU	41	THR	5.1
26	BD	186	LEU	5.1
28	BF	131	VAL	5.1
11	CL	13	ARG	5.1
11	AL	11	ARG	5.1
19	AT	6	ALA	5.0

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Mol	Chain	Res	Type	RSRZ
25	BC	3	VAL	5.0
31	BJ	86	GLN	5.0
50	B3	10	ALA	5.0
3	CD	72	ARG	4.9
8	CI	126	PHE	4.9
19	CT	63	LYS	4.9
15	CP	52	LEU	4.9
1	AA	87	C	4.9
22	DA	52	A	4.9
25	BC	17	LYS	4.8
31	DJ	86	GLN	4.8
19	AT	35	TYR	4.8
26	BD	151	THR	4.8
48	B1	14	ALA	4.7
11	AL	7	VAL	4.7
38	DQ	10	ARG	4.7
23	BB	2147	A	4.7
11	AL	16	ALA	4.7
38	DQ	1	ALA	4.7
50	B3	58	ILE	4.6
19	AT	19	HIS	4.6
23	DB	2133	G	4.6
43	DW	25	PHE	4.6
45	BY	14	GLY	4.5
23	BB	2148	G	4.5
1	AA	106	C	4.5
23	BB	878	A	4.5
27	BE	64	GLY	4.4
23	DB	1175	A	4.4
23	BB	2145	C	4.4
9	AJ	58	ASN	4.4
11	AL	1	ALA	4.4
19	AT	18	LYS	4.4
43	DW	37	VAL	4.4
14	AO	43	ALA	4.4
23	BB	715	A	4.4
4	AE	22	LYS	4.4
8	CI	120	ALA	4.3
4	AE	92	ARG	4.3
7	AH	71	VAL	4.3
9	CJ	84	VAL	4.3
33	BL	6	LEU	4.3

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Mol	Chain	Res	Type	RSRZ
8	CI	114	LYS	4.3
46	BZ	24	ALA	4.3
27	DE	60	TRP	4.2
49	B2	13	ASN	4.2
26	DD	52	THR	4.2
23	DB	2134	A	4.2
43	BW	33	GLY	4.2
23	DB	1099	G	4.2
50	B3	63	TYR	4.2
26	BD	128	ARG	4.2
23	BB	140	C	4.2
29	DG	160	GLY	4.2
31	DJ	81	ILE	4.2
20	AB	192	PRO	4.2
1	CA	632	U	4.1
39	DR	86	GLN	4.1
26	DD	118	PHE	4.1
50	D3	21	PHE	4.1
21	CU	36	PHE	4.1
46	DZ	75	GLY	4.1
29	BG	167	VAL	4.0
41	DT	71	GLY	4.0
23	DB	2193	G	4.0
25	DC	248	GLY	4.0
31	BJ	54	ILE	4.0
26	BD	140	HIS	4.0
43	DW	19	ARG	4.0
11	AL	17	LYS	4.0
11	AL	22	ALA	4.0
29	BG	1	SER	3.9
31	BJ	113	PRO	3.9
31	BJ	112	GLY	3.9
9	AJ	60	ASP	3.9
11	AL	10	PRO	3.9
34	DM	37	GLY	3.9
1	AA	562	U	3.9
26	BD	111	GLY	3.9
11	AL	25	ALA	3.9
16	CQ	31	PRO	3.9
26	BD	118	PHE	3.9
23	BB	2585	U	3.9
18	AS	68	HIS	3.9

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Mol	Chain	Res	Type	RSRZ
25	BC	4	LYS	3.9
18	AS	65	MET	3.8
25	BC	271	SER	3.8
43	BW	45	HIS	3.8
1	AA	1080	A	3.8
8	CI	128	LYS	3.8
31	DJ	80	HIS	3.8
3	CD	54	LEU	3.8
32	BK	80	ASP	3.8
30	DH	130	VAL	3.8
36	BO	26	LEU	3.8
32	DK	18	ARG	3.8
50	B3	19	GLY	3.8
26	DD	2	ILE	3.8
25	BC	253	GLY	3.8
4	AE	127	TYR	3.7
23	DB	100	U	3.7
20	AB	161	PHE	3.7
43	BW	6	GLY	3.7
39	DR	72	VAL	3.7
51	B4	3	VAL	3.7
39	DR	75	VAL	3.7
9	AJ	91	ASP	3.7
42	DU	30	SER	3.7
18	CS	15	LEU	3.7
21	CU	49	ALA	3.6
19	AT	60	GLN	3.6
28	DF	171	ALA	3.6
4	AE	144	GLU	3.6
21	CU	53	LYS	3.6
43	DW	39	GLN	3.6
1	CA	1365	G	3.6
25	BC	22	GLU	3.6
11	CL	123	ALA	3.6
51	B4	26	ILE	3.6
37	BP	107	ALA	3.6
4	CE	31	SER	3.6
25	BC	5	CYS	3.6
26	DD	101	PHE	3.6
31	DJ	42	ALA	3.5
39	DR	76	LYS	3.5
36	DO	7	ARG	3.5

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Mol	Chain	Res	Type	RSRZ
15	AP	11	ALA	3.5
49	B2	1	MET	3.5
23	BB	1583	A	3.5
12	AM	87	GLY	3.5
26	BD	27	ILE	3.5
42	DU	66	VAL	3.5
50	D3	13	PHE	3.5
9	CJ	47	GLU	3.5
37	DP	67	GLU	3.5
1	AA	110	C	3.5
31	BJ	63	ALA	3.4
26	BD	114	LYS	3.4
1	CA	969	A	3.4
30	BH	85	GLY	3.4
16	AQ	30	HIS	3.4
13	CN	1	ALA	3.4
18	CS	40	PHE	3.4
21	CU	34	ARG	3.4
6	AG	8	GLN	3.4
36	BO	8	ILE	3.4
26	DD	140	HIS	3.4
25	DC	34	GLU	3.4
7	AH	13	ILE	3.4
23	BB	2153	C	3.4
19	AT	40	ALA	3.4
23	DB	2213	U	3.4
21	CU	46	ARG	3.4
7	AH	128	VAL	3.3
15	CP	20	VAL	3.3
1	CA	809	G	3.3
8	CI	117	LEU	3.3
23	BB	2213	U	3.3
1	AA	1362	A	3.3
23	DB	2602	A	3.3
50	D3	53	ASP	3.3
4	CE	117	ALA	3.3
52	DI	83	ALA	3.3
6	CG	105	GLU	3.3
39	BR	86	GLN	3.3
19	AT	36	ALA	3.3
23	BB	1538	G	3.3
1	CA	240	G	3.3

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Mol	Chain	Res	Type	RSRZ
11	CL	12	ALA	3.2
1	CA	1367	C	3.2
1	AA	81	A	3.2
23	DB	1808	A	3.2
15	AP	8	ARG	3.2
3	AD	108	ALA	3.2
38	BQ	34	ALA	3.2
8	AI	124	PRO	3.2
38	BQ	36	GLN	3.2
35	BN	17	ARG	3.2
8	AI	66	VAL	3.2
43	DW	50	VAL	3.2
27	DE	81	GLY	3.2
19	CT	60	GLN	3.2
43	DW	36	ILE	3.2
28	DF	124	ARG	3.2
25	BC	20	ASN	3.2
19	CT	19	HIS	3.2
38	DQ	17	LEU	3.2
25	BC	34	GLU	3.2
22	DA	87	U	3.2
36	BO	107	ALA	3.2
12	CM	94	LEU	3.2
15	AP	60	TRP	3.1
15	CP	28	ARG	3.1
27	BE	60	TRP	3.1
11	AL	19	ASN	3.1
8	CI	113	LYS	3.1
49	B2	46	LYS	3.1
25	BC	167	ASP	3.1
23	BB	1537	G	3.1
1	AA	884	U	3.1
23	BB	2320	U	3.1
29	DG	89	VAL	3.1
51	B4	9	LYS	3.1
49	B2	31	LEU	3.1
1	CA	1353	G	3.1
26	BD	30	GLU	3.1
15	AP	80	LYS	3.1
16	AQ	69	THR	3.1
38	BQ	43	GLN	3.1
20	CB	184	ALA	3.1

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Mol	Chain	Res	Type	RSRZ
42	DU	69	VAL	3.1
51	B4	7	VAL	3.1
52	BI	1	ALA	3.1
43	BW	14	ASP	3.1
43	DW	42	THR	3.1
8	CI	46	VAL	3.0
21	CU	47	ALA	3.0
21	CU	45	LYS	3.0
50	B3	24	LYS	3.0
23	BB	139	U	3.0
23	DB	646	U	3.0
35	DN	69	ARG	3.0
25	DC	263	ASP	3.0
23	BB	2138	G	3.0
21	CU	50	SER	3.0
52	DI	23	VAL	3.0
38	DQ	18	LYS	3.0
1	CA	1397	C	3.0
7	AH	122	GLY	3.0
23	BB	2139	U	3.0
4	CE	144	GLU	3.0
11	CL	16	ALA	3.0
45	DY	12	ALA	3.0
8	AI	118	ARG	3.0
9	CJ	66	GLU	3.0
42	DU	32	LYS	3.0
13	AN	90	GLY	3.0
36	BO	92	PHE	3.0
4	AE	114	LEU	3.0
49	D2	45	SER	3.0
2	AC	29	ALA	3.0
13	AN	1	ALA	3.0
29	BG	169	ARG	3.0
23	DB	878	A	3.0
31	BJ	75	TYR	3.0
37	BP	101	GLU	3.0
52	DI	34	ILE	3.0
3	AD	71	PHE	3.0
35	BN	10	LEU	3.0
32	BK	103	VAL	3.0
32	BK	104	THR	3.0
19	AT	8	LYS	2.9

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Mol	Chain	Res	Type	RSRZ
39	BR	73	LYS	2.9
18	CS	1	PRO	2.9
26	BD	156	PHE	2.9
22	BA	2	G	2.9
38	DQ	90	ASP	2.9
39	BR	95	ASP	2.9
18	CS	39	ILE	2.9
46	DZ	77	LYS	2.9
37	DP	99	LEU	2.9
1	CA	412	A	2.9
49	D2	1	MET	2.9
9	CJ	36	VAL	2.9
34	BM	93	VAL	2.9
2	AC	206	ILE	2.9
14	CO	56	LEU	2.9
24	DV	82	TYR	2.9
26	BD	28	GLU	2.9
25	BC	2	VAL	2.9
25	DC	271	SER	2.9
41	BT	71	GLY	2.9
23	BB	2602	A	2.9
43	DW	75	ASN	2.9
23	DB	212	G	2.9
50	D3	20	GLY	2.9
7	AH	74	ILE	2.9
32	BK	38	ILE	2.9
43	BW	17	ALA	2.9
35	DN	83	LEU	2.9
41	DT	5	GLU	2.9
9	AJ	61	ALA	2.8
26	BD	196	ALA	2.8
32	BK	49	ARG	2.8
25	BC	6	LYS	2.8
48	B1	9	LYS	2.8
18	AS	64	GLU	2.8
8	AI	116	GLY	2.8
47	D0	19	ASP	2.8
9	CJ	44	THR	2.8
43	DW	60	ALA	2.8
14	CO	58	MET	2.8
38	DQ	15	LYS	2.8
25	DC	33	LEU	2.8

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Mol	Chain	Res	Type	RSRZ
23	DB	919	U	2.8
38	DQ	43	GLN	2.8
37	DP	23	ASP	2.8
51	B4	29	ALA	2.8
38	BQ	18	LYS	2.8
28	DF	168	LEU	2.8
14	CO	39	GLN	2.8
19	AT	30	PHE	2.8
23	BB	1420	A	2.8
31	DJ	116	ARG	2.8
7	AH	6	ILE	2.8
25	BC	106	PRO	2.8
16	AQ	33	TYR	2.8
29	DG	158	GLY	2.8
43	DW	43	LYS	2.8
25	DC	202	ARG	2.8
8	CI	28	VAL	2.8
27	BE	59	PRO	2.8
13	AN	96	LYS	2.8
49	D2	46	LYS	2.8
25	BC	202	ARG	2.7
1	CA	856	C	2.7
26	DD	142	VAL	2.7
26	DD	168	GLU	2.7
1	CA	242	G	2.7
7	CH	54	THR	2.7
8	CI	123	ARG	2.7
26	BD	138	LEU	2.7
7	CH	102	VAL	2.7
24	DV	56	PHE	2.7
26	BD	154	LYS	2.7
41	DT	14	PRO	2.7
50	B3	14	LYS	2.7
6	AG	116	ALA	2.7
21	AU	29	ALA	2.7
33	BL	22	GLY	2.7
36	DO	20	GLU	2.7
47	B0	1	ALA	2.7
23	BB	2146	C	2.7
32	DK	122	VAL	2.7
1	CA	1074	G	2.7
3	AD	3	TYR	2.7

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Mol	Chain	Res	Type	RSRZ
3	CD	190	LEU	2.7
19	CT	6	ALA	2.7
52	BI	4	VAL	2.7
2	AC	179	ALA	2.7
36	DO	9	ARG	2.7
21	AU	35	GLU	2.7
37	DP	103	THR	2.7
34	DM	118	LYS	2.7
1	CA	966	G	2.7
9	AJ	62	ARG	2.7
37	BP	92	ARG	2.7
38	BQ	90	ASP	2.7
43	DW	13	ARG	2.7
9	CJ	29	ALA	2.7
25	BC	248	GLY	2.7
35	BN	68	ALA	2.7
9	CJ	59	LYS	2.7
22	BA	118	C	2.7
23	DB	921	C	2.7
23	DB	1730	C	2.7
7	AH	125	ILE	2.6
8	AI	29	ILE	2.6
8	CI	124	PRO	2.6
3	AD	5	GLY	2.6
13	AN	71	GLY	2.6
41	BT	79	ASP	2.6
8	CI	119	LYS	2.6
12	AM	79	LEU	2.6
43	DW	6	GLY	2.6
9	CJ	65	TYR	2.6
1	CA	1234	C	2.6
3	AD	159	GLU	2.6
37	DP	101	GLU	2.6
18	AS	30	LEU	2.6
1	AA	77	A	2.6
16	AQ	32	ILE	2.6
19	AT	28	ARG	2.6
43	DW	40	ARG	2.6
10	CK	125	LYS	2.6
35	BN	25	ALA	2.6
4	CE	12	GLU	2.6
25	BC	171	VAL	2.6

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Mol	Chain	Res	Type	RSRZ
51	B4	12	ARG	2.6
23	DB	2021	C	2.6
23	DB	2104	C	2.6
3	AD	26	ALA	2.6
19	CT	67	HIS	2.6
34	DM	102	LEU	2.6
50	B3	21	PHE	2.6
1	CA	1339	A	2.6
21	CU	43	GLU	2.6
29	DG	166	GLU	2.6
39	DR	70	GLU	2.6
2	AC	93	ILE	2.6
4	AE	21	SER	2.6
23	BB	1340	U	2.6
37	BP	69	VAL	2.6
38	DQ	16	ILE	2.6
43	BW	36	ILE	2.6
6	AG	4	ARG	2.6
26	DD	128	ARG	2.6
19	AT	15	LYS	2.6
13	AN	43	ALA	2.6
7	AH	127	TYR	2.6
21	CU	42	THR	2.6
46	BZ	60	ASP	2.6
13	AN	97	LYS	2.6
15	AP	19	VAL	2.6
35	BN	48	VAL	2.6
13	CN	50	LEU	2.6
46	DZ	49	LEU	2.6
22	DA	53	A	2.6
25	BC	209	ALA	2.6
3	AD	23	GLY	2.6
35	DN	102	PHE	2.6
27	DE	65	THR	2.5
32	DK	45	GLU	2.5
6	AG	79	VAL	2.5
35	BN	70	THR	2.5
3	CD	11	SER	2.5
43	DW	38	ARG	2.5
26	BD	26	VAL	2.5
9	AJ	52	LEU	2.5
23	BB	1175	A	2.5

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Mol	Chain	Res	Type	RSRZ
23	DB	2334	U	2.5
36	BO	93	ASP	2.5
9	CJ	34	ALA	2.5
19	CT	62	ALA	2.5
8	AI	12	LYS	2.5
31	DJ	44	TYR	2.5
38	BQ	44	TYR	2.5
42	DU	33	VAL	2.5
19	AT	27	MET	2.5
1	CA	970	C	2.5
3	AD	28	ASP	2.5
43	BW	25	PHE	2.5
21	AU	40	PRO	2.5
39	BR	88	GLY	2.5
1	AA	88	U	2.5
14	CO	45	HIS	2.5
35	BN	20	MET	2.5
11	CL	19	ASN	2.5
40	BS	75	PHE	2.5
25	BC	110	LYS	2.5
31	DJ	103	ILE	2.5
43	DW	35	ILE	2.5
45	DY	17	PRO	2.5
7	AH	99	GLY	2.5
33	DL	28	GLY	2.5
46	DZ	68	LEU	2.5
49	B2	9	VAL	2.5
30	DH	149	GLU	2.5
23	BB	62	U	2.5
43	BW	39	GLN	2.5
25	DC	178	GLY	2.5
27	BE	88	ARG	2.5
2	AC	90	VAL	2.5
27	DE	169	VAL	2.5
25	BC	57	HIS	2.4
24	BV	83	LYS	2.4
26	DD	159	LYS	2.4
43	BW	77	LYS	2.4
32	BK	9	ASN	2.4
41	BT	72	GLN	2.4
52	BI	17	ALA	2.4
46	BZ	28	ARG	2.4

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Mol	Chain	Res	Type	RSRZ
1	CA	1384	C	2.4
23	BB	102	U	2.4
36	BO	91	SER	2.4
23	BB	244	A	2.4
44	DX	46	VAL	2.4
24	BV	82	TYR	2.4
33	DL	58	TYR	2.4
19	AT	67	HIS	2.4
33	DL	51	GLU	2.4
39	BR	70	GLU	2.4
40	BS	78	GLU	2.4
43	BW	16	GLU	2.4
43	BW	13	ARG	2.4
43	BW	38	ARG	2.4
2	AC	157	GLY	2.4
29	BG	165	ASP	2.4
25	DC	254	LYS	2.4
1	CA	307	C	2.4
1	CA	967	C	2.4
1	CA	1341	U	2.4
3	CD	53	GLN	2.4
6	CG	78	ARG	2.4
22	DA	91	C	2.4
23	DB	1100	C	2.4
25	BC	132	ARG	2.4
27	DE	94	GLN	2.4
37	DP	50	ARG	2.4
26	DD	126	ASN	2.4
18	AS	67	GLY	2.4
31	DJ	112	GLY	2.4
23	BB	1192	G	2.4
34	BM	127	LYS	2.4
3	CD	71	PHE	2.4
8	AI	106	ASP	2.4
15	AP	33	ILE	2.4
20	CB	150	ILE	2.4
31	BJ	84	ILE	2.4
32	BK	32	TYR	2.4
52	DI	27	LEU	2.4
26	DD	74	GLU	2.4
3	AD	72	ARG	2.4
33	DL	2	ARG	2.4

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Mol	Chain	Res	Type	RSRZ
3	AD	73	ASN	2.4
26	DD	10	GLY	2.4
36	DO	4	LYS	2.4
39	BR	75	VAL	2.4
51	B4	17	VAL	2.4
23	BB	2402	U	2.4
40	DS	103	ILE	2.4
35	DN	98	LEU	2.4
1	CA	1366	C	2.4
9	AJ	63	ASP	2.4
1	CA	1534	A	2.4
38	DQ	36	GLN	2.4
1	CA	241	G	2.4
14	CO	46	LYS	2.4
6	AG	80	GLY	2.4
44	BX	62	GLY	2.4
47	D0	22	THR	2.4
33	DL	57	LEU	2.4
37	BP	96	LEU	2.4
27	DE	155	GLU	2.4
31	BJ	43	GLU	2.4
49	B2	20	ALA	2.4
50	B3	51	LYS	2.4
23	DB	2194	U	2.3
28	DF	22	ASN	2.3
23	BB	2406	A	2.3
23	DB	1552	A	2.3
26	BD	201	LEU	2.3
27	BE	175	ILE	2.3
38	BQ	108	LEU	2.3
8	CI	115	VAL	2.3
20	CB	198	VAL	2.3
25	DC	244	VAL	2.3
26	BD	25	THR	2.3
29	DG	83	THR	2.3
31	BJ	73	VAL	2.3
30	BH	84	ALA	2.3
9	CJ	100	ILE	2.3
26	DD	72	GLY	2.3
27	DE	181	ILE	2.3
43	DW	41	GLY	2.3
29	BG	9	VAL	2.3

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Mol	Chain	Res	Type	RSRZ
52	BI	9	LYS	2.3
40	BS	21	ALA	2.3
20	AB	193	ASP	2.3
3	CD	202	LEU	2.3
16	AQ	43	LEU	2.3
42	DU	37	GLY	2.3
15	CP	79	ASN	2.3
28	DF	24	VAL	2.3
29	DG	161	VAL	2.3
6	CG	108	ARG	2.3
12	CM	112	ARG	2.3
29	DG	171	LYS	2.3
23	BB	1459	G	2.3
3	AD	203	TYR	2.3
13	AN	7	ALA	2.3
50	D3	58	ILE	2.3
28	BF	162	ASP	2.3
26	DD	144	GLY	2.3
1	AA	1534	A	2.3
19	AT	23	ARG	2.3
28	DF	169	LEU	2.3
14	CO	35	ILE	2.3
38	BQ	26	ALA	2.3
2	AC	205	GLU	2.3
27	BE	155	GLU	2.3
6	AG	86	VAL	2.3
15	CP	41	PRO	2.3
25	BC	140	VAL	2.3
39	BR	71	LYS	2.3
43	BW	49	ASN	2.3
1	AA	1079	G	2.3
19	AT	16	ALA	2.3
23	DB	613	A	2.3
6	CG	79	VAL	2.3
9	AJ	79	PRO	2.3
14	CO	47	LYS	2.3
22	BA	12	C	2.3
29	BG	168	VAL	2.3
27	BE	61	ARG	2.3
15	AP	6	LEU	2.2
3	CD	203	TYR	2.2
8	CI	12	LYS	2.2

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Mol	Chain	Res	Type	RSRZ
3	CD	56	GLU	2.2
34	DM	115	GLU	2.2
8	AI	115	VAL	2.2
16	AQ	75	VAL	2.2
29	DG	169	ARG	2.2
43	BW	40	ARG	2.2
46	DZ	47	VAL	2.2
52	BI	57	VAL	2.2
1	AA	209	U	2.2
1	AA	410	G	2.2
23	DB	1340	U	2.2
3	CD	49	ASP	2.2
25	BC	139	THR	2.2
43	BW	20	LEU	2.2
25	BC	141	HIS	2.2
25	DC	141	HIS	2.2
13	CN	20	PHE	2.2
9	CJ	89	ARG	2.2
20	CB	69	VAL	2.2
25	BC	126	GLY	2.2
43	BW	37	VAL	2.2
20	AB	66	ILE	2.2
27	BE	148	ILE	2.2
6	CG	133	ALA	2.2
23	BB	546	U	2.2
28	DF	160	LYS	2.2
34	DM	21	ALA	2.2
13	CN	65	GLN	2.2
51	B4	35	GLN	2.2
7	CH	127	TYR	2.2
15	CP	36	VAL	2.2
20	AB	100	LEU	2.2
21	AU	44	ARG	2.2
37	BP	61	ARG	2.2
11	AL	24	GLU	2.2
40	DS	107	VAL	2.2
48	B1	15	GLY	2.2
33	BL	67	THR	2.2
47	B0	42	ILE	2.2
16	AQ	35	LYS	2.2
25	DC	264	LYS	2.2
29	DG	173	ALA	2.2

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Mol	Chain	Res	Type	RSRZ
52	BI	13	ALA	2.2
8	AI	129	ARG	2.2
37	DP	102	ARG	2.2
24	DV	72	VAL	2.2
23	DB	34	U	2.2
20	CB	11	ALA	2.2
1	AA	765	G	2.2
1	CA	461	A	2.2
1	CA	968	A	2.2
1	CA	1233	G	2.2
13	AN	65	GLN	2.2
23	BB	1640	A	2.2
36	DO	16	ARG	2.2
39	BR	72	VAL	2.2
49	D2	44	VAL	2.2
20	CB	97	GLY	2.2
27	BE	89	PRO	2.2
25	BC	206	LYS	2.2
28	BF	106	ALA	2.1
38	BQ	17	LEU	2.2
9	AJ	64	GLN	2.1
14	AO	62	ARG	2.1
25	BC	250	GLN	2.1
39	DR	92	TRP	2.1
2	CC	152	VAL	2.1
3	AD	27	ILE	2.1
46	DZ	51	VAL	2.1
6	CG	18	GLY	2.1
11	CL	17	LYS	2.1
31	DJ	82	GLY	2.1
1	AA	1340	A	2.1
23	BB	2799	A	2.1
23	DB	1591	A	2.1
21	AU	34	ARG	2.1
31	BJ	142	ILE	2.1
51	D4	25	VAL	2.1
25	DC	110	LYS	2.1
31	BJ	2	LYS	2.1
25	BC	11	GLY	2.1
29	BG	7	PRO	2.1
47	B0	13	GLY	2.1
26	DD	121	THR	2.1

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Mol	Chain	Res	Type	RSRZ
1	AA	323	U	2.1
2	AC	42	LEU	2.1
26	DD	124	ARG	2.1
36	BO	50	ALA	2.1
51	B4	13	ASN	2.1
41	BT	9	LYS	2.1
43	BW	50	VAL	2.1
26	DD	200	ASP	2.1
28	DF	173	ASP	2.1
8	CI	116	GLY	2.1
33	DL	65	GLY	2.1
6	CG	13	PRO	2.1
1	AA	82	G	2.1
1	CA	1523	G	2.1
1	AA	883	C	2.1
1	AA	1533	C	2.1
13	AN	68	ARG	2.1
40	DS	32	ALA	2.1
7	CH	73	SER	2.1
44	BX	2	LYS	2.1
1	CA	1354	U	2.1
4	CE	30	PHE	2.1
23	DB	2402	U	2.1
38	DQ	35	PHE	2.1
25	BC	108	GLY	2.1
21	AU	43	GLU	2.1
30	BH	45	GLU	2.1
16	CQ	32	ILE	2.1
26	BD	8	LYS	2.1
41	DT	59	ASN	2.1
29	DG	131	VAL	2.1
52	DI	4	VAL	2.1
13	AN	77	GLY	2.1
23	DB	1261	C	2.1
31	BJ	80	HIS	2.1
35	BN	16	HIS	2.1
1	CA	111	G	2.1
8	CI	106	ASP	2.1
35	DN	120	GLU	2.1
1	CA	287	U	2.1
31	BJ	87	ALA	2.1
43	DW	48	ALA	2.1

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Mol	Chain	Res	Type	RSRZ
4	AE	94	PHE	2.1
13	CN	76	PHE	2.1
31	BJ	67	ASN	2.1
43	BW	75	ASN	2.1
16	CQ	7	LEU	2.1
15	AP	62	GLY	2.0
26	BD	120	GLY	2.0
30	DH	95	GLY	2.0
31	BJ	82	GLY	2.0
29	DG	153	PRO	2.0
6	CG	14	ASP	2.0
40	BS	93	ALA	2.0
47	D0	26	SER	2.0
1	AA	328	C	2.0
1	CA	308	C	2.0
7	CH	71	VAL	2.0
8	AI	49	GLN	2.0
17	AR	28	LEU	2.0
30	DH	122	LEU	2.0
29	DG	167	VAL	2.0
41	BT	16	VAL	2.0
23	BB	978	G	2.0
1	CA	1073	U	2.0
23	BB	1132	U	2.0
8	CI	101	GLY	2.0
19	CT	35	TYR	2.0
19	CT	4	LYS	2.0
39	BR	79	ARG	2.0
46	DZ	18	ARG	2.0
50	D3	62	PRO	2.0
35	DN	75	ILE	2.0
34	DM	111	GLU	2.0
11	CL	60	PHE	2.0
2	AC	156	LEU	2.0
3	AD	116	LEU	2.0
13	AN	78	LEU	2.0
20	CB	67	LEU	2.0
27	DE	70	SER	2.0
31	BJ	42	ALA	2.0
10	AK	128	VAL	2.0
23	BB	705	A	2.0
26	DD	203	VAL	2.0

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Mol	Chain	Res	Type	RSRZ
39	DR	54	VAL	2.0
39	DR	96	VAL	2.0
43	DW	52	CYS	2.0
50	D3	24	LYS	2.0
3	CD	3	TYR	2.0
16	CQ	33	TYR	2.0
25	BC	125	PRO	2.0
41	BT	74	ILE	2.0
43	DW	78	PHE	2.0
23	BB	2713	U	2.0
23	DB	846	U	2.0
20	CB	162	VAL	2.0
36	DO	28	VAL	2.0
37	BP	25	VAL	2.0

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

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

6.3 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

6.4 Ligands [i](#)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
53	MG	AA	2023	1/1	0.38	0.12	66,66,66,66	1
53	MG	AA	2037	1/1	0.53	0.21	138,138,138,138	0
53	MG	CA	2057	1/1	0.60	0.11	99,99,99,99	0
53	MG	AA	2014	1/1	0.61	0.18	112,112,112,112	0
53	MG	AE	201	1/1	0.62	0.09	144,144,144,144	0
53	MG	DB	3066	1/1	0.66	0.09	146,146,146,146	0
53	MG	CA	2023	1/1	0.67	0.27	137,137,137,137	0
53	MG	CA	2038	1/1	0.67	0.11	128,128,128,128	0
53	MG	CA	2036	1/1	0.68	0.15	101,101,101,101	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
53	MG	CA	2011	1/1	0.69	0.08	132,132,132,132	0
53	MG	AA	2057	1/1	0.72	0.14	141,141,141,141	0
53	MG	AA	2045	1/1	0.76	0.23	92,92,92,92	0
53	MG	CA	2021	1/1	0.78	0.24	125,125,125,125	0
53	MG	BB	3042	1/1	0.79	0.11	168,168,168,168	0
53	MG	CA	2015	1/1	0.80	0.07	149,149,149,149	0
53	MG	CA	2027	1/1	0.80	0.08	50,50,50,50	1
53	MG	BB	3090	1/1	0.80	0.09	112,112,112,112	0
53	MG	DB	3058	1/1	0.82	0.19	151,151,151,151	0
54	HYG	CA	2062	36/36	0.82	0.12	45,45,45,45	0
53	MG	AA	2008	1/1	0.83	0.08	125,125,125,125	0
54	HYG	AA	2059	36/36	0.84	0.10	52,52,52,52	0
53	MG	AA	2044	1/1	0.84	0.09	112,112,112,112	0
53	MG	DB	3047	1/1	0.85	0.04	14,14,14,14	0
53	MG	AA	2035	1/1	0.87	0.17	137,137,137,137	0
53	MG	AA	2025	1/1	0.89	0.07	58,58,58,58	0
53	MG	BB	3072	1/1	0.89	0.15	17,17,17,17	0
53	MG	CA	2059	1/1	0.89	0.06	94,94,94,94	0
53	MG	AA	2043	1/1	0.89	0.07	96,96,96,96	0
53	MG	CE	201	1/1	0.90	0.07	127,127,127,127	0
53	MG	AA	2004	1/1	0.90	0.11	56,56,56,56	0
53	MG	AA	2018	1/1	0.90	0.05	131,131,131,131	0
53	MG	CA	2054	1/1	0.90	0.07	104,104,104,104	0
53	MG	AA	2022	1/1	0.90	0.13	82,82,82,82	0
53	MG	AA	2013	1/1	0.90	0.05	122,122,122,122	0
53	MG	AA	2056	1/1	0.91	0.05	124,124,124,124	0
53	MG	BB	3097	1/1	0.91	0.10	114,114,114,114	0
53	MG	AN	201	1/1	0.91	0.08	69,69,69,69	0
53	MG	CA	2052	1/1	0.91	0.06	73,73,73,73	0
53	MG	DB	3013	1/1	0.91	0.13	51,51,51,51	0
53	MG	BB	3033	1/1	0.92	0.09	125,125,125,125	0
53	MG	AA	2054	1/1	0.92	0.08	110,110,110,110	0
53	MG	DB	3060	1/1	0.92	0.12	112,112,112,112	0
53	MG	DB	3029	1/1	0.93	0.06	88,88,88,88	0
53	MG	BB	3100	1/1	0.93	0.06	129,129,129,129	0
53	MG	AA	2050	1/1	0.93	0.07	105,105,105,105	0
53	MG	DB	3059	1/1	0.93	0.05	180,180,180,180	0
53	MG	AA	2031	1/1	0.94	0.06	58,58,58,58	0
53	MG	AA	2002	1/1	0.94	0.04	99,99,99,99	0
53	MG	BB	3047	1/1	0.94	0.09	75,75,75,75	0
53	MG	DB	3061	1/1	0.94	0.07	69,69,69,69	0
53	MG	CA	2026	1/1	0.94	0.09	26,26,26,26	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
53	MG	AA	2012	1/1	0.94	0.08	84,84,84,84	0
53	MG	DB	3057	1/1	0.94	0.05	71,71,71,71	0
53	MG	BB	3080	1/1	0.95	0.12	39,39,39,39	0
53	MG	AA	2055	1/1	0.95	0.12	102,102,102,102	0
53	MG	CA	2014	1/1	0.95	0.09	47,47,47,47	0
53	MG	DB	3018	1/1	0.95	0.02	22,22,22,22	0
53	MG	BB	3043	1/1	0.95	0.05	104,104,104,104	0
53	MG	CA	2028	1/1	0.95	0.07	75,75,75,75	0
53	MG	CA	2058	1/1	0.95	0.04	106,106,106,106	0
53	MG	BB	3106	1/1	0.96	0.08	62,62,62,62	0
53	MG	AA	2005	1/1	0.96	0.04	69,69,69,69	0
53	MG	AA	2047	1/1	0.96	0.03	100,100,100,100	0
53	MG	CA	2035	1/1	0.96	0.04	89,89,89,89	0
53	MG	AA	2019	1/1	0.96	0.04	107,107,107,107	0
53	MG	BB	3010	1/1	0.96	0.06	44,44,44,44	0
53	MG	DB	3083	1/1	0.96	0.06	85,85,85,85	0
53	MG	DB	3092	1/1	0.96	0.05	66,66,66,66	0
53	MG	DB	3111	1/1	0.96	0.06	38,38,38,38	0
53	MG	CA	2022	1/1	0.96	0.05	63,63,63,63	0
53	MG	BB	3054	1/1	0.96	0.04	77,77,77,77	0
55	ZN	D4	101	1/1	0.96	0.09	46,46,46,46	0
53	MG	AA	2049	1/1	0.97	0.05	75,75,75,75	0
53	MG	CA	2019	1/1	0.97	0.06	73,73,73,73	0
53	MG	CA	2020	1/1	0.97	0.12	73,73,73,73	0
53	MG	BB	3051	1/1	0.97	0.06	35,35,35,35	0
53	MG	AA	2030	1/1	0.97	0.09	99,99,99,99	0
53	MG	DB	3045	1/1	0.97	0.03	57,57,57,57	0
53	MG	AA	2052	1/1	0.97	0.04	78,78,78,78	0
53	MG	DB	3050	1/1	0.97	0.05	90,90,90,90	0
53	MG	DB	3052	1/1	0.97	0.06	100,100,100,100	0
53	MG	BB	3008	1/1	0.97	0.07	89,89,89,89	0
53	MG	AA	2053	1/1	0.97	0.07	79,79,79,79	0
53	MG	BB	3091	1/1	0.97	0.14	16,16,16,16	0
53	MG	CA	2029	1/1	0.97	0.04	23,23,23,23	1
53	MG	BB	3093	1/1	0.97	0.17	71,71,71,71	0
53	MG	BB	3020	1/1	0.97	0.09	26,26,26,26	0
53	MG	BB	3032	1/1	0.97	0.04	56,56,56,56	0
53	MG	CA	2042	1/1	0.97	0.04	58,58,58,58	0
53	MG	DB	3095	1/1	0.97	0.08	89,89,89,89	0
53	MG	DB	3103	1/1	0.97	0.05	27,27,27,27	0
53	MG	AA	2007	1/1	0.97	0.06	31,31,31,31	0
53	MG	CA	2008	1/1	0.97	0.07	93,93,93,93	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
53	MG	AA	2033	1/1	0.97	0.05	99,99,99,99	0
55	ZN	B4	101	1/1	0.97	0.05	80,80,80,80	0
53	MG	AA	2048	1/1	0.97	0.04	99,99,99,99	0
53	MG	CA	2048	1/1	0.98	0.11	58,58,58,58	0
53	MG	CA	2049	1/1	0.98	0.04	74,74,74,74	0
53	MG	BB	3014	1/1	0.98	0.04	50,50,50,50	0
53	MG	BB	3044	1/1	0.98	0.04	53,53,53,53	0
53	MG	BB	3108	1/1	0.98	0.06	47,47,47,47	0
53	MG	BB	3109	1/1	0.98	0.06	54,54,54,54	0
53	MG	CA	2005	1/1	0.98	0.04	24,24,24,24	0
53	MG	CA	2060	1/1	0.98	0.03	80,80,80,80	0
53	MG	CA	2006	1/1	0.98	0.04	95,95,95,95	0
53	MG	DB	3003	1/1	0.98	0.14	63,63,63,63	0
53	MG	CA	2007	1/1	0.98	0.03	46,46,46,46	0
53	MG	AA	2026	1/1	0.98	0.05	65,65,65,65	0
53	MG	CA	2009	1/1	0.98	0.03	67,67,67,67	0
53	MG	DB	3032	1/1	0.98	0.04	63,63,63,63	0
53	MG	DB	3034	1/1	0.98	0.09	52,52,52,52	0
53	MG	DB	3036	1/1	0.98	0.04	30,30,30,30	0
53	MG	BB	3048	1/1	0.98	0.04	44,44,44,44	0
53	MG	BB	3026	1/1	0.98	0.05	39,39,39,39	0
53	MG	BB	3028	1/1	0.98	0.12	86,86,86,86	0
53	MG	BB	3068	1/1	0.98	0.09	53,53,53,53	0
53	MG	BB	3071	1/1	0.98	0.10	26,26,26,26	0
53	MG	BB	3031	1/1	0.98	0.09	41,41,41,41	0
53	MG	BB	3077	1/1	0.98	0.05	36,36,36,36	0
53	MG	BB	3078	1/1	0.98	0.07	70,70,70,70	0
53	MG	AA	2051	1/1	0.98	0.04	41,41,41,41	0
53	MG	BB	3081	1/1	0.98	0.07	46,46,46,46	0
53	MG	DB	3070	1/1	0.98	0.03	45,45,45,45	0
53	MG	BB	3082	1/1	0.98	0.10	46,46,46,46	0
53	MG	DB	3088	1/1	0.98	0.04	25,25,25,25	0
53	MG	DB	3090	1/1	0.98	0.05	37,37,37,37	0
53	MG	BB	3085	1/1	0.98	0.05	103,103,103,103	0
53	MG	CA	2033	1/1	0.98	0.07	56,56,56,56	0
53	MG	DB	3097	1/1	0.98	0.05	38,38,38,38	0
53	MG	AA	2017	1/1	0.98	0.08	87,87,87,87	0
53	MG	DB	3108	1/1	0.98	0.04	37,37,37,37	0
53	MG	DB	3110	1/1	0.98	0.09	21,21,21,21	0
53	MG	BB	3034	1/1	0.98	0.08	35,35,35,35	0
53	MG	CA	2037	1/1	0.98	0.04	94,94,94,94	0
53	MG	BB	3037	1/1	0.98	0.04	23,23,23,23	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
53	MG	AA	2040	1/1	0.98	0.05	83,83,83,83	0
53	MG	CA	2047	1/1	0.98	0.03	121,121,121,121	0
53	MG	AA	2010	1/1	0.99	0.04	60,60,60,60	0
53	MG	AA	2036	1/1	0.99	0.03	31,31,31,31	0
53	MG	CA	2016	1/1	0.99	0.04	53,53,53,53	0
53	MG	AA	2015	1/1	0.99	0.05	24,24,24,24	0
53	MG	AA	2038	1/1	0.99	0.08	71,71,71,71	0
53	MG	BB	3045	1/1	0.99	0.02	31,31,31,31	0
53	MG	BB	3046	1/1	0.99	0.04	22,22,22,22	0
53	MG	AA	2039	1/1	0.99	0.07	64,64,64,64	0
53	MG	CA	2024	1/1	0.99	0.04	29,29,29,29	0
53	MG	CA	2025	1/1	0.99	0.03	50,50,50,50	0
53	MG	AA	2058	1/1	0.99	0.07	86,86,86,86	0
53	MG	AA	2024	1/1	0.99	0.08	5,5,5,5	1
53	MG	BB	3052	1/1	0.99	0.05	38,38,38,38	0
53	MG	AA	2041	1/1	0.99	0.03	83,83,83,83	0
53	MG	CA	2031	1/1	0.99	0.04	28,28,28,28	0
53	MG	CA	2032	1/1	0.99	0.05	33,33,33,33	0
53	MG	BB	3055	1/1	0.99	0.04	17,17,17,17	0
53	MG	CA	2034	1/1	0.99	0.03	6,6,6,6	0
53	MG	BB	3059	1/1	0.99	0.11	26,26,26,26	0
53	MG	BB	3061	1/1	0.99	0.04	48,48,48,48	0
53	MG	BB	3063	1/1	0.99	0.03	11,11,11,11	0
53	MG	BB	3064	1/1	0.99	0.04	35,35,35,35	0
53	MG	CA	2040	1/1	0.99	0.04	48,48,48,48	0
53	MG	CA	2041	1/1	0.99	0.04	46,46,46,46	0
53	MG	BB	3065	1/1	0.99	0.02	29,29,29,29	0
53	MG	CA	2043	1/1	0.99	0.07	19,19,19,19	0
53	MG	CA	2044	1/1	0.99	0.04	59,59,59,59	0
53	MG	CA	2046	1/1	0.99	0.02	57,57,57,57	0
53	MG	BB	3067	1/1	0.99	0.03	44,44,44,44	0
53	MG	BB	3001	1/1	0.99	0.03	51,51,51,51	0
53	MG	BB	3070	1/1	0.99	0.03	37,37,37,37	0
53	MG	CA	2051	1/1	0.99	0.03	39,39,39,39	0
53	MG	BB	3003	1/1	0.99	0.06	32,32,32,32	0
53	MG	CA	2053	1/1	0.99	0.05	30,30,30,30	0
53	MG	BB	3004	1/1	0.99	0.06	32,32,32,32	0
53	MG	BB	3074	1/1	0.99	0.02	28,28,28,28	0
53	MG	BB	3007	1/1	0.99	0.07	82,82,82,82	0
53	MG	AA	2042	1/1	0.99	0.02	69,69,69,69	0
53	MG	BB	3079	1/1	0.99	0.09	19,19,19,19	0
53	MG	BB	3009	1/1	0.99	0.04	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
53	MG	AA	2016	1/1	0.99	0.04	89,89,89,89	0
53	MG	DB	3007	1/1	0.99	0.04	18,18,18,18	0
53	MG	DB	3008	1/1	0.99	0.04	6,6,6,6	0
53	MG	DB	3011	1/1	0.99	0.05	17,17,17,17	0
53	MG	BB	3012	1/1	0.99	0.06	32,32,32,32	0
53	MG	DB	3015	1/1	0.99	0.03	33,33,33,33	0
53	MG	DB	3017	1/1	0.99	0.04	13,13,13,13	0
53	MG	BB	3083	1/1	0.99	0.09	12,12,12,12	0
53	MG	DB	3022	1/1	0.99	0.03	25,25,25,25	0
53	MG	DB	3024	1/1	0.99	0.04	63,63,63,63	0
53	MG	DB	3026	1/1	0.99	0.04	34,34,34,34	0
53	MG	BB	3013	1/1	0.99	0.03	43,43,43,43	0
53	MG	DB	3031	1/1	0.99	0.03	8,8,8,8	0
53	MG	BB	3086	1/1	0.99	0.11	42,42,42,42	0
53	MG	BB	3087	1/1	0.99	0.03	57,57,57,57	0
53	MG	DB	3035	1/1	0.99	0.04	55,55,55,55	0
53	MG	BB	3088	1/1	0.99	0.02	28,28,28,28	0
53	MG	DB	3037	1/1	0.99	0.09	28,28,28,28	0
53	MG	DB	3039	1/1	0.99	0.10	22,22,22,22	0
53	MG	DB	3041	1/1	0.99	0.04	29,29,29,29	0
53	MG	DB	3044	1/1	0.99	0.04	24,24,24,24	0
53	MG	BB	3089	1/1	0.99	0.04	56,56,56,56	0
53	MG	DB	3046	1/1	0.99	0.04	24,24,24,24	0
53	MG	AA	2011	1/1	0.99	0.03	85,85,85,85	0
53	MG	DB	3048	1/1	0.99	0.09	28,28,28,28	0
53	MG	BB	3017	1/1	0.99	0.03	34,34,34,34	0
53	MG	DB	3051	1/1	0.99	0.07	23,23,23,23	0
53	MG	AA	2028	1/1	0.99	0.05	100,100,100,100	0
53	MG	BB	3094	1/1	0.99	0.04	28,28,28,28	0
53	MG	BB	3095	1/1	0.99	0.03	33,33,33,33	0
53	MG	BB	3021	1/1	0.99	0.11	30,30,30,30	0
53	MG	BB	3099	1/1	0.99	0.07	40,40,40,40	0
53	MG	BB	3022	1/1	0.99	0.09	34,34,34,34	0
53	MG	DB	3062	1/1	0.99	0.04	77,77,77,77	0
53	MG	DB	3063	1/1	0.99	0.06	43,43,43,43	0
53	MG	DB	3064	1/1	0.99	0.05	20,20,20,20	0
53	MG	BB	3102	1/1	0.99	0.03	20,20,20,20	0
53	MG	BB	3103	1/1	0.99	0.04	5,5,5,5	0
53	MG	DB	3071	1/1	0.99	0.06	16,16,16,16	0
53	MG	DB	3072	1/1	0.99	0.03	18,18,18,18	0
53	MG	DB	3073	1/1	0.99	0.03	14,14,14,14	0
53	MG	DB	3075	1/1	0.99	0.03	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
53	MG	DB	3077	1/1	0.99	0.04	54,54,54,54	0
53	MG	DB	3079	1/1	0.99	0.04	28,28,28,28	0
53	MG	DB	3082	1/1	0.99	0.03	30,30,30,30	0
53	MG	BB	3104	1/1	0.99	0.04	36,36,36,36	0
53	MG	DB	3087	1/1	0.99	0.04	53,53,53,53	0
53	MG	BB	3105	1/1	0.99	0.03	20,20,20,20	0
53	MG	BB	3025	1/1	0.99	0.03	30,30,30,30	0
53	MG	AA	2029	1/1	0.99	0.02	39,39,39,39	0
53	MG	AA	2001	1/1	0.99	0.04	35,35,35,35	0
53	MG	BB	3029	1/1	0.99	0.03	14,14,14,14	0
53	MG	DB	3099	1/1	0.99	0.04	7,7,7,7	0
53	MG	DB	3100	1/1	0.99	0.05	13,13,13,13	0
53	MG	DB	3102	1/1	0.99	0.02	12,12,12,12	0
53	MG	AA	2006	1/1	0.99	0.02	60,60,60,60	0
53	MG	DB	3106	1/1	0.99	0.04	23,23,23,23	0
53	MG	AA	2032	1/1	0.99	0.03	62,62,62,62	0
53	MG	AA	2021	1/1	0.99	0.21	5,5,5,5	1
53	MG	AA	2034	1/1	0.99	0.03	68,68,68,68	0
53	MG	CA	2010	1/1	0.99	0.03	33,33,33,33	0
53	MG	BB	3036	1/1	0.99	0.06	42,42,42,42	0
53	MG	CA	2012	1/1	0.99	0.02	93,93,93,93	0
53	MG	CA	2013	1/1	0.99	0.03	73,73,73,73	0
53	MG	DB	3010	1/1	1.00	0.02	8,8,8,8	0
53	MG	BB	3075	1/1	1.00	0.06	40,40,40,40	0
53	MG	DB	3012	1/1	1.00	0.03	9,9,9,9	0
53	MG	BB	3076	1/1	1.00	0.04	38,38,38,38	0
53	MG	DB	3014	1/1	1.00	0.08	5,5,5,5	0
53	MG	AA	2003	1/1	1.00	0.04	39,39,39,39	0
53	MG	DB	3016	1/1	1.00	0.04	15,15,15,15	0
53	MG	AA	2009	1/1	1.00	0.02	7,7,7,7	0
53	MG	AA	2046	1/1	1.00	0.04	5,5,5,5	0
53	MG	DB	3019	1/1	1.00	0.01	5,5,5,5	0
53	MG	DB	3020	1/1	1.00	0.06	5,5,5,5	0
53	MG	DB	3021	1/1	1.00	0.07	11,11,11,11	0
53	MG	BB	3023	1/1	1.00	0.02	5,5,5,5	0
53	MG	DB	3023	1/1	1.00	0.03	32,32,32,32	0
53	MG	CA	2017	1/1	1.00	0.03	5,5,5,5	0
53	MG	DB	3025	1/1	1.00	0.03	5,5,5,5	0
53	MG	CA	2018	1/1	1.00	0.06	6,6,6,6	0
53	MG	DB	3027	1/1	1.00	0.03	6,6,6,6	0
53	MG	DB	3028	1/1	1.00	0.10	24,24,24,24	0
53	MG	BB	3024	1/1	1.00	0.02	15,15,15,15	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
53	MG	DB	3030	1/1	1.00	0.05	6,6,6,6	0
53	MG	BB	3002	1/1	1.00	0.02	5,5,5,5	0
53	MG	BB	3011	1/1	1.00	0.03	5,5,5,5	0
53	MG	DB	3033	1/1	1.00	0.01	9,9,9,9	0
53	MG	BB	3084	1/1	1.00	0.02	24,24,24,24	0
53	MG	BB	3049	1/1	1.00	0.02	10,10,10,10	0
53	MG	BB	3050	1/1	1.00	0.04	28,28,28,28	0
53	MG	BB	3027	1/1	1.00	0.05	33,33,33,33	0
53	MG	DB	3038	1/1	1.00	0.04	5,5,5,5	0
53	MG	AA	2020	1/1	1.00	0.11	5,5,5,5	0
53	MG	DB	3040	1/1	1.00	0.07	5,5,5,5	0
53	MG	BB	3053	1/1	1.00	0.04	28,28,28,28	0
53	MG	DB	3042	1/1	1.00	0.02	6,6,6,6	0
53	MG	DB	3043	1/1	1.00	0.02	5,5,5,5	0
53	MG	AA	2027	1/1	1.00	0.02	36,36,36,36	0
53	MG	BB	3030	1/1	1.00	0.02	35,35,35,35	0
53	MG	CA	2030	1/1	1.00	0.15	7,7,7,7	0
53	MG	BB	3092	1/1	1.00	0.02	54,54,54,54	0
53	MG	BB	3056	1/1	1.00	0.03	26,26,26,26	0
53	MG	DB	3049	1/1	1.00	0.01	36,36,36,36	0
53	MG	BB	3057	1/1	1.00	0.11	28,28,28,28	0
53	MG	BB	3058	1/1	1.00	0.03	22,22,22,22	0
53	MG	BB	3096	1/1	1.00	0.03	34,34,34,34	0
53	MG	DB	3053	1/1	1.00	0.03	35,35,35,35	0
53	MG	DB	3054	1/1	1.00	0.11	19,19,19,19	0
53	MG	DB	3055	1/1	1.00	0.04	26,26,26,26	0
53	MG	DB	3056	1/1	1.00	0.01	5,5,5,5	0
53	MG	BB	3005	1/1	1.00	0.06	5,5,5,5	0
53	MG	BB	3098	1/1	1.00	0.03	35,35,35,35	0
53	MG	BB	3060	1/1	1.00	0.03	19,19,19,19	0
53	MG	CA	2039	1/1	1.00	0.04	16,16,16,16	0
53	MG	BB	3015	1/1	1.00	0.02	13,13,13,13	0
53	MG	BB	3101	1/1	1.00	0.01	24,24,24,24	0
53	MG	BB	3062	1/1	1.00	0.04	14,14,14,14	0
53	MG	BB	3016	1/1	1.00	0.06	38,38,38,38	0
53	MG	DB	3065	1/1	1.00	0.04	37,37,37,37	0
53	MG	BB	3006	1/1	1.00	0.04	5,5,5,5	0
53	MG	DB	3067	1/1	1.00	0.06	5,5,5,5	0
53	MG	DB	3068	1/1	1.00	0.03	5,5,5,5	0
53	MG	DB	3069	1/1	1.00	0.04	11,11,11,11	0
53	MG	CA	2045	1/1	1.00	0.04	48,48,48,48	0
53	MG	BB	3035	1/1	1.00	0.03	15,15,15,15	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
53	MG	BB	3066	1/1	1.00	0.02	23,23,23,23	0
53	MG	BB	3107	1/1	1.00	0.01	6,6,6,6	0
53	MG	DB	3074	1/1	1.00	0.03	12,12,12,12	0
53	MG	BB	3018	1/1	1.00	0.02	32,32,32,32	0
53	MG	DB	3076	1/1	1.00	0.03	5,5,5,5	0
53	MG	CA	2050	1/1	1.00	0.01	8,8,8,8	0
53	MG	DB	3078	1/1	1.00	0.03	27,27,27,27	0
53	MG	BB	3019	1/1	1.00	0.03	22,22,22,22	0
53	MG	DB	3080	1/1	1.00	0.02	10,10,10,10	0
53	MG	DB	3081	1/1	1.00	0.01	18,18,18,18	0
53	MG	BB	3110	1/1	1.00	0.05	23,23,23,23	0
53	MG	CA	2001	1/1	1.00	0.06	5,5,5,5	0
53	MG	DB	3084	1/1	1.00	0.08	5,5,5,5	0
53	MG	DB	3085	1/1	1.00	0.02	5,5,5,5	0
53	MG	DB	3086	1/1	1.00	0.02	11,11,11,11	0
53	MG	CA	2002	1/1	1.00	0.01	5,5,5,5	0
53	MG	CA	2055	1/1	1.00	0.01	11,11,11,11	0
53	MG	DB	3089	1/1	1.00	0.04	7,7,7,7	0
53	MG	CA	2056	1/1	1.00	0.03	5,5,5,5	0
53	MG	DB	3091	1/1	1.00	0.07	13,13,13,13	0
53	MG	CA	2003	1/1	1.00	0.05	35,35,35,35	0
53	MG	DB	3093	1/1	1.00	0.07	11,11,11,11	0
53	MG	DB	3094	1/1	1.00	0.03	29,29,29,29	0
53	MG	CA	2004	1/1	1.00	0.10	8,8,8,8	0
53	MG	DB	3096	1/1	1.00	0.04	6,6,6,6	0
53	MG	BB	3069	1/1	1.00	0.02	17,17,17,17	0
53	MG	DB	3098	1/1	1.00	0.07	44,44,44,44	0
53	MG	BB	3038	1/1	1.00	0.03	71,71,71,71	0
53	MG	CA	2061	1/1	1.00	0.02	23,23,23,23	0
53	MG	DB	3101	1/1	1.00	0.02	5,5,5,5	0
53	MG	BB	3039	1/1	1.00	0.05	7,7,7,7	0
53	MG	DB	3001	1/1	1.00	0.01	5,5,5,5	0
53	MG	DB	3104	1/1	1.00	0.02	33,33,33,33	0
53	MG	DB	3105	1/1	1.00	0.03	23,23,23,23	0
53	MG	DB	3002	1/1	1.00	0.05	12,12,12,12	0
53	MG	DB	3107	1/1	1.00	0.01	10,10,10,10	0
53	MG	BB	3040	1/1	1.00	0.07	26,26,26,26	0
53	MG	DB	3109	1/1	1.00	0.01	9,9,9,9	0
53	MG	DB	3004	1/1	1.00	0.01	6,6,6,6	0
53	MG	DB	3005	1/1	1.00	0.01	10,10,10,10	0
53	MG	DB	3006	1/1	1.00	0.02	5,5,5,5	0
53	MG	BB	3073	1/1	1.00	0.03	39,39,39,39	0

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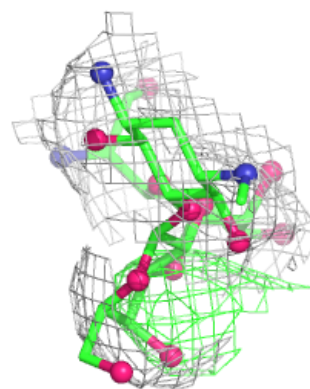
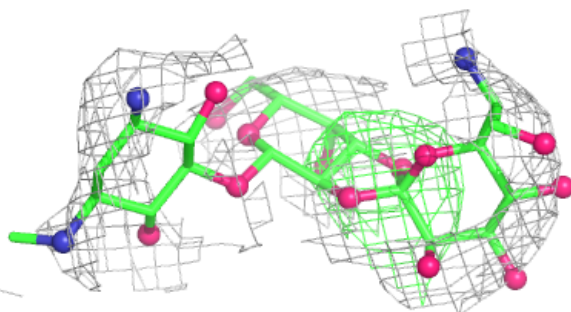
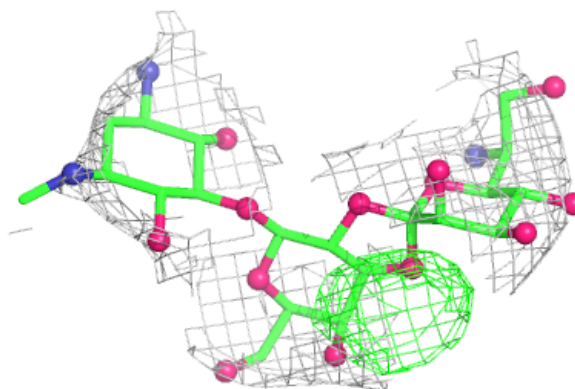
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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
53	MG	BB	3041	1/1	1.00	0.01	7,7,7,7	0
53	MG	DB	3009	1/1	1.00	0.03	29,29,29,29	0

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

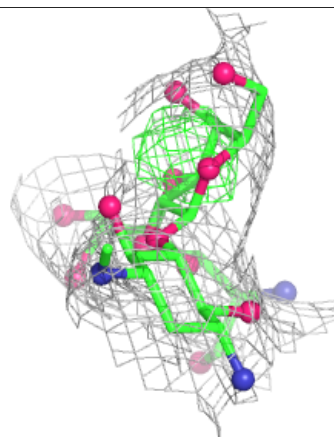
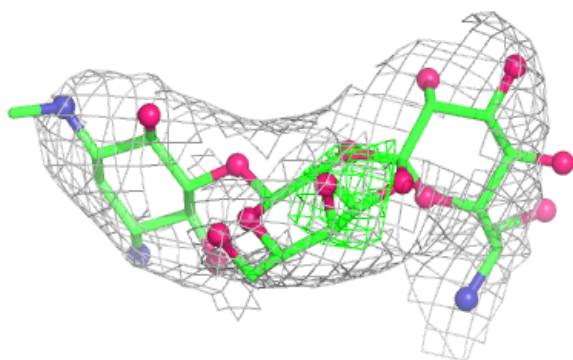
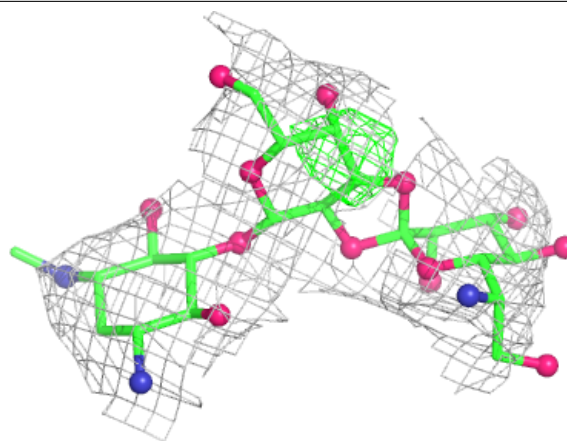
Electron density around HYG CA 2062:

2mF_o-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around HYG AA 2059:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



6.5 Other polymers [i](#)

There are no such residues in this entry.