Full wwPDB X-ray Structure Validation Report (i)

Mar 6, 2026 – 06:02 AM UTC

PDB ID	:	4V7J / pdb_00004v7j
Title	:	Structure of RelE nuclease bound to the 70S ribosome (precleavage state)
Authors	:	Neubauer, C.; Gao, Y.-G.; Andersen, K.R.; Dunham, C.M.; Kelley, A.C.; Hentschel, J.; Gerdes, K.; Ramakrishnan, V.; Brodersen, D.E.
Deposited on	:	2009-11-02
Resolution	:	3.30 Å(reported)

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

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/XrayValidationReportHelp
with specific help available everywhere you see the (i) 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 (i)) were used in the production of this report:

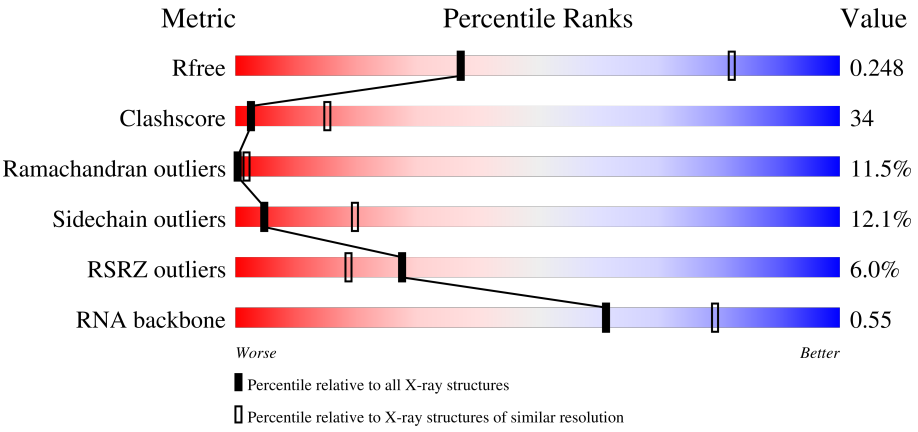
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (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 3.30 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	1169 (3.32-3.28)
Clashscore	190562	1209 (3.32-3.28)
Ramachandran outliers	187476	1188 (3.32-3.28)
Sidechain outliers	187428	1187 (3.32-3.28)
RSRZ outliers	180081	1169 (3.32-3.28)
RNA backbone	3983	1048 (3.60-3.00)

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

Mol	Chain	Length	Quality of chain
1	Ab	256	4% 23% 54% 13% • 9%
1	Bb	256	4% 24% 54% 13% • 9%
2	Ac	239	5% 28% 44% 14% 14%
2	Bc	239	3% 28% 44% 14% 14%

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Mol	Chain	Length	Quality of chain
3	Ad	209	12% 33% 51% 12%
3	Bd	209	7% 35% 50% 10%
4	Ae	162	2% 33% 48% 12% 7%
4	Be	162	2% 32% 48% 12% 7%
5	Af	101	% 31% 63% 6%
5	Bf	101	6% 32% 62% 5%
6	Ag	156	8% 35% 55% 8%
6	Bg	156	7% 33% 58% 8%
7	Ah	138	6% 33% 57% 11%
7	Bh	138	8% 35% 54% 12%
8	Ai	128	12% 24% 62% 12%
8	Bi	128	11% 23% 62% 12%
9	Aj	105	16% 27% 48% 18% 7%
9	Bj	105	11% 26% 49% 18% 7%
10	Ak	129	5% 40% 46% 6% 8%
10	Bk	129	5% 41% 45% 6% 8%
11	Al	132	8% 32% 44% 14% 6%
11	Bl	132	7% 34% 42% 14% 6%
12	Am	126	17% 18% 51% 21% 6%
12	Bm	126	13% 15% 55% 20% 6%
13	An	61	13% 15% 67% 16%
13	Bn	61	10% 16% 66% 16%
14	Ao	89	4% 49% 40% 8%
14	Bo	89	2% 49% 43% 6%
15	Ap	88	5% 31% 60% 6%

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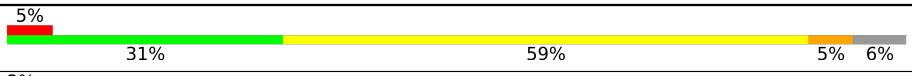
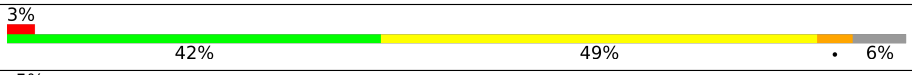
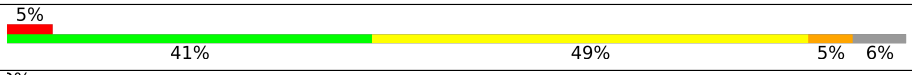
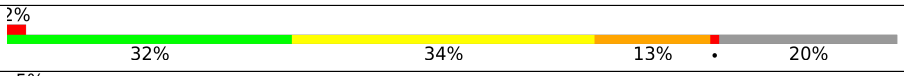
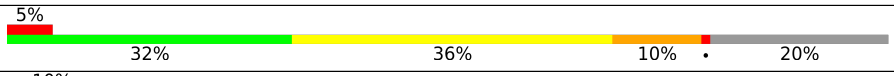
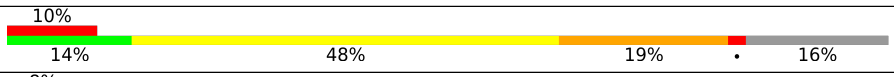
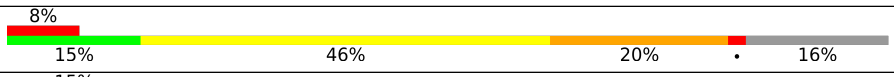
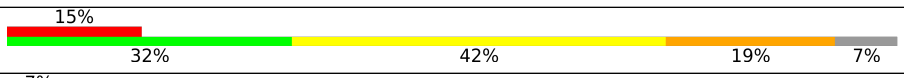
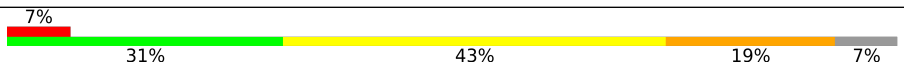
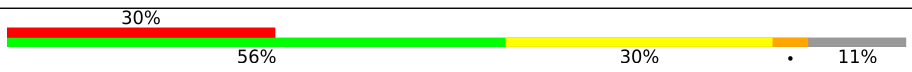
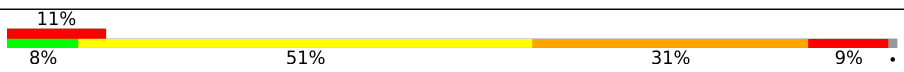
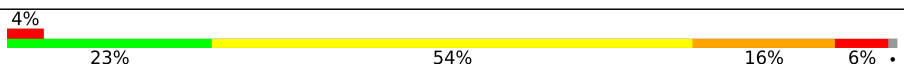
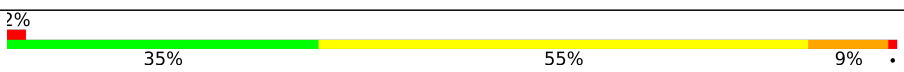
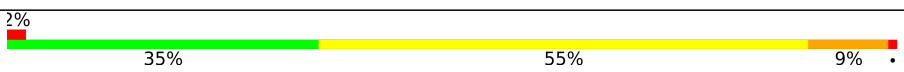
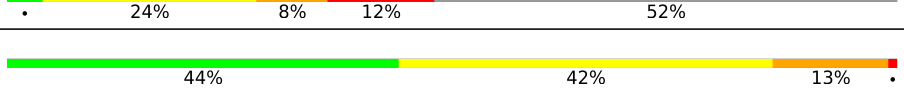
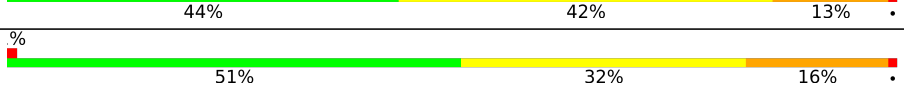
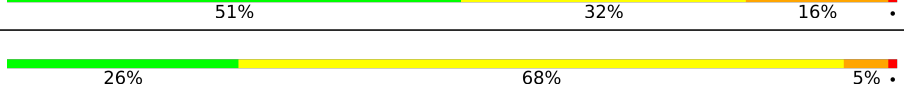
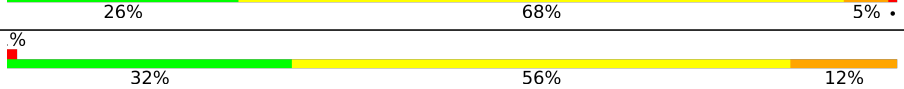
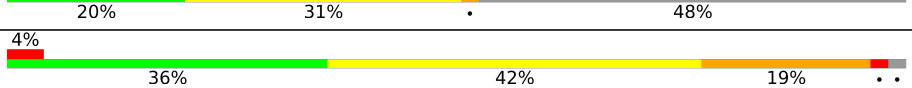
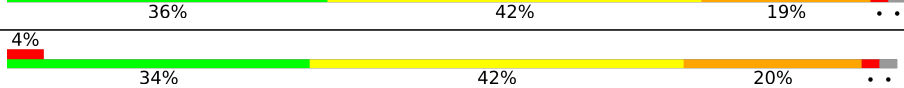
Mol	Chain	Length	Quality of chain
15	Bp	88	
16	Aq	105	
16	Bq	105	
17	Ar	88	
17	Br	88	
18	As	93	
18	Bs	93	
19	At	106	
19	Bt	106	
20	Au	27	
20	Bu	27	
21	Ay	95	
21	By	95	
22	Aa	1504	
22	Ba	1504	
23	Ax	25	
23	Bx	25	
24	Av	77	
24	Bv	77	
25	Aw	77	
25	Bw	77	
26	AC	229	
26	BC	229	
27	AD	276	
27	BD	276	

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Mol	Chain	Length	Quality of chain
28	AE	206	6% 31% 44% 20%
28	BE	206	5% 33% 42% 20%
29	AF	210	2% 34% 47% 17%
29	BF	210	4% 34% 47% 16%
30	AG	182	8% 18% 55% 23%
30	BG	182	10% 19% 52% 25%
31	AH	180	6% 33% 41% 13% 9%
31	BH	180	11% 29% 44% 13% 5% 9%
32	AI	148	36% 14% 57% 20% 7%
32	BI	148	36% 16% 52% 22% 7%
33	AJ	173	19% 43% 24% 8% 25%
33	BJ	173	24% 32% 25% 16% 25%
34	AN	140	5% 22% 56% 18%
34	BN	140	6% 24% 51% 22%
35	AO	122	1% 46% 46% 7%
35	BO	122	1% 44% 46% 9%
36	AP	150	17% 23% 37% 29% 8%
36	BP	150	23% 20% 40% 30% 7%
37	AQ	141	6% 42% 44% 12%
37	BQ	141	5% 40% 45% 13%
38	AR	118	8% 25% 54% 17%
38	BR	118	8% 29% 50% 18%
39	AS	112	29% 17% 39% 25% 6% 12%
39	BS	112	25% 17% 42% 23% 5% 12%
40	AT	146	10% 20% 48% 18% 7% 8%

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Mol	Chain	Length	Quality of chain
40	BT	146	10% 18% 49% 19% 7% 8%
41	AU	118	3% 32% 48% 19%
41	BU	118	7% 33% 48% 18%
42	AV	101	4% 29% 45% 20% 7%
42	BV	101	4% 27% 47% 20% 7%
43	AW	113	2% 33% 49% 16%
43	BW	113	% 34% 48% 16%
44	AX	96	% 35% 49% 11%
44	BX	96	4% 38% 47% 10%
45	AY	110	23% 15% 49% 23% 5% 9%
45	BY	110	29% 17% 45% 25% 5% 9%
46	AZ	206	% 25% 44% 17% 11%
46	BZ	206	3% 19% 44% 23% 11%
47	A0	85	9% 40% 46% 12%
47	B0	85	11% 42% 42% 13%
48	A1	98	3% 33% 46% 14% 5%
48	B1	98	3% 36% 43% 16% 5%
49	A2	72	4% 18% 61% 18%
49	B2	72	7% 29% 51% 14%
50	A3	60	3% 47% 45% 7%
50	B3	60	48% 42% 8%
51	A4	71	8% 8% 39% 27% 6% 20%
51	B4	71	14% 10% 38% 27% 6% 20%
52	A5	60	5% 30% 42% 18% 8%
52	B5	60	3% 30% 42% 18% 8%

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Mol	Chain	Length	Quality of chain
53	A6	54	20% 6% 52% 30% 6% 7%
53	B6	54	7% 6% 50% 31% 6% 7%
54	A7	49	2% 43% 47% 6%
54	B7	49	4% 37% 53% 6%
55	A8	65	26% 20% 52% 14% 11%
55	B8	65	14% 18% 52% 18% 8%
56	A9	37	19% 46% 49% 5%
56	B9	37	22% 51% 43% 5%
57	AA	2848	% 40% 47% 11%
57	BA	2848	2% 40% 47% 11%
58	AB	119	3% 38% 52% 9%
58	BB	119	5% 40% 50% 9%

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
23	OMG	Ax	21	-	-	X	-
60	MG	AA	2928	-	-	-	X
60	MG	AA	2940	-	-	-	X
60	MG	AA	2967	-	-	-	X
60	MG	AA	2975	-	-	-	X
60	MG	AA	2980	-	-	-	X
60	MG	AA	3002	-	-	-	X
60	MG	AA	3015	-	-	-	X
60	MG	AA	3030	-	-	-	X
60	MG	AA	3036	-	-	-	X
60	MG	AA	3057	-	-	-	X
60	MG	AA	3069	-	-	-	X
60	MG	AA	3091	-	-	-	X
60	MG	AA	3103	-	-	-	X
60	MG	AA	3109	-	-	-	X
60	MG	AA	3112	-	-	-	X
60	MG	AA	3149	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
60	MG	AA	3152	-	-	-	X
60	MG	AA	3215	-	-	-	X
60	MG	AA	3237	-	-	-	X
60	MG	AA	3239	-	-	-	X
60	MG	AA	3243	-	-	-	X
60	MG	AA	3249	-	-	-	X
60	MG	AB	202	-	-	-	X
60	MG	Aa	1616	-	-	-	X
60	MG	Aa	1637	-	-	-	X
60	MG	Aa	1647	-	-	-	X
60	MG	Aa	1651	-	-	-	X
60	MG	Aa	1664	-	-	-	X
60	MG	Aa	1678	-	-	-	X
60	MG	Aa	1694	-	-	-	X
60	MG	Aa	1705	-	-	-	X
60	MG	Aa	1730	-	-	-	X
60	MG	Aa	1741	-	-	-	X
60	MG	BA	2958	-	-	-	X
60	MG	BA	2970	-	-	-	X
60	MG	BA	3036	-	-	-	X
60	MG	BA	3053	-	-	-	X
60	MG	BA	3071	-	-	-	X
60	MG	BA	3081	-	-	-	X
60	MG	BA	3135	-	-	-	X
60	MG	BA	3149	-	-	-	X
60	MG	BA	3150	-	-	-	X
60	MG	BA	3162	-	-	-	X
60	MG	BA	3177	-	-	-	X
60	MG	BA	3200	-	-	-	X
60	MG	BA	3208	-	-	-	X
60	MG	BA	3210	-	-	-	X
60	MG	BA	3233	-	-	-	X
60	MG	BA	3234	-	-	-	X
60	MG	BA	3235	-	-	-	X
60	MG	BA	3265	-	-	-	X
60	MG	Ba	1625	-	-	-	X
60	MG	Ba	1635	-	-	-	X
60	MG	Ba	1636	-	-	-	X
60	MG	Ba	1646	-	-	-	X
60	MG	Ba	1676	-	-	-	X
60	MG	Ba	1677	-	-	-	X
60	MG	Ba	1680	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
60	MG	Ba	1682	-	-	-	X
60	MG	Ba	1692	-	-	-	X
60	MG	Ba	1698	-	-	-	X
60	MG	Ba	1699	-	-	-	X
60	MG	Ba	1702	-	-	-	X
60	MG	Ba	1703	-	-	-	X
60	MG	Ba	1704	-	-	-	X
60	MG	Ba	1706	-	-	-	X
60	MG	Ba	1707	-	-	-	X
60	MG	Ba	1713	-	-	-	X
60	MG	Ba	1717	-	-	-	X
60	MG	Ba	1720	-	-	-	X
60	MG	Ba	1728	-	-	-	X
60	MG	Ba	1739	-	-	-	X
60	MG	Bv	103	-	-	-	X
60	MG	Bv	104	-	-	-	X

2 Entry composition (i)

There are 60 unique types of molecules in this entry. The entry contains 297206 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 protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	Ab	234	Total	C	N	O	S	0	0	0
			1900	1213	341	341	5			
1	Bb	234	Total	C	N	O	S	0	0	0
			1900	1213	341	341	5			

- 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
			1612	1016	314	281	1			
2	Bc	206	Total	C	N	O	S	0	0	0
			1612	1016	314	281	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	Ad	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			
3	Bd	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			

- 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
			1146	724	217	201	4			
4	Be	150	Total	C	N	O	S	0	0	0
			1146	724	217	201	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	Af	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			
5	Bf	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	Ag	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			
6	Bg	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	Ah	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			
7	Bh	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
8	Ai	127	Total	C	N	O	0	0	0
			1010	639	197	174			
8	Bi	127	Total	C	N	O	0	0	0
			1010	639	197	174			

- 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
			794	499	156	138	1			
9	Bj	98	Total	C	N	O	S	0	0	0
			794	499	156	138	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	Ak	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	Bk	119	Total 885	C 549	N 168	O 165	S 3	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	Al	124	Total 970	C 611	N 195	O 163	S 1	0	0	0
11	Bl	124	Total 970	C 611	N 195	O 163	S 1	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	Am	118	Total 937	C 579	N 193	O 163	S 2	0	0	0
12	Bm	118	Total 937	C 579	N 193	O 163	S 2	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	An	60	Total 492	C 312	N 104	O 72	S 4	0	0	0
13	Bn	60	Total 492	C 312	N 104	O 72	S 4	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	Ao	88	Total 734	C 459	N 147	O 126	S 2	0	0	0
14	Bo	88	Total 734	C 459	N 147	O 126	S 2	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	Ap	83	Total 700	C 443	N 139	O 117	S 1	0	0	0
15	Bp	83	Total 700	C 443	N 139	O 117	S 1	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	Aq	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			
16	Bq	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
17	Ar	70	Total	C	N	O	0	0	0
			574	367	112	95			
17	Br	70	Total	C	N	O	0	0	0
			574	367	112	95			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	As	78	Total	C	N	O	S	0	0	0
			629	403	114	110	2			
18	Bs	78	Total	C	N	O	S	0	0	0
			629	403	114	110	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	At	99	Total	C	N	O	S	0	0	0
			763	470	162	129	2			
19	Bt	99	Total	C	N	O	S	0	0	0
			763	470	162	129	2			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
20	Au	24	Total	C	N	O	0	0	0
			208	128	50	30			
20	Bu	24	Total	C	N	O	0	0	0
			208	128	50	30			

- Molecule 21 is a protein called Toxin relE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	Ay	94	Total	C	N	O	S	0	0	0
			770	496	133	139	2			
21	By	94	Total	C	N	O	S	0	0	0
			766	495	130	139	2			

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
Ay	45	ALA	ARG	engineered mutation	UNP P0C077
Ay	81	ALA	ARG	engineered mutation	UNP P0C077
By	45	ALA	ARG	engineered mutation	UNP P0C077
By	81	ALA	ARG	engineered mutation	UNP P0C077

- Molecule 22 is a RNA chain called RNA (1504-MER).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	Aa	1504	Total	C	N	O	P	0	0	0
			32329	14390	5992	10444	1503			
22	Ba	1504	Total	C	N	O	P	0	0	0
			32329	14390	5992	10444	1503			

- Molecule 23 is a RNA chain called RNA (5'-R(*GP*GP*CP*AP*AP*GP*GP*AP*GP*GP *UP*A*AP*AP*AP*AP*UP*GP*(OMU)P*(A2M)P*(OMG)P*AP*AP*AP*A)-3').

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	Ax	12	Total	C	N	O	P	0	0	0
			262	121	54	76	11			
23	Bx	12	Total	C	N	O	P	0	0	0
			262	121	54	76	11			

- Molecule 24 is a RNA chain called RNA (77-MER).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	Av	77	Total	C	N	O	P	0	0	0
			1641	733	297	535	76			
24	Bv	77	Total	C	N	O	P	0	0	0
			1641	733	297	535	76			

- Molecule 25 is a RNA chain called RNA (77-MER).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	Aw	77	Total	C	N	O	P	0	0	0
			1640	732	297	535	76			
25	Bw	77	Total	C	N	O	P	0	0	0
			1640	732	297	535	76			

- Molecule 26 is a protein called 50S ribosomal protein L1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	AC	120	Total	C	N	O	S	0	0	0
			937	590	174	172	1			
26	BC	120	Total	C	N	O	S	0	0	0
			937	590	174	172	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	AD	271	Total	C	N	O	S	0	0	0
			2104	1329	416	356	3			
27	BD	271	Total	C	N	O	S	0	0	0
			2104	1329	416	356	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	AE	204	Total	C	N	O	S	0	0	0
			1563	988	299	270	6			
28	BE	204	Total	C	N	O	S	0	0	0
			1563	988	299	270	6			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	AF	207	Total	C	N	O	S	0	0	0
			1623	1035	303	282	3			
29	BF	207	Total	C	N	O	S	0	0	0
			1623	1035	303	282	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	AG	181	Total	C	N	O	S	0	0	0
			1474	942	268	260	4			

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	AH	164	Total	C	N	O	S	0	0	0
			1259	800	233	225	1			
31	BH	164	Total	C	N	O	S	0	0	0
			1259	800	233	225	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	AI	145	Total	C	N	O	S	0	0	0
			1131	723	200	207	1			
32	BI	145	Total	C	N	O	S	0	0	0
			1131	723	200	207	1			

- Molecule 33 is a protein called 50S ribosomal protein L10.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
33	AJ	130	Total	C	N	O	0	0	0
			641	381	130	130			
33	BJ	130	Total	C	N	O	0	0	0
			641	381	130	130			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	AN	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			
34	BN	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	AQ	140	Total	C	N	O	S	0	0	0
			1112	710	210	185	7			
37	BQ	140	Total	C	N	O	S	0	0	0
			1112	710	210	185	7			

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

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

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
39	AS	98	Total	C	N	O	0	0	0
			770	486	154	130			
39	BS	98	Total	C	N	O	0	0	0
			770	486	154	130			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	AT	135	Total	C	N	O	S	0	0	0
			1123	699	230	193	1			
40	BT	135	Total	C	N	O	S	0	0	0
			1123	699	230	193	1			

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
44	AX	92	Total	C	N	O	0	0	0
			725	471	131	123			
44	BX	92	Total	C	N	O	0	0	0
			725	471	131	123			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	AY	100	Total	C	N	O	S	0	0	0
			775	500	148	123	4			
45	BY	100	Total	C	N	O	S	0	0	0
			775	500	148	123	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	AZ	184	Total	C	N	O	S	0	0	0
			1467	936	261	268	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	BZ	184	Total	C	N	O	S	0	0	0
			1467	936	261	268	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	A0	84	Total	C	N	O	S	0	0	0
			662	410	140	111	1			
47	B0	84	Total	C	N	O	S	0	0	0
			662	410	140	111	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	A1	93	Total	C	N	O	S	0	0	0
			731	460	145	125	1			
48	B1	93	Total	C	N	O	S	0	0	0
			731	460	145	125	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	A2	71	Total	C	N	O	S	0	0	0
			598	370	121	106	1			
49	B2	71	Total	C	N	O	S	0	0	0
			598	370	121	106	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	A3	59	Total	C	N	O	S	0	0	0
			467	298	90	78	1			
50	B3	59	Total	C	N	O	S	0	0	0
			467	298	90	78	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	A4	57	Total	C	N	O	S	0	0	0
			450	285	77	83	5			
51	B4	57	Total	C	N	O	S	0	0	0
			450	285	77	83	5			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	A5	55	Total	C	N	O	S	0	0	0
			427	267	86	69	5			
52	B5	55	Total	C	N	O	S	0	0	0
			427	267	86	69	5			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	A6	50	Total	C	N	O	S	0	0	0
			433	270	88	71	4			
53	B6	50	Total	C	N	O	S	0	0	0
			433	270	88	71	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	A7	47	Total	C	N	O	S	0	0	0
			409	251	102	54	2			
54	B7	47	Total	C	N	O	S	0	0	0
			409	251	102	54	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	A8	63	Total	C	N	O	S	0	0	0
			507	326	101	78	2			
55	B8	63	Total	C	N	O	S	0	0	0
			507	326	101	78	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
56	A9	37	Total	C	N	O	S	0	0	0
			307	188	68	47	4			
56	B9	37	Total	C	N	O	S	0	0	0
			307	188	68	47	4			

- Molecule 57 is a RNA chain called RNA (2848-MER).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
57	AA	2848	Total 61341	C 27300	N 11478	O 19716	P 2847	0	0	0
57	BA	2848	Total 61341	C 27300	N 11478	O 19716	P 2847	0	0	0

- Molecule 58 is a RNA chain called RNA (119-MER).

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

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

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	Ad	1	Total 1	Zn 1	0	0
59	An	1	Total 1	Zn 1	0	0
59	A4	1	Total 1	Zn 1	0	0
59	A9	1	Total 1	Zn 1	0	0
59	Bd	1	Total 1	Zn 1	0	0
59	Bn	1	Total 1	Zn 1	0	0
59	B4	1	Total 1	Zn 1	0	0
59	B9	1	Total 1	Zn 1	0	0

- Molecule 60 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	Am	1	Total 1	Mg 1	0	0
60	Aq	1	Total 1	Mg 1	0	0
60	Aa	145	Total 145	Mg 145	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	Av	4	Total Mg 4 4	0	0
60	Aw	1	Total Mg 1 1	0	0
60	AD	2	Total Mg 2 2	0	0
60	AF	1	Total Mg 1 1	0	0
60	AQ	1	Total Mg 1 1	0	0
60	AX	1	Total Mg 1 1	0	0
60	A1	1	Total Mg 1 1	0	0
60	A5	1	Total Mg 1 1	0	0
60	A7	2	Total Mg 2 2	0	0
60	AA	368	Total Mg 368 368	0	0
60	AB	3	Total Mg 3 3	0	0
60	Bm	2	Total Mg 2 2	0	0
60	Bq	1	Total Mg 1 1	0	0
60	Ba	143	Total Mg 143 143	0	0
60	Bx	1	Total Mg 1 1	0	0
60	Bv	5	Total Mg 5 5	0	0
60	Bw	1	Total Mg 1 1	0	0
60	BD	2	Total Mg 2 2	0	0
60	BF	1	Total Mg 1 1	0	0
60	BQ	1	Total Mg 1 1	0	0
60	BX	1	Total Mg 1 1	0	0

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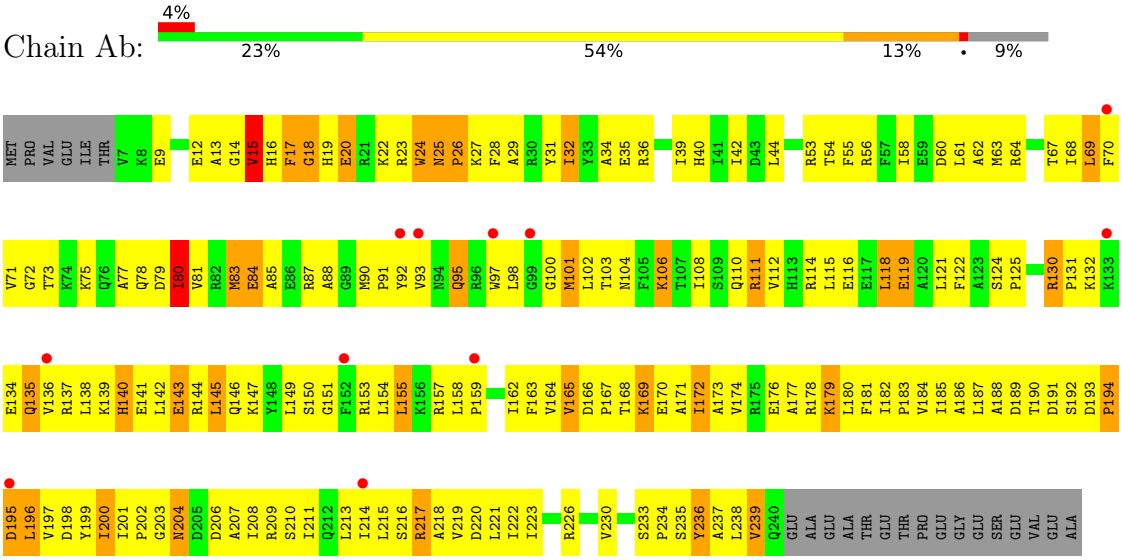
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	B0	2	Total Mg 2 2	0	0
60	B5	1	Total Mg 1 1	0	0
60	B7	2	Total Mg 2 2	0	0
60	BA	366	Total Mg 366 366	0	0
60	BB	3	Total Mg 3 3	0	0

3 Residue-property plots (i)

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

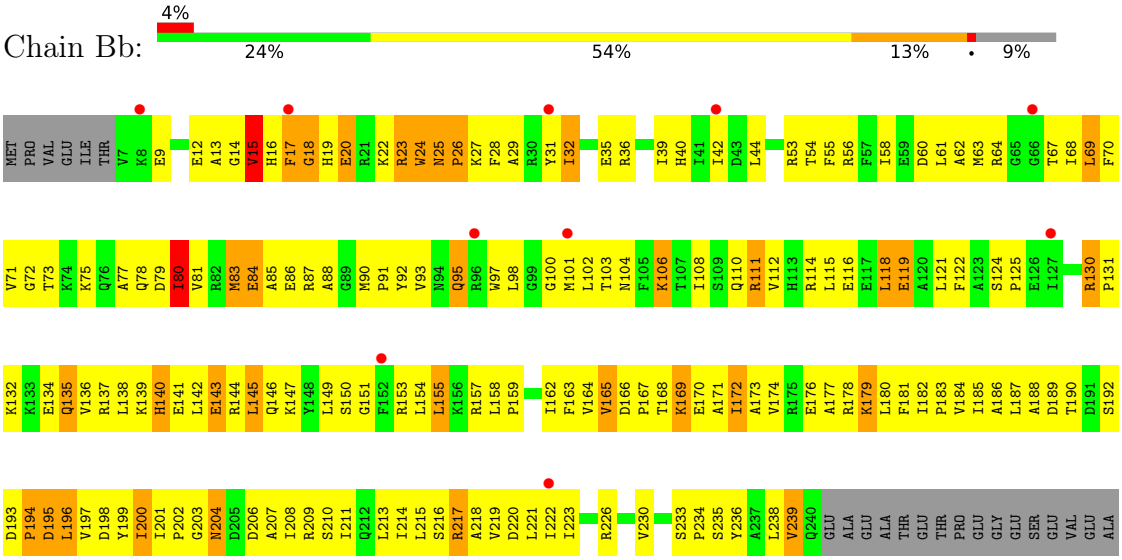
• Molecule 1: 30S ribosomal protein S2

Chain Ab:



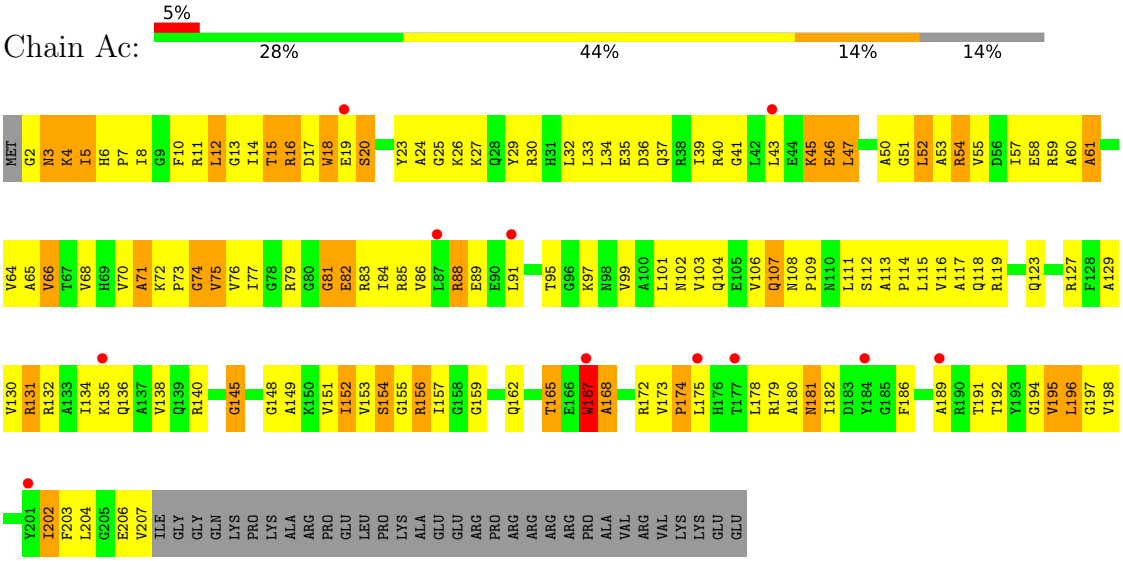
• Molecule 1: 30S ribosomal protein S2

Chain Bb:



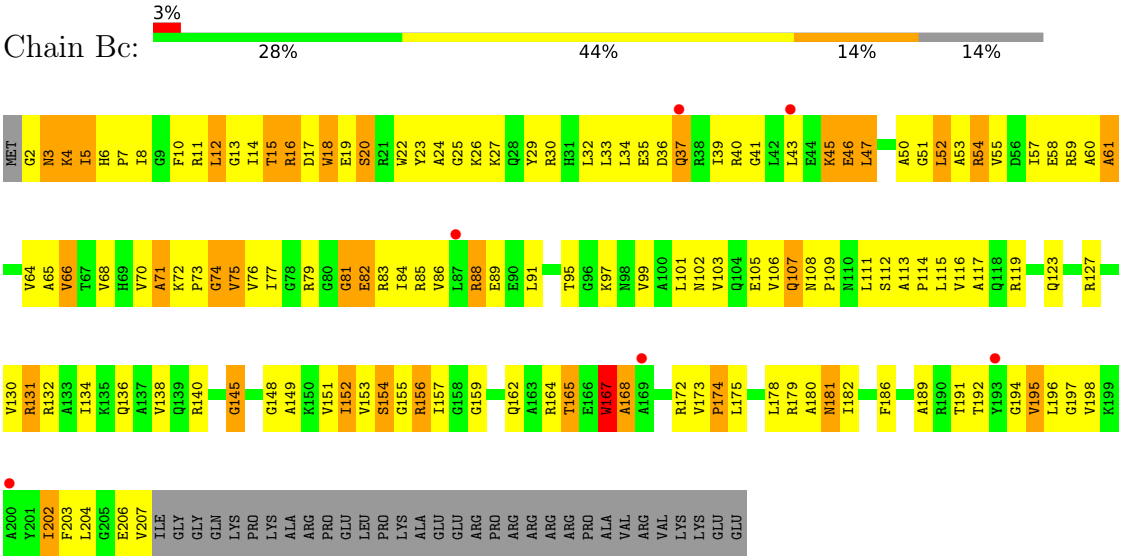
• Molecule 2: 30S ribosomal protein S3

Chain Ac:



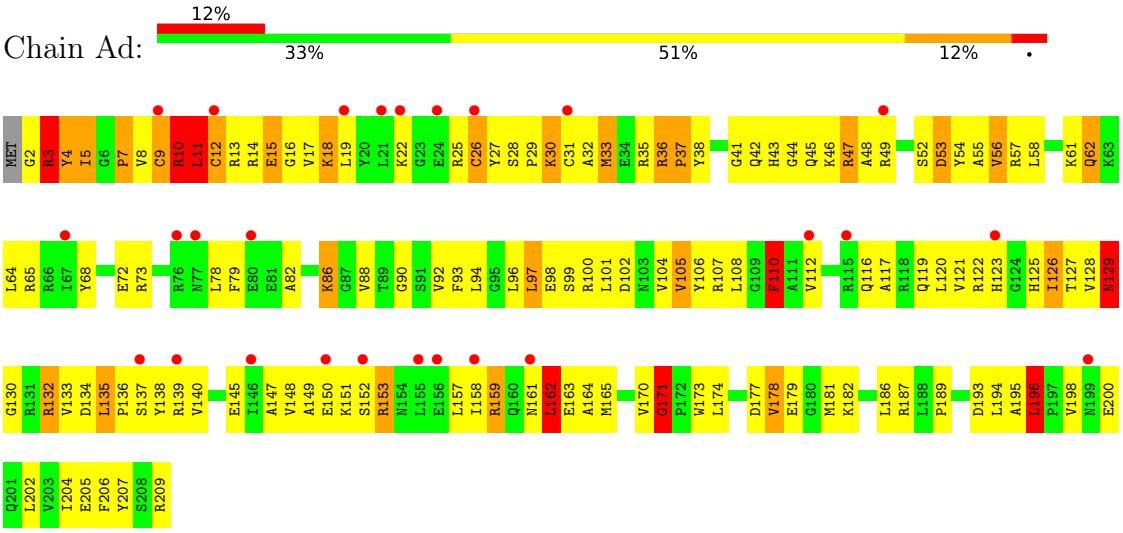
• Molecule 2: 30S ribosomal protein S3

Chain Bc:



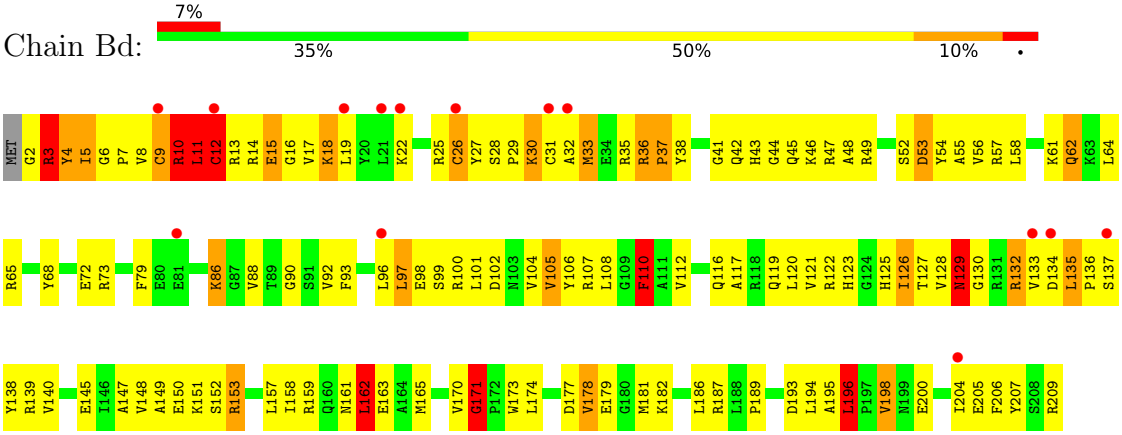
• Molecule 3: 30S ribosomal protein S4

Chain Ad:



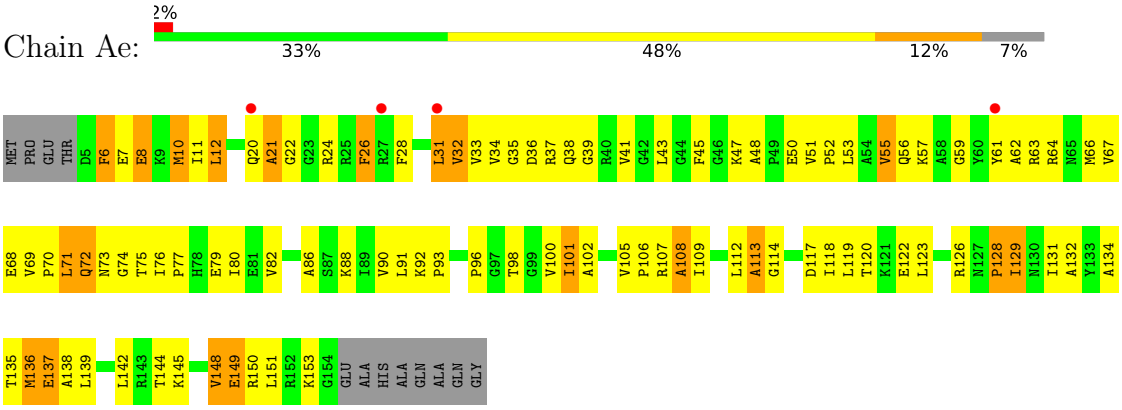
• Molecule 3: 30S ribosomal protein S4

Chain Bd:



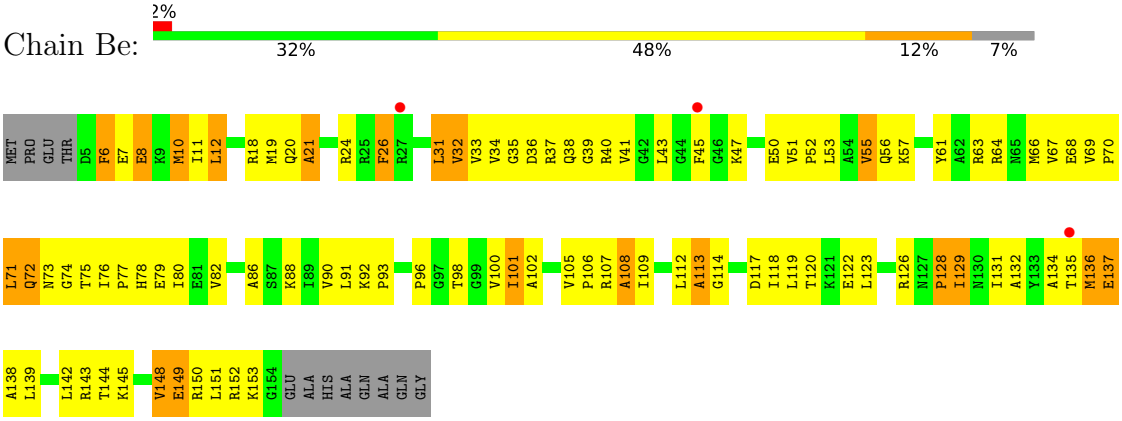
• Molecule 4: 30S ribosomal protein S5

Chain Ae:



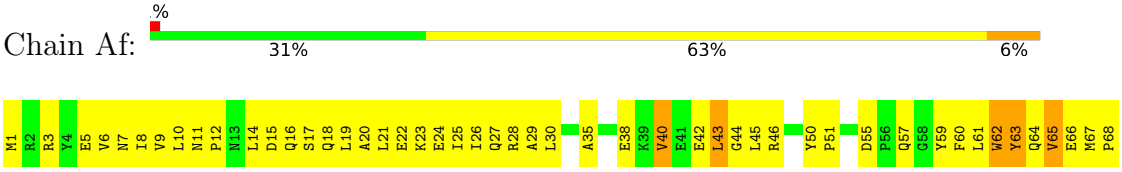
• Molecule 4: 30S ribosomal protein S5

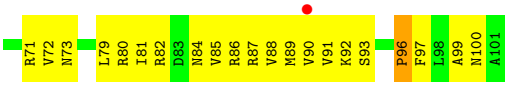
Chain Be:



• Molecule 5: 30S ribosomal protein S6

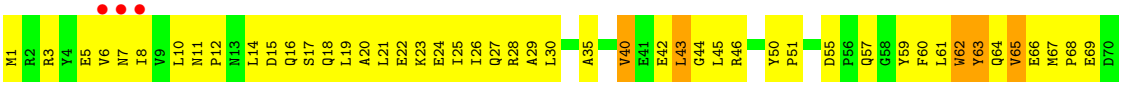
Chain Af:

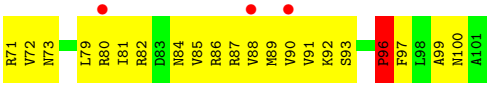




• Molecule 5: 30S ribosomal protein S6

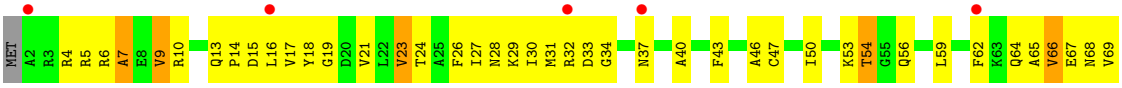
Chain Bf:





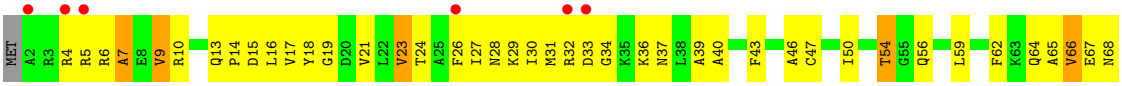
• Molecule 6: 30S ribosomal protein S7

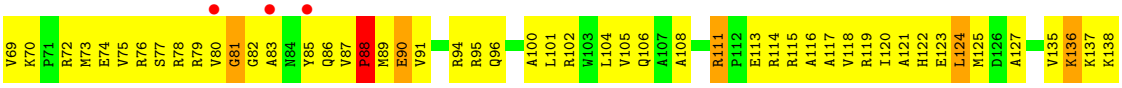
Chain Ag:

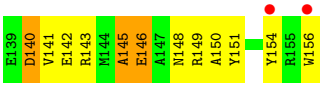


• Molecule 6: 30S ribosomal protein S7

Chain Bg:

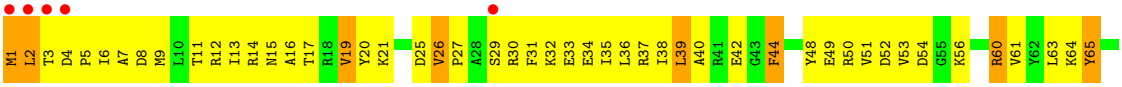






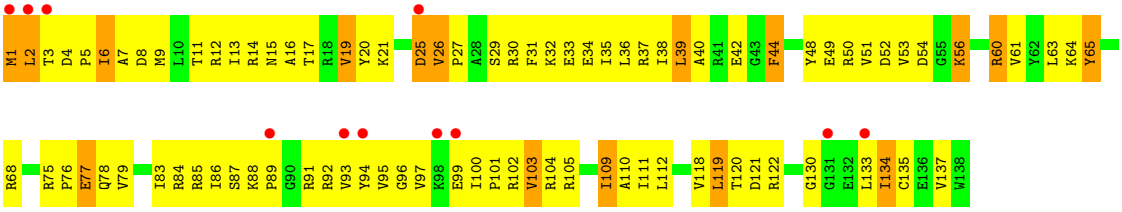
• Molecule 7: 30S ribosomal protein S8

Chain Ah:



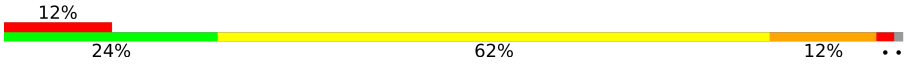
• Molecule 7: 30S ribosomal protein S8

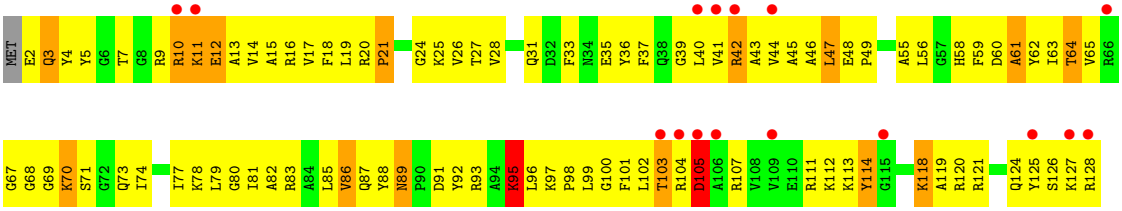
Chain Bh:



• Molecule 8: 30S ribosomal protein S9

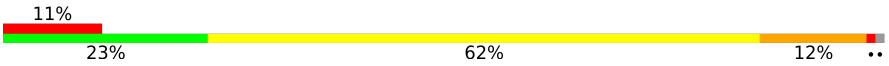
Chain Ai:

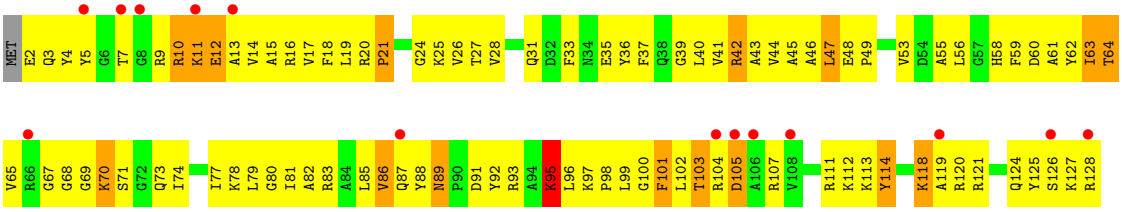




• Molecule 8: 30S ribosomal protein S9

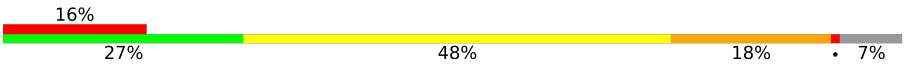
Chain Bi:

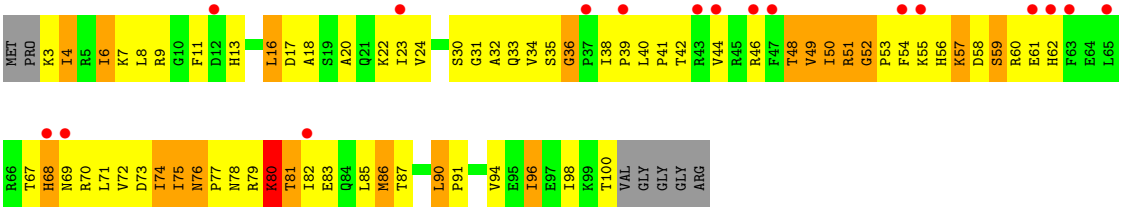




• Molecule 9: 30S ribosomal protein S10

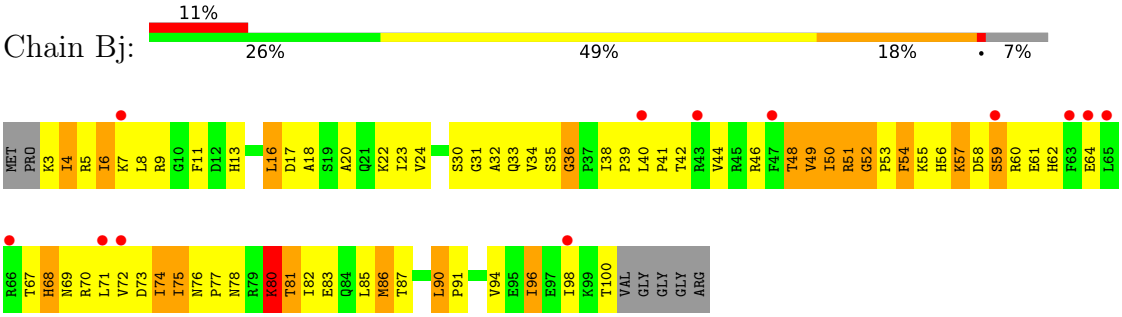
Chain Aj:





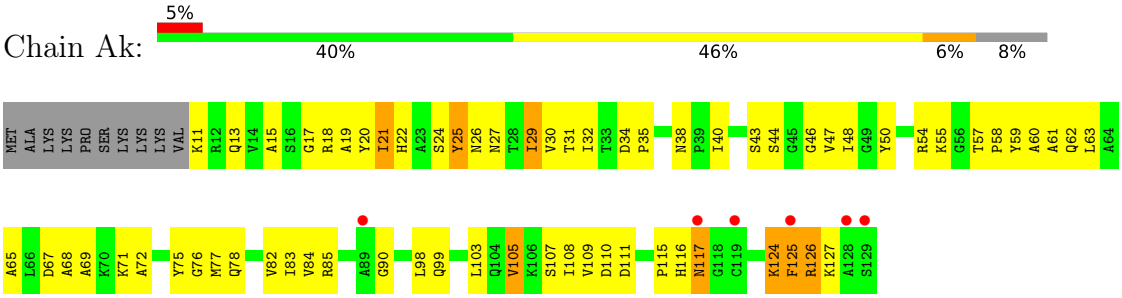
• Molecule 9: 30S ribosomal protein S10

Chain Bj:



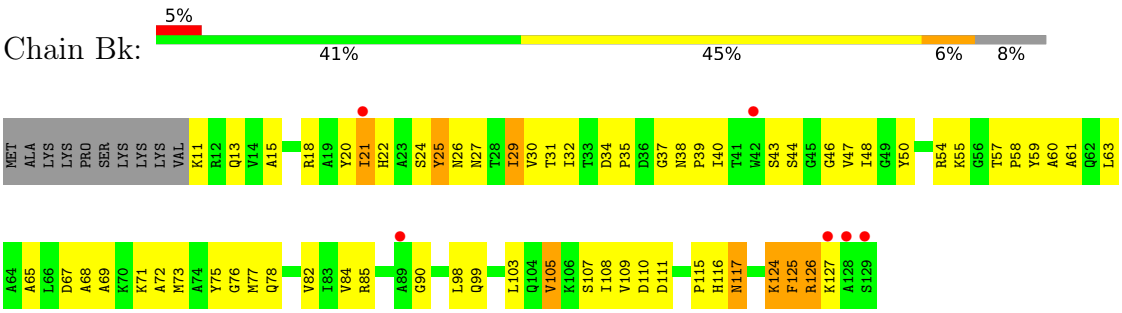
• Molecule 10: 30S ribosomal protein S11

Chain Ak:



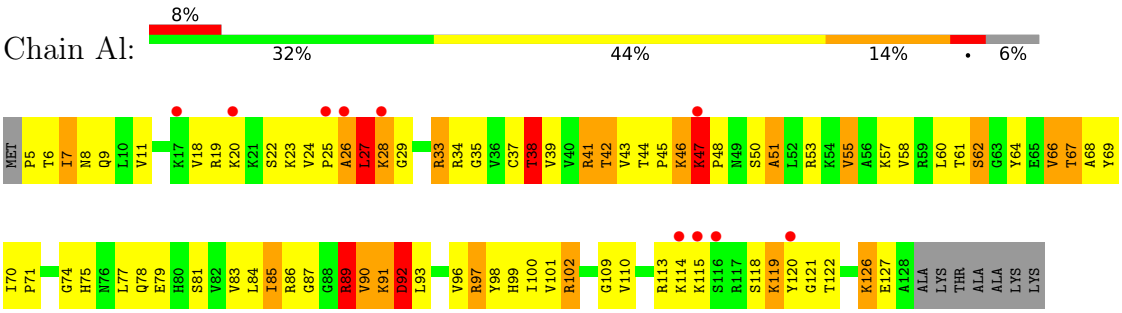
• Molecule 10: 30S ribosomal protein S11

Chain Bk:



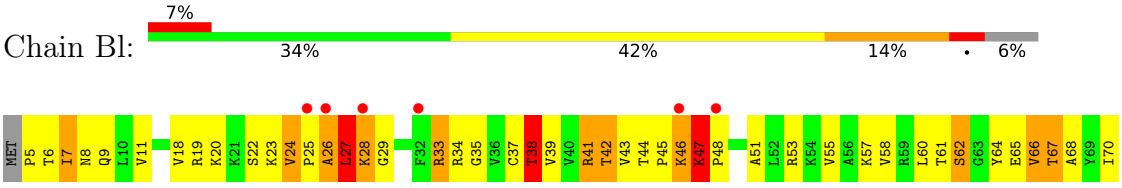
• Molecule 11: 30S ribosomal protein S12

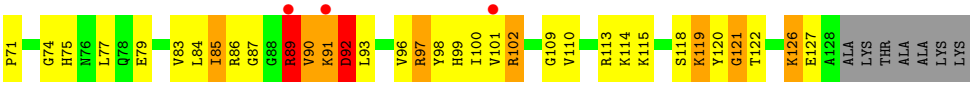
Chain Al:



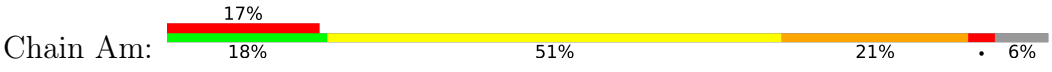
• Molecule 11: 30S ribosomal protein S12

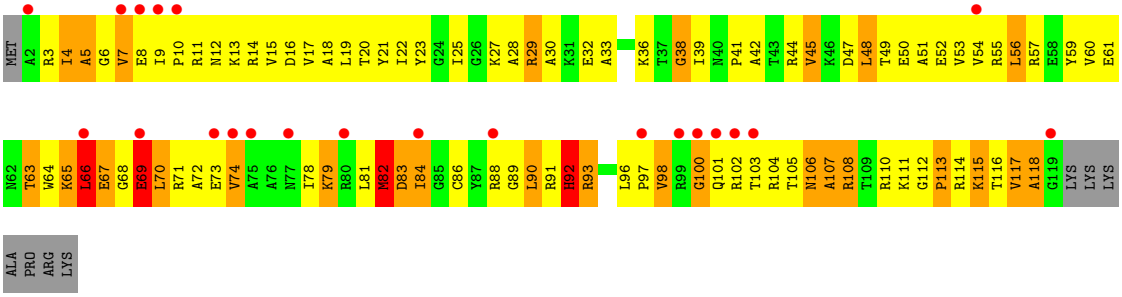
Chain Bl:



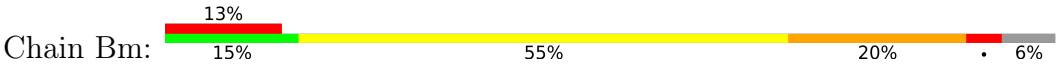


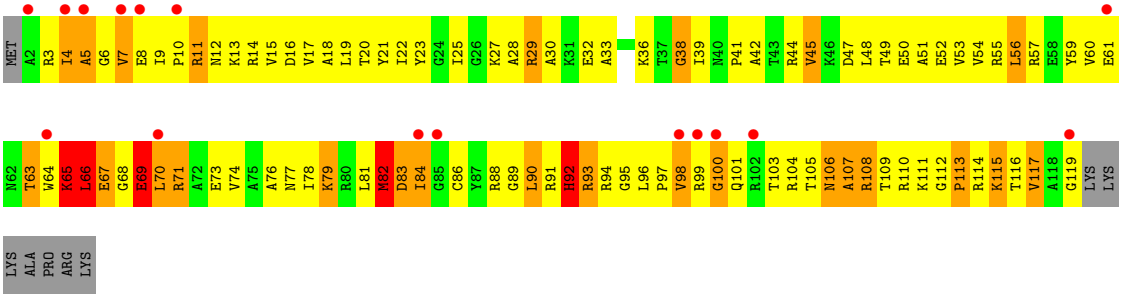
• Molecule 12: 30S ribosomal protein S13



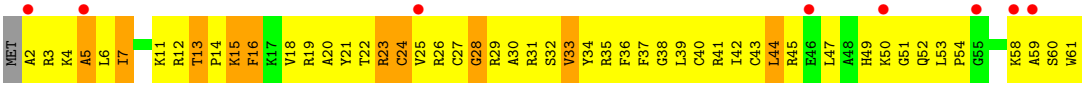


• Molecule 12: 30S ribosomal protein S13

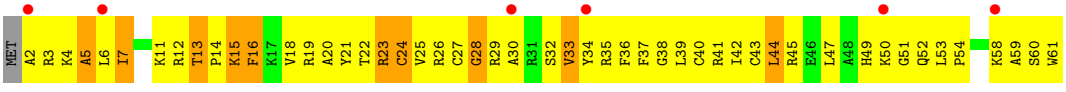




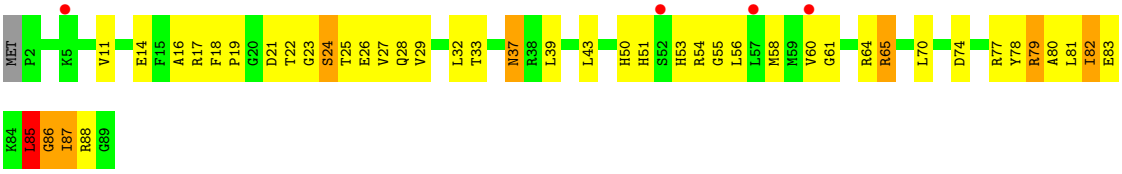
• Molecule 13: 30S ribosomal protein S14 type Z



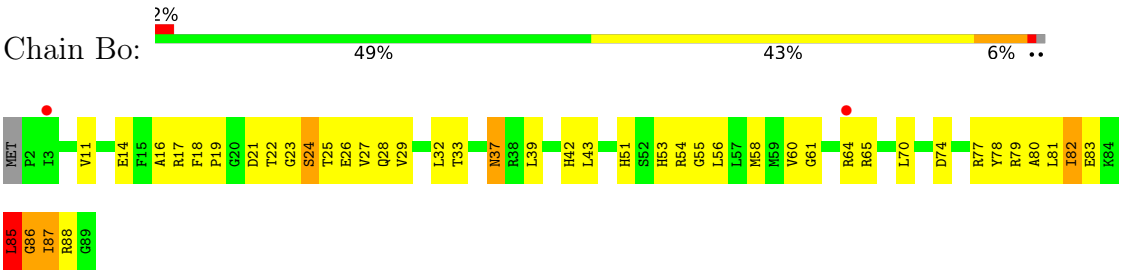
• Molecule 13: 30S ribosomal protein S14 type Z



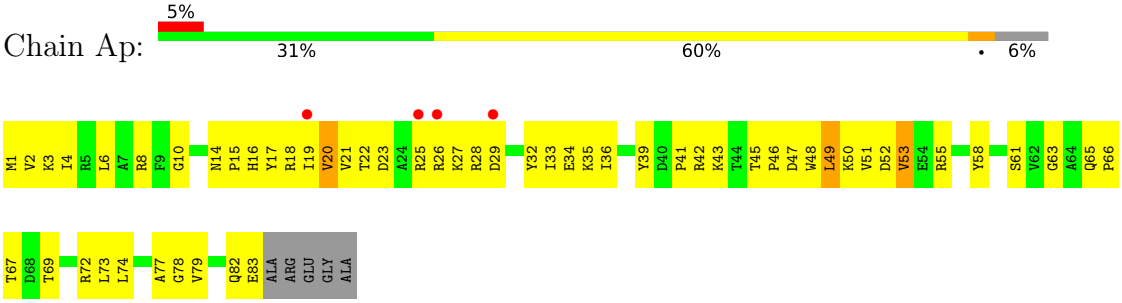
• Molecule 14: 30S ribosomal protein S15



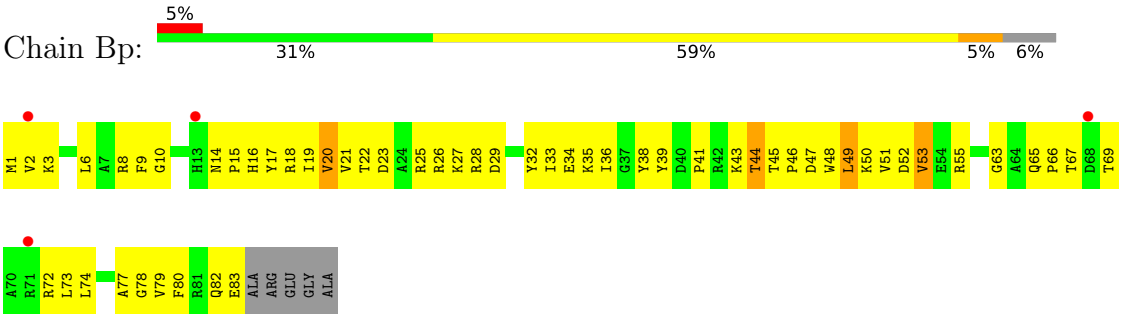
• Molecule 14: 30S ribosomal protein S15



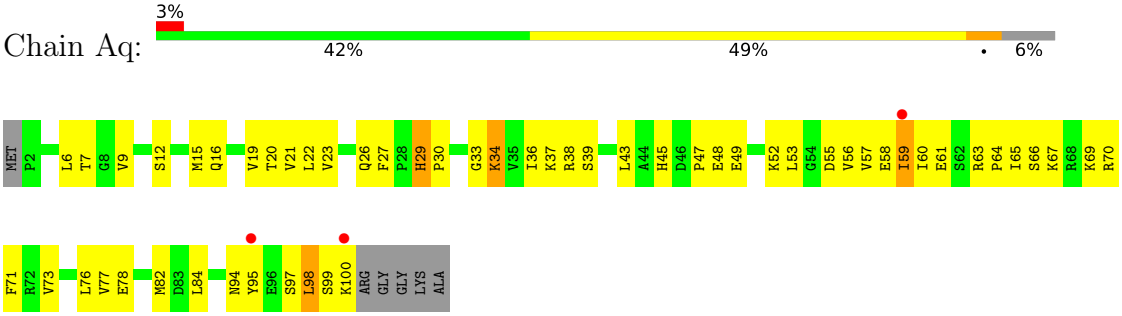
• Molecule 15: 30S ribosomal protein S16



• Molecule 15: 30S ribosomal protein S16

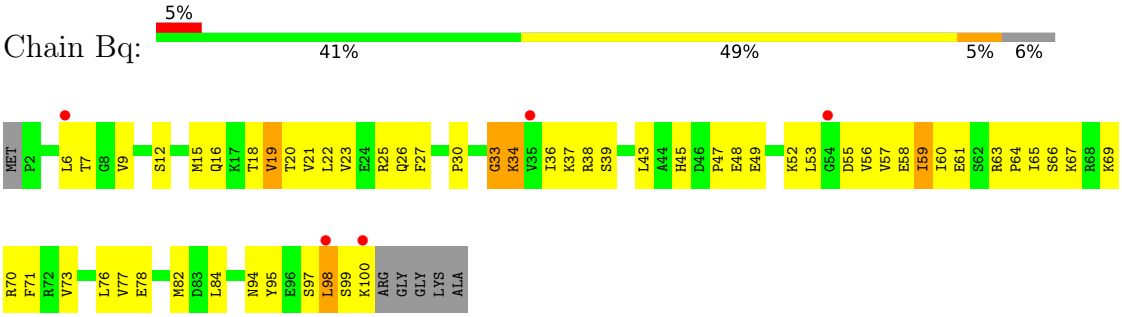


• Molecule 16: 30S ribosomal protein S17



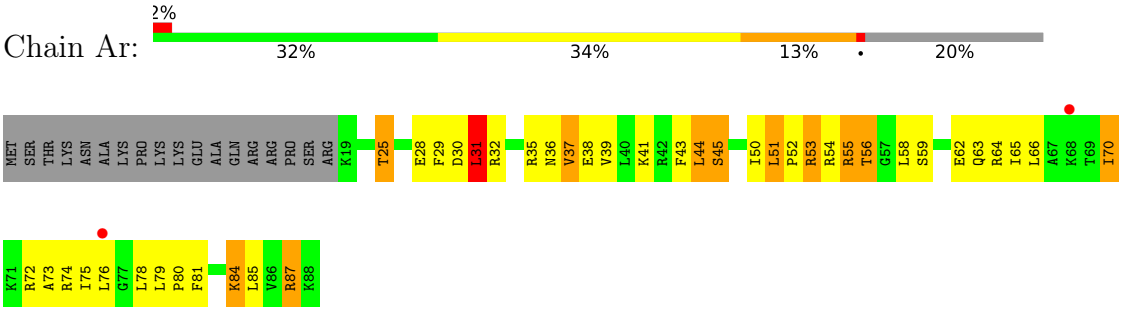
• Molecule 16: 30S ribosomal protein S17

Chain Bq:



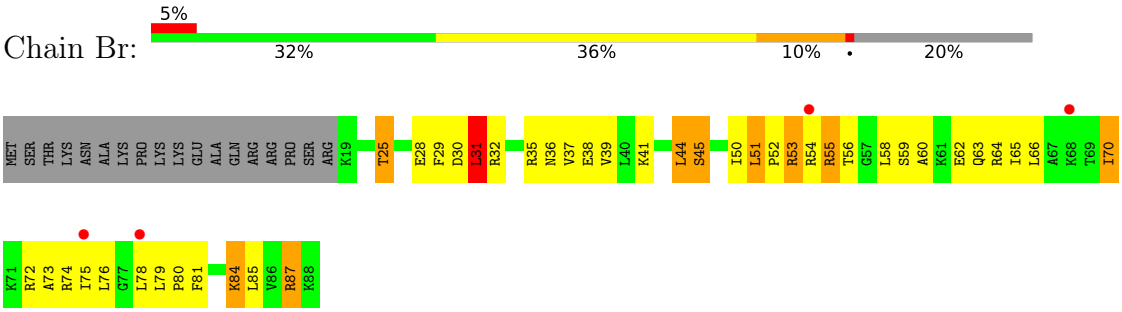
• Molecule 17: 30S ribosomal protein S18

Chain Ar:



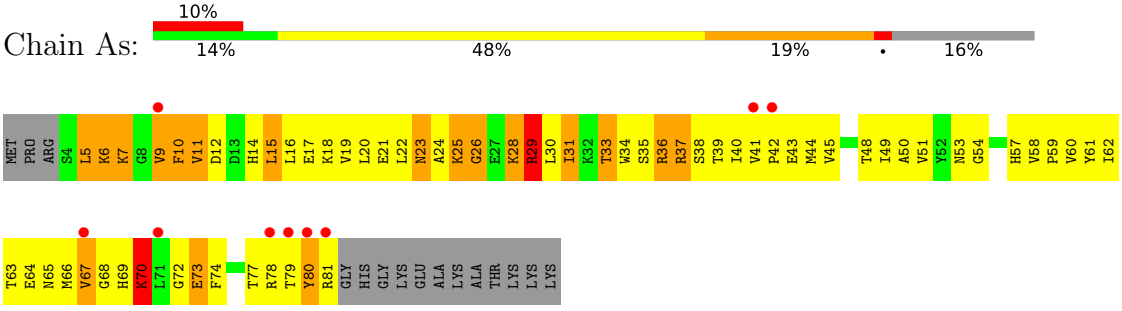
• Molecule 17: 30S ribosomal protein S18

Chain Br:



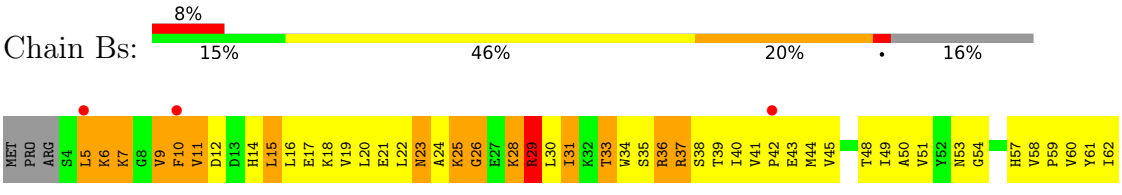
• Molecule 18: 30S ribosomal protein S19

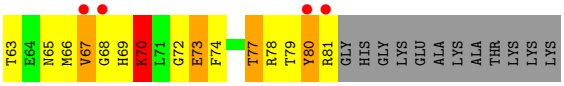
Chain As:



• Molecule 18: 30S ribosomal protein S19

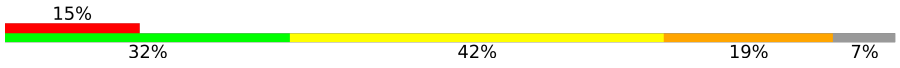
Chain Bs:

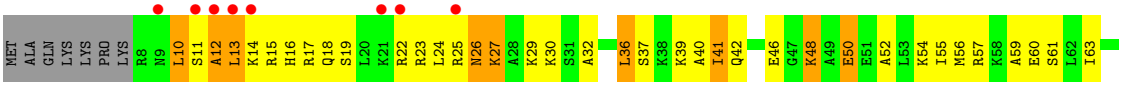


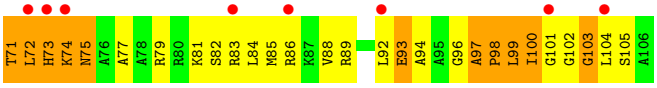


• Molecule 19: 30S ribosomal protein S20

Chain At:

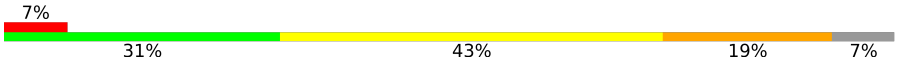


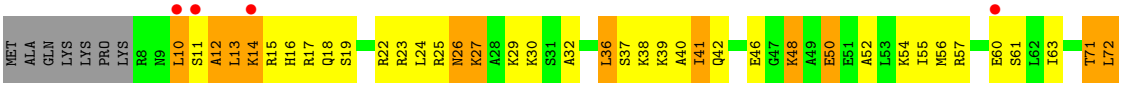


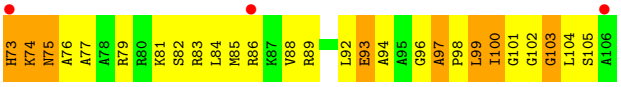


• Molecule 19: 30S ribosomal protein S20

Chain Bt:

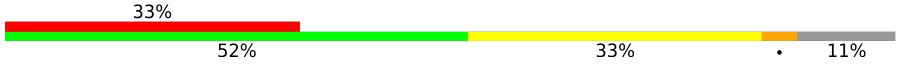






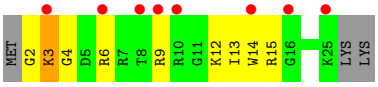
• Molecule 20: 30S ribosomal protein Thx

Chain Au:



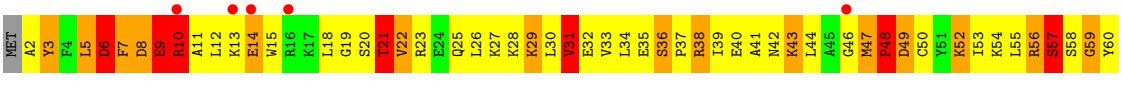
• Molecule 20: 30S ribosomal protein Thx

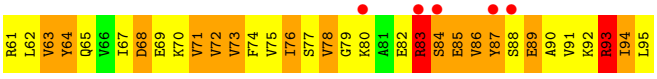
Chain Bu:



• Molecule 21: Toxin relE

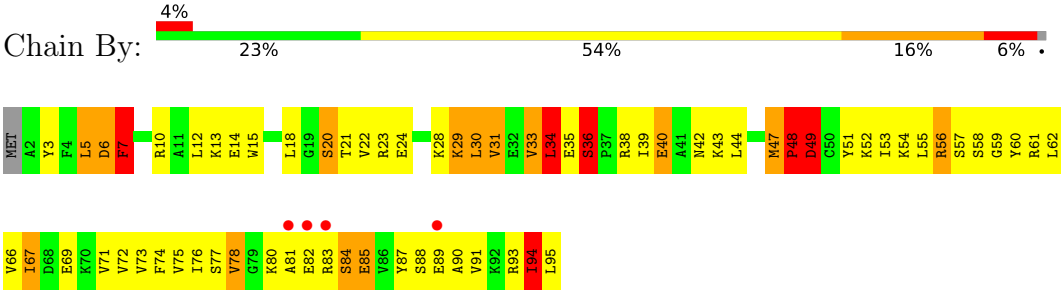
Chain Ay:





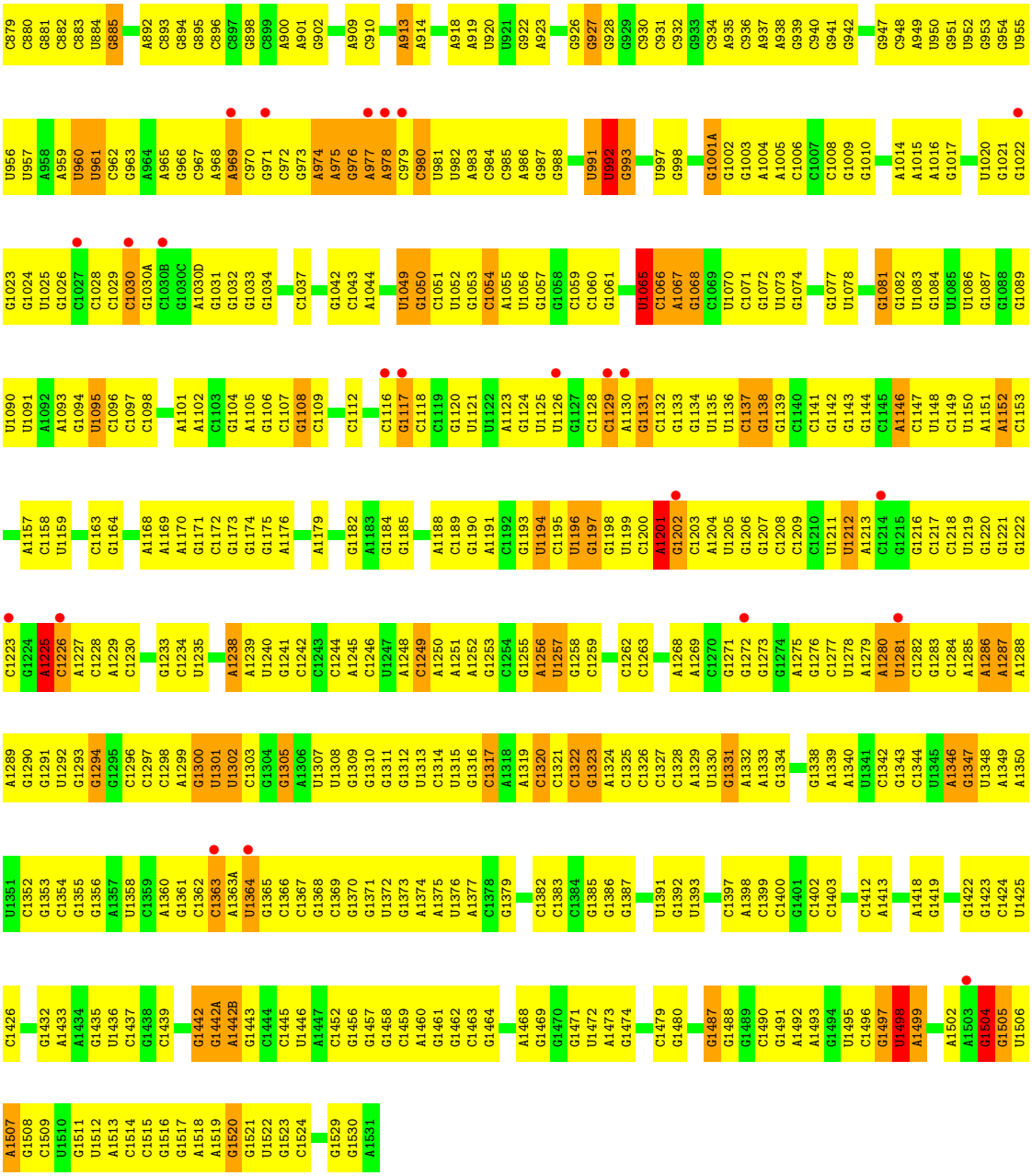
• Molecule 21: Toxin relE

Chain By:

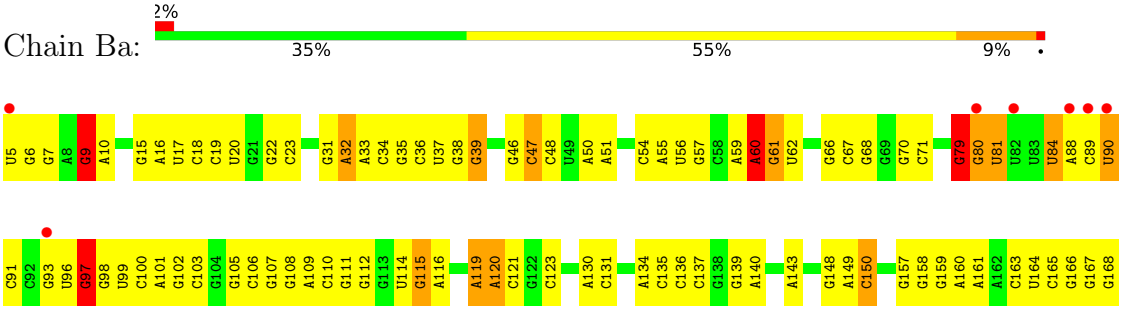


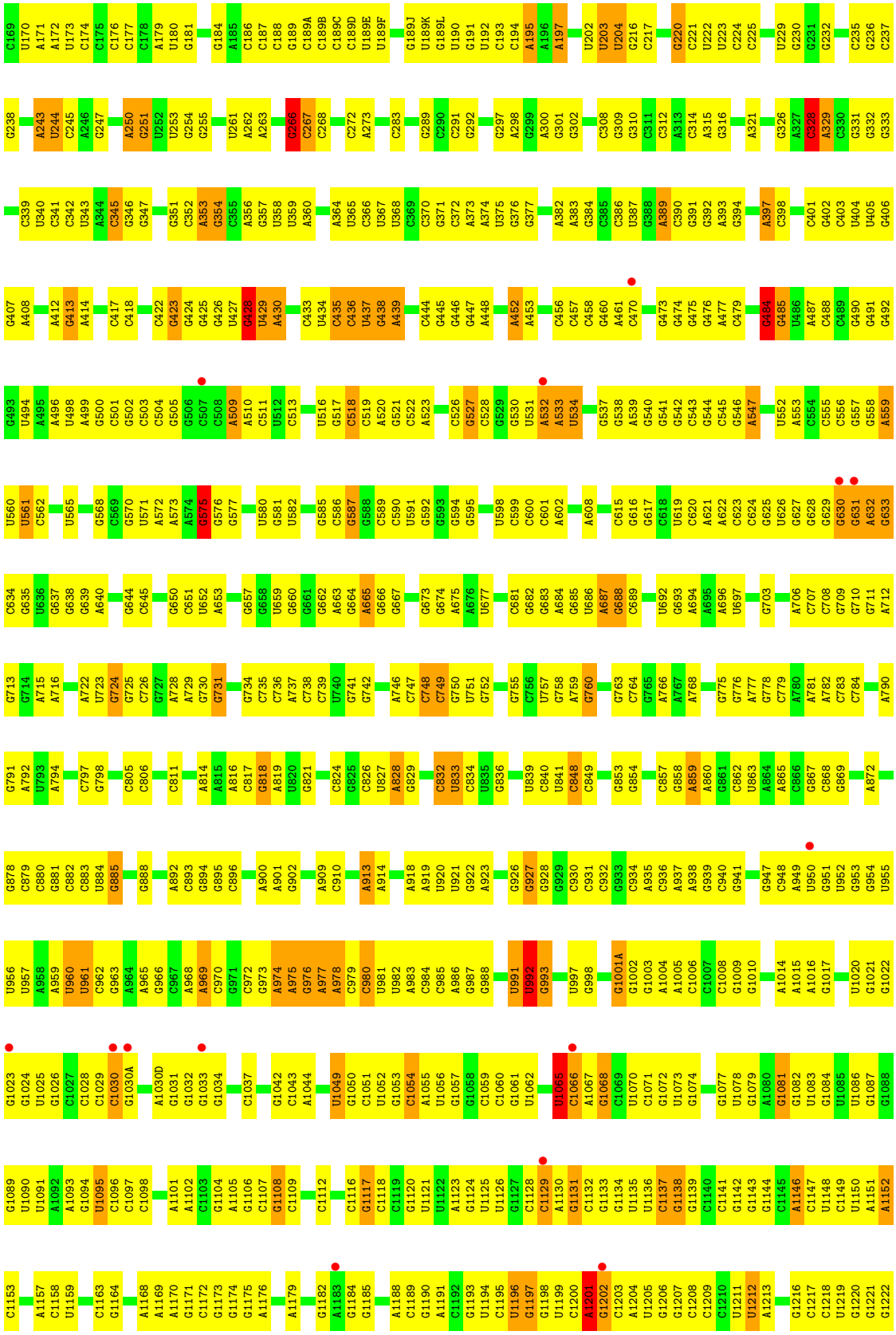
• Molecule 22: RNA (1504-MER)

Chain Aa:



• Molecule 22: RNA (1504-MER)

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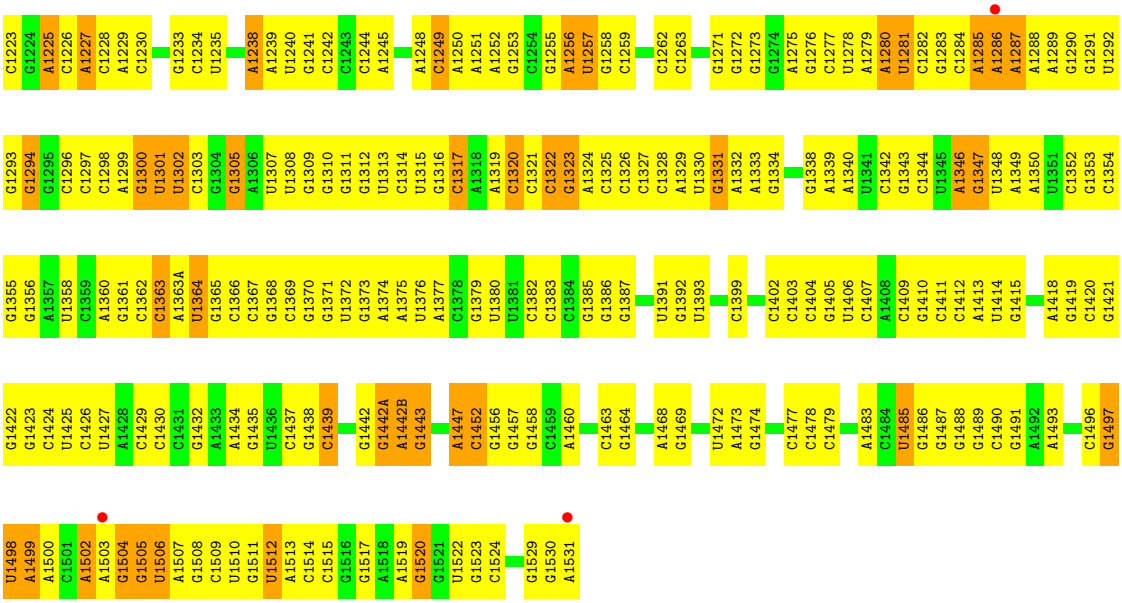
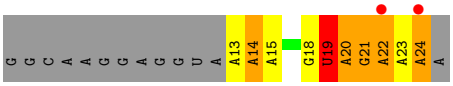
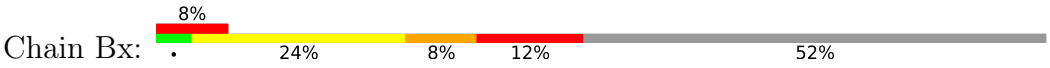
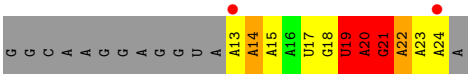


• Molecule 23: RNA (5'-R(*GP*GP*CP*AP*AP*GP*GP*AP*GP*GP*UP*A*AP*AP*AP*AP *UP*GP*(OMU)P*(A2M)P*(OMG)P*AP*AP*AP*A)-3')

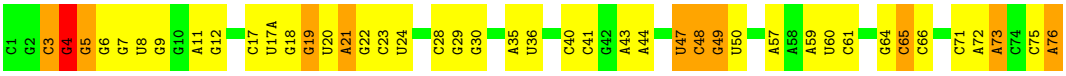


• Molecule 23: RNA (5'-R(*GP*GP*CP*AP*AP*GP*GP*AP*GP*GP*UP*A*AP*AP*AP*AP *UP*GP*(OMU)P*(A2M)P*(OMG)P*AP*AP*AP*A)-3')

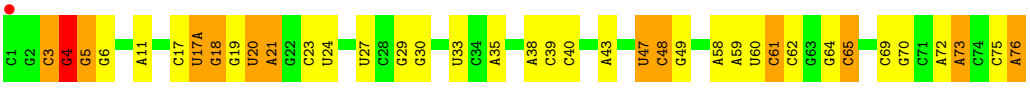




• Molecule 24: RNA (77-MER)

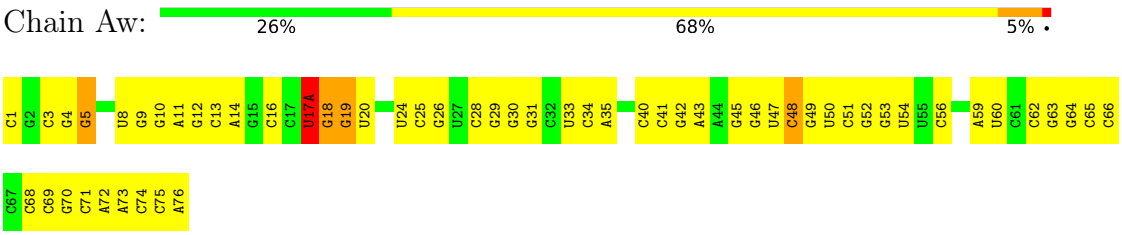


• Molecule 24: RNA (77-MER)



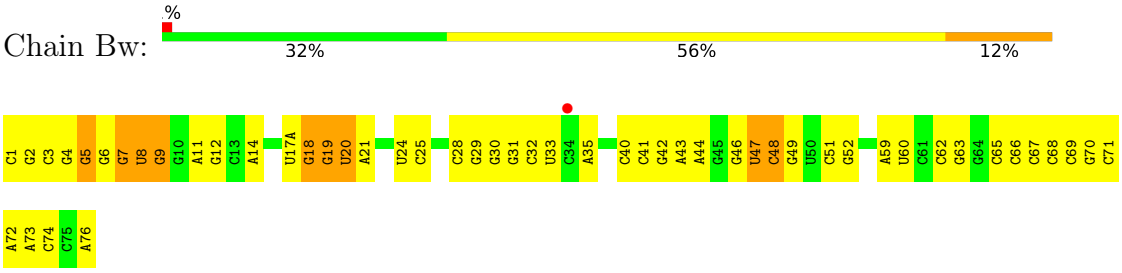
• Molecule 25: RNA (77-MER)

Chain Aw:



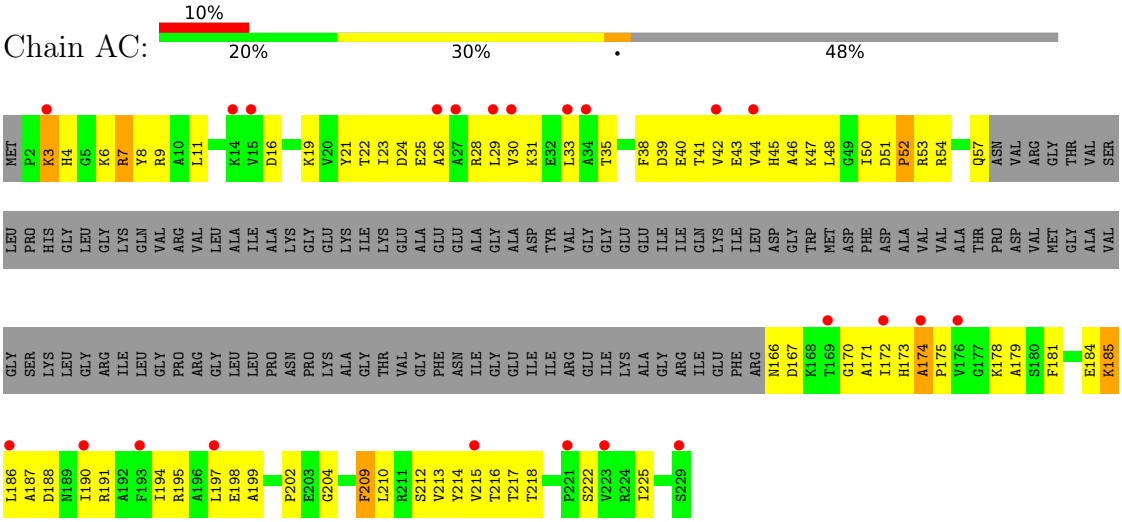
• Molecule 25: RNA (77-MER)

Chain Bw:



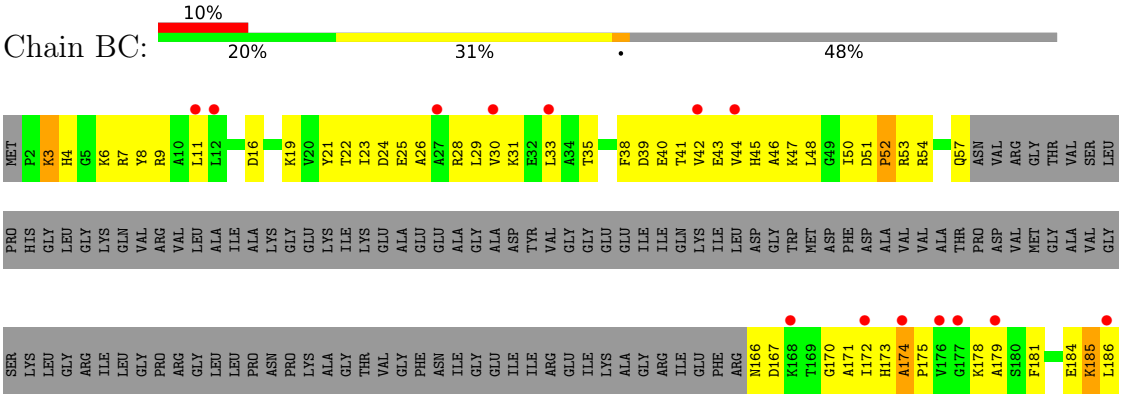
• Molecule 26: 50S ribosomal protein L1

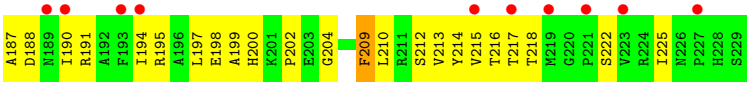
Chain AC:



• Molecule 26: 50S ribosomal protein L1

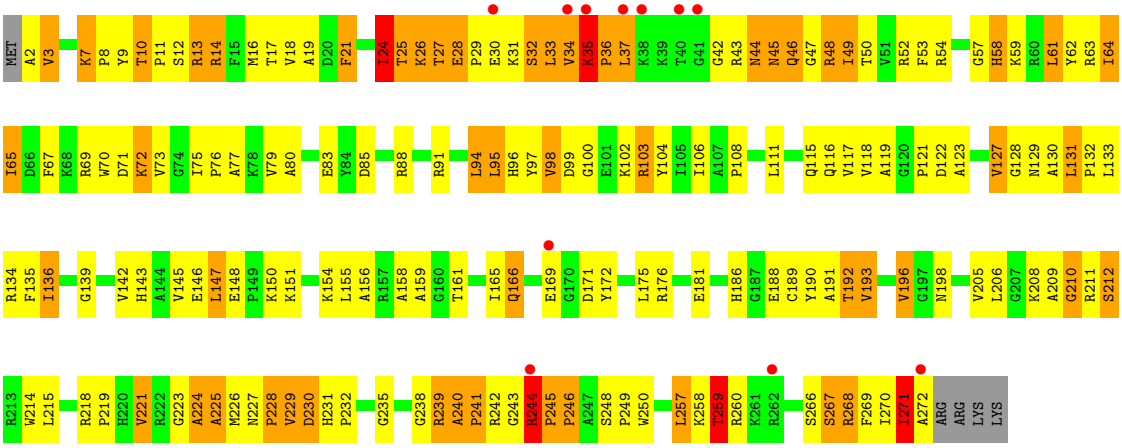
Chain BC:





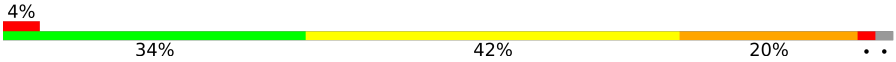
• Molecule 27: 50S ribosomal protein L2

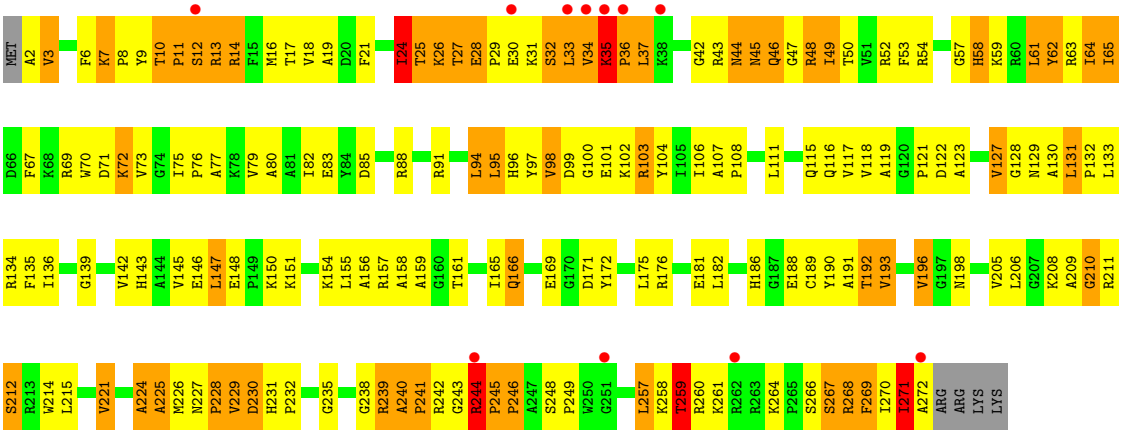
Chain AD:



• Molecule 27: 50S ribosomal protein L2

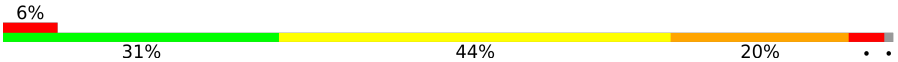
Chain BD:

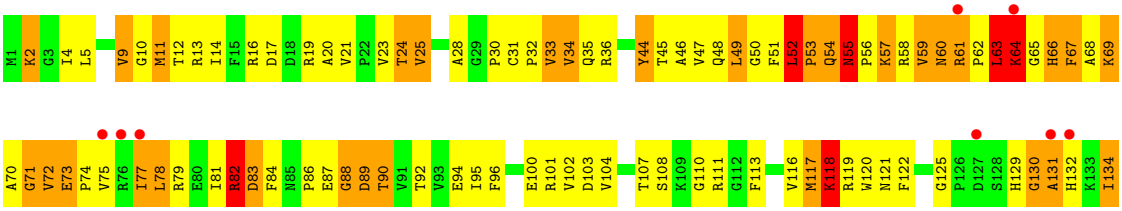


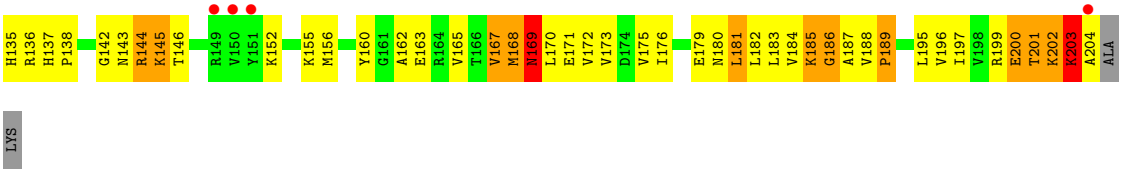


• Molecule 28: 50S ribosomal protein L3

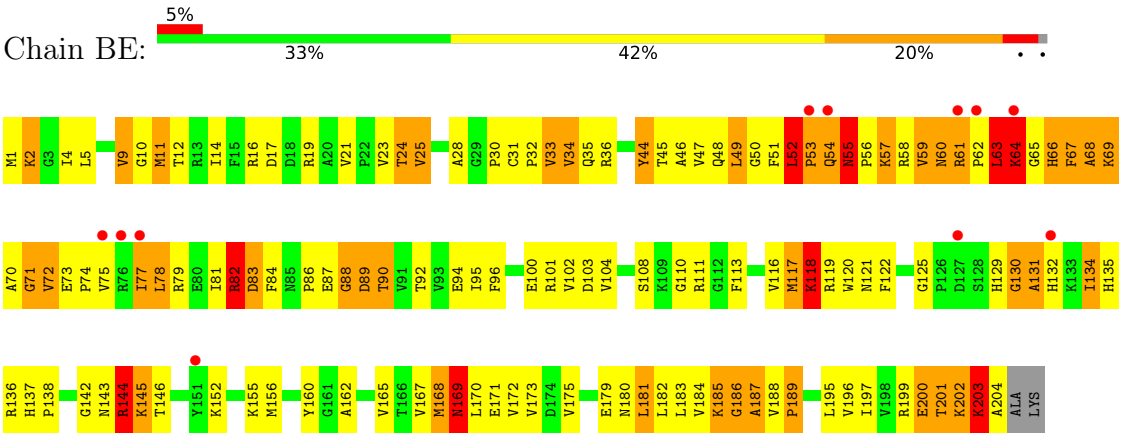
Chain AE:



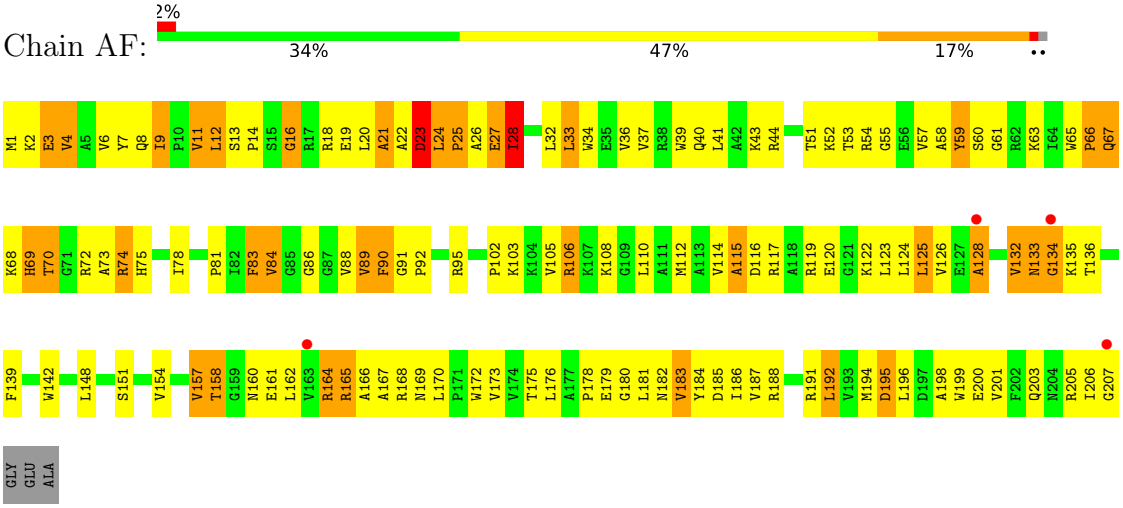




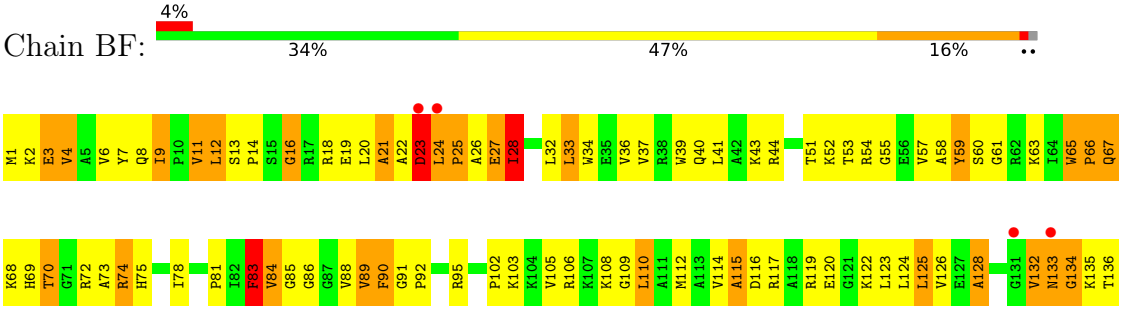
• Molecule 28: 50S ribosomal protein L3

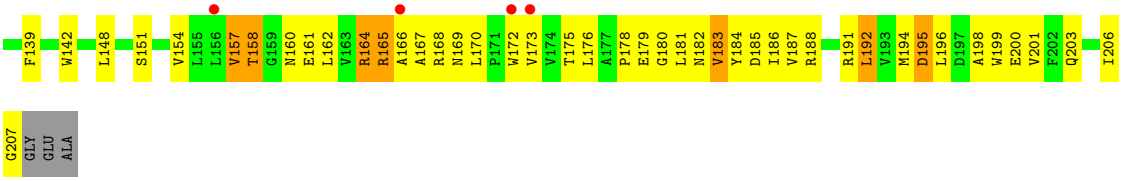


• Molecule 29: 50S ribosomal protein L4



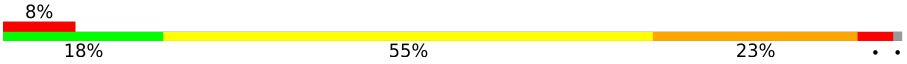
• Molecule 29: 50S ribosomal protein L4

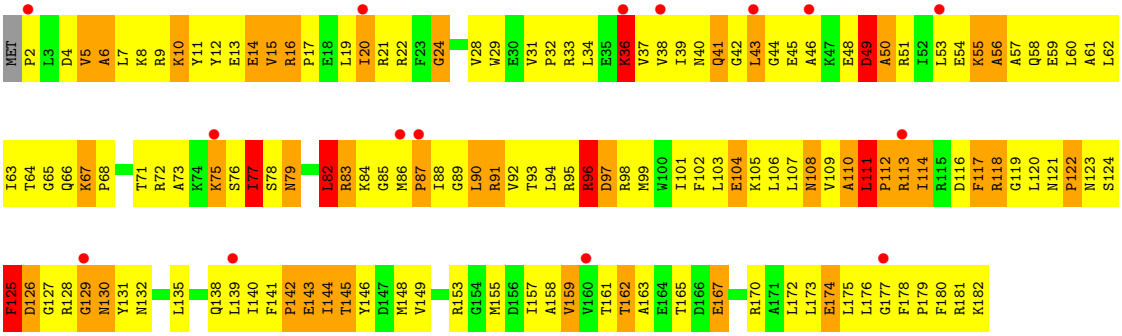




• Molecule 30: 50S ribosomal protein L5

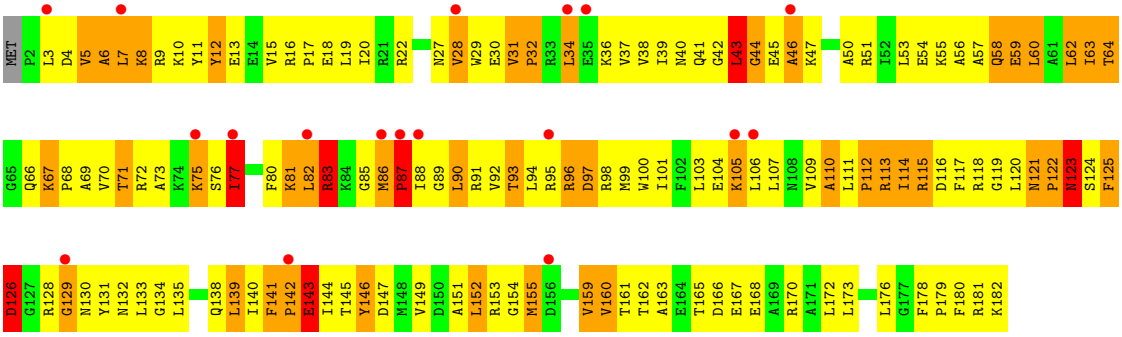
Chain AG:





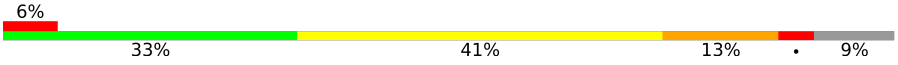
• Molecule 30: 50S ribosomal protein L5

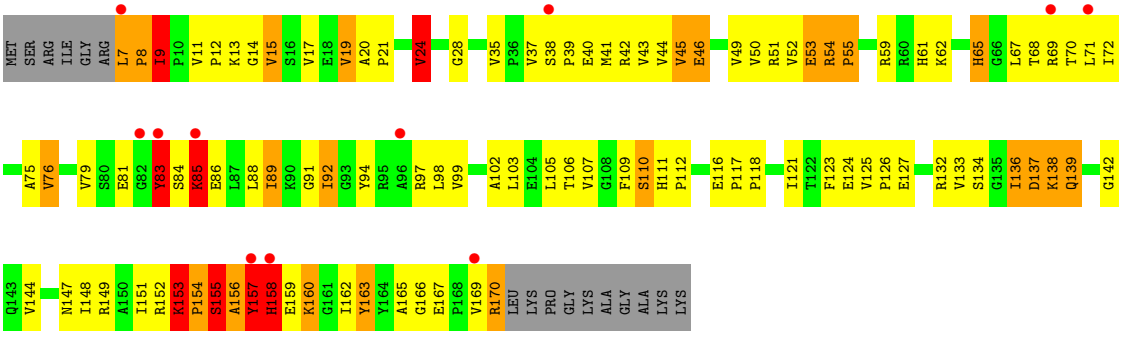
Chain BG:



• Molecule 31: 50S ribosomal protein L6

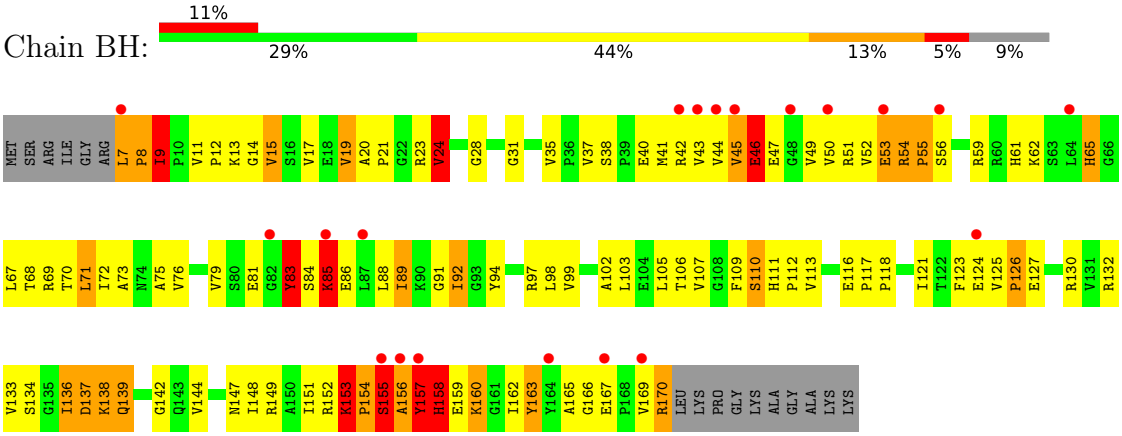
Chain AH:





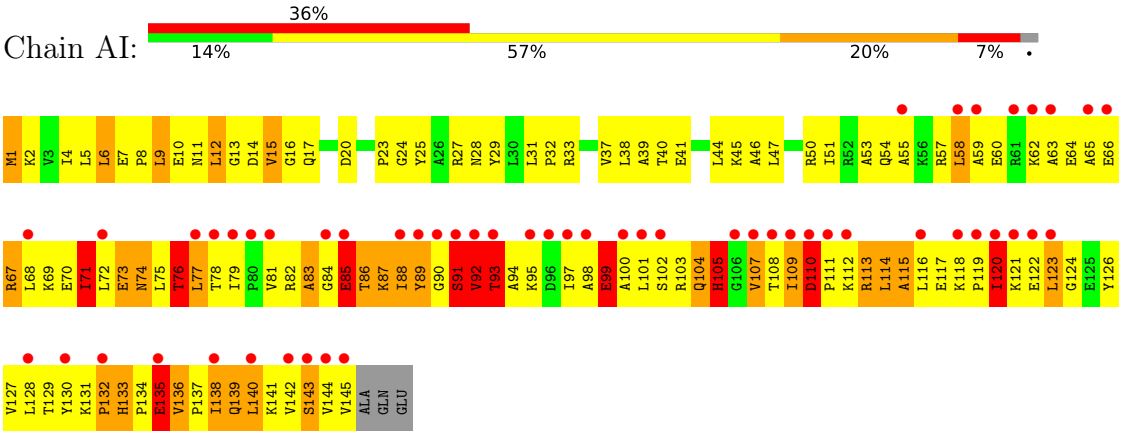
• Molecule 31: 50S ribosomal protein L6

Chain BH:



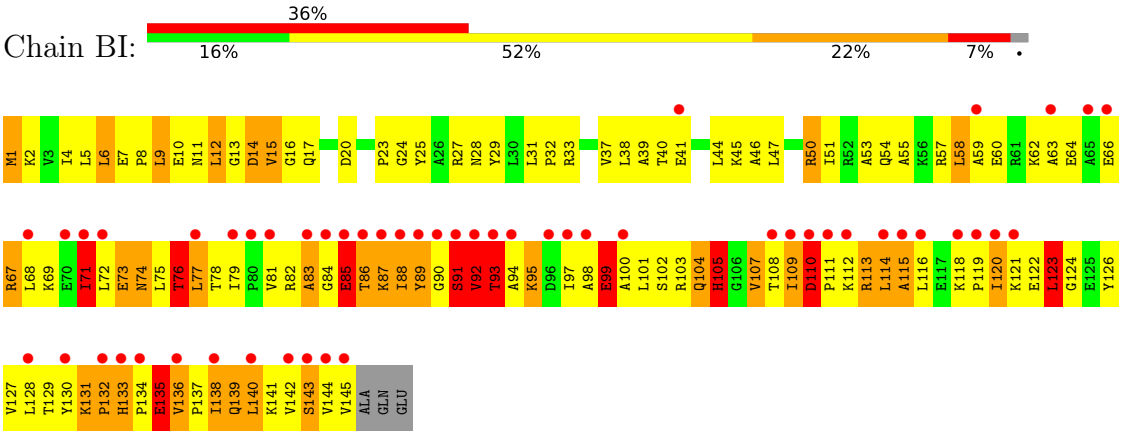
• Molecule 32: 50S ribosomal protein L9

Chain AI:



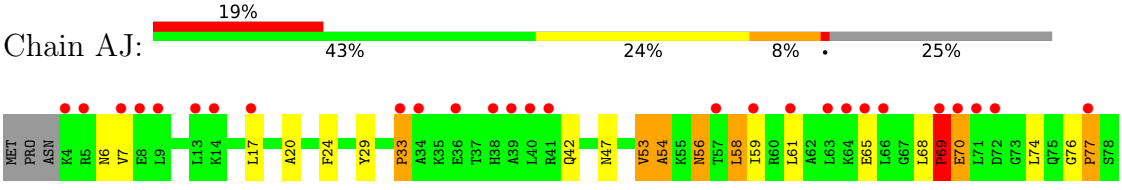
• Molecule 32: 50S ribosomal protein L9

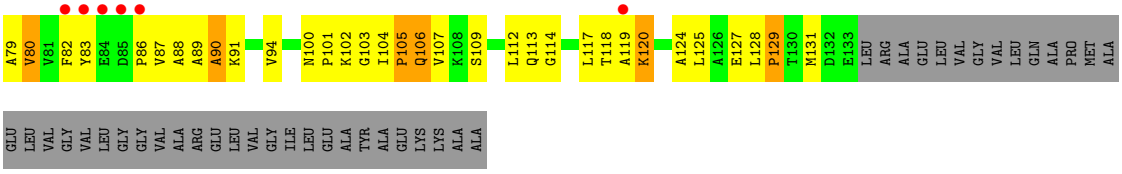
Chain BI:



• Molecule 33: 50S ribosomal protein L10

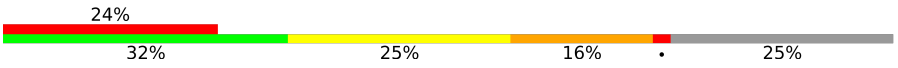
Chain AJ:

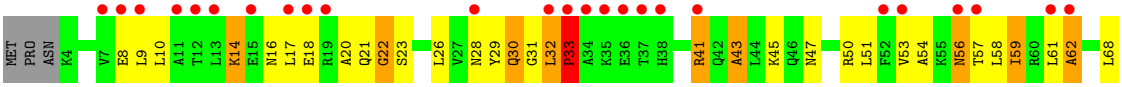


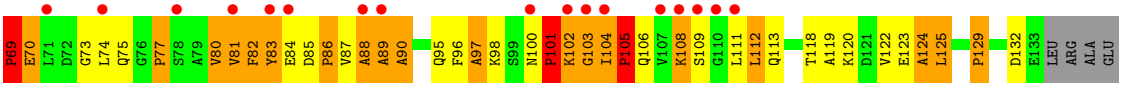


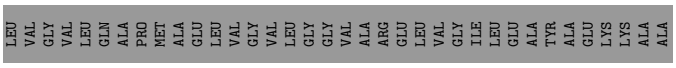
• Molecule 33: 50S ribosomal protein L10

Chain BJ:



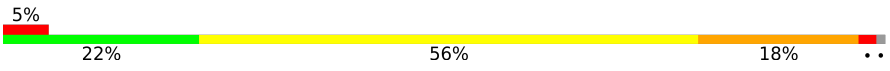


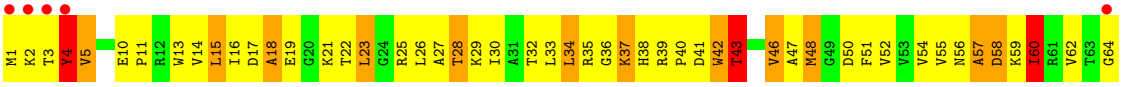


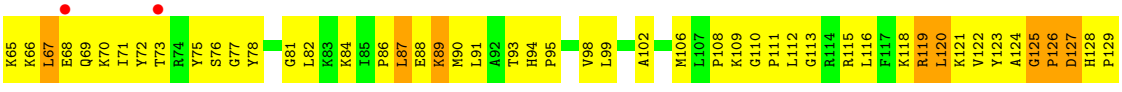


• Molecule 34: 50S ribosomal protein L13

Chain AN:

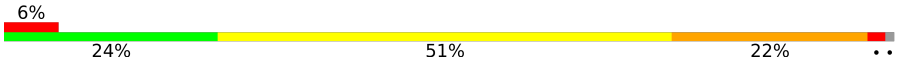


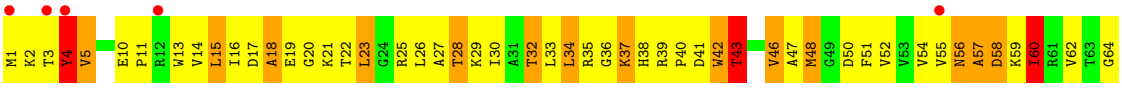


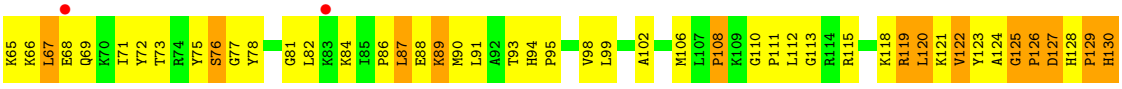


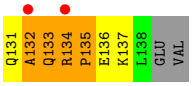
• Molecule 34: 50S ribosomal protein L13

Chain BN:



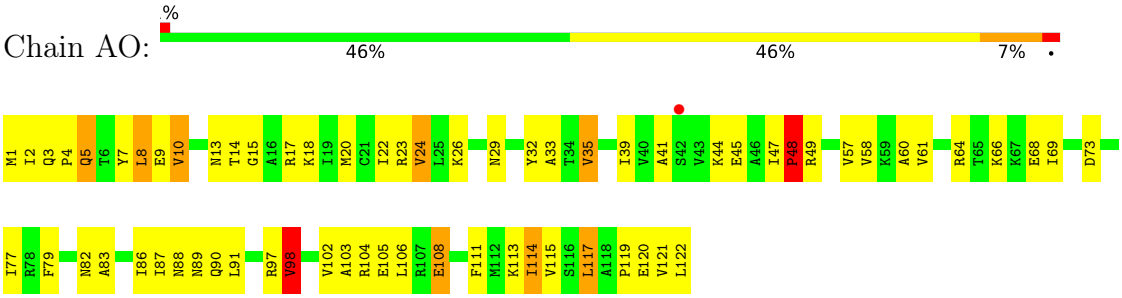






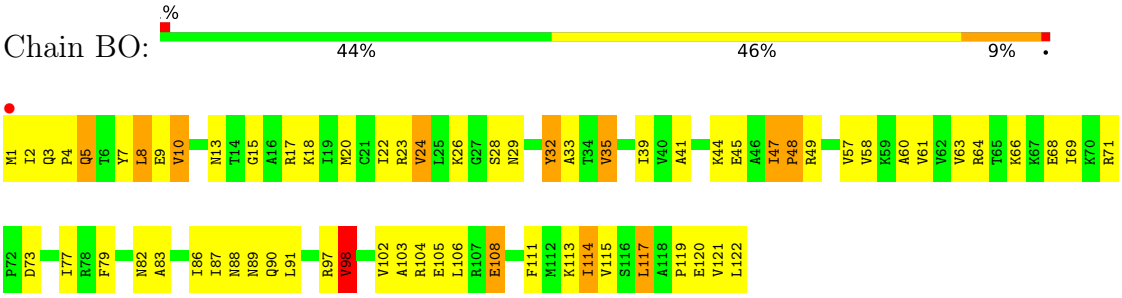
• Molecule 35: 50S ribosomal protein L14

Chain AO:



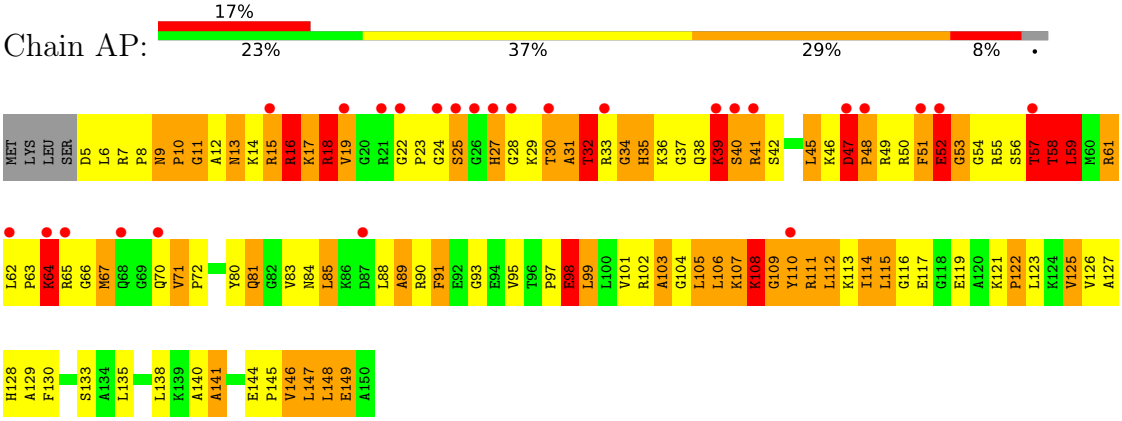
• Molecule 35: 50S ribosomal protein L14

Chain BO:



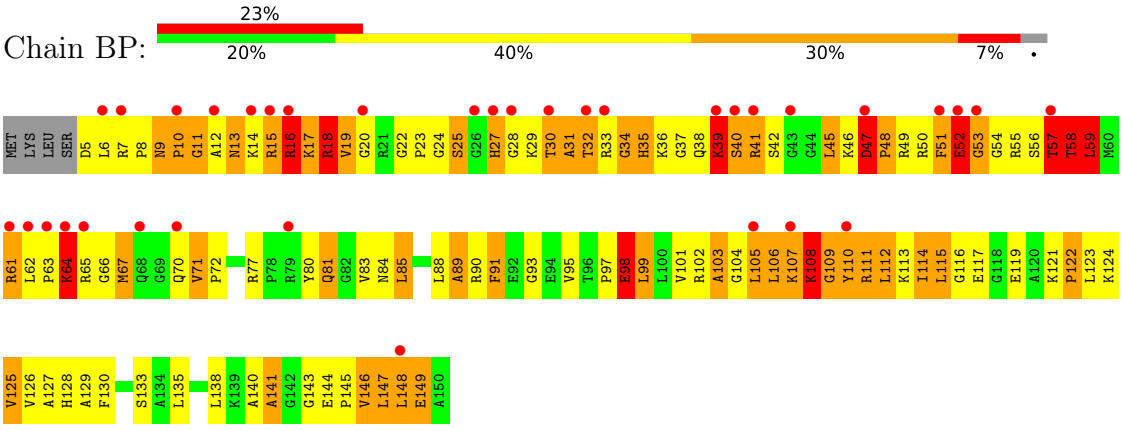
• Molecule 36: 50S ribosomal protein L15

Chain AP:



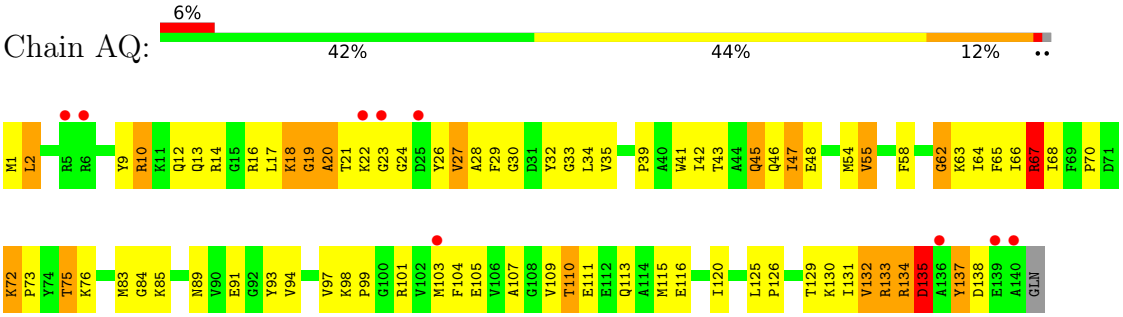
• Molecule 36: 50S ribosomal protein L15

Chain BP:



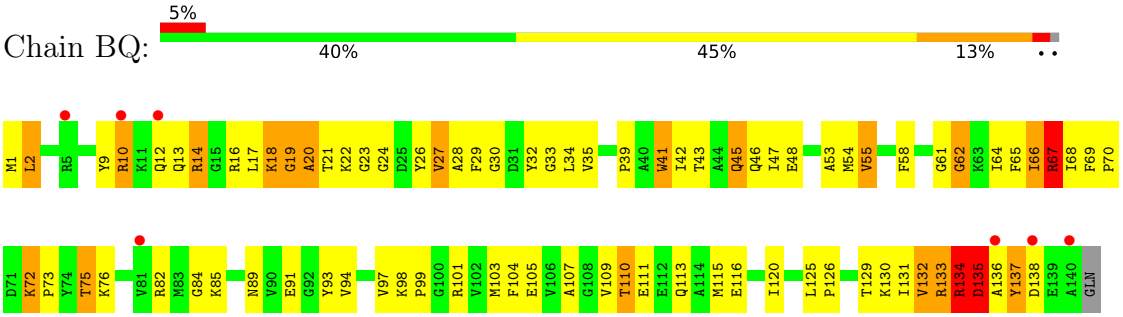
• Molecule 37: 50S ribosomal protein L16

Chain AQ:



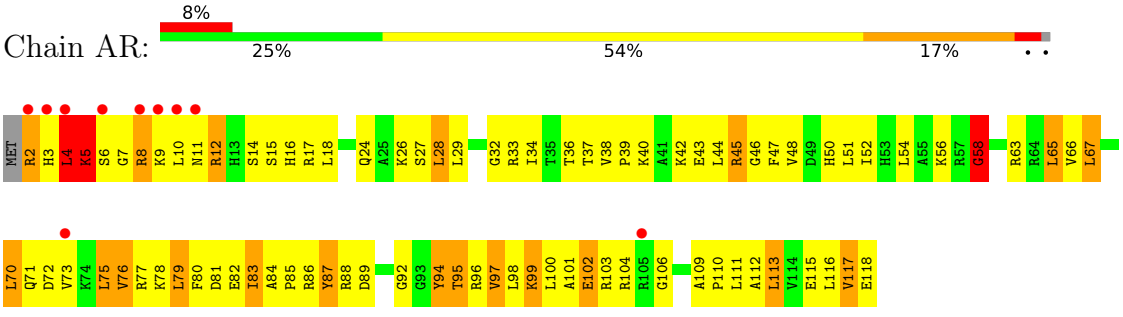
• Molecule 37: 50S ribosomal protein L16

Chain BQ:



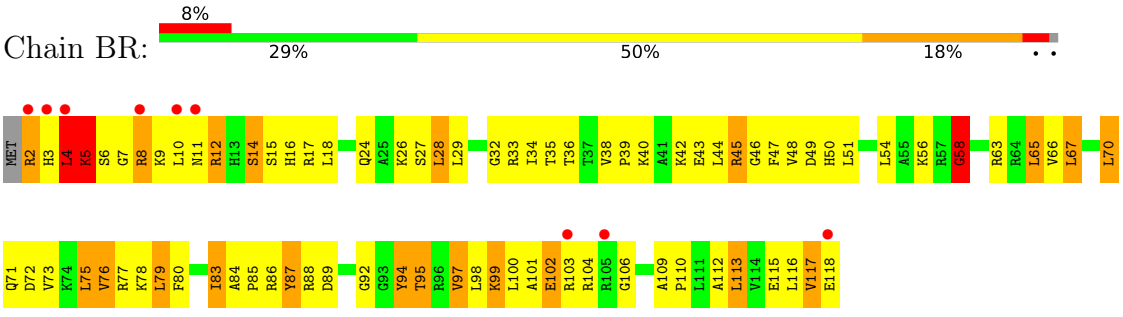
• Molecule 38: 50S ribosomal protein L17

Chain AR:



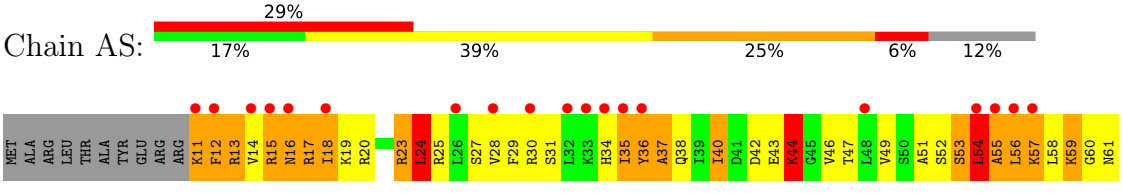
• Molecule 38: 50S ribosomal protein L17

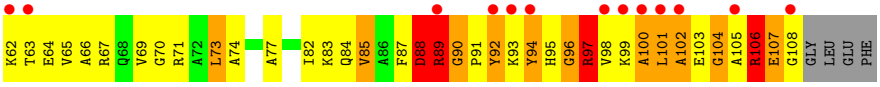
Chain BR:



• Molecule 39: 50S ribosomal protein L18

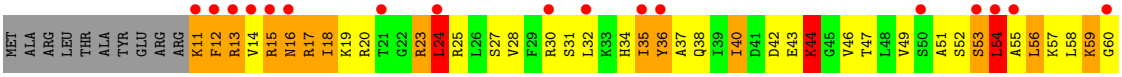
Chain AS:

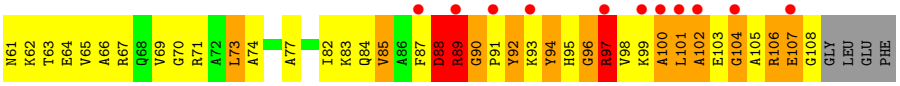




• Molecule 39: 50S ribosomal protein L18

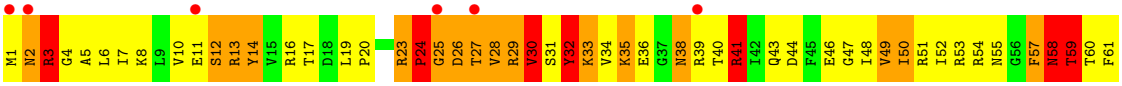
Chain BS:

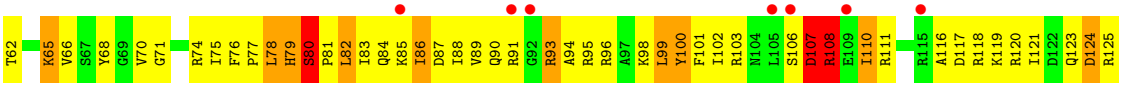


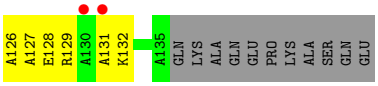


• Molecule 40: 50S ribosomal protein L19

Chain AT:

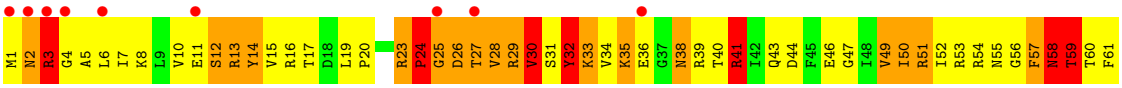


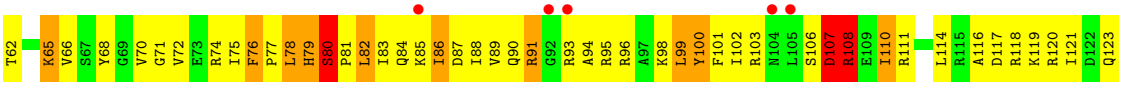


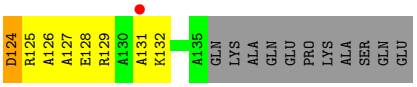


• Molecule 40: 50S ribosomal protein L19

Chain BT:

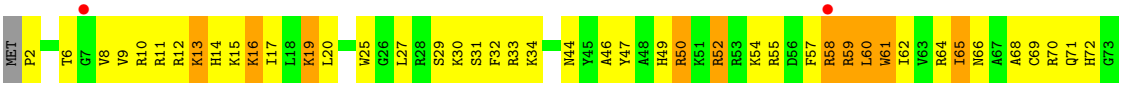


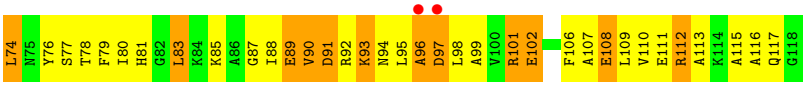




• Molecule 41: 50S ribosomal protein L20

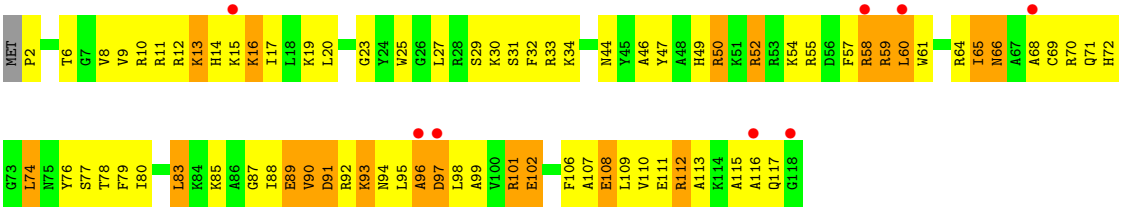
Chain AU:





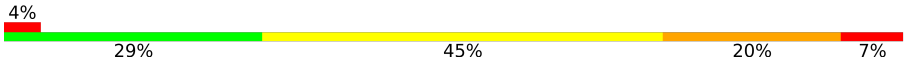
• Molecule 41: 50S ribosomal protein L20

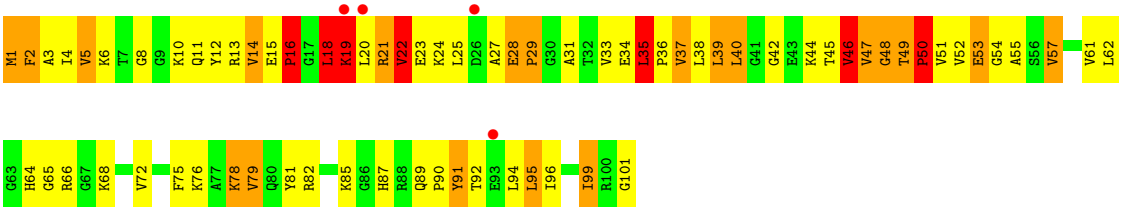
Chain BU:



• Molecule 42: 50S ribosomal protein L21

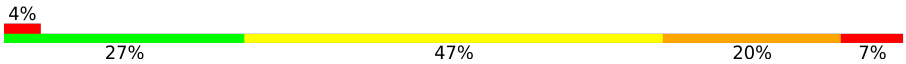
Chain AV:

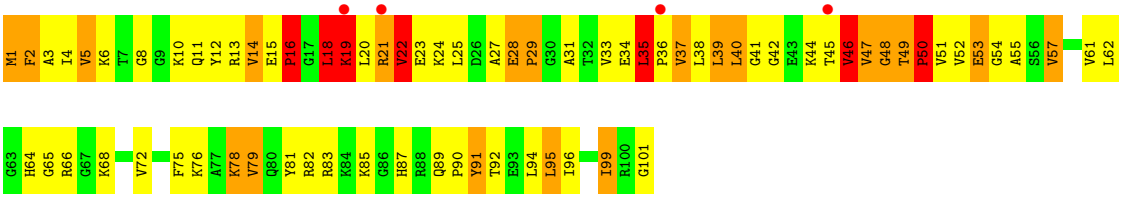




• Molecule 42: 50S ribosomal protein L21

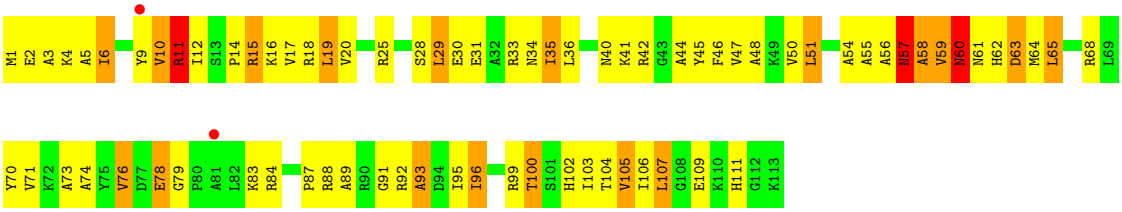
Chain BV:





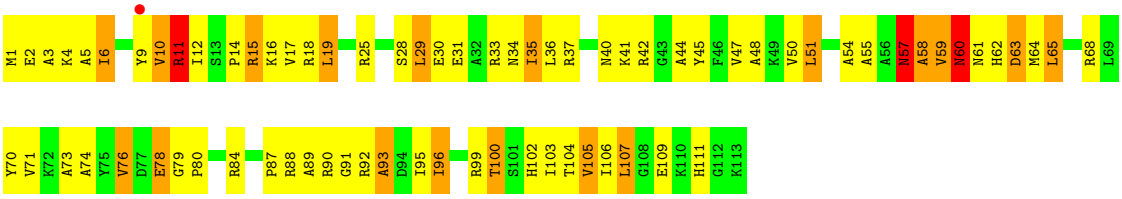
• Molecule 43: 50S ribosomal protein L22

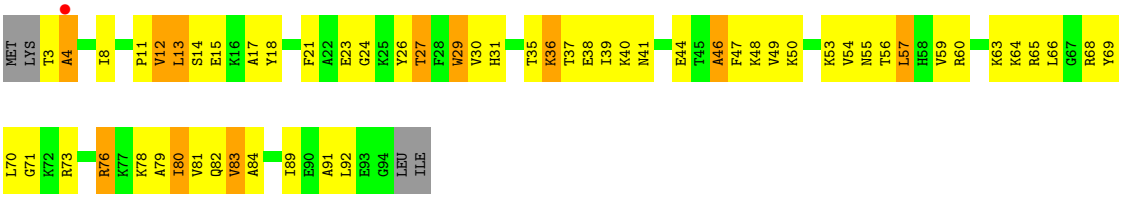
Chain AW:



• Molecule 43: 50S ribosomal protein L22

Chain BW:



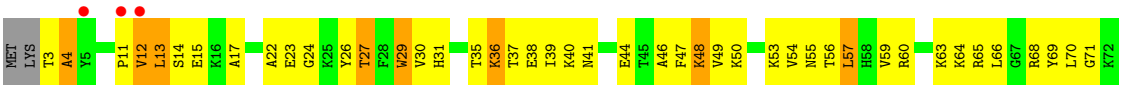


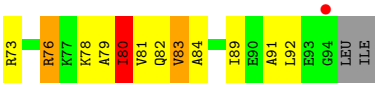
• Molecule 44: 50S ribosomal protein L23

Chain AX:

• Molecule 44: 50S ribosomal protein L23

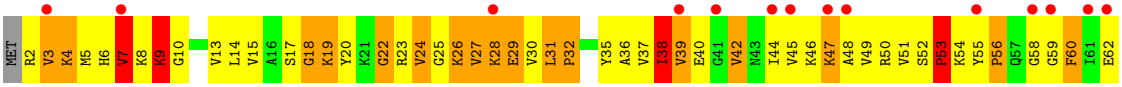
Chain BX:

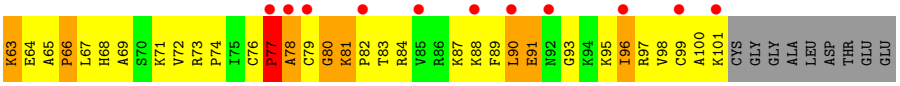




• Molecule 45: 50S ribosomal protein L24

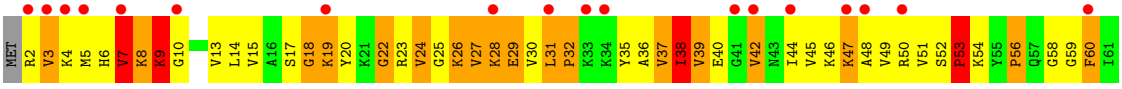
Chain AY:

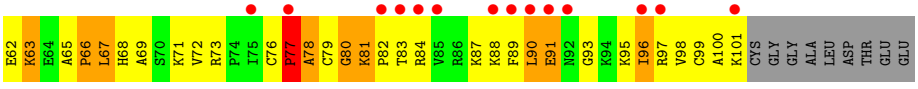




• Molecule 45: 50S ribosomal protein L24

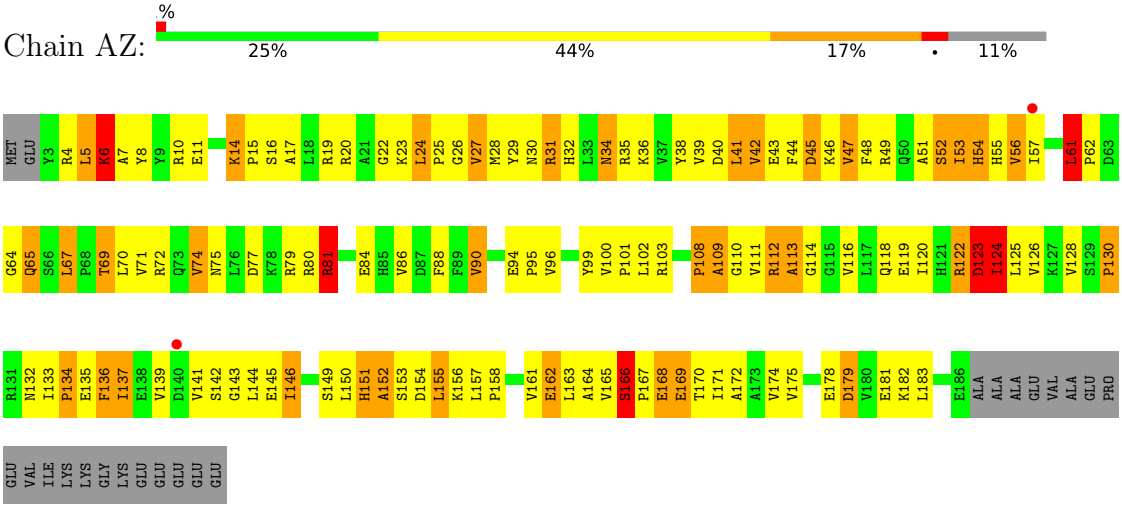
Chain BY:





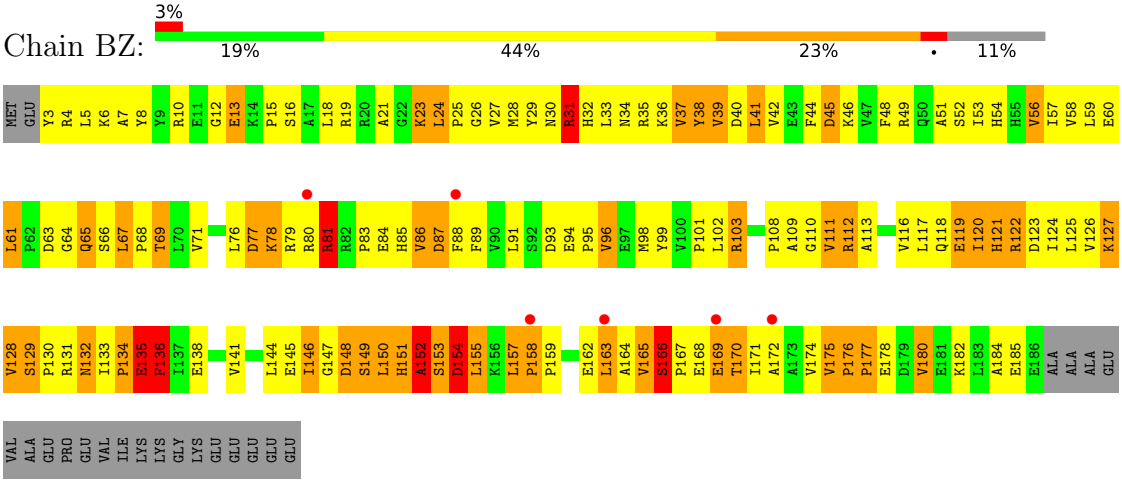
• Molecule 46: 50S ribosomal protein L25

Chain AZ:



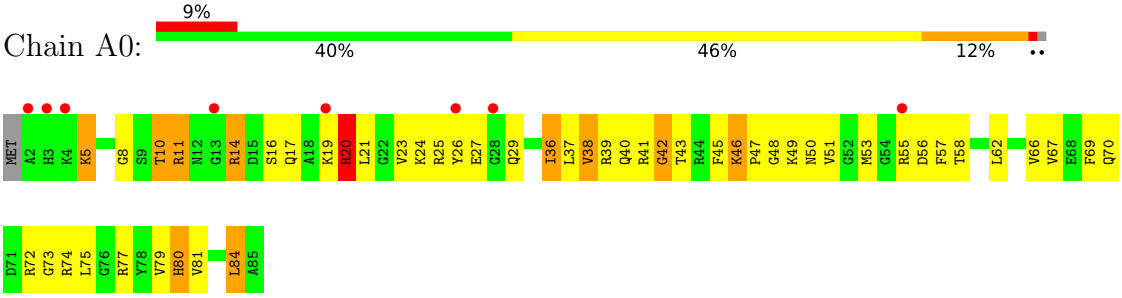
• Molecule 46: 50S ribosomal protein L25

Chain BZ:



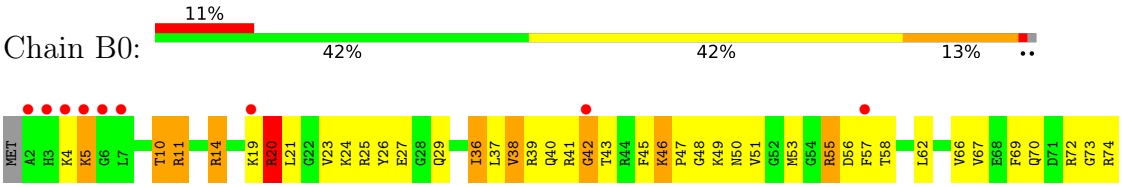
• Molecule 47: 50S ribosomal protein L27

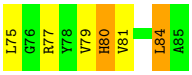
Chain A0:



• Molecule 47: 50S ribosomal protein L27

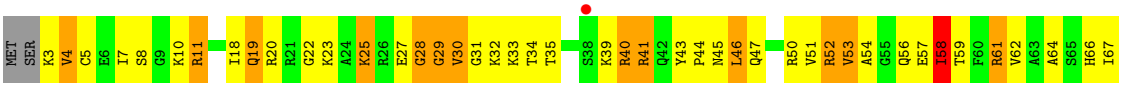
Chain B0:

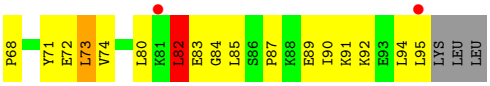




• Molecule 48: 50S ribosomal protein L28

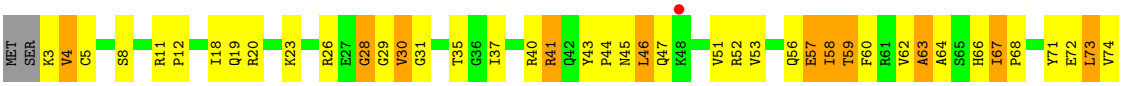
Chain A1:

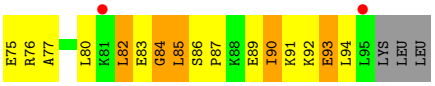




• Molecule 48: 50S ribosomal protein L28

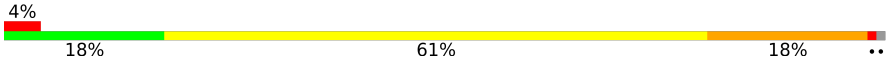
Chain B1:

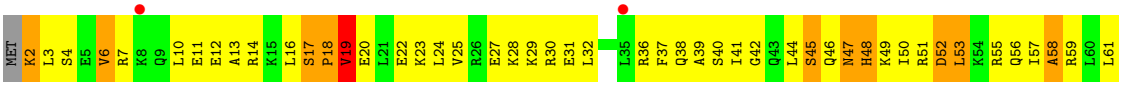


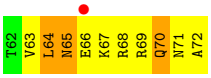


• Molecule 49: 50S ribosomal protein L29

Chain A2:

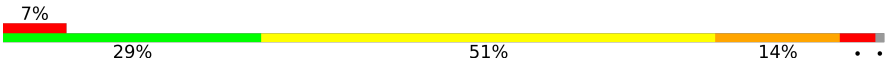


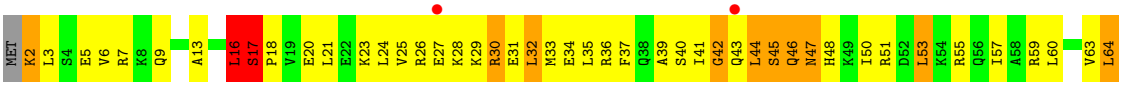


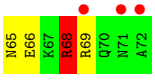


• Molecule 49: 50S ribosomal protein L29

Chain B2:

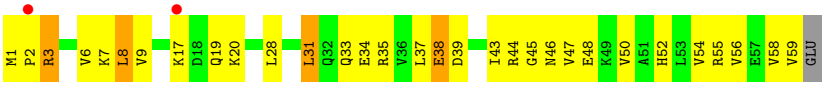






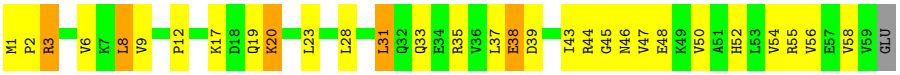
• Molecule 50: 50S ribosomal protein L30

Chain A3:



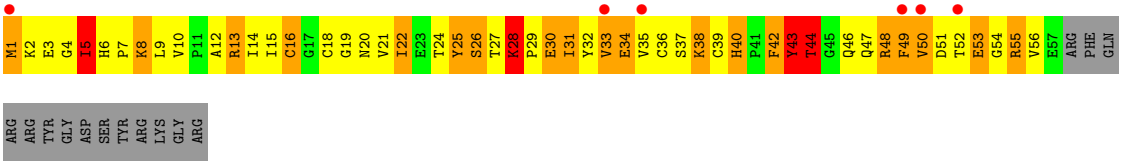
• Molecule 50: 50S ribosomal protein L30

Chain B3:



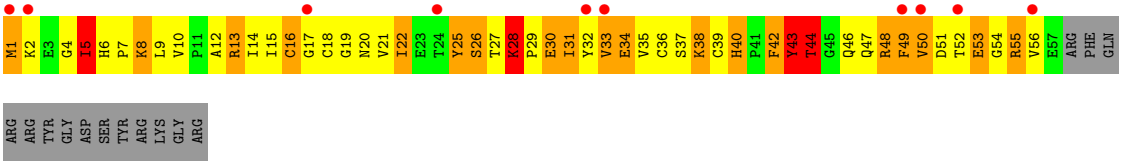
• Molecule 51: 50S ribosomal protein L31

Chain A4:



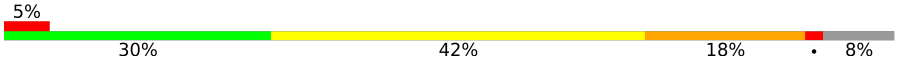
• Molecule 51: 50S ribosomal protein L31

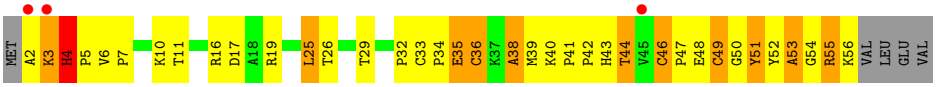
Chain B4:



• Molecule 52: 50S ribosomal protein L32

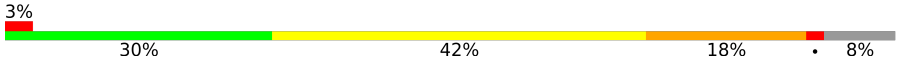
Chain A5:

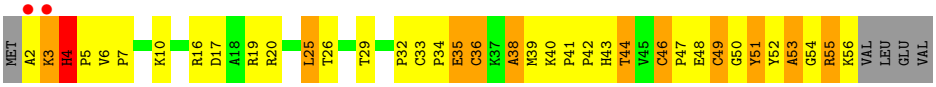




• Molecule 52: 50S ribosomal protein L32

Chain B5:





• Molecule 53: 50S ribosomal protein L33

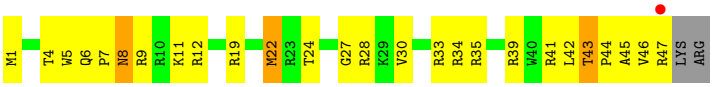
Chain A6:

• Molecule 53: 50S ribosomal protein L33

Chain B6:

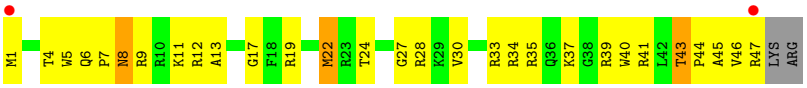
• Molecule 54: 50S ribosomal protein L34

Chain A7:



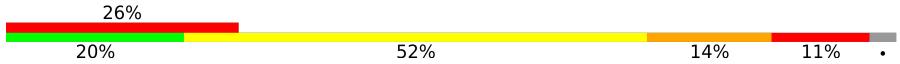
• Molecule 54: 50S ribosomal protein L34

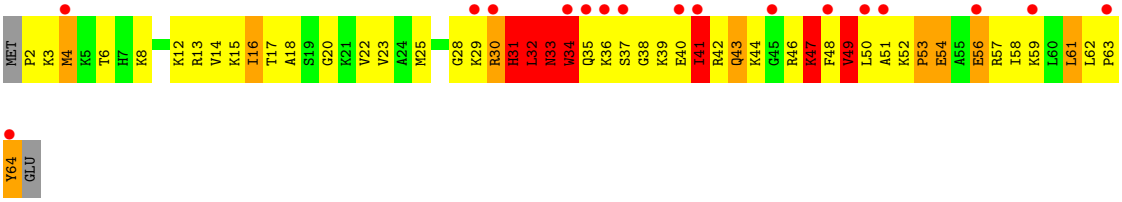
Chain B7:



• Molecule 55: 50S ribosomal protein L35

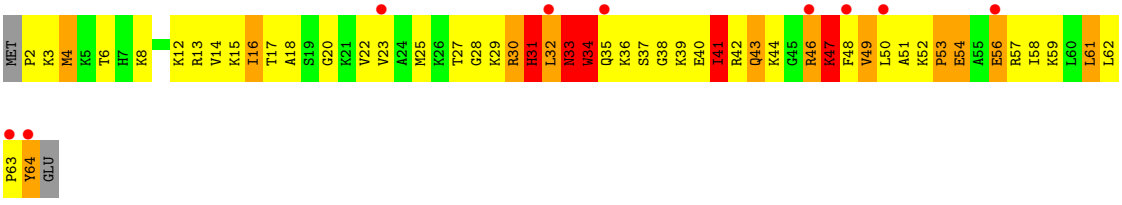
Chain A8:





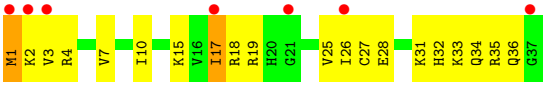
• Molecule 55: 50S ribosomal protein L35

Chain B8:



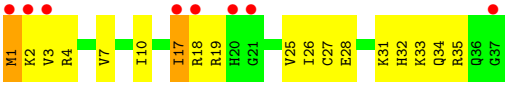
• Molecule 56: 50S ribosomal protein L36

Chain A9:



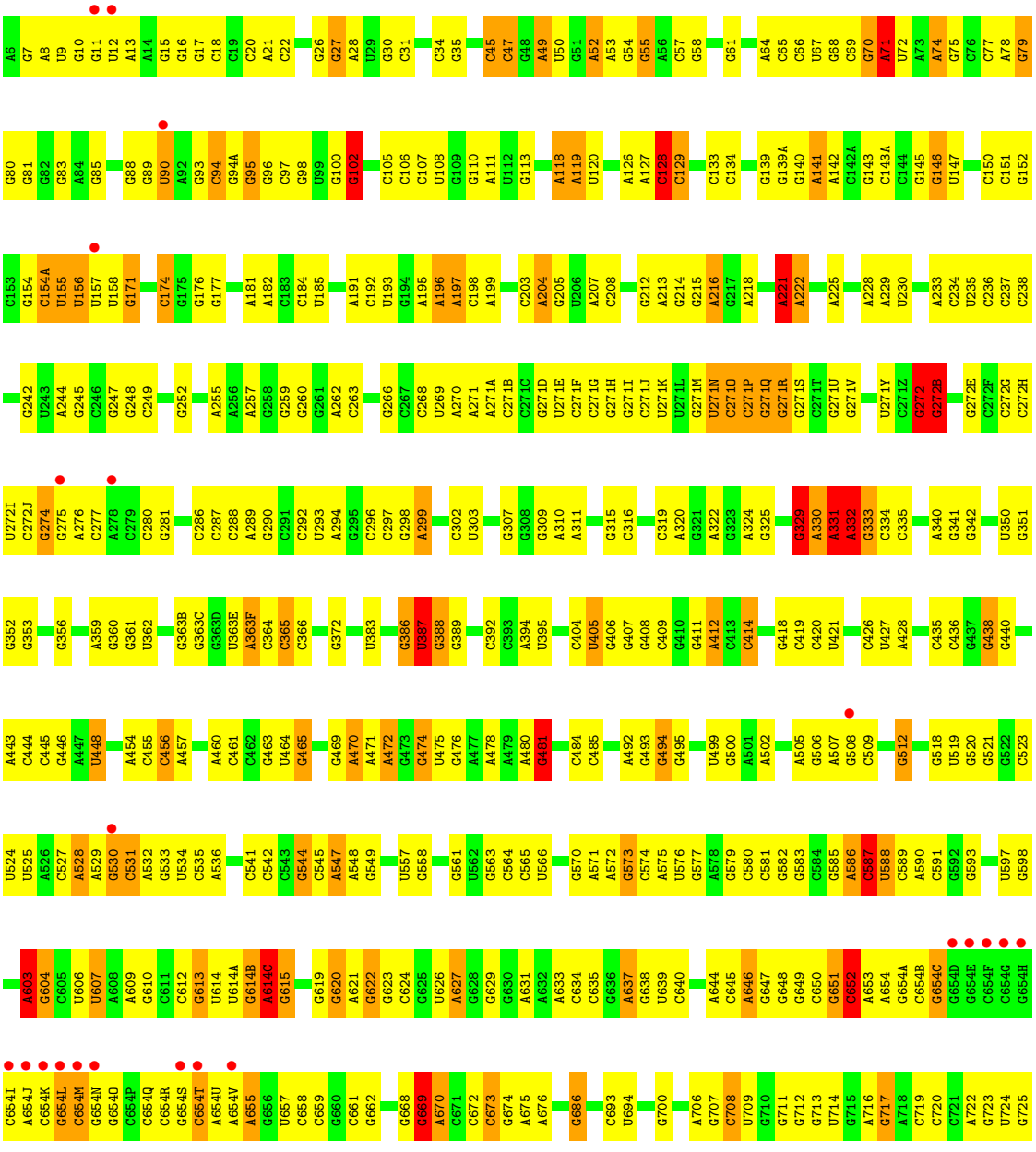
• Molecule 56: 50S ribosomal protein L36

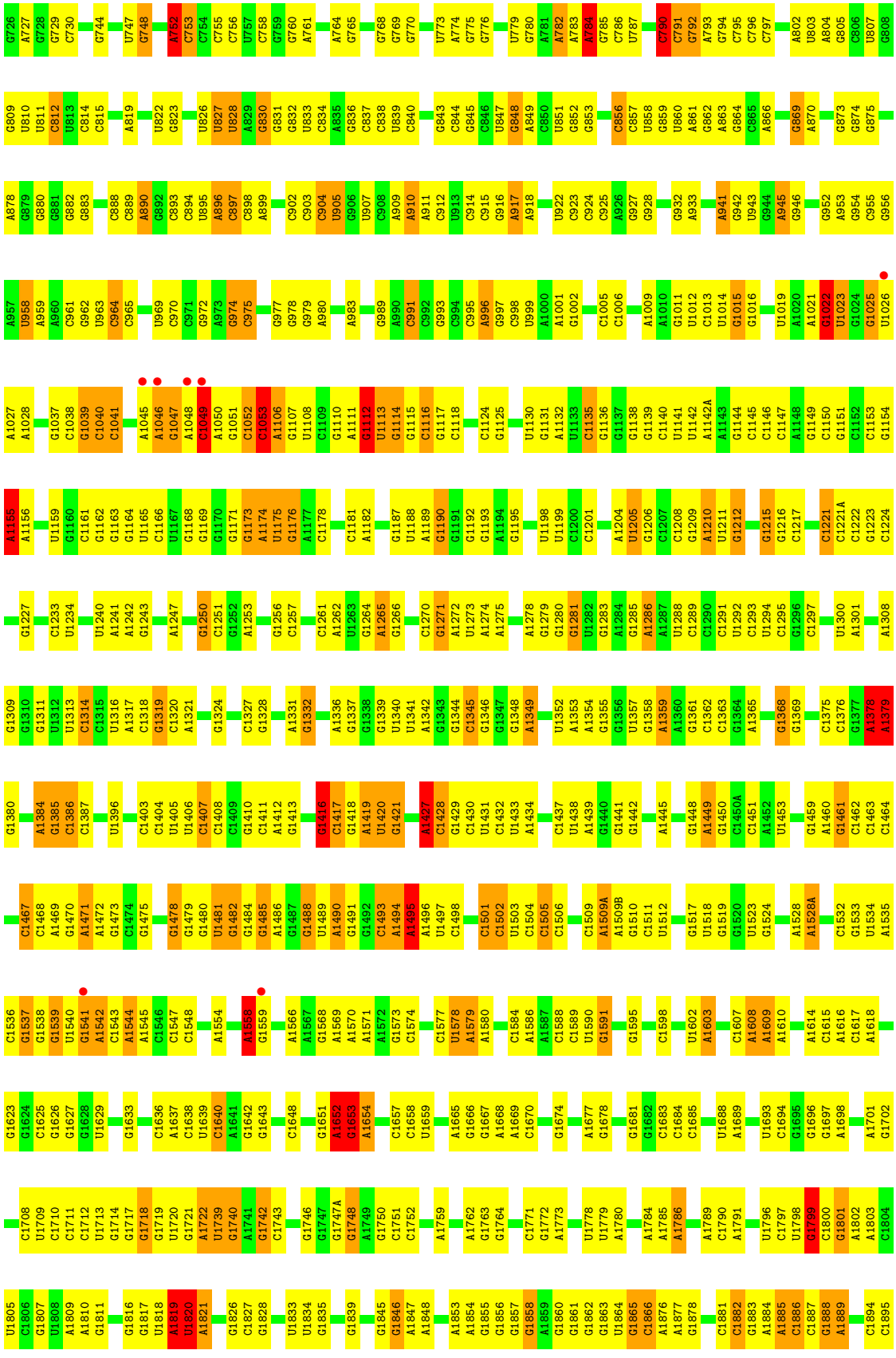
Chain B9:

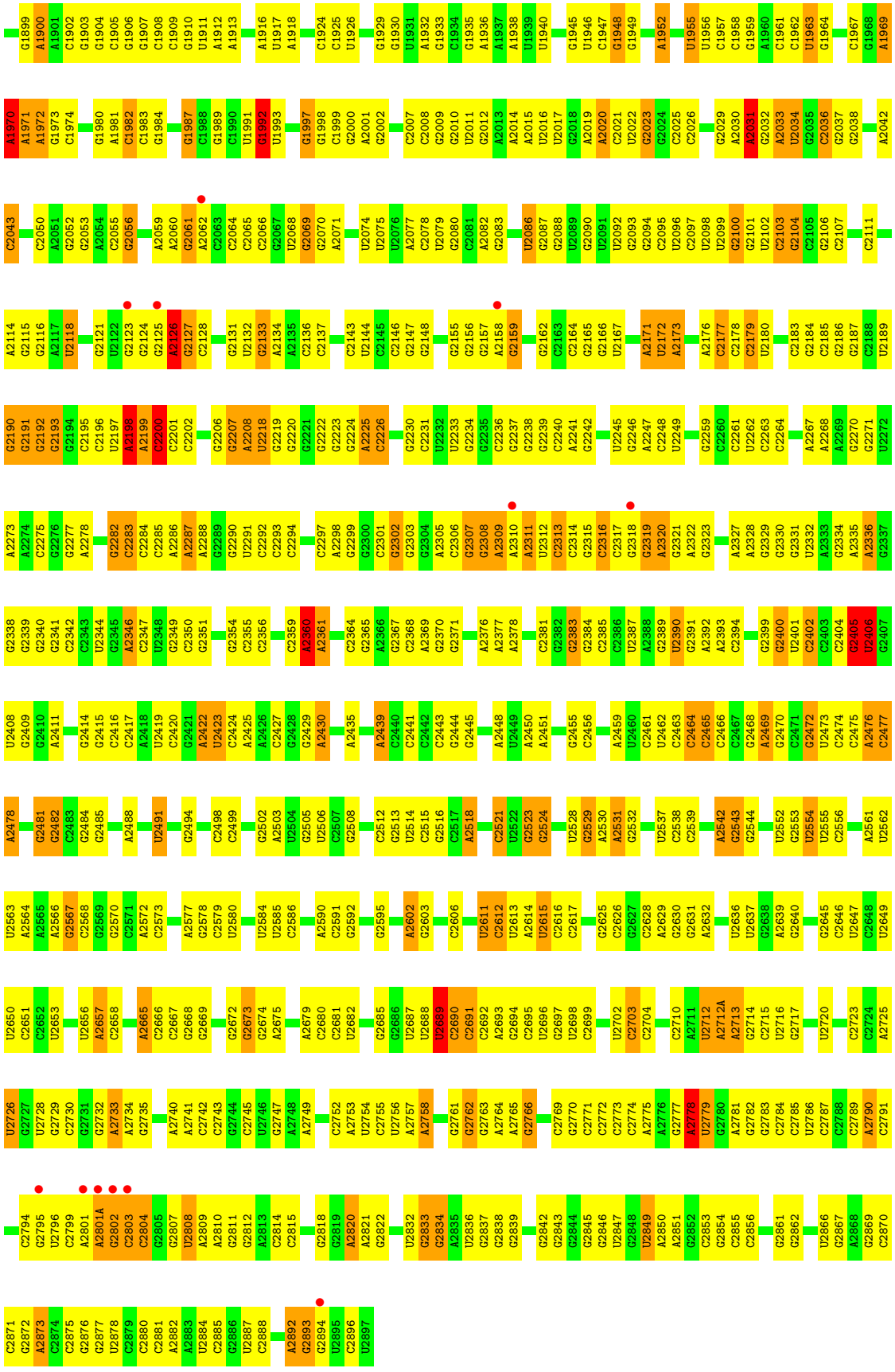


• Molecule 57: RNA (2848-MER)

Chain AA:

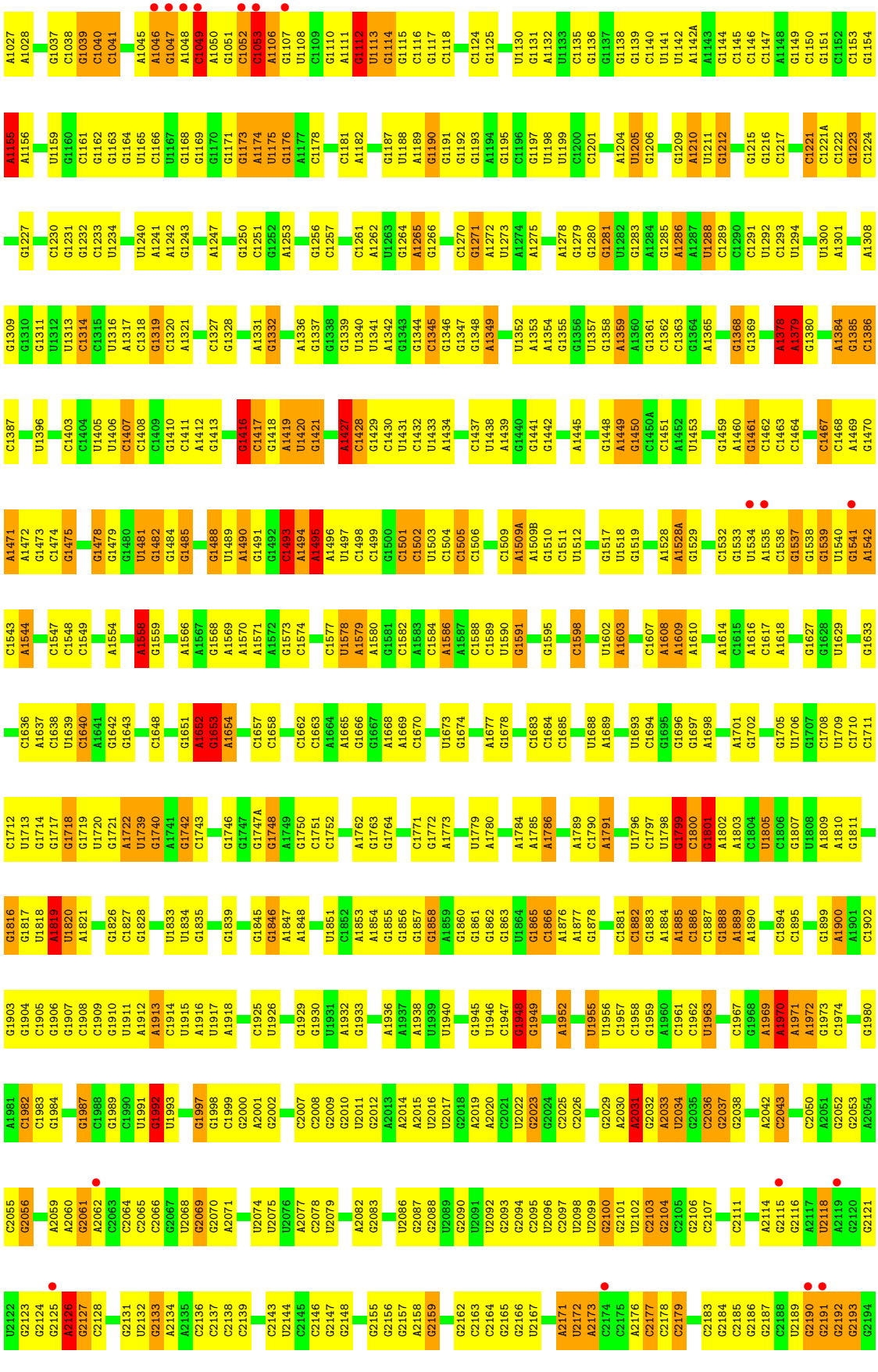


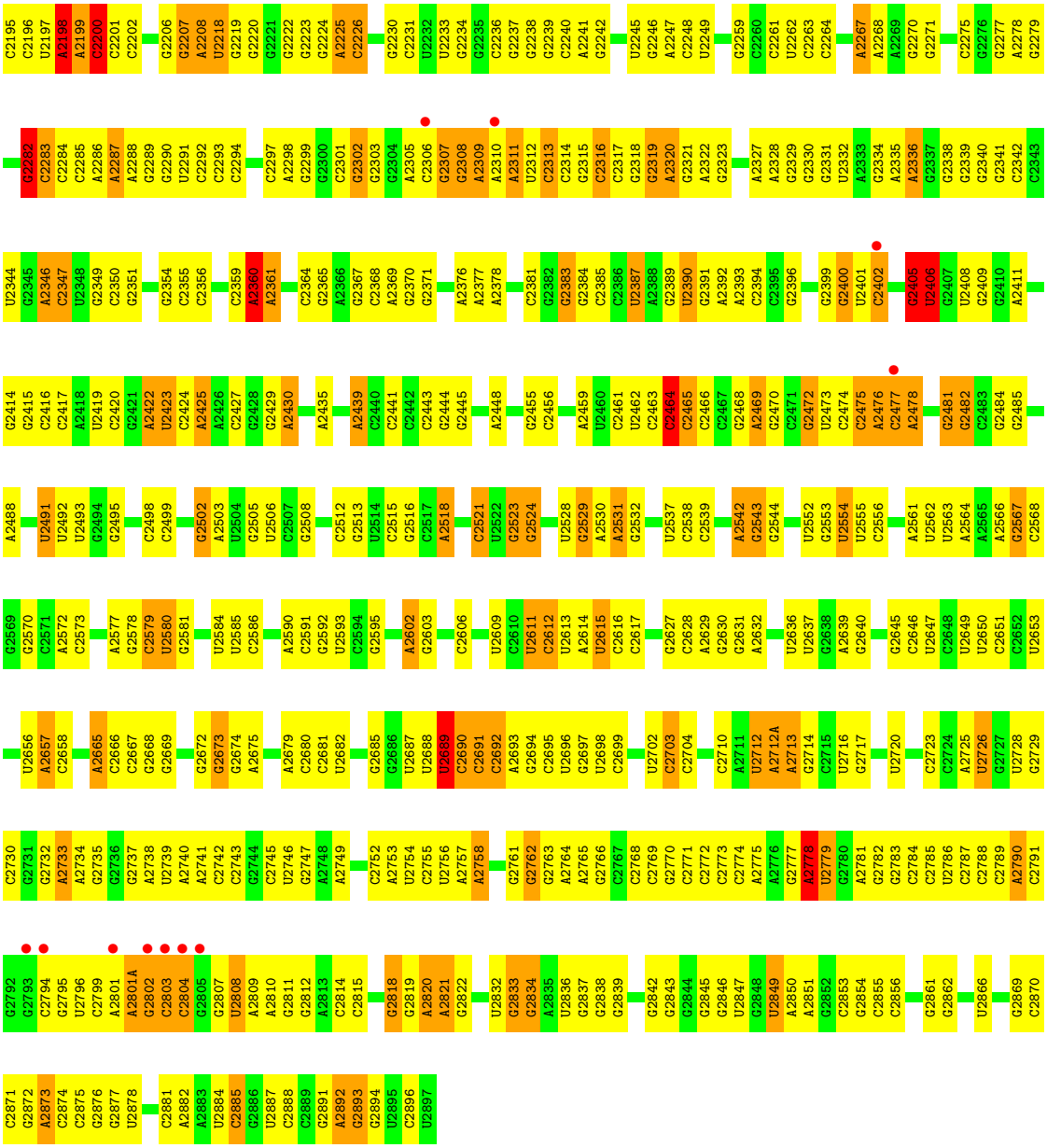




• Molecule 57: RNA (2848-MER)

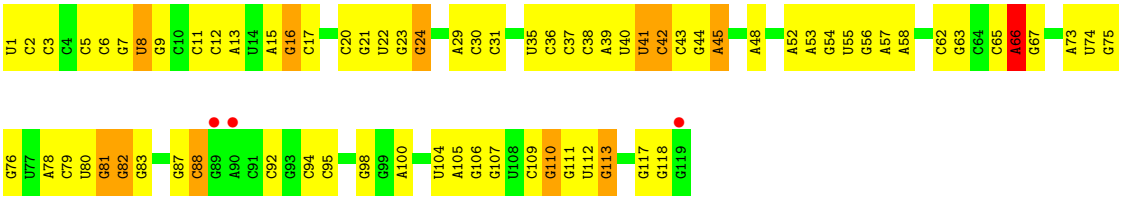
Chain BA:





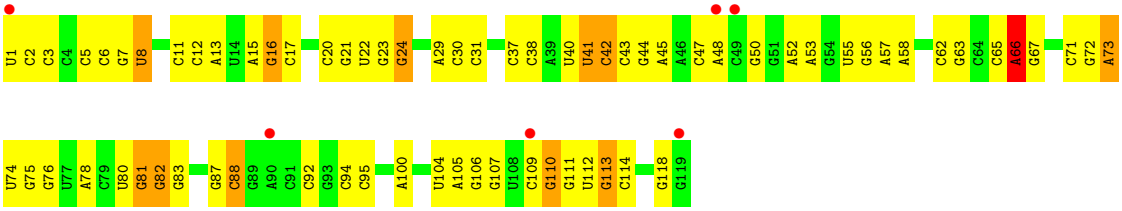
• Molecule 58: RNA (119-MER)

Chain AB:



• Molecule 58: RNA (119-MER)

Chain BB:


U1 C2 C3 C4 C5 C6 G7 U8 C11 C12 A13 U14 A15 G16 C17 C20 G21 U22 G23 G24 A29 C30 C31 C37 C38 A39 U40 U41 C42 C43 G44 A45 A46 C47 A48 C49 G50 G51 A52 A53 G54 U55 G56 A57 A58 C62 G63 C64 C65 A66 G67 C71 G72 A73
U74 G75 G76 U77 A78 C79 U80 G81 G82 G83 G87 C88 G89 A90 C91 C92 G93 C94 C95 A100 U104 A105 G106 G107 U108 C109 G110 G111 U112 G113 C114 G118 G119

4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	211.57Å 451.96Å 622.44Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	50.00 – 3.30 50.00 – 3.30	Depositor EDS
% Data completeness (in resolution range)	99.8 (50.00-3.30) 99.8 (50.00-3.30)	Depositor EDS
R_{merge}	0.02	Depositor
R_{sym}	0.02	Depositor
$< I/\sigma(I) >$ [1]	2.31 (at 3.33Å)	Xtriage
Refinement program	CNS	Depositor
R, R_{free}	0.219 , 0.247 0.220 , 0.248	Depositor DCC
R_{free} test set	40918 reflections (4.63%)	wwPDB-VP
Wilson B-factor (Å^2)	99.5	Xtriage
Anisotropy	0.049	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.28 , 81.7	EDS
L-test for twinning[2]	$< \|L\| > = 0.45$, $< L^2 > = 0.28$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.93	EDS
Total number of atoms	297206	wwPDB-VP
Average B, all atoms (Å^2)	115.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.49% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

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

5 Model quality (i)

5.1 Standard geometry (i)

Bond lengths and bond angles in the following residue types are not validated in this section: OMU, 5MU, A2M, OMG, MG, ZN

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|>5$	RMSZ	#$\|Z\|>5$
1	Ab	0.40	0/1935	1.01	11/2609 (0.4%)
1	Bb	0.40	0/1935	1.00	11/2609 (0.4%)
2	Ac	0.41	0/1636	0.87	4/2205 (0.2%)
2	Bc	0.40	0/1636	0.87	3/2205 (0.1%)
3	Ad	0.44	0/1733	0.99	8/2318 (0.3%)
3	Bd	0.45	0/1733	0.99	9/2318 (0.4%)
4	Ae	0.42	0/1162	0.98	4/1564 (0.3%)
4	Be	0.45	0/1162	0.98	4/1564 (0.3%)
5	Af	0.40	0/856	0.97	1/1154 (0.1%)
5	Bf	0.42	0/856	0.98	1/1154 (0.1%)
6	Ag	0.37	0/1276	0.87	1/1709 (0.1%)
6	Bg	0.37	0/1276	0.88	1/1709 (0.1%)
7	Ah	0.41	0/1136	1.06	9/1527 (0.6%)
7	Bh	0.41	0/1136	1.06	9/1527 (0.6%)
8	Ai	0.38	0/1029	0.90	5/1379 (0.4%)
8	Bi	0.39	0/1029	0.89	4/1379 (0.3%)
9	Aj	0.44	0/807	1.02	8/1085 (0.7%)
9	Bj	0.45	0/807	1.03	7/1085 (0.6%)
10	Ak	0.42	0/900	0.96	4/1213 (0.3%)
10	Bk	0.42	0/900	0.97	4/1213 (0.3%)
11	Al	0.51	0/986	1.09	6/1320 (0.5%)
11	Bl	0.50	0/986	1.08	6/1320 (0.5%)
12	Am	0.38	0/947	1.03	5/1270 (0.4%)
12	Bm	0.38	0/947	1.00	6/1270 (0.5%)
13	An	0.37	0/501	0.85	1/664 (0.2%)
13	Bn	0.38	0/501	0.85	1/664 (0.2%)
14	Ao	0.41	0/745	0.89	1/992 (0.1%)
14	Bo	0.42	0/745	0.89	1/992 (0.1%)
15	Ap	0.45	0/716	0.94	2/963 (0.2%)
15	Bp	0.40	0/716	0.93	2/963 (0.2%)
16	Aq	0.39	0/836	0.93	2/1117 (0.2%)
16	Bq	0.40	0/836	0.94	0/1117

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	Ar	0.42	0/579	1.07	7/768 (0.9%)
17	Br	0.43	0/579	1.07	6/768 (0.8%)
18	As	0.42	0/642	1.06	4/865 (0.5%)
18	Bs	0.44	0/642	1.06	4/865 (0.5%)
19	At	0.41	0/765	0.98	4/1007 (0.4%)
19	Bt	0.38	0/765	0.98	5/1007 (0.5%)
20	Au	0.42	0/212	0.85	0/277
20	Bu	0.41	0/212	0.84	0/277
21	Ay	0.36	0/781	0.95	7/1045 (0.7%)
21	By	0.46	0/777	1.06	5/1040 (0.5%)
22	Aa	0.42	0/36190	0.62	34/56486 (0.1%)
22	Ba	0.42	0/36190	0.63	34/56486 (0.1%)
23	Ax	0.45	0/219	0.80	0/340
23	Bx	0.47	0/219	0.80	0/340
24	Av	0.41	0/1810	0.67	1/2821 (0.0%)
24	Bv	0.43	0/1810	0.70	2/2821 (0.1%)
25	Aw	0.47	0/1832	0.56	1/2855 (0.0%)
25	Bw	0.49	0/1832	0.55	0/2855
26	AC	0.45	0/956	0.91	3/1288 (0.2%)
26	BC	0.46	0/956	0.91	2/1288 (0.2%)
27	AD	0.60	0/2154	1.20	22/2905 (0.8%)
27	BD	0.62	0/2154	1.21	20/2905 (0.7%)
28	AE	0.58	0/1596	1.21	15/2153 (0.7%)
28	BE	0.60	0/1596	1.23	16/2153 (0.7%)
29	AF	0.53	0/1658	1.12	11/2244 (0.5%)
29	BF	0.57	0/1658	1.14	13/2244 (0.6%)
30	AG	0.45	1/1499 (0.1%)	1.07	11/2016 (0.5%)
30	BG	0.48	1/1499 (0.1%)	1.14	18/2016 (0.9%)
31	AH	0.48	0/1284	1.17	18/1739 (1.0%)
31	BH	0.52	0/1284	1.19	18/1739 (1.0%)
32	AI	0.59	0/1146	1.27	22/1551 (1.4%)
32	BI	0.58	0/1146	1.25	23/1551 (1.5%)
33	AJ	0.60	0/640	1.35	12/889 (1.3%)
33	BJ	0.62	0/640	1.32	13/889 (1.5%)
34	AN	0.48	0/1131	1.15	11/1525 (0.7%)
34	BN	0.53	0/1131	1.18	11/1525 (0.7%)
35	AO	0.54	0/943	0.99	0/1269
35	BO	0.55	0/943	1.00	2/1269 (0.2%)
36	AP	0.60	0/1131	1.51	20/1504 (1.3%)
36	BP	0.67	0/1131	1.54	21/1504 (1.4%)
37	AQ	0.50	0/1133	1.03	8/1515 (0.5%)
37	BQ	0.52	0/1133	1.06	10/1515 (0.7%)
38	AR	0.54	0/974	1.04	3/1302 (0.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	BR	0.57	0/974	1.06	4/1302 (0.3%)
39	AS	0.45	0/778	1.04	9/1036 (0.9%)
39	BS	0.49	0/778	1.05	7/1036 (0.7%)
40	AT	0.54	0/1137	1.32	21/1519 (1.4%)
40	BT	0.56	0/1137	1.33	19/1519 (1.3%)
41	AU	0.54	0/975	1.10	7/1297 (0.5%)
41	BU	0.62	0/975	1.13	6/1297 (0.5%)
42	AV	0.47	0/790	0.99	1/1057 (0.1%)
42	BV	0.52	0/790	1.01	1/1057 (0.1%)
43	AW	0.52	0/907	1.07	5/1216 (0.4%)
43	BW	0.56	0/907	1.06	5/1216 (0.4%)
44	AX	0.54	0/739	1.04	3/993 (0.3%)
44	BX	0.59	1/739 (0.1%)	1.06	3/993 (0.3%)
45	AY	0.61	0/788	1.19	5/1051 (0.5%)
45	BY	0.66	0/788	1.21	5/1051 (0.5%)
46	AZ	0.42	0/1499	1.02	11/2035 (0.5%)
46	BZ	0.49	0/1499	1.13	16/2035 (0.8%)
47	A0	0.47	0/671	1.04	5/892 (0.6%)
47	B0	0.51	0/671	1.03	3/892 (0.3%)
48	A1	0.50	0/738	1.13	6/981 (0.6%)
48	B1	0.57	0/738	1.15	7/981 (0.7%)
49	A2	0.40	0/600	0.92	0/793
49	B2	0.53	0/600	0.96	1/793 (0.1%)
50	A3	0.46	0/472	1.03	1/634 (0.2%)
50	B3	0.48	0/472	1.02	1/634 (0.2%)
51	A4	0.55	0/460	1.02	3/621 (0.5%)
51	B4	0.56	0/460	1.02	3/621 (0.5%)
52	A5	0.56	0/441	1.22	6/596 (1.0%)
52	B5	0.61	0/441	1.27	6/596 (1.0%)
53	A6	0.59	0/440	1.22	6/586 (1.0%)
53	B6	0.58	0/440	1.21	5/586 (0.9%)
54	A7	0.54	0/417	1.10	3/550 (0.5%)
54	B7	0.61	0/417	1.11	3/550 (0.5%)
55	A8	0.64	0/515	1.26	5/679 (0.7%)
55	B8	0.64	0/515	1.24	4/679 (0.6%)
56	A9	0.42	0/310	0.92	1/407 (0.2%)
56	B9	0.44	0/310	0.92	1/407 (0.2%)
57	AA	0.43	0/68704	0.70	77/107260 (0.1%)
57	BA	0.45	0/68704	0.72	88/107260 (0.1%)
58	AB	0.41	0/2853	0.65	0/4451
58	BB	0.42	0/2853	0.66	0/4451
All	All	0.45	3/321416 (0.0%)	0.81	941/480209 (0.2%)

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
21	Ay	0	1
22	Aa	0	11
22	Ba	1	11
24	Av	0	1
24	Bv	0	1
38	AR	0	1
38	BR	0	1
52	A5	0	1
52	B5	0	1
57	AA	2	50
57	BA	2	68
58	AB	0	1
58	BB	0	1
All	All	5	149

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
30	BG	77	ILE	CA-CB	6.33	1.61	1.53
30	AG	77	ILE	CA-CB	5.73	1.62	1.54
44	BX	80	ILE	CA-CB	5.24	1.60	1.53

All (941) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
57	AA	1992	G	C2'-C3'-O3'	15.16	132.24	109.50
57	BA	1992	G	C2'-C3'-O3'	15.06	132.09	109.50
22	Ba	1498	U	C2'-C3'-O3'	14.98	131.97	109.50
30	BG	125	PHE	N-CA-C	-13.88	94.47	111.40
57	BA	1653	G	C2'-C3'-O3'	13.46	129.69	109.50
57	AA	1653	G	C2'-C3'-O3'	13.37	129.55	109.50
57	AA	1799	G	C2'-C3'-O3'	13.37	129.55	109.50
57	BA	1819	A	C2'-C3'-O3'	13.21	129.31	109.50
22	Aa	115	G	C2'-C3'-O3'	13.20	129.30	109.50
57	BA	1799	G	C2'-C3'-O3'	13.18	129.27	109.50
36	AP	116	GLY	N-CA-C	12.97	125.60	111.85
57	BA	49	A	C2'-C3'-O3'	12.95	128.93	109.50
36	BP	116	GLY	N-CA-C	12.89	125.52	111.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
57	BA	331	A	C2'-C3'-O3'	12.87	128.80	109.50
57	AA	331	A	C2'-C3'-O3'	12.84	128.76	109.50
22	Ba	115	G	C2'-C3'-O3'	12.81	128.71	109.50
57	BA	1022	G	C2'-C3'-O3'	12.79	128.68	109.50
22	Ba	575	G	C2'-C3'-O3'	12.69	128.54	109.50
57	AA	1819	A	C2'-C3'-O3'	12.52	128.28	109.50
57	AA	49	A	C2'-C3'-O3'	12.46	128.18	109.50
57	AA	1022	G	C2'-C3'-O3'	12.40	128.10	109.50
30	AG	54	GLU	N-CA-C	-12.33	95.55	112.94
22	Aa	575	G	C2'-C3'-O3'	12.31	127.96	109.50
57	BA	1820	U	C2'-C3'-O3'	11.63	126.95	109.50
36	AP	54	GLY	N-CA-C	-11.59	98.72	115.64
36	BP	54	GLY	N-CA-C	-11.52	98.83	115.64
57	AA	1820	U	C2'-C3'-O3'	11.44	126.66	109.50
22	Aa	1498	U	C2'-C3'-O3'	11.42	126.63	109.50
36	BP	59	LEU	N-CA-C	-11.13	97.94	112.41
57	BA	387	U	C2'-C3'-O3'	11.06	126.09	109.50
28	BE	73	GLU	CA-C-N	10.95	133.53	119.84
28	BE	73	GLU	C-N-CA	10.95	133.53	119.84
28	AE	73	GLU	CA-C-N	10.89	133.46	119.84
28	AE	73	GLU	C-N-CA	10.89	133.46	119.84
36	AP	59	LEU	N-CA-C	-10.87	98.28	112.41
57	AA	387	U	C2'-C3'-O3'	10.83	125.75	109.50
30	AG	125	PHE	N-CA-C	-10.75	98.64	112.93
22	Ba	366	C	C2'-C3'-O3'	10.71	125.56	109.50
43	BW	10	VAL	N-CA-C	10.66	120.55	110.53
43	AW	10	VAL	N-CA-C	10.50	120.40	110.53
36	BP	52	GLU	N-CA-C	10.50	133.17	110.80
36	AP	52	GLU	N-CA-C	10.49	133.15	110.80
41	AU	97	ASP	N-CA-C	-10.46	100.54	113.20
22	Aa	366	C	C2'-C3'-O3'	10.40	125.10	109.50
31	BH	167	GLU	CA-C-N	10.31	130.07	119.76
31	BH	167	GLU	C-N-CA	10.31	130.07	119.76
22	Aa	913	A	C2'-C3'-O3'	10.24	124.87	109.50
41	BU	97	ASP	N-CA-C	-10.20	100.84	113.18
31	AH	167	GLU	CA-C-N	10.08	129.84	119.76
31	AH	167	GLU	C-N-CA	10.08	129.84	119.76
22	Ba	913	A	C2'-C3'-O3'	10.07	124.60	109.50
11	Bl	119	LYS	N-CA-C	-10.04	95.62	110.48
11	Al	119	LYS	N-CA-C	-9.99	95.70	110.48
57	AA	1819	A	C4'-C3'-O3'	9.96	124.34	109.40
57	BA	1799	G	C4'-C3'-O3'	9.95	124.33	109.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	BP	51	PHE	N-CA-C	9.94	122.63	110.41
57	AA	2225	A	C2'-C3'-O3'	9.86	124.28	109.50
30	BG	54	GLU	N-CA-C	-9.85	101.39	113.50
27	BD	240	ALA	N-CA-C	9.83	116.82	108.07
45	AY	19	LYS	N-CA-C	-9.81	100.72	112.89
45	BY	19	LYS	N-CA-C	-9.79	100.75	112.89
1	Bb	169	LYS	N-CA-C	-9.73	101.91	113.88
40	BT	4	GLY	N-CA-C	-9.73	101.53	113.99
1	Ab	169	LYS	N-CA-C	-9.69	101.96	113.88
19	Bt	12	ALA	N-CA-C	-9.69	101.12	113.72
22	Aa	428	G	C2'-C3'-O3'	9.64	123.97	109.50
19	At	12	ALA	N-CA-C	-9.61	101.23	113.72
36	BP	64	LYS	N-CA-C	-9.61	101.57	113.20
57	BA	2225	A	C2'-C3'-O3'	9.61	123.91	109.50
22	Aa	60	A	C2'-C3'-O3'	9.61	123.91	109.50
3	Ad	10	ARG	N-CA-C	-9.57	103.71	114.62
57	AA	1799	G	C4'-C3'-O3'	9.55	123.72	109.40
36	AP	64	LYS	N-CA-C	-9.54	101.65	113.20
57	AA	272	G	C2'-C3'-O3'	9.50	123.75	109.50
40	AT	76	PHE	CA-C-N	9.42	129.16	119.56
40	AT	76	PHE	C-N-CA	9.42	129.16	119.56
40	BT	29	ARG	N-CA-C	9.42	122.68	108.46
22	Ba	428	G	C2'-C3'-O3'	9.40	123.61	109.50
40	AT	29	ARG	N-CA-C	9.40	122.65	108.46
57	BA	1819	A	C4'-C3'-O3'	9.39	123.48	109.40
12	Am	84	ILE	N-CA-C	-9.37	103.56	112.83
36	AP	51	PHE	N-CA-C	9.34	122.38	110.33
22	Ba	60	A	C2'-C3'-O3'	9.33	123.49	109.50
41	BU	58	ARG	N-CA-C	-9.32	99.82	111.75
27	AD	240	ALA	N-CA-C	9.30	116.35	108.07
3	Bd	10	ARG	N-CA-C	-9.26	104.06	114.62
57	BA	272	G	C2'-C3'-O3'	9.22	123.33	109.50
40	AT	4	GLY	N-CA-C	-9.21	102.20	113.99
57	AA	74	A	C2'-C3'-O3'	9.13	123.20	109.50
33	BJ	9	LEU	N-CA-C	-9.12	103.30	112.97
41	AU	58	ARG	N-CA-C	-9.11	100.30	111.33
7	Bh	77	GLU	N-CA-C	-9.10	98.91	110.19
7	Ah	77	GLU	N-CA-C	-9.09	98.92	110.19
22	Aa	687	A	C2'-C3'-O3'	9.07	123.10	109.50
1	Bb	118	LEU	N-CA-C	-9.06	102.81	114.04
57	AA	1820	U	C4'-C3'-O3'	9.06	122.99	109.40
40	BT	76	PHE	CA-C-N	9.03	128.77	119.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
40	BT	76	PHE	C-N-CA	9.03	128.77	119.56
57	BA	1820	U	C4'-C3'-O3'	9.02	122.93	109.40
34	AN	46	VAL	N-CA-C	8.99	122.25	113.71
40	AT	59	THR	N-CA-C	-8.98	95.68	109.95
22	Ba	687	A	C2'-C3'-O3'	8.97	122.95	109.50
1	Ab	118	LEU	N-CA-C	-8.96	102.93	114.04
36	AP	16	ARG	N-CA-C	-8.95	102.27	113.55
12	Bm	84	ILE	N-CA-C	-8.95	103.97	112.83
36	BP	16	ARG	N-CA-C	-8.92	102.31	113.55
40	BT	59	THR	N-CA-C	-8.89	95.81	109.95
46	BZ	113	ALA	N-CA-C	-8.85	102.48	113.28
57	BA	1652	A	C2'-C3'-O3'	8.81	126.91	113.70
51	B4	42	PHE	N-CA-C	8.81	120.27	108.38
27	AD	212	SER	N-CA-C	-8.79	101.63	111.82
57	BA	74	A	C2'-C3'-O3'	8.74	122.61	109.50
32	BI	67	ARG	N-CA-C	-8.73	100.95	111.69
57	AA	1652	A	C2'-C3'-O3'	8.72	126.78	113.70
45	BY	8	LYS	N-CA-C	8.67	121.49	109.18
51	A4	42	PHE	N-CA-C	8.67	120.08	108.38
55	A8	32	LEU	N-CA-C	-8.60	101.49	111.03
34	BN	46	VAL	N-CA-C	8.59	121.87	113.71
32	AI	50	ARG	NE-CZ-NH2	8.53	126.88	119.20
32	AI	67	ARG	N-CA-C	-8.48	101.26	111.69
57	BA	790	C	C2'-C3'-O3'	8.47	122.20	109.50
32	AI	92	VAL	N-CA-C	8.35	118.74	108.06
29	BF	4	VAL	N-CA-C	8.29	118.62	106.85
33	BJ	41	ARG	N-CA-C	-8.28	103.28	112.72
18	As	31	ILE	N-CA-C	8.28	115.07	106.21
36	BP	53	GLY	N-CA-C	-8.25	93.63	113.18
32	AI	50	ARG	NE-CZ-NH1	-8.24	113.26	121.50
27	BD	212	SER	N-CA-C	-8.22	102.28	111.82
57	BA	512	G	C4'-C3'-O3'	-8.20	100.70	113.00
18	Bs	31	ILE	N-CA-C	8.12	114.89	106.21
36	AP	53	GLY	N-CA-C	-8.10	93.99	113.18
22	Aa	1067	A	C2'-C3'-O3'	8.10	121.64	109.50
57	AA	49	A	C4'-C3'-O3'	8.06	121.48	109.40
22	Aa	1201	A	C2'-C3'-O3'	8.05	121.58	109.50
52	A5	46	CYS	CA-C-N	8.05	129.90	119.84
52	A5	46	CYS	C-N-CA	8.05	129.90	119.84
32	BI	92	VAL	N-CA-C	8.00	118.30	108.06
29	BF	195	ASP	N-CA-C	-7.99	99.49	110.35
3	Bd	11	LEU	N-CA-C	-7.97	101.38	112.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	AF	4	VAL	N-CA-C	7.96	118.16	106.85
22	Ba	1067	A	C2'-C3'-O3'	7.90	121.35	109.50
30	BG	86	MET	CA-C-N	-7.89	109.97	119.84
30	BG	86	MET	C-N-CA	-7.89	109.97	119.84
57	AA	512	G	C4'-C3'-O3'	-7.88	101.18	113.00
34	BN	67	LEU	N-CA-C	-7.87	97.44	109.95
57	AA	1022	G	C4'-C3'-O3'	7.86	121.19	109.40
57	BA	49	A	C4'-C3'-O3'	7.85	121.18	109.40
52	B5	46	CYS	CA-C-N	7.81	129.61	119.84
52	B5	46	CYS	C-N-CA	7.81	129.61	119.84
57	BA	1786	A	N9-C1'-C2'	7.81	125.72	114.00
57	AA	1786	A	N9-C1'-C2'	7.80	125.70	114.00
45	BY	7	VAL	N-CA-C	7.80	125.57	109.34
45	AY	7	VAL	N-CA-C	7.74	125.44	109.34
57	AA	790	C	C2'-C3'-O3'	7.71	121.06	109.50
57	BA	1022	G	C4'-C3'-O3'	7.70	120.95	109.40
31	AH	65	HIS	N-CA-C	-7.68	98.92	110.28
46	BZ	67	LEU	CA-C-N	7.68	129.44	119.84
46	BZ	67	LEU	C-N-CA	7.68	129.44	119.84
55	A8	49	VAL	N-CA-C	-7.66	98.24	108.35
36	BP	99	LEU	N-CA-C	-7.65	103.40	112.89
22	Ba	1201	A	C2'-C3'-O3'	7.64	120.96	109.50
12	Bm	92	HIS	N-CA-C	-7.64	104.09	113.41
22	Ba	79	G	C2'-C3'-O3'	7.64	120.95	109.50
40	BT	57	PHE	N-CA-C	-7.62	97.91	109.79
27	BD	229	VAL	CB-CA-C	-7.61	101.86	112.14
34	BN	25	ARG	N-CA-C	-7.60	103.00	111.82
34	AN	67	LEU	N-CA-C	-7.60	97.87	109.95
40	AT	108	ARG	N-CA-C	-7.60	103.84	113.72
1	Bb	119	GLU	N-CA-C	-7.58	103.29	112.54
39	BS	16	ASN	N-CA-C	-7.58	103.76	113.16
30	AG	55	LYS	N-CA-C	-7.57	103.61	112.92
22	Aa	992	U	C2'-C3'-O3'	7.56	120.84	109.50
3	Bd	12	CYS	N-CA-C	-7.55	102.09	111.75
22	Ba	1498	U	C4'-C3'-O3'	7.54	120.70	109.40
40	BT	80	SER	N-CA-C	7.54	126.47	109.81
22	Ba	992	U	C2'-C3'-O3'	7.52	120.79	109.50
27	AD	229	VAL	CB-CA-C	-7.52	101.99	112.14
28	AE	52	LEU	CA-C-N	7.52	129.24	119.84
28	AE	52	LEU	C-N-CA	7.52	129.24	119.84
36	AP	58	THR	N-CA-C	-7.52	94.79	110.80
53	B6	21	TYR	N-CA-C	7.52	118.19	108.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	Ag	145	ALA	N-CA-C	-7.51	101.17	110.41
37	AQ	132	VAL	N-CA-C	7.50	117.69	108.53
3	Ad	11	LEU	N-CA-C	-7.50	102.02	112.45
28	BE	52	LEU	CA-C-N	7.49	129.20	119.84
28	BE	52	LEU	C-N-CA	7.49	129.20	119.84
55	B8	49	VAL	N-CA-C	-7.48	98.48	108.35
22	Aa	748	C	C2'-C3'-O3'	7.48	120.71	109.50
31	BH	65	HIS	N-CA-C	-7.47	99.22	110.28
22	Ba	509	A	C2'-C3'-O3'	7.47	124.90	113.70
29	AF	195	ASP	N-CA-C	-7.47	100.20	110.35
33	BJ	33	PRO	N-CA-CB	7.46	111.08	103.25
37	BQ	132	VAL	N-CA-C	7.46	117.63	108.53
22	Aa	79	G	C2'-C3'-O3'	7.46	120.69	109.50
3	Ad	12	CYS	N-CA-C	-7.46	102.21	111.75
27	BD	224	ALA	N-CA-C	-7.46	98.41	109.15
53	A6	21	TYR	N-CA-C	7.43	118.08	108.34
31	AH	7	LEU	CA-C-N	7.42	129.12	119.84
31	AH	7	LEU	C-N-CA	7.42	129.12	119.84
38	AR	70	LEU	N-CA-C	-7.42	99.50	110.48
31	AH	158	HIS	N-CA-C	7.42	126.59	110.80
22	Aa	509	A	C2'-C3'-O3'	7.41	124.81	113.70
53	B6	24	GLU	N-CA-C	7.40	118.29	108.07
22	Ba	748	C	C2'-C3'-O3'	7.39	120.59	109.50
1	Ab	119	GLU	N-CA-C	-7.36	103.40	112.38
6	Bg	145	ALA	N-CA-C	-7.36	101.35	110.41
57	BA	221	A	C2'-C3'-O3'	7.36	120.54	109.50
38	BR	70	LEU	N-CA-C	-7.34	98.66	110.32
31	BH	158	HIS	N-CA-C	7.33	126.42	110.80
12	Am	92	HIS	N-CA-C	-7.32	104.48	113.41
33	BJ	105	PRO	N-CA-CB	7.32	110.94	103.25
36	BP	58	THR	N-CA-C	-7.32	95.20	110.80
21	By	31	VAL	N-CA-C	-7.30	102.66	113.39
17	Ar	81	PHE	N-CA-C	-7.28	105.01	114.04
17	Br	81	PHE	N-CA-C	-7.28	105.01	114.04
32	AI	77	LEU	N-CA-C	7.27	120.86	109.96
53	A6	24	GLU	N-CA-C	7.26	118.09	108.07
4	Be	113	ALA	N-CA-C	-7.24	104.44	113.20
34	AN	25	ARG	N-CA-C	-7.24	103.43	111.82
36	BP	115	LEU	N-CA-C	-7.23	98.86	108.34
36	BP	71	VAL	CA-C-N	-7.22	112.74	119.82
36	BP	71	VAL	C-N-CA	-7.22	112.74	119.82
28	BE	168	MET	N-CA-C	7.21	121.14	110.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	AI	73	GLU	N-CA-C	-7.19	104.37	113.43
12	Bm	90	LEU	N-CA-C	-7.19	101.28	110.19
33	AJ	86	PRO	N-CA-CB	7.18	109.65	103.19
1	Ab	25	ASN	CA-C-N	7.18	128.81	119.84
1	Ab	25	ASN	C-N-CA	7.18	128.81	119.84
43	AW	57	ASN	N-CA-C	-7.18	104.38	113.43
36	AP	115	LEU	N-CA-C	-7.18	98.94	108.34
36	AP	99	LEU	N-CA-C	-7.17	103.99	112.89
46	BZ	149	SER	N-CA-C	7.17	119.37	109.18
51	A4	43	TYR	N-CA-C	7.17	126.08	110.80
7	Bh	19	VAL	N-CA-C	-7.17	105.73	112.83
40	AT	110	ILE	N-CA-C	-7.15	103.55	110.42
40	AT	80	SER	N-CA-C	7.15	125.62	109.81
4	Ae	113	ALA	N-CA-C	-7.14	104.56	113.20
32	AI	79	ILE	N-CA-C	7.14	115.77	107.77
28	BE	125	GLY	CA-C-N	7.14	127.39	119.90
28	BE	125	GLY	C-N-CA	7.14	127.39	119.90
40	BT	108	ARG	N-CA-C	-7.13	104.45	113.72
44	BX	36	LYS	N-CA-C	-7.11	103.53	111.28
32	BI	73	GLU	N-CA-C	-7.09	104.50	113.43
4	Be	67	VAL	N-CA-C	7.08	118.54	108.42
57	AA	1378	A	C4'-C3'-O3'	7.08	120.01	109.40
21	Ay	21	THR	N-CA-C	-7.07	104.28	113.12
27	AD	244	ARG	C-N-CD	-7.06	105.08	120.60
32	BI	77	LEU	N-CA-C	7.05	120.97	109.76
30	AG	56	ALA	N-CA-C	-7.05	104.32	114.12
39	AS	16	ASN	N-CA-C	-7.04	104.42	113.16
7	Ah	19	VAL	N-CA-C	-7.04	105.86	112.83
1	Bb	25	ASN	CA-C-N	7.04	128.63	119.84
1	Bb	25	ASN	C-N-CA	7.04	128.63	119.84
51	B4	43	TYR	N-CA-C	7.02	125.76	110.80
57	BA	1495	A	N9-C1'-C2'	7.01	122.52	112.00
28	AE	168	MET	N-CA-C	7.01	120.83	110.46
57	AA	2360	A	N9-C1'-C2'	-7.00	103.51	114.00
22	Aa	1065	U	C2'-C3'-O3'	7.00	119.99	109.50
15	Bp	77	ALA	N-CA-C	-6.99	104.32	112.92
9	Aj	80	LYS	N-CA-C	-6.99	104.50	113.16
22	Aa	484	G	C2'-C3'-O3'	6.98	119.97	109.50
32	BI	79	ILE	N-CA-C	6.98	115.59	107.77
9	Bj	80	LYS	N-CA-C	-6.98	104.50	113.16
32	BI	63	ALA	N-CA-C	-6.97	105.40	114.04
57	AA	221	A	C2'-C3'-O3'	6.96	119.93	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	AI	58	LEU	N-CA-C	-6.95	104.81	113.28
40	AT	100	TYR	N-CA-C	-6.95	104.67	113.01
27	BD	244	ARG	C-N-CD	-6.95	105.32	120.60
57	AA	1495	A	N9-C1'-C2'	6.94	122.42	112.00
22	Aa	533	A	C2'-C3'-O3'	6.94	119.91	109.50
22	Ba	533	A	C2'-C3'-O3'	6.94	119.92	109.50
57	BA	1378	A	C4'-C3'-O3'	6.93	119.79	109.40
25	Aw	17(A)	U	C2'-C3'-O3'	6.93	119.89	109.50
22	Ba	115	G	C4'-C3'-O3'	6.93	119.79	109.40
28	AE	169	ASN	N-CA-C	6.90	120.92	111.54
57	BA	2360	A	N9-C1'-C2'	-6.89	103.66	114.00
24	Bv	4	G	N9-C1'-C2'	-6.88	101.67	112.00
27	BD	14	ARG	N-CA-C	-6.88	105.03	113.50
57	BA	1558	A	C2'-C3'-O3'	6.88	119.82	109.50
44	AX	36	LYS	N-CA-C	-6.87	103.80	111.28
54	A7	22	MET	N-CA-C	6.86	119.60	111.71
12	Am	90	LEU	N-CA-C	-6.85	101.70	110.19
22	Ba	484	G	C2'-C3'-O3'	6.85	119.77	109.50
17	Br	84	LYS	N-CA-C	6.84	120.15	110.23
57	AA	587	C	C2'-C3'-O3'	6.82	119.73	109.50
52	B5	4	HIS	CA-C-N	-6.82	112.94	119.76
52	B5	4	HIS	C-N-CA	-6.82	112.94	119.76
40	BT	23	ARG	CA-C-N	6.82	128.36	119.84
40	BT	23	ARG	C-N-CA	6.82	128.36	119.84
40	BT	30	VAL	N-CA-C	6.80	123.49	109.34
28	AE	125	GLY	CA-C-N	6.79	127.03	119.90
28	AE	125	GLY	C-N-CA	6.79	127.03	119.90
21	Ay	72	VAL	N-CA-C	6.79	116.75	108.06
2	Ac	88	ARG	N-CA-C	-6.77	104.99	113.18
33	AJ	94	VAL	N-CA-C	-6.77	103.87	113.07
22	Ba	1065	U	C2'-C3'-O3'	6.76	119.64	109.50
57	BA	1970	A	C5'-C4'-C3'	6.76	125.34	115.20
57	AA	2405	G	C4'-C3'-O3'	-6.76	102.86	113.00
28	BE	169	ASN	N-CA-C	6.75	120.72	111.54
31	BH	7	LEU	CA-C-N	6.74	128.26	119.84
31	BH	7	LEU	C-N-CA	6.74	128.26	119.84
48	A1	25	LYS	N-CA-C	-6.73	104.01	111.82
40	BT	100	TYR	N-CA-C	-6.72	104.95	113.01
15	Ap	77	ALA	N-CA-C	-6.70	104.68	112.92
32	BI	58	LEU	N-CA-C	-6.70	105.11	113.28
17	Ar	84	LYS	N-CA-C	6.69	119.94	110.23
40	AT	80	SER	CA-C-N	-6.69	113.31	120.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
40	AT	80	SER	C-N-CA	-6.69	113.31	120.47
57	BA	669	G	C2'-C3'-O3'	-6.69	103.67	113.70
32	BI	50	ARG	NE-CZ-NH2	-6.68	113.19	119.20
40	AT	30	VAL	N-CA-C	6.67	123.22	109.34
57	AA	2405	G	N9-C1'-C2'	6.67	122.00	112.00
9	Aj	75	ILE	N-CA-C	6.66	116.68	110.42
46	BZ	21	ALA	N-CA-C	-6.66	104.74	114.39
29	BF	6	VAL	N-CA-C	6.65	117.46	107.75
31	BH	153	LYS	CA-C-N	6.65	128.15	119.84
31	BH	153	LYS	C-N-CA	6.65	128.15	119.84
32	AI	63	ALA	N-CA-C	-6.64	105.81	114.04
46	BZ	67	LEU	N-CA-C	6.64	120.64	109.09
19	Bt	72	LEU	N-CA-C	-6.63	101.60	110.55
30	BG	141	PHE	CA-C-N	6.63	128.12	119.84
30	BG	141	PHE	C-N-CA	6.63	128.12	119.84
57	BA	1365	A	C5'-C4'-C3'	6.62	125.93	116.00
4	Ae	67	VAL	N-CA-C	6.62	117.88	108.42
30	BG	83	ARG	N-CA-C	6.61	117.86	108.74
30	AG	20	ILE	N-CA-C	-6.61	106.22	113.43
57	AA	1558	A	C2'-C3'-O3'	6.61	119.41	109.50
9	Bj	75	ILE	N-CA-C	6.60	116.62	110.42
22	Aa	115	G	C4'-C3'-O3'	6.59	119.29	109.40
57	BA	1427	A	C2'-C3'-O3'	6.59	119.38	109.50
19	At	72	LEU	N-CA-C	-6.58	101.66	110.55
57	AA	2126	A	C2'-C3'-O3'	6.58	119.37	109.50
38	BR	5	LYS	N-CA-C	-6.58	96.79	110.80
54	B7	22	MET	N-CA-C	6.58	119.27	111.71
41	BU	65	ILE	N-CA-C	-6.57	103.46	110.36
33	BJ	95	GLN	N-CA-C	-6.56	106.02	112.97
57	AA	1427	A	C2'-C3'-O3'	6.54	119.32	109.50
2	Bc	88	ARG	N-CA-C	-6.54	105.27	113.18
57	BA	2126	A	C2'-C3'-O3'	6.54	119.31	109.50
21	By	36	SER	CA-C-N	6.53	126.47	119.28
21	By	36	SER	C-N-CA	6.53	126.47	119.28
57	AA	71	A	C2'-C3'-O3'	6.53	119.29	109.50
8	Bi	86	VAL	N-CA-C	-6.53	106.20	111.81
33	AJ	69	PRO	N-CA-CB	6.52	110.09	103.25
31	AH	153	LYS	CA-C-N	6.51	127.98	119.84
31	AH	153	LYS	C-N-CA	6.51	127.98	119.84
29	BF	23	ASP	N-CA-C	-6.51	105.44	113.19
33	BJ	16	ASN	N-CA-C	-6.51	105.35	113.55
40	BT	110	ILE	N-CA-C	-6.50	104.17	110.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
57	AA	474	G	C2'-C3'-O3'	6.50	119.25	109.50
40	BT	80	SER	CA-C-N	-6.50	113.52	120.47
40	BT	80	SER	C-N-CA	-6.50	113.52	120.47
57	AA	669	G	C2'-C3'-O3'	-6.49	103.96	113.70
33	AJ	77	PRO	N-CA-CB	6.49	110.06	103.25
52	B5	46	CYS	N-CA-C	6.49	119.03	109.62
36	AP	71	VAL	CA-C-N	-6.48	113.47	119.82
36	AP	71	VAL	C-N-CA	-6.48	113.47	119.82
47	A0	46	LYS	CA-C-N	6.48	127.49	119.98
47	A0	46	LYS	C-N-CA	6.48	127.49	119.98
11	Al	44	THR	CA-C-N	6.47	127.36	120.11
11	Al	44	THR	C-N-CA	6.47	127.36	120.11
32	BI	50	ARG	CD-NE-CZ	6.47	133.47	124.40
31	BH	139	GLN	N-CA-C	-6.47	104.15	111.07
29	AF	23	ASP	N-CA-C	-6.46	105.50	113.19
41	AU	96	ALA	N-CA-C	-6.46	106.12	112.97
11	Bl	44	THR	CA-C-N	6.46	127.34	120.11
11	Bl	44	THR	C-N-CA	6.46	127.34	120.11
29	AF	6	VAL	N-CA-C	6.46	117.33	107.77
22	Ba	266	G	C2'-C3'-O3'	6.44	123.36	113.70
39	AS	17	ARG	N-CA-C	-6.44	105.49	113.15
33	AJ	61	LEU	N-CA-C	-6.44	105.46	113.38
40	AT	23	ARG	CA-C-N	6.43	127.88	119.84
40	AT	23	ARG	C-N-CA	6.43	127.88	119.84
27	BD	53	PHE	N-CA-C	6.43	120.42	111.74
19	At	27	LYS	N-CA-C	-6.43	104.27	111.28
27	AD	53	PHE	N-CA-C	6.42	120.41	111.74
32	AI	50	ARG	CD-NE-CZ	6.42	133.39	124.40
39	BS	18	ILE	N-CA-C	-6.42	103.95	113.39
52	B5	3	LYS	N-CA-C	6.42	118.29	109.18
57	BA	71	A	C2'-C3'-O3'	6.41	119.12	109.50
36	BP	27	HIS	N-CA-C	6.41	118.85	108.41
7	Bh	96	GLY	N-CA-C	-6.41	102.77	112.89
57	BA	587	C	C2'-C3'-O3'	6.41	119.11	109.50
52	A5	3	LYS	N-CA-C	6.40	118.27	109.18
46	BZ	45	ASP	N-CA-C	-6.39	104.00	110.97
57	AA	1365	A	C5'-C4'-C3'	6.39	125.59	116.00
33	AJ	105	PRO	N-CA-CB	6.39	109.96	103.25
43	BW	57	ASN	N-CA-C	-6.38	105.38	113.43
27	BD	7	LYS	N-CA-C	-6.37	101.29	110.08
36	BP	41	ARG	N-CA-C	-6.37	94.23	107.67
36	AP	41	ARG	N-CA-C	-6.37	94.23	107.67

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	AJ	33	PRO	N-CA-CB	6.36	109.93	103.25
29	BF	58	ALA	N-CA-C	6.36	118.74	111.11
41	BU	96	ALA	N-CA-C	-6.35	106.24	112.97
9	Aj	24	VAL	N-CA-C	-6.35	107.68	113.71
46	BZ	69	THR	N-CA-C	6.35	120.39	110.17
12	Bm	45	VAL	N-CA-C	-6.34	103.16	111.09
57	BA	2405	G	C4'-C3'-O3'	-6.34	103.48	113.00
12	Am	45	VAL	N-CA-C	-6.33	103.17	111.09
9	Bj	24	VAL	N-CA-C	-6.33	107.69	113.71
57	BA	945	A	N9-C1'-C2'	6.33	123.49	114.00
33	AJ	101	PRO	N-CA-CB	6.33	109.89	103.25
36	BP	15	ARG	N-CA-C	6.32	120.40	107.69
57	AA	2191	G	C2'-C3'-O3'	6.31	123.17	113.70
8	Ai	86	VAL	N-CA-C	-6.31	106.38	111.81
45	AY	63	LYS	N-CA-C	6.30	114.80	108.75
27	BD	85	ASP	CA-C-N	6.29	126.41	119.87
27	BD	85	ASP	C-N-CA	6.29	126.41	119.87
44	AX	29	TRP	N-CA-C	-6.29	99.77	109.76
46	BZ	138	GLU	N-CA-C	6.27	120.27	110.17
22	Aa	266	G	C2'-C3'-O3'	6.27	123.11	113.70
57	AA	1970	A	C5'-C4'-C3'	6.27	124.61	115.20
33	AJ	129	PRO	N-CA-CB	6.27	109.83	103.25
22	Ba	243	A	C2'-C3'-O3'	6.27	118.91	109.50
36	BP	22	GLY	CA-C-N	6.26	127.67	119.84
36	BP	22	GLY	C-N-CA	6.26	127.67	119.84
19	Bt	27	LYS	N-CA-C	-6.24	104.48	111.28
45	BY	63	LYS	N-CA-C	6.23	114.73	108.75
22	Aa	366	C	C4'-C3'-O3'	6.23	118.74	109.40
12	Bm	82	MET	N-CA-C	-6.23	105.96	112.93
47	B0	46	LYS	CA-C-N	6.22	127.62	119.84
47	B0	46	LYS	C-N-CA	6.22	127.62	119.84
34	BN	110	GLY	CA-C-N	6.22	125.78	119.19
34	BN	110	GLY	C-N-CA	6.22	125.78	119.19
17	Ar	53	ARG	N-CA-C	-6.21	105.55	113.01
57	BA	2191	G	C2'-C3'-O3'	6.21	123.02	113.70
1	Bb	122	PHE	N-CA-C	-6.21	105.86	113.50
1	Bb	200	ILE	N-CA-C	6.21	117.96	108.71
27	AD	259	THR	N-CA-C	6.20	122.31	114.31
55	B8	47	LYS	N-CA-C	6.20	116.75	108.38
7	Ah	96	GLY	N-CA-C	-6.20	103.09	112.89
31	AH	139	GLN	N-CA-C	-6.20	104.44	111.07
10	Ak	127	LYS	N-CA-C	-6.19	105.21	112.89

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
57	AA	387	U	C4'-C3'-O3'	6.19	118.69	109.40
57	BA	827	U	C2'-C3'-O3'	-6.19	104.41	113.70
1	Ab	122	PHE	N-CA-C	-6.19	105.89	113.50
27	BD	230	ASP	N-CA-C	6.18	120.02	112.23
15	Bp	20	VAL	N-CA-C	6.17	116.40	107.88
57	BA	332	A	C2'-C3'-O3'	6.17	118.76	109.50
39	AS	18	ILE	N-CA-C	-6.17	104.33	113.39
44	BX	29	TRP	N-CA-C	-6.16	99.96	109.76
48	A1	4	VAL	N-CA-C	6.16	117.34	108.48
36	AP	27	HIS	N-CA-C	6.15	118.44	108.41
46	AZ	56	VAL	N-CA-C	6.15	116.47	107.37
22	Aa	1504	G	C2'-C3'-O3'	6.14	118.71	109.50
12	Am	82	MET	N-CA-C	-6.14	106.06	112.93
10	Bk	127	LYS	N-CA-C	-6.13	105.29	112.89
33	BJ	101	PRO	N-CA-CB	6.13	109.69	103.25
3	Ad	171	GLY	CA-C-N	6.13	126.58	119.47
3	Ad	171	GLY	C-N-CA	6.13	126.58	119.47
33	BJ	69	PRO	N-CA-CB	6.13	109.69	103.25
57	BA	614(C)	A	C2'-C3'-O3'	6.12	118.68	109.50
57	BA	2405	G	N9-C1'-C2'	6.11	121.16	112.00
22	Aa	243	A	C2'-C3'-O3'	6.10	118.65	109.50
37	AQ	10	ARG	N-CA-C	6.10	118.01	111.36
48	B1	67	ILE	CB-CA-C	-6.10	107.90	113.70
57	BA	784	A	N9-C1'-C2'	6.09	121.13	112.00
10	Ak	38	ASN	CA-C-N	6.08	127.44	119.84
10	Ak	38	ASN	C-N-CA	6.08	127.44	119.84
46	BZ	153	SER	N-CA-C	-6.08	106.22	113.21
31	BH	116	GLU	CA-C-N	6.08	124.04	119.66
31	BH	116	GLU	C-N-CA	6.08	124.04	119.66
29	AF	154	VAL	N-CA-C	6.08	116.61	108.11
22	Ba	366	C	C4'-C3'-O3'	6.07	118.51	109.40
29	AF	28	ILE	N-CA-C	6.07	117.87	109.80
38	AR	5	LYS	N-CA-C	-6.07	97.87	110.80
17	Br	53	ARG	N-CA-C	-6.07	105.72	113.01
33	BJ	77	PRO	N-CA-CB	6.07	109.62	103.25
4	Ae	26	PHE	N-CA-C	6.06	119.33	110.17
57	BA	1987	G	C5'-C4'-C3'	-6.05	106.92	116.00
10	Bk	38	ASN	CA-C-N	6.05	127.40	119.84
10	Bk	38	ASN	C-N-CA	6.05	127.40	119.84
39	BS	17	ARG	N-CA-C	-6.04	105.96	113.15
27	AD	7	LYS	N-CA-C	-6.04	101.74	110.08
29	AF	58	ALA	N-CA-C	6.04	118.36	111.11

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	AJ	131	MET	N-CA-C	-6.04	106.53	114.31
40	AT	124	ASP	N-CA-C	-6.03	105.00	112.90
1	Ab	200	ILE	N-CA-C	6.03	117.69	108.71
32	AI	28	ASN	N-CA-C	6.02	120.33	112.92
31	BH	46	GLU	N-CA-C	6.02	118.73	108.02
26	AC	24	ASP	N-CA-C	-6.01	106.48	113.88
43	AW	51	LEU	N-CA-C	-6.01	103.48	111.24
32	AI	110	ASP	CA-C-N	6.01	125.63	119.56
32	AI	110	ASP	C-N-CA	6.01	125.63	119.56
39	AS	44	LYS	N-CA-C	-6.01	106.93	114.56
57	BA	272(B)	G	C5'-C4'-C3'	6.01	125.01	116.00
57	BA	669	G	N9-C1'-C2'	6.01	121.01	112.00
52	A5	4	HIS	CA-C-N	-6.00	113.76	119.76
52	A5	4	HIS	C-N-CA	-6.00	113.76	119.76
57	AA	614(C)	A	C2'-C3'-O3'	6.00	118.50	109.50
8	Bi	93	ARG	N-CA-C	-6.00	106.00	113.38
26	BC	24	ASP	N-CA-C	-6.00	106.50	113.88
10	Bk	48	ILE	N-CA-C	-5.99	103.52	110.05
57	AA	1053	C	N1-C1'-C2'	5.99	120.98	112.00
9	Bj	16	LEU	N-CA-C	-5.98	105.81	113.23
21	By	7	PHE	N-CA-C	5.98	118.38	108.99
32	BI	60	GLU	N-CA-C	-5.97	106.97	114.56
57	BA	1053	C	N1-C1'-C2'	5.97	120.96	112.00
41	AU	65	ILE	N-CA-C	-5.97	104.09	110.36
37	BQ	72	LYS	CA-C-N	5.97	126.17	119.90
37	BQ	72	LYS	C-N-CA	5.97	126.17	119.90
27	AD	85	ASP	CA-C-N	5.97	126.08	119.87
27	AD	85	ASP	C-N-CA	5.97	126.08	119.87
29	BF	28	ILE	N-CA-C	5.97	117.74	109.80
7	Bh	44	PHE	N-CA-C	-5.96	106.13	113.41
46	BZ	129	SER	CA-C-N	5.96	127.29	119.84
46	BZ	129	SER	C-N-CA	5.96	127.29	119.84
30	BG	30	GLU	N-CA-C	-5.96	105.84	114.12
28	AE	118	LYS	N-CA-C	-5.95	98.12	110.80
8	Ai	93	ARG	N-CA-C	-5.95	106.06	113.38
33	BJ	129	PRO	N-CA-CB	5.95	109.50	103.25
30	AG	78	SER	N-CA-C	-5.95	105.16	113.37
57	AA	272(B)	G	C5'-C4'-C3'	5.95	124.92	116.00
34	BN	43	THR	CA-C-N	5.94	125.82	119.28
34	BN	43	THR	C-N-CA	5.94	125.82	119.28
57	AA	945	A	N9-C1'-C2'	5.94	122.91	114.00
7	Ah	44	PHE	N-CA-C	-5.93	106.17	113.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	BI	59	ALA	N-CA-C	-5.93	105.87	112.57
55	A8	54	GLU	N-CA-C	-5.92	104.17	111.33
46	BZ	176	PRO	N-CA-C	5.92	117.92	110.70
17	Ar	51	LEU	CA-C-N	5.91	126.25	119.92
17	Ar	51	LEU	C-N-CA	5.91	126.25	119.92
27	AD	14	ARG	N-CA-C	-5.91	106.23	113.50
31	AH	46	GLU	N-CA-C	5.91	118.02	107.80
32	BI	110	ASP	CA-C-N	5.91	125.53	119.56
32	BI	110	ASP	C-N-CA	5.91	125.53	119.56
34	BN	76	SER	N-CA-C	-5.91	100.93	110.32
52	A5	46	CYS	N-CA-C	5.91	118.18	109.62
27	AD	198	ASN	N-CA-C	-5.89	103.27	111.52
39	BS	44	LYS	N-CA-C	-5.89	107.08	114.56
4	Be	26	PHE	N-CA-C	5.88	119.06	110.17
32	BI	54	GLN	N-CA-C	-5.88	107.09	114.56
11	Al	118	SER	N-CA-C	-5.88	104.87	111.28
27	AD	62	TYR	N-CA-C	5.88	118.31	108.73
17	Br	51	LEU	CA-C-N	5.87	126.20	119.92
17	Br	51	LEU	C-N-CA	5.87	126.20	119.92
34	BN	18	ALA	N-CA-C	-5.87	103.25	110.65
37	BQ	133	ARG	N-CA-C	5.87	117.46	108.12
11	Bl	38	THR	N-CA-C	-5.87	105.78	113.12
9	Aj	16	LEU	N-CA-C	-5.87	105.95	113.23
36	AP	15	ARG	N-CA-C	5.87	119.48	107.69
40	BT	110	ILE	CB-CA-C	-5.86	104.47	111.97
57	BA	2278	A	C5'-C4'-C3'	5.85	124.77	116.00
55	A8	47	LYS	N-CA-C	5.85	116.28	108.38
55	B8	54	GLU	N-CA-C	-5.85	104.25	111.33
34	AN	18	ALA	N-CA-C	-5.85	103.28	110.65
27	AD	230	ASP	N-CA-C	5.84	118.87	111.69
32	AI	54	GLN	N-CA-C	-5.83	107.15	114.56
36	AP	22	GLY	CA-C-N	5.83	127.13	119.84
36	AP	22	GLY	C-N-CA	5.83	127.13	119.84
22	Ba	1531	A	C4'-C3'-O3'	5.83	121.75	113.00
28	BE	118	LYS	N-CA-C	-5.83	98.38	110.80
27	BD	259	THR	N-CA-C	5.83	121.83	114.31
57	BA	474	G	C2'-C3'-O3'	5.81	118.22	109.50
57	AA	669	G	N9-C1'-C2'	5.81	120.71	112.00
48	B1	57	GLU	N-CA-C	5.81	120.52	113.38
38	BR	14	SER	N-CA-C	5.80	118.09	111.02
40	AT	57	PHE	N-CA-C	-5.79	98.46	110.80
57	AA	331	A	C4'-C3'-O3'	5.79	118.08	109.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
46	AZ	109	ALA	N-CA-C	-5.79	105.92	112.87
15	Ap	20	VAL	N-CA-C	5.79	115.86	107.88
57	AA	2346	A	N9-C1'-C2'	5.79	122.68	114.00
48	A1	82	LEU	N-CA-C	5.78	117.67	107.61
32	BI	93	THR	N-CA-C	-5.78	100.58	108.38
40	BT	124	ASP	N-CA-C	-5.78	105.33	112.90
57	BA	1159	U	C5'-C4'-C3'	-5.78	107.33	116.00
22	Aa	250	A	C2'-C3'-O3'	5.77	118.16	109.50
57	AA	332	A	C2'-C3'-O3'	5.77	118.15	109.50
57	AA	603	A	C2'-C3'-O3'	5.76	118.14	109.50
57	AA	1159	U	C5'-C4'-C3'	-5.76	107.36	116.00
34	BN	132	ALA	N-CA-C	-5.76	104.41	112.25
46	BZ	86	VAL	N-CA-C	5.75	117.28	108.71
27	BD	210	GLY	N-CA-C	-5.75	99.55	113.18
57	AA	827	U	C2'-C3'-O3'	-5.74	105.09	113.70
37	BQ	67	ARG	N-CA-C	5.73	118.47	111.82
57	BA	748	G	N9-C1'-C2'	5.73	120.60	112.00
18	As	36	ARG	N-CA-C	-5.73	105.99	112.87
33	AJ	65	GLU	N-CA-C	-5.73	107.53	114.75
57	AA	2031	A	N9-C1'-C2'	5.73	120.59	112.00
11	Al	47	LYS	N-CA-C	5.72	122.45	109.81
34	AN	43	THR	CA-C-N	5.72	125.57	119.28
34	AN	43	THR	C-N-CA	5.72	125.57	119.28
36	AP	71	VAL	N-CA-C	5.71	121.22	108.88
39	AS	56	LEU	N-CA-C	-5.71	104.51	113.02
57	BA	387	U	C4'-C3'-O3'	5.71	117.97	109.40
21	Ay	31	VAL	N-CA-C	-5.71	97.46	109.34
41	AU	116	ALA	N-CA-C	-5.71	106.29	113.20
54	A7	6	GLN	CA-C-N	5.71	126.97	119.84
54	A7	6	GLN	C-N-CA	5.71	126.97	119.84
57	BA	964	C	C5'-C4'-C3'	-5.71	107.44	116.00
57	BA	481	G	N9-C1'-C2'	5.70	120.56	112.00
1	Ab	158	LEU	CA-C-N	5.70	126.97	119.84
1	Ab	158	LEU	C-N-CA	5.70	126.97	119.84
22	Ba	920	U	C5'-C4'-C3'	-5.70	107.45	116.00
32	AI	51	ILE	N-CA-C	-5.70	106.26	111.67
31	AH	116	GLU	CA-C-N	5.70	123.76	119.66
31	AH	116	GLU	C-N-CA	5.70	123.76	119.66
28	AE	44	TYR	N-CA-C	5.69	122.92	110.80
57	AA	748	G	N9-C1'-C2'	5.69	120.53	112.00
57	AA	2521	C	C5'-C4'-C3'	-5.69	107.47	116.00
39	BS	54	LEU	N-CA-C	-5.69	106.19	113.01

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
48	B1	4	VAL	N-CA-C	5.68	115.85	108.35
34	AN	76	SER	N-CA-C	-5.68	101.29	110.32
43	BW	58	ALA	N-CA-C	-5.68	104.09	111.02
48	B1	28	GLY	N-CA-C	5.68	119.51	112.64
53	B6	38	LYS	N-CA-C	5.68	118.59	110.24
36	BP	71	VAL	N-CA-C	5.68	121.14	108.88
57	BA	629	G	C5'-C4'-C3'	-5.67	107.49	116.00
30	AG	79	ASN	N-CA-C	-5.67	106.40	113.38
18	Bs	36	ARG	N-CA-C	-5.67	106.06	112.87
53	B6	37	ARG	N-CA-C	5.67	117.14	108.52
29	BF	154	VAL	N-CA-C	5.67	116.05	108.11
37	BQ	10	ARG	N-CA-C	5.67	117.54	111.36
30	BG	31	VAL	CA-C-N	5.66	126.92	119.84
30	BG	31	VAL	C-N-CA	5.66	126.92	119.84
22	Aa	119	A	C2'-C3'-O3'	5.66	117.99	109.50
40	AT	110	ILE	CB-CA-C	-5.66	104.72	111.97
7	Ah	56	LYS	CA-C-N	5.66	125.94	119.83
7	Ah	56	LYS	C-N-CA	5.66	125.94	119.83
40	AT	14	TYR	N-CA-C	-5.66	103.89	111.87
7	Bh	56	LYS	CA-C-N	5.66	125.94	119.83
7	Bh	56	LYS	C-N-CA	5.66	125.94	119.83
32	AI	95	LYS	N-CA-C	-5.65	105.21	111.71
31	BH	155	SER	N-CA-C	5.65	122.84	110.80
2	Ac	194	GLY	N-CA-C	5.65	118.21	110.58
57	AA	629	G	C5'-C4'-C3'	-5.64	107.54	116.00
27	AD	210	GLY	N-CA-C	-5.64	99.81	113.18
31	BH	166	GLY	N-CA-C	-5.64	103.98	112.89
44	AX	46	ALA	N-CA-C	-5.63	107.65	114.75
5	Bf	65	VAL	N-CA-C	5.63	115.40	108.53
11	Bl	47	LYS	N-CA-C	5.63	122.25	109.81
32	BI	50	ARG	NE-CZ-NH1	5.63	127.13	121.50
34	AN	132	ALA	N-CA-C	-5.63	104.60	112.25
11	Al	38	THR	N-CA-C	-5.62	106.09	113.12
27	AD	21	PHE	N-CA-C	5.62	119.67	113.21
28	AE	59	VAL	N-CA-C	5.62	115.70	110.42
9	Bj	54	PHE	N-CA-C	5.62	117.75	108.48
38	BR	58	GLY	N-CA-C	5.62	126.50	113.18
53	A6	38	LYS	N-CA-C	5.61	118.49	110.24
57	AA	2278	A	C5'-C4'-C3'	5.61	124.42	116.00
29	BF	95	ARG	N-CA-C	5.61	117.37	108.79
53	A6	37	ARG	N-CA-C	5.61	117.04	108.52
57	AA	1987	G	C5'-C4'-C3'	-5.61	107.59	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
30	BG	123	ASN	N-CA-C	5.60	119.39	110.70
57	AA	102	G	C4'-C3'-O3'	-5.60	104.60	113.00
18	As	23	ASN	N-CA-C	-5.60	105.95	112.89
37	AQ	133	ARG	N-CA-C	5.59	117.01	108.12
46	AZ	52	SER	CB-CA-C	-5.59	109.62	117.23
34	AN	110	GLY	CA-C-N	5.58	125.11	119.19
34	AN	110	GLY	C-N-CA	5.58	125.11	119.19
32	BI	131	LYS	N-CA-C	5.58	114.73	108.25
29	AF	106	ARG	N-CA-C	-5.58	105.10	111.07
22	Ba	1049	U	C2'-C3'-O3'	5.58	117.87	109.50
57	AA	784	A	N9-C1'-C2'	5.57	120.36	112.00
13	Bn	7	ILE	N-CA-C	-5.57	105.20	113.39
10	Ak	48	ILE	N-CA-C	-5.57	103.98	110.05
32	BI	95	LYS	N-CA-C	-5.57	105.31	111.71
9	Aj	81	THR	N-CA-C	-5.57	105.28	112.68
40	AT	79	HIS	N-CA-C	5.57	117.73	108.99
44	BX	46	ALA	N-CA-C	-5.56	107.74	114.75
31	AH	167	GLU	N-CA-C	5.56	118.61	110.10
38	AR	58	GLY	N-CA-C	5.56	126.36	113.18
57	BA	2031	A	N9-C1'-C2'	5.56	120.34	112.00
22	Aa	328	C	C2'-C3'-O3'	5.56	117.84	109.50
1	Bb	158	LEU	CA-C-N	5.56	126.79	119.84
1	Bb	158	LEU	C-N-CA	5.56	126.79	119.84
5	Af	65	VAL	N-CA-C	5.55	115.30	108.53
27	BD	193	VAL	N-CA-C	5.55	116.57	109.30
57	BA	2521	C	C5'-C4'-C3'	-5.55	107.67	116.00
21	Ay	93	ARG	N-CA-C	-5.55	104.92	110.97
24	Av	76	A	C2'-C3'-O3'	-5.55	101.17	109.50
31	BH	167	GLU	N-CA-C	5.55	118.58	110.10
11	Bl	118	SER	N-CA-C	-5.54	105.24	111.28
18	Bs	23	ASN	N-CA-C	-5.54	106.02	112.89
34	BN	122	VAL	N-CA-C	5.54	115.93	108.17
31	AH	155	SER	N-CA-C	5.54	122.60	110.80
32	AI	60	GLU	N-CA-C	-5.54	107.53	114.56
22	Aa	1049	U	C2'-C3'-O3'	5.54	117.80	109.50
57	AA	2094	G	C5'-C4'-C3'	-5.54	107.70	116.00
30	BG	60	LEU	N-CA-C	-5.54	106.69	113.50
40	BT	14	TYR	N-CA-C	-5.53	104.07	111.87
30	BG	167	GLU	N-CA-C	-5.53	104.28	111.02
55	A8	17	THR	N-CA-C	5.53	118.05	109.60
3	Bd	62	GLN	N-CA-C	-5.52	105.36	111.71
27	AD	224	ALA	N-CA-C	-5.52	99.03	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
41	BU	116	ALA	N-CA-C	-5.52	106.52	113.20
28	BE	144	ARG	CB-CA-C	-5.51	108.49	116.54
32	BI	28	ASN	N-CA-C	5.51	120.11	113.17
22	Ba	328	C	C2'-C3'-O3'	5.51	117.76	109.50
55	B8	17	THR	N-CA-C	5.51	118.03	109.60
50	A3	9	VAL	N-CA-C	5.50	117.49	112.43
27	BD	198	ASN	N-CA-C	-5.50	103.81	111.52
21	Ay	32	GLU	N-CA-C	-5.50	104.80	112.45
22	Aa	920	U	C5'-C4'-C3'	-5.50	107.75	116.00
27	AD	48	ARG	N-CA-C	5.50	117.39	110.24
42	AV	5	VAL	N-CA-C	5.50	116.90	108.71
2	Bc	194	GLY	N-CA-C	5.50	118.00	110.58
22	Ba	119	A	C2'-C3'-O3'	5.50	117.74	109.50
26	BC	3	LYS	N-CA-C	-5.49	106.51	113.43
26	AC	3	LYS	N-CA-C	-5.49	106.51	113.43
22	Aa	1285	A	C2'-C3'-O3'	5.49	117.73	109.50
43	BW	51	LEU	N-CA-C	-5.49	104.16	111.24
57	BA	494	G	C5'-C4'-C3'	-5.48	107.78	116.00
57	AA	1294	U	C5'-C4'-C3'	-5.48	107.78	116.00
57	BA	74	A	C4'-C3'-O3'	5.48	117.62	109.40
13	An	7	ILE	N-CA-C	-5.48	105.00	113.16
45	AY	4	LYS	N-CA-C	-5.48	106.44	113.23
32	AI	59	ALA	N-CA-C	-5.47	106.38	112.57
9	Bj	81	THR	N-CA-C	-5.47	105.40	112.68
22	Ba	250	A	C2'-C3'-O3'	5.47	117.71	109.50
31	BH	15	VAL	N-CA-C	5.46	117.08	109.55
54	B7	6	GLN	CA-C-N	5.46	126.66	119.84
54	B7	6	GLN	C-N-CA	5.46	126.66	119.84
57	BA	1948	G	C5'-C4'-O4'	-5.46	101.61	109.80
57	BA	2346	A	N9-C1'-C2'	5.46	122.18	114.00
57	AA	752	A	C2'-C3'-O3'	5.46	117.68	109.50
28	BE	44	TYR	N-CA-C	5.45	122.41	110.80
39	BS	56	LEU	N-CA-C	-5.45	104.90	113.02
37	AQ	67	ARG	N-CA-C	5.44	118.13	111.82
37	BQ	125	LEU	CA-C-N	5.44	126.64	119.84
37	BQ	125	LEU	C-N-CA	5.44	126.64	119.84
57	BA	1407	C	C5'-C4'-C3'	-5.44	107.85	116.00
31	BH	19	VAL	N-CA-C	5.43	115.94	108.12
40	BT	79	HIS	N-CA-C	5.43	117.52	108.99
17	Ar	70	ILE	N-CA-C	-5.42	104.67	110.36
27	AD	193	VAL	N-CA-C	5.42	116.40	109.30
33	BJ	86	PRO	N-CA-CB	5.42	108.94	103.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
18	As	11	VAL	N-CA-C	5.41	115.37	108.12
57	BA	603	A	C2'-C3'-O3'	5.41	117.62	109.50
46	BZ	152	ALA	N-CA-C	5.40	122.31	110.80
50	B3	9	VAL	N-CA-C	5.40	117.40	112.43
57	BA	1294	U	C5'-C4'-C3'	-5.40	107.90	116.00
31	AH	15	VAL	N-CA-C	5.40	117.00	109.55
28	BE	11	MET	N-CA-C	5.39	117.39	109.24
33	BJ	53	VAL	N-CA-C	5.39	115.40	108.82
51	B4	44	THR	N-CA-C	5.39	122.29	110.80
3	Ad	33	MET	N-CA-C	-5.39	105.52	111.71
29	AF	95	ARG	N-CA-C	5.38	117.03	108.79
31	AH	166	GLY	N-CA-C	-5.38	104.38	112.89
42	BV	5	VAL	N-CA-C	5.38	116.73	108.71
39	AS	106	ARG	N-CA-C	-5.37	106.42	112.87
57	AA	74	A	C4'-C3'-O3'	5.37	117.46	109.40
19	At	13	LEU	N-CA-C	-5.37	105.53	111.71
39	AS	54	LEU	N-CA-C	-5.37	106.56	113.01
3	Bd	162	LEU	N-CA-C	-5.37	106.50	113.16
22	Ba	1285	A	C2'-C3'-O3'	5.37	117.56	109.50
27	BD	62	TYR	N-CA-C	5.37	117.48	108.73
53	A6	11	LEU	N-CA-C	5.36	115.36	108.34
8	Ai	87	GLN	N-CA-C	-5.36	105.10	111.69
57	BA	1190	G	C5'-C4'-C3'	-5.35	107.97	116.00
56	A9	3	VAL	N-CA-C	5.35	116.19	108.48
4	Be	32	VAL	N-CA-C	5.35	116.19	108.48
1	Bb	24	TRP	N-CA-C	5.35	118.14	109.79
30	AG	174	GLU	N-CA-C	-5.35	105.62	111.82
3	Bd	33	MET	N-CA-C	-5.34	105.57	111.71
22	Aa	389	A	C5'-C4'-C3'	5.34	124.00	116.00
51	A4	44	THR	N-CA-C	5.34	122.17	110.80
37	BQ	41	TRP	N-CA-C	-5.34	100.48	109.07
48	A1	29	GLY	N-CA-C	5.33	117.21	110.38
28	BE	82	ARG	CB-CA-C	-5.33	109.44	115.79
31	BH	9	ILE	N-CA-C	5.33	120.40	108.88
27	BD	171	ASP	N-CA-C	-5.32	106.76	113.20
43	BW	60	ASN	N-CA-C	5.32	120.10	111.37
19	Bt	13	LEU	N-CA-C	-5.32	105.59	111.71
48	B1	93	GLU	N-CA-C	5.31	117.82	111.71
1	Ab	24	TRP	N-CA-C	5.31	118.08	109.79
7	Ah	39	LEU	N-CA-C	-5.31	106.06	112.54
36	AP	32	THR	N-CA-C	5.31	119.02	112.54
32	BI	123	LEU	N-CA-C	5.31	117.57	110.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
41	AU	50	ARG	N-CA-C	-5.31	104.39	111.24
41	BU	50	ARG	N-CA-C	-5.31	104.39	111.24
48	B1	63	ALA	N-CA-C	-5.31	102.53	110.23
7	Bh	134	ILE	N-CA-C	5.30	115.52	110.53
47	A0	16	SER	N-CA-C	5.30	117.88	109.50
28	AE	25	VAL	N-CA-C	5.30	115.99	107.98
18	Bs	11	VAL	N-CA-C	5.30	115.22	108.12
47	A0	38	VAL	N-CA-C	5.29	115.34	108.35
22	Ba	389	A	C5'-C4'-C3'	5.29	123.94	116.00
19	Bt	14	LYS	N-CA-C	-5.29	104.76	111.11
57	BA	2094	G	C5'-C4'-C3'	-5.29	108.07	116.00
31	AH	19	VAL	N-CA-C	5.29	115.89	108.17
33	AJ	89	ALA	N-CA-C	-5.28	106.02	113.20
39	AS	88	ASP	N-CA-C	5.28	122.05	110.80
57	AA	784	A	C4'-C3'-O3'	-5.28	105.09	113.00
33	BJ	17	LEU	N-CA-C	-5.27	106.84	113.28
2	Ac	71	ALA	N-CA-C	-5.27	105.13	112.30
57	AA	964	C	C5'-C4'-C3'	-5.27	108.09	116.00
57	BA	34	C	C4'-C3'-O3'	-5.27	105.10	113.00
57	BA	349	G	C5'-C4'-C3'	-5.27	108.10	116.00
57	AA	128	C	C2'-C3'-O3'	5.27	121.60	113.70
32	AI	76	THR	N-CA-C	5.26	122.01	110.80
48	A1	27	GLU	N-CA-C	-5.26	103.70	108.75
48	A1	27	GLU	CB-CA-C	-5.26	108.80	116.53
29	BF	83	PHE	N-CA-C	5.26	120.36	112.94
57	BA	1493	C	N1-C1'-C2'	5.26	121.89	114.00
9	Aj	6	ILE	N-CA-C	5.26	115.29	108.35
29	AF	151	SER	N-CA-C	-5.26	105.22	111.69
28	BE	25	VAL	N-CA-C	5.25	115.91	107.98
22	Ba	722	A	N9-C1'-C2'	5.25	119.88	112.00
27	BD	48	ARG	N-CA-C	5.25	117.06	110.24
22	Ba	438	G	C4'-C3'-O3'	5.25	117.27	109.40
57	BA	1049	C	N1-C1'-C2'	5.24	119.86	112.00
37	AQ	125	LEU	CA-C-N	5.24	126.39	119.84
37	AQ	125	LEU	C-N-CA	5.24	126.39	119.84
28	BE	60	ASN	N-CA-C	5.24	121.96	110.80
32	BI	76	THR	N-CA-C	5.24	121.95	110.80
57	BA	2778	A	C5'-C4'-C3'	-5.23	107.35	115.20
47	B0	38	VAL	N-CA-C	5.23	115.25	108.35
37	AQ	72	LYS	CA-C-N	5.23	125.39	119.90
37	AQ	72	LYS	C-N-CA	5.23	125.39	119.90
56	B9	3	VAL	N-CA-C	5.23	116.01	108.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	Ad	62	GLN	N-CA-C	-5.22	105.70	111.71
57	AA	1190	G	C5'-C4'-C3'	-5.22	108.17	116.00
21	By	94	ILE	N-CA-C	5.22	120.19	109.34
29	BF	151	SER	N-CA-C	-5.21	105.28	111.69
46	AZ	61	LEU	CA-C-N	5.21	126.36	119.84
46	AZ	61	LEU	C-N-CA	5.21	126.36	119.84
3	Bd	198	VAL	N-CA-C	5.21	115.48	107.77
46	AZ	67	LEU	N-CA-C	5.21	116.64	110.07
22	Aa	438	G	C4'-C3'-O3'	5.21	117.21	109.40
34	AN	109	LYS	N-CA-C	5.21	118.89	112.54
46	AZ	124	ILE	N-CA-C	5.21	117.35	108.86
57	BA	128	C	C2'-C3'-O3'	5.21	121.51	113.70
32	AI	93	THR	N-CA-C	-5.20	101.00	108.60
39	BS	88	ASP	N-CA-C	5.20	121.88	110.80
28	AE	82	ARG	CB-CA-C	-5.20	109.60	115.79
32	AI	65	ALA	N-CA-C	-5.20	107.01	113.19
57	AA	2689	U	C2'-C3'-O3'	5.19	117.29	109.50
49	B2	16	LEU	N-CA-C	5.19	121.15	114.56
27	AD	136	ILE	CA-C-N	5.19	125.48	119.93
27	AD	136	ILE	C-N-CA	5.19	125.48	119.93
30	AG	162	THR	N-CA-C	-5.19	106.79	113.01
57	AA	494	G	C5'-C4'-C3'	-5.18	108.22	116.00
57	BA	2580	U	C4'-C3'-O3'	-5.18	105.22	113.00
32	AI	135	GLU	N-CA-C	5.18	121.84	110.80
57	AA	2200	C	C5'-C4'-C3'	-5.18	108.23	116.00
47	A0	8	GLY	N-CA-C	5.18	119.01	112.79
46	AZ	69	THR	N-CA-C	5.18	117.26	109.23
57	BA	587	C	C4'-C3'-O3'	5.18	117.17	109.40
46	AZ	96	VAL	N-CA-C	5.18	116.11	108.45
57	AA	1407	C	C5'-C4'-C3'	-5.18	108.23	116.00
30	AG	167	GLU	N-CA-C	-5.17	105.55	111.14
46	AZ	179	ASP	N-CA-C	5.17	116.83	108.34
57	BA	1820	U	C4'-C3'-C2'	5.17	107.77	102.60
57	AA	481	G	N9-C1'-C2'	5.17	119.76	112.00
32	BI	135	GLU	N-CA-C	5.17	121.81	110.80
8	Ai	3	GLN	N-CA-C	5.17	117.10	108.99
57	BA	331	A	C4'-C3'-O3'	5.17	117.15	109.40
21	Ay	63	VAL	N-CA-C	5.17	116.11	107.18
28	AE	60	ASN	N-CA-C	5.17	121.80	110.80
57	AA	1820	U	C4'-C3'-C2'	5.16	107.76	102.60
7	Bh	103	VAL	N-CA-C	5.16	116.33	109.37
29	AF	12	LEU	N-CA-C	-5.16	106.67	113.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	AD	171	ASP	N-CA-C	-5.16	106.96	113.20
29	BF	12	LEU	N-CA-C	-5.15	106.68	113.12
46	BZ	56	VAL	N-CA-C	5.15	116.39	108.71
45	AY	47	LYS	N-CA-C	5.15	119.53	112.68
30	BG	34	LEU	N-CA-C	-5.15	102.24	109.96
16	Aq	29	HIS	CA-C-N	5.15	126.27	119.84
16	Aq	29	HIS	C-N-CA	5.15	126.27	119.84
43	AW	60	ASN	N-CA-C	5.15	119.81	111.37
22	Aa	115	G	C4'-C3'-C2'	5.14	107.74	102.60
31	AH	9	ILE	N-CA-C	5.14	119.99	108.88
32	BI	51	ILE	N-CA-C	-5.14	106.67	111.45
22	Aa	1281	U	C2'-C3'-O3'	5.14	121.41	113.70
30	BG	160	VAL	N-CA-C	5.14	115.36	108.17
14	Bo	79	ARG	N-CA-C	-5.14	105.12	111.33
28	AE	11	MET	N-CA-C	5.13	116.99	109.24
43	AW	58	ALA	N-CA-C	-5.13	104.76	111.02
27	AD	13	ARG	N-CA-C	-5.13	106.87	112.72
30	AG	144	ILE	N-CA-C	5.13	115.66	108.89
57	BA	652	C	C4'-C3'-O3'	5.13	117.09	109.40
57	BA	2464	C	C4'-C3'-O3'	5.13	117.09	109.40
21	Ay	52	LYS	N-CA-C	5.13	115.82	108.74
9	Bj	6	ILE	N-CA-C	5.13	115.12	108.35
30	BG	59	GLU	N-CA-C	-5.13	106.98	113.18
57	BA	2200	C	C5'-C4'-C3'	-5.12	108.32	116.00
3	Ad	162	LEU	N-CA-C	-5.12	106.81	113.16
22	Aa	1225	A	N9-C1'-C2'	5.12	119.68	112.00
53	B6	32	ASN	N-CA-C	5.12	116.38	107.93
2	Ac	135	LYS	N-CA-C	-5.12	107.00	113.20
46	AZ	113	ALA	N-CA-C	-5.12	106.35	112.59
57	BA	2579	C	C3'-C2'-O2'	5.12	118.37	110.70
24	Bv	76	A	C2'-C3'-O3'	-5.11	101.83	109.50
27	BD	13	ARG	N-CA-C	-5.11	106.89	112.72
2	Bc	71	ALA	N-CA-C	-5.11	105.35	112.30
29	BF	65	TRP	CA-C-N	5.11	126.22	119.84
29	BF	65	TRP	C-N-CA	5.11	126.22	119.84
26	AC	7	ARG	N-CA-C	-5.11	105.70	112.34
8	Bi	63	ILE	N-CA-C	5.10	117.18	108.86
57	BA	1499	C	C5'-C4'-C3'	-5.10	108.35	116.00
40	AT	29	ARG	CA-C-N	5.10	131.15	121.97
40	AT	29	ARG	C-N-CA	5.10	131.15	121.97
57	AA	1049	C	N1-C1'-C2'	5.10	119.64	112.00
57	BA	1347	G	C5'-C4'-C3'	-5.09	108.36	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
48	B1	90	ILE	CB-CA-C	-5.09	105.31	111.87
28	BE	59	VAL	N-CA-C	5.08	115.19	110.42
57	AA	414	C	C5'-C4'-C3'	-5.08	108.38	116.00
22	Aa	722	A	N9-C1'-C2'	5.08	119.61	112.00
57	BA	1598	C	C5'-C4'-C3'	-5.08	108.39	116.00
57	BA	1549	C	C5'-C4'-C3'	-5.07	108.39	116.00
17	Br	70	ILE	N-CA-C	-5.07	105.03	110.36
1	Ab	34	ALA	N-CA-C	5.07	114.93	108.24
57	AA	2778	A	C5'-C4'-C3'	-5.07	107.60	115.20
8	Bi	87	GLN	N-CA-C	-5.07	105.46	111.69
22	Ba	115	G	C4'-C3'-C2'	5.07	107.67	102.60
4	Ae	32	VAL	N-CA-C	5.06	115.77	108.48
36	BP	77	ARG	CA-C-N	5.06	125.85	119.98
36	BP	77	ARG	C-N-CA	5.06	125.85	119.98
57	AA	652	C	C4'-C3'-O3'	5.06	116.99	109.40
57	BA	2689	U	C2'-C3'-O3'	5.05	117.07	109.50
14	Ao	79	ARG	N-CA-C	-5.04	105.23	111.33
57	BA	481	G	C4'-C3'-O3'	-5.04	105.44	113.00
39	AS	55	ALA	N-CA-C	-5.04	107.19	113.19
7	Ah	134	ILE	N-CA-C	5.04	115.26	110.53
1	Bb	23	ARG	N-CA-C	-5.03	105.46	112.30
22	Ba	1281	U	C2'-C3'-O3'	5.03	121.25	113.70
12	Bm	11	ARG	N-CA-C	5.03	114.79	108.45
35	BO	47	ILE	CA-C-N	5.03	126.13	119.84
35	BO	47	ILE	C-N-CA	5.03	126.13	119.84
53	A6	32	ASN	N-CA-C	5.03	116.23	107.93
9	Aj	76	ASN	CA-C-N	5.03	126.12	119.84
9	Aj	76	ASN	C-N-CA	5.03	126.12	119.84
27	BD	269	PHE	N-CA-C	-5.03	106.72	114.16
57	BA	752	A	C2'-C3'-O3'	5.02	117.03	109.50
41	AU	19	LYS	N-CA-C	-5.02	105.70	111.07
57	BA	414	C	C5'-C4'-C3'	-5.02	108.47	116.00
7	Bh	39	LEU	N-CA-C	-5.01	106.42	112.54
45	BY	47	LYS	N-CA-C	5.01	119.35	112.68
57	BA	1223	G	C5'-C4'-C3'	-5.01	108.48	116.00
17	Ar	56	THR	N-CA-C	-5.01	107.33	113.50
57	AA	49	A	C4'-C3'-C2'	5.01	107.61	102.60
7	Ah	103	VAL	N-CA-C	5.01	116.13	109.37
57	BA	1155	A	C5'-C4'-O4'	-5.01	102.29	109.80
8	Ai	61	ALA	N-CA-C	5.01	117.30	110.24
3	Bd	171	GLY	CA-C-N	5.01	126.10	119.84
3	Bd	171	GLY	C-N-CA	5.01	126.10	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
30	BG	152	LEU	N-CA-C	5.00	117.06	108.90
57	AA	1155	A	C5'-C4'-O4'	-5.00	102.30	109.80
30	BG	44	GLY	N-CA-C	-5.00	105.41	114.46
37	BQ	14	ARG	N-CA-C	5.00	116.81	111.36

All (5) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
57	AA	1799	G	C3'
57	AA	1819	A	C3'
22	Ba	1498	U	C3'
57	BA	1799	G	C3'
57	BA	1819	A	C3'

All (149) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
52	A5	51	TYR	Sidechain
57	AA	102	G	Sidechain
57	AA	1040	C	Sidechain
57	AA	1112	G	Sidechain
57	AA	1215	G	Sidechain
57	AA	1379	A	Sidechain
57	AA	1416	G	Sidechain
57	AA	15	G	Sidechain
57	AA	1623	G	Sidechain
57	AA	1627	G	Sidechain
57	AA	1633	G	Sidechain
57	AA	1772	G	Sidechain
57	AA	1802	A	Sidechain
57	AA	1807	G	Sidechain
57	AA	1940	U	Sidechain
57	AA	1952	A	Sidechain
57	AA	1955	U	Sidechain
57	AA	2020	A	Sidechain
57	AA	2031	A	Sidechain
57	AA	2059	A	Sidechain
57	AA	2086	U	Sidechain
57	AA	2198	A	Sidechain
57	AA	2282	G	Sidechain
57	AA	2360	A	Sidechain
57	AA	2390	U	Sidechain

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Mol	Chain	Res	Type	Group
57	AA	2406	U	Sidechain
57	AA	2414	G	Sidechain
57	AA	2464	C	Sidechain
57	AA	249	C	Sidechain
57	AA	2494	G	Sidechain
57	AA	2508	G	Sidechain
57	AA	2523	G	Sidechain
57	AA	2542	A	Sidechain
57	AA	2595	G	Sidechain
57	AA	2665	A	Sidechain
57	AA	27	G	Sidechain
57	AA	271(K)	U	Sidechain
57	AA	271(Q)	G	Sidechain
57	AA	272(B)	G	Sidechain
57	AA	329	G	Sidechain
57	AA	383	U	Sidechain
57	AA	463	G	Sidechain
57	AA	465	G	Sidechain
57	AA	47	C	Sidechain
57	AA	472	A	Sidechain
57	AA	52	A	Sidechain
57	AA	652	C	Sidechain
57	AA	670	A	Sidechain
57	AA	675	A	Sidechain
57	AA	70	G	Sidechain
57	AA	700	G	Sidechain
58	AB	66	A	Sidechain
38	AR	87	TYR	Sidechain
22	Aa	1077	G	Sidechain
22	Aa	1487	G	Sidechain
22	Aa	265	G	Sidechain
22	Aa	436	C	Sidechain
22	Aa	484	G	Sidechain
22	Aa	575	G	Sidechain
22	Aa	587	G	Sidechain
22	Aa	832	C	Sidechain
22	Aa	884	U	Sidechain
22	Aa	898	G	Sidechain
22	Aa	97	G	Sidechain
24	Av	4	G	Sidechain
21	Ay	83	ARG	Sidechain
52	B5	51	TYR	Sidechain

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Mol	Chain	Res	Type	Group
57	BA	1040	C	Sidechain
57	BA	1112	G	Sidechain
57	BA	1191	G	Sidechain
57	BA	1215	G	Sidechain
57	BA	1288	U	Sidechain
57	BA	1379	A	Sidechain
57	BA	1416	G	Sidechain
57	BA	1427	A	Sidechain
57	BA	15	G	Sidechain
57	BA	1627	G	Sidechain
57	BA	1633	G	Sidechain
57	BA	1673	U	Sidechain
57	BA	1772	G	Sidechain
57	BA	1801	G	Sidechain
57	BA	1802	A	Sidechain
57	BA	1805	U	Sidechain
57	BA	1807	G	Sidechain
57	BA	1890	A	Sidechain
57	BA	1940	U	Sidechain
57	BA	1952	A	Sidechain
57	BA	1955	U	Sidechain
57	BA	2020	A	Sidechain
57	BA	2031	A	Sidechain
57	BA	2059	A	Sidechain
57	BA	2198	A	Sidechain
57	BA	2267	A	Sidechain
57	BA	2282	G	Sidechain
57	BA	2360	A	Sidechain
57	BA	2387	U	Sidechain
57	BA	2390	U	Sidechain
57	BA	2406	U	Sidechain
57	BA	2414	G	Sidechain
57	BA	2464	C	Sidechain
57	BA	2475	C	Sidechain
57	BA	249	C	Sidechain
57	BA	2495	G	Sidechain
57	BA	2508	G	Sidechain
57	BA	2523	G	Sidechain
57	BA	2542	A	Sidechain
57	BA	2581	G	Sidechain
57	BA	2595	G	Sidechain
57	BA	2665	A	Sidechain

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Mol	Chain	Res	Type	Group
57	BA	2692	C	Sidechain
57	BA	27	G	Sidechain
57	BA	271	A	Sidechain
57	BA	271(K)	U	Sidechain
57	BA	271(Q)	G	Sidechain
57	BA	272	G	Sidechain
57	BA	272(B)	G	Sidechain
57	BA	2739	U	Sidechain
57	BA	2746	U	Sidechain
57	BA	2885	C	Sidechain
57	BA	329	G	Sidechain
57	BA	383	U	Sidechain
57	BA	463	G	Sidechain
57	BA	465	G	Sidechain
57	BA	47	C	Sidechain
57	BA	472	A	Sidechain
57	BA	511	U	Sidechain
57	BA	52	A	Sidechain
57	BA	607	U	Sidechain
57	BA	652	C	Sidechain
57	BA	670	A	Sidechain
57	BA	70	G	Sidechain
57	BA	700	G	Sidechain
57	BA	746	A	Sidechain
57	BA	792	G	Sidechain
57	BA	995	C	Sidechain
58	BB	66	A	Sidechain
38	BR	87	TYR	Sidechain
22	Ba	1077	G	Sidechain
22	Ba	1485	U	Sidechain
22	Ba	1512	U	Sidechain
22	Ba	436	C	Sidechain
22	Ba	575	G	Sidechain
22	Ba	587	G	Sidechain
22	Ba	760	G	Sidechain
22	Ba	832	C	Sidechain
22	Ba	884	U	Sidechain
22	Ba	9	G	Sidechain
22	Ba	97	G	Sidechain
24	Bv	4	G	Sidechain

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	Ab	1900	0	1951	222	0
1	Bb	1900	0	1951	218	0
2	Ac	1612	0	1677	174	0
2	Bc	1612	0	1677	177	0
3	Ad	1703	0	1763	192	0
3	Bd	1703	0	1764	180	0
4	Ae	1146	0	1207	122	0
4	Be	1146	0	1207	128	0
5	Af	843	0	857	82	0
5	Bf	843	0	857	80	0
6	Ag	1257	0	1296	113	0
6	Bg	1257	0	1296	113	0
7	Ah	1116	0	1177	118	0
7	Bh	1116	0	1177	119	0
8	Ai	1010	0	1037	159	0
8	Bi	1010	0	1037	153	0
9	Aj	794	0	840	159	0
9	Bj	794	0	840	158	0
10	Ak	885	0	904	80	0
10	Bk	885	0	904	81	0
11	Al	970	0	1057	112	0
11	Bl	970	0	1057	111	0
12	Am	937	0	995	203	0
12	Bm	937	0	995	184	0
13	An	492	0	529	79	0
13	Bn	492	0	529	77	0
14	Ao	734	0	771	61	0
14	Bo	734	0	771	59	0
15	Ap	700	0	720	57	0
15	Bp	700	0	720	60	0
16	Aq	823	0	891	58	0
16	Bq	823	0	891	60	0
17	Ar	574	0	644	71	0
17	Br	574	0	644	69	0
18	As	629	0	652	97	0
18	Bs	629	0	652	97	0
19	At	763	0	861	80	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
19	Bt	763	0	861	82	0
20	Au	208	0	221	11	0
20	Bu	208	0	221	9	0
21	Ay	770	0	811	168	0
21	By	766	0	804	106	0
22	Aa	32329	0	16317	1054	0
22	Ba	32329	0	16318	1048	0
23	Ax	262	0	138	44	0
23	Bx	262	0	138	22	0
24	Av	1641	0	839	35	0
24	Bv	1641	0	839	40	0
25	Aw	1640	0	837	53	0
25	Bw	1640	0	837	49	0
26	AC	937	0	957	101	0
26	BC	937	0	957	107	0
27	AD	2104	0	2182	283	0
27	BD	2104	0	2182	292	0
28	AE	1563	0	1629	221	0
28	BE	1563	0	1629	220	0
29	AF	1623	0	1677	174	0
29	BF	1623	0	1677	174	0
30	AG	1474	0	1535	294	0
30	BG	1474	0	1535	264	0
31	AH	1259	0	1326	139	0
31	BH	1259	0	1326	151	0
32	AI	1131	0	1218	217	0
32	BI	1131	0	1218	218	0
33	AJ	641	0	309	20	0
33	BJ	641	0	309	39	0
34	AN	1104	0	1180	142	0
34	BN	1104	0	1180	149	0
35	AO	933	0	996	92	0
35	BO	933	0	996	98	0
36	AP	1114	0	1187	277	0
36	BP	1114	0	1187	283	0
37	AQ	1112	0	1171	114	0
37	BQ	1112	0	1171	108	0
38	AR	960	0	1021	128	0
38	BR	960	0	1021	118	0
39	AS	770	0	832	132	0
39	BS	770	0	832	122	0
40	AT	1123	0	1181	211	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
40	BT	1123	0	1181	224	0
41	AU	958	0	1015	142	0
41	BU	958	0	1015	143	0
42	AV	779	0	852	156	0
42	BV	779	0	852	159	0
43	AW	896	0	953	84	0
43	BW	896	0	953	86	0
44	AX	725	0	778	66	0
44	BX	725	0	778	65	0
45	AY	775	0	870	159	0
45	BY	775	0	870	157	0
46	AZ	1467	0	1492	195	0
46	BZ	1467	0	1492	193	0
47	A0	662	0	688	71	0
47	B0	662	0	688	82	0
48	A1	731	0	808	69	0
48	B1	731	0	808	78	0
49	A2	598	0	653	82	0
49	B2	598	0	653	59	0
50	A3	467	0	523	36	0
50	B3	467	0	523	37	0
51	A4	450	0	449	115	0
51	B4	450	0	449	81	0
52	A5	427	0	445	72	0
52	B5	427	0	445	73	0
53	A6	433	0	461	102	0
53	B6	433	0	461	104	0
54	A7	409	0	454	32	0
54	B7	409	0	454	32	0
55	A8	507	0	576	119	0
55	B8	507	0	576	113	0
56	A9	307	0	336	25	0
56	B9	307	0	335	22	0
57	AA	61341	0	30926	1758	0
57	BA	61341	0	30928	1744	0
58	AB	2551	0	1295	102	0
58	BB	2551	0	1295	84	0
59	A4	1	0	0	0	0
59	A9	1	0	0	0	0
59	Ad	1	0	0	0	0
59	An	1	0	0	0	0
59	B4	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	B9	1	0	0	0	0
59	Bd	1	0	0	0	0
59	Bn	1	0	0	0	0
60	A1	1	0	0	0	0
60	A5	1	0	0	0	0
60	A7	2	0	0	0	0
60	AA	368	0	0	0	0
60	AB	3	0	0	0	0
60	AD	2	0	0	0	0
60	AF	1	0	0	0	0
60	AQ	1	0	0	0	0
60	AX	1	0	0	0	0
60	Aa	145	0	0	0	0
60	Am	1	0	0	0	0
60	Aq	1	0	0	0	0
60	Av	4	0	0	0	0
60	Aw	1	0	0	0	0
60	B0	2	0	0	0	0
60	B5	1	0	0	0	0
60	B7	2	0	0	0	0
60	BA	366	0	0	0	0
60	BB	3	0	0	0	0
60	BD	2	0	0	0	0
60	BF	1	0	0	0	0
60	BQ	1	0	0	0	0
60	BX	1	0	0	0	0
60	Ba	143	0	0	0	0
60	Bm	2	0	0	0	0
60	Bq	1	0	0	0	0
60	Bv	5	0	0	0	0
60	Bw	1	0	0	0	0
60	Bx	1	0	0	0	0
All	All	297206	0	201930	17107	0

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

All (17107) 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)
12:Am:69:GLU:HB2	12:Am:72:ALA:CB	1.35	1.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Am:65:LYS:CB	12:Am:66:LEU:HB2	1.40	1.51
12:Bm:65:LYS:CB	12:Bm:66:LEU:HB2	1.42	1.49
30:AG:110:ALA:C	30:AG:112:PRO:HD2	1.47	1.39
21:Ay:43:LYS:NZ	22:Aa:1493:A:H1'	1.33	1.38
12:Bm:65:LYS:HA	12:Bm:66:LEU:CG	1.58	1.31
21:Ay:47:MET:HB3	21:Ay:48:PRO:CD	1.60	1.30
12:Am:69:GLU:HA	12:Am:71:ARG:N	1.49	1.26
12:Am:69:GLU:CA	12:Am:72:ALA:H	1.48	1.26
21:Ay:56:ARG:NE	23:Ax:21:OMG:HM21	1.53	1.21
12:Am:65:LYS:HA	12:Am:66:LEU:CG	1.70	1.21
12:Bm:70:LEU:HD23	12:Bm:70:LEU:C	1.63	1.21
57:BA:612:C:H2'	57:BA:613:G:H5"	1.20	1.19
57:BA:2801(A):A:H4'	57:BA:2802:G:H5'	1.19	1.18
30:BG:114:ILE:O	30:BG:116:ASP:N	1.77	1.18
22:Ba:1442(A):G:H3'	22:Ba:1442(B):A:C5'	1.72	1.17
27:BD:44:ASN:HB3	27:BD:49:ILE:HA	1.26	1.17
12:Am:65:LYS:HB2	12:Am:66:LEU:CB	1.74	1.17
27:AD:259:THR:HG22	57:AA:1798:U:H5'	1.18	1.17
12:Bm:65:LYS:HB2	12:Bm:66:LEU:CB	1.76	1.16
12:Am:69:GLU:CB	12:Am:72:ALA:H	1.58	1.16
51:B4:33:VAL:HG12	51:B4:34:GLU:H	1.10	1.16
36:AP:59:LEU:HA	36:AP:61:ARG:NH1	1.61	1.16
57:BA:1884:A:H2'	57:BA:1885:A:H5"	1.16	1.15
8:Ai:104:ARG:O	8:Ai:105:ASP:HB2	1.45	1.15
12:Am:69:GLU:N	12:Am:70:LEU:HB3	1.61	1.15
55:A8:62:LEU:HD13	57:AA:242:G:H5"	1.17	1.15
22:Aa:1193:G:H2'	22:Aa:1194:U:H5'	1.26	1.15
3:Bd:49:ARG:HA	3:Bd:49:ARG:HE	1.12	1.15
12:Am:67:GLU:C	12:Am:70:LEU:CD1	2.19	1.14
57:AA:1899:G:N2	57:AA:1902:C:H41	1.45	1.14
12:Am:66:LEU:H	12:Am:70:LEU:HD21	1.09	1.14
58:AB:20:C:H2'	58:AB:21:G:H5"	1.24	1.14
36:AP:7:ARG:HA	36:AP:7:ARG:HH11	1.10	1.13
57:BA:1845:G:H2'	57:BA:1846:G:H5"	1.18	1.13
55:B8:62:LEU:HD13	57:BA:242:G:H5"	1.17	1.13
12:Bm:65:LYS:HA	12:Bm:66:LEU:HG	1.24	1.13
27:BD:34:VAL:HG23	27:BD:35:LYS:H	1.13	1.13
12:Am:65:LYS:CA	12:Am:66:LEU:HB2	1.77	1.13
57:AA:1884:A:H2'	57:AA:1885:A:H5"	1.17	1.13
21:Ay:14:GLU:OE2	21:Ay:14:GLU:HA	1.43	1.13
22:Aa:1193:G:C2'	22:Aa:1194:U:H5'	1.78	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:AG:67:LYS:H	30:AG:67:LYS:HE3	1.11	1.12
31:BH:158:HIS:NE2	31:BH:170:ARG:HA	1.64	1.12
40:AT:89:VAL:HB	40:AT:91:ARG:HG3	1.31	1.12
57:AA:2801(A):A:H4'	57:AA:2802:G:H5'	1.20	1.12
36:BP:59:LEU:HA	36:BP:61:ARG:NH1	1.64	1.12
24:Av:72:A:H2'	24:Av:73:A:H5"	1.29	1.12
12:Am:69:GLU:HB2	12:Am:72:ALA:HB3	1.16	1.11
27:AD:44:ASN:HB3	27:AD:49:ILE:HA	1.27	1.11
46:BZ:151:HIS:HB3	46:BZ:170:THR:HA	1.26	1.11
12:Bm:23:TYR:HE1	12:Bm:71:ARG:HB2	1.13	1.11
27:BD:259:THR:HG22	57:BA:1798:U:H5'	1.20	1.11
12:Am:66:LEU:H	12:Am:70:LEU:CD2	1.61	1.11
31:AH:158:HIS:NE2	31:AH:170:ARG:HA	1.65	1.11
36:AP:64:LYS:HB3	55:A8:25:MET:HG3	1.24	1.11
42:AV:62:LEU:HD21	42:AV:95:LEU:HB2	1.33	1.11
42:AV:72:VAL:HG23	42:AV:85:LYS:HB3	1.32	1.11
52:A5:4:HIS:HB3	52:A5:5:PRO:HD3	1.32	1.10
53:B6:45:LYS:HG2	57:BA:2371:G:H4'	1.32	1.10
23:Bx:13:A:H3'	23:Bx:14:A:H5"	1.21	1.10
57:BA:1494:A:H2'	57:BA:1495:A:H5"	1.12	1.10
58:BB:20:C:H2'	58:BB:21:G:H5"	1.24	1.10
12:Am:67:GLU:C	12:Am:70:LEU:HD12	1.76	1.10
12:Am:69:GLU:CB	12:Am:72:ALA:CB	2.30	1.10
21:Ay:56:ARG:NE	23:Ax:21:OMG:CM2	2.14	1.10
57:AA:1494:A:H2'	57:AA:1495:A:H5"	1.13	1.10
12:Bm:65:LYS:CB	12:Bm:66:LEU:CB	2.30	1.10
36:BP:23:PRO:HD2	36:BP:33:ARG:CZ	1.82	1.10
57:BA:1484:G:H2'	57:BA:1485:G:H5"	1.33	1.10
57:BA:1899:G:N2	57:BA:1902:C:H41	1.47	1.10
1:Ab:233:SER:HB2	1:Ab:234:PRO:HD2	1.34	1.10
12:Am:69:GLU:HB2	12:Am:72:ALA:HB2	1.31	1.09
32:AI:91:SER:HB3	32:AI:121:LYS:HD3	1.34	1.09
36:BP:64:LYS:HB3	55:B8:25:MET:HG3	1.24	1.09
23:Ax:23:A:H2'	23:Ax:24:A:H5'	1.16	1.09
57:AA:612:C:H2'	57:AA:613:G:H5"	1.22	1.09
57:AA:1845:G:H2'	57:AA:1846:G:H5"	1.16	1.09
16:Bq:7:THR:HG22	16:Bq:58:GLU:HG2	1.32	1.09
32:BI:91:SER:HB3	32:BI:121:LYS:HD3	1.34	1.09
42:BV:72:VAL:HG23	42:BV:85:LYS:HB3	1.29	1.09
45:BY:76:CYS:SG	45:BY:77:PRO:HD2	1.92	1.09
45:BY:76:CYS:HB3	45:BY:96:ILE:HD11	1.31	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BA:612:C:C2'	57:BA:613:G:H5"	1.83	1.09
57:AA:2491:U:H5'	57:AA:2570:G:H5"	1.35	1.08
30:BG:67:LYS:H	30:BG:67:LYS:HE3	0.95	1.08
21:Ay:30:LEU:HA	21:Ay:33:VAL:HG22	1.31	1.08
22:Ba:979:C:H3'	22:Ba:980:C:H5"	1.33	1.08
52:B5:4:HIS:HB3	52:B5:5:PRO:HD3	1.33	1.08
36:AP:23:PRO:HD2	36:AP:33:ARG:CZ	1.82	1.08
21:Ay:47:MET:HB3	21:Ay:48:PRO:HD2	1.27	1.07
22:Aa:979:C:H3'	22:Aa:980:C:H5"	1.34	1.07
7:Bh:12:ARG:HH12	7:Bh:27:PRO:HD3	1.15	1.07
51:A4:33:VAL:HG12	51:A4:34:GLU:H	1.11	1.07
1:Ab:185:ILE:HG22	1:Ab:199:TYR:HB2	1.30	1.07
12:Am:15:VAL:HG12	12:Am:45:VAL:HG22	1.37	1.07
12:Am:65:LYS:CB	12:Am:66:LEU:CB	2.30	1.07
10:Bk:34:ASP:HB3	10:Bk:40:ILE:HD11	1.30	1.07
21:Ay:5:LEU:HG	21:Ay:7:PHE:HE1	1.09	1.07
30:AG:66:GLN:HG3	30:AG:67:LYS:HZ1	1.16	1.07
45:AY:76:CYS:HB3	45:AY:96:ILE:HD11	1.37	1.07
57:AA:612:C:C2'	57:AA:613:G:H5"	1.85	1.07
23:Ax:23:A:H2'	23:Ax:24:A:C5'	1.85	1.06
53:A6:45:LYS:HG2	57:AA:2371:G:H4'	1.33	1.06
1:Bb:185:ILE:HG22	1:Bb:199:TYR:HB2	1.32	1.06
42:BV:62:LEU:HD21	42:BV:95:LEU:HB2	1.35	1.06
57:AA:1590:U:H2'	57:AA:1591:G:H5"	1.36	1.06
10:Ak:34:ASP:HB3	10:Ak:40:ILE:HD11	1.32	1.06
36:BP:23:PRO:HD2	36:BP:33:ARG:NH2	1.70	1.06
41:BU:91:ASP:OD1	41:BU:96:ALA:HB2	1.55	1.06
58:AB:80:U:H2'	58:AB:81:G:H21	1.20	1.06
12:Am:68:GLY:O	12:Am:71:ARG:HB3	1.56	1.05
45:AY:76:CYS:SG	45:AY:77:PRO:HD2	1.96	1.05
7:Ah:12:ARG:HH12	7:Ah:27:PRO:HD3	1.14	1.05
8:Ai:47:LEU:C	8:Ai:49:PRO:HD2	1.80	1.05
21:Ay:43:LYS:NZ	22:Aa:1493:A:C1'	2.19	1.05
27:AD:34:VAL:HG23	27:AD:35:LYS:H	1.13	1.05
53:A6:27:LYS:HD2	53:A6:30:THR:HB	1.36	1.05
40:BT:89:VAL:HB	40:BT:91:ARG:HG3	1.33	1.05
8:Bi:104:ARG:O	8:Bi:105:ASP:HB2	1.49	1.05
30:BG:39:ILE:HD11	30:BG:60:LEU:HD11	1.39	1.05
30:BG:110:ALA:C	30:BG:112:PRO:HD2	1.80	1.05
57:BA:1590:U:H2'	57:BA:1591:G:H5"	1.35	1.05
12:Am:65:LYS:CA	12:Am:66:LEU:CB	2.30	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AF:24:LEU:HB3	29:AF:25:PRO:HD2	1.36	1.05
36:BP:23:PRO:HB2	36:BP:33:ARG:HD2	1.34	1.05
16:Aq:7:THR:HG22	16:Aq:58:GLU:HG2	1.33	1.04
57:AA:1484:G:H2'	57:AA:1485:G:H5"	1.31	1.04
36:BP:7:ARG:HA	36:BP:7:ARG:HH11	1.11	1.04
41:BU:83:LEU:HG	41:BU:88:ILE:HD11	1.38	1.04
30:AG:36:LYS:HE2	30:AG:95:ARG:HH12	1.17	1.04
12:Bm:65:LYS:CA	12:Bm:66:LEU:HB2	1.83	1.04
12:Am:3:ARG:HG2	12:Am:9:ILE:HG12	1.37	1.04
36:AP:23:PRO:HB2	36:AP:33:ARG:HD2	1.39	1.04
12:Bm:65:LYS:CA	12:Bm:66:LEU:CB	2.30	1.04
57:AA:1747(A):G:H2'	57:AA:1748:G:H5"	1.37	1.04
12:Bm:65:LYS:HA	12:Bm:66:LEU:CB	1.86	1.04
46:BZ:68:PRO:HB2	46:BZ:91:LEU:HB2	1.34	1.04
12:Am:69:GLU:HA	12:Am:72:ALA:H	1.20	1.04
36:AP:55:ARG:HG2	36:AP:56:SER:H	1.15	1.04
57:AA:1887:C:H2'	57:AA:1888:G:H5"	1.38	1.04
29:BF:24:LEU:HB3	29:BF:25:PRO:HD2	1.35	1.04
12:Bm:65:LYS:HB2	12:Bm:66:LEU:HB2	1.05	1.03
57:BA:1747(A):G:H2'	57:BA:1748:G:H5"	1.36	1.03
41:AU:91:ASP:OD1	41:AU:96:ALA:HB2	1.57	1.03
47:A0:11:ARG:HB2	47:A0:11:ARG:HH11	1.23	1.03
30:BG:98:ARG:HG3	51:B4:1:MET:SD	1.99	1.03
47:B0:11:ARG:HB2	47:B0:11:ARG:HH11	1.22	1.03
22:Aa:1442(A):G:H3'	22:Aa:1442(B):A:H5"	1.37	1.03
9:Bj:32:ALA:HB2	9:Bj:76:ASN:HB3	1.38	1.03
12:Bm:3:ARG:HG2	12:Bm:9:ILE:HG12	1.37	1.03
57:BA:1887:C:H2'	57:BA:1888:G:H5"	1.36	1.03
36:AP:23:PRO:HD2	36:AP:33:ARG:NH2	1.74	1.03
3:Ad:49:ARG:HA	3:Ad:49:ARG:HE	1.13	1.03
27:AD:242:ARG:HH21	57:AA:1826:G:H4'	1.23	1.03
1:Ab:80:ILE:H	1:Ab:80:ILE:HD12	1.21	1.02
27:AD:32:SER:O	27:AD:36:PRO:HG3	1.58	1.02
1:Bb:233:SER:HB2	1:Bb:234:PRO:HD2	1.33	1.02
22:Ba:1442(A):G:C3'	22:Ba:1442(B):A:H5"	1.88	1.02
46:BZ:61:LEU:H	46:BZ:61:LEU:HD23	1.24	1.02
55:B8:50:LEU:HD12	55:B8:51:ALA:H	1.24	1.02
57:BA:1494:A:C2'	57:BA:1495:A:H5"	1.89	1.02
12:Am:65:LYS:HA	12:Am:66:LEU:CB	1.86	1.02
44:AX:12:VAL:HG23	44:AX:13:LEU:H	1.24	1.02
57:AA:1845:G:C2'	57:AA:1846:G:H5"	1.89	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:Ax:13:A:H3'	23:Ax:14:A:C5'	1.90	1.02
42:AV:99:ILE:HD13	42:AV:99:ILE:H	1.21	1.02
12:Bm:15:VAL:HG12	12:Bm:45:VAL:HG22	1.38	1.02
38:AR:33:ARG:HG3	38:AR:115:GLU:HG3	1.41	1.02
52:B5:3:LYS:HE3	52:B5:5:PRO:O	1.59	1.02
57:BA:155:U:H2'	57:BA:156:U:H5"	1.42	1.02
26:BC:42:VAL:HG22	26:BC:217:THR:HG22	1.39	1.02
27:BD:32:SER:O	27:BD:36:PRO:HG3	1.60	1.02
29:BF:108:LYS:HD2	29:BF:112:MET:HE2	1.38	1.02
29:BF:132:VAL:HG22	29:BF:133:ASN:H	1.22	1.02
38:BR:33:ARG:HG3	38:BR:115:GLU:HG3	1.41	1.02
48:B1:52:ARG:HH12	57:BA:2218:U:H1'	1.23	1.02
57:BA:1884:A:C2'	57:BA:1885:A:H5"	1.90	1.02
18:As:6:LYS:HG2	18:As:7:LYS:HE3	1.39	1.01
29:AF:108:LYS:HD2	29:AF:112:MET:HE2	1.40	1.01
41:AU:83:LEU:HG	41:AU:88:ILE:HD11	1.41	1.01
4:Be:93:PRO:HG2	7:Bh:105:ARG:HH21	1.22	1.01
18:Bs:6:LYS:HG2	18:Bs:7:LYS:HE3	1.38	1.01
22:Ba:1003:G:H2'	22:Ba:1004:A:H4'	1.37	1.01
39:BS:97:ARG:NH2	39:BS:98:VAL:HA	1.75	1.01
30:AG:46:ALA:HB3	30:AG:82:LEU:HD11	1.42	1.01
57:AA:903:C:C2'	57:AA:904:C:H5"	1.90	1.01
57:AA:1899:G:H22	57:AA:1902:C:N4	1.59	1.01
12:Bm:23:TYR:CE1	12:Bm:71:ARG:HB2	1.96	1.01
45:BY:51:VAL:HG12	45:BY:53:PRO:HD2	1.42	1.01
53:B6:27:LYS:HD2	53:B6:30:THR:HB	1.37	1.01
57:BA:1845:G:C2'	57:BA:1846:G:H5"	1.90	1.01
30:AG:64:THR:HG23	30:AG:66:GLN:H	1.22	1.01
30:AG:110:ALA:C	30:AG:112:PRO:CD	2.34	1.01
40:AT:16:ARG:HH12	40:AT:19:LEU:HD21	1.22	1.01
35:BO:2:ILE:HD12	35:BO:8:LEU:HD11	1.42	1.01
57:BA:152:G:H1	57:BA:174:C:H42	1.09	1.01
21:Ay:7:PHE:HD1	21:Ay:7:PHE:H	1.01	1.01
27:AD:221:VAL:HG22	27:AD:226:MET:HE2	1.41	1.01
9:Bj:60:ARG:HH21	22:Ba:1367:C:H5'	1.25	1.01
32:BI:118:LYS:HG2	32:BI:119:PRO:HD2	1.42	1.01
57:BA:2491:U:H5'	57:BA:2570:G:H5"	1.41	1.01
22:Aa:1003:G:H2'	22:Aa:1004:A:H4'	1.37	1.01
28:AE:11:MET:HE2	28:AE:24:THR:HB	1.41	1.01
53:A6:5:VAL:HG12	53:A6:8:LYS:HB3	1.42	1.01
30:BG:16:ARG:NH2	30:BG:28:VAL:HG13	1.74	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:AI:85:GLU:H	32:AI:123:LEU:HD12	1.26	1.00
57:AA:2681:C:H5	57:AA:2725:A:H62	1.09	1.00
12:Bm:70:LEU:C	12:Bm:70:LEU:CD2	2.30	1.00
40:BT:16:ARG:HH12	40:BT:19:LEU:HD21	1.23	1.00
57:BA:2133:G:H2'	57:BA:2157:G:H22	1.26	1.00
9:Aj:32:ALA:HB2	9:Aj:76:ASN:HB3	1.38	1.00
12:Am:65:LYS:HA	12:Am:66:LEU:HG	1.43	1.00
12:Am:65:LYS:HB2	12:Am:66:LEU:HB2	1.04	1.00
29:AF:132:VAL:HG22	29:AF:133:ASN:H	1.24	1.00
55:A8:50:LEU:HD12	55:A8:51:ALA:H	1.24	1.00
57:AA:1884:A:C2'	57:AA:1885:A:H5"	1.91	1.00
23:Bx:13:A:H3'	23:Bx:14:A:C5'	1.91	1.00
57:BA:259:G:H21	57:BA:621:A:H8	1.01	1.00
2:Ac:70:VAL:HG12	2:Ac:72:LYS:H	1.25	1.00
52:A5:3:LYS:HE3	52:A5:5:PRO:O	1.58	1.00
1:Bb:80:ILE:H	1:Bb:80:ILE:HD12	1.25	1.00
22:Ba:1347:G:N2	22:Ba:1373:G:H2'	1.76	1.00
46:BZ:23:LYS:HD3	46:BZ:38:TYR:HE1	1.26	1.00
26:AC:42:VAL:HG22	26:AC:217:THR:HG22	1.39	1.00
45:AY:51:VAL:HG12	45:AY:53:PRO:HD2	1.42	1.00
58:AB:7:G:H3'	58:AB:8:U:H5"	1.43	1.00
36:BP:55:ARG:HG2	36:BP:56:SER:H	1.21	1.00
21:Ay:5:LEU:HG	21:Ay:7:PHE:CE1	1.97	1.00
21:Ay:77:SER:HB2	21:Ay:90:ALA:HB2	1.43	1.00
44:BX:12:VAL:HG23	44:BX:13:LEU:H	1.23	1.00
53:B6:5:VAL:HG12	53:B6:8:LYS:HB3	1.41	1.00
42:BV:99:ILE:HD13	42:BV:99:ILE:H	1.22	0.99
57:BA:903:C:C2'	57:BA:904:C:H5"	1.92	0.99
23:Ax:13:A:H3'	23:Ax:14:A:H5"	1.00	0.99
36:BP:16:ARG:HD3	36:BP:18:ARG:H	1.26	0.99
41:AU:92:ARG:HE	57:AA:996:A:H4'	1.23	0.99
57:AA:1494:A:C2'	57:AA:1495:A:H5"	1.91	0.99
24:Av:72:A:C2'	24:Av:73:A:H5"	1.91	0.99
12:Bm:65:LYS:CA	12:Bm:66:LEU:HG	1.92	0.99
21:By:5:LEU:HD23	21:By:34:LEU:HD23	1.41	0.99
22:Aa:1347:G:N2	22:Aa:1373:G:H2'	1.78	0.99
42:AV:18:LEU:HD13	42:AV:19:LYS:H	1.28	0.99
22:Aa:1129:C:H41	22:Aa:1135:U:H3	1.10	0.99
22:Ba:975:A:H4'	22:Ba:976:G:H5"	1.44	0.99
30:AG:67:LYS:H	30:AG:67:LYS:CE	1.75	0.98
30:AG:111:LEU:HA	30:AG:114:ILE:CD1	1.93	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:AA:155:U:H2'	57:AA:156:U:H5"	1.43	0.98
57:AA:914:C:H2'	57:AA:915:C:H5'	1.45	0.98
6:Bg:113:GLU:HB2	6:Bg:119:ARG:HG2	1.45	0.98
9:Aj:50:ILE:HD13	9:Aj:50:ILE:H	1.27	0.98
57:AA:1019:U:H3	57:AA:1142(A):A:H62	1.08	0.98
12:Bm:15:VAL:O	12:Bm:19:LEU:HD23	1.63	0.98
41:BU:90:VAL:HG21	42:BV:47:VAL:HG21	1.45	0.98
22:Aa:975:A:H4'	22:Aa:976:G:H5"	1.45	0.98
31:AH:153:LYS:HD3	31:AH:153:LYS:H	1.27	0.98
28:BE:11:MET:HE2	28:BE:24:THR:HB	1.40	0.98
2:Bc:70:VAL:HG12	2:Bc:72:LYS:H	1.25	0.98
30:BG:109:VAL:CA	30:BG:112:PRO:HG2	1.92	0.98
30:AG:46:ALA:HB2	30:AG:88:ILE:HD11	1.46	0.98
32:AI:118:LYS:HG2	32:AI:119:PRO:HD2	1.45	0.98
30:BG:111:LEU:HD22	30:BG:120:LEU:HD21	1.46	0.98
57:BA:145:G:H2'	57:BA:146:G:H5"	1.44	0.98
39:AS:97:ARG:NH2	39:AS:98:VAL:HA	1.76	0.98
49:A2:46:GLN:HB2	49:A2:49:LYS:HE3	1.43	0.98
12:Am:69:GLU:HA	12:Am:72:ALA:N	1.77	0.98
21:Ay:43:LYS:HE2	22:Aa:1493:A:O2'	1.62	0.98
30:AG:45:GLU:H	30:AG:88:ILE:HG21	1.28	0.98
30:AG:111:LEU:HA	30:AG:114:ILE:HD12	1.46	0.98
9:Bj:50:ILE:HD13	9:Bj:50:ILE:H	1.27	0.98
12:Bm:65:LYS:CA	12:Bm:66:LEU:CG	2.42	0.98
8:Bi:4:TYR:HB2	8:Bi:19:LEU:HB2	1.46	0.98
55:B8:61:LEU:HD23	55:B8:61:LEU:H	1.28	0.98
21:Ay:43:LYS:HZ3	22:Aa:1493:A:C1'	1.75	0.98
36:AP:16:ARG:HD3	36:AP:18:ARG:H	1.27	0.98
58:BB:80:U:H2'	58:BB:81:G:H21	1.23	0.98
38:BR:3:HIS:HB2	57:BA:1654:A:OP1	1.63	0.97
42:BV:18:LEU:HD13	42:BV:19:LYS:H	1.26	0.97
55:A8:33:ASN:H	55:A8:33:ASN:HD22	1.09	0.97
57:BA:1899:G:H22	57:BA:1902:C:N4	1.60	0.97
36:BP:71:VAL:HG13	36:BP:72:PRO:HD3	1.46	0.97
9:Aj:48:THR:HA	9:Aj:62:HIS:HB3	1.44	0.97
57:AA:259:G:H21	57:AA:621:A:H8	1.02	0.97
36:BP:23:PRO:HB2	36:BP:33:ARG:CD	1.93	0.97
53:B6:37:ARG:HH21	57:BA:2286:A:H62	1.12	0.97
8:Ai:4:TYR:HB2	8:Ai:19:LEU:HB2	1.46	0.97
40:AT:60:THR:HG22	40:AT:77:PRO:HA	1.47	0.97
55:A8:61:LEU:HD23	55:A8:61:LEU:H	1.27	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:AU:90:VAL:HG21	42:AV:47:VAL:HG21	1.45	0.97
57:BA:2359:C:H2'	57:BA:2360:A:H5'	1.46	0.97
2:Ac:43:LEU:HD21	2:Ac:91:LEU:HD21	1.46	0.97
21:Ay:7:PHE:HD1	21:Ay:7:PHE:N	1.57	0.97
57:AA:145:G:H2'	57:AA:146:G:H5"	1.46	0.97
57:AA:2133:G:H2'	57:AA:2157:G:H22	1.26	0.97
41:AU:92:ARG:NE	57:AA:996:A:H4'	1.79	0.97
55:A8:33:ASN:H	55:A8:33:ASN:ND2	1.58	0.97
40:BT:13:ARG:HA	40:BT:13:ARG:NH1	1.80	0.97
40:BT:60:THR:HG22	40:BT:77:PRO:HA	1.46	0.97
57:BA:1038:C:H3'	57:BA:1039:G:H5"	1.46	0.97
57:BA:1494:A:H2'	57:BA:1495:A:C5'	1.95	0.97
46:AZ:128:VAL:HG21	46:AZ:132:ASN:HB2	1.47	0.96
55:A8:61:LEU:HD12	55:A8:62:LEU:HG	1.46	0.96
9:Bj:48:THR:HA	9:Bj:62:HIS:HB3	1.47	0.96
38:AR:3:HIS:HB2	57:AA:1654:A:OP1	1.64	0.96
8:Bi:68:GLY:H	22:Ba:1250:A:H4'	1.30	0.96
9:Aj:60:ARG:HH21	22:Aa:1367:C:H5'	1.25	0.96
21:Ay:26:LEU:HD21	21:Ay:55:LEU:HD11	1.48	0.96
28:AE:92:THR:O	28:AE:95:ILE:HG12	1.64	0.96
34:AN:2:LYS:NZ	41:AU:95:LEU:HD21	1.79	0.96
50:A3:8:LEU:HD13	50:A3:31:LEU:HA	1.47	0.96
30:BG:67:LYS:HE3	30:BG:67:LYS:N	1.81	0.96
3:Ad:129:ASN:HD22	3:Ad:129:ASN:H	1.08	0.96
6:Ag:113:GLU:HB2	6:Ag:119:ARG:HG2	1.43	0.96
27:AD:43:ARG:HB3	27:AD:54:ARG:HB2	1.46	0.96
48:A1:19:GLN:HA	48:A1:19:GLN:HE21	1.28	0.96
36:BP:32:THR:HG21	36:BP:37:GLY:HA2	1.47	0.96
42:BV:15:GLU:HB3	42:BV:16:PRO:HD2	1.47	0.96
12:Am:69:GLU:CA	12:Am:72:ALA:N	2.29	0.96
31:BH:153:LYS:HD3	31:BH:153:LYS:H	1.28	0.96
23:Ax:13:A:C3'	23:Ax:14:A:H5"	1.95	0.96
21:Ay:8:ASP:HB2	21:Ay:74:PHE:CZ	2.01	0.96
32:AI:113:ARG:HH12	32:AI:132:PRO:HD3	1.29	0.96
57:AA:1038:C:H3'	57:AA:1039:G:H5"	1.44	0.96
57:BA:654(L):G:H2'	57:BA:654(M):C:H4'	1.48	0.96
29:AF:70:THR:HG22	29:AF:72:ARG:H	1.31	0.96
12:Am:69:GLU:H	12:Am:70:LEU:CB	1.78	0.95
57:BA:1210:A:H5'	57:BA:1210:A:H8	1.31	0.95
30:AG:67:LYS:HE3	30:AG:67:LYS:N	1.81	0.95
35:AO:2:ILE:HD12	35:AO:8:LEU:HD11	1.45	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Am:15:VAL:O	12:Am:19:LEU:HD23	1.64	0.95
40:AT:50:ILE:HD11	40:AT:102:ILE:HD11	1.48	0.95
57:AA:2158:A:H4'	57:AA:2159:G:H5'	1.48	0.95
57:AA:2359:C:H2'	57:AA:2360:A:H5'	1.46	0.95
27:BD:43:ARG:HB3	27:BD:54:ARG:HB2	1.45	0.95
28:BE:92:THR:O	28:BE:95:ILE:HG12	1.65	0.95
57:BA:676:A:H8	57:BA:2069:G:H21	1.12	0.95
57:BA:2158:A:H4'	57:BA:2159:G:H5'	1.47	0.95
8:Ai:103:THR:HG22	8:Ai:104:ARG:H	1.31	0.95
34:AN:133:GLN:HG2	34:AN:135:PRO:HD3	1.48	0.95
40:AT:38:ASN:C	40:AT:38:ASN:HD22	1.75	0.95
40:AT:85:LYS:NZ	40:AT:85:LYS:HB3	1.81	0.95
34:BN:2:LYS:NZ	41:BU:95:LEU:HD21	1.81	0.95
55:B8:33:ASN:HD22	55:B8:33:ASN:H	1.09	0.95
58:BB:7:G:H3'	58:BB:8:U:H5"	1.45	0.95
57:AA:903:C:H2'	57:AA:904:C:H5"	1.45	0.95
36:BP:38:GLN:HG3	36:BP:39:LYS:H	1.30	0.95
41:BU:92:ARG:HE	57:BA:996:A:H4'	1.29	0.95
40:AT:82:LEU:HD12	40:AT:82:LEU:H	1.30	0.95
57:AA:676:A:H8	57:AA:2069:G:H21	1.15	0.95
22:Ba:1090:U:H2'	22:Ba:1091:U:H6	1.31	0.95
40:BT:85:LYS:HB3	40:BT:85:LYS:NZ	1.79	0.95
7:Ah:51:VAL:HG11	7:Ah:60:ARG:HD3	1.49	0.95
57:AA:654(L):G:H2'	57:AA:654(M):C:H4'	1.46	0.95
57:AA:1210:A:H5'	57:AA:1210:A:H8	1.29	0.95
2:Bc:43:LEU:HD21	2:Bc:91:LEU:HD21	1.45	0.95
58:BB:20:C:C2'	58:BB:21:G:H5"	1.97	0.95
9:Aj:60:ARG:NH2	22:Aa:1367:C:H5'	1.80	0.94
23:Ax:23:A:C2'	23:Ax:24:A:H5'	1.96	0.94
9:Bj:60:ARG:NH2	22:Ba:1367:C:H5'	1.80	0.94
40:BT:50:ILE:HD11	40:BT:102:ILE:HD11	1.46	0.94
41:BU:108:GLU:HG3	42:BV:44:LYS:HD3	1.49	0.94
12:Am:70:LEU:O	12:Am:74:VAL:HG23	1.67	0.94
22:Aa:1090:U:H2'	22:Aa:1091:U:H6	1.31	0.94
36:AP:101:VAL:HB	36:AP:107:LYS:HA	1.49	0.94
40:BT:125:ARG:O	40:BT:128:GLU:HG3	1.68	0.94
9:Aj:36:GLY:HA3	22:Aa:1123:A:H4'	1.47	0.94
21:Ay:29:LYS:NZ	22:Aa:518:C:OP1	2.00	0.94
54:A7:8:ASN:C	54:A7:8:ASN:HD22	1.75	0.94
4:Ae:93:PRO:HG2	7:Ah:105:ARG:HH21	1.29	0.94
22:Aa:1196:U:H4'	22:Aa:1197:G:O5'	1.68	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:AQ:63:LYS:HD2	46:AZ:175:VAL:HG21	1.48	0.94
22:Ba:1129:C:H41	22:Ba:1135:U:H3	1.10	0.94
57:BA:1747(A):G:C2'	57:BA:1748:G:H5"	1.98	0.94
28:BE:77:ILE:HG22	28:BE:78:LEU:H	1.32	0.94
57:BA:1019:U:H3	57:BA:1142(A):A:H62	1.12	0.94
1:Bb:88:ALA:HB2	1:Bb:219:VAL:HG13	1.49	0.94
50:B3:8:LEU:HD13	50:B3:31:LEU:HA	1.48	0.94
1:Ab:172:ILE:H	1:Ab:172:ILE:HD12	1.32	0.94
27:AD:35:LYS:HG2	27:AD:63:ARG:HA	1.50	0.94
40:AT:125:ARG:O	40:AT:128:GLU:HG3	1.67	0.94
46:AZ:150:LEU:HG	46:AZ:171:ILE:HD11	1.46	0.94
57:AA:1022:G:H22	57:AA:1142(A):A:H2	1.16	0.94
57:AA:1494:A:H2'	57:AA:1495:A:C5'	1.97	0.94
58:AB:20:C:C2'	58:AB:21:G:H5"	1.97	0.94
34:BN:133:GLN:HG2	34:BN:135:PRO:HD3	1.46	0.94
40:BT:13:ARG:HA	40:BT:13:ARG:CZ	1.98	0.94
46:BZ:150:LEU:HD23	46:BZ:150:LEU:H	1.32	0.94
57:BA:1899:G:H22	57:BA:1902:C:H41	0.99	0.94
57:AA:1747(A):G:C2'	57:AA:1748:G:H5"	1.98	0.94
12:Am:69:GLU:CA	12:Am:71:ARG:N	2.30	0.94
12:Am:69:GLU:N	12:Am:70:LEU:CB	2.30	0.94
21:By:53:ILE:HD12	21:By:62:LEU:HD22	1.45	0.94
53:A6:37:ARG:HH21	57:AA:2286:A:H62	1.12	0.93
12:Bm:70:LEU:CD2	12:Bm:71:ARG:N	2.30	0.93
40:BT:54:ARG:HA	40:BT:59:THR:HB	1.50	0.93
55:B8:33:ASN:H	55:B8:33:ASN:ND2	1.58	0.93
55:B8:61:LEU:HD12	55:B8:62:LEU:HG	1.50	0.93
48:A1:50:ARG:HG2	48:A1:59:THR:HG22	1.47	0.93
30:BG:67:LYS:H	30:BG:67:LYS:CE	1.81	0.93
40:BT:65:LYS:HE3	40:BT:66:VAL:H	1.34	0.93
30:AG:40:ASN:ND2	30:AG:41:GLN:H	1.65	0.93
27:BD:35:LYS:HG2	27:BD:63:ARG:HA	1.47	0.93
27:BD:242:ARG:HH21	57:BA:1826:G:H4'	1.29	0.93
40:BT:85:LYS:HB3	40:BT:85:LYS:HZ3	1.31	0.93
57:BA:2317:C:H2'	57:BA:2318:G:H5'	1.50	0.93
1:Ab:88:ALA:HB2	1:Ab:219:VAL:HG13	1.48	0.93
8:Ai:48:GLU:N	8:Ai:49:PRO:HD2	1.83	0.93
36:AP:32:THR:HG21	36:AP:37:GLY:HA2	1.49	0.93
18:Bs:20:LEU:HA	18:Bs:23:ASN:HD22	1.32	0.93
32:BI:113:ARG:HH12	32:BI:132:PRO:HD3	1.31	0.93
29:BF:70:THR:HG22	29:BF:72:ARG:H	1.33	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BT:100:TYR:HD2	40:BT:103:ARG:HH21	1.15	0.93
46:BZ:120:ILE:HB	46:BZ:172:ALA:HA	1.50	0.93
2:Ac:2:GLY:HA2	22:Aa:1060:C:C5	2.04	0.93
21:Ay:56:ARG:HE	23:Ax:21:OMG:HM21	1.15	0.93
30:AG:73:ALA:H	30:AG:87:PRO:HG3	1.34	0.93
42:AV:15:GLU:HB3	42:AV:16:PRO:HD2	1.49	0.93
46:AZ:54:HIS:HB3	46:AZ:101:PRO:HD3	1.50	0.93
57:AA:152:G:H1	57:AA:174:C:H42	1.10	0.93
1:Bb:18:GLY:H	1:Bb:42:ILE:HG22	1.34	0.93
8:Ai:68:GLY:H	22:Aa:1250:A:H4'	1.32	0.93
29:BF:188:ARG:HA	36:BP:7:ARG:HD3	1.51	0.93
32:BI:85:GLU:H	32:BI:123:LEU:HD12	1.32	0.93
30:AG:110:ALA:O	30:AG:112:PRO:HD2	1.66	0.92
42:AV:19:LYS:HG2	42:AV:94:LEU:HB2	1.49	0.92
45:BY:28:LYS:HA	45:BY:38:ILE:HG22	1.51	0.92
57:BA:903:C:H2'	57:BA:904:C:H5"	1.49	0.92
40:AT:13:ARG:NH1	40:AT:13:ARG:HA	1.82	0.92
21:By:7:PHE:HB3	21:By:75:VAL:HB	1.50	0.92
28:AE:2:LYS:HD3	28:AE:95:ILE:HG22	1.51	0.92
36:AP:85:LEU:HD23	36:AP:85:LEU:H	1.34	0.92
2:Bc:2:GLY:HA2	22:Ba:1060:C:C5	2.03	0.92
9:Bj:36:GLY:HA3	22:Ba:1123:A:H4'	1.48	0.92
57:BA:914:C:H2'	57:BA:915:C:H5'	1.49	0.92
57:BA:1689:A:H62	57:BA:1698:A:H2	1.15	0.92
57:BA:2317:C:C2'	57:BA:2318:G:H5'	1.98	0.92
22:Aa:1054:C:H5	22:Aa:1196:U:O2'	1.51	0.92
28:AE:77:ILE:HG22	28:AE:78:LEU:H	1.32	0.92
41:AU:108:GLU:HG3	42:AV:44:LYS:HD3	1.49	0.92
3:Bd:110:PHE:H	3:Bd:110:PHE:HD1	1.17	0.92
46:BZ:151:HIS:HA	46:BZ:171:ILE:HG22	1.49	0.92
36:BP:101:VAL:HB	36:BP:107:LYS:HA	1.48	0.92
53:A6:25:LYS:HZ1	55:A8:34:TRP:HZ2	1.12	0.92
53:B6:48:VAL:HG23	53:B6:49:HIS:H	1.34	0.92
57:BA:1019:U:HO2'	57:BA:1021:A:H2	0.92	0.92
28:AE:9:VAL:HG13	28:AE:25:VAL:O	1.70	0.92
42:AV:19:LYS:NZ	42:AV:20:LEU:H	1.67	0.92
57:AA:528:A:O2'	57:AA:529:A:H5'	1.70	0.92
9:Bj:38:ILE:HD11	9:Bj:71:LEU:HD23	1.51	0.92
40:BT:38:ASN:HD22	40:BT:38:ASN:C	1.76	0.92
42:BV:19:LYS:HG2	42:BV:94:LEU:HB2	1.50	0.92
52:B5:40:LYS:CE	52:B5:46:CYS:HB3	1.98	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BA:2681:C:H5	57:BA:2725:A:H62	1.07	0.92
34:BN:15:LEU:HD12	34:BN:136:GLU:HG3	1.50	0.92
57:BA:2893:G:H5'	57:BA:2894:G:H5'	1.52	0.92
9:Aj:6:ILE:HG22	9:Aj:98:ILE:HG13	1.52	0.92
22:Aa:180:U:H2'	22:Aa:181:G:H5"	1.52	0.92
12:Bm:65:LYS:HE3	12:Bm:69:GLU:HG3	1.51	0.92
57:BA:528:A:O2'	57:BA:529:A:H5'	1.70	0.92
29:AF:103:LYS:HA	29:AF:106:ARG:HG3	1.52	0.92
34:AN:15:LEU:HD12	34:AN:136:GLU:HG3	1.52	0.92
27:BD:221:VAL:HG22	27:BD:226:MET:HE2	1.51	0.92
57:BA:145:G:C2'	57:BA:146:G:H5"	2.00	0.92
12:Am:69:GLU:CB	12:Am:72:ALA:N	2.32	0.91
32:AI:74:ASN:HD22	32:AI:74:ASN:N	1.67	0.91
36:AP:23:PRO:HB2	36:AP:33:ARG:CD	2.01	0.91
57:BA:1590:U:C2'	57:BA:1591:G:H5"	2.00	0.91
40:AT:13:ARG:HA	40:AT:13:ARG:CZ	1.99	0.91
57:BA:2312:U:H2'	57:BA:2313:C:H5"	1.52	0.91
18:As:20:LEU:HA	18:As:23:ASN:HD22	1.33	0.91
52:A5:3:LYS:HB3	57:AA:747:U:C5	2.05	0.91
30:BG:40:ASN:HD22	30:BG:91:ARG:HB2	1.34	0.91
31:AH:85:LYS:HZ2	31:AH:133:VAL:HG23	1.34	0.91
35:AO:114:ILE:HD12	35:AO:114:ILE:H	1.34	0.91
6:Ag:102:ARG:NH2	22:Aa:939:G:H5"	1.85	0.91
44:AX:12:VAL:HG13	44:AX:27:THR:O	1.71	0.91
40:AT:5:ALA:HB2	57:AA:2875:C:H4'	1.53	0.91
46:AZ:149:SER:HB2	46:AZ:172:ALA:O	1.70	0.91
1:Bb:172:ILE:HD12	1:Bb:172:ILE:H	1.34	0.91
6:Bg:102:ARG:HH22	22:Ba:939:G:H5"	1.35	0.91
41:BU:92:ARG:NE	57:BA:996:A:H4'	1.85	0.91
5:Af:91:VAL:HG11	17:Ar:72:ARG:HH12	1.34	0.91
36:AP:38:GLN:HG3	36:AP:39:LYS:H	1.34	0.91
57:AA:2317:C:C2'	57:AA:2318:G:H5'	1.99	0.91
32:BI:2:LYS:HD3	32:BI:20:ASP:HB3	1.50	0.91
50:A3:35:ARG:HH21	50:A3:37:LEU:HD21	1.36	0.91
57:AA:2392:A:H2	57:AA:2424:C:H42	1.18	0.91
3:Bd:129:ASN:HD22	3:Bd:129:ASN:H	1.09	0.91
34:BN:125:GLY:HA3	34:BN:126:PRO:O	1.71	0.91
6:Ag:84:ASN:ND2	25:Aw:33:U:H4'	1.86	0.91
39:AS:13:ARG:HG3	39:AS:14:VAL:H	1.34	0.91
52:A5:40:LYS:CE	52:A5:46:CYS:HB3	1.99	0.91
57:AA:2206:G:H21	57:AA:2207:G:H5'	1.35	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:Bi:103:THR:HG22	8:Bi:104:ARG:H	1.31	0.91
34:BN:47:ALA:HB2	34:BN:112:LEU:HD11	1.53	0.91
57:BA:1022:G:H22	57:BA:1142(A):A:H2	1.16	0.91
12:Am:69:GLU:CB	12:Am:72:ALA:HB2	1.98	0.91
21:Ay:76:ILE:HG13	21:Ay:77:SER:H	1.35	0.91
32:AI:2:LYS:HD3	32:AI:20:ASP:HB3	1.53	0.91
11:Bl:126:LYS:HE2	11:Bl:126:LYS:HA	1.53	0.91
11:Al:126:LYS:HE2	11:Al:126:LYS:HA	1.52	0.90
45:AY:14:LEU:HD11	45:AY:22:GLY:HA2	1.53	0.90
57:AA:1779:U:H5	57:AA:1784:A:N7	1.69	0.90
22:Ba:1116:C:H2'	22:Ba:1117:G:H5"	1.52	0.90
36:BP:85:LEU:HD23	36:BP:85:LEU:H	1.35	0.90
57:BA:2068:U:N3	57:BA:2430:A:H2	1.68	0.90
21:Ay:43:LYS:CE	22:Aa:1493:A:O2'	2.18	0.90
21:Ay:47:MET:HB3	21:Ay:48:PRO:HD3	1.53	0.90
32:BI:92:VAL:HG12	32:BI:120:ILE:HD13	1.53	0.90
1:Ab:18:GLY:H	1:Ab:42:ILE:HG22	1.37	0.90
6:Ag:102:ARG:HH22	22:Aa:939:G:H5"	1.34	0.90
26:AC:216:THR:HB	26:AC:222:SER:HB3	1.54	0.90
27:AD:242:ARG:NH2	57:AA:1826:G:H4'	1.86	0.90
30:AG:73:ALA:H	30:AG:87:PRO:CG	1.83	0.90
57:AA:1590:U:C2'	57:AA:1591:G:H5"	2.01	0.90
57:AA:2317:C:H2'	57:AA:2318:G:H5'	1.52	0.90
6:Bg:102:ARG:NH2	22:Ba:939:G:H5"	1.85	0.90
1:Ab:162:ILE:HD11	1:Ab:184:VAL:HG22	1.52	0.90
22:Aa:1116:C:H2'	22:Aa:1117:G:H5"	1.53	0.90
27:AD:27:THR:HG23	27:AD:83:GLU:HB3	1.53	0.90
40:AT:54:ARG:HA	40:AT:59:THR:HB	1.49	0.90
45:AY:28:LYS:HA	45:AY:38:ILE:HG22	1.51	0.90
46:AZ:51:ALA:HB1	46:AZ:57:ILE:HD11	1.53	0.90
3:Bd:96:LEU:HG	3:Bd:139:ARG:HH22	1.34	0.90
16:Bq:22:LEU:HD11	16:Bq:39:SER:HB2	1.53	0.90
19:Bt:57:ARG:NH1	19:Bt:102:GLY:HA3	1.87	0.90
51:B4:13:ARG:HH11	51:B4:13:ARG:HB3	1.37	0.90
54:B7:8:ASN:C	54:B7:8:ASN:HD22	1.76	0.90
3:Ad:49:ARG:HA	3:Ad:49:ARG:NE	1.87	0.90
30:AG:42:GLY:HA2	30:AG:89:GLY:HA2	1.52	0.90
37:AQ:12:GLN:HA	57:AA:910:A:H62	1.37	0.90
43:AW:34:ASN:ND2	52:A5:39:MET:HE3	1.87	0.90
31:AH:85:LYS:HZ3	31:AH:133:VAL:N	1.69	0.90
16:Bq:70:ARG:HG2	22:Ba:235:C:H5'	1.54	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:199:ARG:HH12	28:BE:202:LYS:HE2	1.34	0.90
42:BV:19:LYS:NZ	42:BV:20:LEU:H	1.69	0.90
16:Aq:70:ARG:HG2	22:Aa:235:C:H5'	1.54	0.90
30:AG:161:THR:HG22	30:AG:163:ALA:H	1.34	0.90
57:AA:1899:G:H22	57:AA:1902:C:H41	0.95	0.90
31:BH:85:LYS:HZ2	31:BH:133:VAL:N	1.69	0.90
36:BP:18:ARG:HB3	36:BP:18:ARG:NH1	1.86	0.90
11:Al:25:PRO:C	11:Al:27:LEU:H	1.76	0.90
57:AA:8:A:H2'	57:AA:9:U:C5	2.07	0.90
57:AA:27:G:H22	57:AA:512:G:H2'	1.35	0.90
27:BD:44:ASN:CB	27:BD:49:ILE:HA	2.02	0.90
28:BE:9:VAL:HG13	28:BE:25:VAL:O	1.70	0.90
40:BT:82:LEU:H	40:BT:82:LEU:HD12	1.35	0.90
48:B1:51:VAL:HG21	48:B1:74:VAL:HG21	1.53	0.90
8:Ai:97:LYS:HB3	8:Ai:98:PRO:HD3	1.54	0.90
27:AD:24:ILE:HD13	27:AD:25:THR:H	1.34	0.90
11:Bl:25:PRO:C	11:Bl:27:LEU:H	1.77	0.90
28:BE:2:LYS:HD3	28:BE:95:ILE:HG22	1.53	0.90
46:BZ:24:LEU:HD21	46:BZ:86:VAL:HG23	1.53	0.90
28:AE:36:ARG:HH21	28:AE:88:GLY:CA	1.85	0.89
29:AF:188:ARG:HA	36:AP:7:ARG:HD3	1.51	0.89
28:BE:36:ARG:HH21	28:BE:88:GLY:CA	1.83	0.89
32:BI:92:VAL:HG13	32:BI:97:ILE:HD11	1.52	0.89
42:BV:21:ARG:HG2	42:BV:91:TYR:HD2	1.37	0.89
50:B3:35:ARG:HH21	50:B3:37:LEU:HD21	1.37	0.89
21:Ay:7:PHE:N	21:Ay:7:PHE:CD1	2.34	0.89
34:AN:2:LYS:HZ3	41:AU:95:LEU:HD21	1.32	0.89
34:AN:133:GLN:HG2	34:AN:134:ARG:H	1.33	0.89
57:AA:2206:G:N2	57:AA:2207:G:H5'	1.87	0.89
52:B5:3:LYS:HB3	57:BA:747:U:C5	2.06	0.89
53:A6:48:VAL:HG23	53:A6:49:HIS:H	1.35	0.89
57:AA:145:G:C2'	57:AA:146:G:H5"	2.01	0.89
4:Be:76:ILE:HD11	4:Be:142:LEU:HD11	1.54	0.89
29:BF:103:LYS:HA	29:BF:106:ARG:HG3	1.53	0.89
4:Ae:76:ILE:HD11	4:Ae:142:LEU:HD11	1.54	0.89
3:Bd:49:ARG:HA	3:Bd:49:ARG:NE	1.86	0.89
7:Bh:51:VAL:HG11	7:Bh:60:ARG:HD3	1.53	0.89
34:BN:133:GLN:HG2	34:BN:134:ARG:H	1.33	0.89
57:BA:271(M):G:H2'	57:BA:271(N):U:H5"	1.52	0.89
57:BA:2327:A:H2'	57:BA:2328:A:C8	2.07	0.89
35:AO:47:ILE:HG12	35:AO:48:PRO:HD2	1.54	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BZ:157:LEU:HD23	46:BZ:157:LEU:H	1.38	0.89
7:Ah:20:TYR:HE2	7:Ah:75:ARG:HD2	1.37	0.89
9:Aj:38:ILE:HD11	9:Aj:71:LEU:HD23	1.53	0.89
57:AA:2893:G:H5'	57:AA:2894:G:H5'	1.52	0.89
1:Bb:162:ILE:HD11	1:Bb:184:VAL:HG22	1.54	0.89
30:BG:51:ARG:HA	30:BG:51:ARG:HE	1.36	0.89
34:BN:2:LYS:HZ3	41:BU:95:LEU:HD21	1.35	0.89
57:BA:2206:G:H21	57:BA:2207:G:H5'	1.36	0.89
22:Aa:1502:A:H2	22:Aa:1505:G:N1	1.71	0.89
27:AD:259:THR:CG2	57:AA:1798:U:H5'	2.02	0.89
31:AH:19:VAL:HG21	31:AH:44:VAL:HA	1.55	0.89
36:AP:18:ARG:HB3	36:AP:18:ARG:NH1	1.87	0.89
36:AP:59:LEU:HA	36:AP:61:ARG:CZ	2.01	0.89
27:AD:44:ASN:CB	27:AD:49:ILE:HA	2.02	0.89
44:BX:12:VAL:HG13	44:BX:27:THR:O	1.72	0.89
34:AN:47:ALA:HB2	34:AN:112:LEU:HD11	1.54	0.89
36:AP:47:ASP:HB3	36:AP:48:PRO:CA	2.03	0.89
39:AS:29:PHE:HE1	58:AB:6:C:O2'	1.54	0.89
27:BD:70:TRP:CH2	27:BD:150:LYS:HA	2.08	0.89
3:Ad:110:PHE:H	3:Ad:110:PHE:HD1	1.19	0.89
6:Bg:77:SER:HB3	25:Bw:32:C:H4'	1.53	0.89
35:BO:114:ILE:H	35:BO:114:ILE:HD12	1.36	0.89
39:BS:89:ARG:O	39:BS:92:TYR:HB3	1.73	0.89
9:Aj:51:ARG:HG3	9:Aj:60:ARG:HA	1.54	0.88
11:Al:38:THR:HG23	11:Al:39:VAL:HG23	1.54	0.88
39:AS:89:ARG:O	39:AS:92:TYR:HB3	1.72	0.88
22:Ba:180:U:H2'	22:Ba:181:G:H5"	1.54	0.88
40:BT:3:ARG:HD3	57:BA:2876:G:H4'	1.55	0.88
40:BT:28:VAL:HG22	40:BT:47:GLY:N	1.88	0.88
50:B3:1:MET:HE2	50:B3:39:ASP:HB3	1.55	0.88
57:BA:8:A:H2'	57:BA:9:U:C5	2.08	0.88
23:Ax:22:A:H3'	23:Ax:22:A:N3	1.87	0.88
36:AP:71:VAL:HG13	36:AP:72:PRO:HD3	1.54	0.88
50:A3:1:MET:HE2	50:A3:39:ASP:HB3	1.54	0.88
3:Ad:10:ARG:HG2	3:Ad:11:LEU:HD23	1.56	0.88
12:Am:88:ARG:HA	12:Am:98:VAL:HG11	1.54	0.88
30:AG:66:GLN:HG3	30:AG:67:LYS:NZ	1.87	0.88
32:BI:74:ASN:ND2	32:BI:74:ASN:H	1.68	0.88
36:BP:59:LEU:HA	36:BP:61:ARG:CZ	2.03	0.88
57:BA:1540:U:H3'	57:BA:1541:G:H3'	1.55	0.88
32:AI:74:ASN:HD22	32:AI:74:ASN:H	0.92	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:Bl:38:THR:HG23	11:Bl:39:VAL:HG23	1.55	0.88
12:Bm:70:LEU:HD22	12:Bm:71:ARG:N	1.89	0.88
22:Ba:1497:G:H2'	22:Ba:1498:U:H5'	1.54	0.88
24:Bv:47:U:H3'	24:Bv:48:C:H5'	1.56	0.88
32:BI:74:ASN:H	32:BI:74:ASN:HD22	0.94	0.88
11:Al:70:ILE:HG12	11:Al:100:ILE:HD12	1.56	0.88
34:AN:125:GLY:HA3	34:AN:126:PRO:O	1.73	0.88
32:BI:127:VAL:HG13	32:BI:139:GLN:HA	1.55	0.88
46:BZ:24:LEU:HD12	46:BZ:41:LEU:HD23	1.54	0.88
57:BA:2189:U:H2'	57:BA:2190:G:H5"	1.55	0.88
9:Aj:6:ILE:HD11	9:Aj:72:VAL:HB	1.54	0.88
9:Aj:31:GLY:HA3	9:Aj:78:ASN:ND2	1.89	0.88
27:BD:24:ILE:HD13	27:BD:25:THR:H	1.35	0.88
57:BA:2068:U:H3	57:BA:2430:A:H2	0.88	0.88
57:BA:2392:A:H2	57:BA:2424:C:H42	1.20	0.88
30:AG:108:ASN:O	30:AG:112:PRO:HG2	1.73	0.88
32:AI:92:VAL:HG13	32:AI:97:ILE:HD11	1.56	0.88
57:AA:2312:U:H2'	57:AA:2313:C:H5"	1.52	0.88
39:BS:13:ARG:HG3	39:BS:14:VAL:H	1.37	0.88
45:BY:14:LEU:HD11	45:BY:22:GLY:HA2	1.54	0.88
11:Al:6:THR:HG23	11:Al:9:GLN:HE21	1.37	0.88
19:At:57:ARG:NH1	19:At:102:GLY:HA3	1.88	0.88
21:Ay:64:TYR:H	21:Ay:64:TYR:HD2	1.18	0.88
40:AT:3:ARG:HD3	57:AA:2876:G:H4'	1.56	0.88
57:AA:1540:U:H3'	57:AA:1541:G:H3'	1.55	0.88
40:BT:5:ALA:HB2	57:BA:2875:C:H4'	1.55	0.88
48:A1:52:ARG:HH12	57:AA:2218:U:H1'	1.37	0.88
24:Bv:4:G:HO2'	24:Bv:5:G:H8	0.93	0.88
57:BA:1779:U:H5	57:BA:1784:A:N7	1.72	0.88
57:BA:2206:G:N2	57:BA:2207:G:H5'	1.88	0.88
27:AD:259:THR:HG22	57:AA:1798:U:C5'	2.02	0.88
45:AY:81:LYS:HD3	45:AY:97:ARG:O	1.74	0.88
57:AA:2068:U:H3	57:AA:2430:A:H2	0.93	0.88
57:AA:2327:A:H2'	57:AA:2328:A:C8	2.09	0.88
30:BG:56:ALA:HB2	30:BG:153:ARG:HH11	1.39	0.88
21:Ay:47:MET:CB	21:Ay:48:PRO:CD	2.48	0.87
29:AF:206:ILE:HG22	29:AF:207:GLY:H	1.38	0.87
32:AI:74:ASN:H	32:AI:74:ASN:ND2	1.66	0.87
34:AN:120:LEU:HD11	34:AN:122:VAL:HG23	1.54	0.87
32:BI:132:PRO:HG2	32:BI:133:HIS:ND1	1.88	0.87
12:Am:69:GLU:HB2	12:Am:72:ALA:CA	2.04	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AE:199:ARG:HH12	28:AE:202:LYS:HE2	1.38	0.87
32:AI:127:VAL:HG13	32:AI:139:GLN:HA	1.54	0.87
10:Bk:54:ARG:O	10:Bk:57:THR:HG22	1.74	0.87
27:BD:27:THR:HG23	27:BD:83:GLU:HB3	1.55	0.87
36:BP:18:ARG:HB3	36:BP:18:ARG:HH11	1.39	0.87
51:B4:12:ALA:HB1	51:B4:29:PRO:HA	1.56	0.87
1:Ab:71:VAL:HB	1:Ab:164:VAL:HG12	1.56	0.87
40:AT:65:LYS:HA	40:AT:65:LYS:NZ	1.88	0.87
57:AA:1689:A:H62	57:AA:1698:A:H2	1.14	0.87
57:AA:2068:U:N3	57:AA:2430:A:H2	1.72	0.87
26:BC:216:THR:HB	26:BC:222:SER:HB3	1.52	0.87
36:BP:30:THR:HG22	36:BP:31:ALA:H	1.38	0.87
45:BY:7:VAL:HB	45:BY:8:LYS:CE	2.05	0.87
45:BY:44:ILE:O	45:BY:62:GLU:HB3	1.74	0.87
45:BY:81:LYS:HD3	45:BY:97:ARG:O	1.73	0.87
53:B6:45:LYS:HE3	57:BA:2371:G:H5"	1.56	0.87
58:AB:7:G:C3'	58:AB:8:U:H5"	2.03	0.87
5:Bf:91:VAL:HG11	17:Br:72:ARG:HH12	1.37	0.87
42:BV:51:VAL:HG12	42:BV:52:VAL:H	1.40	0.87
12:Am:65:LYS:CA	12:Am:66:LEU:CG	2.53	0.87
29:AF:3:GLU:HA	29:AF:24:LEU:HG	1.54	0.87
30:AG:104:GLU:HG2	51:A4:24:THR:HG21	1.57	0.87
46:AZ:151:HIS:HA	46:AZ:171:ILE:HG13	1.56	0.87
57:AA:904:C:H5'	57:AA:904:C:H6	1.37	0.87
57:AA:2189:U:H2'	57:AA:2190:G:H5"	1.55	0.87
9:Bj:51:ARG:HG3	9:Bj:60:ARG:HA	1.56	0.87
22:Ba:1442(A):G:H3'	22:Ba:1442(B):A:H5"	0.92	0.87
35:BO:47:ILE:HG12	35:BO:48:PRO:HD2	1.54	0.87
40:BT:65:LYS:HA	40:BT:65:LYS:NZ	1.90	0.87
57:BA:1678:G:N2	57:BA:1989:G:H22	1.73	0.87
40:AT:65:LYS:HE3	40:AT:66:VAL:H	1.36	0.87
9:Bj:6:ILE:HD11	9:Bj:72:VAL:HB	1.54	0.87
11:Bl:70:ILE:HG12	11:Bl:100:ILE:HD12	1.54	0.87
32:AI:92:VAL:HG12	32:AI:120:ILE:HD13	1.54	0.87
57:AA:271(M):G:H2'	57:AA:271(N):U:H5"	1.54	0.87
57:AA:2476:A:H2'	57:AA:2477:C:H5"	1.57	0.87
1:Bb:164:VAL:HG23	1:Bb:186:ALA:HB2	1.57	0.87
12:Bm:88:ARG:HA	12:Bm:98:VAL:CG1	2.04	0.87
29:BF:3:GLU:HA	29:BF:24:LEU:HG	1.54	0.87
3:Ad:96:LEU:HG	3:Ad:139:ARG:HH22	1.37	0.87
12:Am:68:GLY:N	12:Am:70:LEU:HD13	1.89	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:AY:7:VAL:HB	45:AY:8:LYS:CE	2.04	0.87
18:Bs:41:VAL:O	18:Bs:44:MET:HB2	1.75	0.87
55:B8:62:LEU:CD1	57:BA:242:G:H5"	2.05	0.87
8:Ai:63:ILE:HD11	8:Ai:81:ILE:HD11	1.57	0.86
10:Ak:54:ARG:O	10:Ak:57:THR:HG22	1.74	0.86
18:As:44:MET:HA	18:As:44:MET:HE3	1.57	0.86
9:Bj:31:GLY:HA3	9:Bj:78:ASN:ND2	1.89	0.86
31:BH:83:TYR:HB3	31:BH:134:SER:HA	1.57	0.86
45:BY:59:GLY:O	45:BY:60:PHE:HB2	1.71	0.86
48:B1:82:LEU:H	48:B1:82:LEU:HD22	1.39	0.86
58:BB:7:G:C3'	58:BB:8:U:H5"	2.03	0.86
36:AP:30:THR:HG22	36:AP:31:ALA:H	1.36	0.86
45:AY:19:LYS:HE3	57:AA:329:G:H1	1.40	0.86
3:Bd:10:ARG:HG2	3:Bd:11:LEU:HD23	1.57	0.86
32:BI:8:PRO:HB3	32:BI:14:ASP:H	1.39	0.86
34:BN:1:MET:O	34:BN:2:LYS:HG3	1.75	0.86
36:BP:71:VAL:HG12	57:BA:389:G:H1	1.38	0.86
27:AD:70:TRP:CH2	27:AD:150:LYS:HA	2.10	0.86
42:AV:21:ARG:HG2	42:AV:91:TYR:HD2	1.37	0.86
32:BI:74:ASN:HD22	32:BI:74:ASN:N	1.68	0.86
12:Am:69:GLU:N	12:Am:71:ARG:H	1.74	0.86
57:AA:1175:U:H4'	57:AA:1176:G:H5'	1.57	0.86
10:Bk:26:ASN:HD21	22:Ba:692:U:H5	1.22	0.86
49:B2:13:ALA:HA	49:B2:16:LEU:HD12	1.56	0.86
4:Ae:51:VAL:HB	4:Ae:52:PRO:HD3	1.58	0.86
16:Aq:22:LEU:HD11	16:Aq:39:SER:HB2	1.55	0.86
34:AN:1:MET:O	34:AN:2:LYS:HG3	1.75	0.86
32:BI:68:LEU:HD21	32:BI:72:LEU:HD11	1.55	0.86
37:BQ:76:LYS:HB3	37:BQ:91:GLU:HG3	1.57	0.86
50:A3:6:VAL:HG12	50:A3:56:VAL:HG22	1.57	0.86
51:A4:13:ARG:HH11	51:A4:13:ARG:HB3	1.37	0.86
54:A7:11:LYS:HE2	57:AA:686:G:H5"	1.58	0.86
30:BG:76:SER:HB3	30:BG:83:ARG:HB3	1.57	0.86
36:AP:101:VAL:HG12	36:AP:106:LEU:HB3	1.57	0.86
55:A8:62:LEU:CD1	57:AA:242:G:H5"	2.05	0.86
57:AA:1899:G:N2	57:AA:1902:C:N4	2.19	0.86
8:Bi:107:ARG:HB3	22:Ba:1347:G:C8	2.11	0.86
13:Bn:23:ARG:NH1	13:Bn:30:ALA:HB2	1.90	0.86
27:BD:259:THR:HG22	57:BA:1798:U:C5'	2.04	0.86
57:BA:2313:C:H2'	57:BA:2314:C:H6	1.41	0.86
36:AP:50:ARG:HG2	36:AP:50:ARG:HH21	1.41	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:AT:80:SER:HB3	40:AT:81:PRO:HD3	1.56	0.86
57:AA:673:C:H5'	57:AA:673:C:H6	1.38	0.86
28:BE:60:ASN:HB2	57:BA:2811:G:OP1	1.75	0.86
36:BP:47:ASP:HB3	36:BP:48:PRO:CA	2.05	0.86
46:BZ:23:LYS:HD3	46:BZ:38:TYR:CE1	2.11	0.86
12:Am:69:GLU:H	12:Am:70:LEU:HB3	1.33	0.86
28:AE:60:ASN:HB2	57:AA:2811:G:OP1	1.76	0.86
30:AG:119:GLY:HA2	30:AG:179:PRO:HB2	1.57	0.86
32:AI:8:PRO:HB3	32:AI:14:ASP:H	1.40	0.86
32:AI:85:GLU:H	32:AI:123:LEU:CD1	1.89	0.86
36:AP:18:ARG:HB3	36:AP:18:ARG:HH11	1.40	0.86
57:AA:2645:G:H3'	57:AA:2646:C:H5'	1.58	0.86
9:Bj:48:THR:HA	9:Bj:62:HIS:CB	2.06	0.86
34:BN:17:ASP:HB2	34:BN:55:VAL:HG12	1.58	0.86
36:BP:126:VAL:HA	36:BP:145:PRO:HB2	1.58	0.86
57:BA:673:C:H5'	57:BA:673:C:H6	1.40	0.86
9:Aj:48:THR:HA	9:Aj:62:HIS:CB	2.05	0.86
53:A6:45:LYS:HE3	57:AA:2371:G:H5"	1.56	0.86
57:AA:1845:G:H2'	57:AA:1846:G:C5'	2.05	0.86
1:Bb:71:VAL:HG13	1:Bb:93:VAL:HB	1.56	0.86
18:Bs:44:MET:HA	18:Bs:44:MET:HE3	1.57	0.86
29:BF:3:GLU:CA	29:BF:24:LEU:HG	2.06	0.86
37:BQ:12:GLN:HA	57:BA:910:A:H62	1.38	0.86
2:Ac:18:TRP:H	2:Ac:18:TRP:HE3	1.23	0.85
18:As:41:VAL:O	18:As:44:MET:HB2	1.75	0.85
45:AY:44:ILE:O	45:AY:62:GLU:HB3	1.75	0.85
46:AZ:151:HIS:HB3	46:AZ:170:THR:HA	1.58	0.85
6:Bg:120:ILE:HD12	6:Bg:120:ILE:H	1.38	0.85
57:BA:1175:U:H4'	57:BA:1176:G:H5'	1.56	0.85
1:Ab:71:VAL:HG13	1:Ab:93:VAL:HB	1.56	0.85
32:AI:115:ALA:HB3	32:AI:128:LEU:HB3	1.58	0.85
7:Bh:20:TYR:HE2	7:Bh:75:ARG:HD2	1.40	0.85
10:Ak:26:ASN:HD21	22:Aa:692:U:H5	1.23	0.85
30:AG:77:ILE:HG22	30:AG:77:ILE:O	1.75	0.85
57:AA:1281:G:H8	57:AA:1281:G:H5'	1.41	0.85
2:Bc:18:TRP:H	2:Bc:18:TRP:HE3	1.23	0.85
8:Bi:97:LYS:HB3	8:Bi:98:PRO:HD3	1.56	0.85
42:AV:49:THR:HB	42:AV:50:PRO:CD	2.07	0.85
6:Bg:100:ALA:O	6:Bg:104:LEU:HD23	1.77	0.85
27:BD:242:ARG:NH2	57:BA:1826:G:H4'	1.90	0.85
28:BE:4:ILE:HD13	28:BE:28:ALA:HB1	1.57	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BO:23:ARG:HH11	57:BA:2562:U:H1'	1.41	0.85
57:BA:904:C:H5'	57:BA:904:C:H6	1.38	0.85
11:Al:6:THR:H	11:Al:9:GLN:HE21	1.20	0.85
40:AT:100:TYR:HD2	40:AT:103:ARG:HH21	1.18	0.85
41:AU:112:ARG:NH2	42:AV:46:VAL:HG11	1.91	0.85
31:BH:85:LYS:HZ1	31:BH:133:VAL:HG23	1.38	0.85
13:An:23:ARG:NH1	13:An:30:ALA:HB2	1.91	0.85
26:AC:191:ARG:HB3	26:AC:195:ARG:HH12	1.40	0.85
30:AG:33:ARG:NH2	30:AG:162:THR:HG21	1.92	0.85
35:AO:23:ARG:HH11	57:AA:2562:U:H1'	1.41	0.85
49:A2:51:ARG:HD3	49:A2:55:ARG:HH22	1.41	0.85
53:A6:15:GLU:HG3	53:A6:47:THR:HG21	1.57	0.85
57:AA:1484:G:C2'	57:AA:1485:G:H5"	2.06	0.85
11:Bl:8:ASN:HD22	16:Bq:34:LYS:HE2	1.42	0.85
32:BI:115:ALA:HB3	32:BI:128:LEU:HB3	1.56	0.85
11:Al:8:ASN:HD22	16:Aq:34:LYS:HE2	1.41	0.85
27:AD:49:ILE:HD11	27:AD:52:ARG:HA	1.59	0.85
30:AG:46:ALA:HB3	30:AG:82:LEU:CD1	2.05	0.85
32:AI:68:LEU:HD21	32:AI:72:LEU:HD11	1.59	0.85
51:A4:12:ALA:HB1	51:A4:29:PRO:HA	1.58	0.85
51:B4:33:VAL:HG12	51:B4:34:GLU:N	1.91	0.85
57:AA:1887:C:C2'	57:AA:1888:G:H5"	2.07	0.85
3:Bd:150:GLU:CD	3:Bd:151:LYS:H	1.85	0.85
26:BC:191:ARG:HB3	26:BC:195:ARG:HH12	1.42	0.85
49:B2:16:LEU:O	49:B2:17:SER:HB3	1.77	0.85
57:BA:1887:C:C2'	57:BA:1888:G:H5"	2.05	0.85
21:Ay:62:LEU:HD23	21:Ay:63:VAL:N	1.92	0.85
29:AF:3:GLU:CA	29:AF:24:LEU:HG	2.06	0.85
36:AP:126:VAL:HA	36:AP:145:PRO:HB2	1.58	0.85
18:Bs:40:ILE:HG21	18:Bs:62:ILE:HD11	1.59	0.85
53:B6:15:GLU:HG3	53:B6:47:THR:HG21	1.58	0.85
54:B7:24:THR:HG23	54:B7:27:GLY:H	1.41	0.85
34:AN:73:THR:HG23	34:AN:82:LEU:HD11	1.58	0.85
45:AY:59:GLY:O	45:AY:60:PHE:HB2	1.73	0.85
29:BF:206:ILE:HG22	29:BF:207:GLY:H	1.41	0.84
36:BP:58:THR:O	36:BP:61:ARG:NE	2.10	0.84
12:Am:111:LYS:HE2	22:Aa:1227:A:OP2	1.77	0.84
22:Aa:1502:A:H2	22:Aa:1505:G:H1	0.88	0.84
24:Av:40:C:H2'	24:Av:41:C:C6	2.13	0.84
30:AG:29:TRP:O	58:AB:57:A:H1'	1.77	0.84
34:AN:17:ASP:HB2	34:AN:55:VAL:HG12	1.57	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:AV:24:LYS:HE2	42:AV:90:PRO:HB2	1.57	0.84
54:A7:24:THR:HG23	54:A7:27:GLY:H	1.42	0.84
55:A8:50:LEU:HD12	55:A8:51:ALA:N	1.92	0.84
11:Bl:6:THR:HG23	11:Bl:9:GLN:HE21	1.40	0.84
18:As:40:ILE:HG21	18:As:62:ILE:HD11	1.58	0.84
30:AG:63:ILE:HA	30:AG:143:GLU:HG3	1.58	0.84
30:AG:71:THR:HG21	57:AA:2312:U:O2'	1.76	0.84
44:AX:12:VAL:HG12	44:AX:27:THR:OG1	1.77	0.84
2:Ac:154:SER:HB2	22:Aa:1057:G:H5"	1.58	0.84
32:BI:81:VAL:HG22	32:BI:82:ARG:H	1.42	0.84
43:BW:34:ASN:ND2	52:B5:39:MET:HE3	1.91	0.84
44:BX:12:VAL:HG12	44:BX:27:THR:OG1	1.77	0.84
1:Ab:164:VAL:HG23	1:Ab:186:ALA:HB2	1.57	0.84
14:Ao:54:ARG:HG2	14:Ao:58:MET:HE2	1.60	0.84
36:AP:7:ARG:HA	36:AP:7:ARG:NH1	1.92	0.84
57:AA:672:C:C2'	57:AA:673:C:H5"	2.07	0.84
12:Am:66:LEU:N	12:Am:70:LEU:HG	1.90	0.84
22:Aa:673:G:H2'	22:Aa:674:G:C8	2.13	0.84
43:AW:92:ARG:HH11	43:AW:92:ARG:HB3	1.41	0.84
27:BD:259:THR:CG2	57:BA:1798:U:H5'	2.04	0.84
43:BW:92:ARG:HH11	43:BW:92:ARG:HB3	1.40	0.84
28:AE:35:GLN:HG2	28:AE:36:ARG:H	1.42	0.84
30:AG:71:THR:HG22	30:AG:89:GLY:HA3	1.60	0.84
32:AI:84:GLY:HA2	32:AI:144:VAL:HG22	1.60	0.84
34:AN:30:ILE:O	34:AN:34:LEU:HD22	1.78	0.84
40:AT:16:ARG:NH1	40:AT:19:LEU:HD21	1.92	0.84
9:Bj:6:ILE:HG22	9:Bj:98:ILE:HG13	1.56	0.84
12:Bm:111:LYS:HE2	22:Ba:1227:A:OP2	1.77	0.84
53:B6:25:LYS:HZ1	55:B8:34:TRP:HZ2	1.21	0.84
54:B7:11:LYS:HE2	57:BA:686:G:H5"	1.56	0.84
57:BA:2645:G:H3'	57:BA:2646:C:H5'	1.58	0.84
31:BH:19:VAL:HG21	31:BH:44:VAL:HA	1.57	0.84
57:BA:2833:G:H3'	57:BA:2834:G:C5'	2.06	0.84
11:Al:102:ARG:CG	11:Al:102:ARG:HH11	1.91	0.84
12:Am:67:GLU:C	12:Am:70:LEU:HD13	2.03	0.84
21:Ay:56:ARG:HE	23:Ax:21:OMG:CM2	1.83	0.84
27:AD:24:ILE:CD1	27:AD:25:THR:H	1.90	0.84
36:AP:50:ARG:HB3	55:A8:59:LYS:HD3	1.60	0.84
46:AZ:163:LEU:HD12	46:AZ:165:VAL:HB	1.60	0.84
48:A1:3:LYS:HG3	48:A1:4:VAL:H	1.43	0.84
1:Bb:71:VAL:HB	1:Bb:164:VAL:HG12	1.58	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BD:244:ARG:HB2	57:BA:1902:C:O2'	1.78	0.84
52:B5:4:HIS:HB3	52:B5:5:PRO:CD	2.07	0.84
57:BA:2476:A:H2'	57:BA:2477:C:H5"	1.57	0.84
28:AE:4:ILE:HD13	28:AE:28:ALA:HB1	1.56	0.84
57:AA:1948:G:H8	57:AA:1948:G:H5'	1.40	0.84
11:Bl:6:THR:H	11:Bl:9:GLN:HE21	1.22	0.84
30:BG:119:GLY:HA3	30:BG:181:ARG:HB2	1.58	0.84
34:BN:120:LEU:HD11	34:BN:122:VAL:HG23	1.58	0.84
42:BV:49:THR:HB	42:BV:50:PRO:CD	2.08	0.84
6:Ag:120:ILE:H	6:Ag:120:ILE:HD12	1.41	0.83
8:Ai:107:ARG:HB3	22:Aa:1347:G:C8	2.12	0.83
36:BP:71:VAL:CG1	36:BP:72:PRO:HD3	2.07	0.83
45:BY:50:ARG:HG3	57:BA:484:C:OP1	1.78	0.83
57:BA:146:G:H5'	57:BA:146:G:H8	1.42	0.83
57:BA:1484:G:C2'	57:BA:1485:G:H5"	2.08	0.83
8:Ai:16:ARG:HH22	22:Aa:1128:C:H5"	1.43	0.83
21:Ay:5:LEU:CG	21:Ay:7:PHE:HE1	1.91	0.83
31:AH:85:LYS:HZ3	31:AH:133:VAL:H	1.21	0.83
36:AP:58:THR:O	36:AP:61:ARG:NE	2.10	0.83
6:Ag:100:ALA:O	6:Ag:104:LEU:HD23	1.77	0.83
22:Aa:1054:C:C5	22:Aa:1196:U:O2'	2.31	0.83
40:AT:28:VAL:HG22	40:AT:47:GLY:N	1.92	0.83
34:BN:30:ILE:O	34:BN:34:LEU:HD22	1.77	0.83
44:BX:12:VAL:HB	44:BX:17:ALA:CB	2.09	0.83
49:B2:47:ASN:HD22	57:BA:94(A):G:H21	1.25	0.83
37:AQ:132:VAL:HG11	46:AZ:81:ARG:HE	1.43	0.83
4:Be:51:VAL:HB	4:Be:52:PRO:HD3	1.59	0.83
11:Bl:102:ARG:CG	11:Bl:102:ARG:HH11	1.90	0.83
14:Bo:54:ARG:HG2	14:Bo:58:MET:HE2	1.60	0.83
17:Br:87:ARG:HH11	17:Br:87:ARG:HB3	1.42	0.83
40:BT:16:ARG:NH1	40:BT:19:LEU:HD21	1.93	0.83
9:Aj:4:ILE:HD11	9:Aj:77:PRO:HB3	1.59	0.83
17:Ar:87:ARG:HH11	17:Ar:87:ARG:HB3	1.42	0.83
27:AD:49:ILE:HG22	57:AA:779:U:OP1	1.77	0.83
36:AP:63:PRO:HD2	57:AA:2394:C:OP1	1.77	0.83
4:Be:93:PRO:HG2	7:Bh:105:ARG:NH2	1.93	0.83
8:Bi:12:GLU:HG3	22:Ba:1370:G:H5"	1.61	0.83
55:B8:50:LEU:HD12	55:B8:51:ALA:N	1.94	0.83
2:Ac:20:SER:HB2	2:Ac:40:ARG:HH22	1.43	0.83
30:AG:28:VAL:O	30:AG:31:VAL:HG12	1.78	0.83
44:AX:12:VAL:HB	44:AX:17:ALA:CB	2.09	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BA:27:G:H22	57:BA:512:G:H2'	1.42	0.83
30:AG:66:GLN:HA	30:AG:67:LYS:HE3	1.61	0.83
35:AO:104:ARG:NE	40:AT:33:LYS:HD2	1.94	0.83
8:Bi:68:GLY:N	22:Ba:1250:A:H4'	1.92	0.83
27:BD:24:ILE:CD1	27:BD:25:THR:H	1.91	0.83
28:BE:132:HIS:ND1	57:BA:1658:C:OP1	2.12	0.83
30:BG:56:ALA:HB2	30:BG:153:ARG:NH1	1.93	0.83
45:BY:19:LYS:HE3	57:BA:329:G:H1	1.41	0.83
31:BH:41:MET:CE	31:BH:42:ARG:H	1.92	0.83
40:BT:80:SER:HB3	40:BT:81:PRO:HD3	1.60	0.83
12:Am:13:LYS:HA	12:Am:44:ARG:HH11	1.44	0.83
28:AE:69:LYS:HZ2	28:AE:89:ASP:HA	1.42	0.83
30:AG:40:ASN:HD22	30:AG:41:GLN:H	1.21	0.83
37:AQ:76:LYS:HB3	37:AQ:91:GLU:HG3	1.58	0.83
51:A4:33:VAL:HG12	51:A4:34:GLU:N	1.92	0.83
42:BV:24:LYS:HE2	42:BV:90:PRO:HB2	1.61	0.83
51:B4:48:ARG:O	51:B4:49:PHE:HB2	1.79	0.83
57:BA:672:C:C2'	57:BA:673:C:H5"	2.09	0.83
15:Ap:22:THR:HA	15:Ap:33:ILE:HG12	1.60	0.83
26:AC:53:ARG:HD3	26:AC:53:ARG:H	1.43	0.83
2:Bc:20:SER:HB2	2:Bc:40:ARG:HH22	1.42	0.83
21:By:18:LEU:HD11	21:By:60:TYR:HE2	1.43	0.83
28:BE:35:GLN:HG2	28:BE:36:ARG:H	1.42	0.83
28:BE:101:ARG:HH11	28:BE:171:GLU:HB2	1.43	0.83
30:BG:109:VAL:C	30:BG:112:PRO:HG2	2.04	0.83
8:Ai:68:GLY:N	22:Aa:1250:A:H4'	1.94	0.82
22:Aa:1005:A:H2'	22:Aa:1006:C:H5'	1.60	0.82
32:AI:132:PRO:HG2	32:AI:133:HIS:ND1	1.94	0.82
36:BP:48:PRO:HG2	36:BP:49:ARG:H	1.44	0.82
12:Am:65:LYS:CA	12:Am:66:LEU:HG	2.09	0.82
12:Am:111:LYS:CE	22:Aa:1227:A:OP2	2.28	0.82
57:AA:676:A:H2	57:AA:802:A:H61	1.27	0.82
11:Bl:102:ARG:HH11	11:Bl:102:ARG:HG2	1.44	0.82
41:BU:112:ARG:NH2	42:BV:46:VAL:HG11	1.94	0.82
5:Af:60:PHE:C	5:Af:61:LEU:HD12	2.04	0.82
12:Am:66:LEU:N	12:Am:70:LEU:HD21	1.93	0.82
12:Am:68:GLY:C	12:Am:71:ARG:H	1.86	0.82
12:Am:69:GLU:HA	12:Am:70:LEU:C	2.01	0.82
51:A4:14:ILE:HG13	51:A4:31:ILE:HG21	1.61	0.82
8:Bi:63:ILE:HD11	8:Bi:81:ILE:HD11	1.60	0.82
12:Bm:13:LYS:HA	12:Bm:44:ARG:HH11	1.43	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Af:82:ARG:HB2	5:Af:85:VAL:HG23	1.60	0.82
31:AH:83:TYR:HB3	31:AH:134:SER:HA	1.58	0.82
42:AV:19:LYS:HG3	42:AV:20:LEU:N	1.93	0.82
57:AA:2313:C:H2'	57:AA:2314:C:H6	1.43	0.82
30:BG:71:THR:HG21	57:BA:2312:U:O2'	1.79	0.82
32:BI:83:ALA:HA	32:BI:89:TYR:CG	2.14	0.82
36:BP:91:PHE:H	36:BP:91:PHE:HD1	1.26	0.82
5:Af:91:VAL:HG11	17:Ar:72:ARG:NH1	1.93	0.82
32:AI:81:VAL:HG22	32:AI:82:ARG:H	1.44	0.82
42:AV:51:VAL:HG12	42:AV:52:VAL:H	1.41	0.82
44:BX:35:THR:O	44:BX:39:ILE:HG12	1.80	0.82
2:Ac:154:SER:CB	22:Aa:1057:G:H5"	2.09	0.82
7:Ah:12:ARG:NH1	7:Ah:27:PRO:HD3	1.95	0.82
11:Al:102:ARG:HH11	11:Al:102:ARG:HG2	1.43	0.82
22:Aa:1442(A):G:H3'	22:Aa:1442(B):A:C5'	2.09	0.82
27:AD:166:GLN:HE21	27:AD:166:GLN:HA	1.42	0.82
46:AZ:53:ILE:HG22	46:AZ:71:VAL:O	1.79	0.82
51:A4:53:GLU:OE1	51:A4:55:ARG:HG3	1.80	0.82
9:Bj:4:ILE:HD11	9:Bj:77:PRO:HB3	1.59	0.82
22:Ba:673:G:H2'	22:Ba:674:G:C8	2.14	0.82
28:BE:69:LYS:HZ2	28:BE:89:ASP:HA	1.43	0.82
35:BO:104:ARG:NE	40:BT:33:LYS:HD2	1.94	0.82
36:BP:50:ARG:HB3	55:B8:59:LYS:HD3	1.61	0.82
45:BY:10:GLY:HA2	45:BY:27:VAL:HG13	1.60	0.82
57:BA:1948:G:H8	57:BA:1948:G:H5'	1.43	0.82
57:BA:2524:G:H8	57:BA:2524:G:H5'	1.45	0.82
2:Bc:154:SER:HB2	22:Ba:1057:G:H5"	1.59	0.82
18:As:42:PRO:HG3	51:A4:50:VAL:HG21	1.60	0.82
22:Aa:80:G:H3'	22:Aa:81:U:H5'	1.62	0.82
27:AD:35:LYS:C	27:AD:35:LYS:HD2	2.05	0.82
32:AI:77:LEU:HD23	32:AI:141:LYS:HG2	1.62	0.82
36:AP:29:LYS:HB3	36:AP:34:GLY:H	1.44	0.82
46:AZ:24:LEU:HD21	46:AZ:86:VAL:HG22	1.62	0.82
52:A5:4:HIS:HB3	52:A5:5:PRO:CD	2.07	0.82
57:AA:2833:G:H3'	57:AA:2834:G:C5'	2.08	0.82
9:Bj:40:LEU:HB2	9:Bj:69:ASN:HB2	1.61	0.82
22:Ba:80:G:H3'	22:Ba:81:U:H5'	1.61	0.82
22:Ba:1347:G:H22	22:Ba:1373:G:H2'	1.41	0.82
27:BD:35:LYS:HD2	27:BD:35:LYS:C	2.05	0.82
34:BN:73:THR:HG23	34:BN:82:LEU:HD11	1.60	0.82
57:BA:1845:G:H2'	57:BA:1846:G:C5'	2.07	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Am:3:ARG:HA	12:Am:9:ILE:HG13	1.61	0.82
15:Bp:22:THR:HA	15:Bp:33:ILE:HG12	1.60	0.82
18:Bs:42:PRO:HG3	51:B4:50:VAL:HG21	1.61	0.82
34:BN:56:ASN:HA	34:BN:125:GLY:H	1.45	0.82
57:BA:1434:A:H61	57:BA:1558:A:N6	1.78	0.82
12:Bm:3:ARG:HA	12:Bm:9:ILE:HG13	1.61	0.82
36:BP:63:PRO:HD2	57:BA:2394:C:OP1	1.79	0.82
42:BV:19:LYS:HG3	42:BV:20:LEU:N	1.93	0.82
51:B4:12:ALA:CB	51:B4:29:PRO:HA	2.09	0.82
57:BA:654(S):G:H3'	57:BA:654(T):C:C5'	2.10	0.82
6:Ag:120:ILE:O	6:Ag:124:LEU:HB2	1.79	0.81
22:Aa:1054:C:P	22:Aa:1197:G:OP2	2.38	0.81
28:AE:101:ARG:HH11	28:AE:171:GLU:HB2	1.44	0.81
5:Bf:82:ARG:HB2	5:Bf:85:VAL:HG23	1.61	0.81
22:Ba:976:G:H5'	22:Ba:1358:U:O2'	1.80	0.81
22:Ba:1005:A:H2'	22:Ba:1006:C:H5'	1.61	0.81
34:BN:43:THR:HB	34:BN:46:VAL:HG12	1.62	0.81
25:Aw:9:G:N3	25:Aw:45:G:H2'	1.95	0.81
31:AH:41:MET:CE	31:AH:42:ARG:H	1.92	0.81
31:AH:41:MET:HG3	31:AH:42:ARG:N	1.95	0.81
36:AP:144:GLU:N	36:AP:145:PRO:HD3	1.95	0.81
44:AX:35:THR:O	44:AX:39:ILE:HG12	1.79	0.81
57:AA:1434:A:H61	57:AA:1558:A:N6	1.78	0.81
57:AA:1678:G:N2	57:AA:1989:G:H22	1.79	0.81
31:BH:41:MET:HE3	31:BH:42:ARG:H	1.43	0.81
36:BP:29:LYS:HB3	36:BP:34:GLY:H	1.44	0.81
57:BA:1717:G:H2'	57:BA:1718:G:H5"	1.62	0.81
21:Ay:10:ARG:HH22	22:Aa:955:U:P	2.03	0.81
36:AP:7:ARG:HH11	36:AP:7:ARG:CA	1.92	0.81
38:AR:38:VAL:HB	38:AR:39:PRO:HD3	1.62	0.81
57:AA:330:A:H2	57:AA:1210:A:H2'	1.45	0.81
2:Bc:70:VAL:HG12	2:Bc:72:LYS:N	1.95	0.81
11:Bl:90:VAL:O	11:Bl:92:ASP:N	2.12	0.81
22:Ba:405:U:H3'	22:Ba:406:G:H5'	1.60	0.81
29:BF:24:LEU:HB3	29:BF:25:PRO:CD	2.10	0.81
30:BG:109:VAL:O	30:BG:112:PRO:HD2	1.81	0.81
30:BG:113:ARG:HA	30:BG:113:ARG:HE	1.44	0.81
31:BH:41:MET:HG3	31:BH:42:ARG:N	1.94	0.81
31:BH:85:LYS:HZ2	31:BH:133:VAL:H	1.23	0.81
32:BI:1:MET:HG3	32:BI:23:PRO:HG3	1.62	0.81
32:BI:120:ILE:HG22	32:BI:121:LYS:N	1.96	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:144:GLU:N	36:BP:145:PRO:HD3	1.95	0.81
57:BA:860:U:H5	57:BA:917:A:N7	1.78	0.81
57:BA:1899:G:N2	57:BA:1902:C:N4	2.20	0.81
57:BA:2359:C:C2'	57:BA:2360:A:H5'	2.10	0.81
8:Ai:12:GLU:HG3	22:Aa:1370:G:H5"	1.61	0.81
22:Aa:1347:G:H22	22:Aa:1373:G:H2'	1.42	0.81
29:AF:139:PHE:HB2	29:AF:166:ALA:HB1	1.61	0.81
36:AP:47:ASP:HB3	36:AP:48:PRO:C	2.04	0.81
36:BP:7:ARG:HH11	36:BP:7:ARG:CA	1.92	0.81
11:Al:90:VAL:O	11:Al:92:ASP:N	2.13	0.81
8:Bi:99:LEU:HB3	8:Bi:101:PHE:HD1	1.46	0.81
22:Ba:1321:C:C5'	22:Ba:1322:C:H5"	2.10	0.81
32:BI:77:LEU:HD23	32:BI:141:LYS:HG2	1.63	0.81
21:Ay:77:SER:HB2	21:Ay:90:ALA:CB	2.08	0.81
30:AG:85:GLY:C	30:AG:87:PRO:HD3	2.05	0.81
32:AI:83:ALA:HA	32:AI:89:TYR:CG	2.16	0.81
46:AZ:110:GLY:HA2	46:AZ:146:ILE:HG23	1.60	0.81
28:BE:50:GLY:HA2	28:BE:78:LEU:HB3	1.60	0.81
3:Ad:150:GLU:CD	3:Ad:151:LYS:H	1.86	0.81
22:Aa:1277:C:H2'	22:Aa:1278:U:H5'	1.63	0.81
34:AN:56:ASN:HA	34:AN:125:GLY:H	1.46	0.81
36:AP:18:ARG:HD2	57:AA:662:G:OP1	1.81	0.81
45:AY:50:ARG:HG3	57:AA:484:C:OP1	1.79	0.81
58:AB:80:U:H2'	58:AB:81:G:N2	1.94	0.81
27:AD:166:GLN:HE21	27:AD:166:GLN:CA	1.94	0.81
2:Bc:73:PRO:O	2:Bc:76:VAL:HG22	1.81	0.81
27:BD:49:ILE:HD11	27:BD:52:ARG:HA	1.63	0.81
32:BI:84:GLY:HA2	32:BI:144:VAL:HG22	1.63	0.81
16:Aq:9:VAL:HG12	16:Aq:56:VAL:HG22	1.63	0.81
29:AF:24:LEU:HB3	29:AF:25:PRO:CD	2.10	0.81
30:AG:51:ARG:NE	30:AG:51:ARG:HA	1.94	0.81
46:AZ:72:ARG:HG2	58:AB:104:U:O2'	1.81	0.81
57:AA:146:G:H5'	57:AA:146:G:H8	1.45	0.81
12:Bm:65:LYS:CG	12:Bm:66:LEU:HB2	2.10	0.81
22:Ba:328:C:H4'	22:Ba:329:A:H5'	1.63	0.81
42:BV:35:LEU:HB2	42:BV:57:VAL:HG13	1.61	0.81
32:AI:62:LYS:HD2	32:AI:133:HIS:HD2	1.45	0.81
51:A4:12:ALA:CB	51:A4:29:PRO:HA	2.11	0.81
8:Bi:16:ARG:HH22	22:Ba:1128:C:H5"	1.44	0.81
16:Bq:9:VAL:HG12	16:Bq:56:VAL:HG22	1.61	0.81
28:BE:36:ARG:HH21	28:BE:88:GLY:HA3	1.46	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BG:32:PRO:HB2	30:BG:172:LEU:HD12	1.62	0.81
42:BV:72:VAL:CG2	42:BV:85:LYS:HB3	2.11	0.81
57:AA:2359:C:C2'	57:AA:2360:A:H5'	2.11	0.80
2:Bc:154:SER:CB	22:Ba:1057:G:H5"	2.11	0.80
5:Bf:91:VAL:HG11	17:Br:72:ARG:NH1	1.95	0.80
18:Bs:6:LYS:HD2	18:Bs:6:LYS:H	1.47	0.80
2:Ac:20:SER:HB2	2:Ac:40:ARG:NH2	1.95	0.80
12:Am:66:LEU:N	12:Am:70:LEU:CD2	2.43	0.80
58:AB:112:U:H2'	58:AB:113:G:H8	1.47	0.80
22:Ba:59:A:H5'	22:Ba:60:A:H5"	1.63	0.80
32:BI:85:GLU:H	32:BI:123:LEU:CD1	1.94	0.80
36:BP:18:ARG:HD2	57:BA:662:G:OP1	1.81	0.80
36:BP:67:MET:N	57:BA:2415:G:H4'	1.95	0.80
57:BA:1021:A:H62	57:BA:1141:U:H3	1.29	0.80
12:Am:68:GLY:N	12:Am:70:LEU:CD1	2.45	0.80
27:AD:24:ILE:HG12	27:AD:25:THR:N	1.96	0.80
27:AD:28:GLU:H	27:AD:29:PRO:HD2	1.46	0.80
27:AD:244:ARG:HB2	57:AA:1902:C:O2'	1.80	0.80
30:AG:4:ASP:HA	30:AG:8:LYS:HG2	1.64	0.80
8:Bi:19:LEU:HD22	8:Bi:59:PHE:HB3	1.63	0.80
29:BF:139:PHE:HB2	29:BF:166:ALA:HB1	1.64	0.80
22:Aa:1321:C:C5'	22:Aa:1322:C:H5"	2.11	0.80
28:AE:50:GLY:HA2	28:AE:78:LEU:HB3	1.61	0.80
36:AP:48:PRO:HG2	36:AP:49:ARG:H	1.44	0.80
36:AP:71:VAL:HG12	57:AA:389:G:H1	1.45	0.80
36:AP:146:VAL:HG22	36:AP:147:LEU:H	1.46	0.80
1:Bb:104:ASN:HB2	22:Ba:1074:G:H4'	1.64	0.80
22:Ba:1096:C:H2'	22:Ba:1097:C:H6	1.47	0.80
22:Ba:1366:C:H2'	22:Ba:1367:C:H6	1.47	0.80
55:B8:29:LYS:HD3	55:B8:44:LYS:HG2	1.63	0.80
12:Am:66:LEU:N	12:Am:70:LEU:CG	2.43	0.80
12:Am:68:GLY:O	12:Am:71:ARG:CB	2.30	0.80
51:A4:48:ARG:O	51:A4:49:PHE:HB2	1.79	0.80
55:A8:4:MET:HG3	55:A8:61:LEU:HD13	1.64	0.80
11:Bl:38:THR:HG22	11:Bl:57:LYS:HB2	1.64	0.80
12:Bm:65:LYS:HA	12:Bm:66:LEU:CD2	2.11	0.80
27:BD:24:ILE:HG12	27:BD:25:THR:N	1.97	0.80
36:BP:7:ARG:HA	36:BP:7:ARG:NH1	1.93	0.80
36:BP:146:VAL:HG22	36:BP:147:LEU:H	1.46	0.80
42:BV:21:ARG:HG2	42:BV:91:TYR:CD2	2.17	0.80
57:BA:1639:U:O2'	57:BA:1640:C:H5"	1.81	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:Ai:28:VAL:HG22	8:Ai:63:ILE:HB	1.64	0.80
11:Al:47:LYS:HB3	11:Al:48:PRO:HD3	1.62	0.80
57:AA:654(S):G:H3'	57:AA:654(T):C:C5'	2.11	0.80
2:Ac:73:PRO:O	2:Ac:76:VAL:HG22	1.79	0.80
22:Aa:1366:C:H2'	22:Aa:1367:C:H6	1.46	0.80
39:AS:29:PHE:CD1	58:AB:7:G:H4'	2.17	0.80
2:Bc:70:VAL:HG12	2:Bc:71:ALA:N	1.95	0.80
8:Bi:95:LYS:HD3	8:Bi:96:LEU:N	1.97	0.80
38:BR:101:ALA:O	38:BR:102:GLU:HB2	1.82	0.80
51:B4:14:ILE:HG13	51:B4:31:ILE:HG21	1.62	0.80
22:Aa:1193:G:O2'	22:Aa:1194:U:H5'	1.82	0.80
30:AG:51:ARG:HA	30:AG:51:ARG:HE	1.46	0.80
30:AG:106:LEU:O	30:AG:110:ALA:HB3	1.82	0.80
36:AP:64:LYS:HE2	57:AA:631:A:OP1	1.82	0.80
36:AP:112:LEU:H	36:AP:128:HIS:HD2	1.29	0.80
53:A6:23:THR:HG21	57:AA:2419:U:H5'	1.64	0.80
57:AA:1717:G:H2'	57:AA:1718:G:H5"	1.63	0.80
57:AA:2036:C:H5'	57:AA:2036:C:H6	1.47	0.80
22:Ba:1321:C:H5'	22:Ba:1322:C:H5"	1.63	0.80
36:BP:50:ARG:HG2	36:BP:50:ARG:HH21	1.47	0.80
38:BR:3:HIS:HB2	57:BA:1654:A:P	2.21	0.80
47:B0:10:THR:HG22	47:B0:11:ARG:H	1.47	0.80
57:BA:2103:C:C3'	57:BA:2104:G:H5"	2.11	0.80
21:Ay:60:TYR:OH	21:Ay:80:LYS:HE2	1.82	0.80
28:AE:132:HIS:ND1	57:AA:1658:C:OP1	2.15	0.80
34:AN:43:THR:HB	34:AN:46:VAL:HG12	1.62	0.80
57:AA:545:C:H3'	57:AA:547:A:H5"	1.63	0.80
8:Bi:107:ARG:HB3	22:Ba:1347:G:H8	1.45	0.80
22:Ba:1277:C:H2'	22:Ba:1278:U:H5'	1.62	0.80
36:BP:47:ASP:HB3	36:BP:48:PRO:C	2.07	0.80
50:B3:6:VAL:HG12	50:B3:56:VAL:HG22	1.63	0.80
9:Aj:40:LEU:HB2	9:Aj:69:ASN:HB2	1.61	0.80
12:Am:29:ARG:HD3	12:Am:64:TRP:CE2	2.17	0.80
21:Ay:43:LYS:HZ1	22:Aa:1493:A:H1'	1.39	0.80
22:Aa:328:C:H4'	22:Aa:329:A:H5'	1.62	0.80
30:AG:96:ARG:HA	30:AG:99:MET:HE2	1.62	0.80
31:AH:41:MET:HE3	31:AH:42:ARG:H	1.44	0.80
30:BG:72:ARG:HA	30:BG:87:PRO:HD2	1.64	0.80
38:BR:38:VAL:HB	38:BR:39:PRO:HD3	1.62	0.80
52:B5:40:LYS:HE2	52:B5:46:CYS:HB3	1.63	0.80
12:Am:14:ARG:HD2	12:Am:42:ALA:HA	1.64	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:A6:35:GLU:HB3	53:A6:51:GLU:HB2	1.64	0.79
27:BD:71:ASP:CB	27:BD:103:ARG:HH22	1.94	0.79
29:BF:24:LEU:CB	29:BF:25:PRO:HD2	2.12	0.79
30:BG:51:ARG:HA	30:BG:51:ARG:NE	1.96	0.79
27:AD:71:ASP:CB	27:AD:103:ARG:HH22	1.94	0.79
40:AT:62:THR:HG22	40:AT:75:ILE:HG12	1.63	0.79
8:Bi:103:THR:HG22	8:Bi:104:ARG:N	1.97	0.79
30:BG:111:LEU:CD2	30:BG:120:LEU:HD21	2.12	0.79
53:B6:23:THR:HG21	57:BA:2419:U:H5'	1.64	0.79
8:Ai:88:TYR:O	8:Ai:89:ASN:HB2	1.82	0.79
12:Am:69:GLU:CB	12:Am:72:ALA:HB3	2.05	0.79
22:Aa:976:G:H5'	22:Aa:1358:U:O2'	1.82	0.79
22:Aa:1513:A:H2'	22:Aa:1514:C:C6	2.17	0.79
36:AP:67:MET:N	57:AA:2415:G:H4'	1.97	0.79
42:AV:21:ARG:HG2	42:AV:91:TYR:CD2	2.17	0.79
45:AY:10:GLY:HA2	45:AY:27:VAL:HG13	1.64	0.79
57:AA:1718:G:H5'	57:AA:1718:G:H8	1.47	0.79
26:BC:53:ARG:HD3	26:BC:53:ARG:H	1.45	0.79
57:BA:545:C:H3'	57:BA:547:A:H5"	1.63	0.79
8:Ai:95:LYS:HD3	8:Ai:96:LEU:N	1.98	0.79
22:Aa:328:C:H4'	22:Aa:329:A:C5'	2.12	0.79
57:AA:1434:A:H61	57:AA:1558:A:H62	1.29	0.79
57:AA:2103:C:C3'	57:AA:2104:G:H5"	2.11	0.79
12:Bm:114:ARG:C	12:Bm:115:LYS:HD3	2.07	0.79
32:BI:109:ILE:HG22	32:BI:110:ASP:H	1.47	0.79
47:B0:43:THR:H	57:BA:2331:G:H4'	1.48	0.79
57:BA:1281:G:H8	57:BA:1281:G:H5'	1.46	0.79
57:BA:2523:G:H2'	57:BA:2524:G:H5"	1.65	0.79
16:Aq:21:VAL:HG11	16:Aq:59:ILE:HD11	1.65	0.79
27:BD:166:GLN:HE21	27:BD:166:GLN:HA	1.47	0.79
30:BG:134:GLY:C	30:BG:135:LEU:HD12	2.07	0.79
31:BH:9:ILE:HG23	31:BH:9:ILE:O	1.83	0.79
51:B4:53:GLU:OE1	51:B4:55:ARG:HG3	1.81	0.79
57:BA:330:A:H2	57:BA:1210:A:H2'	1.45	0.79
58:BB:80:U:H2'	58:BB:81:G:N2	1.98	0.79
22:Aa:405:U:H3'	22:Aa:406:G:H5'	1.63	0.79
45:AY:7:VAL:HB	45:AY:8:LYS:HD2	1.64	0.79
57:AA:141:A:H8	57:AA:1408:C:HO2'	1.28	0.79
57:BA:2801(A):A:C4'	57:BA:2802:G:H5'	2.08	0.79
4:Ae:68:GLU:O	4:Ae:68:GLU:HG3	1.82	0.79
7:Ah:12:ARG:HH12	7:Ah:27:PRO:CD	1.94	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:AJ:56:ASN:CB	33:AJ:83:TYR:HA	2.11	0.79
42:AV:99:ILE:H	42:AV:99:ILE:CD1	1.95	0.79
47:A0:10:THR:HG22	47:A0:11:ARG:H	1.45	0.79
22:Ba:438:G:H4'	22:Ba:439:A:OP1	1.82	0.79
22:Ba:1158:C:H2'	22:Ba:1158:C:O2	1.83	0.79
22:Ba:1443:G:N2	22:Ba:1460:A:H1'	1.96	0.79
30:BG:109:VAL:C	30:BG:112:PRO:HD2	2.07	0.79
36:BP:71:VAL:HG12	57:BA:389:G:N1	1.97	0.79
1:Ab:67:THR:HG21	1:Ab:155:LEU:HD21	1.64	0.79
2:Ac:70:VAL:HG12	2:Ac:72:LYS:N	1.95	0.79
9:Aj:49:VAL:CG2	13:An:41:ARG:HB2	2.12	0.79
12:Am:66:LEU:H	12:Am:70:LEU:CG	1.96	0.79
36:AP:55:ARG:CG	36:AP:56:SER:H	1.94	0.79
52:A5:3:LYS:HB3	57:AA:747:U:C4	2.18	0.79
8:Bi:28:VAL:HG22	8:Bi:63:ILE:HB	1.63	0.79
35:BO:69:ILE:HD13	35:BO:77:ILE:HG23	1.62	0.79
55:B8:43:GLN:C	55:B8:44:LYS:HD2	2.08	0.79
22:Aa:70:G:H1	22:Aa:99:U:H3	1.30	0.79
36:AP:55:ARG:HG2	36:AP:56:SER:N	1.91	0.79
36:AP:91:PHE:H	36:AP:91:PHE:HD1	1.28	0.79
38:AR:3:HIS:HB2	57:AA:1654:A:P	2.23	0.79
12:Bm:14:ARG:HD2	12:Bm:42:ALA:HA	1.64	0.79
12:Bm:88:ARG:HA	12:Bm:98:VAL:HG11	1.62	0.79
22:Ba:1053:G:C3'	22:Ba:1054:C:H5'	2.12	0.79
36:BP:64:LYS:HE2	57:BA:631:A:OP1	1.82	0.79
47:B0:51:VAL:HG22	47:B0:81:VAL:HG23	1.65	0.79
12:Am:114:ARG:C	12:Am:115:LYS:HD3	2.07	0.79
22:Aa:438:G:H4'	22:Aa:439:A:OP1	1.83	0.79
44:AX:12:VAL:HB	44:AX:17:ALA:HB1	1.65	0.79
46:AZ:81:ARG:HB2	46:AZ:81:ARG:HH11	1.46	0.79
55:A8:43:GLN:C	55:A8:44:LYS:HD2	2.08	0.79
30:BG:71:THR:HG23	57:BA:2312:U:H4'	1.62	0.79
32:BI:113:ARG:HH11	32:BI:113:ARG:HG2	1.47	0.79
8:Ai:19:LEU:HD22	8:Ai:59:PHE:HB3	1.65	0.78
18:As:6:LYS:H	18:As:6:LYS:HD2	1.46	0.78
21:Ay:56:ARG:HH12	23:Ax:22:A:H5"	1.48	0.78
32:AI:93:THR:HG22	32:AI:119:PRO:HB3	1.65	0.78
57:AA:860:U:H5	57:AA:917:A:N7	1.81	0.78
2:Bc:20:SER:HB2	2:Bc:40:ARG:NH2	1.96	0.78
10:Bk:21:ILE:HB	10:Bk:84:VAL:HG12	1.65	0.78
22:Ba:70:G:H1	22:Ba:99:U:H3	1.30	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:62:LEU:HD23	36:BP:62:LEU:H	1.47	0.78
40:BT:91:ARG:O	40:BT:117:ASP:HB2	1.81	0.78
22:Aa:59:A:H5'	22:Aa:60:A:H5"	1.65	0.78
22:Aa:1053:G:C3'	22:Aa:1054:C:H5'	2.13	0.78
31:AH:41:MET:SD	31:AH:43:VAL:HG13	2.23	0.78
38:AR:11:ASN:OD1	38:AR:12:ARG:N	2.16	0.78
52:A5:40:LYS:HE2	52:A5:46:CYS:HB3	1.65	0.78
57:AA:528:A:C2	57:AA:2043:C:H4'	2.18	0.78
36:BP:101:VAL:HG12	36:BP:106:LEU:HB3	1.65	0.78
37:BQ:43:THR:OG1	37:BQ:46:GLN:HG3	1.83	0.78
52:B5:51:TYR:H	52:B5:55:ARG:HD3	1.48	0.78
57:BA:2036:C:H5'	57:BA:2036:C:H6	1.46	0.78
1:Ab:104:ASN:HB2	22:Aa:1074:G:H4'	1.64	0.78
2:Ac:84:ILE:HD11	2:Ac:88:ARG:HH21	1.48	0.78
10:Ak:21:ILE:HB	10:Ak:84:VAL:HG12	1.63	0.78
17:Ar:70:ILE:O	17:Ar:74:ARG:HG3	1.82	0.78
22:Aa:1096:C:H2'	22:Aa:1097:C:H6	1.46	0.78
30:AG:76:SER:OG	30:AG:83:ARG:HB3	1.83	0.78
32:AI:120:ILE:HG22	32:AI:121:LYS:N	1.97	0.78
41:AU:90:VAL:O	41:AU:92:ARG:N	2.16	0.78
8:Bi:88:TYR:O	8:Bi:89:ASN:HB2	1.82	0.78
41:BU:66:ASN:HD21	41:BU:70:ARG:HE	1.30	0.78
57:BA:2657:A:H2'	57:BA:2658:C:H5'	1.66	0.78
22:Aa:1321:C:H5'	22:Aa:1322:C:H5"	1.65	0.78
24:Av:40:C:H2'	24:Av:41:C:H6	1.45	0.78
57:AA:548:A:H2'	57:AA:549:G:H5'	1.65	0.78
57:AA:1210:A:H5'	57:AA:1210:A:C8	2.17	0.78
57:AA:1639:U:O2'	57:AA:1640:C:H5"	1.83	0.78
12:Bm:13:LYS:HA	12:Bm:44:ARG:NH1	1.98	0.78
23:Bx:13:A:C3'	23:Bx:14:A:H5"	2.10	0.78
27:BD:49:ILE:HG22	57:BA:779:U:OP1	1.83	0.78
42:BV:21:ARG:CG	42:BV:91:TYR:HD2	1.97	0.78
45:BY:90:LEU:HG	45:BY:91:GLU:H	1.47	0.78
47:B0:72:ARG:O	47:B0:75:LEU:HB2	1.83	0.78
1:Ab:185:ILE:CG2	1:Ab:199:TYR:HB2	2.12	0.78
57:AA:2524:G:H8	57:AA:2524:G:H5'	1.46	0.78
30:BG:43:LEU:HB3	30:BG:45:GLU:HG2	1.66	0.78
36:BP:33:ARG:HD3	57:BA:587:C:C5	2.19	0.78
12:Am:13:LYS:HA	12:Am:44:ARG:NH1	1.98	0.78
13:An:27:CYS:SG	13:An:29:ARG:HB2	2.24	0.78
37:AQ:43:THR:OG1	37:AQ:46:GLN:HG3	1.84	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Be:82:VAL:HG21	4:Be:138:ALA:HA	1.65	0.78
22:Ba:328:C:H4'	22:Ba:329:A:C5'	2.13	0.78
40:BT:62:THR:HG22	40:BT:75:ILE:HG12	1.64	0.78
21:Ay:9:GLU:O	21:Ay:12:LEU:N	2.17	0.78
40:AT:91:ARG:HB3	40:AT:116:ALA:HA	1.66	0.78
52:A5:51:TYR:H	52:A5:55:ARG:HD3	1.48	0.78
1:Bb:69:LEU:HB3	1:Bb:162:ILE:HG22	1.66	0.78
2:Bc:84:ILE:HD11	2:Bc:88:ARG:HH21	1.47	0.78
8:Bi:120:ARG:HD2	22:Ba:1348:U:H4'	1.66	0.78
9:Bj:49:VAL:CG2	13:Bn:41:ARG:HB2	2.14	0.78
15:Bp:72:ARG:HH21	15:Bp:73:LEU:HD21	1.49	0.78
21:By:47:MET:HB3	21:By:48:PRO:HD2	1.64	0.78
27:BD:28:GLU:H	27:BD:29:PRO:HD2	1.47	0.78
55:B8:33:ASN:HD22	55:B8:33:ASN:N	1.77	0.78
7:Ah:103:VAL:HG21	7:Ah:110:ALA:HB2	1.65	0.78
32:AI:113:ARG:HH11	32:AI:113:ARG:HG2	1.48	0.78
36:AP:71:VAL:CG1	36:AP:72:PRO:HD3	2.13	0.78
7:Bh:12:ARG:HH12	7:Bh:27:PRO:CD	1.95	0.78
28:BE:62:PRO:C	28:BE:64:LYS:H	1.88	0.78
30:BG:161:THR:HG22	30:BG:162:THR:N	1.99	0.78
32:AI:94:ALA:HB3	32:AI:111:PRO:HA	1.65	0.78
35:AO:88:ASN:HD21	35:AO:90:GLN:HB2	1.48	0.78
40:AT:10:VAL:O	40:AT:13:ARG:HG2	1.84	0.78
1:Bb:77:ALA:HB2	1:Bb:211:ILE:HD13	1.66	0.78
58:BB:112:U:H2'	58:BB:113:G:H8	1.47	0.78
11:Al:38:THR:HG22	11:Al:57:LYS:HB2	1.64	0.78
32:AI:126:TYR:HB2	32:AI:140:LEU:HD22	1.64	0.78
36:AP:81:GLN:HG2	36:AP:106:LEU:HD12	1.64	0.78
36:AP:112:LEU:H	36:AP:128:HIS:CD2	2.02	0.78
42:AV:18:LEU:HD22	42:AV:19:LYS:N	1.98	0.78
38:BR:11:ASN:OD1	38:BR:12:ARG:N	2.17	0.78
57:BA:1434:A:H61	57:BA:1558:A:H62	1.29	0.78
22:Aa:1278:U:H5"	22:Aa:1279:A:O4'	1.84	0.77
30:AG:29:TRP:HB3	58:AB:57:A:C4	2.19	0.77
53:A6:8:LYS:O	53:A6:8:LYS:HG3	1.84	0.77
57:AA:271(P):C:O2'	57:AA:271(Q):G:H5'	1.85	0.77
3:Bd:119:GLN:HG3	3:Bd:123:HIS:CD2	2.19	0.77
7:Bh:103:VAL:HG21	7:Bh:110:ALA:HB2	1.64	0.77
36:BP:81:GLN:HG2	36:BP:106:LEU:HD12	1.63	0.77
55:B8:4:MET:HG3	55:B8:61:LEU:HD13	1.64	0.77
22:Aa:353:A:H8	22:Aa:353:A:H5'	1.49	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:AG:5:VAL:HG12	51:A4:24:THR:HG22	1.67	0.77
42:AV:34:GLU:O	42:AV:36:PRO:HD3	1.84	0.77
57:AA:1485:G:H1'	57:AA:1505:C:H42	1.49	0.77
57:AA:2611:U:H5'	57:AA:2611:U:H6	1.50	0.77
4:Be:68:GLU:HG3	4:Be:68:GLU:O	1.83	0.77
4:Be:76:ILE:HG12	4:Be:77:PRO:HD2	1.65	0.77
17:Br:70:ILE:O	17:Br:74:ARG:HG3	1.84	0.77
30:BG:29:TRP:HB3	58:BB:57:A:N3	1.98	0.77
36:BP:83:VAL:CG1	36:BP:112:LEU:HD21	2.14	0.77
41:BU:54:LYS:O	41:BU:58:ARG:HG3	1.84	0.77
57:BA:654(S):G:H3'	57:BA:654(T):C:H5"	1.66	0.77
57:BA:1210:A:H5'	57:BA:1210:A:C8	2.18	0.77
1:Ab:167:PRO:HG3	1:Ab:188:ALA:HB2	1.66	0.77
9:Aj:8:LEU:HD23	9:Aj:96:ILE:HG22	1.67	0.77
21:Ay:47:MET:CB	21:Ay:48:PRO:HD2	2.12	0.77
35:AO:69:ILE:HD13	35:AO:77:ILE:HG23	1.66	0.77
57:AA:1021:A:H62	57:AA:1141:U:H3	1.30	0.77
6:Bg:120:ILE:O	6:Bg:124:LEU:HB2	1.83	0.77
47:B0:25:ARG:HD2	47:B0:29:GLN:NE2	1.99	0.77
3:Ad:129:ASN:H	3:Ad:129:ASN:ND2	1.83	0.77
18:As:51:VAL:O	18:As:57:HIS:HA	1.85	0.77
32:AI:78:THR:H	32:AI:104:GLN:HE22	1.28	0.77
35:AO:24:VAL:HA	35:AO:39:ILE:HG22	1.67	0.77
1:Bb:67:THR:HG21	1:Bb:155:LEU:HD21	1.66	0.77
1:Bb:165:VAL:HG23	1:Bb:166:ASP:H	1.49	0.77
30:BG:66:GLN:NE2	51:B4:1:MET:HE3	1.99	0.77
36:BP:55:ARG:HG2	36:BP:56:SER:N	1.95	0.77
42:BV:99:ILE:H	42:BV:99:ILE:CD1	1.96	0.77
45:BY:46:LYS:H	45:BY:62:GLU:HB2	1.49	0.77
12:Am:65:LYS:CG	12:Am:66:LEU:HB2	2.15	0.77
29:AF:24:LEU:CB	29:AF:25:PRO:HD2	2.13	0.77
29:AF:51:THR:HB	29:AF:88:VAL:HG11	1.65	0.77
43:AW:92:ARG:HB3	43:AW:92:ARG:NH1	1.99	0.77
5:Bf:60:PHE:C	5:Bf:61:LEU:HD12	2.09	0.77
22:Ba:1107:C:H2'	22:Ba:1108:G:H5"	1.66	0.77
28:BE:132:HIS:HB3	57:BA:744:G:OP1	1.85	0.77
29:BF:39:TRP:O	29:BF:43:LYS:HG2	1.84	0.77
53:B6:10:LEU:HD23	53:B6:10:LEU:H	1.48	0.77
57:BA:528:A:C2	57:BA:2043:C:H4'	2.20	0.77
47:A0:11:ARG:HH11	47:A0:11:ARG:CB	1.98	0.77
3:Bd:117:ALA:O	3:Bd:121:VAL:HG23	1.85	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Be:96:PRO:HA	4:Be:117:ASP:OD2	1.84	0.77
22:Ba:353:A:H8	22:Ba:353:A:H5'	1.49	0.77
29:BF:74:ARG:HD2	57:BA:674:G:H1'	1.66	0.77
32:BI:62:LYS:HD2	32:BI:133:HIS:HD2	1.47	0.77
37:BQ:16:ARG:O	37:BQ:17:LEU:HD23	1.83	0.77
42:BV:34:GLU:O	42:BV:36:PRO:HD3	1.85	0.77
57:BA:1678:G:H22	57:BA:1989:G:H22	1.32	0.77
11:Al:45:PRO:HG3	11:Al:53:ARG:HD3	1.67	0.77
29:AF:74:ARG:HD2	57:AA:674:G:H1'	1.65	0.77
42:AV:35:LEU:HB2	42:AV:57:VAL:HG13	1.66	0.77
44:AX:12:VAL:HG23	44:AX:13:LEU:N	2.00	0.77
53:A6:52:VAL:HG22	53:A6:53:LYS:H	1.50	0.77
55:A8:33:ASN:HD22	55:A8:33:ASN:N	1.76	0.77
1:Bb:54:THR:HG21	1:Bb:201:ILE:HD11	1.67	0.77
2:Bc:53:ALA:O	2:Bc:54:ARG:HB2	1.85	0.77
12:Bm:70:LEU:HD23	12:Bm:70:LEU:O	1.83	0.77
27:BD:43:ARG:CB	27:BD:54:ARG:HB2	2.14	0.77
32:BI:68:LEU:CD2	32:BI:72:LEU:HD11	2.14	0.77
35:BO:88:ASN:HD21	35:BO:90:GLN:HB2	1.50	0.77
42:BV:18:LEU:HD22	42:BV:19:LYS:N	2.00	0.77
57:BA:548:A:H2'	57:BA:549:G:H5'	1.67	0.77
57:BA:2189:U:C2'	57:BA:2190:G:H5"	2.13	0.77
30:AG:108:ASN:O	30:AG:112:PRO:CG	2.32	0.77
40:AT:91:ARG:O	40:AT:117:ASP:HB2	1.84	0.77
54:A7:34:ARG:HH12	54:A7:39:ARG:HD2	1.49	0.77
11:Bl:47:LYS:HB3	11:Bl:48:PRO:HD3	1.66	0.77
19:Bt:56:MET:HG3	19:Bt:84:LEU:HD12	1.66	0.77
57:BA:296:C:O2'	57:BA:297:C:H5'	1.85	0.77
57:BA:612:C:H2'	57:BA:613:G:C5'	2.10	0.77
28:AE:62:PRO:C	28:AE:64:LYS:H	1.90	0.77
30:AG:72:ARG:CB	30:AG:87:PRO:HD2	2.14	0.77
47:A0:25:ARG:HD2	47:A0:29:GLN:NE2	1.99	0.77
55:A8:16:ILE:HD12	55:A8:57:ARG:HG2	1.66	0.77
57:AA:2245:U:H5'	57:AA:2246:G:H5'	1.67	0.77
27:BD:30:GLU:HG3	27:BD:63:ARG:CZ	2.15	0.77
32:BI:93:THR:HG22	32:BI:119:PRO:HB3	1.66	0.77
32:BI:94:ALA:HB3	32:BI:111:PRO:HA	1.65	0.77
36:BP:148:LEU:O	36:BP:149:GLU:HB2	1.85	0.77
40:BT:91:ARG:HB3	40:BT:116:ALA:HA	1.67	0.77
48:B1:52:ARG:NH1	57:BA:2218:U:H1'	1.99	0.77
55:B8:16:ILE:HD12	55:B8:57:ARG:HG2	1.64	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:Ak:22:HIS:HB3	10:Ak:29:ILE:HG23	1.66	0.77
23:Ax:23:A:C2'	23:Ax:24:A:C5'	2.59	0.77
31:AH:105:LEU:HD23	31:AH:105:LEU:H	1.49	0.77
38:AR:98:LEU:HB2	38:AR:113:LEU:CD2	2.15	0.77
43:AW:34:ASN:HD22	52:A5:39:MET:HE3	1.49	0.77
29:BF:169:ASN:HD21	57:BA:322:A:H3'	1.50	0.77
36:BP:7:ARG:O	36:BP:10:PRO:HD2	1.84	0.77
36:BP:16:ARG:C	36:BP:16:ARG:HH11	1.93	0.77
11:Al:24:VAL:HG13	11:Al:98:TYR:CE2	2.19	0.76
22:Aa:530:G:N3	22:Aa:530:G:H2'	1.99	0.76
30:AG:39:ILE:HD12	30:AG:60:LEU:HD21	1.66	0.76
37:AQ:16:ARG:O	37:AQ:17:LEU:HD23	1.85	0.76
38:AR:101:ALA:O	38:AR:102:GLU:HB2	1.84	0.76
45:AY:88:LYS:NZ	45:AY:93:GLY:HA3	2.01	0.76
12:Bm:65:LYS:O	12:Bm:70:LEU:HD12	1.84	0.76
25:Bw:8:U:H3	25:Bw:14:A:H62	1.33	0.76
37:BQ:34:LEU:HD11	37:BQ:129:THR:HB	1.67	0.76
1:Ab:165:VAL:HG23	1:Ab:166:ASP:H	1.50	0.76
8:Ai:120:ARG:HD2	22:Aa:1348:U:H4'	1.65	0.76
17:Ar:29:PHE:HE1	17:Ar:31:LEU:HB3	1.51	0.76
36:AP:148:LEU:O	36:AP:149:GLU:HB2	1.84	0.76
43:AW:9:TYR:H	43:AW:102:HIS:CD2	2.02	0.76
9:Bj:50:ILE:HG22	9:Bj:60:ARG:HD3	1.67	0.76
30:BG:91:ARG:HD2	30:BG:92:VAL:N	1.99	0.76
30:BG:172:LEU:O	30:BG:176:LEU:HG	1.85	0.76
31:BH:41:MET:SD	31:BH:43:VAL:HG13	2.25	0.76
31:BH:105:LEU:HD23	31:BH:105:LEU:H	1.49	0.76
36:BP:122:PRO:HA	36:BP:141:ALA:O	1.85	0.76
57:BA:676:A:H2	57:BA:802:A:H61	1.31	0.76
9:Aj:4:ILE:H	9:Aj:4:ILE:HD12	1.50	0.76
12:Am:115:LYS:HD3	12:Am:115:LYS:N	1.98	0.76
15:Ap:72:ARG:HH21	15:Ap:73:LEU:HD21	1.50	0.76
22:Aa:979:C:C3'	22:Aa:980:C:H5"	2.15	0.76
23:Ax:14:A:H2'	23:Ax:15:A:H5'	1.66	0.76
28:AE:132:HIS:HA	28:AE:135:HIS:CE1	2.20	0.76
36:AP:108:LYS:C	36:AP:110:TYR:H	1.93	0.76
45:AY:7:VAL:HB	45:AY:8:LYS:CD	2.14	0.76
57:AA:27:G:N2	57:AA:512:G:H2'	2.00	0.76
57:AA:1378:A:O2'	57:AA:1379:A:H5'	1.85	0.76
57:AA:2523:G:H2'	57:AA:2524:G:H5"	1.66	0.76
57:AA:2657:A:H2'	57:AA:2658:C:H5'	1.66	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:Bj:6:ILE:O	9:Bj:71:LEU:HD12	1.85	0.76
12:Bm:90:LEU:C	12:Bm:92:HIS:H	1.91	0.76
16:Bq:21:VAL:HG11	16:Bq:59:ILE:HD11	1.65	0.76
18:Bs:31:ILE:HG23	18:Bs:49:ILE:HA	1.66	0.76
22:Ba:1278:U:H5"	22:Ba:1279:A:O4'	1.84	0.76
27:BD:166:GLN:HE21	27:BD:166:GLN:CA	1.97	0.76
48:B1:45:ASN:HD21	48:B1:47:GLN:HE21	1.32	0.76
57:BA:2833:G:H3'	57:BA:2834:G:H5'	1.67	0.76
2:Ac:70:VAL:HG12	2:Ac:71:ALA:N	1.99	0.76
8:Ai:77:ILE:O	8:Ai:81:ILE:HG12	1.86	0.76
21:Ay:26:LEU:CD2	21:Ay:55:LEU:HD11	2.14	0.76
22:Aa:1054:C:N3	23:Ax:21:OMG:HM22	2.01	0.76
27:AD:30:GLU:HG3	27:AD:63:ARG:CZ	2.15	0.76
30:AG:108:ASN:O	51:A4:36:CYS:HA	1.85	0.76
36:AP:122:PRO:HA	36:AP:141:ALA:O	1.86	0.76
42:AV:21:ARG:CG	42:AV:91:TYR:HD2	1.97	0.76
1:Bb:167:PRO:HG3	1:Bb:188:ALA:HB2	1.67	0.76
57:BA:1718:G:H8	57:BA:1718:G:H5'	1.49	0.76
40:AT:85:LYS:HB3	40:AT:85:LYS:HZ3	1.49	0.76
47:A0:43:THR:H	57:AA:2331:G:H4'	1.50	0.76
57:AA:1541:G:H4'	57:AA:1542:A:C5'	2.16	0.76
57:AA:2189:U:C2'	57:AA:2190:G:H5"	2.14	0.76
9:Bj:4:ILE:H	9:Bj:4:ILE:HD12	1.48	0.76
12:Bm:108:ARG:NH2	12:Bm:114:ARG:HG2	2.00	0.76
18:Bs:62:ILE:HD12	18:Bs:66:MET:HE2	1.68	0.76
36:BP:55:ARG:CG	36:BP:56:SER:H	1.98	0.76
1:Ab:77:ALA:HB2	1:Ab:211:ILE:HD13	1.67	0.76
1:Ab:88:ALA:HB2	1:Ab:219:VAL:CG1	2.16	0.76
8:Ai:16:ARG:O	8:Ai:63:ILE:HG23	1.84	0.76
12:Am:65:LYS:HA	12:Am:66:LEU:CD2	2.15	0.76
22:Aa:1193:G:C2'	22:Aa:1194:U:C5'	2.63	0.76
27:AD:43:ARG:CB	27:AD:54:ARG:HB2	2.14	0.76
30:AG:108:ASN:C	30:AG:112:PRO:HG2	2.11	0.76
36:AP:33:ARG:HD3	57:AA:587:C:C5	2.20	0.76
42:AV:72:VAL:CG2	42:AV:85:LYS:HB3	2.14	0.76
51:A4:2:LYS:HB2	58:AB:40:U:O4	1.86	0.76
55:A8:62:LEU:HD13	57:AA:242:G:C5'	2.10	0.76
43:BW:92:ARG:HB3	43:BW:92:ARG:NH1	1.99	0.76
4:Ae:96:PRO:HA	4:Ae:117:ASP:OD2	1.85	0.76
18:As:22:LEU:O	18:As:26:GLY:HA2	1.86	0.76
26:AC:191:ARG:HB3	26:AC:195:ARG:NH1	2.01	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:AP:83:VAL:HG12	36:AP:112:LEU:HD21	1.66	0.76
41:AU:54:LYS:O	41:AU:58:ARG:HG3	1.84	0.76
56:A9:1:MET:HB3	56:A9:4:ARG:NH1	2.01	0.76
21:Ay:43:LYS:HZ3	22:Aa:1493:A:H1'	0.82	0.76
21:Ay:60:TYR:CE1	21:Ay:80:LYS:HG2	2.21	0.76
29:AF:32:LEU:HD11	29:AF:105:VAL:HG13	1.67	0.76
52:A5:34:PRO:O	52:A5:35:GLU:HB2	1.85	0.76
9:Bj:23:ILE:HG23	9:Bj:85:LEU:HD22	1.68	0.76
13:Bn:12:ARG:HH12	13:Bn:14:PRO:HG3	1.49	0.76
18:Bs:20:LEU:HA	18:Bs:23:ASN:ND2	2.00	0.76
36:BP:125:VAL:O	36:BP:145:PRO:HD2	1.85	0.76
57:BA:271(P):C:O2'	57:BA:271(Q):G:H5'	1.85	0.76
38:AR:10:LEU:HB3	38:AR:17:ARG:NE	2.00	0.76
57:AA:1019:U:HO2'	57:AA:1021:A:H2	1.32	0.76
1:Bb:185:ILE:CG2	1:Bb:199:TYR:HB2	2.13	0.76
30:BG:64:THR:OG1	30:BG:94:LEU:HD21	1.85	0.76
52:B5:3:LYS:HB3	57:BA:747:U:C4	2.19	0.76
8:Ai:48:GLU:N	8:Ai:49:PRO:CD	2.49	0.76
9:Aj:50:ILE:HG23	9:Aj:60:ARG:HH11	1.51	0.76
28:AE:59:VAL:O	28:AE:62:PRO:HD2	1.85	0.76
19:Bt:56:MET:HE3	19:Bt:85:MET:HE2	1.67	0.76
23:Bx:14:A:H2'	23:Bx:15:A:H5'	1.67	0.76
29:BF:89:VAL:HG12	29:BF:90:PHE:H	1.50	0.76
45:BY:88:LYS:NZ	45:BY:93:GLY:HA3	2.01	0.76
53:B6:8:LYS:O	53:B6:8:LYS:HG3	1.85	0.76
57:BA:141:A:H8	57:BA:1408:C:HO2'	1.32	0.76
57:BA:154(A):C:H3'	57:BA:155:U:C5'	2.15	0.76
57:BA:2523:G:C2'	57:BA:2524:G:H5"	2.16	0.76
21:Ay:91:VAL:O	21:Ay:94:ILE:HB	1.85	0.75
31:AH:9:ILE:HG23	31:AH:9:ILE:O	1.85	0.75
57:AA:330:A:C2	57:AA:1210:A:H2'	2.21	0.75
57:AA:654(S):G:H3'	57:AA:654(T):C:H5"	1.67	0.75
10:Bk:22:HIS:HB3	10:Bk:29:ILE:HG23	1.67	0.75
15:Bp:45:THR:HG22	15:Bp:47:ASP:H	1.51	0.75
18:Bs:67:VAL:HG23	18:Bs:68:GLY:H	1.51	0.75
27:BD:181:GLU:HA	27:BD:272:ALA:HB3	1.65	0.75
30:BG:16:ARG:HH22	30:BG:28:VAL:HG13	1.51	0.75
30:BG:71:THR:CG2	57:BA:2312:U:H4'	2.16	0.75
36:BP:108:LYS:C	36:BP:110:TYR:H	1.92	0.75
57:BA:2681:C:H5	57:BA:2725:A:N6	1.83	0.75
22:Aa:1158:C:H2'	22:Aa:1158:C:O2	1.83	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AE:36:ARG:HH21	28:AE:88:GLY:HA3	1.49	0.75
30:AG:77:ILE:C	30:AG:79:ASN:H	1.90	0.75
2:Bc:182:ILE:HG12	2:Bc:203:PHE:HD1	1.50	0.75
5:Bf:89:MET:SD	17:Br:76:LEU:HD21	2.25	0.75
6:Bg:15:ASP:HB3	6:Bg:19:GLY:N	2.01	0.75
22:Ba:1116:C:C2'	22:Ba:1117:G:H5"	2.16	0.75
36:BP:112:LEU:H	36:BP:128:HIS:HD2	1.31	0.75
9:Aj:6:ILE:O	9:Aj:71:LEU:HD12	1.86	0.75
9:Aj:55:LYS:HZ2	22:Aa:963:G:H21	1.35	0.75
12:Am:3:ARG:HG2	12:Am:9:ILE:CG1	2.16	0.75
17:Ar:36:ASN:HB3	17:Ar:39:VAL:CG2	2.17	0.75
27:AD:34:VAL:CG2	27:AD:35:LYS:H	1.92	0.75
32:AI:110:ASP:OD2	32:AI:113:ARG:HB3	1.86	0.75
36:AP:16:ARG:C	36:AP:16:ARG:HH11	1.93	0.75
39:AS:55:ALA:HB1	58:AB:117:G:H5'	1.68	0.75
40:AT:28:VAL:CG2	40:AT:46:GLU:HG3	2.16	0.75
53:A6:10:LEU:HD23	53:A6:10:LEU:H	1.50	0.75
55:A8:29:LYS:HD3	55:A8:44:LYS:HG2	1.66	0.75
29:BF:51:THR:HB	29:BF:88:VAL:HG11	1.66	0.75
30:BG:29:TRP:HB3	58:BB:57:A:C4	2.19	0.75
42:BV:18:LEU:CD1	42:BV:19:LYS:H	1.99	0.75
44:BX:12:VAL:HB	44:BX:17:ALA:HB1	1.68	0.75
57:BA:1541:G:H4'	57:BA:1542:A:C5'	2.15	0.75
22:Aa:1196:U:O2	23:Ax:23:A:N6	2.18	0.75
29:AF:39:TRP:O	29:AF:43:LYS:HG2	1.86	0.75
30:AG:67:LYS:H	30:AG:67:LYS:CD	1.97	0.75
34:AN:13:TRP:O	34:AN:135:PRO:HD2	1.85	0.75
39:AS:30:ARG:HH22	39:AS:62:LYS:HD2	1.51	0.75
49:A2:2:LYS:HG2	57:AA:97:C:H5"	1.69	0.75
52:A5:41:PRO:HG2	52:A5:44:THR:OG1	1.86	0.75
1:Bb:97:TRP:HZ3	1:Bb:172:ILE:HB	1.49	0.75
9:Bj:50:ILE:HG23	9:Bj:60:ARG:HH11	1.50	0.75
22:Ba:67:C:H2'	22:Ba:68:G:C8	2.21	0.75
34:BN:68:GLU:HG2	34:BN:88:GLU:CD	2.12	0.75
47:B0:11:ARG:HH11	47:B0:11:ARG:CB	1.98	0.75
57:BA:1541:G:H1'	57:BA:1542:A:C5	2.22	0.75
36:AP:7:ARG:O	36:AP:10:PRO:HD2	1.85	0.75
11:Bl:45:PRO:HG3	11:Bl:53:ARG:HD3	1.66	0.75
27:BD:80:ALA:HB3	27:BD:94:LEU:HD13	1.68	0.75
34:BN:58:ASP:C	34:BN:60:ILE:H	1.94	0.75
57:BA:672:C:O2'	57:BA:673:C:H5"	1.87	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Ac:182:ILE:HG12	2:Ac:203:PHE:HD1	1.51	0.75
57:AA:2801(A):A:C4'	57:AA:2802:G:H5'	2.09	0.75
1:Bb:18:GLY:N	1:Bb:42:ILE:HG22	2.01	0.75
8:Bi:77:ILE:O	8:Bi:81:ILE:HG12	1.86	0.75
17:Br:36:ASN:HB3	17:Br:39:VAL:CG2	2.16	0.75
21:By:77:SER:HB2	21:By:90:ALA:CB	2.16	0.75
38:BR:10:LEU:HB3	38:BR:17:ARG:NE	2.01	0.75
38:BR:98:LEU:HB2	38:BR:113:LEU:CD2	2.17	0.75
53:B6:5:VAL:HG22	53:B6:6:ARG:H	1.51	0.75
56:B9:1:MET:HB3	56:B9:4:ARG:NH1	2.01	0.75
1:Ab:97:TRP:HZ3	1:Ab:172:ILE:HB	1.50	0.75
38:AR:2:ARG:HH11	57:AA:2723:C:H5"	1.51	0.75
39:AS:106:ARG:O	39:AS:106:ARG:HD2	1.87	0.75
57:AA:903:C:H2'	57:AA:904:C:C5'	2.17	0.75
57:AA:1541:G:H1'	57:AA:1542:A:C5	2.22	0.75
2:Bc:16:ARG:NH1	2:Bc:16:ARG:HB2	2.02	0.75
15:Bp:20:VAL:HG21	15:Bp:32:TYR:CG	2.21	0.75
22:Ba:818:G:O2'	22:Ba:819:A:H5'	1.87	0.75
30:BG:161:THR:HG22	30:BG:163:ALA:H	1.52	0.75
32:BI:84:GLY:HA3	32:BI:144:VAL:HG13	1.69	0.75
42:BV:38:LEU:C	42:BV:39:LEU:HD13	2.12	0.75
1:Ab:69:LEU:HB3	1:Ab:162:ILE:HG22	1.67	0.75
2:Ac:173:VAL:O	2:Ac:175:LEU:HD12	1.87	0.75
6:Ag:69:VAL:HG21	6:Ag:104:LEU:HD21	1.67	0.75
9:Aj:50:ILE:HG22	9:Aj:60:ARG:HD3	1.68	0.75
17:Ar:36:ASN:HB3	17:Ar:39:VAL:HB	1.67	0.75
18:As:20:LEU:HA	18:As:23:ASN:ND2	2.01	0.75
22:Aa:1054:C:OP1	22:Aa:1198:G:OP2	2.05	0.75
29:AF:178:PRO:HG2	29:AF:179:GLU:OE1	1.87	0.75
9:Bj:32:ALA:CB	9:Bj:76:ASN:HB3	2.16	0.75
9:Bj:34:VAL:HG22	9:Bj:74:ILE:HG22	1.68	0.75
18:Bs:51:VAL:O	18:Bs:57:HIS:HA	1.87	0.75
30:BG:71:THR:HG22	30:BG:89:GLY:C	2.12	0.75
36:BP:83:VAL:HG12	36:BP:112:LEU:HD21	1.67	0.75
57:BA:2611:U:H5'	57:BA:2611:U:H6	1.49	0.75
36:AP:83:VAL:CG1	36:AP:112:LEU:HD21	2.17	0.75
48:A1:29:GLY:O	48:A1:30:VAL:HG22	1.85	0.75
49:A2:16:LEU:O	49:A2:20:GLU:HB3	1.86	0.75
9:Bj:8:LEU:HD23	9:Bj:96:ILE:HG22	1.68	0.75
28:BE:24:THR:HG22	28:BE:186:GLY:HA2	1.67	0.75
44:BX:35:THR:HG22	44:BX:37:THR:H	1.50	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:B8:61:LEU:H	55:B8:61:LEU:CD2	1.88	0.75
57:BA:2292:C:O2'	57:BA:2293:C:H5'	1.86	0.75
9:Aj:23:ILE:HG23	9:Aj:85:LEU:HD22	1.69	0.74
30:AG:145:THR:HG23	30:AG:148:MET:HB3	1.69	0.74
41:AU:66:ASN:HD21	41:AU:70:ARG:HE	1.33	0.74
45:AY:46:LYS:H	45:AY:62:GLU:HB2	1.51	0.74
47:A0:51:VAL:HG22	47:A0:81:VAL:HG23	1.68	0.74
55:A8:51:ALA:N	55:A8:53:PRO:HD2	2.01	0.74
57:AA:2801(A):A:H4'	57:AA:2802:G:C5'	2.11	0.74
1:Bb:97:TRP:CZ3	1:Bb:172:ILE:HB	2.21	0.74
8:Bi:82:ALA:HB1	8:Bi:96:LEU:HD11	1.69	0.74
22:Ba:530:G:H2'	22:Ba:530:G:N3	2.00	0.74
28:BE:131:ALA:H	57:BA:2580:U:C5'	2.00	0.74
53:B6:37:ARG:HH21	57:BA:2286:A:N6	1.83	0.74
8:Ai:103:THR:HG22	8:Ai:104:ARG:N	1.99	0.74
48:A1:45:ASN:HD21	57:AA:2090:G:H21	1.33	0.74
55:A8:61:LEU:HD23	55:A8:61:LEU:N	2.02	0.74
57:AA:296:C:O2'	57:AA:297:C:H5'	1.86	0.74
12:Bm:115:LYS:HD3	12:Bm:115:LYS:N	1.98	0.74
13:Bn:40:CYS:O	13:Bn:44:LEU:HB3	1.88	0.74
22:Ba:1497:G:C2'	22:Ba:1498:U:H5'	2.16	0.74
26:BC:191:ARG:HB3	26:BC:195:ARG:NH1	2.02	0.74
40:BT:10:VAL:O	40:BT:13:ARG:HG2	1.87	0.74
41:BU:90:VAL:O	41:BU:92:ARG:N	2.20	0.74
55:B8:51:ALA:N	55:B8:53:PRO:HD2	2.02	0.74
57:BA:1485:G:H1'	57:BA:1505:C:H42	1.51	0.74
1:Ab:79:ASP:O	1:Ab:81:VAL:N	2.19	0.74
6:Ag:15:ASP:HB3	6:Ag:19:GLY:N	2.03	0.74
15:Ap:45:THR:HG22	15:Ap:47:ASP:H	1.50	0.74
22:Aa:9:G:H2'	22:Aa:10:A:H8	1.50	0.74
32:AI:84:GLY:HA3	32:AI:144:VAL:HG13	1.68	0.74
46:AZ:79:ARG:O	46:AZ:80:ARG:HB2	1.87	0.74
57:AA:1022:G:N2	57:AA:1142(A):A:H2	1.84	0.74
5:Bf:79:LEU:O	5:Bf:85:VAL:HG11	1.87	0.74
15:Bp:28:ARG:HG2	15:Bp:29:ASP:OD2	1.87	0.74
28:BE:116:VAL:HG21	28:BE:122:PHE:CD2	2.23	0.74
46:BZ:66:SER:O	46:BZ:67:LEU:HD13	1.87	0.74
57:BA:2801(A):A:H4'	57:BA:2802:G:C5'	2.10	0.74
4:Ae:76:ILE:HG12	4:Ae:77:PRO:HD2	1.67	0.74
5:Af:79:LEU:O	5:Af:85:VAL:HG11	1.88	0.74
8:Ai:112:LYS:HA	8:Ai:119:ALA:HB2	1.68	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AD:181:GLU:HA	27:AD:272:ALA:HB3	1.70	0.74
57:AA:154(A):C:H3'	57:AA:155:U:C5'	2.16	0.74
1:Bb:18:GLY:H	1:Bb:42:ILE:CG2	2.00	0.74
7:Bh:12:ARG:NH1	7:Bh:27:PRO:HD3	1.97	0.74
36:BP:66:GLY:HA3	57:BA:2415:G:O3'	1.87	0.74
36:BP:112:LEU:H	36:BP:128:HIS:CD2	2.04	0.74
39:BS:106:ARG:O	39:BS:106:ARG:HD2	1.86	0.74
40:BT:28:VAL:CG2	40:BT:46:GLU:HG3	2.18	0.74
8:Ai:82:ALA:HB1	8:Ai:96:LEU:HD11	1.68	0.74
27:AD:259:THR:HG21	57:AA:1803:A:O2'	1.86	0.74
30:AG:117:PHE:O	30:AG:118:ARG:HB2	1.86	0.74
1:Bb:79:ASP:O	1:Bb:81:VAL:N	2.20	0.74
6:Bg:151:TYR:OH	10:Bk:54:ARG:HD3	1.88	0.74
18:Bs:16:LEU:O	18:Bs:20:LEU:HG	1.87	0.74
57:BA:259:G:N2	57:BA:621:A:H8	1.83	0.74
57:BA:1403:C:H5"	57:BA:1471:A:H1'	1.69	0.74
1:Ab:97:TRP:CZ3	1:Ab:172:ILE:HB	2.22	0.74
14:Ao:25:THR:HG21	14:Ao:70:LEU:HB2	1.68	0.74
18:As:31:ILE:HG23	18:As:49:ILE:HA	1.69	0.74
27:AD:46:GLN:N	27:AD:46:GLN:OE1	2.21	0.74
29:AF:3:GLU:C	29:AF:24:LEU:HG	2.13	0.74
34:AN:58:ASP:C	34:AN:60:ILE:H	1.95	0.74
36:AP:125:VAL:O	36:AP:145:PRO:HD2	1.88	0.74
42:AV:18:LEU:CD1	42:AV:19:LYS:H	2.00	0.74
47:A0:72:ARG:O	47:A0:75:LEU:HB2	1.87	0.74
53:A6:37:ARG:HH21	57:AA:2286:A:N6	1.84	0.74
17:Br:29:PHE:HE1	17:Br:31:LEU:HB3	1.53	0.74
22:Ba:9:G:H2'	22:Ba:10:A:H8	1.51	0.74
57:BA:197:A:H5'	57:BA:197:A:C8	2.23	0.74
57:BA:588:U:H2'	57:BA:589:C:C6	2.23	0.74
57:BA:1717:G:C2'	57:BA:1718:G:H5"	2.18	0.74
57:BA:2245:U:H5'	57:BA:2246:G:H5'	1.69	0.74
13:An:40:CYS:O	13:An:44:LEU:HB3	1.86	0.74
28:AE:167:VAL:HG22	28:AE:170:LEU:HD11	1.69	0.74
29:AF:36:VAL:HG11	29:AF:183:VAL:HG11	1.70	0.74
32:AI:68:LEU:CD2	32:AI:72:LEU:HD11	2.17	0.74
49:A2:13:ALA:HA	49:A2:16:LEU:HD12	1.68	0.74
8:Bi:16:ARG:O	8:Bi:63:ILE:HG23	1.87	0.74
27:BD:176:ARG:HH11	27:BD:176:ARG:HG2	1.52	0.74
30:BG:141:PHE:O	30:BG:144:ILE:HG22	1.87	0.74
40:BT:28:VAL:HG21	40:BT:46:GLU:HG3	1.70	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BA:1022:G:N2	57:BA:1142(A):A:H2	1.84	0.74
30:AG:67:LYS:HE2	51:A4:6:HIS:CG	2.23	0.74
57:AA:212:G:O2'	57:AA:213:A:H5'	1.87	0.74
8:Bi:112:LYS:HA	8:Bi:119:ALA:HB2	1.68	0.74
9:Bj:55:LYS:HZ2	22:Ba:963:G:H21	1.35	0.74
29:BF:178:PRO:HG2	29:BF:179:GLU:OE1	1.87	0.74
53:B6:35:GLU:HB3	53:B6:51:GLU:HB2	1.68	0.74
1:Ab:54:THR:HG21	1:Ab:201:ILE:HD11	1.68	0.74
1:Ab:75:LYS:HA	1:Ab:78:GLN:HE21	1.53	0.74
2:Ac:53:ALA:O	2:Ac:54:ARG:HB2	1.88	0.74
9:Aj:34:VAL:HG22	9:Aj:74:ILE:HG22	1.68	0.74
22:Aa:954:G:H2'	22:Aa:955:U:C6	2.23	0.74
38:AR:98:LEU:HB2	38:AR:113:LEU:HD21	1.68	0.74
57:AA:259:G:N2	57:AA:621:A:H8	1.84	0.74
12:Bm:70:LEU:HD23	12:Bm:71:ARG:N	1.98	0.74
18:Bs:22:LEU:O	18:Bs:26:GLY:HA2	1.87	0.74
31:BH:156:ALA:O	31:BH:157:TYR:C	2.30	0.74
32:BI:77:LEU:CD2	32:BI:141:LYS:HG2	2.18	0.74
32:BI:98:ALA:HB1	32:BI:109:ILE:HB	1.69	0.74
32:BI:126:TYR:HB2	32:BI:140:LEU:HD22	1.68	0.74
37:BQ:13:GLN:HG3	57:BA:910:A:C5	2.22	0.74
44:BX:12:VAL:HG23	44:BX:13:LEU:N	2.00	0.74
46:BZ:68:PRO:HG2	46:BZ:91:LEU:H	1.52	0.74
53:B6:52:VAL:HG22	53:B6:53:LYS:H	1.51	0.74
55:B8:6:THR:CG2	55:B8:63:PRO:HD3	2.17	0.74
57:BA:365:C:H5'	57:BA:365:C:H6	1.52	0.74
10:Ak:21:ILE:HG13	10:Ak:30:VAL:HG12	1.70	0.74
12:Am:88:ARG:HA	12:Am:98:VAL:CG1	2.18	0.74
37:AQ:13:GLN:HG3	57:AA:910:A:C5	2.22	0.74
37:AQ:34:LEU:HD11	37:AQ:129:THR:HB	1.69	0.74
46:AZ:24:LEU:HD23	46:AZ:24:LEU:C	2.13	0.74
55:A8:61:LEU:H	55:A8:61:LEU:CD2	1.88	0.74
57:AA:2033:A:H4'	57:AA:2034:U:OP1	1.88	0.74
3:Bd:129:ASN:H	3:Bd:129:ASN:ND2	1.84	0.74
10:Bk:21:ILE:HG13	10:Bk:30:VAL:HG12	1.69	0.74
12:Am:90:LEU:C	12:Am:92:HIS:H	1.93	0.73
17:Ar:79:LEU:HD23	17:Ar:80:PRO:HD2	1.69	0.73
22:Aa:1513:A:H2'	22:Aa:1514:C:H6	1.53	0.73
28:AE:24:THR:HG22	28:AE:186:GLY:HA2	1.70	0.73
36:AP:16:ARG:HD3	36:AP:16:ARG:C	2.13	0.73
36:AP:71:VAL:HG12	57:AA:389:G:N1	2.02	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:A1:45:ASN:ND2	57:AA:2090:G:H21	1.85	0.73
57:AA:612:C:H2'	57:AA:613:G:C5'	2.12	0.73
14:Bo:25:THR:HG21	14:Bo:70:LEU:HB2	1.70	0.73
29:BF:3:GLU:O	29:BF:19:GLU:HB2	1.87	0.73
35:BO:24:VAL:HA	35:BO:39:ILE:HG22	1.69	0.73
52:B5:34:PRO:O	52:B5:35:GLU:HB2	1.86	0.73
6:Ag:138:LYS:O	6:Ag:142:GLU:HG3	1.87	0.73
22:Aa:1107:C:H2'	22:Aa:1108:G:H5"	1.69	0.73
44:AX:35:THR:HG22	44:AX:37:THR:H	1.53	0.73
45:AY:90:LEU:HG	45:AY:91:GLU:H	1.53	0.73
57:AA:672:C:O2'	57:AA:673:C:H5"	1.87	0.73
57:AA:2292:C:O2'	57:AA:2293:C:H5'	1.87	0.73
1:Bb:164:VAL:CG2	1:Bb:186:ALA:HB2	2.18	0.73
5:Bf:61:LEU:HD23	5:Bf:63:TYR:OH	1.87	0.73
22:Ba:1090:U:H2'	22:Ba:1091:U:C6	2.21	0.73
32:BI:109:ILE:CG2	32:BI:114:LEU:HD11	2.17	0.73
57:BA:330:A:C2	57:BA:1210:A:H2'	2.22	0.73
4:Ae:82:VAL:HG21	4:Ae:138:ALA:HA	1.68	0.73
4:Ae:93:PRO:HG2	7:Ah:105:ARG:NH2	2.03	0.73
9:Aj:32:ALA:CB	9:Aj:76:ASN:HB3	2.16	0.73
13:An:12:ARG:HH12	13:An:14:PRO:HG3	1.52	0.73
27:AD:11:PRO:O	27:AD:13:ARG:N	2.22	0.73
30:AG:5:VAL:H	30:AG:8:LYS:HB3	1.53	0.73
49:A2:47:ASN:O	49:A2:49:LYS:N	2.20	0.73
57:AA:1717:G:C2'	57:AA:1718:G:H5"	2.18	0.73
57:AA:1786:A:H2	57:AA:2606:C:H1'	1.53	0.73
1:Bb:130:ARG:HB3	1:Bb:134:GLU:HG3	1.70	0.73
1:Bb:204:ASN:ND2	1:Bb:206:ASP:H	1.86	0.73
6:Bg:79:ARG:HG3	6:Bg:83:ALA:O	1.88	0.73
14:Bo:54:ARG:HG2	14:Bo:58:MET:CE	2.18	0.73
15:Bp:21:VAL:HG13	15:Bp:33:ILE:HB	1.69	0.73
22:Ba:979:C:C3'	22:Ba:980:C:H5"	2.15	0.73
22:Ba:1195:C:H5'	22:Ba:1196:U:H5"	1.69	0.73
29:BF:89:VAL:HG12	29:BF:90:PHE:N	2.02	0.73
38:BR:98:LEU:HB2	38:BR:113:LEU:HD21	1.70	0.73
45:BY:8:LYS:HG2	45:BY:28:LYS:NZ	2.02	0.73
57:BA:2121:G:H1	57:BA:2177:C:H42	1.36	0.73
8:Ai:99:LEU:HB3	8:Ai:101:PHE:HD1	1.53	0.73
19:At:56:MET:HG3	19:At:84:LEU:HD12	1.69	0.73
27:AD:24:ILE:CG1	27:AD:25:THR:N	2.51	0.73
38:AR:24:GLN:HE22	38:AR:36:THR:HG21	1.52	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:AZ:157:LEU:H	46:AZ:157:LEU:HD23	1.52	0.73
47:A0:40:GLN:HE22	47:A0:43:THR:HA	1.54	0.73
55:A8:6:THR:CG2	55:A8:63:PRO:HD3	2.17	0.73
6:Bg:138:LYS:O	6:Bg:142:GLU:HG3	1.89	0.73
17:Br:36:ASN:HB3	17:Br:39:VAL:HB	1.70	0.73
34:BN:1:MET:HG2	34:BN:2:LYS:N	2.03	0.73
36:BP:16:ARG:HD3	36:BP:16:ARG:C	2.13	0.73
57:BA:2313:C:H2'	57:BA:2314:C:C6	2.23	0.73
3:Ad:119:GLN:HG3	3:Ad:123:HIS:CD2	2.22	0.73
21:Ay:5:LEU:CG	21:Ay:7:PHE:CE1	2.70	0.73
21:Ay:60:TYR:O	21:Ay:61:ARG:HD2	1.89	0.73
30:AG:36:LYS:CE	30:AG:95:ARG:HH12	2.00	0.73
31:AH:43:VAL:HG11	31:AH:52:VAL:HG22	1.70	0.73
36:AP:62:LEU:HD23	36:AP:62:LEU:H	1.54	0.73
42:AV:99:ILE:HD13	42:AV:99:ILE:N	2.02	0.73
47:A0:41:ARG:NH2	57:AA:2387:U:H4'	2.03	0.73
57:AA:2523:G:C2'	57:AA:2524:G:H5"	2.18	0.73
8:Bi:27:THR:HG23	8:Bi:31:GLN:O	1.88	0.73
8:Bi:104:ARG:O	8:Bi:105:ASP:CB	2.31	0.73
36:BP:71:VAL:HG13	36:BP:72:PRO:CD	2.17	0.73
39:BS:30:ARG:HH22	39:BS:62:LYS:HD2	1.52	0.73
57:BA:212:G:O2'	57:BA:213:A:H5'	1.89	0.73
18:As:67:VAL:HG23	18:As:68:GLY:H	1.52	0.73
22:Aa:67:C:H2'	22:Aa:68:G:C8	2.22	0.73
22:Aa:1141:C:H2'	22:Aa:1142:G:C8	2.23	0.73
39:AS:13:ARG:CG	39:AS:14:VAL:H	2.01	0.73
40:AT:65:LYS:HA	40:AT:65:LYS:HZ2	1.53	0.73
8:Bi:100:GLY:C	8:Bi:102:LEU:H	1.94	0.73
9:Bj:70:ARG:HH11	9:Bj:70:ARG:HG2	1.53	0.73
22:Ba:250:A:H4'	22:Ba:251:G:O5'	1.88	0.73
27:BD:259:THR:HG21	57:BA:1803:A:O2'	1.88	0.73
28:BE:132:HIS:HA	28:BE:135:HIS:CE1	2.23	0.73
32:BI:81:VAL:HG22	32:BI:82:ARG:N	2.03	0.73
1:Ab:14:GLY:O	1:Ab:15:VAL:HG13	1.89	0.73
17:Ar:87:ARG:HB3	17:Ar:87:ARG:NH1	2.03	0.73
22:Aa:818:G:O2'	22:Aa:819:A:H5'	1.89	0.73
27:AD:176:ARG:HH11	27:AD:176:ARG:HG2	1.54	0.73
28:AE:131:ALA:H	57:AA:2580:U:C5'	2.02	0.73
30:AG:15:VAL:HG13	30:AG:175:LEU:HB3	1.70	0.73
36:AP:66:GLY:HA3	57:AA:2415:G:O3'	1.89	0.73
45:AY:96:ILE:HG22	45:AY:97:ARG:H	1.53	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:AA:2833:G:H3'	57:AA:2834:G:H5'	1.69	0.73
12:Bm:111:LYS:CE	22:Ba:1227:A:OP2	2.35	0.73
28:BE:111:ARG:HD2	28:BE:160:TYR:CE1	2.24	0.73
29:BF:132:VAL:HG22	29:BF:133:ASN:N	2.01	0.73
38:BR:24:GLN:HE22	38:BR:36:THR:HG21	1.53	0.73
1:Ab:204:ASN:ND2	1:Ab:206:ASP:H	1.87	0.73
8:Ai:17:VAL:HA	8:Ai:63:ILE:HG12	1.71	0.73
24:Av:3:C:H2'	24:Av:4:G:H5'	1.70	0.73
29:AF:89:VAL:HG12	29:AF:90:PHE:H	1.54	0.73
31:AH:156:ALA:O	31:AH:157:TYR:C	2.31	0.73
32:AI:77:LEU:CD2	32:AI:141:LYS:HG2	2.18	0.73
45:AY:8:LYS:HG2	45:AY:28:LYS:NZ	2.04	0.73
46:AZ:74:VAL:HG13	46:AZ:86:VAL:HG12	1.69	0.73
49:A2:47:ASN:ND2	57:AA:94(A):G:N3	2.36	0.73
52:A5:54:GLY:C	52:A5:55:ARG:HE	1.97	0.73
29:BF:3:GLU:C	29:BF:24:LEU:HG	2.14	0.73
38:BR:4:LEU:O	38:BR:5:LYS:HD3	1.89	0.73
42:BV:5:VAL:HG23	42:BV:37:VAL:O	1.88	0.73
57:BA:2233:U:H2'	57:BA:2234:G:C8	2.23	0.73
9:Aj:6:ILE:O	9:Aj:6:ILE:HD12	1.88	0.73
22:Aa:1116:C:C2'	22:Aa:1117:G:H5"	2.17	0.73
27:AD:43:ARG:HH11	27:AD:44:ASN:ND2	1.87	0.73
28:AE:116:VAL:HG21	28:AE:122:PHE:CD2	2.23	0.73
32:AI:1:MET:HG3	32:AI:23:PRO:HG3	1.71	0.73
43:AW:65:LEU:HD23	43:AW:68:ARG:HD2	1.71	0.73
47:A0:48:GLY:HA3	47:A0:80:HIS:HD1	1.53	0.73
57:AA:365:C:H5'	57:AA:365:C:H6	1.52	0.73
57:AA:603:A:H4'	57:AA:604:G:O5'	1.89	0.73
57:AA:1403:C:H5"	57:AA:1471:A:H1'	1.69	0.73
12:Bm:94:ARG:O	12:Bm:96:LEU:HG	1.88	0.73
22:Ba:1128:C:H1'	22:Ba:1146:A:H61	1.54	0.73
24:Bv:4:G:O2'	24:Bv:5:G:H8	1.69	0.73
43:BW:9:TYR:H	43:BW:102:HIS:CD2	2.06	0.73
52:B5:54:GLY:C	52:B5:55:ARG:HE	1.95	0.73
6:Ag:79:ARG:HG3	6:Ag:83:ALA:O	1.88	0.73
22:Aa:452:A:HO2'	22:Aa:453:A:H8	1.37	0.73
57:AA:1280:G:H2'	57:AA:1281:G:H5"	1.70	0.73
1:Bb:75:LYS:HA	1:Bb:78:GLN:HE21	1.53	0.73
21:By:20:SER:O	21:By:24:GLU:HB2	1.89	0.73
22:Ba:1211:U:H5'	22:Ba:1212:U:OP1	1.89	0.73
27:BD:24:ILE:CG1	27:BD:25:THR:N	2.52	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:167:VAL:HG22	28:BE:170:LEU:HD11	1.70	0.73
29:BF:26:ALA:O	29:BF:27:GLU:HB2	1.89	0.73
30:BG:51:ARG:HD3	30:BG:53:LEU:CD2	2.19	0.73
31:BH:43:VAL:HG11	31:BH:52:VAL:HA	1.69	0.73
37:BQ:132:VAL:HG11	46:BZ:81:ARG:HE	1.52	0.73
9:Aj:70:ARG:HH11	9:Aj:70:ARG:HG2	1.53	0.72
19:At:26:ASN:HB2	19:At:71:THR:HG23	1.70	0.72
22:Aa:1128:C:H1'	22:Aa:1146:A:H61	1.54	0.72
24:Av:47:U:H3'	24:Av:48:C:C5'	2.19	0.72
29:AF:26:ALA:O	29:AF:27:GLU:HB2	1.88	0.72
29:AF:132:VAL:HG22	29:AF:133:ASN:N	2.03	0.72
57:AA:1022:G:N2	57:AA:1142(A):A:C2	2.57	0.72
57:AA:2656:U:H3	57:AA:2665:A:H2	1.36	0.72
4:Be:76:ILE:CG1	4:Be:77:PRO:HD2	2.19	0.72
11:Bl:24:VAL:HG13	11:Bl:98:TYR:CE2	2.24	0.72
22:Ba:1141:C:H2'	22:Ba:1142:G:C8	2.24	0.72
30:BG:109:VAL:HA	30:BG:112:PRO:HG2	1.70	0.72
34:BN:133:GLN:O	34:BN:134:ARG:HB3	1.88	0.72
45:BY:79:CYS:SG	45:BY:80:GLY:N	2.56	0.72
57:BA:2808:U:O2'	57:BA:2809:A:H5'	1.88	0.72
15:Ap:28:ARG:HG2	15:Ap:29:ASP:OD2	1.88	0.72
57:AA:2233:U:H2'	57:AA:2234:G:C8	2.25	0.72
1:Bb:14:GLY:O	1:Bb:15:VAL:HG13	1.89	0.72
2:Bc:173:VAL:O	2:Bc:175:LEU:HD12	1.89	0.72
3:Bd:49:ARG:HE	3:Bd:49:ARG:CA	1.98	0.72
17:Br:87:ARG:HB3	17:Br:87:ARG:NH1	2.03	0.72
18:Bs:11:VAL:HG22	18:Bs:16:LEU:HD11	1.71	0.72
27:BD:11:PRO:O	27:BD:13:ARG:N	2.22	0.72
30:BG:5:VAL:HG12	30:BG:6:ALA:H	1.53	0.72
30:BG:71:THR:HG22	30:BG:89:GLY:CA	2.18	0.72
32:BI:68:LEU:CD2	32:BI:136:VAL:HG11	2.19	0.72
3:Ad:129:ASN:HD22	3:Ad:129:ASN:N	1.79	0.72
15:Ap:20:VAL:HG21	15:Ap:32:TYR:CG	2.25	0.72
21:Ay:87:TYR:HE2	23:Ax:20:A2M:HM'3	1.55	0.72
31:AH:43:VAL:HG11	31:AH:52:VAL:HA	1.70	0.72
31:AH:86:GLU:HB3	31:AH:132:ARG:HB3	1.72	0.72
37:AQ:46:GLN:HE21	57:AA:2485:G:H5"	1.53	0.72
53:A6:12:GLU:HA	53:A6:23:THR:HA	1.71	0.72
57:AA:271(F):C:H2'	57:AA:271(G):C:H6	1.54	0.72
10:Bk:126:ARG:HH11	10:Bk:126:ARG:HB3	1.54	0.72
31:BH:43:VAL:HG11	31:BH:52:VAL:HG22	1.70	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BU:34:LYS:HE2	41:BU:34:LYS:HA	1.71	0.72
45:BY:2:ARG:C	45:BY:4:LYS:H	1.98	0.72
1:Ab:18:GLY:N	1:Ab:42:ILE:HG22	2.04	0.72
5:Af:67:MET:HB2	5:Af:68:PRO:HD2	1.72	0.72
14:Ao:82:ILE:HD13	14:Ao:82:ILE:C	2.14	0.72
18:As:11:VAL:HG22	18:As:16:LEU:HD11	1.71	0.72
21:Ay:39:ILE:C	21:Ay:41:ALA:H	1.97	0.72
22:Aa:637:G:H2'	22:Aa:638:G:C8	2.25	0.72
53:A6:5:VAL:HG22	53:A6:6:ARG:H	1.54	0.72
5:Bf:61:LEU:HB3	5:Bf:63:TYR:HE2	1.54	0.72
30:BG:71:THR:HG22	30:BG:89:GLY:HA3	1.70	0.72
54:B7:34:ARG:HH12	54:B7:39:ARG:HD2	1.52	0.72
57:BA:156:U:H4'	57:BA:157:U:H5"	1.70	0.72
57:BA:613:G:H8	57:BA:613:G:H5'	1.55	0.72
22:Aa:250:A:H4'	22:Aa:251:G:O5'	1.89	0.72
22:Aa:503:C:H2'	22:Aa:504:C:H6	1.55	0.72
25:Aw:51:C:H2'	25:Aw:52:G:C8	2.25	0.72
45:AY:26:LYS:HG2	45:AY:27:VAL:H	1.55	0.72
1:Bb:164:VAL:HG23	1:Bb:186:ALA:CB	2.19	0.72
11:Bl:26:ALA:C	11:Bl:27:LEU:HD22	2.14	0.72
53:B6:12:GLU:HA	53:B6:23:THR:HA	1.71	0.72
55:B8:61:LEU:HD23	55:B8:61:LEU:N	2.02	0.72
57:BA:27:G:N2	57:BA:512:G:H2'	2.04	0.72
57:BA:197:A:H5'	57:BA:197:A:H8	1.54	0.72
57:BA:2206:G:H21	57:BA:2207:G:C5'	2.02	0.72
1:Ab:130:ARG:HB3	1:Ab:134:GLU:HG3	1.71	0.72
3:Ad:117:ALA:O	3:Ad:121:VAL:HG23	1.89	0.72
8:Ai:27:THR:HG23	8:Ai:31:GLN:O	1.89	0.72
11:Al:6:THR:HG23	11:Al:9:GLN:NE2	2.04	0.72
18:As:16:LEU:O	18:As:20:LEU:HG	1.89	0.72
35:AO:4:PRO:O	35:AO:5:GLN:HB2	1.90	0.72
42:AV:15:GLU:HB3	42:AV:16:PRO:CD	2.19	0.72
54:A7:8:ASN:C	54:A7:8:ASN:ND2	2.46	0.72
9:Bj:6:ILE:O	9:Bj:6:ILE:HD12	1.90	0.72
30:BG:41:GLN:OE1	30:BG:153:ARG:HG3	1.90	0.72
42:BV:19:LYS:HB3	42:BV:94:LEU:O	1.90	0.72
45:BY:7:VAL:HB	45:BY:8:LYS:CD	2.19	0.72
49:B2:23:LYS:O	49:B2:27:GLU:HG3	1.89	0.72
52:B5:41:PRO:HG2	52:B5:44:THR:OG1	1.90	0.72
8:Ai:13:ALA:HB2	8:Ai:68:GLY:HA3	1.70	0.72
8:Ai:107:ARG:HB3	22:Aa:1347:G:H8	1.53	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Aa:979:C:H3'	22:Aa:980:C:C5'	2.17	0.72
29:AF:3:GLU:O	29:AF:19:GLU:HB2	1.88	0.72
41:AU:44:ASN:ND2	42:AV:75:PHE:HB3	2.05	0.72
41:AU:92:ARG:HE	57:AA:996:A:C4'	2.02	0.72
46:AZ:69:THR:HG22	46:AZ:90:VAL:HA	1.72	0.72
46:AZ:119:GLU:HG3	46:AZ:122:ARG:NH1	2.05	0.72
57:AA:2308:G:O6	57:AA:2310:A:H2'	1.90	0.72
34:BN:18:ALA:HB1	34:BN:21:LYS:CB	2.20	0.72
40:BT:34:VAL:O	40:BT:35:LYS:HB3	1.89	0.72
57:BA:2312:U:C2'	57:BA:2313:C:H5"	2.19	0.72
1:Ab:179:LYS:HG2	1:Ab:179:LYS:O	1.90	0.72
15:Ap:21:VAL:HG13	15:Ap:33:ILE:HB	1.70	0.72
16:Aq:70:ARG:HG2	22:Aa:235:C:C5'	2.20	0.72
21:Ay:43:LYS:HG3	21:Ay:44:LEU:N	2.04	0.72
22:Aa:1054:C:H42	23:Ax:21:OMG:H2'	1.55	0.72
30:AG:114:ILE:HG22	30:AG:114:ILE:O	1.88	0.72
35:AO:111:PHE:O	35:AO:115:VAL:HG23	1.88	0.72
53:A6:5:VAL:HG13	53:A6:7:ILE:H	1.54	0.72
22:Ba:736:C:H2'	22:Ba:737:A:C8	2.25	0.72
22:Ba:954:G:H2'	22:Ba:955:U:C6	2.25	0.72
27:BD:44:ASN:HB2	27:BD:48:ARG:O	1.90	0.72
30:BG:39:ILE:HD12	30:BG:60:LEU:HD21	1.72	0.72
30:BG:111:LEU:N	30:BG:112:PRO:HD2	2.05	0.72
42:BV:15:GLU:HB3	42:BV:16:PRO:CD	2.18	0.72
45:BY:76:CYS:HB3	45:BY:96:ILE:CD1	2.15	0.72
46:BZ:7:ALA:HB2	46:BZ:59:LEU:HD22	1.71	0.72
57:BA:903:C:H2'	57:BA:904:C:C5'	2.18	0.72
57:BA:2033:A:H4'	57:BA:2034:U:OP1	1.90	0.72
21:Ay:43:LYS:HG2	22:Aa:1493:A:O4'	1.90	0.72
21:Ay:43:LYS:HG2	22:Aa:1493:A:C4'	2.20	0.72
22:Aa:1030:C:H41	22:Aa:1032:G:N2	1.87	0.72
22:Aa:1349:A:H2'	22:Aa:1350:A:C8	2.25	0.72
27:AD:80:ALA:HB3	27:AD:94:LEU:HD13	1.71	0.72
30:AG:109:VAL:HG13	51:A4:33:VAL:CG1	2.19	0.72
31:AH:110:SER:HB2	57:AA:2653:U:O2'	1.90	0.72
57:AA:1537:G:H2'	57:AA:1538:G:H8	1.55	0.72
37:BQ:62:GLY:HA2	46:BZ:116:VAL:HG21	1.70	0.72
38:BR:2:ARG:HH11	57:BA:2723:C:H5"	1.53	0.72
5:Af:89:MET:SD	17:Ar:76:LEU:HD21	2.30	0.72
18:As:36:ARG:HG3	22:Aa:1320:C:H42	1.54	0.72
21:Ay:95:LEU:HD13	21:Ay:95:LEU:O	1.89	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AF:160:ASN:C	29:AF:160:ASN:HD22	1.98	0.72
4:Be:101:ILE:CD1	4:Be:119:LEU:HD23	2.20	0.72
22:Ba:977:A:H2'	22:Ba:978:A:H5'	1.72	0.72
46:BZ:45:ASP:O	46:BZ:49:ARG:HG2	1.89	0.72
57:BA:271(A):A:H5'	57:BA:271(B):C:OP2	1.90	0.72
57:BA:1280:G:H2'	57:BA:1281:G:H5"	1.72	0.72
10:Ak:126:ARG:HH11	10:Ak:126:ARG:HB3	1.53	0.71
22:Aa:148:G:H2'	22:Aa:149:A:H8	1.55	0.71
32:AI:109:ILE:CG2	32:AI:114:LEU:HD11	2.21	0.71
34:AN:1:MET:HG2	34:AN:2:LYS:N	2.04	0.71
42:AV:5:VAL:HG23	42:AV:37:VAL:O	1.90	0.71
58:AB:3:C:H42	58:AB:118:G:H1	1.37	0.71
11:Bl:89:ARG:HH11	11:Bl:89:ARG:HB2	1.55	0.71
17:Br:79:LEU:HD23	17:Br:80:PRO:HD2	1.70	0.71
28:BE:101:ARG:O	28:BE:201:THR:HG22	1.90	0.71
29:BF:125:LEU:H	29:BF:125:LEU:HD23	1.55	0.71
34:BN:4:TYR:N	34:BN:4:TYR:CD1	2.58	0.71
36:BP:97:PRO:HG3	36:BP:112:LEU:HD12	1.71	0.71
37:BQ:46:GLN:HE21	57:BA:2485:G:H5"	1.56	0.71
12:Am:15:VAL:HG12	12:Am:45:VAL:CG2	2.19	0.71
20:Au:14:TRP:HZ3	20:Au:15:ARG:HH11	1.39	0.71
28:AE:132:HIS:HB3	57:AA:744:G:OP1	1.89	0.71
40:AT:28:VAL:HG21	40:AT:46:GLU:HG3	1.69	0.71
46:AZ:108:PRO:HB3	46:AZ:141:VAL:HG12	1.71	0.71
55:A8:52:LYS:N	55:A8:53:PRO:CD	2.54	0.71
30:BG:66:GLN:OE1	30:BG:94:LEU:HD23	1.90	0.71
43:BW:65:LEU:HD23	43:BW:68:ARG:HD2	1.71	0.71
46:BZ:141:VAL:HA	46:BZ:144:LEU:HD21	1.72	0.71
48:B1:82:LEU:HD22	48:B1:82:LEU:N	2.03	0.71
57:BA:2308:G:O6	57:BA:2310:A:H2'	1.90	0.71
57:BA:2689:U:H5"	57:BA:2690:C:H5'	1.70	0.71
7:Ah:103:VAL:CG2	7:Ah:110:ALA:HB2	2.20	0.71
27:AD:65:ILE:HD11	27:AD:67:PHE:CE1	2.25	0.71
44:AX:24:GLY:O	44:AX:82:GLN:HA	1.90	0.71
1:Bb:88:ALA:HB2	1:Bb:219:VAL:CG1	2.18	0.71
12:Bm:65:LYS:CE	12:Bm:69:GLU:HG3	2.20	0.71
22:Ba:1349:A:H2'	22:Ba:1350:A:C8	2.25	0.71
28:BE:59:VAL:O	28:BE:62:PRO:HD2	1.89	0.71
42:BV:49:THR:HB	42:BV:50:PRO:HD2	1.72	0.71
53:B6:30:THR:HG22	53:B6:32:ASN:ND2	2.05	0.71
18:As:62:ILE:HD12	18:As:66:MET:HE2	1.73	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:Au:4:GLY:HA3	22:Aa:1305:G:H5'	1.73	0.71
57:AA:547:A:H1'	57:AA:548:A:N7	2.05	0.71
27:BD:270:ILE:C	27:BD:271:ILE:HG12	2.14	0.71
31:BH:41:MET:HG3	31:BH:42:ARG:H	1.54	0.71
35:BO:111:PHE:O	35:BO:115:VAL:HG23	1.89	0.71
57:BA:547:A:H1'	57:BA:548:A:N7	2.04	0.71
57:BA:1188:U:O2'	57:BA:1189:A:H5'	1.91	0.71
57:BA:2310:A:O2'	57:BA:2311:A:H5'	1.90	0.71
57:BA:2656:U:H3	57:BA:2665:A:H2	1.38	0.71
2:Ac:152:ILE:HG22	2:Ac:167:TRP:HA	1.72	0.71
11:Al:25:PRO:O	11:Al:27:LEU:HD13	1.90	0.71
14:Ao:54:ARG:HG2	14:Ao:58:MET:CE	2.19	0.71
19:At:56:MET:HE3	19:At:85:MET:HE2	1.71	0.71
27:AD:24:ILE:O	27:AD:25:THR:O	2.08	0.71
31:AH:19:VAL:HG21	31:AH:43:VAL:O	1.90	0.71
57:AA:672:C:H2'	57:AA:673:C:C5'	2.20	0.71
57:AA:1188:U:O2'	57:AA:1189:A:H5'	1.90	0.71
57:AA:2312:U:C2'	57:AA:2313:C:H5"	2.19	0.71
3:Bd:18:LYS:HB2	3:Bd:33:MET:HG2	1.73	0.71
12:Bm:66:LEU:O	12:Bm:67:GLU:C	2.32	0.71
17:Br:73:ALA:HB3	17:Br:79:LEU:HD12	1.72	0.71
22:Ba:1049:U:H1'	22:Ba:1201:A:N7	2.06	0.71
29:BF:32:LEU:HD11	29:BF:105:VAL:HG13	1.70	0.71
31:BH:85:LYS:NZ	31:BH:133:VAL:HG23	2.05	0.71
36:BP:18:ARG:HH11	36:BP:18:ARG:CB	2.02	0.71
43:BW:1:MET:HE3	43:BW:2:GLU:H	1.56	0.71
57:BA:1022:G:N2	57:BA:1142(A):A:C2	2.58	0.71
57:BA:1639:U:C2'	57:BA:1640:C:H5"	2.21	0.71
22:Aa:1333:A:H2'	22:Aa:1334:G:O4'	1.90	0.71
29:AF:66:PRO:O	29:AF:67:GLN:HB3	1.89	0.71
29:AF:83:PHE:CD2	57:AA:1257:C:H4'	2.26	0.71
30:AG:33:ARG:O	30:AG:34:LEU:HD12	1.89	0.71
31:AH:41:MET:HG3	31:AH:42:ARG:H	1.55	0.71
36:AP:16:ARG:HD3	36:AP:18:ARG:N	2.05	0.71
44:AX:54:VAL:C	44:AX:55:ASN:HD22	1.99	0.71
4:Be:76:ILE:HD11	4:Be:142:LEU:CD1	2.21	0.71
27:BD:228:PRO:HD3	27:BD:235:GLY:CA	2.20	0.71
32:BI:78:THR:H	32:BI:104:GLN:HE22	1.36	0.71
36:BP:105:LEU:HG	57:BA:626:U:C2	2.25	0.71
41:BU:77:SER:OG	57:BA:1011:G:H5"	1.91	0.71
44:BX:24:GLY:O	44:BX:82:GLN:HA	1.91	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BZ:151:HIS:N	46:BZ:151:HIS:CD2	2.59	0.71
50:B3:43:ILE:O	50:B3:47:VAL:HG23	1.91	0.71
57:BA:672:C:H2'	57:BA:673:C:C5'	2.21	0.71
57:BA:1015:G:H8	57:BA:1015:G:H5'	1.54	0.71
5:Af:61:LEU:HB3	5:Af:63:TYR:HE2	1.55	0.71
22:Aa:1049:U:H1'	22:Aa:1201:A:N7	2.05	0.71
32:AI:81:VAL:HG22	32:AI:82:ARG:N	2.05	0.71
36:AP:33:ARG:O	36:AP:34:GLY:C	2.32	0.71
45:AY:7:VAL:HG21	45:AY:8:LYS:HZ1	1.55	0.71
57:AA:2310:A:O2'	57:AA:2311:A:H5'	1.90	0.71
8:Bi:28:VAL:HA	8:Bi:63:ILE:O	1.91	0.71
14:Bo:82:ILE:C	14:Bo:82:ILE:HD13	2.15	0.71
30:BG:114:ILE:O	30:BG:115:ARG:C	2.34	0.71
49:B2:41:ILE:O	49:B2:41:ILE:HG13	1.91	0.71
57:BA:1786:A:H2	57:BA:2606:C:H1'	1.55	0.71
1:Ab:98:LEU:O	1:Ab:101:MET:HG3	1.91	0.71
11:Al:26:ALA:C	11:Al:27:LEU:HD22	2.15	0.71
21:Ay:56:ARG:CZ	23:Ax:21:OMG:CM2	2.68	0.71
28:AE:108:SER:HB3	28:AE:165:VAL:HG21	1.73	0.71
29:AF:8:GLN:HB3	29:AF:126:VAL:HA	1.73	0.71
37:AQ:27:VAL:HG12	37:AQ:28:ALA:N	2.04	0.71
44:AX:36:LYS:HB2	57:AA:1598:C:H5'	1.73	0.71
57:AA:27:G:H22	57:AA:512:G:C2'	2.04	0.71
57:AA:298:G:H5'	57:AA:299:A:OP1	1.90	0.71
57:AA:1541:G:H4'	57:AA:1542:A:O4'	1.91	0.71
57:AA:2761:G:C3'	57:AA:2762:G:H5"	2.21	0.71
2:Bc:70:VAL:HG12	2:Bc:71:ALA:H	1.55	0.71
12:Bm:68:GLY:O	12:Bm:69:GLU:C	2.32	0.71
13:Bn:27:CYS:SG	13:Bn:29:ARG:HB2	2.31	0.71
22:Ba:194:C:H2'	22:Ba:195:A:H5"	1.73	0.71
22:Ba:637:G:H2'	22:Ba:638:G:C8	2.25	0.71
22:Ba:1030:C:H41	22:Ba:1032:G:N2	1.88	0.71
46:BZ:23:LYS:HA	46:BZ:23:LYS:NZ	2.06	0.71
46:BZ:134:PRO:O	46:BZ:135:GLU:HG2	1.90	0.71
57:BA:364:C:H2'	57:BA:365:C:H5"	1.72	0.71
57:BA:603:A:H4'	57:BA:604:G:O5'	1.90	0.71
57:BA:1846:G:H8	57:BA:1846:G:H5'	1.55	0.71
58:BB:3:C:H42	58:BB:118:G:H1	1.39	0.71
1:Ab:164:VAL:CG2	1:Ab:186:ALA:HB2	2.20	0.71
18:As:42:PRO:CG	51:A4:50:VAL:HG21	2.21	0.71
22:Aa:559:A:H4'	22:Aa:560:U:H5"	1.73	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Aa:1490:C:H2'	22:Aa:1491:G:H5"	1.71	0.71
25:Aw:70:G:O2'	25:Aw:71:C:H5'	1.91	0.71
31:AH:85:LYS:NZ	31:AH:133:VAL:HG23	2.06	0.71
57:AA:2808:U:O2'	57:AA:2809:A:H5'	1.90	0.71
8:Bi:17:VAL:HA	8:Bi:63:ILE:HG12	1.73	0.71
12:Bm:3:ARG:HG2	12:Bm:9:ILE:CG1	2.16	0.71
24:Bv:47:U:H3'	24:Bv:48:C:C5'	2.19	0.71
27:BD:11:PRO:C	27:BD:13:ARG:H	1.99	0.71
36:BP:16:ARG:HD3	36:BP:18:ARG:N	2.04	0.71
45:BY:7:VAL:HB	45:BY:8:LYS:HD2	1.71	0.71
57:BA:94:C:H5'	57:BA:94(A):G:OP2	1.90	0.71
57:BA:1537:G:H2'	57:BA:1538:G:H8	1.56	0.71
8:Ai:125:TYR:HB3	22:Aa:1342:C:H4'	1.73	0.71
17:Ar:53:ARG:HH21	17:Ar:59:SER:HA	1.56	0.71
24:Av:23:C:H2'	24:Av:24:U:C6	2.26	0.71
29:AF:8:GLN:HG2	29:AF:126:VAL:HB	1.73	0.71
30:AG:111:LEU:N	30:AG:112:PRO:HD2	2.05	0.71
32:AI:98:ALA:HB1	32:AI:109:ILE:HB	1.71	0.71
57:AA:94:C:H5'	57:AA:94(A):G:OP2	1.90	0.71
57:AA:2121:G:H1	57:AA:2177:C:H42	1.39	0.71
2:Bc:102:ASN:O	2:Bc:103:VAL:HG23	1.90	0.71
3:Bd:121:VAL:O	3:Bd:134:ASP:HA	1.91	0.71
10:Bk:15:ALA:HA	10:Bk:76:GLY:O	1.91	0.71
12:Bm:49:THR:HG22	12:Bm:51:ALA:H	1.55	0.71
13:Bn:2:ALA:O	13:Bn:6:LEU:HD12	1.91	0.71
27:BD:65:ILE:HD11	27:BD:67:PHE:CE1	2.26	0.71
29:BF:67:GLN:O	29:BF:67:GLN:HG3	1.90	0.71
32:BI:81:VAL:HG12	32:BI:143:SER:HB2	1.73	0.71
36:BP:33:ARG:O	36:BP:34:GLY:C	2.33	0.71
39:BS:13:ARG:CG	39:BS:14:VAL:H	2.03	0.71
39:BS:62:LYS:HB2	58:BB:50:G:P	2.30	0.71
55:B8:52:LYS:N	55:B8:53:PRO:CD	2.53	0.71
11:Al:91:LYS:O	11:Al:91:LYS:HG3	1.91	0.70
22:Aa:1090:U:H2'	22:Aa:1091:U:C6	2.21	0.70
35:AO:104:ARG:HE	40:AT:33:LYS:CE	2.04	0.70
36:AP:18:ARG:HH11	36:AP:18:ARG:CB	2.03	0.70
36:AP:97:PRO:HG3	36:AP:112:LEU:HD12	1.73	0.70
18:Bs:9:VAL:O	18:Bs:11:VAL:N	2.23	0.70
21:By:7:PHE:CB	21:By:75:VAL:HB	2.21	0.70
22:Ba:1003:G:C2'	22:Ba:1004:A:H4'	2.20	0.70
28:BE:120:TRP:O	28:BE:121:ASN:HB2	1.89	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BF:66:PRO:O	29:BF:67:GLN:HB3	1.89	0.70
31:BH:43:VAL:CG1	31:BH:52:VAL:HA	2.21	0.70
36:BP:62:LEU:HB3	57:BA:2393:A:H5'	1.73	0.70
47:B0:41:ARG:NH2	57:BA:2387:U:H4'	2.06	0.70
57:BA:650:C:H3'	57:BA:651:G:H5"	1.72	0.70
8:Ai:104:ARG:O	8:Ai:105:ASP:CB	2.31	0.70
27:AD:11:PRO:C	27:AD:13:ARG:H	1.98	0.70
32:AI:127:VAL:HG22	32:AI:139:GLN:HB3	1.72	0.70
40:AT:25:GLY:O	40:AT:26:ASP:HB2	1.91	0.70
42:AV:49:THR:HB	42:AV:50:PRO:HD2	1.72	0.70
50:A3:8:LEU:HB2	50:A3:28:LEU:HD13	1.73	0.70
50:A3:35:ARG:HH21	50:A3:37:LEU:CD2	2.04	0.70
57:AA:197:A:C8	57:AA:197:A:H5'	2.25	0.70
57:AA:622:G:O2'	57:AA:623:G:H5'	1.91	0.70
23:Bx:20:A2M:H1'	23:Bx:21:OMG:OP1	1.90	0.70
29:BF:32:LEU:HD22	29:BF:112:MET:HE3	1.72	0.70
1:Ab:164:VAL:HG23	1:Ab:186:ALA:CB	2.20	0.70
4:Ae:76:ILE:CG1	4:Ae:77:PRO:HD2	2.21	0.70
29:AF:67:GLN:O	29:AF:67:GLN:HG3	1.91	0.70
29:AF:89:VAL:HG12	29:AF:90:PHE:N	2.06	0.70
34:AN:18:ALA:HB1	34:AN:21:LYS:CB	2.22	0.70
41:AU:34:LYS:HE2	41:AU:34:LYS:HA	1.72	0.70
53:A6:9:LEU:HB3	53:A6:28:ARG:HD2	1.74	0.70
7:Bh:109:ILE:HG12	7:Bh:110:ALA:N	2.06	0.70
12:Bm:76:ALA:O	12:Bm:79:LYS:N	2.24	0.70
20:Bu:4:GLY:HA3	22:Ba:1305:G:H5'	1.73	0.70
28:BE:59:VAL:O	28:BE:60:ASN:CG	2.33	0.70
30:BG:111:LEU:N	30:BG:112:PRO:CD	2.54	0.70
32:BI:68:LEU:HD23	32:BI:136:VAL:HG11	1.74	0.70
33:BJ:10:LEU:CB	57:BA:1046:A:H5"	2.21	0.70
40:BT:28:VAL:HG22	40:BT:46:GLU:C	2.16	0.70
45:BY:96:ILE:HG22	45:BY:97:ARG:H	1.55	0.70
46:BZ:152:ALA:HA	46:BZ:167:PRO:HB2	1.72	0.70
53:B6:5:VAL:HG13	53:B6:7:ILE:H	1.55	0.70
55:B8:32:LEU:HB3	55:B8:36:LYS:HZ2	1.53	0.70
55:B8:62:LEU:HD13	57:BA:242:G:C5'	2.09	0.70
22:Aa:736:C:H2'	22:Aa:737:A:C8	2.27	0.70
22:Aa:1363(A):A:H4'	22:Aa:1364:U:H5"	1.71	0.70
28:AE:101:ARG:O	28:AE:201:THR:HG22	1.90	0.70
34:AN:68:GLU:HG2	34:AN:88:GLU:CD	2.15	0.70
55:A8:6:THR:HG22	55:A8:63:PRO:HD3	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:Bp:74:LEU:O	15:Bp:79:VAL:HG23	1.91	0.70
22:Ba:148:G:H2'	22:Ba:149:A:H8	1.56	0.70
28:BE:65:GLY:C	28:BE:67:PHE:H	1.99	0.70
29:BF:8:GLN:HG2	29:BF:126:VAL:HB	1.71	0.70
45:BY:8:LYS:HD2	45:BY:8:LYS:N	2.06	0.70
57:BA:2761:G:C3'	57:BA:2762:G:H5"	2.21	0.70
9:Aj:70:ARG:NH2	22:Aa:1152:A:H5'	2.06	0.70
21:Ay:76:ILE:HG13	21:Ay:77:SER:N	2.06	0.70
22:Aa:501:C:H2'	22:Aa:502:G:C8	2.27	0.70
27:AD:228:PRO:HD3	27:AD:235:GLY:CA	2.21	0.70
30:AG:77:ILE:O	30:AG:77:ILE:CG2	2.39	0.70
49:A2:32:LEU:HD22	49:A2:36:ARG:NH1	2.05	0.70
53:A6:30:THR:HG22	53:A6:32:ASN:ND2	2.06	0.70
57:AA:271(A):A:H5'	57:AA:271(B):C:OP2	1.91	0.70
57:AA:1639:U:C2'	57:AA:1640:C:H5"	2.20	0.70
57:AA:2206:G:H21	57:AA:2207:G:C5'	2.01	0.70
3:Bd:104:VAL:HG21	3:Bd:140:VAL:HG21	1.73	0.70
6:Bg:66:VAL:O	6:Bg:66:VAL:HG12	1.90	0.70
8:Bi:13:ALA:HB2	8:Bi:68:GLY:HA3	1.72	0.70
8:Bi:125:TYR:HB3	22:Ba:1342:C:H4'	1.74	0.70
22:Ba:1275:A:H2'	22:Ba:1276:G:H8	1.55	0.70
27:BD:43:ARG:HH11	27:BD:44:ASN:ND2	1.88	0.70
30:BG:57:ALA:HB2	30:BG:90:LEU:HD21	1.73	0.70
38:BR:28:LEU:HD12	38:BR:48:VAL:HG21	1.73	0.70
44:BX:53:LYS:HZ2	44:BX:55:ASN:HD21	1.38	0.70
47:B0:50:ASN:C	47:B0:62:LEU:HD12	2.17	0.70
7:Ah:44:PHE:HA	7:Ah:79:VAL:CG1	2.21	0.70
8:Ai:85:LEU:HD13	8:Ai:92:TYR:HD2	1.56	0.70
9:Aj:49:VAL:HG22	13:An:41:ARG:HB2	1.72	0.70
30:AG:111:LEU:HA	30:AG:114:ILE:HD11	1.71	0.70
31:AH:136:ILE:HD12	31:AH:136:ILE:N	2.06	0.70
36:AP:47:ASP:HB3	36:AP:48:PRO:O	1.91	0.70
42:AV:19:LYS:HB3	42:AV:94:LEU:O	1.90	0.70
45:AY:2:ARG:C	45:AY:4:LYS:H	1.97	0.70
55:A8:32:LEU:HB3	55:A8:36:LYS:NZ	2.07	0.70
57:AA:612:C:C3'	57:AA:613:G:H5"	2.21	0.70
2:Bc:84:ILE:HD11	2:Bc:88:ARG:NH2	2.07	0.70
22:Ba:501:C:H2'	22:Ba:502:G:H8	1.57	0.70
22:Ba:503:C:H2'	22:Ba:504:C:H6	1.54	0.70
27:BD:24:ILE:O	27:BD:25:THR:O	2.08	0.70
32:BI:83:ALA:HA	32:BI:89:TYR:CD1	2.26	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BN:13:TRP:O	34:BN:135:PRO:HD2	1.90	0.70
37:BQ:27:VAL:HG12	37:BQ:28:ALA:N	2.05	0.70
43:BW:1:MET:CE	43:BW:2:GLU:H	2.04	0.70
44:BX:53:LYS:NZ	44:BX:55:ASN:HD21	1.89	0.70
46:BZ:61:LEU:H	46:BZ:61:LEU:CD2	2.01	0.70
2:Ac:16:ARG:NH1	2:Ac:16:ARG:HB2	2.06	0.70
9:Aj:50:ILE:H	9:Aj:50:ILE:CD1	2.05	0.70
29:AF:169:ASN:HD21	57:AA:322:A:H3'	1.56	0.70
30:AG:42:GLY:O	30:AG:88:ILE:HG22	1.92	0.70
30:AG:173:LEU:HD22	30:AG:178:PHE:CZ	2.26	0.70
32:AI:109:ILE:HG22	32:AI:110:ASP:H	1.55	0.70
57:AA:650:C:H3'	57:AA:651:G:H5"	1.72	0.70
7:Bh:44:PHE:HA	7:Bh:79:VAL:CG1	2.22	0.70
7:Bh:89:PRO:HG2	22:Ba:878:G:H5'	1.72	0.70
21:By:30:LEU:O	21:By:34:LEU:HG	1.90	0.70
22:Ba:1016:A:H2'	22:Ba:1017:G:O4'	1.91	0.70
28:BE:130:GLY:HA3	57:BA:2580:U:H4'	1.73	0.70
30:BG:46:ALA:HB3	30:BG:82:LEU:HD11	1.74	0.70
33:BJ:41:ARG:HA	33:BJ:54:ALA:CB	2.22	0.70
36:BP:24:GLY:O	36:BP:25:SER:HB3	1.91	0.70
40:BT:70:VAL:HG12	40:BT:71:GLY:N	2.05	0.70
55:B8:52:LYS:N	55:B8:53:PRO:HD2	2.06	0.70
57:BA:622:G:O2'	57:BA:623:G:H5'	1.91	0.70
4:Ae:101:ILE:CD1	4:Ae:119:LEU:HD23	2.22	0.70
6:Ag:66:VAL:O	6:Ag:66:VAL:HG12	1.91	0.70
11:Al:89:ARG:HB2	11:Al:89:ARG:HH11	1.55	0.70
14:Ao:37:ASN:HD22	14:Ao:37:ASN:N	1.89	0.70
22:Aa:650:G:O2'	22:Aa:651:C:H5'	1.92	0.70
22:Aa:1016:A:H2'	22:Aa:1017:G:O4'	1.91	0.70
22:Aa:1286:A:H2'	22:Aa:1287:A:H4'	1.74	0.70
26:AC:175:PRO:HB3	57:AA:2124:G:H4'	1.73	0.70
30:AG:19:LEU:HD13	30:AG:32:PRO:HG2	1.73	0.70
30:AG:72:ARG:HB3	30:AG:87:PRO:HD2	1.72	0.70
34:AN:4:TYR:N	34:AN:4:TYR:CD1	2.59	0.70
36:AP:105:LEU:HG	57:AA:626:U:C2	2.27	0.70
46:AZ:19:ARG:HH12	46:AZ:84:GLU:HA	1.56	0.70
57:AA:755:C:H2'	57:AA:756:C:H6	1.57	0.70
1:Bb:12:GLU:C	1:Bb:14:GLY:H	2.00	0.70
1:Bb:69:LEU:HD11	1:Bb:93:VAL:HG23	1.73	0.70
8:Bi:55:ALA:CB	8:Bi:58:HIS:HD2	2.03	0.70
9:Bj:49:VAL:HG22	13:Bn:41:ARG:HB2	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Bm:69:GLU:HA	12:Bm:69:GLU:OE1	1.90	0.70
38:BR:10:LEU:HD22	38:BR:17:ARG:CD	2.22	0.70
57:BA:271(F):C:H2'	57:BA:271(G):C:H6	1.55	0.70
57:BA:1541:G:H4'	57:BA:1542:A:O4'	1.92	0.70
10:Ak:85:ARG:HG2	10:Ak:111:ASP:O	1.91	0.70
22:Aa:1193:G:H2'	22:Aa:1194:U:C5'	2.14	0.70
30:AG:71:THR:CG2	30:AG:89:GLY:HA3	2.21	0.70
30:AG:170:ARG:HH21	30:AG:182:LYS:HE2	1.56	0.70
30:AG:172:LEU:O	30:AG:172:LEU:HD23	1.91	0.70
50:A3:19:GLN:HE22	50:A3:52:HIS:HE1	1.40	0.70
55:A8:52:LYS:N	55:A8:53:PRO:HD2	2.07	0.70
57:AA:156:U:H4'	57:AA:157:U:H5"	1.72	0.70
57:AA:1786:A:C2	57:AA:2606:C:H1'	2.26	0.70
57:AA:2691:C:H5'	57:AA:2691:C:H6	1.56	0.70
6:Bg:69:VAL:HG21	6:Bg:104:LEU:HD21	1.73	0.70
14:Bo:37:ASN:N	14:Bo:37:ASN:HD22	1.89	0.70
35:BO:64:ARG:HG2	35:BO:79:PHE:CG	2.26	0.70
40:BT:28:VAL:HG13	40:BT:46:GLU:HA	1.73	0.70
57:BA:2691:C:H5'	57:BA:2691:C:H6	1.57	0.70
57:BA:2698:U:H2'	57:BA:2699:C:C6	2.27	0.70
12:Am:78:ILE:HA	12:Am:81:LEU:HD12	1.74	0.70
22:Aa:1275:A:H2'	22:Aa:1276:G:H8	1.56	0.70
28:AE:51:PHE:HD1	28:AE:52:LEU:H	1.39	0.70
30:AG:131:TYR:H	30:AG:159:VAL:HG13	1.56	0.70
40:AT:89:VAL:HB	40:AT:91:ARG:CG	2.18	0.70
49:A2:46:GLN:HG2	49:A2:49:LYS:NZ	2.07	0.70
50:A3:43:ILE:O	50:A3:47:VAL:HG23	1.91	0.70
57:AA:1846:G:H5'	57:AA:1846:G:H8	1.57	0.70
3:Bd:105:VAL:HG21	3:Bd:126:ILE:HG12	1.74	0.70
9:Bj:70:ARG:NH2	22:Ba:1152:A:H5'	2.06	0.70
22:Ba:1149:C:H2'	22:Ba:1150:U:H6	1.56	0.70
22:Ba:1321:C:H5'	22:Ba:1322:C:C5'	2.22	0.70
27:BD:46:GLN:N	27:BD:46:GLN:OE1	2.25	0.70
28:BE:69:LYS:NZ	28:BE:89:ASP:HA	2.07	0.70
29:BF:8:GLN:HB3	29:BF:126:VAL:HA	1.72	0.70
34:BN:16:ILE:HG23	34:BN:54:VAL:HG22	1.74	0.70
35:BO:104:ARG:HE	40:BT:33:LYS:CE	2.05	0.70
40:BT:50:ILE:HD11	40:BT:102:ILE:CD1	2.20	0.70
41:BU:66:ASN:C	41:BU:66:ASN:HD22	2.00	0.70
1:Ab:69:LEU:HD11	1:Ab:93:VAL:HG23	1.72	0.69
11:Al:25:PRO:C	11:Al:27:LEU:N	2.50	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:Ay:56:ARG:CD	23:Ax:21:OMG:HM21	2.21	0.69
22:Aa:1238:A:N7	22:Aa:1303:C:H1'	2.07	0.69
30:AG:105:LYS:NZ	51:A4:26:SER:HB3	2.07	0.69
30:AG:109:VAL:HG13	51:A4:33:VAL:HG13	1.72	0.69
31:AH:149:ARG:HA	31:AH:162:ILE:HG13	1.72	0.69
35:AO:87:ILE:CG2	35:AO:91:LEU:HA	2.22	0.69
37:AQ:62:GLY:O	46:AZ:178:GLU:HB2	1.92	0.69
45:AY:7:VAL:HG21	45:AY:8:LYS:NZ	2.06	0.69
45:AY:88:LYS:HZ3	45:AY:93:GLY:HA3	1.56	0.69
53:A6:10:LEU:H	53:A6:10:LEU:CD2	2.05	0.69
1:Bb:166:ASP:HB3	1:Bb:169:LYS:HB2	1.72	0.69
3:Bd:147:ALA:HB2	3:Bd:182:LYS:HA	1.74	0.69
6:Bg:113:GLU:HB2	6:Bg:119:ARG:CG	2.21	0.69
7:Bh:86:ILE:HG22	7:Bh:87:SER:N	2.07	0.69
8:Bi:85:LEU:HD13	8:Bi:92:TYR:HD2	1.56	0.69
11:Bl:6:THR:HG23	11:Bl:9:GLN:NE2	2.07	0.69
32:BI:87:LYS:NZ	32:BI:121:LYS:HG3	2.07	0.69
1:Ab:166:ASP:HB3	1:Ab:169:LYS:HB2	1.74	0.69
14:Ao:16:ALA:HB1	14:Ao:21:ASP:HB3	1.74	0.69
22:Aa:1195:C:C4	22:Aa:1197:G:C8	2.80	0.69
28:AE:65:GLY:C	28:AE:67:PHE:H	2.00	0.69
42:AV:38:LEU:C	42:AV:39:LEU:HD13	2.16	0.69
12:Bm:29:ARG:HD3	12:Bm:64:TRP:CE2	2.27	0.69
22:Ba:501:C:H2'	22:Ba:502:G:C8	2.27	0.69
22:Ba:1363(A):A:H4'	22:Ba:1364:U:H5"	1.73	0.69
30:BG:118:ARG:HB3	30:BG:181:ARG:NE	2.07	0.69
31:BH:7:LEU:HG	31:BH:69:ARG:HH11	1.56	0.69
36:BP:50:ARG:O	36:BP:57:THR:HG22	1.93	0.69
50:B3:35:ARG:HH21	50:B3:37:LEU:CD2	2.05	0.69
55:B8:32:LEU:HB3	55:B8:36:LYS:NZ	2.06	0.69
1:Ab:18:GLY:H	1:Ab:42:ILE:CG2	2.03	0.69
5:Af:61:LEU:HD23	5:Af:63:TYR:OH	1.91	0.69
6:Ag:23:VAL:O	6:Ag:27:ILE:HG13	1.92	0.69
6:Ag:113:GLU:HB2	6:Ag:119:ARG:CG	2.19	0.69
8:Ai:28:VAL:HA	8:Ai:63:ILE:O	1.92	0.69
17:Ar:73:ALA:HB3	17:Ar:79:LEU:HD12	1.73	0.69
18:As:9:VAL:O	18:As:11:VAL:N	2.26	0.69
22:Aa:16:A:O2'	22:Aa:17:U:H5'	1.91	0.69
28:AE:111:ARG:HD2	28:AE:160:TYR:CE1	2.28	0.69
29:AF:3:GLU:HA	29:AF:24:LEU:CG	2.22	0.69
30:AG:33:ARG:C	30:AG:34:LEU:HD12	2.15	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:AG:98:ARG:CD	51:A4:1:MET:HG2	2.22	0.69
31:AH:7:LEU:HG	31:AH:69:ARG:HH11	1.56	0.69
31:AH:43:VAL:CG1	31:AH:52:VAL:HA	2.22	0.69
36:AP:61:ARG:NH1	55:A8:13:ARG:HD2	2.07	0.69
57:AA:1318:C:H3'	57:AA:1319:G:H5"	1.75	0.69
11:Bl:24:VAL:O	11:Bl:24:VAL:HG12	1.91	0.69
17:Br:53:ARG:HH21	17:Br:59:SER:HA	1.57	0.69
21:By:7:PHE:HB3	21:By:75:VAL:CB	2.22	0.69
26:BC:175:PRO:HB3	57:BA:2124:G:H4'	1.74	0.69
28:BE:59:VAL:HG21	28:BE:63:LEU:HA	1.74	0.69
28:BE:108:SER:HB3	28:BE:165:VAL:HG21	1.73	0.69
28:BE:146:THR:HG23	57:BA:2032:G:H21	1.56	0.69
35:BO:4:PRO:O	35:BO:5:GLN:HB2	1.90	0.69
45:BY:26:LYS:HG2	45:BY:27:VAL:H	1.55	0.69
2:Ac:70:VAL:HG12	2:Ac:71:ALA:H	1.56	0.69
3:Ad:105:VAL:HG21	3:Ad:126:ILE:HG12	1.74	0.69
12:Am:49:THR:HG22	12:Am:51:ALA:H	1.56	0.69
15:Ap:50:LYS:HD3	15:Ap:51:VAL:N	2.08	0.69
27:AD:35:LYS:HB3	27:AD:35:LYS:HZ2	1.57	0.69
28:AE:77:ILE:HG22	28:AE:78:LEU:N	2.07	0.69
28:AE:130:GLY:HA3	57:AA:2580:U:H4'	1.75	0.69
45:AY:13:VAL:HG21	45:AY:28:LYS:NZ	2.07	0.69
45:AY:79:CYS:SG	45:AY:80:GLY:N	2.62	0.69
46:AZ:112:ARG:HD3	46:AZ:112:ARG:O	1.92	0.69
57:AA:1718:G:H5'	57:AA:1718:G:C8	2.27	0.69
1:Bb:204:ASN:C	1:Bb:204:ASN:HD22	2.00	0.69
6:Bg:77:SER:CB	25:Bw:32:C:H4'	2.21	0.69
12:Bm:91:ARG:HD3	18:Bs:81:ARG:HH21	1.57	0.69
14:Bo:16:ALA:HB1	14:Bo:21:ASP:HB3	1.73	0.69
30:BG:15:VAL:HG21	30:BG:176:LEU:HD23	1.74	0.69
30:BG:109:VAL:O	30:BG:112:PRO:CD	2.40	0.69
32:BI:110:ASP:OD2	32:BI:113:ARG:HB3	1.93	0.69
46:BZ:151:HIS:HB3	46:BZ:170:THR:CA	2.15	0.69
57:BA:1378:A:O2'	57:BA:1379:A:H5'	1.92	0.69
4:Ae:98:THR:HB	4:Ae:117:ASP:HB3	1.74	0.69
22:Aa:501:C:H2'	22:Aa:502:G:H8	1.58	0.69
27:AD:210:GLY:O	27:AD:211:ARG:HB3	1.93	0.69
27:AD:221:VAL:HG22	27:AD:226:MET:CE	2.21	0.69
36:AP:33:ARG:NH2	57:AA:587:C:H3'	2.06	0.69
46:AZ:40:ASP:OD1	46:AZ:42:VAL:HG12	1.91	0.69
57:AA:588:U:H2'	57:AA:589:C:C6	2.27	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Be:6:PHE:HD1	4:Be:63:ARG:HH12	1.41	0.69
11:Bl:25:PRO:O	11:Bl:27:LEU:HD13	1.92	0.69
15:Bp:50:LYS:HD3	15:Bp:51:VAL:N	2.07	0.69
31:BH:19:VAL:HG21	31:BH:43:VAL:O	1.91	0.69
31:BH:86:GLU:HB3	31:BH:132:ARG:HB3	1.72	0.69
32:BI:69:LYS:HA	32:BI:136:VAL:HG21	1.74	0.69
35:BO:87:ILE:CG2	35:BO:91:LEU:HA	2.22	0.69
36:BP:146:VAL:HG13	36:BP:147:LEU:N	2.08	0.69
40:BT:27:THR:HG23	40:BT:28:VAL:H	1.56	0.69
41:BU:44:ASN:ND2	42:BV:75:PHE:HB3	2.07	0.69
43:BW:5:ALA:HB2	43:BW:54:ALA:HB2	1.74	0.69
47:B0:43:THR:HG23	47:B0:43:THR:O	1.91	0.69
53:B6:5:VAL:HG12	53:B6:8:LYS:CB	2.22	0.69
57:BA:2401:U:O2'	57:BA:2402:C:H5"	1.92	0.69
4:Ae:76:ILE:HD11	4:Ae:142:LEU:CD1	2.22	0.69
12:Am:69:GLU:H	12:Am:70:LEU:HB2	1.56	0.69
22:Aa:1211:U:H5'	22:Aa:1212:U:OP1	1.91	0.69
29:AF:24:LEU:O	29:AF:26:ALA:N	2.19	0.69
34:AN:128:HIS:CE1	34:AN:134:ARG:HH11	2.11	0.69
44:AX:47:PHE:O	44:AX:49:VAL:HG13	1.91	0.69
57:AA:545:C:C3'	57:AA:547:A:H5"	2.22	0.69
57:AA:613:G:H8	57:AA:613:G:H5'	1.56	0.69
57:AA:1015:G:H5'	57:AA:1015:G:H8	1.55	0.69
57:AA:2712:U:H5'	57:AA:2712:U:O2	1.92	0.69
3:Bd:96:LEU:CG	3:Bd:139:ARG:HH22	2.04	0.69
6:Bg:85:TYR:HD1	6:Bg:154:TYR:HE1	1.39	0.69
12:Bm:69:GLU:OE1	12:Bm:69:GLU:CA	2.40	0.69
25:Bw:71:C:H4'	57:BA:1851:U:H4'	1.75	0.69
28:BE:35:GLN:HG2	28:BE:36:ARG:N	2.07	0.69
32:BI:118:LYS:NZ	32:BI:119:PRO:HG2	2.08	0.69
32:BI:140:LEU:HD21	32:BI:142:VAL:HG23	1.73	0.69
53:B6:9:LEU:HB3	53:B6:28:ARG:HD2	1.74	0.69
4:Ae:10:MET:CB	4:Ae:32:VAL:HG22	2.22	0.69
15:Ap:74:LEU:O	15:Ap:79:VAL:HG23	1.92	0.69
24:Av:47:U:H3'	24:Av:48:C:H5'	1.75	0.69
28:AE:59:VAL:O	28:AE:60:ASN:CG	2.35	0.69
36:AP:112:LEU:HD22	36:AP:113:LYS:N	2.07	0.69
43:AW:1:MET:HE3	43:AW:2:GLU:H	1.58	0.69
45:AY:8:LYS:HE2	45:AY:72:VAL:HG23	1.73	0.69
57:AA:364:C:H2'	57:AA:365:C:H5"	1.74	0.69
22:Ba:1333:A:H2'	22:Ba:1334:G:O4'	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BD:34:VAL:HG23	27:BD:35:LYS:N	1.97	0.69
27:BD:70:TRP:HZ3	27:BD:146:GLU:OE2	1.75	0.69
29:BF:3:GLU:HA	29:BF:24:LEU:CG	2.22	0.69
31:BH:136:ILE:HD12	31:BH:136:ILE:N	2.07	0.69
32:BI:68:LEU:HD23	32:BI:68:LEU:O	1.93	0.69
46:BZ:152:ALA:CA	46:BZ:167:PRO:HB2	2.23	0.69
50:B3:8:LEU:HB2	50:B3:28:LEU:HD13	1.74	0.69
53:B6:10:LEU:H	53:B6:10:LEU:CD2	2.04	0.69
1:Ab:12:GLU:C	1:Ab:14:GLY:H	2.01	0.69
6:Ag:10:ARG:HG3	6:Ag:10:ARG:HH11	1.58	0.69
8:Ai:99:LEU:HB3	8:Ai:101:PHE:CD1	2.28	0.69
13:An:2:ALA:O	13:An:6:LEU:HD12	1.93	0.69
22:Aa:954:G:H2'	22:Aa:955:U:H6	1.56	0.69
22:Aa:1504:G:O2'	22:Aa:1505:G:OP2	2.10	0.69
27:AD:34:VAL:HG23	27:AD:35:LYS:N	1.96	0.69
28:AE:120:TRP:O	28:AE:121:ASN:HB2	1.91	0.69
30:AG:61:ALA:O	30:AG:65:GLY:N	2.23	0.69
32:AI:92:VAL:HG12	32:AI:120:ILE:CD1	2.23	0.69
32:AI:140:LEU:HD21	32:AI:142:VAL:HG23	1.74	0.69
41:AU:77:SER:OG	57:AA:1011:G:H5"	1.93	0.69
46:AZ:43:GLU:O	46:AZ:47:VAL:HG23	1.92	0.69
46:AZ:182:LYS:O	46:AZ:183:LEU:HD23	1.92	0.69
57:AA:1038:C:C3'	57:AA:1039:G:H5"	2.20	0.69
57:AA:2401:U:O2'	57:AA:2402:C:H5"	1.93	0.69
1:Bb:24:TRP:CZ3	1:Bb:26:PRO:HA	2.28	0.69
2:Bc:152:ILE:HG22	2:Bc:167:TRP:HA	1.73	0.69
3:Bd:96:LEU:HG	3:Bd:139:ARG:NH2	2.06	0.69
4:Be:144:THR:O	4:Be:148:VAL:HG23	1.91	0.69
7:Bh:103:VAL:CG2	7:Bh:110:ALA:HB2	2.22	0.69
9:Bj:50:ILE:H	9:Bj:50:ILE:CD1	2.04	0.69
12:Bm:112:GLY:O	12:Bm:113:PRO:C	2.36	0.69
16:Bq:70:ARG:HG2	22:Ba:235:C:C5'	2.21	0.69
19:Bt:26:ASN:HB2	19:Bt:71:THR:HG23	1.74	0.69
22:Ba:591:U:H2'	22:Ba:592:G:C8	2.28	0.69
28:BE:77:ILE:HG22	28:BE:78:LEU:N	2.07	0.69
28:BE:132:HIS:O	57:BA:1658:C:OP1	2.10	0.69
29:BF:83:PHE:CD2	57:BA:1257:C:H4'	2.27	0.69
40:BT:25:GLY:O	40:BT:26:ASP:HB2	1.91	0.69
45:BY:31:LEU:N	45:BY:31:LEU:HD22	2.08	0.69
49:B2:13:ALA:O	49:B2:16:LEU:HB2	1.93	0.69
57:BA:755:C:H2'	57:BA:756:C:H6	1.57	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Am:108:ARG:NH2	12:Am:114:ARG:HG2	2.07	0.69
22:Aa:977:A:H2'	22:Aa:978:A:H5'	1.74	0.69
29:AF:74:ARG:CD	57:AA:674:G:H1'	2.22	0.69
30:AG:40:ASN:ND2	30:AG:41:GLN:N	2.40	0.69
34:AN:16:ILE:HG23	34:AN:54:VAL:HG22	1.73	0.69
45:AY:2:ARG:HD3	45:AY:3:VAL:HG23	1.75	0.69
51:A4:33:VAL:CG1	51:A4:34:GLU:H	1.95	0.69
53:A6:9:LEU:HD13	53:A6:9:LEU:O	1.92	0.69
57:AA:197:A:H5'	57:AA:197:A:H8	1.57	0.69
1:Bb:97:TRP:CH2	1:Bb:173:ALA:HA	2.28	0.69
7:Bh:44:PHE:HA	7:Bh:79:VAL:HG11	1.75	0.69
8:Bi:16:ARG:HH21	8:Bi:64:THR:HG21	1.58	0.69
11:Bl:91:LYS:O	11:Bl:91:LYS:HG3	1.92	0.69
16:Bq:26:GLN:HG2	16:Bq:37:LYS:HG2	1.75	0.69
22:Ba:1423:G:H5'	35:BO:49:ARG:NH2	2.07	0.69
27:BD:221:VAL:HG22	27:BD:226:MET:CE	2.23	0.69
29:BF:160:ASN:C	29:BF:160:ASN:HD22	2.00	0.69
29:BF:178:PRO:HB2	29:BF:201:VAL:HG11	1.74	0.69
31:BH:41:MET:HE3	31:BH:42:ARG:N	2.07	0.69
31:BH:110:SER:HB2	57:BA:2653:U:O2'	1.93	0.69
51:B4:33:VAL:CG1	51:B4:34:GLU:H	1.94	0.69
57:BA:1948:G:H5'	57:BA:1948:G:C8	2.28	0.69
2:Ac:102:ASN:O	2:Ac:103:VAL:HG23	1.92	0.69
9:Aj:41:PRO:HA	22:Aa:1151:A:H5'	1.75	0.69
10:Ak:15:ALA:HA	10:Ak:76:GLY:O	1.92	0.69
22:Aa:1096:C:H2'	22:Aa:1097:C:C6	2.27	0.69
28:AE:59:VAL:HG21	28:AE:63:LEU:HA	1.74	0.69
32:AI:126:TYR:O	32:AI:140:LEU:HB3	1.92	0.69
35:AO:120:GLU:OE2	35:AO:122:LEU:HD21	1.93	0.69
40:AT:28:VAL:HG22	40:AT:46:GLU:C	2.17	0.69
49:A2:51:ARG:HD3	49:A2:55:ARG:NH2	2.07	0.69
57:AA:1358:G:O2'	57:AA:1359:A:H5"	1.92	0.69
57:AA:2317:C:H2'	57:AA:2318:G:C5'	2.23	0.69
58:AB:40:U:C2	58:AB:43:C:H5"	2.27	0.69
1:Bb:179:LYS:HG2	1:Bb:179:LYS:O	1.93	0.69
2:Bc:46:GLU:O	2:Bc:47:LEU:HB2	1.92	0.69
18:Bs:36:ARG:HG3	22:Ba:1320:C:H42	1.56	0.69
22:Ba:1286:A:H2'	22:Ba:1287:A:H4'	1.74	0.69
29:BF:36:VAL:HG11	29:BF:183:VAL:HG11	1.75	0.69
35:BO:23:ARG:NH1	57:BA:2562:U:H1'	2.08	0.69
55:B8:51:ALA:C	55:B8:53:PRO:HD2	2.18	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Ae:144:THR:O	4:Ae:148:VAL:HG23	1.92	0.68
7:Ah:109:ILE:HG12	7:Ah:110:ALA:N	2.06	0.68
12:Am:112:GLY:O	12:Am:113:PRO:C	2.36	0.68
25:Aw:71:C:H2'	25:Aw:72:A:C8	2.28	0.68
34:AN:128:HIS:HE1	34:AN:134:ARG:HH11	1.41	0.68
35:AO:69:ILE:HD12	35:AO:69:ILE:N	2.08	0.68
40:AT:34:VAL:O	40:AT:35:LYS:HB3	1.91	0.68
40:AT:82:LEU:H	40:AT:82:LEU:CD1	2.04	0.68
44:AX:12:VAL:CB	44:AX:17:ALA:HB1	2.23	0.68
2:Bc:119:ARG:O	2:Bc:123:GLN:HG3	1.93	0.68
6:Bg:23:VAL:O	6:Bg:27:ILE:HG13	1.93	0.68
9:Bj:41:PRO:HA	22:Ba:1151:A:H5'	1.74	0.68
24:Bv:39:C:H2'	24:Bv:40:C:H6	1.56	0.68
34:BN:3:THR:O	34:BN:5:VAL:HG12	1.94	0.68
36:BP:38:GLN:CG	36:BP:39:LYS:H	2.03	0.68
40:BT:102:ILE:O	40:BT:106:SER:HB3	1.94	0.68
44:BX:36:LYS:HB2	57:BA:1598:C:H5'	1.74	0.68
57:BA:1038:C:H42	57:BA:1117:G:H1	1.41	0.68
57:BA:1748:G:H8	57:BA:1748:G:H5'	1.58	0.68
1:Ab:174:VAL:O	1:Ab:178:ARG:HB2	1.93	0.68
28:AE:203:LYS:O	28:AE:203:LYS:HD2	1.93	0.68
41:AU:102:GLU:HG3	42:AV:2:PHE:CE1	2.28	0.68
52:A5:33:CYS:HB2	52:A5:40:LYS:HE3	1.75	0.68
57:AA:1678:G:H22	57:AA:1989:G:H22	1.40	0.68
3:Bd:30:LYS:C	3:Bd:32:ALA:H	2.01	0.68
29:BF:18:ARG:HH21	29:BF:20:LEU:HD11	1.57	0.68
30:BG:85:GLY:C	30:BG:87:PRO:HD3	2.19	0.68
32:BI:91:SER:CB	32:BI:121:LYS:HD3	2.18	0.68
34:BN:133:GLN:HG2	34:BN:134:ARG:N	2.08	0.68
35:BO:104:ARG:HE	40:BT:33:LYS:HE3	1.58	0.68
49:B2:2:LYS:HB3	57:BA:97:C:H5"	1.72	0.68
52:B5:54:GLY:C	52:B5:55:ARG:NE	2.50	0.68
57:BA:1384:A:N3	57:BA:1405:U:H1'	2.08	0.68
2:Ac:206:GLU:HG2	2:Ac:207:VAL:H	1.58	0.68
3:Ad:96:LEU:CG	3:Ad:139:ARG:HH22	2.05	0.68
22:Aa:1054:C:OP1	22:Aa:1197:G:OP2	2.11	0.68
27:AD:70:TRP:HZ3	27:AD:146:GLU:OE2	1.75	0.68
30:AG:131:TYR:O	30:AG:159:VAL:HG12	1.93	0.68
36:AP:35:HIS:H	57:AA:1190:G:H5'	1.58	0.68
43:AW:1:MET:CE	43:AW:2:GLU:H	2.06	0.68
55:A8:61:LEU:HG	55:A8:62:LEU:H	1.58	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:AA:1173:G:H3'	57:AA:1174:A:C5'	2.23	0.68
15:Bp:52:ASP:OD1	15:Bp:55:ARG:HG3	1.94	0.68
22:Ba:637:G:H2'	22:Ba:638:G:H8	1.57	0.68
22:Ba:1478:C:O2'	22:Ba:1479:C:H5'	1.93	0.68
45:BY:13:VAL:HG22	45:BY:14:LEU:H	1.59	0.68
55:B8:6:THR:HG22	55:B8:63:PRO:HD3	1.74	0.68
57:BA:1718:G:H5'	57:BA:1718:G:C8	2.29	0.68
21:Ay:87:TYR:CE2	23:Ax:20:A2M:HM'3	2.28	0.68
27:AD:129:ASN:O	27:AD:193:VAL:HG12	1.93	0.68
28:AE:69:LYS:NZ	28:AE:89:ASP:HA	2.07	0.68
30:AG:71:THR:HG22	30:AG:89:GLY:CA	2.22	0.68
32:AI:62:LYS:HE3	32:AI:133:HIS:C	2.18	0.68
46:AZ:27:VAL:HG23	46:AZ:36:LYS:HA	1.75	0.68
57:AA:7:G:H1	57:AA:2896:C:N4	1.92	0.68
57:AA:1405:U:H2'	57:AA:1406:U:C6	2.28	0.68
22:Ba:460:G:O6	22:Ba:470:C:H5"	1.93	0.68
31:BH:7:LEU:HD23	31:BH:69:ARG:CD	2.24	0.68
46:BZ:98:MET:O	46:BZ:125:LEU:HD12	1.94	0.68
57:BA:545:C:C3'	57:BA:547:A:H5"	2.23	0.68
57:BA:612:C:C3'	57:BA:613:G:H5"	2.22	0.68
3:Ad:18:LYS:HB2	3:Ad:33:MET:HG2	1.75	0.68
10:Ak:111:ASP:OD2	17:Ar:84:LYS:HE2	1.93	0.68
21:Ay:8:ASP:O	21:Ay:9:GLU:C	2.37	0.68
22:Aa:194:C:H2'	22:Aa:195:A:H5"	1.74	0.68
31:AH:41:MET:HE3	31:AH:42:ARG:N	2.08	0.68
34:AN:133:GLN:HG2	34:AN:134:ARG:N	2.08	0.68
57:AA:1948:G:H5'	57:AA:1948:G:C8	2.26	0.68
6:Bg:111:ARG:HH11	6:Bg:111:ARG:HB3	1.58	0.68
18:Bs:16:LEU:H	18:Bs:16:LEU:HD12	1.57	0.68
27:BD:10:THR:HG23	27:BD:13:ARG:HB3	1.76	0.68
29:BF:9:ILE:HG22	29:BF:11:VAL:O	1.94	0.68
38:BR:36:THR:HG22	57:BA:1278:A:H5"	1.75	0.68
40:BT:33:LYS:HZ2	40:BT:74:ARG:NH2	1.92	0.68
43:BW:34:ASN:HD22	52:B5:39:MET:HE3	1.56	0.68
47:B0:48:GLY:HA3	47:B0:80:HIS:HD1	1.57	0.68
57:BA:1188:U:C2'	57:BA:1189:A:H5'	2.23	0.68
57:BA:1786:A:C2	57:BA:2606:C:H1'	2.28	0.68
16:Aq:27:PHE:CZ	16:Aq:36:ILE:HD11	2.28	0.68
22:Aa:1321:C:H5'	22:Aa:1322:C:C5'	2.23	0.68
29:AF:4:VAL:HA	29:AF:19:GLU:HB3	1.75	0.68
29:AF:89:VAL:HG21	57:AA:586:A:H5'	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:AN:3:THR:O	34:AN:5:VAL:HG12	1.94	0.68
40:AT:1:MET:O	40:AT:1:MET:HE3	1.94	0.68
40:AT:28:VAL:HG13	40:AT:46:GLU:HA	1.75	0.68
45:AY:76:CYS:HB3	45:AY:96:ILE:CD1	2.19	0.68
49:A2:24:LEU:HD11	49:A2:28:LYS:HE2	1.73	0.68
57:AA:1188:U:C2'	57:AA:1189:A:H5'	2.24	0.68
9:Bj:6:ILE:HD11	9:Bj:72:VAL:CB	2.23	0.68
22:Ba:559:A:H4'	22:Ba:560:U:H5"	1.73	0.68
29:BF:4:VAL:HA	29:BF:19:GLU:HB3	1.76	0.68
34:BN:128:HIS:CE1	34:BN:134:ARG:HH11	2.12	0.68
46:BZ:53:ILE:HG22	46:BZ:71:VAL:HB	1.75	0.68
52:B5:54:GLY:N	52:B5:55:ARG:HE	1.91	0.68
7:Ah:86:ILE:HG22	7:Ah:87:SER:N	2.08	0.68
22:Aa:637:G:H2'	22:Aa:638:G:H8	1.57	0.68
25:Aw:62:C:H4'	26:AC:53:ARG:HG3	1.75	0.68
32:AI:94:ALA:HB1	32:AI:98:ALA:HB2	1.76	0.68
35:AO:114:ILE:HD12	35:AO:114:ILE:N	2.07	0.68
36:AP:146:VAL:HG13	36:AP:147:LEU:N	2.08	0.68
47:A0:24:LYS:O	47:A0:25:ARG:HD3	1.94	0.68
52:A5:54:GLY:C	52:A5:55:ARG:NE	2.51	0.68
7:Bh:91:ARG:HH11	7:Bh:91:ARG:HG2	1.58	0.68
17:Br:31:LEU:HD23	17:Br:31:LEU:H	1.57	0.68
20:Bu:14:TRP:HZ3	20:Bu:15:ARG:HH11	1.40	0.68
22:Ba:382:A:H2'	22:Ba:383:A:C8	2.29	0.68
27:BD:35:LYS:HB3	27:BD:35:LYS:HZ2	1.59	0.68
28:BE:24:THR:HG23	28:BE:184:VAL:HG23	1.76	0.68
31:BH:149:ARG:HA	31:BH:162:ILE:HG13	1.75	0.68
36:BP:47:ASP:HB3	36:BP:48:PRO:O	1.94	0.68
57:BA:1038:C:C3'	57:BA:1039:G:H5"	2.22	0.68
2:Ac:70:VAL:O	2:Ac:106:VAL:HG23	1.93	0.68
6:Ag:85:TYR:HD1	6:Ag:154:TYR:HE1	1.38	0.68
10:Ak:110:ASP:O	17:Ar:84:LYS:HD2	1.94	0.68
22:Aa:980:C:H5'	22:Aa:981:U:C5	2.29	0.68
22:Aa:1195:C:N4	22:Aa:1197:G:N7	2.42	0.68
28:AE:132:HIS:CD2	28:AE:135:HIS:NE2	2.62	0.68
29:AF:32:LEU:HD22	29:AF:112:MET:HE3	1.75	0.68
30:AG:98:ARG:HA	30:AG:101:ILE:HD12	1.76	0.68
30:AG:111:LEU:N	30:AG:112:PRO:CD	2.53	0.68
30:AG:170:ARG:HH22	30:AG:182:LYS:HG2	1.57	0.68
32:AI:77:LEU:HD22	32:AI:140:LEU:HA	1.75	0.68
39:AS:42:ASP:C	39:AS:44:LYS:H	2.02	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:AW:5:ALA:HB2	43:AW:54:ALA:HB2	1.74	0.68
43:AW:18:ARG:NH1	57:AA:518:G:H4'	2.09	0.68
46:AZ:54:HIS:HB3	46:AZ:101:PRO:CD	2.24	0.68
57:AA:2103:C:H3'	57:AA:2104:G:H5"	1.76	0.68
57:AA:2681:C:H5	57:AA:2725:A:N6	1.86	0.68
22:Ba:1053:G:C4'	22:Ba:1054:C:H5'	2.24	0.68
22:Ba:1096:C:H2'	22:Ba:1097:C:C6	2.28	0.68
22:Ba:1502:A:H2	22:Ba:1505:G:H22	1.39	0.68
27:BD:27:THR:CG2	27:BD:83:GLU:HB3	2.24	0.68
27:BD:35:LYS:HZ2	27:BD:36:PRO:HD3	1.59	0.68
28:BE:46:ALA:HA	28:BE:82:ARG:O	1.93	0.68
38:BR:10:LEU:HD22	38:BR:17:ARG:HD3	1.75	0.68
57:BA:1405:U:H2'	57:BA:1406:U:C6	2.29	0.68
7:Ah:44:PHE:HA	7:Ah:79:VAL:HG11	1.75	0.68
12:Am:91:ARG:HD3	18:As:81:ARG:HH21	1.58	0.68
28:AE:24:THR:HG23	28:AE:184:VAL:CG2	2.23	0.68
29:AF:83:PHE:CE2	57:AA:1257:C:H4'	2.29	0.68
35:AO:104:ARG:HE	40:AT:33:LYS:HE3	1.58	0.68
35:AO:114:ILE:H	35:AO:114:ILE:CD1	2.06	0.68
37:AQ:134:ARG:CZ	46:AZ:122:ARG:HH21	2.07	0.68
39:AS:17:ARG:HH21	39:AS:90:GLY:H	1.42	0.68
42:AV:18:LEU:HD13	42:AV:19:LYS:N	2.06	0.68
57:AA:1384:A:N3	57:AA:1405:U:H1'	2.09	0.68
57:AA:1963:U:H2'	57:AA:1963:U:O2	1.94	0.68
57:AA:2795:G:H2'	57:AA:2795:G:N3	2.08	0.68
7:Bh:20:TYR:HA	7:Bh:65:TYR:CE2	2.29	0.68
10:Bk:111:ASP:OD2	17:Br:84:LYS:HE2	1.94	0.68
12:Bm:78:ILE:HA	12:Bm:81:LEU:HD12	1.75	0.68
22:Ba:630:G:H3'	22:Ba:631:G:H5"	1.75	0.68
22:Ba:1072:G:H2'	22:Ba:1073:U:C6	2.29	0.68
28:BE:117:MET:HE2	28:BE:136:ARG:NH2	2.09	0.68
32:BI:142:VAL:HG12	32:BI:142:VAL:O	1.93	0.68
42:BV:28:GLU:HB3	42:BV:29:PRO:HD2	1.75	0.68
42:BV:51:VAL:HG12	42:BV:52:VAL:N	2.07	0.68
48:B1:84:GLY:O	48:B1:86:SER:N	2.27	0.68
50:B3:8:LEU:HD11	50:B3:31:LEU:HD23	1.76	0.68
1:Ab:24:TRP:CZ3	1:Ab:26:PRO:HA	2.28	0.68
1:Ab:97:TRP:CH2	1:Ab:173:ALA:HA	2.28	0.68
6:Ag:151:TYR:OH	10:Ak:54:ARG:HD3	1.94	0.68
16:Aq:67:LYS:HA	16:Aq:70:ARG:HH12	1.59	0.68
22:Aa:630:G:H3'	22:Aa:631:G:H5"	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Aa:1277:C:C2'	22:Aa:1278:U:H5'	2.24	0.68
23:Ax:19:OMU:HM22	23:Ax:20:A2M:OP2	1.93	0.68
30:AG:32:PRO:HB2	30:AG:172:LEU:HD12	1.76	0.68
36:AP:62:LEU:HB3	57:AA:2393:A:H5'	1.74	0.68
36:AP:71:VAL:HG13	36:AP:72:PRO:CD	2.23	0.68
39:AS:28:VAL:HG12	39:AS:89:ARG:HD3	1.76	0.68
40:AT:33:LYS:HZ2	40:AT:74:ARG:NH2	1.92	0.68
46:AZ:102:LEU:HD21	46:AZ:124:ILE:HD11	1.75	0.68
46:AZ:111:VAL:C	46:AZ:113:ALA:H	2.02	0.68
10:Bk:99:GLN:HG2	10:Bk:105:VAL:HG21	1.76	0.68
15:Bp:20:VAL:HG23	15:Bp:34:GLU:O	1.94	0.68
22:Ba:723:U:H5"	22:Ba:724:G:OP2	1.94	0.68
25:Bw:19:G:H4'	25:Bw:20:U:OP2	1.94	0.68
43:BW:18:ARG:NH1	57:BA:518:G:H4'	2.08	0.68
57:BA:1021:A:H3'	57:BA:1021:A:H8	1.59	0.68
57:BA:2443:C:O2'	57:BA:2444:G:H5'	1.94	0.68
1:Ab:95:GLN:HG3	1:Ab:147:LYS:O	1.95	0.67
1:Ab:177:ALA:HB1	1:Ab:182:ILE:HB	1.76	0.67
1:Ab:204:ASN:HD22	1:Ab:204:ASN:C	2.00	0.67
3:Ad:121:VAL:O	3:Ad:134:ASP:HA	1.92	0.67
7:Ah:12:ARG:NH1	7:Ah:26:VAL:HA	2.09	0.67
36:AP:101:VAL:HG12	36:AP:107:LYS:H	1.59	0.67
37:AQ:19:GLY:HA3	58:AB:92:C:OP1	1.94	0.67
39:AS:28:VAL:HB	39:AS:89:ARG:HB2	1.76	0.67
48:A1:41:ARG:HD3	48:A1:43:TYR:CZ	2.29	0.67
2:Bc:51:GLY:O	2:Bc:115:LEU:HD21	1.94	0.67
8:Bi:99:LEU:HB3	8:Bi:101:PHE:CD1	2.29	0.67
12:Bm:70:LEU:O	12:Bm:74:VAL:HG23	1.94	0.67
22:Ba:980:C:H5'	22:Ba:981:U:C5	2.29	0.67
22:Ba:1504:G:OP1	22:Ba:1507:A:H4'	1.94	0.67
30:BG:182:LYS:HD2	30:BG:182:LYS:H	1.57	0.67
38:BR:67:LEU:HD22	38:BR:76:VAL:HG21	1.75	0.67
46:BZ:117:LEU:HA	46:BZ:174:VAL:HG22	1.75	0.67
53:B6:9:LEU:HD13	53:B6:9:LEU:O	1.93	0.67
21:Ay:10:ARG:HH21	21:Ay:10:ARG:HG3	1.59	0.67
27:AD:166:GLN:HA	27:AD:166:GLN:NE2	2.08	0.67
29:AF:164:ARG:HH11	29:AF:164:ARG:HG2	1.58	0.67
29:AF:188:ARG:CA	36:AP:7:ARG:HD3	2.24	0.67
30:AG:117:PHE:CE2	30:AG:119:GLY:N	2.61	0.67
37:AQ:21:THR:HG22	37:AQ:21:THR:O	1.95	0.67
38:AR:10:LEU:HD22	38:AR:17:ARG:CD	2.23	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:AT:106:SER:CB	40:AT:110:ILE:HD11	2.24	0.67
42:AV:51:VAL:HG12	42:AV:52:VAL:N	2.09	0.67
43:AW:29:LEU:O	43:AW:33:ARG:HG3	1.94	0.67
46:AZ:151:HIS:HA	46:AZ:171:ILE:CG1	2.24	0.67
47:A0:50:ASN:C	47:A0:62:LEU:HD12	2.19	0.67
55:A8:32:LEU:HB3	55:A8:36:LYS:HZ2	1.60	0.67
22:Ba:1157:A:H5'	22:Ba:1158:C:C5	2.28	0.67
27:BD:108:PRO:HB3	27:BD:143:HIS:CE1	2.29	0.67
55:B8:31:HIS:HE1	57:BA:2392:A:OP2	1.76	0.67
57:BA:7:G:H1	57:BA:2896:C:N4	1.92	0.67
57:BA:620:G:H5"	57:BA:620:G:N3	2.10	0.67
2:Ac:84:ILE:HD11	2:Ac:88:ARG:NH2	2.08	0.67
3:Ad:96:LEU:HG	3:Ad:139:ARG:NH2	2.08	0.67
4:Ae:6:PHE:HD1	4:Ae:63:ARG:HH12	1.42	0.67
6:Ag:111:ARG:HH11	6:Ag:111:ARG:HB3	1.59	0.67
22:Aa:1054:C:N4	23:Ax:21:OMG:H2'	2.08	0.67
22:Aa:1157:A:H5'	22:Aa:1158:C:C5	2.29	0.67
27:AD:259:THR:HG23	57:AA:1803:A:H4'	1.77	0.67
28:AE:46:ALA:HA	28:AE:82:ARG:O	1.94	0.67
34:AN:18:ALA:HB1	34:AN:21:LYS:HB2	1.77	0.67
38:AR:28:LEU:HD22	38:AR:28:LEU:O	1.93	0.67
40:AT:27:THR:HG23	40:AT:28:VAL:H	1.60	0.67
57:AA:1396:U:H2'	57:AA:1396:U:O2	1.94	0.67
57:AA:2313:C:H2'	57:AA:2314:C:C6	2.26	0.67
57:AA:2716:U:O2'	57:AA:2717:G:H5'	1.94	0.67
9:Bj:33:GLN:O	9:Bj:75:ILE:HG12	1.94	0.67
21:By:53:ILE:CD1	21:By:62:LEU:HD22	2.20	0.67
22:Ba:1504:G:O2'	22:Ba:1505:G:OP2	2.08	0.67
28:BE:62:PRO:C	28:BE:64:LYS:N	2.52	0.67
29:BF:74:ARG:CD	57:BA:674:G:H1'	2.25	0.67
32:BI:129:THR:HG22	32:BI:130:TYR:N	2.08	0.67
33:BJ:22:GLY:O	33:BJ:119:ALA:HA	1.94	0.67
34:BN:18:ALA:HB1	34:BN:21:LYS:HB2	1.75	0.67
57:BA:2317:C:H2'	57:BA:2318:G:C5'	2.22	0.67
22:Aa:180:U:C2'	22:Aa:181:G:H5"	2.24	0.67
32:AI:83:ALA:HA	32:AI:89:TYR:CD1	2.28	0.67
35:AO:23:ARG:NH1	57:AA:2562:U:H1'	2.08	0.67
46:AZ:146:ILE:HA	46:AZ:174:VAL:HG12	1.76	0.67
55:A8:33:ASN:HA	55:A8:36:LYS:HD2	1.77	0.67
57:AA:620:G:H5"	57:AA:620:G:N3	2.10	0.67
1:Bb:104:ASN:HB2	22:Ba:1074:G:C4'	2.24	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bb:233:SER:HB2	1:Bb:234:PRO:CD	2.18	0.67
12:Bm:65:LYS:HB2	12:Bm:66:LEU:CG	2.24	0.67
16:Bq:7:THR:CG2	16:Bq:58:GLU:HG2	2.18	0.67
19:Bt:103:GLY:N	22:Ba:192:U:H4'	2.10	0.67
25:Bw:28:C:H2'	25:Bw:29:G:H8	1.59	0.67
30:BG:60:LEU:O	30:BG:64:THR:HG22	1.93	0.67
36:BP:33:ARG:NH2	57:BA:587:C:H3'	2.09	0.67
36:BP:61:ARG:NH1	55:B8:13:ARG:HD2	2.10	0.67
46:BZ:37:VAL:HG23	46:BZ:38:TYR:N	2.08	0.67
50:B3:8:LEU:CD1	50:B3:31:LEU:HD23	2.24	0.67
55:B8:61:LEU:HG	55:B8:62:LEU:H	1.58	0.67
57:BA:1014:U:C2'	57:BA:1015:G:H5"	2.25	0.67
57:BA:1173:G:H3'	57:BA:1174:A:C5'	2.23	0.67
1:Ab:104:ASN:HB2	22:Aa:1074:G:C4'	2.24	0.67
7:Ah:20:TYR:HA	7:Ah:65:TYR:CE2	2.29	0.67
8:Ai:16:ARG:HH21	8:Ai:64:THR:HG21	1.58	0.67
9:Aj:6:ILE:HD11	9:Aj:72:VAL:CB	2.23	0.67
22:Aa:180:U:H2'	22:Aa:181:G:C5'	2.25	0.67
22:Aa:1072:G:H2'	22:Aa:1073:U:C6	2.29	0.67
22:Aa:1149:C:H2'	22:Aa:1150:U:H6	1.58	0.67
22:Aa:1296:C:H5'	22:Aa:1297:C:OP2	1.94	0.67
27:AD:244:ARG:HA	57:AA:1902:C:H4'	1.75	0.67
30:AG:124:SER:HB2	30:AG:131:TYR:CE1	2.29	0.67
34:AN:133:GLN:O	34:AN:134:ARG:HB3	1.92	0.67
38:AR:11:ASN:C	38:AR:12:ARG:HG3	2.20	0.67
40:AT:78:LEU:C	40:AT:79:HIS:ND1	2.52	0.67
42:AV:21:ARG:HB3	42:AV:91:TYR:HB2	1.76	0.67
46:AZ:34:ASN:C	46:AZ:34:ASN:HD22	2.03	0.67
46:AZ:44:PHE:CZ	46:AZ:86:VAL:HG11	2.30	0.67
3:Bd:119:GLN:HG3	3:Bd:123:HIS:HD2	1.60	0.67
6:Bg:102:ARG:CZ	22:Ba:939:G:H5"	2.24	0.67
7:Bh:12:ARG:NH1	7:Bh:26:VAL:HA	2.08	0.67
22:Ba:1277:C:C2'	22:Ba:1278:U:H5'	2.24	0.67
29:BF:22:ALA:O	29:BF:26:ALA:HB2	1.94	0.67
32:BI:77:LEU:HD22	32:BI:140:LEU:HA	1.76	0.67
35:BO:98:VAL:CG1	35:BO:117:LEU:HB3	2.24	0.67
36:BP:47:ASP:HB3	36:BP:48:PRO:HA	1.77	0.67
45:BY:13:VAL:HG21	45:BY:28:LYS:NZ	2.08	0.67
57:BA:118:A:H5'	57:BA:119:A:H8	1.59	0.67
57:BA:2712:U:O2	57:BA:2712:U:H5'	1.95	0.67
58:BB:40:U:C2	58:BB:43:C:H5"	2.29	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ab:103:THR:HG23	1:Ab:176:GLU:OE1	1.95	0.67
6:Ag:9:VAL:HG21	6:Ag:94:ARG:NH1	2.10	0.67
7:Ah:91:ARG:HH11	7:Ah:91:ARG:HG2	1.58	0.67
22:Aa:393:A:O2'	22:Aa:394:G:H5'	1.95	0.67
27:AD:10:THR:HG23	27:AD:13:ARG:HB3	1.76	0.67
28:AE:62:PRO:C	28:AE:64:LYS:N	2.53	0.67
29:AF:183:VAL:O	29:AF:187:VAL:HG23	1.94	0.67
39:AS:30:ARG:HD2	39:AS:31:SER:H	1.60	0.67
40:AT:35:LYS:NZ	40:AT:41:ARG:HH21	1.91	0.67
43:AW:29:LEU:HD21	43:AW:33:ARG:HH21	1.60	0.67
15:Bp:10:GLY:HA2	22:Ba:624:C:O3'	1.95	0.67
22:Ba:954:G:H2'	22:Ba:955:U:H6	1.59	0.67
22:Ba:1288:A:N1	22:Ba:1371:G:H1'	2.10	0.67
24:Bv:72:A:H2'	24:Bv:73:A:H5'	1.75	0.67
40:BT:35:LYS:NZ	40:BT:41:ARG:HH21	1.91	0.67
45:BY:8:LYS:HE2	45:BY:72:VAL:HG23	1.74	0.67
46:BZ:66:SER:C	46:BZ:67:LEU:HD22	2.19	0.67
48:B1:3:LYS:O	48:B1:12:PRO:HD3	1.95	0.67
54:B7:19:ARG:HH11	54:B7:19:ARG:HG2	1.59	0.67
1:Ab:79:ASP:C	1:Ab:81:VAL:H	2.01	0.67
3:Ad:147:ALA:HB2	3:Ad:182:LYS:HA	1.75	0.67
15:Ap:52:ASP:OD1	15:Ap:55:ARG:HG3	1.94	0.67
19:At:23:ARG:O	19:At:27:LYS:HB2	1.95	0.67
26:AC:47:LYS:HD3	57:AA:2178:C:H4'	1.77	0.67
46:AZ:119:GLU:HG3	46:AZ:122:ARG:HH11	1.58	0.67
7:Bh:68:ARG:HH11	7:Bh:68:ARG:HG2	1.60	0.67
16:Bq:27:PHE:CZ	16:Bq:36:ILE:HD11	2.30	0.67
21:By:40:GLU:O	21:By:43:LYS:HD2	1.95	0.67
22:Ba:16:A:O2'	22:Ba:17:U:H5'	1.93	0.67
22:Ba:1369:C:H2'	22:Ba:1370:G:C8	2.30	0.67
27:BD:13:ARG:NH1	27:BD:16:MET:SD	2.68	0.67
27:BD:35:LYS:HG2	27:BD:63:ARG:CA	2.24	0.67
28:BE:203:LYS:O	28:BE:203:LYS:HD2	1.94	0.67
39:BS:74:ALA:HB1	39:BS:103:GLU:CB	2.25	0.67
43:BW:31:GLU:O	43:BW:35:ILE:HG12	1.93	0.67
46:BZ:102:LEU:HD11	46:BZ:171:ILE:HD11	1.76	0.67
49:B2:39:ALA:HA	49:B2:45:SER:HB3	1.77	0.67
2:Ac:76:VAL:HG23	2:Ac:77:ILE:HG13	1.77	0.67
5:Af:14:LEU:HD22	5:Af:18:GLN:NE2	2.10	0.67
7:Ah:101:PRO:HG2	7:Ah:133:LEU:HD11	1.77	0.67
10:Ak:67:ASP:OD1	10:Ak:71:LYS:HE3	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Aa:591:U:H2'	22:Aa:592:G:C8	2.29	0.67
25:Aw:76:A:O2'	57:AA:2394:C:N3	2.21	0.67
27:AD:270:ILE:C	27:AD:271:ILE:HG12	2.20	0.67
28:AE:24:THR:HG23	28:AE:184:VAL:HG23	1.75	0.67
28:AE:119:ARG:HD2	28:AE:120:TRP:NE1	2.10	0.67
30:AG:46:ALA:CB	30:AG:82:LEU:HD11	2.22	0.67
31:AH:109:PHE:C	31:AH:111:HIS:H	2.03	0.67
32:AI:78:THR:N	32:AI:104:GLN:HE22	1.92	0.67
35:AO:88:ASN:ND2	35:AO:90:GLN:H	1.92	0.67
37:AQ:134:ARG:NE	46:AZ:122:ARG:HH21	1.92	0.67
40:AT:70:VAL:HG12	40:AT:71:GLY:N	2.08	0.67
45:AY:51:VAL:HG12	45:AY:53:PRO:CD	2.22	0.67
57:AA:1038:C:H42	57:AA:1117:G:H1	1.41	0.67
21:By:33:VAL:C	21:By:35:GLU:H	2.02	0.67
31:BH:7:LEU:CG	31:BH:69:ARG:HD2	2.25	0.67
34:BN:128:HIS:HE1	34:BN:134:ARG:HH11	1.42	0.67
52:B5:16:ARG:NH1	52:B5:17:ASP:OD1	2.28	0.67
57:BA:1292:U:H2'	57:BA:1293:C:C6	2.29	0.67
57:BA:1358:G:O2'	57:BA:1359:A:H5"	1.94	0.67
1:Ab:178:ARG:HH22	1:Ab:196:LEU:HA	1.60	0.67
3:Ad:30:LYS:C	3:Ad:32:ALA:H	2.02	0.67
3:Ad:162:LEU:HD12	3:Ad:181:MET:HE2	1.77	0.67
9:Aj:33:GLN:O	9:Aj:75:ILE:HG12	1.95	0.67
24:Av:72:A:H2'	24:Av:73:A:C5'	2.18	0.67
26:AC:225:ILE:O	26:AC:225:ILE:HD12	1.95	0.67
27:AD:43:ARG:NH1	27:AD:44:ASN:HD21	1.93	0.67
38:AR:36:THR:HG22	57:AA:1278:A:H5"	1.76	0.67
43:AW:50:VAL:HG13	43:AW:105:VAL:HG21	1.76	0.67
44:AX:53:LYS:NZ	44:AX:55:ASN:HD21	1.93	0.67
49:A2:2:LYS:CG	57:AA:97:C:H5"	2.25	0.67
57:AA:118:A:H5'	57:AA:119:A:H8	1.58	0.67
1:Bb:79:ASP:C	1:Bb:81:VAL:H	2.01	0.67
1:Bb:209:ARG:HH11	1:Bb:239:VAL:HG11	1.60	0.67
4:Be:98:THR:HB	4:Be:117:ASP:HB3	1.76	0.67
5:Bf:67:MET:HB2	5:Bf:68:PRO:HD2	1.75	0.67
7:Bh:9:MET:O	7:Bh:13:ILE:HG12	1.95	0.67
10:Bk:85:ARG:HG2	10:Bk:111:ASP:O	1.95	0.67
30:BG:42:GLY:H	30:BG:43:LEU:HD22	1.59	0.67
30:BG:132:ASN:HB2	57:BA:2303:G:O2'	1.95	0.67
40:BT:78:LEU:C	40:BT:79:HIS:ND1	2.53	0.67
42:BV:18:LEU:HD13	42:BV:19:LYS:N	2.04	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BY:31:LEU:HB2	45:BY:32:PRO:HA	1.77	0.67
1:Ab:209:ARG:HH11	1:Ab:239:VAL:HG11	1.60	0.67
11:Al:24:VAL:HG12	11:Al:24:VAL:O	1.94	0.67
18:As:16:LEU:H	18:As:16:LEU:HD12	1.58	0.67
19:At:103:GLY:N	22:Aa:192:U:H4'	2.10	0.67
32:AI:129:THR:HG22	32:AI:130:TYR:N	2.08	0.67
40:AT:102:ILE:HB	40:AT:110:ILE:CD1	2.25	0.67
41:AU:79:PHE:CE2	41:AU:83:LEU:HD11	2.29	0.67
42:AV:21:ARG:O	42:AV:22:VAL:HG13	1.94	0.67
49:A2:37:PHE:O	49:A2:41:ILE:HG23	1.95	0.67
57:AA:1014:U:C2'	57:AA:1015:G:H5"	2.25	0.67
57:AA:2123:G:H2'	57:AA:2124:G:H8	1.60	0.67
2:Bc:206:GLU:HG2	2:Bc:207:VAL:H	1.59	0.67
22:Ba:180:U:H2'	22:Ba:181:G:C5'	2.25	0.67
22:Ba:650:G:O2'	22:Ba:651:C:H5'	1.94	0.67
22:Ba:979:C:H3'	22:Ba:980:C:C5'	2.17	0.67
27:BD:34:VAL:CG2	27:BD:35:LYS:H	1.92	0.67
27:BD:267:SER:O	27:BD:269:PHE:N	2.27	0.67
32:BI:92:VAL:HG12	32:BI:120:ILE:CD1	2.25	0.67
39:BS:36:TYR:H	39:BS:36:TYR:HD1	1.42	0.67
41:BU:83:LEU:HG	41:BU:88:ILE:CD1	2.21	0.67
41:BU:102:GLU:HG3	42:BV:2:PHE:CE1	2.29	0.67
44:BX:54:VAL:C	44:BX:55:ASN:HD22	2.03	0.67
46:BZ:130:PRO:HA	46:BZ:133:ILE:HD11	1.75	0.67
57:BA:1021:A:H3'	57:BA:1021:A:C8	2.29	0.67
57:BA:1539:G:C2	57:BA:1540:U:H1'	2.30	0.67
57:BA:1796:U:H2'	57:BA:1797:C:C6	2.30	0.67
1:Ab:71:VAL:HB	1:Ab:164:VAL:CG1	2.24	0.66
2:Ac:46:GLU:O	2:Ac:47:LEU:HB2	1.93	0.66
22:Aa:625:G:H2'	22:Aa:626:U:C6	2.31	0.66
28:AE:77:ILE:HG22	28:AE:78:LEU:HD12	1.77	0.66
45:AY:31:LEU:HB2	45:AY:32:PRO:HA	1.77	0.66
45:AY:31:LEU:HD22	45:AY:31:LEU:N	2.10	0.66
53:A6:30:THR:O	53:A6:32:ASN:N	2.28	0.66
57:AA:1021:A:C8	57:AA:1021:A:H3'	2.30	0.66
57:AA:1021:A:H3'	57:AA:1021:A:H8	1.60	0.66
1:Bb:178:ARG:HH22	1:Bb:196:LEU:HA	1.59	0.66
19:Bt:23:ARG:O	19:Bt:27:LYS:HB2	1.95	0.66
19:Bt:75:ASN:N	19:Bt:75:ASN:HD22	1.91	0.66
22:Ba:1197:G:C8	22:Ba:1197:G:H5'	2.30	0.66
22:Ba:1238:A:N7	22:Ba:1303:C:H1'	2.09	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BF:24:LEU:O	29:BF:26:ALA:N	2.20	0.66
29:BF:83:PHE:CE2	57:BA:1257:C:H4'	2.31	0.66
29:BF:184:TYR:O	29:BF:188:ARG:HG2	1.95	0.66
32:BI:83:ALA:HB2	32:BI:89:TYR:H	1.60	0.66
34:BN:67:LEU:HD23	34:BN:87:LEU:HD13	1.77	0.66
36:BP:50:ARG:HG2	36:BP:50:ARG:NH2	2.10	0.66
39:BS:42:ASP:C	39:BS:44:LYS:H	2.02	0.66
41:BU:79:PHE:CE2	41:BU:83:LEU:HD11	2.30	0.66
42:BV:52:VAL:O	42:BV:52:VAL:HG13	1.95	0.66
44:BX:12:VAL:CB	44:BX:17:ALA:HB1	2.25	0.66
45:BY:7:VAL:HG21	45:BY:8:LYS:NZ	2.10	0.66
46:BZ:57:ILE:HG22	46:BZ:58:VAL:N	2.10	0.66
48:B1:3:LYS:HG3	48:B1:4:VAL:HG12	1.75	0.66
57:BA:158:U:H2'	57:BA:171:G:O4'	1.95	0.66
57:BA:1396:U:H2'	57:BA:1396:U:O2	1.93	0.66
3:Ad:104:VAL:HG21	3:Ad:140:VAL:HG21	1.78	0.66
6:Ag:102:ARG:CZ	22:Aa:939:G:H5"	2.24	0.66
12:Am:4:ILE:HG22	12:Am:5:ALA:N	2.10	0.66
12:Am:115:LYS:HB2	22:Aa:1227:A:O2'	1.95	0.66
15:Ap:20:VAL:HG23	15:Ap:34:GLU:O	1.95	0.66
22:Aa:723:U:H5"	22:Aa:724:G:OP2	1.95	0.66
22:Aa:1003:G:C2'	22:Aa:1004:A:H4'	2.20	0.66
27:AD:43:ARG:NH1	27:AD:44:ASN:ND2	2.42	0.66
28:AE:14:ILE:HG12	28:AE:21:VAL:HG23	1.78	0.66
28:AE:102:VAL:HA	28:AE:201:THR:H	1.60	0.66
29:AF:18:ARG:HH21	29:AF:20:LEU:HD11	1.59	0.66
36:AP:115:LEU:HD23	36:AP:115:LEU:H	1.60	0.66
46:AZ:152:ALA:CA	46:AZ:167:PRO:HB2	2.25	0.66
57:AA:272(G):C:H42	57:AA:363(C):G:H1	1.42	0.66
57:AA:1348:G:H2'	57:AA:1349:A:H5"	1.76	0.66
57:AA:2317:C:O2'	57:AA:2318:G:H5'	1.95	0.66
2:Bc:152:ILE:CG2	2:Bc:167:TRP:HA	2.25	0.66
3:Bd:129:ASN:HD22	3:Bd:129:ASN:N	1.80	0.66
11:Bl:25:PRO:C	11:Bl:27:LEU:N	2.50	0.66
19:Bt:14:LYS:HA	19:Bt:17:ARG:HH21	1.60	0.66
27:BD:244:ARG:HA	57:BA:1902:C:H4'	1.78	0.66
28:BE:119:ARG:HD2	28:BE:120:TRP:NE1	2.10	0.66
32:BI:114:LEU:HD23	32:BI:130:TYR:CD1	2.30	0.66
32:BI:127:VAL:HG22	32:BI:139:GLN:HB3	1.76	0.66
37:BQ:21:THR:HG22	37:BQ:21:THR:O	1.94	0.66
43:BW:5:ALA:O	43:BW:6:ILE:HB	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BY:51:VAL:HG12	45:BY:53:PRO:CD	2.22	0.66
47:B0:24:LYS:O	47:B0:25:ARG:HD3	1.96	0.66
57:BA:298:G:H5'	57:BA:299:A:OP1	1.95	0.66
57:BA:607:U:H3	57:BA:621:A:H2	1.42	0.66
1:Ab:219:VAL:O	1:Ab:223:ILE:HG13	1.95	0.66
7:Ah:89:PRO:HG2	22:Aa:878:G:H5'	1.76	0.66
16:Aq:7:THR:CG2	16:Aq:58:GLU:HG2	2.18	0.66
22:Aa:460:G:O6	22:Aa:470:C:H5"	1.96	0.66
27:AD:44:ASN:HB2	27:AD:48:ARG:O	1.96	0.66
28:AE:35:GLN:HG2	28:AE:36:ARG:N	2.09	0.66
30:AG:40:ASN:HD22	30:AG:41:GLN:N	1.91	0.66
40:AT:85:LYS:HB3	40:AT:85:LYS:HZ2	1.60	0.66
40:AT:102:ILE:O	40:AT:106:SER:HB3	1.95	0.66
47:A0:43:THR:HG23	47:A0:43:THR:O	1.94	0.66
57:AA:2312:U:H2'	57:AA:2313:C:C5'	2.25	0.66
1:Bb:174:VAL:O	1:Bb:178:ARG:HB2	1.95	0.66
10:Bk:110:ASP:O	17:Br:84:LYS:HD2	1.95	0.66
18:Bs:42:PRO:CG	51:B4:50:VAL:HG21	2.25	0.66
18:Bs:72:GLY:C	18:Bs:74:PHE:H	2.03	0.66
22:Ba:376:G:H2'	22:Ba:377:G:H8	1.60	0.66
22:Ba:630:G:C3'	22:Ba:631:G:H5"	2.25	0.66
28:BE:185:LYS:O	28:BE:186:GLY:O	2.13	0.66
39:BS:95:HIS:CG	39:BS:96:GLY:N	2.63	0.66
48:B1:94:LEU:HD12	48:B1:94:LEU:N	2.10	0.66
57:BA:1925:C:O2'	57:BA:1926:U:H5'	1.96	0.66
2:Ac:52:LEU:HD23	2:Ac:52:LEU:H	1.61	0.66
13:An:44:LEU:HD12	13:An:44:LEU:C	2.20	0.66
21:Ay:30:LEU:HD12	21:Ay:30:LEU:O	1.96	0.66
21:Ay:77:SER:OG	21:Ay:86:VAL:HB	1.95	0.66
22:Aa:56:U:H2'	22:Aa:57:G:C8	2.30	0.66
22:Aa:1369:C:H2'	22:Aa:1370:G:C8	2.30	0.66
22:Aa:1497:G:H2'	22:Aa:1498:U:H5'	1.76	0.66
25:Aw:25:C:O2'	25:Aw:26:G:H5'	1.96	0.66
30:AG:5:VAL:H	30:AG:8:LYS:CB	2.08	0.66
32:AI:83:ALA:HB2	32:AI:89:TYR:H	1.60	0.66
38:AR:4:LEU:O	38:AR:5:LYS:HD3	1.95	0.66
41:AU:79:PHE:HE2	41:AU:83:LEU:HD11	1.60	0.66
46:AZ:128:VAL:HB	46:AZ:161:VAL:HG22	1.77	0.66
46:AZ:128:VAL:CG2	46:AZ:132:ASN:HB2	2.22	0.66
48:A1:19:GLN:HA	48:A1:19:GLN:NE2	2.07	0.66
55:A8:51:ALA:C	55:A8:53:PRO:HD2	2.20	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:AA:2392:A:H2	57:AA:2424:C:N4	1.91	0.66
8:Bi:15:ALA:HB2	8:Bi:65:VAL:HG23	1.76	0.66
8:Bi:47:LEU:C	8:Bi:49:PRO:HD2	2.19	0.66
19:Bt:25:ARG:HH11	19:Bt:25:ARG:HG3	1.61	0.66
30:BG:72:ARG:CA	30:BG:87:PRO:HD2	2.24	0.66
31:BH:55:PRO:HG2	31:BH:61:HIS:CE1	2.30	0.66
36:BP:17:LYS:O	36:BP:17:LYS:HG2	1.95	0.66
40:BT:29:ARG:NE	40:BT:86:ILE:HG22	2.10	0.66
53:B6:30:THR:O	53:B6:32:ASN:N	2.28	0.66
55:B8:33:ASN:HA	55:B8:36:LYS:HD2	1.76	0.66
1:Ab:233:SER:CB	1:Ab:234:PRO:HD2	2.21	0.66
8:Ai:9:ARG:HG2	8:Ai:14:VAL:HG22	1.78	0.66
27:AD:267:SER:O	27:AD:269:PHE:N	2.28	0.66
29:AF:25:PRO:HB3	29:AF:119:ARG:HD3	1.78	0.66
34:AN:67:LEU:HD23	34:AN:87:LEU:HD13	1.78	0.66
38:AR:7:GLY:C	38:AR:8:ARG:HE	2.03	0.66
38:AR:10:LEU:HD22	38:AR:17:ARG:HD3	1.76	0.66
40:AT:29:ARG:HB3	40:AT:85:LYS:HA	1.77	0.66
46:AZ:35:ARG:HH11	46:AZ:35:ARG:HG3	1.60	0.66
49:A2:2:LYS:O	49:A2:6:VAL:HG23	1.95	0.66
55:A8:30:ARG:HA	55:A8:30:ARG:HE	1.61	0.66
57:AA:848:G:H8	57:AA:848:G:H5'	1.61	0.66
57:AA:1292:U:H2'	57:AA:1293:C:C6	2.31	0.66
57:AA:1748:G:H8	57:AA:1748:G:H5'	1.60	0.66
57:AA:2801(A):A:H5'	57:AA:2802:G:H8	1.61	0.66
10:Bk:24:SER:O	10:Bk:26:ASN:N	2.28	0.66
21:By:49:ASP:HB3	21:By:66:VAL:HB	1.77	0.66
26:BC:225:ILE:HD12	26:BC:225:ILE:O	1.95	0.66
28:BE:24:THR:HG23	28:BE:184:VAL:CG2	2.26	0.66
28:BE:101:ARG:NH1	28:BE:171:GLU:HB2	2.10	0.66
29:BF:83:PHE:O	29:BF:84:VAL:HB	1.96	0.66
30:BG:38:VAL:HG22	30:BG:93:THR:HG23	1.78	0.66
49:B2:2:LYS:CB	57:BA:97:C:H5"	2.25	0.66
55:B8:30:ARG:HA	55:B8:30:ARG:HE	1.60	0.66
57:BA:848:G:H5'	57:BA:848:G:H8	1.60	0.66
57:BA:2795:G:N3	57:BA:2795:G:H2'	2.09	0.66
2:Ac:162:GLN:HG2	23:Ax:24:A:H1'	1.77	0.66
12:Am:65:LYS:HB2	12:Am:66:LEU:CG	2.25	0.66
20:Au:2:GLY:HA3	22:Aa:1305:G:OP1	1.96	0.66
28:AE:120:TRP:CE3	28:AE:155:LYS:HD3	2.30	0.66
30:AG:82:LEU:C	30:AG:83:ARG:HG3	2.20	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:AO:64:ARG:HG2	35:AO:79:PHE:CG	2.30	0.66
35:AO:98:VAL:CG1	35:AO:117:LEU:HB3	2.26	0.66
40:AT:50:ILE:HD11	40:AT:102:ILE:CD1	2.23	0.66
41:AU:106:PHE:O	41:AU:110:VAL:HG23	1.94	0.66
42:AV:19:LYS:CG	42:AV:94:LEU:HB2	2.25	0.66
46:AZ:109:ALA:HB3	46:AZ:145:GLU:HA	1.77	0.66
57:AA:548:A:C2'	57:AA:549:G:H5'	2.25	0.66
57:AA:2807:G:H1	57:AA:2893:G:H1	1.41	0.66
4:Be:71:LEU:O	4:Be:72:GLN:HG3	1.96	0.66
5:Bf:55:ASP:HB2	5:Bf:86:ARG:HH12	1.59	0.66
16:Bq:59:ILE:CG2	16:Bq:71:PHE:HB3	2.26	0.66
22:Ba:1310:G:O2'	22:Ba:1311:G:H5'	1.96	0.66
29:BF:89:VAL:HG21	57:BA:586:A:H5'	1.77	0.66
29:BF:183:VAL:O	29:BF:187:VAL:HG23	1.96	0.66
34:BN:111:PRO:HD2	57:BA:558:G:OP1	1.96	0.66
39:BS:30:ARG:HD2	39:BS:31:SER:H	1.61	0.66
40:BT:1:MET:HE3	40:BT:1:MET:O	1.96	0.66
51:B4:28:LYS:HA	51:B4:28:LYS:HE3	1.78	0.66
52:B5:33:CYS:HB2	52:B5:40:LYS:HE3	1.78	0.66
57:BA:613:G:H5'	57:BA:613:G:C8	2.30	0.66
57:BA:1332:G:H21	57:BA:1610:A:H8	1.43	0.66
57:BA:1963:U:H2'	57:BA:1963:U:O2	1.94	0.66
3:Ad:126:ILE:HD12	3:Ad:126:ILE:N	2.11	0.66
9:Aj:75:ILE:HG13	9:Aj:76:ASN:N	2.09	0.66
10:Ak:24:SER:O	10:Ak:26:ASN:N	2.28	0.66
22:Aa:376:G:H2'	22:Aa:377:G:H8	1.61	0.66
29:AF:178:PRO:HB2	29:AF:201:VAL:HG11	1.76	0.66
30:AG:95:ARG:HE	58:AB:45:A:H8	1.42	0.66
34:AN:120:LEU:CD1	34:AN:122:VAL:HG23	2.25	0.66
35:AO:64:ARG:O	35:AO:82:ASN:HA	1.96	0.66
36:AP:146:VAL:HG22	36:AP:147:LEU:N	2.11	0.66
44:AX:37:THR:HG21	57:AA:143:G:H1'	1.77	0.66
46:AZ:101:PRO:O	46:AZ:102:LEU:HD23	1.94	0.66
53:A6:52:VAL:HG22	53:A6:53:LYS:N	2.09	0.66
57:AA:158:U:H2'	57:AA:171:G:O4'	1.95	0.66
12:Bm:116:THR:O	12:Bm:117:VAL:C	2.39	0.66
16:Bq:67:LYS:HA	16:Bq:70:ARG:HH12	1.59	0.66
21:By:56:ARG:HH11	21:By:56:ARG:HB3	1.61	0.66
27:BD:210:GLY:O	27:BD:211:ARG:HB3	1.93	0.66
28:BE:111:ARG:HD2	28:BE:160:TYR:CD1	2.30	0.66
40:BT:106:SER:CB	40:BT:110:ILE:HD11	2.26	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BY:88:LYS:HZ3	45:BY:93:GLY:HA3	1.58	0.66
57:BA:275:G:H3'	57:BA:275:G:N3	2.11	0.66
57:BA:2472:G:H5'	57:BA:2473:U:H5"	1.78	0.66
4:Ae:11:ILE:HD12	4:Ae:31:LEU:CD1	2.25	0.66
10:Ak:27:ASN:OD1	10:Ak:55:LYS:HB3	1.96	0.66
10:Ak:99:GLN:HG2	10:Ak:105:VAL:HG21	1.78	0.66
12:Am:29:ARG:HD3	12:Am:64:TRP:CZ2	2.31	0.66
30:AG:57:ALA:HA	30:AG:90:LEU:HD21	1.77	0.66
30:AG:64:THR:HG23	30:AG:66:GLN:N	2.05	0.66
32:AI:68:LEU:HG	32:AI:72:LEU:HD21	1.78	0.66
36:AP:50:ARG:O	36:AP:57:THR:HG22	1.95	0.66
40:AT:5:ALA:HB3	57:AA:2875:C:O2'	1.96	0.66
40:AT:32:TYR:CD2	40:AT:81:PRO:HB2	2.31	0.66
57:AA:1019:U:O2'	57:AA:1021:A:H2	1.78	0.66
3:Bd:9:CYS:SG	3:Bd:22:LYS:HD2	2.36	0.66
9:Bj:75:ILE:HG13	9:Bj:76:ASN:N	2.11	0.66
32:BI:126:TYR:O	32:BI:140:LEU:HB3	1.95	0.66
37:BQ:12:GLN:HG2	37:BQ:73:PRO:HD2	1.77	0.66
39:BS:36:TYR:CD1	39:BS:36:TYR:N	2.63	0.66
42:BV:21:ARG:HB3	42:BV:91:TYR:HB2	1.76	0.66
57:BA:27:G:H22	57:BA:512:G:C2'	2.08	0.66
57:BA:272(G):C:H42	57:BA:363(C):G:H1	1.43	0.66
57:BA:2189:U:C3'	57:BA:2190:G:H5"	2.26	0.66
11:Al:47:LYS:HB3	11:Al:48:PRO:CD	2.25	0.66
17:Ar:36:ASN:HB3	17:Ar:39:VAL:CB	2.25	0.66
22:Aa:192:U:H2'	22:Aa:193:C:C6	2.30	0.66
22:Aa:1053:G:C4'	22:Aa:1054:C:H5'	2.26	0.66
22:Aa:1349:A:H2'	22:Aa:1350:A:H8	1.61	0.66
26:AC:52:PRO:HG2	26:AC:53:ARG:HD3	1.77	0.66
29:AF:22:ALA:HB1	29:AF:26:ALA:HB2	1.77	0.66
29:AF:22:ALA:O	29:AF:26:ALA:HB2	1.96	0.66
42:AV:24:LYS:HE2	42:AV:90:PRO:CB	2.26	0.66
42:AV:28:GLU:HB3	42:AV:29:PRO:HD2	1.76	0.66
1:Bb:103:THR:HG23	1:Bb:176:GLU:OE1	1.96	0.66
4:Be:11:ILE:HD12	4:Be:31:LEU:CD1	2.26	0.66
15:Bp:67:THR:HG21	22:Ba:376:G:OP2	1.95	0.66
21:By:54:LYS:HE3	21:By:61:ARG:HH21	1.61	0.66
22:Ba:1349:A:H2'	22:Ba:1350:A:H8	1.61	0.66
31:BH:153:LYS:H	31:BH:153:LYS:CD	2.08	0.66
32:BI:86:THR:HG23	32:BI:86:THR:O	1.96	0.66
39:BS:95:HIS:HD2	58:BB:48:A:H4'	1.61	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BV:38:LEU:O	42:BV:39:LEU:HD13	1.96	0.66
48:B1:45:ASN:HD21	48:B1:47:GLN:NE2	1.94	0.66
55:B8:14:VAL:CG2	55:B8:22:VAL:HG13	2.26	0.66
57:BA:271(E):U:H2'	57:BA:271(F):C:C6	2.30	0.66
57:BA:2790:A:H2'	57:BA:2790:A:N3	2.11	0.66
58:BB:112:U:H2'	58:BB:113:G:C8	2.30	0.66
3:Ad:22:LYS:HB2	3:Ad:26:CYS:HB2	1.77	0.66
7:Ah:36:LEU:C	7:Ah:38:ILE:H	2.04	0.66
10:Ak:32:ILE:CG2	10:Ak:77:MET:HE3	2.26	0.66
15:Ap:10:GLY:HA2	22:Aa:624:C:O3'	1.95	0.66
17:Ar:31:LEU:HD23	17:Ar:31:LEU:H	1.61	0.66
21:Ay:58:SER:O	21:Ay:60:TYR:N	2.29	0.66
22:Aa:1442(B):A:H4'	22:Aa:1442(B):A:OP1	1.96	0.66
27:AD:13:ARG:NH1	27:AD:16:MET:SD	2.69	0.66
27:AD:244:ARG:HG3	57:AA:1902:C:H1'	1.77	0.66
28:AE:101:ARG:NH1	28:AE:171:GLU:HB2	2.10	0.66
28:AE:131:ALA:HB2	57:AA:2579:C:O3'	1.96	0.66
28:AE:132:HIS:O	57:AA:1658:C:OP1	2.14	0.66
29:AF:63:LYS:HD3	29:AF:65:TRP:O	1.96	0.66
41:AU:66:ASN:HD22	41:AU:66:ASN:C	2.04	0.66
47:A0:48:GLY:CA	47:A0:80:HIS:HD1	2.09	0.66
48:A1:44:PRO:O	48:A1:46:LEU:HD13	1.96	0.66
52:A5:54:GLY:N	52:A5:55:ARG:HE	1.94	0.66
55:A8:31:HIS:HE1	57:AA:2392:A:OP2	1.79	0.66
57:AA:914:C:C2'	57:AA:915:C:H5'	2.24	0.66
57:AA:1240:U:O2'	57:AA:1241:A:H5'	1.96	0.66
6:Bg:9:VAL:HG21	6:Bg:94:ARG:NH1	2.11	0.66
10:Bk:30:VAL:HG21	10:Bk:65:ALA:HA	1.78	0.66
22:Ba:434:U:H2'	22:Ba:435:C:C6	2.31	0.66
22:Ba:736:C:H2'	22:Ba:737:A:H8	1.60	0.66
22:Ba:1513:A:H2'	22:Ba:1514:C:C6	2.30	0.66
27:BD:118:VAL:HG22	27:BD:119:ALA:H	1.60	0.66
30:BG:55:LYS:HG2	30:BG:55:LYS:O	1.95	0.66
31:BH:109:PHE:C	31:BH:111:HIS:H	2.04	0.66
33:BJ:80:VAL:O	33:BJ:82:PHE:N	2.29	0.66
35:BO:13:ASN:HD22	35:BO:97:ARG:HB2	1.61	0.66
36:BP:64:LYS:C	36:BP:66:GLY:H	2.04	0.66
39:BS:17:ARG:HH21	39:BS:90:GLY:H	1.43	0.66
39:BS:28:VAL:HG12	39:BS:89:ARG:HD3	1.78	0.66
40:BT:65:LYS:HA	40:BT:65:LYS:HZ2	1.60	0.66
41:BU:106:PHE:O	41:BU:110:VAL:HG23	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:B3:19:GLN:HE22	50:B3:52:HIS:HE1	1.44	0.66
53:B6:43:CYS:O	53:B6:44:ARG:HB2	1.95	0.66
57:BA:1866:C:H2'	57:BA:1876:A:O4'	1.96	0.66
2:Ac:179:ARG:HG2	22:Aa:1112:C:O2	1.96	0.65
5:Af:63:TYR:HD2	5:Af:63:TYR:N	1.94	0.65
18:As:48:THR:HG22	18:As:61:TYR:HA	1.78	0.65
21:Ay:86:VAL:HG23	21:Ay:87:TYR:H	1.62	0.65
22:Aa:1218:C:H2'	22:Aa:1219:U:C6	2.30	0.65
27:AD:35:LYS:HZ2	27:AD:36:PRO:HD3	1.61	0.65
27:AD:108:PRO:HB3	27:AD:143:HIS:CE1	2.31	0.65
34:AN:120:LEU:C	34:AN:120:LEU:HD13	2.21	0.65
36:AP:24:GLY:O	36:AP:25:SER:HB3	1.95	0.65
36:AP:50:ARG:HG2	36:AP:50:ARG:NH2	2.04	0.65
40:AT:82:LEU:HD12	40:AT:82:LEU:N	2.08	0.65
53:A6:43:CYS:O	53:A6:44:ARG:HB2	1.95	0.65
57:AA:1332:G:H21	57:AA:1610:A:H8	1.44	0.65
57:AA:2790:A:H2'	57:AA:2790:A:N3	2.11	0.65
1:Bb:168:THR:HG23	1:Bb:192:SER:OG	1.96	0.65
7:Bh:101:PRO:HG2	7:Bh:133:LEU:HD11	1.78	0.65
17:Br:31:LEU:H	17:Br:31:LEU:CD2	2.08	0.65
22:Ba:192:U:H2'	22:Ba:193:C:C6	2.31	0.65
24:Bv:49:G:H1	24:Bv:65:C:H42	1.43	0.65
28:BE:132:HIS:CD2	28:BE:135:HIS:NE2	2.65	0.65
46:BZ:85:HIS:CE1	58:BB:75:G:H21	2.14	0.65
55:B8:33:ASN:HD22	55:B8:36:LYS:HD2	1.61	0.65
57:BA:184:C:H2'	57:BA:185:U:C6	2.32	0.65
57:BA:1318:C:H3'	57:BA:1319:G:H5"	1.77	0.65
1:Ab:69:LEU:HD22	1:Ab:91:PRO:HB2	1.78	0.65
2:Ac:77:ILE:O	2:Ac:83:ARG:HB3	1.96	0.65
18:As:78:ARG:HH21	22:Aa:1223:C:P	2.19	0.65
22:Aa:382:A:H2'	22:Aa:383:A:C8	2.31	0.65
28:AE:131:ALA:HB3	57:AA:2579:C:O2'	1.95	0.65
28:AE:185:LYS:O	28:AE:186:GLY:O	2.13	0.65
29:AF:78:ILE:HA	29:AF:83:PHE:CD1	2.32	0.65
30:AG:110:ALA:O	30:AG:112:PRO:CD	2.37	0.65
57:AA:2491:U:H4'	57:AA:2570:G:OP1	1.96	0.65
3:Bd:162:LEU:HD12	3:Bd:181:MET:HE2	1.77	0.65
9:Bj:55:LYS:HG3	22:Ba:973:G:O4'	1.97	0.65
22:Ba:1296:C:H5'	22:Ba:1297:C:OP2	1.96	0.65
27:BD:43:ARG:NH1	27:BD:44:ASN:ND2	2.44	0.65
30:BG:109:VAL:C	30:BG:112:PRO:CG	2.69	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BI:69:LYS:HA	32:BI:136:VAL:CG2	2.27	0.65
34:BN:62:VAL:CG2	34:BN:66:LYS:HB2	2.26	0.65
41:BU:79:PHE:HE2	41:BU:83:LEU:HD11	1.61	0.65
42:BV:64:HIS:ND1	42:BV:92:THR:HG22	2.11	0.65
44:BX:57:LEU:HD21	44:BX:78:LYS:HE2	1.78	0.65
47:B0:40:GLN:HE22	47:B0:43:THR:HA	1.60	0.65
57:BA:2036:C:H5'	57:BA:2036:C:C6	2.30	0.65
57:BA:2103:C:H3'	57:BA:2104:G:H5"	1.76	0.65
2:Ac:152:ILE:CG2	2:Ac:167:TRP:HA	2.25	0.65
5:Af:55:ASP:HB2	5:Af:86:ARG:HH12	1.61	0.65
7:Ah:20:TYR:HA	7:Ah:65:TYR:HE2	1.61	0.65
9:Aj:3:LYS:O	9:Aj:100:THR:HG23	1.96	0.65
16:Aq:95:TYR:HA	16:Aq:98:LEU:HD13	1.78	0.65
30:AG:36:LYS:HE2	30:AG:95:ARG:NH1	2.02	0.65
35:AO:13:ASN:HD22	35:AO:97:ARG:HB2	1.62	0.65
43:AW:59:VAL:HG12	43:AW:60:ASN:N	2.12	0.65
45:AY:13:VAL:HG22	45:AY:14:LEU:H	1.61	0.65
57:AA:2443:C:O2'	57:AA:2444:G:H5'	1.96	0.65
10:Bk:13:GLN:NE2	10:Bk:75:TYR:HA	2.11	0.65
11:Bl:62:SER:O	11:Bl:64:TYR:HD1	1.79	0.65
28:BE:77:ILE:HG22	28:BE:78:LEU:HD12	1.76	0.65
32:BI:129:THR:HG23	32:BI:137:PRO:HA	1.78	0.65
40:BT:89:VAL:C	40:BT:91:ARG:H	2.04	0.65
43:BW:29:LEU:HD21	43:BW:33:ARG:HH21	1.62	0.65
45:BY:2:ARG:HD3	45:BY:3:VAL:HG23	1.77	0.65
57:BA:155:U:C2'	57:BA:156:U:H5"	2.23	0.65
57:BA:234:C:H2'	57:BA:235:U:H6	1.61	0.65
57:BA:2123:G:H2'	57:BA:2124:G:H8	1.60	0.65
57:BA:2298:A:H2'	57:BA:2299:G:O4'	1.96	0.65
57:BA:2312:U:H2'	57:BA:2313:C:C5'	2.24	0.65
57:BA:2317:C:O2'	57:BA:2318:G:H5'	1.95	0.65
2:Ac:155:GLY:O	2:Ac:196:LEU:HD13	1.96	0.65
22:Aa:630:G:C3'	22:Aa:631:G:H5"	2.25	0.65
27:AD:27:THR:CG2	27:AD:83:GLU:HB3	2.23	0.65
28:AE:100:GLU:O	28:AE:172:VAL:HG23	1.96	0.65
32:AI:68:LEU:CD2	32:AI:136:VAL:HG11	2.25	0.65
34:AN:48:MET:H	34:AN:48:MET:HE3	1.61	0.65
39:AS:25:ARG:HD2	39:AS:88:ASP:OD1	1.97	0.65
45:AY:8:LYS:HD2	45:AY:8:LYS:N	2.11	0.65
2:Bc:58:GLU:HB2	2:Bc:65:ALA:HB3	1.79	0.65
2:Bc:132:ARG:O	2:Bc:136:GLN:HB2	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:Bq:95:TYR:HA	16:Bq:98:LEU:HD13	1.79	0.65
22:Ba:1096:C:O2'	22:Ba:1097:C:H5'	1.96	0.65
24:Bv:72:A:H2'	24:Bv:73:A:C5'	2.27	0.65
29:BF:78:ILE:HA	29:BF:83:PHE:CD1	2.31	0.65
30:BG:73:ALA:CB	30:BG:87:PRO:HG3	2.26	0.65
32:BI:68:LEU:HG	32:BI:72:LEU:HD21	1.77	0.65
37:BQ:134:ARG:NH2	46:BZ:122:ARG:HE	1.94	0.65
43:BW:6:ILE:HG12	43:BW:104:THR:OG1	1.96	0.65
57:BA:548:A:C2'	57:BA:549:G:H5'	2.26	0.65
57:BA:2306:C:C5	57:BA:2307:G:H1'	2.31	0.65
57:BA:2392:A:H2	57:BA:2424:C:N4	1.94	0.65
18:As:29:ARG:HD2	18:As:29:ARG:N	2.11	0.65
21:Ay:14:GLU:HB3	21:Ay:78:VAL:HG13	1.77	0.65
22:Aa:1288:A:N1	22:Aa:1371:G:H1'	2.11	0.65
36:AP:47:ASP:HB3	36:AP:48:PRO:HA	1.76	0.65
36:AP:64:LYS:C	36:AP:66:GLY:H	2.05	0.65
45:AY:7:VAL:CG2	45:AY:8:LYS:NZ	2.60	0.65
46:AZ:61:LEU:N	46:AZ:61:LEU:HD23	2.12	0.65
49:A2:3:LEU:HD23	49:A2:3:LEU:O	1.97	0.65
57:AA:2298:A:H2'	57:AA:2299:G:O4'	1.96	0.65
3:Bd:22:LYS:HG3	3:Bd:26:CYS:SG	2.37	0.65
4:Be:101:ILE:HD11	4:Be:119:LEU:HD23	1.77	0.65
6:Bg:10:ARG:HG3	6:Bg:10:ARG:HH11	1.59	0.65
7:Bh:9:MET:HE1	7:Bh:35:ILE:HB	1.78	0.65
7:Bh:20:TYR:HA	7:Bh:65:TYR:HE2	1.60	0.65
12:Bm:115:LYS:HB2	22:Ba:1227:A:O2'	1.96	0.65
22:Ba:17:U:H2'	22:Ba:18:C:C6	2.31	0.65
22:Ba:1259:C:H42	22:Ba:1276:G:H1	1.45	0.65
28:BE:102:VAL:HA	28:BE:201:THR:H	1.60	0.65
28:BE:120:TRP:CE3	28:BE:155:LYS:HD3	2.31	0.65
31:BH:153:LYS:HD3	31:BH:153:LYS:N	2.08	0.65
36:BP:146:VAL:HG22	36:BP:147:LEU:N	2.10	0.65
40:BT:27:THR:HG23	40:BT:28:VAL:N	2.10	0.65
42:BV:19:LYS:CG	42:BV:94:LEU:HB2	2.26	0.65
42:BV:81:TYR:CE2	57:BA:1187:G:H5"	2.32	0.65
46:BZ:162:GLU:N	46:BZ:162:GLU:OE1	2.30	0.65
57:BA:755:C:H2'	57:BA:756:C:C6	2.31	0.65
57:BA:1348:G:H2'	57:BA:1349:A:H5"	1.76	0.65
58:BB:30:C:H4'	58:BB:58:A:H2	1.62	0.65
58:BB:40:U:H3'	58:BB:41:U:C5'	2.27	0.65
1:Ab:211:ILE:O	1:Ab:215:LEU:HD23	1.97	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:Ak:13:GLN:NE2	10:Ak:75:TYR:HA	2.11	0.65
12:Am:91:ARG:HH22	12:Am:103:THR:HG21	1.61	0.65
16:Aq:26:GLN:HG2	16:Aq:37:LYS:HG2	1.79	0.65
32:AI:81:VAL:HG12	32:AI:143:SER:HB2	1.77	0.65
37:AQ:12:GLN:HG2	37:AQ:73:PRO:HD2	1.78	0.65
40:AT:89:VAL:C	40:AT:91:ARG:H	2.05	0.65
57:AA:271(E):U:H2'	57:AA:271(F):C:C6	2.30	0.65
57:AA:2789:C:H1'	57:AA:2892:A:H2	1.60	0.65
2:Bc:52:LEU:HD23	2:Bc:52:LEU:H	1.61	0.65
12:Bm:96:LEU:HB3	12:Bm:97:PRO:HD2	1.79	0.65
30:BG:110:ALA:C	30:BG:112:PRO:CD	2.65	0.65
30:BG:131:TYR:HB3	30:BG:159:VAL:HG13	1.78	0.65
36:BP:115:LEU:H	36:BP:115:LEU:HD23	1.61	0.65
37:BQ:110:THR:HG23	37:BQ:113:GLN:HB2	1.78	0.65
40:BT:82:LEU:H	40:BT:82:LEU:CD1	2.07	0.65
41:BU:88:ILE:O	41:BU:88:ILE:HG13	1.95	0.65
49:B2:25:VAL:O	49:B2:29:LYS:HG2	1.96	0.65
8:Ai:15:ALA:HB2	8:Ai:65:VAL:HG23	1.77	0.65
22:Aa:1148:U:H2'	22:Aa:1149:C:O4'	1.97	0.65
27:AD:43:ARG:HD2	27:AD:44:ASN:OD1	1.96	0.65
27:AD:118:VAL:HG22	27:AD:119:ALA:N	2.12	0.65
30:AG:66:GLN:CA	30:AG:67:LYS:HE3	2.27	0.65
39:AS:36:TYR:N	39:AS:36:TYR:CD1	2.65	0.65
39:AS:74:ALA:HB1	39:AS:103:GLU:CB	2.26	0.65
57:AA:154(A):C:H3'	57:AA:155:U:H5"	1.78	0.65
57:AA:544:G:H21	57:AA:547:A:H2'	1.61	0.65
57:AA:1991:U:H2'	57:AA:1992:G:H5"	1.78	0.65
1:Bb:17:PHE:HB2	1:Bb:44:LEU:HD11	1.79	0.65
1:Bb:69:LEU:HD22	1:Bb:91:PRO:HB2	1.78	0.65
19:Bt:30:LYS:HE2	19:Bt:72:LEU:HD21	1.77	0.65
26:BC:52:PRO:HG2	26:BC:53:ARG:HD3	1.78	0.65
30:BG:109:VAL:O	30:BG:112:PRO:CG	2.44	0.65
40:BT:29:ARG:HB3	40:BT:85:LYS:HA	1.79	0.65
49:B2:55:ARG:NH1	57:BA:75:G:H4'	2.12	0.65
21:Ay:5:LEU:CD1	21:Ay:7:PHE:CE1	2.79	0.65
28:AE:146:THR:HG23	57:AA:2032:G:H21	1.60	0.65
43:AW:5:ALA:O	43:AW:6:ILE:HB	1.97	0.65
45:AY:2:ARG:N	45:AY:4:LYS:HG2	2.12	0.65
45:AY:31:LEU:HD23	45:AY:36:ALA:O	1.96	0.65
45:AY:47:LYS:HD3	57:AA:481:G:OP2	1.97	0.65
51:A4:48:ARG:HG2	51:A4:49:PHE:N	2.12	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:AA:2189:U:C3'	57:AA:2190:G:H5"	2.27	0.65
5:Bf:19:LEU:O	5:Bf:19:LEU:HD23	1.97	0.65
12:Bm:4:ILE:HG22	12:Bm:5:ALA:N	2.12	0.65
27:BD:118:VAL:HG22	27:BD:119:ALA:N	2.11	0.65
27:BD:121:PRO:HB3	27:BD:135:PHE:CE1	2.32	0.65
27:BD:166:GLN:HA	27:BD:166:GLN:NE2	2.12	0.65
29:BF:116:ASP:OD2	36:BP:5:ASP:N	2.30	0.65
32:BI:8:PRO:CB	32:BI:14:ASP:H	2.10	0.65
46:BZ:23:LYS:NZ	46:BZ:40:ASP:HA	2.11	0.65
53:B6:52:VAL:HG22	53:B6:53:LYS:N	2.11	0.65
2:Ac:14:ILE:HG12	2:Ac:15:THR:N	2.11	0.65
9:Aj:55:LYS:HG3	22:Aa:973:G:O4'	1.96	0.65
19:At:16:HIS:O	19:At:19:SER:HB3	1.96	0.65
22:Aa:737:A:H2'	22:Aa:738:C:C6	2.32	0.65
24:Av:73:A:H8	24:Av:73:A:H5'	1.61	0.65
28:AE:64:LYS:HB2	57:AA:2786:U:H4'	1.79	0.65
32:AI:68:LEU:O	32:AI:68:LEU:HD23	1.96	0.65
34:AN:73:THR:HG23	34:AN:82:LEU:CD1	2.27	0.65
36:AP:144:GLU:N	36:AP:145:PRO:CD	2.60	0.65
41:AU:33:ARG:HG3	57:AA:581:C:OP1	1.97	0.65
42:AV:64:HIS:ND1	42:AV:92:THR:HG22	2.11	0.65
44:AX:55:ASN:HB2	44:AX:80:ILE:HD13	1.79	0.65
48:A1:45:ASN:ND2	48:A1:47:GLN:NE2	2.45	0.65
49:A2:63:VAL:HA	49:A2:66:GLU:HG2	1.79	0.65
57:AA:8:A:H2'	57:AA:9:U:C6	2.32	0.65
57:AA:2472:G:H5'	57:AA:2473:U:H5"	1.78	0.65
58:AB:40:U:H3'	58:AB:41:U:C5'	2.26	0.65
5:Bf:1:MET:HE3	5:Bf:66:GLU:HG2	1.78	0.65
5:Bf:42:GLU:C	5:Bf:44:GLY:H	2.05	0.65
12:Bm:68:GLY:O	12:Bm:70:LEU:N	2.30	0.65
12:Bm:91:ARG:HH22	12:Bm:103:THR:HG21	1.62	0.65
26:BC:47:LYS:HD3	57:BA:2178:C:H4'	1.77	0.65
27:BD:43:ARG:HB3	27:BD:54:ARG:CB	2.24	0.65
27:BD:259:THR:HG23	57:BA:1803:A:H4'	1.77	0.65
30:BG:51:ARG:HD3	30:BG:53:LEU:HD23	1.77	0.65
30:BG:62:LEU:O	30:BG:143:GLU:HG3	1.96	0.65
30:BG:172:LEU:HD23	30:BG:172:LEU:C	2.22	0.65
31:BH:28:GLY:HA3	31:BH:79:VAL:HB	1.79	0.65
34:BN:120:LEU:CD1	34:BN:122:VAL:HG23	2.27	0.65
36:BP:64:LYS:CB	55:B8:25:MET:HG3	2.16	0.65
44:BX:12:VAL:CG1	44:BX:17:ALA:HB1	2.26	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BY:13:VAL:HG22	45:BY:14:LEU:N	2.12	0.65
57:BA:146:G:H5'	57:BA:146:G:C8	2.29	0.65
57:BA:581:C:H2'	57:BA:582:G:C8	2.32	0.65
2:Ac:119:ARG:O	2:Ac:123:GLN:HG3	1.97	0.65
3:Ad:22:LYS:HG3	3:Ad:26:CYS:SG	2.36	0.65
8:Ai:103:THR:CG2	8:Ai:104:ARG:H	2.09	0.65
10:Ak:126:ARG:HB3	10:Ak:126:ARG:NH1	2.12	0.65
22:Aa:17:U:H2'	22:Aa:18:C:C6	2.32	0.65
26:AC:16:ASP:OD2	26:AC:19:LYS:HB2	1.97	0.65
30:AG:77:ILE:C	30:AG:79:ASN:N	2.55	0.65
31:AH:28:GLY:HA3	31:AH:79:VAL:HB	1.79	0.65
34:AN:62:VAL:CG2	34:AN:66:LYS:HB2	2.27	0.65
36:AP:35:HIS:N	57:AA:1190:G:H5'	2.12	0.65
45:AY:13:VAL:HG21	45:AY:72:VAL:HB	1.78	0.65
55:A8:33:ASN:HD22	55:A8:36:LYS:HD2	1.62	0.65
57:AA:27:G:N2	57:AA:512:G:C2'	2.60	0.65
57:AA:234:C:H2'	57:AA:235:U:H6	1.62	0.65
57:AA:275:G:H3'	57:AA:275:G:N3	2.12	0.65
2:Bc:179:ARG:HG2	22:Ba:1112:C:O2	1.96	0.65
8:Bi:104:ARG:HG2	8:Bi:105:ASP:N	2.11	0.65
11:Bl:18:VAL:HG23	11:Bl:19:ARG:H	1.62	0.65
12:Bm:68:GLY:O	12:Bm:71:ARG:N	2.30	0.65
16:Bq:59:ILE:HG22	16:Bq:71:PHE:HB3	1.78	0.65
22:Ba:1172:C:H2'	22:Ba:1173:G:H8	1.62	0.65
27:BD:94:LEU:HB2	27:BD:104:TYR:HE2	1.62	0.65
42:BV:19:LYS:HG3	42:BV:20:LEU:O	1.97	0.65
43:BW:84:ARG:HB2	43:BW:96:ILE:HG22	1.79	0.65
44:BX:37:THR:HG21	57:BA:143:G:H1'	1.79	0.65
53:B6:27:LYS:HB3	53:B6:30:THR:HG22	1.77	0.65
57:BA:1019:U:O2'	57:BA:1021:A:H2	1.72	0.65
3:Ad:157:LEU:HG	3:Ad:161:ASN:ND2	2.12	0.64
5:Af:63:TYR:N	5:Af:63:TYR:CD2	2.64	0.64
11:Al:53:ARG:HH22	22:Aa:522:C:H41	1.43	0.64
21:Ay:38:ARG:NH1	21:Ay:68:ASP:OD1	2.28	0.64
22:Aa:389:A:H2'	22:Aa:390:C:H5'	1.79	0.64
22:Aa:882:C:O2'	22:Aa:883:C:H5'	1.97	0.64
28:AE:61:ARG:H	28:AE:62:PRO:HD2	1.62	0.64
29:AF:116:ASP:OD2	36:AP:5:ASP:N	2.30	0.64
30:AG:138:GLN:OE1	30:AG:153:ARG:HG2	1.97	0.64
46:AZ:151:HIS:CB	46:AZ:170:THR:HA	2.26	0.64
49:A2:46:GLN:HG2	49:A2:49:LYS:HZ2	1.60	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:A4:28:LYS:HE3	51:A4:28:LYS:HA	1.78	0.64
57:AA:2306:C:C5	57:AA:2307:G:H1'	2.32	0.64
57:AA:2698:U:H2'	57:AA:2699:C:C6	2.31	0.64
3:Bd:104:VAL:O	3:Bd:108:LEU:HB2	1.96	0.64
4:Be:10:MET:CB	4:Be:32:VAL:HG22	2.27	0.64
5:Bf:63:TYR:N	5:Bf:63:TYR:HD2	1.94	0.64
7:Bh:86:ILE:HG21	7:Bh:133:LEU:HD22	1.78	0.64
18:Bs:78:ARG:HH21	22:Ba:1223:C:P	2.20	0.64
27:BD:181:GLU:HA	27:BD:272:ALA:CB	2.27	0.64
28:BE:51:PHE:O	28:BE:74:PRO:HB3	1.97	0.64
30:BG:5:VAL:O	30:BG:8:LYS:HB3	1.96	0.64
36:BP:6:LEU:HD23	36:BP:6:LEU:H	1.62	0.64
38:BR:7:GLY:C	38:BR:8:ARG:HE	2.05	0.64
57:BA:860:U:C5	57:BA:917:A:N7	2.64	0.64
57:BA:1204:A:N1	57:BA:1241:A:H2	1.96	0.64
57:BA:1286:A:O2'	57:BA:1288:U:OP2	2.15	0.64
57:BA:1536:C:H2'	57:BA:1537:G:O4'	1.98	0.64
57:BA:2801(A):A:H5'	57:BA:2802:G:H8	1.62	0.64
3:Ad:9:CYS:SG	3:Ad:22:LYS:HD2	2.36	0.64
29:AF:9:ILE:HG22	29:AF:11:VAL:O	1.95	0.64
29:AF:40:GLN:OE1	29:AF:183:VAL:HG13	1.98	0.64
29:AF:63:LYS:NZ	29:AF:67:GLN:HB2	2.12	0.64
30:AG:118:ARG:HH11	30:AG:118:ARG:HG3	1.62	0.64
32:AI:142:VAL:HG12	32:AI:142:VAL:O	1.95	0.64
39:AS:29:PHE:CZ	58:AB:7:G:O5'	2.51	0.64
43:AW:31:GLU:O	43:AW:35:ILE:HG12	1.97	0.64
53:A6:27:LYS:HB3	53:A6:30:THR:HG22	1.78	0.64
57:AA:1539:G:C2	57:AA:1540:U:H1'	2.32	0.64
57:AA:2689:U:H5"	57:AA:2690:C:H5'	1.78	0.64
1:Bb:95:GLN:HG3	1:Bb:147:LYS:O	1.97	0.64
6:Bg:115:ARG:O	6:Bg:118:VAL:HG22	1.97	0.64
11:Bl:47:LYS:HB3	11:Bl:48:PRO:CD	2.28	0.64
22:Ba:56:U:H2'	22:Ba:57:G:H8	1.63	0.64
22:Ba:1193:G:O2'	22:Ba:1194:U:H5'	1.96	0.64
28:BE:4:ILE:CD1	28:BE:28:ALA:HB1	2.27	0.64
29:BF:4:VAL:HG22	29:BF:19:GLU:OE1	1.97	0.64
29:BF:34:TRP:HB2	36:BP:10:PRO:O	1.97	0.64
30:BG:32:PRO:HB2	30:BG:172:LEU:CD1	2.28	0.64
39:BS:25:ARG:HD2	39:BS:88:ASP:OD1	1.96	0.64
39:BS:28:VAL:HB	39:BS:89:ARG:HB2	1.77	0.64
41:BU:92:ARG:HE	57:BA:996:A:C4'	2.07	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BY:47:LYS:HD3	57:BA:481:G:OP2	1.97	0.64
57:BA:154(A):C:H3'	57:BA:155:U:H5"	1.77	0.64
57:BA:581:C:H2'	57:BA:582:G:H8	1.62	0.64
4:Ae:71:LEU:O	4:Ae:72:GLN:HG3	1.97	0.64
5:Af:60:PHE:O	5:Af:61:LEU:HD12	1.98	0.64
7:Ah:9:MET:O	7:Ah:13:ILE:HG12	1.98	0.64
19:At:75:ASN:N	19:At:75:ASN:HD22	1.94	0.64
25:Aw:41:C:H2'	25:Aw:42:G:C8	2.33	0.64
34:AN:58:ASP:O	34:AN:60:ILE:N	2.30	0.64
38:AR:28:LEU:HD12	38:AR:48:VAL:HG21	1.79	0.64
47:A0:40:GLN:NE2	47:A0:43:THR:HA	2.11	0.64
57:AA:1015:G:O2'	57:AA:1016:G:H5'	1.98	0.64
1:Bb:98:LEU:O	1:Bb:101:MET:HG3	1.97	0.64
5:Bf:11:ASN:HB3	5:Bf:14:LEU:HG	1.79	0.64
6:Bg:7:ALA:HB2	22:Ba:1377:A:H2'	1.78	0.64
8:Bi:9:ARG:HG2	8:Bi:14:VAL:HG22	1.77	0.64
13:Bn:44:LEU:C	13:Bn:44:LEU:HD12	2.21	0.64
22:Ba:67:C:O2'	22:Ba:171:A:H1'	1.98	0.64
29:BF:25:PRO:HB3	29:BF:119:ARG:HD3	1.78	0.64
35:BO:114:ILE:H	35:BO:114:ILE:CD1	2.07	0.64
40:BT:102:ILE:HB	40:BT:110:ILE:CD1	2.28	0.64
40:BT:129:ARG:NH2	40:BT:131:ALA:HB2	2.13	0.64
41:BU:74:LEU:H	41:BU:74:LEU:HD12	1.61	0.64
44:BX:47:PHE:O	44:BX:49:VAL:HG13	1.97	0.64
53:B6:47:THR:HG23	53:B6:49:HIS:CE1	2.32	0.64
4:Ae:64:ARG:HG3	4:Ae:64:ARG:HH11	1.61	0.64
5:Af:42:GLU:C	5:Af:44:GLY:H	2.06	0.64
10:Ak:21:ILE:N	10:Ak:21:ILE:HD12	2.12	0.64
20:Au:2:GLY:O	20:Au:4:GLY:N	2.30	0.64
21:Ay:35:GLU:O	21:Ay:36:SER:HB2	1.97	0.64
21:Ay:78:VAL:HG22	21:Ay:78:VAL:O	1.97	0.64
22:Aa:1196:U:H3	23:Ax:23:A:H62	1.44	0.64
25:Aw:72:A:O2'	25:Aw:73:A:H5'	1.96	0.64
28:AE:61:ARG:HD3	57:AA:2787:C:O2'	1.97	0.64
30:AG:95:ARG:HH11	30:AG:95:ARG:HG2	1.62	0.64
30:AG:181:ARG:HG2	30:AG:181:ARG:O	1.96	0.64
34:AN:111:PRO:HD2	57:AA:558:G:OP1	1.97	0.64
36:AP:18:ARG:HH11	36:AP:18:ARG:C	2.04	0.64
39:AS:95:HIS:CG	39:AS:96:GLY:N	2.65	0.64
57:AA:613:G:H5'	57:AA:613:G:C8	2.32	0.64
57:AA:755:C:H2'	57:AA:756:C:C6	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Be:64:ARG:HG3	4:Be:64:ARG:HH11	1.61	0.64
5:Bf:89:MET:O	5:Bf:91:VAL:HG23	1.97	0.64
8:Bi:100:GLY:O	8:Bi:102:LEU:N	2.30	0.64
9:Bj:60:ARG:HH21	22:Ba:1367:C:C5'	2.06	0.64
22:Ba:882:C:O2'	22:Ba:883:C:H5'	1.96	0.64
27:BD:35:LYS:HZ2	27:BD:36:PRO:CD	2.09	0.64
30:BG:123:ASN:O	30:BG:126:ASP:HB2	1.97	0.64
32:BI:62:LYS:HE3	32:BI:133:HIS:C	2.23	0.64
36:BP:18:ARG:HH11	36:BP:18:ARG:C	2.04	0.64
42:BV:19:LYS:HZ3	42:BV:20:LEU:H	1.43	0.64
47:B0:26:TYR:O	47:B0:67:VAL:HB	1.97	0.64
57:BA:1412:A:H2'	57:BA:1413:G:C8	2.32	0.64
57:BA:1493:C:H4'	57:BA:1494:A:OP1	1.98	0.64
57:BA:2789:C:H1'	57:BA:2892:A:H2	1.62	0.64
57:BA:2807:G:H1	57:BA:2893:G:H1	1.42	0.64
7:Ah:68:ARG:HH11	7:Ah:68:ARG:HG2	1.63	0.64
21:Ay:43:LYS:HZ1	22:Aa:1493:A:C2'	2.11	0.64
22:Aa:1023:G:N3	22:Aa:1023:G:H2'	2.10	0.64
27:AD:58:HIS:HD2	27:AD:59:LYS:O	1.80	0.64
30:AG:32:PRO:HB2	30:AG:172:LEU:CD1	2.27	0.64
30:AG:96:ARG:CA	30:AG:99:MET:HE2	2.27	0.64
32:AI:4:ILE:HD11	32:AI:44:LEU:HD12	1.78	0.64
32:AI:68:LEU:HD23	32:AI:136:VAL:HG11	1.80	0.64
40:AT:29:ARG:NE	40:AT:86:ILE:HG22	2.12	0.64
41:AU:88:ILE:O	41:AU:88:ILE:HG13	1.97	0.64
46:AZ:56:VAL:HG13	46:AZ:69:THR:O	1.96	0.64
57:AA:991:C:H5'	57:AA:991:C:H6	1.63	0.64
57:AA:1281:G:H5'	57:AA:1281:G:C8	2.28	0.64
5:Bf:62:TRP:C	5:Bf:63:TYR:HD2	2.05	0.64
5:Bf:63:TYR:N	5:Bf:63:TYR:CD2	2.64	0.64
9:Bj:90:LEU:N	9:Bj:91:PRO:CD	2.60	0.64
18:Bs:29:ARG:N	18:Bs:29:ARG:HD2	2.13	0.64
22:Ba:1218:C:H2'	22:Ba:1219:U:C6	2.32	0.64
27:BD:43:ARG:NH1	27:BD:44:ASN:HD21	1.94	0.64
28:BE:51:PHE:HD1	28:BE:52:LEU:H	1.38	0.64
44:BX:26:TYR:HD2	44:BX:92:LEU:HD12	1.63	0.64
1:Ab:71:VAL:CB	1:Ab:164:VAL:HG12	2.26	0.64
9:Aj:60:ARG:HH21	22:Aa:1367:C:C5'	2.06	0.64
11:Al:18:VAL:HG23	11:Al:19:ARG:H	1.63	0.64
11:Al:62:SER:O	11:Al:64:TYR:HD1	1.81	0.64
12:Am:23:TYR:HB3	12:Am:67:GLU:HA	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Am:69:GLU:HB2	12:Am:72:ALA:N	2.06	0.64
12:Am:116:THR:O	12:Am:117:VAL:C	2.39	0.64
18:As:36:ARG:HG3	22:Aa:1320:C:N4	2.11	0.64
24:Av:21:A:H5'	24:Av:22:G:OP1	1.98	0.64
29:AF:34:TRP:HB2	36:AP:10:PRO:O	1.96	0.64
42:AV:52:VAL:O	42:AV:52:VAL:HG13	1.96	0.64
52:A5:51:TYR:CG	52:A5:52:TYR:N	2.64	0.64
57:AA:673:C:H5'	57:AA:673:C:C6	2.29	0.64
57:AA:904:C:H5'	57:AA:904:C:C6	2.27	0.64
57:AA:1192:G:O2'	57:AA:1193:G:H5'	1.96	0.64
57:AA:1796:U:H2'	57:AA:1797:C:C6	2.33	0.64
2:Bc:76:VAL:HG23	2:Bc:77:ILE:HG13	1.80	0.64
3:Bd:43:HIS:O	3:Bd:45:GLN:N	2.29	0.64
9:Bj:4:ILE:HD12	9:Bj:4:ILE:N	2.12	0.64
20:Bu:2:GLY:HA3	22:Ba:1305:G:OP1	1.98	0.64
22:Ba:759:A:H2'	22:Ba:760:G:H5'	1.78	0.64
28:BE:14:ILE:HG12	28:BE:21:VAL:HG23	1.78	0.64
30:BG:154:GLY:O	30:BG:155:MET:HB3	1.98	0.64
33:BJ:97:ALA:HA	33:BJ:132:ASP:O	1.97	0.64
36:BP:144:GLU:N	36:BP:145:PRO:CD	2.60	0.64
46:BZ:54:HIS:HB3	46:BZ:101:PRO:HD3	1.80	0.64
22:Aa:1129:C:N4	22:Aa:1135:U:H3	1.89	0.64
22:Aa:1172:C:H2'	22:Aa:1173:G:H8	1.62	0.64
28:AE:51:PHE:O	28:AE:74:PRO:HB3	1.98	0.64
29:AF:125:LEU:HD23	29:AF:125:LEU:H	1.61	0.64
32:AI:87:LYS:NZ	32:AI:121:LYS:HG3	2.12	0.64
32:AI:113:ARG:NH1	32:AI:132:PRO:HD3	2.09	0.64
36:AP:39:LYS:HG3	57:AA:807:U:OP2	1.98	0.64
38:AR:67:LEU:HD22	38:AR:76:VAL:HG21	1.80	0.64
39:AS:36:TYR:H	39:AS:36:TYR:HD1	1.45	0.64
6:Bg:148:ASN:HD21	25:Bw:40:C:H4'	1.62	0.64
17:Br:36:ASN:HB3	17:Br:39:VAL:CB	2.28	0.64
18:Bs:31:ILE:CG2	18:Bs:49:ILE:HA	2.27	0.64
25:Bw:70:G:O2'	25:Bw:71:C:H5'	1.97	0.64
26:BC:16:ASP:OD2	26:BC:19:LYS:HB2	1.97	0.64
28:BE:131:ALA:HB2	57:BA:2579:C:O3'	1.97	0.64
29:BF:63:LYS:NZ	29:BF:67:GLN:HB2	2.13	0.64
31:BH:20:ALA:HB1	31:BH:21:PRO:CD	2.28	0.64
32:BI:123:LEU:HD23	32:BI:124:GLY:H	1.62	0.64
34:BN:120:LEU:C	34:BN:120:LEU:HD13	2.22	0.64
45:BY:27:VAL:C	45:BY:28:LYS:HG2	2.23	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:B5:51:TYR:CG	52:B5:52:TYR:N	2.65	0.64
12:Am:69:GLU:HA	12:Am:71:ARG:CA	2.27	0.64
21:Ay:43:LYS:NZ	22:Aa:1493:A:O2'	2.31	0.64
22:Aa:15:G:H2'	22:Aa:16:A:H8	1.63	0.64
26:AC:26:ALA:O	26:AC:30:VAL:HG23	1.98	0.64
27:AD:94:LEU:HB2	27:AD:104:TYR:HE2	1.63	0.64
29:AF:74:ARG:HD3	57:AA:674:G:O2'	1.98	0.64
31:AH:54:ARG:HH11	31:AH:54:ARG:HG2	1.62	0.64
35:AO:119:PRO:HB2	40:AT:68:TYR:CE2	2.32	0.64
37:AQ:16:ARG:HH22	57:AA:952:G:P	2.20	0.64
53:A6:54:ILE:O	53:A6:54:ILE:HD12	1.97	0.64
57:AA:672:C:H2'	57:AA:673:C:H5"	1.77	0.64
57:AA:1536:C:H2'	57:AA:1537:G:O4'	1.98	0.64
2:Bc:77:ILE:O	2:Bc:83:ARG:HB3	1.96	0.64
2:Bc:155:GLY:O	2:Bc:196:LEU:HD13	1.98	0.64
7:Bh:36:LEU:C	7:Bh:38:ILE:H	2.06	0.64
12:Bm:15:VAL:HG12	12:Bm:45:VAL:CG2	2.21	0.64
12:Bm:65:LYS:CB	12:Bm:66:LEU:CG	2.75	0.64
20:Bu:2:GLY:O	20:Bu:4:GLY:N	2.31	0.64
21:By:82:GLU:HG3	23:Bx:21:OMG:C6	2.33	0.64
22:Ba:737:A:H2'	22:Ba:738:C:C6	2.33	0.64
22:Ba:1081:G:O2'	22:Ba:1082:G:H5'	1.98	0.64
22:Ba:1241:G:H2'	22:Ba:1242:C:C6	2.33	0.64
22:Ba:1343:G:H2'	22:Ba:1344:C:C6	2.32	0.64
25:Bw:41:C:H2'	25:Bw:42:G:C8	2.33	0.64
30:BG:161:THR:CG2	30:BG:162:THR:N	2.61	0.64
57:BA:672:C:H2'	57:BA:673:C:H5"	1.79	0.64
57:BA:2158:A:H4'	57:BA:2159:G:C5'	2.25	0.64
2:Ac:58:GLU:HB2	2:Ac:65:ALA:HB3	1.79	0.64
9:Aj:16:LEU:HD13	9:Aj:16:LEU:O	1.98	0.64
22:Aa:434:U:H2'	22:Aa:435:C:C6	2.32	0.64
32:AI:129:THR:HG22	32:AI:130:TYR:O	1.98	0.64
41:AU:13:LYS:HD3	57:AA:1227:G:OP1	1.98	0.64
1:Bb:219:VAL:O	1:Bb:223:ILE:HG13	1.97	0.64
3:Bd:157:LEU:HG	3:Bd:161:ASN:ND2	2.12	0.64
12:Bm:57:ARG:CZ	51:B4:34:GLU:HG3	2.27	0.64
18:Bs:36:ARG:HG3	22:Ba:1320:C:N4	2.12	0.64
22:Ba:180:U:C2'	22:Ba:181:G:H5"	2.25	0.64
22:Ba:393:A:O2'	22:Ba:394:G:H5'	1.98	0.64
22:Ba:1023:G:H2'	22:Ba:1023:G:N3	2.12	0.64
27:BD:58:HIS:HD2	27:BD:59:LYS:O	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BG:16:ARG:O	30:BG:20:ILE:HG13	1.97	0.64
30:BG:77:ILE:HG22	30:BG:77:ILE:O	1.97	0.64
38:BR:3:HIS:O	38:BR:4:LEU:HB3	1.98	0.64
40:BT:129:ARG:HH21	40:BT:131:ALA:HB2	1.63	0.64
41:BU:31:SER:C	41:BU:33:ARG:H	2.06	0.64
42:BV:5:VAL:HG21	42:BV:35:LEU:HB3	1.80	0.64
47:B0:51:VAL:CG2	47:B0:81:VAL:HG23	2.27	0.64
57:BA:1049:C:H2'	57:BA:1050:A:H8	1.63	0.64
57:BA:2894:G:N3	57:BA:2894:G:H2'	2.12	0.64
19:At:30:LYS:HE2	19:At:72:LEU:HD21	1.79	0.64
22:Aa:67:C:O2'	22:Aa:171:A:H1'	1.98	0.64
26:AC:46:ALA:O	26:AC:172:ILE:HG22	1.98	0.64
27:AD:118:VAL:HG22	27:AD:119:ALA:H	1.63	0.64
27:AD:246:PRO:HD3	57:AA:1902:C:H5'	1.79	0.64
28:AE:70:ALA:O	28:AE:71:GLY:C	2.41	0.64
30:AG:126:ASP:O	30:AG:128:ARG:N	2.30	0.64
53:A6:5:VAL:HG12	53:A6:8:LYS:CB	2.23	0.64
2:Bc:162:GLN:HG2	23:Bx:24:A:H1'	1.80	0.64
5:Bf:14:LEU:HD22	5:Bf:18:GLN:NE2	2.13	0.64
5:Bf:42:GLU:O	5:Bf:44:GLY:N	2.30	0.64
8:Bi:33:PHE:CZ	8:Bi:47:LEU:HD11	2.33	0.64
9:Bj:23:ILE:HG22	9:Bj:23:ILE:O	1.96	0.64
9:Bj:36:GLY:HA3	22:Ba:1123:A:C4'	2.25	0.64
18:Bs:14:HIS:CD2	22:Ba:1014:A:H5'	2.33	0.64
27:BD:129:ASN:O	27:BD:193:VAL:HG12	1.98	0.64
28:BE:44:TYR:O	28:BE:45:THR:HB	1.98	0.64
28:BE:64:LYS:HB2	57:BA:2786:U:H4'	1.80	0.64
47:B0:19:LYS:HD3	47:B0:41:ARG:NH2	2.13	0.64
55:B8:33:ASN:N	55:B8:36:LYS:HD2	2.13	0.64
57:BA:2422:A:H4'	57:BA:2423:U:OP1	1.98	0.64
2:Ac:132:ARG:O	2:Ac:136:GLN:HB2	1.97	0.63
6:Ag:18:TYR:HD2	6:Ag:59:LEU:HD22	1.63	0.63
9:Aj:90:LEU:N	9:Aj:91:PRO:CD	2.60	0.63
12:Am:66:LEU:O	12:Am:67:GLU:C	2.33	0.63
13:An:35:ARG:HG2	22:Aa:1358:U:OP1	1.98	0.63
18:As:72:GLY:C	18:As:74:PHE:H	2.06	0.63
22:Aa:148:G:H2'	22:Aa:149:A:C8	2.33	0.63
22:Aa:759:A:H2'	22:Aa:760:G:H5'	1.80	0.63
25:Aw:41:C:H2'	25:Aw:42:G:H8	1.63	0.63
29:AF:22:ALA:HB1	29:AF:26:ALA:CB	2.28	0.63
30:AG:71:THR:HG22	30:AG:89:GLY:C	2.23	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:AP:17:LYS:HG2	36:AP:17:LYS:O	1.97	0.63
36:AP:64:LYS:CB	55:A8:25:MET:HG3	2.16	0.63
38:AR:24:GLN:NE2	38:AR:36:THR:HG21	2.14	0.63
42:AV:19:LYS:HG3	42:AV:20:LEU:O	1.98	0.63
48:A1:40:ARG:HD3	48:A1:40:ARG:C	2.23	0.63
57:AA:2158:A:H4'	57:AA:2159:G:C5'	2.25	0.63
58:AB:112:U:H2'	58:AB:113:G:C8	2.30	0.63
1:Bb:93:VAL:HG11	1:Bb:97:TRP:CD1	2.33	0.63
1:Bb:177:ALA:HB1	1:Bb:182:ILE:HB	1.79	0.63
2:Bc:14:ILE:HG12	2:Bc:15:THR:N	2.13	0.63
2:Bc:107:GLN:CD	2:Bc:107:GLN:H	2.06	0.63
3:Bd:4:TYR:O	3:Bd:5:ILE:HB	1.98	0.63
25:Bw:33:U:H2'	25:Bw:35:A:OP2	1.98	0.63
29:BF:63:LYS:HD3	29:BF:65:TRP:O	1.98	0.63
31:BH:7:LEU:HD23	31:BH:69:ARG:HD3	1.81	0.63
44:BX:64:LYS:HZ2	44:BX:73:ARG:NH2	1.96	0.63
49:B2:3:LEU:O	49:B2:3:LEU:HD23	1.97	0.63
51:B4:48:ARG:HG2	51:B4:49:PHE:N	2.13	0.63
10:Ak:30:VAL:HG21	10:Ak:65:ALA:HA	1.79	0.63
12:Am:32:GLU:O	12:Am:36:LYS:HG2	1.97	0.63
16:Aq:59:ILE:CG2	16:Aq:71:PHE:HB3	2.28	0.63
21:Ay:28:LYS:O	21:Ay:31:VAL:HG12	1.98	0.63
22:Aa:56:U:H2'	22:Aa:57:G:H8	1.61	0.63
22:Aa:973:G:H3'	22:Aa:974:A:H5"	1.80	0.63
28:AE:78:LEU:C	28:AE:79:ARG:HD2	2.23	0.63
31:AH:153:LYS:HD3	31:AH:153:LYS:N	2.06	0.63
40:AT:27:THR:O	40:AT:28:VAL:HB	1.98	0.63
40:AT:129:ARG:NH2	40:AT:131:ALA:HB2	2.13	0.63
46:AZ:150:LEU:CG	46:AZ:171:ILE:HD11	2.26	0.63
49:A2:64:LEU:O	49:A2:68:ARG:HG2	1.98	0.63
55:A8:39:LYS:O	55:A8:43:GLN:HG3	1.98	0.63
57:AA:271(U):G:O2'	57:AA:271(V):G:H5'	1.98	0.63
57:AA:1493:C:H4'	57:AA:1494:A:OP1	1.97	0.63
57:AA:2543:G:H2'	57:AA:2544:G:C8	2.33	0.63
12:Bm:57:ARG:HH12	51:B4:34:GLU:HA	1.64	0.63
22:Ba:1148:U:H2'	22:Ba:1149:C:O4'	1.98	0.63
22:Ba:1438:G:H2'	22:Ba:1439:C:C6	2.33	0.63
24:Bv:73:A:H5'	24:Bv:73:A:H8	1.62	0.63
29:BF:22:ALA:HB1	29:BF:26:ALA:HB2	1.81	0.63
29:BF:188:ARG:CA	36:BP:7:ARG:HD3	2.25	0.63
30:BG:133:LEU:HD12	30:BG:135:LEU:HD11	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BJ:102:LYS:HA	33:BJ:106:GLN:CB	2.27	0.63
34:BN:2:LYS:HZ2	41:BU:95:LEU:HD21	1.64	0.63
35:BO:69:ILE:HD12	35:BO:69:ILE:N	2.13	0.63
42:BV:24:LYS:HE2	42:BV:90:PRO:CB	2.27	0.63
57:BA:991:C:H5'	57:BA:991:C:H6	1.62	0.63
1:Ab:93:VAL:HG11	1:Ab:97:TRP:CD1	2.33	0.63
3:Ad:104:VAL:O	3:Ad:108:LEU:HB2	1.98	0.63
11:Al:87:GLY:HA2	11:Al:98:TYR:HA	1.80	0.63
21:Ay:76:ILE:HD12	21:Ay:90:ALA:HB1	1.79	0.63
27:AD:35:LYS:HZ2	27:AD:36:PRO:CD	2.11	0.63
31:AH:7:LEU:CG	31:AH:69:ARG:HD2	2.28	0.63
31:AH:20:ALA:HB1	31:AH:21:PRO:CD	2.28	0.63
37:AQ:110:THR:HG23	37:AQ:113:GLN:HB2	1.81	0.63
55:A8:14:VAL:CG2	55:A8:22:VAL:HG13	2.28	0.63
57:AA:61:G:H1	57:AA:94:C:H42	1.46	0.63
57:AA:141:A:H8	57:AA:1408:C:O2'	1.81	0.63
57:AA:176:G:O2'	57:AA:177:G:H5'	1.98	0.63
57:AA:1925:C:O2'	57:AA:1926:U:H5'	1.98	0.63
9:Bj:3:LYS:O	9:Bj:100:THR:HG23	1.98	0.63
9:Bj:50:ILE:CG2	9:Bj:60:ARG:HH11	2.11	0.63
12:Bm:32:GLU:O	12:Bm:36:LYS:HG2	1.98	0.63
22:Ba:389:A:H2'	22:Ba:390:C:H5'	1.80	0.63
22:Ba:417:C:O2'	22:Ba:418:C:H5'	1.99	0.63
22:Ba:940:C:H2'	22:Ba:941:G:H8	1.63	0.63
22:Ba:1514:C:H2'	22:Ba:1515:C:H6	1.63	0.63
27:BD:131:LEU:HD12	27:BD:131:LEU:N	2.13	0.63
31:BH:17:VAL:O	31:BH:45:VAL:HG22	1.99	0.63
31:BH:124:GLU:HB2	31:BH:132:ARG:HG2	1.79	0.63
40:BT:65:LYS:HA	40:BT:65:LYS:HZ1	1.64	0.63
42:BV:21:ARG:O	42:BV:22:VAL:HG13	1.98	0.63
45:BY:7:VAL:HG21	45:BY:8:LYS:HZ1	1.62	0.63
46:BZ:24:LEU:CD2	46:BZ:86:VAL:HG23	2.25	0.63
46:BZ:81:ARG:HB2	46:BZ:81:ARG:HH11	1.61	0.63
53:B6:54:ILE:O	53:B6:54:ILE:HD12	1.99	0.63
57:BA:1318:C:C3'	57:BA:1319:G:H5"	2.29	0.63
7:Ah:63:LEU:HD22	7:Ah:63:LEU:H	1.62	0.63
21:Ay:9:GLU:O	21:Ay:10:ARG:C	2.42	0.63
22:Aa:1366:C:H2'	22:Aa:1367:C:C6	2.30	0.63
32:AI:58:LEU:O	32:AI:58:LEU:HD23	1.99	0.63
2:Bc:131:ARG:NH2	2:Bc:168:ALA:HB2	2.12	0.63
3:Bd:126:ILE:HD12	3:Bd:126:ILE:N	2.13	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:Bi:48:GLU:N	8:Bi:49:PRO:HD2	2.12	0.63
10:Bk:67:ASP:OD1	10:Bk:71:LYS:HE3	1.99	0.63
11:Bl:53:ARG:HH22	22:Ba:522:C:H41	1.45	0.63
18:Bs:48:THR:HG22	18:Bs:61:TYR:HA	1.80	0.63
22:Ba:373:A:O2'	22:Ba:374:A:H5'	1.99	0.63
22:Ba:1443:G:H22	22:Ba:1460:A:H1'	1.63	0.63
26:BC:42:VAL:HA	26:BC:217:THR:HA	1.80	0.63
32:BI:87:LYS:HZ1	32:BI:121:LYS:HG3	1.63	0.63
36:BP:58:THR:O	36:BP:58:THR:HG22	1.99	0.63
39:BS:62:LYS:HB2	58:BB:50:G:OP1	1.99	0.63
43:BW:73:ALA:HB3	43:BW:106:ILE:HD11	1.80	0.63
46:BZ:30:ASN:O	46:BZ:32:HIS:N	2.31	0.63
57:BA:544:G:H21	57:BA:547:A:H2'	1.62	0.63
2:Ac:51:GLY:O	2:Ac:115:LEU:HD21	1.98	0.63
9:Aj:55:LYS:HE2	22:Aa:973:G:H1'	1.81	0.63
10:Ak:26:ASN:ND2	22:Aa:692:U:H5	1.95	0.63
12:Am:90:LEU:O	12:Am:91:ARG:HB2	1.98	0.63
22:Aa:1241:G:H2'	22:Aa:1242:C:C6	2.33	0.63
22:Aa:1259:C:H42	22:Aa:1276:G:H1	1.45	0.63
22:Aa:1310:G:O2'	22:Aa:1311:G:H5'	1.97	0.63
27:AD:43:ARG:HB3	27:AD:54:ARG:CB	2.24	0.63
30:AG:55:LYS:O	30:AG:55:LYS:HD3	1.98	0.63
32:AI:92:VAL:HG22	32:AI:97:ILE:HG13	1.80	0.63
36:AP:35:HIS:CE1	57:AA:941:A:H4'	2.33	0.63
38:AR:7:GLY:HA3	38:AR:8:ARG:HH21	1.62	0.63
38:AR:92:GLY:HA2	38:AR:94:TYR:CE1	2.34	0.63
40:AT:5:ALA:HB2	57:AA:2875:C:C4'	2.28	0.63
41:AU:31:SER:C	41:AU:33:ARG:H	2.07	0.63
42:AV:5:VAL:HG21	42:AV:35:LEU:HB3	1.80	0.63
57:AA:768:G:O2'	57:AA:1379:A:N6	2.32	0.63
57:AA:1270:C:H5"	57:AA:1271:G:C5'	2.28	0.63
30:BG:56:ALA:CB	30:BG:153:ARG:HH11	2.09	0.63
35:BO:120:GLU:OE2	35:BO:122:LEU:HD21	1.97	0.63
36:BP:9:ASN:H	36:BP:10:PRO:HD2	1.63	0.63
42:BV:76:LYS:HB2	42:BV:81:TYR:HB3	1.80	0.63
57:BA:904:C:H5'	57:BA:904:C:C6	2.29	0.63
6:Ag:7:ALA:HB2	22:Aa:1377:A:H2'	1.78	0.63
9:Aj:23:ILE:HG22	9:Aj:23:ILE:O	1.98	0.63
26:AC:214:TYR:HB3	26:AC:222:SER:HB2	1.80	0.63
28:AE:44:TYR:O	28:AE:45:THR:HB	1.98	0.63
29:AF:184:TYR:O	29:AF:188:ARG:HG2	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:AG:98:ARG:HG3	51:A4:1:MET:SD	2.39	0.63
47:A0:27:GLU:OE2	57:AA:856:C:H4'	1.98	0.63
50:A3:8:LEU:CD1	50:A3:31:LEU:HD23	2.28	0.63
57:AA:155:U:C2'	57:AA:156:U:H5"	2.23	0.63
57:AA:752:A:O2'	57:AA:753:C:OP2	2.16	0.63
3:Bd:22:LYS:HB2	3:Bd:26:CYS:SG	2.39	0.63
11:Bl:74:GLY:O	11:Bl:102:ARG:NH2	2.32	0.63
17:Br:44:LEU:O	17:Br:45:SER:C	2.41	0.63
21:By:35:GLU:O	21:By:36:SER:HB2	1.97	0.63
30:BG:142:PRO:HG2	30:BG:143:GLU:OE1	1.99	0.63
31:BH:137:ASP:O	31:BH:138:LYS:HB2	1.98	0.63
36:BP:39:LYS:HG3	57:BA:807:U:OP2	1.99	0.63
38:BR:11:ASN:C	38:BR:12:ARG:HG3	2.24	0.63
38:BR:28:LEU:O	38:BR:28:LEU:HD22	1.99	0.63
40:BT:28:VAL:HG12	40:BT:28:VAL:O	1.97	0.63
57:BA:626:U:H5'	57:BA:627:A:C5'	2.29	0.63
1:Ab:145:LEU:CD1	1:Ab:149:LEU:HD12	2.29	0.63
3:Ad:4:TYR:O	3:Ad:5:ILE:HB	1.99	0.63
5:Af:42:GLU:O	5:Af:44:GLY:N	2.31	0.63
5:Af:62:TRP:C	5:Af:63:TYR:HD2	2.07	0.63
7:Ah:5:PRO:O	7:Ah:8:ASP:HB3	1.99	0.63
9:Aj:9:ARG:HG2	9:Aj:69:ASN:OD1	1.98	0.63
15:Ap:67:THR:HG21	22:Aa:376:G:OP2	1.99	0.63
17:Ar:31:LEU:H	17:Ar:31:LEU:CD2	2.11	0.63
22:Aa:1054:C:O5'	22:Aa:1197:G:OP2	2.16	0.63
22:Aa:1343:G:H2'	22:Aa:1344:C:C6	2.33	0.63
28:AE:131:ALA:HB2	57:AA:2580:U:H5'	1.78	0.63
31:AH:17:VAL:O	31:AH:45:VAL:HG22	1.97	0.63
31:AH:144:VAL:O	31:AH:148:ILE:HG12	1.98	0.63
35:AO:61:VAL:HG12	35:AO:87:ILE:HD11	1.80	0.63
36:AP:40:SER:O	36:AP:41:ARG:NE	2.31	0.63
41:AU:59:ARG:HD3	57:AA:1009:A:C4'	2.28	0.63
46:AZ:24:LEU:HD23	46:AZ:25:PRO:N	2.13	0.63
53:A6:47:THR:HG23	53:A6:49:HIS:CE1	2.32	0.63
53:A6:48:VAL:HG23	53:A6:49:HIS:N	2.11	0.63
57:AA:1204:A:N1	57:AA:1241:A:H2	1.97	0.63
3:Bd:22:LYS:HB2	3:Bd:26:CYS:HB2	1.79	0.63
14:Bo:23:GLY:HA3	22:Ba:750:G:N3	2.14	0.63
19:Bt:16:HIS:O	19:Bt:19:SER:HB3	1.97	0.63
26:BC:26:ALA:O	26:BC:30:VAL:HG23	1.98	0.63
27:BD:244:ARG:HG3	57:BA:1902:C:H1'	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BF:164:ARG:HH11	29:BF:164:ARG:HG2	1.62	0.63
30:BG:67:LYS:NZ	51:B4:6:HIS:CE1	2.67	0.63
36:BP:32:THR:HG21	36:BP:37:GLY:CA	2.27	0.63
38:BR:7:GLY:HA3	38:BR:8:ARG:HH21	1.64	0.63
41:BU:33:ARG:HG3	57:BA:581:C:OP1	1.99	0.63
53:B6:48:VAL:HG23	53:B6:49:HIS:N	2.11	0.63
57:BA:1240:U:O2'	57:BA:1241:A:H5'	1.99	0.63
57:BA:1973:G:H2'	57:BA:1974:C:C6	2.34	0.63
57:BA:2543:G:H2'	57:BA:2544:G:C8	2.34	0.63
8:Ai:79:LEU:HD11	8:Ai:83:ARG:HH21	1.63	0.63
8:Ai:112:LYS:HD3	8:Ai:112:LYS:C	2.24	0.63
9:Aj:36:GLY:HA3	22:Aa:1123:A:C4'	2.25	0.63
17:Ar:79:LEU:CD2	17:Ar:80:PRO:HD2	2.29	0.63
22:Aa:266:G:H5"	22:Aa:268:C:H41	1.64	0.63
22:Aa:1299:A:C8	22:Aa:1301:U:H1'	2.34	0.63
28:AE:9:VAL:HG22	28:AE:25:VAL:HB	1.79	0.63
28:AE:111:ARG:HD2	28:AE:160:TYR:CD1	2.34	0.63
40:AT:28:VAL:HG12	40:AT:28:VAL:O	1.98	0.63
43:AW:64:MET:HE2	43:AW:109:GLU:HG3	1.80	0.63
44:AX:53:LYS:HZ2	44:AX:55:ASN:HD21	1.47	0.63
57:AA:1412:A:H2'	57:AA:1413:G:C8	2.34	0.63
57:AA:2894:G:N3	57:AA:2894:G:H2'	2.12	0.63
1:Bb:187:LEU:HD23	1:Bb:201:ILE:HG22	1.80	0.63
1:Bb:211:ILE:O	1:Bb:215:LEU:HD23	1.99	0.63
3:Bd:33:MET:O	3:Bd:37:PRO:HG3	1.99	0.63
12:Bm:65:LYS:O	12:Bm:70:LEU:HB2	1.99	0.63
22:Ba:1053:G:O6	22:Ba:1200:C:H5"	1.98	0.63
22:Ba:1129:C:N4	22:Ba:1135:U:H3	1.89	0.63
28:BE:131:ALA:HB2	57:BA:2580:U:H5'	1.81	0.63
31:BH:41:MET:CG	31:BH:42:ARG:H	2.11	0.63
40:BT:65:LYS:CE	40:BT:66:VAL:H	2.11	0.63
42:BV:81:TYR:C	42:BV:82:ARG:HD2	2.24	0.63
52:B5:7:PRO:HA	57:BA:2615:U:C2	2.34	0.63
57:BA:61:G:H1	57:BA:94:C:H42	1.45	0.63
57:BA:654(V):A:H3'	57:BA:655:A:H2'	1.81	0.63
7:Ah:88:LYS:HB3	7:Ah:89:PRO:HD2	1.81	0.63
22:Aa:736:C:H2'	22:Aa:737:A:H8	1.63	0.63
22:Aa:1010:G:N2	22:Aa:1020:U:H1'	2.14	0.63
27:AD:69:ARG:NH2	27:AD:128:GLY:O	2.32	0.63
28:AE:59:VAL:HG13	28:AE:60:ASN:N	2.14	0.63
32:AI:86:THR:O	32:AI:86:THR:HG23	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:AP:80:TYR:CE1	36:AP:111:ARG:HD3	2.33	0.63
41:AU:49:HIS:HD2	57:AA:534:U:O2'	1.82	0.63
44:AX:12:VAL:CG1	44:AX:17:ALA:HB1	2.29	0.63
44:AX:12:VAL:CG2	44:AX:13:LEU:H	1.96	0.63
52:A5:7:PRO:HA	57:AA:2615:U:C2	2.34	0.63
2:Bc:70:VAL:CG1	2:Bc:71:ALA:N	2.61	0.63
6:Bg:18:TYR:HD2	6:Bg:59:LEU:HD22	1.64	0.63
22:Ba:1299:A:C8	22:Ba:1301:U:H1'	2.34	0.63
30:BG:125:PHE:CE2	30:BG:173:LEU:HD12	2.34	0.63
45:BY:7:VAL:CG2	45:BY:8:LYS:NZ	2.62	0.63
47:B0:48:GLY:CA	47:B0:80:HIS:HD1	2.11	0.63
3:Ad:35:ARG:C	3:Ad:37:PRO:HD3	2.24	0.62
13:An:23:ARG:HD2	13:An:28:GLY:O	1.99	0.62
14:Ao:23:GLY:HA3	22:Aa:750:G:N3	2.13	0.62
14:Ao:82:ILE:HG23	14:Ao:83:GLU:N	2.14	0.62
16:Aq:59:ILE:HG22	16:Aq:71:PHE:HB3	1.80	0.62
22:Aa:1256:A:H5'	22:Aa:1257:U:OP1	1.99	0.62
28:AE:117:MET:HE2	28:AE:136:ARG:NH2	2.14	0.62
30:AG:5:VAL:CG1	51:A4:24:THR:HG22	2.28	0.62
30:AG:98:ARG:NE	51:A4:1:MET:HG2	2.13	0.62
42:AV:21:ARG:HD3	42:AV:21:ARG:H	1.64	0.62
45:AY:13:VAL:HG22	45:AY:14:LEU:N	2.13	0.62
57:AA:146:G:H5'	57:AA:146:G:C8	2.32	0.62
57:AA:184:C:H2'	57:AA:185:U:C6	2.34	0.62
57:AA:607:U:H3	57:AA:621:A:H2	1.46	0.62
57:AA:880:G:H1	57:AA:897:C:H42	1.47	0.62
57:AA:2147:G:H2'	57:AA:2148:G:O4'	1.98	0.62
1:Bb:71:VAL:HB	1:Bb:164:VAL:CG1	2.27	0.62
1:Bb:97:TRP:HH2	1:Bb:176:GLU:HG3	1.64	0.62
2:Bc:155:GLY:O	2:Bc:156:ARG:HB2	1.98	0.62
8:Bi:96:LEU:O	8:Bi:102:LEU:HB2	1.98	0.62
10:Bk:126:ARG:HB3	10:Bk:126:ARG:NH1	2.13	0.62
14:Bo:82:ILE:HG23	14:Bo:83:GLU:N	2.14	0.62
22:Ba:56:U:H2'	22:Ba:57:G:C8	2.32	0.62
22:Ba:148:G:H2'	22:Ba:149:A:C8	2.34	0.62
22:Ba:1163:C:H2'	22:Ba:1164:G:H8	1.64	0.62
28:BE:100:GLU:O	28:BE:172:VAL:HG23	1.99	0.62
29:BF:148:LEU:HD23	29:BF:191:ARG:HH11	1.64	0.62
30:BG:109:VAL:C	30:BG:112:PRO:CD	2.72	0.62
31:BH:54:ARG:HH11	31:BH:54:ARG:HG2	1.64	0.62
31:BH:97:ARG:HG2	31:BH:98:LEU:N	2.14	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BN:73:THR:HG21	57:BA:1131:G:H21	1.63	0.62
37:BQ:130:LYS:HD3	46:BZ:80:ARG:NH1	2.13	0.62
37:BQ:137:TYR:CD2	37:BQ:137:TYR:N	2.66	0.62
40:BT:32:TYR:CD2	40:BT:81:PRO:HB2	2.33	0.62
40:BT:125:ARG:C	40:BT:127:ALA:H	2.05	0.62
57:BA:8:A:H2'	57:BA:9:U:C6	2.33	0.62
57:BA:768:G:O2'	57:BA:1379:A:N6	2.31	0.62
5:Af:11:ASN:HB3	5:Af:14:LEU:HG	1.80	0.62
5:Af:89:MET:O	5:Af:91:VAL:HG23	2.00	0.62
8:Ai:96:LEU:O	8:Ai:102:LEU:HB2	1.98	0.62
15:Ap:34:GLU:OE2	15:Ap:55:ARG:HD3	1.99	0.62
17:Ar:44:LEU:O	17:Ar:45:SER:C	2.42	0.62
22:Aa:1096:C:O2'	22:Aa:1097:C:H5'	1.98	0.62
29:AF:148:LEU:HD23	29:AF:191:ARG:HH11	1.64	0.62
31:AH:153:LYS:H	31:AH:153:LYS:CD	2.07	0.62
32:AI:27:ARG:HG2	48:A1:71:TYR:CZ	2.34	0.62
41:AU:74:LEU:H	41:AU:74:LEU:HD12	1.64	0.62
47:A0:19:LYS:HD3	47:A0:41:ARG:NH2	2.14	0.62
57:AA:185:U:H4'	57:AA:218:A:H4'	1.81	0.62
57:AA:2537:U:H2'	57:AA:2538:C:C6	2.34	0.62
2:Bc:7:PRO:O	2:Bc:11:ARG:HG2	1.99	0.62
5:Bf:26:ILE:O	5:Bf:30:LEU:HG	1.99	0.62
9:Bj:34:VAL:CG2	9:Bj:74:ILE:HG22	2.29	0.62
30:BG:60:LEU:HD12	30:BG:68:PRO:HD3	1.81	0.62
36:BP:38:GLN:CD	57:BA:943:U:OP2	2.42	0.62
36:BP:80:TYR:CE1	36:BP:111:ARG:HD3	2.34	0.62
55:B8:34:TRP:HB2	57:BA:2420:C:OP1	1.99	0.62
57:BA:1286:A:C2'	57:BA:1288:U:OP2	2.47	0.62
57:BA:2147:G:H2'	57:BA:2148:G:O4'	1.99	0.62
57:BA:2716:U:O2'	57:BA:2717:G:H5'	1.99	0.62
1:Ab:216:SER:C	1:Ab:218:ALA:H	2.07	0.62
4:Ae:101:ILE:HD11	4:Ae:119:LEU:HD23	1.80	0.62
5:Af:89:MET:O	5:Af:89:MET:HG2	2.00	0.62
7:Ah:89:PRO:HA	7:Ah:92:ARG:HH11	1.63	0.62
11:Al:6:THR:H	11:Al:9:GLN:NE2	1.95	0.62
21:Ay:79:GLY:C	21:Ay:86:VAL:HG11	2.24	0.62
22:Aa:1163:C:H2'	22:Aa:1164:G:H8	1.65	0.62
22:Aa:1195:C:N4	22:Aa:1197:G:C8	2.68	0.62
27:AD:24:ILE:CG1	27:AD:25:THR:H	2.11	0.62
32:AI:69:LYS:HA	32:AI:136:VAL:HG21	1.81	0.62
37:AQ:109:VAL:HG12	37:AQ:113:GLN:HB2	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:AQ:132:VAL:CG1	46:AZ:81:ARG:HE	2.11	0.62
40:AT:129:ARG:HH21	40:AT:131:ALA:HB2	1.63	0.62
55:A8:51:ALA:HA	55:A8:54:GLU:OE2	1.99	0.62
57:AA:2036:C:H5'	57:AA:2036:C:C6	2.31	0.62
57:AA:2747:G:O6	57:AA:2755:C:H5"	1.99	0.62
2:Bc:64:VAL:CG1	2:Bc:66:VAL:HG23	2.29	0.62
5:Bf:86:ARG:O	5:Bf:87:ARG:HG2	1.99	0.62
7:Bh:5:PRO:O	7:Bh:8:ASP:HB3	1.98	0.62
11:Bl:93:LEU:HB3	11:Bl:96:VAL:HG21	1.81	0.62
19:Bt:10:LEU:O	19:Bt:12:ALA:N	2.31	0.62
25:Bw:5:G:H22	25:Bw:68:C:N4	1.97	0.62
40:BT:106:SER:HA	40:BT:110:ILE:HG12	1.81	0.62
45:BY:13:VAL:HG23	45:BY:73:ARG:C	2.24	0.62
57:BA:492:A:H2'	57:BA:493:G:O4'	1.99	0.62
57:BA:903:C:O2'	57:BA:904:C:H5"	1.98	0.62
11:Al:74:GLY:O	11:Al:102:ARG:NH2	2.32	0.62
12:Am:108:ARG:CZ	12:Am:114:ARG:HG2	2.29	0.62
19:At:25:ARG:HH11	19:At:25:ARG:HG3	1.64	0.62
26:AC:186:LEU:O	26:AC:190:ILE:HG12	2.00	0.62
30:AG:76:SER:CB	30:AG:83:ARG:HB3	2.28	0.62
31:AH:55:PRO:HG2	31:AH:61:HIS:CE1	2.35	0.62
36:AP:9:ASN:H	36:AP:10:PRO:HD2	1.64	0.62
41:AU:25:TRP:CH2	57:AA:17:G:H4'	2.34	0.62
47:A0:25:ARG:HD2	47:A0:29:GLN:HE22	1.62	0.62
57:AA:1286:A:C2'	57:AA:1288:U:OP2	2.47	0.62
58:AB:30:C:H4'	58:AB:58:A:H2	1.64	0.62
1:Bb:124:SER:OG	1:Bb:125:PRO:HD2	1.99	0.62
9:Bj:82:ILE:HG23	9:Bj:86:MET:HE2	1.80	0.62
10:Bk:27:ASN:OD1	10:Bk:55:LYS:HB3	1.99	0.62
22:Ba:15:G:H2'	22:Ba:16:A:H8	1.63	0.62
22:Ba:266:G:H5"	22:Ba:268:C:H41	1.62	0.62
26:BC:6:LYS:HA	26:BC:9:ARG:HB2	1.81	0.62
28:BE:23:VAL:HA	28:BE:186:GLY:H	1.64	0.62
29:BF:21:ALA:C	29:BF:23:ASP:H	2.07	0.62
35:BO:64:ARG:O	35:BO:82:ASN:HA	1.99	0.62
36:BP:35:HIS:H	57:BA:1190:G:H5'	1.63	0.62
45:BY:29:GLU:N	45:BY:29:GLU:OE1	2.32	0.62
55:B8:61:LEU:C	55:B8:63:PRO:HD2	2.24	0.62
57:BA:271(U):G:O2'	57:BA:271(V):G:H5'	1.99	0.62
57:BA:2734:A:H5'	57:BA:2735:G:OP2	1.99	0.62
1:Ab:93:VAL:HG11	1:Ab:97:TRP:HD1	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ab:233:SER:HB2	1:Ab:234:PRO:CD	2.19	0.62
2:Ac:134:ILE:HD11	2:Ac:153:VAL:HG23	1.81	0.62
9:Aj:61:GLU:OE1	13:An:58:LYS:HE2	2.00	0.62
27:AD:35:LYS:HG2	27:AD:63:ARG:CA	2.28	0.62
30:AG:61:ALA:HA	30:AG:66:GLN:O	2.00	0.62
36:AP:64:LYS:HB3	55:A8:25:MET:CG	2.17	0.62
38:AR:10:LEU:HB3	38:AR:17:ARG:CD	2.30	0.62
38:AR:63:ARG:NE	57:AA:1453:U:H5'	2.15	0.62
39:AS:95:HIS:HD2	58:AB:48:A:H4'	1.64	0.62
40:AT:29:ARG:CB	40:AT:85:LYS:HA	2.29	0.62
41:AU:83:LEU:HG	41:AU:88:ILE:CD1	2.24	0.62
45:AY:2:ARG:HG3	57:AA:105:C:O2'	2.00	0.62
49:A2:7:ARG:NH2	57:AA:102:G:OP2	2.33	0.62
57:AA:2734:A:H5'	57:AA:2735:G:OP2	1.99	0.62
10:Bk:124:LYS:HE2	22:Ba:692:U:OP1	1.99	0.62
19:Bt:103:GLY:H	22:Ba:192:U:H4'	1.65	0.62
22:Ba:392:G:H2'	22:Ba:393:A:H8	1.65	0.62
22:Ba:405:U:H5"	22:Ba:406:G:O4'	1.99	0.62
22:Ba:625:G:H2'	22:Ba:626:U:C6	2.34	0.62
27:BD:148:GLU:HB2	27:BD:151:LYS:HD2	1.81	0.62
38:BR:24:GLN:NE2	38:BR:36:THR:HG21	2.13	0.62
43:BW:29:LEU:O	43:BW:33:ARG:HG3	1.99	0.62
46:BZ:68:PRO:HG3	46:BZ:91:LEU:O	1.99	0.62
57:BA:2666:C:H5'	57:BA:2667:C:OP2	2.00	0.62
2:Ac:107:GLN:CD	2:Ac:107:GLN:H	2.06	0.62
5:Af:18:GLN:HA	5:Af:21:LEU:HD23	1.82	0.62
6:Ag:115:ARG:O	6:Ag:118:VAL:HG22	1.98	0.62
9:Aj:34:VAL:CG2	9:Aj:74:ILE:HG22	2.29	0.62
10:Ak:32:ILE:HG22	10:Ak:77:MET:HE3	1.81	0.62
12:Am:104:ARG:HD2	22:Aa:1226:C:H42	1.64	0.62
22:Aa:373:A:O2'	22:Aa:374:A:H5'	2.00	0.62
32:AI:91:SER:CB	32:AI:121:LYS:HD3	2.20	0.62
32:AI:94:ALA:HA	32:AI:98:ALA:H	1.65	0.62
36:AP:70:GLN:HG3	57:AA:389:G:N1	2.14	0.62
40:AT:35:LYS:O	40:AT:36:GLU:HB3	1.98	0.62
40:AT:38:ASN:HD22	40:AT:39:ARG:N	1.97	0.62
44:AX:60:ARG:HH21	54:A7:47:ARG:HH11	1.47	0.62
45:AY:42:VAL:HB	45:AY:65:ALA:HB3	1.80	0.62
48:A1:23:LYS:HD3	48:A1:28:GLY:HA3	1.81	0.62
57:AA:581:C:H2'	57:AA:582:G:C8	2.34	0.62
57:AA:852:G:O2'	57:AA:853:G:H5'	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:AA:882:G:H2'	57:AA:883:G:H8	1.64	0.62
57:AA:1280:G:C2'	57:AA:1281:G:H5"	2.28	0.62
57:AA:1318:C:C3'	57:AA:1319:G:H5"	2.28	0.62
5:Bf:89:MET:O	5:Bf:89:MET:HG2	1.98	0.62
6:Bg:79:ARG:HD3	6:Bg:82:GLY:H	1.65	0.62
9:Bj:50:ILE:HD13	9:Bj:50:ILE:N	2.09	0.62
9:Bj:82:ILE:O	9:Bj:86:MET:HB3	2.00	0.62
11:Bl:35:GLY:HA3	11:Bl:58:VAL:CG1	2.29	0.62
18:Bs:30:LEU:HD23	18:Bs:30:LEU:O	1.99	0.62
19:Bt:16:HIS:CE1	22:Ba:333:G:H4'	2.35	0.62
22:Ba:630:G:H3'	22:Ba:631:G:C5'	2.29	0.62
26:BC:214:TYR:HB3	26:BC:222:SER:HB2	1.81	0.62
28:BE:61:ARG:H	28:BE:62:PRO:HD2	1.63	0.62
28:BE:70:ALA:O	28:BE:71:GLY:C	2.41	0.62
30:BG:173:LEU:O	30:BG:178:PHE:HD1	1.83	0.62
34:BN:48:MET:H	34:BN:48:MET:HE3	1.64	0.62
34:BN:58:ASP:O	34:BN:60:ILE:N	2.31	0.62
40:BT:5:ALA:HB3	57:BA:2875:C:O2'	2.00	0.62
46:BZ:150:LEU:HD23	46:BZ:150:LEU:N	2.11	0.62
2:Ac:155:GLY:O	2:Ac:156:ARG:HB2	1.99	0.62
3:Ad:79:PHE:CD1	3:Ad:207:TYR:HD1	2.18	0.62
7:Ah:9:MET:HE1	7:Ah:35:ILE:HB	1.82	0.62
22:Aa:80:G:H3'	22:Aa:81:U:C5'	2.29	0.62
22:Aa:223:U:H2'	22:Aa:224:C:H6	1.65	0.62
22:Aa:526:C:C5	22:Aa:527:G:H1'	2.34	0.62
22:Aa:797:C:O2'	22:Aa:798:G:H5'	1.99	0.62
22:Aa:940:C:H2'	22:Aa:941:G:H8	1.64	0.62
24:Av:4:G:HO2'	24:Av:5:G:H8	1.46	0.62
27:AD:132:PRO:HG3	27:AD:190:TYR:CE1	2.33	0.62
31:AH:41:MET:CG	31:AH:42:ARG:N	2.62	0.62
32:AI:78:THR:HB	32:AI:104:GLN:HE21	1.63	0.62
36:AP:24:GLY:HA2	57:AA:811:U:OP2	1.99	0.62
36:AP:33:ARG:HD3	57:AA:587:C:C4	2.34	0.62
37:AQ:27:VAL:HG13	37:AQ:105:GLU:OE2	2.00	0.62
55:A8:34:TRP:HB2	57:AA:2420:C:OP1	1.99	0.62
57:AA:1049:C:H2'	57:AA:1050:A:H8	1.65	0.62
57:AA:1286:A:H2'	57:AA:1288:U:OP2	1.98	0.62
57:AA:1887:C:C3'	57:AA:1888:G:H5"	2.30	0.62
6:Bg:113:GLU:CB	6:Bg:119:ARG:HG2	2.26	0.62
15:Bp:28:ARG:HG2	15:Bp:28:ARG:HH11	1.63	0.62
22:Ba:403:C:H2'	22:Ba:404:U:H6	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Ba:1116:C:C3'	22:Ba:1117:G:H5"	2.30	0.62
22:Ba:1366:C:H2'	22:Ba:1367:C:C6	2.31	0.62
26:BC:186:LEU:O	26:BC:190:ILE:HG12	1.99	0.62
27:BD:69:ARG:NH2	27:BD:128:GLY:O	2.33	0.62
27:BD:142:VAL:HG23	27:BD:192:THR:C	2.25	0.62
30:BG:109:VAL:N	30:BG:112:PRO:HG2	2.14	0.62
34:BN:1:MET:HG2	34:BN:2:LYS:H	1.65	0.62
38:BR:2:ARG:HB2	38:BR:5:LYS:HE2	1.82	0.62
38:BR:10:LEU:HB3	38:BR:17:ARG:CD	2.29	0.62
57:BA:672:C:C2'	57:BA:673:C:C5'	2.78	0.62
2:Ac:6:HIS:CD2	2:Ac:7:PRO:HD2	2.34	0.62
3:Ad:43:HIS:O	3:Ad:45:GLN:N	2.27	0.62
4:Ae:92:LYS:HB3	4:Ae:119:LEU:HB2	1.81	0.62
12:Am:28:ALA:C	12:Am:30:ALA:H	2.07	0.62
12:Am:115:LYS:N	12:Am:115:LYS:CD	2.63	0.62
18:As:30:LEU:O	18:As:30:LEU:HD23	2.00	0.62
19:At:14:LYS:HA	19:At:17:ARG:HH21	1.64	0.62
19:At:89:ARG:NH2	19:At:104:LEU:HD21	2.15	0.62
22:Aa:630:G:H3'	22:Aa:631:G:C5'	2.30	0.62
22:Aa:731:G:OP1	22:Aa:766:A:H1'	1.99	0.62
22:Aa:1053:G:O6	22:Aa:1200:C:H5"	2.00	0.62
23:Ax:14:A:H5'	23:Ax:14:A:N3	2.15	0.62
27:AD:91:ARG:HH11	27:AD:91:ARG:HG2	1.64	0.62
27:AD:148:GLU:HB2	27:AD:151:LYS:HD2	1.81	0.62
28:AE:4:ILE:CD1	28:AE:28:ALA:HB1	2.27	0.62
40:AT:125:ARG:C	40:AT:127:ALA:H	2.06	0.62
48:A1:53:VAL:HG22	48:A1:74:VAL:HG13	1.82	0.62
57:AA:286:C:O2'	57:AA:287:C:H5'	1.99	0.62
57:AA:654(V):A:H3'	57:AA:655:A:H2'	1.80	0.62
1:Bb:216:SER:C	1:Bb:218:ALA:H	2.06	0.62
22:Ba:859:A:H2'	22:Ba:860:A:O4'	2.00	0.62
26:BC:46:ALA:O	26:BC:172:ILE:HG22	1.99	0.62
27:BD:25:THR:HG22	27:BD:26:LYS:N	2.15	0.62
28:BE:78:LEU:C	28:BE:79:ARG:HD2	2.25	0.62
34:BN:111:PRO:HD2	57:BA:558:G:P	2.39	0.62
35:BO:114:ILE:HD12	35:BO:114:ILE:N	2.09	0.62
37:BQ:19:GLY:O	37:BQ:20:ALA:HB3	2.00	0.62
37:BQ:27:VAL:HG13	37:BQ:105:GLU:OE2	2.00	0.62
42:BV:21:ARG:HD3	42:BV:21:ARG:H	1.65	0.62
42:BV:46:VAL:HG22	42:BV:47:VAL:H	1.64	0.62
57:BA:882:G:H2'	57:BA:883:G:H8	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BA:1980:G:O2'	57:BA:1982:C:OP2	2.18	0.62
10:Ak:105:VAL:O	10:Ak:105:VAL:HG23	2.00	0.62
21:Ay:56:ARG:HH12	23:Ax:22:A:C5'	2.13	0.62
22:Aa:1392:G:O2'	22:Aa:1393:U:H5'	2.00	0.62
22:Aa:1508:G:H2'	22:Aa:1509:C:O4'	2.00	0.62
24:Av:72:A:C3'	24:Av:73:A:H5"	2.30	0.62
26:AC:57:GLN:O	26:AC:202:PRO:HG2	2.00	0.62
27:AD:142:VAL:HG23	27:AD:192:THR:C	2.25	0.62
29:AF:32:LEU:CD1	29:AF:105:VAL:HG13	2.29	0.62
31:AH:124:GLU:HB2	31:AH:132:ARG:HG2	1.80	0.62
34:AN:73:THR:HG21	57:AA:1131:G:H21	1.65	0.62
39:AS:13:ARG:HG3	39:AS:14:VAL:N	2.12	0.62
40:AT:106:SER:HA	40:AT:110:ILE:HG12	1.81	0.62
49:A2:46:GLN:HB2	49:A2:49:LYS:CE	2.26	0.62
50:A3:6:VAL:HB	50:A3:54:VAL:HG11	1.79	0.62
7:Bh:40:ALA:C	7:Bh:42:GLU:H	2.08	0.62
28:BE:35:GLN:CG	28:BE:36:ARG:H	2.11	0.62
28:BE:59:VAL:HG13	28:BE:60:ASN:N	2.14	0.62
29:BF:74:ARG:HD3	57:BA:674:G:O2'	1.99	0.62
29:BF:198:ALA:O	29:BF:201:VAL:HG12	1.99	0.62
43:BW:59:VAL:HG12	43:BW:60:ASN:N	2.13	0.62
44:BX:60:ARG:HH21	54:B7:47:ARG:HH11	1.45	0.62
52:B5:3:LYS:NZ	57:BA:2614:A:H5'	2.15	0.62
57:BA:330:A:HO2'	57:BA:331:A:H8	1.45	0.62
57:BA:633:A:H2'	57:BA:634:C:H5'	1.81	0.62
57:BA:1270:C:H5"	57:BA:1271:G:O5'	1.99	0.62
9:Aj:4:ILE:HD12	9:Aj:4:ILE:N	2.14	0.62
9:Aj:82:ILE:O	9:Aj:86:MET:HB3	1.99	0.62
12:Am:4:ILE:HG22	12:Am:5:ALA:H	1.65	0.62
26:AC:42:VAL:HA	26:AC:217:THR:HA	1.81	0.62
39:AS:85:VAL:O	39:AS:106:ARG:HG2	2.00	0.62
47:A0:26:TYR:O	47:A0:67:VAL:HB	1.99	0.62
54:A7:19:ARG:HH11	54:A7:19:ARG:HG2	1.65	0.62
55:A8:62:LEU:N	55:A8:63:PRO:HD2	2.15	0.62
57:AA:492:A:H2'	57:AA:493:G:O4'	1.99	0.62
57:AA:903:C:O2'	57:AA:904:C:H5"	1.99	0.62
57:AA:2422:A:H4'	57:AA:2423:U:OP1	2.00	0.62
3:Bd:120:LEU:HB3	3:Bd:126:ILE:HD11	1.81	0.62
9:Bj:80:LYS:NZ	9:Bj:80:LYS:HB3	2.15	0.62
19:Bt:89:ARG:NH2	19:Bt:104:LEU:HD21	2.13	0.62
26:BC:41:THR:HG21	26:BC:175:PRO:HB2	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BI:94:ALA:CB	32:BI:111:PRO:HA	2.30	0.62
34:BN:126:PRO:O	34:BN:127:ASP:HB2	2.00	0.62
57:BA:752:A:O2'	57:BA:753:C:OP2	2.17	0.62
57:BA:1991:U:H2'	57:BA:1992:G:H5"	1.81	0.62
58:BB:8:U:H3	58:BB:113:G:H1	1.47	0.62
4:Ae:150:ARG:NH1	4:Ae:150:ARG:HB2	2.15	0.61
9:Aj:50:ILE:CG2	9:Aj:60:ARG:HH11	2.12	0.61
31:AH:41:MET:CG	31:AH:42:ARG:H	2.12	0.61
35:AO:9:GLU:O	35:AO:83:ALA:HA	2.00	0.61
40:AT:83:ILE:HG13	40:AT:84:GLN:HG2	1.82	0.61
43:AW:84:ARG:HB2	43:AW:96:ILE:HG22	1.83	0.61
48:A1:3:LYS:HG3	48:A1:4:VAL:N	2.14	0.61
50:A3:44:ARG:O	50:A3:48:GLU:HG2	1.99	0.61
57:AA:1866:C:H2'	57:AA:1876:A:O4'	1.99	0.61
1:Bb:20:GLU:HB2	1:Bb:190:THR:OG1	2.00	0.61
1:Bb:93:VAL:HG11	1:Bb:97:TRP:HD1	1.65	0.61
2:Bc:70:VAL:CG1	2:Bc:71:ALA:H	2.12	0.61
22:Ba:1256:A:H5'	22:Ba:1257:U:OP1	2.00	0.61
22:Ba:1292:U:H2'	22:Ba:1293:G:C8	2.35	0.61
22:Ba:1374:A:H2'	22:Ba:1375:A:H8	1.65	0.61
26:BC:57:GLN:O	26:BC:202:PRO:HG2	2.00	0.61
35:BO:61:VAL:HG12	35:BO:87:ILE:HD11	1.81	0.61
2:Ac:7:PRO:O	2:Ac:11:ARG:HG2	2.00	0.61
11:Al:102:ARG:CG	11:Al:102:ARG:NH1	2.59	0.61
24:Av:59:A:H2'	24:Av:60:U:H5'	1.82	0.61
27:AD:72:LYS:NZ	27:AD:75:ILE:HD12	2.15	0.61
27:AD:131:LEU:HD12	27:AD:131:LEU:N	2.15	0.61
29:AF:198:ALA:O	29:AF:201:VAL:HG12	1.99	0.61
33:AJ:102:LYS:HA	33:AJ:106:GLN:CB	2.29	0.61
36:AP:101:VAL:HG13	36:AP:106:LEU:HD23	1.81	0.61
36:AP:144:GLU:H	36:AP:145:PRO:HD3	1.65	0.61
41:AU:90:VAL:CG2	42:AV:39:LEU:HG	2.30	0.61
46:AZ:152:ALA:HA	46:AZ:167:PRO:HB2	1.81	0.61
49:A2:2:LYS:HG2	57:AA:97:C:H4'	1.82	0.61
57:AA:672:C:H2'	57:AA:673:C:H5'	1.82	0.61
57:AA:1378:A:H4'	57:AA:1379:A:OP1	2.00	0.61
57:AA:2147:G:H2'	57:AA:2148:G:C4'	2.30	0.61
1:Bb:79:ASP:C	1:Bb:81:VAL:N	2.58	0.61
3:Bd:110:PHE:CD1	3:Bd:110:PHE:N	2.65	0.61
10:Bk:21:ILE:HD12	10:Bk:21:ILE:N	2.15	0.61
22:Ba:1010:G:N2	22:Ba:1020:U:H1'	2.15	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Ba:1203:C:H2'	22:Ba:1204:A:H8	1.66	0.61
28:BE:61:ARG:HD3	57:BA:2787:C:O2'	1.99	0.61
30:BG:98:ARG:HG3	51:B4:1:MET:CE	2.30	0.61
32:BI:113:ARG:NH1	32:BI:132:PRO:HD3	2.09	0.61
33:BJ:73:GLY:C	33:BJ:75:GLN:H	2.07	0.61
34:BN:66:LYS:NZ	57:BA:1140:C:H5"	2.14	0.61
36:BP:35:HIS:N	57:BA:1190:G:H5'	2.15	0.61
46:BZ:141:VAL:HA	46:BZ:144:LEU:CD2	2.30	0.61
47:B0:84:LEU:H	47:B0:84:LEU:HD12	1.64	0.61
48:B1:45:ASN:HB2	57:BA:2230:G:H1'	1.82	0.61
54:B7:8:ASN:C	54:B7:8:ASN:ND2	2.47	0.61
57:BA:654(S):G:O5'	57:BA:654(T):C:H5"	1.99	0.61
1:Ab:101:MET:HE2	1:Ab:108:ILE:HG21	1.81	0.61
3:Ad:22:LYS:HB2	3:Ad:26:CYS:CB	2.29	0.61
8:Ai:55:ALA:CB	8:Ai:58:HIS:HD2	2.13	0.61
8:Ai:85:LEU:HD13	8:Ai:92:TYR:CD2	2.36	0.61
9:Aj:36:GLY:CA	22:Aa:1123:A:H4'	2.28	0.61
12:Am:29:ARG:NH1	12:Am:64:TRP:CG	2.67	0.61
22:Aa:59:A:H1'	22:Aa:354:G:N2	2.15	0.61
27:AD:25:THR:HG22	27:AD:26:LYS:N	2.15	0.61
31:AH:137:ASP:O	31:AH:138:LYS:HB2	1.99	0.61
31:AH:154:PRO:HB3	31:AH:163:TYR:CZ	2.35	0.61
40:AT:27:THR:HG23	40:AT:28:VAL:N	2.14	0.61
42:AV:81:TYR:C	42:AV:82:ARG:HD2	2.26	0.61
45:AY:13:VAL:HG23	45:AY:73:ARG:C	2.25	0.61
55:A8:33:ASN:N	55:A8:36:LYS:HD2	2.16	0.61
55:A8:61:LEU:C	55:A8:63:PRO:HD2	2.25	0.61
2:Bc:162:GLN:HB2	23:Bx:23:A:C2	2.36	0.61
3:Bd:35:ARG:C	3:Bd:37:PRO:HD3	2.25	0.61
3:Bd:126:ILE:HG22	3:Bd:127:THR:N	2.16	0.61
4:Be:135:THR:O	4:Be:138:ALA:HB3	2.00	0.61
21:By:14:GLU:O	21:By:18:LEU:HB2	2.00	0.61
21:By:54:LYS:O	21:By:55:LEU:HD23	1.99	0.61
22:Ba:447:G:H2'	22:Ba:485:G:N2	2.16	0.61
22:Ba:1234:C:H1'	22:Ba:1364:U:O2	2.01	0.61
27:BD:24:ILE:CG1	27:BD:25:THR:H	2.12	0.61
27:BD:30:GLU:HB3	27:BD:35:LYS:HG3	1.82	0.61
28:BE:9:VAL:HG22	28:BE:25:VAL:HB	1.83	0.61
31:BH:7:LEU:HG	31:BH:69:ARG:NH1	2.15	0.61
32:BI:94:ALA:HA	32:BI:98:ALA:H	1.65	0.61
32:BI:109:ILE:HG21	32:BI:114:LEU:HD11	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BT:27:THR:O	40:BT:28:VAL:HB	2.00	0.61
41:BU:25:TRP:CH2	57:BA:17:G:H4'	2.34	0.61
41:BU:59:ARG:HD3	57:BA:1009:A:H5'	1.81	0.61
42:BV:65:GLY:HA3	42:BV:91:TYR:HE1	1.64	0.61
45:BY:2:ARG:N	45:BY:4:LYS:HG2	2.16	0.61
46:BZ:76:LEU:HD23	46:BZ:83:PRO:HA	1.81	0.61
1:Ab:124:SER:OG	1:Ab:125:PRO:HD2	2.00	0.61
1:Ab:187:LEU:HD23	1:Ab:201:ILE:HG22	1.81	0.61
3:Ad:128:VAL:O	3:Ad:130:GLY:N	2.32	0.61
5:Af:86:ARG:O	5:Af:87:ARG:HG2	2.00	0.61
7:Ah:40:ALA:C	7:Ah:42:GLU:H	2.07	0.61
15:Ap:53:VAL:HG12	15:Ap:79:VAL:HG22	1.81	0.61
22:Aa:135:C:H2'	22:Aa:136:C:H5'	1.83	0.61
22:Aa:1152:A:H2'	22:Aa:1153:C:H6	1.66	0.61
27:AD:43:ARG:HH11	27:AD:44:ASN:CG	2.08	0.61
31:AH:86:GLU:CB	31:AH:132:ARG:HB3	2.30	0.61
32:AI:8:PRO:CB	32:AI:14:ASP:H	2.10	0.61
32:AI:98:ALA:O	32:AI:101:LEU:HB3	1.99	0.61
41:AU:59:ARG:HD3	57:AA:1009:A:H5'	1.81	0.61
44:AX:26:TYR:HD2	44:AX:92:LEU:HD12	1.64	0.61
52:A5:16:ARG:NH1	52:A5:17:ASP:OD1	2.33	0.61
5:Bf:16:GLN:CD	5:Bf:16:GLN:H	2.09	0.61
7:Bh:88:LYS:HB3	7:Bh:89:PRO:HD2	1.81	0.61
7:Bh:89:PRO:HA	7:Bh:92:ARG:HH11	1.64	0.61
11:Bl:34:ARG:O	11:Bl:61:THR:HG23	2.00	0.61
13:Bn:35:ARG:HG2	22:Ba:1358:U:OP1	2.00	0.61
22:Ba:474:G:H2'	22:Ba:475:G:H8	1.66	0.61
22:Ba:731:G:OP1	22:Ba:766:A:H1'	2.00	0.61
22:Ba:973:G:H3'	22:Ba:974:A:H5"	1.81	0.61
22:Ba:1342:C:O2'	22:Ba:1343:G:H5'	2.01	0.61
29:BF:20:LEU:HD12	29:BF:199:TRP:CZ3	2.35	0.61
32:BI:127:VAL:O	32:BI:128:LEU:HD13	2.00	0.61
39:BS:85:VAL:O	39:BS:106:ARG:HG2	1.99	0.61
45:BY:39:VAL:HG12	45:BY:40:GLU:H	1.65	0.61
46:BZ:23:LYS:HA	46:BZ:23:LYS:HZ2	1.64	0.61
52:B5:51:TYR:N	52:B5:55:ARG:HD3	2.15	0.61
56:B9:35:ARG:HD3	57:BA:2742:C:OP1	2.00	0.61
1:Ab:183:PRO:HA	1:Ab:198:ASP:OD1	2.01	0.61
8:Ai:33:PHE:CZ	8:Ai:47:LEU:HD11	2.35	0.61
13:An:45:ARG:NH2	22:Aa:1060:C:H5'	2.16	0.61
21:Ay:5:LEU:HD12	21:Ay:6:ASP:H	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:Ay:38:ARG:HH12	21:Ay:68:ASP:CG	2.08	0.61
32:AI:84:GLY:CA	32:AI:144:VAL:HG13	2.30	0.61
34:AN:2:LYS:HZ2	41:AU:95:LEU:HD21	1.63	0.61
36:AP:6:LEU:HD23	36:AP:6:LEU:H	1.65	0.61
37:AQ:137:TYR:N	37:AQ:137:TYR:CD2	2.68	0.61
42:AV:40:LEU:HD22	42:AV:46:VAL:HA	1.81	0.61
42:AV:65:GLY:HA3	42:AV:91:TYR:HE1	1.65	0.61
42:AV:76:LYS:HB2	42:AV:81:TYR:HB3	1.83	0.61
43:AW:5:ALA:HB1	43:AW:50:VAL:HG22	1.82	0.61
46:AZ:42:VAL:HG13	46:AZ:43:GLU:H	1.66	0.61
50:A3:8:LEU:HD11	50:A3:31:LEU:HD23	1.81	0.61
52:A5:54:GLY:H	52:A5:55:ARG:HH21	1.46	0.61
56:A9:35:ARG:HD3	57:AA:2742:C:OP1	2.00	0.61
1:Bb:61:LEU:HD23	1:Bb:68:ILE:HD11	1.81	0.61
2:Bc:6:HIS:CD2	2:Bc:7:PRO:HD2	2.35	0.61
7:Bh:29:SER:HB3	7:Bh:32:LYS:HD2	1.81	0.61
22:Ba:59:A:C5’	22:Ba:60:A:H5”	2.31	0.61
27:BD:72:LYS:NZ	27:BD:75:ILE:HD12	2.16	0.61
30:BG:40:ASN:ND2	30:BG:91:ARG:HB2	2.11	0.61
32:BI:58:LEU:O	32:BI:58:LEU:HD23	2.00	0.61
36:BP:24:GLY:HA2	57:BA:811:U:OP2	2.00	0.61
36:BP:64:LYS:HB3	55:B8:25:MET:CG	2.15	0.61
39:BS:106:ARG:C	39:BS:106:ARG:HH11	2.08	0.61
43:BW:50:VAL:HG13	43:BW:105:VAL:HG21	1.82	0.61
46:BZ:134:PRO:C	46:BZ:135:GLU:HG2	2.26	0.61
53:B6:42:TRP:HA	53:B6:42:TRP:CE3	2.35	0.61
57:BA:914:C:C2’	57:BA:915:C:H5’	2.25	0.61
57:BA:1270:C:H5”	57:BA:1271:G:C5’	2.30	0.61
57:BA:1887:C:C3’	57:BA:1888:G:H5”	2.29	0.61
57:BA:2491:U:H4’	57:BA:2570:G:OP1	1.99	0.61
2:Ac:70:VAL:CG1	2:Ac:71:ALA:H	2.14	0.61
7:Ah:29:SER:HB3	7:Ah:32:LYS:HD2	1.82	0.61
9:Aj:82:ILE:HG23	9:Aj:86:MET:HE2	1.80	0.61
22:Aa:985:C:H2’	22:Aa:986:A:C8	2.36	0.61
29:AF:4:VAL:HG22	29:AF:19:GLU:OE1	2.00	0.61
37:AQ:58:PHE:HD1	37:AQ:58:PHE:O	1.84	0.61
38:AR:45:ARG:HG3	38:AR:95:THR:CG2	2.30	0.61
40:AT:35:LYS:HZ3	40:AT:41:ARG:HH21	1.47	0.61
43:AW:12:ILE:HD13	43:AW:17:VAL:HG22	1.82	0.61
46:AZ:108:PRO:HB3	46:AZ:144:LEU:HB2	1.81	0.61
48:A1:67:ILE:N	48:A1:68:PRO:HD2	2.16	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:A4:22:ILE:HD12	51:A4:22:ILE:N	2.16	0.61
51:A4:37:SER:O	51:A4:38:LYS:CB	2.48	0.61
55:A8:33:ASN:CA	55:A8:36:LYS:HD2	2.31	0.61
57:AA:654(S):G:O5'	57:AA:654(T):C:H5"	2.00	0.61
8:Bi:112:LYS:C	8:Bi:112:LYS:HD3	2.25	0.61
29:BF:40:GLN:OE1	29:BF:183:VAL:HG13	2.01	0.61
29:BF:167:ALA:HB1	29:BF:173:VAL:HG11	1.83	0.61
32:BI:4:ILE:HD11	32:BI:44:LEU:HD12	1.82	0.61
32:BI:84:GLY:CA	32:BI:144:VAL:HG13	2.30	0.61
36:BP:23:PRO:HB2	36:BP:33:ARG:NE	2.16	0.61
47:B0:25:ARG:HD2	47:B0:29:GLN:HE22	1.64	0.61
51:B4:1:MET:C	51:B4:2:LYS:HD2	2.26	0.61
55:B8:33:ASN:CA	55:B8:36:LYS:HD2	2.30	0.61
57:BA:70:G:H2'	57:BA:113:G:O2'	2.00	0.61
57:BA:404:C:H4'	57:BA:405:U:H5'	1.83	0.61
57:BA:1209:G:H21	57:BA:1210:A:H62	1.49	0.61
57:BA:1999:C:H4'	57:BA:2723:C:O2	2.01	0.61
2:Ac:131:ARG:NH2	2:Ac:168:ALA:HB2	2.16	0.61
5:Af:16:GLN:CD	5:Af:16:GLN:H	2.08	0.61
12:Am:69:GLU:CA	12:Am:71:ARG:H	2.07	0.61
12:Am:69:GLU:O	12:Am:72:ALA:HB3	2.01	0.61
21:Ay:49:ASP:O	21:Ay:65:GLN:HA	2.01	0.61
25:Aw:19:G:H1	25:Aw:56:C:H42	1.49	0.61
25:Aw:70:G:C2'	25:Aw:71:C:H5'	2.31	0.61
27:AD:30:GLU:HB3	27:AD:35:LYS:HG3	1.81	0.61
27:AD:70:TRP:CZ3	27:AD:146:GLU:OE2	2.53	0.61
29:AF:22:ALA:C	29:AF:24:LEU:H	2.08	0.61
29:AF:65:TRP:HZ3	29:AF:73:ALA:O	1.84	0.61
30:AG:86:MET:HG2	30:AG:86:MET:O	2.01	0.61
32:AI:103:ARG:O	32:AI:105:HIS:N	2.34	0.61
39:AS:106:ARG:C	39:AS:106:ARG:HH11	2.08	0.61
43:AW:6:ILE:HG12	43:AW:104:THR:OG1	1.99	0.61
46:AZ:40:ASP:HB3	46:AZ:43:GLU:OE1	2.01	0.61
3:Bd:128:VAL:O	3:Bd:130:GLY:N	2.33	0.61
12:Bm:8:GLU:C	12:Bm:9:ILE:HD12	2.26	0.61
12:Bm:99:ARG:HB2	12:Bm:101:GLN:HE21	1.65	0.61
12:Bm:115:LYS:N	12:Bm:115:LYS:CD	2.64	0.61
28:BE:61:ARG:CD	57:BA:2787:C:H1'	2.31	0.61
28:BE:131:ALA:HB3	57:BA:2579:C:O2'	2.00	0.61
31:BH:86:GLU:CB	31:BH:132:ARG:HB3	2.30	0.61
36:BP:35:HIS:CE1	57:BA:941:A:H4'	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BQ:35:VAL:CG1	37:BQ:130:LYS:HE2	2.30	0.61
40:BT:35:LYS:HZ3	40:BT:41:ARG:HH21	1.48	0.61
40:BT:82:LEU:HD12	40:BT:82:LEU:N	2.10	0.61
44:BX:55:ASN:HB2	44:BX:80:ILE:HD13	1.83	0.61
46:BZ:157:LEU:HD23	46:BZ:157:LEU:N	2.12	0.61
57:BA:1281:G:H5'	57:BA:1281:G:C8	2.32	0.61
12:Am:82:MET:HG2	12:Am:82:MET:O	2.00	0.61
14:Ao:26:GLU:OE2	14:Ao:77:ARG:HB2	2.01	0.61
22:Aa:59:A:C5'	22:Aa:60:A:H5"	2.31	0.61
22:Aa:1116:C:C3'	22:Aa:1117:G:H5"	2.31	0.61
22:Aa:1412:C:H2'	22:Aa:1413:A:C8	2.36	0.61
30:AG:161:THR:HG22	30:AG:163:ALA:N	2.13	0.61
43:AW:9:TYR:H	43:AW:102:HIS:HD2	1.45	0.61
47:A0:51:VAL:CG2	47:A0:81:VAL:HG23	2.31	0.61
47:A0:84:LEU:H	47:A0:84:LEU:HD12	1.66	0.61
52:A5:51:TYR:N	52:A5:55:ARG:HD3	2.16	0.61
57:AA:404:C:H4'	57:AA:405:U:H5'	1.83	0.61
4:Be:92:LYS:HB3	4:Be:119:LEU:HB2	1.83	0.61
4:Be:107:ARG:O	4:Be:108:ALA:C	2.44	0.61
7:Bh:89:PRO:HG2	22:Ba:878:G:C5'	2.31	0.61
9:Bj:9:ARG:HG2	9:Bj:69:ASN:OD1	2.00	0.61
17:Br:79:LEU:CD2	17:Br:80:PRO:HD2	2.30	0.61
32:BI:87:LYS:HE3	32:BI:121:LYS:HG3	1.83	0.61
35:BO:9:GLU:O	35:BO:83:ALA:HA	1.99	0.61
39:BS:95:HIS:CG	39:BS:96:GLY:H	2.19	0.61
42:BV:39:LEU:O	42:BV:40:LEU:HB2	2.00	0.61
51:B4:22:ILE:HD12	51:B4:22:ILE:N	2.16	0.61
57:BA:852:G:O2'	57:BA:853:G:H5'	2.00	0.61
57:BA:1678:G:N2	57:BA:1989:G:N2	2.46	0.61
2:Ac:20:SER:CB	2:Ac:40:ARG:HH22	2.11	0.61
2:Ac:64:VAL:CG1	2:Ac:66:VAL:HG23	2.30	0.61
18:As:63:THR:HG22	18:As:66:MET:SD	2.41	0.61
22:Aa:405:U:H5"	22:Aa:406:G:O4'	2.00	0.61
22:Aa:977:A:C2'	22:Aa:978:A:H5'	2.31	0.61
26:AC:23:ILE:HG22	26:AC:187:ALA:HA	1.83	0.61
29:AF:167:ALA:HB1	29:AF:173:VAL:HG11	1.81	0.61
30:AG:58:GLN:HG3	30:AG:59:GLU:N	2.16	0.61
53:A6:42:TRP:HA	53:A6:42:TRP:CE3	2.35	0.61
57:AA:1270:C:H5"	57:AA:1271:G:H5'	1.83	0.61
57:AA:1270:C:H5"	57:AA:1271:G:O5'	2.00	0.61
1:Bb:101:MET:HE2	1:Bb:108:ILE:HG21	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Bc:134:ILE:HD11	2:Bc:153:VAL:HG23	1.83	0.61
8:Bi:55:ALA:HB1	8:Bi:58:HIS:HD2	1.65	0.61
10:Bk:32:ILE:CG2	10:Bk:77:MET:HE3	2.31	0.61
22:Ba:80:G:H3'	22:Ba:81:U:C5'	2.29	0.61
29:BF:164:ARG:HG3	29:BF:175:THR:OG1	2.01	0.61
34:BN:14:VAL:HG13	34:BN:137:LYS:HG3	1.83	0.61
36:BP:33:ARG:HD3	57:BA:587:C:C4	2.36	0.61
39:BS:44:LYS:O	39:BS:46:VAL:HG23	2.00	0.61
39:BS:63:THR:HG23	58:BB:50:G:OP1	2.01	0.61
43:BW:64:MET:O	43:BW:65:LEU:HB3	2.01	0.61
48:B1:67:ILE:N	48:B1:68:PRO:HD2	2.15	0.61
50:B3:6:VAL:HB	50:B3:54:VAL:HG11	1.81	0.61
53:B6:48:VAL:O	53:B6:49:HIS:HB2	2.01	0.61
55:B8:14:VAL:HG21	55:B8:22:VAL:CG1	2.31	0.61
57:BA:880:G:H1	57:BA:897:C:H42	1.47	0.61
57:BA:1882:C:H5'	57:BA:1883:G:OP2	2.00	0.61
4:Ae:8:GLU:N	4:Ae:34:VAL:HG23	2.16	0.61
11:Al:75:HIS:CD2	11:Al:77:LEU:H	2.19	0.61
21:Ay:8:ASP:HB2	21:Ay:74:PHE:HZ	1.64	0.61
22:Aa:148:G:O2'	22:Aa:149:A:H5'	2.01	0.61
22:Aa:176:C:H2'	22:Aa:177:C:H6	1.66	0.61
22:Aa:1172:C:H2'	22:Aa:1173:G:C8	2.36	0.61
22:Aa:1292:U:H2'	22:Aa:1293:G:C8	2.35	0.61
28:AE:61:ARG:CD	57:AA:2787:C:H1'	2.31	0.61
32:AI:123:LEU:HD23	32:AI:124:GLY:H	1.64	0.61
42:AV:39:LEU:HD12	42:AV:47:VAL:HG11	1.83	0.61
44:AX:57:LEU:HD21	44:AX:78:LYS:HE2	1.82	0.61
57:AA:2645:G:H3'	57:AA:2646:C:C5'	2.31	0.61
57:AA:2761:G:H3'	57:AA:2762:G:H5"	1.82	0.61
58:AB:8:U:H3	58:AB:113:G:H1	1.49	0.61
58:AB:38:C:O2	58:AB:48:A:H1'	2.01	0.61
4:Be:75:THR:HG23	4:Be:76:ILE:N	2.16	0.61
7:Bh:63:LEU:HD22	7:Bh:63:LEU:H	1.66	0.61
12:Bm:65:LYS:CB	12:Bm:66:LEU:HG	2.30	0.61
22:Ba:1194:U:H2'	22:Ba:1195:C:C6	2.36	0.61
27:BD:43:ARG:HD2	27:BD:44:ASN:OD1	2.00	0.61
31:BH:97:ARG:HG2	31:BH:98:LEU:H	1.66	0.61
35:BO:88:ASN:ND2	35:BO:90:GLN:H	1.97	0.61
36:BP:105:LEU:HG	57:BA:626:U:N3	2.15	0.61
37:BQ:16:ARG:HH22	57:BA:952:G:P	2.23	0.61
37:BQ:58:PHE:HD1	37:BQ:58:PHE:O	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BR:63:ARG:NE	57:BA:1453:U:H5'	2.15	0.61
41:BU:13:LYS:HD3	57:BA:1227:G:OP1	2.01	0.61
41:BU:92:ARG:CZ	42:BV:11:GLN:H	2.13	0.61
45:BY:13:VAL:HG21	45:BY:72:VAL:HB	1.82	0.61
57:BA:1280:G:C2'	57:BA:1281:G:H5"	2.30	0.61
3:Ad:33:MET:O	3:Ad:37:PRO:HG3	2.00	0.60
21:Ay:83:ARG:N	21:Ay:83:ARG:HD2	2.16	0.60
22:Aa:403:C:H2'	22:Aa:404:U:H6	1.66	0.60
28:AE:111:ARG:CZ	38:AR:2:ARG:HH21	2.13	0.60
46:AZ:5:LEU:HD12	46:AZ:47:VAL:HG21	1.83	0.60
48:A1:50:ARG:HG2	48:A1:59:THR:CG2	2.25	0.60
57:AA:1636:C:H2'	57:AA:1637:A:C8	2.36	0.60
4:Be:91:LEU:HD13	4:Be:120:THR:HG22	1.83	0.60
12:Bm:109:THR:OG1	22:Ba:947:G:O3'	2.19	0.60
19:Bt:56:MET:HG3	19:Bt:84:LEU:CD1	2.30	0.60
19:Bt:75:ASN:N	19:Bt:75:ASN:ND2	2.47	0.60
21:By:49:ASP:O	21:By:65:GLN:HA	2.01	0.60
22:Ba:862:C:O2'	22:Ba:863:U:H5'	2.00	0.60
22:Ba:1222:G:O2'	22:Ba:1223:C:H5'	2.00	0.60
28:BE:33:VAL:HG22	28:BE:33:VAL:O	2.01	0.60
29:BF:32:LEU:CD1	29:BF:105:VAL:HG13	2.30	0.60
30:BG:42:GLY:O	30:BG:44:GLY:N	2.33	0.60
37:BQ:84:GLY:O	37:BQ:85:LYS:HB2	2.01	0.60
40:BT:83:ILE:HG13	40:BT:84:GLN:HG2	1.82	0.60
41:BU:59:ARG:HD3	57:BA:1009:A:C4'	2.32	0.60
47:B0:73:GLY:C	47:B0:75:LEU:H	2.09	0.60
48:B1:45:ASN:CB	57:BA:2230:G:H1'	2.31	0.60
51:B4:37:SER:O	51:B4:38:LYS:CB	2.49	0.60
55:B8:39:LYS:O	55:B8:43:GLN:HG3	2.01	0.60
57:BA:1210:A:H5"	57:BA:1212:G:O4'	2.01	0.60
57:BA:1412:A:H2'	57:BA:1413:G:H8	1.66	0.60
3:Ad:22:LYS:HB2	3:Ad:26:CYS:SG	2.41	0.60
3:Ad:170:VAL:HG12	3:Ad:174:LEU:HB2	1.83	0.60
5:Af:7:ASN:O	5:Af:8:ILE:HG13	2.01	0.60
9:Aj:80:LYS:NZ	9:Aj:80:LYS:HB3	2.17	0.60
22:Aa:1342:C:O2'	22:Aa:1343:G:H5'	2.02	0.60
27:AD:186:HIS:HD2	27:AD:188:GLU:HB2	1.65	0.60
30:AG:110:ALA:O	30:AG:111:LEU:C	2.43	0.60
32:AI:109:ILE:HG21	32:AI:114:LEU:HD11	1.83	0.60
35:AO:22:ILE:HD12	57:AA:1952:A:C5	2.36	0.60
36:AP:108:LYS:C	36:AP:110:TYR:N	2.59	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:AQ:1:MET:O	37:AQ:2:LEU:HB2	2.01	0.60
41:AU:102:GLU:HG3	42:AV:2:PHE:HE1	1.66	0.60
57:AA:997:G:O2'	57:AA:998:C:H5'	2.01	0.60
3:Bd:22:LYS:HB2	3:Bd:26:CYS:CB	2.31	0.60
3:Bd:120:LEU:HD23	3:Bd:125:HIS:HD2	1.66	0.60
4:Be:150:ARG:HB2	4:Be:150:ARG:NH1	2.16	0.60
9:Bj:61:GLU:OE1	13:Bn:58:LYS:HE2	2.02	0.60
11:Bl:87:GLY:HA2	11:Bl:98:TYR:HA	1.83	0.60
17:Br:73:ALA:CB	17:Br:79:LEU:HD12	2.31	0.60
18:Bs:50:ALA:HB1	18:Bs:57:HIS:HB3	1.83	0.60
30:BG:87:PRO:O	30:BG:88:ILE:HD13	2.01	0.60
32:BI:115:ALA:CB	32:BI:128:LEU:HB3	2.28	0.60
40:BT:5:ALA:HB2	57:BA:2875:C:C4'	2.30	0.60
55:B8:62:LEU:N	55:B8:63:PRO:HD2	2.16	0.60
57:BA:2126:A:H4'	57:BA:2127:G:O5'	2.01	0.60
1:Ab:20:GLU:HB2	1:Ab:190:THR:OG1	2.01	0.60
1:Ab:97:TRP:HH2	1:Ab:176:GLU:HG3	1.67	0.60
3:Ad:120:LEU:HB3	3:Ad:126:ILE:HD11	1.83	0.60
4:Ae:75:THR:HG23	4:Ae:76:ILE:N	2.16	0.60
10:Ak:116:HIS:O	10:Ak:117:ASN:HB2	2.01	0.60
11:Al:34:ARG:O	11:Al:61:THR:HG23	2.01	0.60
12:Am:69:GLU:N	12:Am:71:ARG:N	2.42	0.60
19:At:10:LEU:C	19:At:10:LEU:HD12	2.27	0.60
19:At:10:LEU:O	19:At:12:ALA:N	2.33	0.60
21:Ay:14:GLU:OE2	21:Ay:14:GLU:CA	2.32	0.60
22:Aa:634:C:H2'	22:Aa:635:G:H8	1.66	0.60
22:Aa:1030(D):A:H2'	22:Aa:1031:G:H5'	1.83	0.60
26:AC:6:LYS:HA	26:AC:9:ARG:HB2	1.81	0.60
28:AE:144:ARG:HD2	57:AA:2572:A:N7	2.16	0.60
29:AF:181:LEU:HD11	29:AF:186:ILE:HD11	1.83	0.60
33:AJ:6:ASN:O	57:AA:1046:A:H5'	2.02	0.60
36:AP:58:THR:O	36:AP:58:THR:HG22	2.00	0.60
36:AP:107:LYS:C	36:AP:109:GLY:H	2.09	0.60
37:AQ:134:ARG:NH2	46:AZ:122:ARG:HE	2.00	0.60
40:AT:116:ALA:HB1	40:AT:121:ILE:HD11	1.82	0.60
46:AZ:153:SER:C	46:AZ:155:LEU:H	2.08	0.60
57:AA:70:G:H21	57:AA:71:A:H62	1.49	0.60
57:AA:1412:A:H2'	57:AA:1413:G:H8	1.66	0.60
57:AA:1980:G:O2'	57:AA:1982:C:OP2	2.19	0.60
57:AA:2126:A:H4'	57:AA:2127:G:O5'	2.01	0.60
58:AB:40:U:O2	58:AB:43:C:H5"	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bb:145:LEU:CD1	1:Bb:149:LEU:HD12	2.31	0.60
13:Bn:37:PHE:HE1	13:Bn:53:LEU:HD22	1.66	0.60
21:By:78:VAL:O	21:By:78:VAL:HG13	2.01	0.60
27:BD:30:GLU:CD	27:BD:63:ARG:HE	2.09	0.60
28:BE:69:LYS:HE3	28:BE:90:THR:OG1	2.01	0.60
31:BH:154:PRO:HB3	31:BH:163:TYR:CZ	2.36	0.60
32:BI:76:THR:HG21	32:BI:139:GLN:HE22	1.66	0.60
36:BP:101:VAL:HG12	36:BP:107:LYS:H	1.67	0.60
52:B5:54:GLY:H	52:B5:55:ARG:HH21	1.48	0.60
57:BA:214:G:H1'	57:BA:216:A:O2'	2.02	0.60
57:BA:1495:A:N3	57:BA:1496:A:C2	2.69	0.60
57:BA:2147:G:H2'	57:BA:2148:G:C4'	2.32	0.60
57:BA:2376:A:H2'	57:BA:2377:A:O4'	2.01	0.60
58:BB:38:C:O2	58:BB:48:A:H1'	2.01	0.60
1:Ab:17:PHE:HB2	1:Ab:44:LEU:HD11	1.82	0.60
21:Ay:82:GLU:HG3	23:Ax:21:OMG:O6	2.02	0.60
22:Aa:447:G:H2'	22:Aa:485:G:N2	2.15	0.60
28:AE:57:LYS:C	28:AE:59:VAL:H	2.09	0.60
29:AF:20:LEU:HD12	29:AF:199:TRP:CZ3	2.36	0.60
33:AJ:88:ALA:C	33:AJ:90:ALA:H	2.10	0.60
34:AN:111:PRO:HD2	57:AA:558:G:P	2.41	0.60
35:AO:113:LYS:O	35:AO:117:LEU:HB2	2.02	0.60
57:AA:1319:G:O2'	57:AA:1320:C:H5'	2.01	0.60
57:AA:1495:A:N3	57:AA:1496:A:C2	2.69	0.60
58:AB:74:U:H2'	58:AB:75:G:O4'	2.01	0.60
1:Bb:183:PRO:HA	1:Bb:198:ASP:OD1	2.02	0.60
7:Bh:6:ILE:H	7:Bh:6:ILE:HD12	1.67	0.60
9:Bj:55:LYS:HZ2	22:Ba:963:G:N2	1.99	0.60
11:Bl:6:THR:H	11:Bl:9:GLN:NE2	1.97	0.60
12:Bm:45:VAL:O	12:Bm:48:LEU:HD22	2.01	0.60
22:Ba:1030(D):A:H2'	22:Ba:1031:G:H5'	1.83	0.60
22:Ba:1142:G:H2'	22:Ba:1143:G:O4'	2.02	0.60
26:BC:23:ILE:HG22	26:BC:187:ALA:HA	1.82	0.60
27:BD:134:ARG:HG3	27:BD:135:PHE:CD2	2.37	0.60
31:BH:144:VAL:O	31:BH:148:ILE:HG12	2.00	0.60
34:BN:73:THR:HG23	34:BN:82:LEU:CD1	2.30	0.60
37:BQ:109:VAL:HG12	37:BQ:113:GLN:HB2	1.83	0.60
40:BT:30:VAL:HG21	40:BT:84:GLN:H	1.66	0.60
53:B6:15:GLU:HG2	53:B6:16:CYS:O	2.01	0.60
57:BA:141:A:H8	57:BA:1408:C:O2'	1.84	0.60
3:Ad:120:LEU:HD23	3:Ad:125:HIS:HD2	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:Ag:79:ARG:HD3	6:Ag:82:GLY:H	1.65	0.60
22:Aa:474:G:H2'	22:Aa:475:G:H8	1.66	0.60
22:Aa:763:G:H2'	22:Aa:764:C:H6	1.66	0.60
30:AG:53:LEU:HD22	30:AG:53:LEU:N	2.16	0.60
30:AG:113:ARG:HA	30:AG:113:ARG:HE	1.64	0.60
31:AH:7:LEU:HG	31:AH:69:ARG:NH1	2.16	0.60
35:AO:35:VAL:HG11	35:AO:103:ALA:HB3	1.84	0.60
36:AP:123:LEU:HD12	36:AP:125:VAL:HG12	1.83	0.60
42:AV:81:TYR:CE2	57:AA:1187:G:H5"	2.36	0.60
49:A2:2:LYS:HG2	57:AA:97:C:C5'	2.31	0.60
57:AA:203:C:H3'	57:AA:204:A:H5"	1.84	0.60
57:AA:527:C:OP2	57:AA:2779:U:H5	1.84	0.60
57:AA:860:U:C5	57:AA:917:A:N7	2.66	0.60
57:AA:1403:C:H5"	57:AA:1471:A:C1'	2.31	0.60
57:AA:1590:U:C3'	57:AA:1591:G:H5"	2.32	0.60
57:AA:1750:G:O2'	57:AA:1751:C:H5'	2.01	0.60
1:Bb:71:VAL:CB	1:Bb:164:VAL:HG12	2.28	0.60
9:Bj:16:LEU:HD13	9:Bj:16:LEU:O	2.01	0.60
11:Bl:89:ARG:HA	11:Bl:97:ARG:HA	1.82	0.60
19:Bt:10:LEU:HD12	19:Bt:10:LEU:C	2.26	0.60
22:Ba:370:C:H2'	22:Ba:371:G:H8	1.66	0.60
22:Ba:1005:A:C2'	22:Ba:1006:C:H5'	2.32	0.60
22:Ba:1437:C:H2'	22:Ba:1438:G:H8	1.64	0.60
29:BF:167:ALA:O	29:BF:168:ARG:HB3	2.02	0.60
36:BP:123:LEU:HD12	36:BP:125:VAL:HG12	1.81	0.60
41:BU:25:TRP:CZ3	57:BA:17:G:H4'	2.36	0.60
48:B1:56:GLN:HE22	48:B1:85:LEU:HD22	1.65	0.60
55:B8:51:ALA:HA	55:B8:54:GLU:OE2	2.01	0.60
57:BA:621:A:H2'	57:BA:622:G:H5'	1.83	0.60
57:BA:1278:A:O2'	57:BA:1279:G:H5'	2.02	0.60
57:BA:1718:G:O2'	57:BA:1719:G:H5'	2.01	0.60
58:BB:74:U:H2'	58:BB:75:G:O4'	2.01	0.60
9:Aj:55:LYS:HZ2	22:Aa:963:G:N2	1.99	0.60
12:Am:69:GLU:O	12:Am:69:GLU:CD	2.45	0.60
18:As:24:ALA:O	18:As:25:LYS:HB2	2.00	0.60
18:As:31:ILE:CG2	18:As:49:ILE:HA	2.31	0.60
19:At:32:ALA:O	19:At:36:LEU:HB2	2.01	0.60
19:At:103:GLY:H	22:Aa:192:U:H4'	1.66	0.60
19:At:104:LEU:HD23	19:At:105:SER:N	2.17	0.60
22:Aa:97:G:O2'	22:Aa:98:G:H5"	2.01	0.60
22:Aa:392:G:H2'	22:Aa:393:A:H8	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AD:3:VAL:CG1	27:AD:17:THR:HB	2.32	0.60
28:AE:69:LYS:HE3	28:AE:90:THR:OG1	2.02	0.60
34:AN:67:LEU:HB3	34:AN:88:GLU:HG2	1.84	0.60
37:AQ:35:VAL:CG1	37:AQ:130:LYS:HE2	2.31	0.60
42:AV:39:LEU:HA	42:AV:47:VAL:HG13	1.83	0.60
48:A1:8:SER:HB3	48:A1:66:HIS:CD2	2.37	0.60
57:AA:1718:G:O2'	57:AA:1719:G:H5'	2.02	0.60
57:AA:2223:G:H2'	57:AA:2224:G:H5'	1.83	0.60
57:AA:2315:G:H2'	57:AA:2316:C:C6	2.37	0.60
58:AB:7:G:H3'	58:AB:8:U:C5'	2.26	0.60
1:Bb:25:ASN:O	1:Bb:27:LYS:N	2.34	0.60
4:Be:31:LEU:HD23	4:Be:45:PHE:HB2	1.83	0.60
10:Bk:26:ASN:ND2	22:Ba:692:U:H5	1.96	0.60
19:Bt:32:ALA:O	19:Bt:36:LEU:HB2	2.01	0.60
22:Ba:59:A:H1'	22:Ba:354:G:N2	2.16	0.60
22:Ba:1172:C:H2'	22:Ba:1173:G:C8	2.36	0.60
27:BD:246:PRO:HD3	57:BA:1902:C:H5'	1.82	0.60
34:BN:46:VAL:O	34:BN:47:ALA:HB3	1.99	0.60
36:BP:95:VAL:CG2	36:BP:125:VAL:HB	2.31	0.60
39:BS:89:ARG:NH1	39:BS:92:TYR:HA	2.16	0.60
40:BT:38:ASN:HD22	40:BT:39:ARG:N	1.99	0.60
47:B0:27:GLU:OE2	57:BA:856:C:H4'	2.02	0.60
57:BA:527:C:OP2	57:BA:2779:U:H5	1.85	0.60
57:BA:1403:C:H5"	57:BA:1471:A:C1'	2.31	0.60
1:Ab:114:ARG:O	1:Ab:118:LEU:HG	2.01	0.60
4:Ae:31:LEU:CD2	4:Ae:43:LEU:HD11	2.31	0.60
4:Ae:91:LEU:HD13	4:Ae:120:THR:HG22	1.83	0.60
4:Ae:135:THR:O	4:Ae:138:ALA:HB3	2.00	0.60
6:Ag:113:GLU:CB	6:Ag:119:ARG:HG2	2.24	0.60
17:Ar:44:LEU:HD12	17:Ar:44:LEU:N	2.16	0.60
28:AE:23:VAL:HA	28:AE:186:GLY:H	1.65	0.60
34:AN:1:MET:HG2	34:AN:2:LYS:H	1.66	0.60
34:AN:126:PRO:O	34:AN:127:ASP:HB2	2.00	0.60
36:AP:101:VAL:HG12	36:AP:107:LYS:N	2.16	0.60
36:AP:105:LEU:HG	57:AA:626:U:N3	2.16	0.60
45:AY:27:VAL:C	45:AY:28:LYS:HG2	2.24	0.60
46:AZ:30:ASN:O	46:AZ:32:HIS:N	2.34	0.60
49:A2:32:LEU:HD22	49:A2:36:ARG:HH11	1.67	0.60
52:A5:33:CYS:SG	52:A5:40:LYS:HE3	2.41	0.60
57:AA:158:U:H3'	57:AA:158:U:O2	2.02	0.60
57:AA:581:C:H2'	57:AA:582:G:H8	1.63	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:AA:1209:G:H21	57:AA:1210:A:H62	1.48	0.60
1:Bb:29:ALA:O	1:Bb:32:ILE:HG22	2.02	0.60
9:Bj:16:LEU:HD23	9:Bj:94:VAL:HG13	1.84	0.60
11:Bl:60:LEU:HD21	11:Bl:66:VAL:HG23	1.83	0.60
15:Bp:53:VAL:HG12	15:Bp:79:VAL:HG22	1.84	0.60
16:Bq:45:HIS:HB2	16:Bq:65:ILE:CD1	2.32	0.60
22:Ba:358:U:H2'	22:Ba:359:U:C6	2.36	0.60
26:BC:7:ARG:HD3	57:BA:2128:C:H5'	1.84	0.60
30:BG:63:ILE:HD12	30:BG:141:PHE:CG	2.36	0.60
32:BI:107:VAL:O	32:BI:109:ILE:HD11	2.01	0.60
36:BP:41:ARG:HH12	36:BP:45:LEU:HD12	1.66	0.60
45:BY:2:ARG:HG3	57:BA:105:C:O2'	2.02	0.60
49:B2:16:LEU:HD22	49:B2:20:GLU:HB3	1.84	0.60
52:B5:51:TYR:H	52:B5:55:ARG:CD	2.13	0.60
57:BA:1510:G:O2'	57:BA:1511:C:H5'	2.01	0.60
2:Ac:134:ILE:HD11	2:Ac:153:VAL:CG2	2.32	0.60
4:Ae:107:ARG:O	4:Ae:108:ALA:C	2.45	0.60
13:An:37:PHE:HE1	13:An:53:LEU:HD22	1.67	0.60
21:Ay:8:ASP:HB2	21:Ay:74:PHE:CE2	2.37	0.60
21:Ay:47:MET:O	21:Ay:48:PRO:O	2.20	0.60
22:Aa:545:C:O2'	22:Aa:546:G:H5'	2.02	0.60
22:Aa:1081:G:O2'	22:Aa:1082:G:H5'	2.02	0.60
22:Aa:1402:C:H2'	22:Aa:1403:C:O4'	2.02	0.60
27:AD:30:GLU:HG3	27:AD:63:ARG:NE	2.17	0.60
36:AP:38:GLN:CD	57:AA:943:U:OP2	2.44	0.60
39:AS:29:PHE:HE1	58:AB:6:C:HO2'	0.73	0.60
39:AS:90:GLY:C	39:AS:92:TYR:H	2.10	0.60
42:AV:19:LYS:HZ3	42:AV:20:LEU:H	1.44	0.60
42:AV:87:HIS:NE2	42:AV:89:GLN:HG2	2.17	0.60
52:A5:3:LYS:NZ	57:AA:2614:A:H5'	2.16	0.60
53:A6:15:GLU:HG2	53:A6:16:CYS:O	2.01	0.60
57:AA:78:A:H2'	57:AA:79:G:H8	1.67	0.60
57:AA:1642:G:O2'	57:AA:1643:G:H5'	2.01	0.60
57:AA:2061:G:H5"	57:AA:2503:A:C2	2.36	0.60
3:Bd:79:PHE:CD1	3:Bd:207:TYR:HD1	2.19	0.60
10:Bk:32:ILE:HG22	10:Bk:77:MET:HE3	1.83	0.60
22:Ba:1152:A:H2'	22:Ba:1153:C:H6	1.67	0.60
22:Ba:1392:G:O2'	22:Ba:1393:U:H5'	2.02	0.60
27:BD:91:ARG:HH11	27:BD:91:ARG:HG2	1.67	0.60
27:BD:132:PRO:HG3	27:BD:190:TYR:CE1	2.37	0.60
27:BD:248:SER:HB2	27:BD:249:PRO:HD2	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BO:113:LYS:O	35:BO:117:LEU:HB2	2.01	0.60
40:BT:29:ARG:CB	40:BT:85:LYS:HA	2.32	0.60
45:BY:31:LEU:HD23	45:BY:36:ALA:O	2.01	0.60
45:BY:42:VAL:HB	45:BY:65:ALA:HB3	1.82	0.60
46:BZ:94:GLU:HB3	46:BZ:95:PRO:HD2	1.83	0.60
49:B2:3:LEU:HD21	49:B2:7:ARG:NH1	2.16	0.60
57:BA:1779:U:C5	57:BA:1784:A:N7	2.63	0.60
57:BA:1910:G:O2'	57:BA:1911:U:H5'	2.01	0.60
57:BA:2322:A:H2'	57:BA:2323:G:O4'	2.02	0.60
57:BA:2657:A:H2'	57:BA:2658:C:C5'	2.32	0.60
9:Aj:56:HIS:O	9:Aj:58:ASP:N	2.35	0.60
12:Am:8:GLU:C	12:Am:9:ILE:HD12	2.27	0.60
22:Aa:1352:C:H2'	22:Aa:1353:G:C8	2.37	0.60
27:AD:142:VAL:HG21	27:AD:191:ALA:HB1	1.82	0.60
29:AF:21:ALA:C	29:AF:23:ASP:H	2.09	0.60
30:AG:111:LEU:O	30:AG:112:PRO:C	2.45	0.60
40:AT:28:VAL:HB	40:AT:88:ILE:HG12	1.84	0.60
57:AA:639:U:H2'	57:AA:640:C:C6	2.36	0.60
57:AA:1910:G:O2'	57:AA:1911:U:H5'	2.01	0.60
57:AA:2666:C:H5'	57:AA:2667:C:OP2	2.02	0.60
5:Bf:46:ARG:HH22	17:Br:37:VAL:HG21	1.65	0.60
8:Bi:12:GLU:HG3	22:Ba:1370:G:C5'	2.32	0.60
12:Bm:66:LEU:H	12:Bm:70:LEU:HD13	1.65	0.60
22:Ba:1411:C:H2'	22:Ba:1412:C:H6	1.66	0.60
27:BD:3:VAL:CG1	27:BD:17:THR:HB	2.32	0.60
32:BI:94:ALA:HB1	32:BI:98:ALA:HB2	1.84	0.60
32:BI:113:ARG:HG2	32:BI:113:ARG:NH1	2.16	0.60
36:BP:6:LEU:HG	36:BP:9:ASN:CB	2.32	0.60
36:BP:107:LYS:C	36:BP:109:GLY:H	2.09	0.60
37:BQ:21:THR:O	37:BQ:23:GLY:N	2.35	0.60
42:BV:46:VAL:HG13	42:BV:47:VAL:N	2.15	0.60
42:BV:66:ARG:HH11	42:BV:66:ARG:HG2	1.66	0.60
43:BW:4:LYS:HA	43:BW:106:ILE:HG22	1.84	0.60
43:BW:64:MET:HE2	43:BW:109:GLU:HG3	1.84	0.60
57:BA:1192:G:O2'	57:BA:1193:G:H5'	2.01	0.60
57:BA:2524:G:H5'	57:BA:2524:G:C8	2.32	0.60
11:Al:89:ARG:HA	11:Al:97:ARG:HA	1.84	0.60
22:Aa:1248:A:H2'	22:Aa:1249:C:H5'	1.83	0.60
22:Aa:1374:A:H2'	22:Aa:1375:A:H8	1.66	0.60
28:AE:35:GLN:CG	28:AE:36:ARG:H	2.13	0.60
28:AE:111:ARG:HG3	38:AR:2:ARG:HG2	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:AG:145:THR:CG2	30:AG:148:MET:HB3	2.32	0.60
36:AP:84:ASN:HA	36:AP:115:LEU:O	2.01	0.60
51:A4:1:MET:C	51:A4:2:LYS:HD2	2.26	0.60
53:A6:11:LEU:HA	53:A6:54:ILE:O	2.01	0.60
53:A6:48:VAL:O	53:A6:49:HIS:HB2	2.01	0.60
57:AA:1210:A:H5"	57:AA:1212:G:O4'	2.01	0.60
57:AA:2223:G:C2'	57:AA:2224:G:H5'	2.32	0.60
58:AB:30:C:H2'	58:AB:31:C:O4'	2.02	0.60
1:Bb:170:GLU:O	1:Bb:174:VAL:HG23	2.02	0.60
2:Bc:70:VAL:O	2:Bc:106:VAL:HG23	2.02	0.60
2:Bc:113:ALA:HB3	2:Bc:114:PRO:HD3	1.83	0.60
3:Bd:150:GLU:HA	3:Bd:153:ARG:HD2	1.83	0.60
3:Bd:170:VAL:HG12	3:Bd:174:LEU:HB2	1.83	0.60
7:Bh:20:TYR:CE2	7:Bh:75:ARG:HD2	2.30	0.60
9:Bj:55:LYS:HE2	22:Ba:973:G:H1'	1.83	0.60
21:By:43:LYS:HE2	22:Ba:1493:A:O4'	2.02	0.60
27:BD:186:HIS:HD2	27:BD:188:GLU:HB2	1.67	0.60
30:BG:145:THR:OG1	30:BG:146:TYR:N	2.35	0.60
32:BI:129:THR:CG2	32:BI:130:TYR:N	2.64	0.60
35:BO:13:ASN:ND2	35:BO:97:ARG:HB2	2.17	0.60
40:BT:35:LYS:O	40:BT:36:GLU:HB3	2.00	0.60
41:BU:49:HIS:HD2	57:BA:534:U:O2'	1.85	0.60
48:B1:29:GLY:C	48:B1:31:GLY:H	2.10	0.60
53:B6:11:LEU:HA	53:B6:54:ILE:O	2.01	0.60
58:BB:7:G:H3'	58:BB:8:U:C5'	2.27	0.60
12:Am:45:VAL:O	12:Am:48:LEU:HD22	2.01	0.59
22:Aa:475:G:H2'	22:Aa:476:G:H8	1.67	0.59
22:Aa:1203:C:H2'	22:Aa:1204:A:H8	1.67	0.59
22:Aa:1323:G:H4'	22:Aa:1363:C:N3	2.17	0.59
30:AG:49:ASP:O	30:AG:50:ALA:HB3	2.02	0.59
30:AG:117:PHE:CG	30:AG:118:ARG:N	2.68	0.59
30:AG:123:ASN:HB2	30:AG:126:ASP:OD1	2.02	0.59
34:AN:46:VAL:O	34:AN:47:ALA:HB3	2.01	0.59
36:AP:33:ARG:NH2	57:AA:587:C:H2'	2.17	0.59
40:AT:23:ARG:NH2	57:AA:2849:U:O4	2.34	0.59
41:AU:95:LEU:HD12	42:AV:11:GLN:HB2	1.84	0.59
47:A0:42:GLY:HA3	57:AA:2331:G:O4'	2.01	0.59
53:A6:11:LEU:HD12	53:A6:26:ASN:HB2	1.84	0.59
57:AA:719:C:O2'	57:AA:720:C:H5'	2.02	0.59
4:Be:33:VAL:HG11	4:Be:109:ILE:HA	1.83	0.59
6:Bg:77:SER:HA	6:Bg:86:GLN:HA	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Bm:90:LEU:O	12:Bm:91:ARG:HB2	2.01	0.59
14:Bo:82:ILE:HG23	14:Bo:83:GLU:H	1.67	0.59
21:By:76:ILE:HG13	21:By:77:SER:N	2.17	0.59
22:Ba:797:C:O2'	22:Ba:798:G:H5'	2.01	0.59
22:Ba:977:A:C2'	22:Ba:978:A:H5'	2.31	0.59
27:BD:70:TRP:CZ3	27:BD:146:GLU:OE2	2.54	0.59
27:BD:142:VAL:HG21	27:BD:191:ALA:HB1	1.82	0.59
30:BG:6:ALA:HB3	30:BG:104:GLU:OE1	2.02	0.59
32:BI:118:LYS:HG2	32:BI:119:PRO:CD	2.27	0.59
35:BO:35:VAL:HG11	35:BO:103:ALA:HB3	1.84	0.59
39:BS:83:LYS:HE3	39:BS:105:ALA:CB	2.31	0.59
46:BZ:103:ARG:HD2	46:BZ:136:PHE:HD1	1.67	0.59
57:BA:271(F):C:H2'	57:BA:271(G):C:C6	2.37	0.59
57:BA:719:C:O2'	57:BA:720:C:H5'	2.02	0.59
57:BA:1339:G:N2	57:BA:1603:A:H1'	2.16	0.59
57:BA:2747:G:O6	57:BA:2755:C:H5"	2.02	0.59
3:Ad:150:GLU:HA	3:Ad:153:ARG:HD2	1.84	0.59
6:Ag:84:ASN:CG	25:Aw:33:U:H4'	2.27	0.59
22:Aa:370:C:H2'	22:Aa:371:G:H8	1.67	0.59
22:Aa:1005:A:C2'	22:Aa:1006:C:H5'	2.31	0.59
22:Aa:1497:G:C2'	22:Aa:1498:U:H5'	2.32	0.59
22:Aa:1504:G:OP1	22:Aa:1507:A:H4'	2.02	0.59
27:AD:134:ARG:HG3	27:AD:135:PHE:CD2	2.36	0.59
27:AD:186:HIS:CD2	27:AD:188:GLU:H	2.20	0.59
31:AH:7:LEU:HD23	31:AH:69:ARG:CD	2.32	0.59
31:AH:97:ARG:HG2	31:AH:98:LEU:H	1.67	0.59
32:AI:129:THR:HG23	32:AI:137:PRO:HA	1.84	0.59
35:AO:104:ARG:HE	40:AT:33:LYS:HD2	1.66	0.59
36:AP:99:LEU:HA	36:AP:102:ARG:HH22	1.67	0.59
40:AT:30:VAL:HG21	40:AT:84:GLN:H	1.67	0.59
45:AY:29:GLU:N	45:AY:29:GLU:OE1	2.35	0.59
45:AY:39:VAL:HG12	45:AY:40:GLU:H	1.67	0.59
8:Bi:79:LEU:HD11	8:Bi:83:ARG:HH21	1.67	0.59
8:Bi:85:LEU:HD13	8:Bi:92:TYR:CD2	2.36	0.59
8:Bi:103:THR:CG2	8:Bi:104:ARG:H	2.08	0.59
13:Bn:23:ARG:HD2	13:Bn:28:GLY:O	2.02	0.59
16:Bq:52:LYS:HG2	16:Bq:55:ASP:OD1	2.02	0.59
17:Br:44:LEU:HD12	17:Br:44:LEU:N	2.17	0.59
22:Ba:9:G:H2'	22:Ba:10:A:C8	2.36	0.59
22:Ba:179:A:H2'	22:Ba:180:U:C6	2.37	0.59
22:Ba:243:A:H4'	22:Ba:244:U:O5'	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BD:35:LYS:NZ	27:BD:36:PRO:HD3	2.17	0.59
28:BE:111:ARG:CZ	38:BR:2:ARG:HH21	2.15	0.59
30:BG:111:LEU:O	30:BG:112:PRO:C	2.44	0.59
30:BG:113:ARG:HA	30:BG:113:ARG:NE	2.16	0.59
32:BI:73:GLU:HB3	32:BI:136:VAL:CG2	2.33	0.59
38:BR:38:VAL:O	38:BR:42:LYS:HG3	2.01	0.59
43:BW:71:VAL:HA	43:BW:107:LEU:HD12	1.84	0.59
46:BZ:118:GLN:O	46:BZ:120:ILE:HG12	2.02	0.59
52:B5:33:CYS:SG	52:B5:40:LYS:HE3	2.42	0.59
57:BA:626:U:H5'	57:BA:627:A:H5'	1.85	0.59
5:Af:1:MET:HE3	5:Af:66:GLU:HG2	1.84	0.59
10:Ak:13:GLN:HE21	10:Ak:75:TYR:HA	1.67	0.59
21:Ay:64:TYR:HD2	21:Ay:64:TYR:N	1.96	0.59
22:Aa:859:A:H2'	22:Aa:860:A:O4'	2.02	0.59
28:AE:33:VAL:HG22	28:AE:33:VAL:O	2.01	0.59
32:AI:82:ARG:HA	32:AI:145:VAL:HG13	1.84	0.59
34:AN:66:LYS:NZ	57:AA:1140:C:H5"	2.17	0.59
36:AP:6:LEU:HG	36:AP:9:ASN:CB	2.32	0.59
36:AP:65:ARG:HH12	55:A8:15:LYS:HD2	1.67	0.59
38:AR:38:VAL:O	38:AR:42:LYS:HG3	2.01	0.59
57:AA:70:G:H2'	57:AA:113:G:O2'	2.01	0.59
57:AA:941:A:H2'	57:AA:942:G:C8	2.37	0.59
57:AA:1510:G:O2'	57:AA:1511:C:H5'	2.01	0.59
57:AA:1999:C:H4'	57:AA:2723:C:O2	2.01	0.59
2:Bc:20:SER:CB	2:Bc:40:ARG:HH22	2.11	0.59
5:Bf:7:ASN:N	5:Bf:7:ASN:HD22	2.00	0.59
11:Bl:41:ARG:HG2	11:Bl:42:THR:H	1.67	0.59
12:Bm:82:MET:HG2	12:Bm:82:MET:O	2.01	0.59
13:Bn:5:ALA:CB	22:Ba:1216:G:H5"	2.33	0.59
19:Bt:26:ASN:ND2	19:Bt:26:ASN:H	2.00	0.59
22:Ba:473:G:H2'	22:Ba:474:G:H8	1.67	0.59
22:Ba:1505:G:H5"	22:Ba:1506:U:H5"	1.83	0.59
35:BO:77:ILE:HD13	40:BT:74:ARG:HD3	1.84	0.59
36:BP:99:LEU:HA	36:BP:102:ARG:HH22	1.67	0.59
37:BQ:42:ILE:HG12	37:BQ:103:MET:HE1	1.85	0.59
43:BW:5:ALA:HB1	43:BW:50:VAL:HG22	1.84	0.59
48:B1:75:GLU:C	48:B1:77:ALA:H	2.10	0.59
57:BA:1533:G:H1'	57:BA:1537:G:H22	1.67	0.59
57:BA:2103:C:C2'	57:BA:2104:G:H5"	2.32	0.59
1:Ab:61:LEU:HD23	1:Ab:68:ILE:HD11	1.84	0.59
1:Ab:144:ARG:HA	1:Ab:147:LYS:HB3	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Af:7:ASN:HD22	5:Af:7:ASN:N	1.98	0.59
16:Aq:7:THR:HG22	16:Aq:58:GLU:CG	2.22	0.59
16:Aq:52:LYS:HG2	16:Aq:55:ASP:OD1	2.03	0.59
22:Aa:1030:C:H41	22:Aa:1032:G:H21	1.49	0.59
22:Aa:1084:G:H5'	22:Aa:1102:A:OP2	2.03	0.59
27:AD:142:VAL:HG23	27:AD:192:THR:O	2.03	0.59
36:AP:146:VAL:HG13	36:AP:147:LEU:H	1.67	0.59
39:AS:93:LYS:O	39:AS:93:LYS:HG3	2.02	0.59
39:AS:95:HIS:CG	39:AS:96:GLY:H	2.20	0.59
41:AU:44:ASN:HD21	42:AV:75:PHE:HB3	1.65	0.59
42:AV:38:LEU:O	42:AV:52:VAL:HG12	2.01	0.59
43:AW:4:LYS:HA	43:AW:106:ILE:HG22	1.83	0.59
57:AA:141:A:C8	57:AA:1408:C:O2'	2.54	0.59
57:AA:1485:G:H1'	57:AA:1505:C:N4	2.16	0.59
57:AA:2201:C:O2'	57:AA:2202:C:H5'	2.03	0.59
4:Be:12:LEU:HD22	4:Be:12:LEU:C	2.27	0.59
5:Bf:43:LEU:H	5:Bf:43:LEU:HD12	1.67	0.59
12:Bm:99:ARG:HB2	12:Bm:101:GLN:NE2	2.16	0.59
18:Bs:63:THR:HG22	18:Bs:66:MET:SD	2.41	0.59
22:Ba:634:C:H2'	22:Ba:635:G:H8	1.67	0.59
26:BC:43:GLU:HG2	26:BC:216:THR:O	2.02	0.59
29:BF:22:ALA:HB1	29:BF:26:ALA:CB	2.30	0.59
35:BO:104:ARG:HE	40:BT:33:LYS:HD2	1.66	0.59
35:BO:119:PRO:HB2	40:BT:68:TYR:CE2	2.37	0.59
36:BP:65:ARG:HH12	55:B8:15:LYS:HD2	1.67	0.59
39:BS:24:LEU:CB	39:BS:85:VAL:HG12	2.33	0.59
46:BZ:111:VAL:O	46:BZ:112:ARG:HB2	2.02	0.59
49:B2:53:LEU:O	49:B2:57:ILE:HG12	2.02	0.59
52:B5:54:GLY:CA	52:B5:55:ARG:HE	2.14	0.59
53:B6:25:LYS:HE2	55:B8:35:GLN:OE1	2.02	0.59
57:BA:1286:A:H2'	57:BA:1288:U:OP2	2.01	0.59
57:BA:2801(A):A:O4'	57:BA:2802:G:H2'	2.03	0.59
57:BA:2836:U:H2'	57:BA:2837:G:C8	2.37	0.59
5:Af:19:LEU:HD23	5:Af:19:LEU:O	2.03	0.59
11:Al:83:VAL:HG12	11:Al:84:LEU:N	2.17	0.59
17:Ar:44:LEU:HD21	17:Ar:79:LEU:HD22	1.83	0.59
21:Ay:10:ARG:NH2	22:Aa:955:U:OP2	2.32	0.59
22:Aa:1142:G:H2'	22:Aa:1143:G:O4'	2.03	0.59
22:Aa:1234:C:H1'	22:Aa:1364:U:O2	2.02	0.59
27:AD:181:GLU:HA	27:AD:272:ALA:CB	2.31	0.59
27:AD:242:ARG:HH21	57:AA:1826:G:C4'	2.04	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:AI:27:ARG:HH11	32:AI:27:ARG:HG3	1.68	0.59
35:AO:105:GLU:HA	35:AO:108:GLU:OE1	2.02	0.59
37:AQ:26:TYR:CE1	37:AQ:28:ALA:HB2	2.38	0.59
39:AS:24:LEU:CB	39:AS:85:VAL:HG12	2.32	0.59
40:AT:23:ARG:HG2	40:AT:120:ARG:NH1	2.17	0.59
41:AU:10:ARG:HG3	57:AA:1251:C:OP1	2.01	0.59
48:A1:87:PRO:HA	48:A1:90:ILE:HG12	1.84	0.59
57:AA:2657:A:H2'	57:AA:2658:C:C5'	2.33	0.59
1:Bb:72:GLY:HA2	1:Bb:165:VAL:CG2	2.33	0.59
1:Bb:213:LEU:O	1:Bb:213:LEU:HD23	2.01	0.59
4:Be:122:GLU:HG3	22:Ba:9:G:OP1	2.03	0.59
8:Bi:48:GLU:HG3	8:Bi:101:PHE:CZ	2.37	0.59
12:Bm:90:LEU:C	12:Bm:92:HIS:N	2.60	0.59
12:Bm:108:ARG:CZ	12:Bm:114:ARG:HG2	2.32	0.59
22:Ba:1468:A:H2'	22:Ba:1469:G:O4'	2.03	0.59
25:Bw:62:C:H2'	25:Bw:63:G:C8	2.38	0.59
30:BG:91:ARG:HD2	30:BG:91:ARG:C	2.27	0.59
36:BP:23:PRO:CD	36:BP:33:ARG:CZ	2.71	0.59
36:BP:91:PHE:CD1	36:BP:91:PHE:N	2.64	0.59
36:BP:101:VAL:HG13	36:BP:106:LEU:HD23	1.84	0.59
36:BP:112:LEU:HD22	36:BP:113:LYS:N	2.16	0.59
41:BU:50:ARG:NH2	57:BA:993:G:OP1	2.36	0.59
45:BY:20:TYR:N	45:BY:20:TYR:CD1	2.71	0.59
47:B0:40:GLN:NE2	47:B0:43:THR:HA	2.16	0.59
57:BA:27:G:N2	57:BA:512:G:C2'	2.63	0.59
57:BA:394:A:O2'	57:BA:395:U:H5'	2.03	0.59
57:BA:672:C:H2'	57:BA:673:C:H5'	1.83	0.59
57:BA:1015:G:O2'	57:BA:1016:G:H5'	2.01	0.59
57:BA:2031:A:C6	57:BA:2498:C:H1'	2.37	0.59
57:BA:2315:G:H2'	57:BA:2316:C:C6	2.37	0.59
1:Ab:25:ASN:O	1:Ab:27:LYS:N	2.34	0.59
3:Ad:93:PHE:O	3:Ad:97:LEU:HB2	2.02	0.59
3:Ad:158:ILE:O	3:Ad:162:LEU:HB2	2.01	0.59
4:Ae:122:GLU:HG3	22:Aa:9:G:OP1	2.03	0.59
12:Am:115:LYS:HE3	22:Aa:1228:C:OP1	2.02	0.59
15:Ap:28:ARG:HG2	15:Ap:28:ARG:HH11	1.68	0.59
22:Aa:417:C:O2'	22:Aa:418:C:H5'	2.01	0.59
22:Aa:1222:G:O2'	22:Aa:1223:C:H5'	2.02	0.59
26:AC:173:HIS:O	26:AC:174:ALA:HB3	2.02	0.59
30:AG:5:VAL:O	30:AG:8:LYS:HB3	2.02	0.59
30:AG:170:ARG:NH2	30:AG:182:LYS:HG2	2.18	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:AN:23:LEU:CD1	34:AN:98:VAL:HG12	2.33	0.59
35:AO:1:MET:HE2	35:AO:32:TYR:CG	2.38	0.59
39:AS:28:VAL:O	39:AS:89:ARG:HD2	2.02	0.59
41:AU:90:VAL:HG22	42:AV:39:LEU:HG	1.85	0.59
57:AA:1887:C:H2'	57:AA:1888:G:C5'	2.25	0.59
57:AA:2728:U:O2'	57:AA:2729:G:H5'	2.03	0.59
3:Bd:31:CYS:O	3:Bd:31:CYS:SG	2.60	0.59
8:Bi:48:GLU:HG3	8:Bi:101:PHE:CE2	2.38	0.59
15:Bp:28:ARG:NH1	15:Bp:29:ASP:OD2	2.36	0.59
19:Bt:104:LEU:HD23	19:Bt:105:SER:N	2.17	0.59
22:Ba:339:C:OP2	35:BO:97:ARG:NH1	2.35	0.59
22:Ba:526:C:C5	22:Ba:527:G:H1'	2.37	0.59
22:Ba:1438:G:H2'	22:Ba:1439:C:H6	1.65	0.59
27:BD:71:ASP:CB	27:BD:103:ARG:NH2	2.66	0.59
35:BO:105:GLU:HA	35:BO:108:GLU:OE1	2.02	0.59
39:BS:74:ALA:HB1	39:BS:103:GLU:HB3	1.84	0.59
48:B1:5:CYS:SG	48:B1:62:VAL:HG23	2.43	0.59
48:B1:12:PRO:HB3	48:B1:43:TYR:HD2	1.67	0.59
51:B4:22:ILE:HD12	51:B4:22:ILE:H	1.67	0.59
57:BA:1354:A:H2'	57:BA:1355:G:O4'	2.03	0.59
57:BA:1826:G:H2'	57:BA:1827:C:H6	1.68	0.59
57:BA:2537:U:H2'	57:BA:2538:C:C6	2.38	0.59
6:Ag:102:ARG:HG2	6:Ag:106:GLN:HE21	1.68	0.59
7:Ah:20:TYR:CE2	7:Ah:75:ARG:HD2	2.27	0.59
7:Ah:86:ILE:HG21	7:Ah:133:LEU:HD22	1.83	0.59
9:Aj:16:LEU:HD23	9:Aj:94:VAL:HG13	1.85	0.59
9:Aj:75:ILE:HG13	9:Aj:76:ASN:H	1.66	0.59
12:Am:20:THR:C	12:Am:22:ILE:H	2.11	0.59
22:Aa:763:G:O2'	22:Aa:764:C:H5'	2.03	0.59
27:AD:30:GLU:CD	27:AD:63:ARG:HE	2.10	0.59
32:AI:5:LEU:O	32:AI:6:LEU:HG	2.03	0.59
33:AJ:103:GLY:C	33:AJ:109:SER:HA	2.27	0.59
52:A5:54:GLY:CA	52:A5:55:ARG:HE	2.16	0.59
1:Bb:114:ARG:O	1:Bb:118:LEU:HG	2.02	0.59
4:Be:24:ARG:NH1	22:Ba:15:G:H4'	2.17	0.59
4:Be:72:GLN:O	4:Be:73:ASN:HB2	2.03	0.59
8:Bi:24:GLY:HA2	8:Bi:59:PHE:O	2.02	0.59
9:Bj:36:GLY:CA	22:Ba:1123:A:H4'	2.29	0.59
19:Bt:26:ASN:N	19:Bt:26:ASN:HD22	2.00	0.59
19:Bt:37:SER:HB3	19:Bt:84:LEU:HD23	1.85	0.59
22:Ba:97:G:O2'	22:Ba:98:G:H5"	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Ba:1248:A:H2'	22:Ba:1249:C:H5'	1.84	0.59
32:BI:9:LEU:HD12	32:BI:9:LEU:N	2.18	0.59
36:BP:81:GLN:HG2	36:BP:106:LEU:HA	1.83	0.59
37:BQ:26:TYR:CE1	37:BQ:28:ALA:HB2	2.38	0.59
40:BT:27:THR:CG2	40:BT:28:VAL:H	2.14	0.59
46:BZ:152:ALA:HB3	46:BZ:154:ASP:OD2	2.03	0.59
56:B9:31:LYS:HD3	57:BA:2478:A:OP1	2.03	0.59
57:BA:673:C:H5'	57:BA:673:C:C6	2.31	0.59
57:BA:1603:A:H5'	57:BA:1603:A:H8	1.66	0.59
57:BA:1711:C:O2'	57:BA:1712:C:H5'	2.02	0.59
57:BA:2306:C:H5	57:BA:2307:G:H1'	1.66	0.59
3:Ad:110:PHE:CD1	3:Ad:110:PHE:N	2.67	0.59
8:Ai:9:ARG:HG2	8:Ai:14:VAL:HG13	1.85	0.59
9:Aj:4:ILE:HD13	9:Aj:74:ILE:HG13	1.85	0.59
18:As:11:VAL:HG22	18:As:16:LEU:CD1	2.33	0.59
21:Ay:15:TRP:CZ2	21:Ay:23:ARG:HG3	2.37	0.59
21:Ay:77:SER:CB	21:Ay:90:ALA:HB2	2.25	0.59
22:Aa:663:A:O2'	22:Aa:664:G:H5'	2.03	0.59
26:AC:41:THR:HG21	26:AC:175:PRO:HB2	1.83	0.59
43:AW:64:MET:O	43:AW:65:LEU:HB3	2.02	0.59
52:A5:51:TYR:H	52:A5:55:ARG:CD	2.15	0.59
57:AA:11:G:H22	57:AA:2628:C:P	2.25	0.59
57:AA:145:G:H2'	57:AA:146:G:C5'	2.27	0.59
57:AA:614(A):U:H4'	57:AA:614(B):G:H5"	1.84	0.59
57:AA:672:C:C2'	57:AA:673:C:C5'	2.76	0.59
57:AA:1882:C:H5'	57:AA:1883:G:OP2	2.01	0.59
57:AA:2476:A:C2'	57:AA:2477:C:H5"	2.32	0.59
3:Bd:112:VAL:HG12	3:Bd:116:GLN:CD	2.28	0.59
8:Bi:70:LYS:O	8:Bi:74:ILE:HG13	2.03	0.59
22:Ba:359:U:H2'	22:Ba:360:A:C8	2.38	0.59
27:BD:8:PRO:HB3	27:BD:14:ARG:HB2	1.85	0.59
27:BD:30:GLU:HG3	27:BD:63:ARG:NE	2.18	0.59
30:BG:27:ASN:HD22	30:BG:29:TRP:HB2	1.67	0.59
35:BO:4:PRO:O	35:BO:5:GLN:CB	2.51	0.59
36:BP:70:GLN:HG3	57:BA:389:G:N1	2.18	0.59
3:Ad:15:GLU:HA	3:Ad:15:GLU:OE1	2.00	0.59
12:Am:65:LYS:HA	12:Am:66:LEU:HD23	1.83	0.59
13:An:5:ALA:CB	22:Aa:1216:G:H5"	2.33	0.59
15:Ap:16:HIS:CD2	22:Aa:625:G:H4'	2.38	0.59
19:At:16:HIS:CE1	22:Aa:333:G:H4'	2.38	0.59
22:Aa:1149:C:H2'	22:Aa:1150:U:C6	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AD:117:VAL:HG21	27:AD:128:GLY:O	2.03	0.59
28:AE:11:MET:HB3	28:AE:24:THR:HA	1.84	0.59
31:AH:149:ARG:HG3	31:AH:162:ILE:O	2.03	0.59
32:AI:94:ALA:O	32:AI:98:ALA:HB3	2.03	0.59
35:AO:13:ASN:ND2	35:AO:97:ARG:HB2	2.17	0.59
36:AP:67:MET:H	57:AA:2415:G:H4'	1.68	0.59
39:AS:83:LYS:HE3	39:AS:105:ALA:CB	2.32	0.59
45:AY:66:PRO:O	45:AY:67:LEU:HB3	2.02	0.59
57:AA:2287:A:H62	57:AA:2344:U:H3	1.51	0.59
5:Bf:3:ARG:HB3	5:Bf:93:SER:HB2	1.85	0.59
5:Bf:45:LEU:HD23	5:Bf:46:ARG:N	2.17	0.59
14:Bo:64:ARG:HH11	14:Bo:64:ARG:HG3	1.67	0.59
22:Ba:392:G:H2'	22:Ba:393:A:C8	2.37	0.59
22:Ba:644:G:O2'	22:Ba:645:C:H5'	2.03	0.59
22:Ba:984:C:H2'	22:Ba:985:C:C6	2.37	0.59
26:BC:178:LYS:HG2	26:BC:181:PHE:CE1	2.38	0.59
28:BE:57:LYS:C	28:BE:59:VAL:H	2.10	0.59
32:BI:98:ALA:O	32:BI:101:LEU:HB3	2.03	0.59
34:BN:67:LEU:HB3	34:BN:88:GLU:HG2	1.84	0.59
57:BA:128:C:H6	57:BA:128:C:H5"	1.68	0.59
57:BA:145:G:H2'	57:BA:146:G:C5'	2.25	0.59
57:BA:2133:G:H2'	57:BA:2157:G:N2	2.08	0.59
57:BA:2807:G:H2'	57:BA:2808:U:H5"	1.85	0.59
58:BB:30:C:H2'	58:BB:31:C:O4'	2.03	0.59
1:Ab:111:ARG:HH11	1:Ab:111:ARG:HG2	1.68	0.59
2:Ac:70:VAL:CG1	2:Ac:71:ALA:N	2.65	0.59
3:Ad:57:ARG:HB3	3:Ad:206:PHE:HB2	1.85	0.59
3:Ad:126:ILE:HG22	3:Ad:127:THR:N	2.18	0.59
22:Aa:1244:C:H2'	22:Aa:1245:A:C8	2.37	0.59
30:AG:36:LYS:HG2	30:AG:37:VAL:N	2.17	0.59
30:AG:38:VAL:HG22	30:AG:93:THR:HG23	1.85	0.59
31:AH:24:VAL:HG13	31:AH:35:VAL:HB	1.84	0.59
31:AH:97:ARG:HG2	31:AH:98:LEU:N	2.17	0.59
32:AI:77:LEU:HD23	32:AI:77:LEU:C	2.28	0.59
38:AR:3:HIS:O	38:AR:4:LEU:HB3	2.01	0.59
42:AV:34:GLU:O	42:AV:36:PRO:CD	2.50	0.59
46:AZ:24:LEU:CD2	46:AZ:86:VAL:HG22	2.31	0.59
47:A0:41:ARG:NH2	57:AA:2387:U:C4'	2.65	0.59
57:AA:2322:A:H2'	57:AA:2323:G:O4'	2.02	0.59
57:AA:2376:A:H2'	57:AA:2377:A:O4'	2.02	0.59
57:AA:2712:U:H1'	57:AA:2712(A):A:C8	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:AA:2855:C:H2'	57:AA:2856:C:H6	1.68	0.59
58:AB:40:U:H3'	58:AB:41:U:H5"	1.85	0.59
6:Bg:102:ARG:NH1	22:Ba:939:G:H5"	2.18	0.59
11:Bl:83:VAL:HG12	11:Bl:84:LEU:N	2.18	0.59
12:Bm:57:ARG:NH2	51:B4:34:GLU:HG3	2.18	0.59
12:Bm:108:ARG:N	12:Bm:108:ARG:HD2	2.16	0.59
22:Ba:59:A:H5'	22:Ba:60:A:C5'	2.33	0.59
22:Ba:985:C:H2'	22:Ba:986:A:C8	2.37	0.59
26:BC:173:HIS:O	26:BC:174:ALA:HB3	2.02	0.59
27:BD:172:TYR:CD1	27:BD:186:HIS:HA	2.38	0.59
27:BD:242:ARG:HH21	57:BA:1826:G:C4'	2.09	0.59
28:BE:131:ALA:H	57:BA:2580:U:H5'	1.68	0.59
29:BF:22:ALA:C	29:BF:24:LEU:H	2.09	0.59
30:BG:119:GLY:CA	30:BG:181:ARG:HB2	2.33	0.59
32:BI:87:LYS:CE	32:BI:121:LYS:HG3	2.33	0.59
34:BN:65:LYS:O	34:BN:69:GLN:HB2	2.03	0.59
36:BP:16:ARG:NH1	36:BP:16:ARG:HB2	2.18	0.59
36:BP:33:ARG:NH2	57:BA:587:C:H2'	2.17	0.59
46:BZ:175:VAL:CB	46:BZ:176:PRO:HD2	2.33	0.59
47:B0:41:ARG:NH2	57:BA:2387:U:C4'	2.65	0.59
48:B1:73:LEU:HD13	48:B1:94:LEU:HB3	1.84	0.59
49:B2:2:LYS:HE3	49:B2:2:LYS:HA	1.84	0.59
57:BA:158:U:H3'	57:BA:158:U:O2	2.02	0.59
57:BA:286:C:O2'	57:BA:287:C:H5'	2.02	0.59
57:BA:1636:C:H2'	57:BA:1637:A:C8	2.37	0.59
57:BA:2103:C:H2'	57:BA:2104:G:H5"	1.85	0.59
4:Ae:100:VAL:HG12	4:Ae:118:ILE:HG22	1.85	0.58
5:Af:26:ILE:O	5:Af:30:LEU:HG	2.03	0.58
10:Ak:124:LYS:HE2	22:Aa:692:U:OP1	2.02	0.58
21:Ay:86:VAL:HG23	21:Ay:87:TYR:N	2.17	0.58
22:Aa:189(J):G:O2'	22:Aa:189(K):U:H5'	2.03	0.58
22:Aa:1321:C:C3'	22:Aa:1322:C:H5"	2.33	0.58
29:AF:161:GLU:O	29:AF:165:ARG:HG2	2.02	0.58
30:AG:42:GLY:O	30:AG:44:GLY:N	2.36	0.58
30:AG:51:ARG:NH1	30:AG:53:LEU:HD21	2.18	0.58
32:AI:118:LYS:NZ	32:AI:119:PRO:HG2	2.17	0.58
36:AP:38:GLN:CG	36:AP:39:LYS:H	2.06	0.58
37:AQ:9:TYR:OH	57:AA:911:A:H2'	2.02	0.58
39:AS:59:LYS:HG2	39:AS:60:GLY:N	2.18	0.58
57:AA:52:A:O2'	57:AA:53:A:H5'	2.03	0.58
57:AA:2103:C:C2'	57:AA:2104:G:H5"	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Be:93:PRO:CG	7:Bh:105:ARG:HH21	2.07	0.58
9:Bj:4:ILE:HD13	9:Bj:74:ILE:HG13	1.84	0.58
15:Bp:34:GLU:OE2	15:Bp:55:ARG:HD3	2.02	0.58
18:Bs:24:ALA:O	18:Bs:25:LYS:HB2	2.01	0.58
27:BD:142:VAL:HG23	27:BD:192:THR:O	2.03	0.58
32:BI:120:ILE:HG22	32:BI:121:LYS:H	1.68	0.58
34:BN:57:ALA:H	34:BN:124:ALA:HA	1.68	0.58
40:BT:23:ARG:NH2	57:BA:2849:U:O4	2.35	0.58
40:BT:89:VAL:HB	40:BT:91:ARG:CG	2.20	0.58
43:BW:40:ASN:O	43:BW:41:LYS:HG2	2.03	0.58
46:BZ:4:ARG:HD2	46:BZ:60:GLU:OE1	2.02	0.58
49:B2:2:LYS:O	49:B2:6:VAL:HG23	2.02	0.58
57:BA:1319:G:O2'	57:BA:1320:C:H5'	2.03	0.58
57:BA:1378:A:H4'	57:BA:1379:A:OP1	2.02	0.58
57:BA:1430:C:H2'	57:BA:1431:U:C6	2.38	0.58
57:BA:1542:A:C8	57:BA:1544:A:H5"	2.38	0.58
2:Ac:11:ARG:HG2	2:Ac:11:ARG:HH11	1.68	0.58
6:Ag:79:ARG:HG2	6:Ag:81:GLY:H	1.68	0.58
8:Ai:12:GLU:HG3	22:Aa:1370:G:C5'	2.32	0.58
9:Aj:55:LYS:NZ	22:Aa:963:G:H21	2.00	0.58
11:Al:24:VAL:HG13	11:Al:98:TYR:HE2	1.66	0.58
20:Au:2:GLY:C	20:Au:4:GLY:H	2.11	0.58
21:Ay:54:LYS:HE3	21:Ay:61:ARG:HH21	1.68	0.58
27:AD:248:SER:HB2	27:AD:249:PRO:HD2	1.83	0.58
32:AI:53:ALA:O	32:AI:57:ARG:HD2	2.02	0.58
32:AI:62:LYS:HE3	32:AI:133:HIS:O	2.03	0.58
34:AN:65:LYS:O	34:AN:69:GLN:HB2	2.04	0.58
36:AP:13:ASN:HD22	36:AP:13:ASN:C	2.10	0.58
37:AQ:19:GLY:O	37:AQ:20:ALA:HB3	2.03	0.58
39:AS:11:LYS:N	39:AS:11:LYS:HD2	2.18	0.58
41:AU:25:TRP:CZ3	57:AA:17:G:H4'	2.38	0.58
41:AU:83:LEU:H	41:AU:83:LEU:HD13	1.68	0.58
45:AY:20:TYR:CD1	45:AY:20:TYR:N	2.71	0.58
49:A2:51:ARG:HB2	49:A2:55:ARG:HH21	1.67	0.58
57:AA:1146:C:O2'	57:AA:1147:C:H5'	2.03	0.58
57:AA:1973:G:H2'	57:AA:1974:C:C6	2.38	0.58
57:AA:2524:G:H5'	57:AA:2524:G:C8	2.34	0.58
57:AA:2650:U:O2'	57:AA:2651:C:H5'	2.03	0.58
57:AA:2795:G:N2	57:AA:2796:U:H2'	2.18	0.58
2:Bc:43:LEU:O	2:Bc:47:LEU:HB3	2.02	0.58
3:Bd:129:ASN:ND2	3:Bd:129:ASN:N	2.44	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:By:39:ILE:O	21:By:40:GLU:C	2.46	0.58
27:BD:44:ASN:OD1	27:BD:44:ASN:N	2.35	0.58
29:BF:28:ILE:HG21	29:BF:116:ASP:HB2	1.85	0.58
30:BG:124:SER:HB2	30:BG:131:TYR:CE1	2.39	0.58
36:BP:64:LYS:HD2	55:B8:25:MET:SD	2.43	0.58
36:BP:97:PRO:HG2	36:BP:127:ALA:HA	1.85	0.58
39:BS:96:GLY:C	39:BS:98:VAL:H	2.10	0.58
41:BU:44:ASN:HD21	42:BV:75:PHE:HB3	1.68	0.58
42:BV:40:LEU:HD22	42:BV:46:VAL:HA	1.84	0.58
57:BA:176:G:O2'	57:BA:177:G:H5'	2.03	0.58
57:BA:1503:U:H2'	57:BA:1504:C:C6	2.38	0.58
1:Ab:142:LEU:O	1:Ab:142:LEU:HD23	2.04	0.58
4:Ae:131:ILE:O	4:Ae:134:ALA:HB3	2.03	0.58
14:Ao:64:ARG:HH11	14:Ao:64:ARG:HG3	1.68	0.58
16:Aq:45:HIS:HB2	16:Aq:65:ILE:CD1	2.34	0.58
19:At:57:ARG:HD3	19:At:103:GLY:H	1.68	0.58
22:Aa:541:G:O2'	22:Aa:542:G:H5'	2.04	0.58
29:AF:83:PHE:O	29:AF:84:VAL:HB	2.02	0.58
30:AG:96:ARG:H	30:AG:99:MET:HE2	1.67	0.58
34:AN:14:VAL:HG13	34:AN:137:LYS:HG3	1.84	0.58
35:AO:10:VAL:HG13	35:AO:17:ARG:O	2.03	0.58
39:AS:88:ASP:CG	39:AS:89:ARG:N	2.62	0.58
42:AV:66:ARG:HH11	42:AV:66:ARG:HG2	1.68	0.58
46:AZ:14:LYS:C	46:AZ:16:SER:H	2.11	0.58
46:AZ:67:LEU:HD12	46:AZ:67:LEU:H	1.68	0.58
57:AA:207:A:H2'	57:AA:208:C:O4'	2.03	0.58
57:AA:626:U:H5'	57:AA:627:A:C5'	2.32	0.58
57:AA:1014:U:H2'	57:AA:1015:G:H5"	1.86	0.58
58:AB:1:U:O2	58:AB:1:U:H2'	2.03	0.58
4:Be:43:LEU:HB3	4:Be:136:MET:HE2	1.86	0.58
4:Be:102:ALA:HB1	4:Be:106:PRO:HG2	1.84	0.58
10:Bk:13:GLN:HE21	10:Bk:75:TYR:HA	1.68	0.58
11:Bl:75:HIS:CD2	11:Bl:77:LEU:H	2.20	0.58
21:By:47:MET:HB3	21:By:48:PRO:CD	2.33	0.58
22:Ba:105:G:H2'	22:Ba:106:C:C6	2.38	0.58
22:Ba:1352:C:H2'	22:Ba:1353:G:C8	2.38	0.58
28:BE:61:ARG:NH2	57:BA:2810:A:H2'	2.18	0.58
30:BG:71:THR:HG22	30:BG:89:GLY:O	2.03	0.58
31:BH:24:VAL:HG13	31:BH:35:VAL:HB	1.85	0.58
32:BI:81:VAL:CG2	32:BI:82:ARG:H	2.14	0.58
39:BS:49:VAL:HG12	39:BS:73:LEU:HD23	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BV:34:GLU:O	42:BV:36:PRO:CD	2.51	0.58
51:B4:20:ASN:HD22	51:B4:21:VAL:N	2.01	0.58
57:BA:11:G:H22	57:BA:2628:C:P	2.25	0.58
57:BA:614(A):U:H4'	57:BA:614(B):G:H5"	1.84	0.58
57:BA:803:U:O2'	57:BA:804:A:H5'	2.03	0.58
57:BA:979:G:H3'	57:BA:980:A:H5"	1.86	0.58
1:Ab:170:GLU:O	1:Ab:174:VAL:HG23	2.02	0.58
3:Ad:112:VAL:HG12	3:Ad:116:GLN:CD	2.28	0.58
5:Af:3:ARG:HB3	5:Af:93:SER:HB2	1.85	0.58
12:Am:68:GLY:O	12:Am:69:GLU:HB3	2.01	0.58
17:Ar:73:ALA:CB	17:Ar:79:LEU:HD12	2.33	0.58
18:As:50:ALA:HB1	18:As:57:HIS:HB3	1.85	0.58
22:Aa:984:C:H2'	22:Aa:985:C:C6	2.39	0.58
22:Aa:1118:C:H1'	22:Aa:1179:A:C4	2.38	0.58
22:Aa:1435:G:H2'	22:Aa:1436:U:C6	2.39	0.58
38:AR:87:TYR:O	38:AR:89:ASP:N	2.33	0.58
39:AS:17:ARG:HD2	58:AB:9:G:OP1	2.02	0.58
43:AW:41:LYS:HE3	52:A5:25:LEU:HD11	1.85	0.58
43:AW:73:ALA:HB3	43:AW:106:ILE:HD11	1.86	0.58
43:AW:92:ARG:HH11	43:AW:92:ARG:CB	2.15	0.58
57:AA:1504:C:O2'	57:AA:1505:C:C5'	2.52	0.58
57:AA:1603:A:H8	57:AA:1603:A:H5'	1.67	0.58
57:AA:2306:C:H5	57:AA:2307:G:H1'	1.68	0.58
57:AA:2401:U:C2'	57:AA:2402:C:H5"	2.34	0.58
2:Bc:107:GLN:H	2:Bc:107:GLN:NE2	2.01	0.58
2:Bc:179:ARG:HD3	22:Ba:1112:C:H1'	1.86	0.58
2:Bc:186:PHE:HD1	2:Bc:198:VAL:O	1.86	0.58
4:Be:131:ILE:O	4:Be:134:ALA:HB3	2.04	0.58
22:Ba:148:G:O2'	22:Ba:149:A:H5'	2.01	0.58
22:Ba:832:C:O2'	22:Ba:833:U:H6	1.87	0.58
22:Ba:1132:C:O2'	22:Ba:1133:G:H5'	2.04	0.58
22:Ba:1195:C:H5'	22:Ba:1196:U:C5'	2.33	0.58
30:BG:63:ILE:O	30:BG:63:ILE:HG13	2.01	0.58
30:BG:122:PRO:HG2	30:BG:123:ASN:H	1.68	0.58
31:BH:105:LEU:H	31:BH:105:LEU:CD2	2.17	0.58
32:BI:129:THR:HG22	32:BI:130:TYR:O	2.03	0.58
37:BQ:1:MET:O	37:BQ:2:LEU:HB2	2.02	0.58
50:B3:8:LEU:CD1	50:B3:31:LEU:HA	2.29	0.58
57:BA:1270:C:H5"	57:BA:1271:G:H5'	1.86	0.58
57:BA:1504:C:O2'	57:BA:1505:C:C5'	2.51	0.58
1:Ab:72:GLY:HA2	1:Ab:165:VAL:HG22	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ab:79:ASP:C	1:Ab:81:VAL:N	2.58	0.58
1:Ab:168:THR:HG23	1:Ab:192:SER:OG	2.03	0.58
2:Ac:112:SER:O	2:Ac:116:VAL:HG23	2.03	0.58
3:Ad:49:ARG:HE	3:Ad:49:ARG:CA	1.99	0.58
5:Af:46:ARG:HH22	17:Ar:37:VAL:HG21	1.67	0.58
11:Al:27:LEU:HG	11:Al:62:SER:OG	2.03	0.58
11:Al:110:VAL:CG2	11:Al:120:TYR:HB3	2.33	0.58
19:At:40:ALA:HB2	19:At:55:ILE:HG22	1.85	0.58
19:At:48:LYS:O	19:At:52:ALA:HB2	2.04	0.58
22:Aa:862:C:O2'	22:Aa:863:U:H5'	2.03	0.58
30:AG:6:ALA:HB3	30:AG:104:GLU:OE2	2.02	0.58
32:AI:76:THR:HG21	32:AI:139:GLN:HE22	1.67	0.58
35:AO:4:PRO:O	35:AO:5:GLN:CB	2.51	0.58
49:A2:67:LYS:O	49:A2:70:GLN:HG2	2.03	0.58
50:A3:8:LEU:CD1	50:A3:31:LEU:HA	2.29	0.58
57:AA:979:G:H3'	57:AA:980:A:H5"	1.86	0.58
57:AA:1533:G:H1'	57:AA:1537:G:H22	1.67	0.58
57:AA:2555:U:H2'	57:AA:2556:C:H5'	1.84	0.58
3:Bd:150:GLU:CG	3:Bd:151:LYS:N	2.67	0.58
12:Bm:9:ILE:HD12	12:Bm:9:ILE:N	2.18	0.58
12:Bm:23:TYR:HB2	12:Bm:67:GLU:OE1	2.04	0.58
12:Bm:28:ALA:C	12:Bm:30:ALA:H	2.08	0.58
13:Bn:45:ARG:NH2	22:Ba:1060:C:H5'	2.17	0.58
16:Bq:15:MET:HE1	16:Bq:43:LEU:HD22	1.85	0.58
17:Br:44:LEU:HD21	17:Br:79:LEU:HD22	1.85	0.58
19:Bt:81:LYS:C	19:Bt:83:ARG:H	2.11	0.58
22:Ba:475:G:H2'	22:Ba:476:G:H8	1.68	0.58
22:Ba:1149:C:H2'	22:Ba:1150:U:C6	2.36	0.58
25:Bw:28:C:H2'	25:Bw:29:G:C8	2.37	0.58
27:BD:10:THR:HG23	27:BD:13:ARG:CB	2.34	0.58
29:BF:8:GLN:CG	29:BF:126:VAL:HB	2.33	0.58
32:BI:78:THR:HB	32:BI:104:GLN:HE21	1.69	0.58
35:BO:90:GLN:O	35:BO:91:LEU:HB2	2.02	0.58
37:BQ:27:VAL:O	37:BQ:28:ALA:HB3	2.02	0.58
38:BR:45:ARG:HG3	38:BR:95:THR:CG2	2.34	0.58
39:BS:17:ARG:HA	39:BS:20:ARG:HH11	1.67	0.58
44:BX:13:LEU:HD11	49:B2:41:ILE:HG22	1.85	0.58
57:BA:1014:U:H2'	57:BA:1015:G:C5'	2.33	0.58
57:BA:1495:A:OP1	57:BA:1495:A:C8	2.56	0.58
57:BA:2761:G:H3'	57:BA:2762:G:H5"	1.83	0.58
57:BA:2795:G:N2	57:BA:2796:U:H2'	2.19	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:BB:81:G:H2'	58:BB:82:G:H5'	1.85	0.58
10:Ak:107:SER:C	10:Ak:108:ILE:HD12	2.29	0.58
11:Al:93:LEU:HB3	11:Al:96:VAL:HG21	1.84	0.58
12:Am:86:CYS:HA	18:As:73:GLU:O	2.04	0.58
14:Ao:82:ILE:HG12	14:Ao:87:ILE:CG1	2.34	0.58
22:Aa:775:G:O2'	22:Aa:776:G:H5'	2.03	0.58
22:Aa:1091:U:O2	22:Aa:1093:A:H8	1.86	0.58
24:Av:59:A:C2'	24:Av:60:U:H5'	2.33	0.58
32:AI:113:ARG:HG2	32:AI:113:ARG:NH1	2.18	0.58
41:AU:112:ARG:NH2	42:AV:46:VAL:CG1	2.67	0.58
42:AV:47:VAL:O	42:AV:49:THR:N	2.37	0.58
46:AZ:155:LEU:O	46:AZ:157:LEU:HD23	2.04	0.58
57:AA:363(E):U:H5'	57:AA:363(F):A:OP2	2.03	0.58
57:AA:1542:A:N7	57:AA:1544:A:H5"	2.18	0.58
57:AA:2807:G:H2'	57:AA:2808:U:H5"	1.84	0.58
58:AB:105:A:H2'	58:AB:106:G:O4'	2.04	0.58
1:Bb:72:GLY:HA2	1:Bb:165:VAL:HG22	1.83	0.58
1:Bb:155:LEU:HD12	1:Bb:157:ARG:O	2.03	0.58
2:Bc:138:VAL:HG13	2:Bc:149:ALA:HB3	1.85	0.58
3:Bd:107:ARG:HH11	3:Bd:107:ARG:HG2	1.67	0.58
19:Bt:84:LEU:O	19:Bt:88:VAL:HG23	2.02	0.58
22:Ba:1323:G:H4'	22:Ba:1363:C:N3	2.19	0.58
30:BG:118:ARG:HB3	30:BG:181:ARG:CZ	2.33	0.58
32:BI:77:LEU:HD23	32:BI:77:LEU:C	2.28	0.58
32:BI:92:VAL:HG22	32:BI:97:ILE:CG1	2.32	0.58
38:BR:9:LYS:O	38:BR:10:LEU:HD23	2.04	0.58
38:BR:87:TYR:O	38:BR:89:ASP:N	2.32	0.58
39:BS:93:LYS:O	39:BS:93:LYS:HG3	2.03	0.58
45:BY:13:VAL:HG21	45:BY:28:LYS:HZ2	1.68	0.58
57:BA:639:U:H2'	57:BA:640:C:C6	2.38	0.58
57:BA:1131:G:HO2'	57:BA:1132:A:H8	1.51	0.58
57:BA:1504:C:O2'	57:BA:1505:C:H5'	2.04	0.58
57:BA:1603:A:H5'	57:BA:1603:A:C8	2.38	0.58
57:BA:2473:U:C5	57:BA:2474:C:C6	2.92	0.58
57:BA:2591:C:H2'	57:BA:2592:G:C8	2.39	0.58
58:BB:105:A:H2'	58:BB:106:G:O4'	2.04	0.58
1:Ab:71:VAL:HG13	1:Ab:93:VAL:CB	2.32	0.58
2:Ac:39:ILE:O	2:Ac:43:LEU:HG	2.03	0.58
2:Ac:179:ARG:HD3	22:Aa:1112:C:H1'	1.86	0.58
4:Ae:33:VAL:HG11	4:Ae:109:ILE:HA	1.85	0.58
6:Ag:69:VAL:O	6:Ag:69:VAL:HG12	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:Ai:118:LYS:O	8:Ai:119:ALA:HB3	2.02	0.58
12:Am:23:TYR:CE2	22:Aa:1330:U:H4'	2.38	0.58
22:Aa:358:U:H2'	22:Aa:359:U:C6	2.39	0.58
22:Aa:359:U:H2'	22:Aa:360:A:C8	2.39	0.58
22:Aa:392:G:H2'	22:Aa:393:A:C8	2.39	0.58
22:Aa:1132:C:O2'	22:Aa:1133:G:H5'	2.04	0.58
22:Aa:1251:A:H2'	22:Aa:1252:A:C8	2.39	0.58
27:AD:35:LYS:NZ	27:AD:36:PRO:HD3	2.18	0.58
27:AD:172:TYR:CD1	27:AD:186:HIS:HA	2.39	0.58
29:AF:28:ILE:HG21	29:AF:116:ASP:HB2	1.85	0.58
29:AF:128:ALA:O	29:AF:142:TRP:NE1	2.34	0.58
30:AG:121:ASN:CG	30:AG:122:PRO:HD2	2.27	0.58
36:AP:16:ARG:HD3	36:AP:17:LYS:N	2.18	0.58
36:AP:59:LEU:HA	36:AP:61:ARG:HH11	1.62	0.58
37:AQ:42:ILE:HG12	37:AQ:103:MET:HE1	1.85	0.58
39:AS:17:ARG:HA	39:AS:20:ARG:HH11	1.68	0.58
39:AS:23:ARG:HB3	39:AS:24:LEU:HD22	1.86	0.58
51:A4:22:ILE:HD12	51:A4:22:ILE:H	1.67	0.58
57:AA:1826:G:H2'	57:AA:1827:C:H6	1.69	0.58
58:AB:8:U:H5'	58:AB:8:U:H6	1.68	0.58
2:Bc:77:ILE:HA	2:Bc:84:ILE:HB	1.86	0.58
2:Bc:112:SER:O	2:Bc:116:VAL:HG23	2.03	0.58
3:Bd:112:VAL:HG12	3:Bd:116:GLN:OE1	2.04	0.58
14:Bo:26:GLU:OE2	14:Bo:77:ARG:HB2	2.03	0.58
18:Bs:6:LYS:H	18:Bs:6:LYS:CD	2.16	0.58
21:By:30:LEU:HA	21:By:33:VAL:HG13	1.85	0.58
22:Ba:1347:G:H22	22:Ba:1373:G:C2'	2.16	0.58
22:Ba:1442(A):G:C8	40:BT:118:ARG:HD2	2.38	0.58
27:BD:70:TRP:C	27:BD:70:TRP:CD1	2.81	0.58
27:BD:186:HIS:CD2	27:BD:188:GLU:H	2.20	0.58
28:BE:61:ARG:C	28:BE:63:LEU:H	2.12	0.58
36:BP:16:ARG:CD	36:BP:18:ARG:H	2.10	0.58
36:BP:67:MET:H	57:BA:2415:G:H4'	1.66	0.58
42:BV:39:LEU:HA	42:BV:47:VAL:HG13	1.86	0.58
45:BY:88:LYS:O	45:BY:90:LEU:HD23	2.03	0.58
46:BZ:144:LEU:HD11	46:BZ:150:LEU:HD22	1.85	0.58
53:B6:5:VAL:HG11	53:B6:7:ILE:HG22	1.86	0.58
57:BA:1014:U:H2'	57:BA:1015:G:H5"	1.84	0.58
58:BB:1:U:O2	58:BB:1:U:H2'	2.02	0.58
1:Ab:55:PHE:CD1	1:Ab:58:ILE:HD12	2.39	0.58
1:Ab:213:LEU:O	1:Ab:213:LEU:HD23	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Ad:119:GLN:HG3	3:Ad:123:HIS:HD2	1.63	0.58
3:Ad:150:GLU:CG	3:Ad:151:LYS:N	2.66	0.58
4:Ae:57:LYS:HE2	4:Ae:61:TYR:HE2	1.68	0.58
4:Ae:80:ILE:HD11	4:Ae:138:ALA:HB1	1.86	0.58
6:Ag:102:ARG:NH1	22:Aa:939:G:H5"	2.18	0.58
9:Aj:50:ILE:HD13	9:Aj:50:ILE:N	2.09	0.58
11:Al:60:LEU:HD21	11:Al:66:VAL:HG23	1.85	0.58
19:At:81:LYS:C	19:At:83:ARG:H	2.10	0.58
22:Aa:665:A:H2'	22:Aa:725:G:N2	2.18	0.58
28:AE:51:PHE:O	28:AE:52:LEU:C	2.46	0.58
30:AG:180:PHE:C	30:AG:182:LYS:H	2.11	0.58
32:AI:129:THR:CG2	32:AI:130:TYR:N	2.65	0.58
36:AP:85:LEU:H	36:AP:85:LEU:CD2	2.12	0.58
39:AS:89:ARG:NH1	39:AS:92:TYR:HA	2.19	0.58
40:AT:89:VAL:HG11	40:AT:91:ARG:NE	2.18	0.58
43:AW:91:GLY:HA2	57:AA:1614:A:N1	2.18	0.58
46:AZ:81:ARG:HH11	46:AZ:81:ARG:CB	2.16	0.58
57:AA:1339:G:N2	57:AA:1603:A:H1'	2.19	0.58
57:AA:1448:G:H1'	57:AA:1528:A:N6	2.18	0.58
57:AA:1697:G:H3'	57:AA:1698:A:H5"	1.84	0.58
57:AA:2801(A):A:O4'	57:AA:2802:G:H2'	2.03	0.58
2:Bc:11:ARG:HG2	2:Bc:11:ARG:HH11	1.68	0.58
3:Bd:10:ARG:NH2	22:Ba:542:G:OP1	2.33	0.58
3:Bd:93:PHE:O	3:Bd:97:LEU:HB2	2.04	0.58
9:Bj:8:LEU:O	9:Bj:16:LEU:HD21	2.03	0.58
9:Bj:38:ILE:HD11	9:Bj:71:LEU:HB3	1.86	0.58
10:Bk:116:HIS:O	10:Bk:117:ASN:HB2	2.02	0.58
13:Bn:12:ARG:NH1	13:Bn:14:PRO:HG3	2.16	0.58
19:Bt:26:ASN:ND2	19:Bt:26:ASN:N	2.52	0.58
22:Ba:545:C:O2'	22:Ba:546:G:H5'	2.04	0.58
22:Ba:1194:U:H2'	22:Ba:1195:C:H6	1.69	0.58
22:Ba:1244:C:H2'	22:Ba:1245:A:C8	2.38	0.58
23:Bx:14:A:N3	23:Bx:14:A:H5'	2.18	0.58
30:BG:55:LYS:O	30:BG:59:GLU:HB2	2.03	0.58
30:BG:170:ARG:HG3	30:BG:180:PHE:HE1	1.69	0.58
32:BI:27:ARG:HH11	32:BI:27:ARG:HG3	1.67	0.58
32:BI:103:ARG:O	32:BI:105:HIS:N	2.35	0.58
35:BO:104:ARG:HE	40:BT:33:LYS:CD	2.17	0.58
37:BQ:21:THR:HG22	37:BQ:23:GLY:O	2.04	0.58
41:BU:65:ILE:HD11	41:BU:93:LYS:HA	1.86	0.58
43:BW:9:TYR:H	43:BW:102:HIS:HD2	1.49	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BA:1542:A:N7	57:BA:1544:A:H5"	2.19	0.58
57:BA:1701:A:H5'	57:BA:1702:G:OP2	2.03	0.58
57:BA:2061:G:H5"	57:BA:2503:A:C2	2.39	0.58
2:Ac:107:GLN:H	2:Ac:107:GLN:NE2	2.01	0.58
8:Ai:47:LEU:C	8:Ai:49:PRO:CD	2.69	0.58
9:Aj:8:LEU:O	9:Aj:16:LEU:HD21	2.04	0.58
12:Am:23:TYR:HB2	12:Am:67:GLU:OE1	2.03	0.58
12:Am:91:ARG:HB2	12:Am:98:VAL:HG13	1.86	0.58
12:Am:91:ARG:O	12:Am:96:LEU:O	2.22	0.58
13:An:13:THR:HG22	13:An:13:THR:O	2.04	0.58
22:Aa:832:C:O2'	22:Aa:833:U:H6	1.86	0.58
27:AD:121:PRO:HB3	27:AD:135:PHE:CE1	2.37	0.58
28:AE:61:ARG:HD3	57:AA:2787:C:H1'	1.86	0.58
28:AE:131:ALA:H	57:AA:2580:U:H5'	1.69	0.58
34:AN:57:ALA:H	34:AN:124:ALA:HA	1.69	0.58
36:AP:95:VAL:CG2	36:AP:125:VAL:HB	2.34	0.58
37:AQ:21:THR:O	37:AQ:23:GLY:N	2.36	0.58
37:AQ:84:GLY:O	37:AQ:85:LYS:HB2	2.03	0.58
45:AY:8:LYS:HG2	45:AY:28:LYS:HZ3	1.69	0.58
45:AY:27:VAL:HG12	45:AY:29:GLU:H	1.68	0.58
46:AZ:42:VAL:HG13	46:AZ:43:GLU:OE1	2.03	0.58
57:AA:214:G:H1'	57:AA:216:A:O2'	2.04	0.58
57:AA:341:G:O2'	57:AA:342:G:H5'	2.03	0.58
57:AA:669:G:N3	57:AA:669:G:H2'	2.19	0.58
57:AA:1652:A:H3'	57:AA:1653:G:C8	2.38	0.58
57:AA:2657:A:C2'	57:AA:2658:C:H5'	2.34	0.58
1:Bb:17:PHE:CB	1:Bb:44:LEU:HD11	2.34	0.58
1:Bb:144:ARG:HA	1:Bb:147:LYS:HB3	1.84	0.58
3:Bd:57:ARG:HB3	3:Bd:206:PHE:HB2	1.84	0.58
4:Be:100:VAL:HG12	4:Be:118:ILE:HG22	1.85	0.58
5:Bf:18:GLN:HA	5:Bf:21:LEU:HD23	1.84	0.58
5:Bf:62:TRP:CG	17:Br:35:ARG:HH12	2.22	0.58
7:Bh:20:TYR:HD1	7:Bh:65:TYR:CD2	2.22	0.58
9:Bj:56:HIS:O	9:Bj:58:ASP:N	2.36	0.58
11:Bl:27:LEU:HG	11:Bl:62:SER:OG	2.03	0.58
14:Bo:82:ILE:HG12	14:Bo:87:ILE:CG1	2.34	0.58
22:Ba:1118:C:H1'	22:Ba:1179:A:C4	2.38	0.58
27:BD:35:LYS:HG2	27:BD:63:ARG:HG3	1.85	0.58
27:BD:70:TRP:HZ3	27:BD:146:GLU:CD	2.12	0.58
27:BD:117:VAL:HG21	27:BD:128:GLY:O	2.04	0.58
28:BE:14:ILE:HD11	28:BE:173:VAL:HG11	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:51:PHE:O	28:BE:52:LEU:C	2.46	0.58
30:BG:173:LEU:HD22	30:BG:178:PHE:CE1	2.38	0.58
31:BH:20:ALA:HB1	31:BH:21:PRO:HD2	1.85	0.58
36:BP:83:VAL:HG23	36:BP:105:LEU:HD13	1.85	0.58
38:BR:56:LYS:HE3	38:BR:88:ARG:HA	1.85	0.58
38:BR:92:GLY:HA2	38:BR:94:TYR:CE1	2.37	0.58
39:BS:89:ARG:HH11	39:BS:92:TYR:HA	1.69	0.58
41:BU:102:GLU:HG3	42:BV:2:PHE:HE1	1.68	0.58
42:BV:1:MET:HE2	42:BV:1:MET:HA	1.86	0.58
42:BV:39:LEU:HD12	42:BV:47:VAL:HG11	1.85	0.58
46:BZ:68:PRO:HG2	46:BZ:91:LEU:N	2.18	0.58
57:BA:363(E):U:H5'	57:BA:363(F):A:OP2	2.03	0.58
57:BA:1485:G:H1'	57:BA:1505:C:N4	2.18	0.58
1:Ab:90:MET:HA	1:Ab:90:MET:HE2	1.86	0.58
2:Ac:111:LEU:HD21	2:Ac:145:GLY:O	2.03	0.58
4:Ae:72:GLN:O	4:Ae:73:ASN:HB2	2.03	0.58
5:Af:43:LEU:HD12	5:Af:43:LEU:H	1.69	0.58
6:Ag:77:SER:HA	6:Ag:86:GLN:HA	1.84	0.58
8:Ai:114:TYR:N	8:Ai:114:TYR:CD2	2.71	0.58
11:Al:57:LYS:HG2	11:Al:67:THR:HG23	1.85	0.58
15:Ap:23:ASP:O	15:Ap:26:ARG:HB2	2.04	0.58
16:Aq:15:MET:HE1	16:Aq:43:LEU:HD22	1.86	0.58
18:As:15:LEU:O	18:As:19:VAL:HG23	2.04	0.58
22:Aa:179:A:H2'	22:Aa:180:U:C6	2.38	0.58
23:Ax:21:OMG:H4'	23:Ax:22:A:OP1	2.03	0.58
26:AC:43:GLU:HG2	26:AC:216:THR:O	2.03	0.58
29:AF:68:LYS:HE2	57:AA:2444:G:OP2	2.04	0.58
29:AF:196:LEU:O	29:AF:196:LEU:HD23	2.04	0.58
31:AH:35:VAL:O	31:AH:37:VAL:HG23	2.04	0.58
32:AI:87:LYS:HG3	32:AI:121:LYS:O	2.04	0.58
32:AI:94:ALA:HB1	32:AI:98:ALA:CB	2.33	0.58
34:AN:90:MET:HE2	34:AN:90:MET:HA	1.86	0.58
35:AO:104:ARG:HE	40:AT:33:LYS:CD	2.16	0.58
36:AP:29:LYS:HD2	36:AP:29:LYS:N	2.19	0.58
36:AP:41:ARG:HH12	36:AP:45:LEU:HD12	1.68	0.58
39:AS:44:LYS:O	39:AS:46:VAL:HG23	2.04	0.58
41:AU:9:VAL:O	41:AU:13:LYS:HE3	2.04	0.58
44:AX:64:LYS:NZ	44:AX:73:ARG:NH2	2.51	0.58
45:AY:2:ARG:C	45:AY:4:LYS:N	2.61	0.58
45:AY:68:HIS:HB3	45:AY:71:LYS:HG2	1.86	0.58
51:A4:20:ASN:HD22	51:A4:21:VAL:N	2.02	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:A8:14:VAL:HG21	55:A8:22:VAL:CG1	2.34	0.58
55:A8:61:LEU:CG	55:A8:62:LEU:H	2.17	0.58
57:AA:271(F):C:H2'	57:AA:271(G):C:C6	2.36	0.58
57:AA:2645:G:C3'	57:AA:2646:C:H5'	2.32	0.58
2:Bc:19:GLU:O	2:Bc:40:ARG:NH2	2.37	0.58
3:Bd:2:GLY:O	3:Bd:3:ARG:C	2.47	0.58
5:Bf:3:ARG:HD3	5:Bf:64:GLN:NE2	2.19	0.58
6:Bg:79:ARG:HG2	6:Bg:81:GLY:H	1.68	0.58
8:Bi:96:LEU:HD11	8:Bi:101:PHE:O	2.04	0.58
11:Bl:126:LYS:HA	11:Bl:126:LYS:CE	2.31	0.58
12:Bm:104:ARG:HD2	22:Ba:1226:C:H42	1.68	0.58
19:Bt:57:ARG:HD3	19:Bt:103:GLY:H	1.69	0.58
19:Bt:105:SER:HB3	22:Ba:191:G:C4	2.39	0.58
22:Ba:189(J):G:O2'	22:Ba:189(K):U:H5'	2.04	0.58
22:Ba:532:A:O4'	22:Ba:532:A:OP2	2.22	0.58
27:BD:43:ARG:HH11	27:BD:44:ASN:CG	2.12	0.58
29:BF:161:GLU:O	29:BF:165:ARG:HG2	2.04	0.58
31:BH:89:ILE:C	31:BH:89:ILE:HD12	2.29	0.58
33:BJ:69:PRO:O	33:BJ:70:GLU:CB	2.50	0.58
44:BX:64:LYS:NZ	44:BX:73:ARG:NH2	2.52	0.58
52:B5:2:ALA:N	57:BA:2014:A:HO2'	2.02	0.58
57:BA:1448:G:H1'	57:BA:1528:A:N6	2.19	0.58
57:BA:1827:C:C2'	57:BA:1828:G:H5'	2.34	0.58
57:BA:2201:C:O2'	57:BA:2202:C:H5'	2.04	0.58
7:Ah:6:ILE:HD12	7:Ah:6:ILE:H	1.68	0.57
11:Al:126:LYS:HA	11:Al:126:LYS:CE	2.30	0.57
13:An:12:ARG:NH1	13:An:14:PRO:HG3	2.18	0.57
14:Ao:82:ILE:HG23	14:Ao:83:GLU:H	1.68	0.57
19:At:56:MET:HG3	19:At:84:LEU:CD1	2.33	0.57
22:Aa:9:G:H2'	22:Aa:10:A:C8	2.35	0.57
22:Aa:473:G:H2'	22:Aa:474:G:H8	1.68	0.57
27:AD:71:ASP:CB	27:AD:103:ARG:NH2	2.67	0.57
28:AE:61:ARG:C	28:AE:63:LEU:H	2.11	0.57
32:AI:76:THR:OG1	32:AI:77:LEU:N	2.37	0.57
41:AU:92:ARG:O	41:AU:94:ASN:N	2.36	0.57
45:AY:13:VAL:HG21	45:AY:28:LYS:HZ2	1.68	0.57
47:A0:73:GLY:C	47:A0:75:LEU:H	2.12	0.57
51:A4:15:ILE:HD13	51:A4:21:VAL:HG22	1.85	0.57
57:AA:621:A:H2'	57:AA:622:G:H5'	1.85	0.57
57:AA:1504:C:O2'	57:AA:1505:C:H5'	2.04	0.57
1:Bb:233:SER:CB	1:Bb:234:PRO:HD2	2.20	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Bc:134:ILE:HD11	2:Bc:153:VAL:CG2	2.34	0.57
12:Bm:76:ALA:O	12:Bm:77:ASN:C	2.47	0.57
13:Bn:44:LEU:HD12	13:Bn:44:LEU:O	2.04	0.57
18:Bs:38:SER:O	18:Bs:70:LYS:HD3	2.04	0.57
19:Bt:48:LYS:O	19:Bt:52:ALA:HB2	2.03	0.57
22:Ba:353:A:H5'	22:Ba:353:A:C8	2.36	0.57
22:Ba:1442(A):G:C3'	22:Ba:1442(B):A:C5'	2.65	0.57
28:BE:116:VAL:O	28:BE:117:MET:HG2	2.04	0.57
33:BJ:20:ALA:HB1	33:BJ:89:ALA:HB2	1.86	0.57
34:BN:23:LEU:CD1	34:BN:98:VAL:HG12	2.34	0.57
36:BP:16:ARG:HH11	36:BP:16:ARG:CA	2.17	0.57
45:BY:27:VAL:HG12	45:BY:29:GLU:H	1.69	0.57
53:B6:11:LEU:HD13	53:B6:11:LEU:H	1.69	0.57
57:BA:902:C:H2'	57:BA:903:C:H6	1.69	0.57
57:BA:1509(A):A:H2'	57:BA:1509(B):A:H8	1.69	0.57
57:BA:1590:U:C3'	57:BA:1591:G:H5"	2.33	0.57
57:BA:2327:A:H2'	57:BA:2328:A:H8	1.64	0.57
57:BA:2401:U:C2'	57:BA:2402:C:H5"	2.34	0.57
57:BA:2753:A:O2'	57:BA:2754:U:H5'	2.04	0.57
58:BB:40:U:H3'	58:BB:41:U:H5"	1.85	0.57
1:Ab:106:LYS:O	1:Ab:110:GLN:HG3	2.03	0.57
2:Ac:43:LEU:O	2:Ac:47:LEU:HB3	2.03	0.57
3:Ad:112:VAL:HG12	3:Ad:116:GLN:OE1	2.04	0.57
4:Ae:102:ALA:HB2	4:Ae:120:THR:OG1	2.03	0.57
4:Ae:102:ALA:HB1	4:Ae:106:PRO:HG2	1.85	0.57
8:Ai:17:VAL:HG21	8:Ai:80:GLY:C	2.29	0.57
8:Ai:63:ILE:CD1	8:Ai:81:ILE:HD11	2.33	0.57
8:Ai:70:LYS:O	8:Ai:74:ILE:HG13	2.03	0.57
12:Am:97:PRO:HA	12:Am:110:ARG:HD3	1.86	0.57
19:At:75:ASN:N	19:At:75:ASN:ND2	2.50	0.57
21:Ay:43:LYS:HZ1	22:Aa:1493:A:C1'	2.01	0.57
22:Aa:243:A:H4'	22:Aa:244:U:O5'	2.04	0.57
26:AC:191:ARG:HD3	26:AC:195:ARG:HH22	1.69	0.57
34:AN:67:LEU:O	34:AN:68:GLU:HB2	2.04	0.57
35:AO:13:ASN:HD21	35:AO:97:ARG:N	2.01	0.57
35:AO:60:ALA:HA	35:AO:87:ILE:HG12	1.87	0.57
35:AO:69:ILE:HD12	35:AO:69:ILE:H	1.67	0.57
52:A5:3:LYS:HZ3	57:AA:2614:A:H5'	1.69	0.57
57:AA:1779:U:C5	57:AA:1784:A:N7	2.61	0.57
57:AA:2584:U:H2'	57:AA:2585:U:H5'	1.87	0.57
57:AA:2602:A:H4'	57:AA:2603:G:C5'	2.34	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Be:36:ASP:O	4:Be:37:ARG:HB2	2.04	0.57
24:Bv:72:A:C2'	24:Bv:73:A:H5"	2.33	0.57
25:Bw:9:G:H5'	25:Bw:46:G:O4'	2.04	0.57
35:BO:13:ASN:HD21	35:BO:97:ARG:N	2.02	0.57
39:BS:18:ILE:C	39:BS:20:ARG:H	2.12	0.57
39:BS:67:ARG:HB3	39:BS:71:ARG:HH12	1.69	0.57
46:BZ:151:HIS:N	46:BZ:151:HIS:HD2	2.02	0.57
53:B6:26:ASN:O	53:B6:27:LYS:HB2	2.04	0.57
57:BA:93:G:H2'	57:BA:94:C:C6	2.39	0.57
57:BA:845:G:HO2'	57:BA:846:C:H5	1.50	0.57
57:BA:1146:C:O2'	57:BA:1147:C:H5'	2.04	0.57
57:BA:2555:U:H2'	57:BA:2556:C:H5'	1.86	0.57
57:BA:2855:C:H2'	57:BA:2856:C:H6	1.69	0.57
2:Ac:138:VAL:HG13	2:Ac:149:ALA:HB3	1.86	0.57
11:Al:41:ARG:HG2	11:Al:42:THR:H	1.70	0.57
21:Ay:39:ILE:O	21:Ay:41:ALA:N	2.36	0.57
22:Aa:107:G:C2'	22:Aa:108:G:H5'	2.34	0.57
27:AD:70:TRP:HZ3	27:AD:146:GLU:CD	2.11	0.57
32:AI:73:GLU:HB3	32:AI:136:VAL:CG2	2.33	0.57
34:AN:132:ALA:O	34:AN:133:GLN:HB3	2.05	0.57
38:AR:56:LYS:HE3	38:AR:88:ARG:HA	1.86	0.57
40:AT:27:THR:O	40:AT:28:VAL:CB	2.52	0.57
41:AU:65:ILE:O	41:AU:69:CYS:HB3	2.04	0.57
42:AV:19:LYS:HZ2	42:AV:20:LEU:H	1.49	0.57
43:AW:40:ASN:O	43:AW:41:LYS:HG2	2.04	0.57
47:A0:48:GLY:HA3	47:A0:80:HIS:ND1	2.20	0.57
53:A6:27:LYS:CD	53:A6:30:THR:HB	2.24	0.57
57:AA:1719:G:O2'	57:AA:1720:U:H5'	2.04	0.57
5:Bf:7:ASN:O	5:Bf:8:ILE:HG13	2.03	0.57
7:Bh:92:ARG:NH2	22:Ba:644:G:H5'	2.19	0.57
9:Bj:75:ILE:HG13	9:Bj:76:ASN:H	1.68	0.57
22:Ba:977:A:H8	22:Ba:1223:C:C4	2.22	0.57
39:BS:11:LYS:N	39:BS:11:LYS:HD2	2.19	0.57
43:BW:12:ILE:HD13	43:BW:17:VAL:HG22	1.86	0.57
45:BY:8:LYS:HG2	45:BY:28:LYS:HZ3	1.68	0.57
45:BY:68:HIS:HB3	45:BY:71:LYS:HG2	1.85	0.57
46:BZ:81:ARG:HH11	46:BZ:81:ARG:CB	2.17	0.57
50:B3:44:ARG:O	50:B3:48:GLU:HG2	2.03	0.57
51:B4:15:ILE:HD13	51:B4:21:VAL:HG22	1.86	0.57
52:B5:6:VAL:CG1	57:BA:2016:U:H1'	2.34	0.57
57:BA:1107:G:O2'	57:BA:1108:U:H5'	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Ac:58:GLU:O	2:Ac:59:ARG:HG3	2.05	0.57
3:Ad:107:ARG:HH11	3:Ad:107:ARG:HG2	1.68	0.57
5:Af:45:LEU:HD23	5:Af:46:ARG:N	2.18	0.57
12:Am:23:TYR:HB3	12:Am:67:GLU:CA	2.34	0.57
14:Ao:33:THR:HG21	14:Ao:85:LEU:HD21	1.86	0.57
18:As:44:MET:HA	18:As:44:MET:CE	2.31	0.57
22:Aa:1293:G:HO2'	22:Aa:1294:G:H8	1.50	0.57
27:AD:70:TRP:C	27:AD:70:TRP:CD1	2.82	0.57
28:AE:77:ILE:CG2	28:AE:78:LEU:H	2.01	0.57
29:AF:185:ASP:HA	29:AF:188:ARG:CG	2.34	0.57
31:AH:20:ALA:HB1	31:AH:21:PRO:HD2	1.86	0.57
32:AI:81:VAL:CG2	32:AI:82:ARG:H	2.16	0.57
33:AJ:24:PHE:HA	33:AJ:87:VAL:CB	2.34	0.57
36:AP:16:ARG:HH11	36:AP:16:ARG:CA	2.17	0.57
42:AV:38:LEU:O	42:AV:39:LEU:HD13	2.04	0.57
53:A6:5:VAL:CG1	53:A6:7:ILE:HG22	2.35	0.57
53:A6:5:VAL:HG11	53:A6:7:ILE:HG22	1.85	0.57
57:AA:93:G:H2'	57:AA:94:C:C6	2.39	0.57
57:AA:902:C:H2'	57:AA:903:C:H6	1.69	0.57
57:AA:1503:U:H2'	57:AA:1504:C:C6	2.39	0.57
57:AA:2000:G:O2'	57:AA:2001:A:H5'	2.04	0.57
57:AA:2176:A:H2'	57:AA:2177:C:C6	2.39	0.57
57:AA:2193:G:H8	57:AA:2193:G:H5'	1.69	0.57
57:AA:2753:A:O2'	57:AA:2754:U:H5'	2.03	0.57
3:Bd:15:GLU:OE1	3:Bd:15:GLU:HA	2.03	0.57
9:Bj:40:LEU:HB2	9:Bj:69:ASN:CB	2.33	0.57
18:Bs:11:VAL:HG22	18:Bs:16:LEU:CD1	2.34	0.57
22:Ba:135:C:H2'	22:Ba:136:C:H5'	1.85	0.57
22:Ba:1346:A:N1	22:Ba:1374:A:H5"	2.18	0.57
24:Bv:27:U:H3	24:Bv:43:A:H61	1.52	0.57
28:BE:129:HIS:HE1	57:BA:1670:C:O2	1.87	0.57
30:BG:31:VAL:HG13	30:BG:31:VAL:O	2.04	0.57
36:BP:64:LYS:C	36:BP:66:GLY:N	2.63	0.57
40:BT:55:ASN:H	40:BT:59:THR:CG2	2.16	0.57
41:BU:90:VAL:CG2	42:BV:39:LEU:HG	2.34	0.57
45:BY:95:LYS:HB3	45:BY:100:ALA:HA	1.86	0.57
57:BA:792:G:H5"	57:BA:793:A:H5'	1.86	0.57
2:Ac:77:ILE:HA	2:Ac:84:ILE:HB	1.86	0.57
4:Ae:88:LYS:HB3	4:Ae:123:LEU:O	2.03	0.57
11:Al:71:PRO:O	11:Al:102:ARG:NH1	2.38	0.57
14:Ao:82:ILE:HG12	14:Ao:87:ILE:HG13	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:Ax:22:A:N3	23:Ax:22:A:C3'	2.63	0.57
26:AC:7:ARG:HD2	26:AC:35:THR:O	2.05	0.57
28:AE:61:ARG:NH2	57:AA:2810:A:H2'	2.20	0.57
30:AG:2:PRO:HA	51:A4:25:TYR:CE2	2.39	0.57
30:AG:96:ARG:N	30:AG:99:MET:HE2	2.19	0.57
42:AV:1:MET:HE2	42:AV:1:MET:HA	1.87	0.57
42:AV:39:LEU:O	42:AV:40:LEU:HB2	2.04	0.57
57:AA:1019:U:H3	57:AA:1142(A):A:N6	1.90	0.57
2:Bc:39:ILE:O	2:Bc:43:LEU:HG	2.05	0.57
11:Bl:66:VAL:HG11	11:Bl:98:TYR:CE1	2.39	0.57
12:Bm:20:THR:C	12:Bm:22:ILE:H	2.11	0.57
15:Bp:36:ILE:O	15:Bp:36:ILE:HG13	2.03	0.57
22:Ba:223:U:H2'	22:Ba:224:C:H6	1.66	0.57
27:BD:21:PHE:O	27:BD:24:ILE:HD13	2.05	0.57
31:BH:35:VAL:O	31:BH:37:VAL:HG23	2.04	0.57
31:BH:89:ILE:HD11	31:BH:94:TYR:O	2.04	0.57
31:BH:156:ALA:O	31:BH:158:HIS:N	2.37	0.57
34:BN:18:ALA:HB1	34:BN:21:LYS:HB3	1.85	0.57
40:BT:65:LYS:HG3	40:BT:66:VAL:N	2.20	0.57
41:BU:10:ARG:HG3	57:BA:1251:C:OP1	2.04	0.57
41:BU:92:ARG:NH1	42:BV:11:GLN:O	2.38	0.57
42:BV:19:LYS:HG2	42:BV:94:LEU:CB	2.31	0.57
42:BV:82:ARG:HH11	42:BV:82:ARG:HG2	1.69	0.57
46:BZ:120:ILE:O	46:BZ:121:HIS:HB2	2.02	0.57
48:B1:52:ARG:HH12	57:BA:2218:U:C1'	2.08	0.57
55:B8:33:ASN:HA	55:B8:36:LYS:CD	2.35	0.57
57:BA:141:A:C8	57:BA:1408:C:O2'	2.57	0.57
58:BB:8:U:H5'	58:BB:8:U:H6	1.69	0.57
1:Ab:18:GLY:O	1:Ab:19:HIS:HB2	2.03	0.57
1:Ab:84:GLU:O	1:Ab:219:VAL:HG21	2.04	0.57
1:Ab:155:LEU:HD12	1:Ab:157:ARG:O	2.05	0.57
12:Am:28:ALA:C	12:Am:30:ALA:N	2.61	0.57
19:At:37:SER:HB3	19:At:84:LEU:HD23	1.85	0.57
19:At:89:ARG:HB2	19:At:104:LEU:HD11	1.86	0.57
22:Aa:308:C:H2'	22:Aa:309:G:H8	1.69	0.57
22:Aa:961:U:O2'	22:Aa:962:C:H5'	2.04	0.57
22:Aa:1193:G:O2'	22:Aa:1194:U:C5'	2.53	0.57
22:Aa:1456:G:H2'	22:Aa:1457:G:H5'	1.87	0.57
26:AC:7:ARG:HD3	57:AA:2128:C:H5'	1.84	0.57
28:AE:61:ARG:NH2	57:AA:2632:A:O2'	2.37	0.57
28:AE:129:HIS:HE1	57:AA:1670:C:O2	1.88	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AE:142:GLY:HA3	57:AA:2052:G:O4'	2.05	0.57
29:AF:33:LEU:O	29:AF:37:VAL:HG23	2.05	0.57
32:AI:87:LYS:HE3	32:AI:121:LYS:HG3	1.86	0.57
32:AI:127:VAL:O	32:AI:128:LEU:HD13	2.05	0.57
35:AO:90:GLN:O	35:AO:91:LEU:HB2	2.04	0.57
37:AQ:21:THR:HG22	37:AQ:23:GLY:O	2.04	0.57
38:AR:38:VAL:CG1	38:AR:42:LYS:HD2	2.34	0.57
39:AS:16:ASN:C	39:AS:18:ILE:H	2.12	0.57
56:A9:25:VAL:HB	56:A9:34:GLN:HB2	1.86	0.57
57:AA:128:C:H6	57:AA:128:C:H5"	1.69	0.57
57:AA:633:A:H2'	57:AA:634:C:H5'	1.87	0.57
57:AA:1713:U:O2'	57:AA:1714:G:H5'	2.05	0.57
1:Bb:18:GLY:O	1:Bb:19:HIS:HB2	2.04	0.57
8:Bi:118:LYS:O	8:Bi:119:ALA:HB3	2.03	0.57
10:Bk:22:HIS:HB3	10:Bk:29:ILE:CG2	2.34	0.57
10:Bk:105:VAL:HG23	10:Bk:105:VAL:O	2.04	0.57
11:Bl:8:ASN:HD22	16:Bq:34:LYS:CE	2.15	0.57
18:Bs:6:LYS:HG2	18:Bs:7:LYS:CE	2.26	0.57
20:Bu:2:GLY:C	20:Bu:4:GLY:H	2.11	0.57
22:Ba:176:C:H2'	22:Ba:177:C:H6	1.67	0.57
24:Bv:20:U:H5'	24:Bv:21:A:OP2	2.05	0.57
28:BE:50:GLY:CA	28:BE:78:LEU:HB3	2.33	0.57
29:BF:148:LEU:HD23	29:BF:191:ARG:NH1	2.19	0.57
30:BG:27:ASN:C	30:BG:29:TRP:H	2.12	0.57
32:BI:92:VAL:HG22	32:BI:97:ILE:HG13	1.87	0.57
34:BN:62:VAL:HG23	34:BN:66:LYS:HD2	1.86	0.57
36:BP:101:VAL:HB	36:BP:107:LYS:CA	2.31	0.57
39:BS:88:ASP:CG	39:BS:89:ARG:N	2.63	0.57
43:BW:92:ARG:HH11	43:BW:92:ARG:CB	2.14	0.57
47:B0:36:ILE:CD1	47:B0:39:ARG:HG2	2.35	0.57
53:B6:42:TRP:HA	53:B6:42:TRP:HE3	1.70	0.57
54:B7:19:ARG:HG2	54:B7:19:ARG:NH1	2.20	0.57
56:B9:19:ARG:HA	57:BA:2757:A:OP1	2.05	0.57
57:BA:364:C:H2'	57:BA:365:C:C5'	2.35	0.57
57:BA:962:G:O2'	57:BA:963:U:H5'	2.04	0.57
58:BB:111:G:O2'	58:BB:112:U:H5'	2.05	0.57
2:Ac:6:HIS:HD2	2:Ac:7:PRO:HD2	1.69	0.57
2:Ac:11:ARG:O	2:Ac:12:LEU:C	2.47	0.57
3:Ad:10:ARG:NH2	22:Aa:542:G:OP1	2.33	0.57
10:Ak:22:HIS:HB3	10:Ak:29:ILE:CG2	2.33	0.57
10:Ak:59:TYR:O	10:Ak:63:LEU:HD23	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Am:9:ILE:HD12	12:Am:9:ILE:N	2.19	0.57
18:As:21:GLU:HG3	18:As:22:LEU:HD22	1.86	0.57
22:Aa:102:G:H2'	22:Aa:103:C:H6	1.70	0.57
26:AC:178:LYS:HG2	26:AC:181:PHE:CE1	2.39	0.57
27:AD:34:VAL:C	27:AD:36:PRO:HD2	2.29	0.57
29:AF:206:ILE:HG22	29:AF:207:GLY:N	2.16	0.57
36:AP:16:ARG:HB2	36:AP:16:ARG:NH1	2.18	0.57
36:AP:102:ARG:NH2	36:AP:102:ARG:HB3	2.20	0.57
38:AR:32:GLY:HA2	38:AR:116:LEU:HD12	1.87	0.57
47:A0:14:ARG:NH1	47:A0:14:ARG:HG3	2.20	0.57
57:AA:803:U:O2'	57:AA:804:A:H5'	2.04	0.57
57:AA:1286:A:O2'	57:AA:1288:U:OP2	2.18	0.57
1:Bb:106:LYS:O	1:Bb:110:GLN:HG3	2.04	0.57
2:Bc:6:HIS:HD2	2:Bc:7:PRO:HD2	1.69	0.57
3:Bd:209:ARG:HG3	3:Bd:209:ARG:HH11	1.70	0.57
6:Bg:66:VAL:O	6:Bg:70:LYS:HE3	2.03	0.57
8:Bi:55:ALA:HB1	8:Bi:58:HIS:CD2	2.38	0.57
13:Bn:2:ALA:HA	22:Ba:1216:G:OP1	2.05	0.57
22:Ba:1251:A:H2'	22:Ba:1252:A:C8	2.40	0.57
29:BF:68:LYS:HE2	57:BA:2444:G:OP2	2.04	0.57
31:BH:7:LEU:HG	31:BH:69:ARG:HD2	1.86	0.57
33:BJ:88:ALA:O	33:BJ:90:ALA:N	2.37	0.57
37:BQ:14:ARG:HD2	57:BA:958:U:H5"	1.86	0.57
40:BT:1:MET:O	40:BT:2:ASN:C	2.47	0.57
40:BT:89:VAL:HG11	40:BT:91:ARG:NE	2.20	0.57
45:BY:28:LYS:O	45:BY:29:GLU:C	2.47	0.57
46:BZ:151:HIS:HA	46:BZ:171:ILE:H	1.70	0.57
49:B2:47:ASN:HD22	57:BA:94(A):G:N2	1.99	0.57
53:B6:5:VAL:CG1	53:B6:7:ILE:HG22	2.35	0.57
57:BA:654(Q):C:O2'	57:BA:654(R):C:H5'	2.04	0.57
57:BA:1419:A:O2'	57:BA:1420:U:H5"	2.05	0.57
57:BA:1642:G:O2'	57:BA:1643:G:H5'	2.04	0.57
57:BA:1887:C:H2'	57:BA:1888:G:C5'	2.23	0.57
57:BA:2193:G:H5'	57:BA:2193:G:H8	1.69	0.57
57:BA:2439:A:C8	57:BA:2439:A:H5'	2.40	0.57
57:BA:2657:A:C2'	57:BA:2658:C:H5'	2.33	0.57
3:Ad:101:LEU:HD23	3:Ad:121:VAL:CG1	2.34	0.57
4:Ae:145:LYS:O	4:Ae:149:GLU:HG2	2.05	0.57
8:Ai:24:GLY:HA2	8:Ai:59:PHE:O	2.03	0.57
11:Al:66:VAL:HG11	11:Al:98:TYR:CE1	2.40	0.57
12:Am:69:GLU:HA	12:Am:71:ARG:C	2.30	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Aa:977:A:H8	22:Aa:1223:C:C4	2.23	0.57
22:Aa:1003:G:H2'	22:Aa:1004:A:C4'	2.25	0.57
25:Aw:30:G:O2'	25:Aw:31:G:H5'	2.05	0.57
27:AD:166:GLN:CA	27:AD:166:GLN:NE2	2.67	0.57
28:AE:116:VAL:O	28:AE:117:MET:HG2	2.05	0.57
29:AF:148:LEU:HD23	29:AF:191:ARG:NH1	2.20	0.57
29:AF:185:ASP:OD1	29:AF:188:ARG:HD3	2.05	0.57
30:AG:91:ARG:HD2	30:AG:91:ARG:C	2.29	0.57
32:AI:82:ARG:O	32:AI:89:TYR:HB2	2.04	0.57
34:AN:62:VAL:HG23	34:AN:66:LYS:HD2	1.87	0.57
39:AS:96:GLY:C	39:AS:98:VAL:H	2.12	0.57
40:AT:29:ARG:HG2	40:AT:85:LYS:CA	2.35	0.57
42:AV:19:LYS:HE2	42:AV:19:LYS:HA	1.86	0.57
57:AA:332:A:O2'	57:AA:334:C:OP2	2.22	0.57
57:AA:394:A:O2'	57:AA:395:U:H5'	2.04	0.57
57:AA:2567:G:H2'	57:AA:2568:C:C6	2.39	0.57
57:AA:2591:C:H2'	57:AA:2592:G:C8	2.39	0.57
6:Bg:102:ARG:HG2	6:Bg:106:GLN:HE21	1.70	0.57
8:Bi:114:TYR:CD2	8:Bi:114:TYR:N	2.72	0.57
12:Bm:89:GLY:O	12:Bm:93:ARG:HD2	2.05	0.57
18:Bs:16:LEU:H	18:Bs:16:LEU:CD1	2.18	0.57
19:Bt:63:ILE:HG22	19:Bt:77:ALA:HB1	1.86	0.57
22:Ba:15:G:H2'	22:Ba:16:A:C8	2.39	0.57
22:Ba:541:G:O2'	22:Ba:542:G:H5'	2.05	0.57
22:Ba:663:A:O2'	22:Ba:664:G:H5'	2.04	0.57
22:Ba:685:G:O2'	22:Ba:686:U:H5'	2.03	0.57
22:Ba:1030:C:H41	22:Ba:1032:G:H21	1.51	0.57
27:BD:35:LYS:HZ2	27:BD:36:PRO:N	2.03	0.57
30:BG:67:LYS:HZ3	51:B4:6:HIS:CE1	2.22	0.57
40:BT:106:SER:HB2	40:BT:110:ILE:HD11	1.87	0.57
52:B5:6:VAL:HG13	52:B5:7:PRO:HD2	1.84	0.57
52:B5:33:CYS:SG	52:B5:49:CYS:SG	3.03	0.57
57:BA:2567:G:H2'	57:BA:2568:C:C6	2.39	0.57
57:BA:2584:U:H2'	57:BA:2585:U:H5'	1.87	0.57
57:BA:2853:C:H2'	57:BA:2854:G:H8	1.68	0.57
19:At:84:LEU:O	19:At:88:VAL:HG23	2.05	0.57
21:Ay:10:ARG:HH21	21:Ay:10:ARG:CG	2.18	0.57
22:Aa:15:G:H2'	22:Aa:16:A:C8	2.40	0.57
22:Aa:1458:G:O2'	22:Aa:1459:C:H5'	2.05	0.57
22:Aa:1519:A:H2'	22:Aa:1520:G:H5'	1.84	0.57
27:AD:72:LYS:HZ2	27:AD:75:ILE:HD12	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AD:91:ARG:HG2	27:AD:91:ARG:NH1	2.18	0.57
28:AE:122:PHE:CE2	57:AA:2512:C:H4'	2.40	0.57
29:AF:78:ILE:HA	29:AF:83:PHE:CE1	2.40	0.57
32:AI:87:LYS:HZ1	32:AI:121:LYS:HG3	1.69	0.57
32:AI:97:ILE:O	32:AI:101:LEU:HB2	2.04	0.57
38:AR:73:VAL:O	38:AR:76:VAL:HG12	2.05	0.57
38:AR:87:TYR:C	38:AR:89:ASP:H	2.13	0.57
39:AS:29:PHE:CE1	58:AB:7:G:H4'	2.40	0.57
39:AS:87:PHE:HB2	39:AS:106:ARG:HE	1.69	0.57
42:AV:79:VAL:CG2	57:AA:1188:U:H4'	2.35	0.57
44:AX:59:VAL:HG12	44:AX:59:VAL:O	2.05	0.57
46:AZ:34:ASN:HD22	46:AZ:35:ARG:N	2.03	0.57
56:A9:1:MET:HB3	56:A9:4:ARG:CZ	2.35	0.57
57:AA:1711:C:O2'	57:AA:1712:C:H5'	2.04	0.57
57:AA:2103:C:H2'	57:AA:2104:G:H5"	1.86	0.57
2:Bc:11:ARG:O	2:Bc:12:LEU:C	2.48	0.57
4:Be:88:LYS:HB3	4:Be:123:LEU:O	2.05	0.57
8:Bi:37:PHE:CE1	8:Bi:74:ILE:HG12	2.40	0.57
10:Bk:107:SER:C	10:Bk:108:ILE:HD12	2.29	0.57
22:Ba:423:G:C2'	22:Ba:424:G:H5'	2.35	0.57
22:Ba:1423:G:H5'	35:BO:49:ARG:HH21	1.70	0.57
28:BE:34:VAL:HG22	28:BE:48:GLN:NE2	2.20	0.57
29:BF:169:ASN:ND2	57:BA:322:A:H3'	2.18	0.57
30:BG:133:LEU:CD1	30:BG:135:LEU:HD11	2.34	0.57
32:BI:62:LYS:HE3	32:BI:133:HIS:O	2.05	0.57
35:BO:22:ILE:HD12	57:BA:1952:A:C5	2.40	0.57
38:BR:34:ILE:HD12	57:BA:1278:A:H4'	1.87	0.57
40:BT:66:VAL:HA	40:BT:71:GLY:HA2	1.87	0.57
44:BX:59:VAL:HG12	44:BX:59:VAL:O	2.03	0.57
48:B1:3:LYS:HG3	48:B1:4:VAL:H	1.70	0.57
50:B3:17:LYS:HG2	57:BA:969:U:OP1	2.04	0.57
53:B6:42:TRP:CZ2	57:BA:2349:G:H4'	2.40	0.57
57:BA:2176:A:H2'	57:BA:2177:C:C6	2.39	0.57
57:BA:2223:G:H2'	57:BA:2224:G:H5'	1.87	0.57
57:BA:2314:C:O2'	57:BA:2315:G:H5'	2.05	0.57
1:Ab:29:ALA:O	1:Ab:32:ILE:HG22	2.03	0.57
11:Al:35:GLY:HA3	11:Al:58:VAL:CG1	2.34	0.57
11:Al:92:ASP:HB2	22:Aa:523:A:N1	2.20	0.57
14:Ao:33:THR:HG21	14:Ao:85:LEU:CD2	2.35	0.57
19:At:105:SER:HB3	22:Aa:191:G:C4	2.40	0.57
22:Aa:735:C:O2'	22:Aa:736:C:H5'	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Aa:1490:C:C2'	22:Aa:1491:G:H5"	2.35	0.57
28:AE:102:VAL:HB	28:AE:199:ARG:O	2.05	0.57
28:AE:134:ILE:HA	28:AE:137:HIS:CD2	2.40	0.57
35:AO:13:ASN:C	35:AO:15:GLY:H	2.11	0.57
44:AX:64:LYS:HZ2	44:AX:73:ARG:NH2	2.03	0.57
46:AZ:134:PRO:HB2	46:AZ:137:ILE:HD11	1.87	0.57
57:AA:1495:A:OP1	57:AA:1495:A:C8	2.57	0.57
57:AA:1509(A):A:H2'	57:AA:1509(B):A:H8	1.69	0.57
57:AA:1701:A:H5'	57:AA:1702:G:OP2	2.03	0.57
4:Be:8:GLU:N	4:Be:34:VAL:HG23	2.20	0.57
5:Bf:60:PHE:O	5:Bf:61:LEU:HD12	2.04	0.57
9:Bj:50:ILE:HD11	13:Bn:41:ARG:HD3	1.87	0.57
9:Bj:55:LYS:NZ	22:Ba:963:G:H21	2.01	0.57
11:Bl:71:PRO:O	11:Bl:102:ARG:NH1	2.38	0.57
12:Bm:4:ILE:HG22	12:Bm:5:ALA:H	1.69	0.57
22:Ba:429:U:H1'	22:Ba:430:A:H5"	1.87	0.57
22:Ba:1321:C:C3'	22:Ba:1322:C:H5"	2.34	0.57
22:Ba:1414:U:H2'	22:Ba:1415:G:H8	1.70	0.57
27:BD:16:MET:CE	27:BD:208:LYS:HD2	2.35	0.57
30:BG:57:ALA:CB	30:BG:90:LEU:HD21	2.34	0.57
32:BI:76:THR:OG1	32:BI:77:LEU:N	2.36	0.57
32:BI:132:PRO:HG2	32:BI:133:HIS:CE1	2.39	0.57
34:BN:91:LEU:CD2	34:BN:98:VAL:HG21	2.35	0.57
36:BP:144:GLU:H	36:BP:145:PRO:HD3	1.67	0.57
38:BR:117:VAL:O	38:BR:118:GLU:HB2	2.05	0.57
39:BS:88:ASP:CG	39:BS:89:ARG:H	2.12	0.57
40:BT:116:ALA:HB1	40:BT:121:ILE:HD11	1.87	0.57
41:BU:9:VAL:O	41:BU:13:LYS:HE3	2.05	0.57
41:BU:95:LEU:HD12	42:BV:11:GLN:HB2	1.85	0.57
46:BZ:155:LEU:HD23	46:BZ:155:LEU:N	2.19	0.57
47:B0:11:ARG:HB2	47:B0:11:ARG:NH1	2.05	0.57
53:B6:27:LYS:HB3	53:B6:30:THR:CG2	2.35	0.57
57:BA:1570:A:H2'	57:BA:1571:A:C8	2.40	0.57
3:Ad:2:GLY:O	3:Ad:3:ARG:C	2.48	0.56
8:Ai:16:ARG:NH1	22:Aa:1147:C:O2	2.35	0.56
22:Aa:474:G:H2'	22:Aa:475:G:C8	2.39	0.56
22:Aa:1442(B):A:H2'	22:Aa:1442(B):A:N3	2.20	0.56
30:AG:9:ARG:C	30:AG:11:TYR:H	2.13	0.56
30:AG:67:LYS:HD3	51:A4:6:HIS:CD2	2.40	0.56
31:AH:7:LEU:HG	31:AH:69:ARG:HD2	1.87	0.56
34:AN:41:ASP:O	34:AN:42:TRP:C	2.48	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:AP:33:ARG:NH2	57:AA:587:C:C3'	2.68	0.56
50:A3:17:LYS:HG2	57:AA:969:U:OP1	2.05	0.56
57:AA:535:C:O2'	57:AA:536:A:H5'	2.05	0.56
57:AA:654(Q):C:O2'	57:AA:654(R):C:H5'	2.05	0.56
57:AA:1542:A:C8	57:AA:1544:A:H5"	2.39	0.56
57:AA:1603:A:H5'	57:AA:1603:A:C8	2.40	0.56
57:AA:2845:G:O2'	57:AA:2846:G:H5'	2.04	0.56
58:AB:5:C:O2'	58:AB:6:C:H5'	2.05	0.56
3:Bd:79:PHE:CD2	3:Bd:79:PHE:C	2.83	0.56
4:Be:50:GLU:HB3	4:Be:53:LEU:HD12	1.86	0.56
8:Bi:9:ARG:HG2	8:Bi:14:VAL:HG13	1.86	0.56
12:Bm:23:TYR:CE2	22:Ba:1330:U:H4'	2.39	0.56
32:BI:109:ILE:HD12	32:BI:109:ILE:N	2.20	0.56
35:BO:1:MET:HE2	35:BO:32:TYR:CG	2.39	0.56
36:BP:16:ARG:HD3	36:BP:17:LYS:N	2.19	0.56
36:BP:84:ASN:HA	36:BP:115:LEU:O	2.05	0.56
42:BV:87:HIS:NE2	42:BV:89:GLN:HG2	2.20	0.56
46:BZ:57:ILE:HG22	46:BZ:58:VAL:H	1.69	0.56
47:B0:20:ARG:HH12	57:BA:2271:G:H4'	1.68	0.56
55:B8:2:PRO:HA	57:BA:591:C:H1'	1.85	0.56
56:B9:25:VAL:HB	56:B9:34:GLN:HB2	1.86	0.56
57:BA:185:U:H4'	57:BA:218:A:H4'	1.85	0.56
57:BA:2261:C:O2'	57:BA:2262:U:H5'	2.05	0.56
57:BA:2602:A:H4'	57:BA:2603:G:C5'	2.34	0.56
4:Ae:50:GLU:HB3	4:Ae:53:LEU:HD12	1.87	0.56
7:Ah:63:LEU:HD22	7:Ah:63:LEU:N	2.21	0.56
22:Aa:105:G:H2'	22:Aa:106:C:C6	2.40	0.56
22:Aa:266:G:C8	22:Aa:266:G:H5'	2.40	0.56
27:AD:80:ALA:HB2	27:AD:96:HIS:CD2	2.40	0.56
32:AI:46:ALA:HB2	57:AA:271(P):C:C5'	2.35	0.56
34:AN:18:ALA:HB1	34:AN:21:LYS:HB3	1.87	0.56
36:AP:101:VAL:HB	36:AP:107:LYS:CA	2.31	0.56
36:AP:102:ARG:CB	36:AP:102:ARG:HH21	2.18	0.56
39:AS:67:ARG:HB3	39:AS:71:ARG:HH12	1.69	0.56
45:AY:95:LYS:HD3	45:AY:100:ALA:CB	2.35	0.56
48:A1:51:VAL:HG21	48:A1:74:VAL:HG21	1.86	0.56
53:A6:11:LEU:HD13	53:A6:11:LEU:H	1.70	0.56
57:AA:1542:A:H5'	57:AA:1543:C:OP2	2.05	0.56
2:Bc:111:LEU:HD21	2:Bc:145:GLY:O	2.04	0.56
11:Bl:92:ASP:HB2	22:Ba:523:A:N1	2.20	0.56
12:Bm:69:GLU:C	12:Bm:69:GLU:OE1	2.48	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:By:18:LEU:HD11	21:By:60:TYR:CE2	2.33	0.56
21:By:93:ARG:O	21:By:94:ILE:HG22	2.05	0.56
28:BE:50:GLY:HA3	28:BE:74:PRO:HG2	1.86	0.56
28:BE:111:ARG:HG3	38:BR:2:ARG:HG2	1.86	0.56
28:BE:134:ILE:HD12	28:BE:134:ILE:O	2.05	0.56
30:BG:143:GLU:CD	30:BG:143:GLU:H	2.12	0.56
35:BO:60:ALA:HA	35:BO:87:ILE:HG12	1.85	0.56
36:BP:146:VAL:HG13	36:BP:147:LEU:H	1.67	0.56
41:BU:95:LEU:HD12	42:BV:11:GLN:HE21	1.69	0.56
49:B2:28:LYS:HD2	49:B2:53:LEU:HD21	1.87	0.56
49:B2:44:LEU:O	49:B2:45:SER:CB	2.52	0.56
57:BA:997:G:O2'	57:BA:998:C:H5'	2.05	0.56
57:BA:1314:C:H5'	57:BA:1314:C:H6	1.71	0.56
57:BA:1652:A:O2'	57:BA:1653:G:H5'	2.05	0.56
57:BA:2121:G:H1	57:BA:2177:C:N4	2.03	0.56
57:BA:2523:G:H2'	57:BA:2524:G:C5'	2.35	0.56
57:BA:2645:G:H3'	57:BA:2646:C:C5'	2.30	0.56
1:Ab:72:GLY:HA2	1:Ab:165:VAL:CG2	2.34	0.56
1:Ab:80:ILE:H	1:Ab:80:ILE:CD1	2.00	0.56
2:Ac:186:PHE:HD1	2:Ac:198:VAL:O	1.87	0.56
7:Ah:40:ALA:C	7:Ah:42:GLU:N	2.63	0.56
10:Ak:46:GLY:HA3	22:Aa:689:C:P	2.45	0.56
16:Aq:63:ARG:HG2	16:Aq:64:PRO:HD2	1.87	0.56
21:Ay:79:GLY:CA	21:Ay:86:VAL:HG11	2.35	0.56
22:Aa:203:U:H5"	22:Aa:204:U:OP1	2.04	0.56
22:Aa:532:A:OP2	22:Aa:532:A:O4'	2.23	0.56
22:Aa:828:A:H2'	22:Aa:829:G:O4'	2.05	0.56
22:Aa:1385:G:O2'	22:Aa:1386:G:H5'	2.06	0.56
26:AC:54:ARG:HB3	26:AC:57:GLN:HB3	1.87	0.56
27:AD:10:THR:HG23	27:AD:13:ARG:CB	2.35	0.56
27:AD:21:PHE:O	27:AD:24:ILE:HD13	2.05	0.56
28:AE:14:ILE:HD11	28:AE:173:VAL:HG11	1.88	0.56
30:AG:145:THR:OG1	30:AG:146:TYR:N	2.38	0.56
32:AI:9:LEU:HD12	32:AI:9:LEU:N	2.19	0.56
32:AI:107:VAL:O	32:AI:109:ILE:HD11	2.06	0.56
32:AI:115:ALA:CB	32:AI:128:LEU:HB3	2.32	0.56
35:AO:2:ILE:HD11	35:AO:82:ASN:HD22	1.70	0.56
36:AP:49:ARG:HD2	55:A8:58:ILE:HG22	1.86	0.56
37:AQ:14:ARG:HD2	57:AA:958:U:H5"	1.86	0.56
39:AS:88:ASP:CG	39:AS:89:ARG:H	2.11	0.56
40:AT:27:THR:CG2	40:AT:28:VAL:H	2.16	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:AT:106:SER:HB2	40:AT:110:ILE:HD11	1.85	0.56
41:AU:65:ILE:HD11	41:AU:93:LYS:HA	1.86	0.56
45:AY:77:PRO:O	45:AY:78:ALA:HB2	2.05	0.56
52:A5:2:ALA:N	57:AA:2014:A:HO2'	2.03	0.56
56:A9:2:LYS:HD2	56:A9:33:LYS:O	2.04	0.56
57:AA:1354:A:H2'	57:AA:1355:G:O4'	2.05	0.56
57:AA:2031:A:C6	57:AA:2498:C:H1'	2.41	0.56
57:AA:2439:A:C8	57:AA:2439:A:H5'	2.40	0.56
57:AA:2836:U:H2'	57:AA:2837:G:C8	2.40	0.56
6:Bg:79:ARG:HG2	6:Bg:80:VAL:N	2.21	0.56
8:Bi:17:VAL:HG21	8:Bi:80:GLY:C	2.30	0.56
9:Bj:13:HIS:CD2	22:Ba:1152:A:H5"	2.40	0.56
11:Bl:75:HIS:HD2	11:Bl:77:LEU:HB2	1.70	0.56
11:Bl:102:ARG:CG	11:Bl:102:ARG:NH1	2.58	0.56
11:Bl:110:VAL:CG2	11:Bl:120:TYR:HB3	2.36	0.56
12:Bm:86:CYS:HA	18:Bs:73:GLU:O	2.05	0.56
22:Ba:32:A:H2'	22:Ba:33:A:C8	2.39	0.56
22:Ba:308:C:H2'	22:Ba:309:G:H8	1.70	0.56
22:Ba:383:A:H2'	22:Ba:384:G:H5'	1.88	0.56
22:Ba:423:G:H2'	22:Ba:424:G:H5'	1.86	0.56
22:Ba:474:G:H2'	22:Ba:475:G:C8	2.39	0.56
22:Ba:763:G:O2'	22:Ba:764:C:H5'	2.04	0.56
22:Ba:828:A:H2'	22:Ba:829:G:O4'	2.05	0.56
26:BC:7:ARG:HD2	26:BC:35:THR:O	2.05	0.56
26:BC:48:LEU:HD11	26:BC:172:ILE:HB	1.87	0.56
27:BD:34:VAL:C	27:BD:36:PRO:HD2	2.30	0.56
27:BD:91:ARG:HG2	27:BD:91:ARG:NH1	2.20	0.56
28:BE:36:ARG:HH21	28:BE:88:GLY:HA2	1.69	0.56
28:BE:117:MET:O	28:BE:117:MET:HG3	2.05	0.56
31:BH:11:VAL:CG1	31:BH:15:VAL:HG23	2.36	0.56
31:BH:158:HIS:CE1	31:BH:169:VAL:O	2.57	0.56
32:BI:78:THR:N	32:BI:104:GLN:HE22	2.01	0.56
35:BO:69:ILE:HD12	35:BO:69:ILE:H	1.71	0.56
37:BQ:14:ARG:HG2	37:BQ:41:TRP:HH2	1.71	0.56
39:BS:46:VAL:HG13	58:BB:114:C:O2'	2.06	0.56
40:BT:27:THR:O	40:BT:28:VAL:CB	2.53	0.56
41:BU:8:VAL:HG23	41:BU:11:ARG:HH21	1.70	0.56
41:BU:31:SER:O	41:BU:33:ARG:N	2.39	0.56
45:BY:2:ARG:C	45:BY:4:LYS:N	2.61	0.56
46:BZ:108:PRO:CB	46:BZ:144:LEU:HB2	2.35	0.56
46:BZ:175:VAL:HB	46:BZ:176:PRO:HD2	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:B0:14:ARG:NH1	47:B0:14:ARG:HG3	2.20	0.56
51:B4:6:HIS:HB3	51:B4:7:PRO:CD	2.35	0.56
55:B8:6:THR:HG21	55:B8:63:PRO:HD3	1.86	0.56
56:B9:2:LYS:HD2	56:B9:33:LYS:O	2.05	0.56
57:BA:774:A:H2	57:BA:787:U:HO2'	1.50	0.56
57:BA:941:A:H2'	57:BA:942:G:C8	2.40	0.56
57:BA:1331:A:O2'	57:BA:1332:G:H8	1.88	0.56
57:BA:1534:U:H2'	57:BA:1535:A:O4'	2.06	0.56
57:BA:1697:G:H3'	57:BA:1698:A:H5"	1.88	0.56
57:BA:2287:A:H62	57:BA:2344:U:H3	1.52	0.56
7:Ah:118:VAL:C	7:Ah:119:LEU:HD23	2.31	0.56
12:Am:65:LYS:CB	12:Am:66:LEU:HG	2.36	0.56
12:Am:106:ASN:O	12:Am:107:ALA:HB2	2.06	0.56
19:At:26:ASN:N	19:At:26:ASN:HD22	2.02	0.56
22:Aa:37:U:O2'	22:Aa:38:G:H5'	2.05	0.56
22:Aa:59:A:H5'	22:Aa:60:A:C5'	2.34	0.56
22:Aa:644:G:O2'	22:Aa:645:C:H5'	2.05	0.56
27:AD:25:THR:O	27:AD:26:LYS:C	2.49	0.56
29:AF:8:GLN:CG	29:AF:126:VAL:HB	2.35	0.56
32:AI:94:ALA:CB	32:AI:111:PRO:HA	2.34	0.56
39:AS:18:ILE:C	39:AS:20:ARG:H	2.13	0.56
45:AY:17:SER:O	57:AA:310:A:OP1	2.24	0.56
46:AZ:163:LEU:HD23	46:AZ:163:LEU:H	1.70	0.56
46:AZ:171:ILE:HD12	46:AZ:171:ILE:C	2.31	0.56
53:A6:26:ASN:O	53:A6:27:LYS:HB2	2.04	0.56
57:AA:1280:G:C3'	57:AA:1281:G:H5"	2.35	0.56
57:AA:2523:G:H2'	57:AA:2524:G:C5'	2.35	0.56
3:Bd:158:ILE:O	3:Bd:162:LEU:HB2	2.04	0.56
7:Bh:49:GLU:O	7:Bh:51:VAL:HG13	2.06	0.56
10:Bk:46:GLY:HA3	22:Ba:689:C:P	2.46	0.56
19:Bt:40:ALA:HB2	19:Bt:55:ILE:HG22	1.87	0.56
21:By:21:THR:HG21	22:Ba:1051:C:H1'	1.87	0.56
22:Ba:638:G:O2'	22:Ba:639:G:H5'	2.05	0.56
22:Ba:665:A:H2'	22:Ba:725:G:N2	2.19	0.56
30:BG:75:LYS:C	30:BG:76:SER:HG	2.14	0.56
31:BH:50:VAL:CG1	31:BH:51:ARG:N	2.68	0.56
32:BI:87:LYS:HG3	32:BI:121:LYS:O	2.06	0.56
34:BN:3:THR:HG22	34:BN:5:VAL:CG1	2.35	0.56
36:BP:33:ARG:NH2	57:BA:587:C:C3'	2.68	0.56
40:BT:28:VAL:HG13	40:BT:46:GLU:CA	2.35	0.56
40:BT:28:VAL:HB	40:BT:88:ILE:HG12	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BW:91:GLY:HA2	57:BA:1614:A:N1	2.20	0.56
44:BX:60:ARG:HH21	54:B7:47:ARG:NH1	2.03	0.56
53:B6:19:ARG:HG3	57:BA:2399:G:O2'	2.05	0.56
57:BA:364:C:C2'	57:BA:365:C:H5"	2.34	0.56
57:BA:1750:G:O2'	57:BA:1751:C:H5'	2.05	0.56
57:BA:2164:C:H2'	57:BA:2165:G:H5'	1.87	0.56
2:Ac:116:VAL:HG21	2:Ac:202:ILE:HD11	1.88	0.56
7:Ah:64:LYS:HG2	7:Ah:79:VAL:HG21	1.88	0.56
8:Ai:79:LEU:HD11	8:Ai:83:ARG:NH2	2.21	0.56
9:Aj:38:ILE:HD11	9:Aj:71:LEU:HB3	1.86	0.56
15:Ap:3:LYS:HD2	22:Aa:377:G:OP1	2.05	0.56
21:Ay:39:ILE:C	21:Ay:41:ALA:N	2.63	0.56
21:Ay:43:LYS:NZ	22:Aa:1493:A:C2'	2.68	0.56
22:Aa:32:A:H2'	22:Aa:33:A:C8	2.40	0.56
22:Aa:423:G:H2'	22:Aa:424:G:H5'	1.88	0.56
23:Ax:18:G:H4'	23:Ax:19:OMU:OP1	2.06	0.56
28:AE:117:MET:O	28:AE:117:MET:HG3	2.05	0.56
32:AI:27:ARG:HD3	48:A1:71:TYR:CE1	2.39	0.56
37:AQ:14:ARG:HG2	37:AQ:41:TRP:HH2	1.71	0.56
37:AQ:47:ILE:HG22	37:AQ:48:GLU:N	2.20	0.56
38:AR:9:LYS:O	38:AR:10:LEU:HD23	2.06	0.56
39:AS:19:LYS:HG2	39:AS:19:LYS:O	2.05	0.56
43:AW:96:ILE:HD11	57:AA:2012:G:H4'	1.87	0.56
45:AY:9:LYS:HA	57:AA:85:G:OP1	2.06	0.56
46:AZ:81:ARG:CB	46:AZ:81:ARG:NH1	2.68	0.56
48:A1:5:CYS:SG	48:A1:62:VAL:HG23	2.45	0.56
57:AA:1014:U:H2'	57:AA:1015:G:C5'	2.35	0.56
57:AA:1040:C:H42	57:AA:1115:G:H1	1.53	0.56
57:AA:1505:C:H2'	57:AA:1506:C:O4'	2.06	0.56
57:AA:2327:A:H2'	57:AA:2328:A:H8	1.67	0.56
6:Bg:148:ASN:N	6:Bg:148:ASN:HD22	2.04	0.56
7:Bh:118:VAL:C	7:Bh:119:LEU:HD23	2.30	0.56
9:Bj:50:ILE:HA	9:Bj:60:ARG:CB	2.36	0.56
11:Bl:57:LYS:HG2	11:Bl:67:THR:HG23	1.86	0.56
18:Bs:6:LYS:CG	18:Bs:7:LYS:HE3	2.25	0.56
22:Ba:853:G:O2'	22:Ba:854:G:H5'	2.04	0.56
24:Bv:59:A:H2'	24:Bv:60:U:H5'	1.87	0.56
29:BF:3:GLU:O	29:BF:19:GLU:CB	2.54	0.56
29:BF:78:ILE:HA	29:BF:83:PHE:CE1	2.41	0.56
34:BN:67:LEU:O	34:BN:68:GLU:HB2	2.05	0.56
35:BO:18:LYS:HB2	35:BO:45:GLU:HG2	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BO:69:ILE:HD13	35:BO:77:ILE:CG2	2.33	0.56
37:BQ:34:LEU:CD1	37:BQ:129:THR:HB	2.35	0.56
42:BV:19:LYS:HE2	42:BV:19:LYS:HA	1.87	0.56
45:BY:62:GLU:CD	45:BY:63:LYS:N	2.63	0.56
45:BY:95:LYS:HD3	45:BY:100:ALA:CB	2.35	0.56
47:B0:42:GLY:HA3	57:BA:2331:G:O4'	2.04	0.56
57:BA:848:G:H2'	57:BA:849:A:C8	2.41	0.56
2:Ac:18:TRP:C	2:Ac:20:SER:H	2.12	0.56
3:Ad:209:ARG:HH11	3:Ad:209:ARG:HG3	1.70	0.56
13:An:29:ARG:HD3	22:Aa:1202:G:H1'	1.88	0.56
19:At:26:ASN:ND2	19:At:26:ASN:H	2.02	0.56
22:Aa:1137:C:H4'	22:Aa:1138:G:N2	2.20	0.56
22:Aa:1152:A:H2'	22:Aa:1153:C:C6	2.41	0.56
27:AD:35:LYS:HD2	27:AD:36:PRO:N	2.20	0.56
29:AF:18:ARG:HH21	29:AF:20:LEU:CD1	2.18	0.56
32:AI:69:LYS:HA	32:AI:136:VAL:CG2	2.35	0.56
32:AI:114:LEU:HD23	32:AI:130:TYR:CD1	2.39	0.56
41:AU:31:SER:O	41:AU:33:ARG:N	2.39	0.56
41:AU:49:HIS:CD2	57:AA:534:U:O2'	2.58	0.56
46:AZ:162:GLU:N	46:AZ:162:GLU:OE1	2.38	0.56
56:A9:31:LYS:HD3	57:AA:2478:A:OP1	2.05	0.56
57:AA:1639:U:H2'	57:AA:1640:C:H5"	1.87	0.56
1:Bb:60:ASP:O	1:Bb:64:ARG:HG2	2.05	0.56
17:Br:72:ARG:O	17:Br:76:LEU:HD23	2.06	0.56
22:Ba:403:C:O2'	22:Ba:404:U:H5'	2.05	0.56
22:Ba:715:A:O2'	22:Ba:716:A:H5'	2.05	0.56
25:Bw:62:C:H5'	26:BC:53:ARG:HG3	1.86	0.56
27:BD:35:LYS:HD2	27:BD:36:PRO:N	2.20	0.56
29:BF:18:ARG:HH21	29:BF:20:LEU:CD1	2.18	0.56
31:BH:148:ILE:O	31:BH:162:ILE:HD11	2.06	0.56
32:BI:82:ARG:HA	32:BI:145:VAL:HG13	1.86	0.56
32:BI:111:PRO:O	32:BI:116:LEU:HD23	2.06	0.56
34:BN:28:THR:HG22	34:BN:29:LYS:N	2.21	0.56
43:BW:15:ARG:NH2	57:BA:1266:G:O5'	2.37	0.56
45:BY:28:LYS:CA	45:BY:38:ILE:HG22	2.32	0.56
46:BZ:5:LEU:HD21	46:BZ:39:VAL:HG23	1.88	0.56
57:BA:70:G:H21	57:BA:71:A:H62	1.51	0.56
57:BA:184:C:H2'	57:BA:185:U:H6	1.68	0.56
2:Ac:113:ALA:HB3	2:Ac:114:PRO:HD3	1.86	0.56
3:Ad:12:CYS:HA	3:Ad:19:LEU:HD12	1.87	0.56
3:Ad:79:PHE:CD2	3:Ad:79:PHE:C	2.84	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Ae:39:GLY:HA2	4:Ae:69:VAL:HB	1.86	0.56
6:Ag:79:ARG:HG2	6:Ag:80:VAL:N	2.21	0.56
7:Ah:92:ARG:NH2	22:Aa:644:G:H5'	2.21	0.56
8:Ai:4:TYR:CE2	8:Ai:88:TYR:HB3	2.41	0.56
21:Ay:25:GLN:HG3	22:Aa:531:U:C5	2.40	0.56
22:Aa:1346:A:N1	22:Aa:1374:A:H5"	2.21	0.56
28:AE:117:MET:HB2	28:AE:122:PHE:O	2.06	0.56
34:AN:131:GLN:HA	34:AN:131:GLN:OE1	2.05	0.56
36:AP:48:PRO:HB3	57:AA:833:U:H5"	1.87	0.56
38:AR:117:VAL:O	38:AR:118:GLU:HB2	2.06	0.56
40:AT:25:GLY:H	40:AT:49:VAL:HG13	1.71	0.56
47:A0:11:ARG:HB2	47:A0:11:ARG:NH1	2.06	0.56
53:A6:25:LYS:HE2	55:A8:35:GLN:OE1	2.06	0.56
53:A6:27:LYS:HD3	53:A6:27:LYS:O	2.06	0.56
55:A8:28:GLY:O	55:A8:32:LEU:HG	2.05	0.56
57:AA:1107:G:O2'	57:AA:1108:U:H5'	2.06	0.56
57:AA:1385:G:HO2'	57:AA:1396:U:H6	1.42	0.56
57:AA:1771:C:H1'	57:AA:1786:A:C8	2.40	0.56
6:Bg:69:VAL:HG12	6:Bg:69:VAL:O	2.05	0.56
21:By:54:LYS:CE	21:By:61:ARG:HH21	2.18	0.56
22:Ba:1107:C:C2'	22:Ba:1108:G:H5"	2.34	0.56
22:Ba:1346:A:H61	22:Ba:1374:A:H3'	1.71	0.56
24:Bv:73:A:H5'	24:Bv:73:A:C8	2.40	0.56
25:Bw:62:C:H4'	26:BC:53:ARG:HG3	1.87	0.56
25:Bw:68:C:H2'	25:Bw:69:C:C6	2.41	0.56
26:BC:54:ARG:HB3	26:BC:57:GLN:HB3	1.87	0.56
27:BD:25:THR:O	27:BD:26:LYS:C	2.48	0.56
28:BE:11:MET:HB3	28:BE:24:THR:HA	1.88	0.56
33:BJ:81:VAL:O	33:BJ:83:TYR:N	2.39	0.56
34:BN:40:PRO:HB3	41:BU:68:ALA:HB2	1.87	0.56
42:BV:79:VAL:CG2	57:BA:1188:U:H4'	2.35	0.56
45:BY:39:VAL:HG12	45:BY:40:GLU:N	2.21	0.56
46:BZ:120:ILE:O	46:BZ:120:ILE:HG22	2.06	0.56
48:B1:3:LYS:HG3	48:B1:4:VAL:N	2.21	0.56
49:B2:46:GLN:OE1	49:B2:46:GLN:HA	2.06	0.56
53:B6:45:LYS:CE	57:BA:2371:G:H5"	2.33	0.56
53:B6:47:THR:OG1	53:B6:48:VAL:N	2.37	0.56
57:BA:52:A:O2'	57:BA:53:A:H5'	2.06	0.56
57:BA:796:C:H2'	57:BA:797:C:C6	2.41	0.56
57:BA:1242:A:H5'	57:BA:1243:G:OP2	2.06	0.56
57:BA:2022:U:O2'	57:BA:2617:C:H5'	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BA:2712:U:H1'	57:BA:2712(A):A:C8	2.41	0.56
6:Ag:148:ASN:N	6:Ag:148:ASN:HD22	2.03	0.56
7:Ah:11:THR:HG23	7:Ah:14:ARG:HH12	1.71	0.56
9:Aj:50:ILE:HA	9:Aj:60:ARG:CB	2.35	0.56
13:An:2:ALA:HA	22:Aa:1216:G:OP1	2.05	0.56
22:Aa:475:G:H2'	22:Aa:476:G:C8	2.41	0.56
22:Aa:1339:A:H2'	22:Aa:1340:A:O4'	2.06	0.56
26:AC:48:LEU:HD11	26:AC:172:ILE:HB	1.88	0.56
28:AE:111:ARG:HG3	38:AR:2:ARG:NE	2.21	0.56
29:AF:36:VAL:HG11	29:AF:183:VAL:CG1	2.35	0.56
32:AI:84:GLY:HA2	32:AI:144:VAL:CG2	2.32	0.56
40:AT:65:LYS:HG3	40:AT:66:VAL:N	2.21	0.56
42:AV:22:VAL:O	42:AV:23:GLU:HB2	2.06	0.56
46:AZ:81:ARG:HB2	46:AZ:81:ARG:NH1	2.18	0.56
53:A6:42:TRP:HA	53:A6:42:TRP:HE3	1.69	0.56
57:AA:1427:A:H4'	57:AA:1428:C:O5'	2.06	0.56
57:AA:1799:G:H5'	57:AA:1819:A:N6	2.21	0.56
57:AA:2314:C:O2'	57:AA:2315:G:H5'	2.06	0.56
4:Be:57:LYS:HE2	4:Be:61:TYR:HE2	1.69	0.56
6:Bg:15:ASP:HB3	6:Bg:19:GLY:H	1.70	0.56
12:Bm:115:LYS:HE3	22:Ba:1228:C:OP1	2.05	0.56
19:Bt:99:LEU:O	19:Bt:100:ILE:C	2.48	0.56
22:Ba:300:A:H2'	22:Ba:301:G:O4'	2.06	0.56
22:Ba:735:C:H2'	22:Ba:736:C:H6	1.71	0.56
22:Ba:763:G:H2'	22:Ba:764:C:H6	1.70	0.56
22:Ba:930:C:O2'	22:Ba:931:C:H5'	2.05	0.56
22:Ba:1033:G:C2'	22:Ba:1034:G:H5'	2.36	0.56
27:BD:47:GLY:HA2	57:BA:773:U:H5'	1.88	0.56
32:BI:83:ALA:O	32:BI:145:VAL:HG22	2.04	0.56
32:BI:84:GLY:HA2	32:BI:144:VAL:CG2	2.34	0.56
34:BN:90:MET:HE2	34:BN:90:MET:HA	1.88	0.56
36:BP:146:VAL:CG2	36:BP:147:LEU:H	2.13	0.56
39:BS:83:LYS:HE3	39:BS:105:ALA:HB2	1.88	0.56
40:BT:91:ARG:O	40:BT:117:ASP:CB	2.52	0.56
41:BU:91:ASP:CG	41:BU:96:ALA:HB2	2.27	0.56
43:BW:61:ASN:N	43:BW:61:ASN:HD22	2.04	0.56
43:BW:64:MET:O	43:BW:65:LEU:CB	2.54	0.56
45:BY:2:ARG:NH2	57:BA:106:C:H1'	2.20	0.56
53:B6:8:LYS:HZ1	57:BA:2285:C:H5	1.52	0.56
53:B6:37:ARG:HH12	53:B6:39:TYR:HE1	1.54	0.56
57:BA:78:A:H2'	57:BA:79:G:H8	1.68	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BA:341:G:O2'	57:BA:342:G:H5'	2.06	0.56
57:BA:1427:A:H4'	57:BA:1428:C:O5'	2.06	0.56
58:BB:40:U:O2	58:BB:43:C:H5"	2.06	0.56
6:Ag:66:VAL:O	6:Ag:70:LYS:HE3	2.06	0.56
7:Ah:11:THR:HG23	7:Ah:14:ARG:NH1	2.20	0.56
8:Ai:55:ALA:HB1	8:Ai:58:HIS:HD2	1.71	0.56
15:Ap:36:ILE:O	15:Ap:36:ILE:HG13	2.06	0.56
17:Ar:72:ARG:O	17:Ar:76:LEU:HD23	2.05	0.56
18:As:38:SER:O	18:As:70:LYS:HD3	2.06	0.56
21:Ay:2:ALA:N	21:Ay:35:GLU:HA	2.21	0.56
22:Aa:527:G:O2'	22:Aa:528:C:H5'	2.04	0.56
22:Aa:1432:G:HO2'	22:Aa:1433:A:H8	1.52	0.56
27:AD:8:PRO:HB3	27:AD:14:ARG:HB2	1.88	0.56
31:AH:158:HIS:CE1	31:AH:169:VAL:O	2.58	0.56
32:AI:77:LEU:HD21	32:AI:141:LYS:H	1.71	0.56
32:AI:92:VAL:HG22	32:AI:97:ILE:CG1	2.36	0.56
33:AJ:124:ALA:HB3	33:AJ:127:GLU:CB	2.36	0.56
41:AU:92:ARG:CZ	42:AV:11:GLN:H	2.18	0.56
57:AA:102:G:H4'	57:AA:102:G:OP1	2.06	0.56
57:AA:271(M):G:C2'	57:AA:271(N):U:H5"	2.33	0.56
57:AA:1242:A:H5'	57:AA:1243:G:OP2	2.05	0.56
1:Bb:111:ARG:HH11	1:Bb:111:ARG:HG2	1.69	0.56
2:Bc:127:ARG:HH11	2:Bc:127:ARG:HG2	1.71	0.56
12:Bm:29:ARG:NH1	12:Bm:64:TRP:CG	2.74	0.56
19:Bt:26:ASN:HA	19:Bt:29:LYS:HG2	1.87	0.56
22:Ba:961:U:O2'	22:Ba:962:C:H5'	2.05	0.56
22:Ba:1084:G:H5'	22:Ba:1102:A:OP2	2.06	0.56
25:Bw:5:G:H22	25:Bw:68:C:H42	1.54	0.56
28:BE:144:ARG:HD2	57:BA:2572:A:N7	2.21	0.56
29:BF:185:ASP:HA	29:BF:188:ARG:CG	2.36	0.56
29:BF:196:LEU:O	29:BF:196:LEU:HD23	2.05	0.56
30:BG:60:LEU:O	30:BG:60:LEU:HD13	2.06	0.56
35:BO:87:ILE:HG21	35:BO:91:LEU:HA	1.87	0.56
36:BP:25:SER:HA	57:BA:811:U:H3'	1.88	0.56
36:BP:40:SER:O	36:BP:41:ARG:NE	2.37	0.56
36:BP:102:ARG:CB	36:BP:102:ARG:HH21	2.19	0.56
39:BS:32:LEU:HD13	58:BB:31:C:N4	2.21	0.56
39:BS:59:LYS:HG2	39:BS:60:GLY:N	2.20	0.56
40:BT:23:ARG:HG2	40:BT:120:ARG:NH1	2.21	0.56
41:BU:90:VAL:HG22	42:BV:39:LEU:HG	1.87	0.56
45:BY:98:VAL:O	45:BY:98:VAL:HG12	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:B8:61:LEU:CG	55:B8:62:LEU:H	2.17	0.56
57:BA:523:C:C2'	57:BA:524:U:H5'	2.36	0.56
57:BA:528:A:N1	57:BA:2042:A:H2'	2.21	0.56
57:BA:1019:U:H3	57:BA:1142(A):A:N6	1.94	0.56
57:BA:1339:G:H21	57:BA:1603:A:H1'	1.71	0.56
57:BA:2000:G:O2'	57:BA:2001:A:H5'	2.06	0.56
2:Ac:127:ARG:HH11	2:Ac:127:ARG:HG2	1.70	0.56
12:Am:52:GLU:O	12:Am:56:LEU:HB2	2.06	0.56
12:Am:111:LYS:HE3	22:Aa:1227:A:OP2	2.05	0.56
13:An:24:CYS:HB3	13:An:27:CYS:O	2.06	0.56
13:An:44:LEU:HD12	13:An:44:LEU:O	2.06	0.56
15:Ap:28:ARG:NH1	15:Ap:29:ASP:OD2	2.38	0.56
22:Aa:685:G:O2'	22:Aa:686:U:H5'	2.06	0.56
22:Aa:1320:C:H2'	22:Aa:1321:C:O4'	2.06	0.56
22:Aa:1423:G:H2'	22:Aa:1424:C:C6	2.41	0.56
35:AO:47:ILE:CG1	35:AO:48:PRO:HD2	2.33	0.56
36:AP:16:ARG:CD	36:AP:18:ARG:H	2.10	0.56
39:AS:74:ALA:HB1	39:AS:103:GLU:HB3	1.87	0.56
43:AW:71:VAL:HA	43:AW:107:LEU:HD12	1.87	0.56
44:AX:44:GLU:HG2	44:AX:49:VAL:O	2.05	0.56
46:AZ:24:LEU:HD23	46:AZ:25:PRO:C	2.30	0.56
53:A6:19:ARG:HG3	57:AA:2399:G:O2'	2.06	0.56
55:A8:2:PRO:HA	57:AA:591:C:H1'	1.88	0.56
57:AA:364:C:H2'	57:AA:365:C:C5'	2.35	0.56
57:AA:848:G:H2'	57:AA:849:A:C8	2.41	0.56
57:AA:1534:U:H2'	57:AA:1535:A:O4'	2.06	0.56
58:AB:55:U:O2'	58:AB:56:G:H5'	2.06	0.56
2:Bc:181:ASN:ND2	2:Bc:204:LEU:HB2	2.22	0.56
8:Bi:10:ARG:HD2	8:Bi:105:ASP:HB2	1.87	0.56
8:Bi:83:ARG:C	8:Bi:86:VAL:HG12	2.31	0.56
9:Bj:51:ARG:HG3	9:Bj:60:ARG:CA	2.33	0.56
12:Bm:79:LYS:HG2	12:Bm:82:MET:HE3	1.88	0.56
13:Bn:13:THR:HG22	13:Bn:13:THR:O	2.06	0.56
22:Ba:1152:A:H2'	22:Ba:1153:C:C6	2.41	0.56
22:Ba:1293:G:HO2'	22:Ba:1294:G:H8	1.51	0.56
22:Ba:1353:G:O2'	22:Ba:1354:C:H5'	2.06	0.56
27:BD:71:ASP:HB2	27:BD:103:ARG:NH2	2.21	0.56
27:BD:116:GLN:HG2	27:BD:117:VAL:N	2.21	0.56
32:BI:5:LEU:O	32:BI:6:LEU:HG	2.05	0.56
32:BI:8:PRO:HB3	32:BI:14:ASP:N	2.16	0.56
34:BN:132:ALA:O	34:BN:133:GLN:HB3	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:7:ARG:CA	36:BP:7:ARG:NH1	2.62	0.56
36:BP:85:LEU:HD22	36:BP:114:ILE:HD11	1.88	0.56
38:BR:32:GLY:HA2	38:BR:116:LEU:HD12	1.86	0.56
39:BS:23:ARG:HB3	39:BS:24:LEU:HD22	1.88	0.56
39:BS:99:LYS:O	39:BS:101:LEU:HD12	2.06	0.56
42:BV:82:ARG:HD2	42:BV:82:ARG:N	2.21	0.56
57:BA:203:C:H3'	57:BA:204:A:H5"	1.87	0.56
57:BA:880:G:H1	57:BA:897:C:N4	2.04	0.56
57:BA:904:C:H2'	57:BA:905:U:C6	2.41	0.56
57:BA:1040:C:H42	57:BA:1115:G:H1	1.54	0.56
1:Ab:102:LEU:HD12	1:Ab:102:LEU:N	2.21	0.55
3:Ad:61:LYS:HD2	3:Ad:207:TYR:OH	2.05	0.55
7:Ah:20:TYR:HD1	7:Ah:65:TYR:CD2	2.24	0.55
9:Aj:49:VAL:HG21	13:An:41:ARG:HB2	1.85	0.55
10:Ak:124:LYS:HE3	22:Aa:797:C:OP1	2.05	0.55
19:At:26:ASN:HA	19:At:29:LYS:HG2	1.88	0.55
22:Aa:1097:C:H2'	22:Aa:1098:C:H6	1.71	0.55
25:Aw:33:U:H2'	25:Aw:35:A:OP2	2.06	0.55
27:AD:35:LYS:HG2	27:AD:63:ARG:HG3	1.87	0.55
28:AE:134:ILE:O	28:AE:134:ILE:HD12	2.06	0.55
30:AG:72:ARG:HG2	30:AG:87:PRO:HD2	1.87	0.55
30:AG:159:VAL:HG13	30:AG:159:VAL:O	2.07	0.55
31:AH:105:LEU:H	31:AH:105:LEU:CD2	2.16	0.55
31:AH:136:ILE:HD12	31:AH:136:ILE:H	1.71	0.55
32:AI:8:PRO:HB3	32:AI:14:ASP:N	2.17	0.55
36:AP:16:ARG:NH1	36:AP:16:ARG:O	2.38	0.55
36:AP:58:THR:O	36:AP:61:ARG:CZ	2.53	0.55
40:AT:65:LYS:CE	40:AT:66:VAL:H	2.13	0.55
41:AU:95:LEU:HD12	42:AV:11:GLN:HE21	1.71	0.55
42:AV:6:LYS:O	42:AV:37:VAL:HG21	2.05	0.55
54:A7:34:ARG:NH1	54:A7:39:ARG:HG3	2.21	0.55
57:AA:364:C:C2'	57:AA:365:C:H5"	2.35	0.55
57:AA:814:C:H2'	57:AA:815:C:H6	1.72	0.55
57:AA:953:A:O2'	57:AA:954:G:H5'	2.06	0.55
57:AA:1278:A:O2'	57:AA:1279:G:H5'	2.05	0.55
57:AA:1947:C:C2'	57:AA:1948:G:H5"	2.36	0.55
57:AA:2136:C:H41	57:AA:2156:G:H21	1.54	0.55
57:AA:2463:C:O2'	57:AA:2464:C:H5'	2.05	0.55
1:Bb:16:HIS:HB3	1:Bb:210:SER:CB	2.36	0.55
10:Bk:57:THR:HG23	10:Bk:60:ALA:H	1.70	0.55
12:Bm:19:LEU:HA	12:Bm:22:ILE:HD13	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Bm:66:LEU:H	12:Bm:70:LEU:HB3	1.71	0.55
18:Bs:21:GLU:HG3	18:Bs:22:LEU:HD22	1.88	0.55
22:Ba:37:U:O2'	22:Ba:38:G:H5'	2.06	0.55
22:Ba:1452:C:O4'	22:Ba:1456:G:N2	2.40	0.55
27:BD:16:MET:HE1	27:BD:208:LYS:HD2	1.88	0.55
28:BE:61:ARG:HD3	57:BA:2787:C:H1'	1.87	0.55
28:BE:71:GLY:O	28:BE:72:VAL:C	2.49	0.55
28:BE:137:HIS:HB3	28:BE:138:PRO:HD2	1.88	0.55
32:BI:113:ARG:NH1	32:BI:131:LYS:O	2.39	0.55
34:BN:131:GLN:OE1	34:BN:131:GLN:HA	2.06	0.55
39:BS:90:GLY:C	39:BS:92:TYR:H	2.13	0.55
40:BT:70:VAL:CG1	40:BT:71:GLY:N	2.68	0.55
57:BA:78:A:H2'	57:BA:79:G:C8	2.41	0.55
57:BA:1292:U:O2'	57:BA:1293:C:H5'	2.07	0.55
57:BA:2506:U:H5'	57:BA:2506:U:C6	2.40	0.55
4:Ae:101:ILE:HG13	4:Ae:119:LEU:HD23	1.88	0.55
12:Am:25:ILE:HD11	12:Am:60:VAL:HG11	1.89	0.55
13:An:26:ARG:NH1	13:An:47:LEU:HD21	2.21	0.55
13:An:27:CYS:C	13:An:29:ARG:H	2.14	0.55
22:Aa:192:U:H2'	22:Aa:193:C:H6	1.71	0.55
22:Aa:383:A:H2'	22:Aa:384:G:H5'	1.88	0.55
22:Aa:783:C:O2'	22:Aa:784:C:H5'	2.06	0.55
22:Aa:1107:C:C2'	22:Aa:1108:G:H5"	2.37	0.55
28:AE:111:ARG:HB2	28:AE:160:TYR:O	2.06	0.55
36:AP:105:LEU:HD12	36:AP:105:LEU:H	1.71	0.55
36:AP:146:VAL:O	36:AP:148:LEU:HG	2.07	0.55
39:AS:12:PHE:H	39:AS:12:PHE:HD2	1.55	0.55
45:AY:7:VAL:HB	45:AY:8:LYS:NZ	2.20	0.55
45:AY:62:GLU:CD	45:AY:63:LYS:N	2.63	0.55
48:A1:22:GLY:O	48:A1:32:LYS:HE3	2.06	0.55
57:AA:1131:G:HO2'	57:AA:1132:A:H8	1.54	0.55
57:AA:1332:G:N2	57:AA:1609:A:O2'	2.39	0.55
57:AA:1430:C:H2'	57:AA:1431:U:C6	2.41	0.55
57:AA:1678:G:N2	57:AA:1989:G:N2	2.51	0.55
57:AA:2473:U:C5	57:AA:2474:C:C6	2.94	0.55
58:AB:111:G:O2'	58:AB:112:U:H5'	2.04	0.55
1:Bb:14:GLY:C	1:Bb:15:VAL:HG22	2.31	0.55
1:Bb:209:ARG:NH1	1:Bb:239:VAL:HG11	2.21	0.55
2:Bc:15:THR:HG22	2:Bc:16:ARG:N	2.21	0.55
3:Bd:101:LEU:HD23	3:Bd:121:VAL:CG1	2.36	0.55
4:Be:18:ARG:HB3	22:Ba:1081:G:H5'	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:Bi:16:ARG:NH1	22:Ba:1147:C:O2	2.36	0.55
9:Bj:49:VAL:HG21	13:Bn:41:ARG:HB2	1.86	0.55
10:Bk:125:PHE:N	10:Bk:125:PHE:HD1	2.04	0.55
21:By:85:GLU:HG3	21:By:89:GLU:OE1	2.07	0.55
22:Ba:203:U:H5"	22:Ba:204:U:OP1	2.06	0.55
22:Ba:1091:U:O2	22:Ba:1093:A:H8	1.89	0.55
24:Bv:59:A:C2'	24:Bv:60:U:H5'	2.35	0.55
27:BD:35:LYS:HG2	27:BD:63:ARG:CG	2.37	0.55
30:BG:45:GLU:O	30:BG:88:ILE:HG13	2.06	0.55
30:BG:73:ALA:H	30:BG:87:PRO:CD	2.20	0.55
32:BI:53:ALA:O	32:BI:57:ARG:HD2	2.05	0.55
36:BP:13:ASN:C	36:BP:13:ASN:HD22	2.14	0.55
38:BR:10:LEU:HB3	38:BR:17:ARG:HD3	1.87	0.55
38:BR:38:VAL:CG1	38:BR:42:LYS:HD2	2.37	0.55
39:BS:87:PHE:HB2	39:BS:106:ARG:HE	1.71	0.55
39:BS:89:ARG:HH11	39:BS:89:ARG:HG2	1.70	0.55
41:BU:49:HIS:CD2	57:BA:534:U:O2'	2.59	0.55
42:BV:19:LYS:HZ2	42:BV:20:LEU:H	1.53	0.55
47:B0:41:ARG:HH22	57:BA:2387:U:H4'	1.71	0.55
49:B2:64:LEU:HD22	49:B2:68:ARG:HH11	1.70	0.55
57:BA:648:G:O2'	57:BA:649:G:H5'	2.06	0.55
2:Ac:71:ALA:CB	2:Ac:109:PRO:HB3	2.36	0.55
3:Ad:101:LEU:HB2	3:Ad:138:TYR:HB3	1.88	0.55
6:Ag:26:PHE:O	6:Ag:30:ILE:HG12	2.07	0.55
6:Ag:64:GLN:HG3	6:Ag:68:ASN:HD21	1.72	0.55
9:Aj:50:ILE:HD11	13:An:41:ARG:HD3	1.88	0.55
11:Al:8:ASN:HD22	16:Aq:34:LYS:CE	2.15	0.55
22:Aa:539:A:H2'	22:Aa:540:G:C8	2.41	0.55
27:AD:72:LYS:NZ	27:AD:72:LYS:HB3	2.21	0.55
27:AD:268:ARG:HB3	27:AD:268:ARG:NH1	2.21	0.55
29:AF:167:ALA:O	29:AF:168:ARG:HB3	2.06	0.55
31:AH:7:LEU:HD23	31:AH:69:ARG:HD3	1.88	0.55
34:AN:40:PRO:HB3	41:AU:68:ALA:HB2	1.88	0.55
35:AO:77:ILE:HD13	40:AT:74:ARG:HD3	1.88	0.55
45:AY:98:VAL:HG12	45:AY:98:VAL:O	2.06	0.55
46:AZ:103:ARG:HB2	46:AZ:136:PHE:HB2	1.88	0.55
47:A0:20:ARG:HH12	57:AA:2271:G:H4'	1.71	0.55
52:A5:40:LYS:NZ	52:A5:46:CYS:HB3	2.20	0.55
53:A6:27:LYS:HB3	53:A6:30:THR:CG2	2.35	0.55
57:AA:1331:A:O2'	57:AA:1332:G:H8	1.88	0.55
57:AA:2853:C:H2'	57:AA:2854:G:H8	1.70	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bb:71:VAL:HG13	1:Bb:93:VAL:CB	2.32	0.55
4:Be:102:ALA:HB2	4:Be:120:THR:OG1	2.06	0.55
4:Be:145:LYS:O	4:Be:149:GLU:HG2	2.05	0.55
9:Bj:82:ILE:CG2	9:Bj:86:MET:HE2	2.36	0.55
18:Bs:44:MET:HA	18:Bs:44:MET:CE	2.30	0.55
22:Ba:735:C:O2'	22:Ba:736:C:H5'	2.05	0.55
22:Ba:1385:G:O2'	22:Ba:1386:G:H5'	2.07	0.55
25:Bw:7:G:H5'	25:Bw:8:U:C5	2.41	0.55
27:BD:94:LEU:HB2	27:BD:104:TYR:CE2	2.41	0.55
27:BD:108:PRO:HG2	27:BD:111:LEU:HB2	1.87	0.55
29:BF:20:LEU:O	29:BF:21:ALA:O	2.24	0.55
29:BF:185:ASP:OD1	29:BF:188:ARG:HD3	2.06	0.55
31:BH:24:VAL:HG11	31:BH:72:ILE:HD11	1.89	0.55
35:BO:10:VAL:HG13	35:BO:17:ARG:O	2.06	0.55
36:BP:102:ARG:HB3	36:BP:102:ARG:NH2	2.22	0.55
39:BS:19:LYS:O	39:BS:19:LYS:HG2	2.06	0.55
42:BV:19:LYS:CG	42:BV:20:LEU:N	2.68	0.55
45:BY:14:LEU:HD12	45:BY:23:ARG:H	1.71	0.55
45:BY:66:PRO:O	45:BY:67:LEU:HB3	2.06	0.55
46:BZ:166:SER:OG	46:BZ:167:PRO:HA	2.07	0.55
57:BA:1111:A:O2'	57:BA:1112:G:H4'	2.06	0.55
57:BA:2650:U:O2'	57:BA:2651:C:H5'	2.06	0.55
57:BA:2668:G:O2'	57:BA:2669:G:H5'	2.05	0.55
1:Ab:14:GLY:C	1:Ab:15:VAL:HG22	2.31	0.55
1:Ab:84:GLU:HG3	1:Ab:215:LEU:HB3	1.88	0.55
3:Ad:162:LEU:HD22	3:Ad:178:VAL:HG13	1.88	0.55
4:Ae:12:LEU:HD22	4:Ae:12:LEU:C	2.30	0.55
8:Ai:83:ARG:C	8:Ai:86:VAL:HG12	2.31	0.55
9:Aj:50:ILE:HA	9:Aj:60:ARG:HB3	1.88	0.55
10:Ak:111:ASP:HA	17:Ar:84:LYS:HD2	1.89	0.55
12:Am:11:ARG:O	12:Am:13:LYS:N	2.40	0.55
22:Aa:429:U:H1'	22:Aa:430:A:H5"	1.87	0.55
24:Av:29:G:O2'	24:Av:30:G:H5'	2.07	0.55
26:AC:22:THR:OG1	26:AC:25:GLU:HB3	2.05	0.55
28:AE:34:VAL:HG22	28:AE:48:GLN:NE2	2.21	0.55
31:AH:156:ALA:O	31:AH:158:HIS:N	2.39	0.55
32:AI:87:LYS:CE	32:AI:121:LYS:HG3	2.37	0.55
36:AP:98:GLU:O	36:AP:101:VAL:HG22	2.07	0.55
36:AP:101:VAL:CB	36:AP:107:LYS:HA	2.32	0.55
38:AR:9:LYS:HG2	38:AR:43:GLU:OE2	2.07	0.55
39:AS:55:ALA:HB1	58:AB:117:G:C5'	2.35	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:AT:28:VAL:HG13	40:AT:46:GLU:CA	2.36	0.55
41:AU:50:ARG:NH2	57:AA:993:G:OP1	2.39	0.55
41:AU:88:ILE:C	41:AU:90:VAL:H	2.13	0.55
47:A0:36:ILE:CD1	47:A0:39:ARG:HG2	2.37	0.55
51:A4:14:ILE:HA	51:A4:31:ILE:HG22	1.89	0.55
53:A6:37:ARG:HH12	53:A6:39:TYR:HE1	1.51	0.55
57:AA:107:C:H2'	57:AA:108:U:H6	1.71	0.55
57:AA:880:G:H1	57:AA:897:C:N4	2.04	0.55
57:AA:1932:A:H2'	57:AA:1933:G:O4'	2.06	0.55
57:AA:2023:G:H5'	57:AA:2617:C:H4'	1.88	0.55
57:AA:2639:A:H2'	57:AA:2640:G:H5'	1.89	0.55
1:Bb:165:VAL:HG23	1:Bb:166:ASP:N	2.21	0.55
1:Bb:217:ARG:HA	1:Bb:220:ASP:HB2	1.87	0.55
11:Bl:60:LEU:CD2	11:Bl:66:VAL:HG23	2.36	0.55
12:Bm:88:ARG:CA	12:Bm:98:VAL:HG11	2.36	0.55
17:Br:45:SER:H	17:Br:51:LEU:HD11	1.71	0.55
22:Ba:107:G:C2'	22:Ba:108:G:H5'	2.37	0.55
22:Ba:677:U:H3	22:Ba:713:G:H22	1.53	0.55
30:BG:113:ARG:HE	30:BG:113:ARG:CA	2.17	0.55
36:BP:29:LYS:N	36:BP:29:LYS:HD2	2.21	0.55
40:BT:25:GLY:H	40:BT:49:VAL:CG1	2.19	0.55
40:BT:80:SER:CB	40:BT:81:PRO:HD3	2.33	0.55
42:BV:47:VAL:O	42:BV:49:THR:N	2.39	0.55
45:BY:77:PRO:O	45:BY:78:ALA:HB2	2.07	0.55
55:B8:14:VAL:HG21	55:B8:22:VAL:HG13	1.89	0.55
57:BA:1021:A:C8	57:BA:1021:A:C3'	2.89	0.55
57:BA:1505:C:H2'	57:BA:1506:C:O4'	2.06	0.55
57:BA:1947:C:C2'	57:BA:1948:G:H5"	2.36	0.55
57:BA:2001:A:H2'	57:BA:2002:G:C8	2.41	0.55
57:BA:2845:G:O2'	57:BA:2846:G:H5'	2.06	0.55
4:Ae:24:ARG:NH1	22:Aa:15:G:H4'	2.20	0.55
5:Af:61:LEU:O	5:Af:62:TRP:HB2	2.06	0.55
6:Ag:37:ASN:HD21	8:Ai:40:LEU:HA	1.71	0.55
7:Ah:89:PRO:HG2	22:Aa:878:G:C5'	2.36	0.55
13:An:4:LYS:C	13:An:6:LEU:H	2.14	0.55
22:Aa:389:A:H2'	22:Aa:390:C:C5'	2.37	0.55
27:AD:44:ASN:OD1	27:AD:44:ASN:N	2.40	0.55
27:AD:241:PRO:C	27:AD:242:ARG:HD2	2.31	0.55
27:AD:242:ARG:HD2	27:AD:242:ARG:N	2.21	0.55
30:AG:67:LYS:HZ3	51:A4:6:HIS:CE1	2.24	0.55
30:AG:173:LEU:HD13	30:AG:178:PHE:CD2	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:AH:44:VAL:O	31:AH:45:VAL:C	2.49	0.55
32:AI:78:THR:H	32:AI:104:GLN:NE2	1.99	0.55
34:AN:43:THR:HB	34:AN:46:VAL:CG1	2.34	0.55
36:AP:97:PRO:HG2	36:AP:127:ALA:HA	1.88	0.55
37:AQ:34:LEU:CD1	37:AQ:129:THR:HB	2.36	0.55
37:AQ:67:ARG:HG2	37:AQ:67:ARG:NH1	2.21	0.55
40:AT:66:VAL:HA	40:AT:71:GLY:HA2	1.87	0.55
41:AU:12:ARG:HB2	41:AU:13:LYS:HE3	1.87	0.55
41:AU:70:ARG:HA	41:AU:74:LEU:O	2.06	0.55
44:AX:60:ARG:HH21	54:A7:47:ARG:NH1	2.05	0.55
46:AZ:24:LEU:C	46:AZ:24:LEU:CD2	2.79	0.55
57:AA:274:G:H3'	57:AA:274:G:N3	2.21	0.55
57:AA:1419:A:O2'	57:AA:1420:U:H5"	2.07	0.55
57:AA:2197:U:O2'	57:AA:2198:A:H2'	2.06	0.55
57:AA:2506:U:H5'	57:AA:2506:U:C6	2.41	0.55
1:Bb:55:PHE:CD1	1:Bb:58:ILE:HD12	2.41	0.55
3:Bd:101:LEU:HB2	3:Bd:138:TYR:HB3	1.88	0.55
6:Bg:102:ARG:HG2	6:Bg:106:GLN:NE2	2.21	0.55
6:Bg:150:ALA:HB2	10:Bk:50:TYR:CZ	2.41	0.55
10:Bk:59:TYR:O	10:Bk:63:LEU:HD23	2.06	0.55
16:Bq:7:THR:HG22	16:Bq:58:GLU:CG	2.21	0.55
16:Bq:63:ARG:HG2	16:Bq:64:PRO:HD2	1.88	0.55
18:Bs:18:LYS:O	18:Bs:22:LEU:HD23	2.07	0.55
22:Ba:591:U:H2'	22:Ba:592:G:H8	1.69	0.55
27:BD:35:LYS:CG	27:BD:63:ARG:HA	2.30	0.55
27:BD:77:ALA:CB	27:BD:97:TYR:HA	2.36	0.55
27:BD:211:ARG:HD3	27:BD:214:TRP:CZ3	2.42	0.55
28:BE:117:MET:HB2	28:BE:122:PHE:O	2.07	0.55
30:BG:39:ILE:HG12	30:BG:92:VAL:HG13	1.86	0.55
31:BH:44:VAL:O	31:BH:45:VAL:C	2.49	0.55
32:BI:46:ALA:HB2	57:BA:271(P):C:C5'	2.37	0.55
32:BI:87:LYS:HA	32:BI:122:GLU:HA	1.88	0.55
36:BP:6:LEU:HG	36:BP:9:ASN:HB2	1.89	0.55
36:BP:98:GLU:O	36:BP:101:VAL:HG22	2.06	0.55
37:BQ:22:LYS:O	46:BZ:78:LYS:HE2	2.06	0.55
38:BR:87:TYR:C	38:BR:89:ASP:H	2.12	0.55
38:BR:99:LYS:HD3	38:BR:99:LYS:H	1.71	0.55
46:BZ:151:HIS:CA	46:BZ:171:ILE:HG22	2.31	0.55
48:B1:59:THR:O	48:B1:91:LYS:NZ	2.40	0.55
55:B8:14:VAL:CG2	55:B8:22:VAL:CG1	2.85	0.55
57:BA:1652:A:H3'	57:BA:1653:G:C8	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BA:1771:C:H1'	57:BA:1786:A:C8	2.40	0.55
1:Ab:217:ARG:HA	1:Ab:220:ASP:HB2	1.88	0.55
2:Ac:75:VAL:O	2:Ac:75:VAL:HG12	2.07	0.55
5:Af:3:ARG:HD3	5:Af:64:GLN:NE2	2.22	0.55
9:Aj:20:ALA:C	9:Aj:22:LYS:H	2.14	0.55
15:Ap:45:THR:HG23	15:Ap:46:PRO:HD2	1.88	0.55
17:Ar:63:GLN:OE1	17:Ar:66:LEU:HD23	2.07	0.55
18:As:53:ASN:O	18:As:77:THR:HG22	2.07	0.55
21:Ay:56:ARG:CZ	23:Ax:21:OMG:O2'	2.54	0.55
22:Aa:1033:G:C2'	22:Aa:1034:G:H5'	2.36	0.55
26:AC:173:HIS:O	26:AC:174:ALA:CB	2.55	0.55
28:AE:52:LEU:O	28:AE:74:PRO:HA	2.07	0.55
36:AP:91:PHE:CD1	36:AP:91:PHE:N	2.65	0.55
38:AR:10:LEU:HB3	38:AR:17:ARG:HD3	1.89	0.55
39:AS:49:VAL:HG12	39:AS:73:LEU:HD23	1.87	0.55
40:AT:1:MET:O	40:AT:2:ASN:C	2.49	0.55
45:AY:27:VAL:HG12	45:AY:28:LYS:N	2.22	0.55
45:AY:95:LYS:HB3	45:AY:100:ALA:HA	1.87	0.55
48:A1:8:SER:HB3	48:A1:66:HIS:NE2	2.22	0.55
53:A6:47:THR:OG1	53:A6:48:VAL:N	2.40	0.55
57:AA:78:A:H2'	57:AA:79:G:C8	2.41	0.55
57:AA:272(J):C:O2'	57:AA:274:G:H5'	2.06	0.55
57:AA:438:G:O2'	57:AA:440:G:H5'	2.06	0.55
58:AB:78:A:C2	58:AB:100:A:C4	2.94	0.55
12:Bm:25:ILE:HD11	12:Bm:60:VAL:HG11	1.89	0.55
14:Bo:82:ILE:HD11	14:Bo:87:ILE:O	2.07	0.55
15:Bp:45:THR:HG23	15:Bp:46:PRO:HD2	1.89	0.55
16:Bq:45:HIS:HB2	16:Bq:65:ILE:HD13	1.88	0.55
18:Bs:16:LEU:HD12	18:Bs:16:LEU:N	2.21	0.55
22:Ba:475:G:H2'	22:Ba:476:G:C8	2.42	0.55
22:Ba:1137:C:H4'	22:Ba:1138:G:N2	2.21	0.55
22:Ba:1320:C:H2'	22:Ba:1321:C:O4'	2.07	0.55
27:BD:242:ARG:HD2	27:BD:242:ARG:N	2.22	0.55
28:BE:61:ARG:NH2	57:BA:2632:A:O2'	2.40	0.55
29:BF:65:TRP:HZ3	29:BF:73:ALA:O	1.88	0.55
29:BF:102:PRO:HA	57:BA:607:U:OP1	2.06	0.55
34:BN:120:LEU:C	34:BN:121:LYS:HD2	2.32	0.55
37:BQ:35:VAL:HG11	37:BQ:130:LYS:HE2	1.88	0.55
39:BS:17:ARG:HA	39:BS:20:ARG:NH1	2.21	0.55
41:BU:92:ARG:O	41:BU:94:ASN:N	2.40	0.55
46:BZ:67:LEU:HB3	46:BZ:68:PRO:HD2	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BA:958:U:H5'	57:BA:958:U:H6	1.72	0.55
1:Ab:209:ARG:NH1	1:Ab:239:VAL:HG11	2.21	0.55
5:Af:62:TRP:CG	17:Ar:35:ARG:HH12	2.24	0.55
6:Ag:102:ARG:HG2	6:Ag:106:GLN:NE2	2.21	0.55
18:As:6:LYS:CG	18:As:7:LYS:HE3	2.27	0.55
18:As:16:LEU:HD12	18:As:16:LEU:N	2.22	0.55
18:As:63:THR:O	18:As:66:MET:HG2	2.07	0.55
22:Aa:1195:C:N3	22:Aa:1197:G:C8	2.75	0.55
27:AD:47:GLY:HA2	57:AA:773:U:H5'	1.88	0.55
27:AD:116:GLN:HG2	27:AD:117:VAL:N	2.22	0.55
28:AE:103:ASP:OD2	28:AE:168:MET:HE2	2.07	0.55
29:AF:20:LEU:O	29:AF:21:ALA:O	2.25	0.55
30:AG:57:ALA:O	30:AG:68:PRO:HD2	2.07	0.55
30:AG:109:VAL:CG2	51:A4:33:VAL:HG21	2.36	0.55
30:AG:149:VAL:O	30:AG:149:VAL:HG13	2.07	0.55
44:AX:24:GLY:HA3	44:AX:83:VAL:HG23	1.89	0.55
45:AY:17:SER:OG	45:AY:71:LYS:HD2	2.07	0.55
53:A6:42:TRP:CZ2	57:AA:2349:G:H4'	2.42	0.55
57:AA:626:U:H5'	57:AA:627:A:H5'	1.88	0.55
57:AA:1348:G:C2'	57:AA:1349:A:H5"	2.37	0.55
3:Bd:100:ARG:HB3	3:Bd:102:ASP:OD1	2.07	0.55
12:Bm:49:THR:O	12:Bm:53:VAL:HG23	2.06	0.55
22:Ba:557:G:H2'	22:Ba:558:G:C8	2.42	0.55
22:Ba:1130:A:N3	22:Ba:1146:A:C2	2.75	0.55
27:BD:268:ARG:HB3	27:BD:268:ARG:NH1	2.22	0.55
30:BG:9:ARG:O	30:BG:13:GLU:HG2	2.07	0.55
32:BI:82:ARG:O	32:BI:89:TYR:HB2	2.07	0.55
34:BN:41:ASP:O	34:BN:42:TRP:C	2.48	0.55
34:BN:72:TYR:CD1	34:BN:90:MET:HG3	2.42	0.55
36:BP:59:LEU:HA	36:BP:61:ARG:HH11	1.64	0.55
37:BQ:9:TYR:OH	57:BA:911:A:H2'	2.06	0.55
41:BU:12:ARG:HB2	41:BU:13:LYS:HE3	1.89	0.55
41:BU:83:LEU:CG	41:BU:88:ILE:HD11	2.26	0.55
41:BU:88:ILE:C	41:BU:90:VAL:H	2.13	0.55
45:BY:88:LYS:CE	45:BY:93:GLY:HA3	2.37	0.55
46:BZ:116:VAL:O	46:BZ:174:VAL:HG13	2.05	0.55
48:B1:73:LEU:O	48:B1:77:ALA:HB2	2.07	0.55
53:B6:11:LEU:HD12	53:B6:26:ASN:HB2	1.87	0.55
57:BA:795:C:H2'	57:BA:796:C:C6	2.41	0.55
57:BA:1204:A:N1	57:BA:1241:A:C2	2.75	0.55
17:Ar:50:ILE:HD12	17:Ar:70:ILE:HD12	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Aa:1353:G:O2'	22:Aa:1354:C:H5'	2.06	0.55
26:AC:190:ILE:O	26:AC:194:ILE:HG12	2.07	0.55
30:AG:46:ALA:HA	30:AG:51:ARG:HB2	1.88	0.55
30:AG:140:ILE:C	30:AG:140:ILE:HD12	2.32	0.55
35:AO:23:ARG:HG3	35:AO:24:VAL:N	2.21	0.55
35:AO:87:ILE:HG21	35:AO:91:LEU:HA	1.88	0.55
36:AP:6:LEU:HG	36:AP:9:ASN:HB2	1.89	0.55
36:AP:32:THR:O	36:AP:33:ARG:HB3	2.06	0.55
40:AT:23:ARG:HG2	40:AT:120:ARG:HH12	1.72	0.55
40:AT:25:GLY:H	40:AT:49:VAL:CG1	2.19	0.55
40:AT:85:LYS:O	40:AT:86:ILE:C	2.50	0.55
40:AT:91:ARG:O	40:AT:117:ASP:CB	2.54	0.55
42:AV:46:VAL:HG22	42:AV:47:VAL:H	1.72	0.55
49:A2:46:GLN:O	49:A2:49:LYS:HG3	2.07	0.55
52:A5:48:GLU:O	52:A5:49:CYS:HB3	2.07	0.55
57:AA:792:G:H5"	57:AA:793:A:H5'	1.89	0.55
57:AA:796:C:H2'	57:AA:797:C:C6	2.42	0.55
57:AA:1709:U:H2'	57:AA:1710:C:C6	2.41	0.55
57:AA:2360:A:O2'	57:AA:2361:A:C5'	2.55	0.55
57:AA:2732:G:H3'	57:AA:2733:A:C5'	2.36	0.55
1:Bb:90:MET:HE2	1:Bb:90:MET:HA	1.87	0.55
1:Bb:138:LEU:O	1:Bb:141:GLU:HB3	2.06	0.55
2:Bc:58:GLU:O	2:Bc:59:ARG:HG3	2.06	0.55
5:Bf:97:PHE:HB2	17:Br:32:ARG:NH2	2.22	0.55
9:Bj:50:ILE:HA	9:Bj:60:ARG:HB3	1.89	0.55
11:Bl:114:LYS:HD2	22:Ba:538:G:O3'	2.07	0.55
12:Bm:28:ALA:C	12:Bm:30:ALA:N	2.63	0.55
15:Bp:43:LYS:HA	15:Bp:48:TRP:HB3	1.89	0.55
18:Bs:15:LEU:O	18:Bs:19:VAL:HG23	2.06	0.55
21:By:88:SER:O	21:By:91:VAL:HG12	2.07	0.55
22:Ba:1184:G:H2'	22:Ba:1185:G:H8	1.72	0.55
26:BC:22:THR:OG1	26:BC:25:GLU:HB3	2.07	0.55
28:BE:62:PRO:O	28:BE:64:LYS:N	2.40	0.55
28:BE:81:ILE:HG22	28:BE:81:ILE:O	2.06	0.55
28:BE:102:VAL:HB	28:BE:199:ARG:O	2.06	0.55
32:BI:77:LEU:HD21	32:BI:141:LYS:H	1.71	0.55
36:BP:48:PRO:HB3	57:BA:833:U:H5"	1.89	0.55
37:BQ:47:ILE:HG22	37:BQ:48:GLU:N	2.21	0.55
42:BV:47:VAL:HB	42:BV:49:THR:O	2.07	0.55
46:BZ:110:GLY:HA3	46:BZ:146:ILE:HG23	1.89	0.55
52:B5:40:LYS:NZ	52:B5:46:CYS:HB3	2.22	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BA:1709:U:H2'	57:BA:1710:C:C6	2.42	0.55
57:BA:2223:G:C2'	57:BA:2224:G:H5'	2.37	0.55
57:BA:2584:U:C2'	57:BA:2585:U:H5'	2.36	0.55
58:BB:78:A:C2	58:BB:100:A:C4	2.95	0.55
2:Ac:77:ILE:C	2:Ac:83:ARG:HB3	2.32	0.55
3:Ad:31:CYS:O	3:Ad:31:CYS:SG	2.65	0.55
5:Af:97:PHE:O	17:Ar:31:LEU:HD23	2.07	0.55
9:Aj:40:LEU:HB2	9:Aj:69:ASN:CB	2.34	0.55
12:Am:19:LEU:HA	12:Am:22:ILE:HD13	1.89	0.55
13:An:36:PHE:C	13:An:36:PHE:CD1	2.85	0.55
22:Aa:1234:C:O2'	22:Aa:1235:U:H5'	2.05	0.55
25:Aw:5:G:H22	25:Aw:68:C:N4	2.03	0.55
27:AD:16:MET:HE1	27:AD:208:LYS:HD2	1.89	0.55
29:AF:3:GLU:O	29:AF:19:GLU:CB	2.54	0.55
29:AF:123:LEU:HD12	29:AF:124:LEU:N	2.21	0.55
30:AG:45:GLU:N	30:AG:88:ILE:HG13	2.21	0.55
31:AH:19:VAL:CG2	31:AH:44:VAL:HA	2.33	0.55
31:AH:148:ILE:O	31:AH:162:ILE:HD11	2.06	0.55
36:AP:23:PRO:CD	36:AP:33:ARG:CZ	2.73	0.55
37:AQ:35:VAL:HG11	37:AQ:130:LYS:HE2	1.89	0.55
40:AT:117:ASP:O	40:AT:121:ILE:HG13	2.06	0.55
45:AY:28:LYS:O	45:AY:29:GLU:C	2.49	0.55
52:A5:34:PRO:O	52:A5:35:GLU:CB	2.54	0.55
54:A7:12:ARG:HD3	54:A7:46:VAL:HG21	1.89	0.55
54:A7:24:THR:HG23	54:A7:27:GLY:N	2.18	0.55
57:AA:1292:U:O2'	57:AA:1293:C:H5'	2.07	0.55
57:AA:1459:G:C8	57:AA:1461:G:H1'	2.42	0.55
57:AA:1608:A:H1'	57:AA:1610:A:OP2	2.07	0.55
57:AA:1865:G:H5'	57:AA:1866:C:OP2	2.07	0.55
57:AA:2022:U:O2'	57:AA:2617:C:H5'	2.07	0.55
57:AA:2762:G:H8	57:AA:2762:G:H5'	1.71	0.55
1:Bb:204:ASN:HD22	1:Bb:206:ASP:H	1.53	0.55
2:Bc:18:TRP:C	2:Bc:20:SER:H	2.13	0.55
2:Bc:23:TYR:CG	2:Bc:24:ALA:N	2.75	0.55
6:Bg:37:ASN:HD21	8:Bi:40:LEU:HA	1.71	0.55
6:Bg:54:THR:OG1	6:Bg:56:GLN:HG2	2.06	0.55
22:Ba:386:C:O2'	22:Ba:387:U:H5'	2.06	0.55
22:Ba:389:A:H2'	22:Ba:390:C:C5'	2.37	0.55
22:Ba:1157:A:H5'	22:Ba:1158:C:C6	2.42	0.55
25:Bw:73:A:O2'	25:Bw:74:C:H5'	2.07	0.55
26:BC:173:HIS:O	26:BC:174:ALA:CB	2.55	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BD:27:THR:HG23	27:BD:27:THR:O	2.07	0.55
27:BD:228:PRO:HD3	27:BD:235:GLY:HA2	1.89	0.55
30:BG:68:PRO:HA	30:BG:92:VAL:HB	1.88	0.55
33:BJ:118:THR:O	33:BJ:119:ALA:HB3	2.06	0.55
34:BN:71:ILE:HG21	34:BN:84:LYS:HB3	1.88	0.55
37:BQ:134:ARG:NH2	46:BZ:122:ARG:NE	2.55	0.55
37:BQ:134:ARG:CZ	46:BZ:122:ARG:HE	2.20	0.55
42:BV:78:LYS:HE2	57:BA:572:A:OP2	2.07	0.55
50:B3:45:GLY:HA3	57:BA:851:U:O2'	2.06	0.55
54:B7:24:THR:HG23	54:B7:27:GLY:N	2.17	0.55
57:BA:221:A:H4'	57:BA:222:A:O5'	2.07	0.55
57:BA:1865:G:H5'	57:BA:1866:C:OP2	2.07	0.55
1:Ab:17:PHE:CB	1:Ab:44:LEU:HD11	2.35	0.55
1:Ab:103:THR:OG1	1:Ab:104:ASN:N	2.41	0.55
2:Ac:179:ARG:CD	22:Aa:1112:C:H1'	2.36	0.55
6:Ag:18:TYR:CE2	6:Ag:59:LEU:HB2	2.42	0.55
9:Aj:42:THR:OG1	22:Aa:1151:A:H5"	2.06	0.55
11:Al:75:HIS:HD2	11:Al:77:LEU:HB2	1.72	0.55
13:An:45:ARG:O	13:An:49:HIS:HD2	1.89	0.55
26:AC:21:TYR:HB3	26:AC:26:ALA:HB2	1.89	0.55
29:AF:164:ARG:HG3	29:AF:175:THR:OG1	2.07	0.55
31:AH:85:LYS:HZ2	31:AH:133:VAL:CG2	2.14	0.55
34:AN:58:ASP:C	34:AN:60:ILE:N	2.62	0.55
39:AS:17:ARG:HA	39:AS:20:ARG:NH1	2.21	0.55
39:AS:36:TYR:N	39:AS:36:TYR:HD1	2.04	0.55
39:AS:99:LYS:O	39:AS:101:LEU:HD12	2.06	0.55
42:AV:46:VAL:HG13	42:AV:47:VAL:N	2.21	0.55
45:AY:88:LYS:CE	45:AY:93:GLY:HA3	2.36	0.55
51:A4:5:ILE:HG12	51:A4:5:ILE:O	2.06	0.55
51:A4:15:ILE:N	51:A4:31:ILE:O	2.40	0.55
55:A8:33:ASN:HA	55:A8:36:LYS:CD	2.36	0.55
57:AA:2164:C:H2'	57:AA:2165:G:H5'	1.89	0.55
57:AA:2199:A:H5'	57:AA:2200:C:OP2	2.07	0.55
57:AA:2294:C:H42	57:AA:2338:G:H1	1.54	0.55
5:Bf:61:LEU:O	5:Bf:62:TRP:HB2	2.06	0.55
12:Bm:52:GLU:O	12:Bm:56:LEU:HB2	2.06	0.55
15:Bp:23:ASP:O	15:Bp:26:ARG:HB2	2.07	0.55
22:Ba:983:A:HO2'	22:Ba:1049:U:HO2'	1.51	0.55
27:BD:35:LYS:HA	27:BD:64:ILE:HG22	1.89	0.55
28:BE:111:ARG:HG3	38:BR:2:ARG:NE	2.22	0.55
31:BH:85:LYS:NZ	31:BH:133:VAL:N	2.49	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BI:6:LEU:O	32:BI:15:VAL:HG12	2.07	0.55
33:BJ:43:ALA:C	33:BJ:45:LYS:H	2.13	0.55
33:BJ:59:ILE:C	33:BJ:61:LEU:H	2.14	0.55
42:BV:22:VAL:O	42:BV:23:GLU:HB2	2.07	0.55
45:BY:7:VAL:HB	45:BY:8:LYS:NZ	2.21	0.55
45:BY:17:SER:OG	45:BY:71:LYS:HD2	2.07	0.55
46:BZ:31:ARG:NH1	46:BZ:31:ARG:HB2	2.22	0.55
57:BA:1144:G:H2'	57:BA:1145:C:H6	1.72	0.55
57:BA:1488:G:H5'	57:BA:1489:U:OP2	2.07	0.55
57:BA:1684:C:O2'	57:BA:1685:C:H5'	2.07	0.55
57:BA:1827:C:O2'	57:BA:1828:G:H5'	2.07	0.55
58:BB:55:U:O2'	58:BB:56:G:H5'	2.07	0.55
6:Ag:111:ARG:HD2	6:Ag:123:GLU:HB2	1.88	0.54
15:Ap:21:VAL:HG12	15:Ap:34:GLU:O	2.07	0.54
18:As:6:LYS:H	18:As:6:LYS:CD	2.16	0.54
22:Aa:6:G:H4'	22:Aa:298:A:H4'	1.89	0.54
22:Aa:165:C:H2'	22:Aa:166:G:H8	1.72	0.54
22:Aa:300:A:H2'	22:Aa:301:G:O4'	2.07	0.54
22:Aa:423:G:C2'	22:Aa:424:G:H5'	2.36	0.54
22:Aa:557:G:H2'	22:Aa:558:G:C8	2.41	0.54
25:Aw:3:C:O2'	25:Aw:4:G:H5'	2.06	0.54
27:AD:16:MET:CE	27:AD:208:LYS:HD2	2.37	0.54
28:AE:81:ILE:HG22	28:AE:81:ILE:O	2.07	0.54
29:AF:8:GLN:O	29:AF:9:ILE:C	2.51	0.54
29:AF:102:PRO:HA	57:AA:607:U:OP1	2.07	0.54
30:AG:29:TRP:HB3	58:AB:57:A:N3	2.21	0.54
30:AG:180:PHE:HB3	30:AG:182:LYS:HG3	1.89	0.54
37:AQ:27:VAL:O	37:AQ:28:ALA:HB3	2.06	0.54
43:AW:15:ARG:NH2	57:AA:1266:G:O5'	2.37	0.54
57:AA:623:G:H2'	57:AA:624:C:C6	2.42	0.54
57:AA:1503:U:O2'	57:AA:1504:C:H5'	2.07	0.54
57:AA:2712:U:O2'	57:AA:2713:A:H5'	2.07	0.54
57:AA:2762:G:H2'	57:AA:2763:G:H5'	1.89	0.54
58:AB:87:G:C3'	58:AB:88:C:H5"	2.36	0.54
58:AB:104:U:O2'	58:AB:105:A:H5'	2.07	0.54
2:Bc:2:GLY:HA2	22:Ba:1060:C:H5	1.63	0.54
7:Bh:20:TYR:HD1	7:Bh:65:TYR:CE2	2.24	0.54
8:Bi:4:TYR:CE2	8:Bi:88:TYR:HB3	2.42	0.54
9:Bj:16:LEU:HA	9:Bj:94:VAL:HG21	1.89	0.54
12:Bm:11:ARG:O	12:Bm:13:LYS:N	2.40	0.54
22:Ba:1203:C:H2'	22:Ba:1204:A:C8	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:103:ASP:OD2	28:BE:168:MET:HE2	2.07	0.54
36:BP:18:ARG:HD2	57:BA:662:G:P	2.46	0.54
39:BS:16:ASN:C	39:BS:18:ILE:H	2.14	0.54
40:BT:85:LYS:O	40:BT:86:ILE:C	2.50	0.54
41:BU:57:PHE:O	41:BU:58:ARG:C	2.50	0.54
42:BV:15:GLU:O	42:BV:16:PRO:C	2.49	0.54
45:BY:9:LYS:HA	57:BA:85:G:OP1	2.06	0.54
48:B1:29:GLY:O	48:B1:31:GLY:N	2.40	0.54
57:BA:1799:G:H5'	57:BA:1819:A:N6	2.21	0.54
57:BA:2728:U:O2'	57:BA:2729:G:H5'	2.07	0.54
1:Ab:60:ASP:O	1:Ab:64:ARG:HG2	2.07	0.54
6:Ag:54:THR:OG1	6:Ag:56:GLN:HG2	2.08	0.54
8:Ai:37:PHE:CE1	8:Ai:74:ILE:HG12	2.42	0.54
8:Ai:99:LEU:HD12	8:Ai:101:PHE:HE1	1.71	0.54
9:Aj:70:ARG:HG2	9:Aj:70:ARG:NH1	2.23	0.54
18:As:16:LEU:H	18:As:16:LEU:CD1	2.19	0.54
22:Aa:1521:G:H2'	22:Aa:1522:U:H6	1.71	0.54
23:Ax:23:A:C3'	23:Ax:24:A:C5'	2.85	0.54
25:Aw:69:C:O2'	25:Aw:70:G:H5'	2.07	0.54
27:AD:71:ASP:HB2	27:AD:103:ARG:NH2	2.22	0.54
30:AG:5:VAL:N	30:AG:8:LYS:HB3	2.21	0.54
31:AH:52:VAL:O	31:AH:65:HIS:HE1	1.90	0.54
31:AH:89:ILE:HD11	31:AH:94:TYR:O	2.06	0.54
38:AR:26:LYS:HE2	38:AR:71:GLN:H	1.72	0.54
38:AR:47:PHE:O	38:AR:51:LEU:HD13	2.06	0.54
39:AS:89:ARG:HH11	39:AS:92:TYR:HA	1.71	0.54
41:AU:90:VAL:CG2	42:AV:47:VAL:HG21	2.30	0.54
47:A0:14:ARG:HH11	47:A0:14:ARG:CG	2.20	0.54
48:A1:45:ASN:CB	57:AA:2230:G:H1'	2.38	0.54
48:A1:51:VAL:O	48:A1:57:GLU:O	2.25	0.54
57:AA:110:G:O2'	57:AA:111:A:H5'	2.06	0.54
57:AA:322:A:H5'	57:AA:340:A:H1'	1.88	0.54
57:AA:1438:U:O2'	57:AA:1439:A:H5'	2.06	0.54
57:AA:2096:U:H2'	57:AA:2097:C:C6	2.42	0.54
57:AA:2584:U:C2'	57:AA:2585:U:H5'	2.37	0.54
58:AB:81:G:H2'	58:AB:82:G:H5'	1.88	0.54
9:Bj:18:ALA:C	9:Bj:20:ALA:H	2.15	0.54
10:Bk:67:ASP:O	10:Bk:71:LYS:HG3	2.08	0.54
22:Ba:1014:A:H2	22:Ba:1219:U:O2	1.91	0.54
26:BC:191:ARG:HD3	26:BC:195:ARG:HH22	1.71	0.54
28:BE:88:GLY:O	28:BE:89:ASP:HB2	2.06	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:122:PHE:CE2	57:BA:2512:C:H4'	2.43	0.54
30:BG:39:ILE:CD1	30:BG:60:LEU:HD21	2.37	0.54
32:BI:82:ARG:O	32:BI:83:ALA:HB2	2.06	0.54
32:BI:118:LYS:HZ1	32:BI:119:PRO:HG2	1.71	0.54
36:BP:32:THR:CG2	36:BP:37:GLY:HA2	2.31	0.54
38:BR:72:ASP:HB3	38:BR:75:LEU:HB2	1.89	0.54
41:BU:83:LEU:HD13	41:BU:83:LEU:H	1.73	0.54
46:BZ:24:LEU:HD23	46:BZ:24:LEU:C	2.32	0.54
47:B0:43:THR:HG22	57:BA:2331:G:O3'	2.07	0.54
49:B2:47:ASN:ND2	57:BA:94(A):G:N3	2.55	0.54
57:BA:207:A:H2'	57:BA:208:C:O4'	2.07	0.54
57:BA:579:G:H2'	57:BA:580:C:C6	2.42	0.54
57:BA:669:G:H2'	57:BA:669:G:N3	2.21	0.54
57:BA:2712:U:O2'	57:BA:2713:A:H5'	2.08	0.54
2:Ac:73:PRO:O	2:Ac:74:GLY:C	2.51	0.54
4:Ae:43:LEU:HB3	4:Ae:136:MET:HE2	1.89	0.54
4:Ae:122:GLU:OE1	4:Ae:131:ILE:HG13	2.07	0.54
8:Ai:83:ARG:O	8:Ai:86:VAL:HG12	2.07	0.54
9:Aj:38:ILE:CG1	9:Aj:71:LEU:HB3	2.38	0.54
12:Am:49:THR:O	12:Am:53:VAL:HG23	2.07	0.54
14:Ao:37:ASN:N	14:Ao:37:ASN:ND2	2.54	0.54
18:As:18:LYS:O	18:As:22:LEU:HD23	2.07	0.54
22:Aa:328:C:H2'	22:Aa:328:C:O2	2.06	0.54
22:Aa:930:C:O2'	22:Aa:931:C:H5'	2.07	0.54
27:AD:35:LYS:HZ2	27:AD:36:PRO:N	2.06	0.54
28:AE:186:GLY:O	28:AE:187:ALA:HB3	2.07	0.54
29:AF:66:PRO:O	29:AF:67:GLN:CB	2.55	0.54
30:AG:31:VAL:O	30:AG:33:ARG:NH1	2.41	0.54
34:AN:3:THR:HG22	34:AN:5:VAL:CG1	2.38	0.54
35:AO:7:TYR:HE1	35:AO:20:MET:HE3	1.73	0.54
35:AO:18:LYS:HB2	35:AO:45:GLU:HG2	1.89	0.54
36:AP:32:THR:HG21	36:AP:37:GLY:CA	2.31	0.54
36:AP:83:VAL:HG23	36:AP:105:LEU:HD13	1.89	0.54
38:AR:6:SER:HB2	57:AA:2873:A:C2	2.42	0.54
38:AR:6:SER:HB2	57:AA:2873:A:N3	2.22	0.54
45:AY:2:ARG:NH2	57:AA:106:C:H1'	2.21	0.54
56:A9:1:MET:HG3	57:AA:2477:C:H2'	1.88	0.54
57:AA:898:C:C2'	57:AA:899:A:H5'	2.37	0.54
57:AA:1488:G:H5'	57:AA:1489:U:OP2	2.07	0.54
57:AA:1570:A:H2'	57:AA:1571:A:C8	2.42	0.54
58:AB:56:G:H4'	58:AB:57:A:H8	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bb:20:GLU:O	1:Bb:39:ILE:HG23	2.07	0.54
1:Bb:142:LEU:HD23	1:Bb:142:LEU:O	2.06	0.54
1:Bb:204:ASN:ND2	1:Bb:204:ASN:C	2.66	0.54
1:Bb:215:LEU:O	1:Bb:218:ALA:HB3	2.07	0.54
1:Bb:235:SER:HG	1:Bb:236:TYR:HD1	1.53	0.54
3:Bd:120:LEU:HD23	3:Bd:125:HIS:CD2	2.41	0.54
4:Be:139:LEU:HA	4:Be:142:LEU:CD1	2.38	0.54
6:Bg:122:HIS:O	6:Bg:125:MET:HB2	2.08	0.54
8:Bi:63:ILE:CD1	8:Bi:81:ILE:HD11	2.34	0.54
9:Bj:67:THR:HG22	9:Bj:67:THR:O	2.07	0.54
17:Br:50:ILE:HD12	17:Br:70:ILE:HD12	1.90	0.54
22:Ba:542:G:H2'	22:Ba:543:C:H6	1.72	0.54
22:Ba:1339:A:H2'	22:Ba:1340:A:O4'	2.08	0.54
22:Ba:1418:A:C2	22:Ba:1483:A:C2	2.95	0.54
25:Bw:1:C:H2'	25:Bw:2:G:C8	2.42	0.54
26:BC:6:LYS:HD3	26:BC:6:LYS:C	2.32	0.54
27:BD:72:LYS:HZ2	27:BD:75:ILE:HD12	1.72	0.54
27:BD:238:GLY:O	27:BD:239:ARG:O	2.25	0.54
27:BD:241:PRO:C	27:BD:242:ARG:HD2	2.32	0.54
30:BG:111:LEU:CD1	30:BG:120:LEU:HD11	2.38	0.54
32:BI:64:GLU:OE2	32:BI:67:ARG:HD2	2.08	0.54
32:BI:118:LYS:HZ2	32:BI:119:PRO:HD2	1.72	0.54
32:BI:124:GLY:O	32:BI:142:VAL:HB	2.08	0.54
36:BP:16:ARG:NH1	36:BP:16:ARG:O	2.39	0.54
36:BP:63:PRO:HB3	55:B8:12:LYS:O	2.07	0.54
36:BP:89:ALA:HA	36:BP:121:LYS:HD3	1.90	0.54
39:BS:13:ARG:HG3	39:BS:14:VAL:N	2.14	0.54
40:BT:29:ARG:CD	40:BT:86:ILE:HG22	2.37	0.54
45:BY:8:LYS:HG2	45:BY:28:LYS:HZ1	1.72	0.54
46:BZ:124:ILE:HD11	46:BZ:171:ILE:HD13	1.89	0.54
55:B8:4:MET:HE3	55:B8:61:LEU:HD22	1.88	0.54
57:BA:271(M):G:C2'	57:BA:271(N):U:H5"	2.31	0.54
57:BA:412:A:N7	57:BA:2411:A:H2	2.06	0.54
2:Ac:131:ARG:NH1	4:Ae:50:GLU:HG2	2.21	0.54
3:Ad:189:PRO:HB2	3:Ad:194:LEU:HD21	1.89	0.54
10:Ak:65:ALA:HB1	10:Ak:98:LEU:HD23	1.90	0.54
26:AC:175:PRO:HD3	57:AA:2124:G:H5'	1.90	0.54
27:AD:108:PRO:HG2	27:AD:111:LEU:HB2	1.89	0.54
28:AE:50:GLY:CA	28:AE:78:LEU:HB3	2.33	0.54
30:AG:21:ARG:O	30:AG:21:ARG:HG2	2.06	0.54
36:AP:81:GLN:HG2	36:AP:106:LEU:HA	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:AU:88:ILE:HD12	41:AU:109:LEU:HD22	1.90	0.54
46:AZ:48:PHE:HE2	46:AZ:71:VAL:HG11	1.71	0.54
46:AZ:67:LEU:HD12	46:AZ:67:LEU:N	2.22	0.54
46:AZ:141:VAL:HG13	46:AZ:144:LEU:HG	1.90	0.54
52:A5:33:CYS:CB	52:A5:40:LYS:HE3	2.38	0.54
57:AA:523:C:C2'	57:AA:524:U:H5'	2.37	0.54
57:AA:904:C:H6	57:AA:904:C:C5'	2.14	0.54
57:AA:1198:U:H2'	57:AA:1199:U:C6	2.43	0.54
57:AA:2577:A:H5"	57:AA:2578:G:H5'	1.88	0.54
1:Bb:84:GLU:HG3	1:Bb:215:LEU:HB3	1.89	0.54
1:Bb:102:LEU:HD12	1:Bb:102:LEU:N	2.22	0.54
2:Bc:172:ARG:HG2	22:Ba:1106:G:H5"	1.89	0.54
6:Bg:150:ALA:HB2	10:Bk:50:TYR:OH	2.06	0.54
8:Bi:47:LEU:N	8:Bi:47:LEU:HD12	2.22	0.54
8:Bi:83:ARG:O	8:Bi:86:VAL:HG12	2.07	0.54
9:Bj:42:THR:OG1	22:Ba:1151:A:H5"	2.07	0.54
12:Bm:29:ARG:HD3	12:Bm:64:TRP:CZ2	2.43	0.54
12:Bm:65:LYS:HA	12:Bm:66:LEU:HD23	1.87	0.54
13:Bn:24:CYS:HB3	13:Bn:27:CYS:O	2.08	0.54
13:Bn:26:ARG:NH1	13:Bn:47:LEU:HD21	2.22	0.54
22:Ba:291:C:O2'	22:Ba:292:G:H5'	2.08	0.54
22:Ba:1305:G:C2	22:Ba:1331:G:N3	2.76	0.54
25:Bw:18:G:H8	25:Bw:18:G:OP2	1.89	0.54
26:BC:11:LEU:HB3	26:BC:33:LEU:HD22	1.89	0.54
28:BE:34:VAL:HG22	28:BE:48:GLN:HE21	1.72	0.54
30:BG:73:ALA:HB2	30:BG:87:PRO:HG3	1.89	0.54
33:BJ:58:LEU:O	33:BJ:59:ILE:O	2.24	0.54
35:BO:2:ILE:CD1	35:BO:8:LEU:HD11	2.27	0.54
40:BT:12:SER:O	40:BT:13:ARG:NH2	2.40	0.54
40:BT:25:GLY:H	40:BT:49:VAL:HG13	1.72	0.54
53:B6:37:ARG:NH2	57:BA:2286:A:H62	1.94	0.54
57:BA:898:C:C2'	57:BA:899:A:H5'	2.38	0.54
57:BA:1739:U:H2'	57:BA:1739:U:O2	2.07	0.54
57:BA:2577:A:H5"	57:BA:2578:G:H5'	1.90	0.54
57:BA:2853:C:H2'	57:BA:2854:G:C8	2.43	0.54
58:BB:87:G:C3'	58:BB:88:C:H5"	2.37	0.54
1:Ab:138:LEU:O	1:Ab:141:GLU:HB3	2.07	0.54
2:Ac:19:GLU:O	2:Ac:40:ARG:NH2	2.39	0.54
9:Aj:82:ILE:CG2	9:Aj:86:MET:HE2	2.37	0.54
11:Al:66:VAL:HG11	11:Al:98:TYR:HE1	1.72	0.54
21:Ay:43:LYS:HG2	22:Aa:1493:A:H4'	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Aa:452:A:O2'	22:Aa:453:A:H8	1.90	0.54
22:Aa:677:U:H3	22:Aa:713:G:H22	1.53	0.54
22:Aa:1070:U:O2'	22:Aa:1071:C:H5'	2.07	0.54
22:Aa:1203:C:H2'	22:Aa:1204:A:C8	2.42	0.54
28:AE:65:GLY:C	28:AE:67:PHE:N	2.65	0.54
29:AF:36:VAL:O	29:AF:40:GLN:HG3	2.08	0.54
35:AO:13:ASN:C	35:AO:15:GLY:N	2.63	0.54
36:AP:18:ARG:HD2	57:AA:662:G:P	2.46	0.54
36:AP:89:ALA:HA	36:AP:121:LYS:HD3	1.90	0.54
36:AP:102:ARG:HB3	36:AP:102:ARG:HH21	1.72	0.54
37:AQ:41:TRP:HB3	37:AQ:94:VAL:HB	1.89	0.54
38:AR:34:ILE:HD12	57:AA:1278:A:H4'	1.89	0.54
40:AT:28:VAL:HG13	40:AT:46:GLU:CB	2.38	0.54
40:AT:125:ARG:C	40:AT:127:ALA:N	2.66	0.54
42:AV:19:LYS:CG	42:AV:20:LEU:N	2.68	0.54
43:AW:55:ALA:C	43:AW:57:ASN:H	2.14	0.54
46:AZ:111:VAL:HG12	46:AZ:112:ARG:H	1.73	0.54
48:A1:80:LEU:O	48:A1:82:LEU:HD22	2.07	0.54
51:A4:48:ARG:CG	51:A4:49:PHE:N	2.70	0.54
57:AA:2853:C:H2'	57:AA:2854:G:C8	2.43	0.54
2:Bc:179:ARG:CD	22:Ba:1112:C:H1'	2.37	0.54
4:Be:122:GLU:OE1	4:Be:131:ILE:HG13	2.08	0.54
18:Bs:63:THR:O	18:Bs:66:MET:HG2	2.06	0.54
22:Ba:192:U:H2'	22:Ba:193:C:H6	1.73	0.54
22:Ba:1197:G:H5'	22:Ba:1197:G:H8	1.71	0.54
27:BD:240:ALA:HA	57:BA:1971:A:N3	2.22	0.54
28:BE:64:LYS:HG2	28:BE:64:LYS:O	2.07	0.54
29:BF:8:GLN:O	29:BF:9:ILE:C	2.51	0.54
29:BF:128:ALA:O	29:BF:142:TRP:NE1	2.34	0.54
31:BH:50:VAL:HG12	31:BH:51:ARG:N	2.22	0.54
31:BH:136:ILE:HD12	31:BH:136:ILE:H	1.72	0.54
35:BO:7:TYR:HE1	35:BO:20:MET:HE3	1.73	0.54
35:BO:47:ILE:CG1	35:BO:48:PRO:HD2	2.32	0.54
35:BO:68:GLU:OE1	57:BA:2685:G:H5'	2.08	0.54
36:BP:49:ARG:HD2	55:B8:58:ILE:HG22	1.89	0.54
37:BQ:34:LEU:HD11	37:BQ:129:THR:CB	2.37	0.54
37:BQ:134:ARG:NE	46:BZ:122:ARG:HH21	2.05	0.54
40:BT:29:ARG:HG3	40:BT:30:VAL:HG13	1.89	0.54
41:BU:88:ILE:HD12	41:BU:109:LEU:HD22	1.90	0.54
46:BZ:152:ALA:CB	46:BZ:167:PRO:HB2	2.38	0.54
57:BA:1198:U:H2'	57:BA:1199:U:C6	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BA:1542:A:H5'	57:BA:1543:C:OP2	2.08	0.54
57:BA:1639:U:H2'	57:BA:1640:C:H5"	1.89	0.54
57:BA:2036:C:H6	57:BA:2036:C:C5'	2.20	0.54
57:BA:2732:G:H3'	57:BA:2733:A:C5'	2.38	0.54
58:BB:5:C:O2'	58:BB:6:C:H5'	2.05	0.54
3:Ad:100:ARG:HB3	3:Ad:102:ASP:OD1	2.08	0.54
4:Ae:36:ASP:O	4:Ae:37:ARG:HB2	2.08	0.54
7:Ah:89:PRO:HA	7:Ah:92:ARG:NH1	2.23	0.54
19:At:84:LEU:C	19:At:84:LEU:HD13	2.33	0.54
19:At:103:GLY:HA2	22:Aa:192:U:C1'	2.37	0.54
22:Aa:107:G:H2'	22:Aa:108:G:H5'	1.89	0.54
22:Aa:900:A:H2'	22:Aa:901:A:C8	2.42	0.54
22:Aa:940:C:H2'	22:Aa:941:G:C8	2.43	0.54
27:AD:48:ARG:NH1	27:AD:48:ARG:HG3	2.22	0.54
32:AI:87:LYS:HA	32:AI:122:GLU:HA	1.89	0.54
39:AS:14:VAL:O	39:AS:15:ARG:C	2.48	0.54
40:AT:57:PHE:CG	40:AT:58:ASN:N	2.76	0.54
40:AT:83:ILE:HG13	40:AT:84:GLN:N	2.23	0.54
41:AU:57:PHE:C	41:AU:59:ARG:N	2.61	0.54
46:AZ:142:SER:C	46:AZ:144:LEU:H	2.15	0.54
48:A1:45:ASN:HD21	48:A1:47:GLN:NE2	2.05	0.54
57:AA:184:C:H2'	57:AA:185:U:H6	1.72	0.54
57:AA:579:G:H2'	57:AA:580:C:C6	2.42	0.54
57:AA:2668:G:O2'	57:AA:2669:G:H5'	2.08	0.54
2:Bc:71:ALA:CB	2:Bc:109:PRO:HB3	2.37	0.54
6:Bg:111:ARG:HD2	6:Bg:123:GLU:HB2	1.90	0.54
6:Bg:148:ASN:ND2	25:Bw:40:C:H4'	2.22	0.54
13:Bn:36:PHE:C	13:Bn:36:PHE:CD1	2.85	0.54
19:Bt:103:GLY:HA2	22:Ba:192:U:C1'	2.38	0.54
21:By:55:LEU:O	21:By:58:SER:O	2.26	0.54
22:Ba:662:G:H2'	22:Ba:663:A:C8	2.43	0.54
30:BG:6:ALA:HB3	30:BG:104:GLU:CD	2.31	0.54
30:BG:6:ALA:HB3	30:BG:104:GLU:OE2	2.08	0.54
30:BG:130:ASN:HB3	30:BG:160:VAL:HA	1.90	0.54
31:BH:52:VAL:O	31:BH:65:HIS:HE1	1.90	0.54
32:BI:120:ILE:CG2	32:BI:121:LYS:N	2.67	0.54
35:BO:2:ILE:HD11	35:BO:82:ASN:HD22	1.72	0.54
37:BQ:137:TYR:N	37:BQ:137:TYR:HD2	2.05	0.54
38:BR:73:VAL:O	38:BR:76:VAL:HG12	2.08	0.54
41:BU:74:LEU:HD13	41:BU:74:LEU:O	2.07	0.54
46:BZ:98:MET:HE2	46:BZ:99:TYR:O	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:B1:29:GLY:HA3	57:BA:2396:G:O2'	2.08	0.54
57:BA:330:A:O2'	57:BA:331:A:C8	2.60	0.54
57:BA:1051:G:C2	57:BA:1052:C:N4	2.75	0.54
57:BA:1503:U:H2'	57:BA:1504:C:H6	1.73	0.54
4:Ae:100:VAL:O	4:Ae:100:VAL:HG23	2.07	0.54
4:Ae:126:ARG:HH11	4:Ae:126:ARG:HG3	1.72	0.54
8:Ai:10:ARG:HD2	8:Ai:105:ASP:HB2	1.90	0.54
8:Ai:39:GLY:HA3	22:Aa:1291:G:O3'	2.08	0.54
12:Am:28:ALA:O	12:Am:30:ALA:N	2.41	0.54
21:Ay:64:TYR:N	21:Ay:64:TYR:CD2	2.67	0.54
22:Aa:625:G:H2'	22:Aa:626:U:H6	1.69	0.54
22:Aa:918:A:O2'	22:Aa:919:A:H5'	2.07	0.54
22:Aa:1347:G:H22	22:Aa:1373:G:C2'	2.17	0.54
22:Aa:1418:A:H2	57:AA:1948:G:N3	2.06	0.54
23:Ax:23:A:H2'	23:Ax:24:A:H5"	1.84	0.54
26:AC:167:ASP:OD2	26:AC:171:ALA:HB3	2.06	0.54
27:AD:63:ARG:HH22	57:AA:1568:G:P	2.31	0.54
27:AD:228:PRO:HD3	27:AD:235:GLY:HA2	1.88	0.54
28:AE:50:GLY:HA3	28:AE:74:PRO:HG2	1.89	0.54
32:AI:88:ILE:HG12	32:AI:142:VAL:HG13	1.90	0.54
39:AS:95:HIS:CD2	58:AB:48:A:H4'	2.42	0.54
40:AT:54:ARG:HH11	40:AT:54:ARG:HG2	1.73	0.54
42:AV:47:VAL:HB	42:AV:49:THR:O	2.07	0.54
43:AW:61:ASN:N	43:AW:61:ASN:HD22	2.05	0.54
47:A0:40:GLN:HE21	47:A0:57:PHE:HB3	1.71	0.54
54:A7:12:ARG:HG3	57:AA:686:G:O6	2.07	0.54
56:A9:19:ARG:HA	57:AA:2757:A:OP1	2.07	0.54
57:AA:315:G:H2'	57:AA:316:C:C6	2.42	0.54
57:AA:545:C:H2'	57:AA:547:A:H5"	1.90	0.54
57:AA:1332:G:H8	57:AA:1332:G:H5"	1.73	0.54
1:Bb:103:THR:OG1	1:Bb:104:ASN:N	2.41	0.54
6:Bg:26:PHE:O	6:Bg:30:ILE:HG12	2.08	0.54
9:Bj:20:ALA:C	9:Bj:22:LYS:H	2.15	0.54
10:Bk:125:PHE:N	10:Bk:125:PHE:CD1	2.75	0.54
12:Bm:79:LYS:O	12:Bm:82:MET:HB3	2.07	0.54
12:Bm:91:ARG:O	12:Bm:96:LEU:O	2.26	0.54
13:Bn:4:LYS:C	13:Bn:6:LEU:H	2.15	0.54
14:Bo:82:ILE:HG12	14:Bo:87:ILE:HG13	1.89	0.54
18:Bs:29:ARG:O	18:Bs:31:ILE:HG22	2.08	0.54
21:By:51:TYR:O	21:By:63:VAL:HG22	2.07	0.54
21:By:84:SER:HB3	23:Bx:20:A2M:H2'	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Ba:775:G:O2'	22:Ba:776:G:H5'	2.08	0.54
22:Ba:1070:U:O2'	22:Ba:1071:C:H5'	2.07	0.54
27:BD:130:ALA:C	27:BD:131:LEU:HD12	2.33	0.54
33:BJ:96:PHE:C	33:BJ:98:LYS:H	2.16	0.54
35:BO:111:PHE:HB3	35:BO:114:ILE:HD13	1.89	0.54
37:BQ:41:TRP:HB3	37:BQ:94:VAL:HB	1.89	0.54
38:BR:10:LEU:CD2	38:BR:17:ARG:HD3	2.37	0.54
40:BT:28:VAL:HG13	40:BT:46:GLU:CB	2.38	0.54
40:BT:29:ARG:HG2	40:BT:85:LYS:CA	2.37	0.54
43:BW:2:GLU:HA	43:BW:64:MET:HE1	1.90	0.54
45:BY:54:LYS:O	45:BY:56:PRO:HD2	2.08	0.54
46:BZ:147:GLY:O	46:BZ:148:ASP:C	2.50	0.54
52:B5:34:PRO:O	52:B5:35:GLU:CB	2.54	0.54
54:B7:12:ARG:HG3	57:BA:686:G:O6	2.07	0.54
57:BA:1332:G:N2	57:BA:1610:A:C8	2.75	0.54
57:BA:1961:C:O2'	57:BA:1962:C:H5'	2.07	0.54
57:BA:2106:G:H2'	57:BA:2107:C:O4'	2.08	0.54
57:BA:2360:A:O2'	57:BA:2361:A:C5'	2.55	0.54
1:Ab:16:HIS:HB3	1:Ab:210:SER:CB	2.38	0.54
1:Ab:215:LEU:O	1:Ab:218:ALA:HB3	2.08	0.54
7:Ah:20:TYR:HD1	7:Ah:65:TYR:CE2	2.25	0.54
8:Ai:104:ARG:HG2	8:Ai:105:ASP:N	2.20	0.54
14:Ao:25:THR:O	14:Ao:29:VAL:HG23	2.08	0.54
18:As:36:ARG:HD3	22:Aa:1220:G:O3'	2.08	0.54
18:As:58:VAL:O	18:As:58:VAL:HG23	2.07	0.54
22:Aa:542:G:H2'	22:Aa:543:C:H6	1.72	0.54
22:Aa:594:G:O2'	22:Aa:595:G:H5'	2.07	0.54
22:Aa:848:C:O2'	22:Aa:849:C:H5'	2.07	0.54
22:Aa:1346:A:H61	22:Aa:1374:A:H3'	1.73	0.54
27:AD:71:ASP:HB2	27:AD:103:ARG:HH22	1.73	0.54
32:AI:83:ALA:O	32:AI:145:VAL:HG22	2.08	0.54
32:AI:85:GLU:N	32:AI:123:LEU:HD12	2.10	0.54
36:AP:17:LYS:O	36:AP:19:VAL:N	2.39	0.54
38:AR:36:THR:HG22	57:AA:1278:A:C5'	2.37	0.54
42:AV:18:LEU:HD22	42:AV:19:LYS:H	1.73	0.54
42:AV:82:ARG:HD2	42:AV:82:ARG:N	2.22	0.54
45:AY:27:VAL:HG12	45:AY:29:GLU:OE1	2.07	0.54
46:AZ:19:ARG:HH12	46:AZ:84:GLU:CA	2.20	0.54
47:A0:43:THR:HG22	57:AA:2331:G:O3'	2.08	0.54
49:A2:45:SER:H	49:A2:46:GLN:HE21	1.53	0.54
49:A2:51:ARG:HB2	49:A2:55:ARG:NH2	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:A4:7:PRO:O	51:A4:8:LYS:CB	2.55	0.54
55:A8:4:MET:HE3	55:A8:61:LEU:HD22	1.90	0.54
57:AA:2074:U:H2'	57:AA:2075:U:C6	2.43	0.54
57:AA:2133:G:H2'	57:AA:2157:G:N2	2.07	0.54
57:AA:2136:C:N4	57:AA:2156:G:H21	2.06	0.54
57:AA:2199:A:H3'	57:AA:2200:C:H6	1.72	0.54
1:Bb:17:PHE:O	1:Bb:18:GLY:O	2.26	0.54
4:Be:80:ILE:HD11	4:Be:138:ALA:HB1	1.89	0.54
6:Bg:140:ASP:HA	6:Bg:143:ARG:NH1	2.23	0.54
9:Bj:38:ILE:CG1	9:Bj:71:LEU:HB3	2.38	0.54
13:Bn:37:PHE:CE1	13:Bn:53:LEU:HD22	2.43	0.54
18:Bs:6:LYS:HG3	22:Ba:1314:C:OP2	2.08	0.54
18:Bs:36:ARG:HD3	22:Ba:1220:G:O3'	2.07	0.54
22:Ba:194:C:C2'	22:Ba:195:A:H5"	2.37	0.54
22:Ba:620:C:H2'	22:Ba:621:A:O4'	2.08	0.54
26:BC:45:HIS:HB3	57:BA:2177:C:H1'	1.89	0.54
26:BC:53:ARG:H	26:BC:53:ARG:CD	2.19	0.54
26:BC:190:ILE:O	26:BC:194:ILE:HG12	2.08	0.54
29:BF:36:VAL:O	29:BF:40:GLN:HG3	2.07	0.54
29:BF:206:ILE:HG22	29:BF:207:GLY:N	2.19	0.54
30:BG:111:LEU:HD11	30:BG:120:LEU:HD11	1.89	0.54
32:BI:113:ARG:O	32:BI:114:LEU:HG	2.08	0.54
34:BN:10:GLU:OE2	34:BN:11:PRO:HD2	2.08	0.54
41:BU:13:LYS:HE2	41:BU:13:LYS:N	2.22	0.54
41:BU:65:ILE:O	41:BU:69:CYS:HB3	2.08	0.54
42:BV:16:PRO:O	42:BV:96:ILE:HB	2.08	0.54
46:BZ:124:ILE:HD11	46:BZ:171:ILE:CD1	2.37	0.54
55:B8:44:LYS:HD2	55:B8:44:LYS:N	2.20	0.54
57:BA:2023:G:H5'	57:BA:2617:C:H4'	1.90	0.54
57:BA:2199:A:H3'	57:BA:2200:C:H6	1.72	0.54
57:BA:2476:A:C2'	57:BA:2477:C:H5"	2.33	0.54
2:Ac:172:ARG:HG2	22:Aa:1106:G:H5"	1.89	0.54
12:Am:104:ARG:HD2	22:Aa:1226:C:N4	2.23	0.54
15:Ap:20:VAL:HG22	15:Ap:21:VAL:N	2.23	0.54
19:At:63:ILE:HG22	19:At:77:ALA:HB1	1.89	0.54
22:Aa:1053:G:H3'	22:Aa:1054:C:H5'	1.90	0.54
22:Aa:1072:G:H2'	22:Aa:1073:U:H6	1.73	0.54
25:Aw:65:C:H2'	25:Aw:66:C:C6	2.43	0.54
28:AE:4:ILE:HG12	28:AE:5:LEU:O	2.08	0.54
28:AE:120:TRP:CD2	28:AE:155:LYS:HD3	2.43	0.54
30:AG:73:ALA:N	30:AG:87:PRO:HG3	2.14	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:AT:12:SER:O	40:AT:13:ARG:NH2	2.41	0.54
40:AT:27:THR:OG1	40:AT:28:VAL:N	2.41	0.54
44:AX:27:THR:HG22	44:AX:80:ILE:HB	1.89	0.54
52:A5:6:VAL:CG1	57:AA:2016:U:H1'	2.37	0.54
57:AA:795:C:H2'	57:AA:796:C:C6	2.43	0.54
2:Bc:16:ARG:CA	2:Bc:16:ARG:HH11	2.20	0.54
4:Be:45:PHE:CE2	4:Be:47:LYS:HD2	2.43	0.54
10:Bk:111:ASP:HA	17:Br:84:LYS:HD2	1.90	0.54
10:Bk:124:LYS:HE3	22:Ba:797:C:OP1	2.08	0.54
12:Bm:66:LEU:N	12:Bm:70:LEU:HB3	2.22	0.54
14:Bo:39:LEU:CD1	14:Bo:56:LEU:HB2	2.38	0.54
18:Bs:58:VAL:O	18:Bs:58:VAL:HG23	2.07	0.54
22:Ba:918:A:O2'	22:Ba:919:A:H5'	2.08	0.54
22:Ba:1376:U:H2'	22:Ba:1377:A:C8	2.43	0.54
26:BC:21:TYR:HB3	26:BC:26:ALA:HB2	1.90	0.54
26:BC:175:PRO:HD3	57:BA:2124:G:H5'	1.90	0.54
27:BD:186:HIS:HD2	27:BD:188:GLU:H	1.55	0.54
28:BE:143:ASN:O	57:BA:2052:G:H4'	2.07	0.54
28:BE:168:MET:O	28:BE:170:LEU:HD12	2.07	0.54
31:BH:149:ARG:HG3	31:BH:162:ILE:O	2.07	0.54
34:BN:2:LYS:HZ1	42:BV:12:TYR:HA	1.73	0.54
34:BN:57:ALA:O	34:BN:58:ASP:O	2.26	0.54
36:BP:32:THR:O	36:BP:33:ARG:HB3	2.07	0.54
36:BP:107:LYS:O	36:BP:109:GLY:N	2.40	0.54
36:BP:108:LYS:C	36:BP:110:TYR:N	2.59	0.54
37:BQ:26:TYR:HE1	37:BQ:28:ALA:HB2	1.72	0.54
38:BR:36:THR:HG22	57:BA:1278:A:C5'	2.38	0.54
39:BS:14:VAL:O	39:BS:15:ARG:C	2.50	0.54
39:BS:101:LEU:HD13	39:BS:101:LEU:O	2.08	0.54
41:BU:46:ALA:O	41:BU:50:ARG:HG3	2.07	0.54
42:BV:55:ALA:HA	42:BV:101:GLY:HA2	1.90	0.54
44:BX:40:LYS:HG2	44:BX:41:ASN:HD22	1.72	0.54
47:B0:14:ARG:CG	47:B0:14:ARG:HH11	2.20	0.54
53:B6:27:LYS:HD3	53:B6:27:LYS:O	2.07	0.54
56:B9:1:MET:HB3	56:B9:4:ARG:CZ	2.37	0.54
57:BA:274:G:H3'	57:BA:274:G:N3	2.22	0.54
57:BA:1280:G:C3'	57:BA:1281:G:H5"	2.38	0.54
57:BA:1481:U:H5'	57:BA:1482:G:OP2	2.08	0.54
57:BA:2208:A:H1'	57:BA:2219:G:C4	2.43	0.54
5:Af:60:PHE:CE2	17:Ar:78:LEU:HD21	2.43	0.54
6:Ag:122:HIS:O	6:Ag:125:MET:HB2	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:Ah:64:LYS:CG	7:Ah:79:VAL:HG21	2.37	0.54
10:Ak:99:GLN:HG2	10:Ak:105:VAL:HG11	1.90	0.54
15:Ap:43:LYS:HA	15:Ap:48:TRP:HB3	1.89	0.54
19:At:40:ALA:HB2	19:At:55:ILE:CG2	2.38	0.54
19:At:89:ARG:CZ	19:At:104:LEU:HD21	2.38	0.54
22:Aa:735:C:H2'	22:Aa:736:C:H6	1.72	0.54
22:Aa:1305:G:C2	22:Aa:1331:G:N3	2.76	0.54
27:AD:245:PRO:O	27:AD:246:PRO:C	2.50	0.54
29:AF:41:LEU:O	29:AF:44:ARG:HG2	2.07	0.54
31:AH:24:VAL:HG11	31:AH:72:ILE:HD11	1.89	0.54
33:AJ:58:LEU:HA	33:AJ:82:PHE:CB	2.38	0.54
34:AN:2:LYS:HZ1	42:AV:12:TYR:HA	1.73	0.54
36:AP:30:THR:HG22	36:AP:31:ALA:N	2.15	0.54
36:AP:35:HIS:C	36:AP:36:LYS:HG3	2.33	0.54
38:AR:2:ARG:HB2	38:AR:5:LYS:HE2	1.89	0.54
39:AS:63:THR:O	39:AS:66:ALA:HB3	2.08	0.54
41:AU:27:LEU:HD12	57:AA:2019:A:O3'	2.07	0.54
45:AY:39:VAL:HG12	45:AY:40:GLU:N	2.23	0.54
55:A8:30:ARG:HA	55:A8:30:ARG:NE	2.23	0.54
57:AA:1188:U:H2'	57:AA:1189:A:H5'	1.90	0.54
2:Bc:81:GLY:O	2:Bc:85:ARG:HB2	2.08	0.54
3:Bd:25:ARG:NH1	3:Bd:30:LYS:O	2.40	0.54
3:Bd:150:GLU:CD	3:Bd:151:LYS:N	2.63	0.54
3:Bd:189:PRO:HB2	3:Bd:194:LEU:HD21	1.88	0.54
4:Be:39:GLY:HA2	4:Be:69:VAL:HB	1.89	0.54
12:Bm:39:ILE:HD12	12:Bm:56:LEU:HD23	1.89	0.54
14:Bo:51:HIS:CE1	22:Ba:667:G:H4'	2.43	0.54
15:Bp:25:ARG:NH1	22:Ba:134:A:N6	2.56	0.54
22:Ba:357:G:O2'	22:Ba:358:U:H5'	2.08	0.54
28:BE:120:TRP:CD2	28:BE:155:LYS:HD3	2.43	0.54
38:BR:10:LEU:HD22	38:BR:17:ARG:HD2	1.89	0.54
38:BR:38:VAL:HG12	38:BR:42:LYS:HD2	1.90	0.54
47:B0:40:GLN:HE21	47:B0:57:PHE:HB3	1.71	0.54
48:B1:73:LEU:CD1	48:B1:94:LEU:HB3	2.38	0.54
57:BA:528:A:C2	57:BA:2043:C:C5'	2.91	0.54
57:BA:1336:A:H2'	57:BA:1337:G:C8	2.43	0.54
2:Ac:2:GLY:HA2	22:Aa:1060:C:H5	1.64	0.53
3:Ad:129:ASN:ND2	3:Ad:129:ASN:N	2.44	0.53
7:Ah:3:THR:HG21	22:Aa:878:G:H1'	1.89	0.53
9:Aj:51:ARG:HG3	9:Aj:60:ARG:CA	2.32	0.53
9:Aj:96:ILE:HD13	9:Aj:96:ILE:N	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:Ak:34:ASP:HB2	10:Ak:35:PRO:CD	2.38	0.53
11:Al:53:ARG:NH2	22:Aa:522:C:H41	2.06	0.53
12:Am:61:GLU:HA	12:Am:66:LEU:HD11	1.90	0.53
17:Ar:75:ILE:HD11	22:Aa:734:G:H21	1.73	0.53
29:AF:132:VAL:O	29:AF:133:ASN:C	2.51	0.53
30:AG:180:PHE:HB2	30:AG:182:LYS:HE3	1.90	0.53
32:AI:93:THR:CG2	32:AI:119:PRO:HB3	2.35	0.53
34:AN:14:VAL:HG12	34:AN:15:LEU:N	2.23	0.53
34:AN:57:ALA:O	34:AN:58:ASP:O	2.25	0.53
34:AN:72:TYR:CD1	34:AN:90:MET:HG3	2.43	0.53
34:AN:128:HIS:HE1	34:AN:134:ARG:NH1	2.06	0.53
35:AO:13:ASN:HD21	35:AO:97:ARG:H	1.56	0.53
35:AO:88:ASN:HD21	35:AO:90:GLN:CB	2.19	0.53
37:AQ:14:ARG:CD	57:AA:958:U:H5"	2.37	0.53
42:AV:15:GLU:O	42:AV:16:PRO:C	2.50	0.53
42:AV:39:LEU:HA	42:AV:47:VAL:CG1	2.37	0.53
45:AY:54:LYS:C	45:AY:56:PRO:HD2	2.32	0.53
50:A3:19:GLN:NE2	50:A3:52:HIS:HE1	2.06	0.53
55:A8:44:LYS:HD2	55:A8:44:LYS:N	2.18	0.53
57:AA:528:A:N1	57:AA:2042:A:H2'	2.23	0.53
57:AA:1021:A:C8	57:AA:1021:A:C3'	2.90	0.53
57:AA:1684:C:O2'	57:AA:1685:C:H5'	2.08	0.53
1:Bb:17:PHE:HB3	1:Bb:44:LEU:HD21	1.90	0.53
1:Bb:35:GLU:HA	1:Bb:39:ILE:O	2.08	0.53
1:Bb:187:LEU:HD22	1:Bb:201:ILE:O	2.08	0.53
2:Bc:16:ARG:HH11	2:Bc:16:ARG:CB	2.21	0.53
5:Bf:99:ALA:O	5:Bf:100:ASN:HB2	2.08	0.53
10:Bk:18:ARG:O	10:Bk:32:ILE:HG23	2.07	0.53
19:Bt:89:ARG:HB2	19:Bt:104:LEU:HD11	1.89	0.53
22:Ba:376:G:H2'	22:Ba:377:G:C8	2.41	0.53
22:Ba:527:G:O2'	22:Ba:528:C:H5'	2.09	0.53
22:Ba:1005:A:H4'	22:Ba:1037:C:O2'	2.07	0.53
22:Ba:1424:C:O2'	22:Ba:1425:U:H5'	2.08	0.53
26:BC:3:LYS:HE3	57:BA:2107:C:H5'	1.90	0.53
28:BE:52:LEU:O	28:BE:74:PRO:HA	2.08	0.53
29:BF:136:THR:OG1	57:BA:320:A:H2'	2.08	0.53
34:BN:134:ARG:H	34:BN:135:PRO:HD3	1.73	0.53
37:BQ:110:THR:HG22	37:BQ:113:GLN:OE1	2.08	0.53
42:BV:6:LYS:O	42:BV:37:VAL:HG21	2.08	0.53
43:BW:41:LYS:HE3	52:B5:25:LEU:HD11	1.90	0.53
43:BW:55:ALA:C	43:BW:57:ASN:H	2.16	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BY:27:VAL:HG12	45:BY:28:LYS:N	2.23	0.53
46:BZ:69:THR:HA	46:BZ:89:PHE:O	2.07	0.53
48:B1:89:GLU:O	48:B1:93:GLU:HG2	2.08	0.53
51:B4:5:ILE:HG12	51:B4:5:ILE:O	2.07	0.53
57:BA:234:C:H2'	57:BA:235:U:C6	2.43	0.53
57:BA:484:C:H2'	57:BA:485:C:C6	2.43	0.53
57:BA:654(B):C:H2'	57:BA:654(C):G:C8	2.43	0.53
57:BA:1833:U:H2'	57:BA:1834:U:H6	1.73	0.53
57:BA:2136:C:H41	57:BA:2156:G:H21	1.56	0.53
57:BA:2199:A:H5'	57:BA:2200:C:OP2	2.08	0.53
1:Ab:20:GLU:O	1:Ab:39:ILE:HG23	2.08	0.53
1:Ab:167:PRO:HG3	1:Ab:188:ALA:CB	2.36	0.53
3:Ad:120:LEU:HD23	3:Ad:125:HIS:CD2	2.42	0.53
5:Af:99:ALA:O	5:Af:100:ASN:HB2	2.08	0.53
12:Am:79:LYS:HG2	12:Am:82:MET:HE3	1.89	0.53
21:Ay:62:LEU:HD23	21:Ay:62:LEU:C	2.32	0.53
22:Aa:575:G:OP1	22:Aa:575:G:H4'	2.08	0.53
26:AC:3:LYS:HE3	57:AA:2107:C:H5'	1.89	0.53
26:AC:184:GLU:O	26:AC:188:ASP:HB2	2.08	0.53
28:AE:49:LEU:N	28:AE:49:LEU:HD23	2.23	0.53
30:AG:142:PRO:HG2	30:AG:143:GLU:OE1	2.08	0.53
31:AH:12:PRO:HD2	31:AH:15:VAL:HG21	1.90	0.53
36:AP:7:ARG:NH1	36:AP:7:ARG:CA	2.62	0.53
36:AP:25:SER:HA	57:AA:811:U:H3'	1.90	0.53
37:AQ:39:PRO:HB3	37:AQ:99:PRO:HD3	1.90	0.53
39:AS:52:SER:HB3	39:AS:55:ALA:HB3	1.90	0.53
39:AS:55:ALA:O	58:AB:117:G:H5"	2.09	0.53
43:AW:96:ILE:HG12	57:AA:2012:G:O3'	2.09	0.53
49:A2:25:VAL:O	49:A2:29:LYS:HG2	2.07	0.53
52:A5:6:VAL:HG13	52:A5:7:PRO:HD2	1.91	0.53
57:AA:1001:A:H2'	57:AA:1002:G:O4'	2.09	0.53
57:AA:1144:G:H2'	57:AA:1145:C:H6	1.72	0.53
57:AA:1344:G:H4'	57:AA:1384:A:N7	2.23	0.53
3:Bd:8:VAL:O	3:Bd:11:LEU:HG	2.09	0.53
5:Bf:11:ASN:HB3	5:Bf:14:LEU:CG	2.38	0.53
6:Bg:10:ARG:HG3	6:Bg:10:ARG:NH1	2.23	0.53
7:Bh:64:LYS:CG	7:Bh:79:VAL:HG21	2.38	0.53
9:Bj:32:ALA:HB1	9:Bj:75:ILE:HG13	1.90	0.53
22:Ba:781:A:H2'	22:Ba:782:A:H5'	1.89	0.53
22:Ba:848:C:O2'	22:Ba:849:C:H5'	2.08	0.53
22:Ba:1193:G:C2'	22:Ba:1194:U:H5'	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BC:167:ASP:OD2	26:BC:171:ALA:HB3	2.08	0.53
27:BD:208:LYS:HB2	57:BA:729:G:C5	2.44	0.53
28:BE:36:ARG:NH2	28:BE:88:GLY:CA	2.64	0.53
30:BG:86:MET:N	30:BG:87:PRO:HD3	2.24	0.53
30:BG:114:ILE:C	30:BG:116:ASP:N	2.58	0.53
30:BG:161:THR:CG2	30:BG:162:THR:H	2.22	0.53
32:BI:97:ILE:O	32:BI:101:LEU:HB2	2.09	0.53
35:BO:13:ASN:C	35:BO:15:GLY:N	2.67	0.53
37:BQ:68:ILE:HD13	37:BQ:103:MET:HE2	1.90	0.53
50:B3:1:MET:O	50:B3:3:ARG:N	2.40	0.53
53:B6:13:CYS:HB2	53:B6:22:ALA:HB3	1.89	0.53
54:B7:43:THR:HG23	54:B7:44:PRO:HD2	1.89	0.53
57:BA:1719:G:O2'	57:BA:1720:U:H5'	2.07	0.53
57:BA:2133:G:C2'	57:BA:2157:G:H22	2.11	0.53
1:Ab:12:GLU:C	1:Ab:14:GLY:N	2.66	0.53
2:Ac:60:ALA:O	2:Ac:61:ALA:HB2	2.09	0.53
22:Aa:1184:G:H2'	22:Aa:1185:G:H8	1.73	0.53
24:Av:4:G:O2'	24:Av:5:G:H8	1.91	0.53
28:AE:62:PRO:O	28:AE:64:LYS:N	2.41	0.53
30:AG:57:ALA:CA	30:AG:90:LEU:HD21	2.39	0.53
31:AH:89:ILE:HD13	31:AH:94:TYR:HB3	1.89	0.53
34:AN:120:LEU:C	34:AN:121:LYS:HD2	2.33	0.53
36:AP:140:ALA:O	36:AP:141:ALA:HB3	2.09	0.53
38:AR:84:ALA:HB3	38:AR:85:PRO:HD3	1.91	0.53
39:AS:29:PHE:CE1	58:AB:7:G:O5'	2.62	0.53
40:AT:55:ASN:H	40:AT:59:THR:CG2	2.22	0.53
45:AY:88:LYS:O	45:AY:90:LEU:HD23	2.08	0.53
46:AZ:64:GLY:O	46:AZ:65:GLN:O	2.26	0.53
50:A3:45:GLY:HA3	57:AA:851:U:O2'	2.08	0.53
52:A5:33:CYS:SG	52:A5:49:CYS:SG	3.06	0.53
53:A6:13:CYS:HB2	53:A6:22:ALA:HB3	1.91	0.53
57:AA:528:A:H2	57:AA:2043:C:H5'	1.74	0.53
57:AA:1051:G:C2	57:AA:1052:C:N4	2.76	0.53
57:AA:1739:U:H2'	57:AA:1739:U:O2	2.07	0.53
57:AA:1799:G:H5'	57:AA:1819:A:H61	1.73	0.53
57:AA:2106:G:H2'	57:AA:2107:C:O4'	2.08	0.53
57:AA:2208:A:H1'	57:AA:2219:G:C4	2.43	0.53
1:Bb:84:GLU:O	1:Bb:219:VAL:HG21	2.08	0.53
1:Bb:141:GLU:O	1:Bb:145:LEU:HB2	2.09	0.53
3:Bd:61:LYS:HD2	3:Bd:207:TYR:OH	2.09	0.53
8:Bi:43:ALA:C	8:Bi:45:ALA:H	2.16	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:Bj:58:ASP:O	9:Bj:59:SER:C	2.52	0.53
9:Bj:70:ARG:HH22	22:Ba:1152:A:H5'	1.74	0.53
14:Bo:78:TYR:O	14:Bo:82:ILE:HG22	2.08	0.53
19:Bt:12:ALA:O	19:Bt:15:ARG:HB2	2.07	0.53
22:Ba:266:G:C8	22:Ba:266:G:H5'	2.43	0.53
22:Ba:664:G:H22	22:Ba:741:G:H1	1.57	0.53
22:Ba:783:C:O2'	22:Ba:784:C:H5'	2.07	0.53
22:Ba:1095:U:P	22:Ba:1108:G:H1	2.32	0.53
27:BD:26:LYS:O	27:BD:27:THR:HG22	2.08	0.53
27:BD:35:LYS:CG	27:BD:63:ARG:HG3	2.38	0.53
27:BD:79:VAL:HG21	27:BD:111:LEU:HD21	1.90	0.53
33:BJ:59:ILE:O	33:BJ:61:LEU:N	2.37	0.53
36:BP:62:LEU:H	36:BP:62:LEU:CD2	2.18	0.53
37:BQ:14:ARG:CD	57:BA:958:U:H5"	2.38	0.53
40:BT:34:VAL:HG13	40:BT:38:ASN:O	2.08	0.53
42:BV:89:GLN:OE1	42:BV:90:PRO:HD2	2.08	0.53
44:BX:12:VAL:HG11	44:BX:17:ALA:HB1	1.89	0.53
45:BY:76:CYS:HG	45:BY:77:PRO:HD2	1.70	0.53
47:B0:48:GLY:HA3	47:B0:80:HIS:ND1	2.23	0.53
52:B5:48:GLU:O	52:B5:49:CYS:CB	2.55	0.53
57:BA:1292:U:H2'	57:BA:1293:C:H6	1.73	0.53
57:BA:2481:G:O2'	57:BA:2482:G:P	2.65	0.53
3:Ad:106:TYR:C	3:Ad:108:LEU:H	2.15	0.53
9:Aj:3:LYS:HG3	9:Aj:75:ILE:O	2.08	0.53
9:Aj:13:HIS:CD2	22:Aa:1152:A:H5"	2.42	0.53
10:Ak:108:ILE:HD12	10:Ak:108:ILE:N	2.22	0.53
11:Al:114:LYS:HD2	22:Aa:538:G:O3'	2.08	0.53
21:Ay:30:LEU:HA	21:Ay:33:VAL:CG2	2.21	0.53
21:Ay:79:GLY:CA	21:Ay:86:VAL:CG1	2.86	0.53
22:Aa:189(E):U:O2'	22:Aa:189(F):U:H5'	2.08	0.53
22:Aa:638:G:O2'	22:Aa:639:G:H5'	2.09	0.53
22:Aa:1376:U:H2'	22:Aa:1377:A:C8	2.43	0.53
22:Aa:1423:G:H5'	35:AO:49:ARG:NH2	2.24	0.53
27:AD:186:HIS:HD2	27:AD:188:GLU:H	1.57	0.53
28:AE:71:GLY:O	28:AE:72:VAL:C	2.50	0.53
30:AG:15:VAL:HG13	30:AG:175:LEU:CB	2.36	0.53
30:AG:39:ILE:HD11	30:AG:60:LEU:HD11	1.90	0.53
30:AG:110:ALA:CA	30:AG:112:PRO:HD2	2.32	0.53
30:AG:129:GLY:C	30:AG:130:ASN:CG	2.75	0.53
31:AH:144:VAL:HA	31:AH:147:ASN:HB2	1.91	0.53
32:AI:92:VAL:CG1	32:AI:97:ILE:HD11	2.35	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:AI:124:GLY:O	32:AI:142:VAL:HB	2.07	0.53
34:AN:4:TYR:OH	57:AA:995:C:O2	2.25	0.53
38:AR:101:ALA:HB2	52:A5:44:THR:HB	1.91	0.53
40:AT:29:ARG:HG3	40:AT:30:VAL:HG13	1.91	0.53
41:AU:29:SER:OG	41:AU:30:LYS:HE2	2.08	0.53
44:AX:3:THR:O	44:AX:4:ALA:HB3	2.07	0.53
46:AZ:4:ARG:O	46:AZ:5:LEU:HB2	2.08	0.53
52:A5:48:GLU:O	52:A5:49:CYS:CB	2.57	0.53
53:A6:8:LYS:HD2	53:A6:25:LYS:HG2	1.90	0.53
53:A6:35:GLU:OE1	53:A6:35:GLU:HA	2.07	0.53
57:AA:1314:C:H5'	57:AA:1314:C:H6	1.72	0.53
57:AA:1336:A:H2'	57:AA:1337:G:C8	2.43	0.53
57:AA:2562:U:H2'	57:AA:2563:U:H5'	1.90	0.53
4:Be:7:GLU:O	4:Be:8:GLU:HB3	2.09	0.53
6:Bg:18:TYR:CE2	6:Bg:59:LEU:HB2	2.44	0.53
9:Bj:96:ILE:N	9:Bj:96:ILE:HD13	2.23	0.53
10:Bk:109:VAL:HG13	17:Br:85:LEU:O	2.09	0.53
11:Bl:83:VAL:CG1	11:Bl:100:ILE:HG23	2.39	0.53
17:Br:56:THR:O	17:Br:58:LEU:HD12	2.09	0.53
17:Br:63:GLN:OE1	17:Br:66:LEU:HD23	2.09	0.53
19:Bt:60:GLU:HG3	19:Bt:81:LYS:HE3	1.91	0.53
22:Ba:6:G:H4'	22:Ba:298:A:H4'	1.91	0.53
22:Ba:1490:C:H2'	22:Ba:1491:G:H5"	1.90	0.53
27:BD:80:ALA:HB2	27:BD:96:HIS:CD2	2.43	0.53
27:BD:211:ARG:O	27:BD:215:LEU:HG	2.08	0.53
31:BH:9:ILE:C	31:BH:9:ILE:HD13	2.32	0.53
36:BP:105:LEU:H	36:BP:105:LEU:HD12	1.73	0.53
39:BS:52:SER:HB3	39:BS:55:ALA:HB3	1.91	0.53
42:BV:51:VAL:CG1	42:BV:52:VAL:H	2.18	0.53
44:BX:44:GLU:HG2	44:BX:49:VAL:O	2.08	0.53
46:BZ:102:LEU:CD1	46:BZ:171:ILE:HD11	2.38	0.53
46:BZ:108:PRO:HB2	46:BZ:144:LEU:HB2	1.89	0.53
51:B4:48:ARG:CG	51:B4:49:PHE:N	2.71	0.53
57:BA:330:A:O2'	57:BA:331:A:H8	1.91	0.53
57:BA:1332:G:H8	57:BA:1332:G:H5"	1.72	0.53
58:BB:109:C:H5'	58:BB:110:G:O5'	2.08	0.53
1:Ab:167:PRO:CG	1:Ab:188:ALA:HB2	2.37	0.53
1:Ab:204:ASN:ND2	1:Ab:204:ASN:C	2.66	0.53
1:Ab:235:SER:HG	1:Ab:236:TYR:HD1	1.57	0.53
5:Af:50:TYR:HE1	17:Ar:74:ARG:O	1.91	0.53
6:Ag:10:ARG:HG3	6:Ag:10:ARG:NH1	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:Ag:65:ALA:C	6:Ag:67:GLU:H	2.17	0.53
10:Ak:125:PHE:N	10:Ak:125:PHE:HD1	2.07	0.53
12:Am:39:ILE:HD12	12:Am:56:LEU:HD23	1.90	0.53
19:At:99:LEU:O	19:At:100:ILE:C	2.50	0.53
21:Ay:54:LYS:HD3	22:Aa:530:G:C5	2.43	0.53
21:Ay:70:LYS:O	21:Ay:71:VAL:C	2.51	0.53
22:Aa:376:G:H2'	22:Aa:377:G:C8	2.41	0.53
22:Aa:1323:G:H4'	22:Aa:1363:C:C2	2.43	0.53
24:Av:73:A:H5'	24:Av:73:A:C8	2.43	0.53
27:AD:238:GLY:O	27:AD:239:ARG:O	2.26	0.53
28:AE:36:ARG:HH21	28:AE:88:GLY:HA2	1.72	0.53
28:AE:64:LYS:HG2	28:AE:64:LYS:O	2.08	0.53
29:AF:157:VAL:HG22	29:AF:194:MET:HG2	1.89	0.53
29:AF:185:ASP:HA	29:AF:188:ARG:HD3	1.91	0.53
30:AG:172:LEU:HD23	30:AG:172:LEU:C	2.34	0.53
31:AH:50:VAL:CG1	31:AH:51:ARG:N	2.71	0.53
31:AH:89:ILE:HD12	31:AH:89:ILE:C	2.34	0.53
32:AI:120:ILE:HG22	32:AI:121:LYS:H	1.70	0.53
32:AI:120:ILE:HG22	32:AI:122:GLU:H	1.74	0.53
34:AN:91:LEU:CD2	34:AN:98:VAL:HG21	2.39	0.53
36:AP:97:PRO:O	36:AP:98:GLU:HB3	2.09	0.53
37:AQ:134:ARG:HA	37:AQ:137:TYR:CD1	2.44	0.53
39:AS:89:ARG:HH11	39:AS:89:ARG:HG2	1.73	0.53
40:AT:26:ASP:C	40:AT:26:ASP:OD2	2.51	0.53
40:AT:27:THR:HA	40:AT:87:ASP:HB2	1.91	0.53
40:AT:70:VAL:CG1	40:AT:71:GLY:N	2.71	0.53
40:AT:128:GLU:CD	40:AT:129:ARG:N	2.66	0.53
47:A0:41:ARG:HH22	57:AA:2387:U:H4'	1.71	0.53
49:A2:2:LYS:HG2	57:AA:97:C:C4'	2.39	0.53
53:A6:5:VAL:HG11	57:AA:2284:C:OP1	2.09	0.53
57:AA:1037:G:H1	57:AA:1118:C:H42	1.55	0.53
58:AB:8:U:C5'	58:AB:8:U:H6	2.22	0.53
2:Bc:73:PRO:O	2:Bc:74:GLY:C	2.50	0.53
3:Bd:3:ARG:O	3:Bd:3:ARG:HD3	2.09	0.53
3:Bd:31:CYS:C	3:Bd:33:MET:H	2.17	0.53
8:Bi:19:LEU:HD23	8:Bi:61:ALA:HA	1.90	0.53
13:Bn:29:ARG:HD3	22:Ba:1202:G:H1'	1.89	0.53
18:Bs:35:SER:C	18:Bs:37:ARG:N	2.66	0.53
19:Bt:14:LYS:HA	19:Bt:17:ARG:NH2	2.23	0.53
19:Bt:89:ARG:CZ	19:Bt:104:LEU:HD21	2.38	0.53
27:BD:63:ARG:HH22	57:BA:1568:G:P	2.31	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BD:158:ALA:HB3	27:BD:161:THR:HG21	1.90	0.53
27:BD:210:GLY:O	27:BD:211:ARG:CB	2.56	0.53
28:BE:51:PHE:CD1	28:BE:52:LEU:N	2.61	0.53
29:BF:20:LEU:HD12	29:BF:199:TRP:HZ3	1.74	0.53
29:BF:33:LEU:O	29:BF:37:VAL:HG23	2.08	0.53
36:BP:17:LYS:O	36:BP:19:VAL:N	2.42	0.53
36:BP:101:VAL:CG1	36:BP:106:LEU:HD23	2.38	0.53
38:BR:47:PHE:O	38:BR:51:LEU:HD13	2.08	0.53
40:BT:31:SER:OG	40:BT:43:GLN:HB3	2.08	0.53
46:BZ:149:SER:OG	46:BZ:172:ALA:O	2.26	0.53
47:B0:14:ARG:HG3	47:B0:14:ARG:HH11	1.73	0.53
52:B5:43:HIS:HD2	57:BA:2815:C:O2'	1.91	0.53
54:B7:34:ARG:NH1	54:B7:39:ARG:HG3	2.23	0.53
55:B8:28:GLY:O	55:B8:32:LEU:HG	2.08	0.53
57:BA:547:A:H1'	57:BA:548:A:C8	2.43	0.53
57:BA:1385:G:O2'	57:BA:1396:U:C6	2.61	0.53
57:BA:1429:G:H2'	57:BA:1430:C:C6	2.44	0.53
57:BA:1506:C:H2'	57:BA:1506:C:O2	2.07	0.53
57:BA:2096:U:H2'	57:BA:2097:C:C6	2.44	0.53
57:BA:2713:A:H3'	57:BA:2714:G:H5'	1.91	0.53
4:Ae:43:LEU:N	4:Ae:136:MET:HE2	2.24	0.53
4:Ae:93:PRO:CG	7:Ah:105:ARG:HH21	2.13	0.53
8:Ai:20:ARG:HH11	8:Ai:20:ARG:HG3	1.74	0.53
8:Ai:47:LEU:HD12	8:Ai:47:LEU:N	2.23	0.53
22:Aa:357:G:O2'	22:Aa:358:U:H5'	2.09	0.53
22:Aa:620:C:H2'	22:Aa:621:A:O4'	2.08	0.53
22:Aa:659:U:O2'	22:Aa:660:G:H5'	2.09	0.53
22:Aa:1495:U:O2'	22:Aa:1496:C:H5'	2.09	0.53
25:Aw:11:A:H61	25:Aw:25:C:H42	1.56	0.53
27:AD:27:THR:HG23	27:AD:27:THR:O	2.08	0.53
27:AD:267:SER:C	27:AD:269:PHE:N	2.66	0.53
28:AE:117:MET:O	28:AE:118:LYS:HB2	2.07	0.53
34:AN:10:GLU:OE2	34:AN:11:PRO:HD2	2.09	0.53
36:AP:62:LEU:HD23	36:AP:62:LEU:N	2.23	0.53
38:AR:38:VAL:HG12	38:AR:42:LYS:HD2	1.90	0.53
51:A4:6:HIS:HB3	51:A4:7:PRO:CD	2.38	0.53
55:A8:6:THR:HG21	55:A8:63:PRO:HD3	1.88	0.53
57:AA:1204:A:N1	57:AA:1241:A:C2	2.76	0.53
57:AA:1242:A:C5'	57:AA:1243:G:OP2	2.57	0.53
57:AA:1839:G:H8	57:AA:1839:G:H5'	1.74	0.53
57:AA:2001:A:H2'	57:AA:2002:G:C8	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:AA:2301:C:H2'	57:AA:2302:G:O4'	2.09	0.53
1:Bb:80:ILE:HD11	1:Bb:208:ILE:HG23	1.90	0.53
2:Bc:75:VAL:HG12	2:Bc:75:VAL:O	2.07	0.53
5:Bf:97:PHE:O	17:Br:31:LEU:HD23	2.07	0.53
11:Bl:37:CYS:O	11:Bl:79:GLU:O	2.26	0.53
11:Bl:38:THR:CG2	11:Bl:57:LYS:HB2	2.37	0.53
11:Bl:41:ARG:CG	11:Bl:42:THR:H	2.20	0.53
14:Bo:25:THR:O	14:Bo:29:VAL:HG23	2.08	0.53
18:Bs:53:ASN:O	18:Bs:77:THR:HG22	2.09	0.53
20:Bu:12:LYS:HE2	22:Ba:1326:C:OP1	2.09	0.53
22:Ba:102:G:H2'	22:Ba:103:C:H6	1.72	0.53
22:Ba:1323:G:H4'	22:Ba:1363:C:C2	2.44	0.53
29:BF:65:TRP:CZ3	29:BF:75:HIS:HD2	2.26	0.53
39:BS:34:HIS:HB3	39:BS:53:SER:HB3	1.89	0.53
46:BZ:152:ALA:C	46:BZ:154:ASP:H	2.14	0.53
52:B5:3:LYS:HZ3	57:BA:2614:A:H5'	1.71	0.53
54:B7:5:TRP:CZ3	57:BA:464:U:H4'	2.43	0.53
57:BA:272(J):C:O2'	57:BA:274:G:H5'	2.08	0.53
57:BA:1283:G:N2	57:BA:1285:G:H3'	2.24	0.53
57:BA:1503:U:O2'	57:BA:1504:C:H5'	2.08	0.53
57:BA:1608:A:H1'	57:BA:1610:A:OP2	2.09	0.53
57:BA:1839:G:H8	57:BA:1839:G:H5'	1.73	0.53
1:Ab:140:HIS:HA	1:Ab:143:GLU:HG3	1.90	0.53
6:Ag:140:ASP:HA	6:Ag:143:ARG:NH1	2.24	0.53
26:AC:166:ASN:HA	26:AC:171:ALA:O	2.09	0.53
26:AC:216:THR:HB	26:AC:222:SER:CB	2.35	0.53
27:AD:77:ALA:CB	27:AD:97:TYR:HA	2.39	0.53
28:AE:59:VAL:HG13	28:AE:60:ASN:H	1.73	0.53
29:AF:65:TRP:CZ3	29:AF:73:ALA:O	2.62	0.53
30:AG:96:ARG:O	30:AG:98:ARG:N	2.41	0.53
36:AP:107:LYS:O	36:AP:109:GLY:N	2.41	0.53
39:AS:54:LEU:HD22	39:AS:58:LEU:H	1.74	0.53
41:AU:8:VAL:HG23	41:AU:11:ARG:HH21	1.73	0.53
41:AU:76:TYR:CZ	41:AU:80:ILE:HG13	2.44	0.53
47:A0:5:LYS:NZ	47:A0:5:LYS:HB3	2.24	0.53
48:A1:20:ARG:HH11	48:A1:20:ARG:HG2	1.73	0.53
48:A1:20:ARG:HA	48:A1:33:LYS:O	2.09	0.53
53:A6:45:LYS:CE	57:AA:2371:G:H5"	2.33	0.53
55:A8:4:MET:CG	55:A8:61:LEU:HD13	2.38	0.53
57:AA:225:A:O2'	57:AA:257:A:H4'	2.09	0.53
57:AA:528:A:C2	57:AA:2043:C:C5'	2.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:AA:977:G:O2'	57:AA:978:G:H5'	2.08	0.53
57:AA:1506:C:O2	57:AA:1506:C:H2'	2.07	0.53
57:AA:2389:G:H5"	57:AA:2390:U:H5'	1.91	0.53
3:Bd:12:CYS:HA	3:Bd:19:LEU:HD12	1.89	0.53
4:Be:72:GLN:C	4:Be:74:GLY:H	2.16	0.53
8:Bi:7:THR:HB	8:Bi:83:ARG:HH11	1.73	0.53
8:Bi:39:GLY:HA3	22:Ba:1291:G:O3'	2.09	0.53
13:Bn:45:ARG:O	13:Bn:49:HIS:HD2	1.91	0.53
14:Bo:26:GLU:HA	14:Bo:81:LEU:HD22	1.91	0.53
22:Ba:254:G:O2'	22:Ba:255:G:H5'	2.09	0.53
22:Ba:376:G:O2'	22:Ba:377:G:H5'	2.08	0.53
27:BD:128:GLY:H	27:BD:193:VAL:HG13	1.74	0.53
30:BG:80:PHE:O	30:BG:81:LYS:O	2.27	0.53
34:BN:62:VAL:CG2	34:BN:66:LYS:HD2	2.39	0.53
38:BR:14:SER:HB3	57:BA:2690:C:OP2	2.09	0.53
39:BS:65:VAL:O	39:BS:69:VAL:HG12	2.09	0.53
40:BT:26:ASP:C	40:BT:26:ASP:OD2	2.51	0.53
40:BT:46:GLU:O	40:BT:65:LYS:HD2	2.08	0.53
44:BX:27:THR:HA	44:BX:80:ILE:HA	1.90	0.53
44:BX:41:ASN:HD22	44:BX:41:ASN:N	2.05	0.53
44:BX:60:ARG:NH2	54:B7:47:ARG:HH11	2.07	0.53
48:B1:45:ASN:HD22	48:B1:45:ASN:C	2.15	0.53
52:B5:43:HIS:CD2	57:BA:2815:C:O2'	2.61	0.53
53:B6:8:LYS:NZ	57:BA:2285:C:H5	2.06	0.53
57:BA:747:U:O2	57:BA:2014:A:H1'	2.09	0.53
57:BA:904:C:H6	57:BA:904:C:C5'	2.16	0.53
57:BA:1037:G:H1	57:BA:1118:C:H42	1.56	0.53
57:BA:1049:C:H2'	57:BA:1050:A:C8	2.43	0.53
57:BA:1173:G:H3'	57:BA:1174:A:H5'	1.90	0.53
57:BA:1348:G:C2'	57:BA:1349:A:H5"	2.38	0.53
57:BA:1932:A:H2'	57:BA:1933:G:O4'	2.08	0.53
58:BB:56:G:H4'	58:BB:57:A:H8	1.73	0.53
1:Ab:35:GLU:HA	1:Ab:39:ILE:O	2.08	0.53
3:Ad:3:ARG:O	3:Ad:3:ARG:HD3	2.09	0.53
5:Af:15:ASP:OD1	5:Af:17:SER:HB2	2.09	0.53
7:Ah:112:LEU:HA	7:Ah:134:ILE:HG12	1.91	0.53
8:Ai:83:ARG:HA	8:Ai:86:VAL:CG1	2.39	0.53
9:Aj:41:PRO:HD3	22:Aa:1280:A:C8	2.44	0.53
13:An:37:PHE:CE1	13:An:53:LEU:HD22	2.44	0.53
14:Ao:77:ARG:HA	14:Ao:80:ALA:HB3	1.89	0.53
15:Ap:15:PRO:O	15:Ap:16:HIS:ND1	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Aa:190:U:H2'	22:Aa:191:G:H8	1.73	0.53
22:Aa:353:A:H5'	22:Aa:353:A:C8	2.35	0.53
22:Aa:521:G:O2'	22:Aa:522:C:H5'	2.09	0.53
26:AC:6:LYS:HD3	26:AC:6:LYS:C	2.33	0.53
26:AC:53:ARG:H	26:AC:53:ARG:CD	2.19	0.53
27:AD:208:LYS:HB2	57:AA:729:G:C5	2.44	0.53
30:AG:16:ARG:O	30:AG:20:ILE:HG13	2.09	0.53
30:AG:45:GLU:N	30:AG:88:ILE:HG21	2.11	0.53
30:AG:117:PHE:CD2	30:AG:118:ARG:N	2.77	0.53
32:AI:46:ALA:HB2	57:AA:271(P):C:H5'	1.90	0.53
34:AN:71:ILE:HG21	34:AN:84:LYS:HB3	1.91	0.53
36:AP:85:LEU:HD22	36:AP:114:ILE:HD11	1.91	0.53
38:AR:10:LEU:CD2	38:AR:17:ARG:HD3	2.39	0.53
41:AU:112:ARG:HH22	42:AV:46:VAL:HG11	1.72	0.53
46:AZ:152:ALA:C	46:AZ:167:PRO:HB2	2.34	0.53
46:AZ:165:VAL:HG12	46:AZ:166:SER:OG	2.08	0.53
57:AA:545:C:C2'	57:AA:547:A:H5"	2.39	0.53
57:AA:1528:A:N3	57:AA:1528:A:H2'	2.24	0.53
57:AA:2171:A:H4'	57:AA:2172:U:O5'	2.09	0.53
57:AA:2562:U:C2'	57:AA:2563:U:H5'	2.38	0.53
57:AA:2802:G:O2'	57:AA:2803:C:H5"	2.09	0.53
1:Bb:54:THR:O	1:Bb:58:ILE:HG13	2.09	0.53
1:Bb:80:ILE:H	1:Bb:80:ILE:CD1	2.03	0.53
1:Bb:163:PHE:HA	1:Bb:185:ILE:HG13	1.91	0.53
2:Bc:116:VAL:HG21	2:Bc:202:ILE:HD11	1.90	0.53
3:Bd:170:VAL:O	3:Bd:171:GLY:C	2.52	0.53
6:Bg:54:THR:C	6:Bg:56:GLN:H	2.17	0.53
9:Bj:57:LYS:HE2	22:Ba:972:C:OP2	2.09	0.53
11:Bl:68:ALA:CB	11:Bl:85:ILE:HD11	2.39	0.53
15:Bp:3:LYS:O	15:Bp:21:VAL:HA	2.07	0.53
19:Bt:83:ARG:HA	19:Bt:86:ARG:HB3	1.91	0.53
22:Ba:940:C:H2'	22:Ba:941:G:C8	2.42	0.53
25:Bw:30:G:H2'	25:Bw:31:G:C8	2.44	0.53
30:BG:71:THR:CG2	30:BG:89:GLY:HA3	2.37	0.53
30:BG:86:MET:HG2	30:BG:86:MET:O	2.08	0.53
31:BH:41:MET:SD	31:BH:53:GLU:O	2.67	0.53
31:BH:85:LYS:O	31:BH:85:LYS:HD3	2.09	0.53
36:BP:101:VAL:HG12	36:BP:107:LYS:N	2.24	0.53
36:BP:102:ARG:HH21	36:BP:102:ARG:HB3	1.74	0.53
41:BU:76:TYR:CZ	41:BU:80:ILE:HG13	2.44	0.53
52:B5:53:ALA:HB3	52:B5:55:ARG:NH2	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BA:57:C:H2'	57:BA:58:G:O4'	2.09	0.53
57:BA:535:C:O2'	57:BA:536:A:H5'	2.08	0.53
57:BA:576:U:H2'	57:BA:577:G:C8	2.44	0.53
57:BA:2544:G:H8	57:BA:2544:G:O5'	1.92	0.53
2:Ac:15:THR:HG22	2:Ac:16:ARG:N	2.22	0.53
2:Ac:154:SER:OG	22:Aa:1057:G:H5"	2.08	0.53
10:Ak:57:THR:HG23	10:Ak:60:ALA:H	1.72	0.53
11:Al:37:CYS:O	11:Al:79:GLU:O	2.27	0.53
20:Au:12:LYS:HE2	22:Aa:1326:C:OP1	2.09	0.53
21:Ay:62:LEU:HD21	21:Ay:75:VAL:HG13	1.90	0.53
22:Aa:715:A:O2'	22:Aa:716:A:H5'	2.08	0.53
22:Aa:853:G:O2'	22:Aa:854:G:H5'	2.08	0.53
22:Aa:1005:A:H4'	22:Aa:1037:C:O2'	2.09	0.53
22:Aa:1157:A:H5'	22:Aa:1158:C:C6	2.42	0.53
24:Av:23:C:H2'	24:Av:24:U:H6	1.72	0.53
28:AE:88:GLY:O	28:AE:89:ASP:HB2	2.08	0.53
28:AE:131:ALA:CB	57:AA:2580:U:H5'	2.39	0.53
29:AF:123:LEU:HD12	29:AF:124:LEU:H	1.73	0.53
34:AN:48:MET:H	34:AN:48:MET:CE	2.20	0.53
39:AS:54:LEU:HD13	39:AS:54:LEU:O	2.09	0.53
42:AV:2:PHE:O	42:AV:3:ALA:HB3	2.09	0.53
42:AV:16:PRO:O	42:AV:96:ILE:HB	2.09	0.53
42:AV:99:ILE:CD1	42:AV:99:ILE:N	2.64	0.53
50:A3:1:MET:O	50:A3:3:ARG:N	2.42	0.53
55:A8:50:LEU:O	55:A8:51:ALA:HB3	2.09	0.53
57:AA:1111:A:O2'	57:AA:1112:G:H4'	2.08	0.53
2:Bc:60:ALA:O	2:Bc:61:ALA:HB2	2.09	0.53
2:Bc:77:ILE:HG23	2:Bc:84:ILE:HG21	1.90	0.53
2:Bc:178:LEU:HD23	22:Ba:1112:C:N3	2.24	0.53
7:Bh:64:LYS:HG2	7:Bh:79:VAL:HG21	1.91	0.53
7:Bh:68:ARG:HG2	7:Bh:68:ARG:NH1	2.23	0.53
8:Bi:95:LYS:HD3	8:Bi:95:LYS:C	2.33	0.53
11:Bl:53:ARG:NH2	22:Ba:522:C:H41	2.07	0.53
22:Ba:59:A:H3'	22:Ba:331:G:H22	1.74	0.53
22:Ba:158:G:O2'	22:Ba:159:G:H5'	2.09	0.53
22:Ba:900:A:H2'	22:Ba:901:A:C8	2.44	0.53
25:Bw:5:G:O2'	25:Bw:6:G:H5'	2.09	0.53
26:BC:184:GLU:O	26:BC:188:ASP:HB2	2.08	0.53
36:BP:62:LEU:HD23	36:BP:62:LEU:N	2.16	0.53
36:BP:83:VAL:HG11	36:BP:112:LEU:HD21	1.89	0.53
36:BP:146:VAL:O	36:BP:148:LEU:HG	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BS:24:LEU:HB3	39:BS:85:VAL:HG12	1.91	0.53
43:BW:95:ILE:O	43:BW:95:ILE:HG13	2.09	0.53
46:BZ:119:GLU:HG3	46:BZ:122:ARG:NH1	2.23	0.53
50:B3:19:GLN:NE2	50:B3:52:HIS:HE1	2.07	0.53
52:B5:7:PRO:HA	57:BA:2615:U:N1	2.24	0.53
52:B5:52:TYR:HD1	52:B5:52:TYR:O	1.92	0.53
57:BA:1438:U:O2'	57:BA:1439:A:H5'	2.09	0.53
57:BA:1528:A:H2'	57:BA:1528:A:N3	2.24	0.53
57:BA:1713:U:O2'	57:BA:1714:G:H5'	2.09	0.53
57:BA:2639:A:H2'	57:BA:2640:G:H5'	1.90	0.53
57:BA:2645:G:C3'	57:BA:2646:C:H5'	2.32	0.53
57:BA:2762:G:H2'	57:BA:2763:G:H5'	1.90	0.53
1:Ab:140:HIS:HA	1:Ab:143:GLU:CG	2.39	0.53
2:Ac:77:ILE:HG23	2:Ac:84:ILE:HG21	1.91	0.53
3:Ad:25:ARG:C	3:Ad:27:TYR:H	2.16	0.53
4:Ae:45:PHE:CE2	4:Ae:47:LYS:HD2	2.43	0.53
9:Aj:18:ALA:C	9:Aj:20:ALA:H	2.16	0.53
11:Al:41:ARG:HH11	11:Al:41:ARG:HB3	1.74	0.53
22:Aa:491:G:O2'	22:Aa:492:G:H5'	2.08	0.53
22:Aa:781:A:H2'	22:Aa:782:A:H5'	1.90	0.53
26:AC:11:LEU:HB3	26:AC:33:LEU:HD22	1.91	0.53
27:AD:35:LYS:HG2	27:AD:63:ARG:CG	2.38	0.53
27:AD:154:LYS:HE2	57:AA:1801:G:OP2	2.09	0.53
29:AF:20:LEU:HB3	29:AF:23:ASP:OD2	2.08	0.53
30:AG:17:PRO:HA	30:AG:20:ILE:HD12	1.90	0.53
30:AG:65:GLY:O	51:A4:7:PRO:HD2	2.09	0.53
30:AG:138:GLN:OE1	30:AG:153:ARG:N	2.42	0.53
32:AI:29:TYR:C	32:AI:32:PRO:HD2	2.34	0.53
34:AN:67:LEU:CD2	34:AN:87:LEU:HD13	2.39	0.53
35:AO:111:PHE:HB3	35:AO:114:ILE:HD13	1.92	0.53
37:AQ:26:TYR:HE1	37:AQ:28:ALA:HB2	1.72	0.53
40:AT:29:ARG:CG	40:AT:85:LYS:HA	2.38	0.53
42:AV:47:VAL:HG12	42:AV:51:VAL:C	2.34	0.53
43:AW:95:ILE:O	43:AW:95:ILE:HG13	2.09	0.53
45:AY:54:LYS:O	45:AY:56:PRO:HD2	2.08	0.53
46:AZ:40:ASP:HB3	46:AZ:43:GLU:CD	2.33	0.53
51:A4:9:LEU:HA	51:A4:26:SER:O	2.08	0.53
52:A5:53:ALA:HB3	52:A5:55:ARG:NH2	2.24	0.53
57:AA:57:C:H2'	57:AA:58:G:O4'	2.08	0.53
57:AA:654(B):C:H2'	57:AA:654(C):G:C8	2.44	0.53
57:AA:2121:G:H1	57:AA:2177:C:N4	2.05	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:AA:2206:G:C2	57:AA:2207:G:H5'	2.44	0.53
57:AA:2611:U:H5'	57:AA:2611:U:C6	2.39	0.53
3:Bd:105:VAL:CG2	3:Bd:126:ILE:HG12	2.39	0.53
6:Bg:15:ASP:OD2	6:Bg:16:LEU:N	2.42	0.53
7:Bh:11:THR:HG23	7:Bh:14:ARG:NH1	2.24	0.53
15:Bp:43:LYS:C	15:Bp:45:THR:H	2.17	0.53
15:Bp:49:LEU:HD12	15:Bp:50:LYS:N	2.24	0.53
17:Br:58:LEU:HB3	17:Br:62:GLU:CB	2.39	0.53
17:Br:75:ILE:HD11	22:Ba:734:G:H21	1.74	0.53
22:Ba:1095:U:H5'	22:Ba:1109:C:O2	2.09	0.53
27:BD:245:PRO:O	27:BD:246:PRO:C	2.51	0.53
28:BE:142:GLY:HA3	57:BA:2052:G:O4'	2.09	0.53
30:BG:34:LEU:HD21	30:BG:103:LEU:CD1	2.39	0.53
45:BY:7:VAL:CG2	45:BY:8:LYS:HZ2	2.21	0.53
46:BZ:146:ILE:HD12	57:BA:896:A:N3	2.23	0.53
48:B1:41:ARG:HD3	48:B1:43:TYR:OH	2.09	0.53
53:B6:5:VAL:HG11	57:BA:2284:C:OP1	2.09	0.53
57:BA:2762:G:H5'	57:BA:2762:G:H8	1.74	0.53
1:Ab:165:VAL:HG23	1:Ab:166:ASP:N	2.22	0.52
4:Ae:72:GLN:C	4:Ae:74:GLY:H	2.18	0.52
6:Ag:37:ASN:ND2	8:Ai:40:LEU:HA	2.24	0.52
9:Aj:32:ALA:HB1	9:Aj:75:ILE:HG13	1.91	0.52
18:As:6:LYS:HG2	18:As:7:LYS:CE	2.26	0.52
20:Au:3:LYS:HB3	20:Au:14:TRP:CG	2.44	0.52
21:Ay:48:PRO:O	21:Ay:50:CYS:N	2.38	0.52
22:Aa:36:C:O2'	22:Aa:37:U:H5'	2.08	0.52
22:Aa:386:C:O2'	22:Aa:387:U:H5'	2.09	0.52
22:Aa:965:A:C2	22:Aa:969:A:C2	2.98	0.52
22:Aa:1134:G:N2	22:Aa:1141:C:H1'	2.24	0.52
27:AD:239:ARG:HB3	57:AA:2591:C:OP2	2.08	0.52
28:AE:60:ASN:OD1	28:AE:61:ARG:N	2.42	0.52
29:AF:65:TRP:CZ3	29:AF:75:HIS:HD2	2.27	0.52
30:AG:72:ARG:CG	30:AG:87:PRO:HD2	2.39	0.52
30:AG:132:ASN:OD1	30:AG:158:ALA:HA	2.08	0.52
33:AJ:118:THR:O	33:AJ:119:ALA:HB3	2.09	0.52
41:AU:10:ARG:O	41:AU:11:ARG:C	2.52	0.52
48:A1:29:GLY:C	48:A1:31:GLY:H	2.17	0.52
48:A1:45:ASN:HB2	57:AA:2230:G:H1'	1.90	0.52
57:AA:234:C:H2'	57:AA:235:U:C6	2.43	0.52
57:AA:648:G:O2'	57:AA:649:G:H5'	2.09	0.52
57:AA:1173:G:H3'	57:AA:1174:A:H5'	1.89	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:AA:1223:G:H5'	57:AA:1224:C:OP2	2.08	0.52
57:AA:1339:G:H21	57:AA:1603:A:H1'	1.73	0.52
57:AA:1464:C:O2'	57:AA:1528:A:C8	2.61	0.52
1:Bb:140:HIS:HA	1:Bb:143:GLU:HG3	1.91	0.52
2:Bc:17:ASP:O	2:Bc:18:TRP:C	2.52	0.52
7:Bh:112:LEU:HA	7:Bh:134:ILE:HG12	1.89	0.52
9:Bj:50:ILE:CD1	13:Bn:41:ARG:HD3	2.39	0.52
17:Br:64:ARG:HH21	22:Ba:664:G:P	2.31	0.52
18:Bs:6:LYS:O	18:Bs:7:LYS:HD3	2.08	0.52
21:By:5:LEU:O	21:By:6:ASP:HB2	2.08	0.52
21:By:82:GLU:HG3	23:Bx:21:OMG:O6	2.08	0.52
22:Ba:189(E):U:O2'	22:Ba:189(F):U:H5'	2.09	0.52
22:Ba:521:G:O2'	22:Ba:522:C:H5'	2.08	0.52
22:Ba:594:G:O2'	22:Ba:595:G:H5'	2.08	0.52
27:BD:121:PRO:HB3	27:BD:135:PHE:CD1	2.44	0.52
29:BF:7:TYR:HD2	29:BF:16:GLY:H	1.56	0.52
30:BG:145:THR:HG23	30:BG:146:TYR:N	2.24	0.52
32:BI:99:GLU:OE1	32:BI:100:ALA:N	2.42	0.52
35:BO:3:GLN:HB2	35:BO:4:PRO:HD2	1.90	0.52
35:BO:23:ARG:HG3	35:BO:24:VAL:N	2.23	0.52
36:BP:97:PRO:O	36:BP:98:GLU:HB3	2.08	0.52
39:BS:36:TYR:HD1	39:BS:36:TYR:N	2.02	0.52
39:BS:70:GLY:C	39:BS:101:LEU:HD23	2.34	0.52
40:BT:55:ASN:H	40:BT:59:THR:HG22	1.72	0.52
40:BT:128:GLU:CD	40:BT:129:ARG:N	2.67	0.52
47:B0:5:LYS:NZ	47:B0:5:LYS:HB3	2.23	0.52
47:B0:20:ARG:NH1	57:BA:2271:G:C5'	2.72	0.52
57:BA:528:A:H2	57:BA:2043:C:H5'	1.72	0.52
57:BA:795:C:H2'	57:BA:796:C:H6	1.73	0.52
57:BA:1459:G:C8	57:BA:1461:G:H1'	2.44	0.52
1:Ab:187:LEU:HD22	1:Ab:201:ILE:O	2.08	0.52
2:Ac:81:GLY:O	2:Ac:85:ARG:HB2	2.09	0.52
7:Ah:25:ASP:C	7:Ah:26:VAL:HG12	2.34	0.52
8:Ai:55:ALA:HB1	8:Ai:58:HIS:CD2	2.43	0.52
9:Aj:78:ASN:O	9:Aj:82:ILE:HG12	2.08	0.52
12:Am:14:ARG:HB2	12:Am:16:ASP:OD2	2.09	0.52
12:Am:79:LYS:O	12:Am:82:MET:HB3	2.09	0.52
14:Ao:39:LEU:CD1	14:Ao:56:LEU:HB2	2.39	0.52
22:Aa:170:U:O2'	22:Aa:171:A:H5'	2.09	0.52
22:Aa:403:C:O2'	22:Aa:404:U:H5'	2.09	0.52
22:Aa:664:G:H22	22:Aa:741:G:H1	1.56	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Aa:665:A:H2'	22:Aa:725:G:H22	1.73	0.52
22:Aa:1305:G:N2	22:Aa:1331:G:O2'	2.39	0.52
30:AG:121:ASN:O	30:AG:122:PRO:O	2.27	0.52
32:AI:67:ARG:HH11	32:AI:67:ARG:HG2	1.74	0.52
34:AN:27:ALA:HB3	34:AN:106:MET:HE1	1.91	0.52
35:AO:87:ILE:HG22	35:AO:91:LEU:HA	1.90	0.52
38:AR:45:ARG:HG3	38:AR:95:THR:HG22	1.91	0.52
38:AR:63:ARG:NH1	38:AR:80:PHE:CD1	2.78	0.52
43:AW:64:MET:O	43:AW:65:LEU:CB	2.55	0.52
50:A3:47:VAL:HG11	50:A3:56:VAL:HG21	1.92	0.52
54:A7:34:ARG:HH12	54:A7:39:ARG:CD	2.22	0.52
57:AA:898:C:H2'	57:AA:899:A:H5'	1.90	0.52
57:AA:1856:G:H2'	57:AA:1857:G:H5'	1.91	0.52
4:Be:101:ILE:HG13	4:Be:119:LEU:HD23	1.90	0.52
6:Bg:64:GLN:HG3	6:Bg:68:ASN:HD21	1.73	0.52
10:Bk:15:ALA:HB1	10:Bk:78:GLN:HE21	1.74	0.52
12:Bm:13:LYS:CA	12:Bm:44:ARG:HH11	2.19	0.52
12:Bm:97:PRO:HA	22:Ba:1308:U:OP1	2.09	0.52
13:Bn:12:ARG:C	13:Bn:14:PRO:HD2	2.34	0.52
13:Bn:27:CYS:C	13:Bn:29:ARG:H	2.16	0.52
21:By:38:ARG:HG2	21:By:51:TYR:HE2	1.75	0.52
22:Ba:456:C:H42	22:Ba:475:G:H1	1.56	0.52
22:Ba:1134:G:N2	22:Ba:1141:C:H1'	2.24	0.52
32:BI:92:VAL:CG1	32:BI:97:ILE:HD11	2.33	0.52
34:BN:43:THR:HB	34:BN:46:VAL:CG1	2.34	0.52
37:BQ:39:PRO:HB3	37:BQ:99:PRO:HD3	1.91	0.52
38:BR:101:ALA:HB2	52:B5:44:THR:HB	1.91	0.52
39:BS:54:LEU:HD22	39:BS:58:LEU:H	1.75	0.52
43:BW:96:ILE:HD11	57:BA:2012:G:H4'	1.91	0.52
57:BA:1858:G:H2'	57:BA:1883:G:H22	1.74	0.52
57:BA:2294:C:H42	57:BA:2338:G:H1	1.56	0.52
2:Ac:17:ASP:O	2:Ac:18:TRP:C	2.53	0.52
2:Ac:178:LEU:HD23	22:Aa:1112:C:N3	2.24	0.52
6:Ag:73:MET:HG2	6:Ag:90:GLU:HA	1.92	0.52
15:Ap:28:ARG:NH2	22:Aa:390:C:O3'	2.43	0.52
19:At:26:ASN:N	19:At:26:ASN:ND2	2.54	0.52
19:At:73:HIS:O	19:At:74:LYS:C	2.52	0.52
22:Aa:22:G:H4'	22:Aa:885:G:C8	2.45	0.52
29:AF:7:TYR:HD2	29:AF:16:GLY:H	1.56	0.52
32:AI:64:GLU:OE2	32:AI:67:ARG:HD2	2.09	0.52
32:AI:120:ILE:CD1	32:AI:120:ILE:H	2.22	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:AR:14:SER:HB3	57:AA:2690:C:OP2	2.09	0.52
38:AR:104:ARG:HD2	38:AR:109:ALA:HB3	1.91	0.52
40:AT:25:GLY:O	40:AT:26:ASP:CB	2.56	0.52
41:AU:57:PHE:O	41:AU:58:ARG:C	2.52	0.52
41:AU:95:LEU:CD1	42:AV:11:GLN:HB2	2.38	0.52
41:AU:112:ARG:CZ	42:AV:46:VAL:HG11	2.39	0.52
45:AY:14:LEU:HD12	45:AY:23:ARG:H	1.75	0.52
45:AY:87:LYS:O	45:AY:88:LYS:HB2	2.09	0.52
46:AZ:167:PRO:O	46:AZ:168:GLU:CB	2.56	0.52
51:A4:3:GLU:CG	58:AB:43:C:OP1	2.57	0.52
55:A8:43:GLN:O	55:A8:44:LYS:HD2	2.10	0.52
57:AA:221:A:H4'	57:AA:222:A:O5'	2.09	0.52
57:AA:271(G):C:O2'	57:AA:271(H):G:H5'	2.10	0.52
57:AA:1429:G:H2'	57:AA:1430:C:C6	2.44	0.52
57:AA:1467:C:O2'	57:AA:1468:C:H5'	2.10	0.52
57:AA:2133:G:C2'	57:AA:2157:G:H22	2.11	0.52
57:AA:2263:C:O2'	57:AA:2264:C:H5'	2.09	0.52
57:AA:2287:A:H2	57:AA:2346:A:C2	2.27	0.52
57:AA:2455:G:H2'	57:AA:2456:C:C6	2.45	0.52
57:AA:2481:G:O2'	57:AA:2482:G:P	2.68	0.52
1:Bb:187:LEU:HD23	1:Bb:201:ILE:CG2	2.39	0.52
8:Bi:19:LEU:HD22	8:Bi:59:PHE:CB	2.38	0.52
11:Bl:24:VAL:HG13	11:Bl:98:TYR:HE2	1.73	0.52
11:Bl:28:LYS:O	11:Bl:28:LYS:HG2	2.10	0.52
22:Ba:625:G:H2'	22:Ba:626:U:H6	1.73	0.52
22:Ba:659:U:O2'	22:Ba:660:G:H5'	2.09	0.52
22:Ba:892:A:H2'	22:Ba:893:C:C6	2.44	0.52
22:Ba:1003:G:H2'	22:Ba:1004:A:C4'	2.25	0.52
22:Ba:1234:C:O2'	22:Ba:1235:U:H5'	2.09	0.52
22:Ba:1429:C:H2'	22:Ba:1430:C:C6	2.43	0.52
27:BD:108:PRO:HB3	27:BD:143:HIS:HE1	1.72	0.52
31:BH:94:TYR:OH	31:BH:160:LYS:HD3	2.09	0.52
32:BI:94:ALA:HB1	32:BI:98:ALA:CB	2.39	0.52
35:BO:13:ASN:HD21	35:BO:97:ARG:H	1.57	0.52
36:BP:93:GLY:O	36:BP:123:LEU:HB2	2.09	0.52
44:BX:24:GLY:HA3	44:BX:83:VAL:HG23	1.91	0.52
48:B1:62:VAL:HG22	48:B1:63:ALA:N	2.25	0.52
49:B2:3:LEU:HD23	49:B2:3:LEU:C	2.34	0.52
57:BA:107:C:H2'	57:BA:108:U:H6	1.75	0.52
57:BA:1983:C:O2'	57:BA:1984:G:H5'	2.10	0.52
57:BA:2171:A:H4'	57:BA:2172:U:O5'	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BA:2639:A:C2'	57:BA:2640:G:H5'	2.40	0.52
1:Ab:210:SER:O	1:Ab:214:ILE:HG12	2.08	0.52
3:Ad:12:CYS:HA	3:Ad:19:LEU:CD1	2.39	0.52
4:Ae:31:LEU:HD23	4:Ae:45:PHE:HB2	1.90	0.52
4:Ae:119:LEU:HD22	22:Aa:7:G:H2'	1.90	0.52
6:Ag:28:ASN:O	6:Ag:31:MET:HB3	2.10	0.52
6:Ag:64:GLN:HG3	6:Ag:68:ASN:ND2	2.24	0.52
8:Ai:19:LEU:HD23	8:Ai:61:ALA:HA	1.90	0.52
8:Ai:95:LYS:HD3	8:Ai:95:LYS:C	2.34	0.52
8:Ai:114:TYR:N	8:Ai:114:TYR:HD2	2.08	0.52
9:Aj:50:ILE:CD1	13:An:41:ARG:HD3	2.40	0.52
11:Al:41:ARG:CG	11:Al:42:THR:H	2.22	0.52
14:Ao:56:LEU:O	14:Ao:60:VAL:HG23	2.09	0.52
16:Aq:63:ARG:HG3	22:Aa:130:A:C8	2.44	0.52
21:Ay:79:GLY:H	21:Ay:86:VAL:HG11	1.74	0.52
22:Aa:724:G:O2'	22:Aa:725:G:H5'	2.10	0.52
22:Aa:1021:G:N2	22:Aa:1022:G:H1'	2.25	0.52
26:AC:19:LYS:HB3	26:AC:21:TYR:CE1	2.45	0.52
30:AG:11:TYR:HD2	30:AG:12:TYR:CD1	2.28	0.52
30:AG:98:ARG:NH1	51:A4:9:LEU:HB2	2.25	0.52
31:AH:50:VAL:HG12	31:AH:51:ARG:N	2.24	0.52
32:AI:111:PRO:O	32:AI:116:LEU:HD23	2.09	0.52
36:AP:64:LYS:HD2	55:A8:25:MET:SD	2.50	0.52
37:AQ:137:TYR:N	37:AQ:137:TYR:HD2	2.07	0.52
39:AS:83:LYS:HE3	39:AS:105:ALA:HB2	1.91	0.52
40:AT:80:SER:CB	40:AT:81:PRO:HD3	2.34	0.52
45:AY:7:VAL:CB	45:AY:8:LYS:NZ	2.72	0.52
46:AZ:17:ALA:HA	46:AZ:20:ARG:HB3	1.92	0.52
48:A1:89:GLU:HA	48:A1:92:LYS:HB3	1.91	0.52
57:AA:412:A:N7	57:AA:2411:A:H2	2.08	0.52
57:AA:547:A:H1'	57:AA:548:A:C8	2.44	0.52
57:AA:862:G:H5'	58:AB:79:C:H4'	1.91	0.52
3:Bd:112:VAL:HG11	22:Ba:408:A:H4'	1.91	0.52
4:Be:100:VAL:O	4:Be:100:VAL:HG23	2.08	0.52
6:Bg:28:ASN:O	6:Bg:31:MET:HB3	2.10	0.52
8:Bi:79:LEU:HD11	8:Bi:83:ARG:NH2	2.24	0.52
9:Bj:41:PRO:HD3	22:Ba:1280:A:C8	2.45	0.52
19:Bt:100:ILE:C	19:Bt:102:GLY:H	2.18	0.52
22:Ba:314:C:O2'	22:Ba:315:A:H5'	2.09	0.52
22:Ba:1021:G:N2	22:Ba:1022:G:H1'	2.25	0.52
26:BC:19:LYS:HB3	26:BC:21:TYR:CE1	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:132:HIS:CE1	57:BA:1658:C:OP1	2.62	0.52
30:BG:41:GLN:OE1	30:BG:43:LEU:HD11	2.09	0.52
32:BI:88:ILE:HG12	32:BI:142:VAL:HG13	1.91	0.52
33:BJ:21:GLN:CB	33:BJ:89:ALA:HA	2.40	0.52
34:BN:48:MET:H	34:BN:48:MET:CE	2.22	0.52
35:BO:13:ASN:C	35:BO:15:GLY:H	2.18	0.52
36:BP:35:HIS:C	36:BP:36:LYS:HG3	2.34	0.52
39:BS:89:ARG:HG2	39:BS:92:TYR:HA	1.91	0.52
40:BT:27:THR:HA	40:BT:87:ASP:HB2	1.92	0.52
41:BU:91:ASP:O	41:BU:92:ARG:HB3	2.10	0.52
41:BU:107:ALA:O	41:BU:110:VAL:HB	2.10	0.52
42:BV:2:PHE:O	42:BV:3:ALA:HB3	2.09	0.52
48:B1:44:PRO:O	48:B1:46:LEU:HD22	2.09	0.52
49:B2:64:LEU:HD22	49:B2:68:ARG:NH1	2.24	0.52
51:B4:7:PRO:O	51:B4:8:LYS:CB	2.56	0.52
54:B7:8:ASN:HD22	54:B7:9:ARG:N	2.08	0.52
54:B7:35:ARG:HD3	57:BA:54:G:O2'	2.10	0.52
57:BA:613:G:C5'	57:BA:613:G:H8	2.22	0.52
57:BA:1188:U:H2'	57:BA:1189:A:H5'	1.90	0.52
57:BA:1509(A):A:H2'	57:BA:1509(B):A:C8	2.45	0.52
57:BA:1799:G:H5'	57:BA:1819:A:H61	1.74	0.52
58:BB:8:U:C5'	58:BB:8:U:H6	2.22	0.52
1:Ab:17:PHE:O	1:Ab:18:GLY:O	2.27	0.52
2:Ac:16:ARG:CA	2:Ac:16:ARG:HH11	2.22	0.52
3:Ad:25:ARG:NH1	3:Ad:30:LYS:O	2.43	0.52
4:Ae:7:GLU:HG2	4:Ae:112:LEU:HD22	1.91	0.52
9:Aj:67:THR:HG22	9:Aj:67:THR:O	2.09	0.52
15:Ap:49:LEU:HD12	15:Ap:50:LYS:N	2.24	0.52
18:As:16:LEU:C	18:As:20:LEU:HG	2.35	0.52
21:Ay:14:GLU:O	21:Ay:18:LEU:HB2	2.10	0.52
21:Ay:64:TYR:HD1	21:Ay:73:VAL:CG1	2.23	0.52
22:Aa:490:G:H2'	22:Aa:491:G:H8	1.75	0.52
22:Aa:591:U:H2'	22:Aa:592:G:H8	1.73	0.52
22:Aa:1130:A:N3	22:Aa:1146:A:C2	2.77	0.52
24:Av:5:G:O2'	24:Av:6:G:H5'	2.09	0.52
25:Aw:11:A:N6	25:Aw:25:C:H42	2.08	0.52
27:AD:240:ALA:HA	57:AA:1971:A:N3	2.25	0.52
28:AE:168:MET:O	28:AE:170:LEU:HD12	2.09	0.52
30:AG:5:VAL:HG22	51:A4:25:TYR:CE1	2.44	0.52
30:AG:39:ILE:HG22	30:AG:157:ILE:HG12	1.92	0.52
34:AN:93:THR:O	34:AN:94:HIS:HB2	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:AT:102:ILE:HB	40:AT:110:ILE:HD13	1.90	0.52
45:AY:8:LYS:CB	45:AY:28:LYS:HE2	2.39	0.52
46:AZ:7:ALA:C	46:AZ:8:TYR:CD1	2.88	0.52
49:A2:69:ARG:O	49:A2:70:GLN:HB3	2.09	0.52
51:A4:16:CYS:HG	51:A4:36:CYS:HG	1.57	0.52
57:AA:28:A:N6	57:AA:512:G:H1'	2.24	0.52
57:AA:570:G:H2'	57:AA:2030:A:C6	2.45	0.52
57:AA:1493:C:H2'	57:AA:1493:C:O2	2.09	0.52
57:AA:1518:U:H2'	57:AA:1519:G:O4'	2.09	0.52
57:AA:1747(A):G:H2'	57:AA:1748:G:C5'	2.25	0.52
2:Bc:77:ILE:C	2:Bc:83:ARG:HB3	2.32	0.52
3:Bd:12:CYS:HA	3:Bd:19:LEU:CD1	2.40	0.52
5:Bf:50:TYR:HE1	17:Br:74:ARG:O	1.92	0.52
6:Bg:76:ARG:HH11	6:Bg:76:ARG:HG2	1.74	0.52
7:Bh:25:ASP:C	7:Bh:26:VAL:HG12	2.35	0.52
9:Bj:8:LEU:C	9:Bj:16:LEU:HD21	2.34	0.52
15:Bp:3:LYS:HD2	22:Ba:377:G:OP1	2.09	0.52
15:Bp:25:ARG:NH1	22:Ba:134:A:H61	2.08	0.52
18:Bs:9:VAL:C	18:Bs:11:VAL:H	2.18	0.52
21:By:23:ARG:O	21:By:23:ARG:HG2	2.09	0.52
22:Ba:107:G:H2'	22:Ba:108:G:H5'	1.92	0.52
22:Ba:952:U:O2'	22:Ba:953:G:H5'	2.08	0.52
22:Ba:965:A:C2	22:Ba:969:A:C2	2.98	0.52
28:BE:24:THR:HG22	28:BE:186:GLY:CA	2.39	0.52
29:BF:34:TRP:CZ2	36:BP:12:ALA:HB2	2.45	0.52
29:BF:67:GLN:O	29:BF:67:GLN:CG	2.56	0.52
31:BH:12:PRO:HD2	31:BH:15:VAL:HG21	1.91	0.52
32:BI:55:ALA:C	32:BI:57:ARG:H	2.18	0.52
34:BN:58:ASP:O	34:BN:59:LYS:HB2	2.09	0.52
41:BU:95:LEU:CD1	42:BV:11:GLN:HB2	2.39	0.52
44:BX:3:THR:O	44:BX:4:ALA:HB3	2.09	0.52
45:BY:54:LYS:C	45:BY:56:PRO:HD2	2.34	0.52
49:B2:63:VAL:HA	49:B2:66:GLU:HG2	1.91	0.52
54:B7:45:ALA:O	54:B7:46:VAL:HG23	2.10	0.52
57:BA:2842:G:O2'	57:BA:2843:G:H5'	2.10	0.52
3:Ad:8:VAL:O	3:Ad:11:LEU:HG	2.09	0.52
3:Ad:96:LEU:CD2	3:Ad:139:ARG:HH22	2.22	0.52
4:Ae:100:VAL:HG23	4:Ae:107:ARG:HE	1.74	0.52
9:Aj:8:LEU:C	9:Aj:16:LEU:HD21	2.35	0.52
9:Aj:16:LEU:HA	9:Aj:94:VAL:HG21	1.91	0.52
18:As:29:ARG:O	18:As:31:ILE:HG22	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Aa:456:C:H42	22:Aa:475:G:H1	1.56	0.52
22:Aa:522:C:O2'	22:Aa:523:A:H5'	2.10	0.52
22:Aa:1095:U:P	22:Aa:1108:G:H1	2.32	0.52
27:AD:2:ALA:O	27:AD:3:VAL:HB	2.09	0.52
30:AG:95:ARG:O	30:AG:96:ARG:O	2.28	0.52
32:AI:101:LEU:HD23	32:AI:109:ILE:HG12	1.91	0.52
40:AT:29:ARG:CD	40:AT:86:ILE:HG22	2.39	0.52
40:AT:65:LYS:HA	40:AT:65:LYS:HZ1	1.69	0.52
41:AU:16:LYS:O	41:AU:20:LEU:HD23	2.09	0.52
44:AX:27:THR:HA	44:AX:80:ILE:HA	1.91	0.52
46:AZ:77:ASP:O	46:AZ:79:ARG:N	2.37	0.52
57:AA:904:C:H2'	57:AA:905:U:C6	2.44	0.52
57:AA:1221(A):C:O2'	57:AA:1222:C:H5'	2.10	0.52
57:AA:1494:A:H3'	57:AA:1494:A:N3	2.24	0.52
57:AA:2518:A:H5'	57:AA:2518:A:C8	2.45	0.52
3:Bd:106:TYR:C	3:Bd:108:LEU:H	2.18	0.52
4:Be:100:VAL:HG23	4:Be:107:ARG:HE	1.74	0.52
7:Bh:3:THR:HG21	22:Ba:878:G:H1'	1.91	0.52
8:Bi:20:ARG:HG3	8:Bi:20:ARG:HH11	1.74	0.52
10:Bk:108:ILE:HD12	10:Bk:108:ILE:N	2.25	0.52
11:Bl:35:GLY:HA3	11:Bl:58:VAL:HG12	1.90	0.52
12:Bm:64:TRP:O	12:Bm:65:LYS:HB3	2.09	0.52
15:Bp:28:ARG:HG2	15:Bp:28:ARG:NH1	2.24	0.52
16:Bq:22:LEU:HD12	16:Bq:23:VAL:N	2.23	0.52
22:Ba:190:U:H2'	22:Ba:191:G:H8	1.74	0.52
22:Ba:272:C:O2'	22:Ba:273:A:H5'	2.09	0.52
28:BE:47:VAL:HG22	28:BE:49:LEU:HD23	1.92	0.52
28:BE:59:VAL:HG13	28:BE:60:ASN:H	1.73	0.52
29:BF:24:LEU:HD12	29:BF:25:PRO:HD2	1.91	0.52
29:BF:120:GLU:HB2	29:BF:122:LYS:HG2	1.92	0.52
29:BF:132:VAL:O	29:BF:133:ASN:C	2.51	0.52
34:BN:3:THR:HG22	34:BN:5:VAL:HG12	1.91	0.52
35:BO:77:ILE:CD1	40:BT:74:ARG:HD3	2.40	0.52
36:BP:5:ASP:OD2	36:BP:6:LEU:HD23	2.10	0.52
36:BP:33:ARG:O	36:BP:35:HIS:O	2.28	0.52
36:BP:38:GLN:HG3	36:BP:39:LYS:N	2.13	0.52
36:BP:67:MET:HB3	57:BA:631:A:O2'	2.10	0.52
39:BS:49:VAL:CG1	39:BS:73:LEU:HD23	2.39	0.52
40:BT:32:TYR:CG	40:BT:81:PRO:HB2	2.44	0.52
40:BT:54:ARG:HG2	40:BT:54:ARG:HH11	1.74	0.52
41:BU:70:ARG:HA	41:BU:74:LEU:O	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BV:5:VAL:HG12	42:BV:14:VAL:HG22	1.91	0.52
54:B7:12:ARG:HD3	54:B7:46:VAL:HG21	1.91	0.52
55:B8:29:LYS:HG3	55:B8:29:LYS:O	2.09	0.52
57:BA:271(G):C:O2'	57:BA:271(H):G:H5'	2.10	0.52
57:BA:654(B):C:H2'	57:BA:654(C):G:N7	2.25	0.52
57:BA:953:A:O2'	57:BA:954:G:H5'	2.10	0.52
57:BA:2165:G:H2'	57:BA:2166:G:O4'	2.10	0.52
57:BA:2286:A:H4'	57:BA:2287:A:O4'	2.10	0.52
57:BA:2301:C:H2'	57:BA:2302:G:O4'	2.09	0.52
2:Ac:181:ASN:ND2	2:Ac:204:LEU:HB2	2.24	0.52
5:Af:68:PRO:HG3	5:Af:71:ARG:HH21	1.75	0.52
7:Ah:61:VAL:O	7:Ah:63:LEU:HD22	2.09	0.52
10:Ak:125:PHE:N	10:Ak:125:PHE:CD1	2.77	0.52
11:Al:60:LEU:HD22	11:Al:60:LEU:N	2.25	0.52
17:Ar:58:LEU:HB3	17:Ar:62:GLU:HB3	1.92	0.52
21:Ay:5:LEU:HD12	21:Ay:6:ASP:N	2.25	0.52
22:Aa:194:C:C2'	22:Aa:195:A:H5"	2.39	0.52
22:Aa:624:C:H2'	22:Aa:625:G:H8	1.74	0.52
22:Aa:1095:U:H5'	22:Aa:1109:C:O2	2.08	0.52
26:AC:45:HIS:HB3	57:AA:2177:C:H1'	1.91	0.52
26:AC:197:LEU:C	26:AC:199:ALA:H	2.16	0.52
27:AD:47:GLY:CA	57:AA:773:U:H4'	2.39	0.52
28:AE:143:ASN:O	57:AA:2052:G:H4'	2.10	0.52
29:AF:26:ALA:O	29:AF:27:GLU:CB	2.58	0.52
30:AG:20:ILE:O	30:AG:24:GLY:HA2	2.10	0.52
30:AG:104:GLU:CG	51:A4:24:THR:HG21	2.33	0.52
30:AG:181:ARG:O	30:AG:182:LYS:C	2.52	0.52
35:AO:69:ILE:HD13	35:AO:77:ILE:CG2	2.37	0.52
38:AR:103:ARG:HH12	38:AR:110:PRO:HD3	1.75	0.52
41:AU:59:ARG:O	41:AU:60:LEU:C	2.53	0.52
41:AU:91:ASP:CG	41:AU:96:ALA:HB2	2.32	0.52
46:AZ:135:GLU:O	46:AZ:137:ILE:N	2.42	0.52
55:A8:14:VAL:CG2	55:A8:22:VAL:CG1	2.88	0.52
55:A8:37:SER:C	55:A8:39:LYS:N	2.65	0.52
56:A9:1:MET:HE1	56:A9:32:HIS:HD2	1.75	0.52
57:AA:795:C:H2'	57:AA:796:C:H6	1.75	0.52
57:AA:1332:G:N2	57:AA:1610:A:C8	2.77	0.52
57:AA:1537:G:H2'	57:AA:1538:G:C8	2.42	0.52
57:AA:2801:A:N3	57:AA:2801:A:H2'	2.25	0.52
58:AB:109:C:H5'	58:AB:110:G:O5'	2.10	0.52
3:Bd:126:ILE:CG2	3:Bd:127:THR:N	2.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Bf:28:ARG:HG3	5:Bf:28:ARG:HH11	1.74	0.52
5:Bf:68:PRO:HG3	5:Bf:71:ARG:NH2	2.24	0.52
7:Bh:11:THR:HG22	7:Bh:15:ASN:ND2	2.25	0.52
11:Bl:41:ARG:HH11	11:Bl:41:ARG:HB3	1.75	0.52
12:Bm:82:MET:O	12:Bm:82:MET:CG	2.58	0.52
14:Bo:33:THR:HG21	14:Bo:85:LEU:CD2	2.40	0.52
14:Bo:77:ARG:HA	14:Bo:80:ALA:HB3	1.92	0.52
19:Bt:84:LEU:C	19:Bt:84:LEU:HD13	2.34	0.52
21:By:71:VAL:O	21:By:71:VAL:HG12	2.09	0.52
22:Ba:297:G:H4'	22:Ba:557:G:H4'	1.91	0.52
22:Ba:397:A:H3'	22:Ba:397:A:N3	2.25	0.52
22:Ba:1120:G:H2'	22:Ba:1121:U:C6	2.45	0.52
28:BE:4:ILE:HG12	28:BE:5:LEU:O	2.10	0.52
28:BE:61:ARG:CZ	57:BA:2810:A:O2'	2.57	0.52
28:BE:69:LYS:C	28:BE:71:GLY:N	2.68	0.52
29:BF:181:LEU:HD11	29:BF:186:ILE:HD11	1.92	0.52
30:BG:72:ARG:CB	30:BG:87:PRO:HD2	2.40	0.52
34:BN:93:THR:O	34:BN:94:HIS:HB2	2.10	0.52
37:BQ:134:ARG:HA	37:BQ:137:TYR:CD1	2.44	0.52
38:BR:6:SER:HB2	57:BA:2873:A:N3	2.24	0.52
40:BT:25:GLY:O	40:BT:26:ASP:CB	2.57	0.52
40:BT:125:ARG:C	40:BT:127:ALA:N	2.66	0.52
42:BV:47:VAL:HG12	42:BV:51:VAL:C	2.35	0.52
43:BW:28:SER:O	43:BW:30:GLU:N	2.43	0.52
45:BY:95:LYS:HG2	45:BY:101:LYS:H	1.74	0.52
46:BZ:29:TYR:HE1	58:BB:105:A:O4'	1.93	0.52
46:BZ:38:TYR:O	46:BZ:38:TYR:CG	2.63	0.52
52:B5:48:GLU:O	52:B5:49:CYS:HB3	2.09	0.52
53:B6:35:GLU:HA	53:B6:35:GLU:OE1	2.08	0.52
57:BA:1493:C:O2	57:BA:1493:C:H2'	2.10	0.52
57:BA:1518:U:H2'	57:BA:1519:G:O4'	2.10	0.52
57:BA:2192:G:H2'	57:BA:2193:G:H5'	1.92	0.52
1:Ab:194:PRO:O	1:Ab:196:LEU:N	2.43	0.52
1:Ab:204:ASN:HD22	1:Ab:206:ASP:H	1.56	0.52
2:Ac:138:VAL:CG2	2:Ac:151:VAL:HG23	2.39	0.52
2:Ac:182:ILE:HG23	2:Ac:202:ILE:O	2.10	0.52
2:Ac:182:ILE:HG23	2:Ac:202:ILE:C	2.35	0.52
3:Ad:150:GLU:CD	3:Ad:151:LYS:N	2.65	0.52
4:Ae:139:LEU:HA	4:Ae:142:LEU:CD1	2.39	0.52
5:Af:3:ARG:HG3	5:Af:3:ARG:HH11	1.74	0.52
5:Af:96:PRO:HB3	17:Ar:30:ASP:CG	2.34	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:Ah:53:VAL:HG12	7:Ah:54:ASP:OD2	2.09	0.52
10:Ak:20:TYR:C	10:Ak:21:ILE:HD12	2.35	0.52
14:Ao:81:LEU:HD11	14:Ao:85:LEU:HD12	1.91	0.52
17:Ar:45:SER:H	17:Ar:51:LEU:HD11	1.73	0.52
17:Ar:64:ARG:HH21	22:Aa:664:G:P	2.33	0.52
27:AD:18:VAL:HG12	27:AD:19:ALA:N	2.24	0.52
27:AD:46:GLN:CD	27:AD:46:GLN:H	2.17	0.52
27:AD:94:LEU:HB2	27:AD:104:TYR:CE2	2.42	0.52
28:AE:34:VAL:HG22	28:AE:48:GLN:HE21	1.75	0.52
29:AF:24:LEU:HD12	29:AF:25:PRO:HD2	1.91	0.52
29:AF:120:GLU:HB2	29:AF:122:LYS:HG2	1.91	0.52
30:AG:60:LEU:HD13	30:AG:60:LEU:O	2.10	0.52
31:AH:11:VAL:CG1	31:AH:15:VAL:HG23	2.40	0.52
32:AI:82:ARG:HG2	32:AI:145:VAL:HG11	1.92	0.52
33:AJ:69:PRO:O	33:AJ:70:GLU:CB	2.58	0.52
34:AN:28:THR:HG22	34:AN:29:LYS:N	2.24	0.52
36:AP:48:PRO:HG2	36:AP:49:ARG:N	2.19	0.52
36:AP:67:MET:HB3	57:AA:631:A:O2'	2.10	0.52
37:AQ:34:LEU:HD11	37:AQ:129:THR:CB	2.38	0.52
38:AR:10:LEU:HD22	38:AR:17:ARG:HD2	1.90	0.52
40:AT:70:VAL:HG12	40:AT:71:GLY:O	2.10	0.52
45:AY:28:LYS:CA	45:AY:38:ILE:HG22	2.33	0.52
46:AZ:103:ARG:CB	46:AZ:136:PHE:HB2	2.39	0.52
52:A5:4:HIS:O	57:AA:2056:G:N2	2.43	0.52
56:A9:1:MET:HG2	57:AA:2477:C:C6	2.45	0.52
56:A9:27:CYS:SG	56:A9:28:GLU:N	2.83	0.52
57:AA:958:U:H5'	57:AA:958:U:H6	1.74	0.52
57:AA:962:G:O2'	57:AA:963:U:H5'	2.10	0.52
57:AA:1266:G:O2'	57:AA:2012:G:O6	2.26	0.52
57:AA:1856:G:C2'	57:AA:1857:G:H5'	2.39	0.52
57:AA:2101:G:H2'	57:AA:2102:U:O4'	2.09	0.52
4:Be:92:LYS:O	4:Be:118:ILE:HD12	2.10	0.52
6:Bg:65:ALA:C	6:Bg:67:GLU:H	2.17	0.52
7:Bh:94:TYR:CD2	22:Ba:598:U:H4'	2.44	0.52
9:Bj:80:LYS:HB3	9:Bj:80:LYS:HZ3	1.74	0.52
19:Bt:89:ARG:HD2	19:Bt:104:LEU:HD11	1.91	0.52
21:By:56:ARG:HB3	21:By:56:ARG:NH1	2.25	0.52
22:Ba:342:C:O2'	22:Ba:343:U:H5'	2.09	0.52
22:Ba:937:A:H1'	22:Ba:1379:G:N2	2.25	0.52
22:Ba:1315:U:H2'	22:Ba:1316:G:O4'	2.09	0.52
27:BD:148:GLU:CB	27:BD:151:LYS:HD2	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BI:115:ALA:HB2	32:BI:129:THR:O	2.10	0.52
37:BQ:55:VAL:HG12	37:BQ:64:ILE:HD12	1.92	0.52
38:BR:84:ALA:HB3	38:BR:85:PRO:HD3	1.91	0.52
41:BU:16:LYS:O	41:BU:20:LEU:HD23	2.09	0.52
41:BU:97:ASP:C	41:BU:99:ALA:N	2.67	0.52
42:BV:40:LEU:CD2	42:BV:40:LEU:N	2.73	0.52
45:BY:84:ARG:HD2	45:BY:97:ARG:NE	2.24	0.52
56:B9:1:MET:HG3	57:BA:2477:C:H2'	1.92	0.52
57:BA:623:G:H2'	57:BA:624:C:C6	2.45	0.52
57:BA:769:G:O2'	57:BA:770:G:H5'	2.10	0.52
57:BA:1242:A:C5'	57:BA:1243:G:OP2	2.58	0.52
57:BA:1352:U:O2'	57:BA:1353:A:H5'	2.10	0.52
57:BA:1856:G:H2'	57:BA:1857:G:H5'	1.91	0.52
57:BA:2789:C:H1'	57:BA:2892:A:C2	2.43	0.52
6:Ag:15:ASP:HB3	6:Ag:19:GLY:H	1.72	0.52
9:Aj:58:ASP:O	9:Aj:59:SER:C	2.52	0.52
11:Al:83:VAL:CG1	11:Al:100:ILE:HG23	2.39	0.52
15:Ap:22:THR:HA	15:Ap:33:ILE:CG1	2.36	0.52
22:Aa:939:G:H2'	22:Aa:940:C:C6	2.45	0.52
22:Aa:1060:C:O2'	22:Aa:1061:G:H5'	2.10	0.52
22:Aa:1288:A:H1'	22:Aa:1352:C:O2'	2.10	0.52
26:AC:194:ILE:O	26:AC:198:GLU:HG3	2.10	0.52
27:AD:108:PRO:HA	27:AD:196:VAL:O	2.10	0.52
31:AH:38:SER:C	31:AH:40:GLU:H	2.16	0.52
32:AI:118:LYS:HG2	32:AI:119:PRO:CD	2.31	0.52
39:AS:89:ARG:HG2	39:AS:92:TYR:HA	1.92	0.52
39:AS:101:LEU:HD13	39:AS:101:LEU:O	2.10	0.52
44:AX:56:THR:HG22	44:AX:79:ALA:HB2	1.92	0.52
45:AY:88:LYS:NZ	45:AY:93:GLY:CA	2.73	0.52
46:AZ:24:LEU:HD23	46:AZ:25:PRO:O	2.10	0.52
48:A1:52:ARG:NH1	57:AA:2218:U:H1'	2.16	0.52
57:AA:1490:A:H5'	57:AA:1491:G:OP2	2.10	0.52
57:AA:2639:A:C2'	57:AA:2640:G:H5'	2.39	0.52
1:Bb:168:THR:CG2	1:Bb:192:SER:OG	2.58	0.52
2:Bc:16:ARG:NH1	2:Bc:16:ARG:CB	2.73	0.52
7:Bh:63:LEU:HD22	7:Bh:63:LEU:N	2.24	0.52
7:Bh:77:GLU:HG2	7:Bh:78:GLN:H	1.75	0.52
8:Bi:83:ARG:HA	8:Bi:86:VAL:CG1	2.39	0.52
11:Bl:27:LEU:HG	11:Bl:62:SER:CB	2.39	0.52
11:Bl:66:VAL:HG11	11:Bl:98:TYR:HE1	1.74	0.52
12:Bm:106:ASN:O	12:Bm:107:ALA:HB2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:Bp:20:VAL:HG22	15:Bp:21:VAL:N	2.25	0.52
16:Bq:76:LEU:HD12	16:Bq:77:VAL:N	2.25	0.52
21:By:33:VAL:O	21:By:35:GLU:N	2.43	0.52
21:By:43:LYS:HG3	22:Ba:1493:A:H5'	1.91	0.52
22:Ba:370:C:H2'	22:Ba:371:G:C8	2.45	0.52
22:Ba:477:A:O2'	22:Ba:479:C:H5'	2.10	0.52
22:Ba:539:A:H2'	22:Ba:540:G:C8	2.43	0.52
22:Ba:624:C:H2'	22:Ba:625:G:H8	1.74	0.52
27:BD:267:SER:C	27:BD:269:PHE:N	2.67	0.52
27:BD:270:ILE:O	27:BD:271:ILE:HG23	2.10	0.52
28:BE:134:ILE:HA	28:BE:137:HIS:CD2	2.45	0.52
29:BF:68:LYS:O	29:BF:70:THR:N	2.39	0.52
29:BF:123:LEU:HD12	29:BF:124:LEU:N	2.24	0.52
33:BJ:101:PRO:C	33:BJ:103:GLY:H	2.18	0.52
36:BP:48:PRO:HG2	36:BP:49:ARG:N	2.19	0.52
36:BP:48:PRO:O	36:BP:49:ARG:C	2.51	0.52
36:BP:105:LEU:O	36:BP:106:LEU:CB	2.57	0.52
37:BQ:21:THR:O	37:BQ:22:LYS:HB3	2.09	0.52
39:BS:54:LEU:HD13	39:BS:54:LEU:O	2.09	0.52
42:BV:45:THR:O	42:BV:46:VAL:HG12	2.10	0.52
45:BY:10:GLY:CA	45:BY:27:VAL:HG13	2.35	0.52
46:BZ:31:ARG:HB2	46:BZ:31:ARG:HH11	1.75	0.52
57:BA:102:G:H4'	57:BA:102:G:OP1	2.09	0.52
57:BA:564:C:O2'	57:BA:565:C:H5'	2.10	0.52
57:BA:1602:U:H3'	57:BA:1603:A:H5"	1.92	0.52
57:BA:1948:G:O2'	57:BA:1949:G:H5'	2.09	0.52
57:BA:2802:G:O2'	57:BA:2803:C:H5"	2.10	0.52
58:BB:104:U:O2'	58:BB:105:A:H5'	2.10	0.52
1:Ab:145:LEU:HD13	1:Ab:149:LEU:HD12	1.92	0.52
3:Ad:170:VAL:O	3:Ad:171:GLY:C	2.51	0.52
8:Ai:118:LYS:NZ	22:Aa:1349:A:P	2.83	0.52
10:Ak:15:ALA:HB1	10:Ak:78:GLN:HE21	1.74	0.52
11:Al:35:GLY:HA3	11:Al:58:VAL:HG12	1.92	0.52
19:At:100:ILE:C	19:At:102:GLY:H	2.15	0.52
21:Ay:43:LYS:CE	22:Aa:1493:A:C1'	2.88	0.52
22:Aa:952:U:O2'	22:Aa:953:G:H5'	2.09	0.52
22:Aa:1005:A:H61	22:Aa:1025:U:H1'	1.75	0.52
22:Aa:1120:G:H2'	22:Aa:1121:U:C6	2.45	0.52
25:Aw:18:G:H8	25:Aw:18:G:OP2	1.91	0.52
27:AD:148:GLU:CB	27:AD:151:LYS:HD2	2.40	0.52
27:AD:210:GLY:C	27:AD:212:SER:H	2.18	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:AG:40:ASN:OD1	57:AA:2313:C:O4'	2.27	0.52
38:AR:99:LYS:HD3	38:AR:99:LYS:H	1.74	0.52
39:AS:24:LEU:HB3	39:AS:85:VAL:HG12	1.91	0.52
42:AV:55:ALA:HA	42:AV:101:GLY:HA2	1.90	0.52
44:AX:40:LYS:HG2	44:AX:41:ASN:HD22	1.75	0.52
46:AZ:102:LEU:HD21	46:AZ:124:ILE:CG1	2.39	0.52
46:AZ:102:LEU:HD11	46:AZ:124:ILE:HG12	1.91	0.52
49:A2:10:LEU:O	49:A2:11:GLU:C	2.53	0.52
55:A8:40:GLU:O	55:A8:42:ARG:N	2.43	0.52
57:AA:1509(A):A:H2'	57:AA:1509(B):A:C8	2.44	0.52
57:AA:2369:A:O2'	57:AA:2370:G:H5'	2.10	0.52
58:AB:40:U:N3	58:AB:43:C:H5"	2.25	0.52
2:Bc:138:VAL:CG2	2:Bc:151:VAL:HG23	2.40	0.52
3:Bd:116:GLN:HG3	22:Ba:407:G:O2'	2.10	0.52
3:Bd:162:LEU:HD22	3:Bd:178:VAL:HG13	1.92	0.52
7:Bh:89:PRO:HA	7:Bh:92:ARG:NH1	2.24	0.52
12:Bm:28:ALA:O	12:Bm:30:ALA:N	2.43	0.52
21:By:44:LEU:HD11	21:By:63:VAL:CG2	2.40	0.52
22:Ba:491:G:O2'	22:Ba:492:G:H5'	2.10	0.52
22:Ba:522:C:O2'	22:Ba:523:A:H5'	2.10	0.52
22:Ba:1097:C:H2'	22:Ba:1098:C:H6	1.75	0.52
23:Bx:21:OMG:H5'	23:Bx:22:A:OP2	2.10	0.52
24:Bv:72:A:C2'	24:Bv:73:A:C5'	2.86	0.52
27:BD:45:ASN:HB2	27:BD:46:GLN:OE1	2.10	0.52
27:BD:48:ARG:NH1	27:BD:48:ARG:HG3	2.25	0.52
27:BD:71:ASP:HB2	27:BD:103:ARG:HH22	1.74	0.52
28:BE:65:GLY:C	28:BE:67:PHE:N	2.65	0.52
34:BN:128:HIS:HE1	34:BN:134:ARG:NH1	2.07	0.52
36:BP:58:THR:O	36:BP:61:ARG:CZ	2.57	0.52
36:BP:97:PRO:O	36:BP:98:GLU:CB	2.58	0.52
37:BQ:16:ARG:HG2	37:BQ:17:LEU:H	1.75	0.52
43:BW:62:HIS:HE1	57:BA:495:G:O2'	1.93	0.52
46:BZ:19:ARG:HH12	46:BZ:84:GLU:C	2.17	0.52
46:BZ:103:ARG:HD2	46:BZ:136:PHE:CD1	2.45	0.52
55:B8:14:VAL:HG22	55:B8:22:VAL:HG13	1.92	0.52
57:BA:898:C:H2'	57:BA:899:A:H5'	1.91	0.52
57:BA:1467:C:O2'	57:BA:1468:C:H5'	2.10	0.52
57:BA:2101:G:H2'	57:BA:2102:U:O4'	2.09	0.52
57:BA:2729:G:H2'	57:BA:2730:C:C6	2.45	0.52
1:Ab:173:ALA:O	1:Ab:174:VAL:C	2.53	0.51
9:Aj:57:LYS:HE2	22:Aa:972:C:OP2	2.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:Ao:82:ILE:HD11	14:Ao:87:ILE:O	2.09	0.51
21:Ay:80:LYS:O	21:Ay:86:VAL:HG22	2.09	0.51
22:Aa:291:C:O2'	22:Aa:292:G:H5'	2.10	0.51
22:Aa:376:G:O2'	22:Aa:377:G:H5'	2.10	0.51
22:Aa:985:C:H2'	22:Aa:986:A:H8	1.75	0.51
37:AQ:67:ARG:HG2	37:AQ:67:ARG:HH11	1.75	0.51
37:AQ:110:THR:HG22	37:AQ:113:GLN:OE1	2.10	0.51
38:AR:29:LEU:HB3	38:AR:75:LEU:HD11	1.92	0.51
40:AT:16:ARG:NH2	40:AT:82:LEU:O	2.41	0.51
46:AZ:151:HIS:O	46:AZ:152:ALA:C	2.52	0.51
50:A3:19:GLN:HE22	50:A3:52:HIS:CE1	2.24	0.51
51:A4:15:ILE:HG22	51:A4:15:ILE:O	2.09	0.51
51:A4:47:GLN:O	51:A4:48:ARG:CB	2.57	0.51
52:A5:29:THR:HG21	57:AA:2815:C:H5'	1.91	0.51
55:A8:14:VAL:HG21	55:A8:22:VAL:HG13	1.90	0.51
57:AA:481:G:H1'	57:AA:506:G:N2	2.26	0.51
57:AA:1049:C:H2'	57:AA:1050:A:C8	2.44	0.51
57:AA:1833:U:H2'	57:AA:1834:U:H6	1.73	0.51
57:AA:2729:G:H2'	57:AA:2730:C:C6	2.45	0.51
3:Bd:30:LYS:C	3:Bd:32:ALA:N	2.68	0.51
7:Bh:87:SER:HB2	7:Bh:93:VAL:HB	1.92	0.51
11:Bl:7:ILE:O	11:Bl:11:VAL:HG23	2.09	0.51
12:Bm:104:ARG:HD2	22:Ba:1226:C:N4	2.25	0.51
17:Br:58:LEU:HB3	17:Br:62:GLU:HB3	1.91	0.51
20:Bu:3:LYS:HB3	20:Bu:14:TRP:CG	2.44	0.51
22:Ba:984:C:H2'	22:Ba:985:C:H6	1.75	0.51
22:Ba:1288:A:H1'	22:Ba:1352:C:O2'	2.10	0.51
22:Ba:1399:C:C2	22:Ba:1502:A:N6	2.78	0.51
25:Bw:1:C:H2'	25:Bw:2:G:H8	1.75	0.51
27:BD:72:LYS:HD3	27:BD:97:TYR:CE2	2.45	0.51
31:BH:89:ILE:HD13	31:BH:94:TYR:HB3	1.91	0.51
32:BI:108:THR:C	32:BI:109:ILE:HG13	2.35	0.51
34:BN:23:LEU:HD13	34:BN:98:VAL:HG12	1.91	0.51
34:BN:62:VAL:HG22	34:BN:66:LYS:HB2	1.93	0.51
36:BP:10:PRO:O	36:BP:11:GLY:C	2.53	0.51
39:BS:42:ASP:C	39:BS:44:LYS:N	2.67	0.51
40:BT:29:ARG:CG	40:BT:85:LYS:HA	2.40	0.51
42:BV:18:LEU:HD22	42:BV:19:LYS:H	1.75	0.51
42:BV:38:LEU:O	42:BV:52:VAL:HG12	2.09	0.51
46:BZ:57:ILE:C	46:BZ:69:THR:OG1	2.53	0.51
48:B1:20:ARG:HH11	48:B1:20:ARG:HG2	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:B1:66:HIS:C	48:B1:68:PRO:HD2	2.35	0.51
56:B9:1:MET:HG2	57:BA:2477:C:C6	2.45	0.51
57:BA:1332:G:H5"	57:BA:1332:G:C8	2.45	0.51
57:BA:1652:A:C2'	57:BA:1653:G:H5'	2.39	0.51
57:BA:2074:U:H2'	57:BA:2075:U:C6	2.45	0.51
57:BA:2832:U:H4'	57:BA:2833:G:H5"	1.92	0.51
5:Af:28:ARG:HH11	5:Af:28:ARG:HG3	1.74	0.51
5:Af:68:PRO:HG3	5:Af:71:ARG:NH2	2.25	0.51
8:Ai:16:ARG:HH12	22:Aa:1128:C:H5'	1.76	0.51
12:Am:82:MET:O	12:Am:82:MET:CG	2.57	0.51
14:Ao:81:LEU:CD1	14:Ao:85:LEU:HD12	2.39	0.51
17:Ar:56:THR:O	17:Ar:58:LEU:HD12	2.09	0.51
17:Ar:58:LEU:HD23	17:Ar:62:GLU:HB3	1.92	0.51
18:As:42:PRO:O	18:As:43:GLU:HB3	2.09	0.51
22:Aa:59:A:H3'	22:Aa:331:G:H22	1.75	0.51
22:Aa:370:C:H2'	22:Aa:371:G:C8	2.45	0.51
27:AD:224:ALA:O	27:AD:225:ALA:HB2	2.09	0.51
28:AE:69:LYS:C	28:AE:71:GLY:N	2.68	0.51
30:AG:72:ARG:HA	30:AG:87:PRO:HG2	1.92	0.51
31:AH:85:LYS:O	31:AH:85:LYS:HD3	2.10	0.51
31:AH:107:VAL:HG23	31:AH:107:VAL:O	2.11	0.51
32:AI:38:LEU:HB3	32:AI:40:THR:HG23	1.93	0.51
34:AN:62:VAL:CG2	34:AN:66:LYS:HD2	2.39	0.51
45:AY:13:VAL:CG2	45:AY:72:VAL:HB	2.38	0.51
46:AZ:94:GLU:HB2	46:AZ:95:PRO:HD2	1.92	0.51
46:AZ:99:TYR:HA	46:AZ:124:ILE:O	2.09	0.51
51:A4:34:GLU:O	51:A4:35:VAL:HG23	2.09	0.51
54:A7:43:THR:HG23	54:A7:44:PRO:HD2	1.92	0.51
57:AA:247:G:H4'	57:AA:386:G:C5	2.46	0.51
57:AA:1502:C:H5'	57:AA:1503:U:OP2	2.10	0.51
57:AA:1677:A:H2'	57:AA:1678:G:C8	2.45	0.51
57:AA:2469:A:H2	57:AA:2481:G:H21	1.58	0.51
57:AA:2789:C:H1'	57:AA:2892:A:C2	2.42	0.51
5:Bf:60:PHE:CE2	17:Br:78:LEU:HD21	2.45	0.51
10:Bk:34:ASP:HB2	10:Bk:35:PRO:CD	2.39	0.51
22:Ba:165:C:H2'	22:Ba:166:G:H8	1.73	0.51
22:Ba:216:G:O2'	22:Ba:217:C:O4'	2.25	0.51
22:Ba:262:A:H2'	22:Ba:263:A:C8	2.45	0.51
22:Ba:1502:A:H4'	22:Ba:1503:A:OP2	2.10	0.51
31:BH:144:VAL:HA	31:BH:147:ASN:HB2	1.91	0.51
32:BI:81:VAL:CG2	32:BI:82:ARG:N	2.73	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BN:58:ASP:C	34:BN:60:ILE:N	2.61	0.51
36:BP:63:PRO:C	36:BP:65:ARG:H	2.19	0.51
39:BS:44:LYS:HA	39:BS:44:LYS:HE3	1.92	0.51
41:BU:90:VAL:CG2	42:BV:47:VAL:HG21	2.30	0.51
41:BU:112:ARG:NH2	42:BV:46:VAL:CG1	2.72	0.51
45:BY:7:VAL:HB	45:BY:8:LYS:HE3	1.90	0.51
45:BY:100:ALA:O	45:BY:101:LYS:HB2	2.10	0.51
46:BZ:68:PRO:CB	46:BZ:91:LEU:HB2	2.23	0.51
53:B6:8:LYS:HD2	53:B6:25:LYS:HG2	1.92	0.51
55:B8:43:GLN:O	55:B8:44:LYS:HD2	2.10	0.51
57:BA:287:C:H2'	57:BA:288:C:H6	1.74	0.51
57:BA:322:A:H5'	57:BA:340:A:H1'	1.92	0.51
57:BA:545:C:C2'	57:BA:547:A:H5"	2.41	0.51
57:BA:650:C:C3'	57:BA:651:G:H5"	2.39	0.51
57:BA:1344:G:H4'	57:BA:1384:A:N7	2.25	0.51
57:BA:2287:A:H2	57:BA:2346:A:C2	2.29	0.51
57:BA:2463:C:O2'	57:BA:2464:C:H5'	2.10	0.51
3:Ad:105:VAL:CG2	3:Ad:126:ILE:HG12	2.40	0.51
13:An:12:ARG:C	13:An:14:PRO:HD2	2.35	0.51
14:Ao:26:GLU:HA	14:Ao:81:LEU:HD22	1.90	0.51
14:Ao:81:LEU:O	14:Ao:85:LEU:HB2	2.10	0.51
19:At:83:ARG:HA	19:At:86:ARG:HB3	1.92	0.51
21:Ay:84:SER:CB	23:Ax:20:A2M:H8	2.41	0.51
22:Aa:314:C:O2'	22:Aa:315:A:H5'	2.11	0.51
22:Aa:436:C:O2'	22:Aa:437:U:P	2.68	0.51
22:Aa:937:A:H1'	22:Aa:1379:G:N2	2.25	0.51
28:AE:51:PHE:CD1	28:AE:52:LEU:N	2.63	0.51
31:AH:106:THR:HG22	31:AH:112:PRO:HB3	1.93	0.51
32:AI:132:PRO:HG2	32:AI:133:HIS:CE1	2.44	0.51
36:AP:63:PRO:C	36:AP:65:ARG:N	2.68	0.51
39:AS:17:ARG:HH21	39:AS:90:GLY:N	2.06	0.51
39:AS:42:ASP:C	39:AS:44:LYS:N	2.66	0.51
39:AS:96:GLY:O	39:AS:98:VAL:N	2.39	0.51
44:AX:41:ASN:HD22	44:AX:41:ASN:N	2.09	0.51
47:A0:14:ARG:HG3	47:A0:14:ARG:HH11	1.74	0.51
51:A4:15:ILE:HB	51:A4:32:TYR:HA	1.92	0.51
57:AA:1541:G:C4'	57:AA:1542:A:O4'	2.58	0.51
57:AA:2165:G:H2'	57:AA:2166:G:O4'	2.10	0.51
57:AA:2192:G:H2'	57:AA:2193:G:H5'	1.93	0.51
57:AA:2672:G:C3'	57:AA:2673:G:H5"	2.41	0.51
58:AB:81:G:N3	58:AB:81:G:H5'	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bb:102:LEU:CD2	1:Bb:177:ALA:HB2	2.40	0.51
1:Bb:210:SER:O	1:Bb:214:ILE:HG12	2.10	0.51
3:Bd:25:ARG:C	3:Bd:27:TYR:H	2.17	0.51
5:Bf:68:PRO:HG3	5:Bf:71:ARG:HH21	1.74	0.51
5:Bf:96:PRO:HB3	17:Br:30:ASP:CG	2.35	0.51
6:Bg:37:ASN:ND2	8:Bi:40:LEU:HA	2.24	0.51
7:Bh:111:ILE:C	7:Bh:112:LEU:HD23	2.36	0.51
8:Bi:114:TYR:N	8:Bi:114:TYR:HD2	2.09	0.51
11:Bl:8:ASN:ND2	22:Ba:585:G:H4'	2.24	0.51
12:Bm:97:PRO:HA	12:Bm:110:ARG:HD3	1.92	0.51
15:Bp:21:VAL:HG12	15:Bp:34:GLU:O	2.09	0.51
15:Bp:28:ARG:NH2	22:Ba:390:C:O3'	2.43	0.51
22:Ba:939:G:H2'	22:Ba:940:C:C6	2.45	0.51
22:Ba:1290:G:N3	22:Ba:1290:G:H2'	2.25	0.51
22:Ba:1432:G:OP1	40:BT:107:ASP:HB2	2.10	0.51
27:BD:72:LYS:NZ	27:BD:72:LYS:HB3	2.26	0.51
31:BH:38:SER:C	31:BH:40:GLU:H	2.17	0.51
32:BI:103:ARG:O	32:BI:104:GLN:C	2.52	0.51
36:BP:6:LEU:HD23	36:BP:6:LEU:N	2.24	0.51
36:BP:101:VAL:CB	36:BP:107:LYS:HA	2.32	0.51
42:BV:21:ARG:HD3	42:BV:21:ARG:N	2.25	0.51
43:BW:62:HIS:O	43:BW:63:ASP:C	2.53	0.51
52:B5:29:THR:HG21	57:BA:2815:C:H5'	1.92	0.51
57:BA:225:A:O2'	57:BA:257:A:H4'	2.09	0.51
57:BA:1001:A:H2'	57:BA:1002:G:O4'	2.10	0.51
57:BA:1221:C:H2'	57:BA:1221(A):C:H6	1.76	0.51
57:BA:1541:G:C4'	57:BA:1542:A:O4'	2.59	0.51
57:BA:1916:A:H5'	57:BA:1917:U:OP2	2.10	0.51
57:BA:2389:G:H5"	57:BA:2390:U:H5'	1.92	0.51
2:Ac:14:ILE:HG12	2:Ac:15:THR:H	1.74	0.51
4:Ae:101:ILE:CG1	4:Ae:119:LEU:HD23	2.40	0.51
7:Ah:68:ARG:HG2	7:Ah:68:ARG:NH1	2.25	0.51
8:Ai:16:ARG:HH22	22:Aa:1128:C:C5'	2.18	0.51
8:Ai:43:ALA:C	8:Ai:45:ALA:H	2.18	0.51
10:Ak:111:ASP:HA	17:Ar:84:LYS:CD	2.40	0.51
11:Al:47:LYS:HE2	11:Al:48:PRO:N	2.26	0.51
12:Am:101:GLN:OE1	22:Aa:1307:U:OP1	2.29	0.51
14:Ao:18:PHE:O	14:Ao:19:PRO:C	2.54	0.51
16:Aq:45:HIS:HB2	16:Aq:65:ILE:HD13	1.92	0.51
17:Ar:58:LEU:HB3	17:Ar:62:GLU:CB	2.40	0.51
22:Aa:1327:C:H2'	22:Aa:1328:C:C6	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AE:30:PRO:O	28:AE:32:PRO:HD3	2.09	0.51
29:AF:133:ASN:HA	29:AF:162:LEU:HD23	1.91	0.51
35:AO:3:GLN:HB2	35:AO:4:PRO:HD2	1.93	0.51
36:AP:9:ASN:O	36:AP:11:GLY:N	2.43	0.51
37:AQ:58:PHE:O	37:AQ:58:PHE:CD1	2.63	0.51
41:AU:59:ARG:HD3	57:AA:1009:A:C5'	2.39	0.51
45:AY:13:VAL:O	45:AY:24:VAL:HA	2.10	0.51
46:AZ:152:ALA:HA	46:AZ:168:GLU:H	1.76	0.51
52:A5:52:TYR:HD1	52:A5:52:TYR:O	1.93	0.51
57:AA:1265:A:H8	57:AA:1265:A:OP1	1.92	0.51
57:AA:1316:U:H2'	57:AA:1317:A:H8	1.75	0.51
57:AA:2335:A:O2'	57:AA:2336:A:H5"	2.11	0.51
4:Be:21:ALA:HB2	22:Ba:923:A:OP1	2.11	0.51
6:Bg:73:MET:HG2	6:Bg:90:GLU:HA	1.92	0.51
16:Bq:63:ARG:HG3	22:Ba:130:A:C8	2.46	0.51
17:Br:25:THR:HG22	17:Br:25:THR:O	2.11	0.51
22:Ba:47:C:H5"	22:Ba:365:U:C6	2.46	0.51
22:Ba:300:A:H1'	22:Ba:565:U:O2	2.10	0.51
22:Ba:1309:G:C6	22:Ba:1329:A:C2	2.98	0.51
23:Bx:24:A:H2'	23:Bx:24:A:N3	2.25	0.51
27:BD:102:LYS:C	27:BD:103:ARG:HG2	2.35	0.51
27:BD:139:GLY:H	27:BD:165:ILE:HB	1.75	0.51
28:BE:69:LYS:C	28:BE:71:GLY:H	2.17	0.51
31:BH:107:VAL:O	31:BH:107:VAL:HG23	2.09	0.51
34:BN:27:ALA:HB3	34:BN:106:MET:HE1	1.92	0.51
39:BS:12:PHE:HD2	39:BS:12:PHE:H	1.56	0.51
41:BU:29:SER:OG	41:BU:30:LYS:HE2	2.10	0.51
55:B8:33:ASN:O	57:BA:2420:C:P	2.68	0.51
55:B8:42:ARG:O	55:B8:44:LYS:N	2.36	0.51
57:BA:157:U:H5'	57:BA:158:U:OP2	2.09	0.51
57:BA:654(S):G:N3	57:BA:654(S):G:H2'	2.25	0.51
57:BA:1464:C:O2'	57:BA:1528:A:C8	2.64	0.51
57:BA:2833:G:H3'	57:BA:2834:G:H5"	1.92	0.51
2:Ac:23:TYR:CG	2:Ac:24:ALA:N	2.79	0.51
5:Af:11:ASN:HB3	5:Af:14:LEU:CG	2.39	0.51
7:Ah:13:ILE:O	7:Ah:17:THR:HG23	2.09	0.51
15:Ap:1:MET:HE2	15:Ap:65:GLN:HG3	1.92	0.51
22:Aa:1315:U:H2'	22:Aa:1316:G:O4'	2.10	0.51
22:Aa:1391:U:H2'	22:Aa:1392:G:C8	2.45	0.51
24:Av:64:G:H2'	24:Av:65:C:C6	2.45	0.51
27:AD:46:GLN:N	27:AD:46:GLN:CD	2.69	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AD:270:ILE:O	27:AD:271:ILE:HG23	2.10	0.51
28:AE:101:ARG:HB3	28:AE:169:ASN:HD22	1.76	0.51
29:AF:67:GLN:O	29:AF:67:GLN:CG	2.58	0.51
30:AG:58:GLN:HG3	30:AG:59:GLU:H	1.75	0.51
35:AO:68:GLU:OE1	57:AA:2685:G:H5'	2.11	0.51
36:AP:63:PRO:HB3	55:A8:12:LYS:O	2.09	0.51
46:AZ:45:ASP:O	46:AZ:49:ARG:HG2	2.10	0.51
46:AZ:139:VAL:CG1	46:AZ:150:LEU:HD11	2.41	0.51
49:A2:66:GLU:O	49:A2:70:GLN:NE2	2.43	0.51
55:A8:23:VAL:CG1	55:A8:46:ARG:HB3	2.40	0.51
55:A8:40:GLU:C	55:A8:42:ARG:N	2.68	0.51
57:AA:1138:G:H2'	57:AA:1139:G:O4'	2.10	0.51
57:AA:1602:U:H3'	57:AA:1603:A:H5"	1.92	0.51
57:AA:1636:C:H2'	57:AA:1637:A:H8	1.76	0.51
57:AA:2286:A:H4'	57:AA:2287:A:O4'	2.11	0.51
2:Bc:182:ILE:HG23	2:Bc:202:ILE:C	2.36	0.51
3:Bd:120:LEU:HB3	3:Bd:126:ILE:CD1	2.40	0.51
3:Bd:205:GLU:OE1	4:Be:100:VAL:HG22	2.10	0.51
9:Bj:3:LYS:HG3	9:Bj:75:ILE:O	2.10	0.51
14:Bo:39:LEU:HD12	14:Bo:56:LEU:HB2	1.91	0.51
22:Ba:1262:C:H2'	22:Ba:1263:C:C6	2.46	0.51
22:Ba:1293:G:O2'	22:Ba:1294:G:H8	1.94	0.51
24:Bv:64:G:H2'	24:Bv:65:C:O4'	2.10	0.51
26:BC:43:GLU:N	26:BC:216:THR:O	2.42	0.51
27:BD:176:ARG:HG2	27:BD:176:ARG:NH1	2.25	0.51
28:BE:55:ASN:O	28:BE:72:VAL:HG11	2.11	0.51
29:BF:20:LEU:HB3	29:BF:23:ASP:OD2	2.10	0.51
30:BG:98:ARG:HA	30:BG:101:ILE:HD12	1.92	0.51
30:BG:109:VAL:O	30:BG:110:ALA:C	2.54	0.51
32:BI:38:LEU:HB3	32:BI:40:THR:HG23	1.93	0.51
34:BN:67:LEU:CD2	34:BN:87:LEU:HD13	2.41	0.51
38:BR:6:SER:HB2	57:BA:2873:A:C2	2.45	0.51
40:BT:70:VAL:HG12	40:BT:71:GLY:O	2.11	0.51
41:BU:52:ARG:HH11	41:BU:52:ARG:HG2	1.76	0.51
45:BY:17:SER:O	57:BA:310:A:OP1	2.29	0.51
46:BZ:165:VAL:HG12	46:BZ:166:SER:N	2.25	0.51
57:BA:1495:A:OP1	57:BA:1495:A:O4'	2.29	0.51
57:BA:1810:A:H2'	57:BA:1811:G:O4'	2.11	0.51
1:Ab:53:ARG:O	1:Ab:56:ARG:HB2	2.10	0.51
3:Ad:128:VAL:HG12	3:Ad:129:ASN:N	2.25	0.51
8:Ai:18:PHE:HD1	8:Ai:62:TYR:CD2	2.29	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:Ai:63:ILE:HD11	8:Ai:81:ILE:CD1	2.37	0.51
10:Ak:18:ARG:O	10:Ak:32:ILE:HG23	2.11	0.51
11:Al:60:LEU:CD2	11:Al:66:VAL:HG23	2.40	0.51
13:An:41:ARG:HG3	13:An:42:ILE:N	2.25	0.51
14:Ao:82:ILE:C	14:Ao:82:ILE:CD1	2.83	0.51
27:AD:211:ARG:O	27:AD:215:LEU:HG	2.10	0.51
28:AE:55:ASN:O	28:AE:72:VAL:HG11	2.11	0.51
30:AG:38:VAL:HG13	30:AG:92:VAL:O	2.10	0.51
31:AH:85:LYS:NZ	31:AH:133:VAL:N	2.51	0.51
31:AH:155:SER:O	31:AH:157:TYR:N	2.43	0.51
32:AI:40:THR:O	32:AI:41:GLU:C	2.53	0.51
32:AI:62:LYS:HD2	32:AI:133:HIS:CD2	2.36	0.51
36:AP:101:VAL:CG1	36:AP:106:LEU:HD23	2.40	0.51
39:AS:13:ARG:CG	39:AS:14:VAL:N	2.70	0.51
40:AT:31:SER:OG	40:AT:43:GLN:HB3	2.11	0.51
40:AT:34:VAL:HG13	40:AT:38:ASN:O	2.10	0.51
44:AX:60:ARG:NH1	57:AA:1311:G:C2	2.78	0.51
44:AX:60:ARG:NH2	54:A7:47:ARG:HH11	2.08	0.51
45:AY:8:LYS:HG2	45:AY:28:LYS:HZ1	1.74	0.51
51:A4:3:GLU:HG2	58:AB:43:C:OP1	2.11	0.51
54:A7:8:ASN:HD22	54:A7:9:ARG:N	2.08	0.51
55:A8:29:LYS:O	55:A8:29:LYS:HG3	2.11	0.51
57:AA:157:U:H5'	57:AA:158:U:OP2	2.11	0.51
57:AA:407:G:H2'	57:AA:408:G:H8	1.76	0.51
57:AA:1602:U:H3'	57:AA:1603:A:C5'	2.41	0.51
57:AA:1638:C:H5"	57:AA:2710:C:O2'	2.10	0.51
57:AA:1854:A:H2'	57:AA:1855:G:O4'	2.11	0.51
57:AA:1947:C:H2'	57:AA:1948:G:H5"	1.93	0.51
57:AA:2762:G:H5'	57:AA:2762:G:C8	2.46	0.51
1:Bb:140:HIS:O	1:Bb:143:GLU:HB2	2.11	0.51
4:Be:43:LEU:N	4:Be:136:MET:HE2	2.25	0.51
8:Bi:7:THR:HB	8:Bi:83:ARG:NH1	2.25	0.51
8:Bi:118:LYS:NZ	22:Ba:1349:A:P	2.84	0.51
9:Bj:55:LYS:HG2	22:Ba:972:C:O2'	2.10	0.51
9:Bj:57:LYS:HD3	22:Ba:972:C:O3'	2.11	0.51
9:Bj:78:ASN:O	9:Bj:82:ILE:HG12	2.11	0.51
14:Bo:81:LEU:O	14:Bo:85:LEU:HB2	2.09	0.51
22:Ba:22:G:O2'	22:Ba:23:C:H5'	2.11	0.51
22:Ba:452:A:O2'	22:Ba:453:A:H8	1.93	0.51
22:Ba:555:C:H2'	22:Ba:556:C:C6	2.46	0.51
22:Ba:575:G:OP1	22:Ba:575:G:H4'	2.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Ba:710:G:O2'	22:Ba:711:G:H5'	2.10	0.51
22:Ba:1060:C:O2'	22:Ba:1061:G:H5'	2.10	0.51
24:Bv:23:C:H2'	24:Bv:24:U:C6	2.45	0.51
26:BC:197:LEU:C	26:BC:199:ALA:H	2.17	0.51
27:BD:30:GLU:CD	27:BD:63:ARG:NE	2.68	0.51
27:BD:47:GLY:CA	57:BA:773:U:H4'	2.41	0.51
28:BE:55:ASN:O	28:BE:57:LYS:N	2.44	0.51
29:BF:60:SER:OG	29:BF:61:GLY:N	2.42	0.51
29:BF:89:VAL:CG1	29:BF:90:PHE:H	2.17	0.51
31:BH:155:SER:O	31:BH:157:TYR:N	2.43	0.51
32:BI:40:THR:O	32:BI:41:GLU:C	2.54	0.51
32:BI:93:THR:CG2	32:BI:119:PRO:HB3	2.39	0.51
34:BN:35:ARG:O	34:BN:37:LYS:N	2.43	0.51
36:BP:85:LEU:H	36:BP:85:LEU:CD2	2.13	0.51
38:BR:26:LYS:HE2	38:BR:71:GLN:H	1.74	0.51
38:BR:63:ARG:NH1	38:BR:80:PHE:CD1	2.79	0.51
43:BW:79:GLY:CA	43:BW:100:THR:HG22	2.40	0.51
51:B4:47:GLN:O	51:B4:48:ARG:CB	2.58	0.51
57:BA:302:C:H2'	57:BA:303:U:C6	2.46	0.51
57:BA:545:C:H2'	57:BA:547:A:H5"	1.92	0.51
57:BA:860:U:O2'	57:BA:861:A:H5'	2.11	0.51
9:Aj:8:LEU:CD2	9:Aj:96:ILE:HG22	2.40	0.51
9:Aj:22:LYS:O	9:Aj:22:LYS:HD2	2.11	0.51
11:Al:28:LYS:HG2	11:Al:28:LYS:O	2.11	0.51
11:Al:86:ARG:HG2	22:Aa:552:U:H4'	1.92	0.51
21:Ay:79:GLY:N	21:Ay:86:VAL:HG11	2.26	0.51
22:Aa:389:A:C2'	22:Aa:390:C:H5'	2.40	0.51
22:Aa:1008:C:H2'	22:Aa:1009:G:O4'	2.11	0.51
22:Aa:1271:G:H5'	22:Aa:1314:C:H5"	1.93	0.51
28:AE:53:PRO:O	28:AE:54:GLN:O	2.29	0.51
29:AF:60:SER:OG	29:AF:61:GLY:N	2.44	0.51
38:AR:5:LYS:HD2	57:AA:2820:A:O4'	2.11	0.51
41:AU:92:ARG:NH1	42:AV:11:GLN:O	2.44	0.51
44:AX:66:LEU:HD23	44:AX:66:LEU:C	2.35	0.51
45:AY:7:VAL:CG2	45:AY:8:LYS:HZ2	2.23	0.51
46:AZ:111:VAL:C	46:AZ:113:ALA:N	2.69	0.51
52:A5:35:GLU:O	52:A5:36:CYS:SG	2.68	0.51
54:A7:45:ALA:O	54:A7:46:VAL:HG23	2.10	0.51
57:AA:89:G:H3'	57:AA:90:U:C5'	2.41	0.51
57:AA:271(P):C:C2'	57:AA:271(Q):G:H5'	2.40	0.51
57:AA:519:U:H2'	57:AA:520:G:H8	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:AA:570:G:H2'	57:AA:2030:A:C5	2.46	0.51
57:AA:654(B):C:H2'	57:AA:654(C):G:N7	2.26	0.51
57:AA:2543:G:H8	57:AA:2543:G:H5'	1.74	0.51
57:AA:2656:U:H2'	57:AA:2657:A:H5"	1.93	0.51
1:Bb:53:ARG:O	1:Bb:56:ARG:HB2	2.11	0.51
3:Bd:3:ARG:O	3:Bd:4:TYR:C	2.54	0.51
3:Bd:11:LEU:C	3:Bd:13:ARG:N	2.66	0.51
6:Bg:7:ALA:CB	22:Ba:1377:A:H2'	2.41	0.51
11:Bl:119:LYS:C	11:Bl:120:TYR:HD1	2.18	0.51
17:Br:29:PHE:C	17:Br:29:PHE:CD1	2.89	0.51
18:Bs:79:THR:O	18:Bs:80:TYR:HB3	2.10	0.51
22:Ba:390:C:H2'	22:Ba:391:G:H8	1.75	0.51
22:Ba:559:A:H4'	22:Ba:560:U:C5'	2.39	0.51
22:Ba:1053:G:H4'	22:Ba:1054:C:H5'	1.92	0.51
22:Ba:1169:A:H2'	22:Ba:1170:A:C8	2.45	0.51
28:BE:186:GLY:O	28:BE:187:ALA:HB3	2.09	0.51
29:BF:133:ASN:HA	29:BF:162:LEU:HD23	1.92	0.51
31:BH:163:TYR:N	31:BH:163:TYR:CD1	2.79	0.51
32:BI:94:ALA:O	32:BI:98:ALA:HB3	2.11	0.51
37:BQ:35:VAL:HG11	37:BQ:130:LYS:CE	2.41	0.51
37:BQ:67:ARG:HG2	37:BQ:67:ARG:NH1	2.24	0.51
38:BR:79:LEU:HD23	38:BR:83:ILE:HB	1.92	0.51
39:BS:20:ARG:HA	39:BS:20:ARG:NE	2.26	0.51
40:BT:83:ILE:HG13	40:BT:84:GLN:N	2.25	0.51
40:BT:100:TYR:HD2	40:BT:103:ARG:NH2	1.97	0.51
42:BV:39:LEU:HA	42:BV:47:VAL:CG1	2.40	0.51
51:B4:53:GLU:OE1	51:B4:54:GLY:N	2.40	0.51
53:B6:43:CYS:O	53:B6:44:ARG:NH1	2.43	0.51
57:BA:315:G:H2'	57:BA:316:C:C6	2.46	0.51
57:BA:570:G:H2'	57:BA:2030:A:C6	2.46	0.51
57:BA:848:G:H5'	57:BA:848:G:C8	2.43	0.51
57:BA:1291:C:H2'	57:BA:1292:U:C6	2.45	0.51
57:BA:2197:U:O2'	57:BA:2198:A:H2'	2.11	0.51
1:Ab:195:ASP:O	7:Ah:68:ARG:NH2	2.38	0.51
5:Af:97:PHE:HB2	17:Ar:32:ARG:NH2	2.25	0.51
9:Aj:38:ILE:HG12	9:Aj:71:LEU:O	2.11	0.51
11:Al:38:THR:CG2	11:Al:57:LYS:HB2	2.37	0.51
12:Am:29:ARG:HH11	12:Am:64:TRP:CG	2.29	0.51
18:As:9:VAL:O	18:As:9:VAL:HG12	2.11	0.51
22:Aa:123:C:OP1	22:Aa:312:C:H5'	2.11	0.51
22:Aa:936:C:H2'	22:Aa:937:A:O4'	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AD:117:VAL:HG22	27:AD:118:VAL:N	2.26	0.51
27:AD:130:ALA:C	27:AD:131:LEU:HD12	2.36	0.51
28:AE:69:LYS:C	28:AE:71:GLY:H	2.18	0.51
28:AE:132:HIS:CE1	57:AA:1658:C:OP1	2.64	0.51
29:AF:25:PRO:HB3	29:AF:119:ARG:CG	2.41	0.51
29:AF:34:TRP:CZ2	36:AP:12:ALA:HB2	2.46	0.51
30:AG:109:VAL:HG13	51:A4:33:VAL:HG11	1.91	0.51
32:AI:2:LYS:HB2	32:AI:39:ALA:HB3	1.93	0.51
32:AI:6:LEU:O	32:AI:15:VAL:HG12	2.10	0.51
34:AN:14:VAL:CG1	34:AN:137:LYS:HG3	2.41	0.51
34:AN:23:LEU:HD13	34:AN:98:VAL:HG12	1.92	0.51
36:AP:115:LEU:HD23	36:AP:115:LEU:N	2.25	0.51
41:AU:16:LYS:HE2	57:AA:1227:G:OP2	2.10	0.51
41:AU:74:LEU:O	41:AU:74:LEU:HD13	2.11	0.51
45:AY:7:VAL:CG2	45:AY:8:LYS:HZ1	2.21	0.51
45:AY:38:ILE:CG2	45:AY:39:VAL:N	2.74	0.51
49:A2:27:GLU:O	49:A2:31:GLU:HG3	2.10	0.51
57:AA:1495:A:OP1	57:AA:1495:A:O4'	2.28	0.51
57:AA:2261:C:O2'	57:AA:2262:U:H5'	2.11	0.51
1:Bb:194:PRO:HG2	1:Bb:195:ASP:OD1	2.11	0.51
3:Bd:129:ASN:ND2	3:Bd:145:GLU:H	2.09	0.51
7:Bh:13:ILE:O	7:Bh:17:THR:HG23	2.11	0.51
7:Bh:29:SER:CB	7:Bh:32:LYS:HD2	2.40	0.51
7:Bh:53:VAL:HG12	7:Bh:54:ASP:OD2	2.10	0.51
8:Bi:98:PRO:O	8:Bi:99:LEU:HD22	2.11	0.51
11:Bl:47:LYS:HE2	11:Bl:48:PRO:N	2.26	0.51
11:Bl:86:ARG:HG2	22:Ba:552:U:H4'	1.93	0.51
21:By:61:ARG:NH1	21:By:87:TYR:OH	2.44	0.51
22:Ba:490:G:H2'	22:Ba:491:G:H8	1.76	0.51
24:Bv:17:C:H2'	24:Bv:17(A):U:H5	1.76	0.51
26:BC:194:ILE:O	26:BC:198:GLU:HG3	2.11	0.51
29:BF:26:ALA:O	29:BF:27:GLU:CB	2.59	0.51
29:BF:89:VAL:O	29:BF:91:GLY:N	2.38	0.51
30:BG:77:ILE:HG23	30:BG:80:PHE:H	1.74	0.51
30:BG:138:GLN:C	30:BG:140:ILE:H	2.19	0.51
32:BI:130:TYR:O	32:BI:135:GLU:HB2	2.10	0.51
34:BN:14:VAL:CG1	34:BN:137:LYS:HG3	2.41	0.51
36:BP:115:LEU:HD23	36:BP:115:LEU:N	2.26	0.51
41:BU:59:ARG:HD3	57:BA:1009:A:C5'	2.41	0.51
41:BU:59:ARG:O	41:BU:60:LEU:C	2.52	0.51
43:BW:4:LYS:HG2	43:BW:5:ALA:N	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BY:13:VAL:O	45:BY:24:VAL:HA	2.10	0.51
46:BZ:184:ALA:O	46:BZ:185:GLU:HB3	2.10	0.51
49:B2:55:ARG:HH21	49:B2:55:ARG:HG3	1.75	0.51
55:B8:23:VAL:CG1	55:B8:46:ARG:HB3	2.41	0.51
56:B9:1:MET:HE2	56:B9:10:ILE:HD13	1.92	0.51
57:BA:1163:G:O2'	57:BA:1164:G:H5'	2.11	0.51
57:BA:1494:A:H3'	57:BA:1494:A:N3	2.26	0.51
57:BA:1502:C:H5'	57:BA:1503:U:OP2	2.11	0.51
57:BA:2518:A:C8	57:BA:2518:A:H5'	2.46	0.51
1:Ab:163:PHE:HA	1:Ab:185:ILE:HG13	1.92	0.51
1:Ab:187:LEU:HD23	1:Ab:201:ILE:CG2	2.40	0.51
3:Ad:112:VAL:HG11	22:Aa:408:A:H4'	1.91	0.51
6:Ag:7:ALA:CB	22:Aa:1377:A:H2'	2.39	0.51
7:Ah:48:TYR:HA	7:Ah:60:ARG:O	2.10	0.51
11:Al:27:LEU:HG	11:Al:62:SER:CB	2.41	0.51
16:Aq:77:VAL:HG12	16:Aq:78:GLU:N	2.25	0.51
22:Aa:272:C:O2'	22:Aa:273:A:H5'	2.11	0.51
22:Aa:1116:C:H2'	22:Aa:1117:G:C5'	2.34	0.51
28:AE:2:LYS:HB3	28:AE:95:ILE:HG21	1.93	0.51
28:AE:137:HIS:HB3	28:AE:138:PRO:HD2	1.92	0.51
34:AN:62:VAL:HG22	34:AN:66:LYS:HB2	1.92	0.51
37:AQ:55:VAL:HG12	37:AQ:64:ILE:HD12	1.92	0.51
38:AR:45:ARG:HG3	38:AR:95:THR:HG21	1.93	0.51
39:AS:34:HIS:HB3	39:AS:53:SER:HB3	1.91	0.51
41:AU:91:ASP:O	41:AU:92:ARG:HB3	2.10	0.51
43:AW:62:HIS:O	43:AW:63:ASP:C	2.54	0.51
45:AY:31:LEU:HD23	45:AY:36:ALA:C	2.36	0.51
53:A6:23:THR:HG21	57:AA:2419:U:C5'	2.38	0.51
53:A6:52:VAL:CG2	53:A6:53:LYS:H	2.23	0.51
57:AA:363(E):U:H3'	57:AA:363(F):A:O4'	2.11	0.51
57:AA:654(S):G:H2'	57:AA:654(S):G:N3	2.25	0.51
57:AA:1005:C:H2'	57:AA:1006:C:C6	2.46	0.51
57:AA:1316:U:H2'	57:AA:1317:A:C8	2.46	0.51
57:AA:1638:C:H4'	57:AA:2710:C:O2	2.10	0.51
57:AA:1665:A:H2'	57:AA:1666:G:O4'	2.11	0.51
57:AA:1917:U:O2'	57:AA:1918:A:H5'	2.10	0.51
57:AA:2400:G:N2	57:AA:2417:C:C2	2.79	0.51
58:AB:111:G:C2'	58:AB:112:U:H5'	2.41	0.51
1:Bb:12:GLU:C	1:Bb:14:GLY:N	2.65	0.51
1:Bb:68:ILE:O	1:Bb:91:PRO:HD2	2.10	0.51
1:Bb:140:HIS:HA	1:Bb:143:GLU:CG	2.39	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bb:173:ALA:O	1:Bb:174:VAL:C	2.53	0.51
7:Bh:40:ALA:C	7:Bh:42:GLU:N	2.65	0.51
9:Bj:46:ARG:HH11	9:Bj:46:ARG:HG2	1.75	0.51
16:Bq:67:LYS:O	22:Ba:254:G:OP1	2.27	0.51
16:Bq:98:LEU:HD12	16:Bq:98:LEU:N	2.26	0.51
22:Ba:724:G:O2'	22:Ba:725:G:H5'	2.10	0.51
22:Ba:1053:G:H3'	22:Ba:1054:C:H5'	1.91	0.51
22:Ba:1437:C:H2'	22:Ba:1438:G:C8	2.45	0.51
28:BE:117:MET:O	28:BE:118:LYS:HB2	2.11	0.51
28:BE:119:ARG:HG2	28:BE:160:TYR:HB2	1.93	0.51
29:BF:123:LEU:HD12	29:BF:124:LEU:H	1.75	0.51
31:BH:68:THR:O	31:BH:69:ARG:C	2.53	0.51
33:BJ:111:LEU:O	33:BJ:112:LEU:C	2.54	0.51
46:BZ:19:ARG:NH2	58:BB:76:G:O3'	2.42	0.51
49:B2:24:LEU:HG	49:B2:60:LEU:CD1	2.40	0.51
52:B5:40:LYS:CD	52:B5:46:CYS:HB3	2.41	0.51
53:B6:27:LYS:CD	53:B6:30:THR:HB	2.25	0.51
57:BA:548:A:H2'	57:BA:548:A:N3	2.26	0.51
57:BA:570:G:H2'	57:BA:2030:A:C5	2.45	0.51
57:BA:923:C:H2'	57:BA:924:C:H6	1.75	0.51
57:BA:2455:G:H2'	57:BA:2456:C:C6	2.46	0.51
57:BA:2784:C:O2'	57:BA:2785:C:H5'	2.11	0.51
2:Ac:167:TRP:O	2:Ac:168:ALA:HB3	2.11	0.51
3:Ad:3:ARG:O	3:Ad:4:TYR:C	2.54	0.51
3:Ad:25:ARG:HH12	3:Ad:30:LYS:HB2	1.76	0.51
3:Ad:126:ILE:N	3:Ad:126:ILE:CD1	2.74	0.51
6:Ag:15:ASP:OD2	6:Ag:16:LEU:N	2.44	0.51
6:Ag:29:LYS:HB2	6:Ag:105:VAL:HG21	1.93	0.51
9:Aj:57:LYS:HD3	22:Aa:972:C:O3'	2.11	0.51
12:Am:19:LEU:O	12:Am:22:ILE:HD13	2.11	0.51
12:Am:68:GLY:C	12:Am:70:LEU:HB3	2.31	0.51
17:Ar:37:VAL:HG23	17:Ar:38:GLU:H	1.76	0.51
19:At:14:LYS:HA	19:At:17:ARG:NH2	2.26	0.51
21:Ay:85:GLU:O	21:Ay:86:VAL:C	2.54	0.51
22:Aa:188:C:H2'	22:Aa:189:G:H8	1.75	0.51
22:Aa:1106:G:H2'	22:Aa:1107:C:H6	1.76	0.51
30:AG:125:PHE:HE2	30:AG:173:LEU:HD12	1.76	0.51
31:AH:102:ALA:HA	31:AH:117:PRO:HD3	1.93	0.51
31:AH:124:GLU:HB2	31:AH:132:ARG:CG	2.41	0.51
32:AI:120:ILE:H	32:AI:120:ILE:HD12	1.76	0.51
34:AN:134:ARG:H	34:AN:135:PRO:HD3	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:AR:16:HIS:ND1	57:AA:1275:A:C4	2.79	0.51
38:AR:65:LEU:HD21	57:AA:2870:C:H5"	1.92	0.51
40:AT:29:ARG:HG2	40:AT:85:LYS:C	2.36	0.51
40:AT:31:SER:C	40:AT:32:TYR:CD2	2.89	0.51
40:AT:32:TYR:CG	40:AT:81:PRO:HB2	2.46	0.51
40:AT:89:VAL:HG11	40:AT:91:ARG:HE	1.76	0.51
42:AV:5:VAL:HG12	42:AV:14:VAL:HG22	1.92	0.51
48:A1:19:GLN:HE21	48:A1:19:GLN:CA	2.07	0.51
52:A5:40:LYS:CD	52:A5:46:CYS:HB3	2.40	0.51
53:A6:8:LYS:NZ	57:AA:2285:C:H5	2.09	0.51
54:A7:35:ARG:HD3	57:AA:54:G:O2'	2.11	0.51
55:A8:33:ASN:O	57:AA:2420:C:P	2.69	0.51
57:AA:587:C:O2'	57:AA:588:U:OP2	2.24	0.51
57:AA:1541:G:H4'	57:AA:1542:A:O5'	2.11	0.51
57:AA:1860:G:H1	57:AA:1882:C:H42	1.58	0.51
57:AA:1865:G:H5'	57:AA:1866:C:P	2.51	0.51
1:Bb:194:PRO:O	1:Bb:196:LEU:N	2.44	0.51
2:Bc:167:TRP:O	2:Bc:168:ALA:HB3	2.11	0.51
4:Be:7:GLU:HG2	4:Be:112:LEU:HD22	1.93	0.51
6:Bg:64:GLN:HG3	6:Bg:68:ASN:ND2	2.26	0.51
7:Bh:31:PHE:O	7:Bh:35:ILE:HG12	2.11	0.51
10:Bk:20:TYR:C	10:Bk:21:ILE:HD12	2.36	0.51
15:Bp:67:THR:HG21	22:Ba:376:G:P	2.51	0.51
17:Br:31:LEU:HD23	17:Br:31:LEU:N	2.25	0.51
18:Bs:31:ILE:HG12	18:Bs:31:ILE:O	2.11	0.51
21:By:29:LYS:C	21:By:31:VAL:H	2.19	0.51
22:Ba:36:C:O2'	22:Ba:37:U:H5'	2.11	0.51
23:Bx:18:G:H4'	23:Bx:19:OMU:OP2	2.11	0.51
26:BC:50:ILE:HD11	26:BC:170:GLY:HA2	1.93	0.51
26:BC:166:ASN:HA	26:BC:171:ALA:O	2.11	0.51
27:BD:71:ASP:CG	27:BD:103:ARG:HH22	2.18	0.51
28:BE:59:VAL:HG11	28:BE:63:LEU:HG	1.93	0.51
28:BE:60:ASN:OD1	28:BE:61:ARG:N	2.44	0.51
30:BG:46:ALA:HB2	30:BG:88:ILE:HD11	1.93	0.51
32:BI:67:ARG:HH11	32:BI:67:ARG:HG2	1.76	0.51
36:BP:9:ASN:O	36:BP:11:GLY:N	2.44	0.51
36:BP:81:GLN:CG	36:BP:106:LEU:HD12	2.36	0.51
40:BT:31:SER:C	40:BT:32:TYR:CD2	2.89	0.51
40:BT:36:GLU:HG2	40:BT:36:GLU:O	2.11	0.51
40:BT:38:ASN:C	40:BT:38:ASN:ND2	2.50	0.51
40:BT:121:ILE:O	40:BT:124:ASP:HB2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BW:47:VAL:HA	43:BW:50:VAL:HG12	1.93	0.51
45:BY:26:LYS:O	45:BY:27:VAL:O	2.29	0.51
51:B4:15:ILE:HB	51:B4:32:TYR:HA	1.93	0.51
53:B6:9:LEU:HD12	53:B6:28:ARG:CG	2.41	0.51
57:BA:438:G:O2'	57:BA:440:G:H5'	2.11	0.51
57:BA:1416:G:O2'	57:BA:1417:C:H5	1.94	0.51
57:BA:1677:A:H2'	57:BA:1678:G:C8	2.45	0.51
57:BA:2530:A:H2'	57:BA:2531:A:H5'	1.93	0.51
1:Ab:54:THR:O	1:Ab:58:ILE:HG13	2.10	0.50
4:Ae:7:GLU:O	4:Ae:8:GLU:HB3	2.09	0.50
7:Ah:29:SER:CB	7:Ah:32:LYS:HD2	2.41	0.50
7:Ah:111:ILE:C	7:Ah:112:LEU:HD23	2.35	0.50
8:Ai:5:TYR:HD2	8:Ai:18:PHE:HE2	1.58	0.50
9:Aj:46:ARG:HH11	9:Aj:46:ARG:HG2	1.76	0.50
9:Aj:48:THR:HA	9:Aj:62:HIS:HB2	1.90	0.50
11:Al:102:ARG:HD2	11:Al:109:GLY:HA2	1.92	0.50
19:At:12:ALA:O	19:At:15:ARG:HB2	2.10	0.50
22:Aa:158:G:O2'	22:Aa:159:G:H5'	2.10	0.50
22:Aa:165:C:H2'	22:Aa:166:G:C8	2.46	0.50
27:AD:35:LYS:CG	27:AD:63:ARG:HA	2.34	0.50
27:AD:72:LYS:HD3	27:AD:97:TYR:CE2	2.46	0.50
31:AH:9:ILE:HD11	31:AH:76:VAL:HG21	1.92	0.50
31:AH:163:TYR:N	31:AH:163:TYR:CD1	2.79	0.50
36:AP:10:PRO:O	36:AP:11:GLY:C	2.53	0.50
36:AP:23:PRO:HB2	36:AP:33:ARG:NE	2.26	0.50
36:AP:50:ARG:HB3	55:A8:59:LYS:CD	2.38	0.50
37:AQ:68:ILE:HD13	37:AQ:103:MET:HE2	1.93	0.50
38:AR:72:ASP:HB3	38:AR:75:LEU:HB2	1.92	0.50
40:AT:46:GLU:O	40:AT:65:LYS:HD2	2.11	0.50
42:AV:2:PHE:HB2	42:AV:42:GLY:CA	2.41	0.50
57:AA:613:G:C5'	57:AA:613:G:H8	2.23	0.50
57:AA:1503:U:H2'	57:AA:1504:C:H6	1.74	0.50
57:AA:2111:C:H1'	57:AA:2118:U:O4'	2.10	0.50
4:Be:102:ALA:HB1	4:Be:106:PRO:CG	2.41	0.50
11:Bl:122:THR:O	22:Ba:36:C:H4'	2.11	0.50
12:Bm:119:GLY:HA2	24:Bv:29:G:OP1	2.11	0.50
14:Bo:56:LEU:O	14:Bo:60:VAL:HG23	2.11	0.50
18:Bs:16:LEU:C	18:Bs:20:LEU:HG	2.34	0.50
22:Ba:665:A:H2'	22:Ba:725:G:H22	1.75	0.50
22:Ba:1082:G:O2'	22:Ba:1083:U:H5'	2.11	0.50
22:Ba:1478:C:H2'	22:Ba:1479:C:H6	1.75	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:Bx:20:A2M:C1'	23:Bx:21:OMG:OP1	2.58	0.50
28:BE:34:VAL:HG11	28:BE:78:LEU:HD23	1.93	0.50
28:BE:113:PHE:CD1	57:BA:1654:A:C2	2.99	0.50
31:BH:7:LEU:HD23	31:BH:69:ARG:HD2	1.93	0.50
31:BH:124:GLU:HB2	31:BH:132:ARG:CG	2.41	0.50
41:BU:16:LYS:HE2	57:BA:1227:G:OP2	2.10	0.50
41:BU:93:LYS:HD3	57:BA:997:G:OP1	2.11	0.50
45:BY:8:LYS:CB	45:BY:28:LYS:HE2	2.41	0.50
45:BY:87:LYS:O	45:BY:88:LYS:HB2	2.10	0.50
57:BA:814:C:H2'	57:BA:815:C:H6	1.75	0.50
57:BA:1223:G:H5'	57:BA:1224:C:OP2	2.10	0.50
57:BA:2369:A:O2'	57:BA:2370:G:H5'	2.11	0.50
1:Ab:17:PHE:HB3	1:Ab:44:LEU:HD21	1.92	0.50
1:Ab:100:GLY:O	1:Ab:104:ASN:C	2.55	0.50
1:Ab:140:HIS:O	1:Ab:143:GLU:HB2	2.10	0.50
1:Ab:141:GLU:O	1:Ab:145:LEU:HB2	2.10	0.50
2:Ac:196:LEU:N	2:Ac:196:LEU:HD22	2.26	0.50
3:Ad:30:LYS:C	3:Ad:32:ALA:N	2.69	0.50
7:Ah:11:THR:HG22	7:Ah:15:ASN:ND2	2.26	0.50
7:Ah:94:TYR:CD2	22:Aa:598:U:H4'	2.46	0.50
11:Al:119:LYS:O	11:Al:120:TYR:HB2	2.11	0.50
18:As:31:ILE:HG12	18:As:31:ILE:O	2.11	0.50
21:Ay:60:TYR:OH	21:Ay:80:LYS:CE	2.56	0.50
22:Aa:390:C:H2'	22:Aa:391:G:H8	1.75	0.50
22:Aa:397:A:H3'	22:Aa:397:A:N3	2.26	0.50
22:Aa:811:C:H4'	22:Aa:900:A:N6	2.26	0.50
24:Av:3:C:C2'	24:Av:4:G:H5'	2.39	0.50
27:AD:45:ASN:HB2	27:AD:46:GLN:OE1	2.12	0.50
28:AE:64:LYS:C	28:AE:66:HIS:H	2.16	0.50
30:AG:97:ASP:O	30:AG:101:ILE:HG13	2.11	0.50
31:AH:109:PHE:C	31:AH:111:HIS:N	2.69	0.50
32:AI:88:ILE:HG22	32:AI:89:TYR:N	2.27	0.50
32:AI:103:ARG:O	32:AI:104:GLN:C	2.53	0.50
35:AO:13:ASN:ND2	35:AO:97:ARG:H	2.09	0.50
38:AR:10:LEU:HD13	38:AR:17:ARG:NH1	2.26	0.50
38:AR:45:ARG:HD3	38:AR:97:VAL:HG21	1.92	0.50
39:AS:30:ARG:HH11	39:AS:35:ILE:HB	1.76	0.50
43:AW:28:SER:O	43:AW:30:GLU:N	2.44	0.50
46:AZ:39:VAL:HG21	46:AZ:44:PHE:CD2	2.45	0.50
46:AZ:109:ALA:O	46:AZ:113:ALA:HB3	2.11	0.50
46:AZ:116:VAL:HB	46:AZ:175:VAL:HG23	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:AZ:141:VAL:HG13	46:AZ:144:LEU:HD23	1.92	0.50
46:AZ:166:SER:OG	46:AZ:167:PRO:HA	2.10	0.50
47:A0:36:ILE:HG23	57:AA:2354:G:O2'	2.11	0.50
49:A2:4:SER:HA	49:A2:7:ARG:NH1	2.26	0.50
50:A3:6:VAL:HG12	50:A3:56:VAL:CG2	2.37	0.50
53:A6:9:LEU:HD12	53:A6:28:ARG:CG	2.41	0.50
55:A8:62:LEU:N	55:A8:63:PRO:CD	2.74	0.50
57:AA:191:A:H2'	57:AA:192:C:C6	2.46	0.50
57:AA:650:C:C3'	57:AA:651:G:H5"	2.39	0.50
57:AA:1047:G:N2	57:AA:1111:A:H62	2.09	0.50
57:AA:1481:U:H5'	57:AA:1482:G:OP2	2.11	0.50
57:AA:1541:G:H5"	57:AA:1542:A:O5'	2.11	0.50
2:Bc:29:TYR:O	2:Bc:29:TYR:HD2	1.94	0.50
2:Bc:154:SER:OG	22:Ba:1057:G:H5"	2.11	0.50
8:Bi:2:GLU:HG2	8:Bi:2:GLU:O	2.11	0.50
8:Bi:5:TYR:HD2	8:Bi:18:PHE:HE2	1.59	0.50
17:Br:66:LEU:O	17:Br:70:ILE:HG13	2.11	0.50
21:By:38:ARG:HG2	21:By:51:TYR:CE2	2.46	0.50
22:Ba:1005:A:H61	22:Ba:1025:U:H1'	1.75	0.50
22:Ba:1137:C:H4'	22:Ba:1138:G:C2	2.47	0.50
22:Ba:1391:U:H2'	22:Ba:1392:G:C8	2.46	0.50
24:Bv:3:C:H2'	24:Bv:3:C:O2	2.11	0.50
27:BD:145:VAL:HG12	27:BD:146:GLU:O	2.11	0.50
30:BG:29:TRP:CB	58:BB:57:A:C4	2.94	0.50
30:BG:118:ARG:HD2	30:BG:181:ARG:HD3	1.94	0.50
31:BH:152:ARG:O	31:BH:152:ARG:HG3	2.10	0.50
36:BP:41:ARG:CA	36:BP:41:ARG:HE	2.24	0.50
40:BT:30:VAL:HG22	40:BT:84:GLN:O	2.11	0.50
40:BT:78:LEU:O	40:BT:79:HIS:ND1	2.45	0.50
44:BX:12:VAL:CG2	44:BX:13:LEU:H	1.96	0.50
45:BY:84:ARG:HD2	45:BY:97:ARG:CD	2.41	0.50
51:B4:25:TYR:N	51:B4:25:TYR:CD1	2.79	0.50
57:BA:191:A:H2'	57:BA:192:C:C6	2.46	0.50
57:BA:271(P):C:C2'	57:BA:271(Q):G:H5'	2.41	0.50
57:BA:484:C:H2'	57:BA:485:C:H6	1.77	0.50
57:BA:1607:C:H4'	57:BA:1608:A:O5'	2.11	0.50
57:BA:1665:A:H2'	57:BA:1666:G:O4'	2.11	0.50
57:BA:1854:A:H2'	57:BA:1855:G:O4'	2.11	0.50
57:BA:2111:C:H1'	57:BA:2118:U:O4'	2.12	0.50
57:BA:2199:A:H3'	57:BA:2200:C:C6	2.46	0.50
8:Ai:7:THR:HB	8:Ai:83:ARG:HH11	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:Al:110:VAL:HG23	11:Al:120:TYR:HB3	1.92	0.50
22:Aa:59:A:N3	22:Aa:59:A:H2'	2.26	0.50
22:Aa:253:U:H2'	22:Aa:254:G:C8	2.46	0.50
22:Aa:1097:C:H2'	22:Aa:1098:C:C6	2.47	0.50
28:AE:61:ARG:CZ	57:AA:2810:A:O2'	2.59	0.50
28:AE:170:LEU:HD12	28:AE:170:LEU:N	2.25	0.50
31:AH:68:THR:O	31:AH:69:ARG:C	2.54	0.50
36:AP:97:PRO:O	36:AP:98:GLU:CB	2.58	0.50
38:AR:7:GLY:O	38:AR:8:ARG:CB	2.59	0.50
39:AS:67:ARG:HB3	39:AS:71:ARG:NH1	2.26	0.50
45:AY:26:LYS:O	45:AY:27:VAL:O	2.29	0.50
53:A6:43:CYS:O	53:A6:44:ARG:NH1	2.44	0.50
57:AA:106:C:H2'	57:AA:107:C:C6	2.46	0.50
57:AA:2564:A:C2	57:AA:2647:U:H4'	2.46	0.50
2:Bc:182:ILE:HG23	2:Bc:202:ILE:O	2.12	0.50
8:Bi:83:ARG:HA	8:Bi:86:VAL:HG12	1.94	0.50
12:Bm:86:CYS:SG	12:Bm:89:GLY:N	2.84	0.50
14:Bo:33:THR:HG21	14:Bo:85:LEU:HD21	1.92	0.50
15:Bp:48:TRP:O	15:Bp:49:LEU:HB2	2.11	0.50
27:BD:79:VAL:HG11	27:BD:111:LEU:HD11	1.92	0.50
28:BE:53:PRO:O	28:BE:54:GLN:O	2.29	0.50
28:BE:165:VAL:HG11	57:BA:2679:A:H5'	1.93	0.50
29:BF:9:ILE:HG23	29:BF:12:LEU:C	2.37	0.50
30:BG:16:ARG:N	30:BG:17:PRO:HD2	2.27	0.50
30:BG:118:ARG:HG2	30:BG:181:ARG:HG3	1.94	0.50
31:BH:41:MET:HE2	31:BH:43:VAL:HG13	1.91	0.50
35:BO:23:ARG:HH11	57:BA:2562:U:C1'	2.20	0.50
39:BS:67:ARG:HB3	39:BS:71:ARG:NH1	2.25	0.50
44:BX:66:LEU:C	44:BX:66:LEU:HD23	2.35	0.50
45:BY:25:GLY:HA3	45:BY:39:VAL:HG13	1.92	0.50
47:B0:27:GLU:OE1	57:BA:856:C:H1'	2.11	0.50
50:B3:47:VAL:HG11	50:B3:56:VAL:HG21	1.92	0.50
52:B5:3:LYS:HD3	57:BA:2613:U:H2'	1.92	0.50
55:B8:50:LEU:O	55:B8:51:ALA:HB3	2.11	0.50
57:BA:16:G:O2'	57:BA:17:G:H5'	2.12	0.50
57:BA:89:G:H3'	57:BA:90:U:C5'	2.42	0.50
57:BA:272(E):G:C2	57:BA:364:C:N3	2.80	0.50
57:BA:332:A:O2'	57:BA:334:C:OP2	2.22	0.50
57:BA:654(N):G:C2'	57:BA:654(O):G:H5'	2.42	0.50
57:BA:2136:C:N4	57:BA:2156:G:H21	2.09	0.50
57:BA:2801:A:H2'	57:BA:2801:A:N3	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:BB:40:U:N3	58:BB:43:C:H5"	2.25	0.50
2:Ac:43:LEU:HD21	2:Ac:91:LEU:CD2	2.30	0.50
2:Ac:195:VAL:HG23	22:Aa:1205:U:O2'	2.11	0.50
3:Ad:116:GLN:HG3	22:Aa:407:G:O2'	2.11	0.50
7:Ah:49:GLU:O	7:Ah:51:VAL:HG13	2.12	0.50
8:Ai:2:GLU:O	8:Ai:2:GLU:HG2	2.12	0.50
11:Al:7:ILE:O	11:Al:11:VAL:HG23	2.11	0.50
12:Am:78:ILE:O	12:Am:81:LEU:HB2	2.12	0.50
15:Ap:3:LYS:O	15:Ap:21:VAL:HA	2.10	0.50
15:Ap:19:ILE:HG22	15:Ap:36:ILE:HG13	1.93	0.50
16:Aq:67:LYS:O	22:Aa:254:G:OP1	2.29	0.50
18:As:6:LYS:HG3	22:Aa:1314:C:OP2	2.11	0.50
18:As:35:SER:C	18:As:37:ARG:N	2.67	0.50
19:At:13:LEU:H	19:At:13:LEU:HD12	1.77	0.50
21:Ay:38:ARG:HH21	21:Ay:38:ARG:HG3	1.75	0.50
22:Aa:253:U:H2'	22:Aa:254:G:H8	1.75	0.50
27:AD:35:LYS:CG	27:AD:63:ARG:HG3	2.41	0.50
27:AD:142:VAL:CG2	27:AD:191:ALA:HB1	2.41	0.50
28:AE:111:ARG:CG	38:AR:2:ARG:HG2	2.41	0.50
30:AG:66:GLN:HA	30:AG:67:LYS:CE	2.38	0.50
30:AG:92:VAL:HA	58:AB:42:C:O2	2.12	0.50
32:AI:75:LEU:H	32:AI:75:LEU:HD12	1.77	0.50
35:AO:22:ILE:HG12	35:AO:41:ALA:HA	1.93	0.50
40:AT:106:SER:C	40:AT:107:ASP:OD1	2.55	0.50
40:AT:121:ILE:O	40:AT:124:ASP:HB2	2.11	0.50
42:AV:45:THR:O	42:AV:46:VAL:HG12	2.12	0.50
42:AV:82:ARG:HH11	42:AV:82:ARG:HG2	1.76	0.50
51:A4:51:ASP:C	51:A4:51:ASP:OD2	2.55	0.50
52:A5:43:HIS:HD2	57:AA:2815:C:O2'	1.94	0.50
53:A6:12:GLU:HG2	53:A6:23:THR:HG22	1.94	0.50
54:A7:5:TRP:CZ3	57:AA:464:U:H4'	2.47	0.50
57:AA:654(N):G:C2'	57:AA:654(O):G:H5'	2.42	0.50
57:AA:693:C:O2'	57:AA:694:U:H5'	2.12	0.50
57:AA:747:U:O2	57:AA:2014:A:H1'	2.11	0.50
57:AA:1028:A:N6	57:AA:1125:G:H2'	2.27	0.50
57:AA:1532:C:C2'	57:AA:1533:G:H5'	2.42	0.50
57:AA:1547:C:O2'	57:AA:1548:C:H5'	2.11	0.50
57:AA:1961:C:O2'	57:AA:1962:C:H5'	2.11	0.50
57:AA:1983:C:O2'	57:AA:1984:G:H5'	2.12	0.50
57:AA:2340:G:O2'	57:AA:2341:G:H5'	2.11	0.50
57:AA:2476:A:C2	57:AA:2477:C:C5	2.99	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bb:97:TRP:HZ3	1:Bb:172:ILE:CB	2.23	0.50
1:Bb:164:VAL:O	1:Bb:186:ALA:HB1	2.11	0.50
1:Bb:214:ILE:O	1:Bb:218:ALA:HB2	2.11	0.50
4:Be:51:VAL:O	4:Be:55:VAL:HG23	2.11	0.50
4:Be:126:ARG:HH11	4:Be:126:ARG:HG3	1.77	0.50
9:Bj:55:LYS:NZ	22:Ba:963:G:N2	2.59	0.50
11:Bl:119:LYS:O	11:Bl:120:TYR:HB2	2.10	0.50
14:Bo:18:PHE:O	14:Bo:19:PRO:C	2.53	0.50
14:Bo:37:ASN:N	14:Bo:37:ASN:ND2	2.55	0.50
17:Br:58:LEU:HD23	17:Br:62:GLU:HB3	1.92	0.50
19:Bt:73:HIS:O	19:Bt:74:LYS:C	2.54	0.50
22:Ba:328:C:H2'	22:Ba:328:C:O2	2.10	0.50
22:Ba:1382:C:H2'	22:Ba:1383:C:H6	1.76	0.50
27:BD:2:ALA:O	27:BD:3:VAL:HB	2.11	0.50
27:BD:267:SER:O	27:BD:268:ARG:C	2.54	0.50
28:BE:111:ARG:HB2	28:BE:160:TYR:O	2.10	0.50
34:BN:14:VAL:HG12	34:BN:15:LEU:N	2.26	0.50
38:BR:45:ARG:HD3	38:BR:97:VAL:HG21	1.94	0.50
39:BS:17:ARG:HH21	39:BS:90:GLY:N	2.08	0.50
39:BS:30:ARG:HH11	39:BS:35:ILE:HB	1.75	0.50
41:BU:57:PHE:C	41:BU:59:ARG:N	2.61	0.50
43:BW:10:VAL:O	43:BW:11:ARG:HB2	2.12	0.50
48:B1:75:GLU:C	48:B1:77:ALA:N	2.68	0.50
50:B3:38:GLU:HA	50:B3:38:GLU:OE2	2.11	0.50
51:B4:34:GLU:O	51:B4:35:VAL:HG23	2.10	0.50
51:B4:56:VAL:O	51:B4:56:VAL:HG12	2.12	0.50
55:B8:50:LEU:C	55:B8:52:LYS:H	2.20	0.50
57:BA:28:A:N6	57:BA:512:G:H1'	2.27	0.50
57:BA:420:C:H2'	57:BA:421:U:C6	2.47	0.50
57:BA:1265:A:OP1	57:BA:1265:A:H8	1.94	0.50
57:BA:2543:G:H8	57:BA:2543:G:H5'	1.76	0.50
58:BB:75:G:H5'	58:BB:76:G:OP2	2.12	0.50
3:Ad:31:CYS:C	3:Ad:33:MET:H	2.18	0.50
3:Ad:126:ILE:CG2	3:Ad:127:THR:N	2.75	0.50
3:Ad:205:GLU:OE1	4:Ae:100:VAL:HG22	2.10	0.50
4:Ae:31:LEU:HD22	4:Ae:43:LEU:HD11	1.92	0.50
6:Ag:54:THR:C	6:Ag:56:GLN:H	2.20	0.50
15:Ap:48:TRP:H	15:Ap:48:TRP:CD1	2.29	0.50
16:Aq:98:LEU:HD12	16:Aq:98:LEU:N	2.27	0.50
18:As:79:THR:O	18:As:80:TYR:HB3	2.10	0.50
19:At:56:MET:HE1	19:At:104:LEU:HB2	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Aa:254:G:O2'	22:Aa:255:G:H5'	2.10	0.50
22:Aa:308:C:H2'	22:Aa:309:G:C8	2.47	0.50
22:Aa:685:G:N2	22:Aa:686:U:H3	2.09	0.50
22:Aa:922:G:H2'	22:Aa:923:A:C8	2.47	0.50
22:Aa:1321:C:H3'	22:Aa:1322:C:H5"	1.92	0.50
26:AC:52:PRO:CG	26:AC:53:ARG:HH11	2.24	0.50
27:AD:139:GLY:H	27:AD:165:ILE:HB	1.76	0.50
28:AE:101:ARG:HB2	28:AE:201:THR:HG21	1.94	0.50
30:AG:119:GLY:CA	30:AG:179:PRO:HB2	2.37	0.50
31:AH:9:ILE:O	31:AH:9:ILE:CG2	2.58	0.50
31:AH:41:MET:CG	31:AH:43:VAL:HG13	2.41	0.50
34:AN:58:ASP:O	34:AN:59:LYS:HB2	2.12	0.50
36:AP:93:GLY:O	36:AP:123:LEU:HB2	2.11	0.50
37:AQ:21:THR:O	37:AQ:22:LYS:HB3	2.12	0.50
41:AU:83:LEU:N	41:AU:83:LEU:CD1	2.74	0.50
46:AZ:5:LEU:HD11	46:AZ:44:PHE:HA	1.92	0.50
52:A5:43:HIS:CD2	57:AA:2815:C:O2'	2.65	0.50
57:AA:445:C:O2'	57:AA:446:G:H5'	2.12	0.50
57:AA:564:C:O2'	57:AA:565:C:H5'	2.11	0.50
57:AA:863:A:O2'	57:AA:864:G:H5'	2.12	0.50
57:AA:1833:U:O2'	57:AA:1969:A:N1	2.39	0.50
1:Bb:167:PRO:CG	1:Bb:188:ALA:HB2	2.38	0.50
2:Bc:43:LEU:HD21	2:Bc:91:LEU:CD2	2.30	0.50
3:Bd:33:MET:HE3	3:Bd:37:PRO:HB3	1.94	0.50
4:Be:6:PHE:N	4:Be:6:PHE:CD1	2.80	0.50
4:Be:19:MET:HB2	22:Ba:921:U:O2	2.12	0.50
5:Bf:23:LYS:O	5:Bf:27:GLN:HG2	2.11	0.50
7:Bh:11:THR:HG23	7:Bh:14:ARG:HH12	1.76	0.50
8:Bi:9:ARG:CG	8:Bi:14:VAL:HG13	2.42	0.50
8:Bi:47:LEU:N	8:Bi:47:LEU:CD1	2.75	0.50
9:Bj:38:ILE:O	9:Bj:38:ILE:HG13	2.12	0.50
15:Bp:38:TYR:CD2	22:Ba:626:U:H5"	2.46	0.50
21:By:15:TRP:O	21:By:23:ARG:HD2	2.11	0.50
22:Ba:1008:C:H2'	22:Ba:1009:G:O4'	2.12	0.50
22:Ba:1292:U:H2'	22:Ba:1293:G:H8	1.77	0.50
22:Ba:1305:G:H8	22:Ba:1305:G:OP2	1.94	0.50
22:Ba:1321:C:H3'	22:Ba:1322:C:H5"	1.94	0.50
25:Bw:62:C:H4'	26:BC:53:ARG:CG	2.42	0.50
26:BC:191:ARG:CB	26:BC:195:ARG:HH12	2.21	0.50
27:BD:239:ARG:HB3	57:BA:2591:C:OP2	2.11	0.50
28:BE:116:VAL:HG21	28:BE:122:PHE:CE2	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BF:180:GLY:HA3	57:BA:614(C):A:C5	2.47	0.50
32:BI:62:LYS:HE3	32:BI:134:PRO:HD3	1.92	0.50
35:BO:13:ASN:ND2	35:BO:97:ARG:H	2.09	0.50
37:BQ:134:ARG:CD	46:BZ:122:ARG:HH21	2.24	0.50
38:BR:113:LEU:O	38:BR:113:LEU:HD23	2.11	0.50
43:BW:16:LYS:O	43:BW:19:LEU:HB2	2.12	0.50
45:BY:88:LYS:NZ	45:BY:93:GLY:CA	2.74	0.50
46:BZ:128:VAL:CG2	46:BZ:132:ASN:HB2	2.42	0.50
48:B1:45:ASN:ND2	57:BA:2090:G:H21	2.09	0.50
51:B4:14:ILE:HA	51:B4:31:ILE:HG22	1.92	0.50
57:BA:271(O):C:HO2'	57:BA:271(P):C:H6	1.52	0.50
57:BA:635:C:O2'	57:BA:639:U:OP1	2.30	0.50
57:BA:1541:G:H4'	57:BA:1542:A:O5'	2.11	0.50
57:BA:1602:U:H3'	57:BA:1603:A:C5'	2.42	0.50
57:BA:2206:G:C2	57:BA:2207:G:H5'	2.45	0.50
57:BA:2464:C:O2'	57:BA:2465:C:H6	1.94	0.50
57:BA:2469:A:H2	57:BA:2481:G:H21	1.58	0.50
2:Ac:29:TYR:O	2:Ac:29:TYR:HD2	1.94	0.50
2:Ac:127:ARG:HG2	2:Ac:127:ARG:NH1	2.26	0.50
4:Ae:6:PHE:N	4:Ae:6:PHE:CD1	2.80	0.50
8:Ai:102:LEU:O	8:Ai:103:THR:O	2.30	0.50
10:Ak:109:VAL:HG13	17:Ar:85:LEU:O	2.11	0.50
12:Am:65:LYS:CB	12:Am:66:LEU:CG	2.80	0.50
15:Ap:48:TRP:O	15:Ap:49:LEU:HB2	2.12	0.50
17:Ar:29:PHE:CD1	17:Ar:29:PHE:C	2.89	0.50
21:Ay:5:LEU:HD11	21:Ay:7:PHE:CE1	2.46	0.50
21:Ay:25:GLN:HG3	22:Aa:531:U:H5	1.76	0.50
22:Aa:477:A:O2'	22:Aa:479:C:H5'	2.11	0.50
22:Aa:918:A:H2'	22:Aa:919:A:C8	2.47	0.50
22:Aa:1053:G:O2'	22:Aa:1199:U:H5	1.95	0.50
25:Aw:74:C:O2'	25:Aw:75:C:H5'	2.12	0.50
29:AF:22:ALA:C	29:AF:24:LEU:N	2.69	0.50
29:AF:160:ASN:C	29:AF:160:ASN:ND2	2.70	0.50
30:AG:41:GLN:HB3	30:AG:43:LEU:CD2	2.41	0.50
30:AG:173:LEU:HD13	30:AG:178:PHE:CE2	2.47	0.50
32:AI:41:GLU:O	32:AI:45:LYS:HG2	2.11	0.50
34:AN:55:VAL:HG22	34:AN:126:PRO:HA	1.94	0.50
37:AQ:46:GLN:NE2	57:AA:2485:G:H5"	2.25	0.50
39:AS:70:GLY:C	39:AS:101:LEU:HD23	2.37	0.50
39:AS:105:ALA:C	39:AS:107:GLU:H	2.18	0.50
40:AT:3:ARG:C	40:AT:5:ALA:N	2.67	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:AT:62:THR:HA	40:AT:74:ARG:O	2.11	0.50
40:AT:101:PHE:CD2	40:AT:101:PHE:C	2.90	0.50
44:AX:50:LYS:HD3	44:AX:84:ALA:HB2	1.92	0.50
49:A2:44:LEU:O	49:A2:45:SER:HB3	2.11	0.50
57:AA:1014:U:O2'	57:AA:1015:G:H5"	2.12	0.50
57:AA:1948:G:O2'	57:AA:1949:G:H5'	2.11	0.50
2:Bc:46:GLU:O	2:Bc:47:LEU:CB	2.59	0.50
3:Bd:150:GLU:HA	3:Bd:153:ARG:CD	2.42	0.50
11:Bl:28:LYS:HE3	11:Bl:33:ARG:HH22	1.77	0.50
12:Bm:14:ARG:HB2	12:Bm:16:ASP:OD2	2.12	0.50
22:Ba:639:G:O2'	22:Ba:640:A:H5'	2.12	0.50
22:Ba:1511:G:O2'	22:Ba:1512:U:H5'	2.12	0.50
24:Bv:48:C:C2	24:Bv:59:A:H1'	2.47	0.50
25:Bw:62:C:C5'	26:BC:53:ARG:HG3	2.42	0.50
27:BD:79:VAL:HG11	27:BD:111:LEU:CD1	2.42	0.50
27:BD:231:HIS:ND1	27:BD:232:PRO:HD2	2.27	0.50
29:BF:157:VAL:HG22	29:BF:194:MET:HG2	1.94	0.50
31:BH:41:MET:CG	31:BH:43:VAL:HG13	2.42	0.50
32:BI:46:ALA:HB2	57:BA:271(P):C:H5'	1.92	0.50
32:BI:89:TYR:N	32:BI:89:TYR:HD1	2.09	0.50
38:BR:9:LYS:HG2	38:BR:43:GLU:OE2	2.12	0.50
39:BS:63:THR:O	39:BS:66:ALA:HB3	2.11	0.50
40:BT:23:ARG:O	40:BT:25:GLY:N	2.45	0.50
42:BV:79:VAL:HG22	57:BA:1188:U:H4'	1.94	0.50
46:BZ:61:LEU:HD23	46:BZ:61:LEU:N	2.08	0.50
55:B8:23:VAL:HG12	55:B8:46:ARG:HH11	1.76	0.50
55:B8:37:SER:C	55:B8:39:LYS:N	2.67	0.50
55:B8:62:LEU:N	55:B8:63:PRO:CD	2.74	0.50
57:BA:2195:C:O2'	57:BA:2196:C:H5'	2.12	0.50
57:BA:2338:G:H2'	57:BA:2339:G:H8	1.77	0.50
58:BB:111:G:C2'	58:BB:112:U:H5'	2.41	0.50
1:Ab:216:SER:C	1:Ab:218:ALA:N	2.70	0.50
2:Ac:47:LEU:HD21	2:Ac:68:VAL:HG11	1.92	0.50
3:Ad:11:LEU:C	3:Ad:13:ARG:N	2.68	0.50
9:Aj:98:ILE:HD12	9:Aj:98:ILE:N	2.27	0.50
10:Ak:67:ASP:O	10:Ak:71:LYS:HG3	2.12	0.50
22:Aa:112:G:H4'	22:Aa:389:A:H5"	1.94	0.50
22:Aa:1169:A:H2'	22:Aa:1170:A:C8	2.46	0.50
26:AC:50:ILE:HD11	26:AC:170:GLY:HA2	1.92	0.50
27:AD:25:THR:HG22	27:AD:26:LYS:H	1.74	0.50
27:AD:26:LYS:O	27:AD:27:THR:HG22	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AE:36:ARG:NH2	28:AE:88:GLY:CA	2.67	0.50
28:AE:101:ARG:HB3	28:AE:169:ASN:ND2	2.26	0.50
30:AG:38:VAL:HG13	30:AG:93:THR:HA	1.94	0.50
30:AG:58:GLN:O	30:AG:62:LEU:HD13	2.12	0.50
30:AG:142:PRO:HG2	30:AG:143:GLU:H	1.76	0.50
34:AN:35:ARG:O	34:AN:37:LYS:N	2.44	0.50
35:AO:13:ASN:O	35:AO:15:GLY:N	2.44	0.50
39:AS:29:PHE:CG	58:AB:7:G:H4'	2.46	0.50
41:AU:13:LYS:HE2	41:AU:13:LYS:N	2.27	0.50
41:AU:52:ARG:HH11	41:AU:52:ARG:HG2	1.77	0.50
41:AU:78:THR:O	41:AU:79:PHE:C	2.55	0.50
41:AU:83:LEU:CG	41:AU:88:ILE:HD11	2.28	0.50
44:AX:12:VAL:HG11	44:AX:17:ALA:HB1	1.93	0.50
46:AZ:48:PHE:CZ	46:AZ:74:VAL:HG21	2.46	0.50
46:AZ:156:LYS:O	46:AZ:158:PRO:HD3	2.12	0.50
51:A4:25:TYR:N	51:A4:25:TYR:CD1	2.80	0.50
51:A4:46:GLN:NE2	51:A4:47:GLN:O	2.43	0.50
55:A8:61:LEU:HD12	55:A8:62:LEU:CG	2.32	0.50
57:AA:106:C:H2'	57:AA:107:C:H6	1.77	0.50
57:AA:484:C:H2'	57:AA:485:C:C6	2.47	0.50
57:AA:830:G:H4'	57:AA:831:G:OP2	2.11	0.50
57:AA:1505:C:O4'	57:AA:1505:C:O2	2.30	0.50
57:AA:1858:G:H2'	57:AA:1883:G:H22	1.75	0.50
57:AA:2360:A:O2'	57:AA:2361:A:P	2.70	0.50
57:AA:2832:U:H4'	57:AA:2833:G:H5"	1.93	0.50
9:Bj:22:LYS:O	9:Bj:22:LYS:HD2	2.11	0.50
15:Bp:82:GLN:O	15:Bp:83:GLU:HB2	2.11	0.50
17:Br:56:THR:HB	17:Br:58:LEU:CD1	2.42	0.50
21:By:59:GLY:O	21:By:80:LYS:HA	2.12	0.50
22:Ba:452:A:HO2'	22:Ba:453:A:H8	1.60	0.50
22:Ba:1053:G:O2'	22:Ba:1199:U:H5	1.95	0.50
22:Ba:1271:G:H5'	22:Ba:1314:C:H5"	1.94	0.50
22:Ba:1499:A:H1'	22:Ba:1520:G:H5'	1.92	0.50
24:Bv:4:G:O2'	24:Bv:5:G:O5'	2.30	0.50
29:BF:22:ALA:C	29:BF:24:LEU:N	2.70	0.50
30:BG:72:ARG:O	57:BA:2312:U:H5"	2.12	0.50
32:BI:89:TYR:CD1	32:BI:89:TYR:N	2.80	0.50
41:BU:15:LYS:NZ	57:BA:1217:C:OP2	2.37	0.50
42:BV:99:ILE:CD1	42:BV:99:ILE:N	2.65	0.50
52:B5:4:HIS:O	57:BA:2056:G:N2	2.44	0.50
57:BA:110:G:O2'	57:BA:111:A:H5'	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BA:528:A:H2	57:BA:2043:C:C5'	2.24	0.50
57:BA:676:A:H8	57:BA:2069:G:N2	1.95	0.50
57:BA:979:G:H3'	57:BA:980:A:C5'	2.41	0.50
57:BA:2360:A:O2'	57:BA:2361:A:P	2.68	0.50
57:BA:2564:A:C2	57:BA:2647:U:H4'	2.47	0.50
2:Ac:16:ARG:HH11	2:Ac:16:ARG:CB	2.24	0.50
8:Ai:28:VAL:HG11	8:Ai:65:VAL:HG12	1.93	0.50
11:Al:119:LYS:C	11:Al:120:TYR:HD1	2.20	0.50
14:Ao:39:LEU:HD12	14:Ao:56:LEU:HB2	1.93	0.50
15:Ap:43:LYS:C	15:Ap:45:THR:H	2.18	0.50
16:Aq:22:LEU:HD12	16:Aq:23:VAL:N	2.27	0.50
22:Aa:1137:C:H4'	22:Aa:1138:G:C2	2.46	0.50
22:Aa:1262:C:H2'	22:Aa:1263:C:C6	2.47	0.50
25:Aw:53:G:H2'	25:Aw:54:U:H6	1.77	0.50
25:Aw:59:A:C2'	25:Aw:60:U:H5'	2.42	0.50
31:AH:41:MET:HE2	31:AH:43:VAL:HG13	1.93	0.50
36:AP:33:ARG:O	36:AP:35:HIS:O	2.30	0.50
37:AQ:27:VAL:HB	37:AQ:137:TYR:HD1	1.77	0.50
37:AQ:35:VAL:HG11	37:AQ:130:LYS:CE	2.42	0.50
40:AT:36:GLU:HG2	40:AT:36:GLU:O	2.12	0.50
41:AU:110:VAL:O	41:AU:113:ALA:HB3	2.11	0.50
45:AY:95:LYS:HG2	45:AY:101:LYS:H	1.77	0.50
46:AZ:102:LEU:HD21	46:AZ:124:ILE:CD1	2.41	0.50
49:A2:46:GLN:CB	49:A2:49:LYS:HE3	2.29	0.50
57:AA:576:U:H2'	57:AA:577:G:C8	2.47	0.50
57:AA:1362:C:O2'	57:AA:1363:C:H5'	2.12	0.50
57:AA:1607:C:H4'	57:AA:1608:A:O5'	2.12	0.50
1:Bb:197:VAL:HB	1:Bb:200:ILE:HG12	1.94	0.50
4:Be:31:LEU:CD2	4:Be:43:LEU:HD11	2.41	0.50
6:Bg:29:LYS:HB2	6:Bg:105:VAL:HG21	1.94	0.50
9:Bj:55:LYS:HD2	22:Ba:963:G:N2	2.27	0.50
15:Bp:1:MET:HE2	15:Bp:65:GLN:HG3	1.94	0.50
16:Bq:6:LEU:O	16:Bq:58:GLU:HA	2.12	0.50
21:By:54:LYS:C	21:By:55:LEU:HD23	2.36	0.50
22:Ba:936:C:H2'	22:Ba:937:A:O4'	2.12	0.50
22:Ba:1225:A:H2'	22:Ba:1225:A:N3	2.27	0.50
22:Ba:1447:A:N3	22:Ba:1447:A:H2'	2.27	0.50
26:BC:31:LYS:O	26:BC:31:LYS:HD3	2.12	0.50
27:BD:154:LYS:HE2	57:BA:1801:G:OP2	2.11	0.50
29:BF:185:ASP:HA	29:BF:188:ARG:HD3	1.92	0.50
30:BG:106:LEU:O	30:BG:110:ALA:HB3	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:46:LYS:HE2	57:BA:196:A:O4'	2.12	0.50
36:BP:101:VAL:C	36:BP:103:ALA:H	2.20	0.50
40:BT:106:SER:C	40:BT:107:ASP:OD1	2.54	0.50
42:BV:8:GLY:O	57:BA:1161:C:H1'	2.12	0.50
44:BX:27:THR:HG22	44:BX:80:ILE:HB	1.94	0.50
46:BZ:150:LEU:H	46:BZ:150:LEU:CD2	2.15	0.50
52:B5:33:CYS:CB	52:B5:40:LYS:HE3	2.40	0.50
52:B5:46:CYS:SG	52:B5:47:PRO:HD2	2.52	0.50
57:BA:271(H):G:O2'	57:BA:271(I):G:H8	1.95	0.50
57:BA:271(R):G:O2'	57:BA:271(S):G:H5'	2.11	0.50
57:BA:2146:C:H4'	57:BA:2147:G:C8	2.47	0.50
57:BA:2263:C:O2'	57:BA:2264:C:H5'	2.10	0.50
57:BA:2529:G:OP2	57:BA:2530:A:H5"	2.12	0.50
3:Ad:128:VAL:O	3:Ad:129:ASN:C	2.55	0.50
11:Al:68:ALA:CB	11:Al:85:ILE:HD11	2.41	0.50
13:An:51:GLY:C	13:An:53:LEU:H	2.20	0.50
17:Ar:50:ILE:HD12	17:Ar:70:ILE:CD1	2.42	0.50
22:Aa:1168:A:H2'	22:Aa:1169:A:C8	2.46	0.50
22:Aa:1277:C:O2'	22:Aa:1279:A:H8	1.95	0.50
27:AD:35:LYS:NZ	27:AD:36:PRO:N	2.60	0.50
28:AE:24:THR:HG22	28:AE:186:GLY:CA	2.41	0.50
29:AF:117:ARG:HH21	29:AF:187:VAL:HA	1.76	0.50
29:AF:157:VAL:HG22	29:AF:157:VAL:O	2.11	0.50
32:AI:44:LEU:O	32:AI:47:LEU:HB3	2.12	0.50
36:AP:6:LEU:HD23	36:AP:6:LEU:N	2.27	0.50
37:AQ:133:ARG:NH1	37:AQ:133:ARG:HG3	2.27	0.50
39:AS:44:LYS:HE3	39:AS:44:LYS:HA	1.94	0.50
39:AS:88:ASP:OD2	39:AS:89:ARG:N	2.45	0.50
43:AW:17:VAL:O	43:AW:18:ARG:C	2.53	0.50
43:AW:79:GLY:CA	43:AW:100:THR:HG22	2.42	0.50
49:A2:4:SER:HA	49:A2:7:ARG:HH11	1.76	0.50
51:A4:14:ILE:HD12	51:A4:14:ILE:N	2.27	0.50
53:A6:37:ARG:NH2	57:AA:2286:A:H62	1.94	0.50
57:AA:259:G:O2'	57:AA:260:G:H5'	2.12	0.50
57:AA:272(E):G:C2	57:AA:364:C:N3	2.80	0.50
57:AA:548:A:H2'	57:AA:548:A:N3	2.27	0.50
57:AA:2199:A:H3'	57:AA:2200:C:C6	2.46	0.50
57:AA:2206:G:H3'	57:AA:2206:G:N3	2.27	0.50
57:AA:2530:A:H2'	57:AA:2531:A:H5'	1.93	0.50
2:Bc:189:ALA:HB3	2:Bc:196:LEU:HB2	1.94	0.50
3:Bd:25:ARG:HH12	3:Bd:30:LYS:HB2	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Be:101:ILE:CG1	4:Be:119:LEU:HD23	2.41	0.50
6:Bg:50:ILE:O	6:Bg:54:THR:HG22	2.12	0.50
6:Bg:102:ARG:HH12	22:Ba:939:G:H5"	1.77	0.50
8:Bi:5:TYR:HA	8:Bi:17:VAL:O	2.12	0.50
8:Bi:18:PHE:HD1	8:Bi:62:TYR:CD2	2.29	0.50
9:Bj:48:THR:HA	9:Bj:62:HIS:HB2	1.90	0.50
22:Ba:865:A:H5'	22:Ba:1078:U:O4	2.12	0.50
22:Ba:1072:G:H2'	22:Ba:1073:U:H6	1.74	0.50
22:Ba:1508:G:H2'	22:Ba:1509:C:H6	1.77	0.50
25:Bw:65:C:H2'	25:Bw:66:C:C6	2.46	0.50
31:BH:53:GLU:HA	31:BH:65:HIS:CE1	2.47	0.50
34:BN:18:ALA:CB	34:BN:21:LYS:HB3	2.42	0.50
36:BP:106:LEU:HD13	36:BP:112:LEU:HD23	1.93	0.50
36:BP:108:LYS:O	36:BP:110:TYR:N	2.45	0.50
39:BS:28:VAL:O	39:BS:89:ARG:HD2	2.12	0.50
41:BU:68:ALA:O	41:BU:71:GLN:HB2	2.11	0.50
44:BX:60:ARG:NH1	57:BA:1311:G:C2	2.79	0.50
48:B1:19:GLN:HB3	48:B1:35:THR:CG2	2.42	0.50
49:B2:59:ARG:O	49:B2:63:VAL:HG23	2.12	0.50
52:B5:3:LYS:HZ3	57:BA:2613:U:C2'	2.25	0.50
57:BA:94:C:O2	57:BA:94:C:H2'	2.11	0.50
57:BA:654(N):G:H2'	57:BA:654(O):G:H5'	1.94	0.50
57:BA:1532:C:C2'	57:BA:1533:G:H5'	2.42	0.50
57:BA:1547:C:O2'	57:BA:1548:C:H5'	2.11	0.50
57:BA:1963:U:O2	57:BA:1963:U:C2'	2.60	0.50
57:BA:2340:G:O2'	57:BA:2341:G:H5'	2.12	0.50
57:BA:2656:U:H2'	57:BA:2657:A:H5"	1.94	0.50
57:BA:2807:G:C3'	57:BA:2808:U:H5"	2.42	0.50
1:Ab:139:LYS:O	1:Ab:143:GLU:HG2	2.12	0.49
5:Af:23:LYS:O	5:Af:27:GLN:HG2	2.12	0.49
6:Ag:76:ARG:HH11	6:Ag:76:ARG:HG2	1.76	0.49
12:Am:29:ARG:HB3	12:Am:64:TRP:CZ2	2.47	0.49
15:Ap:82:GLN:O	15:Ap:83:GLU:HB2	2.12	0.49
17:Ar:30:ASP:C	17:Ar:32:ARG:H	2.20	0.49
21:Ay:76:ILE:O	21:Ay:77:SER:C	2.55	0.49
22:Aa:39:G:N7	22:Aa:547:A:H8	2.10	0.49
22:Aa:685:G:N2	22:Aa:686:U:N3	2.60	0.49
22:Aa:879:C:O2'	22:Aa:880:C:H5'	2.12	0.49
22:Aa:892:A:H2'	22:Aa:893:C:C6	2.47	0.49
22:Aa:1188:A:H2'	22:Aa:1189:C:O4'	2.12	0.49
25:Aw:5:G:H22	25:Aw:68:C:H42	1.59	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:AC:191:ARG:CB	26:AC:195:ARG:HH12	2.19	0.49
27:AD:79:VAL:HG11	27:AD:111:LEU:HD11	1.94	0.49
28:AE:104:VAL:HG11	28:AE:188:VAL:HG21	1.93	0.49
29:AF:169:ASN:ND2	57:AA:322:A:H3'	2.25	0.49
30:AG:175:LEU:O	30:AG:176:LEU:HG	2.12	0.49
32:AI:24:GLY:HA3	57:AA:2093:G:O5'	2.12	0.49
35:AO:66:LYS:HD3	57:AA:1666:G:OP1	2.12	0.49
36:AP:52:GLU:HB3	57:AA:832:G:O2'	2.12	0.49
39:AS:98:VAL:HG12	39:AS:100:ALA:HB2	1.94	0.49
42:AV:21:ARG:HD3	42:AV:21:ARG:N	2.25	0.49
57:AA:1168:G:O2'	57:AA:1169:G:H5'	2.12	0.49
57:AA:2515:C:O2'	57:AA:2516:G:H5'	2.11	0.49
1:Bb:189:ASP:OD1	1:Bb:189:ASP:N	2.45	0.49
3:Bd:92:VAL:O	3:Bd:96:LEU:HD13	2.12	0.49
9:Bj:50:ILE:CG2	9:Bj:60:ARG:HD3	2.41	0.49
11:Bl:113:ARG:NH1	22:Ba:537:G:H5"	2.26	0.49
12:Bm:15:VAL:HA	12:Bm:18:ALA:HB3	1.94	0.49
12:Bm:66:LEU:O	12:Bm:67:GLU:O	2.30	0.49
15:Bp:16:HIS:CD2	22:Ba:625:G:H4'	2.47	0.49
15:Bp:19:ILE:HG22	15:Bp:36:ILE:HG13	1.94	0.49
25:Bw:47:U:H3'	25:Bw:48:C:C5'	2.42	0.49
27:BD:227:ASN:ND2	57:BA:784:A:H5"	2.26	0.49
28:BE:30:PRO:O	28:BE:32:PRO:HD3	2.12	0.49
28:BE:131:ALA:CB	57:BA:2580:U:H5'	2.41	0.49
29:BF:36:VAL:HG11	29:BF:183:VAL:CG1	2.40	0.49
29:BF:74:ARG:NH2	57:BA:2445:G:OP1	2.44	0.49
30:BG:41:GLN:NE2	30:BG:154:GLY:O	2.45	0.49
30:BG:109:VAL:O	30:BG:110:ALA:O	2.30	0.49
30:BG:130:ASN:ND2	30:BG:160:VAL:HG13	2.27	0.49
32:BI:120:ILE:CD1	32:BI:120:ILE:H	2.25	0.49
36:BP:55:ARG:CG	36:BP:56:SER:N	2.66	0.49
36:BP:61:ARG:HH11	55:B8:13:ARG:HD2	1.77	0.49
36:BP:146:VAL:O	36:BP:148:LEU:N	2.45	0.49
37:BQ:58:PHE:O	37:BQ:58:PHE:CD1	2.64	0.49
38:BR:29:LEU:HB3	38:BR:75:LEU:HD11	1.93	0.49
40:BT:23:ARG:HB2	40:BT:24:PRO:HD2	1.94	0.49
40:BT:117:ASP:O	40:BT:121:ILE:HG13	2.12	0.49
44:BX:57:LEU:N	44:BX:57:LEU:CD1	2.74	0.49
51:B4:9:LEU:HA	51:B4:26:SER:O	2.12	0.49
55:B8:40:GLU:C	55:B8:42:ARG:N	2.70	0.49
57:BA:271(D):G:O2'	57:BA:271(E):U:H5'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BA:1168:G:O2'	57:BA:1169:G:H5'	2.12	0.49
57:BA:1505:C:O4'	57:BA:1505:C:O2	2.29	0.49
57:BA:1537:G:H2'	57:BA:1538:G:C8	2.43	0.49
57:BA:1541:G:H5"	57:BA:1542:A:O5'	2.11	0.49
57:BA:1638:C:H4'	57:BA:2710:C:O2	2.12	0.49
57:BA:1917:U:O2'	57:BA:1918:A:H5'	2.12	0.49
57:BA:2236:C:H2'	57:BA:2237:G:H5'	1.93	0.49
57:BA:2313:C:C6	57:BA:2314:C:H5	2.30	0.49
57:BA:2611:U:H5'	57:BA:2611:U:C6	2.39	0.49
3:Ad:134:ASP:O	3:Ad:136:PRO:HD3	2.13	0.49
6:Ag:32:ARG:HH11	6:Ag:32:ARG:HG2	1.77	0.49
8:Ai:9:ARG:CG	8:Ai:14:VAL:HG13	2.41	0.49
8:Ai:26:VAL:HG13	8:Ai:61:ALA:HB3	1.94	0.49
9:Aj:38:ILE:O	9:Aj:38:ILE:HG13	2.11	0.49
11:Al:43:VAL:CG2	11:Al:93:LEU:HD22	2.42	0.49
12:Am:63:THR:HG22	12:Am:64:TRP:N	2.27	0.49
16:Aq:12:SER:HB3	16:Aq:20:THR:HB	1.94	0.49
21:Ay:2:ALA:O	21:Ay:3:TYR:C	2.54	0.49
22:Aa:1042:G:O2'	22:Aa:1043:C:H5'	2.12	0.49
22:Aa:1228:C:C5	22:Aa:1229:A:N7	2.80	0.49
22:Aa:1229:A:H2'	22:Aa:1230:C:C6	2.47	0.49
22:Aa:1290:G:H2'	22:Aa:1290:G:N3	2.26	0.49
22:Aa:1293:G:O2'	22:Aa:1294:G:H8	1.95	0.49
22:Aa:1347:G:H21	22:Aa:1373:G:H2'	1.72	0.49
30:AG:131:TYR:HB3	30:AG:159:VAL:HG11	1.93	0.49
30:AG:173:LEU:HD22	30:AG:178:PHE:CE1	2.47	0.49
36:AP:34:GLY:O	36:AP:35:HIS:HB2	2.12	0.49
39:AS:20:ARG:HA	39:AS:20:ARG:NE	2.27	0.49
39:AS:74:ALA:O	39:AS:77:ALA:HB3	2.12	0.49
40:AT:31:SER:N	40:AT:43:GLN:O	2.46	0.49
41:AU:83:LEU:H	41:AU:83:LEU:CD1	2.25	0.49
56:A9:1:MET:SD	57:AA:2478:A:OP2	2.70	0.49
56:A9:7:VAL:HG12	56:A9:25:VAL:HG21	1.95	0.49
57:AA:20:C:H2'	57:AA:21:A:H8	1.77	0.49
57:AA:271(R):G:O2'	57:AA:271(S):G:H5'	2.12	0.49
57:AA:528:A:C2	57:AA:2043:C:C4'	2.93	0.49
57:AA:1332:G:H5"	57:AA:1332:G:C8	2.46	0.49
57:AA:1827:C:C2'	57:AA:1828:G:H5'	2.41	0.49
57:AA:1916:A:H5'	57:AA:1917:U:OP2	2.12	0.49
57:AA:2529:G:OP2	57:AA:2530:A:H5"	2.12	0.49
57:AA:2713:A:H3'	57:AA:2714:G:H5'	1.92	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:AA:2842:G:O2'	57:AA:2843:G:H5'	2.13	0.49
3:Bd:13:ARG:O	3:Bd:16:GLY:N	2.42	0.49
3:Bd:54:TYR:O	3:Bd:55:ALA:C	2.55	0.49
4:Be:11:ILE:HD13	4:Be:105:VAL:HG13	1.93	0.49
4:Be:51:VAL:HB	4:Be:52:PRO:CD	2.38	0.49
5:Bf:10:LEU:HD12	5:Bf:10:LEU:N	2.27	0.49
5:Bf:15:ASP:OD1	5:Bf:17:SER:HB2	2.12	0.49
6:Bg:27:ILE:HD13	6:Bg:40:ALA:HA	1.93	0.49
7:Bh:11:THR:HG22	7:Bh:15:ASN:HD22	1.77	0.49
8:Bi:16:ARG:HH12	22:Ba:1128:C:H5'	1.77	0.49
9:Bj:38:ILE:HG12	9:Bj:71:LEU:O	2.11	0.49
12:Bm:69:GLU:OE1	12:Bm:69:GLU:O	2.30	0.49
15:Bp:14:ASN:N	15:Bp:15:PRO:HD3	2.27	0.49
22:Ba:112:G:H4'	22:Ba:389:A:H5"	1.94	0.49
22:Ba:1070:U:H2'	22:Ba:1071:C:H6	1.77	0.49
22:Ba:1188:A:H2'	22:Ba:1189:C:O4'	2.12	0.49
22:Ba:1283:G:O2'	22:Ba:1284:C:H5'	2.12	0.49
22:Ba:1514:C:H2'	22:Ba:1515:C:C6	2.46	0.49
25:Bw:72:A:O2'	25:Bw:73:A:H5'	2.11	0.49
27:BD:3:VAL:HG12	27:BD:17:THR:HB	1.94	0.49
30:BG:152:LEU:H	30:BG:152:LEU:HD23	1.77	0.49
31:BH:109:PHE:C	31:BH:111:HIS:N	2.69	0.49
32:BI:82:ARG:HG2	32:BI:145:VAL:HG11	1.93	0.49
34:BN:133:GLN:CG	34:BN:135:PRO:HD3	2.32	0.49
35:BO:66:LYS:HD3	57:BA:1666:G:OP1	2.12	0.49
36:BP:33:ARG:CZ	57:BA:587:C:H2'	2.43	0.49
38:BR:65:LEU:HD21	57:BA:2870:C:H5"	1.94	0.49
39:BS:96:GLY:O	39:BS:98:VAL:N	2.39	0.49
46:BZ:121:HIS:O	46:BZ:123:ASP:N	2.37	0.49
46:BZ:136:PHE:CD2	46:BZ:136:PHE:N	2.79	0.49
48:B1:80:LEU:HB2	48:B1:82:LEU:HD11	1.93	0.49
57:BA:519:U:H2'	57:BA:520:G:H8	1.77	0.49
57:BA:893:C:H2'	57:BA:894:C:C6	2.47	0.49
57:BA:1014:U:O2'	57:BA:1015:G:H5"	2.12	0.49
57:BA:1332:G:N2	57:BA:1609:A:O2'	2.44	0.49
2:Ac:15:THR:HG21	2:Ac:181:ASN:HA	1.93	0.49
2:Ac:46:GLU:O	2:Ac:47:LEU:CB	2.61	0.49
3:Ad:150:GLU:HG2	3:Ad:151:LYS:N	2.27	0.49
6:Ag:50:ILE:O	6:Ag:54:THR:HG22	2.12	0.49
6:Ag:73:MET:HA	6:Ag:91:VAL:HG23	1.94	0.49
8:Ai:19:LEU:HD22	8:Ai:59:PHE:CB	2.40	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:Ai:118:LYS:HZ3	22:Aa:1349:A:P	2.35	0.49
9:Aj:55:LYS:NZ	22:Aa:963:G:N2	2.59	0.49
11:Al:28:LYS:HE3	11:Al:33:ARG:HH22	1.77	0.49
12:Am:96:LEU:HB3	12:Am:97:PRO:HD2	1.93	0.49
22:Aa:710:G:O2'	22:Aa:711:G:H5'	2.12	0.49
22:Aa:1338:G:H2'	22:Aa:1339:A:C8	2.47	0.49
22:Aa:1382:C:H2'	22:Aa:1383:C:H6	1.76	0.49
27:AD:35:LYS:HA	27:AD:64:ILE:HG22	1.94	0.49
27:AD:134:ARG:HG3	27:AD:135:PHE:CE2	2.47	0.49
27:AD:211:ARG:HD3	27:AD:214:TRP:CZ3	2.46	0.49
29:AF:20:LEU:HD12	29:AF:199:TRP:HZ3	1.75	0.49
33:AJ:103:GLY:O	33:AJ:109:SER:HA	2.13	0.49
34:AN:3:THR:HG22	34:AN:5:VAL:HG12	1.94	0.49
34:AN:67:LEU:C	34:AN:69:GLN:H	2.21	0.49
34:AN:86:PRO:HG2	34:AN:89:LYS:HG2	1.94	0.49
36:AP:9:ASN:C	36:AP:11:GLY:H	2.21	0.49
36:AP:81:GLN:CG	36:AP:106:LEU:HD12	2.37	0.49
38:AR:113:LEU:O	38:AR:113:LEU:HD23	2.11	0.49
42:AV:49:THR:CB	42:AV:50:PRO:CD	2.85	0.49
42:AV:52:VAL:HG13	42:AV:55:ALA:HB3	1.93	0.49
45:AY:100:ALA:O	45:AY:101:LYS:HB2	2.12	0.49
49:A2:64:LEU:CD2	49:A2:68:ARG:HD3	2.42	0.49
54:A7:19:ARG:HG2	54:A7:19:ARG:NH1	2.26	0.49
57:AA:271(H):G:O2'	57:AA:271(I):G:H8	1.95	0.49
57:AA:654(N):G:H2'	57:AA:654(O):G:H5'	1.94	0.49
57:AA:786:C:O2'	57:AA:787:U:H5'	2.13	0.49
57:AA:869:G:O2'	57:AA:870:A:H5'	2.12	0.49
57:AA:2729:G:H2'	57:AA:2730:C:H6	1.78	0.49
57:AA:2808:U:C2'	57:AA:2809:A:H5'	2.42	0.49
1:Bb:97:TRP:HH2	1:Bb:176:GLU:CG	2.25	0.49
2:Bc:79:ARG:HH11	2:Bc:79:ARG:HG3	1.77	0.49
2:Bc:101:LEU:HD23	2:Bc:102:ASN:N	2.27	0.49
2:Bc:173:VAL:N	2:Bc:174:PRO:HD3	2.27	0.49
3:Bd:126:ILE:N	3:Bd:126:ILE:CD1	2.75	0.49
4:Be:119:LEU:HD22	22:Ba:7:G:H2'	1.94	0.49
6:Bg:66:VAL:O	6:Bg:66:VAL:CG1	2.61	0.49
7:Bh:61:VAL:O	7:Bh:63:LEU:HD22	2.12	0.49
22:Ba:484:G:H4'	22:Ba:485:G:O5'	2.13	0.49
22:Ba:601:C:H2'	22:Ba:602:A:C8	2.47	0.49
22:Ba:685:G:N2	22:Ba:686:U:H3	2.11	0.49
22:Ba:1042:G:O2'	22:Ba:1043:C:H5'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Ba:1195:C:C5'	22:Ba:1196:U:H5"	2.39	0.49
27:BD:30:GLU:CG	27:BD:63:ARG:CZ	2.89	0.49
27:BD:77:ALA:HB2	27:BD:97:TYR:HA	1.94	0.49
27:BD:142:VAL:CG2	27:BD:191:ALA:HB1	2.41	0.49
27:BD:209:ALA:C	27:BD:210:GLY:O	2.52	0.49
31:BH:109:PHE:O	31:BH:111:HIS:N	2.46	0.49
32:BI:68:LEU:HD23	32:BI:68:LEU:C	2.36	0.49
32:BI:85:GLU:OE1	32:BI:86:THR:HB	2.11	0.49
34:BN:86:PRO:HG2	34:BN:89:LYS:HG2	1.94	0.49
36:BP:15:ARG:HH11	57:BA:597:U:H4'	1.77	0.49
45:BY:7:VAL:CB	45:BY:8:LYS:NZ	2.76	0.49
45:BY:45:VAL:HG12	45:BY:60:PHE:CE2	2.48	0.49
51:B4:15:ILE:HG22	51:B4:15:ILE:O	2.12	0.49
57:BA:407:G:H2'	57:BA:408:G:H8	1.78	0.49
57:BA:443:A:H1'	57:BA:1201:C:O4'	2.13	0.49
57:BA:1856:G:C2'	57:BA:1857:G:H5'	2.42	0.49
57:BA:2464:C:O2'	57:BA:2465:C:P	2.70	0.49
2:Ac:79:ARG:HH11	2:Ac:79:ARG:HG3	1.78	0.49
9:Aj:8:LEU:HD13	9:Aj:20:ALA:HB2	1.94	0.49
15:Ap:49:LEU:HD22	15:Ap:73:LEU:HD22	1.94	0.49
16:Aq:6:LEU:O	16:Aq:58:GLU:HA	2.12	0.49
22:Aa:229:U:O2'	22:Aa:230:G:H5'	2.13	0.49
22:Aa:601:C:H2'	22:Aa:602:A:C8	2.48	0.49
22:Aa:1436:U:H2'	22:Aa:1437:C:O4'	2.13	0.49
25:Aw:13:C:O2'	25:Aw:14:A:H8	1.95	0.49
26:AC:31:LYS:HD3	26:AC:31:LYS:O	2.13	0.49
30:AG:142:PRO:HG2	30:AG:143:GLU:CD	2.38	0.49
31:AH:152:ARG:O	31:AH:152:ARG:HG3	2.13	0.49
37:AQ:111:GLU:O	37:AQ:115:MET:HG2	2.12	0.49
40:AT:91:ARG:CB	40:AT:116:ALA:HA	2.41	0.49
42:AV:2:PHE:HB2	42:AV:42:GLY:HA2	1.94	0.49
46:AZ:150:LEU:O	46:AZ:171:ILE:HG13	2.11	0.49
57:AA:330:A:O2'	57:AA:331:A:C8	2.65	0.49
57:AA:635:C:O2'	57:AA:639:U:OP1	2.30	0.49
57:AA:1652:A:O2'	57:AA:1653:G:H5'	2.13	0.49
57:AA:1762:A:H8	57:AA:1762:A:O5'	1.95	0.49
57:AA:2287:A:N6	57:AA:2344:U:H3	2.11	0.49
57:AA:2774:C:H2'	57:AA:2775:A:O4'	2.12	0.49
2:Bc:162:GLN:HB2	23:Bx:23:A:H2	1.75	0.49
3:Bd:18:LYS:HE2	3:Bd:31:CYS:HB3	1.95	0.49
4:Be:41:VAL:HG13	4:Be:113:ALA:HA	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:Bg:73:MET:HA	6:Bg:91:VAL:HG23	1.95	0.49
9:Bj:7:LYS:HD3	9:Bj:71:LEU:HD13	1.95	0.49
12:Bm:112:GLY:O	12:Bm:113:PRO:O	2.31	0.49
22:Ba:165:C:H2'	22:Ba:166:G:C8	2.47	0.49
22:Ba:389:A:C2'	22:Ba:390:C:H5'	2.41	0.49
29:BF:66:PRO:O	29:BF:67:GLN:CB	2.55	0.49
31:BH:106:THR:HG22	31:BH:112:PRO:HB3	1.95	0.49
34:BN:15:LEU:C	34:BN:15:LEU:HD13	2.38	0.49
34:BN:55:VAL:HG22	34:BN:126:PRO:HA	1.95	0.49
34:BN:62:VAL:HG21	34:BN:66:LYS:HB2	1.94	0.49
34:BN:102:ALA:O	34:BN:106:MET:HE3	2.13	0.49
36:BP:9:ASN:N	36:BP:10:PRO:HD2	2.26	0.49
38:BR:8:ARG:NE	38:BR:8:ARG:N	2.60	0.49
38:BR:46:GLY:HA2	57:BA:2839:G:H5'	1.95	0.49
40:BT:20:PRO:HD2	40:BT:85:LYS:HB2	1.95	0.49
40:BT:23:ARG:HG2	40:BT:120:ARG:HH12	1.77	0.49
41:BU:10:ARG:O	41:BU:11:ARG:C	2.55	0.49
42:BV:19:LYS:NZ	42:BV:20:LEU:N	2.51	0.49
43:BW:87:PRO:HA	43:BW:93:ALA:HA	1.95	0.49
44:BX:47:PHE:O	44:BX:48:LYS:C	2.55	0.49
45:BY:13:VAL:CG2	45:BY:72:VAL:HB	2.42	0.49
46:BZ:166:SER:HB2	46:BZ:167:PRO:C	2.37	0.49
51:B4:46:GLN:NE2	51:B4:47:GLN:O	2.44	0.49
55:B8:40:GLU:O	55:B8:42:ARG:N	2.45	0.49
57:BA:1747(A):G:H2'	57:BA:1748:G:C5'	2.25	0.49
57:BA:1865:G:H5'	57:BA:1866:C:P	2.52	0.49
57:BA:2179:C:OP1	57:BA:2179:C:H4'	2.12	0.49
1:Ab:16:HIS:HD2	1:Ab:209:ARG:C	2.20	0.49
2:Ac:134:ILE:HG23	2:Ac:151:VAL:HB	1.94	0.49
3:Ad:54:TYR:O	3:Ad:55:ALA:C	2.56	0.49
4:Ae:10:MET:HB2	4:Ae:32:VAL:HG22	1.91	0.49
6:Ag:27:ILE:HD13	6:Ag:40:ALA:HA	1.93	0.49
6:Ag:111:ARG:HH11	6:Ag:111:ARG:CB	2.25	0.49
7:Ah:31:PHE:O	7:Ah:35:ILE:HG12	2.11	0.49
9:Aj:49:VAL:CG2	13:An:41:ARG:CB	2.88	0.49
9:Aj:54:PHE:CZ	9:Aj:55:LYS:NZ	2.79	0.49
10:Ak:65:ALA:HB1	10:Ak:98:LEU:CD2	2.43	0.49
11:Al:122:THR:O	22:Aa:36:C:H4'	2.13	0.49
14:Ao:51:HIS:CE1	22:Aa:667:G:H4'	2.48	0.49
18:As:9:VAL:C	18:As:11:VAL:H	2.20	0.49
21:Ay:22:VAL:HG12	21:Ay:23:ARG:N	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Aa:1521:G:H2'	22:Aa:1522:U:C6	2.47	0.49
28:AE:119:ARG:HG2	28:AE:160:TYR:HB2	1.93	0.49
28:AE:132:HIS:O	28:AE:135:HIS:NE2	2.46	0.49
32:AI:88:ILE:CD1	32:AI:120:ILE:HG21	2.43	0.49
32:AI:100:ALA:HA	32:AI:103:ARG:NH1	2.28	0.49
37:AQ:10:ARG:HB2	37:AQ:10:ARG:HH11	1.77	0.49
39:AS:105:ALA:C	39:AS:107:GLU:N	2.70	0.49
41:AU:91:ASP:O	41:AU:95:LEU:HB2	2.13	0.49
51:A4:37:SER:O	51:A4:38:LYS:HB2	2.11	0.49
57:AA:94:C:H2'	57:AA:94:C:O2	2.11	0.49
57:AA:237:C:O2'	57:AA:238:C:H5'	2.12	0.49
57:AA:888:C:O2'	57:AA:889:C:H5'	2.12	0.49
57:AA:1291:C:H2'	57:AA:1292:U:C6	2.47	0.49
57:AA:1503:U:C4	57:AA:1504:C:N4	2.79	0.49
57:AA:2146:C:H4'	57:AA:2147:G:C8	2.47	0.49
57:AA:2528:U:H2'	57:AA:2530:A:O5'	2.12	0.49
57:AA:2544:G:H8	57:AA:2544:G:O5'	1.96	0.49
1:Bb:216:SER:C	1:Bb:218:ALA:N	2.69	0.49
2:Bc:15:THR:HG21	2:Bc:181:ASN:HA	1.94	0.49
3:Bd:9:CYS:SG	3:Bd:22:LYS:CD	3.01	0.49
3:Bd:96:LEU:CD2	3:Bd:139:ARG:HH22	2.24	0.49
4:Be:69:VAL:O	4:Be:71:LEU:N	2.46	0.49
8:Bi:28:VAL:HG11	8:Bi:65:VAL:HG12	1.94	0.49
8:Bi:102:LEU:O	8:Bi:103:THR:O	2.30	0.49
12:Bm:66:LEU:H	12:Bm:70:LEU:CD1	2.25	0.49
16:Bq:45:HIS:CD2	16:Bq:47:PRO:HD3	2.47	0.49
22:Ba:170:U:O2'	22:Ba:171:A:H5'	2.12	0.49
22:Ba:922:G:H2'	22:Ba:923:A:C8	2.46	0.49
22:Ba:977:A:H8	22:Ba:1223:C:N3	2.11	0.49
25:Bw:76:A:O2'	57:BA:2394:C:N3	2.45	0.49
26:BC:30:VAL:HG11	26:BC:42:VAL:CG1	2.43	0.49
27:BD:31:LYS:O	27:BD:33:LEU:N	2.46	0.49
27:BD:108:PRO:HA	27:BD:196:VAL:O	2.12	0.49
28:BE:49:LEU:HD23	28:BE:49:LEU:N	2.27	0.49
29:BF:192:LEU:CD2	29:BF:194:MET:HE2	2.41	0.49
30:BG:145:THR:HG23	30:BG:146:TYR:H	1.77	0.49
32:BI:120:ILE:HG22	32:BI:122:GLU:H	1.77	0.49
38:BR:7:GLY:O	38:BR:8:ARG:CB	2.60	0.49
39:BS:95:HIS:CE1	58:BB:38:C:O4'	2.66	0.49
40:BT:27:THR:OG1	40:BT:28:VAL:N	2.42	0.49
40:BT:33:LYS:NZ	40:BT:43:GLN:NE2	2.60	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BU:88:ILE:O	41:BU:90:VAL:N	2.35	0.49
45:BY:27:VAL:HG12	45:BY:29:GLU:OE1	2.12	0.49
46:BZ:150:LEU:O	46:BZ:171:ILE:HG22	2.12	0.49
47:B0:19:LYS:HD3	47:B0:41:ARG:HH22	1.77	0.49
53:B6:12:GLU:HG2	53:B6:23:THR:HG22	1.94	0.49
54:B7:28:ARG:NH1	54:B7:28:ARG:HG3	2.27	0.49
57:BA:2476:A:C2	57:BA:2477:C:C5	3.00	0.49
57:BA:2681:C:C5	57:BA:2725:A:N6	2.68	0.49
57:BA:2881:C:C2	57:BA:2882:A:C8	3.00	0.49
57:BA:2884:U:H2'	57:BA:2885:C:H5'	1.94	0.49
1:Ab:80:ILE:HD11	1:Ab:208:ILE:HG23	1.95	0.49
3:Ad:8:VAL:HG22	22:Aa:430:A:OP2	2.13	0.49
9:Aj:7:LYS:HD3	9:Aj:71:LEU:HD13	1.94	0.49
9:Aj:62:HIS:O	13:An:59:ALA:HB3	2.13	0.49
10:Ak:11:LYS:O	10:Ak:13:GLN:HG3	2.13	0.49
12:Am:67:GLU:O	12:Am:70:LEU:HD12	2.09	0.49
15:Ap:25:ARG:NH1	22:Aa:134:A:N6	2.61	0.49
17:Ar:56:THR:HB	17:Ar:58:LEU:CD1	2.43	0.49
19:At:60:GLU:HG3	19:At:81:LYS:HE3	1.93	0.49
19:At:100:ILE:O	19:At:102:GLY:N	2.41	0.49
22:Aa:1082:G:O2'	22:Aa:1083:U:H5'	2.12	0.49
22:Aa:1131:G:H2'	22:Aa:1132:C:C6	2.48	0.49
24:Av:12:G:H4'	57:AA:1908:C:O2	2.13	0.49
24:Av:71:C:H6	24:Av:71:C:H5"	1.76	0.49
26:AC:43:GLU:N	26:AC:216:THR:O	2.44	0.49
27:AD:31:LYS:O	27:AD:33:LEU:N	2.45	0.49
27:AD:267:SER:O	27:AD:268:ARG:C	2.56	0.49
28:AE:24:THR:CG2	28:AE:184:VAL:HG23	2.43	0.49
28:AE:59:VAL:HG11	28:AE:63:LEU:HG	1.93	0.49
28:AE:65:GLY:O	28:AE:67:PHE:N	2.46	0.49
29:AF:3:GLU:HA	29:AF:24:LEU:CB	2.43	0.49
29:AF:136:THR:OG1	57:AA:320:A:H2'	2.12	0.49
30:AG:126:ASP:HB2	57:AA:2303:G:H5"	1.94	0.49
32:AI:118:LYS:HZ2	32:AI:119:PRO:HD2	1.78	0.49
35:AO:98:VAL:HG11	35:AO:117:LEU:HB3	1.94	0.49
39:AS:90:GLY:O	39:AS:92:TYR:N	2.46	0.49
42:AV:78:LYS:HE2	57:AA:572:A:OP2	2.13	0.49
44:AX:35:THR:HB	44:AX:38:GLU:H	1.78	0.49
46:AZ:141:VAL:HG13	46:AZ:144:LEU:CD2	2.43	0.49
47:A0:20:ARG:NH1	57:AA:2271:G:C5'	2.75	0.49
47:A0:51:VAL:HG21	47:A0:79:VAL:O	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:A4:56:VAL:HG12	51:A4:56:VAL:O	2.13	0.49
57:AA:287:C:H2'	57:AA:288:C:H6	1.77	0.49
57:AA:464:U:H2'	57:AA:465:G:O4'	2.13	0.49
57:AA:1261:C:C2'	57:AA:1262:A:O5'	2.61	0.49
57:AA:1292:U:H2'	57:AA:1293:C:H6	1.77	0.49
57:AA:1889:A:O2'	57:AA:2087:G:H5'	2.12	0.49
57:AA:2338:G:H2'	57:AA:2339:G:H8	1.77	0.49
1:Bb:16:HIS:HD2	1:Bb:209:ARG:C	2.20	0.49
2:Bc:127:ARG:HG2	2:Bc:127:ARG:NH1	2.27	0.49
2:Bc:165:THR:O	2:Bc:165:THR:HG23	2.13	0.49
5:Bf:55:ASP:HB2	5:Bf:86:ARG:NH1	2.26	0.49
15:Bp:15:PRO:O	15:Bp:16:HIS:ND1	2.45	0.49
15:Bp:18:ARG:O	15:Bp:19:ILE:C	2.54	0.49
18:Bs:33:THR:HG23	18:Bs:50:ALA:O	2.13	0.49
18:Bs:42:PRO:O	18:Bs:43:GLU:HB3	2.11	0.49
19:Bt:82:SER:O	19:Bt:86:ARG:HB2	2.13	0.49
21:By:3:TYR:HB3	21:By:73:VAL:HG23	1.95	0.49
21:By:83:ARG:HB2	21:By:85:GLU:OE1	2.12	0.49
22:Ba:530:G:N3	22:Ba:530:G:C2'	2.74	0.49
22:Ba:729:A:H2'	22:Ba:730:G:H8	1.78	0.49
22:Ba:918:A:H2'	22:Ba:919:A:C8	2.48	0.49
22:Ba:1406:U:O2'	22:Ba:1407:C:H5'	2.12	0.49
22:Ba:1423:G:C5'	35:BO:49:ARG:HH21	2.25	0.49
30:BG:18:GLU:O	30:BG:22:ARG:HB2	2.12	0.49
31:BH:9:ILE:HD11	31:BH:76:VAL:HG21	1.95	0.49
32:BI:73:GLU:HB3	32:BI:136:VAL:HG23	1.93	0.49
34:BN:30:ILE:HG23	34:BN:52:VAL:HG11	1.94	0.49
35:BO:87:ILE:HG22	35:BO:91:LEU:HA	1.92	0.49
36:BP:147:LEU:O	36:BP:148:LEU:O	2.31	0.49
37:BQ:27:VAL:HB	37:BQ:137:TYR:HD1	1.77	0.49
39:BS:74:ALA:O	39:BS:77:ALA:HB3	2.13	0.49
40:BT:57:PHE:C	40:BT:58:ASN:HD22	2.20	0.49
40:BT:89:VAL:C	40:BT:91:ARG:N	2.70	0.49
41:BU:78:THR:O	41:BU:79:PHE:C	2.55	0.49
41:BU:112:ARG:HH22	42:BV:46:VAL:HG11	1.75	0.49
45:BY:90:LEU:HG	45:BY:91:GLU:N	2.23	0.49
48:B1:52:ARG:O	48:B1:56:GLN:O	2.31	0.49
51:B4:51:ASP:C	51:B4:51:ASP:OD2	2.55	0.49
53:B6:9:LEU:C	53:B6:9:LEU:HD22	2.37	0.49
54:B7:28:ARG:HG3	54:B7:28:ARG:HH11	1.78	0.49
56:B9:1:MET:HE1	56:B9:32:HIS:HD2	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BA:2298:A:H62	57:BA:2318:G:H8	1.59	0.49
57:BA:2532:G:O2'	57:BA:2657:A:N6	2.46	0.49
57:BA:2636:U:H2'	57:BA:2637:U:H6	1.78	0.49
2:Ac:33:LEU:HD21	13:An:53:LEU:HD21	1.95	0.49
2:Ac:173:VAL:N	2:Ac:174:PRO:HD3	2.28	0.49
5:Af:24:GLU:OE2	5:Af:28:ARG:NH1	2.45	0.49
8:Ai:100:GLY:C	8:Ai:102:LEU:H	2.19	0.49
12:Am:50:GLU:O	12:Am:54:VAL:HG23	2.12	0.49
16:Aq:60:ILE:O	16:Aq:61:GLU:C	2.56	0.49
21:Ay:2:ALA:O	21:Ay:3:TYR:O	2.30	0.49
22:Aa:202:U:H5"	22:Aa:203:U:C5	2.48	0.49
22:Aa:297:G:H4'	22:Aa:557:G:H4'	1.93	0.49
22:Aa:662:G:H2'	22:Aa:663:A:C8	2.47	0.49
26:AC:213:VAL:HG12	26:AC:225:ILE:HD11	1.95	0.49
27:AD:102:LYS:C	27:AD:103:ARG:HG2	2.38	0.49
28:AE:11:MET:HB2	28:AE:23:VAL:O	2.13	0.49
28:AE:119:ARG:HD2	28:AE:120:TRP:CD1	2.47	0.49
30:AG:5:VAL:HG12	30:AG:6:ALA:H	1.78	0.49
32:AI:55:ALA:C	32:AI:57:ARG:H	2.21	0.49
35:AO:77:ILE:CD1	40:AT:74:ARG:HD3	2.42	0.49
36:AP:34:GLY:O	36:AP:35:HIS:CB	2.61	0.49
36:AP:105:LEU:O	36:AP:106:LEU:CB	2.60	0.49
38:AR:8:ARG:N	38:AR:8:ARG:NE	2.61	0.49
40:AT:28:VAL:HG22	40:AT:46:GLU:HG3	1.93	0.49
43:AW:87:PRO:HA	43:AW:93:ALA:HA	1.93	0.49
44:AX:36:LYS:HE2	57:AA:1342:A:OP1	2.12	0.49
54:A7:30:VAL:HA	54:A7:33:ARG:NH1	2.27	0.49
57:AA:893:C:H2'	57:AA:894:C:C6	2.47	0.49
57:AA:2884:U:H2'	57:AA:2885:C:H5'	1.95	0.49
7:Bh:48:TYR:HA	7:Bh:60:ARG:O	2.12	0.49
10:Bk:99:GLN:HE21	10:Bk:105:VAL:HG21	1.77	0.49
13:Bn:21:TYR:CE1	22:Ba:981:U:H5'	2.48	0.49
17:Br:37:VAL:HG23	17:Br:38:GLU:H	1.77	0.49
18:Bs:9:VAL:O	18:Bs:9:VAL:HG12	2.11	0.49
22:Ba:302:G:N3	22:Ba:556:C:H4'	2.28	0.49
22:Ba:346:G:H2'	22:Ba:347:G:O4'	2.13	0.49
22:Ba:746:A:O2'	22:Ba:747:C:H5'	2.12	0.49
22:Ba:781:A:H4'	22:Ba:1522:U:O2'	2.13	0.49
27:BD:46:GLN:N	27:BD:46:GLN:CD	2.70	0.49
27:BD:226:MET:HB3	27:BD:230:ASP:HB2	1.94	0.49
30:BG:12:TYR:HA	30:BG:16:ARG:HB2	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BH:86:GLU:HB3	31:BH:132:ARG:CB	2.42	0.49
37:BQ:21:THR:HG21	37:BQ:101:ARG:HD2	1.94	0.49
38:BR:45:ARG:HG3	38:BR:95:THR:HG22	1.95	0.49
39:BS:105:ALA:C	39:BS:107:GLU:H	2.20	0.49
40:BT:28:VAL:HG22	40:BT:46:GLU:HG3	1.94	0.49
40:BT:29:ARG:HG2	40:BT:85:LYS:HA	1.94	0.49
40:BT:62:THR:HA	40:BT:74:ARG:O	2.13	0.49
43:BW:17:VAL:O	43:BW:18:ARG:C	2.54	0.49
45:BY:35:TYR:CE2	45:BY:69:ALA:HB3	2.48	0.49
48:B1:51:VAL:HG22	48:B1:52:ARG:H	1.78	0.49
51:B4:5:ILE:HD13	51:B4:6:HIS:CD2	2.48	0.49
51:B4:39:CYS:O	51:B4:42:PHE:HE2	1.96	0.49
57:BA:287:C:H2'	57:BA:288:C:C6	2.47	0.49
1:Ab:97:TRP:HH2	1:Ab:176:GLU:CG	2.26	0.49
3:Ad:13:ARG:O	3:Ad:16:GLY:N	2.41	0.49
3:Ad:194:LEU:N	3:Ad:194:LEU:HD22	2.28	0.49
6:Ag:150:ALA:HB2	10:Ak:50:TYR:CZ	2.48	0.49
7:Ah:83:ILE:O	7:Ah:83:ILE:HG23	2.13	0.49
9:Aj:55:LYS:HG2	22:Aa:972:C:O2'	2.13	0.49
12:Am:86:CYS:SG	12:Am:89:GLY:N	2.86	0.49
22:Aa:342:C:O2'	22:Aa:343:U:H5'	2.11	0.49
22:Aa:639:G:O2'	22:Aa:640:A:H5'	2.13	0.49
22:Aa:731:G:H5'	22:Aa:766:A:H4'	1.95	0.49
26:AC:30:VAL:HG11	26:AC:42:VAL:CG1	2.43	0.49
26:AC:194:ILE:HG22	26:AC:198:GLU:CD	2.38	0.49
27:AD:3:VAL:HG12	27:AD:17:THR:HB	1.93	0.49
27:AD:71:ASP:CG	27:AD:103:ARG:HH22	2.21	0.49
27:AD:210:GLY:O	27:AD:211:ARG:CB	2.55	0.49
34:AN:120:LEU:HD11	34:AN:122:VAL:CG2	2.35	0.49
36:AP:15:ARG:HH11	57:AA:597:U:H4'	1.78	0.49
36:AP:17:LYS:C	36:AP:19:VAL:N	2.71	0.49
36:AP:63:PRO:C	36:AP:65:ARG:H	2.16	0.49
39:AS:49:VAL:CG1	39:AS:73:LEU:HD23	2.42	0.49
40:AT:3:ARG:CD	57:AA:2876:G:H4'	2.37	0.49
40:AT:3:ARG:O	40:AT:7:ILE:HG13	2.12	0.49
40:AT:38:ASN:ND2	40:AT:39:ARG:N	2.60	0.49
40:AT:78:LEU:O	40:AT:79:HIS:ND1	2.45	0.49
40:AT:128:GLU:O	40:AT:129:ARG:C	2.55	0.49
43:AW:96:ILE:CD1	57:AA:2012:G:H4'	2.43	0.49
46:AZ:141:VAL:HG13	46:AZ:144:LEU:CG	2.43	0.49
51:A4:51:ASP:OD2	51:A4:52:THR:HG23	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:A7:19:ARG:HG3	57:AA:126:A:O5'	2.13	0.49
57:AA:146:G:H2'	57:AA:147:U:O4'	2.12	0.49
57:AA:154(A):C:N4	57:AA:155:U:O2'	2.46	0.49
57:AA:979:G:H3'	57:AA:980:A:C5'	2.42	0.49
57:AA:1113:U:H2'	57:AA:1114:G:C8	2.48	0.49
57:AA:1163:G:O2'	57:AA:1164:G:H5'	2.13	0.49
57:AA:2134:A:C2	57:AA:2159:G:H1'	2.47	0.49
57:AA:2195:C:O2'	57:AA:2196:C:H5'	2.13	0.49
57:AA:2464:C:O2'	57:AA:2465:C:H6	1.95	0.49
57:AA:2833:G:H3'	57:AA:2834:G:H5"	1.94	0.49
57:AA:2881:C:C2	57:AA:2882:A:C8	3.00	0.49
1:Bb:187:LEU:HA	1:Bb:201:ILE:HB	1.95	0.49
2:Bc:130:VAL:O	2:Bc:134:ILE:HG13	2.13	0.49
6:Bg:72:ARG:O	6:Bg:91:VAL:HG23	2.12	0.49
7:Bh:6:ILE:HD12	7:Bh:6:ILE:N	2.28	0.49
7:Bh:83:ILE:CD1	7:Bh:137:VAL:HG22	2.42	0.49
7:Bh:91:ARG:HH11	7:Bh:91:ARG:CG	2.25	0.49
12:Bm:50:GLU:O	12:Bm:54:VAL:HG23	2.13	0.49
12:Bm:65:LYS:C	12:Bm:70:LEU:HD12	2.38	0.49
16:Bq:77:VAL:HG12	16:Bq:78:GLU:N	2.27	0.49
19:Bt:40:ALA:HB2	19:Bt:55:ILE:CG2	2.42	0.49
22:Ba:601:C:H2'	22:Ba:602:A:H8	1.77	0.49
22:Ba:975:A:C4'	22:Ba:976:G:H5"	2.30	0.49
22:Ba:1277:C:O2'	22:Ba:1279:A:H8	1.95	0.49
27:BD:25:THR:HG22	27:BD:26:LYS:H	1.76	0.49
28:BE:11:MET:HE1	28:BE:187:ALA:H	1.77	0.49
28:BE:51:PHE:O	28:BE:74:PRO:CB	2.61	0.49
28:BE:101:ARG:HB3	28:BE:169:ASN:HD22	1.78	0.49
29:BF:199:TRP:O	29:BF:203:GLN:HG2	2.12	0.49
30:BG:73:ALA:N	30:BG:87:PRO:HG3	2.27	0.49
32:BI:83:ALA:H	32:BI:145:VAL:HG22	1.77	0.49
34:BN:68:GLU:H	34:BN:88:GLU:HG3	1.77	0.49
38:BR:85:PRO:O	38:BR:87:TYR:N	2.46	0.49
40:BT:3:ARG:C	40:BT:5:ALA:N	2.66	0.49
45:BY:95:LYS:HD3	45:BY:100:ALA:HA	1.94	0.49
46:BZ:151:HIS:CB	46:BZ:170:THR:HA	2.19	0.49
48:B1:75:GLU:O	48:B1:77:ALA:N	2.45	0.49
51:B4:51:ASP:OD2	51:B4:52:THR:HG23	2.12	0.49
56:B9:7:VAL:HG12	56:B9:25:VAL:HG21	1.94	0.49
57:BA:838:C:O2'	57:BA:839:U:H5'	2.12	0.49
57:BA:1113:U:H2'	57:BA:1114:G:C8	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BA:1327:C:H2'	57:BA:1328:G:O4'	2.12	0.49
57:BA:1490:A:H5'	57:BA:1491:G:OP2	2.12	0.49
57:BA:1517:G:O2'	57:BA:1518:U:H5'	2.12	0.49
57:BA:1542:A:H3'	57:BA:1542:A:H8	1.78	0.49
57:BA:2267:A:H5"	57:BA:2268:A:H5'	1.94	0.49
57:BA:2552:U:C2	57:BA:2554:U:H5'	2.47	0.49
57:BA:2808:U:C2'	57:BA:2809:A:H5'	2.43	0.49
1:Ab:194:PRO:HG2	1:Ab:195:ASP:OD1	2.12	0.49
4:Ae:51:VAL:O	4:Ae:55:VAL:HG23	2.12	0.49
4:Ae:102:ALA:HB1	4:Ae:106:PRO:CG	2.42	0.49
7:Ah:36:LEU:HA	7:Ah:39:LEU:HD23	1.93	0.49
7:Ah:77:GLU:HG2	7:Ah:78:GLN:H	1.77	0.49
7:Ah:95:VAL:HB	7:Ah:99:GLU:O	2.13	0.49
21:Ay:56:ARG:O	21:Ay:57:SER:C	2.56	0.49
22:Aa:223:U:H2'	22:Aa:224:C:C6	2.47	0.49
22:Aa:1309:G:C6	22:Aa:1329:A:C2	3.01	0.49
25:Aw:4:G:HO2'	25:Aw:5:G:H8	1.60	0.49
25:Aw:65:C:H2'	25:Aw:66:C:H6	1.78	0.49
27:AD:176:ARG:HH11	27:AD:176:ARG:CG	2.25	0.49
28:AE:34:VAL:HG11	28:AE:78:LEU:HD23	1.95	0.49
31:AH:41:MET:CE	31:AH:43:VAL:HG13	2.43	0.49
32:AI:64:GLU:C	32:AI:66:GLU:H	2.20	0.49
32:AI:74:ASN:N	32:AI:74:ASN:ND2	2.39	0.49
36:AP:17:LYS:O	36:AP:18:ARG:C	2.55	0.49
36:AP:101:VAL:CG2	36:AP:102:ARG:N	2.76	0.49
41:AU:92:ARG:O	41:AU:93:LYS:C	2.56	0.49
41:AU:97:ASP:C	41:AU:99:ALA:N	2.69	0.49
45:AY:89:PHE:C	45:AY:90:LEU:HD23	2.38	0.49
46:AZ:26:GLY:HA3	46:AZ:86:VAL:HG23	1.94	0.49
48:A1:64:ALA:HA	48:A1:67:ILE:HD11	1.95	0.49
52:A5:7:PRO:HA	57:AA:2615:U:N1	2.27	0.49
53:A6:9:LEU:C	53:A6:9:LEU:HD22	2.37	0.49
57:AA:289:A:H2'	57:AA:290:G:O4'	2.12	0.49
57:AA:307:G:H21	57:AA:330:A:H62	1.61	0.49
57:AA:420:C:H2'	57:AA:421:U:C6	2.48	0.49
57:AA:1899:G:O2'	57:AA:1900:A:H5"	2.13	0.49
57:AA:2887:U:H2'	57:AA:2888:C:C6	2.48	0.49
4:Be:43:LEU:CB	4:Be:136:MET:HE2	2.43	0.49
6:Bg:32:ARG:HH11	6:Bg:32:ARG:HG2	1.76	0.49
8:Bi:17:VAL:HG22	8:Bi:63:ILE:CD1	2.43	0.49
8:Bi:55:ALA:CB	8:Bi:58:HIS:CD2	2.91	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:Bi:63:ILE:HD11	8:Bi:81:ILE:CD1	2.38	0.49
10:Bk:111:ASP:HA	17:Br:84:LYS:CD	2.42	0.49
13:Bn:51:GLY:C	13:Bn:53:LEU:H	2.21	0.49
14:Bo:18:PHE:O	14:Bo:18:PHE:CD1	2.65	0.49
14:Bo:81:LEU:HD11	14:Bo:85:LEU:HD12	1.94	0.49
22:Ba:59:A:N3	22:Ba:59:A:H2'	2.28	0.49
22:Ba:594:G:C2'	22:Ba:595:G:H5'	2.43	0.49
22:Ba:1033:G:O2'	22:Ba:1034:G:H5'	2.13	0.49
22:Ba:1168:A:H2'	22:Ba:1169:A:C8	2.48	0.49
22:Ba:1170:A:H2'	22:Ba:1171:G:H5'	1.95	0.49
26:BC:194:ILE:HG22	26:BC:198:GLU:CD	2.38	0.49
28:BE:65:GLY:O	28:BE:67:PHE:N	2.46	0.49
30:BG:77:ILE:HG22	30:BG:80:PHE:O	2.12	0.49
32:BI:44:LEU:O	32:BI:47:LEU:HB3	2.13	0.49
35:BO:98:VAL:HG11	35:BO:117:LEU:HB3	1.95	0.49
40:BT:57:PHE:CG	40:BT:58:ASN:N	2.79	0.49
40:BT:85:LYS:HB3	40:BT:85:LYS:HZ2	1.73	0.49
41:BU:74:LEU:HD13	41:BU:74:LEU:C	2.38	0.49
42:BV:66:ARG:HG2	42:BV:66:ARG:NH1	2.28	0.49
42:BV:78:LYS:HE3	57:BA:571:A:O2'	2.13	0.49
45:BY:31:LEU:N	45:BY:31:LEU:CD2	2.75	0.49
46:BZ:57:ILE:CG2	46:BZ:58:VAL:N	2.75	0.49
46:BZ:57:ILE:HD12	46:BZ:57:ILE:N	2.28	0.49
48:B1:83:GLU:O	48:B1:84:GLY:O	2.30	0.49
49:B2:3:LEU:CD2	49:B2:7:ARG:HH11	2.25	0.49
51:B4:5:ILE:HD13	51:B4:5:ILE:H	1.77	0.49
53:B6:45:LYS:HG2	57:BA:2371:G:C4'	2.23	0.49
53:B6:52:VAL:CG2	53:B6:53:LYS:H	2.24	0.49
55:B8:30:ARG:HA	55:B8:30:ARG:NE	2.23	0.49
57:BA:154(A):C:N4	57:BA:155:U:O2'	2.45	0.49
57:BA:888:C:O2'	57:BA:889:C:H5'	2.13	0.49
57:BA:1291:C:H2'	57:BA:1292:U:H6	1.78	0.49
57:BA:1839:G:H5'	57:BA:1839:G:C8	2.48	0.49
57:BA:1846:G:H5'	57:BA:1846:G:C8	2.43	0.49
57:BA:1902:C:H2'	57:BA:1903:G:O5'	2.13	0.49
57:BA:2183:C:O2'	57:BA:2184:G:H5'	2.13	0.49
57:BA:2339:G:O2'	57:BA:2340:G:H5'	2.13	0.49
57:BA:2672:G:C3'	57:BA:2673:G:H5"	2.42	0.49
1:Ab:68:ILE:O	1:Ab:91:PRO:HD2	2.13	0.49
3:Ad:150:GLU:HA	3:Ad:153:ARG:CD	2.42	0.49
4:Ae:21:ALA:HB2	22:Aa:923:A:C5'	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:Ag:150:ALA:HB2	10:Ak:50:TYR:OH	2.13	0.49
7:Ah:6:ILE:HD12	7:Ah:6:ILE:N	2.28	0.49
18:As:34:TRP:HB3	22:Aa:1219:U:O2'	2.13	0.49
18:As:43:GLU:HG2	18:As:43:GLU:O	2.13	0.49
22:Aa:300:A:H1'	22:Aa:565:U:O2	2.12	0.49
22:Aa:383:A:C2'	22:Aa:384:G:H5'	2.43	0.49
22:Aa:555:C:H2'	22:Aa:556:C:C6	2.48	0.49
22:Aa:559:A:H4'	22:Aa:560:U:C5'	2.41	0.49
22:Aa:666:G:H5'	22:Aa:726:C:H1'	1.94	0.49
22:Aa:1305:G:H8	22:Aa:1305:G:OP2	1.96	0.49
28:AE:11:MET:HE1	28:AE:187:ALA:H	1.77	0.49
33:AJ:87:VAL:O	33:AJ:91:LYS:HA	2.13	0.49
40:AT:125:ARG:O	40:AT:127:ALA:N	2.46	0.49
42:AV:5:VAL:HG21	42:AV:35:LEU:CB	2.43	0.49
44:AX:26:TYR:CD2	44:AX:92:LEU:HD12	2.47	0.49
46:AZ:171:ILE:HD12	46:AZ:172:ALA:CB	2.43	0.49
51:A4:2:LYS:HG3	58:AB:39:A:N1	2.28	0.49
57:AA:923:C:H2'	57:AA:924:C:H6	1.78	0.49
57:AA:1283:G:N2	57:AA:1285:G:H3'	2.27	0.49
57:AA:1652:A:C2'	57:AA:1653:G:H5'	2.43	0.49
57:AA:1904:G:O2'	57:AA:1905:C:H5'	2.13	0.49
57:AA:1963:U:O2	57:AA:1963:U:C2'	2.59	0.49
57:AA:1997:G:O2'	57:AA:1998:G:H5'	2.13	0.49
57:AA:2464:C:O2'	57:AA:2465:C:P	2.71	0.49
1:Bb:145:LEU:HD13	1:Bb:149:LEU:HD12	1.95	0.49
2:Bc:16:ARG:HH11	2:Bc:16:ARG:HA	1.78	0.49
2:Bc:64:VAL:HG12	2:Bc:65:ALA:N	2.28	0.49
3:Bd:150:GLU:CG	3:Bd:151:LYS:H	2.26	0.49
3:Bd:150:GLU:HG2	3:Bd:151:LYS:N	2.28	0.49
5:Bf:24:GLU:OE2	5:Bf:28:ARG:NH1	2.45	0.49
6:Bg:101:LEU:O	6:Bg:104:LEU:HB2	2.12	0.49
6:Bg:102:ARG:HH22	22:Ba:939:G:C5'	2.18	0.49
7:Bh:83:ILE:HG23	7:Bh:83:ILE:O	2.12	0.49
8:Bi:97:LYS:HB3	8:Bi:98:PRO:CD	2.37	0.49
8:Bi:118:LYS:HZ3	22:Ba:1349:A:P	2.35	0.49
11:Bl:102:ARG:HD2	11:Bl:109:GLY:HA2	1.95	0.49
13:Bn:6:LEU:HD13	22:Ba:982:U:H5"	1.94	0.49
18:Bs:11:VAL:HG23	18:Bs:38:SER:HB2	1.94	0.49
22:Ba:16:A:N1	22:Ba:919:A:H2	2.11	0.49
22:Ba:188:C:H2'	22:Ba:189:G:H8	1.76	0.49
22:Ba:345:C:OP1	40:BT:41:ARG:HD3	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Ba:811:C:H4'	22:Ba:900:A:N6	2.28	0.49
22:Ba:1439:C:H2'	22:Ba:1439:C:O2	2.13	0.49
27:BD:146:GLU:HB2	27:BD:189:CYS:HB3	1.95	0.49
28:BE:111:ARG:CG	38:BR:2:ARG:HG2	2.43	0.49
29:BF:160:ASN:C	29:BF:160:ASN:ND2	2.71	0.49
30:BG:67:LYS:HD3	51:B4:6:HIS:CD2	2.47	0.49
30:BG:73:ALA:N	30:BG:87:PRO:CG	2.76	0.49
30:BG:101:ILE:O	30:BG:105:LYS:HE2	2.13	0.49
31:BH:9:ILE:O	31:BH:9:ILE:CG2	2.56	0.49
32:BI:29:TYR:C	32:BI:32:PRO:HD2	2.38	0.49
34:BN:75:TYR:HA	34:BN:81:GLY:O	2.13	0.49
34:BN:119:ARG:NH1	34:BN:119:ARG:HG3	2.27	0.49
36:BP:9:ASN:C	36:BP:11:GLY:H	2.21	0.49
37:BQ:16:ARG:C	37:BQ:17:LEU:HD23	2.37	0.49
40:BT:98:LYS:HB3	40:BT:100:TYR:CE1	2.48	0.49
41:BU:8:VAL:HG21	41:BU:12:ARG:CZ	2.42	0.49
44:BX:80:ILE:HD13	44:BX:80:ILE:O	2.13	0.49
46:BZ:136:PHE:N	46:BZ:136:PHE:HD2	2.11	0.49
48:B1:74:VAL:O	48:B1:77:ALA:HB3	2.12	0.49
55:B8:29:LYS:HD3	55:B8:44:LYS:CG	2.39	0.49
57:BA:106:C:H2'	57:BA:107:C:C6	2.48	0.49
57:BA:843:G:O2'	57:BA:844:C:H5'	2.13	0.49
57:BA:869:G:O2'	57:BA:870:A:H5'	2.13	0.49
57:BA:1181:C:O2'	57:BA:1182:A:H5'	2.12	0.49
57:BA:1261:C:C2'	57:BA:1262:A:O5'	2.60	0.49
57:BA:1947:C:H2'	57:BA:1948:G:H5"	1.95	0.49
1:Ab:102:LEU:CD2	1:Ab:177:ALA:HB2	2.43	0.48
1:Ab:180:LEU:O	1:Ab:181:PHE:HB2	2.12	0.48
2:Ac:16:ARG:HH11	2:Ac:16:ARG:HA	1.78	0.48
3:Ad:163:GLU:C	3:Ad:165:MET:H	2.21	0.48
9:Aj:70:ARG:HH22	22:Aa:1152:A:H5'	1.75	0.48
14:Ao:39:LEU:HD13	14:Ao:39:LEU:O	2.13	0.48
18:As:6:LYS:O	18:As:7:LYS:HD3	2.13	0.48
22:Aa:484:G:H4'	22:Aa:485:G:O5'	2.12	0.48
22:Aa:1053:G:H4'	22:Aa:1054:C:H5'	1.95	0.48
22:Aa:1355:G:O2'	22:Aa:1356:G:H5'	2.13	0.48
30:AG:158:ALA:O	30:AG:159:VAL:HB	2.13	0.48
31:AH:94:TYR:OH	31:AH:160:LYS:HD3	2.13	0.48
31:AH:109:PHE:O	31:AH:111:HIS:N	2.46	0.48
32:AI:83:ALA:H	32:AI:145:VAL:HG22	1.78	0.48
36:AP:41:ARG:CA	36:AP:41:ARG:HE	2.25	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:AP:66:GLY:O	36:AP:67:MET:HB3	2.13	0.48
40:AT:38:ASN:C	40:AT:38:ASN:ND2	2.49	0.48
42:AV:40:LEU:N	42:AV:40:LEU:CD2	2.75	0.48
42:AV:89:GLN:OE1	42:AV:90:PRO:HD2	2.13	0.48
43:AW:25:ARG:NH2	43:AW:74:ALA:O	2.45	0.48
45:AY:35:TYR:CD2	45:AY:69:ALA:HB3	2.48	0.48
45:AY:40:GLU:HA	45:AY:40:GLU:OE2	2.13	0.48
45:AY:84:ARG:HD2	45:AY:97:ARG:NE	2.28	0.48
46:AZ:144:LEU:N	46:AZ:144:LEU:HD22	2.28	0.48
47:A0:19:LYS:HD3	47:A0:41:ARG:HH22	1.78	0.48
48:A1:87:PRO:HA	48:A1:90:ILE:CG1	2.41	0.48
49:A2:47:ASN:HD22	57:AA:95:G:H1'	1.77	0.48
52:A5:33:CYS:HB3	52:A5:38:ALA:O	2.13	0.48
53:A6:26:ASN:ND2	53:A6:51:GLU:OE1	2.46	0.48
55:A8:32:LEU:O	55:A8:33:ASN:O	2.31	0.48
57:AA:1688:U:H1'	57:AA:1701:A:C6	2.48	0.48
57:AA:2183:C:O2'	57:AA:2184:G:H5'	2.12	0.48
57:AA:2208:A:H1'	57:AA:2219:G:C5	2.48	0.48
57:AA:2807:G:C3'	57:AA:2808:U:H5"	2.42	0.48
58:AB:75:G:H5'	58:AB:76:G:OP2	2.13	0.48
1:Bb:60:ASP:HB3	1:Bb:64:ARG:NH2	2.28	0.48
2:Bc:195:VAL:HG23	22:Ba:1205:U:O2'	2.13	0.48
3:Bd:128:VAL:HA	3:Bd:145:GLU:O	2.13	0.48
5:Bf:3:ARG:HH11	5:Bf:3:ARG:HG3	1.77	0.48
9:Bj:98:ILE:HD12	9:Bj:98:ILE:N	2.28	0.48
11:Bl:75:HIS:CD2	11:Bl:77:LEU:HB2	2.48	0.48
13:Bn:5:ALA:HB3	22:Ba:1216:G:H5"	1.94	0.48
15:Bp:22:THR:HA	15:Bp:33:ILE:CG1	2.36	0.48
19:Bt:38:LYS:NZ	22:Ba:1439:C:H5'	2.27	0.48
19:Bt:46:GLU:HG2	19:Bt:46:GLU:O	2.13	0.48
22:Ba:644:G:C2'	22:Ba:645:C:H5'	2.43	0.48
22:Ba:666:G:H5'	22:Ba:726:C:H1'	1.94	0.48
22:Ba:711:G:O2'	22:Ba:712:A:H5'	2.13	0.48
22:Ba:1157:A:H4'	22:Ba:1158:C:O5'	2.12	0.48
22:Ba:1422:G:H2'	22:Ba:1423:G:H8	1.78	0.48
27:BD:35:LYS:NZ	27:BD:36:PRO:N	2.60	0.48
28:BE:101:ARG:HB2	28:BE:201:THR:HG21	1.95	0.48
36:BP:6:LEU:HG	36:BP:9:ASN:HB3	1.95	0.48
37:BQ:10:ARG:HB2	37:BQ:10:ARG:HH11	1.76	0.48
37:BQ:110:THR:HG23	37:BQ:113:GLN:CB	2.43	0.48
38:BR:16:HIS:ND1	57:BA:1275:A:C4	2.80	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BR:103:ARG:HH12	38:BR:110:PRO:HD3	1.78	0.48
40:BT:125:ARG:O	40:BT:127:ALA:N	2.46	0.48
42:BV:2:PHE:HB2	42:BV:42:GLY:CA	2.43	0.48
45:BY:22:GLY:O	45:BY:23:ARG:HG2	2.12	0.48
46:BZ:57:ILE:O	46:BZ:69:THR:OG1	2.31	0.48
46:BZ:81:ARG:CB	46:BZ:81:ARG:NH1	2.75	0.48
51:B4:15:ILE:N	51:B4:31:ILE:O	2.42	0.48
57:BA:146:G:H2'	57:BA:147:U:O4'	2.13	0.48
57:BA:1472:A:O2'	57:BA:1473:G:H5'	2.12	0.48
57:BA:1541:G:H4'	57:BA:1542:A:H5"	1.94	0.48
57:BA:1689:A:N6	57:BA:1698:A:H2	1.97	0.48
57:BA:1860:G:H1	57:BA:1882:C:H42	1.60	0.48
57:BA:2861:G:O2'	57:BA:2862:G:H5'	2.13	0.48
2:Ac:12:LEU:O	2:Ac:13:GLY:C	2.56	0.48
3:Ad:120:LEU:HB3	3:Ad:126:ILE:CD1	2.43	0.48
9:Aj:42:THR:HG23	9:Aj:68:HIS:CA	2.44	0.48
11:Al:43:VAL:HG23	11:Al:93:LEU:HD22	1.95	0.48
12:Am:112:GLY:O	12:Am:113:PRO:O	2.31	0.48
17:Ar:53:ARG:NH2	17:Ar:59:SER:HA	2.28	0.48
20:Au:6:ARG:CZ	20:Au:15:ARG:NH2	2.76	0.48
21:Ay:46:GLY:O	21:Ay:47:MET:O	2.31	0.48
22:Aa:167:G:O2'	22:Aa:168:G:H5'	2.13	0.48
22:Aa:857:C:H2'	22:Aa:858:G:O4'	2.13	0.48
22:Aa:1157:A:H4'	22:Aa:1158:C:O5'	2.14	0.48
22:Aa:1239:A:H62	22:Aa:1299:A:N6	2.12	0.48
22:Aa:1307:U:H2'	22:Aa:1308:U:O4'	2.13	0.48
28:AE:48:GLN:HE21	28:AE:78:LEU:HD22	1.78	0.48
30:AG:41:GLN:HB3	30:AG:43:LEU:HD22	1.94	0.48
30:AG:64:THR:OG1	30:AG:94:LEU:HD21	2.12	0.48
30:AG:67:LYS:CE	51:A4:6:HIS:CG	2.95	0.48
30:AG:131:TYR:H	30:AG:159:VAL:CG1	2.26	0.48
31:AH:53:GLU:HA	31:AH:65:HIS:CE1	2.48	0.48
32:AI:13:GLY:O	32:AI:17:GLN:OE1	2.31	0.48
32:AI:73:GLU:HB3	32:AI:136:VAL:HG23	1.95	0.48
34:AN:119:ARG:NH1	34:AN:119:ARG:HG3	2.28	0.48
35:AO:23:ARG:HH11	57:AA:2562:U:C1'	2.19	0.48
36:AP:9:ASN:N	36:AP:10:PRO:HD2	2.26	0.48
36:AP:147:LEU:O	36:AP:148:LEU:O	2.32	0.48
42:AV:66:ARG:HG2	42:AV:66:ARG:NH1	2.28	0.48
43:AW:62:HIS:HE1	57:AA:495:G:O2'	1.97	0.48
45:AY:95:LYS:HD3	45:AY:100:ALA:HA	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:A8:23:VAL:HG12	55:A8:46:ARG:HH11	1.78	0.48
57:AA:1719:G:C2'	57:AA:1720:U:H5'	2.43	0.48
57:AA:2103:C:H42	57:AA:2186:G:H1	1.61	0.48
57:AA:2298:A:H62	57:AA:2318:G:H8	1.61	0.48
57:AA:2329:G:H2'	57:AA:2330:G:C8	2.47	0.48
8:Bi:28:VAL:HG13	8:Bi:63:ILE:O	2.13	0.48
9:Bj:38:ILE:HD11	9:Bj:71:LEU:CD2	2.34	0.48
11:Bl:60:LEU:N	11:Bl:60:LEU:HD22	2.28	0.48
21:By:33:VAL:C	21:By:35:GLU:N	2.69	0.48
22:Ba:731:G:H5'	22:Ba:766:A:H4'	1.95	0.48
22:Ba:1327:C:H2'	22:Ba:1328:C:C6	2.47	0.48
26:BC:41:THR:CG2	26:BC:175:PRO:HB2	2.43	0.48
32:BI:41:GLU:O	32:BI:45:LYS:HG2	2.13	0.48
32:BI:62:LYS:HD2	32:BI:133:HIS:CD2	2.37	0.48
32:BI:120:ILE:H	32:BI:120:ILE:HD12	1.78	0.48
32:BI:129:THR:CG2	32:BI:130:TYR:H	2.25	0.48
34:BN:120:LEU:HD11	34:BN:122:VAL:CG2	2.38	0.48
35:BO:88:ASN:HD21	35:BO:90:GLN:CB	2.22	0.48
40:BT:3:ARG:CD	57:BA:2876:G:H4'	2.36	0.48
40:BT:101:PHE:C	40:BT:101:PHE:CD2	2.91	0.48
41:BU:97:ASP:C	41:BU:99:ALA:H	2.21	0.48
41:BU:102:GLU:HG3	42:BV:2:PHE:CZ	2.49	0.48
55:B8:4:MET:CG	55:B8:61:LEU:HD13	2.38	0.48
57:BA:259:G:O2'	57:BA:260:G:H5'	2.13	0.48
57:BA:464:U:H2'	57:BA:465:G:O4'	2.13	0.48
57:BA:830:G:H4'	57:BA:831:G:OP2	2.13	0.48
57:BA:1005:C:H2'	57:BA:1006:C:C6	2.48	0.48
57:BA:1144:G:H2'	57:BA:1145:C:C6	2.48	0.48
57:BA:1762:A:H8	57:BA:1762:A:O5'	1.95	0.48
57:BA:2134:A:C2	57:BA:2159:G:H1'	2.48	0.48
57:BA:2562:U:C2'	57:BA:2563:U:H5'	2.43	0.48
58:BB:106:G:O2'	58:BB:107:G:H5'	2.13	0.48
1:Ab:56:ARG:HH11	1:Ab:56:ARG:HG2	1.78	0.48
3:Ad:18:LYS:HE2	3:Ad:31:CYS:HB3	1.95	0.48
3:Ad:92:VAL:O	3:Ad:96:LEU:HD13	2.14	0.48
6:Ag:136:LYS:NZ	6:Ag:136:LYS:HB3	2.28	0.48
9:Aj:50:ILE:CG2	9:Aj:60:ARG:HD3	2.41	0.48
15:Ap:18:ARG:O	15:Ap:19:ILE:C	2.57	0.48
18:As:11:VAL:HG23	18:As:38:SER:HB2	1.95	0.48
22:Aa:47:C:H5"	22:Aa:365:U:C6	2.48	0.48
22:Aa:627:G:H2'	22:Aa:628:G:C8	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AD:35:LYS:HD3	27:AD:63:ARG:HD2	1.95	0.48
27:AD:48:ARG:HG3	27:AD:48:ARG:HH11	1.77	0.48
28:AE:188:VAL:HG23	28:AE:189:PRO:HD2	1.94	0.48
29:AF:74:ARG:NH2	57:AA:2445:G:OP1	2.47	0.48
31:AH:9:ILE:C	31:AH:9:ILE:HD13	2.37	0.48
34:AN:21:LYS:HG2	34:AN:22:THR:N	2.28	0.48
39:AS:52:SER:CB	39:AS:55:ALA:HB3	2.42	0.48
41:AU:102:GLU:HG3	42:AV:2:PHE:CZ	2.48	0.48
44:AX:14:SER:O	44:AX:15:GLU:C	2.56	0.48
49:A2:16:LEU:O	49:A2:17:SER:O	2.31	0.48
57:AA:268:C:H2'	57:AA:268:C:O2	2.14	0.48
57:AA:394:A:C2'	57:AA:395:U:H5'	2.44	0.48
57:AA:889:C:O2'	57:AA:890:A:O5'	2.30	0.48
57:AA:1472:A:O2'	57:AA:1473:G:H5'	2.12	0.48
57:AA:2740:A:H2'	57:AA:2741:A:C8	2.48	0.48
1:Bb:167:PRO:HG3	1:Bb:188:ALA:CB	2.38	0.48
2:Bc:140:ARG:HH11	2:Bc:140:ARG:HG3	1.78	0.48
2:Bc:148:GLY:HA3	2:Bc:203:PHE:HB3	1.96	0.48
4:Be:6:PHE:CZ	4:Be:66:MET:HE1	2.48	0.48
4:Be:143:ARG:NH1	7:Bh:77:GLU:CD	2.72	0.48
7:Bh:95:VAL:HB	7:Bh:99:GLU:O	2.13	0.48
8:Bi:39:GLY:HA3	22:Ba:1291:G:H4'	1.96	0.48
12:Bm:14:ARG:N	12:Bm:44:ARG:HH11	2.12	0.48
14:Bo:61:GLY:O	14:Bo:65:ARG:HD3	2.13	0.48
22:Ba:176:C:H2'	22:Ba:177:C:C6	2.47	0.48
22:Ba:253:U:H2'	22:Ba:254:G:C8	2.48	0.48
22:Ba:308:C:H2'	22:Ba:309:G:C8	2.47	0.48
22:Ba:1131:G:H2'	22:Ba:1132:C:C6	2.48	0.48
26:BC:6:LYS:C	26:BC:8:TYR:N	2.69	0.48
26:BC:52:PRO:CG	26:BC:53:ARG:HH11	2.26	0.48
27:BD:25:THR:CG2	27:BD:26:LYS:N	2.77	0.48
27:BD:117:VAL:HG22	27:BD:118:VAL:N	2.27	0.48
28:BE:108:SER:HB3	28:BE:165:VAL:CG2	2.42	0.48
30:BG:27:ASN:C	30:BG:29:TRP:N	2.69	0.48
31:BH:102:ALA:HA	31:BH:117:PRO:HD3	1.95	0.48
32:BI:118:LYS:HZ1	32:BI:119:PRO:C	2.20	0.48
36:BP:25:SER:HB2	57:BA:812:C:H5'	1.95	0.48
36:BP:105:LEU:HG	57:BA:626:U:O2	2.13	0.48
39:BS:92:TYR:CG	39:BS:93:LYS:N	2.82	0.48
40:BT:38:ASN:ND2	40:BT:39:ARG:N	2.61	0.48
44:BX:53:LYS:HZ2	44:BX:55:ASN:ND2	2.08	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BY:35:TYR:CD2	45:BY:69:ALA:HB3	2.47	0.48
46:BZ:99:TYR:HB3	46:BZ:123:ASP:OD2	2.13	0.48
53:B6:25:LYS:NZ	55:B8:34:TRP:HZ2	2.01	0.48
54:B7:19:ARG:HG3	57:BA:126:A:O5'	2.13	0.48
57:BA:863:A:O2'	57:BA:864:G:H5'	2.14	0.48
57:BA:1386:C:OP2	57:BA:1396:U:H5	1.96	0.48
1:Ab:187:LEU:HA	1:Ab:201:ILE:HB	1.95	0.48
6:Ag:102:ARG:HH12	22:Aa:939:G:H5"	1.78	0.48
7:Ah:87:SER:HB2	7:Ah:93:VAL:HB	1.96	0.48
7:Ah:91:ARG:HH11	7:Ah:91:ARG:CG	2.25	0.48
14:Ao:18:PHE:O	14:Ao:18:PHE:CD1	2.67	0.48
14:Ao:78:TYR:O	14:Ao:82:ILE:HG22	2.13	0.48
22:Aa:977:A:H8	22:Aa:1223:C:N3	2.12	0.48
22:Aa:1283:G:O2'	22:Aa:1284:C:H5'	2.13	0.48
26:AC:6:LYS:HG3	57:AA:2132:U:C2	2.49	0.48
27:AD:97:TYR:CE1	27:AD:103:ARG:HG3	2.48	0.48
31:AH:41:MET:SD	31:AH:53:GLU:O	2.71	0.48
31:AH:62:LYS:HB3	57:AA:2749:A:H4'	1.95	0.48
34:AN:15:LEU:HD13	34:AN:15:LEU:C	2.38	0.48
36:AP:16:ARG:NE	36:AP:18:ARG:HB2	2.28	0.48
36:AP:108:LYS:O	36:AP:110:TYR:N	2.46	0.48
39:AS:99:LYS:O	39:AS:101:LEU:N	2.39	0.48
40:AT:30:VAL:HA	40:AT:44:ASP:HA	1.95	0.48
40:AT:57:PHE:C	40:AT:58:ASN:HD22	2.20	0.48
42:AV:19:LYS:HG2	42:AV:94:LEU:CB	2.30	0.48
45:AY:81:LYS:HD2	45:AY:96:ILE:HG22	1.95	0.48
57:AA:107:C:H2'	57:AA:108:U:C6	2.48	0.48
57:AA:963:U:H2'	57:AA:964:C:H6	1.78	0.48
57:AA:1144:G:H2'	57:AA:1145:C:C6	2.48	0.48
57:AA:1784:A:H4'	57:AA:1785:A:O5'	2.14	0.48
57:AA:1902:C:H2'	57:AA:1903:G:O5'	2.12	0.48
57:AA:2884:U:C2'	57:AA:2885:C:H5'	2.43	0.48
2:Bc:115:LEU:O	2:Bc:116:VAL:C	2.57	0.48
2:Bc:134:ILE:HG23	2:Bc:151:VAL:HB	1.94	0.48
3:Bd:107:ARG:HG2	3:Bd:107:ARG:NH1	2.27	0.48
5:Bf:62:TRP:CG	17:Br:35:ARG:NH1	2.81	0.48
6:Bg:149:ARG:HD3	10:Bk:59:TYR:CZ	2.49	0.48
10:Bk:115:PRO:C	10:Bk:117:ASN:H	2.21	0.48
14:Bo:81:LEU:CD1	14:Bo:85:LEU:HD12	2.42	0.48
21:By:42:ASN:O	21:By:51:TYR:HD1	1.97	0.48
22:Ba:202:U:H5"	22:Ba:203:U:C5	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Ba:457:C:O2'	22:Ba:458:C:H5'	2.13	0.48
22:Ba:1065:U:O2'	22:Ba:1066:C:P	2.71	0.48
22:Ba:1073:U:O2'	22:Ba:1074:G:H5'	2.13	0.48
29:BF:3:GLU:HA	29:BF:24:LEU:CB	2.43	0.48
32:BI:84:GLY:O	32:BI:85:GLU:HB2	2.12	0.48
32:BI:101:LEU:HD23	32:BI:109:ILE:HG12	1.96	0.48
34:BN:89:LYS:O	34:BN:93:THR:HG22	2.13	0.48
39:BS:34:HIS:CE1	39:BS:54:LEU:HB3	2.48	0.48
40:BT:98:LYS:HD3	57:BA:2847:U:OP1	2.13	0.48
41:BU:8:VAL:HG22	41:BU:12:ARG:CG	2.43	0.48
42:BV:19:LYS:HG3	42:BV:20:LEU:H	1.78	0.48
42:BV:89:GLN:HG3	57:BA:993:G:O2'	2.13	0.48
44:BX:26:TYR:CD2	44:BX:92:LEU:HD12	2.46	0.48
44:BX:50:LYS:HD3	44:BX:84:ALA:HB2	1.95	0.48
51:B4:14:ILE:HD12	51:B4:14:ILE:N	2.27	0.48
53:B6:16:CYS:SG	53:B6:48:VAL:HG21	2.53	0.48
57:BA:302:C:H2'	57:BA:303:U:H6	1.78	0.48
57:BA:528:A:C2	57:BA:2042:A:H2'	2.47	0.48
57:BA:633:A:C2'	57:BA:634:C:H5'	2.43	0.48
57:BA:2236:C:C2'	57:BA:2237:G:H5'	2.42	0.48
2:Ac:115:LEU:O	2:Ac:116:VAL:C	2.55	0.48
2:Ac:165:THR:O	2:Ac:165:THR:HG23	2.13	0.48
4:Ae:11:ILE:HD13	4:Ae:105:VAL:HG13	1.95	0.48
7:Ah:3:THR:HG21	22:Aa:878:G:C1'	2.43	0.48
10:Ak:63:LEU:H	10:Ak:63:LEU:CD2	2.26	0.48
18:As:6:LYS:HB2	22:Aa:1313:U:OP1	2.13	0.48
21:Ay:76:ILE:CD1	21:Ay:90:ALA:HB1	2.43	0.48
22:Aa:594:G:C2'	22:Aa:595:G:H5'	2.44	0.48
22:Aa:980:C:H3'	22:Aa:981:U:C6	2.48	0.48
22:Aa:991:U:O2	22:Aa:993:G:C8	2.66	0.48
22:Aa:1225:A:H2'	22:Aa:1225:A:N3	2.28	0.48
22:Aa:1508:G:O2'	22:Aa:1509:C:H5'	2.13	0.48
27:AD:161:THR:HG21	57:AA:1819:A:H5"	1.96	0.48
28:AE:108:SER:HB3	28:AE:165:VAL:CG2	2.41	0.48
29:AF:89:VAL:O	29:AF:91:GLY:N	2.37	0.48
31:AH:153:LYS:HB2	31:AH:154:PRO:HD2	1.96	0.48
32:AI:87:LYS:HG3	32:AI:121:LYS:C	2.38	0.48
37:AQ:2:LEU:O	37:AQ:70:PRO:HG2	2.13	0.48
37:AQ:14:ARG:NH2	57:AA:956:G:OP2	2.46	0.48
44:AX:30:VAL:HG11	44:AX:39:ILE:HD12	1.95	0.48
45:AY:25:GLY:HA3	45:AY:39:VAL:HG13	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:AY:52:SER:O	45:AY:56:PRO:HD3	2.14	0.48
45:AY:96:ILE:HG22	45:AY:97:ARG:N	2.23	0.48
52:A5:41:PRO:O	52:A5:44:THR:OG1	2.30	0.48
57:AA:528:A:H2	57:AA:2043:C:C5'	2.25	0.48
57:AA:838:C:O2'	57:AA:839:U:H5'	2.12	0.48
57:AA:927:G:H5'	57:AA:928:G:OP2	2.14	0.48
57:AA:2861:G:O2'	57:AA:2862:G:H5'	2.13	0.48
2:Bc:14:ILE:HG12	2:Bc:15:THR:H	1.77	0.48
2:Bc:47:LEU:HD21	2:Bc:68:VAL:HG11	1.95	0.48
2:Bc:52:LEU:HD23	2:Bc:52:LEU:N	2.29	0.48
3:Bd:33:MET:HE3	3:Bd:37:PRO:HA	1.95	0.48
6:Bg:111:ARG:HH11	6:Bg:111:ARG:CB	2.26	0.48
7:Bh:77:GLU:HG2	7:Bh:78:GLN:N	2.29	0.48
12:Bm:19:LEU:HD11	12:Bm:56:LEU:HD11	1.95	0.48
12:Bm:84:ILE:HG22	12:Bm:84:ILE:O	2.13	0.48
16:Bq:9:VAL:HG11	16:Bq:84:LEU:HD12	1.96	0.48
17:Br:37:VAL:HG23	17:Br:38:GLU:N	2.28	0.48
18:Bs:43:GLU:HG2	18:Bs:43:GLU:O	2.12	0.48
21:By:35:GLU:O	21:By:36:SER:CB	2.61	0.48
22:Ba:585:G:N3	22:Ba:879:C:H4'	2.28	0.48
22:Ba:950:U:H2'	22:Ba:951:G:H8	1.78	0.48
22:Ba:1228:C:C5	22:Ba:1229:A:N7	2.82	0.48
28:BE:170:LEU:HD12	28:BE:170:LEU:N	2.28	0.48
29:BF:65:TRP:CZ3	29:BF:73:ALA:O	2.66	0.48
34:BN:26:LEU:O	34:BN:30:ILE:HG13	2.13	0.48
34:BN:68:GLU:HG2	34:BN:88:GLU:OE2	2.13	0.48
34:BN:115:ARG:HG3	34:BN:115:ARG:HH11	1.78	0.48
37:BQ:61:GLY:O	46:BZ:177:PRO:HB2	2.13	0.48
37:BQ:133:ARG:NH1	37:BQ:133:ARG:HG3	2.29	0.48
42:BV:21:ARG:CG	42:BV:91:TYR:CD2	2.86	0.48
43:BW:10:VAL:O	43:BW:11:ARG:CB	2.60	0.48
46:BZ:4:ARG:NH1	46:BZ:58:VAL:HG11	2.29	0.48
57:BA:654(A):G:C2'	57:BA:654(B):C:H5'	2.43	0.48
57:BA:814:C:O2'	57:BA:815:C:H5'	2.14	0.48
57:BA:1015:G:H5'	57:BA:1015:G:C8	2.42	0.48
57:BA:1683:C:H2'	57:BA:1684:C:C6	2.49	0.48
57:BA:1817:G:H2'	57:BA:1818:U:H5'	1.94	0.48
57:BA:1997:G:O2'	57:BA:1998:G:H5'	2.13	0.48
3:Ad:9:CYS:SG	3:Ad:22:LYS:CD	3.01	0.48
3:Ad:33:MET:HE3	3:Ad:37:PRO:HB3	1.96	0.48
3:Ad:129:ASN:ND2	3:Ad:145:GLU:H	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:Ak:59:TYR:CE1	10:Ak:63:LEU:HD21	2.48	0.48
16:Aq:9:VAL:HG11	16:Aq:84:LEU:HD12	1.95	0.48
19:At:81:LYS:C	19:At:83:ARG:N	2.72	0.48
22:Aa:255:G:O6	22:Aa:266:G:O6	2.31	0.48
22:Aa:560:U:O2'	22:Aa:561:U:OP2	2.28	0.48
22:Aa:585:G:N3	22:Aa:879:C:H4'	2.29	0.48
22:Aa:975:A:C4'	22:Aa:976:G:H5"	2.31	0.48
22:Aa:1158:C:O2	22:Aa:1158:C:C2'	2.57	0.48
22:Aa:1251:A:O2'	22:Aa:1252:A:H5'	2.14	0.48
27:AD:77:ALA:HB2	27:AD:97:TYR:HA	1.96	0.48
27:AD:111:LEU:HD22	27:AD:115:GLN:OE1	2.13	0.48
28:AE:47:VAL:HG22	28:AE:49:LEU:HD23	1.94	0.48
28:AE:113:PHE:CD1	57:AA:1654:A:C2	3.01	0.48
30:AG:66:GLN:C	30:AG:67:LYS:HE3	2.37	0.48
30:AG:105:LYS:HZ1	51:A4:26:SER:HB3	1.78	0.48
32:AI:82:ARG:O	32:AI:83:ALA:HB2	2.13	0.48
32:AI:108:THR:C	32:AI:109:ILE:HG13	2.38	0.48
34:AN:57:ALA:C	34:AN:58:ASP:O	2.56	0.48
36:AP:61:ARG:HH11	55:A8:13:ARG:HD2	1.76	0.48
36:AP:146:VAL:O	36:AP:148:LEU:N	2.47	0.48
37:AQ:18:LYS:O	37:AQ:19:GLY:O	2.32	0.48
38:AR:40:LYS:HG3	57:AA:1651:G:OP1	2.14	0.48
38:AR:44:LEU:HD13	38:AR:44:LEU:C	2.37	0.48
39:AS:24:LEU:HB3	39:AS:85:VAL:CG1	2.43	0.48
39:AS:90:GLY:C	39:AS:92:TYR:N	2.72	0.48
40:AT:28:VAL:HG13	40:AT:46:GLU:HB2	1.96	0.48
40:AT:29:ARG:HG2	40:AT:85:LYS:HA	1.94	0.48
41:AU:88:ILE:O	41:AU:90:VAL:N	2.35	0.48
41:AU:93:LYS:HD3	57:AA:997:G:OP1	2.13	0.48
42:AV:78:LYS:HE3	57:AA:571:A:O2'	2.13	0.48
42:AV:91:TYR:HD1	42:AV:91:TYR:H	1.61	0.48
46:AZ:167:PRO:O	46:AZ:168:GLU:HB2	2.13	0.48
49:A2:58:ALA:O	49:A2:59:ARG:C	2.57	0.48
50:A3:38:GLU:OE2	50:A3:38:GLU:HA	2.13	0.48
57:AA:480:A:H2	57:AA:499:U:O2	1.97	0.48
57:AA:860:U:O2'	57:AA:861:A:H5'	2.14	0.48
57:AA:894:C:O2'	57:AA:895:U:H5'	2.14	0.48
57:AA:1165:U:H2'	57:AA:1166:C:C6	2.48	0.48
57:AA:1517:G:O2'	57:AA:1518:U:H5'	2.12	0.48
57:AA:1589:C:H2'	57:AA:1590:U:C6	2.48	0.48
57:AA:1722:A:O2'	57:AA:1739:U:H5"	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:AA:1810:A:H2'	57:AA:1811:G:O4'	2.13	0.48
57:AA:2087:G:O2'	57:AA:2088:G:H5'	2.13	0.48
57:AA:2097:C:O2'	57:AA:2098:U:H5'	2.13	0.48
57:AA:2491:U:C5'	57:AA:2570:G:H5"	2.24	0.48
57:AA:2555:U:C2'	57:AA:2556:C:H5'	2.44	0.48
58:AB:65:C:O2'	58:AB:66:A:H5'	2.14	0.48
1:Bb:139:LYS:O	1:Bb:143:GLU:HG2	2.13	0.48
1:Bb:180:LEU:O	1:Bb:181:PHE:HB2	2.13	0.48
3:Bd:62:GLN:HG3	22:Ba:544:G:OP1	2.14	0.48
8:Bi:102:LEU:C	8:Bi:102:LEU:HD23	2.38	0.48
19:Bt:18:GLN:O	19:Bt:22:ARG:HG3	2.14	0.48
22:Ba:383:A:C2'	22:Ba:384:G:H5'	2.43	0.48
22:Ba:1116:C:H2'	22:Ba:1117:G:C5'	2.33	0.48
22:Ba:1229:A:H2'	22:Ba:1230:C:C6	2.49	0.48
25:Bw:32:C:O2'	25:Bw:33:U:H5'	2.13	0.48
27:BD:46:GLN:CD	27:BD:46:GLN:H	2.21	0.48
27:BD:165:ILE:HD13	27:BD:175:LEU:HD21	1.95	0.48
30:BG:91:ARG:C	30:BG:91:ARG:CD	2.86	0.48
30:BG:133:LEU:HD12	30:BG:135:LEU:CD1	2.43	0.48
30:BG:170:ARG:HG3	30:BG:180:PHE:CE1	2.47	0.48
32:BI:50:ARG:HG2	32:BI:50:ARG:O	2.12	0.48
35:BO:22:ILE:HG12	35:BO:41:ALA:HA	1.93	0.48
36:BP:30:THR:HG22	36:BP:31:ALA:N	2.17	0.48
36:BP:52:GLU:HB3	57:BA:832:G:O2'	2.13	0.48
40:BT:28:VAL:HG22	40:BT:46:GLU:CA	2.44	0.48
40:BT:128:GLU:O	40:BT:129:ARG:C	2.56	0.48
45:BY:89:PHE:C	45:BY:90:LEU:HD23	2.38	0.48
46:BZ:126:VAL:HA	46:BZ:164:ALA:H	1.79	0.48
53:B6:5:VAL:HG22	53:B6:6:ARG:N	2.25	0.48
55:B8:53:PRO:HG2	55:B8:54:GLU:N	2.29	0.48
55:B8:61:LEU:HG	55:B8:62:LEU:N	2.26	0.48
57:BA:445:C:O2'	57:BA:446:G:H5'	2.14	0.48
57:BA:634:C:H2'	57:BA:635:C:C6	2.48	0.48
57:BA:1221(A):C:O2'	57:BA:1222:C:H5'	2.13	0.48
57:BA:1638:C:H5"	57:BA:2710:C:O2'	2.14	0.48
57:BA:2134:A:H1'	57:BA:2159:G:N2	2.29	0.48
57:BA:2762:G:H5'	57:BA:2762:G:C8	2.49	0.48
1:Ab:17:PHE:CD2	1:Ab:17:PHE:C	2.89	0.48
1:Ab:164:VAL:O	1:Ab:186:ALA:HB1	2.13	0.48
6:Ag:72:ARG:O	6:Ag:91:VAL:HG23	2.14	0.48
9:Aj:55:LYS:HD2	22:Aa:963:G:N2	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Am:14:ARG:N	12:Am:44:ARG:HH11	2.12	0.48
21:Ay:93:ARG:O	21:Ay:95:LEU:N	2.47	0.48
21:Ay:94:ILE:O	21:Ay:94:ILE:HG13	2.14	0.48
26:AC:44:VAL:HG13	26:AC:215:VAL:HG22	1.95	0.48
27:AD:30:GLU:CD	27:AD:63:ARG:NE	2.70	0.48
27:AD:210:GLY:O	27:AD:212:SER:N	2.42	0.48
27:AD:246:PRO:HD3	57:AA:1902:C:C5'	2.44	0.48
28:AE:144:ARG:O	57:AA:2053:G:H5'	2.13	0.48
29:AF:192:LEU:CD2	29:AF:194:MET:HE2	2.44	0.48
30:AG:56:ALA:CB	30:AG:153:ARG:NH1	2.77	0.48
34:AN:1:MET:C	34:AN:2:LYS:HG3	2.37	0.48
36:AP:48:PRO:O	36:AP:49:ARG:C	2.56	0.48
40:AT:23:ARG:O	40:AT:25:GLY:N	2.46	0.48
41:AU:93:LYS:HD2	41:AU:93:LYS:H	1.78	0.48
43:AW:4:LYS:HG2	43:AW:5:ALA:N	2.28	0.48
45:AY:35:TYR:CE2	45:AY:69:ALA:HB3	2.49	0.48
47:A0:41:ARG:HG3	57:AA:2329:G:N2	2.29	0.48
48:A1:11:ARG:HB3	48:A1:11:ARG:NH1	2.28	0.48
51:A4:39:CYS:O	51:A4:42:PHE:HE2	1.96	0.48
56:A9:1:MET:HE2	56:A9:10:ILE:HD13	1.95	0.48
57:AA:271(D):G:O2'	57:AA:271(E):U:H5'	2.13	0.48
57:AA:309:G:N3	57:AA:329:G:O2'	2.46	0.48
57:AA:330:A:O2'	57:AA:331:A:H8	1.96	0.48
57:AA:1961:C:C2'	57:AA:1962:C:H5'	2.43	0.48
57:AA:2036:C:H6	57:AA:2036:C:C5'	2.23	0.48
57:AA:2850:A:OP2	57:AA:2866:U:H5	1.96	0.48
1:Bb:18:GLY:CA	1:Bb:42:ILE:HG22	2.42	0.48
2:Bc:58:GLU:HB2	2:Bc:65:ALA:CB	2.43	0.48
4:Be:93:PRO:HG3	7:Bh:105:ARG:HE	1.78	0.48
8:Bi:65:VAL:O	8:Bi:65:VAL:HG13	2.13	0.48
11:Bl:110:VAL:HG23	11:Bl:120:TYR:HB3	1.95	0.48
15:Bp:49:LEU:HD22	15:Bp:73:LEU:HD22	1.95	0.48
21:By:33:VAL:CG2	21:By:34:LEU:N	2.77	0.48
22:Ba:123:C:OP1	22:Ba:312:C:H5'	2.14	0.48
22:Ba:148:G:H1	22:Ba:174:C:H42	1.60	0.48
22:Ba:1276:G:C2'	22:Ba:1277:C:H5'	2.43	0.48
27:BD:18:VAL:HG12	27:BD:19:ALA:N	2.29	0.48
27:BD:43:ARG:HH11	27:BD:44:ASN:HD21	1.56	0.48
30:BG:6:ALA:O	30:BG:8:LYS:N	2.47	0.48
34:BN:1:MET:C	34:BN:2:LYS:HG3	2.38	0.48
34:BN:66:LYS:NZ	57:BA:1140:C:OP2	2.45	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BN:67:LEU:C	34:BN:69:GLN:H	2.21	0.48
34:BN:120:LEU:O	34:BN:121:LYS:HD2	2.13	0.48
39:BS:24:LEU:HB3	39:BS:85:VAL:CG1	2.43	0.48
39:BS:62:LYS:CB	58:BB:50:G:OP2	2.62	0.48
42:BV:52:VAL:HG13	42:BV:55:ALA:HB3	1.94	0.48
42:BV:72:VAL:HG23	42:BV:72:VAL:O	2.14	0.48
51:B4:8:LYS:O	51:B4:9:LEU:HB3	2.14	0.48
51:B4:14:ILE:O	51:B4:21:VAL:HG13	2.14	0.48
55:B8:32:LEU:CB	55:B8:36:LYS:NZ	2.77	0.48
57:BA:20:C:H2'	57:BA:21:A:H8	1.78	0.48
57:BA:500:G:N2	57:BA:502:A:H3'	2.29	0.48
57:BA:1138:G:H2'	57:BA:1139:G:O4'	2.14	0.48
57:BA:1165:U:H2'	57:BA:1166:C:C6	2.48	0.48
57:BA:2761:G:C2'	57:BA:2762:G:H5"	2.44	0.48
57:BA:2884:U:C2'	57:BA:2885:C:H5'	2.43	0.48
4:Ae:92:LYS:O	4:Ae:118:ILE:HD12	2.14	0.48
5:Af:10:LEU:HD12	5:Af:10:LEU:N	2.28	0.48
6:Ag:29:LYS:CB	6:Ag:105:VAL:HG21	2.43	0.48
7:Ah:11:THR:HG22	7:Ah:15:ASN:HD22	1.78	0.48
9:Aj:38:ILE:CD1	9:Aj:71:LEU:HB3	2.44	0.48
9:Aj:55:LYS:HD2	22:Aa:963:G:H21	1.79	0.48
11:Al:57:LYS:HG2	11:Al:67:THR:CG2	2.44	0.48
12:Am:78:ILE:HG23	12:Am:92:HIS:ND1	2.29	0.48
17:Ar:25:THR:HG22	17:Ar:25:THR:O	2.14	0.48
19:At:13:LEU:HD12	19:At:13:LEU:N	2.28	0.48
20:Au:2:GLY:C	20:Au:4:GLY:N	2.71	0.48
21:Ay:35:GLU:O	21:Ay:36:SER:CB	2.60	0.48
22:Aa:143:A:H2	22:Aa:220:G:H1	1.62	0.48
22:Aa:1196:U:C4'	22:Aa:1197:G:O5'	2.46	0.48
26:AC:6:LYS:C	26:AC:8:TYR:N	2.68	0.48
27:AD:35:LYS:HB3	27:AD:36:PRO:CD	2.44	0.48
27:AD:50:THR:HB	57:AA:1805:U:O2	2.13	0.48
27:AD:146:GLU:HB2	27:AD:189:CYS:HB3	1.95	0.48
28:AE:51:PHE:O	28:AE:74:PRO:CB	2.61	0.48
28:AE:165:VAL:HG11	57:AA:2679:A:H5'	1.95	0.48
32:AI:89:TYR:N	32:AI:89:TYR:HD1	2.12	0.48
32:AI:120:ILE:CG2	32:AI:121:LYS:N	2.69	0.48
36:AP:33:ARG:CZ	57:AA:587:C:H2'	2.44	0.48
38:AR:7:GLY:C	38:AR:8:ARG:NE	2.68	0.48
38:AR:7:GLY:O	38:AR:8:ARG:HB2	2.13	0.48
42:AV:49:THR:O	42:AV:50:PRO:C	2.56	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A0:27:GLU:OE1	57:AA:856:C:H1'	2.13	0.48
47:A0:56:ASP:O	47:A0:57:PHE:HB2	2.14	0.48
48:A1:41:ARG:HD3	48:A1:43:TYR:OH	2.14	0.48
51:A4:5:ILE:HD13	51:A4:6:HIS:CD2	2.48	0.48
52:A5:52:TYR:O	52:A5:52:TYR:CD1	2.67	0.48
53:A6:6:ARG:HD2	53:A6:6:ARG:N	2.28	0.48
57:AA:270:A:O2'	57:AA:271:A:H5'	2.14	0.48
57:AA:610:G:N2	57:AA:619:G:H1'	2.28	0.48
57:AA:1368:G:O2'	57:AA:1369:G:H5'	2.14	0.48
57:AA:1386:C:H2'	57:AA:1387:C:C6	2.49	0.48
57:AA:1683:C:H2'	57:AA:1684:C:C6	2.49	0.48
57:AA:2134:A:H1'	57:AA:2159:G:N2	2.29	0.48
57:AA:2339:G:O2'	57:AA:2340:G:H5'	2.14	0.48
57:AA:2703:C:H2'	57:AA:2704:C:H6	1.79	0.48
1:Bb:136:VAL:O	1:Bb:140:HIS:HB2	2.14	0.48
3:Bd:52:SER:O	3:Bd:53:ASP:C	2.56	0.48
12:Bm:70:LEU:CD2	12:Bm:71:ARG:CA	2.91	0.48
17:Br:30:ASP:C	17:Br:32:ARG:H	2.22	0.48
21:By:72:VAL:HG22	21:By:73:VAL:N	2.29	0.48
22:Ba:222:U:H2'	22:Ba:223:U:C6	2.49	0.48
22:Ba:444:C:H2'	22:Ba:445:G:H8	1.79	0.48
22:Ba:627:G:H2'	22:Ba:628:G:C8	2.49	0.48
24:Bv:17:C:H2'	24:Bv:17(A):U:C5	2.48	0.48
26:BC:216:THR:HB	26:BC:222:SER:CB	2.34	0.48
29:BF:25:PRO:HB3	29:BF:119:ARG:CD	2.43	0.48
32:BI:118:LYS:NZ	32:BI:119:PRO:CG	2.76	0.48
35:BO:7:TYR:CZ	35:BO:44:LYS:HG3	2.49	0.48
36:BP:48:PRO:O	36:BP:50:ARG:N	2.47	0.48
37:BQ:2:LEU:O	37:BQ:70:PRO:HG2	2.14	0.48
39:BS:38:GLN:HB2	39:BS:47:THR:HG21	1.95	0.48
41:BU:27:LEU:HD12	57:BA:2019:A:O3'	2.13	0.48
47:B0:10:THR:HG21	57:BA:2277:G:OP2	2.13	0.48
53:B6:23:THR:HG21	57:BA:2419:U:C5'	2.39	0.48
57:BA:133:C:O2'	57:BA:134:C:H5'	2.13	0.48
57:BA:1362:C:O2'	57:BA:1363:C:H5'	2.13	0.48
57:BA:1430:C:H2'	57:BA:1431:U:H6	1.78	0.48
57:BA:1636:C:H2'	57:BA:1637:A:H8	1.78	0.48
57:BA:1973:G:H2'	57:BA:1974:C:H6	1.77	0.48
57:BA:2206:G:H3'	57:BA:2206:G:N3	2.28	0.48
2:Ac:58:GLU:HB2	2:Ac:65:ALA:CB	2.44	0.48
2:Ac:64:VAL:HG12	2:Ac:65:ALA:N	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Ad:150:GLU:CG	3:Ad:151:LYS:H	2.26	0.48
3:Ad:150:GLU:O	3:Ad:151:LYS:C	2.57	0.48
7:Ah:12:ARG:NH1	7:Ah:27:PRO:CD	2.65	0.48
7:Ah:77:GLU:HG2	7:Ah:78:GLN:N	2.29	0.48
8:Ai:7:THR:HB	8:Ai:83:ARG:NH1	2.28	0.48
8:Ai:47:LEU:N	8:Ai:47:LEU:CD1	2.77	0.48
9:Aj:42:THR:H	22:Aa:1151:A:H5"	1.78	0.48
11:Al:75:HIS:CD2	11:Al:77:LEU:HB2	2.49	0.48
12:Am:13:LYS:CA	12:Am:44:ARG:HH11	2.21	0.48
12:Am:19:LEU:HD11	12:Am:56:LEU:HD11	1.95	0.48
21:Ay:56:ARG:NH2	23:Ax:22:A:C2	2.79	0.48
22:Aa:401:C:H2'	22:Aa:402:G:C8	2.49	0.48
22:Aa:487:A:H2'	22:Aa:488:C:O4'	2.14	0.48
22:Aa:624:C:H2'	22:Aa:625:G:C8	2.48	0.48
22:Aa:976:G:N2	22:Aa:1362:C:H2'	2.29	0.48
27:AD:186:HIS:CD2	27:AD:188:GLU:HB2	2.47	0.48
28:AE:116:VAL:HG21	28:AE:122:PHE:CE2	2.49	0.48
29:AF:9:ILE:HG23	29:AF:12:LEU:C	2.38	0.48
29:AF:180:GLY:HA3	57:AA:614(C):A:C5	2.49	0.48
30:AG:49:ASP:O	30:AG:50:ALA:CB	2.61	0.48
32:AI:115:ALA:HB2	32:AI:129:THR:O	2.14	0.48
40:AT:57:PHE:O	40:AT:58:ASN:C	2.56	0.48
41:AU:90:VAL:HG21	42:AV:47:VAL:CG2	2.32	0.48
43:AW:18:ARG:CG	43:AW:76:VAL:HG13	2.43	0.48
53:A6:41:PRO:HD2	53:A6:45:LYS:O	2.13	0.48
57:AA:118:A:H5'	57:AA:119:A:C8	2.45	0.48
57:AA:964:C:O2'	57:AA:2273:A:N3	2.47	0.48
57:AA:1542:A:H3'	57:AA:1542:A:H8	1.78	0.48
6:Bg:54:THR:HG23	6:Bg:54:THR:O	2.14	0.48
7:Bh:4:ASP:CG	7:Bh:85:ARG:HH21	2.22	0.48
9:Bj:42:THR:H	22:Ba:1151:A:H5"	1.79	0.48
9:Bj:42:THR:HG23	9:Bj:68:HIS:CA	2.44	0.48
10:Bk:99:GLN:HG2	10:Bk:105:VAL:HG11	1.96	0.48
14:Bo:32:LEU:O	14:Bo:33:THR:C	2.56	0.48
19:Bt:79:ARG:NH1	22:Ba:263:A:OP2	2.46	0.48
22:Ba:112:G:H5'	22:Ba:389:A:H4'	1.96	0.48
22:Ba:255:G:O6	22:Ba:266:G:O6	2.32	0.48
22:Ba:340:U:H2'	22:Ba:341:C:C6	2.49	0.48
22:Ba:1106:G:H2'	22:Ba:1107:C:H6	1.78	0.48
22:Ba:1142:G:H3'	22:Ba:1143:G:H8	1.79	0.48
22:Ba:1175:G:H2'	22:Ba:1176:A:C8	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:116:VAL:CG2	28:BE:122:PHE:CG	2.97	0.48
29:BF:167:ALA:O	29:BF:168:ARG:CB	2.62	0.48
30:BG:34:LEU:HD23	30:BG:99:MET:SD	2.54	0.48
30:BG:40:ASN:CG	57:BA:2313:C:O4'	2.57	0.48
30:BG:68:PRO:CG	30:BG:90:LEU:HG	2.44	0.48
31:BH:41:MET:CE	31:BH:43:VAL:HG13	2.43	0.48
33:BJ:8:GLU:C	33:BJ:10:LEU:H	2.20	0.48
36:BP:47:ASP:HB2	36:BP:51:PHE:HB2	1.96	0.48
36:BP:48:PRO:CG	36:BP:49:ARG:H	2.21	0.48
38:BR:5:LYS:HD2	57:BA:2820:A:O4'	2.13	0.48
41:BU:91:ASP:O	41:BU:95:LEU:HB2	2.13	0.48
41:BU:110:VAL:O	41:BU:113:ALA:HB3	2.13	0.48
42:BV:5:VAL:HG21	42:BV:35:LEU:CB	2.43	0.48
44:BX:31:HIS:HE1	57:BA:71:A:C2	2.32	0.48
46:BZ:163:LEU:HD23	46:BZ:163:LEU:N	2.29	0.48
48:B1:18:ILE:HG12	48:B1:37:ILE:HG12	1.96	0.48
52:B5:2:ALA:HB3	57:BA:747:U:C1'	2.43	0.48
57:BA:247:G:H4'	57:BA:386:G:C5	2.49	0.48
57:BA:2287:A:N6	57:BA:2344:U:H3	2.11	0.48
57:BA:2481:G:HO2'	57:BA:2482:G:P	2.36	0.48
57:BA:2562:U:H2'	57:BA:2563:U:H5'	1.95	0.48
58:BB:87:G:H2'	58:BB:88:C:H5"	1.96	0.48
3:Ad:133:VAL:HG12	3:Ad:135:LEU:H	1.79	0.48
3:Ad:173:TRP:CD1	3:Ad:174:LEU:HG	2.49	0.48
9:Aj:35:SER:O	9:Aj:36:GLY:O	2.32	0.48
13:An:6:LEU:HD13	22:Aa:982:U:H5"	1.95	0.48
17:Ar:29:PHE:CE1	17:Ar:31:LEU:HB3	2.41	0.48
21:Ay:38:ARG:HG3	21:Ay:38:ARG:NH2	2.29	0.48
21:Ay:84:SER:HB3	23:Ax:20:A2M:H8	1.95	0.48
22:Aa:222:U:H2'	22:Aa:223:U:C6	2.48	0.48
22:Aa:729:A:H2'	22:Aa:730:G:H8	1.79	0.48
22:Aa:833:U:H2'	22:Aa:834:C:C6	2.49	0.48
22:Aa:1170:A:H2'	22:Aa:1171:G:H5'	1.94	0.48
22:Aa:1244:C:H2'	22:Aa:1245:A:H8	1.79	0.48
27:AD:65:ILE:HD11	27:AD:67:PHE:CD1	2.49	0.48
27:AD:108:PRO:HB3	27:AD:143:HIS:HE1	1.78	0.48
30:AG:111:LEU:CA	30:AG:114:ILE:HD12	2.31	0.48
31:AH:86:GLU:HA	31:AH:132:ARG:HA	1.96	0.48
34:AN:89:LYS:O	34:AN:93:THR:HG22	2.14	0.48
34:AN:133:GLN:CG	34:AN:134:ARG:H	2.16	0.48
36:AP:101:VAL:C	36:AP:103:ALA:H	2.21	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:AS:66:ALA:O	39:AS:69:VAL:HG12	2.14	0.48
45:AY:84:ARG:HD2	45:AY:97:ARG:CD	2.43	0.48
47:A0:10:THR:HG21	57:AA:2277:G:OP2	2.14	0.48
51:A4:27:THR:O	51:A4:27:THR:HG23	2.14	0.48
51:A4:31:ILE:HG22	51:A4:31:ILE:O	2.14	0.48
51:A4:53:GLU:OE1	51:A4:54:GLY:N	2.39	0.48
52:A5:3:LYS:HD3	57:AA:2613:U:H2'	1.96	0.48
55:A8:8:LYS:O	55:A8:12:LYS:HG3	2.14	0.48
57:AA:654(A):G:C2'	57:AA:654(B):C:H5'	2.44	0.48
57:AA:1181:C:O2'	57:AA:1182:A:H5'	2.13	0.48
2:Bc:12:LEU:O	2:Bc:13:GLY:C	2.57	0.48
3:Bd:30:LYS:CB	3:Bd:35:ARG:HD2	2.44	0.48
3:Bd:187:ARG:HG2	3:Bd:187:ARG:HH11	1.79	0.48
3:Bd:194:LEU:HD22	3:Bd:194:LEU:N	2.28	0.48
4:Be:33:VAL:HG21	4:Be:109:ILE:HG13	1.96	0.48
5:Bf:22:GLU:OE1	5:Bf:84:ASN:ND2	2.45	0.48
9:Bj:35:SER:O	9:Bj:36:GLY:O	2.31	0.48
13:Bn:18:VAL:HG23	13:Bn:19:ARG:N	2.29	0.48
13:Bn:41:ARG:HG3	13:Bn:42:ILE:N	2.29	0.48
22:Ba:39:G:N7	22:Ba:547:A:H8	2.10	0.48
22:Ba:624:C:H2'	22:Ba:625:G:C8	2.48	0.48
22:Ba:858:G:O6	22:Ba:869:G:H3'	2.14	0.48
26:BC:213:VAL:HG12	26:BC:225:ILE:HD11	1.95	0.48
27:BD:10:THR:C	27:BD:11:PRO:O	2.56	0.48
27:BD:50:THR:HB	57:BA:1805:U:O2	2.13	0.48
27:BD:80:ALA:HB3	27:BD:94:LEU:CD1	2.40	0.48
27:BD:94:LEU:HD22	27:BD:95:LEU:N	2.28	0.48
31:BH:41:MET:HE2	31:BH:42:ARG:C	2.39	0.48
36:BP:83:VAL:HG12	36:BP:112:LEU:CD2	2.40	0.48
38:BR:7:GLY:O	38:BR:8:ARG:HB2	2.13	0.48
39:BS:90:GLY:O	39:BS:92:TYR:N	2.46	0.48
40:BT:11:GLU:CD	40:BT:11:GLU:H	2.22	0.48
42:BV:65:GLY:HA3	42:BV:91:TYR:CE1	2.45	0.48
44:BX:35:THR:HG22	44:BX:36:LYS:N	2.28	0.48
46:BZ:98:MET:O	46:BZ:125:LEU:HA	2.13	0.48
46:BZ:127:LYS:O	46:BZ:127:LYS:HG3	2.13	0.48
51:B4:37:SER:O	51:B4:38:LYS:HB2	2.13	0.48
55:B8:33:ASN:ND2	55:B8:33:ASN:N	2.34	0.48
57:BA:894:C:O2'	57:BA:895:U:H5'	2.14	0.48
57:BA:1431:U:O2'	57:BA:1432:C:H5'	2.14	0.48
57:BA:2287:A:N6	57:BA:2344:U:N3	2.61	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Ad:162:LEU:CD2	3:Ad:178:VAL:HG13	2.44	0.47
3:Ad:173:TRP:O	3:Ad:186:LEU:HB2	2.14	0.47
8:Ai:5:TYR:HA	8:Ai:17:VAL:O	2.13	0.47
8:Ai:16:ARG:HH12	22:Aa:1128:C:C5'	2.27	0.47
9:Aj:6:ILE:CG2	9:Aj:98:ILE:HG13	2.35	0.47
14:Ao:26:GLU:HG3	14:Ao:77:ARG:NH1	2.29	0.47
23:Ax:19:OMU:H2'	23:Ax:19:OMU:O2	2.13	0.47
25:Aw:49:G:H2'	25:Aw:50:U:O4'	2.14	0.47
27:AD:79:VAL:HG21	27:AD:111:LEU:HD21	1.96	0.47
30:AG:165:THR:C	30:AG:167:GLU:H	2.21	0.47
32:AI:113:ARG:NH1	32:AI:131:LYS:O	2.47	0.47
35:AO:22:ILE:HG23	57:AA:1952:A:C2	2.49	0.47
38:AR:38:VAL:CB	38:AR:39:PRO:HD3	2.41	0.47
41:AU:8:VAL:HG22	41:AU:12:ARG:CG	2.44	0.47
42:AV:19:LYS:CE	42:AV:20:LEU:H	2.26	0.47
42:AV:51:VAL:CG1	42:AV:52:VAL:H	2.20	0.47
43:AW:2:GLU:HA	43:AW:64:MET:HE1	1.94	0.47
43:AW:5:ALA:HB1	43:AW:50:VAL:CG2	2.44	0.47
45:AY:59:GLY:O	45:AY:60:PHE:CB	2.52	0.47
46:AZ:55:HIS:O	46:AZ:70:LEU:HD23	2.14	0.47
46:AZ:162:GLU:N	46:AZ:162:GLU:CD	2.72	0.47
49:A2:46:GLN:H	49:A2:49:LYS:HD2	1.78	0.47
51:A4:8:LYS:O	51:A4:9:LEU:HB3	2.14	0.47
53:A6:27:LYS:NZ	57:AA:2285:C:OP1	2.47	0.47
53:A6:45:LYS:HG2	57:AA:2371:G:C4'	2.24	0.47
57:AA:55:G:O2'	57:AA:127:A:N1	2.45	0.47
57:AA:287:C:H2'	57:AA:288:C:C6	2.49	0.47
57:AA:1233:C:O2'	57:AA:1234:U:H5'	2.13	0.47
57:AA:1839:G:H5'	57:AA:1839:G:C8	2.49	0.47
7:Bh:130:GLY:C	22:Ba:599:C:H4'	2.38	0.47
8:Bi:48:GLU:N	8:Bi:49:PRO:CD	2.76	0.47
10:Bk:43:SER:HB3	10:Bk:68:ALA:HB2	1.95	0.47
11:Bl:23:LYS:O	11:Bl:24:VAL:HG23	2.14	0.47
12:Bm:49:THR:HB	12:Bm:52:GLU:HG3	1.96	0.47
18:Bs:35:SER:C	18:Bs:37:ARG:H	2.20	0.47
22:Ba:232:G:H1'	22:Ba:262:A:N1	2.29	0.47
22:Ba:423:G:H2'	22:Ba:424:G:C5'	2.44	0.47
22:Ba:1307:U:H2'	22:Ba:1308:U:O4'	2.14	0.47
25:Bw:62:C:C4'	26:BC:53:ARG:HG3	2.43	0.47
26:BC:4:HIS:ND1	26:BC:8:TYR:HE2	2.12	0.47
26:BC:6:LYS:HG3	57:BA:2132:U:C2	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:64:LYS:O	28:BE:64:LYS:CG	2.62	0.47
28:BE:119:ARG:HD2	28:BE:120:TRP:CD1	2.49	0.47
29:BF:9:ILE:HA	29:BF:13:SER:O	2.14	0.47
29:BF:25:PRO:HB3	29:BF:119:ARG:CG	2.44	0.47
30:BG:116:ASP:O	30:BG:117:PHE:HB3	2.14	0.47
32:BI:77:LEU:HD23	32:BI:141:LYS:CG	2.41	0.47
34:BN:57:ALA:C	34:BN:58:ASP:O	2.57	0.47
38:BR:45:ARG:HD3	38:BR:97:VAL:CG2	2.44	0.47
40:BT:29:ARG:HD3	40:BT:86:ILE:HG22	1.94	0.47
40:BT:40:THR:O	40:BT:41:ARG:HB2	2.13	0.47
41:BU:59:ARG:CD	57:BA:1009:A:H5'	2.44	0.47
44:BX:37:THR:CG2	57:BA:143:G:H1'	2.44	0.47
48:B1:11:ARG:HB2	48:B1:12:PRO:HD2	1.95	0.47
48:B1:56:GLN:HE22	48:B1:85:LEU:CD2	2.27	0.47
51:B4:51:ASP:OD2	51:B4:52:THR:N	2.46	0.47
52:B5:52:TYR:O	52:B5:52:TYR:CD1	2.66	0.47
53:B6:26:ASN:ND2	53:B6:51:GLU:OE1	2.47	0.47
57:BA:1405:U:H2'	57:BA:1406:U:H6	1.79	0.47
57:BA:2087:G:O2'	57:BA:2088:G:H5'	2.14	0.47
57:BA:2208:A:H1'	57:BA:2219:G:C5	2.48	0.47
57:BA:2219:G:O2'	57:BA:2220:G:H5'	2.14	0.47
57:BA:2307:G:OP1	57:BA:2307:G:H4'	2.14	0.47
58:BB:81:G:N3	58:BB:81:G:H5'	2.28	0.47
1:Ab:116:GLU:HA	1:Ab:119:GLU:HB3	1.95	0.47
2:Ac:4:LYS:NZ	22:Aa:1191:A:H5"	2.29	0.47
3:Ad:52:SER:O	3:Ad:53:ASP:C	2.57	0.47
3:Ad:100:ARG:HH12	3:Ad:137:SER:HB3	1.79	0.47
4:Ae:8:GLU:CA	4:Ae:34:VAL:HG23	2.44	0.47
4:Ae:41:VAL:HG13	4:Ae:113:ALA:HA	1.95	0.47
5:Af:7:ASN:N	5:Af:7:ASN:ND2	2.62	0.47
12:Am:6:GLY:O	12:Am:8:GLU:N	2.41	0.47
12:Am:10:PRO:CG	12:Am:18:ALA:HB1	2.44	0.47
18:As:29:ARG:O	18:As:31:ILE:N	2.44	0.47
22:Aa:67:C:H2'	22:Aa:68:G:H8	1.74	0.47
22:Aa:413:G:H1'	22:Aa:428:G:H21	1.79	0.47
22:Aa:457:C:O2'	22:Aa:458:C:H5'	2.14	0.47
22:Aa:530:G:N3	22:Aa:530:G:C2'	2.74	0.47
27:AD:209:ALA:C	27:AD:210:GLY:O	2.55	0.47
29:AF:25:PRO:HB3	29:AF:119:ARG:CD	2.42	0.47
30:AG:117:PHE:CZ	30:AG:119:GLY:CA	2.98	0.47
31:AH:7:LEU:HD21	31:AH:65:HIS:NE2	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:AI:68:LEU:HD23	32:AI:68:LEU:C	2.39	0.47
32:AI:89:TYR:CD1	32:AI:89:TYR:N	2.83	0.47
36:AP:105:LEU:HD12	36:AP:105:LEU:N	2.29	0.47
37:AQ:1:MET:HE1	37:AQ:45:GLN:HA	1.96	0.47
38:AR:45:ARG:HA	38:AR:95:THR:HG21	1.96	0.47
40:AT:33:LYS:NZ	40:AT:43:GLN:NE2	2.62	0.47
57:AA:523:C:O2'	57:AA:524:U:H5'	2.14	0.47
57:AA:528:A:C2	57:AA:2042:A:H2'	2.49	0.47
57:AA:1221:C:H2'	57:AA:1221(A):C:H6	1.79	0.47
57:AA:1448:G:N3	57:AA:1528(A):A:H2	2.12	0.47
57:AA:1517:G:C2'	57:AA:1518:U:H5'	2.45	0.47
57:AA:1578:U:H2'	57:AA:1579:A:C5'	2.44	0.47
57:AA:1826:G:H2'	57:AA:1827:C:C6	2.49	0.47
57:AA:2267:A:H5"	57:AA:2268:A:H5'	1.96	0.47
57:AA:2636:U:H2'	57:AA:2637:U:H6	1.78	0.47
57:AA:2761:G:H2'	57:AA:2762:G:H5"	1.97	0.47
1:Bb:100:GLY:O	1:Bb:104:ASN:C	2.57	0.47
2:Bc:53:ALA:HB2	2:Bc:115:LEU:HG	1.96	0.47
4:Be:36:ASP:OD1	4:Be:38:GLN:N	2.47	0.47
6:Bg:87:VAL:HG13	6:Bg:151:TYR:O	2.14	0.47
8:Bi:16:ARG:HH22	22:Ba:1128:C:C5'	2.20	0.47
10:Bk:59:TYR:CE1	10:Bk:63:LEU:HD21	2.49	0.47
12:Bm:83:ASP:CG	12:Bm:84:ILE:H	2.22	0.47
13:Bn:21:TYR:CE2	13:Bn:23:ARG:NH2	2.82	0.47
17:Br:37:VAL:O	17:Br:41:LYS:HB2	2.14	0.47
22:Ba:143:A:H2	22:Ba:220:G:H1	1.63	0.47
22:Ba:342:C:C2'	22:Ba:343:U:H5'	2.45	0.47
22:Ba:503:C:H2'	22:Ba:504:C:C6	2.42	0.47
22:Ba:1300:G:O2'	22:Ba:1301:U:P	2.72	0.47
22:Ba:1338:G:H2'	22:Ba:1339:A:C8	2.49	0.47
26:BC:41:THR:HG21	26:BC:175:PRO:CB	2.43	0.47
27:BD:11:PRO:C	27:BD:13:ARG:N	2.63	0.47
27:BD:111:LEU:HD22	27:BD:115:GLN:OE1	2.15	0.47
28:BE:64:LYS:C	28:BE:66:HIS:H	2.19	0.47
28:BE:187:ALA:HB3	57:BA:2729:G:H1'	1.96	0.47
31:BH:9:ILE:CG2	31:BH:50:VAL:O	2.62	0.47
31:BH:19:VAL:CG2	31:BH:44:VAL:HA	2.36	0.47
37:BQ:14:ARG:NH2	57:BA:956:G:OP2	2.47	0.47
42:BV:91:TYR:H	42:BV:91:TYR:HD1	1.61	0.47
44:BX:14:SER:O	44:BX:15:GLU:C	2.55	0.47
46:BZ:144:LEU:HD11	46:BZ:150:LEU:CD2	2.43	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:B8:61:LEU:N	55:B8:63:PRO:HD2	2.29	0.47
56:B9:27:CYS:SG	56:B9:28:GLU:N	2.87	0.47
57:BA:26:G:C6	57:BA:27:G:N1	2.83	0.47
57:BA:307:G:H21	57:BA:330:A:H62	1.61	0.47
57:BA:977:G:O2'	57:BA:978:G:H5'	2.14	0.47
57:BA:2515:C:O2'	57:BA:2516:G:H5'	2.15	0.47
1:Ab:116:GLU:HB3	1:Ab:153:ARG:HH21	1.79	0.47
1:Ab:214:ILE:O	1:Ab:218:ALA:HB2	2.14	0.47
3:Ad:18:LYS:HE2	3:Ad:31:CYS:CB	2.44	0.47
4:Ae:149:GLU:C	4:Ae:151:LEU:N	2.72	0.47
6:Ag:102:ARG:HH22	22:Aa:939:G:C5'	2.18	0.47
8:Ai:56:LEU:O	8:Ai:56:LEU:HD23	2.15	0.47
8:Ai:83:ARG:HA	8:Ai:86:VAL:HG12	1.94	0.47
9:Aj:38:ILE:HD11	9:Aj:71:LEU:CD2	2.36	0.47
12:Am:97:PRO:CA	12:Am:110:ARG:HD3	2.43	0.47
12:Am:105:THR:O	12:Am:106:ASN:C	2.56	0.47
15:Ap:25:ARG:NH1	22:Aa:134:A:H61	2.12	0.47
19:At:37:SER:O	19:At:41:ILE:HG13	2.15	0.47
22:Aa:176:C:H2'	22:Aa:177:C:C6	2.47	0.47
22:Aa:1142:G:H3'	22:Aa:1143:G:H8	1.80	0.47
22:Aa:1399:C:H4'	22:Aa:1400:C:O5'	2.14	0.47
22:Aa:1423:G:H2'	22:Aa:1424:C:H6	1.79	0.47
22:Aa:1490:C:H2'	22:Aa:1491:G:C5'	2.40	0.47
25:Aw:59:A:O2'	25:Aw:60:U:H5'	2.14	0.47
27:AD:11:PRO:C	27:AD:13:ARG:N	2.63	0.47
27:AD:18:VAL:HG12	27:AD:19:ALA:H	1.79	0.47
27:AD:128:GLY:H	27:AD:193:VAL:HG13	1.78	0.47
27:AD:158:ALA:HB3	27:AD:161:THR:HG21	1.96	0.47
27:AD:165:ILE:HD13	27:AD:175:LEU:HD21	1.95	0.47
28:AE:61:ARG:NH1	57:AA:2787:C:O2	2.45	0.47
30:AG:109:VAL:HG22	51:A4:33:VAL:HG21	1.95	0.47
32:AI:84:GLY:O	32:AI:85:GLU:HB2	2.14	0.47
36:AP:8:PRO:HG3	57:AA:1242:A:N1	2.29	0.47
37:AQ:27:VAL:CG1	37:AQ:28:ALA:N	2.76	0.47
39:AS:101:LEU:HD12	39:AS:101:LEU:H	1.79	0.47
40:AT:50:ILE:O	40:AT:99:LEU:HD12	2.14	0.47
42:AV:19:LYS:NZ	42:AV:20:LEU:N	2.49	0.47
42:AV:52:VAL:O	42:AV:53:GLU:C	2.58	0.47
49:A2:45:SER:O	49:A2:46:GLN:NE2	2.47	0.47
55:A8:50:LEU:C	55:A8:52:LYS:H	2.22	0.47
57:AA:1722:A:C2	57:AA:1740:G:H8	2.33	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:AA:2887:U:H2'	57:AA:2888:C:H6	1.79	0.47
58:AB:87:G:H2'	58:AB:88:C:H5"	1.95	0.47
1:Bb:194:PRO:O	1:Bb:197:VAL:HG23	2.14	0.47
2:Bc:33:LEU:HD21	13:Bn:53:LEU:HD21	1.95	0.47
3:Bd:163:GLU:C	3:Bd:165:MET:H	2.21	0.47
4:Be:101:ILE:HD11	4:Be:119:LEU:HA	1.95	0.47
7:Bh:112:LEU:HB3	7:Bh:133:LEU:HA	1.95	0.47
9:Bj:23:ILE:HG23	9:Bj:85:LEU:CD2	2.43	0.47
9:Bj:38:ILE:CD1	9:Bj:71:LEU:HB3	2.44	0.47
10:Bk:20:TYR:HB2	10:Bk:31:THR:HG22	1.96	0.47
12:Bm:14:ARG:H	12:Bm:44:ARG:HH11	1.62	0.47
22:Ba:253:U:H2'	22:Ba:254:G:H8	1.79	0.47
22:Ba:865:A:H5'	22:Ba:1078:U:C4	2.50	0.47
22:Ba:991:U:O2	22:Ba:993:G:C8	2.67	0.47
22:Ba:1144:G:H21	22:Ba:1146:A:H62	1.62	0.47
24:Bv:11:A:H8	24:Bv:11:A:O5'	1.96	0.47
28:BE:2:LYS:HB3	28:BE:95:ILE:HG21	1.95	0.47
28:BE:101:ARG:HB3	28:BE:169:ASN:ND2	2.29	0.47
29:BF:117:ARG:HH21	29:BF:187:VAL:HA	1.78	0.47
30:BG:173:LEU:HA	30:BG:176:LEU:HD12	1.96	0.47
31:BH:136:ILE:N	31:BH:136:ILE:CD1	2.76	0.47
32:BI:37:VAL:CG1	32:BI:38:LEU:N	2.76	0.47
36:BP:17:LYS:O	36:BP:18:ARG:C	2.57	0.47
36:BP:110:TYR:CE2	36:BP:111:ARG:NH2	2.82	0.47
37:BQ:12:GLN:CG	37:BQ:73:PRO:HD2	2.44	0.47
37:BQ:46:GLN:NE2	57:BA:2485:G:H5"	2.28	0.47
38:BR:94:TYR:CD1	38:BR:94:TYR:N	2.82	0.47
40:BT:28:VAL:HG11	40:BT:46:GLU:CD	2.39	0.47
40:BT:91:ARG:CB	40:BT:116:ALA:HA	2.41	0.47
43:BW:89:ALA:HB1	57:BA:748:G:C8	2.49	0.47
45:BY:2:ARG:C	45:BY:2:ARG:HD3	2.40	0.47
48:B1:8:SER:HB3	48:B1:66:HIS:CD2	2.48	0.47
57:BA:481:G:H1'	57:BA:506:G:N2	2.28	0.47
57:BA:847:U:H2'	57:BA:848:G:H5"	1.96	0.47
57:BA:874:G:O2'	57:BA:875:G:H5'	2.14	0.47
57:BA:1048:A:N6	57:BA:1106:A:N7	2.63	0.47
57:BA:1386:C:H2'	57:BA:1387:C:C6	2.49	0.47
57:BA:1448:G:N3	57:BA:1528(A):A:H2	2.12	0.47
57:BA:2740:A:H2'	57:BA:2741:A:C8	2.49	0.47
57:BA:2769:C:H2'	57:BA:2770:G:O4'	2.14	0.47
57:BA:2887:U:H2'	57:BA:2888:C:C6	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Ac:39:ILE:C	2:Ac:41:GLY:H	2.22	0.47
3:Ad:43:HIS:C	3:Ad:45:GLN:H	2.20	0.47
3:Ad:107:ARG:HG2	3:Ad:107:ARG:NH1	2.29	0.47
7:Ah:102:ARG:HD3	7:Ah:102:ARG:N	2.30	0.47
7:Ah:112:LEU:HB3	7:Ah:133:LEU:HA	1.96	0.47
9:Aj:8:LEU:HD23	9:Aj:96:ILE:CG2	2.43	0.47
12:Am:84:ILE:HG22	12:Am:84:ILE:O	2.14	0.47
18:As:35:SER:C	18:As:37:ARG:H	2.20	0.47
19:At:89:ARG:HD2	19:At:104:LEU:HD11	1.95	0.47
21:Ay:79:GLY:C	21:Ay:86:VAL:CG1	2.87	0.47
22:Aa:148:G:H1	22:Aa:174:C:H42	1.62	0.47
22:Aa:244:U:C6	22:Aa:894:G:N2	2.82	0.47
22:Aa:342:C:C2'	22:Aa:343:U:H5'	2.44	0.47
22:Aa:960:U:O2	22:Aa:960:U:H2'	2.14	0.47
22:Aa:1490:C:C3'	22:Aa:1491:G:H5"	2.44	0.47
27:AD:31:LYS:C	27:AD:33:LEU:N	2.72	0.47
27:AD:34:VAL:CG2	27:AD:35:LYS:N	2.65	0.47
27:AD:35:LYS:O	27:AD:36:PRO:C	2.58	0.47
27:AD:121:PRO:HA	27:AD:135:PHE:HD1	1.79	0.47
27:AD:244:ARG:HG3	57:AA:1902:C:C1'	2.44	0.47
29:AF:52:LYS:O	29:AF:88:VAL:HG12	2.14	0.47
29:AF:115:ALA:O	29:AF:116:ASP:C	2.56	0.47
35:AO:104:ARG:CZ	40:AT:33:LYS:HD2	2.45	0.47
37:AQ:16:ARG:HG2	37:AQ:17:LEU:H	1.79	0.47
38:AR:45:ARG:HD3	38:AR:97:VAL:CG2	2.44	0.47
40:AT:28:VAL:HG22	40:AT:46:GLU:CA	2.44	0.47
44:AX:57:LEU:CD1	44:AX:57:LEU:N	2.77	0.47
51:A4:51:ASP:OD2	51:A4:52:THR:N	2.47	0.47
57:AA:2179:C:OP1	57:AA:2179:C:H4'	2.12	0.47
57:AA:2762:G:H8	57:AA:2762:G:C5'	2.26	0.47
3:Bd:134:ASP:O	3:Bd:136:PRO:HD3	2.14	0.47
4:Be:43:LEU:H	4:Be:136:MET:HE2	1.79	0.47
7:Bh:102:ARG:HD3	7:Bh:102:ARG:N	2.29	0.47
10:Bk:11:LYS:O	10:Bk:13:GLN:HG3	2.15	0.47
16:Bq:12:SER:HB3	16:Bq:20:THR:HB	1.96	0.47
18:Bs:34:TRP:HB3	22:Ba:1219:U:O2'	2.14	0.47
21:By:6:ASP:O	21:By:74:PHE:HA	2.14	0.47
24:Bv:33:U:O2'	24:Bv:35:A:N7	2.44	0.47
27:BD:35:LYS:C	27:BD:35:LYS:CD	2.84	0.47
27:BD:147:LEU:HD12	27:BD:155:LEU:HD21	1.97	0.47
28:BE:48:GLN:HE21	28:BE:78:LEU:HD22	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:82:ARG:O	28:BE:84:PHE:N	2.47	0.47
29:BF:52:LYS:O	29:BF:88:VAL:HG12	2.14	0.47
30:BG:71:THR:HG21	57:BA:2312:U:H4'	1.95	0.47
31:BH:62:LYS:HB3	57:BA:2749:A:H4'	1.97	0.47
34:BN:94:HIS:N	34:BN:95:PRO:CD	2.77	0.47
35:BO:86:ILE:O	35:BO:87:ILE:HD13	2.15	0.47
36:BP:66:GLY:O	36:BP:67:MET:HB3	2.14	0.47
39:BS:61:ASN:OD1	39:BS:64:GLU:OE2	2.33	0.47
39:BS:88:ASP:OD2	39:BS:89:ARG:N	2.48	0.47
39:BS:97:ARG:HH21	39:BS:98:VAL:HA	1.71	0.47
40:BT:8:LYS:HA	40:BT:11:GLU:OE1	2.14	0.47
40:BT:29:ARG:CZ	40:BT:86:ILE:HG22	2.44	0.47
40:BT:31:SER:N	40:BT:43:GLN:O	2.47	0.47
52:B5:42:PRO:HB2	52:B5:43:HIS:CD2	2.49	0.47
53:B6:41:PRO:HD2	53:B6:45:LYS:O	2.14	0.47
54:B7:5:TRP:CD1	54:B7:7:PRO:HD3	2.49	0.47
55:B8:33:ASN:HD22	55:B8:36:LYS:CD	2.27	0.47
57:BA:152:G:H1	57:BA:174:C:N4	1.93	0.47
57:BA:1722:A:O2'	57:BA:1739:U:H5"	2.15	0.47
57:BA:1771:C:C1'	57:BA:1786:A:C8	2.97	0.47
57:BA:1948:G:C2'	57:BA:1949:G:H5'	2.45	0.47
57:BA:2774:C:H2'	57:BA:2775:A:O4'	2.13	0.47
1:Ab:168:THR:HA	1:Ab:171:ALA:HB2	1.97	0.47
2:Ac:189:ALA:HB3	2:Ac:196:LEU:HB2	1.95	0.47
4:Ae:51:VAL:HB	4:Ae:52:PRO:CD	2.36	0.47
4:Ae:101:ILE:HD11	4:Ae:119:LEU:HA	1.97	0.47
5:Af:62:TRP:CG	17:Ar:35:ARG:NH1	2.83	0.47
6:Ag:5:ARG:C	6:Ag:7:ALA:H	2.22	0.47
8:Ai:97:LYS:HA	8:Ai:102:LEU:HD12	1.96	0.47
9:Aj:42:THR:HG23	9:Aj:68:HIS:HA	1.96	0.47
11:Al:18:VAL:O	11:Al:19:ARG:HB3	2.14	0.47
13:An:12:ARG:NH1	13:An:12:ARG:HB2	2.29	0.47
25:Aw:51:C:H2'	25:Aw:52:G:H8	1.74	0.47
27:AD:28:GLU:H	27:AD:29:PRO:CD	2.22	0.47
27:AD:35:LYS:NZ	27:AD:36:PRO:CD	2.77	0.47
27:AD:69:ARG:C	27:AD:71:ASP:H	2.23	0.47
27:AD:121:PRO:HB3	27:AD:135:PHE:CD1	2.50	0.47
27:AD:267:SER:C	27:AD:269:PHE:H	2.22	0.47
28:AE:116:VAL:CG2	28:AE:122:PHE:CG	2.97	0.47
29:AF:20:LEU:O	29:AF:24:LEU:HD23	2.15	0.47
29:AF:164:ARG:HG2	29:AF:164:ARG:NH1	2.27	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:AG:98:ARG:HG3	51:A4:1:MET:HG2	1.96	0.47
32:AI:74:ASN:CG	32:AI:75:LEU:HD12	2.39	0.47
34:AN:18:ALA:CB	34:AN:21:LYS:HB3	2.44	0.47
34:AN:68:GLU:H	34:AN:88:GLU:HG3	1.79	0.47
36:AP:117:GLU:OE2	57:AA:637:A:H2'	2.15	0.47
38:AR:79:LEU:HD23	38:AR:83:ILE:HB	1.96	0.47
39:AS:92:TYR:CG	39:AS:93:LYS:N	2.83	0.47
41:AU:2:PRO:HA	57:AA:445:C:OP1	2.15	0.47
41:AU:59:ARG:CD	57:AA:1009:A:H5'	2.43	0.47
43:AW:28:SER:C	43:AW:30:GLU:N	2.72	0.47
52:A5:46:CYS:SG	52:A5:47:PRO:HD2	2.54	0.47
57:AA:128:C:H2'	57:AA:129:C:O4'	2.15	0.47
57:AA:1748:G:H5'	57:AA:1748:G:C8	2.46	0.47
57:AA:2287:A:C2	57:AA:2346:A:C2	3.02	0.47
1:Bb:132:LYS:HA	1:Bb:135:GLN:HE21	1.79	0.47
7:Bh:122:ARG:NH1	7:Bh:122:ARG:HB2	2.29	0.47
9:Bj:55:LYS:HD2	22:Ba:963:G:H21	1.79	0.47
11:Bl:47:LYS:HE2	11:Bl:48:PRO:CD	2.45	0.47
12:Bm:29:ARG:HH11	12:Bm:64:TRP:CG	2.33	0.47
18:Bs:29:ARG:O	18:Bs:31:ILE:N	2.43	0.47
22:Ba:487:A:H2'	22:Ba:488:C:O4'	2.14	0.47
22:Ba:1107:C:C3'	22:Ba:1108:G:H5"	2.44	0.47
22:Ba:1216:G:O2'	22:Ba:1217:C:H5'	2.14	0.47
26:BC:23:ILE:CG2	26:BC:187:ALA:HA	2.44	0.47
27:BD:35:LYS:O	27:BD:36:PRO:C	2.56	0.47
27:BD:77:ALA:HB2	27:BD:97:TYR:CG	2.50	0.47
27:BD:186:HIS:CD2	27:BD:188:GLU:HB2	2.47	0.47
28:BE:144:ARG:O	57:BA:2053:G:H5'	2.14	0.47
29:BF:115:ALA:O	29:BF:116:ASP:C	2.58	0.47
29:BF:169:ASN:HD21	57:BA:322:A:C3'	2.24	0.47
30:BG:120:LEU:O	30:BG:121:ASN:C	2.57	0.47
36:BP:117:GLU:OE2	57:BA:637:A:H2'	2.14	0.47
39:BS:28:VAL:HG22	39:BS:99:LYS:NZ	2.29	0.47
40:BT:89:VAL:HG11	40:BT:91:ARG:HE	1.79	0.47
41:BU:13:LYS:N	41:BU:13:LYS:CE	2.77	0.47
42:BV:4:ILE:O	42:BV:4:ILE:HG22	2.14	0.47
43:BW:1:MET:HE2	43:BW:2:GLU:O	2.15	0.47
53:B6:27:LYS:NZ	57:BA:2285:C:OP1	2.46	0.47
57:BA:142:A:H8	57:BA:1595:G:H21	1.62	0.47
57:BA:1316:U:H2'	57:BA:1317:A:C8	2.49	0.47
57:BA:1517:G:C2'	57:BA:1518:U:H5'	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BA:1771:C:O2'	57:BA:1786:A:H8	1.96	0.47
1:Ab:97:TRP:HZ2	1:Ab:102:LEU:HD13	1.80	0.47
3:Ad:30:LYS:CB	3:Ad:35:ARG:HD2	2.44	0.47
3:Ad:33:MET:HE3	3:Ad:37:PRO:HA	1.97	0.47
3:Ad:177:ASP:O	3:Ad:179:GLU:N	2.48	0.47
4:Ae:10:MET:HB3	4:Ae:32:VAL:HG22	1.94	0.47
4:Ae:11:ILE:HD12	4:Ae:31:LEU:HD13	1.95	0.47
4:Ae:33:VAL:HG21	4:Ae:109:ILE:HG13	1.96	0.47
6:Ag:16:LEU:CD1	8:Ai:42:ARG:HA	2.45	0.47
6:Ag:87:VAL:HG13	6:Ag:151:TYR:O	2.14	0.47
6:Ag:101:LEU:O	6:Ag:104:LEU:HB2	2.14	0.47
7:Ah:4:ASP:CG	7:Ah:85:ARG:HH21	2.22	0.47
8:Ai:17:VAL:HG22	8:Ai:63:ILE:CD1	2.44	0.47
9:Aj:38:ILE:HG13	9:Aj:71:LEU:HB3	1.96	0.47
10:Ak:99:GLN:HE21	10:Ak:105:VAL:HG21	1.80	0.47
11:Al:47:LYS:HE2	11:Al:48:PRO:CD	2.45	0.47
11:Al:110:VAL:HG21	11:Al:120:TYR:HB3	1.96	0.47
12:Am:51:ALA:O	12:Am:55:ARG:HB2	2.13	0.47
12:Am:66:LEU:O	12:Am:67:GLU:O	2.32	0.47
13:An:15:LYS:HB3	13:An:16:PHE:CE2	2.49	0.47
13:An:27:CYS:O	13:An:29:ARG:N	2.47	0.47
17:Ar:37:VAL:HG23	17:Ar:38:GLU:N	2.28	0.47
17:Ar:51:LEU:HA	17:Ar:52:PRO:HD3	1.75	0.47
22:Aa:216:G:O2'	22:Aa:217:C:O4'	2.26	0.47
22:Aa:601:C:H2'	22:Aa:602:A:H8	1.78	0.47
22:Aa:1068:G:N3	22:Aa:1191:A:C2	2.83	0.47
22:Aa:1463:C:O2'	22:Aa:1464:G:H5'	2.15	0.47
26:AC:4:HIS:ND1	26:AC:8:TYR:HE2	2.12	0.47
29:AF:21:ALA:C	29:AF:23:ASP:N	2.73	0.47
30:AG:16:ARG:HG3	30:AG:16:ARG:NH1	2.28	0.47
34:AN:58:ASP:C	34:AN:60:ILE:HG13	2.40	0.47
35:AO:2:ILE:HD11	35:AO:82:ASN:ND2	2.28	0.47
36:AP:64:LYS:C	36:AP:66:GLY:N	2.64	0.47
38:AR:46:GLY:HA2	57:AA:2839:G:H5'	1.97	0.47
41:AU:74:LEU:HD13	41:AU:74:LEU:C	2.39	0.47
57:AA:814:C:O2'	57:AA:815:C:H5'	2.14	0.47
57:AA:2761:G:C2'	57:AA:2762:G:H5"	2.45	0.47
57:AA:2769:C:H2'	57:AA:2770:G:O4'	2.14	0.47
57:AA:2784:C:O2'	57:AA:2785:C:H5'	2.14	0.47
1:Bb:137:ARG:HD3	1:Bb:138:LEU:N	2.29	0.47
2:Bc:106:VAL:C	2:Bc:108:ASN:H	2.22	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Bd:68:TYR:CD2	3:Bd:97:LEU:HD22	2.50	0.47
7:Bh:3:THR:HG21	22:Ba:878:G:C1'	2.45	0.47
7:Bh:30:ARG:HB3	7:Bh:30:ARG:NH1	2.30	0.47
7:Bh:33:GLU:O	7:Bh:34:GLU:C	2.57	0.47
8:Bi:71:SER:HB3	22:Ba:1372:U:OP1	2.15	0.47
9:Bj:49:VAL:CG2	13:Bn:41:ARG:CB	2.90	0.47
12:Bm:51:ALA:O	12:Bm:55:ARG:HB2	2.15	0.47
12:Bm:78:ILE:HG23	12:Bm:92:HIS:ND1	2.30	0.47
13:Bn:15:LYS:O	13:Bn:16:PHE:O	2.33	0.47
22:Ba:1097:C:H2'	22:Ba:1098:C:C6	2.49	0.47
22:Ba:1239:A:H62	22:Ba:1299:A:N6	2.13	0.47
22:Ba:1414:U:H2'	22:Ba:1415:G:C8	2.49	0.47
26:BC:194:ILE:HG22	26:BC:198:GLU:OE1	2.14	0.47
27:BD:31:LYS:C	27:BD:33:LEU:N	2.73	0.47
27:BD:210:GLY:C	27:BD:212:SER:H	2.23	0.47
27:BD:246:PRO:HD3	57:BA:1902:C:C5'	2.45	0.47
29:BF:7:TYR:HB2	29:BF:16:GLY:C	2.40	0.47
29:BF:51:THR:CB	29:BF:88:VAL:HG11	2.41	0.47
31:BH:86:GLU:HA	31:BH:132:ARG:HA	1.96	0.47
36:BP:16:ARG:HB2	36:BP:16:ARG:CZ	2.45	0.47
37:BQ:19:GLY:O	37:BQ:20:ALA:CB	2.62	0.47
38:BR:45:ARG:HG3	38:BR:95:THR:HG21	1.96	0.47
40:BT:28:VAL:HG13	40:BT:46:GLU:HB2	1.97	0.47
40:BT:102:ILE:HB	40:BT:110:ILE:HD13	1.94	0.47
45:BY:29:GLU:CD	45:BY:38:ILE:HG21	2.40	0.47
57:BA:289:A:H2'	57:BA:290:G:O4'	2.14	0.47
57:BA:1047:G:OP2	57:BA:1047:G:H4'	2.14	0.47
57:BA:1862:G:O2'	57:BA:1863:G:H5'	2.14	0.47
57:BA:2097:C:O2'	57:BA:2098:U:H5'	2.14	0.47
57:BA:2521:C:H42	57:BA:2544:G:H1	1.62	0.47
57:BA:2672:G:H2'	57:BA:2673:G:H5"	1.96	0.47
1:Ab:24:TRP:H	1:Ab:24:TRP:CD1	2.33	0.47
1:Ab:60:ASP:HB3	1:Ab:64:ARG:NH2	2.30	0.47
1:Ab:62:ALA:C	1:Ab:64:ARG:H	2.23	0.47
1:Ab:136:VAL:O	1:Ab:140:HIS:HB2	2.15	0.47
1:Ab:197:VAL:HB	1:Ab:200:ILE:HG12	1.96	0.47
2:Ac:192:THR:O	22:Aa:1206:G:H4'	2.15	0.47
3:Ad:28:SER:HB3	3:Ad:29:PRO:HD2	1.96	0.47
3:Ad:134:ASP:OD2	22:Aa:619:U:N3	2.46	0.47
3:Ad:157:LEU:HG	3:Ad:161:ASN:HD21	1.76	0.47
4:Ae:22:GLY:O	22:Aa:1194:U:H4'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Ae:86:ALA:HB3	22:Aa:19:C:H5"	1.97	0.47
5:Af:50:TYR:CE1	17:Ar:74:ARG:O	2.68	0.47
5:Af:87:ARG:O	5:Af:88:VAL:HG23	2.15	0.47
5:Af:89:MET:O	5:Af:90:VAL:C	2.57	0.47
6:Ag:148:ASN:HD21	25:Aw:40:C:H4'	1.80	0.47
7:Ah:30:ARG:HH11	7:Ah:30:ARG:CB	2.28	0.47
7:Ah:83:ILE:CD1	7:Ah:137:VAL:HG22	2.45	0.47
7:Ah:122:ARG:NH1	7:Ah:122:ARG:HB2	2.30	0.47
8:Ai:65:VAL:HG21	8:Ai:73:GLN:HB3	1.96	0.47
9:Aj:20:ALA:C	9:Aj:22:LYS:N	2.73	0.47
10:Ak:15:ALA:CB	10:Ak:78:GLN:HE21	2.28	0.47
10:Ak:116:HIS:CD2	22:Aa:675:A:H1'	2.49	0.47
12:Am:82:MET:HB2	12:Am:93:ARG:NH1	2.29	0.47
15:Ap:28:ARG:HG2	15:Ap:28:ARG:NH1	2.30	0.47
15:Ap:67:THR:HG21	22:Aa:376:G:P	2.54	0.47
19:At:46:GLU:HG2	19:At:46:GLU:O	2.13	0.47
22:Aa:401:C:H2'	22:Aa:402:G:H8	1.79	0.47
22:Aa:404:U:H2'	22:Aa:405:U:C6	2.50	0.47
22:Aa:644:G:C2'	22:Aa:645:C:H5'	2.45	0.47
22:Aa:1070:U:H2'	22:Aa:1071:C:H6	1.79	0.47
22:Aa:1175:G:H2'	22:Aa:1176:A:C8	2.49	0.47
26:AC:23:ILE:CG2	26:AC:187:ALA:HA	2.44	0.47
27:AD:25:THR:CG2	27:AD:26:LYS:N	2.77	0.47
27:AD:47:GLY:HA2	57:AA:773:U:C5'	2.45	0.47
27:AD:142:VAL:HG22	27:AD:143:HIS:N	2.30	0.47
27:AD:145:VAL:HG12	27:AD:146:GLU:O	2.15	0.47
27:AD:165:ILE:HD13	27:AD:175:LEU:CD2	2.44	0.47
28:AE:132:HIS:CG	28:AE:135:HIS:NE2	2.83	0.47
30:AG:7:LEU:O	30:AG:11:TYR:HB2	2.14	0.47
30:AG:61:ALA:O	30:AG:64:THR:HG22	2.15	0.47
30:AG:85:GLY:C	30:AG:87:PRO:CD	2.83	0.47
30:AG:105:LYS:NZ	51:A4:26:SER:CB	2.76	0.47
32:AI:99:GLU:OE1	32:AI:100:ALA:N	2.47	0.47
32:AI:118:LYS:HZ1	32:AI:119:PRO:HG2	1.78	0.47
36:AP:35:HIS:CA	57:AA:1190:G:H5'	2.45	0.47
37:AQ:39:PRO:HD3	37:AQ:99:PRO:HG3	1.97	0.47
37:AQ:137:TYR:CE2	46:AZ:81:ARG:NH1	2.83	0.47
41:AU:107:ALA:O	41:AU:110:VAL:HB	2.15	0.47
42:AV:49:THR:HB	42:AV:50:PRO:HD3	1.94	0.47
45:AY:31:LEU:N	45:AY:31:LEU:CD2	2.77	0.47
46:AZ:52:SER:OG	46:AZ:53:ILE:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A0:27:GLU:HA	47:A0:67:VAL:O	2.15	0.47
47:A0:48:GLY:H	47:A0:51:VAL:HB	1.80	0.47
51:A4:14:ILE:O	51:A4:21:VAL:HG13	2.15	0.47
53:A6:11:LEU:HD13	53:A6:11:LEU:N	2.30	0.47
55:A8:50:LEU:CD1	55:A8:51:ALA:N	2.74	0.47
56:A9:1:MET:SD	56:A9:31:LYS:O	2.73	0.47
57:AA:26:G:C6	57:AA:27:G:N1	2.82	0.47
57:AA:272:G:O6	57:AA:421:U:H2'	2.15	0.47
57:AA:1541:G:H4'	57:AA:1542:A:H5"	1.94	0.47
57:AA:1817:G:H2'	57:AA:1818:U:H5'	1.95	0.47
57:AA:2070:G:H2'	57:AA:2071:A:C8	2.49	0.47
57:AA:2313:C:C6	57:AA:2314:C:H5	2.33	0.47
57:AA:2481:G:HO2'	57:AA:2482:G:P	2.37	0.47
1:Bb:24:TRP:H	1:Bb:24:TRP:CD1	2.32	0.47
1:Bb:97:TRP:HZ2	1:Bb:102:LEU:HD13	1.80	0.47
3:Bd:194:LEU:HB3	3:Bd:196:LEU:HD11	1.97	0.47
4:Be:43:LEU:HD21	4:Be:132:ALA:HB1	1.96	0.47
5:Bf:45:LEU:HD21	5:Bf:57:GLN:OE1	2.14	0.47
6:Bg:5:ARG:C	6:Bg:7:ALA:H	2.22	0.47
6:Bg:137:LYS:O	6:Bg:141:VAL:HG23	2.14	0.47
7:Bh:12:ARG:NH1	7:Bh:27:PRO:CD	2.67	0.47
7:Bh:30:ARG:HH11	7:Bh:30:ARG:CB	2.28	0.47
7:Bh:86:ILE:CG2	7:Bh:133:LEU:HD22	2.43	0.47
8:Bi:26:VAL:HG13	8:Bi:61:ALA:HB3	1.96	0.47
9:Bj:34:VAL:HG13	9:Bj:74:ILE:HA	1.97	0.47
15:Bp:48:TRP:H	15:Bp:48:TRP:CD1	2.30	0.47
19:Bt:13:LEU:HD12	19:Bt:13:LEU:H	1.78	0.47
19:Bt:56:MET:HE1	19:Bt:104:LEU:HB2	1.97	0.47
21:By:14:GLU:HB2	21:By:78:VAL:HG13	1.96	0.47
21:By:54:LYS:HE3	21:By:61:ARG:NH2	2.28	0.47
22:Ba:19:C:O2'	22:Ba:20:U:H5'	2.15	0.47
22:Ba:167:G:O2'	22:Ba:168:G:H5'	2.15	0.47
22:Ba:223:U:H2'	22:Ba:224:C:C6	2.48	0.47
22:Ba:707:C:H2'	22:Ba:708:C:C6	2.50	0.47
22:Ba:1073:U:H2'	22:Ba:1074:G:H8	1.79	0.47
22:Ba:1104:G:H2'	22:Ba:1105:A:H8	1.79	0.47
22:Ba:1452:C:H4'	22:Ba:1456:G:H5"	1.96	0.47
22:Ba:1473:A:O2'	22:Ba:1474:G:H5'	2.14	0.47
26:BC:46:ALA:HA	26:BC:212:SER:O	2.15	0.47
27:BD:70:TRP:CZ3	27:BD:150:LYS:HA	2.48	0.47
27:BD:134:ARG:HG3	27:BD:135:PHE:CE2	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BD:158:ALA:O	27:BD:161:THR:HG23	2.14	0.47
28:BE:172:VAL:HG13	28:BE:182:LEU:HD11	1.96	0.47
30:BG:27:ASN:O	30:BG:29:TRP:N	2.47	0.47
30:BG:139:LEU:HA	30:BG:144:ILE:HG21	1.97	0.47
32:BI:118:LYS:NZ	32:BI:119:PRO:CD	2.77	0.47
36:BP:16:ARG:NE	36:BP:18:ARG:HB2	2.28	0.47
36:BP:83:VAL:CG2	36:BP:105:LEU:HD13	2.45	0.47
38:BR:7:GLY:C	38:BR:8:ARG:NE	2.70	0.47
38:BR:67:LEU:O	38:BR:70:LEU:O	2.32	0.47
39:BS:35:ILE:O	39:BS:35:ILE:HG12	2.14	0.47
39:BS:52:SER:CB	39:BS:55:ALA:HB3	2.45	0.47
40:BT:16:ARG:NH2	40:BT:82:LEU:O	2.41	0.47
40:BT:100:TYR:CD2	40:BT:103:ARG:NH2	2.79	0.47
41:BU:83:LEU:N	41:BU:83:LEU:CD1	2.78	0.47
42:BV:2:PHE:HB2	42:BV:42:GLY:HA2	1.96	0.47
42:BV:52:VAL:O	42:BV:53:GLU:C	2.57	0.47
44:BX:30:VAL:HG11	44:BX:39:ILE:HD12	1.96	0.47
45:BY:31:LEU:HD23	45:BY:36:ALA:C	2.40	0.47
46:BZ:112:ARG:HD3	46:BZ:112:ARG:O	2.15	0.47
46:BZ:180:VAL:C	46:BZ:182:LYS:H	2.23	0.47
55:B8:32:LEU:O	55:B8:33:ASN:O	2.32	0.47
57:BA:107:C:H2'	57:BA:108:U:C6	2.50	0.47
57:BA:363(E):U:H3'	57:BA:363(F):A:O4'	2.14	0.47
57:BA:822:U:O2'	57:BA:823:G:H5'	2.15	0.47
57:BA:1493:C:C4	57:BA:2206:G:O2'	2.68	0.47
57:BA:2329:G:H2'	57:BA:2330:G:C8	2.50	0.47
57:BA:2335:A:O2'	57:BA:2336:A:H5"	2.14	0.47
57:BA:2674:G:H2'	57:BA:2675:A:C8	2.50	0.47
3:Ad:9:CYS:SG	3:Ad:31:CYS:O	2.73	0.47
3:Ad:27:TYR:OH	5:Bf:15:ASP:OD2	2.32	0.47
3:Ad:62:GLN:HG3	22:Aa:544:G:OP1	2.14	0.47
5:Af:45:LEU:HD21	5:Af:57:GLN:OE1	2.14	0.47
21:Ay:26:LEU:HD21	21:Ay:55:LEU:CD1	2.31	0.47
22:Aa:79:G:H1'	22:Aa:80:G:OP1	2.14	0.47
22:Aa:746:A:O2'	22:Aa:747:C:H5'	2.14	0.47
22:Aa:1065:U:O2'	22:Aa:1066:C:P	2.72	0.47
22:Aa:1106:G:H2'	22:Aa:1107:C:C6	2.50	0.47
26:AC:41:THR:CG2	26:AC:175:PRO:HB2	2.44	0.47
27:AD:226:MET:HB3	27:AD:230:ASP:HB2	1.96	0.47
29:AF:199:TRP:O	29:AF:203:GLN:HG2	2.14	0.47
33:AJ:79:ALA:O	33:AJ:80:VAL:C	2.57	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:AN:94:HIS:N	34:AN:95:PRO:CD	2.77	0.47
35:AO:7:TYR:CZ	35:AO:44:LYS:HG3	2.50	0.47
37:AQ:46:GLN:HE21	57:AA:2485:G:C5'	2.27	0.47
39:AS:17:ARG:CD	58:AB:9:G:OP1	2.63	0.47
39:AS:25:ARG:HG3	39:AS:88:ASP:HB2	1.96	0.47
42:AV:47:VAL:O	42:AV:48:GLY:C	2.57	0.47
43:AW:47:VAL:HA	43:AW:50:VAL:HG12	1.95	0.47
45:AY:96:ILE:HB	45:AY:99:CYS:HB2	1.97	0.47
57:AA:195:A:H61	57:AA:198:C:H3'	1.80	0.47
57:AA:361:G:O2'	57:AA:362:U:H5'	2.15	0.47
57:AA:478:A:N1	57:AA:500:G:H4'	2.30	0.47
57:AA:614:U:O2	57:AA:614:U:O4'	2.33	0.47
57:AA:848:G:H5'	57:AA:848:G:C8	2.45	0.47
57:AA:1336:A:H2'	57:AA:1337:G:H8	1.80	0.47
57:AA:1344:G:H4'	57:AA:1384:A:C5	2.49	0.47
57:AA:1712:C:H2'	57:AA:1713:U:H6	1.80	0.47
58:AB:106:G:O2'	58:AB:107:G:H5'	2.15	0.47
2:Bc:14:ILE:CG1	2:Bc:15:THR:N	2.78	0.47
3:Bd:157:LEU:HG	3:Bd:161:ASN:HD21	1.75	0.47
3:Bd:173:TRP:CD1	3:Bd:174:LEU:HG	2.49	0.47
10:Bk:21:ILE:HG13	10:Bk:30:VAL:CG1	2.42	0.47
11:Bl:27:LEU:C	11:Bl:29:GLY:N	2.73	0.47
11:Bl:47:LYS:HD2	11:Bl:47:LYS:C	2.40	0.47
13:Bn:42:ILE:O	13:Bn:43:CYS:C	2.58	0.47
17:Br:45:SER:H	17:Br:51:LEU:CD1	2.27	0.47
18:Bs:14:HIS:O	18:Bs:18:LYS:HB2	2.15	0.47
21:By:56:ARG:HA	23:Bx:21:OMG:HM21	1.97	0.47
22:Ba:513:C:N3	22:Ba:539:A:C2	2.83	0.47
22:Ba:757:U:H2'	22:Ba:758:G:O4'	2.15	0.47
22:Ba:1368:G:O2'	22:Ba:1369:C:H5'	2.15	0.47
27:BD:35:LYS:HD3	27:BD:63:ARG:HD2	1.97	0.47
27:BD:238:GLY:HA2	57:BA:2590:A:OP2	2.14	0.47
28:BE:4:ILE:HD13	28:BE:28:ALA:CB	2.39	0.47
29:BF:157:VAL:HG22	29:BF:157:VAL:O	2.13	0.47
31:BH:67:LEU:HD21	57:BA:2758:A:C4	2.50	0.47
32:BI:75:LEU:HD12	32:BI:75:LEU:H	1.80	0.47
34:BN:4:TYR:OH	57:BA:995:C:O2	2.27	0.47
40:BT:3:ARG:O	40:BT:7:ILE:HG13	2.15	0.47
40:BT:107:ASP:H	40:BT:110:ILE:HG12	1.80	0.47
43:BW:54:ALA:O	43:BW:57:ASN:HB2	2.14	0.47
46:BZ:10:ARG:HH21	46:BZ:26:GLY:H	1.62	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:B0:41:ARG:HG3	57:BA:2329:G:N2	2.29	0.47
49:B2:42:GLY:O	49:B2:43:GLN:C	2.57	0.47
51:B4:5:ILE:HD13	51:B4:5:ILE:N	2.30	0.47
57:BA:270:A:O2'	57:BA:271:A:H5'	2.15	0.47
57:BA:523:C:O2'	57:BA:524:U:H5'	2.15	0.47
57:BA:587:C:O2'	57:BA:588:U:OP2	2.27	0.47
57:BA:1336:A:H2'	57:BA:1337:G:H8	1.80	0.47
57:BA:1441:G:O2'	57:BA:1442:G:H5'	2.15	0.47
57:BA:1496:A:H8	57:BA:1577:C:O2'	1.97	0.47
57:BA:1665:A:O2'	57:BA:1666:G:H5'	2.14	0.47
57:BA:1719:G:C2'	57:BA:1720:U:H5'	2.45	0.47
57:BA:1889:A:O2'	57:BA:2087:G:H5'	2.15	0.47
57:BA:1991:U:C2'	57:BA:1992:G:H5"	2.45	0.47
57:BA:2405:G:HO2'	57:BA:2406:U:P	2.37	0.47
58:BB:20:C:H2'	58:BB:21:G:C5'	2.18	0.47
58:BB:44:G:C2	58:BB:48:A:C2	3.02	0.47
2:Ac:106:VAL:C	2:Ac:108:ASN:H	2.23	0.47
3:Ad:187:ARG:HH11	3:Ad:187:ARG:HG2	1.79	0.47
6:Ag:13:GLN:O	6:Ag:24:THR:HG21	2.14	0.47
6:Ag:137:LYS:O	6:Ag:141:VAL:HG23	2.15	0.47
7:Ah:30:ARG:O	7:Ah:34:GLU:HG2	2.14	0.47
8:Ai:33:PHE:C	8:Ai:35:GLU:H	2.23	0.47
9:Aj:3:LYS:HD2	9:Aj:77:PRO:CD	2.45	0.47
10:Ak:115:PRO:C	10:Ak:117:ASN:H	2.21	0.47
14:Ao:61:GLY:O	14:Ao:65:ARG:HD3	2.15	0.47
16:Aq:76:LEU:HD12	16:Aq:77:VAL:N	2.30	0.47
18:As:28:LYS:C	18:As:29:ARG:HG3	2.40	0.47
21:Ay:19:GLY:O	21:Ay:21:THR:N	2.47	0.47
22:Aa:340:U:H2'	22:Aa:341:C:C6	2.50	0.47
22:Aa:499:A:H4'	22:Aa:500:G:OP1	2.15	0.47
22:Aa:711:G:O2'	22:Aa:712:A:H5'	2.15	0.47
22:Aa:909:A:H2'	22:Aa:910:C:O4'	2.14	0.47
22:Aa:991:U:O2	22:Aa:993:G:H8	1.98	0.47
22:Aa:1512:U:H2'	22:Aa:1513:A:H8	1.80	0.47
27:AD:231:HIS:ND1	27:AD:232:PRO:HD2	2.30	0.47
28:AE:77:ILE:HG22	28:AE:78:LEU:CD1	2.43	0.47
29:AF:74:ARG:HD2	57:AA:674:G:C1'	2.40	0.47
32:AI:76:THR:HG21	32:AI:139:GLN:NE2	2.30	0.47
36:AP:111:ARG:HH21	36:AP:111:ARG:HG3	1.79	0.47
37:AQ:22:LYS:HE2	57:AA:864:G:OP2	2.14	0.47
37:AQ:24:GLY:N	57:AA:907:U:OP1	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:AR:54:LEU:HD23	38:AR:66:VAL:HG23	1.96	0.47
39:AS:65:VAL:O	39:AS:69:VAL:HG12	2.15	0.47
42:AV:18:LEU:CD2	42:AV:19:LYS:N	2.75	0.47
43:AW:44:ALA:O	43:AW:45:TYR:C	2.58	0.47
44:AX:31:HIS:HE1	57:AA:71:A:C2	2.33	0.47
45:AY:4:LYS:HD2	45:AY:32:PRO:HG2	1.97	0.47
46:AZ:10:ARG:NH2	46:AZ:26:GLY:O	2.47	0.47
49:A2:46:GLN:N	49:A2:49:LYS:HZ2	2.13	0.47
53:A6:16:CYS:SG	53:A6:48:VAL:HG21	2.54	0.47
57:AA:244:A:H2'	57:AA:245:G:O4'	2.15	0.47
57:AA:500:G:N2	57:AA:502:A:H3'	2.30	0.47
57:AA:917:A:N1	58:AB:80:U:H4'	2.30	0.47
57:AA:1541:G:H4'	57:AA:1542:A:C4'	2.45	0.47
57:AA:2086:U:H2'	57:AA:2087:G:C8	2.50	0.47
57:AA:2877:G:O2'	57:AA:2878:U:H5'	2.15	0.47
58:AB:11:C:OP2	58:AB:12:C:H5	1.97	0.47
1:Bb:116:GLU:HA	1:Bb:119:GLU:HB3	1.96	0.47
5:Bf:12:PRO:HG3	5:Bf:55:ASP:HB3	1.96	0.47
6:Bg:138:LYS:HE2	6:Bg:142:GLU:OE1	2.15	0.47
6:Bg:146:GLU:O	6:Bg:149:ARG:HB2	2.15	0.47
8:Bi:24:GLY:O	8:Bi:26:VAL:HG23	2.15	0.47
19:Bt:38:LYS:HZ1	22:Ba:1439:C:H5'	1.79	0.47
22:Ba:685:G:N2	22:Ba:686:U:N3	2.62	0.47
22:Ba:1251:A:O2'	22:Ba:1252:A:H5'	2.15	0.47
24:Bv:61:C:O2'	24:Bv:62:C:H5'	2.15	0.47
28:BE:31:CYS:O	28:BE:90:THR:HA	2.15	0.47
30:BG:104:GLU:C	30:BG:106:LEU:H	2.22	0.47
31:BH:142:GLY:HA3	57:BA:2745:C:O3'	2.15	0.47
32:BI:72:LEU:O	32:BI:138:ILE:HD11	2.15	0.47
32:BI:100:ALA:HA	32:BI:103:ARG:NH1	2.29	0.47
32:BI:131:LYS:HA	32:BI:135:GLU:HB3	1.97	0.47
36:BP:111:ARG:HG3	36:BP:111:ARG:HH21	1.79	0.47
36:BP:113:LYS:HA	36:BP:129:ALA:O	2.15	0.47
37:BQ:33:GLY:O	37:BQ:131:ILE:HA	2.15	0.47
37:BQ:67:ARG:HG2	37:BQ:67:ARG:HH11	1.79	0.47
39:BS:25:ARG:NH2	39:BS:40:ILE:HD12	2.30	0.47
39:BS:66:ALA:O	39:BS:67:ARG:C	2.58	0.47
40:BT:28:VAL:HG22	40:BT:47:GLY:H	1.78	0.47
41:BU:8:VAL:HG23	57:BA:1216:G:OP1	2.15	0.47
41:BU:8:VAL:HG22	41:BU:12:ARG:HG2	1.97	0.47
42:BV:23:GLU:OE1	57:BA:1162:G:H1'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BZ:122:ARG:NH1	46:BZ:122:ARG:HG2	2.29	0.47
46:BZ:151:HIS:O	46:BZ:152:ALA:O	2.32	0.47
55:B8:4:MET:HE2	57:BA:593:G:H4'	1.96	0.47
57:BA:195:A:H61	57:BA:198:C:H3'	1.80	0.47
57:BA:780:G:H21	57:BA:783:A:H62	1.63	0.47
57:BA:1019:U:O2'	57:BA:1021:A:C2	2.54	0.47
57:BA:1233:C:O2'	57:BA:1234:U:H5'	2.15	0.47
57:BA:2308:G:H8	57:BA:2309:A:H3'	1.80	0.47
58:BB:11:C:OP2	58:BB:12:C:H5	1.97	0.47
2:Ac:75:VAL:O	2:Ac:83:ARG:HG2	2.15	0.47
8:Ai:28:VAL:HG13	8:Ai:63:ILE:O	2.15	0.47
8:Ai:39:GLY:HA3	22:Aa:1291:G:H4'	1.95	0.47
10:Ak:126:ARG:HH11	10:Ak:126:ARG:CB	2.27	0.47
12:Am:19:LEU:C	12:Am:22:ILE:HD13	2.40	0.47
14:Ao:32:LEU:O	14:Ao:33:THR:C	2.58	0.47
21:Ay:10:ARG:NH2	21:Ay:10:ARG:CG	2.76	0.47
22:Aa:46:G:O2'	22:Aa:365:U:H1'	2.15	0.47
22:Aa:112:G:H5'	22:Aa:389:A:H4'	1.96	0.47
22:Aa:503:C:H2'	22:Aa:504:C:C6	2.43	0.47
24:Av:28:C:O2'	24:Av:29:G:H5'	2.15	0.47
29:AF:20:LEU:HB2	29:AF:199:TRP:HH2	1.80	0.47
31:AH:41:MET:HE2	31:AH:42:ARG:C	2.39	0.47
36:AP:5:ASP:OD2	36:AP:6:LEU:HD23	2.15	0.47
36:AP:18:ARG:NH1	36:AP:18:ARG:O	2.48	0.47
37:AQ:43:THR:HB	37:AQ:45:GLN:HE21	1.80	0.47
38:AR:94:TYR:CD1	38:AR:94:TYR:N	2.83	0.47
40:AT:30:VAL:HG22	40:AT:84:GLN:O	2.15	0.47
42:AV:47:VAL:C	42:AV:49:THR:N	2.73	0.47
42:AV:72:VAL:HG23	42:AV:72:VAL:O	2.14	0.47
43:AW:10:VAL:O	43:AW:11:ARG:HB2	2.15	0.47
44:AX:37:THR:CG2	57:AA:143:G:H1'	2.43	0.47
45:AY:7:VAL:HB	45:AY:8:LYS:HE3	1.91	0.47
46:AZ:79:ARG:HH22	58:AB:92:C:H5"	1.80	0.47
52:A5:19:ARG:NH1	57:AA:1265:A:H3'	2.30	0.47
55:A8:61:LEU:HG	55:A8:62:LEU:N	2.26	0.47
56:A9:19:ARG:NH2	56:A9:26:ILE:HD11	2.29	0.47
57:AA:16:G:O2'	57:AA:17:G:H5'	2.14	0.47
57:AA:484:C:H2'	57:AA:485:C:H6	1.79	0.47
57:AA:1112:G:O2'	57:AA:1113:U:C6	2.67	0.47
57:AA:1288:U:C2	57:AA:1327:C:O2	2.68	0.47
57:AA:1385:G:O2'	57:AA:1396:U:C6	2.60	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:AA:1441:G:O2'	57:AA:1442:G:H5'	2.15	0.47
57:AA:1991:U:C2'	57:AA:1992:G:H5"	2.43	0.47
1:Bb:56:ARG:HH11	1:Bb:56:ARG:HG2	1.79	0.47
1:Bb:213:LEU:HD23	1:Bb:213:LEU:C	2.39	0.47
5:Bf:18:GLN:O	5:Bf:21:LEU:N	2.48	0.47
9:Bj:42:THR:HG23	9:Bj:68:HIS:HA	1.96	0.47
11:Bl:87:GLY:H	11:Bl:99:HIS:H	1.63	0.47
12:Bm:105:THR:O	12:Bm:106:ASN:C	2.57	0.47
18:Bs:6:LYS:HB2	22:Ba:1313:U:OP1	2.14	0.47
21:By:42:ASN:HA	21:By:52:LYS:HE2	1.97	0.47
22:Ba:413:G:H1'	22:Ba:428:G:H21	1.80	0.47
22:Ba:436:C:O2'	22:Ba:437:U:P	2.73	0.47
22:Ba:857:C:H2'	22:Ba:858:G:O4'	2.14	0.47
22:Ba:1089:G:O2'	22:Ba:1090:U:H5'	2.14	0.47
27:BD:35:LYS:HB3	27:BD:36:PRO:CD	2.44	0.47
32:BI:88:ILE:HG22	32:BI:89:TYR:N	2.29	0.47
32:BI:93:THR:O	32:BI:97:ILE:HG13	2.14	0.47
35:BO:104:ARG:CZ	40:BT:33:LYS:HD2	2.44	0.47
36:BP:41:ARG:HE	36:BP:41:ARG:HA	1.79	0.47
38:BR:10:LEU:HD13	38:BR:17:ARG:NH1	2.30	0.47
44:BX:36:LYS:HE2	57:BA:1342:A:OP1	2.15	0.47
45:BY:44:ILE:HG21	57:BA:480:A:H1'	1.96	0.47
46:BZ:57:ILE:CG2	46:BZ:58:VAL:H	2.28	0.47
50:B3:19:GLN:HE22	50:B3:52:HIS:CE1	2.27	0.47
54:B7:30:VAL:HA	54:B7:33:ARG:NH1	2.30	0.47
55:B8:8:LYS:O	55:B8:12:LYS:HG3	2.15	0.47
57:BA:128:C:H2'	57:BA:129:C:O4'	2.15	0.47
57:BA:154:G:H2'	57:BA:154(A):C:C6	2.50	0.47
57:BA:2082:A:H2'	57:BA:2083:G:O4'	2.14	0.47
57:BA:2762:G:H8	57:BA:2762:G:C5'	2.28	0.47
57:BA:2764:A:N7	57:BA:2766:G:C6	2.83	0.47
58:BB:30:C:H4'	58:BB:58:A:C2	2.47	0.47
1:Ab:101:MET:HB2	1:Ab:102:LEU:HD12	1.96	0.46
1:Ab:137:ARG:HD3	1:Ab:138:LEU:N	2.30	0.46
2:Ac:76:VAL:CG2	2:Ac:77:ILE:HG13	2.44	0.46
4:Ae:6:PHE:CZ	4:Ae:66:MET:HE1	2.49	0.46
4:Ae:75:THR:HG23	4:Ae:76:ILE:H	1.79	0.46
8:Ai:65:VAL:O	8:Ai:65:VAL:HG13	2.14	0.46
12:Am:14:ARG:H	12:Am:44:ARG:HH11	1.63	0.46
13:An:5:ALA:HB3	22:Aa:1216:G:H5"	1.96	0.46
14:Ao:39:LEU:HD13	14:Ao:39:LEU:C	2.40	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:At:30:LYS:O	19:At:30:LYS:HD2	2.15	0.46
22:Aa:309:G:H1'	22:Aa:608:A:C2	2.50	0.46
22:Aa:814:A:H2'	22:Aa:816:A:H5"	1.97	0.46
22:Aa:1256:A:H61	22:Aa:1278:U:H1'	1.80	0.46
22:Aa:1292:U:H2'	22:Aa:1293:G:H8	1.77	0.46
28:AE:64:LYS:O	28:AE:64:LYS:CG	2.62	0.46
29:AF:65:TRP:CH2	29:AF:75:HIS:HD2	2.33	0.46
30:AG:53:LEU:HD22	30:AG:53:LEU:H	1.80	0.46
31:AH:35:VAL:HG21	31:AH:75:ALA:HB2	1.96	0.46
31:AH:86:GLU:HB3	31:AH:132:ARG:CB	2.42	0.46
31:AH:158:HIS:CE1	31:AH:169:VAL:C	2.93	0.46
32:AI:77:LEU:HD23	32:AI:77:LEU:O	2.15	0.46
34:AN:102:ALA:O	34:AN:106:MET:HE3	2.15	0.46
36:AP:61:ARG:HD2	36:AP:61:ARG:H	1.80	0.46
36:AP:110:TYR:CE2	36:AP:111:ARG:NH2	2.83	0.46
37:AQ:21:THR:HA	37:AQ:98:LYS:HB2	1.97	0.46
38:AR:4:LEU:HD13	38:AR:6:SER:O	2.16	0.46
39:AS:38:GLN:HB2	39:AS:47:THR:HG21	1.97	0.46
40:AT:8:LYS:HA	40:AT:11:GLU:OE1	2.15	0.46
40:AT:40:THR:O	40:AT:41:ARG:HB2	2.13	0.46
40:AT:98:LYS:HB3	40:AT:100:TYR:CE1	2.50	0.46
42:AV:89:GLN:HG3	57:AA:993:G:O2'	2.14	0.46
45:AY:45:VAL:HG12	45:AY:60:PHE:CE2	2.50	0.46
46:AZ:34:ASN:C	46:AZ:34:ASN:ND2	2.66	0.46
47:A0:21:LEU:HD21	47:A0:41:ARG:NH1	2.30	0.46
48:A1:58:ILE:O	48:A1:58:ILE:CG1	2.62	0.46
49:A2:50:ILE:O	49:A2:53:LEU:N	2.48	0.46
49:A2:59:ARG:NH1	57:AA:77:C:OP1	2.45	0.46
52:A5:2:ALA:HB3	57:AA:747:U:C1'	2.46	0.46
53:A6:27:LYS:CD	53:A6:27:LYS:O	2.64	0.46
53:A6:38:LYS:O	53:A6:39:TYR:HD1	1.98	0.46
55:A8:4:MET:HE2	57:AA:593:G:H4'	1.96	0.46
57:AA:654(U):A:H2'	57:AA:654(V):A:C8	2.50	0.46
57:AA:673:C:H6	57:AA:673:C:C5'	2.19	0.46
57:AA:1153:C:H2'	57:AA:1154:G:O4'	2.15	0.46
57:AA:1496:A:C8	57:AA:1498:C:N3	2.84	0.46
57:AA:1578:U:H2'	57:AA:1579:A:H5'	1.96	0.46
57:AA:2287:A:N6	57:AA:2344:U:N3	2.62	0.46
57:AA:2461:C:H2'	57:AA:2462:U:C6	2.50	0.46
2:Bc:35:GLU:O	2:Bc:39:ILE:HG13	2.15	0.46
3:Bd:100:ARG:HH12	3:Bd:137:SER:HB3	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Be:149:GLU:C	4:Be:151:LEU:N	2.74	0.46
5:Bf:87:ARG:O	5:Bf:88:VAL:HG23	2.15	0.46
6:Bg:13:GLN:O	6:Bg:24:THR:HG21	2.15	0.46
9:Bj:4:ILE:HB	9:Bj:74:ILE:HD11	1.97	0.46
11:Bl:119:LYS:C	11:Bl:120:TYR:CD1	2.93	0.46
17:Br:51:LEU:HA	17:Br:52:PRO:HD3	1.75	0.46
18:Bs:28:LYS:C	18:Bs:29:ARG:HG3	2.40	0.46
19:Bt:81:LYS:O	19:Bt:85:MET:HG2	2.16	0.46
22:Ba:67:C:H2'	22:Ba:68:G:H8	1.73	0.46
22:Ba:390:C:H2'	22:Ba:391:G:C8	2.50	0.46
22:Ba:888:G:H4'	22:Ba:1488:G:O2'	2.15	0.46
22:Ba:1056:U:O2'	22:Ba:1057:G:H5'	2.15	0.46
22:Ba:1208:C:H2'	22:Ba:1209:C:C6	2.50	0.46
22:Ba:1508:G:H2'	22:Ba:1509:C:O4'	2.15	0.46
25:Bw:67:C:H2'	25:Bw:68:C:C6	2.50	0.46
27:BD:47:GLY:HA2	57:BA:773:U:C5'	2.45	0.46
29:BF:41:LEU:O	29:BF:44:ARG:HG2	2.15	0.46
29:BF:59:TYR:HE2	57:BA:470:A:OP1	1.98	0.46
29:BF:63:LYS:HZ1	29:BF:67:GLN:HB2	1.79	0.46
31:BH:9:ILE:C	31:BH:9:ILE:CD1	2.88	0.46
32:BI:24:GLY:HA3	57:BA:2093:G:O5'	2.14	0.46
32:BI:121:LYS:HD2	32:BI:121:LYS:HA	1.84	0.46
33:BJ:56:ASN:CB	33:BJ:83:TYR:C	2.88	0.46
36:BP:8:PRO:HG3	57:BA:1242:A:N1	2.30	0.46
36:BP:17:LYS:C	36:BP:19:VAL:N	2.73	0.46
40:BT:12:SER:O	40:BT:13:ARG:CZ	2.62	0.46
40:BT:19:LEU:HB3	40:BT:85:LYS:HD3	1.96	0.46
40:BT:57:PHE:O	40:BT:58:ASN:C	2.58	0.46
41:BU:66:ASN:C	41:BU:66:ASN:ND2	2.69	0.46
44:BX:13:LEU:HD11	49:B2:41:ILE:CG2	2.45	0.46
45:BY:52:SER:O	45:BY:56:PRO:HD3	2.15	0.46
45:BY:81:LYS:HD2	45:BY:96:ILE:HG22	1.97	0.46
48:B1:90:ILE:O	48:B1:93:GLU:HB2	2.16	0.46
48:B1:90:ILE:O	48:B1:93:GLU:N	2.47	0.46
53:B6:6:ARG:N	53:B6:6:ARG:HD2	2.29	0.46
57:BA:106:C:H2'	57:BA:107:C:H6	1.80	0.46
57:BA:394:A:C2'	57:BA:395:U:H5'	2.44	0.46
57:BA:528:A:C2	57:BA:2043:C:C4'	2.94	0.46
57:BA:836:G:H2'	57:BA:837:C:C6	2.50	0.46
57:BA:1904:G:O2'	57:BA:1905:C:H5'	2.14	0.46
57:BA:2070:G:H2'	57:BA:2071:A:C8	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BA:2314:C:H2'	57:BA:2315:G:H8	1.80	0.46
1:Ab:77:ALA:HA	1:Ab:80:ILE:HD13	1.96	0.46
7:Ah:64:LYS:C	7:Ah:65:TYR:CD1	2.93	0.46
8:Ai:124:GLN:HG3	22:Aa:1342:C:H1'	1.98	0.46
10:Ak:20:TYR:CD1	22:Aa:707:C:H4'	2.51	0.46
11:Al:5:PRO:HD3	22:Aa:568:G:O6	2.16	0.46
13:An:18:VAL:HG23	13:An:19:ARG:N	2.30	0.46
13:An:42:ILE:O	13:An:43:CYS:C	2.58	0.46
19:At:82:SER:O	19:At:86:ARG:HB2	2.14	0.46
22:Aa:149:A:O2'	22:Aa:150:C:C6	2.66	0.46
22:Aa:737:A:H2'	22:Aa:738:C:H6	1.79	0.46
22:Aa:984:C:H2'	22:Aa:985:C:H6	1.77	0.46
22:Aa:1275:A:H2'	22:Aa:1276:G:C8	2.45	0.46
27:AD:13:ARG:NH1	57:AA:729:G:OP2	2.49	0.46
29:AF:7:TYR:HB2	29:AF:16:GLY:C	2.40	0.46
32:AI:85:GLU:OE1	32:AI:86:THR:HB	2.15	0.46
36:AP:16:ARG:HB2	36:AP:16:ARG:CZ	2.45	0.46
38:AR:33:ARG:CG	38:AR:115:GLU:HG3	2.28	0.46
40:AT:29:ARG:HD3	40:AT:86:ILE:HG22	1.96	0.46
45:AY:77:PRO:O	45:AY:78:ALA:CB	2.63	0.46
57:AA:292:C:O2'	57:AA:293:U:H5'	2.15	0.46
57:AA:847:U:H2'	57:AA:848:G:H5"	1.97	0.46
57:AA:969:U:H2'	57:AA:970:C:C6	2.50	0.46
57:AA:1115:G:H2'	57:AA:1116:C:C6	2.50	0.46
57:AA:1209:G:N2	57:AA:1210:A:H62	2.13	0.46
57:AA:1327:C:H2'	57:AA:1328:G:O4'	2.15	0.46
57:AA:1331:A:O2'	57:AA:1332:G:H5"	2.15	0.46
57:AA:1665:A:O2'	57:AA:1666:G:H5'	2.14	0.46
57:AA:2364:C:O2'	57:AA:2365:G:H5'	2.15	0.46
57:AA:2552:U:C2	57:AA:2554:U:H5'	2.51	0.46
57:AA:2777:G:H4'	57:AA:2778:A:H5'	1.96	0.46
1:Bb:23:ARG:HH11	1:Bb:23:ARG:HG3	1.79	0.46
1:Bb:116:GLU:HB3	1:Bb:153:ARG:HH21	1.80	0.46
3:Bd:119:GLN:CG	3:Bd:123:HIS:HD2	2.25	0.46
4:Be:8:GLU:CA	4:Be:34:VAL:HG23	2.45	0.46
4:Be:10:MET:HB3	4:Be:32:VAL:HG22	1.97	0.46
4:Be:86:ALA:HB3	22:Ba:19:C:H5"	1.97	0.46
5:Bf:30:LEU:O	5:Bf:35:ALA:HB3	2.15	0.46
8:Bi:31:GLN:NE2	8:Bi:36:TYR:HA	2.31	0.46
12:Bm:78:ILE:O	12:Bm:81:LEU:HB2	2.15	0.46
13:Bn:3:ARG:O	13:Bn:3:ARG:HG2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:Bn:12:ARG:NH1	13:Bn:12:ARG:HB2	2.30	0.46
14:Bo:74:ASP:OD1	14:Bo:77:ARG:HG2	2.16	0.46
14:Bo:82:ILE:C	14:Bo:82:ILE:CD1	2.84	0.46
21:By:21:THR:HG23	21:By:22:VAL:HG23	1.97	0.46
21:By:44:LEU:HD21	21:By:52:LYS:HB3	1.97	0.46
22:Ba:630:G:H2'	22:Ba:631:G:H5"	1.98	0.46
22:Ba:707:C:O2'	22:Ba:708:C:H5'	2.15	0.46
22:Ba:833:U:H2'	22:Ba:834:C:C6	2.49	0.46
22:Ba:976:G:N2	22:Ba:1362:C:H2'	2.29	0.46
22:Ba:1502:A:H5"	22:Ba:1504:G:N7	2.30	0.46
26:BC:52:PRO:HG2	26:BC:53:ARG:CD	2.45	0.46
28:BE:132:HIS:O	28:BE:135:HIS:NE2	2.48	0.46
35:BO:47:ILE:HG12	35:BO:48:PRO:CD	2.37	0.46
37:BQ:19:GLY:HA3	58:BB:92:C:OP1	2.15	0.46
39:BS:90:GLY:C	39:BS:92:TYR:N	2.74	0.46
40:BT:13:ARG:NH1	40:BT:13:ARG:CA	2.66	0.46
43:BW:57:ASN:HD22	43:BW:57:ASN:HA	1.59	0.46
45:BY:40:GLU:HA	45:BY:40:GLU:OE2	2.14	0.46
53:B6:30:THR:HG23	53:B6:31:PRO:HD2	1.97	0.46
54:B7:34:ARG:HH12	54:B7:39:ARG:CD	2.25	0.46
57:BA:648:G:O4'	57:BA:2351:G:H5"	2.16	0.46
57:BA:2761:G:H2'	57:BA:2762:G:H5"	1.97	0.46
1:Ab:9:GLU:HA	1:Ab:12:GLU:OE1	2.16	0.46
2:Ac:130:VAL:O	2:Ac:134:ILE:HG13	2.15	0.46
4:Ae:69:VAL:O	4:Ae:71:LEU:N	2.46	0.46
6:Ag:47:CYS:O	6:Ag:50:ILE:HB	2.15	0.46
8:Ai:71:SER:HB3	22:Aa:1372:U:OP1	2.16	0.46
10:Ak:59:TYR:CZ	10:Ak:63:LEU:HD21	2.50	0.46
11:Al:86:ARG:HB2	11:Al:101:VAL:HG22	1.97	0.46
18:As:54:GLY:O	22:Aa:986:A:H1'	2.14	0.46
19:At:39:LYS:O	19:At:42:GLN:HB3	2.15	0.46
22:Aa:66:G:H4'	22:Aa:173:U:C5	2.50	0.46
22:Aa:302:G:N3	22:Aa:556:C:H4'	2.29	0.46
22:Aa:346:G:H2'	22:Aa:347:G:O4'	2.14	0.46
22:Aa:448:A:P	22:Aa:485:G:H22	2.38	0.46
22:Aa:1208:C:H2'	22:Aa:1209:C:C6	2.51	0.46
22:Aa:1276:G:C2'	22:Aa:1277:C:H5'	2.44	0.46
32:AI:67:ARG:HG2	32:AI:67:ARG:NH1	2.30	0.46
36:AP:107:LYS:C	36:AP:109:GLY:N	2.73	0.46
40:AT:28:VAL:HG11	40:AT:46:GLU:CD	2.40	0.46
41:AU:47:TYR:HA	41:AU:50:ARG:NH2	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:AV:23:GLU:OE1	57:AA:1162:G:H1'	2.14	0.46
45:AY:10:GLY:CA	45:AY:27:VAL:HG13	2.41	0.46
57:AA:1378:A:C4'	57:AA:1379:A:OP1	2.62	0.46
57:AA:2219:G:O2'	57:AA:2220:G:H5'	2.15	0.46
57:AA:2314:C:H2'	57:AA:2315:G:H8	1.79	0.46
57:AA:2807:G:C2'	57:AA:2808:U:H5"	2.45	0.46
1:Bb:84:GLU:HB3	1:Bb:219:VAL:HG21	1.97	0.46
1:Bb:207:ALA:C	1:Bb:209:ARG:N	2.74	0.46
2:Bc:39:ILE:C	2:Bc:41:GLY:H	2.22	0.46
3:Bd:8:VAL:HG22	22:Ba:430:A:OP2	2.14	0.46
3:Bd:128:VAL:O	3:Bd:129:ASN:C	2.57	0.46
7:Bh:36:LEU:HA	7:Bh:39:LEU:HD23	1.97	0.46
10:Bk:65:ALA:HB1	10:Bk:98:LEU:HD23	1.96	0.46
11:Bl:62:SER:O	11:Bl:64:TYR:CD1	2.64	0.46
16:Bq:22:LEU:CD1	16:Bq:39:SER:HB2	2.36	0.46
17:Br:87:ARG:HH11	17:Br:87:ARG:CB	2.20	0.46
19:Bt:37:SER:O	19:Bt:41:ILE:HG13	2.16	0.46
20:Bu:6:ARG:CZ	20:Bu:15:ARG:NH2	2.78	0.46
22:Ba:1434:A:H2'	22:Ba:1435:G:O4'	2.15	0.46
22:Ba:1457:G:H2'	22:Ba:1458:G:H8	1.79	0.46
30:BG:40:ASN:ND2	57:BA:2313:C:H4'	2.30	0.46
31:BH:158:HIS:CE1	31:BH:169:VAL:C	2.93	0.46
38:BR:54:LEU:HD23	38:BR:66:VAL:HG23	1.97	0.46
40:BT:33:LYS:HZ3	40:BT:43:GLN:NE2	2.14	0.46
41:BU:93:LYS:HD2	41:BU:93:LYS:H	1.79	0.46
43:BW:25:ARG:NH2	43:BW:74:ALA:O	2.47	0.46
45:BY:14:LEU:CD1	45:BY:23:ARG:H	2.28	0.46
45:BY:77:PRO:O	45:BY:78:ALA:CB	2.64	0.46
46:BZ:67:LEU:HD22	46:BZ:67:LEU:N	2.30	0.46
46:BZ:101:PRO:O	46:BZ:102:LEU:HD23	2.15	0.46
49:B2:3:LEU:O	49:B2:7:ARG:HG3	2.15	0.46
53:B6:38:LYS:O	53:B6:39:TYR:HD1	1.98	0.46
53:B6:44:ARG:HB2	53:B6:44:ARG:HH11	1.80	0.46
57:BA:826:U:H2'	57:BA:828:U:O4'	2.15	0.46
57:BA:1589:C:H2'	57:BA:1590:U:C6	2.50	0.46
57:BA:2308:G:C8	57:BA:2309:A:H3'	2.51	0.46
3:Ad:68:TYR:CD2	3:Ad:97:LEU:HD22	2.50	0.46
3:Ad:128:VAL:HA	3:Ad:145:GLU:O	2.15	0.46
4:Ae:128:PRO:O	4:Ae:129:ILE:C	2.58	0.46
4:Ae:149:GLU:C	4:Ae:151:LEU:H	2.22	0.46
7:Ah:30:ARG:HB3	7:Ah:30:ARG:NH1	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:Aj:44:VAL:HG11	9:Aj:46:ARG:HE	1.81	0.46
11:Al:75:HIS:HD2	11:Al:77:LEU:H	1.60	0.46
16:Aq:94:ASN:O	16:Aq:98:LEU:CD1	2.63	0.46
19:At:36:LEU:CD1	19:At:55:ILE:HG23	2.45	0.46
22:Aa:189(A):C:H2'	22:Aa:189(B):C:C6	2.50	0.46
22:Aa:1499:A:H1'	22:Aa:1520:G:H5'	1.96	0.46
25:Aw:28:C:H2'	25:Aw:29:G:C8	2.50	0.46
27:AD:26:LYS:O	27:AD:27:THR:CB	2.64	0.46
27:AD:70:TRP:CZ3	27:AD:150:LYS:HA	2.51	0.46
30:AG:60:LEU:HD13	30:AG:60:LEU:C	2.40	0.46
36:AP:62:LEU:H	36:AP:62:LEU:CD2	2.25	0.46
36:AP:83:VAL:HG11	36:AP:112:LEU:HD21	1.95	0.46
37:AQ:14:ARG:HG2	37:AQ:41:TRP:CH2	2.50	0.46
40:AT:23:ARG:HB2	40:AT:24:PRO:HD2	1.96	0.46
42:AV:18:LEU:CG	42:AV:19:LYS:H	2.29	0.46
42:AV:79:VAL:HG22	57:AA:1188:U:H4'	1.97	0.46
43:AW:10:VAL:O	43:AW:11:ARG:CB	2.62	0.46
43:AW:47:VAL:O	43:AW:50:VAL:HG12	2.15	0.46
44:AX:35:THR:HG22	44:AX:36:LYS:N	2.31	0.46
46:AZ:35:ARG:HH11	46:AZ:35:ARG:CG	2.28	0.46
46:AZ:125:LEU:HG	46:AZ:164:ALA:HB3	1.97	0.46
53:A6:16:CYS:O	53:A6:17:LYS:HB2	2.16	0.46
53:A6:30:THR:HG23	53:A6:31:PRO:HD2	1.97	0.46
55:A8:38:GLY:O	55:A8:42:ARG:HB2	2.16	0.46
57:AA:27:G:N2	57:AA:512:G:O2'	2.48	0.46
57:AA:271(O):C:HO2'	57:AA:271(P):C:H6	1.55	0.46
57:AA:443:A:H1'	57:AA:1201:C:O4'	2.14	0.46
57:AA:1053:C:O2	57:AA:1106:A:N3	2.48	0.46
57:AA:1352:U:O2'	57:AA:1353:A:H5'	2.15	0.46
57:AA:1405:U:H2'	57:AA:1406:U:H6	1.79	0.46
57:AA:1416:G:O2'	57:AA:1417:C:H5	1.97	0.46
57:AA:1484:G:C3'	57:AA:1485:G:H5"	2.45	0.46
57:AA:1493:C:C4	57:AA:2206:G:O2'	2.69	0.46
57:AA:2011:U:H2'	57:AA:2012:G:H5'	1.97	0.46
57:AA:2307:G:OP1	57:AA:2307:G:H4'	2.15	0.46
57:AA:2693:A:H2'	57:AA:2694:G:H8	1.80	0.46
57:AA:2870:C:C2'	57:AA:2871:C:H5'	2.45	0.46
1:Bb:12:GLU:O	1:Bb:14:GLY:N	2.48	0.46
1:Bb:80:ILE:HD11	1:Bb:208:ILE:CG2	2.45	0.46
3:Bd:173:TRP:O	3:Bd:186:LEU:HB2	2.15	0.46
4:Be:122:GLU:O	4:Be:123:LEU:HD23	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:Bl:89:ARG:O	11:Bl:90:VAL:HG23	2.15	0.46
12:Bm:19:LEU:O	12:Bm:22:ILE:HD13	2.15	0.46
22:Ba:688:G:H2'	22:Ba:689:C:H6	1.81	0.46
22:Ba:826:C:H2'	22:Ba:827:U:C6	2.50	0.46
28:BE:152:LYS:HG2	34:BN:78:TYR:CE1	2.50	0.46
33:BJ:58:LEU:C	33:BJ:59:ILE:O	2.58	0.46
36:BP:63:PRO:C	36:BP:65:ARG:N	2.70	0.46
36:BP:101:VAL:CG2	36:BP:102:ARG:N	2.77	0.46
36:BP:125:VAL:HG13	36:BP:138:LEU:HD21	1.97	0.46
38:BR:104:ARG:HD2	38:BR:109:ALA:HB3	1.97	0.46
39:BS:93:LYS:HG2	58:BB:47:C:O2'	2.14	0.46
41:BU:52:ARG:HH11	41:BU:52:ARG:CG	2.29	0.46
41:BU:74:LEU:HD12	41:BU:74:LEU:N	2.30	0.46
41:BU:88:ILE:C	41:BU:90:VAL:N	2.73	0.46
43:BW:18:ARG:CG	43:BW:76:VAL:HG13	2.45	0.46
44:BX:35:THR:HB	44:BX:38:GLU:H	1.81	0.46
45:BY:95:LYS:HD3	45:BY:100:ALA:HB1	1.97	0.46
46:BZ:52:SER:OG	46:BZ:53:ILE:N	2.46	0.46
46:BZ:122:ARG:HG2	46:BZ:122:ARG:HH11	1.81	0.46
47:B0:51:VAL:HG21	47:B0:79:VAL:O	2.14	0.46
47:B0:70:GLN:NE2	47:B0:80:HIS:NE2	2.63	0.46
49:B2:40:SER:OG	49:B2:41:ILE:HG23	2.15	0.46
51:B4:31:ILE:HG22	51:B4:31:ILE:O	2.14	0.46
56:B9:19:ARG:NH2	56:B9:26:ILE:HD11	2.31	0.46
57:BA:332:A:H4'	57:BA:333:G:OP1	2.16	0.46
57:BA:519:U:H2'	57:BA:520:G:C8	2.51	0.46
57:BA:523:C:H2'	57:BA:524:U:H5'	1.98	0.46
57:BA:969:U:H2'	57:BA:970:C:C6	2.51	0.46
57:BA:2126:A:O2'	57:BA:2127:G:OP2	2.30	0.46
57:BA:2877:G:O2'	57:BA:2878:U:H5'	2.14	0.46
58:BB:65:C:O2'	58:BB:66:A:H5'	2.15	0.46
1:Ab:194:PRO:O	1:Ab:197:VAL:HG23	2.16	0.46
3:Ad:128:VAL:CG1	3:Ad:129:ASN:N	2.78	0.46
4:Ae:122:GLU:O	4:Ae:123:LEU:HD23	2.16	0.46
11:Al:70:ILE:HD13	11:Al:77:LEU:HD12	1.98	0.46
13:An:6:LEU:CD1	22:Aa:982:U:H5"	2.46	0.46
21:Ay:54:LYS:HE3	21:Ay:61:ARG:NH2	2.31	0.46
22:Aa:61:G:H2'	22:Aa:62:U:O4'	2.15	0.46
22:Aa:1300:G:O2'	22:Aa:1301:U:P	2.73	0.46
26:AC:52:PRO:HG2	26:AC:53:ARG:CD	2.45	0.46
27:AD:28:GLU:N	27:AD:29:PRO:HD2	2.23	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AD:205:VAL:O	27:AD:206:LEU:C	2.58	0.46
27:AD:221:VAL:CG2	27:AD:226:MET:HE2	2.30	0.46
28:AE:10:GLY:HA3	40:AT:8:LYS:NZ	2.31	0.46
28:AE:156:MET:HE2	57:AA:2050:C:H1'	1.97	0.46
29:AF:51:THR:CB	29:AF:88:VAL:HG11	2.42	0.46
29:AF:172:TRP:H	29:AF:172:TRP:CD1	2.33	0.46
31:AH:85:LYS:CD	31:AH:133:VAL:HB	2.46	0.46
34:AN:66:LYS:NZ	57:AA:1140:C:OP2	2.45	0.46
36:AP:47:ASP:HB2	36:AP:51:PHE:HB2	1.97	0.46
36:AP:48:PRO:CG	36:AP:49:ARG:H	2.21	0.46
36:AP:84:ASN:N	36:AP:84:ASN:HD22	2.14	0.46
37:AQ:133:ARG:HG3	37:AQ:133:ARG:HH11	1.81	0.46
40:AT:77:PRO:O	40:AT:78:LEU:CB	2.63	0.46
41:AU:97:ASP:C	41:AU:99:ALA:H	2.24	0.46
44:AX:80:ILE:HD13	44:AX:80:ILE:O	2.14	0.46
48:A1:29:GLY:O	48:A1:30:VAL:CG2	2.59	0.46
49:A2:63:VAL:HA	49:A2:66:GLU:CG	2.44	0.46
57:AA:716:A:H3'	57:AA:717:G:H5"	1.97	0.46
57:AA:848:G:C4	57:AA:933:A:H8	2.32	0.46
1:Bb:17:PHE:CD2	1:Bb:17:PHE:C	2.90	0.46
1:Bb:216:SER:O	1:Bb:218:ALA:N	2.49	0.46
3:Bd:196:LEU:O	3:Bd:198:VAL:N	2.44	0.46
6:Bg:47:CYS:O	6:Bg:50:ILE:HB	2.16	0.46
6:Bg:54:THR:OG1	6:Bg:56:GLN:CG	2.63	0.46
7:Bh:16:ALA:O	7:Bh:19:VAL:HG22	2.16	0.46
7:Bh:64:LYS:C	7:Bh:65:TYR:CD1	2.93	0.46
8:Bi:99:LEU:HD12	8:Bi:101:PHE:HE1	1.80	0.46
9:Bj:20:ALA:C	9:Bj:22:LYS:N	2.74	0.46
9:Bj:70:ARG:HG2	9:Bj:70:ARG:NH1	2.22	0.46
10:Bk:15:ALA:CB	10:Bk:78:GLN:HE21	2.27	0.46
12:Bm:91:ARG:O	12:Bm:96:LEU:N	2.35	0.46
16:Bq:16:GLN:NE2	22:Ba:255:G:H1'	2.31	0.46
21:By:66:VAL:HG12	21:By:67:ILE:N	2.30	0.46
22:Ba:433:C:O2'	22:Ba:434:U:H5'	2.15	0.46
22:Ba:674:G:H2'	22:Ba:675:A:H8	1.79	0.46
22:Ba:707:C:H2'	22:Ba:708:C:H6	1.81	0.46
22:Ba:1030:C:H2'	22:Ba:1030(A):G:H5'	1.98	0.46
22:Ba:1227:A:N7	22:Ba:1228:C:O2	2.48	0.46
22:Ba:1497:G:H2'	22:Ba:1498:U:C5'	2.38	0.46
22:Ba:1508:G:H2'	22:Ba:1509:C:C6	2.50	0.46
27:BD:36:PRO:O	27:BD:37:LEU:HD23	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BD:158:ALA:O	27:BD:159:ALA:C	2.58	0.46
27:BD:231:HIS:CG	27:BD:232:PRO:HD2	2.51	0.46
28:BE:57:LYS:O	28:BE:57:LYS:HG3	2.15	0.46
28:BE:117:MET:O	28:BE:117:MET:CG	2.64	0.46
30:BG:4:ASP:HB2	30:BG:8:LYS:HG2	1.97	0.46
30:BG:72:ARG:HB3	30:BG:87:PRO:HD2	1.98	0.46
32:BI:2:LYS:HB2	32:BI:39:ALA:HB3	1.96	0.46
32:BI:92:VAL:CG1	32:BI:120:ILE:HD13	2.34	0.46
36:BP:140:ALA:O	36:BP:141:ALA:HB3	2.16	0.46
37:BQ:66:ILE:HG22	37:BQ:104:PHE:CE2	2.51	0.46
38:BR:100:LEU:HD21	38:BR:113:LEU:HB3	1.97	0.46
40:BT:91:ARG:HA	40:BT:117:ASP:H	1.80	0.46
45:BY:96:ILE:HG22	45:BY:97:ARG:N	2.25	0.46
47:B0:39:ARG:HH21	57:BA:2355:C:H1'	1.80	0.46
51:B4:27:THR:O	51:B4:27:THR:HG23	2.14	0.46
57:BA:1053:C:O2	57:BA:1106:A:N3	2.48	0.46
57:BA:1386:C:H2'	57:BA:1387:C:H6	1.80	0.46
57:BA:1431:U:H2'	57:BA:1432:C:C6	2.50	0.46
57:BA:1578:U:H2'	57:BA:1579:A:H5'	1.97	0.46
57:BA:2086:U:H2'	57:BA:2087:G:C8	2.50	0.46
57:BA:2713:A:H3'	57:BA:2714:G:C5'	2.46	0.46
58:BB:62:C:C2	58:BB:63:G:C8	3.03	0.46
2:Ac:8:ILE:C	2:Ac:10:PHE:N	2.74	0.46
6:Ag:140:ASP:HA	6:Ag:143:ARG:HH11	1.80	0.46
11:Al:6:THR:OG1	11:Al:9:GLN:HG3	2.16	0.46
12:Am:70:LEU:HD23	12:Am:70:LEU:HA	1.76	0.46
16:Aq:12:SER:HB3	16:Aq:20:THR:CB	2.46	0.46
16:Aq:63:ARG:HG2	16:Aq:64:PRO:CD	2.46	0.46
21:Ay:86:VAL:O	21:Ay:89:GLU:N	2.44	0.46
22:Aa:433:C:O2'	22:Aa:434:U:H5'	2.16	0.46
27:AD:14:ARG:NH2	57:AA:1693:U:O2'	2.49	0.46
27:AD:210:GLY:C	27:AD:212:SER:N	2.70	0.46
30:AG:5:VAL:HG22	51:A4:25:TYR:HE1	1.81	0.46
32:AI:109:ILE:HD12	32:AI:109:ILE:N	2.31	0.46
39:AS:34:HIS:CE1	39:AS:54:LEU:HB3	2.50	0.46
40:AT:29:ARG:CZ	40:AT:86:ILE:HG22	2.45	0.46
42:AV:8:GLY:O	57:AA:1161:C:H1'	2.15	0.46
42:AV:99:ILE:HG12	42:AV:99:ILE:O	2.15	0.46
46:AZ:30:ASN:O	46:AZ:31:ARG:C	2.59	0.46
50:A3:35:ARG:NH2	50:A3:37:LEU:HD21	2.17	0.46
53:A6:5:VAL:HG13	53:A6:7:ILE:N	2.28	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:AA:133:C:O2'	57:AA:134:C:H5'	2.16	0.46
57:AA:154:G:H2'	57:AA:154(A):C:C6	2.50	0.46
57:AA:280:C:C2'	57:AA:281:G:H5'	2.46	0.46
57:AA:324:A:H2'	57:AA:325:G:O4'	2.16	0.46
57:AA:1386:C:H2'	57:AA:1387:C:H6	1.80	0.46
57:AA:1590:U:H2'	57:AA:1591:G:C5'	2.27	0.46
57:AA:2465:C:O2'	57:AA:2466:C:H5'	2.15	0.46
58:AB:44:G:C2	58:AB:48:A:C2	3.03	0.46
2:Bc:84:ILE:O	2:Bc:88:ARG:HG3	2.15	0.46
3:Bd:88:VAL:O	3:Bd:92:VAL:HG23	2.16	0.46
4:Be:75:THR:HG23	4:Be:76:ILE:H	1.81	0.46
7:Bh:1:MET:H2	7:Bh:1:MET:HE2	1.80	0.46
9:Bj:3:LYS:HD2	9:Bj:77:PRO:CD	2.46	0.46
11:Bl:5:PRO:HD3	22:Ba:568:G:O6	2.16	0.46
11:Bl:27:LEU:HD22	11:Bl:27:LEU:N	2.30	0.46
11:Bl:43:VAL:HG23	11:Bl:93:LEU:HD22	1.97	0.46
11:Bl:57:LYS:HG2	11:Bl:67:THR:CG2	2.45	0.46
11:Bl:83:VAL:HG11	11:Bl:100:ILE:HG12	1.97	0.46
16:Bq:94:ASN:O	16:Bq:98:LEU:CD1	2.64	0.46
18:Bs:67:VAL:HG23	18:Bs:68:GLY:N	2.24	0.46
22:Ba:16:A:C2'	22:Ba:17:U:H5'	2.45	0.46
22:Ba:46:G:O2'	22:Ba:365:U:H1'	2.15	0.46
22:Ba:600:C:H2'	22:Ba:601:C:C6	2.51	0.46
22:Ba:991:U:O2	22:Ba:993:G:H8	1.99	0.46
22:Ba:1477:C:H2'	22:Ba:1478:C:C6	2.50	0.46
27:BD:35:LYS:NZ	27:BD:36:PRO:CD	2.76	0.46
27:BD:176:ARG:HH11	27:BD:176:ARG:CG	2.24	0.46
29:BF:32:LEU:C	29:BF:32:LEU:HD23	2.40	0.46
36:BP:125:VAL:O	36:BP:125:VAL:HG22	2.15	0.46
37:BQ:1:MET:HE1	37:BQ:45:GLN:HA	1.98	0.46
38:BR:4:LEU:O	38:BR:5:LYS:CD	2.61	0.46
42:BV:28:GLU:CB	42:BV:29:PRO:HD2	2.40	0.46
44:BX:71:GLY:HA3	57:BA:64:A:O3'	2.15	0.46
45:BY:84:ARG:HG3	45:BY:97:ARG:HD3	1.96	0.46
46:BZ:147:GLY:O	46:BZ:148:ASP:O	2.33	0.46
49:B2:16:LEU:O	49:B2:17:SER:CB	2.53	0.46
57:BA:359:A:H2'	57:BA:360:G:H5'	1.98	0.46
57:BA:1153:C:H2'	57:BA:1154:G:O4'	2.16	0.46
57:BA:1503:U:C4	57:BA:1504:C:N4	2.80	0.46
57:BA:1578:U:H2'	57:BA:1579:A:C5'	2.46	0.46
57:BA:1961:C:C2'	57:BA:1962:C:H5'	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BA:2029:G:H2'	57:BA:2031:A:OP2	2.16	0.46
57:BA:2098:U:H2'	57:BA:2099:U:O4'	2.15	0.46
57:BA:2230:G:H2'	57:BA:2231:C:H6	1.81	0.46
57:BA:2320:A:H2'	57:BA:2320:A:N3	2.30	0.46
57:BA:2870:C:C2'	57:BA:2871:C:H5'	2.46	0.46
58:BB:81:G:H2'	58:BB:82:G:C5'	2.46	0.46
5:Af:12:PRO:HG3	5:Af:55:ASP:HB3	1.97	0.46
7:Ah:109:ILE:CG2	7:Ah:137:VAL:HB	2.45	0.46
8:Ai:24:GLY:O	8:Ai:26:VAL:HG23	2.15	0.46
8:Ai:43:ALA:HA	8:Ai:74:ILE:HG21	1.98	0.46
10:Ak:20:TYR:HB2	10:Ak:31:THR:HG22	1.98	0.46
10:Ak:26:ASN:O	10:Ak:27:ASN:HB2	2.15	0.46
11:Al:83:VAL:HG11	11:Al:100:ILE:HG12	1.98	0.46
12:Am:49:THR:HB	12:Am:52:GLU:HG3	1.98	0.46
15:Ap:8:ARG:HH11	15:Ap:8:ARG:HG2	1.81	0.46
15:Ap:14:ASN:N	15:Ap:15:PRO:HD3	2.31	0.46
21:Ay:26:LEU:HD22	21:Ay:53:ILE:HG21	1.98	0.46
22:Aa:316:G:OP2	22:Aa:351:G:O2'	2.34	0.46
22:Aa:1033:G:O2'	22:Aa:1034:G:H5'	2.14	0.46
27:AD:30:GLU:CG	27:AD:63:ARG:CZ	2.90	0.46
28:AE:12:THR:O	28:AE:23:VAL:HG22	2.16	0.46
29:AF:9:ILE:HA	29:AF:13:SER:O	2.15	0.46
30:AG:139:LEU:C	30:AG:139:LEU:HD12	2.41	0.46
32:AI:129:THR:CG2	32:AI:130:TYR:H	2.28	0.46
36:AP:80:TYR:CZ	36:AP:111:ARG:HD3	2.51	0.46
37:AQ:33:GLY:O	37:AQ:131:ILE:HA	2.15	0.46
38:AR:100:LEU:N	38:AR:100:LEU:HD22	2.31	0.46
40:AT:89:VAL:C	40:AT:91:ARG:N	2.71	0.46
40:AT:90:GLN:NE2	40:AT:124:ASP:OD2	2.49	0.46
45:AY:2:ARG:C	45:AY:2:ARG:HD3	2.40	0.46
45:AY:13:VAL:CG2	45:AY:28:LYS:NZ	2.77	0.46
46:AZ:11:GLU:CD	46:AZ:11:GLU:N	2.72	0.46
47:A0:39:ARG:HH21	57:AA:2355:C:H1'	1.81	0.46
49:A2:47:ASN:O	49:A2:48:HIS:C	2.59	0.46
51:A4:42:PHE:HB2	51:A4:43:TYR:HD1	1.81	0.46
52:A5:3:LYS:HZ3	57:AA:2613:U:C2'	2.29	0.46
55:A8:30:ARG:CZ	57:AA:2419:U:O4	2.64	0.46
57:AA:519:U:H2'	57:AA:520:G:C8	2.50	0.46
57:AA:528:A:C2	57:AA:2043:C:H5'	2.51	0.46
57:AA:545:C:H2'	57:AA:547:A:C5'	2.46	0.46
57:AA:648:G:O4'	57:AA:2351:G:H5"	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:AA:1417:C:H2'	57:AA:1418:G:O4'	2.16	0.46
57:AA:1496:A:H8	57:AA:1577:C:O2'	1.98	0.46
57:AA:1573:G:H2'	57:AA:1574:C:H5'	1.98	0.46
57:AA:1907:G:O2'	57:AA:1908:C:H5'	2.16	0.46
57:AA:2762:G:C2'	57:AA:2763:G:H5'	2.46	0.46
1:Bb:62:ALA:C	1:Bb:64:ARG:H	2.23	0.46
1:Bb:194:PRO:HG2	1:Bb:195:ASP:H	1.80	0.46
2:Bc:64:VAL:HG12	2:Bc:66:VAL:HG23	1.98	0.46
3:Bd:128:VAL:HG12	3:Bd:129:ASN:N	2.29	0.46
6:Bg:136:LYS:NZ	6:Bg:136:LYS:HB3	2.30	0.46
6:Bg:140:ASP:HA	6:Bg:143:ARG:HH11	1.79	0.46
8:Bi:16:ARG:HH12	22:Ba:1128:C:C5'	2.29	0.46
9:Bj:90:LEU:N	9:Bj:91:PRO:HD2	2.29	0.46
11:Bl:18:VAL:O	11:Bl:19:ARG:HB3	2.15	0.46
13:Bn:21:TYR:HD2	13:Bn:22:THR:O	1.98	0.46
14:Bo:82:ILE:HG12	14:Bo:87:ILE:HG12	1.97	0.46
16:Bq:45:HIS:CB	16:Bq:65:ILE:HD13	2.45	0.46
16:Bq:53:LEU:HD22	16:Bq:82:MET:HE1	1.96	0.46
22:Ba:404:U:H2'	22:Ba:405:U:C6	2.51	0.46
22:Ba:586:C:H1'	22:Ba:878:G:O2'	2.16	0.46
22:Ba:927:G:O2'	22:Ba:928:G:H5'	2.15	0.46
22:Ba:985:C:H2'	22:Ba:986:A:H8	1.77	0.46
22:Ba:1370:G:O2'	22:Ba:1371:G:H5'	2.16	0.46
22:Ba:1442(B):A:H2'	22:Ba:1442(B):A:N3	2.31	0.46
27:BD:76:PRO:HG2	27:BD:98:VAL:HG21	1.97	0.46
27:BD:95:LEU:HD13	27:BD:97:TYR:CE1	2.50	0.46
30:BG:46:ALA:HB2	30:BG:88:ILE:CG1	2.46	0.46
33:BJ:29:TYR:H	33:BJ:83:TYR:CB	2.28	0.46
33:BJ:124:ALA:O	33:BJ:125:LEU:O	2.33	0.46
34:BN:21:LYS:HG2	34:BN:22:THR:N	2.30	0.46
35:BO:32:TYR:CD1	35:BO:32:TYR:N	2.83	0.46
39:BS:89:ARG:HH11	39:BS:89:ARG:CG	2.28	0.46
39:BS:98:VAL:HG12	39:BS:100:ALA:HB2	1.96	0.46
40:BT:30:VAL:HA	40:BT:44:ASP:HA	1.97	0.46
42:BV:49:THR:O	42:BV:50:PRO:C	2.58	0.46
46:BZ:10:ARG:HB2	46:BZ:38:TYR:HB3	1.97	0.46
46:BZ:61:LEU:HG	46:BZ:63:ASP:OD2	2.16	0.46
46:BZ:91:LEU:HD23	46:BZ:96:VAL:HG21	1.98	0.46
52:B5:35:GLU:O	52:B5:36:CYS:SG	2.73	0.46
55:B8:30:ARG:CZ	57:BA:2419:U:O4	2.64	0.46
57:BA:614:U:O2	57:BA:614:U:O4'	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BA:1047:G:N2	57:BA:1111:A:H62	2.13	0.46
57:BA:1722:A:C2	57:BA:1740:G:H8	2.33	0.46
57:BA:2729:G:H2'	57:BA:2730:C:H6	1.79	0.46
57:BA:2811:G:O2'	57:BA:2812:G:H5'	2.14	0.46
3:Ad:135:LEU:HD11	22:Aa:619:U:N3	2.31	0.46
4:Ae:11:ILE:HG21	4:Ae:105:VAL:HG22	1.97	0.46
5:Af:72:VAL:HG23	5:Af:90:VAL:HG11	1.97	0.46
11:Al:27:LEU:HD22	11:Al:27:LEU:N	2.30	0.46
16:Aq:7:THR:HA	16:Aq:57:VAL:O	2.15	0.46
16:Aq:45:HIS:CD2	16:Aq:47:PRO:HD3	2.51	0.46
22:Aa:245:C:O2	22:Aa:283:C:N3	2.49	0.46
22:Aa:1030:C:H2'	22:Aa:1030(A):G:H5'	1.98	0.46
22:Aa:1144:G:H21	22:Aa:1146:A:H62	1.62	0.46
25:Aw:9:G:C4'	25:Aw:46:G:H5'	2.46	0.46
26:AC:41:THR:HG21	26:AC:175:PRO:CB	2.45	0.46
26:AC:184:GLU:O	26:AC:185:LYS:HE3	2.16	0.46
26:AC:191:ARG:HG3	26:AC:191:ARG:HH11	1.81	0.46
26:AC:194:ILE:HG22	26:AC:198:GLU:OE1	2.15	0.46
27:AD:25:THR:CG2	27:AD:26:LYS:H	2.29	0.46
27:AD:79:VAL:HG11	27:AD:111:LEU:CD1	2.46	0.46
28:AE:55:ASN:O	28:AE:57:LYS:N	2.45	0.46
28:AE:188:VAL:CG2	28:AE:189:PRO:HD2	2.46	0.46
32:AI:88:ILE:HD11	32:AI:142:VAL:HG22	1.97	0.46
34:AN:62:VAL:HG21	34:AN:66:LYS:HB2	1.96	0.46
34:AN:68:GLU:HG2	34:AN:88:GLU:OE2	2.16	0.46
35:AO:1:MET:HE1	57:AA:2726:U:H4'	1.97	0.46
35:AO:20:MET:O	35:AO:41:ALA:HB1	2.15	0.46
35:AO:64:ARG:CZ	40:AT:70:VAL:HG21	2.46	0.46
36:AP:106:LEU:HB3	36:AP:107:LYS:H	1.61	0.46
36:AP:125:VAL:HG13	36:AP:138:LEU:HD21	1.97	0.46
37:AQ:135:ASP:O	37:AQ:138:ASP:OD2	2.33	0.46
38:AR:11:ASN:CG	38:AR:12:ARG:H	2.23	0.46
39:AS:29:PHE:CD1	58:AB:7:G:C4'	2.96	0.46
40:AT:6:LEU:O	40:AT:6:LEU:HD23	2.16	0.46
41:AU:88:ILE:C	41:AU:90:VAL:N	2.73	0.46
44:AX:47:PHE:O	44:AX:48:LYS:C	2.59	0.46
53:A6:30:THR:O	53:A6:31:PRO:C	2.59	0.46
53:A6:52:VAL:CG2	53:A6:53:LYS:N	2.79	0.46
54:A7:34:ARG:NH1	54:A7:39:ARG:CG	2.79	0.46
55:A8:33:ASN:ND2	55:A8:33:ASN:N	2.33	0.46
57:AA:774:A:H2	57:AA:787:U:HO2'	1.56	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:AA:2236:C:H2'	57:AA:2237:G:H5'	1.97	0.46
57:AA:2320:A:H2'	57:AA:2320:A:N3	2.30	0.46
57:AA:2531:A:H2	57:AA:2658:C:O2	1.99	0.46
57:AA:2674:G:H2'	57:AA:2675:A:C8	2.51	0.46
57:AA:2732:G:C3'	57:AA:2733:A:H5'	2.45	0.46
1:Bb:17:PHE:HD2	1:Bb:17:PHE:H	1.64	0.46
10:Bk:59:TYR:CZ	10:Bk:63:LEU:HD21	2.50	0.46
10:Bk:63:LEU:CD2	10:Bk:63:LEU:H	2.28	0.46
17:Br:44:LEU:N	17:Br:44:LEU:CD1	2.79	0.46
18:Bs:54:GLY:O	22:Ba:986:A:H1'	2.15	0.46
22:Ba:1073:U:H2'	22:Ba:1074:G:C8	2.51	0.46
22:Ba:1422:G:O2'	22:Ba:1423:G:H5'	2.16	0.46
24:Bv:29:G:O2'	24:Bv:30:G:H5'	2.16	0.46
26:BC:51:ASP:HB3	26:BC:54:ARG:HB2	1.97	0.46
26:BC:181:PHE:HD2	26:BC:185:LYS:HB3	1.81	0.46
27:BD:165:ILE:HD13	27:BD:175:LEU:CD2	2.46	0.46
31:BH:41:MET:CG	31:BH:42:ARG:N	2.61	0.46
33:BJ:14:LYS:O	33:BJ:18:GLU:CB	2.64	0.46
33:BJ:28:ASN:C	33:BJ:30:GLN:H	2.23	0.46
37:BQ:109:VAL:HG12	37:BQ:110:THR:N	2.31	0.46
38:BR:40:LYS:HG3	57:BA:1651:G:OP1	2.16	0.46
39:BS:99:LYS:O	39:BS:101:LEU:N	2.40	0.46
39:BS:101:LEU:HD12	39:BS:101:LEU:H	1.80	0.46
40:BT:29:ARG:HG2	40:BT:85:LYS:C	2.39	0.46
45:BY:59:GLY:O	45:BY:60:PHE:CB	2.51	0.46
47:B0:49:LYS:H	47:B0:80:HIS:HB3	1.80	0.46
48:B1:57:GLU:O	48:B1:58:ILE:C	2.58	0.46
49:B2:41:ILE:O	49:B2:41:ILE:CG1	2.62	0.46
52:B5:41:PRO:O	52:B5:44:THR:OG1	2.34	0.46
53:B6:11:LEU:C	53:B6:11:LEU:HD22	2.41	0.46
55:B8:31:HIS:CE1	57:BA:2392:A:OP2	2.63	0.46
57:BA:927:G:H5'	57:BA:928:G:OP2	2.15	0.46
57:BA:1368:G:O2'	57:BA:1369:G:H5'	2.16	0.46
57:BA:1417:C:H2'	57:BA:1418:G:O4'	2.16	0.46
57:BA:2552:U:O2	57:BA:2554:U:H5'	2.16	0.46
57:BA:2777:G:H4'	57:BA:2778:A:H5'	1.97	0.46
1:Ab:18:GLY:CA	1:Ab:42:ILE:HG22	2.45	0.46
1:Ab:70:PHE:CD2	1:Ab:163:PHE:HB3	2.51	0.46
2:Ac:16:ARG:NH1	2:Ac:16:ARG:CB	2.77	0.46
2:Ac:99:VAL:O	2:Ac:99:VAL:HG23	2.15	0.46
5:Af:18:GLN:O	5:Af:21:LEU:N	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:Ag:31:MET:SD	6:Ag:34:GLY:HA2	2.56	0.46
7:Ah:33:GLU:O	7:Ah:34:GLU:C	2.58	0.46
7:Ah:36:LEU:C	7:Ah:38:ILE:N	2.72	0.46
8:Ai:42:ARG:NH1	8:Ai:71:SER:OG	2.49	0.46
8:Ai:118:LYS:NZ	8:Ai:118:LYS:CB	2.79	0.46
12:Am:111:LYS:O	12:Am:112:GLY:C	2.57	0.46
13:An:15:LYS:O	13:An:16:PHE:O	2.33	0.46
17:Ar:87:ARG:HH11	17:Ar:87:ARG:CB	2.21	0.46
22:Aa:630:G:H2'	22:Aa:631:G:H5"	1.97	0.46
22:Aa:757:U:H2'	22:Aa:758:G:O4'	2.16	0.46
22:Aa:1502:A:H5'	22:Aa:1504:G:N7	2.31	0.46
22:Aa:1516:G:H2'	22:Aa:1518:A:OP2	2.15	0.46
28:AE:117:MET:O	28:AE:117:MET:CG	2.63	0.46
31:AH:97:ARG:O	31:AH:103:LEU:HD12	2.15	0.46
32:AI:121:LYS:HD2	32:AI:121:LYS:HA	1.85	0.46
34:AN:70:LYS:HE3	34:AN:72:TYR:CE2	2.51	0.46
36:AP:6:LEU:HG	36:AP:9:ASN:HB3	1.96	0.46
40:AT:55:ASN:H	40:AT:59:THR:HG22	1.80	0.46
41:AU:113:ALA:C	41:AU:115:ALA:H	2.24	0.46
42:AV:39:LEU:HB3	42:AV:47:VAL:HG21	1.97	0.46
45:AY:27:VAL:HG12	45:AY:28:LYS:H	1.81	0.46
46:AZ:35:ARG:HG3	46:AZ:35:ARG:NH1	2.30	0.46
49:A2:18:PRO:O	49:A2:19:VAL:C	2.58	0.46
51:A4:43:TYR:O	51:A4:44:THR:O	2.34	0.46
53:A6:11:LEU:C	53:A6:11:LEU:HD22	2.41	0.46
54:A7:12:ARG:NH2	54:A7:44:PRO:HB3	2.31	0.46
55:A8:14:VAL:HG22	55:A8:22:VAL:HG13	1.96	0.46
57:AA:83:G:N2	57:AA:102:G:H2'	2.31	0.46
57:AA:544:G:N2	57:AA:547:A:H2'	2.30	0.46
57:AA:862:G:H2'	57:AA:863:A:O4'	2.16	0.46
57:AA:1047:G:OP2	57:AA:1047:G:H4'	2.14	0.46
57:AA:1771:C:C1'	57:AA:1786:A:C8	2.99	0.46
57:AA:2367:G:O2'	57:AA:2368:C:H5'	2.14	0.46
57:AA:2695:C:H2'	57:AA:2696:U:C6	2.51	0.46
1:Bb:178:ARG:HG2	1:Bb:178:ARG:NH1	2.31	0.46
2:Bc:196:LEU:N	2:Bc:196:LEU:HD22	2.31	0.46
3:Bd:11:LEU:HD23	3:Bd:11:LEU:N	2.31	0.46
4:Be:136:MET:O	4:Be:137:GLU:C	2.58	0.46
5:Bf:50:TYR:CE1	17:Br:74:ARG:O	2.68	0.46
5:Bf:97:PHE:N	17:Br:30:ASP:OD1	2.49	0.46
8:Bi:15:ALA:HA	8:Bi:65:VAL:HA	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:Bj:55:LYS:CD	22:Ba:963:G:N2	2.79	0.46
13:Bn:32:SER:O	13:Bn:40:CYS:HA	2.16	0.46
19:Bt:100:ILE:O	19:Bt:102:GLY:N	2.45	0.46
22:Ba:189(C):C:O2'	22:Ba:189(D):C:H5'	2.16	0.46
22:Ba:244:U:C6	22:Ba:894:G:N2	2.84	0.46
22:Ba:438:G:C4'	22:Ba:439:A:OP1	2.60	0.46
22:Ba:980:C:H3'	22:Ba:981:U:C6	2.50	0.46
22:Ba:1028:C:H2'	22:Ba:1029:C:H5'	1.97	0.46
22:Ba:1411:C:H2'	22:Ba:1412:C:C6	2.50	0.46
25:Bw:30:G:H2'	25:Bw:31:G:H8	1.79	0.46
27:BD:76:PRO:HG2	27:BD:98:VAL:CG2	2.45	0.46
27:BD:121:PRO:HA	27:BD:135:PHE:HD1	1.80	0.46
27:BD:267:SER:C	27:BD:269:PHE:H	2.24	0.46
28:BE:181:LEU:HD23	40:BT:11:GLU:OE2	2.15	0.46
29:BF:65:TRP:CH2	29:BF:75:HIS:HD2	2.33	0.46
30:BG:6:ALA:O	30:BG:7:LEU:C	2.58	0.46
32:BI:67:ARG:HG2	32:BI:67:ARG:NH1	2.31	0.46
32:BI:87:LYS:HG3	32:BI:121:LYS:C	2.40	0.46
32:BI:88:ILE:HD11	32:BI:142:VAL:HG22	1.98	0.46
34:BN:73:THR:CG2	34:BN:82:LEU:HD11	2.38	0.46
36:BP:34:GLY:O	36:BP:35:HIS:CB	2.64	0.46
42:BV:47:VAL:O	42:BV:48:GLY:C	2.59	0.46
43:BW:5:ALA:HB1	43:BW:50:VAL:CG2	2.45	0.46
43:BW:40:ASN:C	43:BW:41:LYS:HG2	2.41	0.46
47:B0:77:ARG:NH2	57:BA:857:C:OP1	2.48	0.46
48:B1:57:GLU:O	48:B1:58:ILE:O	2.34	0.46
48:B1:58:ILE:HD11	48:B1:60:PHE:CZ	2.51	0.46
55:B8:50:LEU:CD1	55:B8:51:ALA:N	2.74	0.46
57:BA:455:C:H3'	57:BA:456:C:H5"	1.98	0.46
57:BA:469:G:C2'	57:BA:470:A:H5"	2.45	0.46
57:BA:470:A:H2'	57:BA:471:A:O4'	2.15	0.46
57:BA:716:A:H3'	57:BA:717:G:H5"	1.97	0.46
57:BA:909:A:H2'	57:BA:912:C:H5	1.81	0.46
57:BA:963:U:H2'	57:BA:964:C:H6	1.80	0.46
57:BA:1427:A:H1'	57:BA:1428:C:C5	2.51	0.46
57:BA:1688:U:H1'	57:BA:1701:A:C6	2.51	0.46
1:Ab:207:ALA:C	1:Ab:209:ARG:N	2.74	0.46
2:Ac:8:ILE:O	2:Ac:11:ARG:N	2.48	0.46
2:Ac:101:LEU:HD23	2:Ac:102:ASN:N	2.30	0.46
3:Ad:18:LYS:CB	3:Ad:33:MET:HG2	2.45	0.46
5:Af:42:GLU:C	5:Af:44:GLY:N	2.70	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:Ag:23:VAL:HG13	6:Ag:43:PHE:CE2	2.50	0.46
8:Ai:56:LEU:HD23	8:Ai:56:LEU:C	2.40	0.46
9:Aj:90:LEU:N	9:Aj:91:PRO:HD2	2.29	0.46
17:Ar:44:LEU:N	17:Ar:44:LEU:CD1	2.77	0.46
18:As:10:PHE:HZ	18:As:70:LYS:HE2	1.81	0.46
18:As:33:THR:HG23	18:As:50:ALA:O	2.16	0.46
19:At:18:GLN:O	19:At:22:ARG:HG3	2.15	0.46
21:Ay:23:ARG:O	21:Ay:27:LYS:HG3	2.16	0.46
27:AD:27:THR:CG2	27:AD:27:THR:O	2.64	0.46
28:AE:187:ALA:HB3	57:AA:2729:G:H1'	1.98	0.46
30:AG:29:TRP:HE1	58:AB:54:G:H21	1.63	0.46
32:AI:37:VAL:CG1	32:AI:38:LEU:N	2.79	0.46
32:AI:131:LYS:HA	32:AI:135:GLU:HB3	1.98	0.46
34:AN:120:LEU:O	34:AN:121:LYS:HD2	2.16	0.46
35:AO:10:VAL:HG13	35:AO:17:ARG:C	2.41	0.46
36:AP:32:THR:CG2	36:AP:37:GLY:HA2	2.34	0.46
36:AP:112:LEU:HD22	36:AP:113:LYS:H	1.79	0.46
37:AQ:133:ARG:O	37:AQ:134:ARG:HG2	2.16	0.46
41:AU:46:ALA:O	41:AU:50:ARG:HG3	2.16	0.46
43:AW:54:ALA:O	43:AW:57:ASN:HB2	2.17	0.46
44:AX:64:LYS:HB3	44:AX:64:LYS:HE2	1.72	0.46
45:AY:8:LYS:HB2	45:AY:28:LYS:HE2	1.98	0.46
45:AY:22:GLY:O	45:AY:23:ARG:HG2	2.15	0.46
46:AZ:108:PRO:CB	46:AZ:144:LEU:HB2	2.46	0.46
53:A6:18:ARG:HG3	53:A6:19:ARG:HH11	1.81	0.46
57:AA:152:G:H1	57:AA:174:C:N4	1.94	0.46
57:AA:197:A:H62	57:AA:2430:A:H2'	1.81	0.46
57:AA:545:C:H3'	57:AA:547:A:C5'	2.40	0.46
57:AA:651:G:H2'	57:AA:652:C:H5'	1.98	0.46
57:AA:654(N):G:H2'	57:AA:654(O):G:O4'	2.16	0.46
57:AA:708:C:H5'	57:AA:709:U:OP2	2.16	0.46
57:AA:860:U:O2	57:AA:860:U:O4'	2.34	0.46
57:AA:1899:G:H21	57:AA:1902:C:H5	1.64	0.46
57:AA:2297:C:O2'	57:AA:2298:A:H5'	2.16	0.46
57:AA:2672:G:H3'	57:AA:2673:G:H5"	1.98	0.46
57:AA:2807:G:H3'	57:AA:2808:U:H5"	1.98	0.46
1:Bb:166:ASP:HB3	1:Bb:169:LYS:CB	2.45	0.46
3:Bd:31:CYS:O	3:Bd:32:ALA:HB3	2.16	0.46
4:Be:149:GLU:C	4:Be:151:LEU:H	2.23	0.46
9:Bj:8:LEU:HD13	9:Bj:20:ALA:HB2	1.97	0.46
13:Bn:15:LYS:HB3	13:Bn:16:PHE:CE2	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:Bo:26:GLU:HG3	14:Bo:77:ARG:NH1	2.30	0.46
22:Ba:316:G:OP2	22:Ba:351:G:O2'	2.33	0.46
22:Ba:1409:C:H2'	22:Ba:1410:G:H8	1.81	0.46
22:Ba:1456:G:H2'	22:Ba:1457:G:O4'	2.16	0.46
25:Bw:11:A:H2'	25:Bw:12:G:O4'	2.16	0.46
26:BC:184:GLU:O	26:BC:185:LYS:HE3	2.16	0.46
30:BG:77:ILE:O	30:BG:77:ILE:CG2	2.62	0.46
31:BH:43:VAL:O	31:BH:43:VAL:HG23	2.16	0.46
31:BH:123:PHE:CE2	31:BH:133:VAL:HG22	2.51	0.46
33:BJ:59:ILE:C	33:BJ:61:LEU:N	2.72	0.46
33:BJ:73:GLY:O	33:BJ:75:GLN:N	2.43	0.46
36:BP:18:ARG:NH1	36:BP:18:ARG:O	2.48	0.46
37:BQ:29:PHE:HB3	37:BQ:65:PHE:CE2	2.51	0.46
39:BS:16:ASN:C	39:BS:16:ASN:OD1	2.59	0.46
42:BV:99:ILE:O	42:BV:99:ILE:HG12	2.15	0.46
45:BY:38:ILE:CG2	45:BY:39:VAL:N	2.78	0.46
46:BZ:5:LEU:HD21	46:BZ:39:VAL:CG2	2.46	0.46
46:BZ:77:ASP:OD2	46:BZ:79:ARG:O	2.33	0.46
48:B1:30:VAL:H	57:BA:2396:G:H4'	1.81	0.46
48:B1:45:ASN:HD22	48:B1:46:LEU:N	2.13	0.46
53:B6:11:LEU:HD13	53:B6:11:LEU:N	2.30	0.46
57:BA:1432:C:H2'	57:BA:1433:U:O4'	2.16	0.46
57:BA:1493:C:O2	57:BA:1493:C:C2'	2.64	0.46
57:BA:1542:A:C8	57:BA:1542:A:H3'	2.51	0.46
57:BA:2531:A:H2	57:BA:2658:C:O2	1.98	0.46
1:Ab:22:LYS:HE2	1:Ab:22:LYS:HA	1.98	0.45
1:Ab:97:TRP:HZ3	1:Ab:172:ILE:CB	2.24	0.45
4:Ae:105:VAL:N	4:Ae:106:PRO:HD2	2.32	0.45
6:Ag:15:ASP:O	6:Ag:19:GLY:HA2	2.17	0.45
6:Ag:75:VAL:HG12	6:Ag:88:PRO:HB3	1.98	0.45
7:Ah:6:ILE:O	7:Ah:7:ALA:C	2.59	0.45
8:Ai:47:LEU:CA	8:Ai:49:PRO:HD2	2.45	0.45
9:Aj:52:GLY:H	22:Aa:1060:C:H4'	1.81	0.45
11:Al:89:ARG:O	11:Al:90:VAL:HG23	2.16	0.45
12:Am:83:ASP:CG	12:Am:84:ILE:H	2.24	0.45
13:An:12:ARG:C	13:An:14:PRO:CD	2.90	0.45
16:Aq:16:GLN:NE2	22:Aa:255:G:H1'	2.31	0.45
19:At:103:GLY:HA2	22:Aa:192:U:O4'	2.16	0.45
21:Ay:12:LEU:HD12	21:Ay:15:TRP:HB3	1.98	0.45
22:Aa:570:G:H2'	22:Aa:571:U:C6	2.50	0.45
22:Aa:586:C:H1'	22:Aa:878:G:O2'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Aa:957:U:H2'	22:Aa:959:A:OP2	2.16	0.45
27:AD:72:LYS:HZ2	27:AD:72:LYS:HB3	1.80	0.45
27:AD:142:VAL:HG21	27:AD:191:ALA:CB	2.46	0.45
29:AF:54:ARG:HD2	29:AF:81:PRO:HD3	1.98	0.45
31:AH:43:VAL:O	31:AH:43:VAL:HG23	2.16	0.45
34:AN:73:THR:CG2	34:AN:82:LEU:HD11	2.36	0.45
34:AN:132:ALA:O	34:AN:133:GLN:CB	2.64	0.45
36:AP:106:LEU:HD13	36:AP:112:LEU:HD23	1.97	0.45
39:AS:16:ASN:C	39:AS:16:ASN:OD1	2.59	0.45
39:AS:28:VAL:HG22	39:AS:99:LYS:NZ	2.31	0.45
39:AS:98:VAL:CG1	39:AS:100:ALA:HB2	2.46	0.45
40:AT:12:SER:O	40:AT:13:ARG:CZ	2.64	0.45
44:AX:29:TRP:CZ2	44:AX:76:ARG:NH2	2.84	0.45
44:AX:55:ASN:HB2	44:AX:80:ILE:CD1	2.46	0.45
45:AY:2:ARG:HH11	45:AY:2:ARG:HG2	1.80	0.45
49:A2:65:ASN:C	49:A2:67:LYS:H	2.24	0.45
51:A4:30:GLU:O	51:A4:31:ILE:HD12	2.16	0.45
57:AA:302:C:H2'	57:AA:303:U:C6	2.51	0.45
57:AA:646:A:H2'	57:AA:647:G:O4'	2.16	0.45
57:AA:843:G:O2'	57:AA:844:C:H5'	2.16	0.45
57:AA:963:U:H2'	57:AA:964:C:C6	2.50	0.45
57:AA:1015:G:HO2'	57:AA:1016:G:H5'	1.80	0.45
57:AA:1385:G:O2'	57:AA:1396:U:H6	1.98	0.45
57:AA:1846:G:H5'	57:AA:1846:G:C8	2.44	0.45
57:AA:2082:A:H2'	57:AA:2083:G:O4'	2.16	0.45
58:AB:23:G:C2	58:AB:24:G:O6	2.70	0.45
1:Bb:97:TRP:CH2	1:Bb:173:ALA:CA	2.99	0.45
1:Bb:112:VAL:O	1:Bb:116:GLU:HG2	2.15	0.45
3:Bd:102:ASP:HA	3:Bd:121:VAL:HG21	1.98	0.45
3:Bd:177:ASP:O	3:Bd:179:GLU:N	2.49	0.45
4:Be:21:ALA:HB2	22:Ba:923:A:C5'	2.46	0.45
6:Bg:29:LYS:CB	6:Bg:105:VAL:HG21	2.45	0.45
6:Bg:111:ARG:HB3	6:Bg:111:ARG:NH1	2.29	0.45
8:Bi:5:TYR:HD2	8:Bi:18:PHE:CE2	2.34	0.45
8:Bi:113:LYS:H	8:Bi:119:ALA:HA	1.80	0.45
12:Bm:88:ARG:HA	12:Bm:98:VAL:HG12	1.93	0.45
18:Bs:51:VAL:HG23	18:Bs:60:VAL:CG1	2.46	0.45
22:Ba:79:G:H1'	22:Ba:80:G:OP1	2.17	0.45
22:Ba:580:U:H2'	22:Ba:581:G:O4'	2.16	0.45
22:Ba:909:A:H2'	22:Ba:910:C:O4'	2.16	0.45
27:BD:25:THR:CG2	27:BD:26:LYS:H	2.29	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:77:ILE:HG22	28:BE:78:LEU:CD1	2.43	0.45
30:BG:55:LYS:C	30:BG:58:GLN:HE21	2.25	0.45
30:BG:92:VAL:HG23	58:BB:42:C:O2	2.16	0.45
31:BH:7:LEU:CD2	31:BH:69:ARG:HD2	2.45	0.45
31:BH:153:LYS:HB2	31:BH:154:PRO:HD2	1.97	0.45
32:BI:10:GLU:C	32:BI:12:LEU:H	2.24	0.45
32:BI:25:TYR:CE2	32:BI:29:TYR:CD2	3.04	0.45
32:BI:77:LEU:CD2	32:BI:141:LYS:N	2.79	0.45
35:BO:1:MET:HE1	57:BA:2726:U:H4'	1.98	0.45
41:BU:61:TRP:CH2	41:BU:94:ASN:HB2	2.51	0.45
45:BY:2:ARG:HH11	45:BY:2:ARG:HG2	1.81	0.45
47:B0:36:ILE:HG23	57:BA:2354:G:O2'	2.16	0.45
51:B4:42:PHE:HB2	51:B4:43:TYR:HD1	1.81	0.45
53:B6:11:LEU:O	53:B6:24:GLU:N	2.41	0.45
53:B6:48:VAL:CG2	53:B6:49:HIS:H	2.17	0.45
57:BA:1264:G:H3'	57:BA:1265:A:H5"	1.97	0.45
57:BA:1416:G:HO2'	57:BA:1417:C:H5	1.62	0.45
57:BA:1484:G:C3'	57:BA:1485:G:H5"	2.45	0.45
57:BA:2014:A:H2'	57:BA:2015:A:C8	2.50	0.45
57:BA:2341:G:H2'	57:BA:2342:C:C6	2.51	0.45
57:BA:2777:G:H5"	57:BA:2778:A:C5'	2.47	0.45
57:BA:2807:G:C2'	57:BA:2808:U:H5"	2.46	0.45
57:BA:2850:A:OP2	57:BA:2866:U:H5	1.98	0.45
58:BB:23:G:C2	58:BB:24:G:O6	2.69	0.45
1:Ab:17:PHE:H	1:Ab:17:PHE:HD2	1.64	0.45
1:Ab:193:ASP:O	1:Ab:193:ASP:OD2	2.33	0.45
2:Ac:53:ALA:HB2	2:Ac:115:LEU:HG	1.97	0.45
2:Ac:115:LEU:C	2:Ac:117:ALA:N	2.72	0.45
4:Ae:43:LEU:H	4:Ae:136:MET:HE2	1.81	0.45
4:Ae:43:LEU:CB	4:Ae:136:MET:HE2	2.47	0.45
4:Ae:151:LEU:HD11	7:Ah:77:GLU:OE2	2.16	0.45
7:Ah:36:LEU:O	7:Ah:38:ILE:N	2.47	0.45
8:Ai:48:GLU:HG3	8:Ai:101:PHE:CE2	2.52	0.45
8:Ai:102:LEU:HD23	8:Ai:102:LEU:C	2.41	0.45
8:Ai:113:LYS:H	8:Ai:119:ALA:HA	1.80	0.45
9:Aj:6:ILE:HD12	9:Aj:72:VAL:H	1.81	0.45
11:Al:126:LYS:NZ	11:Al:127:GLU:H	2.13	0.45
12:Am:29:ARG:HD3	12:Am:64:TRP:CD2	2.51	0.45
12:Am:89:GLY:O	12:Am:93:ARG:HD2	2.16	0.45
13:An:21:TYR:CE1	22:Aa:981:U:H5'	2.51	0.45
13:An:22:THR:OG1	13:An:33:VAL:HG21	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:An:51:GLY:O	13:An:53:LEU:N	2.48	0.45
14:Ao:17:ARG:HG3	14:Ao:17:ARG:HH11	1.81	0.45
16:Aq:45:HIS:CG	16:Aq:65:ILE:HD13	2.50	0.45
19:At:81:LYS:O	19:At:85:MET:HG2	2.16	0.45
22:Aa:189(C):C:O2'	22:Aa:189(D):C:H5'	2.15	0.45
22:Aa:356:A:H1'	22:Aa:368:U:O2'	2.15	0.45
22:Aa:390:C:H2'	22:Aa:391:G:C8	2.50	0.45
22:Aa:444:C:H2'	22:Aa:445:G:H8	1.81	0.45
22:Aa:580:U:H2'	22:Aa:581:G:O4'	2.17	0.45
22:Aa:826:C:H2'	22:Aa:827:U:C6	2.50	0.45
22:Aa:1065:U:C5	22:Aa:1190:G:H1'	2.52	0.45
22:Aa:1245:A:N1	22:Aa:1293:G:C6	2.84	0.45
22:Aa:1460:A:H2'	22:Aa:1461:G:O4'	2.16	0.45
22:Aa:1487:G:O2'	22:Aa:1488:G:H5'	2.17	0.45
25:Aw:62:C:H2'	25:Aw:63:G:C8	2.51	0.45
28:AE:57:LYS:HG3	28:AE:57:LYS:O	2.16	0.45
28:AE:82:ARG:O	28:AE:84:PHE:N	2.48	0.45
30:AG:13:GLU:O	30:AG:14:GLU:HG3	2.16	0.45
30:AG:39:ILE:CD1	30:AG:60:LEU:HD21	2.42	0.45
30:AG:40:ASN:O	30:AG:41:GLN:HG3	2.16	0.45
30:AG:75:LYS:HE3	57:AA:2310:A:C8	2.50	0.45
32:AI:92:VAL:CG1	32:AI:120:ILE:HD13	2.35	0.45
34:AN:46:VAL:HG13	34:AN:48:MET:HG3	1.98	0.45
35:AO:2:ILE:CD1	35:AO:8:LEU:HD11	2.31	0.45
37:AQ:110:THR:HG23	37:AQ:113:GLN:CB	2.45	0.45
37:AQ:134:ARG:CZ	46:AZ:122:ARG:NH2	2.77	0.45
40:AT:11:GLU:CD	40:AT:11:GLU:H	2.24	0.45
41:AU:8:VAL:HG22	41:AU:12:ARG:HG2	1.98	0.45
41:AU:68:ALA:O	41:AU:71:GLN:HB2	2.16	0.45
46:AZ:171:ILE:HD12	46:AZ:172:ALA:HB3	1.98	0.45
57:AA:330:A:HO2'	57:AA:331:A:H8	1.58	0.45
57:AA:528:A:H2	57:AA:2043:C:H4'	1.77	0.45
57:AA:760:G:H2'	57:AA:761:A:O4'	2.16	0.45
57:AA:866:A:C6	57:AA:914:C:C5	3.04	0.45
57:AA:1419:A:H2'	57:AA:1421:G:N7	2.30	0.45
57:AA:1721:G:C2	57:AA:1739:U:OP2	2.69	0.45
57:AA:2476:A:C2	57:AA:2477:C:C6	3.04	0.45
57:AA:2532:G:O2'	57:AA:2657:A:N6	2.48	0.45
1:Bb:25:ASN:HA	1:Bb:26:PRO:HD2	1.72	0.45
1:Bb:97:TRP:CH2	1:Bb:176:GLU:OE2	2.69	0.45
3:Bd:127:THR:HA	3:Bd:132:ARG:HA	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Bd:150:GLU:O	3:Bd:151:LYS:C	2.58	0.45
8:Bi:118:LYS:NZ	22:Ba:1349:A:OP2	2.46	0.45
9:Bj:8:LEU:HD23	9:Bj:96:ILE:CG2	2.43	0.45
9:Bj:32:ALA:HB1	9:Bj:75:ILE:CG1	2.46	0.45
9:Bj:38:ILE:HG13	9:Bj:71:LEU:HB3	1.96	0.45
12:Bm:65:LYS:O	12:Bm:70:LEU:CB	2.64	0.45
13:Bn:12:ARG:C	13:Bn:14:PRO:CD	2.89	0.45
14:Bo:28:GLN:HG2	22:Ba:657:G:H4'	1.98	0.45
17:Br:50:ILE:HD12	17:Br:70:ILE:CD1	2.46	0.45
17:Br:54:ARG:O	17:Br:55:ARG:HG2	2.15	0.45
19:Bt:27:LYS:O	19:Bt:27:LYS:HD3	2.17	0.45
19:Bt:39:LYS:O	19:Bt:42:GLN:HB3	2.17	0.45
21:By:14:GLU:HB2	21:By:78:VAL:CG1	2.47	0.45
21:By:54:LYS:HD3	22:Ba:530:G:C5	2.51	0.45
21:By:54:LYS:HA	21:By:61:ARG:HG3	1.98	0.45
22:Ba:401:C:H2'	22:Ba:402:G:C8	2.51	0.45
22:Ba:556:C:O2'	22:Ba:557:G:H5'	2.16	0.45
22:Ba:688:G:O2'	22:Ba:689:C:H5'	2.17	0.45
22:Ba:1312:G:N2	22:Ba:1326:C:C2	2.85	0.45
22:Ba:1463:C:O2'	22:Ba:1464:G:H5'	2.16	0.45
27:BD:25:THR:O	27:BD:26:LYS:O	2.34	0.45
27:BD:28:GLU:N	27:BD:29:PRO:HD2	2.24	0.45
27:BD:69:ARG:C	27:BD:71:ASP:H	2.24	0.45
28:BE:132:HIS:CG	28:BE:135:HIS:NE2	2.84	0.45
28:BE:188:VAL:HG23	28:BE:189:PRO:HD2	1.96	0.45
29:BF:20:LEU:HB2	29:BF:199:TRP:HH2	1.81	0.45
32:BI:78:THR:H	32:BI:104:GLN:NE2	2.07	0.45
36:BP:105:LEU:HD12	36:BP:105:LEU:N	2.30	0.45
42:BV:19:LYS:HZ3	42:BV:20:LEU:N	2.12	0.45
43:BW:73:ALA:O	43:BW:106:ILE:HG12	2.17	0.45
46:BZ:24:LEU:CD2	46:BZ:24:LEU:C	2.89	0.45
48:B1:82:LEU:N	48:B1:82:LEU:CD2	2.74	0.45
52:B5:19:ARG:NH1	57:BA:1265:A:H3'	2.31	0.45
53:B6:10:LEU:CD2	53:B6:10:LEU:N	2.77	0.45
53:B6:41:PRO:HD3	53:B6:47:THR:HG22	1.99	0.45
56:B9:1:MET:SD	56:B9:31:LYS:O	2.74	0.45
57:BA:118:A:H5'	57:BA:119:A:C8	2.46	0.45
57:BA:218:A:C2	57:BA:235:U:H4'	2.52	0.45
57:BA:1112:G:O2'	57:BA:1113:U:C6	2.67	0.45
57:BA:1999:C:H5"	57:BA:2723:C:O2'	2.17	0.45
57:BA:2262:U:O2'	57:BA:2263:C:H5'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ab:132:LYS:HA	1:Ab:135:GLN:HE21	1.82	0.45
2:Ac:35:GLU:O	2:Ac:39:ILE:HG13	2.15	0.45
6:Ag:89:MET:HE1	6:Ag:156:TRP:OXT	2.17	0.45
8:Ai:5:TYR:HD2	8:Ai:18:PHE:CE2	2.33	0.45
11:Al:27:LEU:HB2	11:Al:33:ARG:HD2	1.98	0.45
11:Al:113:ARG:NH1	22:Aa:537:G:H5"	2.32	0.45
14:Ao:23:GLY:O	14:Ao:24:SER:HB3	2.15	0.45
19:At:79:ARG:NH1	22:Aa:263:A:OP2	2.49	0.45
20:Au:9:ARG:O	20:Au:13:ILE:HG13	2.16	0.45
21:Ay:64:TYR:HD1	21:Ay:73:VAL:HG13	1.81	0.45
21:Ay:64:TYR:HB2	21:Ay:73:VAL:HG12	1.98	0.45
22:Aa:55:A:N7	22:Aa:56:U:N3	2.64	0.45
22:Aa:490:G:H2'	22:Aa:491:G:C8	2.52	0.45
22:Aa:728:A:H2'	22:Aa:729:A:C8	2.51	0.45
26:AC:40:GLU:O	26:AC:178:LYS:HA	2.16	0.45
26:AC:46:ALA:HA	26:AC:212:SER:O	2.16	0.45
28:AE:63:LEU:O	28:AE:65:GLY:N	2.49	0.45
28:AE:181:LEU:HD23	40:AT:11:GLU:OE2	2.16	0.45
30:AG:101:ILE:HD13	51:A4:9:LEU:HD11	1.98	0.45
30:AG:174:GLU:OE1	30:AG:182:LYS:HE2	2.16	0.45
30:AG:180:PHE:CB	30:AG:182:LYS:HG3	2.45	0.45
31:AH:8:PRO:O	31:AH:9:ILE:HG22	2.16	0.45
31:AH:83:TYR:HB2	31:AH:84:SER:H	1.53	0.45
32:AI:64:GLU:C	32:AI:66:GLU:N	2.74	0.45
35:AO:87:ILE:CG2	35:AO:91:LEU:C	2.89	0.45
36:AP:101:VAL:HG23	36:AP:102:ARG:N	2.31	0.45
39:AS:54:LEU:C	39:AS:56:LEU:H	2.24	0.45
42:AV:2:PHE:CE2	42:AV:13:ARG:HD2	2.51	0.45
45:AY:44:ILE:HG21	57:AA:480:A:H1'	1.98	0.45
45:AY:84:ARG:HG3	45:AY:97:ARG:HD3	1.98	0.45
46:AZ:141:VAL:HA	46:AZ:144:LEU:HD23	1.98	0.45
46:AZ:152:ALA:HA	46:AZ:168:GLU:N	2.31	0.45
47:A0:49:LYS:H	47:A0:80:HIS:HB3	1.82	0.45
51:A4:2:LYS:HG2	58:AB:44:G:OP2	2.15	0.45
57:AA:30:G:H2'	57:AA:31:C:C6	2.52	0.45
57:AA:191:A:H2'	57:AA:192:C:H6	1.81	0.45
57:AA:247:G:H4'	57:AA:386:G:C6	2.52	0.45
57:AA:2291:U:H2'	57:AA:2292:C:C6	2.51	0.45
57:AA:2378:A:H8	57:AA:2378:A:O5'	1.99	0.45
57:AA:2742:C:O2'	57:AA:2743:C:H5'	2.16	0.45
1:Bb:73:THR:HG22	1:Bb:95:GLN:O	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bb:101:MET:HB2	1:Bb:102:LEU:HD12	1.98	0.45
1:Bb:172:ILE:H	1:Bb:172:ILE:CD1	2.08	0.45
2:Bc:179:ARG:NH1	2:Bc:179:ARG:HG3	2.31	0.45
3:Bd:129:ASN:HD21	3:Bd:145:GLU:H	1.63	0.45
4:Be:10:MET:HB2	4:Be:32:VAL:HG22	1.96	0.45
4:Be:78:HIS:CD2	7:Bh:104:ARG:HG3	2.51	0.45
4:Be:101:ILE:CG1	4:Be:119:LEU:HA	2.46	0.45
5:Bf:97:PHE:HB2	17:Br:32:ARG:HH21	1.80	0.45
11:Bl:43:VAL:CG2	11:Bl:93:LEU:HD22	2.46	0.45
16:Bq:60:ILE:O	16:Bq:61:GLU:C	2.58	0.45
17:Br:36:ASN:HB3	17:Br:39:VAL:HG21	1.96	0.45
22:Ba:160:A:H2'	22:Ba:161:A:O4'	2.16	0.45
22:Ba:981:U:H2'	22:Ba:982:U:C5	2.52	0.45
22:Ba:1423:G:O2'	22:Ba:1424:C:H5'	2.16	0.45
26:BC:40:GLU:O	26:BC:178:LYS:HA	2.16	0.45
27:BD:142:VAL:HG21	27:BD:191:ALA:CB	2.46	0.45
27:BD:210:GLY:C	27:BD:212:SER:N	2.74	0.45
31:BH:7:LEU:CD2	31:BH:69:ARG:CD	2.93	0.45
34:BN:62:VAL:HG13	34:BN:62:VAL:O	2.17	0.45
34:BN:120:LEU:CD1	34:BN:120:LEU:C	2.88	0.45
37:BQ:43:THR:HB	37:BQ:45:GLN:HE21	1.80	0.45
38:BR:85:PRO:C	38:BR:87:TYR:H	2.24	0.45
41:BU:83:LEU:H	41:BU:83:LEU:CD1	2.29	0.45
42:BV:82:ARG:HG2	42:BV:82:ARG:NH1	2.30	0.45
48:B1:41:ARG:HD3	48:B1:43:TYR:CE2	2.51	0.45
57:BA:530:G:C5	57:BA:2022:U:H5"	2.51	0.45
57:BA:654(U):A:H2'	57:BA:654(V):A:C8	2.51	0.45
57:BA:866:A:C6	57:BA:914:C:C5	3.04	0.45
57:BA:1789:A:H2'	57:BA:1790:C:O4'	2.15	0.45
57:BA:2287:A:C2	57:BA:2346:A:C2	3.04	0.45
57:BA:2408:U:H2'	57:BA:2409:G:C8	2.52	0.45
57:BA:2693:A:H2'	57:BA:2694:G:H8	1.81	0.45
58:BB:7:G:C2'	58:BB:8:U:H5"	2.45	0.45
1:Ab:22:LYS:H	1:Ab:40:HIS:CE1	2.34	0.45
1:Ab:62:ALA:O	1:Ab:64:ARG:N	2.49	0.45
1:Ab:84:GLU:HB3	1:Ab:219:VAL:HG21	1.99	0.45
1:Ab:97:TRP:CH2	1:Ab:176:GLU:OE2	2.69	0.45
4:Ae:136:MET:O	4:Ae:137:GLU:C	2.59	0.45
6:Ag:85:TYR:HD1	6:Ag:154:TYR:CE1	2.28	0.45
7:Ah:27:PRO:O	7:Ah:32:LYS:HD3	2.17	0.45
8:Ai:31:GLN:NE2	8:Ai:36:TYR:HA	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:Aj:86:MET:O	9:Aj:86:MET:HG3	2.17	0.45
10:Ak:72:ALA:HB1	10:Ak:77:MET:CB	2.47	0.45
14:Ao:82:ILE:HG12	14:Ao:87:ILE:HG12	1.99	0.45
16:Aq:99:SER:C	16:Aq:100:LYS:HG3	2.41	0.45
22:Aa:596:C:O2'	22:Aa:597:G:H5'	2.16	0.45
22:Aa:867:G:O2'	22:Aa:868:C:H5'	2.16	0.45
22:Aa:1028:C:H2'	22:Aa:1029:C:H5'	1.97	0.45
22:Aa:1089:G:O2'	22:Aa:1090:U:H5'	2.15	0.45
22:Aa:1107:C:C3'	22:Aa:1108:G:H5"	2.46	0.45
22:Aa:1511:G:H2'	22:Aa:1512:U:O4'	2.17	0.45
27:AD:28:GLU:HB2	27:AD:29:PRO:HD3	1.98	0.45
27:AD:133:LEU:HA	27:AD:136:ILE:HD12	1.97	0.45
28:AE:195:LEU:HD12	28:AE:196:VAL:H	1.81	0.45
31:AH:84:SER:O	31:AH:85:LYS:HB3	2.16	0.45
31:AH:136:ILE:N	31:AH:136:ILE:CD1	2.75	0.45
31:AH:148:ILE:O	31:AH:151:ILE:HG12	2.16	0.45
31:AH:149:ARG:HA	31:AH:162:ILE:CG1	2.44	0.45
38:AR:81:ASP:O	38:AR:85:PRO:HG2	2.16	0.45
40:AT:10:VAL:O	40:AT:11:GLU:C	2.59	0.45
41:AU:8:VAL:HG21	41:AU:12:ARG:CZ	2.47	0.45
42:AV:39:LEU:HB3	42:AV:47:VAL:CG2	2.47	0.45
45:AY:8:LYS:HE2	45:AY:72:VAL:O	2.15	0.45
45:AY:52:SER:HA	45:AY:56:PRO:HA	1.99	0.45
45:AY:95:LYS:HD3	45:AY:100:ALA:HB1	1.98	0.45
52:A5:55:ARG:O	52:A5:56:LYS:HE3	2.16	0.45
53:A6:38:LYS:O	53:A6:39:TYR:CD1	2.69	0.45
55:A8:61:LEU:N	55:A8:63:PRO:HD2	2.32	0.45
57:AA:769:G:O2'	57:AA:770:G:H5'	2.16	0.45
57:AA:902:C:H2'	57:AA:903:C:C6	2.51	0.45
57:AA:1789:A:H2'	57:AA:1790:C:O4'	2.17	0.45
57:AA:2713:A:H3'	57:AA:2714:G:C5'	2.46	0.45
2:Bc:4:LYS:NZ	22:Ba:1191:A:H5"	2.32	0.45
2:Bc:52:LEU:H	2:Bc:52:LEU:CD2	2.28	0.45
3:Bd:9:CYS:SG	3:Bd:31:CYS:O	2.74	0.45
4:Be:7:GLU:O	4:Be:8:GLU:CB	2.65	0.45
8:Bi:33:PHE:C	8:Bi:35:GLU:H	2.24	0.45
9:Bj:52:GLY:H	22:Ba:1060:C:H4'	1.81	0.45
9:Bj:57:LYS:CB	22:Ba:972:C:H4'	2.46	0.45
13:Bn:18:VAL:HG23	13:Bn:19:ARG:H	1.81	0.45
15:Bp:17:TYR:CE2	22:Ba:375:U:H4'	2.51	0.45
17:Br:50:ILE:HG22	17:Br:51:LEU:N	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:Bs:19:VAL:O	18:Bs:22:LEU:HB2	2.17	0.45
22:Ba:356:A:H1'	22:Ba:368:U:O2'	2.15	0.45
22:Ba:428:G:O4'	22:Ba:430:A:C8	2.69	0.45
22:Ba:879:C:O2'	22:Ba:880:C:H5'	2.17	0.45
22:Ba:960:U:O2	22:Ba:960:U:H2'	2.14	0.45
22:Ba:1379:G:C6	22:Ba:1380:U:O4	2.70	0.45
22:Ba:1432:G:OP1	40:BT:108:ARG:HB3	2.16	0.45
26:BC:48:LEU:CD1	26:BC:172:ILE:HB	2.46	0.45
27:BD:75:ILE:HG21	27:BD:99:ASP:HB2	1.99	0.45
27:BD:133:LEU:HA	27:BD:136:ILE:HD12	1.99	0.45
28:BE:102:VAL:HG12	28:BE:200:GLU:HA	1.99	0.45
29:BF:20:LEU:O	29:BF:24:LEU:HD23	2.15	0.45
29:BF:132:VAL:CG2	29:BF:133:ASN:H	2.00	0.45
30:BG:42:GLY:N	30:BG:43:LEU:HD22	2.30	0.45
30:BG:87:PRO:C	30:BG:88:ILE:HD13	2.41	0.45
30:BG:103:LEU:HD23	30:BG:106:LEU:HD23	1.99	0.45
30:BG:165:THR:OG1	30:BG:168:GLU:HG3	2.17	0.45
32:BI:118:LYS:HZ2	32:BI:119:PRO:CD	2.29	0.45
34:BN:58:ASP:C	34:BN:60:ILE:HG13	2.41	0.45
34:BN:99:LEU:HD13	34:BN:99:LEU:O	2.15	0.45
35:BO:87:ILE:HG22	35:BO:88:ASN:N	2.31	0.45
36:BP:80:TYR:CZ	36:BP:111:ARG:HD3	2.51	0.45
37:BQ:24:GLY:N	57:BA:907:U:OP1	2.49	0.45
38:BR:32:GLY:C	38:BR:33:ARG:HD2	2.41	0.45
38:BR:99:LYS:H	38:BR:99:LYS:CD	2.28	0.45
40:BT:77:PRO:O	40:BT:78:LEU:CB	2.65	0.45
40:BT:85:LYS:HZ3	40:BT:85:LYS:CB	2.14	0.45
42:BV:49:THR:CB	42:BV:50:PRO:CD	2.86	0.45
46:BZ:15:PRO:O	46:BZ:19:ARG:HG3	2.16	0.45
46:BZ:128:VAL:O	46:BZ:128:VAL:HG13	2.15	0.45
47:B0:56:ASP:O	47:B0:57:PHE:HB2	2.17	0.45
48:B1:45:ASN:C	48:B1:45:ASN:ND2	2.74	0.45
50:B3:46:ASN:ND2	57:BA:851:U:H5'	2.31	0.45
53:B6:38:LYS:O	53:B6:39:TYR:CD1	2.69	0.45
57:BA:528:A:N1	57:BA:2043:C:O5'	2.49	0.45
57:BA:1112:G:O2'	57:BA:1113:U:H6	1.99	0.45
57:BA:1721:G:C2	57:BA:1739:U:OP2	2.69	0.45
57:BA:1784:A:H4'	57:BA:1785:A:C5'	2.47	0.45
57:BA:2400:G:N2	57:BA:2417:C:C2	2.84	0.45
57:BA:2425:A:H5"	57:BA:2427:C:O4'	2.17	0.45
57:BA:2461:C:H2'	57:BA:2462:U:C6	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BA:2807:G:H3'	57:BA:2808:U:H5"	1.98	0.45
1:Ab:73:THR:HG22	1:Ab:95:GLN:O	2.16	0.45
1:Ab:194:PRO:HG2	1:Ab:195:ASP:H	1.80	0.45
2:Ac:84:ILE:O	2:Ac:88:ARG:HG3	2.17	0.45
3:Ad:22:LYS:CG	3:Ad:26:CYS:SG	3.05	0.45
6:Ag:138:LYS:HE2	6:Ag:142:GLU:OE1	2.16	0.45
8:Ai:97:LYS:HB3	8:Ai:98:PRO:CD	2.35	0.45
11:Al:27:LEU:C	11:Al:29:GLY:N	2.73	0.45
13:An:4:LYS:O	13:An:7:ILE:HG12	2.17	0.45
18:As:51:VAL:HG23	18:As:60:VAL:CG1	2.46	0.45
22:Aa:160:A:H2'	22:Aa:161:A:O4'	2.17	0.45
22:Aa:1207:G:O2'	22:Aa:1208:C:H5'	2.16	0.45
22:Aa:1216:G:O2'	22:Aa:1217:C:H5'	2.15	0.45
22:Aa:1442:G:N7	22:Aa:1442(B):A:C2	2.84	0.45
25:Aw:24:U:H2'	25:Aw:25:C:C6	2.51	0.45
25:Aw:68:C:O2'	25:Aw:69:C:H5'	2.17	0.45
28:AE:145:LYS:HB2	57:AA:2572:A:N7	2.31	0.45
29:AF:63:LYS:HZ1	29:AF:67:GLN:HB2	1.79	0.45
31:AH:67:LEU:HD21	57:AA:2758:A:C4	2.51	0.45
31:AH:123:PHE:CE2	31:AH:133:VAL:HG22	2.51	0.45
32:AI:10:GLU:C	32:AI:12:LEU:H	2.24	0.45
36:AP:125:VAL:O	36:AP:125:VAL:HG22	2.16	0.45
37:AQ:16:ARG:C	37:AQ:17:LEU:HD23	2.41	0.45
39:AS:64:GLU:OE2	39:AS:64:GLU:N	2.42	0.45
39:AS:99:LYS:C	39:AS:101:LEU:H	2.24	0.45
40:AT:30:VAL:HG21	40:AT:83:ILE:HG12	1.99	0.45
41:AU:65:ILE:O	41:AU:69:CYS:CB	2.65	0.45
41:AU:66:ASN:C	41:AU:66:ASN:ND2	2.73	0.45
41:AU:111:GLU:OE2	41:AU:111:GLU:HA	2.16	0.45
41:AU:115:ALA:C	41:AU:117:GLN:H	2.24	0.45
42:AV:65:GLY:HA3	42:AV:91:TYR:CE1	2.48	0.45
43:AW:36:LEU:HD13	43:AW:48:ALA:HA	1.98	0.45
49:A2:22:GLU:HG2	49:A2:64:LEU:HD11	1.98	0.45
51:A4:50:VAL:O	51:A4:51:ASP:OD2	2.35	0.45
57:AA:481:G:H1'	57:AA:506:G:H21	1.81	0.45
57:AA:634:C:H2'	57:AA:635:C:C6	2.51	0.45
57:AA:651:G:O2'	57:AA:652:C:H5'	2.16	0.45
57:AA:826:U:H2'	57:AA:828:U:O4'	2.16	0.45
57:AA:1048:A:N6	57:AA:1106:A:N7	2.64	0.45
57:AA:2223:G:H2'	57:AA:2224:G:C5'	2.45	0.45
1:Bb:22:LYS:HE2	1:Bb:22:LYS:HA	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bb:70:PHE:CD2	1:Bb:163:PHE:HB3	2.51	0.45
1:Bb:115:LEU:HD13	1:Bb:145:LEU:HD12	1.98	0.45
2:Bc:23:TYR:CD2	2:Bc:24:ALA:N	2.85	0.45
2:Bc:75:VAL:O	2:Bc:83:ARG:HG2	2.16	0.45
4:Be:6:PHE:HD1	4:Be:63:ARG:NH1	2.10	0.45
4:Be:128:PRO:O	4:Be:129:ILE:C	2.59	0.45
4:Be:152:ARG:HD3	7:Bh:42:GLU:O	2.16	0.45
9:Bj:62:HIS:O	13:Bn:59:ALA:HB3	2.17	0.45
11:Bl:8:ASN:HD21	22:Ba:585:G:H4'	1.80	0.45
14:Bo:55:GLY:O	14:Bo:56:LEU:C	2.59	0.45
18:Bs:10:PHE:HZ	18:Bs:70:LYS:HE2	1.80	0.45
22:Ba:309:G:H1'	22:Ba:608:A:C2	2.52	0.45
22:Ba:1300:G:O2'	22:Ba:1301:U:O5'	2.34	0.45
27:BD:240:ALA:HA	57:BA:1971:A:C2	2.52	0.45
28:BE:16:ARG:O	28:BE:17:ASP:HB2	2.15	0.45
30:BG:39:ILE:HD11	30:BG:60:LEU:CD1	2.29	0.45
31:BH:70:THR:O	31:BH:71:LEU:C	2.60	0.45
32:BI:13:GLY:O	32:BI:17:GLN:OE1	2.35	0.45
36:BP:105:LEU:O	36:BP:106:LEU:HB2	2.17	0.45
37:BQ:22:LYS:HE2	57:BA:864:G:OP2	2.16	0.45
41:BU:92:ARG:O	41:BU:93:LYS:C	2.60	0.45
41:BU:112:ARG:CZ	42:BV:46:VAL:HG11	2.44	0.45
42:BV:99:ILE:HD13	42:BV:99:ILE:N	2.04	0.45
45:BY:4:LYS:HD2	45:BY:32:PRO:HG2	1.99	0.45
47:B0:41:ARG:HG3	57:BA:2329:G:H21	1.82	0.45
48:B1:94:LEU:N	48:B1:94:LEU:CD1	2.79	0.45
49:B2:17:SER:O	49:B2:18:PRO:C	2.60	0.45
49:B2:44:LEU:O	49:B2:45:SER:HB3	2.15	0.45
49:B2:46:GLN:O	49:B2:48:HIS:N	2.49	0.45
50:B3:8:LEU:HD22	50:B3:8:LEU:C	2.41	0.45
55:B8:18:ALA:C	55:B8:20:GLY:N	2.73	0.45
57:BA:528:A:C2	57:BA:2043:C:H5'	2.50	0.45
57:BA:651:G:O2'	57:BA:652:C:H5'	2.17	0.45
57:BA:708:C:H5'	57:BA:709:U:OP2	2.16	0.45
57:BA:760:G:H2'	57:BA:761:A:O4'	2.16	0.45
57:BA:833:U:H2'	57:BA:834:C:C6	2.52	0.45
57:BA:1958:C:O2'	57:BA:1959:G:H5'	2.17	0.45
57:BA:2528:U:H2'	57:BA:2530:A:O5'	2.17	0.45
58:BB:2:C:H2'	58:BB:3:C:C6	2.52	0.45
1:Ab:213:LEU:HD23	1:Ab:213:LEU:C	2.41	0.45
2:Ac:14:ILE:CG1	2:Ac:15:THR:N	2.77	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:Aj:23:ILE:HG23	9:Aj:85:LEU:CD2	2.44	0.45
9:Aj:32:ALA:HB1	9:Aj:75:ILE:CG1	2.46	0.45
9:Aj:34:VAL:HG13	9:Aj:74:ILE:HA	1.98	0.45
10:Ak:99:GLN:HG2	10:Ak:105:VAL:CG2	2.47	0.45
13:An:32:SER:O	13:An:40:CYS:HA	2.17	0.45
17:Ar:45:SER:H	17:Ar:51:LEU:CD1	2.29	0.45
22:Aa:428:G:O4'	22:Aa:430:A:C8	2.69	0.45
22:Aa:651:C:O2'	22:Aa:652:U:H5'	2.17	0.45
22:Aa:976:G:C8	22:Aa:1358:U:C2	3.05	0.45
26:AC:40:GLU:O	26:AC:178:LYS:HE3	2.17	0.45
28:AE:102:VAL:HG12	28:AE:200:GLU:HA	1.97	0.45
29:AF:32:LEU:HD23	29:AF:32:LEU:C	2.41	0.45
30:AG:108:ASN:C	30:AG:112:PRO:CG	2.85	0.45
33:AJ:29:TYR:H	33:AJ:83:TYR:CB	2.30	0.45
36:AP:64:LYS:HG3	55:A8:25:MET:HE2	1.99	0.45
36:AP:102:ARG:O	36:AP:103:ALA:HB2	2.17	0.45
39:AS:66:ALA:O	39:AS:67:ARG:C	2.59	0.45
42:AV:39:LEU:HD12	42:AV:50:PRO:O	2.17	0.45
43:AW:16:LYS:O	43:AW:19:LEU:HB2	2.16	0.45
45:AY:49:VAL:HG12	45:AY:50:ARG:N	2.32	0.45
48:A1:53:VAL:O	48:A1:54:ALA:HB3	2.16	0.45
53:A6:44:ARG:HB2	53:A6:44:ARG:HH11	1.81	0.45
55:A8:53:PRO:HG2	55:A8:54:GLU:N	2.31	0.45
57:AA:197:A:N6	57:AA:2430:A:H2'	2.32	0.45
57:AA:260:G:O4'	57:AA:621:A:H1'	2.16	0.45
57:AA:359:A:H2'	57:AA:360:G:H5'	1.98	0.45
57:AA:1689:A:N6	57:AA:1698:A:H2	1.97	0.45
57:AA:2236:C:C2'	57:AA:2237:G:H5'	2.47	0.45
57:AA:2341:G:H2'	57:AA:2342:C:C6	2.52	0.45
58:AB:16:G:O2'	58:AB:17:C:H5'	2.16	0.45
2:Bc:8:ILE:C	2:Bc:10:PHE:N	2.74	0.45
2:Bc:99:VAL:O	2:Bc:99:VAL:HG23	2.17	0.45
3:Bd:162:LEU:HD13	3:Bd:181:MET:HG2	1.98	0.45
6:Bg:16:LEU:CD1	8:Bi:42:ARG:HA	2.47	0.45
6:Bg:89:MET:HE1	6:Bg:156:TRP:OXT	2.17	0.45
7:Bh:30:ARG:O	7:Bh:34:GLU:HG2	2.16	0.45
9:Bj:86:MET:O	9:Bj:86:MET:HG3	2.17	0.45
13:Bn:6:LEU:CD1	22:Ba:982:U:H5"	2.46	0.45
14:Bo:23:GLY:O	14:Bo:24:SER:HB3	2.16	0.45
16:Bq:7:THR:HA	16:Bq:57:VAL:O	2.16	0.45
21:By:28:LYS:O	21:By:31:VAL:HG12	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Ba:114:U:H2'	22:Ba:115:G:C8	2.51	0.45
22:Ba:401:C:H2'	22:Ba:402:G:H8	1.82	0.45
22:Ba:499:A:H4'	22:Ba:500:G:OP1	2.16	0.45
22:Ba:518:C:H2'	22:Ba:530:G:C8	2.52	0.45
22:Ba:957:U:H2'	22:Ba:959:A:OP2	2.16	0.45
22:Ba:1078:U:C5	22:Ba:1079:G:C5	3.05	0.45
28:BE:101:ARG:HH11	28:BE:171:GLU:CB	2.22	0.45
30:BG:19:LEU:HA	30:BG:22:ARG:HB2	1.98	0.45
30:BG:34:LEU:HB3	30:BG:99:MET:HE1	1.98	0.45
40:BT:27:THR:O	40:BT:28:VAL:HG23	2.16	0.45
47:B0:27:GLU:HA	47:B0:67:VAL:O	2.16	0.45
50:B3:46:ASN:ND2	57:BA:851:U:C4'	2.80	0.45
53:B6:30:THR:O	53:B6:31:PRO:C	2.60	0.45
54:B7:22:MET:O	54:B7:28:ARG:NH1	2.49	0.45
55:B8:2:PRO:O	55:B8:3:LYS:HB3	2.17	0.45
56:B9:1:MET:SD	57:BA:2478:A:OP2	2.75	0.45
57:BA:606:U:H4'	57:BA:658:C:H4'	1.99	0.45
57:BA:1149:G:H2'	57:BA:1150:C:C6	2.52	0.45
57:BA:1472:A:C2'	57:BA:1473:G:H5'	2.46	0.45
57:BA:2103:C:H42	57:BA:2186:G:H1	1.63	0.45
58:BB:56:G:H4'	58:BB:57:A:C8	2.52	0.45
1:Ab:167:PRO:HG2	1:Ab:192:SER:OG	2.16	0.45
1:Ab:178:ARG:HH11	1:Ab:178:ARG:HG2	1.81	0.45
3:Ad:177:ASP:OD1	3:Ad:179:GLU:HB2	2.16	0.45
4:Ae:6:PHE:HB2	4:Ae:34:VAL:HG22	1.98	0.45
7:Ah:84:ARG:O	7:Ah:135:CYS:HB2	2.17	0.45
9:Aj:57:LYS:CB	22:Aa:972:C:H4'	2.47	0.45
10:Ak:69:ALA:HB1	10:Ak:103:LEU:HD21	1.98	0.45
13:An:27:CYS:SG	13:An:27:CYS:O	2.75	0.45
17:Ar:31:LEU:HD23	17:Ar:31:LEU:N	2.28	0.45
17:Ar:50:ILE:CD1	17:Ar:70:ILE:HG21	2.47	0.45
22:Aa:35:G:C6	22:Aa:36:C:N4	2.85	0.45
22:Aa:266:G:O2'	22:Aa:267:C:OP2	2.35	0.45
22:Aa:1073:U:H2'	22:Aa:1074:G:H8	1.82	0.45
22:Aa:1248:A:C2'	22:Aa:1249:C:H5'	2.47	0.45
22:Aa:1376:U:H2'	22:Aa:1377:A:H8	1.80	0.45
27:AD:75:ILE:HG21	27:AD:99:ASP:HB2	1.97	0.45
27:AD:240:ALA:HA	57:AA:1971:A:C2	2.52	0.45
28:AE:108:SER:O	28:AE:162:ALA:HA	2.17	0.45
34:AN:26:LEU:O	34:AN:30:ILE:HG13	2.16	0.45
36:AP:30:THR:O	36:AP:31:ALA:C	2.59	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:AQ:29:PHE:HB3	37:AQ:65:PHE:CE2	2.52	0.45
45:AY:52:SER:O	45:AY:53:PRO:C	2.60	0.45
45:AY:52:SER:N	45:AY:53:PRO:HD2	2.32	0.45
50:A3:47:VAL:CG1	50:A3:56:VAL:HG21	2.46	0.45
52:A5:6:VAL:HG13	57:AA:2016:U:H1'	1.98	0.45
54:A7:35:ARG:HG3	54:A7:42:LEU:HD21	1.99	0.45
55:A8:31:HIS:CE1	57:AA:2392:A:OP2	2.65	0.45
55:A8:37:SER:OG	55:A8:39:LYS:HB3	2.17	0.45
55:A8:42:ARG:O	55:A8:44:LYS:N	2.42	0.45
57:AA:128:C:H2'	57:AA:129:C:H6	1.82	0.45
57:AA:918:A:H5"	58:AB:98:G:O2'	2.16	0.45
57:AA:1286:A:C6	57:AA:1289:C:C2	3.05	0.45
57:AA:1386:C:OP2	57:AA:1396:U:H5	1.99	0.45
57:AA:1427:A:H1'	57:AA:1428:C:C5	2.51	0.45
57:AA:1809:A:H2'	57:AA:1810:A:C8	2.52	0.45
57:AA:1894:C:H2'	57:AA:1895:C:H6	1.80	0.45
57:AA:2098:U:H2'	57:AA:2099:U:O4'	2.16	0.45
57:AA:2222:G:O2'	57:AA:2223:G:H5'	2.16	0.45
57:AA:2308:G:H8	57:AA:2309:A:H3'	1.81	0.45
57:AA:2672:G:H2'	57:AA:2673:G:H5"	1.98	0.45
57:AA:2837:G:H2'	57:AA:2838:G:H8	1.80	0.45
1:Bb:28:PHE:O	1:Bb:28:PHE:CD1	2.69	0.45
1:Bb:132:LYS:HA	1:Bb:135:GLN:NE2	2.32	0.45
2:Bc:76:VAL:CG2	2:Bc:77:ILE:HG13	2.46	0.45
2:Bc:101:LEU:HD23	2:Bc:101:LEU:C	2.42	0.45
6:Bg:15:ASP:O	6:Bg:19:GLY:HA2	2.16	0.45
6:Bg:125:MET:C	6:Bg:127:ALA:N	2.72	0.45
12:Bm:86:CYS:O	12:Bm:89:GLY:N	2.49	0.45
20:Bu:9:ARG:O	20:Bu:13:ILE:HG13	2.15	0.45
22:Ba:61:G:H2'	22:Ba:62:U:O4'	2.16	0.45
22:Ba:236:G:H2'	22:Ba:237:C:C6	2.52	0.45
22:Ba:560:U:O2'	22:Ba:561:U:OP2	2.32	0.45
22:Ba:768:A:H4'	22:Ba:1523:G:N2	2.31	0.45
22:Ba:1005:A:N6	22:Ba:1025:U:H1'	2.32	0.45
22:Ba:1355:G:O2'	22:Ba:1356:G:H5'	2.16	0.45
24:Bv:69:C:O2'	24:Bv:70:G:H5'	2.17	0.45
28:BE:47:VAL:HG13	28:BE:49:LEU:HD21	1.99	0.45
28:BE:101:ARG:C	28:BE:201:THR:HG22	2.42	0.45
30:BG:70:VAL:HA	30:BG:90:LEU:HD12	1.98	0.45
31:BH:88:LEU:N	31:BH:88:LEU:HD22	2.32	0.45
32:BI:15:VAL:O	32:BI:17:GLN:N	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BI:64:GLU:C	32:BI:66:GLU:H	2.23	0.45
33:BJ:124:ALA:O	33:BJ:125:LEU:C	2.59	0.45
36:BP:62:LEU:HB3	57:BA:2393:A:C5'	2.45	0.45
37:BQ:26:TYR:CD1	37:BQ:26:TYR:C	2.94	0.45
37:BQ:135:ASP:HB2	37:BQ:136:ALA:H	1.63	0.45
40:BT:10:VAL:O	40:BT:11:GLU:C	2.59	0.45
40:BT:53:ARG:O	40:BT:53:ARG:HG3	2.16	0.45
46:BZ:36:LYS:O	46:BZ:36:LYS:HG3	2.15	0.45
46:BZ:162:GLU:HG2	46:BZ:162:GLU:O	2.16	0.45
49:B2:64:LEU:CD2	49:B2:68:ARG:NH1	2.80	0.45
53:B6:14:THR:HG22	53:B6:50:ARG:O	2.17	0.45
55:B8:3:LYS:HE2	57:BA:242:G:O5'	2.16	0.45
55:B8:47:LYS:HD2	55:B8:48:PHE:O	2.15	0.45
57:BA:573:G:O2'	57:BA:574:C:H3'	2.16	0.45
57:BA:582:G:H2'	57:BA:583:G:C8	2.52	0.45
57:BA:962:G:C2'	57:BA:963:U:H5'	2.46	0.45
57:BA:1331:A:O2'	57:BA:1332:G:H5"	2.16	0.45
57:BA:1378:A:C4'	57:BA:1379:A:OP1	2.64	0.45
57:BA:1419:A:H2'	57:BA:1421:G:N7	2.31	0.45
57:BA:1451:C:N3	57:BA:1459:G:O6	2.49	0.45
57:BA:1541:G:H4'	57:BA:1542:A:C4'	2.46	0.45
57:BA:2367:G:O2'	57:BA:2368:C:H5'	2.17	0.45
57:BA:2703:C:H2'	57:BA:2704:C:H6	1.82	0.45
58:BB:16:G:O2'	58:BB:17:C:H5'	2.17	0.45
1:Ab:28:PHE:CD1	1:Ab:28:PHE:O	2.70	0.45
3:Ad:17:VAL:O	3:Ad:18:LYS:C	2.59	0.45
3:Ad:122:ARG:HD2	3:Ad:122:ARG:HA	1.82	0.45
6:Ag:54:THR:O	6:Ag:54:THR:HG23	2.15	0.45
9:Aj:55:LYS:CD	22:Aa:963:G:N2	2.80	0.45
11:Al:23:LYS:O	11:Al:24:VAL:HG23	2.17	0.45
12:Am:33:ALA:HA	12:Am:59:TYR:HE2	1.82	0.45
12:Am:81:LEU:C	12:Am:83:ASP:H	2.24	0.45
12:Am:97:PRO:HA	22:Aa:1308:U:OP1	2.17	0.45
13:An:21:TYR:HD2	13:An:22:THR:O	1.98	0.45
18:As:70:LYS:HG2	22:Aa:1320:C:H5'	1.99	0.45
21:Ay:86:VAL:O	21:Ay:87:TYR:C	2.60	0.45
22:Aa:16:A:C2'	22:Aa:17:U:H5'	2.46	0.45
22:Aa:1010:G:H22	22:Aa:1020:U:H1'	1.82	0.45
26:AC:38:PHE:CD1	57:AA:2127:G:H4'	2.52	0.45
29:AF:132:VAL:HG13	29:AF:133:ASN:N	2.31	0.45
31:AH:75:ALA:O	31:AH:79:VAL:HG22	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:AH:83:TYR:N	31:AH:83:TYR:CD2	2.83	0.45
32:AI:82:ARG:HA	32:AI:145:VAL:CG1	2.46	0.45
36:AP:81:GLN:HB3	36:AP:106:LEU:HD12	1.98	0.45
37:AQ:21:THR:HG21	37:AQ:101:ARG:HD2	1.98	0.45
37:AQ:26:TYR:CD1	37:AQ:26:TYR:C	2.95	0.45
38:AR:76:VAL:CG1	38:AR:77:ARG:N	2.78	0.45
39:AS:25:ARG:NH2	39:AS:40:ILE:HD12	2.32	0.45
40:AT:95:ARG:NH1	57:AA:2849:U:OP2	2.46	0.45
40:AT:98:LYS:HD3	57:AA:2847:U:OP1	2.16	0.45
41:AU:52:ARG:HH11	41:AU:52:ARG:CG	2.30	0.45
46:AZ:23:LYS:HD3	46:AZ:38:TYR:HE1	1.81	0.45
47:A0:42:GLY:O	47:A0:57:PHE:CG	2.70	0.45
51:A4:6:HIS:CD2	51:A4:6:HIS:N	2.83	0.45
55:A8:32:LEU:CB	55:A8:36:LYS:NZ	2.77	0.45
57:AA:1472:A:C2'	57:AA:1473:G:H5'	2.47	0.45
57:AA:1579:A:H2'	57:AA:1580:A:O4'	2.17	0.45
57:AA:2712:U:O2'	57:AA:2712(A):A:P	2.74	0.45
57:AA:2811:G:O2'	57:AA:2812:G:H5'	2.17	0.45
58:AB:62:C:C2	58:AB:63:G:C8	3.04	0.45
58:AB:65:C:N4	58:AB:109:C:H2'	2.31	0.45
3:Bd:8:VAL:C	3:Bd:10:ARG:H	2.25	0.45
5:Bf:8:ILE:HG22	5:Bf:10:LEU:CD1	2.47	0.45
6:Bg:145:ALA:O	6:Bg:146:GLU:CB	2.64	0.45
7:Bh:109:ILE:CG2	7:Bh:137:VAL:HB	2.46	0.45
12:Bm:14:ARG:NH2	12:Bm:16:ASP:OD1	2.50	0.45
12:Bm:111:LYS:O	12:Bm:112:GLY:C	2.58	0.45
14:Bo:25:THR:HB	14:Bo:70:LEU:HD12	1.99	0.45
15:Bp:18:ARG:HD3	15:Bp:35:LYS:HD2	1.98	0.45
18:Bs:25:LYS:O	18:Bs:26:GLY:C	2.60	0.45
19:Bt:41:ILE:HG13	19:Bt:41:ILE:H	1.53	0.45
22:Ba:66:G:H4'	22:Ba:173:U:C5	2.51	0.45
22:Ba:444:C:H2'	22:Ba:445:G:C8	2.52	0.45
22:Ba:832:C:O2'	22:Ba:833:U:P	2.75	0.45
26:BC:52:PRO:HG2	26:BC:53:ARG:H	1.81	0.45
27:BD:65:ILE:HD11	27:BD:67:PHE:CD1	2.51	0.45
28:BE:145:LYS:HB2	57:BA:2572:A:N7	2.32	0.45
30:BG:154:GLY:O	30:BG:155:MET:CB	2.63	0.45
32:BI:113:ARG:HH12	32:BI:132:PRO:CD	2.16	0.45
35:BO:87:ILE:CG2	35:BO:91:LEU:C	2.89	0.45
37:BQ:14:ARG:HG2	37:BQ:41:TRP:CH2	2.50	0.45
38:BR:44:LEU:C	38:BR:44:LEU:HD13	2.41	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BR:56:LYS:O	38:BR:58:GLY:N	2.45	0.45
40:BT:118:ARG:O	40:BT:119:LYS:C	2.60	0.45
41:BU:61:TRP:CE2	41:BU:94:ASN:HA	2.52	0.45
42:BV:19:LYS:CE	42:BV:20:LEU:H	2.27	0.45
43:BW:14:PRO:O	43:BW:16:LYS:N	2.50	0.45
45:BY:27:VAL:HG12	45:BY:28:LYS:H	1.81	0.45
48:B1:19:GLN:O	48:B1:35:THR:HG22	2.16	0.45
50:B3:6:VAL:O	50:B3:6:VAL:HG23	2.16	0.45
51:B4:13:ARG:HB3	51:B4:13:ARG:NH1	2.17	0.45
51:B4:50:VAL:O	51:B4:51:ASP:OD2	2.34	0.45
52:B5:33:CYS:HB3	52:B5:38:ALA:O	2.17	0.45
52:B5:46:CYS:SG	52:B5:47:PRO:CD	3.05	0.45
52:B5:55:ARG:O	52:B5:56:LYS:HE3	2.17	0.45
53:B6:24:GLU:HB3	53:B6:25:LYS:H	1.59	0.45
54:B7:34:ARG:NH1	54:B7:39:ARG:CG	2.80	0.45
57:BA:478:A:N1	57:BA:500:G:H4'	2.31	0.45
57:BA:848:G:C4	57:BA:933:A:H8	2.34	0.45
57:BA:963:U:H2'	57:BA:964:C:C6	2.52	0.45
57:BA:1668:A:H4'	57:BA:1669:A:O5'	2.17	0.45
57:BA:1784:A:H4'	57:BA:1785:A:O5'	2.17	0.45
57:BA:2468:G:O2'	57:BA:2476:A:C8	2.70	0.45
57:BA:2869:G:H2'	57:BA:2870:C:C6	2.51	0.45
1:Ab:12:GLU:O	1:Ab:14:GLY:N	2.50	0.45
1:Ab:58:ILE:HG22	1:Ab:222:ILE:HD11	1.99	0.45
2:Ac:39:ILE:C	2:Ac:41:GLY:N	2.74	0.45
2:Ac:50:ALA:O	2:Ac:70:VAL:HG13	2.17	0.45
5:Af:72:VAL:HG13	5:Af:73:ASN:N	2.31	0.45
11:Al:62:SER:O	11:Al:64:TYR:CD1	2.65	0.45
12:Am:86:CYS:O	12:Am:89:GLY:N	2.50	0.45
12:Am:104:ARG:NH2	22:Aa:952:U:C5	2.85	0.45
18:As:16:LEU:O	18:As:20:LEU:N	2.43	0.45
18:As:25:LYS:O	18:As:26:GLY:C	2.59	0.45
21:Ay:53:ILE:HD12	21:Ay:62:LEU:HD13	1.98	0.45
21:Ay:93:ARG:HD3	21:Ay:93:ARG:HA	1.66	0.45
22:Aa:190:U:O2'	22:Aa:191:G:H5'	2.17	0.45
22:Aa:374:A:C6	22:Aa:375:U:C4	3.05	0.45
22:Aa:950:U:H2'	22:Aa:951:G:H8	1.81	0.45
22:Aa:1347:G:N2	22:Aa:1373:G:C2'	2.67	0.45
22:Aa:1370:G:O2'	22:Aa:1371:G:H5'	2.17	0.45
22:Aa:1439:C:H42	22:Aa:1462:G:H1	1.64	0.45
25:Aw:9:G:O2'	25:Aw:10:G:C8	2.69	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Aw:42:G:O2'	25:Aw:43:A:H5'	2.17	0.45
26:AC:51:ASP:HB3	26:AC:54:ARG:HB2	1.98	0.45
29:AF:192:LEU:CD1	29:AF:194:MET:HE2	2.47	0.45
30:AG:180:PHE:C	30:AG:182:LYS:N	2.75	0.45
31:AH:142:GLY:HA3	57:AA:2745:C:O3'	2.16	0.45
32:AI:113:ARG:O	32:AI:114:LEU:HG	2.17	0.45
36:AP:35:HIS:HA	57:AA:1190:G:H5'	1.98	0.45
36:AP:61:ARG:HD2	36:AP:61:ARG:N	2.32	0.45
36:AP:83:VAL:CG2	36:AP:105:LEU:HD13	2.47	0.45
37:AQ:135:ASP:CG	46:AZ:49:ARG:NH1	2.75	0.45
37:AQ:137:TYR:CZ	46:AZ:81:ARG:CZ	2.99	0.45
40:AT:100:TYR:CD2	40:AT:103:ARG:NH2	2.81	0.45
45:AY:76:CYS:HG	45:AY:77:PRO:HD2	1.74	0.45
46:AZ:44:PHE:CD1	46:AZ:44:PHE:C	2.95	0.45
47:A0:51:VAL:N	47:A0:62:LEU:HD12	2.32	0.45
51:A4:13:ARG:HH11	51:A4:13:ARG:CB	2.20	0.45
53:A6:10:LEU:CD2	53:A6:10:LEU:N	2.79	0.45
54:A7:28:ARG:NH1	54:A7:28:ARG:HG3	2.32	0.45
55:A8:33:ASN:O	57:AA:2420:C:OP2	2.35	0.45
57:AA:271(Q):G:O2'	57:AA:271(R):G:P	2.75	0.45
57:AA:455:C:H3'	57:AA:456:C:H5"	1.98	0.45
57:AA:523:C:H2'	57:AA:524:U:H5'	1.98	0.45
57:AA:582:G:H2'	57:AA:583:G:C8	2.51	0.45
57:AA:972:G:OP2	57:AA:974:G:H5"	2.17	0.45
57:AA:1149:G:H2'	57:AA:1150:C:C6	2.51	0.45
57:AA:1464:C:O2'	57:AA:1528:A:H8	2.00	0.45
57:AA:1827:C:O2'	57:AA:1828:G:H5'	2.17	0.45
57:AA:1862:G:O2'	57:AA:1863:G:H5'	2.16	0.45
57:AA:1958:C:O2'	57:AA:1959:G:H5'	2.17	0.45
58:AB:2:C:H2'	58:AB:3:C:C6	2.52	0.45
1:Bb:58:ILE:HG22	1:Bb:222:ILE:HD11	1.98	0.45
4:Be:11:ILE:HD12	4:Be:31:LEU:HD13	1.98	0.45
5:Bf:89:MET:O	5:Bf:90:VAL:C	2.59	0.45
8:Bi:4:TYR:CZ	8:Bi:59:PHE:HE2	2.35	0.45
8:Bi:43:ALA:HA	8:Bi:74:ILE:HG21	1.97	0.45
9:Bj:16:LEU:CD2	9:Bj:94:VAL:HG13	2.47	0.45
11:Bl:89:ARG:HH11	11:Bl:89:ARG:CB	2.26	0.45
18:Bs:6:LYS:HB2	22:Ba:1313:U:P	2.57	0.45
22:Ba:139:G:O2'	22:Ba:140:A:H5'	2.17	0.45
23:Bx:18:G:O2'	23:Bx:19:OMU:P	2.75	0.45
26:BC:40:GLU:O	26:BC:178:LYS:HE3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BD:7:LYS:HE3	57:BA:706:A:OP1	2.16	0.45
27:BD:61:LEU:HD12	27:BD:61:LEU:HA	1.86	0.45
28:BE:143:ASN:HD21	57:BA:2513:G:N2	2.15	0.45
30:BG:66:GLN:HG2	51:B4:1:MET:HG3	1.99	0.45
35:BO:64:ARG:HB2	35:BO:83:ALA:HB3	1.99	0.45
38:BR:103:ARG:NH1	38:BR:110:PRO:HB3	2.32	0.45
39:BS:105:ALA:C	39:BS:107:GLU:N	2.72	0.45
40:BT:30:VAL:HG12	40:BT:44:ASP:OD2	2.16	0.45
41:BU:85:LYS:C	41:BU:87:GLY:N	2.74	0.45
50:B3:28:LEU:HA	50:B3:33:GLN:OE1	2.17	0.45
57:BA:64:A:O2'	57:BA:65:C:H5'	2.16	0.45
57:BA:1286:A:C6	57:BA:1289:C:C2	3.05	0.45
57:BA:2064:C:H2'	57:BA:2065:C:C6	2.52	0.45
58:BB:94:C:O2'	58:BB:95:C:H5'	2.17	0.45
1:Ab:201:ILE:HG21	1:Ab:214:ILE:HG21	1.99	0.45
1:Ab:219:VAL:HA	1:Ab:222:ILE:HB	1.98	0.45
4:Ae:7:GLU:O	4:Ae:8:GLU:CB	2.65	0.45
4:Ae:101:ILE:O	4:Ae:101:ILE:HG12	2.17	0.45
6:Ag:26:PHE:CD2	6:Ag:62:PHE:HE1	2.35	0.45
11:Al:83:VAL:CG1	11:Al:84:LEU:N	2.79	0.45
12:Am:88:ARG:CA	12:Am:98:VAL:HG11	2.38	0.45
15:Ap:17:TYR:CE2	22:Aa:375:U:H4'	2.51	0.45
17:Ar:50:ILE:HG22	17:Ar:51:LEU:N	2.32	0.45
18:As:6:LYS:HB2	22:Aa:1313:U:P	2.57	0.45
18:As:67:VAL:HG23	18:As:68:GLY:N	2.26	0.45
19:At:92:LEU:C	19:At:94:ALA:N	2.75	0.45
21:Ay:33:VAL:HG23	21:Ay:34:LEU:N	2.32	0.45
21:Ay:43:LYS:HE2	22:Aa:1493:A:C2'	2.45	0.45
22:Aa:186:C:O2'	22:Aa:187:C:H5'	2.17	0.45
22:Aa:262:A:H2'	22:Aa:263:A:C8	2.52	0.45
22:Aa:832:C:O2'	22:Aa:833:U:P	2.75	0.45
22:Aa:1005:A:N6	22:Aa:1025:U:H1'	2.32	0.45
22:Aa:1104:G:H2'	22:Aa:1105:A:H8	1.82	0.45
25:Aw:17(A):U:H5'	57:AA:2180:U:O2'	2.17	0.45
26:AC:181:PHE:HD2	26:AC:185:LYS:HB3	1.82	0.45
27:AD:94:LEU:HD22	27:AD:95:LEU:N	2.31	0.45
30:AG:91:ARG:HD2	30:AG:91:ARG:O	2.17	0.45
30:AG:161:THR:HG22	30:AG:162:THR:N	2.32	0.45
34:AN:2:LYS:O	34:AN:4:TYR:CZ	2.70	0.45
36:AP:50:ARG:HG3	36:AP:51:PHE:N	2.33	0.45
37:AQ:134:ARG:CD	46:AZ:122:ARG:HH21	2.29	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:AR:4:LEU:O	38:AR:5:LYS:HG2	2.16	0.45
40:AT:54:ARG:HG2	40:AT:54:ARG:NH1	2.31	0.45
40:AT:117:ASP:O	40:AT:118:ARG:C	2.60	0.45
41:AU:92:ARG:HB3	42:AV:11:GLN:NE2	2.32	0.45
43:AW:78:GLU:OE2	43:AW:99:ARG:HD2	2.17	0.45
45:AY:20:TYR:CZ	45:AY:42:VAL:HA	2.52	0.45
45:AY:28:LYS:O	45:AY:38:ILE:HB	2.17	0.45
49:A2:2:LYS:HB3	57:AA:98:G:P	2.57	0.45
50:A3:19:GLN:NE2	50:A3:52:HIS:CE1	2.85	0.45
57:AA:774:A:H2	57:AA:787:U:O2'	2.01	0.45
57:AA:1697:G:H3'	57:AA:1698:A:C5'	2.47	0.45
57:AA:2405:G:HO2'	57:AA:2406:U:P	2.39	0.45
57:AA:2464:C:O2'	57:AA:2465:C:O5'	2.35	0.45
1:Bb:15:VAL:HG23	1:Bb:16:HIS:CE1	2.51	0.45
3:Bd:4:TYR:O	3:Bd:5:ILE:CB	2.65	0.45
3:Bd:173:TRP:CZ3	3:Bd:193:ASP:HB3	2.52	0.45
3:Bd:177:ASP:OD1	3:Bd:179:GLU:HB2	2.17	0.45
4:Be:101:ILE:HG12	4:Be:101:ILE:O	2.17	0.45
9:Bj:8:LEU:CD2	9:Bj:96:ILE:HG22	2.41	0.45
10:Bk:65:ALA:HB1	10:Bk:98:LEU:CD2	2.47	0.45
10:Bk:99:GLN:HG2	10:Bk:105:VAL:CG2	2.44	0.45
11:Bl:27:LEU:HB2	11:Bl:33:ARG:HD2	1.99	0.45
11:Bl:75:HIS:HD2	11:Bl:77:LEU:H	1.61	0.45
12:Bm:65:LYS:O	12:Bm:70:LEU:CD1	2.62	0.45
12:Bm:97:PRO:CA	12:Bm:110:ARG:HD3	2.47	0.45
12:Bm:100:GLY:C	12:Bm:101:GLN:HG3	2.42	0.45
21:By:14:GLU:CB	21:By:78:VAL:HG13	2.47	0.45
22:Ba:189(A):C:H2'	22:Ba:189(B):C:C6	2.52	0.45
22:Ba:539:A:H2'	22:Ba:540:G:H8	1.83	0.45
26:BC:6:LYS:HA	26:BC:9:ARG:CB	2.47	0.45
26:BC:45:HIS:CB	57:BA:2177:C:H1'	2.47	0.45
27:BD:13:ARG:NH1	57:BA:729:G:OP2	2.50	0.45
27:BD:244:ARG:HG3	57:BA:1902:C:C1'	2.48	0.45
30:BG:55:LYS:HA	30:BG:58:GLN:NE2	2.33	0.45
30:BG:69:ALA:O	30:BG:70:VAL:C	2.59	0.45
31:BH:85:LYS:CD	31:BH:133:VAL:HB	2.46	0.45
35:BO:2:ILE:HD11	35:BO:82:ASN:ND2	2.32	0.45
36:BP:15:ARG:HD2	57:BA:598:G:H5'	1.99	0.45
36:BP:27:HIS:HD2	36:BP:28:GLY:N	2.15	0.45
36:BP:88:LEU:O	36:BP:90:ARG:N	2.50	0.45
40:BT:6:LEU:O	40:BT:6:LEU:HD23	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BT:129:ARG:NH2	40:BT:131:ALA:CB	2.79	0.45
41:BU:60:LEU:O	41:BU:64:ARG:HG2	2.17	0.45
42:BV:18:LEU:CG	42:BV:19:LYS:H	2.29	0.45
43:BW:28:SER:C	43:BW:30:GLU:N	2.73	0.45
45:BY:52:SER:O	45:BY:53:PRO:C	2.59	0.45
46:BZ:149:SER:OG	46:BZ:150:LEU:N	2.50	0.45
47:B0:55:ARG:HE	47:B0:55:ARG:HB3	1.51	0.45
48:B1:51:VAL:HG22	48:B1:52:ARG:N	2.32	0.45
48:B1:71:TYR:O	48:B1:74:VAL:N	2.48	0.45
49:B2:33:MET:O	49:B2:37:PHE:HD1	2.00	0.45
49:B2:50:ILE:O	49:B2:51:ARG:C	2.59	0.45
51:B4:16:CYS:SG	51:B4:17:GLY:N	2.90	0.45
57:BA:545:C:H3'	57:BA:547:A:C5'	2.40	0.45
57:BA:774:A:H2	57:BA:787:U:O2'	2.00	0.45
57:BA:1204:A:H2	57:BA:1241:A:N1	2.15	0.45
2:Ac:71:ALA:HB3	2:Ac:109:PRO:HB3	1.98	0.44
2:Ac:196:LEU:CD2	2:Ac:196:LEU:H	2.30	0.44
3:Ad:8:VAL:C	3:Ad:10:ARG:H	2.24	0.44
6:Ag:145:ALA:O	6:Ag:146:GLU:CB	2.65	0.44
6:Ag:146:GLU:O	6:Ag:149:ARG:HB2	2.17	0.44
7:Ah:109:ILE:HG12	7:Ah:110:ALA:H	1.80	0.44
9:Aj:48:THR:HG21	22:Aa:975:A:H61	1.82	0.44
10:Ak:43:SER:HB3	10:Ak:68:ALA:HB2	1.98	0.44
12:Am:4:ILE:CG2	12:Am:5:ALA:H	2.25	0.44
19:At:41:ILE:HG13	19:At:41:ILE:H	1.55	0.44
21:Ay:35:GLU:O	21:Ay:35:GLU:HG2	2.17	0.44
22:Aa:539:A:H2'	22:Aa:540:G:H8	1.80	0.44
22:Aa:674:G:H2'	22:Aa:675:A:H8	1.82	0.44
22:Aa:858:G:O6	22:Aa:869:G:H3'	2.17	0.44
22:Aa:1065:U:O2'	22:Aa:1066:C:OP2	2.34	0.44
22:Aa:1468:A:H2'	22:Aa:1469:G:O4'	2.16	0.44
28:AE:59:VAL:CG1	28:AE:63:LEU:HG	2.48	0.44
28:AE:110:GLY:HA3	28:AE:162:ALA:HB2	1.99	0.44
29:AF:9:ILE:HG22	29:AF:9:ILE:O	2.17	0.44
30:AG:138:GLN:NE2	30:AG:149:VAL:HG23	2.32	0.44
31:AH:154:PRO:O	31:AH:156:ALA:N	2.50	0.44
36:AP:113:LYS:HA	36:AP:129:ALA:O	2.17	0.44
37:AQ:66:ILE:HG22	37:AQ:104:PHE:CE2	2.52	0.44
38:AR:103:ARG:HD3	43:AW:40:ASN:ND2	2.32	0.44
39:AS:16:ASN:C	39:AS:18:ILE:N	2.75	0.44
39:AS:90:GLY:O	39:AS:92:TYR:HD1	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:AS:106:ARG:NH1	39:AS:107:GLU:O	2.51	0.44
40:AT:13:ARG:NH1	40:AT:13:ARG:CA	2.68	0.44
40:AT:19:LEU:HB3	40:AT:85:LYS:HD3	1.98	0.44
40:AT:78:LEU:HB3	40:AT:79:HIS:CE1	2.52	0.44
42:AV:25:LEU:O	42:AV:27:ALA:N	2.49	0.44
45:AY:50:ARG:O	45:AY:50:ARG:HD2	2.17	0.44
45:AY:81:LYS:CD	45:AY:96:ILE:HG22	2.48	0.44
46:AZ:51:ALA:CB	46:AZ:57:ILE:HD11	2.36	0.44
46:AZ:69:THR:CG2	46:AZ:90:VAL:HG13	2.46	0.44
49:A2:2:LYS:CB	57:AA:97:C:H5"	2.47	0.44
53:A6:10:LEU:O	53:A6:54:ILE:O	2.36	0.44
57:AA:530:G:C5	57:AA:2022:U:H5"	2.52	0.44
57:AA:573:G:O2'	57:AA:574:C:H3'	2.17	0.44
57:AA:676:A:H2	57:AA:802:A:N6	2.06	0.44
57:AA:1542:A:C8	57:AA:1542:A:H3'	2.51	0.44
57:AA:1902:C:C2'	57:AA:1903:G:O5'	2.65	0.44
57:AA:2014:A:H2'	57:AA:2015:A:C8	2.53	0.44
57:AA:2162:G:H5'	57:AA:2173:A:H5'	2.00	0.44
57:AA:2777:G:H5"	57:AA:2778:A:C5'	2.47	0.44
1:Bb:24:TRP:CE3	1:Bb:26:PRO:HA	2.52	0.44
1:Bb:77:ALA:HA	1:Bb:80:ILE:HD13	1.99	0.44
2:Bc:71:ALA:HB3	2:Bc:109:PRO:HB3	1.98	0.44
3:Bd:90:GLY:CA	3:Bd:204:ILE:HD11	2.47	0.44
6:Bg:23:VAL:HG13	6:Bg:43:PHE:CE2	2.52	0.44
7:Bh:6:ILE:O	7:Bh:7:ALA:C	2.60	0.44
7:Bh:65:TYR:CD1	7:Bh:65:TYR:N	2.85	0.44
10:Bk:37:GLY:O	10:Bk:39:PRO:HD3	2.17	0.44
11:Bl:110:VAL:HG21	11:Bl:120:TYR:HB3	1.98	0.44
12:Bm:61:GLU:HA	12:Bm:66:LEU:HD11	1.99	0.44
12:Bm:81:LEU:C	12:Bm:83:ASP:H	2.24	0.44
12:Bm:93:ARG:HA	12:Bm:93:ARG:HE	1.82	0.44
15:Bp:63:GLY:HA3	22:Ba:137:C:H1'	1.99	0.44
19:Bt:81:LYS:C	19:Bt:83:ARG:N	2.73	0.44
21:By:94:ILE:O	21:By:95:LEU:C	2.59	0.44
22:Ba:204:U:O2	22:Ba:204:U:H2'	2.15	0.44
22:Ba:651:C:O2'	22:Ba:652:U:H5'	2.17	0.44
28:BE:108:SER:O	28:BE:162:ALA:HA	2.17	0.44
29:BF:132:VAL:HG13	29:BF:133:ASN:N	2.32	0.44
30:BG:39:ILE:HG12	30:BG:92:VAL:CG1	2.46	0.44
31:BH:70:THR:O	31:BH:72:ILE:N	2.50	0.44
31:BH:75:ALA:O	31:BH:79:VAL:HG22	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BN:46:VAL:O	34:BN:47:ALA:CB	2.65	0.44
36:BP:106:LEU:HB3	36:BP:107:LYS:H	1.65	0.44
38:BR:76:VAL:CG1	38:BR:77:ARG:N	2.78	0.44
39:BS:103:GLU:O	39:BS:104:GLY:C	2.60	0.44
40:BT:19:LEU:HD22	40:BT:85:LYS:HG3	1.99	0.44
40:BT:65:LYS:O	40:BT:72:VAL:N	2.39	0.44
40:BT:78:LEU:HB3	40:BT:79:HIS:CE1	2.52	0.44
41:BU:6:THR:O	41:BU:9:VAL:HG23	2.17	0.44
45:BY:52:SER:N	45:BY:53:PRO:HD2	2.32	0.44
46:BZ:10:ARG:HD2	46:BZ:36:LYS:HD3	1.99	0.44
48:B1:26:ARG:HG2	48:B1:26:ARG:O	2.17	0.44
57:BA:30:G:H2'	57:BA:31:C:C6	2.52	0.44
57:BA:268:C:O2	57:BA:268:C:H2'	2.16	0.44
57:BA:646:A:H2'	57:BA:647:G:O4'	2.17	0.44
57:BA:903:C:C2'	57:BA:904:C:C5'	2.79	0.44
57:BA:1717:G:C3'	57:BA:1718:G:H5"	2.47	0.44
57:BA:1907:G:O2'	57:BA:1908:C:H5'	2.17	0.44
57:BA:2555:U:C2'	57:BA:2556:C:H5'	2.46	0.44
3:Ad:127:THR:HA	3:Ad:132:ARG:HA	1.99	0.44
4:Ae:126:ARG:HG3	4:Ae:126:ARG:NH1	2.33	0.44
5:Af:9:VAL:HB	5:Af:87:ARG:HB2	2.00	0.44
6:Ag:74:GLU:O	6:Ag:88:PRO:HA	2.18	0.44
8:Ai:15:ALA:HA	8:Ai:65:VAL:HA	1.99	0.44
10:Ak:19:ALA:HB3	10:Ak:82:VAL:HG22	1.99	0.44
11:Al:47:LYS:HD2	11:Al:47:LYS:C	2.42	0.44
12:Am:16:ASP:OD2	12:Am:17:VAL:HG23	2.17	0.44
12:Am:108:ARG:N	12:Am:108:ARG:HD2	2.31	0.44
13:An:45:ARG:HH22	22:Aa:1060:C:H5'	1.81	0.44
16:Aq:27:PHE:CE1	16:Aq:36:ILE:HD11	2.51	0.44
17:Ar:37:VAL:O	17:Ar:41:LYS:HB2	2.16	0.44
18:As:14:HIS:O	18:As:18:LYS:HB2	2.17	0.44
21:Ay:13:LYS:NZ	22:Aa:957:U:O4	2.24	0.44
21:Ay:79:GLY:H	21:Ay:86:VAL:CG1	2.29	0.44
22:Aa:516:U:O2'	22:Aa:517:G:H5'	2.17	0.44
22:Aa:696:A:O2'	22:Aa:697:U:H5'	2.18	0.44
22:Aa:1061:G:C6	22:Aa:1197:G:C6	3.05	0.44
22:Aa:1131:G:N7	22:Aa:1132:C:N4	2.65	0.44
22:Aa:1312:G:N2	22:Aa:1326:C:C2	2.86	0.44
22:Aa:1333:A:C2	22:Aa:1334:G:H1'	2.52	0.44
24:Av:65:C:H2'	24:Av:66:C:H5'	2.00	0.44
25:Aw:53:G:H2'	25:Aw:54:U:C6	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:AC:175:PRO:HG3	57:AA:2124:G:H5"	1.98	0.44
27:AD:241:PRO:O	27:AD:242:ARG:HB2	2.17	0.44
28:AE:73:GLU:HA	28:AE:74:PRO:HD3	1.64	0.44
29:AF:59:TYR:HE2	57:AA:470:A:OP1	2.01	0.44
32:AI:72:LEU:O	32:AI:138:ILE:HD11	2.17	0.44
34:AN:65:LYS:HD2	34:AN:69:GLN:NE2	2.32	0.44
35:AO:13:ASN:ND2	35:AO:97:ARG:N	2.66	0.44
35:AO:57:VAL:HG11	57:AA:2561:A:H5"	1.98	0.44
38:AR:56:LYS:O	38:AR:58:GLY:N	2.45	0.44
38:AR:82:GLU:O	38:AR:85:PRO:HD2	2.17	0.44
40:AT:20:PRO:HD2	40:AT:85:LYS:HB2	1.99	0.44
46:AZ:128:VAL:CB	46:AZ:161:VAL:HG22	2.44	0.44
48:A1:3:LYS:HB3	48:A1:61:ARG:HH21	1.82	0.44
50:A3:8:LEU:HD22	50:A3:8:LEU:C	2.42	0.44
57:AA:448:U:O4	57:AA:583:G:H1'	2.17	0.44
57:AA:874:G:O2'	57:AA:875:G:H5'	2.17	0.44
57:AA:909:A:H2'	57:AA:912:C:H5	1.81	0.44
57:AA:1150:C:O2'	57:AA:1151:G:H5'	2.16	0.44
57:AA:1209:G:H21	57:AA:1210:A:N6	2.14	0.44
57:AA:1469:A:O2'	57:AA:1470:G:H5'	2.17	0.44
57:AA:1899:G:N2	57:AA:1902:C:C4	2.85	0.44
57:AA:2262:U:H4'	57:AA:2328:A:C2	2.52	0.44
57:AA:2294:C:N4	57:AA:2338:G:H1	2.15	0.44
57:AA:2308:G:C8	57:AA:2309:A:H3'	2.52	0.44
1:Bb:9:GLU:HA	1:Bb:12:GLU:OE1	2.17	0.44
1:Bb:18:GLY:HA2	1:Bb:42:ILE:HG22	1.98	0.44
3:Bd:18:LYS:HE2	3:Bd:31:CYS:CB	2.47	0.44
7:Bh:84:ARG:O	7:Bh:135:CYS:HB2	2.16	0.44
8:Bi:19:LEU:HD23	8:Bi:61:ALA:CA	2.46	0.44
8:Bi:69:GLY:O	8:Bi:70:LYS:C	2.60	0.44
10:Bk:21:ILE:HD13	10:Bk:82:VAL:HG13	2.00	0.44
15:Bp:8:ARG:HH11	15:Bp:8:ARG:HG2	1.82	0.44
16:Bq:66:SER:C	16:Bq:67:LYS:O	2.59	0.44
17:Br:84:LYS:HA	17:Br:84:LYS:HD3	1.82	0.44
19:Bt:104:LEU:HD23	19:Bt:104:LEU:C	2.43	0.44
22:Ba:328:C:O2'	22:Ba:329:A:P	2.75	0.44
22:Ba:1262:C:H2'	22:Ba:1263:C:H6	1.81	0.44
22:Ba:1347:G:H21	22:Ba:1373:G:H2'	1.71	0.44
26:BC:175:PRO:HG3	57:BA:2124:G:H5"	1.99	0.44
27:BD:72:LYS:HD3	27:BD:97:TYR:CD2	2.53	0.44
28:BE:34:VAL:CG2	28:BE:48:GLN:HE21	2.30	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BF:20:LEU:HD13	29:BF:203:GLN:OE1	2.18	0.44
29:BF:114:VAL:O	29:BF:115:ALA:C	2.61	0.44
30:BG:125:PHE:HB3	30:BG:166:ASP:HB2	1.99	0.44
35:BO:22:ILE:HG23	57:BA:1952:A:C2	2.52	0.44
35:BO:102:VAL:HG22	35:BO:121:VAL:HG22	1.99	0.44
36:BP:34:GLY:O	36:BP:35:HIS:HB2	2.16	0.44
36:BP:114:ILE:O	36:BP:130:PHE:HA	2.17	0.44
40:BT:70:VAL:HG12	40:BT:71:GLY:H	1.81	0.44
41:BU:55:ARG:NH1	57:BA:1155:A:O3'	2.50	0.44
45:BY:13:VAL:CG2	45:BY:28:LYS:NZ	2.77	0.44
46:BZ:80:ARG:O	46:BZ:81:ARG:C	2.60	0.44
47:B0:21:LEU:HD21	47:B0:41:ARG:NH1	2.32	0.44
49:B2:43:GLN:O	49:B2:44:LEU:HB2	2.16	0.44
57:BA:280:C:N3	57:BA:361:G:N2	2.65	0.44
57:BA:296:C:C2'	57:BA:297:C:H5'	2.46	0.44
57:BA:541:C:O2'	57:BA:542:C:H5'	2.18	0.44
57:BA:889:C:O2'	57:BA:890:A:O5'	2.31	0.44
57:BA:1028:A:N6	57:BA:1125:G:H2'	2.32	0.44
57:BA:1316:U:H2'	57:BA:1317:A:H8	1.82	0.44
57:BA:1899:G:N2	57:BA:1902:C:C5	2.85	0.44
57:BA:2762:G:C2'	57:BA:2763:G:H5'	2.47	0.44
1:Ab:23:ARG:HH11	1:Ab:23:ARG:HG3	1.82	0.44
1:Ab:178:ARG:HG2	1:Ab:178:ARG:NH1	2.32	0.44
2:Ac:52:LEU:H	2:Ac:52:LEU:CD2	2.28	0.44
2:Ac:148:GLY:HA3	2:Ac:203:PHE:HB3	1.98	0.44
3:Ad:195:ALA:C	3:Ad:196:LEU:HD12	2.43	0.44
5:Af:55:ASP:HB2	5:Af:86:ARG:NH1	2.28	0.44
8:Ai:4:TYR:CZ	8:Ai:59:PHE:HE2	2.35	0.44
8:Ai:19:LEU:HD23	8:Ai:61:ALA:CA	2.47	0.44
9:Aj:4:ILE:HB	9:Aj:74:ILE:HD11	1.98	0.44
9:Aj:34:VAL:HG13	9:Aj:73:ASP:O	2.17	0.44
9:Aj:49:VAL:HG21	13:An:41:ARG:CB	2.47	0.44
9:Aj:51:ARG:NE	9:Aj:61:GLU:HB2	2.32	0.44
10:Ak:21:ILE:HD13	10:Ak:82:VAL:HG13	2.00	0.44
12:Am:14:ARG:NH2	12:Am:16:ASP:OD1	2.50	0.44
12:Am:86:CYS:HB2	18:As:73:GLU:HG2	2.00	0.44
12:Am:115:LYS:HB2	22:Aa:1227:A:HO2'	1.82	0.44
18:As:19:VAL:O	18:As:22:LEU:HB2	2.18	0.44
21:Ay:3:TYR:HA	21:Ay:71:VAL:HG12	1.98	0.44
22:Aa:84:U:O2'	22:Aa:88:A:H5'	2.17	0.44
22:Aa:114:U:H2'	22:Aa:115:G:C8	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Aa:364:A:H2'	22:Aa:365:U:O2	2.18	0.44
22:Aa:628:G:O2'	22:Aa:629:G:H5'	2.18	0.44
22:Aa:759:A:C2'	22:Aa:760:G:H5'	2.47	0.44
22:Aa:939:G:H2'	22:Aa:940:C:H6	1.83	0.44
22:Aa:959:A:C2	22:Aa:1222:G:O4'	2.71	0.44
24:Av:4:G:O2'	24:Av:5:G:P	2.75	0.44
26:AC:48:LEU:CD1	26:AC:172:ILE:HB	2.47	0.44
28:AE:47:VAL:HG13	28:AE:49:LEU:HD21	1.98	0.44
30:AG:105:LYS:CE	51:A4:26:SER:HB3	2.46	0.44
30:AG:113:ARG:O	30:AG:114:ILE:HG13	2.18	0.44
30:AG:114:ILE:HG12	30:AG:140:ILE:HG21	1.99	0.44
32:AI:14:ASP:O	32:AI:15:VAL:O	2.35	0.44
32:AI:101:LEU:HG	32:AI:107:VAL:HB	1.98	0.44
34:AN:55:VAL:HG22	34:AN:126:PRO:CA	2.47	0.44
34:AN:59:LYS:O	34:AN:60:ILE:C	2.60	0.44
36:AP:133:SER:HB3	57:AA:637:A:OP1	2.18	0.44
36:AP:146:VAL:CG2	36:AP:147:LEU:N	2.77	0.44
37:AQ:19:GLY:O	37:AQ:20:ALA:CB	2.65	0.44
38:AR:85:PRO:O	38:AR:87:TYR:N	2.51	0.44
38:AR:87:TYR:OH	38:AR:116:LEU:O	2.30	0.44
40:AT:107:ASP:H	40:AT:110:ILE:HG12	1.82	0.44
45:AY:4:LYS:HD2	45:AY:32:PRO:CG	2.48	0.44
46:AZ:71:VAL:HG22	46:AZ:88:PHE:CE2	2.52	0.44
46:AZ:102:LEU:CD2	46:AZ:124:ILE:HD11	2.46	0.44
46:AZ:153:SER:O	46:AZ:155:LEU:N	2.41	0.44
47:A0:41:ARG:HG3	57:AA:2329:G:H21	1.82	0.44
51:A4:13:ARG:HB3	51:A4:13:ARG:NH1	2.18	0.44
52:A5:3:LYS:HD2	52:A5:5:PRO:HD2	1.99	0.44
53:A6:41:PRO:HD3	53:A6:47:THR:HG22	1.98	0.44
57:AA:143:G:H2'	57:AA:143(A):C:C6	2.52	0.44
57:AA:192:C:H2'	57:AA:193:U:H5'	1.99	0.44
57:AA:280:C:H2'	57:AA:281:G:H5'	1.98	0.44
57:AA:476:G:H4'	57:AA:502:A:N1	2.33	0.44
57:AA:809:G:O2'	57:AA:810:U:H5'	2.17	0.44
57:AA:1112:G:O2'	57:AA:1113:U:H6	1.99	0.44
57:AA:1668:A:H4'	57:AA:1669:A:O5'	2.17	0.44
57:AA:2399:G:H2'	57:AA:2400:G:O4'	2.16	0.44
57:AA:2787:C:O2	57:AA:2787:C:H2'	2.18	0.44
1:Bb:201:ILE:HG21	1:Bb:214:ILE:HG21	1.98	0.44
3:Bd:11:LEU:O	3:Bd:12:CYS:C	2.60	0.44
3:Bd:28:SER:HB3	3:Bd:29:PRO:HD2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Bd:196:LEU:HD12	3:Bd:196:LEU:N	2.32	0.44
4:Be:6:PHE:HB3	4:Be:35:GLY:C	2.42	0.44
7:Bh:30:ARG:NH1	7:Bh:30:ARG:CB	2.80	0.44
8:Bi:15:ALA:HB2	8:Bi:65:VAL:CG2	2.46	0.44
8:Bi:126:SER:O	8:Bi:128:ARG:HD3	2.18	0.44
13:Bn:4:LYS:O	13:Bn:7:ILE:HG12	2.18	0.44
14:Bo:17:ARG:HH11	14:Bo:17:ARG:HG3	1.82	0.44
16:Bq:45:HIS:CG	16:Bq:65:ILE:HD13	2.53	0.44
16:Bq:60:ILE:O	16:Bq:60:ILE:HG23	2.17	0.44
21:By:43:LYS:NZ	57:BA:1913:A:H2	2.15	0.44
22:Ba:114:U:O2'	22:Ba:115:G:H5'	2.16	0.44
22:Ba:976:G:C8	22:Ba:1358:U:C2	3.05	0.44
26:BC:191:ARG:HH11	26:BC:191:ARG:HG3	1.81	0.44
27:BD:27:THR:CG2	27:BD:27:THR:O	2.64	0.44
27:BD:48:ARG:HG3	27:BD:48:ARG:HH11	1.81	0.44
33:BJ:41:ARG:HA	33:BJ:54:ALA:HB2	1.95	0.44
34:BN:55:VAL:HG22	34:BN:126:PRO:CA	2.47	0.44
37:BQ:21:THR:O	37:BQ:21:THR:CG2	2.63	0.44
41:BU:111:GLU:OE2	41:BU:111:GLU:HA	2.16	0.44
43:BW:78:GLU:OE2	43:BW:99:ARG:HD2	2.17	0.44
43:BW:96:ILE:HG12	57:BA:2012:G:O3'	2.17	0.44
44:BX:29:TRP:CZ2	44:BX:76:ARG:NH2	2.85	0.44
46:BZ:3:TYR:HB2	46:BZ:56:VAL:O	2.17	0.44
47:B0:51:VAL:N	47:B0:62:LEU:HD12	2.32	0.44
48:B1:35:THR:OG1	57:BA:2079:U:O3'	2.35	0.44
57:BA:292:C:O2'	57:BA:293:U:H5'	2.16	0.44
57:BA:862:G:H2'	57:BA:863:A:O4'	2.17	0.44
57:BA:1579:A:H2'	57:BA:1580:A:O4'	2.16	0.44
57:BA:1712:C:H2'	57:BA:1713:U:H6	1.81	0.44
1:Ab:42:ILE:HD11	1:Ab:202:PRO:C	2.43	0.44
1:Ab:189:ASP:OD1	1:Ab:189:ASP:N	2.46	0.44
3:Ad:25:ARG:C	3:Ad:27:TYR:N	2.75	0.44
6:Ag:148:ASN:ND2	25:Aw:40:C:H4'	2.33	0.44
9:Aj:51:ARG:HE	9:Aj:61:GLU:HB2	1.80	0.44
11:Al:83:VAL:HG13	11:Al:100:ILE:HG23	1.99	0.44
13:An:21:TYR:CE2	13:An:23:ARG:NH2	2.86	0.44
21:Ay:12:LEU:O	21:Ay:13:LYS:C	2.60	0.44
22:Aa:1251:A:H1'	22:Aa:1369:C:O2'	2.18	0.44
26:AC:52:PRO:HG2	26:AC:53:ARG:H	1.82	0.44
32:AI:130:TYR:O	32:AI:135:GLU:HB2	2.18	0.44
33:AJ:88:ALA:C	33:AJ:90:ALA:N	2.75	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:AP:114:ILE:O	36:AP:130:PHE:HA	2.18	0.44
37:AQ:55:VAL:HG12	37:AQ:64:ILE:CD1	2.47	0.44
39:AS:42:ASP:O	39:AS:43:GLU:HB2	2.17	0.44
39:AS:103:GLU:O	39:AS:104:GLY:C	2.60	0.44
41:AU:112:ARG:HH22	42:AV:46:VAL:CG1	2.30	0.44
45:AY:44:ILE:O	45:AY:62:GLU:OE1	2.36	0.44
46:AZ:146:ILE:HD12	57:AA:896:A:C2	2.52	0.44
48:A1:7:ILE:HG22	48:A1:8:SER:N	2.31	0.44
51:A4:16:CYS:SG	51:A4:36:CYS:SG	3.12	0.44
55:A8:4:MET:HG3	55:A8:61:LEU:CD1	2.41	0.44
57:AA:64:A:O2'	57:AA:65:C:H5'	2.18	0.44
57:AA:150:C:H2'	57:AA:151:C:C6	2.52	0.44
57:AA:418:G:O2'	57:AA:419:C:H5'	2.17	0.44
57:AA:528:A:N1	57:AA:2043:C:O5'	2.50	0.44
57:AA:1784:A:H4'	57:AA:1785:A:C5'	2.48	0.44
57:AA:1853:A:N1	57:AA:2087:G:H1'	2.33	0.44
57:AA:2030:A:H4'	57:AA:2031:A:H8	1.83	0.44
57:AA:2077:A:H2'	57:AA:2078:C:H6	1.81	0.44
57:AA:2612:C:C5	57:AA:2613:U:H5	2.35	0.44
57:AA:2682:U:H5'	57:AA:2682:U:H6	1.83	0.44
1:Bb:22:LYS:H	1:Bb:40:HIS:CE1	2.35	0.44
1:Bb:223:ILE:HG12	1:Bb:226:ARG:HH21	1.83	0.44
3:Bd:17:VAL:O	3:Bd:18:LYS:C	2.60	0.44
4:Be:68:GLU:O	4:Be:68:GLU:CG	2.62	0.44
4:Be:78:HIS:HD2	7:Bh:104:ARG:HG3	1.82	0.44
5:Bf:61:LEU:O	5:Bf:62:TRP:CB	2.66	0.44
9:Bj:3:LYS:HZ2	9:Bj:76:ASN:HA	1.82	0.44
9:Bj:39:PRO:HB3	9:Bj:70:ARG:NH1	2.32	0.44
9:Bj:44:VAL:HG11	9:Bj:46:ARG:HE	1.80	0.44
12:Bm:33:ALA:HA	12:Bm:59:TYR:HE2	1.83	0.44
12:Bm:63:THR:HG22	12:Bm:64:TRP:N	2.33	0.44
16:Bq:27:PHE:CE1	16:Bq:36:ILE:HD11	2.52	0.44
22:Ba:149:A:O2'	22:Ba:150:C:C6	2.66	0.44
22:Ba:448:A:P	22:Ba:485:G:H22	2.41	0.44
22:Ba:759:A:C2'	22:Ba:760:G:H5'	2.45	0.44
27:BD:26:LYS:O	27:BD:27:THR:CB	2.65	0.44
27:BD:28:GLU:H	27:BD:29:PRO:CD	2.22	0.44
28:BE:59:VAL:CG1	28:BE:63:LEU:HG	2.47	0.44
30:BG:66:GLN:CG	51:B4:1:MET:HG3	2.47	0.44
30:BG:107:LEU:HD21	30:BG:178:PHE:CD2	2.52	0.44
30:BG:130:ASN:CG	30:BG:160:VAL:HG13	2.43	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BG:162:THR:HG22	30:BG:162:THR:O	2.16	0.44
31:BH:7:LEU:CB	31:BH:69:ARG:HD2	2.48	0.44
32:BI:14:ASP:O	32:BI:15:VAL:O	2.36	0.44
35:BO:10:VAL:HG13	35:BO:17:ARG:C	2.43	0.44
35:BO:13:ASN:ND2	35:BO:97:ARG:N	2.66	0.44
35:BO:13:ASN:O	35:BO:15:GLY:N	2.50	0.44
36:BP:16:ARG:NH1	36:BP:16:ARG:CB	2.80	0.44
36:BP:16:ARG:O	36:BP:18:ARG:N	2.51	0.44
37:BQ:133:ARG:O	37:BQ:134:ARG:HG2	2.18	0.44
38:BR:87:TYR:C	38:BR:89:ASP:N	2.75	0.44
39:BS:97:ARG:NH2	39:BS:98:VAL:CA	2.65	0.44
39:BS:99:LYS:C	39:BS:101:LEU:H	2.24	0.44
41:BU:47:TYR:HA	41:BU:50:ARG:NH2	2.32	0.44
41:BU:96:ALA:C	41:BU:98:LEU:H	2.24	0.44
42:BV:65:GLY:CA	42:BV:91:TYR:HE1	2.30	0.44
43:BW:96:ILE:CD1	57:BA:2012:G:H4'	2.47	0.44
45:BY:7:VAL:C	45:BY:8:LYS:HD2	2.43	0.44
45:BY:96:ILE:HB	45:BY:99:CYS:HB2	1.99	0.44
46:BZ:79:ARG:O	46:BZ:80:ARG:HB2	2.18	0.44
51:B4:6:HIS:CD2	51:B4:6:HIS:N	2.83	0.44
55:B8:37:SER:OG	55:B8:39:LYS:HB3	2.18	0.44
55:B8:53:PRO:HG2	55:B8:54:GLU:H	1.82	0.44
57:BA:197:A:N6	57:BA:2430:A:H2'	2.33	0.44
57:BA:481:G:H1'	57:BA:506:G:H21	1.82	0.44
57:BA:2206:G:H21	57:BA:2207:G:C4'	2.30	0.44
58:BB:65:C:N4	58:BB:109:C:H2'	2.33	0.44
1:Ab:111:ARG:HG2	1:Ab:111:ARG:NH1	2.32	0.44
1:Ab:115:LEU:HD13	1:Ab:145:LEU:HD12	2.00	0.44
5:Af:61:LEU:O	5:Af:62:TRP:CB	2.66	0.44
8:Ai:15:ALA:HB2	8:Ai:65:VAL:CG2	2.47	0.44
13:An:33:VAL:HA	13:An:39:LEU:O	2.18	0.44
21:Ay:67:ILE:HB	21:Ay:72:VAL:HG13	1.99	0.44
22:Aa:204:U:O2	22:Aa:204:U:H2'	2.18	0.44
22:Aa:423:G:H2'	22:Aa:424:G:C5'	2.46	0.44
22:Aa:707:C:H2'	22:Aa:708:C:C6	2.52	0.44
25:Aw:34:C:H2'	25:Aw:35:A:O4'	2.18	0.44
26:AC:23:ILE:HG22	26:AC:23:ILE:O	2.17	0.44
30:AG:76:SER:HB3	30:AG:83:ARG:HB3	1.97	0.44
30:AG:109:VAL:HG21	51:A4:33:VAL:HG21	1.99	0.44
36:AP:16:ARG:NH1	36:AP:16:ARG:CB	2.81	0.44
38:AR:4:LEU:C	38:AR:5:LYS:HG2	2.42	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:AS:61:ASN:OD1	39:AS:64:GLU:OE2	2.35	0.44
40:AT:91:ARG:HA	40:AT:117:ASP:H	1.82	0.44
42:AV:62:LEU:HD23	42:AV:94:LEU:C	2.42	0.44
46:AZ:5:LEU:C	46:AZ:5:LEU:HD23	2.43	0.44
49:A2:50:ILE:O	49:A2:51:ARG:C	2.60	0.44
52:A5:42:PRO:HB2	52:A5:43:HIS:CD2	2.52	0.44
54:A7:22:MET:O	54:A7:28:ARG:NH1	2.51	0.44
57:AA:712:G:O2'	57:AA:713:G:H5'	2.18	0.44
57:AA:1345:C:O2'	57:AA:1346:G:H5'	2.18	0.44
57:AA:1430:C:H2'	57:AA:1431:U:H6	1.83	0.44
57:AA:1947:C:C3'	57:AA:1948:G:H5"	2.47	0.44
57:AA:1948:G:C2'	57:AA:1949:G:H5'	2.47	0.44
57:AA:2206:G:H21	57:AA:2207:G:C4'	2.30	0.44
57:AA:2518:A:H5'	57:AA:2518:A:H8	1.82	0.44
57:AA:2870:C:O2'	57:AA:2871:C:H5'	2.18	0.44
57:AA:2892:A:N6	57:AA:2893:G:H21	2.16	0.44
58:AB:94:C:O2'	58:AB:95:C:H5'	2.18	0.44
1:Bb:235:SER:OG	1:Bb:236:TYR:HD1	2.00	0.44
2:Bc:64:VAL:HG11	2:Bc:66:VAL:HG23	2.00	0.44
3:Bd:72:GLU:HB3	22:Ba:546:G:P	2.57	0.44
4:Be:6:PHE:CD1	4:Be:63:ARG:NH1	2.84	0.44
4:Be:91:LEU:HD13	4:Be:120:THR:CG2	2.48	0.44
6:Bg:26:PHE:CD2	6:Bg:62:PHE:HE1	2.35	0.44
7:Bh:36:LEU:O	7:Bh:38:ILE:N	2.49	0.44
9:Bj:17:ASP:O	9:Bj:20:ALA:HB3	2.17	0.44
19:Bt:13:LEU:HD12	19:Bt:13:LEU:N	2.32	0.44
21:By:95:LEU:HD13	21:By:95:LEU:O	2.16	0.44
22:Ba:356:A:H2'	22:Ba:357:G:H8	1.81	0.44
22:Ba:374:A:C6	22:Ba:375:U:C4	3.05	0.44
22:Ba:1068:G:N3	22:Ba:1191:A:C2	2.86	0.44
22:Ba:1106:G:H2'	22:Ba:1107:C:C6	2.51	0.44
22:Ba:1288:A:O2'	22:Ba:1289:A:H5'	2.18	0.44
22:Ba:1472:U:O2'	22:Ba:1473:A:H5'	2.17	0.44
25:Bw:7:G:H2'	25:Bw:49:G:OP2	2.17	0.44
26:BC:28:ARG:HB3	26:BC:28:ARG:NH1	2.33	0.44
27:BD:24:ILE:HA	27:BD:82:ILE:HG22	1.99	0.44
27:BD:88:ARG:NH2	57:BA:1817:G:OP1	2.45	0.44
27:BD:259:THR:CG2	57:BA:1803:A:H4'	2.43	0.44
30:BG:7:LEU:HD22	30:BG:176:LEU:HB3	1.99	0.44
30:BG:40:ASN:ND2	57:BA:2313:C:C4'	2.80	0.44
31:BH:154:PRO:O	31:BH:156:ALA:N	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:133:SER:HB3	57:BA:637:A:OP1	2.17	0.44
42:BV:39:LEU:HD12	42:BV:50:PRO:O	2.18	0.44
43:BW:44:ALA:O	43:BW:45:TYR:C	2.60	0.44
45:BY:17:SER:O	45:BY:18:GLY:O	2.36	0.44
46:BZ:27:VAL:O	46:BZ:27:VAL:HG13	2.17	0.44
47:B0:36:ILE:HD11	47:B0:39:ARG:HG2	1.99	0.44
49:B2:45:SER:O	49:B2:46:GLN:OE1	2.36	0.44
50:B3:19:GLN:NE2	50:B3:52:HIS:CE1	2.85	0.44
55:B8:18:ALA:C	55:B8:20:GLY:H	2.24	0.44
57:BA:280:C:C2'	57:BA:281:G:H5'	2.47	0.44
57:BA:1748:G:H5'	57:BA:1748:G:C8	2.45	0.44
57:BA:1885:A:H2'	57:BA:1886:C:O4'	2.18	0.44
57:BA:2687:U:H2'	57:BA:2688:U:O4'	2.18	0.44
1:Ab:97:TRP:CH2	1:Ab:173:ALA:CA	2.99	0.44
1:Ab:168:THR:CG2	1:Ab:192:SER:OG	2.65	0.44
3:Ad:102:ASP:HA	3:Ad:121:VAL:HG21	1.99	0.44
6:Ag:54:THR:OG1	6:Ag:56:GLN:CG	2.65	0.44
7:Ah:120:THR:O	7:Ah:121:ASP:C	2.60	0.44
8:Ai:114:TYR:HD2	8:Ai:114:TYR:H	1.64	0.44
12:Am:68:GLY:H	12:Am:70:LEU:HD13	1.76	0.44
13:An:28:GLY:O	13:An:29:ARG:C	2.60	0.44
13:An:44:LEU:C	13:An:44:LEU:CD1	2.90	0.44
15:Ap:18:ARG:HD3	15:Ap:35:LYS:HD2	1.99	0.44
16:Aq:55:ASP:HB3	16:Aq:76:LEU:HD13	2.00	0.44
16:Aq:67:LYS:O	16:Aq:69:LYS:N	2.45	0.44
17:Ar:66:LEU:O	17:Ar:70:ILE:HG13	2.17	0.44
18:As:5:LEU:HD23	22:Aa:1319:A:OP2	2.18	0.44
18:As:12:ASP:HB3	18:As:14:HIS:CE1	2.53	0.44
19:At:79:ARG:NH1	22:Aa:261:U:C5	2.86	0.44
19:At:93:GLU:O	19:At:93:GLU:HG2	2.18	0.44
21:Ay:62:LEU:CD2	21:Ay:75:VAL:HG13	2.48	0.44
22:Aa:232:G:H1'	22:Aa:262:A:N1	2.32	0.44
22:Aa:586:C:C2'	22:Aa:587:G:H5'	2.48	0.44
22:Aa:1043:C:H2'	22:Aa:1044:A:H8	1.83	0.44
22:Aa:1262:C:H2'	22:Aa:1263:C:H6	1.82	0.44
22:Aa:1288:A:O2'	22:Aa:1289:A:H5'	2.18	0.44
24:Av:59:A:H2'	24:Av:60:U:C5'	2.48	0.44
27:AD:88:ARG:NH2	57:AA:1817:G:OP1	2.47	0.44
30:AG:6:ALA:O	30:AG:10:LYS:HB2	2.17	0.44
32:AI:123:LEU:HD23	32:AI:124:GLY:N	2.32	0.44
35:AO:86:ILE:O	35:AO:87:ILE:HD13	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:AR:103:ARG:NH1	38:AR:110:PRO:HB3	2.32	0.44
42:AV:18:LEU:CD2	42:AV:19:LYS:H	2.31	0.44
44:AX:37:THR:HG21	57:AA:143:G:C1'	2.46	0.44
46:AZ:31:ARG:HG2	58:AB:106:G:H5"	1.98	0.44
46:AZ:111:VAL:O	46:AZ:113:ALA:N	2.47	0.44
48:A1:57:GLU:O	48:A1:58:ILE:O	2.35	0.44
50:A3:28:LEU:HA	50:A3:33:GLN:OE1	2.18	0.44
51:A4:5:ILE:HD13	51:A4:5:ILE:N	2.33	0.44
51:A4:5:ILE:HD13	51:A4:5:ILE:H	1.82	0.44
54:A7:28:ARG:HG3	54:A7:28:ARG:HH11	1.82	0.44
57:AA:68:G:H2'	57:AA:69:C:C6	2.53	0.44
57:AA:606:U:H4'	57:AA:658:C:H4'	1.99	0.44
57:AA:633:A:C2'	57:AA:634:C:H5'	2.46	0.44
57:AA:668:G:H3'	57:AA:669:G:H5"	1.99	0.44
57:AA:724:U:H2'	57:AA:725:G:O4'	2.18	0.44
57:AA:1291:C:H2'	57:AA:1292:U:H6	1.82	0.44
57:AA:2011:U:C2'	57:AA:2012:G:H5'	2.48	0.44
57:AA:2100:G:H1	57:AA:2189:U:H3	1.64	0.44
57:AA:2590:A:O2'	57:AA:2591:C:H5'	2.18	0.44
57:AA:2869:G:H2'	57:AA:2870:C:C6	2.52	0.44
58:AB:30:C:H4'	58:AB:58:A:C2	2.49	0.44
1:Bb:142:LEU:HD21	1:Bb:146:GLN:NE2	2.33	0.44
1:Bb:168:THR:HA	1:Bb:171:ALA:HB2	1.98	0.44
1:Bb:178:ARG:HG2	1:Bb:178:ARG:HH11	1.82	0.44
2:Bc:39:ILE:C	2:Bc:41:GLY:N	2.75	0.44
2:Bc:179:ARG:HG3	2:Bc:179:ARG:HH11	1.83	0.44
3:Bd:133:VAL:HG12	3:Bd:135:LEU:H	1.83	0.44
5:Bf:25:ILE:HD13	5:Bf:28:ARG:HD2	1.99	0.44
6:Bg:31:MET:SD	6:Bg:34:GLY:HA2	2.57	0.44
8:Bi:124:GLN:HG3	22:Ba:1342:C:H1'	1.99	0.44
11:Bl:71:PRO:HG3	11:Bl:99:HIS:HD2	1.83	0.44
14:Bo:23:GLY:O	14:Bo:27:VAL:HB	2.18	0.44
16:Bq:99:SER:C	16:Bq:100:LYS:HG3	2.41	0.44
17:Br:29:PHE:CE1	17:Br:31:LEU:HB3	2.43	0.44
19:Bt:93:GLU:O	19:Bt:93:GLU:HG2	2.17	0.44
21:By:5:LEU:HD21	21:By:30:LEU:HD13	1.99	0.44
22:Ba:586:C:C2'	22:Ba:587:G:H5'	2.47	0.44
22:Ba:681:C:O2'	22:Ba:682:G:H5'	2.17	0.44
22:Ba:790:A:OP1	24:Bv:38:A:O2'	2.34	0.44
22:Ba:1374:A:C4	22:Ba:1375:A:C8	3.05	0.44
24:Bv:17(A):U:H5"	24:Bv:18:G:OP2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BD:127:VAL:HA	27:BD:193:VAL:HG13	1.99	0.44
27:BD:161:THR:HG21	57:BA:1819:A:H5"	1.99	0.44
27:BD:241:PRO:O	27:BD:242:ARG:HB2	2.18	0.44
28:BE:82:ARG:HG3	28:BE:83:ASP:H	1.82	0.44
29:BF:25:PRO:O	29:BF:26:ALA:C	2.61	0.44
29:BF:125:LEU:HD13	29:BF:199:TRP:CG	2.53	0.44
29:BF:172:TRP:CD1	29:BF:172:TRP:H	2.34	0.44
31:BH:149:ARG:HA	31:BH:162:ILE:CG1	2.45	0.44
32:BI:74:ASN:CG	32:BI:75:LEU:HD12	2.42	0.44
32:BI:111:PRO:C	32:BI:112:LYS:HG3	2.42	0.44
36:BP:91:PHE:CE2	36:BP:95:VAL:HG12	2.53	0.44
37:BQ:39:PRO:HD3	37:BQ:99:PRO:HG3	1.99	0.44
38:BR:11:ASN:CG	38:BR:12:ARG:N	2.76	0.44
39:BS:90:GLY:O	39:BS:92:TYR:HD1	2.00	0.44
42:BV:39:LEU:HB3	42:BV:47:VAL:HG21	2.00	0.44
45:BY:50:ARG:O	45:BY:50:ARG:HD2	2.17	0.44
45:BY:52:SER:HA	45:BY:56:PRO:HA	1.99	0.44
46:BZ:163:LEU:N	46:BZ:163:LEU:CD2	2.81	0.44
55:B8:33:ASN:O	57:BA:2420:C:OP2	2.35	0.44
55:B8:42:ARG:C	55:B8:44:LYS:H	2.24	0.44
57:BA:27:G:N2	57:BA:512:G:O2'	2.50	0.44
57:BA:319:C:O2'	57:BA:320:A:H5'	2.18	0.44
57:BA:527:C:H4'	57:BA:528:A:O5'	2.18	0.44
57:BA:1411:C:H2'	57:BA:1412:A:C8	2.53	0.44
57:BA:2155:G:C2'	57:BA:2156:G:H5'	2.48	0.44
57:BA:2492:U:O2'	57:BA:2493:U:H5'	2.17	0.44
57:BA:2590:A:O2'	57:BA:2591:C:H5'	2.16	0.44
57:BA:2612:C:C5	57:BA:2613:U:H5	2.36	0.44
1:Ab:142:LEU:HD21	1:Ab:146:GLN:NE2	2.32	0.44
1:Ab:166:ASP:HB3	1:Ab:169:LYS:CB	2.45	0.44
1:Ab:216:SER:O	1:Ab:218:ALA:N	2.50	0.44
1:Ab:235:SER:OG	1:Ab:236:TYR:HD1	2.00	0.44
2:Ac:179:ARG:NH1	2:Ac:179:ARG:HG3	2.33	0.44
5:Af:5:GLU:HG3	5:Af:93:SER:OG	2.17	0.44
6:Ag:32:ARG:O	6:Ag:33:ASP:HB2	2.18	0.44
6:Ag:111:ARG:HB3	6:Ag:111:ARG:NH1	2.29	0.44
7:Ah:6:ILE:H	7:Ah:6:ILE:CD1	2.30	0.44
11:Al:33:ARG:HD3	11:Al:62:SER:OG	2.18	0.44
12:Am:69:GLU:HB3	12:Am:72:ALA:N	2.29	0.44
16:Aq:45:HIS:CB	16:Aq:65:ILE:HD13	2.47	0.44
19:At:104:LEU:HD23	19:At:104:LEU:C	2.43	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Aa:688:G:O2'	22:Aa:689:C:H5'	2.18	0.44
22:Aa:927:G:O2'	22:Aa:928:G:H5'	2.17	0.44
26:AC:45:HIS:CB	57:AA:2177:C:H1'	2.48	0.44
28:AE:82:ARG:HG3	28:AE:83:ASP:H	1.83	0.44
29:AF:34:TRP:CH2	36:AP:12:ALA:HB2	2.53	0.44
30:AG:91:ARG:C	30:AG:91:ARG:CD	2.89	0.44
30:AG:102:PHE:O	30:AG:103:LEU:C	2.60	0.44
32:AI:111:PRO:C	32:AI:112:LYS:HG3	2.43	0.44
35:AO:32:TYR:CD1	35:AO:32:TYR:N	2.86	0.44
36:AP:13:ASN:C	36:AP:13:ASN:ND2	2.75	0.44
38:AR:4:LEU:O	38:AR:5:LYS:CD	2.65	0.44
38:AR:100:LEU:HD21	38:AR:113:LEU:HB3	1.98	0.44
42:AV:4:ILE:O	42:AV:4:ILE:HG22	2.17	0.44
43:AW:6:ILE:HA	43:AW:103:ILE:O	2.18	0.44
43:AW:18:ARG:HG3	43:AW:76:VAL:HG13	2.00	0.44
43:AW:88:ARG:HB2	43:AW:92:ARG:HB2	2.00	0.44
46:AZ:10:ARG:NH2	46:AZ:26:GLY:N	2.65	0.44
46:AZ:80:ARG:HD2	46:AZ:80:ARG:HA	1.82	0.44
46:AZ:143:GLY:C	46:AZ:144:LEU:HD22	2.43	0.44
46:AZ:145:GLU:O	46:AZ:146:ILE:C	2.61	0.44
48:A1:7:ILE:HG22	48:A1:66:HIS:HD2	1.82	0.44
51:A4:3:GLU:HG3	58:AB:43:C:OP1	2.18	0.44
55:A8:53:PRO:HA	55:A8:56:GLU:HB2	2.00	0.44
57:AA:392:C:H5"	57:AA:409:C:H5"	2.00	0.44
57:AA:435:C:H2'	57:AA:436:C:H5'	2.00	0.44
57:AA:548:A:C3'	57:AA:549:G:H5'	2.47	0.44
57:AA:651:G:C2'	57:AA:652:C:H5'	2.48	0.44
57:AA:1432:C:H2'	57:AA:1433:U:O4'	2.17	0.44
57:AA:1451:C:N3	57:AA:1459:G:O6	2.51	0.44
57:AA:2029:G:H2'	57:AA:2031:A:OP2	2.18	0.44
57:AA:2553:G:H2'	57:AA:2554:U:C4'	2.48	0.44
2:Bc:45:LYS:O	2:Bc:47:LEU:N	2.50	0.44
2:Bc:162:GLN:HG2	23:Bx:24:A:C1'	2.46	0.44
4:Be:136:MET:O	4:Be:138:ALA:N	2.51	0.44
5:Bf:46:ARG:HH22	17:Br:37:VAL:HG11	1.83	0.44
6:Bg:119:ARG:C	6:Bg:121:ALA:N	2.74	0.44
11:Bl:86:ARG:HB2	11:Bl:101:VAL:HG22	1.99	0.44
12:Bm:66:LEU:N	12:Bm:70:LEU:CD1	2.80	0.44
13:Bn:13:THR:HG23	13:Bn:20:ALA:HB2	2.00	0.44
13:Bn:51:GLY:O	13:Bn:53:LEU:N	2.49	0.44
14:Bo:17:ARG:HD3	14:Bo:26:GLU:OE1	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:Bq:67:LYS:O	16:Bq:69:LYS:N	2.46	0.44
19:Bt:36:LEU:CD1	19:Bt:55:ILE:HG23	2.47	0.44
21:By:47:MET:CB	21:By:48:PRO:CD	2.93	0.44
22:Ba:197:A:C5	22:Ba:221:C:H4'	2.53	0.44
22:Ba:229:U:O2'	22:Ba:230:G:H5'	2.17	0.44
22:Ba:245:C:O2	22:Ba:283:C:N3	2.50	0.44
22:Ba:407:G:H2'	22:Ba:408:A:C8	2.53	0.44
27:BD:31:LYS:C	27:BD:33:LEU:H	2.25	0.44
28:BE:12:THR:O	28:BE:23:VAL:HG22	2.17	0.44
28:BE:116:VAL:HG22	28:BE:122:PHE:CG	2.52	0.44
29:BF:175:THR:O	29:BF:176:LEU:HB2	2.17	0.44
32:BI:92:VAL:HG22	32:BI:97:ILE:HG12	1.98	0.44
32:BI:119:PRO:O	32:BI:120:ILE:C	2.60	0.44
34:BN:134:ARG:O	34:BN:134:ARG:HG3	2.18	0.44
36:BP:63:PRO:HB3	55:B8:13:ARG:HB3	1.99	0.44
36:BP:64:LYS:HG3	55:B8:25:MET:HE2	1.99	0.44
37:BQ:13:GLN:HG3	57:BA:910:A:N7	2.33	0.44
39:BS:54:LEU:C	39:BS:56:LEU:H	2.26	0.44
41:BU:64:ARG:O	41:BU:65:ILE:C	2.61	0.44
41:BU:69:CYS:SG	41:BU:79:PHE:CD1	3.06	0.44
41:BU:89:GLU:HG2	41:BU:89:GLU:O	2.18	0.44
42:BV:82:ARG:C	42:BV:83:ARG:HG2	2.43	0.44
45:BY:30:VAL:HG12	45:BY:31:LEU:N	2.33	0.44
46:BZ:102:LEU:HD21	46:BZ:124:ILE:HD12	2.00	0.44
49:B2:3:LEU:HD21	49:B2:7:ARG:HH11	1.81	0.44
49:B2:24:LEU:HG	49:B2:60:LEU:HD13	2.00	0.44
49:B2:25:VAL:O	49:B2:26:ARG:C	2.61	0.44
57:BA:55:G:O2'	57:BA:127:A:N1	2.46	0.44
57:BA:658:C:H2'	57:BA:659:C:C6	2.53	0.44
57:BA:916:G:C2'	57:BA:917:A:H5"	2.48	0.44
57:BA:924:C:O2'	57:BA:925:C:H5'	2.18	0.44
57:BA:1410:G:H2'	57:BA:1411:C:C6	2.53	0.44
57:BA:1478:G:O2'	57:BA:1479:G:H5'	2.18	0.44
57:BA:1899:G:H21	57:BA:1902:C:H5	1.64	0.44
57:BA:1970:A:H5'	57:BA:1972:A:H1'	1.99	0.44
57:BA:2053:G:H1	57:BA:2616:C:H42	1.65	0.44
57:BA:2178:C:H3'	57:BA:2179:C:H5"	2.00	0.44
57:BA:2468:G:H1	57:BA:2481:G:H2'	1.83	0.44
57:BA:2672:G:H3'	57:BA:2673:G:H5"	1.99	0.44
57:BA:2887:U:H2'	57:BA:2888:C:H6	1.83	0.44
2:Ac:64:VAL:HG11	2:Ac:66:VAL:HG23	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Ad:11:LEU:HD23	3:Ad:11:LEU:N	2.32	0.44
4:Ae:68:GLU:O	4:Ae:68:GLU:CG	2.62	0.44
4:Ae:101:ILE:CG1	4:Ae:119:LEU:HA	2.48	0.44
4:Ae:112:LEU:C	4:Ae:114:GLY:H	2.25	0.44
7:Ah:65:TYR:CD1	7:Ah:65:TYR:N	2.84	0.44
9:Aj:3:LYS:NZ	9:Aj:76:ASN:HA	2.33	0.44
9:Aj:81:THR:C	9:Aj:83:GLU:H	2.26	0.44
11:Al:71:PRO:HG3	11:Al:99:HIS:HD2	1.82	0.44
11:Al:119:LYS:C	11:Al:120:TYR:CD1	2.96	0.44
13:An:27:CYS:C	13:An:29:ARG:N	2.76	0.44
15:Ap:19:ILE:H	15:Ap:19:ILE:HD12	1.83	0.44
16:Aq:66:SER:C	16:Aq:67:LYS:O	2.57	0.44
21:Ay:29:LYS:HD3	21:Ay:29:LYS:HA	1.75	0.44
22:Aa:163:C:O2'	22:Aa:164:U:H5'	2.18	0.44
22:Aa:503:C:C2	22:Aa:504:C:C5	3.06	0.44
22:Aa:1368:G:O2'	22:Aa:1369:C:H5'	2.18	0.44
26:AC:30:VAL:HG11	26:AC:42:VAL:HG13	2.00	0.44
27:AD:76:PRO:HG2	27:AD:98:VAL:HG21	1.99	0.44
28:AE:61:ARG:C	28:AE:63:LEU:N	2.75	0.44
29:AF:20:LEU:HD13	29:AF:203:GLN:OE1	2.17	0.44
29:AF:63:LYS:HE3	29:AF:67:GLN:CB	2.48	0.44
29:AF:182:ASN:HB3	57:AA:615:G:OP1	2.18	0.44
30:AG:9:ARG:O	30:AG:11:TYR:N	2.47	0.44
30:AG:45:GLU:H	30:AG:88:ILE:CG2	2.12	0.44
30:AG:162:THR:HG22	30:AG:162:THR:O	2.17	0.44
32:AI:62:LYS:HE3	32:AI:134:PRO:HD3	2.00	0.44
34:AN:46:VAL:O	34:AN:47:ALA:CB	2.66	0.44
34:AN:108:PRO:O	34:AN:113:GLY:HA3	2.18	0.44
34:AN:120:LEU:CD1	34:AN:120:LEU:C	2.88	0.44
36:AP:53:GLY:HA2	57:AA:832:G:H21	1.82	0.44
36:AP:64:LYS:C	36:AP:64:LYS:HD3	2.43	0.44
37:AQ:39:PRO:HA	37:AQ:97:VAL:O	2.18	0.44
39:AS:108:GLY:HA3	57:AA:2376:A:O2'	2.17	0.44
40:AT:78:LEU:HB3	40:AT:79:HIS:ND1	2.33	0.44
41:AU:95:LEU:O	41:AU:98:LEU:HG	2.17	0.44
46:AZ:135:GLU:O	46:AZ:137:ILE:HD13	2.18	0.44
49:A2:50:ILE:HD12	57:AA:61:G:H5'	2.00	0.44
49:A2:65:ASN:C	49:A2:67:LYS:N	2.74	0.44
51:A4:2:LYS:HD2	51:A4:2:LYS:N	2.33	0.44
53:A6:8:LYS:HZ1	57:AA:2285:C:H5	1.65	0.44
55:A8:18:ALA:C	55:A8:20:GLY:H	2.26	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:AA:706:A:H2'	57:AA:707:G:O4'	2.18	0.44
57:AA:882:G:H2'	57:AA:883:G:C8	2.49	0.44
57:AA:962:G:C2'	57:AA:963:U:H5'	2.48	0.44
57:AA:1431:U:H2'	57:AA:1432:C:C6	2.53	0.44
57:AA:2064:C:H2'	57:AA:2065:C:C6	2.53	0.44
2:Bc:50:ALA:O	2:Bc:70:VAL:HG13	2.18	0.44
3:Bd:129:ASN:HD21	3:Bd:145:GLU:N	2.15	0.44
3:Bd:195:ALA:C	3:Bd:196:LEU:HD12	2.43	0.44
7:Bh:109:ILE:CG1	7:Bh:110:ALA:N	2.79	0.44
9:Bj:40:LEU:CB	9:Bj:69:ASN:HB2	2.42	0.44
9:Bj:54:PHE:CZ	9:Bj:55:LYS:NZ	2.80	0.44
10:Bk:69:ALA:HB1	10:Bk:103:LEU:HD21	2.00	0.44
12:Bm:29:ARG:HD3	12:Bm:64:TRP:CD2	2.52	0.44
13:Bn:33:VAL:HA	13:Bn:39:LEU:O	2.18	0.44
14:Bo:11:VAL:O	14:Bo:14:GLU:HB3	2.17	0.44
21:By:56:ARG:HB2	22:Ba:530:G:O2'	2.18	0.44
22:Ba:33:A:H2'	22:Ba:34:C:C6	2.53	0.44
22:Ba:814:A:H2'	22:Ba:816:A:H5"	2.00	0.44
22:Ba:937:A:C5	22:Ba:938:A:N7	2.85	0.44
22:Ba:956:U:O2'	22:Ba:957:U:H5'	2.18	0.44
22:Ba:1030(D):A:C2'	22:Ba:1031:G:H5'	2.47	0.44
22:Ba:1376:U:H2'	22:Ba:1377:A:H8	1.80	0.44
30:BG:66:GLN:NE2	58:BB:43:C:H4'	2.33	0.44
30:BG:120:LEU:N	30:BG:179:PRO:O	2.42	0.44
31:BH:54:ARG:HG2	31:BH:54:ARG:NH1	2.31	0.44
31:BH:83:TYR:N	31:BH:83:TYR:CD2	2.83	0.44
31:BH:107:VAL:HG21	31:BH:152:ARG:HB2	2.00	0.44
32:BI:88:ILE:CD1	32:BI:120:ILE:HG21	2.47	0.44
32:BI:118:LYS:HZ1	32:BI:119:PRO:CG	2.31	0.44
37:BQ:135:ASP:O	37:BQ:138:ASP:OD2	2.35	0.44
39:BS:25:ARG:HG3	39:BS:88:ASP:HB2	1.99	0.44
40:BT:98:LYS:NZ	57:BA:2847:U:OP1	2.51	0.44
42:BV:82:ARG:O	42:BV:83:ARG:HG2	2.17	0.44
43:BW:17:VAL:C	43:BW:19:LEU:N	2.75	0.44
43:BW:47:VAL:O	43:BW:50:VAL:HG12	2.17	0.44
46:BZ:33:LEU:HD12	46:BZ:34:ASN:H	1.82	0.44
46:BZ:35:ARG:HH11	46:BZ:35:ARG:HG3	1.81	0.44
46:BZ:109:ALA:O	46:BZ:110:GLY:C	2.60	0.44
47:B0:26:TYR:N	47:B0:26:TYR:CD1	2.84	0.44
49:B2:69:ARG:NH2	57:BA:111:A:H4'	2.33	0.44
53:B6:27:LYS:O	53:B6:27:LYS:CD	2.66	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:B8:4:MET:HG3	55:B8:61:LEU:CD1	2.41	0.44
55:B8:27:THR:HG23	57:BA:2361:A:OP1	2.18	0.44
57:BA:20:C:H2'	57:BA:21:A:C8	2.53	0.44
57:BA:102:G:OP1	57:BA:102:G:C4'	2.65	0.44
57:BA:361:G:O2'	57:BA:362:U:H5'	2.17	0.44
57:BA:654(N):G:H2'	57:BA:654(O):G:O4'	2.18	0.44
57:BA:972:G:OP2	57:BA:974:G:H5"	2.17	0.44
57:BA:1221:C:H2'	57:BA:1221(A):C:C6	2.52	0.44
57:BA:1357:U:H2'	57:BA:1358:G:O4'	2.18	0.44
57:BA:1496:A:C8	57:BA:1498:C:N3	2.86	0.44
57:BA:2114:A:O2'	57:BA:2115:G:H5'	2.18	0.44
57:BA:2732:G:C3'	57:BA:2733:A:H5'	2.48	0.44
1:Ab:24:TRP:CE3	1:Ab:26:PRO:HA	2.53	0.44
2:Ac:52:LEU:HD23	2:Ac:52:LEU:N	2.28	0.44
2:Ac:140:ARG:HH11	2:Ac:140:ARG:HG3	1.82	0.44
2:Ac:206:GLU:HG2	2:Ac:207:VAL:N	2.30	0.44
3:Ad:31:CYS:O	3:Ad:32:ALA:HB3	2.17	0.44
5:Af:97:PHE:HB2	17:Ar:32:ARG:HH21	1.83	0.44
7:Ah:1:MET:N	22:Aa:824:C:H4'	2.33	0.44
13:An:4:LYS:C	13:An:6:LEU:N	2.74	0.44
14:Ao:11:VAL:O	14:Ao:14:GLU:HB3	2.18	0.44
17:Ar:54:ARG:O	17:Ar:55:ARG:HG2	2.17	0.44
22:Aa:93:G:C6	22:Aa:96:U:C4	3.06	0.44
22:Aa:189(C):C:H2'	22:Aa:189(D):C:O4'	2.17	0.44
22:Aa:556:C:O2'	22:Aa:557:G:H5'	2.17	0.44
22:Aa:630:G:C2'	22:Aa:631:G:H5"	2.47	0.44
22:Aa:1030(D):A:C2'	22:Aa:1031:G:H5'	2.48	0.44
22:Aa:1095:U:C5'	22:Aa:1109:C:O2	2.66	0.44
22:Aa:1227:A:N7	22:Aa:1228:C:O2	2.50	0.44
22:Aa:1239:A:H62	22:Aa:1299:A:H62	1.66	0.44
22:Aa:1479:C:H2'	22:Aa:1480:G:H8	1.81	0.44
27:AD:176:ARG:HG2	27:AD:176:ARG:NH1	2.27	0.44
31:AH:7:LEU:HB3	31:AH:69:ARG:HD2	2.00	0.44
32:AI:77:LEU:HD23	32:AI:141:LYS:CG	2.43	0.44
32:AI:92:VAL:O	32:AI:119:PRO:HA	2.17	0.44
36:AP:40:SER:C	36:AP:41:ARG:HE	2.24	0.44
37:AQ:55:VAL:HB	46:AZ:178:GLU:HG3	2.00	0.44
39:AS:27:SER:HA	39:AS:88:ASP:HB3	2.00	0.44
41:AU:95:LEU:C	41:AU:97:ASP:H	2.26	0.44
42:AV:28:GLU:CB	42:AV:29:PRO:HD2	2.41	0.44
46:AZ:122:ARG:O	46:AZ:123:ASP:OD1	2.36	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:A2:10:LEU:HD22	49:A2:14:ARG:CZ	2.47	0.44
57:AA:13:A:H61	57:AA:525:U:H3'	1.82	0.44
57:AA:644:A:C2	57:AA:2369:A:H1'	2.53	0.44
57:AA:1462:C:H4'	57:AA:2703:C:H5'	2.00	0.44
57:AA:1771:C:O2'	57:AA:1786:A:H8	2.01	0.44
57:AA:1899:G:N2	57:AA:1902:C:C5	2.85	0.44
57:AA:1956:U:C2'	57:AA:1957:C:H5'	2.48	0.44
57:AA:2114:A:O2'	57:AA:2115:G:H5'	2.18	0.44
57:AA:2360:A:O2'	57:AA:2361:A:O4'	2.24	0.44
57:AA:2850:A:H2'	57:AA:2851:A:C8	2.53	0.44
2:Bc:192:THR:O	22:Ba:1206:G:H4'	2.18	0.44
3:Bd:22:LYS:CG	3:Bd:26:CYS:SG	3.06	0.44
4:Be:36:ASP:OD1	4:Be:38:GLN:HB2	2.18	0.44
7:Bh:97:VAL:O	7:Bh:100:ILE:HG13	2.18	0.44
8:Bi:42:ARG:NH1	8:Bi:71:SER:OG	2.50	0.44
10:Bk:116:HIS:CD2	22:Ba:675:A:H1'	2.53	0.44
11:Bl:83:VAL:CG1	11:Bl:84:LEU:N	2.80	0.44
12:Bm:7:VAL:HG12	12:Bm:7:VAL:O	2.18	0.44
13:Bn:27:CYS:O	13:Bn:29:ARG:N	2.51	0.44
13:Bn:28:GLY:O	13:Bn:29:ARG:C	2.61	0.44
15:Bp:10:GLY:C	22:Ba:624:C:H4'	2.43	0.44
16:Bq:63:ARG:HG2	16:Bq:64:PRO:CD	2.48	0.44
19:Bt:30:LYS:O	19:Bt:30:LYS:HD2	2.18	0.44
19:Bt:92:LEU:C	19:Bt:94:ALA:N	2.76	0.44
22:Ba:84:U:O2'	22:Ba:88:A:H5'	2.18	0.44
22:Ba:93:G:O2'	22:Ba:96:U:H5'	2.18	0.44
22:Ba:696:A:O2'	22:Ba:697:U:H5'	2.18	0.44
22:Ba:778:G:H2'	22:Ba:779:C:O4'	2.18	0.44
22:Ba:983:A:H3'	22:Ba:983:A:N3	2.33	0.44
22:Ba:983:A:H5'	22:Ba:984:C:OP2	2.18	0.44
22:Ba:1010:G:H22	22:Ba:1020:U:H1'	1.82	0.44
22:Ba:1104:G:O2'	22:Ba:1105:A:H5'	2.18	0.44
22:Ba:1251:A:H1'	22:Ba:1369:C:O2'	2.18	0.44
32:BI:101:LEU:HG	32:BI:107:VAL:HB	1.99	0.44
35:BO:28:SER:HA	57:BA:2563:U:H4'	2.00	0.44
35:BO:87:ILE:HG21	35:BO:91:LEU:HD13	1.99	0.44
36:BP:81:GLN:HB3	36:BP:106:LEU:HD12	2.00	0.44
38:BR:4:LEU:HG	57:BA:2822:G:O6	2.17	0.44
38:BR:4:LEU:HD13	38:BR:6:SER:O	2.17	0.44
40:BT:30:VAL:CG2	40:BT:84:GLN:H	2.29	0.44
41:BU:50:ARG:NH1	42:BV:72:VAL:HG12	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BW:6:ILE:HG13	43:BW:104:THR:HG23	2.00	0.44
46:BZ:27:VAL:HG12	46:BZ:85:HIS:CE1	2.53	0.44
46:BZ:27:VAL:HA	46:BZ:37:VAL:HG13	1.98	0.44
46:BZ:44:PHE:CD1	46:BZ:44:PHE:C	2.95	0.44
46:BZ:165:VAL:HG12	46:BZ:166:SER:OG	2.18	0.44
47:B0:43:THR:O	47:B0:43:THR:CG2	2.62	0.44
48:B1:56:GLN:HB3	48:B1:87:PRO:HB3	2.00	0.44
49:B2:32:LEU:HD13	49:B2:36:ARG:NH1	2.32	0.44
49:B2:32:LEU:HD13	49:B2:36:ARG:HH11	1.83	0.44
49:B2:59:ARG:HD3	57:BA:77:C:OP1	2.17	0.44
51:B4:30:GLU:O	51:B4:31:ILE:HD12	2.17	0.44
52:B5:6:VAL:HG13	57:BA:2016:U:H1'	1.99	0.44
57:BA:94(A):G:H2'	57:BA:95:G:O4'	2.18	0.44
57:BA:271(M):G:O2'	57:BA:271(O):C:H5'	2.17	0.44
57:BA:324:A:H2'	57:BA:325:G:O4'	2.18	0.44
57:BA:613:G:C5'	57:BA:613:G:C8	2.99	0.44
57:BA:1124:C:H2'	57:BA:1125:G:O4'	2.17	0.44
57:BA:1317:A:H2'	57:BA:1318:C:H6	1.82	0.44
57:BA:1717:G:H2'	57:BA:1718:G:C5'	2.42	0.44
57:BA:2476:A:C2	57:BA:2477:C:C6	3.05	0.44
57:BA:2695:C:H2'	57:BA:2696:U:C6	2.53	0.44
57:BA:2820:A:O2'	57:BA:2821:A:OP1	2.34	0.44
3:Ad:99:SER:O	3:Ad:140:VAL:HG23	2.17	0.43
3:Ad:101:LEU:HD23	3:Ad:121:VAL:HG11	1.99	0.43
5:Af:8:ILE:HG22	5:Af:10:LEU:CD1	2.48	0.43
7:Ah:16:ALA:O	7:Ah:19:VAL:HG22	2.17	0.43
8:Ai:11:LYS:HG2	22:Aa:1371:G:OP1	2.17	0.43
8:Ai:118:LYS:NZ	22:Aa:1349:A:OP2	2.48	0.43
13:An:18:VAL:HG23	13:An:19:ARG:H	1.82	0.43
21:Ay:56:ARG:NE	23:Ax:21:OMG:O2'	2.48	0.43
22:Aa:139:G:O2'	22:Aa:140:A:H5'	2.18	0.43
22:Aa:1435:G:H2'	22:Aa:1436:U:H6	1.82	0.43
26:AC:52:PRO:HG2	26:AC:53:ARG:HH11	1.83	0.43
27:AD:72:LYS:HD3	27:AD:97:TYR:CD2	2.53	0.43
28:AE:51:PHE:C	28:AE:74:PRO:HB3	2.43	0.43
30:AG:29:TRP:CE3	30:AG:29:TRP:HA	2.53	0.43
32:AI:69:LYS:HG3	32:AI:73:GLU:OE2	2.18	0.43
34:AN:115:ARG:HH11	34:AN:115:ARG:HG3	1.83	0.43
36:AP:7:ARG:HB2	36:AP:8:PRO:CD	2.48	0.43
36:AP:53:GLY:CA	57:AA:832:G:H21	2.31	0.43
37:AQ:29:PHE:HB3	37:AQ:65:PHE:CD2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:AR:96:ARG:HG3	57:AA:2882:A:H5'	2.00	0.43
40:AT:57:PHE:CD2	40:AT:58:ASN:N	2.81	0.43
41:AU:66:ASN:O	41:AU:70:ARG:N	2.50	0.43
43:AW:73:ALA:O	43:AW:106:ILE:HG12	2.17	0.43
45:AY:26:LYS:O	45:AY:27:VAL:C	2.60	0.43
49:A2:48:HIS:CD2	57:AA:96:G:H4'	2.53	0.43
49:A2:64:LEU:HD23	49:A2:68:ARG:HD3	2.00	0.43
49:A2:71:ASN:O	49:A2:72:ALA:C	2.61	0.43
51:A4:20:ASN:HD22	51:A4:20:ASN:C	2.26	0.43
53:A6:27:LYS:HD3	53:A6:27:LYS:C	2.43	0.43
57:AA:1493:C:O2	57:AA:1493:C:C2'	2.64	0.43
57:AA:1717:G:C3'	57:AA:1718:G:H5"	2.48	0.43
57:AA:2136:C:H2'	57:AA:2137:C:C6	2.53	0.43
57:AA:2155:G:C2'	57:AA:2156:G:H5'	2.48	0.43
57:AA:2199:A:H2'	57:AA:2199:A:N3	2.32	0.43
1:Bb:70:PHE:O	1:Bb:93:VAL:N	2.42	0.43
5:Bf:72:VAL:HG13	5:Bf:73:ASN:N	2.33	0.43
22:Ba:35:G:C6	22:Ba:36:C:N4	2.86	0.43
22:Ba:163:C:O2'	22:Ba:164:U:H5'	2.18	0.43
22:Ba:184:G:C4'	22:Ba:224:C:H4'	2.48	0.43
22:Ba:358:U:H2'	22:Ba:359:U:H6	1.81	0.43
22:Ba:364:A:H2'	22:Ba:365:U:O2	2.18	0.43
22:Ba:490:G:H2'	22:Ba:491:G:C8	2.52	0.43
22:Ba:630:G:C2'	22:Ba:631:G:H5"	2.47	0.43
22:Ba:1360:A:H2'	22:Ba:1361:G:O4'	2.18	0.43
22:Ba:1409:C:H2'	22:Ba:1410:G:C8	2.53	0.43
23:Bx:19:OMU:O2	23:Bx:19:OMU:C2'	2.66	0.43
24:Bv:58:A:H4'	24:Bv:59:A:OP1	2.18	0.43
28:BE:61:ARG:C	28:BE:63:LEU:N	2.76	0.43
29:BF:182:ASN:HB3	57:BA:615:G:OP1	2.18	0.43
30:BG:43:LEU:HD22	30:BG:43:LEU:N	2.32	0.43
30:BG:60:LEU:HD13	30:BG:60:LEU:C	2.43	0.43
31:BH:7:LEU:HB3	31:BH:69:ARG:HD2	1.98	0.43
31:BH:83:TYR:HB2	31:BH:84:SER:H	1.52	0.43
33:BJ:32:LEU:O	33:BJ:33:PRO:CB	2.66	0.43
34:BN:59:LYS:O	34:BN:60:ILE:C	2.61	0.43
34:BN:64:GLY:HA3	57:BA:1141:U:C5	2.53	0.43
34:BN:108:PRO:O	34:BN:113:GLY:HA3	2.18	0.43
34:BN:133:GLN:O	34:BN:134:ARG:CB	2.58	0.43
36:BP:84:ASN:N	36:BP:84:ASN:HD22	2.16	0.43
37:BQ:21:THR:HA	37:BQ:98:LYS:HB2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BQ:116:GLU:O	37:BQ:120:ILE:HG12	2.18	0.43
37:BQ:133:ARG:O	37:BQ:134:ARG:CG	2.66	0.43
38:BR:38:VAL:HG22	38:BR:112:ALA:HB2	1.99	0.43
39:BS:108:GLY:HA3	57:BA:2376:A:O2'	2.17	0.43
40:BT:62:THR:CG2	40:BT:75:ILE:HG12	2.43	0.43
40:BT:87:ASP:OD2	40:BT:87:ASP:O	2.36	0.43
41:BU:96:ALA:C	41:BU:98:LEU:N	2.76	0.43
47:B0:66:VAL:HG12	47:B0:67:VAL:N	2.33	0.43
51:B4:2:LYS:HD2	51:B4:2:LYS:N	2.33	0.43
57:BA:13:A:H61	57:BA:525:U:H3'	1.83	0.43
57:BA:143:G:H2'	57:BA:143(A):C:C6	2.53	0.43
57:BA:197:A:H62	57:BA:2430:A:H2'	1.82	0.43
57:BA:480:A:H2	57:BA:499:U:O2	2.00	0.43
57:BA:572:A:H2'	57:BA:573:G:O4'	2.17	0.43
57:BA:1313:U:H2'	57:BA:1610:A:C2	2.53	0.43
57:BA:1344:G:H4'	57:BA:1384:A:C5	2.53	0.43
57:BA:2222:G:O2'	57:BA:2223:G:H5'	2.17	0.43
57:BA:2294:C:N4	57:BA:2338:G:H1	2.16	0.43
57:BA:2364:C:O2'	57:BA:2365:G:H5'	2.17	0.43
1:Ab:15:VAL:HG23	1:Ab:16:HIS:CE1	2.53	0.43
1:Ab:207:ALA:C	1:Ab:209:ARG:H	2.26	0.43
2:Ac:45:LYS:O	2:Ac:47:LEU:N	2.50	0.43
5:Af:30:LEU:O	5:Af:35:ALA:HB3	2.19	0.43
6:Ag:125:MET:C	6:Ag:127:ALA:N	2.74	0.43
7:Ah:30:ARG:CB	7:Ah:30:ARG:NH1	2.81	0.43
7:Ah:44:PHE:HA	7:Ah:79:VAL:HG12	1.96	0.43
13:An:3:ARG:HG2	13:An:3:ARG:O	2.16	0.43
13:An:13:THR:HG23	13:An:20:ALA:HB2	2.00	0.43
18:As:66:MET:HA	18:As:69:HIS:HD2	1.83	0.43
21:Ay:19:GLY:C	21:Ay:21:THR:H	2.26	0.43
22:Aa:600:C:H2'	22:Aa:601:C:C6	2.53	0.43
22:Aa:1456:G:C2'	22:Aa:1457:G:H5'	2.47	0.43
24:Av:43:A:H2'	24:Av:44:A:C8	2.53	0.43
25:Aw:48:C:C2	25:Aw:59:A:H1'	2.53	0.43
30:AG:98:ARG:CG	51:A4:1:MET:HG2	2.48	0.43
30:AG:125:PHE:CD1	30:AG:125:PHE:N	2.86	0.43
31:AH:160:LYS:NZ	57:AA:2657:A:O2'	2.51	0.43
38:AR:87:TYR:C	38:AR:89:ASP:N	2.76	0.43
38:AR:100:LEU:HD23	38:AR:112:ALA:CA	2.48	0.43
39:AS:97:ARG:NH2	39:AS:98:VAL:CA	2.66	0.43
39:AS:97:ARG:HH21	39:AS:98:VAL:HA	1.72	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:AT:27:THR:O	40:AT:28:VAL:HG23	2.17	0.43
41:AU:72:HIS:ND1	41:AU:110:VAL:HG21	2.33	0.43
43:AW:40:ASN:C	43:AW:41:LYS:HG2	2.41	0.43
46:AZ:31:ARG:HG2	58:AB:106:G:C5'	2.49	0.43
49:A2:48:HIS:O	49:A2:49:LYS:C	2.61	0.43
55:A8:2:PRO:O	55:A8:3:LYS:HB3	2.16	0.43
57:AA:102:G:OP1	57:AA:102:G:C4'	2.65	0.43
57:AA:150:C:H2'	57:AA:151:C:H6	1.84	0.43
57:AA:302:C:H2'	57:AA:303:U:H6	1.83	0.43
57:AA:585:G:H2'	57:AA:1251:C:H42	1.83	0.43
57:AA:836:G:H2'	57:AA:837:C:C6	2.53	0.43
57:AA:1215:G:O2'	57:AA:1216:G:H5'	2.18	0.43
57:AA:2783:G:H2'	57:AA:2784:C:C6	2.53	0.43
57:AA:2884:U:O2'	57:AA:2885:C:H5'	2.18	0.43
1:Bb:111:ARG:HG2	1:Bb:111:ARG:NH1	2.32	0.43
2:Bc:8:ILE:O	2:Bc:11:ARG:N	2.48	0.43
7:Bh:44:PHE:HA	7:Bh:79:VAL:HG12	1.97	0.43
7:Bh:86:ILE:CB	7:Bh:133:LEU:HD22	2.48	0.43
7:Bh:109:ILE:HG12	7:Bh:110:ALA:H	1.81	0.43
8:Bi:31:GLN:HE21	8:Bi:36:TYR:HA	1.83	0.43
9:Bj:6:ILE:HD12	9:Bj:72:VAL:H	1.82	0.43
9:Bj:31:GLY:HA3	9:Bj:78:ASN:HD21	1.77	0.43
10:Bk:57:THR:OG1	10:Bk:58:PRO:HD2	2.18	0.43
12:Bm:70:LEU:HD22	12:Bm:71:ARG:CA	2.46	0.43
12:Bm:115:LYS:O	12:Bm:116:THR:C	2.62	0.43
13:Bn:7:ILE:O	13:Bn:11:LYS:HG2	2.18	0.43
13:Bn:13:THR:N	13:Bn:14:PRO:CD	2.81	0.43
14:Bo:43:LEU:HD11	14:Bo:53:HIS:HA	2.00	0.43
15:Bp:19:ILE:HD12	15:Bp:19:ILE:H	1.83	0.43
21:By:66:VAL:C	21:By:67:ILE:HG13	2.43	0.43
22:Ba:262:A:C6	22:Ba:263:A:C6	3.06	0.43
22:Ba:503:C:C2	22:Ba:504:C:C5	3.06	0.43
22:Ba:662:G:H2'	22:Ba:663:A:H8	1.82	0.43
22:Ba:1060:C:H2'	22:Ba:1061:G:H8	1.84	0.43
22:Ba:1402:C:H2'	22:Ba:1403:C:O4'	2.18	0.43
25:Bw:59:A:C2'	25:Bw:60:U:H5'	2.48	0.43
26:BC:44:VAL:HG13	26:BC:215:VAL:HG22	2.00	0.43
28:BE:24:THR:CG2	28:BE:184:VAL:HG23	2.46	0.43
28:BE:78:LEU:HD12	28:BE:78:LEU:O	2.18	0.43
28:BE:113:PHE:CD1	57:BA:1654:A:H2	2.36	0.43
30:BG:12:TYR:O	30:BG:17:PRO:HD3	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BG:109:VAL:O	30:BG:112:PRO:HB2	2.17	0.43
30:BG:138:GLN:OE1	30:BG:153:ARG:N	2.50	0.43
31:BH:7:LEU:HA	31:BH:8:PRO:HD3	1.80	0.43
37:BQ:55:VAL:HG12	37:BQ:64:ILE:CD1	2.47	0.43
38:BR:11:ASN:CG	38:BR:12:ARG:H	2.24	0.43
40:BT:106:SER:C	40:BT:107:ASP:CG	2.86	0.43
44:BX:26:TYR:CE2	44:BX:89:ILE:HB	2.53	0.43
44:BX:64:LYS:HE2	44:BX:64:LYS:HB3	1.70	0.43
45:BY:29:GLU:OE2	45:BY:38:ILE:HG21	2.17	0.43
48:B1:3:LYS:HA	48:B1:3:LYS:HD2	1.79	0.43
57:BA:68:G:H2'	57:BA:69:C:H6	1.83	0.43
57:BA:68:G:H2'	57:BA:69:C:C6	2.53	0.43
57:BA:192:C:H2'	57:BA:193:U:H5'	2.00	0.43
57:BA:1169:G:N2	57:BA:1181:C:C2	2.86	0.43
57:BA:1308:A:H2'	57:BA:1309:G:O4'	2.18	0.43
57:BA:1771:C:C1'	57:BA:1786:A:H8	2.31	0.43
57:BA:1902:C:C2'	57:BA:1903:G:O5'	2.66	0.43
57:BA:2241:A:H2'	57:BA:2242:G:C8	2.53	0.43
57:BA:2283:C:H2'	57:BA:2284:C:H5'	2.00	0.43
57:BA:2292:C:C2'	57:BA:2293:C:H5'	2.48	0.43
1:Ab:118:LEU:HA	1:Ab:121:LEU:HD12	2.01	0.43
2:Ac:14:ILE:CG1	2:Ac:15:THR:H	2.32	0.43
3:Ad:196:LEU:HD12	3:Ad:196:LEU:N	2.33	0.43
4:Ae:36:ASP:OD1	4:Ae:38:GLN:HB2	2.18	0.43
8:Ai:120:ARG:HH12	22:Aa:1346:A:C5'	2.32	0.43
9:Aj:34:VAL:HG12	9:Aj:35:SER:N	2.34	0.43
9:Aj:53:PRO:HG3	22:Aa:1059:C:O2	2.17	0.43
14:Ao:28:GLN:HG2	22:Aa:657:G:H4'	1.99	0.43
14:Ao:37:ASN:ND2	14:Ao:37:ASN:H	2.14	0.43
15:Ap:21:VAL:O	15:Ap:33:ILE:HG12	2.18	0.43
16:Aq:66:SER:O	16:Aq:67:LYS:C	2.61	0.43
21:Ay:56:ARG:O	21:Ay:59:GLY:N	2.50	0.43
22:Aa:55:A:N7	22:Aa:56:U:C4	2.87	0.43
22:Aa:93:G:O2'	22:Aa:96:U:H5'	2.18	0.43
22:Aa:349:A:O2'	22:Aa:350:G:H5'	2.17	0.43
22:Aa:544:G:C5	22:Aa:545:C:C5	3.06	0.43
22:Aa:707:C:O2'	22:Aa:708:C:H5'	2.17	0.43
22:Aa:751:U:C2'	22:Aa:752:G:H5'	2.48	0.43
22:Aa:981:U:H2'	22:Aa:982:U:C5	2.52	0.43
22:Aa:1023:G:H2'	22:Aa:1024:G:H5'	1.99	0.43
24:Av:19:G:C4	24:Av:57:A:C2	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AE:59:VAL:CG1	28:AE:60:ASN:N	2.81	0.43
30:AG:38:VAL:HG13	30:AG:92:VAL:C	2.43	0.43
34:AN:99:LEU:HD13	34:AN:99:LEU:O	2.18	0.43
36:AP:48:PRO:O	36:AP:50:ARG:N	2.51	0.43
37:AQ:42:ILE:CG2	37:AQ:47:ILE:HG13	2.49	0.43
38:AR:111:LEU:HD23	38:AR:111:LEU:N	2.33	0.43
40:AT:30:VAL:HG12	40:AT:44:ASP:OD2	2.18	0.43
40:AT:57:PHE:O	40:AT:59:THR:HG22	2.18	0.43
40:AT:70:VAL:HG12	40:AT:71:GLY:H	1.83	0.43
42:AV:38:LEU:C	42:AV:38:LEU:HD23	2.44	0.43
47:A0:26:TYR:N	47:A0:26:TYR:CD1	2.86	0.43
49:A2:64:LEU:O	49:A2:64:LEU:HD23	2.17	0.43
50:A3:7:LYS:HD2	50:A3:34:GLU:HG2	2.00	0.43
57:AA:280:C:N3	57:AA:361:G:N2	2.65	0.43
57:AA:419:C:O2'	57:AA:420:C:H5'	2.18	0.43
57:AA:954:G:N2	57:AA:964:C:H1'	2.33	0.43
57:AA:1658:C:H2'	57:AA:1659:U:C6	2.53	0.43
57:AA:2099:U:H3	57:AA:2190:G:H1	1.66	0.43
57:AA:2474:C:H5'	57:AA:2475:C:OP2	2.18	0.43
57:AA:2781:A:H5"	57:AA:2782:G:H5'	2.00	0.43
57:AA:2789:C:N3	57:AA:2894:G:O6	2.51	0.43
58:AB:21:G:N3	58:AB:21:G:H2'	2.33	0.43
3:Bd:18:LYS:CB	3:Bd:33:MET:HG2	2.44	0.43
8:Bi:67:GLY:HA2	22:Ba:1250:A:H5'	1.99	0.43
9:Bj:78:ASN:O	9:Bj:81:THR:HB	2.19	0.43
12:Bm:19:LEU:C	12:Bm:22:ILE:HD13	2.43	0.43
19:Bt:37:SER:HB3	19:Bt:84:LEU:CD2	2.49	0.43
21:By:10:ARG:HH21	21:By:10:ARG:HG3	1.82	0.43
21:By:38:ARG:HH21	21:By:38:ARG:HG3	1.83	0.43
22:Ba:1023:G:H2'	22:Ba:1024:G:H5'	2.00	0.43
22:Ba:1095:U:C5'	22:Ba:1109:C:O2	2.66	0.43
22:Ba:1421:G:O2'	22:Ba:1422:G:H5'	2.18	0.43
22:Ba:1423:G:H2'	22:Ba:1424:C:C6	2.53	0.43
22:Ba:1485:U:O2'	22:Ba:1486:G:H5'	2.18	0.43
22:Ba:1496:C:H2'	22:Ba:1497:G:O4'	2.18	0.43
27:BD:28:GLU:HB2	27:BD:29:PRO:HD3	2.00	0.43
28:BE:104:VAL:HG11	28:BE:188:VAL:HG21	2.00	0.43
28:BE:110:GLY:HA3	28:BE:162:ALA:HB2	2.01	0.43
29:BF:1:MET:O	29:BF:3:GLU:HG2	2.18	0.43
29:BF:24:LEU:CB	29:BF:25:PRO:CD	2.85	0.43
30:BG:72:ARG:HA	30:BG:87:PRO:CD	2.43	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BG:73:ALA:H	30:BG:87:PRO:CG	2.32	0.43
30:BG:110:ALA:O	30:BG:111:LEU:C	2.61	0.43
31:BH:7:LEU:HD21	31:BH:65:HIS:NE2	2.33	0.43
31:BH:118:PRO:HG2	31:BH:121:ILE:HD12	1.99	0.43
34:BN:91:LEU:HD23	34:BN:98:VAL:HG21	2.00	0.43
37:BQ:18:LYS:O	37:BQ:19:GLY:O	2.35	0.43
37:BQ:111:GLU:O	37:BQ:115:MET:HG2	2.18	0.43
39:BS:84:GLN:HB3	39:BS:105:ALA:HB3	2.00	0.43
41:BU:115:ALA:C	41:BU:117:GLN:H	2.25	0.43
42:BV:47:VAL:C	42:BV:49:THR:N	2.75	0.43
42:BV:49:THR:HB	42:BV:50:PRO:HD3	1.96	0.43
42:BV:76:LYS:O	42:BV:79:VAL:HG12	2.18	0.43
45:BY:4:LYS:HD2	45:BY:32:PRO:CG	2.48	0.43
45:BY:8:LYS:HE2	45:BY:72:VAL:O	2.19	0.43
46:BZ:19:ARG:NH1	46:BZ:84:GLU:O	2.51	0.43
47:B0:36:ILE:HD12	47:B0:39:ARG:HG2	1.99	0.43
47:B0:42:GLY:O	47:B0:57:PHE:CG	2.70	0.43
56:B9:1:MET:HE1	56:B9:32:HIS:CD2	2.54	0.43
57:BA:271(Q):G:O2'	57:BA:271(R):G:P	2.77	0.43
57:BA:309:G:N3	57:BA:329:G:O2'	2.50	0.43
57:BA:693:C:O2'	57:BA:694:U:H5'	2.18	0.43
57:BA:754:C:H2'	57:BA:755:C:C6	2.54	0.43
57:BA:1532:C:H2'	57:BA:1533:G:H5'	2.00	0.43
57:BA:1894:C:H2'	57:BA:1895:C:H6	1.83	0.43
57:BA:1914:C:OP1	57:BA:1915:U:OP2	2.37	0.43
57:BA:2011:U:C2'	57:BA:2012:G:H5'	2.47	0.43
57:BA:2011:U:H2'	57:BA:2012:G:H5'	2.00	0.43
57:BA:2100:G:H1	57:BA:2189:U:H3	1.66	0.43
57:BA:2399:G:H2'	57:BA:2400:G:O4'	2.17	0.43
57:BA:2682:U:H5'	57:BA:2682:U:H6	1.82	0.43
1:Ab:142:LEU:HD23	1:Ab:142:LEU:C	2.43	0.43
1:Ab:223:ILE:HG12	1:Ab:226:ARG:HH21	1.82	0.43
3:Ad:64:LEU:HB2	3:Ad:198:VAL:HG21	2.01	0.43
6:Ag:53:LYS:O	6:Ag:54:THR:HB	2.19	0.43
8:Ai:40:LEU:O	8:Ai:42:ARG:N	2.51	0.43
9:Aj:55:LYS:NZ	22:Aa:973:G:N3	2.65	0.43
12:Am:15:VAL:HA	12:Am:18:ALA:HB3	1.98	0.43
15:Ap:49:LEU:HD12	15:Ap:49:LEU:C	2.43	0.43
22:Aa:22:G:O2'	22:Aa:23:C:H5'	2.19	0.43
22:Aa:407:G:H2'	22:Aa:408:A:C8	2.53	0.43
22:Aa:622:A:C8	22:Aa:623:C:C6	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Aa:791:G:C5	22:Aa:792:A:N7	2.86	0.43
22:Aa:1073:U:O2'	22:Aa:1074:G:H5'	2.18	0.43
22:Aa:1171:G:H2'	22:Aa:1172:C:C6	2.54	0.43
24:Av:17:C:OP1	24:Av:61:C:H5'	2.18	0.43
26:AC:185:LYS:HE3	26:AC:185:LYS:HA	2.00	0.43
27:AD:26:LYS:O	27:AD:27:THR:HB	2.17	0.43
27:AD:227:ASN:ND2	57:AA:784:A:H5"	2.33	0.43
27:AD:257:LEU:HD22	27:AD:258:LYS:O	2.19	0.43
27:AD:259:THR:HG21	57:AA:1803:A:HO2'	1.81	0.43
31:AH:9:ILE:CG2	31:AH:50:VAL:O	2.66	0.43
32:AI:25:TYR:CE2	32:AI:29:TYR:CD2	3.06	0.43
34:AN:38:HIS:CE1	34:AN:50:ASP:OD2	2.72	0.43
34:AN:118:LYS:O	34:AN:121:LYS:HE3	2.18	0.43
35:AO:104:ARG:C	35:AO:106:LEU:N	2.74	0.43
36:AP:41:ARG:HE	36:AP:41:ARG:HA	1.83	0.43
40:AT:77:PRO:O	40:AT:78:LEU:HB2	2.18	0.43
41:AU:55:ARG:NH1	57:AA:1155:A:O3'	2.51	0.43
42:AV:85:LYS:HE2	42:AV:85:LYS:HB2	1.73	0.43
53:A6:35:GLU:CB	53:A6:51:GLU:HB2	2.41	0.43
57:AA:469:G:C2'	57:AA:470:A:H5"	2.49	0.43
57:AA:557:U:O2'	57:AA:558:G:H5'	2.19	0.43
57:AA:658:C:H2'	57:AA:659:C:C6	2.53	0.43
57:AA:782:A:H5'	57:AA:783:A:C2	2.53	0.43
57:AA:1021:A:H2'	57:AA:1023:U:H5'	2.01	0.43
57:AA:1261:C:H2'	57:AA:1262:A:O5'	2.19	0.43
57:AA:1313:U:H2'	57:AA:1610:A:C2	2.53	0.43
57:AA:1478:G:O2'	57:AA:1479:G:H5'	2.18	0.43
57:AA:1861:G:O2'	57:AA:1862:G:H5'	2.19	0.43
57:AA:2230:G:C5	57:AA:2231:C:C5	3.06	0.43
1:Bb:207:ALA:C	1:Bb:209:ARG:H	2.26	0.43
3:Bd:119:GLN:CG	3:Bd:123:HIS:CD2	2.98	0.43
4:Be:112:LEU:C	4:Be:114:GLY:H	2.25	0.43
6:Bg:74:GLU:O	6:Bg:88:PRO:HA	2.18	0.43
8:Bi:20:ARG:O	8:Bi:21:PRO:C	2.61	0.43
8:Bi:65:VAL:HG21	8:Bi:73:GLN:HB3	2.00	0.43
8:Bi:126:SER:O	8:Bi:127:LYS:HB3	2.19	0.43
9:Bj:51:ARG:HE	9:Bj:61:GLU:HB2	1.84	0.43
9:Bj:53:PRO:HG3	22:Ba:1059:C:O2	2.19	0.43
21:By:47:MET:HE2	21:By:48:PRO:HD3	2.00	0.43
21:By:54:LYS:HG3	21:By:61:ARG:NE	2.33	0.43
22:Ba:60:A:H8	22:Ba:60:A:P	2.41	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Ba:1174:G:O2'	22:Ba:1175:G:H5'	2.18	0.43
22:Ba:1201:A:H1'	22:Ba:1202:G:OP2	2.18	0.43
24:Bv:3:C:H42	24:Bv:70:G:H1	1.65	0.43
24:Bv:72:A:O2'	24:Bv:73:A:H5"	2.18	0.43
25:Bw:4:G:O2'	25:Bw:5:G:C8	2.66	0.43
26:BC:57:GLN:NE2	26:BC:204:GLY:O	2.51	0.43
27:BD:14:ARG:NH2	57:BA:1693:U:O2'	2.51	0.43
28:BE:11:MET:HB2	28:BE:23:VAL:O	2.18	0.43
29:BF:9:ILE:HG22	29:BF:9:ILE:O	2.18	0.43
32:BI:76:THR:HG21	32:BI:139:GLN:NE2	2.30	0.43
32:BI:82:ARG:HA	32:BI:145:VAL:CG1	2.48	0.43
35:BO:24:VAL:CG2	35:BO:33:ALA:HB2	2.48	0.43
35:BO:64:ARG:CZ	40:BT:70:VAL:HG21	2.47	0.43
36:BP:35:HIS:CA	57:BA:1190:G:H5'	2.47	0.43
38:BR:65:LEU:HD12	38:BR:65:LEU:HA	1.74	0.43
42:BV:76:LYS:HG3	42:BV:81:TYR:CD1	2.53	0.43
45:BY:8:LYS:HB2	45:BY:28:LYS:HE2	2.00	0.43
45:BY:13:VAL:CG2	45:BY:14:LEU:N	2.82	0.43
46:BZ:39:VAL:HG11	46:BZ:88:PHE:CE1	2.53	0.43
46:BZ:110:GLY:CA	46:BZ:146:ILE:HG23	2.48	0.43
46:BZ:157:LEU:N	46:BZ:157:LEU:CD2	2.80	0.43
47:B0:27:GLU:OE2	47:B0:69:PHE:HB2	2.18	0.43
47:B0:66:VAL:CG1	47:B0:67:VAL:N	2.80	0.43
48:B1:92:LYS:HE3	57:BA:153:C:OP1	2.18	0.43
51:B4:43:TYR:O	51:B4:44:THR:O	2.34	0.43
57:BA:236:C:H2'	57:BA:237:C:C6	2.54	0.43
57:BA:1040:C:O2'	57:BA:1041:C:P	2.76	0.43
57:BA:1547:C:H2'	57:BA:1548:C:H6	1.83	0.43
57:BA:1899:G:O2'	57:BA:1900:A:H5"	2.18	0.43
57:BA:2199:A:H2'	57:BA:2199:A:N3	2.32	0.43
57:BA:2383:G:O2'	57:BA:2384:G:H5'	2.18	0.43
57:BA:2498:C:O2'	57:BA:2499:C:H5'	2.18	0.43
57:BA:2712:U:O2'	57:BA:2712(A):A:P	2.76	0.43
57:BA:2837:G:H2'	57:BA:2838:G:H8	1.82	0.43
58:BB:37:C:C2'	58:BB:38:C:H5'	2.49	0.43
1:Ab:80:ILE:HD12	1:Ab:80:ILE:N	2.06	0.43
2:Ac:3:ASN:HB2	2:Ac:4:LYS:H	1.55	0.43
2:Ac:86:VAL:O	2:Ac:89:GLU:HB3	2.18	0.43
3:Ad:127:THR:HG22	3:Ad:147:ALA:O	2.19	0.43
6:Ag:4:ARG:HH11	6:Ag:4:ARG:HG2	1.84	0.43
7:Ah:130:GLY:C	22:Aa:599:C:H4'	2.43	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:Ai:5:TYR:CD2	8:Ai:18:PHE:HE2	2.35	0.43
9:Aj:11:PHE:O	9:Aj:68:HIS:HE1	2.02	0.43
9:Aj:16:LEU:CD2	9:Aj:94:VAL:HG13	2.48	0.43
11:Al:41:ARG:HH11	11:Al:41:ARG:CB	2.31	0.43
12:Am:69:GLU:CA	12:Am:70:LEU:CB	2.95	0.43
16:Aq:53:LEU:HD22	16:Aq:82:MET:HE1	2.01	0.43
18:As:14:HIS:CD2	22:Aa:1014:A:H5'	2.54	0.43
19:At:50:GLU:HA	19:At:100:ILE:HG22	2.01	0.43
22:Aa:221:C:H2'	22:Aa:222:U:H6	1.83	0.43
22:Aa:328:C:O2'	22:Aa:329:A:P	2.76	0.43
22:Aa:997:U:H2'	22:Aa:998:G:C8	2.54	0.43
22:Aa:1091:U:O2	22:Aa:1093:A:C8	2.68	0.43
22:Aa:1309:G:N2	22:Aa:1329:A:H1'	2.34	0.43
22:Aa:1360:A:OP1	22:Aa:1360:A:H8	2.00	0.43
22:Aa:1471:G:O2'	22:Aa:1472:U:H5'	2.17	0.43
23:Ax:18:G:O2'	23:Ax:19:OMU:P	2.76	0.43
23:Ax:19:OMU:O2	23:Ax:19:OMU:C2'	2.66	0.43
26:AC:53:ARG:HD3	26:AC:53:ARG:N	2.23	0.43
28:AE:101:ARG:C	28:AE:201:THR:HG22	2.43	0.43
30:AG:60:LEU:HD12	30:AG:68:PRO:HG3	1.99	0.43
30:AG:86:MET:N	30:AG:87:PRO:CD	2.82	0.43
31:AH:88:LEU:N	31:AH:88:LEU:HD22	2.32	0.43
32:AI:68:LEU:HG	32:AI:72:LEU:CD2	2.48	0.43
37:AQ:109:VAL:HG12	37:AQ:110:THR:N	2.33	0.43
38:AR:56:LYS:C	38:AR:58:GLY:H	2.27	0.43
40:AT:128:GLU:CD	40:AT:129:ARG:H	2.27	0.43
45:AY:9:LYS:O	45:AY:28:LYS:HG3	2.18	0.43
53:A6:14:THR:HG22	53:A6:50:ARG:O	2.19	0.43
55:A8:40:GLU:C	55:A8:42:ARG:H	2.26	0.43
55:A8:61:LEU:CD1	55:A8:62:LEU:HG	2.32	0.43
56:A9:19:ARG:NH1	57:AA:2755:C:C5	2.87	0.43
57:AA:20:C:H2'	57:AA:21:A:C8	2.53	0.43
57:AA:142:A:C8	57:AA:1408:C:H1'	2.54	0.43
57:AA:271(M):G:O2'	57:AA:271(O):C:H5'	2.18	0.43
57:AA:531:C:OP1	57:AA:561:G:N1	2.51	0.43
57:AA:1317:A:H2'	57:AA:1318:C:H6	1.82	0.43
57:AA:1357:U:H2'	57:AA:1358:G:O4'	2.19	0.43
2:Bc:5:ILE:O	2:Bc:6:HIS:C	2.61	0.43
2:Bc:16:ARG:HB2	2:Bc:16:ARG:CZ	2.48	0.43
2:Bc:68:VAL:O	2:Bc:68:VAL:HG12	2.17	0.43
2:Bc:70:VAL:O	2:Bc:105:GLU:HA	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Bd:127:THR:HG22	3:Bd:147:ALA:O	2.18	0.43
4:Be:18:ARG:HD3	22:Ba:1081:G:H5"	1.99	0.43
4:Be:20:GLN:O	4:Be:21:ALA:C	2.62	0.43
7:Bh:21:LYS:O	7:Bh:65:TYR:OH	2.30	0.43
7:Bh:27:PRO:O	7:Bh:32:LYS:HD3	2.19	0.43
7:Bh:120:THR:O	7:Bh:121:ASP:C	2.61	0.43
9:Bj:3:LYS:NZ	9:Bj:76:ASN:HA	2.34	0.43
9:Bj:81:THR:C	9:Bj:83:GLU:H	2.26	0.43
9:Bj:85:LEU:C	9:Bj:87:THR:H	2.27	0.43
11:Bl:89:ARG:HD3	11:Bl:90:VAL:N	2.33	0.43
14:Bo:54:ARG:HD2	22:Ba:728:A:C6	2.53	0.43
14:Bo:64:ARG:HG3	14:Bo:64:ARG:NH1	2.33	0.43
19:Bt:73:HIS:O	19:Bt:76:ALA:HB3	2.19	0.43
21:By:22:VAL:C	21:By:24:GLU:H	2.26	0.43
22:Ba:22:G:H4'	22:Ba:885:G:C8	2.53	0.43
22:Ba:93:G:C6	22:Ba:96:U:C4	3.07	0.43
22:Ba:346:G:OP1	40:BT:41:ARG:NH1	2.49	0.43
22:Ba:538:G:O2'	22:Ba:539:A:H5'	2.18	0.43
22:Ba:543:C:O2'	22:Ba:544:G:H5'	2.19	0.43
22:Ba:706:A:C5	22:Ba:707:C:C5	3.06	0.43
22:Ba:1133:G:C1'	22:Ba:1142:G:H22	2.32	0.43
22:Ba:1256:A:H61	22:Ba:1278:U:H1'	1.82	0.43
22:Ba:1272:G:N2	22:Ba:1273:G:H1'	2.34	0.43
22:Ba:1360:A:H8	22:Ba:1360:A:OP1	2.01	0.43
26:BC:23:ILE:HG22	26:BC:23:ILE:O	2.19	0.43
27:BD:97:TYR:CE1	27:BD:103:ARG:HG3	2.53	0.43
27:BD:118:VAL:CG2	27:BD:119:ALA:N	2.80	0.43
29:BF:63:LYS:HE3	29:BF:67:GLN:CB	2.49	0.43
29:BF:68:LYS:C	29:BF:70:THR:H	2.26	0.43
36:BP:33:ARG:NH2	57:BA:587:C:C2'	2.81	0.43
36:BP:41:ARG:NH1	36:BP:45:LEU:HD12	2.31	0.43
37:BQ:39:PRO:HA	37:BQ:97:VAL:O	2.18	0.43
40:BT:54:ARG:HG2	40:BT:54:ARG:NH1	2.32	0.43
45:BY:26:LYS:O	45:BY:27:VAL:C	2.60	0.43
48:B1:23:LYS:HE2	48:B1:28:GLY:H	1.83	0.43
52:B5:3:LYS:HG2	57:BA:2015:A:H2	1.83	0.43
53:B6:16:CYS:O	53:B6:17:LYS:HB2	2.18	0.43
55:B8:38:GLY:O	55:B8:42:ARG:HB2	2.18	0.43
57:BA:83:G:N2	57:BA:102:G:H2'	2.33	0.43
57:BA:244:A:H2'	57:BA:245:G:O4'	2.18	0.43
57:BA:260:G:O4'	57:BA:621:A:H1'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BA:426:C:O2'	57:BA:427:U:H5'	2.18	0.43
57:BA:668:G:H3'	57:BA:669:G:H5"	2.00	0.43
57:BA:1385:G:O2'	57:BA:1396:U:H6	2.00	0.43
57:BA:1582:C:O2'	57:BA:1586:A:C8	2.67	0.43
57:BA:2136:C:H2'	57:BA:2137:C:C6	2.54	0.43
57:BA:2628:C:H1'	57:BA:2781:A:H2'	1.99	0.43
57:BA:2789:C:N3	57:BA:2894:G:O6	2.52	0.43
58:BB:111:G:H2'	58:BB:112:U:O4'	2.19	0.43
1:Ab:18:GLY:HA2	1:Ab:42:ILE:HG22	2.00	0.43
1:Ab:162:ILE:CD1	1:Ab:184:VAL:HG22	2.37	0.43
2:Ac:82:GLU:CD	2:Ac:82:GLU:H	2.26	0.43
2:Ac:148:GLY:CA	2:Ac:203:PHE:HB3	2.49	0.43
3:Ad:88:VAL:O	3:Ad:92:VAL:HG23	2.19	0.43
3:Ad:162:LEU:HD13	3:Ad:181:MET:HG2	1.99	0.43
6:Ag:119:ARG:C	6:Ag:121:ALA:N	2.74	0.43
11:Al:87:GLY:H	11:Al:99:HIS:H	1.65	0.43
13:An:29:ARG:HD3	22:Aa:1202:G:C1'	2.48	0.43
16:Aq:9:VAL:HG11	16:Aq:84:LEU:CD1	2.48	0.43
16:Aq:56:VAL:O	16:Aq:77:VAL:HB	2.18	0.43
21:Ay:90:ALA:C	21:Ay:92:LYS:N	2.75	0.43
22:Aa:328:C:O2	22:Aa:328:C:C2'	2.67	0.43
22:Aa:356:A:H2'	22:Aa:357:G:H8	1.84	0.43
22:Aa:444:C:H2'	22:Aa:445:G:C8	2.54	0.43
22:Aa:598:U:H2'	22:Aa:599:C:C6	2.54	0.43
22:Aa:937:A:C5	22:Aa:938:A:N7	2.86	0.43
22:Aa:947:G:H2'	22:Aa:948:C:C6	2.54	0.43
22:Aa:1049:U:O2'	22:Aa:1050:G:OP2	2.33	0.43
22:Aa:1218:C:H2'	22:Aa:1219:U:C5	2.52	0.43
22:Aa:1272:G:N2	22:Aa:1273:G:H1'	2.33	0.43
27:AD:35:LYS:C	27:AD:35:LYS:CD	2.84	0.43
27:AD:76:PRO:HG2	27:AD:98:VAL:CG2	2.49	0.43
29:AF:125:LEU:HD13	29:AF:199:TRP:CG	2.52	0.43
29:AF:133:ASN:O	29:AF:135:LYS:N	2.52	0.43
30:AG:33:ARG:HB3	30:AG:34:LEU:H	1.63	0.43
31:AH:42:ARG:NH1	31:AH:42:ARG:HG3	2.33	0.43
31:AH:54:ARG:HG2	31:AH:54:ARG:NH1	2.31	0.43
32:AI:75:LEU:HD12	32:AI:75:LEU:N	2.33	0.43
36:AP:27:HIS:HD2	36:AP:28:GLY:N	2.16	0.43
36:AP:33:ARG:HD3	57:AA:587:C:C6	2.54	0.43
36:AP:41:ARG:NH1	36:AP:45:LEU:HD12	2.32	0.43
37:AQ:12:GLN:CG	37:AQ:73:PRO:HD2	2.45	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:AR:11:ASN:CG	38:AR:12:ARG:N	2.75	0.43
38:AR:79:LEU:HA	38:AR:83:ILE:HB	2.01	0.43
40:AT:11:GLU:O	40:AT:13:ARG:N	2.51	0.43
41:AU:8:VAL:HG23	57:AA:1216:G:OP1	2.17	0.43
44:AX:26:TYR:CE2	44:AX:89:ILE:HB	2.53	0.43
46:AZ:14:LYS:C	46:AZ:16:SER:N	2.76	0.43
46:AZ:146:ILE:HD12	57:AA:896:A:N3	2.33	0.43
47:A0:20:ARG:HD3	57:AA:2356:C:O3'	2.18	0.43
49:A2:38:GLN:HA	49:A2:41:ILE:HG12	2.00	0.43
49:A2:69:ARG:O	49:A2:70:GLN:CB	2.67	0.43
53:A6:19:ARG:HD2	53:A6:19:ARG:H	1.83	0.43
57:AA:142:A:H8	57:AA:1595:G:H21	1.64	0.43
57:AA:780:G:H21	57:AA:783:A:H62	1.66	0.43
57:AA:790:C:O2'	57:AA:791:C:OP1	2.32	0.43
57:AA:975:C:O2	57:AA:975:C:H2'	2.18	0.43
57:AA:1448:G:H2'	57:AA:1449:A:C8	2.53	0.43
57:AA:1833:U:O2	57:AA:1969:A:H2	2.01	0.43
57:AA:1876:A:H2'	57:AA:1877:A:C8	2.54	0.43
57:AA:2178:C:H3'	57:AA:2179:C:H5"	2.01	0.43
57:AA:2292:C:C2'	57:AA:2293:C:H5'	2.48	0.43
57:AA:2468:G:HO2'	57:AA:2476:A:H8	1.65	0.43
57:AA:2521:C:H42	57:AA:2544:G:H1	1.66	0.43
1:Bb:92:TYR:CD1	1:Bb:151:GLY:HA3	2.54	0.43
1:Bb:193:ASP:OD2	1:Bb:193:ASP:O	2.36	0.43
1:Bb:219:VAL:HA	1:Bb:222:ILE:HB	2.00	0.43
2:Bc:95:THR:C	2:Bc:97:LYS:H	2.26	0.43
3:Bd:162:LEU:CD2	3:Bd:178:VAL:HG13	2.49	0.43
8:Bi:11:LYS:HG2	22:Ba:1371:G:OP1	2.18	0.43
8:Bi:11:LYS:O	8:Bi:12:GLU:C	2.61	0.43
8:Bi:111:ARG:O	8:Bi:113:LYS:HD2	2.18	0.43
10:Bk:61:ALA:CB	10:Bk:90:GLY:HA3	2.48	0.43
11:Bl:83:VAL:HG13	11:Bl:100:ILE:HG23	1.99	0.43
16:Bq:12:SER:HB3	16:Bq:20:THR:CB	2.49	0.43
16:Bq:56:VAL:O	16:Bq:77:VAL:HB	2.19	0.43
22:Ba:189(C):C:H2'	22:Ba:189(D):C:O4'	2.18	0.43
22:Ba:359:U:H2'	22:Ba:360:A:H8	1.83	0.43
22:Ba:519:C:H2'	22:Ba:520:A:C8	2.53	0.43
22:Ba:530:G:HO2'	22:Ba:531:U:P	2.42	0.43
22:Ba:570:G:H2'	22:Ba:571:U:C6	2.54	0.43
22:Ba:585:G:O2'	22:Ba:879:C:H5"	2.18	0.43
22:Ba:626:U:O2'	22:Ba:627:G:H5'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Ba:1131:G:N7	22:Ba:1132:C:N4	2.67	0.43
22:Ba:1239:A:H62	22:Ba:1299:A:H62	1.67	0.43
26:BC:28:ARG:NH1	26:BC:28:ARG:CB	2.81	0.43
26:BC:38:PHE:CD1	57:BA:2127:G:H4'	2.53	0.43
28:BE:77:ILE:CG2	28:BE:78:LEU:H	2.00	0.43
31:BH:98:LEU:HD13	31:BH:125:VAL:HG23	1.99	0.43
32:BI:37:VAL:HG12	32:BI:38:LEU:N	2.33	0.43
37:BQ:72:LYS:O	37:BQ:93:TYR:HA	2.18	0.43
42:BV:15:GLU:O	42:BV:16:PRO:O	2.36	0.43
47:B0:19:LYS:CD	47:B0:41:ARG:HH22	2.32	0.43
51:B4:16:CYS:SG	51:B4:36:CYS:SG	3.17	0.43
54:B7:12:ARG:NH2	54:B7:44:PRO:HB3	2.33	0.43
57:BA:83:G:N2	57:BA:103:A:OP2	2.50	0.43
57:BA:271(Q):G:HO2'	57:BA:271(R):G:P	2.42	0.43
57:BA:545:C:H2'	57:BA:547:A:C5'	2.48	0.43
57:BA:548:A:C3'	57:BA:549:G:H5'	2.48	0.43
57:BA:1014:U:H2'	57:BA:1015:G:H5'	2.00	0.43
57:BA:2248:C:C2'	57:BA:2249:U:H5'	2.49	0.43
57:BA:2777:G:H5"	57:BA:2778:A:H5'	2.00	0.43
2:Ac:5:ILE:O	2:Ac:6:HIS:C	2.61	0.43
3:Ad:72:GLU:HB3	22:Aa:546:G:P	2.58	0.43
3:Ad:173:TRP:HA	3:Ad:187:ARG:NH1	2.33	0.43
5:Af:22:GLU:OE1	5:Af:84:ASN:ND2	2.46	0.43
7:Ah:83:ILE:HD12	7:Ah:137:VAL:HG22	1.99	0.43
9:Aj:55:LYS:CD	22:Aa:963:G:H21	2.30	0.43
9:Aj:85:LEU:C	9:Aj:87:THR:H	2.26	0.43
12:Am:113:PRO:HB2	12:Am:114:ARG:H	1.61	0.43
13:An:13:THR:N	13:An:14:PRO:CD	2.81	0.43
13:An:53:LEU:HD23	13:An:53:LEU:HA	1.91	0.43
14:Ao:55:GLY:O	14:Ao:56:LEU:C	2.60	0.43
16:Aq:22:LEU:CD1	16:Aq:39:SER:HB2	2.38	0.43
22:Aa:538:G:O2'	22:Aa:539:A:H5'	2.18	0.43
22:Aa:880:C:O2'	22:Aa:881:G:H5'	2.18	0.43
22:Aa:1053:G:O6	22:Aa:1199:U:H2'	2.19	0.43
22:Aa:1458:G:HO2'	22:Aa:1459:C:H5'	1.84	0.43
24:Av:5:G:C2'	24:Av:6:G:H5'	2.48	0.43
26:AC:6:LYS:HB3	57:AA:2132:U:C4	2.54	0.43
26:AC:28:ARG:CB	26:AC:28:ARG:NH1	2.81	0.43
27:AD:31:LYS:C	27:AD:33:LEU:H	2.25	0.43
27:AD:69:ARG:C	27:AD:71:ASP:N	2.77	0.43
28:AE:34:VAL:CG2	28:AE:48:GLN:HE21	2.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AE:59:VAL:CG2	28:AE:63:LEU:HA	2.46	0.43
30:AG:45:GLU:C	30:AG:88:ILE:HG13	2.42	0.43
30:AG:116:ASP:O	30:AG:117:PHE:O	2.36	0.43
31:AH:83:TYR:O	31:AH:84:SER:HB3	2.19	0.43
35:AO:64:ARG:HB2	35:AO:83:ALA:HB3	2.00	0.43
36:AP:33:ARG:NH2	57:AA:587:C:C2'	2.81	0.43
38:AR:32:GLY:C	38:AR:33:ARG:HD2	2.44	0.43
41:AU:17:ILE:O	41:AU:20:LEU:HB2	2.19	0.43
46:AZ:118:GLN:NE2	46:AZ:175:VAL:HG11	2.34	0.43
47:A0:19:LYS:CD	47:A0:41:ARG:HH22	2.32	0.43
47:A0:36:ILE:HD11	47:A0:39:ARG:HG2	2.00	0.43
47:A0:51:VAL:HG21	47:A0:80:HIS:HA	2.00	0.43
51:A4:2:LYS:CB	58:AB:40:U:O4	2.63	0.43
51:A4:27:THR:O	51:A4:28:LYS:HB3	2.17	0.43
52:A5:3:LYS:HZ1	52:A5:5:PRO:HB2	1.84	0.43
56:A9:7:VAL:HG21	56:A9:36:GLN:HB2	2.00	0.43
57:AA:262:A:H2'	57:AA:263:C:O4'	2.19	0.43
57:AA:414:C:O2	57:AA:1864:U:O2'	2.34	0.43
57:AA:470:A:H2'	57:AA:471:A:O4'	2.18	0.43
57:AA:527:C:H4'	57:AA:528:A:O5'	2.18	0.43
57:AA:541:C:O2'	57:AA:542:C:H5'	2.19	0.43
57:AA:609:A:H2'	57:AA:610:G:O4'	2.19	0.43
57:AA:774:A:C2	57:AA:787:U:O2'	2.68	0.43
57:AA:916:G:C2'	57:AA:917:A:H5"	2.48	0.43
57:AA:1204:A:H2	57:AA:1241:A:N1	2.17	0.43
57:AA:1340:U:H4'	57:AA:1341:U:OP2	2.18	0.43
57:AA:1751:C:O2'	57:AA:1752:C:H5'	2.19	0.43
57:AA:1970:A:H5'	57:AA:1972:A:H1'	1.99	0.43
57:AA:2801(A):A:H5'	57:AA:2802:G:C8	2.46	0.43
58:AB:82:G:O2'	58:AB:83:G:H5'	2.19	0.43
2:Bc:22:TRP:HE3	2:Bc:23:TYR:O	2.02	0.43
3:Bd:46:LYS:O	3:Bd:48:ALA:N	2.52	0.43
4:Be:6:PHE:HB2	4:Be:34:VAL:HG22	2.00	0.43
4:Be:64:ARG:HG2	4:Be:64:ARG:O	2.19	0.43
4:Be:105:VAL:N	4:Be:106:PRO:HD2	2.33	0.43
8:Bi:18:PHE:HB2	8:Bi:62:TYR:O	2.18	0.43
8:Bi:40:LEU:O	8:Bi:42:ARG:N	2.51	0.43
9:Bj:55:LYS:CD	22:Ba:963:G:H21	2.31	0.43
12:Bm:108:ARG:O	12:Bm:109:THR:C	2.60	0.43
18:Bs:66:MET:HA	18:Bs:69:HIS:HD2	1.82	0.43
18:Bs:73:GLU:O	18:Bs:73:GLU:HG2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Ba:102:G:H2'	22:Ba:103:C:C6	2.53	0.43
22:Ba:728:A:H2'	22:Ba:729:A:C8	2.54	0.43
22:Ba:1309:G:N2	22:Ba:1329:A:H1'	2.34	0.43
22:Ba:1426:C:H2'	22:Ba:1427:U:H6	1.82	0.43
22:Ba:1457:G:O2'	22:Ba:1458:G:H5'	2.18	0.43
25:Bw:29:G:O2'	25:Bw:30:G:H5'	2.19	0.43
26:BC:16:ASP:HB3	26:BC:19:LYS:HB2	2.01	0.43
27:BD:101:GLU:OE1	27:BD:103:ARG:HD3	2.19	0.43
27:BD:270:ILE:C	27:BD:270:ILE:HD12	2.44	0.43
29:BF:21:ALA:C	29:BF:23:ASP:N	2.71	0.43
30:BG:76:SER:HB3	30:BG:83:ARG:CB	2.40	0.43
30:BG:140:ILE:HD12	30:BG:140:ILE:O	2.19	0.43
34:BN:65:LYS:HD2	34:BN:69:GLN:NE2	2.34	0.43
38:BR:33:ARG:HD2	38:BR:33:ARG:N	2.34	0.43
38:BR:79:LEU:HA	38:BR:83:ILE:HB	1.99	0.43
41:BU:72:HIS:ND1	41:BU:110:VAL:HG21	2.33	0.43
45:BY:14:LEU:HD12	45:BY:15:VAL:N	2.34	0.43
45:BY:95:LYS:HD3	45:BY:100:ALA:CA	2.48	0.43
51:B4:20:ASN:ND2	51:B4:20:ASN:C	2.76	0.43
53:B6:9:LEU:HD12	53:B6:28:ARG:HG3	2.01	0.43
57:BA:435:C:H2'	57:BA:436:C:H5'	2.00	0.43
57:BA:651:G:C2'	57:BA:652:C:H5'	2.49	0.43
57:BA:651:G:H2'	57:BA:652:C:H5'	1.99	0.43
57:BA:1826:G:H2'	57:BA:1827:C:C6	2.50	0.43
57:BA:1998:G:O2'	57:BA:1999:C:H5'	2.19	0.43
57:BA:2378:A:H8	57:BA:2378:A:O5'	2.02	0.43
57:BA:2801(A):A:H5'	57:BA:2802:G:C8	2.47	0.43
2:Ac:25:GLY:C	2:Ac:27:LYS:H	2.26	0.43
3:Ad:98:GLU:OE2	3:Ad:107:ARG:HD2	2.19	0.43
4:Ae:20:GLN:O	4:Ae:21:ALA:C	2.61	0.43
4:Ae:64:ARG:HG2	4:Ae:64:ARG:O	2.19	0.43
4:Ae:91:LEU:HD13	4:Ae:120:THR:CG2	2.48	0.43
7:Ah:1:MET:O	7:Ah:2:LEU:O	2.36	0.43
7:Ah:29:SER:HA	22:Aa:590:C:OP1	2.19	0.43
8:Ai:20:ARG:O	8:Ai:21:PRO:C	2.61	0.43
8:Ai:103:THR:CG2	8:Ai:104:ARG:N	2.70	0.43
9:Aj:30:SER:C	9:Aj:80:LYS:NZ	2.77	0.43
9:Aj:52:GLY:N	22:Aa:1060:C:H4'	2.34	0.43
9:Aj:78:ASN:O	9:Aj:81:THR:HB	2.18	0.43
11:Al:89:ARG:HD3	11:Al:90:VAL:N	2.34	0.43
12:Am:29:ARG:NH1	12:Am:64:TRP:CD2	2.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:Ao:17:ARG:HD3	14:Ao:26:GLU:OE1	2.18	0.43
19:At:96:GLY:O	19:At:97:ALA:O	2.36	0.43
21:Ay:56:ARG:NH2	23:Ax:22:A:N1	2.67	0.43
21:Ay:68:ASP:O	21:Ay:69:GLU:C	2.61	0.43
22:Aa:114:U:O2'	22:Aa:115:G:H5'	2.19	0.43
22:Aa:544:G:C6	22:Aa:545:C:C4	3.07	0.43
22:Aa:735:C:H2'	22:Aa:736:C:C6	2.54	0.43
22:Aa:1352:C:H2'	22:Aa:1353:G:H8	1.84	0.43
22:Aa:1399:C:C2	22:Aa:1502:A:N6	2.87	0.43
22:Aa:1423:G:H5'	35:AO:49:ARG:HH21	1.83	0.43
26:AC:28:ARG:NH1	26:AC:28:ARG:HB3	2.33	0.43
27:AD:206:LEU:HA	27:AD:211:ARG:NH1	2.34	0.43
28:AE:4:ILE:HD13	28:AE:28:ALA:CB	2.38	0.43
29:AF:175:THR:O	29:AF:176:LEU:HB2	2.18	0.43
29:AF:185:ASP:HA	29:AF:188:ARG:CD	2.49	0.43
30:AG:96:ARG:O	30:AG:97:ASP:C	2.62	0.43
31:AH:7:LEU:HD12	31:AH:7:LEU:N	2.34	0.43
34:AN:91:LEU:HD23	34:AN:98:VAL:HG21	2.01	0.43
38:AR:36:THR:CG2	57:AA:1278:A:H5"	2.47	0.43
40:AT:119:LYS:NZ	57:AA:2867:G:OP2	2.49	0.43
41:AU:61:TRP:CE2	41:AU:94:ASN:HA	2.53	0.43
42:AV:19:LYS:C	42:AV:20:LEU:HD12	2.43	0.43
42:AV:82:ARG:HG2	42:AV:82:ARG:NH1	2.34	0.43
44:AX:46:ALA:HA	49:A2:30:ARG:HH21	1.84	0.43
45:AY:30:VAL:HG12	45:AY:31:LEU:N	2.33	0.43
46:AZ:80:ARG:O	46:AZ:81:ARG:C	2.61	0.43
46:AZ:168:GLU:HA	46:AZ:168:GLU:OE2	2.18	0.43
47:A0:37:LEU:C	47:A0:38:VAL:HG23	2.44	0.43
53:A6:14:THR:O	53:A6:14:THR:HG23	2.19	0.43
57:AA:954:G:O2'	57:AA:955:C:H5'	2.19	0.43
57:AA:1448:G:H5'	57:AA:1449:A:OP1	2.18	0.43
57:AA:1742:G:N7	57:AA:1743:C:C4	2.87	0.43
57:AA:2230:G:H2'	57:AA:2231:C:H6	1.82	0.43
58:AB:11:C:H3'	58:AB:12:C:H6	1.84	0.43
1:Bb:62:ALA:O	1:Bb:64:ARG:N	2.51	0.43
3:Bd:2:GLY:HA2	22:Ba:547:A:OP2	2.18	0.43
3:Bd:25:ARG:C	3:Bd:27:TYR:N	2.76	0.43
3:Bd:41:GLY:C	3:Bd:43:HIS:N	2.76	0.43
3:Bd:101:LEU:HD23	3:Bd:121:VAL:HG11	2.01	0.43
4:Be:6:PHE:HB3	4:Be:35:GLY:O	2.19	0.43
6:Bg:32:ARG:O	6:Bg:33:ASP:HB2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:Bi:91:ASP:O	8:Bi:92:TYR:HD1	2.02	0.43
12:Bm:66:LEU:N	12:Bm:70:LEU:HD13	2.32	0.43
12:Bm:78:ILE:HG23	12:Bm:92:HIS:CE1	2.54	0.43
13:Bn:47:LEU:O	13:Bn:50:LYS:N	2.51	0.43
16:Bq:33:GLY:O	16:Bq:34:LYS:C	2.61	0.43
22:Ba:166:G:H2'	22:Ba:167:G:H8	1.83	0.43
22:Ba:424:G:O2'	22:Ba:425:G:H5'	2.19	0.43
22:Ba:516:U:O2'	22:Ba:517:G:H5'	2.19	0.43
22:Ba:622:A:C8	22:Ba:623:C:C6	3.07	0.43
22:Ba:751:U:C2'	22:Ba:752:G:H5'	2.48	0.43
22:Ba:987:G:H2'	22:Ba:988:G:H8	1.84	0.43
22:Ba:1218:C:H2'	22:Ba:1219:U:C5	2.54	0.43
22:Ba:1301:U:H3'	22:Ba:1302:U:H5"	2.01	0.43
22:Ba:1349:A:H2'	22:Ba:1350:A:O4'	2.19	0.43
26:BC:51:ASP:HB3	26:BC:54:ARG:CG	2.49	0.43
27:BD:61:LEU:O	27:BD:63:ARG:NH1	2.52	0.43
28:BE:52:LEU:HD12	28:BE:52:LEU:HA	1.91	0.43
28:BE:96:PHE:HA	28:BE:100:GLU:OE1	2.19	0.43
30:BG:41:GLN:HE21	30:BG:155:MET:HB3	1.83	0.43
31:BH:41:MET:SD	31:BH:53:GLU:N	2.84	0.43
34:BN:132:ALA:O	34:BN:133:GLN:CB	2.65	0.43
35:BO:87:ILE:HG22	35:BO:88:ASN:O	2.19	0.43
36:BP:40:SER:C	36:BP:41:ARG:HE	2.26	0.43
36:BP:53:GLY:HA2	57:BA:832:G:H21	1.83	0.43
40:BT:88:ILE:HG22	40:BT:89:VAL:HG13	2.01	0.43
40:BT:114:LEU:HD23	40:BT:114:LEU:HA	1.80	0.43
42:BV:27:ALA:O	42:BV:28:GLU:O	2.37	0.43
45:BY:52:SER:O	45:BY:54:LYS:N	2.51	0.43
47:B0:27:GLU:OE1	57:BA:856:C:C1'	2.67	0.43
50:B3:8:LEU:HD13	50:B3:31:LEU:HD23	1.97	0.43
53:B6:39:TYR:OH	57:BA:2347:C:OP1	2.35	0.43
57:BA:724:U:H2'	57:BA:725:G:O4'	2.19	0.43
57:BA:752:A:H4'	57:BA:753:C:O5'	2.19	0.43
57:BA:1385:G:H4'	57:BA:1386:C:OP1	2.19	0.43
57:BA:1462:C:O2'	57:BA:1463:C:H5'	2.19	0.43
57:BA:2223:G:H2'	57:BA:2224:G:C5'	2.48	0.43
57:BA:2474:C:H5'	57:BA:2475:C:OP2	2.19	0.43
2:Ac:101:LEU:HD23	2:Ac:101:LEU:C	2.43	0.43
3:Ad:79:PHE:CD1	3:Ad:207:TYR:CD1	3.04	0.43
4:Ae:6:PHE:CD1	4:Ae:63:ARG:NH1	2.86	0.43
5:Af:46:ARG:HH22	17:Ar:37:VAL:HG11	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:Ah:63:LEU:H	7:Ah:63:LEU:CD2	2.31	0.43
10:Ak:69:ALA:HB1	10:Ak:103:LEU:CD2	2.49	0.43
12:Am:104:ARG:HB2	22:Aa:1226:C:C4	2.53	0.43
12:Am:108:ARG:HH22	22:Aa:1228:C:P	2.42	0.43
13:An:23:ARG:CD	13:An:28:GLY:O	2.67	0.43
18:As:6:LYS:HB3	22:Aa:1313:U:OP2	2.18	0.43
18:As:28:LYS:C	18:As:29:ARG:CG	2.92	0.43
21:Ay:47:MET:HE2	21:Ay:48:PRO:HD3	2.01	0.43
22:Aa:438:G:C4'	22:Aa:439:A:OP1	2.61	0.43
22:Aa:814:A:C8	22:Aa:816:A:C8	3.07	0.43
22:Aa:895:G:H2'	22:Aa:896:C:C6	2.54	0.43
22:Aa:991:U:O4	22:Aa:1212:U:O2'	2.35	0.43
22:Aa:1316:G:H2'	22:Aa:1317:C:H5"	2.01	0.43
22:Aa:1425:U:O2'	22:Aa:1426:C:H5'	2.19	0.43
22:Aa:1442(B):A:C6	40:AT:118:ARG:CZ	3.02	0.43
28:AE:49:LEU:O	28:AE:78:LEU:HB2	2.19	0.43
28:AE:78:LEU:HD12	28:AE:78:LEU:O	2.18	0.43
36:AP:16:ARG:O	36:AP:18:ARG:N	2.51	0.43
37:AQ:72:LYS:O	37:AQ:93:TYR:HA	2.19	0.43
39:AS:93:LYS:O	39:AS:93:LYS:CG	2.67	0.43
40:AT:30:VAL:CG2	40:AT:84:GLN:H	2.30	0.43
40:AT:48:ILE:HD12	40:AT:48:ILE:N	2.34	0.43
42:AV:65:GLY:CA	42:AV:91:TYR:HE1	2.30	0.43
43:AW:55:ALA:C	43:AW:57:ASN:N	2.77	0.43
44:AX:27:THR:HA	44:AX:79:ALA:O	2.19	0.43
48:A1:20:ARG:HG2	48:A1:20:ARG:NH1	2.33	0.43
49:A2:36:ARG:O	49:A2:39:ALA:HB3	2.18	0.43
49:A2:70:GLN:HG3	49:A2:71:ASN:ND2	2.33	0.43
51:A4:1:MET:N	58:AB:44:G:P	2.92	0.43
55:A8:29:LYS:HD3	55:A8:44:LYS:CG	2.42	0.43
56:A9:1:MET:HE2	56:A9:10:ILE:CD1	2.49	0.43
57:AA:68:G:H2'	57:AA:69:C:H6	1.82	0.43
57:AA:814:C:H2'	57:AA:815:C:C6	2.53	0.43
57:AA:2262:U:O2'	57:AA:2263:C:H5'	2.18	0.43
57:AA:2468:G:H1	57:AA:2481:G:H2'	1.84	0.43
57:AA:2514:U:H2'	57:AA:2515:C:C6	2.54	0.43
57:AA:2538:C:O2'	57:AA:2539:C:H5'	2.18	0.43
2:Bc:29:TYR:OH	13:Bn:54:PRO:HD2	2.19	0.43
3:Bd:43:HIS:C	3:Bd:45:GLN:H	2.22	0.43
7:Bh:83:ILE:HD12	7:Bh:137:VAL:HG22	1.99	0.43
8:Bi:5:TYR:CD2	8:Bi:18:PHE:HE2	2.36	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:Bj:11:PHE:O	9:Bj:68:HIS:HE1	2.02	0.43
9:Bj:49:VAL:HG21	13:Bn:41:ARG:CB	2.49	0.43
10:Bk:26:ASN:O	10:Bk:27:ASN:HB2	2.17	0.43
12:Bm:86:CYS:HB2	18:Bs:73:GLU:HG2	2.00	0.43
19:Bt:103:GLY:HA2	22:Ba:192:U:O4'	2.18	0.43
22:Ba:221:C:H2'	22:Ba:222:U:H6	1.84	0.43
22:Ba:505:G:H5'	22:Ba:534:U:H2'	2.01	0.43
22:Ba:632:A:H8	22:Ba:633:G:C8	2.37	0.43
22:Ba:693:G:H2'	22:Ba:694:A:C8	2.54	0.43
22:Ba:959:A:C2	22:Ba:1222:G:O4'	2.72	0.43
22:Ba:1500:A:OP2	22:Ba:1505:G:OP2	2.37	0.43
24:Bv:4:G:O2'	24:Bv:5:G:P	2.76	0.43
24:Bv:17:C:C6	24:Bv:17(A):U:C5	3.07	0.43
26:BC:6:LYS:HB3	57:BA:2132:U:C4	2.54	0.43
26:BC:185:LYS:HE3	26:BC:185:LYS:HA	2.00	0.43
27:BD:206:LEU:HD23	27:BD:211:ARG:NH1	2.34	0.43
27:BD:243:GLY:O	27:BD:244:ARG:HB3	2.18	0.43
28:BE:36:ARG:NH2	28:BE:88:GLY:HA3	2.25	0.43
29:BF:192:LEU:CD1	29:BF:194:MET:HE2	2.48	0.43
30:BG:72:ARG:HH11	30:BG:86:MET:HA	1.83	0.43
31:BH:83:TYR:O	31:BH:84:SER:HB3	2.18	0.43
36:BP:53:GLY:CA	57:BA:832:G:H21	2.32	0.43
37:BQ:133:ARG:HG3	37:BQ:133:ARG:HH11	1.83	0.43
38:BR:56:LYS:C	38:BR:58:GLY:N	2.77	0.43
39:BS:106:ARG:NH1	39:BS:107:GLU:O	2.51	0.43
40:BT:57:PHE:CD2	40:BT:58:ASN:N	2.82	0.43
41:BU:101:ARG:C	41:BU:102:GLU:HG2	2.43	0.43
42:BV:19:LYS:C	42:BV:20:LEU:HD12	2.44	0.43
43:BW:12:ILE:HB	43:BW:42:ARG:HH12	1.84	0.43
43:BW:60:ASN:C	43:BW:61:ASN:HD22	2.27	0.43
46:BZ:155:LEU:HD23	46:BZ:155:LEU:H	1.83	0.43
50:B3:35:ARG:NH2	50:B3:37:LEU:HD21	2.19	0.43
53:B6:18:ARG:HG3	53:B6:19:ARG:HH11	1.83	0.43
56:B9:19:ARG:NH1	57:BA:2755:C:C5	2.86	0.43
57:BA:1462:C:H4'	57:BA:2703:C:H5'	2.01	0.43
57:BA:1573:G:H2'	57:BA:1574:C:H5'	1.99	0.43
57:BA:2236:C:H2'	57:BA:2237:G:O4'	2.19	0.43
57:BA:2781:A:H5"	57:BA:2782:G:H5'	2.00	0.43
2:Ac:5:ILE:O	2:Ac:5:ILE:HD13	2.19	0.43
2:Ac:73:PRO:O	2:Ac:76:VAL:HG13	2.18	0.43
3:Ad:11:LEU:O	3:Ad:12:CYS:C	2.62	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Ad:46:LYS:O	3:Ad:48:ALA:N	2.52	0.43
3:Ad:135:LEU:CD1	22:Aa:619:U:H3	2.31	0.43
4:Ae:6:PHE:HB3	4:Ae:35:GLY:C	2.44	0.43
7:Ah:29:SER:HB3	7:Ah:32:LYS:HB2	2.01	0.43
8:Ai:18:PHE:HB2	8:Ai:62:TYR:O	2.18	0.43
8:Ai:91:ASP:O	8:Ai:92:TYR:HD1	2.02	0.43
10:Ak:17:GLY:HA3	10:Ak:77:MET:SD	2.59	0.43
17:Ar:36:ASN:HB3	17:Ar:39:VAL:HG21	1.97	0.43
19:At:89:ARG:NH2	22:Aa:188:C:O4'	2.52	0.43
22:Aa:102:G:H2'	22:Aa:103:C:C6	2.50	0.43
22:Aa:262:A:C6	22:Aa:263:A:C6	3.07	0.43
22:Aa:359:U:H2'	22:Aa:360:A:H8	1.84	0.43
22:Aa:865:A:C2	22:Aa:918:A:H4'	2.54	0.43
22:Aa:969:A:O2'	22:Aa:970:C:H5'	2.19	0.43
25:Aw:1:C:O2	25:Aw:1:C:H2'	2.19	0.43
26:AC:57:GLN:NE2	26:AC:204:GLY:O	2.52	0.43
26:AC:212:SER:OG	26:AC:214:TYR:HE1	2.02	0.43
27:AD:259:THR:CG2	57:AA:1803:A:H4'	2.45	0.43
28:AE:144:ARG:HD2	57:AA:2572:A:C8	2.54	0.43
29:AF:167:ALA:O	29:AF:168:ARG:CB	2.66	0.43
30:AG:110:ALA:O	30:AG:112:PRO:N	2.52	0.43
34:AN:66:LYS:HZ1	57:AA:1140:C:H5"	1.82	0.43
36:AP:83:VAL:HG12	36:AP:112:LEU:CD2	2.42	0.43
37:AQ:133:ARG:O	37:AQ:134:ARG:CG	2.67	0.43
38:AR:27:SER:HB3	38:AR:34:ILE:HD11	2.00	0.43
40:AT:26:ASP:HB3	40:AT:89:VAL:O	2.19	0.43
41:AU:69:CYS:SG	41:AU:79:PHE:CD1	3.08	0.43
42:AV:5:VAL:CG2	42:AV:35:LEU:HB3	2.47	0.43
43:AW:3:ALA:HB2	43:AW:58:ALA:HA	2.01	0.43
44:AX:69:TYR:CE2	57:AA:456:C:C4	3.07	0.43
46:AZ:100:VAL:CG2	46:AZ:126:VAL:HG21	2.49	0.43
48:A1:67:ILE:N	48:A1:68:PRO:CD	2.80	0.43
51:A4:39:CYS:O	51:A4:40:HIS:CD2	2.72	0.43
55:A8:32:LEU:HD12	57:AA:2391:G:OP1	2.19	0.43
57:AA:83:G:C2	57:AA:102:G:H2'	2.54	0.43
57:AA:1014:U:C2'	57:AA:1015:G:C5'	2.94	0.43
57:AA:1385:G:H4'	57:AA:1386:C:OP1	2.18	0.43
57:AA:1427:A:O2'	57:AA:1428:C:OP2	2.33	0.43
57:AA:1528:A:N6	57:AA:1544:A:C2	2.86	0.43
57:AA:1681:G:H8	57:AA:1681:G:OP2	2.02	0.43
57:AA:2037:G:H2'	57:AA:2038:G:C8	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:AB:87:G:C2'	58:AB:88:C:H5"	2.49	0.43
5:Bf:5:GLU:HG3	5:Bf:93:SER:OG	2.18	0.43
5:Bf:72:VAL:HG23	5:Bf:90:VAL:HG11	2.01	0.43
7:Bh:53:VAL:O	7:Bh:54:ASP:HB2	2.18	0.43
8:Bi:79:LEU:HD21	8:Bi:102:LEU:O	2.19	0.43
13:Bn:15:LYS:HB3	13:Bn:16:PHE:CD2	2.54	0.43
18:Bs:40:ILE:HD13	18:Bs:62:ILE:CD1	2.49	0.43
19:Bt:22:ARG:O	19:Bt:25:ARG:HB3	2.18	0.43
22:Ba:109:A:H2'	22:Ba:326:G:N2	2.34	0.43
22:Ba:186:C:O2'	22:Ba:187:C:H5'	2.18	0.43
22:Ba:1065:U:C5	22:Ba:1190:G:H1'	2.54	0.43
27:BD:118:VAL:CG2	27:BD:119:ALA:H	2.31	0.43
27:BD:224:ALA:O	27:BD:225:ALA:HB2	2.18	0.43
27:BD:261:LYS:HB3	27:BD:264:LYS:HB2	2.01	0.43
28:BE:144:ARG:HB3	28:BE:145:LYS:H	1.37	0.43
29:BF:74:ARG:HD2	57:BA:674:G:C1'	2.41	0.43
32:BI:27:ARG:HG3	32:BI:27:ARG:NH1	2.34	0.43
32:BI:109:ILE:HG22	32:BI:110:ASP:N	2.26	0.43
36:BP:7:ARG:HB2	36:BP:8:PRO:CD	2.48	0.43
40:BT:70:VAL:CG1	40:BT:71:GLY:H	2.32	0.43
44:BX:56:THR:HG22	44:BX:79:ALA:HB2	1.99	0.43
48:B1:51:VAL:HG21	48:B1:74:VAL:CG2	2.37	0.43
53:B6:19:ARG:H	53:B6:19:ARG:HD2	1.84	0.43
57:BA:99:U:H4'	57:BA:102:G:H1'	2.01	0.43
57:BA:437:G:O2'	57:BA:438:G:H5'	2.19	0.43
57:BA:479:A:H4'	57:BA:480:A:OP1	2.19	0.43
57:BA:1048:A:C6	57:BA:1106:A:N7	2.87	0.43
57:BA:1155:A:O2'	57:BA:1156:A:H2'	2.19	0.43
57:BA:1340:U:H4'	57:BA:1341:U:OP2	2.19	0.43
57:BA:1345:C:O2'	57:BA:1346:G:H5'	2.18	0.43
57:BA:1853:A:N1	57:BA:2087:G:H1'	2.33	0.43
57:BA:1899:G:N2	57:BA:1902:C:C4	2.85	0.43
57:BA:2162:G:H5'	57:BA:2173:A:H5'	2.00	0.43
57:BA:2787:C:O2	57:BA:2787:C:H2'	2.18	0.43
57:BA:2884:U:H2'	57:BA:2885:C:C5'	2.49	0.43
58:BB:20:C:C3'	58:BB:21:G:H5"	2.47	0.43
2:Ac:95:THR:C	2:Ac:97:LYS:H	2.26	0.42
2:Ac:179:ARG:HG3	2:Ac:179:ARG:HH11	1.84	0.42
3:Ad:27:TYR:OH	5:Bf:15:ASP:HB3	2.19	0.42
5:Af:18:GLN:C	5:Af:20:ALA:N	2.76	0.42
11:Al:8:ASN:ND2	22:Aa:585:G:H4'	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Am:20:THR:C	12:Am:22:ILE:N	2.77	0.42
13:An:40:CYS:SG	13:An:43:CYS:N	2.85	0.42
14:Ao:23:GLY:O	14:Ao:27:VAL:HB	2.18	0.42
14:Ao:25:THR:HB	14:Ao:70:LEU:HD12	2.01	0.42
14:Ao:54:ARG:HD2	22:Aa:728:A:C5	2.55	0.42
15:Ap:63:GLY:HA3	22:Aa:137:C:H1'	2.00	0.42
19:At:27:LYS:O	19:At:27:LYS:HD3	2.19	0.42
21:Ay:10:ARG:HA	21:Ay:10:ARG:HD3	1.40	0.42
22:Aa:501:C:O2'	22:Aa:502:G:H5'	2.20	0.42
22:Aa:560:U:H4'	22:Aa:561:U:H5"	1.99	0.42
22:Aa:1001(A):G:H2'	22:Aa:1002:G:O4'	2.19	0.42
22:Aa:1073:U:H2'	22:Aa:1074:G:C8	2.53	0.42
22:Aa:1133:G:C1'	22:Aa:1142:G:H22	2.32	0.42
24:Av:35:A:O2'	24:Av:36:U:H5'	2.19	0.42
27:AD:118:VAL:CG2	27:AD:119:ALA:N	2.81	0.42
28:AE:96:PHE:HA	28:AE:100:GLU:OE1	2.19	0.42
31:AH:42:ARG:HG3	31:AH:42:ARG:HH11	1.83	0.42
32:AI:71:ILE:HG22	32:AI:72:LEU:N	2.33	0.42
36:AP:9:ASN:C	36:AP:11:GLY:N	2.77	0.42
37:AQ:35:VAL:HG23	37:AQ:101:ARG:O	2.19	0.42
44:AX:18:TYR:HA	44:AX:21:PHE:CD1	2.53	0.42
45:AY:88:LYS:HD3	45:AY:93:GLY:N	2.34	0.42
46:AZ:29:TYR:HA	46:AZ:34:ASN:HA	2.00	0.42
49:A2:10:LEU:HD13	49:A2:14:ARG:NH2	2.34	0.42
49:A2:46:GLN:HG2	49:A2:49:LYS:HZ1	1.84	0.42
53:A6:40:CYS:HB2	53:A6:46:HIS:CE1	2.53	0.42
55:A8:63:PRO:C	55:A8:64:TYR:O	2.62	0.42
56:A9:4:ARG:NH1	57:AA:2477:C:N3	2.67	0.42
57:AA:64:A:H2'	57:AA:65:C:H6	1.84	0.42
57:AA:527:C:N4	57:AA:2779:U:OP2	2.51	0.42
57:AA:794:G:H2'	57:AA:795:C:C6	2.54	0.42
57:AA:1473:G:H1	57:AA:1518:U:H3	1.67	0.42
57:AA:1532:C:H2'	57:AA:1533:G:H5'	2.00	0.42
57:AA:1717:G:H2'	57:AA:1718:G:C5'	2.42	0.42
57:AA:2009:G:O2'	57:AA:2010:G:H5'	2.18	0.42
57:AA:2383:G:O2'	57:AA:2384:G:H5'	2.18	0.42
57:AA:2408:U:H2'	57:AA:2409:G:C8	2.54	0.42
57:AA:2631:G:N3	57:AA:2810:A:H2	2.17	0.42
57:AA:2850:A:OP2	57:AA:2866:U:C5	2.72	0.42
57:AA:2870:C:H2'	57:AA:2871:C:C5'	2.49	0.42
58:AB:20:C:C3'	58:AB:21:G:H5"	2.47	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Bb:75:LYS:C	1:Bb:77:ALA:H	2.27	0.42
2:Bc:148:GLY:CA	2:Bc:203:PHE:HB3	2.49	0.42
3:Bd:99:SER:O	3:Bd:140:VAL:HG23	2.19	0.42
4:Be:31:LEU:HD22	4:Be:43:LEU:HD11	2.01	0.42
6:Bg:114:ARG:H	6:Bg:114:ARG:HG2	1.69	0.42
7:Bh:1:MET:N	22:Ba:824:C:H4'	2.34	0.42
9:Bj:34:VAL:HG13	9:Bj:73:ASP:O	2.18	0.42
9:Bj:44:VAL:HG12	9:Bj:46:ARG:HD2	2.01	0.42
11:Bl:47:LYS:HE2	11:Bl:48:PRO:HD3	2.01	0.42
11:Bl:119:LYS:HB2	11:Bl:120:TYR:HD1	1.84	0.42
13:Bn:29:ARG:HD3	22:Ba:1202:G:C1'	2.49	0.42
15:Bp:17:TYR:CD1	15:Bp:17:TYR:N	2.86	0.42
22:Ba:309:G:O2'	22:Ba:310:G:H5'	2.19	0.42
22:Ba:628:G:O2'	22:Ba:629:G:H5'	2.19	0.42
22:Ba:1091:U:O2	22:Ba:1093:A:C8	2.71	0.42
22:Ba:1365:G:H2'	22:Ba:1366:C:C6	2.54	0.42
26:BC:7:ARG:CD	57:BA:2128:C:H5'	2.49	0.42
27:BD:58:HIS:CD2	27:BD:59:LYS:N	2.87	0.42
28:BE:63:LEU:O	28:BE:65:GLY:N	2.52	0.42
29:BF:133:ASN:O	29:BF:134:GLY:C	2.62	0.42
30:BG:34:LEU:HB3	30:BG:99:MET:CE	2.48	0.42
30:BG:85:GLY:O	30:BG:86:MET:C	2.62	0.42
30:BG:129:GLY:O	30:BG:130:ASN:CB	2.66	0.42
31:BH:42:ARG:NH1	31:BH:42:ARG:HG3	2.33	0.42
31:BH:97:ARG:O	31:BH:103:LEU:HD12	2.19	0.42
34:BN:133:GLN:CG	34:BN:134:ARG:H	2.16	0.42
37:BQ:46:GLN:NE2	37:BQ:126:PRO:HD3	2.34	0.42
40:BT:34:VAL:O	40:BT:35:LYS:CB	2.63	0.42
40:BT:76:PHE:HA	40:BT:77:PRO:HD3	1.70	0.42
43:BW:18:ARG:HG3	43:BW:76:VAL:HG13	1.99	0.42
45:BY:62:GLU:OE2	45:BY:63:LYS:C	2.62	0.42
46:BZ:119:GLU:CG	46:BZ:122:ARG:NH1	2.82	0.42
46:BZ:163:LEU:CD2	46:BZ:163:LEU:H	2.32	0.42
47:B0:20:ARG:NH1	57:BA:2271:G:H5"	2.34	0.42
47:B0:53:MET:HA	47:B0:58:THR:O	2.19	0.42
47:B0:73:GLY:C	47:B0:75:LEU:N	2.75	0.42
48:B1:58:ILE:HD12	48:B1:91:LYS:HA	2.00	0.42
57:BA:272:G:O6	57:BA:421:U:H2'	2.19	0.42
57:BA:527:C:N4	57:BA:2779:U:OP2	2.52	0.42
57:BA:565:C:H2'	57:BA:566:U:O4'	2.19	0.42
57:BA:1528:A:N6	57:BA:1544:A:C2	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BA:1657:C:H2'	57:BA:1658:C:C6	2.54	0.42
57:BA:1662:C:O2'	57:BA:1663:C:H5'	2.19	0.42
57:BA:1947:C:C3'	57:BA:1948:G:H5"	2.48	0.42
57:BA:2030:A:H4'	57:BA:2031:A:H8	1.83	0.42
57:BA:2077:A:H2'	57:BA:2078:C:H6	1.84	0.42
57:BA:2143:C:O2'	57:BA:2144:U:H5'	2.19	0.42
57:BA:2627:G:O2'	57:BA:2781:A:N1	2.46	0.42
58:BB:11:C:H3'	58:BB:12:C:H6	1.83	0.42
1:Ab:83:MET:SD	1:Ab:234:PRO:HG2	2.59	0.42
2:Ac:103:VAL:CG1	2:Ac:104:GLN:N	2.82	0.42
2:Ac:148:GLY:HA3	2:Ac:172:ARG:O	2.18	0.42
3:Ad:119:GLN:CG	3:Ad:123:HIS:HD2	2.29	0.42
3:Ad:162:LEU:CD1	3:Ad:181:MET:HG2	2.50	0.42
8:Ai:79:LEU:O	8:Ai:79:LEU:HD13	2.19	0.42
9:Aj:48:THR:HG22	22:Aa:975:A:N1	2.34	0.42
9:Aj:79:ARG:HA	9:Aj:79:ARG:HD3	1.88	0.42
10:Ak:57:THR:OG1	10:Ak:58:PRO:HD2	2.19	0.42
11:Al:55:VAL:HG12	11:Al:69:TYR:HA	2.01	0.42
12:Am:27:LYS:O	12:Am:30:ALA:HB3	2.19	0.42
22:Aa:157:G:H2'	22:Aa:158:G:H8	1.85	0.42
22:Aa:688:G:H2'	22:Aa:689:C:H6	1.83	0.42
22:Aa:1014:A:H2'	22:Aa:1015:A:C8	2.54	0.42
22:Aa:1301:U:H3'	22:Aa:1302:U:H5"	2.01	0.42
22:Aa:1327:C:H2'	22:Aa:1328:C:H6	1.84	0.42
22:Aa:1386:G:H2'	22:Aa:1387:G:H8	1.84	0.42
23:Ax:23:A:C3'	23:Ax:24:A:H5'	2.44	0.42
26:AC:7:ARG:CD	57:AA:2128:C:H5'	2.48	0.42
26:AC:50:ILE:HD12	26:AC:50:ILE:C	2.43	0.42
27:AD:80:ALA:HB3	27:AD:94:LEU:CD1	2.45	0.42
27:AD:100:GLY:HA2	57:AA:1501:C:H1'	2.00	0.42
28:AE:19:ARG:HA	35:AO:73:ASP:HA	2.01	0.42
28:AE:179:GLU:O	28:AE:180:ASN:HB2	2.19	0.42
29:AF:114:VAL:O	29:AF:115:ALA:C	2.61	0.42
30:AG:113:ARG:C	30:AG:114:ILE:HG13	2.44	0.42
30:AG:140:ILE:HD12	30:AG:141:PHE:N	2.33	0.42
32:AI:10:GLU:O	32:AI:12:LEU:HD23	2.19	0.42
32:AI:10:GLU:OE1	32:AI:11:ASN:HB2	2.19	0.42
32:AI:77:LEU:CD2	32:AI:141:LYS:N	2.81	0.42
32:AI:119:PRO:O	32:AI:120:ILE:C	2.61	0.42
34:AN:64:GLY:HA3	57:AA:1141:U:C5	2.55	0.42
36:AP:91:PHE:CE2	36:AP:95:VAL:HG12	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:AQ:13:GLN:HG3	57:AA:910:A:N7	2.34	0.42
41:AU:25:TRP:CD1	41:AU:25:TRP:C	2.97	0.42
42:AV:76:LYS:HG3	42:AV:81:TYR:CD1	2.55	0.42
47:A0:77:ARG:NH2	57:AA:857:C:OP1	2.51	0.42
52:A5:10:LYS:HB2	57:AA:2017:U:O2	2.19	0.42
52:A5:11:THR:OG1	57:AA:1264:G:H5'	2.19	0.42
52:A5:40:LYS:HB2	52:A5:41:PRO:HD2	2.01	0.42
52:A5:52:TYR:O	52:A5:53:ALA:HB2	2.19	0.42
53:A6:9:LEU:HD12	53:A6:28:ARG:HG3	2.02	0.42
55:A8:4:MET:H	55:A8:4:MET:HG2	1.63	0.42
57:AA:307:G:H22	57:AA:310:A:C5'	2.32	0.42
57:AA:319:C:O2'	57:AA:320:A:H5'	2.19	0.42
57:AA:528:A:H2	57:AA:2043:C:C4'	2.32	0.42
57:AA:1040:C:O2'	57:AA:1041:C:P	2.78	0.42
57:AA:1221:C:H5'	57:AA:1221:C:H6	1.84	0.42
57:AA:1331:A:O2'	57:AA:1332:G:C8	2.71	0.42
57:AA:1820:U:H4'	57:AA:1821:A:OP2	2.19	0.42
57:AA:2332:U:H5'	57:AA:2336:A:N6	2.34	0.42
57:AA:2703:C:H2'	57:AA:2704:C:C6	2.54	0.42
57:AA:2764:A:N7	57:AA:2766:G:C6	2.87	0.42
1:Bb:58:ILE:CG2	1:Bb:222:ILE:HD11	2.49	0.42
1:Bb:70:PHE:HA	1:Bb:163:PHE:O	2.19	0.42
1:Bb:142:LEU:HD23	1:Bb:142:LEU:C	2.44	0.42
2:Bc:86:VAL:O	2:Bc:89:GLU:HB3	2.18	0.42
3:Bd:148:VAL:CG1	3:Bd:152:SER:HB2	2.50	0.42
6:Bg:4:ARG:HH11	6:Bg:4:ARG:HG2	1.83	0.42
7:Bh:111:ILE:HG22	7:Bh:112:LEU:N	2.34	0.42
12:Bm:6:GLY:O	12:Bm:8:GLU:N	2.42	0.42
12:Bm:25:ILE:HD11	12:Bm:60:VAL:CG1	2.49	0.42
18:Bs:5:LEU:HD23	22:Ba:1319:A:OP2	2.19	0.42
19:Bt:57:ARG:HH22	19:Bt:100:ILE:HG12	1.84	0.42
21:By:56:ARG:O	21:By:57:SER:C	2.62	0.42
22:Ba:706:A:N7	22:Ba:707:C:H5	2.16	0.42
22:Ba:1158:C:O2	22:Ba:1158:C:C2'	2.56	0.42
22:Ba:1511:G:H8	22:Ba:1511:G:O5'	2.02	0.42
27:BD:158:ALA:HB3	27:BD:161:THR:CG2	2.49	0.42
27:BD:205:VAL:O	27:BD:206:LEU:C	2.61	0.42
28:BE:51:PHE:C	28:BE:74:PRO:HB3	2.44	0.42
28:BE:59:VAL:CG1	28:BE:60:ASN:N	2.81	0.42
30:BG:109:VAL:O	30:BG:112:PRO:CB	2.67	0.42
31:BH:7:LEU:HD12	31:BH:7:LEU:N	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BH:155:SER:O	31:BH:156:ALA:C	2.61	0.42
32:BI:95:LYS:O	32:BI:99:GLU:CB	2.67	0.42
33:BJ:56:ASN:C	33:BJ:58:LEU:H	2.27	0.42
36:BP:9:ASN:C	36:BP:11:GLY:N	2.77	0.42
38:BR:49:ASP:O	38:BR:50:HIS:C	2.62	0.42
39:BS:51:ALA:HB3	39:BS:73:LEU:HB2	2.01	0.42
39:BS:58:LEU:O	39:BS:59:LYS:O	2.37	0.42
39:BS:102:ALA:O	39:BS:103:GLU:HB2	2.19	0.42
40:BT:117:ASP:O	40:BT:118:ARG:C	2.61	0.42
42:BV:2:PHE:CE2	42:BV:13:ARG:HD2	2.54	0.42
43:BW:3:ALA:HB2	43:BW:58:ALA:HA	2.00	0.42
43:BW:10:VAL:HG12	43:BW:12:ILE:HG22	2.01	0.42
43:BW:14:PRO:C	43:BW:16:LYS:N	2.77	0.42
44:BX:35:THR:H	44:BX:38:GLU:HB2	1.84	0.42
45:BY:9:LYS:O	45:BY:28:LYS:HG3	2.19	0.42
46:BZ:23:LYS:HA	46:BZ:23:LYS:HZ3	1.82	0.42
46:BZ:77:ASP:O	46:BZ:78:LYS:C	2.62	0.42
57:BA:270:A:C2'	57:BA:271:A:H5'	2.50	0.42
57:BA:280:C:H2'	57:BA:281:G:H5'	1.99	0.42
57:BA:392:C:H5"	57:BA:409:C:H5"	2.01	0.42
57:BA:1205:U:H4'	57:BA:1206:G:OP2	2.19	0.42
57:BA:1947:C:C3'	57:BA:1948:G:C5'	2.97	0.42
57:BA:2693:A:H2'	57:BA:2694:G:C8	2.54	0.42
1:Ab:112:VAL:O	1:Ab:116:GLU:HG2	2.18	0.42
2:Ac:30:ARG:HD3	13:An:35:ARG:O	2.19	0.42
2:Ac:36:ASP:OD2	2:Ac:57:ILE:HG21	2.19	0.42
2:Ac:180:ALA:O	2:Ac:181:ASN:HB3	2.19	0.42
2:Ac:207:VAL:O	2:Ac:207:VAL:HG12	2.19	0.42
3:Ad:159:ARG:O	3:Ad:162:LEU:N	2.51	0.42
6:Ag:66:VAL:O	6:Ag:66:VAL:CG1	2.61	0.42
7:Ah:111:ILE:HG22	7:Ah:112:LEU:N	2.34	0.42
8:Ai:31:GLN:HE21	8:Ai:36:TYR:HA	1.83	0.42
8:Ai:69:GLY:O	8:Ai:70:LYS:C	2.62	0.42
8:Ai:111:ARG:O	8:Ai:113:LYS:HD2	2.19	0.42
11:Al:46:LYS:HG2	11:Al:47:LYS:H	1.84	0.42
16:Aq:59:ILE:HG21	16:Aq:71:PHE:HB3	2.02	0.42
18:As:6:LYS:CD	18:As:6:LYS:N	2.82	0.42
19:At:102:GLY:O	19:At:103:GLY:C	2.62	0.42
21:Ay:26:LEU:O	21:Ay:30:LEU:HG	2.19	0.42
22:Aa:983:A:H3'	22:Aa:983:A:N3	2.33	0.42
22:Aa:1060:C:H2'	22:Aa:1061:G:H8	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Aa:1174:G:O2'	22:Aa:1175:G:H5'	2.19	0.42
22:Aa:1220:G:O2'	22:Aa:1221:G:H5'	2.19	0.42
22:Aa:1305:G:H22	22:Aa:1331:G:HO2'	1.64	0.42
22:Aa:1349:A:H2'	22:Aa:1350:A:O4'	2.20	0.42
26:AC:40:GLU:HB2	26:AC:179:ALA:HB2	2.01	0.42
26:AC:209:PHE:O	26:AC:210:LEU:HD23	2.20	0.42
27:AD:10:THR:C	27:AD:11:PRO:O	2.59	0.42
28:AE:116:VAL:HG22	28:AE:122:PHE:CG	2.54	0.42
29:AF:68:LYS:O	29:AF:70:THR:N	2.44	0.42
30:AG:37:VAL:O	30:AG:94:LEU:HB2	2.20	0.42
30:AG:129:GLY:O	30:AG:130:ASN:CB	2.67	0.42
31:AH:9:ILE:C	31:AH:9:ILE:CD1	2.92	0.42
32:AI:15:VAL:O	32:AI:17:GLN:N	2.52	0.42
34:AN:67:LEU:C	34:AN:69:GLN:N	2.77	0.42
36:AP:16:ARG:CZ	36:AP:18:ARG:HG2	2.49	0.42
40:AT:106:SER:C	40:AT:107:ASP:CG	2.87	0.42
41:AU:85:LYS:C	41:AU:87:GLY:N	2.76	0.42
42:AV:22:VAL:O	42:AV:23:GLU:CB	2.67	0.42
44:AX:64:LYS:HE3	57:AA:1336:A:OP1	2.19	0.42
46:AZ:57:ILE:HD12	46:AZ:57:ILE:N	2.35	0.42
48:A1:8:SER:OG	48:A1:10:LYS:HG3	2.18	0.42
48:A1:83:GLU:N	48:A1:83:GLU:CD	2.77	0.42
49:A2:58:ALA:O	49:A2:61:LEU:N	2.52	0.42
51:A4:18:CYS:C	51:A4:20:ASN:H	2.26	0.42
51:A4:19:GLY:O	51:A4:21:VAL:HG23	2.20	0.42
52:A5:40:LYS:NZ	52:A5:46:CYS:O	2.52	0.42
57:AA:589:C:O2'	57:AA:590:A:H5'	2.19	0.42
57:AA:657:U:H2'	57:AA:658:C:C6	2.55	0.42
57:AA:1038:C:H3'	57:AA:1039:G:C5'	2.33	0.42
57:AA:1169:G:N2	57:AA:1181:C:C2	2.87	0.42
57:AA:1221:C:H2'	57:AA:1221(A):C:C6	2.55	0.42
57:AA:1486:A:N6	57:AA:1504:C:H42	2.17	0.42
57:AA:1885:A:H2'	57:AA:1886:C:O4'	2.20	0.42
57:AA:1924:C:O2'	57:AA:1925:C:H5'	2.20	0.42
57:AA:2224:G:H4'	57:AA:2226:C:C2	2.55	0.42
57:AA:2283:C:H2'	57:AA:2284:C:H5'	2.01	0.42
57:AA:2625:G:H2'	57:AA:2626:C:C6	2.54	0.42
58:AB:7:G:C2'	58:AB:8:U:H5"	2.47	0.42
3:Bd:122:ARG:HD2	3:Bd:122:ARG:HA	1.80	0.42
3:Bd:159:ARG:O	3:Bd:162:LEU:N	2.52	0.42
5:Bf:43:LEU:H	5:Bf:43:LEU:CD1	2.30	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:Bi:25:LYS:HG2	8:Bi:60:ASP:CG	2.44	0.42
8:Bi:46:ALA:C	8:Bi:47:LEU:HD12	2.44	0.42
8:Bi:118:LYS:NZ	8:Bi:118:LYS:CB	2.82	0.42
9:Bj:51:ARG:NE	9:Bj:61:GLU:HB2	2.34	0.42
11:Bl:126:LYS:NZ	11:Bl:127:GLU:H	2.18	0.42
12:Bm:10:PRO:CG	12:Bm:18:ALA:HB1	2.49	0.42
12:Bm:16:ASP:OD2	12:Bm:17:VAL:HG23	2.19	0.42
12:Bm:57:ARG:NH2	51:B4:34:GLU:OE2	2.47	0.42
13:Bn:25:VAL:HG23	13:Bn:38:GLY:O	2.20	0.42
14:Bo:54:ARG:HD2	22:Ba:728:A:C5	2.55	0.42
16:Bq:66:SER:O	16:Bq:67:LYS:C	2.62	0.42
19:Bt:25:ARG:HH11	19:Bt:25:ARG:CG	2.30	0.42
22:Ba:157:G:H2'	22:Ba:158:G:H8	1.84	0.42
22:Ba:1245:A:N1	22:Ba:1293:G:C6	2.87	0.42
27:BD:117:VAL:CG2	27:BD:128:GLY:O	2.67	0.42
27:BD:206:LEU:HA	27:BD:211:ARG:NH1	2.35	0.42
28:BE:189:PRO:HA	57:BA:2680:C:H5'	2.01	0.42
29:BF:133:ASN:O	29:BF:135:LYS:N	2.52	0.42
30:BG:11:TYR:O	30:BG:15:VAL:HB	2.19	0.42
30:BG:37:VAL:HG22	30:BG:159:VAL:HA	2.00	0.42
30:BG:95:ARG:O	30:BG:96:ARG:C	2.63	0.42
32:BI:71:ILE:HG22	32:BI:72:LEU:N	2.34	0.42
36:BP:16:ARG:C	36:BP:16:ARG:CD	2.83	0.42
36:BP:35:HIS:HA	57:BA:1190:G:H5'	2.00	0.42
37:BQ:82:ARG:HD2	47:B0:4:LYS:HE3	2.02	0.42
38:BR:4:LEU:HD23	57:BA:1653:G:H3'	2.01	0.42
38:BR:54:LEU:CD2	38:BR:65:LEU:HB3	2.49	0.42
39:BS:42:ASP:O	39:BS:43:GLU:HB2	2.19	0.42
39:BS:64:GLU:OE2	39:BS:64:GLU:N	2.45	0.42
39:BS:106:ARG:NH1	39:BS:106:ARG:HB3	2.35	0.42
42:BV:62:LEU:N	42:BV:62:LEU:HD22	2.34	0.42
45:BY:81:LYS:CD	45:BY:96:ILE:HG22	2.49	0.42
46:BZ:119:GLU:O	46:BZ:121:HIS:N	2.52	0.42
53:B6:54:ILE:HD13	57:BA:2420:C:H5'	2.00	0.42
57:BA:271(A):A:H1'	57:BA:365:C:O4'	2.19	0.42
57:BA:2291:U:H2'	57:BA:2292:C:C6	2.54	0.42
1:Ab:98:LEU:HB2	1:Ab:101:MET:HE3	2.01	0.42
1:Ab:111:ARG:HD2	22:Aa:1104:G:O5'	2.19	0.42
2:Ac:196:LEU:N	2:Ac:196:LEU:CD2	2.82	0.42
3:Ad:2:GLY:HA2	22:Aa:547:A:OP2	2.19	0.42
3:Ad:78:LEU:O	3:Ad:79:PHE:C	2.63	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:Ah:53:VAL:O	7:Ah:54:ASP:HB2	2.19	0.42
7:Ah:92:ARG:HH22	22:Aa:644:G:H5'	1.84	0.42
8:Ai:118:LYS:O	8:Ai:119:ALA:CB	2.68	0.42
13:An:7:ILE:O	13:An:11:LYS:HG2	2.20	0.42
13:An:15:LYS:HB3	13:An:16:PHE:CD2	2.54	0.42
16:Aq:48:GLU:O	16:Aq:49:GLU:C	2.62	0.42
22:Aa:57:G:H2'	22:Aa:58:C:C6	2.54	0.42
22:Aa:236:G:H2'	22:Aa:237:C:C6	2.53	0.42
22:Aa:413:G:H1'	22:Aa:428:G:N2	2.34	0.42
22:Aa:519:C:H2'	22:Aa:520:A:C8	2.54	0.42
22:Aa:706:A:C5	22:Aa:707:C:C5	3.07	0.42
22:Aa:992:U:H3	22:Aa:1044:A:H62	1.67	0.42
26:AC:51:ASP:HB3	26:AC:54:ARG:CG	2.49	0.42
27:AD:127:VAL:HA	27:AD:193:VAL:HG13	2.01	0.42
27:AD:243:GLY:O	27:AD:244:ARG:HB3	2.18	0.42
28:AE:4:ILE:HG12	28:AE:5:LEU:N	2.33	0.42
28:AE:152:LYS:HG2	34:AN:78:TYR:CE1	2.54	0.42
29:AF:133:ASN:O	29:AF:134:GLY:C	2.62	0.42
30:AG:67:LYS:NZ	51:A4:6:HIS:CE1	2.86	0.42
30:AG:73:ALA:N	30:AG:87:PRO:CG	2.66	0.42
30:AG:135:LEU:HD12	30:AG:135:LEU:N	2.35	0.42
31:AH:98:LEU:HD13	31:AH:125:VAL:HG23	2.01	0.42
31:AH:160:LYS:CE	57:AA:2657:A:O2'	2.68	0.42
34:AN:30:ILE:HG23	34:AN:52:VAL:HG11	2.01	0.42
36:AP:25:SER:HB2	57:AA:812:C:H5'	2.01	0.42
36:AP:105:LEU:HG	57:AA:626:U:O2	2.17	0.42
37:AQ:116:GLU:O	37:AQ:120:ILE:HG12	2.19	0.42
40:AT:93:ARG:HD2	40:AT:93:ARG:HA	1.85	0.42
45:AY:32:PRO:O	45:AY:35:TYR:N	2.49	0.42
47:A0:70:GLN:NE2	47:A0:80:HIS:NE2	2.65	0.42
51:A4:14:ILE:HG23	51:A4:33:VAL:HG23	2.02	0.42
51:A4:20:ASN:C	51:A4:20:ASN:ND2	2.77	0.42
53:A6:41:PRO:HG2	53:A6:43:CYS:O	2.19	0.42
57:AA:66:C:H2'	57:AA:67:U:H6	1.84	0.42
57:AA:271(R):G:H2'	57:AA:271(S):G:H8	1.84	0.42
57:AA:506:G:O3'	57:AA:507:A:H8	2.02	0.42
57:AA:711:G:O2'	57:AA:712:G:H5'	2.19	0.42
57:AA:1544:A:O2'	57:AA:1545:A:H5'	2.20	0.42
57:AA:1625:C:H2'	57:AA:1626:G:O4'	2.19	0.42
57:AA:1657:C:H2'	57:AA:1658:C:C6	2.55	0.42
57:AA:2328:A:H2'	57:AA:2329:G:C8	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:AA:2481:G:C2'	57:AA:2482:G:OP2	2.67	0.42
57:AA:2687:U:H2'	57:AA:2688:U:O4'	2.19	0.42
57:AA:2692:C:H2'	57:AA:2693:A:H8	1.84	0.42
1:Bb:42:ILE:HD13	1:Bb:203:GLY:HA2	2.01	0.42
1:Bb:162:ILE:CD1	1:Bb:184:VAL:HG22	2.39	0.42
2:Bc:191:THR:HB	2:Bc:192:THR:H	1.70	0.42
3:Bd:86:LYS:HE2	22:Ba:5:U:C4	2.55	0.42
6:Bg:30:ILE:HD13	6:Bg:105:VAL:HG13	2.02	0.42
8:Bi:79:LEU:CD2	8:Bi:103:THR:O	2.68	0.42
8:Bi:95:LYS:O	8:Bi:99:LEU:HB2	2.19	0.42
9:Bj:6:ILE:CG2	9:Bj:98:ILE:HG13	2.39	0.42
12:Bm:20:THR:C	12:Bm:22:ILE:N	2.77	0.42
12:Bm:91:ARG:HB2	12:Bm:98:VAL:HG13	2.02	0.42
16:Bq:16:GLN:O	22:Ba:255:G:H5'	2.19	0.42
18:Bs:70:LYS:HG2	22:Ba:1320:C:H5'	2.00	0.42
19:Bt:14:LYS:O	19:Bt:18:GLN:HB2	2.19	0.42
21:By:5:LEU:HD13	21:By:6:ASP:H	1.83	0.42
21:By:21:THR:HG23	21:By:22:VAL:N	2.34	0.42
21:By:69:GLU:OE2	21:By:69:GLU:HA	2.19	0.42
22:Ba:407:G:H2'	22:Ba:408:A:H8	1.83	0.42
22:Ba:895:G:H2'	22:Ba:896:C:C6	2.55	0.42
22:Ba:909:A:H2	22:Ba:1413:A:N3	2.16	0.42
22:Ba:992:U:H3	22:Ba:1044:A:H62	1.68	0.42
22:Ba:1349:A:O2'	22:Ba:1350:A:H5'	2.19	0.42
27:BD:257:LEU:HD22	27:BD:258:LYS:O	2.20	0.42
28:BE:116:VAL:CG2	28:BE:122:PHE:CD2	2.98	0.42
29:BF:54:ARG:HD2	29:BF:81:PRO:HD3	2.00	0.42
30:BG:138:GLN:HG2	30:BG:139:LEU:N	2.35	0.42
30:BG:143:GLU:OE1	30:BG:143:GLU:N	2.44	0.42
31:BH:35:VAL:HG21	31:BH:75:ALA:HB2	2.01	0.42
31:BH:126:PRO:HG3	31:BH:130:ARG:NH1	2.35	0.42
34:BN:118:LYS:O	34:BN:121:LYS:HE3	2.19	0.42
35:BO:7:TYR:OH	35:BO:44:LYS:HG3	2.19	0.42
36:BP:102:ARG:O	36:BP:103:ALA:HB2	2.19	0.42
40:BT:120:ARG:HA	40:BT:123:GLN:HG2	2.00	0.42
41:BU:66:ASN:O	41:BU:70:ARG:N	2.51	0.42
41:BU:92:ARG:HB3	42:BV:11:GLN:NE2	2.34	0.42
45:BY:68:HIS:HB3	45:BY:71:LYS:CG	2.48	0.42
46:BZ:10:ARG:NH2	46:BZ:26:GLY:O	2.52	0.42
47:B0:45:PHE:CE2	47:B0:69:PHE:HE2	2.37	0.42
47:B0:51:VAL:HG21	47:B0:80:HIS:HA	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:B3:47:VAL:CG1	50:B3:56:VAL:HG21	2.49	0.42
53:B6:27:LYS:HD3	53:B6:27:LYS:C	2.44	0.42
53:B6:44:ARG:HB2	53:B6:44:ARG:NH1	2.34	0.42
55:B8:63:PRO:C	55:B8:64:TYR:O	2.62	0.42
57:BA:80:G:O2'	57:BA:81:G:H5'	2.19	0.42
57:BA:654(A):G:O2'	57:BA:654(B):C:H5'	2.20	0.42
57:BA:1577:C:H2'	57:BA:1578:U:C1'	2.50	0.42
3:Ad:149:ALA:O	3:Ad:153:ARG:HG3	2.19	0.42
5:Af:25:ILE:HD13	5:Af:28:ARG:HD2	2.02	0.42
6:Ag:111:ARG:CD	6:Ag:123:GLU:HB2	2.49	0.42
8:Ai:67:GLY:HA2	22:Aa:1250:A:H5'	2.01	0.42
9:Aj:3:LYS:NZ	9:Aj:77:PRO:HD2	2.35	0.42
12:Am:25:ILE:HD11	12:Am:60:VAL:CG1	2.48	0.42
12:Am:69:GLU:C	12:Am:73:GLU:H	2.27	0.42
13:An:47:LEU:O	13:An:50:LYS:N	2.52	0.42
18:As:73:GLU:O	18:As:73:GLU:HG2	2.19	0.42
21:Ay:56:ARG:NH2	23:Ax:22:A:C6	2.88	0.42
22:Aa:518:C:H2'	22:Aa:530:G:C8	2.53	0.42
22:Aa:763:G:H2'	22:Aa:764:C:C6	2.52	0.42
22:Aa:987:G:H2'	22:Aa:988:G:H8	1.84	0.42
27:AD:58:HIS:CD2	27:AD:59:LYS:N	2.88	0.42
27:AD:61:LEU:O	27:AD:63:ARG:NH1	2.52	0.42
27:AD:147:LEU:HD12	27:AD:155:LEU:HD21	2.02	0.42
28:AE:31:CYS:O	28:AE:90:THR:HA	2.19	0.42
30:AG:165:THR:C	30:AG:167:GLU:N	2.78	0.42
33:AJ:79:ALA:O	33:AJ:80:VAL:O	2.37	0.42
34:AN:134:ARG:O	34:AN:134:ARG:HG3	2.19	0.42
36:AP:13:ASN:O	36:AP:15:ARG:N	2.52	0.42
38:AR:36:THR:HG22	57:AA:1278:A:OP1	2.19	0.42
38:AR:65:LEU:HA	38:AR:65:LEU:HD12	1.77	0.42
38:AR:110:PRO:C	38:AR:111:LEU:HD23	2.45	0.42
39:AS:58:LEU:O	39:AS:59:LYS:O	2.37	0.42
40:AT:52:ILE:HG12	40:AT:61:PHE:HB3	2.01	0.42
41:AU:13:LYS:N	41:AU:13:LYS:CE	2.83	0.42
41:AU:15:LYS:NZ	57:AA:1217:C:OP2	2.42	0.42
41:AU:64:ARG:O	41:AU:65:ILE:C	2.61	0.42
41:AU:96:ALA:C	41:AU:98:LEU:N	2.75	0.42
43:AW:10:VAL:HG12	43:AW:12:ILE:HG22	2.01	0.42
46:AZ:153:SER:C	46:AZ:155:LEU:N	2.73	0.42
47:A0:53:MET:HA	47:A0:58:THR:O	2.20	0.42
48:A1:73:LEU:HD12	48:A1:94:LEU:HB3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:A5:35:GLU:O	52:A5:36:CYS:CB	2.67	0.42
53:A6:30:THR:HG22	53:A6:32:ASN:HD22	1.84	0.42
57:AA:9:U:C4	57:AA:2629:A:N6	2.87	0.42
57:AA:570:G:H2'	57:AA:2030:A:N6	2.34	0.42
57:AA:1014:U:H2'	57:AA:1015:G:H5'	2.01	0.42
57:AA:1410:G:H2'	57:AA:1411:C:C6	2.54	0.42
57:AA:2241:A:H2'	57:AA:2242:G:C8	2.54	0.42
57:AA:2537:U:H2'	57:AA:2538:C:H6	1.83	0.42
1:Bb:111:ARG:HD2	22:Ba:1104:G:O5'	2.18	0.42
2:Bc:115:LEU:C	2:Bc:117:ALA:N	2.74	0.42
3:Bd:104:VAL:HG21	3:Bd:140:VAL:CG2	2.48	0.42
3:Bd:152:SER:O	3:Bd:153:ARG:C	2.63	0.42
4:Be:72:GLN:HE22	4:Be:144:THR:HG22	1.85	0.42
5:Bf:7:ASN:ND2	5:Bf:62:TRP:HD1	2.17	0.42
6:Bg:85:TYR:HD1	6:Bg:154:TYR:CE1	2.28	0.42
7:Bh:30:ARG:HH11	7:Bh:30:ARG:HB2	1.83	0.42
7:Bh:76:PRO:C	7:Bh:77:GLU:O	2.59	0.42
8:Bi:97:LYS:C	8:Bi:99:LEU:H	2.28	0.42
9:Bj:52:GLY:N	22:Ba:1060:C:H4'	2.34	0.42
9:Bj:64:GLU:HG2	13:Bn:59:ALA:HB2	2.01	0.42
10:Bk:31:THR:O	10:Bk:31:THR:HG23	2.19	0.42
11:Bl:25:PRO:O	11:Bl:27:LEU:N	2.52	0.42
11:Bl:41:ARG:HH11	11:Bl:41:ARG:CB	2.32	0.42
11:Bl:46:LYS:HG2	11:Bl:47:LYS:H	1.83	0.42
12:Bm:4:ILE:O	12:Bm:5:ALA:O	2.38	0.42
14:Bo:37:ASN:ND2	14:Bo:37:ASN:H	2.16	0.42
14:Bo:42:HIS:HD1	22:Ba:739:C:HO2'	1.64	0.42
18:Bs:66:MET:HG2	18:Bs:66:MET:H	1.74	0.42
19:Bt:96:GLY:O	19:Bt:97:ALA:O	2.37	0.42
21:By:43:LYS:HZ1	57:BA:1913:A:H2	1.68	0.42
21:By:54:LYS:HG3	21:By:61:ARG:HE	1.84	0.42
22:Ba:55:A:N7	22:Ba:56:U:N3	2.68	0.42
22:Ba:180:U:C2'	22:Ba:181:G:C5'	2.94	0.42
22:Ba:445:G:H2'	22:Ba:446:G:H8	1.84	0.42
22:Ba:560:U:H4'	22:Ba:561:U:H5"	2.00	0.42
22:Ba:997:U:H2'	22:Ba:998:G:C8	2.54	0.42
22:Ba:1133:G:H1'	22:Ba:1142:G:H22	1.84	0.42
25:Bw:51:C:H2'	25:Bw:52:G:C8	2.53	0.42
27:BD:6:PHE:HE1	27:BD:18:VAL:HG23	1.84	0.42
28:BE:4:ILE:HG12	28:BE:5:LEU:N	2.35	0.42
29:BF:9:ILE:HG23	29:BF:12:LEU:O	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BG:42:GLY:C	30:BG:43:LEU:HD22	2.44	0.42
32:BI:77:LEU:HD23	32:BI:77:LEU:O	2.18	0.42
34:BN:46:VAL:HG13	34:BN:48:MET:HG3	2.01	0.42
34:BN:126:PRO:O	34:BN:127:ASP:CB	2.67	0.42
41:BU:2:PRO:HA	57:BA:445:C:OP1	2.20	0.42
41:BU:69:CYS:SG	41:BU:79:PHE:HB2	2.59	0.42
42:BV:25:LEU:H	42:BV:92:THR:HG21	1.84	0.42
42:BV:64:HIS:ND1	42:BV:92:THR:CG2	2.81	0.42
43:BW:93:ALA:HB2	57:BA:1614:A:N7	2.35	0.42
46:BZ:136:PHE:HD2	46:BZ:136:PHE:H	1.68	0.42
46:BZ:150:LEU:C	46:BZ:151:HIS:HD2	2.27	0.42
46:BZ:166:SER:CB	46:BZ:167:PRO:CA	2.97	0.42
49:B2:21:LEU:O	49:B2:25:VAL:HG23	2.20	0.42
57:BA:476:G:H4'	57:BA:502:A:N1	2.34	0.42
57:BA:610:G:N2	57:BA:619:G:H1'	2.34	0.42
57:BA:803:U:C2'	57:BA:804:A:H5'	2.50	0.42
57:BA:882:G:H2'	57:BA:883:G:C8	2.50	0.42
57:BA:1448:G:H5'	57:BA:1449:A:OP1	2.19	0.42
57:BA:2099:U:H3	57:BA:2190:G:H1	1.67	0.42
57:BA:2297:C:O2'	57:BA:2298:A:H5'	2.20	0.42
57:BA:2538:C:O2'	57:BA:2539:C:H5'	2.19	0.42
57:BA:2850:A:H2'	57:BA:2851:A:C8	2.54	0.42
1:Ab:85:ALA:HB1	1:Ab:92:TYR:HD2	1.85	0.42
1:Ab:173:ALA:O	1:Ab:176:GLU:N	2.52	0.42
3:Ad:4:TYR:O	3:Ad:5:ILE:CB	2.66	0.42
3:Ad:41:GLY:C	3:Ad:43:HIS:N	2.77	0.42
3:Ad:173:TRP:CZ3	3:Ad:193:ASP:HB3	2.54	0.42
4:Ae:43:LEU:HD21	4:Ae:132:ALA:HB1	2.01	0.42
4:Ae:64:ARG:HG3	4:Ae:64:ARG:NH1	2.31	0.42
6:Ag:30:ILE:O	22:Aa:1240:U:N3	2.46	0.42
6:Ag:78:ARG:HG2	6:Ag:79:ARG:N	2.34	0.42
6:Ag:102:ARG:HH12	22:Aa:939:G:C5'	2.32	0.42
6:Ag:108:ALA:HA	6:Ag:111:ARG:HD2	2.01	0.42
8:Ai:100:GLY:C	8:Ai:102:LEU:N	2.76	0.42
9:Aj:44:VAL:HG12	9:Aj:46:ARG:HD2	2.01	0.42
11:Al:89:ARG:HH11	11:Al:89:ARG:CB	2.26	0.42
12:Am:102:ARG:NH2	22:Aa:951:G:OP2	2.52	0.42
22:Aa:37:U:HO2'	22:Aa:38:G:H5'	1.85	0.42
22:Aa:407:G:H2'	22:Aa:408:A:H8	1.85	0.42
22:Aa:778:G:H2'	22:Aa:779:C:O4'	2.19	0.42
22:Aa:865:A:H5'	22:Aa:1078:U:O4	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Aa:1422:G:O2'	35:AO:49:ARG:NH2	2.49	0.42
27:AD:176:ARG:CG	27:AD:176:ARG:NH1	2.82	0.42
30:AG:103:LEU:O	30:AG:106:LEU:HB3	2.19	0.42
30:AG:139:LEU:HA	30:AG:144:ILE:HG21	2.02	0.42
31:AH:70:THR:O	31:AH:71:LEU:C	2.61	0.42
31:AH:107:VAL:HG21	31:AH:152:ARG:HB2	2.01	0.42
32:AI:37:VAL:HG12	32:AI:38:LEU:N	2.35	0.42
32:AI:70:GLU:O	32:AI:71:ILE:HG13	2.20	0.42
32:AI:77:LEU:CD2	32:AI:140:LEU:HA	2.46	0.42
32:AI:116:LEU:HD12	32:AI:117:GLU:N	2.35	0.42
34:AN:4:TYR:HB2	41:AU:64:ARG:NH2	2.35	0.42
34:AN:57:ALA:O	34:AN:58:ASP:C	2.63	0.42
34:AN:75:TYR:HA	34:AN:81:GLY:O	2.19	0.42
35:AO:22:ILE:HD13	35:AO:22:ILE:HA	1.83	0.42
37:AQ:21:THR:O	37:AQ:21:THR:CG2	2.63	0.42
37:AQ:75:THR:HA	37:AQ:89:ASN:O	2.20	0.42
38:AR:85:PRO:C	38:AR:87:TYR:H	2.27	0.42
39:AS:102:ALA:O	39:AS:103:GLU:HB2	2.20	0.42
40:AT:34:VAL:HG12	40:AT:35:LYS:N	2.34	0.42
41:AU:31:SER:C	41:AU:33:ARG:N	2.71	0.42
41:AU:89:GLU:HG2	41:AU:89:GLU:O	2.20	0.42
42:AV:47:VAL:O	42:AV:49:THR:O	2.38	0.42
44:AX:12:VAL:CG1	44:AX:27:THR:O	2.54	0.42
46:AZ:179:ASP:OD1	46:AZ:181:GLU:N	2.52	0.42
48:A1:23:LYS:CD	48:A1:28:GLY:HA3	2.47	0.42
54:A7:5:TRP:CD1	54:A7:7:PRO:HD3	2.54	0.42
55:A8:32:LEU:HB2	55:A8:33:ASN:HD22	1.84	0.42
57:AA:272(G):C:N4	57:AA:363(C):G:H1	2.15	0.42
57:AA:924:C:O2'	57:AA:925:C:H5'	2.19	0.42
57:AA:1022:G:O2'	57:AA:1023:U:OP2	2.31	0.42
57:AA:1037:G:H1	57:AA:1118:C:N4	2.18	0.42
57:AA:1665:A:C2'	57:AA:1666:G:H5'	2.49	0.42
57:AA:1999:C:H5"	57:AA:2723:C:O2'	2.19	0.42
57:AA:2693:A:H2'	57:AA:2694:G:C8	2.55	0.42
57:AA:2777:G:H5"	57:AA:2778:A:H5'	2.01	0.42
58:AB:56:G:H4'	58:AB:57:A:C8	2.51	0.42
58:AB:111:G:H2'	58:AB:112:U:O4'	2.19	0.42
2:Bc:73:PRO:O	2:Bc:76:VAL:HG13	2.19	0.42
3:Bd:41:GLY:C	3:Bd:43:HIS:H	2.28	0.42
4:Be:19:MET:O	22:Ba:921:U:O2'	2.34	0.42
6:Bg:78:ARG:HG2	6:Bg:79:ARG:N	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:Bh:29:SER:HA	22:Ba:590:C:OP1	2.19	0.42
8:Bi:120:ARG:HH12	22:Ba:1346:A:C5'	2.31	0.42
8:Bi:125:TYR:HD2	8:Bi:126:SER:N	2.18	0.42
11:Bl:7:ILE:HG22	11:Bl:8:ASN:N	2.34	0.42
14:Bo:87:ILE:HG13	14:Bo:88:ARG:N	2.34	0.42
16:Bq:9:VAL:HG11	16:Bq:84:LEU:CD1	2.48	0.42
18:Bs:33:THR:OG1	18:Bs:34:TRP:N	2.51	0.42
18:Bs:39:THR:HG22	18:Bs:40:ILE:N	2.35	0.42
18:Bs:72:GLY:C	18:Bs:74:PHE:N	2.71	0.42
21:By:47:MET:O	21:By:48:PRO:O	2.38	0.42
22:Ba:70:G:H2'	22:Ba:71:C:C6	2.55	0.42
22:Ba:110:C:H2'	22:Ba:111:G:O4'	2.20	0.42
22:Ba:1001(A):G:H2'	22:Ba:1002:G:O4'	2.19	0.42
26:BC:50:ILE:C	26:BC:50:ILE:HD12	2.44	0.42
27:BD:67:PHE:CE1	27:BD:157:ARG:CZ	3.03	0.42
28:BE:10:GLY:C	40:BT:8:LYS:HD3	2.45	0.42
28:BE:195:LEU:HD12	28:BE:196:VAL:H	1.85	0.42
29:BF:83:PHE:O	29:BF:84:VAL:CB	2.64	0.42
30:BG:106:LEU:HA	30:BG:110:ALA:HB3	2.00	0.42
31:BH:11:VAL:HG12	31:BH:15:VAL:HG23	2.00	0.42
31:BH:42:ARG:HG3	31:BH:42:ARG:HH11	1.83	0.42
31:BH:148:ILE:O	31:BH:151:ILE:HG12	2.20	0.42
32:BI:10:GLU:O	32:BI:12:LEU:HD23	2.19	0.42
33:BJ:73:GLY:C	33:BJ:75:GLN:N	2.73	0.42
34:BN:128:HIS:O	34:BN:128:HIS:CG	2.72	0.42
34:BN:128:HIS:HA	34:BN:129:PRO:HD2	1.84	0.42
36:BP:27:HIS:ND1	57:BA:814:C:H5	2.16	0.42
36:BP:61:ARG:N	36:BP:61:ARG:HD2	2.34	0.42
36:BP:101:VAL:HG23	36:BP:102:ARG:N	2.34	0.42
38:BR:4:LEU:C	38:BR:5:LYS:HG2	2.44	0.42
39:BS:66:ALA:O	39:BS:69:VAL:HG12	2.20	0.42
40:BT:25:GLY:N	40:BT:49:VAL:HG13	2.35	0.42
40:BT:34:VAL:HG12	40:BT:35:LYS:N	2.35	0.42
42:BV:39:LEU:HB3	42:BV:47:VAL:CG2	2.50	0.42
43:BW:88:ARG:HB2	43:BW:92:ARG:HB2	2.00	0.42
46:BZ:28:MET:HA	46:BZ:88:PHE:O	2.20	0.42
47:B0:36:ILE:O	47:B0:36:ILE:HG13	2.16	0.42
47:B0:41:ARG:HD2	47:B0:41:ARG:HA	1.43	0.42
53:B6:40:CYS:HB2	53:B6:46:HIS:CE1	2.54	0.42
57:BA:237:C:O2'	57:BA:238:C:H5'	2.20	0.42
57:BA:419:C:O2'	57:BA:420:C:H5'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BA:794:G:H2'	57:BA:795:C:C6	2.54	0.42
57:BA:1209:G:N2	57:BA:1210:A:H62	2.14	0.42
57:BA:2468:G:HO2'	57:BA:2476:A:H8	1.64	0.42
57:BA:2811:G:C2'	57:BA:2812:G:H5'	2.50	0.42
57:BA:2870:C:H2'	57:BA:2871:C:C5'	2.49	0.42
57:BA:2892:A:N6	57:BA:2893:G:H21	2.18	0.42
58:BB:82:G:O2'	58:BB:83:G:H5'	2.18	0.42
1:Ab:132:LYS:HA	1:Ab:135:GLN:NE2	2.34	0.42
3:Ad:35:ARG:O	3:Ad:37:PRO:HD3	2.19	0.42
4:Ae:139:LEU:HA	4:Ae:142:LEU:HD12	2.02	0.42
6:Ag:9:VAL:HG21	6:Ag:94:ARG:HH12	1.85	0.42
10:Ak:34:ASP:HB2	10:Ak:35:PRO:HD2	2.01	0.42
12:Am:19:LEU:CA	12:Am:22:ILE:HD13	2.50	0.42
22:Aa:152:A:N6	22:Aa:170:U:C2	2.88	0.42
22:Aa:197:A:C5	22:Aa:221:C:H4'	2.54	0.42
22:Aa:956:U:O2'	22:Aa:957:U:H5'	2.19	0.42
22:Aa:1201:A:H1'	22:Aa:1202:G:OP2	2.19	0.42
22:Aa:1374:A:C4	22:Aa:1375:A:C8	3.07	0.42
22:Aa:1523:G:H2'	22:Aa:1524:C:C6	2.55	0.42
29:AF:51:THR:HG21	29:AF:92:PRO:HD2	2.00	0.42
34:AN:51:PHE:CZ	34:AN:119:ARG:HD2	2.54	0.42
35:AO:7:TYR:OH	35:AO:44:LYS:HG3	2.20	0.42
36:AP:16:ARG:C	36:AP:16:ARG:CD	2.83	0.42
39:AS:13:ARG:O	39:AS:15:ARG:N	2.53	0.42
42:AV:62:LEU:N	42:AV:62:LEU:HD22	2.35	0.42
43:AW:12:ILE:HD13	43:AW:17:VAL:CG2	2.47	0.42
43:AW:89:ALA:HB1	57:AA:748:G:C8	2.55	0.42
45:AY:63:LYS:HG3	45:AY:64:GLU:H	1.85	0.42
46:AZ:5:LEU:HD23	46:AZ:6:LYS:N	2.35	0.42
46:AZ:39:VAL:HG21	46:AZ:44:PHE:HD2	1.84	0.42
46:AZ:100:VAL:HG23	46:AZ:126:VAL:CG2	2.50	0.42
48:A1:18:ILE:HG23	48:A1:34:THR:HG23	2.02	0.42
53:A6:5:VAL:HG22	53:A6:6:ARG:N	2.27	0.42
57:AA:1856:G:O2'	57:AA:1857:G:H5'	2.20	0.42
57:AA:2092:U:C5	57:AA:2226:C:OP2	2.72	0.42
57:AA:2259:G:H1'	57:AA:2427:C:C2	2.54	0.42
57:AA:2318:G:H2'	57:AA:2319:G:OP1	2.19	0.42
57:AA:2390:U:O2'	57:AA:2391:G:H5'	2.19	0.42
2:Bc:11:ARG:O	2:Bc:13:GLY:N	2.53	0.42
3:Bd:162:LEU:CD1	3:Bd:181:MET:HG2	2.49	0.42
4:Be:26:PHE:CD1	4:Be:26:PHE:N	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:Bh:1:MET:O	7:Bh:2:LEU:O	2.38	0.42
8:Bi:27:THR:HG23	8:Bi:31:GLN:H	1.85	0.42
8:Bi:33:PHE:CE2	8:Bi:47:LEU:HD21	2.55	0.42
10:Bk:24:SER:C	10:Bk:26:ASN:N	2.77	0.42
10:Bk:29:ILE:HG13	10:Bk:44:SER:HB3	2.02	0.42
10:Bk:43:SER:HA	10:Bk:47:VAL:HG21	2.02	0.42
11:Bl:58:VAL:O	11:Bl:65:GLU:HA	2.20	0.42
12:Bm:6:GLY:C	12:Bm:8:GLU:H	2.26	0.42
13:Bn:34:TYR:CD1	13:Bn:34:TYR:N	2.88	0.42
14:Bo:39:LEU:C	14:Bo:39:LEU:HD13	2.44	0.42
18:Bs:24:ALA:O	18:Bs:25:LYS:CB	2.68	0.42
22:Ba:805:C:H2'	22:Ba:806:C:H6	1.85	0.42
22:Ba:1324:A:H2'	22:Ba:1325:C:O4'	2.20	0.42
22:Ba:1386:G:H2'	22:Ba:1387:G:H8	1.85	0.42
24:Bv:72:A:H2'	24:Bv:73:A:H5"	1.97	0.42
27:BD:9:TYR:CD2	57:BA:727:A:H2	2.38	0.42
27:BD:117:VAL:HG23	27:BD:129:ASN:OD1	2.20	0.42
28:BE:24:THR:HG21	28:BE:188:VAL:HG12	2.00	0.42
28:BE:68:ALA:O	28:BE:70:ALA:N	2.46	0.42
28:BE:179:GLU:O	28:BE:180:ASN:HB2	2.20	0.42
28:BE:203:LYS:HE3	28:BE:204:ALA:HB2	2.00	0.42
29:BF:34:TRP:CH2	36:BP:12:ALA:HB2	2.54	0.42
31:BH:85:LYS:NZ	31:BH:133:VAL:CG2	2.81	0.42
32:BI:64:GLU:C	32:BI:66:GLU:N	2.77	0.42
36:BP:32:THR:O	36:BP:33:ARG:CB	2.68	0.42
42:BV:41:GLY:HA3	42:BV:45:THR:OG1	2.19	0.42
46:BZ:40:ASP:OD1	46:BZ:42:VAL:HG12	2.20	0.42
51:B4:19:GLY:O	51:B4:20:ASN:C	2.63	0.42
55:B8:32:LEU:HD12	57:BA:2391:G:OP1	2.20	0.42
57:BA:66:C:H2'	57:BA:67:U:H6	1.85	0.42
57:BA:107:C:O2'	57:BA:108:U:H5'	2.19	0.42
57:BA:638:G:C5	57:BA:651:G:C2	3.07	0.42
57:BA:782:A:H5'	57:BA:783:A:C2	2.54	0.42
57:BA:922:U:H2'	57:BA:923:C:C6	2.55	0.42
57:BA:1496:A:C8	57:BA:1577:C:O2'	2.70	0.42
57:BA:1861:G:O2'	57:BA:1862:G:H5'	2.19	0.42
57:BA:2230:G:C5	57:BA:2231:C:C5	3.07	0.42
57:BA:2262:U:H4'	57:BA:2328:A:C2	2.55	0.42
57:BA:2553:G:H2'	57:BA:2554:U:C4'	2.50	0.42
58:BB:65:C:C2'	58:BB:66:A:H5'	2.50	0.42
1:Ab:15:VAL:C	1:Ab:16:HIS:CG	2.98	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ab:235:SER:O	1:Ab:237:ALA:N	2.52	0.42
2:Ac:173:VAL:O	2:Ac:173:VAL:HG12	2.19	0.42
3:Ad:196:LEU:O	3:Ad:198:VAL:N	2.48	0.42
4:Ae:7:GLU:HG2	4:Ae:112:LEU:CD2	2.50	0.42
8:Ai:27:THR:HG23	8:Ai:31:GLN:H	1.84	0.42
9:Aj:39:PRO:HB3	9:Aj:70:ARG:NH1	2.34	0.42
19:At:97:ALA:HA	19:At:98:PRO:HD2	1.91	0.42
22:Aa:93:G:C2'	22:Aa:96:U:H5'	2.49	0.42
22:Aa:542:G:O2'	22:Aa:543:C:H5'	2.20	0.42
22:Aa:706:A:N7	22:Aa:707:C:H5	2.17	0.42
22:Aa:1268:A:H2'	22:Aa:1269:A:C8	2.55	0.42
22:Aa:1365:G:H2'	22:Aa:1366:C:C6	2.55	0.42
27:AD:161:THR:O	27:AD:196:VAL:HG23	2.20	0.42
28:AE:55:ASN:HD22	28:AE:55:ASN:HA	1.51	0.42
28:AE:189:PRO:HA	57:AA:2680:C:H5'	2.01	0.42
28:AE:195:LEU:HD12	28:AE:196:VAL:N	2.34	0.42
30:AG:174:GLU:CD	30:AG:182:LYS:NZ	2.78	0.42
32:AI:13:GLY:O	32:AI:14:ASP:HB2	2.20	0.42
32:AI:113:ARG:NH1	32:AI:113:ARG:CG	2.82	0.42
36:AP:105:LEU:O	36:AP:106:LEU:HB2	2.18	0.42
37:AQ:32:TYR:OH	37:AQ:111:GLU:HG3	2.20	0.42
38:AR:56:LYS:C	38:AR:58:GLY:N	2.77	0.42
43:AW:45:TYR:HD2	43:AW:46:PHE:CD1	2.38	0.42
47:A0:36:ILE:HD12	47:A0:39:ARG:HG2	2.01	0.42
50:A3:37:LEU:O	50:A3:38:GLU:O	2.37	0.42
51:A4:13:ARG:O	51:A4:13:ARG:HG2	2.19	0.42
55:A8:33:ASN:HD22	55:A8:36:LYS:CD	2.30	0.42
57:AA:176:G:C2'	57:AA:177:G:H5'	2.48	0.42
57:AA:271(U):G:C2'	57:AA:271(V):G:H5'	2.50	0.42
57:AA:713:G:H2'	57:AA:714:U:C6	2.55	0.42
57:AA:758:C:O2'	57:AA:1981:A:N3	2.50	0.42
57:AA:1264:G:H3'	57:AA:1265:A:H5"	2.01	0.42
57:AA:1431:U:O2'	57:AA:1432:C:H5'	2.20	0.42
57:AA:1720:U:H2'	57:AA:1721:G:O4'	2.20	0.42
57:AA:2065:C:H2'	57:AA:2066:C:C6	2.55	0.42
57:AA:2770:G:C5'	57:AA:2771:C:OP2	2.68	0.42
58:AB:65:C:C2'	58:AB:66:A:H5'	2.50	0.42
2:Bc:36:ASP:OD2	2:Bc:57:ILE:HG21	2.19	0.42
2:Bc:55:VAL:HG12	2:Bc:55:VAL:O	2.20	0.42
4:Be:101:ILE:HG12	4:Be:119:LEU:HA	2.02	0.42
6:Bg:87:VAL:HG12	6:Bg:88:PRO:HD2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:Bi:71:SER:C	8:Bi:73:GLN:N	2.76	0.42
10:Bk:34:ASP:HB2	10:Bk:35:PRO:HD2	2.01	0.42
13:Bn:40:CYS:SG	13:Bn:43:CYS:N	2.85	0.42
15:Bp:49:LEU:HD12	15:Bp:49:LEU:C	2.45	0.42
16:Bq:59:ILE:HG21	16:Bq:71:PHE:HB3	2.01	0.42
19:Bt:89:ARG:NH2	22:Ba:188:C:O4'	2.53	0.42
22:Ba:119:A:O2'	22:Ba:120:A:OP2	2.36	0.42
22:Ba:708:C:O2'	22:Ba:709:G:H5'	2.20	0.42
22:Ba:880:C:O2'	22:Ba:881:G:H5'	2.19	0.42
22:Ba:1043:C:H2'	22:Ba:1044:A:H8	1.84	0.42
22:Ba:1324:A:H4'	22:Ba:1362:C:H4'	2.01	0.42
22:Ba:1327:C:H2'	22:Ba:1328:C:H6	1.85	0.42
22:Ba:1452:C:H5'	22:Ba:1456:G:C4	2.54	0.42
22:Ba:1489:G:O2'	22:Ba:1490:C:H5'	2.20	0.42
22:Ba:1523:G:C6	22:Ba:1524:C:C4	3.08	0.42
24:Bv:20:U:O2	24:Bv:20:U:O4'	2.36	0.42
26:BC:30:VAL:HG11	26:BC:42:VAL:HG13	2.01	0.42
26:BC:38:PHE:CD2	57:BA:2126:A:H5"	2.55	0.42
27:BD:142:VAL:HG22	27:BD:143:HIS:N	2.34	0.42
34:BN:1:MET:HE3	34:BN:3:THR:OG1	2.20	0.42
36:BP:50:ARG:HB3	55:B8:59:LYS:CD	2.39	0.42
39:BS:51:ALA:HB2	39:BS:73:LEU:HA	2.01	0.42
40:BT:26:ASP:HB3	40:BT:89:VAL:O	2.20	0.42
40:BT:128:GLU:CD	40:BT:129:ARG:H	2.28	0.42
42:BV:18:LEU:CD2	42:BV:19:LYS:H	2.33	0.42
45:BY:49:VAL:HG12	45:BY:50:ARG:N	2.35	0.42
46:BZ:48:PHE:HA	46:BZ:51:ALA:HB3	2.02	0.42
46:BZ:64:GLY:O	46:BZ:65:GLN:O	2.38	0.42
48:B1:29:GLY:C	48:B1:31:GLY:N	2.76	0.42
51:B4:27:THR:O	51:B4:28:LYS:HB3	2.18	0.42
52:B5:3:LYS:HD2	52:B5:5:PRO:HD2	2.02	0.42
53:B6:10:LEU:O	53:B6:54:ILE:O	2.36	0.42
55:B8:30:ARG:NH2	57:BA:2419:U:O4	2.52	0.42
57:BA:150:C:H2'	57:BA:151:C:C6	2.55	0.42
57:BA:244:A:C2	57:BA:255:A:C4	3.07	0.42
57:BA:621:A:H2'	57:BA:622:G:C5'	2.49	0.42
57:BA:644:A:C2	57:BA:2369:A:H1'	2.54	0.42
57:BA:975:C:H2'	57:BA:975:C:O2	2.20	0.42
57:BA:1150:C:O2'	57:BA:1151:G:H5'	2.19	0.42
57:BA:1173:G:H5'	57:BA:1174:A:O5'	2.20	0.42
57:BA:1209:G:H21	57:BA:1210:A:N6	2.14	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BA:1278:A:H2'	57:BA:1279:G:C8	2.54	0.42
57:BA:1469:A:O2'	57:BA:1470:G:H5'	2.20	0.42
57:BA:1665:A:C2'	57:BA:1666:G:H5'	2.50	0.42
57:BA:1833:U:O2	57:BA:1969:A:H2	2.03	0.42
57:BA:1833:U:O2'	57:BA:1969:A:N1	2.42	0.42
57:BA:1853:A:H2'	57:BA:1854:A:C8	2.55	0.42
57:BA:2317:C:C2'	57:BA:2318:G:C5'	2.83	0.42
57:BA:2346:A:C2	57:BA:2383:G:C2	3.07	0.42
57:BA:2770:G:H5'	57:BA:2771:C:OP2	2.20	0.42
1:Ab:75:LYS:C	1:Ab:77:ALA:H	2.26	0.42
2:Ac:11:ARG:O	2:Ac:13:GLY:N	2.52	0.42
3:Ad:148:VAL:HG12	3:Ad:149:ALA:N	2.35	0.42
7:Ah:30:ARG:HH11	7:Ah:30:ARG:HB2	1.85	0.42
7:Ah:40:ALA:O	7:Ah:42:GLU:N	2.53	0.42
8:Ai:46:ALA:C	8:Ai:47:LEU:HD12	2.45	0.42
10:Ak:24:SER:C	10:Ak:26:ASN:N	2.77	0.42
12:Am:6:GLY:C	12:Am:8:GLU:H	2.26	0.42
12:Am:115:LYS:O	12:Am:116:THR:C	2.62	0.42
14:Ao:17:ARG:CD	14:Ao:26:GLU:OE1	2.68	0.42
16:Aq:70:ARG:CG	22:Aa:235:C:H5'	2.38	0.42
18:As:36:ARG:HD3	22:Aa:1221:G:P	2.60	0.42
19:At:37:SER:HB3	19:At:84:LEU:CD2	2.49	0.42
22:Aa:36:C:C2'	22:Aa:37:U:H5'	2.50	0.42
22:Aa:224:C:H2'	22:Aa:225:C:C6	2.55	0.42
22:Aa:436:C:O2'	22:Aa:437:U:OP2	2.37	0.42
22:Aa:543:C:O2'	22:Aa:544:G:H5'	2.20	0.42
22:Aa:707:C:H2'	22:Aa:708:C:H6	1.83	0.42
22:Aa:741:G:H2'	22:Aa:742:G:O4'	2.20	0.42
22:Aa:862:C:C2'	22:Aa:863:U:H5'	2.50	0.42
22:Aa:949:A:C2	22:Aa:1233:G:N3	2.88	0.42
22:Aa:983:A:H5'	22:Aa:984:C:OP2	2.19	0.42
22:Aa:1086:U:O2'	22:Aa:1087:G:H5'	2.19	0.42
26:AC:21:TYR:C	26:AC:225:ILE:HG22	2.45	0.42
27:AD:57:GLY:O	27:AD:58:HIS:C	2.63	0.42
28:AE:117:MET:HE2	28:AE:136:ARG:CZ	2.50	0.42
30:AG:16:ARG:CG	30:AG:16:ARG:HH11	2.33	0.42
31:AH:155:SER:O	31:AH:156:ALA:C	2.63	0.42
32:AI:72:LEU:O	32:AI:138:ILE:HG13	2.19	0.42
34:AN:62:VAL:O	34:AN:62:VAL:HG13	2.19	0.42
36:AP:63:PRO:HB3	55:A8:13:ARG:HB3	2.02	0.42
40:AT:35:LYS:HE2	40:AT:41:ARG:HE	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:AT:120:ARG:HA	40:AT:123:GLN:HG2	2.02	0.42
45:AY:29:GLU:CD	45:AY:38:ILE:HG21	2.45	0.42
47:A0:66:VAL:HG12	47:A0:67:VAL:N	2.35	0.42
50:A3:52:HIS:CD2	58:AB:83:G:H4'	2.54	0.42
52:A5:55:ARG:O	52:A5:56:LYS:HB2	2.19	0.42
55:A8:2:PRO:HA	57:AA:591:C:O2	2.19	0.42
55:A8:18:ALA:C	55:A8:20:GLY:N	2.76	0.42
56:A9:2:LYS:HD2	56:A9:2:LYS:HA	1.93	0.42
57:AA:21:A:O2'	57:AA:22:C:H5'	2.20	0.42
57:AA:244:A:C2	57:AA:255:A:C4	3.08	0.42
57:AA:2291:U:OP1	57:AA:2381:C:H5'	2.20	0.42
2:Bc:25:GLY:C	2:Bc:27:LYS:H	2.26	0.42
3:Bd:61:LYS:CE	3:Bd:62:GLN:HE21	2.33	0.42
4:Be:139:LEU:HA	4:Be:142:LEU:HD12	2.02	0.42
10:Bk:72:ALA:HB1	10:Bk:77:MET:CB	2.50	0.42
12:Bm:90:LEU:O	12:Bm:91:ARG:CB	2.67	0.42
18:Bs:12:ASP:HB3	18:Bs:14:HIS:CE1	2.54	0.42
22:Ba:93:G:C2'	22:Ba:96:U:H5'	2.50	0.42
22:Ba:224:C:H2'	22:Ba:225:C:C6	2.55	0.42
22:Ba:1244:C:H2'	22:Ba:1245:A:H8	1.79	0.42
22:Ba:1248:A:C2'	22:Ba:1249:C:H5'	2.48	0.42
25:Bw:24:U:H2'	25:Bw:25:C:C6	2.54	0.42
25:Bw:51:C:H2'	25:Bw:52:G:H8	1.84	0.42
26:BC:212:SER:OG	26:BC:214:TYR:HE1	2.01	0.42
27:BD:128:GLY:N	27:BD:193:VAL:HG13	2.34	0.42
28:BE:61:ARG:NH1	57:BA:2787:C:O2	2.47	0.42
30:BG:9:ARG:C	30:BG:11:TYR:H	2.27	0.42
30:BG:128:ARG:HG3	57:BA:2302:G:N3	2.34	0.42
31:BH:23:ARG:C	31:BH:24:VAL:HG12	2.44	0.42
32:BI:44:LEU:HD12	32:BI:44:LEU:HA	1.84	0.42
36:BP:33:ARG:HD3	57:BA:587:C:C6	2.54	0.42
36:BP:63:PRO:CB	55:B8:12:LYS:O	2.67	0.42
36:BP:64:LYS:C	36:BP:64:LYS:HD3	2.44	0.42
37:BQ:10:ARG:HH11	37:BQ:10:ARG:CB	2.33	0.42
39:BS:59:LYS:CD	39:BS:61:ASN:HB2	2.50	0.42
40:BT:3:ARG:HG3	40:BT:3:ARG:HH11	1.85	0.42
44:BX:27:THR:HA	44:BX:79:ALA:O	2.20	0.42
45:BY:13:VAL:HG11	45:BY:28:LYS:HZ2	1.85	0.42
45:BY:80:GLY:O	45:BY:81:LYS:HB3	2.19	0.42
46:BZ:153:SER:C	46:BZ:155:LEU:HD23	2.45	0.42
47:B0:21:LEU:HD11	47:B0:41:ARG:HD3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:B3:52:HIS:CD2	50:B3:52:HIS:H	2.38	0.42
53:B6:27:LYS:NZ	57:BA:2285:C:P	2.93	0.42
56:B9:1:MET:HE2	56:B9:10:ILE:CD1	2.49	0.42
57:BA:676:A:H2	57:BA:802:A:N6	2.09	0.42
57:BA:1188:U:HO2'	57:BA:1189:A:H5'	1.84	0.42
57:BA:1313:U:H3'	57:BA:1314:C:H5'	2.02	0.42
57:BA:1708:C:O2'	57:BA:1709:U:H5'	2.20	0.42
57:BA:1827:C:H2'	57:BA:1828:G:H5'	2.01	0.42
57:BA:2092:U:C5	57:BA:2226:C:OP2	2.73	0.42
57:BA:2259:G:C2	57:BA:2282:G:N1	2.88	0.42
57:BA:2553:G:H3'	57:BA:2554:U:H5"	2.02	0.42
57:BA:2585:U:O2	57:BA:2585:U:O4'	2.38	0.42
57:BA:2592:G:C6	57:BA:2593:U:C4	3.08	0.42
57:BA:2870:C:O2'	57:BA:2871:C:H5'	2.20	0.42
2:Ac:18:TRP:CE3	2:Ac:18:TRP:N	2.81	0.42
2:Ac:23:TYR:CD2	2:Ac:24:ALA:N	2.88	0.42
2:Ac:64:VAL:HG12	2:Ac:66:VAL:HG23	1.98	0.42
3:Ad:79:PHE:O	3:Ad:82:ALA:HB3	2.19	0.42
3:Ad:195:ALA:O	3:Ad:196:LEU:O	2.37	0.42
4:Ae:6:PHE:HD1	4:Ae:63:ARG:NH1	2.12	0.42
9:Aj:6:ILE:HG22	9:Aj:98:ILE:CG1	2.37	0.42
12:Am:4:ILE:O	12:Am:5:ALA:O	2.38	0.42
12:Am:7:VAL:HG12	12:Am:7:VAL:O	2.19	0.42
12:Am:100:GLY:C	12:Am:101:GLN:HG3	2.45	0.42
14:Ao:64:ARG:HG3	14:Ao:64:ARG:NH1	2.34	0.42
15:Ap:17:TYR:HE1	15:Ap:41:PRO:HG3	1.85	0.42
17:Ar:36:ASN:CB	17:Ar:39:VAL:HB	2.43	0.42
17:Ar:43:PHE:C	17:Ar:44:LEU:HD12	2.45	0.42
20:Au:12:LYS:HB3	20:Au:22:ARG:HD2	2.02	0.42
22:Aa:805:C:H2'	22:Aa:806:C:H6	1.84	0.42
22:Aa:1133:G:H1'	22:Aa:1142:G:H22	1.85	0.42
22:Aa:1151:A:C4	22:Aa:1152:A:N7	2.88	0.42
26:AC:16:ASP:HB3	26:AC:19:LYS:HB2	2.02	0.42
26:AC:184:GLU:C	26:AC:185:LYS:HE3	2.45	0.42
27:AD:95:LEU:O	27:AD:95:LEU:HD12	2.20	0.42
27:AD:266:SER:O	27:AD:267:SER:O	2.37	0.42
27:AD:271:ILE:O	27:AD:272:ALA:HB2	2.19	0.42
28:AE:111:ARG:HG3	38:AR:2:ARG:CD	2.50	0.42
30:AG:128:ARG:O	30:AG:129:GLY:O	2.37	0.42
33:AJ:119:ALA:O	33:AJ:120:LYS:CB	2.67	0.42
34:AN:123:TYR:OH	34:AN:130:HIS:CE1	2.73	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:AO:24:VAL:CG2	35:AO:33:ALA:HB2	2.49	0.42
40:AT:118:ARG:O	40:AT:119:LYS:C	2.61	0.42
41:AU:60:LEU:O	41:AU:64:ARG:HG2	2.20	0.42
43:AW:35:ILE:O	43:AW:36:LEU:C	2.62	0.42
45:AY:17:SER:O	45:AY:18:GLY:O	2.38	0.42
46:AZ:71:VAL:HG22	46:AZ:88:PHE:HE2	1.84	0.42
46:AZ:153:SER:HA	46:AZ:155:LEU:HD21	2.01	0.42
51:A4:27:THR:O	51:A4:28:LYS:CB	2.68	0.42
52:A5:32:PRO:HA	52:A5:39:MET:HG2	2.02	0.42
55:A8:37:SER:O	55:A8:38:GLY:C	2.62	0.42
57:AA:426:C:O2'	57:AA:427:U:H5'	2.19	0.42
57:AA:803:U:C2'	57:AA:804:A:H5'	2.50	0.42
57:AA:1027:A:C2	57:AA:2488:A:H5'	2.55	0.42
57:AA:1411:C:H2'	57:AA:1412:A:C8	2.55	0.42
57:AA:2065:C:H2'	57:AA:2066:C:H6	1.85	0.42
57:AA:2364:C:C2'	57:AA:2365:G:H5'	2.50	0.42
57:AA:2696:U:H2'	57:AA:2697:G:H8	1.85	0.42
57:AA:2770:G:H5'	57:AA:2771:C:OP2	2.20	0.42
57:AA:2777:G:C4'	57:AA:2778:A:H5'	2.50	0.42
58:AB:35:U:O2'	58:AB:36:C:H5'	2.20	0.42
58:AB:81:G:H2'	58:AB:82:G:C5'	2.48	0.42
1:Bb:15:VAL:C	1:Bb:16:HIS:CG	2.97	0.42
2:Bc:157:ILE:C	2:Bc:159:GLY:H	2.28	0.42
3:Bd:65:ARG:HD2	3:Bd:72:GLU:HA	2.02	0.42
4:Be:64:ARG:HG3	4:Be:64:ARG:NH1	2.31	0.42
6:Bg:116:ALA:HB2	22:Ba:1240:U:OP2	2.20	0.42
7:Bh:61:VAL:HG12	7:Bh:63:LEU:HD13	2.02	0.42
15:Bp:50:LYS:HD3	15:Bp:51:VAL:H	1.82	0.42
17:Br:36:ASN:CB	17:Br:39:VAL:HB	2.45	0.42
18:Bs:28:LYS:C	18:Bs:29:ARG:CG	2.92	0.42
18:Bs:40:ILE:HG21	18:Bs:62:ILE:CD1	2.41	0.42
21:By:6:ASP:C	21:By:7:PHE:CD1	2.98	0.42
21:By:7:PHE:CB	21:By:75:VAL:O	2.68	0.42
22:Ba:632:A:C8	22:Ba:633:G:C8	3.08	0.42
22:Ba:983:A:N1	22:Ba:1222:G:N2	2.68	0.42
22:Ba:1015:A:H2'	22:Ba:1016:A:C8	2.55	0.42
22:Ba:1086:U:O2'	22:Ba:1087:G:H5'	2.20	0.42
25:Bw:41:C:H2'	25:Bw:42:G:H8	1.80	0.42
26:BC:209:PHE:O	26:BC:210:LEU:HD23	2.20	0.42
29:BF:109:GLY:O	29:BF:110:LEU:C	2.63	0.42
30:BG:32:PRO:O	30:BG:172:LEU:HD12	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BG:104:GLU:C	30:BG:106:LEU:N	2.78	0.42
31:BH:170:ARG:HD2	31:BH:170:ARG:H	1.84	0.42
37:BQ:21:THR:HG21	37:BQ:101:ARG:CD	2.50	0.42
37:BQ:69:PHE:CE2	57:BA:871:U:H4'	2.55	0.42
37:BQ:75:THR:HA	37:BQ:89:ASN:O	2.20	0.42
38:BR:45:ARG:HA	38:BR:95:THR:HG21	2.01	0.42
38:BR:85:PRO:C	38:BR:87:TYR:N	2.77	0.42
41:BU:25:TRP:CD1	41:BU:25:TRP:C	2.98	0.42
42:BV:39:LEU:C	42:BV:40:LEU:HD23	2.44	0.42
53:B6:35:GLU:CB	53:B6:51:GLU:HB2	2.44	0.42
54:B7:5:TRP:CH2	57:BA:686:G:N7	2.88	0.42
55:B8:40:GLU:C	55:B8:42:ARG:H	2.27	0.42
56:B9:17:ILE:CG2	56:B9:18:ARG:N	2.83	0.42
57:BA:271(R):G:H2'	57:BA:271(S):G:H8	1.85	0.42
57:BA:506:G:O3'	57:BA:507:A:H8	2.03	0.42
57:BA:738:G:O2'	57:BA:739:G:H5'	2.19	0.42
57:BA:823:G:H2'	57:BA:824:A:C8	2.55	0.42
57:BA:898:C:H2'	57:BA:899:A:C5'	2.49	0.42
57:BA:1021:A:H2'	57:BA:1023:U:H5'	2.01	0.42
57:BA:1540:U:O3'	57:BA:1542:A:OP1	2.38	0.42
57:BA:2087:G:C2'	57:BA:2088:G:H5'	2.50	0.42
57:BA:2095:C:H2'	57:BA:2096:U:O4'	2.20	0.42
57:BA:2240:C:O2'	57:BA:2241:A:H5'	2.20	0.42
57:BA:2481:G:C2'	57:BA:2482:G:OP2	2.68	0.42
57:BA:2502:G:H5"	57:BA:2503:A:H5"	2.02	0.42
57:BA:2741:A:H2'	57:BA:2742:C:O4'	2.19	0.42
57:BA:2772:C:H2'	57:BA:2773:C:C6	2.54	0.42
1:Ab:83:MET:C	1:Ab:85:ALA:N	2.77	0.41
2:Ac:32:LEU:O	2:Ac:35:GLU:HB3	2.20	0.41
3:Ad:129:ASN:HD21	3:Ad:145:GLU:N	2.18	0.41
4:Ae:36:ASP:OD1	4:Ae:38:GLN:N	2.51	0.41
9:Aj:17:ASP:O	9:Aj:20:ALA:HB3	2.20	0.41
9:Aj:48:THR:O	22:Aa:975:A:C2	2.73	0.41
13:An:34:TYR:CD1	13:An:34:TYR:N	2.88	0.41
18:As:60:VAL:HG21	18:As:74:PHE:HB3	2.01	0.41
22:Aa:615:C:H2'	22:Aa:616:G:O4'	2.20	0.41
22:Aa:632:A:H8	22:Aa:633:G:C8	2.38	0.41
22:Aa:754:C:H3'	22:Aa:754:C:O2	2.19	0.41
22:Aa:791:G:C6	22:Aa:792:A:N7	2.88	0.41
22:Aa:1002:G:C8	22:Aa:1003:G:N7	2.88	0.41
26:AC:21:TYR:O	26:AC:225:ILE:HG22	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AD:117:VAL:HG23	27:AD:129:ASN:OD1	2.20	0.41
28:AE:113:PHE:CD1	57:AA:1654:A:H2	2.37	0.41
28:AE:144:ARG:HB3	57:AA:2572:A:C8	2.55	0.41
29:AF:24:LEU:O	29:AF:115:ALA:HB1	2.19	0.41
29:AF:25:PRO:O	29:AF:26:ALA:C	2.62	0.41
30:AG:43:LEU:HD22	30:AG:43:LEU:N	2.35	0.41
30:AG:67:LYS:HE2	51:A4:6:HIS:CB	2.49	0.41
32:AI:2:LYS:HA	32:AI:20:ASP:HA	2.02	0.41
33:AJ:24:PHE:H	33:AJ:117:LEU:CB	2.33	0.41
33:AJ:74:LEU:C	33:AJ:76:GLY:H	2.27	0.41
36:AP:18:ARG:O	57:AA:662:G:H5"	2.20	0.41
36:AP:88:LEU:O	36:AP:90:ARG:N	2.52	0.41
38:AR:80:PHE:O	38:AR:85:PRO:HD3	2.20	0.41
41:AU:69:CYS:SG	41:AU:79:PHE:HB2	2.60	0.41
43:AW:1:MET:HE2	43:AW:2:GLU:O	2.20	0.41
45:AY:80:GLY:O	45:AY:81:LYS:HB3	2.19	0.41
46:AZ:108:PRO:C	46:AZ:110:GLY:N	2.75	0.41
46:AZ:125:LEU:HD23	46:AZ:164:ALA:O	2.19	0.41
50:A3:46:ASN:ND2	57:AA:851:U:H5'	2.34	0.41
53:A6:54:ILE:HD13	57:AA:2420:C:H5'	2.02	0.41
55:A8:46:ARG:HG2	55:A8:46:ARG:NH1	2.35	0.41
57:AA:143:G:H2'	57:AA:143(A):C:H6	1.84	0.41
57:AA:218:A:C2	57:AA:235:U:H4'	2.54	0.41
57:AA:236:C:H2'	57:AA:237:C:C6	2.55	0.41
57:AA:922:U:H2'	57:AA:923:C:C6	2.54	0.41
57:AA:1155:A:O2'	57:AA:1156:A:H2'	2.20	0.41
57:AA:1278:A:H2'	57:AA:1279:G:C8	2.55	0.41
57:AA:2087:G:C2'	57:AA:2088:G:H5'	2.50	0.41
57:AA:2248:C:C2'	57:AA:2249:U:H5'	2.50	0.41
57:AA:2884:U:H2'	57:AA:2885:C:C5'	2.49	0.41
2:Bc:164:ARG:HB3	2:Bc:165:THR:H	1.46	0.41
3:Bd:120:LEU:C	3:Bd:126:ILE:HD13	2.46	0.41
3:Bd:173:TRP:HA	3:Bd:187:ARG:NH1	2.35	0.41
4:Be:7:GLU:HG2	4:Be:112:LEU:CD2	2.49	0.41
6:Bg:108:ALA:HA	6:Bg:111:ARG:HD2	2.02	0.41
6:Bg:148:ASN:N	6:Bg:148:ASN:ND2	2.68	0.41
8:Bi:27:THR:CG2	8:Bi:28:VAL:N	2.83	0.41
8:Bi:68:GLY:H	22:Ba:1250:A:C4'	2.17	0.41
8:Bi:121:ARG:HG3	22:Ba:1350:A:P	2.60	0.41
9:Bj:34:VAL:HG12	9:Bj:35:SER:N	2.35	0.41
14:Bo:17:ARG:CD	14:Bo:26:GLU:OE1	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:Bo:39:LEU:HD13	14:Bo:39:LEU:O	2.20	0.41
14:Bo:61:GLY:O	14:Bo:64:ARG:HB3	2.19	0.41
15:Bp:17:TYR:HE1	15:Bp:41:PRO:HG3	1.84	0.41
22:Ba:427:U:C4	22:Ba:428:G:C6	3.08	0.41
22:Ba:709:G:O2'	22:Ba:710:G:H5'	2.20	0.41
22:Ba:735:C:H2'	22:Ba:736:C:C6	2.53	0.41
22:Ba:862:C:C2'	22:Ba:863:U:H5'	2.50	0.41
22:Ba:1171:G:H2'	22:Ba:1172:C:C6	2.55	0.41
22:Ba:1410:G:H2'	22:Ba:1411:C:C6	2.55	0.41
22:Ba:1410:G:C4	22:Ba:1491:G:N2	2.88	0.41
22:Ba:1420:C:H6	22:Ba:1420:C:O5'	2.03	0.41
26:BC:21:TYR:O	26:BC:225:ILE:HG22	2.20	0.41
26:BC:21:TYR:O	26:BC:225:ILE:HA	2.20	0.41
27:BD:9:TYR:CD2	57:BA:727:A:C2	3.08	0.41
27:BD:221:VAL:HA	57:BA:1789:A:OP1	2.20	0.41
28:BE:10:GLY:HA3	40:BT:8:LYS:NZ	2.34	0.41
30:BG:81:LYS:O	30:BG:82:LEU:O	2.38	0.41
30:BG:145:THR:CG2	30:BG:146:TYR:H	2.28	0.41
31:BH:20:ALA:CB	31:BH:21:PRO:CD	2.97	0.41
32:BI:62:LYS:CE	32:BI:134:PRO:HD3	2.50	0.41
33:BJ:58:LEU:HA	33:BJ:82:PHE:O	2.19	0.41
34:BN:67:LEU:C	34:BN:69:GLN:N	2.77	0.41
34:BN:120:LEU:HD13	34:BN:121:LYS:N	2.35	0.41
35:BO:57:VAL:HG11	57:BA:2561:A:H5"	2.01	0.41
35:BO:63:VAL:HB	35:BO:106:LEU:HD11	2.02	0.41
39:BS:106:ARG:HD2	39:BS:106:ARG:C	2.46	0.41
40:BT:106:SER:O	40:BT:107:ASP:OD1	2.37	0.41
43:BW:79:GLY:H	43:BW:100:THR:HG22	1.85	0.41
47:B0:20:ARG:HD3	57:BA:2356:C:O3'	2.19	0.41
50:B3:6:VAL:HG12	50:B3:56:VAL:CG2	2.43	0.41
50:B3:20:LYS:HA	50:B3:23:LEU:HD12	2.01	0.41
52:B5:10:LYS:HB2	57:BA:2017:U:O2	2.20	0.41
54:B7:37:LYS:HE2	57:BA:469:G:O6	2.20	0.41
57:BA:11:G:H2'	57:BA:12:U:H6	1.85	0.41
57:BA:111:A:O2'	57:BA:112:U:H5'	2.20	0.41
57:BA:418:G:O2'	57:BA:419:C:H5'	2.19	0.41
57:BA:585:G:H2'	57:BA:1251:C:H42	1.85	0.41
57:BA:1204:A:C2	57:BA:1241:A:N1	2.88	0.41
57:BA:2007:C:O2'	57:BA:2008:C:H5'	2.20	0.41
57:BA:2025:C:H2'	57:BA:2026:C:C6	2.55	0.41
57:BA:2037:G:H2'	57:BA:2038:G:C8	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BA:2291:U:OP1	57:BA:2381:C:H5'	2.20	0.41
57:BA:2631:G:N3	57:BA:2810:A:H2	2.18	0.41
57:BA:2737:G:O2'	57:BA:2738:A:H5'	2.20	0.41
58:BB:21:G:N3	58:BB:21:G:H2'	2.34	0.41
1:Ab:42:ILE:HD13	1:Ab:203:GLY:HA2	2.02	0.41
2:Ac:157:ILE:C	2:Ac:159:GLY:H	2.28	0.41
3:Ad:4:TYR:HE2	3:Ad:7:PRO:O	2.03	0.41
3:Ad:152:SER:O	3:Ad:153:ARG:C	2.63	0.41
4:Ae:48:ALA:C	4:Ae:50:GLU:H	2.28	0.41
8:Ai:124:GLN:NE2	22:Aa:942:G:H21	2.18	0.41
14:Ao:50:HIS:O	14:Ao:53:HIS:HB3	2.20	0.41
14:Ao:82:ILE:CG2	14:Ao:83:GLU:N	2.82	0.41
15:Ap:17:TYR:CD1	15:Ap:17:TYR:N	2.88	0.41
16:Aq:60:ILE:O	16:Aq:60:ILE:HG23	2.19	0.41
16:Aq:64:PRO:HB2	22:Aa:264:U:O2'	2.20	0.41
19:At:13:LEU:H	19:At:13:LEU:CD1	2.33	0.41
19:At:14:LYS:O	19:At:18:GLN:HB2	2.19	0.41
21:Ay:86:VAL:O	21:Ay:88:SER:N	2.54	0.41
22:Aa:166:G:H2'	22:Aa:167:G:H8	1.85	0.41
22:Aa:243:A:O2'	22:Aa:244:U:OP2	2.37	0.41
22:Aa:554:C:H2'	22:Aa:555:C:C6	2.54	0.41
22:Aa:832:C:O2'	22:Aa:833:U:O5'	2.35	0.41
22:Aa:983:A:O2'	22:Aa:1049:U:O2'	2.24	0.41
25:Aw:63:G:H2'	25:Aw:64:G:H8	1.84	0.41
27:AD:30:GLU:CG	27:AD:63:ARG:NE	2.82	0.41
27:AD:117:VAL:CG2	27:AD:128:GLY:O	2.67	0.41
28:AE:16:ARG:O	28:AE:17:ASP:HB2	2.20	0.41
29:AF:1:MET:O	29:AF:3:GLU:HG2	2.20	0.41
35:AO:87:ILE:HG22	35:AO:88:ASN:N	2.35	0.41
37:AQ:30:GLY:HA2	37:AQ:107:ALA:HB2	2.02	0.41
37:AQ:46:GLN:NE2	37:AQ:126:PRO:HD3	2.34	0.41
37:AQ:135:ASP:HB3	46:AZ:49:ARG:HH11	1.85	0.41
39:AS:51:ALA:HB2	39:AS:73:LEU:HA	2.02	0.41
40:AT:53:ARG:HG3	40:AT:53:ARG:O	2.19	0.41
41:AU:61:TRP:O	41:AU:62:ILE:C	2.63	0.41
41:AU:92:ARG:NH2	42:AV:10:LYS:HG2	2.36	0.41
45:AY:26:LYS:CG	45:AY:27:VAL:H	2.25	0.41
46:AZ:46:LYS:HE2	46:AZ:46:LYS:HB2	1.96	0.41
46:AZ:48:PHE:HA	46:AZ:51:ALA:HB3	2.02	0.41
46:AZ:54:HIS:CB	46:AZ:101:PRO:HD3	2.35	0.41
47:A0:43:THR:O	47:A0:43:THR:CG2	2.65	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:A1:29:GLY:C	48:A1:31:GLY:N	2.79	0.41
49:A2:68:ARG:HG3	49:A2:68:ARG:HH11	1.85	0.41
50:A3:54:VAL:HG12	50:A3:55:ARG:N	2.35	0.41
55:A8:22:VAL:O	55:A8:49:VAL:HG23	2.20	0.41
57:AA:80:G:O2'	57:AA:81:G:H5'	2.20	0.41
57:AA:460:A:H2'	57:AA:461:C:O4'	2.20	0.41
57:AA:999:U:H5"	57:AA:1154:G:O6	2.20	0.41
57:AA:1048:A:C6	57:AA:1106:A:N7	2.88	0.41
57:AA:1771:C:C1'	57:AA:1786:A:H8	2.33	0.41
57:AA:2134:A:N6	57:AA:2157:G:H1'	2.36	0.41
57:AA:2741:A:H2'	57:AA:2742:C:O4'	2.21	0.41
1:Bb:118:LEU:HA	1:Bb:121:LEU:HD12	2.02	0.41
2:Bc:180:ALA:O	2:Bc:181:ASN:HB3	2.20	0.41
6:Bg:30:ILE:O	22:Ba:1240:U:N3	2.46	0.41
6:Bg:75:VAL:HG12	6:Bg:88:PRO:HB3	2.02	0.41
7:Bh:92:ARG:HH22	22:Ba:644:G:H5'	1.84	0.41
9:Bj:5:ARG:HG2	9:Bj:6:ILE:N	2.35	0.41
12:Bm:20:THR:O	12:Bm:22:ILE:N	2.53	0.41
13:Bn:61:TRP:CD1	13:Bn:61:TRP:O	2.73	0.41
15:Bp:21:VAL:O	15:Bp:33:ILE:HG12	2.20	0.41
22:Ba:100:C:H2'	22:Ba:101:A:O4'	2.20	0.41
22:Ba:190:U:O2'	22:Ba:191:G:H5'	2.21	0.41
22:Ba:1061:G:O2'	22:Ba:1062:U:H5'	2.21	0.41
22:Ba:1332:A:O2'	22:Ba:1333:A:H5'	2.20	0.41
26:BC:4:HIS:ND1	26:BC:8:TYR:CE2	2.88	0.41
27:BD:12:SER:HB2	27:BD:208:LYS:HB3	2.02	0.41
27:BD:57:GLY:O	27:BD:58:HIS:C	2.63	0.41
30:BG:29:TRP:HB3	58:BB:57:A:C2	2.55	0.41
30:BG:131:TYR:CE2	30:BG:133:LEU:HD23	2.55	0.41
32:BI:10:GLU:OE1	32:BI:11:ASN:HB2	2.20	0.41
32:BI:62:LYS:HG3	32:BI:133:HIS:O	2.20	0.41
35:BO:64:ARG:CD	40:BT:70:VAL:HG21	2.50	0.41
36:BP:18:ARG:HD2	57:BA:661:C:O3'	2.20	0.41
37:BQ:32:TYR:OH	37:BQ:111:GLU:HG3	2.21	0.41
39:BS:96:GLY:C	39:BS:98:VAL:N	2.77	0.41
39:BS:98:VAL:CG1	39:BS:100:ALA:HB2	2.50	0.41
40:BT:94:ALA:HB1	40:BT:99:LEU:HD23	2.02	0.41
40:BT:108:ARG:HB2	40:BT:111:ARG:NH1	2.35	0.41
41:BU:92:ARG:HD2	42:BV:11:GLN:NE2	2.35	0.41
42:BV:25:LEU:O	42:BV:27:ALA:N	2.53	0.41
42:BV:62:LEU:HD23	42:BV:94:LEU:C	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BW:37:ARG:HG3	43:BW:37:ARG:HH11	1.85	0.41
44:BX:44:GLU:OE1	57:BA:139(A):G:N2	2.34	0.41
45:BY:54:LYS:C	45:BY:56:PRO:CD	2.94	0.41
46:BZ:8:TYR:HB2	46:BZ:38:TYR:CE2	2.55	0.41
46:BZ:27:VAL:HG22	46:BZ:29:TYR:HD2	1.86	0.41
46:BZ:146:ILE:O	46:BZ:146:ILE:HG13	2.19	0.41
54:B7:13:ALA:O	54:B7:17:GLY:HA3	2.20	0.41
57:BA:191:A:H2'	57:BA:192:C:H6	1.84	0.41
57:BA:860:U:O2	57:BA:860:U:O4'	2.37	0.41
57:BA:1231:G:H2'	57:BA:1232:G:C8	2.55	0.41
57:BA:1361:G:O2'	57:BA:1362:C:H5'	2.20	0.41
57:BA:2850:A:OP2	57:BA:2866:U:C5	2.73	0.41
58:BB:87:G:C2'	58:BB:88:C:H5"	2.50	0.41
1:Ab:92:TYR:CD1	1:Ab:151:GLY:HA3	2.54	0.41
1:Ab:187:LEU:O	1:Ab:187:LEU:HD13	2.21	0.41
3:Ad:86:LYS:HE2	22:Aa:5:U:C4	2.55	0.41
3:Ad:105:VAL:HG12	3:Ad:117:ALA:HB1	2.01	0.41
3:Ad:170:VAL:O	3:Ad:171:GLY:O	2.38	0.41
4:Ae:26:PHE:CD1	4:Ae:26:PHE:N	2.88	0.41
4:Ae:28:PHE:CD1	4:Ae:28:PHE:N	2.88	0.41
5:Af:97:PHE:N	17:Ar:30:ASP:OD1	2.53	0.41
10:Ak:21:ILE:HG13	10:Ak:30:VAL:CG1	2.43	0.41
12:Am:20:THR:O	12:Am:22:ILE:N	2.52	0.41
13:An:61:TRP:O	13:An:61:TRP:CD1	2.73	0.41
14:Ao:78:TYR:O	14:Ao:79:ARG:C	2.63	0.41
16:Aq:67:LYS:HD2	22:Aa:267:C:OP2	2.20	0.41
21:Ay:93:ARG:C	21:Ay:95:LEU:H	2.27	0.41
22:Aa:70:G:H2'	22:Aa:71:C:C6	2.55	0.41
22:Aa:90:U:O3'	22:Aa:91:C:H6	2.03	0.41
22:Aa:184:G:C4'	22:Aa:224:C:H4'	2.50	0.41
22:Aa:542:G:H2'	22:Aa:543:C:C6	2.53	0.41
22:Aa:768:A:H5'	22:Aa:1524:C:H1'	2.02	0.41
22:Aa:1163:C:H2'	22:Aa:1164:G:C8	2.49	0.41
25:Aw:50:U:H6	25:Aw:50:U:O5'	2.03	0.41
26:AC:38:PHE:CD2	57:AA:2126:A:H5"	2.55	0.41
27:AD:9:TYR:CD2	57:AA:727:A:H2	2.39	0.41
27:AD:231:HIS:CG	27:AD:232:PRO:HD2	2.55	0.41
30:AG:61:ALA:O	30:AG:62:LEU:C	2.63	0.41
30:AG:170:ARG:NH2	30:AG:182:LYS:HE2	2.31	0.41
31:AH:38:SER:C	31:AH:40:GLU:N	2.78	0.41
32:AI:27:ARG:HG3	32:AI:27:ARG:NH1	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:AP:15:ARG:HD2	57:AA:598:G:H5'	2.00	0.41
36:AP:62:LEU:HB3	57:AA:2393:A:C5'	2.45	0.41
37:AQ:13:GLN:HG3	57:AA:910:A:C6	2.55	0.41
38:AR:4:LEU:HG	57:AA:2822:G:O6	2.19	0.41
38:AR:101:ALA:O	38:AR:102:GLU:CB	2.61	0.41
39:AS:106:ARG:NH1	39:AS:106:ARG:HB3	2.35	0.41
40:AT:88:ILE:HG22	40:AT:89:VAL:HG13	2.02	0.41
42:AV:15:GLU:O	42:AV:16:PRO:O	2.38	0.41
45:AY:6:HIS:CD2	45:AY:6:HIS:N	2.89	0.41
46:AZ:10:ARG:O	46:AZ:36:LYS:HG3	2.19	0.41
47:A0:23:VAL:HG22	47:A0:38:VAL:HG22	2.02	0.41
51:A4:19:GLY:O	51:A4:20:ASN:C	2.63	0.41
55:A8:25:MET:HE3	55:A8:25:MET:HB3	1.91	0.41
55:A8:30:ARG:NH2	57:AA:2419:U:O4	2.53	0.41
55:A8:42:ARG:C	55:A8:44:LYS:H	2.26	0.41
57:AA:572:A:H2'	57:AA:573:G:O4'	2.19	0.41
57:AA:898:C:H2'	57:AA:899:A:C5'	2.49	0.41
57:AA:1005:C:H2'	57:AA:1006:C:H6	1.83	0.41
57:AA:1173:G:H5'	57:AA:1174:A:O5'	2.20	0.41
57:AA:1480:G:C6	57:AA:1481:U:C4	3.08	0.41
57:AA:2270:G:H2'	57:AA:2271:G:O4'	2.20	0.41
57:AA:2697:G:H2'	57:AA:2698:U:O4'	2.20	0.41
1:Bb:42:ILE:HD11	1:Bb:202:PRO:C	2.44	0.41
1:Bb:85:ALA:HB1	1:Bb:92:TYR:HD2	1.85	0.41
2:Bc:32:LEU:O	2:Bc:35:GLU:HB3	2.20	0.41
2:Bc:82:GLU:CD	2:Bc:82:GLU:H	2.27	0.41
7:Bh:6:ILE:H	7:Bh:6:ILE:CD1	2.31	0.41
8:Bi:56:LEU:O	8:Bi:56:LEU:HD23	2.20	0.41
9:Bj:55:LYS:HG2	22:Ba:972:C:C2'	2.50	0.41
16:Bq:55:ASP:HB3	16:Bq:76:LEU:HD13	2.02	0.41
16:Bq:67:LYS:HD2	22:Ba:267:C:OP2	2.21	0.41
18:Bs:51:VAL:HG23	18:Bs:60:VAL:HG11	2.02	0.41
21:By:7:PHE:CD1	21:By:7:PHE:N	2.89	0.41
22:Ba:438:G:H2'	22:Ba:494:U:O4	2.20	0.41
22:Ba:683:G:C6	22:Ba:684:A:C6	3.09	0.41
22:Ba:932:C:O2	22:Ba:932:C:H2'	2.20	0.41
22:Ba:1163:C:H2'	22:Ba:1164:G:C8	2.49	0.41
22:Ba:1207:G:O2'	22:Ba:1208:C:H5'	2.21	0.41
22:Ba:1238:A:C8	22:Ba:1303:C:H1'	2.55	0.41
26:BC:184:GLU:C	26:BC:185:LYS:HE3	2.45	0.41
29:BF:53:THR:C	29:BF:55:GLY:H	2.27	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BG:149:VAL:HG22	30:BG:151:ALA:O	2.21	0.41
31:BH:85:LYS:HZ1	31:BH:133:VAL:CG2	2.21	0.41
31:BH:91:GLY:O	31:BH:92:ILE:C	2.63	0.41
32:BI:98:ALA:O	32:BI:99:GLU:C	2.63	0.41
34:BN:4:TYR:HB2	41:BU:64:ARG:HH22	1.85	0.41
34:BN:123:TYR:OH	34:BN:130:HIS:CE1	2.73	0.41
35:BO:3:GLN:CB	35:BO:4:PRO:HD2	2.50	0.41
36:BP:19:VAL:O	36:BP:19:VAL:HG23	2.20	0.41
36:BP:81:GLN:HE21	36:BP:81:GLN:HB2	1.66	0.41
36:BP:124:LYS:HD3	36:BP:143:GLY:CA	2.50	0.41
37:BQ:62:GLY:O	46:BZ:178:GLU:N	2.53	0.41
41:BU:90:VAL:HG12	41:BU:91:ASP:N	2.35	0.41
41:BU:95:LEU:C	41:BU:97:ASP:H	2.28	0.41
43:BW:55:ALA:C	43:BW:57:ASN:N	2.78	0.41
45:BY:25:GLY:HA3	45:BY:39:VAL:CG1	2.50	0.41
45:BY:31:LEU:HD13	45:BY:31:LEU:HA	1.90	0.41
50:B3:46:ASN:O	50:B3:50:VAL:HG22	2.21	0.41
51:B4:2:LYS:CG	58:BB:40:U:O4	2.67	0.41
51:B4:39:CYS:O	51:B4:40:HIS:CD2	2.73	0.41
52:B5:35:GLU:O	52:B5:36:CYS:CB	2.68	0.41
52:B5:55:ARG:O	52:B5:56:LYS:HB2	2.20	0.41
57:BA:53:A:H2'	57:BA:54:G:O4'	2.20	0.41
57:BA:316:C:H2'	57:BA:317:G:O5'	2.20	0.41
57:BA:387:U:H4'	57:BA:388:G:O5'	2.20	0.41
57:BA:1449:A:H5'	57:BA:1450:G:OP2	2.20	0.41
57:BA:1493:C:C5	57:BA:2206:G:O2'	2.74	0.41
57:BA:1884:A:C3'	57:BA:1885:A:H5"	2.48	0.41
57:BA:2065:C:H2'	57:BA:2066:C:H6	1.86	0.41
57:BA:2199:A:H5"	57:BA:2200:C:H5	1.85	0.41
57:BA:2308:G:H2'	57:BA:2309:A:O5'	2.21	0.41
3:Ad:194:LEU:HB3	3:Ad:196:LEU:HD11	2.01	0.41
8:Ai:16:ARG:NH2	22:Aa:1128:C:H5"	2.24	0.41
8:Ai:125:TYR:HD2	8:Ai:126:SER:N	2.18	0.41
8:Ai:126:SER:O	8:Ai:127:LYS:HB3	2.19	0.41
10:Ak:83:ILE:HA	10:Ak:109:VAL:O	2.20	0.41
11:Al:50:SER:O	11:Al:51:ALA:HB2	2.21	0.41
12:Am:32:GLU:OE2	12:Am:32:GLU:C	2.64	0.41
14:Ao:54:ARG:HD2	22:Aa:728:A:C6	2.56	0.41
21:Ay:64:TYR:CD1	21:Ay:73:VAL:CG1	3.04	0.41
22:Aa:586:C:O2'	22:Aa:587:G:H5'	2.20	0.41
22:Aa:681:C:O2'	22:Aa:682:G:H5'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Aa:1028:C:C2'	22:Aa:1029:C:H5'	2.51	0.41
22:Aa:1238:A:C8	22:Aa:1303:C:H1'	2.54	0.41
22:Aa:1360:A:H2'	22:Aa:1361:G:O4'	2.20	0.41
22:Aa:1375:A:C2	22:Aa:1376:U:C2	3.09	0.41
27:AD:25:THR:O	27:AD:26:LYS:O	2.38	0.41
27:AD:158:ALA:O	27:AD:159:ALA:C	2.63	0.41
28:AE:79:ARG:HH11	28:AE:79:ARG:HG2	1.86	0.41
28:AE:170:LEU:N	28:AE:170:LEU:CD1	2.83	0.41
29:AF:165:ARG:HG2	29:AF:165:ARG:H	1.50	0.41
30:AG:120:LEU:HG	30:AG:179:PRO:O	2.19	0.41
30:AG:174:GLU:C	30:AG:176:LEU:H	2.29	0.41
31:AH:7:LEU:HD23	31:AH:69:ARG:HD2	2.01	0.41
31:AH:7:LEU:CB	31:AH:69:ARG:HD2	2.50	0.41
31:AH:70:THR:O	31:AH:72:ILE:N	2.54	0.41
31:AH:91:GLY:O	31:AH:92:ILE:C	2.63	0.41
32:AI:77:LEU:HD22	32:AI:140:LEU:CA	2.47	0.41
34:AN:120:LEU:HD13	34:AN:121:LYS:N	2.35	0.41
36:AP:6:LEU:CG	36:AP:9:ASN:HB2	2.51	0.41
36:AP:101:VAL:CG1	36:AP:107:LYS:H	2.32	0.41
38:AR:38:VAL:HG22	38:AR:112:ALA:HB2	2.03	0.41
38:AR:78:LYS:O	38:AR:83:ILE:HG12	2.20	0.41
38:AR:100:LEU:HD23	38:AR:112:ALA:HA	2.02	0.41
44:AX:8:ILE:HD12	44:AX:8:ILE:N	2.35	0.41
44:AX:53:LYS:HB3	44:AX:82:GLN:HB3	2.01	0.41
45:AY:2:ARG:HG2	45:AY:2:ARG:NH1	2.35	0.41
45:AY:54:LYS:C	45:AY:56:PRO:CD	2.93	0.41
45:AY:63:LYS:HG3	45:AY:64:GLU:N	2.35	0.41
46:AZ:6:LYS:H	46:AZ:6:LYS:HD3	1.86	0.41
46:AZ:136:PHE:HD1	46:AZ:136:PHE:O	2.04	0.41
47:A0:51:VAL:CG2	47:A0:80:HIS:HA	2.51	0.41
47:A0:66:VAL:CG1	47:A0:67:VAL:N	2.83	0.41
48:A1:73:LEU:HA	48:A1:73:LEU:HD22	1.79	0.41
49:A2:47:ASN:ND2	57:AA:94(A):G:H21	2.18	0.41
57:AA:11:G:H2'	57:AA:12:U:H6	1.85	0.41
57:AA:139:G:C5	57:AA:140:G:H2'	2.55	0.41
57:AA:812:C:H5"	57:AA:1250:G:O2'	2.21	0.41
57:AA:833:U:H2'	57:AA:834:C:C6	2.54	0.41
57:AA:839:U:H2'	57:AA:840:C:C6	2.54	0.41
57:AA:1124:C:H2'	57:AA:1125:G:O4'	2.20	0.41
57:AA:1308:A:H2'	57:AA:1309:G:O4'	2.20	0.41
57:AA:1361:G:O2'	57:AA:1362:C:H5'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:AA:1462:C:O2'	57:AA:1463:C:H5'	2.21	0.41
57:AA:2095:C:H2'	57:AA:2096:U:O4'	2.19	0.41
57:AA:2404:C:H2'	57:AA:2405:G:O4'	2.20	0.41
57:AA:2450:A:O2'	57:AA:2451:A:H5'	2.20	0.41
57:AA:2628:C:H1'	57:AA:2781:A:H2'	2.01	0.41
1:Bb:15:VAL:C	1:Bb:16:HIS:ND1	2.78	0.41
1:Bb:83:MET:C	1:Bb:85:ALA:N	2.77	0.41
2:Bc:30:ARG:HD3	13:Bn:35:ARG:O	2.21	0.41
2:Bc:131:ARG:HH21	2:Bc:168:ALA:HB2	1.84	0.41
2:Bc:155:GLY:O	2:Bc:156:ARG:CB	2.68	0.41
2:Bc:207:VAL:O	2:Bc:207:VAL:HG12	2.20	0.41
4:Be:20:GLN:HE21	4:Be:20:GLN:HB3	1.67	0.41
14:Bo:53:HIS:O	14:Bo:56:LEU:HB3	2.20	0.41
15:Bp:6:LEU:HB3	15:Bp:17:TYR:CD2	2.55	0.41
15:Bp:72:ARG:HH21	15:Bp:73:LEU:CD2	2.25	0.41
18:Bs:11:VAL:CG2	18:Bs:16:LEU:HD11	2.45	0.41
18:Bs:36:ARG:HD3	22:Ba:1221:G:P	2.59	0.41
18:Bs:62:ILE:CD1	18:Bs:66:MET:HE2	2.45	0.41
19:Bt:92:LEU:C	19:Bt:94:ALA:H	2.29	0.41
21:By:53:ILE:O	21:By:61:ARG:HG3	2.19	0.41
22:Ba:586:C:O2'	22:Ba:587:G:H5'	2.21	0.41
22:Ba:633:G:H5'	22:Ba:634:C:OP2	2.19	0.41
22:Ba:741:G:H2'	22:Ba:742:G:O4'	2.20	0.41
22:Ba:1289:A:N6	22:Ba:1371:G:HO2'	2.18	0.41
22:Ba:1298:C:H1'	22:Ba:1299:A:C2	2.54	0.41
22:Ba:1316:G:H2'	22:Ba:1317:C:H5"	2.01	0.41
28:BE:79:ARG:HD2	28:BE:79:ARG:N	2.35	0.41
30:BG:73:ALA:HA	57:BA:2312:U:OP1	2.20	0.41
30:BG:106:LEU:HD12	30:BG:110:ALA:CB	2.49	0.41
30:BG:110:ALA:HA	30:BG:140:ILE:O	2.20	0.41
30:BG:114:ILE:O	30:BG:116:ASP:CA	2.63	0.41
31:BH:84:SER:O	31:BH:85:LYS:HB3	2.20	0.41
31:BH:105:LEU:HD23	31:BH:113:VAL:O	2.21	0.41
32:BI:6:LEU:O	32:BI:7:GLU:C	2.63	0.41
32:BI:123:LEU:HD23	32:BI:124:GLY:N	2.30	0.41
34:BN:76:SER:C	34:BN:78:TYR:H	2.27	0.41
35:BO:104:ARG:C	35:BO:106:LEU:N	2.73	0.41
36:BP:13:ASN:C	36:BP:13:ASN:ND2	2.76	0.41
37:BQ:35:VAL:HG23	37:BQ:101:ARG:O	2.21	0.41
38:BR:27:SER:HB3	38:BR:34:ILE:HD11	2.02	0.41
38:BR:87:TYR:OH	38:BR:116:LEU:O	2.32	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BU:65:ILE:O	41:BU:69:CYS:CB	2.68	0.41
42:BV:18:LEU:O	42:BV:19:LYS:O	2.38	0.41
44:BX:53:LYS:HB3	44:BX:82:GLN:HB3	2.02	0.41
45:BY:20:TYR:CZ	45:BY:42:VAL:HA	2.56	0.41
45:BY:97:ARG:HD2	45:BY:97:ARG:HA	1.86	0.41
46:BZ:30:ASN:O	46:BZ:31:ARG:C	2.63	0.41
47:B0:23:VAL:HG22	47:B0:38:VAL:HG22	2.01	0.41
47:B0:46:LYS:HA	47:B0:47:PRO:HD3	1.82	0.41
47:B0:48:GLY:H	47:B0:51:VAL:HB	1.85	0.41
50:B3:46:ASN:HD21	57:BA:851:U:H5'	1.85	0.41
57:BA:1005:C:H2'	57:BA:1006:C:H6	1.84	0.41
57:BA:2138:C:H2'	57:BA:2139:C:C6	2.56	0.41
57:BA:2416:C:H2'	57:BA:2417:C:H6	1.85	0.41
57:BA:2770:G:C5'	57:BA:2771:C:OP2	2.68	0.41
1:Ab:178:ARG:HH21	7:Ah:74:PRO:HB3	1.85	0.41
3:Ad:43:HIS:C	3:Ad:45:GLN:N	2.78	0.41
4:Ae:12:LEU:CD1	4:Ae:31:LEU:HB3	2.50	0.41
4:Ae:136:MET:O	4:Ae:138:ALA:N	2.53	0.41
6:Ag:149:ARG:HD3	10:Ak:59:TYR:CZ	2.55	0.41
7:Ah:61:VAL:HG12	7:Ah:63:LEU:HD13	2.02	0.41
10:Ak:43:SER:HA	10:Ak:47:VAL:HG21	2.01	0.41
11:Al:89:ARG:C	11:Al:90:VAL:HG23	2.46	0.41
14:Ao:82:ILE:O	14:Ao:86:GLY:N	2.54	0.41
15:Ap:3:LYS:C	15:Ap:4:ILE:HD12	2.46	0.41
16:Aq:29:HIS:HA	16:Aq:30:PRO:HD2	1.84	0.41
22:Aa:1051:C:H2'	22:Aa:1052:U:H6	1.86	0.41
22:Aa:1056:U:O2'	22:Aa:1057:G:H5'	2.20	0.41
27:AD:270:ILE:C	27:AD:270:ILE:HD12	2.45	0.41
28:AE:35:GLN:O	28:AE:36:ARG:HG3	2.20	0.41
29:AF:7:TYR:CB	29:AF:16:GLY:C	2.94	0.41
30:AG:107:LEU:HD11	30:AG:178:PHE:CE1	2.56	0.41
30:AG:118:ARG:HH11	30:AG:118:ARG:CG	2.30	0.41
32:AI:27:ARG:CG	48:A1:71:TYR:CZ	3.02	0.41
32:AI:102:SER:HA	32:AI:107:VAL:O	2.20	0.41
34:AN:4:TYR:HB2	41:AU:64:ARG:HH22	1.86	0.41
34:AN:112:LEU:O	34:AN:116:LEU:HG	2.21	0.41
36:AP:18:ARG:HD2	57:AA:661:C:O3'	2.20	0.41
36:AP:63:PRO:CB	55:A8:12:LYS:O	2.68	0.41
37:AQ:10:ARG:HH11	37:AQ:10:ARG:CB	2.33	0.41
38:AR:52:ILE:HD13	38:AR:79:LEU:HD21	2.01	0.41
39:AS:59:LYS:CD	39:AS:61:ASN:HB2	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:AT:70:VAL:CG1	40:AT:71:GLY:H	2.33	0.41
43:AW:83:LYS:O	43:AW:84:ARG:HD3	2.20	0.41
45:AY:31:LEU:HB2	45:AY:32:PRO:CA	2.49	0.41
46:AZ:133:ILE:O	46:AZ:133:ILE:HG22	2.20	0.41
48:A1:32:LYS:HE2	48:A1:32:LYS:HB3	1.97	0.41
53:A6:19:ARG:O	53:A6:20:ASN:HB2	2.20	0.41
57:AA:332:A:H4'	57:AA:333:G:OP1	2.19	0.41
57:AA:1317:A:H2'	57:AA:1318:C:C6	2.56	0.41
57:AA:1404:C:O2'	57:AA:1405:U:H5'	2.20	0.41
57:AA:1540:U:O3'	57:AA:1542:A:OP1	2.39	0.41
57:AA:1547:C:H2'	57:AA:1548:C:H6	1.85	0.41
57:AA:1614:A:H2'	57:AA:1615:C:H5'	2.03	0.41
57:AA:2240:C:O2'	57:AA:2241:A:H5'	2.20	0.41
57:AA:2290:G:H1	57:AA:2342:C:H42	1.68	0.41
57:AA:2498:C:O2'	57:AA:2499:C:H5'	2.19	0.41
1:Bb:98:LEU:HB2	1:Bb:101:MET:HE3	2.03	0.41
2:Bc:3:ASN:HB2	2:Bc:4:LYS:H	1.55	0.41
2:Bc:179:ARG:NH2	2:Bc:206:GLU:OE2	2.54	0.41
3:Bd:13:ARG:HD2	3:Bd:38:TYR:O	2.20	0.41
3:Bd:98:GLU:OE2	3:Bd:107:ARG:HD2	2.20	0.41
4:Be:12:LEU:CD1	4:Be:31:LEU:HB3	2.50	0.41
4:Be:86:ALA:CB	22:Ba:19:C:H5"	2.50	0.41
10:Bk:26:ASN:O	10:Bk:26:ASN:OD1	2.39	0.41
12:Bm:32:GLU:OE2	12:Bm:32:GLU:C	2.64	0.41
16:Bq:25:ARG:HH22	22:Ba:238:G:P	2.43	0.41
18:Bs:16:LEU:O	18:Bs:20:LEU:N	2.44	0.41
18:Bs:63:THR:HG21	18:Bs:65:ASN:HD22	1.86	0.41
18:Bs:79:THR:O	18:Bs:80:TYR:CB	2.68	0.41
21:By:64:TYR:CD2	21:By:64:TYR:N	2.88	0.41
22:Ba:413:G:H1'	22:Ba:428:G:N2	2.35	0.41
22:Ba:429:U:H4'	22:Ba:430:A:O5'	2.20	0.41
22:Ba:598:U:H2'	22:Ba:599:C:C6	2.55	0.41
22:Ba:737:A:H2'	22:Ba:738:C:H6	1.80	0.41
22:Ba:939:G:H2'	22:Ba:940:C:H6	1.83	0.41
22:Ba:1220:G:O2'	22:Ba:1221:G:H5'	2.20	0.41
22:Ba:1393:U:H5'	22:Ba:1502:A:OP1	2.20	0.41
26:BC:200:HIS:O	26:BC:202:PRO:HD3	2.20	0.41
27:BD:62:TYR:CZ	57:BA:1816:G:H8	2.38	0.41
27:BD:69:ARG:C	27:BD:71:ASP:N	2.78	0.41
27:BD:95:LEU:HD12	27:BD:95:LEU:O	2.20	0.41
28:BE:144:ARG:HB3	57:BA:2572:A:C8	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:156:MET:HE2	57:BA:2050:C:H1'	2.03	0.41
30:BG:125:PHE:CB	30:BG:166:ASP:HB2	2.50	0.41
30:BG:141:PHE:HA	30:BG:142:PRO:HD2	1.71	0.41
30:BG:173:LEU:HB3	30:BG:178:PHE:CD1	2.55	0.41
32:BI:102:SER:HA	32:BI:107:VAL:O	2.20	0.41
34:BN:3:THR:C	34:BN:5:VAL:N	2.78	0.41
34:BN:51:PHE:CZ	34:BN:119:ARG:HD2	2.56	0.41
36:BP:61:ARG:HD2	36:BP:61:ARG:H	1.85	0.41
36:BP:72:PRO:HD3	57:BA:389:G:H22	1.84	0.41
36:BP:88:LEU:C	36:BP:90:ARG:H	2.29	0.41
36:BP:125:VAL:O	36:BP:125:VAL:CG2	2.67	0.41
38:BR:100:LEU:HD23	38:BR:112:ALA:CA	2.51	0.41
40:BT:78:LEU:HB3	40:BT:79:HIS:ND1	2.34	0.41
40:BT:95:ARG:NH1	57:BA:2849:U:OP2	2.49	0.41
41:BU:17:ILE:O	41:BU:20:LEU:HB2	2.20	0.41
41:BU:52:ARG:CG	41:BU:52:ARG:NH1	2.83	0.41
46:BZ:13:GLU:HB2	46:BZ:18:LEU:HD11	2.03	0.41
47:B0:14:ARG:HD2	57:BA:2279:G:O6	2.21	0.41
52:B5:6:VAL:HG11	57:BA:2016:U:C1'	2.50	0.41
52:B5:52:TYR:O	52:B5:53:ALA:HB2	2.20	0.41
55:B8:53:PRO:HA	55:B8:56:GLU:HB2	2.02	0.41
57:BA:9:U:C4	57:BA:2629:A:N6	2.88	0.41
57:BA:143:G:H2'	57:BA:143(A):C:H6	1.86	0.41
57:BA:706:A:H2'	57:BA:707:G:O4'	2.21	0.41
57:BA:828:U:H3'	57:BA:828:U:O2	2.20	0.41
57:BA:2065:C:H2'	57:BA:2066:C:C6	2.55	0.41
57:BA:2134:A:N6	57:BA:2157:G:H1'	2.35	0.41
57:BA:2196:C:O2'	57:BA:2197:U:H5'	2.20	0.41
1:Ab:58:ILE:CG2	1:Ab:222:ILE:HD11	2.51	0.41
1:Ab:112:VAL:C	1:Ab:114:ARG:N	2.78	0.41
3:Ad:14:ARG:C	3:Ad:16:GLY:N	2.78	0.41
3:Ad:41:GLY:C	3:Ad:43:HIS:H	2.28	0.41
5:Af:43:LEU:HD12	5:Af:43:LEU:N	2.35	0.41
5:Af:43:LEU:H	5:Af:43:LEU:CD1	2.32	0.41
7:Ah:86:ILE:CG2	7:Ah:133:LEU:HD22	2.49	0.41
7:Ah:114:THR:C	7:Ah:116:LYS:H	2.28	0.41
8:Ai:63:ILE:CG2	8:Ai:64:THR:N	2.84	0.41
8:Ai:112:LYS:HA	8:Ai:119:ALA:CB	2.46	0.41
9:Aj:6:ILE:CD1	9:Aj:72:VAL:H	2.33	0.41
9:Aj:55:LYS:HE2	22:Aa:973:G:C1'	2.47	0.41
12:Am:38:GLY:C	12:Am:39:ILE:HG13	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:As:51:VAL:HG23	18:As:60:VAL:HG11	2.03	0.41
22:Aa:110:C:H2'	22:Aa:111:G:O4'	2.20	0.41
22:Aa:383:A:H2'	22:Aa:384:G:C5'	2.50	0.41
22:Aa:424:G:O2'	22:Aa:425:G:H5'	2.19	0.41
22:Aa:514:C:H2'	22:Aa:515:G:H8	1.86	0.41
22:Aa:577:G:C8	22:Aa:816:A:C6	3.09	0.41
22:Aa:922:G:N3	22:Aa:1398:A:H2	2.19	0.41
22:Aa:1298:C:H1'	22:Aa:1299:A:C2	2.56	0.41
22:Aa:1300:G:O2'	22:Aa:1301:U:O5'	2.36	0.41
22:Aa:1324:A:H4'	22:Aa:1362:C:H4'	2.02	0.41
22:Aa:1324:A:H2'	22:Aa:1325:C:O4'	2.21	0.41
22:Aa:1504:G:HO2'	22:Aa:1505:G:P	2.39	0.41
25:Aw:5:G:N2	25:Aw:69:C:N3	2.68	0.41
25:Aw:11:A:O2'	25:Aw:12:G:H5'	2.20	0.41
28:AE:143:ASN:HD21	57:AA:2513:G:N2	2.18	0.41
30:AG:125:PHE:CE2	30:AG:173:LEU:HD12	2.54	0.41
32:AI:23:PRO:O	32:AI:27:ARG:HB2	2.21	0.41
32:AI:77:LEU:HD21	32:AI:141:LYS:N	2.35	0.41
34:AN:3:THR:C	34:AN:5:VAL:H	2.28	0.41
35:AO:22:ILE:HD12	57:AA:1952:A:C6	2.54	0.41
36:AP:32:THR:O	36:AP:33:ARG:CB	2.67	0.41
36:AP:64:LYS:HD3	36:AP:64:LYS:O	2.21	0.41
36:AP:81:GLN:HE21	36:AP:81:GLN:HB2	1.68	0.41
37:AQ:132:VAL:HG21	46:AZ:81:ARG:HH21	1.85	0.41
38:AR:4:LEU:O	38:AR:5:LYS:CG	2.69	0.41
39:AS:29:PHE:CE1	58:AB:7:G:C4'	3.04	0.41
40:AT:129:ARG:NH2	40:AT:131:ALA:CB	2.80	0.41
41:AU:31:SER:HB3	41:AU:34:LYS:HB2	2.03	0.41
45:AY:52:SER:O	45:AY:54:LYS:N	2.53	0.41
46:AZ:7:ALA:O	46:AZ:62:PRO:HD3	2.21	0.41
47:A0:27:GLU:OE1	57:AA:856:C:C1'	2.68	0.41
48:A1:29:GLY:O	48:A1:31:GLY:N	2.42	0.41
49:A2:12:GLU:O	49:A2:13:ALA:C	2.64	0.41
51:A4:47:GLN:HB3	51:A4:48:ARG:H	1.67	0.41
52:A5:3:LYS:HG2	57:AA:2015:A:H2	1.85	0.41
52:A5:46:CYS:SG	52:A5:47:PRO:CD	3.09	0.41
56:A9:1:MET:HE1	56:A9:32:HIS:CD2	2.53	0.41
57:AA:28:A:H61	57:AA:512:G:H1'	1.86	0.41
57:AA:322:A:H5'	57:AA:340:A:C1'	2.50	0.41
57:AA:407:G:H2'	57:AA:408:G:C8	2.54	0.41
57:AA:845:G:H8	57:AA:845:G:OP2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:AA:889:C:H1'	57:AA:890:A:O4'	2.20	0.41
57:AA:1204:A:C2	57:AA:1241:A:N1	2.89	0.41
57:AA:1275:A:N1	57:AA:1295:C:O2'	2.50	0.41
57:AA:1324:G:C4	57:AA:1328:G:O6	2.74	0.41
57:AA:1511:C:H2'	57:AA:1512:U:O4'	2.21	0.41
57:AA:1708:C:O2'	57:AA:1709:U:H5'	2.21	0.41
57:AA:2123:G:H2'	57:AA:2124:G:C8	2.48	0.41
3:Bd:96:LEU:C	3:Bd:98:GLU:N	2.78	0.41
3:Bd:148:VAL:HG12	3:Bd:149:ALA:N	2.36	0.41
5:Bf:40:VAL:O	5:Bf:40:VAL:HG13	2.20	0.41
6:Bg:43:PHE:O	6:Bg:46:ALA:HB3	2.21	0.41
6:Bg:102:ARG:HH12	22:Ba:939:G:C5'	2.33	0.41
10:Bk:126:ARG:HH11	10:Bk:126:ARG:CB	2.28	0.41
13:Bn:21:TYR:HE2	13:Bn:23:ARG:NH2	2.18	0.41
18:Bs:58:VAL:O	18:Bs:60:VAL:N	2.53	0.41
19:Bt:103:GLY:HA2	22:Ba:192:U:H1'	2.03	0.41
21:By:76:ILE:HD12	21:By:90:ALA:O	2.19	0.41
22:Ba:143:A:N1	22:Ba:220:G:O6	2.54	0.41
22:Ba:674:G:H2'	22:Ba:675:A:C8	2.55	0.41
22:Ba:1054:C:OP1	22:Ba:1197:G:OP2	2.38	0.41
22:Ba:1333:A:C2	22:Ba:1334:G:H1'	2.56	0.41
22:Ba:1375:A:C2	22:Ba:1376:U:C2	3.08	0.41
26:BC:52:PRO:HG2	26:BC:53:ARG:HH11	1.86	0.41
27:BD:26:LYS:O	27:BD:27:THR:HB	2.20	0.41
27:BD:35:LYS:HA	27:BD:64:ILE:H	1.85	0.41
27:BD:100:GLY:HA2	57:BA:1501:C:H1'	2.02	0.41
29:BF:20:LEU:HD12	29:BF:199:TRP:CH2	2.55	0.41
30:BG:7:LEU:O	30:BG:11:TYR:HB2	2.21	0.41
30:BG:113:ARG:CG	51:B4:35:VAL:HB	2.50	0.41
30:BG:131:TYR:HE2	30:BG:133:LEU:HD23	1.86	0.41
30:BG:132:ASN:ND2	57:BA:2303:G:H1'	2.35	0.41
31:BH:137:ASP:OD1	31:BH:139:GLN:HB3	2.20	0.41
32:BI:100:ALA:HA	32:BI:103:ARG:HH11	1.85	0.41
33:BJ:61:LEU:O	33:BJ:62:ALA:HB2	2.20	0.41
34:BN:19:GLU:HG3	34:BN:20:GLY:N	2.35	0.41
41:BU:12:ARG:HH11	41:BU:12:ARG:HG3	1.86	0.41
43:BW:35:ILE:O	43:BW:36:LEU:C	2.62	0.41
44:BX:41:ASN:N	44:BX:41:ASN:ND2	2.68	0.41
45:BY:28:LYS:N	45:BY:29:GLU:OE1	2.53	0.41
46:BZ:158:PRO:HA	46:BZ:159:PRO:HD3	1.91	0.41
52:B5:40:LYS:NZ	52:B5:46:CYS:O	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:B5:49:CYS:O	52:B5:50:GLY:C	2.64	0.41
57:BA:304:G:H2'	57:BA:305:U:C6	2.56	0.41
57:BA:460:A:H2'	57:BA:461:C:O4'	2.20	0.41
57:BA:863:A:H8	57:BA:863:A:O5'	2.04	0.41
57:BA:1448:G:H2'	57:BA:1449:A:C8	2.56	0.41
57:BA:1528(A):A:C8	57:BA:1529:G:C8	3.09	0.41
57:BA:1539:G:H2'	57:BA:1540:U:O4'	2.21	0.41
57:BA:1629:U:O2	57:BA:2698:U:H5"	2.20	0.41
57:BA:2270:G:H2'	57:BA:2271:G:O4'	2.20	0.41
57:BA:2464:C:O2'	57:BA:2465:C:O5'	2.36	0.41
57:BA:2703:C:H2'	57:BA:2704:C:C6	2.55	0.41
57:BA:2803:C:H2'	57:BA:2804:C:C6	2.54	0.41
58:BB:71:C:C2	58:BB:72:G:C8	3.08	0.41
1:Ab:70:PHE:HA	1:Ab:163:PHE:O	2.20	0.41
3:Ad:65:ARG:HD2	3:Ad:72:GLU:HA	2.02	0.41
3:Ad:90:GLY:CA	3:Ad:204:ILE:HD11	2.50	0.41
3:Ad:195:ALA:O	3:Ad:196:LEU:C	2.63	0.41
6:Ag:26:PHE:CD2	6:Ag:62:PHE:CE1	3.09	0.41
6:Ag:116:ALA:O	6:Ag:120:ILE:HD12	2.21	0.41
7:Ah:97:VAL:O	7:Ah:100:ILE:HG13	2.21	0.41
8:Ai:71:SER:C	8:Ai:73:GLN:N	2.77	0.41
12:Am:29:ARG:HH12	12:Am:64:TRP:HB2	1.86	0.41
12:Am:90:LEU:O	12:Am:91:ARG:CB	2.64	0.41
13:An:33:VAL:O	22:Aa:1358:U:H5"	2.21	0.41
18:As:67:VAL:C	18:As:69:HIS:H	2.28	0.41
18:As:79:THR:O	18:As:80:TYR:CB	2.68	0.41
22:Aa:309:G:O2'	22:Aa:310:G:H5'	2.21	0.41
28:AE:34:VAL:CG2	28:AE:48:GLN:NE2	2.84	0.41
28:AE:79:ARG:HD2	28:AE:79:ARG:N	2.36	0.41
29:AF:108:LYS:O	29:AF:112:MET:HG3	2.21	0.41
30:AG:51:ARG:HH11	30:AG:53:LEU:HD21	1.86	0.41
32:AI:101:LEU:O	32:AI:107:VAL:CG2	2.68	0.41
36:AP:46:LYS:HE2	57:AA:196:A:O4'	2.21	0.41
36:AP:148:LEU:O	36:AP:149:GLU:CB	2.61	0.41
38:AR:50:HIS:O	38:AR:54:LEU:HB2	2.21	0.41
38:AR:99:LYS:H	38:AR:99:LYS:CD	2.30	0.41
39:AS:106:ARG:HD2	39:AS:106:ARG:C	2.46	0.41
40:AT:87:ASP:OD2	40:AT:87:ASP:O	2.39	0.41
41:AU:52:ARG:CG	41:AU:52:ARG:NH1	2.84	0.41
43:AW:50:VAL:HG13	43:AW:105:VAL:CG2	2.47	0.41
44:AX:35:THR:H	44:AX:38:GLU:HB2	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:A1:29:GLY:C	48:A1:30:VAL:HG22	2.45	0.41
48:A1:45:ASN:ND2	48:A1:47:GLN:HE21	2.17	0.41
48:A1:91:LYS:O	48:A1:94:LEU:HB2	2.21	0.41
49:A2:22:GLU:O	49:A2:23:LYS:C	2.63	0.41
52:A5:4:HIS:CD2	57:AA:2056:G:H1	2.39	0.41
53:A6:9:LEU:HD22	53:A6:10:LEU:C	2.46	0.41
57:AA:107:C:O2'	57:AA:108:U:H5'	2.21	0.41
57:AA:1935:G:H1'	57:AA:1964:G:N2	2.36	0.41
57:AA:1947:C:C3'	57:AA:1948:G:C5'	2.98	0.41
57:AA:2803:C:H2'	57:AA:2804:C:C6	2.55	0.41
2:Bc:37:GLN:C	2:Bc:39:ILE:N	2.78	0.41
2:Bc:153:VAL:HA	2:Bc:197:GLY:O	2.20	0.41
3:Bd:31:CYS:C	3:Bd:33:MET:N	2.79	0.41
3:Bd:64:LEU:HB2	3:Bd:198:VAL:HG21	2.02	0.41
4:Be:36:ASP:OD2	4:Be:40:ARG:HB2	2.21	0.41
9:Bj:4:ILE:CD1	9:Bj:74:ILE:HG13	2.51	0.41
10:Bk:24:SER:O	10:Bk:25:TYR:C	2.64	0.41
14:Bo:43:LEU:HA	14:Bo:43:LEU:HD23	1.80	0.41
14:Bo:64:ARG:O	14:Bo:65:ARG:C	2.63	0.41
19:Bt:50:GLU:HA	19:Bt:100:ILE:HG22	2.03	0.41
22:Ba:328:C:H4'	22:Ba:329:A:O5'	2.21	0.41
22:Ba:615:C:H2'	22:Ba:616:G:O4'	2.20	0.41
22:Ba:1002:G:C8	22:Ba:1003:G:N7	2.88	0.41
22:Ba:1134:G:C2'	22:Ba:1135:U:H5'	2.51	0.41
26:BC:43:GLU:HG3	26:BC:216:THR:HG23	2.03	0.41
26:BC:53:ARG:HD3	26:BC:53:ARG:N	2.25	0.41
28:BE:1:MET:C	28:BE:2:LYS:O	2.63	0.41
28:BE:65:GLY:HA2	28:BE:70:ALA:CB	2.51	0.41
29:BF:84:VAL:O	29:BF:85:GLY:C	2.63	0.41
30:BG:36:LYS:HE2	30:BG:95:ARG:NH2	2.36	0.41
30:BG:37:VAL:HG22	30:BG:159:VAL:HB	2.03	0.41
32:BI:69:LYS:HA	32:BI:136:VAL:CB	2.51	0.41
32:BI:72:LEU:O	32:BI:138:ILE:HG13	2.20	0.41
34:BN:32:THR:O	34:BN:35:ARG:O	2.39	0.41
36:BP:123:LEU:HD12	36:BP:123:LEU:C	2.44	0.41
37:BQ:29:PHE:HB3	37:BQ:65:PHE:CD2	2.55	0.41
37:BQ:30:GLY:HA2	37:BQ:107:ALA:HB2	2.03	0.41
38:BR:4:LEU:O	38:BR:5:LYS:HG2	2.21	0.41
39:BS:27:SER:HA	39:BS:88:ASP:HB3	2.01	0.41
40:BT:33:LYS:NZ	40:BT:74:ARG:NH2	2.66	0.41
43:BW:15:ARG:HH22	57:BA:1266:G:P	2.43	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BW:36:LEU:HD13	43:BW:48:ALA:HA	2.01	0.41
44:BX:12:VAL:CG1	44:BX:27:THR:O	2.56	0.41
46:BZ:45:ASP:O	46:BZ:46:LYS:C	2.64	0.41
48:B1:90:ILE:O	48:B1:91:LYS:C	2.63	0.41
49:B2:25:VAL:HG13	49:B2:57:ILE:HG23	2.03	0.41
51:B4:20:ASN:HD22	51:B4:20:ASN:C	2.25	0.41
52:B5:3:LYS:HZ1	52:B5:5:PRO:HB2	1.86	0.41
53:B6:11:LEU:HA	53:B6:54:ILE:C	2.45	0.41
57:BA:64:A:H2'	57:BA:65:C:H6	1.85	0.41
57:BA:774:A:C2	57:BA:787:U:O2'	2.67	0.41
57:BA:2162:G:O2'	57:BA:2163:C:H5'	2.21	0.41
57:BA:2166:G:H2'	57:BA:2167:U:C6	2.56	0.41
57:BA:2236:C:H2'	57:BA:2237:G:C5'	2.51	0.41
57:BA:2321:G:H2'	57:BA:2321:G:N3	2.36	0.41
57:BA:2783:G:H2'	57:BA:2784:C:C6	2.56	0.41
1:Ab:137:ARG:HD3	1:Ab:137:ARG:C	2.46	0.41
1:Ab:194:PRO:O	1:Ab:195:ASP:C	2.63	0.41
3:Ad:36:ARG:O	3:Ad:38:TYR:N	2.48	0.41
3:Ad:36:ARG:HH11	3:Ad:36:ARG:CG	2.33	0.41
6:Ag:16:LEU:HD13	8:Ai:42:ARG:HA	2.03	0.41
6:Ag:78:ARG:HH11	6:Ag:78:ARG:HG3	1.85	0.41
7:Ah:104:ARG:C	7:Ah:106:GLY:H	2.29	0.41
7:Ah:109:ILE:CG1	7:Ah:110:ALA:N	2.79	0.41
8:Ai:79:LEU:CD2	8:Ai:103:THR:O	2.69	0.41
11:Al:7:ILE:HG22	11:Al:8:ASN:N	2.36	0.41
11:Al:78:GLN:N	11:Al:81:SER:OG	2.52	0.41
12:Am:66:LEU:HD22	12:Am:66:LEU:HA	1.91	0.41
12:Am:78:ILE:HG23	12:Am:92:HIS:CE1	2.55	0.41
12:Am:117:VAL:O	12:Am:118:ALA:HB2	2.20	0.41
13:An:29:ARG:HH12	13:An:31:ARG:HB2	1.85	0.41
14:Ao:61:GLY:O	14:Ao:64:ARG:HB3	2.20	0.41
14:Ao:74:ASP:OD1	14:Ao:77:ARG:HG2	2.21	0.41
19:At:83:ARG:O	19:At:84:LEU:C	2.63	0.41
21:Ay:9:GLU:O	21:Ay:11:ALA:N	2.53	0.41
22:Aa:143:A:N1	22:Aa:220:G:O6	2.54	0.41
22:Aa:149:A:HO2'	22:Aa:150:C:H6	1.64	0.41
22:Aa:151:A:C2	22:Aa:152:A:H1'	2.56	0.41
22:Aa:328:C:H4'	22:Aa:329:A:O5'	2.21	0.41
22:Aa:1051:C:H2'	22:Aa:1052:U:C6	2.55	0.41
22:Aa:1104:G:O2'	22:Aa:1105:A:H5'	2.19	0.41
22:Aa:1170:A:C2'	22:Aa:1171:G:H5'	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:AC:4:HIS:ND1	26:AC:8:TYR:CE2	2.89	0.41
27:AD:2:ALA:O	27:AD:3:VAL:CB	2.68	0.41
27:AD:72:LYS:HB3	27:AD:75:ILE:HD12	2.01	0.41
27:AD:77:ALA:HB2	27:AD:97:TYR:CG	2.55	0.41
29:AF:65:TRP:CZ3	29:AF:72:ARG:HB3	2.56	0.41
29:AF:158:THR:HA	29:AF:195:ASP:HB2	2.02	0.41
34:AN:133:GLN:CG	34:AN:135:PRO:HD3	2.33	0.41
35:AO:47:ILE:HG12	35:AO:48:PRO:CD	2.37	0.41
40:AT:106:SER:O	40:AT:107:ASP:OD1	2.39	0.41
40:AT:108:ARG:HB2	40:AT:111:ARG:NH1	2.36	0.41
41:AU:50:ARG:C	41:AU:52:ARG:N	2.77	0.41
45:AY:31:LEU:HA	45:AY:31:LEU:HD13	1.86	0.41
45:AY:55:TYR:O	45:AY:56:PRO:C	2.64	0.41
45:AY:95:LYS:HD3	45:AY:100:ALA:CA	2.50	0.41
46:AZ:51:ALA:HB1	46:AZ:57:ILE:CD1	2.37	0.41
46:AZ:112:ARG:HD3	46:AZ:112:ARG:C	2.46	0.41
47:A0:55:ARG:HE	47:A0:55:ARG:HB3	1.51	0.41
50:A3:46:ASN:O	50:A3:50:VAL:HG22	2.21	0.41
53:A6:27:LYS:HZ2	57:AA:2285:C:P	2.44	0.41
54:A7:5:TRP:CH2	57:AA:686:G:N7	2.88	0.41
57:AA:53:A:H2'	57:AA:54:G:O4'	2.20	0.41
57:AA:350:U:H2'	57:AA:351:G:O4'	2.21	0.41
57:AA:638:G:C5	57:AA:651:G:C2	3.08	0.41
57:AA:1205:U:H4'	57:AA:1206:G:OP2	2.20	0.41
57:AA:1313:U:H2'	57:AA:1610:A:N1	2.35	0.41
57:AA:1667:G:H22	57:AA:1992:G:H5'	1.86	0.41
57:AA:2416:C:H2'	57:AA:2417:C:H6	1.86	0.41
57:AA:2553:G:H2'	57:AA:2554:U:O4'	2.21	0.41
57:AA:2649:U:H2'	57:AA:2650:U:C6	2.56	0.41
57:AA:2703:C:C2	57:AA:2704:C:C5	3.09	0.41
57:AA:2755:C:O2'	57:AA:2756:U:H2'	2.20	0.41
57:AA:2811:G:C2'	57:AA:2812:G:H5'	2.51	0.41
1:Bb:101:MET:HA	1:Bb:108:ILE:HG13	2.02	0.41
3:Bd:105:VAL:HG12	3:Bd:117:ALA:HB1	2.02	0.41
9:Bj:30:SER:C	9:Bj:80:LYS:NZ	2.79	0.41
10:Bk:20:TYR:CD1	22:Ba:707:C:H4'	2.56	0.41
11:Bl:27:LEU:C	11:Bl:29:GLY:H	2.28	0.41
11:Bl:102:ARG:HH11	11:Bl:102:ARG:HG3	1.82	0.41
13:Bn:47:LEU:C	13:Bn:49:HIS:N	2.79	0.41
21:By:55:LEU:HB2	21:By:60:TYR:O	2.19	0.41
22:Ba:90:U:O3'	22:Ba:91:C:H6	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Ba:397:A:N3	22:Ba:397:A:H5"	2.35	0.41
22:Ba:947:G:H2'	22:Ba:948:C:C6	2.56	0.41
22:Ba:1028:C:C2'	22:Ba:1029:C:H5'	2.50	0.41
22:Ba:1258:G:H2'	22:Ba:1259:C:C6	2.55	0.41
25:Bw:3:C:O2'	25:Bw:4:G:H5'	2.21	0.41
25:Bw:21:A:N6	25:Bw:46:G:H2'	2.35	0.41
26:BC:43:GLU:CG	26:BC:216:THR:HG23	2.51	0.41
27:BD:18:VAL:HG12	27:BD:19:ALA:H	1.86	0.41
27:BD:266:SER:OG	57:BA:1800:C:OP1	2.33	0.41
28:BE:19:ARG:HA	35:BO:73:ASP:HA	2.01	0.41
29:BF:2:LYS:HD3	29:BF:25:PRO:CG	2.51	0.41
30:BG:40:ASN:HD22	30:BG:91:ARG:CB	2.19	0.41
31:BH:31:GLY:O	31:BH:79:VAL:HG12	2.20	0.41
34:BN:18:ALA:O	34:BN:19:GLU:C	2.64	0.41
34:BN:119:ARG:HG3	34:BN:119:ARG:HH11	1.84	0.41
36:BP:71:VAL:HG12	57:BA:389:G:C2	2.55	0.41
40:BT:24:PRO:HA	40:BT:49:VAL:HG13	2.03	0.41
48:B1:71:TYR:O	48:B1:72:GLU:C	2.64	0.41
53:B6:9:LEU:HD13	53:B6:9:LEU:C	2.46	0.41
54:B7:40:TRP:CZ3	57:BA:459:U:H4'	2.55	0.41
55:B8:4:MET:H	55:B8:4:MET:HG2	1.65	0.41
57:BA:262:A:H2'	57:BA:263:C:O4'	2.21	0.41
57:BA:557:U:H2'	57:BA:558:G:H8	1.86	0.41
57:BA:889:C:H1'	57:BA:890:A:O4'	2.21	0.41
57:BA:902:C:H2'	57:BA:903:C:C6	2.52	0.41
57:BA:954:G:O2'	57:BA:955:C:H5'	2.21	0.41
57:BA:1474:C:H3'	57:BA:1475:G:H8	1.86	0.41
57:BA:2009:G:O2'	57:BA:2010:G:H5'	2.21	0.41
57:BA:2491:U:C5'	57:BA:2570:G:H5"	2.31	0.41
57:BA:2742:C:O2'	57:BA:2743:C:H5'	2.21	0.41
1:Ab:25:ASN:HA	1:Ab:26:PRO:HD2	1.73	0.41
1:Ab:29:ALA:C	1:Ab:31:TYR:H	2.28	0.41
1:Ab:81:VAL:O	1:Ab:85:ALA:N	2.53	0.41
1:Ab:189:ASP:C	1:Ab:191:ASP:N	2.79	0.41
2:Ac:33:LEU:HD21	13:An:53:LEU:CD2	2.50	0.41
2:Ac:77:ILE:HG23	2:Ac:84:ILE:CG2	2.51	0.41
2:Ac:115:LEU:O	2:Ac:118:GLN:N	2.54	0.41
3:Ad:56:VAL:HG12	3:Ad:202:LEU:HD13	2.03	0.41
3:Ad:61:LYS:CE	3:Ad:62:GLN:HE21	2.33	0.41
3:Ad:148:VAL:CG1	3:Ad:152:SER:HB2	2.51	0.41
4:Ae:86:ALA:CB	22:Aa:19:C:H5"	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Af:89:MET:HE1	17:Ar:75:ILE:HB	2.03	0.41
8:Ai:25:LYS:HG2	8:Ai:60:ASP:CG	2.45	0.41
8:Ai:83:ARG:CA	8:Ai:86:VAL:HG12	2.51	0.41
10:Ak:61:ALA:CB	10:Ak:90:GLY:HA3	2.51	0.41
11:Al:8:ASN:ND2	16:Aq:34:LYS:HE2	2.21	0.41
12:Am:90:LEU:C	12:Am:92:HIS:N	2.61	0.41
12:Am:91:ARG:HH22	12:Am:103:THR:CG2	2.31	0.41
14:Ao:43:LEU:HD23	14:Ao:43:LEU:HA	1.79	0.41
14:Ao:87:ILE:HG13	14:Ao:88:ARG:N	2.36	0.41
15:Ap:42:ARG:C	15:Ap:43:LYS:HD2	2.46	0.41
15:Ap:58:TYR:O	15:Ap:61:SER:N	2.53	0.41
18:As:39:THR:HG22	18:As:40:ILE:N	2.35	0.41
19:At:57:ARG:HH22	19:At:100:ILE:HG12	1.85	0.41
21:Ay:42:ASN:O	21:Ay:52:LYS:HG2	2.20	0.41
22:Aa:45:U:H2'	22:Aa:46:G:C8	2.56	0.41
22:Aa:97:G:HO2'	22:Aa:98:G:H5"	1.84	0.41
22:Aa:605:U:H2'	22:Aa:606:G:O4'	2.21	0.41
22:Aa:1134:G:C2'	22:Aa:1135:U:H5'	2.51	0.41
22:Aa:1473:A:H2'	22:Aa:1474:G:C8	2.55	0.41
22:Aa:1512:U:H2'	22:Aa:1513:A:C8	2.55	0.41
24:Av:11:A:H4'	57:AA:1909:C:O2'	2.21	0.41
25:Aw:29:G:O2'	25:Aw:30:G:H5'	2.21	0.41
26:AC:6:LYS:HA	26:AC:9:ARG:CB	2.48	0.41
26:AC:29:LEU:O	26:AC:29:LEU:HD23	2.20	0.41
27:AD:218:ARG:HB3	27:AD:219:PRO:HD2	2.03	0.41
27:AD:223:GLY:O	27:AD:226:MET:HG3	2.20	0.41
27:AD:238:GLY:HA2	57:AA:2590:A:OP2	2.21	0.41
29:AF:68:LYS:HB3	29:AF:69:HIS:H	1.69	0.41
29:AF:116:ASP:O	29:AF:120:GLU:HG3	2.21	0.41
30:AG:9:ARG:C	30:AG:11:TYR:N	2.79	0.41
30:AG:39:ILE:HD11	30:AG:92:VAL:CG1	2.51	0.41
30:AG:98:ARG:HG3	51:A4:1:MET:CG	2.49	0.41
30:AG:173:LEU:HB3	30:AG:178:PHE:CG	2.55	0.41
31:AH:137:ASP:OD1	31:AH:139:GLN:HB3	2.20	0.41
32:AI:6:LEU:O	32:AI:7:GLU:C	2.61	0.41
32:AI:29:TYR:O	32:AI:32:PRO:HD2	2.21	0.41
32:AI:74:ASN:O	32:AI:76:THR:N	2.50	0.41
32:AI:93:THR:O	32:AI:97:ILE:N	2.52	0.41
32:AI:116:LEU:HD12	32:AI:117:GLU:H	1.86	0.41
32:AI:133:HIS:O	32:AI:133:HIS:CG	2.74	0.41
34:AN:2:LYS:O	34:AN:4:TYR:CE1	2.74	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:AP:38:GLN:HG3	36:AP:39:LYS:N	2.17	0.41
36:AP:55:ARG:CG	36:AP:56:SER:N	2.63	0.41
36:AP:95:VAL:O	36:AP:95:VAL:HG23	2.20	0.41
38:AR:63:ARG:HH12	38:AR:80:PHE:HD1	1.69	0.41
40:AT:98:LYS:NZ	57:AA:2847:U:OP1	2.53	0.41
40:AT:116:ALA:HB1	40:AT:121:ILE:CD1	2.50	0.41
40:AT:132:LYS:HB2	40:AT:132:LYS:HE3	1.87	0.41
41:AU:6:THR:O	41:AU:9:VAL:HG23	2.21	0.41
41:AU:50:ARG:NH1	42:AV:72:VAL:HG12	2.35	0.41
41:AU:90:VAL:O	41:AU:91:ASP:C	2.64	0.41
41:AU:101:ARG:C	41:AU:102:GLU:HG2	2.46	0.41
42:AV:6:LYS:O	42:AV:37:VAL:CG2	2.69	0.41
42:AV:38:LEU:HD22	42:AV:52:VAL:HG11	2.03	0.41
43:AW:17:VAL:C	43:AW:19:LEU:N	2.76	0.41
44:AX:71:GLY:HA3	57:AA:64:A:O3'	2.21	0.41
45:AY:67:LEU:HD12	45:AY:71:LYS:HG3	2.03	0.41
45:AY:81:LYS:HD3	45:AY:97:ARG:C	2.44	0.41
46:AZ:61:LEU:HA	46:AZ:62:PRO:HD3	1.90	0.41
46:AZ:75:ASN:O	46:AZ:84:GLU:HB2	2.20	0.41
48:A1:40:ARG:HD3	48:A1:40:ARG:O	2.20	0.41
48:A1:56:GLN:HG3	48:A1:87:PRO:HB3	2.03	0.41
49:A2:52:ASP:O	49:A2:56:GLN:HG3	2.21	0.41
49:A2:68:ARG:HG3	49:A2:68:ARG:NH1	2.35	0.41
50:A3:3:ARG:HB2	50:A3:59:VAL:O	2.21	0.41
53:A6:31:PRO:O	53:A6:32:ASN:CG	2.64	0.41
55:A8:47:LYS:HD2	55:A8:48:PHE:O	2.21	0.41
57:AA:141:A:H1'	57:AA:1408:C:O2'	2.20	0.41
57:AA:271(O):C:O2'	57:AA:271(P):C:P	2.79	0.41
57:AA:758:C:O2	57:AA:1981:A:H2	2.04	0.41
57:AA:822:U:O2'	57:AA:823:G:H5'	2.20	0.41
57:AA:1025:G:C4	57:AA:1135:C:H1'	2.55	0.41
57:AA:1375:C:H2'	57:AA:1376:C:H6	1.85	0.41
57:AA:1778:U:H2'	57:AA:1784:A:N6	2.35	0.41
57:AA:1856:G:H2'	57:AA:1857:G:C5'	2.49	0.41
57:AA:2020:A:O2'	57:AA:2021:C:H5'	2.21	0.41
57:AA:2197:U:H1'	57:AA:2198:A:C8	2.56	0.41
57:AA:2772:C:H2'	57:AA:2773:C:C6	2.55	0.41
58:AB:29:A:H2'	58:AB:30:C:C6	2.55	0.41
1:Bb:24:TRP:H	1:Bb:24:TRP:HD1	1.68	0.41
1:Bb:112:VAL:C	1:Bb:114:ARG:H	2.29	0.41
1:Bb:112:VAL:C	1:Bb:114:ARG:N	2.79	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Bc:79:ARG:HG3	2:Bc:79:ARG:NH1	2.36	0.41
3:Bd:73:ARG:NH2	22:Ba:401:C:OP2	2.50	0.41
3:Bd:149:ALA:O	3:Bd:153:ARG:HG3	2.20	0.41
6:Bg:32:ARG:HG2	6:Bg:32:ARG:NH1	2.35	0.41
6:Bg:95:ARG:O	6:Bg:96:GLN:C	2.64	0.41
8:Bi:59:PHE:CD1	8:Bi:59:PHE:N	2.89	0.41
8:Bi:107:ARG:HG2	22:Ba:1347:G:OP2	2.21	0.41
9:Bj:6:ILE:CD1	9:Bj:72:VAL:H	2.34	0.41
9:Bj:6:ILE:HG13	9:Bj:72:VAL:O	2.21	0.41
12:Bm:27:LYS:O	12:Bm:30:ALA:HB3	2.20	0.41
12:Bm:49:THR:HG22	12:Bm:50:GLU:N	2.35	0.41
12:Bm:76:ALA:C	12:Bm:78:ILE:N	2.78	0.41
12:Bm:90:LEU:O	12:Bm:92:HIS:N	2.54	0.41
13:Bn:4:LYS:C	13:Bn:6:LEU:N	2.75	0.41
13:Bn:27:CYS:C	13:Bn:29:ARG:N	2.77	0.41
15:Bp:20:VAL:HG21	15:Bp:32:TYR:CB	2.51	0.41
16:Bq:18:THR:HG22	16:Bq:19:VAL:N	2.36	0.41
16:Bq:70:ARG:CG	22:Ba:235:C:H5'	2.38	0.41
19:Bt:13:LEU:H	19:Bt:13:LEU:CD1	2.34	0.41
19:Bt:57:ARG:HH11	19:Bt:102:GLY:HA3	1.80	0.41
21:By:33:VAL:HG23	21:By:34:LEU:N	2.35	0.41
21:By:53:ILE:O	21:By:61:ARG:HA	2.20	0.41
21:By:59:GLY:O	21:By:81:ALA:N	2.46	0.41
22:Ba:97:G:HO2'	22:Ba:98:G:H5"	1.85	0.41
22:Ba:109:A:C6	22:Ba:326:G:C6	3.09	0.41
22:Ba:328:C:O2	22:Ba:328:C:C2'	2.69	0.41
22:Ba:425:G:O2'	22:Ba:426:G:H5'	2.20	0.41
22:Ba:589:C:O2'	22:Ba:590:C:H5'	2.21	0.41
22:Ba:663:A:HO2'	22:Ba:664:G:H5'	1.84	0.41
22:Ba:712:A:O2'	22:Ba:713:G:H5'	2.20	0.41
22:Ba:791:G:C5	22:Ba:792:A:N7	2.89	0.41
22:Ba:814:A:C8	22:Ba:816:A:C8	3.08	0.41
22:Ba:869:G:H4'	22:Ba:872:A:C8	2.56	0.41
22:Ba:1051:C:H2'	22:Ba:1052:U:C6	2.56	0.41
22:Ba:1149:C:O2'	22:Ba:1150:U:H5'	2.21	0.41
22:Ba:1151:A:C4	22:Ba:1152:A:N7	2.88	0.41
22:Ba:1202:G:C2'	22:Ba:1203:C:H5'	2.50	0.41
22:Ba:1252:A:H2'	22:Ba:1253:G:O4'	2.21	0.41
22:Ba:1298:C:H4'	22:Ba:1299:A:C4	2.55	0.41
22:Ba:1422:G:H2'	22:Ba:1423:G:C8	2.55	0.41
22:Ba:1498:U:C5	23:Bx:17:U:H5'	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Ba:1511:G:C2'	22:Ba:1512:U:H5'	2.50	0.41
25:Bw:74:C:H5"	48:B1:23:LYS:HB2	2.03	0.41
26:BC:40:GLU:HB2	26:BC:179:ALA:HB2	2.02	0.41
26:BC:215:VAL:HG23	26:BC:225:ILE:HG12	2.01	0.41
27:BD:49:ILE:HG22	57:BA:779:U:P	2.60	0.41
27:BD:132:PRO:O	27:BD:133:LEU:C	2.64	0.41
27:BD:147:LEU:HD12	27:BD:155:LEU:CD2	2.51	0.41
28:BE:21:VAL:O	28:BE:23:VAL:HG13	2.20	0.41
28:BE:111:ARG:HG3	38:BR:2:ARG:CD	2.51	0.41
29:BF:24:LEU:O	29:BF:115:ALA:HB1	2.21	0.41
30:BG:143:GLU:OE2	51:B4:26:SER:HB2	2.20	0.41
31:BH:137:ASP:HB3	31:BH:138:LYS:H	1.62	0.41
32:BI:27:ARG:HG2	48:B1:71:TYR:CZ	2.56	0.41
32:BI:29:TYR:CE1	32:BI:33:ARG:NE	2.89	0.41
32:BI:68:LEU:HG	32:BI:72:LEU:CD2	2.48	0.41
32:BI:69:LYS:HG3	32:BI:73:GLU:OE2	2.21	0.41
33:BJ:31:GLY:O	33:BJ:108:LYS:CB	2.69	0.41
33:BJ:104:ILE:O	33:BJ:105:PRO:CB	2.68	0.41
34:BN:2:LYS:O	34:BN:4:TYR:CZ	2.74	0.41
36:BP:18:ARG:NH1	36:BP:18:ARG:CB	2.67	0.41
36:BP:81:GLN:HG2	36:BP:106:LEU:CD1	2.44	0.41
36:BP:99:LEU:HA	36:BP:102:ARG:NH2	2.35	0.41
36:BP:146:VAL:CG1	36:BP:147:LEU:H	2.28	0.41
37:BQ:21:THR:CG2	37:BQ:101:ARG:HB2	2.51	0.41
38:BR:38:VAL:CB	38:BR:39:PRO:HD3	2.42	0.41
38:BR:76:VAL:HG12	38:BR:77:ARG:N	2.36	0.41
38:BR:103:ARG:HD3	43:BW:40:ASN:ND2	2.36	0.41
39:BS:18:ILE:C	39:BS:20:ARG:N	2.79	0.41
40:BT:30:VAL:HG21	40:BT:83:ILE:HG12	2.02	0.41
40:BT:51:ARG:HB2	40:BT:98:LYS:HG3	2.03	0.41
40:BT:55:ASN:C	40:BT:59:THR:HG22	2.46	0.41
41:BU:95:LEU:O	41:BU:98:LEU:HG	2.21	0.41
41:BU:113:ALA:C	41:BU:115:ALA:H	2.27	0.41
42:BV:5:VAL:CG2	42:BV:35:LEU:HB3	2.47	0.41
44:BX:31:HIS:HE1	57:BA:71:A:H2	1.68	0.41
45:BY:52:SER:N	45:BY:53:PRO:CD	2.83	0.41
45:BY:84:ARG:HH21	57:BA:299:A:H5"	1.86	0.41
46:BZ:150:LEU:N	46:BZ:150:LEU:CD2	2.81	0.41
47:B0:37:LEU:C	47:B0:38:VAL:HG23	2.46	0.41
51:B4:18:CYS:C	51:B4:20:ASN:H	2.27	0.41
52:B5:36:CYS:SG	52:B5:49:CYS:SG	3.18	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:B6:5:VAL:HG13	53:B6:7:ILE:N	2.29	0.41
53:B6:41:PRO:HG2	53:B6:43:CYS:O	2.20	0.41
53:B6:43:CYS:O	53:B6:44:ARG:CB	2.67	0.41
55:B8:46:ARG:HG2	55:B8:46:ARG:NH1	2.35	0.41
56:B9:4:ARG:NH1	57:BA:2477:C:N3	2.69	0.41
57:BA:128:C:H2'	57:BA:129:C:H6	1.86	0.41
57:BA:142:A:H5"	57:BA:142(A):C:H5	1.86	0.41
57:BA:536:A:H2'	57:BA:537:C:C6	2.56	0.41
57:BA:784:A:C8	57:BA:792:G:C5	3.09	0.41
57:BA:900:A:C5	57:BA:901:A:C8	3.08	0.41
57:BA:912:C:O2	57:BA:912:C:H2'	2.21	0.41
57:BA:1027:A:C2	57:BA:2488:A:H5'	2.55	0.41
57:BA:1037:G:H1	57:BA:1118:C:N4	2.19	0.41
57:BA:1230:C:H2'	57:BA:1231:G:H8	1.86	0.41
57:BA:1705:G:O2'	57:BA:1706:U:H5'	2.21	0.41
57:BA:1720:U:H2'	57:BA:1721:G:O4'	2.21	0.41
57:BA:1742:G:N7	57:BA:1743:C:C4	2.88	0.41
57:BA:1876:A:H2'	57:BA:1877:A:C8	2.56	0.41
57:BA:2171:A:O2'	57:BA:2172:U:C6	2.70	0.41
57:BA:2289:G:N2	57:BA:2344:U:O2	2.54	0.41
57:BA:2328:A:H2'	57:BA:2329:G:C8	2.56	0.41
57:BA:2518:A:H5'	57:BA:2518:A:H8	1.84	0.41
57:BA:2833:G:C3'	57:BA:2834:G:C5'	2.90	0.41
57:BA:2884:U:O2'	57:BA:2885:C:H5'	2.19	0.41
58:BB:73:A:H2'	58:BB:74:U:H5'	2.03	0.41
1:Ab:23:ARG:HG3	1:Ab:23:ARG:O	2.21	0.41
1:Ab:80:ILE:HD11	1:Ab:208:ILE:CG2	2.50	0.41
2:Ac:172:ARG:C	2:Ac:173:VAL:HG23	2.46	0.41
2:Ac:191:THR:HB	2:Ac:192:THR:H	1.72	0.41
4:Ae:10:MET:O	4:Ae:10:MET:HG2	2.20	0.41
4:Ae:59:GLY:O	4:Ae:62:ALA:HB3	2.20	0.41
7:Ah:21:LYS:HB2	7:Ah:21:LYS:HE2	1.86	0.41
8:Ai:27:THR:CG2	8:Ai:28:VAL:N	2.83	0.41
8:Ai:126:SER:O	8:Ai:128:ARG:HD3	2.21	0.41
11:Al:47:LYS:HE2	11:Al:48:PRO:HD3	2.02	0.41
14:Ao:64:ARG:O	14:Ao:65:ARG:C	2.63	0.41
19:At:25:ARG:HH11	19:At:25:ARG:CG	2.33	0.41
22:Aa:250:A:O4'	22:Aa:252:U:C6	2.74	0.41
22:Aa:627:G:O2'	22:Aa:628:G:H5'	2.21	0.41
22:Aa:1067:A:H8	22:Aa:1067:A:O5'	2.04	0.41
22:Aa:1245:A:O2'	22:Aa:1246:C:H5'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Aa:1293:G:O2'	22:Aa:1294:G:P	2.79	0.41
27:AD:224:ALA:O	27:AD:225:ALA:CB	2.69	0.41
28:AE:13:ARG:HD2	28:AE:20:ALA:HB1	2.03	0.41
30:AG:64:THR:OG1	30:AG:94:LEU:HD11	2.21	0.41
30:AG:128:ARG:C	30:AG:129:GLY:O	2.63	0.41
35:AO:104:ARG:O	35:AO:105:GLU:C	2.64	0.41
37:AQ:21:THR:HG21	37:AQ:101:ARG:CD	2.52	0.41
37:AQ:83:MET:HE1	57:AA:956:G:C4'	2.51	0.41
39:AS:54:LEU:C	39:AS:57:LYS:H	2.28	0.41
41:AU:92:ARG:O	41:AU:95:LEU:N	2.48	0.41
42:AV:25:LEU:H	42:AV:92:THR:HG21	1.86	0.41
42:AV:39:LEU:C	42:AV:40:LEU:HD23	2.46	0.41
45:AY:7:VAL:C	45:AY:8:LYS:HD2	2.46	0.41
45:AY:13:VAL:CG1	45:AY:28:LYS:HD2	2.51	0.41
45:AY:52:SER:N	45:AY:53:PRO:CD	2.83	0.41
49:A2:57:ILE:H	49:A2:57:ILE:HG12	1.62	0.41
53:A6:9:LEU:HD13	53:A6:9:LEU:C	2.45	0.41
53:A6:19:ARG:HG2	57:AA:2400:G:H4'	2.03	0.41
54:A7:34:ARG:HH11	54:A7:39:ARG:HG3	1.84	0.41
55:A8:61:LEU:O	55:A8:64:TYR:HD1	2.04	0.41
57:AA:94(A):G:H2'	57:AA:95:G:O4'	2.21	0.41
57:AA:158:U:O2	57:AA:158:U:C3'	2.69	0.41
57:AA:270:A:C2'	57:AA:271:A:H5'	2.50	0.41
57:AA:565:C:H2'	57:AA:566:U:O4'	2.20	0.41
57:AA:828:U:H3'	57:AA:828:U:O2	2.21	0.41
57:AA:1577:C:H2'	57:AA:1578:U:C1'	2.51	0.41
57:AA:2007:C:O2'	57:AA:2008:C:H5'	2.21	0.41
1:Bb:137:ARG:HD3	1:Bb:137:ARG:C	2.46	0.41
1:Bb:167:PRO:HG2	1:Bb:192:SER:OG	2.21	0.41
2:Bc:173:VAL:O	2:Bc:173:VAL:HG12	2.21	0.41
3:Bd:4:TYR:CG	3:Bd:5:ILE:N	2.89	0.41
4:Be:90:VAL:C	4:Be:91:LEU:HD22	2.46	0.41
5:Bf:18:GLN:C	5:Bf:20:ALA:N	2.78	0.41
9:Bj:48:THR:HG21	22:Ba:975:A:H61	1.85	0.41
9:Bj:55:LYS:HG2	22:Ba:972:C:H2'	2.03	0.41
19:Bt:79:ARG:NH1	22:Ba:261:U:C5	2.89	0.41
21:By:47:MET:HE2	21:By:48:PRO:CD	2.50	0.41
21:By:78:VAL:O	21:By:78:VAL:CG1	2.68	0.41
22:Ba:341:C:O2'	22:Ba:342:C:H5'	2.21	0.41
22:Ba:552:U:O2'	22:Ba:553:A:H5'	2.21	0.41
22:Ba:969:A:O2'	22:Ba:970:C:H5'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Ba:975:A:H5'	22:Ba:975:A:H8	1.86	0.41
22:Ba:1053:G:O6	22:Ba:1199:U:H2'	2.21	0.41
22:Ba:1170:A:C2'	22:Ba:1171:G:H5'	2.51	0.41
26:BC:29:LEU:O	26:BC:29:LEU:HD23	2.21	0.41
28:BE:34:VAL:CG2	28:BE:48:GLN:NE2	2.83	0.41
28:BE:57:LYS:C	28:BE:59:VAL:N	2.76	0.41
29:BF:24:LEU:CD1	29:BF:25:PRO:HD2	2.51	0.41
30:BG:63:ILE:HD12	30:BG:141:PHE:CD2	2.56	0.41
32:BI:139:GLN:HE21	32:BI:139:GLN:HB2	1.51	0.41
36:BP:41:ARG:NE	36:BP:41:ARG:HA	2.35	0.41
36:BP:88:LEU:C	36:BP:90:ARG:N	2.78	0.41
36:BP:97:PRO:HD3	36:BP:126:VAL:O	2.20	0.41
38:BR:80:PHE:O	38:BR:85:PRO:HD3	2.20	0.41
41:BU:92:ARG:NH2	42:BV:10:LYS:HG2	2.35	0.41
44:BX:69:TYR:CE2	57:BA:456:C:C4	3.09	0.41
46:BZ:24:LEU:HD23	46:BZ:25:PRO:O	2.20	0.41
46:BZ:125:LEU:HD23	46:BZ:164:ALA:O	2.21	0.41
46:BZ:125:LEU:HG	46:BZ:164:ALA:HB3	2.03	0.41
47:B0:49:LYS:HE3	47:B0:80:HIS:CD2	2.56	0.41
49:B2:6:VAL:O	49:B2:7:ARG:C	2.63	0.41
49:B2:30:ARG:HE	49:B2:30:ARG:HB2	1.49	0.41
50:B3:8:LEU:HD13	50:B3:31:LEU:CD2	2.51	0.41
53:B6:12:GLU:O	53:B6:51:GLU:HA	2.21	0.41
56:B9:2:LYS:HD2	56:B9:2:LYS:HA	1.96	0.41
57:BA:335:C:O5'	57:BA:335:C:H6	2.04	0.41
57:BA:545:C:C3'	57:BA:547:A:C5'	2.96	0.41
57:BA:1040:C:HO2'	57:BA:1041:C:P	2.44	0.41
57:BA:1856:G:H2'	57:BA:1857:G:C5'	2.51	0.41
57:BA:1956:U:C2'	57:BA:1957:C:H5'	2.50	0.41
57:BA:2246:G:H2'	57:BA:2247:A:C8	2.56	0.41
57:BA:2308:G:N7	57:BA:2310:A:H5'	2.35	0.41
57:BA:2788:C:O2'	57:BA:2809:A:N3	2.49	0.41
58:BB:88:C:O2	58:BB:88:C:H2'	2.21	0.41
1:Ab:56:ARG:HG2	1:Ab:56:ARG:NH1	2.36	0.40
1:Ab:144:ARG:O	1:Ab:145:LEU:C	2.64	0.40
2:Ac:29:TYR:OH	13:An:54:PRO:HD2	2.21	0.40
3:Ad:73:ARG:NH2	22:Aa:401:C:OP2	2.53	0.40
3:Ad:135:LEU:CD1	22:Aa:619:U:N3	2.85	0.40
6:Ag:43:PHE:O	6:Ag:46:ALA:HB3	2.21	0.40
7:Ah:4:ASP:OD2	7:Ah:7:ALA:CB	2.69	0.40
9:Aj:55:LYS:HG2	22:Aa:972:C:H2'	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:Ak:29:ILE:HG13	10:Ak:44:SER:HB3	2.02	0.40
15:Ap:20:VAL:CG2	15:Ap:21:VAL:N	2.84	0.40
17:Ar:84:LYS:HA	17:Ar:84:LYS:HD3	1.83	0.40
18:As:17:GLU:C	18:As:19:VAL:H	2.30	0.40
22:Aa:598:U:H2'	22:Aa:599:C:H6	1.86	0.40
22:Aa:662:G:O2'	22:Aa:836:G:H5'	2.20	0.40
22:Aa:1207:G:H2'	22:Aa:1208:C:C6	2.56	0.40
22:Aa:1289:A:N6	22:Aa:1371:G:HO2'	2.19	0.40
27:AD:36:PRO:O	27:AD:37:LEU:HD23	2.20	0.40
28:AE:51:PHE:O	28:AE:74:PRO:HG3	2.22	0.40
29:AF:2:LYS:HD3	29:AF:25:PRO:CG	2.51	0.40
29:AF:25:PRO:CB	29:AF:119:ARG:HD3	2.50	0.40
30:AG:67:LYS:HE2	51:A4:6:HIS:HB3	2.04	0.40
34:AN:1:MET:HE3	34:AN:3:THR:OG1	2.20	0.40
36:AP:110:TYR:O	36:AP:111:ARG:C	2.64	0.40
37:AQ:9:TYR:CZ	57:AA:911:A:H2'	2.56	0.40
39:AS:17:ARG:NH2	39:AS:90:GLY:H	2.15	0.40
39:AS:93:LYS:O	39:AS:94:TYR:C	2.63	0.40
43:AW:12:ILE:HB	43:AW:42:ARG:HH12	1.86	0.40
43:AW:15:ARG:HH22	57:AA:1266:G:P	2.44	0.40
45:AY:29:GLU:OE2	45:AY:38:ILE:HG21	2.21	0.40
46:AZ:38:TYR:O	46:AZ:38:TYR:CG	2.73	0.40
46:AZ:111:VAL:HG12	46:AZ:112:ARG:N	2.36	0.40
47:A0:21:LEU:HD11	47:A0:41:ARG:HD3	2.03	0.40
47:A0:45:PHE:CE2	47:A0:69:PHE:HE2	2.39	0.40
47:A0:46:LYS:HA	47:A0:47:PRO:HD3	1.80	0.40
49:A2:38:GLN:HB3	49:A2:44:LEU:O	2.20	0.40
49:A2:40:SER:C	49:A2:42:GLY:N	2.77	0.40
50:A3:46:ASN:HD22	50:A3:46:ASN:HA	1.65	0.40
54:A7:8:ASN:ND2	54:A7:11:LYS:H	2.19	0.40
57:AA:520:G:H2'	57:AA:521:G:H8	1.87	0.40
57:AA:639:U:H2'	57:AA:640:C:H6	1.83	0.40
57:AA:1313:U:H3'	57:AA:1314:C:H5'	2.02	0.40
57:AA:2025:C:H2'	57:AA:2026:C:C6	2.56	0.40
1:Bb:29:ALA:C	1:Bb:31:TYR:H	2.28	0.40
2:Bc:18:TRP:CE3	2:Bc:18:TRP:N	2.81	0.40
3:Bd:5:ILE:HG22	3:Bd:6:GLY:N	2.35	0.40
5:Bf:44:GLY:HA2	5:Bf:59:TYR:CZ	2.57	0.40
6:Bg:36:LYS:O	6:Bg:39:ALA:HB3	2.20	0.40
7:Bh:4:ASP:OD2	7:Bh:7:ALA:CB	2.69	0.40
7:Bh:36:LEU:C	7:Bh:38:ILE:N	2.73	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:Bh:49:GLU:O	7:Bh:49:GLU:HG3	2.21	0.40
7:Bh:54:ASP:O	7:Bh:56:LYS:HG3	2.21	0.40
8:Bi:18:PHE:HD1	8:Bi:62:TYR:HD2	1.69	0.40
10:Bk:69:ALA:HB1	10:Bk:103:LEU:CD2	2.51	0.40
11:Bl:27:LEU:HG	11:Bl:62:SER:HB2	2.03	0.40
11:Bl:89:ARG:C	11:Bl:90:VAL:HG23	2.45	0.40
15:Bp:44:THR:O	22:Ba:617:G:H4'	2.21	0.40
21:By:12:LEU:HD12	21:By:12:LEU:HA	1.94	0.40
21:By:22:VAL:C	21:By:24:GLU:N	2.78	0.40
22:Ba:93:G:H2'	22:Ba:96:U:H5'	2.03	0.40
22:Ba:1005:A:H61	22:Ba:1025:U:C1'	2.34	0.40
24:Bv:11:A:H4'	57:BA:1909:C:O2'	2.21	0.40
27:BD:28:GLU:N	27:BD:29:PRO:CD	2.83	0.40
28:BE:181:LEU:HA	28:BE:181:LEU:HD12	1.81	0.40
30:BG:36:LYS:HE2	30:BG:95:ARG:NH1	2.36	0.40
30:BG:134:GLY:O	30:BG:135:LEU:HD12	2.20	0.40
31:BH:136:ILE:H	31:BH:136:ILE:CD1	2.34	0.40
32:BI:101:LEU:O	32:BI:107:VAL:CG2	2.69	0.40
34:BN:4:TYR:HB2	41:BU:64:ARG:NH2	2.35	0.40
34:BN:17:ASP:OD1	34:BN:56:ASN:HB3	2.21	0.40
34:BN:38:HIS:CE1	34:BN:50:ASP:OD2	2.73	0.40
34:BN:72:TYR:HD1	34:BN:90:MET:HG3	1.85	0.40
36:BP:7:ARG:O	36:BP:9:ASN:N	2.54	0.40
38:BR:34:ILE:CG2	38:BR:35:THR:N	2.84	0.40
40:BT:50:ILE:O	40:BT:99:LEU:HD12	2.20	0.40
41:BU:31:SER:C	41:BU:33:ARG:N	2.72	0.40
41:BU:58:ARG:NH1	57:BA:1155:A:OP2	2.54	0.40
42:BV:18:LEU:CD2	42:BV:19:LYS:N	2.77	0.40
43:BW:28:SER:O	43:BW:29:LEU:C	2.64	0.40
45:BY:28:LYS:O	45:BY:38:ILE:HB	2.21	0.40
45:BY:44:ILE:O	45:BY:62:GLU:OE1	2.39	0.40
48:B1:64:ALA:O	48:B1:67:ILE:HG13	2.21	0.40
49:B2:50:ILE:HG22	49:B2:51:ARG:N	2.36	0.40
52:B5:4:HIS:CD2	57:BA:2056:G:H1	2.39	0.40
53:B6:14:THR:HG23	53:B6:14:THR:O	2.20	0.40
55:B8:32:LEU:HB2	55:B8:33:ASN:HD22	1.86	0.40
57:BA:128:C:H3'	57:BA:128:C:C6	2.55	0.40
57:BA:407:G:H2'	57:BA:408:G:C8	2.55	0.40
57:BA:1751:C:O2'	57:BA:1752:C:H5'	2.21	0.40
57:BA:2318:G:H2'	57:BA:2319:G:OP1	2.20	0.40
57:BA:2755:C:O2'	57:BA:2756:U:H2'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BA:2808:U:H5'	57:BA:2891:G:O6	2.21	0.40
58:BB:29:A:H2'	58:BB:30:C:C6	2.57	0.40
1:Ab:112:VAL:C	1:Ab:114:ARG:H	2.29	0.40
3:Ad:135:LEU:HD23	22:Aa:620:C:C1'	2.51	0.40
4:Ae:6:PHE:HB3	4:Ae:35:GLY:O	2.21	0.40
6:Ag:46:ALA:HB1	6:Ag:121:ALA:HB2	2.04	0.40
6:Ag:148:ASN:N	6:Ag:148:ASN:ND2	2.68	0.40
7:Ah:42:GLU:HG3	7:Ah:109:ILE:HD12	2.02	0.40
7:Ah:49:GLU:O	7:Ah:49:GLU:HG3	2.20	0.40
8:Ai:59:PHE:CD1	8:Ai:59:PHE:N	2.89	0.40
9:Aj:44:VAL:HG11	9:Aj:46:ARG:NE	2.37	0.40
9:Aj:48:THR:CG2	22:Aa:975:A:H61	2.34	0.40
10:Ak:24:SER:O	10:Ak:25:TYR:C	2.63	0.40
11:Al:27:LEU:C	11:Al:29:GLY:H	2.29	0.40
18:As:11:VAL:CG2	18:As:16:LEU:HD11	2.45	0.40
18:As:33:THR:OG1	18:As:34:TRP:N	2.54	0.40
22:Aa:397:A:N3	22:Aa:397:A:H5"	2.36	0.40
22:Aa:604:G:O2'	22:Aa:605:U:H5'	2.21	0.40
22:Aa:1321:C:H5'	22:Aa:1322:C:H5'	2.03	0.40
27:AD:9:TYR:CD2	57:AA:727:A:C2	3.09	0.40
28:AE:59:VAL:HG23	28:AE:62:PRO:HG2	2.03	0.40
28:AE:82:ARG:HD2	28:AE:82:ARG:HA	1.93	0.40
28:AE:107:THR:HA	28:AE:163:GLU:O	2.21	0.40
28:AE:176:ILE:HB	28:AE:181:LEU:HB2	2.02	0.40
31:AH:118:PRO:HG2	31:AH:121:ILE:HD12	2.04	0.40
34:AN:126:PRO:O	34:AN:127:ASP:CB	2.66	0.40
35:AO:105:GLU:O	35:AO:108:GLU:HG2	2.22	0.40
36:AP:62:LEU:HB2	57:AA:2394:C:P	2.61	0.40
37:AQ:42:ILE:HG22	37:AQ:47:ILE:HG13	2.03	0.40
39:AS:84:GLN:HB3	39:AS:105:ALA:HB3	2.03	0.40
39:AS:89:ARG:HH11	39:AS:89:ARG:CG	2.33	0.40
43:AW:57:ASN:O	43:AW:58:ALA:C	2.64	0.40
45:AY:14:LEU:CD1	45:AY:23:ARG:H	2.34	0.40
48:A1:11:ARG:H	48:A1:11:ARG:HG2	1.76	0.40
50:A3:6:VAL:O	50:A3:6:VAL:HG23	2.21	0.40
51:A4:3:GLU:OE1	58:AB:40:U:C5	2.74	0.40
52:A5:29:THR:HG21	57:AA:2814:C:O2'	2.21	0.40
53:A6:11:LEU:HA	53:A6:54:ILE:C	2.46	0.40
53:A6:44:ARG:HB2	53:A6:44:ARG:NH1	2.35	0.40
56:A9:10:ILE:HD12	56:A9:32:HIS:CG	2.56	0.40
57:AA:45:C:H2'	57:AA:47:C:H6	1.87	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:AA:221:A:O2'	57:AA:222:A:OP2	2.37	0.40
57:AA:836:G:C5	57:AA:837:C:C4	3.09	0.40
57:AA:1208:C:O2	57:AA:1208:C:H2'	2.21	0.40
57:AA:1485:G:C8	57:AA:1486:A:N7	2.89	0.40
57:AA:1885:A:H3'	57:AA:1886:C:H6	1.86	0.40
57:AA:2246:G:H2'	57:AA:2247:A:C8	2.56	0.40
57:AA:2314:C:H2'	57:AA:2315:G:C8	2.56	0.40
57:AA:2870:C:H2'	57:AA:2871:C:H5'	2.03	0.40
1:Bb:173:ALA:O	1:Bb:176:GLU:N	2.54	0.40
2:Bc:172:ARG:C	2:Bc:173:VAL:HG23	2.46	0.40
3:Bd:14:ARG:C	3:Bd:16:GLY:N	2.78	0.40
3:Bd:36:ARG:NH1	22:Ba:426:G:OP1	2.46	0.40
3:Bd:36:ARG:C	3:Bd:38:TYR:H	2.29	0.40
3:Bd:195:ALA:O	3:Bd:196:LEU:C	2.64	0.40
4:Be:43:LEU:CD2	4:Be:132:ALA:HB1	2.50	0.40
5:Bf:82:ARG:HB2	5:Bf:85:VAL:CG2	2.42	0.40
6:Bg:78:ARG:CG	6:Bg:79:ARG:N	2.84	0.40
9:Bj:3:LYS:NZ	9:Bj:77:PRO:HD2	2.35	0.40
10:Bk:21:ILE:N	10:Bk:21:ILE:CD1	2.83	0.40
12:Bm:10:PRO:HG3	12:Bm:18:ALA:O	2.21	0.40
12:Bm:38:GLY:C	12:Bm:39:ILE:HG13	2.46	0.40
12:Bm:104:ARG:HB2	22:Ba:1226:C:C4	2.57	0.40
13:Bn:22:THR:OG1	13:Bn:33:VAL:HG21	2.20	0.40
16:Bq:95:TYR:C	16:Bq:97:SER:N	2.79	0.40
19:Bt:102:GLY:O	19:Bt:103:GLY:C	2.64	0.40
21:By:21:THR:CG2	21:By:22:VAL:N	2.85	0.40
22:Ba:55:A:N7	22:Ba:56:U:C4	2.88	0.40
22:Ba:149:A:O2'	22:Ba:150:C:H6	2.04	0.40
22:Ba:189(K):U:H2'	22:Ba:189(L):G:C8	2.57	0.40
22:Ba:522:C:C2'	22:Ba:523:A:H5'	2.52	0.40
22:Ba:662:G:O2'	22:Ba:836:G:H5'	2.21	0.40
22:Ba:867:G:O2'	22:Ba:868:C:H5'	2.21	0.40
22:Ba:950:U:H2'	22:Ba:951:G:C8	2.55	0.40
24:Bv:5:G:O2'	24:Bv:6:G:H5'	2.21	0.40
27:BD:30:GLU:CG	27:BD:63:ARG:NE	2.83	0.40
27:BD:61:LEU:HB3	27:BD:63:ARG:NH1	2.36	0.40
27:BD:161:THR:O	27:BD:196:VAL:HG23	2.21	0.40
28:BE:182:LEU:HD12	28:BE:183:LEU:H	1.85	0.40
30:BG:6:ALA:C	30:BG:8:LYS:N	2.78	0.40
30:BG:31:VAL:HA	30:BG:32:PRO:HD2	1.69	0.40
30:BG:58:GLN:H	30:BG:58:GLN:HG3	1.59	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BG:161:THR:HG22	30:BG:162:THR:H	1.75	0.40
31:BH:46:GLU:O	31:BH:47:GLU:HB2	2.21	0.40
34:BN:48:MET:HE3	34:BN:48:MET:C	2.47	0.40
34:BN:119:ARG:HH11	34:BN:119:ARG:CG	2.34	0.40
35:BO:20:MET:O	35:BO:41:ALA:HB1	2.20	0.40
35:BO:71:ARG:NE	35:BO:105:GLU:OE2	2.52	0.40
36:BP:6:LEU:CG	36:BP:9:ASN:HB2	2.50	0.40
36:BP:16:ARG:CZ	36:BP:18:ARG:HG2	2.51	0.40
37:BQ:27:VAL:O	37:BQ:28:ALA:CB	2.68	0.40
37:BQ:42:ILE:CG2	37:BQ:47:ILE:HG13	2.51	0.40
38:BR:48:VAL:O	38:BR:49:ASP:C	2.63	0.40
39:BS:93:LYS:O	39:BS:94:TYR:C	2.64	0.40
40:BT:132:LYS:HE3	40:BT:132:LYS:HB2	1.86	0.40
41:BU:34:LYS:HA	41:BU:34:LYS:CE	2.45	0.40
45:BY:31:LEU:CB	45:BY:32:PRO:HA	2.49	0.40
45:BY:88:LYS:HD3	45:BY:93:GLY:N	2.36	0.40
46:BZ:71:VAL:HA	46:BZ:87:ASP:O	2.21	0.40
52:B5:29:THR:HG21	57:BA:2814:C:O2'	2.21	0.40
52:B5:32:PRO:HA	52:B5:39:MET:HG2	2.03	0.40
57:BA:657:U:H2'	57:BA:658:C:C6	2.56	0.40
57:BA:999:U:H5"	57:BA:1154:G:O6	2.21	0.40
57:BA:1039:G:C6	57:BA:1040:C:N4	2.89	0.40
57:BA:1131:G:C2	57:BA:1132:A:C4	3.09	0.40
57:BA:1313:U:H2'	57:BA:1610:A:N1	2.36	0.40
57:BA:1945:G:H2'	57:BA:1946:U:C6	2.56	0.40
57:BA:2290:G:C2	57:BA:2291:U:C2	3.09	0.40
57:BA:2332:U:H5'	57:BA:2336:A:N6	2.35	0.40
57:BA:2649:U:H2'	57:BA:2650:U:C6	2.56	0.40
57:BA:2768:C:O2'	57:BA:2769:C:H5'	2.21	0.40
57:BA:2818:G:O2'	57:BA:2819:G:H5'	2.21	0.40
2:Ac:25:GLY:O	2:Ac:27:LYS:N	2.46	0.40
2:Ac:172:ARG:HD3	22:Aa:1106:G:OP1	2.21	0.40
3:Ad:94:LEU:O	3:Ad:98:GLU:HB2	2.22	0.40
3:Ad:129:ASN:HD21	3:Ad:145:GLU:H	1.67	0.40
4:Ae:90:VAL:C	4:Ae:91:LEU:HD22	2.47	0.40
5:Af:44:GLY:HA2	5:Af:59:TYR:CZ	2.57	0.40
6:Ag:78:ARG:CG	6:Ag:79:ARG:N	2.84	0.40
8:Ai:11:LYS:O	8:Ai:12:GLU:C	2.64	0.40
8:Ai:27:THR:CG2	8:Ai:31:GLN:H	2.34	0.40
8:Ai:114:TYR:HE1	9:Aj:60:ARG:O	2.03	0.40
8:Ai:121:ARG:HB2	22:Aa:1349:A:H5"	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:Aj:54:PHE:CD2	9:Aj:55:LYS:HE3	2.56	0.40
11:Al:27:LEU:HG	11:Al:62:SER:HB2	2.03	0.40
12:Am:57:ARG:NH1	51:A4:34:GLU:HG3	2.36	0.40
13:An:25:VAL:HG23	13:An:38:GLY:O	2.21	0.40
15:Ap:6:LEU:HB3	15:Ap:17:TYR:CD2	2.56	0.40
18:As:40:ILE:HG21	18:As:62:ILE:CD1	2.41	0.40
19:At:79:ARG:NH2	22:Aa:261:U:OP2	2.54	0.40
19:At:100:ILE:C	19:At:102:GLY:N	2.78	0.40
21:Ay:83:ARG:HD2	21:Ay:83:ARG:H	1.85	0.40
22:Aa:19:C:O2'	22:Aa:20:U:H5'	2.22	0.40
22:Aa:60:A:H8	22:Aa:60:A:P	2.44	0.40
22:Aa:77:G:H1	22:Aa:92:C:H42	1.69	0.40
22:Aa:81:U:H2'	22:Aa:82:U:C5	2.56	0.40
22:Aa:626:U:O2'	22:Aa:627:G:H5'	2.21	0.40
22:Aa:932:C:O2	22:Aa:932:C:H2'	2.19	0.40
22:Aa:977:A:O2'	22:Aa:978:A:H5'	2.22	0.40
22:Aa:1195:C:O2	22:Aa:1195:C:H2'	2.21	0.40
22:Aa:1252:A:H2'	22:Aa:1253:G:O4'	2.21	0.40
22:Aa:1288:A:H2'	22:Aa:1289:A:H8	1.87	0.40
22:Aa:1332:A:O2'	22:Aa:1333:A:H5'	2.21	0.40
22:Aa:1515:C:H2'	22:Aa:1516:G:H8	1.86	0.40
24:Av:49:G:O2'	24:Av:50:U:H5'	2.21	0.40
25:Aw:9:G:H4'	25:Aw:46:G:H5'	2.04	0.40
26:AC:43:GLU:CG	26:AC:216:THR:HG23	2.52	0.40
26:AC:218:THR:HG21	57:AA:2125:G:H4'	2.03	0.40
27:AD:132:PRO:O	27:AD:133:LEU:C	2.64	0.40
27:AD:266:SER:C	27:AD:267:SER:O	2.65	0.40
28:AE:101:ARG:HH11	28:AE:171:GLU:CB	2.23	0.40
29:AF:20:LEU:HD12	29:AF:199:TRP:CH2	2.56	0.40
29:AF:53:THR:C	29:AF:55:GLY:H	2.29	0.40
30:AG:72:ARG:CA	30:AG:87:PRO:HD2	2.50	0.40
30:AG:95:ARG:HH11	30:AG:95:ARG:CG	2.28	0.40
30:AG:105:LYS:HE2	51:A4:26:SER:HB3	2.03	0.40
31:AH:121:ILE:HG23	31:AH:133:VAL:HG13	2.03	0.40
32:AI:29:TYR:CE1	32:AI:33:ARG:NE	2.89	0.40
34:AN:126:PRO:HB2	34:AN:127:ASP:H	1.68	0.40
37:AQ:42:ILE:HD12	37:AQ:42:ILE:N	2.36	0.40
38:AR:92:GLY:O	57:AA:2880:C:H1'	2.22	0.40
40:AT:3:ARG:HG3	40:AT:3:ARG:HH11	1.86	0.40
40:AT:19:LEU:HA	40:AT:20:PRO:HD3	1.97	0.40
40:AT:94:ALA:HB1	40:AT:99:LEU:HD23	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:AU:68:ALA:CB	41:AU:99:ALA:HB1	2.51	0.40
41:AU:78:THR:O	41:AU:81:HIS:N	2.54	0.40
42:AV:3:ALA:HA	42:AV:40:LEU:O	2.21	0.40
43:AW:65:LEU:HD23	43:AW:68:ARG:CD	2.48	0.40
43:AW:79:GLY:H	43:AW:100:THR:HG22	1.87	0.40
44:AX:3:THR:O	44:AX:4:ALA:CB	2.69	0.40
45:AY:2:ARG:NH2	57:AA:294:A:O2'	2.55	0.40
46:AZ:151:HIS:HB3	46:AZ:171:ILE:H	1.86	0.40
46:AZ:171:ILE:O	46:AZ:172:ALA:HB2	2.22	0.40
48:A1:45:ASN:ND2	48:A1:45:ASN:C	2.80	0.40
49:A2:2:LYS:HA	49:A2:2:LYS:HE3	2.02	0.40
51:A4:9:LEU:HD22	51:A4:26:SER:O	2.21	0.40
52:A5:49:CYS:O	52:A5:50:GLY:C	2.63	0.40
55:A8:59:LYS:C	55:A8:61:LEU:HD23	2.47	0.40
57:AA:128:C:C6	57:AA:128:C:C3'	3.05	0.40
57:AA:455:C:N3	57:AA:472:A:H2'	2.36	0.40
57:AA:708:C:H42	57:AA:723:G:H1	1.68	0.40
57:AA:1274:A:N3	57:AA:1297:C:H1'	2.36	0.40
57:AA:1502:C:O2	57:AA:1502:C:H2'	2.21	0.40
57:AA:1629:U:O2	57:AA:2698:U:H5"	2.21	0.40
57:AA:1710:C:O2'	57:AA:1711:C:H5'	2.21	0.40
57:AA:2166:G:H2'	57:AA:2167:U:C6	2.56	0.40
57:AA:2318:G:C2'	57:AA:2319:G:OP1	2.69	0.40
57:AA:2360:A:O2'	57:AA:2361:A:H5"	2.21	0.40
58:AB:78:A:H2'	58:AB:79:C:O4'	2.21	0.40
1:Bb:86:GLU:C	1:Bb:88:ALA:H	2.29	0.40
1:Bb:204:ASN:HD21	1:Bb:206:ASP:HB2	1.86	0.40
2:Bc:8:ILE:C	2:Bc:10:PHE:H	2.29	0.40
2:Bc:172:ARG:HD3	22:Ba:1106:G:OP1	2.21	0.40
3:Bd:135:LEU:HD11	22:Ba:619:U:N3	2.36	0.40
6:Bg:86:GLN:O	6:Bg:86:GLN:HG3	2.21	0.40
6:Bg:116:ALA:O	6:Bg:117:ALA:C	2.63	0.40
12:Bm:94:ARG:O	12:Bm:95:GLY:C	2.64	0.40
13:Bn:6:LEU:HD11	22:Ba:983:A:OP1	2.22	0.40
14:Bo:82:ILE:O	14:Bo:86:GLY:N	2.54	0.40
18:Bs:17:GLU:C	18:Bs:19:VAL:H	2.29	0.40
22:Ba:581:G:N2	22:Ba:582:U:C4	2.90	0.40
22:Ba:1132:C:N4	22:Ba:1133:G:C6	2.89	0.40
22:Ba:1324:A:C4'	22:Ba:1362:C:H4'	2.51	0.40
22:Ba:1404:C:H2'	22:Ba:1405:G:C8	2.56	0.40
22:Ba:1509:C:O2'	22:Ba:1510:U:H5'	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BC:218:THR:HG21	57:BA:2125:G:H4'	2.03	0.40
27:BD:107:ALA:HA	27:BD:108:PRO:HD2	1.99	0.40
27:BD:176:ARG:NH1	27:BD:176:ARG:CG	2.82	0.40
29:BF:7:TYR:CB	29:BF:16:GLY:C	2.94	0.40
29:BF:8:GLN:HG2	29:BF:126:VAL:CB	2.46	0.40
29:BF:51:THR:HG21	29:BF:92:PRO:HD2	2.02	0.40
29:BF:116:ASP:O	29:BF:120:GLU:HG3	2.21	0.40
30:BG:97:ASP:H	30:BG:100:TRP:HD1	1.69	0.40
31:BH:55:PRO:HG2	31:BH:56:SER:H	1.86	0.40
31:BH:70:THR:C	31:BH:72:ILE:N	2.79	0.40
31:BH:73:ALA:O	31:BH:76:VAL:HB	2.21	0.40
32:BI:62:LYS:HG2	32:BI:62:LYS:O	2.22	0.40
34:BN:5:VAL:O	34:BN:5:VAL:HG13	2.21	0.40
38:BR:77:ARG:O	38:BR:78:LYS:C	2.65	0.40
40:BT:56:GLY:C	40:BT:57:PHE:O	2.62	0.40
41:BU:23:GLY:HA2	57:BA:18:C:O3'	2.20	0.40
42:BV:5:VAL:HG12	42:BV:14:VAL:CG2	2.51	0.40
43:BW:61:ASN:N	43:BW:61:ASN:ND2	2.69	0.40
43:BW:80:PRO:O	43:BW:100:THR:HB	2.20	0.40
45:BY:6:HIS:CD2	45:BY:6:HIS:N	2.89	0.40
45:BY:7:VAL:CG2	45:BY:8:LYS:HZ1	2.28	0.40
45:BY:54:LYS:NZ	45:BY:54:LYS:HB3	2.35	0.40
46:BZ:150:LEU:C	46:BZ:151:HIS:CD2	2.98	0.40
47:B0:41:ARG:HH21	57:BA:2387:U:C1'	2.34	0.40
48:B1:44:PRO:HA	57:BA:396:G:O3'	2.21	0.40
50:B3:12:PRO:HB2	50:B3:20:LYS:HG3	2.04	0.40
51:B4:47:GLN:HB3	51:B4:48:ARG:H	1.67	0.40
53:B6:19:ARG:O	53:B6:20:ASN:HB2	2.21	0.40
57:BA:128:C:C6	57:BA:128:C:C3'	3.03	0.40
57:BA:360:G:H2'	57:BA:361:G:O4'	2.22	0.40
57:BA:528:A:H2	57:BA:2043:C:C4'	2.34	0.40
57:BA:1494:A:OP1	57:BA:1494:A:H4'	2.21	0.40
57:BA:1494:A:O2'	57:BA:1495:A:H5"	2.16	0.40
57:BA:1511:C:H2'	57:BA:1512:U:O4'	2.22	0.40
57:BA:2192:G:H2'	57:BA:2193:G:C5'	2.51	0.40
57:BA:2364:C:C2'	57:BA:2365:G:H5'	2.51	0.40
57:BA:2393:A:H2'	57:BA:2394:C:O4'	2.21	0.40
57:BA:2465:C:O2'	57:BA:2466:C:H5'	2.21	0.40
2:Ac:8:ILE:C	2:Ac:10:PHE:H	2.30	0.40
2:Ac:55:VAL:HG12	2:Ac:55:VAL:O	2.21	0.40
2:Ac:178:LEU:HD22	2:Ac:178:LEU:N	2.37	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Ad:8:VAL:C	3:Ad:10:ARG:N	2.80	0.40
3:Ad:46:LYS:O	3:Ad:47:ARG:C	2.65	0.40
3:Ad:79:PHE:CE1	3:Ad:207:TYR:HD1	2.39	0.40
4:Ae:131:ILE:HD13	4:Ae:131:ILE:HA	1.99	0.40
5:Af:3:ARG:HG3	5:Af:3:ARG:NH1	2.37	0.40
5:Af:3:ARG:NH1	5:Af:38:GLU:OE1	2.54	0.40
5:Af:40:VAL:O	5:Af:40:VAL:HG13	2.22	0.40
8:Ai:120:ARG:NH1	22:Aa:1346:A:C5'	2.84	0.40
9:Aj:4:ILE:CD1	9:Aj:74:ILE:HG13	2.51	0.40
9:Aj:30:SER:O	9:Aj:80:LYS:NZ	2.54	0.40
9:Aj:55:LYS:HG2	22:Aa:972:C:C2'	2.52	0.40
10:Ak:62:GLN:O	10:Ak:63:LEU:C	2.64	0.40
14:Ao:54:ARG:NH1	14:Ao:58:MET:HE1	2.37	0.40
16:Aq:95:TYR:C	16:Aq:97:SER:N	2.78	0.40
18:As:36:ARG:HB2	18:As:72:GLY:HA3	2.03	0.40
18:As:64:GLU:H	18:As:64:GLU:HG2	1.70	0.40
19:At:55:ILE:O	19:At:59:ALA:N	2.54	0.40
22:Aa:341:C:O2'	22:Aa:342:C:H5'	2.21	0.40
22:Aa:429:U:H4'	22:Aa:430:A:O5'	2.22	0.40
22:Aa:505:G:C6	22:Aa:535:A:C2	3.09	0.40
22:Aa:585:G:O2'	22:Aa:879:C:H5"	2.22	0.40
22:Aa:967:C:H6	22:Aa:967:C:O5'	2.04	0.40
22:Aa:1258:G:H2'	22:Aa:1259:C:C6	2.56	0.40
22:Aa:1445:C:O2'	22:Aa:1446:U:H5'	2.21	0.40
27:AD:118:VAL:CG2	27:AD:119:ALA:H	2.33	0.40
27:AD:249:PRO:HG2	27:AD:250:TRP:CD2	2.56	0.40
28:AE:182:LEU:O	28:AE:183:LEU:HD12	2.21	0.40
28:AE:203:LYS:HE3	28:AE:204:ALA:HB2	2.04	0.40
29:AF:33:LEU:HD12	29:AF:33:LEU:HA	1.88	0.40
29:AF:89:VAL:CG1	29:AF:90:PHE:H	2.20	0.40
29:AF:205:ARG:HG2	29:AF:205:ARG:O	2.21	0.40
30:AG:38:VAL:HG22	30:AG:93:THR:HA	2.03	0.40
30:AG:177:GLY:O	30:AG:179:PRO:HD3	2.22	0.40
33:AJ:53:VAL:O	33:AJ:54:ALA:HB2	2.22	0.40
34:AN:119:ARG:HG3	34:AN:119:ARG:HH11	1.86	0.40
36:AP:50:ARG:CG	36:AP:51:PHE:N	2.84	0.40
36:AP:123:LEU:HD12	36:AP:123:LEU:C	2.47	0.40
38:AR:85:PRO:C	38:AR:87:TYR:N	2.80	0.40
39:AS:36:TYR:O	39:AS:37:ALA:HB2	2.22	0.40
43:AW:14:PRO:C	43:AW:16:LYS:N	2.79	0.40
43:AW:60:ASN:C	43:AW:61:ASN:HD22	2.29	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:AY:8:LYS:HE3	45:AY:74:PRO:HD3	2.04	0.40
45:AY:14:LEU:HD12	45:AY:15:VAL:N	2.37	0.40
45:AY:15:VAL:CG1	45:AY:20:TYR:O	2.70	0.40
45:AY:73:ARG:CZ	57:AA:335:C:H4'	2.52	0.40
46:AZ:14:LYS:O	46:AZ:16:SER:N	2.55	0.40
48:A1:90:ILE:O	48:A1:94:LEU:HG	2.21	0.40
53:A6:19:ARG:HD2	53:A6:19:ARG:N	2.36	0.40
55:A8:37:SER:C	55:A8:39:LYS:H	2.29	0.40
55:A8:40:GLU:O	55:A8:41:ILE:C	2.65	0.40
56:A9:17:ILE:CG2	56:A9:18:ARG:N	2.85	0.40
57:AA:17:G:H2'	57:AA:18:C:C6	2.57	0.40
57:AA:359:A:C2'	57:AA:360:G:H5'	2.51	0.40
57:AA:387:U:H4'	57:AA:388:G:O5'	2.21	0.40
57:AA:873:G:N2	57:AA:905:U:C2	2.90	0.40
57:AA:912:C:O2	57:AA:912:C:H2'	2.21	0.40
57:AA:974:G:C4	57:AA:989:G:C2	3.10	0.40
57:AA:1523:U:H2'	57:AA:1524:G:H8	1.86	0.40
57:AA:2321:G:N3	57:AA:2321:G:H2'	2.36	0.40
58:AB:37:C:C2'	58:AB:38:C:H5'	2.50	0.40
1:Bb:23:ARG:HG3	1:Bb:23:ARG:O	2.21	0.40
2:Bc:33:LEU:HD21	13:Bn:53:LEU:CD2	2.51	0.40
2:Bc:77:ILE:HG23	2:Bc:84:ILE:CG2	2.50	0.40
2:Bc:178:LEU:N	2:Bc:178:LEU:HD22	2.37	0.40
4:Be:136:MET:C	4:Be:138:ALA:N	2.80	0.40
5:Bf:19:LEU:O	5:Bf:23:LYS:HB2	2.22	0.40
5:Bf:43:LEU:HD12	5:Bf:43:LEU:N	2.32	0.40
7:Bh:29:SER:HB3	7:Bh:32:LYS:HB2	2.02	0.40
9:Bj:48:THR:O	22:Ba:975:A:C2	2.75	0.40
9:Bj:49:VAL:HG23	13:Bn:34:TYR:OH	2.21	0.40
9:Bj:70:ARG:NH1	9:Bj:70:ARG:CG	2.84	0.40
10:Bk:69:ALA:O	10:Bk:73:MET:HG2	2.21	0.40
12:Bm:29:ARG:HB3	12:Bm:64:TRP:CZ2	2.56	0.40
16:Bq:48:GLU:O	16:Bq:49:GLU:C	2.64	0.40
17:Br:59:SER:O	17:Br:60:ALA:C	2.63	0.40
18:Bs:6:LYS:HB3	22:Ba:1313:U:OP2	2.21	0.40
21:By:29:LYS:HA	21:By:29:LYS:HD3	1.91	0.40
22:Ba:383:A:H2'	22:Ba:384:G:C5'	2.50	0.40
22:Ba:949:A:C2	22:Ba:1233:G:N3	2.89	0.40
22:Ba:1090:U:C2	22:Ba:1091:U:C5	3.10	0.40
22:Ba:1249:C:H5'	22:Ba:1249:C:H6	1.87	0.40
22:Ba:1285:A:H1'	22:Ba:1286:A:OP2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Ba:1372:U:H2'	22:Ba:1373:G:O4'	2.21	0.40
25:Bw:43:A:O2'	25:Bw:44:A:H5'	2.21	0.40
26:BC:21:TYR:C	26:BC:225:ILE:HG22	2.46	0.40
27:BD:2:ALA:O	27:BD:3:VAL:CB	2.69	0.40
27:BD:3:VAL:HA	27:BD:18:VAL:O	2.21	0.40
28:BE:110:GLY:CA	28:BE:162:ALA:HB2	2.51	0.40
28:BE:188:VAL:CG2	28:BE:189:PRO:HD2	2.51	0.40
29:BF:158:THR:HA	29:BF:195:ASP:HB2	2.02	0.40
30:BG:5:VAL:HG12	30:BG:104:GLU:OE2	2.21	0.40
30:BG:113:ARG:HG2	51:B4:35:VAL:HB	2.03	0.40
33:BJ:26:LEU:O	33:BJ:113:GLN:HA	2.22	0.40
34:BN:76:SER:O	34:BN:78:TYR:N	2.54	0.40
35:BO:13:ASN:ND2	35:BO:97:ARG:CB	2.85	0.40
35:BO:106:LEU:HD23	35:BO:106:LEU:HA	1.95	0.40
36:BP:18:ARG:O	36:BP:20:GLY:N	2.55	0.40
36:BP:110:TYR:O	36:BP:111:ARG:C	2.64	0.40
43:BW:89:ALA:O	43:BW:90:ARG:HB2	2.21	0.40
47:B0:56:ASP:OD2	47:B0:58:THR:OG1	2.37	0.40
47:B0:72:ARG:O	47:B0:73:GLY:C	2.64	0.40
47:B0:73:GLY:O	47:B0:75:LEU:N	2.53	0.40
49:B2:5:GLU:HB3	49:B2:9:GLN:HE21	1.86	0.40
51:B4:14:ILE:HG23	51:B4:33:VAL:HG23	2.04	0.40
52:B5:16:ARG:HD2	52:B5:20:ARG:NH2	2.36	0.40
53:B6:15:GLU:HB2	53:B6:49:HIS:NE2	2.37	0.40
57:BA:83:G:C2	57:BA:102:G:H2'	2.56	0.40
57:BA:350:U:H2'	57:BA:351:G:O4'	2.20	0.40
57:BA:618:C:H2'	57:BA:619:G:O4'	2.22	0.40
57:BA:712:G:O2'	57:BA:713:G:H5'	2.20	0.40
57:BA:1683:C:H2'	57:BA:1684:C:H6	1.87	0.40
57:BA:2123:G:H2'	57:BA:2124:G:C8	2.47	0.40
57:BA:2259:G:H1'	57:BA:2427:C:C2	2.56	0.40
57:BA:2696:U:H2'	57:BA:2697:G:H8	1.87	0.40
2:Ac:153:VAL:HA	2:Ac:197:GLY:O	2.22	0.40
4:Ae:20:GLN:HE21	4:Ae:20:GLN:HB3	1.66	0.40
5:Af:61:LEU:HD12	5:Af:61:LEU:N	2.36	0.40
5:Af:87:ARG:O	5:Af:88:VAL:CG2	2.70	0.40
6:Ag:116:ALA:HB2	22:Aa:1240:U:OP2	2.21	0.40
8:Ai:33:PHE:CE2	8:Ai:47:LEU:HD21	2.57	0.40
14:Ao:77:ARG:HA	14:Ao:80:ALA:CB	2.52	0.40
15:Ap:8:ARG:HB3	15:Ap:28:ARG:NH1	2.36	0.40
18:As:40:ILE:HD13	18:As:62:ILE:CD1	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:As:63:THR:HG21	18:As:65:ASN:HD22	1.85	0.40
22:Aa:38:G:C2	22:Aa:397:A:C2	3.09	0.40
22:Aa:100:C:H2'	22:Aa:101:A:O4'	2.21	0.40
22:Aa:325:A:H2'	22:Aa:326:G:O4'	2.21	0.40
22:Aa:683:G:C6	22:Aa:684:A:C6	3.09	0.40
22:Aa:859:A:O2'	22:Aa:860:A:H5'	2.22	0.40
22:Aa:1315:U:O2'	22:Aa:1360:A:H1'	2.21	0.40
22:Aa:1324:A:C4'	22:Aa:1362:C:H4'	2.51	0.40
22:Aa:1471:G:H2'	22:Aa:1472:U:C6	2.57	0.40
26:AC:21:TYR:O	26:AC:225:ILE:HA	2.21	0.40
26:AC:29:LEU:O	26:AC:33:LEU:HG	2.22	0.40
27:AD:7:LYS:HE3	57:AA:706:A:OP1	2.22	0.40
27:AD:24:ILE:C	27:AD:25:THR:O	2.63	0.40
27:AD:95:LEU:HD13	27:AD:97:TYR:CE1	2.55	0.40
28:AE:57:LYS:C	28:AE:59:VAL:N	2.75	0.40
29:AF:8:GLN:HG2	29:AF:126:VAL:CB	2.47	0.40
29:AF:169:ASN:HD21	57:AA:322:A:C3'	2.30	0.40
30:AG:67:LYS:HD3	51:A4:6:HIS:NE2	2.37	0.40
30:AG:174:GLU:CD	30:AG:182:LYS:HZ3	2.29	0.40
31:AH:38:SER:HA	31:AH:39:PRO:HD3	1.93	0.40
32:AI:127:VAL:HG22	32:AI:139:GLN:CB	2.47	0.40
34:AN:17:ASP:OD1	34:AN:56:ASN:HB3	2.21	0.40
34:AN:18:ALA:O	34:AN:19:GLU:C	2.65	0.40
35:AO:102:VAL:HG22	35:AO:121:VAL:HG22	2.04	0.40
38:AR:67:LEU:O	38:AR:70:LEU:O	2.40	0.40
42:AV:5:VAL:HG12	42:AV:14:VAL:CG2	2.51	0.40
43:AW:93:ALA:HB2	57:AA:1614:A:N7	2.36	0.40
45:AY:28:LYS:NZ	45:AY:72:VAL:HG21	2.37	0.40
46:AZ:165:VAL:CG1	46:AZ:169:GLU:HB2	2.52	0.40
48:A1:35:THR:HG21	57:AA:2080:G:OP1	2.21	0.40
48:A1:35:THR:OG1	57:AA:2079:U:O3'	2.40	0.40
49:A2:50:ILE:C	49:A2:52:ASP:N	2.78	0.40
50:A3:17:LYS:HD3	50:A3:17:LYS:HA	1.80	0.40
55:A8:63:PRO:O	55:A8:64:TYR:O	2.40	0.40
56:A9:15:LYS:NZ	57:AA:2753:A:O2'	2.54	0.40
57:AA:1240:U:O2'	57:AA:1241:A:C5'	2.69	0.40
57:AA:1523:U:H2'	57:AA:1524:G:C8	2.56	0.40
57:AA:1536:C:H2'	57:AA:1537:G:C4'	2.51	0.40
57:AA:1759:A:H4'	57:AA:2715:C:O4'	2.22	0.40
57:AA:1945:G:H2'	57:AA:1946:U:C6	2.56	0.40
57:AA:1973:G:H2'	57:AA:1974:C:H6	1.84	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:AA:2053:G:H1	57:AA:2616:C:H42	1.69	0.40
57:AA:2143:C:O2'	57:AA:2144:U:H5'	2.20	0.40
57:AA:2308:G:H2'	57:AA:2309:A:O5'	2.21	0.40
57:AA:2346:A:C2	57:AA:2383:G:C2	3.09	0.40
4:Be:64:ARG:HH11	4:Be:64:ARG:CG	2.30	0.40
5:Bf:69:GLU:O	5:Bf:72:VAL:HG12	2.21	0.40
8:Bi:120:ARG:NH1	22:Ba:1346:A:C5'	2.84	0.40
11:Bl:121:GLY:HA2	22:Ba:35:G:O2'	2.21	0.40
15:Bp:9:PHE:HB3	15:Bp:10:GLY:H	1.68	0.40
15:Bp:80:PHE:N	15:Bp:80:PHE:CD1	2.89	0.40
16:Bq:67:LYS:CA	16:Bq:70:ARG:HH12	2.32	0.40
17:Br:63:GLN:OE1	17:Br:63:GLN:HA	2.22	0.40
22:Ba:543:C:C2	22:Ba:544:G:C8	3.10	0.40
22:Ba:748:C:O2'	22:Ba:749:C:OP2	2.29	0.40
22:Ba:939:G:C4	22:Ba:940:C:C5	3.09	0.40
22:Ba:1196:U:O4	23:Bx:23:A:N7	2.55	0.40
22:Ba:1315:U:O2'	22:Ba:1360:A:H1'	2.21	0.40
27:BD:24:ILE:C	27:BD:25:THR:O	2.64	0.40
27:BD:182:LEU:O	27:BD:271:ILE:HG13	2.21	0.40
28:BE:59:VAL:C	28:BE:60:ASN:CG	2.89	0.40
28:BE:117:MET:HE2	28:BE:136:ARG:CZ	2.50	0.40
29:BF:185:ASP:HA	29:BF:188:ARG:CD	2.51	0.40
32:BI:27:ARG:HG2	48:B1:71:TYR:OH	2.22	0.40
32:BI:68:LEU:CD1	32:BI:130:TYR:HE2	2.34	0.40
34:BN:15:LEU:HD13	34:BN:16:ILE:N	2.36	0.40
34:BN:126:PRO:HB2	34:BN:127:ASP:H	1.66	0.40
36:BP:41:ARG:NE	36:BP:41:ARG:CA	2.84	0.40
36:BP:126:VAL:HG12	36:BP:127:ALA:N	2.36	0.40
40:BT:52:ILE:HG12	40:BT:61:PHE:HB3	2.04	0.40
40:BT:90:GLN:O	40:BT:91:ARG:C	2.65	0.40
41:BU:10:ARG:NH1	57:BA:583:G:OP2	2.52	0.40
42:BV:38:LEU:C	42:BV:38:LEU:HD23	2.46	0.40
43:BW:6:ILE:HA	43:BW:103:ILE:O	2.22	0.40
45:BY:37:VAL:O	45:BY:66:PRO:O	2.39	0.40
45:BY:62:GLU:CD	45:BY:63:LYS:H	2.29	0.40
46:BZ:175:VAL:HG12	46:BZ:176:PRO:HD2	2.03	0.40
49:B2:31:GLU:O	49:B2:35:LEU:HG	2.21	0.40
50:B3:54:VAL:HG12	50:B3:55:ARG:N	2.37	0.40
51:B4:19:GLY:O	51:B4:21:VAL:HG23	2.21	0.40
55:B8:38:GLY:HA2	55:B8:41:ILE:HD11	2.04	0.40
57:BA:139:G:C5	57:BA:140:G:H2'	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BA:275:G:N3	57:BA:275:G:C3'	2.83	0.40
57:BA:359:A:C2'	57:BA:360:G:H5'	2.51	0.40
57:BA:422:A:C6	57:BA:423:A:C6	3.10	0.40
57:BA:1791:A:H8	57:BA:1791:A:OP2	2.04	0.40
57:BA:1809:A:H2'	57:BA:1810:A:C8	2.56	0.40
57:BA:2224:G:H4'	57:BA:2226:C:C2	2.56	0.40
57:BA:2468:G:N2	57:BA:2481:G:O2'	2.54	0.40
57:BA:2692:C:H2'	57:BA:2693:A:H8	1.87	0.40
57:BA:2870:C:H2'	57:BA:2871:C:H5'	2.02	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	
1	Ab	232/256 (91%)	160 (69%)	45 (19%)	27 (12%)	0	2
1	Bb	232/256 (91%)	160 (69%)	46 (20%)	26 (11%)	0	2
2	Ac	204/239 (85%)	128 (63%)	51 (25%)	25 (12%)	0	1
2	Bc	204/239 (85%)	131 (64%)	49 (24%)	24 (12%)	0	1
3	Ad	206/209 (99%)	142 (69%)	45 (22%)	19 (9%)	0	3
3	Bd	206/209 (99%)	142 (69%)	46 (22%)	18 (9%)	0	4
4	Ae	148/162 (91%)	112 (76%)	24 (16%)	12 (8%)	1	5
4	Be	148/162 (91%)	111 (75%)	25 (17%)	12 (8%)	1	5
5	Af	99/101 (98%)	72 (73%)	19 (19%)	8 (8%)	1	5
5	Bf	99/101 (98%)	72 (73%)	19 (19%)	8 (8%)	1	5
6	Ag	153/156 (98%)	119 (78%)	24 (16%)	10 (6%)	1	8
6	Bg	153/156 (98%)	121 (79%)	22 (14%)	10 (6%)	1	8
7	Ah	136/138 (99%)	106 (78%)	27 (20%)	3 (2%)	5	26

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
7	Bh	136/138 (99%)	107 (79%)	26 (19%)	3 (2%)	5 26
8	Ai	125/128 (98%)	92 (74%)	22 (18%)	11 (9%)	0 4
8	Bi	125/128 (98%)	90 (72%)	23 (18%)	12 (10%)	0 3
9	Aj	96/105 (91%)	71 (74%)	18 (19%)	7 (7%)	1 6
9	Bj	96/105 (91%)	69 (72%)	20 (21%)	7 (7%)	1 6
10	Ak	117/129 (91%)	98 (84%)	16 (14%)	3 (3%)	4 23
10	Bk	117/129 (91%)	98 (84%)	16 (14%)	3 (3%)	4 23
11	Al	122/132 (92%)	93 (76%)	17 (14%)	12 (10%)	0 3
11	Bl	122/132 (92%)	93 (76%)	17 (14%)	12 (10%)	0 3
12	Am	116/126 (92%)	76 (66%)	21 (18%)	19 (16%)	0 1
12	Bm	116/126 (92%)	74 (64%)	23 (20%)	19 (16%)	0 1
13	An	58/61 (95%)	39 (67%)	10 (17%)	9 (16%)	0 1
13	Bn	58/61 (95%)	39 (67%)	10 (17%)	9 (16%)	0 1
14	Ao	86/89 (97%)	66 (77%)	16 (19%)	4 (5%)	2 12
14	Bo	86/89 (97%)	66 (77%)	16 (19%)	4 (5%)	2 12
15	Ap	81/88 (92%)	55 (68%)	21 (26%)	5 (6%)	1 9
15	Bp	81/88 (92%)	56 (69%)	20 (25%)	5 (6%)	1 9
16	Aq	97/105 (92%)	82 (84%)	13 (13%)	2 (2%)	5 26
16	Bq	97/105 (92%)	83 (86%)	11 (11%)	3 (3%)	3 20
17	Ar	68/88 (77%)	47 (69%)	14 (21%)	7 (10%)	0 2
17	Br	68/88 (77%)	47 (69%)	15 (22%)	6 (9%)	0 4
18	As	76/93 (82%)	50 (66%)	14 (18%)	12 (16%)	0 1
18	Bs	76/93 (82%)	49 (64%)	15 (20%)	12 (16%)	0 1
19	At	97/106 (92%)	70 (72%)	15 (16%)	12 (12%)	0 1
19	Bt	97/106 (92%)	70 (72%)	15 (16%)	12 (12%)	0 1
20	Au	22/27 (82%)	16 (73%)	5 (23%)	1 (4%)	2 13
20	Bu	22/27 (82%)	15 (68%)	6 (27%)	1 (4%)	2 13
21	Ay	92/95 (97%)	55 (60%)	12 (13%)	25 (27%)	0 0
21	By	92/95 (97%)	58 (63%)	21 (23%)	13 (14%)	0 1
26	AC	116/229 (51%)	93 (80%)	20 (17%)	3 (3%)	4 23
26	BC	116/229 (51%)	93 (80%)	20 (17%)	3 (3%)	4 23

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
27	AD	269/276 (98%)	203 (76%)	37 (14%)	29 (11%)	0 2
27	BD	269/276 (98%)	203 (76%)	36 (13%)	30 (11%)	0 2
28	AE	202/206 (98%)	138 (68%)	32 (16%)	32 (16%)	0 1
28	BE	202/206 (98%)	138 (68%)	31 (15%)	33 (16%)	0 1
29	AF	205/210 (98%)	154 (75%)	31 (15%)	20 (10%)	0 3
29	BF	205/210 (98%)	155 (76%)	30 (15%)	20 (10%)	0 3
30	AG	179/182 (98%)	106 (59%)	44 (25%)	29 (16%)	0 1
30	BG	179/182 (98%)	119 (66%)	31 (17%)	29 (16%)	0 1
31	AH	162/180 (90%)	109 (67%)	27 (17%)	26 (16%)	0 1
31	BH	162/180 (90%)	109 (67%)	27 (17%)	26 (16%)	0 1
32	AI	143/148 (97%)	84 (59%)	38 (27%)	21 (15%)	0 1
32	BI	143/148 (97%)	85 (59%)	36 (25%)	22 (15%)	0 1
33	AJ	128/173 (74%)	56 (44%)	43 (34%)	29 (23%)	0 0
33	BJ	128/173 (74%)	44 (34%)	38 (30%)	46 (36%)	0 0
34	AN	136/140 (97%)	101 (74%)	20 (15%)	15 (11%)	0 2
34	BN	136/140 (97%)	100 (74%)	20 (15%)	16 (12%)	0 1
35	AO	120/122 (98%)	104 (87%)	10 (8%)	6 (5%)	1 11
35	BO	120/122 (98%)	102 (85%)	13 (11%)	5 (4%)	2 14
36	AP	144/150 (96%)	76 (53%)	35 (24%)	33 (23%)	0 0
36	BP	144/150 (96%)	79 (55%)	32 (22%)	33 (23%)	0 0
37	AQ	138/141 (98%)	109 (79%)	21 (15%)	8 (6%)	1 9
37	BQ	138/141 (98%)	109 (79%)	21 (15%)	8 (6%)	1 9
38	AR	115/118 (98%)	85 (74%)	20 (17%)	10 (9%)	0 4
38	BR	115/118 (98%)	84 (73%)	21 (18%)	10 (9%)	0 4
39	AS	96/112 (86%)	60 (62%)	13 (14%)	23 (24%)	0 0
39	BS	96/112 (86%)	60 (62%)	13 (14%)	23 (24%)	0 0
40	AT	133/146 (91%)	90 (68%)	24 (18%)	19 (14%)	0 1
40	BT	133/146 (91%)	90 (68%)	23 (17%)	20 (15%)	0 1
41	AU	115/118 (98%)	88 (76%)	21 (18%)	6 (5%)	1 11
41	BU	115/118 (98%)	90 (78%)	20 (17%)	5 (4%)	2 14
42	AV	99/101 (98%)	65 (66%)	17 (17%)	17 (17%)	0 1

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
42	BV	99/101 (98%)	64 (65%)	18 (18%)	17 (17%)	0 1
43	AW	111/113 (98%)	89 (80%)	11 (10%)	11 (10%)	0 3
43	BW	111/113 (98%)	90 (81%)	11 (10%)	10 (9%)	0 4
44	AX	90/96 (94%)	72 (80%)	13 (14%)	5 (6%)	1 9
44	BX	90/96 (94%)	72 (80%)	11 (12%)	7 (8%)	1 5
45	AY	98/110 (89%)	51 (52%)	18 (18%)	29 (30%)	0 0
45	BY	98/110 (89%)	52 (53%)	16 (16%)	30 (31%)	0 0
46	AZ	182/206 (88%)	115 (63%)	40 (22%)	27 (15%)	0 1
46	BZ	182/206 (88%)	118 (65%)	37 (20%)	27 (15%)	0 1
47	A0	82/85 (96%)	67 (82%)	11 (13%)	4 (5%)	1 12
47	B0	82/85 (96%)	67 (82%)	11 (13%)	4 (5%)	1 12
48	A1	91/98 (93%)	74 (81%)	10 (11%)	7 (8%)	1 5
48	B1	91/98 (93%)	71 (78%)	14 (15%)	6 (7%)	1 7
49	A2	69/72 (96%)	44 (64%)	16 (23%)	9 (13%)	0 1
49	B2	69/72 (96%)	50 (72%)	13 (19%)	6 (9%)	0 4
50	A3	57/60 (95%)	47 (82%)	7 (12%)	3 (5%)	1 10
50	B3	57/60 (95%)	47 (82%)	7 (12%)	3 (5%)	1 10
51	A4	55/71 (78%)	23 (42%)	18 (33%)	14 (26%)	0 0
51	B4	55/71 (78%)	23 (42%)	18 (33%)	14 (26%)	0 0
52	A5	53/60 (88%)	40 (76%)	7 (13%)	6 (11%)	0 2
52	B5	53/60 (88%)	40 (76%)	7 (13%)	6 (11%)	0 2
53	A6	48/54 (89%)	24 (50%)	14 (29%)	10 (21%)	0 0
53	B6	48/54 (89%)	24 (50%)	14 (29%)	10 (21%)	0 0
54	A7	45/49 (92%)	43 (96%)	2 (4%)	0	100 100
54	B7	45/49 (92%)	43 (96%)	2 (4%)	0	100 100
55	A8	61/65 (94%)	41 (67%)	14 (23%)	6 (10%)	0 3
55	B8	61/65 (94%)	41 (67%)	14 (23%)	6 (10%)	0 3
56	A9	35/37 (95%)	31 (89%)	4 (11%)	0	100 100
56	B9	35/37 (95%)	31 (89%)	4 (11%)	0	100 100
All	All	12016/13122 (92%)	8475 (70%)	2157 (18%)	1384 (12%)	0 2

All (1384) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	Ab	15	VAL
1	Ab	18	GLY
1	Ab	26	PRO
1	Ab	63	MET
1	Ab	80	ILE
1	Ab	95	GLN
1	Ab	194	PRO
1	Ab	195	ASP
1	Ab	238	LEU
1	Ab	239	VAL
2	Ac	4	LYS
2	Ac	12	LEU
2	Ac	45	LYS
2	Ac	46	GLU
2	Ac	47	LEU
3	Ad	4	TYR
3	Ad	5	ILE
3	Ad	129	ASN
3	Ad	196	LEU
5	Af	40	VAL
5	Af	43	LEU
5	Af	62	TRP
7	Ah	2	LEU
8	Ai	89	ASN
8	Ai	103	THR
8	Ai	105	ASP
9	Aj	36	GLY
9	Aj	51	ARG
9	Aj	57	LYS
10	Ak	25	TYR
11	Al	91	LYS
11	Al	115	LYS
12	Am	4	ILE
12	Am	5	ALA
12	Am	12	ASN
12	Am	63	THR
12	Am	66	LEU
12	Am	83	ASP
12	Am	107	ALA
12	Am	113	PRO
12	Am	117	VAL
13	An	15	LYS
13	An	16	PHE

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Mol	Chain	Res	Type
13	An	52	GLN
18	As	10	PHE
18	As	26	GLY
18	As	28	LYS
19	At	11	SER
19	At	71	THR
19	At	74	LYS
19	At	99	LEU
20	Au	3	LYS
21	Ay	3	TYR
21	Ay	9	GLU
21	Ay	20	SER
21	Ay	31	VAL
21	Ay	36	SER
21	Ay	37	PRO
21	Ay	40	GLU
21	Ay	47	MET
21	Ay	48	PRO
21	Ay	56	ARG
21	Ay	59	GLY
21	Ay	71	VAL
21	Ay	78	VAL
21	Ay	85	GLU
21	Ay	94	ILE
27	AD	25	THR
27	AD	27	THR
27	AD	34	VAL
27	AD	35	LYS
27	AD	225	ALA
27	AD	239	ARG
27	AD	267	SER
27	AD	268	ARG
27	AD	271	ILE
28	AE	53	PRO
28	AE	54	GLN
28	AE	64	LYS
28	AE	66	HIS
28	AE	68	ALA
28	AE	72	VAL
28	AE	77	ILE
28	AE	83	ASP
28	AE	88	GLY

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Mol	Chain	Res	Type
28	AE	89	ASP
28	AE	118	LYS
28	AE	131	ALA
28	AE	186	GLY
28	AE	203	LYS
29	AF	3	GLU
29	AF	21	ALA
29	AF	27	GLU
29	AF	59	TYR
29	AF	89	VAL
29	AF	132	VAL
29	AF	133	ASN
29	AF	134	GLY
30	AG	49	ASP
30	AG	50	ALA
30	AG	75	LYS
30	AG	82	LEU
30	AG	96	ARG
30	AG	104	GLU
30	AG	110	ALA
30	AG	118	ARG
30	AG	122	PRO
30	AG	126	ASP
30	AG	159	VAL
31	AH	8	PRO
31	AH	13	LYS
31	AH	24	VAL
31	AH	83	TYR
31	AH	92	ILE
31	AH	154	PRO
31	AH	155	SER
31	AH	156	ALA
31	AH	157	TYR
31	AH	159	GLU
32	AI	15	VAL
32	AI	71	ILE
32	AI	83	ALA
32	AI	85	GLU
32	AI	88	ILE
32	AI	104	GLN
32	AI	105	HIS
32	AI	120	ILE

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Mol	Chain	Res	Type
32	AI	132	PRO
32	AI	135	GLU
32	AI	143	SER
33	AJ	17	LEU
33	AJ	33	PRO
33	AJ	53	VAL
33	AJ	54	ALA
33	AJ	68	LEU
33	AJ	90	ALA
33	AJ	105	PRO
33	AJ	112	LEU
33	AJ	120	LYS
34	AN	58	ASP
34	AN	134	ARG
35	AO	29	ASN
36	AP	9	ASN
36	AP	14	LYS
36	AP	17	LYS
36	AP	19	VAL
36	AP	25	SER
36	AP	31	ALA
36	AP	35	HIS
36	AP	47	ASP
36	AP	58	THR
36	AP	103	ALA
36	AP	108	LYS
36	AP	111	ARG
36	AP	147	LEU
36	AP	148	LEU
37	AQ	2	LEU
37	AQ	19	GLY
37	AQ	27	VAL
37	AQ	134	ARG
37	AQ	135	ASP
38	AR	8	ARG
38	AR	45	ARG
39	AS	23	ARG
39	AS	24	LEU
39	AS	35	ILE
39	AS	59	LYS
39	AS	82	ILE
39	AS	94	TYR

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Mol	Chain	Res	Type
39	AS	97	ARG
40	AT	2	ASN
40	AT	24	PRO
40	AT	26	ASP
40	AT	27	THR
40	AT	28	VAL
40	AT	30	VAL
40	AT	33	LYS
40	AT	58	ASN
40	AT	80	SER
40	AT	107	ASP
41	AU	91	ASP
41	AU	93	LYS
42	AV	16	PRO
42	AV	19	LYS
42	AV	46	VAL
42	AV	53	GLU
43	AW	11	ARG
43	AW	111	HIS
44	AX	12	VAL
45	AY	3	VAL
45	AY	7	VAL
45	AY	27	VAL
45	AY	42	VAL
45	AY	60	PHE
45	AY	77	PRO
45	AY	78	ALA
46	AZ	6	LYS
46	AZ	31	ARG
46	AZ	65	GLN
46	AZ	123	ASP
46	AZ	134	PRO
46	AZ	136	PHE
46	AZ	146	ILE
46	AZ	152	ALA
48	A1	52	ARG
48	A1	58	ILE
49	A2	45	SER
49	A2	48	HIS
49	A2	70	GLN
50	A3	3	ARG
50	A3	38	GLU

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Mol	Chain	Res	Type
51	A4	8	LYS
51	A4	26	SER
51	A4	38	LYS
51	A4	43	TYR
51	A4	44	THR
51	A4	48	ARG
52	A5	35	GLU
52	A5	36	CYS
52	A5	49	CYS
52	A5	53	ALA
53	A6	18	ARG
53	A6	19	ARG
53	A6	27	LYS
53	A6	28	ARG
53	A6	31	PRO
55	A8	33	ASN
55	A8	34	TRP
1	Bb	15	VAL
1	Bb	18	GLY
1	Bb	26	PRO
1	Bb	63	MET
1	Bb	80	ILE
1	Bb	95	GLN
1	Bb	194	PRO
1	Bb	195	ASP
1	Bb	238	LEU
1	Bb	239	VAL
2	Bc	4	LYS
2	Bc	12	LEU
2	Bc	45	LYS
2	Bc	46	GLU
2	Bc	47	LEU
3	Bd	4	TYR
3	Bd	5	ILE
3	Bd	129	ASN
3	Bd	196	LEU
5	Bf	40	VAL
5	Bf	43	LEU
5	Bf	62	TRP
7	Bh	2	LEU
8	Bi	89	ASN
8	Bi	101	PHE

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Mol	Chain	Res	Type
8	Bi	103	THR
8	Bi	105	ASP
9	Bj	36	GLY
9	Bj	51	ARG
9	Bj	57	LYS
10	Bk	25	TYR
11	Bl	91	LYS
11	Bl	115	LYS
12	Bm	4	ILE
12	Bm	5	ALA
12	Bm	12	ASN
12	Bm	21	TYR
12	Bm	63	THR
12	Bm	66	LEU
12	Bm	69	GLU
12	Bm	83	ASP
12	Bm	107	ALA
12	Bm	113	PRO
12	Bm	117	VAL
13	Bn	15	LYS
13	Bn	16	PHE
13	Bn	52	GLN
18	Bs	10	PHE
18	Bs	26	GLY
18	Bs	28	LYS
19	Bt	11	SER
19	Bt	71	THR
19	Bt	74	LYS
19	Bt	99	LEU
20	Bu	3	LYS
21	By	36	SER
21	By	48	PRO
21	By	49	ASP
21	By	94	ILE
27	BD	25	THR
27	BD	27	THR
27	BD	34	VAL
27	BD	35	LYS
27	BD	239	ARG
27	BD	267	SER
27	BD	268	ARG
27	BD	271	ILE

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Mol	Chain	Res	Type
28	BE	53	PRO
28	BE	54	GLN
28	BE	64	LYS
28	BE	66	HIS
28	BE	68	ALA
28	BE	72	VAL
28	BE	77	ILE
28	BE	83	ASP
28	BE	88	GLY
28	BE	89	ASP
28	BE	118	LYS
28	BE	131	ALA
28	BE	186	GLY
28	BE	203	LYS
29	BF	3	GLU
29	BF	21	ALA
29	BF	27	GLU
29	BF	59	TYR
29	BF	89	VAL
29	BF	132	VAL
29	BF	133	ASN
29	BF	134	GLY
30	BG	6	ALA
30	BG	43	LEU
30	BG	47	LYS
30	BG	75	LYS
30	BG	81	LYS
30	BG	82	LEU
30	BG	87	PRO
30	BG	96	ARG
30	BG	110	ALA
30	BG	112	PRO
30	BG	115	ARG
30	BG	143	GLU
31	BH	8	PRO
31	BH	13	LYS
31	BH	24	VAL
31	BH	83	TYR
31	BH	92	ILE
31	BH	154	PRO
31	BH	155	SER
31	BH	156	ALA

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Mol	Chain	Res	Type
31	BH	157	TYR
31	BH	159	GLU
32	BI	15	VAL
32	BI	71	ILE
32	BI	83	ALA
32	BI	85	GLU
32	BI	88	ILE
32	BI	104	GLN
32	BI	105	HIS
32	BI	120	ILE
32	BI	132	PRO
32	BI	135	GLU
32	BI	143	SER
33	BJ	32	LEU
33	BJ	33	PRO
33	BJ	51	LEU
33	BJ	59	ILE
33	BJ	69	PRO
33	BJ	70	GLU
33	BJ	80	VAL
33	BJ	81	VAL
33	BJ	82	PHE
33	BJ	83	TYR
33	BJ	85	ASP
33	BJ	86	PRO
33	BJ	87	VAL
33	BJ	100	ASN
33	BJ	101	PRO
33	BJ	105	PRO
33	BJ	120	LYS
33	BJ	123	GLU
33	BJ	124	ALA
33	BJ	125	LEU
34	BN	58	ASP
34	BN	134	ARG
35	BO	29	ASN
36	BP	9	ASN
36	BP	14	LYS
36	BP	17	LYS
36	BP	19	VAL
36	BP	25	SER
36	BP	31	ALA

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Mol	Chain	Res	Type
36	BP	35	HIS
36	BP	47	ASP
36	BP	58	THR
36	BP	103	ALA
36	BP	108	LYS
36	BP	111	ARG
36	BP	147	LEU
36	BP	148	LEU
37	BQ	2	LEU
37	BQ	19	GLY
37	BQ	27	VAL
37	BQ	134	ARG
37	BQ	135	ASP
38	BR	8	ARG
38	BR	45	ARG
39	BS	23	ARG
39	BS	24	LEU
39	BS	35	ILE
39	BS	59	LYS
39	BS	82	ILE
39	BS	92	TYR
39	BS	94	TYR
39	BS	97	ARG
40	BT	2	ASN
40	BT	24	PRO
40	BT	26	ASP
40	BT	28	VAL
40	BT	30	VAL
40	BT	33	LYS
40	BT	58	ASN
40	BT	80	SER
40	BT	107	ASP
41	BU	91	ASP
41	BU	93	LYS
42	BV	16	PRO
42	BV	19	LYS
42	BV	46	VAL
42	BV	53	GLU
43	BW	11	ARG
43	BW	111	HIS
44	BX	12	VAL
45	BY	3	VAL

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Mol	Chain	Res	Type
45	BY	7	VAL
45	BY	27	VAL
45	BY	42	VAL
45	BY	60	PHE
45	BY	77	PRO
45	BY	78	ALA
45	BY	90	LEU
45	BY	91	GLU
46	BZ	31	ARG
46	BZ	65	GLN
46	BZ	112	ARG
46	BZ	121	HIS
46	BZ	122	ARG
46	BZ	128	VAL
46	BZ	136	PHE
46	BZ	146	ILE
46	BZ	148	ASP
46	BZ	152	ALA
46	BZ	166	SER
48	B1	30	VAL
48	B1	58	ILE
48	B1	85	LEU
49	B2	45	SER
49	B2	47	ASN
50	B3	3	ARG
50	B3	38	GLU
51	B4	8	LYS
51	B4	26	SER
51	B4	38	LYS
51	B4	43	TYR
51	B4	44	THR
51	B4	48	ARG
52	B5	35	GLU
52	B5	36	CYS
52	B5	49	CYS
52	B5	53	ALA
53	B6	18	ARG
53	B6	19	ARG
53	B6	27	LYS
53	B6	28	ARG
53	B6	31	PRO
55	B8	33	ASN

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Mol	Chain	Res	Type
55	B8	34	TRP
1	Ab	13	ALA
1	Ab	154	LEU
1	Ab	165	VAL
1	Ab	217	ARG
2	Ac	20	SER
2	Ac	52	LEU
2	Ac	54	ARG
2	Ac	61	ALA
2	Ac	74	GLY
2	Ac	145	GLY
2	Ac	154	SER
2	Ac	156	ARG
2	Ac	165	THR
3	Ad	3	ARG
3	Ad	30	LYS
3	Ad	47	ARG
3	Ad	110	PHE
3	Ad	171	GLY
4	Ae	129	ILE
6	Ag	7	ALA
7	Ah	37	ARG
8	Ai	12	GLU
8	Ai	41	VAL
8	Ai	42	ARG
8	Ai	95	LYS
9	Aj	52	GLY
9	Aj	59	SER
10	Ak	117	ASN
11	Al	27	LEU
11	Al	46	LYS
11	Al	89	ARG
11	Al	90	VAL
11	Al	92	ASP
12	Am	7	VAL
12	Am	21	TYR
12	Am	67	GLU
12	Am	100	GLY
14	Ao	87	ILE
15	Ap	49	LEU
15	Ap	78	GLY
16	Aq	33	GLY

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Mol	Chain	Res	Type
16	Aq	34	LYS
17	Ar	28	GLU
17	Ar	45	SER
18	As	29	ARG
18	As	80	TYR
19	At	50	GLU
19	At	100	ILE
19	At	103	GLY
21	Ay	38	ARG
21	Ay	49	ASP
21	Ay	57	SER
26	AC	174	ALA
27	AD	32	SER
27	AD	36	PRO
27	AD	58	HIS
27	AD	127	VAL
27	AD	169	GLU
28	AE	2	LYS
28	AE	57	LYS
28	AE	69	LYS
28	AE	71	GLY
28	AE	90	THR
28	AE	130	GLY
28	AE	185	LYS
29	AF	86	GLY
29	AF	128	ALA
30	AG	14	GLU
30	AG	48	GLU
30	AG	97	ASP
30	AG	117	PHE
30	AG	127	GLY
30	AG	129	GLY
30	AG	142	PRO
31	AH	14	GLY
31	AH	45	VAL
31	AH	110	SER
31	AH	138	LYS
31	AH	160	LYS
31	AH	165	ALA
32	AI	6	LEU
32	AI	76	THR
32	AI	91	SER

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Mol	Chain	Res	Type
32	AI	99	GLU
32	AI	115	ALA
33	AJ	7	VAL
33	AJ	56	ASN
33	AJ	59	ILE
33	AJ	80	VAL
33	AJ	106	GLN
33	AJ	113	GLN
33	AJ	129	PRO
34	AN	4	TYR
34	AN	42	TRP
34	AN	133	GLN
35	AO	48	PRO
35	AO	98	VAL
36	AP	18	ARG
36	AP	34	GLY
36	AP	89	ALA
36	AP	98	GLU
36	AP	104	GLY
36	AP	106	LEU
36	AP	107	LYS
36	AP	141	ALA
37	AQ	62	GLY
38	AR	58	GLY
38	AR	86	ARG
38	AR	117	VAL
39	AS	13	ARG
39	AS	57	LYS
39	AS	90	GLY
39	AS	92	TYR
39	AS	102	ALA
39	AS	104	GLY
39	AS	107	GLU
40	AT	3	ARG
40	AT	17	THR
40	AT	35	LYS
41	AU	32	PHE
41	AU	89	GLU
42	AV	22	VAL
42	AV	31	ALA
42	AV	35	LEU
42	AV	48	GLY

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Mol	Chain	Res	Type
43	AW	29	LEU
43	AW	63	ASP
44	AX	91	ALA
45	AY	5	MET
45	AY	24	VAL
45	AY	26	LYS
45	AY	48	ALA
45	AY	80	GLY
45	AY	90	LEU
45	AY	91	GLU
46	AZ	5	LEU
46	AZ	42	VAL
46	AZ	81	ARG
46	AZ	114	GLY
46	AZ	154	ASP
46	AZ	166	SER
46	AZ	168	GLU
48	A1	84	GLY
49	A2	18	PRO
49	A2	19	VAL
49	A2	47	ASN
51	A4	16	CYS
51	A4	40	HIS
51	A4	49	PHE
51	A4	50	VAL
53	A6	44	ARG
55	A8	31	HIS
55	A8	43	GLN
1	Bb	13	ALA
1	Bb	165	VAL
1	Bb	217	ARG
2	Bc	20	SER
2	Bc	52	LEU
2	Bc	54	ARG
2	Bc	61	ALA
2	Bc	74	GLY
2	Bc	145	GLY
2	Bc	154	SER
2	Bc	156	ARG
2	Bc	165	THR
3	Bd	3	ARG
3	Bd	30	LYS

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Mol	Chain	Res	Type
3	Bd	47	ARG
3	Bd	110	PHE
3	Bd	171	GLY
4	Be	129	ILE
4	Be	153	LYS
6	Bg	7	ALA
7	Bh	37	ARG
8	Bi	12	GLU
8	Bi	41	VAL
8	Bi	42	ARG
8	Bi	95	LYS
9	Bj	52	GLY
9	Bj	59	SER
10	Bk	117	ASN
11	Bl	27	LEU
11	Bl	46	LYS
11	Bl	89	ARG
11	Bl	90	VAL
11	Bl	92	ASP
11	Bl	121	GLY
12	Bm	7	VAL
12	Bm	67	GLU
12	Bm	100	GLY
14	Bo	87	ILE
15	Bp	49	LEU
15	Bp	78	GLY
16	Bq	33	GLY
16	Bq	34	LYS
17	Br	28	GLU
17	Br	45	SER
18	Bs	29	ARG
18	Bs	80	TYR
19	Bt	50	GLU
19	Bt	100	ILE
19	Bt	103	GLY
21	By	13	LYS
21	By	20	SER
21	By	78	VAL
26	BC	174	ALA
27	BD	32	SER
27	BD	36	PRO
27	BD	58	HIS

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Mol	Chain	Res	Type
27	BD	127	VAL
27	BD	225	ALA
28	BE	2	LYS
28	BE	57	LYS
28	BE	63	LEU
28	BE	69	LYS
28	BE	71	GLY
28	BE	90	THR
28	BE	185	LYS
29	BF	86	GLY
30	BG	10	LYS
30	BG	50	ALA
30	BG	126	ASP
30	BG	155	MET
31	BH	14	GLY
31	BH	45	VAL
31	BH	110	SER
31	BH	138	LYS
31	BH	160	LYS
31	BH	165	ALA
32	BI	6	LEU
32	BI	76	THR
32	BI	91	SER
32	BI	99	GLU
32	BI	115	ALA
33	BJ	30	GLN
33	BJ	47	ASN
33	BJ	50	ARG
33	BJ	62	ALA
33	BJ	77	PRO
33	BJ	88	ALA
33	BJ	89	ALA
33	BJ	108	LYS
33	BJ	109	SER
33	BJ	122	VAL
33	BJ	129	PRO
34	BN	42	TRP
34	BN	133	GLN
35	BO	48	PRO
35	BO	98	VAL
36	BP	18	ARG
36	BP	34	GLY

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Mol	Chain	Res	Type
36	BP	89	ALA
36	BP	98	GLU
36	BP	104	GLY
36	BP	106	LEU
36	BP	107	LYS
36	BP	141	ALA
37	BQ	62	GLY
38	BR	58	GLY
38	BR	86	ARG
38	BR	117	VAL
39	BS	13	ARG
39	BS	57	LYS
39	BS	90	GLY
39	BS	102	ALA
39	BS	104	GLY
39	BS	107	GLU
40	BT	3	ARG
40	BT	17	THR
40	BT	27	THR
40	BT	35	LYS
41	BU	32	PHE
41	BU	89	GLU
42	BV	22	VAL
42	BV	31	ALA
42	BV	35	LEU
42	BV	48	GLY
42	BV	78	LYS
43	BW	29	LEU
43	BW	59	VAL
43	BW	63	ASP
44	BX	91	ALA
45	BY	5	MET
45	BY	18	GLY
45	BY	24	VAL
45	BY	26	LYS
45	BY	48	ALA
45	BY	80	GLY
46	BZ	78	LYS
46	BZ	81	ARG
46	BZ	119	GLU
46	BZ	120	ILE
46	BZ	134	PRO

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Mol	Chain	Res	Type
48	B1	53	VAL
48	B1	84	GLY
49	B2	42	GLY
51	B4	40	HIS
51	B4	49	PHE
51	B4	50	VAL
53	B6	44	ARG
55	B8	31	HIS
55	B8	43	GLN
1	Ab	20	GLU
1	Ab	106	LYS
1	Ab	143	GLU
1	Ab	159	PRO
2	Ac	26	LYS
2	Ac	81	GLY
3	Ad	18	LYS
3	Ad	42	GLN
3	Ad	44	GLY
3	Ad	153	ARG
3	Ad	178	VAL
4	Ae	8	GLU
4	Ae	21	ALA
4	Ae	70	PRO
4	Ae	128	PRO
4	Ae	136	MET
4	Ae	153	LYS
6	Ag	6	ARG
6	Ag	14	PRO
6	Ag	54	THR
6	Ag	66	VAL
6	Ag	81	GLY
6	Ag	90	GLU
11	Al	51	ALA
12	Am	29	ARG
12	Am	69	GLU
12	Am	106	ASN
13	An	5	ALA
13	An	28	GLY
14	Ao	24	SER
17	Ar	87	ARG
18	As	45	VAL
19	At	48	LYS

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Mol	Chain	Res	Type
19	At	98	PRO
21	Ay	10	ARG
21	Ay	84	SER
26	AC	209	PHE
27	AD	12	SER
27	AD	26	LYS
27	AD	33	LEU
27	AD	42	GLY
27	AD	246	PRO
28	AE	52	LEU
28	AE	63	LEU
29	AF	14	PRO
29	AF	16	GLY
29	AF	25	PRO
29	AF	84	VAL
29	AF	90	PHE
30	AG	6	ALA
30	AG	43	LEU
30	AG	84	LYS
30	AG	87	PRO
31	AH	55	PRO
31	AH	59	ARG
31	AH	158	HIS
33	AJ	47	ASN
33	AJ	70	GLU
33	AJ	100	ASN
33	AJ	104	ILE
33	AJ	128	LEU
34	AN	57	ALA
35	AO	5	GLN
35	AO	26	LYS
36	AP	39	LYS
36	AP	40	SER
36	AP	52	GLU
36	AP	57	THR
36	AP	149	GLU
38	AR	5	LYS
38	AR	106	GLY
39	AS	100	ALA
40	AT	12	SER
40	AT	32	TYR
40	AT	126	ALA

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Mol	Chain	Res	Type
42	AV	2	PHE
42	AV	18	LEU
42	AV	28	GLU
42	AV	49	THR
42	AV	50	PRO
42	AV	78	LYS
42	AV	79	VAL
43	AW	6	ILE
43	AW	35	ILE
43	AW	59	VAL
44	AX	4	ALA
45	AY	18	GLY
45	AY	96	ILE
46	AZ	22	GLY
46	AZ	108	PRO
47	A0	20	ARG
47	A0	74	ARG
48	A1	85	LEU
51	A4	28	LYS
52	A5	4	HIS
52	A5	38	ALA
1	Bb	20	GLU
1	Bb	106	LYS
1	Bb	143	GLU
1	Bb	154	LEU
1	Bb	159	PRO
2	Bc	26	LYS
2	Bc	81	GLY
3	Bd	18	LYS
3	Bd	44	GLY
3	Bd	178	VAL
4	Be	8	GLU
4	Be	70	PRO
4	Be	71	LEU
4	Be	128	PRO
4	Be	136	MET
4	Be	148	VAL
6	Bg	6	ARG
6	Bg	14	PRO
6	Bg	54	THR
6	Bg	66	VAL
6	Bg	81	GLY

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Mol	Chain	Res	Type
6	Bg	90	GLU
11	Bl	51	ALA
12	Bm	29	ARG
12	Bm	106	ASN
13	Bn	5	ALA
13	Bn	28	GLY
14	Bo	24	SER
17	Br	87	ARG
18	Bs	45	VAL
19	Bt	98	PRO
21	By	30	LEU
21	By	34	LEU
21	By	40	GLU
21	By	84	SER
26	BC	209	PHE
27	BD	12	SER
27	BD	26	LYS
27	BD	33	LEU
27	BD	42	GLY
27	BD	156	ALA
27	BD	169	GLU
27	BD	246	PRO
28	BE	52	LEU
28	BE	75	VAL
28	BE	130	GLY
29	BF	14	PRO
29	BF	16	GLY
29	BF	25	PRO
29	BF	69	HIS
29	BF	84	VAL
29	BF	128	ALA
30	BG	7	LEU
30	BG	8	LYS
30	BG	122	PRO
30	BG	129	GLY
30	BG	146	TYR
31	BH	55	PRO
31	BH	59	ARG
31	BH	71	LEU
31	BH	158	HIS
33	BJ	22	GLY
33	BJ	43	ALA

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Mol	Chain	Res	Type
33	BJ	56	ASN
33	BJ	57	THR
33	BJ	74	LEU
33	BJ	84	GLU
33	BJ	97	ALA
33	BJ	112	LEU
34	BN	4	TYR
34	BN	57	ALA
35	BO	5	GLN
35	BO	26	LYS
36	BP	39	LYS
36	BP	40	SER
36	BP	52	GLU
36	BP	149	GLU
38	BR	5	LYS
38	BR	106	GLY
40	BT	32	TYR
40	BT	126	ALA
42	BV	2	PHE
42	BV	18	LEU
42	BV	28	GLU
42	BV	49	THR
42	BV	50	PRO
43	BW	6	ILE
43	BW	35	ILE
44	BX	4	ALA
46	BZ	12	GLY
46	BZ	77	ASP
46	BZ	93	ASP
46	BZ	168	GLU
46	BZ	170	THR
47	B0	20	ARG
47	B0	74	ARG
48	B1	76	ARG
49	B2	44	LEU
49	B2	68	ARG
51	B4	16	CYS
51	B4	28	LYS
52	B5	4	HIS
52	B5	38	ALA
1	Ab	135	GLN
1	Ab	204	ASN

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Mol	Chain	Res	Type
2	Ac	181	ASN
4	Ae	71	LEU
4	Ae	72	GLN
4	Ae	148	VAL
8	Ai	11	LYS
8	Ai	70	LYS
9	Aj	86	MET
11	Al	26	ALA
11	Al	28	LYS
12	Am	41	PRO
13	An	23	ARG
13	An	24	CYS
13	An	60	SER
17	Ar	31	LEU
17	Ar	55	ARG
18	As	25	LYS
18	As	70	LYS
18	As	73	GLU
19	At	97	ALA
27	AD	3	VAL
27	AD	24	ILE
27	AD	156	ALA
27	AD	241	PRO
27	AD	245	PRO
28	AE	58	ARG
28	AE	75	VAL
29	AF	69	HIS
29	AF	115	ALA
30	AG	10	LYS
30	AG	112	PRO
31	AH	81	GLU
31	AH	137	ASP
32	AI	16	GLY
32	AI	133	HIS
33	AJ	114	GLY
33	AJ	125	LEU
34	AN	126	PRO
34	AN	127	ASP
34	AN	135	PRO
35	AO	14	THR
36	AP	10	PRO
36	AP	48	PRO

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Mol	Chain	Res	Type
38	AR	102	GLU
39	AS	15	ARG
39	AS	37	ALA
39	AS	85	VAL
39	AS	88	ASP
39	AS	89	ARG
40	AT	25	GLY
43	AW	56	ALA
43	AW	65	LEU
45	AY	9	LYS
45	AY	31	LEU
45	AY	39	VAL
45	AY	53	PRO
45	AY	81	LYS
45	AY	82	PRO
46	AZ	45	ASP
46	AZ	151	HIS
48	A1	28	GLY
48	A1	30	VAL
51	A4	4	GLY
51	A4	33	VAL
53	A6	16	CYS
53	A6	20	ASN
1	Bb	135	GLN
1	Bb	204	ASN
2	Bc	66	VAL
2	Bc	181	ASN
3	Bd	42	GLN
3	Bd	153	ARG
4	Be	21	ALA
8	Bi	11	LYS
8	Bi	70	LYS
11	Bl	26	ALA
11	Bl	28	LYS
12	Bm	41	PRO
12	Bm	65	LYS
13	Bn	23	ARG
13	Bn	24	CYS
13	Bn	60	SER
15	Bp	39	TYR
17	Br	55	ARG
18	Bs	25	LYS

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Mol	Chain	Res	Type
18	Bs	70	LYS
18	Bs	73	GLU
19	Bt	48	LYS
19	Bt	61	SER
19	Bt	97	ALA
21	By	6	ASP
27	BD	3	VAL
27	BD	45	ASN
27	BD	241	PRO
27	BD	245	PRO
28	BE	58	ARG
28	BE	189	PRO
28	BE	201	THR
29	BF	90	PHE
29	BF	115	ALA
30	BG	28	VAL
30	BG	105	LYS
30	BG	142	PRO
31	BH	81	GLU
31	BH	137	ASP
32	BI	16	GLY
32	BI	133	HIS
33	BJ	23	SER
33	BJ	90	ALA
33	BJ	102	LYS
33	BJ	103	GLY
34	BN	126	PRO
34	BN	127	ASP
34	BN	135	PRO
36	BP	48	PRO
36	BP	57	THR
38	BR	4	LEU
38	BR	102	GLU
39	BS	37	ALA
39	BS	85	VAL
39	BS	88	ASP
39	BS	100	ALA
40	BT	25	GLY
40	BT	41	ARG
42	BV	79	VAL
43	BW	15	ARG
43	BW	65	LEU

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Mol	Chain	Res	Type
45	BY	31	LEU
45	BY	39	VAL
45	BY	53	PRO
45	BY	81	LYS
45	BY	96	ILE
46	BZ	154	ASP
49	B2	17	SER
51	B4	4	GLY
51	B4	33	VAL
53	B6	16	CYS
53	B6	20	ASN
1	Ab	150	SER
1	Ab	236	TYR
2	Ac	66	VAL
2	Ac	75	VAL
2	Ac	129	ALA
2	Ac	168	ALA
3	Ad	37	PRO
3	Ad	53	ASP
4	Ae	108	ALA
4	Ae	137	GLU
5	Af	29	ALA
7	Ah	91	ARG
8	Ai	21	PRO
11	Al	22	SER
11	Al	121	GLY
12	Am	38	GLY
12	Am	118	ALA
14	Ao	85	LEU
15	Ap	39	TYR
17	Ar	25	THR
19	At	61	SER
21	Ay	29	LYS
21	Ay	76	ILE
27	AD	45	ASN
27	AD	244	ARG
28	AE	189	PRO
28	AE	201	THR
29	AF	11	VAL
30	AG	36	LYS
31	AH	85	LYS
31	AH	126	PRO

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Mol	Chain	Res	Type
32	AI	87	LYS
32	AI	114	LEU
33	AJ	20	ALA
33	AJ	42	GLN
33	AJ	58	LEU
33	AJ	77	PRO
34	AN	60	ILE
34	AN	77	GLY
36	AP	146	VAL
37	AQ	20	ALA
38	AR	4	LEU
39	AS	53	SER
39	AS	96	GLY
40	AT	41	ARG
41	AU	90	VAL
43	AW	93	ALA
44	AX	11	PRO
45	AY	29	GLU
45	AY	56	PRO
45	AY	66	PRO
46	AZ	14	LYS
46	AZ	41	LEU
46	AZ	47	VAL
46	AZ	122	ARG
47	A0	42	GLY
48	A1	53	VAL
49	A2	17	SER
49	A2	58	ALA
55	A8	41	ILE
1	Bb	83	MET
1	Bb	84	GLU
1	Bb	150	SER
2	Bc	75	VAL
2	Bc	168	ALA
3	Bd	53	ASP
4	Be	72	GLN
4	Be	108	ALA
4	Be	137	GLU
5	Bf	29	ALA
5	Bf	96	PRO
9	Bj	86	MET
10	Bk	105	VAL

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Mol	Chain	Res	Type
11	Bl	22	SER
14	Bo	85	LEU
17	Br	25	THR
17	Br	31	LEU
27	BD	24	ILE
27	BD	244	ARG
29	BF	11	VAL
30	BG	32	PRO
30	BG	97	ASP
30	BG	139	LEU
31	BH	85	LYS
31	BH	126	PRO
32	BI	114	LEU
33	BJ	14	LYS
33	BJ	68	LEU
34	BN	77	GLY
36	BP	10	PRO
36	BP	146	VAL
37	BQ	20	ALA
37	BQ	53	ALA
39	BS	15	ARG
39	BS	53	SER
39	BS	89	ARG
39	BS	96	GLY
40	BT	12	SER
41	BU	90	VAL
43	BW	93	ALA
44	BX	11	PRO
44	BX	22	ALA
44	BX	48	LYS
45	BY	9	LYS
45	BY	29	GLU
45	BY	56	PRO
45	BY	66	PRO
45	BY	67	LEU
45	BY	82	PRO
46	BZ	111	VAL
46	BZ	129	SER
47	B0	55	ARG
55	B8	41	ILE
1	Ab	83	MET
1	Ab	84	GLU

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Mol	Chain	Res	Type
1	Ab	131	PRO
1	Ab	230	VAL
2	Ac	15	THR
2	Ac	167	TRP
3	Ad	164	ALA
5	Af	51	PRO
5	Af	96	PRO
6	Ag	9	VAL
10	Ak	105	VAL
21	Ay	6	ASP
21	Ay	87	TYR
27	AD	28	GLU
27	AD	196	VAL
29	AF	9	ILE
29	AF	24	LEU
30	AG	24	GLY
30	AG	41	GLN
30	AG	114	ILE
36	AP	122	PRO
40	AT	86	ILE
41	AU	61	TRP
42	AV	29	PRO
43	AW	15	ARG
44	AX	13	LEU
45	AY	22	GLY
47	A0	17	GLN
53	A6	23	THR
1	Bb	230	VAL
2	Bc	15	THR
2	Bc	167	TRP
3	Bd	37	PRO
5	Bf	51	PRO
6	Bg	9	VAL
8	Bi	21	PRO
12	Bm	38	GLY
27	BD	28	GLU
28	BE	61	ARG
28	BE	187	ALA
29	BF	9	ILE
29	BF	24	LEU
30	BG	46	ALA
30	BG	121	ASN

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Mol	Chain	Res	Type
32	BI	14	ASP
32	BI	87	LYS
34	BN	56	ASN
34	BN	60	ILE
36	BP	122	PRO
40	BT	91	ARG
44	BX	13	LEU
46	BZ	135	GLU
46	BZ	165	VAL
46	BZ	169	GLU
47	B0	42	GLY
50	B3	2	PRO
53	B6	23	THR
1	Ab	130	ARG
3	Ad	56	VAL
5	Af	6	VAL
8	Ai	44	VAL
9	Aj	90	LEU
14	Ao	86	GLY
15	Ap	53	VAL
27	AD	123	ALA
28	AE	55	ASN
28	AE	61	ARG
34	AN	125	GLY
38	AR	83	ILE
39	AS	91	PRO
46	AZ	15	PRO
46	AZ	120	ILE
50	A3	2	PRO
1	Bb	130	ARG
1	Bb	131	PRO
3	Bd	56	VAL
9	Bj	90	LEU
14	Bo	86	GLY
15	Bp	53	VAL
18	Bs	59	PRO
21	By	67	ILE
28	BE	55	ASN
28	BE	56	PRO
34	BN	36	GLY
34	BN	125	GLY
36	BP	109	GLY

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Mol	Chain	Res	Type
38	BR	83	ILE
40	BT	86	ILE
42	BV	29	PRO
2	Ac	174	PRO
3	Ad	7	PRO
18	As	9	VAL
19	At	101	GLY
21	Ay	86	VAL
26	AC	52	PRO
28	AE	56	PRO
31	AH	99	VAL
33	AJ	69	PRO
45	AY	38	ILE
45	AY	58	GLY
8	Bi	44	VAL
18	Bs	9	VAL
27	BD	123	ALA
27	BD	196	VAL
31	BH	99	VAL
39	BS	91	PRO
55	B8	53	PRO
2	Ac	195	VAL
6	Ag	88	PRO
18	As	59	PRO
28	AE	175	VAL
32	AI	90	GLY
34	AN	129	PRO
36	AP	109	GLY
37	AQ	47	ILE
49	A2	6	VAL
51	A4	5	ILE
53	A6	48	VAL
2	Bc	174	PRO
3	Bd	7	PRO
5	Bf	81	ILE
6	Bg	88	PRO
16	Bq	30	PRO
26	BC	52	PRO
27	BD	11	PRO
32	BI	90	GLY
33	BJ	104	ILE
36	BP	11	GLY

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Mol	Chain	Res	Type
42	BV	54	GLY
45	BY	22	GLY
45	BY	38	ILE
45	BY	58	GLY
53	B6	48	VAL
5	Af	81	ILE
6	Ag	17	VAL
15	Ap	66	PRO
17	Ar	37	VAL
18	As	67	VAL
28	AE	86	PRO
30	AG	111	LEU
31	AH	49	VAL
36	AP	11	GLY
45	AY	37	VAL
46	AZ	130	PRO
46	AZ	137	ILE
2	Bc	195	VAL
5	Bf	6	VAL
6	Bg	17	VAL
18	Bs	67	VAL
19	Bt	101	GLY
28	BE	86	PRO
31	BH	49	VAL
34	BN	129	PRO
51	B4	5	ILE
13	An	13	THR
31	AH	76	VAL
33	AJ	107	VAL
34	AN	5	VAL
34	AN	36	GLY
42	AV	54	GLY
55	A8	53	PRO
7	Bh	6	ILE
13	Bn	13	THR
15	Bp	66	PRO
28	BE	175	VAL
34	BN	5	VAL
45	BY	37	VAL

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	Ab	202/220 (92%)	186 (92%)	16 (8%)	11 36
1	Bb	202/220 (92%)	187 (93%)	15 (7%)	13 38
2	Ac	160/188 (85%)	147 (92%)	13 (8%)	11 36
2	Bc	160/188 (85%)	148 (92%)	12 (8%)	12 38
3	Ad	180/181 (99%)	160 (89%)	20 (11%)	6 22
3	Bd	180/181 (99%)	160 (89%)	20 (11%)	6 22
4	Ae	115/123 (94%)	106 (92%)	9 (8%)	11 36
4	Be	115/123 (94%)	106 (92%)	9 (8%)	11 36
5	Af	90/90 (100%)	86 (96%)	4 (4%)	25 54
5	Bf	90/90 (100%)	85 (94%)	5 (6%)	19 47
6	Ag	126/127 (99%)	117 (93%)	9 (7%)	13 40
6	Bg	126/127 (99%)	117 (93%)	9 (7%)	13 40
7	Ah	119/119 (100%)	110 (92%)	9 (8%)	12 37
7	Bh	119/119 (100%)	110 (92%)	9 (8%)	12 37
8	Ai	98/99 (99%)	89 (91%)	9 (9%)	8 30
8	Bi	98/99 (99%)	89 (91%)	9 (9%)	8 30
9	Aj	88/92 (96%)	80 (91%)	8 (9%)	9 31
9	Bj	88/92 (96%)	80 (91%)	8 (9%)	9 31
10	Ak	90/99 (91%)	85 (94%)	5 (6%)	19 47
10	Bk	90/99 (91%)	85 (94%)	5 (6%)	19 47
11	Al	104/109 (95%)	86 (83%)	18 (17%)	2 9
11	Bl	104/109 (95%)	85 (82%)	19 (18%)	2 7
12	Am	94/101 (93%)	79 (84%)	15 (16%)	2 11
12	Bm	94/101 (93%)	79 (84%)	15 (16%)	2 11
13	An	49/50 (98%)	47 (96%)	2 (4%)	27 55
13	Bn	49/50 (98%)	47 (96%)	2 (4%)	27 55

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
14	Ao	79/80 (99%)	74 (94%)	5 (6%)	16 44
14	Bo	79/80 (99%)	75 (95%)	4 (5%)	21 50
15	Ap	72/74 (97%)	69 (96%)	3 (4%)	26 55
15	Bp	72/74 (97%)	68 (94%)	4 (6%)	19 47
16	Aq	94/97 (97%)	89 (95%)	5 (5%)	20 49
16	Bq	94/97 (97%)	89 (95%)	5 (5%)	20 49
17	Ar	61/77 (79%)	58 (95%)	3 (5%)	22 51
17	Br	61/77 (79%)	58 (95%)	3 (5%)	22 51
18	As	69/80 (86%)	61 (88%)	8 (12%)	5 21
18	Bs	69/80 (86%)	60 (87%)	9 (13%)	4 17
19	At	76/82 (93%)	67 (88%)	9 (12%)	5 20
19	Bt	76/82 (93%)	67 (88%)	9 (12%)	5 20
20	Au	19/22 (86%)	19 (100%)	0	100 100
20	Bu	19/22 (86%)	19 (100%)	0	100 100
21	Ay	84/85 (99%)	65 (77%)	19 (23%)	1 5
21	By	83/85 (98%)	72 (87%)	11 (13%)	4 17
26	AC	99/181 (55%)	97 (98%)	2 (2%)	48 68
26	BC	99/181 (55%)	97 (98%)	2 (2%)	48 68
27	AD	213/218 (98%)	184 (86%)	29 (14%)	3 16
27	BD	213/218 (98%)	184 (86%)	29 (14%)	3 16
28	AE	165/166 (99%)	141 (86%)	24 (14%)	3 14
28	BE	165/166 (99%)	142 (86%)	23 (14%)	3 15
29	AF	165/166 (99%)	146 (88%)	19 (12%)	5 21
29	BF	165/166 (99%)	146 (88%)	19 (12%)	5 21
30	AG	155/156 (99%)	134 (86%)	21 (14%)	4 16
30	BG	155/156 (99%)	133 (86%)	22 (14%)	3 14
31	AH	137/148 (93%)	123 (90%)	14 (10%)	7 26
31	BH	137/148 (93%)	123 (90%)	14 (10%)	7 26
32	AI	122/124 (98%)	98 (80%)	24 (20%)	1 6
32	BI	122/124 (98%)	99 (81%)	23 (19%)	1 7
34	AN	117/119 (98%)	100 (86%)	17 (14%)	3 14

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
34	BN	117/119 (98%)	99 (85%)	18 (15%)	2 12
35	AO	100/100 (100%)	89 (89%)	11 (11%)	6 23
35	BO	100/100 (100%)	89 (89%)	11 (11%)	6 23
36	AP	112/116 (97%)	86 (77%)	26 (23%)	1 4
36	BP	112/116 (97%)	86 (77%)	26 (23%)	1 4
37	AQ	110/111 (99%)	101 (92%)	9 (8%)	10 35
37	BQ	110/111 (99%)	99 (90%)	11 (10%)	7 27
38	AR	100/101 (99%)	83 (83%)	17 (17%)	2 10
38	BR	100/101 (99%)	84 (84%)	16 (16%)	2 11
39	AS	77/88 (88%)	65 (84%)	12 (16%)	2 12
39	BS	77/88 (88%)	65 (84%)	12 (16%)	2 12
40	AT	118/127 (93%)	97 (82%)	21 (18%)	2 8
40	BT	118/127 (93%)	96 (81%)	22 (19%)	1 7
41	AU	92/94 (98%)	79 (86%)	13 (14%)	3 14
41	BU	92/94 (98%)	78 (85%)	14 (15%)	3 13
42	AV	82/82 (100%)	61 (74%)	21 (26%)	0 2
42	BV	82/82 (100%)	61 (74%)	21 (26%)	0 2
43	AW	91/92 (99%)	78 (86%)	13 (14%)	3 14
43	BW	91/92 (99%)	79 (87%)	12 (13%)	4 17
44	AX	74/78 (95%)	63 (85%)	11 (15%)	3 13
44	BX	74/78 (95%)	63 (85%)	11 (15%)	3 13
45	AY	84/91 (92%)	76 (90%)	8 (10%)	8 29
45	BY	84/91 (92%)	76 (90%)	8 (10%)	8 29
46	AZ	162/179 (90%)	142 (88%)	20 (12%)	4 19
46	BZ	162/179 (90%)	129 (80%)	33 (20%)	1 6
47	A0	66/67 (98%)	58 (88%)	8 (12%)	5 20
47	B0	66/67 (98%)	58 (88%)	8 (12%)	5 20
48	A1	78/83 (94%)	65 (83%)	13 (17%)	2 11
48	B1	78/83 (94%)	72 (92%)	6 (8%)	12 37
49	A2	66/67 (98%)	60 (91%)	6 (9%)	9 31
49	B2	66/67 (98%)	55 (83%)	11 (17%)	2 11

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
50	A3	51/52 (98%)	47 (92%)	4 (8%)	11 36
50	B3	51/52 (98%)	47 (92%)	4 (8%)	11 36
51	A4	51/63 (81%)	38 (74%)	13 (26%)	0 3
51	B4	51/63 (81%)	38 (74%)	13 (26%)	0 3
52	A5	47/52 (90%)	43 (92%)	4 (8%)	10 33
52	B5	47/52 (90%)	43 (92%)	4 (8%)	10 33
53	A6	49/52 (94%)	40 (82%)	9 (18%)	1 7
53	B6	49/52 (94%)	39 (80%)	10 (20%)	1 6
54	A7	40/42 (95%)	35 (88%)	5 (12%)	4 19
54	B7	40/42 (95%)	35 (88%)	5 (12%)	4 19
55	A8	53/55 (96%)	40 (76%)	13 (24%)	1 3
55	B8	53/55 (96%)	39 (74%)	14 (26%)	0 2
56	A9	34/34 (100%)	32 (94%)	2 (6%)	18 46
56	B9	34/34 (100%)	32 (94%)	2 (6%)	18 46
All	All	9957/10598 (94%)	8753 (88%)	1204 (12%)	5 20

All (1204) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	Ab	15	VAL
1	Ab	17	PHE
1	Ab	32	ILE
1	Ab	36	ARG
1	Ab	69	LEU
1	Ab	80	ILE
1	Ab	87	ARG
1	Ab	101	MET
1	Ab	111	ARG
1	Ab	140	HIS
1	Ab	145	LEU
1	Ab	155	LEU
1	Ab	172	ILE
1	Ab	179	LYS
1	Ab	196	LEU
1	Ab	221	LEU
2	Ac	3	ASN
2	Ac	5	ILE

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Mol	Chain	Res	Type
2	Ac	16	ARG
2	Ac	18	TRP
2	Ac	34	LEU
2	Ac	37	GLN
2	Ac	82	GLU
2	Ac	107	GLN
2	Ac	131	ARG
2	Ac	152	ILE
2	Ac	167	TRP
2	Ac	196	LEU
2	Ac	202	ILE
3	Ad	3	ARG
3	Ad	9	CYS
3	Ad	10	ARG
3	Ad	11	LEU
3	Ad	15	GLU
3	Ad	26	CYS
3	Ad	36	ARG
3	Ad	58	LEU
3	Ad	86	LYS
3	Ad	97	LEU
3	Ad	105	VAL
3	Ad	110	PHE
3	Ad	126	ILE
3	Ad	129	ASN
3	Ad	132	ARG
3	Ad	135	LEU
3	Ad	159	ARG
3	Ad	162	LEU
3	Ad	196	LEU
3	Ad	200	GLU
4	Ae	6	PHE
4	Ae	10	MET
4	Ae	12	LEU
4	Ae	31	LEU
4	Ae	55	VAL
4	Ae	56	GLN
4	Ae	79	GLU
4	Ae	101	ILE
4	Ae	149	GLU
5	Af	63	TYR
5	Af	65	VAL

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Mol	Chain	Res	Type
5	Af	80	ARG
5	Af	92	LYS
6	Ag	21	VAL
6	Ag	23	VAL
6	Ag	88	PRO
6	Ag	111	ARG
6	Ag	124	LEU
6	Ag	135	VAL
6	Ag	136	LYS
6	Ag	140	ASP
6	Ag	146	GLU
7	Ah	1	MET
7	Ah	26	VAL
7	Ah	50	ARG
7	Ah	52	ASP
7	Ah	60	ARG
7	Ah	65	TYR
7	Ah	109	ILE
7	Ah	112	LEU
7	Ah	119	LEU
8	Ai	3	GLN
8	Ai	10	ARG
8	Ai	47	LEU
8	Ai	64	THR
8	Ai	78	LYS
8	Ai	95	LYS
8	Ai	105	ASP
8	Ai	114	TYR
8	Ai	118	LYS
9	Aj	4	ILE
9	Aj	48	THR
9	Aj	49	VAL
9	Aj	50	ILE
9	Aj	68	HIS
9	Aj	74	ILE
9	Aj	80	LYS
9	Aj	96	ILE
10	Ak	21	ILE
10	Ak	29	ILE
10	Ak	124	LYS
10	Ak	125	PHE
10	Ak	126	ARG

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Mol	Chain	Res	Type
11	Al	7	ILE
11	Al	20	LYS
11	Al	27	LEU
11	Al	33	ARG
11	Al	38	THR
11	Al	41	ARG
11	Al	42	THR
11	Al	47	LYS
11	Al	55	VAL
11	Al	62	SER
11	Al	66	VAL
11	Al	67	THR
11	Al	85	ILE
11	Al	89	ARG
11	Al	92	ASP
11	Al	97	ARG
11	Al	102	ARG
11	Al	126	LYS
12	Am	47	ASP
12	Am	48	LEU
12	Am	56	LEU
12	Am	65	LYS
12	Am	66	LEU
12	Am	69	GLU
12	Am	70	LEU
12	Am	74	VAL
12	Am	79	LYS
12	Am	82	MET
12	Am	92	HIS
12	Am	93	ARG
12	Am	98	VAL
12	Am	108	ARG
12	Am	115	LYS
13	An	33	VAL
13	An	44	LEU
14	Ao	22	THR
14	Ao	37	ASN
14	Ao	65	ARG
14	Ao	82	ILE
14	Ao	85	LEU
15	Ap	2	VAL
15	Ap	27	LYS

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Mol	Chain	Res	Type
15	Ap	69	THR
16	Aq	19	VAL
16	Aq	38	ARG
16	Aq	59	ILE
16	Aq	73	VAL
16	Aq	98	LEU
17	Ar	31	LEU
17	Ar	44	LEU
17	Ar	65	ILE
18	As	5	LEU
18	As	6	LYS
18	As	7	LYS
18	As	15	LEU
18	As	29	ARG
18	As	33	THR
18	As	37	ARG
18	As	70	LYS
19	At	10	LEU
19	At	24	LEU
19	At	26	ASN
19	At	36	LEU
19	At	41	ILE
19	At	54	LYS
19	At	73	HIS
19	At	75	ASN
19	At	93	GLU
21	Ay	5	LEU
21	Ay	6	ASP
21	Ay	7	PHE
21	Ay	8	ASP
21	Ay	9	GLU
21	Ay	10	ARG
21	Ay	14	GLU
21	Ay	21	THR
21	Ay	22	VAL
21	Ay	31	VAL
21	Ay	43	LYS
21	Ay	48	PRO
21	Ay	57	SER
21	Ay	64	TYR
21	Ay	68	ASP
21	Ay	73	VAL

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Mol	Chain	Res	Type
21	Ay	83	ARG
21	Ay	89	GLU
21	Ay	93	ARG
26	AC	39	ASP
26	AC	185	LYS
27	AD	10	THR
27	AD	24	ILE
27	AD	35	LYS
27	AD	37	LEU
27	AD	44	ASN
27	AD	46	GLN
27	AD	49	ILE
27	AD	61	LEU
27	AD	64	ILE
27	AD	65	ILE
27	AD	72	LYS
27	AD	73	VAL
27	AD	94	LEU
27	AD	95	LEU
27	AD	98	VAL
27	AD	103	ARG
27	AD	106	ILE
27	AD	122	ASP
27	AD	131	LEU
27	AD	147	LEU
27	AD	166	GLN
27	AD	192	THR
27	AD	221	VAL
27	AD	228	PRO
27	AD	229	VAL
27	AD	257	LEU
27	AD	259	THR
27	AD	260	ARG
27	AD	271	ILE
28	AE	9	VAL
28	AE	24	THR
28	AE	33	VAL
28	AE	34	VAL
28	AE	49	LEU
28	AE	55	ASN
28	AE	63	LEU
28	AE	64	LYS

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Mol	Chain	Res	Type
28	AE	67	PHE
28	AE	78	LEU
28	AE	82	ARG
28	AE	87	GLU
28	AE	94	GLU
28	AE	117	MET
28	AE	134	ILE
28	AE	144	ARG
28	AE	145	LYS
28	AE	167	VAL
28	AE	169	ASN
28	AE	181	LEU
28	AE	197	ILE
28	AE	200	GLU
28	AE	202	LYS
28	AE	203	LYS
29	AF	23	ASP
29	AF	28	ILE
29	AF	33	LEU
29	AF	57	VAL
29	AF	66	PRO
29	AF	67	GLN
29	AF	70	THR
29	AF	74	ARG
29	AF	83	PHE
29	AF	110	LEU
29	AF	125	LEU
29	AF	157	VAL
29	AF	158	THR
29	AF	164	ARG
29	AF	165	ARG
29	AF	170	LEU
29	AF	183	VAL
29	AF	192	LEU
29	AF	200	GLU
30	AG	5	VAL
30	AG	15	VAL
30	AG	16	ARG
30	AG	22	ARG
30	AG	36	LYS
30	AG	49	ASP
30	AG	67	LYS

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Mol	Chain	Res	Type
30	AG	77	ILE
30	AG	82	LEU
30	AG	83	ARG
30	AG	90	LEU
30	AG	91	ARG
30	AG	96	ARG
30	AG	108	ASN
30	AG	111	LEU
30	AG	113	ARG
30	AG	125	PHE
30	AG	130	ASN
30	AG	143	GLU
30	AG	145	THR
30	AG	155	MET
31	AH	9	ILE
31	AH	24	VAL
31	AH	46	GLU
31	AH	53	GLU
31	AH	54	ARG
31	AH	83	TYR
31	AH	85	LYS
31	AH	89	ILE
31	AH	127	GLU
31	AH	136	ILE
31	AH	153	LYS
31	AH	157	TYR
31	AH	163	TYR
31	AH	170	ARG
32	AI	1	MET
32	AI	9	LEU
32	AI	12	LEU
32	AI	31	LEU
32	AI	71	ILE
32	AI	74	ASN
32	AI	85	GLU
32	AI	86	THR
32	AI	89	TYR
32	AI	91	SER
32	AI	92	VAL
32	AI	93	THR
32	AI	99	GLU
32	AI	105	HIS

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Mol	Chain	Res	Type
32	AI	107	VAL
32	AI	109	ILE
32	AI	110	ASP
32	AI	113	ARG
32	AI	120	ILE
32	AI	123	LEU
32	AI	136	VAL
32	AI	138	ILE
32	AI	139	GLN
32	AI	140	LEU
34	AN	4	TYR
34	AN	15	LEU
34	AN	23	LEU
34	AN	28	THR
34	AN	32	THR
34	AN	33	LEU
34	AN	34	LEU
34	AN	37	LYS
34	AN	39	ARG
34	AN	43	THR
34	AN	48	MET
34	AN	60	ILE
34	AN	87	LEU
34	AN	89	LYS
34	AN	119	ARG
34	AN	120	LEU
34	AN	130	HIS
35	AO	8	LEU
35	AO	10	VAL
35	AO	24	VAL
35	AO	35	VAL
35	AO	48	PRO
35	AO	58	VAL
35	AO	89	ASN
35	AO	98	VAL
35	AO	108	GLU
35	AO	114	ILE
35	AO	117	LEU
36	AP	13	ASN
36	AP	16	ARG
36	AP	18	ARG
36	AP	30	THR

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Mol	Chain	Res	Type
36	AP	32	THR
36	AP	39	LYS
36	AP	42	SER
36	AP	45	LEU
36	AP	47	ASP
36	AP	57	THR
36	AP	59	LEU
36	AP	61	ARG
36	AP	64	LYS
36	AP	67	MET
36	AP	81	GLN
36	AP	85	LEU
36	AP	91	PHE
36	AP	98	GLU
36	AP	105	LEU
36	AP	108	LYS
36	AP	110	TYR
36	AP	112	LEU
36	AP	114	ILE
36	AP	119	GLU
36	AP	125	VAL
36	AP	135	LEU
37	AQ	18	LYS
37	AQ	45	GLN
37	AQ	54	MET
37	AQ	55	VAL
37	AQ	67	ARG
37	AQ	75	THR
37	AQ	110	THR
37	AQ	135	ASP
37	AQ	137	TYR
38	AR	2	ARG
38	AR	4	LEU
38	AR	12	ARG
38	AR	15	SER
38	AR	18	LEU
38	AR	28	LEU
38	AR	37	THR
38	AR	65	LEU
38	AR	67	LEU
38	AR	75	LEU
38	AR	76	VAL

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Mol	Chain	Res	Type
38	AR	79	LEU
38	AR	94	TYR
38	AR	95	THR
38	AR	97	VAL
38	AR	99	LYS
38	AR	113	LEU
39	AS	11	LYS
39	AS	12	PHE
39	AS	24	LEU
39	AS	36	TYR
39	AS	40	ILE
39	AS	44	LYS
39	AS	54	LEU
39	AS	73	LEU
39	AS	89	ARG
39	AS	97	ARG
39	AS	101	LEU
39	AS	106	ARG
40	AT	3	ARG
40	AT	13	ARG
40	AT	14	TYR
40	AT	24	PRO
40	AT	30	VAL
40	AT	32	TYR
40	AT	38	ASN
40	AT	41	ARG
40	AT	49	VAL
40	AT	50	ILE
40	AT	51	ARG
40	AT	58	ASN
40	AT	59	THR
40	AT	65	LYS
40	AT	78	LEU
40	AT	82	LEU
40	AT	93	ARG
40	AT	96	ARG
40	AT	99	LEU
40	AT	107	ASP
40	AT	108	ARG
41	AU	13	LYS
41	AU	14	HIS
41	AU	16	LYS

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Mol	Chain	Res	Type
41	AU	19	LYS
41	AU	52	ARG
41	AU	59	ARG
41	AU	60	LEU
41	AU	74	LEU
41	AU	83	LEU
41	AU	101	ARG
41	AU	102	GLU
41	AU	108	GLU
41	AU	112	ARG
42	AV	1	MET
42	AV	14	VAL
42	AV	16	PRO
42	AV	18	LEU
42	AV	19	LYS
42	AV	21	ARG
42	AV	22	VAL
42	AV	33	VAL
42	AV	35	LEU
42	AV	37	VAL
42	AV	39	LEU
42	AV	40	LEU
42	AV	46	VAL
42	AV	47	VAL
42	AV	50	PRO
42	AV	57	VAL
42	AV	61	VAL
42	AV	68	LYS
42	AV	91	TYR
42	AV	95	LEU
42	AV	99	ILE
43	AW	11	ARG
43	AW	19	LEU
43	AW	20	VAL
43	AW	51	LEU
43	AW	57	ASN
43	AW	60	ASN
43	AW	70	TYR
43	AW	76	VAL
43	AW	78	GLU
43	AW	96	ILE
43	AW	100	THR

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Mol	Chain	Res	Type
43	AW	105	VAL
43	AW	107	LEU
44	AX	23	GLU
44	AX	27	THR
44	AX	57	LEU
44	AX	63	LYS
44	AX	65	ARG
44	AX	68	ARG
44	AX	70	LEU
44	AX	76	ARG
44	AX	80	ILE
44	AX	81	VAL
44	AX	83	VAL
45	AY	7	VAL
45	AY	9	LYS
45	AY	28	LYS
45	AY	32	PRO
45	AY	38	ILE
45	AY	53	PRO
45	AY	77	PRO
45	AY	83	THR
46	AZ	6	LYS
46	AZ	24	LEU
46	AZ	27	VAL
46	AZ	28	MET
46	AZ	34	ASN
46	AZ	41	LEU
46	AZ	53	ILE
46	AZ	54	HIS
46	AZ	61	LEU
46	AZ	74	VAL
46	AZ	81	ARG
46	AZ	90	VAL
46	AZ	112	ARG
46	AZ	123	ASP
46	AZ	124	ILE
46	AZ	130	PRO
46	AZ	155	LEU
46	AZ	162	GLU
46	AZ	166	SER
46	AZ	169	GLU
47	A0	5	LYS

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Mol	Chain	Res	Type
47	A0	10	THR
47	A0	11	ARG
47	A0	14	ARG
47	A0	20	ARG
47	A0	36	ILE
47	A0	80	HIS
47	A0	84	LEU
48	A1	11	ARG
48	A1	19	GLN
48	A1	25	LYS
48	A1	39	LYS
48	A1	40	ARG
48	A1	41	ARG
48	A1	46	LEU
48	A1	58	ILE
48	A1	61	ARG
48	A1	72	GLU
48	A1	73	LEU
48	A1	82	LEU
48	A1	95	LEU
49	A2	2	LYS
49	A2	19	VAL
49	A2	52	ASP
49	A2	53	LEU
49	A2	64	LEU
49	A2	65	ASN
50	A3	8	LEU
50	A3	20	LYS
50	A3	31	LEU
50	A3	58	VAL
51	A4	1	MET
51	A4	5	ILE
51	A4	10	VAL
51	A4	13	ARG
51	A4	22	ILE
51	A4	25	TYR
51	A4	28	LYS
51	A4	30	GLU
51	A4	31	ILE
51	A4	34	GLU
51	A4	44	THR
51	A4	53	GLU

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Mol	Chain	Res	Type
51	A4	55	ARG
52	A5	25	LEU
52	A5	26	THR
52	A5	44	THR
52	A5	55	ARG
53	A6	9	LEU
53	A6	10	LEU
53	A6	11	LEU
53	A6	15	GLU
53	A6	18	ARG
53	A6	27	LYS
53	A6	30	THR
53	A6	34	LEU
53	A6	42	TRP
54	A7	1	MET
54	A7	4	THR
54	A7	8	ASN
54	A7	41	ARG
54	A7	43	THR
55	A8	4	MET
55	A8	16	ILE
55	A8	30	ARG
55	A8	31	HIS
55	A8	32	LEU
55	A8	33	ASN
55	A8	34	TRP
55	A8	41	ILE
55	A8	47	LYS
55	A8	49	VAL
55	A8	56	GLU
55	A8	61	LEU
55	A8	64	TYR
56	A9	1	MET
56	A9	17	ILE
1	Bb	15	VAL
1	Bb	17	PHE
1	Bb	32	ILE
1	Bb	36	ARG
1	Bb	69	LEU
1	Bb	80	ILE
1	Bb	87	ARG
1	Bb	111	ARG

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Mol	Chain	Res	Type
1	Bb	140	HIS
1	Bb	145	LEU
1	Bb	155	LEU
1	Bb	172	ILE
1	Bb	179	LYS
1	Bb	196	LEU
1	Bb	221	LEU
2	Bc	3	ASN
2	Bc	5	ILE
2	Bc	16	ARG
2	Bc	18	TRP
2	Bc	34	LEU
2	Bc	37	GLN
2	Bc	82	GLU
2	Bc	107	GLN
2	Bc	131	ARG
2	Bc	152	ILE
2	Bc	167	TRP
2	Bc	202	ILE
3	Bd	3	ARG
3	Bd	9	CYS
3	Bd	10	ARG
3	Bd	11	LEU
3	Bd	12	CYS
3	Bd	15	GLU
3	Bd	26	CYS
3	Bd	36	ARG
3	Bd	58	LEU
3	Bd	86	LYS
3	Bd	97	LEU
3	Bd	105	VAL
3	Bd	110	PHE
3	Bd	126	ILE
3	Bd	129	ASN
3	Bd	132	ARG
3	Bd	135	LEU
3	Bd	162	LEU
3	Bd	196	LEU
3	Bd	200	GLU
4	Be	6	PHE
4	Be	10	MET
4	Be	12	LEU

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Mol	Chain	Res	Type
4	Be	31	LEU
4	Be	55	VAL
4	Be	56	GLN
4	Be	79	GLU
4	Be	101	ILE
4	Be	149	GLU
5	Bf	63	TYR
5	Bf	65	VAL
5	Bf	80	ARG
5	Bf	92	LYS
5	Bf	96	PRO
6	Bg	21	VAL
6	Bg	23	VAL
6	Bg	88	PRO
6	Bg	111	ARG
6	Bg	124	LEU
6	Bg	135	VAL
6	Bg	136	LYS
6	Bg	140	ASP
6	Bg	146	GLU
7	Bh	1	MET
7	Bh	25	ASP
7	Bh	26	VAL
7	Bh	50	ARG
7	Bh	52	ASP
7	Bh	60	ARG
7	Bh	65	TYR
7	Bh	109	ILE
7	Bh	119	LEU
8	Bi	3	GLN
8	Bi	10	ARG
8	Bi	47	LEU
8	Bi	53	VAL
8	Bi	64	THR
8	Bi	78	LYS
8	Bi	95	LYS
8	Bi	114	TYR
8	Bi	118	LYS
9	Bj	4	ILE
9	Bj	48	THR
9	Bj	49	VAL
9	Bj	50	ILE

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Mol	Chain	Res	Type
9	Bj	68	HIS
9	Bj	74	ILE
9	Bj	80	LYS
9	Bj	96	ILE
10	Bk	21	ILE
10	Bk	29	ILE
10	Bk	124	LYS
10	Bk	125	PHE
10	Bk	126	ARG
11	Bl	7	ILE
11	Bl	20	LYS
11	Bl	24	VAL
11	Bl	27	LEU
11	Bl	33	ARG
11	Bl	38	THR
11	Bl	41	ARG
11	Bl	42	THR
11	Bl	47	LYS
11	Bl	55	VAL
11	Bl	62	SER
11	Bl	66	VAL
11	Bl	67	THR
11	Bl	85	ILE
11	Bl	89	ARG
11	Bl	92	ASP
11	Bl	97	ARG
11	Bl	102	ARG
11	Bl	126	LYS
12	Bm	47	ASP
12	Bm	56	LEU
12	Bm	65	LYS
12	Bm	66	LEU
12	Bm	69	GLU
12	Bm	70	LEU
12	Bm	71	ARG
12	Bm	73	GLU
12	Bm	79	LYS
12	Bm	82	MET
12	Bm	92	HIS
12	Bm	93	ARG
12	Bm	98	VAL
12	Bm	108	ARG

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Mol	Chain	Res	Type
12	Bm	115	LYS
13	Bn	33	VAL
13	Bn	44	LEU
14	Bo	22	THR
14	Bo	37	ASN
14	Bo	82	ILE
14	Bo	85	LEU
15	Bp	2	VAL
15	Bp	27	LYS
15	Bp	44	THR
15	Bp	69	THR
16	Bq	19	VAL
16	Bq	38	ARG
16	Bq	59	ILE
16	Bq	73	VAL
16	Bq	98	LEU
17	Br	31	LEU
17	Br	44	LEU
17	Br	65	ILE
18	Bs	5	LEU
18	Bs	6	LYS
18	Bs	7	LYS
18	Bs	15	LEU
18	Bs	29	ARG
18	Bs	33	THR
18	Bs	37	ARG
18	Bs	70	LYS
18	Bs	77	THR
19	Bt	10	LEU
19	Bt	24	LEU
19	Bt	26	ASN
19	Bt	36	LEU
19	Bt	41	ILE
19	Bt	54	LYS
19	Bt	73	HIS
19	Bt	75	ASN
19	Bt	93	GLU
21	By	5	LEU
21	By	7	PHE
21	By	29	LYS
21	By	33	VAL
21	By	34	LEU

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Mol	Chain	Res	Type
21	By	47	MET
21	By	48	PRO
21	By	49	ASP
21	By	56	ARG
21	By	63	VAL
21	By	85	GLU
26	BC	39	ASP
26	BC	185	LYS
27	BD	10	THR
27	BD	24	ILE
27	BD	35	LYS
27	BD	37	LEU
27	BD	44	ASN
27	BD	46	GLN
27	BD	49	ILE
27	BD	61	LEU
27	BD	64	ILE
27	BD	65	ILE
27	BD	72	LYS
27	BD	73	VAL
27	BD	94	LEU
27	BD	95	LEU
27	BD	98	VAL
27	BD	103	ARG
27	BD	106	ILE
27	BD	122	ASP
27	BD	131	LEU
27	BD	147	LEU
27	BD	166	GLN
27	BD	192	THR
27	BD	221	VAL
27	BD	228	PRO
27	BD	229	VAL
27	BD	257	LEU
27	BD	259	THR
27	BD	260	ARG
27	BD	271	ILE
28	BE	9	VAL
28	BE	24	THR
28	BE	33	VAL
28	BE	34	VAL
28	BE	49	LEU

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Mol	Chain	Res	Type
28	BE	55	ASN
28	BE	63	LEU
28	BE	64	LYS
28	BE	67	PHE
28	BE	78	LEU
28	BE	82	ARG
28	BE	87	GLU
28	BE	94	GLU
28	BE	117	MET
28	BE	134	ILE
28	BE	144	ARG
28	BE	145	LYS
28	BE	169	ASN
28	BE	181	LEU
28	BE	197	ILE
28	BE	200	GLU
28	BE	202	LYS
28	BE	203	LYS
29	BF	23	ASP
29	BF	28	ILE
29	BF	33	LEU
29	BF	57	VAL
29	BF	66	PRO
29	BF	67	GLN
29	BF	70	THR
29	BF	74	ARG
29	BF	83	PHE
29	BF	110	LEU
29	BF	125	LEU
29	BF	157	VAL
29	BF	158	THR
29	BF	164	ARG
29	BF	165	ARG
29	BF	170	LEU
29	BF	183	VAL
29	BF	192	LEU
29	BF	200	GLU
30	BG	3	LEU
30	BG	5	VAL
30	BG	12	TYR
30	BG	43	LEU
30	BG	58	GLN

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Mol	Chain	Res	Type
30	BG	62	LEU
30	BG	63	ILE
30	BG	64	THR
30	BG	67	LYS
30	BG	71	THR
30	BG	77	ILE
30	BG	83	ARG
30	BG	87	PRO
30	BG	90	LEU
30	BG	93	THR
30	BG	113	ARG
30	BG	114	ILE
30	BG	123	ASN
30	BG	126	ASP
30	BG	143	GLU
30	BG	147	ASP
30	BG	159	VAL
31	BH	9	ILE
31	BH	24	VAL
31	BH	46	GLU
31	BH	53	GLU
31	BH	54	ARG
31	BH	83	TYR
31	BH	85	LYS
31	BH	89	ILE
31	BH	127	GLU
31	BH	136	ILE
31	BH	153	LYS
31	BH	157	TYR
31	BH	163	TYR
31	BH	170	ARG
32	BI	1	MET
32	BI	9	LEU
32	BI	12	LEU
32	BI	31	LEU
32	BI	71	ILE
32	BI	74	ASN
32	BI	85	GLU
32	BI	86	THR
32	BI	89	TYR
32	BI	91	SER
32	BI	92	VAL

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Mol	Chain	Res	Type
32	BI	93	THR
32	BI	99	GLU
32	BI	105	HIS
32	BI	107	VAL
32	BI	109	ILE
32	BI	110	ASP
32	BI	113	ARG
32	BI	123	LEU
32	BI	136	VAL
32	BI	138	ILE
32	BI	139	GLN
32	BI	140	LEU
34	BN	4	TYR
34	BN	15	LEU
34	BN	23	LEU
34	BN	28	THR
34	BN	32	THR
34	BN	33	LEU
34	BN	34	LEU
34	BN	37	LYS
34	BN	39	ARG
34	BN	43	THR
34	BN	48	MET
34	BN	60	ILE
34	BN	87	LEU
34	BN	89	LYS
34	BN	108	PRO
34	BN	119	ARG
34	BN	120	LEU
34	BN	130	HIS
35	BO	8	LEU
35	BO	10	VAL
35	BO	24	VAL
35	BO	32	TYR
35	BO	35	VAL
35	BO	58	VAL
35	BO	89	ASN
35	BO	98	VAL
35	BO	108	GLU
35	BO	114	ILE
35	BO	117	LEU
36	BP	13	ASN

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Mol	Chain	Res	Type
36	BP	16	ARG
36	BP	18	ARG
36	BP	30	THR
36	BP	32	THR
36	BP	39	LYS
36	BP	42	SER
36	BP	45	LEU
36	BP	47	ASP
36	BP	57	THR
36	BP	59	LEU
36	BP	61	ARG
36	BP	64	LYS
36	BP	67	MET
36	BP	81	GLN
36	BP	85	LEU
36	BP	91	PHE
36	BP	98	GLU
36	BP	105	LEU
36	BP	108	LYS
36	BP	110	TYR
36	BP	112	LEU
36	BP	114	ILE
36	BP	119	GLU
36	BP	125	VAL
36	BP	135	LEU
37	BQ	18	LYS
37	BQ	45	GLN
37	BQ	54	MET
37	BQ	55	VAL
37	BQ	66	ILE
37	BQ	67	ARG
37	BQ	75	THR
37	BQ	110	THR
37	BQ	134	ARG
37	BQ	135	ASP
37	BQ	137	TYR
38	BR	2	ARG
38	BR	4	LEU
38	BR	12	ARG
38	BR	15	SER
38	BR	18	LEU
38	BR	28	LEU

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Mol	Chain	Res	Type
38	BR	65	LEU
38	BR	67	LEU
38	BR	75	LEU
38	BR	76	VAL
38	BR	79	LEU
38	BR	94	TYR
38	BR	95	THR
38	BR	97	VAL
38	BR	99	LYS
38	BR	113	LEU
39	BS	11	LYS
39	BS	12	PHE
39	BS	24	LEU
39	BS	36	TYR
39	BS	40	ILE
39	BS	44	LYS
39	BS	54	LEU
39	BS	73	LEU
39	BS	89	ARG
39	BS	97	ARG
39	BS	101	LEU
39	BS	106	ARG
40	BT	3	ARG
40	BT	13	ARG
40	BT	14	TYR
40	BT	15	VAL
40	BT	24	PRO
40	BT	30	VAL
40	BT	32	TYR
40	BT	38	ASN
40	BT	41	ARG
40	BT	49	VAL
40	BT	50	ILE
40	BT	51	ARG
40	BT	58	ASN
40	BT	59	THR
40	BT	65	LYS
40	BT	78	LEU
40	BT	82	LEU
40	BT	93	ARG
40	BT	96	ARG
40	BT	99	LEU

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Mol	Chain	Res	Type
40	BT	107	ASP
40	BT	108	ARG
41	BU	13	LYS
41	BU	14	HIS
41	BU	16	LYS
41	BU	19	LYS
41	BU	52	ARG
41	BU	59	ARG
41	BU	60	LEU
41	BU	66	ASN
41	BU	74	LEU
41	BU	83	LEU
41	BU	101	ARG
41	BU	102	GLU
41	BU	108	GLU
41	BU	112	ARG
42	BV	1	MET
42	BV	14	VAL
42	BV	16	PRO
42	BV	18	LEU
42	BV	19	LYS
42	BV	21	ARG
42	BV	22	VAL
42	BV	33	VAL
42	BV	35	LEU
42	BV	37	VAL
42	BV	39	LEU
42	BV	40	LEU
42	BV	46	VAL
42	BV	47	VAL
42	BV	50	PRO
42	BV	57	VAL
42	BV	61	VAL
42	BV	68	LYS
42	BV	91	TYR
42	BV	95	LEU
42	BV	99	ILE
43	BW	11	ARG
43	BW	19	LEU
43	BW	51	LEU
43	BW	57	ASN
43	BW	60	ASN

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Mol	Chain	Res	Type
43	BW	70	TYR
43	BW	76	VAL
43	BW	78	GLU
43	BW	96	ILE
43	BW	100	THR
43	BW	105	VAL
43	BW	107	LEU
44	BX	23	GLU
44	BX	27	THR
44	BX	57	LEU
44	BX	63	LYS
44	BX	65	ARG
44	BX	68	ARG
44	BX	70	LEU
44	BX	76	ARG
44	BX	80	ILE
44	BX	81	VAL
44	BX	83	VAL
45	BY	7	VAL
45	BY	9	LYS
45	BY	28	LYS
45	BY	32	PRO
45	BY	38	ILE
45	BY	53	PRO
45	BY	77	PRO
45	BY	83	THR
46	BZ	6	LYS
46	BZ	13	GLU
46	BZ	16	SER
46	BZ	23	LYS
46	BZ	24	LEU
46	BZ	31	ARG
46	BZ	37	VAL
46	BZ	38	TYR
46	BZ	39	VAL
46	BZ	41	LEU
46	BZ	61	LEU
46	BZ	81	ARG
46	BZ	87	ASP
46	BZ	96	VAL
46	BZ	103	ARG
46	BZ	127	LYS

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Mol	Chain	Res	Type
46	BZ	131	ARG
46	BZ	132	ASN
46	BZ	135	GLU
46	BZ	136	PHE
46	BZ	145	GLU
46	BZ	150	LEU
46	BZ	151	HIS
46	BZ	154	ASP
46	BZ	155	LEU
46	BZ	157	LEU
46	BZ	158	PRO
46	BZ	163	LEU
46	BZ	166	SER
46	BZ	169	GLU
46	BZ	175	VAL
46	BZ	177	PRO
46	BZ	180	VAL
47	B0	5	LYS
47	B0	10	THR
47	B0	11	ARG
47	B0	14	ARG
47	B0	20	ARG
47	B0	36	ILE
47	B0	80	HIS
47	B0	84	LEU
48	B1	40	ARG
48	B1	41	ARG
48	B1	46	LEU
48	B1	59	THR
48	B1	73	LEU
48	B1	82	LEU
49	B2	2	LYS
49	B2	16	LEU
49	B2	17	SER
49	B2	30	ARG
49	B2	32	LEU
49	B2	34	GLU
49	B2	46	GLN
49	B2	53	LEU
49	B2	64	LEU
49	B2	65	ASN
49	B2	68	ARG

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Mol	Chain	Res	Type
50	B3	8	LEU
50	B3	20	LYS
50	B3	31	LEU
50	B3	58	VAL
51	B4	1	MET
51	B4	5	ILE
51	B4	10	VAL
51	B4	13	ARG
51	B4	22	ILE
51	B4	25	TYR
51	B4	28	LYS
51	B4	30	GLU
51	B4	31	ILE
51	B4	34	GLU
51	B4	44	THR
51	B4	53	GLU
51	B4	55	ARG
52	B5	25	LEU
52	B5	26	THR
52	B5	44	THR
52	B5	55	ARG
53	B6	9	LEU
53	B6	10	LEU
53	B6	11	LEU
53	B6	15	GLU
53	B6	18	ARG
53	B6	27	LYS
53	B6	30	THR
53	B6	31	PRO
53	B6	34	LEU
53	B6	42	TRP
54	B7	1	MET
54	B7	4	THR
54	B7	8	ASN
54	B7	41	ARG
54	B7	43	THR
55	B8	4	MET
55	B8	16	ILE
55	B8	30	ARG
55	B8	31	HIS
55	B8	32	LEU
55	B8	33	ASN

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Mol	Chain	Res	Type
55	B8	34	TRP
55	B8	41	ILE
55	B8	46	ARG
55	B8	47	LYS
55	B8	49	VAL
55	B8	56	GLU
55	B8	61	LEU
55	B8	64	TYR
56	B9	1	MET
56	B9	17	ILE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (359) such sidechains are listed below:

Mol	Chain	Res	Type
1	Ab	37	ASN
1	Ab	40	HIS
1	Ab	76	GLN
1	Ab	78	GLN
1	Ab	135	GLN
1	Ab	146	GLN
1	Ab	204	ASN
2	Ac	69	HIS
2	Ac	102	ASN
2	Ac	104	GLN
2	Ac	107	GLN
2	Ac	118	GLN
2	Ac	123	GLN
2	Ac	170	GLN
3	Ad	42	GLN
3	Ad	45	GLN
3	Ad	62	GLN
3	Ad	77	ASN
3	Ad	129	ASN
3	Ad	161	ASN
3	Ad	201	GLN
4	Ae	20	GLN
4	Ae	72	GLN
4	Ae	73	ASN
4	Ae	78	HIS
4	Ae	141	GLN
5	Af	7	ASN
5	Af	11	ASN

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Mol	Chain	Res	Type
5	Af	18	GLN
5	Af	27	GLN
5	Af	32	ASN
5	Af	64	GLN
5	Af	84	ASN
5	Af	100	ASN
6	Ag	13	GLN
6	Ag	68	ASN
6	Ag	84	ASN
6	Ag	106	GLN
6	Ag	148	ASN
8	Ai	23	ASN
8	Ai	31	GLN
8	Ai	58	HIS
8	Ai	117	HIS
8	Ai	124	GLN
9	Aj	78	ASN
9	Aj	84	GLN
10	Ak	13	GLN
10	Ak	26	ASN
10	Ak	78	GLN
10	Ak	99	GLN
10	Ak	116	HIS
10	Ak	117	ASN
11	Al	8	ASN
11	Al	9	GLN
11	Al	49	ASN
11	Al	75	HIS
11	Al	80	HIS
12	Am	12	ASN
12	Am	101	GLN
14	Ao	37	ASN
14	Ao	46	HIS
15	Ap	76	GLN
15	Ap	82	GLN
16	Aq	16	GLN
17	Ar	36	ASN
18	As	14	HIS
18	As	23	ASN
18	As	57	HIS
18	As	65	ASN
19	At	16	HIS

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Mol	Chain	Res	Type
19	At	26	ASN
19	At	42	GLN
19	At	75	ASN
26	AC	57	GLN
26	AC	228	HIS
27	AD	58	HIS
27	AD	96	HIS
27	AD	126	GLN
27	AD	164	GLN
27	AD	166	GLN
27	AD	186	HIS
27	AD	198	ASN
27	AD	227	ASN
28	AE	48	GLN
28	AE	54	GLN
28	AE	55	ASN
28	AE	129	HIS
28	AE	137	HIS
28	AE	143	ASN
28	AE	169	ASN
28	AE	192	ASN
29	AF	69	HIS
29	AF	75	HIS
29	AF	133	ASN
29	AF	160	ASN
29	AF	169	ASN
30	AG	27	ASN
30	AG	40	ASN
30	AG	108	ASN
30	AG	123	ASN
31	AH	65	HIS
31	AH	74	ASN
31	AH	147	ASN
32	AI	28	ASN
32	AI	74	ASN
32	AI	104	GLN
32	AI	139	GLN
34	AN	38	HIS
34	AN	45	ASN
34	AN	56	ASN
34	AN	94	HIS
34	AN	128	HIS

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Mol	Chain	Res	Type
35	AO	3	GLN
35	AO	5	GLN
35	AO	13	ASN
35	AO	82	ASN
35	AO	88	ASN
36	AP	9	ASN
36	AP	13	ASN
36	AP	68	GLN
36	AP	84	ASN
36	AP	128	HIS
37	AQ	12	GLN
37	AQ	45	GLN
38	AR	23	ASN
38	AR	24	GLN
38	AR	31	HIS
38	AR	50	HIS
38	AR	53	HIS
38	AR	71	GLN
38	AR	91	GLN
39	AS	34	HIS
40	AT	2	ASN
40	AT	38	ASN
40	AT	43	GLN
40	AT	58	ASN
40	AT	90	GLN
40	AT	123	GLN
41	AU	14	HIS
41	AU	44	ASN
41	AU	49	HIS
41	AU	66	ASN
41	AU	71	GLN
41	AU	81	HIS
42	AV	11	GLN
43	AW	34	ASN
43	AW	57	ASN
43	AW	61	ASN
43	AW	62	HIS
43	AW	102	HIS
44	AX	31	HIS
44	AX	41	ASN
44	AX	55	ASN
46	AZ	30	ASN

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Mol	Chain	Res	Type
46	AZ	34	ASN
46	AZ	54	HIS
46	AZ	55	HIS
46	AZ	118	GLN
47	A0	12	ASN
47	A0	29	GLN
47	A0	70	GLN
48	A1	19	GLN
48	A1	45	ASN
48	A1	47	GLN
48	A1	56	GLN
49	A2	46	GLN
49	A2	47	ASN
49	A2	70	GLN
49	A2	71	ASN
50	A3	19	GLN
50	A3	32	GLN
50	A3	46	ASN
50	A3	52	HIS
51	A4	20	ASN
51	A4	40	HIS
52	A5	43	HIS
53	A6	29	ASN
54	A7	8	ASN
55	A8	31	HIS
55	A8	33	ASN
56	A9	32	HIS
56	A9	34	GLN
1	Bb	37	ASN
1	Bb	40	HIS
1	Bb	76	GLN
1	Bb	78	GLN
1	Bb	104	ASN
1	Bb	135	GLN
1	Bb	146	GLN
1	Bb	204	ASN
2	Bc	69	HIS
2	Bc	102	ASN
2	Bc	104	GLN
2	Bc	107	GLN
2	Bc	123	GLN
2	Bc	170	GLN

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Mol	Chain	Res	Type
3	Bd	42	GLN
3	Bd	45	GLN
3	Bd	62	GLN
3	Bd	129	ASN
3	Bd	161	ASN
3	Bd	201	GLN
4	Be	20	GLN
4	Be	72	GLN
4	Be	73	ASN
4	Be	78	HIS
4	Be	141	GLN
5	Bf	7	ASN
5	Bf	11	ASN
5	Bf	18	GLN
5	Bf	27	GLN
5	Bf	32	ASN
5	Bf	64	GLN
5	Bf	84	ASN
5	Bf	100	ASN
6	Bg	13	GLN
6	Bg	68	ASN
6	Bg	106	GLN
6	Bg	148	ASN
8	Bi	23	ASN
8	Bi	31	GLN
8	Bi	58	HIS
8	Bi	117	HIS
8	Bi	124	GLN
9	Bj	78	ASN
9	Bj	84	GLN
10	Bk	13	GLN
10	Bk	26	ASN
10	Bk	78	GLN
10	Bk	99	GLN
10	Bk	116	HIS
10	Bk	117	ASN
11	Bl	8	ASN
11	Bl	9	GLN
11	Bl	49	ASN
11	Bl	75	HIS
11	Bl	80	HIS
12	Bm	12	ASN

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Mol	Chain	Res	Type
12	Bm	101	GLN
14	Bo	37	ASN
14	Bo	46	HIS
15	Bp	76	GLN
15	Bp	82	GLN
16	Bq	16	GLN
17	Br	36	ASN
18	Bs	14	HIS
18	Bs	23	ASN
18	Bs	57	HIS
18	Bs	65	ASN
19	Bt	16	HIS
19	Bt	26	ASN
19	Bt	42	GLN
19	Bt	75	ASN
21	By	25	GLN
21	By	65	GLN
26	BC	57	GLN
26	BC	228	HIS
27	BD	58	HIS
27	BD	96	HIS
27	BD	126	GLN
27	BD	164	GLN
27	BD	166	GLN
27	BD	186	HIS
27	BD	198	ASN
27	BD	227	ASN
28	BE	48	GLN
28	BE	54	GLN
28	BE	55	ASN
28	BE	129	HIS
28	BE	137	HIS
28	BE	143	ASN
28	BE	169	ASN
28	BE	180	ASN
29	BF	69	HIS
29	BF	75	HIS
29	BF	133	ASN
29	BF	160	ASN
29	BF	169	ASN
30	BG	40	ASN
30	BG	58	GLN

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Mol	Chain	Res	Type
30	BG	66	GLN
31	BH	65	HIS
31	BH	74	ASN
31	BH	147	ASN
32	BI	28	ASN
32	BI	74	ASN
32	BI	104	GLN
32	BI	139	GLN
34	BN	38	HIS
34	BN	45	ASN
34	BN	56	ASN
34	BN	94	HIS
34	BN	128	HIS
35	BO	3	GLN
35	BO	5	GLN
35	BO	13	ASN
35	BO	82	ASN
35	BO	88	ASN
36	BP	9	ASN
36	BP	13	ASN
36	BP	68	GLN
36	BP	84	ASN
36	BP	128	HIS
37	BQ	12	GLN
37	BQ	45	GLN
38	BR	3	HIS
38	BR	23	ASN
38	BR	24	GLN
38	BR	31	HIS
38	BR	50	HIS
38	BR	53	HIS
38	BR	71	GLN
39	BS	34	HIS
39	BS	95	HIS
40	BT	2	ASN
40	BT	38	ASN
40	BT	43	GLN
40	BT	58	ASN
40	BT	90	GLN
40	BT	123	GLN
41	BU	14	HIS
41	BU	44	ASN

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Mol	Chain	Res	Type
41	BU	49	HIS
41	BU	66	ASN
41	BU	71	GLN
41	BU	81	HIS
42	BV	11	GLN
43	BW	34	ASN
43	BW	57	ASN
43	BW	61	ASN
43	BW	62	HIS
43	BW	102	HIS
44	BX	31	HIS
44	BX	41	ASN
44	BX	55	ASN
46	BZ	54	HIS
46	BZ	132	ASN
46	BZ	151	HIS
47	B0	3	HIS
47	B0	12	ASN
47	B0	29	GLN
47	B0	70	GLN
48	B1	45	ASN
48	B1	56	GLN
49	B2	9	GLN
49	B2	47	ASN
49	B2	65	ASN
50	B3	19	GLN
50	B3	32	GLN
50	B3	46	ASN
50	B3	52	HIS
51	B4	6	HIS
51	B4	20	ASN
51	B4	40	HIS
52	B5	43	HIS
54	B7	8	ASN
55	B8	31	HIS
55	B8	33	ASN
56	B9	34	GLN

5.3.3 RNA

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
22	Aa	1503/1504 (99%)	208 (13%)	0
22	Ba	1503/1504 (99%)	209 (13%)	0
23	Ax	11/25 (44%)	5 (45%)	0
23	Bx	11/25 (44%)	5 (45%)	0
24	Av	76/77 (98%)	18 (23%)	0
24	Bv	76/77 (98%)	14 (18%)	0
25	Aw	76/77 (98%)	9 (11%)	0
25	Bw	76/77 (98%)	10 (13%)	0
57	AA	2847/2848 (99%)	493 (17%)	61 (2%)
57	BA	2847/2848 (99%)	494 (17%)	64 (2%)
58	AB	118/119 (99%)	18 (15%)	1 (0%)
58	BB	118/119 (99%)	18 (15%)	1 (0%)
All	All	9262/9300 (99%)	1501 (16%)	127 (1%)

All (1501) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
22	Aa	9	G
22	Aa	31	G
22	Aa	32	A
22	Aa	39	G
22	Aa	47	C
22	Aa	48	C
22	Aa	51	A
22	Aa	60	A
22	Aa	61	G
22	Aa	79	G
22	Aa	80	G
22	Aa	81	U
22	Aa	84	U
22	Aa	89	C
22	Aa	90	U
22	Aa	97	G
22	Aa	116	A
22	Aa	120	A
22	Aa	121	C
22	Aa	131	C
22	Aa	150	C
22	Aa	172	A
22	Aa	195	A
22	Aa	197	A

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Mol	Chain	Res	Type
22	Aa	203	U
22	Aa	204	U
22	Aa	220	G
22	Aa	244	U
22	Aa	247	G
22	Aa	251	G
22	Aa	266	G
22	Aa	267	C
22	Aa	289	G
22	Aa	321	A
22	Aa	328	C
22	Aa	329	A
22	Aa	332	G
22	Aa	345	C
22	Aa	352	C
22	Aa	353	A
22	Aa	354	G
22	Aa	367	U
22	Aa	372	C
22	Aa	397	A
22	Aa	398	C
22	Aa	412	A
22	Aa	413	G
22	Aa	414	A
22	Aa	422	C
22	Aa	423	G
22	Aa	428	G
22	Aa	429	U
22	Aa	430	A
22	Aa	435	C
22	Aa	437	U
22	Aa	439	A
22	Aa	452	A
22	Aa	461	A
22	Aa	484	G
22	Aa	485	G
22	Aa	496	A
22	Aa	498	U
22	Aa	509	A
22	Aa	510	A
22	Aa	511	C
22	Aa	518	C

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Mol	Chain	Res	Type
22	Aa	527	G
22	Aa	532	A
22	Aa	533	A
22	Aa	534	U
22	Aa	547	A
22	Aa	559	A
22	Aa	561	U
22	Aa	562	C
22	Aa	572	A
22	Aa	573	A
22	Aa	575	G
22	Aa	576	G
22	Aa	577	G
22	Aa	630	G
22	Aa	631	G
22	Aa	632	A
22	Aa	633	G
22	Aa	653	A
22	Aa	665	A
22	Aa	687	A
22	Aa	688	G
22	Aa	703	G
22	Aa	724	G
22	Aa	731	G
22	Aa	749	C
22	Aa	755	G
22	Aa	777	A
22	Aa	794	A
22	Aa	816	A
22	Aa	817	C
22	Aa	818	G
22	Aa	821	G
22	Aa	828	A
22	Aa	833	U
22	Aa	839	U
22	Aa	840	C
22	Aa	841	U
22	Aa	848	C
22	Aa	859	A
22	Aa	885	G
22	Aa	902	G
22	Aa	913	A

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Mol	Chain	Res	Type
22	Aa	914	A
22	Aa	926	G
22	Aa	927	G
22	Aa	934	C
22	Aa	935	A
22	Aa	960	U
22	Aa	961	U
22	Aa	966	G
22	Aa	968	A
22	Aa	969	A
22	Aa	971	G
22	Aa	974	A
22	Aa	975	A
22	Aa	976	G
22	Aa	977	A
22	Aa	978	A
22	Aa	980	C
22	Aa	991	U
22	Aa	992	U
22	Aa	993	G
22	Aa	1001(A)	G
22	Aa	1026	G
22	Aa	1030	C
22	Aa	1050	G
22	Aa	1054	C
22	Aa	1055	A
22	Aa	1065	U
22	Aa	1066	C
22	Aa	1068	G
22	Aa	1081	G
22	Aa	1094	G
22	Aa	1095	U
22	Aa	1101	A
22	Aa	1108	G
22	Aa	1117	G
22	Aa	1124	G
22	Aa	1125	U
22	Aa	1126	U
22	Aa	1129	C
22	Aa	1131	G
22	Aa	1136	U
22	Aa	1137	C

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Mol	Chain	Res	Type
22	Aa	1138	G
22	Aa	1139	G
22	Aa	1146	A
22	Aa	1152	A
22	Aa	1159	U
22	Aa	1182	G
22	Aa	1194	U
22	Aa	1196	U
22	Aa	1197	G
22	Aa	1201	A
22	Aa	1202	G
22	Aa	1212	U
22	Aa	1213	A
22	Aa	1225	A
22	Aa	1226	C
22	Aa	1238	A
22	Aa	1249	C
22	Aa	1255	G
22	Aa	1256	A
22	Aa	1257	U
22	Aa	1280	A
22	Aa	1281	U
22	Aa	1282	C
22	Aa	1286	A
22	Aa	1287	A
22	Aa	1294	G
22	Aa	1300	G
22	Aa	1301	U
22	Aa	1302	U
22	Aa	1305	G
22	Aa	1317	C
22	Aa	1320	C
22	Aa	1322	C
22	Aa	1323	G
22	Aa	1331	G
22	Aa	1346	A
22	Aa	1347	G
22	Aa	1363	C
22	Aa	1364	U
22	Aa	1397	C
22	Aa	1419	G
22	Aa	1442	G

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Mol	Chain	Res	Type
22	Aa	1442(A)	G
22	Aa	1442(B)	A
22	Aa	1443	G
22	Aa	1452	C
22	Aa	1492	A
22	Aa	1497	G
22	Aa	1498	U
22	Aa	1499	A
22	Aa	1504	G
22	Aa	1505	G
22	Aa	1506	U
22	Aa	1507	A
22	Aa	1517	G
22	Aa	1520	G
22	Aa	1529	G
22	Aa	1530	G
23	Ax	14	A
23	Ax	19	OMU
23	Ax	21	OMG
23	Ax	22	A
23	Ax	24	A
24	Av	3	C
24	Av	4	G
24	Av	5	G
24	Av	7	G
24	Av	8	U
24	Av	9	G
24	Av	17(A)	U
24	Av	18	G
24	Av	19	G
24	Av	20	U
24	Av	21	A
24	Av	47	U
24	Av	48	C
24	Av	49	G
24	Av	65	C
24	Av	73	A
24	Av	75	C
24	Av	76	A
25	Aw	5	G
25	Aw	8	U
25	Aw	16	C

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Mol	Chain	Res	Type
25	Aw	17(A)	U
25	Aw	18	G
25	Aw	19	G
25	Aw	20	U
25	Aw	47	U
25	Aw	48	C
57	AA	10	G
57	AA	34	C
57	AA	35	G
57	AA	45	C
57	AA	49	A
57	AA	50	U
57	AA	55	G
57	AA	71	A
57	AA	72	U
57	AA	75	G
57	AA	88	G
57	AA	90	U
57	AA	94	C
57	AA	95	G
57	AA	100	G
57	AA	102	G
57	AA	118	A
57	AA	119	A
57	AA	120	U
57	AA	129	C
57	AA	139(A)	G
57	AA	141	A
57	AA	146	G
57	AA	154(A)	C
57	AA	155	U
57	AA	156	U
57	AA	171	G
57	AA	174	C
57	AA	181	A
57	AA	182	A
57	AA	196	A
57	AA	197	A
57	AA	199	A
57	AA	204	A
57	AA	205	G
57	AA	215	G

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Mol	Chain	Res	Type
57	AA	216	A
57	AA	221	A
57	AA	222	A
57	AA	228	A
57	AA	229	A
57	AA	230	U
57	AA	233	A
57	AA	248	G
57	AA	252	G
57	AA	269	U
57	AA	271(J)	C
57	AA	271(N)	U
57	AA	271(O)	C
57	AA	271(P)	C
57	AA	271(R)	G
57	AA	271(Y)	U
57	AA	272	G
57	AA	272(B)	G
57	AA	272(H)	C
57	AA	272(I)	U
57	AA	274	G
57	AA	276	A
57	AA	277	C
57	AA	299	A
57	AA	311	A
57	AA	329	G
57	AA	330	A
57	AA	332	A
57	AA	333	G
57	AA	352	G
57	AA	353	G
57	AA	356	G
57	AA	363(B)	G
57	AA	363(F)	A
57	AA	365	C
57	AA	372	G
57	AA	386	G
57	AA	388	G
57	AA	405	U
57	AA	406	G
57	AA	411	G
57	AA	412	A

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Mol	Chain	Res	Type
57	AA	428	A
57	AA	444	C
57	AA	448	U
57	AA	454	A
57	AA	456	C
57	AA	457	A
57	AA	470	A
57	AA	475	U
57	AA	481	G
57	AA	494	G
57	AA	505	A
57	AA	508	G
57	AA	509	C
57	AA	528	A
57	AA	530	G
57	AA	531	C
57	AA	532	A
57	AA	533	G
57	AA	544	G
57	AA	547	A
57	AA	563	G
57	AA	573	G
57	AA	575	A
57	AA	586	A
57	AA	588	U
57	AA	603	A
57	AA	604	G
57	AA	607	U
57	AA	613	G
57	AA	614(B)	G
57	AA	615	G
57	AA	620	G
57	AA	622	G
57	AA	627	A
57	AA	637	A
57	AA	645	C
57	AA	646	A
57	AA	651	G
57	AA	653	A
57	AA	654	A
57	AA	654(C)	G
57	AA	654(I)	C

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Mol	Chain	Res	Type
57	AA	654(J)	A
57	AA	654(K)	C
57	AA	654(L)	G
57	AA	654(M)	C
57	AA	654(T)	C
57	AA	655	A
57	AA	669	G
57	AA	670	A
57	AA	673	C
57	AA	686	G
57	AA	708	C
57	AA	717	G
57	AA	722	A
57	AA	730	C
57	AA	753	C
57	AA	764	A
57	AA	765	G
57	AA	775	G
57	AA	776	G
57	AA	782	A
57	AA	784	A
57	AA	785	G
57	AA	790	C
57	AA	791	C
57	AA	792	G
57	AA	805	G
57	AA	812	C
57	AA	819	A
57	AA	827	U
57	AA	828	U
57	AA	830	G
57	AA	848	G
57	AA	856	C
57	AA	859	G
57	AA	869	G
57	AA	878	A
57	AA	890	A
57	AA	896	A
57	AA	897	C
57	AA	904	C
57	AA	905	U
57	AA	910	A

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Mol	Chain	Res	Type
57	AA	917	A
57	AA	932	G
57	AA	941	A
57	AA	945	A
57	AA	946	G
57	AA	958	U
57	AA	959	A
57	AA	961	C
57	AA	965	C
57	AA	974	G
57	AA	975	C
57	AA	983	A
57	AA	991	C
57	AA	996	A
57	AA	1012	U
57	AA	1013	C
57	AA	1015	G
57	AA	1022	G
57	AA	1023	U
57	AA	1025	G
57	AA	1026	U
57	AA	1039	G
57	AA	1041	C
57	AA	1045	A
57	AA	1046	A
57	AA	1047	G
57	AA	1049	C
57	AA	1052	C
57	AA	1053	C
57	AA	1106	A
57	AA	1110	G
57	AA	1112	G
57	AA	1113	U
57	AA	1114	G
57	AA	1116	C
57	AA	1130	U
57	AA	1135	C
57	AA	1136	G
57	AA	1142	U
57	AA	1155	A
57	AA	1171	G
57	AA	1173	G

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Mol	Chain	Res	Type
57	AA	1174	A
57	AA	1175	U
57	AA	1176	G
57	AA	1178	C
57	AA	1195	G
57	AA	1205	U
57	AA	1210	A
57	AA	1211	U
57	AA	1212	G
57	AA	1221	C
57	AA	1247	A
57	AA	1250	G
57	AA	1253	A
57	AA	1256	G
57	AA	1265	A
57	AA	1271	G
57	AA	1272	A
57	AA	1273	U
57	AA	1281	G
57	AA	1300	U
57	AA	1301	A
57	AA	1314	C
57	AA	1319	G
57	AA	1321	A
57	AA	1332	G
57	AA	1345	C
57	AA	1349	A
57	AA	1359	A
57	AA	1368	G
57	AA	1378	A
57	AA	1379	A
57	AA	1380	G
57	AA	1384	A
57	AA	1385	G
57	AA	1386	C
57	AA	1407	C
57	AA	1416	G
57	AA	1417	C
57	AA	1419	A
57	AA	1420	U
57	AA	1421	G
57	AA	1427	A

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Mol	Chain	Res	Type
57	AA	1428	C
57	AA	1437	C
57	AA	1445	A
57	AA	1449	A
57	AA	1450	G
57	AA	1460	A
57	AA	1461	G
57	AA	1467	C
57	AA	1471	A
57	AA	1475	G
57	AA	1478	G
57	AA	1481	U
57	AA	1482	G
57	AA	1485	G
57	AA	1488	G
57	AA	1490	A
57	AA	1493	C
57	AA	1494	A
57	AA	1495	A
57	AA	1497	U
57	AA	1501	C
57	AA	1502	C
57	AA	1505	C
57	AA	1509	C
57	AA	1509(A)	A
57	AA	1528(A)	A
57	AA	1537	G
57	AA	1539	G
57	AA	1541	G
57	AA	1542	A
57	AA	1544	A
57	AA	1554	A
57	AA	1558	A
57	AA	1559	G
57	AA	1566	A
57	AA	1569	A
57	AA	1578	U
57	AA	1579	A
57	AA	1584	C
57	AA	1586	A
57	AA	1588	C
57	AA	1591	G

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Mol	Chain	Res	Type
57	AA	1603	A
57	AA	1608	A
57	AA	1609	A
57	AA	1616	A
57	AA	1617	C
57	AA	1618	A
57	AA	1640	C
57	AA	1648	C
57	AA	1653	G
57	AA	1654	A
57	AA	1674	G
57	AA	1694	C
57	AA	1696	G
57	AA	1718	G
57	AA	1722	A
57	AA	1739	U
57	AA	1740	G
57	AA	1742	G
57	AA	1746	G
57	AA	1748	G
57	AA	1763	G
57	AA	1764	G
57	AA	1773	A
57	AA	1780	A
57	AA	1791	A
57	AA	1799	G
57	AA	1800	C
57	AA	1801	G
57	AA	1816	G
57	AA	1820	U
57	AA	1821	A
57	AA	1835	G
57	AA	1846	G
57	AA	1847	A
57	AA	1848	A
57	AA	1858	G
57	AA	1865	G
57	AA	1866	C
57	AA	1878	G
57	AA	1881	C
57	AA	1882	C
57	AA	1885	A

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Mol	Chain	Res	Type
57	AA	1886	C
57	AA	1888	G
57	AA	1889	A
57	AA	1900	A
57	AA	1906	G
57	AA	1912	A
57	AA	1913	A
57	AA	1929	G
57	AA	1930	G
57	AA	1936	A
57	AA	1938	A
57	AA	1948	G
57	AA	1955	U
57	AA	1963	U
57	AA	1967	C
57	AA	1969	A
57	AA	1970	A
57	AA	1971	A
57	AA	1972	A
57	AA	1982	C
57	AA	1987	G
57	AA	1992	G
57	AA	1993	U
57	AA	1997	G
57	AA	2023	G
57	AA	2031	A
57	AA	2033	A
57	AA	2034	U
57	AA	2036	C
57	AA	2043	C
57	AA	2055	C
57	AA	2056	G
57	AA	2060	A
57	AA	2061	G
57	AA	2062	A
57	AA	2069	G
57	AA	2100	G
57	AA	2103	C
57	AA	2104	G
57	AA	2116	G
57	AA	2118	U
57	AA	2127	G

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Mol	Chain	Res	Type
57	AA	2131	G
57	AA	2133	G
57	AA	2159	G
57	AA	2172	U
57	AA	2173	A
57	AA	2177	C
57	AA	2179	C
57	AA	2185	C
57	AA	2187	G
57	AA	2190	G
57	AA	2192	G
57	AA	2193	G
57	AA	2198	A
57	AA	2199	A
57	AA	2200	C
57	AA	2207	G
57	AA	2208	A
57	AA	2218	U
57	AA	2225	A
57	AA	2226	C
57	AA	2238	G
57	AA	2239	G
57	AA	2275	C
57	AA	2283	C
57	AA	2287	A
57	AA	2288	A
57	AA	2302	G
57	AA	2305	A
57	AA	2307	G
57	AA	2308	G
57	AA	2309	A
57	AA	2311	A
57	AA	2313	C
57	AA	2316	C
57	AA	2319	G
57	AA	2320	A
57	AA	2334	G
57	AA	2336	A
57	AA	2347	C
57	AA	2350	C
57	AA	2360	A
57	AA	2361	A

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Mol	Chain	Res	Type
57	AA	2383	G
57	AA	2385	C
57	AA	2400	G
57	AA	2402	C
57	AA	2406	U
57	AA	2423	U
57	AA	2425	A
57	AA	2429	G
57	AA	2430	A
57	AA	2435	A
57	AA	2439	A
57	AA	2441	C
57	AA	2448	A
57	AA	2459	A
57	AA	2465	C
57	AA	2469	A
57	AA	2470	G
57	AA	2472	G
57	AA	2476	A
57	AA	2477	C
57	AA	2478	A
57	AA	2482	G
57	AA	2484	G
57	AA	2491	U
57	AA	2502	G
57	AA	2505	G
57	AA	2518	A
57	AA	2524	G
57	AA	2529	G
57	AA	2531	A
57	AA	2542	A
57	AA	2543	G
57	AA	2554	U
57	AA	2566	A
57	AA	2567	G
57	AA	2573	C
57	AA	2586	C
57	AA	2602	A
57	AA	2611	U
57	AA	2612	C
57	AA	2615	U
57	AA	2630	G

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Mol	Chain	Res	Type
57	AA	2657	A
57	AA	2673	G
57	AA	2690	C
57	AA	2691	C
57	AA	2702	U
57	AA	2703	C
57	AA	2712	U
57	AA	2712(A)	A
57	AA	2713	A
57	AA	2720	U
57	AA	2726	U
57	AA	2733	A
57	AA	2752	C
57	AA	2758	A
57	AA	2762	G
57	AA	2765	A
57	AA	2766	G
57	AA	2778	A
57	AA	2779	U
57	AA	2790	A
57	AA	2791	C
57	AA	2794	C
57	AA	2799	C
57	AA	2801(A)	A
57	AA	2802	G
57	AA	2803	C
57	AA	2804	C
57	AA	2808	U
57	AA	2818	G
57	AA	2820	A
57	AA	2821	A
57	AA	2833	G
57	AA	2834	G
57	AA	2849	U
57	AA	2872	G
57	AA	2892	A
57	AA	2893	G
58	AB	8	U
58	AB	13	A
58	AB	15	A
58	AB	16	G
58	AB	22	U

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Mol	Chain	Res	Type
58	AB	24	G
58	AB	41	U
58	AB	42	C
58	AB	45	A
58	AB	52	A
58	AB	53	A
58	AB	67	G
58	AB	73	A
58	AB	81	G
58	AB	82	G
58	AB	88	C
58	AB	110	G
58	AB	113	G
22	Ba	9	G
22	Ba	31	G
22	Ba	32	A
22	Ba	39	G
22	Ba	47	C
22	Ba	48	C
22	Ba	50	A
22	Ba	51	A
22	Ba	54	C
22	Ba	60	A
22	Ba	61	G
22	Ba	79	G
22	Ba	80	G
22	Ba	81	U
22	Ba	84	U
22	Ba	89	C
22	Ba	90	U
22	Ba	97	G
22	Ba	116	A
22	Ba	120	A
22	Ba	121	C
22	Ba	131	C
22	Ba	150	C
22	Ba	172	A
22	Ba	195	A
22	Ba	197	A
22	Ba	203	U
22	Ba	204	U
22	Ba	220	G

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Mol	Chain	Res	Type
22	Ba	244	U
22	Ba	247	G
22	Ba	251	G
22	Ba	266	G
22	Ba	267	C
22	Ba	289	G
22	Ba	321	A
22	Ba	328	C
22	Ba	329	A
22	Ba	332	G
22	Ba	345	C
22	Ba	352	C
22	Ba	353	A
22	Ba	354	G
22	Ba	367	U
22	Ba	372	C
22	Ba	397	A
22	Ba	398	C
22	Ba	412	A
22	Ba	413	G
22	Ba	414	A
22	Ba	422	C
22	Ba	423	G
22	Ba	428	G
22	Ba	429	U
22	Ba	430	A
22	Ba	435	C
22	Ba	437	U
22	Ba	439	A
22	Ba	452	A
22	Ba	461	A
22	Ba	484	G
22	Ba	485	G
22	Ba	496	A
22	Ba	498	U
22	Ba	509	A
22	Ba	510	A
22	Ba	511	C
22	Ba	518	C
22	Ba	527	G
22	Ba	532	A
22	Ba	533	A

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Mol	Chain	Res	Type
22	Ba	534	U
22	Ba	547	A
22	Ba	559	A
22	Ba	561	U
22	Ba	562	C
22	Ba	572	A
22	Ba	573	A
22	Ba	575	G
22	Ba	576	G
22	Ba	577	G
22	Ba	630	G
22	Ba	631	G
22	Ba	632	A
22	Ba	633	G
22	Ba	653	A
22	Ba	665	A
22	Ba	687	A
22	Ba	688	G
22	Ba	703	G
22	Ba	724	G
22	Ba	731	G
22	Ba	749	C
22	Ba	755	G
22	Ba	777	A
22	Ba	794	A
22	Ba	817	C
22	Ba	818	G
22	Ba	821	G
22	Ba	828	A
22	Ba	833	U
22	Ba	839	U
22	Ba	840	C
22	Ba	841	U
22	Ba	848	C
22	Ba	859	A
22	Ba	885	G
22	Ba	902	G
22	Ba	913	A
22	Ba	914	A
22	Ba	926	G
22	Ba	927	G
22	Ba	934	C

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Mol	Chain	Res	Type
22	Ba	935	A
22	Ba	960	U
22	Ba	961	U
22	Ba	966	G
22	Ba	968	A
22	Ba	969	A
22	Ba	974	A
22	Ba	975	A
22	Ba	976	G
22	Ba	977	A
22	Ba	978	A
22	Ba	980	C
22	Ba	991	U
22	Ba	992	U
22	Ba	993	G
22	Ba	1001(A)	G
22	Ba	1026	G
22	Ba	1030	C
22	Ba	1050	G
22	Ba	1054	C
22	Ba	1055	A
22	Ba	1065	U
22	Ba	1066	C
22	Ba	1068	G
22	Ba	1081	G
22	Ba	1094	G
22	Ba	1095	U
22	Ba	1101	A
22	Ba	1108	G
22	Ba	1117	G
22	Ba	1124	G
22	Ba	1125	U
22	Ba	1126	U
22	Ba	1129	C
22	Ba	1131	G
22	Ba	1136	U
22	Ba	1137	C
22	Ba	1138	G
22	Ba	1139	G
22	Ba	1146	A
22	Ba	1152	A
22	Ba	1159	U

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Mol	Chain	Res	Type
22	Ba	1182	G
22	Ba	1196	U
22	Ba	1197	G
22	Ba	1198	G
22	Ba	1201	A
22	Ba	1202	G
22	Ba	1212	U
22	Ba	1213	A
22	Ba	1225	A
22	Ba	1227	A
22	Ba	1238	A
22	Ba	1249	C
22	Ba	1255	G
22	Ba	1256	A
22	Ba	1257	U
22	Ba	1280	A
22	Ba	1281	U
22	Ba	1282	C
22	Ba	1286	A
22	Ba	1287	A
22	Ba	1294	G
22	Ba	1300	G
22	Ba	1301	U
22	Ba	1302	U
22	Ba	1305	G
22	Ba	1317	C
22	Ba	1320	C
22	Ba	1322	C
22	Ba	1323	G
22	Ba	1331	G
22	Ba	1346	A
22	Ba	1347	G
22	Ba	1363	C
22	Ba	1364	U
22	Ba	1419	G
22	Ba	1439	C
22	Ba	1442	G
22	Ba	1442(A)	G
22	Ba	1442(B)	A
22	Ba	1443	G
22	Ba	1447	A
22	Ba	1452	C

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Mol	Chain	Res	Type
22	Ba	1487	G
22	Ba	1497	G
22	Ba	1499	A
22	Ba	1502	A
22	Ba	1504	G
22	Ba	1505	G
22	Ba	1506	U
22	Ba	1517	G
22	Ba	1519	A
22	Ba	1520	G
22	Ba	1529	G
22	Ba	1530	G
23	Bx	14	A
23	Bx	19	OMU
23	Bx	20	A2M
23	Bx	21	OMG
23	Bx	22	A
24	Bv	3	C
24	Bv	5	G
24	Bv	17(A)	U
24	Bv	18	G
24	Bv	19	G
24	Bv	20	U
24	Bv	21	A
24	Bv	47	U
24	Bv	48	C
24	Bv	61	C
24	Bv	65	C
24	Bv	73	A
24	Bv	75	C
24	Bv	76	A
25	Bw	5	G
25	Bw	7	G
25	Bw	8	U
25	Bw	9	G
25	Bw	17(A)	U
25	Bw	18	G
25	Bw	19	G
25	Bw	20	U
25	Bw	47	U
25	Bw	48	C
57	BA	10	G

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Mol	Chain	Res	Type
57	BA	34	C
57	BA	35	G
57	BA	45	C
57	BA	49	A
57	BA	50	U
57	BA	55	G
57	BA	71	A
57	BA	72	U
57	BA	75	G
57	BA	88	G
57	BA	90	U
57	BA	94	C
57	BA	95	G
57	BA	100	G
57	BA	102	G
57	BA	118	A
57	BA	119	A
57	BA	120	U
57	BA	129	C
57	BA	139(A)	G
57	BA	141	A
57	BA	146	G
57	BA	154(A)	C
57	BA	155	U
57	BA	156	U
57	BA	171	G
57	BA	174	C
57	BA	181	A
57	BA	182	A
57	BA	196	A
57	BA	197	A
57	BA	198	C
57	BA	204	A
57	BA	205	G
57	BA	215	G
57	BA	216	A
57	BA	221	A
57	BA	222	A
57	BA	228	A
57	BA	229	A
57	BA	230	U
57	BA	233	A

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Mol	Chain	Res	Type
57	BA	248	G
57	BA	252	G
57	BA	269	U
57	BA	271(J)	C
57	BA	271(N)	U
57	BA	271(O)	C
57	BA	271(P)	C
57	BA	271(R)	G
57	BA	271(Y)	U
57	BA	272	G
57	BA	272(B)	G
57	BA	272(H)	C
57	BA	272(I)	U
57	BA	274	G
57	BA	276	A
57	BA	277	C
57	BA	299	A
57	BA	311	A
57	BA	329	G
57	BA	330	A
57	BA	332	A
57	BA	333	G
57	BA	352	G
57	BA	353	G
57	BA	356	G
57	BA	363(B)	G
57	BA	363(F)	A
57	BA	365	C
57	BA	372	G
57	BA	386	G
57	BA	388	G
57	BA	405	U
57	BA	406	G
57	BA	411	G
57	BA	412	A
57	BA	428	A
57	BA	444	C
57	BA	448	U
57	BA	456	C
57	BA	457	A
57	BA	470	A
57	BA	475	U

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Mol	Chain	Res	Type
57	BA	481	G
57	BA	494	G
57	BA	505	A
57	BA	508	G
57	BA	509	C
57	BA	528	A
57	BA	531	C
57	BA	532	A
57	BA	533	G
57	BA	544	G
57	BA	547	A
57	BA	563	G
57	BA	573	G
57	BA	575	A
57	BA	586	A
57	BA	588	U
57	BA	603	A
57	BA	604	G
57	BA	607	U
57	BA	613	G
57	BA	614(B)	G
57	BA	615	G
57	BA	622	G
57	BA	627	A
57	BA	637	A
57	BA	645	C
57	BA	646	A
57	BA	651	G
57	BA	653	A
57	BA	654	A
57	BA	654(C)	G
57	BA	654(I)	C
57	BA	654(J)	A
57	BA	654(K)	C
57	BA	654(L)	G
57	BA	654(M)	C
57	BA	654(T)	C
57	BA	655	A
57	BA	669	G
57	BA	670	A
57	BA	673	C
57	BA	686	G

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Mol	Chain	Res	Type
57	BA	708	C
57	BA	717	G
57	BA	722	A
57	BA	730	C
57	BA	753	C
57	BA	764	A
57	BA	765	G
57	BA	775	G
57	BA	776	G
57	BA	782	A
57	BA	784	A
57	BA	785	G
57	BA	790	C
57	BA	791	C
57	BA	792	G
57	BA	805	G
57	BA	812	C
57	BA	819	A
57	BA	827	U
57	BA	828	U
57	BA	830	G
57	BA	848	G
57	BA	856	C
57	BA	859	G
57	BA	878	A
57	BA	890	A
57	BA	896	A
57	BA	897	C
57	BA	904	C
57	BA	905	U
57	BA	910	A
57	BA	917	A
57	BA	932	G
57	BA	941	A
57	BA	945	A
57	BA	946	G
57	BA	958	U
57	BA	959	A
57	BA	961	C
57	BA	965	C
57	BA	974	G
57	BA	975	C

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Mol	Chain	Res	Type
57	BA	983	A
57	BA	991	C
57	BA	996	A
57	BA	1012	U
57	BA	1013	C
57	BA	1015	G
57	BA	1022	G
57	BA	1023	U
57	BA	1025	G
57	BA	1026	U
57	BA	1039	G
57	BA	1041	C
57	BA	1045	A
57	BA	1046	A
57	BA	1047	G
57	BA	1049	C
57	BA	1052	C
57	BA	1053	C
57	BA	1106	A
57	BA	1110	G
57	BA	1112	G
57	BA	1113	U
57	BA	1114	G
57	BA	1116	C
57	BA	1130	U
57	BA	1135	C
57	BA	1136	G
57	BA	1142	U
57	BA	1155	A
57	BA	1171	G
57	BA	1173	G
57	BA	1174	A
57	BA	1175	U
57	BA	1176	G
57	BA	1178	C
57	BA	1195	G
57	BA	1205	U
57	BA	1210	A
57	BA	1211	U
57	BA	1212	G
57	BA	1221	C
57	BA	1247	A

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Mol	Chain	Res	Type
57	BA	1250	G
57	BA	1253	A
57	BA	1256	G
57	BA	1265	A
57	BA	1271	G
57	BA	1272	A
57	BA	1273	U
57	BA	1281	G
57	BA	1286	A
57	BA	1300	U
57	BA	1301	A
57	BA	1314	C
57	BA	1319	G
57	BA	1321	A
57	BA	1332	G
57	BA	1345	C
57	BA	1349	A
57	BA	1359	A
57	BA	1368	G
57	BA	1378	A
57	BA	1379	A
57	BA	1380	G
57	BA	1384	A
57	BA	1385	G
57	BA	1386	C
57	BA	1407	C
57	BA	1416	G
57	BA	1417	C
57	BA	1419	A
57	BA	1420	U
57	BA	1421	G
57	BA	1427	A
57	BA	1428	C
57	BA	1437	C
57	BA	1445	A
57	BA	1449	A
57	BA	1450	G
57	BA	1460	A
57	BA	1461	G
57	BA	1467	C
57	BA	1471	A
57	BA	1475	G

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Mol	Chain	Res	Type
57	BA	1478	G
57	BA	1481	U
57	BA	1482	G
57	BA	1485	G
57	BA	1488	G
57	BA	1490	A
57	BA	1493	C
57	BA	1494	A
57	BA	1495	A
57	BA	1497	U
57	BA	1501	C
57	BA	1502	C
57	BA	1505	C
57	BA	1509	C
57	BA	1509(A)	A
57	BA	1528(A)	A
57	BA	1537	G
57	BA	1539	G
57	BA	1541	G
57	BA	1542	A
57	BA	1544	A
57	BA	1554	A
57	BA	1558	A
57	BA	1559	G
57	BA	1566	A
57	BA	1569	A
57	BA	1578	U
57	BA	1579	A
57	BA	1584	C
57	BA	1586	A
57	BA	1588	C
57	BA	1591	G
57	BA	1603	A
57	BA	1608	A
57	BA	1609	A
57	BA	1616	A
57	BA	1617	C
57	BA	1618	A
57	BA	1640	C
57	BA	1648	C
57	BA	1653	G
57	BA	1654	A

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Mol	Chain	Res	Type
57	BA	1674	G
57	BA	1694	C
57	BA	1696	G
57	BA	1718	G
57	BA	1722	A
57	BA	1739	U
57	BA	1740	G
57	BA	1742	G
57	BA	1746	G
57	BA	1748	G
57	BA	1763	G
57	BA	1764	G
57	BA	1773	A
57	BA	1780	A
57	BA	1791	A
57	BA	1799	G
57	BA	1800	C
57	BA	1801	G
57	BA	1816	G
57	BA	1820	U
57	BA	1821	A
57	BA	1835	G
57	BA	1846	G
57	BA	1847	A
57	BA	1848	A
57	BA	1858	G
57	BA	1865	G
57	BA	1866	C
57	BA	1878	G
57	BA	1881	C
57	BA	1882	C
57	BA	1885	A
57	BA	1886	C
57	BA	1888	G
57	BA	1889	A
57	BA	1900	A
57	BA	1906	G
57	BA	1912	A
57	BA	1913	A
57	BA	1929	G
57	BA	1930	G
57	BA	1936	A

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Mol	Chain	Res	Type
57	BA	1938	A
57	BA	1948	G
57	BA	1949	G
57	BA	1955	U
57	BA	1963	U
57	BA	1967	C
57	BA	1969	A
57	BA	1970	A
57	BA	1971	A
57	BA	1972	A
57	BA	1982	C
57	BA	1987	G
57	BA	1992	G
57	BA	1993	U
57	BA	1997	G
57	BA	2023	G
57	BA	2031	A
57	BA	2033	A
57	BA	2034	U
57	BA	2036	C
57	BA	2037	G
57	BA	2043	C
57	BA	2055	C
57	BA	2056	G
57	BA	2060	A
57	BA	2061	G
57	BA	2062	A
57	BA	2069	G
57	BA	2100	G
57	BA	2103	C
57	BA	2104	G
57	BA	2116	G
57	BA	2118	U
57	BA	2127	G
57	BA	2131	G
57	BA	2133	G
57	BA	2159	G
57	BA	2172	U
57	BA	2173	A
57	BA	2177	C
57	BA	2179	C
57	BA	2185	C

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Mol	Chain	Res	Type
57	BA	2187	G
57	BA	2190	G
57	BA	2192	G
57	BA	2193	G
57	BA	2198	A
57	BA	2199	A
57	BA	2200	C
57	BA	2207	G
57	BA	2208	A
57	BA	2218	U
57	BA	2225	A
57	BA	2226	C
57	BA	2238	G
57	BA	2239	G
57	BA	2275	C
57	BA	2283	C
57	BA	2287	A
57	BA	2288	A
57	BA	2302	G
57	BA	2305	A
57	BA	2307	G
57	BA	2308	G
57	BA	2309	A
57	BA	2311	A
57	BA	2313	C
57	BA	2316	C
57	BA	2319	G
57	BA	2320	A
57	BA	2334	G
57	BA	2336	A
57	BA	2347	C
57	BA	2350	C
57	BA	2360	A
57	BA	2361	A
57	BA	2383	G
57	BA	2385	C
57	BA	2400	G
57	BA	2402	C
57	BA	2406	U
57	BA	2423	U
57	BA	2425	A
57	BA	2429	G

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Mol	Chain	Res	Type
57	BA	2430	A
57	BA	2435	A
57	BA	2439	A
57	BA	2441	C
57	BA	2448	A
57	BA	2459	A
57	BA	2465	C
57	BA	2469	A
57	BA	2470	G
57	BA	2472	G
57	BA	2476	A
57	BA	2477	C
57	BA	2478	A
57	BA	2482	G
57	BA	2484	G
57	BA	2491	U
57	BA	2502	G
57	BA	2505	G
57	BA	2518	A
57	BA	2524	G
57	BA	2529	G
57	BA	2531	A
57	BA	2542	A
57	BA	2543	G
57	BA	2554	U
57	BA	2566	A
57	BA	2567	G
57	BA	2573	C
57	BA	2586	C
57	BA	2602	A
57	BA	2609	U
57	BA	2611	U
57	BA	2612	C
57	BA	2615	U
57	BA	2630	G
57	BA	2657	A
57	BA	2673	G
57	BA	2690	C
57	BA	2691	C
57	BA	2702	U
57	BA	2703	C
57	BA	2712	U

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Mol	Chain	Res	Type
57	BA	2712(A)	A
57	BA	2713	A
57	BA	2720	U
57	BA	2726	U
57	BA	2733	A
57	BA	2752	C
57	BA	2758	A
57	BA	2762	G
57	BA	2765	A
57	BA	2778	A
57	BA	2779	U
57	BA	2790	A
57	BA	2791	C
57	BA	2794	C
57	BA	2799	C
57	BA	2801(A)	A
57	BA	2802	G
57	BA	2803	C
57	BA	2804	C
57	BA	2808	U
57	BA	2818	G
57	BA	2820	A
57	BA	2821	A
57	BA	2833	G
57	BA	2834	G
57	BA	2849	U
57	BA	2872	G
57	BA	2873	A
57	BA	2874	C
57	BA	2892	A
57	BA	2893	G
58	BB	8	U
58	BB	13	A
58	BB	15	A
58	BB	16	G
58	BB	22	U
58	BB	24	G
58	BB	41	U
58	BB	42	C
58	BB	45	A
58	BB	52	A
58	BB	53	A

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Mol	Chain	Res	Type
58	BB	67	G
58	BB	73	A
58	BB	81	G
58	BB	82	G
58	BB	88	C
58	BB	110	G
58	BB	113	G

All (127) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
57	AA	49	A
57	AA	71	A
57	AA	74	A
57	AA	79	G
57	AA	119	A
57	AA	128	C
57	AA	197	A
57	AA	221	A
57	AA	266	G
57	AA	272	G
57	AA	331	A
57	AA	332	A
57	AA	366	C
57	AA	387	U
57	AA	438	G
57	AA	474	G
57	AA	587	C
57	AA	603	A
57	AA	614(C)	A
57	AA	669	G
57	AA	752	A
57	AA	764	A
57	AA	790	C
57	AA	858	U
57	AA	904	C
57	AA	1022	G
57	AA	1210	A
57	AA	1286	A
57	AA	1378	A
57	AA	1427	A
57	AA	1490	A

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Mol	Chain	Res	Type
57	AA	1494	A
57	AA	1541	G
57	AA	1558	A
57	AA	1603	A
57	AA	1608	A
57	AA	1652	A
57	AA	1653	G
57	AA	1799	G
57	AA	1819	A
57	AA	1820	U
57	AA	1846	G
57	AA	1885	A
57	AA	1948	G
57	AA	1970	A
57	AA	1992	G
57	AA	2033	A
57	AA	2036	C
57	AA	2126	A
57	AA	2171	A
57	AA	2191	G
57	AA	2225	A
57	AA	2282	G
57	AA	2311	A
57	AA	2405	G
57	AA	2422	A
57	AA	2439	A
57	AA	2481	G
57	AA	2611	U
57	AA	2689	U
57	AA	2873	A
58	AB	66	A
57	BA	49	A
57	BA	71	A
57	BA	74	A
57	BA	79	G
57	BA	119	A
57	BA	128	C
57	BA	146	G
57	BA	197	A
57	BA	221	A
57	BA	266	G
57	BA	272	G

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Mol	Chain	Res	Type
57	BA	331	A
57	BA	332	A
57	BA	366	C
57	BA	387	U
57	BA	438	G
57	BA	474	G
57	BA	587	C
57	BA	603	A
57	BA	614(C)	A
57	BA	669	G
57	BA	752	A
57	BA	764	A
57	BA	790	C
57	BA	858	U
57	BA	904	C
57	BA	1022	G
57	BA	1197	G
57	BA	1210	A
57	BA	1281	G
57	BA	1286	A
57	BA	1378	A
57	BA	1427	A
57	BA	1490	A
57	BA	1494	A
57	BA	1541	G
57	BA	1558	A
57	BA	1603	A
57	BA	1608	A
57	BA	1652	A
57	BA	1653	G
57	BA	1799	G
57	BA	1819	A
57	BA	1820	U
57	BA	1846	G
57	BA	1885	A
57	BA	1948	G
57	BA	1970	A
57	BA	1992	G
57	BA	2033	A
57	BA	2036	C
57	BA	2126	A
57	BA	2171	A

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Mol	Chain	Res	Type
57	BA	2191	G
57	BA	2225	A
57	BA	2282	G
57	BA	2311	A
57	BA	2405	G
57	BA	2422	A
57	BA	2439	A
57	BA	2481	G
57	BA	2611	U
57	BA	2689	U
57	BA	2873	A
58	BB	66	A

5.4 Non-standard residues in protein, DNA, RNA chains

8 non-standard protein/DNA/RNA residues are modelled in this entry.

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	$\#\|Z\| > 2$
23	A2M	Ax	20	23	22,25,26	0.36	0	30,36,39	0.85	1 (3%)
24	5MU	Av	54	24	19,22,23	0.23	0	27,32,35	0.38	0
23	OMU	Ax	19	23	19,22,23	0.45	0	25,31,34	0.82	1 (4%)
23	A2M	Bx	20	23	22,25,26	0.28	0	30,36,39	0.81	2 (6%)
24	5MU	Bv	54	24	19,22,23	0.31	0	27,32,35	0.33	0
23	OMG	Ax	21	23	23,26,27	0.39	0	32,38,41	0.70	0
23	OMG	Bx	21	23	23,26,27	0.35	0	32,38,41	0.55	1 (3%)
23	OMU	Bx	19	23	19,22,23	0.60	1 (5%)	25,31,34	0.74	0

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
23	A2M	Ax	20	23	-	1/9/27/28	0/3/3/3
24	5MU	Av	54	24	-	0/7/25/26	0/2/2/2
23	OMU	Ax	19	23	-	3/9/27/28	0/2/2/2
23	A2M	Bx	20	23	-	0/9/27/28	0/3/3/3
24	5MU	Bv	54	24	-	0/7/25/26	0/2/2/2
23	OMG	Ax	21	23	-	2/9/27/28	0/3/3/3
23	OMG	Bx	21	23	-	0/9/27/28	0/3/3/3
23	OMU	Bx	19	23	-	5/9/27/28	0/2/2/2

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	Bx	19	OMU	C2-N1	2.17	1.41	1.38

All (5) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	Ax	20	A2M	C2'-C1'-N9	2.64	118.09	113.75
23	Bx	20	A2M	O3'-C3'-C2'	2.60	118.46	111.19
23	Ax	19	OMU	C2'-C1'-N1	2.35	118.70	114.24
23	Bx	21	OMG	CM2-O2'-C2'	-2.30	108.57	114.47
23	Bx	20	A2M	CM'-O2'-C2'	-2.12	109.02	114.47

There are no chirality outliers.

All (11) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
23	Bx	19	OMU	C2'-C1'-N1-C2
23	Ax	19	OMU	C2'-C1'-N1-C2
23	Ax	19	OMU	C2'-C1'-N1-C6
23	Bx	19	OMU	C2'-C1'-N1-C6
23	Ax	21	OMG	O4'-C4'-C5'-O5'
23	Bx	19	OMU	C4'-C5'-O5'-P
23	Ax	21	OMG	C3'-C4'-C5'-O5'
23	Ax	20	A2M	C3'-C2'-O2'-CM'
23	Bx	19	OMU	O4'-C1'-N1-C6
23	Ax	19	OMU	O4'-C1'-N1-C6
23	Bx	19	OMU	O4'-C4'-C5'-O5'

There are no ring outliers.

6 monomers are involved in 32 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
23	Ax	20	A2M	5	0
23	Ax	19	OMU	5	0
23	Bx	20	A2M	3	0
23	Ax	21	OMG	13	0
23	Bx	21	OMG	6	0
23	Bx	19	OMU	3	0

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 1072 ligands modelled in this entry, 1072 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	Ab	234/256 (91%)	0.45	11 (4%) 36 24	119, 151, 187, 193	0
1	Bb	234/256 (91%)	0.57	10 (4%) 40 25	117, 151, 186, 193	0
2	Ac	206/239 (86%)	0.51	11 (5%) 32 22	116, 147, 171, 173	0
2	Bc	206/239 (86%)	0.39	6 (2%) 53 35	115, 147, 171, 174	0
3	Ad	208/209 (99%)	0.62	26 (12%) 8 6	94, 123, 145, 154	0
3	Bd	208/209 (99%)	0.74	14 (6%) 24 16	94, 124, 146, 155	0
4	Ae	150/162 (92%)	0.27	4 (2%) 56 37	90, 114, 142, 160	0
4	Be	150/162 (92%)	0.29	3 (2%) 65 46	91, 114, 143, 161	0
5	Af	101/101 (100%)	0.36	1 (0%) 79 63	103, 127, 143, 167	0
5	Bf	101/101 (100%)	0.54	6 (5%) 28 19	100, 126, 143, 167	0
6	Ag	155/156 (99%)	0.57	12 (7%) 19 14	119, 141, 173, 189	0
6	Bg	155/156 (99%)	0.50	11 (7%) 22 15	120, 141, 173, 189	0
7	Ah	138/138 (100%)	0.33	8 (5%) 29 19	99, 118, 133, 143	0
7	Bh	138/138 (100%)	0.45	11 (7%) 18 14	100, 118, 133, 144	0
8	Ai	127/128 (99%)	1.03	16 (12%) 8 6	121, 162, 182, 190	0
8	Bi	127/128 (99%)	0.82	14 (11%) 10 9	121, 162, 182, 189	0
9	Aj	98/105 (93%)	1.11	17 (17%) 4 4	118, 165, 185, 187	0
9	Bj	98/105 (93%)	1.06	12 (12%) 8 7	116, 164, 184, 188	0
10	Ak	119/129 (92%)	0.48	6 (5%) 34 23	89, 121, 156, 176	0
10	Bk	119/129 (92%)	0.28	6 (5%) 34 23	91, 120, 155, 175	0
11	Al	124/132 (93%)	0.58	10 (8%) 18 13	81, 101, 133, 169	0
11	Bl	124/132 (93%)	0.56	9 (7%) 21 15	83, 102, 134, 169	0
12	Am	118/126 (93%)	1.01	22 (18%) 3 3	115, 147, 161, 169	0
12	Bm	118/126 (93%)	0.92	16 (13%) 7 6	115, 146, 161, 168	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	An	60/61 (98%)	1.26	8 (13%) 7 6	127, 140, 158, 161	0
13	Bn	60/61 (98%)	0.94	6 (10%) 12 10	125, 140, 157, 160	0
14	Ao	88/89 (98%)	0.30	4 (4%) 38 25	87, 114, 138, 146	0
14	Bo	88/89 (98%)	0.31	2 (2%) 61 42	88, 114, 138, 146	0
15	Ap	83/88 (94%)	0.70	4 (4%) 35 24	96, 114, 135, 162	0
15	Bp	83/88 (94%)	0.49	4 (4%) 35 24	97, 116, 136, 163	0
16	Aq	99/105 (94%)	0.18	3 (3%) 52 35	89, 112, 125, 133	0
16	Bq	99/105 (94%)	0.37	5 (5%) 33 22	92, 112, 125, 133	0
17	Ar	70/88 (79%)	0.60	2 (2%) 53 35	98, 125, 147, 153	0
17	Br	70/88 (79%)	0.49	4 (5%) 29 20	98, 123, 147, 153	0
18	As	78/93 (83%)	0.84	9 (11%) 9 8	135, 151, 180, 185	0
18	Bs	78/93 (83%)	0.71	7 (8%) 15 11	135, 151, 180, 185	0
19	At	99/106 (93%)	0.84	16 (16%) 4 4	105, 123, 157, 161	0
19	Bt	99/106 (93%)	0.59	7 (7%) 22 15	107, 124, 158, 162	0
20	Au	24/27 (88%)	1.50	9 (37%) 1 1	113, 141, 162, 175	0
20	Bu	24/27 (88%)	1.80	8 (33%) 1 1	113, 141, 162, 174	0
21	Ay	94/95 (98%)	0.74	10 (10%) 11 9	67, 133, 155, 159	0
21	By	94/95 (98%)	0.28	4 (4%) 40 25	112, 136, 154, 169	0
22	Aa	1504/1504 (100%)	0.17	31 (2%) 63 44	70, 123, 196, 208	0
22	Ba	1504/1504 (100%)	0.17	24 (1%) 70 52	70, 124, 196, 208	0
23	Ax	9/25 (36%)	1.12	2 (22%) 2 2	102, 161, 194, 201	0
23	Bx	9/25 (36%)	0.98	2 (22%) 2 2	100, 159, 202, 204	0
24	Av	76/77 (98%)	-0.05	0 100 100	93, 120, 159, 176	0
24	Bv	76/77 (98%)	-0.23	1 (1%) 75 56	82, 113, 154, 168	0
25	Aw	77/77 (100%)	0.17	0 100 100	135, 202, 204, 205	0
25	Bw	77/77 (100%)	0.22	1 (1%) 75 56	134, 203, 205, 207	0
26	AC	120/229 (52%)	0.81	23 (19%) 3 3	167, 186, 194, 195	0
26	BC	120/229 (52%)	1.04	24 (20%) 3 2	166, 186, 194, 195	0
27	AD	271/276 (98%)	0.27	11 (4%) 41 27	58, 81, 109, 137	0
27	BD	271/276 (98%)	0.15	11 (4%) 41 27	55, 79, 108, 137	0
28	AE	204/206 (99%)	0.31	12 (5%) 28 19	62, 88, 143, 161	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	BE	204/206 (99%)	0.39	11 (5%) 31 21	59, 87, 143, 160	0
29	AF	207/210 (98%)	0.26	4 (1%) 66 48	61, 93, 150, 182	0
29	BF	207/210 (98%)	0.23	8 (3%) 43 29	55, 90, 150, 182	0
30	AG	181/182 (99%)	0.63	15 (8%) 17 13	113, 140, 165, 181	0
30	BG	181/182 (99%)	0.72	18 (9%) 13 10	102, 133, 164, 183	0
31	AH	164/180 (91%)	0.54	11 (6%) 24 16	103, 134, 154, 175	0
31	BH	164/180 (91%)	1.02	20 (12%) 8 7	96, 131, 151, 176	0
32	AI	145/148 (97%)	1.89	54 (37%) 1 1	91, 163, 180, 185	0
32	BI	145/148 (97%)	1.66	53 (36%) 1 1	90, 163, 181, 186	0
33	AJ	130/173 (75%)	1.41	33 (25%) 1 1	180, 195, 199, 201	0
33	BJ	130/173 (75%)	1.61	42 (32%) 1 1	167, 185, 194, 197	0
34	AN	138/140 (98%)	0.29	7 (5%) 33 22	76, 98, 133, 153	0
34	BN	138/140 (98%)	0.52	9 (6%) 25 17	73, 95, 132, 152	0
35	AO	122/122 (100%)	-0.08	1 (0%) 82 68	65, 84, 106, 133	0
35	BO	122/122 (100%)	-0.10	1 (0%) 82 68	64, 83, 106, 131	0
36	AP	146/150 (97%)	0.98	26 (17%) 4 3	63, 112, 139, 175	0
36	BP	146/150 (97%)	1.29	35 (23%) 2 1	62, 111, 139, 173	0
37	AQ	140/141 (99%)	0.42	9 (6%) 25 17	76, 99, 132, 153	0
37	BQ	140/141 (99%)	0.43	7 (5%) 34 23	74, 99, 131, 153	0
38	AR	117/118 (99%)	0.36	10 (8%) 16 13	70, 90, 119, 144	0
38	BR	117/118 (99%)	0.40	9 (7%) 19 14	67, 89, 119, 143	0
39	AS	98/112 (87%)	1.36	32 (32%) 1 1	115, 139, 161, 162	0
39	BS	98/112 (87%)	1.44	28 (28%) 1 1	112, 138, 161, 163	0
40	AT	135/146 (92%)	0.62	15 (11%) 10 9	78, 103, 154, 185	0
40	BT	135/146 (92%)	0.63	15 (11%) 10 9	78, 103, 154, 185	0
41	AU	117/118 (99%)	0.27	4 (3%) 48 32	67, 88, 124, 155	0
41	BU	117/118 (99%)	0.45	8 (6%) 23 16	63, 84, 123, 156	0
42	AV	101/101 (100%)	0.41	4 (3%) 42 28	62, 114, 136, 151	0
42	BV	101/101 (100%)	0.50	4 (3%) 42 28	59, 110, 135, 151	0
43	AW	113/113 (100%)	-0.01	2 (1%) 67 49	67, 83, 110, 183	0
43	BW	113/113 (100%)	0.10	1 (0%) 81 65	65, 81, 108, 183	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	AX	92/96 (95%)	0.32	1 (1%) 78 60	74, 93, 115, 124	0
44	BX	92/96 (95%)	0.59	4 (4%) 40 25	66, 90, 113, 125	0
45	AY	100/110 (90%)	1.32	25 (25%) 2 1	85, 122, 162, 169	0
45	BY	100/110 (90%)	1.52	32 (32%) 1 1	84, 120, 162, 168	0
46	AZ	184/206 (89%)	0.29	2 (1%) 78 60	109, 138, 158, 192	0
46	BZ	184/206 (89%)	0.42	6 (3%) 49 33	96, 128, 152, 187	0
47	A0	84/85 (98%)	0.55	8 (9%) 14 11	87, 104, 152, 185	0
47	B0	84/85 (98%)	0.87	9 (10%) 11 9	86, 102, 153, 185	0
48	A1	93/98 (94%)	0.31	3 (3%) 50 34	68, 93, 132, 144	0
48	B1	93/98 (94%)	0.45	3 (3%) 50 34	60, 87, 133, 146	0
49	A2	71/72 (98%)	0.57	3 (4%) 40 26	89, 124, 144, 163	0
49	B2	71/72 (98%)	0.23	5 (7%) 22 15	60, 90, 134, 169	0
50	A3	59/60 (98%)	0.38	2 (3%) 48 32	79, 100, 124, 169	0
50	B3	59/60 (98%)	0.47	0 100 100	75, 98, 121, 169	0
51	A4	57/71 (80%)	0.73	6 (10%) 11 9	153, 167, 183, 186	0
51	B4	57/71 (80%)	1.14	10 (17%) 4 4	154, 167, 182, 187	0
52	A5	55/60 (91%)	0.56	3 (5%) 30 21	55, 91, 137, 144	0
52	B5	55/60 (91%)	0.31	2 (3%) 46 31	54, 89, 137, 145	0
53	A6	50/54 (92%)	1.14	11 (22%) 2 2	128, 155, 169, 182	0
53	B6	50/54 (92%)	0.92	4 (8%) 18 14	128, 154, 169, 182	0
54	A7	47/49 (95%)	0.23	1 (2%) 63 44	58, 70, 95, 144	0
54	B7	47/49 (95%)	0.17	2 (4%) 40 25	53, 66, 91, 144	0
55	A8	63/65 (96%)	1.24	17 (26%) 1 1	70, 91, 118, 155	0
55	B8	63/65 (96%)	1.03	9 (14%) 6 5	70, 89, 117, 155	0
56	A9	37/37 (100%)	1.13	7 (18%) 3 3	109, 121, 141, 144	0
56	B9	37/37 (100%)	1.09	8 (21%) 2 2	105, 120, 141, 144	0
57	AA	2848/2848 (100%)	-0.22	41 (1%) 73 55	56, 90, 194, 209	0
57	BA	2848/2848 (100%)	-0.13	50 (1%) 67 49	53, 87, 195, 208	0
58	AB	119/119 (100%)	0.26	3 (2%) 58 39	96, 140, 176, 197	0
58	BB	119/119 (100%)	0.58	6 (5%) 34 23	94, 139, 175, 197	0
All	All	21494/22422 (95%)	0.33	1295 (6%) 27 19	53, 114, 186, 209	0

All (1295) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
32	BI	88	ILE	12.7
52	A5	2	ALA	11.2
32	AI	97	ILE	10.0
10	Bk	129	SER	9.9
57	BA	277	C	9.7
47	B0	2	ALA	8.7
22	Aa	82	U	8.1
52	B5	2	ALA	7.7
32	AI	119	PRO	7.7
32	BI	92	VAL	7.3
36	BP	51	PHE	7.3
32	AI	65	ALA	7.3
33	AJ	84	GLU	7.2
57	AA	654(F)	C	7.2
8	Ai	106	ALA	7.0
27	BD	35	LYS	7.0
18	As	81	ARG	7.0
22	Aa	83	U	6.9
32	BI	84	GLY	6.7
57	BA	654(E)	G	6.6
32	AI	144	VAL	6.5
12	Am	119	GLY	6.4
37	AQ	140	ALA	6.4
32	AI	72	LEU	6.3
32	AI	111	PRO	6.2
57	AA	654(I)	C	6.2
20	Bu	10	ARG	5.9
21	Ay	83	ARG	5.8
38	AR	2	ARG	5.8
32	BI	65	ALA	5.8
32	BI	130	TYR	5.8
32	AI	109	ILE	5.8
12	Am	74	VAL	5.8
57	AA	654(H)	G	5.7
39	AS	33	LYS	5.7
12	Bm	102	ARG	5.7
51	B4	1	MET	5.7
13	An	2	ALA	5.6
37	AQ	22	LYS	5.6
13	Bn	2	ALA	5.5
55	A8	48	PHE	5.5
45	AY	45	VAL	5.5

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Mol	Chain	Res	Type	RSRZ
36	BP	64	LYS	5.5
47	A0	2	ALA	5.5
31	BH	85	LYS	5.4
3	Bd	31	CYS	5.4
45	BY	92	ASN	5.4
32	AI	143	SER	5.4
32	AI	81	VAL	5.4
32	BI	89	TYR	5.3
32	AI	79	ILE	5.3
31	BH	44	VAL	5.3
32	AI	110	ASP	5.3
6	Ag	83	ALA	5.3
32	AI	118	LYS	5.2
7	Ah	1	MET	5.2
57	AA	654(E)	G	5.1
32	AI	120	ILE	5.1
39	BS	54	LEU	5.1
40	AT	91	ARG	5.0
45	BY	3	VAL	5.0
57	BA	508	G	5.0
57	AA	2802	G	4.9
33	BJ	110	GLY	4.9
8	Bi	106	ALA	4.9
55	A8	35	GLN	4.9
38	BR	2	ARG	4.9
32	AI	100	ALA	4.9
39	AS	54	LEU	4.8
12	Am	100	GLY	4.8
57	BA	654(H)	G	4.8
3	Ad	31	CYS	4.8
12	Am	75	ALA	4.8
31	BH	155	SER	4.8
33	BJ	37	THR	4.8
12	Bm	84	ILE	4.7
45	AY	77	PRO	4.7
11	Al	47	LYS	4.7
20	Bu	25	LYS	4.7
5	Bf	90	VAL	4.7
57	BA	654(S)	G	4.7
3	Ad	77	ASN	4.7
32	BI	87	LYS	4.7
40	BT	105	LEU	4.7

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Mol	Chain	Res	Type	RSRZ
39	AS	12	PHE	4.7
26	BC	176	VAL	4.7
32	BI	41	GLU	4.7
8	Ai	127	LYS	4.6
37	BQ	140	ALA	4.6
42	BV	45	THR	4.6
26	BC	190	ILE	4.6
27	AD	35	LYS	4.6
32	AI	68	LEU	4.6
48	B1	95	LEU	4.5
38	BR	11	ASN	4.5
36	BP	27	HIS	4.5
26	BC	42	VAL	4.5
36	AP	62	LEU	4.5
30	BG	35	GLU	4.5
40	BT	11	GLU	4.5
47	B0	4	LYS	4.5
40	BT	92	GLY	4.5
36	AP	51	PHE	4.5
32	BI	97	ILE	4.4
57	AA	654(G)	C	4.4
18	As	80	TYR	4.4
5	Bf	88	VAL	4.4
13	An	55	GLY	4.4
53	A6	42	TRP	4.4
18	Bs	81	ARG	4.4
30	BG	46	ALA	4.4
36	BP	30	THR	4.4
33	BJ	9	LEU	4.4
36	AP	27	HIS	4.4
47	B0	3	HIS	4.4
33	AJ	85	ASP	4.4
26	AC	223	VAL	4.4
33	BJ	34	ALA	4.3
6	Bg	4	ARG	4.3
36	BP	68	GLN	4.3
34	BN	3	THR	4.3
22	Ba	1286	A	4.3
47	B0	42	GLY	4.3
9	Bj	66	ARG	4.3
33	BJ	109	SER	4.3
57	BA	654(F)	C	4.3

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Mol	Chain	Res	Type	RSRZ
32	AI	88	ILE	4.3
34	BN	1	MET	4.2
34	BN	68	GLU	4.2
40	AT	115	ARG	4.2
56	A9	1	MET	4.2
26	BC	44	VAL	4.2
28	BE	76	ARG	4.2
40	BT	2	ASN	4.2
45	AY	28	LYS	4.2
18	As	67	VAL	4.1
41	BU	58	ARG	4.2
19	At	104	LEU	4.1
30	AG	75	LYS	4.1
36	BP	28	GLY	4.1
8	Ai	125	TYR	4.1
21	Ay	14	GLU	4.1
45	AY	44	ILE	4.1
38	AR	3	HIS	4.1
39	BS	14	VAL	4.1
32	BI	119	PRO	4.1
47	B0	5	LYS	4.1
1	Bb	222	ILE	4.1
51	A4	50	VAL	4.0
36	AP	33	ARG	4.0
12	Bm	98	VAL	4.0
31	BH	43	VAL	4.0
32	AI	142	VAL	4.0
6	Ag	85	TYR	4.0
36	BP	65	ARG	4.0
57	BA	654(V)	A	4.0
38	AR	11	ASN	4.0
55	A8	41	ILE	4.0
37	BQ	136	ALA	4.0
45	BY	85	VAL	4.0
38	BR	3	HIS	4.0
12	Am	88	ARG	4.0
33	BJ	36	GLU	4.0
39	AS	11	LYS	4.0
36	BP	70	GLN	4.0
40	BT	1	MET	4.0
39	BS	53	SER	4.0
33	BJ	103	GLY	3.9

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Mol	Chain	Res	Type	RSRZ
55	A8	51	ALA	3.9
56	A9	2	LYS	3.9
32	BI	114	LEU	3.9
22	Ba	89	C	3.9
45	BY	84	ARG	3.9
58	BB	49	C	3.9
9	Bj	64	GLU	3.9
27	AD	40	THR	3.9
19	Bt	11	SER	3.9
42	BV	36	PRO	3.9
45	AY	79	CYS	3.9
33	BJ	13	LEU	3.9
32	AI	108	THR	3.9
32	BI	93	THR	3.9
39	BS	15	ARG	3.9
15	Ap	29	ASP	3.9
32	AI	93	THR	3.9
33	AJ	9	LEU	3.9
31	BH	45	VAL	3.8
9	Aj	39	PRO	3.8
22	Aa	84	U	3.8
32	BI	59	ALA	3.8
21	Ay	88	SER	3.8
57	BA	1534	U	3.8
11	Al	28	LYS	3.8
34	AN	3	THR	3.8
32	AI	140	LEU	3.8
53	A6	22	ALA	3.8
32	AI	92	VAL	3.8
32	BI	91	SER	3.8
12	Am	84	ILE	3.8
12	Bm	100	GLY	3.8
36	BP	33	ARG	3.8
40	AT	105	LEU	3.8
46	BZ	88	PHE	3.8
22	Aa	81	U	3.8
14	Ao	60	VAL	3.7
28	AE	149	ARG	3.7
51	B4	32	TYR	3.7
45	BY	33	LYS	3.7
57	BA	1053	C	3.7
32	BI	68	LEU	3.7

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Mol	Chain	Res	Type	RSRZ
36	BP	43	GLY	3.7
45	BY	91	GLU	3.7
22	Aa	80	G	3.7
9	Aj	68	HIS	3.7
29	BF	156	LEU	3.7
32	BI	143	SER	3.7
57	BA	271	A	3.7
36	BP	26	GLY	3.7
41	AU	97	ASP	3.7
22	Aa	89	C	3.7
27	AD	38	LYS	3.7
21	By	83	ARG	3.7
11	Bl	91	LYS	3.7
26	BC	177	GLY	3.7
12	Am	7	VAL	3.7
39	AS	14	VAL	3.7
32	AI	58	LEU	3.7
19	At	74	LYS	3.7
27	AD	34	VAL	3.6
56	B9	2	LYS	3.6
32	BI	90	GLY	3.6
9	Aj	44	VAL	3.6
26	AC	42	VAL	3.6
45	BY	5	MET	3.6
45	BY	47	LYS	3.6
57	AA	654(J)	A	3.6
36	BP	7	ARG	3.6
54	A7	47	ARG	3.6
32	AI	66	GLU	3.6
57	AA	654(L)	G	3.6
57	BA	2802	G	3.6
3	Bd	96	LEU	3.6
39	BS	11	LYS	3.6
57	BA	2062	A	3.6
8	Bi	128	ARG	3.6
12	Am	102	ARG	3.6
40	BT	4	GLY	3.6
10	Ak	128	ALA	3.6
33	BJ	33	PRO	3.6
39	AS	99	LYS	3.6
26	AC	33	LEU	3.6
19	At	11	SER	3.6

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Mol	Chain	Res	Type	RSRZ
48	A1	38	SER	3.6
36	BP	15	ARG	3.5
26	BC	227	PRO	3.5
28	BE	75	VAL	3.5
32	BI	94	ALA	3.5
33	BJ	56	ASN	3.5
34	BN	134	ARG	3.5
32	AI	77	LEU	3.5
39	BS	12	PHE	3.5
10	Ak	129	SER	3.5
32	AI	91	SER	3.5
41	BU	15	LYS	3.5
29	BF	24	LEU	3.5
26	AC	190	ILE	3.5
56	B9	18	ARG	3.5
57	BA	654(G)	C	3.5
26	AC	30	VAL	3.5
33	BJ	18	GLU	3.5
32	AI	121	LYS	3.5
52	A5	3	LYS	3.5
33	AJ	34	ALA	3.5
22	Aa	1117	G	3.5
7	Ah	99	GLU	3.4
40	AT	27	THR	3.4
32	BI	132	PRO	3.4
45	BY	88	LYS	3.4
5	Af	90	VAL	3.4
18	Bs	67	VAL	3.4
57	AA	2795	G	3.4
32	AI	128	LEU	3.4
26	BC	221	PRO	3.4
11	Bl	28	LYS	3.4
27	BD	38	LYS	3.4
15	Bp	68	ASP	3.4
18	Bs	80	TYR	3.4
28	AE	151	TYR	3.4
31	AH	83	TYR	3.4
32	AI	116	LEU	3.4
28	AE	77	ILE	3.4
47	A0	3	HIS	3.4
8	Ai	40	LEU	3.4
28	AE	127	ASP	3.4

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Mol	Chain	Res	Type	RSRZ
31	BH	167	GLU	3.4
38	AR	8	ARG	3.4
38	BR	10	LEU	3.4
51	B4	50	VAL	3.4
33	AJ	83	TYR	3.4
36	BP	20	GLY	3.4
47	A0	13	GLY	3.4
32	BI	120	ILE	3.4
33	BJ	12	THR	3.4
48	A1	95	LEU	3.3
8	Bi	105	ASP	3.3
7	Ah	98	LYS	3.3
21	By	81	ALA	3.3
18	As	79	THR	3.3
1	Bb	152	PHE	3.3
8	Ai	10	ARG	3.3
47	B0	57	PHE	3.3
38	AR	10	LEU	3.3
6	Bg	83	ALA	3.3
53	A6	21	TYR	3.3
9	Aj	46	ARG	3.3
6	Bg	26	PHE	3.3
8	Ai	109	VAL	3.3
12	Bm	7	VAL	3.3
57	BA	1541	G	3.3
9	Bj	59	SER	3.3
21	Ay	84	SER	3.3
47	B0	19	LYS	3.3
28	BE	77	ILE	3.3
31	BH	164	TYR	3.3
9	Bj	63	PHE	3.3
57	AA	1026	U	3.3
20	Bu	14	TRP	3.3
32	AI	63	ALA	3.3
32	AI	106	GLY	3.3
33	BJ	83	TYR	3.2
8	Bi	126	SER	3.2
53	A6	13	CYS	3.2
1	Ab	70	PHE	3.2
39	BS	93	LYS	3.2
39	BS	91	PRO	3.2
45	BY	28	LYS	3.2

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Mol	Chain	Res	Type	RSRZ
31	AH	158	HIS	3.2
32	BI	136	VAL	3.2
39	AS	18	ILE	3.2
12	Bm	8	GLU	3.2
19	Bt	10	LEU	3.2
26	BC	33	LEU	3.2
41	BU	60	LEU	3.2
15	Bp	13	HIS	3.2
7	Bh	1	MET	3.2
9	Bj	98	ILE	3.2
45	BY	2	ARG	3.2
32	AI	135	GLU	3.2
40	AT	11	GLU	3.2
3	Ad	112	VAL	3.2
11	Bl	101	VAL	3.2
26	AC	215	VAL	3.2
45	AY	3	VAL	3.2
12	Bm	4	ILE	3.2
15	Bp	71	ARG	3.2
49	A2	66	GLU	3.2
8	Ai	128	ARG	3.2
20	Au	6	ARG	3.2
10	Bk	128	ALA	3.2
34	BN	132	ALA	3.2
32	BI	110	ASP	3.1
36	AP	64	LYS	3.1
31	AH	7	LEU	3.1
57	BA	11	G	3.1
11	Al	17	LYS	3.1
39	AS	100	ALA	3.1
30	AG	53	LEU	3.1
32	AI	101	LEU	3.1
33	BJ	17	LEU	3.1
45	AY	59	GLY	3.1
45	BY	41	GLY	3.1
51	B4	49	PHE	3.1
48	A1	81	LYS	3.1
56	A9	17	ILE	3.1
13	Bn	6	LEU	3.1
6	Bg	33	ASP	3.1
27	AD	30	GLU	3.1
53	B6	40	CYS	3.1

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Mol	Chain	Res	Type	RSRZ
49	B2	69	ARG	3.1
13	An	50	LYS	3.1
26	BC	194	ILE	3.1
45	AY	61	ILE	3.1
47	A0	4	LYS	3.1
57	BA	90	U	3.1
33	AJ	13	LEU	3.1
57	BA	1535	A	3.1
16	Bq	35	VAL	3.1
33	BJ	107	VAL	3.1
57	AA	2803	C	3.1
16	Bq	100	LYS	3.1
28	BE	64	LYS	3.1
39	BS	55	ALA	3.1
56	A9	37	GLY	3.1
6	Bg	5	ARG	3.1
27	AD	262	ARG	3.1
45	BY	97	ARG	3.1
6	Bg	80	VAL	3.1
32	AI	145	VAL	3.1
38	AR	6	SER	3.1
51	B4	56	VAL	3.1
11	Bl	32	PHE	3.1
34	AN	2	LYS	3.1
57	AA	1048	A	3.1
57	BA	654(K)	C	3.0
32	BI	77	LEU	3.0
17	Br	68	LYS	3.0
36	BP	39	LYS	3.0
12	Am	69	GLU	3.0
26	BC	174	ALA	3.0
57	AA	2801(A)	A	3.0
8	Ai	104	ARG	3.0
20	Bu	9	ARG	3.0
27	BD	244	ARG	3.0
22	Ba	1030	C	3.0
30	BG	28	VAL	3.0
33	BJ	57	THR	3.0
10	Bk	21	ILE	3.0
26	AC	172	ILE	3.0
28	BE	53	PRO	3.0
57	AA	654(N)	G	3.0

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Mol	Chain	Res	Type	RSRZ
58	AB	89	G	3.0
2	Ac	91	LEU	3.0
31	BH	7	LEU	3.0
55	A8	64	TYR	3.0
28	AE	76	ARG	3.0
41	AU	58	ARG	3.0
31	AH	85	LYS	3.0
56	B9	3	VAL	3.0
57	AA	654(K)	C	3.0
57	BA	654(T)	C	3.0
55	A8	63	PRO	3.0
19	At	72	LEU	3.0
32	AI	59	ALA	3.0
39	AS	57	LYS	3.0
3	Bd	9	CYS	3.0
45	AY	96	ILE	3.0
27	BD	30	GLU	3.0
31	BH	42	ARG	3.0
19	Bt	14	LYS	3.0
40	AT	85	LYS	3.0
32	AI	90	GLY	3.0
57	AA	90	U	3.0
2	Ac	177	THR	3.0
42	AV	20	LEU	2.9
20	Au	10	ARG	2.9
55	B8	63	PRO	2.9
57	AA	508	G	2.9
10	Bk	127	LYS	2.9
11	Al	26	ALA	2.9
12	Bm	2	ALA	2.9
7	Ah	29	SER	2.9
45	AY	55	TYR	2.9
33	AJ	38	HIS	2.9
6	Ag	86	GLN	2.9
57	BA	1052	C	2.9
9	Aj	69	ASN	2.9
19	At	9	ASN	2.9
8	Bi	66	ARG	2.9
19	At	86	ARG	2.9
32	BI	72	LEU	2.9
39	AS	63	THR	2.9
45	AY	90	LEU	2.9

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Mol	Chain	Res	Type	RSRZ
39	AS	93	LYS	2.9
40	BT	85	LYS	2.9
45	BY	7	VAL	2.9
27	AD	244	ARG	2.9
30	BG	3	LEU	2.9
30	BG	34	LEU	2.9
39	BS	32	LEU	2.9
58	BB	48	A	2.9
33	BJ	100	ASN	2.9
8	Bi	13	ALA	2.9
10	Bk	42	TRP	2.9
22	Aa	454	C	2.9
49	B2	72	ALA	2.9
39	AS	36	TYR	2.9
36	AP	40	SER	2.9
40	AT	92	GLY	2.9
44	BX	94	GLY	2.9
30	BG	88	ILE	2.9
28	BE	54	GLN	2.9
30	BG	95	ARG	2.9
33	AJ	61	LEU	2.9
40	AT	1	MET	2.9
2	Ac	135	LYS	2.9
55	A8	36	LYS	2.9
7	Ah	3	THR	2.9
34	AN	73	THR	2.9
53	A6	23	THR	2.9
32	BI	66	GLU	2.9
33	BJ	84	GLU	2.9
57	AA	275	G	2.9
57	BA	654(D)	G	2.9
22	Ba	532	A	2.9
57	BA	276	A	2.9
33	BJ	53	VAL	2.9
8	Ai	115	GLY	2.9
20	Au	2	GLY	2.9
36	AP	24	GLY	2.9
56	A9	21	GLY	2.9
57	BA	2174	C	2.9
3	Ad	21	LEU	2.9
35	BO	1	MET	2.9
36	BP	105	LEU	2.9

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Mol	Chain	Res	Type	RSRZ
55	A8	37	SER	2.9
16	Aq	100	LYS	2.9
13	An	59	ALA	2.9
45	AY	48	ALA	2.9
3	Ad	26	CYS	2.9
31	AH	157	TYR	2.9
55	A8	45	GLY	2.9
35	AO	42	SER	2.8
57	BA	654(I)	C	2.8
39	BS	100	ALA	2.8
32	BI	85	GLU	2.8
6	Ag	37	ASN	2.8
18	As	41	VAL	2.8
31	AH	169	VAL	2.8
45	BY	50	ARG	2.8
10	Ak	125	PHE	2.8
3	Ad	123	HIS	2.8
11	Bl	25	PRO	2.8
32	AI	78	THR	2.8
22	Ba	1129	C	2.8
27	BD	262	ARG	2.8
36	BP	41	ARG	2.8
36	BP	61	ARG	2.8
38	BR	8	ARG	2.8
21	Ay	13	LYS	2.8
45	AY	101	LYS	2.8
4	Ae	31	LEU	2.8
32	BI	138	ILE	2.8
39	AS	35	ILE	2.8
12	Bm	10	PRO	2.8
45	AY	82	PRO	2.8
37	BQ	81	VAL	2.8
47	A0	19	LYS	2.8
48	B1	81	LYS	2.8
7	Ah	107	LEU	2.8
33	AJ	59	ILE	2.8
45	BY	60	PHE	2.8
45	AY	58	GLY	2.8
10	Ak	119	CYS	2.8
39	BS	89	ARG	2.8
28	AE	64	LYS	2.8
32	BI	118	LYS	2.8

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Mol	Chain	Res	Type	RSRZ
8	Bi	7	THR	2.8
1	Ab	97	TRP	2.8
28	BE	127	ASP	2.8
32	BI	71	ILE	2.8
45	AY	92	ASN	2.8
32	AI	130	TYR	2.8
36	BP	110	TYR	2.8
57	AA	2310	A	2.8
33	BJ	38	HIS	2.8
45	BY	101	LYS	2.8
57	BA	2803	C	2.8
12	Am	54	VAL	2.8
45	BY	42	VAL	2.8
51	A4	35	VAL	2.8
30	BG	106	LEU	2.8
12	Am	73	GLU	2.8
42	AV	93	GLU	2.8
3	Ad	158	ILE	2.8
26	BC	172	ILE	2.8
30	BG	86	MET	2.7
40	BT	3	ARG	2.7
39	BS	102	ALA	2.7
22	Aa	977	A	2.7
6	Ag	77	SER	2.7
18	Bs	10	PHE	2.7
7	Bh	3	THR	2.7
31	BH	53	GLU	2.7
53	A6	54	ILE	2.7
54	B7	1	MET	2.7
36	AP	28	GLY	2.7
22	Aa	1202	G	2.7
30	BG	156	ASP	2.7
8	Ai	66	ARG	2.7
16	Aq	95	TYR	2.7
26	BC	168	LYS	2.7
34	AN	4	TYR	2.7
9	Aj	62	HIS	2.7
8	Ai	41	VAL	2.7
2	Ac	43	LEU	2.7
2	Ac	87	LEU	2.7
30	AG	43	LEU	2.7
32	AI	84	GLY	2.7

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Mol	Chain	Res	Type	RSRZ
32	BI	108	THR	2.7
21	Ay	80	LYS	2.7
31	BH	157	TYR	2.7
39	BS	36	TYR	2.7
6	Bg	2	ALA	2.7
27	AD	272	ALA	2.7
32	BI	63	ALA	2.7
31	BH	50	VAL	2.7
14	Bo	3	ILE	2.7
12	Am	8	GLU	2.7
31	BH	124	GLU	2.7
36	AP	26	GLY	2.7
38	BR	118	GLU	2.7
39	BS	30	ARG	2.7
9	Aj	55	LYS	2.7
36	AP	25	SER	2.7
36	BP	40	SER	2.7
36	BP	107	LYS	2.7
49	A2	8	LYS	2.7
52	B5	3	LYS	2.7
22	Ba	1503	A	2.7
19	At	12	ALA	2.7
29	BF	23	ASP	2.7
32	AI	55	ALA	2.7
40	AT	131	ALA	2.7
32	BI	145	VAL	2.7
22	Aa	1027	C	2.7
24	Bv	1	C	2.7
33	AJ	77	PRO	2.7
57	BA	2794	C	2.7
36	AP	41	ARG	2.7
37	AQ	5	ARG	2.7
42	BV	21	ARG	2.7
3	Ad	156	GLU	2.7
33	BJ	35	LYS	2.7
33	AJ	57	THR	2.7
57	AA	654(D)	G	2.7
33	BJ	78	SER	2.7
27	BD	272	ALA	2.7
1	Bb	31	TYR	2.7
2	Bc	43	LEU	2.7
9	Bj	65	LEU	2.7

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Mol	Chain	Res	Type	RSRZ
22	Ba	5	U	2.7
45	AY	39	VAL	2.7
3	Ad	199	ASN	2.7
1	Ab	159	PRO	2.6
57	BA	1046	A	2.6
57	BA	2801	A	2.6
58	AB	90	A	2.6
54	B7	47	ARG	2.6
3	Ad	150	GLU	2.6
32	AI	122	GLU	2.6
40	BT	36	GLU	2.6
57	BA	34	C	2.6
51	B4	52	THR	2.6
26	AC	176	VAL	2.6
26	AC	197	LEU	2.6
33	BJ	62	ALA	2.6
37	AQ	136	ALA	2.6
44	BX	12	VAL	2.6
32	BI	111	PRO	2.6
38	BR	105	ARG	2.6
49	B2	71	ASN	2.6
32	AI	85	GLU	2.6
33	BJ	15	GLU	2.6
36	BP	52	GLU	2.6
40	BT	27	THR	2.6
3	Bd	32	ALA	2.6
32	AI	107	VAL	2.6
32	BI	116	LEU	2.6
33	BJ	61	LEU	2.6
40	AT	130	ALA	2.6
22	Aa	1116	C	2.6
39	AS	92	TYR	2.6
1	Bb	8	LYS	2.6
39	BS	13	ARG	2.6
9	Aj	54	PHE	2.6
37	AQ	25	ASP	2.6
37	AQ	23	GLY	2.6
3	Ad	24	GLU	2.6
55	A8	40	GLU	2.6
10	Bk	89	ALA	2.6
12	Bm	64	TRP	2.6
39	AS	98	VAL	2.6

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Mol	Chain	Res	Type	RSRZ
39	AS	102	ALA	2.6
7	Bh	98	LYS	2.6
15	Ap	26	ARG	2.6
19	At	73	HIS	2.6
28	AE	132	HIS	2.6
26	AC	193	PHE	2.6
7	Ah	4	ASP	2.6
32	AI	96	ASP	2.6
31	AH	82	GLY	2.6
33	BJ	28	ASN	2.6
33	BJ	8	GLU	2.6
39	BS	107	GLU	2.6
13	Bn	30	ALA	2.6
26	BC	30	VAL	2.6
4	Ae	27	ARG	2.6
19	At	22	ARG	2.6
45	BY	34	LYS	2.6
1	Bb	101	MET	2.6
45	AY	99	CYS	2.6
19	Bt	73	HIS	2.6
22	Ba	631	G	2.6
40	AT	106	SER	2.6
57	BA	1107	G	2.6
23	Bx	13	A	2.6
57	AA	654(V)	A	2.6
29	BF	131	GLY	2.6
10	Ak	117	ASN	2.6
3	Ad	19	LEU	2.6
33	BJ	111	LEU	2.6
36	BP	62	LEU	2.6
33	AJ	70	GLU	2.6
6	Ag	2	ALA	2.6
27	BD	34	VAL	2.6
57	BA	2804	C	2.6
12	Am	103	THR	2.6
33	AJ	82	PHE	2.5
2	Ac	201	TYR	2.5
3	Bd	26	CYS	2.5
32	BI	133	HIS	2.5
26	AC	186	LEU	2.5
33	AJ	71	LEU	2.5
4	Be	27	ARG	2.5

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Mol	Chain	Res	Type	RSRZ
18	As	78	ARG	2.5
30	AG	160	VAL	2.5
33	BJ	102	LYS	2.5
50	A3	17	LYS	2.5
53	A6	24	GLU	2.5
53	B6	38	LYS	2.5
57	AA	1541	G	2.5
29	BF	166	ALA	2.5
32	AI	98	ALA	2.5
33	BJ	89	ALA	2.5
57	BA	278	A	2.5
57	BA	2310	A	2.5
1	Ab	214	ILE	2.5
9	Aj	23	ILE	2.5
20	Au	14	TRP	2.5
33	AJ	86	PRO	2.5
39	AS	34	HIS	2.5
3	Ad	12	CYS	2.5
14	Ao	57	LEU	2.5
28	BE	61	ARG	2.5
36	BP	14	LYS	2.5
39	AS	89	ARG	2.5
12	Bm	61	GLU	2.5
33	AJ	8	GLU	2.5
40	AT	2	ASN	2.5
17	Br	75	ILE	2.5
22	Aa	971	G	2.5
22	Ba	630	G	2.5
32	AI	89	TYR	2.5
1	Ab	133	LYS	2.5
3	Bd	19	LEU	2.5
14	Ao	5	LYS	2.5
20	Au	9	ARG	2.5
36	BP	16	ARG	2.5
3	Bd	133	VAL	2.5
33	BJ	7	VAL	2.5
19	Bt	106	ALA	2.5
26	BC	179	ALA	2.5
58	BB	1	U	2.5
36	AP	87	ASP	2.5
56	B9	1	MET	2.5
16	Bq	98	LEU	2.5

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Mol	Chain	Res	Type	RSRZ
12	Bm	119	GLY	2.5
22	Aa	969	A	2.5
39	BS	60	GLY	2.5
26	AC	15	VAL	2.5
28	AE	150	VAL	2.5
32	BI	142	VAL	2.5
10	Ak	89	ALA	2.5
1	Bb	42	ILE	2.5
3	Ad	67	ILE	2.5
5	Bf	8	ILE	2.5
32	BI	79	ILE	2.5
22	Aa	1129	C	2.5
1	Bb	17	PHE	2.5
55	B8	48	PHE	2.5
22	Ba	90	U	2.5
11	Bl	46	LYS	2.5
12	Am	10	PRO	2.5
17	Br	78	LEU	2.5
21	Ay	10	ARG	2.5
45	BY	31	LEU	2.5
46	BZ	80	ARG	2.5
28	BE	62	PRO	2.5
55	B8	64	TYR	2.5
20	Au	16	GLY	2.5
20	Bu	16	GLY	2.5
31	BH	48	GLY	2.5
32	BI	81	VAL	2.5
39	AS	55	ALA	2.4
1	Ab	195	ASP	2.4
38	AR	9	LYS	2.4
39	AS	16	ASN	2.4
55	A8	34	TRP	2.4
22	Aa	1223	C	2.4
27	AD	37	LEU	2.4
57	AA	2894	G	2.4
57	BA	2402	C	2.4
7	Bh	89	PRO	2.4
9	Aj	37	PRO	2.4
33	AJ	33	PRO	2.4
8	Bi	119	ALA	2.4
33	AJ	119	ALA	2.4
46	BZ	172	ALA	2.4

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Mol	Chain	Res	Type	RSRZ
53	B6	54	ILE	2.4
36	AP	52	GLU	2.4
11	Al	114	LYS	2.4
33	AJ	4	LYS	2.4
48	B1	48	LYS	2.4
2	Bc	87	LEU	2.4
6	Ag	16	LEU	2.4
16	Bq	6	LEU	2.4
26	AC	169	THR	2.4
30	BG	87	PRO	2.4
57	AA	2801	A	2.4
26	BC	223	VAL	2.4
47	A0	26	TYR	2.4
33	BJ	11	ALA	2.4
41	BU	68	ALA	2.4
8	Bi	87	GLN	2.4
57	AA	1559	G	2.4
8	Bi	104	ARG	2.4
11	Al	115	LYS	2.4
13	An	58	LYS	2.4
20	Bu	6	ARG	2.4
32	AI	62	LYS	2.4
55	A8	56	GLU	2.4
36	AP	19	VAL	2.4
28	BE	151	TYR	2.4
32	BI	98	ALA	2.4
57	AA	2158	A	2.4
4	Ae	20	GLN	2.4
26	AC	14	LYS	2.4
30	AG	36	LYS	2.4
51	B4	2	LYS	2.4
13	An	46	GLU	2.4
22	Aa	1126	U	2.4
38	AR	4	LEU	2.4
45	BY	90	LEU	2.4
57	AA	654(S)	G	2.4
8	Ai	105	ASP	2.4
36	BP	53	GLY	2.4
42	AV	26	ASP	2.4
51	B4	17	GLY	2.4
33	BJ	88	ALA	2.4
8	Bi	11	LYS	2.4

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Mol	Chain	Res	Type	RSRZ
55	A8	29	LYS	2.4
12	Am	80	ARG	2.4
28	AE	61	ARG	2.4
26	BC	193	PHE	2.4
31	AH	71	LEU	2.4
39	AS	32	LEU	2.4
55	A8	50	LEU	2.4
23	Ax	22	A	2.4
32	BI	70	GLU	2.4
33	AJ	65	GLU	2.4
57	AA	1046	A	2.4
57	BA	2119	A	2.4
18	As	9	VAL	2.4
30	BG	142	PRO	2.4
33	AJ	7	VAL	2.4
45	BY	77	PRO	2.4
22	Ba	1066	C	2.3
29	BF	133	ASN	2.3
30	BG	105	LYS	2.3
32	AI	95	LYS	2.3
39	BS	35	ILE	2.3
32	BI	96	ASP	2.3
36	AP	47	ASP	2.3
55	A8	4	MET	2.3
22	Ba	1033	G	2.3
57	AA	2125	G	2.3
57	BA	2793	G	2.3
58	AB	119	G	2.3
3	Bd	21	LEU	2.3
12	Am	66	LEU	2.3
26	AC	29	LEU	2.3
31	BH	64	LEU	2.3
1	Ab	93	VAL	2.3
30	AG	38	VAL	2.3
27	BD	12	SER	2.3
30	AG	2	PRO	2.3
53	A6	31	PRO	2.3
7	Bh	131	GLY	2.3
8	Bi	8	GLY	2.3
13	Bn	58	LYS	2.3
12	Am	99	ARG	2.3
18	Bs	68	GLY	2.3

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Mol	Chain	Res	Type	RSRZ
20	Bu	3	LYS	2.3
19	At	25	ARG	2.3
30	BG	77	ILE	2.3
36	AP	21	ARG	2.3
36	BP	12	ALA	2.3
3	Ad	161	ASN	2.3
39	BS	101	LEU	2.3
55	B8	32	LEU	2.3
22	Ba	1202	G	2.3
26	BC	215	VAL	2.3
51	B4	33	VAL	2.3
57	BA	2115	G	2.3
32	BI	112	LYS	2.3
11	Bl	48	PRO	2.3
32	BI	134	PRO	2.3
33	BJ	41	ARG	2.3
30	BG	129	GLY	2.3
26	AC	174	ALA	2.3
32	BI	83	ALA	2.3
39	BS	50	SER	2.3
41	BU	96	ALA	2.3
21	Ay	87	TYR	2.3
26	BC	186	LEU	2.3
32	AI	123	LEU	2.3
33	AJ	17	LEU	2.3
33	AJ	66	LEU	2.3
39	AS	26	LEU	2.3
6	Ag	62	PHE	2.3
51	A4	49	PHE	2.3
2	Bc	37	GLN	2.3
45	AY	62	GLU	2.3
19	At	14	LYS	2.3
33	BJ	81	VAL	2.3
45	AY	85	VAL	2.3
45	BY	19	LYS	2.3
9	Aj	43	ARG	2.3
36	BP	79	ARG	2.3
36	AP	48	PRO	2.3
19	At	101	GLY	2.3
45	AY	41	GLY	2.3
2	Bc	169	ALA	2.3
45	AY	78	ALA	2.3

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Mol	Chain	Res	Type	RSRZ
4	Be	135	THR	2.3
32	AI	102	SER	2.3
36	BP	32	THR	2.3
39	BS	21	THR	2.3
51	A4	52	THR	2.3
38	BR	4	LEU	2.3
22	Aa	70	G	2.3
43	BW	9	TYR	2.3
44	BX	5	TYR	2.3
13	Bn	50	LYS	2.3
39	BS	99	LYS	2.3
15	Ap	25	ARG	2.3
20	Au	15	ARG	2.3
22	Ba	1531	A	2.3
34	BN	55	VAL	2.3
57	BA	646	A	2.3
22	Ba	82	U	2.3
57	AA	157	U	2.3
9	Aj	82	ILE	2.3
32	BI	109	ILE	2.3
33	AJ	69	PRO	2.3
50	A3	2	PRO	2.3
27	BD	251	GLY	2.3
28	AE	131	ALA	2.3
29	AF	128	ALA	2.3
32	BI	115	ALA	2.3
33	AJ	39	ALA	2.3
57	AA	654(M)	C	2.3
33	AJ	40	LEU	2.3
55	B8	50	LEU	2.3
3	Ad	152	SER	2.3
11	Al	120	TYR	2.3
3	Ad	9	CYS	2.3
9	Bj	7	LYS	2.3
32	AI	112	LYS	2.3
40	BT	104	ASN	2.3
30	AG	113	ARG	2.3
32	AI	61	ARG	2.3
33	BJ	19	ARG	2.3
36	AP	15	ARG	2.3
7	Bh	25	ASP	2.3
37	BQ	138	ASP	2.3

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Mol	Chain	Res	Type	RSRZ
22	Ba	1030(A)	G	2.2
57	AA	11	G	2.2
30	AG	20	ILE	2.2
33	BJ	104	ILE	2.2
56	B9	17	ILE	2.2
26	BC	27	ALA	2.2
31	AH	96	ALA	2.2
31	BH	156	ALA	2.2
34	AN	1	MET	2.2
43	AW	81	ALA	2.2
26	BC	11	LEU	2.2
27	BD	33	LEU	2.2
32	BI	128	LEU	2.2
2	Bc	193	TYR	2.2
3	Ad	22	LYS	2.2
3	Ad	137	SER	2.2
3	Ad	139	ARG	2.2
6	Ag	32	ARG	2.2
37	AQ	6	ARG	2.2
39	BS	97	ARG	2.2
28	AE	75	VAL	2.2
31	BH	169	VAL	2.2
36	AP	68	GLN	2.2
39	BS	16	ASN	2.2
41	BU	97	ASP	2.2
55	B8	56	GLU	2.2
11	Bl	26	ALA	2.2
12	Bm	70	LEU	2.2
13	An	5	ALA	2.2
16	Bq	54	GLY	2.2
18	Bs	42	PRO	2.2
26	AC	221	PRO	2.2
29	AF	207	GLY	2.2
30	AG	86	MET	2.2
32	AI	80	PRO	2.2
30	BG	7	LEU	2.2
11	Al	20	LYS	2.2
20	Bu	8	THR	2.2
22	Ba	80	G	2.2
45	AY	88	LYS	2.2
57	BA	1047	G	2.2
57	BA	2190	G	2.2

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Mol	Chain	Res	Type	RSRZ
4	Ae	61	TYR	2.2
13	Bn	34	TYR	2.2
22	Ba	950	U	2.2
36	AP	65	ARG	2.2
39	AS	30	ARG	2.2
43	AW	9	TYR	2.2
55	B8	46	ARG	2.2
57	BA	1026	U	2.2
11	Al	116	SER	2.2
22	Aa	978	A	2.2
32	BI	144	VAL	2.2
26	BC	189	ASN	2.2
3	Bd	12	CYS	2.2
22	Aa	1030	C	2.2
22	Aa	1030(B)	C	2.2
25	Bw	34	C	2.2
57	AA	654(T)	C	2.2
57	BA	2306	C	2.2
1	Ab	99	GLY	2.2
9	Bj	71	LEU	2.2
12	Bm	85	GLY	2.2
18	As	71	LEU	2.2
27	BD	36	PRO	2.2
33	BJ	32	LEU	2.2
41	BU	116	ALA	2.2
47	B0	7	LEU	2.2
53	A6	10	LEU	2.2
33	AJ	64	LYS	2.2
45	BY	4	LYS	2.2
55	A8	59	LYS	2.2
39	BS	87	PHE	2.2
37	BQ	5	ARG	2.2
39	AS	15	ARG	2.2
55	A8	30	ARG	2.2
7	Bh	94	TYR	2.2
53	A6	5	VAL	2.2
26	AC	229	SER	2.2
55	B8	35	GLN	2.2
3	Bd	204	ILE	2.2
5	Bf	7	ASN	2.2
57	BA	272(B)	G	2.2
57	BA	2805	G	2.2

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Mol	Chain	Res	Type	RSRZ
58	BB	119	G	2.2
19	At	13	LEU	2.2
30	BG	82	LEU	2.2
33	AJ	63	LEU	2.2
40	BT	6	LEU	2.2
32	AI	132	PRO	2.2
36	BP	10	PRO	2.2
39	AS	108	GLY	2.2
3	Bd	22	LYS	2.2
9	Aj	12	ASP	2.2
33	BJ	108	LYS	2.2
36	AP	39	LYS	2.2
46	AZ	140	ASP	2.2
9	Aj	63	PHE	2.2
33	AJ	41	ARG	2.2
34	BN	12	ARG	2.2
22	Aa	1214	C	2.2
57	AA	1049	C	2.2
20	Au	17	THR	2.2
36	AP	30	THR	2.2
51	B4	24	THR	2.2
6	Bg	85	TYR	2.2
52	A5	45	VAL	2.2
56	A9	3	VAL	2.2
3	Bd	137	SER	2.2
31	AH	38	SER	2.2
17	Ar	76	LEU	2.2
46	BZ	163	LEU	2.2
26	BC	219	MET	2.2
2	Bc	200	ALA	2.2
33	AJ	36	GLU	2.2
22	Aa	1281	U	2.2
36	BP	63	PRO	2.2
44	BX	11	PRO	2.2
45	BY	82	PRO	2.2
21	Ay	16	ARG	2.2
47	A0	55	ARG	2.2
1	Ab	152	PHE	2.2
36	BP	47	ASP	2.2
22	Aa	1022	G	2.2
22	Ba	1023	G	2.2
57	AA	2318	G	2.2

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Mol	Chain	Res	Type	RSRZ
6	Ag	153	HIS	2.2
13	An	25	VAL	2.1
26	AC	44	VAL	2.1
29	BF	173	VAL	2.1
1	Ab	92	TYR	2.1
34	BN	4	TYR	2.1
32	AI	138	ILE	2.1
57	BA	2477	C	2.1
37	BQ	12	GLN	2.1
39	AS	62	LYS	2.1
19	Bt	60	GLU	2.1
26	AC	27	ALA	2.1
8	Ai	42	ARG	2.1
11	Bl	89	ARG	2.1
33	AJ	5	ARG	2.1
38	BR	103	ARG	2.1
40	AT	109	GLU	2.1
22	Aa	1364	U	2.1
5	Bf	6	VAL	2.1
22	Aa	1130	A	2.1
22	Ba	88	A	2.1
57	AA	278	A	2.1
3	Ad	155	LEU	2.1
7	Ah	2	LEU	2.1
7	Bh	133	LEU	2.1
30	AG	139	LEU	2.1
32	BI	121	LYS	2.1
33	BJ	71	LEU	2.1
34	BN	83	LYS	2.1
39	AS	101	LEU	2.1
1	Bb	96	ARG	2.1
14	Bo	64	ARG	2.1
57	AA	530	G	2.1
57	AA	2123	G	2.1
28	AE	204	ALA	2.1
6	Ag	82	GLY	2.1
30	AG	87	PRO	2.1
40	AT	25	GLY	2.1
41	AU	7	GLY	2.1
56	B9	37	GLY	2.1
4	Be	45	PHE	2.1
9	Bj	47	PHE	2.1

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Mol	Chain	Res	Type	RSRZ
45	BY	89	PHE	2.1
2	Ac	167	TRP	2.1
6	Ag	75	VAL	2.1
8	Bi	108	VAL	2.1
45	AY	7	VAL	2.1
28	BE	132	HIS	2.1
16	Aq	59	ILE	2.1
31	BH	87	LEU	2.1
32	BI	86	THR	2.1
42	AV	19	LYS	2.1
45	BY	83	THR	2.1
45	BY	96	ILE	2.1
3	Ad	115	ARG	2.1
37	BQ	10	ARG	2.1
32	BI	100	ALA	2.1
40	BT	131	ALA	2.1
49	B2	43	GLN	2.1
1	Bb	66	GLY	2.1
7	Bh	99	GLU	2.1
12	Am	97	PRO	2.1
18	As	42	PRO	2.1
21	Ay	46	GLY	2.1
34	AN	64	GLY	2.1
37	AQ	139	GLU	2.1
49	B2	27	GLU	2.1
56	B9	21	GLY	2.1
31	BH	56	SER	2.1
12	Am	77	ASN	2.1
9	Bj	72	VAL	2.1
22	Aa	979	C	2.1
22	Aa	1226	C	2.1
22	Ba	470	C	2.1
57	BA	1049	C	2.1
29	BF	172	TRP	2.1
42	BV	19	LYS	2.1
45	AY	47	LYS	2.1
1	Bb	127	ILE	2.1
32	BI	140	LEU	2.1
45	BY	44	ILE	2.1
46	AZ	57	ILE	2.1
56	A9	26	ILE	2.1
12	Bm	99	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
2	Ac	184	TYR	2.1
6	Bg	154	TYR	2.1
26	BC	217	THR	2.1
40	BT	93	ARG	2.1
36	AP	110	TYR	2.1
39	AS	94	TYR	2.1
51	A4	1	MET	2.1
2	Ac	189	ALA	2.1
26	AC	26	ALA	2.1
26	AC	34	ALA	2.1
41	AU	96	ALA	2.1
30	AG	177	GLY	2.1
40	BT	25	GLY	2.1
9	Aj	47	PHE	2.1
11	Al	25	PRO	2.1
14	Ao	52	SER	2.1
7	Bh	93	VAL	2.1
38	AR	73	VAL	2.1
51	A4	33	VAL	2.1
55	B8	23	VAL	2.1
19	At	21	LYS	2.1
20	Au	25	LYS	2.1
22	Ba	1183	A	2.1
23	Ax	24	A	2.1
26	AC	3	LYS	2.1
30	BG	75	LYS	2.1
57	AA	1045	A	2.1
58	BB	90	A	2.1
3	Ad	49	ARG	2.1
7	Bh	2	LEU	2.1
9	Bj	43	ARG	2.1
15	Ap	19	ILE	2.1
18	Bs	5	LEU	2.1
31	AH	69	ARG	2.1
49	A2	35	LEU	2.1
53	B6	42	TRP	2.1
3	Bd	134	ASP	2.1
33	AJ	72	ASP	2.1
8	Ai	103	THR	2.1
22	Aa	1363	C	2.1
22	Ba	507	C	2.1
39	AS	105	ALA	2.1

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Mol	Chain	Res	Type	RSRZ
58	BB	109	C	2.1
22	Aa	1272	G	2.1
22	Ba	93	G	2.1
27	AD	41	GLY	2.1
31	BH	82	GLY	2.1
39	BS	104	GLY	2.1
45	BY	10	GLY	2.1
47	A0	28	GLY	2.1
47	B0	6	GLY	2.1
3	Bd	81	GLU	2.1
9	Aj	61	GLU	2.1
21	By	89	GLU	2.1
27	AD	169	GLU	2.1
8	Ai	11	LYS	2.0
57	AA	12	U	2.0
3	Ad	76	ARG	2.0
9	Aj	65	LEU	2.0
19	Bt	86	ARG	2.0
26	BC	12	LEU	2.0
6	Bg	156	TRP	2.0
56	B9	20	HIS	2.0
12	Am	2	ALA	2.0
12	Bm	5	ALA	2.0
36	AP	57	THR	2.0
45	BY	48	ALA	2.0
53	A6	40	CYS	2.0
12	Am	101	GLN	2.0
33	BJ	52	PHE	2.0
36	AP	22	GLY	2.0
41	BU	118	GLY	2.0
2	Ac	19	GLU	2.0
21	By	82	GLU	2.0
34	AN	68	GLU	2.0
46	BZ	169	GLU	2.0
8	Ai	44	VAL	2.0
15	Bp	2	VAL	2.0
29	AF	163	VAL	2.0
39	AS	28	VAL	2.0
5	Bf	80	ARG	2.0
17	Br	54	ARG	2.0
19	At	83	ARG	2.0
38	AR	105	ARG	2.0

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Mol	Chain	Res	Type	RSRZ
39	AS	48	LEU	2.0
39	BS	24	LEU	2.0
40	AT	39	ARG	2.0
57	BA	2125	G	2.0
57	BA	2191	G	2.0
3	Ad	146	ILE	2.0
12	Am	9	ILE	2.0
57	BA	12	U	2.0
37	AQ	103	MET	2.0
30	AG	46	ALA	2.0
36	BP	57	THR	2.0
44	AX	4	ALA	2.0
8	Bi	5	TYR	2.0
29	AF	134	GLY	2.0
30	AG	129	GLY	2.0
17	Ar	68	LYS	2.0
32	BI	80	PRO	2.0
33	AJ	14	LYS	2.0
36	AP	70	GLN	2.0
46	BZ	158	PRO	2.0
1	Ab	136	VAL	2.0
3	Ad	80	GLU	2.0
22	Aa	1503	A	2.0
23	Bx	24	A	2.0
57	AA	2062	A	2.0
57	BA	1048	A	2.0
6	Bg	32	ARG	2.0
2	Ac	175	LEU	2.0
9	Bj	40	LEU	2.0
19	At	92	LEU	2.0
33	BJ	74	LEU	2.0
36	BP	6	LEU	2.0
36	BP	148	LEU	2.0
39	AS	56	LEU	2.0
45	BY	75	ILE	2.0

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

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
23	A2M	Ax	20	23/24	0.75	0.14	160,168,169,173	0
23	OMG	Ax	21	24/25	0.78	0.16	174,180,182,184	0
23	OMU	Bx	19	21/22	0.84	0.15	129,157,162,162	0
23	OMG	Bx	21	24/25	0.86	0.17	177,182,184,186	0
23	A2M	Bx	20	23/24	0.87	0.13	161,170,172,175	0
24	5MU	Bv	54	21/22	0.88	0.12	121,125,138,138	0
24	5MU	Av	54	21/22	0.89	0.12	139,140,144,145	0
23	OMU	Ax	19	21/22	0.90	0.11	133,158,162,164	0

6.3 Carbohydrates (i)

There are no oligosaccharides in this entry.

6.4 Ligands (i)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	MG	Aa	1727	1/1	-0.15	0.38	90,90,90,90	1
60	MG	Ba	1728	1/1	-0.01	0.51	113,113,113,113	0
60	MG	Ba	1647	1/1	0.01	0.32	148,148,148,148	0
60	MG	Ba	1695	1/1	0.02	0.40	148,148,148,148	0
60	MG	Bw	101	1/1	0.03	0.28	140,140,140,140	1
60	MG	Ba	1713	1/1	0.05	0.43	105,105,105,105	0
60	MG	Aa	1713	1/1	0.16	0.24	149,149,149,149	0
60	MG	BA	3126	1/1	0.17	0.31	154,154,154,154	0
60	MG	Aa	1736	1/1	0.19	0.17	126,126,126,126	0
60	MG	AA	2954	1/1	0.25	0.28	103,103,103,103	0
60	MG	BA	3191	1/1	0.25	0.35	116,116,116,116	0
60	MG	AA	3260	1/1	0.33	0.33	104,104,104,104	0
60	MG	Aa	1714	1/1	0.35	0.34	111,111,111,111	0
60	MG	Ba	1625	1/1	0.37	0.50	113,113,113,113	0
60	MG	BA	3088	1/1	0.40	0.31	113,113,113,113	0
60	MG	Ba	1708	1/1	0.41	0.16	139,139,139,139	0
60	MG	Aa	1690	1/1	0.42	0.32	96,96,96,96	1
60	MG	AA	3261	1/1	0.42	0.39	110,110,110,110	0
60	MG	AA	3248	1/1	0.43	0.37	141,141,141,141	0
60	MG	AA	3194	1/1	0.43	0.34	108,108,108,108	0
60	MG	Ba	1645	1/1	0.43	0.35	89,89,89,89	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	MG	BA	3258	1/1	0.43	0.34	110,110,110,110	0
60	MG	Ba	1677	1/1	0.45	0.48	152,152,152,152	1
60	MG	Aa	1622	1/1	0.45	0.22	101,101,101,101	0
60	MG	BA	3162	1/1	0.46	0.41	86,86,86,86	0
60	MG	AA	3249	1/1	0.46	0.43	109,109,109,109	0
60	MG	Aa	1730	1/1	0.46	0.46	104,104,104,104	0
60	MG	BA	2965	1/1	0.47	0.26	74,74,74,74	0
60	MG	Aa	1614	1/1	0.47	0.29	88,88,88,88	0
60	MG	Ba	1676	1/1	0.47	0.55	113,113,113,113	0
60	MG	AA	3086	1/1	0.47	0.28	94,94,94,94	0
60	MG	Aa	1623	1/1	0.47	0.33	107,107,107,107	0
60	MG	BA	2945	1/1	0.47	0.22	149,149,149,149	0
60	MG	Ba	1715	1/1	0.48	0.25	121,121,121,121	0
60	MG	Aa	1674	1/1	0.49	0.22	108,108,108,108	0
60	MG	Ba	1613	1/1	0.49	0.28	101,101,101,101	0
60	MG	AA	3165	1/1	0.49	0.28	83,83,83,83	0
60	MG	AA	3069	1/1	0.49	0.41	87,87,87,87	0
60	MG	AA	3078	1/1	0.50	0.36	94,94,94,94	0
60	MG	Ba	1646	1/1	0.50	0.56	122,122,122,122	0
60	MG	AA	3207	1/1	0.50	0.28	122,122,122,122	0
60	MG	Aa	1697	1/1	0.51	0.28	129,129,129,129	0
60	MG	BA	3113	1/1	0.51	0.32	55,55,55,55	1
60	MG	Ba	1712	1/1	0.51	0.38	96,96,96,96	0
60	MG	Aa	1681	1/1	0.51	0.24	86,86,86,86	0
60	MG	BA	2953	1/1	0.51	0.31	100,100,100,100	0
60	MG	AA	3149	1/1	0.51	0.45	109,109,109,109	0
60	MG	Ba	1606	1/1	0.52	0.36	101,101,101,101	0
60	MG	AA	2975	1/1	0.52	0.49	97,97,97,97	0
60	MG	AA	3030	1/1	0.53	0.53	94,94,94,94	0
60	MG	Ba	1723	1/1	0.53	0.28	89,89,89,89	0
60	MG	BA	3131	1/1	0.53	0.25	89,89,89,89	0
60	MG	BA	3182	1/1	0.54	0.25	140,140,140,140	0
60	MG	Aa	1722	1/1	0.54	0.34	110,110,110,110	0
60	MG	Ba	1678	1/1	0.54	0.26	131,131,131,131	0
60	MG	Ba	1699	1/1	0.55	0.60	113,113,113,113	0
60	MG	BA	3119	1/1	0.55	0.23	79,79,79,79	0
60	MG	Ba	1706	1/1	0.56	0.61	131,131,131,131	0
60	MG	AA	3241	1/1	0.56	0.36	100,100,100,100	0
60	MG	Aa	1611	1/1	0.56	0.40	82,82,82,82	0
60	MG	Ba	1648	1/1	0.56	0.38	145,145,145,145	0
60	MG	AA	3115	1/1	0.56	0.27	108,108,108,108	0
60	MG	Aa	1665	1/1	0.57	0.26	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	MG	Ba	1688	1/1	0.57	0.33	90,90,90,90	1
60	MG	Aa	1671	1/1	0.57	0.35	113,113,113,113	0
60	MG	Aa	1606	1/1	0.57	0.31	105,105,105,105	0
60	MG	Aw	101	1/1	0.57	0.15	95,95,95,95	1
60	MG	AA	2946	1/1	0.57	0.13	116,116,116,116	0
60	MG	Ba	1704	1/1	0.58	0.53	108,108,108,108	0
60	MG	Ba	1725	1/1	0.58	0.40	72,72,72,72	1
60	MG	Ba	1680	1/1	0.58	0.49	134,134,134,134	0
60	MG	Bv	104	1/1	0.58	0.59	118,118,118,118	1
60	MG	Aa	1725	1/1	0.58	0.33	88,88,88,88	0
60	MG	Ba	1692	1/1	0.58	0.49	99,99,99,99	0
60	MG	BA	2947	1/1	0.58	0.24	68,68,68,68	0
60	MG	Ba	1636	1/1	0.58	0.53	91,91,91,91	0
60	MG	BA	3204	1/1	0.58	0.34	92,92,92,92	0
60	MG	AA	3264	1/1	0.58	0.24	101,101,101,101	0
60	MG	Ba	1617	1/1	0.59	0.25	69,69,69,69	1
60	MG	AA	3002	1/1	0.59	0.47	84,84,84,84	0
60	MG	Ba	1660	1/1	0.59	0.32	127,127,127,127	0
60	MG	Aa	1699	1/1	0.59	0.40	125,125,125,125	1
60	MG	AA	3103	1/1	0.59	0.43	103,103,103,103	0
60	MG	Aa	1641	1/1	0.59	0.37	87,87,87,87	0
60	MG	AA	3036	1/1	0.60	0.48	99,99,99,99	0
60	MG	AA	3057	1/1	0.60	0.43	73,73,73,73	0
60	MG	Aa	1678	1/1	0.60	0.42	111,111,111,111	1
60	MG	AA	3111	1/1	0.60	0.28	91,91,91,91	0
60	MG	BA	3205	1/1	0.60	0.29	113,113,113,113	0
60	MG	BA	3071	1/1	0.60	0.56	113,113,113,113	0
60	MG	BA	3154	1/1	0.61	0.08	164,164,164,164	0
60	MG	Aa	1744	1/1	0.61	0.34	114,114,114,114	0
60	MG	AA	3146	1/1	0.61	0.30	87,87,87,87	0
60	MG	AB	202	1/1	0.61	0.43	103,103,103,103	0
60	MG	AA	2968	1/1	0.61	0.29	73,73,73,73	0
60	MG	Aa	1618	1/1	0.61	0.22	73,73,73,73	1
60	MG	Aa	1637	1/1	0.61	0.43	99,99,99,99	0
60	MG	Aa	1734	1/1	0.62	0.39	125,125,125,125	0
60	MG	Aa	1610	1/1	0.62	0.27	117,117,117,117	0
60	MG	AA	3134	1/1	0.62	0.21	98,98,98,98	0
60	MG	Bm	202	1/1	0.62	0.38	97,97,97,97	0
60	MG	BA	3150	1/1	0.62	0.51	104,104,104,104	0
60	MG	Ba	1605	1/1	0.62	0.34	99,99,99,99	0
60	MG	Ba	1721	1/1	0.63	0.25	108,108,108,108	0
60	MG	AX	101	1/1	0.63	0.37	96,96,96,96	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	MG	AA	3255	1/1	0.63	0.24	70,70,70,70	0
60	MG	Aa	1654	1/1	0.64	0.19	93,93,93,93	0
60	MG	Ba	1655	1/1	0.64	0.23	66,66,66,66	0
60	MG	Ba	1700	1/1	0.64	0.29	113,113,113,113	0
60	MG	AA	3168	1/1	0.64	0.27	84,84,84,84	0
60	MG	Am	201	1/1	0.64	0.33	88,88,88,88	0
60	MG	Aa	1721	1/1	0.64	0.38	97,97,97,97	0
60	MG	AA	3268	1/1	0.64	0.39	102,102,102,102	0
60	MG	AA	3090	1/1	0.64	0.35	86,86,86,86	0
60	MG	Ba	1687	1/1	0.64	0.23	69,69,69,69	1
60	MG	Aa	1633	1/1	0.64	0.32	71,71,71,71	0
60	MG	BA	3233	1/1	0.64	0.42	109,109,109,109	0
60	MG	AA	3150	1/1	0.64	0.24	81,81,81,81	0
60	MG	BA	3262	1/1	0.64	0.29	100,100,100,100	0
60	MG	AA	3211	1/1	0.65	0.20	97,97,97,97	0
60	MG	Ba	1714	1/1	0.65	0.11	90,90,90,90	0
60	MG	AA	3262	1/1	0.65	0.33	94,94,94,94	0
60	MG	AA	3219	1/1	0.65	0.30	94,94,94,94	0
60	MG	AA	3132	1/1	0.65	0.39	93,93,93,93	0
60	MG	AA	3038	1/1	0.65	0.39	95,95,95,95	0
60	MG	AA	3136	1/1	0.65	0.22	88,88,88,88	0
60	MG	BA	3231	1/1	0.65	0.32	105,105,105,105	0
60	MG	Ba	1732	1/1	0.65	0.34	135,135,135,135	0
60	MG	AA	2925	1/1	0.65	0.30	92,92,92,92	0
60	MG	Aa	1616	1/1	0.65	0.45	123,123,123,123	0
60	MG	Ba	1664	1/1	0.66	0.24	88,88,88,88	0
60	MG	AA	3266	1/1	0.66	0.26	73,73,73,73	0
60	MG	Ba	1737	1/1	0.66	0.14	101,101,101,101	0
60	MG	BA	3099	1/1	0.66	0.39	97,97,97,97	0
60	MG	AA	3210	1/1	0.66	0.39	99,99,99,99	0
60	MG	AA	3080	1/1	0.66	0.26	120,120,120,120	0
60	MG	Ba	1621	1/1	0.66	0.27	84,84,84,84	0
60	MG	AA	3209	1/1	0.66	0.30	108,108,108,108	0
60	MG	BA	3138	1/1	0.66	0.13	61,61,61,61	0
60	MG	AA	3239	1/1	0.66	0.41	113,113,113,113	0
60	MG	Ba	1616	1/1	0.67	0.21	99,99,99,99	0
60	MG	Ba	1707	1/1	0.67	0.51	100,100,100,100	0
60	MG	AA	3187	1/1	0.67	0.31	98,98,98,98	0
60	MG	AQ	201	1/1	0.67	0.34	105,105,105,105	0
60	MG	AA	3164	1/1	0.67	0.24	81,81,81,81	0
60	MG	Ba	1626	1/1	0.67	0.25	92,92,92,92	0
60	MG	BA	2902	1/1	0.67	0.30	129,129,129,129	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	MG	AA	3208	1/1	0.67	0.28	72,72,72,72	0
60	MG	AA	2943	1/1	0.67	0.31	77,77,77,77	0
60	MG	Aa	1664	1/1	0.67	0.48	114,114,114,114	0
60	MG	BA	3074	1/1	0.68	0.38	97,97,97,97	0
60	MG	AA	3202	1/1	0.68	0.28	85,85,85,85	1
60	MG	AA	3152	1/1	0.68	0.47	113,113,113,113	0
60	MG	Aa	1689	1/1	0.68	0.16	57,57,57,57	1
60	MG	AA	3191	1/1	0.68	0.31	102,102,102,102	0
60	MG	Ba	1698	1/1	0.68	0.44	123,123,123,123	1
60	MG	BA	3209	1/1	0.68	0.12	107,107,107,107	0
60	MG	AA	3247	1/1	0.68	0.24	92,92,92,92	0
60	MG	Ba	1734	1/1	0.68	0.15	138,138,138,138	0
60	MG	BA	3149	1/1	0.68	0.42	126,126,126,126	0
60	MG	Av	104	1/1	0.68	0.37	88,88,88,88	1
60	MG	AA	3240	1/1	0.69	0.31	104,104,104,104	0
60	MG	BA	3081	1/1	0.69	0.50	106,106,106,106	0
60	MG	Ba	1738	1/1	0.69	0.34	77,77,77,77	0
60	MG	AA	3102	1/1	0.69	0.35	92,92,92,92	0
60	MG	BA	3210	1/1	0.69	0.60	93,93,93,93	0
60	MG	Ba	1635	1/1	0.69	0.50	86,86,86,86	0
60	MG	BA	3049	1/1	0.69	0.22	82,82,82,82	0
60	MG	Ba	1736	1/1	0.69	0.35	88,88,88,88	0
60	MG	BA	3188	1/1	0.69	0.29	90,90,90,90	0
60	MG	AA	3091	1/1	0.70	0.46	104,104,104,104	0
60	MG	AA	3157	1/1	0.70	0.11	123,123,123,123	0
60	MG	BA	3141	1/1	0.70	0.24	82,82,82,82	0
60	MG	Ba	1711	1/1	0.70	0.12	117,117,117,117	0
60	MG	BA	2901	1/1	0.70	0.34	122,122,122,122	0
60	MG	BA	2958	1/1	0.70	0.43	100,100,100,100	0
60	MG	Aq	201	1/1	0.71	0.31	91,91,91,91	0
60	MG	AA	3162	1/1	0.71	0.27	126,126,126,126	0
60	MG	AA	3258	1/1	0.71	0.27	103,103,103,103	0
60	MG	AA	3029	1/1	0.71	0.28	74,74,74,74	0
60	MG	AA	3243	1/1	0.71	0.46	117,117,117,117	0
60	MG	Ba	1739	1/1	0.71	0.44	82,82,82,82	0
60	MG	BA	3206	1/1	0.71	0.37	78,78,78,78	0
60	MG	BA	3136	1/1	0.71	0.28	109,109,109,109	0
60	MG	BA	3048	1/1	0.71	0.38	95,95,95,95	0
60	MG	BA	3229	1/1	0.71	0.24	101,101,101,101	0
60	MG	Bv	103	1/1	0.71	0.45	110,110,110,110	0
60	MG	AA	3108	1/1	0.71	0.26	69,69,69,69	0
60	MG	Aa	1719	1/1	0.71	0.27	92,92,92,92	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	MG	Ba	1672	1/1	0.71	0.34	106,106,106,106	0
60	MG	Aa	1723	1/1	0.72	0.35	98,98,98,98	0
60	MG	Aa	1686	1/1	0.72	0.29	74,74,74,74	0
60	MG	BA	3036	1/1	0.72	0.46	73,73,73,73	0
60	MG	AA	3203	1/1	0.72	0.30	79,79,79,79	0
60	MG	AA	2931	1/1	0.72	0.36	63,63,63,63	0
60	MG	AA	3166	1/1	0.72	0.32	94,94,94,94	0
60	MG	BA	3072	1/1	0.72	0.34	75,75,75,75	0
60	MG	AA	3040	1/1	0.72	0.25	82,82,82,82	0
60	MG	AA	3007	1/1	0.72	0.24	83,83,83,83	0
60	MG	BA	3082	1/1	0.72	0.28	71,71,71,71	0
60	MG	AA	2959	1/1	0.72	0.25	77,77,77,77	0
60	MG	BA	3259	1/1	0.72	0.35	99,99,99,99	0
60	MG	Ba	1717	1/1	0.72	0.43	99,99,99,99	0
60	MG	Aa	1620	1/1	0.73	0.26	79,79,79,79	0
60	MG	AA	3119	1/1	0.73	0.35	143,143,143,143	0
60	MG	AA	3092	1/1	0.73	0.35	112,112,112,112	0
60	MG	Ba	1720	1/1	0.73	0.43	123,123,123,123	0
60	MG	BA	3190	1/1	0.73	0.35	98,98,98,98	0
60	MG	AA	3101	1/1	0.73	0.18	92,92,92,92	0
60	MG	BA	2942	1/1	0.73	0.38	78,78,78,78	0
60	MG	Aa	1656	1/1	0.73	0.14	67,67,67,67	0
60	MG	AA	2967	1/1	0.73	0.55	96,96,96,96	0
60	MG	AA	3257	1/1	0.73	0.25	75,75,75,75	0
60	MG	AA	3185	1/1	0.73	0.16	95,95,95,95	0
60	MG	AA	3212	1/1	0.73	0.33	79,79,79,79	0
60	MG	AA	3218	1/1	0.73	0.35	104,104,104,104	0
60	MG	AA	3015	1/1	0.73	0.48	103,103,103,103	0
60	MG	BA	3143	1/1	0.73	0.34	90,90,90,90	0
60	MG	AA	3109	1/1	0.73	0.42	73,73,73,73	0
60	MG	Aa	1617	1/1	0.73	0.15	66,66,66,66	0
60	MG	Aa	1648	1/1	0.74	0.26	118,118,118,118	0
60	MG	AA	3193	1/1	0.74	0.26	85,85,85,85	0
60	MG	Aa	1742	1/1	0.74	0.30	91,91,91,91	0
60	MG	AA	3122	1/1	0.74	0.26	101,101,101,101	0
60	MG	AA	3215	1/1	0.74	0.48	89,89,89,89	0
60	MG	BA	2946	1/1	0.74	0.11	74,74,74,74	0
60	MG	Aa	1667	1/1	0.74	0.23	100,100,100,100	0
60	MG	Ba	1702	1/1	0.74	0.52	110,110,110,110	0
60	MG	Aa	1601	1/1	0.74	0.20	93,93,93,93	0
60	MG	BA	3234	1/1	0.74	0.59	116,116,116,116	0
60	MG	Ba	1684	1/1	0.74	0.28	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	MG	BA	3034	1/1	0.74	0.35	78,78,78,78	0
60	MG	AA	3081	1/1	0.74	0.14	89,89,89,89	0
60	MG	BA	3264	1/1	0.74	0.30	68,68,68,68	0
60	MG	BA	3265	1/1	0.74	0.41	104,104,104,104	0
60	MG	BA	3183	1/1	0.75	0.15	67,67,67,67	0
60	MG	AA	3048	1/1	0.75	0.23	69,69,69,69	0
60	MG	BA	3102	1/1	0.75	0.16	81,81,81,81	0
60	MG	Aa	1705	1/1	0.75	0.55	50,50,50,50	1
60	MG	BA	2970	1/1	0.75	0.50	104,104,104,104	0
60	MG	BA	3011	1/1	0.75	0.29	81,81,81,81	0
60	MG	Aa	1706	1/1	0.75	0.23	91,91,91,91	0
60	MG	BA	3208	1/1	0.75	0.42	97,97,97,97	0
60	MG	BA	3135	1/1	0.75	0.50	146,146,146,146	0
60	MG	AA	3167	1/1	0.75	0.09	84,84,84,84	0
60	MG	Ba	1703	1/1	0.75	0.68	69,69,69,69	1
60	MG	AA	3237	1/1	0.75	0.41	88,88,88,88	0
60	MG	AA	2970	1/1	0.75	0.16	67,67,67,67	0
60	MG	Ba	1686	1/1	0.75	0.20	79,79,79,79	0
60	MG	BA	3239	1/1	0.75	0.24	88,88,88,88	0
60	MG	AA	3169	1/1	0.75	0.24	78,78,78,78	0
60	MG	Aa	1695	1/1	0.75	0.18	97,97,97,97	0
60	MG	Aa	1677	1/1	0.75	0.37	82,82,82,82	0
60	MG	BA	3167	1/1	0.75	0.21	74,74,74,74	0
60	MG	Aa	1672	1/1	0.75	0.20	77,77,77,77	0
60	MG	Aa	1688	1/1	0.76	0.22	72,72,72,72	0
60	MG	Aa	1647	1/1	0.76	0.46	105,105,105,105	0
60	MG	AA	2980	1/1	0.76	0.42	97,97,97,97	0
60	MG	AA	2947	1/1	0.76	0.33	103,103,103,103	0
60	MG	Aa	1735	1/1	0.76	0.25	80,80,80,80	1
60	MG	Aa	1624	1/1	0.76	0.19	86,86,86,86	0
60	MG	BA	3129	1/1	0.76	0.30	75,75,75,75	0
60	MG	AA	3076	1/1	0.76	0.38	92,92,92,92	0
60	MG	BA	3255	1/1	0.76	0.40	74,74,74,74	0
60	MG	Ba	1657	1/1	0.76	0.28	109,109,109,109	0
60	MG	Aa	1651	1/1	0.76	0.47	84,84,84,84	0
60	MG	Aa	1728	1/1	0.76	0.19	81,81,81,81	0
60	MG	BA	3084	1/1	0.76	0.30	64,64,64,64	0
60	MG	BA	3087	1/1	0.76	0.39	74,74,74,74	0
60	MG	Ba	1658	1/1	0.77	0.20	84,84,84,84	0
60	MG	Ba	1693	1/1	0.77	0.11	108,108,108,108	0
60	MG	BA	3200	1/1	0.77	0.57	98,98,98,98	0
60	MG	Aa	1692	1/1	0.77	0.22	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	MG	AA	3267	1/1	0.77	0.30	89,89,89,89	0
60	MG	BA	3063	1/1	0.77	0.14	59,59,59,59	0
60	MG	BA	3207	1/1	0.77	0.18	90,90,90,90	0
60	MG	Ba	1718	1/1	0.77	0.15	75,75,75,75	0
60	MG	AA	3254	1/1	0.77	0.32	84,84,84,84	0
60	MG	AA	3053	1/1	0.77	0.15	79,79,79,79	0
60	MG	AA	2999	1/1	0.77	0.25	61,61,61,61	0
60	MG	Aa	1676	1/1	0.77	0.12	120,120,120,120	0
60	MG	AA	3138	1/1	0.77	0.29	115,115,115,115	0
60	MG	Ba	1682	1/1	0.77	0.49	113,113,113,113	0
60	MG	Ba	1609	1/1	0.77	0.30	104,104,104,104	0
60	MG	AA	3075	1/1	0.77	0.27	104,104,104,104	0
60	MG	BA	3177	1/1	0.77	0.41	66,66,66,66	0
60	MG	BA	3180	1/1	0.77	0.23	92,92,92,92	0
60	MG	BA	3261	1/1	0.77	0.28	95,95,95,95	0
60	MG	AA	2939	1/1	0.77	0.17	53,53,53,53	0
60	MG	Aa	1733	1/1	0.77	0.24	79,79,79,79	0
60	MG	BA	3118	1/1	0.77	0.22	82,82,82,82	0
60	MG	AA	2995	1/1	0.78	0.22	82,82,82,82	0
60	MG	Aa	1715	1/1	0.78	0.10	84,84,84,84	0
60	MG	AA	3112	1/1	0.78	0.50	114,114,114,114	0
60	MG	Aa	1687	1/1	0.78	0.12	51,51,51,51	1
60	MG	Aa	1663	1/1	0.78	0.26	68,68,68,68	0
60	MG	Aa	1626	1/1	0.78	0.37	85,85,85,85	0
60	MG	AA	2956	1/1	0.78	0.34	111,111,111,111	0
60	MG	AA	3182	1/1	0.78	0.11	82,82,82,82	0
60	MG	Ba	1694	1/1	0.78	0.27	112,112,112,112	0
60	MG	AA	3227	1/1	0.78	0.34	110,110,110,110	0
60	MG	Ba	1697	1/1	0.78	0.19	98,98,98,98	1
60	MG	BA	2998	1/1	0.78	0.38	59,59,59,59	0
60	MG	AA	2957	1/1	0.78	0.18	83,83,83,83	0
60	MG	Ba	1730	1/1	0.78	0.33	64,64,64,64	0
60	MG	Aa	1680	1/1	0.78	0.18	115,115,115,115	0
60	MG	Ba	1733	1/1	0.78	0.14	100,100,100,100	1
60	MG	AA	2902	1/1	0.78	0.29	131,131,131,131	0
60	MG	BA	3245	1/1	0.78	0.22	80,80,80,80	0
60	MG	BA	3053	1/1	0.78	0.41	70,70,70,70	0
60	MG	AA	2903	1/1	0.78	0.18	98,98,98,98	0
60	MG	Aa	1640	1/1	0.78	0.29	82,82,82,82	0
60	MG	BA	3260	1/1	0.78	0.17	93,93,93,93	0
60	MG	Aa	1658	1/1	0.78	0.23	105,105,105,105	0
60	MG	Aa	1743	1/1	0.78	0.38	80,80,80,80	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	MG	AA	3204	1/1	0.78	0.17	84,84,84,84	0
60	MG	AA	3062	1/1	0.78	0.23	62,62,62,62	0
60	MG	AA	3087	1/1	0.79	0.33	81,81,81,81	0
60	MG	BA	3147	1/1	0.79	0.24	67,67,67,67	0
60	MG	BA	3235	1/1	0.79	0.42	90,90,90,90	0
60	MG	BX	101	1/1	0.79	0.21	59,59,59,59	1
60	MG	AA	2928	1/1	0.79	0.47	89,89,89,89	0
60	MG	AA	2940	1/1	0.79	0.56	102,102,102,102	0
60	MG	BA	3076	1/1	0.79	0.16	91,91,91,91	0
60	MG	AA	3129	1/1	0.79	0.17	112,112,112,112	0
60	MG	BA	2944	1/1	0.79	0.10	86,86,86,86	0
60	MG	AA	2942	1/1	0.79	0.19	65,65,65,65	0
60	MG	AA	3093	1/1	0.79	0.25	73,73,73,73	0
60	MG	Ba	1634	1/1	0.79	0.22	83,83,83,83	0
60	MG	Aa	1741	1/1	0.79	0.41	88,88,88,88	0
60	MG	Aa	1704	1/1	0.80	0.36	86,86,86,86	0
60	MG	BA	3091	1/1	0.80	0.35	66,66,66,66	0
60	MG	Aa	1636	1/1	0.80	0.39	62,62,62,62	0
60	MG	AA	2929	1/1	0.80	0.26	68,68,68,68	0
60	MG	BA	3201	1/1	0.80	0.25	62,62,62,62	0
60	MG	Ba	1610	1/1	0.80	0.27	87,87,87,87	0
60	MG	Ba	1612	1/1	0.80	0.21	100,100,100,100	0
60	MG	Ba	1663	1/1	0.80	0.26	86,86,86,86	0
60	MG	AA	2982	1/1	0.80	0.39	83,83,83,83	0
60	MG	Ba	1668	1/1	0.80	0.33	80,80,80,80	0
60	MG	AA	3226	1/1	0.80	0.27	91,91,91,91	0
60	MG	BA	3134	1/1	0.80	0.31	98,98,98,98	0
60	MG	BA	3219	1/1	0.80	0.35	88,88,88,88	0
60	MG	AA	2944	1/1	0.80	0.41	82,82,82,82	0
60	MG	AA	3232	1/1	0.80	0.29	70,70,70,70	0
60	MG	AA	2961	1/1	0.80	0.43	99,99,99,99	0
60	MG	Ba	1740	1/1	0.80	0.34	93,93,93,93	0
60	MG	Ba	1741	1/1	0.80	0.36	81,81,81,81	0
60	MG	AA	3135	1/1	0.80	0.45	89,89,89,89	0
60	MG	AA	3001	1/1	0.80	0.28	68,68,68,68	0
60	MG	BA	3253	1/1	0.80	0.24	72,72,72,72	0
60	MG	Bv	105	1/1	0.80	0.33	95,95,95,95	1
60	MG	AA	3052	1/1	0.80	0.37	98,98,98,98	0
60	MG	AA	3144	1/1	0.80	0.23	85,85,85,85	0
60	MG	Ba	1642	1/1	0.80	0.29	83,83,83,83	0
60	MG	Aa	1679	1/1	0.80	0.32	131,131,131,131	0
60	MG	Aa	1694	1/1	0.80	0.44	107,107,107,107	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	MG	BA	3086	1/1	0.80	0.29	65,65,65,65	0
60	MG	Ba	1601	1/1	0.80	0.24	77,77,77,77	0
60	MG	AA	3077	1/1	0.81	0.37	60,60,60,60	0
60	MG	Aa	1602	1/1	0.81	0.26	108,108,108,108	0
60	MG	Aa	1737	1/1	0.81	0.21	107,107,107,107	0
60	MG	AA	2923	1/1	0.81	0.31	75,75,75,75	0
60	MG	Ba	1653	1/1	0.81	0.15	91,91,91,91	0
60	MG	AA	3058	1/1	0.81	0.41	54,54,54,54	0
60	MG	BA	3065	1/1	0.81	0.39	66,66,66,66	0
60	MG	AA	3037	1/1	0.81	0.25	52,52,52,52	0
60	MG	AA	3230	1/1	0.81	0.42	94,94,94,94	0
60	MG	Aa	1642	1/1	0.81	0.37	102,102,102,102	0
60	MG	AA	3233	1/1	0.81	0.24	90,90,90,90	0
60	MG	Av	102	1/1	0.81	0.12	107,107,107,107	0
60	MG	AA	3140	1/1	0.81	0.26	107,107,107,107	0
60	MG	AA	2988	1/1	0.81	0.31	89,89,89,89	0
60	MG	BA	3155	1/1	0.81	0.11	77,77,77,77	1
60	MG	BA	2951	1/1	0.81	0.50	90,90,90,90	0
60	MG	AA	3116	1/1	0.81	0.26	39,39,39,39	1
60	MG	AB	201	1/1	0.81	0.22	69,69,69,69	0
60	MG	AA	3175	1/1	0.81	0.29	54,54,54,54	0
60	MG	Ba	1640	1/1	0.81	0.39	105,105,105,105	0
60	MG	Ba	1641	1/1	0.81	0.32	92,92,92,92	0
60	MG	BA	3106	1/1	0.81	0.21	58,58,58,58	0
60	MG	AA	3148	1/1	0.81	0.36	72,72,72,72	0
60	MG	BA	3116	1/1	0.81	0.31	99,99,99,99	0
60	MG	BA	3031	1/1	0.81	0.26	46,46,46,46	0
60	MG	AA	3011	1/1	0.82	0.22	55,55,55,55	0
60	MG	BA	3202	1/1	0.82	0.15	65,65,65,65	0
60	MG	AA	2934	1/1	0.82	0.32	53,53,53,53	1
60	MG	AA	3265	1/1	0.82	0.42	83,83,83,83	0
60	MG	B0	101	1/1	0.82	0.41	104,104,104,104	0
60	MG	AA	3113	1/1	0.82	0.32	55,55,55,55	0
60	MG	Aa	1645	1/1	0.82	0.32	83,83,83,83	0
60	MG	Ba	1627	1/1	0.82	0.21	71,71,71,71	0
60	MG	Ba	1726	1/1	0.82	0.25	65,65,65,65	0
60	MG	BA	3211	1/1	0.82	0.28	81,81,81,81	0
60	MG	BA	3216	1/1	0.82	0.25	89,89,89,89	0
60	MG	Aa	1717	1/1	0.82	0.25	90,90,90,90	0
60	MG	BA	3146	1/1	0.82	0.21	112,112,112,112	0
60	MG	AA	3176	1/1	0.82	0.21	84,84,84,84	0
60	MG	Ba	1673	1/1	0.82	0.10	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	MG	AA	3179	1/1	0.82	0.31	76,76,76,76	0
60	MG	AA	3096	1/1	0.82	0.39	109,109,109,109	0
60	MG	BA	3238	1/1	0.82	0.19	89,89,89,89	0
60	MG	AA	3099	1/1	0.82	0.55	78,78,78,78	0
60	MG	AA	3035	1/1	0.82	0.26	74,74,74,74	0
60	MG	BA	3252	1/1	0.82	0.26	72,72,72,72	0
60	MG	AA	3188	1/1	0.82	0.22	91,91,91,91	0
60	MG	BA	2985	1/1	0.82	0.22	64,64,64,64	0
60	MG	AA	2909	1/1	0.82	0.27	46,46,46,46	0
60	MG	AA	3085	1/1	0.82	0.39	86,86,86,86	0
60	MG	AA	3004	1/1	0.82	0.13	84,84,84,84	0
60	MG	Aa	1698	1/1	0.82	0.33	86,86,86,86	0
60	MG	BA	3117	1/1	0.82	0.42	106,106,106,106	0
60	MG	Ba	1690	1/1	0.82	0.26	67,67,67,67	0
60	MG	BA	3047	1/1	0.82	0.24	57,57,57,57	0
60	MG	BA	2921	1/1	0.83	0.28	77,77,77,77	0
60	MG	BA	3168	1/1	0.83	0.18	87,87,87,87	0
60	MG	BA	3174	1/1	0.83	0.43	63,63,63,63	0
60	MG	BA	2923	1/1	0.83	0.21	60,60,60,60	0
60	MG	BA	2926	1/1	0.83	0.23	58,58,58,58	0
60	MG	BA	2931	1/1	0.83	0.34	52,52,52,52	0
60	MG	BA	2937	1/1	0.83	0.13	70,70,70,70	0
60	MG	BA	2938	1/1	0.83	0.77	104,104,104,104	0
60	MG	AA	3223	1/1	0.83	0.28	75,75,75,75	0
60	MG	BA	2943	1/1	0.83	0.26	79,79,79,79	0
60	MG	AA	3089	1/1	0.83	0.23	74,74,74,74	0
60	MG	AA	3196	1/1	0.83	0.26	59,59,59,59	0
60	MG	AA	3200	1/1	0.83	0.29	82,82,82,82	0
60	MG	Aa	1643	1/1	0.83	0.17	117,117,117,117	0
60	MG	Ba	1667	1/1	0.83	0.20	91,91,91,91	0
60	MG	BA	2952	1/1	0.83	0.14	87,87,87,87	0
60	MG	AA	3173	1/1	0.83	0.13	72,72,72,72	0
60	MG	BA	2956	1/1	0.83	0.24	89,89,89,89	0
60	MG	Aa	1720	1/1	0.83	0.26	90,90,90,90	0
60	MG	BA	2962	1/1	0.83	0.23	71,71,71,71	0
60	MG	Ba	1631	1/1	0.83	0.31	101,101,101,101	0
60	MG	AA	3206	1/1	0.83	0.22	75,75,75,75	0
60	MG	BA	3127	1/1	0.83	0.33	38,38,38,38	0
60	MG	AA	3151	1/1	0.83	0.15	88,88,88,88	0
60	MG	AA	3079	1/1	0.83	0.19	95,95,95,95	0
60	MG	AA	3242	1/1	0.83	0.37	78,78,78,78	0
60	MG	BA	3023	1/1	0.83	0.34	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	MG	BA	3026	1/1	0.83	0.27	59,59,59,59	0
60	MG	BA	3236	1/1	0.83	0.12	64,64,64,64	0
60	MG	BA	3237	1/1	0.83	0.40	98,98,98,98	0
60	MG	AA	3064	1/1	0.83	0.19	59,59,59,59	0
60	MG	AA	3183	1/1	0.83	0.16	79,79,79,79	0
60	MG	AA	3065	1/1	0.83	0.33	82,82,82,82	0
60	MG	BA	3251	1/1	0.83	0.35	78,78,78,78	0
60	MG	BA	3044	1/1	0.83	0.24	52,52,52,52	0
60	MG	AA	3114	1/1	0.83	0.30	84,84,84,84	0
60	MG	BA	3148	1/1	0.83	0.16	82,82,82,82	0
60	MG	AA	3012	1/1	0.83	0.33	46,46,46,46	0
60	MG	Aa	1652	1/1	0.83	0.43	91,91,91,91	0
60	MG	BA	3152	1/1	0.83	0.39	92,92,92,92	0
60	MG	Ba	1719	1/1	0.83	0.35	85,85,85,85	0
60	MG	Ba	1611	1/1	0.83	0.17	81,81,81,81	0
60	MG	Aa	1693	1/1	0.83	0.39	65,65,65,65	0
60	MG	BA	3163	1/1	0.83	0.29	87,87,87,87	0
60	MG	Ba	1661	1/1	0.84	0.27	98,98,98,98	0
60	MG	Aa	1657	1/1	0.84	0.25	93,93,93,93	0
60	MG	BA	3222	1/1	0.84	0.27	109,109,109,109	0
60	MG	AA	3131	1/1	0.84	0.16	75,75,75,75	0
60	MG	Ba	1709	1/1	0.84	0.15	63,63,63,63	0
60	MG	Aa	1739	1/1	0.84	0.33	100,100,100,100	0
60	MG	BA	3179	1/1	0.84	0.32	90,90,90,90	0
60	MG	AA	3238	1/1	0.84	0.31	74,74,74,74	0
60	MG	BA	2959	1/1	0.84	0.20	62,62,62,62	0
60	MG	AF	301	1/1	0.84	0.18	87,87,87,87	0
60	MG	Ba	1622	1/1	0.84	0.26	88,88,88,88	0
60	MG	BA	2927	1/1	0.84	0.24	45,45,45,45	0
60	MG	BA	3243	1/1	0.84	0.39	75,75,75,75	0
60	MG	Ba	1623	1/1	0.84	0.11	75,75,75,75	0
60	MG	BA	2932	1/1	0.84	0.40	87,87,87,87	0
60	MG	BA	2934	1/1	0.84	0.42	65,65,65,65	1
60	MG	Ba	1716	1/1	0.84	0.44	102,102,102,102	0
60	MG	Aa	1604	1/1	0.84	0.09	82,82,82,82	0
60	MG	Aa	1605	1/1	0.84	0.14	70,70,70,70	0
60	MG	Aa	1724	1/1	0.84	0.09	100,100,100,100	0
60	MG	Aa	1707	1/1	0.84	0.39	79,79,79,79	0
60	MG	BA	3043	1/1	0.84	0.28	49,49,49,49	0
60	MG	BA	3108	1/1	0.84	0.17	71,71,71,71	0
60	MG	AA	3229	1/1	0.84	0.25	87,87,87,87	0
60	MG	Aa	1703	1/1	0.84	0.20	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	MG	Ba	1608	1/1	0.85	0.13	91,91,91,91	0
60	MG	AA	2963	1/1	0.85	0.33	65,65,65,65	0
60	MG	Ba	1644	1/1	0.85	0.33	109,109,109,109	0
60	MG	AA	3224	1/1	0.85	0.54	86,86,86,86	0
60	MG	AA	3084	1/1	0.85	0.23	84,84,84,84	0
60	MG	Aa	1700	1/1	0.85	0.19	84,84,84,84	1
60	MG	AA	3005	1/1	0.85	0.23	64,64,64,64	0
60	MG	AA	2986	1/1	0.85	0.21	86,86,86,86	0
60	MG	BA	3098	1/1	0.85	0.28	77,77,77,77	0
60	MG	AA	3088	1/1	0.85	0.19	64,64,64,64	0
60	MG	BA	3226	1/1	0.85	0.22	50,50,50,50	0
60	MG	AA	3039	1/1	0.85	0.23	50,50,50,50	0
60	MG	AA	3142	1/1	0.85	0.10	65,65,65,65	0
60	MG	BA	3164	1/1	0.85	0.31	78,78,78,78	0
60	MG	BA	3165	1/1	0.85	0.26	73,73,73,73	0
60	MG	Ba	1696	1/1	0.85	0.31	99,99,99,99	0
60	MG	BA	3111	1/1	0.85	0.41	99,99,99,99	0
60	MG	BA	3170	1/1	0.85	0.10	58,58,58,58	0
60	MG	AA	2987	1/1	0.85	0.29	41,41,41,41	0
60	MG	BA	3175	1/1	0.85	0.26	91,91,91,91	0
60	MG	Aa	1669	1/1	0.85	0.22	71,71,71,71	0
60	MG	AA	3147	1/1	0.85	0.36	66,66,66,66	0
60	MG	AA	3050	1/1	0.85	0.27	87,87,87,87	0
60	MG	Ba	1629	1/1	0.85	0.26	69,69,69,69	0
60	MG	Aa	1646	1/1	0.85	0.29	81,81,81,81	0
60	MG	AA	3118	1/1	0.85	0.28	59,59,59,59	0
60	MG	BA	3256	1/1	0.85	0.27	84,84,84,84	0
60	MG	BA	3189	1/1	0.85	0.44	62,62,62,62	0
60	MG	Ba	1705	1/1	0.85	0.31	80,80,80,80	0
60	MG	AA	3094	1/1	0.85	0.25	65,65,65,65	0
60	MG	AA	2962	1/1	0.85	0.20	53,53,53,53	0
60	MG	Ba	1639	1/1	0.85	0.24	68,68,68,68	0
60	MG	AA	2976	1/1	0.85	0.25	85,85,85,85	0
60	MG	Ba	1679	1/1	0.85	0.28	67,67,67,67	0
60	MG	BA	3073	1/1	0.86	0.28	54,54,54,54	0
60	MG	BA	3144	1/1	0.86	0.26	59,59,59,59	0
60	MG	BA	2963	1/1	0.86	0.48	91,91,91,91	0
60	MG	Aa	1668	1/1	0.86	0.33	84,84,84,84	0
60	MG	Aa	1630	1/1	0.86	0.33	89,89,89,89	0
60	MG	BA	2972	1/1	0.86	0.29	79,79,79,79	0
60	MG	BA	2976	1/1	0.86	0.45	93,93,93,93	0
60	MG	AA	2952	1/1	0.86	0.25	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	MG	BA	2990	1/1	0.86	0.32	56,56,56,56	0
60	MG	BA	3221	1/1	0.86	0.27	66,66,66,66	0
60	MG	Aa	1738	1/1	0.86	0.22	78,78,78,78	0
60	MG	BA	3225	1/1	0.86	0.28	99,99,99,99	0
60	MG	BA	2999	1/1	0.86	0.23	41,41,41,41	0
60	MG	Aa	1670	1/1	0.86	0.25	70,70,70,70	0
60	MG	BA	3018	1/1	0.86	0.26	51,51,51,51	0
60	MG	Aa	1716	1/1	0.86	0.08	79,79,79,79	0
60	MG	AA	3105	1/1	0.86	0.57	92,92,92,92	0
60	MG	AA	3027	1/1	0.86	0.29	57,57,57,57	0
60	MG	BA	3033	1/1	0.86	0.22	42,42,42,42	0
60	MG	Ba	1670	1/1	0.86	0.19	132,132,132,132	0
60	MG	Ba	1643	1/1	0.86	0.26	95,95,95,95	0
60	MG	BA	3038	1/1	0.86	0.23	52,52,52,52	0
60	MG	BA	3178	1/1	0.86	0.30	71,71,71,71	0
60	MG	Aa	1655	1/1	0.86	0.35	88,88,88,88	0
59	ZN	B4	101	1/1	0.86	0.09	203,203,203,203	0
60	MG	AA	3031	1/1	0.86	0.20	56,56,56,56	0
60	MG	Ba	1701	1/1	0.86	0.26	71,71,71,71	0
60	MG	BA	3185	1/1	0.86	0.16	66,66,66,66	0
60	MG	Bq	201	1/1	0.86	0.29	116,116,116,116	0
60	MG	BA	3130	1/1	0.86	0.37	63,63,63,63	0
60	MG	AA	3033	1/1	0.86	0.32	68,68,68,68	0
60	MG	BA	3058	1/1	0.86	0.22	60,60,60,60	0
60	MG	Ba	1652	1/1	0.86	0.36	80,80,80,80	0
60	MG	AA	3137	1/1	0.86	0.33	95,95,95,95	0
60	MG	AA	3186	1/1	0.86	0.13	74,74,74,74	0
60	MG	BA	2925	1/1	0.86	0.09	82,82,82,82	0
60	MG	AA	2908	1/1	0.87	0.15	53,53,53,53	0
60	MG	BA	3184	1/1	0.87	0.24	83,83,83,83	0
60	MG	BA	2981	1/1	0.87	0.29	45,45,45,45	0
60	MG	BA	3186	1/1	0.87	0.14	70,70,70,70	0
60	MG	Ba	1618	1/1	0.87	0.29	56,56,56,56	0
60	MG	AA	3067	1/1	0.87	0.16	66,66,66,66	0
60	MG	AA	2978	1/1	0.87	0.39	100,100,100,100	0
60	MG	B0	102	1/1	0.87	0.18	77,77,77,77	0
60	MG	Aa	1682	1/1	0.87	0.33	97,97,97,97	0
60	MG	Ba	1710	1/1	0.87	0.13	81,81,81,81	0
60	MG	BA	3022	1/1	0.87	0.19	33,33,33,33	0
60	MG	BA	2907	1/1	0.87	0.24	51,51,51,51	0
60	MG	BA	3125	1/1	0.87	0.19	68,68,68,68	0
60	MG	AA	2948	1/1	0.87	0.18	80,80,80,80	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	MG	AA	3213	1/1	0.87	0.36	98,98,98,98	0
60	MG	Aa	1661	1/1	0.87	0.21	91,91,91,91	0
60	MG	AA	3216	1/1	0.87	0.21	74,74,74,74	0
60	MG	AA	3178	1/1	0.87	0.42	86,86,86,86	0
60	MG	BA	3133	1/1	0.87	0.10	83,83,83,83	0
60	MG	Ba	1632	1/1	0.87	0.14	81,81,81,81	0
60	MG	BA	3039	1/1	0.87	0.15	44,44,44,44	0
60	MG	AA	3263	1/1	0.87	0.20	94,94,94,94	0
60	MG	Aa	1662	1/1	0.87	0.26	76,76,76,76	0
60	MG	BA	3224	1/1	0.87	0.19	89,89,89,89	0
60	MG	AA	3220	1/1	0.87	0.24	47,47,47,47	0
60	MG	AA	2955	1/1	0.87	0.19	60,60,60,60	0
60	MG	AA	3143	1/1	0.87	0.39	72,72,72,72	0
60	MG	AA	3225	1/1	0.87	0.14	71,71,71,71	0
60	MG	Ba	1689	1/1	0.87	0.35	82,82,82,82	0
60	MG	Aa	1696	1/1	0.87	0.17	93,93,93,93	0
60	MG	Aa	1639	1/1	0.87	0.30	83,83,83,83	0
60	MG	Aa	1710	1/1	0.87	0.07	128,128,128,128	0
60	MG	BA	2948	1/1	0.87	0.48	93,93,93,93	0
60	MG	AA	3047	1/1	0.87	0.26	62,62,62,62	0
60	MG	Aa	1711	1/1	0.87	0.19	61,61,61,61	0
60	MG	Aa	1635	1/1	0.87	0.13	61,61,61,61	0
60	MG	BA	3077	1/1	0.87	0.18	69,69,69,69	0
60	MG	BA	3246	1/1	0.87	0.33	107,107,107,107	0
60	MG	BA	3247	1/1	0.87	0.23	99,99,99,99	0
60	MG	BA	3080	1/1	0.87	0.21	79,79,79,79	0
60	MG	Aa	1609	1/1	0.87	0.09	82,82,82,82	0
60	MG	AA	2901	1/1	0.87	0.10	77,77,77,77	0
60	MG	AA	3156	1/1	0.87	0.27	83,83,83,83	0
60	MG	Aa	1740	1/1	0.87	0.26	65,65,65,65	0
60	MG	Aa	1607	1/1	0.87	0.27	95,95,95,95	0
60	MG	AA	2971	1/1	0.87	0.08	77,77,77,77	0
60	MG	BA	3090	1/1	0.87	0.16	47,47,47,47	0
60	MG	AA	3130	1/1	0.87	0.31	42,42,42,42	0
60	MG	BA	3092	1/1	0.87	0.21	83,83,83,83	0
60	MG	BA	3097	1/1	0.87	0.15	65,65,65,65	0
60	MG	AA	2945	1/1	0.87	0.11	73,73,73,73	0
60	MG	Ba	1649	1/1	0.88	0.17	52,52,52,52	0
60	MG	BA	2978	1/1	0.88	0.26	72,72,72,72	0
60	MG	Aa	1619	1/1	0.88	0.31	62,62,62,62	0
60	MG	AA	3198	1/1	0.88	0.24	73,73,73,73	0
60	MG	BD	301	1/1	0.88	0.25	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	MG	AA	2926	1/1	0.88	0.29	62,62,62,62	0
60	MG	AA	3125	1/1	0.88	0.23	49,49,49,49	0
60	MG	BA	3004	1/1	0.88	0.26	45,45,45,45	0
60	MG	BA	3007	1/1	0.88	0.19	56,56,56,56	0
60	MG	Aa	1632	1/1	0.88	0.40	86,86,86,86	0
60	MG	BA	3112	1/1	0.88	0.07	81,81,81,81	0
60	MG	BA	3014	1/1	0.88	0.20	38,38,38,38	0
60	MG	AA	2907	1/1	0.88	0.20	58,58,58,58	0
60	MG	BA	3019	1/1	0.88	0.25	72,72,72,72	0
60	MG	Ba	1615	1/1	0.88	0.31	86,86,86,86	0
60	MG	AA	2964	1/1	0.88	0.31	76,76,76,76	0
60	MG	AA	3245	1/1	0.88	0.39	71,71,71,71	0
60	MG	BA	3027	1/1	0.88	0.23	53,53,53,53	0
60	MG	AA	3095	1/1	0.88	0.24	67,67,67,67	0
60	MG	Ba	1620	1/1	0.88	0.15	102,102,102,102	0
60	MG	AA	3070	1/1	0.88	0.20	47,47,47,47	0
60	MG	AA	3073	1/1	0.88	0.36	84,84,84,84	0
60	MG	AA	2991	1/1	0.88	0.23	62,62,62,62	0
60	MG	AA	3171	1/1	0.88	0.23	68,68,68,68	0
60	MG	Aa	1644	1/1	0.88	0.37	100,100,100,100	0
60	MG	A7	101	1/1	0.88	0.20	73,73,73,73	0
60	MG	Ba	1628	1/1	0.88	0.23	79,79,79,79	0
60	MG	AA	3139	1/1	0.88	0.18	90,90,90,90	0
60	MG	AA	3177	1/1	0.88	0.32	54,54,54,54	0
60	MG	BA	3230	1/1	0.88	0.21	61,61,61,61	0
60	MG	Ba	1683	1/1	0.88	0.11	93,93,93,93	0
60	MG	AA	3217	1/1	0.88	0.40	70,70,70,70	0
60	MG	BA	3061	1/1	0.88	0.15	64,64,64,64	0
60	MG	Ba	1685	1/1	0.88	0.21	42,42,42,42	1
60	MG	AA	2935	1/1	0.88	0.39	90,90,90,90	0
60	MG	AA	3141	1/1	0.88	0.11	54,54,54,54	0
60	MG	BA	3151	1/1	0.88	0.34	105,105,105,105	0
60	MG	AA	2938	1/1	0.88	0.51	95,95,95,95	0
60	MG	BA	3242	1/1	0.88	0.39	73,73,73,73	0
60	MG	AA	3003	1/1	0.88	0.23	43,43,43,43	0
60	MG	AA	3184	1/1	0.88	0.35	69,69,69,69	0
60	MG	BA	3075	1/1	0.88	0.20	56,56,56,56	0
60	MG	AA	2972	1/1	0.88	0.28	75,75,75,75	0
60	MG	AA	2974	1/1	0.88	0.51	85,85,85,85	0
60	MG	BA	3079	1/1	0.88	0.21	79,79,79,79	0
60	MG	AA	2911	1/1	0.88	0.35	39,39,39,39	0
60	MG	AA	3228	1/1	0.88	0.13	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	MG	AA	2917	1/1	0.88	0.32	99,99,99,99	0
60	MG	BA	3173	1/1	0.88	0.33	91,91,91,91	0
60	MG	AA	2977	1/1	0.88	0.31	69,69,69,69	0
60	MG	Aa	1613	1/1	0.88	0.13	85,85,85,85	0
60	MG	BA	3176	1/1	0.88	0.24	66,66,66,66	0
60	MG	AA	3016	1/1	0.88	0.69	82,82,82,82	0
60	MG	BA	3263	1/1	0.88	0.27	66,66,66,66	0
60	MG	BA	2975	1/1	0.88	0.30	93,93,93,93	0
60	MG	BA	3089	1/1	0.88	0.18	61,61,61,61	0
60	MG	AA	3256	1/1	0.89	0.33	74,74,74,74	0
60	MG	BA	3197	1/1	0.89	0.18	58,58,58,58	0
60	MG	BA	3128	1/1	0.89	0.15	40,40,40,40	0
60	MG	AA	3145	1/1	0.89	0.28	68,68,68,68	0
60	MG	Aa	1660	1/1	0.89	0.34	88,88,88,88	0
60	MG	AA	2958	1/1	0.89	0.25	77,77,77,77	0
60	MG	BA	3132	1/1	0.89	0.38	73,73,73,73	0
60	MG	Ba	1742	1/1	0.89	0.20	105,105,105,105	0
60	MG	BA	3066	1/1	0.89	0.17	28,28,28,28	0
60	MG	BA	3070	1/1	0.89	0.31	96,96,96,96	0
60	MG	AA	2979	1/1	0.89	0.29	71,71,71,71	0
60	MG	AA	2904	1/1	0.89	0.10	142,142,142,142	0
60	MG	AA	3063	1/1	0.89	0.28	47,47,47,47	0
60	MG	Aa	1603	1/1	0.89	0.22	112,112,112,112	1
60	MG	Aa	1732	1/1	0.89	0.27	58,58,58,58	0
60	MG	AA	3155	1/1	0.89	0.35	72,72,72,72	0
60	MG	AA	3126	1/1	0.89	0.40	49,49,49,49	0
60	MG	Aa	1701	1/1	0.89	0.30	96,96,96,96	0
60	MG	BA	2986	1/1	0.89	0.27	42,42,42,42	0
60	MG	Ba	1633	1/1	0.89	0.27	71,71,71,71	0
60	MG	AA	3231	1/1	0.89	0.29	107,107,107,107	0
60	MG	A7	102	1/1	0.89	0.24	98,98,98,98	0
60	MG	Bm	201	1/1	0.89	0.25	103,103,103,103	0
60	MG	BA	3232	1/1	0.89	0.10	82,82,82,82	0
60	MG	AA	2966	1/1	0.89	0.28	74,74,74,74	0
60	MG	Aa	1685	1/1	0.89	0.13	85,85,85,85	0
60	MG	AA	3133	1/1	0.89	0.43	78,78,78,78	0
60	MG	AA	3097	1/1	0.89	0.35	69,69,69,69	0
60	MG	AA	2950	1/1	0.89	0.18	59,59,59,59	0
60	MG	BA	3166	1/1	0.89	0.22	54,54,54,54	0
60	MG	AA	2951	1/1	0.89	0.11	61,61,61,61	0
60	MG	BA	3093	1/1	0.89	0.27	71,71,71,71	0
60	MG	BA	2933	1/1	0.89	0.39	84,84,84,84	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	MG	BA	3025	1/1	0.89	0.16	69,69,69,69	0
60	MG	AA	2937	1/1	0.89	0.14	63,63,63,63	0
60	MG	AA	2953	1/1	0.89	0.10	81,81,81,81	0
60	MG	AA	2973	1/1	0.89	0.20	82,82,82,82	0
60	MG	BA	3107	1/1	0.89	0.18	58,58,58,58	0
60	MG	Ba	1691	1/1	0.89	0.27	61,61,61,61	0
60	MG	AA	2919	1/1	0.89	0.19	49,49,49,49	0
60	MG	Ba	1729	1/1	0.89	0.35	84,84,84,84	0
60	MG	AA	2920	1/1	0.89	0.26	45,45,45,45	0
60	MG	Ba	1731	1/1	0.89	0.26	103,103,103,103	0
60	MG	Ba	1650	1/1	0.89	0.44	82,82,82,82	0
60	MG	AA	3082	1/1	0.89	0.29	69,69,69,69	0
60	MG	AA	3051	1/1	0.89	0.25	66,66,66,66	0
60	MG	BA	3121	1/1	0.89	0.42	82,82,82,82	0
60	MG	Ba	1654	1/1	0.89	0.33	97,97,97,97	0
60	MG	Aa	1708	1/1	0.89	0.26	89,89,89,89	0
60	MG	BB	203	1/1	0.89	0.38	79,79,79,79	0
60	MG	BA	3035	1/1	0.90	0.18	43,43,43,43	0
60	MG	AA	3041	1/1	0.90	0.27	49,49,49,49	0
60	MG	AA	3098	1/1	0.90	0.27	47,47,47,47	0
60	MG	AA	2941	1/1	0.90	0.24	68,68,68,68	0
60	MG	BA	3123	1/1	0.90	0.32	37,37,37,37	0
60	MG	AA	3205	1/1	0.90	0.17	58,58,58,58	0
60	MG	BA	3199	1/1	0.90	0.24	89,89,89,89	1
60	MG	Aa	1691	1/1	0.90	0.33	73,73,73,73	0
60	MG	BA	2949	1/1	0.90	0.10	63,63,63,63	0
60	MG	BA	2950	1/1	0.90	0.16	69,69,69,69	0
60	MG	AA	3017	1/1	0.90	0.23	59,59,59,59	0
60	MG	AA	3022	1/1	0.90	0.17	43,43,43,43	0
60	MG	BA	3056	1/1	0.90	0.22	53,53,53,53	0
60	MG	AA	3024	1/1	0.90	0.21	51,51,51,51	0
60	MG	BA	3060	1/1	0.90	0.17	51,51,51,51	0
60	MG	AA	2996	1/1	0.90	0.40	62,62,62,62	0
60	MG	AA	3174	1/1	0.90	0.17	50,50,50,50	0
60	MG	Ba	1656	1/1	0.90	0.34	80,80,80,80	0
60	MG	AA	3055	1/1	0.90	0.23	59,59,59,59	0
60	MG	BA	3139	1/1	0.90	0.19	67,67,67,67	0
60	MG	Bx	101	1/1	0.90	0.12	92,92,92,92	0
60	MG	BA	2964	1/1	0.90	0.32	84,84,84,84	0
60	MG	AA	3083	1/1	0.90	0.28	74,74,74,74	0
60	MG	Ba	1619	1/1	0.90	0.18	70,70,70,70	0
60	MG	AA	3056	1/1	0.90	0.16	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	MG	Aa	1709	1/1	0.90	0.12	92,92,92,92	0
60	MG	AA	2916	1/1	0.90	0.16	35,35,35,35	0
60	MG	AA	3180	1/1	0.90	0.17	58,58,58,58	0
60	MG	Ba	1624	1/1	0.90	0.10	73,73,73,73	0
60	MG	BA	2983	1/1	0.90	0.27	37,37,37,37	0
60	MG	AA	3059	1/1	0.90	0.29	90,90,90,90	0
60	MG	AA	3061	1/1	0.90	0.55	89,89,89,89	0
60	MG	BA	3158	1/1	0.90	0.29	61,61,61,61	0
60	MG	Aa	1659	1/1	0.90	0.14	70,70,70,70	0
60	MG	Aa	1653	1/1	0.90	0.32	71,71,71,71	0
60	MG	BA	2908	1/1	0.90	0.22	49,49,49,49	0
60	MG	BA	3240	1/1	0.90	0.17	73,73,73,73	0
60	MG	Aa	1731	1/1	0.90	0.46	82,82,82,82	0
60	MG	BA	3005	1/1	0.90	0.22	57,57,57,57	0
60	MG	BA	3244	1/1	0.90	0.20	89,89,89,89	0
60	MG	Aa	1621	1/1	0.90	0.14	91,91,91,91	0
60	MG	BA	2924	1/1	0.90	0.19	43,43,43,43	0
60	MG	A1	101	1/1	0.90	0.26	70,70,70,70	0
60	MG	BA	3250	1/1	0.90	0.55	97,97,97,97	0
60	MG	BA	3172	1/1	0.90	0.16	45,45,45,45	0
60	MG	BA	3015	1/1	0.90	0.25	39,39,39,39	0
60	MG	AA	3127	1/1	0.90	0.21	44,44,44,44	0
60	MG	AA	3154	1/1	0.90	0.10	86,86,86,86	0
60	MG	AA	3128	1/1	0.90	0.24	71,71,71,71	0
60	MG	AB	203	1/1	0.90	0.45	71,71,71,71	0
60	MG	AA	3195	1/1	0.90	0.17	41,41,41,41	0
60	MG	A5	101	1/1	0.90	0.28	62,62,62,62	0
60	MG	AA	2990	1/1	0.90	0.28	51,51,51,51	0
60	MG	BA	3181	1/1	0.90	0.27	51,51,51,51	0
60	MG	BA	3029	1/1	0.90	0.23	49,49,49,49	0
60	MG	AA	3013	1/1	0.90	0.33	49,49,49,49	0
60	MG	Ba	1602	1/1	0.90	0.09	73,73,73,73	0
60	MG	Ba	1604	1/1	0.90	0.10	78,78,78,78	0
60	MG	AA	3161	1/1	0.91	0.32	75,75,75,75	0
60	MG	AA	3028	1/1	0.91	0.18	53,53,53,53	0
60	MG	AA	3044	1/1	0.91	0.23	46,46,46,46	0
60	MG	AA	2965	1/1	0.91	0.24	80,80,80,80	0
60	MG	BA	3068	1/1	0.91	0.13	91,91,91,91	0
60	MG	AA	3124	1/1	0.91	0.27	63,63,63,63	0
60	MG	BA	2935	1/1	0.91	0.70	124,124,124,124	0
60	MG	BA	3001	1/1	0.91	0.21	45,45,45,45	0
60	MG	BA	3003	1/1	0.91	0.16	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	MG	AA	3189	1/1	0.91	0.32	73,73,73,73	0
60	MG	AA	3010	1/1	0.91	0.16	94,94,94,94	0
60	MG	AA	2989	1/1	0.91	0.09	50,50,50,50	0
60	MG	Ba	1743	1/1	0.91	0.49	90,90,90,90	0
60	MG	BA	3214	1/1	0.91	0.12	52,52,52,52	0
60	MG	BA	3013	1/1	0.91	0.19	41,41,41,41	0
60	MG	AA	3032	1/1	0.91	0.15	64,64,64,64	0
60	MG	Bv	101	1/1	0.91	0.35	71,71,71,71	1
60	MG	BA	3016	1/1	0.91	0.14	50,50,50,50	0
60	MG	BA	3223	1/1	0.91	0.35	74,74,74,74	0
60	MG	BA	3083	1/1	0.91	0.39	73,73,73,73	0
60	MG	AA	3246	1/1	0.91	0.23	103,103,103,103	0
60	MG	AA	3068	1/1	0.91	0.25	50,50,50,50	0
60	MG	BA	3021	1/1	0.91	0.29	45,45,45,45	0
60	MG	AA	3018	1/1	0.91	0.18	46,46,46,46	0
60	MG	AA	3221	1/1	0.91	0.09	59,59,59,59	0
60	MG	BA	3160	1/1	0.91	0.16	73,73,73,73	0
60	MG	AA	3252	1/1	0.91	0.48	85,85,85,85	0
60	MG	AA	3106	1/1	0.91	0.33	75,75,75,75	0
60	MG	AA	3199	1/1	0.91	0.30	44,44,44,44	0
60	MG	BA	3028	1/1	0.91	0.17	44,44,44,44	0
60	MG	BA	3094	1/1	0.91	0.34	39,39,39,39	0
60	MG	AA	3020	1/1	0.91	0.23	63,63,63,63	0
60	MG	BA	2954	1/1	0.91	0.17	37,37,37,37	0
60	MG	B7	101	1/1	0.91	0.20	57,57,57,57	0
60	MG	B7	102	1/1	0.91	0.18	80,80,80,80	0
60	MG	BA	3105	1/1	0.91	0.15	55,55,55,55	0
59	ZN	A4	101	1/1	0.91	0.06	195,195,195,195	0
60	MG	AA	3074	1/1	0.91	0.32	87,87,87,87	0
60	MG	BA	2903	1/1	0.91	0.33	91,91,91,91	0
60	MG	BA	3109	1/1	0.91	0.36	83,83,83,83	0
60	MG	Ba	1669	1/1	0.91	0.21	55,55,55,55	0
60	MG	BA	3042	1/1	0.91	0.42	48,48,48,48	0
60	MG	AA	3023	1/1	0.91	0.18	96,96,96,96	0
60	MG	BA	2967	1/1	0.91	0.14	58,58,58,58	0
60	MG	BA	2968	1/1	0.91	0.09	63,63,63,63	0
60	MG	BA	2911	1/1	0.91	0.29	36,36,36,36	0
60	MG	BA	3257	1/1	0.91	0.29	63,63,63,63	0
60	MG	AA	2933	1/1	0.91	0.29	84,84,84,84	0
60	MG	BA	3051	1/1	0.91	0.17	38,38,38,38	0
60	MG	AA	3026	1/1	0.91	0.26	43,43,43,43	0
60	MG	Ba	1674	1/1	0.91	0.07	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	MG	AA	3014	1/1	0.91	0.23	51,51,51,51	0
60	MG	BA	3059	1/1	0.91	0.30	52,52,52,52	0
60	MG	AA	3060	1/1	0.91	0.31	55,55,55,55	0
60	MG	BA	3192	1/1	0.91	0.15	43,43,43,43	0
60	MG	BB	201	1/1	0.91	0.12	50,50,50,50	0
60	MG	BA	3195	1/1	0.91	0.17	57,57,57,57	0
60	MG	AA	2960	1/1	0.92	0.31	37,37,37,37	0
60	MG	Aa	1675	1/1	0.92	0.11	58,58,58,58	0
60	MG	AA	3153	1/1	0.92	0.27	92,92,92,92	0
60	MG	Aa	1638	1/1	0.92	0.31	84,84,84,84	0
60	MG	BA	3122	1/1	0.92	0.20	51,51,51,51	0
60	MG	BA	2966	1/1	0.92	0.24	39,39,39,39	0
60	MG	AA	3025	1/1	0.92	0.28	39,39,39,39	0
60	MG	AA	3234	1/1	0.92	0.14	59,59,59,59	0
60	MG	AA	2912	1/1	0.92	0.12	56,56,56,56	0
60	MG	Aa	1684	1/1	0.92	0.23	71,71,71,71	0
60	MG	BA	3032	1/1	0.92	0.36	88,88,88,88	0
60	MG	AA	3159	1/1	0.92	0.08	75,75,75,75	0
60	MG	AA	3117	1/1	0.92	0.18	43,43,43,43	0
60	MG	AA	2993	1/1	0.92	0.23	57,57,57,57	0
60	MG	AA	2994	1/1	0.92	0.27	69,69,69,69	0
60	MG	AA	3121	1/1	0.92	0.29	83,83,83,83	0
60	MG	Av	101	1/1	0.92	0.22	65,65,65,65	1
60	MG	AA	3192	1/1	0.92	0.25	59,59,59,59	0
60	MG	BA	3137	1/1	0.92	0.13	94,94,94,94	0
60	MG	AA	3100	1/1	0.92	0.12	64,64,64,64	0
60	MG	BA	2997	1/1	0.92	0.20	49,49,49,49	0
60	MG	BA	3046	1/1	0.92	0.38	76,76,76,76	0
60	MG	Aa	1650	1/1	0.92	0.21	53,53,53,53	0
60	MG	BQ	201	1/1	0.92	0.30	79,79,79,79	0
60	MG	AA	2905	1/1	0.92	0.25	45,45,45,45	0
60	MG	BA	3198	1/1	0.92	0.09	70,70,70,70	0
60	MG	BA	3096	1/1	0.92	0.06	49,49,49,49	0
60	MG	Ba	1659	1/1	0.92	0.28	77,77,77,77	0
60	MG	BA	3052	1/1	0.92	0.15	30,30,30,30	0
60	MG	AA	3170	1/1	0.92	0.14	82,82,82,82	0
60	MG	AA	2936	1/1	0.92	0.32	33,33,33,33	0
60	MG	AA	3054	1/1	0.92	0.17	43,43,43,43	0
60	MG	AA	3072	1/1	0.92	0.20	79,79,79,79	0
60	MG	Ba	1665	1/1	0.92	0.46	80,80,80,80	0
60	MG	Av	103	1/1	0.92	0.36	69,69,69,69	1
60	MG	BA	2955	1/1	0.92	0.13	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	MG	Ba	1637	1/1	0.92	0.27	103,103,103,103	0
60	MG	Ba	1638	1/1	0.92	0.26	79,79,79,79	0
60	MG	Aa	1702	1/1	0.92	0.29	65,65,65,65	0
60	MG	BA	3266	1/1	0.92	0.16	80,80,80,80	0
60	MG	BA	3114	1/1	0.92	0.25	36,36,36,36	0
60	MG	BA	3069	1/1	0.92	0.13	72,72,72,72	0
60	MG	AA	3201	1/1	0.93	0.12	70,70,70,70	0
60	MG	BA	2929	1/1	0.93	0.10	43,43,43,43	0
60	MG	BA	2984	1/1	0.93	0.23	69,69,69,69	0
60	MG	BA	3054	1/1	0.93	0.27	37,37,37,37	0
60	MG	BA	2930	1/1	0.93	0.05	34,34,34,34	0
60	MG	BA	3057	1/1	0.93	0.30	58,58,58,58	0
60	MG	AA	3163	1/1	0.93	0.40	89,89,89,89	0
60	MG	BA	3124	1/1	0.93	0.13	45,45,45,45	0
60	MG	Ba	1675	1/1	0.93	0.07	69,69,69,69	0
60	MG	BA	2995	1/1	0.93	0.23	45,45,45,45	0
60	MG	Aa	1729	1/1	0.93	0.34	60,60,60,60	0
60	MG	BA	3062	1/1	0.93	0.14	45,45,45,45	0
60	MG	Aa	1608	1/1	0.93	0.18	48,48,48,48	0
60	MG	AA	2930	1/1	0.93	0.10	38,38,38,38	0
60	MG	AA	3066	1/1	0.93	0.14	55,55,55,55	0
60	MG	Ba	1651	1/1	0.93	0.28	51,51,51,51	0
60	MG	BA	2940	1/1	0.93	0.18	76,76,76,76	0
60	MG	BA	2941	1/1	0.93	0.29	98,98,98,98	0
60	MG	Ba	1681	1/1	0.93	0.06	71,71,71,71	0
60	MG	BA	3008	1/1	0.93	0.22	34,34,34,34	0
60	MG	BA	3213	1/1	0.93	0.41	81,81,81,81	0
60	MG	BA	3010	1/1	0.93	0.17	28,28,28,28	0
60	MG	Bv	102	1/1	0.93	0.11	54,54,54,54	0
60	MG	BA	3218	1/1	0.93	0.18	38,38,38,38	0
60	MG	AA	3251	1/1	0.93	0.33	68,68,68,68	0
60	MG	BA	3220	1/1	0.93	0.28	59,59,59,59	0
60	MG	BA	3140	1/1	0.93	0.39	60,60,60,60	0
60	MG	AA	2921	1/1	0.93	0.22	59,59,59,59	0
60	MG	BA	3142	1/1	0.93	0.24	61,61,61,61	0
60	MG	AA	3009	1/1	0.93	0.12	61,61,61,61	0
60	MG	AA	2932	1/1	0.93	0.25	79,79,79,79	0
60	MG	BA	3145	1/1	0.93	0.31	62,62,62,62	0
60	MG	AA	3190	1/1	0.93	0.27	52,52,52,52	0
60	MG	BD	302	1/1	0.93	0.17	53,53,53,53	0
60	MG	BA	3020	1/1	0.93	0.19	47,47,47,47	0
60	MG	Ba	1607	1/1	0.93	0.08	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	MG	Aa	1726	1/1	0.93	0.20	57,57,57,57	0
60	MG	BA	3085	1/1	0.93	0.10	72,72,72,72	0
60	MG	AA	3120	1/1	0.93	0.31	90,90,90,90	0
60	MG	Aa	1625	1/1	0.93	0.21	61,61,61,61	0
60	MG	AA	3235	1/1	0.93	0.20	102,102,102,102	0
60	MG	BA	3156	1/1	0.93	0.09	64,64,64,64	0
60	MG	Ba	1662	1/1	0.93	0.15	68,68,68,68	0
60	MG	AA	3236	1/1	0.93	0.36	90,90,90,90	0
60	MG	BA	3241	1/1	0.93	0.24	106,106,106,106	0
60	MG	AA	2984	1/1	0.93	0.35	79,79,79,79	0
60	MG	Ba	1614	1/1	0.93	0.37	60,60,60,60	0
60	MG	BA	2904	1/1	0.93	0.06	138,138,138,138	0
60	MG	Ba	1666	1/1	0.93	0.27	84,84,84,84	0
60	MG	BA	3095	1/1	0.93	0.23	61,61,61,61	0
60	MG	AA	2985	1/1	0.93	0.24	44,44,44,44	0
60	MG	BA	3249	1/1	0.93	0.27	55,55,55,55	0
60	MG	AA	3043	1/1	0.93	0.14	63,63,63,63	0
60	MG	BA	2914	1/1	0.93	0.20	32,32,32,32	0
60	MG	BA	3171	1/1	0.93	0.11	38,38,38,38	0
60	MG	BA	2917	1/1	0.93	0.19	75,75,75,75	0
60	MG	BA	3100	1/1	0.93	0.06	63,63,63,63	0
60	MG	BA	3101	1/1	0.93	0.45	64,64,64,64	0
60	MG	BA	2919	1/1	0.93	0.12	40,40,40,40	0
60	MG	BA	3104	1/1	0.93	0.08	36,36,36,36	0
60	MG	BA	3040	1/1	0.93	0.23	41,41,41,41	0
60	MG	BA	3041	1/1	0.93	0.13	42,42,42,42	0
60	MG	Aa	1615	1/1	0.93	0.32	58,58,58,58	0
60	MG	AA	3045	1/1	0.93	0.12	55,55,55,55	0
60	MG	BA	2973	1/1	0.93	0.35	61,61,61,61	0
60	MG	BA	2974	1/1	0.93	0.34	118,118,118,118	0
60	MG	Ba	1671	1/1	0.93	0.13	75,75,75,75	0
60	MG	Ba	1735	1/1	0.93	0.11	79,79,79,79	0
60	MG	AA	2927	1/1	0.93	0.21	50,50,50,50	0
60	MG	BB	202	1/1	0.93	0.22	55,55,55,55	0
60	MG	BA	3115	1/1	0.93	0.28	50,50,50,50	0
60	MG	AA	3021	1/1	0.94	0.16	42,42,42,42	0
60	MG	BA	2939	1/1	0.94	0.14	44,44,44,44	0
60	MG	Aa	1627	1/1	0.94	0.11	84,84,84,84	0
60	MG	AA	2913	1/1	0.94	0.26	44,44,44,44	0
60	MG	AA	3008	1/1	0.94	0.15	44,44,44,44	0
60	MG	BA	3187	1/1	0.94	0.37	68,68,68,68	0
60	MG	AA	2914	1/1	0.94	0.15	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	MG	BA	2905	1/1	0.94	0.20	31,31,31,31	0
60	MG	AA	2915	1/1	0.94	0.22	50,50,50,50	0
60	MG	Aa	1718	1/1	0.94	0.33	78,78,78,78	0
60	MG	BA	2909	1/1	0.94	0.19	36,36,36,36	0
60	MG	AA	3046	1/1	0.94	0.57	59,59,59,59	0
60	MG	BA	2913	1/1	0.94	0.31	47,47,47,47	0
60	MG	Aa	1712	1/1	0.94	0.26	86,86,86,86	0
60	MG	BA	3037	1/1	0.94	0.18	41,41,41,41	0
60	MG	AA	3107	1/1	0.94	0.07	58,58,58,58	0
60	MG	BA	3157	1/1	0.94	0.20	78,78,78,78	0
60	MG	Aa	1649	1/1	0.94	0.13	88,88,88,88	0
60	MG	AA	3049	1/1	0.94	0.24	64,64,64,64	0
60	MG	BA	3000	1/1	0.94	0.12	61,61,61,61	0
60	MG	AA	3244	1/1	0.94	0.78	98,98,98,98	0
60	MG	AA	2998	1/1	0.94	0.37	51,51,51,51	0
60	MG	AA	3222	1/1	0.94	0.27	67,67,67,67	0
60	MG	BA	2957	1/1	0.94	0.32	38,38,38,38	0
60	MG	BA	3006	1/1	0.94	0.44	107,107,107,107	0
60	MG	Aa	1628	1/1	0.94	0.16	72,72,72,72	0
60	MG	Aa	1634	1/1	0.94	0.22	56,56,56,56	0
60	MG	BA	2960	1/1	0.94	0.19	45,45,45,45	0
60	MG	AA	2922	1/1	0.94	0.09	52,52,52,52	0
60	MG	BA	3217	1/1	0.94	0.24	76,76,76,76	0
60	MG	BA	3012	1/1	0.94	0.66	69,69,69,69	0
60	MG	AA	3034	1/1	0.94	0.11	49,49,49,49	0
60	MG	BF	301	1/1	0.94	0.05	87,87,87,87	0
60	MG	Aa	1612	1/1	0.94	0.19	58,58,58,58	0
60	MG	AA	3181	1/1	0.94	0.14	65,65,65,65	0
60	MG	AA	3019	1/1	0.94	0.21	48,48,48,48	0
60	MG	AA	3160	1/1	0.94	0.19	65,65,65,65	0
60	MG	AA	2924	1/1	0.94	0.14	54,54,54,54	0
60	MG	BA	2971	1/1	0.94	0.41	63,63,63,63	0
60	MG	BA	3203	1/1	0.95	0.20	67,67,67,67	0
60	MG	BA	3103	1/1	0.95	0.25	63,63,63,63	0
60	MG	Ba	1727	1/1	0.95	0.31	44,44,44,44	0
60	MG	AA	3214	1/1	0.95	0.26	57,57,57,57	0
60	MG	BA	3064	1/1	0.95	0.21	44,44,44,44	0
60	MG	BA	2906	1/1	0.95	0.19	35,35,35,35	0
60	MG	BA	3153	1/1	0.95	0.35	73,73,73,73	0
60	MG	AA	3123	1/1	0.95	0.41	54,54,54,54	0
60	MG	BA	3067	1/1	0.95	0.32	78,78,78,78	0
60	MG	BA	3212	1/1	0.95	0.08	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	MG	BA	3110	1/1	0.95	0.20	46,46,46,46	0
60	MG	BA	2980	1/1	0.95	0.31	80,80,80,80	0
60	MG	AA	3172	1/1	0.95	0.21	58,58,58,58	0
60	MG	BA	3159	1/1	0.95	0.11	110,110,110,110	0
60	MG	AA	2969	1/1	0.95	0.15	36,36,36,36	0
60	MG	BA	3161	1/1	0.95	0.16	51,51,51,51	0
60	MG	BA	2910	1/1	0.95	0.30	70,70,70,70	0
60	MG	BA	3254	1/1	0.95	0.26	56,56,56,56	0
60	MG	AA	3250	1/1	0.95	0.19	65,65,65,65	0
60	MG	AD	302	1/1	0.95	0.33	64,64,64,64	0
60	MG	B5	101	1/1	0.95	0.21	43,43,43,43	0
60	MG	BA	2991	1/1	0.95	0.22	48,48,48,48	0
60	MG	BA	3193	1/1	0.95	0.13	44,44,44,44	0
60	MG	AD	301	1/1	0.95	0.19	38,38,38,38	0
60	MG	BA	3227	1/1	0.95	0.15	73,73,73,73	0
60	MG	BA	3228	1/1	0.95	0.34	82,82,82,82	0
60	MG	BA	3196	1/1	0.95	0.27	45,45,45,45	0
60	MG	Ba	1722	1/1	0.95	0.07	106,106,106,106	0
60	MG	BA	3169	1/1	0.95	0.29	58,58,58,58	0
60	MG	BA	3017	1/1	0.95	0.16	40,40,40,40	0
60	MG	AA	3253	1/1	0.95	0.26	87,87,87,87	0
60	MG	AA	3110	1/1	0.95	0.08	59,59,59,59	0
60	MG	AA	3158	1/1	0.95	0.08	104,104,104,104	1
60	MG	BA	2961	1/1	0.96	0.16	60,60,60,60	0
60	MG	BA	3050	1/1	0.96	0.18	34,34,34,34	0
60	MG	AA	3104	1/1	0.96	0.06	64,64,64,64	0
60	MG	Ba	1603	1/1	0.96	0.11	73,73,73,73	1
60	MG	BA	2977	1/1	0.96	0.09	74,74,74,74	0
60	MG	Aa	1629	1/1	0.96	0.06	76,76,76,76	0
60	MG	AA	2906	1/1	0.96	0.14	38,38,38,38	0
60	MG	AA	3042	1/1	0.96	0.09	49,49,49,49	0
60	MG	BA	2982	1/1	0.96	0.12	53,53,53,53	0
60	MG	AA	2992	1/1	0.96	0.34	61,61,61,61	0
60	MG	BA	3078	1/1	0.96	0.32	61,61,61,61	0
60	MG	AA	2949	1/1	0.96	0.37	63,63,63,63	0
60	MG	Aa	1683	1/1	0.96	0.04	59,59,59,59	0
60	MG	BA	3024	1/1	0.96	0.14	46,46,46,46	0
60	MG	BA	3120	1/1	0.96	0.32	39,39,39,39	0
60	MG	Aa	1673	1/1	0.96	0.22	91,91,91,91	0
60	MG	BA	3009	1/1	0.96	0.29	38,38,38,38	0
60	MG	BA	2989	1/1	0.96	0.16	49,49,49,49	0
60	MG	AA	2983	1/1	0.96	0.30	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	MG	AA	2997	1/1	0.96	0.31	44,44,44,44	0
60	MG	BA	3248	1/1	0.96	0.17	64,64,64,64	0
60	MG	Ba	1724	1/1	0.97	0.32	74,74,74,74	0
60	MG	AA	3259	1/1	0.97	0.36	65,65,65,65	0
60	MG	BA	2915	1/1	0.97	0.13	32,32,32,32	0
60	MG	BA	3030	1/1	0.97	0.09	37,37,37,37	0
60	MG	BA	2936	1/1	0.97	0.25	40,40,40,40	0
60	MG	BA	2916	1/1	0.97	0.23	28,28,28,28	0
60	MG	BA	3002	1/1	0.97	0.11	38,38,38,38	0
60	MG	Ba	1630	1/1	0.97	0.05	53,53,53,53	0
60	MG	BA	2988	1/1	0.97	0.35	45,45,45,45	0
60	MG	AA	3000	1/1	0.97	0.05	49,49,49,49	0
60	MG	Aa	1666	1/1	0.97	0.37	66,66,66,66	0
60	MG	BA	3055	1/1	0.97	0.14	64,64,64,64	0
60	MG	AA	3071	1/1	0.97	0.35	87,87,87,87	0
60	MG	BA	2992	1/1	0.97	0.28	40,40,40,40	0
60	MG	BA	2993	1/1	0.97	0.32	40,40,40,40	0
60	MG	BA	2969	1/1	0.97	0.28	58,58,58,58	0
60	MG	BA	2996	1/1	0.97	0.07	35,35,35,35	0
60	MG	BA	3215	1/1	0.97	0.32	61,61,61,61	0
59	ZN	B9	101	1/1	0.98	0.06	124,124,124,124	0
60	MG	AA	2910	1/1	0.98	0.46	71,71,71,71	0
60	MG	BA	2987	1/1	0.98	0.12	43,43,43,43	0
59	ZN	Ad	301	1/1	0.98	0.22	94,94,94,94	0
60	MG	BA	3045	1/1	0.98	0.24	47,47,47,47	0
60	MG	Aa	1745	1/1	0.98	0.27	70,70,70,70	0
60	MG	BA	2928	1/1	0.98	0.35	77,77,77,77	0
59	ZN	Bd	301	1/1	0.98	0.22	103,103,103,103	0
60	MG	AA	3006	1/1	0.98	0.12	39,39,39,39	0
60	MG	BA	2920	1/1	0.98	0.06	31,31,31,31	0
59	ZN	An	101	1/1	0.98	0.07	171,171,171,171	0
60	MG	AA	3197	1/1	0.98	0.06	34,34,34,34	0
60	MG	BA	2912	1/1	0.99	0.11	39,39,39,39	0
60	MG	BA	3194	1/1	0.99	0.05	28,28,28,28	0
60	MG	BA	2994	1/1	0.99	0.36	44,44,44,44	0
60	MG	AA	2981	1/1	0.99	0.06	54,54,54,54	0
59	ZN	A9	101	1/1	0.99	0.07	143,143,143,143	0
60	MG	BA	2922	1/1	0.99	0.07	45,45,45,45	0
60	MG	BA	2979	1/1	0.99	0.27	36,36,36,36	0
60	MG	AA	2918	1/1	0.99	0.41	42,42,42,42	0
59	ZN	Bn	101	1/1	0.99	0.04	142,142,142,142	0
60	MG	Aa	1631	1/1	0.99	0.06	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	MG	BA	2918	1/1	0.99	0.31	32,32,32,32	0

6.5 Other polymers (i)

There are no such residues in this entry.