



Full wwPDB EM Validation Report ⓘ

Mar 29, 2026 – 07:04 PM UTC

PDB ID : 8Y0U / pdb_00008y0u
EMDB ID : EMD-37995
Title : dormant ribosome with STM1
Authors : Du, M.; Zeng, F.
Deposited on : 2024-01-23
Resolution : 3.59 Å(reported)

This is a Full wwPDB EM 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/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

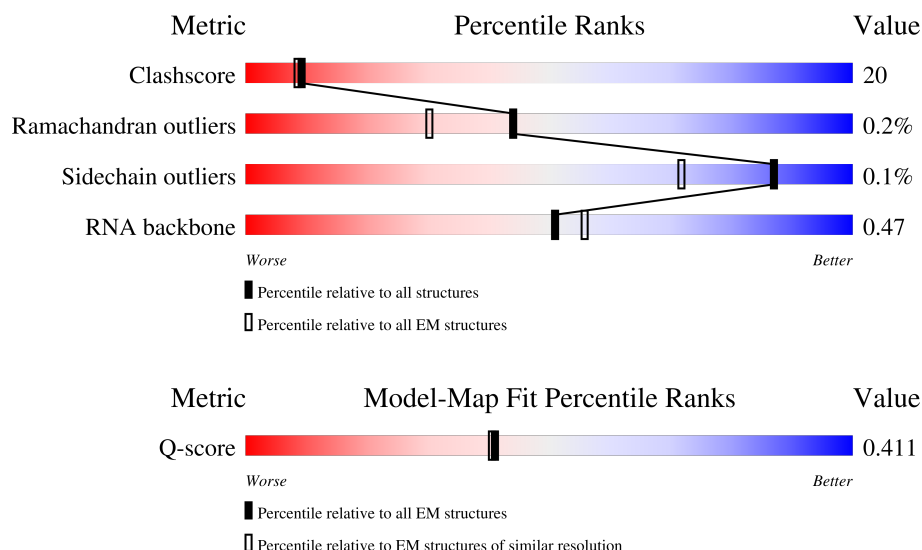
EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

1 Overall quality at a glance

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 3.59 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)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
RNA backbone	8273	3508	-
Q-score	-	25397	12565 (3.09 - 4.09)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion $< 40\%$). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	LA	254	
2	SA	252	
3	LB	387	

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Mol	Chain	Length	Quality of chain
4	SB	255	
5	C1	3396	
6	C4	121	
7	C3	158	
8	LC	362	
9	LD	297	
10	LE	176	
11	LF	244	
12	LG	256	
13	LH	191	
14	LI	221	
15	LJ	174	
16	LL	199	
17	LM	138	
18	LN	204	
19	LO	199	
20	LP	184	
21	LQ	186	
22	LR	189	
23	LS	172	
24	LT	160	
25	LU	121	
26	LV	137	
27	LW	155	
28	LX	142	

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Mol	Chain	Length	Quality of chain
29	LY	127	
30	LZ	136	
31	La	149	
32	Lb	59	
33	Lc	105	
34	Ld	113	
35	Le	130	
36	Lf	107	
37	Lg	121	
38	Lh	120	
39	Li	100	
40	Lj	88	
41	Lk	78	
42	Ll	50	
43	Lm	128	
44	Ln	25	
45	Lo	106	
46	Lp	92	
47	P0	312	
48	P2	165	
49	C2	1800	
50	SC	254	
51	SE	261	
52	SG	236	
53	SH	190	

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Mol	Chain	Length	Quality of chain
54	SI	200	
55	SJ	197	
56	SK	105	
57	SL	156	
58	SM	143	
59	SN	151	
60	SO	138	
61	SV	87	
62	SW	130	
63	SX	145	
64	SY	135	
65	Sa	119	
66	Sb	82	
67	Se	63	
68	5	157	
69	Sf	152	
70	SP	142	
71	SZ	108	
72	ST	144	
73	SQ	143	
74	Sd	56	
75	SU	121	
76	Sc	67	
77	s	273	

2 Entry composition [i](#)

There are 79 unique types of molecules in this entry. The entry contains 196269 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, 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 Large ribosomal subunit protein uL2A.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	LA	251	Total	C	N	O	S	0	0
			1899	1182	385	331	1		

- Molecule 2 is a protein called Small ribosomal subunit protein uS2A.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	SA	206	Total	C	N	O	S	0	0
			1603	1030	284	287	2		

- Molecule 3 is a protein called Large ribosomal subunit protein uL3.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	LB	386	Total	C	N	O	S	0	0
			3075	1950	584	533	8		

- Molecule 4 is a protein called 40S ribosomal protein S1-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	SB	226	Total	C	N	O	S	0	0
			1798	1139	330	325	4		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
5	C1	3221	Total	C	N	O	P	0	0
			68888	30771	12409	22487	3221		

- Molecule 6 is a RNA chain called 5S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	C4	121	Total	C	N	O	P	0	0
			2579	1152	461	845	121		

- Molecule 7 is a RNA chain called 5.8S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	C3	158	Total	C	N	O	P	0	0
			3353	1500	586	1109	158		

- Molecule 8 is a protein called Large ribosomal subunit protein uL4A.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	LC	361	Total	C	N	O	S	0	0
			2748	1729	522	494	3		

- Molecule 9 is a protein called Large ribosomal subunit protein uL18.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	LD	294	Total	C	N	O	S	0	0
			2351	1484	410	455	2		

- Molecule 10 is a protein called Large ribosomal subunit protein eL6B.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	LE	167	Total	C	N	O		0	0
			1307	843	234	230			

- Molecule 11 is a protein called Large ribosomal subunit protein uL30A.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	LF	222	Total	C	N	O	S	0	0
			1784	1151	324	308	1		

- Molecule 12 is a protein called Large ribosomal subunit protein eL8A.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	LG	233	Total	C	N	O	S	0	0
			1804	1151	323	327	3		

- Molecule 13 is a protein called Large ribosomal subunit protein uL6A.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	LH	191	Total	C	N	O	S	0	0
			1508	957	274	273	4		

- Molecule 14 is a protein called Large ribosomal subunit protein uL16.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	LI	218	Total	C	N	O	S	0	0
			1764	1117	334	306	7		

- Molecule 15 is a protein called Large ribosomal subunit protein uL5B.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	LJ	169	Total	C	N	O	S	0	0
			1350	846	253	247	4		

- Molecule 16 is a protein called Large ribosomal subunit protein eL13A.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	LL	193	Total	C	N	O		0	0
			1543	962	315	266			

- Molecule 17 is a protein called Large ribosomal subunit protein eL14A.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	LM	136	Total	C	N	O	S	0	0
			1053	675	199	177	2		

- Molecule 18 is a protein called Large ribosomal subunit protein eL15A.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	LN	203	Total	C	N	O	S	0	0
			1720	1077	361	281	1		

- Molecule 19 is a protein called Large ribosomal subunit protein uL13A.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	LO	197	Total	C	N	O	S	197	0
			1555	1003	289	262	1		

- Molecule 20 is a protein called Large ribosomal subunit protein uL22A.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	LP	183	Total	C	N	O		0	0
			1416	879	284	253			

- Molecule 21 is a protein called Large ribosomal subunit protein eL18A.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	LQ	185	Total	C	N	O	S	0	0
			1441	908	290	241	2		

- Molecule 22 is a protein called Large ribosomal subunit protein eL19A.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	LR	188	Total	C	N	O	S	0	0
			1515	932	323	260			

- Molecule 23 is a protein called Large ribosomal subunit protein eL20A.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	LS	171	Total	C	N	O	S	0	0
			1437	925	266	243	3		

- Molecule 24 is a protein called Large ribosomal subunit protein eL21A.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	LT	159	Total	C	N	O	S	0	0
			1276	805	246	221	4		

- Molecule 25 is a protein called Large ribosomal subunit protein eL22A.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	LU	100	Total	C	N	O	S	0	0
			796	516	131	149			

- Molecule 26 is a protein called Large ribosomal subunit protein uL14A.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	LV	136	Total	C	N	O	S	0	0
			1003	628	189	179	7		

- Molecule 27 is a protein called Large ribosomal subunit protein eL24A.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	LW	126	Total	C	N	O	S	0	0
			849	532	167	149	1		

- Molecule 28 is a protein called Large ribosomal subunit protein uL23.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	LX	121	Total	C	N	O	S	0	0
			964	620	169	173	2		

- Molecule 29 is a protein called Large ribosomal subunit protein uL24A.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	LY	125	Total	C	N	O		0	0
			984	620	191	173			

- Molecule 30 is a protein called Large ribosomal subunit protein eL27A.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	LZ	135	Total	C	N	O		0	0
			1092	710	202	180			

- Molecule 31 is a protein called Large ribosomal subunit protein uL15.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	La	148	Total	C	N	O	S	0	0
			1173	749	231	190	3		

- Molecule 32 is a protein called Large ribosomal subunit protein eL29.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	Lb	58	Total	C	N	O		0	0
			462	289	100	73			

- Molecule 33 is a protein called Large ribosomal subunit protein eL30.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	Lc	96	Total	C	N	O	S	0	0
			737	476	123	137	1		

- Molecule 34 is a protein called Large ribosomal subunit protein eL31A.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	Ld	109	Total	C	N	O	S	0	0
			876	556	167	152	1		

- Molecule 35 is a protein called Large ribosomal subunit protein eL32.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	Le	127	Total	C	N	O	S	0	0
			1017	644	205	167	1		

- Molecule 36 is a protein called Large ribosomal subunit protein eL33A.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	Lf	106	Total	C	N	O	S	0	0
			850	540	165	144	1		

- Molecule 37 is a protein called Large ribosomal subunit protein eL34A.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	Lg	112	Total	C	N	O	S	0	0
			880	545	179	152	4		

- Molecule 38 is a protein called Large ribosomal subunit protein uL29A.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	Lh	119	Total	C	N	O	S	0	0
			969	615	186	167	1		

- Molecule 39 is a protein called Large ribosomal subunit protein eL36A.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	Li	99	Total	C	N	O	S	0	0
			766	478	154	132	2		

- Molecule 40 is a protein called Large ribosomal subunit protein eL37A.

Mol	Chain	Residues	Atoms					AltConf	Trace
40	Lj	85	Total	C	N	O	S	0	0
			670	408	146	111	5		

- Molecule 41 is a protein called Large ribosomal subunit protein eL38.

Mol	Chain	Residues	Atoms				AltConf	Trace
41	Lk	77	Total	C	N	O	0	0
			612	391	115	106		

- Molecule 42 is a protein called Large ribosomal subunit protein eL39.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	Ll	50	Total	C	N	O	S	0	0
			436	272	97	65	2		

- Molecule 43 is a protein called Ubiquitin-ribosomal protein eL40A fusion protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	Lm	52	Total	C	N	O	S	0	0
			417	259	86	67	5		

- Molecule 44 is a protein called Large ribosomal subunit protein eL41A.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	Ln	25	Total	C	N	O	S	0	0
			229	139	62	27	1		

- Molecule 45 is a protein called Large ribosomal subunit protein eL42A.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	Lo	103	Total	C	N	O	S	0	0
			824	517	167	135	5		

- Molecule 46 is a protein called Large ribosomal subunit protein eL43A.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	Lp	91	Total	C	N	O	S	0	0
			694	429	138	121	6		

- Molecule 47 is a protein called Large ribosomal subunit protein uL10.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	P0	189	Total	C	N	O	S	0	0
			1473	942	257	270	4		

- Molecule 48 is a protein called Large ribosomal subunit protein uL11A.

Mol	Chain	Residues	Atoms					AltConf	Trace
48	P2	94	Total	C	N	O	S	0	0
			723	448	138	135	2		

- Molecule 49 is a RNA chain called 18S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	C2	1771	Total	C	N	O	P	0	0
			37604	16807	6624	12402	1771		

- Molecule 50 is a protein called 40S ribosomal protein S2.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	SC	216	Total	C	N	O	S	0	0
			1626	1042	287	295	2		

- Molecule 51 is a protein called 40S ribosomal protein S4-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	SE	258	Total	C	N	O	S	0	0
			2056	1308	387	358	3		

- Molecule 52 is a protein called 40S ribosomal protein S6-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	SG	228	Total	C	N	O	S	0	0
			1815	1138	351	323	3		

- Molecule 53 is a protein called 40S ribosomal protein S7-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
53	SH	184	Total	C	N	O	0	0
			1473	946	263	264		

- Molecule 54 is a protein called 40S ribosomal protein S8-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	SI	187	Total	C	N	O	S	0	0
			1476	916	295	263	2		

- Molecule 55 is a protein called 40S ribosomal protein S9-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	SJ	184	Total	C	N	O	S	0	0
			1479	935	285	258	1		

- Molecule 56 is a protein called Small ribosomal subunit protein eS10A.

Mol	Chain	Residues	Atoms					AltConf	Trace
56	SK	92	Total	C	N	O	S	0	0
			752	487	122	141	2		

- Molecule 57 is a protein called Small ribosomal subunit protein uS17A.

Mol	Chain	Residues	Atoms					AltConf	Trace
57	SL	144	Total	C	N	O	S	0	0
			1159	742	219	195	3		

- Molecule 58 is a protein called Small ribosomal subunit protein eS12.

Mol	Chain	Residues	Atoms					AltConf	Trace
58	SM	121	Total	C	N	O	S	0	0
			875	551	153	169	2		

- Molecule 59 is a protein called 40S ribosomal protein S13.

Mol	Chain	Residues	Atoms					AltConf	Trace
59	SN	150	Total	C	N	O	S	0	0
			1192	759	224	207	2		

- Molecule 60 is a protein called Small ribosomal subunit protein uS11B.

Mol	Chain	Residues	Atoms					AltConf	Trace
60	SO	127	Total	C	N	O	S	0	0
			926	569	185	169	3		

- Molecule 61 is a protein called Small ribosomal subunit protein eS21A.

Mol	Chain	Residues	Atoms					AltConf	Trace
61	SV	87	Total	C	N	O	S	0	0
			673	415	125	131	2		

- Molecule 62 is a protein called 40S ribosomal protein S22-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
62	SW	129	Total	C	N	O	S	0	0
			1021	650	188	180	3		

- Molecule 63 is a protein called 40S ribosomal protein S23-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
63	SX	144	Total	C	N	O	S	0	0
			1121	708	220	191	2		

- Molecule 64 is a protein called 40S ribosomal protein S24-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
64	SY	134	Total	C	N	O	S	0	0
			1073	676	208	189			

- Molecule 65 is a protein called Small ribosomal subunit protein eS26B.

Mol	Chain	Residues	Atoms					AltConf	Trace
65	Sa	97	Total	C	N	O	S	0	0
			769	475	160	129	5		

- Molecule 66 is a protein called 40S ribosomal protein S27-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
66	Sb	81	Total	C	N	O	S	0	0
			610	382	110	113	5		

- Molecule 67 is a protein called 40S ribosomal protein S30-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
67	Se	60	Total	C	N	O	S	0	0
			472	298	97	76	1		

- Molecule 68 is a protein called Eukaryotic translation initiation factor 5A-1.

Mol	Chain	Residues	Atoms					AltConf	Trace
68	5	152	Total	C	N	O	S	0	0
			1118	693	189	227	9		

- Molecule 69 is a protein called Ubiquitin-ribosomal protein eS31 fusion protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
69	Sf	73	Total	C	N	O	S	0	0
			556	352	105	95	4		

- Molecule 70 is a protein called Small ribosomal subunit protein uS19.

Mol	Chain	Residues	Atoms					AltConf	Trace
70	SP	117	Total	C	N	O	S	0	0
			916	583	171	155	7		

- Molecule 71 is a protein called Small ribosomal subunit protein eS25A.

Mol	Chain	Residues	Atoms					AltConf	Trace
71	SZ	100	Total	C	N	O	S	0	0
			771	491	147	133			

- Molecule 72 is a protein called Small ribosomal subunit protein eS19A.

Mol	Chain	Residues	Atoms					AltConf	Trace
72	ST	143	Total	C	N	O	S	0	0
			1112	694	208	208	2		

- Molecule 73 is a protein called Small ribosomal subunit protein uS9A.

Mol	Chain	Residues	Atoms					AltConf	Trace
73	SQ	139	Total	C	N	O	S	0	0
			1082	693	198	191			

- Molecule 74 is a protein called Small ribosomal subunit protein uS14A.

Mol	Chain	Residues	Atoms					AltConf	Trace
74	Sd	53	Total	C	N	O	S	0	0
			442	274	92	72	4		

- Molecule 75 is a protein called Small ribosomal subunit protein uS10.

Mol	Chain	Residues	Atoms					AltConf	Trace
75	SU	100	Total	C	N	O	S	0	0
			797	506	144	146	1		

- Molecule 76 is a protein called Small ribosomal subunit protein eS28A.

Mol	Chain	Residues	Atoms					AltConf	Trace
76	Sc	63	Total	C	N	O	S	0	0
			491	303	96	91	1		

- Molecule 77 is a protein called Suppressor protein STM1.

Mol	Chain	Residues	Atoms				AltConf	Trace
77	s	42	Total	C	N	O	0	0
			261	153	58	50		

- Molecule 78 is MAGNESIUM ION (CCD ID: MG) (formula: Mg) (labeled as "Ligand of Interest" by depositor).

Mol	Chain	Residues	Atoms		AltConf
78	LA	2	Total	Mg	0
			2	2	
78	C1	187	Total	Mg	0
			187	187	
78	C4	1	Total	Mg	0
			1	1	
78	C3	1	Total	Mg	0
			1	1	
78	LN	2	Total	Mg	0
			2	2	
78	LP	1	Total	Mg	0
			1	1	
78	LV	1	Total	Mg	0
			1	1	
78	Le	1	Total	Mg	0
			1	1	
78	C2	78	Total	Mg	0
			78	78	
78	SC	1	Total	Mg	0
			1	1	
78	SE	1	Total	Mg	0
			1	1	
78	Sa	1	Total	Mg	0
			1	1	
78	ST	2	Total	Mg	0
			2	2	
78	SQ	2	Total	Mg	0
			2	2	

- Molecule 79 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		AltConf
79	Lg	1	Total	Zn	0
			1	1	
79	Lj	1	Total	Zn	0
			1	1	

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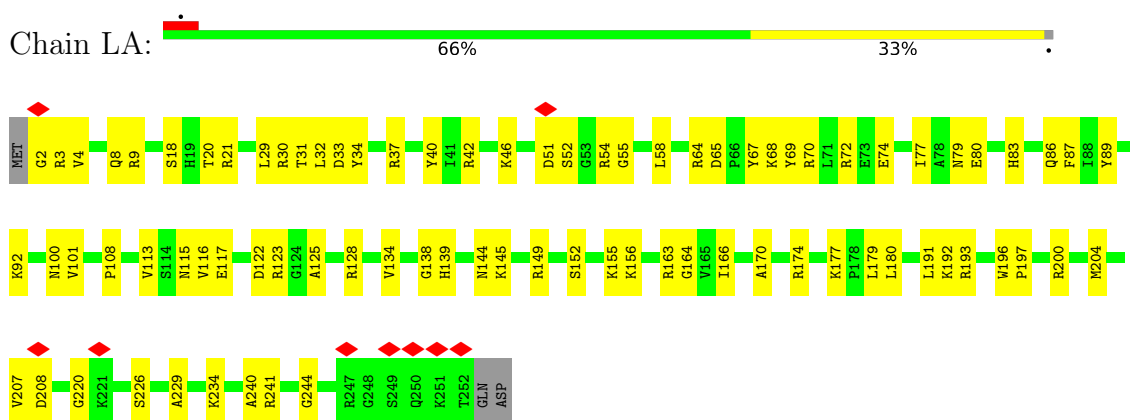
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Mol	Chain	Residues	Atoms		AltConf
79	Lm	1	Total 1	Zn 1	0
79	Lo	1	Total 1	Zn 1	0
79	Lp	1	Total 1	Zn 1	0
79	Sf	1	Total 1	Zn 1	0
79	Sd	1	Total 1	Zn 1	0

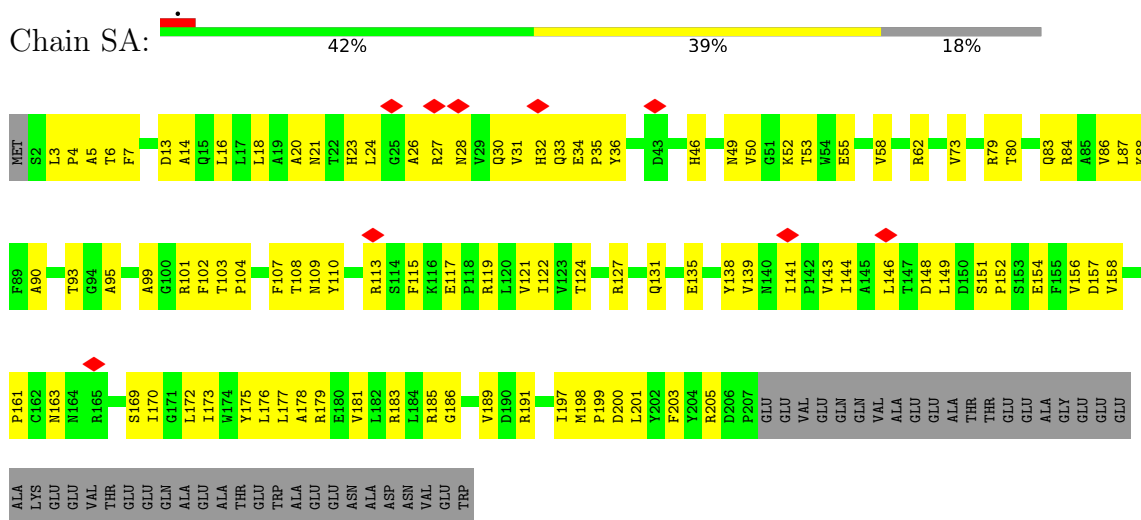
3 Residue-property plots

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map 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 diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). 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: Large ribosomal subunit protein uL2A



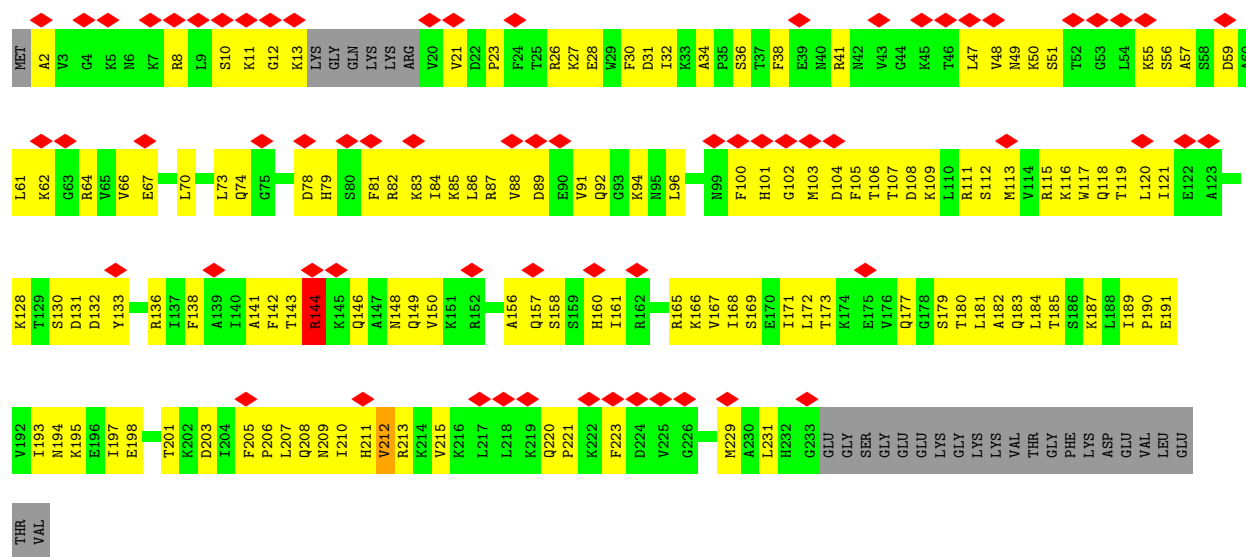
- Molecule 2: Small ribosomal subunit protein uS2A



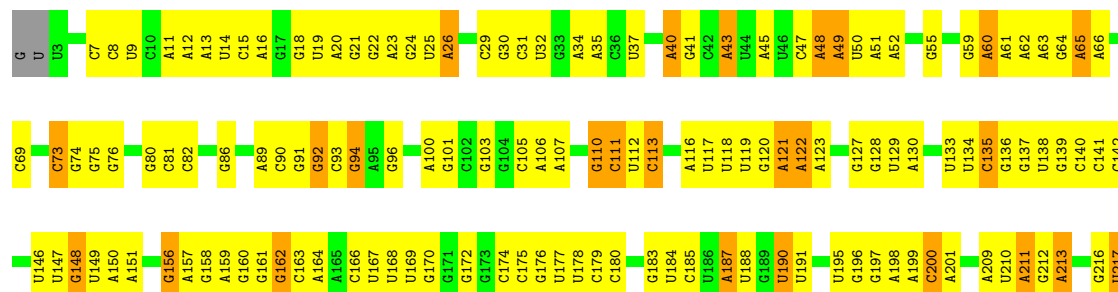
- Molecule 3: Large ribosomal subunit protein uL3



- Molecule 4: 40S ribosomal protein S1-A



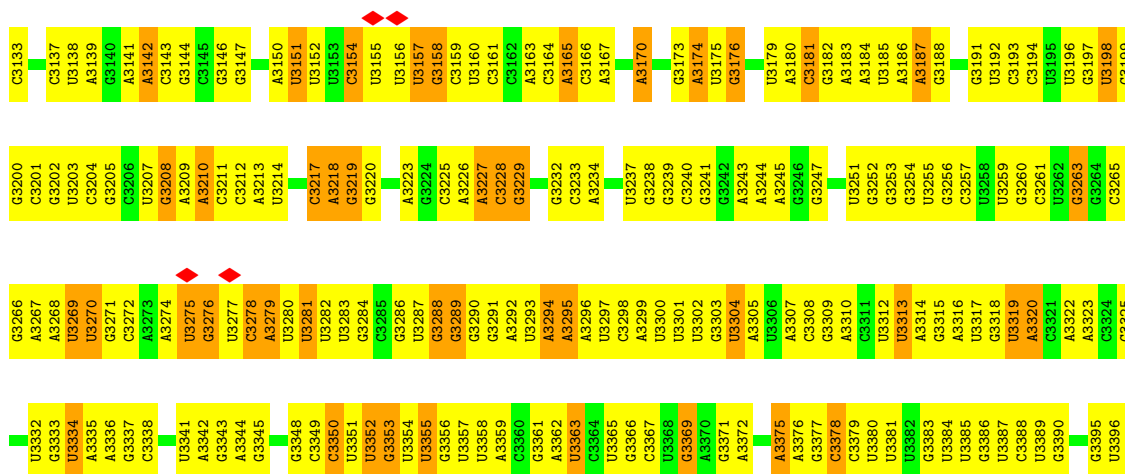
- Molecule 5: 25S rRNA



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G1152	U1082	G1020	A952	A883	U814	A746	G685	U620	U555	U620	U429	G363	G287	G220
A1084	G1083	G1021	G953	A884	G815	A747	G686	A621	U556	C489	U430	G364	G288	A221
A1154	A1085	G1024	U956	U885	A316	G750	U687	A622	A557	A490	U431	A365	A289	A222
C1155	C1086	G1025	C957	G887	C818	A751	G688	U623	U558	U	C432	A366	G291	U223
C1156		A1025	C958	A888	U819	C752	U689	G624	A559	G	U433	A367	C291	C224
G1157	G1090	A1026	C959		U820	C753	U690	G625	C562		U434	G368	U292	C225
A1159	C1092	A1027	U960	G891	U821	G754	A691	U626	G495		C435	G371	G227	C226
A1093	A1093	U1028	C961	U892	G822	A755	A692	A628	C496		A436	A374	U294	G227
U1094	U1094	G1029	A962	A895	C823	C756	U693	U629	C497		U437	A375	A295	U295
U1095	G964	A1030	G963	A896	C824	C757	C694	A630	U498		A438	G376	A296	G230
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U1167	A1098	U1034	G968	G902	A830	U764	A699	C504	A504		U443		A308	A235
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G1171	A1103	C1038	A972	G908	A836		A706		C576		U447		A313	U240
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G1177	U1109	A1046	C982	A913	A848		A711		U520		C		A323	C247
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G1194	G1127	A1061		A833	U862		C793		U536		G		C340	G267
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G1134	G1134	C1068	U1005	U939	C734		G734		A608		G		A349	U275
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		A1078			U681		C743		G617		C		G360	A284



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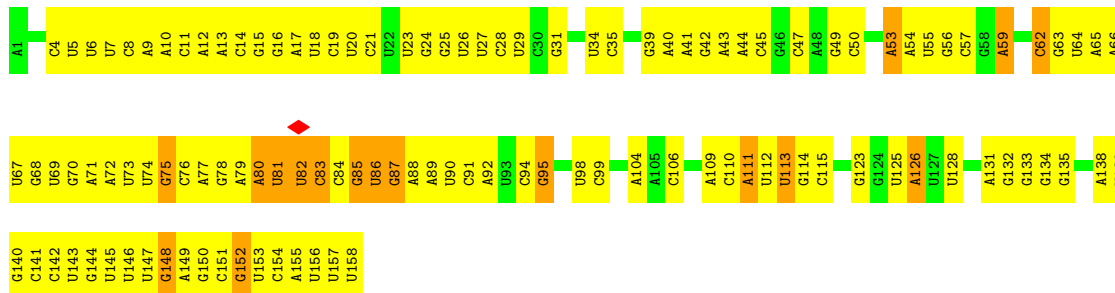
• Molecule 6: 5S rRNA

Chain C4: 33% 57% 10%



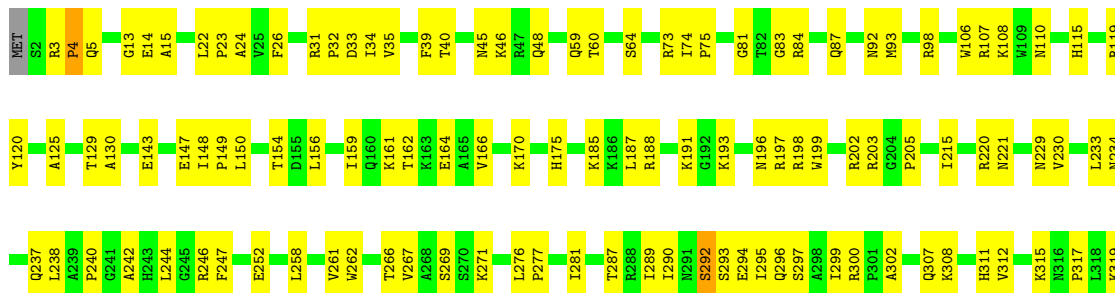
• Molecule 7: 5.8S rRNA

Chain C3: 25% 64% 11%



• Molecule 8: Large ribosomal subunit protein uL4A

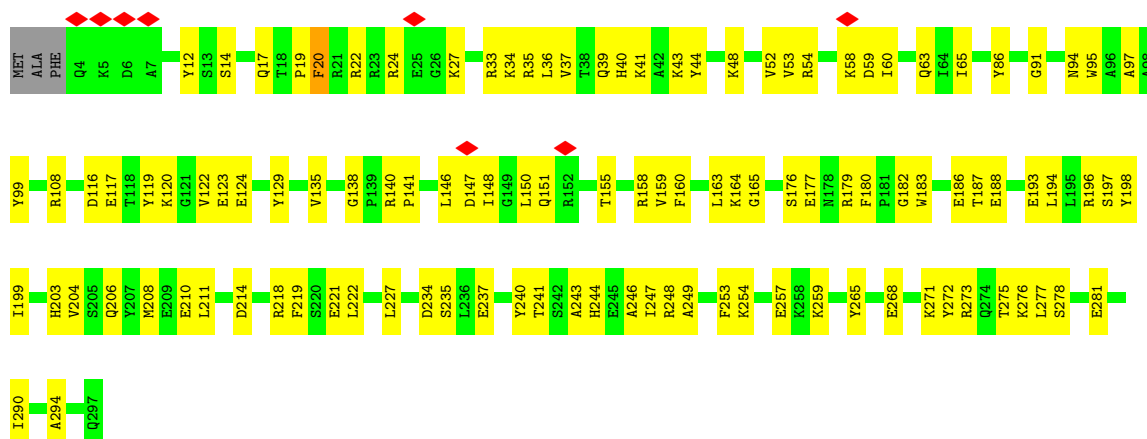
Chain LC: 66% 33% 1%





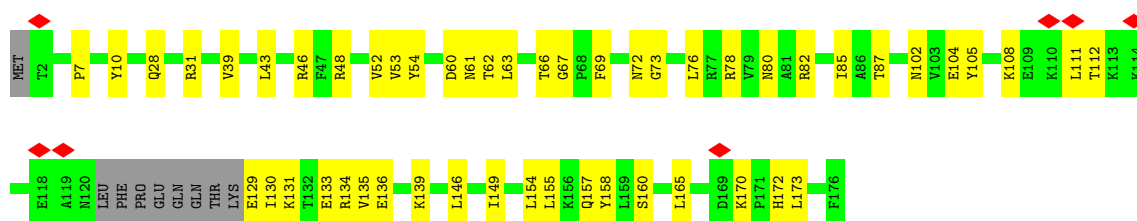
• Molecule 9: Large ribosomal subunit protein uL18

Chain LD: 61% 37%



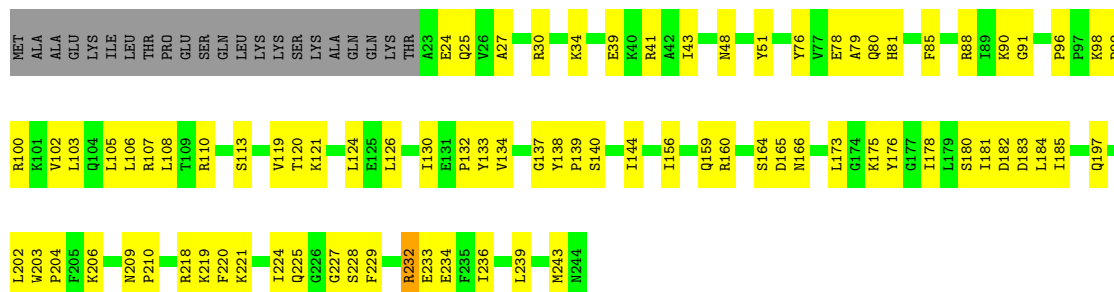
• Molecule 10: Large ribosomal subunit protein eL6B

Chain LE: 66% 29% 5%



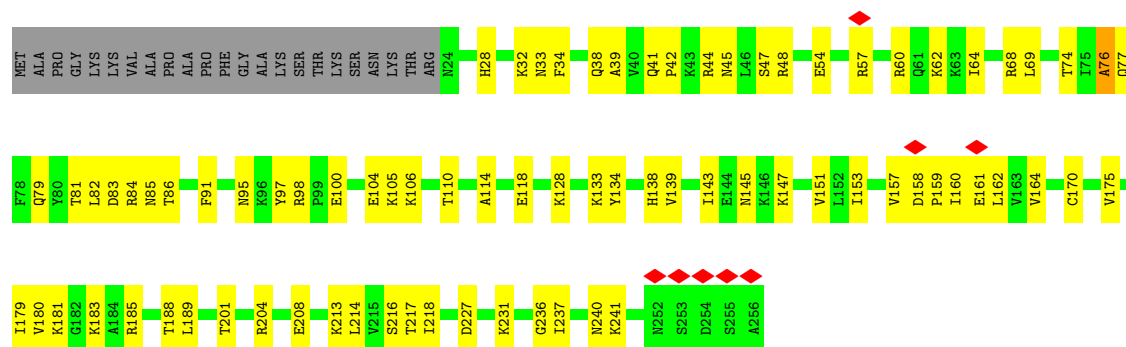
• Molecule 11: Large ribosomal subunit protein uL30A

Chain LF: 57% 34% 9%



• Molecule 12: Large ribosomal subunit protein eL8A

Chain LG: 60% 31% 9%



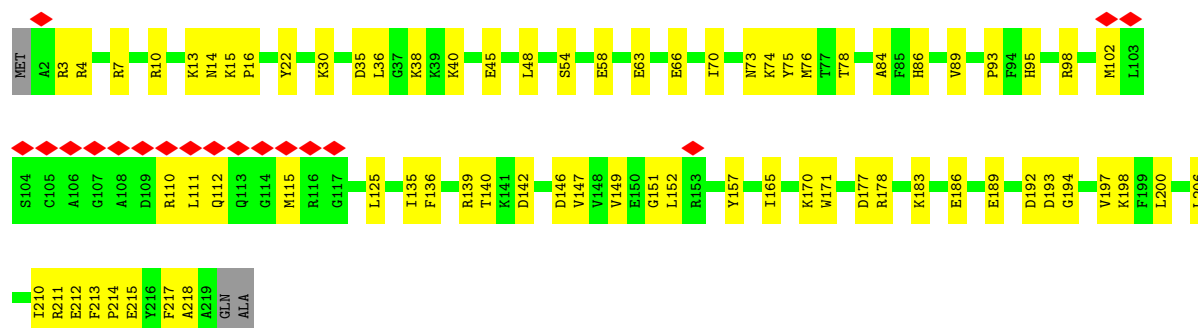
• Molecule 13: Large ribosomal subunit protein uL6A

Chain LH: 58% 42%



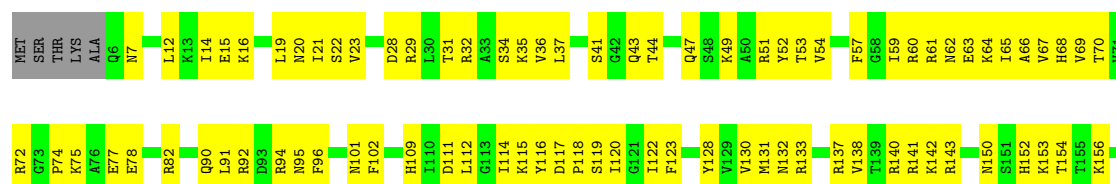
• Molecule 14: Large ribosomal subunit protein uL16

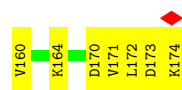
Chain LI: 8% 66% 33%



• Molecule 15: Large ribosomal subunit protein uL5B

Chain LJ: 46% 51%

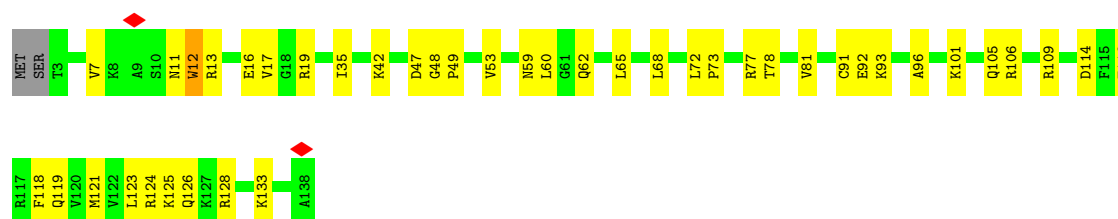




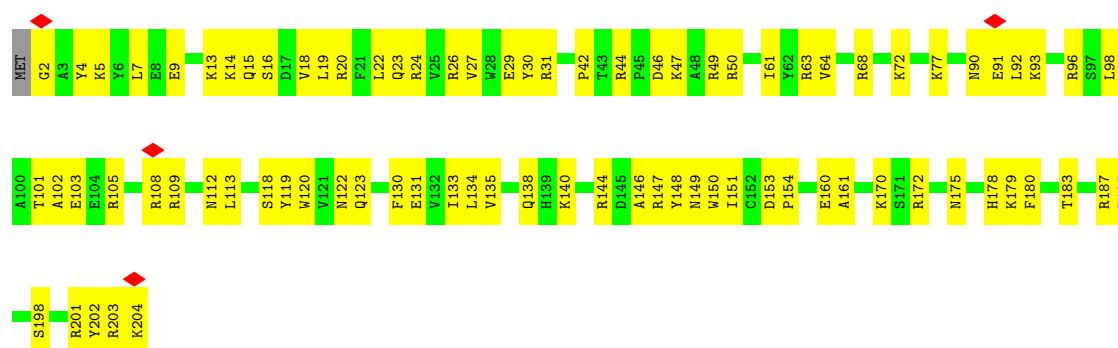
- Molecule 16: Large ribosomal subunit protein eL13A



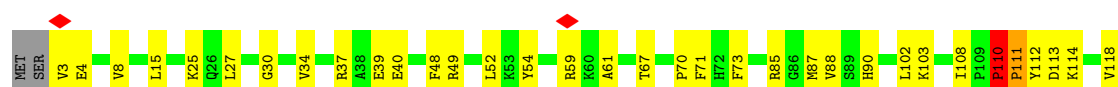
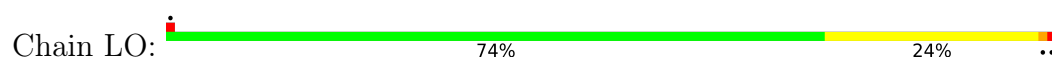
- Molecule 17: Large ribosomal subunit protein eL14A



- Molecule 18: Large ribosomal subunit protein eL15A

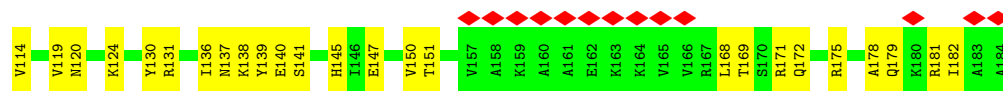


- Molecule 19: Large ribosomal subunit protein uL13A

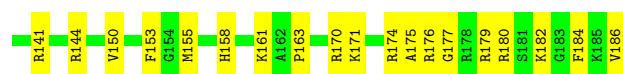
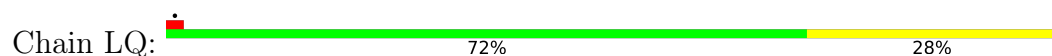




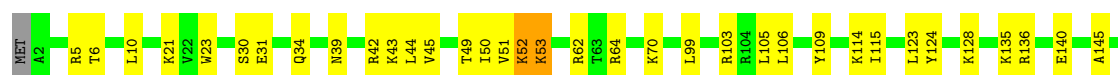
- Molecule 20: Large ribosomal subunit protein uL22A



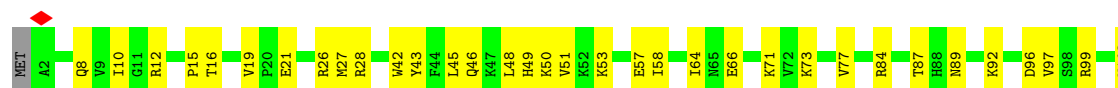
- Molecule 21: Large ribosomal subunit protein eL18A



- Molecule 22: Large ribosomal subunit protein eL19A

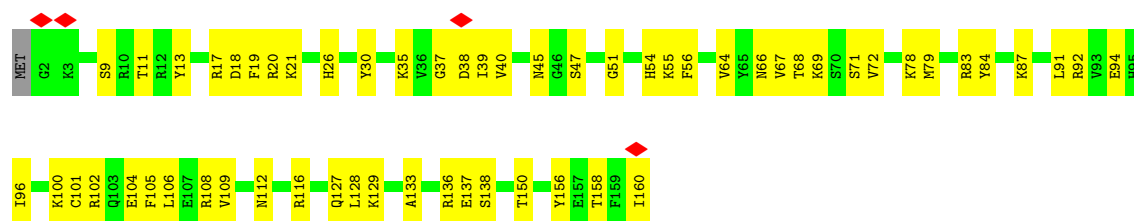


- Molecule 23: Large ribosomal subunit protein eL20A

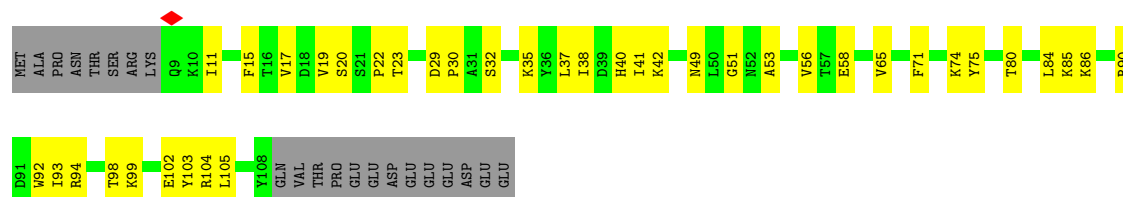


- Molecule 24: Large ribosomal subunit protein eL21A





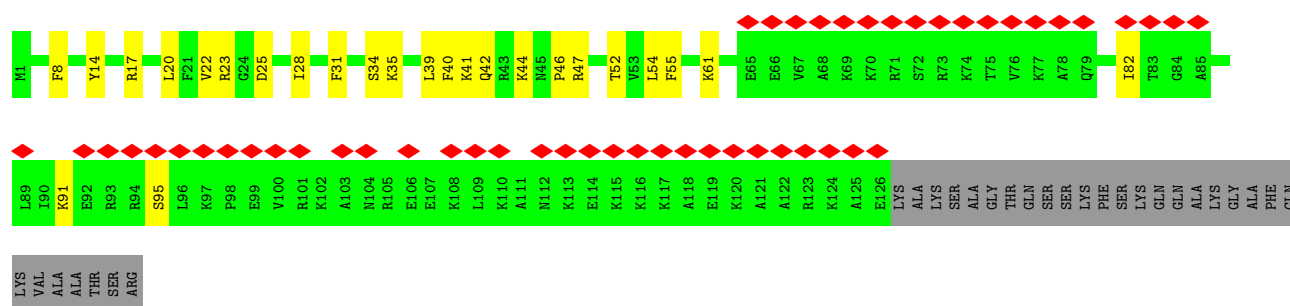
- Molecule 25: Large ribosomal subunit protein eL22A



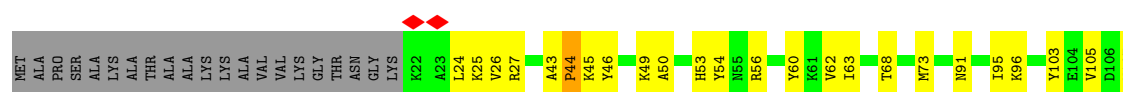
- Molecule 26: Large ribosomal subunit protein uL14A

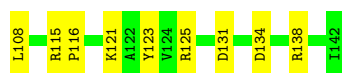


- Molecule 27: Large ribosomal subunit protein eL24A

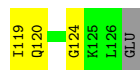


- Molecule 28: Large ribosomal subunit protein uL23





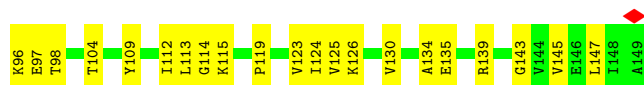
- Molecule 29: Large ribosomal subunit protein uL24A



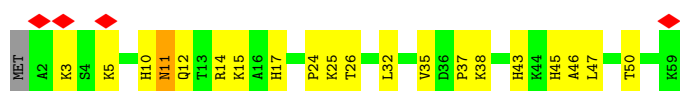
- Molecule 30: Large ribosomal subunit protein eL27A



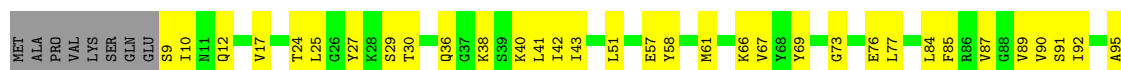
- Molecule 31: Large ribosomal subunit protein uL15



- Molecule 32: Large ribosomal subunit protein eL29



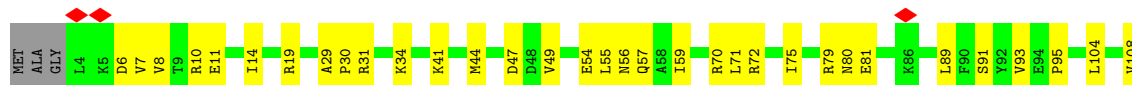
- Molecule 33: Large ribosomal subunit protein eL30





- Molecule 34: Large ribosomal subunit protein eL31A

Chain Ld: 67% 29%



- Molecule 35: Large ribosomal subunit protein eL32

Chain Le: 65% 33%



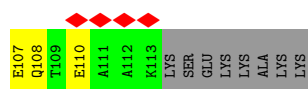
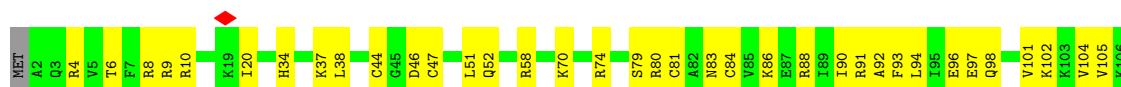
- Molecule 36: Large ribosomal subunit protein eL33A

Chain Lf: 62% 36%



- Molecule 37: Large ribosomal subunit protein eL34A

Chain Lg: 60% 32% 7%



- Molecule 38: Large ribosomal subunit protein uL29A

Chain Lh: 



- Molecule 39: Large ribosomal subunit protein eL36A

Chain Li: 



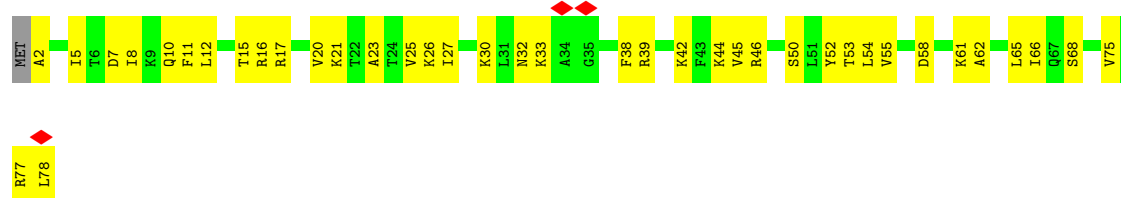
- Molecule 40: Large ribosomal subunit protein eL37A

Chain Lj: 



- Molecule 41: Large ribosomal subunit protein eL38

Chain Lk: 



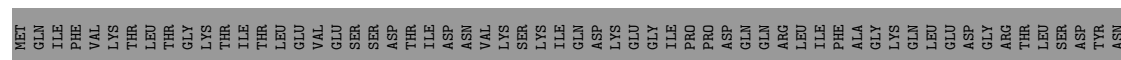
- Molecule 42: Large ribosomal subunit protein eL39

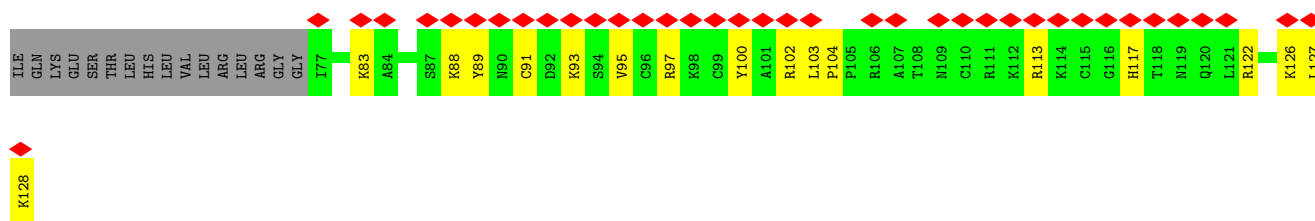
Chain Ll: 



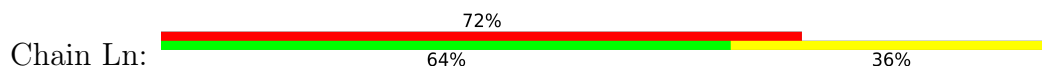
- Molecule 43: Ubiquitin-ribosomal protein eL40A fusion protein

Chain Lm: 





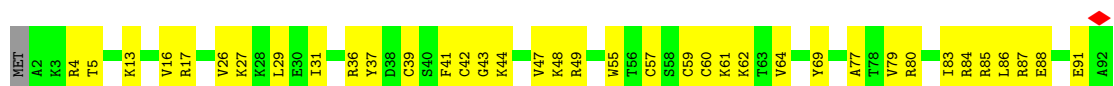
- Molecule 44: Large ribosomal subunit protein eL41A



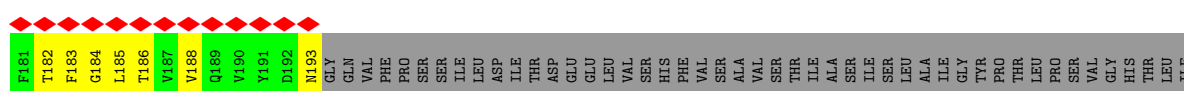
- Molecule 45: Large ribosomal subunit protein eL42A

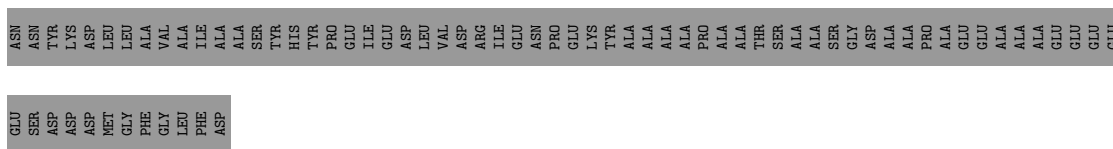


- Molecule 46: Large ribosomal subunit protein eL43A

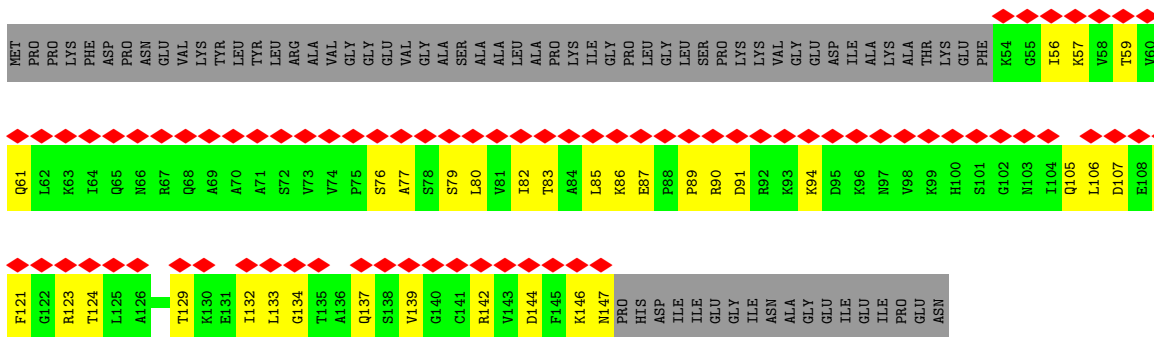
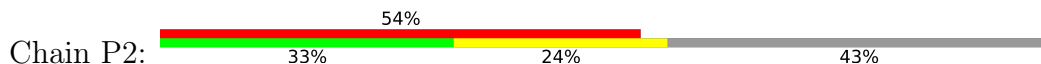


- Molecule 47: Large ribosomal subunit protein uL10

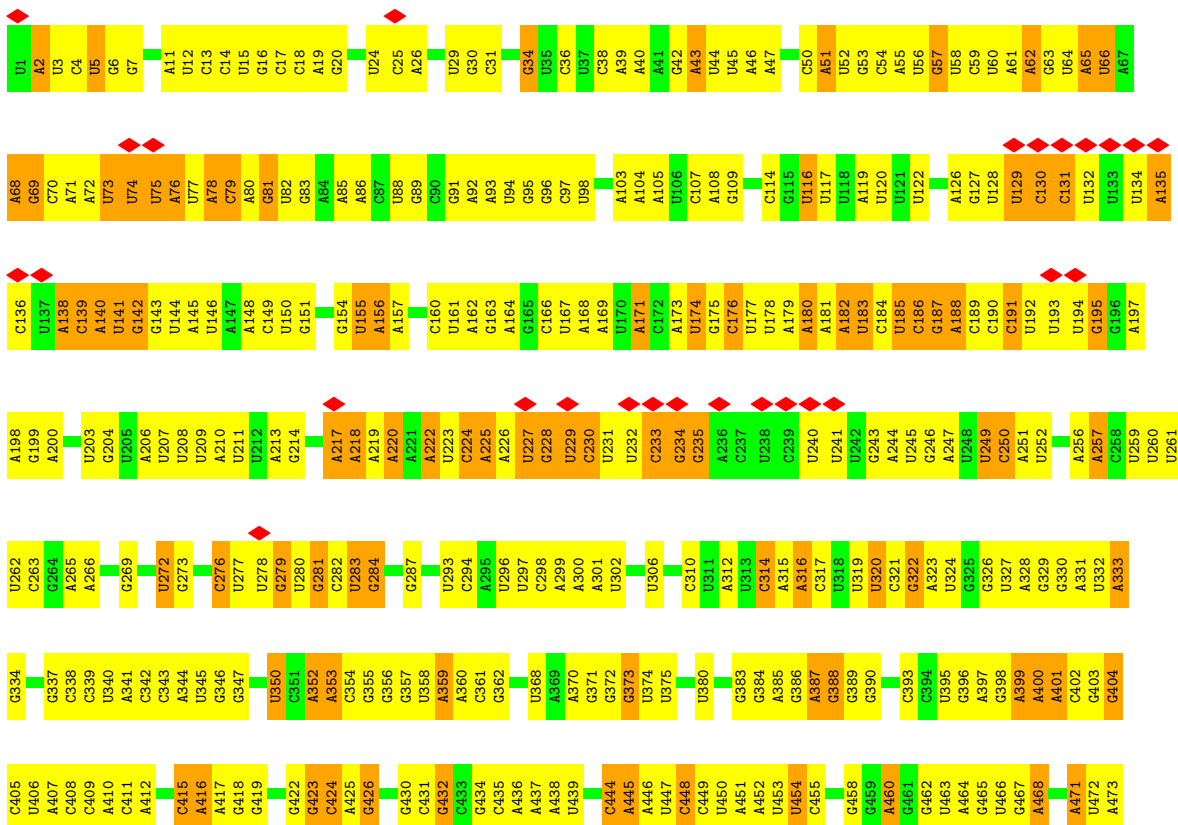




- Molecule 48: Large ribosomal subunit protein uL11A

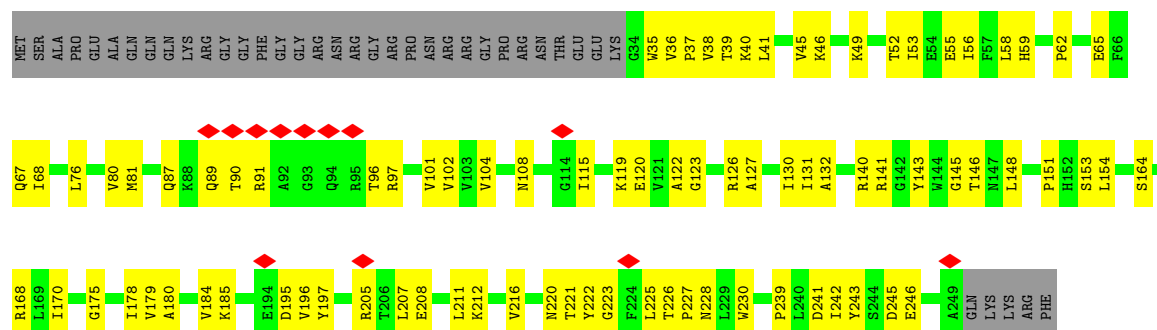


- Molecule 49: 18S rRNA

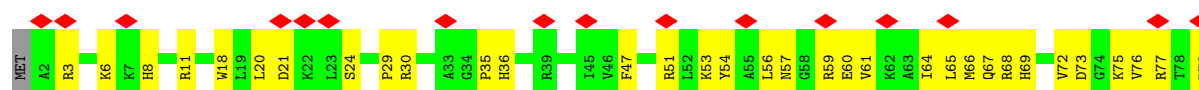


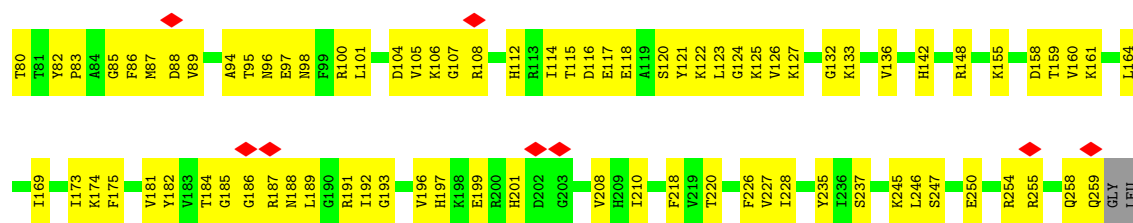


- Molecule 50: 40S ribosomal protein S2

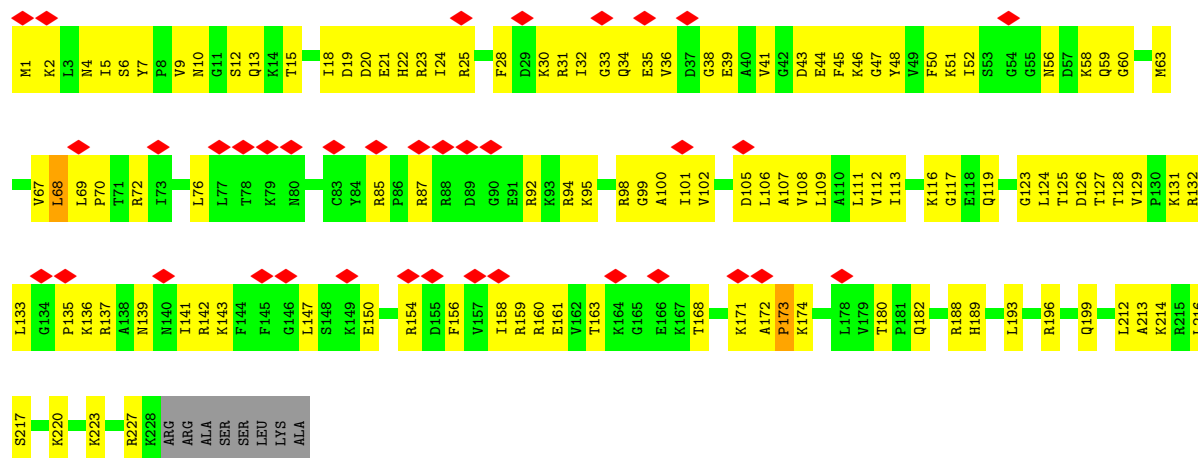


- Molecule 51: 40S ribosomal protein S4-A

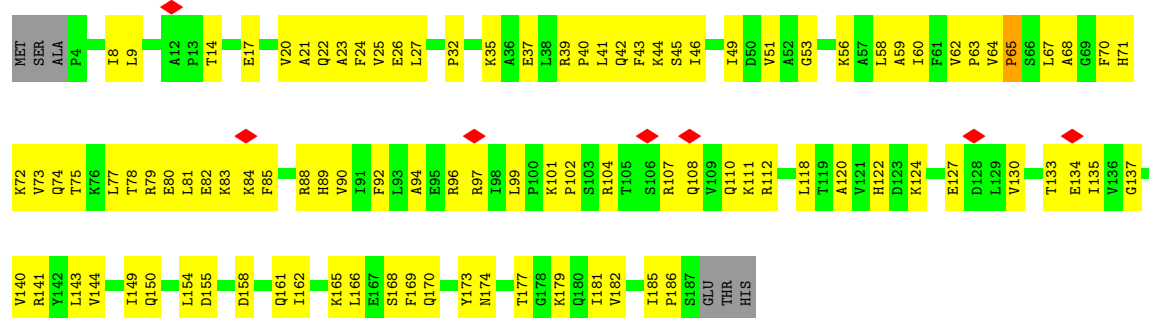
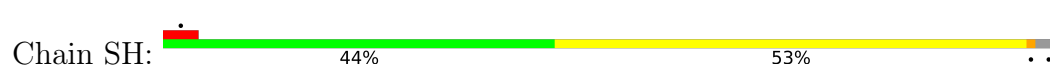




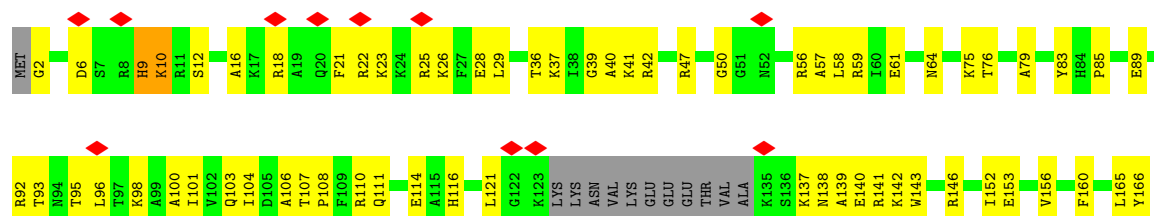
• Molecule 52: 40S ribosomal protein S6-A



• Molecule 53: 40S ribosomal protein S7-A



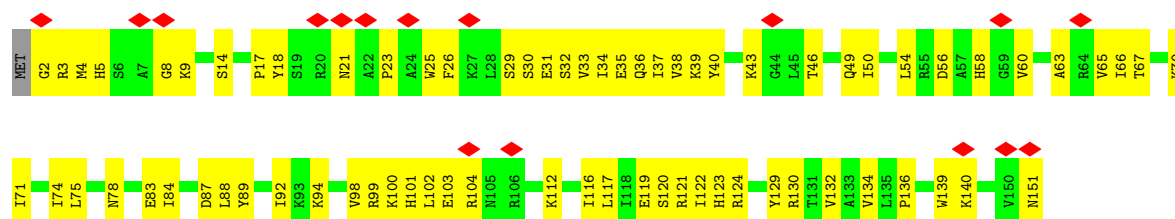
• Molecule 54: 40S ribosomal protein S8-A



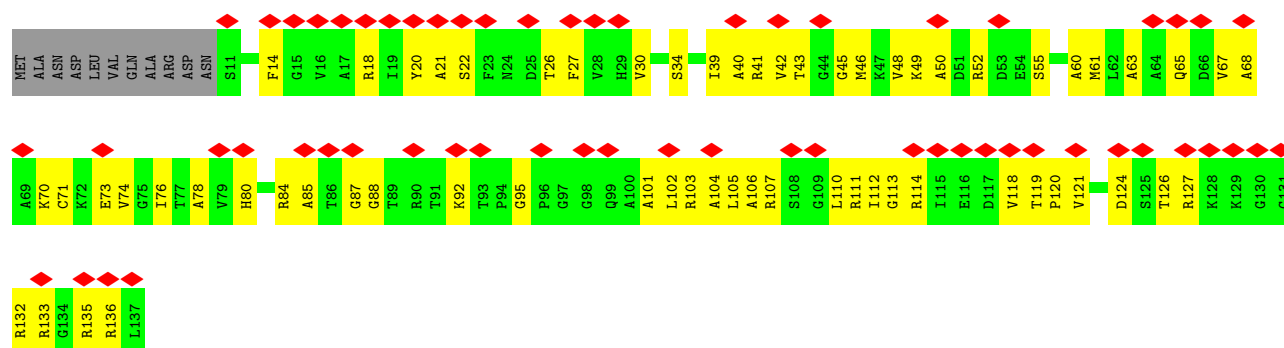
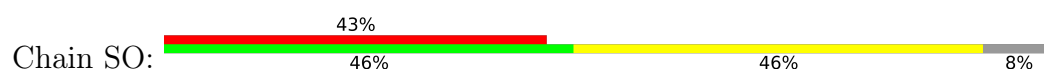




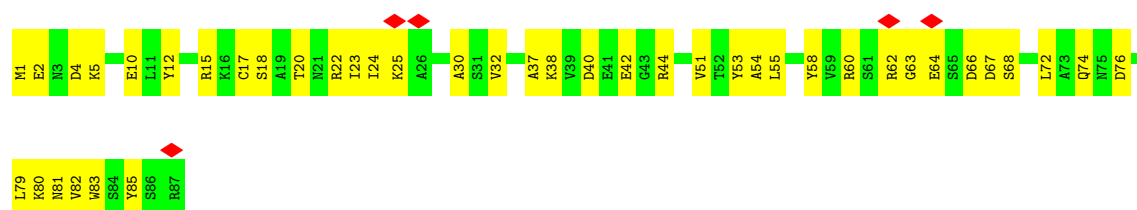
• Molecule 59: 40S ribosomal protein S13



• Molecule 60: Small ribosomal subunit protein uS11B

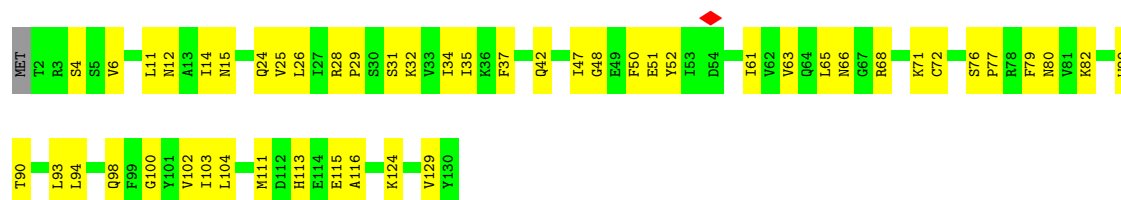


• Molecule 61: Small ribosomal subunit protein eS21A

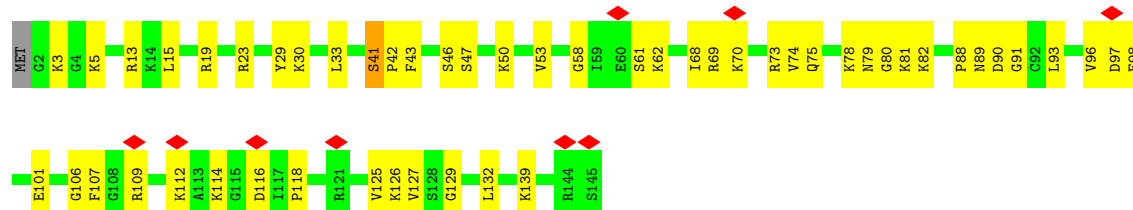


• Molecule 62: 40S ribosomal protein S22-A

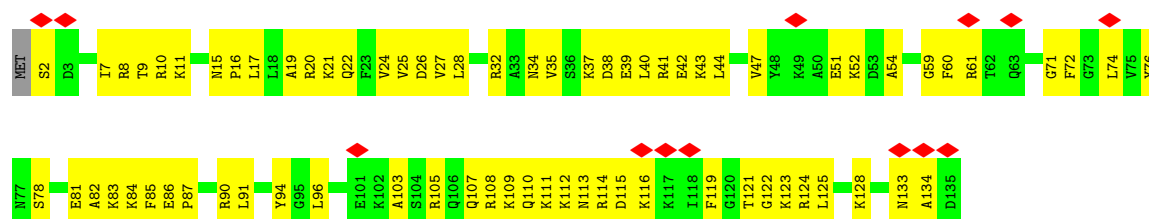




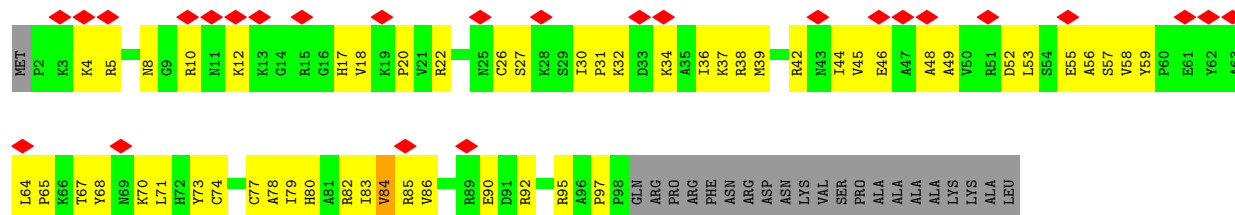
- Molecule 63: 40S ribosomal protein S23-A



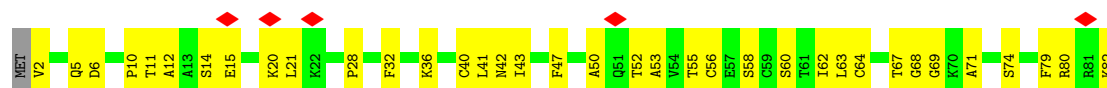
- Molecule 64: 40S ribosomal protein S24-A



- Molecule 65: Small ribosomal subunit protein eS26B

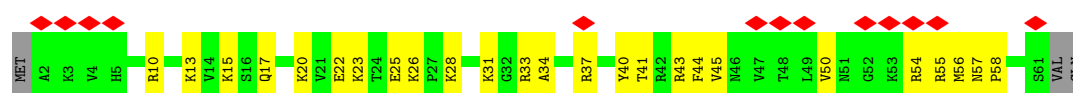


- Molecule 66: 40S ribosomal protein S27-A



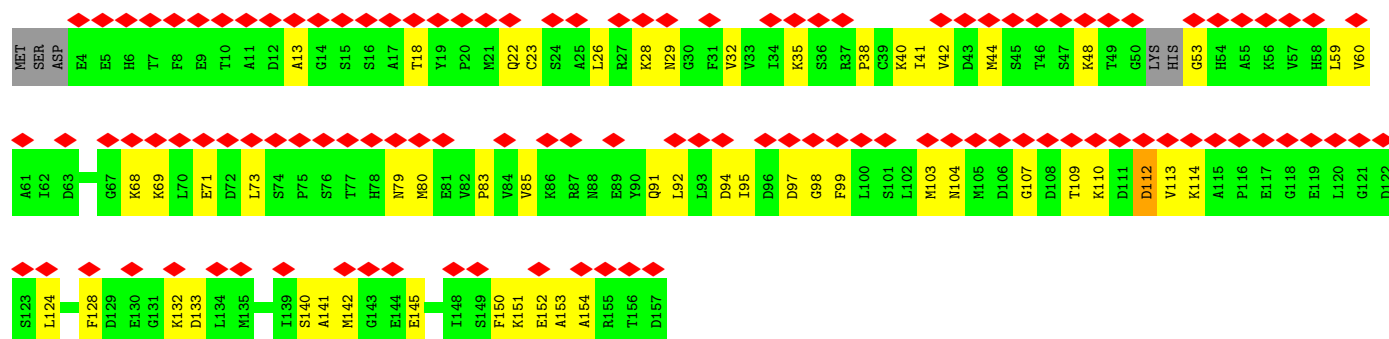
- Molecule 67: 40S ribosomal protein S30-A

Chain Se: 



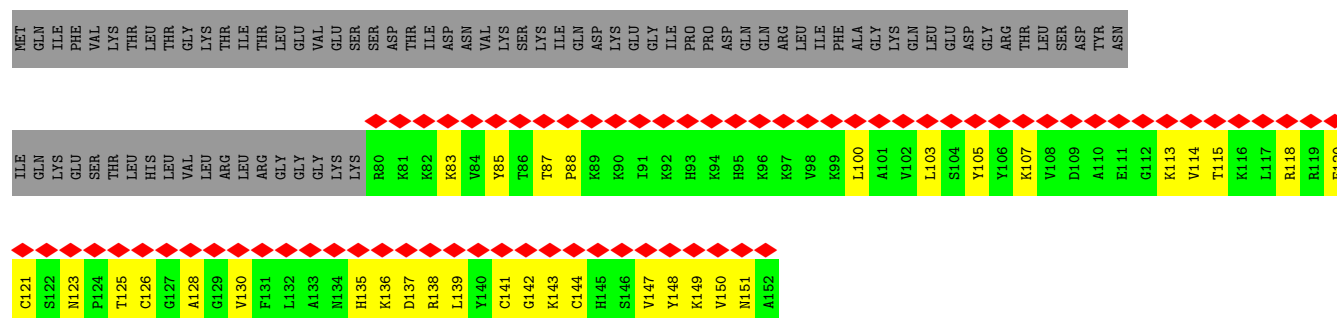
- Molecule 68: Eukaryotic translation initiation factor 5A-1

Chain 5: 



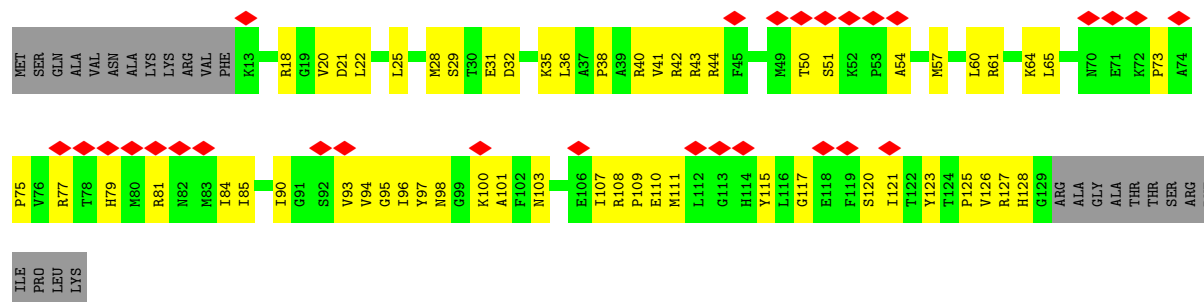
- Molecule 69: Ubiquitin-ribosomal protein eS31 fusion protein

Chain Sf: 

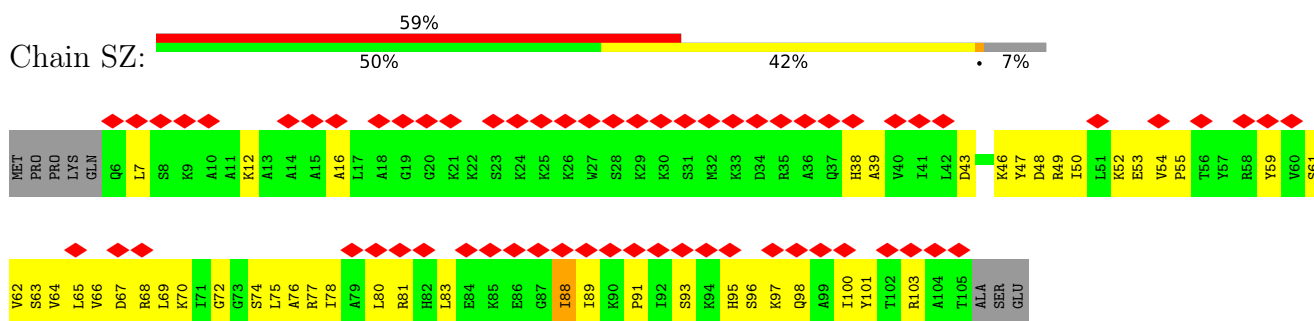


- Molecule 70: Small ribosomal subunit protein uS19

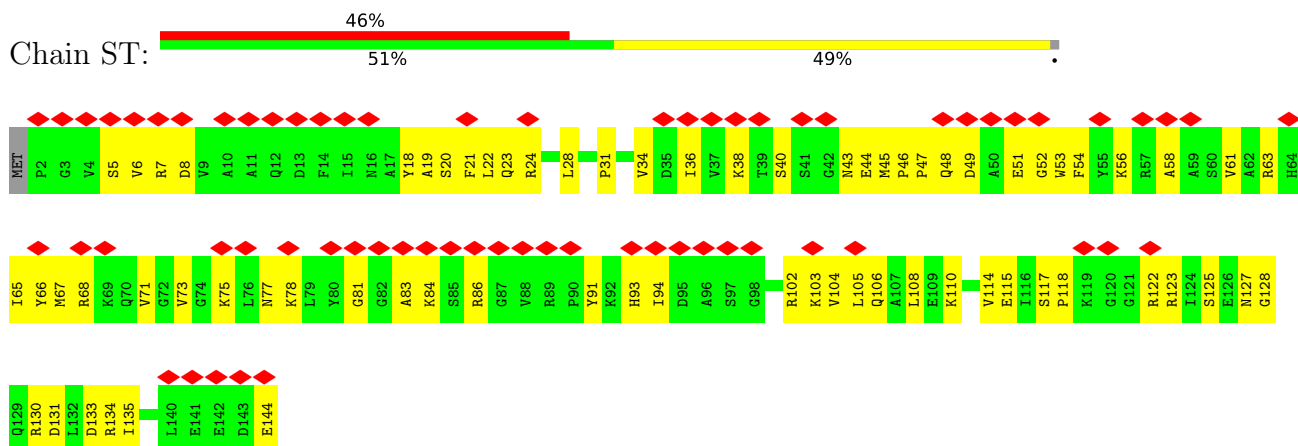
Chain SP: 



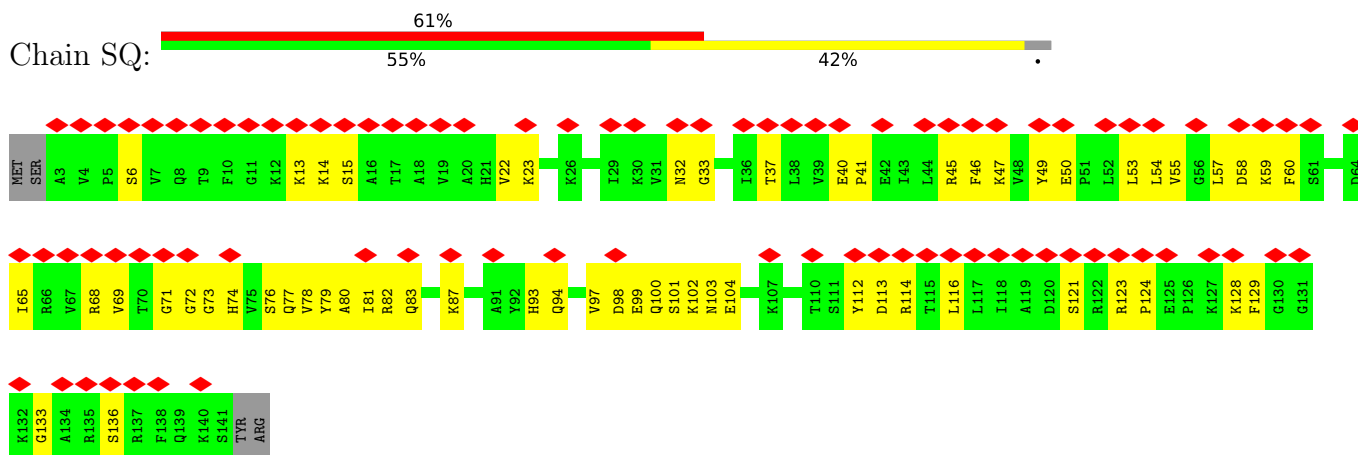
- Molecule 71: Small ribosomal subunit protein eS25A



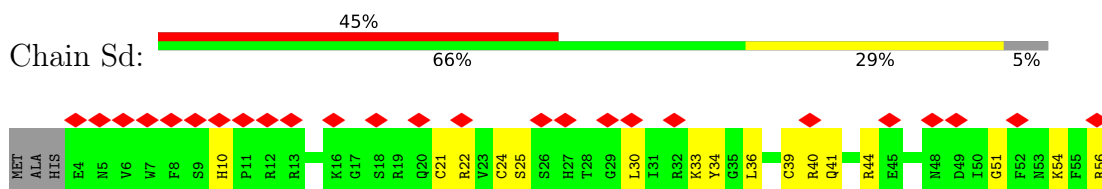
• Molecule 72: Small ribosomal subunit protein eS19A



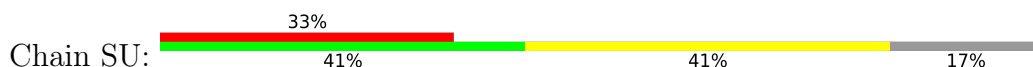
• Molecule 73: Small ribosomal subunit protein uS9A



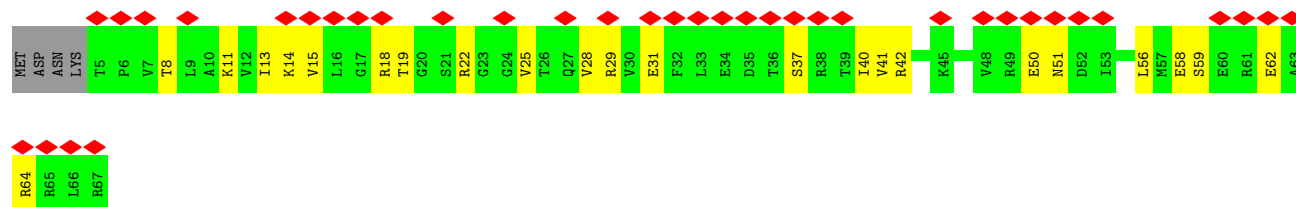
• Molecule 74: Small ribosomal subunit protein uS14A



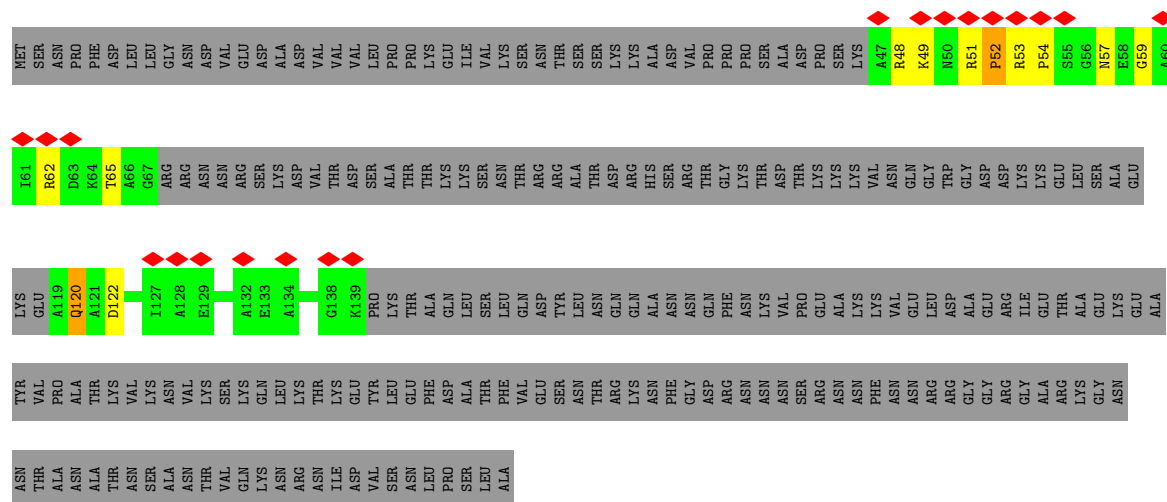
• Molecule 75: Small ribosomal subunit protein uS10



- Molecule 76: Small ribosomal subunit protein eS28A



- Molecule 77: Suppressor protein STM1



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	80383	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	30	Depositor
Minimum defocus (nm)	1500	Depositor
Maximum defocus (nm)	2500	Depositor
Magnification	Not provided	
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	0.035	Depositor
Minimum map value	-0.021	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.002	Depositor
Recommended contour level	0.005	Depositor
Map size (Å)	484.15363, 484.15363, 484.15363	wwPDB
Map dimensions	448, 448, 448	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.0807, 1.0807, 1.0807	Depositor

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: 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	LA	0.46	0/1933	0.62	2/2598 (0.1%)
2	SA	0.30	0/1644	0.53	0/2249
3	LB	0.43	0/3146	0.57	1/4228 (0.0%)
4	SB	0.28	0/1823	0.65	3/2447 (0.1%)
5	C1	0.41	0/77108	0.38	0/120216
6	C4	0.38	0/2883	0.32	0/4491
7	C3	0.43	0/3746	0.38	0/5832
8	LC	0.42	0/2800	0.57	0/3790
9	LD	0.38	0/2400	0.56	2/3239 (0.1%)
10	LE	0.36	0/1329	0.54	0/1794
11	LF	0.45	0/1821	0.54	0/2451
12	LG	0.39	0/1836	0.61	0/2481
13	LH	0.37	0/1529	0.61	0/2060
14	LI	0.37	0/1801	0.54	0/2416
15	LJ	0.35	0/1371	0.66	0/1838
16	LL	0.42	0/1568	0.65	0/2106
17	LM	0.41	0/1068	0.54	0/1438
18	LN	0.47	0/1757	0.58	0/2354
19	LO	0.43	0/1585	0.54	0/2128
20	LP	0.41	0/1439	0.54	0/1938
21	LQ	0.44	0/1465	0.54	0/1965
22	LR	0.39	0/1532	0.57	0/2043
23	LS	0.42	0/1473	0.55	0/1980
24	LT	0.42	0/1300	0.54	0/1743
25	LU	0.37	0/812	0.56	0/1099
26	LV	0.42	0/1018	0.52	0/1369
27	LW	0.36	0/863	0.55	0/1169
28	LX	0.42	0/979	0.56	0/1321
29	LY	0.40	0/995	0.56	0/1329
30	LZ	0.36	0/1118	0.52	0/1497
31	La	0.43	0/1204	0.57	0/1612
32	Lb	0.36	0/473	0.61	0/629

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
33	Lc	0.39	0/745	0.51	0/1001
34	Ld	0.41	0/890	0.56	0/1196
35	Le	0.42	0/1038	0.55	0/1390
36	Lf	0.46	0/868	0.55	0/1168
37	Lg	0.41	0/890	0.55	0/1189
38	Lh	0.40	0/978	0.57	0/1301
39	Li	0.36	0/772	0.58	0/1026
40	Lj	0.42	0/685	0.51	0/908
41	Lk	0.35	0/618	0.56	0/826
42	Ll	0.45	0/443	0.60	0/588
43	Lm	0.34	0/423	0.54	0/562
44	Ln	0.25	0/230	0.52	0/296
45	Lo	0.40	0/836	0.51	0/1104
46	Lp	0.42	0/701	0.61	0/934
47	P0	0.23	0/1498	0.54	0/2025
48	P2	0.19	0/728	0.53	0/975
49	C2	0.28	0/42053	0.35	0/65522
50	SC	0.35	0/1656	0.64	0/2251
51	SE	0.30	0/2097	0.53	0/2823
52	SG	0.24	0/1839	0.58	0/2460
53	SH	0.28	0/1498	0.65	0/2019
54	SI	0.30	0/1501	0.59	0/2006
55	SJ	0.30	0/1504	0.61	1/2016 (0.0%)
56	SK	0.20	0/769	0.52	0/1039
57	SL	0.34	0/1185	0.53	0/1598
58	SM	0.20	0/883	0.63	0/1199
59	SN	0.30	0/1215	0.59	0/1638
60	SO	0.25	0/937	0.57	0/1261
61	SV	0.35	0/682	0.67	0/921
62	SW	0.40	0/1038	0.64	0/1395
63	SX	0.36	0/1139	0.61	0/1518
64	SY	0.28	0/1087	0.66	0/1449
65	Sa	0.27	0/782	0.61	0/1047
66	Sb	0.26	0/620	0.51	0/838
67	Se	0.27	0/480	0.59	0/639
68	5	0.22	0/1131	0.61	0/1522
69	Sf	0.19	0/567	0.57	0/764
70	SP	0.25	0/936	0.59	1/1259 (0.1%)
71	SZ	0.22	0/781	0.62	1/1045 (0.1%)
72	ST	0.22	0/1130	0.56	0/1517
73	SQ	0.26	0/1101	0.54	0/1478
74	Sd	0.23	0/452	0.43	0/600
75	SU	0.25	0/807	0.60	0/1091

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
76	Sc	0.23	0/493	0.51	0/663
77	s	0.25	0/261	0.67	0/351
All	All	0.37	0/210786	0.46	11/310268 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
3	LB	0	1
4	SB	0	1
8	LC	0	1
11	LF	0	1
12	LG	0	1
17	LM	0	1
19	LO	0	1
28	LX	0	1
52	SG	0	1
54	SI	0	1
63	SX	0	1
65	Sa	0	1
68	5	0	1
77	s	0	1
All	All	0	14

There are no bond length outliers.

All (11) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed($^{\circ}$)	Ideal($^{\circ}$)
71	SZ	88	ILE	N-CA-C	-6.10	107.00	112.12
3	LB	255	TRP	CB-CA-C	-5.99	101.87	111.39
4	SB	144	ARG	N-CA-CB	5.97	119.87	110.56
70	SP	125	PRO	CA-N-CD	-5.56	104.22	112.00
1	LA	101	VAL	CA-C-N	-5.51	113.29	123.65
1	LA	101	VAL	C-N-CA	-5.51	113.29	123.65
55	SJ	100	LYS	N-CA-C	-5.36	99.38	110.80
9	LD	249	ALA	CA-C-N	-5.23	116.50	122.26
9	LD	249	ALA	C-N-CA	-5.23	116.50	122.26
4	SB	144	ARG	CB-CA-C	-5.20	101.22	109.80
4	SB	144	ARG	CA-CB-CG	5.02	124.15	114.10

There are no chirality outliers.

All (14) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
68	5	112	ASP	Peptide
3	LB	255	TRP	Peptide
8	LC	13	GLY	Peptide
11	LF	232	ARG	Peptide
12	LG	76	ALA	Peptide
17	LM	12	TRP	Peptide
19	LO	110[A]	PRO	Peptide
28	LX	43	ALA	Peptide
4	SB	144	ARG	Peptide
52	SG	68	LEU	Peptide
54	SI	9	HIS	Peptide
63	SX	41	SER	Peptide
65	Sa	84	VAL	Peptide
77	s	120	GLN	Peptide

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	LA	1899	0	1957	85	0
2	SA	1603	0	1610	99	0
3	LB	3075	0	3142	125	0
4	SB	1798	0	1890	128	0
5	C1	68888	0	34610	2281	0
6	C4	2579	0	1304	92	0
7	C3	3353	0	1695	136	0
8	LC	2748	0	2859	119	0
9	LD	2351	0	2294	94	0
10	LE	1307	0	1377	46	0
11	LF	1784	0	1862	77	0
12	LG	1804	0	1877	69	0
13	LH	1508	0	1572	66	0
14	LI	1764	0	1804	57	0
15	LJ	1350	0	1381	82	0
16	LL	1543	0	1608	81	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
17	LM	1053	0	1149	39	0
18	LN	1720	0	1779	89	0
19	LO	1555	0	1659	50	0
20	LP	1416	0	1433	54	0
21	LQ	1441	0	1543	50	0
22	LR	1515	0	1606	47	0
23	LS	1437	0	1475	51	0
24	LT	1276	0	1323	51	0
25	LU	796	0	812	29	0
26	LV	1003	0	1048	34	0
27	LW	849	0	727	21	0
28	LX	964	0	1025	26	0
29	LY	984	0	1075	38	0
30	LZ	1092	0	1155	38	0
31	La	1173	0	1215	57	0
32	Lb	462	0	491	19	0
33	Lc	737	0	792	22	0
34	Ld	876	0	912	28	0
35	Le	1017	0	1081	42	0
36	Lf	850	0	880	42	0
37	Lg	880	0	941	35	0
38	Lh	969	0	1078	44	0
39	Li	766	0	844	26	0
40	Lj	670	0	673	27	0
41	Lk	612	0	682	31	0
42	Ll	436	0	475	33	0
43	Lm	417	0	455	17	0
44	Ln	229	0	273	10	0
45	Lo	824	0	888	37	0
46	Lp	694	0	735	33	0
47	P0	1473	0	1514	74	0
48	P2	723	0	774	37	0
49	C2	37604	0	18916	1387	0
50	SC	1626	0	1715	87	0
51	SE	2056	0	2140	105	0
52	SG	1815	0	1894	131	0
53	SH	1473	0	1555	87	0
54	SI	1476	0	1501	73	0
55	SJ	1479	0	1556	92	0
56	SK	752	0	719	39	0
57	SL	1159	0	1225	56	0
58	SM	875	0	878	47	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	SN	1192	0	1255	62	0
60	SO	926	0	950	70	0
61	SV	673	0	662	50	0
62	SW	1021	0	1060	45	0
63	SX	1121	0	1196	57	0
64	SY	1073	0	1132	77	0
65	Sa	769	0	818	60	0
66	Sb	610	0	633	26	0
67	Se	472	0	521	31	0
68	5	1118	0	1077	40	0
69	Sf	556	0	546	29	0
70	SP	916	0	941	62	0
71	SZ	771	0	826	39	0
72	ST	1112	0	1124	64	0
73	SQ	1082	0	1144	52	0
74	Sd	442	0	428	20	0
75	SU	797	0	863	51	0
76	Sc	491	0	524	19	0
77	s	261	0	232	13	0
78	C1	187	0	0	0	0
78	C2	78	0	0	0	0
78	C3	1	0	0	0	0
78	C4	1	0	0	0	0
78	LA	2	0	0	0	0
78	LN	2	0	0	0	0
78	LP	1	0	0	0	0
78	LV	1	0	0	0	0
78	Le	1	0	0	0	0
78	SC	1	0	0	0	0
78	SE	1	0	0	0	0
78	SQ	2	0	0	0	0
78	ST	2	0	0	1	0
78	Sa	1	0	0	0	0
79	Lg	1	0	0	0	0
79	Lj	1	0	0	0	0
79	Lm	1	0	0	0	0
79	Lo	1	0	0	0	0
79	Lp	1	0	0	0	0
79	Sd	1	0	0	0	0
79	Sf	1	0	0	0	0
All	All	196269	0	143385	6832	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 20.

All (6832) 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)
5:C1:1257:C:H42	5:C1:1261:G:N2	1.52	1.07
5:C1:583:G:H4'	36:Lf:106:ASN:HD21	1.23	1.04
5:C1:1257:C:N4	5:C1:1261:G:H22	1.56	1.02
5:C1:3164:C:HO2'	5:C1:3165:A:H8	1.01	1.00
69:Sf:121:CYS:HB3	69:Sf:126:CYS:SG	2.02	0.98
49:C2:273:G:H1	49:C2:283:U:H3	1.08	0.97
49:C2:69:G:H1	49:C2:82:U:H3	1.09	0.94
5:C1:1352:A:H4'	5:C1:1353:U:H5'	1.47	0.94
5:C1:3234:A:H61	5:C1:3253:G:H1	1.17	0.92
70:SP:121:ILE:H	77:s:57:ASN:HD21	1.16	0.92
1:LA:29:LEU:HD11	1:LA:115:ASN:HD21	1.33	0.92
49:C2:1318:G:H4'	49:C2:1398:U:H3	1.30	0.92
20:LP:48:LEU:HD12	20:LP:88:VAL:HG13	1.52	0.90
4:SB:61:LEU:HD23	4:SB:96:LEU:HD21	1.54	0.90
5:C1:3348:G:H1	5:C1:3357:U:H3	0.94	0.90
49:C2:1495:C:C2	49:C2:1513:G:N2	2.41	0.89
40:Lj:19:CYS:HB3	40:Lj:22:CYS:SG	2.12	0.89
5:C1:1015:U:O4	5:C1:1035:G:N1	2.05	0.89
2:SA:53:THR:HG22	2:SA:161:PRO:HG2	1.54	0.88
49:C2:895:G:H1	49:C2:917:U:H3	0.88	0.88
5:C1:3269:U:H3	10:LE:134:ARG:HH22	1.20	0.88
30:LZ:84:ARG:NH2	37:Lg:97:GLU:OE2	2.07	0.88
49:C2:1335:U:H3	49:C2:1416:G:H1	1.16	0.87
50:SC:87:GLN:HG2	50:SC:96:THR:HG22	1.57	0.87
41:Lk:32:ASN:OD1	41:Lk:33:LYS:N	2.07	0.87
28:LX:25:LYS:HZ3	28:LX:27:ARG:HE	1.18	0.87
53:SH:46:ILE:HD12	53:SH:60:ILE:HD12	1.57	0.86
49:C2:1267:G:H1	49:C2:1442:U:H3	0.86	0.86
5:C1:1883:A:H2'	5:C1:1884:A:H8	1.39	0.86
49:C2:1213:G:H1	49:C2:1450:U:H3	1.20	0.86
5:C1:1222:G:HO2'	5:C1:1285:G:H1	1.19	0.86
5:C1:2487:U:H3'	5:C1:2488:A:H8	1.40	0.86
5:C1:2960:C:H2'	5:C1:2961:G:H8	1.40	0.85
49:C2:778:G:O6	64:SY:10:ARG:NH1	2.10	0.85
53:SH:161:GLN:O	53:SH:165:LYS:NZ	2.08	0.85
5:C1:1896:A:H61	5:C1:2339:C:N4	1.73	0.85
10:LE:131:LYS:HZ2	10:LE:133:GLU:HB2	1.42	0.85
47:P0:55:LYS:H	47:P0:61:ARG:HH22	1.24	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:C2:174:U:H3	49:C2:266:A:H62	1.25	0.85
49:C2:918:U:H2'	49:C2:919:A:H8	1.41	0.85
6:C4:28:C:OP1	15:LJ:137:ARG:NH1	2.10	0.85
36:Lf:49:ILE:HD11	36:Lf:71:VAL:HG23	1.56	0.84
5:C1:1018:G:H1	5:C1:1034:U:H3	0.86	0.84
52:SG:52:ILE:HD11	52:SG:109:LEU:HD12	1.59	0.84
13:LH:5:GLN:NE2	13:LH:7:GLU:OE2	2.08	0.84
4:SB:212:VAL:HG13	4:SB:213:ARG:H	1.42	0.84
42:Ll:27:ILE:HG23	42:Ll:30:ARG:HH12	1.39	0.84
15:LJ:53:THR:HG22	15:LJ:60:ARG:HA	1.58	0.84
20:LP:169:THR:OG1	20:LP:172:GLN:OE1	1.96	0.84
46:Lp:39:CYS:CB	46:Lp:57:CYS:SG	2.65	0.84
5:C1:2986:U:H2'	5:C1:2987:A:H8	1.43	0.84
13:LH:23:ARG:HG3	13:LH:39:LYS:HA	1.57	0.84
50:SC:35:TRP:CD1	50:SC:67:GLN:HE21	1.95	0.83
4:SB:111:ARG:HH12	65:Sa:68:TYR:H	1.22	0.83
49:C2:1060:U:H3'	49:C2:1061:A:H5''	1.57	0.83
5:C1:837:A:OP2	46:Lp:4:ARG:NH1	2.11	0.83
5:C1:1135:A:OP2	32:Lb:5:LYS:NZ	2.10	0.83
35:Le:86:THR:HG22	35:Le:115:LEU:HD21	1.61	0.83
31:La:76:ASP:OD1	31:La:77:LYS:N	2.12	0.83
49:C2:354:C:H5''	54:SI:16:ALA:HB2	1.59	0.83
49:C2:628:G:H21	49:C2:971:A:H62	1.26	0.83
5:C1:149:U:OP2	18:LN:49:ARG:NH2	2.10	0.83
46:Lp:39:CYS:HB2	46:Lp:57:CYS:SG	2.19	0.83
47:P0:41:VAL:HG11	47:P0:103:ASN:HD22	1.43	0.82
5:C1:2812:C:H2'	5:C1:2813:A:H8	1.44	0.82
56:SK:3:MET:SD	56:SK:8:ARG:NE	2.52	0.82
5:C1:2138:A:HO2'	40:Lj:2:GLY:N	1.76	0.82
64:SY:9:THR:O	64:SY:10:ARG:NE	2.12	0.82
5:C1:2468:A:N3	5:C1:2477:G:N2	2.27	0.82
2:SA:109:ASN:ND2	49:C2:1294:G:O2'	2.13	0.82
5:C1:1018:G:N2	5:C1:1034:U:O2	2.11	0.82
5:C1:1257:C:H42	5:C1:1261:G:H22	0.83	0.82
5:C1:211:A:OP2	8:LC:221:ASN:ND2	2.12	0.82
54:SI:39:GLY:HA2	54:SI:61:GLU:HB3	1.62	0.82
5:C1:2477:G:OP2	5:C1:2479:C:N4	2.13	0.82
49:C2:871:G:H2'	49:C2:872:G:C8	2.14	0.82
5:C1:3085:G:OP1	27:LW:34:SER:OG	1.97	0.82
49:C2:1584:G:N2	49:C2:1611:A:OP2	2.13	0.82
61:SV:32:VAL:HG13	61:SV:60:ARG:HH22	1.45	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:443:G:N2	5:C1:491:C:O2	2.13	0.81
49:C2:821:U:N3	49:C2:852:C:O2	2.12	0.81
5:C1:1096:U:OP2	24:LT:116:ARG:NH2	2.13	0.81
49:C2:1502:G:N7	72:ST:102:ARG:NH2	2.29	0.81
49:C2:1588:G:H1	49:C2:1608:U:H3	1.27	0.81
2:SA:183:ARG:HH21	2:SA:191:ARG:HE	1.29	0.81
7:C3:8:C:H2'	7:C3:9:A:H8	1.46	0.81
49:C2:273:G:O6	49:C2:283:U:O4	1.97	0.81
1:LA:21:ARG:HD3	5:C1:824:C:H5''	1.62	0.81
5:C1:655:C:H2'	5:C1:656:A:H8	1.44	0.81
52:SG:67:VAL:HG13	52:SG:68:LEU:H	1.43	0.81
72:ST:22:LEU:HD13	72:ST:28:LEU:HD21	1.61	0.81
9:LD:146:LEU:HD11	9:LD:163:LEU:HD12	1.61	0.81
19:LO:108[A]:ILE:HD13	19:LO:160[A]:ARG:HH12	1.45	0.81
55:SJ:122:VAL:HG23	55:SJ:123:HIS:HD2	1.44	0.81
5:C1:2424:A:OP1	18:LN:90:ASN:ND2	2.14	0.81
53:SH:177:THR:HG23	53:SH:179:LYS:H	1.44	0.81
49:C2:1445:G:N2	69:Sf:88:PRO:O	2.13	0.80
5:C1:1687:U:H5''	5:C1:1688:U:H5'	1.64	0.80
49:C2:1766:A:N1	65:Sa:80:HIS:ND1	2.29	0.80
68:5:124:LEU:HD12	68:5:150:PHE:HB2	1.63	0.80
20:LP:9:THR:HG21	20:LP:151:THR:HG21	1.64	0.80
49:C2:1788:G:H3'	60:SO:132:ARG:HH12	1.47	0.80
49:C2:521:A:N3	64:SY:34:ASN:ND2	2.30	0.80
58:SM:52:LEU:HA	58:SM:57:ALA:HB2	1.64	0.80
5:C1:1805:C:H2'	5:C1:1806:A:H8	1.45	0.80
66:Sb:11:THR:HG23	66:Sb:14:SER:H	1.47	0.80
5:C1:2369:G:H2'	5:C1:2370:G:C8	2.16	0.80
14:LI:193:ASP:OD1	14:LI:194:GLY:N	2.14	0.80
5:C1:1751:G:O6	41:Lk:44:LYS:NZ	2.15	0.79
49:C2:1187:U:H2'	49:C2:1188:G:H8	1.47	0.79
50:SC:59:HIS:HA	61:SV:15:ARG:HH22	1.46	0.79
64:SY:41:ARG:HD2	64:SY:94:TYR:HE1	1.48	0.79
68:5:104:ASN:HB2	68:5:107:GLY:H	1.46	0.79
1:LA:180:LEU:HD11	46:Lp:26:VAL:HG21	1.64	0.79
50:SC:140:ARG:NH1	61:SV:1:MET:SD	2.55	0.79
49:C2:1098:U:OP2	50:SC:168:ARG:NH1	2.15	0.79
1:LA:33:ASP:O	1:LA:37:ARG:NH2	2.15	0.79
49:C2:329:G:OP1	54:SI:98:LYS:NZ	2.15	0.79
49:C2:1359:C:H5''	72:ST:134:ARG:HH12	1.48	0.79
63:SX:127:VAL:HG23	63:SX:132:LEU:HD21	1.64	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:1580:A:OP2	5:C1:2522:G:N2	2.14	0.79
49:C2:187:G:H21	49:C2:198:A:H62	1.26	0.79
49:C2:1488:G:H3'	49:C2:1515:A:H61	1.48	0.79
48:P2:76:SER:HA	48:P2:80:LEU:HD11	1.62	0.79
9:LD:198:TYR:HD1	9:LD:203:HIS:HD1	1.30	0.79
31:La:48:TYR:O	31:La:49:HIS:ND1	2.16	0.79
5:C1:3310:A:OP1	20:LP:74:LYS:NZ	2.15	0.78
31:La:77:LYS:HG3	31:La:78:LEU:H	1.48	0.78
49:C2:1081:A:N3	49:C2:1082:C:N4	2.30	0.78
5:C1:1340:G:OP2	35:Le:61:LYS:NZ	2.14	0.78
49:C2:1495:C:N3	49:C2:1513:G:N1	2.31	0.78
5:C1:1824:U:O3'	41:Lk:17:ARG:NH2	2.16	0.78
49:C2:1132:A:OP1	63:SX:30:LYS:NZ	2.14	0.78
45:Lo:74:CYS:HB3	45:Lo:77:CYS:SG	2.22	0.78
47:P0:11:TYR:OH	47:P0:61:ARG:NH2	2.16	0.78
22:LR:103:ARG:NH1	22:LR:124:TYR:OH	2.17	0.78
33:Lc:73:GLY:N	33:Lc:76:GLU:OE2	2.17	0.78
40:Lj:34:CYS:HB3	40:Lj:39:TYR:H	1.47	0.78
49:C2:151:G:N3	52:SG:13:GLN:NE2	2.31	0.78
4:SB:111:ARG:HH12	65:Sa:68:TYR:N	1.80	0.78
60:SO:20:TYR:HB3	60:SO:27:PHE:HB2	1.65	0.78
71:SZ:93:SER:HB2	71:SZ:100:ILE:HB	1.64	0.78
73:SQ:83:GLN:HG2	73:SQ:87:LYS:HE2	1.64	0.78
4:SB:212:VAL:O	4:SB:213:ARG:HG2	1.83	0.78
5:C1:2842:U:OP1	5:C1:2844:C:N4	2.17	0.78
49:C2:918:U:H2'	49:C2:919:A:C8	2.19	0.78
5:C1:1346:G:H1'	8:LC:307:GLN:HE22	1.46	0.78
9:LD:203:HIS:HD2	9:LD:204:VAL:HG13	1.49	0.78
51:SE:136:VAL:HG11	51:SE:148:ARG:HH21	1.49	0.78
74:Sd:40:ARG:NH1	74:Sd:41:GLN:OE1	2.17	0.78
49:C2:1339:C:O2'	49:C2:1341:A:N7	2.16	0.77
49:C2:1420:C:OP1	74:Sd:54:LYS:NZ	2.17	0.77
49:C2:1482:C:OP1	49:C2:1521:G:N1	2.16	0.77
5:C1:1475:A:H5'	34:Ld:57:GLN:HE22	1.49	0.77
5:C1:103:G:OP1	16:LL:70:ARG:NH1	2.17	0.77
51:SE:98:ASN:ND2	51:SE:116:ASP:OD1	2.17	0.77
71:SZ:7:LEU:HB3	71:SZ:12:LYS:HG2	1.64	0.77
5:C1:1161:G:O3'	35:Le:54:LYS:NZ	2.17	0.77
5:C1:2471:U:O2	5:C1:2473:C:N4	2.17	0.77
49:C2:142:G:H22	49:C2:173:A:H2	1.31	0.77
49:C2:1202:A:H62	49:C2:1456:C:H3'	1.50	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:LB:95:THR:HG22	5:C1:3243:A:H4'	1.65	0.77
5:C1:687:U:OP2	16:LL:36:ARG:NH2	2.17	0.77
5:C1:2960:C:H2'	5:C1:2961:G:C8	2.18	0.77
5:C1:616:G:H2'	5:C1:617:G:H8	1.49	0.77
5:C1:2457:G:H5''	5:C1:2458:A:H5''	1.66	0.77
9:LD:95:TRP:HD1	9:LD:158:ARG:HA	1.49	0.77
24:LT:40:VAL:HG21	24:LT:96:ILE:HG23	1.67	0.77
50:SC:108:ASN:HA	50:SC:141:ARG:HH22	1.49	0.77
52:SG:2:LYS:HB2	52:SG:108:VAL:HG22	1.67	0.77
5:C1:1169:A:H4'	11:LF:219:LYS:NZ	2.00	0.77
5:C1:1672:U:OP1	22:LR:64:ARG:NH1	2.18	0.77
49:C2:329:G:H2'	49:C2:330:G:H8	1.50	0.77
50:SC:227:PRO:HA	50:SC:230:TRP:CD1	2.19	0.77
5:C1:443:G:C2	5:C1:491:C:C2	2.72	0.76
5:C1:2561:A:N3	12:LG:32:LYS:NZ	2.32	0.76
11:LF:85:PHE:HB2	11:LF:139:PRO:HG3	1.67	0.76
39:Li:59:ASP:OD1	39:Li:63:ASN:ND2	2.18	0.76
49:C2:821:U:O4	49:C2:852:C:N3	2.18	0.76
2:SA:27:ARG:HD3	2:SA:28:ASN:H	1.50	0.76
5:C1:1783:U:H2'	5:C1:1784:G:H8	1.50	0.76
49:C2:519:C:N4	49:C2:533:U:O2	2.18	0.76
68:5:32:VAL:HG23	68:5:41:ILE:HD11	1.67	0.76
5:C1:501:A:OP1	10:LE:82:ARG:NH1	2.17	0.76
4:SB:111:ARG:NH1	65:Sa:68:TYR:H	1.83	0.76
49:C2:1531:G:N7	71:SZ:97:LYS:NZ	2.32	0.76
2:SA:101:ARG:NH2	49:C2:1320:U:OP2	2.17	0.76
5:C1:1619:A:H2'	5:C1:1620:U:O4'	1.85	0.76
57:SL:8:GLN:HE22	57:SL:14:GLN:H	1.31	0.76
16:LL:64:LYS:HG3	31:La:69:TRP:CG	2.21	0.76
63:SX:126:LYS:HD3	63:SX:129:GLY:HA2	1.68	0.76
5:C1:489:C:H2'	5:C1:491:C:H41	1.51	0.76
5:C1:2338:C:H3'	5:C1:2339:C:H2'	1.68	0.76
49:C2:1171:A:H2'	49:C2:1172:G:H8	1.50	0.76
38:Lh:70:TYR:HA	38:Lh:73:LYS:HZ3	1.50	0.76
49:C2:1397:U:O2	49:C2:1401:A:N6	2.19	0.76
51:SE:35:PRO:HD2	51:SE:83:PRO:HG2	1.68	0.76
3:LB:56:ILE:HD11	3:LB:323:MET:HE2	1.67	0.76
47:P0:141:VAL:HG12	47:P0:156:VAL:HB	1.68	0.76
61:SV:66:ASP:OD1	61:SV:67:ASP:N	2.18	0.76
72:ST:63:ARG:HH21	72:ST:67:MET:HE2	1.50	0.76
16:LL:4:SER:O	31:La:44:ASN:ND2	2.19	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:Lg:81:CYS:HB2	37:Lg:84:CYS:SG	2.25	0.75
51:SE:11:ARG:HH11	51:SE:20:LEU:HB3	1.52	0.75
51:SE:125:LYS:HB2	51:SE:226:PHE:HE1	1.50	0.75
18:LN:27:VAL:HB	18:LN:122:ASN:HD21	1.51	0.75
49:C2:340:U:H2'	49:C2:341:A:H8	1.51	0.75
4:SB:183:GLN:HE21	4:SB:184:LEU:HG	1.50	0.75
5:C1:3234:A:N6	5:C1:3253:G:H1	1.83	0.75
7:C3:141:C:O2	18:LN:112:ASN:ND2	2.19	0.75
49:C2:1171:A:H2'	49:C2:1172:G:C8	2.22	0.75
57:SL:55:ASP:OD1	57:SL:82:ARG:NH1	2.19	0.75
60:SO:111:ARG:NH2	65:Sa:56:ALA:O	2.19	0.75
77:s:51:ARG:HB3	77:s:52:PRO:HD3	1.68	0.75
26:LV:109:MET:HE1	26:LV:132:ASN:HB2	1.69	0.75
5:C1:1018:G:OP1	77:s:49:LYS:NZ	2.16	0.75
5:C1:2468:A:H1'	5:C1:2477:G:H22	1.52	0.75
5:C1:3083:G:H4'	27:LW:42:GLN:HE22	1.50	0.75
49:C2:866:G:OP1	59:SN:2:GLY:N	2.20	0.75
49:C2:895:G:N2	49:C2:917:U:O2	2.15	0.75
75:SU:28:SER:HB3	75:SU:34:LEU:HD12	1.69	0.75
75:SU:28:SER:HB2	75:SU:112:VAL:HG13	1.68	0.75
2:SA:119:ARG:NH2	50:SC:241:ASP:OD1	2.19	0.74
49:C2:343:C:H2'	49:C2:344:A:H8	1.51	0.74
49:C2:1502:G:N2	49:C2:1505:A:OP2	2.19	0.74
69:Sf:135:HIS:HB2	69:Sf:138:ARG:HE	1.51	0.74
49:C2:259:U:OP1	54:SI:75:LYS:NZ	2.18	0.74
49:C2:1495:C:O2	49:C2:1513:G:N2	2.20	0.74
55:SJ:62:ARG:HH22	55:SJ:68:LYS:HD3	1.52	0.74
5:C1:69:C:OP1	18:LN:178:HIS:ND1	2.20	0.74
5:C1:190:U:OP1	29:LY:37:LYS:NZ	2.21	0.74
49:C2:567:A:OP1	63:SX:70:LYS:NZ	2.19	0.74
5:C1:1940:G:H21	5:C1:3362:A:H8	1.35	0.74
22:LR:188:ASP:OD2	53:SH:39:ARG:NH2	2.20	0.74
8:LC:328:ASN:ND2	11:LF:182:ASP:OD2	2.21	0.74
65:Sa:37:LYS:NZ	65:Sa:70:LYS:HE2	2.03	0.74
5:C1:3309:G:H1'	20:LP:69:ARG:HD2	1.69	0.74
9:LD:210:GLU:O	9:LD:214:ASP:HB2	1.87	0.74
49:C2:628:G:N2	49:C2:971:A:H62	1.85	0.74
50:SC:35:TRP:CZ2	50:SC:37:PRO:HB3	2.23	0.74
58:SM:129:GLU:CD	58:SM:130:THR:H	1.94	0.74
5:C1:3213:A:OP1	17:LM:128:ARG:NH1	2.21	0.74
5:C1:640:U:OP1	31:La:21:ARG:NH2	2.21	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:C2:1534:G:OP2	71:SZ:74:SER:OG	2.06	0.74
52:SG:7:TYR:HB2	52:SG:113:ILE:HD13	1.69	0.74
5:C1:1073:U:H1'	32:Lb:50:THR:HG22	1.68	0.74
13:LH:102:ASN:OD1	13:LH:103:ILE:N	2.20	0.74
49:C2:1690:G:H2'	49:C2:1691:A:C8	2.23	0.74
5:C1:3348:G:H2'	5:C1:3349:C:C6	2.23	0.73
16:LL:162:ASN:ND2	16:LL:164:GLU:OE2	2.20	0.73
58:SM:91:VAL:HG11	58:SM:97:LEU:HD22	1.70	0.73
72:ST:118:PRO:HD2	72:ST:123:ARG:HH22	1.50	0.73
2:SA:113:ARG:NH2	49:C2:1324:G:OP1	2.20	0.73
5:C1:443:G:N2	5:C1:491:C:C2	2.56	0.73
5:C1:1050:U:OP2	24:LT:13:TYR:OH	2.06	0.73
5:C1:2146:C:H2'	5:C1:2147:A:H8	1.52	0.73
5:C1:2223:A:H2'	5:C1:2224:A:C8	2.23	0.73
49:C2:1608:U:OP1	73:SQ:15:SER:OG	2.05	0.73
69:Sf:130:VAL:HG11	69:Sf:143:LYS:HG2	1.70	0.73
4:SB:88:VAL:HG21	4:SB:96:LEU:HD23	1.71	0.73
5:C1:1471:U:OP1	22:LR:5:ARG:NH2	2.21	0.73
5:C1:3276:G:O2'	20:LP:175:ARG:NH2	2.21	0.73
51:SE:100:ARG:HG3	51:SE:114:ILE:HD13	1.71	0.73
5:C1:312:C:H2'	5:C1:313:A:H8	1.51	0.73
5:C1:664:U:H2'	5:C1:665:A:H8	1.51	0.73
5:C1:1547:G:OP1	18:LN:108:ARG:NH2	2.21	0.73
5:C1:1661:G:H2'	5:C1:1662:G:C8	2.24	0.73
49:C2:751:G:H2'	49:C2:752:A:H8	1.52	0.73
49:C2:868:G:H1	49:C2:960:U:H3	1.33	0.73
5:C1:91:G:OP2	45:Lo:42:ARG:NH1	2.21	0.73
12:LG:62:LYS:NZ	18:LN:29:GLU:OE1	2.22	0.73
50:SC:230:TRP:HZ3	62:SW:68:ARG:HB3	1.53	0.73
53:SH:71:HIS:HA	53:SH:74:GLN:HB2	1.71	0.73
28:LX:25:LYS:NZ	28:LX:27:ARG:HE	1.86	0.73
28:LX:108:LEU:HD23	28:LX:125:ARG:HD3	1.70	0.73
47:P0:72:ASP:O	47:P0:75:LYS:HB3	1.89	0.73
36:Lf:45:LEU:HD11	36:Lf:73:ARG:HA	1.69	0.73
5:C1:768:C:OP1	16:LL:186:ARG:NH2	2.21	0.73
5:C1:2156:C:H2'	5:C1:2178:A:H61	1.54	0.73
65:Sa:45:VAL:HG23	65:Sa:46:GLU:H	1.52	0.73
3:LB:128:LYS:NZ	5:C1:3294:A:OP1	2.17	0.73
5:C1:2837:A:H2'	5:C1:2845:A:N1	2.04	0.73
49:C2:1588:G:N2	49:C2:1608:U:O2	2.20	0.72
51:SE:106:LYS:HE3	51:SE:108:ARG:HH12	1.54	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:SQ:69:VAL:HG11	73:SQ:81:ILE:HD11	1.71	0.72
15:LJ:115:LYS:HG3	15:LJ:116:TYR:H	1.54	0.72
37:Lg:38:LEU:O	37:Lg:58:ARG:NH1	2.22	0.72
48:P2:83:THR:HA	48:P2:90:ARG:HG2	1.71	0.72
49:C2:1563:C:OP1	72:ST:84:LYS:NZ	2.19	0.72
5:C1:3026:G:N2	5:C1:3029:A:OP2	2.21	0.72
9:LD:95:TRP:CD1	9:LD:158:ARG:HA	2.24	0.72
5:C1:542:G:N1	5:C1:549:U:N3	2.36	0.72
5:C1:2847:A:OP2	43:Lm:122:ARG:NH1	2.19	0.72
55:SJ:64:GLU:HA	55:SJ:69:ARG:HD3	1.71	0.72
73:SQ:45:ARG:NH2	73:SQ:49:TYR:OH	2.21	0.72
13:LH:105:GLU:OE1	13:LH:109:ALA:N	2.23	0.72
49:C2:143:G:OP2	52:SG:139:ASN:ND2	2.21	0.72
52:SG:10:ASN:HB3	52:SG:128:THR:HA	1.71	0.72
73:SQ:82:ARG:HH21	73:SQ:116:LEU:HD21	1.54	0.72
5:C1:55:G:OP1	40:Lj:43:LYS:NZ	2.22	0.72
49:C2:740:A:OP1	57:SL:43:LYS:NZ	2.22	0.72
49:C2:765:G:O6	55:SJ:149:ARG:NH2	2.23	0.72
5:C1:1569:U:H5'	5:C1:1570:U:H5''	1.70	0.72
49:C2:406:U:H2'	49:C2:407:A:H8	1.55	0.72
54:SI:138:ASN:OD1	54:SI:141:ARG:NH2	2.22	0.72
2:SA:49:ASN:HB3	2:SA:52:LYS:HD2	1.72	0.72
5:C1:542:G:N2	5:C1:549:U:O2	2.23	0.72
5:C1:2160:G:H2'	5:C1:2161:G:H8	1.55	0.72
49:C2:284:G:OP2	52:SG:188:ARG:NH1	2.22	0.72
49:C2:1533:C:OP2	71:SZ:77:ARG:NH2	2.21	0.72
49:C2:1727:G:H2'	49:C2:1728:A:C8	2.25	0.72
51:SE:56:LEU:HD11	64:SY:72:PHE:HE2	1.54	0.72
51:SE:188:ASN:ND2	51:SE:220:THR:OG1	2.23	0.72
57:SL:101:GLU:OE2	63:SX:13:ARG:NH1	2.22	0.72
49:C2:39:A:OP1	55:SJ:3:ARG:NH1	2.22	0.72
58:SM:33:ARG:NH2	58:SM:100:TRP:O	2.21	0.72
60:SO:133:ARG:HE	60:SO:136:ARG:HH12	1.37	0.72
5:C1:383:G:N2	5:C1:386:A:OP2	2.20	0.72
5:C1:443:G:H22	5:C1:491:C:H2'	1.53	0.71
15:LJ:28:ASP:OD1	15:LJ:29:ARG:N	2.23	0.71
23:LS:26:ARG:NH1	24:LT:150:THR:OG1	2.22	0.71
57:SL:87:ARG:HE	57:SL:104:HIS:CD2	2.07	0.71
73:SQ:71:GLY:O	73:SQ:77:GLN:NE2	2.23	0.71
75:SU:46:GLU:O	75:SU:49:ASN:ND2	2.23	0.71
5:C1:584:G:H2'	5:C1:585:A:H8	1.54	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:3163:A:N6	5:C1:3288:G:O6	2.23	0.71
27:LW:52:THR:HG23	27:LW:55:PHE:H	1.55	0.71
31:La:85:ASP:OD1	31:La:86:LYS:N	2.23	0.71
49:C2:247:A:O2'	57:SL:37:ASN:O	2.08	0.71
49:C2:1672:G:H2'	49:C2:1673:G:C8	2.24	0.71
58:SM:91:VAL:HG21	58:SM:97:LEU:HD13	1.72	0.71
1:LA:220:GLY:O	5:C1:2245:C:O2'	2.08	0.71
3:LB:20:LYS:NZ	5:C1:3139:A:O3'	2.22	0.71
5:C1:3371:G:H2'	5:C1:3372:A:H8	1.55	0.71
30:LZ:81:LEU:HD11	37:Lg:90:ILE:HG12	1.70	0.71
49:C2:1471:A:N6	49:C2:1538:U:N3	2.37	0.71
14:LI:16:PRO:HA	14:LI:95:HIS:HD2	1.54	0.71
49:C2:1434:U:O2'	49:C2:1436:A:OP1	2.07	0.71
5:C1:847:A:OP1	59:SN:140:LYS:NZ	2.23	0.71
17:LM:19:ARG:HB3	17:LM:35:ILE:HD12	1.71	0.71
49:C2:129:U:O2'	49:C2:131:C:N4	2.23	0.71
52:SG:50:PHE:HE1	52:SG:113:ILE:HG13	1.54	0.71
5:C1:1786:G:H2'	5:C1:1787:A:C8	2.25	0.71
49:C2:654:C:N4	49:C2:679:U:O4	2.23	0.71
6:C4:76:A:O3'	23:LS:50:LYS:NZ	2.24	0.71
1:LA:2:GLY:N	5:C1:2608:G:OP1	2.23	0.71
1:LA:9:ARG:NH1	5:C1:912:G:OP2	2.22	0.71
5:C1:172:G:H1	5:C1:246:U:H3	1.39	0.71
5:C1:437:G:H2'	5:C1:438:A:C4	2.25	0.71
5:C1:3268:A:OP1	10:LE:46:ARG:NH1	2.24	0.71
6:C4:7:G:O3'	9:LD:33:ARG:NH1	2.24	0.71
16:LL:123:ILE:HG22	38:Lh:118:ILE:HD13	1.73	0.71
49:C2:384:G:H2'	49:C2:385:A:H8	1.56	0.71
60:SO:20:TYR:CZ	60:SO:22:SER:HB2	2.26	0.71
64:SY:7:ILE:HD12	64:SY:43:LYS:HD2	1.72	0.71
5:C1:658:G:H21	8:LC:93:MET:HB2	1.56	0.71
8:LC:299:ILE:HG23	21:LQ:39:ARG:HB3	1.73	0.71
49:C2:38:C:O3'	55:SJ:6:ARG:NH1	2.23	0.71
49:C2:1794:A:OP2	65:Sa:4:LYS:NZ	2.22	0.71
5:C1:1255:C:H1'	48:P2:132:ILE:HD11	1.71	0.70
49:C2:1487:A:H2'	49:C2:1488:G:C8	2.25	0.70
54:SI:172:ARG:HE	54:SI:175:GLN:HG3	1.56	0.70
59:SN:100:LYS:HG2	59:SN:104:ARG:HH12	1.56	0.70
3:LB:74:GLU:OE2	3:LB:325:LYS:NZ	2.19	0.70
4:SB:87:ARG:HB3	4:SB:101:HIS:HD2	1.56	0.70
5:C1:1060:U:H2'	5:C1:1061:A:H8	1.55	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:LN:99:ARG:NH2	18:LN:118:SER:O	2.24	0.70
60:SO:107:ARG:NH2	65:Sa:55:GLU:OE2	2.23	0.70
5:C1:612:U:H2'	5:C1:613:G:H8	1.56	0.70
5:C1:655:C:H2'	5:C1:656:A:C8	2.25	0.70
47:P0:139:LEU:HD22	47:P0:169:GLU:HB2	1.73	0.70
52:SG:19:ASP:OD1	52:SG:20:ASP:N	2.22	0.70
5:C1:112:U:OP1	38:Lh:103:LYS:NZ	2.24	0.70
5:C1:353:G:O6	40:Lj:55:ARG:NH2	2.24	0.70
5:C1:944:C:H4'	35:Le:33:ARG:NH1	2.07	0.70
5:C1:2621:G:O2'	68:5:53:GLY:O	2.10	0.70
21:LQ:54:LEU:HD23	21:LQ:58:ASN:HB3	1.71	0.70
31:La:75:LEU:HD23	31:La:114:GLY:HA2	1.74	0.70
49:C2:78:A:H2'	49:C2:79:C:C6	2.27	0.70
49:C2:1553:G:N1	49:C2:1556:A:OP2	2.23	0.70
5:C1:1592:G:OP2	37:Lg:37:LYS:NZ	2.23	0.70
14:LI:146:ASP:OD1	14:LI:147:VAL:N	2.24	0.70
43:Lm:91:CYS:O	43:Lm:126:LYS:NZ	2.24	0.70
75:SU:57:ARG:HA	75:SU:89:ARG:HE	1.56	0.70
5:C1:170:G:OP1	16:LL:128:ARG:NH2	2.23	0.70
5:C1:596:C:OP2	11:LF:34:LYS:NZ	2.25	0.70
49:C2:861:U:H3'	49:C2:862:A:C8	2.27	0.70
5:C1:352:A:N7	5:C1:367:A:N6	2.39	0.70
49:C2:1789:G:OP2	60:SO:132:ARG:NH2	2.23	0.70
52:SG:39:GLU:OE2	52:SG:47:GLY:N	2.24	0.70
5:C1:2357:A:H2'	5:C1:2358:A:H8	1.57	0.70
5:C1:3291:G:H2'	5:C1:3292:A:H8	1.56	0.70
12:LG:68:ARG:NH1	12:LG:237:ILE:O	2.25	0.70
49:C2:1525:A:H2'	49:C2:1526:A:C8	2.26	0.70
5:C1:1232:C:O2'	47:P0:39:HIS:NE2	2.23	0.70
8:LC:35:VAL:HG11	8:LC:244:LEU:HD21	1.73	0.70
49:C2:922:G:H2'	49:C2:923:A:H8	1.56	0.70
49:C2:1673:G:N1	49:C2:1728:A:C2	2.55	0.70
5:C1:2471:U:N3	5:C1:2474:G:N7	2.40	0.69
13:LH:90:MET:HB3	13:LH:144:ILE:HB	1.73	0.69
49:C2:1689:A:H2'	49:C2:1690:G:C8	2.27	0.69
61:SV:74:GLN:NE2	61:SV:80:LYS:O	2.22	0.69
64:SY:122:GLY:H	64:SY:124:ARG:HH21	1.38	0.69
2:SA:113:ARG:HH22	49:C2:1324:G:H5'	1.57	0.69
5:C1:1532:C:H2'	5:C1:1533:U:C6	2.27	0.69
48:P2:134:GLY:H	48:P2:137:GLN:HB3	1.56	0.69
52:SG:142:ARG:HG3	52:SG:143:LYS:HE2	1.72	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:1493:G:C5	42:LI:13:MET:HE1	2.28	0.69
49:C2:652:G:N2	49:C2:683:C:OP2	2.24	0.69
51:SE:188:ASN:HD21	51:SE:218:PHE:HD2	1.39	0.69
10:LE:102:ASN:OD1	10:LE:105:TYR:N	2.25	0.69
3:LB:168:LYS:HB3	3:LB:319:ASN:HD21	1.57	0.69
3:LB:274:SER:OG	5:C1:3139:A:OP1	2.10	0.69
5:C1:1062:A:H5''	5:C1:1063:G:H5'	1.74	0.69
5:C1:1127:G:OP2	14:LI:98:ARG:NH2	2.24	0.69
5:C1:1261:G:N2	5:C1:1261:G:OP2	2.24	0.69
5:C1:1545:A:N7	18:LN:105:ARG:NH1	2.38	0.69
47:P0:41:VAL:HA	47:P0:44:GLU:HG2	1.74	0.69
48:P2:121:PHE:HD2	48:P2:124:THR:HB	1.58	0.69
49:C2:1531:G:N2	72:ST:48:GLN:OE1	2.24	0.69
53:SH:63:PRO:HG2	53:SH:65:PRO:HD3	1.74	0.69
55:SJ:15:PRO:HD3	55:SJ:43:TYR:CE1	2.27	0.69
61:SV:30:ALA:O	61:SV:60:ARG:NH2	2.25	0.69
63:SX:75:GLN:OE1	63:SX:82:LYS:NZ	2.25	0.69
68:5:112:ASP:O	68:5:114:LYS:N	2.25	0.69
1:LA:229:ALA:O	1:LA:234:LYS:NZ	2.25	0.69
3:LB:205:VAL:HG21	3:LB:322:ILE:HD11	1.73	0.69
16:LL:177:LYS:HZ1	39:LI:11:LEU:HA	1.58	0.69
49:C2:628:G:H21	49:C2:971:A:N6	1.90	0.69
49:C2:1789:G:H2'	49:C2:1790:A:H8	1.57	0.69
6:C4:37:G:N2	6:C4:41:G:N3	2.41	0.69
16:LL:91:ARG:HE	16:LL:97:VAL:HB	1.56	0.69
29:LY:35:LEU:HD23	29:LY:39:LEU:HB3	1.75	0.69
49:C2:1681:A:N6	49:C2:1720:G:O2'	2.25	0.69
57:SL:125:VAL:HG11	57:SL:137:PHE:HB3	1.75	0.69
2:SA:175:TYR:OH	2:SA:197:ILE:O	2.08	0.69
3:LB:269:GLN:HE21	3:LB:270:ARG:H	1.37	0.69
5:C1:445:G:N2	5:C1:489:C:O2	2.26	0.69
5:C1:1381:A:OP1	8:LC:197:ARG:NH1	2.26	0.69
5:C1:2412:G:H2'	5:C1:2413:A:H8	1.57	0.69
5:C1:2775:U:H1'	31:La:58:MET:HE1	1.74	0.69
5:C1:3094:A:OP1	26:LV:14:SER:OG	2.10	0.69
31:La:84:GLU:OE2	31:La:87:ARG:NH1	2.25	0.69
46:Lp:44:LYS:NZ	46:Lp:59:CYS:SG	2.59	0.69
49:C2:487:G:H2'	49:C2:488:G:C8	2.28	0.69
49:C2:1496:U:O2	49:C2:1512:G:C6	2.46	0.69
49:C2:1524:A:H2'	49:C2:1525:A:C8	2.28	0.69
49:C2:1788:G:O5'	60:SO:132:ARG:NH1	2.26	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:SE:125:LYS:HB2	51:SE:226:PHE:CE1	2.27	0.69
52:SG:33:GLY:O	52:SG:51:LYS:NZ	2.25	0.69
1:LA:30:ARG:O	1:LA:163:ARG:NH2	2.26	0.69
4:SB:103:MET:HB3	4:SB:215:VAL:HG12	1.74	0.69
5:C1:2282:U:OP1	5:C1:2973:G:O2'	2.11	0.69
5:C1:3322:A:H2'	5:C1:3323:A:H8	1.57	0.69
8:LC:4:PRO:O	8:LC:5:GLN:HG2	1.93	0.69
10:LE:53:VAL:HG12	10:LE:67:GLY:HA2	1.74	0.69
30:LZ:28:PRO:O	30:LZ:29:HIS:ND1	2.25	0.69
49:C2:534:A:H3'	49:C2:535:A:H8	1.58	0.69
49:C2:747:C:O3'	62:SW:80:ASN:ND2	2.24	0.69
49:C2:1601:G:OP1	72:ST:86:ARG:NH2	2.26	0.69
10:LE:31:ARG:NH1	36:Lf:107:ILE:O	2.26	0.69
47:P0:39:HIS:HA	47:P0:42:ARG:HD3	1.75	0.69
49:C2:144:U:H2'	49:C2:145:A:C8	2.28	0.69
49:C2:1146:G:O2'	50:SC:90:THR:O	2.11	0.69
56:SK:32:HIS:CE1	56:SK:35:ILE:HD13	2.28	0.69
70:SP:25:LEU:HA	70:SP:28:MET:HG2	1.74	0.69
5:C1:129:U:H2'	5:C1:130:A:C8	2.28	0.68
5:C1:217:U:O2	29:LY:103:LYS:NZ	2.21	0.68
5:C1:700:C:OP1	16:LL:65:TYR:OH	2.07	0.68
17:LM:48:GLY:HA3	17:LM:53:VAL:HB	1.75	0.68
23:LS:12:ARG:NH1	23:LS:57:GLU:OE2	2.26	0.68
63:SX:53:VAL:HA	63:SX:74:VAL:HG12	1.74	0.68
71:SZ:61:SER:H	71:SZ:64:VAL:HB	1.58	0.68
3:LB:215:ILE:HD12	3:LB:338:LEU:HD12	1.75	0.68
5:C1:1336:U:H2'	5:C1:1337:A:H8	1.58	0.68
5:C1:1383:G:OP1	8:LC:203:ARG:NH1	2.26	0.68
26:LV:112:SER:O	26:LV:132:ASN:ND2	2.26	0.68
39:Li:66:GLU:OE1	39:Li:70:ARG:NH2	2.26	0.68
5:C1:116:A:OP1	39:Li:36:ARG:NH2	2.26	0.68
5:C1:1562:C:H2'	5:C1:1563:C:C6	2.27	0.68
5:C1:2728:G:N7	24:LT:87:LYS:NZ	2.41	0.68
54:SI:79:ALA:HB3	54:SI:103:GLN:HB2	1.74	0.68
72:ST:105:LEU:HD13	72:ST:122:ARG:HE	1.57	0.68
3:LB:54:THR:HG22	3:LB:55:THR:H	1.58	0.68
49:C2:776:G:O6	64:SY:11:LYS:NZ	2.21	0.68
2:SA:139:VAL:HG13	2:SA:141:ILE:HD11	1.75	0.68
5:C1:944:C:H4'	35:Le:33:ARG:HH12	1.58	0.68
5:C1:2224:A:OP1	39:Li:74:LYS:NZ	2.26	0.68
49:C2:1371:A:O2'	49:C2:1373:C:OP1	2.08	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:SN:60:VAL:HG13	59:SN:66:ILE:HG13	1.76	0.68
5:C1:2971:A:H2'	14:LI:110:ARG:HH12	1.59	0.68
11:LF:138:TYR:N	11:LF:233:GLU:O	2.26	0.68
25:LU:99:LYS:HG2	25:LU:102:GLU:OE2	1.92	0.68
30:LZ:33:SER:HB3	30:LZ:40:HIS:HE1	1.56	0.68
57:SL:81:HIS:CE1	57:SL:82:ARG:HD2	2.27	0.68
60:SO:103:ARG:NH2	65:Sa:52:ASP:OD2	2.27	0.68
61:SV:74:GLN:NE2	61:SV:83:TRP:H	1.92	0.68
68:5:109:THR:HG22	68:5:110:LYS:H	1.58	0.68
3:LB:244:ARG:NH2	5:C1:2946:A:O3'	2.26	0.68
3:LB:255:TRP:NE1	5:C1:2941:A:N7	2.41	0.68
5:C1:1472:U:H2'	5:C1:1473:G:H8	1.59	0.68
5:C1:2218:G:H2'	5:C1:2219:A:H8	1.58	0.68
5:C1:3365:U:H2'	5:C1:3366:G:H8	1.58	0.68
64:SY:83:LYS:HE2	64:SY:96:LEU:HD23	1.76	0.68
5:C1:999:G:H2'	5:C1:1000:C:C6	2.29	0.68
49:C2:1553:G:N7	70:SP:43:ARG:NH2	2.42	0.68
60:SO:111:ARG:HH22	65:Sa:56:ALA:C	2.01	0.68
1:LA:128:ARG:NH2	5:C1:2176:U:OP2	2.27	0.68
3:LB:266:ARG:NH2	5:C1:2392:C:O2'	2.26	0.68
5:C1:1295:G:H5'	23:LS:84:ARG:HH12	1.57	0.68
49:C2:842:C:H2'	49:C2:843:U:O4'	1.94	0.68
49:C2:1484:G:H21	49:C2:1606:C:H1'	1.58	0.68
64:SY:20:ARG:HD2	64:SY:74:LEU:HD12	1.75	0.68
5:C1:3314:A:H2'	5:C1:3315:G:H8	1.59	0.68
47:P0:48:ARG:NH2	47:P0:95:GLU:OE1	2.26	0.68
49:C2:339:C:OP2	54:SI:10:LYS:NZ	2.27	0.68
49:C2:1393:C:H2'	49:C2:1394:G:H8	1.59	0.68
49:C2:1495:C:C2	49:C2:1513:G:C2	2.81	0.68
50:SC:228:ASN:ND2	61:SV:1:MET:SD	2.66	0.68
64:SY:41:ARG:HD2	64:SY:94:TYR:CE1	2.27	0.68
69:Sf:126:CYS:HA	69:Sf:143:LYS:HE2	1.76	0.68
4:SB:179:SER:HB3	4:SB:183:GLN:HE21	1.59	0.67
11:LF:48:ASN:ND2	11:LF:182:ASP:OD2	2.27	0.67
50:SC:140:ARG:HH12	50:SC:228:ASN:HD22	1.40	0.67
4:SB:144:ARG:CD	4:SB:208:GLN:HB3	2.23	0.67
8:LC:33:ASP:OD1	8:LC:34:ILE:N	2.27	0.67
8:LC:234:ASN:HB3	8:LC:237:GLN:OE1	1.94	0.67
49:C2:922:G:H2'	49:C2:923:A:C8	2.30	0.67
51:SE:87:MET:HG2	51:SE:87:MET:O	1.94	0.67
64:SY:103:ALA:HB1	64:SY:107:GLN:HB3	1.75	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:SA:117:GLU:HG3	50:SC:40:LYS:NZ	2.10	0.67
5:C1:348:A:N3	5:C1:352:A:O2'	2.27	0.67
5:C1:1597:C:H2'	5:C1:1598:G:C8	2.30	0.67
49:C2:1230:A:OP2	49:C2:1255:G:N2	2.27	0.67
5:C1:2389:C:H2'	5:C1:2390:A:H8	1.58	0.67
49:C2:142:G:OP2	52:SG:139:ASN:ND2	2.26	0.67
49:C2:1045:C:H2'	49:C2:1046:G:H8	1.58	0.67
49:C2:1087:A:H2'	49:C2:1088:A:C8	2.29	0.67
49:C2:1362:U:O2'	49:C2:1363:U:O2	2.11	0.67
5:C1:860:G:OP1	46:Lp:17:ARG:NH2	2.28	0.67
5:C1:1230:G:H3'	5:C1:1231:A:H8	1.59	0.67
5:C1:1564:U:H3	5:C1:1575:A:H61	1.42	0.67
12:LG:157:VAL:HG22	12:LG:159:PRO:HD2	1.76	0.67
14:LI:189:GLU:HB2	14:LI:200:LEU:HB3	1.75	0.67
35:Le:32:TRP:O	35:Le:33:ARG:HD3	1.95	0.67
49:C2:590:C:OP1	67:Se:43:ARG:NH2	2.28	0.67
49:C2:1471:A:N6	49:C2:1538:U:C2	2.63	0.67
5:C1:172:G:N2	5:C1:246:U:O2	2.28	0.67
5:C1:1221:A:H1'	47:P0:8:LYS:HD3	1.77	0.67
5:C1:2540:A:N3	5:C1:2541:U:N3	2.42	0.67
5:C1:3344:A:O2'	54:SI:92:ARG:NH2	2.26	0.67
11:LF:138:TYR:CE2	11:LF:233:GLU:HB2	2.29	0.67
11:LF:139:PRO:HB2	11:LF:144:ILE:HD11	1.77	0.67
49:C2:1068:C:H2'	49:C2:1069:A:H8	1.59	0.67
5:C1:388:G:H1'	20:LP:97:ASN:HD21	1.57	0.67
5:C1:437:G:H2'	5:C1:438:A:N3	2.10	0.67
5:C1:544:C:O2'	5:C1:547:G:N2	2.25	0.67
5:C1:1362:G:H2'	5:C1:1363:A:C8	2.30	0.67
5:C1:3322:A:H2'	5:C1:3323:A:C8	2.29	0.67
7:C3:26:U:H2'	7:C3:27:U:C6	2.30	0.67
49:C2:144:U:H2'	49:C2:145:A:H8	1.60	0.67
49:C2:446:A:OP1	51:SE:57:ASN:ND2	2.28	0.67
49:C2:1007:C:O3'	60:SO:135:ARG:NH1	2.28	0.67
65:Sa:37:LYS:HZ3	65:Sa:70:LYS:HE2	1.58	0.67
5:C1:123:A:OP1	12:LG:105:LYS:NZ	2.26	0.67
49:C2:563:U:O2'	49:C2:566:C:N3	2.27	0.67
53:SH:32:PRO:HA	53:SH:35:LYS:HZ3	1.58	0.67
56:SK:8:ARG:HH12	56:SK:45:ALA:HB2	1.60	0.67
2:SA:79:ARG:NH1	2:SA:80:THR:OG1	2.27	0.67
5:C1:135:C:O2	38:Lh:93:THR:OG1	2.13	0.67
5:C1:883:A:H62	5:C1:921:A:H62	1.43	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:2367:A:H2'	5:C1:2368:A:H8	1.60	0.67
15:LJ:164:LYS:HZ2	15:LJ:170:ASP:HA	1.60	0.67
38:Lh:93:THR:N	38:Lh:96:GLU:OE2	2.28	0.67
45:Lo:91:PHE:HB3	68:5:13:ALA:HA	1.75	0.67
49:C2:224:C:O2'	49:C2:225:A:OP1	2.13	0.67
49:C2:1591:C:H2'	49:C2:1592:A:H8	1.60	0.67
50:SC:101:VAL:HG12	50:SC:115:ILE:HG12	1.76	0.67
52:SG:135:PRO:HB2	52:SG:141:ILE:HD13	1.77	0.67
54:SI:152:ILE:HG13	54:SI:153:GLU:H	1.59	0.67
5:C1:708:G:N2	5:C1:711:A:OP2	2.28	0.67
5:C1:1883:A:H2'	5:C1:1884:A:C8	2.26	0.67
5:C1:2536:A:H2'	5:C1:2537:U:C4	2.29	0.67
49:C2:566:C:O2'	67:Se:10:ARG:NH1	2.28	0.67
49:C2:1183:A:N3	49:C2:1210:C:O2'	2.26	0.67
49:C2:1712:A:H3'	49:C2:1713:G:H8	1.56	0.67
4:SB:27:LYS:HG2	4:SB:47:LEU:HD12	1.76	0.66
5:C1:2149:A:C2	5:C1:2188:A:H4'	2.29	0.66
30:LZ:88:ASP:OD1	30:LZ:121:ARG:NH1	2.27	0.66
49:C2:587:C:OP1	67:Se:26:LYS:NZ	2.28	0.66
49:C2:1159:C:H5''	49:C2:1160:A:H5'	1.77	0.66
51:SE:123:LEU:HD12	51:SE:159:THR:HG22	1.74	0.66
55:SJ:122:VAL:HG23	55:SJ:123:HIS:CD2	2.28	0.66
5:C1:691:A:OP1	8:LC:46:LYS:NZ	2.26	0.66
5:C1:733:G:N2	5:C1:736:A:OP2	2.27	0.66
5:C1:1492:G:N7	42:Ll:2:ALA:N	2.44	0.66
5:C1:1666:G:H2'	5:C1:1667:A:H8	1.59	0.66
24:LT:94:GLU:N	24:LT:94:GLU:OE1	2.29	0.66
49:C2:742:U:O2	53:SH:107:ARG:NH2	2.28	0.66
49:C2:1160:A:H2'	49:C2:1161:C:H6	1.60	0.66
49:C2:1550:A:OP2	70:SP:42:ARG:NH2	2.28	0.66
7:C3:24:G:N7	29:LY:13:ARG:NH1	2.42	0.66
49:C2:1273:G:H4'	49:C2:1274:C:H3'	1.78	0.66
49:C2:1688:U:H3	49:C2:1713:G:H1	1.43	0.66
67:Se:55:ARG:NH2	67:Se:57:ASN:O	2.28	0.66
73:SQ:79:TYR:HD1	73:SQ:82:ARG:HD3	1.58	0.66
3:LB:117:ARG:HE	3:LB:175:LYS:HD3	1.60	0.66
5:C1:337:G:O4'	8:LC:48:GLN:NE2	2.28	0.66
5:C1:1219:C:O2'	5:C1:1286:A:N1	2.28	0.66
8:LC:45:ASN:HA	8:LC:110:ASN:HD22	1.60	0.66
19:LO:3[A]:VAL:HG13	19:LO:4[A]:GLU:HG2	1.76	0.66
41:Lk:8:ILE:H	41:Lk:8:ILE:HD12	1.61	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:SH:144:VAL:HA	62:SW:42:GLN:NE2	2.11	0.66
5:C1:1084:A:H2'	5:C1:1085:A:C8	2.30	0.66
5:C1:2662:G:H2'	5:C1:2663:G:H8	1.61	0.66
29:LY:116:LYS:O	29:LY:120:GLN:NE2	2.28	0.66
49:C2:54:C:OP1	64:SY:113:ASN:ND2	2.24	0.66
49:C2:1213:G:N2	49:C2:1450:U:O2	2.28	0.66
49:C2:1785:U:H2'	49:C2:1786:G:H8	1.60	0.66
49:C2:1796:C:O5'	65:Sa:5:ARG:NH2	2.28	0.66
3:LB:121:ASN:O	3:LB:125:SER:OG	2.11	0.66
3:LB:278:ILE:HD11	5:C1:3098:G:H4'	1.76	0.66
5:C1:2344:U:H2'	5:C1:2345:A:H8	1.60	0.66
5:C1:2745:G:N2	5:C1:2748:A:OP2	2.28	0.66
15:LJ:90:GLN:NE2	15:LJ:172:LEU:HD21	2.11	0.66
37:Lg:44:CYS:HB3	37:Lg:47:CYS:SG	2.36	0.66
49:C2:154:G:H1'	52:SG:56:ASN:ND2	2.11	0.66
49:C2:867:G:OP2	59:SN:3:ARG:NH2	2.28	0.66
49:C2:1557:U:O2'	49:C2:1558:U:OP1	2.13	0.66
53:SH:41:LEU:HD23	53:SH:70:PHE:CD1	2.30	0.66
56:SK:14:TYR:HD2	56:SK:15:LEU:HD22	1.59	0.66
4:SB:115:ARG:O	4:SB:118:GLN:NE2	2.23	0.66
5:C1:1382:G:OP2	8:LC:188:ARG:NH2	2.29	0.66
8:LC:295:ILE:O	8:LC:299:ILE:HG12	1.95	0.66
12:LG:28:HIS:ND1	30:LZ:128:GLN:OE1	2.29	0.66
14:LI:16:PRO:HA	14:LI:95:HIS:CD2	2.30	0.66
49:C2:92:A:OP1	49:C2:398:G:N2	2.27	0.66
49:C2:1106:U:H2'	49:C2:1107:G:H8	1.60	0.66
49:C2:1267:G:N2	49:C2:1442:U:O2	2.24	0.66
52:SG:85:ARG:O	52:SG:87:ARG:NH1	2.28	0.66
57:SL:33:ARG:NH2	57:SL:51:GLY:O	2.28	0.66
5:C1:1244:A:N6	5:C1:1271:A:OP1	2.29	0.66
12:LG:97:TYR:HE1	12:LG:204:ARG:HE	1.42	0.66
49:C2:480:G:P	55:SJ:120:LYS:HZ1	2.18	0.66
49:C2:1681:A:H2	49:C2:1720:G:H21	1.42	0.66
58:SM:46:ARG:HH11	58:SM:50:LYS:HZ2	1.42	0.66
65:Sa:83:ILE:HG22	65:Sa:84:VAL:HG13	1.76	0.66
70:SP:41:VAL:HG12	70:SP:84:ILE:HD13	1.76	0.66
5:C1:783:A:H5''	5:C1:784:A:H5''	1.78	0.66
5:C1:1277:C:O2'	5:C1:1278:A:O5'	2.14	0.66
5:C1:2367:A:H2'	5:C1:2368:A:C8	2.31	0.66
22:LR:181:ARG:HH21	22:LR:184:LEU:HD11	1.61	0.66
36:Lf:58:GLU:OE2	36:Lf:62:SER:N	2.29	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:SX:42:PRO:HB3	63:SX:81:LYS:HD2	1.77	0.66
5:C1:1077:U:O3'	9:LD:43:LYS:NZ	2.29	0.66
5:C1:1222:G:N2	5:C1:1285:G:O2'	2.28	0.66
5:C1:2433:U:OP2	5:C1:2434:U:O2'	2.13	0.66
6:C4:39:C:O2'	15:LJ:44:THR:O	2.14	0.66
9:LD:254:LYS:HA	9:LD:254:LYS:HE3	1.77	0.66
30:LZ:70:PRO:HG3	30:LZ:115:LYS:HB2	1.77	0.66
35:Le:6:HIS:ND1	35:Le:7:PRO:O	2.29	0.66
49:C2:594:A:P	55:SJ:38:ASN:HD21	2.19	0.66
4:SB:165:ARG:NH2	49:C2:947:U:OP1	2.29	0.65
5:C1:1597:C:H2'	5:C1:1598:G:H8	1.61	0.65
12:LG:147:LYS:O	12:LG:201:THR:OG1	2.11	0.65
47:P0:115:ALA:H	47:P0:164:LYS:HD3	1.61	0.65
2:SA:20:ALA:HB2	2:SA:172:LEU:HD13	1.78	0.65
5:C1:683:U:OP1	18:LN:204:LYS:NZ	2.28	0.65
5:C1:1571:A:H2'	5:C1:1572:U:O4'	1.96	0.65
5:C1:1799:A:H2'	5:C1:1800:A:H8	1.61	0.65
49:C2:233:C:O2'	49:C2:234:G:N2	2.19	0.65
49:C2:592:A:P	55:SJ:39:LYS:HZ1	2.19	0.65
49:C2:1681:A:O2'	52:SG:31:ARG:NH1	2.29	0.65
63:SX:96:VAL:HG12	63:SX:127:VAL:HG21	1.77	0.65
77:s:59:GLY:HA2	77:s:62:ARG:HB2	1.79	0.65
5:C1:1794:G:O2'	5:C1:1796:G:N2	2.29	0.65
5:C1:2457:G:N1	5:C1:2461:A:N7	2.44	0.65
5:C1:2514:U:H5'	12:LG:68:ARG:HD2	1.78	0.65
5:C1:2552:C:OP1	37:Lg:102:LYS:NZ	2.30	0.65
5:C1:3261:C:OP1	17:LM:126:GLN:NE2	2.29	0.65
5:C1:3371:G:H2'	5:C1:3372:A:C8	2.32	0.65
18:LN:175:ASN:HB2	18:LN:180:PHE:CE2	2.32	0.65
20:LP:31:GLU:OE2	20:LP:61:ARG:N	2.18	0.65
48:P2:90:ARG:HH22	48:P2:94:LYS:HZ2	1.41	0.65
49:C2:614:C:OP1	63:SX:3:LYS:NZ	2.29	0.65
49:C2:923:A:H2'	49:C2:924:A:C8	2.31	0.65
60:SO:60:ALA:HB1	60:SO:101:ALA:HB2	1.77	0.65
75:SU:63:LEU:HB2	75:SU:84:MET:HB2	1.79	0.65
49:C2:384:G:H2'	49:C2:385:A:C8	2.31	0.65
54:SI:100:ALA:HB3	54:SI:169:ILE:HD13	1.77	0.65
5:C1:760:G:O2'	5:C1:770:G:N2	2.29	0.65
5:C1:1459:C:O4'	34:Ld:56:ASN:ND2	2.27	0.65
5:C1:2106:A:H2'	5:C1:2107:A:H8	1.62	0.65
5:C1:2673:A:P	15:LJ:94:ARG:HH12	2.20	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:3375:A:O2'	5:C1:3378:C:OP2	2.13	0.65
25:LU:17:VAL:HA	25:LU:103:TYR:O	1.96	0.65
42:LI:23:LEU:HD11	42:LI:37:TYR:HA	1.79	0.65
49:C2:788:A:OP2	51:SE:108:ARG:NH1	2.29	0.65
57:SL:10:GLU:OE1	57:SL:14:GLN:NE2	2.29	0.65
73:SQ:55:VAL:HG23	73:SQ:59:LYS:NZ	2.11	0.65
3:LB:76:VAL:HG12	3:LB:325:LYS:HA	1.79	0.65
5:C1:1277:C:O2'	5:C1:1278:A:H8	1.80	0.65
9:LD:91:GLY:O	9:LD:94:ASN:ND2	2.29	0.65
1:LA:33:ASP:OD1	1:LA:34:TYR:N	2.27	0.65
4:SB:141:ALA:HB1	4:SB:207:LEU:HD12	1.77	0.65
17:LM:72:LEU:HD12	17:LM:73:PRO:HD2	1.77	0.65
49:C2:231:U:O2	49:C2:235:G:N2	2.30	0.65
5:C1:1259:A:N3	5:C1:1280:C:O2'	2.29	0.65
5:C1:3277:U:OP2	20:LP:175:ARG:NH1	2.29	0.65
14:LI:54:SER:HB2	14:LI:135:ILE:HD11	1.79	0.65
49:C2:7:G:N7	50:SC:205:ARG:NH1	2.45	0.65
49:C2:217:A:N1	49:C2:844:A:O2'	2.30	0.65
49:C2:1086:A:H2'	49:C2:1087:A:C8	2.32	0.65
57:SL:125:VAL:HG22	57:SL:139:VAL:HA	1.78	0.65
67:Se:41:THR:HA	67:Se:45:VAL:HG22	1.78	0.65
71:SZ:52:LYS:HG3	71:SZ:53:GLU:OE1	1.97	0.65
5:C1:638:C:N4	5:C1:639:G:O6	2.30	0.65
5:C1:664:U:H2'	5:C1:665:A:C8	2.31	0.65
5:C1:1709:C:H2'	5:C1:1710:C:H6	1.61	0.65
5:C1:2678:A:OP2	77:s:51:ARG:NH2	2.30	0.65
9:LD:203:HIS:CD2	9:LD:204:VAL:HG13	2.32	0.65
19:LO:113[A]:ASP:OD1	19:LO:114[A]:LYS:N	2.30	0.65
49:C2:1477:G:H2'	49:C2:1478:G:H8	1.62	0.65
49:C2:1500:C:OP1	72:ST:106:GLN:NE2	2.28	0.65
51:SE:255:ARG:O	51:SE:259:GLN:NE2	2.30	0.65
5:C1:1018:G:H2'	5:C1:1019:G:H8	1.62	0.65
5:C1:1139:G:OP2	32:Lb:14:ARG:NH2	2.30	0.65
5:C1:2222:A:H2'	5:C1:2223:A:C8	2.32	0.65
8:LC:266:THR:HG23	8:LC:267:VAL:HG13	1.77	0.65
42:LI:23:LEU:H	42:LI:23:LEU:HD12	1.62	0.65
49:C2:692:C:H2'	49:C2:693:U:C6	2.32	0.65
5:C1:2618:G:O5'	32:Lb:3:LYS:NZ	2.30	0.64
6:C4:74:C:H2'	6:C4:75:G:C8	2.32	0.64
49:C2:29:U:H2'	49:C2:30:G:H8	1.61	0.64
49:C2:108:A:H2'	49:C2:109:G:C8	2.32	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:C2:655:G:H4'	49:C2:656:G:H8	1.62	0.64
49:C2:838:G:H2'	49:C2:839:U:H6	1.61	0.64
49:C2:956:C:H2'	49:C2:957:G:H8	1.63	0.64
49:C2:1497:U:O3'	72:ST:75:LYS:NZ	2.30	0.64
3:LB:35:ASP:OD2	3:LB:37:ARG:NH1	2.29	0.64
4:SB:109:LYS:O	4:SB:112:SER:OG	2.10	0.64
5:C1:148:G:OP2	18:LN:4:TYR:OH	2.15	0.64
5:C1:2597:U:H2'	5:C1:2598:G:H8	1.62	0.64
5:C1:2847:A:H5''	43:Lm:122:ARG:NH1	2.13	0.64
20:LP:67:ILE:HD11	20:LP:80:LYS:HB3	1.77	0.64
42:Ll:33:ASN:OD1	42:Ll:35:ILE:N	2.31	0.64
49:C2:58:U:O2'	49:C2:451:A:N3	2.28	0.64
52:SG:116:LYS:HE3	52:SG:125:THR:HG21	1.79	0.64
53:SH:102:PRO:HD3	53:SH:112:ARG:HD3	1.79	0.64
54:SI:98:LYS:HD3	54:SI:172:ARG:HG3	1.79	0.64
5:C1:2193:U:O2	5:C1:2315:G:N1	2.30	0.64
5:C1:3275:U:N3	5:C1:3277:U:O2	2.31	0.64
9:LD:194:LEU:O	9:LD:197:SER:OG	2.11	0.64
28:LX:60:TYR:OH	38:Lh:26:LYS:NZ	2.25	0.64
49:C2:40:A:H62	49:C2:467:G:H21	1.45	0.64
49:C2:1303:U:O2'	49:C2:1322:A:OP2	2.14	0.64
50:SC:36:VAL:H	50:SC:46:LYS:NZ	1.95	0.64
51:SE:54:TYR:O	64:SY:15:ASN:ND2	2.30	0.64
68:5:60:VAL:HG13	68:5:71:GLU:HB3	1.79	0.64
72:ST:28:LEU:O	72:ST:110:LYS:NZ	2.30	0.64
5:C1:2412:G:H2'	5:C1:2413:A:C8	2.32	0.64
5:C1:2437:G:H1	5:C1:2510:U:H3	1.46	0.64
31:La:27:LYS:O	31:La:28:HIS:ND1	2.30	0.64
51:SE:185:GLY:H	51:SE:189:LEU:HD13	1.62	0.64
5:C1:563:U:H2'	5:C1:564:G:H8	1.63	0.64
5:C1:1856:C:H2'	5:C1:1857:C:H6	1.61	0.64
5:C1:2571:U:H1'	5:C1:2572:C:H2'	1.80	0.64
8:LC:14:GLU:N	8:LC:14:GLU:OE1	2.26	0.64
15:LJ:31:THR:O	15:LJ:34:SER:OG	2.14	0.64
49:C2:276:C:H42	49:C2:281:G:H21	1.45	0.64
49:C2:1494:C:H2'	49:C2:1495:C:C6	2.31	0.64
5:C1:417:A:H2'	5:C1:418:A:H8	1.63	0.64
5:C1:620:U:O2'	36:Lf:60:ARG:NH1	2.29	0.64
5:C1:1019:G:N2	5:C1:1033:U:O2	2.27	0.64
5:C1:1565:G:H1	5:C1:1574:C:H42	1.43	0.64
5:C1:2435:G:H1'	18:LN:24:ARG:HH22	1.60	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:2651:G:HO2'	5:C1:2796:G:H1	1.42	0.64
5:C1:3214:U:OP2	17:LM:128:ARG:NH2	2.29	0.64
16:LL:9:ILE:HD11	31:La:49:HIS:CD2	2.32	0.64
19:LO:39[A]:GLU:HG2	19:LO:40[A]:GLU:HG2	1.78	0.64
31:La:77:LYS:O	31:La:79:TRP:N	2.30	0.64
31:La:88:ASP:OD2	31:La:92:LYS:NZ	2.31	0.64
49:C2:600:U:H2'	49:C2:601:A:H8	1.63	0.64
51:SE:122:LYS:HG2	51:SE:164:LEU:HD11	1.78	0.64
68:5:91:GLN:NE2	68:5:92:LEU:O	2.30	0.64
2:SA:50:VAL:O	2:SA:53:THR:OG1	2.15	0.64
2:SA:139:VAL:HG23	50:SC:62:PRO:HG3	1.78	0.64
5:C1:2464:U:H2'	5:C1:2465:G:C8	2.33	0.64
5:C1:2676:A:N1	15:LJ:22:SER:OG	2.30	0.64
49:C2:523:G:H1	49:C2:527:A:H5''	1.63	0.64
49:C2:1684:U:H2'	49:C2:1685:G:H8	1.62	0.64
60:SO:111:ARG:HE	60:SO:112:ILE:H	1.45	0.64
2:SA:31:VAL:HG12	2:SA:33:GLN:H	1.63	0.64
15:LJ:164:LYS:HZ1	15:LJ:171:VAL:HG23	1.63	0.64
31:La:38:GLN:O	31:La:39:HIS:ND1	2.30	0.64
41:Lk:7:ASP:OD1	41:Lk:10:GLN:HG2	1.97	0.64
49:C2:544:A:O3'	67:Se:31:LYS:NZ	2.24	0.64
49:C2:591:A:H2'	49:C2:592:A:C8	2.32	0.64
55:SJ:83:VAL:O	55:SJ:107:ARG:NH1	2.30	0.64
64:SY:112:LYS:HE3	64:SY:116:LYS:NZ	2.13	0.64
65:Sa:20:PRO:HA	65:Sa:31:PRO:HA	1.79	0.64
1:LA:68:LYS:HZ1	1:LA:70:ARG:HD3	1.61	0.64
5:C1:407:A:N1	7:C3:17:A:H1'	2.13	0.64
5:C1:3074:G:H2'	5:C1:3075:G:H8	1.63	0.64
12:LG:85:ASN:OD1	12:LG:86:THR:N	2.30	0.64
19:LO:189[A]:ASP:OD1	19:LO:190[A]:VAL:N	2.31	0.64
49:C2:1689:A:H2'	49:C2:1690:G:H8	1.62	0.64
5:C1:567:G:H2'	5:C1:568:G:C8	2.32	0.64
5:C1:744:A:H1'	21:LQ:141:ARG:HD2	1.80	0.64
5:C1:1095:U:H3	24:LT:127:GLN:NE2	1.95	0.64
5:C1:1404:G:OP2	35:Le:11:LYS:NZ	2.28	0.64
5:C1:3165:A:H2'	5:C1:3166:C:C6	2.33	0.64
15:LJ:21:ILE:HD12	15:LJ:37:LEU:HD11	1.78	0.64
49:C2:17:C:H2'	49:C2:18:C:C6	2.32	0.64
49:C2:1081:A:O2'	49:C2:1083:G:N7	2.30	0.64
56:SK:9:ASN:OD1	56:SK:10:LYS:N	2.31	0.64
4:SB:2:ALA:N	60:SO:48:VAL:O	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:267:G:H4'	18:LN:50:ARG:HH12	1.62	0.63
49:C2:75:U:H2'	49:C2:76:A:C8	2.33	0.63
49:C2:187:G:N2	49:C2:198:A:H62	1.96	0.63
49:C2:454:U:C4	51:SE:66:MET:HE3	2.33	0.63
49:C2:884:A:H2'	49:C2:885:G:C8	2.33	0.63
55:SJ:158:PHE:HD2	55:SJ:164:PHE:HB3	1.64	0.63
2:SA:24:LEU:O	2:SA:163:ASN:ND2	2.32	0.63
5:C1:49:A:N7	18:LN:187:ARG:NE	2.45	0.63
5:C1:1174:G:N2	19:LO:87[A]:MET:SD	2.71	0.63
5:C1:2909:U:O2'	5:C1:3105:U:O2	2.15	0.63
5:C1:3303:G:O2'	5:C1:3305:A:N6	2.31	0.63
15:LJ:138:VAL:HA	15:LJ:141:ARG:NH1	2.14	0.63
21:LQ:125:ASP:OD1	21:LQ:126:GLN:N	2.30	0.63
49:C2:1160:A:H2'	49:C2:1161:C:C6	2.33	0.63
49:C2:1357:A:H2'	49:C2:1358:G:C8	2.33	0.63
50:SC:175:GLY:N	50:SC:195:ASP:OD2	2.30	0.63
55:SJ:18:PRO:O	55:SJ:23:ARG:NH2	2.31	0.63
4:SB:148:ASN:OD1	49:C2:1066:C:O2'	2.15	0.63
5:C1:1169:A:H4'	11:LF:219:LYS:HZ2	1.62	0.63
5:C1:1188:U:OP1	5:C1:1210:U:O2'	2.15	0.63
5:C1:1778:G:O2'	5:C1:1780:G:OP2	2.12	0.63
5:C1:2836:C:H4'	14:LI:157:TYR:HD2	1.63	0.63
7:C3:126:A:O2'	7:C3:128:U:OP2	2.14	0.63
20:LP:97:ASN:OD1	20:LP:101:ASN:ND2	2.31	0.63
28:LX:121:LYS:NZ	28:LX:123:TYR:OH	2.30	0.63
49:C2:93:A:H4'	51:SE:3:ARG:HH21	1.63	0.63
49:C2:488:G:N1	49:C2:499:U:O4	2.31	0.63
52:SG:136:LYS:NZ	52:SG:173:PRO:HB2	2.14	0.63
5:C1:1615:C:H2'	5:C1:1616:U:C6	2.34	0.63
18:LN:119:TYR:OH	18:LN:131:GLU:OE1	2.11	0.63
49:C2:919:A:H2'	49:C2:920:U:C6	2.33	0.63
49:C2:1380:U:O2'	49:C2:1516:A:N1	2.28	0.63
55:SJ:85:VAL:HG11	55:SJ:104:PHE:HD1	1.63	0.63
65:Sa:36:ILE:HD11	65:Sa:84:VAL:HG11	1.81	0.63
4:SB:158:SER:HA	4:SB:161:ILE:HD12	1.80	0.63
5:C1:1489:A:OP1	37:Lg:10:ARG:NH1	2.32	0.63
5:C1:2632:G:O6	5:C1:2647:A:N6	2.32	0.63
2:SA:183:ARG:NH2	2:SA:191:ARG:O	2.32	0.63
5:C1:282:G:O2'	5:C1:283:G:OP2	2.17	0.63
5:C1:1609:C:H2'	5:C1:1610:G:H8	1.64	0.63
39:Li:29:LYS:HA	39:Li:29:LYS:HE3	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:C2:656:G:O6	49:C2:679:U:O2	2.17	0.63
49:C2:1392:U:H2'	49:C2:1393:C:C6	2.34	0.63
49:C2:1523:G:OP1	72:ST:78:LYS:NZ	2.31	0.63
49:C2:1662:G:H2'	49:C2:1663:G:H8	1.63	0.63
51:SE:160:VAL:HG21	51:SE:169:ILE:HD12	1.81	0.63
64:SY:112:LYS:HE3	64:SY:116:LYS:HZ2	1.62	0.63
5:C1:3314:A:H2'	5:C1:3315:G:C8	2.33	0.63
7:C3:135:G:OP1	28:LX:49:LYS:NZ	2.20	0.63
16:LL:64:LYS:HE3	16:LL:65:TYR:CE1	2.34	0.63
49:C2:1496:U:C2	49:C2:1512:G:O6	2.52	0.63
53:SH:58:LEU:HB2	53:SH:90:VAL:HG12	1.80	0.63
62:SW:102:VAL:HG12	62:SW:113:HIS:HD2	1.64	0.63
4:SB:111:ARG:HH22	65:Sa:67:THR:HA	1.64	0.63
5:C1:1048:A:H2'	14:LI:22:TYR:HE2	1.63	0.63
5:C1:1259:A:N6	47:P0:53:MET:SD	2.72	0.63
5:C1:1822:C:H2'	5:C1:1823:A:H8	1.64	0.63
19:LO:125[A]:ARG:HG3	19:LO:129[A]:LEU:HD13	1.81	0.63
30:LZ:52:LYS:O	30:LZ:65:ARG:NH2	2.32	0.63
31:La:82:ILE:O	31:La:87:ARG:NH2	2.30	0.63
49:C2:326:G:OP1	57:SL:57:LYS:NZ	2.31	0.63
49:C2:1241:G:O4'	70:SP:79:HIS:ND1	2.32	0.63
4:SB:59:ASP:HA	4:SB:62:LYS:HG2	1.81	0.63
5:C1:324:A:H2'	5:C1:325:A:C8	2.34	0.63
5:C1:1269:U:O5'	5:C1:1273:A:N6	2.32	0.63
15:LJ:101:ASN:OD1	15:LJ:130:VAL:HA	1.99	0.63
49:C2:1673:G:H1	49:C2:1728:A:H2	1.43	0.63
52:SG:163:THR:HG23	52:SG:168:THR:HG22	1.79	0.63
63:SX:109:ARG:HB3	63:SX:112:LYS:HB2	1.80	0.63
67:Se:50:VAL:HA	67:Se:54:ARG:HA	1.81	0.63
5:C1:1108:U:H2'	5:C1:1109:U:H6	1.64	0.62
49:C2:712:G:O6	49:C2:726:C:O2'	2.17	0.62
49:C2:1059:U:C4	49:C2:1060:U:H1'	2.34	0.62
49:C2:1532:U:H1'	72:ST:48:GLN:HE22	1.64	0.62
76:Sc:13:ILE:HD13	76:Sc:31:GLU:HB2	1.79	0.62
5:C1:441:U:OP1	5:C1:489:C:N4	2.32	0.62
5:C1:1194:G:H2'	5:C1:1195:A:C8	2.34	0.62
5:C1:1684:U:OP1	25:LU:86:LYS:NZ	2.28	0.62
7:C3:9:A:H2'	7:C3:10:A:C8	2.32	0.62
21:LQ:36:LEU:HB3	21:LQ:45:ASN:ND2	2.13	0.62
26:LV:23:MET:HE1	26:LV:78:VAL:HG12	1.81	0.62
29:LY:55:GLU:HA	29:LY:69:LYS:HA	1.79	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:P2:57:LYS:HE3	48:P2:79:SER:HB2	1.81	0.62
49:C2:1198:G:OP1	49:C2:1199:G:O2'	2.13	0.62
5:C1:448:U:N3	5:C1:487:U:O2	2.32	0.62
5:C1:2520:A:H2'	5:C1:2521:U:C6	2.34	0.62
5:C1:3212:C:OP2	17:LM:124:ARG:NH2	2.20	0.62
12:LG:95:ASN:OD1	12:LG:98:ARG:NH2	2.30	0.62
23:LS:155:ARG:HD3	23:LS:172:TYR:CD1	2.33	0.62
49:C2:144:U:O4	52:SG:137:ARG:NH1	2.26	0.62
49:C2:856:A:N6	53:SH:97:ARG:O	2.32	0.62
49:C2:1739:C:H2'	49:C2:1740:A:H8	1.64	0.62
75:SU:25:THR:HG22	75:SU:115:GLU:HB2	1.81	0.62
4:SB:91:VAL:HG22	4:SB:96:LEU:HG	1.81	0.62
4:SB:144:ARG:HD2	4:SB:208:GLN:HB3	1.80	0.62
5:C1:2678:A:OP1	77:s:48:ARG:NH2	2.33	0.62
16:LL:153:ASP:OD1	16:LL:154:VAL:N	2.32	0.62
49:C2:220:A:H5''	49:C2:832:U:H1'	1.80	0.62
49:C2:751:G:H2'	49:C2:752:A:C8	2.32	0.62
49:C2:898:A:N3	49:C2:899:G:H1'	2.14	0.62
64:SY:103:ALA:O	64:SY:108:ARG:NH2	2.32	0.62
3:LB:109:HIS:N	3:LB:200:GLU:OE2	2.19	0.62
3:LB:112:ASP:O	3:LB:116:ARG:HG3	1.99	0.62
9:LD:94:ASN:OD1	9:LD:97:ALA:N	2.29	0.62
9:LD:210:GLU:O	9:LD:214:ASP:CB	2.47	0.62
10:LE:7:PRO:HG2	10:LE:10:TYR:CZ	2.34	0.62
12:LG:213:LYS:O	12:LG:216:SER:OG	2.14	0.62
49:C2:55:A:H2'	49:C2:403:G:H1	1.64	0.62
49:C2:946:U:H2'	49:C2:947:U:C6	2.34	0.62
51:SE:67:GLN:HG3	51:SE:69:HIS:ND1	2.15	0.62
51:SE:68:ARG:HH21	51:SE:76:VAL:HG21	1.64	0.62
52:SG:39:GLU:HG3	52:SG:46:LYS:HD2	1.81	0.62
5:C1:1108:U:H2'	5:C1:1109:U:C6	2.33	0.62
5:C1:1298:C:O3'	43:Lm:113:ARG:NH2	2.33	0.62
5:C1:1321:G:N2	23:LS:112:ALA:HB2	2.13	0.62
9:LD:206:GLN:NE2	9:LD:210:GLU:OE2	2.32	0.62
21:LQ:89:ASP:OD1	21:LQ:90:ASP:N	2.32	0.62
49:C2:826:U:N3	49:C2:846:G:O6	2.22	0.62
49:C2:1132:A:H2'	49:C2:1133:A:H8	1.64	0.62
49:C2:1456:C:H5''	49:C2:1457:C:H5''	1.80	0.62
54:SI:85:PRO:O	57:SL:11:ARG:NH1	2.33	0.62
3:LB:283:TYR:CE2	3:LB:325:LYS:HB2	2.34	0.62
4:SB:62:LYS:HA	4:SB:62:LYS:HE3	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:1018:G:H2'	5:C1:1019:G:C8	2.35	0.62
5:C1:1109:U:H4'	21:LQ:153:PHE:CE2	2.35	0.62
14:LI:76:MET:HE1	14:LI:151:GLY:HA3	1.81	0.62
16:LL:169:THR:HG23	16:LL:170:LEU:HD12	1.81	0.62
40:Lj:28:HIS:CE1	40:Lj:31:LYS:HZ3	2.18	0.62
49:C2:52:U:O4	49:C2:424:C:N4	2.33	0.62
49:C2:78:A:OP1	52:SG:154:ARG:NH2	2.32	0.62
49:C2:537:G:H5''	55:SJ:175:ARG:HH22	1.65	0.62
49:C2:598:U:H2'	49:C2:599:A:H8	1.63	0.62
5:C1:1190:A:H2	19:LO:49[A]:ARG:HH12	1.47	0.62
5:C1:3181:C:C4	5:C1:3182:G:C6	2.88	0.62
6:C4:42:A:C1'	15:LJ:72:ARG:HH12	2.12	0.62
10:LE:72:ASN:OD1	10:LE:73:GLY:N	2.32	0.62
12:LG:208:GLU:OE2	12:LG:208:GLU:N	2.24	0.62
54:SI:116:HIS:CE1	54:SI:146:ARG:HD3	2.35	0.62
62:SW:111:MET:HE2	62:SW:115:GLU:HG2	1.80	0.62
64:SY:27:VAL:HG11	64:SY:35:VAL:HG21	1.81	0.62
5:C1:791:A:H2'	5:C1:792:G:H8	1.64	0.62
5:C1:1712:G:N2	5:C1:1733:G:O6	2.33	0.62
6:C4:97:A:O4'	11:LF:225:GLN:NE2	2.21	0.62
17:LM:96:ALA:O	17:LM:101:LYS:NZ	2.32	0.62
21:LQ:120:GLU:OE2	21:LQ:130:ARG:NH1	2.29	0.62
49:C2:306:U:OP2	57:SL:105:LYS:NZ	2.33	0.62
49:C2:695:U:O2'	49:C2:697:C:OP1	2.17	0.62
49:C2:982:U:O4	49:C2:983:A:N6	2.33	0.62
54:SI:110:ARG:NH1	54:SI:114:GLU:OE2	2.33	0.62
58:SM:58:LEU:HD22	58:SM:125:ASN:H	1.63	0.62
5:C1:503:C:H2'	5:C1:504:A:H8	1.64	0.62
5:C1:788:C:H2'	5:C1:789:A:H8	1.64	0.62
5:C1:952:A:O3'	32:Lb:15:LYS:NZ	2.29	0.62
5:C1:1132:C:H2'	5:C1:1133:A:H8	1.65	0.62
5:C1:2534:G:H2'	5:C1:2535:A:C8	2.35	0.62
5:C1:3201:C:H2'	5:C1:3202:G:H8	1.65	0.62
5:C1:3276:G:H5'	10:LE:48:ARG:NH2	2.15	0.62
8:LC:14:GLU:HG2	8:LC:15:ALA:H	1.65	0.62
23:LS:16:THR:HG23	23:LS:19:VAL:H	1.65	0.62
49:C2:605:A:OP2	49:C2:606:A:O2'	2.14	0.62
49:C2:826:U:H2'	49:C2:827:C:C6	2.35	0.62
49:C2:911:U:H1'	49:C2:915:A:H1'	1.82	0.62
53:SH:44:LYS:HE2	53:SH:63:PRO:HA	1.81	0.62
53:SH:73:VAL:HG13	53:SH:77:LEU:HD23	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:SB:38:PHE:HD1	4:SB:74:GLN:HE22	1.46	0.61
5:C1:417:A:H2'	5:C1:418:A:C8	2.34	0.61
5:C1:1014:U:H3	5:C1:1036:A:H61	1.47	0.61
5:C1:2137:U:OP2	5:C1:2142:A:N6	2.31	0.61
5:C1:2254:U:H2'	5:C1:2261:G:N2	2.14	0.61
5:C1:2424:A:H5''	18:LN:90:ASN:HD21	1.65	0.61
5:C1:3016:A:H2'	5:C1:3017:A:H8	1.65	0.61
5:C1:3209:A:N7	17:LM:106:ARG:NH2	2.47	0.61
25:LU:56:VAL:HG22	25:LU:65:VAL:HG22	1.82	0.61
38:Lh:38:ARG:NH1	38:Lh:38:ARG:HB2	2.15	0.61
49:C2:135:A:H4'	49:C2:136:C:H5'	1.81	0.61
49:C2:1650:U:H2'	49:C2:1651:A:C8	2.34	0.61
56:SK:8:ARG:HB3	56:SK:12:HIS:HE1	1.65	0.61
5:C1:633:C:O2'	36:Lf:21:ARG:O	2.18	0.61
5:C1:2863:G:O3'	14:LI:112:GLN:NE2	2.32	0.61
9:LD:211:LEU:HD21	9:LD:219:PHE:HA	1.82	0.61
19:LO:157[A]:GLU:OE2	19:LO:160[A]:ARG:NH2	2.33	0.61
49:C2:522:U:OP1	64:SY:37:LYS:NZ	2.33	0.61
57:SL:78:THR:HA	57:SL:84:ILE:HG22	1.82	0.61
4:SB:198:GLU:HA	4:SB:201:THR:HG22	1.80	0.61
5:C1:409:A:H8	5:C1:410:U:C6	2.18	0.61
5:C1:1805:C:H2'	5:C1:1806:A:C8	2.33	0.61
31:La:11:HIS:ND1	31:La:17:ALA:O	2.34	0.61
31:La:77:LYS:C	31:La:79:TRP:H	2.08	0.61
49:C2:748:U:OP1	62:SW:82:LYS:NZ	2.33	0.61
49:C2:1400:A:H2'	49:C2:1401:A:C8	2.35	0.61
53:SH:158:ASP:OD1	53:SH:161:GLN:NE2	2.33	0.61
57:SL:8:GLN:NE2	57:SL:14:GLN:O	2.33	0.61
3:LB:213:GLU:OE1	3:LB:340:LYS:NZ	2.33	0.61
5:C1:1883:A:OP1	34:Ld:34:LYS:NZ	2.33	0.61
5:C1:2254:U:H2'	5:C1:2261:G:H22	1.65	0.61
5:C1:2442:G:H1	5:C1:2505:U:H3	1.46	0.61
5:C1:2882:U:H2'	5:C1:2883:U:C6	2.36	0.61
5:C1:3227:A:O3'	17:LM:133:LYS:NZ	2.32	0.61
15:LJ:54:VAL:HG12	15:LJ:59:ILE:HG12	1.82	0.61
42:Ll:27:ILE:HG23	42:Ll:30:ARG:NH1	2.13	0.61
49:C2:183:U:H2'	49:C2:184:C:H6	1.65	0.61
49:C2:1648:A:H2'	49:C2:1649:G:H8	1.64	0.61
53:SH:140:VAL:HB	62:SW:52:TYR:HB3	1.81	0.61
59:SN:30:SER:O	59:SN:34:ILE:HD12	2.00	0.61
70:SP:95:GLY:HA2	70:SP:103:ASN:O	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:SQ:98:ASP:OD1	73:SQ:101:SER:OG	2.13	0.61
4:SB:128:LYS:HE2	4:SB:132:ASP:HA	1.83	0.61
5:C1:915:A:O2'	5:C1:917:A:OP1	2.15	0.61
5:C1:1238:C:OP1	48:P2:79:SER:OG	2.12	0.61
13:LH:25:VAL:O	13:LH:35:THR:HA	2.00	0.61
34:Ld:49:VAL:HG12	34:Ld:91:SER:HB2	1.82	0.61
49:C2:647:G:H22	49:C2:687:G:H1	1.49	0.61
49:C2:1078:C:H2'	49:C2:1079:U:H6	1.65	0.61
62:SW:90:THR:HA	62:SW:94:LEU:HD12	1.82	0.61
72:ST:53:TRP:HA	72:ST:56:LYS:HZ3	1.65	0.61
3:LB:43:LEU:HD12	3:LB:181:ILE:HG21	1.83	0.61
5:C1:1259:A:H2'	5:C1:1260:A:C8	2.36	0.61
6:C4:23:A:H2'	6:C4:24:A:C8	2.36	0.61
10:LE:154:LEU:HD13	10:LE:157:GLN:HE21	1.64	0.61
14:LI:206:LEU:O	14:LI:210:ILE:HG12	2.00	0.61
36:Lf:50:ALA:HB2	36:Lf:68:TRP:CZ3	2.35	0.61
47:P0:31:ASP:OD1	47:P0:83:ASN:ND2	2.33	0.61
47:P0:55:LYS:HB2	47:P0:57:THR:HG23	1.82	0.61
49:C2:92:A:H5''	49:C2:93:A:H5''	1.82	0.61
49:C2:458:G:P	64:SY:105:ARG:HH22	2.23	0.61
49:C2:625:C:H2'	49:C2:626:U:C6	2.35	0.61
49:C2:655:G:H4'	49:C2:656:G:C8	2.35	0.61
49:C2:1340:U:H5''	49:C2:1341:A:H5''	1.82	0.61
68:5:99:PHE:HA	68:5:114:LYS:HA	1.82	0.61
4:SB:191:GLU:HB2	4:SB:194:ASN:HB2	1.82	0.61
5:C1:2196:C:H2'	5:C1:2242:A:H61	1.66	0.61
49:C2:1482:C:P	49:C2:1521:G:H1	2.23	0.61
49:C2:1791:A:H3'	65:Sa:8:ASN:HB3	1.83	0.61
64:SY:81:GLU:HA	64:SY:84:LYS:HG2	1.82	0.61
66:Sb:12:ALA:HA	66:Sb:15:GLU:HG2	1.83	0.61
71:SZ:83:LEU:HD22	71:SZ:89:ILE:HG12	1.82	0.61
5:C1:1110:U:H2'	5:C1:1111:U:C6	2.35	0.61
5:C1:1834:U:OP2	42:LI:10:LYS:NZ	2.27	0.61
37:Lg:46:ASP:OD2	37:Lg:88:ARG:NH2	2.33	0.61
49:C2:340:U:H2'	49:C2:341:A:C8	2.33	0.61
52:SG:70:PRO:HB3	52:SG:101:ILE:HB	1.81	0.61
53:SH:67:LEU:HD21	53:SH:94:ALA:HB2	1.82	0.61
2:SA:3:LEU:HG	2:SA:5:ALA:H	1.66	0.61
5:C1:598:A:OP1	11:LF:41:ARG:NH1	2.33	0.61
5:C1:1279:C:H2'	5:C1:1280:C:C6	2.36	0.61
5:C1:1339:C:H2'	5:C1:1340:G:H8	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:1370:G:H2'	5:C1:1371:G:H8	1.66	0.61
5:C1:2213:A:H2'	5:C1:2214:A:C8	2.36	0.61
5:C1:2468:A:H1'	5:C1:2477:G:N2	2.16	0.61
7:C3:43:A:H2'	7:C3:44:A:H8	1.66	0.61
11:LF:210:PRO:HD3	11:LF:243:MET:HE2	1.82	0.61
49:C2:449:C:H2'	49:C2:450:U:C6	2.36	0.61
49:C2:1080:U:H2'	49:C2:1081:A:C8	2.36	0.61
49:C2:1487:A:H2'	49:C2:1488:G:H8	1.64	0.61
52:SG:38:GLY:HA2	52:SG:41:VAL:HG12	1.81	0.61
72:ST:22:LEU:HB3	72:ST:28:LEU:HD11	1.81	0.61
5:C1:562:C:OP2	17:LM:77:ARG:NH2	2.32	0.61
5:C1:1119:C:H2'	5:C1:1120:A:H8	1.65	0.61
28:LX:53:HIS:CG	28:LX:56:ARG:HH12	2.19	0.61
31:La:125:VAL:HG23	31:La:145:VAL:HG23	1.82	0.61
49:C2:199:G:H2'	49:C2:200:A:H8	1.66	0.61
49:C2:300:A:H2'	49:C2:301:A:H8	1.66	0.61
49:C2:884:A:H2'	49:C2:885:G:H8	1.66	0.61
49:C2:1192:C:OP2	49:C2:1193:A:O2'	2.19	0.61
49:C2:1648:A:H2'	49:C2:1649:G:C8	2.36	0.61
1:LA:55:GLY:HA3	1:LA:174:ARG:HH12	1.65	0.60
5:C1:1433:A:O2'	5:C1:1434:G:O4'	2.19	0.60
5:C1:2662:G:H2'	5:C1:2663:G:C8	2.36	0.60
5:C1:3034:C:H2'	5:C1:3035:A:H8	1.65	0.60
24:LT:17:ARG:HE	24:LT:47:SER:HB3	1.65	0.60
24:LT:71:SER:OG	24:LT:72:VAL:N	2.34	0.60
49:C2:17:C:H2'	49:C2:18:C:H6	1.65	0.60
55:SJ:100:LYS:HD2	55:SJ:102:GLU:HG3	1.83	0.60
64:SY:9:THR:HG22	64:SY:25:VAL:HG12	1.83	0.60
72:ST:65:ILE:HG12	72:ST:71:VAL:HG21	1.82	0.60
5:C1:1630:U:OP1	30:LZ:67:LYS:NZ	2.32	0.60
29:LY:56:VAL:HG11	29:LY:104:LEU:HD13	1.82	0.60
46:Lp:39:CYS:O	46:Lp:43:GLY:N	2.32	0.60
49:C2:122:U:O3'	51:SE:77:ARG:NH2	2.34	0.60
49:C2:188:A:H3'	49:C2:189:C:H6	1.66	0.60
75:SU:53:LYS:HD3	75:SU:92:ASP:HB2	1.83	0.60
3:LB:216:ASP:OD1	3:LB:278:ILE:HA	2.02	0.60
5:C1:267:G:O3'	18:LN:50:ARG:NH2	2.34	0.60
5:C1:584:G:H2'	5:C1:585:A:C8	2.37	0.60
19:LO:110[A]:PRO:O	19:LO:112[A]:TYR:N	2.33	0.60
23:LS:48:LEU:O	23:LS:49:HIS:ND1	2.34	0.60
30:LZ:33:SER:N	30:LZ:36:HIS:O	2.33	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:C2:149:C:N3	49:C2:166:C:N4	2.49	0.60
49:C2:447:U:H2'	49:C2:448:C:O4'	2.01	0.60
51:SE:105:VAL:HG21	51:SE:245:LYS:H	1.67	0.60
1:LA:179:LEU:HB2	5:C1:2149:A:H4'	1.82	0.60
4:SB:56:SER:OG	4:SB:59:ASP:OD2	2.18	0.60
38:Lh:17:LEU:HB3	38:Lh:58:ILE:HD11	1.82	0.60
49:C2:959:U:H5''	59:SN:14:SER:HB3	1.84	0.60
49:C2:1344:A:O2'	49:C2:1345:A:OP1	2.17	0.60
49:C2:1469:A:H2'	49:C2:1470:C:C6	2.35	0.60
50:SC:36:VAL:H	50:SC:46:LYS:HZ1	1.47	0.60
72:ST:52:GLY:C	72:ST:54:PHE:H	2.10	0.60
76:Sc:50:GLU:OE2	76:Sc:51:ASN:ND2	2.34	0.60
1:LA:204:MET:HE3	5:C1:914:A:N1	2.16	0.60
5:C1:516:A:H2'	5:C1:517:G:H8	1.65	0.60
5:C1:1562:C:H2'	5:C1:1563:C:H6	1.65	0.60
5:C1:2679:A:O2'	15:LJ:52:TYR:OH	2.17	0.60
5:C1:2683:U:H2'	5:C1:2684:C:C6	2.36	0.60
49:C2:329:G:H2'	49:C2:330:G:C8	2.36	0.60
49:C2:542:A:N1	67:Se:28:LYS:NZ	2.48	0.60
49:C2:1291:G:OP1	50:SC:119:LYS:NZ	2.33	0.60
58:SM:60:VAL:HG22	58:SM:122:VAL:HG22	1.84	0.60
69:Sf:137:ASP:O	69:Sf:151:ASN:ND2	2.34	0.60
74:Sd:33:LYS:HG2	74:Sd:34:TYR:HD1	1.66	0.60
1:LA:193:ARG:NH2	5:C1:2174:G:OP2	2.26	0.60
4:SB:78:ASP:OD1	4:SB:79:HIS:N	2.35	0.60
5:C1:20:A:H2'	5:C1:21:G:C8	2.35	0.60
5:C1:288:C:OP1	18:LN:170:LYS:NZ	2.28	0.60
5:C1:1129:A:OP1	14:LI:13:LYS:NZ	2.27	0.60
5:C1:1329:U:OP1	36:Lf:17:GLN:NE2	2.27	0.60
5:C1:2407:C:H2'	5:C1:2408:U:H6	1.66	0.60
5:C1:2673:A:OP1	15:LJ:94:ARG:NH2	2.27	0.60
5:C1:2717:U:O3'	45:Lo:13:LYS:NZ	2.35	0.60
5:C1:3185:U:O2'	23:LS:170:THR:OG1	2.17	0.60
5:C1:3234:A:N1	5:C1:3253:G:N2	2.42	0.60
11:LF:110:ARG:NH2	21:LQ:3:ILE:HD11	2.17	0.60
49:C2:194:U:H2'	49:C2:195:G:H4'	1.84	0.60
49:C2:199:G:H2'	49:C2:200:A:C8	2.35	0.60
49:C2:473:A:H2'	49:C2:474:A:O4'	2.01	0.60
50:SC:146:THR:O	50:SC:148:LEU:N	2.35	0.60
74:Sd:44:ARG:NH1	75:SU:80:GLU:OE1	2.35	0.60
3:LB:106:TRP:HB2	3:LB:133:TYR:CE2	2.37	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:LB:238:LEU:HB2	3:LB:246:LEU:O	2.01	0.60
5:C1:147:U:C4	12:LG:157:VAL:HG23	2.37	0.60
5:C1:1178:G:N3	5:C1:1328:C:O2'	2.33	0.60
5:C1:1786:G:H2'	5:C1:1787:A:H8	1.66	0.60
5:C1:1908:A:H2'	5:C1:1909:A:C8	2.37	0.60
5:C1:2255:A:HO2'	49:C2:1757:G:HO2'	1.36	0.60
5:C1:2427:U:H2'	5:C1:2428:U:C6	2.35	0.60
7:C3:76:C:H2'	7:C3:77:A:C8	2.37	0.60
23:LS:66:GLU:OE2	23:LS:99:ARG:N	2.24	0.60
49:C2:279:G:C5	49:C2:281:G:H1'	2.36	0.60
49:C2:327:U:H2'	49:C2:328:A:C8	2.36	0.60
49:C2:1496:U:O2	49:C2:1512:G:O6	2.19	0.60
53:SH:137:GLY:HA2	59:SN:18:TYR:HE2	1.65	0.60
61:SV:79:LEU:O	61:SV:80:LYS:HD3	2.02	0.60
62:SW:111:MET:HE1	62:SW:116:ALA:HA	1.82	0.60
76:Sc:8:THR:HG21	76:Sc:59:SER:HB2	1.83	0.60
5:C1:2998:U:H2'	5:C1:2999:U:C6	2.36	0.60
5:C1:3252:G:H2'	5:C1:3253:G:C8	2.36	0.60
5:C1:3332:U:OP2	27:LW:35:LYS:NZ	2.34	0.60
15:LJ:29:ARG:HA	15:LJ:32:ARG:HH11	1.67	0.60
15:LJ:82:ARG:HG2	15:LJ:112:LEU:HD12	1.84	0.60
22:LR:42:ARG:HA	22:LR:45:VAL:HG12	1.83	0.60
49:C2:14:C:OP1	50:SC:164:SER:OG	2.17	0.60
49:C2:1196:A:H4'	49:C2:1197:C:H5''	1.84	0.60
49:C2:1206:U:OP2	49:C2:1207:C:O2'	2.20	0.60
52:SG:31:ARG:N	52:SG:34:GLN:HE22	2.00	0.60
53:SH:141:ARG:NH1	53:SH:143:LEU:HD21	2.17	0.60
55:SJ:63:ASP:OD1	55:SJ:64:GLU:N	2.35	0.60
63:SX:62:LYS:HE3	63:SX:118:PRO:HB3	1.84	0.60
5:C1:129:U:H2'	5:C1:130:A:H8	1.65	0.60
5:C1:562:C:P	17:LM:77:ARG:HH22	2.25	0.60
5:C1:1084:A:H2'	5:C1:1085:A:H8	1.66	0.60
5:C1:1162:U:H4'	35:Le:57:TYR:CE1	2.37	0.60
5:C1:1362:G:H2'	5:C1:1363:A:H8	1.65	0.60
5:C1:1465:A:H2'	5:C1:1466:G:O4'	2.01	0.60
5:C1:2458:A:OP1	5:C1:2459:A:N6	2.27	0.60
5:C1:2697:A:H2'	5:C1:2698:G:H8	1.65	0.60
5:C1:3303:G:C6	5:C1:3305:A:C2	2.90	0.60
7:C3:47:C:O2'	7:C3:62:C:OP2	2.13	0.60
47:P0:24:SER:HB2	47:P0:89:THR:H	1.67	0.60
47:P0:55:LYS:N	47:P0:61:ARG:HH22	1.97	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:C2:754:A:H2'	49:C2:793:A:H2	1.66	0.60
49:C2:896:U:H2'	49:C2:897:C:C6	2.37	0.60
49:C2:939:A:H2'	49:C2:940:A:C8	2.37	0.60
53:SH:80:GLU:O	53:SH:84:LYS:HG2	2.02	0.60
53:SH:141:ARG:HG2	62:SW:51:GLU:OE1	2.01	0.60
55:SJ:109:LEU:HB2	55:SJ:146:PHE:HB3	1.84	0.60
59:SN:35:GLU:HA	59:SN:38:VAL:HG22	1.84	0.60
77:s:59:GLY:HA2	77:s:62:ARG:HD3	1.83	0.60
5:C1:1117:G:O6	5:C1:1142:G:N2	2.35	0.60
5:C1:1505:C:H2'	5:C1:1506:A:H8	1.67	0.60
5:C1:3217:C:C4	20:LP:182:ILE:HD11	2.37	0.60
33:Lc:9:SER:N	33:Lc:12:GLN:HE22	2.00	0.60
49:C2:16:G:H2'	49:C2:17:C:C6	2.37	0.60
49:C2:950:C:H2'	49:C2:951:A:C8	2.37	0.60
51:SE:79:ASP:HB3	51:SE:82:TYR:HB2	1.82	0.60
52:SG:214:LYS:O	52:SG:217:SER:OG	2.12	0.60
5:C1:294:U:H5''	39:Li:53:TYR:CE1	2.37	0.59
5:C1:656:A:H2'	5:C1:657:A:H8	1.66	0.59
5:C1:663:C:H2'	5:C1:664:U:H6	1.66	0.59
5:C1:1288:U:H2'	5:C1:1289:G:H8	1.67	0.59
37:Lg:83:ASN:OD1	37:Lg:84:CYS:N	2.35	0.59
49:C2:68:A:OP1	52:SG:160:ARG:NH2	2.34	0.59
49:C2:451:A:N6	49:C2:453:U:O2	2.35	0.59
49:C2:1041:G:H2'	49:C2:1042:G:C8	2.37	0.59
49:C2:1136:U:O4	63:SX:112:LYS:NZ	2.29	0.59
55:SJ:15:PRO:HD3	55:SJ:43:TYR:HE1	1.66	0.59
60:SO:84:ARG:HG2	60:SO:119:THR:HA	1.84	0.59
5:C1:358:G:N2	5:C1:361:A:OP2	2.33	0.59
5:C1:2465:G:N2	5:C1:2490:C:O2'	2.31	0.59
5:C1:2836:C:H4'	14:LI:157:TYR:CD2	2.36	0.59
7:C3:141:C:OP1	18:LN:109:ARG:NH2	2.35	0.59
47:P0:158:VAL:HG12	47:P0:159:VAL:HG13	1.83	0.59
49:C2:1592:A:H2'	49:C2:1593:A:C8	2.37	0.59
49:C2:1690:G:H2'	49:C2:1691:A:H8	1.65	0.59
51:SE:72:VAL:N	51:SE:75:LYS:O	2.34	0.59
52:SG:31:ARG:HG2	52:SG:32:ILE:H	1.66	0.59
4:SB:165:ARG:HH22	49:C2:947:U:P	2.25	0.59
5:C1:449:U:O2'	5:C1:450:G:N2	2.35	0.59
5:C1:815:G:N2	5:C1:920:A:OP2	2.36	0.59
5:C1:1244:A:N1	5:C1:1271:A:H5'	2.16	0.59
5:C1:1486:G:H21	37:Lg:6:THR:HG22	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:2775:U:O3'	5:C1:2777:G:N2	2.35	0.59
5:C1:2816:G:N2	5:C1:2819:A:OP2	2.34	0.59
5:C1:3138:U:H2'	5:C1:3139:A:H8	1.66	0.59
5:C1:3150:A:H2'	5:C1:3151:U:O4'	2.02	0.59
49:C2:409:C:H2'	49:C2:410:A:H8	1.66	0.59
49:C2:629:U:OP2	49:C2:969:C:N4	2.35	0.59
49:C2:803:A:H2'	53:SH:104:ARG:HH11	1.67	0.59
60:SO:14:PHE:CD1	60:SO:78:ALA:HB3	2.38	0.59
1:LA:244:GLY:HA3	5:C1:2242:A:H5''	1.84	0.59
5:C1:656:A:H2'	5:C1:657:A:C8	2.38	0.59
5:C1:2794:G:O2'	5:C1:2795:U:OP2	2.19	0.59
12:LG:160:ILE:O	12:LG:164:VAL:HG13	2.03	0.59
49:C2:471:A:O2'	55:SJ:9:SER:O	2.15	0.59
49:C2:1260:U:H2'	49:C2:1261:G:H8	1.67	0.59
49:C2:1315:U:OP1	49:C2:1328:G:N2	2.35	0.59
49:C2:1583:A:H1'	49:C2:1585:U:C2	2.37	0.59
52:SG:102:VAL:HG13	52:SG:106:LEU:HD12	1.84	0.59
1:LA:42:ARG:HD3	1:LA:87:PHE:CD2	2.37	0.59
5:C1:116:A:OP2	18:LN:2:GLY:N	2.36	0.59
5:C1:294:U:OP2	18:LN:15:GLN:NE2	2.26	0.59
5:C1:359:U:O3'	40:Lj:25:ARG:NH2	2.35	0.59
5:C1:1460:A:H2'	5:C1:1461:A:H8	1.66	0.59
5:C1:1810:A:H2'	5:C1:1811:G:C8	2.38	0.59
5:C1:2344:U:H2'	5:C1:2345:A:C8	2.37	0.59
9:LD:186:GLU:OE1	9:LD:187:THR:OG1	2.21	0.59
10:LE:66:THR:OG1	10:LE:76:LEU:HD13	2.02	0.59
12:LG:158:ASP:OD1	12:LG:159:PRO:HD3	2.03	0.59
38:Lh:70:TYR:HD2	38:Lh:77:PRO:HD3	1.67	0.59
49:C2:1789:G:OP1	65:Sa:17:HIS:NE2	2.33	0.59
63:SX:70:LYS:HB3	63:SX:93:LEU:HD12	1.85	0.59
71:SZ:67:ASP:OD1	71:SZ:68:ARG:N	2.35	0.59
71:SZ:95:HIS:ND1	71:SZ:96:SER:O	2.35	0.59
5:C1:411:U:H2'	5:C1:412:G:H8	1.67	0.59
5:C1:2432:A:N6	5:C1:2598:G:O6	2.35	0.59
5:C1:2661:G:H2'	5:C1:2662:G:H8	1.68	0.59
12:LG:104:GLU:OE1	12:LG:104:GLU:N	2.29	0.59
20:LP:110:THR:HG23	20:LP:111:LYS:HG3	1.85	0.59
49:C2:1155:G:N2	49:C2:1624:C:N3	2.50	0.59
50:SC:180:ALA:HB1	50:SC:184:VAL:HG23	1.85	0.59
5:C1:216:G:H4'	29:LY:19:TYR:CE2	2.38	0.59
5:C1:296:A:H2'	5:C1:297:G:N3	2.17	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:3319:U:O2'	5:C1:3320:A:OP1	2.19	0.59
6:C4:62:U:OP2	9:LD:276:LYS:NZ	2.34	0.59
9:LD:294:ALA:HB1	14:LI:217:PHE:HB3	1.83	0.59
31:La:75:LEU:HD21	31:La:134:ALA:HB1	1.83	0.59
49:C2:1229:G:N2	49:C2:1255:G:O2'	2.29	0.59
49:C2:1392:U:H2'	49:C2:1393:C:H6	1.68	0.59
62:SW:6:VAL:HG23	62:SW:29:PRO:HG2	1.84	0.59
73:SQ:113:ASP:OD2	73:SQ:116:LEU:N	2.35	0.59
76:Sc:15:VAL:HA	76:Sc:28:VAL:HG23	1.85	0.59
5:C1:1095:U:H3	24:LT:127:GLN:HE22	1.49	0.59
5:C1:1634:G:OP1	30:LZ:107:ARG:NH1	2.35	0.59
5:C1:2889:C:H2'	5:C1:2890:A:H8	1.68	0.59
52:SG:44:GLU:O	52:SG:119:GLN:NE2	2.28	0.59
53:SH:85:PHE:CE2	53:SH:88:ARG:HG3	2.38	0.59
70:SP:20:VAL:HG13	70:SP:25:LEU:HD11	1.85	0.59
72:ST:73:VAL:O	72:ST:77:ASN:ND2	2.36	0.59
5:C1:269:G:H5''	18:LN:14:LYS:NZ	2.18	0.59
5:C1:1760:A:N7	5:C1:1761:C:N4	2.51	0.59
8:LC:237:GLN:O	8:LC:246:ARG:HD2	2.03	0.59
18:LN:64:VAL:HG11	18:LN:102:ALA:HB1	1.85	0.59
49:C2:29:U:H2'	49:C2:30:G:C8	2.37	0.59
49:C2:85:A:N3	49:C2:148:A:O2'	2.34	0.59
49:C2:327:U:H2'	49:C2:328:A:H8	1.68	0.59
49:C2:838:G:H2'	49:C2:839:U:C6	2.37	0.59
73:SQ:22:VAL:HG23	73:SQ:65:ILE:HG13	1.84	0.59
5:C1:37:U:N3	5:C1:47:C:O2	2.36	0.59
5:C1:1230:G:H4'	47:P0:34:SER:HA	1.85	0.59
6:C4:41:G:N2	6:C4:45:A:C4	2.71	0.59
6:C4:49:G:C4	9:LD:58:LYS:HE2	2.38	0.59
12:LG:214:LEU:O	12:LG:218:ILE:HG12	2.03	0.59
49:C2:1628:U:H2'	49:C2:1629:G:H8	1.67	0.59
1:LA:4:VAL:HG13	1:LA:8:GLN:HE21	1.68	0.58
5:C1:428:A:H2'	5:C1:429:U:C6	2.38	0.58
5:C1:1330:A:OP1	36:Lf:19:SER:OG	2.19	0.58
5:C1:1896:A:N6	5:C1:2339:C:N4	2.48	0.58
5:C1:1909:A:H2'	5:C1:1910:A:C8	2.38	0.58
5:C1:2250:G:O6	5:C1:2267:C:N4	2.35	0.58
5:C1:3092:C:O2'	5:C1:3093:C:O5'	2.20	0.58
5:C1:3233:C:H2'	5:C1:3234:A:C8	2.37	0.58
21:LQ:150:VAL:HA	21:LQ:153:PHE:CD1	2.38	0.58
36:Lf:59:VAL:HG13	36:Lf:60:ARG:H	1.66	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:C2:647:G:N2	49:C2:687:G:H22	2.00	0.58
49:C2:990:C:H2'	49:C2:991:G:O4'	2.03	0.58
52:SG:123:GLY:O	52:SG:127:THR:OG1	2.18	0.58
59:SN:46:THR:H	59:SN:49:GLN:NE2	2.01	0.58
73:SQ:55:VAL:HG23	73:SQ:59:LYS:HZ2	1.67	0.58
2:SA:117:GLU:HG3	50:SC:40:LYS:HZ3	1.67	0.58
3:LB:53:MET:HB2	5:C1:3049:A:H5'	1.85	0.58
5:C1:546:C:H5'	5:C1:547:G:C4	2.38	0.58
5:C1:883:A:N7	5:C1:921:A:N6	2.52	0.58
5:C1:2206:G:O2'	5:C1:2208:A:N7	2.36	0.58
15:LJ:16:LYS:HE3	15:LJ:72:ARG:HH21	1.68	0.58
49:C2:160:C:H2'	49:C2:161:U:O4'	2.03	0.58
49:C2:1081:A:H1'	49:C2:1082:C:N3	2.18	0.58
49:C2:1097:U:O2'	50:SC:168:ARG:NH1	2.32	0.58
49:C2:1151:A:H2'	49:C2:1152:A:C8	2.38	0.58
49:C2:1593:A:H2'	49:C2:1594:G:H8	1.67	0.58
51:SE:11:ARG:NH2	51:SE:24:SER:O	2.36	0.58
56:SK:8:ARG:O	56:SK:12:HIS:ND1	2.37	0.58
60:SO:106:ALA:HB1	60:SO:107:ARG:HH11	1.67	0.58
72:ST:5:SER:N	72:ST:8:ASP:OD2	2.35	0.58
5:C1:1460:A:H2'	5:C1:1461:A:C8	2.38	0.58
5:C1:2185:G:O2'	5:C1:2314:U:OP2	2.20	0.58
5:C1:2526:C:H2'	5:C1:2527:G:H8	1.69	0.58
7:C3:9:A:H2'	7:C3:10:A:H8	1.68	0.58
49:C2:174:U:O4	49:C2:266:A:N7	2.36	0.58
49:C2:568:G:H4'	63:SX:90:ASP:HB2	1.84	0.58
49:C2:647:G:H1	49:C2:687:G:H1	1.51	0.58
49:C2:817:A:H2'	49:C2:818:C:C6	2.38	0.58
49:C2:1534:G:O6	71:SZ:77:ARG:NH1	2.37	0.58
51:SE:247:SER:N	51:SE:250:GLU:OE2	2.36	0.58
60:SO:133:ARG:HH21	60:SO:136:ARG:HH22	1.50	0.58
64:SY:105:ARG:O	64:SY:109:LYS:HG2	2.03	0.58
5:C1:1340:G:H2'	5:C1:1341:U:C6	2.38	0.58
5:C1:2257:C:H2'	5:C1:2258:U:O4'	2.03	0.58
5:C1:2402:A:N7	8:LC:73:ARG:NH1	2.51	0.58
5:C1:3348:G:H2'	5:C1:3349:C:H6	1.69	0.58
7:C3:23:U:C4	29:LY:20:PHE:HD2	2.20	0.58
14:LI:63:GLU:OE1	14:LI:63:GLU:N	2.35	0.58
18:LN:140:LYS:HB3	18:LN:144:ARG:NH1	2.19	0.58
49:C2:24:U:OP1	55:SJ:10:LYS:NZ	2.36	0.58
49:C2:341:A:H2'	49:C2:342:C:C6	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:C2:397:A:H4'	54:SI:50:GLY:HA2	1.86	0.58
49:C2:1629:G:H2'	49:C2:1630:U:C6	2.38	0.58
1:LA:226:SER:HB2	5:C1:2202:C:H5''	1.84	0.58
3:LB:94:GLU:OE2	3:LB:156:SER:OG	2.14	0.58
4:SB:119:THR:HG21	4:SB:156:ALA:H	1.68	0.58
5:C1:2553:U:O2'	37:Lg:91:ARG:NH1	2.36	0.58
5:C1:3113:A:H4'	13:LH:69:ARG:HG3	1.84	0.58
7:C3:109:A:C2	7:C3:114:G:C6	2.92	0.58
49:C2:736:C:H2'	49:C2:737:A:C8	2.38	0.58
49:C2:886:U:C2	49:C2:887:A:C8	2.91	0.58
49:C2:1732:A:H2'	49:C2:1733:C:C6	2.39	0.58
55:SJ:175:ARG:HB3	55:SJ:179:ARG:HH12	1.68	0.58
59:SN:29:SER:O	59:SN:32:SER:OG	2.20	0.58
74:Sd:22:ARG:NH1	74:Sd:36:LEU:O	2.32	0.58
75:SU:55:PRO:HA	75:SU:91:ILE:HG13	1.86	0.58
3:LB:166:ILE:O	3:LB:169:THR:OG1	2.21	0.58
4:SB:31:ASP:OD1	4:SB:32:ILE:N	2.36	0.58
5:C1:443:G:C2	5:C1:491:C:N3	2.72	0.58
5:C1:542:G:H2'	5:C1:543:C:C6	2.38	0.58
5:C1:2335:G:N2	5:C1:2339:C:O2	2.37	0.58
5:C1:3225:C:H2'	5:C1:3226:A:H8	1.69	0.58
6:C4:94:C:H2'	6:C4:95:A:H8	1.68	0.58
8:LC:148:ILE:HB	8:LC:149:PRO:HD3	1.84	0.58
23:LS:45:LEU:HG	23:LS:51:VAL:HG21	1.84	0.58
50:SC:120:GLU:OE2	50:SC:123:GLY:N	2.29	0.58
51:SE:136:VAL:HG11	51:SE:148:ARG:NH2	2.17	0.58
53:SH:56:LYS:HG2	53:SH:88:ARG:NE	2.19	0.58
55:SJ:125:ALA:O	55:SJ:129:ILE:HG12	2.03	0.58
55:SJ:129:ILE:HA	55:SJ:134:ILE:HD13	1.84	0.58
64:SY:125:LEU:HA	64:SY:128:LYS:HB3	1.86	0.58
68:5:140:SER:HA	68:5:145:GLU:HB3	1.86	0.58
5:C1:2407:C:H2'	5:C1:2408:U:C6	2.39	0.58
5:C1:2767:U:O2'	45:Lo:30:ALA:O	2.20	0.58
12:LG:76:ALA:HB1	12:LG:79:GLN:HE21	1.68	0.58
18:LN:42:PRO:HG3	18:LN:61:ILE:HG13	1.86	0.58
41:Lk:58:ASP:OD2	41:Lk:61:LYS:N	2.35	0.58
49:C2:40:A:H62	49:C2:467:G:N2	2.00	0.58
49:C2:130:C:H4'	49:C2:176:C:H5'	1.85	0.58
49:C2:1202:A:H1'	49:C2:1207:C:H41	1.68	0.58
49:C2:1380:U:H2'	49:C2:1381:U:C6	2.39	0.58
62:SW:102:VAL:HG12	62:SW:113:HIS:CD2	2.39	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:Sf:123:ASN:ND2	69:Sf:125:THR:OG1	2.37	0.58
74:Sd:21:CYS:HB3	74:Sd:24:CYS:SG	2.42	0.58
1:LA:149:ARG:HH21	1:LA:155:LYS:HZ1	1.50	0.58
5:C1:710:A:H2'	5:C1:711:A:C8	2.38	0.58
5:C1:1257:C:H1'	47:P0:43:LYS:HZ2	1.69	0.58
5:C1:1340:G:H2'	5:C1:1341:U:H6	1.69	0.58
8:LC:188:ARG:NH1	8:LC:197:ARG:HB3	2.19	0.58
10:LE:146:LEU:HA	10:LE:149:ILE:HG22	1.84	0.58
16:LL:64:LYS:HE3	16:LL:65:TYR:CD1	2.38	0.58
49:C2:140:A:OP2	49:C2:140:A:H4'	2.01	0.58
52:SG:139:ASN:HA	52:SG:142:ARG:HG2	1.85	0.58
53:SH:22:GLN:O	53:SH:25:VAL:HG12	2.03	0.58
54:SI:139:ALA:HB1	54:SI:143:TRP:CZ3	2.39	0.58
62:SW:15:ASN:ND2	62:SW:71:LYS:HG3	2.19	0.58
69:Sf:83:LYS:HD3	69:Sf:85:TYR:H	1.69	0.58
76:Sc:19:THR:N	76:Sc:25:VAL:O	2.35	0.58
2:SA:21:ASN:HB3	2:SA:24:LEU:HD12	1.86	0.58
5:C1:122:A:N7	5:C1:146:U:N3	2.52	0.58
5:C1:1678:G:N7	25:LU:74:LYS:NZ	2.52	0.58
5:C1:2208:A:O2'	5:C1:2210:G:OP2	2.22	0.58
5:C1:3068:U:OP2	22:LR:62:ARG:NH1	2.35	0.58
44:Ln:9:ARG:NH1	49:C2:1782:A:OP1	2.35	0.58
49:C2:874:C:H2'	49:C2:875:G:C8	2.39	0.58
49:C2:1787:C:H2'	49:C2:1788:G:C8	2.39	0.58
5:C1:41:G:C4	5:C1:2801:A:C6	2.92	0.58
5:C1:1493:G:C6	42:Ll:13:MET:HE1	2.38	0.58
5:C1:2446:U:O2'	5:C1:2447:A:OP1	2.20	0.58
10:LE:52:VAL:HG23	10:LE:67:GLY:HA3	1.86	0.58
10:LE:154:LEU:HA	10:LE:157:GLN:NE2	2.19	0.58
30:LZ:51:LEU:HB3	30:LZ:65:ARG:HH21	1.69	0.58
49:C2:150:U:OP2	64:SY:124:ARG:HD2	2.03	0.58
49:C2:1320:U:N3	49:C2:1323:C:OP2	2.37	0.58
49:C2:1592:A:H2'	49:C2:1593:A:H8	1.68	0.58
49:C2:1784:C:H2'	49:C2:1785:U:C6	2.39	0.58
57:SL:93:TYR:HD2	57:SL:100:TYR:HE1	1.51	0.58
3:LB:362:ALA:HB2	3:LB:371:GLN:HE22	1.69	0.57
5:C1:1009:A:H2'	5:C1:1010:G:C8	2.38	0.57
16:LL:159:VAL:HG22	31:La:124:ILE:HD11	1.86	0.57
36:Lf:48:ARG:HH12	36:Lf:70:LYS:HE2	1.69	0.57
44:Ln:2:ARG:HB3	44:Ln:5:TRP:CD1	2.39	0.57
49:C2:176:C:H2'	49:C2:177:U:C6	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:C2:1045:C:H2'	49:C2:1046:G:C8	2.38	0.57
49:C2:1584:G:O2'	49:C2:1610:G:N1	2.36	0.57
54:SI:153:GLU:OE1	54:SI:156:VAL:N	2.23	0.57
68:5:94:ASP:HA	68:5:128:PHE:HZ	1.68	0.57
1:LA:79:ASN:ND2	1:LA:166:ILE:O	2.37	0.57
5:C1:127:G:H2'	5:C1:128:G:H8	1.69	0.57
5:C1:277:G:H2'	5:C1:278:U:C6	2.39	0.57
5:C1:517:G:H3'	5:C1:518:G:H21	1.69	0.57
5:C1:928:C:H2'	5:C1:929:A:C8	2.39	0.57
5:C1:1033:U:H2'	5:C1:1034:U:C6	2.39	0.57
5:C1:1255:C:H2'	5:C1:1256:G:C8	2.39	0.57
5:C1:2457:G:N2	5:C1:2483:G:N3	2.52	0.57
12:LG:161:GLU:HA	12:LG:164:VAL:HG22	1.85	0.57
35:Le:12:LYS:NZ	35:Le:58:GLY:O	2.37	0.57
48:P2:119:LYS:HD3	48:P2:119:LYS:H	1.69	0.57
49:C2:333:A:H2'	49:C2:334:G:C8	2.39	0.57
60:SO:133:ARG:HH21	60:SO:136:ARG:NH2	2.03	0.57
77:s:120:GLN:O	77:s:122:ASP:N	2.35	0.57
2:SA:3:LEU:HD12	2:SA:7:PHE:HB2	1.86	0.57
5:C1:289:A:H2'	5:C1:290:G:H8	1.69	0.57
5:C1:1834:U:OP1	42:L1:5:LYS:NZ	2.37	0.57
6:C4:68:C:OP1	9:LD:14:SER:OG	2.16	0.57
7:C3:139:U:H2'	7:C3:140:G:H8	1.68	0.57
16:LL:79:GLU:OE1	16:LL:112:ASN:ND2	2.36	0.57
27:LW:31:PHE:HZ	27:LW:40:PHE:CD2	2.22	0.57
31:La:24:LYS:O	31:La:26:ARG:HG2	2.04	0.57
31:La:73:LEU:HB2	31:La:109:TYR:CD2	2.40	0.57
49:C2:69:G:N2	49:C2:82:U:O2	2.30	0.57
49:C2:1477:G:H2'	49:C2:1478:G:C8	2.39	0.57
49:C2:1490:C:H5'	49:C2:1492:A:H1'	1.86	0.57
49:C2:1532:U:P	71:SZ:81:ARG:HH22	2.27	0.57
49:C2:1682:U:O5'	52:SG:31:ARG:NH2	2.37	0.57
58:SM:133:LEU:HD23	58:SM:133:LEU:H	1.70	0.57
2:SA:189:VAL:HA	61:SV:44:ARG:HH22	1.69	0.57
5:C1:273:A:N6	5:C1:293:C:H42	2.01	0.57
5:C1:991:G:OP1	24:LT:100:LYS:NZ	2.31	0.57
5:C1:1874:A:OP2	22:LR:21:LYS:NZ	2.37	0.57
5:C1:2433:U:H3'	5:C1:2434:U:H2'	1.86	0.57
5:C1:3193:C:H2'	5:C1:3194:C:C6	2.39	0.57
9:LD:40:HIS:HB3	9:LD:43:LYS:HD2	1.86	0.57
15:LJ:23:VAL:HG23	15:LJ:29:ARG:NH1	2.18	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:Lo:7:THR:OG1	45:Lo:22:GLN:NE2	2.37	0.57
49:C2:31:C:O2'	49:C2:547:U:OP1	2.20	0.57
49:C2:163:G:OP2	49:C2:163:G:N2	2.32	0.57
49:C2:1178:G:H2'	49:C2:1179:G:H8	1.69	0.57
49:C2:1181:U:O2	49:C2:1458:G:C2	2.57	0.57
49:C2:1397:U:O2'	49:C2:1400:A:N6	2.34	0.57
49:C2:1417:A:O3'	73:SQ:128:LYS:NZ	2.33	0.57
59:SN:104:ARG:HH21	59:SN:104:ARG:HG3	1.70	0.57
5:C1:2193:U:H5'	5:C1:2194:G:H5'	1.86	0.57
5:C1:3220:G:C6	5:C1:3266:G:N1	2.72	0.57
15:LJ:133:ARG:NH1	15:LJ:153:LYS:O	2.37	0.57
23:LS:159:SER:OG	23:LS:161:LYS:O	2.20	0.57
31:La:39:HIS:O	31:La:42:ARG:N	2.34	0.57
49:C2:405:C:O2'	52:SG:92:ARG:O	2.21	0.57
49:C2:1211:A:H2'	49:C2:1212:G:O4'	2.04	0.57
52:SG:50:PHE:CE1	52:SG:113:ILE:HG13	2.39	0.57
59:SN:5:HIS:HD2	59:SN:117:LEU:HD22	1.68	0.57
1:LA:68:LYS:NZ	1:LA:70:ARG:HD3	2.19	0.57
5:C1:2546:C:H2'	5:C1:2547:A:C8	2.40	0.57
5:C1:2812:C:H2'	5:C1:2813:A:C8	2.33	0.57
5:C1:3146:G:H2'	5:C1:3147:G:H8	1.68	0.57
9:LD:17:GLN:HE22	24:LT:20:ARG:C	2.13	0.57
13:LH:57:VAL:HG21	13:LH:64:HIS:CE1	2.40	0.57
13:LH:100:ASN:HB3	13:LH:115:ARG:HG3	1.87	0.57
23:LS:96:ASP:OD1	23:LS:97:VAL:N	2.36	0.57
49:C2:610:G:O2'	49:C2:613:G:O2'	2.14	0.57
49:C2:1126:G:C2	49:C2:1127:G:C8	2.92	0.57
49:C2:1345:A:OP1	75:SU:54:GLY:HA3	2.04	0.57
52:SG:25:ARG:HA	52:SG:28:PHE:HD2	1.69	0.57
54:SI:152:ILE:HG13	54:SI:153:GLU:N	2.18	0.57
55:SJ:85:VAL:HG11	55:SJ:104:PHE:CD1	2.40	0.57
71:SZ:59:TYR:CE1	71:SZ:100:ILE:HG23	2.40	0.57
4:SB:91:VAL:HA	4:SB:96:LEU:HA	1.87	0.57
4:SB:107:THR:O	4:SB:111:ARG:HG2	2.05	0.57
5:C1:1095:U:H3	24:LT:127:GLN:CD	2.13	0.57
5:C1:1236:G:N2	5:C1:1272:C:OP1	2.37	0.57
5:C1:2103:U:H2'	5:C1:2104:A:H8	1.70	0.57
28:LX:53:HIS:ND1	28:LX:54:TYR:O	2.31	0.57
41:Lk:62:ALA:O	41:Lk:66:ILE:HG12	2.04	0.57
47:P0:109:ALA:HB1	47:P0:113:ALA:HB3	1.85	0.57
49:C2:161:U:OP1	52:SG:87:ARG:NH1	2.36	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:C2:1218:G:H22	49:C2:1444:A:P	2.27	0.57
52:SG:150:GLU:OE1	52:SG:150:GLU:N	2.38	0.57
67:Se:33:ARG:HH11	67:Se:33:ARG:HG2	1.70	0.57
5:C1:443:G:N1	5:C1:491:C:N3	2.52	0.57
5:C1:1008:U:O4	5:C1:1043:C:N4	2.38	0.57
5:C1:1427:U:H2'	5:C1:1428:A:C8	2.39	0.57
5:C1:1679:A:OP1	25:LU:94:ARG:NH1	2.37	0.57
5:C1:1717:U:H2'	5:C1:1718:G:C8	2.40	0.57
5:C1:1783:U:H2'	5:C1:1784:G:C8	2.38	0.57
5:C1:2223:A:H2'	5:C1:2224:A:H8	1.70	0.57
5:C1:2366:C:H2'	5:C1:2367:A:H8	1.69	0.57
7:C3:26:U:H2'	7:C3:27:U:H6	1.68	0.57
8:LC:229:ASN:OD1	8:LC:230:VAL:N	2.37	0.57
49:C2:512:A:O2'	55:SJ:131:GLN:OE1	2.21	0.57
49:C2:566:C:O2	67:Se:13:LYS:NZ	2.38	0.57
49:C2:1082:C:H1'	61:SV:62:ARG:HH12	1.70	0.57
49:C2:1444:A:H4'	49:C2:1445:G:H5'	1.86	0.57
49:C2:1471:A:N6	49:C2:1538:U:H3	2.01	0.57
59:SN:5:HIS:CD2	59:SN:117:LEU:HD22	2.40	0.57
72:ST:118:PRO:HD2	72:ST:123:ARG:NH2	2.18	0.57
2:SA:110:TYR:HA	2:SA:115:PHE:CD1	2.40	0.57
5:C1:734:C:H2'	5:C1:735:A:C8	2.40	0.57
5:C1:1723:A:OP1	22:LR:128:LYS:NZ	2.37	0.57
5:C1:1764:U:H3'	5:C1:1765:U:H4'	1.87	0.57
5:C1:2828:G:H1	5:C1:2863:G:H1'	1.70	0.57
5:C1:2972:G:H2'	5:C1:2973:G:H8	1.69	0.57
5:C1:3261:C:P	17:LM:126:GLN:HE22	2.28	0.57
17:LM:116:GLU:HA	17:LM:119:GLN:OE1	2.04	0.57
20:LP:30:ARG:HA	20:LP:119:VAL:HG11	1.86	0.57
22:LR:109:TYR:HB3	22:LR:115:ILE:HD13	1.85	0.57
39:Li:90:MET:O	39:Li:94:ILE:HG13	2.04	0.57
46:Lp:42:CYS:HB3	46:Lp:60:CYS:HB2	1.87	0.57
49:C2:183:U:H2'	49:C2:184:C:C6	2.39	0.57
49:C2:1499:G:O6	49:C2:1509:C:N4	2.37	0.57
49:C2:1593:A:H2'	49:C2:1594:G:C8	2.40	0.57
50:SC:145:GLY:HA2	62:SW:98:GLN:HE21	1.68	0.57
52:SG:25:ARG:HA	52:SG:28:PHE:CD2	2.39	0.57
59:SN:4:MET:HE2	59:SN:5:HIS:CE1	2.40	0.57
64:SY:133:ASN:OD1	64:SY:134:ALA:N	2.38	0.57
72:ST:73:VAL:HG11	72:ST:102:ARG:HG2	1.86	0.57
73:SQ:40:GLU:HB3	73:SQ:41:PRO:HD2	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
75:SU:23:ARG:NH2	75:SU:92:ASP:OD2	2.37	0.57
3:LB:10:ARG:HD2	3:LB:11:HIS:H	1.69	0.57
5:C1:637:C:O2'	5:C1:638:C:O5'	2.23	0.57
5:C1:1138:U:H2'	5:C1:1139:G:H8	1.69	0.57
5:C1:1321:G:H21	23:LS:112:ALA:HB2	1.70	0.57
5:C1:1475:A:H4'	34:Ld:57:GLN:OE1	2.05	0.57
5:C1:3365:U:H2'	5:C1:3366:G:C8	2.39	0.57
11:LF:138:TYR:HE2	11:LF:233:GLU:HB2	1.68	0.57
15:LJ:29:ARG:HG3	15:LJ:32:ARG:HH12	1.70	0.57
25:LU:37:LEU:O	25:LU:41:ILE:HD12	2.05	0.57
41:Lk:54:LEU:HD12	41:Lk:55:VAL:H	1.70	0.57
48:P2:77:ALA:H	48:P2:80:LEU:HD21	1.69	0.57
48:P2:105:GLN:NE2	48:P2:144:ASP:OD2	2.38	0.57
48:P2:113:ALA:O	48:P2:117:ARG:HB2	2.05	0.57
49:C2:1008:G:H2'	49:C2:1009:U:C6	2.40	0.57
49:C2:1295:G:O5'	49:C2:1321:A:N6	2.38	0.57
49:C2:1629:G:H2'	49:C2:1630:U:H6	1.68	0.57
75:SU:40:ASN:OD1	75:SU:41:ILE:N	2.38	0.57
75:SU:95:ALA:HB1	75:SU:99:ILE:HG23	1.86	0.57
5:C1:8:C:H2'	5:C1:9:U:C6	2.39	0.56
5:C1:500:C:H4'	10:LE:80:ASN:HD21	1.67	0.56
5:C1:855:U:H2'	5:C1:856:G:C8	2.39	0.56
5:C1:1246:G:H2'	5:C1:1247:U:C6	2.40	0.56
5:C1:1627:U:O2'	5:C1:1630:U:O2	2.23	0.56
26:LV:57:MET:HE1	26:LV:105:PRO:HA	1.87	0.56
48:P2:83:THR:HG23	48:P2:90:ARG:HB3	1.87	0.56
49:C2:586:G:H2'	49:C2:587:C:C6	2.40	0.56
49:C2:1673:G:H2'	49:C2:1674:C:H6	1.70	0.56
58:SM:70:ASN:OD1	58:SM:71:ILE:N	2.38	0.56
64:SY:38:ASP:OD1	64:SY:39:GLU:N	2.38	0.56
69:Sf:113:LYS:NZ	69:Sf:114:VAL:O	2.38	0.56
3:LB:51:ALA:HB3	3:LB:78:VAL:HG23	1.87	0.56
5:C1:928:C:H2'	5:C1:929:A:H8	1.68	0.56
5:C1:1168:U:H1'	11:LF:209:ASN:HD22	1.70	0.56
5:C1:2547:A:O2'	5:C1:2548:C:OP1	2.22	0.56
7:C3:19:C:H2'	7:C3:20:U:H6	1.70	0.56
12:LG:158:ASP:O	12:LG:160:ILE:N	2.38	0.56
13:LH:16:VAL:HA	13:LH:28:VAL:O	2.06	0.56
16:LL:51:LEU:HD13	16:LL:139:LEU:HD12	1.88	0.56
26:LV:121:GLU:N	26:LV:121:GLU:OE2	2.36	0.56
27:LW:23:ARG:NH2	27:LW:25:ASP:OD2	2.37	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:Lc:57:GLU:OE2	33:Lc:69:TYR:OH	2.16	0.56
47:P0:23:LYS:HE3	47:P0:90:ASN:HA	1.87	0.56
49:C2:1556:A:OP1	70:SP:115:TYR:OH	2.22	0.56
52:SG:159:ARG:HG2	52:SG:172:ALA:HB2	1.87	0.56
57:SL:102:LYS:O	63:SX:13:ARG:NH2	2.38	0.56
71:SZ:72:GLY:H	71:SZ:75:LEU:HD12	1.70	0.56
2:SA:28:ASN:HA	2:SA:46:HIS:CE1	2.41	0.56
2:SA:183:ARG:NH2	2:SA:191:ARG:HE	2.01	0.56
5:C1:339:C:OP1	5:C1:1380:G:O2'	2.22	0.56
5:C1:631:U:H2'	5:C1:632:G:H8	1.70	0.56
5:C1:663:C:H2'	5:C1:664:U:C6	2.40	0.56
5:C1:1280:C:H2'	5:C1:1281:G:H8	1.70	0.56
5:C1:1667:A:H2'	5:C1:1668:G:C8	2.40	0.56
5:C1:2357:A:H2'	5:C1:2358:A:C8	2.39	0.56
5:C1:2514:U:OP2	5:C1:2586:G:N2	2.37	0.56
5:C1:2584:G:O2'	12:LG:240:ASN:OD1	2.16	0.56
5:C1:2764:C:OP1	21:LQ:182:LYS:NZ	2.39	0.56
5:C1:2896:A:P	43:Lm:102:ARG:HH21	2.27	0.56
5:C1:3043:C:OP1	26:LV:45:ARG:NH1	2.38	0.56
6:C4:40:C:O4'	15:LJ:43:GLN:NE2	2.39	0.56
6:C4:52:G:O2'	6:C4:53:U:OP1	2.22	0.56
11:LF:81:HIS:HB2	11:LF:138:TYR:CD1	2.40	0.56
35:Le:79:VAL:O	35:Le:83:GLU:HG2	2.05	0.56
48:P2:59:THR:O	48:P2:61:GLN:NE2	2.38	0.56
49:C2:435:C:N3	63:SX:46:SER:OG	2.37	0.56
49:C2:736:C:H2'	49:C2:737:A:H8	1.69	0.56
49:C2:1107:G:H3'	49:C2:1108:G:H21	1.70	0.56
49:C2:1495:C:O2	49:C2:1513:G:C2	2.58	0.56
51:SE:67:GLN:HG3	51:SE:69:HIS:HD1	1.70	0.56
57:SL:30:ARG:HD3	57:SL:30:ARG:H	1.71	0.56
61:SV:64:GLU:OE2	66:Sb:2:VAL:N	2.38	0.56
61:SV:85:TYR:CZ	66:Sb:6:ASP:HB3	2.40	0.56
62:SW:89:TRP:O	62:SW:93:LEU:HD23	2.04	0.56
63:SX:97:ASP:OD1	63:SX:98:GLU:N	2.35	0.56
69:Sf:123:ASN:HB3	69:Sf:126:CYS:SG	2.45	0.56
75:SU:63:LEU:O	75:SU:83:GLU:HA	2.04	0.56
75:SU:99:ILE:HD12	75:SU:102:ARG:HG3	1.88	0.56
1:LA:200:ARG:NH2	5:C1:2186:U:OP2	2.38	0.56
3:LB:364:LYS:NZ	5:C1:3049:A:O2'	2.36	0.56
5:C1:359:U:O2'	5:C1:360:G:H5'	2.06	0.56
5:C1:2681:U:OP2	15:LJ:51:ARG:NH1	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:C3:98:U:H2'	7:C3:99:C:O4'	2.05	0.56
16:LL:116:LEU:O	16:LL:120:GLN:HG2	2.05	0.56
35:Le:81:ASP:O	35:Le:84:THR:HG22	2.03	0.56
49:C2:142:G:N2	49:C2:173:A:H2	2.02	0.56
49:C2:166:C:O2'	52:SG:133:LEU:O	2.22	0.56
49:C2:388:G:OP1	49:C2:423:G:O2'	2.21	0.56
49:C2:827:C:H2'	49:C2:828:U:H6	1.70	0.56
55:SJ:32:GLY:HA3	67:Se:40:TYR:CD2	2.39	0.56
65:Sa:53:LEU:O	65:Sa:57:SER:HB3	2.06	0.56
2:SA:179:ARG:O	2:SA:183:ARG:HG3	2.05	0.56
5:C1:871:U:H2'	5:C1:872:U:C6	2.41	0.56
5:C1:1307:G:OP1	19:LO:59[A]:ARG:NH2	2.34	0.56
5:C1:1530:U:O2'	7:C3:114:G:O2'	2.22	0.56
5:C1:2160:G:H2'	5:C1:2161:G:C8	2.37	0.56
5:C1:2455:U:O4	5:C1:2457:G:N1	2.38	0.56
5:C1:2782:U:H5'	16:LL:185:LYS:HZ1	1.71	0.56
5:C1:2803:A:OP1	45:Lo:60:LYS:NZ	2.38	0.56
11:LF:160:ARG:HD2	11:LF:203:TRP:CE2	2.41	0.56
14:LI:30:LYS:HG3	14:LI:63:GLU:HG3	1.87	0.56
20:LP:108:ASP:OD1	20:LP:109:ALA:N	2.39	0.56
28:LX:73:MET:HA	28:LX:73:MET:HE3	1.88	0.56
31:La:96:LYS:C	31:La:98:THR:H	2.14	0.56
31:La:130:VAL:HG11	31:La:135:GLU:HB2	1.87	0.56
49:C2:940:A:H2'	49:C2:941:A:H8	1.71	0.56
53:SH:21:ALA:HA	53:SH:24:PHE:HD2	1.71	0.56
70:SP:75:PRO:HB2	70:SP:77:ARG:HH12	1.71	0.56
72:ST:22:LEU:HD22	72:ST:28:LEU:HD11	1.87	0.56
5:C1:434:U:H2'	5:C1:435:C:C6	2.41	0.56
5:C1:446:U:H4'	5:C1:447:U:H5	1.70	0.56
5:C1:1919:G:N2	5:C1:1934:G:C6	2.74	0.56
5:C1:3096:C:H2'	5:C1:3097:C:C6	2.41	0.56
5:C1:3325:G:OP1	34:Ld:70:ARG:NH2	2.39	0.56
5:C1:3380:U:H2'	5:C1:3381:U:C6	2.41	0.56
6:C4:22:A:C8	9:LD:272:TYR:CE2	2.93	0.56
9:LD:150:LEU:H	9:LD:150:LEU:HD12	1.71	0.56
15:LJ:152:HIS:ND1	15:LJ:152:HIS:O	2.36	0.56
18:LN:23:GLN:NE2	18:LN:122:ASN:OD1	2.34	0.56
21:LQ:144:ARG:HH11	21:LQ:144:ARG:HG3	1.70	0.56
33:Lc:9:SER:OG	33:Lc:10:ILE:N	2.39	0.56
49:C2:476:U:H5''	49:C2:477:A:O4'	2.05	0.56
49:C2:1433:G:C4	74:Sd:41:GLN:HG3	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:SC:35:TRP:NE1	50:SC:67:GLN:HE21	2.03	0.56
56:SK:23:ALA:N	56:SK:63:TYR:O	2.31	0.56
56:SK:24:LYS:HG2	56:SK:26:ASP:HB2	1.87	0.56
61:SV:80:LYS:O	61:SV:82:VAL:N	2.38	0.56
70:SP:22:LEU:O	70:SP:25:LEU:N	2.38	0.56
5:C1:405:U:H5	5:C1:406:G:C5	2.22	0.56
5:C1:2285:C:O2'	5:C1:2286:U:OP1	2.22	0.56
5:C1:2568:C:O2'	5:C1:2569:A:O4'	2.23	0.56
8:LC:83:GLY:O	8:LC:87:GLN:NE2	2.38	0.56
16:LL:98:ASP:OD1	16:LL:99:HIS:N	2.38	0.56
49:C2:406:U:H2'	49:C2:407:A:C8	2.37	0.56
49:C2:834:G:H2'	49:C2:835:U:C6	2.41	0.56
49:C2:1602:C:H2'	49:C2:1603:U:C6	2.41	0.56
49:C2:1787:C:H2'	49:C2:1788:G:H8	1.71	0.56
51:SE:126:VAL:HG22	51:SE:158:ASP:H	1.70	0.56
52:SG:7:TYR:CE2	52:SG:9:VAL:HB	2.40	0.56
1:LA:116:VAL:O	1:LA:125:ALA:HB3	2.06	0.56
2:SA:154:GLU:OE1	2:SA:154:GLU:N	2.30	0.56
5:C1:525:C:OP2	17:LM:77:ARG:HD3	2.06	0.56
5:C1:1176:C:N3	5:C1:1311:G:N1	2.54	0.56
5:C1:1339:C:H2'	5:C1:1340:G:C8	2.40	0.56
5:C1:2576:G:H2'	5:C1:2577:C:C6	2.41	0.56
5:C1:2634:U:O3'	14:LI:15:LYS:NZ	2.39	0.56
5:C1:2771:U:H3'	5:C1:2772:C:O2	2.06	0.56
7:C3:7:U:H2'	7:C3:8:C:C6	2.41	0.56
8:LC:74:ILE:HD12	8:LC:75:PRO:HD2	1.88	0.56
21:LQ:133:LYS:HB2	21:LQ:135:GLN:OE1	2.06	0.56
49:C2:932:U:O2	65:Sa:32:LYS:NZ	2.39	0.56
49:C2:1688:U:H3'	49:C2:1689:A:H8	1.69	0.56
56:SK:15:LEU:HD12	56:SK:66:TYR:HE2	1.71	0.56
64:SY:51:GLU:OE2	64:SY:54:ALA:N	2.39	0.56
2:SA:4:PRO:HG2	2:SA:6:THR:HG22	1.88	0.56
3:LB:92:TYR:HD1	3:LB:101:SER:HA	1.71	0.56
5:C1:1372:C:H2'	5:C1:1373:A:H8	1.71	0.56
5:C1:1448:U:OP1	20:LP:82:ARG:NH2	2.38	0.56
5:C1:1565:G:N2	5:C1:1575:A:N7	2.54	0.56
5:C1:2549:G:OP2	5:C1:2549:G:N2	2.25	0.56
5:C1:2586:G:O2'	5:C1:2588:U:OP2	2.24	0.56
5:C1:2735:U:H2'	5:C1:2736:A:H8	1.70	0.56
8:LC:170:LYS:HD3	8:LC:175:HIS:HB2	1.88	0.56
11:LF:239:LEU:HD21	11:LF:243:MET:HE3	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:LH:41:ILE:HG21	13:LH:71:VAL:HG21	1.88	0.56
24:LT:18:ASP:HB2	24:LT:21:LYS:HB2	1.88	0.56
25:LU:49:ASN:O	25:LU:51:GLY:N	2.37	0.56
35:Le:19:ARG:HD2	35:Le:33:ARG:HG2	1.85	0.56
47:P0:142:PRO:HG2	47:P0:154:SER:HB3	1.87	0.56
49:C2:61:A:O2'	49:C2:62:A:O4'	2.23	0.56
49:C2:611:U:H5''	63:SX:5:LYS:HZ1	1.70	0.56
52:SG:76:LEU:HD11	52:SG:92:ARG:HB3	1.88	0.56
58:SM:126:TRP:HD1	58:SM:128:ALA:HB3	1.70	0.56
60:SO:84:ARG:HD2	60:SO:85:ALA:O	2.06	0.56
61:SV:15:ARG:HG3	61:SV:24:ILE:HD13	1.87	0.56
3:LB:356:LEU:HD13	3:LB:359:ILE:HD11	1.88	0.56
5:C1:432:G:C6	5:C1:628:A:N1	2.74	0.56
5:C1:1255:C:N4	5:C1:1256:G:O6	2.39	0.56
5:C1:3281:U:H2'	5:C1:3282:U:C6	2.41	0.56
13:LH:7:GLU:HG2	13:LH:54:LYS:NZ	2.21	0.56
22:LR:21:LYS:O	22:LR:53:LYS:HD2	2.06	0.56
49:C2:279:G:C4	49:C2:281:G:H1'	2.41	0.56
49:C2:331:A:OP2	54:SI:175:GLN:NE2	2.36	0.56
49:C2:830:U:H2'	49:C2:831:U:C6	2.41	0.56
49:C2:1027:A:OP1	49:C2:1789:G:O2'	2.23	0.56
49:C2:1680:G:H1'	49:C2:1721:A:H61	1.71	0.56
56:SK:32:HIS:H	56:SK:38:LYS:HA	1.70	0.56
68:5:109:THR:HG22	68:5:110:LYS:N	2.21	0.56
75:SU:52:LYS:HZ3	75:SU:54:GLY:HA2	1.71	0.56
5:C1:395:A:H2'	5:C1:396:A:O4'	2.06	0.55
5:C1:436:A:N1	5:C1:624:G:C2	2.74	0.55
5:C1:1080:A:OP2	9:LD:140:ARG:NH1	2.31	0.55
5:C1:1699:A:H2'	5:C1:1700:G:H8	1.70	0.55
5:C1:2338:C:O2'	5:C1:2339:C:OP1	2.20	0.55
5:C1:3165:A:H2'	5:C1:3166:C:H6	1.68	0.55
18:LN:23:GLN:HE21	18:LN:122:ASN:CG	2.13	0.55
19:LO:27[A]:LEU:HD11	19:LO:102[A]:LEU:HD12	1.88	0.55
30:LZ:101:PHE:O	30:LZ:102:GLU:HG2	2.06	0.55
49:C2:700:C:N3	49:C2:739:G:N1	2.55	0.55
49:C2:953:G:H2'	49:C2:954:G:H8	1.71	0.55
49:C2:1469:A:H2'	49:C2:1470:C:H6	1.71	0.55
49:C2:1483:A:OP2	49:C2:1521:G:N2	2.26	0.55
53:SH:62:VAL:HG22	53:SH:94:ALA:HA	1.88	0.55
73:SQ:73:GLY:O	73:SQ:76:SER:OG	2.10	0.55
5:C1:618:C:H2'	5:C1:619:A:C8	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:662:U:H2'	5:C1:663:C:C6	2.41	0.55
5:C1:1560:G:H1	5:C1:1580:A:H61	1.53	0.55
5:C1:1570:U:H1'	5:C1:1571:A:C4	2.41	0.55
5:C1:2389:C:H2'	5:C1:2390:A:C8	2.40	0.55
8:LC:302:ALA:HA	21:LQ:39:ARG:HH12	1.70	0.55
9:LD:204:VAL:O	9:LD:208:MET:HG2	2.07	0.55
13:LH:94:TYR:HA	13:LH:177:ASP:OD1	2.06	0.55
49:C2:827:C:H2'	49:C2:828:U:C6	2.42	0.55
49:C2:939:A:H2'	49:C2:940:A:H8	1.71	0.55
52:SG:147:LEU:HD13	52:SG:156:PHE:HZ	1.70	0.55
5:C1:658:G:N2	8:LC:93:MET:HB2	2.21	0.55
5:C1:2184:U:H2'	5:C1:2185:G:H8	1.71	0.55
5:C1:2235:C:H2'	5:C1:2236:G:H8	1.71	0.55
5:C1:2315:G:C2	5:C1:2316:G:N7	2.75	0.55
5:C1:3349:C:H2'	5:C1:3350:C:C6	2.41	0.55
5:C1:3376:A:H5'	5:C1:3377:G:H5''	1.89	0.55
7:C3:149:A:H2'	7:C3:150:G:C8	2.41	0.55
11:LF:88:ARG:HB2	11:LF:108:LEU:HD23	1.87	0.55
24:LT:112:ASN:OD1	24:LT:128:LEU:HD22	2.05	0.55
25:LU:37:LEU:O	25:LU:40:HIS:N	2.36	0.55
45:Lo:10:THR:HA	45:Lo:20:HIS:HD2	1.70	0.55
47:P0:39:HIS:ND1	47:P0:43:LYS:HE2	2.21	0.55
49:C2:1548:G:H2'	49:C2:1549:C:H6	1.72	0.55
52:SG:22:HIS:HA	52:SG:25:ARG:HG3	1.87	0.55
56:SK:7:ASP:O	56:SK:11:ILE:HG12	2.07	0.55
59:SN:23:PRO:O	59:SN:25:TRP:HD1	1.88	0.55
70:SP:81:ARG:NH2	70:SP:98:ASN:HA	2.22	0.55
1:LA:29:LEU:HD11	1:LA:115:ASN:ND2	2.14	0.55
2:SA:124:THR:HA	2:SA:146:LEU:HD12	1.89	0.55
3:LB:100:ARG:NH2	5:C1:3244:A:OP2	2.38	0.55
4:SB:105:PHE:HD2	4:SB:109:LYS:HZ1	1.54	0.55
5:C1:595:G:H1	5:C1:609:G:H5''	1.72	0.55
5:C1:909:G:OP2	18:LN:77:LYS:NZ	2.39	0.55
5:C1:1245:A:N7	5:C1:1272:C:H4'	2.20	0.55
5:C1:1246:G:O2'	5:C1:1247:U:O5'	2.24	0.55
5:C1:1902:G:H2'	5:C1:1903:U:O4'	2.07	0.55
5:C1:2582:C:H2'	5:C1:2583:C:C6	2.42	0.55
5:C1:2997:G:C6	5:C1:3396:U:C4	2.94	0.55
5:C1:3182:G:C6	5:C1:3183:A:N1	2.75	0.55
8:LC:14:GLU:HG2	8:LC:15:ALA:N	2.21	0.55
49:C2:61:A:H8	49:C2:269:G:O2'	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:C2:250:C:H2'	49:C2:251:A:H8	1.71	0.55
49:C2:778:G:H5'	49:C2:780:A:H62	1.71	0.55
49:C2:819:G:H4'	49:C2:820:U:O5'	2.07	0.55
60:SO:78:ALA:HA	60:SO:111:ARG:O	2.06	0.55
70:SP:61:ARG:HA	70:SP:64:LYS:NZ	2.21	0.55
71:SZ:54:VAL:HG23	71:SZ:55:PRO:HD3	1.88	0.55
73:SQ:49:TYR:HB3	73:SQ:53:LEU:HD23	1.87	0.55
2:SA:169:SER:O	2:SA:173:ILE:HG12	2.06	0.55
3:LB:10:ARG:NH2	3:LB:14:LEU:HD21	2.21	0.55
3:LB:380:MET:HG3	3:LB:383:LEU:HD21	1.88	0.55
4:SB:10:SER:HB2	4:SB:13:LYS:HE2	1.87	0.55
4:SB:179:SER:HB3	4:SB:183:GLN:NE2	2.21	0.55
5:C1:699:A:O5'	16:LL:68:LYS:NZ	2.31	0.55
5:C1:1655:G:N2	5:C1:1801:U:O4	2.39	0.55
5:C1:3213:A:H62	17:LM:124:ARG:HH22	1.54	0.55
6:C4:71:G:H2'	6:C4:72:A:C8	2.42	0.55
10:LE:154:LEU:HD13	10:LE:157:GLN:NE2	2.22	0.55
49:C2:1079:U:H2'	49:C2:1080:U:C6	2.42	0.55
49:C2:1187:U:H2'	49:C2:1188:G:C8	2.37	0.55
49:C2:1591:C:H2'	49:C2:1592:A:C8	2.42	0.55
52:SG:193:LEU:HD13	52:SG:196:ARG:NH1	2.21	0.55
54:SI:93:THR:HG23	54:SI:95:THR:HG23	1.87	0.55
59:SN:21:ASN:HA	59:SN:65:VAL:HG23	1.88	0.55
62:SW:25:VAL:HG12	62:SW:65:LEU:HD11	1.87	0.55
2:SA:113:ARG:HH12	49:C2:1324:G:H4'	1.70	0.55
4:SB:104:ASP:OD1	4:SB:105:PHE:N	2.40	0.55
5:C1:2538:U:O2'	5:C1:2541:U:N3	2.40	0.55
5:C1:2568:C:O2'	5:C1:2569:A:O5'	2.24	0.55
5:C1:2664:C:OP2	15:LJ:142:LYS:NZ	2.39	0.55
5:C1:2683:U:H2'	5:C1:2684:C:H6	1.72	0.55
5:C1:2683:U:H1'	15:LJ:128:TYR:CE2	2.41	0.55
5:C1:2748:A:O2'	9:LD:48:LYS:NZ	2.39	0.55
7:C3:6:U:H2'	7:C3:7:U:C6	2.42	0.55
7:C3:134:G:OP1	28:LX:56:ARG:HG3	2.06	0.55
30:LZ:54:THR:HG23	30:LZ:56:LYS:H	1.71	0.55
49:C2:617:U:H2'	49:C2:618:U:C6	2.42	0.55
49:C2:1161:C:H2'	49:C2:1162:C:C6	2.42	0.55
51:SE:59:ARG:HH22	64:SY:87:PRO:HA	1.71	0.55
54:SI:56:ARG:HH11	54:SI:56:ARG:HG3	1.71	0.55
55:SJ:40:LYS:HA	55:SJ:43:TYR:HD2	1.72	0.55
5:C1:2219:A:H2'	5:C1:2220:A:H8	1.70	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:3298:C:C2	5:C1:3299:A:C8	2.94	0.55
9:LD:208:MET:HA	9:LD:208:MET:HE2	1.88	0.55
10:LE:158:TYR:HD1	17:LM:118:PHE:CD2	2.24	0.55
16:LL:177:LYS:HZ1	39:Li:11:LEU:HD13	1.72	0.55
42:Ll:38:ASN:HD22	42:Ll:38:ASN:C	2.15	0.55
49:C2:445:A:H1'	49:C2:525:A:H5'	1.89	0.55
49:C2:692:C:H2'	49:C2:693:U:H6	1.70	0.55
49:C2:1010:C:H2'	49:C2:1011:G:O4'	2.07	0.55
49:C2:1251:U:O2'	49:C2:1252:C:OP1	2.22	0.55
49:C2:1483:A:H2	49:C2:1607:G:H1'	1.71	0.55
66:Sb:55:THR:HA	66:Sb:63:LEU:HD23	1.88	0.55
70:SP:64:LYS:HA	70:SP:73:PRO:HB3	1.89	0.55
74:Sd:33:LYS:HE2	74:Sd:34:TYR:HE1	1.72	0.55
4:SB:193:ILE:O	4:SB:197:ILE:HG12	2.07	0.55
5:C1:1336:U:H2'	5:C1:1337:A:C8	2.40	0.55
5:C1:3283:U:H2'	5:C1:3284:G:H8	1.72	0.55
16:LL:105:ASN:OD1	39:Li:17:VAL:HG11	2.07	0.55
47:P0:5:ARG:HD2	47:P0:6:GLU:N	2.22	0.55
49:C2:504:U:O4	49:C2:505:A:N6	2.40	0.55
63:SX:23:ARG:HG3	63:SX:23:ARG:HH11	1.72	0.55
3:LB:247:ARG:NH2	5:C1:1888:U:OP2	2.39	0.55
5:C1:8:C:H2'	5:C1:9:U:H6	1.72	0.55
5:C1:92:G:C6	5:C1:94:G:N2	2.75	0.55
5:C1:1138:U:H2'	5:C1:1139:G:C8	2.41	0.55
5:C1:2149:A:H62	5:C1:2187:G:H21	1.53	0.55
42:Ll:45:ARG:HG2	42:Ll:45:ARG:HH11	1.71	0.55
49:C2:6:G:H3'	50:SC:205:ARG:HH22	1.72	0.55
49:C2:229:U:H3'	49:C2:230:C:C5	2.42	0.55
49:C2:871:G:H2'	49:C2:872:G:H8	1.67	0.55
58:SM:49:THR:O	58:SM:53:THR:HG22	2.07	0.55
68:5:85:VAL:HG12	68:5:141:ALA:HB2	1.89	0.55
5:C1:1334:U:H5''	11:LF:206:LYS:HG2	1.88	0.55
5:C1:1497:C:H2'	5:C1:1498:A:H8	1.72	0.55
5:C1:2565:U:H2'	5:C1:2566:C:C6	2.42	0.55
5:C1:2854:U:OP2	14:LI:3:ARG:NH2	2.40	0.55
7:C3:75:G:H2'	7:C3:76:C:C6	2.42	0.55
15:LJ:164:LYS:NZ	15:LJ:171:VAL:HG23	2.22	0.55
39:Li:90:MET:HE2	39:Li:90:MET:N	2.22	0.55
49:C2:66:U:H1'	52:SG:171:LYS:NZ	2.22	0.55
49:C2:169:A:OP2	52:SG:137:ARG:NH1	2.40	0.55
49:C2:300:A:H2'	49:C2:301:A:C8	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:SE:11:ARG:NH1	51:SE:21:ASP:OD1	2.40	0.55
51:SE:68:ARG:NE	51:SE:76:VAL:HG11	2.22	0.55
52:SG:220:LYS:HA	52:SG:223:LYS:HE2	1.88	0.55
64:SY:15:ASN:HD22	64:SY:20:ARG:HH22	1.53	0.55
1:LA:67:TYR:OH	5:C1:2525:G:N7	2.40	0.54
4:SB:144:ARG:HD3	4:SB:208:GLN:HB3	1.89	0.54
5:C1:501:A:H2'	5:C1:502:U:C6	2.42	0.54
5:C1:777:U:O2'	5:C1:2720:G:OP1	2.25	0.54
5:C1:2709:C:H2'	5:C1:2710:C:C6	2.42	0.54
7:C3:77:A:C6	7:C3:78:G:C2	2.94	0.54
49:C2:487:G:H2'	49:C2:488:G:H8	1.70	0.54
49:C2:518:A:H1'	49:C2:534:A:H61	1.72	0.54
49:C2:1294:G:C2	49:C2:1295:G:C8	2.95	0.54
49:C2:1693:A:H2	49:C2:1708:U:H3	1.53	0.54
50:SC:52:THR:OG1	50:SC:55:GLU:OE2	2.21	0.54
55:SJ:168:ARG:HG3	55:SJ:169:PRO:HD2	1.89	0.54
68:5:97:ASP:O	68:5:99:PHE:N	2.40	0.54
70:SP:121:ILE:H	77:s:57:ASN:ND2	1.95	0.54
2:SA:93:THR:OG1	2:SA:185:ARG:NH1	2.40	0.54
5:C1:100:A:H3'	5:C1:101:G:H21	1.72	0.54
5:C1:357:A:H2'	5:C1:358:G:H8	1.73	0.54
5:C1:1618:G:C2	5:C1:1619:A:C2	2.95	0.54
5:C1:1638:A:OP1	37:Lg:74:ARG:NH1	2.41	0.54
6:C4:1:G:O2'	9:LD:273:ARG:NH1	2.41	0.54
6:C4:87:G:O2'	23:LS:119:ARG:NH2	2.39	0.54
10:LE:54:TYR:CE1	10:LE:63:LEU:HD22	2.42	0.54
12:LG:185:ARG:HA	12:LG:188:THR:HG22	1.90	0.54
16:LL:158:ALA:HA	31:La:97:GLU:HA	1.88	0.54
20:LP:78:VAL:HG12	20:LP:80:LYS:H	1.71	0.54
36:Lf:6:ARG:HG3	36:Lf:8:TYR:CE1	2.42	0.54
43:Lm:97:ARG:HE	43:Lm:122:ARG:HB2	1.70	0.54
49:C2:1684:U:H2'	49:C2:1685:G:C8	2.42	0.54
58:SM:129:GLU:OE1	58:SM:130:THR:HG22	2.06	0.54
5:C1:612:U:H2'	5:C1:613:G:C8	2.42	0.54
5:C1:1490:A:O2'	40:Lj:12:HIS:O	2.23	0.54
5:C1:1856:C:H2'	5:C1:1857:C:C6	2.41	0.54
5:C1:3295:A:H2'	5:C1:3296:A:C8	2.43	0.54
8:LC:193:LYS:O	8:LC:198:ARG:HG3	2.08	0.54
21:LQ:158:HIS:H	21:LQ:186:VAL:HG11	1.72	0.54
36:Lf:59:VAL:HG13	36:Lf:60:ARG:N	2.22	0.54
49:C2:68:A:H5'	52:SG:160:ARG:HH12	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:C2:490:C:H2'	49:C2:491:C:O4'	2.07	0.54
49:C2:551:G:H2'	49:C2:552:G:H8	1.72	0.54
49:C2:590:C:H5'	67:Se:56:MET:HE1	1.89	0.54
49:C2:1399:C:O2'	49:C2:1400:A:O5'	2.20	0.54
49:C2:1759:C:H2'	49:C2:1760:G:C8	2.42	0.54
53:SH:130:VAL:HG21	53:SH:154:LEU:HD11	1.89	0.54
53:SH:166:LEU:HA	53:SH:169:PHE:HD2	1.73	0.54
59:SN:84:ILE:HD11	59:SN:89:TYR:HD2	1.71	0.54
64:SY:8:ARG:HH22	64:SY:28:LEU:HD11	1.70	0.54
65:Sa:71:LEU:HB3	65:Sa:73:TYR:CE1	2.43	0.54
72:ST:49:ASP:OD2	72:ST:56:LYS:NZ	2.38	0.54
1:LA:83:HIS:HB3	46:Lp:64:VAL:HG22	1.87	0.54
5:C1:63:A:OP1	18:LN:172:ARG:NH2	2.40	0.54
5:C1:80:G:C6	5:C1:106:A:C6	2.95	0.54
5:C1:184:U:H2'	5:C1:185:C:C6	2.42	0.54
5:C1:2566:C:H2'	5:C1:2567:C:H6	1.73	0.54
5:C1:2923:U:H2'	5:C1:2924:U:H6	1.73	0.54
12:LG:143:ILE:HG23	12:LG:175:VAL:HG21	1.90	0.54
15:LJ:14:ILE:HD13	15:LJ:131:MET:SD	2.47	0.54
15:LJ:117:ASP:OD1	15:LJ:119:SER:OG	2.26	0.54
20:LP:61:ARG:O	20:LP:64:ASN:ND2	2.41	0.54
25:LU:20:SER:O	25:LU:23:THR:HG22	2.08	0.54
49:C2:214:G:N2	49:C2:252:U:O4	2.40	0.54
49:C2:331:A:H2'	49:C2:332:U:C6	2.43	0.54
49:C2:446:A:H5''	51:SE:57:ASN:HD21	1.72	0.54
49:C2:595:G:H2'	49:C2:596:C:C6	2.42	0.54
49:C2:1232:U:H2'	49:C2:1233:G:C8	2.43	0.54
49:C2:1625:C:H2'	49:C2:1626:U:C6	2.43	0.54
49:C2:1795:U:H3'	65:Sa:5:ARG:HH12	1.72	0.54
52:SG:58:LYS:HD3	52:SG:107:ALA:HB2	1.88	0.54
52:SG:119:GLN:OE1	52:SG:119:GLN:N	2.34	0.54
54:SI:37:LYS:C	54:SI:59:ARG:HA	2.32	0.54
55:SJ:131:GLN:HA	55:SJ:132:ARG:NH1	2.23	0.54
60:SO:107:ARG:CZ	65:Sa:52:ASP:HB3	2.37	0.54
71:SZ:91:PRO:HB3	71:SZ:101:TYR:HE1	1.73	0.54
76:Sc:40:ILE:HG23	76:Sc:62:GLU:HG3	1.88	0.54
1:LA:30:ARG:NH1	1:LA:33:ASP:OD2	2.41	0.54
4:SB:87:ARG:HB3	4:SB:101:HIS:CD2	2.39	0.54
5:C1:585:A:H2'	5:C1:586:C:C6	2.42	0.54
5:C1:1709:C:H2'	5:C1:1710:C:C6	2.41	0.54
5:C1:2526:C:H2'	5:C1:2527:G:C8	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:LC:295:ILE:H	8:LC:295:ILE:HD12	1.73	0.54
20:LP:31:GLU:HG2	20:LP:60:PHE:CD1	2.43	0.54
39:Li:4:LYS:HA	39:Li:12:ASN:HB3	1.89	0.54
40:Lj:12:HIS:ND1	40:Lj:13:ASN:OD1	2.41	0.54
49:C2:250:C:H2'	49:C2:251:A:C8	2.42	0.54
49:C2:585:A:H2'	49:C2:586:G:C8	2.43	0.54
49:C2:754:A:H2'	49:C2:793:A:C2	2.42	0.54
49:C2:1327:C:C2	49:C2:1328:G:C8	2.95	0.54
57:SL:87:ARG:HE	57:SL:104:HIS:CG	2.25	0.54
57:SL:131:ILE:HB	57:SL:135:VAL:HG13	1.89	0.54
61:SV:32:VAL:HG21	61:SV:60:ARG:HH12	1.71	0.54
63:SX:90:ASP:OD1	63:SX:91:GLY:N	2.41	0.54
64:SY:78:SER:N	64:SY:81:GLU:OE1	2.41	0.54
64:SY:113:ASN:OD1	64:SY:116:LYS:NZ	2.28	0.54
69:Sf:107:LYS:HB3	69:Sf:115:THR:OG1	2.07	0.54
5:C1:243:G:H2'	5:C1:244:G:H8	1.71	0.54
5:C1:632:G:H2'	5:C1:633:C:C6	2.43	0.54
5:C1:760:G:N2	5:C1:770:G:N3	2.56	0.54
5:C1:929:A:H2'	5:C1:930:U:C6	2.42	0.54
5:C1:1019:G:H1	5:C1:1033:U:H3	1.54	0.54
5:C1:1128:U:OP1	14:LI:4:ARG:NH2	2.35	0.54
6:C4:22:A:H2'	6:C4:23:A:C8	2.43	0.54
12:LG:74:THR:HA	12:LG:77:GLN:HE21	1.72	0.54
12:LG:227:ASP:O	12:LG:231:LYS:NZ	2.41	0.54
27:LW:61:LYS:HZ2	27:LW:61:LYS:HB3	1.73	0.54
47:P0:16:ARG:O	47:P0:20:GLU:HG2	2.07	0.54
47:P0:133:THR:HG21	47:P0:145:ILE:HG23	1.88	0.54
49:C2:1300:A:H5''	49:C2:1301:U:OP2	2.07	0.54
50:SC:242:ILE:HG23	50:SC:243:TYR:CD1	2.43	0.54
61:SV:79:LEU:C	61:SV:80:LYS:HD3	2.33	0.54
66:Sb:43:ILE:HD12	66:Sb:80:ARG:HH12	1.73	0.54
4:SB:23:PRO:HA	4:SB:26:ARG:HH11	1.71	0.54
5:C1:118:U:O2	5:C1:121:A:H5'	2.07	0.54
5:C1:677:A:OP2	21:LQ:88:THR:OG1	2.19	0.54
5:C1:1231:A:C2'	5:C1:1278:A:H61	2.21	0.54
5:C1:1759:C:H2'	5:C1:1760:A:O4'	2.07	0.54
8:LC:317:PRO:C	8:LC:319:LYS:H	2.15	0.54
19:LO:54[A]:TYR:CD2	19:LO:145[A]:VAL:HG21	2.43	0.54
49:C2:444:C:H42	49:C2:460:A:H62	1.56	0.54
49:C2:563:U:H5'	67:Se:17:GLN:OE1	2.08	0.54
49:C2:1142:A:H2'	49:C2:1143:A:C8	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:ST:21:PHE:HA	72:ST:24:ARG:CZ	2.38	0.54
5:C1:1799:A:H2'	5:C1:1800:A:C8	2.40	0.54
5:C1:2266:U:H2'	5:C1:2267:C:C6	2.42	0.54
5:C1:2442:G:N2	5:C1:2505:U:O2	2.35	0.54
5:C1:2542:U:O2'	5:C1:2543:U:H5''	2.08	0.54
5:C1:2656:A:C8	5:C1:2658:G:C8	2.96	0.54
5:C1:3232:G:H2'	5:C1:3233:C:H6	1.72	0.54
7:C3:28:C:H2'	7:C3:29:U:C6	2.43	0.54
7:C3:91:C:H2'	7:C3:92:A:H8	1.72	0.54
12:LG:133:LYS:HD2	12:LG:138:HIS:HE1	1.72	0.54
13:LH:59:ASN:O	13:LH:59:ASN:ND2	2.38	0.54
16:LL:89:TYR:HA	16:LL:92:THR:HG22	1.90	0.54
16:LL:168:ARG:NH2	16:LL:172:LEU:HD21	2.23	0.54
36:Lf:42:GLN:HA	36:Lf:45:LEU:HD23	1.90	0.54
49:C2:689:G:H2'	49:C2:690:G:H8	1.72	0.54
49:C2:887:A:H2'	49:C2:888:U:C6	2.43	0.54
49:C2:1078:C:H2'	49:C2:1079:U:C6	2.41	0.54
49:C2:1378:U:H2'	49:C2:1379:C:C6	2.43	0.54
49:C2:1751:C:H2'	49:C2:1752:U:C6	2.43	0.54
51:SE:191:ARG:NH1	51:SE:245:LYS:HZ3	2.06	0.54
55:SJ:105:LEU:HD12	55:SJ:108:ARG:HD2	1.90	0.54
1:LA:54:ARG:NH1	5:C1:2177:G:OP1	2.35	0.54
5:C1:1666:G:H2'	5:C1:1667:A:C8	2.41	0.54
5:C1:3030:G:H3'	5:C1:3031:G:H8	1.73	0.54
13:LH:31:ARG:HH12	13:LH:83:THR:C	2.15	0.54
18:LN:175:ASN:HB2	18:LN:180:PHE:HE2	1.70	0.54
49:C2:30:G:P	63:SX:126:LYS:HZ1	2.31	0.54
49:C2:705:U:O2'	49:C2:706:A:O5'	2.19	0.54
49:C2:1277:G:H2'	49:C2:1278:G:O4'	2.08	0.54
49:C2:1673:G:C6	49:C2:1728:A:N1	2.76	0.54
53:SH:14:THR:HG22	53:SH:17:GLU:CD	2.32	0.54
67:Se:34:ALA:O	67:Se:37:ARG:HB2	2.08	0.54
73:SQ:13:LYS:HG3	73:SQ:14:LYS:H	1.72	0.54
5:C1:138:U:H2'	5:C1:139:G:H8	1.73	0.54
5:C1:357:A:H2'	5:C1:358:G:C8	2.43	0.54
5:C1:359:U:O2'	40:Lj:16:HIS:ND1	2.39	0.54
5:C1:443:G:C2	5:C1:491:C:O2	2.61	0.54
5:C1:608:A:OP1	8:LC:320:ASN:ND2	2.28	0.54
5:C1:3198:U:H1'	13:LH:21:LYS:HG2	1.90	0.54
7:C3:75:G:OP2	29:LY:74:TYR:OH	2.25	0.54
7:C3:142:C:H2'	7:C3:143:U:H6	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:LD:108:ARG:CZ	9:LD:253:PHE:HB2	2.38	0.54
15:LJ:94:ARG:NH1	15:LJ:94:ARG:O	2.41	0.54
39:Li:39:PHE:O	39:Li:42:SER:OG	2.25	0.54
49:C2:341:A:H2'	49:C2:342:C:H6	1.73	0.54
49:C2:1650:U:H2'	49:C2:1651:A:H8	1.70	0.54
49:C2:1793:G:O2'	49:C2:1795:U:OP2	2.26	0.54
64:SY:86:GLU:HB3	64:SY:91:LEU:HD21	1.90	0.54
3:LB:20:LYS:HB2	5:C1:2991:A:P	2.48	0.53
4:SB:158:SER:HB3	49:C2:875:G:OP1	2.08	0.53
5:C1:1539:A:C4	5:C1:1583:A:C6	2.96	0.53
5:C1:2379:U:H2'	5:C1:2380:U:C6	2.43	0.53
5:C1:2386:A:C5	5:C1:2994:A:C6	2.96	0.53
5:C1:2419:A:H2'	5:C1:2420:C:C6	2.43	0.53
5:C1:2433:U:O2'	5:C1:2434:U:OP1	2.25	0.53
5:C1:2707:C:H2'	5:C1:2708:C:C6	2.43	0.53
5:C1:3006:A:C2	5:C1:3141:A:C4	2.96	0.53
5:C1:3065:G:H2'	5:C1:3066:U:C6	2.43	0.53
27:LW:91:LYS:O	27:LW:95:SER:N	2.41	0.53
47:P0:97:LYS:H	47:P0:97:LYS:HD2	1.73	0.53
49:C2:227:U:H2'	49:C2:228:G:C8	2.43	0.53
49:C2:273:G:O6	49:C2:283:U:C4	2.60	0.53
49:C2:888:U:H2'	49:C2:889:U:C6	2.42	0.53
49:C2:1547:A:H2'	49:C2:1548:G:H8	1.73	0.53
51:SE:94:ALA:O	51:SE:95:THR:OG1	2.21	0.53
52:SG:52:ILE:HA	52:SG:111:LEU:HD23	1.90	0.53
59:SN:30:SER:O	59:SN:33:VAL:HG22	2.08	0.53
4:SB:181:LEU:N	4:SB:183:GLN:HE22	2.06	0.53
5:C1:1712:G:O2'	5:C1:1713:G:O4'	2.17	0.53
5:C1:2098:C:H2'	5:C1:2099:A:H8	1.74	0.53
5:C1:2193:U:O2'	5:C1:2313:A:OP2	2.18	0.53
5:C1:2278:C:OP2	44:Ln:23:ARG:NH1	2.41	0.53
5:C1:3101:G:H2'	5:C1:3102:G:H8	1.73	0.53
12:LG:106:LYS:O	12:LG:110:THR:HG23	2.08	0.53
13:LH:179:ILE:C	13:LH:180:TYR:HD1	2.15	0.53
14:LI:89:VAL:HG12	14:LI:136:PHE:CE1	2.44	0.53
17:LM:13:ARG:HD2	17:LM:65:LEU:HB2	1.90	0.53
36:Lf:42:GLN:CA	36:Lf:42:GLN:HE21	2.20	0.53
49:C2:66:U:H1'	52:SG:171:LYS:HZ2	1.73	0.53
49:C2:763:G:P	55:SJ:79:ARG:HH21	2.30	0.53
49:C2:1183:A:C5	70:SP:100:LYS:HD2	2.42	0.53
49:C2:1793:G:O6	65:Sa:34:LYS:NZ	2.25	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:SE:199:GLU:OE1	51:SE:201:HIS:HE1	1.91	0.53
70:SP:61:ARG:O	70:SP:65:LEU:HG	2.06	0.53
70:SP:77:ARG:HH11	70:SP:95:GLY:N	2.06	0.53
5:C1:501:A:H2'	5:C1:502:U:H6	1.73	0.53
5:C1:1493:G:C4	42:Ll:13:MET:HE1	2.43	0.53
7:C3:44:A:H2'	7:C3:45:C:C6	2.44	0.53
8:LC:188:ARG:HH11	8:LC:197:ARG:HB3	1.73	0.53
28:LX:50:ALA:HB2	38:Lh:77:PRO:HG2	1.91	0.53
49:C2:29:U:O3'	63:SX:126:LYS:NZ	2.40	0.53
49:C2:431:C:H3'	49:C2:432:G:H8	1.73	0.53
49:C2:1236:A:H1'	69:Sf:138:ARG:HH12	1.72	0.53
50:SC:140:ARG:HB2	50:SC:222:TYR:CD1	2.44	0.53
53:SH:99:LEU:O	53:SH:112:ARG:NH1	2.40	0.53
56:SK:4:PRO:HB2	56:SK:6:GLU:HG2	1.90	0.53
2:SA:143:VAL:O	2:SA:157:ASP:HB2	2.08	0.53
2:SA:181:VAL:O	2:SA:185:ARG:HG3	2.08	0.53
5:C1:1018:G:O6	5:C1:1034:U:O4	2.26	0.53
5:C1:1090:G:H2'	5:C1:1091:A:H8	1.73	0.53
5:C1:1162:U:H5'	35:Le:54:LYS:HZ1	1.73	0.53
5:C1:1560:G:N2	5:C1:1580:A:N1	2.56	0.53
5:C1:1621:A:H2'	5:C1:1622:U:C6	2.43	0.53
5:C1:1695:U:O2'	5:C1:1749:A:N1	2.29	0.53
5:C1:3016:A:H2'	5:C1:3017:A:C8	2.43	0.53
7:C3:141:C:H2'	7:C3:142:C:H6	1.73	0.53
49:C2:1582:U:O2'	49:C2:1614:A:N6	2.42	0.53
49:C2:1739:C:H2'	49:C2:1740:A:C8	2.43	0.53
1:LA:177:LYS:HD3	46:Lp:69:TYR:HE2	1.74	0.53
4:SB:21:VAL:HG11	4:SB:26:ARG:HH22	1.74	0.53
5:C1:312:C:H2'	5:C1:313:A:C8	2.39	0.53
5:C1:618:C:H2'	5:C1:619:A:H8	1.73	0.53
5:C1:659:G:C4	5:C1:1432:C:N4	2.77	0.53
5:C1:1246:G:O2'	5:C1:1247:U:O4'	2.25	0.53
5:C1:1659:U:H2'	5:C1:1660:C:C6	2.43	0.53
5:C1:1813:A:OP1	5:C1:1817:G:O2'	2.27	0.53
5:C1:2465:G:H2'	5:C1:2466:G:C8	2.43	0.53
7:C3:141:C:H2'	7:C3:142:C:C6	2.43	0.53
20:LP:179:GLN:HA	20:LP:182:ILE:HG22	1.89	0.53
34:Ld:19:ARG:HH11	34:Ld:19:ARG:HG3	1.72	0.53
47:P0:58:MET:SD	47:P0:61:ARG:NH1	2.81	0.53
49:C2:76:A:N3	49:C2:80:A:N6	2.56	0.53
49:C2:95:G:OP1	51:SE:6:LYS:NZ	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:C2:1144:U:H2'	49:C2:1145:U:O2	2.08	0.53
49:C2:1633:A:H4'	49:C2:1634:C:O5'	2.07	0.53
61:SV:79:LEU:HG	61:SV:80:LYS:H	1.71	0.53
64:SY:16:PRO:HA	64:SY:19:ALA:HA	1.91	0.53
74:Sd:33:LYS:HG2	74:Sd:34:TYR:CD1	2.44	0.53
1:LA:144:ASN:O	1:LA:145:LYS:HD3	2.09	0.53
2:SA:83:GLN:N	2:SA:83:GLN:OE1	2.41	0.53
2:SA:197:ILE:H	2:SA:197:ILE:HD12	1.73	0.53
4:SB:30:PHE:CD2	4:SB:94:LYS:HA	2.44	0.53
5:C1:1084:A:H4'	9:LD:44:TYR:CE2	2.43	0.53
5:C1:1781:C:H2'	5:C1:1782:U:C6	2.43	0.53
5:C1:3160:U:H2'	5:C1:3161:C:C6	2.43	0.53
5:C1:3204:C:H2'	5:C1:3205:G:C8	2.43	0.53
5:C1:3232:G:C6	5:C1:3256:G:C6	2.96	0.53
13:LH:151:VAL:HA	13:LH:154:VAL:HG12	1.91	0.53
16:LL:174:ARG:NH1	16:LL:174:ARG:HB2	2.24	0.53
33:Lc:25:LEU:O	33:Lc:29:SER:OG	2.22	0.53
47:P0:27:VAL:HG23	47:P0:188:VAL:HG23	1.91	0.53
47:P0:58:MET:HB2	47:P0:80:VAL:HG23	1.89	0.53
49:C2:92:A:P	49:C2:398:G:H22	2.32	0.53
49:C2:404:G:H2'	49:C2:405:C:H6	1.74	0.53
49:C2:656:G:C6	49:C2:679:U:O2	2.62	0.53
49:C2:786:C:O2'	51:SE:255:ARG:NH2	2.28	0.53
49:C2:1050:G:H2'	49:C2:1051:G:O4'	2.09	0.53
49:C2:1068:C:H2'	49:C2:1069:A:C8	2.43	0.53
49:C2:1101:G:O2'	62:SW:4:SER:OG	2.26	0.53
49:C2:1504:G:H2'	49:C2:1505:A:C8	2.43	0.53
49:C2:1535:U:O2	49:C2:1536:G:N1	2.42	0.53
49:C2:1712:A:H3'	49:C2:1713:G:C8	2.42	0.53
50:SC:212:LYS:O	50:SC:216:VAL:HG23	2.09	0.53
52:SG:30:LYS:HB3	52:SG:34:GLN:NE2	2.23	0.53
52:SG:45:PHE:HA	52:SG:48:TYR:HD2	1.72	0.53
53:SH:56:LYS:HG2	53:SH:88:ARG:HE	1.72	0.53
56:SK:1:MET:SD	56:SK:1:MET:N	2.71	0.53
66:Sb:56:CYS:SG	66:Sb:58:SER:OG	2.65	0.53
3:LB:10:ARG:HD2	3:LB:11:HIS:N	2.24	0.53
5:C1:286:U:C2	5:C1:287:G:C8	2.97	0.53
5:C1:1447:G:N2	5:C1:2356:A:OP2	2.40	0.53
5:C1:1638:A:O3'	37:Lg:52:GLN:NE2	2.42	0.53
5:C1:1789:G:H2'	5:C1:1790:G:H8	1.72	0.53
5:C1:2213:A:H2'	5:C1:2214:A:H8	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:2707:C:H2'	5:C1:2708:C:H6	1.73	0.53
5:C1:3271:G:C5	10:LE:108:LYS:HE3	2.44	0.53
5:C1:3295:A:H2'	5:C1:3296:A:H8	1.73	0.53
9:LD:243:ALA:O	9:LD:247:ILE:HD12	2.09	0.53
15:LJ:49:LYS:HB3	15:LJ:62:ASN:HA	1.91	0.53
15:LJ:173:ASP:OD1	15:LJ:174:LYS:N	2.36	0.53
37:Lg:101:VAL:HA	37:Lg:104:VAL:HG12	1.91	0.53
49:C2:568:G:N7	63:SX:69:ARG:NH1	2.52	0.53
49:C2:1001:A:H2'	49:C2:1002:G:C8	2.44	0.53
49:C2:1168:U:H2'	49:C2:1169:G:H8	1.73	0.53
49:C2:1391:A:H2'	49:C2:1392:U:C6	2.43	0.53
49:C2:1424:A:H2'	49:C2:1425:A:H8	1.73	0.53
49:C2:1525:A:H5''	72:ST:83:ALA:HB2	1.91	0.53
49:C2:1548:G:H2'	49:C2:1549:C:C6	2.43	0.53
49:C2:1628:U:H2'	49:C2:1629:G:C8	2.43	0.53
50:SC:230:TRP:CZ3	62:SW:68:ARG:HB3	2.41	0.53
64:SY:41:ARG:CZ	64:SY:52:LYS:HE2	2.39	0.53
70:SP:21:ASP:OD1	70:SP:22:LEU:HD23	2.09	0.53
1:LA:3:ARG:NH1	1:LA:208:ASP:OD1	2.41	0.53
3:LB:153:LYS:HD3	3:LB:154:TYR:CZ	2.44	0.53
5:C1:26:A:C4	5:C1:330:G:C8	2.97	0.53
5:C1:528:U:H2'	5:C1:529:A:C8	2.44	0.53
5:C1:1355:A:H4'	5:C1:1356:U:O5'	2.08	0.53
5:C1:1822:C:H2'	5:C1:1823:A:C8	2.44	0.53
5:C1:2464:U:H2'	5:C1:2465:G:H8	1.72	0.53
11:LF:173:LEU:HB3	11:LF:178:ILE:HB	1.91	0.53
22:LR:136:ARG:O	22:LR:140:GLU:HG3	2.09	0.53
45:Lo:6:LYS:NZ	45:Lo:93:LEU:O	2.29	0.53
49:C2:182:A:H2'	49:C2:183:U:C6	2.43	0.53
49:C2:940:A:H2'	49:C2:941:A:C8	2.44	0.53
49:C2:1221:A:H2'	49:C2:1222:C:C6	2.43	0.53
49:C2:1521:G:O6	72:ST:68:ARG:NH2	2.41	0.53
49:C2:1583:A:N6	49:C2:1612:U:OP2	2.37	0.53
3:LB:349:LYS:O	3:LB:352:GLU:HG3	2.09	0.53
5:C1:23:A:H2'	5:C1:24:G:C8	2.44	0.53
5:C1:616:G:H2'	5:C1:617:G:C8	2.38	0.53
5:C1:1128:U:N3	5:C1:2828:G:O4'	2.42	0.53
5:C1:1281:G:H2'	5:C1:1282:G:H8	1.74	0.53
5:C1:2585:G:H8	12:LG:48:ARG:HG2	1.74	0.53
5:C1:2843:U:OP2	5:C1:2844:C:N4	2.41	0.53
5:C1:3051:U:C2	5:C1:3052:G:C8	2.97	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:3232:G:H2'	5:C1:3233:C:C6	2.43	0.53
9:LD:196:ARG:HA	9:LD:199:ILE:HD12	1.91	0.53
16:LL:161:ASP:OD1	16:LL:162:ASN:N	2.41	0.53
35:Le:38:ILE:HA	35:Le:43:ARG:NH2	2.24	0.53
38:Lh:12:LYS:NZ	38:Lh:20:GLN:OE1	2.42	0.53
49:C2:73:U:C5	49:C2:74:U:H1'	2.43	0.53
49:C2:684:A:H2'	49:C2:685:A:C8	2.44	0.53
49:C2:919:A:H5'	60:SO:18:ARG:HH12	1.74	0.53
49:C2:1489:U:O2'	49:C2:1492:A:N3	2.38	0.53
51:SE:246:LEU:HD12	51:SE:250:GLU:HG3	1.91	0.53
59:SN:25:TRP:HZ3	66:Sb:82:LYS:HD2	1.74	0.53
59:SN:100:LYS:HG2	59:SN:104:ARG:NH1	2.23	0.53
68:5:151:LYS:NZ	68:5:153:ALA:HB2	2.24	0.53
3:LB:371:GLN:N	3:LB:375:GLU:OE2	2.36	0.53
3:LB:386:ASP:OD1	3:LB:387:LEU:N	2.42	0.53
4:SB:209:ASN:OD1	4:SB:211:HIS:ND1	2.27	0.53
5:C1:394:G:N2	5:C1:396:A:H8	2.07	0.53
5:C1:763:G:O2'	5:C1:764:U:OP1	2.25	0.53
5:C1:822:G:H2'	5:C1:823:C:H6	1.73	0.53
5:C1:1000:C:C2	5:C1:1045:C:N4	2.77	0.53
5:C1:1277:C:HO2'	5:C1:1278:A:P	2.32	0.53
5:C1:2669:G:H2'	5:C1:2670:G:H8	1.74	0.53
5:C1:2696:A:H2'	5:C1:2697:A:C8	2.44	0.53
5:C1:2697:A:H2'	5:C1:2698:G:C8	2.43	0.53
5:C1:2882:U:H2'	5:C1:2883:U:H6	1.73	0.53
5:C1:2965:U:H5	68:5:73:LEU:HD21	1.74	0.53
5:C1:3253:G:H2'	5:C1:3254:G:C8	2.44	0.53
18:LN:18:VAL:HG13	18:LN:19:LEU:HD12	1.91	0.53
20:LP:38:GLY:H	20:LP:114:VAL:HG23	1.73	0.53
31:La:74:ASN:OD1	31:La:115:LYS:HB2	2.07	0.53
38:Lh:44:ILE:HG22	38:Lh:48:ARG:HE	1.73	0.53
43:Lm:88:LYS:HZ2	43:Lm:89:TYR:HE1	1.55	0.53
49:C2:188:A:H3'	49:C2:189:C:C6	2.43	0.53
49:C2:621:A:O2'	49:C2:1106:U:O2'	2.23	0.53
49:C2:647:G:C2	49:C2:688:G:C2	2.96	0.53
49:C2:845:G:H2'	49:C2:846:G:H5''	1.90	0.53
49:C2:1293:U:H2'	49:C2:1294:G:O4'	2.09	0.53
49:C2:1796:C:P	65:Sa:5:ARG:HH22	2.30	0.53
51:SE:181:VAL:HG12	51:SE:227:VAL:HA	1.91	0.53
59:SN:100:LYS:HA	59:SN:103:GLU:HG2	1.91	0.53
70:SP:75:PRO:HA	70:SP:93:VAL:HG23	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:Sd:39:CYS:SG	74:Sd:41:GLN:HG2	2.49	0.53
1:LA:64:ARG:HH21	12:LG:38:GLN:HA	1.74	0.52
1:LA:156:LYS:NZ	5:C1:2157:G:O2'	2.37	0.52
5:C1:90:C:O2'	5:C1:282:G:OP1	2.26	0.52
5:C1:290:G:H2'	5:C1:291:C:C6	2.44	0.52
5:C1:2735:U:H2'	5:C1:2736:A:C8	2.44	0.52
5:C1:3253:G:H2'	5:C1:3254:G:H8	1.74	0.52
8:LC:230:VAL:O	8:LC:233:LEU:HD23	2.09	0.52
11:LF:219:LYS:HE2	11:LF:220:PHE:CE1	2.44	0.52
18:LN:122:ASN:OD1	18:LN:123:GLN:N	2.42	0.52
38:Lh:6:ALA:O	38:Lh:10:ARG:HG2	2.09	0.52
45:Lo:46:LYS:HG2	45:Lo:54:THR:HG21	1.92	0.52
46:Lp:36:ARG:NE	46:Lp:48:LYS:HE3	2.24	0.52
49:C2:209:U:H2'	49:C2:210:A:C8	2.44	0.52
49:C2:600:U:H2'	49:C2:601:A:C8	2.42	0.52
49:C2:809:A:H2'	49:C2:810:G:C8	2.43	0.52
49:C2:952:A:H5''	59:SN:94:LYS:NZ	2.25	0.52
49:C2:960:U:H2'	49:C2:961:U:C6	2.44	0.52
49:C2:1273:G:H4'	49:C2:1274:C:O5'	2.07	0.52
49:C2:1767:G:OP1	49:C2:1770:U:H4'	2.09	0.52
49:C2:1775:U:H2'	49:C2:1776:A:C8	2.45	0.52
50:SC:65:GLU:HB2	50:SC:68:ILE:CD1	2.39	0.52
55:SJ:107:ARG:HH21	55:SJ:148:VAL:HG23	1.75	0.52
56:SK:32:HIS:ND1	56:SK:42:VAL:HG21	2.23	0.52
57:SL:8:GLN:HE22	57:SL:14:GLN:N	2.03	0.52
66:Sb:36:LYS:HE2	66:Sb:41:LEU:HA	1.91	0.52
4:SB:205:PHE:CD2	4:SB:206:PRO:HD2	2.44	0.52
5:C1:810:A:H2'	5:C1:811:U:C6	2.44	0.52
5:C1:1079:A:H4'	9:LD:140:ARG:O	2.09	0.52
5:C1:1615:C:H2'	5:C1:1616:U:H6	1.73	0.52
5:C1:2098:C:H2'	5:C1:2099:A:C8	2.45	0.52
5:C1:2293:C:OP2	26:LV:71:LYS:NZ	2.42	0.52
5:C1:2719:U:O3'	21:LQ:180:ARG:NH2	2.41	0.52
5:C1:2986:U:H2'	5:C1:2987:A:C8	2.34	0.52
5:C1:3094:A:H2'	5:C1:3095:U:C6	2.45	0.52
5:C1:3186:A:H3'	13:LH:23:ARG:HH11	1.74	0.52
13:LH:20:ILE:HG21	13:LH:45:PHE:HD2	1.74	0.52
16:LL:91:ARG:NE	16:LL:97:VAL:HB	2.24	0.52
18:LN:26:ARG:HB3	18:LN:30:TYR:CE2	2.44	0.52
19:LO:61[A]:ALA:HA	19:LO:70[A]:PRO:HD2	1.91	0.52
23:LS:71:LYS:HE3	23:LS:73:LYS:HD2	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:LS:77:VAL:HG21	23:LS:106:LEU:HD22	1.91	0.52
36:Lf:73:ARG:NH2	36:Lf:82:ARG:HH12	2.07	0.52
47:P0:24:SER:OG	47:P0:89:THR:O	2.11	0.52
49:C2:3:U:O2	55:SJ:17:ARG:NH1	2.42	0.52
49:C2:821:U:C4	49:C2:852:C:N3	2.77	0.52
49:C2:1172:G:H2'	49:C2:1173:C:C6	2.44	0.52
49:C2:1564:U:H2'	49:C2:1565:C:C6	2.45	0.52
55:SJ:85:VAL:HG22	55:SJ:107:ARG:HG3	1.92	0.52
2:SA:154:GLU:O	2:SA:156:VAL:HG23	2.09	0.52
5:C1:296:A:H8	5:C1:296:A:O5'	1.92	0.52
5:C1:861:C:H2'	5:C1:862:U:C6	2.44	0.52
5:C1:1941:C:H2'	5:C1:1942:U:C6	2.43	0.52
5:C1:2225:U:H2'	5:C1:2226:U:H6	1.74	0.52
5:C1:2355:G:OP1	20:LP:141:SER:OG	2.20	0.52
5:C1:2945:G:O2'	5:C1:2948:C:OP2	2.18	0.52
5:C1:2998:U:H2'	5:C1:2999:U:H6	1.75	0.52
6:C4:39:C:H2'	15:LJ:43:GLN:HE21	1.74	0.52
6:C4:60:G:H2'	6:C4:61:G:H8	1.74	0.52
18:LN:92:LEU:C	18:LN:93:LYS:HD2	2.34	0.52
49:C2:320:U:H2'	49:C2:321:C:C5	2.45	0.52
49:C2:567:A:H5'	67:Se:10:ARG:NH1	2.24	0.52
49:C2:997:G:C5	49:C2:1008:G:C6	2.98	0.52
70:SP:61:ARG:HA	70:SP:64:LYS:HZ2	1.75	0.52
72:ST:6:VAL:HB	72:ST:66:TYR:CE2	2.44	0.52
3:LB:180:GLU:OE2	5:C1:3002:C:O2'	2.24	0.52
5:C1:437:G:H22	5:C1:623:U:H3	1.57	0.52
5:C1:792:G:H2'	5:C1:793:C:C6	2.44	0.52
5:C1:1101:G:H2'	5:C1:1102:A:C8	2.43	0.52
5:C1:1212:A:O3'	23:LS:92:LYS:NZ	2.41	0.52
5:C1:1834:U:P	42:Ll:10:LYS:HZ1	2.33	0.52
5:C1:3199:G:H2'	5:C1:3200:G:H8	1.74	0.52
6:C4:27:A:H2'	6:C4:28:C:C6	2.45	0.52
7:C3:111:A:O2'	7:C3:112:U:H5'	2.10	0.52
8:LC:299:ILE:HG22	8:LC:300:ARG:O	2.09	0.52
10:LE:131:LYS:HG3	10:LE:133:GLU:H	1.75	0.52
15:LJ:12:LEU:HD12	15:LJ:133:ARG:HG2	1.90	0.52
22:LR:105:LEU:HD12	22:LR:135:LYS:HE3	1.92	0.52
44:Ln:18:ARG:NH1	49:C2:1125:A:OP1	2.42	0.52
49:C2:1280:C:H2'	49:C2:1281:G:H8	1.74	0.52
49:C2:1728:A:H2'	49:C2:1729:C:C6	2.44	0.52
51:SE:89:VAL:HG22	51:SE:100:ARG:HG2	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:SE:173:ILE:HD11	51:SE:235:TYR:HE2	1.74	0.52
51:SE:174:LYS:HA	51:SE:174:LYS:HE2	1.90	0.52
52:SG:161:GLU:OE2	52:SG:168:THR:HB	2.08	0.52
55:SJ:23:ARG:HE	55:SJ:24:LEU:HD23	1.74	0.52
58:SM:99:GLU:HB3	58:SM:115:VAL:HG11	1.92	0.52
70:SP:108:ARG:NH1	70:SP:110:GLU:OE2	2.42	0.52
71:SZ:46:LYS:O	71:SZ:50:ILE:HD12	2.09	0.52
71:SZ:48:ASP:O	71:SZ:52:LYS:HG2	2.10	0.52
72:ST:108:LEU:HB3	72:ST:114:VAL:HG22	1.92	0.52
5:C1:212:G:OP2	29:LY:2:ALA:N	2.42	0.52
5:C1:376:G:C4	5:C1:401:U:C4	2.98	0.52
5:C1:685:G:P	16:LL:35:ARG:HH21	2.32	0.52
5:C1:1064:A:H4'	5:C1:1065:A:O5'	2.09	0.52
5:C1:1472:U:H2'	5:C1:1473:G:C8	2.43	0.52
5:C1:2218:G:H2'	5:C1:2219:A:C8	2.41	0.52
5:C1:2430:A:H2'	5:C1:2431:C:C6	2.44	0.52
5:C1:2930:A:H2'	5:C1:2931:C:C6	2.43	0.52
5:C1:2985:C:H2'	5:C1:2986:U:C6	2.44	0.52
7:C3:49:G:C6	7:C3:50:C:C4	2.98	0.52
9:LD:159:VAL:HG13	9:LD:160:PHE:CD1	2.44	0.52
9:LD:177:GLU:OE1	9:LD:177:GLU:N	2.42	0.52
10:LE:43:LEU:HD11	10:LE:85:ILE:HG13	1.90	0.52
13:LH:103:ILE:HD11	13:LH:136:PHE:HE1	1.73	0.52
19:LO:85[A]:ARG:HD3	19:LO:90[A]:HIS:CD2	2.44	0.52
23:LS:8:GLN:HB2	23:LS:64:ILE:HD11	1.90	0.52
36:Lf:90:PRO:C	36:Lf:92:LYS:H	2.18	0.52
44:Ln:11:ARG:HH12	49:C2:1775:U:P	2.31	0.52
49:C2:156:A:H2'	49:C2:157:A:O4'	2.10	0.52
49:C2:209:U:H2'	49:C2:210:A:H8	1.73	0.52
49:C2:700:C:H2'	49:C2:701:U:H6	1.74	0.52
49:C2:1153:G:H5''	65:Sa:82:ARG:HH22	1.74	0.52
54:SI:26:LYS:O	54:SI:29:LEU:HD22	2.10	0.52
54:SI:101:ILE:HD11	54:SI:192:TYR:CD2	2.45	0.52
60:SO:87:GLY:HA3	60:SO:120:PRO:HG2	1.92	0.52
3:LB:128:LYS:O	5:C1:3150:A:H4'	2.10	0.52
5:C1:139:G:H2'	5:C1:140:C:C6	2.44	0.52
5:C1:216:G:H2'	5:C1:217:U:C6	2.45	0.52
5:C1:360:G:O2'	5:C1:361:A:O4'	2.15	0.52
5:C1:849:C:H2'	5:C1:850:U:H6	1.75	0.52
5:C1:1288:U:H2'	5:C1:1289:G:C8	2.43	0.52
5:C1:1357:G:H2'	5:C1:1358:C:C6	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:1498:A:H2'	5:C1:1499:C:H6	1.74	0.52
5:C1:2149:A:H2	5:C1:2188:A:H4'	1.73	0.52
5:C1:3387:U:H2'	5:C1:3388:C:C6	2.44	0.52
6:C4:107:C:H2'	6:C4:108:A:H8	1.74	0.52
17:LM:47:ASP:OD1	17:LM:48:GLY:N	2.43	0.52
27:LW:17:ARG:HG2	27:LW:17:ARG:HH11	1.75	0.52
47:P0:76:LEU:HD12	47:P0:79:PHE:CD2	2.45	0.52
49:C2:480:G:OP1	55:SJ:120:LYS:NZ	2.43	0.52
49:C2:1077:C:H2'	49:C2:1078:C:C6	2.45	0.52
49:C2:1226:A:H4'	49:C2:1227:A:OP1	2.10	0.52
49:C2:1260:U:H2'	49:C2:1261:G:C8	2.45	0.52
49:C2:1530:C:OP2	71:SZ:96:SER:OG	2.15	0.52
49:C2:1652:C:H2'	49:C2:1653:C:H6	1.74	0.52
49:C2:1788:G:H3'	60:SO:132:ARG:NH1	2.20	0.52
60:SO:80:HIS:ND1	60:SO:114:ARG:HB2	2.25	0.52
60:SO:84:ARG:HB2	60:SO:118:VAL:HG23	1.91	0.52
68:5:35:LYS:HD2	68:5:35:LYS:O	2.09	0.52
5:C1:498:A:O5'	36:Lf:86:ARG:NH1	2.43	0.52
5:C1:846:A:H2'	5:C1:847:A:O4'	2.09	0.52
5:C1:1509:A:H2'	5:C1:1510:G:O4'	2.10	0.52
5:C1:1687:U:H1'	25:LU:75:TYR:CD1	2.44	0.52
5:C1:2095:G:H2'	5:C1:2096:A:H8	1.75	0.52
5:C1:3348:G:N2	5:C1:3357:U:O2	2.26	0.52
7:C3:94:C:H5''	40:Lj:76:ASN:HD21	1.74	0.52
49:C2:566:C:O3'	67:Se:10:ARG:NH1	2.26	0.52
49:C2:700:C:H2'	49:C2:701:U:C6	2.44	0.52
49:C2:895:G:H2'	49:C2:896:U:C6	2.45	0.52
49:C2:1142:A:H2'	49:C2:1143:A:H8	1.75	0.52
49:C2:1304:G:H21	49:C2:1322:A:N6	2.08	0.52
49:C2:1688:U:H3'	49:C2:1689:A:C8	2.45	0.52
59:SN:46:THR:O	59:SN:50:ILE:HG12	2.09	0.52
60:SO:14:PHE:HD1	60:SO:78:ALA:HB3	1.74	0.52
60:SO:30:VAL:HG13	60:SO:39:ILE:HB	1.92	0.52
65:Sa:36:ILE:HD13	65:Sa:78:ALA:HB1	1.91	0.52
70:SP:110:GLU:OE2	70:SP:111:MET:HE2	2.08	0.52
73:SQ:77:GLN:O	73:SQ:81:ILE:HD12	2.10	0.52
2:SA:73:VAL:HG13	2:SA:95:ALA:HA	1.92	0.52
5:C1:30:G:OP1	18:LN:172:ARG:HD2	2.09	0.52
5:C1:235:A:H2'	5:C1:236:G:H8	1.75	0.52
5:C1:521:A:H2'	5:C1:522:A:H8	1.75	0.52
5:C1:742:G:O5'	21:LQ:73:GLN:NE2	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:1097:G:H4'	5:C1:1098:A:O5'	2.10	0.52
5:C1:1126:G:OP2	14:LI:14:ASN:ND2	2.42	0.52
5:C1:1295:G:H5'	23:LS:84:ARG:NH1	2.23	0.52
5:C1:1438:U:H2'	5:C1:1439:U:C6	2.45	0.52
5:C1:1444:G:H2'	5:C1:1445:U:O4'	2.10	0.52
5:C1:2667:A:H2'	5:C1:2668:U:O4'	2.09	0.52
5:C1:3006:A:H2'	5:C1:3007:U:O4'	2.09	0.52
8:LC:59:GLN:O	40:Lj:52:LYS:NZ	2.32	0.52
13:LH:20:ILE:HD13	17:LM:7:VAL:HG22	1.90	0.52
21:LQ:155:MET:HE1	21:LQ:163:PRO:N	2.24	0.52
34:Ld:80:ASN:OD1	34:Ld:81:GLU:N	2.43	0.52
42:LI:28:ARG:HA	42:LI:33:ASN:ND2	2.24	0.52
49:C2:272:U:H2'	49:C2:273:G:C8	2.45	0.52
49:C2:505:A:O2'	49:C2:507:U:OP1	2.18	0.52
49:C2:1079:U:H2'	49:C2:1080:U:H6	1.74	0.52
49:C2:1673:G:O6	49:C2:1728:A:N1	2.42	0.52
56:SK:35:ILE:HG22	56:SK:37:THR:HG22	1.91	0.52
60:SO:88:GLY:H	60:SO:120:PRO:HG2	1.74	0.52
61:SV:53:TYR:CZ	61:SV:72:LEU:HB3	2.44	0.52
64:SY:121:THR:OG1	64:SY:124:ARG:NH2	2.43	0.52
5:C1:359:U:N3	5:C1:920:A:C5	2.78	0.52
5:C1:573:C:H2'	5:C1:574:U:C6	2.45	0.52
5:C1:632:G:H2'	5:C1:633:C:H6	1.75	0.52
5:C1:655:C:OP2	35:Le:27:ARG:HD3	2.10	0.52
5:C1:869:G:C6	5:C1:891:G:O6	2.63	0.52
5:C1:1040:A:O2'	14:LI:198:LYS:NZ	2.43	0.52
5:C1:1117:G:C6	5:C1:1142:G:N2	2.78	0.52
5:C1:1242:G:N7	5:C1:1243:G:N1	2.58	0.52
5:C1:1461:A:H2'	5:C1:1462:A:H8	1.75	0.52
5:C1:1717:U:H2'	5:C1:1718:G:H8	1.75	0.52
5:C1:2103:U:H2'	5:C1:2104:A:C8	2.45	0.52
5:C1:2845:A:H2	5:C1:2850:G:H1	1.57	0.52
5:C1:2858:U:H2'	5:C1:2859:U:C6	2.45	0.52
5:C1:3182:G:C5	5:C1:3183:A:C6	2.98	0.52
7:C3:78:G:O2'	7:C3:79:A:H5'	2.10	0.52
8:LC:185:LYS:HE3	8:LC:199:TRP:CE3	2.44	0.52
11:LF:165:ASP:OD1	11:LF:166:ASN:N	2.43	0.52
14:LI:192:ASP:HA	14:LI:197:VAL:HG23	1.92	0.52
15:LJ:132:ASN:HA	15:LJ:154:THR:HG21	1.91	0.52
18:LN:46:ASP:OD1	18:LN:47:LYS:N	2.41	0.52
34:Ld:44:MET:HE2	34:Ld:44:MET:HA	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:Lj:4:GLY:O	40:Lj:7:SER:OG	2.23	0.52
47:P0:58:MET:HA	47:P0:61:ARG:HB2	1.91	0.52
49:C2:206:A:H1'	49:C2:262:U:N3	2.24	0.52
49:C2:328:A:H2'	49:C2:329:G:H8	1.75	0.52
49:C2:374:U:H2'	49:C2:375:U:C6	2.45	0.52
49:C2:905:A:H2'	49:C2:906:A:C8	2.44	0.52
49:C2:1243:G:H1	70:SP:54:ALA:HB3	1.74	0.52
49:C2:1485:C:H42	49:C2:1522:U:H5	1.58	0.52
50:SC:49:LYS:HB3	50:SC:243:TYR:CE2	2.44	0.52
51:SE:182:TYR:HB2	51:SE:228:ILE:HD13	1.92	0.52
57:SL:68:GLY:HA3	57:SL:127:GLN:NE2	2.25	0.52
1:LA:77:ILE:HD12	1:LA:128:ARG:HD2	1.91	0.52
1:LA:192:LYS:HB3	1:LA:193:ARG:HD2	1.92	0.52
5:C1:29:C:O2'	18:LN:172:ARG:NH1	2.42	0.52
5:C1:123:A:C6	5:C1:150:A:C5	2.98	0.52
5:C1:162:G:H2'	5:C1:163:C:C6	2.45	0.52
5:C1:802:C:H2'	5:C1:803:C:C6	2.45	0.52
5:C1:1128:U:H3	5:C1:2828:G:C1'	2.23	0.52
5:C1:1132:C:H2'	5:C1:1133:A:C8	2.44	0.52
5:C1:2138:A:C4	40:Lj:3:LYS:HB3	2.44	0.52
5:C1:2535:A:H2'	5:C1:2536:A:O4'	2.10	0.52
5:C1:3276:G:N7	20:LP:171:ARG:NH2	2.57	0.52
6:C4:97:A:H2'	6:C4:98:C:C6	2.45	0.52
12:LG:81:THR:HG21	12:LG:181:LYS:HB2	1.91	0.52
13:LH:12:VAL:HG13	13:LH:16:VAL:HG23	1.92	0.52
17:LM:105:GLN:HE22	17:LM:109:ARG:CZ	2.23	0.52
21:LQ:19:PRO:HB3	21:LQ:53:PHE:HA	1.92	0.52
45:Lo:12:CYS:HB2	45:Lo:23:HIS:CE1	2.45	0.52
47:P0:5:ARG:HD2	47:P0:6:GLU:H	1.75	0.52
49:C2:65:A:O2'	49:C2:66:U:H5'	2.10	0.52
49:C2:826:U:H2'	49:C2:827:C:H6	1.75	0.52
49:C2:1161:C:H2'	49:C2:1162:C:H6	1.74	0.52
49:C2:1273:G:O6	49:C2:1436:A:N6	2.43	0.52
49:C2:1616:G:O2'	76:Sc:18:ARG:NH2	2.43	0.52
49:C2:1620:C:H2'	49:C2:1621:U:C6	2.45	0.52
49:C2:1680:G:H1'	49:C2:1721:A:N6	2.25	0.52
52:SG:30:LYS:HA	52:SG:30:LYS:HE2	1.92	0.52
58:SM:131:ASP:HA	58:SM:134:SER:OG	2.09	0.52
59:SN:129:TYR:HD1	59:SN:134:VAL:HG11	1.74	0.52
3:LB:173:GLN:OE1	5:C1:3313:U:H4'	2.10	0.51
3:LB:232:ARG:NE	3:LB:269:GLN:O	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:41:G:H22	5:C1:2803:A:H62	1.58	0.51
5:C1:147:U:O4	12:LG:183:LYS:NZ	2.36	0.51
5:C1:273:A:H2'	5:C1:274:G:H8	1.75	0.51
5:C1:275:U:H2'	5:C1:276:U:C6	2.45	0.51
5:C1:286:U:O2'	18:LN:179:LYS:O	2.27	0.51
5:C1:787:G:H2'	5:C1:788:C:C6	2.45	0.51
5:C1:1256:G:O3'	48:P2:123:ARG:NH2	2.43	0.51
5:C1:1523:U:OP1	5:C1:1607:U:N3	2.35	0.51
5:C1:2431:C:H2'	5:C1:2432:A:H8	1.74	0.51
5:C1:2536:A:H2'	5:C1:2537:U:N3	2.25	0.51
5:C1:3192:U:H2'	5:C1:3193:C:C6	2.45	0.51
49:C2:11:A:N3	49:C2:1300:A:O2'	2.39	0.51
49:C2:1240:U:H1'	49:C2:1244:A:N1	2.25	0.51
49:C2:1359:C:H5''	72:ST:134:ARG:NH1	2.20	0.51
54:SI:110:ARG:NH2	54:SI:121:LEU:HB2	2.25	0.51
2:SA:189:VAL:HA	61:SV:44:ARG:NH2	2.25	0.51
3:LB:348:ARG:HE	5:C1:3037:U:H5''	1.76	0.51
5:C1:640:U:OP2	35:Le:38:ILE:HG12	2.10	0.51
5:C1:1222:G:O2'	5:C1:1285:G:N1	2.22	0.51
5:C1:1264:G:H21	5:C1:1265:U:H5	1.57	0.51
5:C1:1560:G:H2'	5:C1:1561:G:C8	2.44	0.51
5:C1:1565:G:H1	5:C1:1574:C:N4	2.06	0.51
5:C1:2227:C:H2'	5:C1:2228:A:H8	1.76	0.51
5:C1:3358:U:H2'	5:C1:3359:A:H8	1.75	0.51
6:C4:4:U:H2'	6:C4:5:G:H8	1.75	0.51
24:LT:51:GLY:HA3	24:LT:92:ARG:HG3	1.92	0.51
38:Lh:70:TYR:HA	38:Lh:73:LYS:NZ	2.21	0.51
38:Lh:90:ARG:HH11	38:Lh:90:ARG:HG3	1.75	0.51
49:C2:31:C:O3'	63:SX:139:LYS:NZ	2.40	0.51
49:C2:224:C:HO2'	49:C2:225:A:P	2.33	0.51
49:C2:315:A:C4	49:C2:353:A:N6	2.78	0.51
49:C2:519:C:H2'	49:C2:520:A:O4'	2.10	0.51
49:C2:545:A:H2'	67:Se:31:LYS:HD3	1.92	0.51
49:C2:832:U:H3'	49:C2:833:U:H5''	1.92	0.51
49:C2:1556:A:C5	49:C2:1560:U:C2	2.98	0.51
55:SJ:41:GLU:O	55:SJ:45:ILE:HD12	2.09	0.51
64:SY:2:SER:HB3	64:SY:32:ARG:NH2	2.25	0.51
5:C1:23:A:C6	5:C1:24:G:C6	2.98	0.51
5:C1:967:A:C4	5:C1:968:G:C8	2.99	0.51
5:C1:1120:A:H2'	5:C1:1121:U:C6	2.45	0.51
5:C1:1322:U:P	23:LS:117:ARG:HE	2.32	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:1341:U:H2'	5:C1:1342:C:C6	2.44	0.51
5:C1:1911:A:C8	5:C1:1912:U:H5	2.28	0.51
5:C1:1934:G:C6	5:C1:1935:G:N7	2.78	0.51
6:C4:45:A:OP1	9:LD:151:GLN:NE2	2.44	0.51
13:LH:5:GLN:HE22	13:LH:7:GLU:CD	2.09	0.51
38:Lh:5:LYS:HB2	38:Lh:8:GLU:CD	2.35	0.51
65:Sa:36:ILE:HG21	65:Sa:78:ALA:HB2	1.93	0.51
68:5:28:LYS:NZ	68:5:42:VAL:O	2.33	0.51
1:LA:196:TRP:HB3	1:LA:197:PRO:HD3	1.93	0.51
5:C1:61:A:C4	5:C1:62:A:C8	2.99	0.51
5:C1:443:G:N7	5:C1:445:G:N2	2.59	0.51
5:C1:622:A:OP1	36:Lf:60:ARG:NH1	2.44	0.51
5:C1:883:A:N6	5:C1:921:A:H62	2.07	0.51
5:C1:970:A:H2'	5:C1:971:G:H8	1.74	0.51
5:C1:1060:U:H2'	5:C1:1061:A:C8	2.42	0.51
5:C1:1237:G:N7	5:C1:1263:A:O2'	2.43	0.51
5:C1:1468:A:C2	5:C1:1881:A:H4'	2.45	0.51
5:C1:1524:A:O2'	5:C1:1526:U:OP2	2.18	0.51
5:C1:1639:C:H2'	5:C1:1640:G:H8	1.75	0.51
5:C1:1667:A:H2'	5:C1:1668:G:H8	1.74	0.51
5:C1:1798:A:H2'	5:C1:1799:A:C8	2.44	0.51
5:C1:2402:A:N6	8:LC:73:ARG:HH12	2.09	0.51
5:C1:2419:A:H2'	5:C1:2420:C:H6	1.76	0.51
5:C1:2432:A:C6	5:C1:2598:G:C6	2.98	0.51
5:C1:2918:G:H2'	5:C1:2919:A:H8	1.75	0.51
5:C1:3252:G:H2'	5:C1:3253:G:H8	1.75	0.51
10:LE:158:TYR:HA	17:LM:118:PHE:CE2	2.45	0.51
29:LY:70:ILE:HD12	29:LY:80:VAL:HG21	1.93	0.51
30:LZ:29:HIS:HD2	30:LZ:40:HIS:NE2	2.08	0.51
30:LZ:33:SER:HB3	30:LZ:40:HIS:CE1	2.43	0.51
45:Lo:2:VAL:N	45:Lo:90:HIS:O	2.44	0.51
49:C2:631:G:H2'	49:C2:632:U:C6	2.46	0.51
49:C2:850:A:H2'	49:C2:851:U:C6	2.45	0.51
49:C2:978:A:C4	49:C2:979:A:C8	2.99	0.51
49:C2:1204:A:N3	74:Sd:10:HIS:NE2	2.44	0.51
49:C2:1247:U:H2'	49:C2:1248:C:C6	2.45	0.51
49:C2:1471:A:O2'	49:C2:1472:C:OP1	2.23	0.51
49:C2:1674:C:H2'	49:C2:1675:C:C6	2.45	0.51
49:C2:1790:A:H2'	49:C2:1791:A:C8	2.46	0.51
50:SC:239:PRO:HA	50:SC:242:ILE:HG22	1.93	0.51
55:SJ:106:GLU:HG2	55:SJ:111:THR:HG21	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:Sa:90:GLU:OE1	65:Sa:90:GLU:N	2.38	0.51
5:C1:19:U:H2'	5:C1:20:A:C8	2.45	0.51
5:C1:385:A:H2'	5:C1:386:A:C8	2.45	0.51
5:C1:685:G:OP2	16:LL:35:ARG:NH2	2.35	0.51
5:C1:810:A:H2'	5:C1:811:U:H6	1.76	0.51
5:C1:2402:A:H62	8:LC:73:ARG:HH12	1.59	0.51
5:C1:2688:U:OP1	9:LD:12:TYR:OH	2.28	0.51
5:C1:2837:A:H2'	5:C1:2845:A:C6	2.45	0.51
5:C1:2838:A:H4'	14:LI:74:LYS:HD3	1.93	0.51
5:C1:2927:C:H2'	5:C1:2928:C:C6	2.45	0.51
7:C3:94:C:H5''	40:Lj:76:ASN:ND2	2.25	0.51
8:LC:294:GLU:HA	8:LC:297:SER:HB2	1.92	0.51
13:LH:85:GLY:HA3	13:LH:187:ILE:HD12	1.92	0.51
15:LJ:116:TYR:HE2	15:LJ:118:PRO:HB3	1.76	0.51
17:LM:125:LYS:HE3	17:LM:128:ARG:HH21	1.75	0.51
28:LX:138:ARG:HH21	28:LX:138:ARG:HG2	1.74	0.51
30:LZ:31:GLU:OE1	30:LZ:31:GLU:N	2.33	0.51
33:Lc:36:GLN:HB2	33:Lc:38:LYS:HD3	1.91	0.51
37:Lg:20:ILE:HG22	37:Lg:34:HIS:CD2	2.46	0.51
49:C2:708:C:H2'	49:C2:710:U:C2	2.45	0.51
49:C2:1382:A:H2'	49:C2:1383:G:H8	1.76	0.51
49:C2:1409:G:N2	49:C2:1411:A:H3'	2.25	0.51
49:C2:1686:C:H2'	49:C2:1687:U:C6	2.46	0.51
49:C2:1775:U:H2'	49:C2:1776:A:H8	1.74	0.51
57:SL:93:TYR:HD2	57:SL:100:TYR:CE1	2.29	0.51
70:SP:98:ASN:HB3	70:SP:120:SER:OG	2.11	0.51
75:SU:23:ARG:HD3	75:SU:24:ILE:N	2.25	0.51
2:SA:32:HIS:NE2	49:C2:1041:G:OP1	2.43	0.51
5:C1:245:U:H2'	5:C1:246:U:C6	2.46	0.51
5:C1:609:G:OP2	8:LC:315:LYS:NZ	2.30	0.51
5:C1:649:A:OP2	5:C1:2868:U:O2'	2.28	0.51
5:C1:943:U:C2	31:La:12:ARG:HD2	2.46	0.51
5:C1:1380:G:OP1	8:LC:191:LYS:HG3	2.10	0.51
5:C1:1467:A:H1'	5:C1:1469:C:OP2	2.11	0.51
5:C1:1710:C:C2	5:C1:1711:C:C5	2.99	0.51
5:C1:1791:C:H2'	5:C1:1792:C:C6	2.46	0.51
5:C1:2376:G:H2'	5:C1:2377:G:C8	2.45	0.51
5:C1:2432:A:C6	5:C1:2433:U:O4	2.63	0.51
5:C1:2468:A:O2'	5:C1:2478:C:O2	2.22	0.51
5:C1:2915:U:H5'	5:C1:2916:U:H5'	1.92	0.51
6:C4:19:C:H2'	6:C4:20:A:H8	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:C3:139:U:H2'	7:C3:140:G:C8	2.46	0.51
7:C3:151:C:O2'	7:C3:153:U:OP2	2.24	0.51
15:LJ:138:VAL:HA	15:LJ:141:ARG:HH12	1.76	0.51
16:LL:28:GLN:OE1	18:LN:201:ARG:HD3	2.10	0.51
34:Ld:75:ILE:HG12	34:Ld:93:VAL:HG12	1.93	0.51
38:Lh:5:LYS:HB2	38:Lh:8:GLU:OE2	2.11	0.51
47:P0:12:PHE:O	47:P0:16:ARG:HG2	2.11	0.51
49:C2:262:U:H2'	49:C2:263:C:C6	2.46	0.51
49:C2:353:A:H8	49:C2:353:A:OP2	1.93	0.51
49:C2:553:G:OP2	49:C2:554:C:O2'	2.22	0.51
49:C2:885:G:H2'	49:C2:886:U:C6	2.46	0.51
49:C2:1295:G:C2	49:C2:1296:A:C8	2.99	0.51
49:C2:1584:G:HO2'	49:C2:1610:G:H1	1.58	0.51
49:C2:1677:C:OP1	54:SI:42:ARG:NH1	2.43	0.51
49:C2:1755:A:H2'	49:C2:1756:A:C8	2.45	0.51
53:SH:120:ALA:O	53:SH:124:LYS:HG2	2.11	0.51
54:SI:36:THR:HG22	54:SI:57:ALA:O	2.10	0.51
54:SI:37:LYS:HB2	54:SI:59:ARG:HB3	1.91	0.51
55:SJ:154:LYS:HD3	55:SJ:154:LYS:N	2.24	0.51
56:SK:15:LEU:HD12	56:SK:66:TYR:CE2	2.45	0.51
57:SL:68:GLY:HA3	57:SL:127:GLN:HE21	1.75	0.51
61:SV:17:CYS:HB3	61:SV:22:ARG:H	1.75	0.51
2:SA:83:GLN:O	2:SA:87:LEU:HD23	2.11	0.51
3:LB:117:ARG:O	3:LB:117:ARG:HD3	2.11	0.51
4:SB:143:THR:HA	4:SB:207:LEU:HA	1.92	0.51
5:C1:357:A:N6	5:C1:363:G:C6	2.78	0.51
5:C1:1134:G:O2'	5:C1:2642:A:N3	2.43	0.51
5:C1:2196:C:C2	5:C1:2247:G:N2	2.79	0.51
5:C1:3102:G:H2'	5:C1:3103:A:H8	1.75	0.51
7:C3:49:G:C6	7:C3:77:A:N1	2.78	0.51
7:C3:142:C:H2'	7:C3:143:U:C6	2.46	0.51
8:LC:159:ILE:HG21	8:LC:164:GLU:HB2	1.91	0.51
16:LL:165:SER:O	16:LL:167:PHE:N	2.43	0.51
38:Lh:21:LEU:HD21	38:Lh:25:LYS:HE3	1.93	0.51
49:C2:524:U:H1'	49:C2:527:A:N7	2.26	0.51
49:C2:586:G:H5''	67:Se:23:LYS:HD2	1.93	0.51
49:C2:592:A:H2'	49:C2:593:U:C6	2.46	0.51
49:C2:953:G:H2'	49:C2:954:G:C8	2.46	0.51
49:C2:1173:C:H2'	49:C2:1174:C:C6	2.46	0.51
49:C2:1433:G:O4'	74:Sd:41:GLN:NE2	2.39	0.51
49:C2:1584:G:O2'	49:C2:1585:U:OP2	2.22	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:SJ:56:ALA:O	55:SJ:60:LEU:HG	2.11	0.51
58:SM:66:VAL:HG23	58:SM:67:THR:H	1.76	0.51
65:Sa:18:VAL:O	65:Sa:18:VAL:HG12	2.11	0.51
5:C1:619:A:H5''	5:C1:620:U:OP1	2.11	0.51
5:C1:1272:C:H2'	5:C1:1273:A:O4'	2.10	0.51
5:C1:2097:U:H2'	5:C1:2098:C:C6	2.46	0.51
5:C1:2904:U:H2'	5:C1:2905:U:C6	2.46	0.51
7:C3:19:C:H2'	7:C3:20:U:C6	2.45	0.51
11:LF:225:GLN:N	11:LF:225:GLN:OE1	2.44	0.51
18:LN:160:GLU:HG2	18:LN:161:ALA:N	2.25	0.51
24:LT:54:HIS:CE1	24:LT:55:LYS:HG2	2.46	0.51
49:C2:569:C:H41	63:SX:69:ARG:NH2	2.09	0.51
49:C2:1061:A:H5'	49:C2:1062:A:H2	1.74	0.51
49:C2:1458:G:H5''	49:C2:1459:C:OP2	2.11	0.51
52:SG:147:LEU:HD13	52:SG:156:PHE:CZ	2.45	0.51
3:LB:62:ARG:NH2	5:C1:3039:C:OP2	2.44	0.51
5:C1:307:A:H2'	5:C1:308:A:C8	2.45	0.51
5:C1:1029:G:H2'	5:C1:1030:A:H8	1.76	0.51
5:C1:1302:A:N7	5:C1:2857:C:O2'	2.44	0.51
5:C1:1562:C:O2'	5:C1:1563:C:O5'	2.24	0.51
5:C1:1758:G:H2'	5:C1:1759:C:C6	2.46	0.51
5:C1:2700:G:H2'	5:C1:2701:U:C6	2.44	0.51
5:C1:3269:U:H4'	5:C1:3270:U:O5'	2.09	0.51
6:C4:7:G:H2'	6:C4:8:G:H8	1.76	0.51
6:C4:32:U:O4	6:C4:41:G:O2'	2.19	0.51
6:C4:117:A:H2'	6:C4:118:A:H8	1.75	0.51
30:LZ:47:GLU:OE1	30:LZ:69:LYS:NZ	2.36	0.51
42:Ll:38:ASN:C	42:Ll:38:ASN:ND2	2.69	0.51
45:Lo:22:GLN:OE1	45:Lo:22:GLN:HA	2.11	0.51
46:Lp:41:PHE:HD2	46:Lp:62:LYS:HD3	1.76	0.51
46:Lp:84:ARG:O	46:Lp:88:GLU:HG2	2.10	0.51
48:P2:121:PHE:HZ	48:P2:129:THR:HG23	1.74	0.51
49:C2:789:A:OP1	51:SE:108:ARG:NH2	2.43	0.51
49:C2:918:U:O3'	60:SO:18:ARG:NH1	2.44	0.51
49:C2:1017:U:H2'	49:C2:1018:U:C6	2.45	0.51
49:C2:1168:U:C2	49:C2:1169:G:C8	2.99	0.51
52:SG:98:ARG:HD2	52:SG:99:GLY:H	1.76	0.51
52:SG:136:LYS:HZ2	52:SG:173:PRO:HB2	1.75	0.51
53:SH:173:TYR:O	53:SH:177:THR:HG22	2.11	0.51
56:SK:25:LYS:HE2	56:SK:62:GLN:HB3	1.93	0.51
58:SM:131:ASP:O	58:SM:134:SER:N	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:SN:83:GLU:HG2	59:SN:84:ILE:HG23	1.93	0.51
72:ST:102:ARG:O	72:ST:106:GLN:HG3	2.11	0.51
73:SQ:32:ASN:HA	73:SQ:68:ARG:CZ	2.40	0.51
75:SU:30:LYS:NZ	75:SU:33:GLN:OE1	2.34	0.51
5:C1:122:A:C2	5:C1:149:U:C2	2.99	0.51
5:C1:235:A:H2'	5:C1:236:G:C8	2.46	0.51
5:C1:1051:U:H4'	24:LT:19:PHE:CE2	2.45	0.51
5:C1:1348:U:OP2	21:LQ:38:ARG:NH2	2.44	0.51
5:C1:1392:G:N2	5:C1:1417:G:O2'	2.44	0.51
5:C1:1563:C:H2'	5:C1:1564:U:H6	1.76	0.51
5:C1:2102:U:H2'	5:C1:2103:U:C6	2.46	0.51
5:C1:2225:U:H2'	5:C1:2226:U:C6	2.45	0.51
5:C1:2516:U:OP1	18:LN:31:ARG:NH1	2.43	0.51
5:C1:2708:C:H2'	5:C1:2709:C:H6	1.75	0.51
11:LF:39:GLU:O	11:LF:43:ILE:HG12	2.11	0.51
16:LL:76:THR:HG23	16:LL:101:ARG:HE	1.76	0.51
16:LL:177:LYS:NZ	39:Li:11:LEU:HD13	2.26	0.51
24:LT:79:MET:HB2	24:LT:84:TYR:CE1	2.46	0.51
26:LV:93:LEU:HD23	26:LV:93:LEU:H	1.76	0.51
30:LZ:23:VAL:HG12	30:LZ:45:GLY:HA3	1.92	0.51
31:La:104:THR:OG1	31:La:126:LYS:O	2.28	0.51
49:C2:415:C:O2'	49:C2:418:G:O6	2.18	0.51
49:C2:557:G:OP1	67:Se:55:ARG:NE	2.43	0.51
49:C2:611:U:H5''	63:SX:5:LYS:NZ	2.26	0.51
49:C2:1165:G:H2'	49:C2:1166:A:H8	1.76	0.51
49:C2:1310:U:H2'	49:C2:1311:U:C6	2.46	0.51
49:C2:1389:C:N4	49:C2:1391:A:O4'	2.44	0.51
49:C2:1521:G:O2'	49:C2:1523:G:OP2	2.23	0.51
50:SC:170:ILE:HB	50:SC:197:TYR:HB2	1.93	0.51
50:SC:178:ILE:HD12	50:SC:196:VAL:HG12	1.92	0.51
55:SJ:92:LYS:HE3	55:SJ:95:TYR:HE2	1.76	0.51
57:SL:2:SER:OG	57:SL:3:THR:N	2.43	0.51
62:SW:28:ARG:HB2	62:SW:29:PRO:HD3	1.93	0.51
76:Sc:11:LYS:HZ3	76:Sc:51:ASN:HA	1.75	0.51
3:LB:113:GLU:OE2	3:LB:166:ILE:N	2.44	0.50
5:C1:330:G:C2	5:C1:331:G:C8	3.00	0.50
5:C1:431:U:OP1	36:Lf:53:TYR:OH	2.28	0.50
5:C1:551:A:O2'	5:C1:552:G:H8	1.94	0.50
5:C1:1680:G:H2'	5:C1:1681:U:C6	2.45	0.50
5:C1:1686:U:OP1	25:LU:42:LYS:NZ	2.43	0.50
5:C1:2416:U:H2'	5:C1:2417:U:C6	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:2895:G:O2'	43:Lm:100:TYR:O	2.29	0.50
8:LC:294:GLU:OE1	8:LC:294:GLU:N	2.43	0.50
11:LF:219:LYS:HE2	11:LF:220:PHE:HE1	1.76	0.50
28:LX:96:LYS:HG3	28:LX:107:VAL:HG11	1.94	0.50
35:Le:79:VAL:HG23	35:Le:111:ARG:HG2	1.92	0.50
36:Lf:48:ARG:NH1	36:Lf:70:LYS:HE2	2.26	0.50
36:Lf:73:ARG:HH21	36:Lf:82:ARG:HH12	1.59	0.50
48:P2:137:GLN:NE2	48:P2:139:VAL:HB	2.26	0.50
49:C2:694:U:N3	53:SH:96:ARG:O	2.40	0.50
53:SH:79:ARG:O	53:SH:83:LYS:HG3	2.12	0.50
57:SL:33:ARG:HH22	57:SL:51:GLY:C	2.19	0.50
62:SW:15:ASN:HD21	62:SW:71:LYS:HG3	1.76	0.50
63:SX:41:SER:O	63:SX:43:PHE:N	2.44	0.50
73:SQ:50:GLU:OE2	73:SQ:112:TYR:OH	2.16	0.50
1:LA:193:ARG:HH12	5:C1:2174:G:P	2.34	0.50
3:LB:240:ARG:NH1	5:C1:1908:A:H1'	2.26	0.50
4:SB:96:LEU:H	4:SB:96:LEU:HD12	1.76	0.50
5:C1:503:C:H2'	5:C1:504:A:C8	2.44	0.50
5:C1:758:C:C2	5:C1:774:G:C2	3.00	0.50
5:C1:1427:U:H2'	5:C1:1428:A:H8	1.76	0.50
5:C1:1623:G:C4	5:C1:1624:G:C8	2.99	0.50
5:C1:1660:C:H2'	5:C1:1661:G:H8	1.77	0.50
5:C1:2456:A:O2'	5:C1:2457:G:O4'	2.28	0.50
5:C1:3095:U:H2'	5:C1:3096:C:H6	1.75	0.50
6:C4:37:G:N1	6:C4:41:G:C2	2.79	0.50
6:C4:71:G:H2'	6:C4:72:A:H8	1.76	0.50
30:LZ:83:THR:HG22	37:Lg:93:PHE:CZ	2.46	0.50
49:C2:400:A:H4'	49:C2:401:A:C5'	2.41	0.50
49:C2:513:U:O2'	49:C2:514:G:O4'	2.27	0.50
49:C2:756:A:H3'	49:C2:757:A:H8	1.76	0.50
49:C2:1360:A:H2'	49:C2:1361:U:O4'	2.11	0.50
50:SC:41:LEU:O	50:SC:45:VAL:HG23	2.12	0.50
58:SM:27:ALA:HB3	58:SM:136:ILE:HD11	1.94	0.50
70:SP:90:ILE:HD11	70:SP:109:PRO:HA	1.92	0.50
72:ST:45:MET:SD	72:ST:46:PRO:HD2	2.51	0.50
3:LB:288:GLY:N	3:LB:320:ASP:OD1	2.31	0.50
4:SB:28:GLU:OE2	4:SB:50:LYS:HA	2.11	0.50
5:C1:22:G:O6	5:C1:23:A:N6	2.45	0.50
5:C1:701:G:H2'	5:C1:702:C:C6	2.45	0.50
5:C1:754:G:C2	5:C1:755:A:C8	3.00	0.50
5:C1:970:A:H2'	5:C1:971:G:C8	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:1240:A:N1	5:C1:1244:A:H2'	2.26	0.50
5:C1:1290:A:H2'	5:C1:1291:A:H8	1.76	0.50
5:C1:2291:A:H2'	5:C1:2292:U:C6	2.47	0.50
5:C1:2301:U:H2'	5:C1:2302:G:H8	1.75	0.50
9:LD:240:TYR:O	9:LD:244:HIS:ND1	2.45	0.50
16:LL:76:THR:CG2	16:LL:101:ARG:HE	2.25	0.50
34:Ld:55:LEU:O	34:Ld:59:ILE:HD12	2.12	0.50
49:C2:778:G:C6	64:SY:10:ARG:NH1	2.79	0.50
49:C2:1308:G:H2'	49:C2:1309:C:C6	2.45	0.50
49:C2:1547:A:H2'	49:C2:1548:G:C8	2.47	0.50
52:SG:67:VAL:O	52:SG:68:LEU:HG	2.10	0.50
52:SG:113:ILE:HD11	52:SG:124:LEU:HD11	1.93	0.50
57:SL:57:LYS:HD2	57:SL:131:ILE:HG23	1.93	0.50
66:Sb:40:CYS:SG	66:Sb:58:SER:OG	2.47	0.50
5:C1:533:A:O2'	5:C1:534:U:H3'	2.12	0.50
5:C1:746:A:H2'	5:C1:747:A:H8	1.76	0.50
5:C1:903:U:H2'	5:C1:904:A:H8	1.75	0.50
5:C1:2146:C:C2	5:C1:2147:A:C8	3.00	0.50
5:C1:2457:G:O2'	5:C1:2482:U:O2	2.22	0.50
5:C1:2615:G:H2'	5:C1:2616:C:C6	2.46	0.50
5:C1:2661:G:H2'	5:C1:2662:G:C8	2.47	0.50
5:C1:2743:A:H2'	5:C1:2744:U:C6	2.46	0.50
5:C1:3214:U:O4	17:LM:124:ARG:NH1	2.45	0.50
11:LF:79:ALA:HB2	24:LT:137:GLU:HA	1.93	0.50
11:LF:197:GLN:H	11:LF:197:GLN:CD	2.19	0.50
22:LR:99:LEU:HD21	22:LR:103:ARG:HH21	1.75	0.50
35:Le:23:ASP:OD1	35:Le:24:ARG:N	2.44	0.50
41:Lk:54:LEU:HD12	41:Lk:55:VAL:N	2.25	0.50
49:C2:168:A:H2'	49:C2:169:A:C8	2.46	0.50
49:C2:649:U:H2'	49:C2:650:U:C6	2.45	0.50
49:C2:992:A:O2'	49:C2:1785:U:O2	2.30	0.50
49:C2:992:A:OP2	49:C2:1011:G:N1	2.33	0.50
49:C2:1172:G:H2'	49:C2:1173:C:H6	1.76	0.50
52:SG:18:ILE:HG13	52:SG:19:ASP:O	2.11	0.50
57:SL:33:ARG:HH22	57:SL:52:SER:HA	1.77	0.50
73:SQ:129:PHE:CD1	75:SU:79:TRP:HB2	2.46	0.50
75:SU:42:VAL:O	75:SU:46:GLU:HG2	2.11	0.50
1:LA:54:ARG:NH2	5:C1:2176:U:H5''	2.27	0.50
3:LB:11:HIS:CE1	3:LB:235:THR:HA	2.47	0.50
5:C1:119:U:C2	12:LG:138:HIS:CE1	2.99	0.50
5:C1:407:A:C2	7:C3:17:A:H1'	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:595:G:H2'	5:C1:596:C:C6	2.47	0.50
5:C1:1421:G:H2'	5:C1:1422:G:H8	1.77	0.50
5:C1:1616:U:H2'	5:C1:1617:G:H8	1.75	0.50
5:C1:1713:G:N2	5:C1:1731:A:OP2	2.43	0.50
5:C1:2458:A:H3'	5:C1:2459:A:C8	2.47	0.50
5:C1:2865:U:H5'	14:LI:115:MET:HE1	1.93	0.50
16:LL:92:THR:OG1	38:Lh:112:PRO:O	2.23	0.50
18:LN:91:GLU:O	18:LN:93:LYS:NZ	2.41	0.50
33:Lc:95:ALA:HB2	33:Lc:101:LEU:HD23	1.94	0.50
38:Lh:10:ARG:HH11	38:Lh:10:ARG:HG3	1.75	0.50
48:P2:85:LEU:HG	48:P2:106:LEU:HD11	1.93	0.50
49:C2:327:U:O2'	57:SL:10:GLU:OE2	2.11	0.50
49:C2:346:G:C2	49:C2:347:G:C8	2.99	0.50
49:C2:521:A:O2'	64:SY:34:ASN:O	2.30	0.50
49:C2:623:A:H3'	49:C2:624:G:C5'	2.42	0.50
49:C2:780:A:H1'	64:SY:10:ARG:CZ	2.41	0.50
49:C2:837:G:H2'	49:C2:838:G:C8	2.46	0.50
49:C2:919:A:H2'	49:C2:920:U:H6	1.74	0.50
49:C2:954:G:H2'	49:C2:955:A:C8	2.46	0.50
49:C2:1267:G:H2'	49:C2:1268:G:C8	2.47	0.50
49:C2:1475:A:H2'	49:C2:1476:C:C6	2.47	0.50
50:SC:226:THR:HG22	50:SC:228:ASN:H	1.76	0.50
51:SE:106:LYS:HE3	51:SE:108:ARG:NH1	2.23	0.50
54:SI:42:ARG:CZ	54:SI:59:ARG:HH12	2.25	0.50
1:LA:42:ARG:NH1	1:LA:87:PHE:HE2	2.10	0.50
5:C1:646:A:C2	5:C1:2375:G:C2	2.99	0.50
5:C1:671:U:H2'	5:C1:672:A:H8	1.77	0.50
5:C1:1824:U:H2'	5:C1:1825:G:C8	2.47	0.50
5:C1:2542:U:HO2'	5:C1:2543:U:H6	1.60	0.50
5:C1:2696:A:N7	5:C1:2758:A:N6	2.60	0.50
5:C1:2819:A:C2	5:C1:2820:A:C4	3.00	0.50
5:C1:3110:C:H2'	5:C1:3111:U:C6	2.47	0.50
5:C1:3210:A:C6	5:C1:3211:C:C4	3.00	0.50
5:C1:3225:C:H2'	5:C1:3226:A:C8	2.47	0.50
8:LC:292:SER:C	8:LC:296:GLN:HE22	2.20	0.50
10:LE:170:LYS:HE2	10:LE:173:LEU:HD12	1.94	0.50
20:LP:27:LYS:HD3	20:LP:63:PHE:CD1	2.46	0.50
41:Lk:46:ARG:NH2	41:Lk:50:SER:O	2.45	0.50
49:C2:906:A:H2'	49:C2:907:A:C8	2.47	0.50
55:SJ:99:LEU:O	55:SJ:100:LYS:HB2	2.11	0.50
55:SJ:119:ALA:O	55:SJ:120:LYS:HG2	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:SW:6:VAL:HG22	62:SW:34:ILE:HD11	1.94	0.50
62:SW:50:PHE:HB2	62:SW:63:VAL:HG22	1.94	0.50
1:LA:42:ARG:HD3	1:LA:87:PHE:CE2	2.47	0.50
2:SA:62:ARG:HH22	61:SV:38:LYS:HA	1.76	0.50
5:C1:93:C:H41	45:Lo:42:ARG:HH12	1.58	0.50
5:C1:398:A:N7	20:LP:3:ARG:NH2	2.60	0.50
5:C1:631:U:H2'	5:C1:632:G:C8	2.45	0.50
5:C1:1008:U:N3	5:C1:1043:C:N3	2.60	0.50
5:C1:1109:U:H2'	5:C1:1110:U:C6	2.47	0.50
5:C1:1618:G:N2	5:C1:1827:C:C2	2.79	0.50
5:C1:1699:A:H2'	5:C1:1700:G:C8	2.47	0.50
5:C1:2355:G:H4'	20:LP:139:TYR:CE1	2.46	0.50
5:C1:2464:U:N3	5:C1:2492:C:O2	2.44	0.50
5:C1:3119:U:H4'	43:Lm:104:PRO:HG2	1.94	0.50
5:C1:3366:G:H2'	5:C1:3367:C:C6	2.47	0.50
6:C4:76:A:C8	6:C4:78:U:C2	3.00	0.50
7:C3:91:C:H2'	7:C3:92:A:C8	2.47	0.50
10:LE:104:GLU:OE2	10:LE:104:GLU:N	2.34	0.50
11:LF:27:ALA:HA	11:LF:30:ARG:HB3	1.93	0.50
31:La:96:LYS:HG3	31:La:97:GLU:OE1	2.11	0.50
35:Le:4:LEU:HD23	35:Le:5:PRO:HD2	1.93	0.50
42:Ll:38:ASN:ND2	42:Ll:41:ARG:N	2.60	0.50
49:C2:55:A:H3'	49:C2:403:G:H22	1.77	0.50
49:C2:188:A:H62	49:C2:197:A:H8	1.57	0.50
49:C2:191:C:H1'	54:Sl:137:LYS:HZ2	1.75	0.50
49:C2:276:C:N4	49:C2:281:G:H21	2.08	0.50
49:C2:640:U:O2'	49:C2:641:G:OP1	2.28	0.50
49:C2:810:G:N3	53:SH:108:GLN:NE2	2.60	0.50
49:C2:1584:G:O3'	73:SQ:124:PRO:HA	2.12	0.50
51:SE:79:ASP:OD1	51:SE:80:THR:N	2.45	0.50
56:SK:8:ARG:HB3	56:SK:12:HIS:CE1	2.47	0.50
1:LA:83:HIS:CE1	1:LA:86:GLN:HB2	2.46	0.50
3:LB:30:LYS:NZ	5:C1:3138:U:OP2	2.41	0.50
5:C1:80:G:O6	5:C1:106:A:N6	2.45	0.50
5:C1:120:G:N7	12:LG:128:LYS:HG3	2.27	0.50
5:C1:405:U:C5	5:C1:406:G:C5	2.99	0.50
5:C1:962:A:O2'	5:C1:963:G:H5'	2.12	0.50
5:C1:1256:G:H2'	5:C1:1257:C:C6	2.47	0.50
5:C1:1290:A:H2'	5:C1:1291:A:C8	2.47	0.50
5:C1:1563:C:H2'	5:C1:1564:U:C6	2.46	0.50
5:C1:1699:A:C6	5:C1:1747:G:C6	3.00	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:2148:U:O2	5:C1:2148:U:H2'	2.10	0.50
5:C1:2291:A:C6	5:C1:2302:G:C6	3.00	0.50
5:C1:3228:C:H4'	5:C1:3229:G:O5'	2.11	0.50
5:C1:3283:U:H2'	5:C1:3284:G:C8	2.46	0.50
6:C4:52:G:HO2'	6:C4:53:U:P	2.34	0.50
12:LG:38:GLN:OE1	12:LG:38:GLN:N	2.45	0.50
15:LJ:12:LEU:HB3	15:LJ:131:MET:CE	2.42	0.50
20:LP:47:TYR:O	20:LP:51:VAL:HG23	2.12	0.50
22:LR:175:GLN:NE2	22:LR:176:ARG:HG3	2.27	0.50
40:Lj:28:HIS:CE1	40:Lj:30:GLN:HB2	2.46	0.50
42:Ll:24:PRO:HD2	42:Ll:27:ILE:HD12	1.93	0.50
47:P0:127:GLY:O	47:P0:128:MET:HE2	2.12	0.50
49:C2:246:G:N3	57:SL:40:LEU:HG	2.27	0.50
49:C2:1411:A:OP1	73:SQ:114:ARG:NH1	2.42	0.50
49:C2:1483:A:N3	49:C2:1607:G:O2'	2.38	0.50
49:C2:1691:A:H2'	49:C2:1692:G:C8	2.46	0.50
53:SH:110:GLN:HG3	53:SH:111:LYS:H	1.77	0.50
53:SH:165:LYS:O	53:SH:168:SER:OG	2.19	0.50
1:LA:30:ARG:HG2	1:LA:74:GLU:OE1	2.11	0.50
1:LA:69:TYR:OH	5:C1:2557:A:OP1	2.18	0.50
2:SA:55:GLU:HA	2:SA:58:VAL:HG22	1.94	0.50
2:SA:139:VAL:HG13	2:SA:141:ILE:CD1	2.42	0.50
5:C1:241:G:H2'	5:C1:242:C:C6	2.47	0.50
5:C1:991:G:H2'	5:C1:992:A:C8	2.47	0.50
5:C1:1203:A:H2'	5:C1:1204:A:C8	2.47	0.50
5:C1:2467:G:H21	5:C1:2489:C:N4	2.09	0.50
5:C1:2776:C:H5'	5:C1:2777:G:C2	2.46	0.50
5:C1:3187:A:OP1	13:LH:23:ARG:NE	2.37	0.50
5:C1:3219:G:N7	36:Lf:2:ALA:N	2.60	0.50
5:C1:3251:U:H2'	5:C1:3252:G:C8	2.46	0.50
5:C1:3366:G:C6	5:C1:3367:C:N4	2.79	0.50
6:C4:112:G:H2'	6:C4:113:C:C6	2.47	0.50
8:LC:64:SER:HA	8:LC:75:PRO:HA	1.94	0.50
8:LC:237:GLN:OE1	8:LC:237:GLN:N	2.44	0.50
9:LD:183:TRP:CZ2	9:LD:188:GLU:HG3	2.47	0.50
20:LP:13:LYS:HZ3	20:LP:13:LYS:HB2	1.77	0.50
23:LS:130:GLU:OE2	23:LS:131:LYS:HB2	2.12	0.50
28:LX:68:THR:HG21	38:Lh:36:LEU:HD13	1.93	0.50
35:Le:87:MET:HE3	35:Le:88:HIS:CE1	2.47	0.50
37:Lg:98:GLN:HA	37:Lg:101:VAL:HG22	1.93	0.50
45:Lo:12:CYS:HB2	45:Lo:23:HIS:HE1	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:P0:97:LYS:HD2	47:P0:97:LYS:N	2.27	0.50
49:C2:206:A:H1'	49:C2:262:U:C2	2.47	0.50
49:C2:223:U:H2'	49:C2:224:C:O4'	2.12	0.50
49:C2:748:U:P	62:SW:80:ASN:HD21	2.34	0.50
49:C2:887:A:H2'	49:C2:888:U:H6	1.76	0.50
49:C2:1353:U:H3	49:C2:1372:U:H3	1.60	0.50
50:SC:230:TRP:CE3	62:SW:68:ARG:NH1	2.80	0.50
52:SG:180:THR:HG22	52:SG:182:GLN:H	1.76	0.50
61:SV:4:ASP:OD1	61:SV:5:LYS:N	2.45	0.50
63:SX:73:ARG:HD3	63:SX:74:VAL:N	2.26	0.50
1:LA:163:ARG:HH11	1:LA:163:ARG:HG3	1.77	0.49
4:SB:79:HIS:HB3	4:SB:82:ARG:HG3	1.93	0.49
4:SB:183:GLN:O	4:SB:187:LYS:HG3	2.12	0.49
5:C1:7:C:H2'	5:C1:8:C:H6	1.76	0.49
5:C1:531:G:H2'	5:C1:532:A:C8	2.47	0.49
5:C1:1229:G:OP1	47:P0:110:ARG:NE	2.43	0.49
5:C1:2295:A:C2	26:LV:37:ILE:HD12	2.47	0.49
5:C1:2368:A:H2'	5:C1:2369:G:H8	1.75	0.49
5:C1:2767:U:H2'	5:C1:2768:U:H6	1.77	0.49
5:C1:3152:U:OP2	5:C1:3395:G:N2	2.42	0.49
5:C1:3197:G:C2	5:C1:3199:G:C4	3.00	0.49
5:C1:3279:A:H2'	5:C1:3280:U:C6	2.47	0.49
7:C3:11:C:H2'	7:C3:12:A:C8	2.46	0.49
7:C3:43:A:H2'	7:C3:44:A:C8	2.47	0.49
42:L1:30:ARG:HG3	42:L1:30:ARG:HH11	1.76	0.49
49:C2:876:G:H1'	49:C2:944:A:O4'	2.12	0.49
49:C2:901:G:H3'	49:C2:902:G:C8	2.47	0.49
49:C2:1713:G:H2'	49:C2:1714:A:H8	1.77	0.49
51:SE:250:GLU:OE1	51:SE:250:GLU:N	2.44	0.49
59:SN:17:PRO:HG3	66:Sb:28:PRO:HG3	1.93	0.49
60:SO:92:LYS:HE2	60:SO:121:VAL:HG23	1.94	0.49
64:SY:110:GLN:HB3	64:SY:114:ARG:NH1	2.27	0.49
4:SB:136:ARG:NH1	49:C2:884:A:H5''	2.27	0.49
5:C1:697:A:H2'	5:C1:698:U:C6	2.47	0.49
5:C1:1101:G:H5''	11:LF:107:ARG:HD2	1.94	0.49
5:C1:1357:G:H2'	5:C1:1358:C:H6	1.76	0.49
22:LR:167:ARG:HH21	22:LR:170:ARG:HG3	1.75	0.49
23:LS:42:TRP:NE1	23:LS:53:LYS:HG3	2.27	0.49
29:LY:4:GLN:OE1	29:LY:4:GLN:HA	2.11	0.49
30:LZ:9:LYS:HB3	30:LZ:25:ILE:HD13	1.94	0.49
34:Ld:55:LEU:HG	34:Ld:95:PRO:HD3	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:C2:69:G:H2'	49:C2:70:C:H6	1.77	0.49
49:C2:97:C:H2'	49:C2:98:U:H6	1.77	0.49
49:C2:458:G:OP2	64:SY:105:ARG:NH2	2.45	0.49
49:C2:653:C:N4	49:C2:682:C:N3	2.60	0.49
49:C2:947:U:H2'	49:C2:948:G:C8	2.48	0.49
49:C2:952:A:H5''	59:SN:94:LYS:HZ2	1.77	0.49
49:C2:1280:C:H2'	49:C2:1281:G:C8	2.48	0.49
49:C2:1685:G:C6	49:C2:1717:G:C6	3.00	0.49
55:SJ:133:HIS:N	55:SJ:134:ILE:HD12	2.27	0.49
59:SN:129:TYR:HA	59:SN:132:VAL:HG22	1.93	0.49
62:SW:102:VAL:H	62:SW:113:HIS:HD2	1.61	0.49
62:SW:104:LEU:HB2	62:SW:124:LYS:O	2.12	0.49
1:LA:3:ARG:HG2	1:LA:4:VAL:H	1.78	0.49
2:SA:58:VAL:O	2:SA:62:ARG:HG3	2.11	0.49
5:C1:7:C:H2'	5:C1:8:C:C6	2.47	0.49
5:C1:802:C:H2'	5:C1:803:C:H6	1.77	0.49
5:C1:884:A:N7	5:C1:2139:A:C4	2.80	0.49
5:C1:1280:C:H2'	5:C1:1281:G:C8	2.45	0.49
5:C1:2284:C:N4	5:C1:2308:C:O4'	2.45	0.49
5:C1:2768:U:H2'	5:C1:2769:A:C8	2.47	0.49
5:C1:2964:G:N1	5:C1:2968:G:C6	2.80	0.49
5:C1:3101:G:H2'	5:C1:3102:G:C8	2.48	0.49
11:LF:80:GLN:HE22	24:LT:136:ARG:HG2	1.77	0.49
12:LG:74:THR:O	12:LG:77:GLN:NE2	2.44	0.49
18:LN:99:ARG:O	18:LN:103:GLU:HG3	2.11	0.49
20:LP:114:VAL:HA	20:LP:150:VAL:HG12	1.93	0.49
22:LR:6:THR:O	22:LR:10:LEU:HD23	2.12	0.49
23:LS:8:GLN:HE22	23:LS:10:ILE:HD11	1.78	0.49
24:LT:19:PHE:CD1	24:LT:20:ARG:HG3	2.47	0.49
25:LU:93:ILE:CG2	25:LU:105:LEU:HD12	2.42	0.49
38:Lh:45:LYS:O	38:Lh:49:LYS:HG2	2.12	0.49
38:Lh:70:TYR:CD2	38:Lh:77:PRO:HD3	2.45	0.49
45:Lo:6:LYS:HZ1	45:Lo:95:GLY:H	1.59	0.49
49:C2:1404:C:H2'	49:C2:1405:G:H8	1.76	0.49
49:C2:1556:A:OP1	70:SP:44:ARG:HD3	2.12	0.49
49:C2:1725:U:H2'	49:C2:1726:G:C8	2.46	0.49
59:SN:4:MET:HG3	59:SN:5:HIS:ND1	2.27	0.49
59:SN:104:ARG:HG3	59:SN:104:ARG:NH2	2.27	0.49
64:SY:24:VAL:HA	64:SY:72:PHE:HA	1.94	0.49
69:Sf:139:LEU:HD21	69:Sf:150:VAL:H	1.78	0.49
2:SA:62:ARG:NH1	61:SV:37:ALA:O	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:SA:102:PHE:O	2:SA:103:THR:OG1	2.28	0.49
3:LB:372:THR:HG22	3:LB:374:ALA:H	1.76	0.49
5:C1:105:C:H2'	5:C1:106:A:H8	1.76	0.49
5:C1:137:G:H2'	5:C1:138:U:C6	2.46	0.49
5:C1:291:C:P	18:LN:68:ARG:HH21	2.35	0.49
5:C1:516:A:C6	5:C1:575:G:C6	3.00	0.49
5:C1:756:U:H2'	5:C1:757:C:H6	1.77	0.49
5:C1:1234:G:H21	48:P2:132:ILE:HD13	1.77	0.49
5:C1:1564:U:H3	5:C1:1575:A:N6	2.08	0.49
5:C1:3181:C:C4	19:LO:168[A]:TYR:CE2	3.00	0.49
5:C1:3334:U:H4'	5:C1:3335:A:H5'	1.93	0.49
7:C3:152:G:OP1	12:LG:60:ARG:NE	2.44	0.49
9:LD:20:PHE:O	9:LD:24:ARG:NH1	2.46	0.49
16:LL:46:ILE:HD11	16:LL:51:LEU:HA	1.94	0.49
24:LT:102:ARG:HH11	24:LT:102:ARG:HG3	1.76	0.49
49:C2:752:A:OP1	51:SE:187:ARG:NH2	2.45	0.49
49:C2:1336:A:N6	49:C2:1416:G:O6	2.45	0.49
49:C2:1348:A:H2'	49:C2:1349:G:O4'	2.12	0.49
49:C2:1449:U:H2'	49:C2:1450:U:C6	2.47	0.49
49:C2:1606:C:H2'	49:C2:1607:G:C8	2.46	0.49
49:C2:1696:G:O2'	49:C2:1697:G:O5'	2.26	0.49
49:C2:1732:A:H2'	49:C2:1733:C:H6	1.76	0.49
50:SC:38:VAL:O	50:SC:39:THR:HG23	2.12	0.49
53:SH:96:ARG:NH2	53:SH:124:LYS:HZ3	2.11	0.49
64:SY:84:LYS:HG3	64:SY:85:PHE:CD1	2.48	0.49
3:LB:232:ARG:HB3	3:LB:233:TRP:CD1	2.46	0.49
4:SB:30:PHE:HD2	4:SB:94:LYS:HA	1.77	0.49
5:C1:2102:U:H2'	5:C1:2103:U:H6	1.76	0.49
5:C1:2484:A:H2'	5:C1:2485:A:C8	2.47	0.49
5:C1:2655:U:O3'	45:Lo:97:LYS:NZ	2.41	0.49
5:C1:2724:U:H4'	24:LT:54:HIS:CD2	2.47	0.49
5:C1:3182:G:O3'	19:LO:161[A]:LYS:NZ	2.46	0.49
6:C4:7:G:H5''	9:LD:22:ARG:NH2	2.27	0.49
9:LD:219:PHE:CE2	9:LD:227:LEU:HD21	2.47	0.49
13:LH:111:PHE:HD2	13:LH:125:ASN:HB3	1.78	0.49
16:LL:110:ASP:OD1	16:LL:110:ASP:N	2.45	0.49
19:LO:37[A]:ARG:HG3	19:LO:108[A]:ILE:HD11	1.95	0.49
24:LT:66:ASN:OD1	24:LT:67:VAL:N	2.46	0.49
37:Lg:44:CYS:SG	37:Lg:80:ARG:HA	2.52	0.49
38:Lh:104:GLN:O	38:Lh:108:GLN:HG3	2.12	0.49
46:Lp:79:VAL:O	46:Lp:83:ILE:HG12	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:C2:279:G:H5''	49:C2:281:G:C8	2.47	0.49
49:C2:301:A:H2'	49:C2:302:U:C6	2.48	0.49
49:C2:386:G:H5''	54:SI:23:LYS:HE2	1.94	0.49
49:C2:585:A:C2	49:C2:586:G:C5	3.01	0.49
49:C2:647:G:H22	49:C2:687:G:H22	1.59	0.49
49:C2:752:A:H2	49:C2:797:G:H22	1.60	0.49
49:C2:1358:G:O2'	72:ST:133:ASP:OD2	2.29	0.49
54:SI:6:ASP:HB3	54:SI:28:GLU:OE1	2.12	0.49
71:SZ:63:SER:HA	71:SZ:66:VAL:HG22	1.94	0.49
1:LA:54:ARG:HH12	5:C1:2177:G:P	2.35	0.49
2:SA:27:ARG:C	2:SA:46:HIS:HE1	2.20	0.49
2:SA:178:ALA:HA	2:SA:181:VAL:HG12	1.94	0.49
3:LB:232:ARG:HD3	3:LB:233:TRP:HE1	1.78	0.49
4:SB:203:ASP:OD1	4:SB:203:ASP:N	2.44	0.49
5:C1:293:C:O2'	39:Li:76:ARG:HD3	2.13	0.49
5:C1:651:G:H2'	5:C1:652:G:C8	2.47	0.49
5:C1:1095:U:N3	24:LT:127:GLN:OE1	2.46	0.49
5:C1:1498:A:H2'	5:C1:1499:C:C6	2.47	0.49
5:C1:2534:G:H2'	5:C1:2535:A:H8	1.75	0.49
5:C1:2554:A:P	37:Lg:91:ARG:HH12	2.35	0.49
5:C1:3203:U:H2'	5:C1:3204:C:C6	2.46	0.49
5:C1:3275:U:O2'	5:C1:3276:G:OP1	2.28	0.49
5:C1:3362:A:H2'	5:C1:3363:U:O4'	2.13	0.49
7:C3:155:A:H4'	12:LG:185:ARG:HE	1.78	0.49
11:LF:121:LYS:HB2	24:LT:133:ALA:HB3	1.94	0.49
11:LF:156:ILE:O	11:LF:159:GLN:HB2	2.13	0.49
29:LY:119:ILE:HG22	29:LY:124:GLY:HA3	1.94	0.49
38:Lh:82:ALA:HB1	38:Lh:84:LYS:HG3	1.95	0.49
38:Lh:113:GLN:NE2	38:Lh:114:ARG:O	2.44	0.49
45:Lo:15:LYS:HE2	45:Lo:15:LYS:HA	1.95	0.49
48:P2:87:GLU:HB3	48:P2:89:PRO:HD2	1.95	0.49
49:C2:928:U:O2'	49:C2:945:U:OP2	2.29	0.49
50:SC:220:ASN:HA	61:SV:25:LYS:NZ	2.28	0.49
56:SK:55:VAL:HG12	56:SK:68:LEU:HA	1.95	0.49
57:SL:85:VAL:HG12	57:SL:108:PRO:HB3	1.94	0.49
59:SN:119:GLU:HA	59:SN:122:ILE:HD12	1.94	0.49
2:SA:198:MET:SD	2:SA:200:ASP:HB2	2.52	0.49
5:C1:229:G:C6	5:C1:230:U:C4	3.00	0.49
5:C1:268:A:OP1	18:LN:50:ARG:NH2	2.46	0.49
5:C1:443:G:N2	5:C1:491:C:H2'	2.24	0.49
5:C1:521:A:H2'	5:C1:522:A:C8	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:1055:A:N3	6:C4:81:U:O2'	2.45	0.49
5:C1:1123:U:O4	5:C1:1136:A:N6	2.46	0.49
5:C1:1148:G:C2	5:C1:1156:C:C2	3.00	0.49
5:C1:1328:C:H2'	5:C1:1329:U:C6	2.46	0.49
5:C1:2473:C:OP1	5:C1:2474:G:N2	2.44	0.49
5:C1:3113:A:H2'	5:C1:3114:A:O4'	2.12	0.49
5:C1:3141:A:C6	5:C1:3144:G:C4	3.00	0.49
8:LC:84:ARG:HD2	8:LC:87:GLN:OE1	2.12	0.49
8:LC:287:THR:HA	8:LC:290:ILE:HG22	1.95	0.49
9:LD:122:VAL:O	9:LD:248:ARG:NH2	2.46	0.49
10:LE:170:LYS:HB3	10:LE:172:HIS:CE1	2.47	0.49
15:LJ:92:ARG:HA	15:LJ:172:LEU:HB2	1.95	0.49
18:LN:9:GLU:OE2	18:LN:13:LYS:NZ	2.46	0.49
25:LU:80:THR:O	25:LU:84:LEU:HD23	2.12	0.49
33:Lc:17:VAL:HG11	33:Lc:92:ILE:HD12	1.94	0.49
45:Lo:99:GLN:OE1	45:Lo:99:GLN:N	2.46	0.49
49:C2:36:C:H42	49:C2:472:U:H3	1.60	0.49
49:C2:69:G:H2'	49:C2:70:C:C6	2.47	0.49
49:C2:595:G:H2'	49:C2:596:C:H6	1.78	0.49
49:C2:751:G:C6	49:C2:799:A:C6	3.00	0.49
49:C2:948:G:H2'	49:C2:949:C:C6	2.48	0.49
49:C2:1092:A:C5	49:C2:1094:G:C8	3.01	0.49
49:C2:1168:U:H2'	49:C2:1169:G:C8	2.48	0.49
49:C2:1222:C:H2'	49:C2:1223:A:C8	2.48	0.49
49:C2:1241:G:H2'	49:C2:1242:A:O4'	2.13	0.49
49:C2:1317:C:O2'	49:C2:1400:A:N3	2.45	0.49
49:C2:1513:G:O2'	49:C2:1515:A:N3	2.40	0.49
52:SG:4:ASN:OD1	52:SG:15:THR:OG1	2.27	0.49
52:SG:69:LEU:O	52:SG:99:GLY:HA3	2.12	0.49
54:SI:110:ARG:CZ	54:SI:121:LEU:HB2	2.43	0.49
58:SM:126:TRP:CD1	58:SM:128:ALA:HB3	2.47	0.49
71:SZ:74:SER:O	71:SZ:78:ILE:HG12	2.13	0.49
73:SQ:37:THR:HA	73:SQ:45:ARG:HH22	1.78	0.49
76:Sc:31:GLU:OE2	76:Sc:37:SER:N	2.45	0.49
1:LA:241:ARG:HH11	1:LA:241:ARG:HG3	1.77	0.49
5:C1:63:A:H2'	5:C1:64:G:C8	2.48	0.49
5:C1:65:A:H3'	5:C1:111:C:H41	1.78	0.49
5:C1:655:C:OP1	35:Le:27:ARG:N	2.44	0.49
5:C1:1109:U:O2'	5:C1:1110:U:H5'	2.13	0.49
5:C1:1950:U:H2'	5:C1:1951:C:H6	1.77	0.49
5:C1:2305:G:N2	5:C1:2305:G:OP2	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:2307:G:O2'	5:C1:2310:U:OP2	2.30	0.49
5:C1:2406:C:H2'	5:C1:2407:C:C6	2.48	0.49
5:C1:2847:A:H2'	5:C1:2848:G:O4'	2.12	0.49
6:C4:5:G:OP1	15:LJ:143:ARG:NH2	2.46	0.49
6:C4:42:A:O4'	15:LJ:72:ARG:NH1	2.46	0.49
9:LD:188:GLU:OE1	9:LD:188:GLU:N	2.46	0.49
11:LF:88:ARG:NH1	11:LF:103:LEU:HD23	2.28	0.49
14:LI:38:LYS:NZ	14:LI:45:GLU:OE2	2.45	0.49
18:LN:146:ALA:HA	18:LN:149:ASN:ND2	2.28	0.49
39:Li:5:THR:OG1	39:Li:6:GLY:N	2.46	0.49
49:C2:189:C:H2'	49:C2:190:C:H6	1.78	0.49
49:C2:339:C:H2'	49:C2:340:U:C6	2.47	0.49
49:C2:398:G:OP2	54:SI:47:ARG:NH1	2.36	0.49
49:C2:584:C:O3'	67:Se:15:LYS:NZ	2.38	0.49
49:C2:1055:U:H2'	49:C2:1056:U:C6	2.48	0.49
49:C2:1480:G:C2	49:C2:1528:U:C2	3.01	0.49
49:C2:1686:C:H2'	49:C2:1687:U:H6	1.78	0.49
49:C2:1696:G:H4'	49:C2:1697:G:OP1	2.13	0.49
51:SE:133:LYS:O	51:SE:136:VAL:HG12	2.11	0.49
54:SI:40:ALA:O	54:SI:59:ARG:HG3	2.13	0.49
55:SJ:83:VAL:HG13	55:SJ:85:VAL:HG23	1.94	0.49
56:SK:21:VAL:HG12	56:SK:66:TYR:CD2	2.48	0.49
62:SW:47:ILE:HG13	62:SW:48:GLY:N	2.27	0.49
65:Sa:82:ARG:NH1	65:Sa:85:ARG:HE	2.10	0.49
2:SA:52:LYS:NZ	61:SV:82:VAL:O	2.45	0.49
5:C1:31:C:C4	5:C1:32:U:C4	3.01	0.49
5:C1:315:C:H2'	5:C1:316:U:C6	2.48	0.49
5:C1:552:G:H2'	5:C1:553:U:C6	2.47	0.49
5:C1:1613:A:OP1	41:Lk:2:ALA:N	2.46	0.49
5:C1:1875:G:H2'	5:C1:1876:U:H6	1.77	0.49
5:C1:1908:A:C6	5:C1:1909:A:C6	3.01	0.49
5:C1:2487:U:H3'	5:C1:2488:A:C8	2.32	0.49
5:C1:2767:U:H2'	5:C1:2768:U:C6	2.47	0.49
5:C1:2994:A:H2'	5:C1:2995:A:O4'	2.12	0.49
7:C3:13:A:H1'	20:LP:120:ASN:HD22	1.77	0.49
7:C3:73:U:C4	7:C3:74:U:C4	3.01	0.49
9:LD:123:GLU:OE1	9:LD:123:GLU:N	2.46	0.49
9:LD:164:LYS:HD3	9:LD:180:PHE:CE2	2.48	0.49
13:LH:179:ILE:O	13:LH:179:ILE:HG13	2.12	0.49
14:LI:215:GLU:HA	14:LI:218:ALA:HB3	1.93	0.49
15:LJ:31:THR:O	15:LJ:35:LYS:HG2	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:Lg:107:GLU:O	37:Lg:110:GLU:HG3	2.12	0.49
46:Lp:42:CYS:HB2	46:Lp:44:LYS:NZ	2.28	0.49
49:C2:59:C:O2'	49:C2:60:U:O4'	2.31	0.49
49:C2:139:C:H4'	49:C2:140:A:O5'	2.13	0.49
49:C2:192:U:O2'	49:C2:194:U:O4	2.27	0.49
49:C2:599:A:N3	63:SX:47:SER:OG	2.38	0.49
49:C2:803:A:O2'	49:C2:804:A:H8	1.96	0.49
49:C2:972:G:C2	49:C2:973:A:C8	3.01	0.49
49:C2:1132:A:H2'	49:C2:1133:A:C8	2.43	0.49
49:C2:1295:G:H1'	49:C2:1321:A:O2'	2.13	0.49
49:C2:1366:U:H2'	49:C2:1367:G:O4'	2.12	0.49
49:C2:1367:G:P	72:ST:7:ARG:HH12	2.35	0.49
49:C2:1487:A:OP1	74:Sd:34:TYR:OH	2.10	0.49
53:SH:64:VAL:O	53:SH:64:VAL:HG12	2.12	0.49
56:SK:14:TYR:CZ	56:SK:35:ILE:HD11	2.47	0.49
58:SM:96:GLN:HA	58:SM:99:GLU:HG3	1.95	0.49
60:SO:40:ALA:HB1	60:SO:67:VAL:HG23	1.93	0.49
60:SO:43:THR:O	60:SO:46:MET:HG2	2.12	0.49
60:SO:126:THR:OG1	60:SO:127:ARG:N	2.45	0.49
66:Sb:11:THR:O	66:Sb:14:SER:OG	2.22	0.49
73:SQ:47:LYS:HG3	73:SQ:82:ARG:NH1	2.28	0.49
4:SB:113:MET:SD	4:SB:209:ASN:ND2	2.85	0.49
5:C1:255:A:H5'	38:Lh:106:LYS:HD3	1.95	0.49
5:C1:796:U:H2'	5:C1:797:U:H6	1.78	0.49
5:C1:869:G:N1	5:C1:891:G:C6	2.80	0.49
5:C1:1119:C:H2'	5:C1:1120:A:C8	2.47	0.49
5:C1:1390:A:C5	5:C1:1418:A:C5	3.01	0.49
5:C1:1439:U:H2'	5:C1:1440:G:H8	1.76	0.49
5:C1:2268:U:H3	5:C1:2272:G:H22	1.60	0.49
5:C1:2961:G:H2'	5:C1:2962:U:H6	1.78	0.49
5:C1:3105:U:OP2	5:C1:3128:G:N1	2.39	0.49
9:LD:234:ASP:OD1	9:LD:235:SER:N	2.46	0.49
13:LH:37:ASN:C	13:LH:38:LEU:HD12	2.38	0.49
16:LL:186:ARG:HA	16:LL:189:GLU:OE2	2.13	0.49
17:LM:91:CYS:SG	17:LM:92:GLU:N	2.86	0.49
24:LT:56:PHE:CE2	24:LT:78:LYS:HD3	2.48	0.49
49:C2:704:C:C4	49:C2:705:U:H1'	2.47	0.49
49:C2:977:A:N7	49:C2:1024:U:O4	2.46	0.49
49:C2:997:G:H2'	49:C2:998:A:H8	1.78	0.49
49:C2:1323:C:H2'	49:C2:1324:G:O4'	2.13	0.49
49:C2:1525:A:OP1	72:ST:93:HIS:ND1	2.44	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:SH:173:TYR:CZ	53:SH:177:THR:HG21	2.47	0.49
70:SP:22:LEU:HA	70:SP:25:LEU:HD12	1.95	0.49
75:SU:96:PRO:O	75:SU:100:VAL:HG23	2.12	0.49
76:Sc:8:THR:HG23	76:Sc:56:LEU:HB2	1.95	0.49
3:LB:71:GLU:OE1	3:LB:357:LYS:NZ	2.46	0.48
5:C1:314:U:H2'	5:C1:315:C:H6	1.78	0.48
5:C1:431:U:H2'	5:C1:432:G:H8	1.77	0.48
5:C1:651:G:H2'	5:C1:652:G:H8	1.77	0.48
5:C1:1010:G:O3'	14:LI:40:LYS:NZ	2.46	0.48
5:C1:1193:A:H2'	5:C1:1194:G:C8	2.48	0.48
5:C1:1572:U:H2'	5:C1:1573:G:C8	2.48	0.48
5:C1:1709:C:C2	5:C1:1710:C:C5	3.01	0.48
5:C1:2154:U:H2'	5:C1:2155:G:H8	1.78	0.48
5:C1:2565:U:H3	5:C1:2576:G:H1	1.59	0.48
5:C1:2669:G:C6	5:C1:2686:A:C6	3.01	0.48
5:C1:2768:U:H2'	5:C1:2769:A:H8	1.78	0.48
5:C1:2937:G:C6	5:C1:2938:G:N7	2.81	0.48
5:C1:3121:U:H4'	5:C1:3122:A:OP1	2.13	0.48
5:C1:3176:G:C6	5:C1:3213:A:H2	2.30	0.48
5:C1:3296:A:H2'	5:C1:3297:U:H6	1.78	0.48
6:C4:1:G:C2	6:C4:2:G:C8	3.01	0.48
7:C3:6:U:H2'	7:C3:7:U:H6	1.77	0.48
8:LC:205:PRO:HB3	8:LC:247:PHE:CD2	2.48	0.48
12:LG:33:ASN:O	12:LG:39:ALA:HB3	2.13	0.48
14:LI:210:ILE:HA	14:LI:217:PHE:CE2	2.48	0.48
16:LL:69:VAL:HG12	16:LL:149:GLN:OE1	2.13	0.48
20:LP:21:TYR:H	20:LP:145:HIS:HD2	1.61	0.48
26:LV:97:ASP:N	26:LV:97:ASP:OD1	2.45	0.48
29:LY:115:ARG:O	29:LY:119:ILE:HG12	2.13	0.48
45:Lo:8:ARG:O	45:Lo:23:HIS:HB2	2.13	0.48
47:P0:26:PHE:CZ	47:P0:97:LYS:HE3	2.48	0.48
49:C2:690:G:H2'	49:C2:691:C:H6	1.78	0.48
49:C2:907:A:H2'	49:C2:908:U:C6	2.48	0.48
49:C2:1041:G:C2	49:C2:1078:C:C2	3.01	0.48
49:C2:1406:A:H2'	49:C2:1407:U:C6	2.48	0.48
49:C2:1438:G:H2'	49:C2:1439:C:O4'	2.12	0.48
49:C2:1795:U:H3'	65:Sa:5:ARG:NH1	2.27	0.48
1:LA:191:LEU:HD12	5:C1:1794:G:H4'	1.95	0.48
3:LB:219:ALA:HB2	3:LB:336:VAL:HG22	1.95	0.48
5:C1:76:G:O2'	16:LL:100:ARG:NH1	2.44	0.48
5:C1:195:U:H2'	5:C1:196:G:O4'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:442:G:O6	5:C1:443:G:N2	2.45	0.48
5:C1:624:G:C2	5:C1:625:G:C8	3.01	0.48
5:C1:641:C:H2'	5:C1:642:U:O4'	2.13	0.48
5:C1:1000:C:N3	5:C1:1045:C:N4	2.61	0.48
5:C1:1024:G:H21	5:C1:1027:A:H62	1.60	0.48
5:C1:2139:A:OP1	40:Lj:2:GLY:N	2.46	0.48
5:C1:2677:G:H2'	5:C1:2677:G:N3	2.27	0.48
5:C1:2801:A:O2'	5:C1:2802:A:H2'	2.13	0.48
5:C1:2961:G:H2'	5:C1:2962:U:C6	2.48	0.48
5:C1:3096:C:H2'	5:C1:3097:C:H6	1.76	0.48
5:C1:3146:G:H2'	5:C1:3147:G:C8	2.47	0.48
6:C4:19:C:H2'	6:C4:20:A:C8	2.48	0.48
8:LC:148:ILE:O	8:LC:150:LEU:N	2.46	0.48
17:LM:121:MET:O	17:LM:125:LYS:HG2	2.13	0.48
22:LR:170:ARG:HA	22:LR:170:ARG:CZ	2.43	0.48
26:LV:85:TRP:CE2	26:LV:93:LEU:HD21	2.49	0.48
37:Lg:9:ARG:HG3	37:Lg:34:HIS:CE1	2.48	0.48
49:C2:64:U:O2'	49:C2:168:A:N3	2.46	0.48
49:C2:207:U:H2'	49:C2:208:U:C6	2.47	0.48
49:C2:234:G:C2	49:C2:235:G:H1'	2.48	0.48
49:C2:321:C:O2'	49:C2:322:G:OP1	2.31	0.48
49:C2:522:U:C2	49:C2:523:G:C8	3.01	0.48
49:C2:992:A:H2'	49:C2:993:A:H5'	1.95	0.48
49:C2:1178:G:C4	49:C2:1179:G:C8	3.01	0.48
49:C2:1231:U:H3	49:C2:1254:U:H3	1.59	0.48
49:C2:1789:G:H2'	49:C2:1790:A:C8	2.45	0.48
49:C2:1796:C:OP2	65:Sa:92:ARG:HG2	2.13	0.48
53:SH:118:LEU:O	53:SH:122:HIS:ND1	2.42	0.48
55:SJ:62:ARG:NH2	55:SJ:68:LYS:HD3	2.26	0.48
59:SN:89:TYR:OH	59:SN:151:ASN:OD1	2.31	0.48
63:SX:50:LYS:NZ	63:SX:101:GLU:OE2	2.39	0.48
75:SU:83:GLU:O	75:SU:84:MET:HE2	2.13	0.48
76:Sc:11:LYS:NZ	76:Sc:51:ASN:HA	2.28	0.48
5:C1:1430:U:H2'	31:La:9:ARG:HH22	1.78	0.48
5:C1:1489:A:OP2	5:C1:1838:G:N1	2.44	0.48
5:C1:1898:G:C6	5:C1:2338:C:N4	2.81	0.48
5:C1:2406:C:H2'	5:C1:2407:C:H6	1.78	0.48
5:C1:2988:C:H2'	5:C1:2989:U:H6	1.78	0.48
26:LV:55:GLY:H	26:LV:78:VAL:HG23	1.78	0.48
42:Ll:33:ASN:OD1	42:Ll:34:THR:N	2.46	0.48
42:Ll:43:ASN:OD1	42:Ll:44:TRP:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:Lo:70:LEU:HD13	45:Lo:85:LEU:HD13	1.95	0.48
49:C2:231:U:H2'	49:C2:233:C:H5''	1.94	0.48
49:C2:803:A:O2'	49:C2:804:A:C8	2.66	0.48
49:C2:919:A:H5''	60:SO:18:ARG:HH22	1.78	0.48
49:C2:1261:G:H2'	49:C2:1262:U:C6	2.47	0.48
49:C2:1336:A:C6	49:C2:1416:G:C6	3.01	0.48
50:SC:208:GLU:O	50:SC:212:LYS:HG3	2.13	0.48
50:SC:245:ASP:OD1	50:SC:246:GLU:N	2.46	0.48
55:SJ:100:LYS:HD3	55:SJ:101:VAL:N	2.28	0.48
56:SK:38:LYS:HG2	56:SK:41:TYR:CD2	2.49	0.48
58:SM:70:ASN:O	58:SM:73:LYS:HG3	2.14	0.48
59:SN:136:PRO:O	59:SN:139:TRP:HB2	2.13	0.48
63:SX:75:GLN:HB2	63:SX:82:LYS:HZ1	1.78	0.48
68:5:91:GLN:HB3	68:5:103:MET:HB3	1.95	0.48
75:SU:63:LEU:HD13	75:SU:84:MET:HB2	1.95	0.48
4:SB:157:GLN:OE1	4:SB:160:HIS:HE1	1.96	0.48
4:SB:169:SER:O	4:SB:173:THR:HG23	2.13	0.48
5:C1:533:A:H5'	23:LS:131:LYS:NZ	2.27	0.48
5:C1:1120:A:H2'	5:C1:1121:U:H6	1.78	0.48
5:C1:1236:G:N2	5:C1:1245:A:N7	2.62	0.48
5:C1:1383:G:H2'	5:C1:1384:U:C6	2.48	0.48
5:C1:2285:C:H3'	5:C1:2286:U:H2'	1.95	0.48
5:C1:2352:A:C4	5:C1:2353:G:C8	3.01	0.48
5:C1:2914:G:O2'	5:C1:2915:U:O5'	2.31	0.48
5:C1:3160:U:H3	5:C1:3290:G:H1	1.60	0.48
5:C1:3379:C:H2'	5:C1:3380:U:C6	2.49	0.48
7:C3:27:U:H2'	7:C3:28:C:H6	1.79	0.48
11:LF:99:PRO:HA	11:LF:102:VAL:HG12	1.95	0.48
13:LH:89:LYS:HD2	13:LH:143:GLU:OE2	2.13	0.48
22:LR:136:ARG:HB3	22:LR:136:ARG:HH11	1.77	0.48
27:LW:8:PHE:CE1	27:LW:46:PRO:HG3	2.48	0.48
30:LZ:32:GLY:HA2	30:LZ:38:PHE:O	2.13	0.48
49:C2:282:C:H2'	49:C2:283:U:C6	2.49	0.48
49:C2:424:C:O2'	49:C2:426:G:OP1	2.26	0.48
49:C2:823:G:C6	49:C2:850:A:N6	2.81	0.48
49:C2:1013:A:C2	49:C2:1014:G:H1'	2.49	0.48
49:C2:1281:G:H2'	49:C2:1282:U:C6	2.49	0.48
49:C2:1495:C:N3	49:C2:1513:G:C2	2.81	0.48
49:C2:1512:G:H2'	49:C2:1513:G:C8	2.48	0.48
51:SE:112:HIS:HE1	51:SE:237:SER:OG	1.96	0.48
56:SK:45:ALA:O	56:SK:48:SER:OG	2.25	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:SK:55:VAL:HG11	56:SK:66:TYR:OH	2.14	0.48
70:SP:77:ARG:HE	70:SP:95:GLY:HA3	1.78	0.48
70:SP:103:ASN:OD1	70:SP:120:SER:OG	2.18	0.48
1:LA:89:TYR:HB2	1:LA:100:ASN:OD1	2.14	0.48
4:SB:133:TYR:CE1	4:SB:221:PRO:HD2	2.48	0.48
5:C1:267:G:C4'	18:LN:50:ARG:HH12	2.27	0.48
5:C1:692:A:C4	5:C1:693:A:C8	3.02	0.48
5:C1:1362:G:H1'	11:LF:159:GLN:OE1	2.12	0.48
5:C1:1565:G:H22	5:C1:1574:C:H42	1.60	0.48
5:C1:1626:U:H2'	5:C1:1627:U:H6	1.77	0.48
5:C1:1950:U:H2'	5:C1:1951:C:C6	2.48	0.48
5:C1:2372:A:O2'	5:C1:2373:A:OP1	2.26	0.48
5:C1:2475:G:C5	5:C1:2476:C:H1'	2.48	0.48
5:C1:3066:U:H2'	5:C1:3067:C:C6	2.49	0.48
6:C4:42:A:C4	6:C4:43:U:C5	3.00	0.48
6:C4:110:G:H2'	6:C4:111:U:C6	2.48	0.48
14:LI:183:LYS:O	14:LI:186:GLU:HG3	2.14	0.48
36:Lf:8:TYR:HB3	36:Lf:101:PHE:HD1	1.77	0.48
45:Lo:14:GLY:C	45:Lo:16:THR:H	2.21	0.48
46:Lp:49:ARG:HB2	46:Lp:55:TRP:CZ3	2.49	0.48
49:C2:85:A:H2'	49:C2:86:A:O4'	2.13	0.48
49:C2:374:U:H2'	49:C2:375:U:H6	1.78	0.48
49:C2:743:U:C4	49:C2:809:A:N1	2.82	0.48
49:C2:1182:U:H2'	49:C2:1184:A:OP2	2.14	0.48
49:C2:1297:G:N2	49:C2:1299:G:O2'	2.46	0.48
49:C2:1393:C:H2'	49:C2:1394:G:C8	2.44	0.48
49:C2:1674:C:OP1	52:SG:92:ARG:NH1	2.47	0.48
50:SC:80:VAL:HA	50:SC:102:VAL:HG12	1.96	0.48
51:SE:125:LYS:HB3	51:SE:142:HIS:HB3	1.95	0.48
52:SG:21:GLU:OE1	52:SG:21:GLU:N	2.47	0.48
59:SN:112:LYS:O	59:SN:116:ILE:HD12	2.12	0.48
5:C1:74:G:C2	5:C1:75:G:C8	3.02	0.48
5:C1:640:U:H2'	5:C1:641:C:C6	2.49	0.48
5:C1:800:G:H1'	5:C1:933:A:C2	2.49	0.48
5:C1:951:A:OP2	5:C1:1367:G:N2	2.38	0.48
5:C1:1269:U:H1'	5:C1:1272:C:H5	1.78	0.48
5:C1:1928:G:H2'	5:C1:1929:G:O4'	2.14	0.48
5:C1:2107:A:O2'	54:SI:92:ARG:NH2	2.46	0.48
5:C1:3277:U:H5''	5:C1:3278:C:N3	2.29	0.48
5:C1:3343:G:C2	5:C1:3361:G:C2	3.01	0.48
6:C4:118:A:H2'	6:C4:119:U:C6	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:C3:146:U:H2'	7:C3:147:U:H6	1.79	0.48
9:LD:33:ARG:O	9:LD:37:VAL:HG22	2.14	0.48
19:LO:54[A]:TYR:OH	19:LO:73[A]:PHE:O	2.32	0.48
19:LO:143[A]:THR:HG21	19:LO:150[A]:GLU:OE1	2.13	0.48
23:LS:8:GLN:HE21	23:LS:26:ARG:HE	1.60	0.48
47:P0:30:VAL:HG22	47:P0:185:LEU:HD13	1.96	0.48
49:C2:119:A:H2'	49:C2:120:U:H5'	1.94	0.48
49:C2:244:A:P	51:SE:155:LYS:HZ1	2.37	0.48
49:C2:814:A:O2'	49:C2:815:G:H5'	2.14	0.48
49:C2:828:U:H2'	49:C2:829:A:C8	2.48	0.48
49:C2:1165:G:H2'	49:C2:1166:A:C8	2.49	0.48
49:C2:1342:C:C2	49:C2:1343:U:C5	3.01	0.48
50:SC:140:ARG:HB2	50:SC:222:TYR:CE1	2.49	0.48
52:SG:223:LYS:O	52:SG:227:ARG:NE	2.46	0.48
62:SW:26:LEU:HD23	62:SW:26:LEU:H	1.77	0.48
63:SX:78:LYS:HG3	63:SX:79:ASN:OD1	2.13	0.48
73:SQ:99:GLU:O	73:SQ:102:LYS:HB3	2.14	0.48
1:LA:207:VAL:HG11	5:C1:916:G:C6	2.49	0.48
2:SA:84:ARG:HH22	2:SA:205:ARG:HD2	1.79	0.48
5:C1:75:G:H5''	16:LL:58:VAL:CG2	2.43	0.48
5:C1:158:G:H2'	5:C1:159:A:H8	1.79	0.48
5:C1:364:G:O2'	5:C1:365:A:O4'	2.32	0.48
5:C1:441:U:H3'	5:C1:442:G:C8	2.48	0.48
5:C1:2363:A:H2'	5:C1:2364:G:C8	2.49	0.48
5:C1:2412:G:C6	5:C1:2811:A:C6	3.02	0.48
5:C1:2469:G:N2	5:C1:2477:G:N7	2.61	0.48
5:C1:2667:A:C6	5:C1:2690:G:C6	3.02	0.48
5:C1:2677:G:O2'	5:C1:2679:A:N1	2.37	0.48
5:C1:2689:A:H2'	5:C1:2689:A:N3	2.28	0.48
5:C1:2770:G:H2'	5:C1:2771:U:C6	2.48	0.48
5:C1:3276:G:O6	20:LP:171:ARG:NH2	2.46	0.48
7:C3:42:G:C2	7:C3:43:A:C8	3.02	0.48
7:C3:44:A:H2'	7:C3:45:C:H6	1.78	0.48
7:C3:145:U:H2'	7:C3:146:U:H6	1.79	0.48
12:LG:214:LEU:O	12:LG:217:THR:OG1	2.29	0.48
17:LM:42:LYS:C	17:LM:60:LEU:HD23	2.39	0.48
24:LT:17:ARG:NH2	24:LT:45:ASN:OD1	2.47	0.48
25:LU:19:VAL:O	25:LU:22:PRO:HD2	2.13	0.48
26:LV:27:ASP:HB3	26:LV:101:VAL:HG13	1.95	0.48
29:LY:23:PRO:O	29:LY:27:ARG:HG2	2.13	0.48
39:Li:45:ARG:O	39:Li:45:ARG:HD3	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:C2:156:A:H1'	49:C2:416:A:C5	2.48	0.48
49:C2:778:G:H1	64:SY:10:ARG:HH11	1.61	0.48
49:C2:1507:G:H2'	49:C2:1508:U:C6	2.48	0.48
50:SC:120:GLU:OE1	50:SC:122:ALA:N	2.42	0.48
59:SN:31:GLU:O	59:SN:32:SER:C	2.57	0.48
72:ST:43:ASN:OD1	72:ST:44:GLU:N	2.47	0.48
73:SQ:13:LYS:HA	73:SQ:13:LYS:HD2	1.67	0.48
1:LA:29:LEU:O	1:LA:123:ARG:NH1	2.47	0.48
5:C1:110:G:OP2	16:LL:73:ARG:NH1	2.43	0.48
5:C1:1370:G:H2'	5:C1:1371:G:C8	2.46	0.48
5:C1:1927:G:C8	46:Lp:16:VAL:HG12	2.49	0.48
8:LC:203:ARG:NH2	8:LC:240:PRO:HB3	2.29	0.48
9:LD:65:ILE:HD12	9:LD:65:ILE:N	2.29	0.48
9:LD:237:GLU:OE2	9:LD:241:THR:OG1	2.31	0.48
11:LF:228:SER:O	11:LF:232:ARG:NH2	2.47	0.48
29:LY:55:GLU:CD	29:LY:108:LYS:HB3	2.38	0.48
35:Le:21:HIS:CE1	35:Le:24:ARG:HD3	2.48	0.48
35:Le:60:ASN:OD1	35:Le:62:LYS:N	2.41	0.48
40:Lj:21:ARG:NH2	40:Lj:39:TYR:HA	2.29	0.48
49:C2:297:U:H2'	49:C2:298:C:C6	2.48	0.48
49:C2:691:C:H2'	49:C2:692:C:C6	2.49	0.48
49:C2:1031:U:H4'	49:C2:1032:G:OP2	2.13	0.48
49:C2:1065:A:H2'	49:C2:1066:C:O4'	2.14	0.48
49:C2:1241:G:H3'	49:C2:1242:A:H8	1.78	0.48
49:C2:1619:C:H2'	49:C2:1620:C:H6	1.77	0.48
52:SG:135:PRO:HB2	52:SG:141:ILE:CD1	2.44	0.48
53:SH:77:LEU:O	53:SH:81:LEU:HD23	2.14	0.48
54:SI:21:PHE:CZ	54:SI:22:ARG:HG3	2.49	0.48
55:SJ:77:ILE:HD11	55:SJ:93:LEU:HB2	1.94	0.48
67:Se:50:VAL:O	67:Se:50:VAL:HG12	2.13	0.48
72:ST:49:ASP:C	72:ST:51:GLU:H	2.22	0.48
2:SA:84:ARG:HD3	2:SA:88:LYS:NZ	2.29	0.48
4:SB:61:LEU:HA	4:SB:64:ARG:HG2	1.94	0.48
5:C1:688:G:C4	5:C1:690:A:C8	3.02	0.48
5:C1:725:G:O6	5:C1:746:A:N6	2.46	0.48
5:C1:796:U:H2'	5:C1:797:U:C6	2.49	0.48
5:C1:1072:G:H2'	5:C1:1073:U:C6	2.49	0.48
5:C1:1237:G:H1	5:C1:1251:A:N6	2.11	0.48
5:C1:1277:C:O2'	5:C1:1278:A:C8	2.65	0.48
5:C1:1303:A:C6	5:C1:2887:A:C6	3.02	0.48
5:C1:1426:C:H4'	8:LC:40:THR:OG1	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:1856:C:C2	5:C1:1857:C:C5	3.02	0.48
5:C1:2107:A:H1'	54:SI:92:ARG:HH22	1.79	0.48
5:C1:2722:U:H2'	5:C1:2723:U:H6	1.78	0.48
25:LU:15:PHE:HE2	25:LU:71:PHE:HD2	1.61	0.48
30:LZ:31:GLU:H	30:LZ:31:GLU:CD	2.21	0.48
30:LZ:106:GLN:HA	30:LZ:109:GLU:OE1	2.14	0.48
47:P0:93:LEU:HB3	47:P0:97:LYS:NZ	2.29	0.48
47:P0:133:THR:HA	47:P0:136:PHE:CE2	2.49	0.48
49:C2:66:U:H6	52:SG:173:PRO:HB3	1.79	0.48
49:C2:368:U:O2	49:C2:373:G:O6	2.32	0.48
49:C2:386:G:H2'	49:C2:387:A:C8	2.48	0.48
49:C2:410:A:H2'	49:C2:411:C:H6	1.78	0.48
49:C2:1192:C:OP1	49:C2:1194:A:H5''	2.14	0.48
64:SY:37:LYS:O	64:SY:40:LEU:HB2	2.13	0.48
75:SU:33:GLN:HA	75:SU:36:ASN:HB2	1.96	0.48
1:LA:42:ARG:HH11	1:LA:87:PHE:HE2	1.62	0.48
4:SB:26:ARG:O	4:SB:50:LYS:N	2.47	0.48
5:C1:140:C:OP1	12:LG:106:LYS:NZ	2.38	0.48
5:C1:303:G:O2'	5:C1:2778:G:OP2	2.21	0.48
5:C1:1128:U:O2'	5:C1:1129:A:H5'	2.14	0.48
5:C1:1583:A:H2'	5:C1:1584:U:O4'	2.14	0.48
5:C1:1696:A:H2'	5:C1:1697:A:H8	1.78	0.48
5:C1:2566:C:H2'	5:C1:2567:C:C6	2.49	0.48
5:C1:2656:A:N7	5:C1:2658:G:C8	2.82	0.48
6:C4:117:A:H2'	6:C4:118:A:C8	2.48	0.48
7:C3:66:A:H2'	7:C3:67:U:C6	2.49	0.48
8:LC:292:SER:OG	8:LC:293:SER:N	2.42	0.48
31:La:77:LYS:HG3	31:La:78:LEU:N	2.23	0.48
37:Lg:92:ALA:O	37:Lg:96:GLU:HG2	2.14	0.48
49:C2:68:A:H61	52:SG:132:ARG:HG2	1.78	0.48
49:C2:138:A:N6	49:C2:142:G:H1'	2.29	0.48
49:C2:495:C:H5''	49:C2:496:G:N7	2.29	0.48
49:C2:821:U:N3	49:C2:852:C:C2	2.75	0.48
49:C2:903:U:O2'	49:C2:905:A:N7	2.35	0.48
49:C2:961:U:H5''	59:SN:71:ILE:HD13	1.95	0.48
49:C2:1513:G:H1'	49:C2:1518:C:O2	2.14	0.48
49:C2:1608:U:H2'	49:C2:1609:U:C6	2.48	0.48
49:C2:1608:U:C2	49:C2:1609:U:C5	3.02	0.48
69:Sf:136:LYS:H	69:Sf:138:ARG:HG2	1.78	0.48
71:SZ:65:LEU:O	71:SZ:69:LEU:HB2	2.14	0.48
5:C1:141:C:H2'	5:C1:142:C:H6	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:317:A:C6	5:C1:318:A:C6	3.02	0.47
5:C1:549:U:H3'	5:C1:550:A:C8	2.49	0.47
5:C1:1335:C:H2'	5:C1:1336:U:C6	2.49	0.47
5:C1:1464:G:N2	5:C1:1466:G:H3'	2.29	0.47
5:C1:1503:A:C4	5:C1:1504:A:C8	3.02	0.47
5:C1:2200:U:C4	5:C1:2201:G:N7	2.82	0.47
5:C1:2444:C:H2'	5:C1:2445:A:C8	2.49	0.47
5:C1:2582:C:H2'	5:C1:2583:C:H6	1.79	0.47
5:C1:2655:U:H4'	5:C1:2656:A:O5'	2.14	0.47
5:C1:2974:U:H2'	5:C1:2975:U:C6	2.49	0.47
5:C1:2983:C:O2'	5:C1:2984:C:H5'	2.14	0.47
11:LF:138:TYR:CD2	11:LF:233:GLU:HB2	2.49	0.47
13:LH:7:GLU:HG2	13:LH:54:LYS:HZ2	1.78	0.47
13:LH:22:SER:O	13:LH:23:ARG:HD3	2.14	0.47
23:LS:137:ARG:HB3	23:LS:139:TYR:CE1	2.49	0.47
26:LV:63:LYS:HD3	26:LV:63:LYS:HA	1.68	0.47
49:C2:107:C:H2'	49:C2:108:A:C8	2.49	0.47
49:C2:567:A:O2'	63:SX:90:ASP:OD2	2.16	0.47
49:C2:753:A:OP1	51:SE:186:GLY:HA3	2.14	0.47
49:C2:774:A:N6	49:C2:786:C:C2	2.82	0.47
49:C2:924:A:H2'	49:C2:925:G:C8	2.48	0.47
49:C2:1091:A:H4'	49:C2:1092:A:O4'	2.14	0.47
49:C2:1649:G:H2'	49:C2:1650:U:C6	2.49	0.47
53:SH:24:PHE:O	53:SH:27:LEU:HG	2.14	0.47
53:SH:37:GLU:O	53:SH:41:LEU:HD13	2.14	0.47
53:SH:77:LEU:HD11	53:SH:92:PHE:CE2	2.48	0.47
57:SL:29:LYS:HE2	57:SL:32:LYS:HA	1.94	0.47
58:SM:62:LEU:HD13	58:SM:88:LEU:HD11	1.95	0.47
60:SO:133:ARG:HE	60:SO:136:ARG:NH1	2.09	0.47
64:SY:113:ASN:HA	64:SY:116:LYS:NZ	2.28	0.47
75:SU:57:ARG:HG2	75:SU:89:ARG:NE	2.29	0.47
3:LB:187:SER:O	3:LB:189:SER:N	2.47	0.47
5:C1:371:G:N1	5:C1:374:A:OP2	2.40	0.47
5:C1:686:G:N1	5:C1:695:C:N3	2.62	0.47
5:C1:803:C:H4'	8:LC:92:ASN:ND2	2.29	0.47
5:C1:804:C:OP1	8:LC:98:ARG:NH2	2.47	0.47
5:C1:907:G:C4	5:C1:909:G:C6	3.03	0.47
5:C1:1048:A:N7	14:LI:22:TYR:HD2	2.13	0.47
5:C1:1881:A:H2'	5:C1:1882:G:H8	1.79	0.47
5:C1:2095:G:H2'	5:C1:2096:A:C8	2.47	0.47
5:C1:2428:U:H2'	5:C1:2429:G:H8	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C4:4:U:H2'	6:C4:5:G:C8	2.48	0.47
6:C4:22:A:H2'	6:C4:23:A:H8	1.79	0.47
7:C3:5:U:H2'	7:C3:6:U:C6	2.48	0.47
12:LG:97:TYR:OH	12:LG:204:ARG:HG2	2.14	0.47
15:LJ:65:ILE:HG13	15:LJ:66:ALA:N	2.29	0.47
24:LT:101:CYS:O	24:LT:104:GLU:HG3	2.13	0.47
26:LV:54:LEU:HD21	26:LV:119:GLY:HA3	1.96	0.47
46:Lp:84:ARG:HG2	46:Lp:84:ARG:HH11	1.78	0.47
47:P0:100:ILE:HB	47:P0:185:LEU:HD23	1.96	0.47
49:C2:93:A:H4'	49:C2:94:U:OP2	2.14	0.47
49:C2:628:G:N1	49:C2:970:A:OP2	2.32	0.47
49:C2:823:G:C6	49:C2:824:G:C5	3.02	0.47
49:C2:860:U:H2'	49:C2:861:U:H6	1.80	0.47
49:C2:1077:C:H2'	49:C2:1078:C:H6	1.79	0.47
49:C2:1483:A:C2	49:C2:1607:G:H1'	2.49	0.47
51:SE:191:ARG:HD2	51:SE:245:LYS:NZ	2.29	0.47
52:SG:7:TYR:HB2	52:SG:124:LEU:HD21	1.97	0.47
53:SH:134:GLU:HG3	53:SH:135:ILE:N	2.29	0.47
57:SL:125:VAL:CG1	57:SL:137:PHE:HB3	2.43	0.47
59:SN:39:LYS:NZ	59:SN:43:LYS:HD3	2.29	0.47
60:SO:61:MET:HG2	60:SO:104:ALA:HB2	1.96	0.47
61:SV:12:TYR:CG	61:SV:12:TYR:O	2.67	0.47
68:5:18:THR:HG22	68:5:83:PRO:HA	1.95	0.47
70:SP:121:ILE:HG22	70:SP:123:TYR:H	1.79	0.47
1:LA:192:LYS:C	1:LA:193:ARG:HD2	2.39	0.47
5:C1:137:G:H2'	5:C1:138:U:H6	1.79	0.47
5:C1:197:G:H8	5:C1:197:G:O5'	1.97	0.47
5:C1:297:G:OP2	5:C1:297:G:N2	2.34	0.47
5:C1:513:G:C5	5:C1:579:G:C6	3.02	0.47
5:C1:594:U:O2'	8:LC:308:LYS:NZ	2.41	0.47
5:C1:1031:C:H2'	5:C1:1032:C:C6	2.49	0.47
5:C1:1696:A:H2'	5:C1:1697:A:C8	2.49	0.47
5:C1:2351:U:H2'	5:C1:2352:A:H8	1.80	0.47
5:C1:2568:C:N3	5:C1:2574:G:N1	2.63	0.47
5:C1:2578:U:H2'	5:C1:2579:G:O4'	2.14	0.47
5:C1:2769:A:H2'	5:C1:2770:G:H8	1.78	0.47
5:C1:2889:C:H2'	5:C1:2890:A:C8	2.49	0.47
5:C1:2982:A:O2'	5:C1:2983:C:H5''	2.14	0.47
5:C1:2990:G:C2	5:C1:2991:A:C8	3.02	0.47
11:LF:126:LEU:O	11:LF:130:ILE:HG23	2.14	0.47
21:LQ:79:LYS:HD3	21:LQ:136:ASN:OD1	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:P0:52:LEU:HB3	47:P0:86:PHE:HB2	1.95	0.47
49:C2:569:C:OP1	63:SX:89:ASN:HA	2.14	0.47
49:C2:602:U:H2'	49:C2:603:U:C6	2.49	0.47
49:C2:889:U:H2'	49:C2:890:C:C6	2.48	0.47
49:C2:1178:G:H2'	49:C2:1179:G:C8	2.48	0.47
49:C2:1180:C:H1'	70:SP:128:HIS:CE1	2.49	0.47
49:C2:1335:U:H4'	74:Sd:56:ARG:HH21	1.79	0.47
49:C2:1342:C:H2'	49:C2:1343:U:C6	2.49	0.47
49:C2:1436:A:O2'	49:C2:1437:U:O4'	2.30	0.47
49:C2:1639:C:H2'	49:C2:1640:C:O4'	2.14	0.47
50:SC:76:LEU:HD13	50:SC:104:VAL:HB	1.96	0.47
51:SE:8:HIS:O	51:SE:30:ARG:HD2	2.14	0.47
51:SE:184:THR:HA	51:SE:189:LEU:CD1	2.44	0.47
57:SL:109:VAL:HG23	57:SL:137:PHE:C	2.40	0.47
58:SM:67:THR:O	58:SM:68:GLU:HG2	2.14	0.47
2:SA:157:ASP:OD2	61:SV:60:ARG:NH1	2.38	0.47
3:LB:137:TYR:C	3:LB:139:GLN:H	2.22	0.47
4:SB:86:LEU:HD13	4:SB:100:PHE:HA	1.95	0.47
4:SB:130:SER:HB2	4:SB:180:THR:HG22	1.96	0.47
5:C1:86:G:C5	16:LL:13:HIS:CE1	3.02	0.47
5:C1:695:C:OP2	8:LC:115:HIS:NE2	2.34	0.47
5:C1:867:G:H2'	5:C1:868:C:C6	2.49	0.47
5:C1:901:G:OP1	40:Lj:13:ASN:ND2	2.42	0.47
5:C1:1020:G:H3'	5:C1:1021:G:H8	1.79	0.47
5:C1:1165:A:H2'	5:C1:1166:G:H8	1.79	0.47
5:C1:1238:C:N3	5:C1:1251:A:N6	2.62	0.47
5:C1:1714:A:C5	5:C1:1728:G:C6	3.02	0.47
5:C1:1715:A:C8	5:C1:1717:U:H5''	2.49	0.47
5:C1:2486:A:O2'	5:C1:2487:U:H5''	2.14	0.47
5:C1:2651:G:C4	5:C1:2796:G:C2	3.03	0.47
5:C1:2799:A:H5''	5:C1:2800:G:OP1	2.13	0.47
5:C1:3019:U:H2'	5:C1:3020:U:O4'	2.13	0.47
7:C3:68:G:H2'	7:C3:69:U:H6	1.80	0.47
7:C3:131:A:H2'	7:C3:132:G:H8	1.78	0.47
9:LD:63:GLN:HB2	9:LD:65:ILE:HD11	1.95	0.47
9:LD:99:TYR:CD2	9:LD:199:ILE:HG23	2.49	0.47
9:LD:218:ARG:HA	9:LD:221:GLU:OE1	2.15	0.47
13:LH:146:LEU:HD12	13:LH:158:ALA:HB2	1.96	0.47
14:LI:74:LYS:O	14:LI:78:THR:HG23	2.14	0.47
14:LI:142:ASP:OD1	14:LI:178:ARG:NH2	2.48	0.47
15:LJ:15:GLU:OE2	15:LJ:132:ASN:ND2	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:LS:142:GLN:HG3	23:LS:143:PHE:HD1	1.79	0.47
33:Lc:30:THR:HG21	33:Lc:89:VAL:HG21	1.96	0.47
37:Lg:51:LEU:H	37:Lg:51:LEU:HD23	1.78	0.47
38:Lh:85:THR:O	38:Lh:89:ARG:NE	2.48	0.47
48:P2:112:ILE:O	48:P2:115:GLN:NE2	2.48	0.47
49:C2:1366:U:O3'	72:ST:7:ARG:NH1	2.48	0.47
49:C2:1382:A:O2'	49:C2:1383:G:OP1	2.25	0.47
49:C2:1385:G:H2'	49:C2:1386:G:C8	2.49	0.47
49:C2:1773:C:H2'	49:C2:1774:G:C8	2.49	0.47
52:SG:189:HIS:O	52:SG:193:LEU:HD23	2.15	0.47
54:SI:172:ARG:HH21	54:SI:175:GLN:CD	2.23	0.47
58:SM:31:VAL:HA	58:SM:34:THR:HG22	1.97	0.47
58:SM:42:ALA:HB1	58:SM:47:GLU:HB3	1.97	0.47
59:SN:88:LEU:O	59:SN:92:ILE:HG13	2.14	0.47
70:SP:29:SER:HB3	70:SP:32:ASP:HB2	1.96	0.47
2:SA:176:LEU:O	2:SA:179:ARG:N	2.48	0.47
3:LB:123:TYR:CE1	5:C1:3315:G:C5	3.03	0.47
5:C1:516:A:H5''	8:LC:344:ALA:HB2	1.97	0.47
5:C1:966:U:H2'	5:C1:967:A:H8	1.80	0.47
5:C1:1049:C:H2'	5:C1:1050:U:C6	2.50	0.47
5:C1:1203:A:H2'	5:C1:1204:A:H8	1.79	0.47
5:C1:1845:G:H3'	5:C1:1846:C:H5'	1.96	0.47
5:C1:2149:A:H62	5:C1:2187:G:N2	2.11	0.47
5:C1:2387:A:H2'	5:C1:2388:U:O4'	2.14	0.47
5:C1:2482:U:H2'	5:C1:2483:G:C8	2.49	0.47
5:C1:2708:C:H2'	5:C1:2709:C:C6	2.48	0.47
5:C1:2890:A:C4	5:C1:2914:G:N2	2.82	0.47
5:C1:3384:U:H2'	5:C1:3385:U:C6	2.49	0.47
9:LD:182:GLY:HA3	9:LD:194:LEU:HD22	1.96	0.47
10:LE:28:GLN:OE1	10:LE:61:ASN:HA	2.15	0.47
15:LJ:114:ILE:H	15:LJ:114:ILE:HD12	1.78	0.47
20:LP:30:ARG:HD2	20:LP:63:PHE:HE2	1.80	0.47
21:LQ:64:VAL:HG23	21:LQ:88:THR:O	2.13	0.47
33:Lc:51:LEU:HD11	37:Lg:90:ILE:HG22	1.95	0.47
34:Ld:6:ASP:C	34:Ld:8:VAL:H	2.21	0.47
38:Lh:62:GLN:OE1	38:Lh:62:GLN:HA	2.14	0.47
44:Ln:17:ARG:HH21	49:C2:1116:A:P	2.37	0.47
49:C2:699:U:C2	49:C2:740:A:H2	2.32	0.47
49:C2:1304:G:H21	49:C2:1322:A:H62	1.62	0.47
49:C2:1759:C:H2'	49:C2:1760:G:H8	1.80	0.47
49:C2:1777:G:H2'	49:C2:1778:G:H8	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:SE:127:LYS:HD3	51:SE:142:HIS:HA	1.96	0.47
56:SK:46:LEU:HA	56:SK:49:LEU:HB2	1.96	0.47
62:SW:66:ASN:ND2	62:SW:68:ARG:HE	2.12	0.47
62:SW:72:CYS:HB2	62:SW:129:VAL:HG12	1.96	0.47
66:Sb:40:CYS:HB2	66:Sb:42:ASN:OD1	2.14	0.47
72:ST:117:SER:OG	72:ST:123:ARG:NH2	2.48	0.47
76:Sc:64:ARG:HD2	76:Sc:64:ARG:O	2.14	0.47
2:SA:13:ASP:HA	2:SA:16:LEU:HD12	1.96	0.47
2:SA:156:VAL:HG12	2:SA:157:ASP:O	2.14	0.47
5:C1:162:G:H2'	5:C1:163:C:H6	1.80	0.47
5:C1:176:G:C2	5:C1:243:G:C5	3.02	0.47
5:C1:199:A:C4	5:C1:201:A:C8	3.03	0.47
5:C1:441:U:H3'	5:C1:442:G:H8	1.79	0.47
5:C1:986:U:H2'	5:C1:987:U:H6	1.80	0.47
5:C1:1764:U:H3'	5:C1:1765:U:C4'	2.45	0.47
5:C1:1810:A:H2'	5:C1:1811:G:H8	1.77	0.47
5:C1:1939:G:C4	5:C1:1940:G:C8	3.02	0.47
5:C1:2465:G:H2'	5:C1:2466:G:H8	1.79	0.47
7:C3:156:U:P	12:LG:84:ARG:HH12	2.38	0.47
10:LE:158:TYR:OH	17:LM:114:ASP:OD2	2.25	0.47
11:LF:180:SER:H	11:LF:183:ASP:HB2	1.78	0.47
13:LH:88:TYR:CE1	13:LH:184:LYS:HD2	2.49	0.47
24:LT:71:SER:HG	24:LT:91:LEU:C	2.23	0.47
27:LW:35:LYS:O	27:LW:39:LEU:HD23	2.14	0.47
42:Ll:21:ARG:HG2	42:Ll:22:PRO:O	2.14	0.47
49:C2:141:U:O2'	49:C2:142:G:H8	1.98	0.47
51:SE:132:GLY:N	51:SE:136:VAL:O	2.45	0.47
52:SG:20:ASP:OD1	52:SG:22:HIS:CE1	2.68	0.47
52:SG:158:ILE:HD12	52:SG:158:ILE:H	1.80	0.47
55:SJ:73:GLY:O	55:SJ:77:ILE:HG13	2.14	0.47
58:SM:59:LEU:HB2	58:SM:123:VAL:HB	1.96	0.47
60:SO:111:ARG:NE	60:SO:112:ILE:H	2.12	0.47
76:Sc:42:ARG:NH1	76:Sc:58:GLU:OE2	2.48	0.47
3:LB:112:ASP:HA	3:LB:115:LYS:HG2	1.97	0.47
3:LB:296:THR:OG1	3:LB:299:ASP:N	2.45	0.47
5:C1:138:U:H2'	5:C1:139:G:C8	2.48	0.47
5:C1:517:G:H2'	5:C1:518:G:N3	2.30	0.47
5:C1:567:G:H2'	5:C1:568:G:H8	1.78	0.47
5:C1:595:G:OP2	11:LF:30:ARG:NH1	2.48	0.47
5:C1:650:C:H2'	5:C1:651:G:C8	2.50	0.47
5:C1:753:C:H2'	5:C1:754:G:H8	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:805:G:N1	5:C1:939:U:O4	2.47	0.47
5:C1:837:A:OP1	46:Lp:5:THR:HG22	2.15	0.47
5:C1:861:C:H2'	5:C1:862:U:H6	1.79	0.47
5:C1:952:A:N3	5:C1:1114:U:O2'	2.46	0.47
5:C1:1018:G:H8	5:C1:1018:G:OP2	1.98	0.47
5:C1:1109:U:H4'	21:LQ:153:PHE:CD2	2.48	0.47
5:C1:1231:A:H5''	5:C1:1232:C:H5'	1.95	0.47
5:C1:1449:A:C2	5:C1:2356:A:C4	3.03	0.47
5:C1:1523:U:OP1	5:C1:1834:U:O2'	2.29	0.47
5:C1:1626:U:H2'	5:C1:1627:U:C6	2.50	0.47
5:C1:1646:G:N2	5:C1:1808:G:C4	2.83	0.47
5:C1:2138:A:O2'	40:Lj:2:GLY:N	2.44	0.47
5:C1:2477:G:O2'	5:C1:2487:U:H5'	2.15	0.47
5:C1:2480:A:H3'	5:C1:2481:G:H8	1.78	0.47
5:C1:2950:G:H22	5:C1:2979:U:H2'	1.78	0.47
5:C1:3180:A:C5	19:LO:167[A]:TYR:CE2	3.03	0.47
5:C1:3210:A:C4	5:C1:3211:C:C5	3.02	0.47
6:C4:94:C:H2'	6:C4:95:A:C8	2.49	0.47
7:C3:8:C:H2'	7:C3:9:A:C8	2.37	0.47
7:C3:66:A:H2'	7:C3:67:U:H6	1.79	0.47
7:C3:146:U:H2'	7:C3:147:U:C6	2.50	0.47
11:LF:140:SER:O	11:LF:144:ILE:HD12	2.14	0.47
15:LJ:140:ARG:HA	15:LJ:140:ARG:HD2	1.80	0.47
19:LO:88[A]:VAL:O	19:LO:90[A]:HIS:N	2.47	0.47
25:LU:98:THR:OG1	25:LU:99:LYS:N	2.48	0.47
30:LZ:111:LYS:HA	30:LZ:114:VAL:HG12	1.96	0.47
33:Lc:58:TYR:O	33:Lc:61:MET:HG3	2.14	0.47
45:Lo:3:ASN:HD21	45:Lo:95:GLY:HA3	1.80	0.47
49:C2:18:C:C2	49:C2:19:A:C8	3.03	0.47
49:C2:181:A:H2'	49:C2:182:A:C8	2.50	0.47
49:C2:219:A:N1	49:C2:843:U:H1'	2.30	0.47
49:C2:555:A:H3'	49:C2:555:A:N3	2.29	0.47
49:C2:623:A:O2'	49:C2:624:G:OP1	2.29	0.47
49:C2:624:G:H1'	49:C2:1027:A:C4	2.50	0.47
49:C2:631:G:H2'	49:C2:632:U:H6	1.79	0.47
49:C2:749:U:H2'	49:C2:750:U:C6	2.50	0.47
49:C2:783:G:H2'	49:C2:784:C:C6	2.49	0.47
49:C2:841:U:H2'	49:C2:842:C:O4'	2.15	0.47
49:C2:844:A:H2'	49:C2:845:G:C8	2.50	0.47
49:C2:1287:A:H4'	49:C2:1288:G:H5'	1.97	0.47
50:SC:127:ALA:O	50:SC:131:ILE:HG12	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:SC:140:ARG:NH1	61:SV:10:GLU:HG3	2.30	0.47
51:SE:174:LYS:HD3	51:SE:175:PHE:H	1.79	0.47
55:SJ:111:THR:O	55:SJ:115:LYS:HG2	2.15	0.47
55:SJ:158:PHE:CD2	55:SJ:164:PHE:HB3	2.48	0.47
56:SK:75:TYR:HD2	56:SK:76:LEU:HD22	1.80	0.47
58:SM:60:VAL:HG23	58:SM:87:PRO:HB2	1.97	0.47
63:SX:23:ARG:HB3	63:SX:29:TYR:CD2	2.49	0.47
63:SX:61:SER:HB2	63:SX:116:ASP:HB2	1.96	0.47
66:Sb:62:ILE:HG23	66:Sb:74:SER:OG	2.15	0.47
68:5:29:ASN:HA	68:5:40:LYS:NZ	2.30	0.47
73:SQ:50:GLU:O	73:SQ:54:LEU:HG	2.14	0.47
5:C1:278:U:H2'	5:C1:279:U:C6	2.50	0.47
5:C1:1085:A:H2'	5:C1:1086:C:C6	2.50	0.47
5:C1:1436:U:H5''	5:C1:1437:C:H5''	1.96	0.47
5:C1:1647:A:C2	5:C1:1809:A:H1'	2.50	0.47
5:C1:1804:A:H2'	5:C1:1805:C:C6	2.50	0.47
5:C1:2148:U:H2'	5:C1:2149:A:C8	2.49	0.47
5:C1:2454:G:H1	5:C1:2484:A:H61	1.62	0.47
5:C1:2885:C:O2'	5:C1:2886:U:H5'	2.15	0.47
5:C1:3050:U:C2	5:C1:3051:U:C5	3.02	0.47
5:C1:3159:C:H2'	5:C1:3160:U:H6	1.80	0.47
5:C1:3272:C:OP2	10:LE:78:ARG:NH1	2.48	0.47
5:C1:3308:C:H3'	5:C1:3309:G:H21	1.80	0.47
9:LD:257:GLU:OE2	9:LD:259:LYS:HB3	2.14	0.47
33:Lc:40:LYS:HB3	33:Lc:101:LEU:HD11	1.97	0.47
35:Le:83:GLU:O	35:Le:86:THR:HG23	2.14	0.47
49:C2:223:U:H2'	49:C2:224:C:C6	2.50	0.47
49:C2:279:G:N1	49:C2:281:G:N3	2.63	0.47
49:C2:412:A:H1'	49:C2:422:G:N2	2.30	0.47
49:C2:514:G:H2'	49:C2:515:A:H8	1.78	0.47
49:C2:523:G:OP1	64:SY:60:PHE:HB2	2.15	0.47
49:C2:607:G:H5'	49:C2:613:G:N2	2.30	0.47
49:C2:846:G:H2'	49:C2:847:A:O4'	2.14	0.47
49:C2:888:U:H2'	49:C2:889:U:H6	1.80	0.47
49:C2:1348:A:O2'	49:C2:1349:G:OP1	2.30	0.47
53:SH:17:GLU:HA	53:SH:20:VAL:HG12	1.97	0.47
53:SH:101:LYS:HA	53:SH:112:ARG:NH1	2.30	0.47
55:SJ:91:LYS:HZ3	55:SJ:91:LYS:HB2	1.80	0.47
59:SN:8:GLY:C	59:SN:9:LYS:HD2	2.40	0.47
70:SP:75:PRO:CB	70:SP:77:ARG:HH12	2.27	0.47
3:LB:218:ILE:HB	3:LB:337:THR:OG1	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:130:A:C6	5:C1:139:G:C6	3.03	0.47
5:C1:168:U:H2'	5:C1:169:U:C6	2.50	0.47
5:C1:211:A:H5''	8:LC:221:ASN:OD1	2.15	0.47
5:C1:221:A:C5	5:C1:224:C:C4	3.03	0.47
5:C1:613:G:H2'	5:C1:614:C:H6	1.79	0.47
5:C1:822:G:H2'	5:C1:823:C:C6	2.49	0.47
5:C1:880:G:C2	5:C1:882:A:N6	2.83	0.47
5:C1:966:U:H2'	5:C1:967:A:C8	2.49	0.47
5:C1:1019:G:H2'	5:C1:1020:G:O4'	2.14	0.47
5:C1:1177:G:H5'	36:Lf:18:ARG:NH2	2.29	0.47
5:C1:1677:G:OP2	25:LU:103:TYR:OH	2.33	0.47
5:C1:1720:U:C4	22:LR:124:TYR:HE2	2.33	0.47
5:C1:2158:A:N7	5:C1:2160:G:C2	2.83	0.47
5:C1:2202:C:H2'	5:C1:2203:U:C6	2.50	0.47
5:C1:2284:C:C4	5:C1:2285:C:N4	2.83	0.47
5:C1:2430:A:H2'	5:C1:2431:C:H6	1.80	0.47
5:C1:3008:A:N6	5:C1:3139:A:N6	2.63	0.47
5:C1:3181:C:C4	19:LO:168[A]:TYR:CD2	3.03	0.47
5:C1:3303:G:C5	5:C1:3305:A:N1	2.83	0.47
6:C4:107:C:H2'	6:C4:108:A:C8	2.49	0.47
9:LD:39:GLN:O	9:LD:41:LYS:HD2	2.14	0.47
9:LD:135:VAL:HG13	9:LD:138:GLY:HA3	1.97	0.47
10:LE:149:ILE:HG13	10:LE:155:LEU:HD23	1.97	0.47
11:LF:119:VAL:HG13	11:LF:124:LEU:HD21	1.97	0.47
13:LH:84:LYS:HE3	13:LH:186:PHE:HD2	1.79	0.47
15:LJ:75:LYS:O	15:LJ:78:GLU:HG3	2.14	0.47
23:LS:46:GLN:HG3	23:LS:51:VAL:O	2.14	0.47
26:LV:28:ASN:OD1	26:LV:113:ALA:N	2.35	0.47
34:Ld:31:ARG:HD2	34:Ld:31:ARG:HA	1.80	0.47
49:C2:904:G:C6	49:C2:905:A:C6	3.03	0.47
49:C2:1424:A:H2'	49:C2:1425:A:C8	2.49	0.47
50:SC:140:ARG:HB3	50:SC:221:THR:OG1	2.14	0.47
53:SH:78:THR:O	53:SH:82:GLU:OE1	2.32	0.47
54:SI:191:PHE:CE2	54:SI:195:ARG:HD2	2.49	0.47
58:SM:66:VAL:HG23	58:SM:67:THR:N	2.29	0.47
59:SN:120:SER:O	59:SN:124:ARG:HG3	2.15	0.47
63:SX:107:PHE:HE1	63:SX:114:LYS:CB	2.27	0.47
73:SQ:79:TYR:HA	73:SQ:82:ARG:HG2	1.96	0.47
5:C1:159:A:H2'	5:C1:160:G:H8	1.80	0.47
5:C1:384:A:C5	5:C1:1465:A:C2	3.03	0.47
5:C1:674:G:H2'	5:C1:675:C:C6	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:1299:U:H2'	5:C1:1300:G:O4'	2.15	0.47
5:C1:1404:G:N1	5:C1:1408:G:C6	2.83	0.47
5:C1:1550:C:H2'	5:C1:1551:C:C6	2.50	0.47
5:C1:2253:G:N2	5:C1:2264:U:C2	2.82	0.47
5:C1:2366:C:H2'	5:C1:2367:A:C8	2.48	0.47
5:C1:2393:G:O2'	5:C1:2394:G:OP2	2.28	0.47
6:C4:47:C:H2'	6:C4:48:U:C6	2.50	0.47
8:LC:125:ALA:O	8:LC:129:THR:HG23	2.15	0.47
17:LM:49:PRO:HG3	17:LM:81:VAL:HG13	1.97	0.47
19:LO:15[A]:LEU:HD21	19:LO:129[A]:LEU:HD11	1.97	0.47
20:LP:69:ARG:HB2	20:LP:79:THR:O	2.15	0.47
22:LR:145:ALA:HA	22:LR:148:ASP:OD2	2.15	0.47
28:LX:46:TYR:CZ	38:Lh:78:LYS:HE3	2.50	0.47
32:Lb:11:ASN:O	32:Lb:11:ASN:ND2	2.31	0.47
39:Li:53:TYR:O	39:Li:57:LEU:HD23	2.15	0.47
40:Lj:21:ARG:HH21	40:Lj:37:CYS:HB3	1.80	0.47
49:C2:81:G:C6	49:C2:82:U:C4	3.03	0.47
49:C2:155:U:H5'	49:C2:156:A:OP2	2.14	0.47
49:C2:586:G:H2'	49:C2:587:C:H6	1.79	0.47
49:C2:759:U:C2	49:C2:760:A:C8	3.03	0.47
49:C2:778:G:C6	49:C2:783:G:C2	3.03	0.47
49:C2:930:A:OP2	49:C2:931:C:N4	2.44	0.47
49:C2:1032:G:H2'	49:C2:1033:C:H6	1.80	0.47
49:C2:1357:A:H2'	49:C2:1358:G:H8	1.77	0.47
49:C2:1733:C:H2'	49:C2:1734:U:H6	1.79	0.47
53:SH:51:VAL:HG23	53:SH:53:GLY:H	1.80	0.47
63:SX:75:GLN:NE2	63:SX:80:GLY:O	2.47	0.47
70:SP:36:LEU:HD23	70:SP:36:LEU:H	1.80	0.47
2:SA:148:ASP:OD1	2:SA:151:SER:N	2.48	0.46
3:LB:166:ILE:HG12	3:LB:173:GLN:HB3	1.98	0.46
4:SB:27:LYS:HD3	4:SB:47:LEU:HB3	1.97	0.46
4:SB:143:THR:HG22	4:SB:207:LEU:HD22	1.97	0.46
5:C1:359:U:N3	5:C1:920:A:C6	2.83	0.46
5:C1:1229:G:C6	5:C1:1281:G:C6	3.03	0.46
5:C1:1255:C:H2'	5:C1:1256:G:H8	1.79	0.46
5:C1:1611:G:H2'	5:C1:1612:A:H8	1.80	0.46
5:C1:2217:U:H2'	5:C1:2218:G:H8	1.79	0.46
5:C1:2457:G:C8	5:C1:2459:A:C8	3.03	0.46
5:C1:3163:A:N6	5:C1:3288:G:C6	2.83	0.46
5:C1:3271:G:C4	10:LE:108:LYS:HE3	2.50	0.46
6:C4:118:A:H2'	6:C4:119:U:H6	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:LD:193:GLU:OE1	9:LD:193:GLU:N	2.38	0.46
11:LF:160:ARG:HD2	11:LF:203:TRP:CD2	2.50	0.46
15:LJ:32:ARG:NH2	15:LJ:120:ILE:O	2.48	0.46
15:LJ:32:ARG:O	15:LJ:36:VAL:HG23	2.15	0.46
25:LU:11:ILE:H	25:LU:11:ILE:HD12	1.79	0.46
49:C2:145:A:H2'	49:C2:146:U:C6	2.49	0.46
49:C2:466:U:C4	49:C2:467:G:C5	3.03	0.46
49:C2:1120:U:H2'	49:C2:1121:C:C6	2.50	0.46
49:C2:1277:G:C4	49:C2:1436:A:C2	3.03	0.46
53:SH:89:HIS:CE1	53:SH:165:LYS:HG2	2.50	0.46
55:SJ:163:PRO:O	55:SJ:164:PHE:HB2	2.16	0.46
63:SX:82:LYS:HA	63:SX:82:LYS:HE3	1.97	0.46
64:SY:8:ARG:NH2	64:SY:28:LEU:HD11	2.30	0.46
64:SY:20:ARG:O	64:SY:21:LYS:HE2	2.15	0.46
64:SY:111:LYS:HD3	64:SY:115:ASP:OD2	2.15	0.46
3:LB:117:ARG:NE	3:LB:175:LYS:HD3	2.29	0.46
5:C1:813:G:H4'	40:Lj:47:TYR:HE2	1.79	0.46
5:C1:984:G:C4	32:Lb:17:HIS:ND1	2.81	0.46
5:C1:1063:G:O2'	5:C1:1097:G:N2	2.48	0.46
5:C1:1240:A:H61	5:C1:1244:A:C5'	2.28	0.46
5:C1:2093:A:H2'	5:C1:2094:C:O4'	2.15	0.46
5:C1:2279:A:C6	5:C1:2288:G:C4	3.04	0.46
5:C1:2667:A:C4	5:C1:2690:G:C2	3.03	0.46
5:C1:2684:C:H2'	5:C1:2685:C:C6	2.50	0.46
5:C1:2781:U:H2'	5:C1:2782:U:C6	2.50	0.46
5:C1:2856:G:N7	14:LI:7:ARG:NH2	2.64	0.46
6:C4:33:U:H2'	6:C4:34:C:C6	2.50	0.46
6:C4:37:G:C2	6:C4:41:G:C2	3.03	0.46
7:C3:49:G:OP1	38:Lh:45:LYS:HD3	2.16	0.46
9:LD:211:LEU:HG	9:LD:219:PHE:HB2	1.97	0.46
20:LP:136:ILE:O	20:LP:137:ASN:ND2	2.48	0.46
30:LZ:90:GLU:OE1	30:LZ:90:GLU:N	2.49	0.46
45:Lo:29:LYS:HA	45:Lo:29:LYS:HE2	1.97	0.46
47:P0:146:ALA:C	47:P0:147:ARG:HD3	2.40	0.46
48:P2:86:LYS:NZ	48:P2:106:LEU:HD13	2.29	0.46
49:C2:82:U:H2'	49:C2:83:G:O4'	2.15	0.46
49:C2:103:A:H4'	49:C2:105:A:C8	2.50	0.46
49:C2:1382:A:H2'	49:C2:1383:G:C8	2.50	0.46
49:C2:1482:C:O2'	73:SQ:72:GLY:O	2.27	0.46
49:C2:1748:G:H2'	49:C2:1749:A:C8	2.50	0.46
52:SG:39:GLU:N	52:SG:39:GLU:OE1	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:SN:83:GLU:OE1	59:SN:83:GLU:N	2.41	0.46
60:SO:61:MET:SD	60:SO:65:GLN:NE2	2.88	0.46
69:Sf:120:GLU:CD	69:Sf:128:ALA:HA	2.40	0.46
1:LA:64:ARG:NH2	12:LG:38:GLN:HA	2.30	0.46
5:C1:25:U:H5''	5:C1:26:A:OP1	2.15	0.46
5:C1:313:A:H2'	5:C1:314:U:C6	2.49	0.46
5:C1:542:G:O6	5:C1:549:U:O4	2.33	0.46
5:C1:1246:G:N2	5:C1:1264:G:O2'	2.48	0.46
5:C1:1712:G:N2	5:C1:1733:G:C6	2.84	0.46
5:C1:2429:G:H2'	5:C1:2430:A:H8	1.80	0.46
8:LC:143:GLU:H	8:LC:143:GLU:CD	2.23	0.46
10:LE:172:HIS:CE1	10:LE:173:LEU:HG	2.50	0.46
11:LF:106:LEU:HD21	11:LF:126:LEU:HD23	1.97	0.46
25:LU:15:PHE:CE2	25:LU:71:PHE:HD2	2.33	0.46
47:P0:171:SER:O	47:P0:175:LEU:HD23	2.15	0.46
49:C2:180:A:H3'	49:C2:181:A:H8	1.81	0.46
49:C2:213:A:H2'	49:C2:214:G:O4'	2.16	0.46
49:C2:296:U:H2'	49:C2:297:U:C6	2.51	0.46
49:C2:328:A:H2'	49:C2:329:G:C8	2.50	0.46
49:C2:632:U:OP1	57:SL:102:LYS:HE3	2.15	0.46
49:C2:690:G:H2'	49:C2:691:C:C6	2.50	0.46
49:C2:783:G:H2'	49:C2:784:C:H6	1.80	0.46
49:C2:808:U:H2'	49:C2:809:A:C8	2.51	0.46
51:SE:86:PHE:HE2	51:SE:87:MET:HE3	1.80	0.46
53:SH:77:LEU:HD11	53:SH:92:PHE:HE2	1.81	0.46
65:Sa:85:ARG:CG	65:Sa:86:VAL:H	2.29	0.46
75:SU:94:GLU:O	75:SU:94:GLU:HG2	2.15	0.46
1:LA:152:SER:HB3	5:C1:2157:G:O6	2.15	0.46
4:SB:105:PHE:CE2	4:SB:211:HIS:HB3	2.50	0.46
5:C1:160:G:C4	5:C1:161:G:C8	3.03	0.46
5:C1:412:G:C6	7:C3:12:A:N1	2.84	0.46
5:C1:937:G:H22	5:C1:960:U:H5''	1.80	0.46
5:C1:1265:U:C4	5:C1:1277:C:C2	3.03	0.46
5:C1:1412:G:C5	5:C1:1413:G:N7	2.83	0.46
5:C1:1575:A:H5'	5:C1:1576:G:OP2	2.16	0.46
5:C1:1621:A:H2'	5:C1:1622:U:H6	1.78	0.46
5:C1:2386:A:C6	5:C1:2994:A:C5	3.04	0.46
5:C1:2479:C:H2'	5:C1:2480:A:O4'	2.16	0.46
5:C1:2507:C:H2'	5:C1:2508:U:C6	2.50	0.46
5:C1:2615:G:C6	5:C1:2616:C:N4	2.83	0.46
5:C1:2632:G:C6	5:C1:2647:A:C6	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C4:60:G:H2'	6:C4:61:G:C8	2.51	0.46
8:LC:110:ASN:HB3	18:LN:202:TYR:CE1	2.50	0.46
11:LF:203:TRP:CG	11:LF:204:PRO:HD2	2.51	0.46
15:LJ:54:VAL:HG13	15:LJ:57:PHE:H	1.81	0.46
16:LL:163:GLY:HA2	31:La:139:ARG:HH21	1.80	0.46
20:LP:4:TYR:HD1	20:LP:147:GLU:OE1	1.99	0.46
20:LP:21:TYR:H	20:LP:145:HIS:CD2	2.34	0.46
22:LR:165:LYS:HE2	49:C2:850:A:H5''	1.98	0.46
29:LY:74:TYR:CE2	29:LY:77:LYS:NZ	2.82	0.46
33:Lc:24:THR:HG22	33:Lc:91:SER:HB3	1.98	0.46
34:Ld:41:LYS:NZ	34:Ld:47:ASP:HB3	2.30	0.46
47:P0:45:LEU:HG	47:P0:48:ARG:HH11	1.81	0.46
48:P2:109:ILE:HG22	48:P2:112:ILE:HG23	1.97	0.46
48:P2:109:ILE:O	48:P2:112:ILE:HG12	2.14	0.46
49:C2:430:G:H2'	49:C2:431:C:H6	1.80	0.46
49:C2:848:C:H2'	49:C2:849:C:C6	2.51	0.46
49:C2:919:A:C5'	60:SO:18:ARG:HH22	2.28	0.46
49:C2:993:A:C5	49:C2:1012:U:N3	2.84	0.46
49:C2:1153:G:H2'	49:C2:1154:G:C8	2.50	0.46
51:SE:250:GLU:O	51:SE:254:ARG:HG2	2.15	0.46
53:SH:166:LEU:O	53:SH:169:PHE:HB2	2.16	0.46
54:SI:57:ALA:C	54:SI:58:LEU:HD12	2.41	0.46
56:SK:21:VAL:HG12	56:SK:66:TYR:HD2	1.79	0.46
59:SN:36:GLN:HE21	59:SN:58:HIS:HE1	1.63	0.46
60:SO:21:ALA:O	60:SO:95:GLY:N	2.40	0.46
64:SY:15:ASN:OD1	64:SY:17:LEU:HB2	2.16	0.46
64:SY:39:GLU:O	64:SY:42:GLU:HG3	2.16	0.46
64:SY:43:LYS:O	64:SY:47:VAL:HG23	2.16	0.46
66:Sb:50:ALA:H	66:Sb:71:ALA:HB2	1.81	0.46
1:LA:193:ARG:HH11	5:C1:2181:C:H5''	1.81	0.46
2:SA:127:ARG:NH1	2:SA:152:PRO:HD3	2.31	0.46
4:SB:55:LYS:HZ1	4:SB:57:ALA:HB2	1.80	0.46
5:C1:284:A:C8	45:Lo:41:ARG:NH1	2.84	0.46
5:C1:436:A:N1	5:C1:437:G:N2	2.64	0.46
5:C1:645:A:C5	5:C1:2372:A:C6	3.04	0.46
5:C1:668:G:H2'	5:C1:669:U:H6	1.80	0.46
5:C1:908:G:N2	5:C1:2609:A:OP1	2.44	0.46
5:C1:964:G:H2'	5:C1:965:A:H8	1.80	0.46
5:C1:1207:G:H4'	43:Lm:117:HIS:O	2.16	0.46
5:C1:2368:A:H2'	5:C1:2369:G:C8	2.50	0.46
5:C1:2467:G:H1'	5:C1:2488:A:H61	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:2523:A:N6	12:LG:57:ARG:HH12	2.14	0.46
5:C1:2556:C:O2'	5:C1:2557:A:H5'	2.15	0.46
5:C1:2948:C:C4	5:C1:2949:U:O4	2.69	0.46
6:C4:121:U:OP2	9:LD:265:TYR:OH	2.26	0.46
8:LC:269:SER:C	8:LC:271:LYS:H	2.22	0.46
10:LE:157:GLN:HA	10:LE:160:SER:OG	2.15	0.46
21:LQ:94:PHE:CE2	31:La:119:PRO:HD3	2.50	0.46
23:LS:141:LYS:HA	23:LS:144:LEU:HD12	1.97	0.46
48:P2:123:ARG:HD3	48:P2:123:ARG:H	1.80	0.46
49:C2:353:A:H2'	49:C2:354:C:O4'	2.15	0.46
49:C2:482:U:H2'	49:C2:483:A:C8	2.50	0.46
49:C2:981:U:H1'	49:C2:1124:A:H2	1.81	0.46
49:C2:1218:G:N2	49:C2:1444:A:OP2	2.35	0.46
50:SC:53:ILE:HA	50:SC:56:ILE:HD13	1.97	0.46
52:SG:58:LYS:HZ3	52:SG:105:ASP:C	2.23	0.46
60:SO:26:THR:OG1	60:SO:55:SER:HA	2.15	0.46
61:SV:32:VAL:CG1	61:SV:60:ARG:HH22	2.23	0.46
65:Sa:44:ILE:HD11	65:Sa:65:PRO:HB2	1.97	0.46
1:LA:113:VAL:O	1:LA:134:VAL:N	2.44	0.46
3:LB:380:MET:HE2	3:LB:380:MET:HA	1.97	0.46
5:C1:49:A:C5	18:LN:187:ARG:NE	2.83	0.46
5:C1:62:A:H2'	5:C1:63:A:H8	1.81	0.46
5:C1:574:U:H2'	5:C1:575:G:H8	1.79	0.46
5:C1:1057:A:OP1	11:LF:98:LYS:NZ	2.48	0.46
5:C1:1176:C:OP2	5:C1:1177:G:O2'	2.27	0.46
5:C1:1267:U:H3'	5:C1:1268:G:H8	1.80	0.46
5:C1:1949:G:H1	5:C1:2097:U:H3	1.63	0.46
5:C1:2158:A:C8	5:C1:2160:G:C4	3.03	0.46
5:C1:2349:U:C4	5:C1:2350:C:N4	2.84	0.46
5:C1:2407:C:C2	5:C1:2408:U:C5	3.03	0.46
5:C1:2423:U:H2'	5:C1:2424:A:C8	2.51	0.46
5:C1:2484:A:P	5:C1:2484:A:H8	2.39	0.46
7:C3:142:C:C2	7:C3:143:U:C5	3.04	0.46
14:LI:36:LEU:HG	14:LI:73:ASN:HD22	1.79	0.46
23:LS:42:TRP:NE1	23:LS:58:ILE:HD11	2.31	0.46
41:Lk:23:ALA:O	41:Lk:75:VAL:HA	2.15	0.46
46:Lp:36:ARG:HE	46:Lp:48:LYS:HE3	1.81	0.46
47:P0:45:LEU:O	47:P0:45:LEU:HD23	2.14	0.46
48:P2:90:ARG:HH22	48:P2:94:LYS:NZ	2.09	0.46
48:P2:110:ILE:H	48:P2:110:ILE:HD12	1.81	0.46
49:C2:557:G:H4'	67:Se:55:ARG:NH2	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:C2:1433:G:N3	74:Sd:41:GLN:HG3	2.31	0.46
49:C2:1735:U:H2'	49:C2:1736:G:C8	2.50	0.46
51:SE:56:LEU:N	51:SE:60:GLU:OE1	2.44	0.46
51:SE:68:ARG:HE	51:SE:76:VAL:HG11	1.80	0.46
55:SJ:133:HIS:C	55:SJ:134:ILE:HD12	2.40	0.46
56:SK:5:LYS:HA	56:SK:8:ARG:HB2	1.97	0.46
60:SO:43:THR:N	60:SO:46:MET:SD	2.77	0.46
65:Sa:45:VAL:HG23	65:Sa:46:GLU:N	2.25	0.46
4:SB:83:LYS:HE2	4:SB:106:THR:HG22	1.98	0.46
5:C1:277:G:H2'	5:C1:278:U:H6	1.80	0.46
5:C1:653:A:C2	5:C1:1443:G:C5	3.04	0.46
5:C1:725:G:C6	5:C1:746:A:C6	3.04	0.46
5:C1:789:A:H2'	5:C1:790:U:C6	2.51	0.46
5:C1:792:G:H2'	5:C1:793:C:H6	1.80	0.46
5:C1:945:C:H2'	5:C1:946:U:C6	2.50	0.46
5:C1:953:G:H21	5:C1:1116:G:H2'	1.81	0.46
5:C1:1098:A:OP2	24:LT:129:LYS:HA	2.16	0.46
5:C1:1256:G:C6	5:C1:1257:C:N4	2.84	0.46
5:C1:1317:A:C4	5:C1:1319:G:N7	2.84	0.46
5:C1:1865:A:C5	5:C1:1867:A:N7	2.84	0.46
5:C1:1886:A:O4'	5:C1:3307:A:H5'	2.16	0.46
5:C1:2988:C:H2'	5:C1:2989:U:C6	2.50	0.46
7:C3:88:A:H8	7:C3:88:A:O5'	1.99	0.46
7:C3:112:U:O2'	7:C3:113:U:O5'	2.33	0.46
7:C3:143:U:C2	7:C3:144:G:C8	3.04	0.46
9:LD:99:TYR:CE1	9:LD:165:GLY:HA2	2.51	0.46
9:LD:124:GLU:N	9:LD:124:GLU:OE1	2.48	0.46
15:LJ:60:ARG:H	15:LJ:63:GLU:HG2	1.80	0.46
19:LO:8[A]:VAL:O	19:LO:118[A]:VAL:HG22	2.16	0.46
21:LQ:174:ARG:O	21:LQ:179:ARG:NH1	2.49	0.46
26:LV:10:LYS:NZ	26:LV:56:ASP:OD1	2.48	0.46
31:La:78:LEU:HD23	31:La:78:LEU:O	2.15	0.46
33:Lc:43:ILE:HB	33:Lc:90:VAL:HG22	1.96	0.46
49:C2:1107:G:C2	49:C2:1108:G:C6	3.04	0.46
50:SC:97:ARG:HG3	50:SC:119:LYS:HA	1.97	0.46
50:SC:225:LEU:HD23	50:SC:226:THR:N	2.30	0.46
51:SE:126:VAL:CG2	51:SE:158:ASP:H	2.29	0.46
53:SH:174:ASN:ND2	53:SH:179:LYS:O	2.49	0.46
55:SJ:128:LEU:HD12	55:SJ:134:ILE:HD11	1.98	0.46
59:SN:130:ARG:NH1	59:SN:130:ARG:HB2	2.31	0.46
61:SV:18:SER:OG	61:SV:54:ALA:O	2.24	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:Sa:42:ARG:O	65:Sa:67:THR:OG1	2.25	0.46
2:SA:102:PHE:HZ	2:SA:107:PHE:CE2	2.34	0.46
3:LB:37:ARG:HD2	3:LB:186:GLY:HA2	1.98	0.46
3:LB:250:ALA:HB3	5:C1:2880:U:O2	2.16	0.46
5:C1:164:A:N1	5:C1:258:G:C6	2.83	0.46
5:C1:730:C:H2'	5:C1:731:U:H6	1.81	0.46
5:C1:756:U:H2'	5:C1:757:C:C6	2.51	0.46
5:C1:900:G:H1'	5:C1:1589:A:H61	1.81	0.46
5:C1:953:G:N2	5:C1:1116:G:H2'	2.31	0.46
5:C1:1069:C:H2'	5:C1:1070:U:H6	1.81	0.46
5:C1:1471:U:H2'	5:C1:1472:U:C6	2.51	0.46
5:C1:1816:A:H2'	5:C1:1817:G:O4'	2.15	0.46
5:C1:2537:U:H1'	5:C1:2538:U:O4'	2.15	0.46
5:C1:2546:C:H2'	5:C1:2547:A:H8	1.81	0.46
5:C1:3141:A:H3'	5:C1:3142:A:H4'	1.97	0.46
6:C4:24:A:H2'	6:C4:25:G:C8	2.51	0.46
7:C3:11:C:H2'	7:C3:12:A:H8	1.80	0.46
11:LF:105:LEU:HD23	11:LF:105:LEU:HA	1.73	0.46
17:LM:62:GLN:OE1	17:LM:62:GLN:N	2.49	0.46
22:LR:173:ARG:NH1	49:C2:853:G:OP2	2.49	0.46
23:LS:142:GLN:HG3	23:LS:143:PHE:CD1	2.50	0.46
28:LX:91:ASN:O	28:LX:95:ILE:HD12	2.15	0.46
48:P2:129:THR:O	48:P2:133:LEU:HD23	2.15	0.46
49:C2:656:G:O6	49:C2:679:U:C2	2.68	0.46
49:C2:678:A:O2'	49:C2:679:U:O5'	2.30	0.46
49:C2:975:C:H2'	49:C2:976:G:O4'	2.16	0.46
49:C2:1063:U:C2	49:C2:1064:G:C8	3.03	0.46
49:C2:1096:C:O2'	49:C2:1097:U:H5''	2.15	0.46
49:C2:1267:G:O6	49:C2:1442:U:O4	2.33	0.46
49:C2:1388:A:C5	49:C2:1412:G:C6	3.04	0.46
49:C2:1674:C:H2'	49:C2:1675:C:H6	1.81	0.46
51:SE:104:ASP:OD1	51:SE:107:GLY:N	2.49	0.46
52:SG:126:ASP:OD1	52:SG:127:THR:N	2.49	0.46
54:SI:184:LEU:HD21	54:SI:192:TYR:CD2	2.51	0.46
55:SJ:48:GLN:O	55:SJ:52:ILE:HD12	2.16	0.46
55:SJ:100:LYS:HD3	55:SJ:101:VAL:H	1.81	0.46
56:SK:7:ASP:OD1	56:SK:7:ASP:N	2.47	0.46
72:ST:144:GLU:OE1	72:ST:144:GLU:N	2.49	0.46
3:LB:240:ARG:O	3:LB:242:THR:N	2.46	0.46
4:SB:207:LEU:O	4:SB:210:ILE:HD11	2.16	0.46
5:C1:448:U:O2	5:C1:487:U:H1'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:516:A:H2'	5:C1:517:G:C8	2.46	0.46
5:C1:794:U:H2'	5:C1:795:G:H8	1.81	0.46
5:C1:1658:G:C8	5:C1:1796:G:N7	2.84	0.46
5:C1:1659:U:H2'	5:C1:1660:C:H6	1.81	0.46
5:C1:2202:C:H2'	5:C1:2203:U:H6	1.81	0.46
5:C1:2413:A:H2'	5:C1:2414:G:H8	1.81	0.46
6:C4:43:U:C4	6:C4:44:C:C4	3.04	0.46
7:C3:13:A:O2'	20:LP:120:ASN:ND2	2.48	0.46
7:C3:65:A:C2	7:C3:66:A:C8	3.03	0.46
8:LC:31:ARG:NE	21:LQ:23:ASN:OD1	2.48	0.46
8:LC:32:PRO:HA	8:LC:35:VAL:HG12	1.98	0.46
9:LD:268:GLU:O	9:LD:271:LYS:HG3	2.16	0.46
16:LL:56:PRO:HB3	16:LL:75:PHE:CD1	2.51	0.46
17:LM:47:ASP:OD2	17:LM:78:THR:HG22	2.16	0.46
19:LO:113[A]:ASP:OD1	19:LO:114[A]:LYS:HG2	2.16	0.46
25:LU:30:PRO:HB2	25:LU:58:GLU:OE2	2.15	0.46
26:LV:84:SER:HA	26:LV:94:TYR:HB3	1.98	0.46
30:LZ:12:VAL:HG12	30:LZ:81:LEU:HB2	1.97	0.46
30:LZ:115:LYS:O	30:LZ:119:GLU:HG2	2.15	0.46
41:Lk:30:LYS:HB2	41:Lk:38:PHE:CE1	2.51	0.46
43:Lm:93:LYS:HG3	43:Lm:102:ARG:HD3	1.96	0.46
45:Lo:61:LYS:HE3	45:Lo:61:LYS:HB3	1.73	0.46
49:C2:1696:G:HO2'	49:C2:1697:G:C5'	2.28	0.46
51:SE:208:VAL:HG13	51:SE:210:ILE:HD11	1.97	0.46
53:SH:78:THR:O	53:SH:81:LEU:HB2	2.15	0.46
59:SN:98:VAL:O	59:SN:101:HIS:HB3	2.15	0.46
68:5:132:LYS:HD3	68:5:152:GLU:OE2	2.15	0.46
69:Sf:148:TYR:O	69:Sf:149:LYS:HD3	2.15	0.46
70:SP:81:ARG:HH21	70:SP:98:ASN:HA	1.80	0.46
73:SQ:50:GLU:OE1	73:SQ:82:ARG:NH2	2.41	0.46
3:LB:300:ARG:NH2	52:SG:25:ARG:HH22	2.15	0.46
3:LB:362:ALA:HA	3:LB:370:PHE:O	2.16	0.46
5:C1:107:A:O2'	5:C1:324:A:N3	2.44	0.46
5:C1:314:U:C2	5:C1:315:C:C5	3.04	0.46
5:C1:652:G:C2	5:C1:2361:A:H1'	2.50	0.46
5:C1:1015:U:O2'	5:C1:1017:C:H2'	2.16	0.46
5:C1:1430:U:H2'	31:La:9:ARG:NH2	2.31	0.46
5:C1:1632:A:C2	5:C1:1644:C:N3	2.83	0.46
5:C1:1841:A:C6	5:C1:1848:G:C2	3.04	0.46
5:C1:1898:G:O6	5:C1:2338:C:N4	2.49	0.46
5:C1:2748:A:O3'	9:LD:48:LYS:NZ	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:2796:G:N7	45:Lo:63:LYS:HD3	2.31	0.46
6:C4:10:C:N3	9:LD:20:PHE:HB3	2.31	0.46
7:C3:114:G:C6	7:C3:115:C:C4	3.03	0.46
11:LF:232:ARG:O	11:LF:234:GLU:N	2.49	0.46
13:LH:21:LYS:O	13:LH:22:SER:C	2.59	0.46
13:LH:84:LYS:O	13:LH:187:ILE:HB	2.16	0.46
15:LJ:60:ARG:HG3	15:LJ:60:ARG:HH11	1.81	0.46
18:LN:120:TRP:CZ2	18:LN:122:ASN:HA	2.50	0.46
18:LN:133:ILE:C	18:LN:134:LEU:HD12	2.41	0.46
19:LO:67[A]:THR:O	19:LO:71[A]:PHE:HE1	1.99	0.46
29:LY:59:VAL:HG13	29:LY:60:ARG:HG2	1.98	0.46
37:Lg:79:SER:OG	37:Lg:80:ARG:HG2	2.16	0.46
38:Lh:67:ARG:HG3	38:Lh:80:LEU:HD23	1.98	0.46
39:Li:57:LEU:O	39:Li:61:ILE:HG12	2.15	0.46
45:Lo:11:TYR:HE1	45:Lo:18:ARG:HA	1.80	0.46
49:C2:388:G:C6	49:C2:410:A:C6	3.03	0.46
49:C2:923:A:H2'	49:C2:924:A:H8	1.77	0.46
49:C2:1460:A:C5	70:SP:128:HIS:ND1	2.84	0.46
50:SC:126:ARG:O	50:SC:130:ILE:HG12	2.16	0.46
51:SE:61:VAL:O	51:SE:65:LEU:HD23	2.15	0.46
52:SG:136:LYS:HZ3	52:SG:173:PRO:HB2	1.81	0.46
53:SH:150:GLN:O	53:SH:182:VAL:HG22	2.16	0.46
68:5:23:CYS:HA	68:5:26:LEU:HG	1.97	0.46
68:5:23:CYS:SG	68:5:80:MET:HE1	2.56	0.46
71:SZ:65:LEU:HD12	71:SZ:80:LEU:HD21	1.97	0.46
2:SA:157:ASP:O	2:SA:158:VAL:C	2.59	0.45
5:C1:184:U:H2'	5:C1:185:C:H6	1.80	0.45
5:C1:273:A:H61	5:C1:293:C:H42	1.63	0.45
5:C1:549:U:H3'	5:C1:550:A:H8	1.80	0.45
5:C1:1037:C:H2'	5:C1:1038:C:C6	2.51	0.45
5:C1:1439:U:H2'	5:C1:1440:G:C8	2.51	0.45
5:C1:1684:U:C2	5:C1:1685:C:C5	3.04	0.45
5:C1:1758:G:H2'	5:C1:1759:C:H6	1.80	0.45
5:C1:1847:A:O2'	5:C1:1848:G:H5''	2.15	0.45
5:C1:2208:A:H2	5:C1:2236:G:H22	1.65	0.45
5:C1:2608:G:H2'	5:C1:2609:A:H8	1.81	0.45
5:C1:2743:A:N6	5:C1:2751:G:O6	2.49	0.45
5:C1:3015:G:H2'	5:C1:3016:A:H8	1.82	0.45
5:C1:3166:C:H2'	5:C1:3167:A:H8	1.81	0.45
5:C1:3267:A:H2'	10:LE:69:PHE:HE1	1.82	0.45
6:C4:23:A:C6	6:C4:24:A:C6	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:C3:71:A:H2'	29:LY:51:ARG:HH21	1.81	0.45
9:LD:222:LEU:HD23	9:LD:222:LEU:H	1.80	0.45
11:LF:175:LYS:HG3	11:LF:176:TYR:CD1	2.51	0.45
13:LH:36:LYS:HZ1	13:LH:78:MET:HE3	1.80	0.45
14:LI:171:TRP:CE3	14:LI:178:ARG:HD3	2.51	0.45
26:LV:46:LEU:HG	26:LV:47:ASN:ND2	2.31	0.45
27:LW:82:ILE:HA	52:SG:131:LYS:HB3	1.96	0.45
30:LZ:95:VAL:HG13	30:LZ:96:VAL:HG23	1.98	0.45
41:Lk:25:VAL:CG1	41:Lk:77:ARG:HD2	2.45	0.45
47:P0:132:LYS:O	47:P0:132:LYS:HD3	2.16	0.45
49:C2:636:A:C6	49:C2:637:C:C4	3.04	0.45
49:C2:891:A:H2'	49:C2:892:A:H8	1.81	0.45
49:C2:1122:G:N1	49:C2:1126:G:O6	2.49	0.45
49:C2:1278:G:H1	49:C2:1430:U:H3	1.64	0.45
49:C2:1477:G:H1'	72:ST:48:GLN:HG3	1.98	0.45
54:SI:36:THR:OG1	54:SI:96:LEU:HB2	2.15	0.45
55:SJ:159:ALA:O	55:SJ:165:GLY:HA3	2.16	0.45
56:SK:27:PHE:CE1	56:SK:40:LEU:HD13	2.51	0.45
57:SL:3:THR:C	57:SL:5:LEU:H	2.23	0.45
63:SX:41:SER:O	63:SX:41:SER:OG	2.30	0.45
70:SP:21:ASP:OD1	70:SP:22:LEU:N	2.49	0.45
73:SQ:129:PHE:CG	75:SU:79:TRP:HB2	2.50	0.45
4:SB:89:ASP:HB3	4:SB:223:PHE:CZ	2.52	0.45
5:C1:347:G:C2	5:C1:348:A:C5	3.04	0.45
5:C1:440:A:N7	5:C1:441:U:O2'	2.35	0.45
5:C1:1616:U:H2'	5:C1:1617:G:C8	2.51	0.45
5:C1:2965:U:C5	68:5:73:LEU:HD21	2.51	0.45
5:C1:3129:A:H2'	5:C1:3130:A:H5''	1.98	0.45
5:C1:3158:G:C6	5:C1:3159:C:C4	3.04	0.45
5:C1:3164:C:C2	5:C1:3165:A:C8	3.04	0.45
6:C4:61:G:H2'	6:C4:62:U:C6	2.51	0.45
7:C3:13:A:C4	7:C3:14:C:C5	3.04	0.45
8:LC:3:ARG:NH1	8:LC:24:ALA:HA	2.31	0.45
11:LF:181:ILE:O	11:LF:185:ILE:HG12	2.16	0.45
16:LL:64:LYS:O	16:LL:65:TYR:HD1	1.99	0.45
27:LW:41:LYS:HE2	27:LW:41:LYS:HB3	1.83	0.45
31:La:112:ILE:C	31:La:113:LEU:HD12	2.42	0.45
38:Lh:5:LYS:HB2	38:Lh:8:GLU:OE1	2.16	0.45
45:Lo:80:ARG:HD2	45:Lo:80:ARG:N	2.31	0.45
49:C2:97:C:H2'	49:C2:98:U:C6	2.51	0.45
49:C2:446:A:H5''	51:SE:57:ASN:ND2	2.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:C2:680:U:H5'	49:C2:681:U:OP2	2.17	0.45
49:C2:1050:G:C6	49:C2:1069:A:C6	3.04	0.45
49:C2:1221:A:H2'	49:C2:1222:C:H6	1.81	0.45
49:C2:1245:G:N2	49:C2:1249:U:O4	2.49	0.45
49:C2:1673:G:H2'	49:C2:1674:C:C6	2.48	0.45
49:C2:1684:U:H3	49:C2:1717:G:H1	1.64	0.45
51:SE:115:THR:HG23	51:SE:118:GLU:H	1.81	0.45
51:SE:124:GLY:O	51:SE:159:THR:HA	2.16	0.45
53:SH:127:GLU:HA	53:SH:135:ILE:HD11	1.99	0.45
54:SI:83:TYR:HB2	54:SI:196:LEU:HD21	1.98	0.45
60:SO:50:ALA:C	60:SO:52:ARG:H	2.24	0.45
2:SA:170:ILE:H	2:SA:170:ILE:HD12	1.81	0.45
2:SA:198:MET:HG2	2:SA:200:ASP:H	1.81	0.45
3:LB:244:ARG:HH21	5:C1:2947:G:P	2.38	0.45
4:SB:27:LYS:NZ	4:SB:49:ASN:OD1	2.36	0.45
4:SB:31:ASP:N	4:SB:94:LYS:O	2.39	0.45
5:C1:40:A:C2	31:La:40:HIS:CE1	3.05	0.45
5:C1:274:G:H2'	5:C1:275:U:C6	2.51	0.45
5:C1:347:G:N1	5:C1:353:G:N7	2.65	0.45
5:C1:385:A:H2'	5:C1:386:A:H8	1.81	0.45
5:C1:952:A:H5''	32:Lb:15:LYS:HE2	1.99	0.45
5:C1:1459:C:C1'	34:Ld:56:ASN:HD22	2.27	0.45
5:C1:1483:G:C8	5:C1:1485:G:C8	3.04	0.45
5:C1:2468:A:O2'	5:C1:2478:C:H1'	2.17	0.45
5:C1:2618:G:OP1	5:C1:2644:C:O2'	2.22	0.45
6:C4:106:U:H2'	6:C4:107:C:C6	2.52	0.45
11:LF:98:LYS:HB3	11:LF:99:PRO:HD3	1.97	0.45
21:LQ:51:ALA:HA	21:LQ:54:LEU:HD13	1.97	0.45
22:LR:181:ARG:HH21	22:LR:184:LEU:CD1	2.28	0.45
26:LV:128:ARG:O	26:LV:131:SER:OG	2.24	0.45
36:Lf:43:PHE:HD2	36:Lf:44:TYR:CE1	2.34	0.45
42:Ll:23:LEU:HD11	42:Ll:38:ASN:H	1.80	0.45
49:C2:107:C:OP1	49:C2:383:G:O2'	2.26	0.45
49:C2:868:G:OP1	59:SN:121:ARG:NH1	2.48	0.45
49:C2:1247:U:H2'	49:C2:1248:C:H6	1.81	0.45
49:C2:1408:G:H2'	49:C2:1409:G:O4'	2.16	0.45
49:C2:1608:U:H2'	49:C2:1609:U:H6	1.81	0.45
50:SC:104:VAL:HG22	50:SC:132:ALA:HB1	1.98	0.45
54:SI:12:SER:HB3	54:SI:18:ARG:HE	1.80	0.45
55:SJ:129:ILE:HD13	55:SJ:134:ILE:CD1	2.47	0.45
57:SL:93:TYR:CD2	57:SL:100:TYR:HE1	2.34	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:SW:11:LEU:HD23	62:SW:14:ILE:HD12	1.98	0.45
63:SX:69:ARG:NH2	63:SX:116:ASP:OD2	2.47	0.45
73:SQ:77:GLN:O	73:SQ:78:VAL:C	2.59	0.45
2:SA:49:ASN:CB	2:SA:52:LYS:HD2	2.45	0.45
4:SB:138:PHE:HB2	4:SB:213:ARG:HB2	1.97	0.45
5:C1:148:G:H3'	18:LN:49:ARG:HH12	1.80	0.45
5:C1:151:A:OP2	18:LN:147:ARG:NH2	2.50	0.45
5:C1:691:A:N1	7:C3:28:C:O2'	2.49	0.45
5:C1:742:G:OP2	5:C1:742:G:H8	2.00	0.45
5:C1:1508:C:O2'	5:C1:1509:A:H5'	2.17	0.45
5:C1:1555:U:O4	5:C1:1559:A:N6	2.50	0.45
5:C1:1750:A:OP2	41:Lk:42:LYS:NZ	2.47	0.45
5:C1:2235:C:H2'	5:C1:2236:G:C8	2.52	0.45
5:C1:3049:A:C5	5:C1:3050:U:C5	3.04	0.45
5:C1:3296:A:H2'	5:C1:3297:U:C6	2.51	0.45
5:C1:3303:G:N1	5:C1:3312:U:C2	2.84	0.45
11:LF:78:GLU:OE1	11:LF:78:GLU:N	2.40	0.45
16:LL:190:LYS:HD2	16:LL:190:LYS:C	2.41	0.45
18:LN:135:VAL:HG11	18:LN:151:ILE:HG12	1.97	0.45
41:Lk:20:VAL:HG23	41:Lk:46:ARG:O	2.16	0.45
41:Lk:32:ASN:O	41:Lk:33:LYS:HE2	2.17	0.45
42:Ll:23:LEU:HD11	42:Ll:38:ASN:N	2.32	0.45
47:P0:146:ALA:O	47:P0:147:ARG:HD3	2.17	0.45
49:C2:15:U:H2'	49:C2:16:G:O4'	2.16	0.45
49:C2:249:U:H5	57:SL:34:TRP:CD2	2.35	0.45
49:C2:622:A:O2'	49:C2:1032:G:H5'	2.17	0.45
49:C2:1350:U:H2'	49:C2:1351:G:C8	2.52	0.45
52:SG:33:GLY:H	52:SG:52:ILE:HG23	1.82	0.45
55:SJ:29:LYS:HD3	67:Se:44:PHE:CE2	2.51	0.45
65:Sa:85:ARG:HG3	65:Sa:86:VAL:H	1.81	0.45
72:ST:31:PRO:HB3	72:ST:103:LYS:HD3	1.98	0.45
76:Sc:13:ILE:HD11	76:Sc:29:ARG:HG2	1.98	0.45
1:LA:108:PRO:HG2	46:Lp:86:LEU:HD13	1.98	0.45
4:SB:173:THR:O	4:SB:177:GLN:HG2	2.17	0.45
4:SB:205:PHE:CG	4:SB:206:PRO:HD2	2.51	0.45
5:C1:179:C:H2'	5:C1:180:C:H6	1.82	0.45
5:C1:213:A:N6	5:C1:228:U:O4'	2.49	0.45
5:C1:276:U:H2'	5:C1:277:G:H8	1.82	0.45
5:C1:333:G:C6	7:C3:31:G:C6	3.05	0.45
5:C1:390:G:C5	5:C1:391:A:C8	3.05	0.45
5:C1:397:A:C6	5:C1:400:G:C6	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:590:G:O6	5:C1:591:G:N1	2.50	0.45
5:C1:625:G:C6	5:C1:626:U:C4	3.04	0.45
5:C1:739:G:H2'	5:C1:740:G:H8	1.81	0.45
5:C1:819:U:H2'	5:C1:820:A:H8	1.82	0.45
5:C1:828:A:H2'	5:C1:829:U:C6	2.51	0.45
5:C1:1217:A:C6	5:C1:1289:G:C6	3.05	0.45
5:C1:1341:U:H2'	5:C1:1342:C:H6	1.80	0.45
5:C1:1494:U:OP2	42:L1:42:ARG:NH2	2.50	0.45
5:C1:1596:C:H2'	5:C1:1597:C:C6	2.51	0.45
5:C1:1704:A:C4	5:C1:1741:A:N6	2.84	0.45
5:C1:2097:U:H2'	5:C1:2098:C:H6	1.82	0.45
5:C1:2291:A:N6	5:C1:2302:G:O6	2.49	0.45
5:C1:2439:A:H3'	5:C1:2440:G:H8	1.81	0.45
5:C1:2828:G:N1	5:C1:2863:G:H1'	2.29	0.45
5:C1:3047:U:O2'	5:C1:3048:A:H5'	2.16	0.45
5:C1:3209:A:C5	17:LM:106:ARG:NH2	2.85	0.45
5:C1:3218:A:H5''	5:C1:3219:G:C5	2.52	0.45
5:C1:3355:U:O2'	5:C1:3356:G:H5''	2.16	0.45
7:C3:45:C:O3'	42:L1:11:GLN:NE2	2.50	0.45
7:C3:72:A:C5	7:C3:73:U:C5	3.05	0.45
13:LH:18:VAL:HG12	13:LH:20:ILE:HD11	1.98	0.45
14:LI:213:PHE:N	14:LI:214:PRO:HD3	2.30	0.45
19:LO:34[A]:VAL:HG11	19:LO:112[A]:TYR:CE2	2.50	0.45
19:LO:85[A]:ARG:HH11	19:LO:90[A]:HIS:CD2	2.34	0.45
49:C2:151:G:N1	49:C2:164:A:C6	2.85	0.45
49:C2:395:U:H2'	49:C2:396:G:O4'	2.16	0.45
49:C2:700:C:N4	49:C2:739:G:O6	2.49	0.45
49:C2:706:A:H62	49:C2:730:G:H5''	1.81	0.45
49:C2:1170:G:C6	49:C2:1574:G:C6	3.05	0.45
49:C2:1349:G:H2'	49:C2:1350:U:C6	2.51	0.45
49:C2:1460:A:C2	71:SZ:16:ALA:HB3	2.50	0.45
49:C2:1480:G:H2'	49:C2:1481:C:C2	2.51	0.45
50:SC:81:MET:HE2	50:SC:101:VAL:HG23	1.99	0.45
52:SG:98:ARG:HD2	52:SG:99:GLY:N	2.31	0.45
53:SH:9:LEU:HD21	53:SH:17:GLU:HG3	1.99	0.45
53:SH:68:ALA:O	53:SH:72:LYS:HG2	2.16	0.45
58:SM:71:ILE:O	58:SM:75:VAL:HG23	2.17	0.45
60:SO:103:ARG:HD2	65:Sa:49:ALA:HB2	1.97	0.45
73:SQ:93:HIS:HA	73:SQ:97:VAL:HB	1.99	0.45
76:Sc:29:ARG:HH11	76:Sc:29:ARG:HG3	1.82	0.45
2:SA:83:GLN:HG3	2:SA:99:ALA:HB1	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:SA:127:ARG:HH22	2:SA:151:SER:HA	1.82	0.45
4:SB:2:ALA:N	60:SO:49:LYS:HA	2.32	0.45
4:SB:189:ILE:HB	4:SB:190:PRO:HD3	1.99	0.45
5:C1:11:A:H2'	5:C1:12:A:C8	2.52	0.45
5:C1:158:G:N3	5:C1:159:A:C8	2.85	0.45
5:C1:269:G:H5''	18:LN:14:LYS:HZ1	1.82	0.45
5:C1:629:U:H2'	5:C1:630:A:C8	2.51	0.45
5:C1:1144:U:C4	5:C1:1366:A:H2	2.35	0.45
5:C1:1289:G:H2'	5:C1:1290:A:H8	1.81	0.45
5:C1:1348:U:H5	5:C1:1355:A:C5	2.35	0.45
5:C1:1657:C:O2'	5:C1:1797:A:OP2	2.21	0.45
5:C1:1722:U:H5''	22:LR:99:LEU:HD23	1.98	0.45
5:C1:1852:G:H2'	5:C1:1853:U:C6	2.51	0.45
5:C1:2140:U:O2	5:C1:2977:G:O2'	2.30	0.45
5:C1:2198:A:C6	5:C1:2270:A:C6	3.04	0.45
5:C1:2890:A:C6	5:C1:2914:G:N1	2.85	0.45
5:C1:3358:U:H2'	5:C1:3359:A:C8	2.52	0.45
6:C4:6:C:OP1	9:LD:54:ARG:NE	2.44	0.45
6:C4:11:A:N7	24:LT:20:ARG:NH2	2.65	0.45
21:LQ:58:ASN:O	21:LQ:60:PRO:HD3	2.16	0.45
22:LR:136:ARG:HB3	22:LR:136:ARG:NH1	2.32	0.45
26:LV:19:VAL:HG23	26:LV:50:PRO:O	2.17	0.45
26:LV:81:GLN:O	26:LV:98:ASN:ND2	2.50	0.45
36:Lf:8:TYR:HB3	36:Lf:101:PHE:CD1	2.51	0.45
42:Ll:10:LYS:O	42:Ll:13:MET:HB2	2.16	0.45
49:C2:78:A:H4'	52:SG:172:ALA:HB3	1.99	0.45
49:C2:580:A:C5	49:C2:583:C:C4	3.05	0.45
49:C2:603:U:H2'	49:C2:604:A:C8	2.52	0.45
49:C2:647:G:N2	49:C2:687:G:H1	2.12	0.45
49:C2:947:U:H2'	49:C2:948:G:H8	1.82	0.45
49:C2:1170:G:C2	49:C2:1171:A:N7	2.85	0.45
49:C2:1499:G:N1	49:C2:1509:C:N3	2.65	0.45
50:SC:38:VAL:O	50:SC:38:VAL:HG13	2.17	0.45
57:SL:46:LYS:HE2	57:SL:50:GLU:HG3	1.98	0.45
58:SM:46:ARG:O	58:SM:50:LYS:HG3	2.17	0.45
60:SO:80:HIS:CE1	60:SO:114:ARG:HB2	2.51	0.45
61:SV:40:ASP:O	61:SV:42:GLU:N	2.50	0.45
66:Sb:32:PHE:HE1	66:Sb:47:PHE:HD1	1.65	0.45
72:ST:131:ASP:O	72:ST:135:ILE:HG12	2.16	0.45
1:LA:65:ASP:OD2	1:LA:72:ARG:NH2	2.40	0.45
2:SA:14:ALA:O	2:SA:18:LEU:HD23	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:LB:92:TYR:CE2	3:LB:159:ARG:HD2	2.51	0.45
3:LB:240:ARG:NH2	5:C1:874:U:OP2	2.50	0.45
3:LB:256:HIS:O	3:LB:258:ALA:N	2.49	0.45
3:LB:334:ARG:NH2	5:C1:3304:U:O3'	2.49	0.45
5:C1:24:G:H2'	5:C1:25:U:O4'	2.16	0.45
5:C1:62:A:C4	5:C1:63:A:C8	3.04	0.45
5:C1:96:G:C5'	16:LL:15:ARG:HH21	2.30	0.45
5:C1:553:U:H2'	5:C1:554:A:O4'	2.17	0.45
5:C1:592:A:C6	5:C1:593:C:C4	3.05	0.45
5:C1:610:G:C8	8:LC:312:VAL:HG21	2.51	0.45
5:C1:855:U:C4	5:C1:856:G:C6	3.05	0.45
5:C1:1233:G:N1	5:C1:1256:G:C6	2.85	0.45
5:C1:1710:C:H2'	5:C1:1711:C:C6	2.51	0.45
7:C3:49:G:N1	7:C3:77:A:N1	2.64	0.45
7:C3:132:G:C2	7:C3:133:G:C8	3.04	0.45
8:LC:343:LYS:HD3	8:LC:344:ALA:H	1.82	0.45
15:LJ:47:GLN:HG2	15:LJ:67:VAL:HG22	1.98	0.45
15:LJ:49:LYS:HA	15:LJ:64:LYS:HA	1.98	0.45
15:LJ:172:LEU:HB3	15:LJ:173:ASP:H	1.68	0.45
17:LM:59:ASN:OD1	17:LM:60:LEU:N	2.50	0.45
20:LP:130:TYR:C	20:LP:131:ARG:HD2	2.42	0.45
24:LT:108:ARG:O	24:LT:112:ASN:HB2	2.16	0.45
35:Le:19:ARG:HB2	35:Le:31:ASN:O	2.17	0.45
35:Le:96:ILE:HG21	35:Le:105:ARG:CD	2.47	0.45
43:Lm:127:LEU:HD12	43:Lm:128:LYS:H	1.81	0.45
49:C2:14:C:H2'	49:C2:15:U:C6	2.52	0.45
49:C2:128:U:H3'	49:C2:129:U:H5'	1.99	0.45
49:C2:251:A:H2'	49:C2:252:U:O4'	2.17	0.45
49:C2:293:U:H2'	49:C2:294:C:C6	2.52	0.45
49:C2:561:G:C6	49:C2:585:A:C6	3.05	0.45
49:C2:1063:U:H3'	49:C2:1064:G:H8	1.81	0.45
49:C2:1071:U:H2'	49:C2:1072:C:C6	2.51	0.45
49:C2:1218:G:H5''	49:C2:1444:A:H61	1.82	0.45
49:C2:1450:U:H2'	49:C2:1451:C:C6	2.52	0.45
52:SG:6:SER:OG	52:SG:112:VAL:HG12	2.17	0.45
57:SL:21:ASN:HD22	57:SL:21:ASN:C	2.23	0.45
59:SN:71:ILE:H	59:SN:71:ILE:HD12	1.81	0.45
63:SX:79:ASN:HD22	63:SX:81:LYS:NZ	2.15	0.45
68:5:38:PRO:HG3	68:5:142:MET:CE	2.47	0.45
69:Sf:100:LEU:HD21	69:Sf:103:LEU:HD11	1.98	0.45
69:Sf:126:CYS:HA	69:Sf:143:LYS:CE	2.44	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:LA:116:VAL:HG12	1:LA:164:GLY:HA3	1.99	0.45
4:SB:92:GLN:HG3	4:SB:229:MET:HE1	1.99	0.45
4:SB:131:ASP:O	4:SB:221:PRO:HG3	2.17	0.45
4:SB:167:VAL:O	4:SB:171:ILE:HG12	2.17	0.45
5:C1:269:G:P	18:LN:14:LYS:HZ1	2.40	0.45
5:C1:384:A:C6	5:C1:1465:A:C2	3.05	0.45
5:C1:595:G:C5	5:C1:609:G:C5	3.05	0.45
5:C1:686:G:C2	5:C1:695:C:C2	3.04	0.45
5:C1:853:G:C4	5:C1:854:G:C8	3.05	0.45
5:C1:1317:A:O2'	5:C1:1318:A:H3'	2.17	0.45
5:C1:1658:G:C6	5:C1:1659:U:C4	3.04	0.45
5:C1:1661:G:C2	5:C1:1662:G:C5	3.05	0.45
5:C1:2161:G:H2'	5:C1:2162:U:H6	1.81	0.45
5:C1:3089:C:H2'	5:C1:3090:U:O4'	2.17	0.45
7:C3:53:A:C4	7:C3:54:A:C8	3.04	0.45
8:LC:320:ASN:OD1	8:LC:323:VAL:HG23	2.16	0.45
12:LG:41:GLN:OE1	12:LG:44:ARG:NH2	2.50	0.45
12:LG:114:ALA:O	12:LG:118:GLU:HG3	2.16	0.45
16:LL:89:TYR:HE1	16:LL:93:ILE:HD12	1.81	0.45
22:LR:70:LYS:HE2	22:LR:70:LYS:HB2	1.71	0.45
29:LY:85:VAL:O	29:LY:85:VAL:HG13	2.17	0.45
30:LZ:61:LYS:HE2	30:LZ:61:LYS:HB3	1.81	0.45
31:La:77:LYS:C	31:La:79:TRP:N	2.72	0.45
42:Ll:45:ARG:HG2	42:Ll:45:ARG:NH1	2.32	0.45
45:Lo:18:ARG:N	45:Lo:18:ARG:HD2	2.32	0.45
49:C2:780:A:N3	64:SY:8:ARG:HD2	2.32	0.45
49:C2:930:A:H5''	65:Sa:70:LYS:NZ	2.31	0.45
49:C2:1446:A:C6	49:C2:1448:G:C4	3.04	0.45
49:C2:1491:U:H4'	49:C2:1492:A:O4'	2.17	0.45
50:SC:35:TRP:HZ3	50:SC:46:LYS:HG3	1.81	0.45
51:SE:18:TRP:O	51:SE:51:ARG:NH2	2.50	0.45
59:SN:63:ALA:O	59:SN:67:THR:OG1	2.30	0.45
75:SU:26:LEU:HD22	75:SU:114:VAL:HG12	1.99	0.45
4:SB:8:ARG:HH12	49:C2:911:U:H5''	1.81	0.45
4:SB:212:VAL:HG13	4:SB:213:ARG:N	2.22	0.45
5:C1:129:U:OP1	28:LX:45:LYS:NZ	2.49	0.45
5:C1:211:A:P	8:LC:221:ASN:HD21	2.40	0.45
5:C1:212:G:C6	5:C1:222:A:C5	3.05	0.45
5:C1:542:G:C6	5:C1:543:C:N4	2.85	0.45
5:C1:835:G:O2'	5:C1:836:A:OP2	2.34	0.45
5:C1:867:G:H2'	5:C1:868:C:H6	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:991:G:N1	5:C1:1059:G:N7	2.65	0.45
5:C1:1070:U:H2'	5:C1:1071:U:C6	2.52	0.45
5:C1:1423:C:H2'	5:C1:1424:C:H6	1.82	0.45
5:C1:1571:A:C6	5:C1:1572:U:C2	3.05	0.45
5:C1:2149:A:N1	5:C1:2188:A:H4'	2.32	0.45
5:C1:2164:A:C4	5:C1:2171:G:C2	3.05	0.45
5:C1:2193:U:H5'	5:C1:2194:G:C5'	2.46	0.45
5:C1:3174:A:C5	5:C1:3175:U:C4	3.05	0.45
5:C1:3183:A:O2'	5:C1:3184:A:H5'	2.16	0.45
5:C1:3281:U:H2'	5:C1:3282:U:H6	1.80	0.45
6:C4:3:U:H2'	6:C4:4:U:C6	2.50	0.45
7:C3:68:G:H2'	7:C3:69:U:C6	2.52	0.45
7:C3:81:U:O2'	7:C3:83:C:OP2	2.34	0.45
8:LC:39:PHE:HD2	8:LC:242:ALA:HB2	1.81	0.45
10:LE:133:GLU:O	10:LE:136:GLU:HG3	2.17	0.45
11:LF:51:TYR:HE2	11:LF:183:ASP:OD1	2.00	0.45
11:LF:100:ARG:HD2	21:LQ:4:ASP:OD1	2.17	0.45
12:LG:45:ASN:OD1	28:LX:26:VAL:HG13	2.16	0.45
16:LL:5:LYS:HE3	16:LL:5:LYS:HB3	1.82	0.45
32:Lb:43:HIS:HE1	32:Lb:47:LEU:HD11	1.82	0.45
39:Li:54:GLU:O	39:Li:58:ILE:HG12	2.16	0.45
49:C2:222:A:H2'	49:C2:223:U:C6	2.52	0.45
49:C2:592:A:H2'	49:C2:593:U:H6	1.81	0.45
49:C2:768:C:H2'	49:C2:769:A:O4'	2.17	0.45
49:C2:1149:G:C2	49:C2:1151:A:C8	3.05	0.45
49:C2:1241:G:H1'	70:SP:79:HIS:HB2	1.99	0.45
49:C2:1373:C:H2'	49:C2:1374:C:C6	2.52	0.45
49:C2:1404:C:H2'	49:C2:1405:G:C8	2.52	0.45
49:C2:1485:C:H2'	49:C2:1486:G:O4'	2.17	0.45
55:SJ:76:LEU:O	55:SJ:80:LEU:HD23	2.16	0.45
63:SX:73:ARG:HD3	63:SX:73:ARG:C	2.42	0.45
3:LB:182:GLN:HG2	3:LB:183:LEU:O	2.17	0.45
4:SB:84:ILE:HG22	4:SB:86:LEU:HD22	1.98	0.45
5:C1:178:U:H2'	5:C1:179:C:H6	1.81	0.45
5:C1:520:U:O4	8:LC:349:THR:HG22	2.17	0.45
5:C1:626:U:H2'	5:C1:627:U:C6	2.52	0.45
5:C1:858:A:O2'	46:Lp:13:LYS:HD3	2.17	0.45
5:C1:1785:U:H2'	5:C1:1786:G:H8	1.82	0.45
5:C1:2416:U:H2'	5:C1:2417:U:H6	1.82	0.45
5:C1:3117:C:H2'	5:C1:3118:C:O4'	2.17	0.45
5:C1:3154:C:N3	5:C1:3157:U:N3	2.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:C3:145:U:H2'	7:C3:146:U:C6	2.51	0.45
9:LD:34:LYS:NZ	24:LT:30:TYR:CZ	2.84	0.45
9:LD:155:THR:N	9:LD:179:ARG:HH21	2.15	0.45
33:Lc:77:LEU:HD23	33:Lc:87:VAL:HG23	1.99	0.45
49:C2:881:A:C6	49:C2:948:G:C6	3.05	0.45
49:C2:891:A:H2'	49:C2:892:A:C8	2.52	0.45
49:C2:1005:A:H2'	49:C2:1006:C:C6	2.52	0.45
49:C2:1173:C:H2'	49:C2:1174:C:H6	1.81	0.45
49:C2:1673:G:N1	49:C2:1728:A:H2	2.08	0.45
50:SC:207:LEU:O	50:SC:211:LEU:HD23	2.17	0.45
53:SH:14:THR:HG22	53:SH:17:GLU:OE1	2.17	0.45
53:SH:67:LEU:HB3	53:SH:71:HIS:CD2	2.52	0.45
64:SY:8:ARG:HB3	64:SY:26:ASP:OD1	2.17	0.45
64:SY:10:ARG:NE	64:SY:10:ARG:HA	2.31	0.45
72:ST:34:VAL:O	72:ST:36:ILE:HG13	2.17	0.45
4:SB:12:GLY:HA3	5:C1:2207:A:H1'	1.98	0.44
4:SB:220:GLN:HG2	4:SB:221:PRO:O	2.17	0.44
5:C1:501:A:C6	5:C1:613:G:C6	3.05	0.44
5:C1:571:U:C2	5:C1:572:A:C8	3.05	0.44
5:C1:858:A:H2'	5:C1:859:G:C8	2.52	0.44
5:C1:1067:U:H2'	5:C1:1068:C:C6	2.52	0.44
5:C1:1470:U:H2'	5:C1:1471:U:C6	2.51	0.44
5:C1:1953:G:C6	5:C1:2093:A:N6	2.85	0.44
5:C1:2575:G:H2'	5:C1:2576:G:H8	1.83	0.44
5:C1:3020:U:H3'	5:C1:3021:A:H8	1.81	0.44
5:C1:3343:G:H2'	5:C1:3361:G:N2	2.32	0.44
7:C3:10:A:H2'	7:C3:11:C:C6	2.52	0.44
7:C3:76:C:N4	7:C3:77:A:N6	2.65	0.44
7:C3:77:A:C6	7:C3:78:G:N2	2.85	0.44
7:C3:144:G:H2'	7:C3:145:U:H6	1.82	0.44
15:LJ:7:ASN:OD1	15:LJ:7:ASN:N	2.49	0.44
19:LO:27[A]:LEU:O	19:LO:30[A]:GLY:N	2.48	0.44
19:LO:108[A]:ILE:HB	19:LO:160[A]:ARG:HH12	1.83	0.44
32:Lb:10:HIS:C	32:Lb:12:GLN:H	2.25	0.44
39:Li:37:THR:HG22	39:Li:41:ARG:HD2	1.98	0.44
48:P2:82:ILE:HG23	48:P2:142:ARG:NH2	2.33	0.44
49:C2:296:U:H2'	49:C2:297:U:H6	1.81	0.44
49:C2:430:G:H2'	49:C2:431:C:C6	2.52	0.44
49:C2:480:G:C4	49:C2:509:G:C2	3.05	0.44
49:C2:1395:G:C6	49:C2:1396:U:C4	3.05	0.44
49:C2:1533:C:H3'	49:C2:1534:G:H8	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:C2:1784:C:H2'	49:C2:1785:U:H6	1.82	0.44
50:SC:56:ILE:HD12	50:SC:56:ILE:H	1.81	0.44
55:SJ:57:ARG:HG3	55:SJ:97:LEU:HD21	1.99	0.44
56:SK:55:VAL:HB	56:SK:66:TYR:HE1	1.82	0.44
59:SN:87:ASP:OD1	59:SN:88:LEU:N	2.50	0.44
60:SO:71:CYS:HA	60:SO:74:VAL:HG12	1.99	0.44
61:SV:38:LYS:HZ2	61:SV:51:VAL:HG23	1.81	0.44
64:SY:40:LEU:O	64:SY:44:LEU:HD23	2.18	0.44
70:SP:18:ARG:HG3	70:SP:18:ARG:O	2.16	0.44
71:SZ:49:ARG:HA	71:SZ:52:LYS:HG2	1.98	0.44
75:SU:29:THR:HG23	75:SU:85:ARG:O	2.17	0.44
77:s:54:PRO:HB3	77:s:62:ARG:NH1	2.32	0.44
1:LA:241:ARG:HG3	1:LA:241:ARG:NH1	2.32	0.44
3:LB:87:VAL:O	3:LB:161:LEU:HB2	2.16	0.44
5:C1:73:C:O2	16:LL:59:ARG:NE	2.50	0.44
5:C1:198:A:C5	5:C1:219:A:C6	3.06	0.44
5:C1:314:U:H2'	5:C1:315:C:C6	2.51	0.44
5:C1:550:A:N6	5:C1:551:A:H62	2.16	0.44
5:C1:712:G:H2'	5:C1:713:U:C6	2.52	0.44
5:C1:869:G:C6	5:C1:870:G:C2	3.05	0.44
5:C1:869:G:C2	5:C1:891:G:C6	3.05	0.44
5:C1:1065:A:H61	32:Lb:26:THR:HG23	1.82	0.44
5:C1:1069:C:H2'	5:C1:1070:U:C6	2.52	0.44
5:C1:1348:U:H4'	5:C1:1349:G:OP1	2.15	0.44
5:C1:1847:A:C2	20:LP:130:TYR:HD2	2.35	0.44
5:C1:2180:G:H2'	5:C1:2181:C:C6	2.52	0.44
5:C1:2738:A:H4'	32:Lb:37:PRO:HG2	1.99	0.44
5:C1:2877:G:H2'	5:C1:2878:G:H8	1.80	0.44
5:C1:2968:G:H2'	5:C1:2969:A:H8	1.81	0.44
5:C1:3108:G:C6	5:C1:3127:A:N1	2.85	0.44
5:C1:3240:C:H2'	5:C1:3241:G:C8	2.52	0.44
6:C4:108:A:H2'	6:C4:109:G:H8	1.81	0.44
7:C3:4:C:H2'	7:C3:5:U:C6	2.53	0.44
7:C3:152:G:H2'	7:C3:153:U:O4'	2.18	0.44
8:LC:147:GLU:OE2	8:LC:150:LEU:HA	2.17	0.44
9:LD:116:ASP:OD1	9:LD:116:ASP:N	2.50	0.44
11:LF:76:TYR:HE1	11:LF:78:GLU:HB3	1.83	0.44
11:LF:90:LYS:HD2	11:LF:91:GLY:H	1.81	0.44
13:LH:22:SER:OG	13:LH:39:LYS:NZ	2.50	0.44
13:LH:86:TYR:CE1	13:LH:151:VAL:HB	2.53	0.44
19:LO:27[A]:LEU:HD11	19:LO:102[A]:LEU:CD1	2.46	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:LS:12:ARG:NH2	23:LS:15:PRO:HG3	2.32	0.44
31:La:11:HIS:CE1	31:La:18:GLY:HA3	2.52	0.44
31:La:79:TRP:CE3	31:La:82:ILE:HD13	2.51	0.44
35:Le:87:MET:HG3	35:Le:88:HIS:CE1	2.53	0.44
46:Lp:29:LEU:HD23	46:Lp:29:LEU:HA	1.80	0.44
49:C2:407:A:H5'	52:SG:94:ARG:HH21	1.82	0.44
49:C2:484:C:O2'	49:C2:485:A:O5'	2.33	0.44
49:C2:609:U:O2	63:SX:19:ARG:NH2	2.51	0.44
49:C2:743:U:OP2	53:SH:108:GLN:N	2.37	0.44
49:C2:819:G:C4	49:C2:853:G:C2	3.05	0.44
49:C2:1049:U:OP1	66:Sb:69:GLY:HA3	2.16	0.44
49:C2:1135:U:H2'	49:C2:1136:U:C6	2.53	0.44
49:C2:1164:G:H2'	49:C2:1165:G:C8	2.53	0.44
49:C2:1450:U:H2'	49:C2:1451:C:H6	1.81	0.44
49:C2:1602:C:H2'	49:C2:1603:U:H6	1.81	0.44
51:SE:64:ILE:CD1	64:SY:17:LEU:HB3	2.46	0.44
52:SG:5:ILE:CD1	52:SG:111:LEU:HB2	2.48	0.44
52:SG:20:ASP:CG	52:SG:23:ARG:HB2	2.42	0.44
53:SH:43:PHE:HA	53:SH:63:PRO:HD3	1.98	0.44
64:SY:25:VAL:N	64:SY:71:GLY:O	2.25	0.44
1:LA:55:GLY:HA3	1:LA:174:ARG:NH1	2.32	0.44
2:SA:107:PHE:N	2:SA:135:GLU:OE2	2.44	0.44
2:SA:152:PRO:HB2	2:SA:154:GLU:OE1	2.17	0.44
4:SB:83:LYS:NZ	4:SB:106:THR:HA	2.32	0.44
5:C1:156:G:C5	16:LL:99:HIS:CE1	3.06	0.44
5:C1:364:G:OP1	8:LC:60:THR:OG1	2.26	0.44
5:C1:613:G:H2'	5:C1:614:C:C6	2.51	0.44
5:C1:662:U:H2'	5:C1:663:C:H6	1.83	0.44
5:C1:716:A:C5	5:C1:720:A:C5	3.06	0.44
5:C1:1151:U:C5	5:C1:1152:G:C6	3.06	0.44
5:C1:1159:A:O5'	21:LQ:2:GLY:N	2.51	0.44
5:C1:1224:C:C2	5:C1:1225:A:C8	3.06	0.44
5:C1:1372:C:H2'	5:C1:1373:A:C8	2.50	0.44
5:C1:1413:G:C2	5:C1:1414:G:C8	3.05	0.44
5:C1:1416:C:H2'	5:C1:1417:G:C8	2.52	0.44
5:C1:1609:C:H2'	5:C1:1610:G:C8	2.47	0.44
5:C1:1685:C:H2'	5:C1:1686:U:C6	2.51	0.44
5:C1:1845:G:C5	5:C1:1849:C:C4	3.05	0.44
5:C1:1902:G:C6	5:C1:1903:U:C2	3.06	0.44
5:C1:3208:G:C4	23:LS:165:TYR:CD2	3.06	0.44
5:C1:3240:C:H2'	5:C1:3241:G:H8	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:3314:A:C2	5:C1:3315:G:C5	3.06	0.44
7:C3:67:U:C2	7:C3:68:G:C8	3.06	0.44
9:LD:117:GLU:O	9:LD:120:LYS:NZ	2.30	0.44
9:LD:290:ILE:HD11	14:LI:206:LEU:HD11	1.98	0.44
10:LE:135:VAL:HG12	10:LE:139:LYS:NZ	2.32	0.44
17:LM:68:LEU:HD22	17:LM:93:LYS:HD2	1.99	0.44
18:LN:22:LEU:HD21	18:LN:26:ARG:NH2	2.32	0.44
19:LO:110[A]:PRO:HB2	19:LO:111[A]:PRO:CD	2.47	0.44
21:LQ:161:LYS:HA	21:LQ:161:LYS:HD2	1.87	0.44
29:LY:19:TYR:HD2	29:LY:20:PHE:CD1	2.35	0.44
31:La:123:VAL:H	31:La:143:GLY:HA3	1.82	0.44
34:Ld:10:ARG:HH21	34:Ld:44:MET:HE1	1.82	0.44
36:Lf:15:SER:HA	36:Lf:94:PHE:CE1	2.52	0.44
41:Lk:25:VAL:HG11	41:Lk:77:ARG:HD2	1.99	0.44
49:C2:370:A:H2'	49:C2:371:G:C8	2.52	0.44
52:SG:1:MET:CE	52:SG:109:LEU:HD23	2.47	0.44
52:SG:21:GLU:HA	52:SG:24:ILE:HG12	2.00	0.44
52:SG:58:LYS:NZ	52:SG:105:ASP:O	2.47	0.44
59:SN:99:ARG:HG2	59:SN:103:GLU:OE1	2.18	0.44
70:SP:60:LEU:HD23	70:SP:64:LYS:HZ2	1.82	0.44
2:SA:138:TYR:OH	49:C2:1296:A:OP1	2.30	0.44
4:SB:85:LYS:NZ	4:SB:102:GLY:HA3	2.32	0.44
5:C1:297:G:N3	39:Li:41:ARG:NH1	2.65	0.44
5:C1:380:U:H2'	5:C1:381:U:C6	2.53	0.44
5:C1:594:U:OP2	5:C1:609:G:N1	2.24	0.44
5:C1:620:U:C4	5:C1:622:A:C6	3.05	0.44
5:C1:721:G:H2'	5:C1:722:G:H8	1.82	0.44
5:C1:804:C:N4	5:C1:940:G:O6	2.50	0.44
5:C1:873:C:H5''	5:C1:874:U:O5'	2.18	0.44
5:C1:1052:U:C4	5:C1:1053:A:C5	3.05	0.44
5:C1:1153:A:H2'	5:C1:1154:A:C8	2.51	0.44
5:C1:1500:G:C6	5:C1:1517:G:C6	3.05	0.44
5:C1:1590:G:C2	5:C1:1591:G:C8	3.05	0.44
5:C1:1610:G:H2'	5:C1:1611:G:H8	1.81	0.44
5:C1:1613:A:H2'	5:C1:1614:C:C6	2.52	0.44
5:C1:1724:U:H1'	5:C1:1725:C:C6	2.51	0.44
5:C1:2437:G:N2	5:C1:2510:U:O2	2.39	0.44
5:C1:2538:U:H3'	5:C1:2539:C:O4'	2.17	0.44
5:C1:2823:G:C6	5:C1:2824:G:N7	2.86	0.44
5:C1:3110:C:O3'	13:LH:155:SER:OG	2.36	0.44
5:C1:3188:G:C2	5:C1:3205:G:N1	2.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:3217:C:C5	5:C1:3220:G:H1'	2.52	0.44
12:LG:74:THR:HA	12:LG:77:GLN:NE2	2.32	0.44
20:LP:60:PHE:HB3	20:LP:64:ASN:HB3	1.99	0.44
26:LV:66:LYS:HB2	26:LV:66:LYS:HE3	1.75	0.44
31:La:73:LEU:O	31:La:112:ILE:HD12	2.17	0.44
44:Ln:17:ARG:NH2	49:C2:1115:U:O3'	2.50	0.44
49:C2:119:A:H1'	49:C2:397:A:C8	2.52	0.44
49:C2:357:G:H2'	49:C2:358:U:C6	2.52	0.44
49:C2:554:C:N4	49:C2:571:G:O6	2.50	0.44
49:C2:706:A:N6	49:C2:730:G:H8	2.16	0.44
49:C2:1091:A:H2'	49:C2:1091:A:N3	2.33	0.44
49:C2:1209:C:C4	49:C2:1455:G:N2	2.86	0.44
49:C2:1211:A:N3	70:SP:97:TYR:OH	2.48	0.44
49:C2:1509:C:H2'	49:C2:1510:U:O4'	2.18	0.44
49:C2:1573:A:H4'	49:C2:1574:G:H5'	1.98	0.44
49:C2:1688:U:C4	49:C2:1689:A:C5	3.05	0.44
50:SC:35:TRP:CZ3	50:SC:46:LYS:HG3	2.51	0.44
51:SE:86:PHE:CE2	51:SE:87:MET:HE3	2.53	0.44
53:SH:60:ILE:HB	53:SH:92:PHE:CD1	2.53	0.44
53:SH:62:VAL:HG12	53:SH:70:PHE:CE2	2.53	0.44
53:SH:111:LYS:O	53:SH:112:ARG:HG3	2.17	0.44
55:SJ:109:LEU:O	55:SJ:113:VAL:HG23	2.16	0.44
62:SW:111:MET:HE1	62:SW:116:ALA:CA	2.45	0.44
64:SY:37:LYS:HG2	64:SY:60:PHE:CE2	2.52	0.44
73:SQ:79:TYR:CD1	73:SQ:82:ARG:HD3	2.44	0.44
1:LA:113:VAL:HG12	1:LA:166:ILE:HD13	1.99	0.44
3:LB:124:LYS:HG3	3:LB:124:LYS:O	2.18	0.44
3:LB:364:LYS:CE	5:C1:3049:A:H4'	2.46	0.44
5:C1:40:A:N7	5:C1:937:G:C5	2.85	0.44
5:C1:602:A:H2'	5:C1:603:A:C8	2.53	0.44
5:C1:789:A:H2'	5:C1:790:U:H6	1.83	0.44
5:C1:851:C:H2'	5:C1:852:U:C6	2.52	0.44
5:C1:1184:A:C6	5:C1:1323:G:C6	3.05	0.44
5:C1:1262:G:H3'	5:C1:1262:G:OP2	2.18	0.44
5:C1:1352:A:H1'	5:C1:1353:U:C6	2.51	0.44
5:C1:1648:A:N1	5:C1:2559:U:C4	2.85	0.44
5:C1:1940:G:H2'	5:C1:1941:C:C6	2.52	0.44
5:C1:2346:C:N4	5:C1:2347:U:O4	2.50	0.44
5:C1:2508:U:H2'	5:C1:2509:U:C6	2.52	0.44
5:C1:2678:A:C4	5:C1:2679:A:C2	3.06	0.44
5:C1:3342:A:H2'	5:C1:3343:G:O4'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:LC:290:ILE:HD11	21:LQ:35:PHE:CD1	2.53	0.44
10:LE:129:GLU:HB3	10:LE:130:ILE:HD12	2.00	0.44
11:LF:224:ILE:HD12	11:LF:224:ILE:H	1.83	0.44
18:LN:113:LEU:HB2	18:LN:134:LEU:HD23	1.99	0.44
21:LQ:175:ALA:O	21:LQ:176:ARG:C	2.59	0.44
22:LR:30:SER:O	22:LR:34:GLN:HG2	2.17	0.44
24:LT:39:ILE:HD12	24:LT:102:ARG:HD3	2.00	0.44
26:LV:82:ALA:HB2	26:LV:97:ASP:O	2.17	0.44
32:Lb:25:LYS:HE2	32:Lb:25:LYS:HA	2.00	0.44
32:Lb:46:ALA:O	32:Lb:50:THR:HG23	2.18	0.44
35:Le:87:MET:HE3	35:Le:88:HIS:HE1	1.82	0.44
49:C2:57:G:C4	49:C2:91:G:N2	2.85	0.44
49:C2:553:G:H3'	49:C2:554:C:H2'	1.99	0.44
49:C2:599:A:H4'	63:SX:106:GLY:O	2.17	0.44
49:C2:1778:G:H2'	49:C2:1779:U:C6	2.52	0.44
50:SC:148:LEU:HD11	55:SJ:92:LYS:NZ	2.32	0.44
51:SE:36:HIS:ND1	51:SE:85:GLY:HA3	2.33	0.44
51:SE:182:TYR:HD1	51:SE:192:ILE:HG13	1.83	0.44
53:SH:110:GLN:HG3	53:SH:111:LYS:N	2.33	0.44
53:SH:143:LEU:HD23	53:SH:149:ILE:HD13	1.98	0.44
57:SL:98:ASN:O	57:SL:99:ARG:HG3	2.18	0.44
60:SO:20:TYR:HD1	60:SO:84:ARG:O	2.00	0.44
64:SY:22:GLN:HA	64:SY:74:LEU:HD13	2.00	0.44
64:SY:105:ARG:HA	64:SY:108:ARG:NH1	2.33	0.44
66:Sb:36:LYS:HE3	66:Sb:41:LEU:HD13	1.99	0.44
69:Sf:141:CYS:HB3	69:Sf:144:CYS:HB2	1.98	0.44
71:SZ:48:ASP:OD1	71:SZ:49:ARG:N	2.50	0.44
76:Sc:14:LYS:HE3	76:Sc:29:ARG:HD2	2.00	0.44
2:SA:108:THR:OG1	49:C2:1321:A:N6	2.50	0.44
4:SB:26:ARG:O	4:SB:50:LYS:HG2	2.18	0.44
4:SB:66:VAL:HG12	60:SO:34:SER:HA	2.00	0.44
4:SB:120:LEU:HD12	4:SB:142:PHE:CE2	2.52	0.44
5:C1:221:A:O2'	5:C1:223:U:OP2	2.32	0.44
5:C1:226:C:H2'	5:C1:227:G:O4'	2.18	0.44
5:C1:422:A:C2	5:C1:423:A:C4	3.06	0.44
5:C1:520:U:H6	5:C1:520:U:H5'	1.83	0.44
5:C1:684:G:H2'	5:C1:685:G:H8	1.82	0.44
5:C1:895:A:N7	5:C1:897:U:C2	2.85	0.44
5:C1:1297:C:H2'	5:C1:1298:C:H6	1.83	0.44
5:C1:1307:G:O2'	5:C1:1308:A:OP2	2.29	0.44
5:C1:1400:G:C6	5:C1:1412:G:C6	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:1453:A:C6	5:C1:1454:A:C5	3.06	0.44
5:C1:1646:G:O2'	5:C1:1647:A:OP2	2.34	0.44
5:C1:2166:A:H4'	18:LN:72:LYS:HE3	1.99	0.44
5:C1:2302:G:N1	5:C1:2303:A:C5	2.85	0.44
5:C1:2555:G:C5	5:C1:2556:C:C4	3.06	0.44
5:C1:2576:G:H2'	5:C1:2577:C:H6	1.82	0.44
5:C1:2617:U:O2	5:C1:2617:U:H2'	2.17	0.44
5:C1:2916:U:H2'	5:C1:2917:G:H8	1.81	0.44
5:C1:3159:C:H2'	5:C1:3160:U:C6	2.53	0.44
5:C1:3267:A:H2'	10:LE:69:PHE:CE1	2.52	0.44
6:C4:8:G:OP1	9:LD:33:ARG:NH1	2.51	0.44
6:C4:37:G:N2	6:C4:41:G:C2	2.85	0.44
7:C3:74:U:O2'	7:C3:75:G:O5'	2.33	0.44
8:LC:261:VAL:HG13	8:LC:262:TRP:CD1	2.53	0.44
12:LG:54:GLU:O	12:LG:57:ARG:HG2	2.17	0.44
14:LI:48:LEU:HB2	14:LI:142:ASP:OD1	2.17	0.44
22:LR:23:TRP:CE3	22:LR:51:VAL:HG22	2.53	0.44
22:LR:123:LEU:HA	22:LR:123:LEU:HD23	1.70	0.44
23:LS:131:LYS:HB3	23:LS:134:ASP:OD2	2.17	0.44
29:LY:74:TYR:HE2	29:LY:77:LYS:NZ	2.15	0.44
34:Ld:41:LYS:HZ2	34:Ld:47:ASP:HB3	1.82	0.44
47:P0:14:LYS:HE3	47:P0:14:LYS:HA	1.99	0.44
47:P0:133:THR:HA	47:P0:136:PHE:CD2	2.51	0.44
48:P2:85:LEU:HD11	48:P2:107:ASP:HB2	1.99	0.44
49:C2:3:U:C2	55:SJ:17:ARG:NH1	2.85	0.44
49:C2:647:G:C2	49:C2:648:G:C8	3.05	0.44
49:C2:989:U:H2'	49:C2:990:C:O4'	2.17	0.44
49:C2:1256:A:H4'	49:C2:1257:U:O5'	2.17	0.44
49:C2:1652:C:H2'	49:C2:1653:C:C6	2.52	0.44
55:SJ:119:ALA:O	55:SJ:124:HIS:ND1	2.50	0.44
65:Sa:58:VAL:HG23	65:Sa:59:TYR:HD2	1.83	0.44
67:Se:20:LYS:C	67:Se:20:LYS:HD3	2.43	0.44
72:ST:127:ASN:OD1	72:ST:128:GLY:N	2.50	0.44
77:s:49:LYS:H	77:s:49:LYS:HD2	1.83	0.44
2:SA:186:GLY:HA2	61:SV:44:ARG:NH1	2.33	0.44
5:C1:442:G:H2'	5:C1:443:G:O4'	2.18	0.44
5:C1:891:G:C6	5:C1:892:U:N3	2.86	0.44
5:C1:1130:A:N7	5:C1:1132:C:C2	2.86	0.44
5:C1:1170:A:H2'	5:C1:1171:G:O4'	2.17	0.44
5:C1:1244:A:O2'	5:C1:1249:G:O6	2.28	0.44
5:C1:1915:A:H2'	5:C1:1916:U:C6	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:2129:U:H2'	5:C1:2130:G:C8	2.53	0.44
5:C1:3110:C:C4	5:C1:3111:U:C4	3.05	0.44
7:C3:9:A:C2	7:C3:10:A:C5	3.06	0.44
7:C3:80:A:H2'	7:C3:82:U:H5	1.83	0.44
7:C3:94:C:O2'	7:C3:95:G:H5''	2.17	0.44
11:LF:184:LEU:HD11	11:LF:202:LEU:HD11	1.99	0.44
18:LN:14:LYS:HA	18:LN:19:LEU:HD22	2.00	0.44
18:LN:99:ARG:HB3	18:LN:130:PHE:CE2	2.52	0.44
21:LQ:103:ALA:HB3	21:LQ:106:PHE:CE1	2.52	0.44
21:LQ:144:ARG:HG3	21:LQ:144:ARG:NH1	2.32	0.44
25:LU:104:ARG:NH1	25:LU:105:LEU:O	2.49	0.44
28:LX:138:ARG:HG2	28:LX:138:ARG:NH2	2.32	0.44
49:C2:149:C:C4	49:C2:166:C:N4	2.85	0.44
49:C2:637:C:OP1	62:SW:32:LYS:HG3	2.18	0.44
49:C2:640:U:H2'	49:C2:641:G:O4'	2.18	0.44
49:C2:872:G:H2'	49:C2:873:U:O4'	2.17	0.44
49:C2:902:G:H2'	49:C2:903:U:C6	2.53	0.44
49:C2:1072:C:H2'	49:C2:1073:G:C8	2.53	0.44
49:C2:1122:G:C2	49:C2:1126:G:C6	3.06	0.44
49:C2:1508:U:H2'	49:C2:1509:C:C6	2.52	0.44
49:C2:1530:C:P	71:SZ:96:SER:H	2.41	0.44
50:SC:178:ILE:HB	50:SC:185:LYS:NZ	2.32	0.44
52:SG:5:ILE:HD13	52:SG:111:LEU:HB2	2.00	0.44
52:SG:50:PHE:CD2	52:SG:111:LEU:HD13	2.52	0.44
53:SH:133:THR:HG22	53:SH:155:ASP:HB3	2.00	0.44
55:SJ:84:GLY:HA3	55:SJ:150:LEU:HD12	1.99	0.44
58:SM:125:ASN:O	58:SM:127:GLY:N	2.51	0.44
60:SO:80:HIS:HD1	60:SO:113:GLY:C	2.20	0.44
2:SA:26:ALA:O	2:SA:46:HIS:ND1	2.50	0.44
4:SB:32:ILE:HD13	4:SB:96:LEU:HB2	2.00	0.44
5:C1:22:G:C5	5:C1:23:A:N7	2.86	0.44
5:C1:803:C:C2	5:C1:804:C:C5	3.05	0.44
5:C1:874:U:OP1	5:C1:875:G:H5'	2.18	0.44
5:C1:945:C:H2'	5:C1:946:U:H6	1.83	0.44
5:C1:1170:A:OP1	11:LF:218:ARG:HA	2.17	0.44
5:C1:1485:G:N3	37:Lg:4:ARG:NH2	2.66	0.44
5:C1:1562:C:HO2'	5:C1:1563:C:C5'	2.29	0.44
5:C1:1634:G:C6	5:C1:1640:G:C6	3.05	0.44
5:C1:1638:A:N3	5:C1:1709:C:H1'	2.33	0.44
5:C1:1645:U:O2	5:C1:1645:U:H2'	2.18	0.44
5:C1:1740:U:H1'	5:C1:1741:A:H2	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:1809:A:H2'	5:C1:1810:A:O4'	2.18	0.44
5:C1:2297:U:C2	5:C1:2299:A:C6	3.06	0.44
5:C1:2655:U:O5'	45:Lo:98:LYS:NZ	2.51	0.44
5:C1:3053:G:H2'	5:C1:3054:U:C6	2.52	0.44
5:C1:3121:U:H1'	5:C1:3122:A:H5''	2.00	0.44
5:C1:3288:G:N3	5:C1:3289:G:C8	2.85	0.44
7:C3:70:G:C2	7:C3:87:G:N3	2.86	0.44
8:LC:3:ARG:HB3	8:LC:22:LEU:HB2	2.00	0.44
8:LC:23:PRO:HD2	8:LC:26:PHE:CD1	2.53	0.44
8:LC:130:ALA:HB1	8:LC:149:PRO:HG3	1.99	0.44
9:LD:119:TYR:CE1	9:LD:141:PRO:HB3	2.53	0.44
11:LF:132:PRO:HA	11:LF:229:PHE:CE1	2.53	0.44
12:LG:98:ARG:NH1	12:LG:189:LEU:O	2.49	0.44
15:LJ:19:LEU:O	15:LJ:68:HIS:HA	2.17	0.44
20:LP:108:ASP:OD2	20:LP:111:LYS:NZ	2.29	0.44
22:LR:154:ALA:O	22:LR:157:GLU:HG3	2.17	0.44
29:LY:82:VAL:HG12	29:LY:83:ASP:O	2.18	0.44
35:Le:67:SER:OG	35:Le:68:PRO:HD2	2.17	0.44
41:Lk:11:PHE:HD1	41:Lk:12:LEU:HD22	1.83	0.44
49:C2:218:A:H62	49:C2:829:A:H2	1.66	0.44
49:C2:448:C:H2'	49:C2:449:C:C6	2.53	0.44
49:C2:689:G:C4	49:C2:690:G:C8	3.06	0.44
49:C2:693:U:H5''	49:C2:694:U:H5'	2.00	0.44
49:C2:748:U:C2	49:C2:802:G:N1	2.86	0.44
49:C2:1078:C:C2	49:C2:1079:U:C5	3.06	0.44
49:C2:1163:A:H2'	49:C2:1164:G:O4'	2.17	0.44
53:SH:45:SER:O	53:SH:46:ILE:HD13	2.18	0.44
54:SI:41:LYS:N	54:SI:61:GLU:OE1	2.51	0.44
54:SI:76:THR:HG21	54:SI:104:ILE:HB	1.98	0.44
59:SN:25:TRP:CH2	59:SN:26:PHE:HE1	2.35	0.44
59:SN:70:LYS:O	59:SN:74:ILE:HG12	2.18	0.44
60:SO:70:LYS:O	60:SO:73:GLU:HG3	2.18	0.44
63:SX:69:ARG:NE	63:SX:116:ASP:OD2	2.50	0.44
67:Se:23:LYS:HE2	67:Se:23:LYS:HA	1.99	0.44
70:SP:97:TYR:HA	70:SP:101:ALA:O	2.18	0.44
3:LB:190:GLU:HA	3:LB:193:ASP:HB2	2.00	0.44
4:SB:111:ARG:NH1	65:Sa:68:TYR:N	2.51	0.44
5:C1:51:A:C6	5:C1:52:A:C5	3.06	0.44
5:C1:281:G:H2'	5:C1:282:G:C8	2.53	0.44
5:C1:543:C:O2'	5:C1:544:C:O5'	2.34	0.44
5:C1:1068:C:H2'	5:C1:1069:C:H6	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:1184:A:H2'	5:C1:1185:C:C6	2.53	0.44
5:C1:1414:G:C6	5:C1:1415:U:C4	3.06	0.44
5:C1:1525:G:H2'	5:C1:1525:G:N3	2.32	0.44
5:C1:1883:A:N3	5:C1:1884:A:C8	2.86	0.44
5:C1:1934:G:N1	5:C1:1935:G:C5	2.86	0.44
5:C1:2316:G:C6	5:C1:2317:A:C5	3.06	0.44
5:C1:3202:G:C6	5:C1:3203:U:C4	3.06	0.44
5:C1:3337:G:H2'	5:C1:3338:C:C6	2.52	0.44
5:C1:3353:G:C6	5:C1:3356:G:C6	3.06	0.44
6:C4:97:A:H2'	6:C4:98:C:H6	1.83	0.44
8:LC:361:HIS:ND1	8:LC:362:ASP:O	2.51	0.44
11:LF:96:PRO:HB2	11:LF:99:PRO:HD2	1.99	0.44
13:LH:41:ILE:HG22	13:LH:43:VAL:HG13	2.00	0.44
13:LH:92:TYR:OH	13:LH:101:VAL:HG21	2.18	0.44
15:LJ:64:LYS:HB2	15:LJ:64:LYS:HE2	1.77	0.44
16:LL:119:TYR:O	16:LL:123:ILE:HG23	2.17	0.44
21:LQ:158:HIS:H	21:LQ:186:VAL:CG1	2.30	0.44
28:LX:62:VAL:HG23	28:LX:63:ILE:HG13	2.00	0.44
47:P0:114:VAL:HA	47:P0:164:LYS:HD3	1.99	0.44
49:C2:350:U:H5''	49:C2:352:A:H5'	2.00	0.44
49:C2:590:C:H5'	67:Se:56:MET:CE	2.48	0.44
49:C2:800:U:H2'	49:C2:801:G:C8	2.53	0.44
49:C2:1680:G:H2'	49:C2:1720:G:N2	2.33	0.44
49:C2:1759:C:C2	49:C2:1760:G:C8	3.06	0.44
49:C2:1776:A:H2'	49:C2:1777:G:H8	1.83	0.44
51:SE:73:ASP:OD1	51:SE:164:LEU:HD22	2.18	0.44
51:SE:87:MET:SD	51:SE:123:LEU:HB2	2.58	0.44
52:SG:213:ALA:O	52:SG:216:LEU:HG	2.17	0.44
55:SJ:53:ARG:NH2	55:SJ:97:LEU:O	2.49	0.44
57:SL:76:VAL:HG22	57:SL:85:VAL:O	2.18	0.44
59:SN:37:ILE:HG12	59:SN:54:LEU:HD11	2.00	0.44
62:SW:66:ASN:HD22	62:SW:68:ARG:HE	1.66	0.44
65:Sa:10:ARG:NH1	65:Sa:12:LYS:HD3	2.33	0.44
69:Sf:126:CYS:SG	69:Sf:143:LYS:NZ	2.88	0.44
72:ST:19:ALA:O	72:ST:23:GLN:HG2	2.18	0.44
1:LA:52:SER:OG	1:LA:191:LEU:HD13	2.18	0.43
4:SB:146:GLN:N	4:SB:149:GLN:HG3	2.34	0.43
5:C1:216:G:H4'	29:LY:19:TYR:CZ	2.53	0.43
5:C1:241:G:O2'	5:C1:242:C:H5'	2.17	0.43
5:C1:1180:A:OP1	36:Lf:78:SER:OG	2.27	0.43
5:C1:2358:A:H3'	5:C1:2359:C:H6	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:2566:C:C2	5:C1:2567:C:C5	3.06	0.43
5:C1:2672:G:O2'	15:LJ:95:ASN:O	2.30	0.43
5:C1:2734:A:H2'	5:C1:2735:U:H6	1.83	0.43
5:C1:3095:U:H2'	5:C1:3096:C:C6	2.52	0.43
5:C1:3182:G:C2	5:C1:3183:A:C2	3.06	0.43
5:C1:3201:C:H2'	5:C1:3202:G:C8	2.49	0.43
5:C1:3237:U:H2'	5:C1:3238:G:O4'	2.17	0.43
5:C1:3350:C:H3'	5:C1:3352:U:C4	2.52	0.43
6:C4:96:U:OP1	23:LS:43:TYR:OH	2.24	0.43
8:LC:302:ALA:HA	21:LQ:39:ARG:NH1	2.32	0.43
9:LD:243:ALA:O	9:LD:246:ALA:N	2.51	0.43
13:LH:40:HIS:CE1	13:LH:41:ILE:HD11	2.53	0.43
14:LI:35:ASP:C	14:LI:36:LEU:HD22	2.42	0.43
20:LP:14:SER:HB3	20:LP:151:THR:HG22	2.00	0.43
24:LT:105:PHE:O	24:LT:109:VAL:HG23	2.18	0.43
25:LU:29:ASP:HB3	25:LU:32:SER:OG	2.18	0.43
25:LU:35:LYS:HD2	25:LU:38:ILE:HD11	2.00	0.43
30:LZ:54:THR:HG22	30:LZ:57:HIS:ND1	2.33	0.43
32:Lb:11:ASN:HD22	32:Lb:11:ASN:C	2.19	0.43
41:Lk:65:LEU:O	41:Lk:68:SER:OG	2.28	0.43
48:P2:119:LYS:HE2	48:P2:119:LYS:HB2	1.87	0.43
49:C2:620:A:H2'	49:C2:621:A:O4'	2.18	0.43
49:C2:1155:G:N2	49:C2:1624:C:C2	2.86	0.43
49:C2:1179:G:H2'	49:C2:1180:C:C6	2.53	0.43
49:C2:1390:U:H1'	49:C2:1412:G:C2	2.53	0.43
50:SC:179:VAL:CG2	50:SC:197:TYR:HA	2.48	0.43
51:SE:100:ARG:CG	51:SE:114:ILE:HD13	2.45	0.43
52:SG:7:TYR:HB3	52:SG:12:SER:OG	2.17	0.43
52:SG:10:ASN:O	52:SG:129:VAL:N	2.48	0.43
52:SG:193:LEU:HD13	52:SG:196:ARG:HH12	1.83	0.43
57:SL:97:TYR:CE2	63:SX:15:LEU:HB3	2.53	0.43
58:SM:67:THR:C	58:SM:69:ALA:H	2.26	0.43
59:SN:39:LYS:C	59:SN:39:LYS:HD3	2.43	0.43
62:SW:111:MET:HE2	62:SW:115:GLU:CG	2.48	0.43
63:SX:50:LYS:HB2	63:SX:50:LYS:HE2	1.87	0.43
68:5:41:ILE:H	68:5:41:ILE:HD12	1.83	0.43
72:ST:18:TYR:HE1	72:ST:22:LEU:HD11	1.83	0.43
72:ST:52:GLY:O	72:ST:53:TRP:CG	2.71	0.43
72:ST:84:LYS:HG3	78:ST:201:MG:MG	1.41	0.43
75:SU:99:ILE:O	75:SU:103:ILE:HG12	2.18	0.43
75:SU:102:ARG:O	75:SU:106:ILE:HG12	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:SB:70:LEU:HD12	4:SB:73:LEU:HB2	1.99	0.43
5:C1:63:A:C6	5:C1:64:G:C6	3.06	0.43
5:C1:200:C:H41	5:C1:217:U:H2'	1.83	0.43
5:C1:211:A:OP1	8:LC:220:ARG:NH2	2.51	0.43
5:C1:216:G:OP1	29:LY:16:ARG:NH1	2.52	0.43
5:C1:798:G:H4'	16:LL:15:ARG:HH12	1.83	0.43
5:C1:887:G:H2'	5:C1:888:A:C8	2.53	0.43
5:C1:895:A:C6	5:C1:897:U:C4	3.07	0.43
5:C1:910:G:C5	5:C1:911:C:C4	3.06	0.43
5:C1:936:A:OP2	31:La:27:LYS:NZ	2.51	0.43
5:C1:1557:A:C5	5:C1:1559:A:C5	3.07	0.43
5:C1:1611:G:H2'	5:C1:1612:A:C8	2.53	0.43
5:C1:1836:C:C2	5:C1:1837:U:C5	3.07	0.43
5:C1:2101:C:C2	5:C1:2102:U:C5	3.06	0.43
5:C1:2209:U:H2'	5:C1:2210:G:H5'	2.00	0.43
5:C1:2417:U:H1'	5:C1:2966:G:H21	1.83	0.43
5:C1:2572:C:H5''	30:LZ:60:LYS:NZ	2.34	0.43
5:C1:2615:G:H2'	5:C1:2616:C:H6	1.83	0.43
5:C1:3213:A:H8	5:C1:3213:A:O5'	2.01	0.43
7:C3:27:U:H2'	7:C3:28:C:C6	2.53	0.43
9:LD:36:LEU:HD23	9:LD:36:LEU:HA	1.76	0.43
11:LF:120:THR:O	11:LF:124:LEU:HD23	2.17	0.43
13:LH:21:LYS:HD3	13:LH:21:LYS:HA	1.82	0.43
14:LI:73:ASN:C	14:LI:73:ASN:OD1	2.62	0.43
14:LI:93:PRO:HB2	14:LI:125:LEU:HB3	2.00	0.43
19:LO:108[A]:ILE:HB	19:LO:160[A]:ARG:NH1	2.33	0.43
19:LO:190[A]:VAL:O	19:LO:194[A]:LEU:HD23	2.17	0.43
21:LQ:174:ARG:O	31:La:56:VAL:HG21	2.17	0.43
38:Lh:93:THR:HG22	38:Lh:96:GLU:OE2	2.18	0.43
40:Lj:21:ARG:NH2	40:Lj:37:CYS:O	2.51	0.43
40:Lj:73:ARG:HH11	40:Lj:73:ARG:HG3	1.84	0.43
43:Lm:88:LYS:NZ	43:Lm:89:TYR:HE1	2.15	0.43
44:Ln:21:ARG:HH12	49:C2:1118:G:P	2.41	0.43
46:Lp:59:CYS:C	46:Lp:61:LYS:H	2.26	0.43
49:C2:339:C:H2'	49:C2:340:U:H6	1.82	0.43
49:C2:407:A:H2'	49:C2:408:C:H6	1.83	0.43
49:C2:551:G:H2'	49:C2:552:G:C8	2.51	0.43
49:C2:705:U:H2'	49:C2:706:A:C5	2.52	0.43
49:C2:1013:A:H2'	49:C2:1014:G:O4'	2.18	0.43
49:C2:1688:U:C2'	49:C2:1689:A:H5'	2.48	0.43
62:SW:94:LEU:HD22	62:SW:100:GLY:HA3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:SP:81:ARG:HD3	70:SP:117:GLY:HA2	2.00	0.43
75:SU:28:SER:OG	75:SU:112:VAL:HG22	2.17	0.43
2:SA:88:LYS:HZ3	2:SA:201:LEU:HG	1.82	0.43
5:C1:128:G:H2'	5:C1:129:U:C6	2.54	0.43
5:C1:178:U:H2'	5:C1:179:C:C6	2.52	0.43
5:C1:254:A:H2'	5:C1:255:A:H8	1.83	0.43
5:C1:281:G:C6	5:C1:282:G:C6	3.06	0.43
5:C1:601:U:H2'	5:C1:602:A:C8	2.52	0.43
5:C1:660:A:H2	5:C1:941:G:N3	2.16	0.43
5:C1:871:U:H2'	5:C1:872:U:H6	1.84	0.43
5:C1:875:G:N1	5:C1:887:G:C6	2.86	0.43
5:C1:1103:A:H2'	5:C1:1103:A:N3	2.32	0.43
5:C1:1277:C:C2	5:C1:1278:A:C8	3.06	0.43
5:C1:1411:C:P	35:Le:98:HIS:HD1	2.41	0.43
5:C1:1650:G:C6	5:C1:1806:A:N6	2.85	0.43
5:C1:1902:G:C2	5:C1:2336:U:H1'	2.53	0.43
5:C1:2152:A:H2'	5:C1:2153:U:H6	1.82	0.43
5:C1:2589:G:C2	5:C1:2590:A:C8	3.07	0.43
5:C1:2916:U:C2	5:C1:2935:U:C4	3.06	0.43
5:C1:3208:G:C2	5:C1:3210:A:C6	3.06	0.43
5:C1:3214:U:C2	17:LM:121:MET:HE2	2.53	0.43
9:LD:52:VAL:HA	9:LD:147:ASP:HB3	1.99	0.43
12:LG:82:LEU:HB3	12:LG:86:THR:HG23	2.00	0.43
12:LG:180:VAL:HG22	12:LG:181:LYS:H	1.82	0.43
13:LH:89:LYS:HB2	13:LH:183:HIS:HB3	2.00	0.43
13:LH:113:GLU:OE2	13:LH:115:ARG:NH2	2.44	0.43
15:LJ:52:TYR:HA	15:LJ:61:ARG:CG	2.49	0.43
15:LJ:150:ASN:HA	15:LJ:153:LYS:NZ	2.33	0.43
16:LL:113:VAL:HG12	16:LL:117:LYS:HE3	1.99	0.43
19:LO:145[A]:VAL:O	19:LO:145[A]:VAL:HG22	2.19	0.43
20:LP:124:LYS:HD3	20:LP:140:GLU:OE1	2.18	0.43
24:LT:137:GLU:HG3	24:LT:138:SER:N	2.33	0.43
31:La:75:LEU:HD13	31:La:78:LEU:HD13	1.99	0.43
34:Ld:54:GLU:O	34:Ld:57:GLN:HB2	2.18	0.43
34:Ld:71:LEU:HD23	34:Ld:71:LEU:HA	1.80	0.43
38:Lh:38:ARG:HG3	38:Lh:39:PRO:HD2	2.00	0.43
47:P0:49:ALA:HB2	47:P0:89:THR:OG1	2.17	0.43
49:C2:160:C:O3'	52:SG:95:LYS:NZ	2.51	0.43
49:C2:393:C:OP2	54:SI:2:GLY:N	2.52	0.43
49:C2:514:G:H2'	49:C2:515:A:C8	2.53	0.43
49:C2:586:G:C4	49:C2:587:C:C5	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:C2:1060:U:H3'	49:C2:1061:A:C5'	2.39	0.43
52:SG:67:VAL:H	52:SG:100:ALA:HB2	1.83	0.43
52:SG:70:PRO:HD3	52:SG:101:ILE:HD13	1.99	0.43
58:SM:58:LEU:HD23	58:SM:126:TRP:CZ3	2.53	0.43
58:SM:92:ALA:HB3	58:SM:96:GLN:NE2	2.34	0.43
61:SV:80:LYS:C	61:SV:82:VAL:H	2.26	0.43
2:SA:30:GLN:HE22	2:SA:34:GLU:HB2	1.82	0.43
3:LB:58:ARG:NH1	3:LB:354:VAL:HG22	2.33	0.43
3:LB:74:GLU:OE2	3:LB:283:TYR:OH	2.29	0.43
5:C1:43:A:C6	5:C1:2803:A:C6	3.06	0.43
5:C1:429:U:H2'	5:C1:430:U:H6	1.83	0.43
5:C1:434:U:H2'	5:C1:435:C:H6	1.80	0.43
5:C1:533:A:H5'	23:LS:131:LYS:HZ2	1.81	0.43
5:C1:548:G:H2'	5:C1:549:U:O4'	2.19	0.43
5:C1:1256:G:H2'	5:C1:1257:C:C5	2.54	0.43
5:C1:1370:G:C2	5:C1:1371:G:C5	3.07	0.43
5:C1:1384:U:OP2	8:LC:202:ARG:NE	2.42	0.43
5:C1:1923:C:N4	5:C1:1929:G:N2	2.66	0.43
5:C1:2279:A:C2	5:C1:2288:G:C6	3.06	0.43
5:C1:2586:G:C6	12:LG:241:LYS:HB2	2.54	0.43
5:C1:2926:A:H2'	5:C1:2927:C:C6	2.53	0.43
5:C1:3163:A:C6	5:C1:3288:G:C6	3.06	0.43
5:C1:3166:C:H2'	5:C1:3167:A:C8	2.54	0.43
6:C4:38:U:N3	6:C4:41:G:OP2	2.52	0.43
7:C3:154:C:H2'	7:C3:155:A:C8	2.52	0.43
8:LC:281:ILE:HB	21:LQ:29:LEU:HD21	2.01	0.43
10:LE:172:HIS:CD2	36:Lf:40:ASP:HB3	2.53	0.43
11:LF:221:LYS:O	11:LF:227:GLY:HA3	2.18	0.43
13:LH:176:LEU:HD12	43:Lm:83:LYS:HE3	2.00	0.43
14:LI:211:ARG:HG3	14:LI:212:GLU:CD	2.43	0.43
17:LM:11:ASN:OD1	17:LM:11:ASN:N	2.50	0.43
24:LT:158:THR:HG23	24:LT:160:ILE:H	1.83	0.43
30:LZ:76:ASN:OD1	30:LZ:77:TYR:N	2.52	0.43
33:Lc:84:LEU:HD12	33:Lc:84:LEU:HA	1.78	0.43
35:Le:21:HIS:ND1	35:Le:24:ARG:HD3	2.33	0.43
39:Li:25:LYS:HB3	39:Li:25:LYS:HE2	1.61	0.43
47:P0:31:ASP:H	47:P0:183:PHE:HE2	1.66	0.43
49:C2:86:A:H5''	64:SY:119:PHE:HE1	1.83	0.43
49:C2:534:A:H3'	49:C2:535:A:C8	2.46	0.43
49:C2:711:U:H1'	49:C2:712:G:OP2	2.19	0.43
49:C2:823:G:C6	49:C2:850:A:C6	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:C2:1120:U:H2'	49:C2:1121:C:H6	1.81	0.43
49:C2:1157:A:C2	49:C2:1160:A:C8	3.06	0.43
49:C2:1373:C:H2'	49:C2:1374:C:H6	1.83	0.43
49:C2:1550:A:C6	49:C2:1562:G:C6	3.07	0.43
49:C2:1638:G:C6	49:C2:1639:C:N3	2.86	0.43
49:C2:1794:A:H1'	65:Sa:79:ILE:HD13	1.99	0.43
51:SE:196:VAL:HG23	51:SE:197:HIS:H	1.82	0.43
52:SG:63:MET:HE1	52:SG:106:LEU:HD11	2.01	0.43
52:SG:85:ARG:HD2	52:SG:85:ARG:C	2.44	0.43
54:SI:184:LEU:HD21	54:SI:192:TYR:HD2	1.83	0.43
55:SJ:49:LEU:HD21	55:SJ:53:ARG:HH11	1.83	0.43
57:SL:97:TYR:HE2	63:SX:15:LEU:HB3	1.83	0.43
60:SO:80:HIS:ND1	60:SO:113:GLY:O	2.25	0.43
60:SO:103:ARG:O	60:SO:107:ARG:HG2	2.19	0.43
62:SW:24:GLN:NE2	66:Sb:5:GLN:HG3	2.34	0.43
65:Sa:39:MET:HE2	65:Sa:39:MET:HA	2.00	0.43
66:Sb:79:PHE:C	66:Sb:80:ARG:HD3	2.44	0.43
70:SP:28:MET:SD	70:SP:29:SER:N	2.91	0.43
72:ST:38:LYS:C	72:ST:40:SER:H	2.26	0.43
77:s:53:ARG:HA	77:s:54:PRO:HD3	1.83	0.43
2:SA:18:LEU:HD13	2:SA:23:HIS:CE1	2.54	0.43
3:LB:211:GLN:HE22	3:LB:284:ARG:HA	1.84	0.43
3:LB:286:GLY:HA3	3:LB:321:PHE:CE1	2.53	0.43
4:SB:78:ASP:OD1	4:SB:79:HIS:ND1	2.52	0.43
5:C1:500:C:H2'	5:C1:501:A:H8	1.84	0.43
5:C1:529:A:C6	5:C1:564:G:C6	3.06	0.43
5:C1:620:U:HO2'	36:Lf:60:ARG:HH11	1.61	0.43
5:C1:900:G:H1'	5:C1:1589:A:N6	2.33	0.43
5:C1:964:G:H2'	5:C1:965:A:C8	2.54	0.43
5:C1:1202:A:C6	5:C1:1301:A:C4	3.06	0.43
5:C1:1408:G:N1	5:C1:1409:G:C5	2.86	0.43
5:C1:1534:A:H2'	5:C1:1535:A:C8	2.54	0.43
5:C1:2200:U:C2	5:C1:2201:G:C8	3.06	0.43
5:C1:2302:G:C2	5:C1:2303:A:C8	3.06	0.43
5:C1:2345:A:H2'	5:C1:2346:C:C6	2.53	0.43
5:C1:2371:G:N2	5:C1:2375:G:N7	2.65	0.43
5:C1:2566:C:N4	5:C1:2576:G:O6	2.51	0.43
5:C1:2843:U:H3'	5:C1:2844:C:C5	2.53	0.43
5:C1:2989:U:H2'	5:C1:2990:G:O4'	2.18	0.43
5:C1:3191:G:C6	5:C1:3202:G:C6	3.06	0.43
5:C1:3357:U:H2'	5:C1:3358:U:C6	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:LC:45:ASN:HA	8:LC:110:ASN:ND2	2.31	0.43
11:LF:137:GLY:HA3	11:LF:236:ILE:HB	2.01	0.43
12:LG:69:LEU:O	12:LG:236:GLY:N	2.49	0.43
15:LJ:74:PRO:HA	15:LJ:77:GLU:HG2	1.98	0.43
16:LL:56:PRO:HG3	16:LL:74:GLY:C	2.43	0.43
20:LP:178:ALA:HA	20:LP:181:ARG:NH2	2.34	0.43
36:Lf:69:GLY:HA3	36:Lf:85:PHE:CD1	2.53	0.43
46:Lp:87:ARG:O	46:Lp:91:GLU:HG3	2.18	0.43
49:C2:12:U:H2'	49:C2:13:C:H6	1.82	0.43
49:C2:53:G:H2'	49:C2:54:C:H6	1.84	0.43
49:C2:537:G:O5'	55:SJ:175:ARG:NH1	2.46	0.43
49:C2:705:U:O2'	49:C2:706:A:O4'	2.36	0.43
49:C2:1229:G:H22	49:C2:1255:G:HO2'	1.57	0.43
49:C2:1477:G:C4	49:C2:1478:G:C8	3.06	0.43
49:C2:1576:A:C8	49:C2:1577:A:C8	3.07	0.43
49:C2:1735:U:C2	49:C2:1736:G:C8	3.06	0.43
51:SE:104:ASP:OD1	51:SE:108:ARG:N	2.36	0.43
53:SH:162:ILE:HB	53:SH:169:PHE:HE2	1.82	0.43
55:SJ:86:LEU:HD12	55:SJ:87:SER:N	2.34	0.43
58:SM:92:ALA:HB3	58:SM:96:GLN:HE21	1.84	0.43
60:SO:42:VAL:HG13	60:SO:63:ALA:HB1	2.00	0.43
60:SO:71:CYS:SG	60:SO:76:ILE:HB	2.59	0.43
61:SV:54:ALA:C	61:SV:55:LEU:HD12	2.44	0.43
65:Sa:46:GLU:HB3	65:Sa:48:ALA:H	1.83	0.43
67:Se:55:ARG:CZ	67:Se:58:PRO:HA	2.49	0.43
72:ST:7:ARG:HB2	73:SQ:33:GLY:O	2.18	0.43
2:SA:93:THR:HG23	2:SA:95:ALA:HB2	2.00	0.43
3:LB:82:PRO:HB3	3:LB:319:ASN:ND2	2.33	0.43
5:C1:100:A:C4	5:C1:101:G:C2	3.07	0.43
5:C1:167:U:H2'	5:C1:168:U:H6	1.83	0.43
5:C1:269:G:H5''	18:LN:14:LYS:HZ3	1.83	0.43
5:C1:838:G:N7	46:Lp:4:ARG:NH2	2.65	0.43
5:C1:950:G:H21	5:C1:1369:A:H62	1.66	0.43
5:C1:1194:G:H8	5:C1:1194:G:O5'	2.01	0.43
5:C1:1641:U:O2'	5:C1:1642:A:H3'	2.19	0.43
5:C1:1697:A:H2'	5:C1:1698:C:O4'	2.19	0.43
5:C1:1813:A:OP1	5:C1:1813:A:H4'	2.19	0.43
5:C1:2107:A:H1'	54:SI:92:ARG:NH2	2.33	0.43
5:C1:2831:G:H2'	5:C1:2832:C:H6	1.84	0.43
5:C1:2968:G:C2	5:C1:2969:A:C8	3.07	0.43
5:C1:3211:C:C2	5:C1:3212:C:C5	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:3299:A:C6	5:C1:3300:U:C4	3.07	0.43
7:C3:4:C:H2'	7:C3:5:U:H6	1.82	0.43
8:LC:154:THR:HG23	8:LC:252:GLU:HG3	2.00	0.43
8:LC:328:ASN:OD1	8:LC:330:TYR:N	2.51	0.43
11:LF:164:SER:O	11:LF:164:SER:OG	2.36	0.43
13:LH:19:SER:OG	13:LH:26:LYS:HB2	2.19	0.43
15:LJ:20:ASN:OD1	15:LJ:21:ILE:N	2.51	0.43
20:LP:95:LEU:HD23	20:LP:95:LEU:HA	1.87	0.43
20:LP:138:LYS:HD2	20:LP:140:GLU:OE2	2.18	0.43
23:LS:21:GLU:O	23:LS:21:GLU:HG2	2.18	0.43
26:LV:129:VAL:O	26:LV:133:SER:HB3	2.17	0.43
31:La:52:TYR:HD2	31:La:53:PHE:CE1	2.36	0.43
41:Lk:45:VAL:CG2	41:Lk:52:TYR:HB2	2.49	0.43
45:Lo:28:TYR:O	45:Lo:29:LYS:HD2	2.18	0.43
47:P0:70:LEU:HD21	47:P0:193:ASN:C	2.43	0.43
49:C2:12:U:H2'	49:C2:13:C:C6	2.53	0.43
49:C2:19:A:C4	49:C2:20:G:C8	3.06	0.43
49:C2:30:G:C6	49:C2:597:G:C6	3.06	0.43
49:C2:167:U:H5''	52:SG:135:PRO:HA	1.99	0.43
49:C2:208:U:H2'	49:C2:209:U:H6	1.83	0.43
49:C2:243:G:H2'	49:C2:244:A:H8	1.83	0.43
49:C2:329:G:N3	49:C2:330:G:C8	2.86	0.43
49:C2:401:A:H4'	51:SE:3:ARG:HH11	1.84	0.43
49:C2:843:U:H2'	49:C2:844:A:C8	2.53	0.43
49:C2:929:A:H5''	49:C2:931:C:N4	2.34	0.43
49:C2:1191:U:H2'	49:C2:1192:C:C6	2.54	0.43
49:C2:1692:G:H3'	49:C2:1693:A:H8	1.82	0.43
53:SH:73:VAL:O	53:SH:73:VAL:HG22	2.19	0.43
55:SJ:45:ILE:HG23	55:SJ:104:PHE:HD2	1.84	0.43
55:SJ:110:GLN:HE22	55:SJ:125:ALA:C	2.27	0.43
63:SX:116:ASP:N	63:SX:116:ASP:OD1	2.49	0.43
75:SU:34:LEU:HD21	75:SU:89:ARG:HD2	1.99	0.43
75:SU:39:SER:HA	75:SU:42:VAL:HG22	2.00	0.43
1:LA:51:ASP:HB2	1:LA:58:LEU:HD22	2.00	0.43
3:LB:276:THR:HG21	5:C1:3137:C:H5''	2.01	0.43
3:LB:372:THR:O	3:LB:375:GLU:HG3	2.18	0.43
5:C1:289:A:H4'	18:LN:96:ARG:O	2.18	0.43
5:C1:406:G:N2	7:C3:16:G:C4	2.87	0.43
5:C1:616:G:N3	5:C1:617:G:C8	2.87	0.43
5:C1:883:A:N7	5:C1:921:A:C6	2.87	0.43
5:C1:1174:G:C6	5:C1:1175:C:N4	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:1375:G:C2	5:C1:1376:C:C5	3.07	0.43
5:C1:1468:A:C5	5:C1:1469:C:N4	2.87	0.43
5:C1:1763:U:H2'	5:C1:1764:U:C5	2.54	0.43
5:C1:1847:A:C4	20:LP:130:TYR:CE2	3.06	0.43
5:C1:1925:U:O2'	5:C1:1927:G:N7	2.49	0.43
5:C1:2137:U:C6	5:C1:2141:U:C4	3.07	0.43
5:C1:2166:A:H2'	5:C1:2167:A:C8	2.54	0.43
5:C1:2459:A:OP2	5:C1:2459:A:H8	2.02	0.43
5:C1:2480:A:H3'	5:C1:2481:G:C8	2.54	0.43
5:C1:2507:C:O2'	5:C1:2508:U:OP1	2.34	0.43
5:C1:2533:G:N1	5:C1:2547:A:C6	2.87	0.43
5:C1:2708:C:C2	5:C1:2709:C:C5	3.06	0.43
5:C1:3030:G:C6	5:C1:3031:G:C4	3.06	0.43
5:C1:3166:C:C2	5:C1:3167:A:C8	3.07	0.43
7:C3:17:A:C5	7:C3:18:U:C5	3.06	0.43
9:LD:54:ARG:HH12	9:LD:148:ILE:C	2.26	0.43
13:LH:28:VAL:HG13	13:LH:33:THR:HG22	2.00	0.43
22:LR:43:LYS:HB2	22:LR:43:LYS:HE3	1.80	0.43
22:LR:45:VAL:HG23	22:LR:50:ILE:O	2.19	0.43
49:C2:187:G:OP2	54:SI:142:LYS:NZ	2.39	0.43
49:C2:860:U:C2	49:C2:861:U:C5	3.07	0.43
49:C2:891:A:C6	49:C2:922:G:C6	3.07	0.43
49:C2:1146:G:H2'	49:C2:1147:A:C8	2.53	0.43
49:C2:1263:G:H2'	49:C2:1264:G:O4'	2.18	0.43
49:C2:1452:U:H2'	49:C2:1453:G:C8	2.54	0.43
49:C2:1689:A:H2	49:C2:1712:A:N1	2.16	0.43
50:SC:140:ARG:HG3	50:SC:140:ARG:O	2.18	0.43
51:SE:160:VAL:HG21	51:SE:169:ILE:HG23	2.00	0.43
58:SM:54:ARG:HG2	58:SM:55:GLY:H	1.84	0.43
61:SV:58:TYR:C	61:SV:58:TYR:CD1	2.96	0.43
68:5:109:THR:CG2	68:5:110:LYS:H	2.30	0.43
69:Sf:113:LYS:HG3	69:Sf:114:VAL:N	2.33	0.43
73:SQ:40:GLU:HB3	73:SQ:41:PRO:CD	2.49	0.43
73:SQ:57:LEU:HA	73:SQ:60:PHE:CD2	2.53	0.43
74:Sd:51:GLY:C	75:SU:84:MET:HE1	2.43	0.43
3:LB:82:PRO:HB3	3:LB:319:ASN:HD22	1.82	0.43
4:SB:116:LYS:O	4:SB:117:TRP:HB2	2.19	0.43
4:SB:168:ILE:O	4:SB:172:LEU:HD23	2.19	0.43
4:SB:180:THR:OG1	4:SB:181:LEU:N	2.50	0.43
5:C1:60:A:C8	5:C1:327:A:N6	2.87	0.43
5:C1:296:A:H2'	5:C1:297:G:C4	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:1416:C:O2'	5:C1:1417:G:O4'	2.35	0.43
5:C1:1423:C:H2'	5:C1:1424:C:C6	2.54	0.43
5:C1:1517:G:C6	5:C1:1518:U:C4	3.06	0.43
5:C1:1606:U:O4'	37:Lg:8:ARG:NH2	2.52	0.43
5:C1:1747:G:O3'	41:Lk:53:THR:HG21	2.19	0.43
5:C1:2100:A:H5'	5:C1:2101:C:OP2	2.19	0.43
5:C1:2139:A:C4	40:Lj:3:LYS:NZ	2.87	0.43
5:C1:2203:U:H2'	5:C1:2204:C:C6	2.53	0.43
5:C1:2669:G:H2'	5:C1:2670:G:C8	2.53	0.43
5:C1:2840:C:H2'	5:C1:2841:G:O4'	2.18	0.43
5:C1:2936:A:H2'	5:C1:2937:G:H8	1.84	0.43
5:C1:3091:A:N7	5:C1:3094:A:C5	2.86	0.43
6:C4:112:G:H2'	6:C4:113:C:H6	1.84	0.43
7:C3:154:C:H2'	7:C3:155:A:H8	1.83	0.43
8:LC:106:TRP:O	18:LN:203:ARG:NH2	2.52	0.43
14:LI:210:ILE:HD13	14:LI:217:PHE:CE2	2.53	0.43
15:LJ:90:GLN:O	15:LJ:91:LEU:HD23	2.18	0.43
15:LJ:91:LEU:C	15:LJ:172:LEU:HD23	2.43	0.43
22:LR:167:ARG:NE	22:LR:167:ARG:HA	2.34	0.43
23:LS:8:GLN:HE21	23:LS:26:ARG:NE	2.15	0.43
29:LY:3:LYS:HE3	29:LY:8:VAL:HG23	2.01	0.43
30:LZ:79:HIS:C	30:LZ:80:LEU:HD12	2.44	0.43
46:Lp:85:ARG:HH11	46:Lp:85:ARG:HG3	1.84	0.43
47:P0:64:ARG:O	47:P0:66:PHE:N	2.43	0.43
49:C2:82:U:C4	49:C2:83:G:C5	3.07	0.43
49:C2:89:G:C6	49:C2:452:A:C6	3.07	0.43
49:C2:678:A:H2'	49:C2:679:U:C6	2.53	0.43
49:C2:747:C:H4'	62:SW:124:LYS:NZ	2.34	0.43
49:C2:752:A:H2'	49:C2:753:A:C8	2.54	0.43
49:C2:845:G:C5	49:C2:846:G:N2	2.87	0.43
49:C2:957:G:H2'	49:C2:958:U:C6	2.54	0.43
49:C2:1022:C:H4'	49:C2:1125:A:H61	1.83	0.43
49:C2:1056:U:H2'	49:C2:1057:U:C6	2.54	0.43
49:C2:1222:C:H2'	49:C2:1223:A:H8	1.83	0.43
49:C2:1798:U:OP2	65:Sa:38:ARG:NH2	2.52	0.43
53:SH:170:GLN:HG3	53:SH:181:ILE:HG23	2.01	0.43
55:SJ:30:LEU:HD12	55:SJ:105:LEU:HD23	2.00	0.43
59:SN:36:GLN:HG2	59:SN:58:HIS:CE1	2.54	0.43
65:Sa:74:CYS:SG	65:Sa:77:CYS:N	2.75	0.43
70:SP:57:MET:O	70:SP:61:ARG:HG2	2.18	0.43
73:SQ:58:ASP:OD1	73:SQ:59:LYS:N	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
76:Sc:56:LEU:HB3	76:Sc:58:GLU:O	2.18	0.43
1:LA:18:SER:O	1:LA:20:THR:HG23	2.19	0.43
1:LA:31:THR:HG23	1:LA:123:ARG:NH1	2.34	0.43
2:SA:32:HIS:NE2	49:C2:1041:G:P	2.91	0.43
2:SA:119:ARG:HA	2:SA:119:ARG:HD2	1.83	0.43
3:LB:37:ARG:HD2	3:LB:187:SER:H	1.84	0.43
5:C1:209:A:O2'	8:LC:221:ASN:ND2	2.52	0.43
5:C1:418:A:H2'	5:C1:419:G:C8	2.53	0.43
5:C1:422:A:C6	5:C1:423:A:C6	3.06	0.43
5:C1:432:G:H2'	5:C1:433:A:H8	1.82	0.43
5:C1:536:U:C2	5:C1:556:U:N3	2.87	0.43
5:C1:1172:G:H2'	5:C1:1173:U:C6	2.53	0.43
5:C1:1342:C:H2'	5:C1:1343:A:H8	1.84	0.43
5:C1:1389:G:H5''	35:Le:101:SER:HB3	2.00	0.43
5:C1:1405:U:O2'	5:C1:1406:A:H5'	2.18	0.43
5:C1:1411:C:OP1	35:Le:98:HIS:N	2.45	0.43
5:C1:1508:C:N4	5:C1:1880:U:H4'	2.34	0.43
5:C1:2185:G:C6	5:C1:2186:U:C4	3.07	0.43
5:C1:2349:U:O4	5:C1:2350:C:N4	2.51	0.43
5:C1:2628:A:C5	5:C1:2798:C:N4	2.87	0.43
5:C1:3170:A:C2	5:C1:3281:U:C2	3.07	0.43
5:C1:3202:G:H2'	5:C1:3203:U:C6	2.53	0.43
5:C1:3303:G:C5	5:C1:3305:A:C2	3.07	0.43
6:C4:9:C:OP1	24:LT:26:HIS:HB2	2.19	0.43
18:LN:16:SER:O	18:LN:20:ARG:HG2	2.19	0.43
18:LN:140:LYS:HB3	18:LN:144:ARG:HH12	1.83	0.43
22:LR:44:LEU:HD12	22:LR:49:THR:OG1	2.18	0.43
22:LR:148:ASP:OD1	22:LR:149:ALA:N	2.52	0.43
28:LX:103:TYR:O	28:LX:105:VAL:HG13	2.19	0.43
31:La:39:HIS:O	31:La:41:HIS:N	2.51	0.43
45:Lo:6:LYS:H	45:Lo:6:LYS:HE2	1.83	0.43
46:Lp:37:TYR:HB2	46:Lp:47:VAL:HG21	2.01	0.43
47:P0:89:THR:HG22	47:P0:91:GLU:H	1.84	0.43
47:P0:127:GLY:HA2	47:P0:149:THR:HG23	2.01	0.43
49:C2:103:A:C5	49:C2:360:A:C2	3.07	0.43
49:C2:272:U:O2	49:C2:284:G:N2	2.48	0.43
49:C2:689:G:H2'	49:C2:690:G:C8	2.51	0.43
49:C2:743:U:C4	49:C2:809:A:C6	3.07	0.43
49:C2:752:A:C5	49:C2:753:A:C5	3.06	0.43
49:C2:1341:A:C2	49:C2:1342:C:C5	3.06	0.43
49:C2:1391:A:C8	49:C2:1412:G:C6	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:C2:1586:A:H1'	49:C2:1611:A:H61	1.84	0.43
50:SC:212:LYS:HB3	50:SC:212:LYS:HE2	1.73	0.43
53:SH:49:ILE:O	53:SH:56:LYS:HB2	2.19	0.43
53:SH:185:ILE:HD12	53:SH:186:PRO:HD2	2.00	0.43
56:SK:75:TYR:CD2	56:SK:76:LEU:HD22	2.54	0.43
59:SN:71:ILE:O	59:SN:75:LEU:HD23	2.19	0.43
68:5:133:ASP:OD2	68:5:154:ALA:HA	2.19	0.43
68:5:151:LYS:HD3	68:5:152:GLU:N	2.33	0.43
71:SZ:39:ALA:N	71:SZ:70:LYS:O	2.42	0.43
71:SZ:91:PRO:HB3	71:SZ:101:TYR:CE1	2.51	0.43
76:Sc:28:VAL:O	76:Sc:41:VAL:HA	2.19	0.43
2:SA:30:GLN:OE1	2:SA:149:LEU:HB3	2.18	0.43
5:C1:96:G:H5'	16:LL:15:ARG:HH21	1.84	0.43
5:C1:148:G:O2'	18:LN:49:ARG:NH2	2.52	0.43
5:C1:792:G:C2	5:C1:793:C:C4	3.07	0.43
5:C1:854:G:C6	5:C1:855:U:C4	3.07	0.43
5:C1:875:G:C2	5:C1:876:A:C8	3.06	0.43
5:C1:1104:G:H2'	5:C1:1105:A:H8	1.84	0.43
5:C1:1239:C:H2'	5:C1:1240:A:H8	1.84	0.43
5:C1:1390:A:C4	5:C1:1418:A:C6	3.07	0.43
5:C1:1413:G:N3	5:C1:1414:G:C8	2.87	0.43
5:C1:1682:U:C6	25:LU:85:LYS:HG2	2.53	0.43
5:C1:2106:A:H2'	5:C1:2107:A:C8	2.47	0.43
5:C1:2219:A:H2'	5:C1:2220:A:C8	2.51	0.43
5:C1:2328:U:H2'	5:C1:2329:C:C6	2.54	0.43
5:C1:2387:A:H2	5:C1:2993:G:H1'	1.84	0.43
5:C1:2647:A:C6	5:C1:2648:G:N7	2.87	0.43
5:C1:2993:G:C6	5:C1:3142:A:C4	3.06	0.43
5:C1:3086:A:H2'	5:C1:3086:A:N3	2.34	0.43
5:C1:3226:A:C4	5:C1:3227:A:C8	3.06	0.43
5:C1:3256:G:C6	5:C1:3257:C:C4	3.07	0.43
6:C4:14:U:C4	6:C4:67:G:N2	2.87	0.43
6:C4:119:U:H2'	6:C4:120:C:C6	2.53	0.43
9:LD:59:ASP:OD1	9:LD:60:ILE:N	2.50	0.43
13:LH:7:GLU:HA	13:LH:55:VAL:O	2.18	0.43
15:LJ:57:PHE:N	15:LJ:57:PHE:CD1	2.87	0.43
19:LO:37[A]:ARG:HG3	19:LO:108[A]:ILE:CD1	2.48	0.43
21:LQ:170:ARG:HG2	21:LQ:171:LYS:N	2.34	0.43
23:LS:87:THR:HB	24:LT:156:TYR:CE2	2.54	0.43
29:LY:38:GLU:HG2	29:LY:39:LEU:HD22	2.00	0.43
34:Ld:7:VAL:O	34:Ld:7:VAL:HG12	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:Ld:79:ARG:HA	34:Ld:89:LEU:HD23	2.01	0.43
48:P2:86:LYS:HG3	48:P2:87:GLU:H	1.84	0.43
48:P2:137:GLN:HE22	48:P2:139:VAL:HB	1.83	0.43
49:C2:371:G:C6	49:C2:372:G:C6	3.07	0.43
49:C2:464:A:H2'	49:C2:465:G:H8	1.83	0.43
49:C2:622:A:HO2'	49:C2:1032:G:H5'	1.84	0.43
49:C2:1315:U:P	49:C2:1328:G:H22	2.42	0.43
49:C2:1433:G:H2'	49:C2:1434:U:C6	2.54	0.43
49:C2:1540:G:C5	49:C2:1541:G:C5	3.07	0.43
50:SC:55:GLU:HG2	50:SC:56:ILE:HD12	2.01	0.43
51:SE:66:MET:SD	51:SE:67:GLN:N	2.92	0.43
54:SI:107:THR:OG1	54:SI:108:PRO:HD3	2.18	0.43
55:SJ:57:ARG:O	55:SJ:61:THR:HG23	2.18	0.43
62:SW:28:ARG:HB2	62:SW:29:PRO:CD	2.49	0.43
72:ST:47:PRO:HG2	72:ST:53:TRP:CE2	2.54	0.43
73:SQ:77:GLN:O	73:SQ:80:ALA:N	2.52	0.43
74:Sd:22:ARG:HB2	74:Sd:22:ARG:HH11	1.84	0.43
75:SU:99:ILE:HA	75:SU:102:ARG:HG2	2.01	0.43
2:SA:27:ARG:CD	2:SA:28:ASN:H	2.23	0.42
2:SA:86:VAL:HG13	2:SA:87:LEU:HD22	2.00	0.42
4:SB:166:LYS:O	4:SB:169:SER:OG	2.35	0.42
5:C1:74:G:N1	5:C1:75:G:C5	2.87	0.42
5:C1:122:A:C5	5:C1:146:U:C4	3.07	0.42
5:C1:146:U:C2	12:LG:134:TYR:HE2	2.37	0.42
5:C1:158:G:C2	5:C1:159:A:C8	3.07	0.42
5:C1:245:U:H2'	5:C1:246:U:H6	1.84	0.42
5:C1:291:C:H2'	5:C1:292:U:C6	2.54	0.42
5:C1:361:A:N3	5:C1:814:U:H1'	2.34	0.42
5:C1:490:A:H2'	5:C1:491:C:C6	2.53	0.42
5:C1:949:C:O2'	5:C1:971:G:OP1	2.36	0.42
5:C1:1191:U:OP2	19:LO:49[A]:ARG:NH2	2.50	0.42
5:C1:1560:G:C2	5:C1:1580:A:N1	2.86	0.42
5:C1:1650:G:H2'	5:C1:1651:U:C6	2.53	0.42
5:C1:2512:C:H2'	5:C1:2513:U:C6	2.54	0.42
5:C1:2576:G:C6	5:C1:2577:C:N4	2.87	0.42
5:C1:2581:U:H2'	5:C1:2582:C:H6	1.84	0.42
5:C1:2651:G:O2'	5:C1:2796:G:N1	2.38	0.42
5:C1:2781:U:H2'	5:C1:2782:U:H6	1.84	0.42
5:C1:2835:U:H2'	5:C1:2836:C:O2	2.19	0.42
5:C1:3332:U:H2'	5:C1:3333:G:O4'	2.18	0.42
6:C4:61:G:H2'	6:C4:62:U:H6	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:LH:8:GLN:HG2	13:LH:68:LEU:CD2	2.49	0.42
14:LI:86:HIS:HB3	14:LI:139:ARG:HG2	2.01	0.42
16:LL:6:ASN:HB2	31:La:48:TYR:CE2	2.54	0.42
16:LL:62:THR:O	16:LL:64:LYS:N	2.51	0.42
16:LL:134:GLU:OE1	16:LL:134:GLU:N	2.49	0.42
16:LL:163:GLY:HA2	31:La:139:ARG:NH2	2.33	0.42
16:LL:170:LEU:HD11	31:La:147:LEU:HG	2.00	0.42
21:LQ:19:PRO:HD3	21:LQ:53:PHE:CE1	2.54	0.42
22:LR:171:ASP:OD1	22:LR:172:ARG:N	2.52	0.42
23:LS:110:MET:HE2	23:LS:110:MET:HB2	1.70	0.42
26:LV:16:GLY:C	26:LV:17:LEU:HD22	2.44	0.42
26:LV:101:VAL:HG11	26:LV:109:MET:SD	2.59	0.42
29:LY:69:LYS:O	29:LY:82:VAL:HG13	2.19	0.42
49:C2:397:A:H2'	49:C2:398:G:O4'	2.19	0.42
49:C2:449:C:H2'	49:C2:450:U:H6	1.83	0.42
49:C2:549:G:C2	49:C2:590:C:C2	3.07	0.42
49:C2:601:A:H2'	49:C2:602:U:C6	2.54	0.42
49:C2:645:C:N3	49:C2:690:G:N1	2.67	0.42
49:C2:656:G:H2'	49:C2:656:G:N3	2.34	0.42
49:C2:877:G:O6	49:C2:951:A:N1	2.52	0.42
49:C2:899:G:O5'	60:SO:46:MET:HA	2.19	0.42
49:C2:926:A:C2	60:SO:126:THR:HG22	2.54	0.42
49:C2:1382:A:HO2'	49:C2:1383:G:P	2.42	0.42
49:C2:1586:A:C4	49:C2:1611:A:C6	3.07	0.42
49:C2:1746:A:C8	49:C2:1747:G:C8	3.07	0.42
49:C2:1797:A:N6	65:Sa:84:VAL:HB	2.34	0.42
51:SE:101:LEU:HD12	51:SE:101:LEU:HA	1.90	0.42
54:SI:9:HIS:ND1	54:SI:10:LYS:N	2.67	0.42
57:SL:127:GLN:HA	57:SL:137:PHE:CD1	2.53	0.42
63:SX:125:VAL:C	63:SX:132:LEU:HD23	2.45	0.42
64:SY:15:ASN:HD22	64:SY:20:ARG:NH2	2.17	0.42
64:SY:76:TYR:CE2	64:SY:82:ALA:HA	2.54	0.42
70:SP:38:PRO:O	70:SP:42:ARG:HG3	2.19	0.42
71:SZ:12:LYS:HD3	71:SZ:12:LYS:HA	1.83	0.42
5:C1:514:G:N1	5:C1:577:C:N3	2.67	0.42
5:C1:646:A:C6	5:C1:647:A:C2	3.07	0.42
5:C1:828:A:H2'	5:C1:829:U:H6	1.83	0.42
5:C1:1191:U:C2	19:LO:48[A]:PHE:CE2	3.08	0.42
5:C1:1225:A:C4	5:C1:1226:G:C8	3.07	0.42
5:C1:1482:A:C2	5:C1:1866:C:H2'	2.55	0.42
5:C1:2157:G:H4'	5:C1:2158:A:H5'	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:2275:A:N3	5:C1:2312:A:N6	2.67	0.42
5:C1:2565:U:H2'	5:C1:2566:C:H6	1.80	0.42
5:C1:2607:G:C6	5:C1:2608:G:C5	3.07	0.42
5:C1:3132:C:H2'	5:C1:3133:C:C6	2.54	0.42
6:C4:3:U:H2'	6:C4:4:U:H6	1.82	0.42
7:C3:15:G:C2	7:C3:16:G:N2	2.87	0.42
11:LF:110:ARG:HG3	11:LF:113:SER:OG	2.20	0.42
12:LG:170:CYS:HB3	12:LG:175:VAL:HG23	2.00	0.42
13:LH:69:ARG:HD2	13:LH:69:ARG:O	2.19	0.42
14:LI:66:GLU:O	14:LI:70:ILE:HG12	2.19	0.42
14:LI:152:LEU:HD23	14:LI:152:LEU:HA	1.81	0.42
16:LL:51:LEU:O	16:LL:51:LEU:HD23	2.20	0.42
16:LL:165:SER:C	16:LL:167:PHE:H	2.27	0.42
22:LR:52:LYS:O	22:LR:53:LYS:HB2	2.18	0.42
22:LR:106:LEU:HA	22:LR:106:LEU:HD23	1.72	0.42
27:LW:47:ARG:NH1	27:LW:54:LEU:HD21	2.34	0.42
30:LZ:14:VAL:CG1	37:Lg:86:LYS:HG3	2.50	0.42
34:Ld:55:LEU:CD1	34:Ld:93:VAL:HG23	2.49	0.42
36:Lf:45:LEU:HD13	36:Lf:71:VAL:HG12	2.02	0.42
38:Lh:30:GLU:O	38:Lh:33:VAL:HG12	2.19	0.42
43:Lm:95:VAL:HG21	43:Lm:122:ARG:HH21	1.84	0.42
44:Ln:1:MET:HB2	49:C2:1783:C:OP2	2.19	0.42
45:Lo:6:LYS:NZ	45:Lo:95:GLY:H	2.17	0.42
47:P0:70:LEU:HG	47:P0:72:ASP:OD1	2.19	0.42
49:C2:175:G:H1'	49:C2:266:A:N6	2.35	0.42
49:C2:344:A:C6	49:C2:345:U:C4	3.08	0.42
49:C2:408:C:H2'	49:C2:409:C:C6	2.54	0.42
49:C2:1342:C:H2'	49:C2:1343:U:H6	1.83	0.42
49:C2:1758:U:H2'	49:C2:1759:C:C6	2.54	0.42
51:SE:88:ASP:HA	51:SE:122:LYS:NZ	2.34	0.42
51:SE:121:TYR:CD2	51:SE:161:LYS:HE3	2.54	0.42
58:SM:33:ARG:O	58:SM:36:LEU:HG	2.19	0.42
58:SM:36:LEU:HB3	58:SM:41:LEU:HD12	2.02	0.42
59:SN:56:ASP:OD2	66:Sb:52:THR:OG1	2.33	0.42
60:SO:20:TYR:HB3	60:SO:27:PHE:CB	2.43	0.42
62:SW:26:LEU:HA	62:SW:61:ILE:O	2.19	0.42
62:SW:77:PRO:HG2	62:SW:79:PHE:CE1	2.53	0.42
64:SY:116:LYS:HB2	64:SY:116:LYS:HE2	1.71	0.42
65:Sa:36:ILE:HD13	65:Sa:78:ALA:CB	2.49	0.42
65:Sa:44:ILE:CD1	65:Sa:65:PRO:HB2	2.50	0.42
66:Sb:20:LYS:HG3	66:Sb:21:LEU:N	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:SZ:62:VAL:HG23	71:SZ:76:ALA:HB3	2.01	0.42
71:SZ:83:LEU:HD21	71:SZ:88:ILE:HB	2.01	0.42
72:ST:54:PHE:CE1	72:ST:104:VAL:HG22	2.54	0.42
2:SA:122:ILE:HG13	2:SA:144:ILE:HB	2.01	0.42
2:SA:124:THR:O	2:SA:146:LEU:HB2	2.19	0.42
3:LB:259:HIS:HB3	5:C1:2987:A:O2'	2.19	0.42
5:C1:51:A:C4	5:C1:52:A:C8	3.07	0.42
5:C1:187:A:H2'	5:C1:188:U:C6	2.54	0.42
5:C1:230:U:H2'	5:C1:231:G:O4'	2.19	0.42
5:C1:243:G:H2'	5:C1:244:G:C8	2.52	0.42
5:C1:275:U:H2'	5:C1:276:U:H6	1.82	0.42
5:C1:341:G:N2	7:C3:24:G:C6	2.88	0.42
5:C1:422:A:H2'	5:C1:423:A:C8	2.54	0.42
5:C1:854:G:C4	5:C1:855:U:C5	3.06	0.42
5:C1:1137:C:H2'	5:C1:1138:U:C6	2.55	0.42
5:C1:1240:A:N1	5:C1:1244:A:H8	2.16	0.42
5:C1:1279:C:H2'	5:C1:1280:C:H6	1.81	0.42
5:C1:1468:A:O2'	5:C1:1469:C:H5'	2.19	0.42
5:C1:1566:A:O5'	5:C1:1566:A:H8	2.03	0.42
5:C1:1804:A:H2'	5:C1:1805:C:H6	1.84	0.42
5:C1:2709:C:H2'	5:C1:2710:C:H6	1.84	0.42
5:C1:2710:C:H2'	5:C1:2711:C:C6	2.55	0.42
5:C1:3200:G:H2'	5:C1:3201:C:C6	2.54	0.42
5:C1:3226:A:H2'	5:C1:3227:A:H8	1.84	0.42
6:C4:108:A:H2'	6:C4:109:G:C8	2.55	0.42
7:C3:141:C:H5'	18:LN:109:ARG:NH1	2.35	0.42
8:LC:311:HIS:ND1	8:LC:311:HIS:O	2.51	0.42
9:LD:278:SER:HB3	9:LD:281:GLU:OE1	2.19	0.42
15:LJ:156:LYS:O	15:LJ:160:VAL:HG22	2.20	0.42
16:LL:25:HIS:NE2	18:LN:198:SER:OG	2.50	0.42
22:LR:181:ARG:HE	22:LR:184:LEU:HD12	1.83	0.42
26:LV:93:LEU:HA	27:LW:20:LEU:O	2.20	0.42
27:LW:39:LEU:HD12	27:LW:44:LYS:HG3	2.01	0.42
47:P0:58:MET:HA	47:P0:61:ARG:HD2	2.00	0.42
49:C2:38:C:H2'	49:C2:39:A:C8	2.53	0.42
49:C2:207:U:H2'	49:C2:208:U:H6	1.84	0.42
49:C2:389:G:N1	49:C2:409:C:N3	2.68	0.42
49:C2:925:G:H2'	49:C2:926:A:H8	1.84	0.42
49:C2:934:C:N4	65:Sa:95:ARG:HH12	2.17	0.42
49:C2:992:A:N1	49:C2:1013:A:C4	2.87	0.42
49:C2:1152:A:H2'	49:C2:1153:G:H8	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:C2:1278:G:H2'	49:C2:1279:C:O4'	2.19	0.42
49:C2:1445:G:N2	69:Sf:87:THR:HG23	2.35	0.42
49:C2:1482:C:P	49:C2:1521:G:H22	2.42	0.42
49:C2:1565:C:H2'	49:C2:1566:U:H6	1.85	0.42
49:C2:1636:C:H4'	49:C2:1637:C:O5'	2.19	0.42
50:SC:140:ARG:H	50:SC:221:THR:HG21	1.84	0.42
51:SE:87:MET:HG3	51:SE:100:ARG:NH2	2.35	0.42
52:SG:137:ARG:O	52:SG:141:ILE:HG12	2.19	0.42
56:SK:22:VAL:HB	56:SK:63:TYR:HB3	2.02	0.42
57:SL:75:VAL:HG22	57:SL:84:ILE:HD12	2.00	0.42
58:SM:52:LEU:HD11	58:SM:78:LEU:HB3	2.00	0.42
61:SV:1:MET:HB3	61:SV:2:GLU:H	1.55	0.42
1:LA:32:LEU:HB2	1:LA:163:ARG:NH1	2.33	0.42
2:SA:179:ARG:HG2	2:SA:183:ARG:HD2	2.00	0.42
3:LB:186:GLY:C	3:LB:187:SER:HG	2.25	0.42
3:LB:339:ARG:HG2	3:LB:340:LYS:O	2.19	0.42
5:C1:140:C:H2'	5:C1:141:C:C6	2.54	0.42
5:C1:407:A:OP2	7:C3:16:G:N2	2.51	0.42
5:C1:633:C:H2'	5:C1:634:C:H6	1.84	0.42
5:C1:885:U:H2'	5:C1:886:C:H6	1.83	0.42
5:C1:1015:U:O2	5:C1:1017:C:O2'	2.26	0.42
5:C1:1076:C:O3'	32:Lb:38:LYS:NZ	2.49	0.42
5:C1:1376:C:C2	5:C1:1377:G:C8	3.08	0.42
5:C1:1478:C:H2'	5:C1:1479:U:H6	1.83	0.42
5:C1:1491:A:N7	42:Ll:2:ALA:N	2.68	0.42
5:C1:1493:G:O2'	42:Ll:13:MET:SD	2.71	0.42
5:C1:1760:A:C6	5:C1:1766:G:C6	3.08	0.42
5:C1:1916:U:H2'	5:C1:1917:C:C6	2.54	0.42
5:C1:2201:G:H2'	5:C1:2202:C:H6	1.85	0.42
5:C1:2305:G:N3	5:C1:2305:G:H2'	2.33	0.42
5:C1:2463:G:C2	5:C1:2493:U:C2	3.08	0.42
5:C1:2468:A:C6	5:C1:2478:C:H4'	2.54	0.42
5:C1:2775:U:H4'	5:C1:2777:G:H22	1.84	0.42
5:C1:3062:G:N1	5:C1:3082:C:N3	2.68	0.42
5:C1:3107:U:H2'	5:C1:3108:G:H8	1.84	0.42
5:C1:3176:G:C6	5:C1:3213:A:C2	3.06	0.42
5:C1:3218:A:H5''	5:C1:3219:G:C4	2.54	0.42
5:C1:3223:A:C6	5:C1:3263:G:C5	3.07	0.42
5:C1:3292:A:H2'	5:C1:3293:U:C6	2.54	0.42
7:C3:75:G:C6	7:C3:76:C:N4	2.88	0.42
8:LC:170:LYS:HD3	8:LC:170:LYS:HA	1.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:LD:53:VAL:O	9:LD:54:ARG:NH1	2.53	0.42
9:LD:276:LYS:HD3	9:LD:277:LEU:H	1.83	0.42
10:LE:165:LEU:HD12	10:LE:165:LEU:HA	1.89	0.42
12:LG:143:ILE:HD11	12:LG:151:VAL:HG11	2.01	0.42
13:LH:164:ILE:HG23	13:LH:165:CYS:SG	2.59	0.42
14:LI:84:ALA:O	14:LI:140:THR:OG1	2.31	0.42
38:Lh:9:LEU:HD13	38:Lh:9:LEU:HA	1.87	0.42
41:Lk:16:ARG:NH1	41:Lk:16:ARG:HB2	2.35	0.42
49:C2:566:C:H2'	49:C2:567:A:C8	2.54	0.42
49:C2:747:C:H2'	49:C2:748:U:C6	2.54	0.42
49:C2:938:G:N1	49:C2:942:G:C6	2.87	0.42
49:C2:1059:U:H3'	49:C2:1060:U:O4'	2.19	0.42
49:C2:1588:G:C6	49:C2:1589:C:C4	3.07	0.42
50:SC:59:HIS:CE1	50:SC:239:PRO:HD3	2.54	0.42
50:SC:108:ASN:HB2	50:SC:141:ARG:HH12	1.84	0.42
50:SC:143:TYR:CE2	50:SC:151:PRO:HG3	2.54	0.42
50:SC:228:ASN:HD21	61:SV:1:MET:N	2.17	0.42
51:SE:95:THR:OG1	51:SE:97:GLU:OE1	2.37	0.42
51:SE:193:GLY:HA3	51:SE:210:ILE:HG22	2.00	0.42
52:SG:1:MET:HB2	52:SG:107:ALA:O	2.19	0.42
52:SG:36:VAL:HG23	52:SG:50:PHE:HB2	2.00	0.42
52:SG:51:LYS:HB3	52:SG:112:VAL:CG2	2.49	0.42
55:SJ:77:ILE:O	55:SJ:81:VAL:HG22	2.19	0.42
55:SJ:138:LYS:HA	55:SJ:138:LYS:HD3	1.82	0.42
57:SL:69:LYS:H	57:SL:127:GLN:HE21	1.67	0.42
58:SM:46:ARG:NH1	58:SM:50:LYS:HZ2	2.14	0.42
61:SV:17:CYS:SG	61:SV:20:THR:N	2.85	0.42
65:Sa:64:LEU:N	65:Sa:65:PRO:HD3	2.34	0.42
66:Sb:67:THR:HG22	66:Sb:68:GLY:N	2.34	0.42
72:ST:127:ASN:O	72:ST:130:ARG:HB3	2.19	0.42
73:SQ:94:GLN:HB2	73:SQ:102:LYS:HZ1	1.84	0.42
1:LA:70:ARG:CZ	1:LA:72:ARG:HH12	2.32	0.42
3:LB:247:ARG:NH2	5:C1:1888:U:P	2.92	0.42
4:SB:92:GLN:OE1	4:SB:92:GLN:HA	2.19	0.42
5:C1:274:G:H2'	5:C1:275:U:H6	1.84	0.42
5:C1:542:G:C6	5:C1:550:A:C6	3.08	0.42
5:C1:564:G:H2'	5:C1:565:U:C6	2.54	0.42
5:C1:709:A:H8	5:C1:709:A:OP1	2.02	0.42
5:C1:786:A:N6	21:LQ:88:THR:OG1	2.53	0.42
5:C1:851:C:H2'	5:C1:852:U:H6	1.85	0.42
5:C1:934:G:H2'	5:C1:934:G:N3	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:1014:U:H3	5:C1:1036:A:N6	2.15	0.42
5:C1:1018:G:C6	5:C1:1035:G:C2	3.08	0.42
5:C1:1598:G:H2'	5:C1:1599:G:H8	1.84	0.42
5:C1:1674:G:N1	5:C1:1774:C:N3	2.67	0.42
5:C1:2315:G:C2	5:C1:2316:G:C8	3.08	0.42
5:C1:2438:A:C2	5:C1:2510:U:C2	3.07	0.42
5:C1:2585:G:O2'	5:C1:2586:G:H5''	2.20	0.42
5:C1:2715:A:C2	5:C1:2753:G:C6	3.07	0.42
5:C1:2748:A:C2	9:LD:35:ARG:HB2	2.55	0.42
5:C1:2876:C:C2	5:C1:2952:G:C2	3.07	0.42
5:C1:3184:A:H2'	5:C1:3185:U:O4'	2.19	0.42
5:C1:3193:C:H2'	5:C1:3194:C:H6	1.81	0.42
8:LC:23:PRO:HD2	8:LC:26:PHE:CE1	2.54	0.42
11:LF:132:PRO:HB2	11:LF:133:TYR:CE1	2.54	0.42
13:LH:7:GLU:HG3	13:LH:56:ALA:HB2	2.01	0.42
21:LQ:176:ARG:O	21:LQ:176:ARG:HG3	2.19	0.42
23:LS:73:LYS:NZ	23:LS:97:VAL:O	2.45	0.42
27:LW:22:VAL:HG22	27:LW:28:ILE:HG12	2.01	0.42
28:LX:44:PRO:HB2	28:LX:45:LYS:H	1.69	0.42
33:Lc:41:LEU:HD12	33:Lc:66:LYS:O	2.18	0.42
44:Ln:1:MET:HE2	49:C2:1642:G:H4'	2.01	0.42
49:C2:1150:G:N2	49:C2:1768:G:H2'	2.35	0.42
49:C2:1225:U:H2'	49:C2:1226:A:O4'	2.19	0.42
49:C2:1397:U:C2'	49:C2:1400:A:H62	2.32	0.42
52:SG:67:VAL:CG1	52:SG:68:LEU:H	2.22	0.42
55:SJ:179:ARG:O	55:SJ:182:GLU:HG3	2.19	0.42
56:SK:15:LEU:HD13	56:SK:15:LEU:HA	1.95	0.42
61:SV:32:VAL:HG13	61:SV:60:ARG:NH2	2.24	0.42
65:Sa:45:VAL:O	65:Sa:46:GLU:HG3	2.20	0.42
69:Sf:105:TYR:C	69:Sf:118:ARG:HH12	2.28	0.42
75:SU:28:SER:OG	75:SU:29:THR:N	2.53	0.42
75:SU:52:LYS:NZ	75:SU:54:GLY:HA2	2.33	0.42
2:SA:90:ALA:HA	2:SA:95:ALA:HB3	2.00	0.42
3:LB:316:GLU:O	3:LB:317:ILE:HD13	2.19	0.42
4:SB:183:GLN:NE2	4:SB:184:LEU:HG	2.26	0.42
5:C1:19:U:H4'	18:LN:138:GLN:NE2	2.34	0.42
5:C1:539:C:H2'	5:C1:540:U:C6	2.54	0.42
5:C1:589:A:C5	5:C1:610:G:N3	2.87	0.42
5:C1:832:G:N1	5:C1:863:C:C4	2.87	0.42
5:C1:971:G:H2'	5:C1:972:A:C8	2.54	0.42
5:C1:1029:G:H2'	5:C1:1030:A:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:1075:A:C6	32:Lb:45:HIS:CE1	3.07	0.42
5:C1:1169:A:C6	5:C1:1170:A:C6	3.08	0.42
5:C1:1169:A:H2'	5:C1:1170:A:C8	2.54	0.42
5:C1:1211:U:H2'	5:C1:1212:A:C8	2.55	0.42
5:C1:1275:C:H2'	5:C1:1276:U:H6	1.84	0.42
5:C1:1685:C:H2'	5:C1:1686:U:H6	1.85	0.42
5:C1:2138:A:C5	40:Lj:3:LYS:HB3	2.55	0.42
5:C1:2168:A:N7	5:C1:2170:U:C2	2.88	0.42
5:C1:2185:G:H2'	5:C1:2186:U:H6	1.85	0.42
5:C1:2249:G:C8	5:C1:2272:G:C4	3.07	0.42
5:C1:2660:G:OP1	5:C1:2750:U:O2'	2.38	0.42
5:C1:3057:U:N3	5:C1:3086:A:C5	2.87	0.42
7:C3:24:G:C4	7:C3:25:G:C8	3.08	0.42
7:C3:40:A:H2'	7:C3:41:A:C8	2.55	0.42
7:C3:123:G:C6	7:C3:131:A:N1	2.88	0.42
8:LC:361:HIS:CG	8:LC:362:ASP:N	2.88	0.42
10:LE:39:VAL:HG13	10:LE:87:THR:OG1	2.20	0.42
15:LJ:116:TYR:CE2	15:LJ:118:PRO:HB3	2.53	0.42
16:LL:168:ARG:O	16:LL:172:LEU:HD23	2.20	0.42
19:LO:102[A]:LEU:HD23	19:LO:103[A]:LYS:N	2.35	0.42
20:LP:44:ALA:O	20:LP:48:LEU:HD23	2.19	0.42
22:LR:163:ARG:O	22:LR:167:ARG:HG2	2.19	0.42
25:LU:51:GLY:C	25:LU:53:ALA:H	2.26	0.42
31:La:84:GLU:HA	31:La:87:ARG:NH1	2.34	0.42
41:Lk:11:PHE:O	41:Lk:15:THR:HG23	2.20	0.42
47:P0:70:LEU:HB3	47:P0:73:PHE:CE1	2.54	0.42
49:C2:150:U:OP1	64:SY:123:LYS:NZ	2.52	0.42
49:C2:162:A:H2'	49:C2:163:G:N3	2.35	0.42
49:C2:247:A:H4'	57:SL:37:ASN:OD1	2.19	0.42
49:C2:635:A:C4	49:C2:636:A:C8	3.07	0.42
49:C2:949:C:H2'	49:C2:950:C:H6	1.84	0.42
49:C2:1429:G:H2'	49:C2:1430:U:C6	2.54	0.42
49:C2:1584:G:O2'	49:C2:1585:U:P	2.78	0.42
54:SI:21:PHE:CE1	54:SI:22:ARG:HG3	2.55	0.42
58:SM:68:GLU:OE2	58:SM:70:ASN:ND2	2.53	0.42
59:SN:33:VAL:O	59:SN:37:ILE:HG13	2.20	0.42
63:SX:29:TYR:CZ	63:SX:33:LEU:HD11	2.54	0.42
64:SY:16:PRO:C	64:SY:19:ALA:H	2.28	0.42
73:SQ:32:ASN:HA	73:SQ:68:ARG:NH1	2.35	0.42
73:SQ:97:VAL:HG12	73:SQ:98:ASP:N	2.34	0.42
73:SQ:121:SER:O	73:SQ:123:ARG:HG2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:Sd:21:CYS:CB	74:Sd:24:CYS:SG	3.06	0.42
2:SA:191:ARG:HD2	2:SA:191:ARG:HA	1.90	0.42
3:LB:81:THR:HG21	3:LB:322:ILE:HG12	2.02	0.42
3:LB:87:VAL:O	3:LB:87:VAL:HG23	2.18	0.42
4:SB:51:SER:HB2	4:SB:57:ALA:H	1.83	0.42
4:SB:108:ASP:N	4:SB:108:ASP:OD1	2.52	0.42
5:C1:48:A:C4	5:C1:50:U:C4	3.07	0.42
5:C1:183:G:C6	5:C1:234:G:C6	3.08	0.42
5:C1:423:A:H2'	5:C1:424:G:C8	2.55	0.42
5:C1:563:U:H2'	5:C1:564:G:C8	2.49	0.42
5:C1:740:G:H2'	5:C1:741:U:C6	2.54	0.42
5:C1:755:A:C4	5:C1:756:U:C5	3.08	0.42
5:C1:946:U:H2'	5:C1:947:G:H8	1.85	0.42
5:C1:1039:U:H2'	5:C1:1040:A:C8	2.54	0.42
5:C1:1109:U:H5'	21:LQ:153:PHE:HD2	1.83	0.42
5:C1:1239:C:H2'	5:C1:1240:A:C8	2.55	0.42
5:C1:1346:G:H1'	8:LC:307:GLN:NE2	2.23	0.42
5:C1:1443:G:C2	5:C1:1444:G:C5	3.07	0.42
5:C1:1803:C:O3'	37:Lg:70:LYS:NZ	2.41	0.42
5:C1:2299:A:H8	5:C1:2299:A:O5'	2.03	0.42
5:C1:2468:A:C5	5:C1:2478:C:H4'	2.54	0.42
5:C1:2597:U:H2'	5:C1:2598:G:C8	2.48	0.42
5:C1:2615:G:C6	5:C1:2616:C:C4	3.08	0.42
5:C1:2747:A:H2'	5:C1:2748:A:C8	2.55	0.42
6:C4:115:G:H2'	6:C4:116:C:C6	2.54	0.42
9:LD:281:GLU:OE1	9:LD:281:GLU:N	2.44	0.42
11:LF:24:GLU:CD	11:LF:25:GLN:H	2.27	0.42
12:LG:158:ASP:OD1	12:LG:159:PRO:CD	2.67	0.42
15:LJ:52:TYR:HA	15:LJ:61:ARG:HG3	2.00	0.42
16:LL:31:LYS:HG2	16:LL:35:ARG:HH11	1.85	0.42
19:LO:140[A]:LYS:HA	19:LO:143[A]:THR:HG22	2.01	0.42
23:LS:8:GLN:HE22	23:LS:10:ILE:CD1	2.33	0.42
29:LY:56:VAL:HG11	29:LY:104:LEU:HB3	2.01	0.42
38:Lh:79:ASP:OD1	38:Lh:80:LEU:HD12	2.19	0.42
41:Lk:20:VAL:O	41:Lk:21:LYS:HE2	2.20	0.42
41:Lk:26:LYS:HA	41:Lk:78:LEU:O	2.19	0.42
45:Lo:43:TYR:OH	45:Lo:47:GLN:NE2	2.40	0.42
47:P0:104:ARG:HD3	47:P0:184:GLY:HA3	2.01	0.42
47:P0:182:THR:HG23	47:P0:183:PHE:N	2.35	0.42
48:P2:133:LEU:HD12	48:P2:137:GLN:HG3	2.02	0.42
49:C2:116:U:H2'	49:C2:117:U:C6	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:C2:359:A:N3	49:C2:359:A:H5'	2.35	0.42
49:C2:630:A:C6	49:C2:970:A:C8	3.07	0.42
49:C2:691:C:H2'	49:C2:692:C:H6	1.84	0.42
49:C2:732:G:O2'	49:C2:734:A:N6	2.53	0.42
49:C2:1018:U:H2'	49:C2:1019:A:C8	2.55	0.42
49:C2:1062:A:C6	49:C2:1063:U:C6	3.08	0.42
49:C2:1237:G:N1	49:C2:1249:U:O4	2.52	0.42
49:C2:1316:G:H2'	49:C2:1317:C:C6	2.54	0.42
49:C2:1384:A:C6	49:C2:1385:G:C5	3.08	0.42
49:C2:1388:A:C6	49:C2:1412:G:C5	3.08	0.42
49:C2:1564:U:H2'	49:C2:1565:C:H6	1.84	0.42
52:SG:116:LYS:HD3	52:SG:117:GLY:O	2.19	0.42
58:SM:73:LYS:HA	58:SM:76:GLU:OE2	2.19	0.42
58:SM:89:ILE:O	58:SM:90:LYS:HB2	2.20	0.42
64:SY:20:ARG:HD3	64:SY:76:TYR:CE1	2.54	0.42
70:SP:127:ARG:NH1	77:s:65:THR:OG1	2.53	0.42
72:ST:75:LYS:H	72:ST:75:LYS:HG2	1.68	0.42
73:SQ:46:PHE:HA	73:SQ:49:TYR:HB2	2.00	0.42
73:SQ:46:PHE:O	73:SQ:50:GLU:HG3	2.20	0.42
3:LB:53:MET:HE3	3:LB:77:THR:CG2	2.49	0.42
4:SB:67:GLU:OE2	4:SB:83:LYS:HG2	2.20	0.42
4:SB:117:TRP:CH2	49:C2:1799:U:C2	3.07	0.42
5:C1:283:G:C8	31:La:61:PHE:HE1	2.38	0.42
5:C1:433:A:P	36:Lf:57:LYS:HZ1	2.42	0.42
5:C1:513:G:C6	5:C1:579:G:C6	3.08	0.42
5:C1:552:G:C2	5:C1:553:U:C2	3.07	0.42
5:C1:646:A:H2'	5:C1:647:A:O4'	2.19	0.42
5:C1:784:A:O2'	5:C1:785:G:OP2	2.30	0.42
5:C1:1066:G:H2'	5:C1:1067:U:C6	2.55	0.42
5:C1:2320:A:C6	5:C1:2321:A:C5	3.08	0.42
5:C1:2824:G:H2'	5:C1:2825:C:H6	1.85	0.42
5:C1:3041:U:OP1	26:LV:12:ARG:NH1	2.52	0.42
5:C1:3065:G:H2'	5:C1:3066:U:H6	1.83	0.42
6:C4:65:G:N2	6:C4:66:A:C4	2.88	0.42
7:C3:13:A:C6	7:C3:14:C:N4	2.88	0.42
8:LC:22:LEU:HA	8:LC:22:LEU:HD23	1.80	0.42
8:LC:23:PRO:HG2	8:LC:258:LEU:HD23	2.02	0.42
8:LC:162:THR:O	8:LC:166:VAL:HG12	2.19	0.42
10:LE:111:LEU:HD23	10:LE:112:THR:O	2.19	0.42
12:LG:64:ILE:HG23	12:LG:68:ARG:HH21	1.85	0.42
22:LR:31:GLU:OE1	22:LR:31:GLU:N	2.46	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:LY:36:SER:OG	29:LY:39:LEU:HD23	2.20	0.42
49:C2:108:A:H2'	49:C2:109:G:H8	1.81	0.42
49:C2:390:G:O2'	49:C2:1731:A:H5''	2.20	0.42
49:C2:523:G:H5''	64:SY:59:GLY:O	2.20	0.42
49:C2:992:A:H61	49:C2:1013:A:H1'	1.84	0.42
49:C2:1059:U:C5	49:C2:1060:U:H1'	2.54	0.42
49:C2:1335:U:O2	49:C2:1416:G:N2	2.43	0.42
49:C2:1480:G:H2'	49:C2:1481:C:N1	2.34	0.42
49:C2:1580:C:H2'	49:C2:1581:C:C6	2.55	0.42
49:C2:1635:A:N1	50:SC:89:GLN:NE2	2.67	0.42
49:C2:1688:U:C2	49:C2:1689:A:C8	3.07	0.42
49:C2:1799:U:O2	49:C2:1799:U:H2'	2.19	0.42
52:SG:63:MET:HA	52:SG:98:ARG:HB3	2.00	0.42
52:SG:136:LYS:HZ2	52:SG:174:LYS:N	2.18	0.42
54:SI:41:LYS:HB2	54:SI:61:GLU:OE2	2.20	0.42
55:SJ:59:LEU:HD12	55:SJ:69:ARG:HA	2.02	0.42
57:SL:80:MET:HE2	57:SL:83:THR:CG2	2.49	0.42
61:SV:80:LYS:O	61:SV:82:VAL:HG22	2.20	0.42
63:SX:42:PRO:CB	63:SX:81:LYS:HD2	2.46	0.42
67:Se:20:LYS:NZ	67:Se:22:GLU:HA	2.35	0.42
70:SP:44:ARG:NH1	70:SP:44:ARG:O	2.53	0.42
75:SU:58:LEU:HD12	75:SU:88:LYS:CB	2.49	0.42
1:LA:54:ARG:NH2	5:C1:2176:U:OP1	2.50	0.42
4:SB:148:ASN:OD1	4:SB:148:ASN:C	2.62	0.42
4:SB:187:LYS:C	4:SB:190:PRO:HD2	2.45	0.42
5:C1:80:G:C6	5:C1:106:A:N6	2.88	0.42
5:C1:169:U:N3	5:C1:251:G:O6	2.53	0.42
5:C1:176:G:H2'	5:C1:177:U:O4'	2.20	0.42
5:C1:261:U:H2'	5:C1:262:U:C6	2.55	0.42
5:C1:634:C:H4'	35:Le:47:ARG:HH21	1.85	0.42
5:C1:996:A:C6	5:C1:1054:A:C8	3.08	0.42
5:C1:1127:G:C4	5:C1:1129:A:OP2	2.72	0.42
5:C1:1223:A:C8	5:C1:1286:A:N1	2.88	0.42
5:C1:2173:U:C6	5:C1:2174:G:C8	3.08	0.42
5:C1:2198:A:C6	5:C1:2199:G:C8	3.08	0.42
5:C1:2417:U:C1'	5:C1:2966:G:H21	2.32	0.42
5:C1:2427:U:H2'	5:C1:2428:U:H6	1.85	0.42
5:C1:2579:G:C8	5:C1:2580:A:C8	3.08	0.42
5:C1:2673:A:OP1	15:LJ:95:ASN:HA	2.20	0.42
5:C1:3208:G:N3	5:C1:3210:A:C6	2.88	0.42
7:C3:77:A:O2'	7:C3:78:G:H5'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:LQ:177:GLY:HA2	21:LQ:184:PHE:CE1	2.55	0.42
24:LT:9:SER:O	24:LT:11:THR:HG23	2.20	0.42
27:LW:61:LYS:HB3	27:LW:61:LYS:NZ	2.34	0.42
36:Lf:8:TYR:CD2	36:Lf:99:ARG:HB3	2.55	0.42
37:Lg:105:VAL:HA	37:Lg:108:GLN:HG3	2.01	0.42
49:C2:362:G:C6	49:C2:383:G:N1	2.88	0.42
49:C2:370:A:H2'	49:C2:371:G:H8	1.84	0.42
49:C2:647:G:H22	49:C2:687:G:N2	2.18	0.42
49:C2:898:A:H4'	60:SO:46:MET:HE3	2.02	0.42
49:C2:1067:C:H2'	49:C2:1068:C:C6	2.55	0.42
49:C2:1236:A:H2'	49:C2:1237:G:C8	2.55	0.42
49:C2:1501:C:H2'	49:C2:1502:G:H8	1.84	0.42
49:C2:1584:G:HO2'	49:C2:1585:U:P	2.41	0.42
49:C2:1590:G:OP1	72:ST:91:TYR:HB2	2.20	0.42
49:C2:1741:U:H2'	49:C2:1742:U:H6	1.85	0.42
64:SY:110:GLN:HB3	64:SY:114:ARG:HH12	1.84	0.42
73:SQ:74:HIS:HA	73:SQ:77:GLN:OE1	2.20	0.42
1:LA:156:LYS:HZ1	5:C1:2158:A:P	2.43	0.42
3:LB:17:LEU:HA	3:LB:17:LEU:HD12	1.77	0.42
4:SB:81:PHE:HB2	4:SB:106:THR:OG1	2.20	0.42
4:SB:87:ARG:HH22	4:SB:220:GLN:CD	2.28	0.42
5:C1:127:G:H2'	5:C1:128:G:C8	2.51	0.42
5:C1:130:A:N6	5:C1:139:G:O6	2.53	0.42
5:C1:243:G:C4	5:C1:244:G:C8	3.07	0.42
5:C1:527:A:C6	5:C1:566:G:C6	3.08	0.42
5:C1:539:C:H2'	5:C1:540:U:H6	1.85	0.42
5:C1:542:G:H2'	5:C1:543:C:H6	1.81	0.42
5:C1:754:G:N3	5:C1:755:A:C8	2.88	0.42
5:C1:891:G:C5	5:C1:892:U:C4	3.08	0.42
5:C1:1348:U:C5	5:C1:1355:A:C5	3.08	0.42
5:C1:1445:U:H5''	5:C1:1446:A:OP2	2.20	0.42
5:C1:1658:G:C5	5:C1:1659:U:C4	3.08	0.42
5:C1:1813:A:O2'	5:C1:1817:G:H1'	2.19	0.42
5:C1:1845:G:N2	5:C1:1851:G:C4	2.88	0.42
5:C1:2291:A:C6	5:C1:2292:U:C4	3.07	0.42
5:C1:2367:A:C6	5:C1:2381:G:N1	2.88	0.42
5:C1:2483:G:N2	5:C1:2485:A:H3'	2.35	0.42
5:C1:2709:C:C2	5:C1:2710:C:C5	3.08	0.42
5:C1:2762:A:H1'	5:C1:2800:G:O6	2.20	0.42
5:C1:2766:U:H2'	5:C1:2767:U:C6	2.55	0.42
5:C1:2923:U:H2'	5:C1:2924:U:C6	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:2952:G:C2	5:C1:2953:U:C2	3.08	0.42
5:C1:2992:U:H2'	5:C1:2993:G:O4'	2.20	0.42
5:C1:3062:G:C2	5:C1:3082:C:C2	3.08	0.42
5:C1:3254:G:H2'	5:C1:3255:U:C6	2.54	0.42
5:C1:3276:G:N7	20:LP:171:ARG:NH1	2.61	0.42
7:C3:17:A:C4	7:C3:18:U:C6	3.08	0.42
8:LC:120:TYR:CE1	8:LC:277:PRO:HG3	2.55	0.42
9:LD:19:PRO:O	9:LD:24:ARG:NH1	2.53	0.42
11:LF:80:GLN:NE2	24:LT:136:ARG:HG2	2.35	0.42
12:LG:162:LEU:HD23	18:LN:7:LEU:HD21	2.01	0.42
14:LI:102:MET:HE2	14:LI:102:MET:HA	2.01	0.42
16:LL:186:ARG:HA	16:LL:189:GLU:CD	2.44	0.42
19:LO:163[A]:SER:O	19:LO:166[A]:GLU:HG3	2.20	0.42
22:LR:109:TYR:HD1	22:LR:114:LYS:HB2	1.85	0.42
31:La:24:LYS:O	31:La:25:HIS:C	2.63	0.42
33:Lc:30:THR:HG21	33:Lc:89:VAL:CG2	2.50	0.42
49:C2:68:A:N6	52:SG:132:ARG:HG2	2.35	0.42
49:C2:119:A:H1'	49:C2:397:A:C4	2.55	0.42
49:C2:169:A:C8	49:C2:171:A:N7	2.88	0.42
49:C2:214:G:N2	49:C2:252:U:C4	2.88	0.42
49:C2:234:G:H2'	49:C2:235:G:H4'	2.01	0.42
49:C2:466:U:H2'	49:C2:467:G:O4'	2.20	0.42
49:C2:623:A:N6	49:C2:970:A:OP1	2.53	0.42
49:C2:703:G:N3	49:C2:703:G:H2'	2.35	0.42
49:C2:900:A:P	60:SO:45:GLY:HA3	2.60	0.42
49:C2:916:U:H2'	49:C2:917:U:H5'	2.01	0.42
49:C2:1061:A:H4'	49:C2:1061:A:OP1	2.19	0.42
49:C2:1181:U:C2	49:C2:1458:G:N1	2.88	0.42
49:C2:1523:G:H3'	72:ST:78:LYS:HE2	2.02	0.42
50:SC:81:MET:HB2	50:SC:101:VAL:HG23	2.01	0.42
50:SC:146:THR:O	50:SC:146:THR:OG1	2.37	0.42
51:SE:117:GLU:O	51:SE:120:SER:OG	2.26	0.42
52:SG:30:LYS:HB3	52:SG:34:GLN:HE21	1.84	0.42
58:SM:46:ARG:HD3	58:SM:50:LYS:NZ	2.35	0.42
60:SO:80:HIS:HA	60:SO:113:GLY:O	2.20	0.42
68:5:44:MET:HE1	68:5:59:LEU:HD22	2.01	0.42
68:5:110:LYS:C	68:5:112:ASP:H	2.28	0.42
69:Sf:130:VAL:HG21	69:Sf:143:LYS:HE3	2.02	0.42
72:ST:20:SER:O	72:ST:23:GLN:HB2	2.20	0.42
73:SQ:100:GLN:HA	73:SQ:103:ASN:OD1	2.20	0.42
75:SU:42:VAL:HG23	75:SU:43:LYS:HD2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:LA:204:MET:HE2	1:LA:208:ASP:HB3	2.02	0.41
3:LB:226:PHE:CE1	3:LB:268:GLY:HA2	2.55	0.41
3:LB:255:TRP:CE2	5:C1:2941:A:N7	2.88	0.41
5:C1:34:A:H2'	5:C1:35:A:C8	2.55	0.41
5:C1:275:U:C2	5:C1:276:U:C5	3.07	0.41
5:C1:605:U:H2'	5:C1:606:C:C6	2.54	0.41
5:C1:743:C:O2	21:LQ:141:ARG:HG2	2.19	0.41
5:C1:2198:A:C6	5:C1:2270:A:N1	2.88	0.41
5:C1:2218:G:OP1	39:Li:68:ARG:NH2	2.53	0.41
5:C1:2499:U:H2'	5:C1:2500:A:C8	2.55	0.41
5:C1:2674:A:H2'	5:C1:2675:C:C6	2.55	0.41
5:C1:2782:U:H5'	16:LL:185:LYS:NZ	2.35	0.41
5:C1:2900:A:C6	5:C1:2901:G:C5	3.08	0.41
5:C1:3083:G:H4'	27:LW:42:GLN:NE2	2.27	0.41
5:C1:3211:C:H2'	5:C1:3212:C:C6	2.55	0.41
6:C4:22:A:C5	6:C4:23:A:C5	3.08	0.41
7:C3:67:U:H2'	7:C3:68:G:H8	1.85	0.41
8:LC:198:ARG:HD2	29:LY:12:ARG:NH1	2.35	0.41
8:LC:289:ILE:O	8:LC:295:ILE:HD13	2.19	0.41
9:LD:27:LYS:HG2	15:LJ:143:ARG:HH12	1.85	0.41
9:LD:275:THR:OG1	9:LD:276:LYS:N	2.53	0.41
12:LG:145:ASN:HB3	12:LG:147:LYS:HE3	2.02	0.41
14:LI:10:ARG:NH1	14:LI:58:GLU:OE2	2.53	0.41
17:LM:123:LEU:HB3	19:LO:194[A]:LEU:HD21	2.01	0.41
18:LN:153:ASP:CG	18:LN:154:PRO:HD2	2.45	0.41
31:La:44:ASN:C	31:La:44:ASN:OD1	2.62	0.41
31:La:87:ARG:O	31:La:91:LEU:HD23	2.20	0.41
33:Lc:27:TYR:O	33:Lc:30:THR:HG22	2.19	0.41
46:Lp:27:LYS:O	46:Lp:31:ILE:HG12	2.20	0.41
47:P0:96:ILE:HG22	47:P0:100:ILE:HD13	2.02	0.41
48:P2:90:ARG:NH2	48:P2:94:LYS:HG2	2.35	0.41
49:C2:339:C:P	54:SI:10:LYS:HZ1	2.39	0.41
49:C2:355:G:C2	49:C2:356:G:C8	3.08	0.41
49:C2:540:G:O2'	49:C2:541:A:O3'	2.34	0.41
49:C2:639:U:H1'	49:C2:640:U:OP2	2.19	0.41
49:C2:1080:U:H2'	49:C2:1081:A:H8	1.81	0.41
49:C2:1141:G:C2	49:C2:1142:A:C4	3.08	0.41
49:C2:1322:A:H2'	49:C2:1323:C:C6	2.55	0.41
49:C2:1501:C:H2'	49:C2:1502:G:C8	2.54	0.41
49:C2:1554:U:H3'	49:C2:1555:A:H8	1.85	0.41
49:C2:1773:C:C2	49:C2:1789:G:C2	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:SE:188:ASN:ND2	51:SE:218:PHE:HD2	2.11	0.41
51:SE:258:GLN:O	51:SE:259:GLN:NE2	2.50	0.41
52:SG:35:GLU:OE2	52:SG:35:GLU:HA	2.20	0.41
54:SI:169:ILE:H	54:SI:169:ILE:HD12	1.85	0.41
54:SI:191:PHE:HD2	54:SI:192:TYR:CD1	2.38	0.41
55:SJ:118:LEU:HD13	55:SJ:158:PHE:HE1	1.85	0.41
57:SL:96:LYS:NZ	57:SL:97:TYR:HE1	2.17	0.41
59:SN:36:GLN:O	59:SN:40:TYR:HD1	2.04	0.41
59:SN:78:ASN:C	59:SN:78:ASN:OD1	2.63	0.41
68:5:95:ILE:HG22	68:5:128:PHE:CE2	2.55	0.41
70:SP:32:ASP:HA	70:SP:35:LYS:NZ	2.35	0.41
70:SP:50:THR:OG1	70:SP:51:SER:N	2.52	0.41
70:SP:94:VAL:HG13	70:SP:96:ILE:HG23	2.02	0.41
74:Sd:21:CYS:N	74:Sd:30:LEU:HD11	2.35	0.41
1:LA:240:ALA:HB1	5:C1:2154:U:H4'	2.01	0.41
2:SA:175:TYR:CD2	2:SA:199:PRO:HA	2.56	0.41
3:LB:252:ILE:HD13	5:C1:2393:G:H4'	2.02	0.41
3:LB:371:GLN:HG2	27:LW:14:TYR:CE2	2.55	0.41
4:SB:182:ALA:O	4:SB:185:THR:OG1	2.27	0.41
5:C1:592:A:C4	5:C1:593:C:C5	3.08	0.41
5:C1:869:G:C6	5:C1:891:G:C6	3.08	0.41
5:C1:1347:U:H3'	21:LQ:38:ARG:NH2	2.35	0.41
5:C1:1411:C:OP2	35:Le:98:HIS:ND1	2.53	0.41
5:C1:1526:U:H4'	5:C1:1594:A:N7	2.35	0.41
5:C1:1637:A:H1'	5:C1:1709:C:O2'	2.20	0.41
5:C1:1712:G:H2'	5:C1:1713:G:C8	2.55	0.41
5:C1:2199:G:O2'	68:5:71:GLU:OE2	2.33	0.41
5:C1:2437:G:C6	5:C1:2511:A:C5	3.07	0.41
5:C1:2470:C:N4	5:C1:2488:A:N3	2.68	0.41
5:C1:2635:A:H4'	5:C1:2636:A:N3	2.35	0.41
5:C1:2639:G:C6	5:C1:2640:A:C5	3.07	0.41
5:C1:2654:C:N3	5:C1:2754:G:N1	2.68	0.41
5:C1:2890:A:C6	5:C1:2891:U:C4	3.08	0.41
5:C1:3086:A:C6	5:C1:3087:A:C5	3.08	0.41
5:C1:3218:A:C5	36:Lf:5:HIS:ND1	2.88	0.41
7:C3:20:U:N3	7:C3:21:C:C5	2.88	0.41
7:C3:26:U:C2	7:C3:27:U:C5	3.08	0.41
8:LC:343:LYS:HD3	8:LC:344:ALA:N	2.35	0.41
10:LE:63:LEU:O	10:LE:78:ARG:HA	2.21	0.41
14:LI:170:LYS:HA	14:LI:177:ASP:HA	2.02	0.41
19:LO:52[A]:LEU:HD23	19:LO:52[A]:LEU:HA	1.87	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:LQ:170:ARG:O	21:LQ:171:LYS:HG2	2.20	0.41
22:LR:160:GLU:CD	22:LR:163:ARG:HH11	2.29	0.41
29:LY:70:ILE:HD13	29:LY:82:VAL:HG22	2.02	0.41
30:LZ:9:LYS:HD2	30:LZ:83:THR:O	2.20	0.41
35:Le:63:THR:C	35:Le:66:LEU:HD23	2.45	0.41
47:P0:185:LEU:HD12	47:P0:186:THR:H	1.85	0.41
49:C2:55:A:C4	49:C2:403:G:C2	3.08	0.41
49:C2:96:G:N2	49:C2:426:G:O5'	2.51	0.41
49:C2:330:G:H2'	49:C2:331:A:H8	1.85	0.41
49:C2:400:A:C4	54:SI:26:LYS:HB3	2.56	0.41
49:C2:541:A:O2'	49:C2:542:A:OP1	2.32	0.41
49:C2:699:U:O2	49:C2:740:A:H2	2.03	0.41
49:C2:765:G:H1	55:SJ:149:ARG:CZ	2.33	0.41
49:C2:997:G:C6	49:C2:1008:G:C6	3.08	0.41
49:C2:1025:A:C8	49:C2:1027:A:C8	3.08	0.41
49:C2:1178:G:C6	49:C2:1462:G:O6	2.72	0.41
49:C2:1294:G:O2'	49:C2:1321:A:N1	2.35	0.41
49:C2:1584:G:H1'	49:C2:1585:U:H5	1.85	0.41
50:SC:153:SER:OG	50:SC:154:LEU:N	2.53	0.41
50:SC:220:ASN:O	50:SC:223:GLY:N	2.53	0.41
51:SE:47:PHE:O	51:SE:51:ARG:HB2	2.20	0.41
52:SG:31:ARG:NH2	52:SG:32:ILE:O	2.53	0.41
53:SH:22:GLN:O	53:SH:26:GLU:OE1	2.38	0.41
55:SJ:112:GLN:HG3	55:SJ:148:VAL:HG21	2.00	0.41
55:SJ:175:ARG:HB3	55:SJ:179:ARG:HH22	1.84	0.41
56:SK:54:TYR:O	56:SK:69:THR:OG1	2.25	0.41
60:SO:102:LEU:O	60:SO:105:LEU:HG	2.20	0.41
66:Sb:53:ALA:HA	66:Sb:64:CYS:O	2.20	0.41
72:ST:127:ASN:HA	72:ST:130:ARG:HB3	2.02	0.41
73:SQ:133:GLY:N	73:SQ:136:SER:OG	2.48	0.41
3:LB:227:GLU:HG2	3:LB:270:ARG:HE	1.85	0.41
4:SB:34:ALA:O	4:SB:41:ARG:NE	2.48	0.41
5:C1:63:A:H2'	5:C1:64:G:H8	1.85	0.41
5:C1:420:G:C4	5:C1:2384:A:C2	3.08	0.41
5:C1:432:G:C5	5:C1:628:A:N1	2.88	0.41
5:C1:659:G:H2'	5:C1:1432:C:N4	2.34	0.41
5:C1:1363:A:H2'	5:C1:1364:C:C6	2.54	0.41
5:C1:1806:A:C6	5:C1:1807:G:C6	3.09	0.41
5:C1:1894:U:O2'	5:C1:3054:U:OP1	2.37	0.41
5:C1:2585:G:O6	12:LG:47:SER:OG	2.39	0.41
5:C1:3187:A:C2	23:LS:171:PHE:HB3	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:C3:56:G:C6	7:C3:57:C:C4	3.09	0.41
11:LF:88:ARG:HA	11:LF:134:VAL:HG12	2.02	0.41
12:LG:139:VAL:O	12:LG:143:ILE:HG13	2.21	0.41
15:LJ:41:SER:O	15:LJ:75:LYS:NZ	2.37	0.41
15:LJ:54:VAL:HG12	15:LJ:59:ILE:CG1	2.50	0.41
19:LO:110[A]:PRO:HB2	19:LO:111[A]:PRO:HD3	2.03	0.41
36:Lf:43:PHE:HZ	36:Lf:107:ILE:HD11	1.85	0.41
38:Lh:94:LYS:HA	38:Lh:97:ALA:HB3	2.01	0.41
41:Lk:5:ILE:HD11	41:Lk:10:GLN:NE2	2.34	0.41
46:Lp:41:PHE:CD2	46:Lp:62:LYS:HD3	2.54	0.41
47:P0:18:TYR:CE2	47:P0:50:VAL:HG11	2.55	0.41
49:C2:34:G:C5	49:C2:475:A:N6	2.88	0.41
49:C2:39:A:P	55:SJ:6:ARG:HH12	2.43	0.41
49:C2:88:U:C2	49:C2:89:G:C8	3.09	0.41
49:C2:225:A:C6	49:C2:226:A:C6	3.08	0.41
49:C2:316:A:O2'	49:C2:353:A:N1	2.41	0.41
49:C2:389:G:C2	49:C2:390:G:C8	3.08	0.41
49:C2:446:A:C6	49:C2:447:U:C4	3.08	0.41
49:C2:1246:C:C4	49:C2:1247:U:C4	3.08	0.41
49:C2:1359:C:P	72:ST:130:ARG:HH12	2.44	0.41
49:C2:1439:C:H2'	49:C2:1440:C:H6	1.84	0.41
49:C2:1446:A:C5	49:C2:1448:G:C5	3.08	0.41
49:C2:1662:G:H2'	49:C2:1663:G:C8	2.49	0.41
51:SE:255:ARG:HA	51:SE:255:ARG:HE	1.84	0.41
53:SH:37:GLU:C	53:SH:40:PRO:HD2	2.44	0.41
53:SH:75:THR:OG1	53:SH:79:ARG:NH2	2.53	0.41
63:SX:58:GLY:O	63:SX:68:ILE:HG23	2.20	0.41
65:Sa:22:ARG:NE	65:Sa:27:SER:O	2.48	0.41
67:Se:43:ARG:C	67:Se:44:PHE:HD1	2.28	0.41
73:SQ:37:THR:C	73:SQ:45:ARG:HH12	2.26	0.41
1:LA:117:GLU:HB3	1:LA:122:ASP:OD1	2.19	0.41
2:SA:88:LYS:NZ	2:SA:201:LEU:HG	2.35	0.41
3:LB:123:TYR:OH	3:LB:124:LYS:NZ	2.53	0.41
3:LB:171:LEU:HD23	3:LB:171:LEU:HA	1.79	0.41
4:SB:23:PRO:HA	4:SB:26:ARG:NH1	2.34	0.41
4:SB:181:LEU:O	4:SB:185:THR:HG23	2.20	0.41
4:SB:185:THR:O	4:SB:189:ILE:HG12	2.19	0.41
5:C1:81:C:H2'	5:C1:82:C:C6	2.56	0.41
5:C1:289:A:C2	18:LN:93:LYS:HG2	2.55	0.41
5:C1:956:U:H2'	5:C1:957:C:C6	2.55	0.41
5:C1:1105:A:H2'	5:C1:1106:G:C8	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:1171:G:C6	5:C1:1172:G:C5	3.07	0.41
5:C1:1278:A:O2'	5:C1:1279:C:P	2.79	0.41
5:C1:1464:G:H21	5:C1:1466:G:H8	1.69	0.41
5:C1:1506:A:C4	5:C1:1510:G:O6	2.74	0.41
5:C1:1557:A:C6	5:C1:1559:A:C5	3.08	0.41
5:C1:1741:A:H2'	5:C1:1742:U:O4'	2.21	0.41
5:C1:2215:A:C2	5:C1:2216:G:H1'	2.55	0.41
5:C1:2297:U:N3	5:C1:2299:A:N1	2.69	0.41
5:C1:2523:A:C6	5:C1:2587:U:C5	3.08	0.41
5:C1:2545:C:H2'	5:C1:2546:C:C6	2.56	0.41
5:C1:2946:A:H2'	5:C1:2982:A:H62	1.85	0.41
5:C1:3164:C:O2'	5:C1:3165:A:O5'	2.38	0.41
5:C1:3294:A:H2'	5:C1:3295:A:O4'	2.20	0.41
11:LF:233:GLU:OE1	11:LF:233:GLU:N	2.52	0.41
12:LG:34:PHE:CE1	12:LG:42:PRO:HD3	2.56	0.41
16:LL:122:LYS:HG3	38:Lh:118:ILE:HD11	2.02	0.41
18:LN:98:LEU:O	18:LN:101:THR:HG22	2.21	0.41
19:LO:85[A]:ARG:HD3	19:LO:90[A]:HIS:CG	2.55	0.41
20:LP:109:ALA:HA	20:LP:112:LEU:HD11	2.03	0.41
21:LQ:83:VAL:HG23	21:LQ:103:ALA:HB2	2.02	0.41
23:LS:27:MET:HG3	23:LS:28:ARG:N	2.35	0.41
26:LV:45:ARG:HA	26:LV:45:ARG:HD2	1.93	0.41
34:Ld:11:GLU:C	34:Ld:72:ARG:HH12	2.28	0.41
35:Le:96:ILE:HG21	35:Le:105:ARG:HD3	2.02	0.41
45:Lo:6:LYS:NZ	45:Lo:94:GLY:HA2	2.35	0.41
45:Lo:99:GLN:HG3	45:Lo:102:GLN:OE1	2.19	0.41
47:P0:125:ASN:HD21	47:P0:149:THR:HG21	1.85	0.41
49:C2:65:A:N7	49:C2:83:G:N1	2.69	0.41
49:C2:155:U:O2	52:SG:60:GLY:HA3	2.20	0.41
49:C2:210:A:H2'	49:C2:211:U:C6	2.56	0.41
49:C2:530:C:O2	64:SY:61:ARG:NH1	2.52	0.41
49:C2:547:U:N3	49:C2:548:G:N7	2.68	0.41
49:C2:701:U:H2'	49:C2:702:G:O4'	2.20	0.41
49:C2:986:G:H2'	49:C2:987:G:O4'	2.19	0.41
49:C2:1207:C:N4	49:C2:1456:C:N3	2.61	0.41
49:C2:1291:G:C8	49:C2:1292:G:C8	3.08	0.41
49:C2:1340:U:H1'	49:C2:1378:U:H5'	2.03	0.41
49:C2:1410:A:H2'	49:C2:1411:A:O4'	2.21	0.41
49:C2:1780:G:O2'	49:C2:1781:A:H5'	2.20	0.41
49:C2:1798:U:C6	65:Sa:97:PRO:HB3	2.55	0.41
51:SE:94:ALA:C	51:SE:96:ASN:H	2.29	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:SH:74:GLN:O	53:SH:78:THR:HG23	2.21	0.41
54:SI:42:ARG:HB3	54:SI:58:LEU:O	2.20	0.41
54:SI:103:GLN:HE22	54:SI:166:TYR:HE1	1.67	0.41
56:SK:24:LYS:HE2	56:SK:26:ASP:HB2	2.02	0.41
61:SV:68:SER:O	61:SV:72:LEU:HD23	2.19	0.41
1:LA:4:VAL:HG13	1:LA:8:GLN:NE2	2.32	0.41
1:LA:92:LYS:HB2	1:LA:92:LYS:HE2	1.96	0.41
4:SB:150:VAL:HG22	49:C2:1067:C:OP1	2.20	0.41
5:C1:167:U:H2'	5:C1:168:U:C6	2.56	0.41
5:C1:730:C:H2'	5:C1:731:U:C6	2.55	0.41
5:C1:907:G:C5	5:C1:926:A:C8	3.09	0.41
5:C1:1348:U:H4'	5:C1:1348:U:OP1	2.20	0.41
5:C1:1416:C:H2'	5:C1:1417:G:C4	2.56	0.41
5:C1:1881:A:C6	5:C1:2352:A:N6	2.88	0.41
5:C1:1909:A:H8	5:C1:1909:A:O5'	2.03	0.41
5:C1:2185:G:H2'	5:C1:2186:U:C6	2.56	0.41
5:C1:2220:A:C6	5:C1:2221:G:C6	3.09	0.41
5:C1:2250:G:C6	5:C1:2267:C:C4	3.07	0.41
5:C1:2642:A:H2'	5:C1:2643:A:C8	2.55	0.41
5:C1:2948:C:C4	5:C1:2949:U:C4	3.08	0.41
5:C1:3044:G:H2'	5:C1:3045:G:H8	1.84	0.41
6:C4:58:C:H2'	6:C4:59:U:C6	2.54	0.41
6:C4:112:G:C6	6:C4:113:C:N4	2.89	0.41
12:LG:83:ASP:HB2	12:LG:86:THR:HG22	2.02	0.41
13:LH:134:ILE:HD12	13:LH:146:LEU:HD22	2.03	0.41
16:LL:185:LYS:HG3	16:LL:188:ARG:NH2	2.36	0.41
19:LO:25[A]:LYS:HA	19:LO:25[A]:LYS:HD2	1.80	0.41
19:LO:108[A]:ILE:HG21	19:LO:113[A]:ASP:HA	2.02	0.41
20:LP:168:LEU:HD13	20:LP:168:LEU:HA	1.93	0.41
24:LT:37:GLY:H	24:LT:64:VAL:HG13	1.85	0.41
34:Ld:10:ARG:HG2	34:Ld:108:VAL:HA	2.03	0.41
36:Lf:42:GLN:HA	36:Lf:42:GLN:HE21	1.85	0.41
37:Lg:94:LEU:HD23	37:Lg:94:LEU:HA	1.85	0.41
43:Lm:102:ARG:O	43:Lm:103:LEU:HD23	2.21	0.41
48:P2:56:ILE:HG13	48:P2:91:ASP:HA	2.02	0.41
49:C2:2:A:H5'	49:C2:370:A:OP1	2.20	0.41
49:C2:51:A:C2	49:C2:52:U:H1'	2.55	0.41
49:C2:217:A:C6	49:C2:218:A:C8	3.08	0.41
49:C2:407:A:O2'	49:C2:1671:A:N3	2.48	0.41
49:C2:438:A:H1'	49:C2:465:G:H22	1.85	0.41
49:C2:756:A:C4	49:C2:757:A:C8	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:C2:774:A:C6	49:C2:787:G:C4	3.08	0.41
49:C2:1092:A:C6	49:C2:1094:G:C4	3.08	0.41
49:C2:1237:G:N1	49:C2:1249:U:C4	2.89	0.41
49:C2:1267:G:H2'	49:C2:1268:G:H8	1.85	0.41
49:C2:1360:A:H2	49:C2:1364:G:C6	2.37	0.41
49:C2:1529:C:H2'	49:C2:1530:C:C6	2.55	0.41
49:C2:1735:U:H2'	49:C2:1736:G:H8	1.85	0.41
50:SC:67:GLN:OE1	50:SC:67:GLN:N	2.45	0.41
52:SG:85:ARG:HH11	52:SG:85:ARG:HG3	1.85	0.41
53:SH:79:ARG:HB3	53:SH:83:LYS:HZ3	1.86	0.41
54:SI:110:ARG:HH12	54:SI:121:LEU:N	2.19	0.41
55:SJ:55:ALA:O	55:SJ:59:LEU:HD23	2.20	0.41
57:SL:85:VAL:HA	57:SL:108:PRO:HA	2.03	0.41
60:SO:49:LYS:HG3	60:SO:49:LYS:O	2.20	0.41
65:Sa:30:ILE:HG13	65:Sa:31:PRO:HD2	2.01	0.41
66:Sb:55:THR:HG22	66:Sb:60:SER:HA	2.01	0.41
72:ST:52:GLY:C	72:ST:54:PHE:N	2.77	0.41
72:ST:58:ALA:HA	72:ST:61:VAL:HG12	2.01	0.41
75:SU:99:ILE:HD11	75:SU:103:ILE:HD11	2.03	0.41
2:SA:30:GLN:NE2	2:SA:34:GLU:HB2	2.36	0.41
2:SA:176:LEU:O	2:SA:177:LEU:C	2.63	0.41
3:LB:230:THR:HG23	3:LB:231:HIS:N	2.36	0.41
5:C1:40:A:N6	5:C1:937:G:C2	2.89	0.41
5:C1:75:G:H5''	16:LL:58:VAL:HG21	2.01	0.41
5:C1:183:G:H2'	5:C1:184:U:C6	2.56	0.41
5:C1:254:A:H2'	5:C1:255:A:C8	2.56	0.41
5:C1:342:A:C6	5:C1:349:A:C8	3.09	0.41
5:C1:701:G:H2'	5:C1:702:C:H6	1.86	0.41
5:C1:975:C:H2'	5:C1:976:U:C6	2.56	0.41
5:C1:1084:A:H5''	24:LT:35:LYS:HE3	2.02	0.41
5:C1:1085:A:H2'	5:C1:1086:C:H6	1.86	0.41
5:C1:1165:A:H2'	5:C1:1166:G:C8	2.55	0.41
5:C1:1169:A:C6	5:C1:1330:A:C5	3.08	0.41
5:C1:1225:A:H3'	5:C1:1226:G:H8	1.85	0.41
5:C1:1246:G:N3	5:C1:1264:G:H2'	2.36	0.41
5:C1:1384:U:OP2	8:LC:202:ARG:HA	2.20	0.41
5:C1:1751:G:H5'	41:Lk:26:LYS:NZ	2.36	0.41
5:C1:1919:G:C2	5:C1:1934:G:C6	3.08	0.41
5:C1:2251:G:H2'	5:C1:2252:A:H8	1.85	0.41
5:C1:2863:G:C4	5:C1:2864:A:C8	3.09	0.41
5:C1:2989:U:C2	5:C1:2990:G:C8	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:3044:G:H2'	5:C1:3045:G:C8	2.56	0.41
5:C1:3265:C:H2'	5:C1:3266:G:C8	2.56	0.41
5:C1:3371:G:N3	5:C1:3372:A:C8	2.88	0.41
12:LG:100:GLU:OE1	12:LG:105:LYS:HB2	2.21	0.41
13:LH:23:ARG:HG3	13:LH:23:ARG:HH21	1.86	0.41
15:LJ:109:HIS:CE1	15:LJ:123:PHE:H	2.39	0.41
16:LL:185:LYS:O	16:LL:189:GLU:OE1	2.38	0.41
18:LN:179:LYS:HE2	18:LN:179:LYS:HB2	1.82	0.41
22:LR:170:ARG:HA	22:LR:170:ARG:NE	2.35	0.41
23:LS:99:ARG:O	23:LS:103:VAL:HG23	2.21	0.41
25:LU:35:LYS:HD2	25:LU:35:LYS:HA	1.89	0.41
34:Ld:29:ALA:HB3	34:Ld:30:PRO:HD3	2.03	0.41
41:Lk:27:ILE:HD13	41:Lk:39:ARG:HH21	1.86	0.41
41:Lk:58:ASP:OD2	41:Lk:61:LYS:HG3	2.20	0.41
49:C2:53:G:H2'	49:C2:54:C:C6	2.56	0.41
49:C2:482:U:H2'	49:C2:483:A:H8	1.85	0.41
49:C2:612:U:OP2	63:SX:5:LYS:NZ	2.54	0.41
49:C2:821:U:C4	49:C2:853:G:N2	2.89	0.41
49:C2:862:A:C6	49:C2:963:A:N7	2.88	0.41
49:C2:916:U:H3	60:SO:41:ARG:NH1	2.17	0.41
49:C2:1006:C:H5''	49:C2:1007:C:OP2	2.21	0.41
49:C2:1140:G:H2'	49:C2:1141:G:H8	1.85	0.41
49:C2:1146:G:O3'	50:SC:91:ARG:HA	2.20	0.41
49:C2:1335:U:H2'	49:C2:1336:A:H8	1.85	0.41
49:C2:1354:G:C6	49:C2:1355:C:C4	3.08	0.41
49:C2:1535:U:OP1	71:SZ:38:HIS:CD2	2.73	0.41
49:C2:1604:U:C4	49:C2:1605:G:N7	2.89	0.41
49:C2:1773:C:H2'	49:C2:1774:G:H8	1.85	0.41
50:SC:58:LEU:HA	61:SV:12:TYR:HE1	1.85	0.41
52:SG:43:ASP:OD1	52:SG:44:GLU:N	2.53	0.41
54:SI:160:PHE:CE1	54:SI:165:LEU:HD21	2.55	0.41
61:SV:60:ARG:O	61:SV:63:GLY:N	2.53	0.41
62:SW:37:PHE:CZ	62:SW:103:ILE:HD12	2.55	0.41
69:Sf:149:LYS:HD3	69:Sf:149:LYS:HA	1.83	0.41
70:SP:31:GLU:H	70:SP:31:GLU:CD	2.28	0.41
70:SP:81:ARG:NH2	70:SP:120:SER:O	2.53	0.41
71:SZ:54:VAL:CG2	71:SZ:55:PRO:HD3	2.49	0.41
75:SU:48:HIS:CD2	75:SU:99:ILE:HD13	2.55	0.41
1:LA:80:GLU:HB2	1:LA:170:ALA:HA	2.02	0.41
3:LB:263:SER:OG	5:C1:2882:U:O2'	2.32	0.41
5:C1:289:A:O2'	18:LN:93:LYS:O	2.39	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:413:U:H2'	5:C1:414:U:C6	2.55	0.41
5:C1:517:G:O2'	5:C1:518:G:H5'	2.21	0.41
5:C1:658:G:H2'	5:C1:659:G:H8	1.84	0.41
5:C1:750:G:C2	5:C1:751:A:C8	3.09	0.41
5:C1:803:C:H2'	5:C1:804:C:C6	2.55	0.41
5:C1:987:U:C2	5:C1:1098:A:C2	3.09	0.41
5:C1:1404:G:C6	5:C1:1408:G:C6	3.08	0.41
5:C1:1470:U:H2'	5:C1:1471:U:H6	1.86	0.41
5:C1:1812:G:H2'	5:C1:1812:G:N3	2.36	0.41
5:C1:2347:U:H2'	5:C1:2348:A:O4'	2.21	0.41
5:C1:2455:U:O4	5:C1:2485:A:N6	2.53	0.41
5:C1:2533:G:C6	5:C1:2547:A:C6	3.09	0.41
5:C1:2601:A:H2'	5:C1:2602:G:C8	2.56	0.41
5:C1:2822:U:H2'	5:C1:2823:G:O4'	2.21	0.41
5:C1:3034:C:H2'	5:C1:3035:A:C8	2.50	0.41
5:C1:3208:G:C2	23:LS:165:TYR:CE2	3.09	0.41
5:C1:3276:G:H21	5:C1:3277:U:H3	1.68	0.41
6:C4:13:A:C8	6:C4:112:G:C4	3.09	0.41
8:LC:156:LEU:O	8:LC:215:ILE:HD13	2.20	0.41
9:LD:86:TYR:CD2	9:LD:247:ILE:HG13	2.55	0.41
15:LJ:122:ILE:O	15:LJ:123:PHE:HD1	2.04	0.41
18:LN:47:LYS:HA	18:LN:50:ARG:HD3	2.03	0.41
28:LX:115:ARG:HB3	28:LX:116:PRO:HD2	2.01	0.41
32:Lb:32:LEU:O	32:Lb:35:VAL:HG12	2.20	0.41
34:Ld:14:ILE:CG2	34:Ld:71:LEU:HB2	2.51	0.41
38:Lh:38:ARG:HB2	38:Lh:38:ARG:HH11	1.81	0.41
40:Lj:65:ARG:HH11	40:Lj:65:ARG:HG3	1.85	0.41
46:Lp:77:ALA:HA	46:Lp:80:ARG:HH22	1.86	0.41
49:C2:57:G:C6	49:C2:91:G:N1	2.88	0.41
49:C2:93:A:N7	49:C2:399:A:C4	2.89	0.41
49:C2:139:C:C2	49:C2:176:C:N3	2.89	0.41
49:C2:646:C:C2	49:C2:689:G:C2	3.09	0.41
49:C2:706:A:N6	49:C2:730:G:H5''	2.36	0.41
49:C2:977:A:C2	49:C2:978:A:C4	3.08	0.41
49:C2:1126:G:N3	49:C2:1127:G:C8	2.89	0.41
49:C2:1176:G:C6	49:C2:1464:G:C6	3.08	0.41
49:C2:1458:G:C2	49:C2:1459:C:C4	3.09	0.41
49:C2:1459:C:C4'	70:SP:126:VAL:HG21	2.51	0.41
66:Sb:10:PRO:HG2	66:Sb:15:GLU:OE2	2.20	0.41
70:SP:77:ARG:HA	70:SP:77:ARG:NE	2.36	0.41
71:SZ:76:ALA:O	71:SZ:80:LEU:HD23	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:ST:81:GLY:HA3	72:ST:94:ILE:O	2.20	0.41
1:LA:138:GLY:O	1:LA:139:HIS:ND1	2.53	0.41
3:LB:348:ARG:HG2	3:LB:348:ARG:O	2.19	0.41
3:LB:370:PHE:CD1	3:LB:376:LYS:HA	2.56	0.41
4:SB:195:LYS:HA	4:SB:195:LYS:HD2	1.93	0.41
5:C1:197:G:C6	5:C1:395:A:C2	3.09	0.41
5:C1:404:G:H2'	5:C1:405:U:O4'	2.21	0.41
5:C1:516:A:H5''	8:LC:344:ALA:CB	2.51	0.41
5:C1:856:G:C2	5:C1:857:G:N2	2.88	0.41
5:C1:1237:G:H1	5:C1:1251:A:H61	1.67	0.41
5:C1:1380:G:C2	5:C1:1381:A:C8	3.08	0.41
5:C1:1715:A:H2'	5:C1:1715:A:N3	2.35	0.41
5:C1:1725:C:H2'	5:C1:1726:C:C6	2.55	0.41
5:C1:1750:A:H1'	5:C1:1752:A:N7	2.36	0.41
5:C1:1886:A:C2	5:C1:1887:A:C8	3.09	0.41
5:C1:2203:U:C2	5:C1:2240:G:N2	2.88	0.41
5:C1:2238:G:C2	5:C1:2239:G:C5	3.08	0.41
5:C1:2639:G:C4	5:C1:2640:A:C8	3.09	0.41
5:C1:2717:U:H2'	5:C1:2718:U:C6	2.56	0.41
5:C1:2841:G:H1'	5:C1:2847:A:H61	1.86	0.41
5:C1:2938:G:N2	5:C1:2939:G:C4	2.89	0.41
5:C1:2950:G:H2'	5:C1:2950:G:N3	2.36	0.41
5:C1:2968:G:N3	5:C1:2969:A:C8	2.88	0.41
5:C1:3186:A:N3	13:LH:44:THR:HG23	2.35	0.41
5:C1:3301:U:H2'	5:C1:3302:U:C6	2.55	0.41
7:C3:40:A:H2'	7:C3:41:A:H8	1.85	0.41
7:C3:141:C:P	18:LN:109:ARG:HH12	2.42	0.41
8:LC:161:LYS:HA	8:LC:161:LYS:HD2	1.80	0.41
8:LC:196:ASN:HD21	29:LY:11:ASP:CG	2.28	0.41
8:LC:238:LEU:HA	8:LC:238:LEU:HD23	1.84	0.41
15:LJ:96:PHE:CD1	15:LJ:102:PHE:HB3	2.56	0.41
17:LM:16:GLU:HG3	17:LM:17:VAL:O	2.21	0.41
18:LN:187:ARG:NH2	18:LN:188:ARG:HH12	2.19	0.41
35:Le:19:ARG:HD2	35:Le:33:ARG:CG	2.50	0.41
35:Le:54:LYS:O	35:Le:56:GLY:N	2.53	0.41
37:Lg:105:VAL:HG23	37:Lg:108:GLN:HE21	1.86	0.41
39:Li:86:LYS:HD3	39:Li:90:MET:HE3	2.02	0.41
48:P2:146:LYS:O	48:P2:147:ASN:ND2	2.53	0.41
49:C2:5:U:H2'	49:C2:6:G:H8	1.86	0.41
49:C2:228:G:C4	49:C2:835:U:H1'	2.55	0.41
49:C2:312:A:H2	49:C2:314:C:H2'	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:C2:468:A:C6	49:C2:595:G:N7	2.88	0.41
49:C2:775:G:C2	49:C2:786:C:C2	3.09	0.41
49:C2:1107:G:O2'	49:C2:1108:G:H5'	2.20	0.41
49:C2:1120:U:C2	49:C2:1121:C:C5	3.08	0.41
49:C2:1216:C:O2'	49:C2:1217:A:H2'	2.20	0.41
49:C2:1226:A:O2'	49:C2:1227:A:O5'	2.32	0.41
49:C2:1325:A:C2	49:C2:1326:A:N7	2.89	0.41
49:C2:1459:C:H4'	70:SP:126:VAL:HG21	2.02	0.41
49:C2:1470:C:H3'	49:C2:1573:A:H62	1.84	0.41
49:C2:1607:G:C2	49:C2:1608:U:C6	3.09	0.41
49:C2:1658:G:C2	49:C2:1744:A:C5	3.08	0.41
50:SC:178:ILE:CD1	50:SC:196:VAL:HG12	2.50	0.41
52:SG:38:GLY:O	52:SG:45:PHE:HB2	2.20	0.41
53:SH:9:LEU:HD11	53:SH:17:GLU:HB2	2.03	0.41
54:SI:37:LYS:H	54:SI:59:ARG:H	1.68	0.41
54:SI:106:ALA:HB2	54:SI:165:LEU:HD23	2.03	0.41
58:SM:135:MET:O	58:SM:138:GLU:HG3	2.20	0.41
60:SO:68:ALA:HB1	60:SO:110:LEU:HD13	2.02	0.41
64:SY:87:PRO:HD2	64:SY:90:ARG:NH1	2.36	0.41
64:SY:124:ARG:H	64:SY:124:ARG:HE	1.68	0.41
1:LA:46:LYS:HA	1:LA:46:LYS:HD3	1.76	0.41
1:LA:177:LYS:HD3	46:Lp:69:TYR:CE2	2.55	0.41
2:SA:21:ASN:HA	2:SA:23:HIS:CE1	2.56	0.41
3:LB:80:ASP:OD1	3:LB:82:PRO:HD3	2.20	0.41
3:LB:142:ALA:O	3:LB:146:ARG:NE	2.54	0.41
4:SB:11:LYS:HD3	49:C2:913:G:C4	2.55	0.41
4:SB:27:LYS:HG3	4:SB:48:VAL:C	2.45	0.41
4:SB:36:SER:HB3	4:SB:231:LEU:O	2.20	0.41
4:SB:121:ILE:HD11	4:SB:161:ILE:HG12	2.03	0.41
5:C1:89:A:H2'	5:C1:90:C:H6	1.85	0.41
5:C1:259:C:H2'	5:C1:260:C:H6	1.86	0.41
5:C1:266:A:OP1	18:LN:5:LYS:NZ	2.54	0.41
5:C1:381:U:H2'	5:C1:382:U:C6	2.56	0.41
5:C1:443:G:N1	5:C1:491:C:C2	2.88	0.41
5:C1:443:G:C6	5:C1:491:C:C4	3.08	0.41
5:C1:498:A:HO2'	5:C1:3274:A:H2	1.69	0.41
5:C1:624:G:C2	5:C1:625:G:C5	3.09	0.41
5:C1:624:G:N3	5:C1:625:G:C8	2.89	0.41
5:C1:738:A:H2'	5:C1:739:G:C8	2.55	0.41
5:C1:788:C:H2'	5:C1:789:A:C8	2.50	0.41
5:C1:1065:A:N6	32:Lb:26:THR:HG23	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:1234:G:H2'	5:C1:1235:U:C5	2.56	0.41
5:C1:1351:U:O2'	5:C1:1352:A:H5'	2.20	0.41
5:C1:1409:G:C6	5:C1:1410:U:C4	3.09	0.41
5:C1:1514:G:C6	5:C1:1841:A:C5	3.09	0.41
5:C1:1560:G:O2'	5:C1:1561:G:O4'	2.28	0.41
5:C1:1635:G:N1	5:C1:1639:C:N3	2.68	0.41
5:C1:1643:A:N3	5:C1:1822:C:H1'	2.35	0.41
5:C1:1682:U:C5	25:LU:85:LYS:HG2	2.56	0.41
5:C1:1782:U:H2'	5:C1:1783:U:O4'	2.21	0.41
5:C1:1806:A:H2'	5:C1:1807:G:C8	2.55	0.41
5:C1:1875:G:H2'	5:C1:1876:U:C6	2.55	0.41
5:C1:2155:G:H2'	5:C1:2156:C:C6	2.56	0.41
5:C1:2167:A:C5	5:C1:2168:A:N1	2.89	0.41
5:C1:2226:U:H2'	5:C1:2227:C:C6	2.56	0.41
5:C1:2232:A:H2'	5:C1:2233:A:C8	2.55	0.41
5:C1:2340:U:H2'	5:C1:2341:A:H8	1.86	0.41
5:C1:2469:G:H4'	5:C1:2470:C:H5	1.86	0.41
5:C1:2547:A:HO2'	5:C1:2548:C:P	2.43	0.41
5:C1:2734:A:H2'	5:C1:2735:U:C6	2.55	0.41
5:C1:2831:G:H2'	5:C1:2832:C:C6	2.55	0.41
5:C1:2938:G:O2'	5:C1:2939:G:H5'	2.20	0.41
5:C1:3025:C:O3'	13:LH:174:LYS:NZ	2.54	0.41
5:C1:3067:C:P	22:LR:62:ARG:HH11	2.43	0.41
5:C1:3163:A:O2'	5:C1:3164:C:H5'	2.21	0.41
5:C1:3208:G:O4'	5:C1:3210:A:C8	2.73	0.41
5:C1:3240:C:C2	5:C1:3241:G:C8	3.09	0.41
5:C1:3275:U:H3'	5:C1:3276:G:C8	2.56	0.41
5:C1:3336:A:H2'	5:C1:3337:G:O4'	2.20	0.41
6:C4:11:A:O2'	6:C4:12:U:H3'	2.20	0.41
6:C4:39:C:O2'	15:LJ:43:GLN:HG2	2.20	0.41
7:C3:54:A:C5	7:C3:55:U:C5	3.08	0.41
8:LC:74:ILE:CD1	8:LC:75:PRO:HD2	2.51	0.41
8:LC:187:LEU:HD23	8:LC:187:LEU:HA	1.90	0.41
9:LD:129:TYR:CD1	9:LD:177:GLU:HB3	2.56	0.41
11:LF:232:ARG:O	11:LF:232:ARG:HG3	2.21	0.41
11:LF:233:GLU:HG2	11:LF:234:GLU:N	2.35	0.41
12:LG:153:ILE:HB	12:LG:179:ILE:HD13	2.03	0.41
13:LH:31:ARG:NH2	13:LH:83:THR:O	2.54	0.41
13:LH:49:ASN:C	13:LH:51:GLN:H	2.29	0.41
15:LJ:69:VAL:HG12	15:LJ:70:THR:N	2.36	0.41
15:LJ:111:ASP:OD1	15:LJ:111:ASP:C	2.64	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:LN:19:LEU:O	18:LN:20:ARG:C	2.62	0.41
18:LN:92:LEU:HA	18:LN:92:LEU:HD23	1.70	0.41
19:LO:108[A]:ILE:CD1	19:LO:160[A]:ARG:HH12	2.24	0.41
23:LS:19:VAL:O	23:LS:19:VAL:HG13	2.21	0.41
26:LV:15:LEU:HD13	26:LV:51:ALA:HB3	2.03	0.41
33:Lc:25:LEU:HD23	33:Lc:90:VAL:HG12	2.03	0.41
37:Lg:46:ASP:OD2	37:Lg:80:ARG:HD2	2.21	0.41
38:Lh:5:LYS:O	38:Lh:9:LEU:HD23	2.21	0.41
47:P0:6:GLU:N	47:P0:6:GLU:OE1	2.49	0.41
47:P0:28:VAL:HB	47:P0:185:LEU:HD11	2.03	0.41
49:C2:43:A:C6	49:C2:44:U:C4	3.09	0.41
49:C2:149:C:OP1	64:SY:124:ARG:NH2	2.54	0.41
49:C2:219:A:C2	49:C2:843:U:H1'	2.55	0.41
49:C2:386:G:OP2	54:SI:25:ARG:NH2	2.54	0.41
49:C2:399:A:H4'	51:SE:3:ARG:HG3	2.02	0.41
49:C2:448:C:OP2	51:SE:29:PRO:HG3	2.21	0.41
49:C2:700:C:C2	49:C2:739:G:C2	3.08	0.41
49:C2:847:A:H2'	49:C2:848:C:C6	2.55	0.41
49:C2:879:G:H2'	49:C2:880:C:C6	2.56	0.41
49:C2:887:A:C4	49:C2:888:U:C5	3.09	0.41
49:C2:929:A:H3'	49:C2:930:A:H8	1.86	0.41
49:C2:1013:A:C6	49:C2:1014:G:C4	3.09	0.41
49:C2:1108:G:H4'	49:C2:1109:G:H5''	2.03	0.41
49:C2:1235:C:H2'	49:C2:1236:A:O4'	2.19	0.41
49:C2:1248:C:H2'	49:C2:1249:U:C6	2.56	0.41
49:C2:1480:G:N2	49:C2:1528:U:C2	2.89	0.41
49:C2:1492:A:H2'	49:C2:1493:A:H1'	2.03	0.41
49:C2:1513:G:H1'	49:C2:1518:C:C2	2.55	0.41
49:C2:1529:C:H2'	49:C2:1530:C:H6	1.86	0.41
49:C2:1621:U:H2'	49:C2:1622:G:C8	2.56	0.41
49:C2:1662:G:C6	49:C2:1740:A:C6	3.08	0.41
49:C2:1672:G:H2'	49:C2:1673:G:H8	1.77	0.41
49:C2:1783:C:H2'	49:C2:1784:C:C6	2.55	0.41
49:C2:1783:C:H2'	49:C2:1784:C:H6	1.85	0.41
50:SC:58:LEU:O	61:SV:15:ARG:NH1	2.53	0.41
52:SG:143:LYS:HD3	52:SG:143:LYS:HA	1.72	0.41
52:SG:199:GLN:HA	52:SG:199:GLN:NE2	2.36	0.41
52:SG:212:LEU:HD12	52:SG:213:ALA:N	2.36	0.41
53:SH:23:ALA:HB1	53:SH:84:LYS:HE2	2.02	0.41
53:SH:59:ALA:C	53:SH:60:ILE:HD13	2.46	0.41
54:SI:89:GLU:O	54:SI:93:THR:HG22	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:SI:108:PRO:O	54:SI:111:GLN:NE2	2.53	0.41
55:SJ:28:LEU:HD23	67:Se:44:PHE:CZ	2.55	0.41
55:SJ:57:ARG:HG3	55:SJ:97:LEU:CD2	2.51	0.41
59:SN:119:GLU:O	59:SN:123:HIS:ND1	2.54	0.41
61:SV:23:ILE:H	61:SV:23:ILE:HD12	1.85	0.41
62:SW:76:SER:HB3	62:SW:77:PRO:HD3	2.03	0.41
63:SX:75:GLN:HB2	63:SX:82:LYS:NZ	2.35	0.41
68:5:151:LYS:HZ3	68:5:153:ALA:HB2	1.85	0.41
75:SU:34:LEU:HD21	75:SU:89:ARG:HH21	1.86	0.41
75:SU:90:TYR:C	75:SU:91:ILE:HD12	2.45	0.41
1:LA:40:TYR:CE1	5:C1:2550:U:C4	3.09	0.41
2:SA:27:ARG:NE	2:SA:27:ARG:HA	2.36	0.41
3:LB:346:THR:HA	3:LB:351:LEU:HD23	2.03	0.41
5:C1:40:A:C6	5:C1:937:G:C2	3.09	0.41
5:C1:160:G:C6	5:C1:161:G:C5	3.09	0.41
5:C1:374:A:O2'	5:C1:376:G:H8	2.04	0.41
5:C1:677:A:C5	5:C1:786:A:C2	3.09	0.41
5:C1:695:C:OP1	8:LC:119:ARG:NE	2.53	0.41
5:C1:728:G:C5	5:C1:729:C:C5	3.09	0.41
5:C1:799:G:C8	5:C1:801:A:C8	3.09	0.41
5:C1:818:C:H2'	5:C1:819:U:O4'	2.21	0.41
5:C1:877:C:O2'	5:C1:880:G:H1'	2.20	0.41
5:C1:1013:G:C6	5:C1:1014:U:C4	3.09	0.41
5:C1:1048:A:C5	14:LI:22:TYR:HD2	2.39	0.41
5:C1:1105:A:H2'	5:C1:1106:G:H8	1.86	0.41
5:C1:1342:C:H2'	5:C1:1343:A:C8	2.55	0.41
5:C1:1438:U:H2'	5:C1:1439:U:H6	1.85	0.41
5:C1:1447:G:N7	20:LP:25:SER:OG	2.49	0.41
5:C1:1467:A:C6	5:C1:1511:U:N3	2.89	0.41
5:C1:1478:C:H2'	5:C1:1479:U:C6	2.56	0.41
5:C1:1486:G:N1	5:C1:1857:C:C4	2.89	0.41
5:C1:1486:G:N2	37:Lg:6:THR:HG22	2.35	0.41
5:C1:1503:A:C2	5:C1:1504:A:C8	3.08	0.41
5:C1:1613:A:H2'	5:C1:1614:C:H6	1.85	0.41
5:C1:1921:A:C6	5:C1:1932:A:C2	3.09	0.41
5:C1:2848:G:OP1	43:Lm:100:TYR:OH	2.28	0.41
5:C1:2996:U:O2	5:C1:2996:U:H2'	2.21	0.41
5:C1:3313:U:H2'	5:C1:3314:A:H8	1.85	0.41
5:C1:3369:G:P	27:LW:61:LYS:HZ3	2.44	0.41
6:C4:22:A:C6	6:C4:23:A:C6	3.09	0.41
7:C3:5:U:H2'	7:C3:6:U:H6	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:C3:151:C:H5	28:LX:24:LEU:HD21	1.86	0.41
11:LF:81:HIS:HB2	11:LF:138:TYR:CE1	2.56	0.41
14:LI:149:VAL:HG23	14:LI:165:ILE:HG21	2.02	0.41
18:LN:30:TYR:CD1	18:LN:63:ARG:HD3	2.56	0.41
24:LT:38:ASP:O	24:LT:64:VAL:HG12	2.22	0.41
28:LX:91:ASN:OD1	28:LX:91:ASN:C	2.64	0.41
34:Ld:72:ARG:HE	34:Ld:104:LEU:HD13	1.86	0.41
36:Lf:42:GLN:HA	36:Lf:42:GLN:NE2	2.36	0.41
38:Lh:78:LYS:HA	38:Lh:81:ARG:NH2	2.36	0.41
47:P0:57:THR:O	47:P0:61:ARG:HG3	2.21	0.41
49:C2:185:U:H5'	49:C2:186:C:OP2	2.21	0.41
49:C2:435:C:H2'	49:C2:436:A:O4'	2.21	0.41
49:C2:624:G:H1'	49:C2:1027:A:N3	2.36	0.41
49:C2:928:U:H4'	60:SO:124:ASP:OD2	2.21	0.41
49:C2:1688:U:H2'	49:C2:1689:A:H5'	2.03	0.41
52:SG:59:GLN:HE22	52:SG:72:ARG:NH2	2.19	0.41
56:SK:1:MET:HE2	56:SK:44:LYS:O	2.20	0.41
67:Se:25:GLU:C	67:Se:26:LYS:HD3	2.45	0.41
68:5:22:GLN:HA	68:5:79:ASN:OD1	2.21	0.41
68:5:32:VAL:CG2	68:5:41:ILE:HD11	2.46	0.41
69:Sf:141:CYS:SG	69:Sf:144:CYS:HB2	2.61	0.41
71:SZ:43:ASP:H	71:SZ:46:LYS:HE3	1.86	0.41
72:ST:115:GLU:OE1	72:ST:125:SER:HB3	2.21	0.41
75:SU:20:ILE:HG13	75:SU:95:ALA:O	2.21	0.41
1:LA:3:ARG:HD3	5:C1:911:C:N4	2.35	0.40
2:SA:35:PRO:HD2	2:SA:36:TYR:CD1	2.56	0.40
3:LB:19:ARG:O	3:LB:273:HIS:HE1	2.05	0.40
3:LB:214:MET:HE3	3:LB:279:ASN:C	2.45	0.40
5:C1:30:G:C6	5:C1:55:G:C6	3.09	0.40
5:C1:242:C:O2'	5:C1:243:G:H8	2.03	0.40
5:C1:248:U:H3'	5:C1:249:U:H5''	2.03	0.40
5:C1:274:G:C6	5:C1:275:U:C4	3.09	0.40
5:C1:392:G:C2	5:C1:393:U:C4	3.09	0.40
5:C1:637:C:H6	5:C1:637:C:H2'	1.65	0.40
5:C1:803:C:O2'	8:LC:92:ASN:ND2	2.46	0.40
5:C1:1327:C:H2'	5:C1:1328:C:H6	1.87	0.40
5:C1:1381:A:H2'	5:C1:1382:G:H8	1.85	0.40
5:C1:1494:U:P	42:LI:42:ARG:HH22	2.43	0.40
5:C1:1744:G:H2'	5:C1:1745:C:C6	2.57	0.40
5:C1:1765:U:H4'	5:C1:1765:U:OP1	2.21	0.40
5:C1:1935:G:C4	5:C1:1936:A:C8	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:1936:A:C4	5:C1:1937:U:C5	3.09	0.40
5:C1:1936:A:H2'	5:C1:1937:U:C6	2.56	0.40
5:C1:2161:G:C4	5:C1:2162:U:C5	3.09	0.40
5:C1:2185:G:C4	5:C1:2186:U:C5	3.09	0.40
5:C1:2273:G:N2	5:C1:2311:G:H2'	2.35	0.40
5:C1:2446:U:H3	5:C1:2500:A:H61	1.69	0.40
5:C1:2466:G:H2'	5:C1:2467:G:H5'	2.04	0.40
5:C1:2535:A:H3'	5:C1:2536:A:C8	2.56	0.40
5:C1:2656:A:C5	5:C1:2658:G:C8	3.09	0.40
5:C1:2707:C:C2	5:C1:2708:C:C5	3.09	0.40
5:C1:2717:U:C4	5:C1:2740:A:N1	2.89	0.40
5:C1:2775:U:O2'	5:C1:2777:G:N1	2.54	0.40
5:C1:3109:G:C6	5:C1:3126:C:N4	2.89	0.40
5:C1:3181:C:N3	19:LO:168[A]:TYR:CE2	2.89	0.40
5:C1:3210:A:C6	5:C1:3211:C:N4	2.90	0.40
6:C4:5:G:O6	6:C4:117:A:N6	2.53	0.40
7:C3:53:A:HO2'	42:LI:40:LYS:HZ1	1.58	0.40
7:C3:64:U:C2	7:C3:65:A:C8	3.09	0.40
7:C3:88:A:C6	7:C3:89:A:C2	3.08	0.40
7:C3:109:A:H2'	7:C3:110:C:O4'	2.21	0.40
7:C3:148:G:H2'	7:C3:149:A:H8	1.86	0.40
8:LC:93:MET:HE3	8:LC:93:MET:HB3	1.99	0.40
8:LC:107:ARG:HG2	8:LC:108:LYS:N	2.36	0.40
8:LC:276:LEU:HD13	8:LC:276:LEU:HA	1.95	0.40
10:LE:60:ASP:O	10:LE:62:THR:HG23	2.21	0.40
18:LN:44:ARG:NH2	18:LN:47:LYS:HG2	2.36	0.40
23:LS:89:ASN:OD1	23:LS:89:ASN:N	2.53	0.40
24:LT:56:PHE:CZ	24:LT:78:LYS:HD3	2.56	0.40
26:LV:80:ARG:O	26:LV:98:ASN:HA	2.21	0.40
49:C2:155:U:H1'	52:SG:59:GLN:C	2.46	0.40
49:C2:223:U:H2'	49:C2:224:C:H6	1.86	0.40
49:C2:627:C:C4	49:C2:628:G:C5	3.10	0.40
49:C2:876:G:C2	49:C2:944:A:C5	3.10	0.40
49:C2:978:A:H2'	49:C2:979:A:H8	1.86	0.40
49:C2:1035:G:N1	49:C2:1101:G:C6	2.89	0.40
49:C2:1117:U:H2'	49:C2:1118:G:H8	1.86	0.40
49:C2:1217:A:H3'	49:C2:1218:G:C5'	2.51	0.40
49:C2:1235:C:O2	69:Sf:138:ARG:NH1	2.55	0.40
49:C2:1449:U:H2'	49:C2:1450:U:H6	1.85	0.40
49:C2:1452:U:H2'	49:C2:1453:G:H8	1.86	0.40
49:C2:1550:A:H2'	49:C2:1551:U:C6	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:C2:1633:A:H4'	49:C2:1634:C:C5'	2.51	0.40
49:C2:1653:C:C2	49:C2:1748:G:N2	2.89	0.40
51:SE:97:GLU:OE1	51:SE:97:GLU:N	2.54	0.40
52:SG:193:LEU:HA	52:SG:196:ARG:NH1	2.36	0.40
54:SI:64:ASN:O	54:SI:180:ASP:HA	2.21	0.40
54:SI:137:LYS:HA	54:SI:140:GLU:OE1	2.21	0.40
55:SJ:76:LEU:HA	55:SJ:79:ARG:NH1	2.36	0.40
55:SJ:118:LEU:HD22	55:SJ:158:PHE:CE1	2.56	0.40
58:SM:59:LEU:O	58:SM:122:VAL:HA	2.20	0.40
58:SM:83:GLU:HG2	58:SM:84:ASN:N	2.35	0.40
62:SW:31:SER:O	62:SW:35:ILE:HG12	2.21	0.40
68:5:68:LYS:HG3	68:5:69:LYS:H	1.86	0.40
70:SP:32:ASP:HA	70:SP:35:LYS:HE2	2.03	0.40
74:Sd:24:CYS:O	74:Sd:25:SER:OG	2.34	0.40
75:SU:53:LYS:HZ2	75:SU:92:ASP:N	2.19	0.40
75:SU:65:ILE:O	75:SU:81:THR:HA	2.21	0.40
2:SA:104:PRO:HB3	2:SA:131:GLN:NE2	2.36	0.40
3:LB:262:TRP:CD1	3:LB:262:TRP:H	2.39	0.40
3:LB:348:ARG:NE	5:C1:3037:U:H5''	2.36	0.40
5:C1:174:C:H2'	5:C1:175:C:C6	2.56	0.40
5:C1:356:C:O2'	8:LC:81:GLY:O	2.38	0.40
5:C1:394:G:N2	5:C1:396:A:C8	2.87	0.40
5:C1:538:G:H2'	5:C1:539:C:H6	1.86	0.40
5:C1:567:G:C2	5:C1:568:G:C5	3.09	0.40
5:C1:718:G:N2	5:C1:721:G:O2'	2.54	0.40
5:C1:887:G:C2	5:C1:888:A:C4	3.10	0.40
5:C1:926:A:H2'	5:C1:927:C:C6	2.56	0.40
5:C1:1168:U:H2'	5:C1:1169:A:H8	1.85	0.40
5:C1:1278:A:HO2'	5:C1:1279:C:H6	1.61	0.40
5:C1:1346:G:C6	5:C1:1347:U:C4	3.09	0.40
5:C1:1414:G:C5	5:C1:1415:U:C4	3.09	0.40
5:C1:1683:A:C5	5:C1:1684:U:C5	3.09	0.40
5:C1:1802:C:H2'	5:C1:1803:C:H6	1.86	0.40
5:C1:1913:A:C4	5:C1:2120:A:C2	3.09	0.40
5:C1:2132:C:O2	5:C1:2132:C:H2'	2.21	0.40
5:C1:2240:G:H2'	5:C1:2241:U:O4'	2.21	0.40
5:C1:2374:C:N4	5:C1:2941:A:C4	2.89	0.40
5:C1:2685:C:H2'	5:C1:2686:A:H8	1.84	0.40
5:C1:2700:G:HO2'	5:C1:2705:A:N6	2.19	0.40
5:C1:3069:G:C2	5:C1:3070:A:C8	3.09	0.40
5:C1:3102:G:H2'	5:C1:3103:A:C8	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:3256:G:H2'	5:C1:3257:C:C6	2.56	0.40
6:C4:31:U:H4'	9:LD:218:ARG:HH22	1.87	0.40
7:C3:74:U:C4	29:LY:74:TYR:CD1	3.09	0.40
13:LH:62:ARG:HG2	13:LH:62:ARG:HH11	1.87	0.40
18:LN:183:THR:O	18:LN:183:THR:OG1	2.37	0.40
24:LT:102:ARG:O	24:LT:106:LEU:HG	2.21	0.40
25:LU:90:ARG:C	25:LU:92:TRP:H	2.29	0.40
26:LV:59:MET:HE1	26:LV:75:PRO:HG3	2.03	0.40
35:Le:98:HIS:O	35:Le:125:ARG:NH2	2.55	0.40
41:Lk:17:ARG:HG2	41:Lk:17:ARG:O	2.22	0.40
49:C2:244:A:H2'	49:C2:245:U:C6	2.56	0.40
49:C2:310:C:N3	49:C2:357:G:N1	2.70	0.40
49:C2:520:A:H2'	49:C2:521:A:C8	2.56	0.40
49:C2:534:A:C4	49:C2:535:A:C8	3.10	0.40
49:C2:627:C:H2'	49:C2:628:G:O4'	2.21	0.40
49:C2:649:U:H2'	49:C2:650:U:H6	1.86	0.40
49:C2:765:G:H21	49:C2:765:G:P	2.44	0.40
49:C2:940:A:C2	49:C2:941:A:C4	3.09	0.40
49:C2:1243:G:H1	70:SP:54:ALA:CB	2.34	0.40
49:C2:1248:C:C2	49:C2:1249:U:C5	3.09	0.40
49:C2:1326:A:H2'	49:C2:1327:C:H6	1.86	0.40
49:C2:1577:A:C6	49:C2:1578:U:C4	3.09	0.40
51:SE:11:ARG:NH1	51:SE:20:LEU:HD12	2.36	0.40
73:SQ:6:SER:HB2	73:SQ:23:LYS:HG2	2.03	0.40
73:SQ:101:SER:HA	73:SQ:104:GLU:OE1	2.21	0.40
4:SB:112:SER:HB3	65:Sa:68:TYR:CE2	2.57	0.40
4:SB:180:THR:N	4:SB:183:GLN:NE2	2.69	0.40
5:C1:198:A:C6	5:C1:219:A:C6	3.10	0.40
5:C1:199:A:C2	5:C1:219:A:C5	3.08	0.40
5:C1:273:A:N1	5:C1:293:C:N3	2.69	0.40
5:C1:342:A:C5	5:C1:368:G:C5	3.10	0.40
5:C1:415:G:H2'	5:C1:416:A:H8	1.86	0.40
5:C1:504:A:C6	5:C1:588:G:N1	2.89	0.40
5:C1:623:U:H2'	5:C1:624:G:H8	1.87	0.40
5:C1:705:A:N3	5:C1:714:G:N2	2.67	0.40
5:C1:706:A:H2'	5:C1:707:U:O4'	2.21	0.40
5:C1:799:G:C4	5:C1:801:A:C5	3.09	0.40
5:C1:1213:G:P	23:LS:92:LYS:HZ3	2.44	0.40
5:C1:1500:G:H2'	5:C1:1501:U:C6	2.56	0.40
5:C1:1661:G:C4	5:C1:1789:G:N2	2.89	0.40
5:C1:1728:G:C6	33:Lc:85:PHE:CZ	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C1:1902:G:C5	5:C1:1903:U:C2	3.09	0.40
5:C1:2190:U:C4	5:C1:2191:U:C4	3.09	0.40
5:C1:2805:G:H2'	5:C1:2806:U:C6	2.57	0.40
5:C1:3272:C:O2	10:LE:80:ASN:HB2	2.22	0.40
6:C4:8:G:P	9:LD:33:ARG:NH1	2.95	0.40
11:LF:24:GLU:CD	11:LF:25:GLN:N	2.79	0.40
13:LH:8:GLN:OE1	13:LH:8:GLN:HA	2.21	0.40
13:LH:70:THR:O	13:LH:74:LEU:HD23	2.21	0.40
14:LI:75:TYR:CD1	14:LI:75:TYR:C	2.98	0.40
16:LL:49:ARG:HG3	16:LL:49:ARG:HH21	1.86	0.40
16:LL:64:LYS:HE2	16:LL:64:LYS:HB3	1.94	0.40
16:LL:107:GLU:HA	16:LL:110:ASP:OD1	2.22	0.40
28:LX:131:ASP:OD2	28:LX:134:ASP:N	2.48	0.40
29:LY:43:TYR:HE2	29:LY:109:LEU:HD12	1.87	0.40
33:Lc:42:ILE:HG13	33:Lc:67:VAL:HG23	2.03	0.40
36:Lf:45:LEU:HD13	36:Lf:45:LEU:HA	1.92	0.40
36:Lf:67:MET:HE2	36:Lf:67:MET:HB3	1.98	0.40
39:Li:2:THR:HG22	39:Li:2:THR:O	2.22	0.40
42:Ll:43:ASN:HD22	42:Ll:46:ARG:NH1	2.18	0.40
47:P0:15:LEU:HG	47:P0:16:ARG:NH2	2.37	0.40
49:C2:30:G:C6	49:C2:31:C:C4	3.09	0.40
49:C2:208:U:H2'	49:C2:209:U:C6	2.57	0.40
49:C2:591:A:H2'	49:C2:592:A:H8	1.82	0.40
49:C2:699:U:O2'	49:C2:700:C:H6	2.05	0.40
49:C2:936:G:H2'	49:C2:937:C:H6	1.86	0.40
49:C2:1127:G:C5	49:C2:1128:C:C5	3.09	0.40
49:C2:1265:G:H2'	49:C2:1266:U:O4'	2.21	0.40
49:C2:1307:U:N3	49:C2:1318:G:N2	2.70	0.40
49:C2:1625:C:H2'	49:C2:1626:U:H6	1.85	0.40
49:C2:1725:U:H2'	49:C2:1726:G:H8	1.85	0.40
50:SC:58:LEU:HA	61:SV:12:TYR:CE1	2.57	0.40
51:SE:51:ARG:O	51:SE:53:LYS:NZ	2.36	0.40
52:SG:67:VAL:HG13	52:SG:68:LEU:N	2.22	0.40
52:SG:106:LEU:HD23	52:SG:106:LEU:HA	1.88	0.40
54:SI:26:LYS:C	54:SI:28:GLU:H	2.29	0.40
54:SI:106:ALA:CB	54:SI:165:LEU:HD23	2.51	0.40
55:SJ:83:VAL:HA	55:SJ:149:ARG:HA	2.03	0.40
56:SK:70:GLU:O	56:SK:73:VAL:HG12	2.21	0.40
57:SL:25:VAL:O	57:SL:26:LYS:HE2	2.22	0.40
57:SL:118:GLN:N	57:SL:121:ASP:OD2	2.27	0.40
60:SO:21:ALA:C	60:SO:95:GLY:H	2.25	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:SV:53:TYR:OH	61:SV:76:ASP:OD2	2.24	0.40
70:SP:98:ASN:HD22	70:SP:103:ASN:CG	2.29	0.40
75:SU:23:ARG:NE	75:SU:92:ASP:OD1	2.54	0.40
75:SU:53:LYS:CD	75:SU:92:ASP:HB2	2.51	0.40
1:LA:149:ARG:NH2	1:LA:155:LYS:HZ1	2.18	0.40
2:SA:121:VAL:CG1	2:SA:143:VAL:HG12	2.52	0.40
2:SA:200:ASP:HA	2:SA:203:PHE:CE2	2.56	0.40
3:LB:223:GLY:O	3:LB:224:HIS:ND1	2.54	0.40
5:C1:113:C:C4	5:C1:319:A:N1	2.90	0.40
5:C1:296:A:H2'	5:C1:297:G:C2	2.57	0.40
5:C1:418:A:H2'	5:C1:419:G:H8	1.87	0.40
5:C1:544:C:C2'	5:C1:547:G:H1	2.35	0.40
5:C1:1077:U:H2'	5:C1:1078:U:H6	1.87	0.40
5:C1:1729:A:H4'	5:C1:1730:G:OP2	2.21	0.40
5:C1:2099:A:H2'	5:C1:2100:A:N3	2.37	0.40
5:C1:2198:A:C2	5:C1:2199:G:C8	3.10	0.40
5:C1:2284:C:H2'	5:C1:2284:C:O2	2.21	0.40
5:C1:2317:A:C6	5:C1:2318:U:C4	3.09	0.40
5:C1:2609:A:H2'	5:C1:2610:G:C8	2.56	0.40
5:C1:3056:U:OP1	5:C1:3079:U:N3	2.38	0.40
7:C3:27:U:C2	7:C3:28:C:C5	3.09	0.40
7:C3:85:G:H4'	7:C3:86:U:OP1	2.21	0.40
10:LE:39:VAL:O	10:LE:87:THR:OG1	2.32	0.40
14:LI:110:ARG:HB2	14:LI:111:LEU:HD12	2.04	0.40
17:LM:12:TRP:NE1	23:LS:151:PRO:HB2	2.36	0.40
18:LN:153:ASP:OD1	18:LN:154:PRO:HD2	2.21	0.40
22:LR:39:ASN:HA	22:LR:42:ARG:HH11	1.87	0.40
24:LT:83:ARG:HH11	24:LT:83:ARG:HG2	1.86	0.40
29:LY:59:VAL:HG12	29:LY:103:LYS:O	2.22	0.40
49:C2:55:A:H2'	49:C2:403:G:N1	2.34	0.40
49:C2:65:A:N6	49:C2:83:G:C4	2.90	0.40
49:C2:300:A:C4	49:C2:301:A:C8	3.09	0.40
49:C2:371:G:H2'	49:C2:372:G:C8	2.56	0.40
49:C2:530:C:H2'	49:C2:531:C:C6	2.57	0.40
49:C2:600:U:C2	49:C2:601:A:C8	3.10	0.40
49:C2:814:A:C2	49:C2:858:G:C6	3.10	0.40
49:C2:906:A:OP1	60:SO:52:ARG:NH2	2.54	0.40
49:C2:1103:U:H2'	49:C2:1104:U:C6	2.56	0.40
49:C2:1296:A:H2'	49:C2:1297:G:C8	2.56	0.40
49:C2:1328:G:C4	49:C2:1329:A:C8	3.09	0.40
49:C2:1430:U:H4'	49:C2:1431:C:OP1	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:C2:1657:U:H5'	49:C2:1658:G:C5'	2.51	0.40
53:SH:8:ILE:O	53:SH:42:GLN:HB2	2.21	0.40
57:SL:45:PRO:HD3	57:SL:60:PHE:CE2	2.56	0.40
61:SV:82:VAL:HG23	61:SV:83:TRP:N	2.37	0.40
69:Sf:147:VAL:HG13	69:Sf:147:VAL:O	2.21	0.40
70:SP:40:ARG:HA	70:SP:40:ARG:HD2	1.82	0.40
71:SZ:47:TYR:HA	71:SZ:50:ILE:HD13	2.03	0.40
71:SZ:96:SER:C	71:SZ:98:GLN:H	2.30	0.40
75:SU:37:VAL:O	75:SU:41:ILE:HG12	2.21	0.40
76:Sc:22:ARG:HG3	76:Sc:22:ARG:HH11	1.86	0.40
3:LB:283:TYR:CE1	3:LB:354:VAL:HG11	2.56	0.40
4:SB:30:PHE:HB3	4:SB:96:LEU:CD1	2.52	0.40
4:SB:109:LYS:O	4:SB:113:MET:HG2	2.22	0.40
4:SB:205:PHE:HB3	4:SB:207:LEU:HD23	2.03	0.40
5:C1:16:A:H8	5:C1:16:A:O5'	2.05	0.40
5:C1:117:U:O2'	5:C1:119:U:OP2	2.24	0.40
5:C1:200:C:H5'	5:C1:221:A:C2	2.57	0.40
5:C1:397:A:C6	5:C1:399:A:C6	3.10	0.40
5:C1:496:C:OP1	35:Le:8:LYS:NZ	2.55	0.40
5:C1:662:U:C2	5:C1:663:C:C5	3.10	0.40
5:C1:693:A:OP1	8:LC:45:ASN:ND2	2.54	0.40
5:C1:856:G:H22	46:Lp:4:ARG:NE	2.20	0.40
5:C1:993:G:N2	5:C1:2637:A:C5	2.90	0.40
5:C1:1004:U:C2	5:C1:1005:G:C8	3.10	0.40
5:C1:1404:G:N2	5:C1:1408:G:C4	2.89	0.40
5:C1:1550:C:H2'	5:C1:1551:C:H6	1.87	0.40
5:C1:1650:G:N1	5:C1:1806:A:C6	2.90	0.40
5:C1:1752:A:C6	5:C1:1753:G:C5	3.09	0.40
5:C1:2387:A:C2	5:C1:2993:G:H1'	2.56	0.40
5:C1:3027:A:N1	5:C1:3028:G:N2	2.70	0.40
5:C1:3087:A:C6	5:C1:3088:G:C6	3.09	0.40
5:C1:3379:C:H2'	5:C1:3380:U:H6	1.87	0.40
6:C4:109:G:H2'	6:C4:110:G:H8	1.87	0.40
7:C3:10:A:H2'	7:C3:11:C:H6	1.86	0.40
7:C3:28:C:H2'	7:C3:29:U:H6	1.84	0.40
7:C3:59:A:OP2	7:C3:98:U:O2'	2.39	0.40
9:LD:176:SER:OG	9:LD:177:GLU:N	2.54	0.40
11:LF:80:GLN:HE22	24:LT:136:ARG:NH1	2.20	0.40
12:LG:91:PHE:CE2	12:LG:185:ARG:NH1	2.90	0.40
13:LH:185:GLY:C	13:LH:186:PHE:HD1	2.29	0.40
16:LL:76:THR:OG1	16:LL:79:GLU:HG3	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:LN:148:TYR:O	18:LN:150:TRP:N	2.54	0.40
20:LP:64:ASN:C	20:LP:64:ASN:OD1	2.64	0.40
24:LT:68:THR:OG1	24:LT:69:LYS:N	2.53	0.40
29:LY:55:GLU:OE1	29:LY:55:GLU:N	2.50	0.40
30:LZ:27:LYS:HE3	30:LZ:27:LYS:HB2	1.85	0.40
30:LZ:89:VAL:O	30:LZ:89:VAL:HG13	2.21	0.40
38:Lh:118:ILE:HG23	38:Lh:118:ILE:O	2.22	0.40
47:P0:20:GLU:HB2	47:P0:21:GLU:OE1	2.21	0.40
49:C2:71:A:N1	49:C2:81:G:C6	2.89	0.40
49:C2:256:A:H2'	49:C2:257:A:O4'	2.22	0.40
49:C2:324:U:OP1	57:SL:133:LYS:NZ	2.49	0.40
49:C2:384:G:C2	49:C2:385:A:C5	3.09	0.40
49:C2:462:G:C6	49:C2:463:U:C4	3.10	0.40
49:C2:771:A:C4	49:C2:772:G:C8	3.10	0.40
49:C2:889:U:H2'	49:C2:890:C:H6	1.86	0.40
49:C2:955:A:H2'	49:C2:956:C:O4'	2.22	0.40
49:C2:1138:A:OP1	49:C2:1138:A:H4'	2.22	0.40
49:C2:1253:U:H4'	69:Sf:142:GLY:HA3	2.04	0.40
49:C2:1272:U:H2'	49:C2:1431:C:N4	2.37	0.40
49:C2:1351:G:C6	49:C2:1375:A:N1	2.90	0.40
49:C2:1354:G:C4	49:C2:1372:U:C2	3.10	0.40
49:C2:1391:A:H2'	49:C2:1392:U:H6	1.85	0.40
59:SN:99:ARG:HA	59:SN:102:LEU:HD13	2.02	0.40
62:SW:12:ASN:OD1	62:SW:12:ASN:C	2.65	0.40
65:Sa:26:CYS:HB3	65:Sa:77:CYS:SG	2.62	0.40
68:5:48:LYS:H	68:5:48:LYS:HG2	1.77	0.40
70:SP:85:ILE:HD13	70:SP:107:ILE:HD11	2.04	0.40
71:SZ:89:ILE:HA	71:SZ:103:ARG:HA	2.04	0.40
75:SU:57:ARG:HG2	75:SU:89:ARG:CD	2.51	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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	LA	249/254 (98%)	221 (89%)	28 (11%)	0	100	100
2	SA	204/252 (81%)	180 (88%)	24 (12%)	0	100	100
3	LB	384/387 (99%)	339 (88%)	45 (12%)	0	100	100
4	SB	222/255 (87%)	185 (83%)	36 (16%)	1 (0%)	24	57
8	LC	359/362 (99%)	318 (89%)	39 (11%)	2 (1%)	21	54
9	LD	292/297 (98%)	266 (91%)	25 (9%)	1 (0%)	36	65
10	LE	163/176 (93%)	140 (86%)	23 (14%)	0	100	100
11	LF	220/244 (90%)	205 (93%)	15 (7%)	0	100	100
12	LG	231/256 (90%)	216 (94%)	15 (6%)	0	100	100
13	LH	189/191 (99%)	170 (90%)	19 (10%)	0	100	100
14	LI	216/221 (98%)	203 (94%)	13 (6%)	0	100	100
15	LJ	167/174 (96%)	144 (86%)	23 (14%)	0	100	100
16	LL	191/199 (96%)	168 (88%)	22 (12%)	1 (0%)	24	57
17	LM	134/138 (97%)	124 (92%)	10 (8%)	0	100	100
18	LN	201/204 (98%)	180 (90%)	21 (10%)	0	100	100
19	LO	195/199 (98%)	186 (95%)	7 (4%)	2 (1%)	12	45
20	LP	181/184 (98%)	165 (91%)	16 (9%)	0	100	100
21	LQ	183/186 (98%)	170 (93%)	13 (7%)	0	100	100
22	LR	186/189 (98%)	178 (96%)	6 (3%)	2 (1%)	11	43
23	LS	169/172 (98%)	160 (95%)	9 (5%)	0	100	100
24	LT	157/160 (98%)	147 (94%)	10 (6%)	0	100	100
25	LU	98/121 (81%)	86 (88%)	12 (12%)	0	100	100
26	LV	134/137 (98%)	127 (95%)	7 (5%)	0	100	100
27	LW	124/155 (80%)	111 (90%)	13 (10%)	0	100	100
28	LX	119/142 (84%)	111 (93%)	7 (6%)	1 (1%)	16	49
29	LY	123/127 (97%)	114 (93%)	9 (7%)	0	100	100
30	LZ	133/136 (98%)	121 (91%)	12 (9%)	0	100	100
31	La	146/149 (98%)	126 (86%)	18 (12%)	2 (1%)	9	38
32	Lb	56/59 (95%)	50 (89%)	5 (9%)	1 (2%)	6	34
33	Lc	94/105 (90%)	88 (94%)	6 (6%)	0	100	100
34	Ld	107/113 (95%)	96 (90%)	11 (10%)	0	100	100
35	Le	125/130 (96%)	116 (93%)	9 (7%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
36	Lf	104/107 (97%)	95 (91%)	9 (9%)	0	100	100
37	Lg	110/121 (91%)	105 (96%)	5 (4%)	0	100	100
38	Lh	117/120 (98%)	111 (95%)	6 (5%)	0	100	100
39	Li	97/100 (97%)	88 (91%)	9 (9%)	0	100	100
40	Lj	83/88 (94%)	78 (94%)	5 (6%)	0	100	100
41	Lk	75/78 (96%)	72 (96%)	3 (4%)	0	100	100
42	Ll	48/50 (96%)	45 (94%)	3 (6%)	0	100	100
43	Lm	50/128 (39%)	46 (92%)	4 (8%)	0	100	100
44	Ln	23/25 (92%)	23 (100%)	0	0	100	100
45	Lo	101/106 (95%)	94 (93%)	7 (7%)	0	100	100
46	Lp	89/92 (97%)	80 (90%)	9 (10%)	0	100	100
47	P0	187/312 (60%)	164 (88%)	23 (12%)	0	100	100
48	P2	92/165 (56%)	76 (83%)	16 (17%)	0	100	100
50	SC	214/254 (84%)	201 (94%)	13 (6%)	0	100	100
51	SE	256/261 (98%)	229 (90%)	27 (10%)	0	100	100
52	SG	226/236 (96%)	202 (89%)	23 (10%)	1 (0%)	30	61
53	SH	182/190 (96%)	159 (87%)	22 (12%)	1 (0%)	24	57
54	SI	183/200 (92%)	156 (85%)	26 (14%)	1 (0%)	24	57
55	SJ	182/197 (92%)	160 (88%)	21 (12%)	1 (0%)	24	57
56	SK	90/105 (86%)	81 (90%)	9 (10%)	0	100	100
57	SL	142/156 (91%)	122 (86%)	20 (14%)	0	100	100
58	SM	119/143 (83%)	84 (71%)	35 (29%)	0	100	100
59	SN	148/151 (98%)	131 (88%)	17 (12%)	0	100	100
60	SO	125/138 (91%)	112 (90%)	13 (10%)	0	100	100
61	SV	85/87 (98%)	67 (79%)	17 (20%)	1 (1%)	10	41
62	SW	127/130 (98%)	116 (91%)	11 (9%)	0	100	100
63	SX	142/145 (98%)	123 (87%)	18 (13%)	1 (1%)	18	51
64	SY	132/135 (98%)	121 (92%)	11 (8%)	0	100	100
65	Sa	95/119 (80%)	79 (83%)	16 (17%)	0	100	100
66	Sb	79/82 (96%)	67 (85%)	12 (15%)	0	100	100
67	Se	58/63 (92%)	51 (88%)	7 (12%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
68	5	148/157 (94%)	124 (84%)	22 (15%)	2 (1%)	9	38
69	Sf	71/152 (47%)	42 (59%)	29 (41%)	0	100	100
70	SP	115/142 (81%)	104 (90%)	11 (10%)	0	100	100
71	SZ	98/108 (91%)	83 (85%)	15 (15%)	0	100	100
72	ST	141/144 (98%)	130 (92%)	11 (8%)	0	100	100
73	SQ	137/143 (96%)	127 (93%)	10 (7%)	0	100	100
74	Sd	51/56 (91%)	50 (98%)	1 (2%)	0	100	100
75	SU	98/121 (81%)	91 (93%)	7 (7%)	0	100	100
76	Sc	61/67 (91%)	57 (93%)	4 (7%)	0	100	100
77	s	38/273 (14%)	31 (82%)	6 (16%)	1 (3%)	4	27
All	All	10471/11721 (89%)	9388 (90%)	1061 (10%)	22 (0%)	44	72

All (22) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
31	La	78	LEU
54	SI	10	LYS
68	5	113	VAL
19	LO	111[A]	PRO
28	LX	44	PRO
61	SV	81	ASN
9	LD	20	PHE
52	SG	173	PRO
19	LO	110[A]	PRO
22	LR	52	LYS
22	LR	53	LYS
31	La	40	HIS
55	SJ	99	LEU
8	LC	4	PRO
8	LC	292	SER
16	LL	63	VAL
32	Lb	24	PRO
63	SX	88	PRO
77	s	52	PRO
4	SB	212	VAL
53	SH	65	PRO
68	5	98	GLY

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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	LA	190/196 (97%)	190 (100%)	0	100	100
2	SA	170/210 (81%)	170 (100%)	0	100	100
3	LB	319/323 (99%)	319 (100%)	0	100	100
4	SB	200/224 (89%)	200 (100%)	0	100	100
8	LC	288/289 (100%)	288 (100%)	0	100	100
9	LD	241/245 (98%)	241 (100%)	0	100	100
10	LE	139/155 (90%)	139 (100%)	0	100	100
11	LF	186/205 (91%)	186 (100%)	0	100	100
12	LG	187/208 (90%)	187 (100%)	0	100	100
13	LH	168/171 (98%)	167 (99%)	1 (1%)	78	79
14	LI	185/187 (99%)	185 (100%)	0	100	100
15	LJ	146/151 (97%)	146 (100%)	0	100	100
16	LL	154/159 (97%)	154 (100%)	0	100	100
17	LM	107/109 (98%)	107 (100%)	0	100	100
18	LN	175/176 (99%)	175 (100%)	0	100	100
19	LO	160/162 (99%)	160 (100%)	0	100	100
20	LP	138/146 (94%)	138 (100%)	0	100	100
21	LQ	150/151 (99%)	150 (100%)	0	100	100
22	LR	152/154 (99%)	152 (100%)	0	100	100
23	LS	155/156 (99%)	155 (100%)	0	100	100
24	LT	136/137 (99%)	136 (100%)	0	100	100
25	LU	87/107 (81%)	87 (100%)	0	100	100
26	LV	104/105 (99%)	104 (100%)	0	100	100
27	LW	60/129 (46%)	60 (100%)	0	100	100
28	LX	104/118 (88%)	104 (100%)	0	100	100
29	LY	108/110 (98%)	108 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
30	LZ	115/116 (99%)	115 (100%)	0	100	100
31	La	118/119 (99%)	118 (100%)	0	100	100
32	Lb	46/47 (98%)	45 (98%)	1 (2%)	45	65
33	Lc	81/88 (92%)	81 (100%)	0	100	100
34	Ld	92/97 (95%)	92 (100%)	0	100	100
35	Le	108/111 (97%)	108 (100%)	0	100	100
36	Lf	90/91 (99%)	89 (99%)	1 (1%)	65	74
37	Lg	95/103 (92%)	95 (100%)	0	100	100
38	Lh	104/105 (99%)	104 (100%)	0	100	100
39	Li	80/82 (98%)	80 (100%)	0	100	100
40	Lj	69/71 (97%)	69 (100%)	0	100	100
41	Lk	68/69 (99%)	68 (100%)	0	100	100
42	Ll	45/45 (100%)	44 (98%)	1 (2%)	45	65
43	Lm	47/116 (40%)	47 (100%)	0	100	100
44	Ln	22/23 (96%)	22 (100%)	0	100	100
45	Lo	87/91 (96%)	87 (100%)	0	100	100
46	Lp	71/72 (99%)	71 (100%)	0	100	100
47	P0	160/254 (63%)	160 (100%)	0	100	100
48	P2	81/136 (60%)	81 (100%)	0	100	100
50	SC	175/205 (85%)	175 (100%)	0	100	100
51	SE	220/222 (99%)	220 (100%)	0	100	100
52	SG	189/201 (94%)	189 (100%)	0	100	100
53	SH	163/170 (96%)	163 (100%)	0	100	100
54	SI	148/161 (92%)	148 (100%)	0	100	100
55	SJ	156/166 (94%)	156 (100%)	0	100	100
56	SK	77/98 (79%)	77 (100%)	0	100	100
57	SL	129/137 (94%)	128 (99%)	1 (1%)	73	77
58	SM	88/119 (74%)	88 (100%)	0	100	100
59	SN	127/128 (99%)	127 (100%)	0	100	100
60	SO	91/105 (87%)	91 (100%)	0	100	100
61	SV	71/74 (96%)	71 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
62	SW	110/111 (99%)	110 (100%)	0	100	100
63	SX	119/120 (99%)	119 (100%)	0	100	100
64	SY	112/113 (99%)	112 (100%)	0	100	100
65	Sa	83/100 (83%)	83 (100%)	0	100	100
66	Sb	70/71 (99%)	70 (100%)	0	100	100
67	Se	50/54 (93%)	50 (100%)	0	100	100
68	5	117/133 (88%)	117 (100%)	0	100	100
69	Sf	56/135 (42%)	56 (100%)	0	100	100
70	SP	95/118 (80%)	95 (100%)	0	100	100
71	SZ	77/89 (86%)	77 (100%)	0	100	100
72	ST	115/116 (99%)	115 (100%)	0	100	100
73	SQ	115/119 (97%)	115 (100%)	0	100	100
74	Sd	47/49 (96%)	47 (100%)	0	100	100
75	SU	93/114 (82%)	93 (100%)	0	100	100
76	Sc	55/60 (92%)	55 (100%)	0	100	100
77	s	15/228 (7%)	15 (100%)	0	100	100
All	All	8751/9835 (89%)	8746 (100%)	5 (0%)	87	87

All (5) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
13	LH	59	ASN
32	Lb	11	ASN
36	Lf	42	GLN
42	Ll	38	ASN
57	SL	21	ASN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (89) such sidechains are listed below:

Mol	Chain	Res	Type
1	LA	8	GLN
1	LA	97	ASN
1	LA	115	ASN
2	SA	109	ASN
3	LB	319	ASN

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Mol	Chain	Res	Type
4	SB	160	HIS
4	SB	177	GLN
4	SB	183	GLN
8	LC	110	ASN
10	LE	172	HIS
11	LF	112	ASN
12	LG	77	GLN
12	LG	138	HIS
12	LG	221	ASN
13	LH	64	HIS
13	LH	149	ASN
14	LI	55	ASN
14	LI	73	ASN
14	LI	95	HIS
14	LI	144	ASN
16	LL	12	ASN
17	LM	105	GLN
18	LN	90	ASN
19	LO	90[A]	HIS
20	LP	118	GLN
20	LP	120	ASN
21	LQ	45	ASN
21	LQ	73	GLN
23	LS	8	GLN
23	LS	108	GLN
23	LS	154	HIS
24	LT	5	HIS
24	LT	22	HIS
24	LT	103	GLN
24	LT	127	GLN
26	LV	4	ASN
26	LV	7	GLN
26	LV	98	ASN
27	LW	42	GLN
28	LX	85	GLN
29	LY	120	GLN
30	LZ	29	HIS
30	LZ	127	ASN
32	Lb	43	HIS
34	Ld	21	HIS
35	Le	20	HIS
35	Le	49	ASN

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Mol	Chain	Res	Type
35	Le	88	HIS
36	Lf	42	GLN
36	Lf	106	ASN
37	Lg	18	ASN
37	Lg	69	HIS
37	Lg	108	GLN
38	Lh	59	ASN
42	Ll	38	ASN
43	Lm	117	HIS
45	Lo	22	GLN
47	P0	56	ASN
48	P2	105	GLN
48	P2	137	GLN
50	SC	110	HIS
50	SC	228	ASN
51	SE	112	HIS
51	SE	130	GLN
54	SI	44	HIS
54	SI	88	ASN
55	SJ	38	ASN
55	SJ	123	HIS
55	SJ	133	HIS
55	SJ	155	HIS
57	SL	8	GLN
57	SL	81	HIS
57	SL	127	GLN
58	SM	139	HIS
59	SN	5	HIS
59	SN	58	HIS
60	SO	65	GLN
62	SW	98	GLN
62	SW	113	HIS
63	SX	65	ASN
63	SX	99	ASN
65	Sa	72	HIS
66	Sb	5	GLN
66	Sb	9	HIS
66	Sb	49	HIS
73	SQ	139	GLN
75	SU	44	ASN
75	SU	47	GLN
77	s	57	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
49	C2	1768/1800 (98%)	501 (28%)	46 (2%)
5	C1	3217/3396 (94%)	637 (19%)	43 (1%)
6	C4	120/121 (99%)	15 (12%)	1 (0%)
7	C3	157/158 (99%)	28 (17%)	1 (0%)
All	All	5262/5475 (96%)	1181 (22%)	91 (1%)

All (1181) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
5	C1	13	A
5	C1	14	U
5	C1	15	C
5	C1	18	G
5	C1	26	A
5	C1	40	A
5	C1	43	A
5	C1	45	A
5	C1	48	A
5	C1	49	A
5	C1	59	G
5	C1	60	A
5	C1	65	A
5	C1	66	A
5	C1	73	C
5	C1	92	G
5	C1	94	G
5	C1	110	G
5	C1	111	C
5	C1	113	C
5	C1	121	A
5	C1	122	A
5	C1	133	U
5	C1	134	U
5	C1	135	C
5	C1	136	G
5	C1	148	G
5	C1	156	G
5	C1	157	A
5	C1	162	G
5	C1	166	C
5	C1	187	A

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Mol	Chain	Res	Type
5	C1	190	U
5	C1	191	U
5	C1	200	C
5	C1	210	U
5	C1	211	A
5	C1	213	A
5	C1	218	G
5	C1	219	A
5	C1	221	A
5	C1	222	A
5	C1	240	U
5	C1	241	G
5	C1	243	G
5	C1	245	U
5	C1	248	U
5	C1	249	U
5	C1	252	U
5	C1	269	G
5	C1	283	G
5	C1	286	U
5	C1	295	A
5	C1	323	A
5	C1	329	U
5	C1	339	C
5	C1	350	C
5	C1	351	A
5	C1	376	G
5	C1	395	A
5	C1	398	A
5	C1	399	A
5	C1	401	U
5	C1	402	A
5	C1	403	C
5	C1	404	G
5	C1	421	G
5	C1	422	A
5	C1	438	A
5	C1	439	C
5	C1	440	A
5	C1	441	U
5	C1	442	G
5	C1	446	U

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Mol	Chain	Res	Type
5	C1	447	U
5	C1	448	U
5	C1	450	G
5	C1	451	U
5	C1	486	U
5	C1	487	U
5	C1	488	U
5	C1	490	A
5	C1	491	C
5	C1	507	U
5	C1	520	U
5	C1	521	A
5	C1	535	G
5	C1	544	C
5	C1	546	C
5	C1	547	G
5	C1	552	G
5	C1	555	U
5	C1	557	A
5	C1	559	A
5	C1	578	A
5	C1	579	G
5	C1	592	A
5	C1	597	G
5	C1	604	G
5	C1	609	G
5	C1	611	A
5	C1	620	U
5	C1	621	A
5	C1	623	U
5	C1	637	C
5	C1	638	C
5	C1	643	U
5	C1	649	A
5	C1	660	A
5	C1	677	A
5	C1	681	U
5	C1	683	U
5	C1	691	A
5	C1	705	A
5	C1	709	A
5	C1	712	G

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Mol	Chain	Res	Type
5	C1	715	A
5	C1	716	A
5	C1	719	U
5	C1	720	A
5	C1	727	G
5	C1	736	A
5	C1	764	U
5	C1	767	U
5	C1	769	G
5	C1	776	U
5	C1	777	U
5	C1	780	A
5	C1	781	G
5	C1	784	A
5	C1	785	G
5	C1	786	A
5	C1	806	A
5	C1	817	A
5	C1	826	G
5	C1	830	A
5	C1	849	C
5	C1	857	G
5	C1	861	C
5	C1	874	U
5	C1	879	U
5	C1	880	G
5	C1	882	A
5	C1	895	A
5	C1	896	A
5	C1	907	G
5	C1	908	G
5	C1	914	A
5	C1	916	G
5	C1	917	A
5	C1	937	G
5	C1	939	U
5	C1	943	U
5	C1	944	C
5	C1	953	G
5	C1	959	C
5	C1	960	U
5	C1	962	A

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Mol	Chain	Res	Type
5	C1	974	G
5	C1	980	A
5	C1	981	U
5	C1	982	C
5	C1	994	G
5	C1	1001	G
5	C1	1002	A
5	C1	1010	G
5	C1	1014	U
5	C1	1015	U
5	C1	1017	C
5	C1	1018	G
5	C1	1020	G
5	C1	1021	G
5	C1	1024	G
5	C1	1025	A
5	C1	1026	A
5	C1	1029	G
5	C1	1032	C
5	C1	1035	G
5	C1	1036	A
5	C1	1047	A
5	C1	1049	C
5	C1	1064	A
5	C1	1065	A
5	C1	1072	G
5	C1	1079	A
5	C1	1081	U
5	C1	1082	U
5	C1	1093	A
5	C1	1094	U
5	C1	1095	U
5	C1	1097	G
5	C1	1098	A
5	C1	1103	A
5	C1	1104	G
5	C1	1117	G
5	C1	1127	G
5	C1	1131	G
5	C1	1151	U
5	C1	1153	A
5	C1	1157	G

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Mol	Chain	Res	Type
5	C1	1159	A
5	C1	1178	G
5	C1	1180	A
5	C1	1181	U
5	C1	1182	A
5	C1	1192	C
5	C1	1193	A
5	C1	1196	C
5	C1	1197	A
5	C1	1201	C
5	C1	1208	U
5	C1	1217	A
5	C1	1222	G
5	C1	1227	C
5	C1	1230	G
5	C1	1233	G
5	C1	1235	U
5	C1	1236	G
5	C1	1241	U
5	C1	1242	G
5	C1	1243	G
5	C1	1244	A
5	C1	1245	A
5	C1	1246	G
5	C1	1247	U
5	C1	1251	A
5	C1	1253	U
5	C1	1254	C
5	C1	1256	G
5	C1	1257	C
5	C1	1258	U
5	C1	1259	A
5	C1	1262	G
5	C1	1263	A
5	C1	1264	G
5	C1	1265	U
5	C1	1266	G
5	C1	1269	U
5	C1	1271	A
5	C1	1272	C
5	C1	1274	A
5	C1	1278	A

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Mol	Chain	Res	Type
5	C1	1279	C
5	C1	1285	G
5	C1	1287	A
5	C1	1295	G
5	C1	1308	A
5	C1	1309	U
5	C1	1313	G
5	C1	1316	C
5	C1	1317	A
5	C1	1330	A
5	C1	1348	U
5	C1	1349	G
5	C1	1351	U
5	C1	1352	A
5	C1	1353	U
5	C1	1354	G
5	C1	1355	A
5	C1	1356	U
5	C1	1357	G
5	C1	1380	G
5	C1	1386	A
5	C1	1399	A
5	C1	1400	G
5	C1	1419	A
5	C1	1431	G
5	C1	1432	C
5	C1	1434	G
5	C1	1435	A
5	C1	1437	C
5	C1	1446	A
5	C1	1450	G
5	C1	1455	U
5	C1	1481	A
5	C1	1482	A
5	C1	1483	G
5	C1	1484	U
5	C1	1496	C
5	C1	1508	C
5	C1	1523	U
5	C1	1527	C
5	C1	1528	G
5	C1	1531	C

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Mol	Chain	Res	Type
5	C1	1536	G
5	C1	1539	A
5	C1	1555	U
5	C1	1556	C
5	C1	1560	G
5	C1	1562	C
5	C1	1563	C
5	C1	1565	G
5	C1	1568	U
5	C1	1569	U
5	C1	1572	U
5	C1	1573	G
5	C1	1576	G
5	C1	1580	A
5	C1	1581	C
5	C1	1582	C
5	C1	1583	A
5	C1	1587	A
5	C1	1589	A
5	C1	1593	A
5	C1	1605	A
5	C1	1607	U
5	C1	1629	U
5	C1	1636	U
5	C1	1639	C
5	C1	1642	A
5	C1	1643	A
5	C1	1645	U
5	C1	1657	C
5	C1	1658	G
5	C1	1662	G
5	C1	1683	A
5	C1	1717	U
5	C1	1724	U
5	C1	1725	C
5	C1	1736	G
5	C1	1741	A
5	C1	1743	G
5	C1	1750	A
5	C1	1751	G
5	C1	1760	A
5	C1	1761	C

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Mol	Chain	Res	Type
5	C1	1765	U
5	C1	1766	G
5	C1	1770	G
5	C1	1780	G
5	C1	1797	A
5	C1	1808	G
5	C1	1813	A
5	C1	1814	A
5	C1	1816	A
5	C1	1820	U
5	C1	1821	U
5	C1	1835	A
5	C1	1839	A
5	C1	1840	U
5	C1	1841	A
5	C1	1842	A
5	C1	1846	C
5	C1	1847	A
5	C1	1849	C
5	C1	1850	A
5	C1	1863	G
5	C1	1866	C
5	C1	1867	A
5	C1	1878	G
5	C1	1880	U
5	C1	1884	A
5	C1	1893	A
5	C1	1906	G
5	C1	1953	G
5	C1	1954	G
5	C1	2100	A
5	C1	2101	C
5	C1	2102	U
5	C1	2111	G
5	C1	2112	U
5	C1	2113	A
5	C1	2114	C
5	C1	2116	G
5	C1	2121	G
5	C1	2122	G
5	C1	2131	A
5	C1	2138	A

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Mol	Chain	Res	Type
5	C1	2139	A
5	C1	2142	A
5	C1	2148	U
5	C1	2158	A
5	C1	2166	A
5	C1	2169	G
5	C1	2170	U
5	C1	2176	U
5	C1	2188	A
5	C1	2194	G
5	C1	2205	U
5	C1	2206	G
5	C1	2207	A
5	C1	2209	U
5	C1	2210	G
5	C1	2242	A
5	C1	2249	G
5	C1	2250	G
5	C1	2255	A
5	C1	2256	A
5	C1	2257	C
5	C1	2272	G
5	C1	2273	G
5	C1	2279	A
5	C1	2281	A
5	C1	2282	U
5	C1	2283	G
5	C1	2285	C
5	C1	2286	U
5	C1	2288	G
5	C1	2307	G
5	C1	2310	U
5	C1	2313	A
5	C1	2314	U
5	C1	2315	G
5	C1	2335	G
5	C1	2336	U
5	C1	2339	C
5	C1	2372	A
5	C1	2373	A
5	C1	2374	C
5	C1	2375	G

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Mol	Chain	Res	Type
5	C1	2376	G
5	C1	2383	C
5	C1	2385	G
5	C1	2393	G
5	C1	2394	G
5	C1	2397	A
5	C1	2398	A
5	C1	2402	A
5	C1	2403	G
5	C1	2404	A
5	C1	2411	U
5	C1	2419	A
5	C1	2434	U
5	C1	2435	G
5	C1	2439	A
5	C1	2440	G
5	C1	2442	G
5	C1	2444	C
5	C1	2445	A
5	C1	2446	U
5	C1	2447	A
5	C1	2449	A
5	C1	2452	G
5	C1	2455	U
5	C1	2456	A
5	C1	2457	G
5	C1	2459	A
5	C1	2460	U
5	C1	2461	A
5	C1	2462	A
5	C1	2468	A
5	C1	2469	G
5	C1	2471	U
5	C1	2474	G
5	C1	2476	C
5	C1	2479	C
5	C1	2480	A
5	C1	2482	U
5	C1	2483	G
5	C1	2486	A
5	C1	2487	U
5	C1	2488	A

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Mol	Chain	Res	Type
5	C1	2491	A
5	C1	2492	C
5	C1	2494	A
5	C1	2495	C
5	C1	2496	C
5	C1	2501	U
5	C1	2502	A
5	C1	2503	G
5	C1	2506	U
5	C1	2508	U
5	C1	2514	U
5	C1	2515	A
5	C1	2524	A
5	C1	2525	G
5	C1	2531	C
5	C1	2532	U
5	C1	2533	G
5	C1	2534	G
5	C1	2537	U
5	C1	2538	U
5	C1	2539	C
5	C1	2540	A
5	C1	2541	U
5	C1	2542	U
5	C1	2544	U
5	C1	2548	C
5	C1	2549	G
5	C1	2552	C
5	C1	2554	A
5	C1	2561	A
5	C1	2569	A
5	C1	2570	U
5	C1	2571	U
5	C1	2572	C
5	C1	2573	G
5	C1	2585	G
5	C1	2593	A
5	C1	2606	G
5	C1	2607	G
5	C1	2614	G
5	C1	2626	A
5	C1	2629	U

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Mol	Chain	Res	Type
5	C1	2636	A
5	C1	2652	U
5	C1	2656	A
5	C1	2657	A
5	C1	2674	A
5	C1	2677	G
5	C1	2689	A
5	C1	2691	A
5	C1	2694	A
5	C1	2696	A
5	C1	2703	A
5	C1	2704	A
5	C1	2714	G
5	C1	2719	U
5	C1	2720	G
5	C1	2728	G
5	C1	2729	U
5	C1	2752	U
5	C1	2753	G
5	C1	2754	G
5	C1	2772	C
5	C1	2773	C
5	C1	2777	G
5	C1	2778	G
5	C1	2796	G
5	C1	2800	G
5	C1	2801	A
5	C1	2803	A
5	C1	2810	C
5	C1	2814	G
5	C1	2816	G
5	C1	2817	A
5	C1	2818	U
5	C1	2821	C
5	C1	2838	A
5	C1	2842	U
5	C1	2844	C
5	C1	2845	A
5	C1	2847	A
5	C1	2860	U
5	C1	2867	C
5	C1	2871	G

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Mol	Chain	Res	Type
5	C1	2872	A
5	C1	2875	U
5	C1	2887	A
5	C1	2888	U
5	C1	2889	C
5	C1	2898	G
5	C1	2900	A
5	C1	2923	U
5	C1	2928	C
5	C1	2935	U
5	C1	2936	A
5	C1	2941	A
5	C1	2942	C
5	C1	2954	U
5	C1	2971	A
5	C1	2983	C
5	C1	2996	U
5	C1	2997	G
5	C1	3012	A
5	C1	3021	A
5	C1	3057	U
5	C1	3058	U
5	C1	3059	G
5	C1	3078	U
5	C1	3079	U
5	C1	3080	G
5	C1	3086	A
5	C1	3092	C
5	C1	3093	C
5	C1	3101	G
5	C1	3109	G
5	C1	3119	U
5	C1	3122	A
5	C1	3130	A
5	C1	3131	U
5	C1	3142	A
5	C1	3143	C
5	C1	3151	U
5	C1	3154	C
5	C1	3155	U
5	C1	3156	U
5	C1	3157	U

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Mol	Chain	Res	Type
5	C1	3158	G
5	C1	3165	A
5	C1	3170	A
5	C1	3173	G
5	C1	3174	A
5	C1	3176	G
5	C1	3179	U
5	C1	3181	C
5	C1	3187	A
5	C1	3196	U
5	C1	3198	U
5	C1	3207	U
5	C1	3208	G
5	C1	3210	A
5	C1	3217	C
5	C1	3218	A
5	C1	3219	G
5	C1	3227	A
5	C1	3229	G
5	C1	3239	G
5	C1	3245	A
5	C1	3247	G
5	C1	3259	U
5	C1	3260	G
5	C1	3263	G
5	C1	3270	U
5	C1	3276	G
5	C1	3278	C
5	C1	3279	A
5	C1	3281	U
5	C1	3286	G
5	C1	3287	U
5	C1	3288	G
5	C1	3289	G
5	C1	3294	A
5	C1	3295	A
5	C1	3304	U
5	C1	3313	U
5	C1	3316	A
5	C1	3317	U
5	C1	3318	G
5	C1	3319	U

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Mol	Chain	Res	Type
5	C1	3320	A
5	C1	3334	U
5	C1	3341	U
5	C1	3345	G
5	C1	3351	U
5	C1	3352	U
5	C1	3353	G
5	C1	3354	U
5	C1	3355	U
5	C1	3363	U
5	C1	3369	G
5	C1	3375	A
5	C1	3378	C
5	C1	3383	G
5	C1	3386	G
5	C1	3389	U
5	C1	3390	G
6	C4	7	G
6	C4	10	C
6	C4	11	A
6	C4	29	C
6	C4	40	C
6	C4	41	G
6	C4	53	U
6	C4	54	U
6	C4	55	A
6	C4	65	G
6	C4	74	C
6	C4	76	A
6	C4	102	A
6	C4	112	G
6	C4	121	U
7	C3	34	U
7	C3	35	C
7	C3	39	G
7	C3	53	A
7	C3	59	A
7	C3	62	C
7	C3	63	G
7	C3	75	G
7	C3	80	A
7	C3	81	U

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Mol	Chain	Res	Type
7	C3	82	U
7	C3	83	C
7	C3	84	C
7	C3	86	U
7	C3	87	G
7	C3	90	U
7	C3	95	G
7	C3	104	A
7	C3	106	C
7	C3	111	A
7	C3	113	U
7	C3	125	U
7	C3	126	A
7	C3	138	A
7	C3	148	G
7	C3	152	G
7	C3	157	U
7	C3	158	U
49	C2	2	A
49	C2	4	C
49	C2	5	U
49	C2	25	C
49	C2	26	A
49	C2	34	G
49	C2	42	G
49	C2	43	A
49	C2	45	U
49	C2	46	A
49	C2	47	A
49	C2	50	C
49	C2	51	A
49	C2	56	U
49	C2	57	G
49	C2	62	A
49	C2	63	G
49	C2	65	A
49	C2	66	U
49	C2	68	A
49	C2	69	G
49	C2	73	U
49	C2	74	U
49	C2	75	U

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Mol	Chain	Res	Type
49	C2	76	A
49	C2	78	A
49	C2	79	C
49	C2	81	G
49	C2	104	A
49	C2	114	C
49	C2	116	U
49	C2	126	A
49	C2	127	G
49	C2	129	U
49	C2	130	C
49	C2	131	C
49	C2	132	U
49	C2	134	U
49	C2	135	A
49	C2	138	A
49	C2	140	A
49	C2	141	U
49	C2	142	G
49	C2	155	U
49	C2	156	A
49	C2	171	A
49	C2	174	U
49	C2	176	C
49	C2	178	U
49	C2	179	A
49	C2	180	A
49	C2	182	A
49	C2	183	U
49	C2	185	U
49	C2	186	C
49	C2	187	G
49	C2	188	A
49	C2	191	C
49	C2	193	U
49	C2	195	G
49	C2	203	U
49	C2	204	G
49	C2	217	A
49	C2	218	A
49	C2	220	A
49	C2	222	A

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Mol	Chain	Res	Type
49	C2	224	C
49	C2	225	A
49	C2	227	U
49	C2	228	G
49	C2	229	U
49	C2	230	C
49	C2	232	U
49	C2	233	C
49	C2	234	G
49	C2	235	G
49	C2	240	U
49	C2	241	U
49	C2	249	U
49	C2	250	C
49	C2	257	A
49	C2	260	U
49	C2	261	U
49	C2	265	A
49	C2	272	U
49	C2	276	C
49	C2	277	U
49	C2	278	U
49	C2	279	G
49	C2	280	U
49	C2	281	G
49	C2	283	U
49	C2	284	G
49	C2	287	G
49	C2	299	A
49	C2	314	C
49	C2	316	A
49	C2	317	C
49	C2	319	U
49	C2	320	U
49	C2	322	G
49	C2	323	A
49	C2	333	A
49	C2	337	G
49	C2	338	C
49	C2	350	U
49	C2	352	A
49	C2	353	A

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Mol	Chain	Res	Type
49	C2	359	A
49	C2	361	C
49	C2	373	G
49	C2	380	U
49	C2	388	G
49	C2	399	A
49	C2	400	A
49	C2	401	A
49	C2	402	C
49	C2	404	G
49	C2	415	C
49	C2	416	A
49	C2	417	A
49	C2	419	G
49	C2	423	G
49	C2	424	C
49	C2	425	A
49	C2	426	G
49	C2	432	G
49	C2	434	G
49	C2	437	A
49	C2	439	U
49	C2	444	C
49	C2	445	A
49	C2	448	C
49	C2	454	U
49	C2	455	C
49	C2	460	A
49	C2	468	A
49	C2	471	A
49	C2	477	A
49	C2	481	A
49	C2	483	A
49	C2	485	A
49	C2	487	G
49	C2	491	C
49	C2	492	A
49	C2	493	U
49	C2	494	U
49	C2	495	C
49	C2	496	G
49	C2	498	G

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Mol	Chain	Res	Type
49	C2	499	U
49	C2	500	C
49	C2	502	U
49	C2	505	A
49	C2	506	A
49	C2	507	U
49	C2	509	G
49	C2	510	G
49	C2	511	A
49	C2	527	A
49	C2	534	A
49	C2	535	A
49	C2	537	G
49	C2	538	A
49	C2	540	G
49	C2	541	A
49	C2	542	A
49	C2	543	C
49	C2	544	A
49	C2	546	U
49	C2	555	A
49	C2	556	A
49	C2	557	G
49	C2	558	U
49	C2	559	C
49	C2	565	C
49	C2	568	G
49	C2	580	A
49	C2	590	C
49	C2	591	A
49	C2	594	A
49	C2	595	G
49	C2	608	U
49	C2	610	G
49	C2	611	U
49	C2	619	A
49	C2	620	A
49	C2	622	A
49	C2	623	A
49	C2	624	G
49	C2	630	A
49	C2	635	A

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Mol	Chain	Res	Type
49	C2	639	U
49	C2	640	U
49	C2	641	G
49	C2	645	C
49	C2	652	G
49	C2	653	C
49	C2	655	G
49	C2	677	G
49	C2	678	A
49	C2	679	U
49	C2	680	U
49	C2	681	U
49	C2	683	C
49	C2	684	A
49	C2	687	G
49	C2	693	U
49	C2	694	U
49	C2	696	C
49	C2	697	C
49	C2	698	U
49	C2	700	C
49	C2	702	G
49	C2	703	G
49	C2	704	C
49	C2	705	U
49	C2	706	A
49	C2	707	A
49	C2	708	C
49	C2	709	C
49	C2	710	U
49	C2	711	U
49	C2	712	G
49	C2	713	A
49	C2	714	G
49	C2	728	U
49	C2	729	G
49	C2	731	C
49	C2	732	G
49	C2	733	A
49	C2	734	A
49	C2	736	C
49	C2	737	A

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Mol	Chain	Res	Type
49	C2	738	G
49	C2	739	G
49	C2	740	A
49	C2	742	U
49	C2	743	U
49	C2	753	A
49	C2	756	A
49	C2	765	G
49	C2	766	U
49	C2	767	U
49	C2	771	A
49	C2	774	A
49	C2	775	G
49	C2	778	G
49	C2	779	U
49	C2	780	A
49	C2	781	U
49	C2	782	U
49	C2	783	G
49	C2	789	A
49	C2	804	A
49	C2	812	A
49	C2	813	U
49	C2	814	A
49	C2	815	G
49	C2	819	G
49	C2	820	U
49	C2	821	U
49	C2	823	G
49	C2	827	C
49	C2	832	U
49	C2	833	U
49	C2	834	G
49	C2	835	U
49	C2	838	G
49	C2	839	U
49	C2	840	U
49	C2	846	G
49	C2	852	C
49	C2	855	A
49	C2	856	A
49	C2	857	U

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Mol	Chain	Res	Type
49	C2	861	U
49	C2	863	A
49	C2	876	G
49	C2	886	U
49	C2	898	A
49	C2	899	G
49	C2	901	G
49	C2	902	G
49	C2	904	G
49	C2	905	A
49	C2	906	A
49	C2	912	U
49	C2	913	G
49	C2	914	G
49	C2	915	A
49	C2	921	U
49	C2	929	A
49	C2	931	C
49	C2	932	U
49	C2	933	A
49	C2	934	C
49	C2	935	U
49	C2	942	G
49	C2	951	A
49	C2	960	U
49	C2	963	A
49	C2	966	A
49	C2	970	A
49	C2	971	A
49	C2	988	A
49	C2	992	A
49	C2	993	A
49	C2	996	U
49	C2	1003	A
49	C2	1004	U
49	C2	1012	U
49	C2	1020	A
49	C2	1021	C
49	C2	1024	U
49	C2	1025	A
49	C2	1028	C
49	C2	1029	U

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Mol	Chain	Res	Type
49	C2	1031	U
49	C2	1032	G
49	C2	1039	A
49	C2	1053	G
49	C2	1058	U
49	C2	1060	U
49	C2	1061	A
49	C2	1063	U
49	C2	1076	A
49	C2	1082	C
49	C2	1092	A
49	C2	1093	A
49	C2	1096	C
49	C2	1098	U
49	C2	1100	G
49	C2	1138	A
49	C2	1158	C
49	C2	1159	C
49	C2	1160	A
49	C2	1164	G
49	C2	1167	G
49	C2	1183	A
49	C2	1185	U
49	C2	1194	A
49	C2	1196	A
49	C2	1199	G
49	C2	1200	G
49	C2	1201	G
49	C2	1207	C
49	C2	1208	A
49	C2	1212	G
49	C2	1217	A
49	C2	1218	G
49	C2	1227	A
49	C2	1229	G
49	C2	1231	U
49	C2	1241	G
49	C2	1243	G
49	C2	1244	A
49	C2	1245	G
49	C2	1246	C
49	C2	1251	U

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Mol	Chain	Res	Type
49	C2	1252	C
49	C2	1256	A
49	C2	1257	U
49	C2	1274	C
49	C2	1275	A
49	C2	1284	C
49	C2	1285	U
49	C2	1286	U
49	C2	1292	G
49	C2	1300	A
49	C2	1301	U
49	C2	1307	U
49	C2	1308	G
49	C2	1314	U
49	C2	1315	U
49	C2	1316	G
49	C2	1318	G
49	C2	1319	A
49	C2	1321	A
49	C2	1322	A
49	C2	1324	G
49	C2	1325	A
49	C2	1337	A
49	C2	1338	C
49	C2	1341	A
49	C2	1344	A
49	C2	1345	A
49	C2	1346	A
49	C2	1348	A
49	C2	1349	G
49	C2	1360	A
49	C2	1361	U
49	C2	1363	U
49	C2	1364	G
49	C2	1367	G
49	C2	1370	U
49	C2	1371	A
49	C2	1373	C
49	C2	1378	U
49	C2	1380	U
49	C2	1382	A
49	C2	1383	G

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Mol	Chain	Res	Type
49	C2	1388	A
49	C2	1390	U
49	C2	1398	U
49	C2	1399	C
49	C2	1400	A
49	C2	1402	G
49	C2	1414	U
49	C2	1427	A
49	C2	1431	C
49	C2	1432	U
49	C2	1433	G
49	C2	1436	A
49	C2	1438	G
49	C2	1446	A
49	C2	1456	C
49	C2	1458	G
49	C2	1459	C
49	C2	1469	A
49	C2	1470	C
49	C2	1472	C
49	C2	1474	G
49	C2	1479	A
49	C2	1486	G
49	C2	1491	U
49	C2	1493	A
49	C2	1496	U
49	C2	1514	U
49	C2	1516	A
49	C2	1518	C
49	C2	1521	G
49	C2	1523	G
49	C2	1524	A
49	C2	1528	U
49	C2	1535	U
49	C2	1537	C
49	C2	1540	G
49	C2	1542	G
49	C2	1543	A
49	C2	1544	U
49	C2	1554	U
49	C2	1557	U
49	C2	1558	U

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Mol	Chain	Res	Type
49	C2	1559	A
49	C2	1570	A
49	C2	1572	G
49	C2	1573	A
49	C2	1574	G
49	C2	1575	G
49	C2	1576	A
49	C2	1577	A
49	C2	1583	A
49	C2	1585	U
49	C2	1590	G
49	C2	1601	G
49	C2	1607	G
49	C2	1611	A
49	C2	1614	A
49	C2	1616	G
49	C2	1619	C
49	C2	1621	U
49	C2	1623	C
49	C2	1631	A
49	C2	1634	C
49	C2	1635	A
49	C2	1637	C
49	C2	1657	U
49	C2	1658	G
49	C2	1688	U
49	C2	1689	A
49	C2	1690	G
49	C2	1696	G
49	C2	1697	G
49	C2	1698	G
49	C2	1699	G
49	C2	1700	C
49	C2	1701	A
49	C2	1702	A
49	C2	1704	U
49	C2	1706	C
49	C2	1708	U
49	C2	1715	G
49	C2	1716	C
49	C2	1750	A
49	C2	1755	A

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Mol	Chain	Res	Type
49	C2	1756	A
49	C2	1760	G
49	C2	1766	A
49	C2	1767	G
49	C2	1769	U
49	C2	1770	U
49	C2	1780	G
49	C2	1782	A
49	C2	1783	C
49	C2	1792	G
49	C2	1793	G
49	C2	1794	A
49	C2	1795	U
49	C2	1796	C
49	C2	1799	U

All (91) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
5	C1	13	A
5	C1	65	A
5	C1	217	U
5	C1	239	G
5	C1	282	G
5	C1	619	A
5	C1	637	C
5	C1	715	A
5	C1	763	G
5	C1	916	G
5	C1	1064	A
5	C1	1081	U
5	C1	1097	G
5	C1	1246	G
5	C1	1273	A
5	C1	1307	G
5	C1	1348	U
5	C1	1355	A
5	C1	1554	U
5	C1	1562	C
5	C1	1588	A
5	C1	1815	U
5	C1	1820	U

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Mol	Chain	Res	Type
5	C1	2101	C
5	C1	2112	U
5	C1	2285	C
5	C1	2338	C
5	C1	2446	U
5	C1	2461	A
5	C1	2507	C
5	C1	2537	U
5	C1	2541	U
5	C1	2547	A
5	C1	2843	U
5	C1	3092	C
5	C1	3121	U
5	C1	3218	A
5	C1	3228	C
5	C1	3269	U
5	C1	3275	U
5	C1	3319	U
5	C1	3350	C
5	C1	3351	U
6	C4	52	G
7	C3	85	G
49	C2	68	A
49	C2	72	A
49	C2	77	U
49	C2	139	C
49	C2	141	U
49	C2	224	C
49	C2	322	G
49	C2	352	A
49	C2	387	A
49	C2	400	A
49	C2	424	C
49	C2	539	G
49	C2	541	A
49	C2	555	A
49	C2	609	U
49	C2	629	U
49	C2	639	U
49	C2	640	U
49	C2	678	A
49	C2	705	U

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Mol	Chain	Res	Type
49	C2	711	U
49	C2	765	G
49	C2	803	A
49	C2	819	G
49	C2	912	U
49	C2	928	U
49	C2	1226	A
49	C2	1251	U
49	C2	1256	A
49	C2	1273	G
49	C2	1274	C
49	C2	1285	U
49	C2	1344	A
49	C2	1348	A
49	C2	1382	A
49	C2	1399	C
49	C2	1430	U
49	C2	1471	A
49	C2	1557	U
49	C2	1558	U
49	C2	1573	A
49	C2	1584	G
49	C2	1615	C
49	C2	1633	A
49	C2	1636	C
49	C2	1791	A

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 288 ligands modelled in this entry, 288 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

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

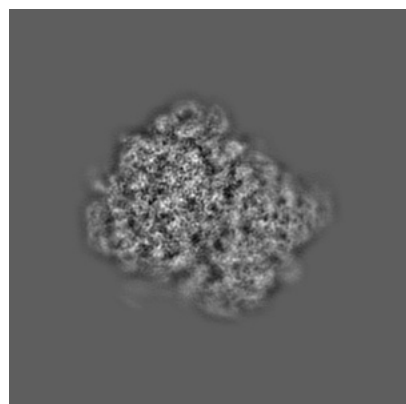
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-37995. These allow visual inspection of the internal detail of the map and identification of artifacts.

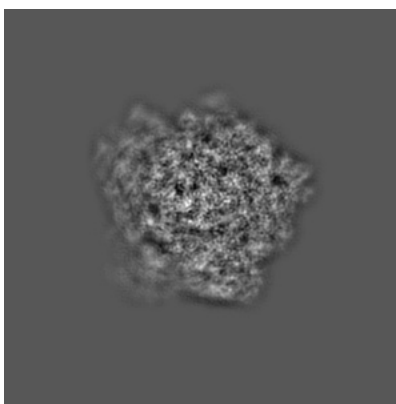
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

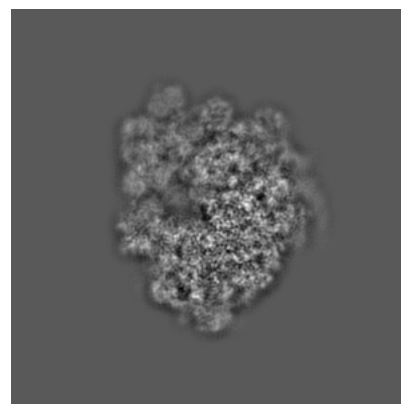
6.1.1 Primary map



X

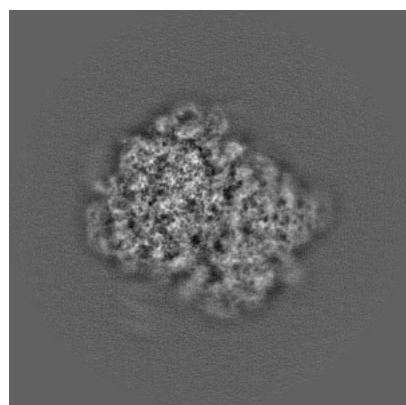


Y

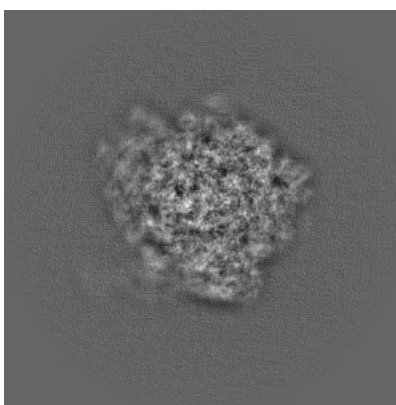


Z

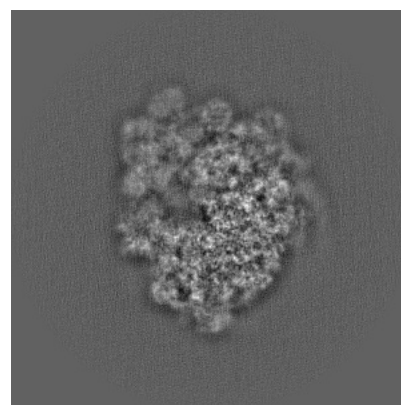
6.1.2 Raw map



X



Y

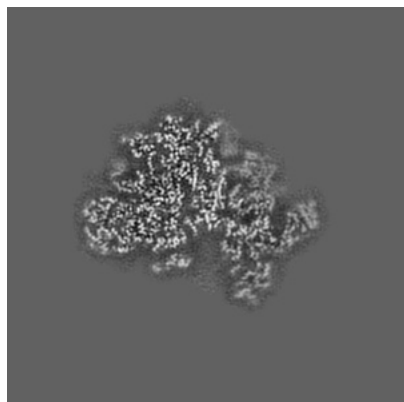


Z

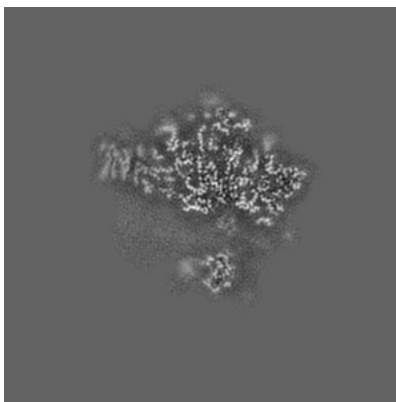
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

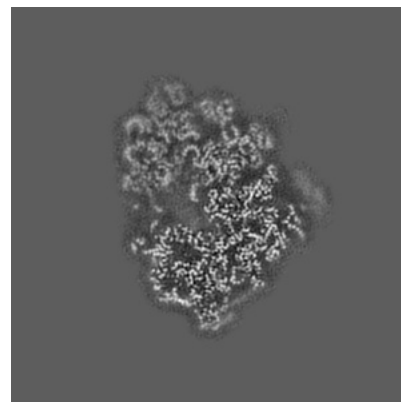
6.2.1 Primary map



X Index: 224

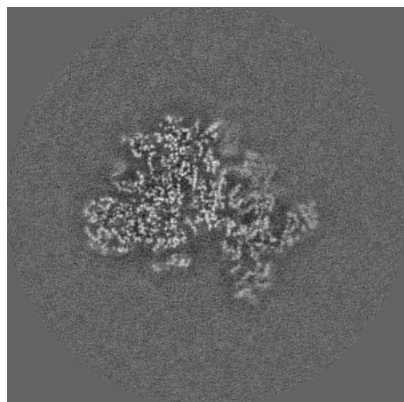


Y Index: 224

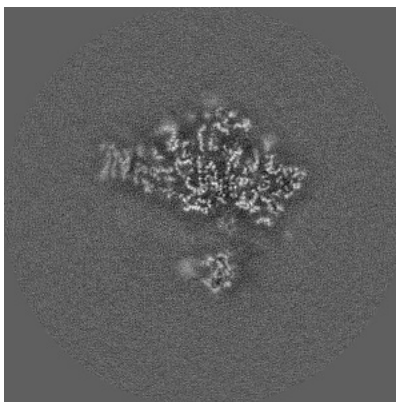


Z Index: 224

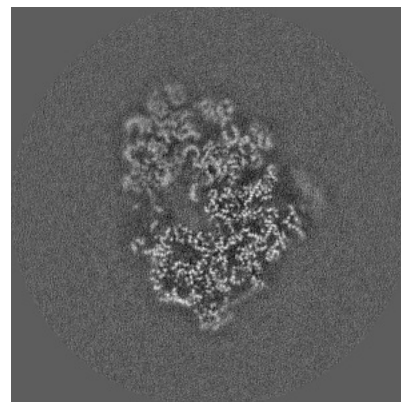
6.2.2 Raw map



X Index: 224



Y Index: 224

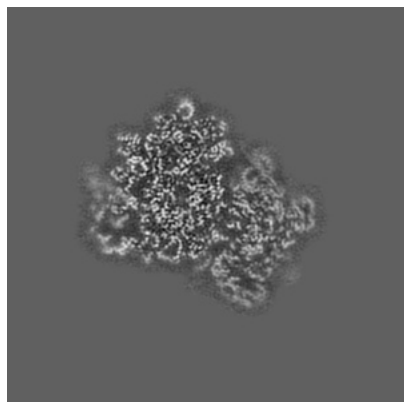


Z Index: 224

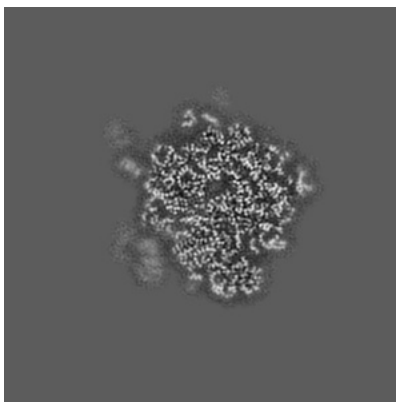
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

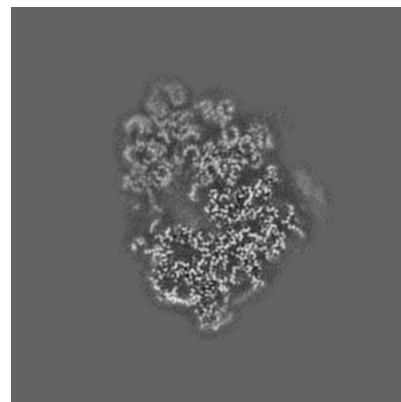
6.3.1 Primary map



X Index: 240

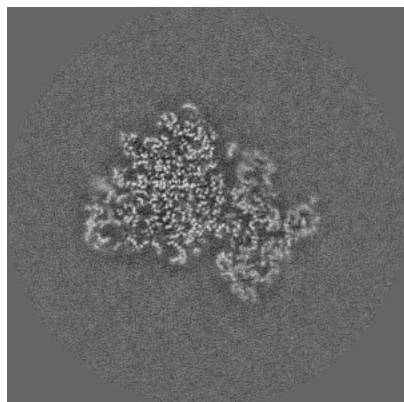


Y Index: 191

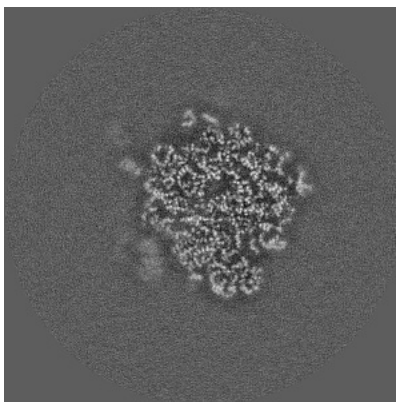


Z Index: 223

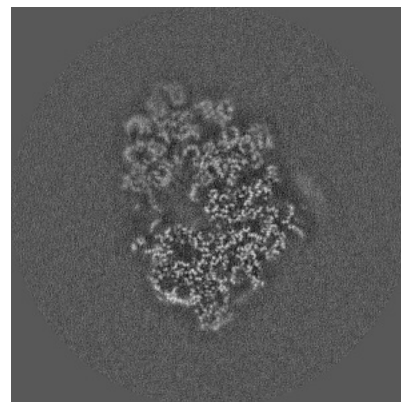
6.3.2 Raw map



X Index: 232



Y Index: 191

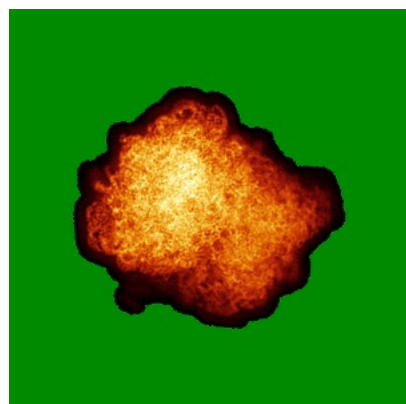


Z Index: 223

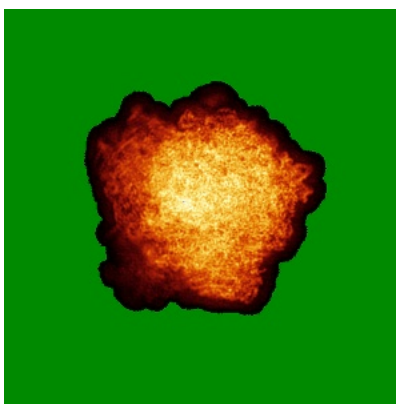
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) [i](#)

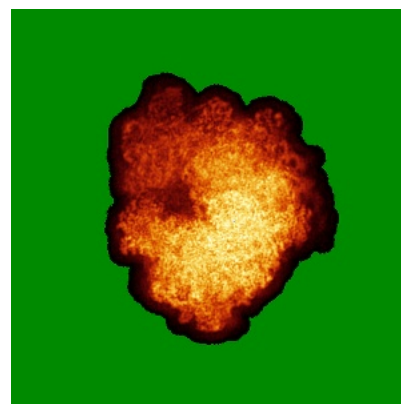
6.4.1 Primary map



X

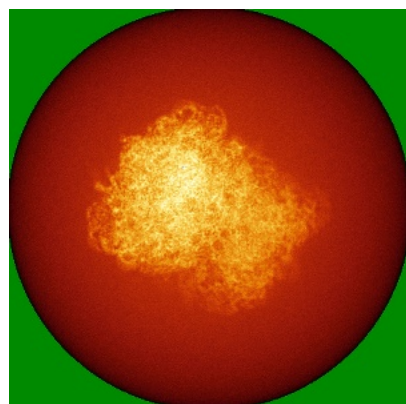


Y

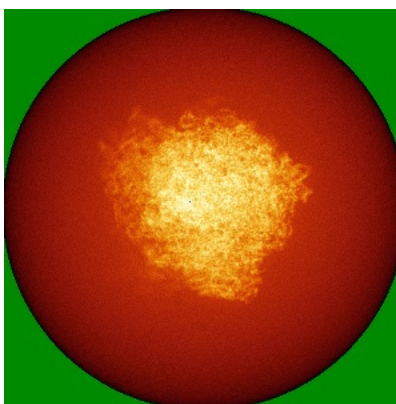


Z

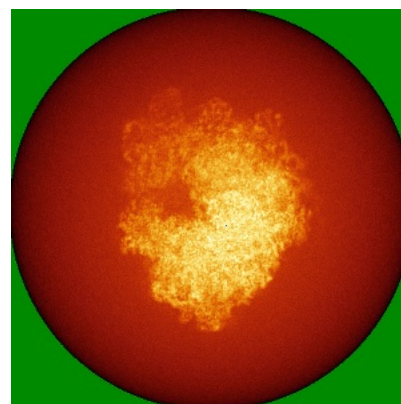
6.4.2 Raw map



X



Y

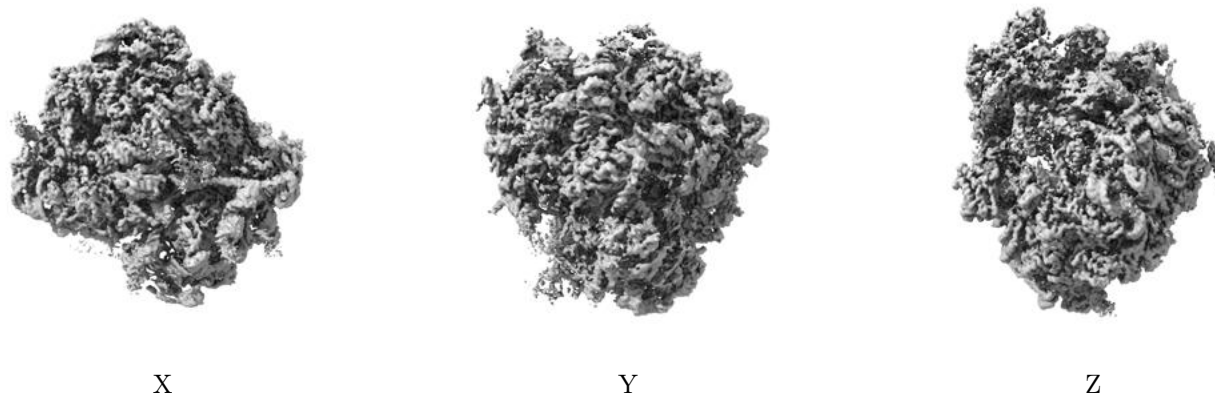


Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

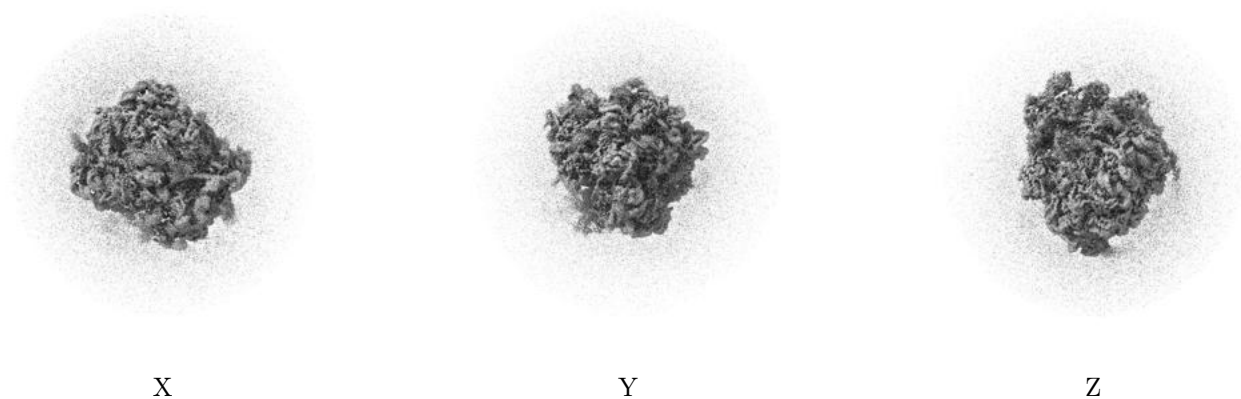
6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.005. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.5.2 Raw map



These images show the 3D surface of the raw map. The raw map's contour level was selected so that its surface encloses the same volume as the primary map does at its recommended contour level.

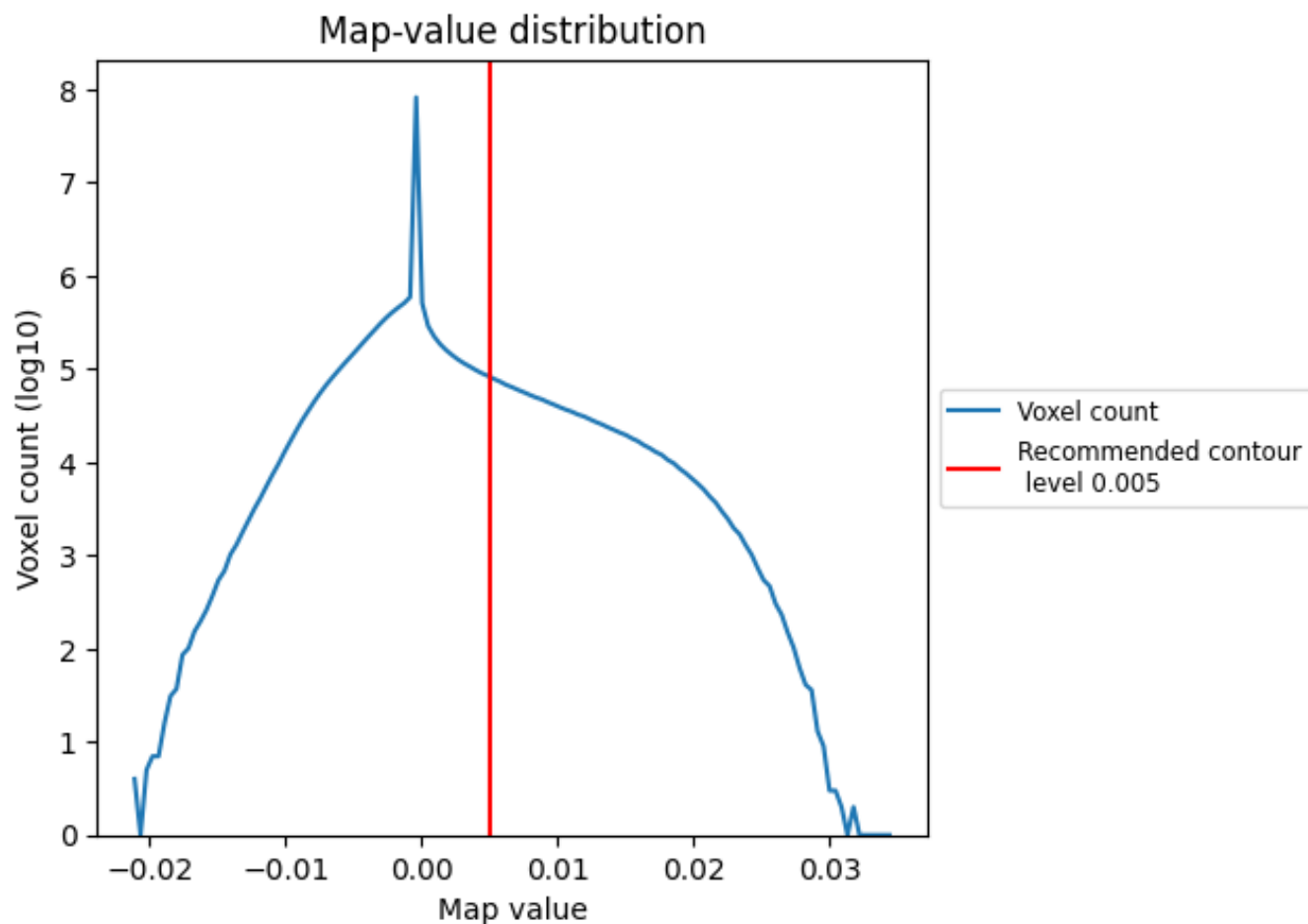
6.6 Mask visualisation [i](#)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis [i](#)

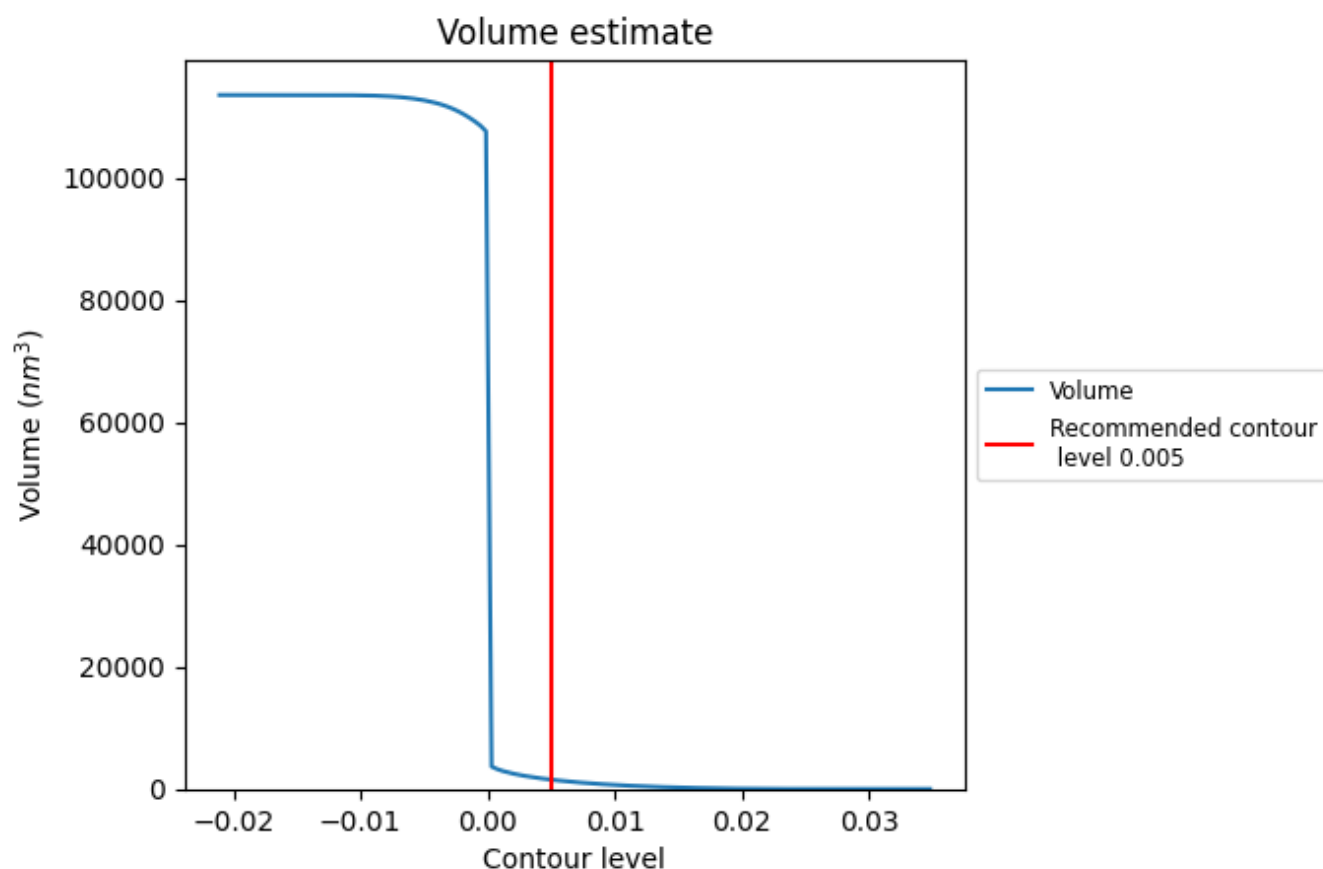
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

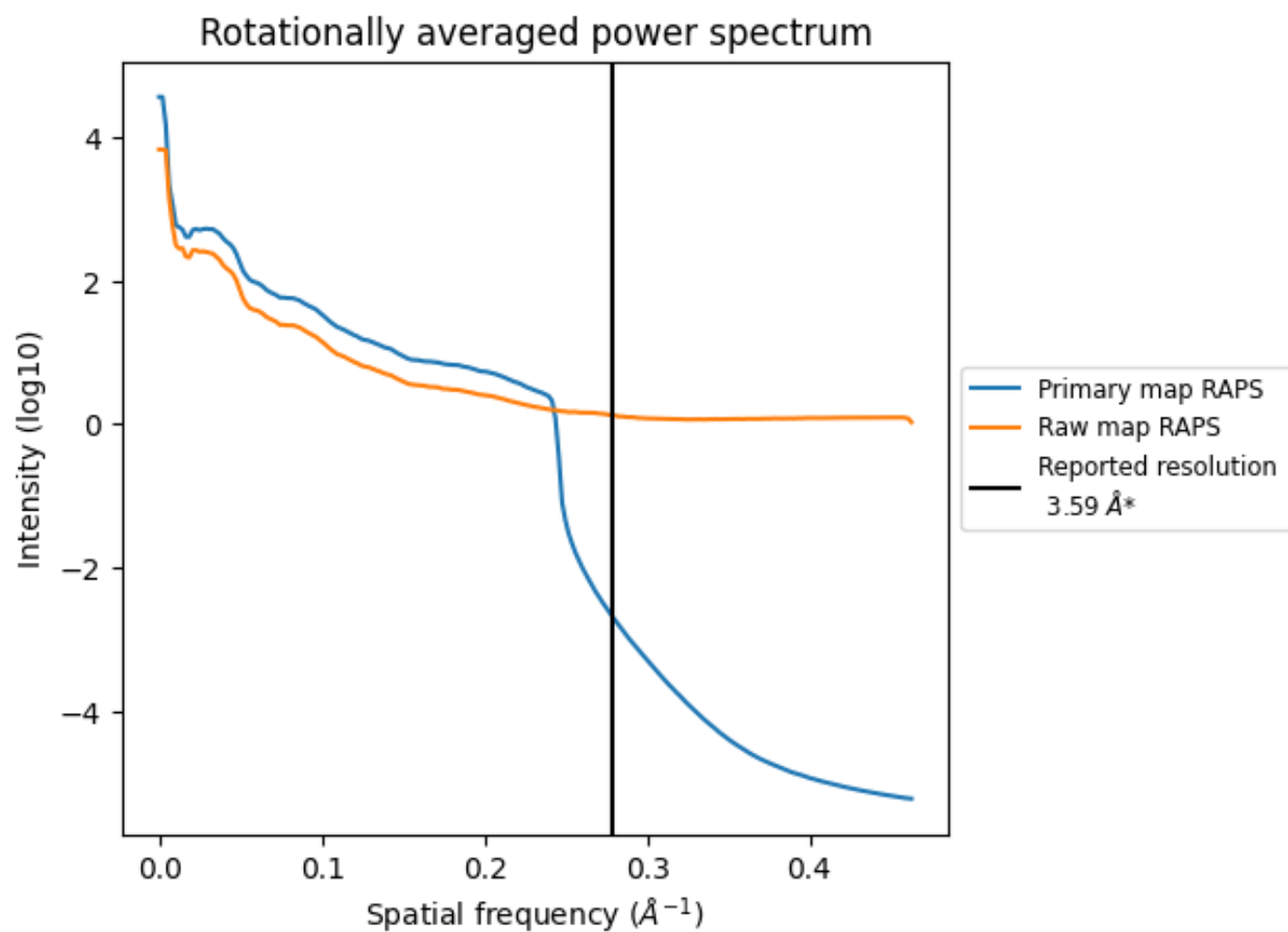
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 1519 nm^3 ; this corresponds to an approximate mass of 1372 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum ⓘ

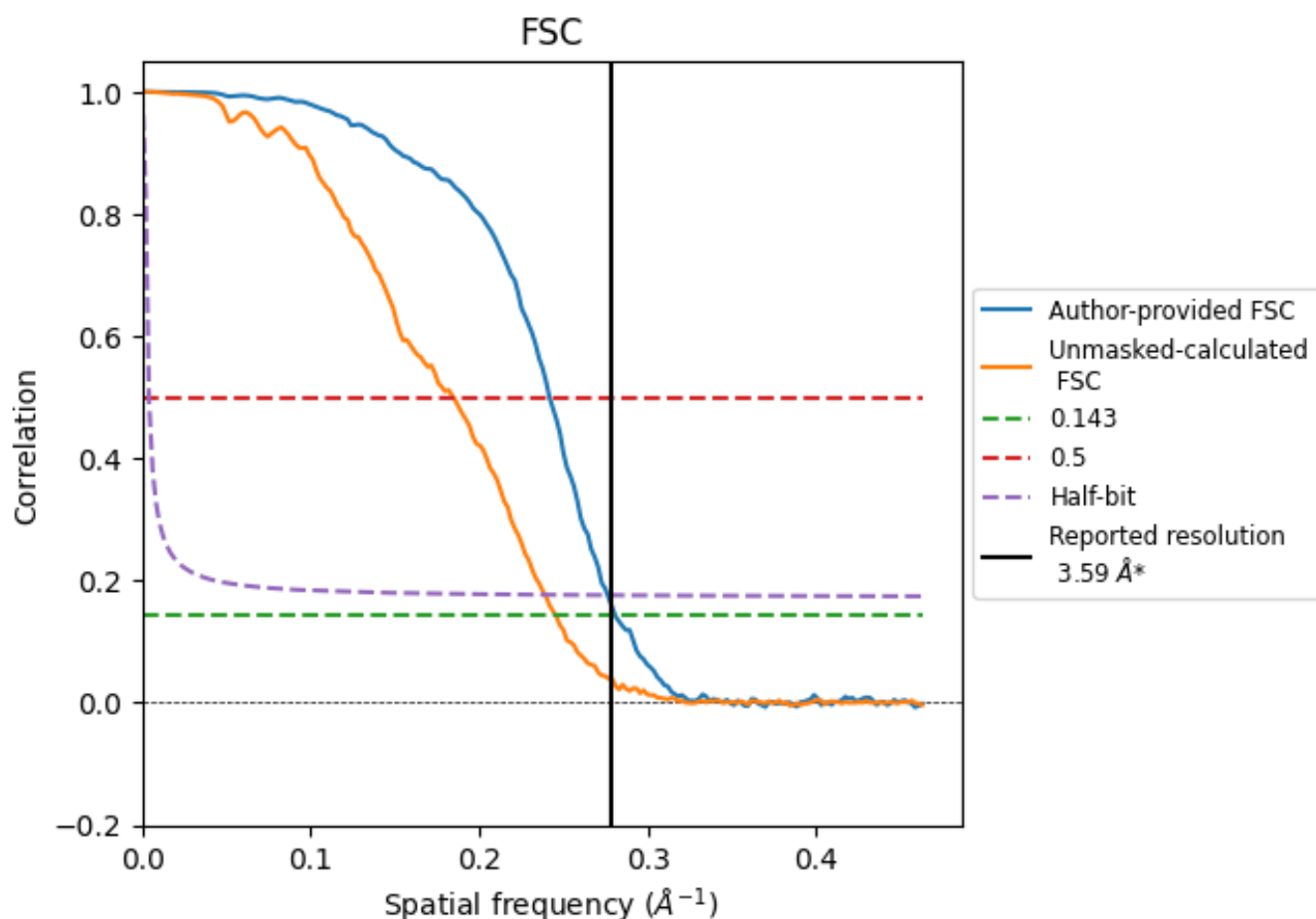


*Reported resolution corresponds to spatial frequency of 0.279 Å⁻¹

8 Fourier-Shell correlation [i](#)

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.279 Å⁻¹

8.2 Resolution estimates [i](#)

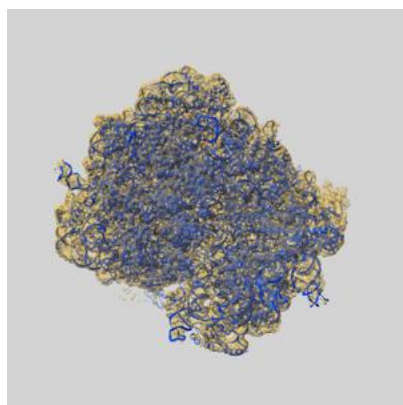
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.59	-	-
Author-provided FSC curve	3.56	4.14	3.62
Unmasked-calculated*	4.08	5.42	4.18

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 4.08 differs from the reported value 3.59 by more than 10 %

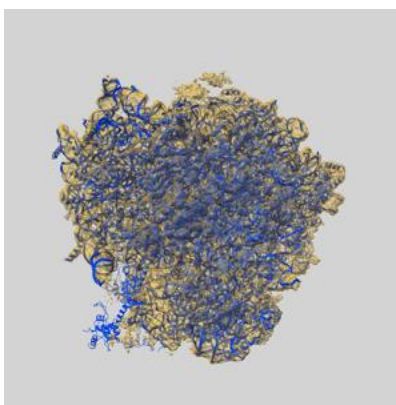
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-37995 and PDB model 8Y0U. Per-residue inclusion information can be found in section [3](#) on page [19](#).

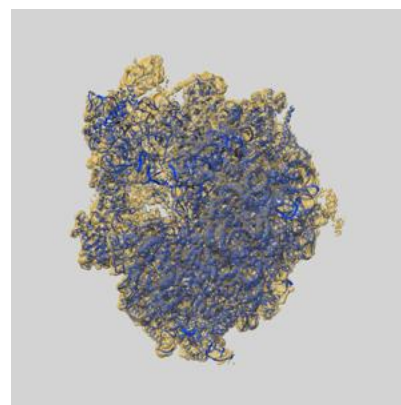
9.1 Map-model overlay [i](#)



X



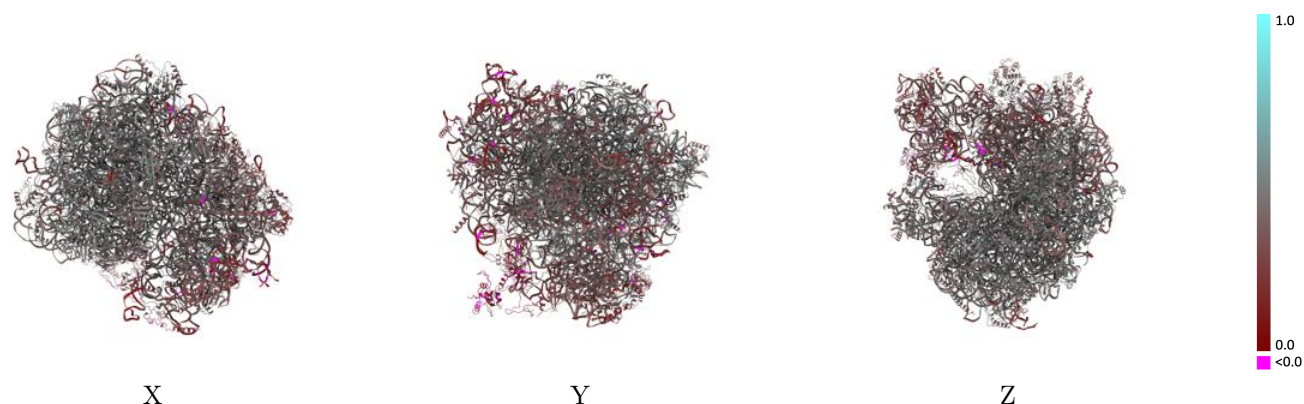
Y



Z

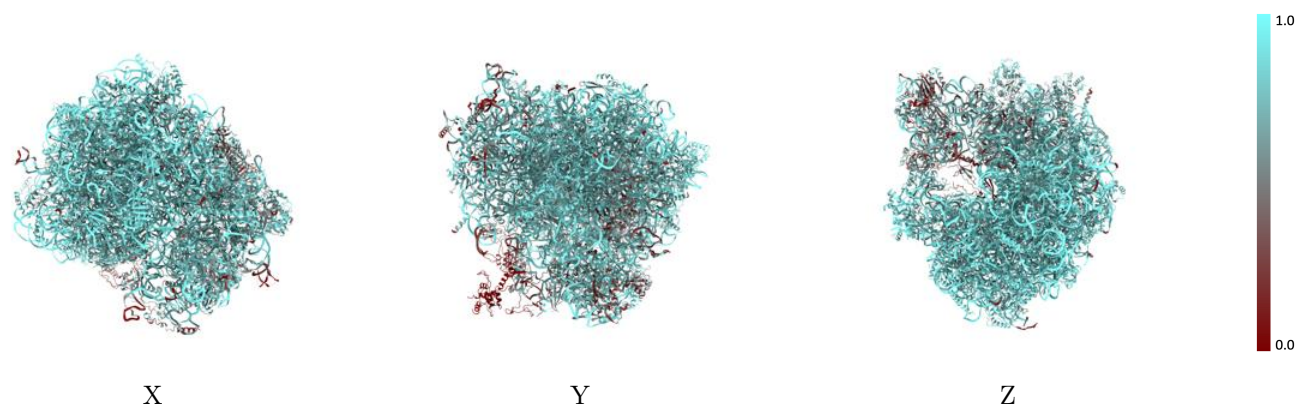
The images above show the 3D surface view of the map at the recommended contour level 0.005 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model [i](#)



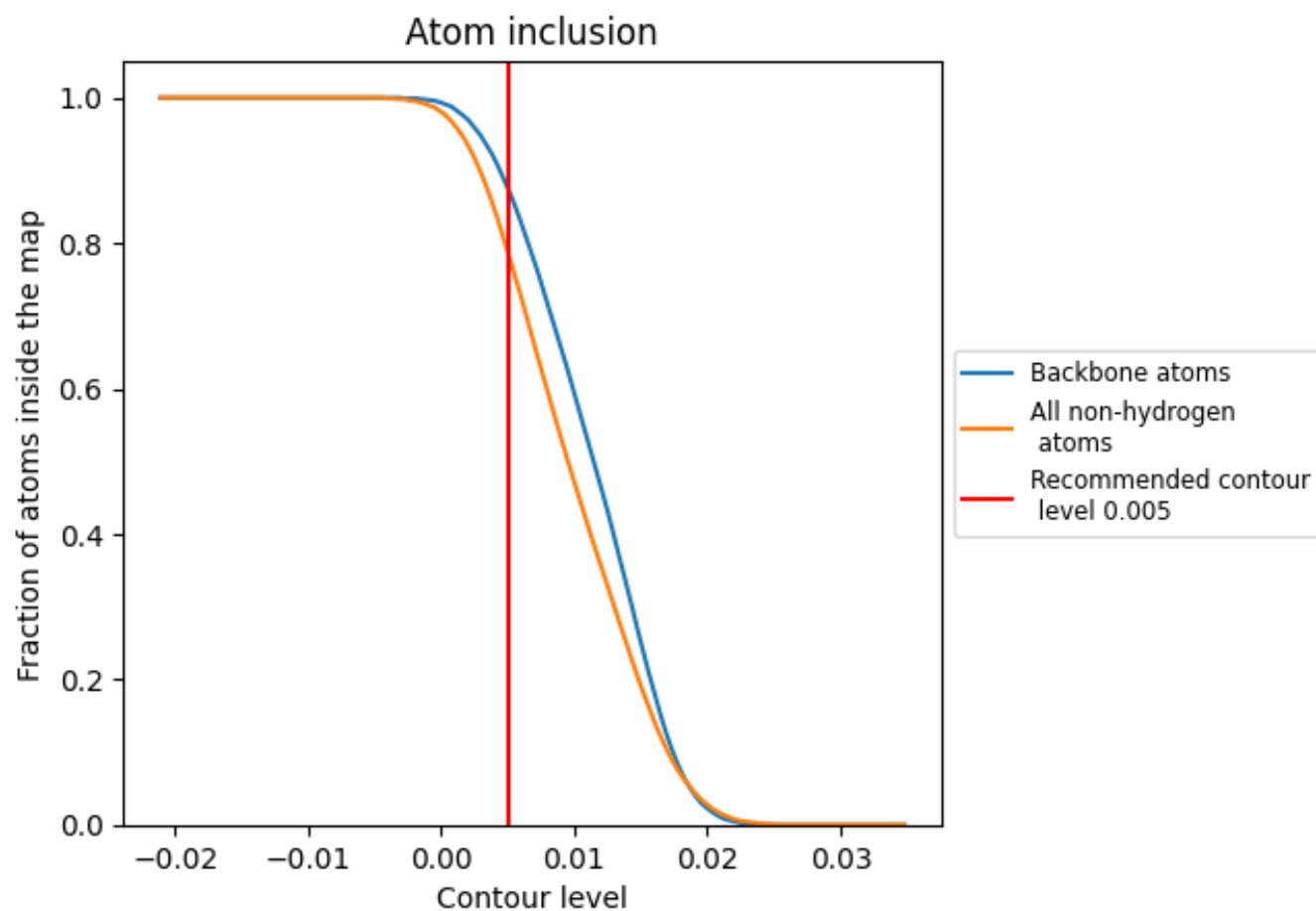
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

9.3 Atom inclusion mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.005).

9.4 Atom inclusion [i](#)



At the recommended contour level, 88% of all backbone atoms, 79% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (0.005) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.7880	 0.4110
5	 0.2420	 0.3670
C1	 0.8980	 0.4270
C2	 0.8110	 0.3730
C3	 0.9280	 0.4480
C4	 0.9560	 0.4460
LA	 0.7400	 0.4880
LB	 0.8010	 0.4780
LC	 0.8220	 0.4760
LD	 0.7950	 0.4230
LE	 0.7670	 0.4340
LF	 0.8040	 0.4610
LG	 0.8090	 0.4440
LH	 0.7960	 0.4540
LI	 0.7460	 0.4440
LJ	 0.7760	 0.4310
LL	 0.8200	 0.4620
LM	 0.8230	 0.4560
LN	 0.7200	 0.4840
LO	 0.7940	 0.4640
LP	 0.7610	 0.4640
LQ	 0.7760	 0.4750
LR	 0.7830	 0.4320
LS	 0.7850	 0.4790
LT	 0.7790	 0.4740
LU	 0.8260	 0.4290
LV	 0.7260	 0.4890
LW	 0.5730	 0.3620
LX	 0.7740	 0.4770
LY	 0.8130	 0.4760
LZ	 0.7900	 0.4570
La	 0.7930	 0.4800
Lb	 0.7040	 0.4560
Lc	 0.8510	 0.4550
Ld	 0.7980	 0.4600



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Chain	Atom inclusion	Q-score
Le	 0.7540	 0.4870
Lf	 0.7350	 0.4880
Lg	 0.6980	 0.4680
Lh	 0.8090	 0.4520
Li	 0.8000	 0.4420
Lj	 0.8060	 0.4970
Lk	 0.7810	 0.4470
Ll	 0.7210	 0.4730
Lm	 0.2750	 0.4310
Ln	 0.3560	 0.4310
Lo	 0.7820	 0.4810
Lp	 0.7920	 0.4600
P0	 0.1530	 0.1650
P2	 0.0730	 0.1360
SA	 0.7220	 0.3850
SB	 0.5460	 0.3300
SC	 0.7080	 0.4180
SE	 0.6590	 0.4180
SG	 0.6140	 0.3470
SH	 0.7180	 0.3580
SI	 0.6750	 0.4150
SJ	 0.6370	 0.3700
SK	 0.2900	 0.1880
SL	 0.6750	 0.4370
SM	 0.0170	 0.0980
SN	 0.6600	 0.3880
SO	 0.4500	 0.3290
SP	 0.5510	 0.3310
SQ	 0.3470	 0.3190
ST	 0.4380	 0.3160
SU	 0.4760	 0.3010
SV	 0.7640	 0.4060
SW	 0.6690	 0.4360
SX	 0.6590	 0.4420
SY	 0.6560	 0.3610
SZ	 0.3080	 0.2110
Sa	 0.5570	 0.3840
Sb	 0.7260	 0.3930
Sc	 0.3430	 0.2750
Sd	 0.4010	 0.3410
Se	 0.5530	 0.3700
Sf	 0.0420	 0.1600

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Chain	Atom inclusion	Q-score
s	 0.4590	 0.2750