



Full wwPDB EM Validation Report ⓘ

Mar 5, 2026 – 09:52 AM UTC

PDB ID : 3J6X / pdb_00003j6x
EMDB ID : EMD-5942
Title : S. cerevisiae 80S ribosome bound with Taura syndrome virus (TSV) IRES, 5 degree rotation (Class II)
Authors : Koh, C.S.; Brilot, A.F.; Grigorieff, N.; Korostelev, A.A.
Deposited on : 2014-04-16
Resolution : 6.10 Å (reported)
Based on initial models : 3U5C, 3U5D, 3U5B, 3U5E

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:

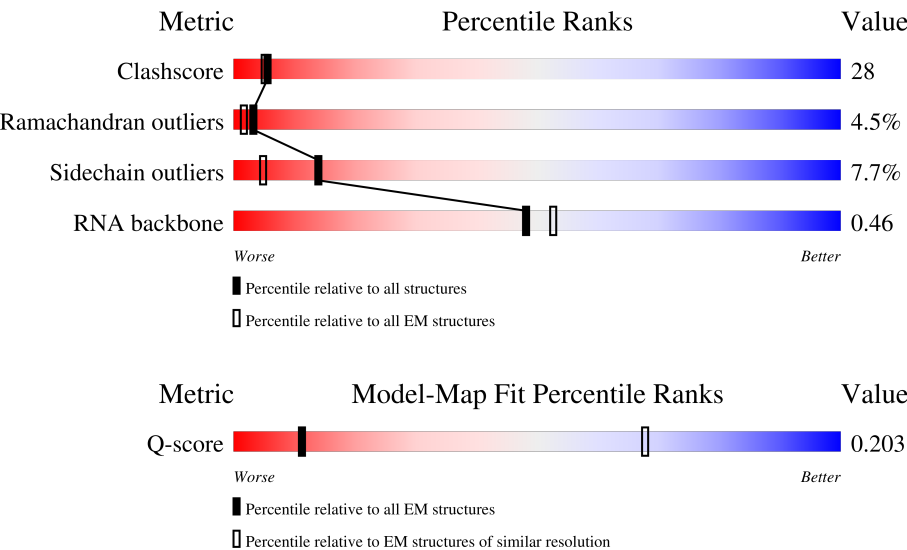
EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh &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

1 Overall quality at a glance i

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

The reported resolution of this entry is 6.10 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	531 (5.60 - 6.60)

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	2S	3395	32%53%12% . .
2	8S	158	32%54%13% .
3	5S	121	36%58%7%

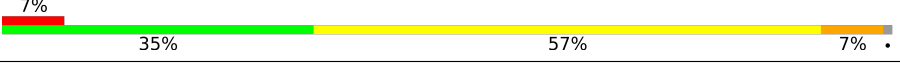
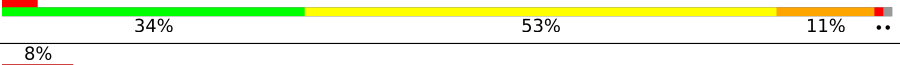
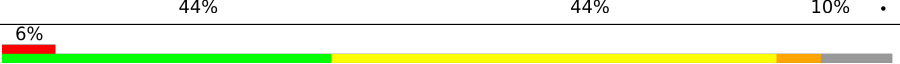
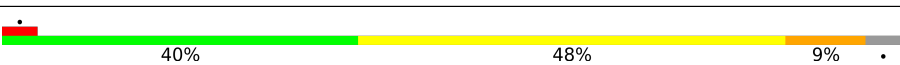
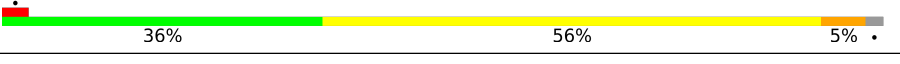
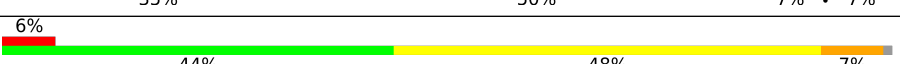
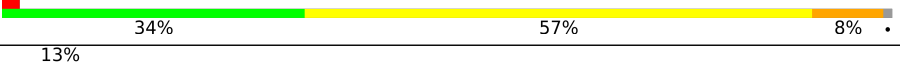
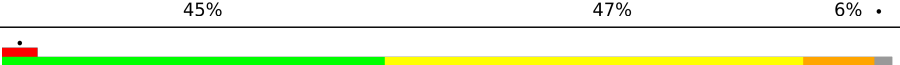
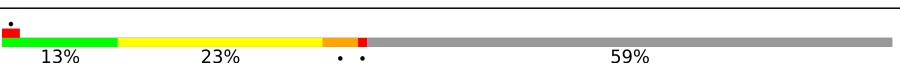
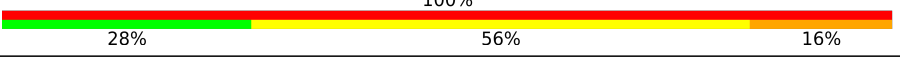
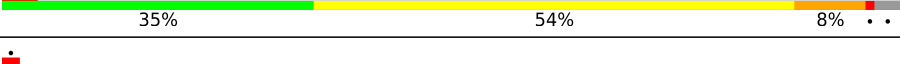
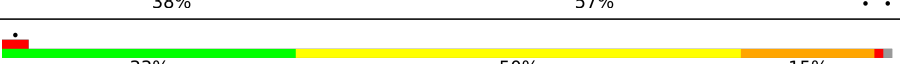
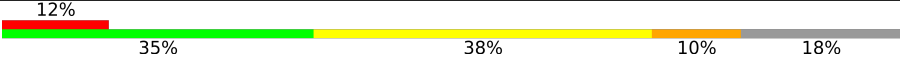
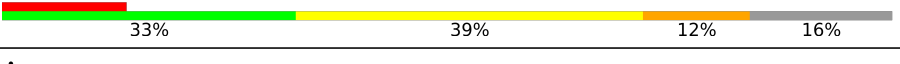
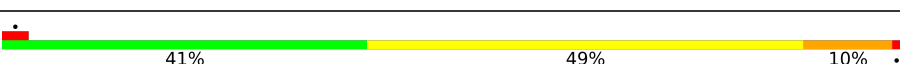
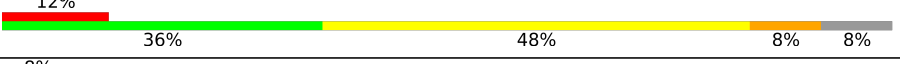
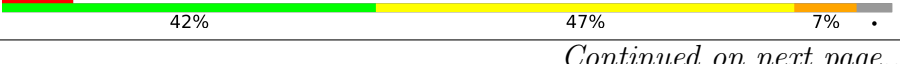
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Mol	Chain	Length	Quality of chain
4	L1	217	
5	L2	254	
6	L3	387	
7	L4	362	
8	L5	297	
9	L6	176	
10	L7	244	
11	L8	256	
12	L9	191	
13	50	221	
14	51	174	
15	53	199	
16	54	138	
17	55	204	
18	56	199	
19	57	184	
20	58	186	
21	59	189	
22	60	172	
23	61	160	
24	62	121	
25	63	137	
26	64	155	
27	65	142	
28	66	127	

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Mol	Chain	Length	Quality of chain
29	67	136	
30	68	149	
31	69	59	
32	70	105	
33	71	113	
34	72	130	
35	73	107	
36	74	121	
37	75	120	
38	76	100	
39	77	88	
40	78	78	
41	79	51	
42	80	128	
43	81	25	
44	82	106	
45	83	92	
46	1S	1798	
47	S0	252	
48	S1	255	
49	S2	254	
50	S3	240	
51	S4	261	
52	S5	225	
53	S6	236	

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Mol	Chain	Length	Quality of chain
54	S7	190	
55	S8	200	
56	S9	197	
57	10	105	
58	11	156	
59	12	143	
60	13	151	
61	14	137	
62	15	142	
63	16	143	
64	17	136	
65	18	146	
66	19	144	
67	20	121	
68	21	87	
69	22	130	
70	23	145	
71	24	135	
72	25	108	
73	26	119	
74	27	82	
75	28	67	
76	29	56	
77	30	63	
78	31	152	

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Mol	Chain	Length	Quality of chain
79	RA	319	22% 53% 39% 7%
80	IR	201	47% 99%

2 Entry composition

There are 80 unique types of molecules in this entry. The entry contains 204247 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 RNA chain called 25S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	2S	3308	Total	C	N	O	P	0	0
			70742	31596	12731	23107	3308		

- Molecule 2 is a RNA chain called 5.8S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	8S	158	Total	C	N	O	P	0	0
			3354	1500	586	1110	158		

- Molecule 3 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	5S	121	Total	C	N	O	P	0	0
			2580	1152	461	846	121		

- Molecule 4 is a protein called 60S ribosomal protein L1.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	L1	204	Total	C	N	O	S	0	0
			1609	1031	279	290	9		

- Molecule 5 is a protein called 60S ribosomal protein L2.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	L2	252	Total	C	N	O	S	0	0
			1918	1193	389	335	1		

- Molecule 6 is a protein called 60S ribosomal protein L3.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	L3	386	Total	C	N	O	S	0	0
			3082	1956	584	534	8		

- Molecule 7 is a protein called 60S ribosomal protein L4.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	L4	361	Total	C	N	O	S	0	0
			2750	1730	522	495	3		

- Molecule 8 is a protein called 60S ribosomal protein L5.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	L5	296	Total	C	N	O	S	0	0
			2376	1501	414	459	2		

- Molecule 9 is a protein called 60S ribosomal protein L6.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	L6	156	Total	C	N	O	S	0	0
			1240	800	222	217	1		

- Molecule 10 is a protein called 60S ribosomal protein L7.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	L7	222	Total	C	N	O	S	0	0
			1785	1151	324	309	1		

- Molecule 11 is a protein called 60S ribosomal protein L8.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	L8	233	Total	C	N	O	S	0	0
			1818	1159	326	330	3		

- Molecule 12 is a protein called 60S ribosomal protein L9.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	L9	191	Total	C	N	O	S	0	0
			1519	963	274	278	4		

- Molecule 13 is a protein called 60S ribosomal protein L10.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	50	211	Total	C	N	O	S	0	0
			1718	1089	325	298	6		

- Molecule 14 is a protein called 60S ribosomal protein L11.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	51	169	Total	C	N	O	S	0	0
			1354	847	253	250	4		

- Molecule 15 is a protein called 60S ribosomal protein L13.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	53	193	Total	C	N	O		0	0
			1543	962	315	266			

- Molecule 16 is a protein called 60S ribosomal protein L14.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	54	136	Total	C	N	O	S	0	0
			1054	675	199	178	2		

- Molecule 17 is a protein called 60S ribosomal protein L15.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	55	203	Total	C	N	O	S	0	0
			1721	1077	361	282	1		

- Molecule 18 is a protein called 60S ribosomal protein L16.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	56	197	Total	C	N	O	S	0	0
			1556	1003	289	263	1		

- Molecule 19 is a protein called 60S ribosomal protein L17.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	57	183	Total	C	N	O		0	0
			1443	896	287	260			

- Molecule 20 is a protein called 60S ribosomal protein L18.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	58	185	Total	C	N	O	S	0	0
			1442	908	290	242	2		

- Molecule 21 is a protein called 60S ribosomal protein L19.

Mol	Chain	Residues	Atoms				AltConf	Trace
21	59	188	Total	C	N	O	0	0
			1522	935	326	261		

- Molecule 22 is a protein called 60S ribosomal protein L20.

Mol	Chain	Residues	Atoms				AltConf	Trace
22	60	172	Total	C	N	O	S	0
			1446	930	267	245	4	0

- Molecule 23 is a protein called 60S ribosomal protein L21.

Mol	Chain	Residues	Atoms				AltConf	Trace
23	61	159	Total	C	N	O	S	0
			1277	805	246	222	4	0

- Molecule 24 is a protein called 60S ribosomal protein L22.

Mol	Chain	Residues	Atoms				AltConf	Trace
24	62	100	Total	C	N	O		0
			796	516	131	149		0

- Molecule 25 is a protein called 60S ribosomal protein L23.

Mol	Chain	Residues	Atoms				AltConf	Trace
25	63	136	Total	C	N	O	S	0
			1004	628	189	180	7	0

- Molecule 26 is a protein called 60S ribosomal protein L24.

Mol	Chain	Residues	Atoms				AltConf	Trace
26	64	61	Total	C	N	O	S	0
			509	328	100	80	1	0

- Molecule 27 is a protein called 60S ribosomal protein L25.

Mol	Chain	Residues	Atoms				AltConf	Trace
27	65	121	Total	C	N	O	S	0
			969	623	170	174	2	0

- Molecule 28 is a protein called 60S ribosomal protein L26.

Mol	Chain	Residues	Atoms				AltConf	Trace
28	66	126	Total	C	N	O	0	0
			994	625	192	177		

- Molecule 29 is a protein called 60S ribosomal protein L27.

Mol	Chain	Residues	Atoms				AltConf	Trace
29	67	135	Total	C	N	O	0	0
			1093	710	202	181		

- Molecule 30 is a protein called 60S ribosomal protein L28.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	68	148	Total	C	N	O	S	0	0
			1174	749	231	191	3		

- Molecule 31 is a protein called 60S ribosomal protein L29.

Mol	Chain	Residues	Atoms				AltConf	Trace
31	69	58	Total	C	N	O	0	0
			463	289	100	74		

- Molecule 32 is a protein called 60S ribosomal protein L30.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	70	97	Total	C	N	O	S	0	0
			743	479	124	139	1		

- Molecule 33 is a protein called 60S ribosomal protein L31.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	71	109	Total	C	N	O	S	0	0
			890	565	168	156	1		

- Molecule 34 is a protein called 60S ribosomal protein L32.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	72	127	Total	C	N	O	S	0	0
			1020	647	205	167	1		

- Molecule 35 is a protein called 60S ribosomal protein L33.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	73	106	Total	C	N	O	S	0	0
			851	540	165	145	1		

- Molecule 36 is a protein called 60S ribosomal protein L34.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	74	112	Total	C	N	O	S	0	0
			881	546	179	152	4		

- Molecule 37 is a protein called 60S ribosomal protein L35.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	75	119	Total	C	N	O	S	0	0
			970	615	186	168	1		

- Molecule 38 is a protein called 60S ribosomal protein L36.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	76	99	Total	C	N	O	S	0	0
			772	481	156	133	2		

- Molecule 39 is a protein called 60S ribosomal protein L37.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	77	87	Total	C	N	O	S	0	0
			682	414	148	115	5		

- Molecule 40 is a protein called 60S ribosomal protein L38.

Mol	Chain	Residues	Atoms				AltConf	Trace
40	78	77	Total	C	N	O	0	0
			613	391	115	107		

- Molecule 41 is a protein called 60S ribosomal protein L39.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	79	50	Total	C	N	O	S	0	0
			437	272	97	66	2		

- Molecule 42 is a protein called 60S ribosomal protein L40.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	80	52	Total	C	N	O	S	0	0
			418	259	86	68	5		

- Molecule 43 is a protein called 60S ribosomal protein L41.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	81	25	Total	C	N	O	S	0	0
			234	142	63	28	1		

- Molecule 44 is a protein called 60S ribosomal protein L42.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	82	103	Total	C	N	O	S	0	0
			827	520	167	135	5		

- Molecule 45 is a protein called 60S ribosomal protein L43.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	83	91	Total	C	N	O	S	0	0
			695	429	138	122	6		

- Molecule 46 is a RNA chain called 18S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	1S	1781	Total	C	N	O	P	0	0
			37949	16965	6715	12488	1781		

- Molecule 47 is a protein called 40S ribosomal protein S0.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	S0	206	Total	C	N	O	S	0	0
			1612	1034	285	291	2		

- Molecule 48 is a protein called 40S ribosomal protein S1.

Mol	Chain	Residues	Atoms					AltConf	Trace
48	S1	214	Total	C	N	O	S	0	0
			1709	1084	310	311	4		

- Molecule 49 is a protein called 40S ribosomal protein S2.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	S2	217	Total	C	N	O	S	0	0
			1635	1047	289	297	2		

- Molecule 50 is a protein called 40S ribosomal protein S3.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	S3	223	Total	C	N	O	S	0	0
			1734	1101	313	314	6		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
51	S4	260	Total	C	N	O	S	0	0
			2069	1316	389	361	3		

- Molecule 52 is a protein called 40S ribosomal protein S5.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	S5	206	Total	C	N	O	S	0	0
			1610	1007	300	300	3		

- Molecule 53 is a protein called 40S ribosomal protein S6.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	S6	226	Total	C	N	O	S	0	0
			1820	1142	350	325	3		

- Molecule 54 is a protein called 40S ribosomal protein S7.

Mol	Chain	Residues	Atoms				AltConf	Trace
54	S7	184	Total	C	N	O	0	0
			1481	951	265	265		

- Molecule 55 is a protein called 40S ribosomal protein S8.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	S8	188	Total	C	N	O	S	0	0
			1490	925	298	265	2		

- Molecule 56 is a protein called 40S ribosomal protein S9.

Mol	Chain	Residues	Atoms					AltConf	Trace
56	S9	185	Total	C	N	O	S	0	0
			1494	943	289	261	1		

- Molecule 57 is a protein called 40S ribosomal protein S10.

Mol	Chain	Residues	Atoms					AltConf	Trace
57	10	96	Total	C	N	O	S	0	0
			817	529	133	153	2		

- Molecule 58 is a protein called 40S ribosomal protein S11.

Mol	Chain	Residues	Atoms					AltConf	Trace
58	11	155	Total	C	N	O	S	0	0
			1245	798	235	209	3		

- Molecule 59 is a protein called 40S ribosomal protein S12.

Mol	Chain	Residues	Atoms					AltConf	Trace
59	12	124	Total	C	N	O	S	0	0
			935	587	165	181	2		

- Molecule 60 is a protein called 40S ribosomal protein S13.

Mol	Chain	Residues	Atoms					AltConf	Trace
60	13	150	Total	C	N	O	S	0	0
			1193	759	224	208	2		

- Molecule 61 is a protein called 40S ribosomal protein S14.

Mol	Chain	Residues	Atoms					AltConf	Trace
61	14	127	Total	C	N	O	S	0	0
			942	578	186	175	3		

- Molecule 62 is a protein called 40S ribosomal protein S15.

Mol	Chain	Residues	Atoms					AltConf	Trace
62	15	124	Total	C	N	O	S	0	0
			991	631	187	166	7		

- Molecule 63 is a protein called 40S ribosomal protein S16.

Mol	Chain	Residues	Atoms				AltConf	Trace
63	16	141	Total	C	N	O	0	0
			1106	708	203	195		

- Molecule 64 is a protein called 40S ribosomal protein S17.

Mol	Chain	Residues	Atoms					AltConf	Trace
64	17	120	Total	C	N	O	S	0	0
			965	603	183	177	2		

- Molecule 65 is a protein called 40S ribosomal protein S18.

Mol	Chain	Residues	Atoms					AltConf	Trace
65	18	145	Total	C	N	O	S	0	0
			1193	743	237	211	2		

- Molecule 66 is a protein called 40S ribosomal protein S19.

Mol	Chain	Residues	Atoms					AltConf	Trace
66	19	143	Total	C	N	O	S	0	0
			1113	694	208	209	2		

- Molecule 67 is a protein called 40S ribosomal protein S20.

Mol	Chain	Residues	Atoms					AltConf	Trace
67	20	107	Total	C	N	O	S	0	0
			856	539	156	160	1		

- Molecule 68 is a protein called 40S ribosomal protein S21.

Mol	Chain	Residues	Atoms					AltConf	Trace
68	21	87	Total	C	N	O	S	0	0
			685	420	125	138	2		

- Molecule 69 is a protein called 40S ribosomal protein S22.

Mol	Chain	Residues	Atoms					AltConf	Trace
69	22	129	Total	C	N	O	S	0	0
			1022	650	188	181	3		

- Molecule 70 is a protein called 40S ribosomal protein S23.

Mol	Chain	Residues	Atoms					AltConf	Trace
70	23	144	Total	C	N	O	S	0	0
			1122	708	220	192	2		

- Molecule 71 is a protein called 40S ribosomal protein S24.

Mol	Chain	Residues	Atoms					AltConf	Trace
71	24	134	Total	C	N	O		0	0
			1074	676	208	190			

- Molecule 72 is a protein called 40S ribosomal protein S25.

Mol	Chain	Residues	Atoms					AltConf	Trace
72	25	70	Total	C	N	O		0	0
			563	360	104	99			

- Molecule 73 is a protein called 40S ribosomal protein S26.

Mol	Chain	Residues	Atoms					AltConf	Trace
73	26	97	Total	C	N	O	S	0	0
			769	475	160	129	5		

- Molecule 74 is a protein called 40S ribosomal protein S27.

Mol	Chain	Residues	Atoms					AltConf	Trace
74	27	81	Total	C	N	O	S	0	0
			611	382	110	114	5		

- Molecule 75 is a protein called 40S ribosomal protein S28.

Mol	Chain	Residues	Atoms					AltConf	Trace
75	28	63	Total	C	N	O	S	0	0
			498	306	99	92	1		

- Molecule 76 is a protein called 40S ribosomal protein S29.

Mol	Chain	Residues	Atoms					AltConf	Trace
76	29	53	Total	C	N	O	S	0	0
			444	275	92	73	4		

- Molecule 77 is a protein called 40S ribosomal protein S30.

Mol	Chain	Residues	Atoms					AltConf	Trace
77	30	60	Total	C	N	O	S	0	0
			475	299	98	77	1		

- Molecule 78 is a protein called 40S ribosomal protein S31.

Mol	Chain	Residues	Atoms					AltConf	Trace
78	31	71	Total	C	N	O	S	0	0
			498	309	93	92	4		

- Molecule 79 is a protein called Guanine nucleotide-binding protein subunit beta-like protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
79	RA	318	Total	C	N	O	S	0	0
			2445	1546	419	472	8		

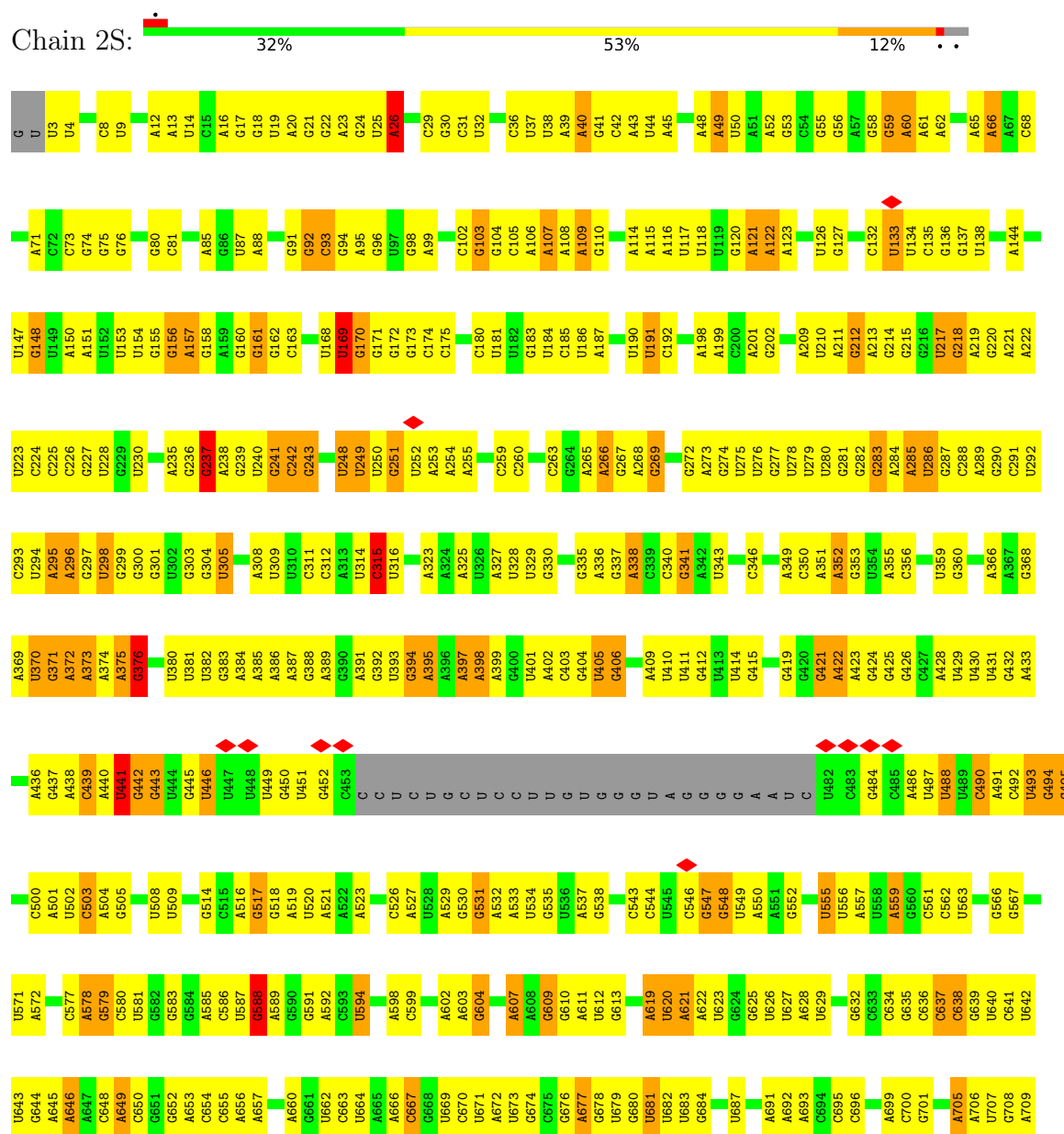
- Molecule 80 is a RNA chain called TSV IRES mRNA.

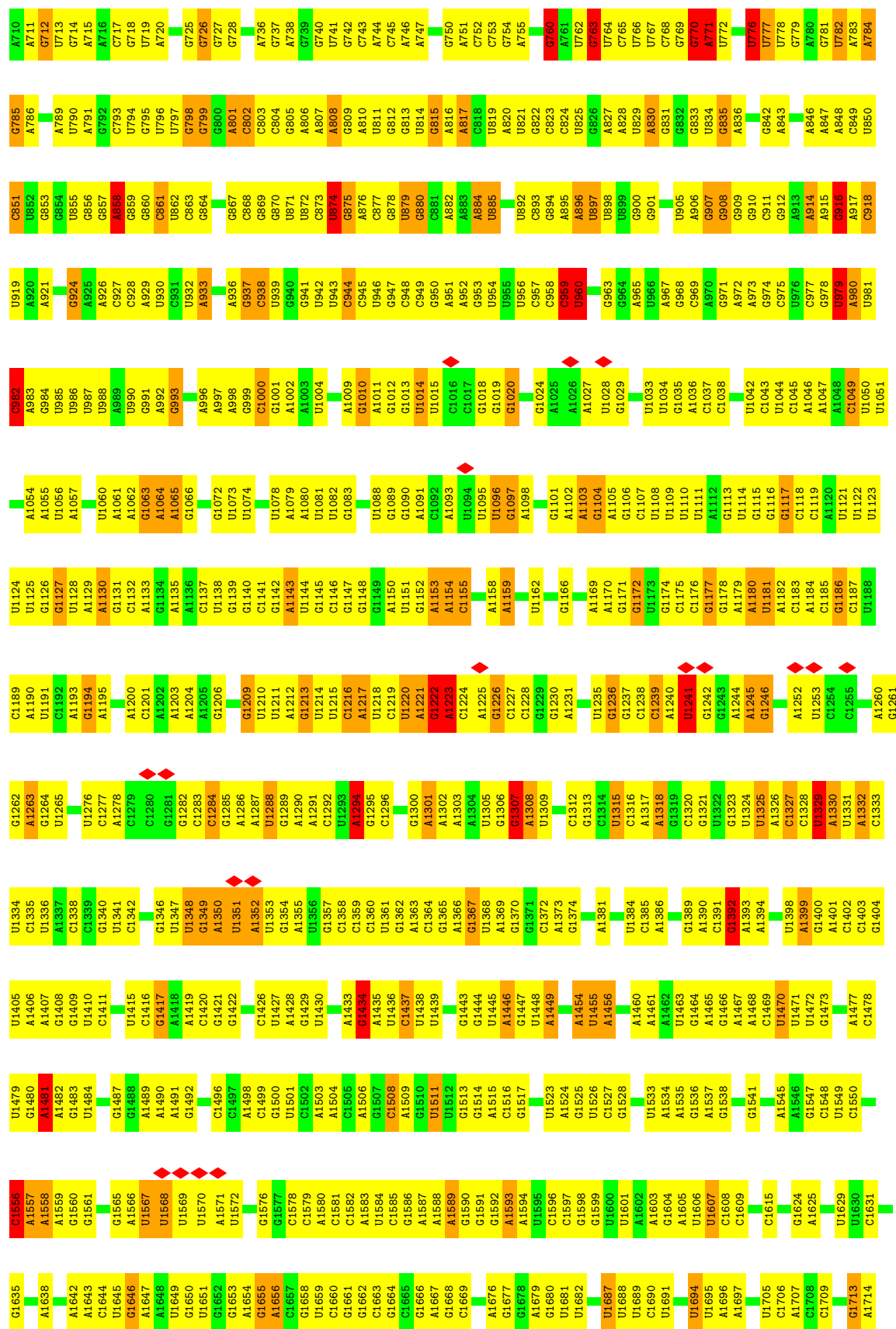
Mol	Chain	Residues	Atoms		AltConf	Trace
80	IR	198	Total	P	0	198
			198	198		

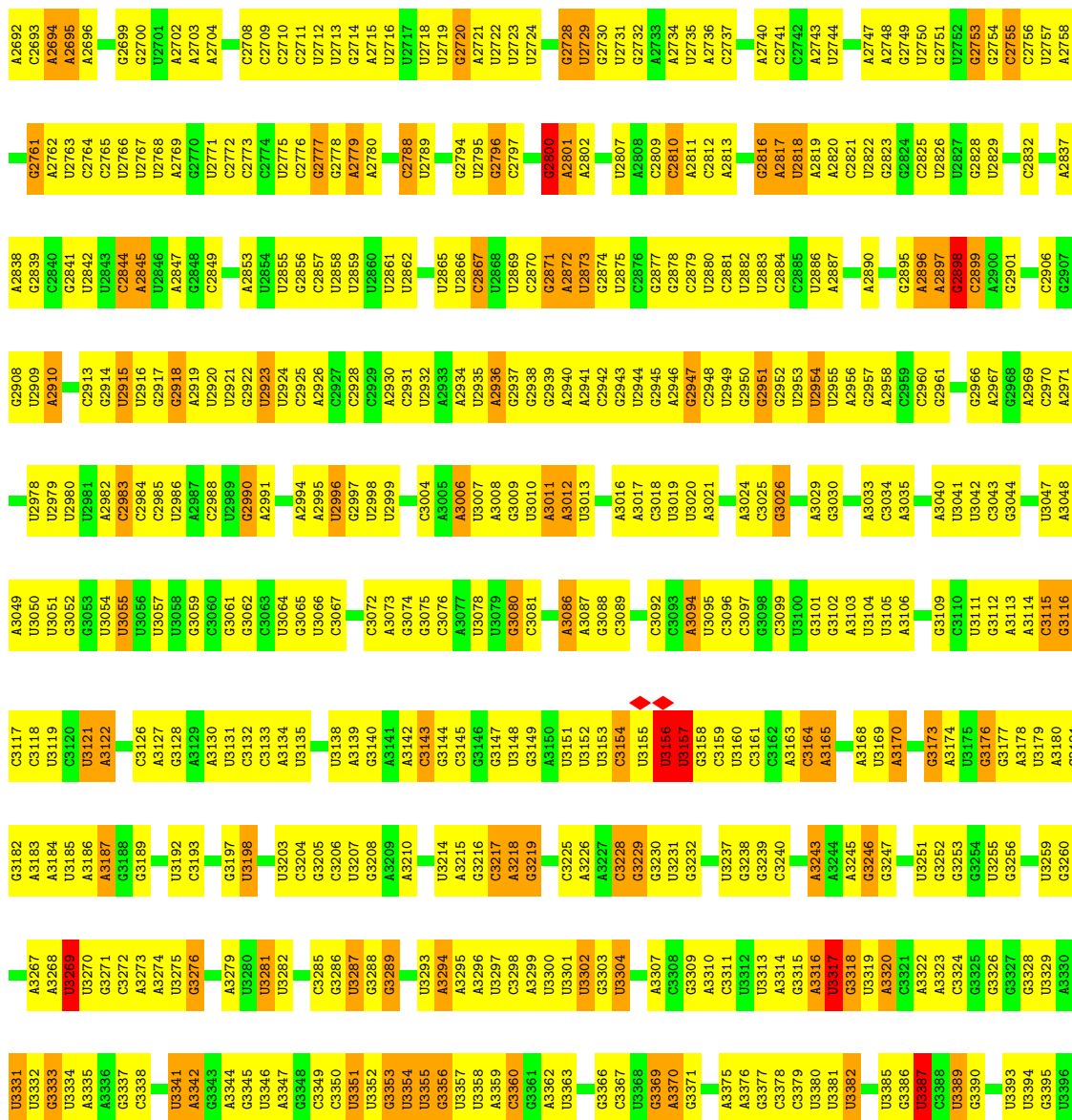
3 Residue-property plots

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.

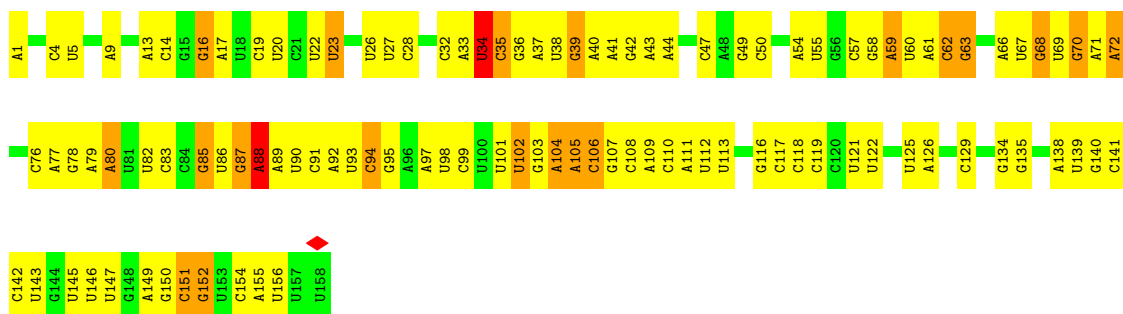
• Molecule 1: 25S ribosomal RNA



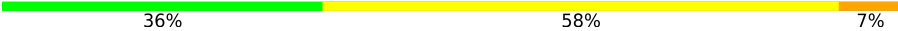


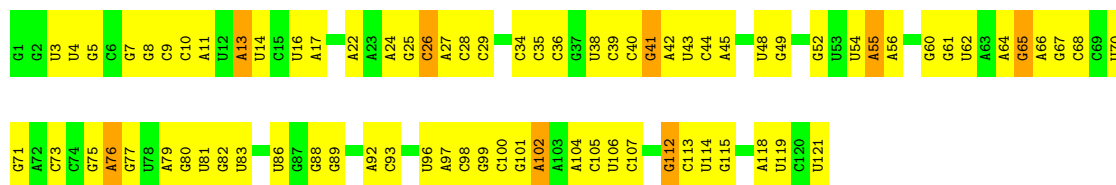


• Molecule 2: 5.8S ribosomal RNA

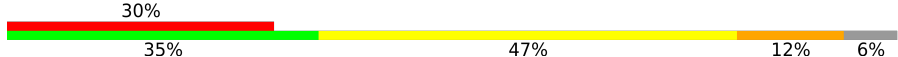


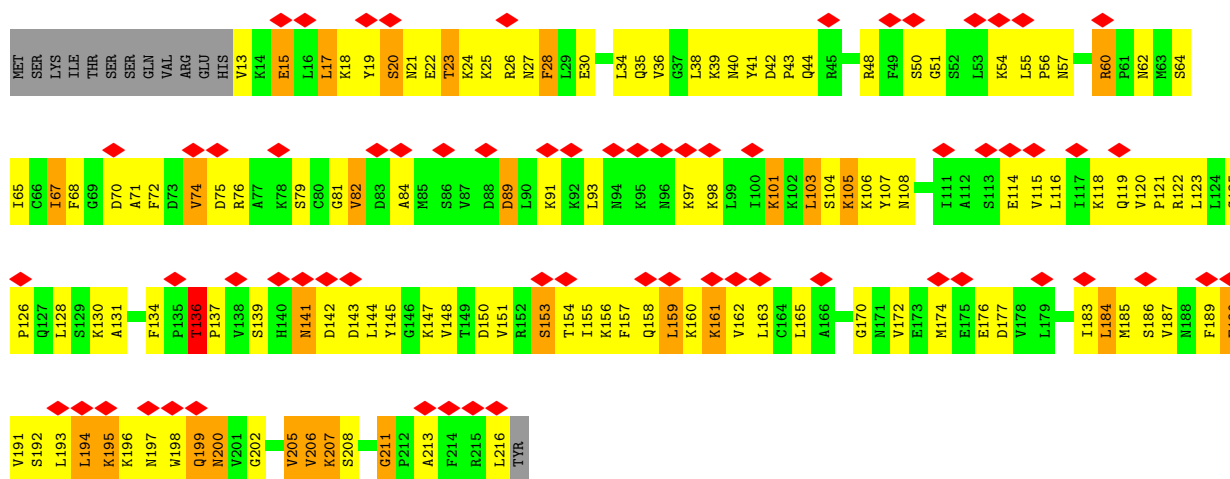
• Molecule 3: 5S ribosomal RNA

Chain 5S: 

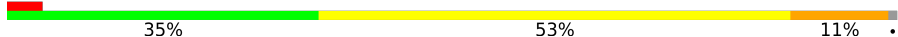


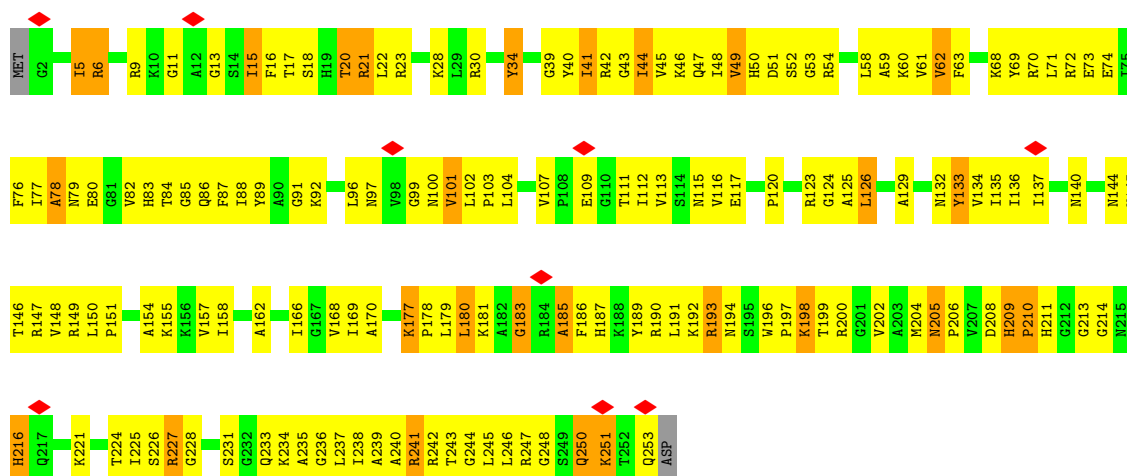
• Molecule 4: 60S ribosomal protein L1

Chain L1: 



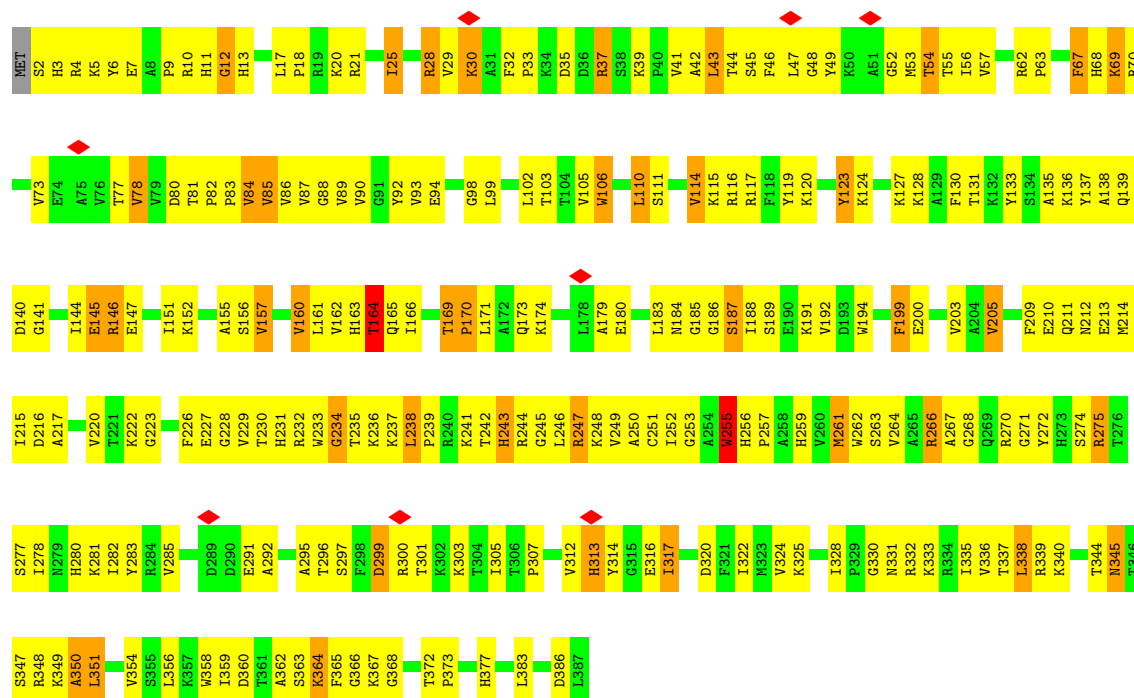
• Molecule 5: 60S ribosomal protein L2

Chain L2: 



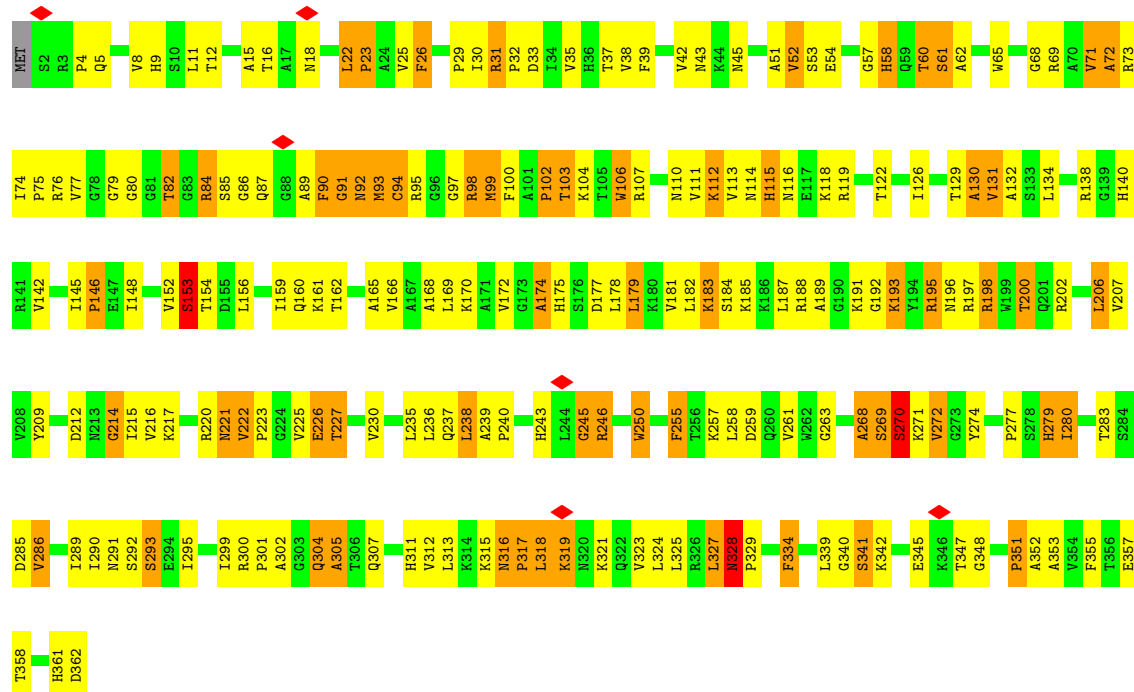
• Molecule 6: 60S ribosomal protein L3

Chain L3: 



• Molecule 7: 60S ribosomal protein L4

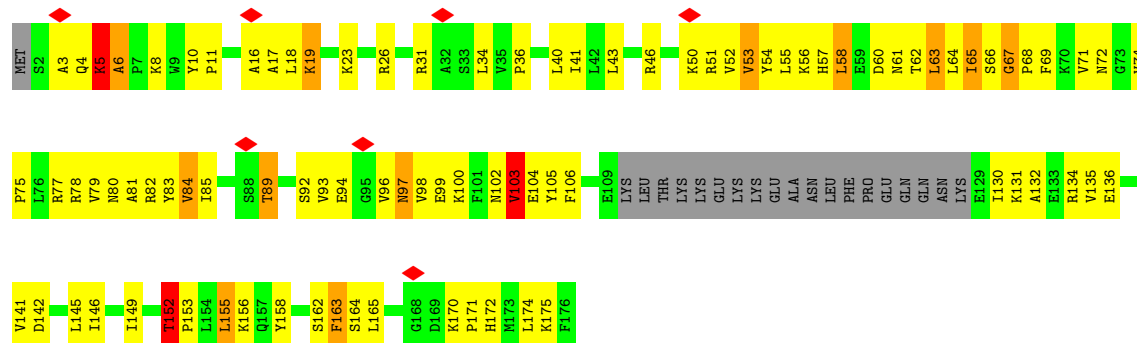
Chain L4: 41% 41% 17%



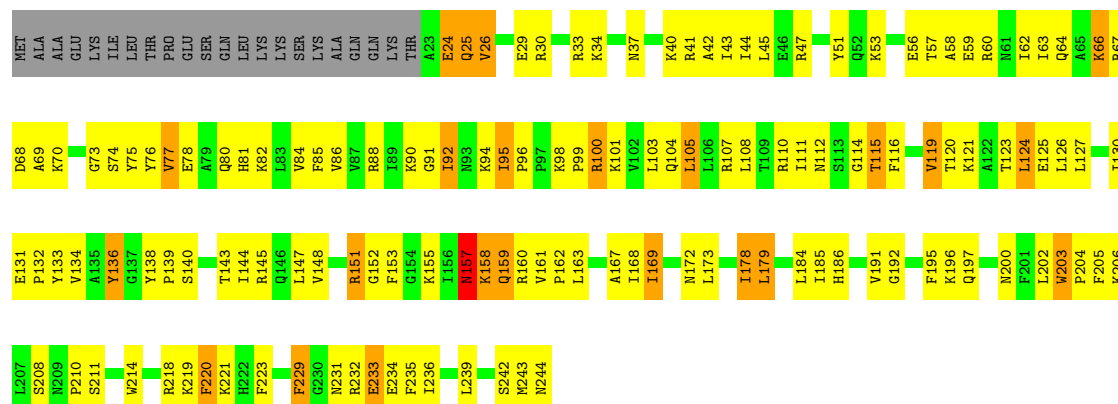
• Molecule 8: 60S ribosomal protein L5

Chain L5: 8% 49% 45% 6%

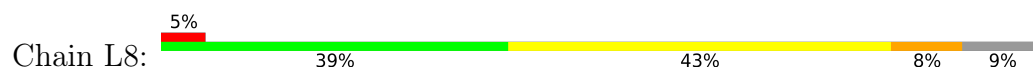
- Molecule 9: 60S ribosomal protein L6

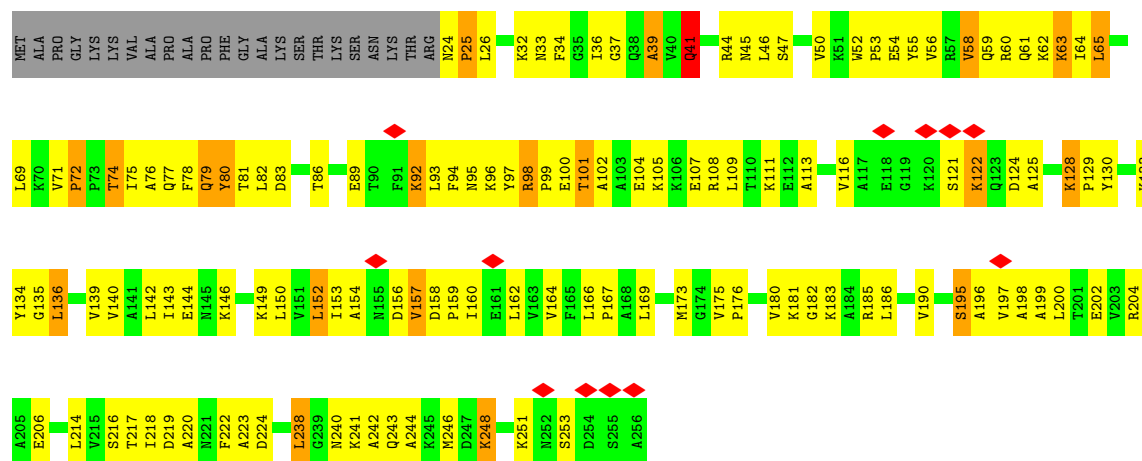


- Molecule 10: 60S ribosomal protein L7

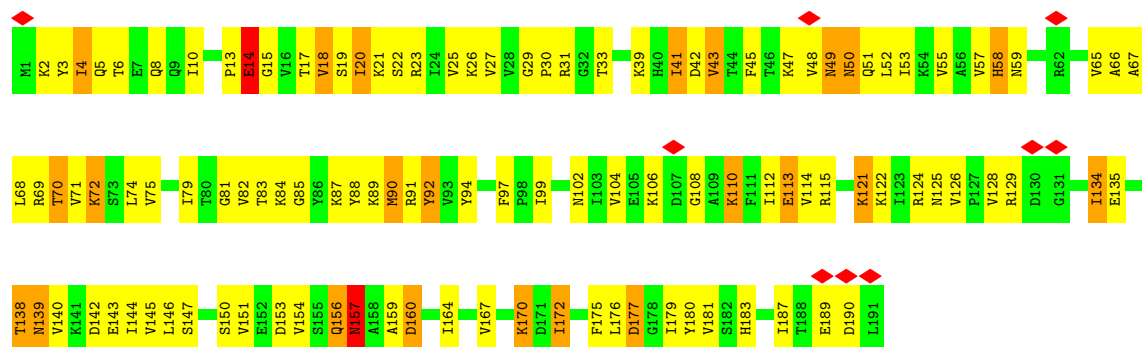


- Molecule 11: 60S ribosomal protein L8

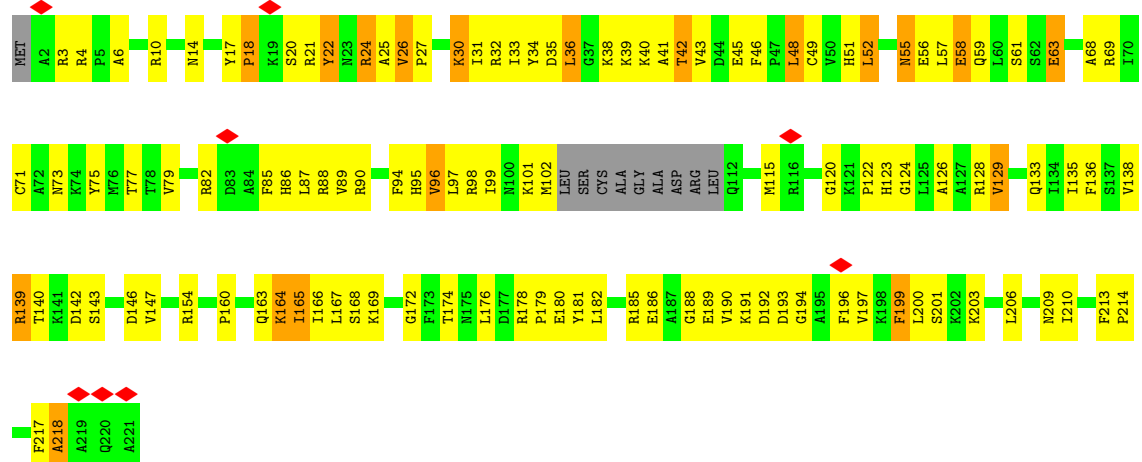




• Molecule 12: 60S ribosomal protein L9

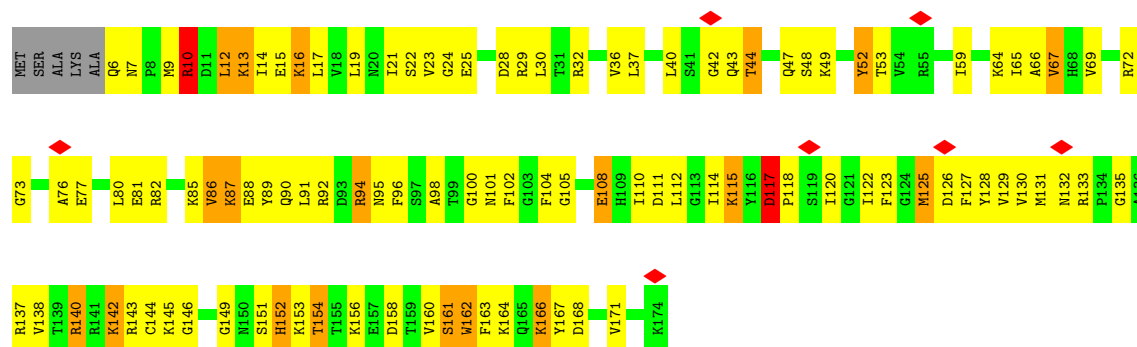


• Molecule 13: 60S ribosomal protein L10

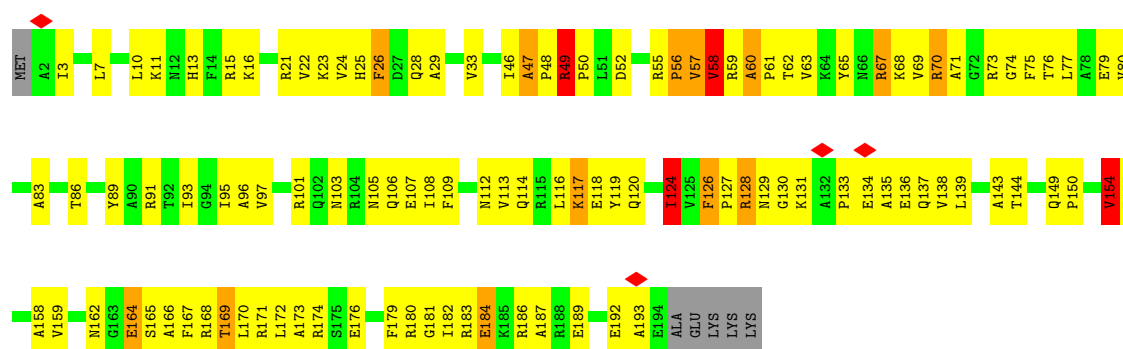


• Molecule 14: 60S ribosomal protein L11

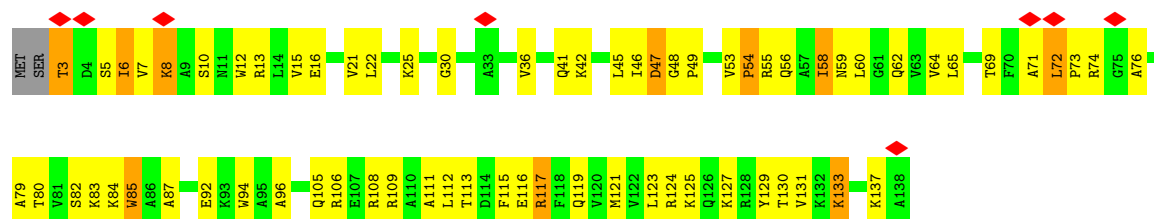




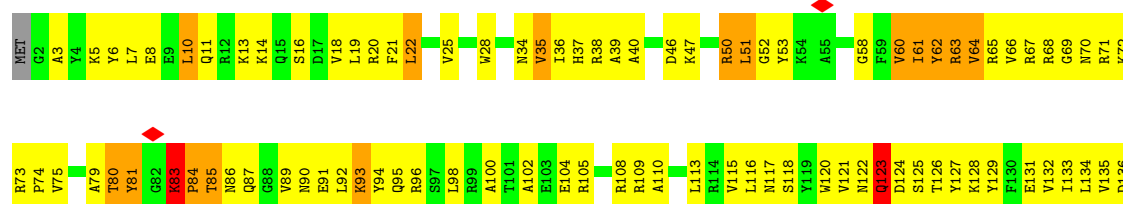
• Molecule 15: 60S ribosomal protein L13



• Molecule 16: 60S ribosomal protein L14

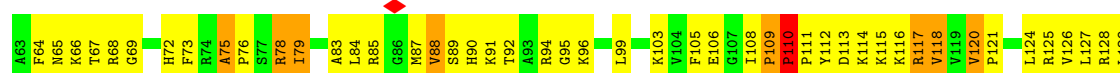
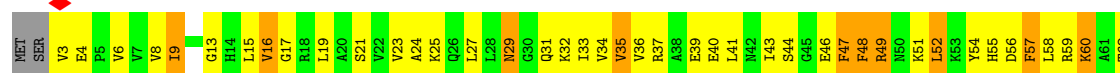
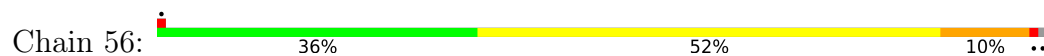


• Molecule 17: 60S ribosomal protein L15

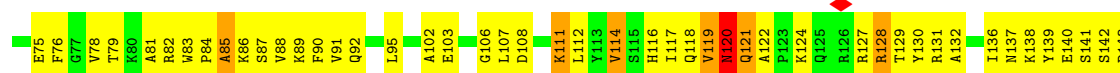




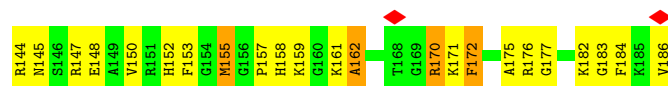
• Molecule 18: 60S ribosomal protein L16



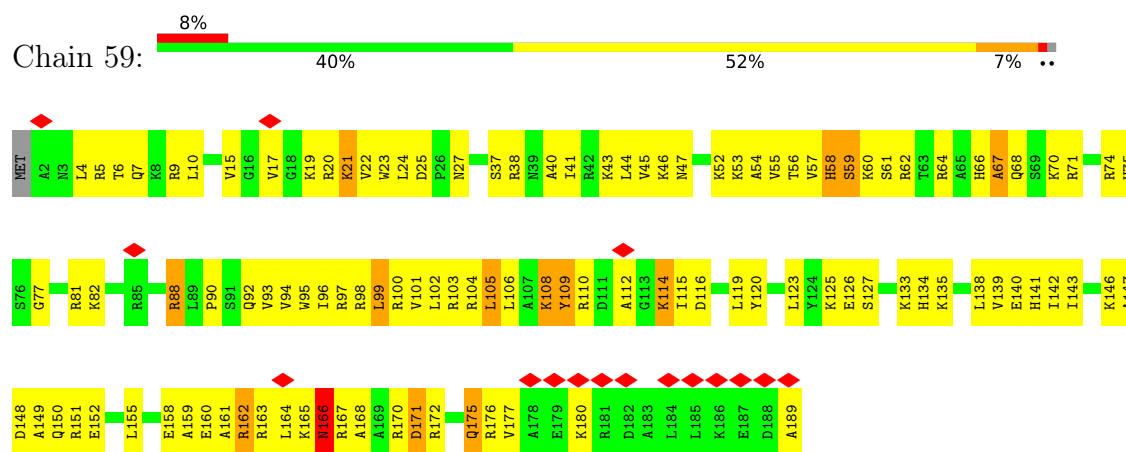
• Molecule 19: 60S ribosomal protein L17



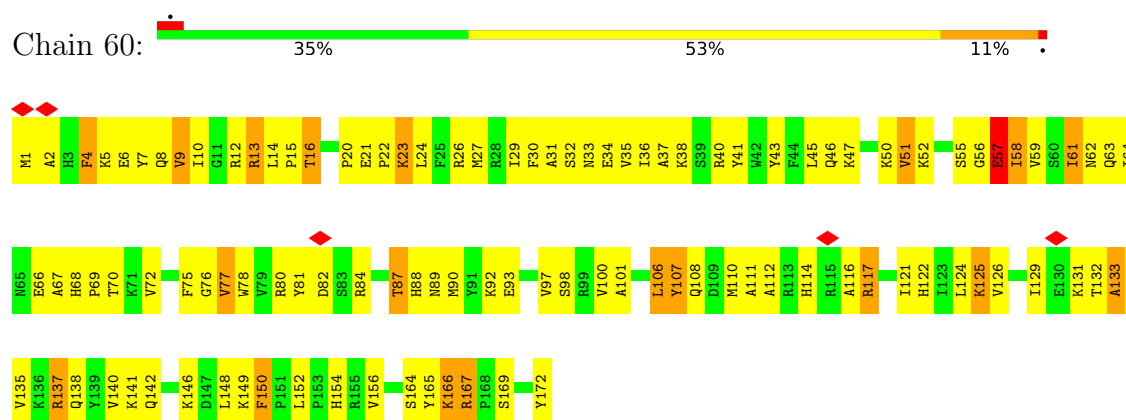
• Molecule 20: 60S ribosomal protein L18



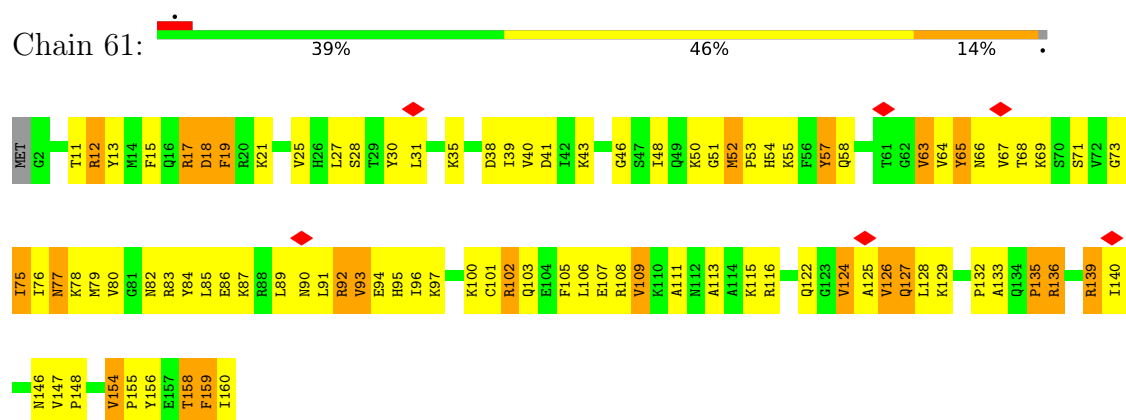
• Molecule 21: 60S ribosomal protein L19



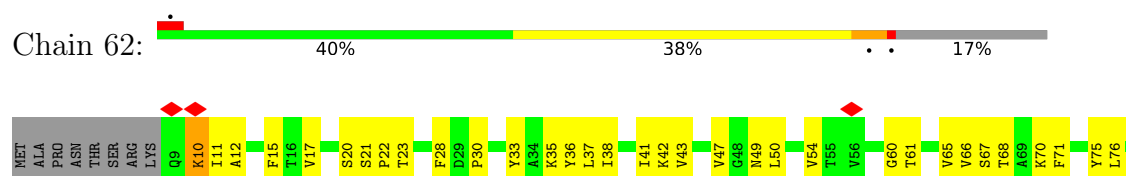
• Molecule 22: 60S ribosomal protein L20

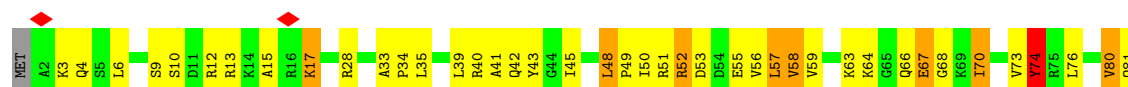


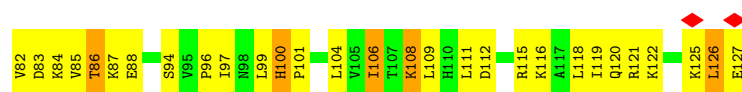
• Molecule 23: 60S ribosomal protein L21



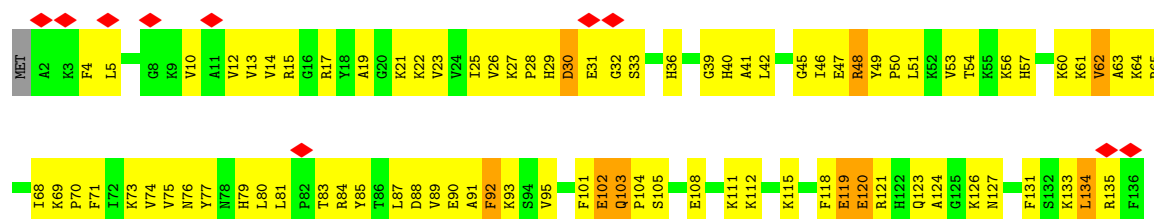
• Molecule 24: 60S ribosomal protein L22



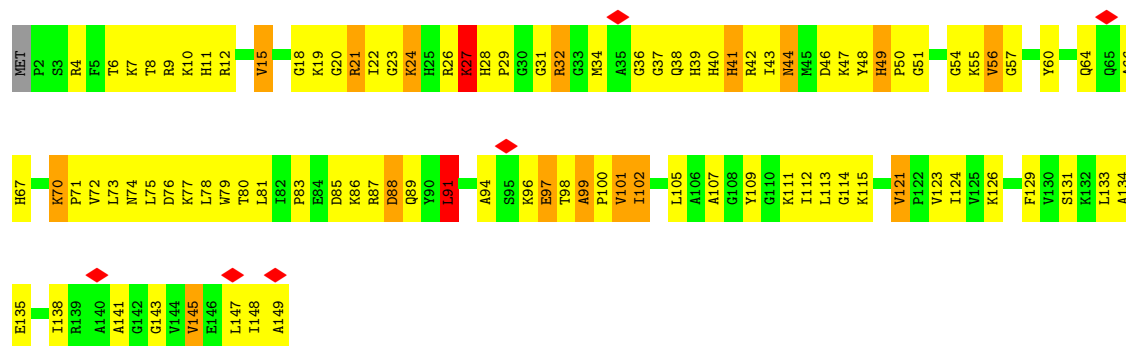




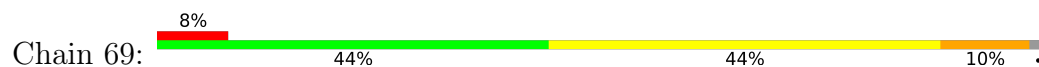
• Molecule 29: 60S ribosomal protein L27



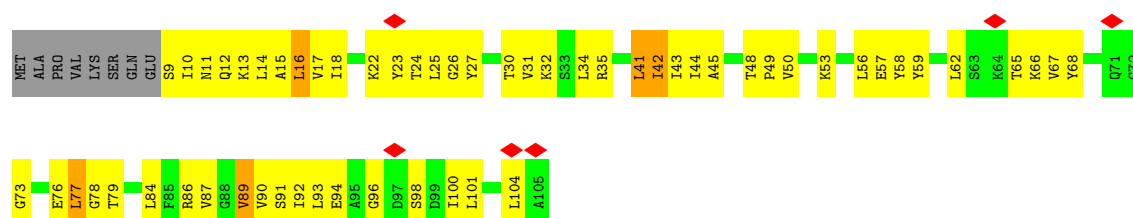
• Molecule 30: 60S ribosomal protein L28



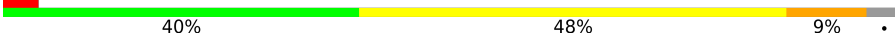
• Molecule 31: 60S ribosomal protein L29

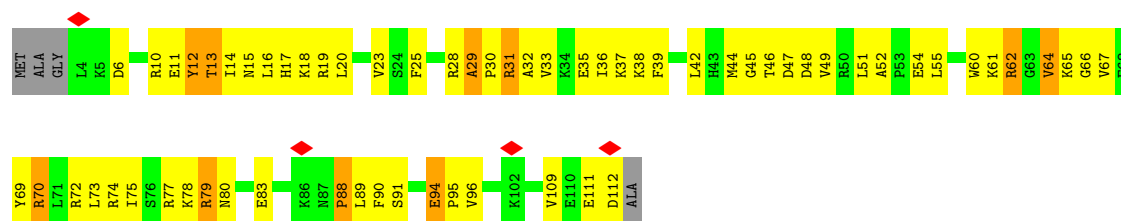


• Molecule 32: 60S ribosomal protein L30



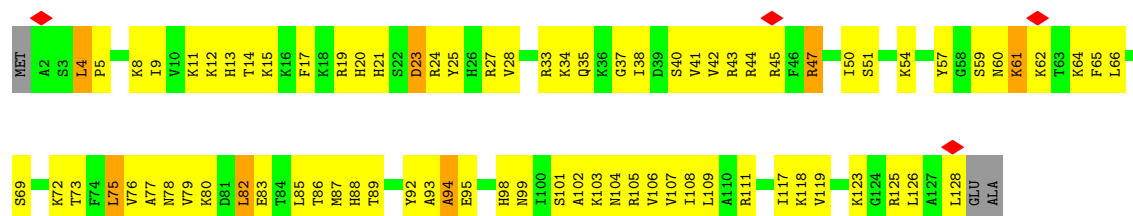
• Molecule 33: 60S ribosomal protein L31

Chain 71:  40% 48% 9% .



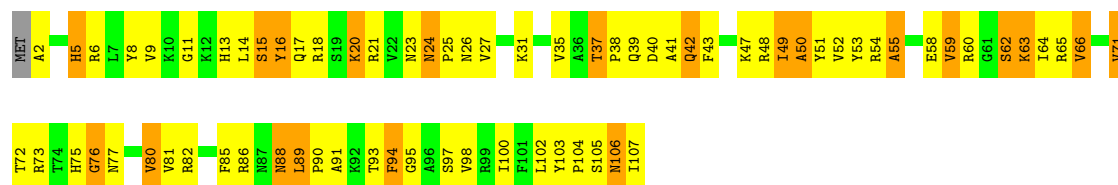
• Molecule 34: 60S ribosomal protein L32

Chain 72:  36% 56% 5% .

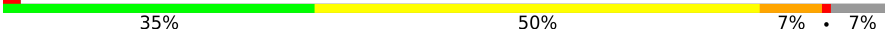


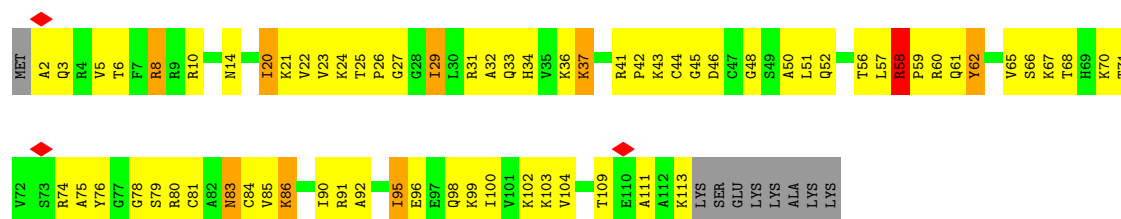
• Molecule 35: 60S ribosomal protein L33

Chain 73:  32% 48% 20% .



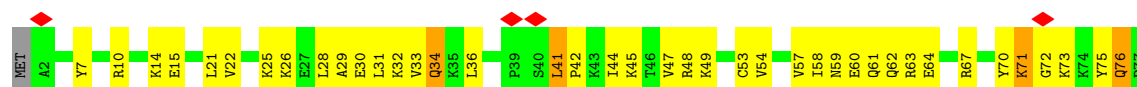
• Molecule 36: 60S ribosomal protein L34

Chain 74:  35% 50% 7% .



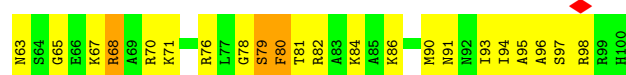
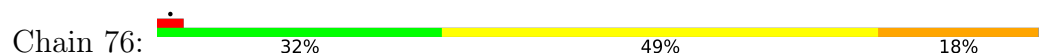
• Molecule 37: 60S ribosomal protein L35

Chain 75:  6% 44% 48% 7% .

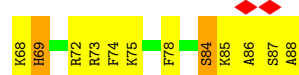




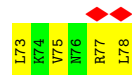
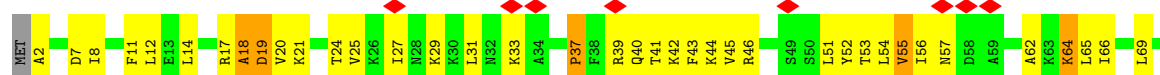
- Molecule 38: 60S ribosomal protein L36



- Molecule 39: 60S ribosomal protein L37



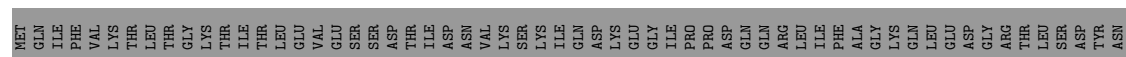
- Molecule 40: 60S ribosomal protein L38

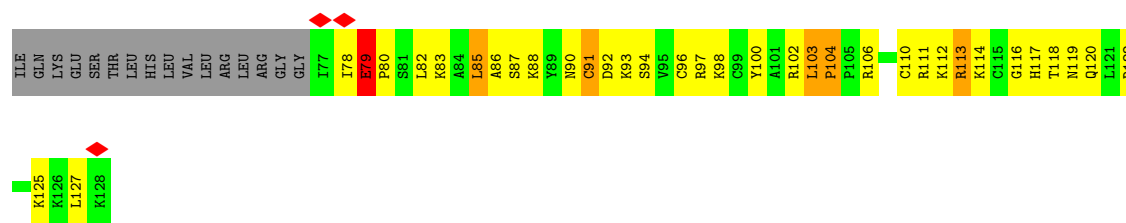


- Molecule 41: 60S ribosomal protein L39



- Molecule 42: 60S ribosomal protein L40

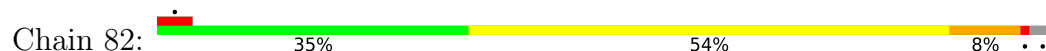




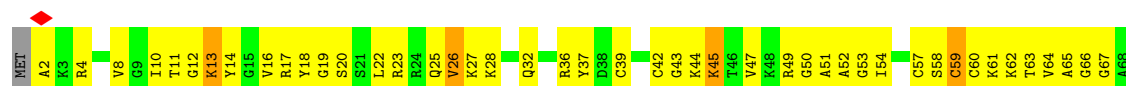
- Molecule 43: 60S ribosomal protein L41



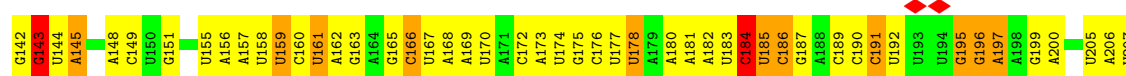
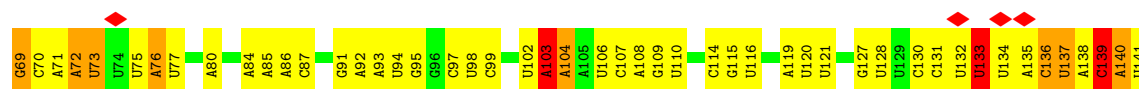
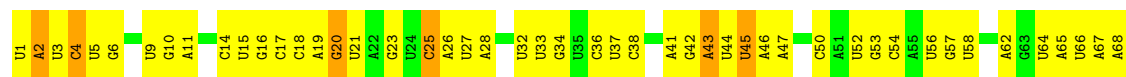
- Molecule 44: 60S ribosomal protein L42

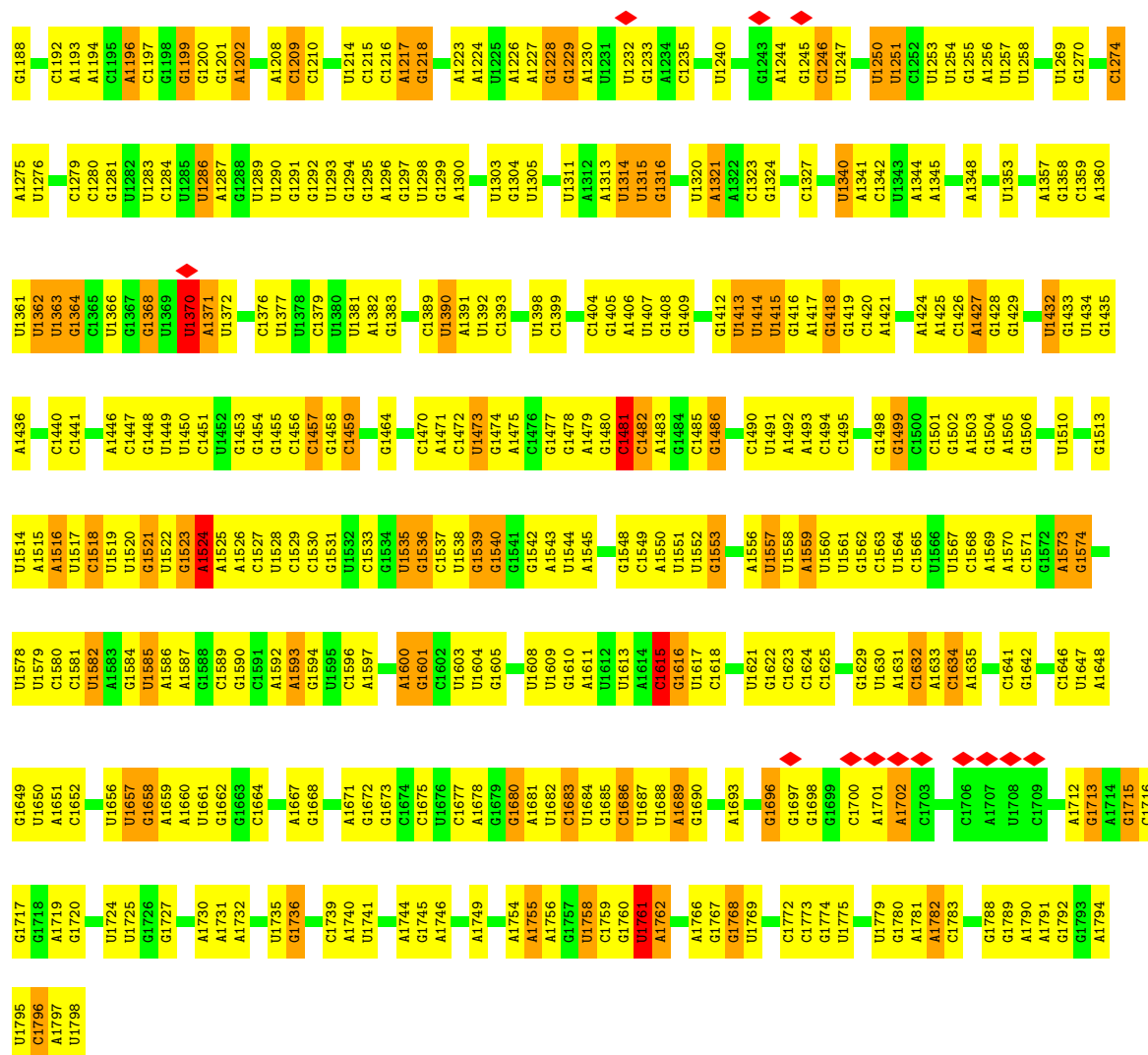


- Molecule 45: 60S ribosomal protein L43

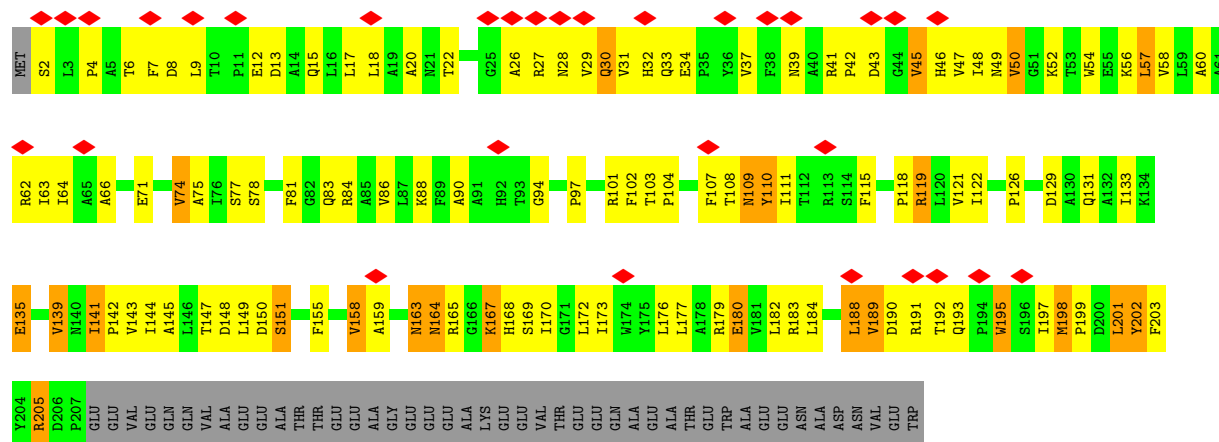


- Molecule 46: 18S ribosomal RNA

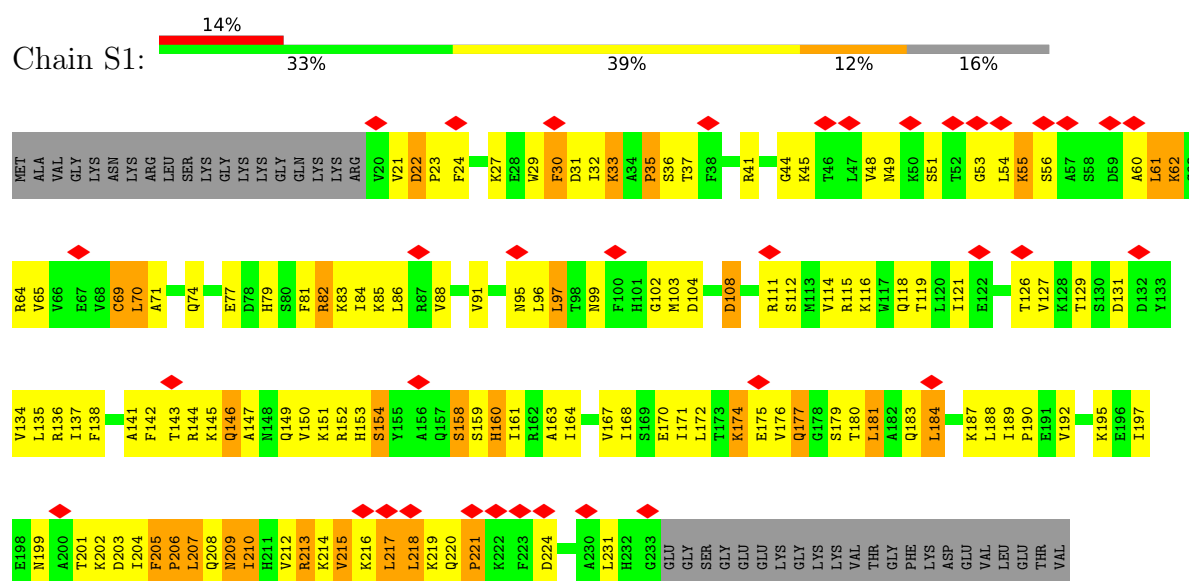




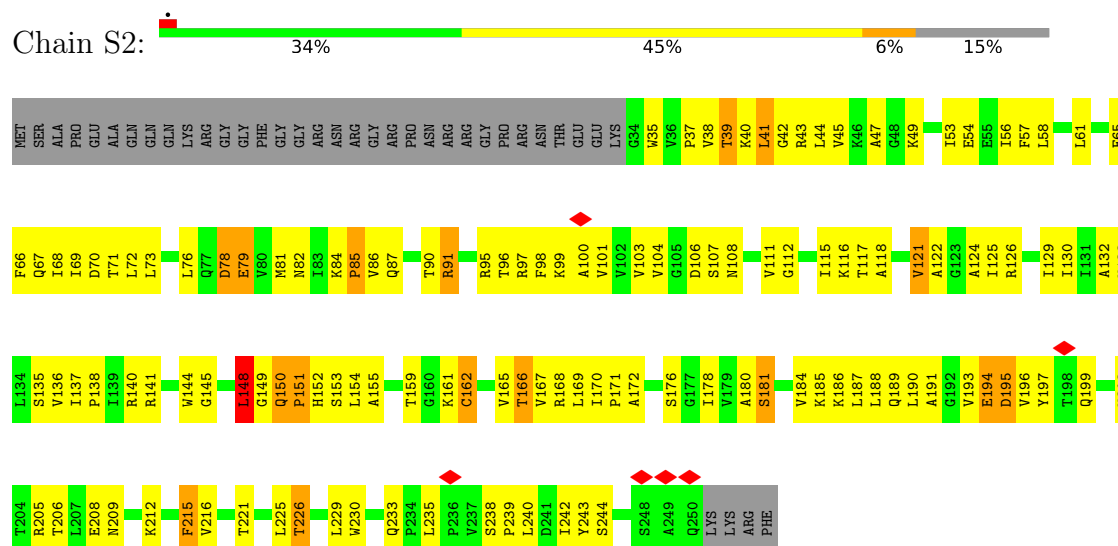
• Molecule 47: 40S ribosomal protein S0



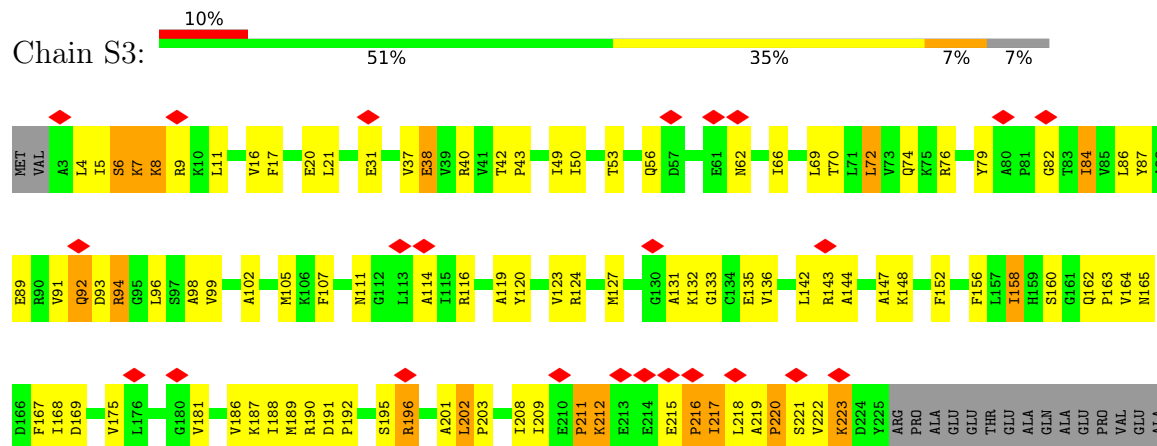
• Molecule 48: 40S ribosomal protein S1



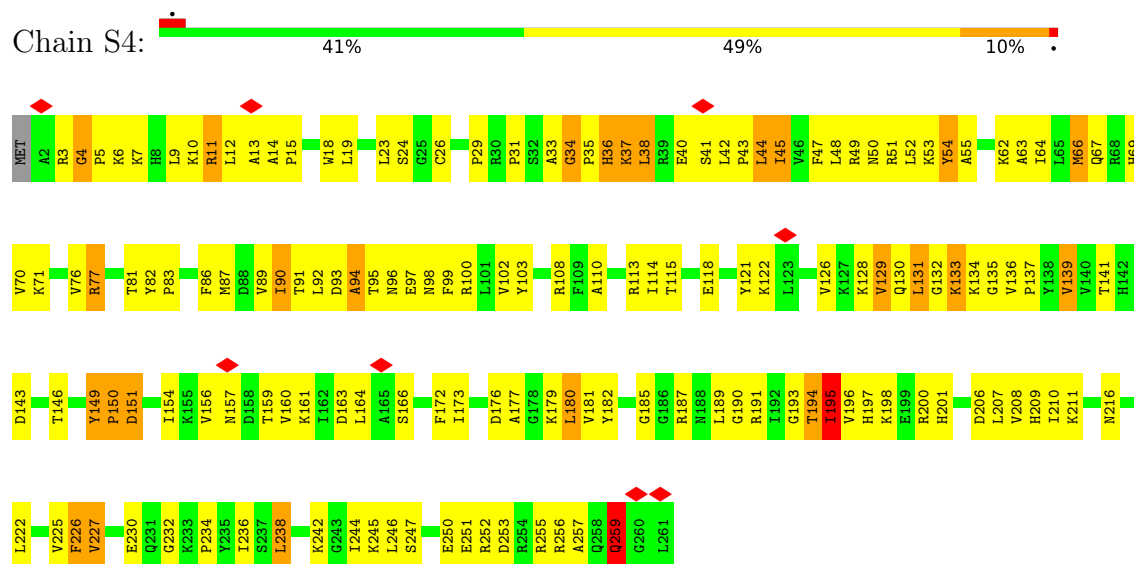
• Molecule 49: 40S ribosomal protein S2



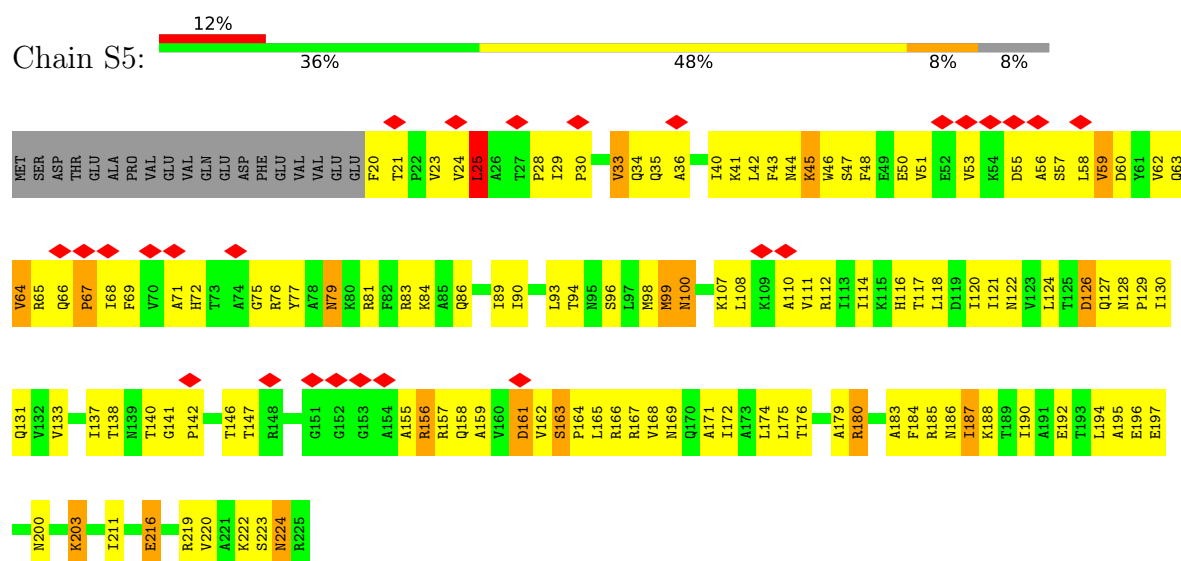
• Molecule 50: 40S ribosomal protein S3



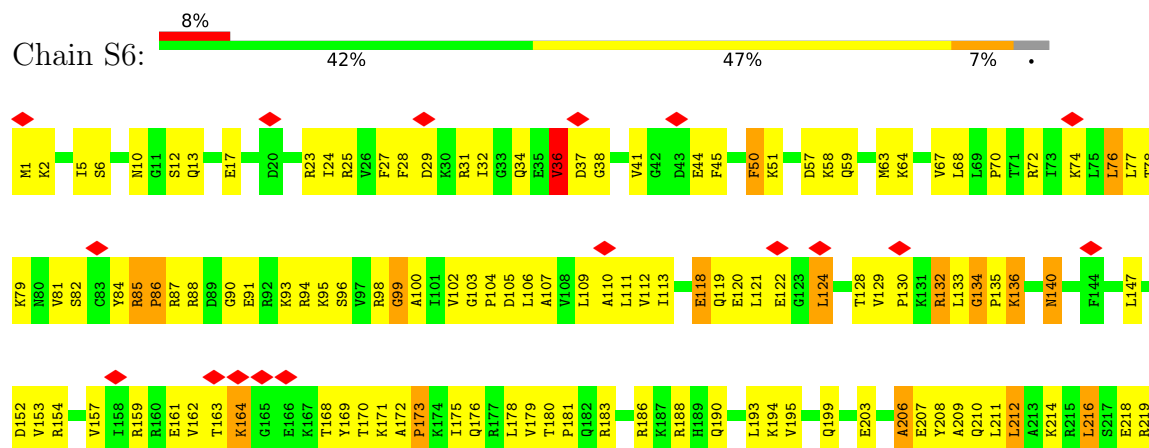
• Molecule 51: 40S ribosomal protein S4

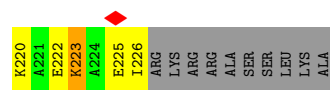


• Molecule 52: 40S ribosomal protein S5

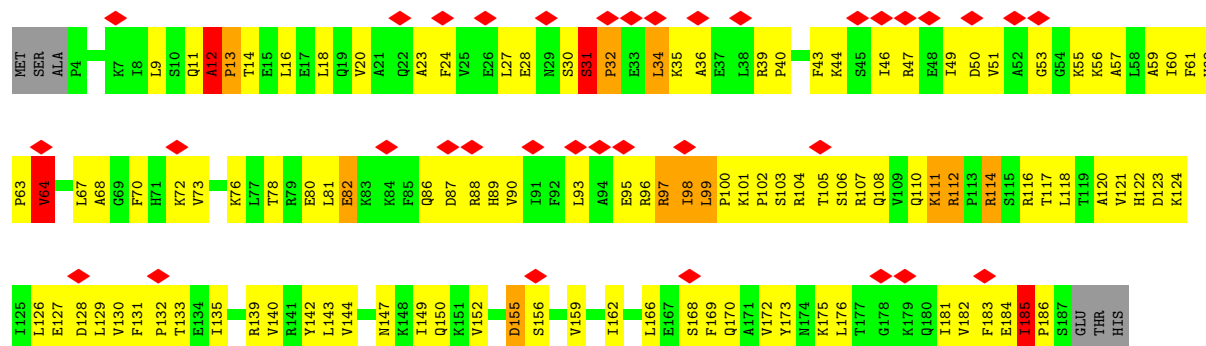


• Molecule 53: 40S ribosomal protein S6

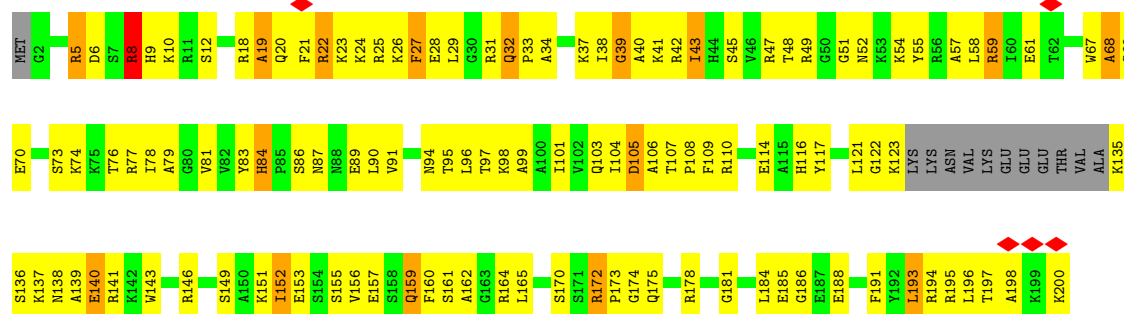




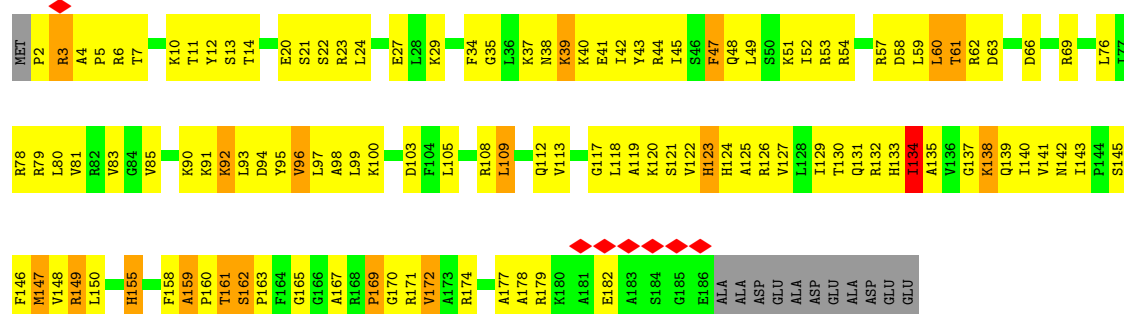
• Molecule 54: 40S ribosomal protein S7



• Molecule 55: 40S ribosomal protein S8



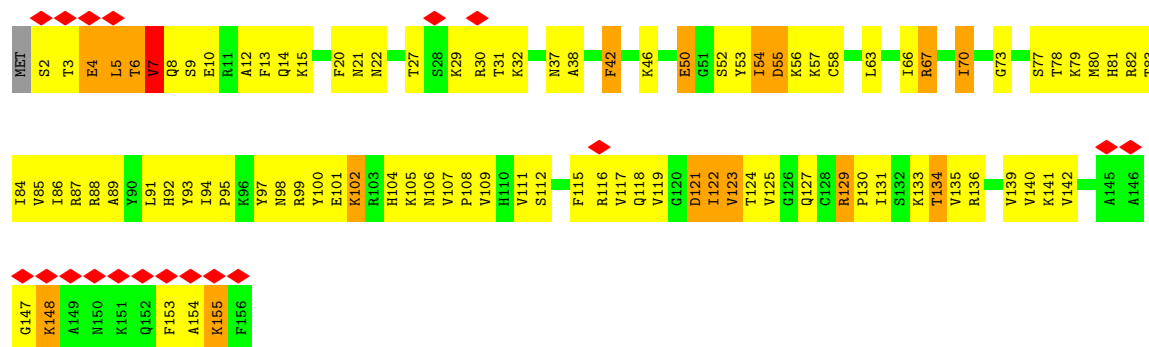
• Molecule 56: 40S ribosomal protein S9



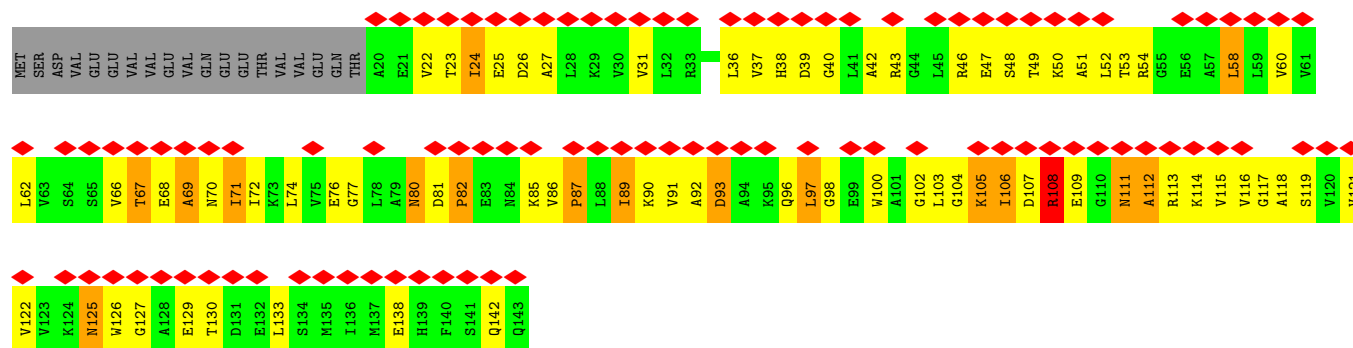
• Molecule 57: 40S ribosomal protein S10



- Molecule 58: 40S ribosomal protein S11

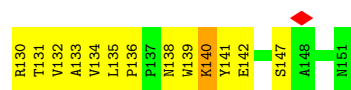


- Molecule 59: 40S ribosomal protein S12

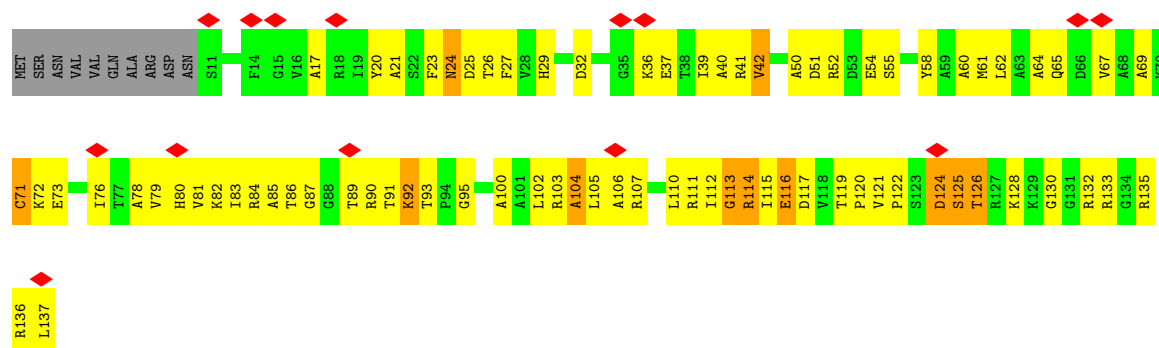


- Molecule 60: 40S ribosomal protein S13

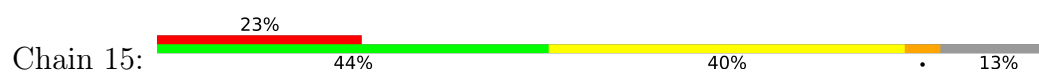




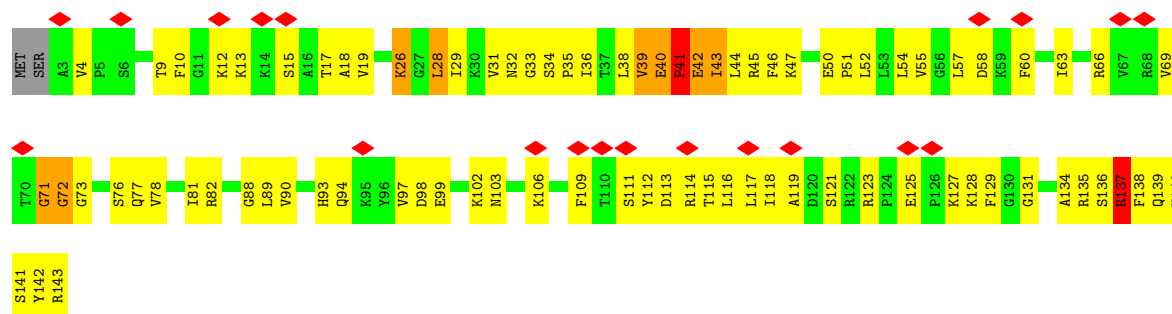
• Molecule 61: 40S ribosomal protein S14



• Molecule 62: 40S ribosomal protein S15

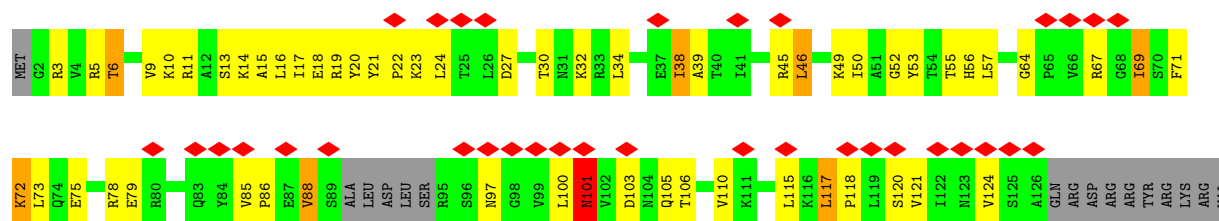


• Molecule 63: 40S ribosomal protein S16

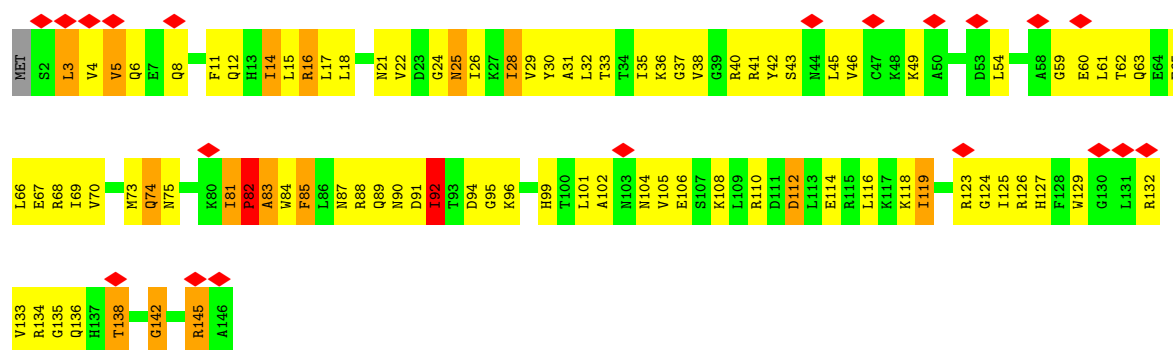


• Molecule 64: 40S ribosomal protein S17

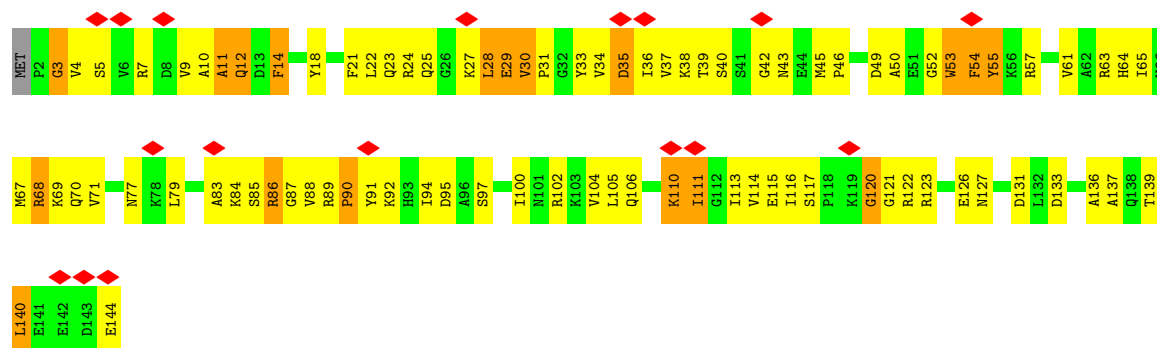




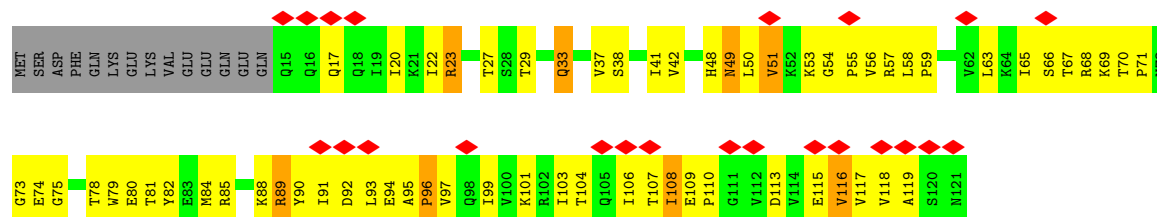
• Molecule 65: 40S ribosomal protein S18



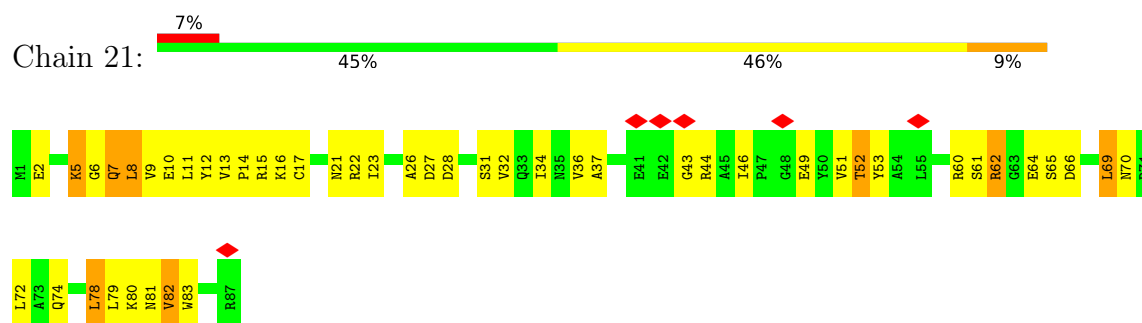
• Molecule 66: 40S ribosomal protein S19



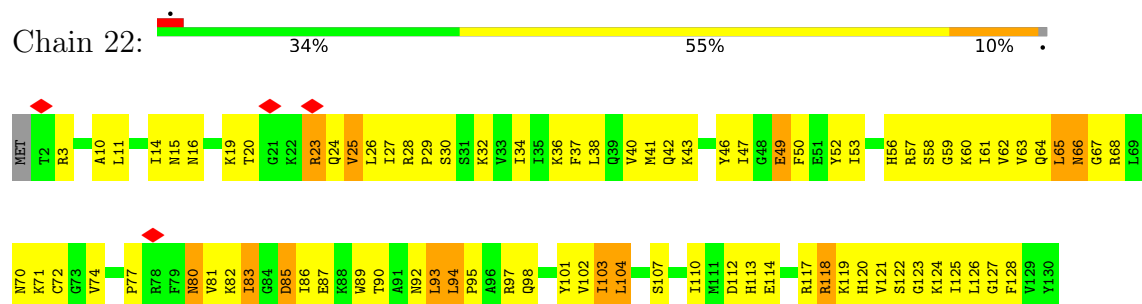
• Molecule 67: 40S ribosomal protein S20



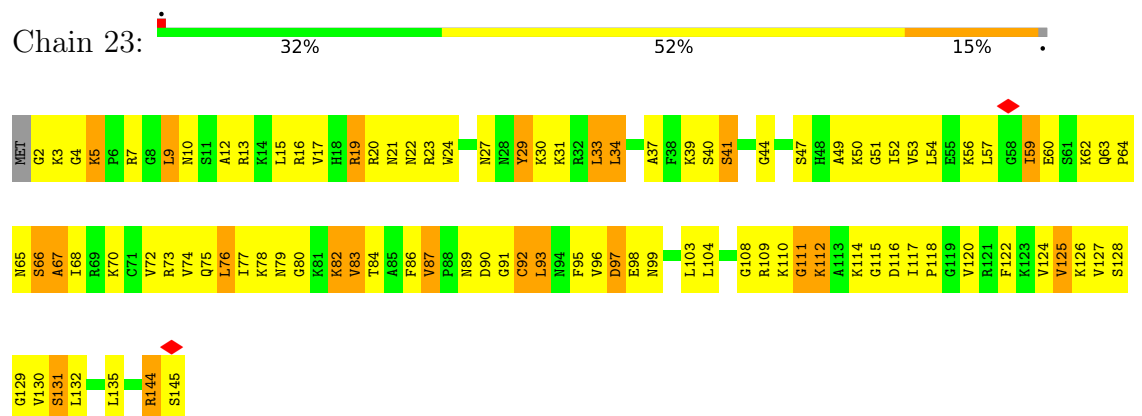
• Molecule 68: 40S ribosomal protein S21



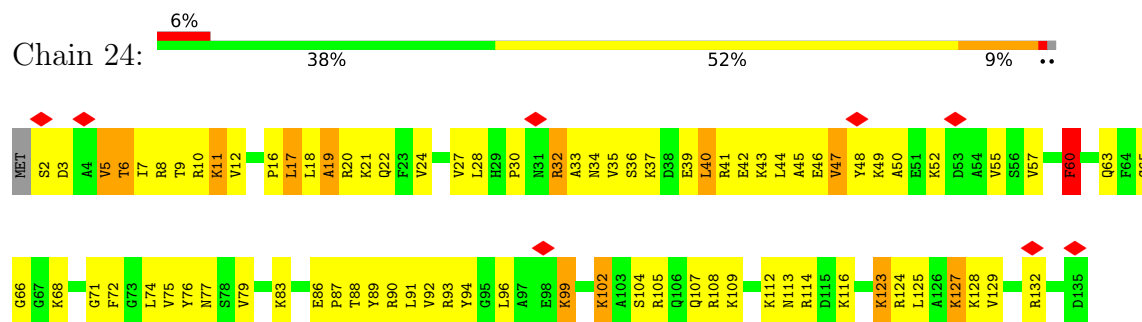
- Molecule 69: 40S ribosomal protein S22



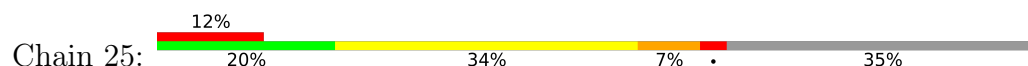
- Molecule 70: 40S ribosomal protein S23



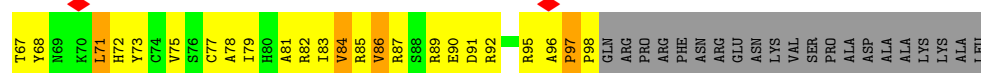
- Molecule 71: 40S ribosomal protein S24



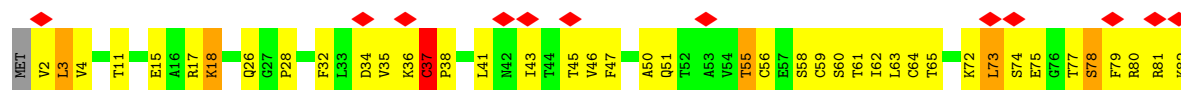
- Molecule 72: 40S ribosomal protein S25



- Molecule 73: 40S ribosomal protein S26



- Molecule 74: 40S ribosomal protein S27



- Molecule 75: 40S ribosomal protein S28



- Molecule 76: 40S ribosomal protein S29



- Molecule 77: 40S ribosomal protein S30



1U6940	1U6952
1U6941	CS953
A6942	CS954
A6943	1U6955
1U6944	A6956
	A6957
	CS958

4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	52444	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	CTFFIND3, FREALIGN per micrograph	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	30	Depositor
Minimum defocus (nm)	1150	Depositor
Maximum defocus (nm)	6530	Depositor
Magnification	132138	Depositor
Image detector	FEI FALCON I (4k x 4k)	Depositor
Maximum map value	4.026	Depositor
Minimum map value	-1.575	Depositor
Average map value	0.028	Depositor
Map value standard deviation	0.284	Depositor
Recommended contour level	0.815	Depositor
Map size ($\text{\AA}$)	444.99, 444.99, 444.99	wwPDB
Map dimensions	420, 420, 420	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing ($\text{\AA}$)	1.0595, 1.0595, 1.0595	Depositor

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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	2S	0.75	2/79178 (0.0%)	0.73	73/123444 (0.1%)
2	8S	0.73	0/3747	0.70	5/5832 (0.1%)
3	5S	0.73	0/2884	0.68	0/4491
4	L1	0.79	1/1634 (0.1%)	1.16	13/2195 (0.6%)
5	L2	0.68	0/1952	1.15	23/2622 (0.9%)
6	L3	0.73	0/3153	1.12	33/4239 (0.8%)
7	L4	0.76	1/2802 (0.0%)	1.23	34/3792 (0.9%)
8	L5	0.71	0/2426	1.04	16/3271 (0.5%)
9	L6	0.85	0/1261	1.17	14/1694 (0.8%)
10	L7	0.72	0/1822	1.21	17/2451 (0.7%)
11	L8	0.68	0/1850	1.19	18/2495 (0.7%)
12	L9	0.77	0/1540	1.18	17/2073 (0.8%)
13	50	0.68	0/1754	1.13	16/2350 (0.7%)
14	51	0.67	0/1375	1.08	13/1842 (0.7%)
15	53	0.73	0/1568	1.23	19/2106 (0.9%)
16	54	0.84	0/1069	1.16	12/1438 (0.8%)
17	55	0.66	0/1758	1.09	16/2354 (0.7%)
18	56	0.69	0/1586	1.27	25/2128 (1.2%)
19	57	0.77	1/1466 (0.1%)	1.26	21/1968 (1.1%)
20	58	0.74	0/1466	1.17	17/1965 (0.9%)
21	59	0.56	0/1539	1.21	19/2050 (0.9%)
22	60	0.75	0/1482	1.12	19/1990 (1.0%)
23	61	0.74	0/1301	1.15	18/1743 (1.0%)
24	62	0.66	0/812	1.02	0/1099
25	63	0.67	0/1019	1.12	9/1369 (0.7%)
26	64	0.66	0/521	1.15	7/691 (1.0%)
27	65	0.69	0/984	1.20	12/1325 (0.9%)
28	66	0.75	0/1005	1.15	8/1341 (0.6%)
29	67	0.60	0/1119	1.08	8/1497 (0.5%)
30	68	0.74	0/1205	1.21	20/1612 (1.2%)
31	69	0.62	0/474	1.21	7/629 (1.1%)
32	70	0.60	0/751	1.04	3/1008 (0.3%)
33	71	0.68	0/904	1.20	14/1213 (1.2%)
34	72	0.76	0/1041	1.12	8/1394 (0.6%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
35	73	0.79	0/869	1.19	12/1168 (1.0%)
36	74	0.67	0/891	1.10	7/1191 (0.6%)
37	75	0.66	0/979	1.16	7/1301 (0.5%)
38	76	0.70	0/779	1.28	9/1034 (0.9%)
39	77	0.68	0/697	1.17	6/923 (0.7%)
40	78	0.68	0/619	1.02	4/826 (0.5%)
41	79	0.58	0/444	1.14	3/588 (0.5%)
42	80	0.69	0/424	1.26	7/562 (1.2%)
43	81	0.93	0/235	1.13	0/300
44	82	0.72	0/839	1.08	6/1108 (0.5%)
45	83	0.63	0/702	1.04	4/934 (0.4%)
46	1S	0.69	0/42445	0.70	34/66138 (0.1%)
47	S0	0.62	0/1653	1.08	11/2261 (0.5%)
48	S1	0.65	0/1735	0.95	5/2335 (0.2%)
49	S2	0.62	0/1665	1.13	19/2263 (0.8%)
50	S3	0.67	0/1759	1.05	11/2368 (0.5%)
51	S4	0.58	0/2110	1.09	22/2839 (0.8%)
52	S5	0.66	1/1630 (0.1%)	1.12	17/2202 (0.8%)
53	S6	0.63	0/1844	1.13	20/2464 (0.8%)
54	S7	0.67	0/1506	1.14	11/2028 (0.5%)
55	S8	0.60	0/1515	1.09	18/2021 (0.9%)
56	S9	0.51	0/1519	1.12	15/2035 (0.7%)
57	10	0.68	0/837	1.04	4/1131 (0.4%)
58	11	0.67	0/1273	1.05	10/1712 (0.6%)
59	12	0.88	0/943	1.09	3/1274 (0.2%)
60	13	0.59	0/1216	1.05	3/1638 (0.2%)
61	14	0.67	0/953	1.05	10/1279 (0.8%)
62	15	0.69	0/1012	1.08	7/1356 (0.5%)
63	16	0.65	0/1126	0.97	5/1510 (0.3%)
64	17	0.67	0/974	1.05	6/1304 (0.5%)
65	18	0.68	0/1212	1.11	9/1628 (0.6%)
66	19	0.67	0/1131	1.12	10/1517 (0.7%)
67	20	0.74	0/866	0.97	3/1169 (0.3%)
68	21	0.61	0/694	1.01	2/935 (0.2%)
69	22	0.56	0/1039	1.11	7/1395 (0.5%)
70	23	0.55	0/1140	1.07	6/1518 (0.4%)
71	24	0.62	0/1088	0.99	4/1449 (0.3%)
72	25	0.70	0/571	1.12	4/768 (0.5%)
73	26	0.60	0/782	0.97	5/1047 (0.5%)
74	27	0.66	0/621	1.04	6/838 (0.7%)
75	28	0.64	0/500	1.03	4/670 (0.6%)
76	29	0.61	0/454	0.94	1/602 (0.2%)
77	30	0.61	0/483	1.06	4/643 (0.6%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
78	31	0.73	0/505	1.03	3/682 (0.4%)
79	RA	0.72	0/2498	1.00	13/3398 (0.4%)
All	All	0.71	6/219225 (0.0%)	0.89	931/322063 (0.3%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	2S	0	108
2	8S	0	5
3	5S	0	1
6	L3	0	1
46	1S	0	45
All	All	0	160

All (6) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	L4	222	VAL	CA-CB	6.16	1.58	1.54
1	2S	490	C	O5'-C5'	5.95	1.51	1.42
4	L1	98	LYS	CA-C	5.92	1.55	1.52
1	2S	2094	C	O5'-C5'	5.53	1.51	1.42
19	57	161	ALA	CA-C	5.42	1.55	1.52
52	S5	25	LEU	CA-C	5.18	1.55	1.52

All (931) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	65	51	VAL	CA-C-N	11.27	131.37	119.76
27	65	51	VAL	C-N-CA	11.27	131.37	119.76
37	75	89	ARG	N-CA-C	-10.99	100.41	114.04
69	22	94	LEU	CA-C-N	10.60	130.42	119.19
69	22	94	LEU	C-N-CA	10.60	130.42	119.19
7	L4	31	ARG	CA-C-N	9.93	129.68	118.85
7	L4	31	ARG	C-N-CA	9.93	129.68	118.85
18	56	109	PRO	CA-C-N	9.93	130.61	120.38
18	56	109	PRO	C-N-CA	9.93	130.61	120.38
12	L9	29	GLY	CA-C-N	9.84	132.14	119.84
12	L9	29	GLY	C-N-CA	9.84	132.14	119.84
6	L3	238	LEU	CA-C-N	9.79	129.86	119.78

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	L3	238	LEU	C-N-CA	9.79	129.86	119.78
26	64	60	LYS	N-CA-C	9.70	122.26	110.91
7	L4	238	LEU	N-CA-C	-9.69	101.81	114.31
11	L8	125	ALA	N-CA-C	-9.62	101.30	113.23
4	L1	141	ASN	N-CA-C	9.47	122.58	111.02
38	76	80	PHE	N-CA-C	-9.41	101.56	113.23
35	73	86	ARG	N-CA-C	-9.38	101.03	111.07
4	L1	161	LYS	N-CA-C	9.36	121.68	110.44
6	L3	349	LYS	N-CA-C	-9.27	101.26	111.36
1	2S	979	U	C2'-C3'-O3'	9.22	123.33	109.50
72	25	95	HIS	N-CA-C	9.18	124.35	109.94
13	50	192	ASP	N-CA-C	9.09	122.06	110.33
15	53	184	GLU	N-CA-C	-9.06	102.36	113.50
5	L2	15	ILE	N-CA-C	-8.94	102.47	111.77
28	66	40	ARG	N-CA-C	-8.94	101.91	113.17
54	S7	12	ALA	CA-C-N	8.92	130.99	119.84
54	S7	12	ALA	C-N-CA	8.92	130.99	119.84
29	67	64	LYS	N-CA-C	-8.91	102.99	114.04
14	51	73	GLY	CA-C-N	8.87	129.09	119.87
14	51	73	GLY	C-N-CA	8.87	129.09	119.87
19	57	10	ASN	CA-C-N	8.86	128.60	119.56
19	57	10	ASN	C-N-CA	8.86	128.60	119.56
52	S5	163	SER	CA-C-N	8.83	129.00	119.28
52	S5	163	SER	C-N-CA	8.83	129.00	119.28
53	S6	103	GLY	CA-C-N	8.83	128.57	119.56
53	S6	103	GLY	C-N-CA	8.83	128.57	119.56
7	L4	179	LEU	N-CA-C	-8.79	101.16	112.23
29	67	119	GLU	N-CA-C	-8.64	102.65	113.02
46	1S	829	A	C2'-C3'-O3'	8.61	122.41	109.50
38	76	67	LYS	N-CA-C	-8.59	102.23	112.89
13	50	146	ASP	N-CA-C	8.59	120.26	111.07
27	65	100	LYS	N-CA-C	-8.59	102.25	112.89
51	S4	259	GLN	N-CA-C	-8.58	102.94	113.50
30	68	44	ASN	N-CA-C	-8.57	102.76	113.55
56	S9	123	HIS	N-CA-C	-8.54	101.46	112.23
4	L1	195	LYS	N-CA-C	-8.52	103.41	113.21
5	L2	177	LYS	CA-C-N	8.52	130.49	119.84
5	L2	177	LYS	C-N-CA	8.52	130.49	119.84
1	2S	1103	A	C2'-C3'-O3'	8.47	122.20	109.50
36	74	58	ARG	CA-C-N	8.39	130.33	119.84
36	74	58	ARG	C-N-CA	8.39	130.33	119.84
8	L5	4	GLN	N-CA-C	8.37	121.15	111.11

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	68	15	VAL	N-CA-C	8.35	118.38	110.53
42	80	103	LEU	CA-C-N	8.34	128.97	120.38
42	80	103	LEU	C-N-CA	8.34	128.97	120.38
7	L4	222	VAL	CA-C-N	8.28	130.19	119.84
7	L4	222	VAL	C-N-CA	8.28	130.19	119.84
1	2S	3351	U	C2'-C3'-O3'	8.25	121.87	109.50
66	19	54	PHE	N-CA-C	-8.21	103.04	113.72
18	56	110	PRO	N-CA-C	8.21	120.71	110.70
4	L1	60	ARG	CA-C-N	8.14	128.17	119.78
4	L1	60	ARG	C-N-CA	8.14	128.17	119.78
17	55	35	VAL	N-CA-C	-8.14	102.13	111.00
5	L2	5	ILE	N-CA-C	8.09	120.45	108.96
15	53	169	THR	N-CA-C	-8.07	102.88	112.89
4	L1	194	LEU	N-CA-C	-8.05	103.36	113.02
22	60	131	LYS	N-CA-C	8.04	122.00	108.90
66	19	30	VAL	CA-C-N	8.02	128.10	119.28
66	19	30	VAL	C-N-CA	8.02	128.10	119.28
10	L7	119	VAL	N-CA-C	7.96	119.67	108.93
53	S6	209	ALA	N-CA-C	-7.95	102.59	111.82
23	61	52	MET	CA-C-N	7.94	129.48	120.98
23	61	52	MET	C-N-CA	7.94	129.48	120.98
70	23	111	GLY	N-CA-C	-7.92	99.45	111.24
23	61	57	TYR	N-CA-C	7.89	123.97	113.72
23	61	154	VAL	N-CA-C	7.87	117.62	108.96
11	L8	95	ASN	N-CA-C	-7.87	103.81	113.41
20	58	131	ALA	CA-C-N	7.86	127.15	118.97
20	58	131	ALA	C-N-CA	7.86	127.15	118.97
9	L6	103	VAL	N-CA-C	7.84	117.91	110.30
66	19	23	GLN	N-CA-C	-7.83	103.86	113.41
1	2S	1815	U	C2'-C3'-O3'	7.81	121.21	109.50
1	2S	2094	C	C2'-C3'-O3'	7.81	121.21	109.50
19	57	68	GLY	N-CA-C	7.79	125.10	111.46
51	S4	42	LEU	CA-C-N	7.79	128.83	120.11
51	S4	42	LEU	C-N-CA	7.79	128.83	120.11
29	67	103	GLN	CA-C-N	7.79	129.57	119.84
29	67	103	GLN	C-N-CA	7.79	129.57	119.84
30	68	102	ILE	N-CA-C	7.78	119.06	108.17
54	S7	108	GLN	N-CA-C	7.68	121.11	110.35
6	L3	106	TRP	N-CA-C	7.65	118.36	108.34
39	77	74	PHE	N-CA-C	-7.64	103.96	113.28
46	1S	240	U	C2'-C3'-O3'	7.64	120.95	109.50
64	17	55	THR	N-CA-C	-7.62	103.44	112.89

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	79	6	SER	N-CA-C	7.61	121.32	110.14
33	71	29	ALA	CA-C-N	7.60	126.88	118.97
33	71	29	ALA	C-N-CA	7.60	126.88	118.97
16	54	117	ARG	N-CA-C	-7.60	103.81	113.23
65	18	75	ASN	CA-C-N	7.57	127.29	119.64
65	18	75	ASN	C-N-CA	7.57	127.29	119.64
74	27	41	LEU	N-CA-C	-7.53	104.23	113.50
38	76	27	SER	N-CA-C	-7.51	105.00	112.97
1	2S	169	U	C2'-C3'-O3'	7.50	120.75	109.50
33	71	14	ILE	N-CA-C	7.50	119.55	108.45
22	60	57	GLU	N-CA-C	7.49	118.50	108.38
49	S2	84	LYS	CA-C-N	7.49	127.92	119.83
49	S2	84	LYS	C-N-CA	7.49	127.92	119.83
30	68	72	VAL	N-CA-C	7.47	119.84	108.71
57	10	7	ASP	N-CA-C	-7.47	104.05	113.01
6	L3	32	PHE	CA-C-N	7.46	127.47	119.78
6	L3	32	PHE	C-N-CA	7.46	127.47	119.78
14	51	162	TRP	N-CA-C	-7.46	103.98	113.23
5	L2	205	ASN	CA-C-N	7.40	127.04	119.19
5	L2	205	ASN	C-N-CA	7.40	127.04	119.19
15	53	49	ARG	CA-C-N	7.39	129.07	119.84
15	53	49	ARG	C-N-CA	7.39	129.07	119.84
11	L8	253	SER	N-CA-C	-7.38	105.19	114.56
1	2S	2541	U	C2'-C3'-O3'	7.37	120.56	109.50
12	L9	72	LYS	N-CA-C	-7.37	103.28	111.82
10	L7	68	ASP	N-CA-C	-7.32	103.38	111.36
66	19	12	GLN	N-CA-C	7.32	120.31	111.82
50	S3	111	ASN	N-CA-C	-7.32	102.28	112.45
10	L7	157	ASN	N-CA-C	-7.31	101.87	111.74
47	S0	141	ILE	CA-C-N	7.30	127.22	119.85
47	S0	141	ILE	C-N-CA	7.30	127.22	119.85
7	L4	328	ASN	CA-C-N	7.30	127.01	119.64
7	L4	328	ASN	C-N-CA	7.30	127.01	119.64
10	L7	95	ILE	CA-C-N	7.29	124.91	119.66
10	L7	95	ILE	C-N-CA	7.29	124.91	119.66
9	L6	10	TYR	CA-C-N	7.29	127.32	119.89
9	L6	10	TYR	C-N-CA	7.29	127.32	119.89
47	S0	202	TYR	N-CA-C	-7.28	98.29	109.65
1	2S	1329	U	C2'-C3'-O3'	7.27	120.41	109.50
27	65	68	THR	N-CA-C	7.25	119.14	110.44
38	76	40	VAL	N-CA-C	7.25	117.77	110.23
65	18	31	ALA	N-CA-C	-7.25	103.10	112.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
70	23	93	LEU	N-CA-C	-7.25	103.41	112.90
34	72	4	LEU	CA-C-N	7.23	127.67	119.93
34	72	4	LEU	C-N-CA	7.23	127.67	119.93
51	S4	257	ALA	N-CA-C	-7.23	104.99	113.88
31	69	7	HIS	N-CA-C	7.23	119.55	108.42
79	RA	246	SER	CA-C-N	7.22	127.06	119.05
79	RA	246	SER	C-N-CA	7.22	127.06	119.05
55	S8	160	PHE	N-CA-C	-7.21	104.46	113.18
7	L4	286	VAL	N-CA-C	7.20	117.99	110.72
7	L4	22	LEU	CA-C-N	7.20	128.84	119.84
7	L4	22	LEU	C-N-CA	7.20	128.84	119.84
11	L8	128	LYS	CA-C-N	7.19	127.45	119.90
11	L8	128	LYS	C-N-CA	7.19	127.45	119.90
56	S9	159	ALA	CA-C-N	7.16	127.00	119.05
56	S9	159	ALA	C-N-CA	7.16	127.00	119.05
44	82	55	LYS	CA-C-N	7.16	128.79	119.84
44	82	55	LYS	C-N-CA	7.16	128.79	119.84
15	53	60	ALA	N-CA-C	7.14	119.77	109.84
17	55	64	VAL	N-CA-C	7.11	118.29	107.77
65	18	119	ILE	N-CA-C	-7.10	105.11	113.42
10	L7	178	ILE	N-CA-C	7.09	118.73	109.58
31	69	55	ALA	N-CA-C	-7.07	104.69	113.38
26	64	14	TYR	CA-C-N	7.06	128.67	119.84
26	64	14	TYR	C-N-CA	7.06	128.67	119.84
18	56	9	ILE	N-CA-C	7.04	117.97	108.11
6	L3	255	TRP	N-CA-C	-7.03	105.32	114.04
19	57	55	GLN	N-CA-C	-7.03	105.25	114.31
10	L7	136	TYR	N-CA-C	7.01	117.53	108.34
18	56	57	PHE	N-CA-C	-7.00	103.41	112.23
11	L8	83	ASP	N-CA-C	6.99	119.54	110.53
19	57	142	SER	CA-C-N	6.97	128.55	119.84
19	57	142	SER	C-N-CA	6.97	128.55	119.84
13	50	164	LYS	N-CA-C	6.93	120.54	110.28
52	S5	21	THR	CA-C-N	6.93	126.95	119.89
52	S5	21	THR	C-N-CA	6.93	126.95	119.89
36	74	62	TYR	N-CA-C	-6.92	104.83	113.28
12	L9	160	ASP	N-CA-C	-6.92	103.35	111.03
51	S4	200	ARG	N-CA-C	6.91	118.61	111.14
47	S0	201	LEU	N-CA-C	-6.91	104.04	113.30
5	L2	34	TYR	N-CA-C	6.90	119.44	111.02
54	S7	99	LEU	CA-C-N	6.89	126.65	119.76
54	S7	99	LEU	C-N-CA	6.89	126.65	119.76

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	L3	98	GLY	N-CA-C	6.89	118.52	111.56
13	50	26	VAL	CA-C-N	6.88	127.33	120.52
13	50	26	VAL	C-N-CA	6.88	127.33	120.52
55	S8	27	PHE	N-CA-C	6.86	118.76	111.28
70	23	110	LYS	N-CA-C	-6.86	101.75	111.56
15	53	60	ALA	CA-C-N	6.86	128.41	119.84
15	53	60	ALA	C-N-CA	6.86	128.41	119.84
46	1S	143	G	N9-C1'-C2'	6.86	122.29	112.00
12	L9	142	ASP	N-CA-C	6.84	118.92	110.91
25	63	110	LYS	N-CA-C	-6.84	105.08	113.50
49	S2	181	SER	CA-C-N	6.82	126.52	119.56
49	S2	181	SER	C-N-CA	6.82	126.52	119.56
1	2S	1307	G	C2'-C3'-O3'	6.81	119.72	109.50
78	31	88	PRO	N-CA-CB	6.81	110.41	103.25
1	2S	588	G	C2'-C3'-O3'	6.81	119.71	109.50
55	S8	8	ARG	N-CA-C	-6.81	104.61	113.12
33	71	12	TYR	N-CA-C	6.80	120.24	109.50
12	L9	20	ILE	N-CA-C	6.79	118.08	108.17
53	S6	129	VAL	CA-C-N	6.78	127.70	120.11
53	S6	129	VAL	C-N-CA	6.78	127.70	120.11
28	66	106	ILE	N-CA-C	6.77	117.78	108.84
1	2S	315	C	N1-C1'-C2'	6.77	122.16	112.00
58	11	22	ASN	CA-C-N	6.77	126.48	119.64
58	11	22	ASN	C-N-CA	6.77	126.48	119.64
7	L4	341	SER	N-CA-C	-6.76	105.11	113.15
27	65	51	VAL	N-CA-C	6.76	114.59	107.76
42	80	79	GLU	CA-C-N	6.76	127.31	119.47
42	80	79	GLU	C-N-CA	6.76	127.31	119.47
17	55	140	LYS	N-CA-C	6.76	118.30	111.07
27	65	43	ALA	CA-C-N	6.75	127.14	119.92
27	65	43	ALA	C-N-CA	6.75	127.14	119.92
5	L2	133	TYR	N-CA-C	6.74	117.38	107.88
75	28	32	PHE	N-CA-C	6.74	120.14	110.10
23	61	63	VAL	N-CA-C	6.73	117.99	108.36
18	56	120	VAL	CA-C-N	6.72	128.25	119.84
18	56	120	VAL	C-N-CA	6.72	128.25	119.84
49	S2	215	PHE	N-CA-C	-6.72	104.56	112.89
54	S7	31	SER	N-CA-C	6.71	124.65	109.81
25	63	69	LEU	N-CA-C	-6.69	104.82	114.12
30	68	38	GLN	N-CA-C	-6.69	104.87	113.16
51	S4	136	VAL	N-CA-C	6.69	115.35	107.73
69	22	112	ASP	N-CA-C	6.68	117.10	108.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	31	144	CYS	N-CA-C	-6.68	101.08	110.50
8	L5	80	SER	N-CA-C	6.68	120.69	112.54
7	L4	57	GLY	N-CA-C	-6.67	105.57	114.25
49	S2	226	THR	CA-C-N	6.67	126.92	119.32
49	S2	226	THR	C-N-CA	6.67	126.92	119.32
1	2S	1172	G	N9-C1'-C2'	6.67	122.00	112.00
28	66	48	LEU	CA-C-N	6.67	127.03	119.83
28	66	48	LEU	C-N-CA	6.67	127.03	119.83
53	S6	193	LEU	N-CA-C	6.67	118.20	111.07
16	54	56	GLN	N-CA-C	6.64	120.35	109.72
66	19	111	ILE	N-CA-C	-6.64	107.02	113.53
56	S9	177	ALA	N-CA-C	-6.64	105.18	113.28
1	2S	1284	C	N1-C1'-C2'	6.63	121.95	112.00
33	71	61	LYS	N-CA-C	-6.63	104.05	111.28
58	11	112	SER	CA-C-N	6.62	128.12	119.84
58	11	112	SER	C-N-CA	6.62	128.12	119.84
26	64	45	ASN	N-CA-C	6.62	119.44	110.31
1	2S	1262	G	N9-C1'-C2'	6.61	121.92	112.00
53	S6	85	ARG	CA-C-N	6.61	128.10	119.84
53	S6	85	ARG	C-N-CA	6.61	128.10	119.84
17	55	80	THR	N-CA-C	6.59	121.65	111.56
14	51	10	ARG	N-CA-C	6.59	120.02	108.56
14	51	16	LYS	N-CA-C	6.59	117.17	107.88
76	29	50	ILE	CB-CA-C	-6.59	106.11	111.71
1	2S	493	U	N1-C1'-C2'	6.55	121.83	112.00
12	L9	15	GLY	N-CA-C	6.55	121.82	113.24
33	71	54	GLU	N-CA-C	-6.55	104.77	112.89
25	63	12	ARG	N-CA-C	6.55	119.73	110.23
1	2S	452	G	N9-C1'-C2'	6.54	121.81	112.00
17	55	83	LYS	CA-C-N	6.54	128.01	119.84
17	55	83	LYS	C-N-CA	6.54	128.01	119.84
21	59	175	GLN	N-CA-C	-6.54	105.88	114.31
56	S9	60	LEU	N-CA-C	-6.54	104.33	112.90
7	L4	130	ALA	N-CA-C	-6.53	99.94	110.32
25	63	126	TRP	CA-C-N	6.53	126.30	119.05
25	63	126	TRP	C-N-CA	6.53	126.30	119.05
44	82	4	VAL	CA-C-N	6.52	126.28	119.76
44	82	4	VAL	C-N-CA	6.52	126.28	119.76
49	S2	235	LEU	CA-C-N	6.52	126.54	119.89
49	S2	235	LEU	C-N-CA	6.52	126.54	119.89
16	54	8	LYS	CB-CA-C	-6.51	109.08	116.63
50	S3	195	SER	N-CA-C	-6.51	105.30	113.18

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	L8	58	VAL	N-CA-C	6.51	118.04	110.62
6	L3	120	LYS	N-CA-C	-6.50	105.89	113.88
18	56	152	VAL	N-CA-C	-6.50	104.16	110.72
1	2S	2376	G	N9-C1'-C2'	6.48	121.73	112.00
57	10	39	ASN	N-CA-C	-6.48	104.26	111.71
46	1S	1524	A	N9-C1'-C2'	6.47	121.71	112.00
34	72	23	ASP	N-CA-C	-6.47	105.00	114.39
4	L1	98	LYS	N-CA-C	6.46	118.38	108.30
22	60	4	PHE	N-CA-C	6.45	120.58	110.32
77	30	29	LYS	CA-C-N	6.45	127.90	119.84
77	30	29	LYS	C-N-CA	6.45	127.90	119.84
15	53	143	ALA	N-CA-C	-6.45	105.38	113.18
64	17	121	VAL	N-CA-C	6.45	118.32	108.71
7	L4	68	GLY	N-CA-C	-6.45	105.86	114.95
54	S7	90	VAL	N-CA-C	6.43	117.69	107.98
31	69	18	ARG	N-CA-C	-6.43	104.92	112.89
6	L3	363	SER	N-CA-C	6.42	119.60	109.96
8	L5	18	THR	CA-C-N	6.41	127.28	120.11
8	L5	18	THR	C-N-CA	6.41	127.28	120.11
39	77	78	PHE	N-CA-C	6.40	118.40	110.91
7	L4	92	ASN	N-CA-C	6.40	118.26	111.28
53	S6	188	ARG	N-CA-C	-6.39	104.39	111.36
46	1S	1696	G	C2'-C3'-O3'	6.39	123.28	113.70
49	S2	87	GLN	N-CA-C	6.39	119.42	109.52
51	S4	34	GLY	CA-C-N	6.39	125.81	118.85
51	S4	34	GLY	C-N-CA	6.39	125.81	118.85
10	L7	192	GLY	CA-C-N	6.37	126.29	119.28
10	L7	192	GLY	C-N-CA	6.37	126.29	119.28
11	L8	72	PRO	CA-C-N	6.36	125.98	119.56
11	L8	72	PRO	C-N-CA	6.36	125.98	119.56
6	L3	169	THR	CA-C-N	6.36	127.79	119.84
6	L3	169	THR	C-N-CA	6.36	127.79	119.84
79	RA	235	SER	N-CA-C	6.34	118.50	108.67
17	55	170	LYS	N-CA-C	-6.33	105.20	113.12
16	54	48	GLY	CA-C-N	6.33	126.25	119.28
16	54	48	GLY	C-N-CA	6.33	126.25	119.28
1	2S	1241	U	C2'-C3'-O3'	6.33	119.00	109.50
37	75	88	LEU	N-CA-C	-6.32	105.43	112.57
5	L2	216	HIS	N-CA-C	6.32	118.78	109.24
6	L3	350	ALA	N-CA-C	-6.31	98.93	108.96
18	56	33	ILE	N-CA-C	6.30	117.77	108.45
9	L6	152	THR	CA-C-N	6.29	126.21	119.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	L6	152	THR	C-N-CA	6.29	126.21	119.85
22	60	150	PHE	CA-C-N	6.29	126.26	119.78
22	60	150	PHE	C-N-CA	6.29	126.26	119.78
11	L8	248	LYS	N-CA-C	-6.28	105.38	113.16
46	1S	1600	A	N9-C1'-C2'	6.28	123.41	114.00
18	56	75	ALA	CA-C-N	6.27	125.96	119.56
18	56	75	ALA	C-N-CA	6.27	125.96	119.56
1	2S	2101	C	C2'-C3'-O3'	6.27	118.91	109.50
7	L4	25	VAL	N-CA-C	-6.27	103.82	113.16
17	55	182	ASN	N-CA-C	-6.27	104.69	112.90
18	56	154	ALA	N-CA-C	-6.27	105.12	112.89
48	S1	22	ASP	CA-C-N	6.27	127.67	119.84
48	S1	22	ASP	C-N-CA	6.27	127.67	119.84
52	S5	67	PRO	N-CA-C	6.27	121.05	111.15
56	S9	22	SER	N-CA-C	6.25	118.89	111.33
59	12	24	ILE	N-CA-C	6.25	116.71	107.15
23	61	109	VAL	N-CA-C	-6.24	104.97	111.58
52	S5	66	GLN	CA-C-N	6.24	126.26	119.90
52	S5	66	GLN	C-N-CA	6.24	126.26	119.90
33	71	62	ARG	N-CA-C	-6.23	105.70	113.55
46	1S	654	C	N1-C1'-C2'	6.23	121.34	112.00
30	68	49	HIS	CA-C-N	6.23	126.56	119.83
30	68	49	HIS	C-N-CA	6.23	126.56	119.83
36	74	83	ASN	N-CA-C	-6.22	104.04	111.69
61	14	121	VAL	CA-C-N	6.22	126.41	120.31
61	14	121	VAL	C-N-CA	6.22	126.41	120.31
7	L4	198	ARG	N-CA-C	6.22	117.72	111.07
34	72	51	SER	N-CA-C	6.21	119.64	109.76
9	L6	84	VAL	N-CA-C	6.21	117.42	108.48
21	59	162	ARG	N-CA-C	-6.20	104.41	112.23
2	8S	85	G	C3'-C2'-O2'	6.20	120.00	110.70
22	60	134	ASP	N-CA-C	-6.20	105.77	113.15
72	25	60	VAL	N-CA-C	6.20	116.95	107.77
11	L8	113	ALA	N-CA-C	-6.20	104.78	112.90
13	50	10	ARG	N-CA-C	6.20	120.86	113.12
1	2S	144	A	N9-C1'-C2'	6.19	121.29	112.00
17	55	53	TYR	N-CA-C	6.19	119.39	107.44
19	57	85	ALA	N-CA-C	6.19	117.69	111.07
1	2S	490	C	C3'-C2'-O2'	6.19	119.98	110.70
73	26	96	ALA	CA-C-N	6.18	126.75	120.38
73	26	96	ALA	C-N-CA	6.18	126.75	120.38
34	72	9	ILE	N-CA-C	6.18	117.31	107.98

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	L4	272	VAL	N-CA-C	6.18	116.40	108.12
72	25	68	ARG	N-CA-C	-6.18	106.42	112.97
1	2S	3317	U	C2'-C3'-O3'	6.17	118.76	109.50
6	L3	135	ALA	N-CA-C	-6.17	105.75	113.28
20	58	142	GLY	CA-C-N	6.17	127.56	119.84
20	58	142	GLY	C-N-CA	6.17	127.56	119.84
22	60	16	THR	N-CA-C	6.17	118.79	109.41
73	26	97	PRO	N-CA-C	6.17	118.22	110.70
4	L1	184	LEU	N-CA-C	-6.16	106.08	113.97
1	2S	1481	A	N9-C1'-C2'	6.16	121.24	112.00
21	59	114	LYS	N-CA-C	-6.15	105.74	113.18
22	60	77	VAL	N-CA-C	6.15	118.77	108.81
40	78	55	VAL	N-CA-C	6.15	115.47	106.55
46	1S	139	C	C2'-C3'-O3'	6.15	118.72	109.50
69	22	85	ASP	N-CA-C	-6.15	105.74	113.18
52	S5	40	ILE	N-CA-C	6.15	117.21	108.42
23	61	65	TYR	N-CA-C	-6.14	107.62	114.62
12	L9	113	GLU	N-CA-C	6.13	119.64	109.46
51	S4	238	LEU	CA-C-N	6.13	127.50	119.84
51	S4	238	LEU	C-N-CA	6.13	127.50	119.84
50	S3	202	LEU	CA-C-N	6.13	126.24	119.87
50	S3	202	LEU	C-N-CA	6.13	126.24	119.87
4	L1	206	VAL	N-CA-C	6.12	116.89	107.78
12	L9	156	GLN	N-CA-C	-6.12	105.64	113.23
7	L4	58	HIS	N-CA-C	-6.12	105.75	112.72
7	L4	91	GLY	N-CA-C	6.11	122.96	112.51
30	68	145	VAL	N-CA-C	6.11	116.41	107.37
10	L7	203	TRP	CA-C-N	6.11	126.46	119.93
10	L7	203	TRP	C-N-CA	6.11	126.46	119.93
21	59	70	LYS	N-CA-C	-6.10	104.75	111.82
35	73	89	LEU	CA-C-N	6.10	125.99	119.28
35	73	89	LEU	C-N-CA	6.10	125.99	119.28
50	S3	8	LYS	N-CA-C	-6.10	104.71	111.36
8	L5	28	THR	N-CA-C	6.09	119.41	109.24
68	21	52	THR	N-CA-C	6.09	119.44	109.76
17	55	153	ASP	CA-C-N	6.08	127.44	119.84
17	55	153	ASP	C-N-CA	6.08	127.44	119.84
18	56	176	LYS	N-CA-C	-6.08	105.35	112.89
33	71	45	GLY	N-CA-C	-6.07	107.08	113.58
15	53	58	VAL	N-CA-C	6.07	116.82	107.78
18	56	69	GLY	CA-C-N	6.07	125.83	119.76
18	56	69	GLY	C-N-CA	6.07	125.83	119.76

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
46	1S	1761	U	C2'-C3'-O3'	6.07	118.60	109.50
27	65	112	THR	N-CA-C	6.06	119.52	109.46
56	S9	96	VAL	N-CA-C	-6.06	103.52	111.09
10	L7	124	LEU	N-CA-C	-6.05	104.60	112.23
27	65	95	ILE	N-CA-C	6.05	116.11	110.42
25	63	38	ALA	N-CA-C	6.04	118.15	109.14
71	24	45	ALA	N-CA-C	-6.04	105.67	113.16
55	S8	193	LEU	N-CA-C	-6.04	105.17	112.54
8	L5	110	LEU	N-CA-C	-6.04	105.87	113.18
49	S2	85	PRO	N-CA-C	6.03	120.32	111.03
30	68	41	HIS	N-CA-C	6.03	119.69	112.93
29	67	62	VAL	N-CA-C	-6.03	103.85	112.35
22	60	68	HIS	CA-C-N	6.03	126.98	120.83
22	60	68	HIS	C-N-CA	6.03	126.98	120.83
16	54	133	LYS	N-CA-C	-6.03	105.79	113.02
56	S9	47	PHE	N-CA-C	-6.03	105.59	113.12
29	67	61	LYS	N-CA-C	-6.02	106.10	113.50
31	69	4	SER	N-CA-C	6.02	119.28	109.59
18	56	79	ILE	N-CA-C	-6.01	104.45	111.00
67	20	56	VAL	N-CA-C	6.01	117.17	109.30
63	16	63	ILE	N-CA-C	6.01	118.54	108.81
22	60	34	GLU	N-CA-C	6.00	118.34	111.02
39	77	63	ARG	N-CA-C	6.00	120.66	112.68
53	S6	50	PHE	N-CA-C	6.00	119.01	109.65
19	57	120	ASN	N-CA-C	5.99	118.07	109.14
19	57	58	ILE	CA-C-N	5.99	127.59	120.23
19	57	58	ILE	C-N-CA	5.99	127.59	120.23
54	S7	82	GLU	N-CA-C	-5.99	105.90	112.72
65	18	4	VAL	N-CA-C	5.99	116.78	109.30
75	28	46	GLY	CA-C-N	5.98	127.32	119.84
75	28	46	GLY	C-N-CA	5.98	127.32	119.84
46	1S	509	G	N9-C1'-C2'	5.98	120.97	112.00
9	L6	19	LYS	N-CA-C	5.96	118.72	109.60
21	59	67	ALA	N-CA-C	-5.96	105.84	113.23
46	1S	103	A	C2'-C3'-O3'	5.96	118.43	109.50
52	S5	222	LYS	N-CA-C	-5.96	106.17	113.50
10	L7	167	ALA	N-CA-C	5.95	118.72	111.82
65	18	126	ARG	N-CA-C	-5.95	104.88	111.36
9	L6	93	VAL	N-CA-C	-5.94	105.55	112.98
51	S4	36	HIS	N-CA-C	5.94	118.51	109.95
10	L7	100	ARG	N-CA-C	5.94	117.76	111.28
71	24	60	PHE	N-CA-C	5.94	123.46	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	70	78	GLY	N-CA-C	-5.94	107.30	114.66
51	S4	130	GLN	N-CA-C	5.94	116.93	108.74
39	77	8	PHE	N-CA-C	-5.93	105.53	112.89
19	57	114	VAL	N-CA-C	5.93	115.86	106.32
6	L3	203	VAL	N-CA-C	5.92	116.39	107.75
55	S8	159	GLN	N-CA-C	-5.92	106.10	113.38
34	72	94	ALA	N-CA-C	5.92	118.38	107.73
55	S8	39	GLY	N-CA-C	5.92	119.64	112.48
19	57	166	VAL	N-CA-C	5.91	117.29	108.54
10	L7	66	LYS	N-CA-C	-5.91	104.92	111.36
1	2S	1513	G	N9-C1'-C2'	5.91	120.86	112.00
33	71	73	LEU	N-CA-C	5.91	115.65	107.73
1	2S	395	A	N9-C1'-C2'	5.91	120.86	112.00
61	14	65	GLN	N-CA-C	-5.90	106.41	113.97
77	30	14	VAL	N-CA-C	5.90	116.68	110.72
53	S6	206	ALA	N-CA-C	-5.90	105.17	112.90
40	78	69	LEU	CA-C-N	5.90	126.45	120.38
40	78	69	LEU	C-N-CA	5.90	126.45	120.38
63	16	111	SER	N-CA-C	-5.89	106.05	113.18
20	58	42	ALA	CA-C-N	5.89	126.99	120.45
20	58	42	ALA	C-N-CA	5.89	126.99	120.45
5	L2	49	VAL	N-CA-C	5.89	116.86	110.21
2	8S	88	A	N9-C1'-C2'	5.89	120.83	112.00
38	76	33	ALA	N-CA-C	5.89	117.39	110.97
45	83	59	CYS	N-CA-C	-5.89	102.94	110.53
1	2S	441	U	N1-C1'-C2'	5.88	120.83	112.00
12	L9	18	VAL	N-CA-C	5.88	116.59	108.12
22	60	14	LEU	CA-C-N	5.88	125.81	119.76
22	60	14	LEU	C-N-CA	5.88	125.81	119.76
23	61	113	ALA	N-CA-C	-5.87	104.83	112.23
62	15	86	VAL	CA-C-N	5.87	125.58	119.82
62	15	86	VAL	C-N-CA	5.87	125.58	119.82
53	S6	36	VAL	N-CA-C	5.87	117.16	108.65
1	2S	2310	U	N1-C1'-C2'	5.87	120.80	112.00
25	63	91	VAL	N-CA-C	5.87	117.14	108.45
23	61	19	PHE	N-CA-C	5.86	118.69	109.96
20	58	162	ALA	CA-C-N	5.86	126.75	120.13
20	58	162	ALA	C-N-CA	5.86	126.75	120.13
1	2S	763	G	N9-C1'-C2'	5.85	120.78	112.00
8	L5	219	PHE	N-CA-C	-5.85	106.10	113.18
35	73	24	ASN	CA-C-N	5.85	127.15	119.84
35	73	24	ASN	C-N-CA	5.85	127.15	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
46	1S	1370	U	C2'-C3'-O3'	5.84	118.27	109.50
66	19	140	LEU	N-CA-C	-5.84	105.24	112.90
46	1S	184	C	N1-C1'-C2'	5.84	120.76	112.00
55	S8	172	ARG	CA-C-N	5.84	127.14	119.84
55	S8	172	ARG	C-N-CA	5.84	127.14	119.84
53	S6	164	LYS	N-CA-C	-5.84	105.35	112.88
6	L3	278	ILE	N-CA-C	5.83	118.58	108.90
6	L3	157	VAL	N-CA-C	5.83	117.56	109.29
1	2S	488	U	N1-C1'-C2'	5.82	120.73	112.00
21	59	176	ARG	N-CA-C	-5.82	106.17	113.28
71	24	47	VAL	N-CA-C	-5.82	107.31	112.90
1	2S	446	U	C3'-C2'-O2'	5.82	119.43	110.70
50	S3	215	GLU	CA-C-N	5.82	127.11	119.84
50	S3	215	GLU	C-N-CA	5.82	127.11	119.84
35	73	48	ARG	N-CA-C	5.81	118.89	110.28
69	22	97	ARG	N-CA-C	-5.81	106.05	113.02
6	L3	54	THR	N-CA-C	5.81	115.51	107.73
6	L3	12	GLY	N-CA-C	5.80	118.27	110.43
15	53	26	PHE	N-CA-C	-5.80	106.24	113.38
66	19	55	TYR	N-CA-C	-5.80	105.87	113.12
70	23	87	VAL	N-CA-C	5.80	113.62	107.76
56	S9	61	THR	N-CA-C	-5.80	105.70	112.89
5	L2	185	ALA	N-CA-C	-5.80	105.47	112.54
34	72	61	LYS	N-CA-C	-5.79	106.25	113.15
53	S6	99	GLY	N-CA-C	5.79	118.70	112.33
8	L5	65	ILE	N-CA-C	5.79	117.77	108.85
21	59	148	ASP	N-CA-C	-5.78	106.22	113.28
55	S8	96	LEU	N-CA-C	5.78	118.09	108.20
61	14	116	GLU	N-CA-C	5.78	116.72	108.74
1	2S	2513	U	C3'-C2'-O2'	5.78	119.37	110.70
2	8S	85	G	C2'-C3'-O3'	5.78	122.37	113.70
74	27	58	SER	N-CA-C	-5.78	104.99	112.68
37	75	41	LEU	CA-C-N	5.78	126.28	120.04
37	75	41	LEU	C-N-CA	5.78	126.28	120.04
50	S3	56	GLN	N-CA-C	-5.78	105.06	111.36
1	2S	2525	G	C2'-C3'-O3'	5.77	122.36	113.70
1	2S	3218	A	C3'-C2'-O2'	5.77	119.35	110.70
13	50	160	PRO	N-CA-C	5.77	119.67	110.21
50	S3	160	SER	N-CA-C	5.77	117.17	108.46
67	20	70	THR	CA-C-N	5.76	125.47	119.82
67	20	70	THR	C-N-CA	5.76	125.47	119.82
11	L8	62	LYS	N-CA-C	-5.76	104.97	112.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	50	58	GLU	N-CA-C	5.76	116.81	108.34
64	17	101	ASN	N-CA-C	5.76	119.01	110.48
36	74	109	THR	N-CA-C	-5.76	106.29	113.15
47	S0	30	GLN	N-CA-C	5.76	117.43	107.93
1	2S	874	U	N1-C1'-C2'	5.76	120.64	112.00
16	54	54	PRO	N-CA-C	5.75	119.70	111.13
30	68	70	LYS	CA-C-N	5.75	125.93	119.90
30	68	70	LYS	C-N-CA	5.75	125.93	119.90
51	S4	151	ASP	CA-C-N	5.74	125.86	119.32
51	S4	151	ASP	C-N-CA	5.74	125.86	119.32
52	S5	155	ALA	N-CA-C	5.74	118.03	109.25
53	S6	102	VAL	N-CA-C	5.73	116.64	107.98
79	RA	8	VAL	N-CA-C	5.73	116.20	108.17
79	RA	59	ARG	N-CA-C	5.73	117.81	108.76
18	56	112	TYR	N-CA-C	5.73	119.97	113.15
51	S4	255	ARG	N-CA-C	-5.73	106.45	113.50
6	L3	35	ASP	N-CA-C	5.72	118.56	109.24
21	59	126	GLU	N-CA-C	-5.71	106.44	113.41
26	64	45	ASN	CA-C-N	5.71	125.39	119.05
26	64	45	ASN	C-N-CA	5.71	125.39	119.05
56	S9	39	LYS	N-CA-C	-5.70	106.16	113.23
6	L3	117	ARG	N-CA-C	-5.70	105.59	112.54
47	S0	78	SER	N-CA-C	-5.69	107.33	114.56
46	1S	20	G	N9-C1'-C2'	5.69	120.54	112.00
6	L3	160	VAL	N-CA-C	5.69	116.67	108.48
25	63	20	GLY	N-CA-C	-5.68	107.72	114.48
7	L4	316	ASN	CA-C-N	5.68	126.94	119.84
7	L4	316	ASN	C-N-CA	5.68	126.94	119.84
21	59	150	GLN	N-CA-C	-5.67	105.86	112.89
1	2S	1352	A	C2'-C3'-O3'	5.67	118.01	109.50
15	53	159	VAL	N-CA-C	5.67	116.38	108.89
30	68	99	ALA	CA-C-N	5.67	126.56	119.98
30	68	99	ALA	C-N-CA	5.67	126.56	119.98
54	S7	185	ILE	N-CA-C	5.67	115.25	108.45
57	10	2	LEU	N-CA-C	5.67	117.46	108.67
33	71	94	GLU	CA-C-N	5.67	125.85	119.90
33	71	94	GLU	C-N-CA	5.67	125.85	119.90
38	76	14	GLY	N-CA-C	5.67	118.23	110.69
21	59	166	ASN	N-CA-C	-5.67	108.16	114.62
45	83	52	ALA	N-CA-C	5.66	117.31	109.15
19	57	128	ARG	N-CA-C	5.66	117.68	109.07
20	58	116	LYS	N-CA-C	-5.66	105.87	112.89

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	76	41	ARG	N-CA-C	5.66	118.39	111.82
58	11	58	CYS	CA-C-N	5.66	126.40	120.12
58	11	58	CYS	C-N-CA	5.66	126.40	120.12
52	S5	179	ALA	N-CA-C	-5.66	106.38	113.28
9	L6	99	GLU	N-CA-C	5.65	119.65	112.87
22	60	167	ARG	CA-C-N	5.65	125.97	119.93
22	60	167	ARG	C-N-CA	5.65	125.97	119.93
54	S7	111	LYS	CB-CA-C	-5.65	110.04	116.54
1	2S	487	U	N1-C1'-C2'	5.65	120.47	112.00
10	L7	73	GLY	N-CA-C	-5.65	107.97	114.69
38	76	79	SER	N-CA-C	5.65	118.78	110.59
30	68	89	GLN	N-CA-C	-5.63	105.91	112.89
21	59	68	GLN	N-CA-C	-5.63	105.91	112.89
29	67	91	ALA	N-CA-C	5.63	117.42	111.28
17	55	22	LEU	N-CA-C	5.62	118.34	111.82
13	50	56	GLU	N-CA-C	5.62	117.72	109.24
15	53	80	VAL	N-CA-C	-5.62	105.05	110.72
73	26	6	ALA	N-CA-C	-5.62	106.38	113.18
31	69	31	SER	N-CA-C	5.62	117.78	110.53
79	RA	275	ARG	CA-C-N	5.61	126.86	119.84
79	RA	275	ARG	C-N-CA	5.61	126.86	119.84
12	L9	4	ILE	N-CA-C	5.61	116.07	110.23
6	L3	247	ARG	N-CA-C	-5.61	105.09	112.72
21	59	22	VAL	N-CA-C	5.61	117.25	109.45
2	8S	104	A	N9-C1'-C2'	5.61	120.41	112.00
17	55	91	GLU	N-CA-C	-5.60	105.59	113.20
23	61	159	PHE	N-CA-C	5.60	122.72	110.80
47	S0	135	GLU	N-CA-C	5.60	117.38	111.28
22	60	138	GLN	N-CA-C	5.59	119.28	112.23
48	S1	160	HIS	N-CA-C	-5.59	104.81	111.69
12	L9	147	SER	N-CA-C	5.59	117.75	108.13
48	S1	118	GLN	N-CA-C	5.59	115.94	108.23
5	L2	243	THR	N-CA-C	5.58	116.73	108.86
8	L5	209	GLU	N-CA-C	-5.58	106.60	113.41
53	S6	208	TYR	N-CA-C	-5.58	106.31	113.23
14	51	117	ASP	CA-C-N	5.58	125.20	119.56
14	51	117	ASP	C-N-CA	5.58	125.20	119.56
15	53	187	ALA	N-CA-C	-5.58	106.47	113.28
6	L3	32	PHE	N-CA-C	5.58	114.72	108.25
35	73	66	VAL	N-CA-C	5.58	115.71	108.35
21	59	21	LYS	N-CA-C	5.58	119.93	113.18
55	S8	149	SER	N-CA-C	-5.58	106.17	114.64

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
49	S2	233	GLN	CA-C-N	5.57	125.25	119.56
49	S2	233	GLN	C-N-CA	5.57	125.25	119.56
46	1S	683	C	N1-C1'-C2'	5.57	120.36	112.00
26	64	50	ALA	N-CA-C	5.57	122.67	110.80
35	73	71	VAL	N-CA-C	5.57	116.75	108.23
28	66	100	HIS	CA-C-N	5.57	125.23	119.05
28	66	100	HIS	C-N-CA	5.57	125.23	119.05
34	72	42	VAL	N-CA-C	-5.57	105.10	110.72
36	74	20	ILE	N-CA-C	5.56	116.75	108.46
46	1S	678	A	C3'-C2'-O2'	5.56	119.04	110.70
1	2S	2435	G	N9-C1'-C2'	5.56	120.34	112.00
55	S8	22	ARG	CB-CA-C	-5.56	110.15	116.54
13	50	6	ALA	N-CA-C	5.55	117.41	111.36
11	L8	41	GLN	CA-C-N	5.55	126.77	119.84
11	L8	41	GLN	C-N-CA	5.55	126.77	119.84
12	L9	14	GLU	N-CA-C	5.55	122.61	110.80
45	83	71	VAL	N-CA-C	-5.55	104.95	111.00
18	56	17	GLY	N-CA-C	5.54	120.80	113.37
42	80	104	PRO	N-CA-C	5.54	117.46	110.70
75	28	12	VAL	N-CA-C	5.54	116.16	108.84
7	L4	94	CYS	N-CA-C	5.54	117.69	108.99
58	11	50	GLU	N-CA-C	-5.54	106.19	113.17
13	50	42	THR	N-CA-C	5.54	117.39	109.14
42	80	104	PRO	CA-C-N	5.53	125.15	119.56
42	80	104	PRO	C-N-CA	5.53	125.15	119.56
6	L3	138	ALA	N-CA-C	-5.53	104.77	112.45
39	77	58	THR	N-CA-C	5.53	118.60	110.59
55	S8	19	ALA	N-CA-C	5.52	118.41	109.79
46	1S	453	U	N1-C1'-C2'	5.52	120.28	112.00
20	58	139	ILE	N-CA-C	5.52	116.42	108.48
56	S9	81	VAL	N-CA-C	-5.51	104.95	113.16
9	L6	58	LEU	N-CA-C	5.51	117.80	110.53
62	15	21	ASP	N-CA-C	5.51	117.19	110.41
23	61	46	GLY	N-CA-C	5.51	118.89	112.50
46	1S	1257	U	N1-C1'-C2'	5.50	120.26	112.00
27	65	26	VAL	N-CA-C	5.50	115.51	107.37
21	59	127	SER	N-CA-C	-5.50	106.41	113.23
21	59	140	GLU	N-CA-C	-5.50	105.37	111.36
1	2S	960	U	N1-C1'-C2'	5.50	120.24	112.00
68	21	69	LEU	N-CA-C	-5.49	106.42	113.23
36	74	104	VAL	N-CA-C	5.49	116.22	110.62
62	15	108	ARG	CA-C-N	5.49	125.58	119.87

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	15	108	ARG	C-N-CA	5.49	125.58	119.87
71	24	40	LEU	N-CA-C	5.49	117.06	111.14
1	2S	3218	A	C2'-C3'-O3'	5.48	121.92	113.70
63	16	71	GLY	N-CA-C	5.48	118.97	112.33
46	1S	901	G	N9-C1'-C2'	5.48	120.22	112.00
54	S7	64	VAL	N-CA-C	5.48	120.72	108.88
18	56	78	ARG	N-CA-C	-5.48	106.37	113.16
1	2S	1556	C	C2'-C3'-O3'	5.47	117.71	109.50
27	65	116	PRO	N-CA-C	-5.47	108.99	114.68
5	L2	209	HIS	CA-C-N	5.47	126.68	119.84
5	L2	209	HIS	C-N-CA	5.47	126.68	119.84
1	2S	2807	U	N1-C1'-C2'	5.47	120.20	112.00
14	51	161	SER	N-CA-C	-5.47	106.45	113.23
23	61	101	CYS	N-CA-C	-5.47	105.74	112.90
1	2S	2898	G	N9-C1'-C2'	5.46	120.20	112.00
1	2S	3269	U	C2'-C3'-O3'	5.46	117.70	109.50
16	54	58	ILE	N-CA-C	5.46	115.51	107.75
74	27	65	THR	CA-C-N	5.46	126.30	120.13
74	27	65	THR	C-N-CA	5.46	126.30	120.13
14	51	125	MET	N-CA-C	5.46	117.71	109.41
47	S0	43	ASP	N-CA-C	5.46	119.24	112.58
69	22	25	VAL	N-CA-C	5.46	115.56	108.35
5	L2	140	ASN	CA-C-N	5.46	125.07	119.56
5	L2	140	ASN	C-N-CA	5.46	125.07	119.56
20	58	86	THR	N-CA-C	5.46	119.13	109.96
32	70	77	LEU	N-CA-C	-5.45	105.36	112.23
65	18	16	ARG	N-CA-C	5.45	117.50	108.13
7	L4	129	THR	N-CA-C	-5.44	106.14	112.89
51	S4	93	ASP	N-CA-C	-5.44	104.76	111.40
64	17	124	VAL	N-CA-C	5.44	115.03	108.06
52	S5	126	ASP	CB-CA-C	-5.43	109.84	117.23
20	58	124	LEU	N-CA-C	5.43	117.90	111.33
35	73	42	GLN	N-CA-C	-5.43	105.52	111.82
5	L2	107	VAL	CA-C-N	5.43	125.63	120.31
5	L2	107	VAL	C-N-CA	5.43	125.63	120.31
28	66	41	ALA	N-CA-C	-5.43	105.29	112.94
16	54	71	ALA	N-CA-C	5.42	118.44	110.30
13	50	96	VAL	N-CA-C	5.42	116.59	109.21
46	1S	583	C	N1-C1'-C2'	5.42	120.13	112.00
18	56	160	ARG	N-CA-C	5.42	116.87	111.07
1	2S	982	C	N1-C1'-C2'	5.42	120.12	112.00
4	L1	84	ALA	N-CA-C	5.41	116.92	109.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	11	52	SER	N-CA-C	-5.41	107.69	114.56
62	15	104	GLN	N-CA-C	5.41	117.06	108.67
46	1S	1535	U	N1-C1'-C2'	5.41	120.11	112.00
30	68	32	ARG	N-CA-C	5.41	117.21	108.34
18	56	150	GLU	N-CA-C	5.41	117.03	111.03
19	57	161	ALA	N-CA-C	5.41	116.71	108.12
20	58	153	PHE	N-CA-C	5.41	116.94	109.15
12	L9	157	ASN	N-CA-C	-5.40	106.19	112.89
33	71	31	ARG	N-CA-C	-5.40	106.20	112.89
7	L4	195	ARG	N-CA-C	-5.39	104.99	113.02
52	S5	75	GLY	N-CA-C	5.39	119.17	110.87
1	2S	1904	C	N1-C1'-C2'	5.39	120.09	112.00
37	75	34	GLN	N-CA-C	-5.39	106.70	113.28
46	1S	1051	G	C3'-C2'-O2'	5.39	118.78	110.70
49	S2	78	ASP	N-CA-C	5.39	117.71	109.95
61	14	95	GLY	CA-C-N	5.39	126.57	119.84
61	14	95	GLY	C-N-CA	5.39	126.57	119.84
59	12	92	ALA	N-CA-C	5.38	116.82	109.18
51	S4	133	LYS	N-CA-C	5.37	117.49	109.59
19	57	163	LYS	N-CA-C	-5.37	107.38	114.31
44	82	44	ASP	N-CA-C	5.37	116.82	111.07
8	L5	73	VAL	N-CA-C	5.37	116.31	108.58
38	76	55	ARG	N-CA-C	-5.37	105.34	111.14
27	65	59	SER	N-CA-C	5.37	117.57	111.02
23	61	147	VAL	CA-C-N	5.36	126.54	119.84
23	61	147	VAL	C-N-CA	5.36	126.54	119.84
55	S8	84	HIS	CA-C-N	5.36	126.54	119.84
55	S8	84	HIS	C-N-CA	5.36	126.54	119.84
16	54	85	TRP	N-CA-C	-5.36	105.08	111.03
30	68	141	ALA	N-CA-C	-5.36	106.59	113.23
49	S2	108	ASN	N-CA-C	5.35	116.86	110.44
55	S8	32	GLN	CA-C-N	5.35	125.34	120.21
55	S8	32	GLN	C-N-CA	5.35	125.34	120.21
6	L3	84	VAL	N-CA-C	5.35	115.80	107.99
69	22	71	LYS	N-CA-C	5.34	116.53	108.46
49	S2	40	LYS	N-CA-C	-5.34	105.62	111.82
46	1S	657	U	N1-C1'-C2'	5.34	120.01	112.00
65	18	81	ILE	CA-C-N	5.34	126.51	119.84
65	18	81	ILE	C-N-CA	5.34	126.51	119.84
5	L2	20	THR	N-CA-C	5.33	117.43	109.59
12	L9	10	ILE	N-CA-C	5.33	116.34	108.45
21	59	59	SER	N-CA-C	5.33	117.98	110.14

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	71	88	PRO	N-CA-C	-5.33	109.14	114.68
50	S3	99	VAL	N-CA-C	5.32	116.05	110.62
33	71	49	VAL	N-CA-C	5.32	115.94	108.17
19	57	132	ALA	N-CA-C	5.32	116.95	110.41
56	S9	109	LEU	N-CA-C	-5.32	105.60	111.71
1	2S	959	C	N1-C1'-C2'	5.31	119.97	112.00
7	L4	334	PHE	N-CA-C	-5.31	105.38	111.07
1	2S	484	G	C3'-C2'-O2'	5.31	118.67	110.70
52	S5	141	GLY	CA-C-N	5.31	125.61	119.93
52	S5	141	GLY	C-N-CA	5.31	125.61	119.93
60	13	106	ARG	N-CA-C	-5.31	107.34	112.97
4	L1	139	SER	N-CA-C	5.31	117.15	111.36
15	53	79	GLU	N-CA-C	-5.31	105.95	112.90
46	1S	235	G	N9-C1'-C2'	5.31	119.96	112.00
58	11	123	VAL	N-CA-C	5.30	114.17	107.70
31	69	56	ALA	N-CA-C	-5.30	106.20	113.30
46	1S	230	C	N1-C1'-C2'	5.30	119.95	112.00
29	67	120	GLU	N-CA-C	-5.30	104.82	113.19
9	L6	163	PHE	N-CA-C	5.29	117.87	109.24
56	S9	4	ALA	CA-C-N	5.29	125.59	119.93
56	S9	4	ALA	C-N-CA	5.29	125.59	119.93
18	56	181	ALA	N-CA-C	-5.29	106.95	113.41
74	27	37	CYS	CA-C-N	5.29	124.91	119.56
74	27	37	CYS	C-N-CA	5.29	124.91	119.56
41	79	23	LEU	CA-C-N	5.29	126.45	119.84
41	79	23	LEU	C-N-CA	5.29	126.45	119.84
1	2S	776	U	N1-C1'-C2'	5.29	119.93	112.00
23	61	102	ARG	N-CA-C	-5.29	106.83	113.28
52	S5	180	ARG	N-CA-C	-5.29	107.00	113.50
56	S9	91	LYS	N-CA-C	-5.28	107.13	113.21
7	L4	183	LYS	N-CA-C	-5.28	107.01	112.93
63	16	72	GLY	N-CA-C	5.28	116.53	111.67
32	70	89	VAL	N-CA-C	5.28	115.17	107.88
7	L4	26	PHE	N-CA-C	-5.28	106.79	113.18
51	S4	149	TYR	CA-C-N	5.28	126.44	119.84
51	S4	149	TYR	C-N-CA	5.28	126.44	119.84
7	L4	106	TRP	N-CA-C	5.28	119.41	112.92
8	L5	42	ALA	N-CA-C	-5.28	106.69	113.02
1	2S	492	C	C3'-C2'-O2'	5.27	118.61	110.70
47	S0	74	VAL	N-CA-C	5.27	115.45	107.75
6	L3	364	LYS	N-CA-C	-5.27	106.16	112.59
7	L4	153	SER	N-CA-C	5.27	118.52	110.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	51	86	VAL	N-CA-C	-5.27	105.85	113.07
23	61	77	ASN	N-CA-C	5.27	116.99	108.41
66	19	14	PHE	N-CA-C	-5.26	106.00	112.90
8	L5	166	ALA	N-CA-C	5.26	116.82	111.14
7	L4	174	ALA	N-CA-C	-5.26	106.89	113.15
46	1S	558	U	N1-C1'-C2'	5.26	119.89	112.00
22	60	129	ILE	N-CA-C	5.25	116.14	108.58
51	S4	4	GLY	CA-C-N	5.25	125.17	119.76
51	S4	4	GLY	C-N-CA	5.25	125.17	119.76
9	L6	69	PHE	N-CA-C	-5.25	105.73	111.82
22	60	13	ARG	CB-CA-C	-5.25	110.10	117.23
28	66	74	TYR	N-CA-C	5.24	117.74	107.57
70	23	59	ILE	N-CA-C	5.24	115.85	109.30
46	1S	1481	C	C4'-C3'-O3'	5.24	117.26	109.40
1	2S	1758	G	N9-C1'-C2'	5.24	119.86	112.00
7	L4	84	ARG	N-CA-C	-5.24	105.25	111.69
35	73	37	THR	CA-C-N	5.23	125.03	119.28
35	73	37	THR	C-N-CA	5.23	125.03	119.28
53	S6	130	PRO	N-CA-C	5.23	118.81	111.33
46	1S	1615	C	C3'-C2'-O2'	5.23	118.54	110.70
1	2S	2440	G	C3'-C2'-O2'	5.22	118.53	110.70
30	68	121	VAL	CA-C-N	5.22	126.65	120.23
30	68	121	VAL	C-N-CA	5.22	126.65	120.23
15	53	130	GLY	N-CA-C	-5.22	107.91	115.27
61	14	104	ALA	N-CA-C	5.22	117.87	111.82
13	50	58	GLU	CB-CA-C	-5.22	108.92	116.54
18	56	90	HIS	N-CA-C	-5.22	106.98	113.19
79	RA	281	TYR	CB-CA-C	-5.22	109.04	116.34
5	L2	183	GLY	N-CA-C	-5.21	108.19	114.66
18	56	118	VAL	N-CA-C	5.21	116.36	108.96
55	S8	162	ALA	N-CA-C	-5.21	108.18	114.75
58	11	42	PHE	N-CA-C	5.21	116.91	108.41
21	59	149	ALA	N-CA-C	-5.21	106.08	112.90
30	68	21	ARG	N-CA-C	-5.21	107.06	113.41
60	13	16	ILE	N-CA-C	5.21	113.86	109.02
73	26	44	ILE	N-CA-C	-5.21	104.58	111.09
19	57	18	ARG	N-CA-C	5.20	118.16	110.46
19	57	151	THR	N-CA-C	5.20	117.88	109.40
21	59	99	LEU	N-CA-C	5.20	116.76	111.14
15	53	52	ASP	N-CA-C	5.20	117.04	110.33
4	L1	200	ASN	N-CA-C	-5.20	106.94	113.28
9	L6	53	VAL	N-CA-C	5.20	115.53	107.78

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2S	771	A	N9-C1'-C2'	5.20	119.79	112.00
6	L3	85	VAL	N-CA-C	5.20	116.28	109.21
22	60	117	ARG	N-CA-C	5.20	118.12	110.59
1	2S	3387	U	N1-C1'-C2'	5.19	119.79	112.00
46	1S	1768	G	N9-C1'-C2'	5.19	119.79	112.00
51	S4	94	ALA	N-CA-C	-5.19	102.59	110.28
6	L3	345	ASN	N-CA-C	5.19	116.98	108.52
15	53	74	GLY	N-CA-C	5.19	117.99	111.09
30	68	91	LEU	N-CA-C	-5.19	105.24	112.45
5	L2	78	ALA	N-CA-C	5.19	118.16	110.48
5	L2	198	LYS	N-CA-C	5.19	119.36	107.48
1	2S	2495	C	N1-C1'-C2'	5.18	119.78	112.00
1	2S	2980	U	N1-C1'-C2'	5.18	119.78	112.00
23	61	89	LEU	N-CA-C	5.18	117.87	109.06
8	L5	206	GLN	N-CA-C	-5.18	105.81	111.82
11	L8	80	TYR	N-CA-C	-5.18	106.27	112.59
46	1S	1082	C	N1-C1'-C2'	5.18	119.77	112.00
60	13	147	SER	N-CA-C	-5.18	106.98	113.15
46	1S	929	A	N9-C1'-C2'	5.18	119.77	112.00
48	S1	159	SER	N-CA-C	-5.18	106.80	113.01
47	S0	151	SER	CA-C-N	5.17	126.31	119.84
47	S0	151	SER	C-N-CA	5.17	126.31	119.84
37	75	60	GLU	N-CA-C	5.17	116.60	111.07
44	82	80	ARG	N-CA-C	5.17	118.10	110.46
79	RA	153	GLN	N-CA-C	5.17	116.37	108.52
16	54	16	GLU	N-CA-C	5.16	116.14	108.60
57	10	81	ASN	N-CA-C	5.16	121.80	110.80
77	30	54	ARG	N-CA-C	5.16	115.99	108.14
8	L5	43	LYS	N-CA-C	-5.16	107.36	113.97
1	2S	619	A	N9-C1'-C2'	5.16	119.73	112.00
46	1S	965	U	N1-C1'-C2'	5.16	119.73	112.00
61	14	126	THR	N-CA-C	5.16	117.82	110.24
2	8S	68	G	N9-C1'-C2'	5.15	119.73	112.00
63	16	43	ILE	N-CA-C	-5.15	104.83	112.04
31	69	48	HIS	N-CA-C	-5.14	105.75	111.36
1	2S	2147	A	N9-C1'-C2'	5.14	119.71	112.00
13	50	139	ARG	N-CA-C	5.14	117.86	109.59
40	78	69	LEU	N-CA-C	5.14	117.13	110.40
16	54	41	GLN	N-CA-C	5.14	117.67	111.40
17	55	51	LEU	N-CA-C	-5.14	105.13	111.40
79	RA	286	GLU	CA-C-N	5.13	125.13	119.89
79	RA	286	GLU	C-N-CA	5.13	125.13	119.89

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2S	813	G	N9-C1'-C2'	5.13	119.69	112.00
45	83	62	LYS	N-CA-C	5.13	117.05	108.23
49	S2	121	VAL	N-CA-C	5.12	115.27	110.30
55	S8	161	SER	N-CA-C	-5.12	107.54	112.97
20	58	81	VAL	N-CA-C	5.12	116.61	109.80
46	1S	242	U	N1-C1'-C2'	5.12	119.69	112.00
19	57	9	THR	N-CA-C	5.12	115.10	107.88
66	19	86	ARG	N-CA-C	-5.12	107.19	112.93
62	15	130	ARG	CB-CA-C	-5.12	109.18	116.34
11	L8	74	THR	N-CA-C	-5.11	105.80	112.23
20	58	9	GLN	N-CA-C	5.11	117.07	109.25
61	14	93	THR	CA-C-N	5.11	125.10	119.89
61	14	93	THR	C-N-CA	5.11	125.10	119.89
6	L3	275	ARG	N-CA-C	5.11	117.57	109.50
11	L8	224	ASP	N-CA-C	5.11	116.93	111.36
20	58	159	LYS	N-CA-C	-5.10	105.36	111.03
7	L4	207	VAL	N-CA-C	5.10	116.65	108.89
8	L5	172	TYR	N-CA-C	5.10	116.95	108.02
14	51	87	LYS	N-CA-C	-5.10	107.06	113.28
37	75	86	ARG	N-CA-C	-5.09	105.81	112.23
78	31	104	SER	N-CA-C	-5.09	106.81	112.57
1	2S	285	A	N9-C1'-C2'	5.09	119.64	112.00
9	L6	152	THR	N-CA-C	5.09	118.01	110.32
18	56	105	PHE	N-CA-C	5.09	117.55	109.50
23	61	122	GLN	N-CA-C	-5.09	107.20	113.41
52	S5	47	SER	N-CA-C	5.09	116.85	110.24
1	2S	2532	U	N1-C1'-C2'	5.08	119.62	112.00
25	63	77	ILE	N-CA-C	5.08	117.04	108.81
53	S6	134	GLY	CA-C-N	5.08	126.19	119.84
53	S6	134	GLY	C-N-CA	5.08	126.19	119.84
1	2S	486	A	N9-C1'-C2'	5.08	119.62	112.00
6	L3	164	THR	N-CA-C	5.08	117.08	110.53
8	L5	132	THR	N-CA-C	5.08	116.59	108.41
49	S2	95	ARG	N-CA-C	-5.08	101.90	109.11
1	2S	1288	U	C3'-C2'-O2'	5.08	118.32	110.70
72	25	87	GLY	N-CA-C	5.08	116.49	111.21
1	2S	2278	C	N1-C1'-C2'	5.08	119.61	112.00
59	12	51	ALA	N-CA-C	-5.08	107.26	113.50
21	59	125	LYS	N-CA-C	-5.08	107.09	113.28
10	L7	115	THR	N-CA-C	5.07	114.94	108.24
13	50	199	PHE	N-CA-C	5.07	118.02	109.95
53	S6	110	ALA	N-CA-C	5.07	116.45	109.15

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	50	129	VAL	N-CA-C	5.07	115.78	108.48
19	57	177	ALA	N-CA-C	-5.07	105.94	111.82
1	2S	3168	A	N9-C1'-C2'	5.06	119.59	112.00
6	L3	372	THR	CA-C-N	5.06	125.50	120.04
6	L3	372	THR	C-N-CA	5.06	125.50	120.04
46	1S	498	G	C2'-C3'-O3'	5.06	121.29	113.70
1	2S	2303	A	N9-C1'-C2'	5.05	119.58	112.00
50	S3	72	LEU	N-CA-C	5.05	116.48	111.07
4	L1	27	ASN	N-CA-C	-5.05	107.09	113.20
14	51	137	ARG	N-CA-C	-5.05	107.07	113.18
79	RA	250	TYR	N-CA-C	-5.05	106.43	112.59
15	53	124	ILE	N-CA-C	5.04	115.74	108.48
12	L9	66	ALA	N-CA-C	-5.04	107.08	113.18
1	2S	373	A	N9-C1'-C2'	5.04	119.56	112.00
39	77	29	VAL	N-CA-C	5.04	115.19	110.30
5	L2	62	VAL	N-CA-C	5.04	116.55	108.89
79	RA	179	LYS	N-CA-C	5.03	117.95	109.95
17	55	181	ASN	N-CA-C	-5.03	107.30	112.93
12	L9	159	ALA	N-CA-C	-5.03	107.09	113.18
17	55	60	VAL	N-CA-C	5.03	115.55	108.36
14	51	164	LYS	N-CA-C	-5.03	106.98	113.01
1	2S	916	G	N9-C1'-C2'	5.02	119.54	112.00
1	2S	2642	A	N9-C1'-C2'	5.02	119.53	112.00
15	53	134	GLU	N-CA-C	5.02	118.39	109.96
20	58	162	ALA	N-CA-C	5.02	120.91	109.81
70	23	34	LEU	N-CA-C	-5.02	106.26	112.93
35	73	63	LYS	N-CA-C	-5.01	106.94	113.16
1	2S	237	G	N9-C1'-C2'	5.01	119.52	112.00
11	L8	222	PHE	N-CA-C	5.01	119.03	111.96
49	S2	244	SER	N-CA-C	5.01	116.43	110.97
1	2S	263	C	N1-C1'-C2'	5.01	119.51	112.00
1	2S	1223	A	N9-C1'-C2'	5.00	119.50	112.00
1	2S	1367	G	N9-C1'-C2'	5.00	119.51	112.00
64	17	64	GLY	CA-C-N	5.00	125.39	119.99
64	17	64	GLY	C-N-CA	5.00	125.39	119.99
1	2S	223	U	N1-C1'-C2'	5.00	119.50	112.00
19	57	121	GLN	N-CA-C	5.00	117.55	110.10

There are no chirality outliers.

All (160) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
46	1S	1081	A	Sidechain
46	1S	1085	G	Sidechain
46	1S	1095	U	Sidechain
46	1S	110	U	Sidechain
46	1S	1250	U	Sidechain
46	1S	1251	U	Sidechain
46	1S	1255	G	Sidechain
46	1S	133	U	Sidechain
46	1S	1368	G	Sidechain
46	1S	143	G	Sidechain
46	1S	1502	G	Sidechain
46	1S	1524	A	Sidechain
46	1S	1542	G	Sidechain
46	1S	1553	G	Sidechain
46	1S	1593	A	Sidechain
46	1S	1680	G	Sidechain
46	1S	1727	G	Sidechain
46	1S	196	G	Sidechain
46	1S	199	G	Sidechain
46	1S	227	U	Sidechain
46	1S	230	C	Sidechain
46	1S	25	C	Sidechain
46	1S	276	C	Sidechain
46	1S	289	U	Sidechain
46	1S	291	G	Sidechain
46	1S	313	U	Sidechain
46	1S	322	G	Sidechain
46	1S	330	G	Sidechain
46	1S	335	U	Sidechain
46	1S	337	G	Sidechain
46	1S	429	G	Sidechain
46	1S	447	U	Sidechain
46	1S	509	G	Sidechain
46	1S	518	A	Sidechain
46	1S	553	G	Sidechain
46	1S	617	U	Sidechain
46	1S	683	C	Sidechain
46	1S	684	A	Sidechain
46	1S	73	U	Sidechain
46	1S	743	U	Sidechain
46	1S	772	G	Sidechain
46	1S	819	G	Sidechain
46	1S	832	U	Sidechain

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Mol	Chain	Res	Type	Group
46	1S	840	U	Sidechain
46	1S	933	A	Sidechain
1	2S	1000	C	Sidechain
1	2S	1004	U	Sidechain
1	2S	1014	U	Sidechain
1	2S	1027	A	Sidechain
1	2S	1028	U	Sidechain
1	2S	1050	U	Sidechain
1	2S	1051	U	Sidechain
1	2S	107	A	Sidechain
1	2S	1072	G	Sidechain
1	2S	1127	G	Sidechain
1	2S	1143	A	Sidechain
1	2S	1153	A	Sidechain
1	2S	1154	A	Sidechain
1	2S	1194	G	Sidechain
1	2S	1216	C	Sidechain
1	2S	1217	A	Sidechain
1	2S	1222	G	Sidechain
1	2S	1294	A	Sidechain
1	2S	1296	C	Sidechain
1	2S	1315	U	Sidechain
1	2S	1327	C	Sidechain
1	2S	1329	U	Sidechain
1	2S	1392	G	Sidechain
1	2S	1417	G	Sidechain
1	2S	1434	G	Sidechain
1	2S	1449	A	Sidechain
1	2S	148	G	Sidechain
1	2S	1646	G	Sidechain
1	2S	1713	G	Sidechain
1	2S	1724	U	Sidechain
1	2S	1730	G	Sidechain
1	2S	1758	G	Sidechain
1	2S	1786	G	Sidechain
1	2S	1806	A	Sidechain
1	2S	1808	G	Sidechain
1	2S	1809	A	Sidechain
1	2S	1818	U	Sidechain
1	2S	1858	A	Sidechain
1	2S	1863	G	Sidechain
1	2S	1899	G	Sidechain

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Mol	Chain	Res	Type	Group
1	2S	1930	A	Sidechain
1	2S	2076	G	Sidechain
1	2S	2110	G	Sidechain
1	2S	2141	U	Sidechain
1	2S	2160	G	Sidechain
1	2S	2165	G	Sidechain
1	2S	217	U	Sidechain
1	2S	2174	G	Sidechain
1	2S	2240	G	Sidechain
1	2S	2281	A	Sidechain
1	2S	2314	U	Sidechain
1	2S	2371	G	Sidechain
1	2S	2376	G	Sidechain
1	2S	2403	G	Sidechain
1	2S	2417	U	Sidechain
1	2S	242	C	Sidechain
1	2S	2505	U	Sidechain
1	2S	2510	U	Sidechain
1	2S	2571	U	Sidechain
1	2S	26	A	Sidechain
1	2S	2635	A	Sidechain
1	2S	2656	A	Sidechain
1	2S	267	G	Sidechain
1	2S	2695	A	Sidechain
1	2S	2761	G	Sidechain
1	2S	2763	U	Sidechain
1	2S	2800	G	Sidechain
1	2S	2886	U	Sidechain
1	2S	2898	G	Sidechain
1	2S	2901	G	Sidechain
1	2S	2915	U	Sidechain
1	2S	296	A	Sidechain
1	2S	3006	A	Sidechain
1	2S	3026	G	Sidechain
1	2S	3055	U	Sidechain
1	2S	3140	G	Sidechain
1	2S	3156	U	Sidechain
1	2S	3157	U	Sidechain
1	2S	3274	A	Sidechain
1	2S	3302	U	Sidechain
1	2S	3333	G	Sidechain
1	2S	3387	U	Sidechain

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Mol	Chain	Res	Type	Group
1	2S	341	G	Sidechain
1	2S	349	A	Sidechain
1	2S	371	G	Sidechain
1	2S	372	A	Sidechain
1	2S	376	G	Sidechain
1	2S	383	G	Sidechain
1	2S	394	G	Sidechain
1	2S	395	A	Sidechain
1	2S	40	A	Sidechain
1	2S	405	U	Sidechain
1	2S	406	G	Sidechain
1	2S	493	U	Sidechain
1	2S	531	G	Sidechain
1	2S	59	G	Sidechain
1	2S	594	U	Sidechain
1	2S	760	G	Sidechain
1	2S	770	G	Sidechain
1	2S	771	A	Sidechain
1	2S	782	U	Sidechain
1	2S	815	G	Sidechain
1	2S	835	G	Sidechain
1	2S	858	A	Sidechain
1	2S	918	C	Sidechain
1	2S	93	C	Sidechain
1	2S	959	C	Sidechain
1	2S	993	G	Sidechain
3	5S	86	U	Sidechain
2	8S	16	G	Sidechain
2	8S	34	U	Sidechain
2	8S	39	G	Sidechain
2	8S	71	A	Sidechain
2	8S	88	A	Sidechain
6	L3	137	TYR	Sidechain

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	2S	70742	0	35551	2330	0
2	8S	3354	0	1695	110	0
3	5S	2580	0	1304	88	0
4	L1	1609	0	1701	134	0
5	L2	1918	0	1987	196	0
6	L3	3082	0	3165	282	0
7	L4	2750	0	2863	235	0
8	L5	2376	0	2325	137	0
9	L6	1240	0	1326	102	0
10	L7	1785	0	1862	143	0
11	L8	1818	0	1908	136	0
12	L9	1519	0	1587	124	0
13	50	1718	0	1754	109	0
14	51	1354	0	1383	104	0
15	53	1543	0	1608	139	0
16	54	1054	0	1149	72	0
17	55	1721	0	1779	164	0
18	56	1556	0	1659	125	0
19	57	1443	0	1485	120	0
20	58	1442	0	1543	132	0
21	59	1522	0	1617	105	0
22	60	1446	0	1487	129	0
23	61	1277	0	1323	113	0
24	62	796	0	812	48	0
25	63	1004	0	1048	100	0
26	64	509	0	537	38	0
27	65	969	0	1036	84	0
28	66	994	0	1081	74	0
29	67	1093	0	1155	82	0
30	68	1174	0	1215	112	0
31	69	463	0	491	32	0
32	70	743	0	797	52	0
33	71	890	0	938	66	0
34	72	1020	0	1090	77	0
35	73	851	0	880	78	0
36	74	881	0	949	77	0
37	75	970	0	1078	70	0
38	76	772	0	849	75	0
39	77	682	0	687	60	0
40	78	613	0	682	37	0
41	79	437	0	475	29	0
42	80	418	0	459	33	0
43	81	234	0	284	24	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
44	82	827	0	901	65	0
45	83	695	0	738	68	0
46	1S	37949	0	19093	1250	0
47	S0	1612	0	1623	103	0
48	S1	1709	0	1784	149	0
49	S2	1635	0	1723	133	0
50	S3	1734	0	1817	106	0
51	S4	2069	0	2154	158	0
52	S5	1610	0	1675	133	0
53	S6	1820	0	1918	127	0
54	S7	1481	0	1572	143	0
55	S8	1490	0	1525	128	0
56	S9	1494	0	1573	121	0
57	10	817	0	804	78	0
58	11	1245	0	1314	110	0
59	12	935	0	975	69	0
60	13	1193	0	1255	114	0
61	14	942	0	979	86	0
62	15	991	0	1035	62	0
63	16	1106	0	1166	82	0
64	17	965	0	1026	64	0
65	18	1193	0	1222	94	0
66	19	1113	0	1124	99	0
67	20	856	0	917	73	0
68	21	685	0	672	44	0
69	22	1022	0	1060	116	0
70	23	1122	0	1196	122	0
71	24	1074	0	1132	83	0
72	25	563	0	603	50	0
73	26	769	0	818	77	0
74	27	611	0	633	32	0
75	28	498	0	535	46	0
76	29	444	0	436	36	0
77	30	475	0	525	43	0
78	31	498	0	441	25	0
79	RA	2445	0	2401	114	0
80	IR	198	0	0	0	0
All	All	204247	0	150969	9754	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 28.

All (9754) 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)
50:S3:209:ILE:HG22	64:17:38:ILE:HG13	1.29	1.15
46:1S:1701:A:H3'	46:1S:1702:A:H5''	1.25	1.14
6:L3:86:VAL:HA	6:L3:162:VAL:HG12	1.21	1.13
1:2S:632:G:H5''	18:56:94:ARG:HD2	1.26	1.13
9:L6:43:LEU:HD13	35:73:103:TYR:HB3	1.31	1.13
11:L8:158:ASP:HB3	11:L8:159:PRO:HD3	1.31	1.13
53:S6:163:THR:HG22	53:S6:168:THR:HG22	1.30	1.12
7:L4:152:VAL:HG12	7:L4:153:SER:H	1.14	1.12
1:2S:1240:A:H3'	1:2S:1241:U:H5''	1.21	1.11
70:23:76:LEU:HD13	70:23:79:ASN:HB2	1.33	1.10
23:61:93:VAL:HA	23:61:96:ILE:HD13	1.34	1.10
46:1S:654:C:H3'	46:1S:655:G:H5''	1.28	1.10
13:50:52:LEU:HD22	13:50:135:ILE:HD12	1.17	1.09
34:72:73:THR:HA	34:72:93:ALA:HB3	1.33	1.09
1:2S:250:U:H5'	1:2S:251:G:H5''	1.19	1.09
46:1S:478:A:H5'	77:30:33:ARG:HH21	1.17	1.08
4:L1:123:LEU:HD22	4:L1:128:LEU:HB2	1.34	1.08
25:63:108:GLU:HG2	25:63:128:ARG:HH12	1.17	1.08
17:55:120:TRP:HE1	17:55:123:GLN:HG2	1.16	1.07
20:58:29:LEU:HD13	20:58:124:LEU:HD12	1.32	1.07
46:1S:1712:A:H3'	46:1S:1713:G:H5''	1.34	1.07
53:S6:135:PRO:HB3	53:S6:140:ASN:HB3	1.37	1.07
57:10:15:LEU:HD13	57:10:21:VAL:HG23	1.34	1.07
8:L5:277:LEU:HD23	8:L5:282:ARG:HG2	1.33	1.07
44:82:8:ARG:HH12	44:82:10:THR:HB	1.17	1.06
55:S8:26:LYS:O	55:S8:29:LEU:HD22	1.52	1.06
54:S7:11:GLN:HG3	54:S7:13:PRO:HD2	1.33	1.06
48:S1:171:ILE:HD12	48:S1:197:ILE:HD13	1.33	1.05
17:55:118:SER:HB3	17:55:132:VAL:HG22	1.39	1.05
69:22:118:ARG:HB2	69:22:118:ARG:HH11	1.19	1.05
39:77:25:ARG:HH12	41:79:50:ASN:HB3	1.22	1.05
17:55:159:ARG:HG2	17:55:164:LEU:HD12	1.38	1.04
46:1S:400:A:H5''	55:S8:25:ARG:HA	1.36	1.04
1:2S:942:U:H3'	30:68:15:VAL:HG13	1.38	1.03
4:L1:50:SER:HA	4:L1:193:LEU:HD22	1.38	1.03
16:54:25:LYS:HE3	16:54:62:GLN:HG2	1.37	1.03
25:63:45:ARG:HG2	25:63:48:ARG:HE	1.23	1.03
10:L7:77:VAL:HG12	22:60:59:VAL:HG13	1.39	1.03
1:2S:2513:U:H2'	1:2S:2592:G:H22	1.21	1.03
6:L3:296:THR:HG22	6:L3:297:SER:H	1.20	1.02
16:54:76:ALA:HB1	16:54:80:THR:HB	1.41	1.02
50:S3:222:VAL:HG11	79:RA:229:LYS:HA	1.41	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2376:G:H2'	1:2S:2377:G:C8	1.93	1.02
1:2S:943:U:OP1	30:68:15:VAL:HG22	1.59	1.02
1:2S:2207:A:H2'	1:2S:2208:A:H5''	1.40	1.01
60:13:22:ALA:HB1	60:13:23:PRO:HA	1.42	1.01
73:26:84:VAL:HG13	73:26:85:ARG:H	1.20	1.01
15:53:50:PRO:HG3	37:75:118:ILE:HG13	1.37	1.01
44:82:68:VAL:HB	44:82:85:LEU:HB2	1.41	1.01
15:53:47:ALA:HB1	15:53:48:PRO:HD2	1.41	1.01
44:82:100:LYS:HE3	44:82:100:LYS:H	1.16	1.01
1:2S:268:A:H61	1:2S:295:A:H3'	1.26	1.00
6:L3:226:PHE:CZ	6:L3:268:GLY:HA2	1.97	1.00
53:S6:1:MET:HE1	53:S6:106:LEU:HB2	1.38	1.00
7:L4:77:VAL:HB	7:L4:86:GLY:H	1.27	1.00
5:L2:112:ILE:HG12	5:L2:135:ILE:HG12	1.44	0.99
7:L4:170:LYS:HE3	7:L4:178:LEU:HD12	1.42	0.99
1:2S:1252:A:H2'	1:2S:1253:U:H5'	1.39	0.99
1:2S:2764:C:H5''	30:68:55:LYS:HG3	1.44	0.99
1:2S:2251:G:H2'	1:2S:2252:A:H5''	1.44	0.99
4:L1:108:ASN:HB2	4:L1:130:LYS:HG2	1.45	0.99
32:70:44:ILE:HG21	32:70:53:LYS:HG3	1.43	0.99
61:14:112:ILE:HG22	61:14:113:GLY:H	1.25	0.99
66:19:25:GLN:HE21	66:19:27:LYS:HD3	1.28	0.99
46:1S:189:C:H2'	46:1S:190:C:H5''	1.44	0.98
47:S0:119:ARG:HB3	47:S0:119:ARG:HH11	1.21	0.98
73:26:60:PRO:O	73:26:61:GLU:HG2	1.64	0.98
1:2S:58:G:H2'	1:2S:59:G:C8	1.98	0.98
3:5S:55:A:H1'	14:51:10:ARG:HG2	1.44	0.98
56:S9:170:GLY:O	56:S9:174:ARG:HG2	1.63	0.98
36:74:22:VAL:HG22	36:74:32:ALA:HB2	1.46	0.98
1:2S:1981:G:H2'	1:2S:1982:G:H5'	1.46	0.98
69:22:80:ASN:ND2	69:22:124:LYS:HG2	1.77	0.98
34:72:33:ARG:HA	34:72:33:ARG:HE	1.28	0.98
1:2S:1951:C:C5	1:2S:2095:G:N1	2.31	0.98
49:S2:38:VAL:HG22	49:S2:39:THR:H	1.24	0.98
64:17:6:THR:HG22	64:17:9:VAL:HG23	1.44	0.98
19:57:122:ALA:HB3	19:57:143:PRO:HB2	1.46	0.97
1:2S:1804:A:H5''	36:74:67:LYS:HE3	1.45	0.97
25:63:74:MET:HG3	25:63:102:ILE:HD11	1.45	0.97
6:L3:261:MET:HB3	18:56:64:PHE:HA	1.45	0.97
1:2S:2405:C:H2'	1:2S:2406:C:C6	1.97	0.97
1:2S:2476:C:H2'	1:2S:2477:G:H4'	1.45	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L3:28:ARG:HH11	6:L3:28:ARG:HB2	1.26	0.97
13:50:27:PRO:HD3	13:50:122:PRO:HB3	1.44	0.97
21:59:43:LYS:HA	21:59:46:LYS:HE3	1.44	0.97
46:1S:487:G:H2'	46:1S:488:G:H5''	1.44	0.97
1:2S:1064:A:H62	1:2S:1096:U:H3	1.11	0.97
30:68:123:VAL:HG12	30:68:124:ILE:H	1.28	0.97
8:L5:55:PHE:HE2	8:L5:159:VAL:HG22	1.29	0.97
46:1S:56:U:H4'	46:1S:57:G:H5'	1.45	0.97
53:S6:78:THR:HG22	53:S6:79:LYS:H	1.28	0.97
1:2S:2735:U:H5''	23:61:50:LYS:HG2	1.47	0.96
18:56:124:LEU:HG	18:56:126:VAL:HG12	1.47	0.96
47:S0:184:LEU:HD23	68:21:43:GLY:HA2	1.46	0.96
1:2S:954:U:H4'	31:69:8:THR:HG22	1.44	0.96
1:2S:1813:A:H2'	1:2S:1814:A:H5''	1.45	0.96
14:51:94:ARG:H	14:51:94:ARG:HD3	1.28	0.96
22:60:81:TYR:HE1	22:60:88:HIS:HB2	1.30	0.96
1:2S:2778:G:H2'	1:2S:2779:A:H5''	1.46	0.96
39:77:14:LYS:HD2	41:79:51:ILE:HD11	1.46	0.96
12:L9:167:VAL:HG12	12:L9:170:LYS:HB2	1.47	0.96
69:22:30:SER:HA	69:22:34:ILE:HD12	1.45	0.96
1:2S:1240:A:H3'	1:2S:1241:U:C5'	1.95	0.95
50:S3:7:LYS:HA	50:S3:7:LYS:HE3	1.48	0.95
46:1S:422:G:H2'	46:1S:423:G:C8	2.00	0.95
79:RA:59:ARG:HB2	79:RA:59:ARG:NH1	1.80	0.95
25:63:23:MET:HG3	25:63:36:ILE:HD11	1.47	0.95
46:1S:185:U:H2'	46:1S:186:C:H5''	1.47	0.95
47:S0:142:PRO:HG3	68:21:32:VAL:HG13	1.47	0.95
1:2S:126:U:H5'	17:55:141:ALA:HB2	1.45	0.95
25:63:15:LEU:HD23	25:63:53:SER:HB3	1.46	0.95
1:2S:829:U:H3	1:2S:895:A:H62	1.08	0.95
1:2S:2897:A:H5''	42:80:125:LYS:HD2	1.49	0.95
1:2S:2898:G:OP2	1:2S:2899:C:H5'	1.67	0.95
18:56:16:VAL:HA	18:56:41:LEU:HD21	1.47	0.95
57:10:86:ILE:HG23	57:10:87:VAL:H	1.28	0.95
60:13:84:ILE:HB	60:13:88:LEU:HD12	1.46	0.95
18:56:76:PRO:HD2	18:56:106:GLU:OE2	1.67	0.95
1:2S:2821:C:H42	1:2S:2869:U:H3	1.15	0.95
46:1S:1789:G:H8	61:14:132:ARG:HH21	0.95	0.94
46:1S:1080:U:H2'	46:1S:1081:A:H5'	1.47	0.94
6:L3:28:ARG:HB2	6:L3:28:ARG:NH1	1.81	0.94
18:56:76:PRO:HA	18:56:79:ILE:HD12	1.49	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:61:41:ASP:HB2	23:61:97:LYS:HG3	1.48	0.94
20:58:122:ILE:HG23	20:58:126:GLN:HB2	1.49	0.94
1:2S:405:U:H2'	1:2S:406:G:H5'	1.44	0.94
6:L3:261:MET:HE2	6:L3:263:SER:HB2	1.47	0.94
1:2S:1123:U:H2'	1:2S:1124:U:H5'	1.47	0.94
20:58:176:ARG:O	30:68:51:GLY:HA2	1.68	0.94
47:S0:126:PRO:HG3	47:S0:147:THR:HG22	1.47	0.94
29:67:23:VAL:HG12	29:67:45:GLY:HA3	1.49	0.94
46:1S:1036:A:H5'	69:22:3:ARG:HH22	1.31	0.94
1:2S:3178:A:H2'	18:56:115:LYS:HD3	1.49	0.94
58:11:88:ARG:HB2	58:11:105:LYS:O	1.67	0.94
1:2S:449:U:H2'	1:2S:450:G:C8	2.03	0.93
24:62:97:SER:HA	24:62:103:TYR:HA	1.50	0.93
63:16:115:THR:HA	63:16:118:ILE:HG22	1.48	0.93
22:60:77:VAL:HG13	22:60:126:VAL:HG22	1.50	0.93
70:23:96:VAL:HG23	70:23:97:ASP:H	1.33	0.93
1:2S:858:A:O2'	1:2S:859:G:H5'	1.68	0.93
9:L6:78:ARG:HH21	9:L6:106:PHE:HB2	1.33	0.93
48:S1:180:THR:HG22	48:S1:181:LEU:HD13	1.50	0.93
6:L3:33:PRO:HD3	6:L3:339:ARG:HD2	1.50	0.93
63:16:73:GLY:O	63:16:77:GLN:HG3	1.68	0.93
14:51:98:ALA:HA	14:51:156:LYS:HB2	1.50	0.93
40:78:46:ARG:HD2	40:78:51:LEU:HD13	1.50	0.93
46:1S:1076:A:H4'	73:26:13:LYS:HD3	1.50	0.93
66:19:35:ASP:H	66:19:53:TRP:HZ2	1.16	0.93
46:1S:607:G:H5'	46:1S:613:G:H22	1.34	0.93
14:51:48:SER:HB2	14:51:66:ALA:HB3	1.50	0.93
1:2S:2530:G:H2'	1:2S:2531:C:H5''	1.50	0.93
1:2S:1951:C:H6	1:2S:2095:G:H22	1.17	0.92
79:RA:137:LYS:HA	79:RA:137:LYS:HE3	1.50	0.92
46:1S:1657:U:H4'	46:1S:1658:G:H5''	1.51	0.92
9:L6:165:LEU:HB2	35:73:6:ARG:HB3	1.50	0.92
20:58:69:ARG:HA	20:58:72:LYS:HD3	1.50	0.92
46:1S:226:A:H2'	46:1S:227:U:H5'	1.52	0.92
79:RA:59:ARG:HB2	79:RA:59:ARG:HH11	1.31	0.92
46:1S:961:U:H5''	60:13:71:ILE:HG12	1.51	0.92
46:1S:1457:C:O2'	46:1S:1458:G:H5'	1.68	0.92
46:1S:169:A:H5''	53:S6:176:GLN:HG2	1.51	0.92
51:S4:63:ALA:O	51:S4:67:GLN:HG3	1.68	0.92
1:2S:2513:U:H2'	1:2S:2592:G:N2	1.83	0.92
7:L4:23:PRO:HG2	7:L4:258:LEU:HD23	1.51	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:10:72:GLY:O	57:10:76:LEU:HD13	1.68	0.92
1:2S:824:C:H5''	5:L2:21:ARG:HD3	1.50	0.92
21:59:115:ILE:HG13	21:59:119:LEU:HD23	1.51	0.92
1:2S:352:A:H62	1:2S:366:A:H62	0.93	0.91
1:2S:1180:A:H5''	35:73:77:ASN:HB2	1.49	0.91
1:2S:2761:G:H1	1:2S:2795:U:H3'	1.35	0.91
12:L9:89:LYS:HB2	12:L9:183:HIS:HB3	1.48	0.91
32:70:17:VAL:HG11	32:70:92:ILE:HD12	1.52	0.91
17:55:35:VAL:HG22	17:55:65:ARG:HH21	1.33	0.91
54:S7:30:SER:HB2	54:S7:34:LEU:HB2	1.51	0.91
25:63:19:VAL:HG13	25:63:37:ILE:HA	1.50	0.91
46:1S:94:U:H5''	51:S4:6:LYS:HE2	1.52	0.91
65:18:112:ASP:O	65:18:116:LEU:HD13	1.69	0.91
1:2S:2953:U:H2'	1:2S:2954:U:H2'	1.50	0.91
46:1S:136:C:H4'	46:1S:137:U:H5'	1.51	0.91
46:1S:703:G:H2'	46:1S:704:C:H2'	1.51	0.91
25:63:66:LYS:HB2	25:63:69:LEU:HD13	1.49	0.91
46:1S:805:U:H2'	46:1S:806:A:H5''	1.53	0.91
1:2S:1567:U:H3'	1:2S:1568:U:H5''	1.52	0.91
43:81:4:LYS:HZ3	46:1S:1775:U:H5	0.98	0.91
46:1S:818:C:C2'	46:1S:819:G:H5'	2.00	0.91
53:S6:44:GLU:HA	53:S6:119:GLN:HG2	1.52	0.91
27:65:81:ILE:HG12	27:65:125:ARG:HG3	1.50	0.91
31:69:35:VAL:HG12	31:69:36:ASP:H	1.33	0.91
49:S2:178:ILE:HD13	49:S2:188:LEU:HB2	1.51	0.91
11:L8:78:PHE:O	11:L8:79:GLN:HG2	1.69	0.91
46:1S:828:U:H2'	46:1S:829:A:H5''	1.50	0.91
46:1S:1058:U:H5	46:1S:1061:A:H61	1.11	0.91
1:2S:516:A:H2'	1:2S:517:G:H5''	1.52	0.91
1:2S:2372:A:H5''	1:2S:2373:A:H5'	1.50	0.91
2:8S:23:U:H4'	28:66:17:LYS:HG2	1.50	0.90
8:L5:29:ASP:HB2	8:L5:150:LEU:HD21	1.50	0.90
23:61:124:VAL:HG12	23:61:125:ALA:H	1.36	0.90
37:75:85:THR:HG22	37:75:87:ALA:H	1.35	0.90
4:L1:17:LEU:HD23	4:L1:17:LEU:H	1.34	0.90
32:70:10:ILE:O	32:70:14:LEU:HG	1.70	0.90
77:30:39:LEU:HD12	77:30:43:ARG:NH2	1.85	0.90
1:2S:36:C:H2'	1:2S:37:U:H5'	1.51	0.90
1:2S:2521:U:H2'	1:2S:2522:G:H5'	1.54	0.90
34:72:79:VAL:HG22	34:72:108:ILE:HG12	1.53	0.90
23:61:80:VAL:HG11	23:61:85:LEU:HD12	1.54	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:63:38:ALA:HB3	25:63:59:MET:HB2	1.51	0.90
46:1S:505:A:H3'	46:1S:506:A:H5''	1.52	0.90
48:S1:176:VAL:HG12	48:S1:177:GLN:H	1.37	0.90
1:2S:1487:G:H1'	36:74:6:THR:HG21	1.53	0.90
17:55:122:ASN:HB2	17:55:129:TYR:HB2	1.54	0.90
46:1S:1789:G:H8	61:14:132:ARG:NH2	1.69	0.90
64:17:110:VAL:HG11	64:17:117:LEU:HG	1.53	0.90
4:L1:44:GLN:H	4:L1:161:LYS:HB3	1.37	0.90
56:S9:108:ARG:O	56:S9:112:GLN:HG2	1.72	0.90
49:S2:39:THR:O	49:S2:43:ARG:HG3	1.71	0.89
79:RA:23:LEU:HD21	79:RA:310:ILE:HD13	1.54	0.89
49:S2:69:ILE:HD11	49:S2:133:LYS:HD2	1.53	0.89
54:S7:47:ARG:NH1	54:S7:176:LEU:HD23	1.88	0.89
69:22:65:LEU:H	69:22:65:LEU:HD13	1.37	0.89
1:2S:671:U:H4'	20:58:20:LYS:HD3	1.52	0.89
17:55:3:ALA:O	17:55:7:LEU:HD13	1.73	0.89
46:1S:71:A:H2'	46:1S:72:A:H4'	1.54	0.89
46:1S:1156:C:H2'	46:1S:1157:A:H5''	1.52	0.89
9:L6:43:LEU:HD12	9:L6:83:TYR:HA	1.51	0.89
46:1S:504:U:H2'	46:1S:505:A:H4'	1.55	0.89
7:L4:269:SER:O	7:L4:270:SER:HB3	1.70	0.89
15:53:158:ALA:HA	30:68:97:GLU:HA	1.54	0.89
52:S5:36:ALA:HB3	52:S5:45:LYS:HE2	1.54	0.89
46:1S:1258:U:H4'	57:10:2:LEU:HD13	1.53	0.89
53:S6:5:ILE:HG12	53:S6:111:LEU:HD12	1.53	0.89
73:26:10:ARG:HB2	73:26:34:LYS:HG3	1.54	0.89
10:L7:43:ILE:O	10:L7:47:ARG:HG3	1.73	0.89
46:1S:877:G:H1	46:1S:951:A:H61	0.94	0.89
46:1S:1036:A:H2'	46:1S:1037:C:C6	2.07	0.89
69:22:38:LEU:HA	69:22:41:MET:HE3	1.55	0.89
79:RA:136:ILE:HD13	79:RA:136:ILE:H	1.34	0.89
46:1S:1089:U:H2'	46:1S:1090:C:C6	2.06	0.89
25:63:45:ARG:HG2	25:63:48:ARG:NE	1.87	0.89
52:S5:124:LEU:HD11	72:25:59:TYR:HB2	1.54	0.89
20:58:132:PRO:HD2	20:58:135:GLN:NE2	1.88	0.88
31:69:59:LYS:H	31:69:59:LYS:HD3	1.38	0.88
7:L4:138:ARG:NH1	7:L4:240:PRO:HD2	1.89	0.88
46:1S:190:C:O2'	46:1S:191:C:H5'	1.73	0.88
46:1S:482:U:H2'	46:1S:483:A:H8	1.36	0.88
46:1S:898:A:H62	46:1S:914:G:H21	1.20	0.88
51:S4:185:GLY:N	51:S4:189:LEU:HD13	1.88	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:3105:U:H2'	1:2S:3106:A:C8	2.08	0.88
25:63:87:ARG:HH22	25:63:120:LYS:HB3	1.39	0.88
18:56:110:PRO:HB2	18:56:111:PRO:HD3	1.54	0.88
37:75:85:THR:HB	37:75:88:LEU:HB2	1.54	0.88
55:S8:137:LYS:O	55:S8:141:ARG:HG3	1.74	0.88
17:55:13:LYS:O	17:55:19:LEU:HD22	1.73	0.88
20:58:176:ARG:HG3	20:58:183:GLY:HA3	1.55	0.88
1:2S:352:A:H62	1:2S:366:A:N6	1.69	0.88
26:64:39:LEU:HD12	26:64:44:LYS:HG3	1.54	0.88
1:2S:1844:C:H2'	1:2S:1845:G:H5''	1.54	0.87
1:2S:2666:C:H1'	1:2S:2691:A:C2	2.10	0.87
1:2S:3349:C:H2'	1:2S:3350:C:C6	2.08	0.87
22:60:81:TYR:CE1	22:60:88:HIS:HB2	2.08	0.87
61:14:20:TYR:HB3	61:14:27:PHE:HB2	1.56	0.87
22:60:78:TRP:HB3	22:60:124:LEU:HB2	1.56	0.87
70:23:127:VAL:HG13	70:23:132:LEU:HD21	1.53	0.87
1:2S:627:U:H4'	1:2S:1399:A:H1'	1.55	0.87
1:2S:1238:C:H3'	1:2S:1239:C:H5''	1.56	0.87
9:L6:52:VAL:HG22	9:L6:53:VAL:H	1.35	0.87
43:81:4:LYS:NZ	46:1S:1775:U:H5	1.71	0.87
46:1S:1060:U:H3'	46:1S:1061:A:H5''	1.56	0.87
46:1S:44:U:H2'	46:1S:45:U:H5	1.37	0.87
46:1S:44:U:H2'	46:1S:45:U:C5	2.09	0.87
58:11:73:GLY:HA3	58:11:86:ILE:HD12	1.55	0.87
58:11:125:VAL:HG12	58:11:139:VAL:HA	1.57	0.87
46:1S:1712:A:H3'	46:1S:1713:G:C5'	2.05	0.87
52:S5:187:ILE:H	52:S5:187:ILE:HD12	1.37	0.87
56:S9:59:LEU:HD23	56:S9:62:ARG:HG3	1.54	0.87
60:13:71:ILE:O	60:13:75:LEU:HD13	1.74	0.87
70:23:125:VAL:HG12	70:23:126:LYS:HG3	1.54	0.87
1:2S:2343:C:H2'	1:2S:2344:U:C6	2.10	0.87
46:1S:384:G:H2'	46:1S:385:A:C8	2.10	0.87
72:25:41:ILE:HG23	72:25:42:LEU:H	1.40	0.87
1:2S:2610:G:H2'	1:2S:2611:U:C6	2.09	0.87
1:2S:1354:G:H4'	9:L6:8:LYS:HZ3	1.39	0.86
25:63:22:ILE:HG23	25:63:35:TYR:HA	1.54	0.86
1:2S:3007:U:H5''	18:56:72:HIS:O	1.75	0.86
38:76:79:SER:HB3	38:76:81:THR:HG22	1.56	0.86
1:2S:2405:C:H2'	1:2S:2406:C:H6	1.35	0.86
25:63:125:LEU:HD23	25:63:126:TRP:HE1	1.40	0.86
4:L1:18:LYS:HD2	4:L1:24:LYS:HB2	1.57	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:81:11:ARG:HE	46:1S:1126:G:H5'	1.39	0.86
46:1S:138:A:H61	46:1S:266:A:H61	1.18	0.86
52:S5:203:LYS:HA	52:S5:203:LYS:HE3	1.55	0.86
1:2S:3187:A:H5''	16:54:8:LYS:HE2	1.54	0.86
9:L6:51:ARG:HH12	9:L6:163:PHE:HB2	1.41	0.86
60:13:26:PHE:CD1	60:13:27:LYS:HE2	2.11	0.86
1:2S:1951:C:H5	1:2S:2095:G:N1	1.72	0.86
17:55:105:ARG:HG2	17:55:108:ARG:HH22	1.41	0.86
35:73:75:HIS:HB3	35:73:80:VAL:HB	1.57	0.86
69:22:118:ARG:HB2	69:22:118:ARG:NH1	1.89	0.86
1:2S:44:U:OP1	17:55:84:PRO:HG2	1.74	0.86
1:2S:502:U:H4'	9:L6:26:ARG:HB3	1.58	0.86
1:2S:2426:U:H2'	1:2S:2427:U:C6	2.10	0.86
9:L6:146:ILE:HD13	9:L6:149:ILE:HD12	1.58	0.86
29:67:87:LEU:HG	29:67:88:ASP:H	1.41	0.86
34:72:19:ARG:HG3	34:72:33:ARG:H	1.41	0.86
35:73:59:VAL:HG23	35:73:60:ARG:H	1.40	0.86
46:1S:657:U:H2'	46:1S:658:C:H5''	1.57	0.86
50:S3:69:LEU:HB3	50:S3:86:LEU:HD22	1.56	0.86
1:2S:39:A:H2'	1:2S:42:C:N4	1.91	0.86
1:2S:1813:A:C2'	1:2S:1814:A:H5''	2.06	0.86
50:S3:40:ARG:HG2	67:20:110:PRO:HB3	1.57	0.86
71:24:104:SER:HB3	71:24:107:GLN:HB2	1.57	0.86
40:78:64:LYS:HE2	40:78:64:LYS:HA	1.58	0.85
46:1S:877:G:H1	46:1S:951:A:N6	1.74	0.85
46:1S:924:A:H2'	46:1S:925:G:C8	2.10	0.85
27:65:67:ILE:HD11	27:65:121:LYS:HG3	1.56	0.85
1:2S:1696:A:H2'	1:2S:1697:A:C8	2.12	0.85
1:2S:3007:U:OP1	18:56:73:PHE:HA	1.75	0.85
46:1S:1058:U:H5	46:1S:1061:A:N6	1.72	0.85
66:19:25:GLN:HE22	66:19:111:ILE:HD11	1.41	0.85
1:2S:649:A:H2'	1:2S:650:C:C6	2.12	0.85
1:2S:715:A:H5'	1:2S:753:C:H4'	1.58	0.85
53:S6:81:VAL:HG22	53:S6:82:SER:H	1.41	0.85
7:L4:52:VAL:HG22	7:L4:53:SER:H	1.40	0.85
25:63:66:LYS:HB3	25:63:68:GLU:OE2	1.76	0.85
71:24:113:ASN:HA	71:24:116:LYS:HD3	1.58	0.85
1:2S:2882:U:H2'	1:2S:2883:U:C6	2.11	0.85
3:5S:62:U:H4'	8:L5:285:ARG:HH12	1.42	0.85
17:55:110:ALA:HB1	17:55:113:LEU:HD23	1.58	0.85
34:72:102:ALA:HA	34:72:105:ARG:HD3	1.56	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:73:LEU:HD23	49:S2:76:LEU:HD13	1.59	0.85
59:12:89:ILE:HD13	59:12:90:LYS:H	1.42	0.85
1:2S:1019:G:H2'	1:2S:1020:G:H5''	1.57	0.85
46:1S:460:A:H3'	46:1S:461:G:H8	1.41	0.85
58:11:46:LYS:O	58:11:50:GLU:HG3	1.77	0.85
1:2S:398:A:OP2	19:57:2:ALA:HB3	1.76	0.85
1:2S:798:G:H5''	15:53:15:ARG:HH21	1.39	0.85
1:2S:1290:A:H2'	1:2S:1291:A:C8	2.12	0.85
56:S9:179:ARG:HA	56:S9:182:GLU:HG2	1.57	0.85
1:2S:1079:A:H5'	8:L5:142:PHE:HA	1.57	0.85
3:5S:11:A:O2'	3:5S:13:A:H5''	1.75	0.85
51:S4:90:ILE:HD12	51:S4:90:ILE:N	1.92	0.85
1:2S:1571:A:H2'	1:2S:1572:U:O4'	1.76	0.85
1:2S:1951:C:H5	1:2S:2095:G:H1	1.19	0.85
1:2S:2180:G:H2'	1:2S:2181:C:C6	2.12	0.85
1:2S:3163:A:H3'	1:2S:3164:C:H5''	1.59	0.85
1:2S:3341:U:O2'	1:2S:3342:A:H5'	1.77	0.85
51:S4:94:ALA:HB1	71:24:17:LEU:HB3	1.59	0.85
1:2S:3074:G:H4'	33:71:62:ARG:HD2	1.57	0.84
7:L4:263:GLY:HA3	7:L4:269:SER:HA	1.58	0.84
7:L4:334:PHE:HA	7:L4:339:LEU:HD12	1.57	0.84
11:L8:133:LYS:HB2	11:L8:199:ALA:HB3	1.59	0.84
13:50:87:LEU:HA	13:50:138:VAL:HG22	1.59	0.84
16:54:49:PRO:HG2	16:54:82:SER:OG	1.76	0.84
52:S5:112:ARG:HA	52:S5:112:ARG:HE	1.40	0.84
1:2S:2205:U:H2'	1:2S:2206:G:H5'	1.59	0.84
6:L3:156:SER:O	6:L3:188:ILE:HG21	1.76	0.84
16:54:123:LEU:HD22	18:56:190:VAL:HG23	1.59	0.84
19:57:176:ILE:HA	19:57:179:GLN:HG3	1.57	0.84
21:59:162:ARG:HD3	46:1S:815:G:H5''	1.59	0.84
44:82:70:LEU:HD12	44:82:83:LEU:HB3	1.59	0.84
69:22:11:LEU:HA	69:22:14:ILE:HD12	1.56	0.84
1:2S:1951:C:H5	1:2S:2095:G:C6	1.95	0.84
38:76:98:ARG:N	38:76:98:ARG:HD2	1.90	0.84
1:2S:3040:A:H5''	25:63:12:ARG:HB2	1.58	0.84
1:2S:3298:C:H2'	1:2S:3299:A:H8	1.40	0.84
51:S4:11:ARG:HH21	51:S4:11:ARG:HG3	1.42	0.84
1:2S:1902:G:H2'	1:2S:1903:U:O4'	1.77	0.84
5:L2:104:LEU:HD13	5:L2:162:ALA:O	1.77	0.84
9:L6:4:GLN:HB2	34:72:75:LEU:HB2	1.57	0.84
22:60:80:ARG:O	22:60:122:HIS:HB2	1.76	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:RA:69:GLN:HB2	79:RA:85:TRP:HE1	1.42	0.84
34:72:94:ALA:HB3	34:72:119:VAL:HA	1.58	0.84
46:1S:448:C:H5'	51:S4:29:PRO:HG3	1.59	0.84
1:2S:352:A:N6	1:2S:366:A:H62	1.76	0.84
50:S3:11:LEU:HD13	67:20:29:THR:HG23	1.58	0.84
53:S6:163:THR:HG22	53:S6:168:THR:CG2	2.07	0.84
55:S8:42:ARG:HB3	55:S8:58:LEU:O	1.78	0.84
1:2S:2189:U:H4'	45:83:22:LEU:HD11	1.60	0.84
1:2S:3314:A:H2'	1:2S:3315:G:C8	2.13	0.84
20:58:132:PRO:HD2	20:58:135:GLN:HE22	1.42	0.84
48:S1:205:PHE:HD1	48:S1:206:PRO:HD2	1.42	0.84
51:S4:122:LYS:HG2	51:S4:164:LEU:HD21	1.58	0.84
55:S8:22:ARG:HB2	55:S8:25:ARG:NH2	1.93	0.84
28:66:87:LYS:HB2	28:66:97:ILE:HD11	1.60	0.84
75:28:10:ALA:HA	75:28:32:PHE:HA	1.58	0.84
1:2S:2778:G:C2'	1:2S:2779:A:H5''	2.07	0.83
1:2S:2931:C:H5''	25:63:40:LYS:HD2	1.57	0.83
15:53:106:GLN:HB3	38:76:18:THR:HG23	1.60	0.83
46:1S:1579:U:H2'	46:1S:1580:C:C6	2.13	0.83
3:5S:39:C:H4'	14:51:44:THR:O	1.78	0.83
11:L8:130:TYR:HB3	11:L8:204:ARG:HH21	1.41	0.83
18:56:3:VAL:HG13	18:56:4:GLU:HG3	1.59	0.83
25:63:77:ILE:HD12	25:63:77:ILE:N	1.93	0.83
10:L7:59:GLU:O	10:L7:63:ILE:HG13	1.77	0.83
34:72:60:ASN:O	34:72:64:LYS:HG3	1.78	0.83
42:80:79:GLU:HG2	42:80:82:LEU:HD12	1.58	0.83
57:10:30:ALA:HA	57:10:38:LYS:HG2	1.58	0.83
6:L3:25:ILE:HD13	6:L3:25:ILE:H	1.42	0.83
6:L3:81:THR:HG22	6:L3:205:VAL:HG21	1.59	0.83
46:1S:1610:G:H5''	52:S5:107:LYS:HB2	1.60	0.83
60:13:114:ARG:HD3	60:13:117:LEU:HD12	1.60	0.83
65:18:65:GLU:HG2	65:18:68:ARG:NH2	1.94	0.83
52:S5:165:LEU:HD23	75:28:47:PRO:HB2	1.61	0.83
18:56:19:LEU:O	18:56:23:VAL:HG23	1.78	0.83
51:S4:95:THR:HG22	71:24:16:PRO:HD2	1.59	0.83
1:2S:118:U:H3	1:2S:122:A:H5''	1.40	0.83
10:L7:82:LYS:HA	10:L7:119:VAL:HB	1.59	0.83
33:71:60:TRP:HZ3	33:71:64:VAL:HG22	1.42	0.83
60:13:16:ILE:HG13	60:13:62:GLN:HE22	1.44	0.83
60:13:132:VAL:HG23	60:13:134:VAL:HG13	1.58	0.83
1:2S:876:A:H4'	1:2S:1890:U:H4'	1.61	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1283:C:H2'	1:2S:1284:C:H5'	1.61	0.83
14:51:23:VAL:HG12	14:51:24:GLY:H	1.43	0.83
19:57:127:ARG:HB2	19:57:127:ARG:HH11	1.43	0.83
24:62:15:PHE:HB2	24:62:65:VAL:HB	1.60	0.83
39:77:47:TYR:HB3	39:77:49:TRP:NE1	1.94	0.83
46:1S:1381:U:H4'	67:20:59:PRO:HG3	1.60	0.83
79:RA:89:LEU:HD21	79:RA:110:VAL:HG11	1.60	0.83
9:L6:67:GLY:HA2	9:L6:74:VAL:HB	1.61	0.82
10:L7:152:GLY:HA3	10:L7:163:LEU:HD12	1.61	0.82
46:1S:4:C:H4'	49:S2:181:SER:HB3	1.60	0.82
67:20:69:LYS:HD2	67:20:78:THR:HB	1.61	0.82
5:L2:129:ALA:HB3	5:L2:132:ASN:HB2	1.61	0.82
12:L9:134:ILE:H	12:L9:134:ILE:HD12	1.44	0.82
37:75:29:ALA:HA	37:75:32:LYS:HE2	1.60	0.82
42:80:93:LYS:HD2	42:80:104:PRO:HA	1.62	0.82
46:1S:818:C:H2'	46:1S:819:G:H5'	1.59	0.82
46:1S:1531:G:H5'	72:25:81:ARG:HH22	1.44	0.82
1:2S:374:A:H4'	1:2S:375:A:H5'	1.60	0.82
1:2S:1887:A:H2'	1:2S:1888:U:H5'	1.59	0.82
43:81:4:LYS:HE3	46:1S:1774:G:OP2	1.78	0.82
46:1S:868:G:H1	46:1S:960:U:H3	1.24	0.82
48:S1:214:LYS:HG2	48:S1:215:VAL:H	1.43	0.82
49:S2:137:ILE:HD11	68:21:26:ALA:HB3	1.59	0.82
49:S2:176:SER:HA	56:S9:53:ARG:NH1	1.94	0.82
69:22:103:ILE:HD13	69:22:104:LEU:N	1.94	0.82
1:2S:1240:A:C3'	1:2S:1241:U:H5''	2.08	0.82
1:2S:1764:U:H3'	1:2S:1765:U:H5''	1.61	0.82
1:2S:2207:A:C2'	1:2S:2208:A:H5''	2.09	0.82
4:L1:79:SER:HB2	4:L1:141:ASN:HD21	1.44	0.82
25:63:39:VAL:HA	25:63:58:VAL:HG12	1.61	0.82
46:1S:1217:A:H5''	57:10:1:MET:HG3	1.61	0.82
53:S6:88:ARG:HB3	53:S6:91:GLU:HB2	1.60	0.82
56:S9:48:GLN:HA	56:S9:51:LYS:HE2	1.60	0.82
59:12:108:ARG:HG3	59:12:112:ALA:HB3	1.61	0.82
63:16:129:PHE:HB2	67:20:79:TRP:HD1	1.43	0.82
7:L4:152:VAL:HG12	7:L4:153:SER:N	1.95	0.82
13:50:174:THR:HG22	13:50:176:LEU:H	1.42	0.82
46:1S:607:G:H5'	46:1S:613:G:N2	1.95	0.82
1:2S:1235:U:H4'	1:2S:1236:G:H5'	1.61	0.82
1:2S:996:A:H2'	1:2S:997:A:O4'	1.78	0.82
1:2S:2736:A:H4'	23:61:71:SER:OG	1.80	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1158:A:H2'	1:2S:1159:A:H4'	1.61	0.82
20:58:58:ASN:HA	20:58:144:ARG:HD3	1.62	0.82
9:L6:68:PRO:HG2	9:L6:146:ILE:HD11	1.61	0.82
13:50:85:PHE:HA	13:50:140:THR:HG22	1.62	0.82
18:56:46:GLU:HG3	18:56:49:ARG:H	1.45	0.82
46:1S:50:C:H2'	46:1S:424:C:H41	1.43	0.82
47:S0:31:VAL:HB	47:S0:34:GLU:HG2	1.62	0.82
13:50:69:ARG:O	13:50:73:ASN:HB2	1.80	0.81
17:55:58:GLY:HA3	17:55:142:ILE:HD11	1.60	0.81
44:82:91:PHE:CE2	44:82:93:LEU:HD22	2.15	0.81
48:S1:37:THR:HG23	48:S1:231:LEU:HD21	1.62	0.81
38:76:79:SER:CB	38:76:81:THR:HG22	2.10	0.81
1:2S:636:C:N4	1:2S:2375:G:H1	1.78	0.81
1:2S:2085:U:H2'	1:2S:2086:A:H5'	1.62	0.81
17:55:118:SER:CB	17:55:132:VAL:HG22	2.09	0.81
49:S2:137:ILE:HG12	49:S2:138:PRO:HD2	1.62	0.81
49:S2:203:LYS:HZ3	49:S2:205:ARG:HB2	1.45	0.81
63:16:129:PHE:HB2	67:20:79:TRP:CD1	2.16	0.81
1:2S:2357:A:H2'	1:2S:2358:A:C8	2.16	0.81
1:2S:3208:G:H5''	1:2S:3210:A:O4'	1.80	0.81
5:L2:150:LEU:HD12	5:L2:154:ALA:HB3	1.62	0.81
1:2S:1114:U:H5''	30:68:22:ILE:HD12	1.61	0.81
1:2S:2102:U:H2'	1:2S:2103:U:C6	2.15	0.81
38:76:50:LEU:HD22	38:76:54:GLU:HB3	1.60	0.81
46:1S:748:U:O3'	69:22:122:SER:HB3	1.80	0.81
46:1S:954:G:H2'	46:1S:955:A:C8	2.15	0.81
49:S2:86:VAL:HG11	49:S2:99:LYS:HD2	1.62	0.81
7:L4:222:VAL:HG13	7:L4:225:VAL:HB	1.61	0.81
20:58:155:MET:HA	20:58:161:LYS:HB2	1.62	0.81
34:72:98:HIS:CE1	34:72:99:ASN:HD22	1.98	0.81
6:L3:261:MET:CE	6:L3:263:SER:HB2	2.09	0.81
46:1S:405:C:H5''	53:S6:93:LYS:HE2	1.63	0.81
1:2S:1221:A:H3'	1:2S:1222:G:H5''	1.62	0.81
1:2S:1951:C:C6	1:2S:2095:G:N1	2.47	0.81
5:L2:116:VAL:O	5:L2:126:LEU:HD12	1.80	0.81
22:60:16:THR:H	22:60:20:PRO:HA	1.45	0.81
36:74:23:VAL:HG12	36:74:24:LYS:H	1.46	0.81
37:75:64:GLU:HA	37:75:67:ARG:HG3	1.63	0.81
46:1S:802:G:H21	69:22:107:SER:HB3	1.43	0.81
1:2S:2775:U:H2'	1:2S:2776:C:C6	2.16	0.81
16:54:106:ARG:HA	16:54:109:ARG:HD2	1.61	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:64:8:PHE:HB2	26:64:31:PHE:HE1	1.46	0.81
49:S2:203:LYS:NZ	49:S2:205:ARG:HB2	1.96	0.81
1:2S:3156:U:O2'	1:2S:3157:U:H5''	1.79	0.81
1:2S:3354:U:OP1	1:2S:3356:G:H5'	1.80	0.81
6:L3:232:ARG:HA	6:L3:270:ARG:HD2	1.60	0.81
58:11:118:GLN:HG2	58:11:119:VAL:H	1.44	0.81
60:13:118:ILE:O	60:13:122:ILE:HG13	1.81	0.81
64:17:20:TYR:HD2	64:17:23:LYS:HD2	1.45	0.81
6:L3:103:THR:HG21	6:L3:147:GLU:HB3	1.60	0.80
14:51:104:PHE:O	14:51:127:PHE:HB2	1.81	0.80
15:53:180:ARG:O	15:53:184:GLU:HG3	1.80	0.80
18:56:188:SER:O	18:56:192:LYS:HG2	1.81	0.80
56:S9:112:GLN:HG3	56:S9:148:VAL:HG21	1.63	0.80
46:1S:144:U:O2'	46:1S:145:A:H5'	1.81	0.80
53:S6:31:ARG:HD2	53:S6:34:GLN:NE2	1.96	0.80
79:RA:116:ASP:HB3	79:RA:156:VAL:HG11	1.61	0.80
6:L3:84:VAL:HG13	6:L3:163:HIS:O	1.80	0.80
29:67:53:VAL:HG23	29:67:62:VAL:HG13	1.63	0.80
46:1S:1672:G:H2'	46:1S:1673:G:C8	2.16	0.80
53:S6:23:ARG:HG2	53:S6:23:ARG:HH21	1.45	0.80
57:10:11:ILE:HD13	57:10:35:ILE:HG21	1.63	0.80
3:5S:26:C:H5'	8:L5:57:ASN:H	1.47	0.80
6:L3:226:PHE:CE1	6:L3:268:GLY:HA2	2.16	0.80
20:58:64:VAL:HG13	20:58:93:ILE:HD11	1.61	0.80
46:1S:654:C:C3'	46:1S:655:G:H5''	2.10	0.80
46:1S:730:G:H21	46:1S:731:C:H5''	1.46	0.80
70:23:132:LEU:HD13	70:23:135:LEU:HD12	1.61	0.80
1:2S:2731:U:H2'	1:2S:2732:G:C8	2.16	0.80
11:L8:105:LYS:O	11:L8:109:LEU:HG	1.82	0.80
13:50:129:VAL:HG13	13:50:133:GLN:OE1	1.82	0.80
72:25:60:VAL:HG23	72:25:101:TYR:HB2	1.62	0.80
1:2S:1534:A:H2'	1:2S:1535:A:C8	2.16	0.80
10:L7:77:VAL:HG12	22:60:59:VAL:CG1	2.11	0.80
10:L7:232:ARG:HD3	10:L7:235:PHE:HB2	1.64	0.80
23:61:82:ASN:O	31:69:21:ILE:HA	1.81	0.80
28:66:35:LEU:HD23	28:66:106:ILE:HD12	1.61	0.80
46:1S:401:A:H4'	51:S4:3:ARG:HD3	1.62	0.80
52:S5:30:PRO:HB2	52:S5:33:VAL:HG23	1.61	0.80
1:2S:836:A:H1'	45:83:13:LYS:HB3	1.63	0.80
1:2S:1603:A:OP1	21:59:38:ARG:HD2	1.81	0.80
1:2S:2174:G:H4'	1:2S:2175:U:H3'	1.63	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:58:100:THR:HG23	20:58:122:ILE:HD13	1.64	0.80
30:68:81:LEU:HD22	30:68:107:ALA:HB1	1.62	0.80
66:19:57:ARG:HB2	66:19:57:ARG:NH1	1.96	0.80
1:2S:88:A:N1	1:2S:281:G:H1'	1.97	0.80
1:2S:1218:U:H2'	1:2S:1219:C:H5'	1.64	0.80
1:2S:2856:G:H2'	1:2S:2857:C:C6	2.17	0.80
4:L1:116:LEU:O	4:L1:116:LEU:HD23	1.82	0.80
6:L3:189:SER:O	6:L3:192:VAL:HG12	1.81	0.80
17:55:105:ARG:HG2	17:55:108:ARG:NH2	1.96	0.80
22:60:35:VAL:HA	22:60:38:LYS:HE2	1.63	0.80
34:72:65:PHE:HB2	34:72:72:LYS:HE3	1.62	0.80
56:S9:132:ARG:HD2	56:S9:142:ASN:HB3	1.62	0.80
61:14:21:ALA:HA	61:14:26:THR:HG22	1.62	0.80
72:25:59:TYR:CE2	72:25:100:ILE:HG12	2.17	0.80
1:2S:170:G:H2'	1:2S:171:G:H8	1.46	0.80
10:L7:41:ARG:NH1	10:L7:41:ARG:HB3	1.97	0.80
25:63:77:ILE:HD11	25:63:103:ALA:HB2	1.63	0.80
25:63:93:LEU:HD23	25:63:93:LEU:H	1.47	0.80
38:76:9:ILE:HA	38:76:13:LYS:HG3	1.62	0.80
46:1S:102:U:H3'	46:1S:360:A:H61	1.47	0.80
46:1S:370:A:H2'	46:1S:371:G:O4'	1.82	0.80
49:S2:53:ILE:HD11	49:S2:73:LEU:HB2	1.64	0.80
49:S2:140:ARG:HE	49:S2:155:ALA:HB2	1.46	0.80
58:11:87:ARG:HA	58:11:106:ASN:OD1	1.81	0.80
59:12:108:ARG:HG2	59:12:109:GLU:N	1.97	0.80
61:14:86:THR:HG21	61:14:90:ARG:HG3	1.64	0.80
1:2S:2280:A:H2'	1:2S:2281:A:H3'	1.64	0.79
1:2S:2995:A:H2'	1:2S:2996:U:H5''	1.63	0.79
6:L3:339:ARG:HG2	6:L3:340:LYS:H	1.45	0.79
21:59:90:PRO:HB2	21:59:93:VAL:HG23	1.64	0.79
54:S7:139:ARG:HD2	69:22:53:ILE:HG22	1.63	0.79
72:25:96:SER:O	72:25:97:LYS:HG2	1.82	0.79
1:2S:636:C:H42	1:2S:2375:G:H1	1.26	0.79
6:L3:296:THR:HG22	6:L3:297:SER:N	1.96	0.79
9:L6:43:LEU:HD11	35:73:105:SER:HB2	1.63	0.79
12:L9:112:ILE:HB	12:L9:126:VAL:HB	1.65	0.79
15:53:57:VAL:HG12	15:53:69:VAL:HG22	1.64	0.79
52:S5:94:THR:HG22	52:S5:114:ILE:HD11	1.65	0.79
55:S8:103:GLN:HG2	55:S8:164:ARG:HG2	1.62	0.79
58:11:133:LYS:NZ	58:11:134:THR:HG23	1.96	0.79
1:2S:2435:G:H2'	1:2S:2436:U:C6	2.18	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:60:8:GLN:HB2	22:60:64:ILE:HD11	1.64	0.79
24:62:96:VAL:HG12	24:62:97:SER:H	1.48	0.79
41:79:3:ALA:H	41:79:5:LYS:HE2	1.46	0.79
46:1S:905:A:H5''	61:14:52:ARG:HD3	1.62	0.79
46:1S:1420:C:H2'	46:1S:1421:A:H5'	1.64	0.79
49:S2:53:ILE:HG12	49:S2:72:LEU:HB3	1.65	0.79
54:S7:47:ARG:HH11	54:S7:176:LEU:HD23	1.46	0.79
69:22:118:ARG:HH11	69:22:118:ARG:CB	1.96	0.79
7:L4:159:ILE:HB	7:L4:215:ILE:HD13	1.62	0.79
47:S0:170:ILE:H	47:S0:170:ILE:HD12	1.48	0.79
69:22:10:ALA:O	69:22:14:ILE:HG13	1.83	0.79
1:2S:3094:A:H2'	1:2S:3095:U:C6	2.17	0.79
8:L5:223:PHE:O	8:L5:227:LEU:HD13	1.82	0.79
20:58:30:VAL:O	20:58:34:THR:HG23	1.83	0.79
27:65:126:LEU:HD12	27:65:132:ALA:HB2	1.65	0.79
1:2S:2533:G:H5'	1:2S:2533:G:H8	1.47	0.79
17:55:8:GLU:HG3	17:55:50:ARG:HH22	1.46	0.79
45:83:19:GLY:O	45:83:23:ARG:HG3	1.82	0.79
48:S1:54:LEU:O	48:S1:55:LYS:HB3	1.82	0.79
3:5S:112:G:H2'	3:5S:113:C:C6	2.17	0.79
19:57:129:THR:HB	19:57:137:ASN:HB2	1.63	0.79
29:67:54:THR:HG22	29:67:57:HIS:CD2	2.17	0.79
46:1S:127:G:H4'	53:S6:194:LYS:HE2	1.63	0.79
79:RA:20:VAL:HG11	79:RA:310:ILE:HD11	1.65	0.79
1:2S:1215:U:H2'	1:2S:1216:C:C6	2.18	0.79
1:2S:2513:U:O2'	1:2S:2514:U:H2'	1.81	0.79
6:L3:5:LYS:HG2	6:L3:6:TYR:CD1	2.17	0.79
7:L4:300:ARG:HB2	7:L4:301:PRO:HD2	1.64	0.79
20:58:58:ASN:O	20:58:60:PRO:HD3	1.81	0.79
46:1S:1283:U:H2'	46:1S:1284:C:C5	2.18	0.79
48:S1:84:ILE:HD13	48:S1:103:MET:HG3	1.64	0.79
70:23:63:GLN:HB3	70:23:64:PRO:HA	1.64	0.79
1:2S:268:A:N6	1:2S:295:A:H3'	1.98	0.79
1:2S:687:U:H3	1:2S:693:A:H61	1.27	0.79
14:51:115:LYS:HB2	14:51:115:LYS:NZ	1.97	0.79
53:S6:23:ARG:HB3	53:S6:41:VAL:HA	1.63	0.79
58:11:83:THR:HA	58:11:111:VAL:HG12	1.65	0.79
69:22:50:PHE:HB3	69:22:63:VAL:HG13	1.64	0.79
1:2S:1321:G:O2'	22:60:111:ALA:HB1	1.83	0.79
1:2S:1523:U:H5'	27:65:113:LEU:HB3	1.65	0.79
1:2S:1654:A:H3'	1:2S:1655:G:H5''	1.65	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2251:G:C2'	1:2S:2252:A:H5''	2.12	0.79
1:2S:2714:G:H4'	1:2S:2715:A:H3'	1.64	0.79
18:56:125:ARG:O	18:56:129:LEU:HD13	1.83	0.79
6:L3:57:VAL:HB	6:L3:358:TRP:HB3	1.63	0.78
32:70:45:ALA:O	32:70:48:THR:HG22	1.82	0.78
64:17:45:ARG:O	64:17:49:LYS:HG3	1.83	0.78
67:20:51:VAL:CG1	67:20:94:GLU:HB2	2.12	0.78
74:27:61:THR:HG23	74:27:62:ILE:H	1.47	0.78
25:63:39:VAL:HG12	25:63:40:LYS:H	1.48	0.78
27:65:115:ARG:HB3	27:65:117:ASN:OD1	1.83	0.78
48:S1:48:VAL:HG12	48:S1:49:ASN:H	1.48	0.78
50:S3:37:VAL:HG12	50:S3:50:ILE:HG23	1.64	0.78
52:S5:42:LEU:HD23	52:S5:42:LEU:H	1.48	0.78
58:11:91:LEU:HA	58:11:101:GLU:O	1.81	0.78
1:2S:3116:G:H5''	1:2S:3117:C:H5	1.48	0.78
46:1S:1201:G:N2	46:1S:1600:A:H5'	1.97	0.78
71:24:17:LEU:HD12	71:24:18:LEU:HG	1.64	0.78
17:55:75:VAL:HB	17:55:79:ALA:O	1.84	0.78
21:59:6:THR:HG23	21:59:9:ARG:NH2	1.97	0.78
33:71:19:ARG:HG3	33:71:19:ARG:HH11	1.47	0.78
43:81:11:ARG:HH21	46:1S:1126:G:H4'	1.48	0.78
9:L6:68:PRO:HB2	9:L6:71:VAL:HG23	1.65	0.78
46:1S:1201:G:H21	46:1S:1600:A:H5'	1.47	0.78
44:82:100:LYS:HE3	44:82:100:LYS:N	1.96	0.78
46:1S:478:A:H5''	56:S9:123:HIS:HB3	1.64	0.78
70:23:12:ALA:HA	70:23:15:LEU:HD12	1.63	0.78
1:2S:126:U:C5'	17:55:141:ALA:HB2	2.14	0.78
1:2S:2873:U:O2'	1:2S:2874:G:H5'	1.84	0.78
8:L5:144:VAL:HG13	8:L5:173:VAL:HG22	1.66	0.78
16:54:123:LEU:HB2	18:56:194:LEU:HD21	1.63	0.78
22:60:89:ASN:ND2	23:61:156:TYR:HB3	1.98	0.78
54:S7:67:LEU:HA	54:S7:70:PHE:HD2	1.48	0.78
59:12:86:VAL:N	59:12:87:PRO:HD3	1.99	0.78
1:2S:505:G:H4'	7:L4:313:LEU:HD11	1.66	0.78
1:2S:3205:G:H21	22:60:169:SER:HB2	1.49	0.78
1:2S:3295:A:H5'	6:L3:119:TYR:HE1	1.49	0.78
7:L4:113:VAL:HB	7:L4:118:LYS:HE2	1.66	0.78
12:L9:48:VAL:HG11	12:L9:52:LEU:HD22	1.66	0.78
19:57:78:VAL:HG12	19:57:79:THR:H	1.47	0.78
46:1S:1432:U:H4'	46:1S:1433:G:H5''	1.65	0.78
7:L4:29:PRO:HG3	7:L4:279:HIS:HA	1.66	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:L7:151:ARG:HH11	10:L7:244:ASN:ND2	1.82	0.78
46:1S:1677:C:H42	46:1S:1724:U:H3	1.30	0.78
70:23:62:LYS:HD2	70:23:118:PRO:HB3	1.63	0.78
1:2S:640:U:OP2	34:72:38:ILE:HG12	1.82	0.78
17:55:13:LYS:C	17:55:19:LEU:HD22	2.08	0.78
20:58:171:LYS:HA	30:68:56:VAL:HG11	1.65	0.78
48:S1:85:LYS:HB3	48:S1:102:GLY:H	1.48	0.78
49:S2:209:ASN:HA	49:S2:212:LYS:HB2	1.66	0.78
1:2S:807:A:H3'	1:2S:808:A:H5''	1.64	0.77
1:2S:2131:A:H2'	1:2S:2132:C:H5'	1.66	0.77
23:61:17:ARG:O	23:61:18:ASP:HB2	1.84	0.77
25:63:62:VAL:HB	25:63:70:ARG:HG2	1.64	0.77
30:68:8:THR:HA	30:68:11:HIS:HD2	1.49	0.77
46:1S:805:U:C2'	46:1S:806:A:H5''	2.13	0.77
46:1S:1171:A:H2'	46:1S:1172:G:H8	1.48	0.77
46:1S:1505:A:H1'	46:1S:1562:G:H21	1.48	0.77
46:1S:1797:A:H5'	73:26:95:ARG:HG2	1.66	0.77
49:S2:141:ARG:HB2	49:S2:153:SER:O	1.82	0.77
68:21:74:GLN:NE2	68:21:83:TRP:HB3	2.00	0.77
69:22:36:LYS:HG3	69:22:110:ILE:HD12	1.66	0.77
1:2S:868:C:H2'	1:2S:869:G:H5'	1.65	0.77
33:71:16:LEU:HA	33:71:19:ARG:HD2	1.66	0.77
46:1S:1657:U:H4'	46:1S:1658:G:C5'	2.14	0.77
56:S9:23:ARG:O	56:S9:27:GLU:HG3	1.85	0.77
1:2S:627:U:H2'	1:2S:628:A:C8	2.19	0.77
23:61:82:ASN:HA	31:69:21:ILE:HG12	1.65	0.77
54:S7:12:ALA:HB3	54:S7:13:PRO:HD3	1.66	0.77
1:2S:248:U:OP2	1:2S:248:U:H6	1.68	0.77
1:2S:3346:U:H3	1:2S:3359:A:H62	1.32	0.77
6:L3:92:TYR:HB2	6:L3:157:VAL:HG22	1.67	0.77
11:L8:122:LYS:C	11:L8:124:ASP:H	1.92	0.77
43:81:2:ARG:HH11	46:1S:1772:C:H3'	1.50	0.77
53:S6:210:GLN:HB3	53:S6:214:LYS:HE3	1.67	0.77
63:16:12:LYS:HG2	63:16:17:THR:HG22	1.66	0.77
66:19:111:ILE:HG23	66:19:113:ILE:HG13	1.67	0.77
67:20:95:ALA:HB1	67:20:96:PRO:HD2	1.66	0.77
1:2S:340:C:H2'	1:2S:341:G:O4'	1.85	0.77
47:S0:41:ARG:HG2	64:17:105:GLN:NE2	2.00	0.77
49:S2:125:ILE:O	49:S2:129:ILE:HG13	1.83	0.77
66:19:25:GLN:NE2	66:19:111:ILE:HD11	1.99	0.77
6:L3:21:ARG:HB3	6:L3:272:TYR:HD1	1.47	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:50:135:ILE:HG22	13:50:136:PHE:HD1	1.49	0.77
17:55:120:TRP:NE1	17:55:123:GLN:HG2	1.98	0.77
46:1S:1589:C:H2'	46:1S:1590:G:C8	2.19	0.77
51:S4:131:LEU:HD11	51:S4:135:GLY:HA2	1.65	0.77
1:2S:327:A:H2'	1:2S:328:U:C6	2.20	0.77
1:2S:2435:G:H5'	17:55:20:ARG:HH11	1.48	0.77
22:60:12:ARG:NH1	22:60:21:GLU:HG2	2.00	0.77
46:1S:367:A:H2'	46:1S:368:U:O4'	1.84	0.77
50:S3:92:GLN:NE2	50:S3:92:GLN:H	1.82	0.77
52:S5:53:VAL:HG13	52:S5:138:THR:HG21	1.67	0.77
1:2S:52:A:H5''	39:77:48:ASN:HB3	1.67	0.77
1:2S:1718:G:H2'	1:2S:1719:G:H8	1.48	0.77
2:8S:41:A:H2'	2:8S:42:G:O4'	1.85	0.77
46:1S:515:A:H2'	46:1S:516:G:O4'	1.84	0.77
46:1S:800:U:H2'	46:1S:801:G:C8	2.20	0.77
46:1S:1504:G:OP1	66:19:97:SER:HB2	1.84	0.77
55:S8:22:ARG:HB2	55:S8:25:ARG:HH21	1.50	0.77
5:L2:45:VAL:HG13	5:L2:85:GLY:H	1.49	0.77
22:60:166:LYS:HG2	22:60:167:ARG:H	1.50	0.77
23:61:50:LYS:CB	23:61:92:ARG:HH21	1.98	0.77
30:68:23:GLY:C	30:68:24:LYS:HD2	2.10	0.77
46:1S:1479:A:O2'	66:19:12:GLN:HG2	1.84	0.77
1:2S:1108:U:H2'	1:2S:1109:U:C6	2.19	0.77
18:56:85:ARG:HG3	18:56:99:LEU:HD21	1.66	0.77
35:73:73:ARG:HG3	35:73:82:ARG:HD2	1.67	0.77
55:S8:153:GLU:HB3	55:S8:156:VAL:HG23	1.66	0.77
61:14:85:ALA:H	61:14:119:THR:HG22	1.48	0.77
73:26:89:ARG:HD2	73:26:92:ARG:HH21	1.49	0.77
1:2S:679:U:H2'	1:2S:680:G:C8	2.20	0.76
1:2S:796:U:H2'	1:2S:797:U:C6	2.20	0.76
1:2S:1535:A:H62	1:2S:1586:G:H21	1.29	0.76
1:2S:2191:U:H3	1:2S:2316:G:H1	1.33	0.76
6:L3:11:HIS:CD2	6:L3:235:THR:HG23	2.20	0.76
6:L3:166:ILE:HD11	6:L3:171:LEU:HD12	1.67	0.76
17:55:118:SER:HB3	17:55:132:VAL:CG2	2.15	0.76
23:61:84:TYR:HB2	31:69:24:PRO:HG3	1.67	0.76
29:67:14:VAL:HG12	29:67:79:HIS:O	1.84	0.76
34:72:11:LYS:HB2	34:72:14:THR:HG22	1.67	0.76
36:74:91:ARG:O	36:74:95:ILE:HD13	1.85	0.76
47:S0:17:LEU:HD13	47:S0:50:VAL:HG12	1.66	0.76
54:S7:67:LEU:HD23	54:S7:70:PHE:CD2	2.20	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:21:37:ALA:HA	68:21:49:GLU:O	1.84	0.76
69:22:104:LEU:HB3	69:22:125:ILE:HG13	1.67	0.76
1:2S:436:A:H2'	1:2S:437:G:O4'	1.85	0.76
1:2S:2794:G:H1'	1:2S:2795:U:C6	2.20	0.76
13:50:52:LEU:HB3	13:50:135:ILE:HB	1.67	0.76
33:71:20:LEU:HD12	33:71:67:VAL:HG11	1.65	0.76
36:74:86:LYS:O	36:74:90:ILE:HG12	1.86	0.76
55:S8:87:ASN:HB2	55:S8:90:LEU:CD1	2.14	0.76
59:12:113:ARG:HG2	59:12:114:LYS:H	1.49	0.76
1:2S:1764:U:H3'	1:2S:1765:U:C5'	2.16	0.76
33:71:62:ARG:HB2	33:71:66:GLY:HA3	1.67	0.76
70:23:76:LEU:CD1	70:23:79:ASN:HD22	1.97	0.76
1:2S:151:A:H5''	37:75:102:GLU:HB2	1.67	0.76
6:L3:146:ARG:HA	6:L3:146:ARG:HE	1.51	0.76
9:L6:3:ALA:HB1	34:72:75:LEU:HD22	1.66	0.76
19:57:67:ILE:CG2	19:57:68:GLY:H	1.98	0.76
22:60:67:ALA:O	22:60:69:PRO:HD3	1.85	0.76
46:1S:722:G:H3'	46:1S:723:G:H5''	1.68	0.76
1:2S:450:G:H2'	1:2S:451:U:O4'	1.86	0.76
1:2S:1729:A:H3'	1:2S:1730:G:H5'	1.68	0.76
10:L7:86:VAL:HG13	10:L7:136:TYR:HB3	1.65	0.76
11:L8:169:LEU:O	11:L8:173:MET:HG2	1.85	0.76
29:67:5:LEU:HD11	32:70:35:ARG:HB3	1.66	0.76
30:68:28:HIS:HB3	30:68:31:GLY:O	1.85	0.76
34:72:33:ARG:HA	34:72:33:ARG:NE	2.01	0.76
1:2S:381:U:H2'	1:2S:382:U:C6	2.20	0.76
1:2S:830:A:H2'	1:2S:831:G:O4'	1.84	0.76
1:2S:3080:G:H2'	1:2S:3081:C:C6	2.21	0.76
51:S4:163:ASP:HB3	51:S4:166:SER:O	1.84	0.76
60:13:71:ILE:H	60:13:71:ILE:HD12	1.50	0.76
1:2S:987:U:H2'	1:2S:988:U:C6	2.21	0.76
1:2S:3192:U:H2'	1:2S:3193:C:C6	2.20	0.76
29:67:14:VAL:HG13	29:67:15:ARG:HG3	1.67	0.76
33:71:52:ALA:HB3	33:71:55:LEU:HB2	1.68	0.76
58:11:117:VAL:HG12	58:11:118:GLN:H	1.49	0.76
60:13:22:ALA:HB1	60:13:23:PRO:CA	2.16	0.76
61:14:87:GLY:HA2	61:14:92:LYS:HB3	1.67	0.76
67:20:106:ILE:HG13	67:20:107:THR:H	1.48	0.76
6:L3:81:THR:O	6:L3:320:ASP:HB2	1.84	0.76
8:L5:82:GLU:HG2	8:L5:254:LYS:HD2	1.66	0.76
17:55:38:ARG:HG2	17:55:61:ILE:O	1.85	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:63:75:PRO:O	25:63:102:ILE:HD12	1.85	0.76
33:71:11:GLU:HG3	33:71:109:VAL:HG21	1.67	0.76
46:1S:454:U:H5'	51:S4:66:MET:HE3	1.67	0.76
46:1S:1594:G:H5''	76:29:33:LYS:HD2	1.68	0.76
55:S8:47:ARG:NH2	55:S8:51:GLY:HA2	2.01	0.76
60:13:140:LYS:HG3	60:13:141:TYR:H	1.49	0.76
1:2S:820:A:H2'	1:2S:821:U:C6	2.20	0.76
1:2S:3326:G:H1	1:2S:3380:U:H3	1.34	0.76
3:5S:9:C:OP1	23:61:28:SER:HB3	1.86	0.76
14:51:133:ARG:HH12	14:51:154:THR:HG23	1.51	0.76
25:63:23:MET:O	25:63:23:MET:HE3	1.84	0.76
46:1S:707:A:H2'	46:1S:708:C:H4'	1.67	0.76
69:22:89:TRP:HA	69:22:92:ASN:HD22	1.50	0.76
1:2S:405:U:C2'	1:2S:406:G:H5'	2.15	0.76
1:2S:1834:U:H5'	41:79:3:ALA:HA	1.67	0.76
31:69:23:LYS:HE3	31:69:24:PRO:HD2	1.68	0.76
39:77:34:CYS:HB3	39:77:39:TYR:HB2	1.66	0.76
46:1S:94:U:H4'	51:S4:6:LYS:HA	1.66	0.76
60:13:129:TYR:O	60:13:134:VAL:HG22	1.85	0.76
1:2S:58:G:H2'	1:2S:59:G:H8	1.49	0.75
1:2S:442:G:H2'	1:2S:443:G:O4'	1.85	0.75
1:2S:3286:G:H2'	1:2S:3287:U:H5''	1.66	0.75
68:21:74:GLN:HE22	68:21:83:TRP:HB3	1.51	0.75
13:50:58:GLU:O	13:50:59:GLN:HG3	1.85	0.75
46:1S:769:A:H2'	46:1S:770:A:H8	1.51	0.75
46:1S:1533:C:H4'	46:1S:1539:G:N1	2.00	0.75
67:20:82:TYR:HB3	76:29:52:PHE:HB3	1.66	0.75
18:56:56:ASP:HA	18:56:59:ARG:HG2	1.69	0.75
46:1S:172:C:H2'	46:1S:173:A:C8	2.22	0.75
54:S7:150:GLN:O	54:S7:181:ILE:HD12	1.85	0.75
1:2S:1019:G:C2'	1:2S:1020:G:H5''	2.16	0.75
7:L4:188:ARG:HB3	7:L4:193:LYS:HG3	1.67	0.75
32:70:22:LYS:H	32:70:94:GLU:HB2	1.50	0.75
46:1S:444:C:N4	46:1S:458:G:H2'	2.00	0.75
46:1S:567:A:H62	46:1S:576:G:H21	1.33	0.75
51:S4:19:LEU:HD11	51:S4:108:ARG:HD2	1.69	0.75
52:S5:112:ARG:HA	52:S5:112:ARG:NE	2.01	0.75
79:RA:89:LEU:HD12	79:RA:103:PHE:HB2	1.66	0.75
79:RA:164:ASP:O	79:RA:165:ASP:HB3	1.86	0.75
1:2S:2712:U:H2'	1:2S:2713:U:C6	2.21	0.75
1:2S:3041:U:H2'	1:2S:3042:U:C6	2.21	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:5S:112:G:O6	8:L5:21:ARG:HD3	1.86	0.75
52:S5:175:LEU:HD22	52:S5:197:GLU:HG3	1.68	0.75
70:23:92:CYS:HA	70:23:95:PHE:HD2	1.50	0.75
73:26:84:VAL:HG13	73:26:85:ARG:N	2.01	0.75
76:29:10:HIS:ND1	76:29:11:PRO:HD2	2.00	0.75
1:2S:1951:C:H6	1:2S:2095:G:N2	1.83	0.75
5:L2:226:SER:C	5:L2:228:GLY:H	1.93	0.75
6:L3:86:VAL:HA	6:L3:162:VAL:CG1	2.10	0.75
10:L7:41:ARG:HB3	10:L7:41:ARG:HH11	1.52	0.75
46:1S:1481:C:H5''	46:1S:1482:C:OP1	1.87	0.75
60:13:112:LYS:O	60:13:116:ILE:HG13	1.87	0.75
1:2S:2533:G:H2'	1:2S:2534:G:O4'	1.87	0.75
28:66:39:LEU:HA	28:66:42:GLN:HB2	1.68	0.75
39:77:39:TYR:CD2	39:77:40:PRO:HA	2.22	0.75
1:2S:2821:C:N4	1:2S:2869:U:H3	1.85	0.75
6:L3:227:GLU:HB3	6:L3:270:ARG:HD3	1.68	0.75
46:1S:788:A:H2'	51:S4:19:LEU:HD22	1.69	0.75
46:1S:1253:U:H5''	78:31:130:VAL:HG12	1.69	0.75
52:S5:79:ASN:HD22	52:S5:79:ASN:N	1.85	0.75
1:2S:440:A:OP2	1:2S:441:U:H1'	1.87	0.75
1:2S:2356:A:H61	1:2S:2983:C:H41	1.34	0.75
5:L2:42:ARG:HA	5:L2:88:ILE:O	1.87	0.75
5:L2:196:TRP:CG	5:L2:197:PRO:HA	2.22	0.75
12:L9:71:VAL:O	12:L9:75:VAL:HG23	1.86	0.75
17:55:115:VAL:HA	17:55:134:LEU:HG	1.69	0.74
18:56:127:LEU:HD22	22:60:156:VAL:HG12	1.68	0.74
48:S1:195:LYS:HA	48:S1:195:LYS:HE2	1.67	0.74
65:18:46:VAL:HG12	65:18:69:ILE:HG23	1.68	0.74
1:2S:2865:U:H2'	1:2S:2866:U:C6	2.22	0.74
1:2S:3393:U:H2'	1:2S:3394:U:C6	2.22	0.74
5:L2:42:ARG:HD2	5:L2:87:PHE:HB3	1.68	0.74
24:62:35:LYS:O	24:62:38:ILE:HG22	1.88	0.74
29:67:12:VAL:HB	29:67:81:LEU:HB2	1.69	0.74
46:1S:386:G:H2'	46:1S:387:A:C8	2.22	0.74
57:10:49:LEU:HD13	57:10:52:LYS:HD3	1.68	0.74
1:2S:1329:U:H5''	35:73:17:GLN:HG2	1.70	0.74
7:L4:4:PRO:HD2	7:L4:22:LEU:HD12	1.69	0.74
7:L4:39:PHE:HE1	7:L4:236:LEU:HA	1.52	0.74
14:51:94:ARG:C	14:51:96:PHE:H	1.93	0.74
38:76:98:ARG:HD2	38:76:98:ARG:H	1.49	0.74
43:81:13:LEU:HD13	43:81:16:LYS:HD3	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1701:A:H3'	46:1S:1702:A:C5'	2.11	0.74
73:26:41:ILE:HD13	73:26:41:ILE:H	1.52	0.74
1:2S:114:A:N1	1:2S:266:A:H4'	2.02	0.74
1:2S:2838:A:H2'	1:2S:2839:G:O4'	1.87	0.74
33:71:29:ALA:O	33:71:33:VAL:HG23	1.87	0.74
57:10:86:ILE:HG23	57:10:87:VAL:N	2.01	0.74
69:22:101:TYR:HA	69:22:113:HIS:HE1	1.52	0.74
70:23:127:VAL:O	70:23:130:VAL:HG22	1.88	0.74
71:24:8:ARG:HH11	71:24:28:LEU:HD11	1.51	0.74
1:2S:198:A:H2'	1:2S:199:A:H5'	1.67	0.74
1:2S:2083:G:H2'	1:2S:2083:G:N3	2.02	0.74
1:2S:2085:U:C2'	1:2S:2086:A:H5'	2.17	0.74
10:L7:236:ILE:HD12	10:L7:239:LEU:HD13	1.69	0.74
13:50:46:PHE:CD1	13:50:140:THR:HA	2.22	0.74
23:61:50:LYS:HB2	23:61:92:ARG:HH21	1.52	0.74
46:1S:1066:C:H4'	48:S1:149:GLN:HE22	1.52	0.74
56:S9:108:ARG:HG2	56:S9:147:MET:HE1	1.68	0.74
1:2S:797:U:H2'	1:2S:798:G:C8	2.23	0.74
1:2S:2403:G:H1'	1:2S:2872:A:C5	2.22	0.74
1:2S:3094:A:H2'	1:2S:3095:U:H6	1.50	0.74
30:68:37:GLY:O	30:68:42:ARG:HB3	1.88	0.74
46:1S:685:A:H5'	46:1S:685:A:H8	1.53	0.74
74:27:64:CYS:HB2	74:27:72:LYS:O	1.88	0.74
77:30:20:LYS:HE2	77:30:20:LYS:HA	1.70	0.74
1:2S:3243:A:H61	18:56:160:ARG:HD2	1.53	0.74
6:L3:21:ARG:HB3	6:L3:272:TYR:CD1	2.21	0.74
17:55:157:LYS:O	17:55:158:HIS:HB2	1.86	0.74
32:70:31:VAL:HG22	32:70:56:LEU:HD21	1.70	0.74
44:82:8:ARG:NH1	44:82:10:THR:HB	2.00	0.74
51:S4:89:VAL:C	51:S4:90:ILE:HD12	2.13	0.74
73:26:78:ALA:HA	73:26:82:ARG:HB3	1.68	0.74
1:2S:1190:A:H61	1:2S:1315:U:H3	1.34	0.74
11:L8:122:LYS:H	11:L8:122:LYS:HD3	1.51	0.74
13:50:101:LYS:HG2	13:50:102:MET:N	2.02	0.74
15:53:124:ILE:H	15:53:124:ILE:HD13	1.53	0.74
16:54:21:VAL:HG12	16:54:65:LEU:HD23	1.70	0.74
22:60:9:VAL:HG12	22:60:58:ILE:HD13	1.69	0.74
37:75:31:LEU:HG	37:75:41:LEU:HD21	1.68	0.74
1:2S:254:A:H2'	1:2S:255:A:C8	2.22	0.74
1:2S:284:A:H5''	1:2S:285:A:O4'	1.87	0.74
1:2S:971:G:H2'	1:2S:972:A:C8	2.22	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L9:172:ILE:HD13	12:L9:172:ILE:H	1.53	0.74
13:50:75:TYR:O	13:50:79:VAL:HG23	1.88	0.74
28:66:58:VAL:HG11	28:66:63:LYS:HB2	1.69	0.74
45:83:67:GLY:HA3	45:83:70:THR:HG23	1.67	0.74
46:1S:185:U:C2'	46:1S:186:C:H5''	2.16	0.74
71:24:27:VAL:HG11	71:24:35:VAL:HG11	1.69	0.74
15:53:70:ARG:HG2	15:53:71:ALA:H	1.51	0.74
46:1S:505:A:C3'	46:1S:506:A:H5''	2.18	0.74
60:13:3:ARG:HG2	60:13:6:SER:OG	1.87	0.74
1:2S:80:G:H2'	1:2S:81:C:C6	2.23	0.73
1:2S:998:A:H2'	1:2S:999:G:C8	2.23	0.73
1:2S:3272:C:H5''	9:L6:77:ARG:HE	1.53	0.73
9:L6:170:LYS:O	9:L6:174:LEU:HG	1.88	0.73
39:77:4:GLY:C	39:77:6:PRO:HD2	2.13	0.73
58:11:155:LYS:HD3	58:11:155:LYS:H	1.51	0.73
4:L1:18:LYS:HD2	4:L1:24:LYS:CB	2.17	0.73
6:L3:41:VAL:HA	6:L3:185:GLY:HA3	1.70	0.73
20:58:126:GLN:O	20:58:130:ARG:HD2	1.87	0.73
37:75:7:TYR:HA	37:75:10:ARG:HD2	1.70	0.73
46:1S:552:G:H2'	46:1S:553:G:O4'	1.88	0.73
46:1S:646:C:H2'	46:1S:647:G:O4'	1.88	0.73
53:S6:175:ILE:HB	53:S6:178:LEU:HD22	1.68	0.73
58:11:133:LYS:HZ3	58:11:134:THR:HG23	1.52	0.73
1:2S:1307:G:H5'	18:56:60:LYS:HD3	1.70	0.73
1:2S:2248:C:H2'	1:2S:2273:G:C8	2.23	0.73
52:S5:164:PRO:HA	52:S5:167:ARG:HE	1.53	0.73
56:S9:141:VAL:HG12	56:S9:143:ILE:H	1.54	0.73
1:2S:170:G:H2'	1:2S:171:G:C8	2.23	0.73
1:2S:2193:U:H5'	1:2S:2194:G:H5'	1.71	0.73
6:L3:43:LEU:HD11	6:L3:194:TRP:HH2	1.54	0.73
6:L3:261:MET:CB	18:56:64:PHE:HA	2.18	0.73
9:L6:82:ARG:HD2	35:73:104:PRO:HB3	1.71	0.73
46:1S:871:G:H2'	46:1S:872:G:C8	2.23	0.73
46:1S:1739:C:H2'	46:1S:1740:A:C8	2.23	0.73
2:8S:40:A:H2'	2:8S:41:A:C8	2.23	0.73
3:5S:27:A:OP2	8:L5:57:ASN:HB2	1.88	0.73
7:L4:42:VAL:HA	7:L4:45:ASN:HD22	1.52	0.73
46:1S:828:U:C2'	46:1S:829:A:H5''	2.18	0.73
47:S0:15:GLN:HA	47:S0:18:LEU:HD12	1.71	0.73
56:S9:39:LYS:HD3	56:S9:42:ILE:HD12	1.70	0.73
1:2S:440:A:H5''	1:2S:441:U:H4'	1.69	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:750:G:H5'	31:69:44:LYS:HE2	1.70	0.73
1:2S:933:A:H61	7:L4:102:PRO:HD3	1.53	0.73
1:2S:3370:A:H2'	1:2S:3371:G:C8	2.23	0.73
2:8S:26:U:H2'	2:8S:27:U:C6	2.23	0.73
16:54:64:VAL:HG22	16:54:65:LEU:H	1.54	0.73
19:57:176:ILE:O	19:57:179:GLN:HB2	1.89	0.73
35:73:18:ARG:HB3	35:73:23:ASN:HB3	1.70	0.73
1:2S:2917:G:OP1	25:63:46:LEU:HD12	1.87	0.73
38:76:79:SER:HB2	38:76:82:ARG:HG3	1.70	0.73
66:19:137:ALA:HA	66:19:140:LEU:HD12	1.69	0.73
1:2S:2812:C:H2'	1:2S:2813:A:C8	2.23	0.73
1:2S:3160:U:H2'	1:2S:3161:C:C6	2.23	0.73
10:L7:107:ARG:HH21	10:L7:115:THR:HG21	1.54	0.73
10:L7:178:ILE:HG21	10:L7:184:LEU:HD23	1.69	0.73
21:59:171:ASP:O	21:59:175:GLN:HB2	1.88	0.73
35:73:52:VAL:HG13	35:73:66:VAL:HG22	1.70	0.73
46:1S:435:C:C5'	70:23:50:LYS:HG3	2.19	0.73
46:1S:600:U:H1'	70:23:47:SER:HB3	1.68	0.73
52:S5:163:SER:O	52:S5:167:ARG:HG3	1.88	0.73
1:2S:808:A:H2'	1:2S:809:G:H5'	1.71	0.73
12:L9:49:ASN:ND2	12:L9:52:LEU:HB3	2.04	0.73
46:1S:831:U:H2'	46:1S:832:U:H6	1.54	0.73
48:S1:82:ARG:HA	48:S1:104:ASP:O	1.89	0.73
61:14:111:ARG:NH2	73:26:58:VAL:HG12	2.04	0.73
63:16:40:GLU:HA	63:16:41:PRO:C	2.14	0.73
1:2S:1190:A:H4'	42:80:113:ARG:HH22	1.53	0.73
1:2S:2199:G:H2'	1:2S:2200:U:C6	2.24	0.73
1:2S:2675:C:H42	14:51:22:SER:HB2	1.54	0.73
4:L1:28:PHE:O	4:L1:28:PHE:HD1	1.72	0.73
16:54:72:LEU:HD13	16:54:73:PRO:HD2	1.71	0.73
20:58:33:TYR:HB3	20:58:49:LEU:HG	1.70	0.73
46:1S:1156:C:C2'	46:1S:1157:A:H5''	2.18	0.73
48:S1:29:TRP:CZ2	48:S1:45:LYS:HG3	2.24	0.73
60:13:92:ILE:O	60:13:96:VAL:HG23	1.89	0.73
64:17:67:ARG:HH21	64:17:67:ARG:HG2	1.53	0.73
70:23:76:LEU:HD13	70:23:79:ASN:CB	2.17	0.73
75:28:14:LYS:HB3	75:28:29:ARG:HD2	1.69	0.73
1:2S:669:U:H2'	1:2S:670:C:C6	2.23	0.72
1:2S:727:G:H4'	1:2S:977:C:H5'	1.70	0.72
1:2S:1223:A:C2	1:2S:1287:A:N3	2.57	0.72
8:L5:236:LEU:HD12	8:L5:239:ILE:HD12	1.70	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:L8:238:LEU:HB2	11:L8:243:GLN:HE21	1.54	0.72
13:50:68:ALA:HA	13:50:71:CYS:SG	2.28	0.72
33:71:32:ALA:O	33:71:36:ILE:HG13	1.89	0.72
46:1S:400:A:C5'	55:S8:25:ARG:HA	2.17	0.72
49:S2:137:ILE:CG1	49:S2:138:PRO:HD2	2.19	0.72
65:18:132:ARG:HB3	65:18:136:GLN:HE21	1.54	0.72
1:2S:2192:C:H2'	1:2S:2193:U:C6	2.24	0.72
1:2S:2278:C:H4'	1:2S:2280:A:C2	2.24	0.72
1:2S:3105:U:H2'	1:2S:3106:A:H8	1.54	0.72
19:57:127:ARG:HB2	19:57:127:ARG:NH1	2.03	0.72
25:63:125:LEU:HD23	25:63:126:TRP:NE1	2.04	0.72
46:1S:127:G:C6	53:S6:195:VAL:HG13	2.24	0.72
6:L3:350:ALA:O	6:L3:351:LEU:HB2	1.89	0.72
14:51:17:LEU:HD13	14:51:129:VAL:HG22	1.72	0.72
19:57:67:ILE:HG22	19:57:68:GLY:N	2.05	0.72
29:67:121:ARG:NH1	29:67:126:LYS:HE3	2.03	0.72
38:76:59:ASP:O	38:76:63:ASN:HB2	1.89	0.72
45:83:8:VAL:O	45:83:11:THR:HG22	1.89	0.72
46:1S:942:G:C5'	46:1S:977:A:H4'	2.19	0.72
1:2S:1658:G:H2'	1:2S:1659:U:C6	2.25	0.72
1:2S:2288:G:H2'	1:2S:2289:U:C6	2.24	0.72
5:L2:248:GLY:HA3	46:1S:1012:U:H5''	1.70	0.72
16:54:76:ALA:HB1	16:54:80:THR:CB	2.18	0.72
26:64:56:ARG:HB3	26:64:56:ARG:HH11	1.55	0.72
36:74:22:VAL:HA	36:74:32:ALA:HA	1.69	0.72
44:82:68:VAL:HG11	44:82:85:LEU:HD22	1.70	0.72
46:1S:1160:A:H2'	46:1S:1161:C:C6	2.24	0.72
72:25:75:LEU:HA	72:25:78:ILE:HD13	1.70	0.72
1:2S:2915:U:H5''	1:2S:2916:U:H5'	1.70	0.72
9:L6:80:ASN:HB3	9:L6:83:TYR:HD2	1.54	0.72
37:75:21:LEU:HG	37:75:25:LYS:HE3	1.71	0.72
49:S2:66:PHE:HB2	49:S2:133:LYS:HG3	1.71	0.72
50:S3:168:ILE:HG22	50:S3:189:MET:HB2	1.71	0.72
58:11:118:GLN:HG2	58:11:119:VAL:N	2.04	0.72
65:18:14:ILE:CD1	65:18:21:ASN:HB3	2.20	0.72
1:2S:654:C:H2'	1:2S:655:C:C6	2.23	0.72
1:2S:967:A:H2'	1:2S:968:G:O4'	1.89	0.72
1:2S:1307:G:C5'	18:56:60:LYS:HD3	2.19	0.72
2:8S:62:C:H4'	2:8S:63:G:H5''	1.70	0.72
15:53:138:VAL:HG21	37:75:118:ILE:HB	1.69	0.72
33:71:70:ARG:HH21	33:71:70:ARG:HG3	1.53	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:50:C:H2'	46:1S:424:C:N4	2.05	0.72
46:1S:769:A:H2'	46:1S:770:A:C8	2.24	0.72
46:1S:1603:U:H2'	46:1S:1604:U:C6	2.24	0.72
54:S7:30:SER:HB3	54:S7:34:LEU:HD13	1.71	0.72
55:S8:197:THR:HA	55:S8:200:LYS:HB2	1.70	0.72
1:2S:516:A:C2'	1:2S:517:G:H5''	2.20	0.72
7:L4:257:LYS:O	7:L4:261:VAL:HG23	1.89	0.72
19:57:51:VAL:HG22	19:57:56:ARG:HG3	1.72	0.72
45:83:37:TYR:O	45:83:45:LYS:HA	1.89	0.72
50:S3:148:LYS:NZ	50:S3:148:LYS:HB3	2.04	0.72
56:S9:48:GLN:O	56:S9:52:ILE:HG13	1.90	0.72
1:2S:975:C:OP2	20:58:15:HIS:HA	1.89	0.72
1:2S:3198:U:O2	12:L9:21:LYS:HG3	1.89	0.72
4:L1:114:GLU:HG3	4:L1:115:VAL:HG23	1.69	0.72
21:59:21:LYS:HE3	21:59:55:VAL:HA	1.70	0.72
41:79:9:ILE:HG22	41:79:13:MET:HE2	1.70	0.72
46:1S:1712:A:C3'	46:1S:1713:G:H5''	2.18	0.72
48:S1:65:VAL:HB	48:S1:85:LYS:HE2	1.72	0.72
1:2S:155:G:H21	38:76:26:ILE:HG21	1.55	0.72
1:2S:592:A:OP2	9:L6:16:ALA:HB1	1.88	0.72
1:2S:2355:G:H4'	19:57:139:TYR:CZ	2.25	0.72
1:2S:2874:G:N7	1:2S:2945:G:H2'	2.05	0.72
7:L4:132:ALA:HA	7:L4:148:ILE:HD12	1.72	0.72
8:L5:153:THR:HG23	8:L5:160:PHE:HZ	1.55	0.72
46:1S:138:A:N6	46:1S:266:A:H61	1.88	0.72
46:1S:1202:A:N6	46:1S:1457:C:H5''	2.04	0.72
46:1S:1543:A:H1'	46:1S:1569:A:C2	2.25	0.72
1:2S:1019:G:C3'	1:2S:1020:G:H5''	2.19	0.72
46:1S:1592:A:H2'	46:1S:1593:A:O4'	1.90	0.72
46:1S:1715:G:C3'	46:1S:1716:C:H5''	2.19	0.72
77:30:42:ARG:NH1	77:30:42:ARG:HB3	2.05	0.72
79:RA:31:ASN:HA	79:RA:47:LEU:HB2	1.71	0.72
11:L8:242:ALA:O	11:L8:246:MET:HB3	1.90	0.71
15:53:57:VAL:HG12	15:53:69:VAL:CG2	2.19	0.71
39:77:53:ALA:HA	39:77:56:ARG:HD2	1.72	0.71
56:S9:41:GLU:O	56:S9:45:ILE:HG12	1.90	0.71
1:2S:634:C:H4'	34:72:47:ARG:NH1	2.05	0.71
1:2S:681:U:H2'	1:2S:682:U:H5'	1.72	0.71
6:L3:106:TRP:HB2	6:L3:133:TYR:HE2	1.55	0.71
8:L5:140:ARG:HB2	8:L5:140:ARG:NH2	2.04	0.71
26:64:8:PHE:HB2	26:64:31:PHE:CE1	2.25	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:219:A:C2	46:1S:843:U:H1'	2.25	0.71
46:1S:604:A:H2'	46:1S:605:A:O4'	1.89	0.71
54:S7:47:ARG:NH1	54:S7:176:LEU:CD2	2.53	0.71
55:S8:27:PHE:HB3	55:S8:49:ARG:HH22	1.54	0.71
61:14:112:ILE:HG22	61:14:113:GLY:N	2.04	0.71
70:23:76:LEU:HD11	70:23:79:ASN:HD22	1.54	0.71
77:30:26:LYS:H	77:30:26:LYS:HE2	1.55	0.71
1:2S:2553:U:H3'	5:L2:87:PHE:HE2	1.54	0.71
1:2S:2995:A:C2'	1:2S:2996:U:H5''	2.19	0.71
5:L2:77:ILE:HG21	5:L2:169:ILE:HD13	1.72	0.71
15:53:180:ARG:HD3	38:76:11:LEU:HD11	1.71	0.71
17:55:34:ASN:O	17:55:37:HIS:CD2	2.43	0.71
24:62:43:VAL:HB	24:62:49:ASN:HB3	1.71	0.71
72:25:58:ARG:HH11	72:25:58:ARG:HG3	1.55	0.71
1:2S:2610:G:H2'	1:2S:2611:U:H6	1.53	0.71
6:L3:63:PRO:HD2	6:L3:348:ARG:NH2	2.04	0.71
47:S0:179:ARG:O	47:S0:183:ARG:HG3	1.89	0.71
53:S6:1:MET:CE	53:S6:106:LEU:HB2	2.16	0.71
61:14:41:ARG:O	61:14:42:VAL:HG22	1.90	0.71
67:20:58:LEU:HD21	67:20:90:TYR:HE2	1.54	0.71
1:2S:1981:G:C2'	1:2S:1982:G:H5'	2.20	0.71
1:2S:3149:G:H4'	6:L3:130:PHE:CE1	2.24	0.71
24:62:17:VAL:HG13	24:62:104:ARG:HA	1.72	0.71
27:65:113:LEU:HD11	27:65:121:LYS:HB3	1.71	0.71
28:66:50:ILE:HG12	28:66:51:ARG:N	2.06	0.71
32:70:50:VAL:HA	32:70:53:LYS:HB3	1.73	0.71
46:1S:230:C:H3'	46:1S:231:U:H5''	1.72	0.71
46:1S:771:A:H5'	56:S9:7:THR:HG23	1.73	0.71
1:2S:965:A:N3	30:68:43:ILE:HD12	2.06	0.71
1:2S:1508:C:H2'	1:2S:1509:A:C8	2.24	0.71
1:2S:2768:U:H2'	1:2S:2769:A:C8	2.25	0.71
6:L3:56:ILE:HD12	6:L3:57:VAL:H	1.56	0.71
8:L5:154:THR:HA	8:L5:179:ARG:HH11	1.56	0.71
13:50:40:LYS:HD2	13:50:40:LYS:N	2.06	0.71
45:83:67:GLY:HA3	45:83:70:THR:CG2	2.20	0.71
46:1S:1715:G:H2'	46:1S:1716:C:H5''	1.71	0.71
54:S7:56:LYS:HB2	54:S7:88:ARG:HD3	1.71	0.71
1:2S:1456:A:N6	33:71:64:VAL:HG21	2.06	0.71
1:2S:2596:U:H2'	1:2S:2597:U:C6	2.26	0.71
2:8S:104:A:OP2	2:8S:105:A:H2'	1.90	0.71
6:L3:237:LYS:NZ	6:L3:246:LEU:HD13	2.05	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:57:169:THR:O	19:57:173:ARG:HG3	1.90	0.71
46:1S:143:G:H2'	46:1S:144:U:H5''	1.73	0.71
46:1S:487:G:C2'	46:1S:488:G:H5''	2.17	0.71
46:1S:591:A:H2'	46:1S:592:A:C8	2.25	0.71
46:1S:647:G:H22	46:1S:687:G:H1	1.36	0.71
49:S2:38:VAL:HG13	49:S2:39:THR:HG23	1.73	0.71
52:S5:118:LEU:O	52:S5:122:ASN:HB2	1.91	0.71
56:S9:85:VAL:CG1	56:S9:103:ASP:HB3	2.20	0.71
1:2S:929:A:H2'	1:2S:930:U:C6	2.25	0.71
1:2S:1169:A:H4'	10:L7:219:LYS:HZ3	1.54	0.71
1:2S:1741:A:H2'	1:2S:1742:U:H5'	1.71	0.71
46:1S:1589:C:H2'	46:1S:1590:G:H8	1.54	0.71
48:S1:163:ALA:O	48:S1:167:VAL:HG23	1.90	0.71
51:S4:86:PHE:O	51:S4:87:MET:HB2	1.89	0.71
55:S8:81:VAL:HG12	55:S8:91:VAL:HG13	1.71	0.71
56:S9:120:LYS:NZ	56:S9:120:LYS:HB3	2.06	0.71
1:2S:1517:G:OP1	41:79:22:PRO:HG3	1.91	0.71
6:L3:49:TYR:CE1	6:L3:335:ILE:HB	2.26	0.71
6:L3:223:GLY:HA2	6:L3:271:GLY:HA3	1.73	0.71
25:63:54:LEU:HD12	25:63:78:VAL:CG1	2.20	0.71
46:1S:749:U:H2'	46:1S:750:U:C6	2.25	0.71
46:1S:749:U:H3	46:1S:800:U:H3	1.36	0.71
46:1S:845:G:H2'	46:1S:846:G:H5''	1.72	0.71
56:S9:162:SER:HB2	56:S9:163:PRO:HD2	1.71	0.71
1:2S:1238:C:C3'	1:2S:1239:C:H5''	2.21	0.71
1:2S:3217:C:O2	1:2S:3217:C:H2'	1.90	0.71
2:8S:37:A:H5''	2:8S:39:G:O4'	1.91	0.71
15:53:106:GLN:HB3	38:76:18:THR:CG2	2.21	0.71
38:76:43:LEU:O	38:76:46:GLU:HG2	1.91	0.71
46:1S:541:A:O2'	46:1S:542:A:H4'	1.91	0.71
46:1S:657:U:O2'	46:1S:658:C:H4'	1.91	0.71
49:S2:178:ILE:HA	49:S2:196:VAL:HG12	1.71	0.71
1:2S:314:U:H2'	1:2S:315:C:C6	2.25	0.70
1:2S:2338:C:H3'	1:2S:2339:C:H2'	1.72	0.70
1:2S:3180:A:H4'	18:56:116:LYS:HB3	1.73	0.70
14:51:49:LYS:HE2	14:51:64:LYS:NZ	2.05	0.70
17:55:39:ALA:HA	17:55:63:ARG:HH21	1.55	0.70
32:70:50:VAL:HG13	32:70:53:LYS:HE2	1.73	0.70
39:77:5:THR:N	39:77:6:PRO:HD2	2.06	0.70
46:1S:1105:C:H2'	46:1S:1106:U:C6	2.26	0.70
55:S8:8:ARG:NE	55:S8:8:ARG:HA	2.06	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:11:21:ASN:HB3	58:11:31:THR:HG23	1.73	0.70
1:2S:897:U:H2'	1:2S:898:U:C6	2.26	0.70
1:2S:1123:U:C2'	1:2S:1124:U:H5'	2.21	0.70
1:2S:1951:C:H5	1:2S:2095:G:O6	1.73	0.70
1:2S:2158:A:H4'	1:2S:2159:U:H3'	1.73	0.70
1:2S:2361:A:H61	1:2S:2377:G:H1	1.37	0.70
5:L2:100:ASN:O	5:L2:166:ILE:HG12	1.91	0.70
7:L4:289:ILE:O	7:L4:295:ILE:HD12	1.89	0.70
23:61:68:THR:HG23	23:61:69:LYS:H	1.56	0.70
28:66:112:ASP:O	28:66:116:LYS:HG3	1.91	0.70
44:82:8:ARG:HH12	44:82:10:THR:CB	2.02	0.70
57:10:32:HIS:CE1	57:10:42:VAL:HG21	2.25	0.70
1:2S:911:C:H3'	5:L2:9:ARG:NH1	2.06	0.70
1:2S:1430:U:H2'	30:68:9:ARG:HH22	1.56	0.70
4:L1:158:GLN:O	4:L1:159:LEU:HG	1.91	0.70
7:L4:152:VAL:CG1	7:L4:153:SER:H	1.97	0.70
8:L5:33:ARG:O	8:L5:37:VAL:HG23	1.90	0.70
16:54:10:SER:HB3	16:54:12:TRP:CZ3	2.27	0.70
17:55:122:ASN:HB2	17:55:129:TYR:CB	2.21	0.70
46:1S:103:A:H62	46:1S:358:U:H3	1.36	0.70
46:1S:992:A:H2	46:1S:1012:U:H3	1.36	0.70
46:1S:1294:G:H2'	46:1S:1295:G:H8	1.56	0.70
71:24:124:ARG:O	71:24:127:LYS:HG3	1.90	0.70
73:26:12:LYS:NZ	73:26:16:GLY:HA2	2.05	0.70
79:RA:133:VAL:HB	79:RA:142:ALA:HB3	1.70	0.70
1:2S:2343:C:H2'	1:2S:2344:U:H6	1.54	0.70
13:50:101:LYS:HG2	13:50:102:MET:H	1.55	0.70
22:60:89:ASN:HD21	23:61:156:TYR:HB3	1.56	0.70
25:63:108:GLU:HG2	25:63:128:ARG:NH1	2.00	0.70
26:64:4:GLU:HB2	26:64:13:ILE:HB	1.74	0.70
46:1S:1715:G:H3'	46:1S:1716:C:H5''	1.74	0.70
49:S2:151:PRO:HD3	68:21:9:VAL:HG21	1.72	0.70
64:17:53:TYR:O	64:17:57:LEU:HG	1.91	0.70
1:2S:425:G:H2'	1:2S:426:G:C8	2.27	0.70
1:2S:1227:C:N4	1:2S:1282:G:O6	2.17	0.70
14:51:163:PHE:HE2	14:51:171:VAL:HB	1.56	0.70
19:57:120:ASN:O	19:57:144:SER:HA	1.91	0.70
27:65:66:PRO:HA	27:65:84:PHE:HA	1.74	0.70
32:70:23:TYR:HA	32:70:93:LEU:HD13	1.73	0.70
38:76:45:ARG:HH12	38:76:93:ILE:HG13	1.56	0.70
46:1S:165:G:C3'	46:1S:166:C:H5''	2.21	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:195:G:H2'	46:1S:196:G:H5''	1.73	0.70
46:1S:1292:G:H2'	46:1S:1293:U:C6	2.26	0.70
47:S0:126:PRO:HG2	47:S0:151:SER:HB3	1.73	0.70
52:S5:62:VAL:HG13	52:S5:89:ILE:HG12	1.73	0.70
1:2S:628:A:H2'	1:2S:629:U:C6	2.25	0.70
1:2S:2778:G:H2'	1:2S:2779:A:C5'	2.20	0.70
1:2S:2865:U:H2'	1:2S:2866:U:H6	1.56	0.70
5:L2:133:TYR:CD2	5:L2:168:VAL:HG11	2.26	0.70
16:54:25:LYS:HE3	16:54:62:GLN:CG	2.20	0.70
22:60:72:VAL:HA	22:60:97:VAL:HA	1.73	0.70
22:60:80:ARG:HG3	23:61:156:TYR:HB2	1.73	0.70
46:1S:228:G:H2'	46:1S:229:U:O4'	1.91	0.70
55:S8:137:LYS:H	55:S8:137:LYS:HD3	1.57	0.70
79:RA:128:ASP:O	79:RA:129:LYS:HG2	1.92	0.70
1:2S:437:G:H1	1:2S:622:A:N6	1.89	0.70
1:2S:1492:G:H1	1:2S:1836:C:H42	1.39	0.70
1:2S:2656:A:H4'	44:82:98:LYS:HD2	1.73	0.70
1:2S:3152:U:H5'	1:2S:3294:A:H5''	1.74	0.70
29:67:71:PHE:HA	29:67:111:LYS:HE2	1.72	0.70
38:76:26:ILE:H	38:76:26:ILE:HD12	1.57	0.70
46:1S:647:G:N2	46:1S:687:G:H1	1.89	0.70
49:S2:56:ILE:HG23	49:S2:61:LEU:HB2	1.71	0.70
50:S3:209:ILE:HG22	64:17:38:ILE:CG1	2.17	0.70
50:S3:209:ILE:CG2	64:17:38:ILE:HG13	2.17	0.70
1:2S:959:C:H41	1:2S:2801:A:H5''	1.55	0.70
4:L1:48:ARG:HH22	4:L1:159:LEU:HA	1.55	0.70
7:L4:138:ARG:CZ	7:L4:240:PRO:HD2	2.21	0.70
23:61:68:THR:HG23	23:61:69:LYS:N	2.07	0.70
27:65:113:LEU:O	27:65:120:LYS:HG3	1.90	0.70
30:68:123:VAL:HG12	30:68:124:ILE:N	2.06	0.70
46:1S:654:C:H3'	46:1S:655:G:C5'	2.17	0.70
46:1S:898:A:H62	46:1S:914:G:N2	1.89	0.70
48:S1:184:LEU:O	48:S1:188:LEU:HG	1.92	0.70
60:13:70:LYS:O	60:13:74:ILE:HG13	1.91	0.70
1:2S:936:A:H2'	1:2S:938:C:C4	2.26	0.70
4:L1:17:LEU:HD21	4:L1:216:LEU:HD13	1.73	0.70
6:L3:332:ARG:HD3	6:L3:332:ARG:H	1.55	0.70
21:59:60:LYS:HB3	21:59:64:ARG:HG3	1.74	0.70
46:1S:119:A:H2'	46:1S:120:U:H5'	1.74	0.70
53:S6:186:ARG:O	53:S6:190:GLN:HG2	1.90	0.70
1:2S:384:A:H1'	1:2S:1465:A:C8	2.26	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2356:A:N6	1:2S:2983:C:H5	1.89	0.70
5:L2:58:LEU:HD23	5:L2:77:ILE:HA	1.74	0.70
8:L5:107:ARG:HH22	8:L5:120:LYS:HA	1.57	0.70
37:75:78:LYS:HA	37:75:81:ARG:HD3	1.72	0.70
38:76:34:SER:O	38:76:38:LYS:HG3	1.92	0.70
52:S5:163:SER:HB2	52:S5:164:PRO:HD2	1.73	0.70
66:19:57:ARG:HB2	66:19:57:ARG:HH11	1.56	0.70
1:2S:2995:A:C3'	1:2S:2996:U:H5''	2.22	0.69
3:5S:92:A:H2'	3:5S:93:C:O4'	1.92	0.69
10:L7:53:LYS:O	10:L7:57:THR:HG23	1.92	0.69
22:60:23:LYS:O	22:60:24:LEU:HB2	1.91	0.69
46:1S:307:G:H5''	58:11:92:HIS:CE1	2.27	0.69
46:1S:942:G:H5'	46:1S:977:A:H4'	1.74	0.69
55:S8:8:ARG:HD3	55:S8:21:PHE:HB3	1.74	0.69
1:2S:741:U:H2'	1:2S:742:G:O4'	1.92	0.69
2:8S:41:A:H61	2:8S:103:G:H1'	1.58	0.69
5:L2:23:ARG:HH11	5:L2:23:ARG:HG3	1.55	0.69
7:L4:89:ALA:O	7:L4:90:PHE:HB2	1.92	0.69
11:L8:146:LYS:HE2	11:L8:173:MET:HA	1.74	0.69
18:56:46:GLU:HG2	18:56:49:ARG:HG3	1.74	0.69
39:77:49:TRP:CD1	39:77:49:TRP:H	2.08	0.69
46:1S:93:A:O2'	51:S4:4:GLY:HA3	1.91	0.69
46:1S:1316:G:H4'	64:17:10:LYS:HE3	1.74	0.69
63:16:90:VAL:HG21	63:16:117:LEU:HD11	1.74	0.69
1:2S:20:A:H61	2:8S:139:U:H3	1.39	0.69
3:5S:80:G:H2'	3:5S:81:U:O4'	1.91	0.69
6:L3:238:LEU:HB3	6:L3:242:THR:HG21	1.74	0.69
15:53:47:ALA:HB1	15:53:48:PRO:CD	2.21	0.69
18:56:88:VAL:HG12	18:56:89:SER:H	1.57	0.69
38:76:43:LEU:O	38:76:47:ILE:HG13	1.92	0.69
46:1S:1061:A:H2'	46:1S:1062:A:H5'	1.71	0.69
46:1S:1382:A:H1'	67:20:57:ARG:HG2	1.74	0.69
46:1S:1483:A:H4'	63:16:71:GLY:HA2	1.73	0.69
48:S1:160:HIS:O	48:S1:164:ILE:HG13	1.92	0.69
49:S2:44:LEU:HD13	49:S2:243:TYR:HB2	1.74	0.69
54:S7:59:ALA:HB1	54:S7:93:LEU:HD12	1.73	0.69
59:12:86:VAL:H	59:12:87:PRO:HD3	1.55	0.69
61:14:128:LYS:H	73:26:22:ARG:HH12	1.40	0.69
74:27:61:THR:HG23	74:27:62:ILE:N	2.06	0.69
76:29:31:ILE:HB	76:29:36:LEU:HD11	1.75	0.69
1:2S:745:C:H5''	20:58:145:ASN:ND2	2.07	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1350:A:C2'	1:2S:1351:U:H5'	2.22	0.69
1:2S:1948:G:OP1	21:59:135:LYS:HE3	1.92	0.69
1:2S:2427:U:H2'	1:2S:2428:U:C6	2.27	0.69
2:8S:79:A:H2'	2:8S:80:A:H4'	1.73	0.69
3:5S:62:U:H4'	8:L5:285:ARG:NH1	2.06	0.69
8:L5:22:ARG:HG3	8:L5:27:LYS:HB2	1.74	0.69
30:68:36:GLY:HA3	30:68:40:HIS:CE1	2.28	0.69
40:78:62:ALA:O	40:78:66:ILE:HG13	1.92	0.69
46:1S:805:U:C3'	46:1S:806:A:H5''	2.21	0.69
46:1S:1761:U:H1'	46:1S:1762:A:OP2	1.92	0.69
47:S0:155:PHE:CZ	68:21:61:SER:HA	2.27	0.69
73:26:24:VAL:HG12	73:26:72:HIS:O	1.91	0.69
1:2S:438:A:H2'	1:2S:439:C:H5''	1.74	0.69
1:2S:900:G:H1'	1:2S:1589:A:H61	1.56	0.69
1:2S:1803:C:H2'	1:2S:1804:A:H8	1.57	0.69
1:2S:2922:G:H3'	1:2S:2923:U:H5''	1.75	0.69
1:2S:3299:A:H61	1:2S:3315:G:H1	1.39	0.69
8:L5:30:TYR:HA	8:L5:33:ARG:HB3	1.73	0.69
19:57:119:VAL:HG22	19:57:144:SER:HB3	1.73	0.69
21:59:139:VAL:HA	21:59:142:ILE:HD12	1.75	0.69
46:1S:484:C:H42	46:1S:503:G:H22	1.39	0.69
49:S2:165:VAL:HG21	49:S2:206:THR:HG21	1.74	0.69
57:10:15:LEU:HD13	57:10:21:VAL:CG2	2.16	0.69
61:14:91:THR:C	61:14:92:LYS:HG2	2.17	0.69
1:2S:2101:C:O2'	1:2S:2102:U:H5''	1.93	0.69
5:L2:82:VAL:C	45:83:64:VAL:HG13	2.17	0.69
7:L4:95:ARG:HG2	7:L4:95:ARG:HH11	1.57	0.69
25:63:54:LEU:HD12	25:63:78:VAL:HG12	1.73	0.69
25:63:75:PRO:HB2	25:63:103:ALA:O	1.92	0.69
46:1S:733:A:O2'	46:1S:734:A:H5''	1.92	0.69
54:S7:11:GLN:CG	54:S7:13:PRO:HD2	2.18	0.69
72:25:100:ILE:HD13	72:25:101:TYR:N	2.08	0.69
1:2S:2310:U:H2'	1:2S:2311:G:C8	2.27	0.69
5:L2:48:ILE:HG13	5:L2:48:ILE:O	1.91	0.69
6:L3:43:LEU:HD11	6:L3:194:TRP:CH2	2.27	0.69
12:L9:48:VAL:CG1	12:L9:52:LEU:HD22	2.23	0.69
29:67:104:PRO:O	29:67:108:GLU:HG3	1.93	0.69
30:68:81:LEU:HD22	30:68:107:ALA:CB	2.21	0.69
32:70:34:LEU:HD21	32:70:59:TYR:HB3	1.74	0.69
41:79:15:LYS:O	41:79:19:GLN:HG3	1.92	0.69
65:18:6:GLN:O	72:25:42:LEU:HD11	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:68:C:H4'	17:55:176:LYS:HB3	1.74	0.69
1:2S:293:C:H2'	1:2S:294:U:O4'	1.92	0.69
1:2S:607:A:H2'	1:2S:607:A:N3	2.07	0.69
1:2S:725:G:H3'	1:2S:726:G:H5''	1.74	0.69
1:2S:760:G:H1'	1:2S:771:A:H61	1.58	0.69
1:2S:1055:A:H5''	3:5S:100:C:O2'	1.92	0.69
1:2S:1844:C:C2'	1:2S:1845:G:H5''	2.22	0.69
1:2S:2174:G:H8	1:2S:2174:G:OP1	1.76	0.69
1:2S:2328:U:H2'	1:2S:2329:C:C6	2.28	0.69
19:57:67:ILE:HG22	19:57:68:GLY:H	1.57	0.69
19:57:124:LYS:HB3	19:57:140:GLU:HB3	1.75	0.69
25:63:39:VAL:HG12	25:63:40:LYS:N	2.08	0.69
27:65:53:HIS:CE1	27:65:56:ARG:HG2	2.27	0.69
30:68:134:ALA:O	30:68:138:ILE:HG13	1.93	0.69
35:73:9:VAL:HB	35:73:100:ILE:HB	1.73	0.69
35:73:73:ARG:CG	35:73:82:ARG:HD2	2.23	0.69
43:81:8:LYS:HE2	43:81:8:LYS:HA	1.74	0.69
46:1S:358:U:H2'	46:1S:360:A:H5'	1.73	0.69
46:1S:1097:U:H5''	46:1S:1099:U:O4'	1.93	0.69
46:1S:1135:U:H2'	46:1S:1136:U:C6	2.28	0.69
47:S0:60:ALA:O	47:S0:64:ILE:HG13	1.93	0.69
74:27:56:CYS:HB3	74:27:59:CYS:O	1.90	0.69
77:30:14:VAL:O	77:30:18:THR:HG23	1.93	0.69
1:2S:1321:G:N2	22:60:112:ALA:HB2	2.08	0.69
1:2S:1682:U:H2'	24:62:85:LYS:HG2	1.75	0.69
1:2S:1813:A:C3'	1:2S:1814:A:H5''	2.22	0.69
11:L8:24:ASN:N	11:L8:25:PRO:HD2	2.08	0.69
17:55:203:ARG:HH11	17:55:203:ARG:HG3	1.58	0.69
30:68:74:ASN:HA	30:68:113:LEU:O	1.93	0.69
39:77:72:ARG:O	39:77:75:LYS:HB3	1.92	0.69
46:1S:165:G:H2'	46:1S:166:C:H5''	1.73	0.69
51:S4:121:TYR:HA	51:S4:164:LEU:HD23	1.75	0.69
53:S6:210:GLN:O	53:S6:214:LYS:HG3	1.92	0.69
69:22:65:LEU:HD13	69:22:65:LEU:N	2.07	0.69
75:28:32:PHE:HZ	75:28:38:ARG:HD2	1.57	0.69
1:2S:2342:U:H5''	1:2S:3089:C:O2'	1.93	0.69
6:L3:230:THR:HG21	6:L3:237:LYS:HG3	1.75	0.69
7:L4:302:ALA:HB2	20:58:39:ARG:NH1	2.07	0.69
11:L8:180:VAL:HG22	11:L8:185:ARG:NH2	2.08	0.69
25:63:74:MET:CG	25:63:102:ILE:HD11	2.20	0.69
27:65:141:TYR:HB3	37:75:33:VAL:HG13	1.75	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:80:97:ARG:HB2	42:80:120:GLN:O	1.92	0.69
43:81:23:ARG:HG2	43:81:23:ARG:HH21	1.58	0.69
46:1S:329:G:H5'	55:S8:99:ALA:HB3	1.74	0.69
46:1S:822:U:H3'	46:1S:823:G:H5''	1.74	0.69
51:S4:35:PRO:HB3	51:S4:143:ASP:HB2	1.75	0.69
1:2S:715:A:H5''	30:68:133:LEU:HD13	1.75	0.68
1:2S:717:C:H41	1:2S:751:A:H4'	1.58	0.68
1:2S:2674:A:H5''	14:51:105:GLY:HA3	1.75	0.68
1:2S:3116:G:H5''	1:2S:3117:C:C5	2.28	0.68
15:53:63:VAL:HG23	30:68:66:ALA:O	1.93	0.68
15:53:109:PHE:O	15:53:113:VAL:HG23	1.93	0.68
21:59:139:VAL:HA	21:59:142:ILE:CD1	2.23	0.68
22:60:29:ILE:HD12	22:60:40:ARG:HB3	1.74	0.68
46:1S:1651:A:H2'	46:1S:1652:C:H6	1.56	0.68
64:17:69:ILE:HD13	64:17:69:ILE:H	1.58	0.68
69:22:93:LEU:HD23	69:22:94:LEU:H	1.55	0.68
1:2S:1718:G:H2'	1:2S:1719:G:C8	2.26	0.68
5:L2:72:ARG:NH1	5:L2:72:ARG:HB2	2.08	0.68
22:60:166:LYS:CG	22:60:167:ARG:H	2.04	0.68
28:66:59:VAL:O	28:66:64:LYS:HD3	1.93	0.68
34:72:13:HIS:CE1	34:72:15:LYS:HB3	2.28	0.68
36:74:80:ARG:HB3	36:74:84:CYS:HB2	1.75	0.68
46:1S:831:U:H2'	46:1S:832:U:C6	2.28	0.68
52:S5:48:PHE:HE1	52:S5:64:VAL:HA	1.59	0.68
71:24:5:VAL:HA	71:24:28:LEU:O	1.93	0.68
1:2S:3304:U:C5	6:L3:333:LYS:HE2	2.28	0.68
6:L3:232:ARG:NH1	6:L3:268:GLY:HA3	2.08	0.68
6:L3:296:THR:CG2	6:L3:297:SER:H	2.01	0.68
7:L4:115:HIS:O	7:L4:119:ARG:HG3	1.92	0.68
18:56:62:THR:HB	18:56:65:ASN:O	1.94	0.68
46:1S:992:A:H2'	46:1S:993:A:H5'	1.74	0.68
46:1S:1018:U:H2'	46:1S:1019:A:C8	2.28	0.68
48:S1:179:SER:HB3	48:S1:183:GLN:HB2	1.75	0.68
56:S9:85:VAL:HG13	56:S9:103:ASP:HB3	1.75	0.68
1:2S:941:G:H2'	1:2S:942:U:O4'	1.93	0.68
1:2S:1682:U:H3'	24:62:85:LYS:HE2	1.76	0.68
1:2S:2761:G:N1	1:2S:2795:U:H3'	2.08	0.68
3:5S:77:G:H22	3:5S:102:A:H5''	1.58	0.68
4:L1:144:LEU:O	4:L1:148:VAL:HG13	1.93	0.68
21:59:189:ALA:HB2	54:S7:39:ARG:HD3	1.76	0.68
22:60:31:ALA:HB1	22:60:36:ILE:HB	1.73	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:64:56:ARG:HB3	26:64:56:ARG:NH1	2.09	0.68
33:71:11:GLU:HG3	33:71:109:VAL:CG2	2.24	0.68
38:76:80:PHE:O	38:76:84:LYS:HG3	1.94	0.68
46:1S:1089:U:H2'	46:1S:1090:C:H6	1.53	0.68
79:RA:10:ARG:HA	79:RA:10:ARG:HE	1.58	0.68
1:2S:2356:A:H61	1:2S:2983:C:N4	1.92	0.68
1:2S:3163:A:C3'	1:2S:3164:C:H5''	2.23	0.68
1:2S:3303:G:H3'	1:2S:3377:G:O4'	1.91	0.68
1:2S:3382:U:H2'	1:2S:3382:U:O2	1.93	0.68
9:L6:171:PRO:HA	9:L6:174:LEU:HD12	1.76	0.68
13:50:135:ILE:HG22	13:50:136:PHE:CD1	2.27	0.68
17:55:136:ASP:OD1	17:55:139:HIS:HB2	1.93	0.68
36:74:42:PRO:O	36:74:50:ALA:HA	1.92	0.68
46:1S:400:A:H2'	55:S8:24:LYS:O	1.94	0.68
46:1S:1020:A:H3'	46:1S:1021:C:H5''	1.74	0.68
79:RA:88:THR:HG22	79:RA:104:VAL:HG22	1.76	0.68
1:2S:2117:A:H2'	1:2S:2118:C:O4'	1.94	0.68
1:2S:2990:G:H2'	1:2S:2991:A:H5'	1.76	0.68
5:L2:40:TYR:HA	5:L2:91:GLY:HA3	1.74	0.68
8:L5:109:THR:O	8:L5:113:LEU:HB2	1.93	0.68
12:L9:114:VAL:HB	12:L9:124:ARG:HB2	1.75	0.68
15:53:91:ARG:HH21	15:53:97:VAL:HB	1.57	0.68
46:1S:252:U:H4'	51:S4:132:GLY:O	1.93	0.68
48:S1:145:LYS:HD3	48:S1:149:GLN:HG2	1.74	0.68
1:2S:834:U:C2'	1:2S:835:G:H5'	2.23	0.68
1:2S:1110:U:H2'	1:2S:1111:U:C6	2.29	0.68
1:2S:1523:U:H1'	27:65:111:ASN:HB3	1.74	0.68
1:2S:1875:G:OP2	21:59:20:ARG:HD2	1.94	0.68
1:2S:1927:G:H3'	1:2S:1927:G:N3	2.08	0.68
1:2S:2719:U:H2'	1:2S:2720:G:H8	1.58	0.68
10:L7:169:ILE:HG21	10:L7:184:LEU:HD11	1.76	0.68
13:50:36:LEU:HD12	13:50:87:LEU:HD22	1.75	0.68
30:68:74:ASN:HD22	30:68:115:LYS:HB2	1.58	0.68
46:1S:559:C:H4'	77:30:60:PRO:HG3	1.76	0.68
46:1S:981:U:H2'	46:1S:982:U:H5''	1.75	0.68
46:1S:1254:U:OP2	59:12:46:ARG:HD3	1.94	0.68
47:S0:119:ARG:HB3	47:S0:119:ARG:NH1	2.03	0.68
50:S3:98:ALA:HA	50:S3:188:ILE:HD12	1.76	0.68
72:25:41:ILE:O	72:25:42:LEU:HB3	1.94	0.68
72:25:54:VAL:HG12	72:25:88:ILE:HG21	1.74	0.68
1:2S:36:C:H2'	1:2S:37:U:C5'	2.23	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1939:G:H2'	1:2S:1940:G:C8	2.29	0.68
1:2S:2435:G:H5'	17:55:20:ARG:NH1	2.09	0.68
5:L2:47:GLN:HE21	5:L2:49:VAL:HB	1.59	0.68
8:L5:277:LEU:HD23	8:L5:282:ARG:CG	2.18	0.68
10:L7:203:TRP:CD1	10:L7:204:PRO:HD2	2.29	0.68
39:77:28:HIS:CD2	39:77:31:LYS:HB2	2.29	0.68
50:S3:76:ARG:HD3	50:S3:76:ARG:C	2.18	0.68
1:2S:118:U:N3	1:2S:122:A:H5''	2.08	0.68
1:2S:283:G:N2	1:2S:285:A:H5''	2.09	0.68
1:2S:609:G:O2'	7:L4:312:VAL:HG22	1.93	0.68
1:2S:1803:C:H2'	1:2S:1804:A:C8	2.29	0.68
2:8S:101:U:H3'	2:8S:102:U:H5''	1.76	0.68
7:L4:72:ALA:HB3	7:L4:76:ARG:NH1	2.08	0.68
13:50:24:ARG:HH11	13:50:24:ARG:HB2	1.57	0.68
21:59:37:SER:O	21:59:41:ILE:HG13	1.94	0.68
22:60:9:VAL:CG1	22:60:58:ILE:HD13	2.24	0.68
46:1S:682:C:O2'	46:1S:683:C:H5'	1.94	0.68
49:S2:159:THR:HG23	49:S2:167:VAL:C	2.19	0.68
51:S4:94:ALA:CB	71:24:17:LEU:HB3	2.23	0.68
58:11:117:VAL:HG12	58:11:118:GLN:N	2.08	0.68
60:13:121:ARG:HB2	60:13:121:ARG:HH11	1.58	0.68
61:14:32:ASP:OD2	61:14:37:GLU:HB3	1.93	0.68
61:14:107:ARG:HG3	61:14:107:ARG:HH21	1.58	0.68
65:18:46:VAL:CG1	65:18:69:ILE:HG23	2.22	0.68
73:26:23:CYS:HB3	73:26:28:LYS:H	1.58	0.68
79:RA:18:GLY:HA3	79:RA:38:ARG:HB2	1.76	0.68
1:2S:1927:G:C8	45:83:16:VAL:HG13	2.29	0.68
6:L3:106:TRP:HB2	6:L3:133:TYR:CE2	2.29	0.68
15:53:103:ASN:O	38:76:22:PRO:HD3	1.93	0.68
15:53:112:ASN:O	15:53:116:LEU:HG	1.94	0.68
23:61:111:ALA:O	23:61:115:LYS:HG3	1.93	0.68
46:1S:705:U:H2'	46:1S:706:A:H8	1.59	0.68
46:1S:860:U:H1'	54:S7:114:ARG:HG2	1.75	0.68
54:S7:168:SER:O	54:S7:172:VAL:HG23	1.94	0.68
66:19:25:GLN:NE2	66:19:27:LYS:HD3	2.06	0.68
1:2S:1235:U:C4'	1:2S:1236:G:H5'	2.23	0.67
1:2S:1877:U:H5''	1:2S:1878:G:O4'	1.93	0.67
1:2S:3064:U:H2'	1:2S:3065:G:C8	2.29	0.67
6:L3:39:LYS:HE2	6:L3:39:LYS:HA	1.75	0.67
8:L5:99:TYR:CE1	8:L5:165:GLY:HA2	2.29	0.67
21:59:119:LEU:O	21:59:123:LEU:HG	1.95	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:70:41:LEU:HD13	32:70:42:ILE:N	2.08	0.67
46:1S:1132:A:H2'	46:1S:1133:A:C8	2.28	0.67
46:1S:1229:G:H21	46:1S:1256:A:H62	1.41	0.67
50:S3:219:ALA:HB1	50:S3:220:PRO:CD	2.24	0.67
51:S4:49:ARG:HA	51:S4:55:ALA:HB3	1.75	0.67
60:13:17:PRO:HG3	74:27:28:PRO:HG3	1.77	0.67
1:2S:53:G:H5''	39:77:47:TYR:HD1	1.60	0.67
1:2S:1354:G:H4'	9:L6:8:LYS:NZ	2.09	0.67
1:2S:1366:A:H2'	1:2S:1367:G:O4'	1.94	0.67
1:2S:3109:G:H21	12:L9:156:GLN:HE22	1.41	0.67
7:L4:174:ALA:O	7:L4:178:LEU:HG	1.94	0.67
14:51:66:ALA:O	14:51:67:VAL:HG13	1.94	0.67
16:54:113:THR:HB	16:54:116:GLU:HG3	1.74	0.67
32:70:25:LEU:HD23	32:70:90:VAL:HG13	1.77	0.67
46:1S:906:A:H2'	46:1S:907:A:C8	2.30	0.67
46:1S:1082:C:H2'	46:1S:1082:C:O2	1.93	0.67
46:1S:1624:C:H2'	46:1S:1625:C:C6	2.29	0.67
48:S1:115:ARG:HG3	48:S1:116:LYS:H	1.59	0.67
49:S2:140:ARG:HE	49:S2:155:ALA:CB	2.06	0.67
49:S2:140:ARG:NE	49:S2:155:ALA:HB2	2.09	0.67
51:S4:180:LEU:HG	51:S4:230:GLU:O	1.93	0.67
62:15:33:PHE:CZ	62:15:112:LEU:HD13	2.29	0.67
1:2S:500:C:H2'	1:2S:501:A:C8	2.29	0.67
1:2S:1844:C:H2'	1:2S:1845:G:C5'	2.24	0.67
1:2S:2157:G:C8	5:L2:150:LEU:HD13	2.30	0.67
6:L3:88:GLY:O	6:L3:160:VAL:HG13	1.95	0.67
6:L3:147:GLU:O	6:L3:151:ILE:HG13	1.95	0.67
6:L3:152:LYS:HE2	6:L3:192:VAL:HG11	1.76	0.67
10:L7:208:SER:O	10:L7:243:MET:HE2	1.94	0.67
17:55:18:VAL:HG13	17:55:19:LEU:HD12	1.74	0.67
46:1S:435:C:H5''	70:23:50:LYS:HG3	1.77	0.67
47:S0:119:ARG:HH11	47:S0:119:ARG:CB	2.05	0.67
49:S2:111:VAL:O	49:S2:136:VAL:HA	1.95	0.67
58:11:67:ARG:HD3	58:11:67:ARG:N	2.08	0.67
64:17:14:LYS:HG3	64:17:69:ILE:HG22	1.76	0.67
1:2S:95:A:H8	1:2S:95:A:O5'	1.78	0.67
1:2S:215:G:H5'	28:66:12:ARG:HA	1.76	0.67
1:2S:834:U:H2'	1:2S:835:G:H5'	1.76	0.67
1:2S:3025:C:H4'	12:L9:175:PHE:HE1	1.59	0.67
10:L7:88:ARG:HG2	10:L7:110:ARG:O	1.95	0.67
11:L8:72:PRO:HG2	11:L8:75:ILE:HG13	1.74	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:50:59:GLN:HG2	13:50:128:ARG:HA	1.75	0.67
18:56:157:GLU:O	18:56:161:LYS:HG3	1.95	0.67
21:59:160:GLU:HG3	21:59:163:ARG:CZ	2.23	0.67
29:67:77:TYR:HA	29:67:80:LEU:HD12	1.75	0.67
46:1S:108:A:H2'	46:1S:109:G:C8	2.29	0.67
46:1S:477:A:H2'	46:1S:478:A:H8	1.58	0.67
46:1S:538:A:N3	46:1S:542:A:N7	2.42	0.67
46:1S:912:U:H5'	46:1S:913:G:H2'	1.74	0.67
46:1S:1057:U:H1'	46:1S:1058:U:H2'	1.76	0.67
58:11:123:VAL:HG23	58:11:142:VAL:HA	1.75	0.67
1:2S:36:C:H4'	1:2S:808:A:N1	2.09	0.67
1:2S:2743:A:H2'	1:2S:2744:U:C6	2.29	0.67
6:L3:89:VAL:HG23	6:L3:160:VAL:HG22	1.76	0.67
6:L3:239:PRO:HD2	6:L3:242:THR:CG2	2.23	0.67
7:L4:80:GLY:HA2	7:L4:85:SER:OG	1.94	0.67
7:L4:185:LYS:HA	7:L4:200:THR:O	1.94	0.67
8:L5:222:LEU:O	8:L5:223:PHE:HB2	1.94	0.67
10:L7:123:THR:O	10:L7:127:LEU:HG	1.94	0.67
14:51:101:ASN:OD1	14:51:130:VAL:HG23	1.95	0.67
19:57:44:ALA:O	19:57:48:LEU:HG	1.93	0.67
31:69:35:VAL:HG12	31:69:36:ASP:N	2.08	0.67
46:1S:1087:A:H5'	46:1S:1298:U:H5	1.60	0.67
55:S8:104:ILE:O	55:S8:164:ARG:HG3	1.95	0.67
56:S9:179:ARG:HA	56:S9:182:GLU:CG	2.24	0.67
57:10:13:GLN:HA	57:10:80:LEU:HD11	1.75	0.67
1:2S:296:A:H3'	1:2S:297:G:H21	1.60	0.67
1:2S:1354:G:H3'	1:2S:1355:A:H5''	1.77	0.67
1:2S:1545:A:H2'	1:2S:1547:G:OP2	1.95	0.67
3:5S:38:U:H2'	3:5S:40:C:OP2	1.94	0.67
6:L3:222:LYS:HE3	6:L3:331:ASN:HB3	1.76	0.67
7:L4:302:ALA:HB2	20:58:39:ARG:HH12	1.59	0.67
10:L7:42:ALA:HA	10:L7:45:LEU:HD12	1.77	0.67
10:L7:101:LYS:O	10:L7:105:LEU:HG	1.94	0.67
17:55:152:CYS:HB2	37:75:92:LEU:HD11	1.76	0.67
42:80:78:ILE:CG2	42:80:83:LYS:HD3	2.24	0.67
46:1S:1112:G:H21	46:1S:1133:A:H62	1.41	0.67
46:1S:1327:C:H5''	50:S3:158:ILE:HG22	1.75	0.67
52:S5:90:ILE:O	52:S5:94:THR:HG23	1.94	0.67
57:10:11:ILE:HD12	57:10:42:VAL:HG22	1.76	0.67
1:2S:2076:G:O2'	1:2S:2077:U:H5''	1.95	0.67
3:5S:60:G:H2'	3:5S:61:G:C8	2.29	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L3:103:THR:HB	6:L3:151:ILE:HD11	1.76	0.67
6:L3:232:ARG:HE	6:L3:233:TRP:NE1	1.92	0.67
14:51:163:PHE:CE2	14:51:171:VAL:HB	2.29	0.67
25:63:23:MET:CG	25:63:36:ILE:HD11	2.21	0.67
29:67:50:PRO:HG3	29:67:131:PHE:HB3	1.75	0.67
34:72:79:VAL:CG1	34:72:111:ARG:HG2	2.24	0.67
48:S1:33:LYS:HB2	48:S1:97:LEU:HD22	1.77	0.67
53:S6:32:ILE:HG13	53:S6:100:ALA:O	1.94	0.67
1:2S:778:U:H2'	1:2S:779:G:C8	2.29	0.67
1:2S:1150:A:H3'	1:2S:1151:U:C6	2.30	0.67
1:2S:1284:C:H1'	1:2S:3116:G:O6	1.95	0.67
1:2S:1305:U:C5	6:L3:256:HIS:HB3	2.29	0.67
4:L1:107:TYR:HA	4:L1:136:THR:HG22	1.76	0.67
7:L4:52:VAL:HG22	7:L4:53:SER:N	2.10	0.67
35:73:18:ARG:HB3	35:73:23:ASN:CB	2.25	0.67
46:1S:454:U:H5'	51:S4:66:MET:CE	2.25	0.67
46:1S:531:C:H2'	46:1S:532:U:H5''	1.76	0.67
46:1S:570:A:N1	70:23:115:GLY:HA3	2.09	0.67
46:1S:869:A:H2'	46:1S:870:C:C6	2.29	0.67
46:1S:954:G:H2'	46:1S:955:A:H8	1.60	0.67
46:1S:1543:A:H1'	46:1S:1569:A:N1	2.09	0.67
50:S3:136:VAL:HG12	50:S3:152:PHE:HD2	1.60	0.67
1:2S:2407:C:H2'	1:2S:2408:U:C6	2.30	0.67
1:2S:2949:U:O2'	1:2S:2950:G:H5'	1.94	0.67
1:2S:3389:U:H6	1:2S:3389:U:H5'	1.59	0.67
15:53:50:PRO:HA	15:53:138:VAL:O	1.94	0.67
15:53:169:THR:HA	15:53:172:LEU:HD12	1.76	0.67
30:68:88:ASP:HA	30:68:91:LEU:HB2	1.75	0.67
32:70:48:THR:OG1	32:70:49:PRO:HD2	1.95	0.67
36:74:80:ARG:HB2	36:74:85:VAL:HG23	1.76	0.67
46:1S:332:U:H5''	55:S8:31:ARG:HG3	1.76	0.67
48:S1:180:THR:HG22	48:S1:181:LEU:H	1.60	0.67
1:2S:441:U:H5'	1:2S:442:G:N7	2.10	0.67
1:2S:1252:A:C2'	1:2S:1253:U:H5'	2.19	0.67
1:2S:2163:C:H5''	5:L2:231:SER:HB3	1.77	0.67
1:2S:2984:C:H2'	1:2S:2985:C:C6	2.30	0.67
19:57:67:ILE:CG2	19:57:68:GLY:N	2.57	0.67
27:65:67:ILE:HB	27:65:83:VAL:HB	1.77	0.67
46:1S:1472:C:N4	46:1S:1536:G:H1	1.93	0.67
70:23:83:VAL:HG12	70:23:84:THR:H	1.60	0.67
74:27:64:CYS:HA	74:27:74:SER:HB2	1.75	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
75:28:30:VAL:CG2	75:28:40:ILE:HB	2.25	0.67
79:RA:150:TRP:HB2	79:RA:174:ASN:HD22	1.58	0.67
1:2S:185:C:H5''	28:66:122:LYS:HG2	1.75	0.66
1:2S:3067:C:H3'	21:59:62:ARG:NH1	2.10	0.66
5:L2:129:ALA:H	5:L2:169:ILE:HD12	1.60	0.66
12:L9:102:ASN:HB2	12:L9:113:GLU:HB3	1.76	0.66
20:58:18:ALA:HB1	20:58:19:PRO:HD2	1.76	0.66
22:60:35:VAL:HG13	22:60:38:LYS:HE2	1.76	0.66
25:63:38:ALA:O	25:63:58:VAL:HB	1.95	0.66
25:63:128:ARG:HH11	25:63:128:ARG:HG3	1.60	0.66
29:67:25:ILE:HG22	29:67:28:PRO:HD3	1.77	0.66
33:71:17:HIS:HB2	33:71:69:TYR:HB3	1.77	0.66
34:72:105:ARG:O	34:72:109:LEU:HG	1.95	0.66
46:1S:803:A:H4'	46:1S:804:A:H8	1.59	0.66
46:1S:1634:C:O2'	46:1S:1635:A:H5'	1.96	0.66
46:1S:1767:G:H5'	46:1S:1768:G:H21	1.60	0.66
47:S0:62:ARG:O	47:S0:66:ALA:HB2	1.95	0.66
48:S1:205:PHE:HB3	48:S1:207:LEU:HD13	1.77	0.66
51:S4:34:GLY:HA3	51:S4:83:PRO:HG2	1.77	0.66
53:S6:76:LEU:HD12	53:S6:94:ARG:CZ	2.25	0.66
61:14:29:HIS:HB2	61:14:41:ARG:HA	1.76	0.66
79:RA:161:LYS:HA	79:RA:161:LYS:HE3	1.77	0.66
1:2S:1287:A:C2	1:2S:1288:U:H1'	2.30	0.66
1:2S:1445:U:H2'	1:2S:1446:A:C8	2.30	0.66
10:L7:131:GLU:HB2	10:L7:132:PRO:HD3	1.76	0.66
46:1S:320:U:O2'	46:1S:321:C:H5''	1.95	0.66
46:1S:1545:A:H4'	65:18:127:HIS:HE1	1.60	0.66
46:1S:1609:U:H2'	46:1S:1610:G:H5'	1.76	0.66
46:1S:1685:G:H2'	46:1S:1686:C:H5''	1.78	0.66
75:28:25:VAL:HG11	75:28:66:LEU:HD12	1.77	0.66
1:2S:998:A:H2'	1:2S:999:G:H8	1.58	0.66
1:2S:1659:U:H2'	1:2S:1660:C:C6	2.31	0.66
1:2S:2896:A:H5'	1:2S:2896:A:H8	1.60	0.66
4:L1:18:LYS:HB2	4:L1:23:THR:HB	1.76	0.66
12:L9:79:ILE:O	12:L9:82:VAL:HG12	1.95	0.66
15:53:103:ASN:HB3	38:76:20:MET:SD	2.34	0.66
18:56:46:GLU:CG	18:56:49:ARG:H	2.08	0.66
46:1S:600:U:OP2	70:23:108:GLY:HA2	1.94	0.66
46:1S:639:U:H5''	54:S7:101:LYS:HD2	1.77	0.66
46:1S:1010:C:H2'	46:1S:1011:G:O4'	1.95	0.66
53:S6:58:LYS:HG2	53:S6:105:ASP:O	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:13:39:LYS:HE2	60:13:39:LYS:HA	1.76	0.66
61:14:24:ASN:O	61:14:54:GLU:HB2	1.95	0.66
1:2S:283:G:H3'	1:2S:283:G:N3	2.09	0.66
1:2S:1927:G:H8	45:83:16:VAL:HG13	1.60	0.66
1:2S:3317:U:H4'	1:2S:3318:G:H5'	1.78	0.66
2:8S:88:A:H2'	2:8S:89:A:O4'	1.95	0.66
5:L2:117:GLU:HA	5:L2:125:ALA:HB3	1.77	0.66
10:L7:64:GLN:HA	10:L7:67:ARG:HD2	1.76	0.66
13:50:49:CYS:HB2	13:50:172:GLY:HA2	1.78	0.66
15:53:105:ASN:HB3	15:53:108:ILE:HG12	1.77	0.66
23:61:39:ILE:HD12	23:61:102:ARG:HH11	1.59	0.66
27:65:126:LEU:CD1	27:65:132:ALA:HB2	2.25	0.66
30:68:75:LEU:HG	30:68:114:GLY:HA2	1.78	0.66
32:70:53:LYS:O	32:70:57:GLU:HG3	1.96	0.66
37:75:101:THR:HG23	37:75:104:GLN:H	1.60	0.66
46:1S:257:A:H1'	55:S8:73:SER:HB2	1.76	0.66
47:S0:168:HIS:HB3	47:S0:203:PHE:CZ	2.30	0.66
49:S2:38:VAL:HG22	49:S2:39:THR:N	2.05	0.66
51:S4:126:VAL:HA	51:S4:141:THR:HA	1.77	0.66
1:2S:683:U:H2'	1:2S:684:G:H5'	1.78	0.66
1:2S:1581:C:H2'	1:2S:1582:C:H5'	1.77	0.66
1:2S:2102:U:H5'	21:59:88:ARG:HH21	1.61	0.66
2:8S:70:G:H1'	2:8S:88:A:N6	2.11	0.66
3:5S:97:A:H2'	3:5S:98:C:C6	2.31	0.66
10:L7:140:SER:O	10:L7:144:ILE:HG13	1.96	0.66
14:51:23:VAL:HG12	14:51:24:GLY:N	2.11	0.66
15:53:171:ARG:HH21	15:53:174:ARG:HG2	1.59	0.66
19:57:4:TYR:OH	19:57:18:ARG:HG3	1.95	0.66
19:57:48:LEU:HD13	19:57:92:GLN:HB3	1.77	0.66
25:63:19:VAL:CG1	25:63:37:ILE:HA	2.23	0.66
46:1S:421:A:C2'	46:1S:422:G:H5'	2.26	0.66
46:1S:1058:U:H5	46:1S:1061:A:C6	2.13	0.66
48:S1:203:ASP:O	48:S1:204:ILE:HD13	1.95	0.66
69:22:80:ASN:HD22	69:22:124:LYS:HG2	1.61	0.66
69:22:102:VAL:HG13	69:22:128:PHE:HB3	1.77	0.66
1:2S:2280:A:N7	1:2S:2282:U:H2'	2.10	0.66
1:2S:2611:U:H2'	1:2S:2612:U:C6	2.31	0.66
1:2S:2666:C:H1'	1:2S:2691:A:H2	1.57	0.66
1:2S:2895:G:H2'	1:2S:2896:A:H5''	1.78	0.66
8:L5:243:ALA:O	8:L5:247:ILE:HG13	1.95	0.66
22:60:35:VAL:HG13	22:60:38:LYS:CE	2.25	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:63:80:ARG:HD3	25:63:117:PRO:HG2	1.76	0.66
46:1S:1073:G:H2'	46:1S:1074:G:H5''	1.76	0.66
50:S3:136:VAL:HB	50:S3:152:PHE:HB2	1.77	0.66
69:22:29:PRO:HB2	69:22:58:SER:CB	2.25	0.66
73:26:37:LYS:HA	73:26:71:LEU:O	1.95	0.66
1:2S:1171:G:H2'	1:2S:1172:G:O4'	1.95	0.66
1:2S:1221:A:H3'	1:2S:1222:G:C5'	2.25	0.66
1:2S:2493:U:H5''	4:L1:162:VAL:CG1	2.26	0.66
2:8S:93:U:H2'	2:8S:94:C:O4'	1.96	0.66
4:L1:79:SER:HB2	4:L1:141:ASN:ND2	2.09	0.66
6:L3:111:SER:O	6:L3:114:VAL:HG23	1.96	0.66
11:L8:135:GLY:O	11:L8:139:VAL:HG23	1.96	0.66
12:L9:45:PHE:HD1	12:L9:55:VAL:HG12	1.61	0.66
27:65:68:THR:HG21	37:75:36:LEU:HD22	1.77	0.66
28:66:3:LYS:HZ1	28:66:6:LEU:HD23	1.60	0.66
30:68:75:LEU:HA	30:68:78:LEU:HD11	1.78	0.66
46:1S:1059:U:O2	46:1S:1059:U:H2'	1.96	0.66
46:1S:1119:G:H2'	46:1S:1120:U:C6	2.31	0.66
46:1S:1604:U:H5''	63:16:129:PHE:HB3	1.78	0.66
66:19:100:ILE:O	66:19:104:VAL:HG23	1.96	0.66
78:31:113:LYS:H	78:31:113:LYS:HD2	1.61	0.66
1:2S:871:U:H2'	1:2S:872:U:C6	2.30	0.66
1:2S:2917:G:H2'	1:2S:2918:G:H5''	1.76	0.66
4:L1:44:GLN:HG3	4:L1:161:LYS:HA	1.76	0.66
46:1S:384:G:H2'	46:1S:385:A:H8	1.60	0.66
46:1S:1348:A:H61	46:1S:1377:U:H3	1.43	0.66
46:1S:1521:G:H2'	46:1S:1523:G:N2	2.10	0.66
50:S3:11:LEU:HD13	67:20:29:THR:CG2	2.26	0.66
56:S9:92:LYS:O	56:S9:93:LEU:HB3	1.94	0.66
67:20:50:LEU:CD2	67:20:95:ALA:HB2	2.26	0.66
71:24:2:SER:OG	71:24:32:ARG:HG2	1.96	0.66
1:2S:2189:U:H4'	45:83:22:LEU:CD1	2.25	0.66
1:2S:2356:A:N6	1:2S:2983:C:H41	1.94	0.66
1:2S:2419:A:H2'	1:2S:2420:C:C6	2.30	0.66
1:2S:2666:C:H1'	1:2S:2691:A:N3	2.09	0.66
3:5S:16:U:H2'	3:5S:17:A:C8	2.31	0.66
7:L4:77:VAL:HB	7:L4:86:GLY:N	2.08	0.66
9:L6:31:ARG:HG2	9:L6:34:LEU:HG	1.78	0.66
26:64:25:ASP:CG	26:64:26:SER:H	2.04	0.66
27:65:58:ASP:O	27:65:62:VAL:HG23	1.96	0.66
46:1S:102:U:H3'	46:1S:360:A:N6	2.09	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:477:A:H5'	77:30:34:ALA:CB	2.26	0.66
46:1S:794:U:O2	46:1S:794:U:H2'	1.95	0.66
46:1S:1482:C:H1'	63:16:73:GLY:HA2	1.77	0.66
48:S1:207:LEU:HB3	48:S1:210:ILE:HD11	1.77	0.66
51:S4:95:THR:HG23	71:24:17:LEU:HD23	1.78	0.66
52:S5:156:ARG:HB2	52:S5:156:ARG:HH11	1.61	0.66
70:23:27:ASN:O	70:23:31:LYS:HG2	1.95	0.66
1:2S:1398:U:H5''	2:8S:9:A:H5''	1.78	0.66
1:2S:1567:U:H3'	1:2S:1568:U:C5'	2.24	0.66
1:2S:2611:U:H2'	1:2S:2612:U:H6	1.61	0.66
1:2S:3322:A:H2'	1:2S:3323:A:C8	2.31	0.66
2:8S:69:U:C2'	2:8S:70:G:H5'	2.25	0.66
14:51:94:ARG:O	14:51:95:ASN:HB2	1.96	0.66
15:53:50:PRO:HB3	15:53:138:VAL:HB	1.77	0.66
17:55:35:VAL:HG22	17:55:65:ARG:NH2	2.06	0.66
46:1S:165:G:H3'	46:1S:166:C:H5''	1.78	0.66
46:1S:567:A:H1'	77:30:14:VAL:CG2	2.25	0.66
48:S1:151:LYS:HD2	48:S1:153:HIS:CE1	2.31	0.66
63:16:93:HIS:HA	63:16:97:VAL:HB	1.77	0.66
73:26:73:TYR:HB3	73:26:77:CYS:HB2	1.78	0.66
1:2S:879:U:H2'	19:57:131:ARG:NH2	2.11	0.65
1:2S:1033:U:H2'	1:2S:1034:U:C6	2.30	0.65
1:2S:1721:U:C6	21:59:103:ARG:NH2	2.64	0.65
1:2S:2647:A:H3'	1:2S:2648:G:H5''	1.78	0.65
8:L5:30:TYR:O	8:L5:34:LYS:HB2	1.95	0.65
11:L8:146:LYS:HG2	11:L8:173:MET:HB3	1.78	0.65
13:50:213:PHE:N	13:50:214:PRO:HD3	2.10	0.65
23:61:74:VAL:HG21	23:61:91:LEU:HD12	1.78	0.65
30:68:105:LEU:HD13	30:68:148:ILE:HD11	1.78	0.65
34:72:21:HIS:ND1	34:72:24:ARG:HD2	2.11	0.65
38:76:57:LEU:O	38:76:61:ILE:HG13	1.96	0.65
46:1S:1162:C:H4'	75:28:22:ARG:HD2	1.77	0.65
50:S3:148:LYS:HB3	50:S3:148:LYS:HZ2	1.59	0.65
56:S9:59:LEU:HD22	56:S9:69:ARG:HA	1.78	0.65
13:50:52:LEU:CD2	13:50:135:ILE:HD12	2.11	0.65
19:57:108:ASP:HB3	19:57:111:LYS:HE2	1.78	0.65
35:73:6:ARG:HG3	35:73:8:TYR:CD1	2.31	0.65
35:73:15:SER:HA	35:73:94:PHE:CE1	2.31	0.65
45:83:84:ARG:HD2	45:83:87:ARG:NH2	2.11	0.65
46:1S:1470:C:H3'	46:1S:1573:A:H62	1.61	0.65
46:1S:1552:U:H2'	46:1S:1553:G:O4'	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:S3:219:ALA:HB1	50:S3:220:PRO:HD2	1.79	0.65
52:S5:140:THR:HG22	52:S5:211:ILE:HD13	1.78	0.65
1:2S:48:A:O3'	1:2S:49:A:H4'	1.97	0.65
1:2S:673:U:H2'	1:2S:674:G:C8	2.31	0.65
1:2S:828:A:H2'	1:2S:829:U:C6	2.32	0.65
1:2S:960:U:H4'	1:2S:963:G:N1	2.11	0.65
1:2S:1624:G:H2'	1:2S:1625:A:H8	1.62	0.65
1:2S:1717:U:H2'	1:2S:1718:G:C8	2.30	0.65
1:2S:2197:C:N4	1:2S:2241:U:H2'	2.10	0.65
1:2S:3132:C:H2'	1:2S:3133:C:O4'	1.96	0.65
5:L2:39:GLY:O	5:L2:91:GLY:HA3	1.97	0.65
5:L2:247:ARG:HG2	5:L2:247:ARG:HH11	1.61	0.65
22:60:46:GLN:CD	22:60:52:LYS:HA	2.22	0.65
46:1S:780:A:H8	71:24:8:ARG:HB3	1.60	0.65
46:1S:1458:G:N3	46:1S:1458:G:H2'	2.10	0.65
46:1S:1459:C:H5''	65:18:138:THR:OG1	1.97	0.65
47:S0:189:VAL:HG22	47:S0:190:ASP:H	1.61	0.65
52:S5:187:ILE:H	52:S5:187:ILE:CD1	2.07	0.65
53:S6:10:ASN:ND2	53:S6:128:THR:HB	2.10	0.65
55:S8:172:ARG:HD3	55:S8:175:GLN:HG3	1.77	0.65
56:S9:126:ARG:O	56:S9:130:THR:HG22	1.96	0.65
56:S9:129:ILE:O	56:S9:142:ASN:HA	1.95	0.65
60:13:33:VAL:O	60:13:37:ILE:HG13	1.96	0.65
60:13:71:ILE:HD12	60:13:71:ILE:N	2.10	0.65
67:20:53:LYS:HB2	67:20:92:ASP:HB2	1.78	0.65
1:2S:74:G:H2'	1:2S:75:G:C8	2.31	0.65
1:2S:300:G:H2'	1:2S:301:G:C8	2.31	0.65
1:2S:808:A:H2'	1:2S:809:G:C5'	2.26	0.65
1:2S:2604:U:H2'	1:2S:2605:G:C8	2.31	0.65
9:L6:4:GLN:HB2	34:72:75:LEU:CB	2.26	0.65
10:L7:121:LYS:HB3	23:61:133:ALA:HB3	1.79	0.65
34:72:19:ARG:HG2	34:72:20:HIS:H	1.62	0.65
34:72:82:LEU:O	34:72:82:LEU:HD22	1.95	0.65
51:S4:196:VAL:HB	51:S4:209:HIS:HB3	1.77	0.65
53:S6:79:LYS:HE3	53:S6:90:GLY:HA2	1.77	0.65
58:11:99:ARG:HB2	70:23:12:ALA:HB2	1.77	0.65
75:28:30:VAL:HG23	75:28:40:ILE:HB	1.79	0.65
1:2S:425:G:H2'	1:2S:426:G:H8	1.62	0.65
1:2S:1340:G:H2'	1:2S:1341:U:C6	2.31	0.65
1:2S:2179:C:H2'	5:L2:132:ASN:HD21	1.61	0.65
3:5S:88:G:H2'	3:5S:89:G:O4'	1.97	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:L1:20:SER:HB3	4:L1:177:ASP:HB3	1.79	0.65
7:L4:286:VAL:O	7:L4:290:ILE:HG13	1.97	0.65
11:L8:82:LEU:HD21	11:L8:86:THR:CG2	2.27	0.65
12:L9:176:LEU:HD23	42:80:90:ASN:OD1	1.97	0.65
13:50:38:LYS:HD3	13:50:41:ALA:HB2	1.77	0.65
15:53:46:ILE:HG22	15:53:49:ARG:HD2	1.79	0.65
30:68:28:HIS:CD2	30:68:32:ARG:HG2	2.32	0.65
34:72:4:LEU:HD12	34:72:5:PRO:HD2	1.77	0.65
48:S1:37:THR:HG23	48:S1:231:LEU:CD2	2.27	0.65
1:2S:409:A:H3'	1:2S:410:U:C6	2.31	0.65
16:54:21:VAL:HB	16:54:64:VAL:O	1.95	0.65
46:1S:43:A:H4'	46:1S:99:C:OP1	1.96	0.65
46:1S:555:A:H4'	46:1S:556:A:OP1	1.97	0.65
46:1S:812:A:H5'	46:1S:858:G:H22	1.61	0.65
58:11:54:ILE:N	58:11:54:ILE:HD12	2.11	0.65
64:17:5:ARG:O	64:17:10:LYS:HE2	1.97	0.65
71:24:21:LYS:HB2	71:24:75:VAL:HG13	1.79	0.65
71:24:42:GLU:HB2	71:24:52:LYS:HD3	1.78	0.65
71:24:99:LYS:HA	71:24:99:LYS:HE3	1.79	0.65
73:26:44:ILE:HG22	73:26:67:THR:HG23	1.79	0.65
17:55:21:PHE:O	17:55:25:VAL:HG23	1.97	0.65
22:60:9:VAL:HB	22:60:41:TYR:CD2	2.32	0.65
46:1S:556:A:H5'	77:30:56:MET:SD	2.37	0.65
46:1S:798:C:H2'	46:1S:799:A:H8	1.62	0.65
49:S2:126:ARG:O	49:S2:130:ILE:HD13	1.97	0.65
60:13:102:LEU:HD23	60:13:105:ASN:O	1.97	0.65
75:28:32:PHE:CE2	75:28:38:ARG:HB3	2.32	0.65
1:2S:2941:A:H8	1:2S:2941:A:OP2	1.80	0.65
1:2S:3231:U:H3	1:2S:3256:G:H1	1.44	0.65
2:8S:101:U:H2'	2:8S:102:U:H4'	1.78	0.65
16:54:13:ARG:HD3	16:54:65:LEU:HB3	1.78	0.65
19:57:141:SER:O	19:57:143:PRO:HD3	1.96	0.65
40:78:29:LYS:HD3	40:78:29:LYS:C	2.21	0.65
44:82:22:GLN:O	44:82:75:VAL:HG22	1.96	0.65
46:1S:959:U:H5'	60:13:15:ALA:O	1.96	0.65
50:S3:76:ARG:HD3	50:S3:76:ARG:O	1.97	0.65
51:S4:242:LYS:HD2	51:S4:242:LYS:N	2.12	0.65
53:S6:118:GLU:HG3	53:S6:119:GLN:H	1.62	0.65
57:10:27:PHE:O	57:10:28:ASN:HB2	1.95	0.65
67:20:48:HIS:CE1	67:20:50:LEU:HD11	2.32	0.65
1:2S:52:A:H5''	39:77:48:ASN:CB	2.26	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1238:C:H2'	1:2S:1239:C:C4'	2.27	0.65
1:2S:2481:G:H2'	1:2S:2482:U:C5	2.32	0.65
8:L5:55:PHE:CE2	8:L5:159:VAL:HG22	2.21	0.65
9:L6:51:ARG:HG2	9:L6:51:ARG:HH11	1.62	0.65
11:L8:136:LEU:O	11:L8:140:VAL:HG23	1.97	0.65
12:L9:49:ASN:HD21	12:L9:52:LEU:HB3	1.60	0.65
16:54:124:ARG:HB3	16:54:124:ARG:NH1	2.12	0.65
18:56:76:PRO:HB3	18:56:138:LEU:CD2	2.26	0.65
54:S7:31:SER:O	54:S7:35:LYS:HB3	1.96	0.65
1:2S:122:A:N6	1:2S:148:G:H1'	2.11	0.65
1:2S:157:A:H2'	1:2S:158:G:O4'	1.97	0.65
1:2S:846:A:H61	46:1S:972:G:N2	1.95	0.65
1:2S:2922:G:H2'	1:2S:2923:U:H4'	1.79	0.65
2:8S:135:G:H5''	27:65:49:LYS:HD2	1.77	0.65
4:L1:44:GLN:H	4:L1:161:LYS:CB	2.09	0.65
8:L5:131:LEU:HD12	8:L5:175:HIS:CE1	2.31	0.65
30:68:74:ASN:ND2	30:68:115:LYS:HB2	2.12	0.65
35:73:39:GLN:HA	35:73:42:GLN:HG2	1.78	0.65
46:1S:926:A:H2'	46:1S:927:C:C6	2.32	0.65
46:1S:1715:G:C2'	46:1S:1716:C:H5''	2.27	0.65
49:S2:67:GLN:O	49:S2:71:THR:HG23	1.97	0.65
54:S7:133:THR:HG22	54:S7:159:VAL:HG12	1.79	0.65
1:2S:121:A:C2	11:L8:129:PRO:HB3	2.32	0.64
1:2S:1064:A:N6	1:2S:1096:U:H3	1.90	0.64
1:2S:1348:U:OP2	20:58:38:ARG:NH2	2.29	0.64
1:2S:1979:G:H22	1:2S:2040:U:H3	1.44	0.64
5:L2:133:TYR:HB3	5:L2:168:VAL:HG12	1.77	0.64
10:L7:178:ILE:HG21	10:L7:184:LEU:CD2	2.27	0.64
11:L8:158:ASP:HB3	11:L8:159:PRO:CD	2.16	0.64
11:L8:238:LEU:HD22	11:L8:238:LEU:H	1.61	0.64
15:53:25:HIS:HB2	17:55:200:TRP:HA	1.79	0.64
15:53:189:GLU:HA	15:53:192:GLU:HG2	1.80	0.64
20:58:59:ARG:HB2	20:58:59:ARG:NH1	2.12	0.64
46:1S:20:G:H2'	46:1S:21:U:H6	1.62	0.64
46:1S:162:A:H3'	46:1S:163:G:H21	1.62	0.64
46:1S:875:G:OP1	48:S1:158:SER:HB2	1.97	0.64
46:1S:1071:U:H2'	46:1S:1072:C:C6	2.32	0.64
48:S1:214:LYS:HG2	48:S1:215:VAL:N	2.11	0.64
52:S5:219:ARG:HD3	52:S5:220:VAL:HG23	1.79	0.64
60:13:42:ARG:HE	60:13:80:LEU:HD11	1.62	0.64
69:22:28:ARG:HD3	69:22:60:LYS:HE2	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1537:A:H2'	1:2S:1538:G:O4'	1.97	0.64
1:2S:2513:U:H4'	1:2S:2514:U:OP1	1.97	0.64
4:L1:54:LYS:HB2	4:L1:191:VAL:HG11	1.80	0.64
8:L5:50:ARG:HB3	8:L5:147:ASP:OD2	1.97	0.64
8:L5:95:TRP:NE1	8:L5:157:ALA:O	2.30	0.64
13:50:98:ARG:HG3	13:50:98:ARG:HH11	1.63	0.64
36:74:99:LYS:O	36:74:103:LYS:HG2	1.98	0.64
39:77:85:LYS:HG2	39:77:86:ALA:N	2.13	0.64
46:1S:878:G:H2'	46:1S:879:G:C8	2.32	0.64
46:1S:1166:A:H2'	46:1S:1167:G:H4'	1.79	0.64
1:2S:868:C:C2'	1:2S:869:G:H5'	2.27	0.64
6:L3:46:PHE:CE2	6:L3:205:VAL:HG22	2.32	0.64
7:L4:165:ALA:O	7:L4:169:LEU:HG	1.97	0.64
31:69:44:LYS:O	31:69:48:HIS:HB2	1.98	0.64
46:1S:94:U:H2'	46:1S:95:G:H5'	1.78	0.64
48:S1:30:PHE:HD1	48:S1:31:ASP:H	1.46	0.64
48:S1:88:VAL:HG13	48:S1:97:LEU:O	1.97	0.64
52:S5:96:SER:HB2	52:S5:176:THR:HG21	1.78	0.64
54:S7:130:VAL:O	54:S7:130:VAL:HG23	1.97	0.64
69:22:103:ILE:HD13	69:22:104:LEU:H	1.63	0.64
1:2S:3008:A:H2'	1:2S:3009:G:C8	2.33	0.64
15:53:124:ILE:HD13	15:53:124:ILE:N	2.13	0.64
17:55:122:ASN:HB2	17:55:129:TYR:CG	2.33	0.64
22:60:4:PHE:HB3	22:60:100:VAL:CG2	2.28	0.64
46:1S:927:C:H1'	61:14:125:SER:HB2	1.80	0.64
52:S5:36:ALA:CB	52:S5:45:LYS:HE2	2.25	0.64
57:10:15:LEU:HG	57:10:68:LEU:HD22	1.80	0.64
1:2S:2857:C:H2'	1:2S:2858:U:C6	2.32	0.64
3:5S:64:A:C5	13:50:206:LEU:HD13	2.32	0.64
5:L2:242:ARG:NH1	5:L2:246:LEU:HD23	2.12	0.64
34:72:24:ARG:HG2	34:72:25:TYR:CE1	2.33	0.64
37:75:33:VAL:O	37:75:36:LEU:HG	1.98	0.64
46:1S:211:U:H5''	58:11:20:PHE:HB2	1.80	0.64
56:S9:121:SER:HB3	56:S9:124:HIS:HB3	1.80	0.64
1:2S:1109:U:H2'	1:2S:1110:U:C6	2.33	0.64
1:2S:1447:G:H3'	19:57:67:ILE:HD11	1.80	0.64
1:2S:1668:G:H2'	1:2S:1669:C:C6	2.33	0.64
14:51:81:GLU:O	14:51:85:LYS:HE2	1.97	0.64
14:51:166:LYS:C	14:51:168:ASP:H	2.04	0.64
23:61:63:VAL:HB	23:61:75:ILE:HG22	1.80	0.64
27:65:72:ALA:HB1	27:65:83:VAL:HG21	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:65:86:VAL:O	27:65:120:LYS:HB3	1.96	0.64
28:66:70:ILE:H	28:66:70:ILE:HD12	1.61	0.64
29:67:22:LYS:CE	29:67:134:LEU:HD23	2.27	0.64
44:82:32:LYS:HG2	44:82:34:SER:H	1.61	0.64
46:1S:699:U:H2'	46:1S:700:C:C6	2.32	0.64
46:1S:1544:U:H3	46:1S:1567:U:H3	1.44	0.64
48:S1:164:ILE:O	48:S1:168:ILE:HG13	1.97	0.64
50:S3:92:GLN:H	50:S3:92:GLN:HE21	1.44	0.64
65:18:28:ILE:O	65:18:32:LEU:HG	1.98	0.64
71:24:19:ALA:O	71:24:76:TYR:HA	1.97	0.64
79:RA:314:GLN:HB3	79:RA:316:MET:HE3	1.77	0.64
1:2S:437:G:H1	1:2S:622:A:H61	1.45	0.64
1:2S:700:C:H2'	1:2S:701:G:H8	1.62	0.64
1:2S:2129:U:H2'	1:2S:2130:G:H8	1.63	0.64
11:L8:78:PHE:C	11:L8:80:TYR:H	2.06	0.64
21:59:6:THR:HG22	21:59:10:LEU:HD13	1.80	0.64
25:63:79:VAL:HG22	25:63:99:ALA:O	1.98	0.64
37:75:70:TYR:CD1	37:75:73:LYS:HD2	2.33	0.64
46:1S:1498:G:H2'	46:1S:1499:G:H5'	1.80	0.64
48:S1:103:MET:HB3	48:S1:215:VAL:CG1	2.27	0.64
48:S1:176:VAL:HG12	48:S1:177:GLN:N	2.12	0.64
53:S6:51:LYS:HB3	53:S6:112:VAL:HB	1.80	0.64
59:12:86:VAL:N	59:12:87:PRO:CD	2.60	0.64
61:14:81:VAL:O	61:14:115:ILE:HB	1.98	0.64
61:14:86:THR:CG2	61:14:90:ARG:HG3	2.27	0.64
1:2S:692:A:H2'	1:2S:693:A:O4'	1.96	0.64
1:2S:720:A:H2'	20:58:69:ARG:HH22	1.63	0.64
1:2S:1212:A:H2'	1:2S:1213:G:O4'	1.97	0.64
1:2S:1369:A:H4'	30:68:21:ARG:HD2	1.80	0.64
1:2S:2512:C:H4'	11:L8:246:MET:HE3	1.80	0.64
1:2S:3067:C:H5''	21:59:58:HIS:NE2	2.13	0.64
4:L1:192:SER:HB2	4:L1:196:LYS:NZ	2.13	0.64
5:L2:117:GLU:HA	5:L2:125:ALA:CB	2.27	0.64
7:L4:214:GLY:HA2	7:L4:217:LYS:HE3	1.80	0.64
11:L8:63:LYS:HA	11:L8:63:LYS:NZ	2.13	0.64
18:56:117:ARG:HD3	18:56:117:ARG:H	1.62	0.64
19:57:120:ASN:ND2	19:57:145:HIS:HB2	2.13	0.64
20:58:157:PRO:HD3	30:68:47:LYS:HE3	1.79	0.64
27:65:135:ILE:O	27:65:135:ILE:HD13	1.97	0.64
34:72:73:THR:CA	34:72:93:ALA:HB3	2.20	0.64
46:1S:1059:U:O2'	46:1S:1061:A:H2	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:S1:135:LEU:HD13	48:S1:137:ILE:HG23	1.80	0.64
59:12:97:LEU:HD13	59:12:97:LEU:O	1.97	0.64
1:2S:577:C:O2'	1:2S:579:G:H5''	1.97	0.64
1:2S:2251:G:H2'	1:2S:2252:A:C5'	2.22	0.64
5:L2:196:TRP:CD1	5:L2:197:PRO:HA	2.32	0.64
6:L3:5:LYS:HE2	6:L3:6:TYR:HE1	1.63	0.64
7:L4:181:VAL:HG12	7:L4:182:LEU:H	1.62	0.64
11:L8:166:LEU:HB2	11:L8:167:PRO:HD3	1.79	0.64
12:L9:138:THR:C	12:L9:140:VAL:H	2.05	0.64
28:66:70:ILE:HD12	28:66:70:ILE:N	2.13	0.64
30:68:47:LYS:HG3	30:68:48:TYR:CD2	2.33	0.64
56:S9:93:LEU:O	56:S9:96:VAL:HG22	1.97	0.64
69:22:29:PRO:HB2	69:22:58:SER:HB2	1.80	0.64
70:23:116:ASP:O	70:23:118:PRO:HD3	1.97	0.64
1:2S:808:A:C2'	1:2S:809:G:H5'	2.27	0.64
1:2S:1859:A:H8	1:2S:1859:A:O5'	1.80	0.64
1:2S:2076:G:H2'	1:2S:2077:U:H5''	1.78	0.64
1:2S:2882:U:H2'	1:2S:2883:U:H6	1.60	0.64
7:L4:181:VAL:O	7:L4:182:LEU:HB3	1.97	0.64
7:L4:361:HIS:CD2	7:L4:362:ASP:H	2.16	0.64
12:L9:129:ARG:HH21	12:L9:156:GLN:HG2	1.62	0.64
24:62:50:LEU:HD22	24:62:54:VAL:CG2	2.27	0.64
45:83:42:CYS:HB3	45:83:60:CYS:HB2	1.80	0.64
46:1S:177:U:O2'	46:1S:178:U:H5''	1.98	0.64
46:1S:351:C:N3	58:11:102:LYS:HD2	2.13	0.64
46:1S:481:A:H2'	46:1S:482:U:O4'	1.96	0.64
56:S9:59:LEU:HA	56:S9:62:ARG:HG3	1.79	0.64
60:13:25:TRP:HH2	74:27:45:THR:HG21	1.63	0.64
79:RA:193:ILE:HG22	79:RA:194:GLY:H	1.63	0.64
1:2S:884:A:H4'	1:2S:885:U:H6	1.62	0.63
1:2S:1795:U:H5'	1:2S:1796:G:N3	2.13	0.63
6:L3:48:GLY:O	6:L3:335:ILE:HG13	1.98	0.63
8:L5:64:ILE:HD11	8:L5:105:ILE:HG23	1.80	0.63
9:L6:78:ARG:NH2	9:L6:106:PHE:HB2	2.09	0.63
17:55:5:LYS:NZ	38:76:37:THR:HG22	2.14	0.63
20:58:92:ARG:HD3	30:68:76:ASP:OD2	1.97	0.63
21:59:6:THR:HG22	21:59:10:LEU:CD1	2.28	0.63
35:73:6:ARG:HG3	35:73:8:TYR:CE1	2.33	0.63
36:74:74:ARG:NH1	36:74:85:VAL:HG11	2.13	0.63
46:1S:71:A:H2'	46:1S:72:A:C4'	2.26	0.63
46:1S:476:U:H2'	77:30:31:LYS:HG3	1.78	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1477:G:H5''	66:19:45:MET:O	1.98	0.63
46:1S:1646:C:H42	46:1S:1754:A:H61	1.45	0.63
71:24:102:LYS:H	71:24:102:LYS:HD2	1.63	0.63
1:2S:355:A:H2'	1:2S:356:C:O4'	1.98	0.63
1:2S:1390:A:H5'	1:2S:1390:A:N3	2.13	0.63
1:2S:1892:G:H2'	1:2S:1893:A:H5''	1.81	0.63
1:2S:2144:A:H1'	1:2S:2281:A:N6	2.14	0.63
1:2S:3128:G:OP2	1:2S:3128:G:H8	1.80	0.63
3:5S:60:G:H2'	3:5S:61:G:H8	1.63	0.63
6:L3:106:TRP:O	6:L3:199:PHE:HE2	1.81	0.63
6:L3:261:MET:HB3	18:56:64:PHE:CA	2.25	0.63
11:L8:65:LEU:HD13	11:L8:69:LEU:HD13	1.78	0.63
14:51:133:ARG:NH1	14:51:154:THR:HG23	2.12	0.63
23:61:48:ILE:HG21	23:61:95:HIS:CE1	2.33	0.63
28:66:106:ILE:HG21	28:66:109:LEU:HD21	1.80	0.63
46:1S:165:G:C2'	46:1S:166:C:H5''	2.27	0.63
46:1S:215:A:H62	46:1S:242:U:H5''	1.63	0.63
46:1S:247:A:H4'	58:11:37:ASN:HD21	1.62	0.63
46:1S:1097:U:H1'	49:S2:168:ARG:NH1	2.13	0.63
47:S0:158:VAL:O	47:S0:158:VAL:HG13	1.97	0.63
53:S6:57:ASP:HA	53:S6:106:LEU:HA	1.80	0.63
62:15:58:LYS:HB3	62:15:58:LYS:NZ	2.13	0.63
1:2S:1393:A:H2'	1:2S:1394:A:H8	1.63	0.63
1:2S:1426:C:H3'	30:68:4:ARG:NH2	2.12	0.63
1:2S:2189:U:C5'	45:83:22:LEU:HD11	2.28	0.63
6:L3:116:ARG:NH2	6:L3:174:LYS:HB3	2.13	0.63
40:78:45:VAL:CG2	40:78:52:TYR:HB2	2.27	0.63
46:1S:401:A:O2'	46:1S:402:C:H4'	1.97	0.63
46:1S:487:G:H1	46:1S:500:C:H42	1.44	0.63
48:S1:111:ARG:HA	48:S1:114:VAL:HB	1.79	0.63
51:S4:37:LYS:O	51:S4:40:GLU:HG2	1.98	0.63
62:15:126:VAL:HG13	62:15:127:ARG:N	2.14	0.63
64:17:6:THR:CG2	64:17:9:VAL:HG23	2.22	0.63
67:20:51:VAL:HG11	67:20:94:GLU:HB2	1.80	0.63
73:26:82:ARG:O	73:26:84:VAL:HG12	1.99	0.63
74:27:34:ASP:O	74:27:79:PHE:HA	1.98	0.63
76:29:36:LEU:HD12	76:29:37:ASN:N	2.13	0.63
1:2S:3331:U:H2'	1:2S:3332:U:C6	2.34	0.63
4:L1:105:LYS:NZ	4:L1:105:LYS:HB2	2.12	0.63
5:L2:185:ALA:O	5:L2:189:TYR:HD1	1.82	0.63
5:L2:202:VAL:HG23	5:L2:211:HIS:HB3	1.78	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L3:81:THR:CG2	6:L3:205:VAL:HG21	2.27	0.63
7:L4:60:THR:HG21	7:L4:89:ALA:HB1	1.81	0.63
14:51:138:VAL:O	14:51:145:LYS:HG3	1.99	0.63
18:56:117:ARG:HD3	18:56:117:ARG:N	2.13	0.63
22:60:166:LYS:HG2	22:60:167:ARG:N	2.12	0.63
26:64:39:LEU:CD1	26:64:44:LYS:HG3	2.27	0.63
42:80:79:GLU:HG2	42:80:82:LEU:CD1	2.28	0.63
46:1S:501:U:H2'	46:1S:502:U:H6	1.63	0.63
46:1S:1186:U:H2'	46:1S:1187:U:O4'	1.99	0.63
50:S3:7:LYS:HA	50:S3:7:LYS:CE	2.27	0.63
63:16:118:ILE:HG13	63:16:119:ALA:H	1.63	0.63
68:21:17:CYS:HB3	68:21:22:ARG:H	1.63	0.63
70:23:127:VAL:HG23	70:23:130:VAL:CG2	2.27	0.63
1:2S:115:A:N3	1:2S:266:A:H5'	2.13	0.63
1:2S:238:A:H2'	1:2S:239:G:O4'	1.98	0.63
1:2S:374:A:H1'	1:2S:376:G:H5''	1.81	0.63
1:2S:422:A:H2'	1:2S:423:A:O4'	1.98	0.63
1:2S:1231:A:H4'	1:2S:1261:G:C8	2.34	0.63
1:2S:1463:U:H3	1:2S:1467:A:H62	1.46	0.63
1:2S:2076:G:C2'	1:2S:2077:U:H5''	2.29	0.63
1:2S:2943:G:H2'	1:2S:2944:U:C6	2.33	0.63
4:L1:55:LEU:HG	4:L1:154:THR:HA	1.81	0.63
17:55:80:THR:O	17:55:81:TYR:HB2	1.99	0.63
18:56:124:LEU:HD23	18:56:127:LEU:HG	1.80	0.63
19:57:36:ILE:HD11	19:57:44:ALA:CB	2.28	0.63
20:58:170:ARG:O	20:58:171:LYS:HB3	1.97	0.63
27:65:135:ILE:HG12	27:65:138:ARG:HH11	1.63	0.63
38:76:45:ARG:NH1	38:76:93:ILE:HG13	2.13	0.63
46:1S:1390:U:O2	46:1S:1412:G:H1'	1.97	0.63
47:S0:189:VAL:HG11	47:S0:193:GLN:HB2	1.80	0.63
48:S1:129:THR:HA	48:S1:177:GLN:HA	1.80	0.63
53:S6:214:LYS:O	53:S6:218:GLU:HG3	1.98	0.63
64:17:21:TYR:N	64:17:22:PRO:HD2	2.13	0.63
1:2S:36:C:C2'	1:2S:37:U:H5'	2.24	0.63
1:2S:2878:G:H2'	1:2S:2879:C:C6	2.34	0.63
1:2S:3016:A:H2'	1:2S:3017:A:C8	2.33	0.63
1:2S:3087:A:H5'	6:L3:365:PHE:HA	1.80	0.63
8:L5:290:ILE:HA	8:L5:294:ALA:HB3	1.81	0.63
9:L6:146:ILE:HG23	9:L6:156:LYS:NZ	2.14	0.63
10:L7:196:LYS:O	10:L7:200:ASN:HB2	1.99	0.63
33:71:25:PHE:HA	33:71:28:ARG:HG3	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:74:75:ALA:O	36:74:76:TYR:HB2	1.98	0.63
46:1S:144:U:O2'	46:1S:145:A:H2'	1.99	0.63
46:1S:160:C:H2'	46:1S:161:U:O4'	1.98	0.63
46:1S:304:U:H2'	46:1S:305:C:C6	2.34	0.63
46:1S:599:A:H2'	46:1S:600:U:C6	2.32	0.63
46:1S:1074:G:H5'	46:1S:1074:G:H8	1.64	0.63
47:S0:145:ALA:O	47:S0:159:ALA:HA	1.98	0.63
47:S0:198:MET:HE2	47:S0:198:MET:HA	1.79	0.63
68:21:34:ILE:O	68:21:52:THR:HA	1.99	0.63
1:2S:374:A:O2'	1:2S:376:G:H5'	1.99	0.63
1:2S:411:U:H2'	1:2S:412:G:C8	2.34	0.63
1:2S:790:U:H4'	7:L4:112:LYS:O	1.98	0.63
1:2S:1214:U:H4'	22:60:89:ASN:O	1.99	0.63
1:2S:2689:A:H2'	1:2S:2689:A:N3	2.12	0.63
2:8S:154:C:H2'	2:8S:155:A:C8	2.34	0.63
6:L3:227:GLU:HG2	6:L3:231:HIS:HD2	1.63	0.63
17:55:169:LYS:HG2	17:55:174:ILE:HD11	1.79	0.63
21:59:43:LYS:HA	21:59:46:LYS:CE	2.22	0.63
21:59:162:ARG:HD2	21:59:162:ARG:C	2.22	0.63
22:60:46:GLN:NE2	22:60:52:LYS:HA	2.14	0.63
46:1S:1058:U:C5	46:1S:1061:A:N1	2.67	0.63
47:S0:198:MET:HE2	47:S0:199:PRO:HD2	1.80	0.63
51:S4:154:ILE:HD13	51:S4:160:VAL:CG2	2.29	0.63
53:S6:58:LYS:O	53:S6:59:GLN:HB2	1.99	0.63
56:S9:112:GLN:HG3	56:S9:148:VAL:CG2	2.27	0.63
60:13:44:GLY:C	60:13:45:LEU:HD22	2.24	0.63
66:19:52:GLY:HA2	66:19:55:TYR:CD2	2.33	0.63
67:20:67:THR:HG22	67:20:68:ARG:N	2.12	0.63
77:30:37:ARG:O	77:30:41:THR:HG23	1.99	0.63
1:2S:2684:C:H2'	1:2S:2685:C:C6	2.33	0.63
1:2S:3047:U:O2'	1:2S:3048:A:H5'	1.99	0.63
4:L1:130:LYS:N	4:L1:130:LYS:HD2	2.13	0.63
6:L3:42:ALA:C	6:L3:43:LEU:HD12	2.24	0.63
6:L3:211:GLN:NE2	6:L3:282:ILE:HG22	2.14	0.63
6:L3:229:VAL:HB	6:L3:267:ALA:HB2	1.80	0.63
9:L6:36:PRO:HG3	9:L6:54:TYR:CZ	2.33	0.63
15:53:89:TYR:O	15:53:93:ILE:HG12	1.99	0.63
21:59:168:ALA:O	21:59:172:ARG:HD3	1.98	0.63
27:65:92:LYS:HE2	27:65:112:THR:HG23	1.81	0.63
31:69:22:LYS:H	31:69:22:LYS:HD2	1.64	0.63
45:83:50:GLY:O	45:83:54:ILE:HB	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:448:C:H2'	46:1S:449:C:C6	2.34	0.63
46:1S:1036:A:H2'	46:1S:1037:C:H6	1.60	0.63
49:S2:159:THR:HG22	49:S2:166:THR:HG22	1.81	0.63
54:S7:131:PHE:N	54:S7:132:PRO:HD2	2.14	0.63
61:14:60:ALA:HB3	61:14:100:ALA:HB3	1.80	0.63
75:28:32:PHE:CZ	75:28:38:ARG:HD2	2.33	0.63
77:30:39:LEU:HD12	77:30:43:ARG:HH22	1.62	0.63
1:2S:641:C:H42	1:2S:645:A:H8	1.46	0.63
1:2S:664:U:H3	1:2S:798:G:H1	1.46	0.63
1:2S:1101:G:H2'	1:2S:1102:A:C8	2.33	0.63
1:2S:1558:A:O2'	1:2S:1559:A:H5'	1.99	0.63
8:L5:107:ARG:NH2	8:L5:120:LYS:HA	2.14	0.63
10:L7:211:SER:H	10:L7:242:SER:HB2	1.64	0.63
15:53:107:GLU:HG2	38:76:18:THR:HG22	1.81	0.63
15:53:176:GLU:HB3	38:76:11:LEU:HD21	1.79	0.63
20:58:66:ARG:HH12	20:58:143:PRO:HD3	1.63	0.63
30:68:39:HIS:O	30:68:42:ARG:HG2	1.98	0.63
33:71:11:GLU:HA	33:71:74:ARG:HA	1.80	0.63
39:77:85:LYS:HG2	39:77:86:ALA:H	1.64	0.63
42:80:112:LYS:HB3	42:80:114:LYS:HG2	1.81	0.63
46:1S:1533:C:H41	72:25:77:ARG:HH22	1.45	0.63
49:S2:178:ILE:CD1	49:S2:188:LEU:HB2	2.27	0.63
51:S4:151:ASP:HB3	51:S4:154:ILE:HG13	1.81	0.63
55:S8:34:ALA:HB2	55:S8:174:GLY:HA3	1.81	0.63
58:11:80:MET:CE	58:11:84:ILE:HA	2.29	0.63
70:23:57:LEU:HD13	70:23:59:ILE:HD11	1.78	0.63
71:24:87:PRO:HD2	71:24:90:ARG:HD2	1.81	0.63
79:RA:7:LEU:HD22	79:RA:274:LEU:HD21	1.81	0.63
1:2S:585:A:H2'	1:2S:586:C:C6	2.34	0.62
1:2S:1407:A:H4'	34:72:33:ARG:NH2	2.14	0.62
1:2S:3203:U:H2'	1:2S:3204:C:C6	2.34	0.62
1:2S:3231:U:H2'	1:2S:3232:G:C8	2.33	0.62
5:L2:187:HIS:HA	5:L2:190:ARG:HB3	1.81	0.62
7:L4:52:VAL:HG13	7:L4:53:SER:N	2.13	0.62
15:53:114:GLN:O	15:53:118:GLU:HG3	1.99	0.62
30:68:47:LYS:O	30:68:48:TYR:HB2	1.97	0.62
46:1S:512:A:OP2	56:S9:172:VAL:HG13	1.99	0.62
46:1S:1013:A:H2'	46:1S:1014:G:O4'	1.99	0.62
46:1S:1596:C:OP2	76:29:32:ARG:HD3	1.99	0.62
47:S0:31:VAL:HB	47:S0:34:GLU:CG	2.28	0.62
47:S0:90:ALA:CB	47:S0:97:PRO:HD3	2.29	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:S1:126:THR:HG22	48:S1:136:ARG:HE	1.64	0.62
51:S4:177:ALA:HA	51:S4:195:ILE:HG21	1.81	0.62
56:S9:109:LEU:O	56:S9:113:VAL:HG23	1.99	0.62
69:22:93:LEU:HD23	69:22:94:LEU:N	2.14	0.62
70:23:144:ARG:HD2	70:23:145:SER:H	1.63	0.62
1:2S:87:U:H5''	20:58:172:PHE:HZ	1.63	0.62
1:2S:2085:U:H2'	1:2S:2086:A:C5'	2.29	0.62
1:2S:2457:G:H22	1:2S:2461:A:N6	1.97	0.62
1:2S:2553:U:O2	1:2S:2553:U:H2'	1.98	0.62
1:2S:2761:G:O6	1:2S:2795:U:H5''	1.99	0.62
3:5S:112:G:H2'	3:5S:113:C:H6	1.63	0.62
6:L3:77:THR:HG21	6:L3:328:ILE:HG13	1.80	0.62
9:L6:97:ASN:HD21	9:L6:100:LYS:HB2	1.64	0.62
20:58:25:TYR:HA	20:58:28:LEU:HD12	1.81	0.62
27:65:132:ALA:HA	27:65:135:ILE:HG22	1.81	0.62
46:1S:408:C:H2'	46:1S:409:C:C6	2.34	0.62
46:1S:478:A:H5'	77:30:33:ARG:NH2	2.01	0.62
46:1S:1163:A:H4'	52:S5:166:ARG:HH21	1.62	0.62
49:S2:154:LEU:HB2	49:S2:171:PRO:HG3	1.81	0.62
51:S4:52:LEU:HD22	51:S4:54:TYR:CE2	2.34	0.62
53:S6:23:ARG:HG2	53:S6:23:ARG:NH2	2.13	0.62
67:20:51:VAL:HG13	67:20:51:VAL:O	1.98	0.62
1:2S:392:G:O2'	1:2S:393:U:H5'	1.98	0.62
1:2S:598:A:H2'	1:2S:599:C:C6	2.34	0.62
1:2S:655:C:H2'	1:2S:656:A:H8	1.64	0.62
1:2S:799:G:H2'	1:2S:801:A:N6	2.13	0.62
1:2S:1477:A:H2'	1:2S:1478:C:C6	2.33	0.62
1:2S:1887:A:H2'	1:2S:1888:U:C5'	2.29	0.62
1:2S:1947:G:H5''	21:59:134:HIS:HB2	1.80	0.62
1:2S:2499:U:H2'	1:2S:2500:A:C8	2.34	0.62
4:L1:205:VAL:HG12	4:L1:213:ALA:HB1	1.81	0.62
7:L4:104:LYS:HD2	7:L4:106:TRP:CZ2	2.33	0.62
18:56:158:ALA:O	18:56:162:VAL:HG23	2.00	0.62
19:57:83:TRP:N	19:57:84:PRO:HD3	2.15	0.62
20:58:44:PHE:O	20:58:48:VAL:HG23	1.97	0.62
35:73:47:LYS:O	35:73:71:VAL:HG23	2.00	0.62
46:1S:752:A:H2	46:1S:797:G:H22	1.47	0.62
54:S7:63:PRO:O	54:S7:64:VAL:HB	1.97	0.62
54:S7:98:ILE:HG23	54:S7:118:LEU:HA	1.81	0.62
57:10:82:LEU:CB	57:10:86:ILE:HG21	2.30	0.62
59:12:46:ARG:HH11	59:12:46:ARG:HG3	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:13:72:MET:HE1	60:13:81:ALA:HB2	1.81	0.62
1:2S:359:U:H2'	1:2S:360:G:O4'	2.00	0.62
1:2S:609:G:H3'	1:2S:609:G:N3	2.14	0.62
1:2S:816:A:C4'	1:2S:817:A:H5'	2.29	0.62
1:2S:924:G:H21	1:2S:2414:G:H1'	1.63	0.62
1:2S:1596:C:H2'	1:2S:1597:C:C6	2.33	0.62
1:2S:1714:A:H62	1:2S:1730:G:H21	1.47	0.62
1:2S:1901:A:H5''	1:2S:2919:A:OP1	1.99	0.62
1:2S:2492:C:H5'	4:L1:39:LYS:HD2	1.81	0.62
1:2S:2719:U:H2'	1:2S:2720:G:C8	2.33	0.62
1:2S:2949:U:C2'	1:2S:2950:G:H5'	2.28	0.62
2:8S:154:C:H5''	11:L8:181:LYS:HG2	1.81	0.62
6:L3:350:ALA:O	6:L3:351:LEU:CB	2.48	0.62
9:L6:52:VAL:HG22	9:L6:53:VAL:N	2.12	0.62
11:L8:74:THR:HG21	17:55:18:VAL:HB	1.81	0.62
12:L9:143:GLU:HG2	12:L9:144:ILE:H	1.63	0.62
24:62:92:TRP:O	24:62:107:PHE:HA	1.99	0.62
28:66:80:VAL:CG1	28:66:99:LEU:HB2	2.29	0.62
46:1S:482:U:H2'	46:1S:483:A:C8	2.27	0.62
46:1S:631:G:H2'	46:1S:632:U:H6	1.64	0.62
55:S8:42:ARG:O	55:S8:43:ILE:HG13	1.98	0.62
73:26:82:ARG:HA	73:26:82:ARG:HE	1.63	0.62
1:2S:1490:A:H2'	1:2S:1491:A:O4'	1.99	0.62
6:L3:232:ARG:HE	6:L3:233:TRP:HE1	1.46	0.62
10:L7:77:VAL:HG22	23:61:139:ARG:C	2.24	0.62
13:50:52:LEU:HD22	13:50:135:ILE:CD1	2.11	0.62
28:66:73:VAL:HA	28:66:80:VAL:HG23	1.81	0.62
37:75:85:THR:HG22	37:75:87:ALA:N	2.11	0.62
46:1S:1414:U:H3'	46:1S:1415:U:H5''	1.81	0.62
46:1S:1501:C:H5	66:19:102:ARG:NH2	1.97	0.62
48:S1:174:LYS:HZ2	48:S1:174:LYS:HB2	1.64	0.62
51:S4:90:ILE:N	51:S4:90:ILE:CD1	2.63	0.62
56:S9:90:LYS:HD2	56:S9:95:TYR:HB2	1.82	0.62
61:14:25:ASP:OD1	61:14:54:GLU:HB3	1.98	0.62
66:19:28:LEU:HD22	66:19:29:GLU:N	2.14	0.62
1:2S:1216:C:H2'	1:2S:1217:A:C8	2.34	0.62
1:2S:1361:U:H2'	1:2S:1362:G:C8	2.34	0.62
1:2S:2638:C:H2'	1:2S:2639:G:O4'	2.00	0.62
6:L3:49:TYR:HE2	6:L3:164:THR:HG21	1.63	0.62
6:L3:141:GLY:O	6:L3:145:GLU:HG2	1.99	0.62
7:L4:84:ARG:O	7:L4:87:GLN:HG3	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:L7:86:VAL:HG22	10:L7:136:TYR:HB3	1.80	0.62
15:53:179:PHE:HD1	15:53:182:ILE:HD12	1.64	0.62
17:55:144:ARG:HG2	37:75:96:GLU:HG2	1.82	0.62
30:68:47:LYS:C	30:68:50:PRO:HD3	2.24	0.62
36:74:92:ALA:O	36:74:96:GLU:HG3	1.99	0.62
38:76:8:ALA:O	38:76:13:LYS:HG3	2.00	0.62
46:1S:1604:U:H5'	67:20:79:TRP:NE1	2.15	0.62
50:S3:167:PHE:HB3	50:S3:189:MET:SD	2.40	0.62
57:10:46:LEU:O	57:10:50:THR:HG23	2.00	0.62
58:11:78:THR:HA	58:11:84:ILE:HG22	1.81	0.62
62:15:81:ARG:HA	62:15:116:LEU:HB2	1.80	0.62
69:22:23:ARG:NH1	69:22:66:ASN:HA	2.15	0.62
71:24:20:ARG:HD2	71:24:74:LEU:HD22	1.82	0.62
1:2S:1443:G:H2'	1:2S:1444:G:C8	2.35	0.62
1:2S:2144:A:H1'	1:2S:2281:A:H61	1.62	0.62
1:2S:2367:A:H2'	1:2S:2368:A:C8	2.34	0.62
1:2S:2677:G:H2'	1:2S:2677:G:N3	2.13	0.62
1:2S:2882:U:H5''	6:L3:10:ARG:NH2	2.14	0.62
1:2S:2897:A:H2'	1:2S:2899:C:H5''	1.81	0.62
1:2S:3025:C:H4'	12:L9:175:PHE:CE1	2.34	0.62
7:L4:31:ARG:O	7:L4:35:VAL:HG23	1.98	0.62
8:L5:281:GLU:O	8:L5:285:ARG:HG3	1.99	0.62
15:53:28:GLN:HG3	17:55:200:TRP:CE3	2.33	0.62
17:55:117:ASN:O	17:55:133:ILE:HG22	2.00	0.62
17:55:136:ASP:HB3	17:55:142:ILE:HD12	1.82	0.62
26:64:5:ILE:C	26:64:5:ILE:HD12	2.25	0.62
32:70:10:ILE:HD12	32:70:13:LYS:HD2	1.82	0.62
46:1S:133:U:H5'	46:1S:133:U:H6	1.64	0.62
46:1S:380:U:O3'	56:S9:2:PRO:HA	2.00	0.62
46:1S:1498:G:H2'	46:1S:1499:G:C5'	2.30	0.62
53:S6:88:ARG:HB2	53:S6:91:GLU:OE2	2.00	0.62
54:S7:62:VAL:HG11	54:S7:70:PHE:CE2	2.35	0.62
58:11:130:PRO:HA	58:11:136:ARG:HG2	1.80	0.62
60:13:100:LYS:HA	60:13:103:GLU:HG2	1.81	0.62
66:19:63:ARG:HG2	66:19:67:MET:HE3	1.81	0.62
68:21:64:GLU:HB3	74:27:3:LEU:HD11	1.81	0.62
71:24:124:ARG:O	71:24:124:ARG:HD3	2.00	0.62
1:2S:602:A:H2'	1:2S:603:A:C8	2.34	0.62
1:2S:763:G:C2	1:2S:764:U:H1'	2.34	0.62
1:2S:860:G:H3'	1:2S:860:G:N3	2.13	0.62
1:2S:1951:C:H6	1:2S:2095:G:H1	1.40	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:L7:25:GLN:HG2	10:L7:29:GLU:HB2	1.81	0.62
13:50:24:ARG:HB2	13:50:24:ARG:NH1	2.14	0.62
19:57:92:GLN:HA	19:57:95:LEU:HD12	1.80	0.62
29:67:92:PHE:HA	29:67:95:VAL:HG23	1.82	0.62
34:72:123:LYS:HA	34:72:126:LEU:HD11	1.82	0.62
40:78:77:ARG:HG3	40:78:78:LEU:HD23	1.80	0.62
46:1S:435:C:H5'	70:23:50:LYS:HG3	1.82	0.62
51:S4:232:GLY:O	51:S4:234:PRO:HD3	1.98	0.62
70:23:12:ALA:HA	70:23:15:LEU:CD1	2.30	0.62
74:27:55:THR:HB	74:27:60:SER:HA	1.81	0.62
79:RA:86:ASP:O	79:RA:87:LYS:HB2	1.99	0.62
79:RA:133:VAL:HB	79:RA:142:ALA:CB	2.30	0.62
1:2S:1073:U:H2'	1:2S:1074:U:C6	2.35	0.62
1:2S:2131:A:C2'	1:2S:2132:C:H5'	2.29	0.62
1:2S:3275:U:H3'	1:2S:3276:G:C5'	2.30	0.62
2:8S:67:U:H2'	2:8S:68:G:C8	2.35	0.62
4:L1:71:ALA:HB1	4:L1:89:ASP:O	1.99	0.62
8:L5:19:PRO:HB2	8:L5:24:ARG:CG	2.29	0.62
8:L5:134:ALA:HB2	8:L5:140:ARG:HG2	1.80	0.62
14:51:86:VAL:HG11	14:51:111:ASP:HB3	1.81	0.62
20:58:40:THR:O	20:58:41:ASP:HB3	1.98	0.62
46:1S:746:A:H2'	46:1S:747:C:O4'	2.00	0.62
46:1S:887:A:H1'	61:14:122:PRO:HB3	1.81	0.62
52:S5:30:PRO:HB2	52:S5:33:VAL:CG2	2.29	0.62
55:S8:45:SER:HB3	55:S8:55:TYR:CD1	2.33	0.62
57:10:25:LYS:O	57:10:25:LYS:HG2	1.99	0.62
58:11:70:ILE:HD12	58:11:70:ILE:N	2.15	0.62
60:13:30:SER:O	60:13:34:ILE:HG13	2.00	0.62
65:18:88:ARG:NH2	65:18:88:ARG:HB3	2.14	0.62
66:19:63:ARG:HG2	66:19:67:MET:CE	2.30	0.62
72:25:90:LYS:HB2	72:25:102:THR:OG1	2.00	0.62
1:2S:126:U:H2'	1:2S:127:G:O4'	2.00	0.62
1:2S:225:C:H2'	1:2S:226:C:C6	2.35	0.62
1:2S:793:C:H2'	1:2S:794:U:C6	2.34	0.62
1:2S:824:C:H2'	1:2S:825:U:C6	2.35	0.62
1:2S:912:G:H2'	1:2S:914:A:N7	2.14	0.62
1:2S:986:U:H1'	10:L7:126:LEU:HD21	1.82	0.62
1:2S:1405:U:H1'	34:72:54:LYS:O	2.00	0.62
1:2S:2152:A:H2'	1:2S:2153:U:C6	2.35	0.62
1:2S:2173:U:H2'	1:2S:2174:G:C8	2.34	0.62
1:2S:2768:U:H2'	1:2S:2769:A:H8	1.63	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:L1:131:ALA:HB3	4:L1:134:PHE:HB2	1.81	0.62
7:L4:113:VAL:HB	7:L4:118:LYS:CE	2.29	0.62
20:58:113:LYS:HG2	20:58:113:LYS:O	1.99	0.62
22:60:29:ILE:HG21	22:60:37:ALA:HA	1.81	0.62
22:60:107:TYR:CE1	22:60:121:ILE:HD12	2.35	0.62
27:65:65:GLN:H	27:65:85:GLN:HB3	1.65	0.62
38:76:26:ILE:HD12	38:76:26:ILE:N	2.15	0.62
39:77:69:HIS:O	39:77:73:ARG:HG3	1.99	0.62
46:1S:279:G:H8	46:1S:280:U:H4'	1.64	0.62
46:1S:572:C:H2'	46:1S:573:C:C6	2.35	0.62
46:1S:802:G:H21	69:22:107:SER:CB	2.11	0.62
46:1S:1632:C:H2'	46:1S:1633:A:C8	2.35	0.62
48:S1:168:ILE:O	48:S1:172:LEU:HG	1.99	0.62
48:S1:174:LYS:HB2	48:S1:174:LYS:NZ	2.15	0.62
53:S6:74:LYS:HA	53:S6:96:SER:HA	1.80	0.62
73:26:84:VAL:CG1	73:26:85:ARG:H	2.03	0.62
1:2S:75:G:C5'	15:53:58:VAL:HG13	2.30	0.61
1:2S:705:A:N6	30:68:113:LEU:HD13	2.15	0.61
1:2S:874:U:H5'	1:2S:875:G:C5'	2.30	0.61
1:2S:1064:A:H4'	1:2S:1065:A:O5'	1.98	0.61
1:2S:1357:G:H2'	1:2S:1358:C:C6	2.35	0.61
1:2S:2521:U:C2'	1:2S:2522:G:H5'	2.28	0.61
1:2S:2530:G:C2'	1:2S:2531:C:H5''	2.28	0.61
2:8S:107:G:H2'	2:8S:108:C:C6	2.35	0.61
22:60:13:ARG:HG3	22:60:51:VAL:HG12	1.82	0.61
25:63:33:ASN:HD22	25:63:33:ASN:H	1.48	0.61
25:63:67:PRO:HA	25:63:70:ARG:HB2	1.82	0.61
25:63:71:LYS:NZ	25:63:71:LYS:HB3	2.14	0.61
27:65:135:ILE:CG1	27:65:138:ARG:HH11	2.13	0.61
31:69:39:PHE:O	31:69:43:HIS:HB2	2.00	0.61
38:76:55:ARG:O	38:76:58:ILE:HG13	1.99	0.61
40:78:8:ILE:HG21	40:78:65:LEU:HD21	1.81	0.61
46:1S:86:A:H2'	46:1S:87:C:C6	2.35	0.61
46:1S:1413:U:H5'	64:17:3:ARG:HH12	1.65	0.61
46:1S:1420:C:C2'	46:1S:1421:A:H5'	2.30	0.61
49:S2:118:ALA:HB3	49:S2:124:ALA:HB2	1.82	0.61
55:S8:38:ILE:HD11	55:S8:94:ASN:HB3	1.82	0.61
59:12:106:ILE:HA	59:12:108:ARG:NH1	2.15	0.61
60:13:71:ILE:H	60:13:71:ILE:CD1	2.13	0.61
67:20:108:ILE:H	67:20:108:ILE:HD12	1.65	0.61
1:2S:1608:C:H2'	1:2S:1609:C:C6	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1764:U:C3'	1:2S:1765:U:H5''	2.29	0.61
1:2S:2251:G:C3'	1:2S:2252:A:H5''	2.31	0.61
1:2S:2374:C:N4	1:2S:2823:G:H4'	2.15	0.61
1:2S:2714:G:N3	1:2S:2751:G:H2'	2.15	0.61
1:2S:3255:U:H2'	1:2S:3256:G:C8	2.36	0.61
5:L2:70:ARG:C	5:L2:71:LEU:HD12	2.24	0.61
6:L3:266:ARG:NE	6:L3:266:ARG:HA	2.15	0.61
9:L6:141:VAL:O	9:L6:145:LEU:HG	1.99	0.61
10:L7:108:LEU:HD22	10:L7:114:GLY:HA2	1.82	0.61
11:L8:50:VAL:HG23	11:L8:52:TRP:NE1	2.15	0.61
14:51:112:LEU:HD23	14:51:112:LEU:H	1.63	0.61
18:56:57:PHE:HA	18:56:60:LYS:NZ	2.15	0.61
25:63:135:VAL:HG12	25:63:135:VAL:O	1.99	0.61
32:70:24:THR:CG2	32:70:91:SER:HB3	2.30	0.61
51:S4:48:LEU:HA	51:S4:52:LEU:HD12	1.82	0.61
61:14:78:ALA:HB2	61:14:111:ARG:HB2	1.80	0.61
61:14:81:VAL:HG22	61:14:115:ILE:HG21	1.80	0.61
65:18:89:GLN:C	65:18:91:ASP:H	2.08	0.61
66:19:86:ARG:NH1	66:19:92:LYS:HB2	2.15	0.61
69:22:81:VAL:HG13	69:22:85:ASP:HB2	1.81	0.61
73:26:85:ARG:O	73:26:86:VAL:O	2.18	0.61
79:RA:69:GLN:HB2	79:RA:85:TRP:NE1	2.13	0.61
1:2S:409:A:H3'	1:2S:410:U:C5	2.35	0.61
1:2S:1190:A:H2	18:56:49:ARG:NH2	1.98	0.61
1:2S:2552:C:O2'	32:70:50:VAL:HG11	2.01	0.61
1:2S:2947:G:C2	6:L3:250:ALA:HB1	2.34	0.61
1:2S:3117:C:O2	42:80:106:ARG:NH2	2.31	0.61
4:L1:194:LEU:C	4:L1:196:LYS:H	2.07	0.61
8:L5:33:ARG:O	8:L5:33:ARG:HG2	2.01	0.61
15:53:75:PHE:O	15:53:97:VAL:HG13	2.00	0.61
20:58:34:THR:O	20:58:38:ARG:HB2	2.00	0.61
29:67:118:PHE:HA	29:67:121:ARG:HB2	1.82	0.61
46:1S:416:A:H5'	46:1S:417:A:N7	2.14	0.61
46:1S:818:C:O2'	46:1S:819:G:H5'	2.00	0.61
46:1S:856:A:N6	54:S7:96:ARG:HB3	2.15	0.61
46:1S:1174:C:H4'	46:1S:1601:G:C6	2.35	0.61
46:1S:1184:A:H2'	46:1S:1185:U:H4'	1.81	0.61
46:1S:1419:G:H4'	76:29:54:LYS:HE3	1.82	0.61
48:S1:171:ILE:HD12	48:S1:197:ILE:CD1	2.22	0.61
49:S2:225:LEU:HD22	49:S2:230:TRP:CD1	2.35	0.61
60:13:100:LYS:HA	60:13:103:GLU:CG	2.31	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:16:141:SER:O	63:16:142:TYR:HB2	1.98	0.61
64:17:15:ALA:O	64:17:19:ARG:HG2	2.00	0.61
1:2S:56:G:H5''	17:55:158:HIS:CE1	2.35	0.61
1:2S:769:G:O2'	1:2S:770:G:H5'	2.01	0.61
1:2S:2285:C:H3'	1:2S:2286:U:H2'	1.81	0.61
1:2S:2288:G:H2'	1:2S:2289:U:H6	1.65	0.61
1:2S:3357:U:H2'	1:2S:3358:U:C6	2.36	0.61
1:2S:3380:U:H2'	1:2S:3381:U:O4'	2.01	0.61
4:L1:130:LYS:HG3	4:L1:136:THR:HB	1.83	0.61
5:L2:193:ARG:HG2	5:L2:193:ARG:HH21	1.65	0.61
12:L9:13:PRO:HD2	12:L9:79:ILE:HG21	1.81	0.61
12:L9:138:THR:HG22	12:L9:139:ASN:H	1.64	0.61
17:55:116:LEU:HB3	17:55:133:ILE:O	2.00	0.61
19:57:29:THR:O	19:57:32:THR:HG22	2.00	0.61
20:58:110:ALA:O	20:58:114:ILE:HG13	2.00	0.61
20:58:175:ALA:HB1	30:68:54:GLY:HA3	1.81	0.61
23:61:27:LEU:HA	23:61:30:TYR:HD2	1.66	0.61
43:81:22:ALA:C	43:81:24:SER:H	2.08	0.61
46:1S:244:A:H2'	46:1S:245:U:C2	2.36	0.61
46:1S:1715:G:H3'	46:1S:1716:C:C5'	2.30	0.61
52:S5:79:ASN:N	52:S5:79:ASN:ND2	2.48	0.61
1:2S:2355:G:H4'	19:57:139:TYR:CE2	2.35	0.61
3:5S:41:G:H5''	3:5S:42:A:N7	2.16	0.61
5:L2:41:ILE:O	5:L2:89:TYR:HA	2.00	0.61
6:L3:231:HIS:HB2	6:L3:247:ARG:NH2	2.14	0.61
8:L5:62:CYS:HB3	8:L5:105:ILE:HG13	1.83	0.61
20:58:60:PRO:HB2	20:58:142:GLY:HA3	1.82	0.61
21:59:21:LYS:CE	21:59:55:VAL:HA	2.30	0.61
28:66:42:GLN:HB3	28:66:43:TYR:CE2	2.36	0.61
32:70:49:PRO:O	32:70:53:LYS:HB2	2.00	0.61
33:71:19:ARG:HG3	33:71:19:ARG:NH1	2.15	0.61
36:74:41:ARG:HB2	36:74:50:ALA:HB1	1.83	0.61
36:74:65:VAL:HG12	36:74:66:SER:H	1.65	0.61
38:76:50:LEU:HD22	38:76:54:GLU:CB	2.30	0.61
44:82:66:LYS:C	44:82:87:ARG:HB3	2.25	0.61
46:1S:310:C:H2'	46:1S:311:U:O4'	2.01	0.61
46:1S:1171:A:H2'	46:1S:1172:G:C8	2.32	0.61
47:S0:22:THR:HG22	47:S0:169:SER:HB3	1.83	0.61
48:S1:176:VAL:O	48:S1:177:GLN:HG2	2.01	0.61
50:S3:102:ALA:HB2	50:S3:186:VAL:HG21	1.83	0.61
53:S6:10:ASN:HD22	53:S6:128:THR:HB	1.66	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:13:40:TYR:HE2	60:13:54:LEU:HD21	1.65	0.61
1:2S:561:C:H2'	1:2S:562:C:C6	2.34	0.61
1:2S:1887:A:C2'	1:2S:1888:U:H5'	2.30	0.61
1:2S:2271:A:C3'	1:2S:2272:G:H5''	2.31	0.61
4:L1:74:VAL:HG12	4:L1:75:ASP:H	1.64	0.61
9:L6:50:LYS:CE	9:L6:72:ASN:HB2	2.30	0.61
12:L9:144:ILE:HG12	12:L9:145:VAL:N	2.15	0.61
15:53:126:PHE:HB3	15:53:133:PRO:HD2	1.82	0.61
22:60:13:ARG:HA	22:60:56:GLY:HA3	1.81	0.61
23:61:50:LYS:HB2	23:61:92:ARG:NH2	2.15	0.61
46:1S:167:U:H4'	53:S6:134:GLY:O	2.00	0.61
46:1S:215:A:H5''	46:1S:216:U:C5	2.36	0.61
46:1S:804:A:C5	69:22:107:SER:HA	2.36	0.61
46:1S:1298:U:H2'	46:1S:1299:G:O4'	2.00	0.61
49:S2:45:VAL:HG21	49:S2:68:ILE:HG23	1.83	0.61
55:S8:37:LYS:HE2	55:S8:95:THR:OG1	2.00	0.61
57:10:25:LYS:HB2	57:10:64:TYR:HE2	1.66	0.61
65:18:125:ILE:HG22	65:18:129:TRP:CZ3	2.36	0.61
70:23:63:GLN:HA	70:23:65:ASN:H	1.65	0.61
1:2S:440:A:H5''	1:2S:441:U:C4'	2.30	0.61
1:2S:666:A:H2'	1:2S:667:C:O4'	2.00	0.61
1:2S:760:G:H1'	1:2S:771:A:N6	2.15	0.61
1:2S:1696:A:H2'	1:2S:1697:A:H8	1.63	0.61
1:2S:3304:U:OP2	1:2S:3377:G:H1'	2.01	0.61
1:2S:3316:A:N1	6:L3:124:LYS:HD2	2.15	0.61
4:L1:145:TYR:HA	4:L1:148:VAL:HG22	1.82	0.61
5:L2:126:LEU:HD12	5:L2:126:LEU:H	1.64	0.61
6:L3:123:TYR:CD2	6:L3:124:LYS:HG3	2.35	0.61
6:L3:337:THR:C	6:L3:338:LEU:HD13	2.25	0.61
7:L4:23:PRO:HD2	7:L4:26:PHE:HE2	1.65	0.61
13:50:190:VAL:HG13	13:50:197:VAL:HG21	1.82	0.61
27:65:86:VAL:HG13	27:65:120:LYS:CD	2.31	0.61
27:65:135:ILE:CD1	27:65:138:ARG:HH11	2.13	0.61
46:1S:1604:U:H5''	63:16:129:PHE:CB	2.31	0.61
49:S2:44:LEU:CD1	49:S2:243:TYR:HB2	2.30	0.61
50:S3:211:PRO:HG2	64:17:19:ARG:HB2	1.82	0.61
58:11:133:LYS:NZ	58:11:134:THR:CG2	2.64	0.61
61:14:113:GLY:O	61:14:114:ARG:HB3	2.00	0.61
63:16:128:LYS:HB2	63:16:137:ARG:NH2	2.16	0.61
64:17:10:LYS:HG2	64:17:53:TYR:CE1	2.35	0.61
79:RA:89:LEU:HD12	79:RA:103:PHE:CB	2.31	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:118:U:H5'	1:2S:151:A:N1	2.15	0.61
1:2S:637:C:H2'	1:2S:638:C:C6	2.36	0.61
1:2S:720:A:H2'	20:58:69:ARG:NH2	2.15	0.61
1:2S:1624:G:H1	1:2S:1819:U:H3	1.48	0.61
1:2S:2315:G:H2'	1:2S:2316:G:H8	1.65	0.61
1:2S:2916:U:O4'	25:63:44:SER:HB3	2.00	0.61
5:L2:226:SER:C	5:L2:228:GLY:N	2.58	0.61
9:L6:141:VAL:HG12	9:L6:145:LEU:HD11	1.83	0.61
10:L7:107:ARG:NH1	10:L7:202:LEU:O	2.33	0.61
10:L7:136:TYR:CE2	10:L7:231:ASN:HB2	2.34	0.61
11:L8:149:LYS:O	11:L8:176:PRO:HG2	1.99	0.61
11:L8:238:LEU:HD22	11:L8:238:LEU:N	2.15	0.61
12:L9:172:ILE:H	12:L9:172:ILE:CD1	2.13	0.61
16:54:84:LYS:HA	16:54:87:ALA:HB3	1.82	0.61
16:54:112:LEU:O	16:54:117:ARG:NH2	2.33	0.61
22:60:133:ALA:C	22:60:135:VAL:H	2.06	0.61
24:62:37:LEU:O	24:62:41:ILE:HG13	2.00	0.61
29:67:22:LYS:HE3	29:67:134:LEU:HD23	1.81	0.61
29:67:51:LEU:HB2	29:67:65:ARG:HD2	1.82	0.61
39:77:25:ARG:O	39:77:25:ARG:HD3	2.01	0.61
46:1S:1125:A:O5'	46:1S:1125:A:H8	1.84	0.61
46:1S:1274:C:O2	46:1S:1274:C:H2'	1.99	0.61
48:S1:151:LYS:HE3	48:S1:154:SER:HA	1.83	0.61
54:S7:39:ARG:N	54:S7:40:PRO:HD2	2.15	0.61
56:S9:11:THR:O	56:S9:44:ARG:HA	2.01	0.61
57:10:52:LYS:HG3	57:10:54:TYR:CE2	2.35	0.61
58:11:134:THR:O	58:11:136:ARG:NH1	2.34	0.61
60:13:26:PHE:CE1	60:13:27:LYS:HE2	2.35	0.61
1:2S:250:U:C5'	1:2S:251:G:H5''	2.13	0.61
1:2S:291:C:H2'	1:2S:292:U:C6	2.36	0.61
1:2S:805:G:H4'	7:L4:73:ARG:O	2.01	0.61
1:2S:895:A:H2'	1:2S:897:U:O4'	2.00	0.61
1:2S:1223:A:N1	1:2S:1287:A:H1'	2.16	0.61
1:2S:2925:C:H2'	1:2S:2926:A:O4'	2.01	0.61
1:2S:3275:U:H3'	1:2S:3276:G:H5''	1.82	0.61
6:L3:92:TYR:HB2	6:L3:157:VAL:CG2	2.31	0.61
6:L3:232:ARG:HH11	6:L3:268:GLY:HA3	1.64	0.61
6:L3:312:VAL:C	6:L3:314:TYR:H	2.09	0.61
11:L8:153:ILE:O	11:L8:180:VAL:HG12	2.00	0.61
17:55:89:VAL:C	17:55:92:LEU:HD13	2.26	0.61
22:60:12:ARG:O	22:60:12:ARG:HG3	1.99	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:61:80:VAL:CG1	23:61:85:LEU:HD12	2.28	0.61
23:61:124:VAL:HG12	23:61:125:ALA:N	2.14	0.61
29:67:31:GLU:HG3	29:67:32:GLY:N	2.15	0.61
46:1S:479:C:H5'	56:S9:124:HIS:HB2	1.82	0.61
46:1S:965:U:H3'	46:1S:966:A:H5'	1.83	0.61
46:1S:1097:U:H1'	49:S2:168:ARG:HH11	1.64	0.61
47:S0:108:THR:O	47:S0:109:ASN:O	2.18	0.61
54:S7:55:LYS:HD2	54:S7:89:HIS:CE1	2.36	0.61
71:24:132:ARG:O	71:24:132:ARG:HD3	2.00	0.61
1:2S:848:A:H8	1:2S:848:A:O5'	1.84	0.61
1:2S:1910:A:H2'	1:2S:1911:A:C8	2.36	0.61
1:2S:2168:A:H5''	17:55:67:ARG:HH12	1.65	0.61
1:2S:2515:A:H62	1:2S:2592:G:H21	1.47	0.61
1:2S:2802:A:C4	44:82:56:PRO:HA	2.36	0.61
1:2S:3184:A:H5''	12:L9:39:LYS:HZ3	1.65	0.61
1:2S:3204:C:H2'	1:2S:3205:G:C8	2.35	0.61
10:L7:24:GLU:C	10:L7:26:VAL:H	2.09	0.61
11:L8:108:ARG:HA	11:L8:111:LYS:HD2	1.81	0.61
18:56:52:LEU:HA	18:56:55:HIS:HB2	1.82	0.61
46:1S:1740:A:H2'	46:1S:1741:U:C6	2.35	0.61
53:S6:206:ALA:O	53:S6:210:GLN:HG3	2.01	0.61
56:S9:37:LYS:HE2	56:S9:38:ASN:ND2	2.16	0.61
57:10:42:VAL:O	57:10:46:LEU:HD23	2.01	0.61
1:2S:75:G:H5''	15:53:58:VAL:HG13	1.83	0.60
1:2S:591:G:O4'	9:L6:19:LYS:HD2	2.01	0.60
1:2S:1346:G:H1'	7:L4:307:GLN:NE2	2.16	0.60
1:2S:1535:A:H62	1:2S:1586:G:N2	1.99	0.60
1:2S:1951:C:H2'	1:2S:2095:G:H22	1.65	0.60
2:8S:70:G:H1'	2:8S:88:A:H61	1.66	0.60
2:8S:116:G:H2'	2:8S:117:C:C6	2.35	0.60
6:L3:227:GLU:CB	6:L3:270:ARG:HD3	2.31	0.60
9:L6:65:ILE:HD13	9:L6:77:ARG:O	2.01	0.60
13:50:176:LEU:HD22	13:50:180:GLU:HG2	1.82	0.60
16:54:108:ARG:O	16:54:112:LEU:HG	2.01	0.60
25:63:22:ILE:HG23	25:63:35:TYR:CA	2.29	0.60
27:65:113:LEU:CD1	27:65:121:LYS:HB3	2.31	0.60
46:1S:495:C:H3'	46:1S:496:G:C4'	2.30	0.60
46:1S:1558:U:H3'	46:1S:1559:A:H4'	1.82	0.60
53:S6:72:ARG:HG2	53:S6:98:ARG:HG2	1.82	0.60
55:S8:122:GLY:HA2	55:S8:157:GLU:CD	2.26	0.60
58:11:27:THR:HG23	58:11:30:ARG:H	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:27:62:ILE:HG13	74:27:63:LEU:H	1.65	0.60
1:2S:1046:A:H2'	1:2S:1049:C:C5	2.36	0.60
1:2S:3072:C:H2'	1:2S:3073:A:O4'	2.00	0.60
5:L2:133:TYR:HE1	5:L2:135:ILE:HD11	1.67	0.60
10:L7:107:ARG:O	10:L7:108:LEU:HD23	2.01	0.60
18:56:84:LEU:O	18:56:84:LEU:HD23	2.01	0.60
21:59:109:TYR:O	21:59:115:ILE:HG22	2.01	0.60
22:60:152:LEU:O	22:60:172:TYR:HB3	2.00	0.60
30:68:101:VAL:HG22	30:68:124:ILE:HD12	1.83	0.60
30:68:111:LYS:HG3	30:68:129:PHE:HB2	1.82	0.60
46:1S:422:G:H2'	46:1S:423:G:N7	2.16	0.60
47:S0:110:TYR:HA	47:S0:115:PHE:CD2	2.36	0.60
48:S1:218:LEU:HD13	48:S1:218:LEU:H	1.65	0.60
50:S3:84:ILE:C	50:S3:84:ILE:HD13	2.26	0.60
51:S4:11:ARG:HG3	51:S4:11:ARG:NH2	2.16	0.60
53:S6:70:PRO:HA	53:S6:98:ARG:NH2	2.15	0.60
55:S8:67:TRP:CD1	55:S8:70:GLU:HB2	2.36	0.60
62:15:52:LYS:N	62:15:53:PRO:HD2	2.16	0.60
79:RA:20:VAL:O	79:RA:290:VAL:HG23	2.01	0.60
1:2S:1426:C:H2'	1:2S:1427:U:C6	2.36	0.60
1:2S:1646:G:H1'	1:2S:1809:A:H61	1.66	0.60
1:2S:2223:A:H2'	1:2S:2224:A:C8	2.36	0.60
3:5S:16:U:H2'	3:5S:17:A:H8	1.67	0.60
9:L6:5:LYS:O	9:L6:6:ALA:HB2	2.01	0.60
12:L9:172:ILE:HD13	12:L9:172:ILE:N	2.16	0.60
13:50:30:LYS:HA	13:50:30:LYS:HE3	1.82	0.60
15:53:155:GLU:O	30:68:100:PRO:HA	2.00	0.60
30:68:126:LYS:HB3	30:68:148:ILE:HG21	1.83	0.60
33:71:11:GLU:HG2	33:71:74:ARG:HB2	1.83	0.60
41:79:43:ASN:HB3	41:79:46:ARG:HB2	1.83	0.60
55:S8:110:ARG:O	55:S8:114:GLU:HG3	2.02	0.60
65:18:14:ILE:HD11	65:18:21:ASN:HB3	1.83	0.60
1:2S:31:C:H5'	17:55:96:ARG:HD2	1.84	0.60
1:2S:2347:U:H3'	1:2S:2348:A:H8	1.67	0.60
1:2S:2492:C:C5'	4:L1:39:LYS:HD2	2.31	0.60
1:2S:2875:U:H3	1:2S:2952:G:H1	1.48	0.60
10:L7:232:ARG:HD3	10:L7:235:PHE:CB	2.31	0.60
14:51:59:ILE:HG21	14:51:65:ILE:HD12	1.84	0.60
19:57:25:SER:CB	19:57:28:ASN:HD22	2.13	0.60
21:59:21:LYS:O	21:59:53:LYS:HB3	2.01	0.60
25:63:19:VAL:HG13	25:63:37:ILE:CA	2.27	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:70:C:H2'	46:1S:71:A:C8	2.36	0.60
46:1S:937:C:H2'	46:1S:938:G:C8	2.37	0.60
48:S1:121:ILE:HG12	48:S1:161:ILE:HG23	1.83	0.60
57:10:86:ILE:CG2	57:10:87:VAL:H	2.09	0.60
58:11:53:TYR:C	58:11:54:ILE:HD12	2.26	0.60
62:15:126:VAL:HG13	62:15:127:ARG:H	1.66	0.60
66:19:92:LYS:HE3	66:19:94:ILE:HD11	1.83	0.60
1:2S:2199:G:H2'	1:2S:2200:U:H6	1.66	0.60
1:2S:2271:A:H2'	1:2S:2272:G:H5''	1.83	0.60
1:2S:3353:G:H2'	1:2S:3356:G:O4'	2.02	0.60
3:5S:114:U:H2'	3:5S:115:G:H8	1.66	0.60
6:L3:210:GLU:HG3	6:L3:213:GLU:HB2	1.82	0.60
15:53:70:ARG:HG2	15:53:71:ALA:N	2.15	0.60
23:61:25:VAL:HG21	23:61:30:TYR:OH	2.01	0.60
50:S3:133:GLY:HA3	50:S3:156:PHE:O	2.02	0.60
52:S5:187:ILE:HD12	52:S5:187:ILE:N	2.12	0.60
66:19:42:GLY:HA2	66:19:84:LYS:HE2	1.84	0.60
70:23:96:VAL:O	70:23:97:ASP:HB2	1.99	0.60
1:2S:3:U:H2'	1:2S:4:U:C6	2.37	0.60
1:2S:1330:A:C2	1:2S:1332:A:H1'	2.37	0.60
1:2S:1598:G:OP1	36:74:27:GLY:HA3	2.02	0.60
1:2S:1729:A:H3'	1:2S:1730:G:C5'	2.32	0.60
19:57:119:VAL:CG2	19:57:144:SER:HB3	2.31	0.60
25:63:123:ALA:C	25:63:125:LEU:H	2.08	0.60
44:82:96:GLU:C	44:82:97:LYS:HD3	2.27	0.60
45:83:59:CYS:C	45:83:61:LYS:H	2.08	0.60
46:1S:351:C:C2	58:11:102:LYS:HD2	2.36	0.60
46:1S:885:G:H2'	46:1S:886:U:C6	2.35	0.60
49:S2:212:LYS:O	49:S2:216:VAL:HG23	2.01	0.60
53:S6:195:VAL:O	53:S6:199:GLN:HG3	2.01	0.60
75:28:16:LEU:HD12	75:28:27:GLN:HB3	1.83	0.60
1:2S:160:G:H2'	1:2S:161:G:H5''	1.82	0.60
1:2S:1211:U:H2'	1:2S:1212:A:C8	2.35	0.60
1:2S:1654:A:C3'	1:2S:1655:G:H5''	2.32	0.60
1:2S:2461:A:N6	1:2S:2483:G:H21	2.00	0.60
6:L3:46:PHE:CZ	6:L3:205:VAL:HG22	2.37	0.60
6:L3:339:ARG:HG2	6:L3:340:LYS:N	2.16	0.60
7:L4:206:LEU:HB2	7:L4:246:ARG:NH1	2.17	0.60
10:L7:77:VAL:CG1	22:60:59:VAL:HG13	2.26	0.60
10:L7:151:ARG:HH11	10:L7:244:ASN:HD21	1.47	0.60
12:L9:167:VAL:CG1	12:L9:170:LYS:HB2	2.28	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:54:130:THR:HA	16:54:133:LYS:HE2	1.84	0.60
36:74:41:ARG:HA	36:74:56:THR:HG21	1.84	0.60
38:76:51:SER:OG	38:76:54:GLU:HG3	2.02	0.60
38:76:68:ARG:HA	38:76:71:LYS:HE2	1.84	0.60
46:1S:777:C:H2'	46:1S:778:G:H5''	1.83	0.60
46:1S:1060:U:H3'	46:1S:1061:A:C5'	2.27	0.60
46:1S:1608:U:H5''	63:16:72:GLY:O	2.00	0.60
46:1S:1624:C:H2'	46:1S:1625:C:H6	1.64	0.60
51:S4:173:ILE:HD12	51:S4:173:ILE:N	2.16	0.60
64:17:23:LYS:HB3	64:17:34:LEU:HD11	1.83	0.60
66:19:136:ALA:O	66:19:140:LEU:HG	2.01	0.60
79:RA:38:ARG:HG2	79:RA:67:ILE:HG23	1.84	0.60
1:2S:215:G:H5''	28:66:12:ARG:HG3	1.84	0.60
1:2S:226:C:H2'	1:2S:227:G:O4'	2.01	0.60
1:2S:343:U:O2	1:2S:1439:U:H1'	2.01	0.60
1:2S:1341:U:H2'	1:2S:1342:C:C6	2.37	0.60
1:2S:1966:U:H3'	1:2S:1967:U:C5'	2.32	0.60
1:2S:2213:A:H2'	1:2S:2214:A:C8	2.36	0.60
1:2S:2615:G:H2'	1:2S:2616:C:C6	2.37	0.60
7:L4:170:LYS:HE3	7:L4:178:LEU:CD1	2.25	0.60
15:53:76:THR:HG23	15:53:101:ARG:HH11	1.65	0.60
21:59:21:LYS:HE3	21:59:56:THR:H	1.67	0.60
28:66:56:VAL:CG2	28:66:104:LEU:HB3	2.32	0.60
30:68:96:LYS:O	30:68:97:GLU:HB2	2.01	0.60
36:74:98:GLN:O	36:74:102:LYS:HD3	2.01	0.60
42:80:92:ASP:O	42:80:93:LYS:HG2	2.02	0.60
46:1S:329:G:H5'	55:S8:99:ALA:CB	2.31	0.60
46:1S:804:A:C8	69:22:107:SER:HA	2.36	0.60
46:1S:950:C:H2'	46:1S:951:A:O4'	2.01	0.60
46:1S:1044:U:H5''	48:S1:153:HIS:NE2	2.17	0.60
49:S2:38:VAL:CG2	49:S2:39:THR:H	2.07	0.60
49:S2:122:ALA:HA	49:S2:125:ILE:HD12	1.83	0.60
54:S7:43:PHE:HA	54:S7:63:PRO:HD3	1.84	0.60
55:S8:107:THR:OG1	55:S8:108:PRO:HD3	2.02	0.60
68:21:28:ASP:OD1	68:21:31:SER:HB3	2.01	0.60
69:22:11:LEU:HD22	69:22:72:CYS:HB2	1.83	0.60
74:27:62:ILE:HG13	74:27:63:LEU:N	2.17	0.60
1:2S:1123:U:H2'	1:2S:1124:U:C5'	2.28	0.60
1:2S:1370:G:H5''	30:68:18:GLY:HA2	1.84	0.60
1:2S:1472:U:H2'	1:2S:1473:G:H8	1.66	0.60
1:2S:1721:U:C5	21:59:103:ARG:NH2	2.70	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:3151:U:H4'	1:2S:3294:A:O4'	2.02	0.60
1:2S:3198:U:H1'	12:L9:21:LYS:HG3	1.84	0.60
3:5S:119:U:H5''	8:L5:256:THR:HG21	1.83	0.60
18:56:117:ARG:H	18:56:117:ARG:CD	2.13	0.60
19:57:30:ARG:HD2	19:57:63:PHE:CE2	2.37	0.60
24:62:104:ARG:O	24:62:105:LEU:HD12	2.02	0.60
46:1S:1480:G:H4'	66:19:11:ALA:HB1	1.83	0.60
47:S0:118:PRO:O	47:S0:141:ILE:HD13	2.02	0.60
49:S2:82:ASN:O	49:S2:100:ALA:HB1	2.02	0.60
63:16:39:VAL:HG12	63:16:40:GLU:N	2.16	0.60
1:2S:406:G:H1'	2:8S:16:G:N2	2.17	0.60
1:2S:827:A:H2'	1:2S:828:A:C8	2.36	0.60
1:2S:894:G:H4'	1:2S:895:A:O4'	2.02	0.60
1:2S:916:G:H2'	1:2S:924:G:C8	2.36	0.60
1:2S:2108:C:O4'	1:2S:3344:A:H1'	2.02	0.60
1:2S:2447:A:H61	1:2S:2500:A:H2	1.42	0.60
1:2S:2718:U:H2'	1:2S:2719:U:O4'	2.01	0.60
1:2S:2820:A:H2'	1:2S:2821:C:H5'	1.83	0.60
5:L2:205:ASN:HB2	5:L2:208:ASP:OD2	2.02	0.60
6:L3:237:LYS:CE	6:L3:246:LEU:HD13	2.31	0.60
12:L9:143:GLU:HG2	12:L9:144:ILE:N	2.16	0.60
43:81:2:ARG:HG3	46:1S:1773:C:OP2	2.02	0.60
46:1S:276:C:O2	46:1S:279:G:N2	2.26	0.60
46:1S:631:G:H2'	46:1S:632:U:C6	2.37	0.60
46:1S:839:U:H2'	46:1S:840:U:H5''	1.84	0.60
46:1S:1526:A:H3'	46:1S:1527:C:C6	2.37	0.60
48:S1:70:LEU:HD21	48:S1:79:HIS:CD2	2.37	0.60
50:S3:162:GLN:N	50:S3:163:PRO:CD	2.64	0.60
61:14:111:ARG:HH21	73:26:58:VAL:HG12	1.67	0.60
75:28:11:LYS:HD2	75:28:51:ASN:ND2	2.16	0.60
1:2S:184:U:H2'	1:2S:185:C:C6	2.37	0.59
1:2S:549:U:H2'	1:2S:550:A:C8	2.37	0.59
1:2S:632:G:OP1	18:56:94:ARG:HB2	2.01	0.59
1:2S:725:G:C3'	1:2S:726:G:H5''	2.32	0.59
1:2S:745:C:H5''	20:58:145:ASN:HD22	1.67	0.59
1:2S:815:G:H2'	1:2S:906:A:N6	2.17	0.59
1:2S:933:A:H61	7:L4:102:PRO:CD	2.13	0.59
1:2S:1472:U:H2'	1:2S:1473:G:C8	2.37	0.59
1:2S:2276:G:H2'	1:2S:2277:C:C6	2.37	0.59
1:2S:2476:C:C2'	1:2S:2477:G:H4'	2.28	0.59
17:55:14:LYS:HE2	17:55:120:TRP:HZ3	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:64:46:PRO:HB2	26:64:54:LEU:CD2	2.32	0.59
43:81:11:ARG:NE	46:1S:1126:G:H5'	2.13	0.59
46:1S:357:G:H2'	46:1S:358:U:C6	2.37	0.59
46:1S:958:U:H2'	60:13:14:SER:OG	2.02	0.59
48:S1:24:PHE:HA	48:S1:27:LYS:HG2	1.84	0.59
48:S1:144:ARG:HD3	48:S1:208:GLN:HB3	1.82	0.59
52:S5:96:SER:CB	52:S5:176:THR:HG21	2.31	0.59
53:S6:44:GLU:O	53:S6:119:GLN:HB3	2.02	0.59
64:17:67:ARG:HG2	64:17:67:ARG:NH2	2.15	0.59
65:18:82:PRO:HB2	65:18:85:PHE:HB2	1.83	0.59
67:20:38:SER:O	67:20:42:VAL:HG23	2.01	0.59
71:24:9:THR:HA	71:24:24:VAL:O	2.01	0.59
76:29:22:ARG:HG2	76:29:38:ILE:CD1	2.32	0.59
1:2S:283:G:H21	1:2S:285:A:H5''	1.65	0.59
1:2S:422:A:C6	1:2S:2363:A:H4'	2.37	0.59
1:2S:1224:C:H4'	1:2S:1289:G:H5'	1.83	0.59
1:2S:1584:U:H2'	1:2S:1585:C:C6	2.36	0.59
1:2S:2461:A:H61	1:2S:2483:G:H21	1.50	0.59
15:53:189:GLU:C	15:53:192:GLU:HG2	2.27	0.59
17:55:5:LYS:HZ1	38:76:37:THR:HG22	1.67	0.59
27:65:22:LYS:HD2	27:65:22:LYS:N	2.17	0.59
39:77:18:LEU:HA	39:77:25:ARG:H	1.66	0.59
46:1S:20:G:H2'	46:1S:21:U:C6	2.37	0.59
46:1S:156:A:H2	46:1S:419:G:H21	1.49	0.59
46:1S:635:A:H2'	46:1S:636:A:C8	2.37	0.59
46:1S:1170:G:H2'	46:1S:1170:G:N3	2.17	0.59
48:S1:205:PHE:CD1	48:S1:206:PRO:HD2	2.31	0.59
54:S7:139:ARG:HH11	54:S7:139:ARG:HG3	1.66	0.59
59:12:60:VAL:HG22	59:12:122:VAL:HG22	1.83	0.59
60:13:23:PRO:O	60:13:24:ALA:HB3	2.02	0.59
62:15:33:PHE:HZ	62:15:112:LEU:HD13	1.64	0.59
67:20:55:PRO:HB3	67:20:91:ILE:HG12	1.84	0.59
73:26:20:PRO:HA	73:26:31:PRO:HA	1.84	0.59
1:2S:762:U:H2'	1:2S:763:G:O4'	2.03	0.59
1:2S:1721:U:H2'	1:2S:1723:A:OP2	2.02	0.59
1:2S:2207:A:C3'	1:2S:2208:A:H5''	2.31	0.59
1:2S:2426:U:H2'	1:2S:2427:U:H6	1.61	0.59
1:2S:3182:G:H1	1:2S:3189:G:H5''	1.65	0.59
7:L4:39:PHE:CE1	7:L4:236:LEU:HA	2.36	0.59
18:56:147:TRP:CE2	18:56:149:TYR:HB2	2.37	0.59
20:58:5:HIS:C	20:58:7:SER:H	2.10	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:59:88:ARG:O	21:59:90:PRO:HD3	2.01	0.59
33:71:55:LEU:HB2	33:71:95:PRO:HD3	1.84	0.59
39:77:46:SER:HB2	39:77:54:LYS:CD	2.33	0.59
41:79:10:LYS:HA	41:79:13:MET:HE3	1.84	0.59
46:1S:86:A:H2'	46:1S:87:C:H6	1.66	0.59
46:1S:182:A:H2'	46:1S:183:U:C6	2.37	0.59
46:1S:657:U:H2'	46:1S:658:C:C5'	2.32	0.59
52:S5:93:LEU:HD23	52:S5:93:LEU:O	2.02	0.59
53:S6:28:PHE:CE1	53:S6:104:PRO:HG3	2.37	0.59
59:12:108:ARG:HG2	59:12:109:GLU:H	1.66	0.59
60:13:134:VAL:HG23	60:13:135:LEU:HG	1.83	0.59
63:16:54:LEU:HD11	63:16:112:TYR:CD2	2.37	0.59
69:22:68:ARG:HG2	69:22:68:ARG:HH11	1.67	0.59
71:24:20:ARG:HB3	71:24:76:TYR:CZ	2.38	0.59
7:L4:142:VAL:HB	7:L4:145:ILE:HD13	1.84	0.59
8:L5:110:LEU:HD12	8:L5:113:LEU:HD23	1.83	0.59
13:50:217:PHE:O	13:50:218:ALA:HB2	2.02	0.59
15:53:103:ASN:HB3	38:76:20:MET:HE1	1.84	0.59
21:59:160:GLU:HG3	21:59:163:ARG:NH1	2.17	0.59
46:1S:878:G:H2'	46:1S:879:G:H8	1.67	0.59
46:1S:927:C:O2'	46:1S:928:U:H5'	2.03	0.59
46:1S:1066:C:H4'	48:S1:149:GLN:NE2	2.16	0.59
50:S3:190:ARG:HG2	50:S3:191:ASP:N	2.17	0.59
50:S3:222:VAL:HG22	50:S3:223:LYS:N	2.17	0.59
51:S4:10:LYS:H	51:S4:13:ALA:HB3	1.67	0.59
51:S4:89:VAL:HG21	51:S4:100:ARG:HH21	1.67	0.59
56:S9:132:ARG:NE	56:S9:142:ASN:HD22	2.01	0.59
1:2S:248:U:OP2	1:2S:248:U:C6	2.52	0.59
1:2S:500:C:H2'	1:2S:501:A:H8	1.66	0.59
1:2S:816:A:H4'	1:2S:817:A:H5'	1.84	0.59
1:2S:1658:G:H2'	1:2S:1659:U:H6	1.65	0.59
1:2S:2081:U:H2'	1:2S:2082:U:O4'	2.02	0.59
5:L2:42:ARG:CD	5:L2:87:PHE:HB3	2.33	0.59
10:L7:86:VAL:HG22	10:L7:136:TYR:CB	2.33	0.59
18:56:88:VAL:HG12	18:56:89:SER:N	2.17	0.59
27:65:67:ILE:CD1	27:65:121:LYS:HG3	2.31	0.59
46:1S:705:U:H2'	46:1S:706:A:C8	2.37	0.59
46:1S:1080:U:C2'	46:1S:1081:A:H5'	2.28	0.59
52:S5:64:VAL:HG22	52:S5:89:ILE:HD11	1.84	0.59
55:S8:106:ALA:CB	55:S8:165:LEU:HG	2.32	0.59
63:16:38:LEU:HD22	66:19:10:ALA:HA	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:18:63:GLN:HA	65:18:66:LEU:HD12	1.83	0.59
1:2S:603:A:H2'	1:2S:604:G:O4'	2.02	0.59
1:2S:858:A:N3	45:83:13:LYS:HB2	2.18	0.59
1:2S:1966:U:H3'	1:2S:1967:U:H5'	1.83	0.59
1:2S:2192:C:H2'	1:2S:2193:U:H6	1.68	0.59
1:2S:2289:U:H2'	1:2S:2290:C:C6	2.38	0.59
2:8S:32:C:H2'	2:8S:33:A:H8	1.67	0.59
3:5S:88:G:H2'	3:5S:89:G:C8	2.37	0.59
6:L3:37:ARG:HA	6:L3:186:GLY:HA2	1.83	0.59
7:L4:82:THR:HG23	7:L4:85:SER:H	1.68	0.59
11:L8:71:VAL:HG21	11:L8:76:ALA:HB2	1.85	0.59
15:53:103:ASN:HB3	38:76:20:MET:CE	2.33	0.59
20:58:58:ASN:C	20:58:60:PRO:HD3	2.28	0.59
46:1S:1120:U:H2'	46:1S:1121:C:C6	2.37	0.59
52:S5:53:VAL:CG1	52:S5:138:THR:HG21	2.31	0.59
52:S5:162:VAL:HA	75:28:45:LYS:HB3	1.84	0.59
53:S6:81:VAL:HG22	53:S6:82:SER:N	2.14	0.59
60:13:30:SER:O	60:13:33:VAL:HG22	2.02	0.59
61:14:67:VAL:O	61:14:71:CYS:HB2	2.03	0.59
65:18:65:GLU:HG2	65:18:68:ARG:HH22	1.64	0.59
74:27:35:VAL:HA	74:27:78:SER:O	2.02	0.59
1:2S:278:U:OP1	44:82:50:PHE:HD2	1.86	0.59
1:2S:353:G:N7	39:77:55:ARG:HD2	2.18	0.59
1:2S:655:C:H2'	1:2S:656:A:C8	2.38	0.59
1:2S:695:C:H2'	1:2S:696:C:C6	2.37	0.59
1:2S:1064:A:H5''	1:2S:1066:G:C8	2.37	0.59
1:2S:2699:G:H3'	1:2S:2700:G:H8	1.67	0.59
1:2S:3011:A:N6	6:L3:13:HIS:HA	2.18	0.59
5:L2:205:ASN:HB3	5:L2:206:PRO:CD	2.32	0.59
6:L3:10:ARG:HB2	6:L3:10:ARG:CZ	2.33	0.59
8:L5:294:ALA:C	8:L5:296:GLN:H	2.10	0.59
11:L8:159:PRO:HB2	11:L8:162:LEU:HD12	1.85	0.59
15:53:183:ARG:HG3	15:53:186:ARG:HH11	1.66	0.59
18:56:124:LEU:CG	18:56:126:VAL:HG12	2.28	0.59
21:59:110:ARG:HD3	21:59:120:TYR:CD1	2.38	0.59
43:81:4:LYS:NZ	46:1S:1775:U:C5	2.59	0.59
46:1S:387:A:H3'	46:1S:402:C:C5	2.37	0.59
46:1S:1526:A:H3'	46:1S:1527:C:H6	1.68	0.59
47:S0:74:VAL:HG23	47:S0:118:PRO:HB3	1.84	0.59
49:S2:178:ILE:HG13	49:S2:194:GLU:O	2.01	0.59
52:S5:77:TYR:HB3	52:S5:83:ARG:O	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:S6:179:VAL:HA	53:S6:183:ARG:HD3	1.84	0.59
55:S8:135:LYS:O	55:S8:135:LYS:HD3	2.02	0.59
1:2S:687:U:H3	1:2S:693:A:N6	1.99	0.59
1:2S:2347:U:H3'	1:2S:2348:A:C8	2.37	0.59
1:2S:2766:U:H2'	1:2S:2767:U:O4'	2.03	0.59
5:L2:227:ARG:HG2	5:L2:239:ALA:HB2	1.84	0.59
6:L3:280:HIS:HB3	6:L3:324:VAL:HG21	1.84	0.59
7:L4:286:VAL:HG21	20:58:28:LEU:HB3	1.85	0.59
18:56:8:VAL:HG12	18:56:117:ARG:HB3	1.83	0.59
25:63:74:MET:HB2	25:63:75:PRO:CD	2.33	0.59
27:65:81:ILE:CG1	27:65:125:ARG:HG3	2.30	0.59
29:67:93:LYS:O	29:67:93:LYS:HD3	2.02	0.59
44:82:67:LYS:HG2	44:82:87:ARG:HG2	1.85	0.59
44:82:91:PHE:CZ	44:82:93:LEU:HB3	2.38	0.59
45:83:64:VAL:HG12	45:83:65:ALA:H	1.68	0.59
46:1S:139:C:H1'	46:1S:140:A:OP2	2.02	0.59
46:1S:205:U:H2'	46:1S:206:A:H8	1.66	0.59
47:S0:6:THR:C	47:S0:8:ASP:H	2.11	0.59
49:S2:159:THR:CG2	49:S2:166:THR:HG22	2.33	0.59
51:S4:238:LEU:HD13	51:S4:242:LYS:HG3	1.84	0.59
53:S6:78:THR:HG22	53:S6:79:LYS:N	2.10	0.59
61:14:87:GLY:HA3	61:14:120:PRO:HG2	1.85	0.59
63:16:99:GLU:HB3	79:RA:57:PRO:HB2	1.84	0.59
71:24:124:ARG:HA	71:24:127:LYS:HD3	1.83	0.59
73:26:36:ILE:C	73:26:36:ILE:HD13	2.28	0.59
79:RA:278:PHE:HB3	79:RA:281:TYR:CE1	2.37	0.59
1:2S:308:A:H5'	1:2S:2223:A:O2'	2.03	0.59
2:8S:70:G:H5''	28:66:28:ARG:NE	2.17	0.59
5:L2:43:GLY:HA3	5:L2:63:PHE:CE1	2.38	0.59
8:L5:64:ILE:HD11	8:L5:105:ILE:CG2	2.33	0.59
22:60:13:ARG:C	22:60:56:GLY:HA2	2.28	0.59
32:70:100:ILE:HG13	32:70:101:LEU:HD22	1.84	0.59
43:81:3:ALA:HB3	46:1S:1773:C:OP1	2.03	0.59
45:83:84:ARG:O	45:83:88:GLU:HG2	2.03	0.59
46:1S:412:A:H2'	46:1S:413:U:C6	2.38	0.59
46:1S:495:C:H3'	46:1S:496:G:O4'	2.03	0.59
46:1S:1279:C:H2'	46:1S:1280:C:C6	2.38	0.59
56:S9:123:HIS:O	56:S9:127:VAL:HG23	2.03	0.59
65:18:25:ASN:O	72:25:40:VAL:HG11	2.02	0.59
66:19:70:GLN:HB2	66:19:122:ARG:H	1.67	0.59
71:24:21:LYS:HB2	71:24:75:VAL:CG1	2.31	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:RA:263:PHE:CE1	79:RA:270:LEU:HD13	2.38	0.59
1:2S:19:U:H4'	17:55:138:GLN:OE1	2.02	0.59
1:2S:215:G:H4'	28:66:15:ALA:CB	2.33	0.59
1:2S:422:A:N1	1:2S:2363:A:H4'	2.18	0.59
1:2S:1565:G:H2'	1:2S:1566:A:O4'	2.03	0.59
1:2S:1909:A:H2'	1:2S:1910:A:C8	2.37	0.59
1:2S:2189:U:C4'	45:83:22:LEU:HD11	2.30	0.59
1:2S:2205:U:H2'	1:2S:2206:G:C5'	2.33	0.59
1:2S:2298:U:O2'	1:2S:2299:A:H5'	2.03	0.59
1:2S:3096:C:H2'	1:2S:3097:C:C6	2.38	0.59
3:5S:96:U:H5''	22:60:43:TYR:OH	2.03	0.59
8:L5:131:LEU:HD13	8:L5:131:LEU:H	1.66	0.59
9:L6:80:ASN:HB3	9:L6:83:TYR:CD2	2.38	0.59
10:L7:77:VAL:CG1	23:61:141:VAL:HG13	2.33	0.59
10:L7:218:ARG:HH22	10:L7:220:PHE:HB2	1.68	0.59
11:L8:122:LYS:C	11:L8:124:ASP:N	2.58	0.59
16:54:58:ILE:HG12	16:54:59:ASN:N	2.18	0.59
17:55:34:ASN:HB2	17:55:37:HIS:HB3	1.83	0.59
22:60:137:ARG:HB3	22:60:140:VAL:HG23	1.83	0.59
25:63:123:ALA:O	25:63:125:LEU:N	2.36	0.59
46:1S:189:C:C2'	46:1S:190:C:H5''	2.27	0.59
46:1S:941:A:H2'	46:1S:942:G:O4'	2.03	0.59
47:S0:52:LYS:HB3	68:21:82:VAL:HG22	1.85	0.59
47:S0:144:ILE:HG23	47:S0:158:VAL:HG13	1.85	0.59
48:S1:88:VAL:HG11	48:S1:96:LEU:HD12	1.85	0.59
48:S1:103:MET:HB3	48:S1:215:VAL:HG12	1.85	0.59
54:S7:11:GLN:HG3	54:S7:13:PRO:CD	2.21	0.59
56:S9:29:LYS:HA	77:30:40:TYR:HE2	1.68	0.59
58:11:21:ASN:CB	58:11:31:THR:HG23	2.33	0.59
74:27:81:ARG:O	74:27:82:LYS:HB2	2.01	0.59
77:30:47:VAL:HG22	77:30:48:THR:H	1.68	0.59
1:2S:2500:A:O2'	1:2S:2501:U:H5'	2.03	0.58
1:2S:2990:G:C2'	1:2S:2991:A:H5'	2.32	0.58
1:2S:3231:U:H2'	1:2S:3232:G:H8	1.66	0.58
4:L1:30:GLU:CD	4:L1:34:LEU:HD21	2.28	0.58
7:L4:187:LEU:HD23	7:L4:198:ARG:O	2.03	0.58
12:L9:91:ARG:HD2	12:L9:143:GLU:HB2	1.85	0.58
14:51:94:ARG:H	14:51:94:ARG:CD	2.09	0.58
21:59:142:ILE:HG22	21:59:146:LYS:HD3	1.85	0.58
23:61:84:TYR:CB	31:69:24:PRO:HG3	2.34	0.58
36:74:20:ILE:HG23	36:74:32:ALA:HB1	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:83:42:CYS:HB3	45:83:60:CYS:SG	2.43	0.58
46:1S:1058:U:H5	46:1S:1061:A:N1	2.00	0.58
46:1S:1232:U:H2'	46:1S:1233:G:C8	2.38	0.58
46:1S:1622:G:H2'	46:1S:1623:C:C6	2.38	0.58
51:S4:250:GLU:HA	51:S4:253:ASP:OD2	2.03	0.58
52:S5:62:VAL:HG13	52:S5:89:ILE:HG21	1.85	0.58
54:S7:34:LEU:N	54:S7:34:LEU:HD12	2.17	0.58
57:10:21:VAL:HB	57:10:66:TYR:HB2	1.86	0.58
58:11:109:VAL:HG21	58:11:125:VAL:HG11	1.84	0.58
58:11:122:ILE:HD12	58:11:122:ILE:N	2.17	0.58
1:2S:392:G:C2'	1:2S:393:U:H5'	2.33	0.58
1:2S:1939:G:H2'	1:2S:1940:G:H8	1.66	0.58
1:2S:2168:A:C5'	17:55:67:ARG:HH12	2.16	0.58
1:2S:2468:A:C6	1:2S:2478:C:H4'	2.38	0.58
1:2S:3132:C:H2'	1:2S:3133:C:C6	2.38	0.58
2:8S:110:C:H4'	2:8S:112:U:H5	1.67	0.58
12:L9:25:VAL:HG12	12:L9:26:LYS:N	2.18	0.58
15:53:83:ALA:HB2	15:53:116:LEU:HD13	1.84	0.58
19:57:36:ILE:CD1	19:57:44:ALA:HB1	2.34	0.58
22:60:50:LYS:O	22:60:51:VAL:HG13	2.03	0.58
24:62:42:LYS:HG2	24:62:47:VAL:HG13	1.83	0.58
24:62:98:THR:HG22	24:62:99:LYS:HE2	1.85	0.58
29:67:135:ARG:HG2	29:67:135:ARG:HH21	1.69	0.58
39:77:47:TYR:CB	39:77:49:TRP:NE1	2.66	0.58
46:1S:766:U:H5'	46:1S:767:U:H5''	1.86	0.58
46:1S:1235:C:O4'	78:31:146:SER:HB2	2.03	0.58
56:S9:53:ARG:HG2	56:S9:53:ARG:HH21	1.68	0.58
57:10:82:LEU:HB2	57:10:86:ILE:HG21	1.85	0.58
59:12:76:GLU:O	59:12:80:ASN:HB2	2.04	0.58
65:18:17:LEU:HD21	65:18:22:VAL:HG21	1.84	0.58
69:22:11:LEU:HD12	69:22:74:VAL:HB	1.84	0.58
72:25:76:ALA:O	72:25:80:LEU:HG	2.02	0.58
1:2S:38:U:H5'	30:68:32:ARG:NH1	2.18	0.58
1:2S:75:G:H5''	15:53:58:VAL:CG1	2.32	0.58
1:2S:300:G:H2'	1:2S:301:G:H8	1.68	0.58
1:2S:1283:C:C2'	1:2S:1284:C:H5'	2.33	0.58
1:2S:1915:A:H2'	1:2S:1916:U:C6	2.38	0.58
1:2S:2457:G:H22	1:2S:2461:A:H61	1.49	0.58
5:L2:48:ILE:HD11	45:83:63:THR:HG22	1.84	0.58
7:L4:4:PRO:HD2	7:L4:22:LEU:CD1	2.32	0.58
8:L5:155:THR:N	8:L5:179:ARG:HH11	2.01	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:L6:172:HIS:CD2	35:73:40:ASP:HB3	2.38	0.58
14:51:52:TYR:N	14:51:52:TYR:CD2	2.71	0.58
19:57:36:ILE:HD11	19:57:44:ALA:HB1	1.84	0.58
27:65:111:ASN:HB2	27:65:123:TYR:HB2	1.84	0.58
28:66:56:VAL:HG22	28:66:57:LEU:H	1.68	0.58
30:68:83:PRO:HD2	30:68:86:LYS:HB2	1.86	0.58
32:70:16:LEU:HB3	32:70:98:SER:HB2	1.84	0.58
33:71:72:ARG:HG3	33:71:96:VAL:CG2	2.33	0.58
44:82:70:LEU:HD11	44:82:85:LEU:HD11	1.85	0.58
46:1S:64:U:H4'	46:1S:169:A:H4'	1.85	0.58
46:1S:618:U:H4'	46:1S:1030:A:N6	2.18	0.58
46:1S:1036:A:C5'	69:22:3:ARG:HH22	2.11	0.58
46:1S:1533:C:OP2	72:25:74:SER:HB3	2.03	0.58
46:1S:1617:U:H2'	46:1S:1618:C:C6	2.38	0.58
49:S2:69:ILE:CD1	49:S2:133:LYS:HD2	2.30	0.58
57:10:30:ALA:C	57:10:38:LYS:HA	2.28	0.58
61:14:17:ALA:HB2	61:14:79:VAL:HG21	1.84	0.58
75:28:50:GLU:O	75:28:51:ASN:HB2	2.03	0.58
1:2S:381:U:H2'	1:2S:382:U:C5	2.38	0.58
1:2S:858:A:H2'	1:2S:859:G:C8	2.38	0.58
1:2S:3184:A:O2'	1:2S:3185:U:H5'	2.02	0.58
4:L1:155:ILE:HG23	4:L1:163:LEU:CD1	2.33	0.58
7:L4:23:PRO:CG	7:L4:258:LEU:HD23	2.27	0.58
20:58:34:THR:HA	20:58:49:LEU:HD11	1.84	0.58
22:60:132:THR:O	22:60:133:ALA:HB3	2.02	0.58
35:73:35:VAL:HG13	35:73:40:ASP:HB2	1.84	0.58
46:1S:329:G:OP1	55:S8:98:LYS:HE2	2.04	0.58
46:1S:382:C:H2'	46:1S:383:G:C8	2.38	0.58
46:1S:607:G:C5'	46:1S:613:G:H22	2.11	0.58
50:S3:72:LEU:HD23	57:10:20:VAL:CG1	2.33	0.58
50:S3:164:VAL:O	50:S3:168:ILE:HG13	2.03	0.58
54:S7:111:LYS:O	54:S7:112:ARG:HB2	2.02	0.58
55:S8:8:ARG:HA	55:S8:8:ARG:CZ	2.34	0.58
55:S8:29:LEU:HD23	55:S8:29:LEU:H	1.68	0.58
62:15:8:LYS:HD3	62:15:11:VAL:HA	1.85	0.58
65:18:81:ILE:CG2	65:18:82:PRO:HD2	2.33	0.58
65:18:92:ILE:O	65:18:92:ILE:HD13	2.03	0.58
67:20:27:THR:HG23	67:20:113:ASP:HB3	1.84	0.58
71:24:79:VAL:O	71:24:83:LYS:HG3	2.03	0.58
1:2S:1601:U:H2'	1:2S:1603:A:OP2	2.04	0.58
1:2S:1830:G:H2'	1:2S:1831:U:C6	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1932:A:H2'	1:2S:1933:A:H5'	1.84	0.58
1:2S:2586:G:C5	11:L8:241:LYS:HD3	2.39	0.58
1:2S:2788:C:H2'	1:2S:2789:U:C6	2.38	0.58
8:L5:154:THR:HA	8:L5:179:ARG:NH1	2.17	0.58
9:L6:165:LEU:HD12	35:73:6:ARG:HG2	1.86	0.58
14:51:76:ALA:O	14:51:80:LEU:HB2	2.03	0.58
14:51:149:GLY:O	14:51:153:LYS:HG3	2.04	0.58
15:53:73:ARG:HH21	15:53:73:ARG:HG3	1.69	0.58
16:54:22:LEU:HB3	16:54:64:VAL:HG12	1.86	0.58
17:55:68:ARG:HH21	17:55:123:GLN:HB2	1.69	0.58
23:61:139:ARG:H	23:61:139:ARG:HD3	1.68	0.58
37:75:100:VAL:HG13	37:75:105:ARG:HB2	1.85	0.58
46:1S:1501:C:C5	66:19:102:ARG:NH2	2.71	0.58
48:S1:54:LEU:O	48:S1:55:LYS:CB	2.52	0.58
49:S2:226:THR:HG23	49:S2:229:LEU:HB2	1.83	0.58
60:13:136:PRO:HG2	60:13:139:TRP:HB2	1.86	0.58
66:19:89:ARG:HB3	66:19:90:PRO:HD2	1.86	0.58
75:28:25:VAL:HG11	75:28:66:LEU:CD1	2.33	0.58
1:2S:126:U:H2'	1:2S:127:G:C8	2.39	0.58
1:2S:915:A:H2'	1:2S:916:G:H5'	1.84	0.58
1:2S:1054:A:H5''	1:2S:2637:A:H61	1.68	0.58
1:2S:1393:A:H2'	1:2S:1394:A:C8	2.39	0.58
1:2S:2941:A:C8	6:L3:256:HIS:HE1	2.20	0.58
1:2S:3358:U:H2'	1:2S:3359:A:O4'	2.04	0.58
8:L5:131:LEU:HD13	8:L5:131:LEU:N	2.19	0.58
11:L8:128:LYS:HG3	11:L8:129:PRO:HD2	1.85	0.58
14:51:23:VAL:HB	14:51:25:GLU:O	2.03	0.58
15:53:67:ARG:HD3	15:53:67:ARG:H	1.67	0.58
16:54:45:LEU:HD21	22:60:70:THR:O	2.03	0.58
18:56:75:ALA:O	18:56:79:ILE:HG13	2.03	0.58
21:59:74:ARG:O	21:59:75:HIS:HB2	2.03	0.58
21:59:90:PRO:O	21:59:94:VAL:HG23	2.02	0.58
27:65:86:VAL:HG13	27:65:120:LYS:HD2	1.86	0.58
28:66:112:ASP:H	28:66:115:ARG:HB2	1.69	0.58
46:1S:594:A:H4'	46:1S:595:G:H5'	1.86	0.58
46:1S:981:U:C2'	46:1S:982:U:H5''	2.33	0.58
46:1S:1323:C:H2'	46:1S:1324:G:C8	2.38	0.58
51:S4:126:VAL:HG12	51:S4:141:THR:HG22	1.86	0.58
1:2S:336:A:C2'	1:2S:337:G:H5'	2.34	0.58
1:2S:501:A:H2'	1:2S:502:U:C6	2.37	0.58
1:2S:519:A:H4'	7:L4:355:PHE:HZ	1.66	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1480:G:H22	1:2S:1871:U:H3'	1.67	0.58
1:2S:2437:G:H1	1:2S:2510:U:H3	1.52	0.58
1:2S:2677:G:H3'	1:2S:2679:A:OP2	2.04	0.58
6:L3:232:ARG:HG3	6:L3:270:ARG:HG3	1.85	0.58
25:63:91:VAL:HG23	25:63:93:LEU:HD22	1.85	0.58
34:72:101:SER:O	34:72:105:ARG:HG3	2.03	0.58
46:1S:148:A:H2'	46:1S:149:C:H5'	1.84	0.58
46:1S:417:A:H1'	46:1S:418:G:OP2	2.04	0.58
46:1S:460:A:H3'	46:1S:461:G:C8	2.30	0.58
46:1S:1659:A:H2'	46:1S:1660:A:C8	2.38	0.58
49:S2:42:GLY:O	49:S2:45:VAL:HB	2.04	0.58
49:S2:104:VAL:HG22	49:S2:132:ALA:HB1	1.84	0.58
51:S4:52:LEU:HB3	51:S4:54:TYR:CD2	2.39	0.58
53:S6:12:SER:O	53:S6:124:LEU:CD1	2.52	0.58
54:S7:43:PHE:HD1	54:S7:44:LYS:N	2.02	0.58
59:12:46:ARG:HH12	78:31:103:LEU:HD21	1.68	0.58
62:15:87:PRO:HA	62:15:90:ILE:HG13	1.85	0.58
63:16:31:VAL:O	63:16:32:ASN:HB2	2.02	0.58
66:19:45:MET:SD	66:19:46:PRO:HD2	2.43	0.58
75:28:7:VAL:HG13	75:28:56:LEU:O	2.03	0.58
79:RA:17:ASN:HB3	79:RA:39:ASP:HB3	1.86	0.58
79:RA:112:SER:HB2	79:RA:153:GLN:HA	1.84	0.58
1:2S:153:U:H2'	1:2S:154:U:H5''	1.85	0.58
1:2S:1263:A:H2'	1:2S:1263:A:N3	2.19	0.58
1:2S:2464:U:H3	1:2S:2491:A:H61	1.50	0.58
1:2S:2908:G:H2'	1:2S:2909:U:C6	2.38	0.58
1:2S:3086:A:H3'	1:2S:3087:A:H8	1.68	0.58
1:2S:3197:G:H2'	1:2S:3198:U:H3'	1.85	0.58
3:5S:28:C:H2'	3:5S:29:C:O4'	2.04	0.58
5:L2:225:ILE:HB	5:L2:238:ILE:HG13	1.86	0.58
6:L3:338:LEU:HD13	6:L3:338:LEU:N	2.18	0.58
9:L6:43:LEU:HD12	9:L6:83:TYR:CA	2.28	0.58
15:53:138:VAL:CG2	37:75:118:ILE:HB	2.33	0.58
16:54:106:ARG:HG3	16:54:106:ARG:HH11	1.69	0.58
21:59:189:ALA:HB2	54:S7:39:ARG:CD	2.33	0.58
26:64:46:PRO:HB2	26:64:54:LEU:HD22	1.85	0.58
29:67:49:TYR:HD2	29:67:133:LYS:HZ3	1.50	0.58
48:S1:171:ILE:O	48:S1:175:GLU:HG2	2.03	0.58
53:S6:28:PHE:O	53:S6:29:ASP:HB2	2.03	0.58
58:11:3:THR:HA	58:11:81:HIS:NE2	2.18	0.58
61:14:39:ILE:O	61:14:40:ALA:HB3	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:21:11:LEU:O	68:21:12:TYR:HB3	2.03	0.58
1:2S:58:G:H5''	17:55:154:PRO:HB2	1.84	0.58
1:2S:745:C:H5''	20:58:145:ASN:HB2	1.86	0.58
1:2S:819:U:H2'	1:2S:820:A:H5'	1.85	0.58
1:2S:1106:G:H2'	1:2S:1107:C:C6	2.39	0.58
1:2S:1138:U:H2'	1:2S:1139:G:O4'	2.04	0.58
1:2S:1235:U:H4'	1:2S:1236:G:C5'	2.32	0.58
1:2S:2138:A:C5	39:77:3:LYS:HB3	2.39	0.58
1:2S:2421:U:H4'	44:82:53:GLN:HB2	1.85	0.58
1:2S:3267:A:H3'	1:2S:3268:A:H8	1.68	0.58
3:5S:104:A:H2'	3:5S:105:C:H5'	1.86	0.58
5:L2:42:ARG:HD2	5:L2:87:PHE:CD1	2.39	0.58
8:L5:144:VAL:CG1	8:L5:173:VAL:HG22	2.33	0.58
10:L7:84:VAL:HA	10:L7:139:PRO:HD3	1.85	0.58
19:57:61:ARG:HH11	19:57:61:ARG:HG3	1.69	0.58
23:61:11:THR:HB	23:61:15:PHE:HB2	1.85	0.58
25:63:57:MET:SD	25:63:75:PRO:HB3	2.44	0.58
32:70:22:LYS:HB2	32:70:94:GLU:HB2	1.84	0.58
33:71:62:ARG:HH11	33:71:62:ARG:HG3	1.69	0.58
45:83:64:VAL:HG12	45:83:65:ALA:N	2.19	0.58
46:1S:175:G:N2	46:1S:176:C:C5	2.72	0.58
46:1S:915:A:H3'	46:1S:916:U:C6	2.39	0.58
46:1S:1166:A:H2'	46:1S:1167:G:C4'	2.33	0.58
46:1S:1440:C:H2'	46:1S:1441:C:O4'	2.03	0.58
49:S2:121:VAL:O	49:S2:125:ILE:HG13	2.03	0.58
52:S5:71:ALA:HB1	52:S5:94:THR:HG21	1.86	0.58
52:S5:94:THR:HG22	52:S5:114:ILE:CD1	2.34	0.58
76:29:33:LYS:HE2	76:29:34:TYR:CZ	2.39	0.58
1:2S:926:A:H2'	1:2S:927:C:C6	2.39	0.58
1:2S:973:A:H2'	1:2S:974:G:O4'	2.04	0.58
1:2S:1117:G:H2'	1:2S:1118:C:C6	2.38	0.58
1:2S:1427:U:H2'	1:2S:1428:A:C8	2.39	0.58
1:2S:1456:A:C6	33:71:64:VAL:HG21	2.39	0.58
1:2S:1782:U:O2'	1:2S:1783:U:H5'	2.04	0.58
2:8S:69:U:H2'	2:8S:70:G:H5'	1.86	0.58
8:L5:19:PRO:HB2	8:L5:24:ARG:HG2	1.86	0.58
18:56:9:ILE:HB	18:56:35:VAL:HG13	1.85	0.58
25:63:125:LEU:O	25:63:127:PRO:HD3	2.04	0.58
33:71:70:ARG:HH21	33:71:70:ARG:CG	2.17	0.58
34:72:24:ARG:HG3	34:72:24:ARG:HH11	1.69	0.58
45:83:49:ARG:HG2	45:83:54:ILE:O	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:503:G:H2'	46:1S:504:U:C5	2.39	0.58
50:S3:6:SER:HB3	50:S3:9:ARG:HB2	1.86	0.58
61:14:72:LYS:HD3	61:14:110:LEU:CD2	2.33	0.58
72:25:45:GLU:O	72:25:49:ARG:HG3	2.03	0.58
75:28:29:ARG:HB2	75:28:29:ARG:HH11	1.69	0.58
1:2S:92:G:OP2	1:2S:93:C:H5'	2.03	0.57
1:2S:924:G:N2	1:2S:2414:G:O2'	2.36	0.57
1:2S:1141:C:H2'	1:2S:1142:G:O4'	2.04	0.57
1:2S:1449:A:H1'	1:2S:2983:C:C5	2.38	0.57
1:2S:1503:A:H2'	1:2S:1504:A:O4'	2.04	0.57
1:2S:1650:G:H4'	5:L2:70:ARG:HA	1.85	0.57
1:2S:1689:U:O3'	21:59:59:SER:HB3	2.04	0.57
1:2S:2238:G:H2'	1:2S:2239:G:C8	2.39	0.57
1:2S:3029:A:H2'	1:2S:3030:G:O4'	2.04	0.57
1:2S:3159:C:H4'	1:2S:3395:G:C6	2.39	0.57
2:8S:97:A:H2'	2:8S:98:U:O4'	2.03	0.57
7:L4:299:ILE:HD12	20:58:39:ARG:HG3	1.84	0.57
10:L7:124:LEU:HD22	10:L7:127:LEU:HD12	1.86	0.57
11:L8:133:LYS:HE2	11:L8:133:LYS:HA	1.86	0.57
16:54:124:ARG:HB3	16:54:124:ARG:HH11	1.68	0.57
18:56:27:LEU:HD23	18:56:31:GLN:O	2.03	0.57
35:73:14:LEU:HD11	35:73:31:LYS:HB2	1.85	0.57
44:82:6:LYS:HG3	44:82:93:LEU:O	2.04	0.57
44:82:7:THR:O	44:82:8:ARG:HB2	2.04	0.57
46:1S:885:G:OP1	48:S1:216:LYS:HD3	2.03	0.57
46:1S:1371:A:H8	46:1S:1371:A:O5'	1.87	0.57
46:1S:1376:C:O2'	46:1S:1377:U:H5'	2.04	0.57
46:1S:1673:G:H5'	53:S6:94:ARG:HH22	1.67	0.57
47:S0:71:GLU:HA	47:S0:94:GLY:C	2.28	0.57
48:S1:44:GLY:O	48:S1:45:LYS:HD3	2.04	0.57
57:10:25:LYS:HB2	57:10:64:TYR:CE2	2.39	0.57
58:11:94:ILE:HD12	58:11:94:ILE:N	2.19	0.57
61:14:72:LYS:HD3	61:14:110:LEU:HD21	1.86	0.57
62:15:22:LEU:HD13	62:15:109:PRO:HB3	1.86	0.57
64:17:24:LEU:HD23	64:17:34:LEU:HD13	1.85	0.57
69:22:36:LYS:O	69:22:40:VAL:HG23	2.04	0.57
70:23:104:LEU:CD2	70:23:124:VAL:HA	2.33	0.57
70:23:109:ARG:HB2	70:23:111:GLY:O	2.04	0.57
79:RA:212:ALA:O	79:RA:243:LEU:HD13	2.04	0.57
1:2S:98:G:H4'	1:2S:281:G:H5'	1.86	0.57
1:2S:696:C:H5'	7:L4:272:VAL:HG23	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1668:G:H2'	1:2S:1669:C:H6	1.68	0.57
1:2S:1794:G:O2'	1:2S:1796:G:N2	2.37	0.57
1:2S:1826:C:H2'	1:2S:1827:C:C6	2.39	0.57
1:2S:2684:C:H2'	1:2S:2685:C:H6	1.67	0.57
1:2S:2809:C:H5''	1:2S:2956:A:H4'	1.86	0.57
2:8S:121:U:H2'	2:8S:122:U:C6	2.40	0.57
2:8S:142:C:H4'	17:55:60:VAL:HG21	1.86	0.57
8:L5:106:ALA:HA	8:L5:171:LEU:HD11	1.87	0.57
11:L8:153:ILE:HG22	11:L8:154:ALA:H	1.69	0.57
14:51:53:THR:HG23	14:51:59:ILE:O	2.04	0.57
24:62:70:LYS:C	24:62:70:LYS:HD3	2.29	0.57
25:63:77:ILE:HD11	25:63:103:ALA:CB	2.31	0.57
29:67:53:VAL:CG2	29:67:62:VAL:HG13	2.33	0.57
30:68:73:LEU:HD11	30:68:77:LYS:HB2	1.86	0.57
30:68:123:VAL:CG1	30:68:124:ILE:H	2.09	0.57
36:74:58:ARG:HB3	36:74:61:GLN:HG2	1.86	0.57
46:1S:127:G:C4'	53:S6:194:LYS:HE2	2.32	0.57
46:1S:551:G:H5'	46:1S:581:U:H2'	1.86	0.57
46:1S:1170:G:N2	46:1S:1571:C:H4'	2.19	0.57
46:1S:1609:U:C2'	46:1S:1610:G:H5'	2.34	0.57
48:S1:69:CYS:HA	48:S1:83:LYS:HA	1.85	0.57
49:S2:126:ARG:HH11	49:S2:126:ARG:HB2	1.68	0.57
51:S4:29:PRO:HG2	51:S4:45:ILE:HD13	1.86	0.57
58:11:93:TYR:HB2	58:11:100:TYR:HE1	1.69	0.57
59:12:24:ILE:C	59:12:26:ASP:H	2.12	0.57
65:18:90:ASN:O	65:18:95:GLY:HA2	2.04	0.57
66:19:21:PHE:HA	66:19:24:ARG:HB2	1.86	0.57
66:19:117:SER:HB2	66:19:123:ARG:HB2	1.86	0.57
71:24:91:LEU:HA	71:24:96:LEU:HD13	1.85	0.57
71:24:94:TYR:HB2	71:24:96:LEU:HD11	1.86	0.57
1:2S:26:A:C2	1:2S:330:G:C6	2.92	0.57
1:2S:1323:G:O3'	22:60:2:ALA:HA	2.05	0.57
1:2S:1750:A:H4'	1:2S:1751:G:H5'	1.85	0.57
1:2S:2271:A:H3'	1:2S:2272:G:H5''	1.85	0.57
1:2S:3359:A:H3'	1:2S:3360:C:C6	2.38	0.57
5:L2:47:GLN:O	5:L2:59:ALA:HA	2.03	0.57
6:L3:43:LEU:HD12	6:L3:43:LEU:N	2.18	0.57
6:L3:227:GLU:HG3	6:L3:228:GLY:H	1.69	0.57
7:L4:132:ALA:CA	7:L4:148:ILE:HD12	2.33	0.57
10:L7:77:VAL:HG22	23:61:139:ARG:O	2.03	0.57
15:53:171:ARG:NH2	15:53:174:ARG:HG2	2.19	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:53:189:GLU:O	15:53:192:GLU:HG2	2.05	0.57
17:55:61:ILE:HG22	17:55:131:GLU:HG2	1.86	0.57
28:66:80:VAL:HG12	28:66:99:LEU:HB2	1.85	0.57
40:78:73:LEU:HD23	40:78:75:VAL:HG22	1.86	0.57
46:1S:190:C:N4	55:S8:141:ARG:NH2	2.52	0.57
46:1S:715:U:C5	46:1S:717:C:N4	2.72	0.57
46:1S:1473:U:O2	46:1S:1473:U:H2'	2.03	0.57
46:1S:1560:U:H2'	46:1S:1561:U:O4'	2.04	0.57
46:1S:1594:G:C5'	76:29:33:LYS:HD2	2.35	0.57
47:S0:41:ARG:HG2	64:17:105:GLN:CD	2.30	0.57
48:S1:127:VAL:HG11	48:S1:176:VAL:HG21	1.87	0.57
48:S1:142:PHE:HD2	48:S1:209:ASN:HB2	1.69	0.57
52:S5:108:LEU:HB3	63:16:43:ILE:HG13	1.86	0.57
76:29:53:ASN:HB2	76:29:55:PHE:CZ	2.39	0.57
1:2S:60:A:H2'	1:2S:61:A:O4'	2.05	0.57
1:2S:71:A:H61	1:2S:303:G:H1'	1.69	0.57
1:2S:2078:C:H2'	1:2S:2079:G:C8	2.39	0.57
1:2S:2088:A:H2'	1:2S:2088:A:N3	2.20	0.57
1:2S:2277:C:C2'	1:2S:2278:C:H5'	2.35	0.57
1:2S:2403:G:H1'	1:2S:2872:A:C6	2.39	0.57
1:2S:3187:A:H2	22:60:169:SER:HB3	1.70	0.57
7:L4:23:PRO:HA	7:L4:259:ASP:OD2	2.05	0.57
7:L4:212:ASP:OD1	7:L4:216:VAL:HG13	2.04	0.57
9:L6:18:LEU:HD22	9:L6:18:LEU:H	1.68	0.57
11:L8:105:LYS:HE3	11:L8:108:ARG:HH22	1.69	0.57
14:51:15:GLU:HB2	14:51:132:ASN:OD1	2.05	0.57
18:56:62:THR:HG22	18:56:65:ASN:H	1.68	0.57
19:57:25:SER:OG	19:57:28:ASN:ND2	2.38	0.57
39:77:16:HIS:HA	39:77:27:PHE:O	2.04	0.57
46:1S:14:C:OP1	49:S2:165:VAL:HG23	2.04	0.57
46:1S:930:A:H1'	48:S1:111:ARG:HH11	1.68	0.57
50:S3:186:VAL:HG12	50:S3:188:ILE:HG13	1.86	0.57
53:S6:6:SER:O	53:S6:113:ILE:HG13	2.04	0.57
57:10:61:TRP:HZ3	76:29:22:ARG:HD2	1.69	0.57
59:12:104:GLY:HA2	59:12:113:ARG:HD2	1.86	0.57
60:13:84:ILE:HD12	60:13:89:TYR:HA	1.87	0.57
71:24:3:ASP:HB2	71:24:30:PRO:O	2.04	0.57
73:26:42:ARG:HB3	73:26:42:ARG:HH11	1.69	0.57
79:RA:161:LYS:HG3	79:RA:161:LYS:O	2.04	0.57
1:2S:39:A:H2'	1:2S:42:C:H41	1.68	0.57
1:2S:634:C:H5'	35:73:21:ARG:O	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:799:G:H2'	1:2S:801:A:H62	1.68	0.57
1:2S:816:A:C3'	1:2S:817:A:H5'	2.35	0.57
1:2S:1302:A:H2'	1:2S:1303:A:H5''	1.86	0.57
1:2S:2414:G:H2'	1:2S:2415:C:C6	2.39	0.57
1:2S:2914:G:H3'	1:2S:2915:U:C6	2.39	0.57
3:5S:26:C:H5'	8:L5:56:THR:HB	1.86	0.57
4:L1:21:ASN:OD1	4:L1:174:MET:HB2	2.04	0.57
8:L5:24:ARG:CZ	8:L5:24:ARG:HB2	2.34	0.57
9:L6:50:LYS:HE2	9:L6:72:ASN:HB2	1.86	0.57
11:L8:107:GLU:O	11:L8:111:LYS:HG3	2.04	0.57
14:51:14:ILE:HD12	14:51:77:GLU:HG2	1.85	0.57
17:55:90:ASN:C	17:55:92:LEU:H	2.13	0.57
19:57:22:LEU:HB3	19:57:24:VAL:HG23	1.86	0.57
23:61:76:ILE:HB	23:61:87:LYS:HB2	1.87	0.57
27:65:106:ASP:HB3	27:65:127:THR:HG21	1.87	0.57
29:67:87:LEU:HG	29:67:88:ASP:N	2.16	0.57
33:71:55:LEU:HD23	33:71:95:PRO:HB3	1.86	0.57
35:73:15:SER:HA	35:73:94:PHE:HE1	1.67	0.57
39:77:84:SER:O	39:77:85:LYS:HB2	2.04	0.57
44:82:67:LYS:HG2	44:82:87:ARG:CG	2.34	0.57
46:1S:798:C:H2'	46:1S:799:A:C8	2.40	0.57
46:1S:1735:U:H2'	46:1S:1736:G:C8	2.40	0.57
48:S1:135:LEU:HB3	48:S1:217:LEU:HD12	1.86	0.57
51:S4:159:THR:HB	51:S4:227:VAL:HG23	1.86	0.57
52:S5:57:SER:HB3	75:28:53:ILE:CG2	2.35	0.57
54:S7:51:VAL:HG23	54:S7:53:GLY:H	1.70	0.57
58:11:4:GLU:O	58:11:5:LEU:HB2	2.05	0.57
69:22:77:PRO:HG2	70:23:9:LEU:HD23	1.86	0.57
73:26:45:VAL:HG22	73:26:64:LEU:HD11	1.87	0.57
1:2S:1108:U:H2'	1:2S:1109:U:H6	1.66	0.57
1:2S:1715:A:N6	32:70:84:LEU:HB2	2.19	0.57
7:L4:316:ASN:ND2	7:L4:319:LYS:HE2	2.20	0.57
10:L7:218:ARG:HH11	10:L7:218:ARG:HA	1.69	0.57
19:57:47:TYR:O	19:57:51:VAL:HG23	2.05	0.57
32:70:26:GLY:O	32:70:30:THR:HG23	2.04	0.57
40:78:45:VAL:HG23	40:78:52:TYR:HB2	1.86	0.57
46:1S:446:A:N6	46:1S:461:G:H21	2.03	0.57
46:1S:576:G:H4'	46:1S:580:A:N3	2.19	0.57
46:1S:607:G:C5'	46:1S:613:G:N2	2.66	0.57
46:1S:981:U:H2'	46:1S:982:U:C5'	2.34	0.57
49:S2:58:LEU:HD23	68:21:15:ARG:HG3	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:S3:220:PRO:HB2	79:RA:230:ALA:HB1	1.86	0.57
52:S5:164:PRO:O	52:S5:168:VAL:HG23	2.05	0.57
54:S7:16:LEU:O	54:S7:20:VAL:HG23	2.05	0.57
55:S8:139:ALA:HB1	55:S8:143:TRP:CE2	2.40	0.57
58:11:66:ILE:HG23	58:11:127:GLN:O	2.03	0.57
1:2S:117:U:C4	11:L8:142:LEU:HD23	2.39	0.57
1:2S:436:A:H2'	1:2S:437:G:C8	2.40	0.57
1:2S:807:A:C3'	1:2S:808:A:H5''	2.35	0.57
1:2S:858:A:C2'	1:2S:859:G:H5'	2.35	0.57
1:2S:947:G:H2'	1:2S:948:C:H6	1.69	0.57
1:2S:1137:C:H2'	1:2S:1138:U:C6	2.40	0.57
1:2S:1816:A:H2'	1:2S:1817:G:O5'	2.04	0.57
1:2S:2135:U:O5'	1:2S:2135:U:H6	1.87	0.57
1:2S:2205:U:C2'	1:2S:2206:G:H5'	2.32	0.57
1:2S:2258:U:H2'	1:2S:2259:A:O4'	2.04	0.57
1:2S:3019:U:H3	1:2S:3035:A:N6	2.03	0.57
1:2S:3024:A:H4'	12:L9:97:PHE:CZ	2.40	0.57
5:L2:80:GLU:OE1	45:83:72:SER:HA	2.05	0.57
6:L3:324:VAL:HG22	6:L3:325:LYS:H	1.69	0.57
6:L3:339:ARG:CG	6:L3:340:LYS:H	2.17	0.57
10:L7:63:ILE:HG22	10:L7:67:ARG:CZ	2.35	0.57
13:50:189:GLU:HG2	13:50:200:LEU:HB3	1.84	0.57
15:53:180:ARG:HD3	38:76:11:LEU:CD1	2.34	0.57
18:56:43:ILE:HG22	18:56:44:SER:H	1.69	0.57
19:57:30:ARG:HD2	19:57:63:PHE:HE2	1.69	0.57
24:62:12:ALA:HA	24:62:68:THR:HA	1.85	0.57
29:67:25:ILE:CG2	29:67:28:PRO:HD3	2.35	0.57
44:82:100:LYS:H	44:82:100:LYS:CE	2.04	0.57
46:1S:103:A:O2'	46:1S:104:A:OP2	2.23	0.57
46:1S:205:U:H2'	46:1S:206:A:C8	2.40	0.57
50:S3:222:VAL:HG22	50:S3:223:LYS:H	1.69	0.57
55:S8:106:ALA:HB2	55:S8:165:LEU:HG	1.86	0.57
63:16:129:PHE:O	63:16:129:PHE:CD1	2.57	0.57
1:2S:118:U:H1'	1:2S:150:A:N6	2.19	0.57
1:2S:424:G:H1'	34:72:24:ARG:NH2	2.20	0.57
1:2S:426:G:H5'	34:72:50:ILE:HG22	1.86	0.57
1:2S:587:U:C2'	1:2S:588:G:H5'	2.35	0.57
1:2S:1044:U:H2'	1:2S:1045:C:O4'	2.04	0.57
1:2S:1427:U:H5	30:68:4:ARG:NH2	2.03	0.57
1:2S:1593:A:H4'	36:74:61:GLN:HE22	1.69	0.57
1:2S:1873:U:O5'	1:2S:1873:U:H6	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2363:A:O2'	1:2S:2364:G:H5'	2.05	0.57
2:8S:23:U:C4'	28:66:17:LYS:HG2	2.28	0.57
9:L6:97:ASN:O	9:L6:98:VAL:HB	2.04	0.57
13:50:51:HIS:CD2	13:50:168:SER:HB2	2.39	0.57
14:51:6:GLN:HG3	14:51:7:ASN:H	1.68	0.57
18:56:78:ARG:O	18:56:78:ARG:HG3	2.04	0.57
21:59:25:ASP:OD2	21:59:27:ASN:HB2	2.04	0.57
46:1S:395:U:H2'	46:1S:396:G:O4'	2.05	0.57
57:10:1:MET:HE1	57:10:41:TYR:CD2	2.39	0.57
60:13:53:LEU:O	60:13:57:ALA:HB3	2.05	0.57
61:14:17:ALA:H	61:14:79:VAL:HG22	1.70	0.57
65:18:49:LYS:NZ	65:18:81:ILE:HG12	2.20	0.57
66:19:77:ASN:HB3	66:19:95:ASP:HB3	1.87	0.57
79:RA:203:THR:HG23	79:RA:245:PHE:CD2	2.39	0.57
1:2S:370:U:H4'	1:2S:404:G:H5'	1.87	0.57
1:2S:1816:A:C2'	1:2S:1817:G:O5'	2.53	0.57
1:2S:3017:A:H2'	1:2S:3018:C:C6	2.40	0.57
1:2S:3065:G:H2'	1:2S:3066:U:O4'	2.05	0.57
3:5S:112:G:O6	8:L5:21:ARG:CD	2.53	0.57
5:L2:129:ALA:O	5:L2:169:ILE:HB	2.05	0.57
12:L9:4:ILE:HG23	12:L9:5:GLN:N	2.20	0.57
15:53:59:ARG:HH12	15:53:67:ARG:C	2.12	0.57
15:53:70:ARG:CG	15:53:71:ALA:N	2.67	0.57
18:56:15:LEU:HD11	18:56:128:ARG:HB2	1.85	0.57
18:56:36:VAL:HG11	18:56:108:ILE:HG23	1.85	0.57
21:59:41:ILE:O	21:59:45:VAL:HG23	2.05	0.57
23:61:48:ILE:HD12	23:61:94:GLU:HG2	1.87	0.57
30:68:101:VAL:HG13	30:68:124:ILE:CG2	2.35	0.57
44:82:6:LYS:O	44:82:7:THR:HG23	2.05	0.57
46:1S:685:A:H5'	46:1S:685:A:C8	2.38	0.57
46:1S:1505:A:H2'	46:1S:1506:G:O4'	2.05	0.57
60:13:46:THR:O	60:13:50:ILE:HG13	2.05	0.57
61:14:69:ALA:O	61:14:73:GLU:HG2	2.05	0.57
61:14:103:ARG:HD3	73:26:49:ALA:HB2	1.86	0.57
63:16:127:LYS:HA	63:16:134:ALA:HA	1.87	0.57
64:17:46:LEU:O	64:17:50:ILE:HG13	2.05	0.57
71:24:55:VAL:HG13	71:24:74:LEU:O	2.04	0.57
1:2S:153:U:C2'	1:2S:154:U:H5''	2.35	0.57
1:2S:537:A:H2'	1:2S:538:G:O4'	2.04	0.57
1:2S:662:U:H2'	1:2S:663:C:C6	2.40	0.57
1:2S:895:A:H5'	1:2S:896:A:OP1	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1312:C:H2'	1:2S:1313:G:O4'	2.04	0.57
1:2S:2326:A:H2'	1:2S:2327:U:C6	2.40	0.57
1:2S:3075:G:H2'	1:2S:3076:C:C6	2.40	0.57
4:L1:42:ASP:O	4:L1:44:GLN:HG2	2.05	0.57
4:L1:50:SER:CA	4:L1:193:LEU:HD22	2.24	0.57
4:L1:62:ASN:HD22	4:L1:64:SER:HB2	1.69	0.57
6:L3:105:VAL:HG12	6:L3:106:TRP:N	2.20	0.57
8:L5:40:HIS:CD2	23:61:69:LYS:HA	2.39	0.57
10:L7:63:ILE:HG22	10:L7:67:ARG:NH2	2.20	0.57
35:73:49:ILE:HG22	35:73:50:ALA:H	1.69	0.57
39:77:46:SER:HB2	39:77:54:LYS:HD2	1.85	0.57
46:1S:158:U:O2	46:1S:421:A:H5'	2.05	0.57
47:S0:191:ARG:HG3	47:S0:192:THR:H	1.70	0.57
57:10:14:TYR:CD2	57:10:35:ILE:HD11	2.39	0.57
65:18:11:PHE:CE2	65:18:59:GLY:HA3	2.39	0.57
69:22:89:TRP:O	69:22:93:LEU:HD22	2.05	0.57
1:2S:115:A:H2'	1:2S:265:A:N3	2.20	0.56
1:2S:1348:U:H5'	20:58:35:PHE:CE1	2.40	0.56
1:2S:2880:U:H2'	1:2S:2881:C:C6	2.40	0.56
1:2S:3198:U:H1'	12:L9:21:LYS:HD2	1.87	0.56
1:2S:3294:A:H2'	1:2S:3295:A:O4'	2.05	0.56
6:L3:53:MET:HG2	6:L3:77:THR:HG22	1.87	0.56
7:L4:169:LEU:O	7:L4:174:ALA:HB3	2.05	0.56
17:55:121:VAL:HG23	17:55:122:ASN:H	1.70	0.56
20:58:18:ALA:HA	20:58:53:PHE:CE1	2.40	0.56
25:63:114:ILE:HB	25:63:132:ASN:O	2.04	0.56
29:67:60:LYS:HA	29:67:63:ALA:HB3	1.87	0.56
37:75:64:GLU:HA	37:75:67:ARG:CG	2.34	0.56
46:1S:218:A:N7	46:1S:830:U:C6	2.73	0.56
46:1S:804:A:N7	69:22:107:SER:HA	2.20	0.56
46:1S:1573:A:H4'	46:1S:1574:G:O5'	2.04	0.56
46:1S:1788:G:C8	61:14:132:ARG:NE	2.73	0.56
52:S5:146:THR:HB	52:S5:157:ARG:HB3	1.86	0.56
54:S7:47:ARG:HG3	54:S7:61:PHE:HE2	1.70	0.56
59:12:106:ILE:O	59:12:107:ASP:HB2	2.04	0.56
59:12:129:GLU:HG2	59:12:130:THR:H	1.70	0.56
61:14:76:ILE:N	61:14:76:ILE:HD12	2.20	0.56
64:17:14:LYS:HG3	64:17:69:ILE:CG2	2.34	0.56
1:2S:649:A:H2'	1:2S:650:C:C5	2.40	0.56
1:2S:855:U:H5''	21:59:95:TRP:CD2	2.40	0.56
1:2S:1162:U:O5'	1:2S:1162:U:H6	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1277:C:H2'	1:2S:1278:A:C8	2.41	0.56
1:2S:1523:U:H5'	27:65:113:LEU:CB	2.35	0.56
1:2S:3331:U:OP1	6:L3:367:LYS:HB2	2.04	0.56
2:8S:57:C:H2'	2:8S:58:G:C8	2.39	0.56
22:60:67:ALA:C	22:60:69:PRO:HD3	2.29	0.56
28:66:56:VAL:HG21	28:66:104:LEU:HB3	1.86	0.56
29:67:12:VAL:HG13	29:67:21:LYS:O	2.04	0.56
36:74:95:ILE:HD12	36:74:95:ILE:N	2.20	0.56
43:81:2:ARG:NH1	46:1S:1772:C:H3'	2.17	0.56
46:1S:145:A:H2	46:1S:169:A:H62	1.54	0.56
51:S4:191:ARG:HD3	51:S4:245:LYS:HD3	1.87	0.56
51:S4:194:THR:O	51:S4:195:ILE:HG13	2.04	0.56
55:S8:6:ASP:O	55:S8:9:HIS:HE1	1.87	0.56
55:S8:116:HIS:CE1	55:S8:146:ARG:HD3	2.40	0.56
56:S9:13:SER:H	56:S9:43:TYR:HB3	1.70	0.56
78:31:132:LEU:HD13	78:31:139:LEU:HD23	1.87	0.56
1:2S:952:A:C8	1:2S:1143:A:N6	2.73	0.56
1:2S:1113:G:H5''	30:68:19:LYS:O	2.05	0.56
1:2S:1158:A:C2'	1:2S:1159:A:H4'	2.35	0.56
1:2S:1219:C:H2'	1:2S:1220:U:H5''	1.86	0.56
1:2S:1305:U:C2	6:L3:257:PRO:HG3	2.40	0.56
1:2S:1350:A:H2'	1:2S:1351:U:H5'	1.86	0.56
1:2S:1465:A:H2'	1:2S:1466:G:O4'	2.05	0.56
1:2S:1500:G:H2'	1:2S:1501:U:C6	2.41	0.56
1:2S:1867:A:H2'	1:2S:1868:G:C8	2.40	0.56
1:2S:2371:G:H2'	1:2S:2373:A:OP1	2.05	0.56
1:2S:2497:U:H2'	1:2S:2499:U:C5	2.40	0.56
1:2S:3147:G:H2'	1:2S:3148:U:C6	2.41	0.56
1:2S:3243:A:N6	18:56:160:ARG:HD2	2.19	0.56
1:2S:3288:G:HO2'	1:2S:3289:G:H8	1.53	0.56
2:8S:47:C:H1'	2:8S:61:A:H2'	1.88	0.56
2:8S:49:G:H2'	2:8S:50:C:C6	2.39	0.56
6:L3:89:VAL:CG2	6:L3:160:VAL:HG22	2.36	0.56
6:L3:243:HIS:O	6:L3:244:ARG:HG2	2.05	0.56
8:L5:83:LEU:N	8:L5:84:PRO:CD	2.69	0.56
8:L5:131:LEU:HD12	8:L5:175:HIS:HE1	1.68	0.56
8:L5:155:THR:H	8:L5:179:ARG:NH1	2.03	0.56
10:L7:75:TYR:O	23:61:141:VAL:HG22	2.05	0.56
10:L7:81:HIS:HB2	10:L7:138:TYR:CE1	2.41	0.56
10:L7:92:ILE:HD11	20:58:4:ASP:HB2	1.86	0.56
11:L8:140:VAL:O	11:L8:144:GLU:HG3	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:50:26:VAL:HB	13:50:27:PRO:HD2	1.86	0.56
13:50:185:ARG:CZ	13:50:186:GLU:HG3	2.35	0.56
15:53:166:ALA:O	15:53:170:LEU:HG	2.04	0.56
15:53:183:ARG:HA	15:53:186:ARG:HG3	1.87	0.56
20:58:152:HIS:HA	20:58:161:LYS:O	2.04	0.56
21:59:4:LEU:HA	21:59:7:GLN:OE1	2.05	0.56
21:59:189:ALA:HB1	54:S7:35:LYS:NZ	2.21	0.56
25:63:104:ASN:OD1	25:63:108:GLU:HB2	2.05	0.56
26:64:18:GLY:HA2	26:64:32:GLN:HA	1.87	0.56
33:71:52:ALA:HB3	33:71:55:LEU:CB	2.34	0.56
37:75:44:ILE:O	37:75:48:ARG:HG2	2.05	0.56
37:75:61:GLN:HA	37:75:64:GLU:CD	2.30	0.56
43:81:7:LYS:O	43:81:11:ARG:HB2	2.05	0.56
46:1S:106:U:H2'	46:1S:107:C:C6	2.40	0.56
46:1S:567:A:N3	77:30:14:VAL:HG21	2.20	0.56
46:1S:618:U:H5'	46:1S:1030:A:C5	2.40	0.56
46:1S:722:G:C3'	46:1S:723:G:H5''	2.35	0.56
46:1S:903:U:H2'	46:1S:905:A:OP2	2.06	0.56
46:1S:952:A:H2'	46:1S:953:G:C8	2.40	0.56
46:1S:974:A:H2'	46:1S:975:C:H6	1.70	0.56
46:1S:1184:A:H2'	46:1S:1185:U:C4'	2.36	0.56
46:1S:1216:C:O2'	46:1S:1218:G:H5''	2.05	0.56
46:1S:1269:U:H4'	46:1S:1270:G:C5'	2.36	0.56
46:1S:1433:G:O2'	46:1S:1434:U:H5'	2.05	0.56
48:S1:144:ARG:HB3	48:S1:208:GLN:HG2	1.88	0.56
51:S4:44:LEU:O	51:S4:48:LEU:HD13	2.05	0.56
53:S6:2:LYS:HB3	53:S6:107:ALA:O	2.05	0.56
54:S7:55:LYS:HB2	54:S7:87:ASP:O	2.05	0.56
54:S7:162:ILE:HB	54:S7:169:PHE:CE2	2.41	0.56
56:S9:24:LEU:HD23	56:S9:27:GLU:OE1	2.06	0.56
56:S9:63:ASP:O	56:S9:66:ASP:HB2	2.05	0.56
57:10:92:ILE:O	57:10:92:ILE:HG23	2.05	0.56
58:11:2:SER:HB2	58:11:82:ARG:H	1.70	0.56
60:13:33:VAL:HG11	60:13:66:ILE:HG12	1.87	0.56
64:17:75:GLU:O	64:17:79:GLU:HG2	2.04	0.56
67:20:37:VAL:HG12	67:20:41:ILE:HD13	1.87	0.56
70:23:5:LYS:O	70:23:7:ARG:HD2	2.04	0.56
70:23:96:VAL:HG23	70:23:97:ASP:N	2.13	0.56
70:23:126:LYS:HE2	70:23:129:GLY:HA2	1.85	0.56
1:2S:74:G:H2'	1:2S:75:G:H8	1.70	0.56
1:2S:587:U:O2'	1:2S:588:G:H5'	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:700:C:H2'	1:2S:701:G:C8	2.39	0.56
1:2S:1140:G:H4'	10:L7:94:LYS:NZ	2.20	0.56
1:2S:2378:C:H2'	1:2S:2379:U:C6	2.40	0.56
1:2S:3260:G:H1'	16:54:129:TYR:CD2	2.40	0.56
2:8S:155:A:H2'	2:8S:156:U:H5'	1.87	0.56
6:L3:56:ILE:HG12	6:L3:356:LEU:HD22	1.87	0.56
15:53:165:SER:C	15:53:167:PHE:H	2.13	0.56
18:56:46:GLU:OE1	18:56:48:PHE:HB2	2.06	0.56
21:59:109:TYR:C	21:59:115:ILE:HG22	2.31	0.56
24:62:90:ARG:O	24:62:91:ASP:HB2	2.03	0.56
29:67:121:ARG:HH12	29:67:126:LYS:HB3	1.71	0.56
46:1S:343:C:H2'	46:1S:344:A:C8	2.40	0.56
46:1S:450:U:H2'	46:1S:451:A:C8	2.40	0.56
46:1S:637:C:OP1	69:22:32:LYS:HG3	2.05	0.56
46:1S:784:C:N4	71:24:11:LYS:HG2	2.21	0.56
46:1S:819:G:C2	46:1S:853:G:N1	2.65	0.56
48:S1:61:LEU:O	48:S1:62:LYS:HB2	2.06	0.56
50:S3:72:LEU:HD23	57:10:20:VAL:HG13	1.87	0.56
55:S8:155:SER:O	55:S8:159:GLN:HB2	2.05	0.56
69:22:52:TYR:HE1	69:22:59:GLY:HA3	1.70	0.56
70:23:75:GLN:HG3	70:23:82:LYS:HG3	1.86	0.56
72:25:62:VAL:HG13	72:25:76:ALA:HB3	1.86	0.56
1:2S:810:A:H2'	1:2S:811:U:C6	2.41	0.56
1:2S:833:G:H2'	1:2S:834:U:O4'	2.06	0.56
1:2S:874:U:H5'	1:2S:875:G:H5'	1.86	0.56
1:2S:900:G:H1'	1:2S:1589:A:N6	2.20	0.56
1:2S:907:G:C6	1:2S:926:A:C8	2.93	0.56
1:2S:985:U:H5''	10:L7:98:LYS:HE3	1.88	0.56
1:2S:1060:U:H2'	1:2S:1061:A:C8	2.39	0.56
1:2S:1151:U:H3'	1:2S:1152:G:H21	1.70	0.56
1:2S:1184:A:H2'	1:2S:1185:C:C6	2.40	0.56
1:2S:1406:A:O2'	1:2S:1407:A:H5'	2.06	0.56
1:2S:2297:U:H1'	1:2S:2920:U:H4'	1.88	0.56
1:2S:2351:U:H4'	19:57:83:TRP:CE3	2.41	0.56
1:2S:2533:G:H2'	1:2S:2534:G:C4'	2.35	0.56
1:2S:2917:G:OP1	25:63:46:LEU:HA	2.06	0.56
1:2S:2948:C:O2'	1:2S:2949:U:H5'	2.05	0.56
9:L6:134:ARG:HH11	9:L6:134:ARG:HG2	1.71	0.56
10:L7:124:LEU:HA	10:L7:127:LEU:HD12	1.86	0.56
13:50:190:VAL:HG22	13:50:199:PHE:CE1	2.41	0.56
14:51:49:LYS:HE2	14:51:64:LYS:CE	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:60:110:MET:CE	22:60:121:ILE:HG12	2.36	0.56
34:72:104:ASN:O	34:72:108:ILE:HG13	2.06	0.56
36:74:23:VAL:HG12	36:74:24:LYS:N	2.18	0.56
37:75:64:GLU:HA	37:75:67:ARG:NE	2.19	0.56
44:82:93:LEU:HD23	44:82:93:LEU:H	1.71	0.56
46:1S:159:U:H1'	53:S6:87:ARG:NH2	2.20	0.56
46:1S:707:A:H2'	46:1S:708:C:C4'	2.34	0.56
46:1S:1083:G:H2'	46:1S:1084:A:O4'	2.06	0.56
46:1S:1223:A:O2'	46:1S:1224:A:H5'	2.06	0.56
46:1S:1667:A:H2'	46:1S:1668:G:C8	2.40	0.56
47:S0:54:TRP:O	47:S0:58:VAL:HG23	2.05	0.56
48:S1:29:TRP:HZ2	48:S1:45:LYS:HG3	1.69	0.56
50:S3:132:LYS:HB3	50:S3:189:MET:HG3	1.88	0.56
52:S5:46:TRP:CE3	52:S5:118:LEU:HD13	2.40	0.56
60:13:22:ALA:CB	60:13:23:PRO:HA	2.26	0.56
63:16:34:SER:OG	66:19:7:ARG:HB3	2.04	0.56
69:22:101:TYR:HA	69:22:113:HIS:CE1	2.37	0.56
1:2S:1661:G:H2'	1:2S:1662:G:C8	2.40	0.56
1:2S:1695:U:O2	36:74:26:PRO:HB3	2.05	0.56
1:2S:2292:U:H2'	1:2S:2293:C:C6	2.41	0.56
1:2S:2372:A:H5''	1:2S:2373:A:C5'	2.29	0.56
1:2S:2957:G:H2'	1:2S:2958:A:H5'	1.88	0.56
1:2S:3113:A:H2'	1:2S:3114:A:O4'	2.04	0.56
1:2S:3182:G:H2'	1:2S:3183:A:C8	2.40	0.56
3:5S:67:G:H2'	3:5S:68:C:C6	2.41	0.56
5:L2:96:LEU:O	5:L2:96:LEU:HD23	2.06	0.56
6:L3:56:ILE:CD1	6:L3:57:VAL:H	2.19	0.56
11:L8:156:ASP:O	11:L8:157:VAL:HB	2.06	0.56
17:55:94:TYR:CE2	17:55:96:ARG:HB2	2.41	0.56
31:69:47:LEU:HA	31:69:50:THR:HG22	1.86	0.56
37:75:29:ALA:HA	37:75:32:LYS:CE	2.34	0.56
37:75:76:GLN:OE1	37:75:80:LEU:HB2	2.06	0.56
46:1S:143:G:C2'	46:1S:144:U:H5''	2.35	0.56
46:1S:1108:G:H4'	46:1S:1109:G:H5''	1.86	0.56
46:1S:1360:A:H2'	46:1S:1361:U:H4'	1.87	0.56
46:1S:1573:A:H5'	46:1S:1574:G:C2	2.41	0.56
50:S3:72:LEU:HD22	57:10:65:TYR:HD1	1.70	0.56
66:19:61:VAL:O	66:19:65:ILE:HG13	2.05	0.56
75:28:15:VAL:HG23	75:28:28:VAL:HG22	1.87	0.56
78:31:147:VAL:O	78:31:148:TYR:HB2	2.04	0.56
79:RA:87:LYS:HE3	79:RA:106:HIS:O	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:RA:105:GLY:O	79:RA:132:LYS:HE3	2.05	0.56
1:2S:1190:A:H4'	42:80:113:ARG:NH2	2.20	0.56
1:2S:1655:G:H5'	1:2S:1656:A:H2'	1.86	0.56
1:2S:2777:G:H4'	1:2S:2779:A:OP2	2.06	0.56
5:L2:113:VAL:HG12	5:L2:166:ILE:HA	1.88	0.56
10:L7:218:ARG:HA	10:L7:218:ARG:NH1	2.21	0.56
18:56:92:THR:O	18:56:96:LYS:HG3	2.06	0.56
18:56:162:VAL:O	18:56:166:GLU:HG3	2.05	0.56
19:57:41:LEU:HD13	19:57:42:THR:N	2.21	0.56
24:62:17:VAL:HG22	24:62:103:TYR:HB2	1.86	0.56
25:63:87:ARG:HH12	25:63:120:LYS:HD3	1.70	0.56
26:64:47:ARG:HH21	46:1S:1724:U:H4'	1.71	0.56
27:65:108:LEU:HD23	27:65:109:LYS:HG2	1.88	0.56
38:76:76:ARG:HA	38:76:76:ARG:HE	1.71	0.56
46:1S:469:C:H2'	46:1S:470:A:O4'	2.06	0.56
46:1S:895:G:H4'	61:14:37:GLU:OE2	2.06	0.56
46:1S:916:U:H6	46:1S:916:U:O5'	1.88	0.56
46:1S:1087:A:H5'	46:1S:1298:U:C5	2.38	0.56
49:S2:135:SER:O	49:S2:215:PHE:HZ	1.89	0.56
52:S5:55:ASP:HB2	52:S5:138:THR:HB	1.88	0.56
54:S7:43:PHE:CD1	54:S7:44:LYS:N	2.74	0.56
54:S7:62:VAL:HG11	54:S7:70:PHE:HE2	1.68	0.56
57:10:93:GLN:H	57:10:93:GLN:CD	2.13	0.56
57:10:93:GLN:HG2	57:10:94:GLU:H	1.69	0.56
58:11:93:TYR:HB2	58:11:100:TYR:CE1	2.40	0.56
62:15:37:ALA:HB1	62:15:38:PRO:HD2	1.87	0.56
66:19:86:ARG:HE	66:19:89:ARG:HE	1.54	0.56
68:21:9:VAL:O	68:21:10:GLU:HB3	2.04	0.56
70:23:93:LEU:O	70:23:96:VAL:HG22	2.06	0.56
73:26:41:ILE:O	73:26:41:ILE:HG12	2.06	0.56
76:29:14:TYR:N	76:29:14:TYR:CD1	2.74	0.56
79:RA:111:MET:HB2	79:RA:125:GLY:O	2.06	0.56
79:RA:218:GLY:HA2	79:RA:240:VAL:HG23	1.88	0.56
79:RA:304:GLY:HA2	79:RA:310:ILE:HG12	1.88	0.56
1:2S:712:G:H5''	15:53:174:ARG:NH2	2.21	0.56
1:2S:1079:A:C5'	8:L5:142:PHE:HA	2.33	0.56
1:2S:1536:G:H2'	1:2S:1537:A:C8	2.40	0.56
1:2S:2984:C:H2'	1:2S:2985:C:H6	1.70	0.56
1:2S:3101:G:H2'	1:2S:3102:G:C8	2.41	0.56
2:8S:68:G:H2'	2:8S:69:U:O4'	2.05	0.56
7:L4:283:THR:C	7:L4:285:ASP:H	2.14	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:L8:136:LEU:HD23	11:L8:197:VAL:HG11	1.87	0.56
20:58:147:ARG:NH1	20:58:147:ARG:HB3	2.21	0.56
21:59:139:VAL:O	21:59:143:ILE:HG13	2.06	0.56
23:61:84:TYR:HD1	31:69:22:LYS:O	1.89	0.56
25:63:120:LYS:HB2	25:63:137:VAL:HG22	1.87	0.56
41:79:43:ASN:HB2	41:79:46:ARG:NH2	2.21	0.56
45:83:59:CYS:O	45:83:60:CYS:HB3	2.06	0.56
46:1S:241:U:H2'	46:1S:242:U:O4'	2.05	0.56
51:S4:34:GLY:HA3	51:S4:83:PRO:CG	2.36	0.56
51:S4:113:ARG:HH11	51:S4:113:ARG:HG3	1.70	0.56
56:S9:121:SER:HB3	56:S9:124:HIS:CB	2.34	0.56
1:2S:103:G:H4'	15:53:65:TYR:CE2	2.40	0.56
1:2S:653:A:H5''	1:2S:2361:A:H5''	1.88	0.56
5:L2:41:ILE:HG23	5:L2:63:PHE:HE2	1.70	0.56
5:L2:74:GLU:HB3	5:L2:76:PHE:CE1	2.41	0.56
5:L2:77:ILE:HD12	5:L2:115:ASN:HB2	1.88	0.56
6:L3:222:LYS:CE	6:L3:331:ASN:HB3	2.35	0.56
7:L4:329:PRO:HB3	10:L7:41:ARG:HH12	1.69	0.56
8:L5:58:LYS:NZ	8:L5:93:THR:HG21	2.21	0.56
13:50:176:LEU:HD22	13:50:180:GLU:CG	2.36	0.56
18:56:108:ILE:HG22	18:56:113:ASP:HB3	1.88	0.56
19:57:58:ILE:HG13	19:57:84:PRO:HD2	1.87	0.56
19:57:180:LYS:NZ	19:57:180:LYS:HB3	2.20	0.56
23:61:92:ARG:HB3	23:61:94:GLU:OE2	2.06	0.56
24:62:30:PRO:HG2	24:62:60:GLY:O	2.06	0.56
25:63:102:ILE:HG23	25:63:110:LYS:HB3	1.87	0.56
30:68:21:ARG:O	30:68:24:LYS:HE2	2.06	0.56
46:1S:1767:G:H5'	46:1S:1768:G:N2	2.20	0.56
47:S0:168:HIS:HB3	47:S0:203:PHE:CE2	2.40	0.56
47:S0:197:ILE:N	47:S0:197:ILE:HD12	2.20	0.56
53:S6:31:ARG:HD2	53:S6:34:GLN:HE21	1.69	0.56
58:11:131:ILE:HB	58:11:135:VAL:HB	1.87	0.56
62:15:96:ILE:HG21	62:15:116:LEU:HB3	1.88	0.56
66:19:34:VAL:O	66:19:36:ILE:HG23	2.05	0.56
70:23:144:ARG:CD	70:23:145:SER:H	2.19	0.56
72:25:59:TYR:CD2	72:25:100:ILE:HG12	2.41	0.56
73:26:25:ASN:HB3	73:26:77:CYS:SG	2.46	0.56
1:2S:213:A:H2'	1:2S:214:G:H5'	1.88	0.56
1:2S:215:G:H4'	28:66:15:ALA:HB3	1.86	0.56
1:2S:746:A:H2'	1:2S:747:A:C8	2.40	0.56
1:2S:776:U:H3'	1:2S:777:U:C5'	2.36	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:930:U:P	7:L4:61:SER:HB3	2.46	0.56
1:2S:1223:A:C6	1:2S:1286:A:C2	2.93	0.56
1:2S:2816:G:C8	1:2S:2869:U:H3'	2.40	0.56
1:2S:3198:U:H1'	12:L9:21:LYS:CD	2.35	0.56
1:2S:3362:A:H2'	1:2S:3363:U:O4'	2.06	0.56
2:8S:76:C:H2'	2:8S:77:A:O4'	2.06	0.56
4:L1:44:GLN:HG3	4:L1:160:LYS:O	2.06	0.56
4:L1:193:LEU:O	4:L1:196:LYS:HG3	2.05	0.56
6:L3:4:ARG:O	6:L3:5:LYS:HB3	2.06	0.56
7:L4:250:TRP:N	7:L4:250:TRP:CD1	2.73	0.56
9:L6:43:LEU:CD1	35:73:103:TYR:HB3	2.20	0.56
20:58:36:LEU:C	20:58:38:ARG:H	2.13	0.56
22:60:33:ASN:H	22:60:36:ILE:HD12	1.72	0.56
25:63:15:LEU:HD23	25:63:53:SER:CB	2.29	0.56
25:63:33:ASN:HD21	25:63:63:LYS:HB3	1.71	0.56
28:66:56:VAL:HG22	28:66:57:LEU:N	2.20	0.56
40:78:42:LYS:HG2	40:78:55:VAL:HG22	1.87	0.56
42:80:98:LYS:HB2	42:80:118:THR:HG21	1.88	0.56
46:1S:694:U:H1'	54:S7:97:ARG:HH21	1.71	0.56
46:1S:1092:A:O2'	46:1S:1093:A:H3'	2.06	0.56
50:S3:119:ALA:O	50:S3:123:VAL:HG23	2.06	0.56
55:S8:27:PHE:HB3	55:S8:49:ARG:NH2	2.20	0.56
63:16:46:PHE:O	63:16:50:GLU:HG3	2.06	0.56
70:23:7:ARG:HG2	70:23:7:ARG:HH11	1.71	0.56
70:23:82:LYS:HD3	70:23:82:LYS:H	1.71	0.56
77:30:42:ARG:HB3	77:30:42:ARG:CZ	2.34	0.56
78:31:123:ASN:HB3	78:31:124:PRO:HD2	1.87	0.56
1:2S:639:G:OP1	34:72:37:GLY:HA3	2.06	0.55
1:2S:1434:G:H5'	1:2S:1437:C:C5	2.40	0.55
1:2S:3041:U:O5'	1:2S:3041:U:H6	1.89	0.55
1:2S:3370:A:OP2	6:L3:383:LEU:HB3	2.06	0.55
6:L3:300:ARG:HG3	53:S6:25:ARG:NH2	2.20	0.55
11:L8:60:ARG:O	11:L8:64:ILE:HG13	2.07	0.55
11:L8:238:LEU:HB3	11:L8:242:ALA:HB3	1.88	0.55
15:53:28:GLN:HG3	17:55:200:TRP:HE3	1.71	0.55
29:67:123:GLN:O	29:67:124:ALA:HB3	2.06	0.55
39:77:50:GLY:O	39:77:54:LYS:HG3	2.06	0.55
41:79:24:PRO:HB2	41:79:27:ILE:HD12	1.88	0.55
46:1S:484:C:H42	46:1S:503:G:N2	2.03	0.55
46:1S:684:A:H2'	46:1S:685:A:H5'	1.89	0.55
46:1S:740:A:H2'	46:1S:741:C:H5''	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1127:G:H2'	46:1S:1128:C:C6	2.41	0.55
48:S1:138:PHE:HB3	48:S1:213:ARG:HE	1.71	0.55
51:S4:238:LEU:HD22	51:S4:242:LYS:HA	1.88	0.55
55:S8:110:ARG:HG3	55:S8:121:LEU:CD2	2.36	0.55
65:18:45:LEU:HD11	66:19:36:ILE:HG22	1.87	0.55
67:20:69:LYS:HG2	67:20:80:GLU:HB2	1.87	0.55
73:26:26:CYS:O	73:26:27:SER:HB2	2.06	0.55
74:27:2:VAL:O	74:27:3:LEU:HB2	2.06	0.55
75:28:9:LEU:HB3	75:28:33:LEU:HD23	1.87	0.55
1:2S:628:A:H5'	1:2S:1399:A:C2	2.41	0.55
1:2S:671:U:H2'	1:2S:672:A:C8	2.41	0.55
1:2S:876:A:H2'	1:2S:877:C:H5'	1.87	0.55
1:2S:1300:G:H3'	1:2S:1301:A:H2'	1.88	0.55
1:2S:1456:A:H3'	1:2S:1456:A:OP2	2.05	0.55
1:2S:2160:G:H2'	1:2S:2161:G:C8	2.42	0.55
4:L1:123:LEU:HD22	4:L1:128:LEU:CB	2.23	0.55
6:L3:237:LYS:HE3	6:L3:246:LEU:HD13	1.87	0.55
6:L3:300:ARG:HG3	53:S6:25:ARG:HH22	1.69	0.55
7:L4:156:LEU:HD23	7:L4:156:LEU:C	2.31	0.55
7:L4:170:LYS:CE	7:L4:178:LEU:HD12	2.28	0.55
10:L7:155:LYS:HE2	10:L7:158:LYS:H	1.71	0.55
28:66:116:LYS:O	28:66:120:GLN:HG2	2.05	0.55
42:80:96:CYS:O	42:80:100:TYR:HA	2.06	0.55
46:1S:138:A:H2'	46:1S:139:C:H5'	1.88	0.55
46:1S:374:U:H2'	46:1S:375:U:C6	2.40	0.55
46:1S:784:C:H41	71:24:11:LYS:HG2	1.71	0.55
51:S4:182:TYR:HE2	51:S4:190:GLY:HA2	1.71	0.55
64:17:34:LEU:O	64:17:38:ILE:HG22	2.05	0.55
1:2S:441:U:C4	1:2S:494:G:H4'	2.41	0.55
1:2S:811:U:H2'	1:2S:812:G:C8	2.41	0.55
1:2S:1150:A:H3'	1:2S:1151:U:H6	1.69	0.55
1:2S:1223:A:H62	1:2S:1285:G:H21	1.53	0.55
1:2S:1815:U:H1'	1:2S:1816:A:O5'	2.07	0.55
1:2S:2232:A:H2'	1:2S:2233:A:O4'	2.07	0.55
14:51:85:LYS:HG2	14:51:89:TYR:CE2	2.41	0.55
15:53:29:ALA:CB	17:55:201:ARG:HH12	2.19	0.55
17:55:104:GLU:O	17:55:108:ARG:HG3	2.07	0.55
18:56:127:LEU:CD2	22:60:156:VAL:HG12	2.36	0.55
19:57:26:PHE:HE1	19:57:120:ASN:HA	1.71	0.55
23:61:103:GLN:O	23:61:107:GLU:HG3	2.06	0.55
29:67:87:LEU:CG	29:67:88:ASP:H	2.15	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:71:88:PRO:HG2	33:71:89:LEU:HD12	1.88	0.55
38:76:9:ILE:HA	38:76:13:LYS:CG	2.35	0.55
46:1S:121:U:H1'	51:S4:33:ALA:HB3	1.88	0.55
46:1S:1006:C:H4'	61:14:136:ARG:HD2	1.89	0.55
46:1S:1316:G:H4'	64:17:10:LYS:CE	2.37	0.55
46:1S:1609:U:H2'	46:1S:1610:G:C5'	2.37	0.55
48:S1:134:VAL:HB	48:S1:219:LYS:HB2	1.86	0.55
64:17:27:ASP:HB3	64:17:30:THR:HG22	1.86	0.55
79:RA:117:LYS:H	79:RA:117:LYS:HD2	1.71	0.55
1:2S:547:G:H2'	1:2S:548:G:O5'	2.05	0.55
1:2S:1166:G:H1	1:2S:1333:C:H42	1.54	0.55
1:2S:1182:A:H2'	1:2S:1183:C:C6	2.42	0.55
1:2S:1492:G:O6	41:79:2:ALA:HB1	2.07	0.55
1:2S:2146:C:H2'	1:2S:2147:A:C8	2.42	0.55
1:2S:2340:U:OP1	6:L3:236:LYS:HD2	2.07	0.55
1:2S:2354:C:H2'	1:2S:2355:G:O4'	2.07	0.55
1:2S:2699:G:H3'	1:2S:2700:G:C8	2.41	0.55
3:5S:40:C:H4'	14:51:43:GLN:NE2	2.21	0.55
4:L1:189:PHE:CD1	4:L1:200:ASN:HB2	2.41	0.55
7:L4:42:VAL:HA	7:L4:45:ASN:ND2	2.22	0.55
7:L4:188:ARG:HB3	7:L4:193:LYS:CG	2.36	0.55
7:L4:263:GLY:CA	7:L4:269:SER:HA	2.32	0.55
8:L5:125:VAL:HG11	8:L5:199:ILE:HG21	1.89	0.55
10:L7:84:VAL:HG12	10:L7:138:TYR:CD1	2.42	0.55
15:53:183:ARG:HG3	15:53:186:ARG:NH1	2.21	0.55
18:56:118:VAL:HG11	22:60:165:TYR:CD1	2.41	0.55
19:57:22:LEU:HD12	19:57:146:ILE:HD12	1.87	0.55
29:67:27:LYS:HB3	29:67:42:LEU:HD22	1.88	0.55
29:67:73:LYS:CD	29:67:74:VAL:H	2.19	0.55
33:71:52:ALA:O	33:71:55:LEU:HB3	2.06	0.55
37:75:53:CYS:O	37:75:57:VAL:HG23	2.06	0.55
46:1S:1586:A:H5''	63:16:136:SER:HB2	1.88	0.55
49:S2:129:ILE:HG22	49:S2:133:LYS:HE3	1.88	0.55
51:S4:14:ALA:HB1	51:S4:18:TRP:CE3	2.41	0.55
51:S4:52:LEU:O	51:S4:53:LYS:HB2	2.07	0.55
52:S5:216:GLU:HA	52:S5:219:ARG:HB3	1.88	0.55
56:S9:108:ARG:CG	56:S9:147:MET:HE1	2.35	0.55
70:23:4:GLY:O	70:23:5:LYS:C	2.49	0.55
1:2S:578:A:OP2	1:2S:579:G:H5'	2.06	0.55
1:2S:1367:G:O2'	1:2S:1368:U:H5	1.90	0.55
1:2S:1785:U:H2'	1:2S:1786:G:C8	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2147:A:H5''	5:L2:199:THR:HA	1.89	0.55
1:2S:2356:A:N6	1:2S:2983:C:C5	2.65	0.55
1:2S:2753:G:H2'	1:2S:2754:G:C8	2.41	0.55
1:2S:2988:C:OP1	18:56:68:ARG:HD3	2.06	0.55
5:L2:129:ALA:CB	5:L2:132:ASN:HB2	2.34	0.55
7:L4:181:VAL:HG12	7:L4:182:LEU:N	2.21	0.55
7:L4:317:PRO:C	7:L4:319:LYS:H	2.14	0.55
10:L7:81:HIS:HB2	10:L7:138:TYR:CD1	2.42	0.55
11:L8:71:VAL:CG2	11:L8:76:ALA:HB2	2.37	0.55
11:L8:140:VAL:HG21	17:55:3:ALA:HB2	1.86	0.55
15:53:46:ILE:HG22	15:53:46:ILE:O	2.05	0.55
16:54:105:GLN:O	16:54:109:ARG:HG3	2.07	0.55
17:55:73:ARG:HB2	17:55:92:LEU:HD21	1.88	0.55
20:58:107:THR:OG1	20:58:110:ALA:HB2	2.07	0.55
25:63:23:MET:HE1	25:63:100:GLY:HA3	1.87	0.55
35:73:59:VAL:HG23	35:73:60:ARG:N	2.15	0.55
36:74:65:VAL:HB	36:74:70:LYS:HD3	1.88	0.55
46:1S:501:U:H4'	46:1S:502:U:OP1	2.07	0.55
46:1S:522:U:H5''	71:24:37:LYS:HG3	1.88	0.55
46:1S:800:U:H2'	46:1S:801:G:H8	1.68	0.55
46:1S:1661:U:H2'	46:1S:1662:G:C8	2.40	0.55
47:S0:52:LYS:HD2	68:21:82:VAL:HA	1.89	0.55
47:S0:202:TYR:O	47:S0:203:PHE:HB2	2.07	0.55
48:S1:108:ASP:O	48:S1:112:SER:HB2	2.07	0.55
51:S4:154:ILE:HD13	51:S4:160:VAL:HG21	1.89	0.55
53:S6:222:GLU:O	53:S6:225:GLU:HG2	2.07	0.55
54:S7:9:LEU:HD22	54:S7:11:GLN:HB3	1.89	0.55
55:S8:195:ARG:HG2	55:S8:195:ARG:HH11	1.70	0.55
56:S9:54:ARG:HA	56:S9:57:ARG:HE	1.71	0.55
1:2S:85:A:OP1	1:2S:87:U:H1'	2.06	0.55
1:2S:1124:U:H2'	1:2S:1125:U:C5	2.41	0.55
1:2S:1361:U:H2'	1:2S:1362:G:H8	1.72	0.55
6:L3:239:PRO:HD2	6:L3:242:THR:HG23	1.87	0.55
8:L5:98:ALA:HB1	8:L5:162:ALA:HB2	1.89	0.55
12:L9:71:VAL:HA	12:L9:74:LEU:HG	1.89	0.55
17:55:104:GLU:HA	17:55:160:GLU:HG3	1.88	0.55
30:68:138:ILE:HG22	30:68:143:GLY:O	2.07	0.55
46:1S:138:A:N6	46:1S:266:A:N6	2.54	0.55
46:1S:425:A:H2'	46:1S:425:A:N3	2.21	0.55
46:1S:778:G:H2'	46:1S:779:U:H2'	1.87	0.55
46:1S:1123:C:H2'	46:1S:1124:A:C8	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1474:G:H2'	46:1S:1475:A:C8	2.41	0.55
49:S2:170:ILE:N	49:S2:170:ILE:HD12	2.21	0.55
51:S4:64:ILE:HD11	71:24:18:LEU:HD11	1.87	0.55
52:S5:44:ASN:O	52:S5:45:LYS:HG2	2.06	0.55
65:18:12:GLN:HG3	65:18:15:LEU:HD21	1.88	0.55
69:22:113:HIS:O	69:22:117:ARG:HB2	2.06	0.55
79:RA:94:VAL:O	79:RA:94:VAL:HG12	2.06	0.55
1:2S:183:G:H2'	1:2S:184:U:O4'	2.06	0.55
1:2S:696:C:H5''	7:L4:272:VAL:CG2	2.37	0.55
1:2S:784:A:H8	20:58:69:ARG:NE	2.05	0.55
1:2S:846:A:H61	46:1S:972:G:H21	1.52	0.55
1:2S:1426:C:H3'	30:68:4:ARG:HH22	1.71	0.55
1:2S:2425:G:H2'	1:2S:2426:U:O4'	2.06	0.55
1:2S:2780:A:O2'	15:53:181:GLY:HA3	2.07	0.55
1:2S:2914:G:H5'	6:L3:9:PRO:HG3	1.87	0.55
30:68:73:LEU:O	30:68:112:ILE:HG23	2.07	0.55
46:1S:939:A:H2'	46:1S:940:A:C8	2.42	0.55
46:1S:1147:A:H2'	46:1S:1148:C:C6	2.42	0.55
46:1S:1303:U:H3'	46:1S:1304:G:C8	2.41	0.55
47:S0:9:LEU:HD13	47:S0:9:LEU:C	2.32	0.55
47:S0:75:ALA:HA	47:S0:122:ILE:HB	1.89	0.55
47:S0:84:ARG:NH1	47:S0:203:PHE:O	2.39	0.55
47:S0:107:PHE:CD1	47:S0:135:GLU:HB3	2.42	0.55
50:S3:31:GLU:HG2	50:S3:107:PHE:CZ	2.42	0.55
53:S6:207:GLU:HA	53:S6:210:GLN:NE2	2.21	0.55
54:S7:46:ILE:HD12	54:S7:60:ILE:HG12	1.88	0.55
55:S8:87:ASN:HB2	55:S8:90:LEU:HD11	1.86	0.55
59:12:113:ARG:CG	59:12:114:LYS:H	2.16	0.55
64:17:6:THR:HG22	64:17:9:VAL:CG2	2.27	0.55
1:2S:802:C:H2'	1:2S:803:C:C6	2.42	0.55
1:2S:1533:U:H5'	1:2S:1799:A:O2'	2.07	0.55
1:2S:2152:A:H2'	1:2S:2153:U:H6	1.70	0.55
7:L4:38:VAL:HG13	7:L4:113:VAL:HG11	1.89	0.55
7:L4:318:LEU:HB2	7:L4:319:LYS:HD3	1.88	0.55
10:L7:144:ILE:O	10:L7:148:VAL:HG23	2.07	0.55
13:50:3:ARG:HD2	13:50:4:ARG:O	2.07	0.55
14:51:49:LYS:HE2	14:51:64:LYS:HZ2	1.71	0.55
18:56:76:PRO:HB3	18:56:138:LEU:HD23	1.88	0.55
22:60:12:ARG:O	22:60:22:PRO:HD2	2.07	0.55
29:67:13:VAL:HG12	29:67:19:ALA:HA	1.89	0.55
45:83:57:CYS:SG	45:83:60:CYS:HB3	2.46	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:796:A:H2'	46:1S:797:G:H8	1.70	0.55
46:1S:1042:G:H22	46:1S:1076:A:H2	1.54	0.55
46:1S:1291:G:H2'	46:1S:1292:G:H8	1.71	0.55
46:1S:1518:C:O2'	46:1S:1519:U:H5'	2.07	0.55
53:S6:31:ARG:H	53:S6:34:GLN:NE2	2.04	0.55
54:S7:47:ARG:HH11	54:S7:176:LEU:CD2	2.17	0.55
56:S9:120:LYS:HB3	56:S9:120:LYS:HZ3	1.71	0.55
61:14:17:ALA:N	61:14:79:VAL:CG2	2.70	0.55
66:19:28:LEU:HG	66:19:55:TYR:CE1	2.42	0.55
1:2S:1951:C:H2'	1:2S:2095:G:N2	2.20	0.55
1:2S:2042:G:H2'	1:2S:2043:U:O4'	2.06	0.55
1:2S:2748:A:H4'	8:L5:145:PHE:CD1	2.42	0.55
2:S8:4:C:H5''	19:57:61:ARG:O	2.07	0.55
8:L5:140:ARG:HB2	8:L5:140:ARG:CZ	2.37	0.55
11:L8:94:PHE:CZ	11:L8:200:LEU:HD12	2.42	0.55
21:59:167:ARG:HG2	21:59:170:ARG:NH1	2.21	0.55
28:66:51:ARG:HB3	28:66:115:ARG:NH2	2.22	0.55
30:68:8:THR:HA	30:68:11:HIS:CD2	2.36	0.55
33:71:35:GLU:OE2	33:71:38:LYS:HD3	2.07	0.55
36:74:3:GLN:HE22	36:74:29:ILE:HG22	1.72	0.55
37:75:85:THR:HB	37:75:88:LEU:CB	2.32	0.55
40:78:31:LEU:HA	40:78:37:PRO:HA	1.88	0.55
44:82:91:PHE:HE2	44:82:93:LEU:HD22	1.70	0.55
48:S1:35:PRO:HB3	48:S1:231:LEU:HD13	1.87	0.55
49:S2:238:SER:O	49:S2:242:ILE:HD12	2.06	0.55
54:S7:73:VAL:HG13	54:S7:76:LYS:HD3	1.88	0.55
54:S7:93:LEU:HD21	54:S7:129:LEU:HD21	1.88	0.55
59:12:106:ILE:HG22	59:12:107:ASP:H	1.72	0.55
62:15:86:VAL:HG12	62:15:89:MET:HE3	1.89	0.55
70:23:24:TRP:HZ3	70:23:30:LYS:HG3	1.72	0.55
1:2S:95:A:H5''	30:68:34:MET:O	2.07	0.55
1:2S:151:A:H5''	37:75:102:GLU:CB	2.35	0.55
1:2S:430:U:H2'	1:2S:431:U:C6	2.42	0.55
1:2S:3322:A:H2'	1:2S:3323:A:H8	1.72	0.55
3:5S:118:A:H5''	8:L5:253:PHE:CZ	2.42	0.55
4:L1:104:SER:O	4:L1:128:LEU:HD22	2.06	0.55
5:L2:225:ILE:HD13	5:L2:238:ILE:CD1	2.36	0.55
6:L3:261:MET:O	6:L3:264:VAL:HG22	2.07	0.55
10:L7:152:GLY:HA3	10:L7:163:LEU:CD1	2.34	0.55
11:L8:93:LEU:HA	11:L8:96:LYS:NZ	2.21	0.55
18:56:76:PRO:CA	18:56:79:ILE:HD12	2.30	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:72:24:ARG:HG2	34:72:25:TYR:CD1	2.42	0.55
40:78:45:VAL:HG23	40:78:52:TYR:HD2	1.72	0.55
46:1S:155:U:H4'	53:S6:59:GLN:HA	1.88	0.55
46:1S:772:G:H5''	51:S4:23:LEU:CD2	2.37	0.55
46:1S:952:A:H2'	46:1S:953:G:H8	1.72	0.55
46:1S:1454:G:H4'	62:15:122:THR:HG21	1.89	0.55
54:S7:166:LEU:HD11	54:S7:183:PHE:HB2	1.88	0.55
67:20:50:LEU:HD23	67:20:95:ALA:HB2	1.89	0.55
70:23:53:VAL:HG11	70:23:98:GLU:HA	1.89	0.55
70:23:115:GLY:C	70:23:117:ILE:H	2.15	0.55
71:24:57:VAL:CG2	71:24:60:PHE:HE2	2.20	0.55
1:2S:947:G:H2'	1:2S:948:C:C6	2.43	0.54
1:2S:1140:G:H4'	10:L7:94:LYS:HZ1	1.71	0.54
1:2S:1323:G:H5''	22:60:1:MET:C	2.32	0.54
1:2S:1650:G:H5'	5:L2:69:TYR:O	2.07	0.54
1:2S:2238:G:H2'	1:2S:2239:G:H8	1.72	0.54
1:2S:2553:U:H3'	5:L2:87:PHE:CE2	2.40	0.54
1:2S:2875:U:H5''	1:2S:2945:G:O6	2.07	0.54
1:2S:3159:C:H4'	1:2S:3395:G:C5	2.42	0.54
2:8S:41:A:N6	2:8S:103:G:H1'	2.21	0.54
5:L2:51:ASP:OD2	5:L2:54:ARG:HB2	2.06	0.54
6:L3:296:THR:H	6:L3:299:ASP:HB2	1.72	0.54
7:L4:113:VAL:O	7:L4:118:LYS:HE3	2.07	0.54
11:L8:180:VAL:CG2	11:L8:185:ARG:NH2	2.70	0.54
17:55:181:ASN:OD1	17:55:184:LYS:HE3	2.07	0.54
18:56:43:ILE:O	18:56:135:TYR:HB2	2.08	0.54
21:59:102:LEU:O	21:59:106:LEU:HD13	2.07	0.54
22:60:110:MET:HE2	22:60:121:ILE:HG12	1.88	0.54
26:64:47:ARG:HG2	26:64:47:ARG:HH11	1.72	0.54
34:72:98:HIS:CE1	34:72:99:ASN:ND2	2.72	0.54
35:73:13:HIS:HB3	35:73:95:GLY:H	1.70	0.54
46:1S:1032:G:OP1	46:1S:1032:G:H3'	2.08	0.54
46:1S:1156:C:C3'	46:1S:1157:A:H5''	2.37	0.54
50:S3:192:PRO:HB2	50:S3:201:ALA:HA	1.89	0.54
52:S5:114:ILE:O	52:S5:118:LEU:HG	2.06	0.54
57:10:7:ASP:O	57:10:11:ILE:HG12	2.07	0.54
57:10:16:PHE:HB2	57:10:76:LEU:HD23	1.88	0.54
58:11:29:LYS:HE2	58:11:32:LYS:HA	1.89	0.54
61:14:85:ALA:H	61:14:119:THR:CG2	2.16	0.54
1:2S:117:U:O4	11:L8:142:LEU:HD23	2.07	0.54
1:2S:3157:U:H4'	1:2S:3158:G:C5'	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:L1:125:GLY:N	4:L1:126:PRO:HD2	2.22	0.54
6:L3:292:ALA:HA	6:L3:303:LYS:O	2.08	0.54
10:L7:100:ARG:O	10:L7:104:GLN:HG3	2.07	0.54
14:51:49:LYS:CE	14:51:64:LYS:HE3	2.37	0.54
14:51:115:LYS:HB2	14:51:115:LYS:HZ3	1.68	0.54
17:55:132:VAL:HG12	17:55:133:ILE:N	2.21	0.54
18:56:151:ASP:HA	18:56:154:ALA:HB3	1.87	0.54
20:58:112:ALA:O	20:58:116:LYS:HB2	2.07	0.54
22:60:16:THR:N	22:60:20:PRO:HA	2.20	0.54
36:74:36:LYS:O	36:74:37:LYS:O	2.26	0.54
41:79:47:THR:HG22	41:79:48:LYS:N	2.22	0.54
45:83:39:CYS:O	45:83:43:GLY:HA2	2.07	0.54
46:1S:14:C:H2'	46:1S:15:U:C6	2.41	0.54
46:1S:560:U:H2'	46:1S:561:G:C8	2.42	0.54
46:1S:898:A:N6	46:1S:914:G:H21	1.98	0.54
46:1S:1573:A:H5'	46:1S:1574:G:N3	2.22	0.54
49:S2:65:GLU:HB2	49:S2:68:ILE:HD12	1.89	0.54
52:S5:186:ASN:ND2	52:S5:188:LYS:HB2	2.21	0.54
54:S7:30:SER:CB	54:S7:34:LEU:HD22	2.38	0.54
54:S7:97:ARG:O	54:S7:98:ILE:HB	2.06	0.54
54:S7:135:ILE:HG22	60:13:18:TYR:HE2	1.71	0.54
57:10:24:LYS:O	57:10:43:ILE:HD11	2.06	0.54
64:17:85:VAL:N	64:17:86:PRO:HD3	2.21	0.54
74:27:50:ALA:O	74:27:51:GLN:HB2	2.07	0.54
75:28:32:PHE:CD2	75:28:32:PHE:N	2.75	0.54
77:30:30:PRO:HB2	77:30:34:ALA:HB3	1.88	0.54
1:2S:241:G:O2'	1:2S:242:C:H5'	2.07	0.54
1:2S:266:A:N6	38:76:30:LYS:HA	2.22	0.54
1:2S:1288:U:H2'	1:2S:1289:G:C8	2.42	0.54
1:2S:2393:G:H4'	6:L3:252:ILE:HG12	1.89	0.54
1:2S:2471:U:O2	1:2S:2475:G:O6	2.26	0.54
1:2S:2837:A:H5''	13:50:154:ARG:NH1	2.21	0.54
1:2S:3217:C:O2	1:2S:3217:C:C2'	2.55	0.54
5:L2:225:ILE:HD12	5:L2:237:LEU:N	2.23	0.54
8:L5:25:GLU:O	14:51:144:CYS:HA	2.08	0.54
9:L6:104:GLU:O	9:L6:104:GLU:HG2	2.07	0.54
11:L8:75:ILE:O	11:L8:76:ALA:HB3	2.08	0.54
12:L9:90:MET:HE2	12:L9:179:ILE:HG22	1.90	0.54
15:53:24:VAL:HB	15:53:26:PHE:CE2	2.42	0.54
16:54:36:VAL:HG11	16:54:55:ARG:CZ	2.37	0.54
18:56:58:LEU:HA	18:56:72:HIS:CD2	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:76:91:ASN:HA	38:76:94:ILE:HB	1.88	0.54
43:81:16:LYS:O	43:81:20:VAL:HG23	2.07	0.54
46:1S:176:C:O2'	46:1S:177:U:H5'	2.07	0.54
46:1S:387:A:H3'	46:1S:402:C:H5	1.71	0.54
46:1S:856:A:C6	54:S7:96:ARG:HD3	2.42	0.54
46:1S:970:A:H3'	46:1S:971:A:H8	1.72	0.54
50:S3:16:VAL:HG11	76:29:22:ARG:NH1	2.23	0.54
54:S7:100:PRO:O	54:S7:102:PRO:HD3	2.08	0.54
59:12:71:ILE:C	59:12:71:ILE:HD13	2.33	0.54
66:19:70:GLN:HB2	66:19:122:ARG:N	2.22	0.54
70:23:24:TRP:CZ3	70:23:30:LYS:HG3	2.41	0.54
73:26:12:LYS:HZ3	73:26:16:GLY:HA2	1.73	0.54
74:27:46:VAL:HG12	74:27:47:PHE:N	2.22	0.54
75:28:16:LEU:HB2	75:28:27:GLN:HB2	1.89	0.54
1:2S:201:A:H4'	1:2S:220:G:C5	2.41	0.54
1:2S:910:G:H2'	1:2S:911:C:C6	2.43	0.54
1:2S:1101:G:H2'	1:2S:1102:A:H8	1.71	0.54
1:2S:1230:G:H2'	1:2S:1231:A:O4'	2.07	0.54
1:2S:1779:C:H3'	1:2S:1780:G:C5'	2.38	0.54
1:2S:1808:G:H4'	1:2S:2559:U:O4	2.08	0.54
3:5S:48:U:H2'	3:5S:49:G:H5'	1.88	0.54
3:5S:77:G:N2	3:5S:101:G:H2'	2.22	0.54
4:L1:36:VAL:HA	4:L1:208:SER:HA	1.88	0.54
4:L1:156:LYS:HG3	4:L1:157:PHE:N	2.22	0.54
6:L3:20:LYS:HG3	6:L3:21:ARG:N	2.20	0.54
6:L3:63:PRO:HD2	6:L3:348:ARG:HH21	1.73	0.54
6:L3:296:THR:HG21	6:L3:356:LEU:O	2.07	0.54
10:L7:84:VAL:HG12	10:L7:138:TYR:HD1	1.72	0.54
11:L8:150:LEU:HD13	11:L8:150:LEU:C	2.32	0.54
15:53:116:LEU:O	15:53:120:GLN:HG3	2.07	0.54
18:56:46:GLU:CD	18:56:48:PHE:HB3	2.33	0.54
41:79:48:LYS:N	41:79:48:LYS:HD2	2.22	0.54
44:82:11:TYR:HA	44:82:19:LYS:O	2.07	0.54
46:1S:397:A:H5''	55:S8:47:ARG:HH12	1.72	0.54
46:1S:501:U:H2'	46:1S:502:U:C6	2.43	0.54
46:1S:595:G:H2'	46:1S:596:C:C6	2.42	0.54
46:1S:777:C:H41	71:24:10:ARG:HD3	1.73	0.54
47:S0:56:LYS:HE3	68:21:82:VAL:HG11	1.88	0.54
48:S1:70:LEU:HD11	48:S1:79:HIS:HB3	1.88	0.54
51:S4:62:LYS:O	51:S4:66:MET:HG2	2.07	0.54
55:S8:67:TRP:CZ2	55:S8:152:ILE:HD13	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:14:50:ALA:C	61:14:52:ARG:H	2.16	0.54
65:18:123:ARG:HA	65:18:133:VAL:HG21	1.89	0.54
1:2S:587:U:H2'	1:2S:588:G:H5'	1.90	0.54
1:2S:2108:C:H2'	1:2S:2109:U:C6	2.43	0.54
1:2S:2534:G:H2'	1:2S:2535:A:C8	2.42	0.54
1:2S:3055:U:H1'	1:2S:3057:U:OP2	2.07	0.54
6:L3:56:ILE:HD12	6:L3:358:TRP:O	2.07	0.54
8:L5:134:ALA:CB	8:L5:140:ARG:HG2	2.38	0.54
14:51:142:LYS:HD3	14:51:142:LYS:C	2.33	0.54
16:54:116:GLU:HA	16:54:119:GLN:HE21	1.72	0.54
16:54:123:LEU:CB	18:56:194:LEU:HD21	2.37	0.54
17:55:71:ARG:O	17:55:92:LEU:HB3	2.07	0.54
20:58:171:LYS:HA	30:68:56:VAL:CG1	2.36	0.54
21:59:139:VAL:HA	21:59:142:ILE:CG1	2.37	0.54
30:68:49:HIS:N	30:68:50:PRO:CD	2.70	0.54
33:71:72:ARG:HG3	33:71:96:VAL:HG21	1.90	0.54
46:1S:142:G:H22	46:1S:173:A:H2	1.55	0.54
46:1S:894:U:H2'	46:1S:895:G:C8	2.42	0.54
46:1S:1057:U:H1'	46:1S:1058:U:C2'	2.37	0.54
46:1S:1110:G:C2	46:1S:1111:G:H1'	2.42	0.54
46:1S:1417:A:H2'	46:1S:1418:G:O4'	2.07	0.54
47:S0:71:GLU:HA	47:S0:94:GLY:O	2.07	0.54
47:S0:195:TRP:CE2	47:S0:197:ILE:HD13	2.42	0.54
52:S5:34:GLN:HG2	63:16:57:LEU:HD13	1.89	0.54
57:10:1:MET:SD	57:10:44:LYS:HB2	2.48	0.54
62:15:98:ASN:O	62:15:122:THR:HG22	2.07	0.54
67:20:48:HIS:CE1	67:20:99:ILE:HG12	2.42	0.54
69:22:103:ILE:HD12	69:22:126:LEU:HD12	1.89	0.54
77:30:47:VAL:HG13	77:30:48:THR:N	2.23	0.54
1:2S:936:A:OP2	30:68:27:LYS:HG3	2.07	0.54
1:2S:1330:A:H2'	1:2S:1332:A:N7	2.23	0.54
1:2S:1334:U:H2'	1:2S:1335:C:C6	2.42	0.54
1:2S:2541:U:H1'	1:2S:2542:U:OP2	2.08	0.54
4:L1:103:LEU:CD2	4:L1:106:LYS:HE2	2.37	0.54
4:L1:104:SER:C	4:L1:128:LEU:HD22	2.33	0.54
15:53:183:ARG:CG	15:53:186:ARG:HH11	2.20	0.54
17:55:132:VAL:HG12	17:55:133:ILE:H	1.73	0.54
21:59:151:ARG:O	21:59:155:LEU:HB2	2.07	0.54
24:62:36:TYR:HD2	24:62:37:LEU:HD12	1.73	0.54
27:65:135:ILE:HD11	27:65:138:ARG:HH11	1.72	0.54
29:67:10:VAL:O	29:67:83:THR:HG22	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:886:U:H2'	46:1S:887:A:O4'	2.08	0.54
46:1S:1503:A:O2'	66:19:37:VAL:HG23	2.08	0.54
51:S4:43:PRO:HA	51:S4:82:TYR:O	2.07	0.54
54:S7:170:GLN:HA	54:S7:181:ILE:CG2	2.38	0.54
64:17:20:TYR:CD2	64:17:23:LYS:HD2	2.35	0.54
65:18:11:PHE:HE2	65:18:59:GLY:HA3	1.72	0.54
69:22:86:ILE:HG13	69:22:87:GLU:N	2.22	0.54
73:26:12:LYS:HZ1	73:26:16:GLY:HA2	1.72	0.54
1:2S:2427:U:H2'	1:2S:2428:U:H6	1.70	0.54
2:8S:155:A:C2'	2:8S:156:U:H5'	2.38	0.54
6:L3:239:PRO:HD2	6:L3:242:THR:HG21	1.88	0.54
7:L4:82:THR:HG23	7:L4:84:ARG:H	1.73	0.54
7:L4:91:GLY:O	7:L4:97:GLY:HA3	2.08	0.54
18:56:62:THR:O	18:56:66:LYS:HD2	2.08	0.54
20:58:3:ILE:HG22	20:58:4:ASP:N	2.23	0.54
22:60:78:TRP:HB2	22:60:125:LYS:H	1.73	0.54
23:61:41:ASP:HB2	23:61:97:LYS:CG	2.29	0.54
32:70:13:LYS:HB3	32:70:100:ILE:HG23	1.89	0.54
39:77:60:GLY:HA2	39:77:64:MET:SD	2.48	0.54
40:78:73:LEU:CD2	40:78:75:VAL:HG22	2.38	0.54
44:82:77:CYS:C	44:82:78:LYS:HG2	2.32	0.54
45:83:32:GLN:HB3	45:83:69:TYR:O	2.07	0.54
46:1S:947:U:H2'	46:1S:948:G:C8	2.42	0.54
46:1S:974:A:H2'	46:1S:975:C:C6	2.42	0.54
46:1S:982:U:H2'	46:1S:983:A:C8	2.43	0.54
46:1S:1474:G:H2'	46:1S:1475:A:H8	1.72	0.54
46:1S:1685:G:C3'	46:1S:1686:C:H5''	2.38	0.54
46:1S:1758:U:H2'	46:1S:1759:C:C6	2.42	0.54
64:17:13:SER:HB3	64:17:57:LEU:CD1	2.37	0.54
68:21:70:ASN:HB3	68:21:83:TRP:HB2	1.90	0.54
70:23:19:ARG:HB2	70:23:19:ARG:HH21	1.73	0.54
70:23:56:LYS:HA	70:23:72:VAL:HG12	1.89	0.54
73:26:75:VAL:O	73:26:79:ILE:HG13	2.07	0.54
1:2S:656:A:H2'	1:2S:657:A:C8	2.43	0.54
1:2S:2160:G:H2'	1:2S:2161:G:H8	1.73	0.54
1:2S:2167:A:C6	1:2S:2168:A:C2	2.96	0.54
1:2S:2931:C:H5''	25:63:40:LYS:CD	2.33	0.54
1:2S:3126:C:H2'	1:2S:3127:A:C8	2.43	0.54
1:2S:3385:U:H2'	1:2S:3386:G:O4'	2.08	0.54
2:8S:32:C:H2'	2:8S:33:A:C8	2.43	0.54
3:5S:3:U:H2'	3:5S:4:U:C6	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L3:54:THR:OG1	6:L3:55:THR:N	2.41	0.54
8:L5:109:THR:HA	8:L5:112:LYS:HG2	1.89	0.54
10:L7:145:ARG:HA	10:L7:185:ILE:HD13	1.89	0.54
20:58:3:ILE:HD12	20:58:3:ILE:H	1.73	0.54
20:58:83:VAL:HG22	20:58:140:LEU:HB2	1.90	0.54
34:72:79:VAL:O	34:72:83:GLU:HG3	2.07	0.54
53:S6:77:LEU:CD1	53:S6:95:LYS:HB2	2.38	0.54
54:S7:143:LEU:HB2	54:S7:147:ASN:HB2	1.90	0.54
55:S8:139:ALA:HB1	55:S8:143:TRP:CZ2	2.43	0.54
57:10:82:LEU:HD22	57:10:86:ILE:HG21	1.88	0.54
77:30:14:VAL:HA	77:30:17:GLN:HG2	1.89	0.54
79:RA:232:TYR:OH	79:RA:265:LEU:HD12	2.08	0.54
1:2S:985:U:H2'	1:2S:986:U:H6	1.72	0.54
1:2S:1428:A:H5''	7:L4:107:ARG:HH22	1.73	0.54
1:2S:2131:A:H2'	1:2S:2132:C:C5'	2.38	0.54
5:L2:68:LYS:HG2	5:L2:69:TYR:N	2.22	0.54
7:L4:268:ALA:O	7:L4:269:SER:HB2	2.07	0.54
10:L7:82:LYS:CA	10:L7:119:VAL:HB	2.34	0.54
12:L9:92:TYR:CB	12:L9:99:ILE:HD12	2.38	0.54
13:50:34:TYR:HD2	13:50:89:VAL:HB	1.72	0.54
14:51:85:LYS:HG2	14:51:89:TYR:HE2	1.73	0.54
19:57:169:THR:HG23	35:73:60:ARG:HH12	1.72	0.54
20:58:59:ARG:CB	20:58:59:ARG:HH11	2.21	0.54
21:59:105:LEU:O	21:59:108:LYS:HG3	2.08	0.54
26:64:45:ASN:HB3	26:64:48:ARG:HG3	1.89	0.54
28:66:111:LEU:CD2	28:66:119:ILE:HD11	2.38	0.54
37:75:59:ASN:O	37:75:63:ARG:HG3	2.07	0.54
46:1S:332:U:C5'	55:S8:31:ARG:HG3	2.38	0.54
46:1S:804:A:H2'	46:1S:804:A:N3	2.23	0.54
48:S1:179:SER:HB3	48:S1:183:GLN:CB	2.37	0.54
49:S2:168:ARG:HG2	49:S2:170:ILE:HD11	1.88	0.54
50:S3:16:VAL:O	50:S3:20:GLU:HB2	2.07	0.54
52:S5:196:GLU:O	52:S5:200:ASN:ND2	2.40	0.54
58:11:80:MET:HE2	58:11:84:ILE:HA	1.89	0.54
58:11:147:GLY:O	58:11:148:LYS:HG2	2.07	0.54
63:16:39:VAL:HG12	63:16:41:PRO:HB2	1.90	0.54
64:17:18:GLU:HA	64:17:71:PHE:HB3	1.90	0.54
71:24:112:LYS:O	71:24:116:LYS:HG3	2.08	0.54
1:2S:269:G:C5	17:55:14:LYS:HD2	2.43	0.54
1:2S:760:G:C1'	1:2S:771:A:H61	2.21	0.54
1:2S:956:U:O5'	1:2S:956:U:H6	1.91	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1135:A:OP2	31:69:5:LYS:HG3	2.08	0.54
5:L2:21:ARG:HG2	5:L2:21:ARG:HH11	1.73	0.54
5:L2:45:VAL:HG11	5:L2:83:HIS:O	2.08	0.54
5:L2:209:HIS:ND1	5:L2:210:PRO:HD2	2.23	0.54
8:L5:21:ARG:O	8:L5:25:GLU:HG3	2.08	0.54
14:51:110:ILE:HD13	14:51:122:ILE:HD11	1.89	0.54
17:55:16:SER:OG	17:55:19:LEU:HD13	2.07	0.54
26:64:55:PHE:HA	26:64:58:HIS:HB3	1.90	0.54
32:70:41:LEU:HD13	32:70:42:ILE:H	1.73	0.54
37:75:54:VAL:O	37:75:58:ILE:HG13	2.08	0.54
40:78:25:VAL:HG13	40:78:43:PHE:CE1	2.43	0.54
41:79:24:PRO:HB2	41:79:27:ILE:CD1	2.38	0.54
46:1S:1100:G:H2'	69:22:74:VAL:O	2.08	0.54
50:S3:5:ILE:HG22	50:S3:6:SER:H	1.73	0.54
50:S3:84:ILE:HG23	50:S3:84:ILE:O	2.08	0.54
53:S6:50:PHE:CD1	53:S6:111:LEU:HB3	2.43	0.54
54:S7:50:ASP:HB3	54:S7:56:LYS:HG2	1.89	0.54
55:S8:39:GLY:O	55:S8:59:ARG:HB3	2.08	0.54
55:S8:48:THR:HG21	55:S8:54:LYS:HB2	1.91	0.54
60:13:86:GLU:HG3	60:13:87:ASP:N	2.23	0.54
61:14:25:ASP:N	61:14:55:SER:HB3	2.23	0.54
68:21:78:LEU:HD23	68:21:78:LEU:H	1.72	0.54
70:23:144:ARG:HD2	70:23:144:ARG:N	2.22	0.54
79:RA:89:LEU:HB2	79:RA:103:PHE:HB2	1.89	0.54
1:2S:20:A:H2'	1:2S:21:G:C8	2.42	0.53
1:2S:835:G:N2	1:2S:857:G:O2'	2.40	0.53
1:2S:1724:U:H1'	1:2S:1725:C:C6	2.42	0.53
1:2S:2095:G:H8	1:2S:2095:G:O5'	1.92	0.53
1:2S:2474:G:H2'	1:2S:2475:G:N7	2.23	0.53
1:2S:2723:U:H2'	1:2S:2724:U:O4'	2.07	0.53
1:2S:3080:G:H2'	1:2S:3081:C:H6	1.69	0.53
1:2S:3298:C:C2	1:2S:3299:A:C8	2.96	0.53
6:L3:199:PHE:O	6:L3:200:GLU:HB2	2.08	0.53
7:L4:11:LEU:HD21	7:L4:153:SER:HB3	1.89	0.53
9:L6:56:LYS:HB2	9:L6:98:VAL:HG13	1.90	0.53
11:L8:92:LYS:HB3	11:L8:92:LYS:NZ	2.23	0.53
12:L9:150:SER:O	12:L9:154:VAL:HG23	2.08	0.53
14:51:49:LYS:HE2	14:51:64:LYS:HE3	1.89	0.53
14:51:108:GLU:HG2	14:51:122:ILE:HG23	1.90	0.53
16:54:46:ILE:O	16:54:47:ASP:HB2	2.08	0.53
19:57:60:PHE:O	19:57:61:ARG:HG3	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:64:41:LYS:C	26:64:43:ARG:H	2.16	0.53
33:71:39:PHE:O	33:71:42:LEU:HB3	2.07	0.53
34:72:79:VAL:HG13	34:72:111:ARG:HG2	1.90	0.53
39:77:20:ASN:HB2	39:77:39:TYR:HE1	1.73	0.53
46:1S:722:G:H3'	46:1S:723:G:C5'	2.35	0.53
46:1S:855:A:H3'	46:1S:856:A:H5'	1.90	0.53
46:1S:1283:U:H2'	46:1S:1284:C:H5	1.72	0.53
50:S3:167:PHE:CE1	50:S3:192:PRO:HA	2.43	0.53
53:S6:77:LEU:HD11	53:S6:95:LYS:HB2	1.90	0.53
55:S8:73:SER:C	55:S8:74:LYS:HD2	2.32	0.53
56:S9:95:TYR:CE1	56:S9:99:LEU:HA	2.43	0.53
60:13:44:GLY:O	60:13:45:LEU:HD22	2.08	0.53
1:2S:1526:U:H4'	1:2S:1594:A:C5	2.44	0.53
1:2S:2186:U:H2'	1:2S:2187:G:C8	2.43	0.53
1:2S:2295:A:C5	1:2S:2296:A:C6	2.96	0.53
1:2S:2369:G:H2'	1:2S:2370:G:C8	2.44	0.53
1:2S:2692:A:O2'	1:2S:2693:C:H5'	2.07	0.53
1:2S:3016:A:H2'	1:2S:3017:A:H8	1.72	0.53
1:2S:3297:U:H2'	1:2S:3298:C:C6	2.43	0.53
1:2S:3310:A:H2'	1:2S:3311:C:H5'	1.90	0.53
4:L1:30:GLU:OE1	4:L1:34:LEU:HD21	2.08	0.53
5:L2:50:HIS:ND1	45:83:51:ALA:HB1	2.23	0.53
7:L4:250:TRP:CD1	7:L4:250:TRP:H	2.25	0.53
17:55:38:ARG:HA	17:55:62:TYR:HA	1.90	0.53
22:60:24:LEU:HD12	23:61:146:ASN:CB	2.39	0.53
26:64:5:ILE:HD12	26:64:5:ILE:O	2.07	0.53
34:72:103:LYS:O	34:72:106:VAL:HG12	2.08	0.53
46:1S:306:U:H2'	46:1S:307:G:C8	2.43	0.53
46:1S:542:A:O2'	46:1S:543:C:H2'	2.08	0.53
46:1S:960:U:O2'	60:13:51:GLY:HA3	2.07	0.53
46:1S:1167:G:H2'	46:1S:1168:U:C6	2.44	0.53
46:1S:1246:C:H2'	46:1S:1247:U:H6	1.71	0.53
46:1S:1477:G:H2'	46:1S:1478:G:C8	2.43	0.53
47:S0:189:VAL:HG13	47:S0:190:ASP:N	2.21	0.53
48:S1:103:MET:HE1	48:S1:212:VAL:CG2	2.37	0.53
54:S7:63:PRO:O	54:S7:64:VAL:CB	2.56	0.53
54:S7:68:ALA:O	54:S7:72:LYS:HG3	2.07	0.53
54:S7:140:VAL:HG13	54:S7:149:ILE:O	2.08	0.53
56:S9:119:ALA:O	56:S9:120:LYS:HB2	2.07	0.53
63:16:42:GLU:HG3	63:16:45:ARG:HH21	1.74	0.53
64:17:103:ASP:H	64:17:106:THR:HB	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:25:93:SER:HB2	72:25:100:ILE:HG22	1.90	0.53
1:2S:266:A:C6	38:76:30:LYS:HA	2.44	0.53
1:2S:305:U:OP1	1:2S:305:U:H3'	2.09	0.53
1:2S:386:A:H2'	1:2S:387:A:O4'	2.08	0.53
1:2S:951:A:H2'	1:2S:952:A:H8	1.74	0.53
1:2S:1046:A:H2'	1:2S:1049:C:H5	1.73	0.53
1:2S:1222:G:H5'	1:2S:1222:G:H8	1.72	0.53
1:2S:1307:G:H5''	18:56:60:LYS:HD3	1.88	0.53
1:2S:1798:A:H2'	1:2S:1799:A:C8	2.44	0.53
1:2S:2491:A:H1'	4:L1:207:LYS:HZ1	1.72	0.53
2:8S:40:A:H2'	2:8S:41:A:H8	1.73	0.53
5:L2:30:ARG:NH1	5:L2:72:ARG:HH22	2.06	0.53
5:L2:225:ILE:HG22	5:L2:226:SER:N	2.23	0.53
6:L3:46:PHE:C	6:L3:47:LEU:HD22	2.34	0.53
6:L3:244:ARG:HB2	6:L3:244:ARG:HH11	1.72	0.53
30:68:20:GLY:O	30:68:24:LYS:HG3	2.08	0.53
32:70:22:LYS:N	32:70:94:GLU:HB2	2.22	0.53
46:1S:567:A:H1'	77:30:14:VAL:HG23	1.89	0.53
46:1S:1112:G:N2	46:1S:1133:A:H62	2.05	0.53
46:1S:1228:G:H5'	46:1S:1229:G:C8	2.43	0.53
46:1S:1629:G:H2'	46:1S:1630:U:C6	2.42	0.53
47:S0:20:ALA:HB2	47:S0:172:LEU:HD22	1.89	0.53
54:S7:56:LYS:HD2	54:S7:88:ARG:CZ	2.38	0.53
56:S9:146:PHE:CZ	56:S9:149:ARG:NH1	2.75	0.53
62:15:58:LYS:HB3	62:15:58:LYS:HZ2	1.73	0.53
65:18:42:TYR:O	65:18:46:VAL:HG23	2.08	0.53
69:22:82:LYS:O	69:22:83:ILE:HG22	2.07	0.53
1:2S:299:G:H2'	1:2S:300:G:O4'	2.08	0.53
1:2S:625:G:O2'	1:2S:626:U:H5'	2.07	0.53
1:2S:717:C:H2'	1:2S:718:G:H5'	1.90	0.53
1:2S:1175:C:H5''	18:56:25:LYS:HG2	1.89	0.53
1:2S:3112:G:O6	1:2S:3119:U:H3'	2.09	0.53
1:2S:3173:G:H2'	1:2S:3173:G:N3	2.23	0.53
2:8S:142:C:H2'	2:8S:143:U:C6	2.43	0.53
3:5S:114:U:H2'	3:5S:115:G:C8	2.43	0.53
6:L3:93:VAL:HG22	6:L3:94:GLU:H	1.73	0.53
8:L5:266:ALA:O	8:L5:270:LYS:HG3	2.08	0.53
10:L7:96:PRO:HB2	10:L7:99:PRO:HD2	1.91	0.53
14:51:108:GLU:HG2	14:51:122:ILE:CG2	2.38	0.53
18:56:138:LEU:O	18:56:142:SER:HB2	2.09	0.53
32:70:27:TYR:O	32:70:31:VAL:HG23	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:77:87:SER:O	39:77:88:ALA:HB3	2.09	0.53
46:1S:1754:A:H5'	70:23:62:LYS:HG2	1.89	0.53
50:S3:53:THR:HG22	50:S3:91:VAL:HG11	1.89	0.53
51:S4:99:PHE:CE1	51:S4:113:ARG:HG2	2.44	0.53
53:S6:118:GLU:HG3	53:S6:119:GLN:N	2.23	0.53
55:S8:8:ARG:CD	55:S8:21:PHE:HB3	2.38	0.53
59:12:23:THR:HG23	59:12:23:THR:O	2.09	0.53
61:14:112:ILE:CG2	61:14:113:GLY:H	2.08	0.53
79:RA:7:LEU:HD11	79:RA:251:TRP:HZ3	1.73	0.53
1:2S:398:A:H1'	1:2S:1416:C:OP1	2.09	0.53
1:2S:804:C:H2'	1:2S:805:G:C8	2.44	0.53
1:2S:1151:U:H3'	1:2S:1152:G:N2	2.23	0.53
1:2S:2542:U:H1'	1:2S:2543:U:H5	1.73	0.53
1:2S:2820:A:C2'	1:2S:2821:C:H5'	2.38	0.53
8:L5:167:SER:C	8:L5:169:GLY:H	2.16	0.53
15:53:76:THR:HG23	15:53:101:ARG:NH1	2.23	0.53
17:55:18:VAL:HG13	17:55:19:LEU:CD1	2.38	0.53
17:55:134:LEU:N	17:55:134:LEU:HD12	2.24	0.53
46:1S:329:G:H2'	46:1S:330:G:C8	2.43	0.53
46:1S:694:U:H1'	54:S7:97:ARG:NH2	2.24	0.53
46:1S:856:A:N6	54:S7:121:VAL:HG22	2.23	0.53
46:1S:1208:A:H2	46:1S:1209:C:C6	2.26	0.53
46:1S:1426:C:H3'	46:1S:1427:A:H5''	1.90	0.53
50:S3:42:THR:HG22	67:20:108:ILE:HB	1.90	0.53
52:S5:48:PHE:CE1	52:S5:64:VAL:HA	2.43	0.53
54:S7:144:VAL:HA	69:22:42:GLN:CD	2.33	0.53
56:S9:109:LEU:HB2	56:S9:146:PHE:HB3	1.91	0.53
61:14:122:PRO:C	61:14:124:ASP:H	2.15	0.53
68:21:11:LEU:O	68:21:11:LEU:HD12	2.08	0.53
70:23:54:LEU:HD12	70:23:73:ARG:HB3	1.91	0.53
72:25:50:ILE:HD11	72:25:70:LYS:HD2	1.90	0.53
74:27:64:CYS:HB3	74:27:73:LEU:HA	1.90	0.53
79:RA:150:TRP:HB2	79:RA:174:ASN:ND2	2.22	0.53
79:RA:227:ALA:O	79:RA:228:LYS:HB2	2.09	0.53
1:2S:71:A:N6	1:2S:303:G:H1'	2.23	0.53
1:2S:186:U:H3	1:2S:230:U:H3	1.56	0.53
1:2S:359:U:H4'	1:2S:817:A:N6	2.23	0.53
1:2S:946:U:H4'	1:2S:1405:U:O2	2.08	0.53
1:2S:2154:U:H4'	5:L2:240:ALA:HB1	1.91	0.53
1:2S:2255:A:H5'	1:2S:2261:G:H22	1.74	0.53
1:2S:2714:G:C8	1:2S:2716:U:C5	2.96	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:3304:U:C6	6:L3:333:LYS:HE2	2.43	0.53
7:L4:206:LEU:HG	7:L4:226:GLU:HG3	1.91	0.53
9:L6:172:HIS:HD2	35:73:40:ASP:HB3	1.73	0.53
11:L8:146:LYS:HE2	11:L8:173:MET:CA	2.39	0.53
13:50:206:LEU:HD12	13:50:209:ASN:HB3	1.89	0.53
19:57:88:VAL:O	19:57:92:GLN:HG2	2.07	0.53
20:58:81:VAL:HG12	20:58:138:LEU:HD12	1.89	0.53
20:58:177:GLY:HA2	20:58:184:PHE:O	2.07	0.53
24:62:76:LEU:O	24:62:80:THR:HG23	2.08	0.53
24:62:96:VAL:HG12	24:62:97:SER:N	2.21	0.53
46:1S:46:A:N6	46:1S:433:C:H4'	2.23	0.53
46:1S:226:A:C2'	46:1S:227:U:H5'	2.33	0.53
46:1S:564:G:H4'	46:1S:566:C:N3	2.24	0.53
46:1S:744:U:H2'	46:1S:745:U:O4'	2.08	0.53
47:S0:182:LEU:HB3	47:S0:188:LEU:HD23	1.91	0.53
48:S1:189:ILE:HB	48:S1:190:PRO:HD3	1.90	0.53
54:S7:86:GLN:C	54:S7:88:ARG:H	2.16	0.53
55:S8:42:ARG:HB3	55:S8:58:LEU:HB2	1.91	0.53
56:S9:57:ARG:O	56:S9:61:THR:HG23	2.08	0.53
61:14:78:ALA:HA	61:14:111:ARG:O	2.08	0.53
63:16:9:THR:HG21	63:16:88:GLY:HA2	1.91	0.53
63:16:41:PRO:O	63:16:42:GLU:CB	2.55	0.53
64:17:13:SER:O	64:17:17:ILE:HG13	2.09	0.53
67:20:118:VAL:HG22	67:20:119:ALA:N	2.24	0.53
70:23:37:ALA:O	70:23:44:GLY:HA2	2.08	0.53
70:23:60:GLU:HG2	77:30:3:LYS:H	1.72	0.53
1:2S:218:G:C1'	1:2S:372:A:H1'	2.38	0.53
1:2S:282:G:H22	17:55:179:LYS:HA	1.74	0.53
1:2S:2221:G:N2	1:2S:2223:A:H3'	2.24	0.53
1:2S:3138:U:H4'	6:L3:275:ARG:HH21	1.74	0.53
4:L1:155:ILE:HD13	4:L1:163:LEU:HD21	1.91	0.53
6:L3:227:GLU:HG2	6:L3:231:HIS:CD2	2.43	0.53
10:L7:236:ILE:CD1	10:L7:239:LEU:HD13	2.38	0.53
15:53:166:ALA:HB1	30:68:147:LEU:HD21	1.91	0.53
19:57:111:LYS:HB2	19:57:153:LYS:HB3	1.91	0.53
32:70:34:LEU:CD2	32:70:59:TYR:HB3	2.37	0.53
35:73:54:ARG:HG2	35:73:64:ILE:HG12	1.90	0.53
38:76:98:ARG:H	38:76:98:ARG:CD	2.20	0.53
46:1S:396:G:H22	46:1S:399:A:H5'	1.73	0.53
46:1S:570:A:C5	70:23:114:LYS:HE3	2.43	0.53
46:1S:882:U:O2'	46:1S:883:C:H5'	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:S9:99:LEU:HG	56:S9:100:LYS:H	1.73	0.53
61:14:128:LYS:H	73:26:22:ARG:NH1	2.04	0.53
65:18:28:ILE:O	65:18:28:ILE:HD13	2.08	0.53
66:19:89:ARG:HH11	66:19:89:ARG:HG3	1.73	0.53
79:RA:118:LYS:O	79:RA:119:ALA:HB3	2.07	0.53
1:2S:279:U:H2'	1:2S:280:U:O4'	2.08	0.53
1:2S:1121:U:H2'	1:2S:1122:U:C6	2.44	0.53
1:2S:2131:A:C6	1:2S:2188:A:H1'	2.44	0.53
1:2S:2468:A:H4'	1:2S:2469:G:O5'	2.09	0.53
1:2S:2747:A:O2'	1:2S:2748:A:H5'	2.08	0.53
1:2S:3035:A:H1'	12:L9:122:LYS:HB2	1.91	0.53
1:2S:3116:G:H3'	1:2S:3117:C:H6	1.74	0.53
1:2S:3152:U:H5'	1:2S:3294:A:C5'	2.38	0.53
1:2S:3334:U:O4'	1:2S:3370:A:N1	2.42	0.53
15:53:91:ARG:HH11	15:53:91:ARG:HG3	1.73	0.53
19:57:119:VAL:HA	19:57:145:HIS:O	2.08	0.53
35:73:52:VAL:HG13	35:73:66:VAL:CG2	2.38	0.53
46:1S:115:G:C8	58:11:129:ARG:HD2	2.44	0.53
46:1S:754:A:H3'	46:1S:755:A:H5'	1.91	0.53
46:1S:767:U:H5'	71:24:63:GLN:NE2	2.23	0.53
49:S2:57:PHE:CE1	49:S2:138:PRO:HD3	2.44	0.53
51:S4:52:LEU:HD13	51:S4:54:TYR:CD2	2.44	0.53
53:S6:211:LEU:O	53:S6:211:LEU:HD13	2.09	0.53
55:S8:97:THR:HA	55:S8:173:PRO:HG2	1.91	0.53
57:10:56:LYS:HE2	57:10:67:THR:HB	1.90	0.53
65:18:123:ARG:HD3	65:18:133:VAL:HG21	1.91	0.53
78:31:108:VAL:HG23	78:31:114:VAL:HG22	1.91	0.53
1:2S:50:U:C6	1:2S:50:U:O5'	2.62	0.53
1:2S:55:G:O2'	1:2S:56:G:H5'	2.08	0.53
1:2S:406:G:H1'	2:8S:16:G:H22	1.73	0.53
1:2S:827:A:H2'	1:2S:828:A:H8	1.74	0.53
1:2S:828:A:H2'	1:2S:829:U:H6	1.72	0.53
1:2S:1427:U:H2'	1:2S:1428:A:H8	1.73	0.53
1:2S:1681:U:H2'	1:2S:1682:U:O4'	2.08	0.53
1:2S:2256:A:H61	46:1S:1756:A:H3'	1.74	0.53
1:2S:2324:A:H8	1:2S:2324:A:O5'	1.92	0.53
4:L1:15:GLU:HG3	4:L1:21:ASN:HD21	1.74	0.53
11:L8:93:LEU:O	11:L8:96:LYS:HD2	2.09	0.53
15:53:168:ARG:O	15:53:172:LEU:HG	2.08	0.53
17:55:46:ASP:OD1	17:55:47:LYS:N	2.42	0.53
17:55:70:ASN:OD1	17:55:93:LYS:HA	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:60:61:ILE:HG23	22:60:61:ILE:O	2.08	0.53
23:61:39:ILE:CD1	23:61:102:ARG:HH11	2.21	0.53
46:1S:250:C:H6	46:1S:250:C:H5'	1.74	0.53
46:1S:1311:U:H2'	46:1S:1313:A:OP2	2.09	0.53
46:1S:1482:C:N4	46:1S:1524:A:H2'	2.24	0.53
51:S4:36:HIS:HB2	51:S4:41:SER:HB3	1.91	0.53
52:S5:157:ARG:O	52:S5:224:ASN:HB3	2.08	0.53
54:S7:78:THR:O	54:S7:82:GLU:HB2	2.09	0.53
59:12:62:LEU:HD23	59:12:62:LEU:H	1.74	0.53
70:23:103:LEU:HD13	70:23:104:LEU:N	2.24	0.53
1:2S:8:C:H2'	1:2S:9:U:O4'	2.09	0.53
1:2S:490:C:H2'	1:2S:491:A:C8	2.44	0.53
1:2S:914:A:H8	1:2S:914:A:OP1	1.92	0.53
1:2S:944:C:H2'	1:2S:945:C:H6	1.74	0.53
1:2S:1742:U:H5''	36:74:21:LYS:NZ	2.24	0.53
1:2S:2206:G:H8	1:2S:2206:G:OP2	1.91	0.53
5:L2:196:TRP:CD2	5:L2:197:PRO:HA	2.44	0.53
7:L4:235:LEU:HA	7:L4:238:LEU:HD12	1.91	0.53
11:L8:78:PHE:C	11:L8:79:GLN:HG2	2.31	0.53
12:L9:70:THR:O	12:L9:74:LEU:HG	2.08	0.53
16:54:55:ARG:HD3	22:60:70:THR:HB	1.91	0.53
26:64:56:ARG:HH11	26:64:56:ARG:CB	2.22	0.53
27:65:136:ALA:O	27:65:139:ILE:HG22	2.08	0.53
34:72:86:THR:HG22	34:72:87:MET:SD	2.49	0.53
37:75:61:GLN:O	37:75:64:GLU:HG2	2.09	0.53
40:78:24:THR:HG23	40:78:44:LYS:HD3	1.90	0.53
46:1S:915:A:H3'	46:1S:916:U:C5	2.44	0.53
46:1S:1570:A:H3'	46:1S:1571:C:H6	1.74	0.53
59:12:22:VAL:HG12	59:12:23:THR:HG22	1.90	0.53
67:20:106:ILE:HG13	67:20:107:THR:N	2.22	0.53
69:22:49:GLU:HG3	69:22:49:GLU:O	2.08	0.53
1:2S:30:G:H2'	1:2S:31:C:C6	2.44	0.52
1:2S:990:U:H4'	23:61:100:LYS:HE3	1.90	0.52
1:2S:1019:G:H3'	1:2S:1020:G:H5''	1.90	0.52
1:2S:1228:C:O5'	1:2S:1228:C:H6	1.91	0.52
1:2S:1445:U:H3'	1:2S:1446:A:H2'	1.91	0.52
1:2S:1480:G:H1	1:2S:1871:U:H5''	1.74	0.52
1:2S:1783:U:H2'	1:2S:1784:G:C8	2.45	0.52
1:2S:2277:C:H2'	1:2S:2278:C:H5'	1.91	0.52
1:2S:2285:C:H2'	1:2S:2286:U:C6	2.44	0.52
1:2S:2424:A:H5''	17:55:89:VAL:HB	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:3065:G:H2'	1:2S:3066:U:C6	2.44	0.52
1:2S:3268:A:C2	9:L6:130:ILE:HG21	2.44	0.52
4:L1:44:GLN:CG	4:L1:161:LYS:HA	2.39	0.52
5:L2:202:VAL:CG2	5:L2:211:HIS:HB3	2.39	0.52
5:L2:214:GLY:C	5:L2:216:HIS:H	2.17	0.52
10:L7:232:ARG:HD3	10:L7:235:PHE:C	2.34	0.52
12:L9:67:ALA:O	12:L9:70:THR:HG22	2.08	0.52
19:57:106:GLY:C	19:57:107:LEU:HD12	2.34	0.52
20:58:59:ARG:HB2	20:58:59:ARG:HH11	1.75	0.52
28:66:82:VAL:HB	28:66:85:VAL:HB	1.89	0.52
31:69:59:LYS:H	31:69:59:LYS:CD	2.17	0.52
44:82:61:LYS:HB3	44:82:61:LYS:NZ	2.24	0.52
46:1S:803:A:O2'	54:S7:104:ARG:HG2	2.08	0.52
46:1S:1117:U:H2'	46:1S:1118:G:C8	2.44	0.52
46:1S:1364:G:H21	66:19:3:GLY:HA2	1.74	0.52
46:1S:1389:C:H3'	46:1S:1389:C:O2	2.10	0.52
49:S2:115:ILE:HD13	49:S2:208:GLU:HG3	1.90	0.52
51:S4:238:LEU:HD13	51:S4:242:LYS:CG	2.39	0.52
53:S6:157:VAL:HG21	53:S6:173:PRO:HD2	1.91	0.52
55:S8:9:HIS:O	55:S8:18:ARG:NH2	2.40	0.52
55:S8:25:ARG:CB	55:S8:27:PHE:CE1	2.92	0.52
57:10:63:TYR:O	57:10:64:TYR:O	2.27	0.52
63:16:41:PRO:O	63:16:42:GLU:HB3	2.08	0.52
70:23:76:LEU:HD13	70:23:79:ASN:HD22	1.73	0.52
70:23:90:ASP:OD2	77:30:12:GLY:HA2	2.08	0.52
79:RA:131:ILE:HB	79:RA:144:LEU:HB2	1.91	0.52
1:2S:209:A:C2	7:L4:221:ASN:HB3	2.43	0.52
1:2S:235:A:H2'	1:2S:236:G:C8	2.44	0.52
1:2S:385:A:O2'	1:2S:386:A:H5'	2.09	0.52
1:2S:811:U:H2'	1:2S:812:G:H8	1.74	0.52
1:2S:942:U:C3'	30:68:15:VAL:HG13	2.26	0.52
1:2S:1965:C:H2'	1:2S:1966:U:O4'	2.09	0.52
1:2S:2788:C:H2'	1:2S:2789:U:H6	1.73	0.52
5:L2:42:ARG:HD2	5:L2:87:PHE:CB	2.39	0.52
6:L3:261:MET:CG	18:56:64:PHE:HA	2.40	0.52
6:L3:324:VAL:HG22	6:L3:325:LYS:N	2.24	0.52
10:L7:111:ILE:O	10:L7:112:ASN:HB2	2.08	0.52
13:50:36:LEU:HD13	13:50:73:ASN:ND2	2.24	0.52
15:53:117:LYS:HD3	15:53:117:LYS:N	2.24	0.52
17:55:162:ARG:NH2	17:55:164:LEU:HD11	2.24	0.52
21:59:177:VAL:HA	21:59:180:LYS:HE2	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:71:37:LYS:HE2	33:71:51:LEU:HD11	1.92	0.52
46:1S:17:C:H2'	46:1S:18:C:C6	2.45	0.52
46:1S:1105:C:H2'	46:1S:1106:U:H6	1.72	0.52
46:1S:1521:G:H2'	46:1S:1523:G:H21	1.74	0.52
48:S1:180:THR:HG22	48:S1:181:LEU:N	2.24	0.52
51:S4:45:ILE:O	51:S4:49:ARG:HB3	2.09	0.52
51:S4:121:TYR:CD2	51:S4:161:LYS:HE3	2.45	0.52
52:S5:194:LEU:O	52:S5:194:LEU:HD13	2.09	0.52
53:S6:44:GLU:HB3	53:S6:121:LEU:HD21	1.92	0.52
53:S6:98:ARG:HD3	53:S6:99:GLY:H	1.74	0.52
59:12:138:GLU:O	59:12:142:GLN:HB3	2.09	0.52
65:18:84:TRP:H	65:18:84:TRP:CD1	2.24	0.52
65:18:105:VAL:HG13	65:18:106:GLU:N	2.24	0.52
76:29:29:GLY:HA3	76:29:40:ARG:HD3	1.90	0.52
1:2S:627:U:H2'	1:2S:628:A:H8	1.69	0.52
1:2S:1330:A:H2'	1:2S:1332:A:C8	2.44	0.52
1:2S:1726:C:H2'	1:2S:1727:G:C8	2.44	0.52
1:2S:2407:C:H2'	1:2S:2408:U:H6	1.74	0.52
1:2S:2680:A:C2	14:51:65:ILE:HD11	2.45	0.52
1:2S:2825:C:H2'	1:2S:2826:U:C6	2.44	0.52
1:2S:3185:U:H5''	12:L9:23:ARG:HH12	1.73	0.52
6:L3:53:MET:HE3	6:L3:77:THR:CG2	2.40	0.52
6:L3:164:THR:HG22	6:L3:165:GLN:H	1.74	0.52
17:55:10:LEU:O	17:55:19:LEU:HD21	2.09	0.52
21:59:139:VAL:HA	21:59:142:ILE:HG13	1.91	0.52
22:60:98:SER:OG	22:60:101:ALA:HB2	2.09	0.52
23:61:128:LEU:HD12	23:61:129:LYS:N	2.24	0.52
42:80:90:ASN:HD22	42:80:90:ASN:N	2.05	0.52
46:1S:730:G:N3	46:1S:730:G:H2'	2.23	0.52
46:1S:1632:C:H2'	46:1S:1633:A:H8	1.72	0.52
46:1S:1685:G:C2'	46:1S:1686:C:H5''	2.38	0.52
46:1S:1739:C:H2'	46:1S:1740:A:H8	1.72	0.52
56:S9:93:LEU:O	56:S9:93:LEU:HD23	2.09	0.52
56:S9:134:ILE:HA	56:S9:158:PHE:HA	1.91	0.52
67:20:22:ILE:HD12	67:20:118:VAL:HA	1.91	0.52
69:22:24:GLN:HB3	69:22:64:GLN:NE2	2.23	0.52
1:2S:335:G:OP1	28:66:9:SER:HB2	2.09	0.52
1:2S:860:G:C5	5:L2:181:LYS:HB2	2.44	0.52
1:2S:1225:A:N1	1:2S:3116:G:C8	2.78	0.52
1:2S:1912:U:H6	1:2S:1912:U:O5'	1.93	0.52
1:2S:2076:G:H2'	1:2S:2077:U:C5'	2.38	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2101:C:HO2'	1:2S:2102:U:H6	1.56	0.52
1:2S:2108:C:H1'	1:2S:3344:A:H8	1.74	0.52
1:2S:2119:A:H2	21:59:82:LYS:NZ	2.08	0.52
1:2S:2266:U:H2'	1:2S:2267:C:H6	1.74	0.52
1:2S:2384:A:O5'	1:2S:2384:A:H8	1.93	0.52
2:8S:152:G:H5'	11:L8:60:ARG:HG2	1.90	0.52
5:L2:78:ALA:O	5:L2:169:ILE:HG23	2.08	0.52
8:L5:51:LEU:HB3	8:L5:146:LEU:HA	1.90	0.52
13:50:14:ASN:N	13:50:14:ASN:HD22	2.07	0.52
18:56:157:GLU:HB3	18:56:161:LYS:HE2	1.91	0.52
20:58:30:VAL:HG22	20:58:52:LEU:HD13	1.92	0.52
20:58:54:LEU:HD22	20:58:58:ASN:HB3	1.91	0.52
22:60:110:MET:O	22:60:114:HIS:HB2	2.09	0.52
29:67:26:VAL:HG23	29:67:27:LYS:N	2.25	0.52
45:83:83:ILE:HD13	45:83:86:LEU:HD12	1.90	0.52
46:1S:866:G:O2'	60:13:4:MET:HE3	2.09	0.52
46:1S:1081:A:H2'	46:1S:1083:G:C5	2.45	0.52
46:1S:1381:U:H1'	46:1S:1516:A:N6	2.24	0.52
48:S1:23:PRO:O	48:S1:27:LYS:HG2	2.09	0.52
52:S5:121:ILE:HD11	52:S5:195:ALA:HA	1.91	0.52
61:14:112:ILE:O	73:26:58:VAL:HG22	2.09	0.52
64:17:53:TYR:O	64:17:56:HIS:HB3	2.09	0.52
70:23:19:ARG:NH1	70:23:22:ASN:HD22	2.07	0.52
70:23:75:GLN:HA	70:23:82:LYS:HA	1.91	0.52
73:26:59:TYR:HB3	73:26:60:PRO:HD2	1.91	0.52
1:2S:31:C:H2'	1:2S:32:U:C6	2.45	0.52
1:2S:397:A:H4'	1:2S:399:A:OP1	2.09	0.52
1:2S:440:A:C5'	1:2S:441:U:H4'	2.40	0.52
1:2S:957:C:H2'	1:2S:958:C:C6	2.45	0.52
1:2S:2189:U:H5''	45:83:22:LEU:HD11	1.91	0.52
1:2S:2295:A:H2'	1:2S:2296:A:C8	2.44	0.52
1:2S:3359:A:N3	1:2S:3359:A:H2'	2.25	0.52
4:L1:57:ASN:OD1	4:L1:147:LYS:HE2	2.08	0.52
4:L1:74:VAL:HG12	4:L1:75:ASP:N	2.23	0.52
5:L2:180:LEU:HD22	45:83:18:TYR:CD1	2.45	0.52
7:L4:98:ARG:O	7:L4:98:ARG:HD2	2.09	0.52
16:54:82:SER:HA	16:54:85:TRP:HB2	1.90	0.52
36:74:65:VAL:HG12	36:74:66:SER:N	2.23	0.52
44:82:24:LYS:HG3	44:82:75:VAL:HG12	1.91	0.52
46:1S:344:A:O2'	46:1S:345:U:H5'	2.09	0.52
57:10:87:VAL:N	57:10:88:PRO:HD3	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:12:89:ILE:HD13	59:12:90:LYS:N	2.17	0.52
61:14:21:ALA:HB3	61:14:83:ILE:HD11	1.91	0.52
61:14:107:ARG:HG3	61:14:107:ARG:NH2	2.24	0.52
62:15:31:GLU:HG3	62:15:32:ASP:N	2.24	0.52
70:23:75:GLN:CG	70:23:82:LYS:HG3	2.39	0.52
70:23:127:VAL:CG1	70:23:132:LEU:HD21	2.33	0.52
1:2S:50:U:O5'	1:2S:50:U:H6	1.93	0.52
1:2S:213:A:H2'	1:2S:214:G:C5'	2.39	0.52
1:2S:441:U:N3	1:2S:494:G:H4'	2.24	0.52
1:2S:1158:A:H2'	1:2S:1159:A:C4'	2.37	0.52
1:2S:1362:G:H2'	1:2S:1363:A:C8	2.44	0.52
1:2S:1844:C:C3'	1:2S:1845:G:H5''	2.39	0.52
1:2S:2771:U:H5	1:2S:2772:C:C4	2.27	0.52
1:2S:2960:C:H2'	1:2S:2961:G:C8	2.44	0.52
1:2S:3012:A:H2'	1:2S:3013:U:C6	2.45	0.52
1:2S:3044:G:H5''	6:L3:12:GLY:HA2	1.91	0.52
5:L2:79:ASN:O	5:L2:82:VAL:HG22	2.09	0.52
5:L2:209:HIS:CE1	5:L2:210:PRO:HD2	2.44	0.52
6:L3:57:VAL:CG2	6:L3:358:TRP:HE3	2.22	0.52
7:L4:38:VAL:O	7:L4:42:VAL:HG23	2.09	0.52
7:L4:195:ARG:O	7:L4:196:ASN:HB2	2.09	0.52
11:L8:32:LYS:HB3	11:L8:34:PHE:CZ	2.44	0.52
22:60:43:TYR:O	22:60:47:LYS:HG3	2.09	0.52
23:61:27:LEU:HA	23:61:30:TYR:CD2	2.45	0.52
24:62:104:ARG:C	24:62:105:LEU:HD12	2.34	0.52
27:65:63:ILE:HD13	27:65:64:GLU:N	2.23	0.52
34:72:17:PHE:HZ	34:72:57:TYR:CE2	2.27	0.52
38:76:40:VAL:O	38:76:44:VAL:HG23	2.08	0.52
38:76:98:ARG:N	38:76:98:ARG:CD	2.69	0.52
46:1S:115:G:H8	58:11:129:ARG:HD2	1.75	0.52
46:1S:421:A:H2'	46:1S:422:G:H5'	1.91	0.52
46:1S:701:U:O5'	46:1S:701:U:H6	1.93	0.52
46:1S:834:G:H2'	46:1S:835:U:C6	2.45	0.52
46:1S:1528:U:O5'	46:1S:1528:U:H6	1.91	0.52
50:S3:196:ARG:HH11	50:S3:196:ARG:HG3	1.73	0.52
51:S4:121:TYR:HA	51:S4:164:LEU:CD2	2.38	0.52
52:S5:147:THR:CG2	52:S5:158:GLN:HB3	2.40	0.52
52:S5:216:GLU:HG3	52:S5:219:ARG:HD2	1.91	0.52
58:11:85:VAL:HG22	58:11:108:PRO:HB3	1.91	0.52
63:16:36:ILE:O	63:16:36:ILE:HG12	2.10	0.52
66:19:49:ASP:O	66:19:50:ALA:HB3	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:24:123:LYS:O	71:24:127:LYS:HG2	2.10	0.52
72:25:57:TYR:OH	72:25:68:ARG:NH1	2.43	0.52
76:29:38:ILE:HG22	76:29:39:CYS:N	2.25	0.52
1:2S:191:U:H2'	1:2S:192:C:C6	2.45	0.52
1:2S:924:G:H21	1:2S:2414:G:C1'	2.23	0.52
1:2S:2729:U:H2'	1:2S:2730:G:O4'	2.10	0.52
1:2S:2967:A:H5''	5:L2:213:GLY:C	2.35	0.52
4:L1:40:ASN:O	4:L1:162:VAL:HG13	2.10	0.52
6:L3:285:VAL:HA	6:L3:322:ILE:HD13	1.91	0.52
6:L3:336:VAL:HG12	6:L3:337:THR:N	2.25	0.52
7:L4:271:LYS:HB2	7:L4:274:TYR:HB3	1.92	0.52
9:L6:58:LEU:HD21	9:L6:102:ASN:HA	1.92	0.52
10:L7:77:VAL:CG2	23:61:139:ARG:H	2.23	0.52
10:L7:123:THR:HA	10:L7:126:LEU:HD12	1.90	0.52
10:L7:153:PHE:HA	10:L7:161:VAL:O	2.09	0.52
12:L9:153:ASP:O	12:L9:157:ASN:HB2	2.10	0.52
19:57:159:LYS:HG2	19:57:160:ALA:H	1.74	0.52
46:1S:144:U:H1'	46:1S:145:A:H5'	1.92	0.52
46:1S:169:A:C5'	53:S6:176:GLN:HG2	2.33	0.52
46:1S:1199:G:H1	76:29:31:ILE:HD11	1.74	0.52
51:S4:133:LYS:C	51:S4:134:LYS:HG3	2.35	0.52
54:S7:27:LEU:HD22	54:S7:80:GLU:HG2	1.91	0.52
55:S8:10:LYS:HB3	55:S8:18:ARG:NH2	2.24	0.52
58:11:133:LYS:HZ2	58:11:134:THR:HG23	1.73	0.52
63:16:128:LYS:HB2	63:16:137:ARG:HH22	1.74	0.52
66:19:52:GLY:HA2	66:19:55:TYR:HD2	1.72	0.52
70:23:19:ARG:NH1	70:23:22:ASN:ND2	2.57	0.52
79:RA:129:LYS:HB2	79:RA:147:HIS:HB2	1.92	0.52
79:RA:294:TRP:CD2	79:RA:301:LEU:HD13	2.45	0.52
1:2S:386:A:H8	1:2S:386:A:O5'	1.93	0.52
1:2S:971:G:H2'	1:2S:972:A:H8	1.72	0.52
1:2S:1276:U:O2'	1:2S:1277:C:H5'	2.09	0.52
1:2S:1460:A:H2'	1:2S:1461:A:C8	2.45	0.52
1:2S:2185:G:H2'	1:2S:2186:U:C6	2.45	0.52
1:2S:2424:A:H2'	1:2S:2425:G:O4'	2.10	0.52
1:2S:2940:A:H62	6:L3:3:HIS:HA	1.75	0.52
1:2S:3029:A:H8	1:2S:3029:A:O5'	1.92	0.52
7:L4:114:ASN:O	7:L4:118:LYS:HG3	2.10	0.52
7:L4:188:ARG:O	7:L4:193:LYS:HE3	2.10	0.52
7:L4:290:ILE:HG12	20:58:32:LEU:HG	1.90	0.52
14:51:14:ILE:HG12	14:51:131:MET:HE1	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:53:179:PHE:CD1	15:53:182:ILE:HD12	2.44	0.52
17:55:14:LYS:HE2	17:55:120:TRP:CZ3	2.44	0.52
20:58:176:ARG:HA	20:58:182:LYS:O	2.10	0.52
21:59:53:LYS:HG2	21:59:54:ALA:H	1.75	0.52
25:63:93:LEU:HD23	25:63:93:LEU:N	2.21	0.52
36:74:81:CYS:C	36:74:83:ASN:H	2.17	0.52
38:76:20:MET:O	38:76:21:THR:HG22	2.09	0.52
40:78:14:LEU:O	40:78:20:VAL:HG21	2.10	0.52
46:1S:181:A:H2'	46:1S:182:A:C8	2.45	0.52
52:S5:107:LYS:O	52:S5:111:VAL:HG23	2.09	0.52
54:S7:27:LEU:HD11	54:S7:81:LEU:HD11	1.92	0.52
61:14:111:ARG:CZ	73:26:58:VAL:HG12	2.39	0.52
67:20:20:ILE:HD13	67:20:96:PRO:O	2.10	0.52
1:2S:543:C:H2'	1:2S:544:C:O4'	2.09	0.52
1:2S:868:C:H2'	1:2S:869:G:C5'	2.36	0.52
1:2S:957:C:H2'	1:2S:958:C:H6	1.75	0.52
1:2S:986:U:C1'	10:L7:126:LEU:HD21	2.39	0.52
1:2S:1193:A:N7	1:2S:1194:G:C6	2.78	0.52
1:2S:1468:A:H2'	1:2S:1469:C:C6	2.45	0.52
1:2S:2938:G:H3'	6:L3:3:HIS:HD2	1.75	0.52
1:2S:3286:G:C2'	1:2S:3287:U:H5''	2.37	0.52
4:L1:62:ASN:ND2	4:L1:64:SER:HB2	2.24	0.52
5:L2:210:PRO:O	5:L2:211:HIS:HD2	1.93	0.52
6:L3:347:SER:O	6:L3:348:ARG:HB3	2.09	0.52
9:L6:68:PRO:CG	9:L6:146:ILE:HD11	2.38	0.52
11:L8:122:LYS:HE3	11:L8:124:ASP:HB2	1.92	0.52
12:L9:23:ARG:HB2	12:L9:39:LYS:HG2	1.91	0.52
17:55:67:ARG:HG2	17:55:127:TYR:CE1	2.45	0.52
17:55:121:VAL:HG23	17:55:122:ASN:N	2.25	0.52
19:57:116:HIS:HD2	19:57:148:LEU:HA	1.75	0.52
19:57:120:ASN:HD21	19:57:145:HIS:HB2	1.73	0.52
20:58:157:PRO:O	20:58:158:HIS:HB2	2.09	0.52
22:60:29:ILE:HG22	22:60:30:PHE:N	2.25	0.52
26:64:28:ILE:HG22	26:64:30:ARG:HG3	1.92	0.52
46:1S:183:U:H2'	46:1S:184:C:C1'	2.40	0.52
48:S1:180:THR:CG2	48:S1:181:LEU:HD13	2.33	0.52
52:S5:24:VAL:C	52:S5:25:LEU:HD13	2.34	0.52
52:S5:51:VAL:HG21	52:S5:130:ILE:HG23	1.92	0.52
59:12:105:LYS:HB2	59:12:105:LYS:NZ	2.25	0.52
59:12:108:ARG:CG	59:12:112:ALA:HB3	2.35	0.52
62:15:52:LYS:HB2	62:15:53:PRO:HD3	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:24:20:ARG:C	71:24:21:LYS:HD2	2.35	0.52
75:28:36:THR:OG1	75:28:37:SER:N	2.42	0.52
1:2S:41:G:H2'	1:2S:42:C:O4'	2.09	0.52
1:2S:438:A:C2'	1:2S:439:C:H5''	2.40	0.52
1:2S:1195:A:H2	1:2S:1313:G:H22	1.58	0.52
1:2S:1420:C:O2'	1:2S:1421:G:H5'	2.09	0.52
1:2S:1517:G:H5''	41:79:22:PRO:HG2	1.92	0.52
1:2S:3111:U:H2'	1:2S:3112:G:O4'	2.10	0.52
1:2S:3293:U:H5'	6:L3:128:LYS:NZ	2.25	0.52
2:8S:155:A:H4'	11:L8:185:ARG:HH11	1.74	0.52
6:L3:28:ARG:HH12	6:L3:30:LYS:HE2	1.75	0.52
6:L3:332:ARG:H	6:L3:332:ARG:CD	2.21	0.52
7:L4:159:ILE:HB	7:L4:215:ILE:CD1	2.36	0.52
8:L5:57:ASN:O	8:L5:58:LYS:HB2	2.09	0.52
8:L5:236:LEU:CD1	8:L5:239:ILE:HD12	2.40	0.52
9:L6:146:ILE:HG23	9:L6:156:LYS:HZ1	1.75	0.52
11:L8:153:ILE:HG22	11:L8:154:ALA:N	2.25	0.52
12:L9:4:ILE:O	12:L9:58:HIS:HA	2.10	0.52
13:50:39:LYS:C	13:50:40:LYS:HD2	2.34	0.52
13:50:201:SER:C	13:50:203:LYS:H	2.17	0.52
32:70:67:VAL:HG12	32:70:68:TYR:N	2.25	0.52
36:74:44:CYS:C	36:74:46:ASP:H	2.17	0.52
46:1S:618:U:O5'	46:1S:618:U:H6	1.92	0.52
46:1S:1485:C:H2'	46:1S:1486:G:H4'	1.92	0.52
46:1S:1677:C:H2'	46:1S:1678:A:O4'	2.10	0.52
47:S0:45:VAL:HG12	47:S0:46:HIS:H	1.74	0.52
52:S5:59:VAL:O	52:S5:60:ASP:HB2	2.09	0.52
55:S8:67:TRP:HB3	55:S8:70:GLU:HB3	1.91	0.52
58:11:89:ALA:HB2	58:11:104:HIS:HB3	1.90	0.52
58:11:117:VAL:CG1	58:11:118:GLN:H	2.21	0.52
61:14:133:ARG:HG2	61:14:136:ARG:HH21	1.73	0.52
62:15:50:THR:O	62:15:51:SER:HB2	2.10	0.52
63:16:77:GLN:O	63:16:81:ILE:HG12	2.09	0.52
70:23:16:ARG:HB3	70:23:20:ARG:NH1	2.25	0.52
73:26:31:PRO:O	73:26:35:ALA:HB2	2.10	0.52
75:28:10:ALA:HB1	75:28:30:VAL:HB	1.91	0.52
1:2S:286:U:H2'	1:2S:287:G:C8	2.46	0.51
1:2S:494:G:H1'	1:2S:495:G:N7	2.25	0.51
1:2S:1126:G:H2'	1:2S:1127:G:O4'	2.10	0.51
1:2S:1528:G:H21	1:2S:1588:A:H2	1.58	0.51
1:2S:1604:G:H3'	1:2S:1604:G:N3	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2352:A:H5''	19:57:83:TRP:O	2.10	0.51
1:2S:2991:A:OP2	6:L3:20:LYS:HE2	2.10	0.51
1:2S:3104:U:O2'	1:2S:3105:U:H5'	2.11	0.51
1:2S:3272:C:H5''	9:L6:77:ARG:NE	2.24	0.51
4:L1:130:LYS:HA	4:L1:136:THR:OG1	2.10	0.51
5:L2:202:VAL:O	5:L2:202:VAL:HG12	2.10	0.51
6:L3:67:PHE:HA	6:L3:70:ARG:HH21	1.75	0.51
7:L4:69:ARG:O	7:L4:71:VAL:HG12	2.10	0.51
7:L4:299:ILE:HG23	20:58:39:ARG:HE	1.75	0.51
7:L4:351:PRO:HB2	7:L4:355:PHE:CD2	2.44	0.51
11:L8:122:LYS:H	11:L8:122:LYS:CD	2.22	0.51
11:L8:128:LYS:CG	11:L8:129:PRO:HD2	2.39	0.51
17:55:72:LYS:HA	17:55:89:VAL:O	2.09	0.51
19:57:70:THR:HG21	19:57:81:ALA:HB3	1.90	0.51
21:59:98:ARG:O	21:59:102:LEU:HG	2.10	0.51
22:60:76:GLY:O	22:60:126:VAL:HG13	2.09	0.51
25:63:81:GLN:HE21	25:63:83:LYS:HB3	1.75	0.51
25:63:86:ARG:HG2	25:63:87:ARG:H	1.75	0.51
28:66:88:GLU:HA	28:66:94:SER:HA	1.92	0.51
35:73:16:TYR:HD1	35:73:27:VAL:O	1.93	0.51
39:77:47:TYR:HB3	39:77:49:TRP:HE1	1.72	0.51
44:82:28:TYR:CD2	44:82:69:VAL:HG11	2.45	0.51
46:1S:581:U:H3'	46:1S:581:U:O2	2.10	0.51
46:1S:1139:A:H2'	46:1S:1140:G:H5'	1.91	0.51
46:1S:1179:G:H2'	46:1S:1180:C:C6	2.45	0.51
46:1S:1424:A:H2'	46:1S:1425:A:O4'	2.09	0.51
46:1S:1646:C:H2'	46:1S:1647:U:C6	2.45	0.51
48:S1:141:ALA:HB1	48:S1:210:ILE:HG12	1.91	0.51
52:S5:128:ASN:HB2	52:S5:131:GLN:HB2	1.92	0.51
52:S5:175:LEU:HD23	52:S5:197:GLU:OE1	2.10	0.51
60:13:114:ARG:O	60:13:118:ILE:HG13	2.10	0.51
72:25:58:ARG:HG3	72:25:58:ARG:NH1	2.24	0.51
77:30:42:ARG:HA	77:30:46:ASN:HD21	1.75	0.51
1:2S:228:U:O5'	1:2S:228:U:H6	1.93	0.51
1:2S:619:A:H4'	1:2S:620:U:C5	2.45	0.51
1:2S:1035:G:C5	1:2S:1036:A:N7	2.79	0.51
1:2S:1141:C:H2'	1:2S:1142:G:C8	2.43	0.51
1:2S:2152:A:O3'	5:L2:245:LEU:HD12	2.11	0.51
1:2S:2271:A:C2'	1:2S:2272:G:H5''	2.40	0.51
1:2S:2772:C:H4'	1:2S:2773:C:O5'	2.11	0.51
1:2S:3260:G:H5''	16:54:125:LYS:HB3	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:L4:51:ALA:HA	7:L4:103:THR:HB	1.92	0.51
8:L5:68:THR:HG22	8:L5:69:ILE:N	2.26	0.51
10:L7:66:LYS:O	10:L7:69:ALA:HB3	2.10	0.51
13:50:52:LEU:HG	13:50:165:ILE:HG22	1.92	0.51
17:55:36:ILE:HG22	17:55:62:TYR:HE1	1.75	0.51
20:58:3:ILE:HD12	20:58:3:ILE:N	2.25	0.51
21:59:40:ALA:O	21:59:44:LEU:HD23	2.09	0.51
24:62:87:ASN:HB2	24:62:89:LEU:HG	1.92	0.51
31:69:9:ALA:O	31:69:12:GLN:HG2	2.10	0.51
31:69:35:VAL:CG1	31:69:36:ASP:H	2.13	0.51
32:70:93:LEU:N	32:70:93:LEU:HD12	2.26	0.51
35:73:89:LEU:HD23	35:73:90:PRO:HD2	1.92	0.51
46:1S:10:G:H2'	46:1S:11:A:C8	2.46	0.51
46:1S:576:G:H4'	46:1S:580:A:C2	2.45	0.51
46:1S:639:U:H3	54:S7:100:PRO:HA	1.75	0.51
46:1S:1419:G:H5'	76:29:56:ARG:O	2.10	0.51
47:S0:172:LEU:O	47:S0:176:LEU:HG	2.09	0.51
53:S6:98:ARG:HD3	53:S6:99:GLY:N	2.25	0.51
55:S8:37:LYS:HD3	55:S8:95:THR:HA	1.92	0.51
55:S8:81:VAL:CG1	55:S8:91:VAL:HG13	2.40	0.51
55:S8:117:TYR:CE1	55:S8:146:ARG:HB3	2.45	0.51
63:16:26:LYS:HB2	63:16:26:LYS:NZ	2.25	0.51
67:20:33:GLN:HG3	67:20:109:GLU:HG2	1.91	0.51
1:2S:288:C:H2'	1:2S:289:A:C8	2.45	0.51
1:2S:1714:A:H62	1:2S:1730:G:N2	2.08	0.51
1:2S:2491:A:H1'	4:L1:207:LYS:NZ	2.25	0.51
1:2S:2686:A:H2'	1:2S:2687:G:O4'	2.11	0.51
1:2S:3376:A:H5'	1:2S:3377:G:H5''	1.91	0.51
5:L2:48:ILE:HA	5:L2:58:LEU:O	2.10	0.51
5:L2:136:ILE:HA	5:L2:148:VAL:HG12	1.93	0.51
5:L2:146:THR:C	5:L2:157:VAL:HG23	2.35	0.51
7:L4:33:ASP:O	7:L4:37:THR:HG23	2.10	0.51
7:L4:134:LEU:O	7:L4:245:GLY:HA3	2.11	0.51
7:L4:239:ALA:N	7:L4:240:PRO:HD3	2.25	0.51
10:L7:77:VAL:HG11	23:61:141:VAL:HG13	1.92	0.51
15:53:189:GLU:CA	15:53:192:GLU:HG2	2.39	0.51
18:56:174:PHE:O	18:56:174:PHE:HD1	1.94	0.51
19:57:84:PRO:O	19:57:88:VAL:HG23	2.10	0.51
21:59:92:GLN:O	21:59:96:ILE:HG13	2.10	0.51
21:59:138:LEU:O	21:59:141:HIS:HB3	2.10	0.51
29:67:92:PHE:HA	29:67:95:VAL:CG2	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:74:80:ARG:HD3	36:74:84:CYS:HB3	1.91	0.51
46:1S:753:A:H2'	46:1S:754:A:H1'	1.93	0.51
46:1S:1041:G:H2'	46:1S:1042:G:C8	2.46	0.51
46:1S:1453:G:H2'	46:1S:1454:G:O4'	2.11	0.51
50:S3:42:THR:HB	50:S3:43:PRO:HD2	1.90	0.51
54:S7:44:LYS:HD3	54:S7:95:GLU:HG2	1.93	0.51
55:S8:42:ARG:CG	55:S8:58:LEU:HB2	2.41	0.51
55:S8:191:PHE:O	55:S8:194:ARG:HB3	2.11	0.51
69:22:41:MET:HB3	69:22:46:TYR:HB2	1.93	0.51
70:23:120:VAL:HG12	70:23:122:PHE:H	1.75	0.51
71:24:20:ARG:HB3	71:24:76:TYR:CE1	2.45	0.51
72:25:95:HIS:CE1	72:25:98:GLN:HB2	2.44	0.51
1:2S:432:G:H2'	1:2S:433:A:C8	2.45	0.51
1:2S:2358:A:H2'	1:2S:2359:C:C6	2.46	0.51
1:2S:2710:C:H2'	1:2S:2711:C:C6	2.45	0.51
4:L1:22:GLU:O	4:L1:24:LYS:N	2.43	0.51
5:L2:45:VAL:HG12	5:L2:86:GLN:H	1.76	0.51
5:L2:129:ALA:HB1	5:L2:132:ASN:HD22	1.74	0.51
6:L3:21:ARG:CB	6:L3:272:TYR:HD1	2.21	0.51
11:L8:99:PRO:HG2	11:L8:190:VAL:HG23	1.92	0.51
12:L9:92:TYR:HB3	12:L9:99:ILE:HD12	1.92	0.51
14:51:80:LEU:HD23	14:51:80:LEU:C	2.36	0.51
19:57:22:LEU:CD1	19:57:146:ILE:HD12	2.40	0.51
22:60:81:TYR:HB2	22:60:110:MET:HE1	1.91	0.51
22:60:124:LEU:HD13	23:61:155:PRO:HG3	1.92	0.51
22:60:142:GLN:O	22:60:148:LEU:HD11	2.09	0.51
25:63:76:ALA:C	25:63:77:ILE:HD12	2.36	0.51
26:64:56:ARG:O	26:64:61:LYS:HG2	2.11	0.51
27:65:107:VAL:HG12	27:65:108:LEU:N	2.25	0.51
28:66:70:ILE:H	28:66:70:ILE:CD1	2.23	0.51
29:67:10:VAL:HG23	29:67:85:TYR:O	2.10	0.51
35:73:43:PHE:HZ	35:73:107:ILE:HD11	1.75	0.51
46:1S:826:U:H2'	46:1S:827:C:C6	2.45	0.51
46:1S:1067:C:H5''	48:S1:150:VAL:HG23	1.92	0.51
51:S4:102:VAL:HG22	51:S4:103:TYR:N	2.25	0.51
54:S7:24:PHE:O	54:S7:28:GLU:HG3	2.10	0.51
54:S7:55:LYS:HD2	54:S7:89:HIS:NE2	2.25	0.51
58:11:92:HIS:O	58:11:100:TYR:HA	2.10	0.51
62:15:31:GLU:O	62:15:35:LYS:HD3	2.10	0.51
66:19:38:LYS:O	66:19:39:THR:OG1	2.26	0.51
70:23:52:ILE:C	70:23:74:VAL:HG13	2.35	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:25:50:ILE:HD11	72:25:70:LYS:CG	2.40	0.51
1:2S:16:A:H4'	27:65:45:LYS:HE3	1.91	0.51
1:2S:634:C:H2'	1:2S:635:G:O4'	2.10	0.51
1:2S:808:A:O2'	1:2S:809:G:H5'	2.10	0.51
1:2S:1132:C:H2'	1:2S:1133:A:H8	1.76	0.51
1:2S:1245:A:H3'	1:2S:1246:G:C5'	2.40	0.51
1:2S:2147:A:C5'	5:L2:199:THR:HA	2.40	0.51
1:2S:2315:G:H2'	1:2S:2316:G:C8	2.45	0.51
1:2S:2392:C:O2'	1:2S:2393:G:H5'	2.11	0.51
1:2S:2734:A:H2'	1:2S:2735:U:C6	2.45	0.51
1:2S:2995:A:H5'	2:8S:1:A:C2	2.45	0.51
4:L1:91:LYS:C	4:L1:93:LEU:H	2.18	0.51
4:L1:123:LEU:CD2	4:L1:128:LEU:HD12	2.41	0.51
5:L2:23:ARG:HG3	5:L2:23:ARG:NH1	2.25	0.51
5:L2:68:LYS:HG2	5:L2:69:TYR:H	1.75	0.51
6:L3:249:VAL:HG12	6:L3:250:ALA:N	2.25	0.51
7:L4:62:ALA:HB2	7:L4:89:ALA:HB3	1.93	0.51
7:L4:216:VAL:HG12	7:L4:227:THR:HG21	1.93	0.51
12:L9:81:GLY:O	12:L9:85:GLY:HA2	2.11	0.51
15:53:3:ILE:HB	30:68:41:HIS:ND1	2.26	0.51
17:55:61:ILE:HD13	17:55:61:ILE:N	2.26	0.51
20:58:64:VAL:HA	20:58:67:ILE:HD12	1.93	0.51
21:59:15:VAL:HG11	21:59:52:LYS:HG3	1.92	0.51
27:65:24:LEU:HD12	27:65:24:LEU:N	2.25	0.51
27:65:115:ARG:HB2	27:65:119:THR:H	1.75	0.51
29:67:53:VAL:HG13	29:67:53:VAL:O	2.10	0.51
46:1S:6:G:OP2	49:S2:205:ARG:HD2	2.11	0.51
46:1S:41:A:H2'	46:1S:438:A:N7	2.26	0.51
46:1S:401:A:H4'	51:S4:3:ARG:CD	2.38	0.51
46:1S:477:A:H62	46:1S:539:G:N2	2.07	0.51
46:1S:503:G:H2'	46:1S:504:U:C6	2.45	0.51
46:1S:829:A:H4'	46:1S:830:U:H5'	1.92	0.51
47:S0:31:VAL:HG23	47:S0:150:ASP:HA	1.91	0.51
47:S0:147:THR:HB	47:S0:151:SER:HB2	1.92	0.51
47:S0:169:SER:O	47:S0:173:ILE:HG12	2.09	0.51
49:S2:188:LEU:HB3	49:S2:193:VAL:HB	1.92	0.51
51:S4:154:ILE:HD13	51:S4:160:VAL:HG22	1.92	0.51
53:S6:87:ARG:HH11	53:S6:87:ARG:HG3	1.75	0.51
55:S8:27:PHE:CB	55:S8:49:ARG:HH22	2.24	0.51
65:18:49:LYS:HG3	65:18:81:ILE:HD11	1.93	0.51
73:26:22:ARG:HH11	73:26:22:ARG:HG3	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:132:C:H2'	1:2S:133:U:H5''	1.92	0.51
1:2S:508:U:H2'	1:2S:509:U:C6	2.46	0.51
1:2S:532:A:O2'	1:2S:533:A:H5'	2.11	0.51
1:2S:619:A:H5'	1:2S:620:U:C2	2.46	0.51
1:2S:824:C:H5''	5:L2:21:ARG:CD	2.33	0.51
1:2S:1341:U:H2'	1:2S:1342:C:H6	1.73	0.51
1:2S:1668:G:H2'	1:2S:1669:C:O4'	2.09	0.51
1:2S:2126:A:H2'	1:2S:2127:U:C6	2.46	0.51
1:2S:2269:U:H2'	1:2S:2270:A:H3'	1.93	0.51
1:2S:3151:U:O2'	1:2S:3152:U:H5	1.93	0.51
6:L3:52:GLY:O	6:L3:78:VAL:HB	2.10	0.51
7:L4:98:ARG:HD2	7:L4:98:ARG:C	2.35	0.51
8:L5:267:ALA:O	8:L5:271:LYS:HG3	2.10	0.51
13:50:43:VAL:HA	13:50:139:ARG:HH22	1.74	0.51
16:54:113:THR:HG22	16:54:115:PHE:H	1.74	0.51
23:61:68:THR:CG2	23:61:69:LYS:H	2.19	0.51
24:62:98:THR:CG2	24:62:99:LYS:HE2	2.39	0.51
28:66:56:VAL:HG12	28:66:70:ILE:HD11	1.93	0.51
39:77:51:ALA:HA	39:77:54:LYS:HB2	1.93	0.51
45:83:57:CYS:SG	45:83:59:CYS:O	2.64	0.51
46:1S:94:U:C2'	46:1S:95:G:H5'	2.40	0.51
46:1S:618:U:C5'	46:1S:1030:A:C5	2.93	0.51
46:1S:794:U:O2	46:1S:794:U:C2'	2.58	0.51
46:1S:1543:A:C1'	46:1S:1569:A:N1	2.73	0.51
47:S0:63:ILE:HG22	47:S0:63:ILE:O	2.10	0.51
48:S1:81:PHE:O	48:S1:82:ARG:HB2	2.10	0.51
49:S2:106:ASP:OD1	49:S2:107:SER:N	2.43	0.51
52:S5:140:THR:O	52:S5:142:PRO:HD3	2.10	0.51
52:S5:167:ARG:HH12	75:28:55:VAL:CG2	2.24	0.51
58:11:77:SER:O	58:11:84:ILE:HB	2.11	0.51
66:19:28:LEU:O	66:19:29:GLU:HB2	2.11	0.51
69:22:56:HIS:C	69:22:57:ARG:HD2	2.35	0.51
70:23:91:GLY:C	70:23:93:LEU:H	2.18	0.51
73:26:18:VAL:HG21	73:26:33:ASP:OD1	2.10	0.51
1:2S:44:U:H2'	1:2S:45:A:H5'	1.93	0.51
1:2S:55:G:C2'	1:2S:56:G:H5'	2.41	0.51
1:2S:977:C:O2'	1:2S:978:G:H5'	2.11	0.51
1:2S:1009:A:H2'	1:2S:1010:G:C8	2.46	0.51
1:2S:1287:A:C2	1:2S:1288:U:C1'	2.93	0.51
1:2S:1764:U:H3'	1:2S:1765:U:C4'	2.40	0.51
1:2S:2861:U:H2'	1:2S:2862:U:C6	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2890:A:H61	1:2S:2913:C:H42	1.59	0.51
1:2S:2936:A:H2'	1:2S:2937:G:C8	2.46	0.51
2:8S:155:A:H2'	2:8S:156:U:C5'	2.41	0.51
3:5S:34:C:H2'	3:5S:35:C:C6	2.46	0.51
6:L3:111:SER:O	6:L3:115:LYS:HG3	2.10	0.51
6:L3:233:TRP:O	6:L3:234:GLY:C	2.53	0.51
10:L7:229:PHE:CD1	10:L7:229:PHE:C	2.89	0.51
11:L8:53:PRO:HB2	11:L8:56:VAL:HG23	1.93	0.51
11:L8:238:LEU:H	11:L8:238:LEU:CD2	2.24	0.51
12:L9:90:MET:O	12:L9:143:GLU:HG3	2.11	0.51
13:50:17:TYR:O	13:50:96:VAL:HG23	2.10	0.51
20:58:32:LEU:O	20:58:36:LEU:HG	2.11	0.51
30:68:94:ALA:HA	30:68:121:VAL:HG13	1.93	0.51
33:71:10:ARG:HA	33:71:109:VAL:HG23	1.93	0.51
46:1S:57:G:H2'	46:1S:58:U:O4'	2.11	0.51
46:1S:413:U:H2'	46:1S:414:C:C6	2.45	0.51
46:1S:912:U:H4'	46:1S:914:G:H5''	1.93	0.51
46:1S:1217:A:O4'	57:10:44:LYS:HE3	2.11	0.51
46:1S:1797:A:H5'	73:26:95:ARG:CG	2.37	0.51
48:S1:201:THR:HG22	48:S1:201:THR:O	2.10	0.51
49:S2:99:LYS:HE3	49:S2:115:ILE:HG21	1.93	0.51
50:S3:37:VAL:CG1	50:S3:50:ILE:HG23	2.37	0.51
51:S4:163:ASP:O	51:S4:164:LEU:HB2	2.11	0.51
51:S4:181:VAL:HG13	51:S4:226:PHE:H	1.74	0.51
55:S8:153:GLU:HB3	55:S8:156:VAL:CG2	2.38	0.51
56:S9:12:TYR:CE2	56:S9:40:LYS:HD3	2.46	0.51
56:S9:59:LEU:HA	56:S9:62:ARG:CG	2.41	0.51
59:12:42:ALA:HB1	59:12:47:GLU:HB3	1.92	0.51
59:12:46:ARG:NH1	78:31:103:LEU:HD11	2.26	0.51
66:19:52:GLY:C	66:19:54:PHE:H	2.19	0.51
67:20:96:PRO:HG2	67:20:99:ILE:HG22	1.92	0.51
69:22:36:LYS:CG	69:22:110:ILE:HD12	2.38	0.51
73:26:23:CYS:O	73:26:27:SER:HA	2.10	0.51
1:2S:1209:G:H2'	1:2S:1210:U:C6	2.46	0.51
1:2S:1794:G:H4'	5:L2:191:LEU:HD12	1.91	0.51
1:2S:2765:C:O5'	1:2S:2765:C:H6	1.94	0.51
1:2S:3205:G:N2	22:60:169:SER:HB2	2.23	0.51
3:5S:7:G:H2'	3:5S:8:G:C8	2.45	0.51
5:L2:134:VAL:HG12	5:L2:150:LEU:HA	1.92	0.51
6:L3:292:ALA:HB1	6:L3:295:ALA:HB3	1.92	0.51
7:L4:161:LYS:H	7:L4:161:LYS:HD2	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:L8:190:VAL:O	11:L8:190:VAL:HG22	2.11	0.51
21:59:112:ALA:HB3	21:59:114:LYS:HG3	1.93	0.51
22:60:135:VAL:HG12	22:60:141:LYS:HE2	1.93	0.51
28:66:45:ILE:HG21	28:66:48:LEU:HG	1.93	0.51
32:70:24:THR:HG22	32:70:93:LEU:HD11	1.92	0.51
34:72:40:SER:HB3	34:72:43:ARG:HB3	1.93	0.51
35:73:43:PHE:CZ	35:73:107:ILE:HD11	2.45	0.51
44:82:72:LEU:HB2	44:82:81:ALA:HB3	1.92	0.51
46:1S:27:U:O2'	46:1S:28:A:H5'	2.10	0.51
46:1S:446:A:O2'	46:1S:447:U:H5'	2.11	0.51
46:1S:583:C:O2	46:1S:583:C:H2'	2.10	0.51
46:1S:942:G:H5''	46:1S:977:A:H4'	1.93	0.51
46:1S:1049:U:H2'	46:1S:1050:G:C8	2.45	0.51
46:1S:1525:A:H2'	46:1S:1526:A:O4'	2.11	0.51
48:S1:53:GLY:O	48:S1:54:LEU:HB2	2.11	0.51
54:S7:126:LEU:HD21	54:S7:173:TYR:CE1	2.46	0.51
54:S7:131:PHE:H	54:S7:132:PRO:HD2	1.76	0.51
55:S8:78:ILE:HG22	55:S8:79:ALA:N	2.26	0.51
56:S9:90:LYS:C	56:S9:92:LYS:H	2.18	0.51
61:14:87:GLY:HA3	61:14:120:PRO:CG	2.40	0.51
73:26:84:VAL:HG22	73:26:86:VAL:H	1.74	0.51
76:29:5:ASN:HB3	76:29:8:PHE:HB3	1.93	0.51
79:RA:9:LEU:HD12	79:RA:312:VAL:O	2.09	0.51
79:RA:50:ASP:O	79:RA:51:ASP:HB2	2.10	0.51
1:2S:61:A:H2'	1:2S:62:A:O4'	2.11	0.51
1:2S:1225:A:C2	1:2S:3116:G:C8	2.99	0.51
1:2S:1635:G:N2	1:2S:1638:A:OP2	2.40	0.51
1:2S:2336:U:H2'	1:2S:2337:C:O4'	2.11	0.51
1:2S:2385:G:N7	1:2S:3143:C:H2'	2.26	0.51
1:2S:2434:U:H5'	1:2S:2593:A:H2	1.75	0.51
1:2S:2500:A:C2'	1:2S:2501:U:H5'	2.41	0.51
1:2S:2606:G:H5'	5:L2:233:GLN:HE22	1.75	0.51
1:2S:2812:C:H2'	1:2S:2813:A:H8	1.73	0.51
1:2S:3117:C:H2'	1:2S:3118:C:O4'	2.11	0.51
2:8S:104:A:H3'	2:8S:105:A:C5'	2.40	0.51
4:L1:198:TRP:O	4:L1:199:GLN:O	2.29	0.51
9:L6:18:LEU:HD22	9:L6:18:LEU:N	2.26	0.51
12:L9:129:ARG:NH2	12:L9:156:GLN:HG2	2.23	0.51
26:64:21:PHE:HE2	26:64:23:ARG:HD3	1.76	0.51
29:67:101:PHE:O	29:67:102:GLU:CB	2.58	0.51
29:67:101:PHE:O	29:67:102:GLU:HB3	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:74:5:VAL:HG21	36:74:31:ARG:HG3	1.93	0.51
36:74:80:ARG:HB3	36:74:84:CYS:CB	2.39	0.51
39:77:5:THR:HA	39:77:8:PHE:CD2	2.45	0.51
42:80:111:ARG:HG3	42:80:112:LYS:HD2	1.92	0.51
46:1S:444:C:H41	46:1S:458:G:H2'	1.76	0.51
46:1S:481:A:C2	46:1S:507:U:O4	2.63	0.51
46:1S:694:U:O2	46:1S:694:U:H2'	2.09	0.51
46:1S:1246:C:H2'	46:1S:1247:U:C6	2.46	0.51
52:S5:42:LEU:HD12	52:S5:45:LYS:C	2.36	0.51
54:S7:123:ASP:O	54:S7:127:GLU:HB2	2.10	0.51
57:10:1:MET:HE2	57:10:3:MET:HE2	1.92	0.51
65:18:116:LEU:HB3	65:18:124:GLY:HA3	1.93	0.51
66:19:33:TYR:O	66:19:36:ILE:HG12	2.11	0.51
67:20:17:GLN:OE1	67:20:96:PRO:HG3	2.11	0.51
67:20:69:LYS:CG	67:20:80:GLU:HB2	2.41	0.51
78:31:132:LEU:HD13	78:31:150:VAL:HB	1.92	0.51
79:RA:112:SER:HB3	79:RA:154:VAL:HG22	1.93	0.51
1:2S:958:C:H5''	1:2S:2800:G:OP1	2.11	0.51
1:2S:1154:A:H3'	1:2S:1155:C:C5	2.46	0.51
1:2S:1496:C:O2	1:2S:1496:C:H2'	2.09	0.51
1:2S:1725:C:H5''	45:83:36:ARG:HH12	1.74	0.51
1:2S:2051:G:H2'	1:2S:2052:G:C8	2.46	0.51
1:2S:2310:U:H2'	1:2S:2311:G:H8	1.73	0.51
1:2S:2493:U:H5''	4:L1:162:VAL:HB	1.92	0.51
1:2S:2688:U:H4'	1:2S:2689:A:O5'	2.10	0.51
1:2S:3006:A:H2'	1:2S:3007:U:O4'	2.11	0.51
5:L2:150:LEU:HD12	5:L2:154:ALA:CB	2.39	0.51
6:L3:85:VAL:O	6:L3:162:VAL:HB	2.10	0.51
7:L4:29:PRO:HD2	7:L4:277:PRO:HB2	1.93	0.51
16:54:25:LYS:CE	16:54:62:GLN:HG2	2.26	0.51
18:56:15:LEU:HG	18:56:125:ARG:HA	1.93	0.51
21:59:155:LEU:HA	21:59:158:GLU:HG2	1.93	0.51
37:75:7:TYR:HA	37:75:10:ARG:CD	2.38	0.51
40:78:8:ILE:H	40:78:8:ILE:HD12	1.76	0.51
45:83:12:GLY:C	45:83:14:TYR:H	2.19	0.51
46:1S:144:U:C2'	46:1S:145:A:H5'	2.40	0.51
46:1S:148:A:N6	46:1S:166:C:N3	2.59	0.51
46:1S:803:A:N3	54:S7:104:ARG:HG3	2.26	0.51
46:1S:860:U:C1'	54:S7:114:ARG:HG2	2.41	0.51
46:1S:1530:C:OP2	72:25:95:HIS:HB3	2.11	0.51
48:S1:143:THR:HA	48:S1:207:LEU:HA	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:S3:38:GLU:HG3	50:S3:38:GLU:O	2.11	0.51
51:S4:14:ALA:HB1	51:S4:18:TRP:CZ3	2.46	0.51
53:S6:57:ASP:HA	53:S6:107:ALA:H	1.74	0.51
55:S8:10:LYS:HB3	55:S8:18:ARG:HH21	1.76	0.51
56:S9:141:VAL:HG13	56:S9:143:ILE:HG13	1.92	0.51
59:12:125:ASN:C	59:12:127:GLY:H	2.18	0.51
65:18:29:VAL:HG21	65:18:54:LEU:HD12	1.93	0.51
66:19:86:ARG:HH22	66:19:90:PRO:HG2	1.75	0.51
70:23:76:LEU:CD2	70:23:78:LYS:HG2	2.41	0.51
70:23:103:LEU:O	70:23:125:VAL:HB	2.11	0.51
72:25:54:VAL:N	72:25:55:PRO:HD2	2.26	0.51
73:26:62:TYR:O	73:26:63:ALA:HB2	2.11	0.51
79:RA:92:TRP:HA	79:RA:98:GLU:O	2.11	0.51
1:2S:38:U:H2'	1:2S:39:A:O4'	2.10	0.50
1:2S:428:A:H2'	1:2S:429:U:C6	2.46	0.50
1:2S:880:G:H8	1:2S:882:A:OP2	1.94	0.50
1:2S:1434:G:H5'	1:2S:1437:C:H5	1.76	0.50
1:2S:1920:U:H2'	1:2S:1930:A:N6	2.27	0.50
1:2S:1951:C:H6	1:2S:2095:G:C2	2.28	0.50
1:2S:2714:G:H5'	1:2S:2716:U:C5'	2.42	0.50
1:2S:2877:G:H2'	1:2S:2878:G:O4'	2.11	0.50
1:2S:3064:U:H2'	1:2S:3065:G:H8	1.75	0.50
6:L3:56:ILE:HG13	6:L3:57:VAL:N	2.26	0.50
12:L9:176:LEU:CD2	42:80:90:ASN:OD1	2.59	0.50
13:50:97:LEU:HG	13:50:124:GLY:O	2.11	0.50
16:54:108:ARG:HG2	16:54:108:ARG:HH21	1.76	0.50
19:57:114:VAL:O	19:57:114:VAL:HG13	2.11	0.50
27:65:103:TYR:C	27:65:105:VAL:H	2.19	0.50
30:68:105:LEU:HD22	30:68:148:ILE:HD12	1.93	0.50
36:74:60:ARG:O	36:74:60:ARG:HG2	2.10	0.50
44:82:65:THR:HG22	44:82:89:LYS:HG2	1.93	0.50
46:1S:176:C:C2'	46:1S:177:U:H5'	2.40	0.50
46:1S:846:G:H2'	46:1S:847:A:O4'	2.11	0.50
46:1S:1480:G:H5''	66:19:63:ARG:NH2	2.25	0.50
46:1S:1533:C:H41	72:25:77:ARG:NH2	2.09	0.50
49:S2:226:THR:CG2	49:S2:229:LEU:HB2	2.41	0.50
62:15:18:ARG:O	65:18:95:GLY:HA3	2.10	0.50
65:18:17:LEU:O	65:18:18:LEU:HB2	2.12	0.50
1:2S:61:A:H2'	1:2S:62:A:C8	2.47	0.50
1:2S:198:A:C2'	1:2S:199:A:H5'	2.39	0.50
1:2S:371:G:N2	1:2S:373:A:H3'	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:680:G:H5''	7:L4:114:ASN:OD1	2.11	0.50
1:2S:1220:U:H4'	1:2S:1222:G:O4'	2.11	0.50
1:2S:1302:A:C2'	1:2S:1303:A:H5''	2.41	0.50
1:2S:1608:C:H2'	1:2S:1609:C:H6	1.76	0.50
1:2S:2116:G:H2'	1:2S:2116:G:N3	2.25	0.50
1:2S:2147:A:H2'	1:2S:2148:U:O4'	2.12	0.50
1:2S:2447:A:N6	1:2S:2500:A:C2	2.73	0.50
1:2S:2721:A:H2'	1:2S:2722:U:O4'	2.11	0.50
1:2S:2921:U:H2'	1:2S:2923:U:H5''	1.93	0.50
1:2S:3050:U:H5''	26:64:17:ARG:HE	1.76	0.50
1:2S:3225:C:H2'	1:2S:3226:A:O4'	2.12	0.50
2:8S:13:A:H2'	2:8S:14:C:C6	2.47	0.50
2:8S:19:C:H2'	2:8S:20:U:O4'	2.11	0.50
3:5S:64:A:H62	13:50:209:ASN:ND2	2.09	0.50
4:L1:120:VAL:N	4:L1:121:PRO:CD	2.73	0.50
4:L1:216:LEU:HG	4:L1:216:LEU:O	2.11	0.50
6:L3:214:MET:HA	6:L3:280:HIS:O	2.10	0.50
8:L5:24:ARG:HB2	8:L5:24:ARG:NH1	2.26	0.50
11:L8:50:VAL:HG12	27:65:30:ALA:HA	1.93	0.50
16:54:46:ILE:O	16:54:55:ARG:HA	2.10	0.50
30:68:101:VAL:HG13	30:68:124:ILE:HG22	1.93	0.50
46:1S:36:C:H2'	46:1S:37:U:C6	2.46	0.50
46:1S:331:A:H2'	46:1S:332:U:C6	2.46	0.50
46:1S:417:A:H5'	46:1S:418:G:C8	2.46	0.50
46:1S:1079:U:H2'	46:1S:1080:U:C6	2.46	0.50
46:1S:1139:A:H2'	46:1S:1140:G:C5'	2.42	0.50
46:1S:1586:A:H2'	46:1S:1587:A:O4'	2.11	0.50
49:S2:66:PHE:O	49:S2:69:ILE:HG13	2.11	0.50
50:S3:49:ILE:HG13	50:S3:87:TYR:HB2	1.93	0.50
57:10:81:ASN:CB	59:12:37:VAL:HG13	2.41	0.50
59:12:67:THR:O	59:12:68:GLU:HB2	2.11	0.50
60:13:101:HIS:HA	60:13:104:ARG:HH11	1.75	0.50
60:13:114:ARG:HD3	60:13:117:LEU:CD1	2.37	0.50
66:19:144:GLU:HG3	66:19:144:GLU:OXT	2.11	0.50
67:20:58:LEU:HD21	67:20:90:TYR:CE2	2.40	0.50
70:23:29:TYR:O	70:23:33:LEU:N	2.42	0.50
71:24:60:PHE:CE2	71:24:71:GLY:HA3	2.47	0.50
1:2S:359:U:H4'	1:2S:817:A:H62	1.76	0.50
1:2S:963:G:H8	1:2S:963:G:O5'	1.95	0.50
3:5S:55:A:H2'	3:5S:56:A:C8	2.47	0.50
5:L2:242:ARG:HH11	5:L2:246:LEU:HD23	1.74	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:L6:50:LYS:HE3	9:L6:72:ASN:HB2	1.93	0.50
9:L6:132:ALA:O	9:L6:136:GLU:HG2	2.12	0.50
13:50:87:LEU:HD23	13:50:87:LEU:C	2.36	0.50
28:66:82:VAL:HG12	28:66:83:ASP:N	2.26	0.50
30:68:74:ASN:C	30:68:76:ASP:H	2.19	0.50
36:74:76:TYR:HD1	36:74:79:SER:OG	1.94	0.50
37:75:71:LYS:HE3	37:75:72:GLY:N	2.26	0.50
38:76:70:ARG:NH2	38:76:84:LYS:HA	2.26	0.50
44:82:14:GLY:HA3	44:82:77:CYS:SG	2.51	0.50
46:1S:45:U:O2'	46:1S:46:A:H2'	2.11	0.50
46:1S:420:A:H2'	46:1S:421:A:C8	2.46	0.50
46:1S:920:U:H5''	48:S1:65:VAL:HG22	1.92	0.50
46:1S:1077:C:H2'	46:1S:1078:C:C6	2.46	0.50
46:1S:1724:U:H2'	46:1S:1725:U:C6	2.46	0.50
52:S5:100:ASN:OD1	52:S5:180:ARG:NH1	2.44	0.50
54:S7:139:ARG:HG3	54:S7:139:ARG:NH1	2.26	0.50
55:S8:81:VAL:CG2	55:S8:94:ASN:HA	2.42	0.50
58:11:93:TYR:C	58:11:94:ILE:HD12	2.36	0.50
60:13:129:TYR:HB3	60:13:134:VAL:CG2	2.41	0.50
65:18:16:ARG:HH11	65:18:16:ARG:HG3	1.75	0.50
70:23:2:GLY:O	70:23:3:LYS:HB3	2.10	0.50
74:27:32:PHE:CD1	74:27:45:THR:HG22	2.46	0.50
76:29:26:SER:HB3	76:29:39:CYS:HB3	1.94	0.50
77:30:22:GLU:HG3	77:30:23:LYS:N	2.26	0.50
77:30:33:ARG:CZ	77:30:33:ARG:HB3	2.41	0.50
79:RA:161:LYS:HA	79:RA:161:LYS:CE	2.41	0.50
1:2S:31:C:H2'	1:2S:32:U:H6	1.76	0.50
1:2S:517:G:H8	1:2S:517:G:H5'	1.77	0.50
1:2S:847:A:H2'	1:2S:848:A:C8	2.46	0.50
1:2S:1226:G:H2'	1:2S:1227:C:C5	2.45	0.50
1:2S:1287:A:H2	1:2S:1288:U:H1'	1.75	0.50
1:2S:3356:G:H2'	1:2S:3357:U:C6	2.47	0.50
3:5S:75:G:H2'	3:5S:76:A:H2'	1.93	0.50
9:L6:89:THR:HG21	9:L6:155:LEU:HD21	1.93	0.50
11:L8:47:SER:OG	27:65:27:ARG:HD3	2.12	0.50
11:L8:130:TYR:HB3	11:L8:204:ARG:NH2	2.18	0.50
12:L9:13:PRO:CD	12:L9:79:ILE:HG21	2.42	0.50
13:50:179:PRO:HA	13:50:182:LEU:HD12	1.94	0.50
14:51:131:MET:HE2	14:51:162:TRP:CH2	2.46	0.50
14:51:156:LYS:O	14:51:160:VAL:HG23	2.11	0.50
15:53:56:PRO:HB3	15:53:75:PHE:CE1	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:54:92:GLU:O	16:54:96:ALA:HB2	2.12	0.50
24:62:23:THR:HA	24:62:28:PHE:HB3	1.92	0.50
29:67:89:VAL:O	29:67:89:VAL:HG22	2.11	0.50
30:68:70:LYS:HD3	30:68:111:LYS:HB2	1.92	0.50
30:68:75:LEU:HA	30:68:78:LEU:CD1	2.41	0.50
32:70:23:TYR:CA	32:70:93:LEU:HD13	2.39	0.50
36:74:96:GLU:O	36:74:100:ILE:HD13	2.10	0.50
40:78:29:LYS:HD3	40:78:29:LYS:O	2.10	0.50
46:1S:477:A:OP1	77:30:31:LYS:HG2	2.10	0.50
46:1S:1565:C:H4'	65:18:85:PHE:CD1	2.46	0.50
53:S6:78:THR:CG2	53:S6:79:LYS:H	2.09	0.50
53:S6:199:GLN:O	53:S6:203:GLU:HG2	2.12	0.50
55:S8:76:THR:HB	55:S8:105:ASP:HB2	1.93	0.50
58:11:123:VAL:HG21	58:11:139:VAL:HG13	1.94	0.50
77:30:33:ARG:HB3	77:30:33:ARG:NH1	2.26	0.50
1:2S:368:G:O2'	1:2S:369:A:H5'	2.12	0.50
1:2S:666:A:O2'	15:53:10:LEU:HD13	2.11	0.50
1:2S:706:A:O2'	1:2S:707:U:H5'	2.12	0.50
1:2S:1194:G:H2'	1:2S:1195:A:O4'	2.12	0.50
1:2S:1481:A:H61	36:74:2:ALA:HA	1.75	0.50
1:2S:2394:G:H2'	1:2S:2395:G:O4'	2.12	0.50
1:2S:2516:U:O5'	1:2S:2516:U:H6	1.93	0.50
1:2S:2938:G:H3'	6:L3:3:HIS:CD2	2.46	0.50
1:2S:3020:U:O2'	12:L9:121:LYS:HD3	2.12	0.50
1:2S:3151:U:HO2'	1:2S:3152:U:H5	1.59	0.50
1:2S:3165:A:H61	1:2S:3285:C:H42	1.58	0.50
2:8S:139:U:H2'	2:8S:140:G:C8	2.46	0.50
3:5S:38:U:HO2'	3:5S:40:C:H5	1.56	0.50
6:L3:332:ARG:O	6:L3:333:LYS:HB2	2.11	0.50
11:L8:41:GLN:HB3	11:L8:44:ARG:HH12	1.77	0.50
15:53:7:LEU:O	30:68:49:HIS:NE2	2.45	0.50
15:53:164:GLU:HB3	15:53:169:THR:OG1	2.12	0.50
17:55:118:SER:HB3	17:55:132:VAL:HA	1.94	0.50
19:57:112:LEU:HD23	19:57:150:VAL:HG23	1.94	0.50
28:66:88:GLU:HG3	28:66:94:SER:HB2	1.92	0.50
29:67:93:LYS:HD3	29:67:93:LYS:C	2.37	0.50
30:68:149:ALA:HB3	38:76:15:LYS:CD	2.41	0.50
32:70:15:ALA:O	32:70:18:ILE:HG22	2.12	0.50
36:74:62:TYR:HA	36:74:65:VAL:HG23	1.94	0.50
37:75:88:LEU:HA	37:75:91:ALA:HB2	1.94	0.50
39:77:21:ARG:HB2	39:77:39:TYR:CE1	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:78:54:LEU:HG	40:78:56:ILE:HD11	1.94	0.50
46:1S:20:G:C5'	46:1S:571:G:C8	2.95	0.50
46:1S:20:G:H5'	46:1S:571:G:C8	2.47	0.50
46:1S:378:A:H3'	46:1S:379:U:C6	2.47	0.50
46:1S:634:G:H1'	46:1S:966:A:C2	2.46	0.50
46:1S:781:U:H3'	46:1S:781:U:O2	2.12	0.50
46:1S:1036:A:H5'	69:22:3:ARG:NH2	2.13	0.50
46:1S:1559:A:H5''	65:18:135:GLY:HA3	1.94	0.50
49:S2:53:ILE:HA	49:S2:72:LEU:HD23	1.93	0.50
50:S3:66:ILE:HD13	50:S3:69:LEU:HD11	1.94	0.50
51:S4:67:GLN:HB2	51:S4:69:HIS:CD2	2.47	0.50
51:S4:247:SER:O	51:S4:251:GLU:HG3	2.11	0.50
52:S5:116:HIS:O	52:S5:120:ILE:HG13	2.11	0.50
53:S6:216:LEU:HG	53:S6:219:ARG:HH11	1.76	0.50
53:S6:223:LYS:NZ	53:S6:226:ILE:HD13	2.26	0.50
55:S8:105:ASP:O	55:S8:106:ALA:HB3	2.12	0.50
56:S9:133:HIS:O	56:S9:134:ILE:HG12	2.12	0.50
65:18:46:VAL:HG21	65:18:73:MET:SD	2.51	0.50
65:18:104:ASN:O	65:18:108:LYS:HB2	2.12	0.50
69:22:26:LEU:HD23	69:22:26:LEU:C	2.37	0.50
72:25:88:ILE:HA	72:25:104:ALA:HA	1.94	0.50
79:RA:314:GLN:CB	79:RA:316:MET:HE3	2.41	0.50
1:2S:641:C:H2'	1:2S:642:U:O4'	2.11	0.50
1:2S:745:C:C5'	20:58:145:ASN:HD22	2.24	0.50
1:2S:944:C:H2'	1:2S:945:C:C6	2.46	0.50
1:2S:1014:U:H2'	1:2S:1015:U:H5'	1.93	0.50
1:2S:1498:A:H2'	1:2S:1499:C:C6	2.46	0.50
1:2S:1791:C:H2'	1:2S:1792:C:C6	2.46	0.50
1:2S:2430:A:H2'	1:2S:2431:C:C6	2.45	0.50
1:2S:2493:U:H5''	4:L1:162:VAL:HG12	1.93	0.50
1:2S:3004:C:H4'	6:L3:99:LEU:HB2	1.92	0.50
1:2S:3121:U:H1'	1:2S:3122:A:H5''	1.92	0.50
2:8S:103:G:H2'	2:8S:105:A:C8	2.46	0.50
9:L6:142:ASP:HA	9:L6:145:LEU:HD12	1.94	0.50
12:L9:138:THR:O	12:L9:139:ASN:OD1	2.30	0.50
23:61:50:LYS:HB3	23:61:92:ARG:HH21	1.71	0.50
30:68:113:LEU:HD23	30:68:131:SER:HB3	1.93	0.50
46:1S:168:A:H4'	53:S6:136:LYS:HD2	1.94	0.50
46:1S:560:U:H2'	46:1S:561:G:H8	1.77	0.50
46:1S:820:U:H2'	46:1S:821:U:H4'	1.93	0.50
46:1S:1274:C:O2	46:1S:1274:C:C2'	2.60	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1503:A:H2'	46:1S:1504:G:O4'	2.10	0.50
49:S2:103:VAL:HG13	49:S2:112:GLY:O	2.11	0.50
50:S3:31:GLU:HG2	50:S3:107:PHE:HZ	1.76	0.50
50:S3:202:LEU:HD22	50:S3:202:LEU:N	2.27	0.50
51:S4:31:PRO:HD2	51:S4:38:LEU:HD11	1.93	0.50
51:S4:102:VAL:HG13	51:S4:110:ALA:HB3	1.93	0.50
52:S5:20:PHE:CE2	52:S5:35:GLN:HB2	2.46	0.50
53:S6:50:PHE:CE1	53:S6:111:LEU:HB3	2.47	0.50
56:S9:62:ARG:O	56:S9:69:ARG:NH1	2.45	0.50
57:10:16:PHE:HD2	57:10:76:LEU:HB2	1.76	0.50
59:12:46:ARG:HG3	59:12:46:ARG:NH1	2.27	0.50
1:2S:1407:A:H4'	34:72:33:ARG:HH22	1.75	0.50
1:2S:1978:A:C2'	1:2S:1979:G:H5'	2.41	0.50
1:2S:3313:U:H4'	6:L3:173:GLN:HG3	1.94	0.50
2:8S:60:U:O2'	2:8S:61:A:H5'	2.11	0.50
6:L3:232:ARG:HD3	6:L3:268:GLY:N	2.26	0.50
8:L5:181:PRO:HG2	8:L5:195:LEU:CD1	2.42	0.50
10:L7:94:LYS:O	10:L7:95:ILE:HD13	2.12	0.50
11:L8:219:ASP:OD1	11:L8:223:ALA:HB2	2.11	0.50
13:50:147:VAL:O	13:50:147:VAL:HG12	2.12	0.50
20:58:33:TYR:O	20:58:36:LEU:HB2	2.11	0.50
20:58:100:THR:CG2	20:58:122:ILE:HD13	2.40	0.50
26:64:25:ASP:OD2	26:64:26:SER:N	2.45	0.50
35:73:35:VAL:HG11	35:73:41:ALA:HB2	1.93	0.50
46:1S:559:C:H4'	77:30:60:PRO:CG	2.42	0.50
46:1S:686:C:H2'	46:1S:687:G:C8	2.47	0.50
46:1S:856:A:H61	54:S7:121:VAL:HG22	1.76	0.50
46:1S:1796:C:C2	73:26:5:ARG:HG2	2.46	0.50
51:S4:76:VAL:O	51:S4:77:ARG:HB2	2.12	0.50
54:S7:30:SER:OG	54:S7:34:LEU:HD22	2.12	0.50
54:S7:96:ARG:HB2	54:S7:121:VAL:HG13	1.93	0.50
57:10:10:LYS:HB3	57:10:35:ILE:HG23	1.93	0.50
60:13:102:LEU:HD21	60:13:111:ALA:HB3	1.93	0.50
72:25:60:VAL:CG2	72:25:101:TYR:HB2	2.37	0.50
73:26:22:ARG:NH1	73:26:22:ARG:HG3	2.27	0.50
75:28:61:ARG:HG2	75:28:62:GLU:N	2.26	0.50
78:31:123:ASN:CB	78:31:124:PRO:HD2	2.40	0.50
1:2S:98:G:N7	15:53:13:HIS:NE2	2.58	0.50
1:2S:924:G:N2	1:2S:2414:G:H1'	2.27	0.50
1:2S:1328:C:H5''	35:73:75:HIS:CE1	2.47	0.50
1:2S:1741:A:H2'	1:2S:1742:U:C5'	2.39	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1752:A:H2'	1:2S:1753:G:O4'	2.12	0.50
1:2S:1932:A:H3'	1:2S:1933:A:H8	1.77	0.50
1:2S:2978:U:O2'	1:2S:2979:U:H5'	2.11	0.50
1:2S:3088:G:H5''	6:L3:332:ARG:NH2	2.27	0.50
1:2S:3160:U:H2'	1:2S:3161:C:C5	2.47	0.50
5:L2:224:THR:HA	5:L2:237:LEU:HB2	1.94	0.50
7:L4:72:ALA:HB3	7:L4:76:ARG:HH12	1.76	0.50
8:L5:125:VAL:CG1	8:L5:199:ILE:HG21	2.41	0.50
8:L5:195:LEU:O	8:L5:199:ILE:HG13	2.12	0.50
10:L7:40:LYS:O	10:L7:44:ILE:HG13	2.12	0.50
12:L9:18:VAL:HG12	12:L9:27:VAL:HA	1.94	0.50
15:53:105:ASN:HB3	15:53:108:ILE:CG1	2.41	0.50
26:64:55:PHE:HA	26:64:58:HIS:CB	2.42	0.50
34:72:19:ARG:HG3	34:72:33:ARG:N	2.19	0.50
34:72:20:HIS:O	34:72:21:HIS:HB2	2.12	0.50
36:74:81:CYS:SG	36:74:83:ASN:HB2	2.51	0.50
46:1S:1201:G:H21	46:1S:1600:A:C5'	2.19	0.50
46:1S:1624:C:O2'	46:1S:1625:C:H5'	2.11	0.50
51:S4:259:GLN:HE21	51:S4:259:GLN:H	1.60	0.50
52:S5:25:LEU:HB3	63:16:26:LYS:O	2.12	0.50
53:S6:136:LYS:C	53:S6:136:LYS:HD3	2.37	0.50
55:S8:184:LEU:O	55:S8:185:GLU:HG3	2.11	0.50
60:13:63:ALA:HB3	60:13:71:ILE:CD1	2.42	0.50
60:13:113:PHE:O	60:13:117:LEU:HG	2.10	0.50
62:15:32:ASP:O	62:15:35:LYS:HB2	2.12	0.50
65:18:89:GLN:O	65:18:90:ASN:HB2	2.10	0.50
69:22:29:PRO:HA	69:22:59:GLY:O	2.11	0.50
69:22:83:ILE:O	69:22:83:ILE:HG23	2.12	0.50
69:22:125:ILE:HG12	69:22:126:LEU:N	2.27	0.50
70:23:24:TRP:CH2	70:23:33:LEU:HB3	2.47	0.50
1:2S:180:C:H2'	1:2S:181:U:C6	2.47	0.50
1:2S:1180:A:C5'	35:73:77:ASN:HB2	2.33	0.50
1:2S:1439:U:O5'	1:2S:1439:U:H6	1.95	0.50
1:2S:1908:A:H2	1:2S:2336:U:H5'	1.77	0.50
1:2S:1925:U:H3'	1:2S:1926:C:C6	2.46	0.50
1:2S:2632:G:O3'	23:61:12:ARG:HD2	2.12	0.50
1:2S:3186:A:N1	12:L9:57:VAL:HA	2.26	0.50
2:8S:70:G:N2	2:8S:87:G:O2'	2.41	0.50
3:5S:26:C:H5''	8:L5:57:ASN:HB3	1.93	0.50
4:L1:28:PHE:HD1	4:L1:28:PHE:C	2.19	0.50
4:L1:28:PHE:C	4:L1:28:PHE:CD1	2.90	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L2:115:ASN:HA	5:L2:126:LEU:O	2.11	0.50
5:L2:133:TYR:HB3	5:L2:168:VAL:CG1	2.42	0.50
6:L3:261:MET:HG3	18:56:64:PHE:CB	2.41	0.50
7:L4:317:PRO:HG3	7:L4:323:VAL:HG13	1.93	0.50
10:L7:121:LYS:CB	23:61:133:ALA:HB3	2.42	0.50
15:53:165:SER:O	30:68:135:GLU:HG3	2.12	0.50
19:57:129:THR:HG22	19:57:131:ARG:HG2	1.93	0.50
22:60:6:GLU:O	22:60:63:GLN:HG3	2.12	0.50
27:65:110:VAL:HA	27:65:123:TYR:O	2.11	0.50
29:67:47:GLU:OE2	29:67:69:LYS:HD3	2.12	0.50
29:67:84:ARG:HG3	29:67:84:ARG:HH21	1.76	0.50
40:78:31:LEU:N	40:78:31:LEU:HD23	2.27	0.50
46:1S:156:A:H2'	46:1S:157:A:O4'	2.11	0.50
46:1S:1366:U:H5''	63:16:33:GLY:HA3	1.94	0.50
46:1S:1616:G:H2'	46:1S:1617:U:C6	2.47	0.50
49:S2:184:VAL:O	49:S2:187:LEU:HB3	2.11	0.50
54:S7:51:VAL:HG11	54:S7:168:SER:CB	2.42	0.50
54:S7:133:THR:CG2	54:S7:159:VAL:HG12	2.42	0.50
55:S8:8:ARG:HH21	55:S8:21:PHE:H	1.60	0.50
56:S9:174:ARG:HE	56:S9:174:ARG:N	2.10	0.50
61:14:76:ILE:HD12	61:14:76:ILE:H	1.76	0.50
61:14:83:ILE:HG23	61:14:117:ASP:OD1	2.11	0.50
63:16:10:PHE:HA	63:16:18:ALA:O	2.12	0.50
70:23:75:GLN:CD	70:23:82:LYS:HG3	2.37	0.50
75:28:13:ILE:HG13	75:28:14:LYS:H	1.77	0.50
76:29:5:ASN:HB3	76:29:8:PHE:CB	2.42	0.50
79:RA:293:ALA:O	79:RA:301:LEU:HD12	2.12	0.50
1:2S:959:C:N4	1:2S:2801:A:H2'	2.27	0.49
1:2S:1183:C:C2'	1:2S:1184:A:H5'	2.42	0.49
1:2S:1359:C:H2'	1:2S:1360:C:C6	2.47	0.49
1:2S:2922:G:H3'	1:2S:2923:U:C5'	2.42	0.49
1:2S:3255:U:H2'	1:2S:3256:G:H8	1.76	0.49
4:L1:101:LYS:HG3	4:L1:122:ARG:HH21	1.77	0.49
5:L2:60:LYS:HD2	5:L2:73:GLU:OE1	2.11	0.49
5:L2:177:LYS:HG3	45:83:25:GLN:HE22	1.76	0.49
5:L2:185:ALA:O	5:L2:189:TYR:CD1	2.62	0.49
7:L4:119:ARG:NH1	7:L4:274:TYR:HB2	2.26	0.49
8:L5:280:GLU:H	8:L5:280:GLU:CD	2.19	0.49
10:L7:30:ARG:HA	10:L7:33:ARG:NH2	2.26	0.49
10:L7:60:ARG:HA	10:L7:60:ARG:HE	1.77	0.49
10:L7:85:PHE:HD2	10:L7:116:PHE:CE1	2.30	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:56:29:ASN:OD1	35:73:14:LEU:CD2	2.60	0.49
20:58:158:HIS:H	20:58:186:VAL:CG1	2.25	0.49
32:70:42:ILE:HG12	32:70:65:THR:HG21	1.93	0.49
33:71:15:ASN:HA	33:71:69:TYR:O	2.12	0.49
35:73:49:ILE:O	35:73:50:ALA:HB2	2.12	0.49
36:74:25:THR:C	36:74:27:GLY:H	2.19	0.49
42:80:110:CYS:HB3	42:80:117:HIS:HA	1.94	0.49
45:83:39:CYS:HB3	45:83:43:GLY:H	1.77	0.49
46:1S:408:C:H2'	46:1S:409:C:H6	1.74	0.49
46:1S:730:G:H21	46:1S:731:C:C5'	2.22	0.49
46:1S:856:A:H62	54:S7:96:ARG:HB3	1.76	0.49
46:1S:900:A:O2'	46:1S:901:G:H5'	2.12	0.49
46:1S:1047:G:H2'	46:1S:1048:G:O4'	2.11	0.49
46:1S:1526:A:H2'	46:1S:1527:C:O4'	2.12	0.49
47:S0:6:THR:HG22	47:S0:6:THR:O	2.12	0.49
48:S1:215:VAL:O	48:S1:215:VAL:HG13	2.11	0.49
49:S2:54:GLU:OE1	68:21:11:LEU:HD13	2.12	0.49
52:S5:42:LEU:HD23	52:S5:42:LEU:N	2.23	0.49
70:23:51:GLY:HA2	70:23:77:ILE:HG13	1.94	0.49
76:29:22:ARG:HG2	76:29:38:ILE:HD11	1.94	0.49
1:2S:218:G:H1'	1:2S:372:A:H1'	1.94	0.49
1:2S:336:A:O2'	1:2S:337:G:H5'	2.11	0.49
1:2S:502:U:C4'	9:L6:26:ARG:HB3	2.37	0.49
1:2S:750:G:C5'	31:69:44:LYS:HE2	2.41	0.49
1:2S:874:U:H5'	1:2S:875:G:O5'	2.12	0.49
1:2S:1307:G:H1'	1:2S:1308:A:OP2	2.12	0.49
1:2S:1484:U:O5'	1:2S:1484:U:H6	1.94	0.49
1:2S:2095:G:O5'	1:2S:2095:G:C8	2.65	0.49
1:2S:2714:G:H5'	1:2S:2716:U:O5'	2.13	0.49
1:2S:2960:C:H2'	1:2S:2961:G:H8	1.77	0.49
1:2S:3369:G:H3'	1:2S:3369:G:N3	2.27	0.49
1:2S:3376:A:H1'	33:71:18:LYS:HB2	1.94	0.49
3:5S:9:C:N4	8:L5:21:ARG:HE	2.10	0.49
6:L3:359:ILE:HG22	6:L3:360:ASP:N	2.27	0.49
13:50:51:HIS:NE2	13:50:168:SER:HB2	2.27	0.49
24:62:10:LYS:HD2	24:62:10:LYS:N	2.27	0.49
27:65:27:ARG:H	27:65:27:ARG:HD2	1.76	0.49
30:68:96:LYS:C	30:68:98:THR:H	2.20	0.49
37:75:22:VAL:HG12	37:75:26:LYS:HE3	1.93	0.49
42:80:87:SER:HA	42:80:90:ASN:HB2	1.93	0.49
46:1S:592:A:H2'	46:1S:593:U:O4'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:828:U:C3'	46:1S:829:A:H5''	2.41	0.49
46:1S:900:A:C2'	46:1S:901:G:H5'	2.42	0.49
46:1S:1073:G:C2'	46:1S:1074:G:H5''	2.42	0.49
49:S2:140:ARG:HB3	49:S2:221:THR:HB	1.94	0.49
51:S4:64:ILE:HG12	71:24:18:LEU:HD21	1.94	0.49
52:S5:219:ARG:HD3	52:S5:220:VAL:CG2	2.41	0.49
53:S6:36:VAL:HG12	53:S6:37:ASP:H	1.77	0.49
55:S8:188:GLU:HG2	58:11:13:PHE:CG	2.47	0.49
56:S9:117:GLY:O	56:S9:118:LEU:HB3	2.13	0.49
69:22:103:ILE:HG23	69:22:126:LEU:HB2	1.94	0.49
73:26:23:CYS:HB3	73:26:28:LYS:N	2.24	0.49
1:2S:1667:A:H2'	1:2S:1668:G:C8	2.46	0.49
1:2S:1951:C:H6	1:2S:2095:G:N1	2.03	0.49
1:2S:2040:U:H6	1:2S:2040:U:O5'	1.95	0.49
1:2S:2550:U:C6	11:L8:37:GLY:HA3	2.46	0.49
1:2S:2747:A:H2'	1:2S:2748:A:O4'	2.12	0.49
1:2S:2924:U:H2'	1:2S:2925:C:H5'	1.94	0.49
1:2S:3328:G:H2'	1:2S:3329:U:O4'	2.12	0.49
5:L2:111:THR:HB	5:L2:136:ILE:HD13	1.95	0.49
6:L3:54:THR:HG22	6:L3:78:VAL:CG2	2.43	0.49
7:L4:154:THR:HG22	7:L4:154:THR:O	2.11	0.49
15:53:189:GLU:HA	15:53:192:GLU:CG	2.42	0.49
20:58:3:ILE:HB	20:58:5:HIS:CE1	2.47	0.49
35:73:75:HIS:CG	35:73:76:GLY:H	2.30	0.49
46:1S:295:A:H5''	51:S4:128:LYS:HZ1	1.78	0.49
46:1S:448:C:H2'	46:1S:449:C:H6	1.75	0.49
46:1S:1223:A:C2'	46:1S:1224:A:H5'	2.42	0.49
46:1S:1357:A:H2'	46:1S:1358:G:O4'	2.12	0.49
49:S2:161:LYS:HB2	49:S2:166:THR:HG23	1.93	0.49
51:S4:185:GLY:H	51:S4:189:LEU:HD13	1.70	0.49
51:S4:196:VAL:HB	51:S4:209:HIS:CB	2.40	0.49
54:S7:35:LYS:HG2	54:S7:36:ALA:H	1.77	0.49
58:11:2:SER:CB	58:11:82:ARG:H	2.25	0.49
59:12:93:ASP:OD2	59:12:96:GLN:HG3	2.11	0.49
59:12:108:ARG:HD2	59:12:111:ASN:O	2.13	0.49
69:22:103:ILE:HD11	69:22:110:ILE:HG23	1.93	0.49
70:23:7:ARG:HG2	70:23:7:ARG:NH1	2.27	0.49
70:23:98:GLU:O	70:23:99:ASN:HB2	2.11	0.49
70:23:132:LEU:HD22	70:23:132:LEU:N	2.27	0.49
71:24:124:ARG:HH11	71:24:124:ARG:HG3	1.76	0.49
78:31:136:LYS:C	78:31:138:ARG:H	2.18	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:727:G:H3'	1:2S:728:G:H8	1.77	0.49
1:2S:879:U:H2'	19:57:131:ARG:HH21	1.75	0.49
1:2S:1350:A:O2'	1:2S:1351:U:H5'	2.11	0.49
1:2S:2664:C:O2'	1:2S:2665:U:H5'	2.12	0.49
1:2S:2703:A:N6	8:L5:28:THR:O	2.45	0.49
1:2S:2932:U:H2'	1:2S:2934:A:OP2	2.12	0.49
1:2S:3153:U:H3	1:2S:3293:U:H3	1.61	0.49
6:L3:123:TYR:CE2	6:L3:124:LYS:HG3	2.48	0.49
7:L4:132:ALA:HA	7:L4:148:ILE:CD1	2.40	0.49
15:53:56:PRO:HB3	15:53:75:PHE:CZ	2.47	0.49
16:54:10:SER:HB3	16:54:12:TRP:HZ3	1.74	0.49
16:54:15:VAL:HG23	16:54:15:VAL:O	2.13	0.49
17:55:124:ASP:CG	17:55:125:SER:H	2.20	0.49
20:58:49:LEU:HD23	20:58:52:LEU:HD12	1.95	0.49
21:59:99:LEU:HD13	21:59:99:LEU:C	2.37	0.49
22:60:7:TYR:HA	22:60:63:GLN:HA	1.94	0.49
22:60:35:VAL:CA	22:60:38:LYS:HE2	2.38	0.49
25:63:33:ASN:HD21	25:63:64:LYS:H	1.60	0.49
33:71:29:ALA:O	33:71:32:ALA:HB3	2.13	0.49
33:71:79:ARG:HA	33:71:89:LEU:HA	1.93	0.49
34:72:123:LYS:HA	34:72:126:LEU:CD1	2.42	0.49
46:1S:209:U:H2'	46:1S:210:A:C8	2.47	0.49
46:1S:508:U:O2'	46:1S:509:G:H5'	2.12	0.49
46:1S:953:G:H2'	46:1S:954:G:H8	1.78	0.49
46:1S:974:A:H4'	60:13:112:LYS:HE2	1.93	0.49
46:1S:986:G:H2'	46:1S:987:G:O4'	2.12	0.49
46:1S:1011:G:H2'	46:1S:1012:U:H5	1.77	0.49
46:1S:1088:A:H8	46:1S:1088:A:O5'	1.95	0.49
46:1S:1353:U:H3	46:1S:1372:U:H3	1.61	0.49
46:1S:1435:G:H4'	46:1S:1436:A:H5'	1.94	0.49
48:S1:183:GLN:HE21	48:S1:187:LYS:NZ	2.10	0.49
50:S3:168:ILE:CG2	50:S3:189:MET:HB2	2.40	0.49
51:S4:63:ALA:C	51:S4:67:GLN:HE21	2.20	0.49
58:11:67:ARG:O	58:11:67:ARG:HG2	2.13	0.49
60:13:63:ALA:HB3	60:13:71:ILE:HD11	1.94	0.49
62:15:52:LYS:N	62:15:53:PRO:CD	2.75	0.49
67:20:49:ASN:C	67:20:50:LEU:HD12	2.38	0.49
1:2S:155:G:H5''	1:2S:156:G:H2'	1.95	0.49
1:2S:298:U:H5'	38:76:31:GLY:O	2.13	0.49
1:2S:411:U:H2'	1:2S:412:G:H8	1.77	0.49
1:2S:671:U:H2'	1:2S:672:A:H8	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:681:U:H2'	1:2S:682:U:C5'	2.40	0.49
1:2S:896:A:H1'	5:L2:186:PHE:CE1	2.48	0.49
1:2S:951:A:H2'	1:2S:952:A:C8	2.46	0.49
1:2S:965:A:H8	1:2S:965:A:O5'	1.95	0.49
1:2S:1043:C:H5'	13:50:88:ARG:NH1	2.28	0.49
1:2S:1238:C:H2'	1:2S:1239:C:C5'	2.43	0.49
1:2S:1317:A:O2'	1:2S:1318:A:H3'	2.13	0.49
1:2S:1410:U:H2'	1:2S:1411:C:C6	2.48	0.49
1:2S:1514:G:H1'	41:79:44:TRP:HH2	1.78	0.49
1:2S:1515:A:H2'	1:2S:1516:C:H6	1.77	0.49
1:2S:1667:A:H2'	1:2S:1668:G:H8	1.77	0.49
1:2S:1854:C:O5'	1:2S:1854:C:H6	1.95	0.49
1:2S:2095:G:H8	1:2S:2095:G:P	2.35	0.49
1:2S:2345:A:H2'	1:2S:2346:C:C6	2.47	0.49
1:2S:3159:C:H2'	1:2S:3160:U:C6	2.47	0.49
2:8S:101:U:H2'	2:8S:102:U:C4'	2.43	0.49
4:L1:18:LYS:C	4:L1:20:SER:H	2.20	0.49
6:L3:84:VAL:HG13	6:L3:163:HIS:C	2.37	0.49
6:L3:251:CYS:C	6:L3:252:ILE:HD12	2.37	0.49
7:L4:8:VAL:HB	7:L4:16:THR:HB	1.94	0.49
12:L9:4:ILE:HG23	12:L9:5:GLN:H	1.76	0.49
14:51:138:VAL:HG12	14:51:146:GLY:O	2.13	0.49
15:53:76:THR:CG2	15:53:101:ARG:HH11	2.26	0.49
20:58:66:ARG:NH1	20:58:143:PRO:HD3	2.28	0.49
27:65:46:TYR:HA	37:75:70:TYR:OH	2.12	0.49
27:65:135:ILE:HG12	27:65:138:ARG:HE	1.77	0.49
36:74:5:VAL:HG22	36:74:6:THR:N	2.28	0.49
46:1S:5:U:H2'	46:1S:6:G:H8	1.77	0.49
46:1S:138:A:N6	46:1S:266:A:C6	2.80	0.49
46:1S:288:A:H2'	46:1S:289:U:C6	2.48	0.49
46:1S:409:C:H2'	46:1S:410:A:H5'	1.93	0.49
46:1S:782:U:H4'	71:24:12:VAL:HG11	1.93	0.49
46:1S:927:C:H1'	61:14:125:SER:CB	2.41	0.49
46:1S:1294:G:H2'	46:1S:1295:G:C8	2.43	0.49
48:S1:103:MET:HE1	48:S1:212:VAL:HG23	1.94	0.49
48:S1:171:ILE:CD1	48:S1:197:ILE:HD13	2.25	0.49
48:S1:199:ASN:O	48:S1:202:LYS:HG2	2.13	0.49
58:11:121:ASP:C	58:11:122:ILE:HD12	2.37	0.49
59:12:108:ARG:CG	59:12:109:GLU:N	2.68	0.49
62:15:17:TYR:HB2	62:15:25:LEU:HD11	1.93	0.49
65:18:36:LYS:CB	65:18:105:VAL:HG11	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:18:36:LYS:HB3	65:18:105:VAL:HG11	1.93	0.49
65:18:88:ARG:CB	65:18:88:ARG:HH21	2.26	0.49
69:22:80:ASN:HD22	69:22:80:ASN:N	2.09	0.49
69:22:103:ILE:C	69:22:104:LEU:HD13	2.38	0.49
71:24:124:ARG:HD3	71:24:124:ARG:C	2.38	0.49
79:RA:311:ARG:HG3	79:RA:311:ARG:HH11	1.77	0.49
1:2S:133:U:O2'	1:2S:134:U:H5'	2.12	0.49
1:2S:939:U:OP2	30:68:26:ARG:NH2	2.45	0.49
1:2S:954:U:H4'	31:69:8:THR:CG2	2.31	0.49
1:2S:1011:A:H5'	13:50:194:GLY:HA2	1.93	0.49
1:2S:1169:A:H2'	1:2S:1170:A:C8	2.47	0.49
1:2S:1223:A:C2	1:2S:1287:A:H1'	2.46	0.49
1:2S:1433:A:O2'	1:2S:1434:G:C8	2.62	0.49
1:2S:1479:U:H5	1:2S:1480:G:C6	2.31	0.49
1:2S:1928:G:H2'	1:2S:1929:G:O4'	2.12	0.49
1:2S:2349:U:H2'	1:2S:2350:C:C6	2.47	0.49
1:2S:2423:U:H2'	1:2S:2424:A:C8	2.48	0.49
1:2S:2686:A:H2'	1:2S:2687:G:C8	2.47	0.49
1:2S:2694:A:H2'	1:2S:2695:A:O4'	2.11	0.49
1:2S:3205:G:H2'	1:2S:3206:C:C4	2.47	0.49
1:2S:3389:U:H5'	1:2S:3389:U:C6	2.46	0.49
2:8S:141:C:H2'	2:8S:142:C:C6	2.48	0.49
4:L1:25:LYS:HG2	4:L1:170:GLY:O	2.12	0.49
4:L1:67:ILE:HG12	4:L1:68:PHE:N	2.27	0.49
4:L1:72:PHE:CD2	4:L1:76:ARG:HB3	2.47	0.49
8:L5:155:THR:H	8:L5:179:ARG:HH11	1.59	0.49
10:L7:107:ARG:C	10:L7:108:LEU:HD23	2.38	0.49
11:L8:74:THR:HG23	11:L8:75:ILE:HG13	1.94	0.49
12:L9:17:THR:HG21	16:54:3:THR:O	2.13	0.49
22:60:106:LEU:HD23	22:60:107:TYR:N	2.27	0.49
26:64:19:THR:OG1	26:64:31:PHE:HB2	2.12	0.49
34:72:21:HIS:CE1	34:72:24:ARG:HD2	2.48	0.49
40:78:31:LEU:HD23	40:78:31:LEU:H	1.76	0.49
46:1S:1133:A:H2'	46:1S:1134:C:O4'	2.12	0.49
46:1S:1196:A:H4'	46:1S:1197:C:C5'	2.43	0.49
46:1S:1745:G:O2'	46:1S:1746:A:C8	2.60	0.49
47:S0:57:LEU:HG	47:S0:177:LEU:HG	1.93	0.49
48:S1:70:LEU:HD13	48:S1:71:ALA:N	2.27	0.49
51:S4:246:LEU:HD23	51:S4:250:GLU:HB3	1.95	0.49
52:S5:23:VAL:O	52:S5:23:VAL:HG13	2.12	0.49
52:S5:99:MET:O	52:S5:100:ASN:CB	2.60	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:S7:99:LEU:HG	54:S7:116:ARG:O	2.12	0.49
58:11:80:MET:HE1	58:11:84:ILE:HA	1.95	0.49
58:11:93:TYR:CZ	58:11:95:PRO:HA	2.47	0.49
59:12:50:LYS:HE2	78:31:103:LEU:CD2	2.41	0.49
64:17:38:ILE:HG23	64:17:39:ALA:N	2.28	0.49
65:18:82:PRO:HB3	65:18:84:TRP:CE2	2.47	0.49
65:18:123:ARG:HD3	65:18:133:VAL:CG2	2.43	0.49
1:2S:414:U:H2'	1:2S:415:G:C8	2.48	0.49
1:2S:503:C:H2'	1:2S:504:A:H8	1.78	0.49
1:2S:619:A:H4'	1:2S:620:U:C4	2.47	0.49
1:2S:717:C:C2'	1:2S:718:G:H5'	2.42	0.49
1:2S:727:G:H3'	1:2S:728:G:C8	2.48	0.49
1:2S:949:C:H2'	1:2S:950:G:O4'	2.13	0.49
1:2S:1747:G:HO2'	40:78:2:ALA:N	2.11	0.49
1:2S:1867:A:H2'	1:2S:1868:G:H8	1.78	0.49
1:2S:2180:G:H2'	1:2S:2181:C:H6	1.68	0.49
1:2S:2565:U:H2'	1:2S:2566:C:C6	2.47	0.49
1:2S:2585:G:H2'	1:2S:2585:G:N3	2.28	0.49
1:2S:3033:A:H2'	1:2S:3034:C:C6	2.47	0.49
1:2S:3169:U:H2'	1:2S:3170:A:O4'	2.12	0.49
5:L2:13:GLY:HA2	5:L2:16:PHE:HB2	1.95	0.49
7:L4:74:ILE:HB	7:L4:75:PRO:HD2	1.94	0.49
10:L7:58:ALA:O	10:L7:62:ILE:HG13	2.13	0.49
11:L8:182:GLY:O	11:L8:186:LEU:HG	2.12	0.49
12:L9:134:ILE:HD12	12:L9:134:ILE:N	2.22	0.49
18:56:51:LYS:HG3	18:56:141:LEU:HD11	1.94	0.49
19:57:44:ALA:HA	19:57:47:TYR:HB3	1.95	0.49
20:58:158:HIS:HA	20:58:186:VAL:HG11	1.95	0.49
22:60:80:ARG:HB2	22:60:124:LEU:HD21	1.94	0.49
23:61:126:VAL:HG23	23:61:127:GLN:H	1.78	0.49
24:62:43:VAL:HG21	24:62:49:ASN:O	2.13	0.49
30:68:7:LYS:O	30:68:10:LYS:HB2	2.13	0.49
35:73:18:ARG:HA	35:73:23:ASN:HA	1.94	0.49
35:73:75:HIS:CG	35:73:76:GLY:N	2.80	0.49
45:83:42:CYS:HB3	45:83:60:CYS:CB	2.43	0.49
46:1S:307:G:H5''	58:11:92:HIS:NE2	2.26	0.49
46:1S:323:A:H2'	46:1S:323:A:N3	2.26	0.49
46:1S:1470:C:H3'	46:1S:1573:A:N6	2.28	0.49
47:S0:2:SER:HB3	68:21:78:LEU:HB3	1.94	0.49
49:S2:186:LYS:HD2	49:S2:189:GLN:OE1	2.13	0.49
52:S5:186:ASN:HD21	52:S5:188:LYS:HB2	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:S7:67:LEU:HD23	54:S7:70:PHE:HD2	1.77	0.49
58:11:6:THR:O	58:11:7:VAL:HG12	2.13	0.49
61:14:64:ALA:HB3	61:14:104:ALA:HB3	1.94	0.49
65:18:87:ASN:ND2	65:18:99:HIS:CE1	2.81	0.49
69:22:89:TRP:HA	69:22:92:ASN:ND2	2.25	0.49
1:2S:120:G:N7	11:L8:128:LYS:HE3	2.28	0.49
1:2S:168:U:O5'	1:2S:168:U:H6	1.96	0.49
1:2S:1649:U:H2'	1:2S:1650:G:C8	2.47	0.49
1:2S:1847:A:C6	19:57:130:TYR:HB3	2.48	0.49
1:2S:2245:C:H4'	5:L2:221:LYS:O	2.13	0.49
1:2S:2875:U:O4	1:2S:2952:G:O6	2.30	0.49
1:2S:3044:G:H4'	6:L3:13:HIS:HB2	1.93	0.49
1:2S:3147:G:H2'	1:2S:3148:U:H6	1.78	0.49
2:8S:104:A:H8	2:8S:106:C:H41	1.60	0.49
2:8S:134:G:OP1	27:65:56:ARG:HG3	2.12	0.49
6:L3:18:PRO:HG2	6:L3:20:LYS:HG2	1.95	0.49
7:L4:161:LYS:HD2	7:L4:161:LYS:N	2.28	0.49
9:L6:40:LEU:HD11	9:L6:54:TYR:HB2	1.94	0.49
13:50:85:PHE:CA	13:50:140:THR:HG22	2.39	0.49
13:50:185:ARG:HA	13:50:190:VAL:CG2	2.43	0.49
17:55:123:GLN:HB3	17:55:128:LYS:HG2	1.93	0.49
17:55:203:ARG:HG3	17:55:203:ARG:NH1	2.27	0.49
21:59:101:VAL:CG1	21:59:135:LYS:HD3	2.43	0.49
22:60:13:ARG:O	22:60:56:GLY:HA2	2.13	0.49
23:61:84:TYR:CE1	31:69:21:ILE:HG22	2.47	0.49
28:66:35:LEU:HA	28:66:106:ILE:HB	1.95	0.49
30:68:56:VAL:HG23	30:68:57:GLY:N	2.28	0.49
30:68:94:ALA:CB	30:68:121:VAL:HG13	2.43	0.49
38:76:26:ILE:C	38:76:28:TYR:H	2.19	0.49
46:1S:215:A:N6	46:1S:242:U:H5''	2.28	0.49
46:1S:364:G:H21	46:1S:756:A:H61	1.61	0.49
46:1S:894:U:O2'	61:14:36:LYS:HG2	2.13	0.49
46:1S:955:A:H5''	60:13:10:GLY:HA3	1.95	0.49
46:1S:1069:A:H2'	46:1S:1070:C:C6	2.47	0.49
46:1S:1449:U:H2'	46:1S:1450:U:C6	2.47	0.49
49:S2:81:MET:HB2	49:S2:101:VAL:HB	1.93	0.49
50:S3:74:GLN:HG3	50:S3:79:TYR:HB2	1.94	0.49
50:S3:142:LEU:C	50:S3:144:ALA:H	2.21	0.49
58:11:54:ILE:N	58:11:54:ILE:CD1	2.76	0.49
60:13:42:ARG:HH21	60:13:80:LEU:HD21	1.78	0.49
60:13:88:LEU:HD23	60:13:125:LEU:HD12	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:18:134:ARG:HB2	65:18:136:GLN:HE22	1.78	0.49
66:19:70:GLN:HG3	66:19:121:GLY:HA3	1.94	0.49
70:23:49:ALA:O	70:23:103:LEU:HD22	2.13	0.49
71:24:2:SER:HG	71:24:32:ARG:HG2	1.77	0.49
71:24:35:VAL:HG23	71:24:39:GLU:OE2	2.12	0.49
72:25:41:ILE:HG23	72:25:42:LEU:N	2.20	0.49
79:RA:128:ASP:C	79:RA:129:LYS:HG2	2.38	0.49
1:2S:95:A:H2'	1:2S:96:G:O4'	2.12	0.49
1:2S:213:A:C2'	1:2S:214:G:H5'	2.42	0.49
1:2S:547:G:C2'	1:2S:548:G:O5'	2.61	0.49
1:2S:654:C:H2'	1:2S:655:C:H6	1.72	0.49
1:2S:681:U:C2'	1:2S:682:U:H5'	2.41	0.49
1:2S:745:C:H2'	1:2S:746:A:C8	2.48	0.49
1:2S:1359:C:H2'	1:2S:1360:C:H6	1.78	0.49
1:2S:1892:G:H2'	1:2S:1893:A:O4'	2.13	0.49
1:2S:2228:A:H2'	1:2S:2229:A:O4'	2.13	0.49
1:2S:2322:C:O2'	1:2S:2323:G:H5'	2.13	0.49
1:2S:2515:A:H62	1:2S:2592:G:N2	2.11	0.49
1:2S:2883:U:H2'	1:2S:2884:C:C6	2.47	0.49
1:2S:3035:A:C1'	12:L9:122:LYS:HB2	2.42	0.49
1:2S:3228:C:H5''	16:54:137:LYS:CE	2.43	0.49
6:L3:105:VAL:CG1	6:L3:106:TRP:N	2.75	0.49
7:L4:8:VAL:HG12	7:L4:9:HIS:N	2.28	0.49
15:53:29:ALA:HB2	17:55:201:ARG:NH1	2.28	0.49
15:53:63:VAL:HG21	30:68:67:HIS:HA	1.95	0.49
16:54:36:VAL:HG11	16:54:55:ARG:NH2	2.28	0.49
18:56:37:ARG:HG3	18:56:108:ILE:HG13	1.95	0.49
19:57:116:HIS:CD2	19:57:148:LEU:HA	2.47	0.49
20:58:54:LEU:HB3	20:58:58:ASN:HB2	1.94	0.49
22:60:97:VAL:HG13	22:60:98:SER:N	2.28	0.49
22:60:137:ARG:HB3	22:60:140:VAL:CG2	2.43	0.49
25:63:72:LYS:HE3	25:63:74:MET:HE1	1.95	0.49
33:71:48:ASP:O	33:71:91:SER:HB2	2.12	0.49
34:72:35:GLN:HA	34:72:35:GLN:HE21	1.78	0.49
43:81:14:LYS:O	43:81:18:ARG:HB2	2.13	0.49
44:82:12:CYS:SG	44:82:74:CYS:HB2	2.52	0.49
46:1S:38:C:H4'	56:S9:6:ARG:NH2	2.27	0.49
46:1S:687:G:H5'	69:22:119:LYS:HD3	1.95	0.49
46:1S:1065:A:H4'	48:S1:206:PRO:HD3	1.95	0.49
46:1S:1214:U:OP1	46:1S:1246:C:H1'	2.13	0.49
46:1S:1303:U:H2'	46:1S:1304:G:O4'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:S1:61:LEU:HG	48:S1:64:ARG:HH21	1.78	0.49
48:S1:174:LYS:NZ	48:S1:174:LYS:CB	2.76	0.49
51:S4:225:VAL:HG12	51:S4:226:PHE:N	2.28	0.49
58:11:6:THR:HB	58:11:9:SER:HB3	1.94	0.49
58:11:67:ARG:HH21	58:11:129:ARG:HA	1.77	0.49
65:18:16:ARG:HG3	65:18:16:ARG:NH1	2.28	0.49
67:20:33:GLN:HG3	67:20:109:GLU:CG	2.42	0.49
72:25:54:VAL:H	72:25:55:PRO:HD2	1.78	0.49
1:2S:66:A:H61	1:2S:76:G:H1'	1.77	0.49
1:2S:544:C:H6	1:2S:544:C:O5'	1.95	0.49
1:2S:619:A:H4'	1:2S:620:U:C6	2.48	0.49
1:2S:1384:U:H2'	1:2S:1385:C:C6	2.48	0.49
1:2S:2232:A:HO2'	1:2S:2428:U:HO2'	1.61	0.49
1:2S:2423:U:H2'	1:2S:2424:A:H8	1.78	0.49
1:2S:2433:U:O2'	17:55:125:SER:HB2	2.13	0.49
1:2S:2608:G:O2'	1:2S:2609:A:H5'	2.12	0.49
1:2S:3035:A:C2	12:L9:121:LYS:HB3	2.48	0.49
1:2S:3293:U:H5'	6:L3:128:LYS:HZ1	1.78	0.49
3:5S:5:G:H5''	14:51:143:ARG:HH22	1.77	0.49
4:L1:17:LEU:H	4:L1:17:LEU:CD2	2.12	0.49
4:L1:172:VAL:HG12	4:L1:176:GLU:HB2	1.94	0.49
9:L6:96:VAL:HG13	9:L6:141:VAL:HG13	1.94	0.49
10:L7:107:ARG:HB3	10:L7:204:PRO:HG3	1.94	0.49
11:L8:216:SER:O	11:L8:220:ALA:HB2	2.13	0.49
11:L8:238:LEU:HD23	11:L8:243:GLN:NE2	2.27	0.49
14:51:91:LEU:HB3	14:51:92:ARG:H	1.47	0.49
19:57:4:TYR:CZ	19:57:18:ARG:HG3	2.48	0.49
20:58:177:GLY:CA	20:58:184:PHE:O	2.61	0.49
26:64:9:SER:HA	26:64:52:THR:HB	1.95	0.49
27:65:65:GLN:O	27:65:85:GLN:HB2	2.13	0.49
33:71:70:ARG:CG	33:71:70:ARG:NH2	2.76	0.49
34:72:66:LEU:HD23	34:72:72:LYS:HB2	1.95	0.49
44:82:97:LYS:HD3	44:82:97:LYS:N	2.28	0.49
45:83:82:THR:O	45:83:86:LEU:HG	2.12	0.49
46:1S:183:U:H2'	46:1S:184:C:C6	2.48	0.49
46:1S:421:A:O2'	46:1S:422:G:H5'	2.12	0.49
46:1S:1160:A:H2'	46:1S:1161:C:H6	1.73	0.49
46:1S:1524:A:C2	46:1S:1590:G:H1'	2.47	0.49
47:S0:27:ARG:HG2	47:S0:28:ASN:H	1.78	0.49
48:S1:146:GLN:HG3	48:S1:147:ALA:H	1.78	0.49
53:S6:5:ILE:CG1	53:S6:111:LEU:HD12	2.36	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:S7:111:LYS:HG3	54:S7:112:ARG:H	1.77	0.49
55:S8:5:ARG:HH12	55:S8:28:GLU:C	2.21	0.49
63:16:44:LEU:HD12	63:16:47:LYS:HG2	1.95	0.49
64:17:88:VAL:HG13	64:17:88:VAL:O	2.13	0.49
65:18:142:GLY:O	65:18:145:ARG:HG2	2.12	0.49
1:2S:12:A:H2	2:8S:146:U:H3	1.60	0.48
1:2S:85:A:OP1	1:2S:85:A:H8	1.94	0.48
1:2S:907:G:C5	1:2S:926:A:C8	3.01	0.48
1:2S:1082:U:H2'	1:2S:1083:G:C8	2.48	0.48
1:2S:1176:C:H2'	1:2S:1177:G:C2	2.48	0.48
1:2S:2179:C:H2'	5:L2:132:ASN:ND2	2.28	0.48
1:2S:2351:U:H4'	19:57:83:TRP:HE3	1.77	0.48
1:2S:2526:C:H2'	1:2S:2527:G:C8	2.48	0.48
1:2S:3054:U:H2'	1:2S:3055:U:C6	2.47	0.48
1:2S:3057:U:O2	1:2S:3057:U:H2'	2.12	0.48
2:8S:38:U:C5	37:75:78:LYS:HD3	2.47	0.48
3:5S:5:G:H5''	14:51:143:ARG:NH2	2.27	0.48
4:L1:116:LEU:O	4:L1:116:LEU:CD2	2.57	0.48
6:L3:212:ASN:OD1	6:L3:354:VAL:HG22	2.13	0.48
7:L4:340:GLY:C	7:L4:342:LYS:H	2.21	0.48
8:L5:22:ARG:CG	8:L5:27:LYS:HB2	2.43	0.48
9:L6:79:VAL:HG12	9:L6:80:ASN:N	2.28	0.48
14:51:30:LEU:HD11	14:51:47:GLN:HG2	1.95	0.48
17:55:10:LEU:HD13	17:55:10:LEU:C	2.38	0.48
22:60:110:MET:HE3	22:60:116:ALA:HB3	1.95	0.48
22:60:132:THR:O	22:60:133:ALA:CB	2.61	0.48
29:67:54:THR:HG23	29:67:56:LYS:H	1.77	0.48
39:77:5:THR:N	39:77:6:PRO:CD	2.75	0.48
46:1S:431:C:H2'	46:1S:432:G:O4'	2.13	0.48
46:1S:600:U:C1'	70:23:47:SER:HB3	2.41	0.48
46:1S:874:C:H2'	46:1S:875:G:C8	2.47	0.48
46:1S:900:A:H3'	46:1S:901:G:H21	1.78	0.48
49:S2:118:ALA:CB	49:S2:124:ALA:HB2	2.43	0.48
50:S3:211:PRO:HG3	64:17:20:TYR:CE1	2.47	0.48
52:S5:57:SER:HB3	75:28:53:ILE:HG22	1.95	0.48
55:S8:84:HIS:CE1	55:S8:86:SER:HB2	2.48	0.48
57:10:32:HIS:NE2	57:10:42:VAL:HG21	2.27	0.48
69:22:114:GLU:O	69:22:117:ARG:HB3	2.13	0.48
75:28:32:PHE:CZ	75:28:38:ARG:HB3	2.48	0.48
1:2S:337:G:H3'	1:2S:338:A:H5''	1.95	0.48
1:2S:422:A:H3'	1:2S:423:A:H8	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:784:A:H1'	20:58:65:SER:HB2	1.95	0.48
1:2S:1224:C:O2'	1:2S:1289:G:OP1	2.29	0.48
1:2S:1348:U:H5'	20:58:35:PHE:HE1	1.76	0.48
1:2S:1463:U:H2'	1:2S:1464:G:O4'	2.13	0.48
1:2S:1694:U:O2'	1:2S:1695:U:H5'	2.13	0.48
1:2S:1831:U:O5'	1:2S:1831:U:H6	1.96	0.48
1:2S:2129:U:H2'	1:2S:2130:G:C8	2.44	0.48
1:2S:2149:A:P	1:2S:2149:A:H8	2.35	0.48
1:2S:2155:G:H2'	1:2S:2156:C:C6	2.48	0.48
1:2S:2896:A:H5'	1:2S:2896:A:C8	2.45	0.48
6:L3:110:LEU:N	6:L3:110:LEU:HD12	2.28	0.48
10:L7:62:ILE:O	10:L7:66:LYS:HG3	2.13	0.48
11:L8:116:VAL:HA	11:L8:121:SER:H	1.78	0.48
12:L9:19:SER:C	12:L9:20:ILE:HG13	2.38	0.48
14:51:19:LEU:HB3	14:51:125:MET:SD	2.53	0.48
21:59:57:VAL:O	21:59:58:HIS:HB2	2.13	0.48
21:59:109:TYR:CD2	21:59:114:LYS:HB2	2.48	0.48
22:60:80:ARG:HE	23:61:156:TYR:HA	1.79	0.48
24:62:35:LYS:C	24:62:38:ILE:HG22	2.37	0.48
29:67:118:PHE:C	29:67:120:GLU:H	2.20	0.48
36:74:3:GLN:NE2	36:74:29:ILE:HG22	2.28	0.48
46:1S:339:C:H2'	46:1S:340:U:C6	2.48	0.48
46:1S:887:A:H61	46:1S:925:G:H1	1.60	0.48
46:1S:1202:A:H62	46:1S:1457:C:H5''	1.76	0.48
48:S1:152:ARG:HG2	48:S1:152:ARG:O	2.14	0.48
52:S5:55:ASP:CB	52:S5:138:THR:HB	2.42	0.48
52:S5:58:LEU:HD13	52:S5:138:THR:HG22	1.95	0.48
52:S5:122:ASN:O	52:S5:126:ASP:HA	2.13	0.48
54:S7:50:ASP:HA	54:S7:56:LYS:HA	1.94	0.48
57:10:22:VAL:HG23	57:10:22:VAL:O	2.13	0.48
58:11:83:THR:CA	58:11:111:VAL:HG12	2.41	0.48
65:18:30:TYR:HA	65:18:33:THR:HG23	1.93	0.48
74:27:4:VAL:HG13	74:27:4:VAL:O	2.13	0.48
75:28:32:PHE:HE2	75:28:38:ARG:HB3	1.75	0.48
1:2S:639:G:H2'	1:2S:640:U:O4'	2.13	0.48
1:2S:1145:G:O6	1:2S:1158:A:H2	1.95	0.48
1:2S:1215:U:H2'	1:2S:1216:C:C5	2.49	0.48
1:2S:1346:G:H2'	1:2S:1347:U:O4'	2.13	0.48
1:2S:1605:A:H2'	1:2S:1607:U:OP2	2.13	0.48
1:2S:1913:A:H4'	1:2S:2121:G:N7	2.29	0.48
1:2S:2740:A:H2'	1:2S:2741:C:H5'	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2971:A:H2'	1:2S:2971:A:N3	2.28	0.48
1:2S:2985:C:H2'	1:2S:2986:U:O4'	2.13	0.48
1:2S:3382:U:O2	1:2S:3382:U:C2'	2.58	0.48
2:8S:43:A:H2'	2:8S:44:A:C8	2.48	0.48
3:5S:79:A:H1'	3:5S:102:A:N6	2.28	0.48
4:L1:197:ASN:HD21	38:76:65:GLY:HA2	1.78	0.48
6:L3:80:ASP:OD1	6:L3:82:PRO:HD3	2.12	0.48
6:L3:89:VAL:HG12	6:L3:105:VAL:HB	1.96	0.48
7:L4:222:VAL:CG1	7:L4:225:VAL:HB	2.38	0.48
8:L5:19:PRO:HB2	8:L5:24:ARG:HG3	1.94	0.48
10:L7:232:ARG:CD	10:L7:235:PHE:HB2	2.40	0.48
11:L8:71:VAL:HG12	17:55:21:PHE:CZ	2.48	0.48
14:51:88:GLU:O	14:51:89:TYR:HB2	2.11	0.48
15:53:29:ALA:HB3	17:55:201:ARG:HH12	1.78	0.48
15:53:55:ARG:HA	15:53:96:ALA:HB3	1.95	0.48
15:53:105:ASN:CB	15:53:108:ILE:HG12	2.44	0.48
23:61:64:VAL:HA	23:61:73:GLY:O	2.12	0.48
33:71:25:PHE:HA	33:71:28:ARG:HD2	1.94	0.48
44:82:32:LYS:HE2	44:82:34:SER:HA	1.94	0.48
46:1S:174:U:H2'	46:1S:175:G:O4'	2.14	0.48
46:1S:886:U:H2'	46:1S:887:A:C8	2.48	0.48
46:1S:923:A:H2'	46:1S:924:A:C8	2.48	0.48
46:1S:1788:G:N7	61:14:132:ARG:NE	2.61	0.48
50:S3:132:LYS:HB3	50:S3:189:MET:CG	2.43	0.48
51:S4:89:VAL:HG13	51:S4:99:PHE:O	2.12	0.48
52:S5:41:LYS:CE	52:S5:67:PRO:HB2	2.44	0.48
52:S5:62:VAL:CG1	52:S5:89:ILE:HG12	2.41	0.48
52:S5:112:ARG:HE	52:S5:112:ARG:CA	2.18	0.48
59:12:104:GLY:HA2	59:12:113:ARG:CD	2.42	0.48
64:17:10:LYS:HG2	64:17:53:TYR:HE1	1.78	0.48
66:19:116:ILE:HG12	66:19:122:ARG:CZ	2.43	0.48
70:23:124:VAL:HG12	70:23:125:VAL:N	2.28	0.48
1:2S:430:U:H2'	1:2S:431:U:O4'	2.14	0.48
1:2S:917:A:H2'	1:2S:918:C:C6	2.48	0.48
1:2S:1454:A:OP1	1:2S:1455:U:H5'	2.13	0.48
1:2S:2186:U:H2'	1:2S:2187:G:O4'	2.14	0.48
1:2S:2627:C:C2	1:2S:2797:C:H5'	2.49	0.48
1:2S:2650:U:O2'	1:2S:2651:G:H5'	2.13	0.48
1:2S:2951:G:H2'	1:2S:2952:G:H8	1.78	0.48
2:8S:59:A:H2'	2:8S:59:A:N3	2.29	0.48
3:5S:65:G:H2'	3:5S:66:A:C8	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L3:235:THR:HG22	6:L3:236:LYS:H	1.79	0.48
14:51:23:VAL:CG1	14:51:24:GLY:H	2.22	0.48
16:54:15:VAL:HG21	22:60:150:PHE:CE2	2.48	0.48
17:55:85:THR:HA	44:82:50:PHE:HB3	1.95	0.48
19:57:112:LEU:HA	19:57:151:THR:O	2.13	0.48
23:61:12:ARG:HD3	23:61:13:TYR:CZ	2.48	0.48
39:77:72:ARG:HG2	39:77:72:ARG:HH11	1.78	0.48
46:1S:632:U:H2'	46:1S:633:U:C6	2.48	0.48
46:1S:740:A:H2'	46:1S:741:C:C4'	2.43	0.48
46:1S:812:A:H5'	46:1S:858:G:N2	2.26	0.48
47:S0:88:LYS:NZ	47:S0:201:LEU:HG	2.29	0.48
50:S3:120:TYR:O	50:S3:124:ARG:HG3	2.12	0.48
50:S3:162:GLN:HA	50:S3:165:ASN:ND2	2.29	0.48
51:S4:49:ARG:CA	51:S4:55:ALA:HB3	2.42	0.48
51:S4:176:ASP:HB2	51:S4:179:LYS:CE	2.43	0.48
54:S7:31:SER:O	54:S7:35:LYS:CB	2.60	0.48
54:S7:184:GLU:HG2	54:S7:185:ILE:N	2.29	0.48
55:S8:110:ARG:HG3	55:S8:121:LEU:HD23	1.94	0.48
61:14:82:LYS:HA	61:14:116:GLU:O	2.13	0.48
68:21:66:ASP:O	68:21:70:ASN:OD1	2.31	0.48
1:2S:374:A:C4'	1:2S:375:A:H5'	2.40	0.48
1:2S:956:U:H2'	1:2S:957:C:C6	2.49	0.48
1:2S:1326:A:H2'	1:2S:1327:C:O4'	2.13	0.48
1:2S:1506:A:H1'	1:2S:1848:G:O6	2.14	0.48
1:2S:2097:U:H6	1:2S:2097:U:O5'	1.96	0.48
1:2S:2462:A:C6	1:2S:2463:G:H1'	2.49	0.48
1:2S:2467:G:H1'	1:2S:2489:C:H42	1.79	0.48
1:2S:2811:A:O2'	1:2S:2812:C:H5'	2.13	0.48
1:2S:2817:A:O2'	31:69:2:ALA:HB2	2.14	0.48
1:2S:2957:G:C2'	1:2S:2958:A:H5'	2.43	0.48
2:8S:41:A:OP2	39:77:65:ARG:NH1	2.47	0.48
5:L2:133:TYR:CB	5:L2:168:VAL:HG12	2.44	0.48
6:L3:89:VAL:HG22	6:L3:90:VAL:N	2.28	0.48
6:L3:169:THR:HG23	6:L3:170:PRO:HD2	1.95	0.48
6:L3:216:ASP:HA	6:L3:280:HIS:HD2	1.78	0.48
6:L3:259:HIS:HB2	18:56:64:PHE:CD2	2.48	0.48
7:L4:299:ILE:HD13	20:58:40:THR:CG2	2.44	0.48
9:L6:52:VAL:HG23	9:L6:66:SER:O	2.13	0.48
13:50:18:PRO:HB3	13:50:94:PHE:HB3	1.96	0.48
14:51:94:ARG:C	14:51:96:PHE:N	2.63	0.48
20:58:81:VAL:HG23	20:58:101:VAL:HA	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:65:65:GLN:HG2	37:75:32:LYS:HD2	1.95	0.48
30:68:43:ILE:HG22	30:68:43:ILE:O	2.14	0.48
35:73:39:GLN:HA	35:73:42:GLN:CG	2.41	0.48
41:79:31:THR:O	41:79:32:ASN:HB2	2.12	0.48
46:1S:75:U:H3'	46:1S:76:A:H5''	1.96	0.48
46:1S:180:A:H2'	46:1S:181:A:O4'	2.13	0.48
46:1S:1139:A:C2'	46:1S:1140:G:H5'	2.44	0.48
46:1S:1735:U:H2'	46:1S:1736:G:H8	1.79	0.48
47:S0:48:ILE:HG22	47:S0:49:ASN:N	2.28	0.48
49:S2:176:SER:HB2	49:S2:195:ASP:HB3	1.95	0.48
49:S2:203:LYS:O	49:S2:206:THR:HG22	2.12	0.48
58:11:13:PHE:CE2	58:11:15:LYS:HB3	2.49	0.48
63:16:129:PHE:O	63:16:129:PHE:HD1	1.96	0.48
71:24:102:LYS:HD3	71:24:108:ARG:HD3	1.96	0.48
1:2S:713:U:H2'	1:2S:714:G:O4'	2.12	0.48
1:2S:807:A:H3'	1:2S:808:A:C5'	2.39	0.48
2:8S:70:G:H5''	28:66:28:ARG:CZ	2.43	0.48
8:L5:202:GLY:O	8:L5:206:GLN:HB2	2.14	0.48
11:L8:72:PRO:O	11:L8:75:ILE:O	2.31	0.48
18:56:16:VAL:HA	18:56:41:LEU:CD2	2.32	0.48
21:59:97:ARG:O	21:59:101:VAL:HG23	2.14	0.48
29:67:108:GLU:O	29:67:112:LYS:HG3	2.14	0.48
46:1S:3:U:O4'	49:S2:180:ALA:HA	2.14	0.48
46:1S:262:U:H2'	46:1S:263:C:C6	2.48	0.48
46:1S:904:G:C2'	46:1S:905:A:H5'	2.43	0.48
46:1S:1562:G:H2'	46:1S:1563:C:O4'	2.13	0.48
47:S0:101:ARG:HG3	47:S0:103:THR:H	1.78	0.48
47:S0:170:ILE:HD12	47:S0:170:ILE:N	2.24	0.48
49:S2:41:LEU:O	49:S2:45:VAL:HG23	2.13	0.48
53:S6:132:ARG:HG2	53:S6:132:ARG:HH11	1.79	0.48
54:S7:116:ARG:O	54:S7:116:ARG:HG2	2.14	0.48
56:S9:63:ASP:O	56:S9:69:ARG:HD3	2.14	0.48
56:S9:132:ARG:HE	56:S9:142:ASN:HD22	1.60	0.48
62:15:98:ASN:HB2	62:15:122:THR:HA	1.94	0.48
66:19:126:GLU:HG2	66:19:127:ASN:N	2.29	0.48
1:2S:519:A:H4'	7:L4:355:PHE:CZ	2.46	0.48
1:2S:1536:G:H2'	1:2S:1537:A:H8	1.79	0.48
1:2S:1741:A:C2'	1:2S:1742:U:H5'	2.40	0.48
1:2S:1951:C:C5	1:2S:2095:G:O6	2.61	0.48
1:2S:2561:A:O2'	1:2S:2562:A:H8	1.97	0.48
1:2S:3051:U:H1'	25:63:92:PHE:CE1	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:3088:G:H5'	6:L3:313:HIS:CE1	2.49	0.48
2:8S:54:A:N7	2:8S:55:U:C5	2.82	0.48
5:L2:129:ALA:N	5:L2:169:ILE:HD12	2.28	0.48
5:L2:147:ARG:HB2	5:L2:157:VAL:HB	1.94	0.48
7:L4:82:THR:CG2	7:L4:85:SER:H	2.26	0.48
7:L4:259:ASP:O	7:L4:263:GLY:HA2	2.13	0.48
7:L4:304:GLN:O	7:L4:305:ALA:HB3	2.13	0.48
11:L8:77:GLN:HG3	11:L8:78:PHE:CD1	2.49	0.48
12:L9:89:LYS:HD3	12:L9:183:HIS:HB3	1.94	0.48
14:51:21:ILE:HD11	14:51:125:MET:HE2	1.95	0.48
14:51:115:LYS:HB2	14:51:115:LYS:HZ2	1.76	0.48
17:55:21:PHE:HD2	17:55:22:LEU:HD12	1.77	0.48
19:57:67:ILE:HG23	19:57:68:GLY:H	1.77	0.48
20:58:35:PHE:CE1	20:58:38:ARG:NH2	2.82	0.48
20:58:122:ILE:HG23	20:58:126:GLN:CB	2.32	0.48
21:59:20:ARG:HG3	21:59:20:ARG:HH11	1.77	0.48
22:60:24:LEU:HD12	23:61:146:ASN:HB3	1.95	0.48
22:60:66:GLU:O	22:60:69:PRO:HG3	2.13	0.48
25:63:102:ILE:HG23	25:63:102:ILE:O	2.12	0.48
27:65:60:TYR:CD2	37:75:25:LYS:HB3	2.49	0.48
29:67:73:LYS:HD3	29:67:74:VAL:H	1.78	0.48
32:70:73:GLY:O	32:70:77:LEU:HB2	2.14	0.48
35:73:20:LYS:NZ	35:73:20:LYS:HB3	2.29	0.48
38:76:79:SER:H	38:76:82:ARG:HD2	1.78	0.48
46:1S:207:U:H2'	46:1S:208:U:C6	2.49	0.48
46:1S:699:U:H2'	46:1S:700:C:C5	2.48	0.48
46:1S:818:C:N3	46:1S:819:G:N2	2.61	0.48
46:1S:975:C:H5''	60:13:109:LYS:HE3	1.96	0.48
46:1S:1675:C:H1'	55:S8:32:GLN:OE1	2.14	0.48
47:S0:163:ASN:C	47:S0:165:ARG:H	2.21	0.48
48:S1:61:LEU:HD13	48:S1:61:LEU:N	2.29	0.48
48:S1:96:LEU:HD23	48:S1:96:LEU:H	1.79	0.48
52:S5:93:LEU:HD23	52:S5:93:LEU:C	2.39	0.48
54:S7:126:LEU:HD21	54:S7:173:TYR:CZ	2.48	0.48
56:S9:44:ARG:O	56:S9:48:GLN:HG3	2.14	0.48
67:20:20:ILE:HG12	67:20:95:ALA:O	2.14	0.48
73:26:44:ILE:HD11	73:26:64:LEU:HD22	1.95	0.48
74:27:56:CYS:HB2	74:27:61:THR:HG22	1.95	0.48
79:RA:137:LYS:HA	79:RA:137:LYS:CE	2.30	0.48
1:2S:268:A:N6	1:2S:296:A:C8	2.79	0.48
1:2S:503:C:O2'	9:L6:23:LYS:HE2	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1289:G:H2'	1:2S:1290:A:O4'	2.14	0.48
1:2S:2063:U:H2'	1:2S:2064:C:O4'	2.14	0.48
1:2S:2144:A:C4	1:2S:2281:A:C6	3.02	0.48
1:2S:2603:G:H2'	1:2S:2604:U:O4'	2.12	0.48
1:2S:2951:G:H2'	1:2S:2952:G:C8	2.48	0.48
1:2S:2956:A:H2'	1:2S:2957:G:H5'	1.96	0.48
1:2S:3047:U:C2'	1:2S:3048:A:H5'	2.43	0.48
1:2S:3147:G:H2'	1:2S:3148:U:O4'	2.13	0.48
4:L1:60:ARG:HD2	4:L1:176:GLU:O	2.14	0.48
9:L6:41:ILE:HB	9:L6:85:ILE:HD12	1.95	0.48
11:L8:78:PHE:C	11:L8:80:TYR:N	2.72	0.48
13:50:33:ILE:HG23	13:50:33:ILE:O	2.14	0.48
14:51:94:ARG:HD3	14:51:94:ARG:N	2.11	0.48
17:55:122:ASN:CB	17:55:129:TYR:HB2	2.33	0.48
19:57:4:TYR:CZ	19:57:16:SER:HB2	2.48	0.48
35:73:42:GLN:HE21	35:73:42:GLN:HA	1.78	0.48
38:76:95:ALA:C	38:76:97:SER:H	2.22	0.48
46:1S:262:U:H2'	46:1S:263:C:H6	1.78	0.48
46:1S:600:U:P	70:23:108:GLY:HA2	2.53	0.48
46:1S:1341:A:H2'	46:1S:1342:C:H6	1.79	0.48
46:1S:1434:U:H4'	76:29:24:CYS:HB2	1.96	0.48
47:S0:13:ASP:O	47:S0:17:LEU:HG	2.14	0.48
48:S1:138:PHE:HB3	48:S1:213:ARG:NE	2.28	0.48
52:S5:62:VAL:HG12	52:S5:64:VAL:HG23	1.95	0.48
53:S6:64:LYS:O	53:S6:100:ALA:HB2	2.13	0.48
57:10:80:LEU:HB2	57:10:82:LEU:HD11	1.96	0.48
58:11:94:ILE:HG21	58:11:97:TYR:HD2	1.79	0.48
58:11:123:VAL:HG22	58:11:124:THR:N	2.29	0.48
58:11:133:LYS:HZ2	58:11:134:THR:CG2	2.26	0.48
59:12:72:ILE:O	59:12:76:GLU:HG3	2.12	0.48
66:19:57:ARG:HH11	66:19:57:ARG:CB	2.24	0.48
67:20:67:THR:CG2	67:20:68:ARG:N	2.76	0.48
67:20:113:ASP:OD1	67:20:115:GLU:HG3	2.14	0.48
1:2S:201:A:H2'	1:2S:202:G:O4'	2.14	0.48
1:2S:1222:G:H5'	1:2S:1222:G:C8	2.48	0.48
1:2S:2666:C:N4	1:2S:2689:A:H8	2.12	0.48
1:2S:2694:A:O2'	1:2S:2695:A:H5'	2.14	0.48
2:8S:72:A:P	28:66:52:ARG:HB2	2.54	0.48
3:5S:52:G:N2	14:51:9:MET:HE1	2.29	0.48
4:L1:103:LEU:HD21	4:L1:106:LYS:HE2	1.96	0.48
6:L3:53:MET:O	6:L3:364:LYS:HE2	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L3:56:ILE:CG1	6:L3:57:VAL:N	2.77	0.48
8:L5:83:LEU:N	8:L5:84:PRO:HD3	2.28	0.48
11:L8:45:ASN:OD1	27:65:26:VAL:HG23	2.14	0.48
11:L8:72:PRO:HD2	11:L8:75:ILE:HD12	1.96	0.48
14:51:112:LEU:HD23	14:51:112:LEU:N	2.28	0.48
17:55:3:ALA:HA	17:55:6:TYR:HD1	1.77	0.48
17:55:118:SER:HB3	17:55:132:VAL:CA	2.43	0.48
19:57:172:GLN:O	19:57:176:ILE:HG13	2.13	0.48
27:65:73:MET:HA	27:65:73:MET:HE3	1.96	0.48
34:72:24:ARG:HG3	34:72:24:ARG:NH1	2.28	0.48
43:81:9:ARG:O	43:81:13:LEU:HD23	2.14	0.48
46:1S:613:G:H5'	46:1S:1099:U:C2	2.49	0.48
46:1S:896:U:O2'	46:1S:897:C:H5'	2.14	0.48
46:1S:1051:G:O2'	46:1S:1052:U:OP1	2.27	0.48
46:1S:1359:C:H4'	66:19:133:ASP:HB3	1.95	0.48
46:1S:1451:C:OP1	76:29:10:HIS:HB3	2.14	0.48
46:1S:1578:U:O2'	46:1S:1579:U:H5'	2.14	0.48
50:S3:216:PRO:C	50:S3:217:ILE:HD12	2.39	0.48
50:S3:220:PRO:O	50:S3:221:SER:OG	2.28	0.48
51:S4:222:LEU:N	51:S4:222:LEU:HD23	2.28	0.48
52:S5:72:HIS:HA	52:S5:107:LYS:HE2	1.96	0.48
52:S5:165:LEU:O	52:S5:169:ASN:OD1	2.32	0.48
53:S6:24:ILE:O	53:S6:24:ILE:HG22	2.14	0.48
55:S8:76:THR:HG22	55:S8:108:PRO:HG2	1.96	0.48
59:12:70:ASN:O	59:12:74:LEU:HB2	2.14	0.48
60:13:27:LYS:O	60:13:28:LEU:HB2	2.14	0.48
67:20:51:VAL:HG12	67:20:94:GLU:HB2	1.94	0.48
73:26:78:ALA:CA	73:26:82:ARG:HB3	2.41	0.48
79:RA:70:ASP:HB3	79:RA:113:VAL:HG12	1.94	0.48
1:2S:1082:U:H2'	1:2S:1083:G:O4'	2.13	0.48
1:2S:1403:C:H2'	1:2S:1404:G:C8	2.49	0.48
1:2S:1795:U:H4'	1:2S:1796:G:C4	2.49	0.48
1:2S:2039:C:H2'	1:2S:2040:U:O4'	2.14	0.48
1:2S:2184:U:H4'	5:L2:211:HIS:CE1	2.49	0.48
1:2S:2433:U:H3'	1:2S:2434:U:H2'	1.95	0.48
1:2S:3134:A:H5'	18:56:148:LYS:HE3	1.96	0.48
2:8S:116:G:H2'	2:8S:117:C:H6	1.76	0.48
5:L2:101:VAL:C	5:L2:102:LEU:HD12	2.39	0.48
5:L2:193:ARG:HG2	5:L2:193:ARG:NH2	2.28	0.48
7:L4:316:ASN:HD21	7:L4:319:LYS:NZ	2.12	0.48
11:L8:79:GLN:HG3	11:L8:80:TYR:CE2	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:50:79:VAL:HG11	13:50:147:VAL:HG22	1.94	0.48
14:51:125:MET:HG2	14:51:126:ASP:H	1.79	0.48
19:57:20:SER:HA	19:57:145:HIS:HA	1.95	0.48
22:60:15:PRO:HB3	22:60:20:PRO:HB2	1.95	0.48
23:61:11:THR:O	23:61:13:TYR:N	2.47	0.48
23:61:105:PHE:O	23:61:109:VAL:HG23	2.13	0.48
24:62:54:VAL:HG12	24:62:67:SER:OG	2.13	0.48
46:1S:826:U:H2'	46:1S:827:C:H6	1.79	0.48
46:1S:1184:A:H3'	46:1S:1185:U:H5''	1.95	0.48
46:1S:1659:A:H2'	46:1S:1660:A:H8	1.79	0.48
51:S4:159:THR:CG2	51:S4:227:VAL:HG23	2.43	0.48
52:S5:156:ARG:HD3	52:S5:156:ARG:C	2.39	0.48
55:S8:41:LYS:HB2	55:S8:61:GLU:HG2	1.96	0.48
55:S8:172:ARG:CB	55:S8:175:GLN:HB2	2.44	0.48
56:S9:161:THR:O	56:S9:162:SER:O	2.31	0.48
58:11:100:TYR:O	70:23:10:ASN:HA	2.14	0.48
60:13:21:ASN:O	60:13:22:ALA:HB3	2.14	0.48
62:15:45:PHE:CD1	62:15:52:LYS:HE3	2.49	0.48
63:16:116:LEU:HD22	63:16:116:LEU:H	1.78	0.48
72:25:50:ILE:HD11	72:25:70:LYS:CD	2.43	0.48
1:2S:505:G:H5''	7:L4:315:LYS:HA	1.96	0.47
1:2S:814:U:O5'	1:2S:814:U:H6	1.97	0.47
1:2S:992:A:H4'	23:61:58:GLN:NE2	2.29	0.47
1:2S:1144:U:H1'	1:2S:1145:G:C8	2.48	0.47
1:2S:1231:A:O2'	1:2S:1261:G:H1'	2.13	0.47
1:2S:2254:U:H2'	1:2S:2261:G:N2	2.28	0.47
1:2S:2392:C:H3'	1:2S:2393:G:C8	2.49	0.47
1:2S:2538:U:O2'	1:2S:2539:C:H5'	2.14	0.47
2:8S:108:C:O5'	2:8S:108:C:H6	1.97	0.47
3:5S:96:U:H2'	3:5S:97:A:H8	1.78	0.47
4:L1:18:LYS:O	4:L1:19:TYR:CB	2.62	0.47
4:L1:101:LYS:HB3	4:L1:101:LYS:NZ	2.29	0.47
4:L1:199:GLN:NE2	4:L1:202:GLY:HA3	2.29	0.47
6:L3:89:VAL:CG1	6:L3:105:VAL:HB	2.44	0.47
8:L5:154:THR:CA	8:L5:179:ARG:HH11	2.24	0.47
10:L7:114:GLY:O	10:L7:115:THR:HG23	2.13	0.47
12:L9:189:GLU:O	12:L9:190:ASP:HB3	2.14	0.47
13:50:30:LYS:HA	13:50:30:LYS:CE	2.44	0.47
17:55:5:LYS:HG2	38:76:40:VAL:HG21	1.95	0.47
18:56:130:LYS:HG3	18:56:131:PRO:HD2	1.95	0.47
21:59:106:LEU:HB3	21:59:120:TYR:CE1	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:60:8:GLN:HB2	22:60:64:ILE:CD1	2.39	0.47
22:60:13:ARG:HA	22:60:56:GLY:CA	2.44	0.47
27:65:64:GLU:HB2	27:65:85:GLN:HB3	1.95	0.47
30:68:46:ASP:O	30:68:47:LYS:HG2	2.14	0.47
33:71:25:PHE:HA	33:71:28:ARG:CG	2.44	0.47
34:72:66:LEU:CD2	34:72:72:LYS:HB2	2.44	0.47
35:73:91:ALA:C	35:73:93:THR:H	2.20	0.47
46:1S:1060:U:H2'	46:1S:1061:A:H4'	1.96	0.47
46:1S:1755:A:H5'	70:23:63:GLN:HG3	1.95	0.47
47:S0:197:ILE:HD12	47:S0:197:ILE:H	1.76	0.47
48:S1:41:ARG:HB3	48:S1:41:ARG:HH11	1.79	0.47
48:S1:205:PHE:HB3	48:S1:207:LEU:CD1	2.42	0.47
53:S6:57:ASP:HB3	53:S6:106:LEU:HD23	1.95	0.47
53:S6:63:MET:HA	53:S6:98:ARG:O	2.14	0.47
58:11:66:ILE:HG23	58:11:127:GLN:C	2.39	0.47
61:14:120:PRO:O	61:14:122:PRO:HD3	2.13	0.47
66:19:7:ARG:HG3	66:19:7:ARG:HH11	1.78	0.47
66:19:67:MET:O	66:19:68:ARG:HB3	2.14	0.47
67:20:65:ILE:O	67:20:81:THR:HA	2.14	0.47
69:22:52:TYR:CE1	69:22:59:GLY:HA3	2.49	0.47
69:22:86:ILE:O	69:22:90:THR:HG23	2.14	0.47
1:2S:695:C:H2'	1:2S:696:C:H6	1.76	0.47
1:2S:1176:C:H2'	1:2S:1177:G:N2	2.28	0.47
1:2S:1687:U:OP1	24:62:42:LYS:HD2	2.12	0.47
1:2S:1764:U:H3'	1:2S:1765:U:H4'	1.96	0.47
1:2S:1902:G:H8	1:2S:1902:G:O5'	1.97	0.47
1:2S:2600:C:H2'	1:2S:2601:A:H8	1.80	0.47
1:2S:2796:G:N7	44:82:63:LYS:NZ	2.60	0.47
1:2S:2856:G:H2'	1:2S:2857:C:H6	1.75	0.47
5:L2:83:HIS:HB3	45:83:64:VAL:HG22	1.94	0.47
11:L8:248:LYS:HA	11:L8:251:LYS:HB3	1.95	0.47
12:L9:104:VAL:HG21	12:L9:125:ASN:HD21	1.80	0.47
18:56:149:TYR:O	18:56:153:VAL:HG23	2.14	0.47
20:58:147:ARG:CB	20:58:147:ARG:HH11	2.27	0.47
27:65:92:LYS:HE2	27:65:112:THR:CG2	2.43	0.47
37:75:86:ARG:O	37:75:90:ARG:HG2	2.14	0.47
46:1S:844:A:H2'	46:1S:845:G:C8	2.50	0.47
46:1S:1580:C:H2'	46:1S:1581:C:C6	2.50	0.47
50:S3:211:PRO:HG3	64:17:20:TYR:HE1	1.79	0.47
51:S4:222:LEU:H	51:S4:222:LEU:CD2	2.28	0.47
52:S5:157:ARG:N	52:S5:157:ARG:HD2	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:S5:168:VAL:O	52:S5:172:ILE:HG13	2.14	0.47
55:S8:121:LEU:HD22	55:S8:121:LEU:N	2.29	0.47
58:11:67:ARG:NH2	58:11:129:ARG:HA	2.29	0.47
58:11:91:LEU:HD22	70:23:10:ASN:OD1	2.14	0.47
62:15:96:ILE:CG2	62:15:116:LEU:HB3	2.43	0.47
67:20:57:ARG:HD2	67:20:89:ARG:NH2	2.29	0.47
69:22:65:LEU:H	69:22:65:LEU:CD1	2.19	0.47
71:24:41:ARG:HD2	71:24:55:VAL:O	2.14	0.47
1:2S:410:U:O5'	1:2S:410:U:H6	1.98	0.47
1:2S:563:U:H6	1:2S:563:U:O5'	1.97	0.47
1:2S:709:A:C8	1:2S:2788:C:H5'	2.49	0.47
1:2S:1306:G:OP2	1:2S:2884:C:H4'	2.14	0.47
1:2S:1799:A:H2'	1:2S:1800:A:C8	2.50	0.47
1:2S:2269:U:O2	1:2S:2271:A:N7	2.48	0.47
1:2S:3180:A:C6	18:56:114:LYS:HD3	2.49	0.47
1:2S:3318:G:H1'	1:2S:3320:A:C8	2.49	0.47
4:L1:155:ILE:HG23	4:L1:163:LEU:HD13	1.97	0.47
5:L2:20:THR:HA	5:L2:23:ARG:NH1	2.29	0.47
8:L5:229:ASP:HB2	8:L5:231:ILE:HG13	1.96	0.47
9:L6:131:LYS:O	9:L6:135:VAL:HG23	2.14	0.47
10:L7:168:ILE:O	10:L7:172:ASN:ND2	2.47	0.47
12:L9:21:LYS:O	12:L9:22:SER:HB3	2.14	0.47
13:50:89:VAL:HG22	13:50:136:PHE:CE2	2.48	0.47
20:58:122:ILE:CG2	20:58:126:GLN:HB2	2.34	0.47
22:60:77:VAL:HG13	22:60:126:VAL:CG2	2.32	0.47
27:65:142:ILE:C	27:65:142:ILE:HD13	2.39	0.47
44:82:16:THR:OG1	44:82:77:CYS:HB3	2.14	0.47
44:82:38:GLN:HB2	44:82:41:ARG:HH21	1.78	0.47
46:1S:62:A:H4'	46:1S:269:G:H4'	1.97	0.47
46:1S:94:U:O3'	51:S4:6:LYS:HG3	2.14	0.47
46:1S:103:A:N6	46:1S:358:U:H3	2.10	0.47
46:1S:381:C:P	56:S9:2:PRO:HA	2.53	0.47
46:1S:572:C:OP1	70:23:109:ARG:NH1	2.47	0.47
46:1S:839:U:H6	46:1S:839:U:O5'	1.97	0.47
46:1S:1139:A:H2'	46:1S:1140:G:O4'	2.15	0.47
46:1S:1368:G:H5''	66:19:69:LYS:HA	1.96	0.47
46:1S:1379:C:H5'	63:16:10:PHE:CD2	2.50	0.47
53:S6:175:ILE:HG21	53:S6:178:LEU:HD13	1.96	0.47
54:S7:120:ALA:O	54:S7:124:LYS:HG2	2.13	0.47
59:12:68:GLU:O	59:12:69:ALA:HB3	2.13	0.47
59:12:97:LEU:HD22	59:12:100:TRP:HE3	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:14:50:ALA:O	61:14:51:ASP:HB2	2.13	0.47
62:15:44:ARG:O	62:15:44:ARG:HD3	2.15	0.47
62:15:47:ARG:HG2	62:15:47:ARG:HH21	1.79	0.47
65:18:46:VAL:HG11	65:18:73:MET:HG3	1.96	0.47
72:25:78:ILE:HD12	72:25:78:ILE:N	2.29	0.47
73:26:87:ARG:HB3	73:26:91:ASP:HB2	1.96	0.47
73:26:87:ARG:HD3	73:26:91:ASP:O	2.14	0.47
75:28:13:ILE:HD13	75:28:31:GLU:HB2	1.96	0.47
79:RA:278:PHE:HB3	79:RA:281:TYR:HE1	1.80	0.47
1:2S:41:G:H3'	1:2S:42:C:H6	1.79	0.47
1:2S:636:C:N4	1:2S:2375:G:N1	2.47	0.47
1:2S:884:A:H4'	1:2S:885:U:C6	2.47	0.47
1:2S:985:U:H2'	1:2S:986:U:C6	2.48	0.47
1:2S:1110:U:H2'	1:2S:1111:U:H6	1.77	0.47
1:2S:1194:G:O5'	1:2S:1194:G:H8	1.96	0.47
1:2S:1335:C:H2'	1:2S:1336:U:C6	2.50	0.47
1:2S:2299:A:C5	1:2S:2300:G:C8	3.02	0.47
5:L2:61:VAL:HB	5:L2:76:PHE:CD1	2.49	0.47
5:L2:134:VAL:HG12	5:L2:149:ARG:O	2.14	0.47
7:L4:316:ASN:HA	7:L4:317:PRO:HD3	1.74	0.47
7:L4:323:VAL:O	7:L4:327:LEU:HD23	2.14	0.47
7:L4:358:THR:HA	7:L4:361:HIS:HB2	1.96	0.47
10:L7:108:LEU:CD2	10:L7:114:GLY:HA2	2.44	0.47
11:L8:149:LYS:O	11:L8:176:PRO:CG	2.62	0.47
11:L8:158:ASP:CB	11:L8:159:PRO:HD3	2.20	0.47
20:58:29:LEU:O	20:58:33:TYR:HB2	2.15	0.47
20:58:32:LEU:O	20:58:32:LEU:HD23	2.13	0.47
23:61:68:THR:CG2	23:61:71:SER:H	2.27	0.47
24:62:54:VAL:HA	24:62:66:VAL:O	2.14	0.47
25:63:33:ASN:ND2	25:63:64:LYS:H	2.13	0.47
25:63:54:LEU:CD1	25:63:78:VAL:HG12	2.42	0.47
30:68:77:LYS:HB3	30:68:80:THR:CG2	2.45	0.47
44:82:77:CYS:SG	44:82:79:THR:HG22	2.54	0.47
46:1S:422:G:C2'	46:1S:423:G:C8	2.88	0.47
46:1S:468:A:C2	46:1S:595:G:OP2	2.68	0.47
46:1S:484:C:N4	46:1S:503:G:H22	2.09	0.47
46:1S:863:A:H2'	46:1S:865:A:C8	2.49	0.47
46:1S:1169:G:H2'	46:1S:1170:G:H5'	1.95	0.47
46:1S:1286:U:O2'	46:1S:1287:A:H5'	2.14	0.47
46:1S:1533:C:H4'	46:1S:1539:G:C6	2.49	0.47
49:S2:137:ILE:HG12	49:S2:138:PRO:CD	2.39	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:S3:72:LEU:HG	57:10:20:VAL:HG21	1.97	0.47
50:S3:211:PRO:CG	64:17:19:ARG:HB2	2.43	0.47
51:S4:210:ILE:HG22	51:S4:211:LYS:N	2.29	0.47
52:S5:56:ALA:O	52:S5:57:SER:OG	2.29	0.47
52:S5:171:ALA:HA	52:S5:174:LEU:HD12	1.96	0.47
54:S7:86:GLN:HG2	54:S7:87:ASP:H	1.78	0.47
54:S7:96:ARG:HB2	54:S7:121:VAL:CG1	2.45	0.47
56:S9:83:VAL:HG12	56:S9:149:ARG:HA	1.96	0.47
61:14:84:ARG:HG2	61:14:84:ARG:HH11	1.78	0.47
75:28:20:GLY:HA2	75:28:67:ARG:OXT	2.14	0.47
79:RA:72:THR:CG2	79:RA:81:LEU:HD12	2.44	0.47
79:RA:164:ASP:O	79:RA:165:ASP:CB	2.59	0.47
79:RA:206:PRO:HG2	79:RA:247:PRO:HA	1.97	0.47
1:2S:592:A:H5'	9:L6:17:ALA:O	2.15	0.47
1:2S:960:U:H4'	1:2S:963:G:C2	2.49	0.47
1:2S:1174:G:H1'	1:2S:1181:U:N3	2.30	0.47
1:2S:1230:G:C2'	1:2S:1231:A:H5'	2.44	0.47
1:2S:1294:A:O2'	1:2S:1295:G:H8	1.97	0.47
1:2S:1889:G:H2'	1:2S:1890:U:C6	2.50	0.47
1:2S:2584:G:H2'	1:2S:2585:G:H4'	1.97	0.47
1:2S:2588:U:H2'	1:2S:2589:G:C8	2.49	0.47
6:L3:54:THR:OG1	6:L3:360:ASP:HB3	2.14	0.47
7:L4:317:PRO:O	7:L4:319:LYS:HD3	2.14	0.47
8:L5:58:LYS:HZ2	8:L5:93:THR:HG21	1.78	0.47
8:L5:286:VAL:HA	8:L5:289:LYS:HD2	1.95	0.47
11:L8:82:LEU:HD21	11:L8:86:THR:HG22	1.95	0.47
11:L8:100:GLU:HA	11:L8:104:GLU:OE1	2.14	0.47
11:L8:217:THR:O	11:L8:220:ALA:HB3	2.15	0.47
14:51:28:ASP:O	14:51:32:ARG:HG3	2.15	0.47
15:53:73:ARG:HG3	15:53:73:ARG:NH2	2.29	0.47
18:56:73:PHE:CD2	18:56:78:ARG:HG2	2.50	0.47
20:58:51:ALA:CB	20:58:84:VAL:HG11	2.44	0.47
23:61:79:MET:CE	31:69:21:ILE:HD13	2.43	0.47
37:75:31:LEU:HG	37:75:41:LEU:CD2	2.42	0.47
46:1S:136:C:C4'	46:1S:137:U:H5'	2.35	0.47
60:13:99:ARG:O	60:13:103:GLU:HG2	2.15	0.47
69:22:37:PHE:HD1	69:22:41:MET:HE2	1.79	0.47
72:25:39:ALA:HB3	72:25:70:LYS:O	2.15	0.47
75:28:44:VAL:HG21	75:28:48:VAL:HG21	1.96	0.47
1:2S:31:C:C5'	17:55:96:ARG:HD2	2.44	0.47
1:2S:561:C:H2'	1:2S:562:C:H6	1.77	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:943:U:O2'	30:68:12:ARG:HB3	2.15	0.47
1:2S:1056:U:H2'	1:2S:1057:A:O4'	2.15	0.47
1:2S:1392:G:H3'	34:72:125:ARG:HH12	1.79	0.47
1:2S:1936:A:H2'	1:2S:1937:U:C6	2.48	0.47
1:2S:3160:U:H2'	1:2S:3161:C:H6	1.76	0.47
1:2S:3357:U:H2'	1:2S:3358:U:H6	1.77	0.47
3:5S:52:G:H21	14:51:9:MET:CE	2.27	0.47
3:5S:96:U:H2'	3:5S:97:A:C8	2.49	0.47
5:L2:209:HIS:CG	5:L2:210:PRO:HD2	2.49	0.47
5:L2:225:ILE:HD11	5:L2:236:GLY:CA	2.45	0.47
8:L5:61:ILE:HG23	8:L5:79:TYR:HE1	1.79	0.47
9:L6:5:LYS:HA	9:L6:5:LYS:HE3	1.96	0.47
9:L6:92:SER:C	9:L6:94:GLU:H	2.23	0.47
13:50:61:SER:HA	13:50:126:ALA:HA	1.95	0.47
15:53:138:VAL:HG12	15:53:139:LEU:N	2.30	0.47
17:55:156:HIS:HA	17:55:162:ARG:HH22	1.80	0.47
20:58:25:TYR:O	20:58:29:LEU:HG	2.14	0.47
24:62:17:VAL:HA	24:62:103:TYR:O	2.14	0.47
35:73:100:ILE:N	35:73:100:ILE:HD12	2.30	0.47
46:1S:772:G:H5''	51:S4:23:LEU:HD23	1.96	0.47
57:10:82:LEU:HD12	57:10:82:LEU:H	1.80	0.47
58:11:93:TYR:OH	58:11:95:PRO:HA	2.14	0.47
59:12:50:LYS:HE2	78:31:103:LEU:HD21	1.96	0.47
60:13:136:PRO:HB2	60:13:138:ASN:OD1	2.14	0.47
63:16:78:VAL:O	63:16:82:ARG:HG2	2.15	0.47
63:16:93:HIS:O	63:16:102:LYS:HB2	2.14	0.47
65:18:62:THR:O	65:18:66:LEU:HG	2.14	0.47
70:23:104:LEU:HD23	70:23:124:VAL:HA	1.97	0.47
76:29:22:ARG:HG2	76:29:38:ILE:HD13	1.96	0.47
1:2S:9:U:OP1	17:55:40:ALA:HB3	2.14	0.47
1:2S:776:U:C5	1:2S:2719:U:O2	2.68	0.47
1:2S:782:U:H2'	1:2S:783:A:O4'	2.14	0.47
1:2S:874:U:OP2	6:L3:241:LYS:HE3	2.14	0.47
1:2S:918:C:O2'	1:2S:919:U:H5'	2.13	0.47
1:2S:1190:A:H2'	1:2S:1190:A:N3	2.30	0.47
1:2S:1372:C:OP2	30:68:7:LYS:HG2	2.15	0.47
1:2S:1373:A:H2'	1:2S:1374:G:C8	2.50	0.47
1:2S:1489:A:H2'	1:2S:1490:A:C8	2.50	0.47
1:2S:1537:A:H2'	1:2S:1538:G:C8	2.50	0.47
1:2S:2365:C:H5''	1:2S:2986:U:O2'	2.14	0.47
1:2S:2635:A:H4'	1:2S:2636:A:N3	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2724:U:H4'	23:61:54:HIS:CE1	2.50	0.47
1:2S:2897:A:H2'	1:2S:2899:C:C5'	2.44	0.47
1:2S:3149:G:H4'	6:L3:130:PHE:CZ	2.49	0.47
1:2S:3303:G:H5''	1:2S:3377:G:H4'	1.95	0.47
3:5S:82:G:H2'	3:5S:83:U:O4'	2.14	0.47
4:L1:93:LEU:HD21	4:L1:118:LYS:HB2	1.97	0.47
4:L1:106:LYS:HD2	4:L1:123:LEU:HD11	1.97	0.47
4:L1:155:ILE:HG23	4:L1:163:LEU:HD11	1.94	0.47
4:L1:207:LYS:HG3	4:L1:211:GLY:O	2.14	0.47
6:L3:139:GLN:O	6:L3:141:GLY:N	2.48	0.47
6:L3:232:ARG:HD3	6:L3:268:GLY:H	1.79	0.47
6:L3:300:ARG:CG	53:S6:25:ARG:HH22	2.28	0.47
7:L4:122:THR:O	7:L4:126:ILE:HG13	2.15	0.47
7:L4:188:ARG:HH21	7:L4:197:ARG:HB3	1.78	0.47
8:L5:51:LEU:HB2	8:L5:144:VAL:HG22	1.97	0.47
10:L7:169:ILE:CG2	10:L7:184:LEU:HD11	2.42	0.47
10:L7:195:PHE:CD1	10:L7:195:PHE:C	2.93	0.47
10:L7:196:LYS:HD3	10:L7:197:GLN:HE21	1.80	0.47
10:L7:210:PRO:HG3	10:L7:214:TRP:CE2	2.49	0.47
12:L9:90:MET:HG2	12:L9:181:VAL:HA	1.96	0.47
12:L9:114:VAL:CB	12:L9:124:ARG:HB2	2.44	0.47
12:L9:115:ARG:HG2	12:L9:115:ARG:HH11	1.79	0.47
14:51:10:ARG:HH21	14:51:152:HIS:HA	1.79	0.47
16:54:42:LYS:O	16:54:60:LEU:HG	2.15	0.47
17:55:16:SER:CB	38:76:48:ALA:HB1	2.44	0.47
17:55:80:THR:HB	17:55:87:GLN:HE21	1.79	0.47
17:55:118:SER:HB3	17:55:132:VAL:CB	2.45	0.47
20:58:44:PHE:CE1	20:58:48:VAL:HG21	2.49	0.47
20:58:82:VAL:HA	20:58:102:ALA:O	2.15	0.47
21:59:100:ARG:HA	21:59:103:ARG:HB2	1.94	0.47
21:59:189:ALA:HB1	54:S7:35:LYS:HZ2	1.78	0.47
22:60:40:ARG:HA	22:60:43:TYR:HB2	1.96	0.47
24:62:43:VAL:CB	24:62:49:ASN:HB3	2.43	0.47
26:64:37:ALA:O	26:64:41:LYS:HG3	2.14	0.47
26:64:47:ARG:HG2	26:64:47:ARG:NH1	2.30	0.47
29:67:135:ARG:HG2	29:67:135:ARG:NH2	2.29	0.47
32:70:77:LEU:HD23	32:70:87:VAL:O	2.14	0.47
33:71:17:HIS:HB2	33:71:69:TYR:CB	2.43	0.47
35:73:103:TYR:HA	35:73:104:PRO:C	2.40	0.47
46:1S:121:U:H1'	51:S4:33:ALA:O	2.14	0.47
46:1S:245:U:H2'	46:1S:247:A:OP2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:279:G:H3'	46:1S:280:U:H4'	1.97	0.47
46:1S:387:A:H1'	46:1S:425:A:C2	2.50	0.47
46:1S:499:U:H3'	46:1S:499:U:C6	2.49	0.47
46:1S:618:U:H2'	46:1S:619:A:H5''	1.96	0.47
46:1S:856:A:N7	54:S7:96:ARG:HA	2.29	0.47
46:1S:882:U:H2'	46:1S:883:C:C6	2.49	0.47
46:1S:959:U:O2	46:1S:959:U:H2'	2.14	0.47
46:1S:1321:A:H8	47:S0:131:GLN:OE1	1.98	0.47
46:1S:1498:G:C2'	46:1S:1499:G:H5''	2.45	0.47
46:1S:1667:A:H2'	46:1S:1668:G:H8	1.78	0.47
46:1S:1769:U:O2	61:14:136:ARG:HD3	2.14	0.47
48:S1:171:ILE:HA	48:S1:174:LYS:HE3	1.97	0.47
51:S4:154:ILE:HG12	51:S4:172:PHE:CD2	2.50	0.47
51:S4:195:ILE:CG2	51:S4:196:VAL:N	2.76	0.47
52:S5:124:LEU:HA	72:25:58:ARG:HD2	1.95	0.47
53:S6:77:LEU:HD12	53:S6:95:LYS:HD3	1.96	0.47
53:S6:147:LEU:HD13	53:S6:152:ASP:O	2.15	0.47
54:S7:182:VAL:HG12	54:S7:183:PHE:N	2.29	0.47
56:S9:109:LEU:HD23	56:S9:109:LEU:C	2.40	0.47
57:10:68:LEU:HD11	57:10:72:GLY:HA3	1.96	0.47
58:11:123:VAL:CG2	58:11:139:VAL:HG13	2.45	0.47
60:13:2:GLY:HA3	60:13:9:LYS:HA	1.96	0.47
60:13:72:MET:HE3	60:13:75:LEU:HB2	1.96	0.47
62:15:47:ARG:HG2	62:15:47:ARG:NH2	2.29	0.47
62:15:80:MET:O	62:15:116:LEU:HD12	2.14	0.47
63:16:13:LYS:C	63:16:13:LYS:HD3	2.39	0.47
63:16:90:VAL:HA	63:16:93:HIS:HB2	1.95	0.47
63:16:131:GLY:HA3	63:16:137:ARG:HA	1.97	0.47
65:18:40:ARG:NH2	66:19:45:MET:HG2	2.30	0.47
65:18:81:ILE:HG23	65:18:82:PRO:HD2	1.95	0.47
66:19:113:ILE:O	66:19:113:ILE:HG22	2.15	0.47
68:21:62:ARG:CB	68:21:64:GLU:HG2	2.44	0.47
69:22:103:ILE:HG22	69:22:127:GLY:C	2.40	0.47
79:RA:85:TRP:HA	79:RA:109:ASP:HB3	1.97	0.47
79:RA:172:ALA:HB3	79:RA:202:LEU:HD22	1.95	0.47
1:2S:276:U:H2'	1:2S:277:G:O4'	2.14	0.47
1:2S:1238:C:H2'	1:2S:1239:C:H5''	1.96	0.47
1:2S:1449:A:H1'	1:2S:2983:C:C4	2.49	0.47
1:2S:1771:C:H2'	1:2S:1772:U:O4'	2.15	0.47
1:2S:1900:A:H5'	1:2S:1901:A:C5	2.49	0.47
2:8S:149:A:H2'	2:8S:150:G:C8	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L2:49:VAL:HG22	5:L2:50:HIS:N	2.30	0.47
5:L2:177:LYS:HA	5:L2:178:PRO:HD3	1.73	0.47
5:L2:234:LYS:HD3	5:L2:238:ILE:HG12	1.97	0.47
6:L3:53:MET:HE3	6:L3:77:THR:HG23	1.97	0.47
7:L4:111:VAL:HG12	7:L4:112:LYS:N	2.30	0.47
8:L5:286:VAL:O	8:L5:290:ILE:HG12	2.14	0.47
11:L8:204:ARG:C	11:L8:206:GLU:H	2.23	0.47
14:51:37:LEU:HD22	14:51:69:VAL:HG12	1.97	0.47
16:54:127:LYS:O	16:54:131:VAL:HG23	2.14	0.47
18:56:24:ALA:HB2	18:56:87:MET:CE	2.45	0.47
18:56:76:PRO:HA	18:56:138:LEU:HD21	1.96	0.47
25:63:33:ASN:ND2	25:63:63:LYS:HB3	2.28	0.47
27:65:113:LEU:HD11	27:65:121:LYS:CB	2.44	0.47
33:71:25:PHE:HB3	33:71:65:LYS:HD3	1.96	0.47
34:72:65:PHE:CB	34:72:72:LYS:HE3	2.39	0.47
39:77:47:TYR:CB	39:77:49:TRP:CE2	2.98	0.47
39:77:64:MET:HB3	39:77:68:LYS:HG3	1.97	0.47
44:82:70:LEU:CD1	44:82:85:LEU:HD11	2.45	0.47
46:1S:640:U:H2'	46:1S:641:G:O4'	2.15	0.47
46:1S:821:U:O4	46:1S:851:U:O2	2.33	0.47
46:1S:965:U:H3'	46:1S:966:A:C5'	2.44	0.47
46:1S:1026:A:H2	46:1S:1791:A:O4'	1.97	0.47
46:1S:1112:G:H2'	46:1S:1113:A:C8	2.50	0.47
46:1S:1681:A:N6	46:1S:1720:G:O2'	2.48	0.47
49:S2:66:PHE:CB	49:S2:133:LYS:HG3	2.42	0.47
54:S7:131:PHE:N	54:S7:132:PRO:CD	2.78	0.47
58:11:14:GLN:HB3	58:11:54:ILE:CD1	2.45	0.47
68:21:2:GLU:HG2	68:21:8:LEU:HA	1.95	0.47
70:23:125:VAL:HG12	70:23:126:LYS:N	2.30	0.47
71:24:57:VAL:HG22	71:24:60:PHE:HE2	1.79	0.47
76:29:19:ARG:HG3	76:29:19:ARG:HH11	1.79	0.47
1:2S:619:A:C5'	1:2S:620:U:C2	2.98	0.47
1:2S:652:G:N2	1:2S:2361:A:H1'	2.29	0.47
1:2S:672:A:H5''	20:58:21:SER:HB2	1.97	0.47
1:2S:744:A:H2'	1:2S:745:C:H5'	1.97	0.47
1:2S:1203:A:C2	1:2S:2855:U:O2'	2.62	0.47
1:2S:1349:G:H3'	1:2S:1349:G:N3	2.30	0.47
1:2S:1435:A:H5''	1:2S:1436:U:C5'	2.44	0.47
1:2S:1732:U:H2'	1:2S:1733:G:H5'	1.97	0.47
1:2S:1744:G:H2'	1:2S:1745:C:C6	2.50	0.47
1:2S:2137:U:H2'	1:2S:2141:U:O4	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2485:A:H2'	1:2S:2486:A:H5'	1.97	0.47
1:2S:2562:A:H2'	1:2S:2563:G:H8	1.79	0.47
1:2S:2655:U:C5	44:82:4:VAL:HG12	2.49	0.47
1:2S:2749:G:O2'	8:L5:35:ARG:HD3	2.14	0.47
4:L1:97:LYS:O	4:L1:97:LYS:HG2	2.14	0.47
5:L2:15:ILE:O	5:L2:194:ASN:HB3	2.14	0.47
7:L4:39:PHE:O	7:L4:43:ASN:OD1	2.32	0.47
9:L6:152:THR:HA	9:L6:153:PRO:HD3	1.70	0.47
12:L9:31:ARG:HH11	12:L9:31:ARG:HG3	1.80	0.47
13:50:165:ILE:O	13:50:165:ILE:HG12	2.14	0.47
16:54:106:ARG:HG3	16:54:106:ARG:NH1	2.29	0.47
19:57:119:VAL:HG23	19:57:145:HIS:C	2.39	0.47
20:58:51:ALA:HB3	20:58:84:VAL:HG11	1.96	0.47
23:61:102:ARG:O	23:61:106:LEU:HD23	2.15	0.47
25:63:71:LYS:HB3	25:63:71:LYS:HZ3	1.79	0.47
27:65:51:VAL:HA	27:65:52:PRO:HD3	1.68	0.47
30:68:71:PRO:HB2	30:68:109:TYR:HA	1.95	0.47
36:74:22:VAL:HA	36:74:32:ALA:CA	2.41	0.47
36:74:58:ARG:HG3	36:74:59:PRO:HD2	1.96	0.47
41:79:27:ILE:HA	41:79:30:ARG:HG3	1.97	0.47
46:1S:618:U:H4'	46:1S:1030:A:C6	2.49	0.47
46:1S:818:C:H2'	46:1S:819:G:C5'	2.39	0.47
46:1S:1274:C:H4'	46:1S:1276:U:OP2	2.15	0.47
46:1S:1392:U:H2'	46:1S:1393:C:C6	2.50	0.47
47:S0:197:ILE:H	47:S0:197:ILE:CD1	2.28	0.47
58:11:14:GLN:HB3	58:11:54:ILE:HD13	1.96	0.47
63:16:10:PHE:HA	63:16:19:VAL:HA	1.97	0.47
67:20:48:HIS:NE2	67:20:99:ILE:HG12	2.30	0.47
71:24:22:GLN:HB2	71:24:72:PHE:HZ	1.79	0.47
79:RA:152:SER:O	79:RA:153:GLN:HG3	2.15	0.47
1:2S:740:G:O2'	1:2S:741:U:H5'	2.15	0.47
1:2S:771:A:H2'	1:2S:772:U:C6	2.50	0.47
1:2S:987:U:C5'	10:L7:125:GLU:HG3	2.45	0.47
1:2S:1144:U:C4	1:2S:1366:A:C2	3.03	0.47
1:2S:2131:A:C5	1:2S:2188:A:H1'	2.49	0.47
1:2S:2708:C:H2'	1:2S:2709:C:C6	2.50	0.47
1:2S:2828:G:H3'	1:2S:2829:U:C6	2.50	0.47
3:5S:43:U:H4'	14:51:140:ARG:O	2.14	0.47
6:L3:232:ARG:CA	6:L3:270:ARG:HD2	2.38	0.47
7:L4:22:LEU:HA	7:L4:23:PRO:HD3	1.78	0.47
7:L4:130:ALA:O	7:L4:131:VAL:HB	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:L5:122:VAL:HG22	8:L5:168:ASP:HB3	1.96	0.47
14:51:87:LYS:O	14:51:88:GLU:HB2	2.15	0.47
16:54:72:LEU:CD2	16:54:84:LYS:HB2	2.45	0.47
21:59:138:LEU:O	21:59:142:ILE:HG13	2.15	0.47
22:60:80:ARG:HD2	23:61:156:TYR:N	2.30	0.47
24:62:71:PHE:CE2	24:62:75:TYR:CD2	3.03	0.47
36:74:41:ARG:NH2	36:74:52:GLN:HA	2.30	0.47
46:1S:6:G:H3'	49:S2:205:ARG:HH12	1.80	0.47
46:1S:185:U:C3'	46:1S:186:C:H5''	2.44	0.47
46:1S:473:A:H2'	46:1S:474:A:O4'	2.14	0.47
46:1S:607:G:O4'	46:1S:613:G:N2	2.47	0.47
46:1S:1025:A:H5''	46:1S:1027:A:N7	2.30	0.47
46:1S:1472:C:H42	46:1S:1536:G:H1	1.60	0.47
46:1S:1789:G:H2'	46:1S:1790:A:C8	2.50	0.47
47:S0:57:LEU:HD23	47:S0:57:LEU:C	2.40	0.47
49:S2:38:VAL:O	49:S2:39:THR:OG1	2.30	0.47
50:S3:5:ILE:HG22	50:S3:6:SER:N	2.30	0.47
50:S3:168:ILE:HG22	50:S3:189:MET:CB	2.41	0.47
53:S6:220:LYS:HD2	53:S6:220:LYS:O	2.14	0.47
54:S7:39:ARG:N	54:S7:40:PRO:CD	2.78	0.47
57:10:69:THR:HB	57:10:70:GLU:H	1.56	0.47
59:12:43:ARG:HA	59:12:121:VAL:HG12	1.97	0.47
61:14:114:ARG:HA	73:26:62:TYR:CE1	2.50	0.47
65:18:5:VAL:O	72:25:42:LEU:HD13	2.14	0.47
65:18:89:GLN:C	65:18:91:ASP:N	2.73	0.47
73:26:12:LYS:HA	73:26:15:ARG:HE	1.80	0.47
73:26:71:LEU:HD22	73:26:71:LEU:N	2.29	0.47
79:RA:42:LEU:HD21	79:RA:82:SER:HB3	1.96	0.47
1:2S:52:A:C2'	1:2S:53:G:H5'	2.45	0.46
1:2S:99:A:H1'	1:2S:281:G:C8	2.50	0.46
1:2S:1448:U:H2'	1:2S:1449:A:C8	2.49	0.46
1:2S:2598:G:H4'	17:55:69:GLY:HA2	1.98	0.46
1:2S:3144:G:H2'	1:2S:3145:C:O4'	2.14	0.46
5:L2:45:VAL:CG1	5:L2:84:THR:HA	2.45	0.46
7:L4:74:ILE:C	7:L4:74:ILE:HD12	2.40	0.46
7:L4:92:ASN:C	7:L4:94:CYS:H	2.22	0.46
10:L7:136:TYR:N	10:L7:136:TYR:CD1	2.83	0.46
10:L7:210:PRO:HG3	10:L7:214:TRP:NE1	2.30	0.46
12:L9:110:LYS:O	12:L9:128:VAL:HG23	2.15	0.46
14:51:16:LYS:HG2	14:51:130:VAL:HG12	1.96	0.46
21:59:5:ARG:NH1	21:59:5:ARG:HG2	2.29	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:60:133:ALA:C	22:60:135:VAL:N	2.72	0.46
23:61:51:GLY:HA3	23:61:92:ARG:HB2	1.97	0.46
24:62:92:TRP:HB3	24:62:107:PHE:CZ	2.50	0.46
29:67:75:VAL:HG22	29:67:76:ASN:N	2.30	0.46
44:82:35:LEU:HB3	44:82:36:PHE:H	1.52	0.46
46:1S:97:C:H2'	46:1S:98:U:C6	2.50	0.46
46:1S:992:A:H2	46:1S:1012:U:N3	2.09	0.46
46:1S:1028:C:H5'	46:1S:1031:U:OP2	2.15	0.46
46:1S:1047:G:O2'	46:1S:1048:G:H5'	2.14	0.46
46:1S:1048:G:H2'	46:1S:1049:U:C6	2.50	0.46
46:1S:1109:G:H2'	46:1S:1110:G:C8	2.50	0.46
46:1S:1133:A:H2'	46:1S:1134:C:C6	2.50	0.46
46:1S:1137:A:H1'	46:1S:1138:A:H1'	1.97	0.46
46:1S:1548:G:H2'	46:1S:1549:C:C6	2.49	0.46
46:1S:1564:U:H2'	46:1S:1565:C:C6	2.49	0.46
48:S1:27:LYS:HD2	48:S1:48:VAL:O	2.15	0.46
60:13:113:PHE:CE1	60:13:114:ARG:NH1	2.83	0.46
63:16:50:GLU:O	63:16:54:LEU:HD23	2.15	0.46
63:16:66:ARG:HG2	63:16:66:ARG:HH11	1.80	0.46
67:20:104:THR:HG22	67:20:116:VAL:HG21	1.97	0.46
69:22:80:ASN:ND2	69:22:80:ASN:N	2.62	0.46
70:23:57:LEU:HB3	70:23:59:ILE:HD11	1.96	0.46
77:30:48:THR:HB	77:30:49:LEU:H	1.49	0.46
79:RA:40:LYS:HA	79:RA:66:HIS:O	2.15	0.46
79:RA:260:ILE:HB	79:RA:274:LEU:HD12	1.95	0.46
1:2S:269:G:O6	17:55:14:LYS:HB2	2.15	0.46
1:2S:997:A:H4'	3:5S:80:G:H5'	1.98	0.46
1:2S:1096:U:H5''	23:61:129:LYS:HE2	1.97	0.46
1:2S:1481:A:H3'	1:2S:1858:A:O2'	2.16	0.46
1:2S:1677:G:H1	1:2S:1691:U:H3	1.62	0.46
1:2S:1813:A:H3'	1:2S:1813:A:N3	2.29	0.46
1:2S:1908:A:C2	1:2S:2336:U:H5'	2.50	0.46
1:2S:2322:C:C2'	1:2S:2323:G:H5'	2.45	0.46
1:2S:2493:U:H5''	4:L1:162:VAL:CB	2.45	0.46
1:2S:3268:A:H3'	1:2S:3269:U:H3'	1.97	0.46
1:2S:3337:G:H2'	1:2S:3338:C:C6	2.49	0.46
3:5S:67:G:H2'	3:5S:68:C:H6	1.80	0.46
5:L2:46:LYS:HB3	5:L2:60:LYS:HB2	1.97	0.46
6:L3:238:LEU:HB2	6:L3:246:LEU:HA	1.96	0.46
7:L4:90:PHE:O	7:L4:98:ARG:HB3	2.15	0.46
8:L5:126:GLU:O	8:L5:196:ARG:HB2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:50:55:ASN:OD1	13:50:164:LYS:HE2	2.15	0.46
14:51:48:SER:HB2	14:51:66:ALA:CB	2.35	0.46
15:53:164:GLU:O	15:53:165:SER:HB3	2.15	0.46
18:56:118:VAL:HB	22:60:164:SER:O	2.16	0.46
19:57:112:LEU:HD23	19:57:150:VAL:CG2	2.45	0.46
20:58:71:LEU:HD13	20:58:97:PRO:HG3	1.97	0.46
21:59:133:LYS:O	21:59:133:LYS:HG2	2.15	0.46
23:61:40:VAL:HB	23:61:96:ILE:HG23	1.97	0.46
27:65:23:ALA:C	27:65:24:LEU:HD12	2.40	0.46
38:76:37:THR:HB	38:76:41:ARG:CZ	2.45	0.46
40:78:29:LYS:HE2	40:78:37:PRO:HB2	1.97	0.46
44:82:40:LYS:O	44:82:43:TYR:HB3	2.15	0.46
46:1S:261:U:H6	46:1S:261:U:H5'	1.80	0.46
46:1S:767:U:O2	46:1S:767:U:H3'	2.15	0.46
46:1S:990:C:H2'	46:1S:991:G:O4'	2.16	0.46
46:1S:1128:C:H2'	46:1S:1129:U:O4'	2.14	0.46
46:1S:1208:A:C2	46:1S:1209:C:C6	3.03	0.46
46:1S:1281:G:H4'	67:20:75:GLY:HA3	1.96	0.46
46:1S:1517:U:H2'	46:1S:1518:C:H5	1.80	0.46
46:1S:1740:A:H2'	46:1S:1741:U:H6	1.81	0.46
47:S0:77:SER:HB2	47:S0:86:VAL:HG11	1.97	0.46
48:S1:145:LYS:HB3	48:S1:149:GLN:HG2	1.97	0.46
53:S6:81:VAL:CG2	53:S6:82:SER:H	2.21	0.46
54:S7:51:VAL:HG11	54:S7:168:SER:HB3	1.97	0.46
55:S8:26:LYS:NZ	55:S8:29:LEU:HD13	2.30	0.46
56:S9:109:LEU:HD22	56:S9:129:ILE:HD13	1.97	0.46
57:10:49:LEU:HD11	57:10:75:TYR:CE2	2.50	0.46
57:10:50:THR:HG22	57:10:55:VAL:HG13	1.97	0.46
58:11:70:ILE:HD12	58:11:70:ILE:H	1.79	0.46
58:11:78:THR:C	58:11:80:MET:H	2.23	0.46
66:19:7:ARG:NH2	66:19:67:MET:HA	2.30	0.46
66:19:25:GLN:HG2	66:19:27:LYS:HD3	1.97	0.46
1:2S:17:G:C2	1:2S:18:G:H1'	2.49	0.46
1:2S:91:G:H5''	44:82:46:LYS:HE3	1.98	0.46
1:2S:120:G:H5'	11:L8:129:PRO:HG3	1.96	0.46
1:2S:279:U:H3	1:2S:286:U:H3	1.61	0.46
1:2S:445:G:H2'	1:2S:446:U:O4'	2.15	0.46
1:2S:892:U:H2'	1:2S:893:C:O4'	2.15	0.46
1:2S:908:G:H4'	1:2S:909:G:O5'	2.16	0.46
1:2S:951:A:N6	1:2S:1369:A:H1'	2.30	0.46
1:2S:1146:C:H4'	1:2S:1331:U:C5	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1663:C:H2'	1:2S:1664:G:H8	1.81	0.46
1:2S:1831:U:H5'	27:65:91:ASN:HB2	1.98	0.46
1:2S:2659:G:H2'	1:2S:2660:G:O4'	2.15	0.46
1:2S:2723:U:O2'	1:2S:2724:U:H5'	2.15	0.46
1:2S:3067:C:H3'	21:59:62:ARG:HH12	1.77	0.46
1:2S:3157:U:H4'	1:2S:3158:G:O5'	2.15	0.46
5:L2:45:VAL:HG13	5:L2:85:GLY:N	2.24	0.46
5:L2:209:HIS:C	5:L2:211:HIS:H	2.23	0.46
8:L5:111:GLN:C	8:L5:113:LEU:H	2.23	0.46
10:L7:179:LEU:HD13	10:L7:179:LEU:H	1.79	0.46
14:51:100:GLY:HA3	14:51:154:THR:HB	1.96	0.46
16:54:72:LEU:HD13	16:54:73:PRO:CD	2.44	0.46
18:56:89:SER:O	18:56:95:GLY:HA3	2.15	0.46
18:56:189:ASP:O	18:56:193:GLN:HG3	2.16	0.46
19:57:124:LYS:HA	19:57:141:SER:O	2.15	0.46
22:60:12:ARG:HH11	22:60:21:GLU:HG2	1.80	0.46
25:63:125:LEU:CD2	25:63:126:TRP:HE1	2.18	0.46
27:65:82:LEU:HB3	27:65:84:PHE:CZ	2.51	0.46
33:71:29:ALA:HB3	33:71:30:PRO:HD3	1.96	0.46
33:71:62:ARG:HG3	33:71:62:ARG:NH1	2.30	0.46
35:73:58:GLU:HB2	35:73:63:LYS:HG2	1.97	0.46
43:81:6:ARG:HH11	43:81:6:ARG:HG3	1.81	0.46
46:1S:66:U:O2'	46:1S:67:A:H5'	2.15	0.46
46:1S:491:C:H2'	46:1S:492:A:H5'	1.98	0.46
46:1S:942:G:H5'	46:1S:977:A:C4'	2.43	0.46
46:1S:1477:G:H2'	46:1S:1478:G:H8	1.80	0.46
47:S0:27:ARG:HG2	47:S0:28:ASN:N	2.31	0.46
48:S1:181:LEU:H	48:S1:181:LEU:HD22	1.79	0.46
49:S2:65:GLU:HB2	49:S2:68:ILE:CD1	2.45	0.46
49:S2:69:ILE:HG12	49:S2:133:LYS:HB3	1.96	0.46
50:S3:208:ILE:HD13	64:17:39:ALA:HB2	1.98	0.46
52:S5:120:ILE:O	52:S5:124:LEU:HD13	2.15	0.46
53:S6:85:ARG:HG2	53:S6:85:ARG:HH11	1.79	0.46
54:S7:162:ILE:HB	54:S7:169:PHE:CZ	2.51	0.46
55:S8:81:VAL:HG23	55:S8:94:ASN:HA	1.98	0.46
56:S9:159:ALA:O	56:S9:165:GLY:HA3	2.15	0.46
58:11:85:VAL:HG13	58:11:107:VAL:C	2.41	0.46
60:13:113:PHE:HE1	60:13:114:ARG:NH1	2.12	0.46
66:19:92:LYS:CE	66:19:94:ILE:HD11	2.45	0.46
70:23:19:ARG:O	70:23:23:ARG:HG2	2.15	0.46
70:23:87:VAL:HA	70:23:124:VAL:CG2	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:27:11:THR:O	74:27:15:GLU:HB2	2.16	0.46
1:2S:91:G:H5''	44:82:46:LYS:NZ	2.29	0.46
1:2S:137:G:H2'	1:2S:138:U:C6	2.50	0.46
1:2S:905:U:H2'	1:2S:906:A:H5'	1.97	0.46
1:2S:1526:U:H5'	1:2S:1594:A:C6	2.51	0.46
1:2S:1844:C:H2'	1:2S:1845:G:C4'	2.45	0.46
1:2S:1887:A:H4'	6:L3:227:GLU:HA	1.97	0.46
1:2S:2607:G:O5'	5:L2:233:GLN:HG2	2.15	0.46
1:2S:2730:G:H2'	1:2S:2731:U:H5'	1.98	0.46
1:2S:3010:U:O2'	1:2S:3011:A:H2'	2.16	0.46
5:L2:72:ARG:HB2	5:L2:72:ARG:CZ	2.46	0.46
14:51:59:ILE:CG2	14:51:65:ILE:HD12	2.45	0.46
14:51:92:ARG:HA	14:51:171:VAL:O	2.16	0.46
23:61:27:LEU:HD13	23:61:30:TYR:CD2	2.50	0.46
25:63:102:ILE:CG2	25:63:110:LYS:HB3	2.45	0.46
29:67:121:ARG:NH1	29:67:126:LYS:HB3	2.30	0.46
34:72:106:VAL:HA	34:72:109:LEU:HD12	1.97	0.46
37:75:61:GLN:C	37:75:64:GLU:HG2	2.40	0.46
39:77:25:ARG:O	39:77:25:ARG:CD	2.63	0.46
46:1S:323:A:OP2	55:S8:10:LYS:HG3	2.15	0.46
46:1S:344:A:C2'	46:1S:345:U:H5'	2.46	0.46
46:1S:629:U:H2'	46:1S:630:A:O4'	2.15	0.46
46:1S:682:C:C2'	46:1S:683:C:H5'	2.44	0.46
46:1S:775:G:H8	46:1S:775:G:O5'	1.98	0.46
46:1S:1216:C:O3'	46:1S:1217:A:H3'	2.15	0.46
46:1S:1363:U:H3'	46:1S:1364:G:C5'	2.45	0.46
46:1S:1416:G:O2'	63:16:125:GLU:OE2	2.31	0.46
48:S1:86:LEU:HD22	48:S1:86:LEU:N	2.30	0.46
48:S1:137:ILE:HD12	48:S1:172:LEU:HD22	1.98	0.46
53:S6:27:PHE:HZ	53:S6:41:VAL:HG21	1.80	0.46
54:S7:117:THR:HG22	54:S7:120:ALA:HB2	1.96	0.46
55:S8:42:ARG:HG2	55:S8:58:LEU:HB2	1.98	0.46
56:S9:179:ARG:CA	56:S9:182:GLU:HG2	2.37	0.46
61:14:17:ALA:N	61:14:79:VAL:HG22	2.28	0.46
62:15:87:PRO:HA	62:15:90:ILE:CD1	2.45	0.46
68:21:53:TYR:CD1	68:21:72:LEU:HD13	2.50	0.46
69:22:80:ASN:HD21	69:22:124:LYS:HG2	1.73	0.46
74:27:81:ARG:O	74:27:82:LYS:CB	2.64	0.46
75:28:14:LYS:HB3	75:28:29:ARG:CD	2.43	0.46
79:RA:49:GLY:HA2	79:RA:54:PHE:HA	1.96	0.46
1:2S:299:G:C4	38:76:31:GLY:HA3	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:717:C:H41	1:2S:751:A:C4'	2.25	0.46
1:2S:1662:G:H2'	1:2S:1663:C:C6	2.51	0.46
1:2S:1927:G:N3	1:2S:1927:G:C3'	2.77	0.46
1:2S:2060:A:C2'	1:2S:2061:G:H5'	2.45	0.46
1:2S:2331:C:H2'	1:2S:2332:A:C8	2.50	0.46
1:2S:2638:C:H3'	1:2S:2639:G:H8	1.80	0.46
1:2S:3116:G:H3'	1:2S:3117:C:C6	2.51	0.46
3:5S:24:A:O2'	3:5S:25:G:H5'	2.15	0.46
3:5S:77:G:H22	3:5S:101:G:H2'	1.79	0.46
6:L3:261:MET:HG3	18:56:64:PHE:HB3	1.98	0.46
7:L4:58:HIS:HA	7:L4:90:PHE:HD1	1.80	0.46
7:L4:132:ALA:CB	7:L4:148:ILE:HD12	2.46	0.46
10:L7:100:ARG:HA	10:L7:103:LEU:HD12	1.98	0.46
15:53:46:ILE:HG23	15:53:49:ARG:HH21	1.79	0.46
19:57:159:LYS:CG	19:57:160:ALA:H	2.29	0.46
22:60:1:MET:HE1	22:60:32:SER:H	1.81	0.46
24:62:96:VAL:CG1	24:62:97:SER:H	2.18	0.46
32:70:11:ASN:HA	32:70:14:LEU:HD12	1.98	0.46
33:71:13:THR:HG23	33:71:72:ARG:HD3	1.96	0.46
39:77:24:ARG:O	39:77:24:ARG:HG2	2.16	0.46
42:80:80:PRO:HA	42:80:83:LYS:NZ	2.31	0.46
44:82:63:LYS:HE2	44:82:87:ARG:HH12	1.79	0.46
46:1S:386:G:H5''	55:S8:23:LYS:HE2	1.98	0.46
46:1S:555:A:H2'	46:1S:556:A:N7	2.31	0.46
46:1S:579:A:H3'	46:1S:580:A:C5'	2.45	0.46
46:1S:867:G:OP2	60:13:3:ARG:NH1	2.49	0.46
46:1S:1570:A:H2'	46:1S:1571:C:O4'	2.16	0.46
46:1S:1615:C:H5''	75:28:18:ARG:NH2	2.31	0.46
49:S2:106:ASP:CG	49:S2:107:SER:H	2.22	0.46
52:S5:57:SER:HB3	75:28:53:ILE:HB	1.96	0.46
53:S6:13:GLN:HA	53:S6:124:LEU:HD13	1.97	0.46
53:S6:76:LEU:HA	53:S6:94:ARG:HA	1.98	0.46
55:S8:5:ARG:HH11	55:S8:5:ARG:HG3	1.81	0.46
56:S9:169:PRO:HD2	56:S9:174:ARG:CZ	2.46	0.46
58:11:117:VAL:CG1	58:11:118:GLN:N	2.78	0.46
64:17:110:VAL:HG11	64:17:117:LEU:CG	2.35	0.46
65:18:3:LEU:HD13	65:18:3:LEU:N	2.31	0.46
65:18:133:VAL:O	65:18:133:VAL:HG22	2.16	0.46
69:22:15:ASN:O	69:22:19:LYS:HG3	2.15	0.46
69:22:81:VAL:HG11	69:22:86:ILE:CG2	2.45	0.46
70:23:76:LEU:CD1	70:23:79:ASN:HB2	2.24	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:31:120:GLU:HB3	78:31:131:PHE:HD1	1.80	0.46
79:RA:266:ASP:HA	79:RA:267:PRO:C	2.41	0.46
1:2S:911:C:H3'	5:L2:9:ARG:HH11	1.75	0.46
1:2S:927:C:O2'	1:2S:928:C:H5'	2.16	0.46
1:2S:1238:C:C2'	1:2S:1239:C:H5''	2.46	0.46
1:2S:1338:C:O2'	34:72:59:SER:HA	2.16	0.46
1:2S:2478:C:H2'	1:2S:2479:C:C6	2.51	0.46
1:2S:3301:U:H3	1:2S:3313:U:H3	1.62	0.46
3:5S:52:G:H21	14:51:9:MET:HE1	1.81	0.46
4:L1:207:LYS:NZ	4:L1:207:LYS:HB3	2.30	0.46
7:L4:8:VAL:HG21	7:L4:18:ASN:HD22	1.80	0.46
7:L4:95:ARG:HG2	7:L4:95:ARG:NH1	2.28	0.46
7:L4:352:ALA:O	7:L4:355:PHE:HB3	2.15	0.46
9:L6:171:PRO:HA	9:L6:174:LEU:CD1	2.44	0.46
10:L7:138:TYR:H	10:L7:233:GLU:HA	1.80	0.46
19:57:4:TYR:CE1	19:57:147:GLU:HB2	2.50	0.46
25:63:81:GLN:H	25:63:95:PHE:HD2	1.63	0.46
37:75:44:ILE:O	37:75:47:VAL:HG12	2.16	0.46
37:75:99:GLN:HA	37:75:99:GLN:OE1	2.15	0.46
40:78:19:ASP:O	40:78:21:LYS:HE2	2.16	0.46
46:1S:229:U:H2'	46:1S:230:C:C6	2.50	0.46
46:1S:510:G:C2	46:1S:511:A:HI'	2.50	0.46
46:1S:1498:G:H4'	66:19:120:GLY:C	2.41	0.46
46:1S:1519:U:H2'	46:1S:1520:U:C5	2.50	0.46
46:1S:1567:U:H2'	46:1S:1568:C:H5'	1.97	0.46
47:S0:180:GLU:OE2	47:S0:183:ARG:HD3	2.15	0.46
49:S2:106:ASP:O	49:S2:190:LEU:HD23	2.15	0.46
49:S2:122:ALA:HA	49:S2:125:ILE:CD1	2.44	0.46
49:S2:206:THR:HG23	49:S2:206:THR:O	2.15	0.46
51:S4:87:MET:HE2	51:S4:87:MET:HA	1.97	0.46
55:S8:151:LYS:C	55:S8:152:ILE:HG13	2.39	0.46
56:S9:132:ARG:HD2	56:S9:142:ASN:CB	2.41	0.46
60:13:131:THR:C	60:13:133:ALA:H	2.24	0.46
60:13:141:TYR:CD1	60:13:142:GLU:N	2.84	0.46
62:15:22:LEU:CD1	62:15:109:PRO:HB3	2.45	0.46
68:21:36:VAL:HB	68:21:51:VAL:HB	1.98	0.46
69:22:53:ILE:HG12	69:22:60:LYS:HB2	1.97	0.46
69:22:93:LEU:HD12	69:22:128:PHE:CD1	2.51	0.46
76:29:23:VAL:HG23	76:29:38:ILE:HD12	1.97	0.46
77:30:46:ASN:O	77:30:47:VAL:HG12	2.15	0.46
78:31:119:ARG:HH21	78:31:119:ARG:HG3	1.78	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:309:U:O5'	1:2S:309:U:H6	1.97	0.46
1:2S:737:G:H2'	1:2S:738:A:C8	2.51	0.46
1:2S:858:A:C2	45:83:13:LYS:HB2	2.51	0.46
1:2S:987:U:H5'	10:L7:125:GLU:HG3	1.98	0.46
1:2S:1482:A:H4'	1:2S:1483:G:OP2	2.16	0.46
1:2S:1682:U:H3'	24:62:85:LYS:CE	2.43	0.46
1:2S:1717:U:H2'	1:2S:1718:G:H8	1.76	0.46
1:2S:2525:G:H2'	5:L2:34:TYR:CD1	2.50	0.46
1:2S:3044:G:H5''	6:L3:12:GLY:CA	2.46	0.46
1:2S:3176:G:O2'	1:2S:3177:G:H5'	2.16	0.46
1:2S:3246:G:H4'	1:2S:3247:G:C8	2.51	0.46
2:8S:139:U:H2'	2:8S:140:G:H8	1.80	0.46
7:L4:283:THR:C	7:L4:285:ASP:N	2.74	0.46
7:L4:300:ARG:HG2	20:58:39:ARG:O	2.15	0.46
10:L7:96:PRO:C	10:L7:99:PRO:HD2	2.41	0.46
11:L8:122:LYS:HD3	11:L8:122:LYS:N	2.25	0.46
11:L8:139:VAL:O	11:L8:143:ILE:HG13	2.15	0.46
12:L9:50:ASN:HB3	12:L9:51:GLN:NE2	2.31	0.46
13:50:178:ARG:O	13:50:182:LEU:HG	2.15	0.46
24:62:21:SER:HB2	24:62:22:PRO:HD3	1.97	0.46
27:65:27:ARG:HD2	27:65:27:ARG:N	2.30	0.46
27:65:108:LEU:HD22	27:65:125:ARG:HD3	1.98	0.46
33:71:29:ALA:N	33:71:30:PRO:CD	2.79	0.46
34:72:25:TYR:HB2	34:72:28:VAL:HG23	1.97	0.46
37:75:14:LYS:HE2	37:75:62:GLN:HG2	1.97	0.46
38:76:17:VAL:HG12	38:76:18:THR:N	2.31	0.46
46:1S:320:U:H3'	46:1S:320:U:OP2	2.16	0.46
46:1S:478:A:C5'	56:S9:123:HIS:HB3	2.41	0.46
46:1S:767:U:H5'	71:24:63:GLN:HE21	1.80	0.46
46:1S:1196:A:H4'	46:1S:1197:C:O5'	2.15	0.46
46:1S:1414:U:H3'	46:1S:1415:U:C5'	2.46	0.46
48:S1:21:VAL:HG23	48:S1:22:ASP:H	1.81	0.46
49:S2:78:ASP:O	49:S2:79:GLU:HB2	2.14	0.46
49:S2:169:LEU:C	49:S2:170:ILE:HD12	2.40	0.46
49:S2:225:LEU:HB2	69:22:70:ASN:HD21	1.81	0.46
51:S4:225:VAL:O	51:S4:226:PHE:HB2	2.15	0.46
55:S8:83:TYR:O	55:S8:101:ILE:HB	2.15	0.46
55:S8:170:SER:OG	55:S8:181:GLY:HA2	2.16	0.46
57:10:21:VAL:HG12	57:10:66:TYR:HD2	1.81	0.46
59:12:46:ARG:HG3	78:31:103:LEU:HD11	1.96	0.46
62:15:49:MET:HA	62:15:52:LYS:HZ2	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:18:88:ARG:NH2	65:18:88:ARG:CB	2.78	0.46
68:21:5:LYS:H	68:21:5:LYS:HD3	1.81	0.46
73:26:9:GLY:HA3	73:26:34:LYS:HE2	1.97	0.46
1:2S:296:A:O2'	1:2S:297:G:H5'	2.16	0.46
1:2S:578:A:H2'	7:L4:334:PHE:HD2	1.80	0.46
1:2S:591:G:H21	9:L6:18:LEU:HB3	1.81	0.46
1:2S:636:C:N4	1:2S:2375:G:C6	2.81	0.46
1:2S:819:U:C2'	1:2S:820:A:H5'	2.46	0.46
1:2S:914:A:OP1	1:2S:914:A:C8	2.69	0.46
1:2S:915:A:H3'	1:2S:915:A:N3	2.31	0.46
1:2S:1473:G:H5'	21:59:24:LEU:O	2.16	0.46
1:2S:1862:U:H2'	1:2S:1863:G:O4'	2.16	0.46
1:2S:2153:U:H4'	5:L2:244:GLY:O	2.16	0.46
1:2S:2492:C:H5''	4:L1:39:LYS:HD2	1.98	0.46
1:2S:2604:U:H2'	1:2S:2605:G:O4'	2.16	0.46
1:2S:3251:U:H2'	1:2S:3252:G:C8	2.51	0.46
2:8S:14:C:O5'	2:8S:14:C:H6	1.99	0.46
5:L2:205:ASN:HB3	5:L2:206:PRO:HD2	1.97	0.46
6:L3:4:ARG:HD2	6:L3:7:GLU:HA	1.97	0.46
6:L3:332:ARG:O	6:L3:333:LYS:CB	2.64	0.46
8:L5:283:ALA:O	8:L5:287:ALA:HB2	2.15	0.46
11:L8:33:ASN:O	11:L8:39:ALA:HB3	2.16	0.46
15:53:128:ARG:CZ	37:75:112:PRO:HD2	2.46	0.46
15:53:169:THR:HA	15:53:172:LEU:CD1	2.44	0.46
17:55:145:ASP:OD1	17:55:147:ARG:HB2	2.16	0.46
19:57:60:PHE:CD1	19:57:64:ASN:HB3	2.50	0.46
20:58:42:ALA:HA	20:58:43:PRO:HD3	1.68	0.46
29:67:118:PHE:HA	29:67:121:ARG:CB	2.46	0.46
38:76:53:TYR:O	38:76:57:LEU:HD23	2.15	0.46
42:80:119:ASN:ND2	42:80:119:ASN:H	2.14	0.46
43:81:11:ARG:HH21	46:1S:1126:G:C4'	2.24	0.46
44:82:2:VAL:O	44:82:92:GLU:HG3	2.16	0.46
45:83:20:SER:HA	45:83:23:ARG:CD	2.45	0.46
45:83:59:CYS:O	45:83:60:CYS:CB	2.62	0.46
46:1S:295:A:H2'	46:1S:296:U:C6	2.51	0.46
46:1S:435:C:H5''	70:23:50:LYS:HE2	1.98	0.46
46:1S:1163:A:C2	46:1S:1613:U:H1'	2.51	0.46
46:1S:1590:G:OP1	66:19:91:TYR:HB2	2.16	0.46
48:S1:70:LEU:HB3	48:S1:84:ILE:HG12	1.98	0.46
49:S2:54:GLU:HB3	68:21:12:TYR:HB2	1.97	0.46
50:S3:135:GLU:HB3	50:S3:187:LYS:HB3	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:S7:130:VAL:HB	54:S7:133:THR:OG1	2.16	0.46
54:S7:152:VAL:HG23	54:S7:181:ILE:HD11	1.98	0.46
60:13:25:TRP:CH2	74:27:45:THR:HG21	2.48	0.46
60:13:105:ASN:C	60:13:107:LYS:H	2.24	0.46
63:16:55:VAL:HB	63:16:109:PHE:CZ	2.51	0.46
64:17:101:ASN:HA	64:17:120:SER:HB3	1.98	0.46
65:18:14:ILE:HD12	65:18:21:ASN:HB3	1.94	0.46
67:20:97:VAL:O	67:20:101:LYS:HB2	2.16	0.46
1:2S:725:G:H2'	1:2S:726:G:O4'	2.16	0.46
1:2S:1119:C:O5'	1:2S:1119:C:H6	1.98	0.46
1:2S:1218:U:H3	1:2S:1287:A:H61	1.62	0.46
1:2S:1523:U:C5'	27:65:113:LEU:HB3	2.38	0.46
1:2S:1590:G:H2'	1:2S:1591:G:O4'	2.16	0.46
1:2S:1676:A:H5''	24:62:101:ASN:ND2	2.31	0.46
1:2S:2102:U:H2'	1:2S:2103:U:H6	1.72	0.46
1:2S:3229:G:H2'	1:2S:3230:G:C8	2.51	0.46
1:2S:3298:C:H2'	1:2S:3299:A:C8	2.33	0.46
6:L3:244:ARG:HB2	6:L3:244:ARG:NH1	2.31	0.46
6:L3:281:LYS:O	6:L3:324:VAL:HG23	2.16	0.46
6:L3:336:VAL:HG12	6:L3:337:THR:H	1.81	0.46
7:L4:138:ARG:NH1	7:L4:246:ARG:HG2	2.31	0.46
7:L4:316:ASN:ND2	7:L4:319:LYS:NZ	2.64	0.46
8:L5:27:LYS:HG2	14:51:144:CYS:SG	2.56	0.46
10:L7:80:GLN:O	23:61:135:PRO:HB2	2.15	0.46
12:L9:47:LYS:HD2	16:54:6:ILE:H	1.79	0.46
13:50:21:ARG:HG2	13:50:22:TYR:CE1	2.50	0.46
14:51:82:ARG:HG2	14:51:112:LEU:HB2	1.98	0.46
18:56:140:LYS:N	18:56:140:LYS:CD	2.79	0.46
21:59:21:LYS:HE3	21:59:56:THR:N	2.29	0.46
24:62:95:PHE:HD1	24:62:105:LEU:HD11	1.81	0.46
25:63:39:VAL:CG1	25:63:40:LYS:N	2.79	0.46
25:63:54:LEU:HD12	25:63:78:VAL:HG11	1.95	0.46
29:67:71:PHE:C	29:67:71:PHE:CD1	2.94	0.46
36:74:20:ILE:HD11	36:74:34:HIS:CE1	2.51	0.46
41:79:3:ALA:O	41:79:4:GLN:HG3	2.16	0.46
46:1S:510:G:N2	46:1S:511:A:H1'	2.31	0.46
46:1S:593:U:H4'	46:1S:595:G:H4'	1.97	0.46
46:1S:1021:C:H2'	46:1S:1022:C:O4'	2.15	0.46
46:1S:1429:G:H1'	67:20:74:GLU:CD	2.41	0.46
48:S1:176:VAL:CG1	48:S1:177:GLN:H	2.18	0.46
57:10:96:ASN:HD22	57:10:96:ASN:HA	1.56	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:13:58:HIS:HB3	60:13:59:GLY:H	1.61	0.46
65:18:15:LEU:O	65:18:21:ASN:HA	2.16	0.46
65:18:66:LEU:O	65:18:70:VAL:HG23	2.16	0.46
66:19:114:VAL:HG22	66:19:115:GLU:H	1.80	0.46
69:22:15:ASN:HD21	69:22:72:CYS:H	1.63	0.46
73:26:87:ARG:HB3	73:26:91:ASP:CB	2.45	0.46
76:29:46:LYS:HA	76:29:49:ASP:OD2	2.15	0.46
1:2S:526:C:H2'	1:2S:527:A:H8	1.81	0.46
1:2S:790:U:H2'	1:2S:791:A:C8	2.51	0.46
1:2S:858:A:H1'	45:83:13:LYS:HD2	1.98	0.46
1:2S:1064:A:N6	1:2S:1096:U:C4	2.76	0.46
1:2S:1277:C:H2'	1:2S:1278:A:H8	1.80	0.46
1:2S:2150:G:H2'	1:2S:2151:C:C6	2.51	0.46
1:2S:2597:U:O5'	1:2S:2597:U:H6	1.98	0.46
1:2S:3009:G:O2'	1:2S:3010:U:H5'	2.15	0.46
2:8S:99:C:O5'	2:8S:99:C:H6	2.00	0.46
3:5S:93:C:H5'	13:50:57:LEU:HD13	1.98	0.46
4:L1:65:ILE:HG23	4:L1:65:ILE:O	2.15	0.46
5:L2:96:LEU:HD23	45:83:83:ILE:HG23	1.98	0.46
7:L4:30:ILE:O	7:L4:32:PRO:HD3	2.15	0.46
8:L5:67:SER:HB3	23:61:31:LEU:HD21	1.98	0.46
12:L9:49:ASN:HD22	12:L9:49:ASN:N	2.13	0.46
13:50:206:LEU:O	13:50:210:ILE:HG13	2.16	0.46
15:53:77:LEU:HD12	15:53:77:LEU:H	1.79	0.46
15:53:173:ALA:HB1	38:76:10:GLY:HA2	1.98	0.46
16:54:82:SER:HA	16:54:85:TRP:CB	2.46	0.46
17:55:95:GLN:C	17:55:96:ARG:HG3	2.41	0.46
17:55:113:LEU:N	17:55:113:LEU:HD22	2.31	0.46
24:62:33:TYR:OH	24:62:80:THR:HG22	2.15	0.46
27:65:106:ASP:HB3	27:65:127:THR:CG2	2.45	0.46
28:66:39:LEU:HD23	28:66:42:GLN:HG3	1.97	0.46
34:72:41:VAL:HG12	34:72:44:ARG:HH21	1.81	0.46
35:73:55:ALA:HB3	35:73:65:ARG:NH2	2.31	0.46
35:73:85:PHE:CE2	35:73:89:LEU:HG	2.51	0.46
36:74:41:ARG:HB2	36:74:50:ALA:CB	2.44	0.46
37:75:64:GLU:HA	37:75:67:ARG:CD	2.46	0.46
46:1S:780:A:C8	71:24:8:ARG:HB3	2.47	0.46
46:1S:788:A:C5	51:S4:19:LEU:HD13	2.51	0.46
46:1S:867:G:OP1	60:13:3:ARG:HD3	2.16	0.46
46:1S:1432:U:H5''	46:1S:1434:U:OP2	2.15	0.46
46:1S:1480:G:H5''	66:19:63:ARG:HH21	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1565:C:H5''	65:18:85:PHE:CE1	2.51	0.46
49:S2:188:LEU:HA	49:S2:191:ALA:HB3	1.97	0.46
51:S4:195:ILE:HG23	51:S4:196:VAL:N	2.31	0.46
52:S5:121:ILE:HG13	52:S5:195:ALA:HB1	1.98	0.46
52:S5:219:ARG:O	52:S5:223:SER:HB2	2.16	0.46
57:10:84:GLU:O	57:10:85:HIS:HB3	2.16	0.46
58:11:56:LYS:HE3	58:11:57:LYS:HE3	1.98	0.46
58:11:85:VAL:HG12	58:11:86:ILE:N	2.31	0.46
63:16:26:LYS:HB2	63:16:26:LYS:HZ2	1.80	0.46
64:17:16:LEU:HD21	64:17:38:ILE:HD13	1.98	0.46
65:18:5:VAL:HG23	72:25:42:LEU:HD22	1.98	0.46
70:23:109:ARG:HB3	70:23:112:LYS:HB2	1.98	0.46
71:24:5:VAL:O	71:24:6:THR:HB	2.17	0.46
76:29:43:PHE:HZ	76:29:52:PHE:CD2	2.34	0.46
79:RA:40:LYS:HD2	79:RA:65:SER:HA	1.98	0.46
79:RA:199:ILE:HA	79:RA:215:GLY:HA3	1.98	0.46
79:RA:238:ASP:HB2	79:RA:256:THR:HB	1.97	0.46
79:RA:278:PHE:CD2	79:RA:287:PRO:HD2	2.51	0.46
1:2S:346:C:OP1	7:L4:52:VAL:HG23	2.15	0.45
1:2S:778:U:H2'	1:2S:779:G:H8	1.78	0.45
1:2S:1117:G:H2'	1:2S:1118:C:H6	1.79	0.45
1:2S:1471:U:H5''	21:59:5:ARG:HD3	1.98	0.45
1:2S:1549:U:H2'	1:2S:1550:C:C6	2.51	0.45
1:2S:2271:A:H2'	1:2S:2272:G:C5'	2.47	0.45
1:2S:2363:A:H3'	1:2S:2364:G:C8	2.51	0.45
1:2S:2756:C:H2'	1:2S:2757:U:C6	2.51	0.45
1:2S:3088:G:H5''	6:L3:332:ARG:HH22	1.80	0.45
1:2S:3151:U:C5'	1:2S:3294:A:H4'	2.45	0.45
1:2S:3214:U:C6	16:54:121:MET:HE2	2.51	0.45
1:2S:3332:U:H2'	1:2S:3333:G:O4'	2.16	0.45
4:L1:165:LEU:N	4:L1:165:LEU:HD23	2.31	0.45
5:L2:42:ARG:HD2	5:L2:87:PHE:CG	2.51	0.45
6:L3:211:GLN:HE22	6:L3:282:ILE:HG22	1.82	0.45
10:L7:147:LEU:O	10:L7:205:PHE:HE1	1.98	0.45
16:54:74:ARG:HB3	16:54:74:ARG:CZ	2.46	0.45
16:54:113:THR:O	16:54:117:ARG:HB2	2.15	0.45
17:55:144:ARG:O	17:55:145:ASP:HB3	2.17	0.45
19:57:85:ALA:O	19:57:89:LYS:HG3	2.16	0.45
23:61:116:ARG:HH11	23:61:116:ARG:HG3	1.81	0.45
27:65:42:ARG:C	27:65:44:PRO:HD3	2.41	0.45
34:72:4:LEU:HA	34:72:5:PRO:HD3	1.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:78:73:LEU:HD23	40:78:75:VAL:CG2	2.46	0.45
42:80:93:LYS:HB3	42:80:103:LEU:O	2.16	0.45
42:80:103:LEU:HD21	42:80:112:LYS:NZ	2.31	0.45
46:1S:351:C:H3'	46:1S:352:A:C5'	2.46	0.45
46:1S:756:A:H2	51:S4:12:LEU:HD13	1.80	0.45
46:1S:1209:C:H2'	46:1S:1210:C:C6	2.51	0.45
46:1S:1494:C:H2'	46:1S:1495:C:C6	2.51	0.45
47:S0:102:PHE:CE1	47:S0:104:PRO:HA	2.51	0.45
52:S5:184:PHE:O	52:S5:185:ARG:HB2	2.15	0.45
55:S8:67:TRP:CG	55:S8:70:GLU:HB2	2.51	0.45
56:S9:54:ARG:HA	56:S9:57:ARG:HH21	1.81	0.45
57:10:21:VAL:CG1	57:10:66:TYR:HD2	2.29	0.45
59:12:113:ARG:HG2	59:12:114:LYS:N	2.24	0.45
60:13:46:THR:HB	60:13:47:PRO:CD	2.46	0.45
69:22:120:HIS:O	69:22:121:VAL:HG13	2.16	0.45
79:RA:265:LEU:O	79:RA:268:GLN:HG2	2.16	0.45
1:2S:22:G:H2'	1:2S:23:A:O4'	2.16	0.45
1:2S:24:G:H2'	1:2S:25:U:H5'	1.97	0.45
1:2S:132:C:O2'	1:2S:133:U:H6	1.99	0.45
1:2S:649:A:H2'	1:2S:650:C:H6	1.71	0.45
1:2S:674:G:O2'	7:L4:116:ASN:ND2	2.50	0.45
1:2S:699:A:H2'	1:2S:700:C:O4'	2.16	0.45
1:2S:953:G:H5'	1:2S:954:U:H6	1.81	0.45
1:2S:2333:C:H2'	1:2S:2334:U:C6	2.51	0.45
1:2S:2538:U:H5''	1:2S:2539:C:H5	1.82	0.45
1:2S:2844:C:C2'	1:2S:2845:A:H5'	2.46	0.45
3:5S:64:A:H62	13:50:209:ASN:HD21	1.63	0.45
4:L1:184:LEU:O	4:L1:184:LEU:HD23	2.16	0.45
6:L3:57:VAL:HG23	6:L3:358:TRP:HE3	1.81	0.45
6:L3:283:TYR:CE1	6:L3:325:LYS:HB2	2.51	0.45
8:L5:222:LEU:O	8:L5:223:PHE:CB	2.62	0.45
9:L6:78:ARG:O	9:L6:79:VAL:HG23	2.16	0.45
9:L6:81:ALA:HA	9:L6:84:VAL:CG2	2.46	0.45
14:51:14:ILE:CD1	14:51:77:GLU:HG2	2.46	0.45
19:57:118:GLN:O	19:57:119:VAL:HB	2.16	0.45
21:59:43:LYS:O	21:59:47:ASN:ND2	2.49	0.45
25:63:84:SER:HA	25:63:94:TYR:HB3	1.97	0.45
28:66:125:LYS:O	28:66:126:LEU:HD12	2.16	0.45
29:67:23:VAL:HG12	29:67:45:GLY:CA	2.34	0.45
29:67:126:LYS:O	29:67:127:ASN:HB2	2.16	0.45
35:73:85:PHE:CB	35:73:88:ASN:HA	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:73:91:ALA:C	35:73:93:THR:N	2.74	0.45
46:1S:1297:G:N2	46:1S:1300:A:OP2	2.49	0.45
47:S0:129:ASP:O	47:S0:133:ILE:HD13	2.17	0.45
49:S2:154:LEU:HD11	49:S2:196:VAL:HG23	1.98	0.45
52:S5:50:GLU:OE1	52:S5:50:GLU:HA	2.16	0.45
56:S9:140:ILE:HD12	71:24:65:GLY:HA2	1.98	0.45
57:10:81:ASN:HB3	59:12:37:VAL:HG13	1.98	0.45
59:12:49:THR:O	59:12:53:THR:HG23	2.16	0.45
70:23:54:LEU:HD11	70:23:82:LYS:HB3	1.99	0.45
70:23:109:ARG:CB	70:23:112:LYS:HB2	2.46	0.45
73:26:61:GLU:O	73:26:62:TYR:HB3	2.15	0.45
76:29:30:LEU:HD21	76:29:32:ARG:HG3	1.98	0.45
1:2S:59:G:C4'	1:2S:60:A:H4'	2.47	0.45
1:2S:645:A:H5'	1:2S:2372:A:N7	2.31	0.45
1:2S:650:C:O2'	1:2S:2871:G:C6	2.70	0.45
1:2S:794:U:H2'	1:2S:795:G:H8	1.81	0.45
1:2S:877:C:H2'	1:2S:878:G:O4'	2.16	0.45
1:2S:933:A:N6	7:L4:102:PRO:CD	2.80	0.45
1:2S:1183:C:O2'	1:2S:1184:A:H5'	2.16	0.45
1:2S:1186:G:N3	22:60:112:ALA:HB1	2.30	0.45
1:2S:1230:G:O2'	1:2S:1231:A:H5'	2.17	0.45
1:2S:1435:A:H5''	1:2S:1436:U:H5'	1.98	0.45
1:2S:1525:G:H2'	1:2S:1525:G:N3	2.31	0.45
1:2S:1925:U:H3'	1:2S:1926:C:H6	1.80	0.45
1:2S:1951:C:O2	1:2S:1951:C:O4'	2.34	0.45
1:2S:2127:U:H5''	1:2S:2302:G:OP1	2.17	0.45
1:2S:2393:G:O2'	1:2S:2982:A:N6	2.50	0.45
1:2S:3301:U:O2'	1:2S:3302:U:H5'	2.17	0.45
2:8S:91:C:H2'	2:8S:92:A:C8	2.52	0.45
4:L1:123:LEU:HD13	4:L1:128:LEU:O	2.16	0.45
5:L2:225:ILE:HD13	5:L2:238:ILE:HD12	1.97	0.45
6:L3:116:ARG:HH22	6:L3:174:LYS:HB3	1.78	0.45
6:L3:130:PHE:HD1	6:L3:133:TYR:CG	2.34	0.45
7:L4:110:ASN:HB2	17:55:201:ARG:O	2.17	0.45
7:L4:192:GLY:HA2	7:L4:195:ARG:HD2	1.98	0.45
17:55:73:ARG:H	17:55:92:LEU:HD22	1.80	0.45
18:56:46:GLU:CD	18:56:48:PHE:CB	2.89	0.45
20:58:131:ALA:N	20:58:132:PRO:HD3	2.31	0.45
21:59:189:ALA:CB	54:S7:39:ARG:HD3	2.45	0.45
23:61:52:MET:CG	23:61:53:PRO:HD2	2.46	0.45
23:61:63:VAL:HB	23:61:75:ILE:CG2	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:66:108:LYS:HD3	28:66:108:LYS:HA	1.72	0.45
30:68:101:VAL:HG22	30:68:124:ILE:CD1	2.46	0.45
32:70:66:LYS:HD3	32:70:66:LYS:N	2.31	0.45
33:71:44:MET:HB3	33:71:46:THR:HG22	1.97	0.45
34:72:78:ASN:OD1	34:72:80:LYS:HB3	2.16	0.45
38:76:36:ARG:HA	38:76:36:ARG:HE	1.82	0.45
46:1S:328:A:H2'	46:1S:329:G:O4'	2.16	0.45
46:1S:338:C:H2'	46:1S:339:C:C6	2.52	0.45
46:1S:1408:G:H2'	46:1S:1409:G:O4'	2.15	0.45
46:1S:1522:U:O4	46:1S:1592:A:H5''	2.16	0.45
46:1S:1559:A:H5''	65:18:135:GLY:CA	2.46	0.45
49:S2:148:LEU:HD21	56:S9:94:ASP:OD2	2.16	0.45
50:S3:49:ILE:HD12	50:S3:49:ILE:N	2.30	0.45
51:S4:198:LYS:HG3	51:S4:208:VAL:HG22	1.97	0.45
56:S9:140:ILE:HD12	71:24:65:GLY:CA	2.46	0.45
56:S9:141:VAL:CG1	56:S9:143:ILE:HG13	2.46	0.45
58:11:70:ILE:HG22	58:11:124:THR:HG22	1.98	0.45
59:12:129:GLU:HG2	59:12:130:THR:N	2.31	0.45
61:14:24:ASN:C	61:14:55:SER:HB3	2.41	0.45
70:23:86:PHE:C	70:23:86:PHE:CD1	2.93	0.45
72:25:62:VAL:O	72:25:66:VAL:HG23	2.16	0.45
1:2S:52:A:H2'	1:2S:53:G:H5'	1.97	0.45
1:2S:636:C:C2	1:2S:646:A:H1'	2.52	0.45
1:2S:794:U:H2'	1:2S:795:G:C8	2.51	0.45
1:2S:2221:G:H22	1:2S:2223:A:H3'	1.80	0.45
1:2S:2225:U:O5'	1:2S:2225:U:H6	1.99	0.45
1:2S:2565:U:H2'	1:2S:2566:C:H6	1.81	0.45
1:2S:2896:A:H2'	1:2S:2897:A:C8	2.52	0.45
1:2S:2949:U:H3'	1:2S:2950:G:H21	1.81	0.45
1:2S:3186:A:C2	12:L9:57:VAL:HA	2.51	0.45
2:8S:102:U:H2'	2:8S:103:G:C8	2.51	0.45
5:L2:147:ARG:NE	5:L2:155:LYS:HB3	2.31	0.45
6:L3:39:LYS:HE2	6:L3:39:LYS:CA	2.44	0.45
6:L3:217:ALA:HB3	6:L3:277:SER:HB2	1.98	0.45
6:L3:230:THR:O	6:L3:234:GLY:HA2	2.16	0.45
6:L3:266:ARG:HA	6:L3:266:ARG:CZ	2.45	0.45
7:L4:82:THR:HG23	7:L4:84:ARG:N	2.32	0.45
7:L4:192:GLY:HA2	7:L4:195:ARG:HB2	1.99	0.45
7:L4:327:LEU:N	7:L4:327:LEU:HD22	2.32	0.45
9:L6:57:HIS:HD2	9:L6:62:THR:O	1.99	0.45
10:L7:96:PRO:HB2	10:L7:99:PRO:CD	2.45	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L9:8:GLN:HB3	12:L9:72:LYS:HG3	1.99	0.45
13:50:36:LEU:HD13	13:50:73:ASN:HD21	1.81	0.45
20:58:24:VAL:O	20:58:28:LEU:HG	2.16	0.45
22:60:97:VAL:HG13	22:60:98:SER:H	1.82	0.45
25:63:77:ILE:N	25:63:77:ILE:CD1	2.64	0.45
39:77:18:LEU:HD23	39:77:25:ARG:HB2	1.98	0.45
40:78:27:ILE:HG21	40:78:39:ARG:HE	1.80	0.45
42:80:78:ILE:HG22	42:80:83:LYS:HD3	1.96	0.45
46:1S:219:A:C8	46:1S:830:U:C5	3.05	0.45
46:1S:297:U:H2'	46:1S:298:C:O4'	2.16	0.45
46:1S:336:G:C4	46:1S:338:C:C5	3.05	0.45
46:1S:410:A:H2	46:1S:423:G:H22	1.63	0.45
46:1S:819:G:N2	46:1S:853:G:O6	2.49	0.45
46:1S:863:A:H2'	46:1S:865:A:H8	1.82	0.45
46:1S:920:U:H5''	48:S1:65:VAL:CG2	2.46	0.45
46:1S:1470:C:H4'	46:1S:1540:G:N2	2.31	0.45
46:1S:1603:U:H2'	46:1S:1604:U:C5	2.51	0.45
51:S4:252:ARG:HD3	51:S4:256:ARG:HD2	1.97	0.45
52:S5:117:THR:HG21	52:S5:194:LEU:HD12	1.97	0.45
53:S6:23:ARG:NH2	53:S6:23:ARG:CG	2.79	0.45
53:S6:63:MET:HG2	53:S6:98:ARG:HD2	1.98	0.45
55:S8:87:ASN:HB2	55:S8:90:LEU:HD12	1.97	0.45
55:S8:87:ASN:CB	55:S8:90:LEU:HG	2.47	0.45
57:10:23:ALA:O	57:10:64:TYR:HB2	2.16	0.45
65:18:29:VAL:CG2	65:18:54:LEU:HD12	2.47	0.45
69:22:25:VAL:HG22	69:22:65:LEU:HD11	1.98	0.45
78:31:132:LEU:CD1	78:31:150:VAL:HB	2.46	0.45
79:RA:9:LEU:HD22	79:RA:276:PRO:HB3	1.98	0.45
79:RA:88:THR:CG2	79:RA:104:VAL:HG22	2.46	0.45
79:RA:112:SER:CB	79:RA:153:GLN:HA	2.46	0.45
1:2S:516:A:H2'	1:2S:517:G:C5'	2.37	0.45
1:2S:1480:G:H21	1:2S:1872:C:H5	1.65	0.45
1:2S:2477:G:H3'	1:2S:2478:C:C6	2.52	0.45
1:2S:3324:C:H5'	33:71:70:ARG:HH11	1.80	0.45
3:5S:24:A:C2'	3:5S:25:G:H5'	2.47	0.45
4:L1:72:PHE:HD2	4:L1:76:ARG:HB3	1.80	0.45
6:L3:68:HIS:O	6:L3:69:LYS:HB2	2.16	0.45
6:L3:362:ALA:HB1	6:L3:368:GLY:HA3	1.98	0.45
7:L4:118:LYS:O	7:L4:122:THR:HG23	2.17	0.45
8:L5:196:ARG:HA	8:L5:199:ILE:HD12	1.98	0.45
12:L9:41:ILE:HG23	12:L9:43:VAL:HG22	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L9:87:LYS:HB2	12:L9:187:ILE:HA	1.98	0.45
13:50:55:ASN:CG	13:50:164:LYS:HE2	2.42	0.45
13:50:178:ARG:N	13:50:179:PRO:HD2	2.31	0.45
13:50:200:LEU:HD13	13:50:213:PHE:CD1	2.52	0.45
18:56:34:VAL:HG12	18:56:103:LYS:HB2	1.97	0.45
20:58:147:ARG:O	20:58:150:VAL:HG22	2.16	0.45
21:59:53:LYS:HG2	21:59:54:ALA:N	2.30	0.45
23:61:93:VAL:CA	23:61:96:ILE:HD13	2.25	0.45
37:75:21:LEU:O	37:75:25:LYS:HG3	2.17	0.45
45:83:59:CYS:C	45:83:61:LYS:N	2.74	0.45
46:1S:76:A:H1'	46:1S:80:A:C6	2.51	0.45
46:1S:395:U:O5'	46:1S:395:U:H6	1.98	0.45
46:1S:1526:A:C3'	46:1S:1527:C:H6	2.30	0.45
46:1S:1715:G:C3'	46:1S:1716:C:C5'	2.89	0.45
46:1S:1724:U:H2'	46:1S:1725:U:H6	1.81	0.45
46:1S:1782:A:H3'	46:1S:1783:C:C5'	2.47	0.45
46:1S:1782:A:H3'	46:1S:1783:C:O4'	2.16	0.45
47:S0:37:VAL:HG13	47:S0:47:VAL:O	2.17	0.45
50:S3:136:VAL:CG1	50:S3:152:PHE:HD2	2.25	0.45
54:S7:12:ALA:N	54:S7:13:PRO:CD	2.80	0.45
58:11:14:GLN:HB3	58:11:54:ILE:HG12	1.99	0.45
65:18:32:LEU:HB2	65:18:43:SER:OG	2.17	0.45
66:19:28:LEU:HD13	66:19:28:LEU:H	1.81	0.45
66:19:34:VAL:HG13	66:19:35:ASP:OD1	2.16	0.45
73:26:41:ILE:H	73:26:41:ILE:CD1	2.25	0.45
1:2S:212:G:H5'	7:L4:221:ASN:ND2	2.31	0.45
1:2S:295:A:H2'	1:2S:296:A:O4'	2.17	0.45
1:2S:308:A:O2'	1:2S:2222:A:H1'	2.15	0.45
1:2S:544:C:C6	1:2S:544:C:H3'	2.52	0.45
1:2S:607:A:N3	1:2S:607:A:C2'	2.77	0.45
1:2S:915:A:C6	1:2S:917:A:H1'	2.51	0.45
1:2S:1313:G:H5'	18:56:83:ALA:HB1	1.99	0.45
1:2S:1369:A:H4'	30:68:21:ARG:CD	2.45	0.45
1:2S:1427:U:H5	30:68:4:ARG:CZ	2.28	0.45
1:2S:2304:C:C5	1:2S:2305:G:C6	3.05	0.45
1:2S:2949:U:H2'	1:2S:2950:G:C5'	2.47	0.45
1:2S:3198:U:H1'	12:L9:21:LYS:CG	2.45	0.45
4:L1:123:LEU:HD22	4:L1:128:LEU:HD12	1.99	0.45
5:L2:137:ILE:CD1	5:L2:155:LYS:HG2	2.47	0.45
7:L4:77:VAL:CG1	7:L4:85:SER:HA	2.47	0.45
7:L4:131:VAL:HB	7:L4:134:LEU:HD12	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:L6:54:TYR:HE2	9:L6:56:LYS:O	2.00	0.45
9:L6:67:GLY:HA3	9:L6:74:VAL:O	2.16	0.45
11:L8:56:VAL:HA	11:L8:59:GLN:CD	2.41	0.45
12:L9:27:VAL:O	12:L9:33:THR:HA	2.16	0.45
12:L9:94:TYR:HA	12:L9:177:ASP:OD1	2.17	0.45
13:50:86:HIS:HB3	13:50:139:ARG:HG2	1.99	0.45
13:50:87:LEU:HD23	13:50:88:ARG:N	2.32	0.45
13:50:98:ARG:HB3	13:50:120:GLY:HA3	1.99	0.45
13:50:217:PHE:O	13:50:218:ALA:CB	2.65	0.45
14:51:16:LYS:O	14:51:129:VAL:HG13	2.17	0.45
16:54:74:ARG:HB3	16:54:74:ARG:NH1	2.31	0.45
20:58:127:LEU:C	20:58:127:LEU:HD13	2.42	0.45
23:61:38:ASP:H	23:61:64:VAL:HB	1.82	0.45
27:65:68:THR:CG2	37:75:36:LEU:HD22	2.45	0.45
28:66:51:ARG:HB3	28:66:115:ARG:HH22	1.82	0.45
29:67:30:ASP:HA	29:67:77:TYR:HE2	1.81	0.45
31:69:9:ALA:C	31:69:12:GLN:HG2	2.41	0.45
32:70:86:ARG:HG2	32:70:86:ARG:HH11	1.81	0.45
33:71:17:HIS:C	33:71:19:ARG:H	2.24	0.45
37:75:85:THR:O	37:75:89:ARG:HB2	2.17	0.45
46:1S:291:G:H2'	46:1S:292:U:H5	1.82	0.45
46:1S:336:G:H2'	46:1S:338:C:H5	1.82	0.45
46:1S:532:U:O2	71:24:34:ASN:HB2	2.15	0.45
46:1S:1082:C:O2	46:1S:1082:C:C2'	2.61	0.45
48:S1:127:VAL:HG21	48:S1:176:VAL:HB	1.98	0.45
51:S4:47:PHE:CD1	51:S4:51:ARG:HB2	2.52	0.45
51:S4:209:HIS:O	51:S4:210:ILE:HD13	2.16	0.45
53:S6:76:LEU:HD12	53:S6:94:ARG:NH2	2.31	0.45
54:S7:51:VAL:C	54:S7:53:GLY:H	2.25	0.45
54:S7:114:ARG:NH1	54:S7:114:ARG:HB2	2.32	0.45
55:S8:74:LYS:HD3	55:S8:109:PHE:CZ	2.52	0.45
56:S9:76:LEU:O	56:S9:80:LEU:HG	2.16	0.45
56:S9:135:ALA:HA	56:S9:139:GLN:O	2.17	0.45
63:16:129:PHE:CB	67:20:79:TRP:CD1	2.96	0.45
66:19:52:GLY:O	66:19:54:PHE:N	2.49	0.45
71:24:47:VAL:HG23	71:24:48:TYR:CD2	2.51	0.45
1:2S:29:C:OP1	17:55:189:LYS:HB2	2.16	0.45
1:2S:727:G:H2'	1:2S:728:G:O4'	2.16	0.45
1:2S:768:C:H2'	1:2S:769:G:O4'	2.17	0.45
1:2S:1204:A:H1'	1:2S:2855:U:O2'	2.16	0.45
1:2S:1549:U:OP2	1:2S:1549:U:H6	2.00	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1725:C:H5''	45:83:36:ARG:HH22	1.82	0.45
1:2S:1784:G:H2'	1:2S:1785:U:O4'	2.16	0.45
1:2S:2138:A:C8	39:77:3:LYS:HE3	2.51	0.45
1:2S:3300:U:H2'	1:2S:3301:U:C6	2.51	0.45
1:2S:3349:C:H2'	1:2S:3350:C:C5	2.49	0.45
2:8S:151:C:H5'	27:65:24:LEU:HD21	1.98	0.45
6:L3:316:GLU:O	6:L3:317:ILE:HB	2.16	0.45
7:L4:238:LEU:O	7:L4:246:ARG:HB2	2.16	0.45
8:L5:52:VAL:HA	8:L5:147:ASP:HB2	1.98	0.45
8:L5:125:VAL:HG12	8:L5:199:ILE:HD13	1.98	0.45
11:L8:241:LYS:H	11:L8:241:LYS:HD2	1.80	0.45
15:53:138:VAL:HG21	37:75:118:ILE:CB	2.44	0.45
15:53:182:ILE:O	15:53:186:ARG:HG3	2.16	0.45
18:56:120:VAL:HA	18:56:121:PRO:HD3	1.70	0.45
19:57:60:PHE:HZ	19:57:82:ARG:HB2	1.81	0.45
19:57:128:ARG:HD2	19:57:136:ILE:CG2	2.47	0.45
22:60:50:LYS:O	22:60:51:VAL:CG1	2.65	0.45
22:60:106:LEU:HD23	22:60:106:LEU:C	2.42	0.45
23:61:55:LYS:C	23:61:57:TYR:H	2.25	0.45
25:63:87:ARG:HG3	25:63:93:LEU:HD21	1.99	0.45
30:68:12:ARG:HH11	30:68:12:ARG:HG3	1.82	0.45
44:82:58:PHE:HE1	44:82:60:LYS:C	2.25	0.45
46:1S:5:U:H2'	46:1S:6:G:C8	2.51	0.45
46:1S:282:C:H2'	46:1S:283:U:O4'	2.17	0.45
46:1S:584:C:H6	46:1S:584:C:O5'	1.99	0.45
46:1S:1368:G:H5''	66:19:69:LYS:HB3	1.97	0.45
46:1S:1522:U:O4	46:1S:1592:A:C5'	2.65	0.45
46:1S:1557:U:H3'	46:1S:1559:A:O2'	2.17	0.45
46:1S:1660:A:H2'	46:1S:1661:U:C6	2.52	0.45
49:S2:149:GLY:O	49:S2:150:GLN:O	2.34	0.45
51:S4:91:THR:HG23	51:S4:98:ASN:ND2	2.32	0.45
52:S5:46:TRP:CD1	52:S5:129:PRO:HG3	2.52	0.45
52:S5:51:VAL:HG13	52:S5:131:GLN:HA	1.98	0.45
56:S9:37:LYS:HG3	56:S9:38:ASN:N	2.32	0.45
62:15:81:ARG:HH12	62:15:122:THR:HG23	1.81	0.45
65:18:145:ARG:HB3	65:18:145:ARG:NH2	2.32	0.45
69:22:80:ASN:HD21	69:22:124:LYS:HE3	1.81	0.45
75:28:14:LYS:O	75:28:29:ARG:HB3	2.17	0.45
1:2S:68:C:C5	1:2S:315:C:H4'	2.52	0.45
1:2S:351:A:C6	41:79:35:ILE:HG23	2.52	0.45
1:2S:371:G:H1'	1:2S:375:A:N6	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:389:A:H4'	19:57:16:SER:O	2.16	0.45
1:2S:421:G:C6	1:2S:2384:A:H4'	2.52	0.45
1:2S:449:U:H3'	1:2S:449:U:C6	2.52	0.45
1:2S:1145:G:OP1	34:72:44:ARG:HD2	2.17	0.45
1:2S:2183:A:H2'	1:2S:2184:U:C6	2.51	0.45
1:2S:2184:U:H4'	5:L2:211:HIS:HE1	1.82	0.45
1:2S:2457:G:N2	1:2S:2461:A:N6	2.63	0.45
1:2S:2735:U:H2'	1:2S:2736:A:C8	2.51	0.45
1:2S:2930:A:H2'	1:2S:2931:C:C6	2.52	0.45
1:2S:3024:A:H2'	1:2S:3025:C:O4'	2.17	0.45
1:2S:3025:C:H2'	1:2S:3026:G:O4'	2.17	0.45
3:5S:38:U:H1'	3:5S:40:C:H5	1.82	0.45
4:L1:81:GLY:O	4:L1:82:VAL:HG23	2.16	0.45
5:L2:45:VAL:HG13	5:L2:84:THR:HA	1.98	0.45
5:L2:145:LYS:HB3	5:L2:157:VAL:HG21	1.99	0.45
5:L2:225:ILE:HD11	5:L2:236:GLY:N	2.32	0.45
6:L3:147:GLU:HA	6:L3:147:GLU:OE2	2.17	0.45
7:L4:89:ALA:O	7:L4:90:PHE:CB	2.61	0.45
8:L5:118:THR:O	8:L5:119:TYR:HB2	2.17	0.45
10:L7:74:SER:HB3	23:61:141:VAL:O	2.17	0.45
10:L7:95:ILE:HA	10:L7:96:PRO:HD3	1.78	0.45
11:L8:195:SER:O	11:L8:196:ALA:HB3	2.16	0.45
11:L8:244:ALA:O	11:L8:248:LYS:HB2	2.17	0.45
14:51:101:ASN:O	14:51:102:PHE:HB3	2.16	0.45
17:55:65:ARG:HB2	17:55:129:TYR:CE1	2.52	0.45
18:56:124:LEU:HG	18:56:126:VAL:CG1	2.33	0.45
18:56:142:SER:O	18:56:145:VAL:HG22	2.17	0.45
19:57:128:ARG:HD2	19:57:136:ILE:HG23	1.99	0.45
19:57:180:LYS:NZ	19:57:180:LYS:CB	2.80	0.45
22:60:8:GLN:HE21	22:60:10:ILE:HD11	1.82	0.45
22:60:35:VAL:HA	22:60:38:LYS:CE	2.42	0.45
29:67:48:ARG:O	29:67:68:ILE:HG23	2.17	0.45
30:68:47:LYS:H	30:68:50:PRO:HB3	1.82	0.45
30:68:135:GLU:HG2	30:68:145:VAL:HG21	1.98	0.45
39:77:8:PHE:HD1	39:77:11:ARG:HD3	1.82	0.45
46:1S:215:A:H5''	46:1S:216:U:H5	1.79	0.45
46:1S:453:U:O2	46:1S:453:U:H2'	2.16	0.45
46:1S:1250:U:C2'	46:1S:1251:U:H5'	2.47	0.45
46:1S:1320:U:N3	47:S0:101:ARG:NH1	2.65	0.45
46:1S:1471:A:H5'	52:S5:184:PHE:HE2	1.82	0.45
46:1S:1553:G:H1'	46:1S:1597:A:H2	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:S4:89:VAL:CA	51:S4:90:ILE:HD12	2.47	0.45
54:S7:152:VAL:CG2	54:S7:181:ILE:HD11	2.46	0.45
54:S7:185:ILE:H	54:S7:185:ILE:HD13	1.82	0.45
55:S8:194:ARG:O	55:S8:198:ALA:HB2	2.16	0.45
59:12:48:SER:O	59:12:52:LEU:HD23	2.16	0.45
60:13:30:SER:HA	60:13:33:VAL:HG22	1.99	0.45
61:14:23:PHE:O	61:14:24:ASN:HB2	2.17	0.45
62:15:84:ILE:HG22	62:15:85:ILE:N	2.32	0.45
64:17:110:VAL:CG1	64:17:117:LEU:HG	2.37	0.45
67:20:37:VAL:CG1	67:20:41:ILE:HD13	2.46	0.45
70:23:63:GLN:HA	70:23:65:ASN:N	2.32	0.45
70:23:127:VAL:HG23	70:23:130:VAL:HG22	1.99	0.45
79:RA:7:LEU:HD11	79:RA:251:TRP:CZ3	2.50	0.45
79:RA:275:ARG:HH11	79:RA:275:ARG:HG3	1.82	0.45
1:2S:91:G:H5''	44:82:46:LYS:CE	2.46	0.45
1:2S:1062:A:H5''	23:61:105:PHE:CZ	2.51	0.45
1:2S:1606:U:C4	36:74:8:ARG:HB3	2.52	0.45
1:2S:1715:A:C1'	1:2S:1717:U:H4'	2.47	0.45
1:2S:2148:U:H5''	5:L2:196:TRP:HZ2	1.82	0.45
1:2S:2318:U:H2'	1:2S:2319:U:O4'	2.17	0.45
1:2S:2747:A:H4'	8:L5:174:PRO:HB2	1.99	0.45
1:2S:3104:U:H3'	1:2S:3128:G:H1	1.81	0.45
1:2S:3271:G:H8	1:2S:3271:G:O5'	2.00	0.45
1:2S:3331:U:OP2	1:2S:3331:U:H6	1.99	0.45
7:L4:170:LYS:HD2	7:L4:170:LYS:N	2.32	0.45
7:L4:192:GLY:O	7:L4:197:ARG:HB2	2.17	0.45
7:L4:216:VAL:HA	7:L4:227:THR:HG21	1.99	0.45
11:L8:55:TYR:O	11:L8:59:GLN:HG2	2.16	0.45
12:L9:84:LYS:O	12:L9:187:ILE:HB	2.17	0.45
12:L9:189:GLU:O	12:L9:190:ASP:CB	2.65	0.45
13:50:181:TYR:O	13:50:185:ARG:HB3	2.16	0.45
21:59:15:VAL:CG1	21:59:52:LYS:HG3	2.47	0.45
23:61:19:PHE:O	23:61:21:LYS:HG3	2.17	0.45
23:61:139:ARG:C	23:61:140:ILE:HG13	2.41	0.45
27:65:91:ASN:O	27:65:95:ILE:HG13	2.17	0.45
45:83:36:ARG:HA	45:83:47:VAL:O	2.17	0.45
46:1S:468:A:N1	46:1S:594:A:O2'	2.42	0.45
46:1S:513:U:H2'	46:1S:514:G:C8	2.52	0.45
46:1S:1240:U:O4	62:15:59:LYS:HE2	2.16	0.45
46:1S:1368:G:C5'	66:19:69:LYS:HA	2.47	0.45
46:1S:1389:C:O2'	64:17:52:GLY:HA3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1498:G:H2'	46:1S:1499:G:H5''	1.99	0.45
46:1S:1593:A:H2'	46:1S:1594:G:C8	2.52	0.45
46:1S:1622:G:H2'	46:1S:1623:C:H6	1.82	0.45
46:1S:1650:U:H2'	46:1S:1651:A:C8	2.52	0.45
48:S1:60:ALA:HB3	48:S1:61:LEU:HD13	1.99	0.45
49:S2:99:LYS:HE3	49:S2:115:ILE:CG2	2.46	0.45
49:S2:159:THR:OG1	49:S2:168:ARG:HG3	2.17	0.45
51:S4:15:PRO:HD2	51:S4:18:TRP:CZ3	2.52	0.45
53:S6:84:TYR:HE1	53:S6:86:PRO:HG3	1.82	0.45
60:13:94:LYS:O	60:13:98:VAL:HG23	2.16	0.45
62:15:72:LYS:HB3	62:15:93:VAL:HG23	1.99	0.45
63:16:129:PHE:CE1	67:20:78:THR:HA	2.52	0.45
65:18:28:ILE:HD11	65:18:32:LEU:HD11	1.98	0.45
65:18:37:GLY:HA3	65:18:101:LEU:HD23	1.99	0.45
68:21:16:LYS:HA	68:21:23:ILE:HA	1.99	0.45
68:21:17:CYS:HB2	68:21:22:ARG:O	2.17	0.45
72:25:72:GLY:C	72:25:74:SER:H	2.25	0.45
74:27:80:ARG:HH11	74:27:80:ARG:HG3	1.82	0.45
75:28:8:THR:HG23	75:28:34:GLU:HB2	1.97	0.45
1:2S:126:U:H2'	1:2S:127:G:H8	1.82	0.45
1:2S:777:U:H2'	1:2S:778:U:C6	2.52	0.45
1:2S:959:C:O5'	1:2S:960:U:C5	2.70	0.45
1:2S:1363:A:H2	20:58:10:HIS:NE2	2.15	0.45
1:2S:1508:C:H2'	1:2S:1509:A:H8	1.80	0.45
1:2S:1899:G:O2'	1:2S:2334:U:O4	2.30	0.45
1:2S:1920:U:H2'	1:2S:1930:A:H61	1.82	0.45
1:2S:2252:A:H61	1:2S:2264:U:H3	1.65	0.45
1:2S:2511:A:H2'	1:2S:2512:C:O4'	2.16	0.45
1:2S:2596:U:H2'	1:2S:2597:U:H6	1.79	0.45
1:2S:2655:U:H2'	44:82:3:ASN:O	2.17	0.45
1:2S:2703:A:O5'	1:2S:2704:A:H5''	2.17	0.45
1:2S:2703:A:N1	8:L5:26:GLY:HA2	2.32	0.45
1:2S:2764:C:OP1	30:68:55:LYS:HB2	2.17	0.45
1:2S:3042:U:H2'	1:2S:3043:C:O4'	2.17	0.45
3:5S:27:A:H2	3:5S:56:A:H61	1.65	0.45
6:L3:166:ILE:O	6:L3:166:ILE:HG13	2.17	0.45
8:L5:52:VAL:HG13	8:L5:54:ARG:NH1	2.31	0.45
8:L5:270:LYS:HG2	8:L5:273:ARG:HH11	1.82	0.45
9:L6:5:LYS:O	9:L6:6:ALA:CB	2.63	0.45
9:L6:146:ILE:CG2	9:L6:156:LYS:HZ1	2.30	0.45
12:L9:104:VAL:HG21	12:L9:125:ASN:ND2	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:56:108:ILE:CG2	18:56:113:ASP:HB3	2.46	0.45
21:59:5:ARG:HG2	21:59:5:ARG:HH11	1.82	0.45
21:59:147:ALA:O	21:59:151:ARG:HG3	2.17	0.45
24:62:33:TYR:O	24:62:37:LEU:HD13	2.17	0.45
25:63:17:LEU:HD11	25:63:98:ASN:HD22	1.82	0.45
30:68:71:PRO:O	30:68:109:TYR:HD2	2.00	0.45
31:69:47:LEU:O	31:69:50:THR:HG22	2.16	0.45
37:75:22:VAL:O	37:75:26:LYS:HG3	2.17	0.45
46:1S:17:C:H2'	46:1S:18:C:H6	1.82	0.45
46:1S:187:G:H3'	55:S8:138:ASN:ND2	2.31	0.45
46:1S:620:A:H2'	46:1S:621:A:C8	2.52	0.45
46:1S:757:A:H2'	46:1S:758:U:H6	1.82	0.45
46:1S:1058:U:C6	46:1S:1061:A:N1	2.85	0.45
46:1S:1321:A:C8	47:S0:104:PRO:HB3	2.52	0.45
46:1S:1551:U:OP2	62:15:43:ARG:HD2	2.17	0.45
47:S0:90:ALA:HB1	47:S0:97:PRO:HD3	1.99	0.45
48:S1:115:ARG:HG3	48:S1:116:LYS:N	2.30	0.45
48:S1:131:ASP:HB2	48:S1:180:THR:OG1	2.16	0.45
51:S4:129:VAL:O	51:S4:129:VAL:HG13	2.17	0.45
57:10:82:LEU:HD22	57:10:86:ILE:CG2	2.47	0.45
59:12:129:GLU:O	59:12:130:THR:OG1	2.30	0.45
64:17:19:ARG:HG3	64:17:20:TYR:HD1	1.82	0.45
65:18:82:PRO:HG2	65:18:85:PHE:HD2	1.81	0.45
67:20:27:THR:O	67:20:113:ASP:HB3	2.16	0.45
73:26:10:ARG:HB2	73:26:34:LYS:CG	2.36	0.45
77:30:42:ARG:HG2	77:30:42:ARG:O	2.16	0.45
79:RA:278:PHE:CE2	79:RA:287:PRO:HB2	2.52	0.45
1:2S:355:A:H3'	1:2S:356:C:C6	2.52	0.44
1:2S:436:A:H61	1:2S:623:U:H3	1.64	0.44
1:2S:736:A:H2'	1:2S:737:G:O4'	2.16	0.44
1:2S:1012:G:H2'	1:2S:1013:G:C8	2.52	0.44
1:2S:1219:C:C2'	1:2S:1220:U:H5''	2.48	0.44
1:2S:1390:A:N3	1:2S:1390:A:C5'	2.78	0.44
1:2S:1492:G:O6	41:79:2:ALA:CB	2.65	0.44
1:2S:1515:A:H2'	1:2S:1516:C:C6	2.52	0.44
1:2S:1549:U:H2'	1:2S:1550:C:H6	1.82	0.44
1:2S:1689:U:H2'	1:2S:1690:C:C6	2.52	0.44
1:2S:1908:A:O5'	1:2S:1908:A:H8	2.01	0.44
1:2S:2163:C:O2'	5:L2:11:GLY:HA3	2.16	0.44
1:2S:2265:C:H2'	1:2S:2266:U:C6	2.52	0.44
1:2S:2276:G:H2'	1:2S:2277:C:H6	1.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2534:G:H2'	1:2S:2535:A:H8	1.82	0.44
1:2S:2841:G:H1'	1:2S:2847:A:H61	1.83	0.44
1:2S:3282:U:O5'	1:2S:3282:U:H6	2.00	0.44
1:2S:3370:A:H2'	1:2S:3371:G:H8	1.77	0.44
6:L3:232:ARG:HH21	6:L3:233:TRP:HE1	1.66	0.44
11:L8:180:VAL:HG22	11:L8:185:ARG:HH21	1.78	0.44
14:51:23:VAL:HG11	14:51:29:ARG:HD3	2.00	0.44
15:53:29:ALA:O	15:53:33:VAL:HG23	2.16	0.44
22:60:4:PHE:HB3	22:60:100:VAL:HG23	2.00	0.44
23:61:76:ILE:HG22	23:61:77:ASN:N	2.32	0.44
27:65:91:ASN:HD21	27:65:93:TYR:HD2	1.63	0.44
28:66:66:GLN:O	28:66:67:GLU:HB3	2.17	0.44
29:67:29:HIS:O	29:67:30:ASP:C	2.60	0.44
30:68:83:PRO:O	30:68:87:ARG:HB2	2.17	0.44
37:75:64:GLU:CA	37:75:67:ARG:HG3	2.42	0.44
37:75:116:TYR:O	37:75:117:ALA:HB2	2.17	0.44
46:1S:210:A:H2'	46:1S:211:U:C6	2.53	0.44
46:1S:235:G:H2'	46:1S:236:A:C8	2.53	0.44
46:1S:325:G:O2'	46:1S:326:G:H5'	2.17	0.44
46:1S:1682:U:O2'	46:1S:1683:C:H5'	2.17	0.44
55:S8:21:PHE:CD2	55:S8:22:ARG:N	2.85	0.44
64:17:100:LEU:HB3	64:17:118:PRO:HG2	1.99	0.44
69:22:27:ILE:HD11	69:22:61:ILE:HB	1.98	0.44
79:RA:91:LEU:O	79:RA:99:THR:HA	2.17	0.44
1:2S:295:A:H2'	1:2S:296:A:C8	2.52	0.44
1:2S:580:C:H2'	1:2S:581:U:O4'	2.18	0.44
1:2S:798:G:H5''	15:53:15:ARG:NH2	2.20	0.44
1:2S:949:C:O2'	1:2S:971:G:H5''	2.16	0.44
1:2S:1169:A:H5''	10:L7:219:LYS:CD	2.47	0.44
1:2S:1187:C:O5'	1:2S:1187:C:H6	2.00	0.44
1:2S:1784:G:H2'	1:2S:1785:U:C6	2.52	0.44
1:2S:2366:C:H2'	1:2S:2367:A:C8	2.52	0.44
1:2S:3153:U:H2'	1:2S:3154:C:C5	2.53	0.44
1:2S:3300:U:H2'	1:2S:3301:U:H6	1.82	0.44
2:8S:141:C:H5'	17:55:109:ARG:CD	2.47	0.44
5:L2:47:GLN:HE21	5:L2:49:VAL:CB	2.28	0.44
5:L2:97:ASN:HB2	5:L2:100:ASN:ND2	2.32	0.44
6:L3:136:LYS:O	6:L3:144:ILE:HD11	2.16	0.44
7:L4:23:PRO:HG2	7:L4:255:PHE:CE2	2.52	0.44
7:L4:58:HIS:HA	7:L4:90:PHE:CD1	2.52	0.44
7:L4:142:VAL:O	7:L4:145:ILE:HG12	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:L4:209:TYR:O	7:L4:230:VAL:HG23	2.16	0.44
9:L6:146:ILE:HG23	9:L6:156:LYS:HZ3	1.81	0.44
10:L7:158:LYS:O	10:L7:159:GLN:C	2.60	0.44
15:53:29:ALA:CB	17:55:201:ARG:NH1	2.79	0.44
21:59:152:GLU:HA	21:59:152:GLU:OE1	2.16	0.44
23:61:75:ILE:HD13	23:61:76:ILE:N	2.33	0.44
27:65:103:TYR:O	27:65:105:VAL:HG23	2.16	0.44
29:67:33:SER:HB2	29:67:40:HIS:CE1	2.53	0.44
32:70:13:LYS:HB3	32:70:100:ILE:CG2	2.46	0.44
36:74:95:ILE:O	36:74:99:LYS:HB2	2.17	0.44
37:75:58:ILE:O	37:75:62:GLN:HG3	2.18	0.44
40:78:8:ILE:HD12	40:78:8:ILE:N	2.32	0.44
41:79:26:TRP:CD1	41:79:26:TRP:H	2.34	0.44
46:1S:1:U:O4	56:S9:54:ARG:HD3	2.18	0.44
46:1S:144:U:HO2'	46:1S:145:A:H2'	1.82	0.44
46:1S:197:A:H61	55:S8:138:ASN:ND2	2.15	0.44
46:1S:382:C:H2'	46:1S:383:G:H8	1.81	0.44
46:1S:556:A:H5''	77:30:56:MET:HB2	1.98	0.44
46:1S:1058:U:C5	46:1S:1061:A:N6	2.58	0.44
46:1S:1107:G:O2'	46:1S:1108:G:H5'	2.17	0.44
46:1S:1226:A:H62	59:12:114:LYS:HG2	1.83	0.44
46:1S:1454:G:H5''	62:15:81:ARG:NH2	2.31	0.44
46:1S:1454:G:H2'	46:1S:1455:G:O4'	2.17	0.44
46:1S:1610:G:O3'	52:S5:98:MET:HE1	2.17	0.44
48:S1:41:ARG:HB3	48:S1:41:ARG:NH1	2.32	0.44
48:S1:70:LEU:O	48:S1:74:GLN:HB2	2.16	0.44
49:S2:148:LEU:HB3	49:S2:149:GLY:H	1.37	0.44
49:S2:225:LEU:HD22	49:S2:230:TRP:HD1	1.82	0.44
52:S5:203:LYS:HE3	52:S5:203:LYS:CA	2.38	0.44
55:S8:195:ARG:HG2	55:S8:195:ARG:NH1	2.33	0.44
56:S9:178:ALA:O	56:S9:182:GLU:HG2	2.18	0.44
57:10:87:VAL:O	57:10:87:VAL:HG13	2.17	0.44
58:11:97:TYR:O	58:11:98:ASN:HB3	2.17	0.44
60:13:84:ILE:CD1	60:13:89:TYR:HA	2.46	0.44
62:15:37:ALA:O	62:15:42:ARG:HD2	2.17	0.44
65:18:35:ILE:HG22	65:18:36:LYS:N	2.31	0.44
69:22:29:PRO:O	69:22:30:SER:HB3	2.17	0.44
78:31:139:LEU:HD22	78:31:150:VAL:O	2.16	0.44
1:2S:55:G:H2'	1:2S:56:G:H5'	1.99	0.44
1:2S:93:C:OP2	1:2S:2764:C:H1'	2.16	0.44
1:2S:745:C:C5'	20:58:145:ASN:ND2	2.78	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1147:G:H2'	1:2S:1148:G:O4'	2.17	0.44
1:2S:1429:G:C5	7:L4:99:MET:HE2	2.52	0.44
1:2S:1689:U:O3'	21:59:59:SER:CB	2.65	0.44
1:2S:2647:A:C3'	1:2S:2648:G:H5''	2.46	0.44
4:L1:120:VAL:HG23	4:L1:121:PRO:HD3	1.99	0.44
4:L1:189:PHE:HD1	4:L1:200:ASN:HB2	1.82	0.44
4:L1:205:VAL:HG12	4:L1:213:ALA:CB	2.45	0.44
5:L2:74:GLU:HB3	5:L2:76:PHE:HE1	1.80	0.44
5:L2:88:ILE:CG2	5:L2:99:GLY:O	2.65	0.44
6:L3:226:PHE:C	6:L3:226:PHE:CD2	2.95	0.44
7:L4:52:VAL:CG2	7:L4:53:SER:H	2.11	0.44
7:L4:316:ASN:HD22	7:L4:319:LYS:HE2	1.80	0.44
7:L4:361:HIS:HD2	7:L4:362:ASP:H	1.64	0.44
8:L5:44:TYR:CE1	23:61:35:LYS:HG2	2.52	0.44
9:L6:56:LYS:HB3	9:L6:64:LEU:CB	2.47	0.44
10:L7:86:VAL:CG1	10:L7:136:TYR:HB3	2.41	0.44
12:L9:47:LYS:HD2	16:54:5:SER:HB2	1.99	0.44
12:L9:106:LYS:C	12:L9:108:GLY:H	2.25	0.44
12:L9:138:THR:C	12:L9:140:VAL:N	2.72	0.44
15:53:149:GLN:HA	15:53:150:PRO:HD3	1.75	0.44
17:55:116:LEU:HB3	17:55:133:ILE:HG23	1.97	0.44
19:57:75:GLU:HB3	19:57:76:PHE:CD1	2.52	0.44
19:57:76:PHE:CD1	19:57:76:PHE:N	2.85	0.44
20:58:98:LYS:HB3	20:58:99:THR:H	1.50	0.44
22:60:43:TYR:CD2	22:60:47:LYS:NZ	2.81	0.44
25:63:45:ARG:HG3	25:63:45:ARG:HH11	1.82	0.44
27:65:74:LYS:O	27:65:78:ASP:HB2	2.17	0.44
33:71:44:MET:SD	33:71:77:ARG:HB2	2.57	0.44
34:72:13:HIS:HE1	34:72:15:LYS:HB3	1.78	0.44
38:76:58:ILE:HG22	38:76:94:ILE:HD11	1.98	0.44
38:76:82:ARG:O	38:76:86:LYS:CB	2.65	0.44
40:78:17:ARG:O	40:78:18:ALA:HB3	2.16	0.44
46:1S:94:U:H2'	46:1S:95:G:C5'	2.45	0.44
46:1S:472:U:OP1	56:S9:10:LYS:HA	2.18	0.44
46:1S:545:A:C8	77:30:31:LYS:HD2	2.52	0.44
46:1S:1059:U:O2	46:1S:1059:U:C2'	2.65	0.44
46:1S:1797:A:C5'	73:26:95:ARG:HG2	2.43	0.44
48:S1:153:HIS:ND1	48:S1:154:SER:N	2.64	0.44
48:S1:205:PHE:CD1	48:S1:206:PRO:CD	2.98	0.44
50:S3:17:PHE:CE1	50:S3:21:LEU:HD11	2.52	0.44
50:S3:76:ARG:C	50:S3:76:ARG:CD	2.87	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:S5:77:TYR:HA	52:S5:83:ARG:HG2	1.99	0.44
54:S7:30:SER:O	54:S7:32:PRO:HD2	2.17	0.44
57:10:27:PHE:HD1	57:10:40:LEU:HD23	1.82	0.44
58:11:94:ILE:HG21	58:11:97:TYR:CD2	2.53	0.44
59:12:50:LYS:HA	59:12:53:THR:HG23	1.98	0.44
59:12:106:ILE:HG22	59:12:107:ASP:N	2.31	0.44
62:15:44:ARG:HD3	62:15:44:ARG:C	2.42	0.44
62:15:96:ILE:HD13	62:15:116:LEU:O	2.18	0.44
65:18:11:PHE:HD2	65:18:12:GLN:N	2.16	0.44
65:18:28:ILE:HD13	65:18:28:ILE:C	2.42	0.44
69:22:93:LEU:CD2	69:22:93:LEU:N	2.80	0.44
69:22:104:LEU:HB2	69:22:124:LYS:O	2.17	0.44
79:RA:42:LEU:HD12	79:RA:42:LEU:N	2.32	0.44
79:RA:212:ALA:O	79:RA:243:LEU:CD1	2.64	0.44
1:2S:438:A:C3'	1:2S:439:C:H5''	2.47	0.44
1:2S:526:C:H2'	1:2S:527:A:C8	2.52	0.44
1:2S:529:A:H8	1:2S:529:A:O5'	2.01	0.44
1:2S:769:G:C2'	1:2S:770:G:H5'	2.48	0.44
1:2S:873:C:H2'	1:2S:875:G:O4'	2.18	0.44
1:2S:892:U:O2'	1:2S:893:C:H5'	2.18	0.44
1:2S:1115:G:H5''	1:2S:1116:G:H5''	1.98	0.44
1:2S:1125:U:O5'	1:2S:1125:U:H6	2.00	0.44
1:2S:1354:G:H3'	1:2S:1355:A:C5'	2.46	0.44
1:2S:1695:U:H1'	36:74:26:PRO:HG3	2.00	0.44
1:2S:2133:U:H2'	1:2S:2134:G:H5'	1.98	0.44
1:2S:2481:G:H2'	1:2S:2482:U:C6	2.53	0.44
1:2S:3302:U:H2'	1:2S:3303:G:C8	2.53	0.44
2:8S:28:C:H4'	15:53:26:PHE:CD2	2.52	0.44
2:8S:79:A:H3'	2:8S:80:A:H5''	1.99	0.44
4:L1:103:LEU:HD22	4:L1:106:LYS:HE2	2.00	0.44
5:L2:117:GLU:HG2	5:L2:124:GLY:H	1.82	0.44
5:L2:170:ALA:HB1	45:83:66:GLY:O	2.18	0.44
5:L2:199:THR:HG22	5:L2:200:ARG:N	2.32	0.44
7:L4:188:ARG:HB2	7:L4:197:ARG:O	2.18	0.44
7:L4:192:GLY:HA2	7:L4:195:ARG:CD	2.47	0.44
7:L4:316:ASN:ND2	7:L4:319:LYS:CE	2.81	0.44
7:L4:353:ALA:O	7:L4:357:GLU:HG3	2.17	0.44
8:L5:278:SER:O	8:L5:282:ARG:HG3	2.17	0.44
10:L7:133:TYR:O	10:L7:134:VAL:HG13	2.18	0.44
11:L8:50:VAL:HG23	11:L8:52:TRP:HE1	1.81	0.44
15:53:67:ARG:CZ	15:53:68:LYS:HG3	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:55:191:TRP:CE3	17:55:192:LYS:HA	2.53	0.44
20:58:147:ARG:NH2	20:58:150:VAL:HG13	2.32	0.44
23:61:48:ILE:CD1	23:61:94:GLU:HG2	2.47	0.44
28:66:56:VAL:CG1	28:66:70:ILE:HD11	2.47	0.44
28:66:100:HIS:CG	28:66:101:PRO:HD2	2.52	0.44
33:71:19:ARG:NH1	33:71:19:ARG:CG	2.81	0.44
33:71:60:TRP:CZ3	33:71:64:VAL:HG22	2.34	0.44
33:71:79:ARG:NE	33:71:79:ARG:O	2.49	0.44
34:72:61:LYS:HG2	34:72:64:LYS:NZ	2.32	0.44
38:76:4:LYS:HA	38:76:12:ASN:HB3	1.99	0.44
38:76:45:ARG:O	38:76:45:ARG:HD3	2.17	0.44
40:78:46:ARG:HA	40:78:51:LEU:HD12	1.98	0.44
45:83:22:LEU:O	45:83:26:VAL:HG23	2.17	0.44
46:1S:98:U:H1'	46:1S:425:A:O2'	2.18	0.44
46:1S:309:C:H2'	46:1S:310:C:C6	2.52	0.44
46:1S:312:A:C2	46:1S:314:C:H2'	2.52	0.44
46:1S:680:U:H3'	46:1S:680:U:H6	1.82	0.44
46:1S:871:G:H2'	46:1S:872:G:H8	1.76	0.44
46:1S:1061:A:C2'	46:1S:1062:A:H5'	2.45	0.44
46:1S:1156:C:H4'	46:1S:1313:A:OP1	2.18	0.44
49:S2:85:PRO:HG3	49:S2:98:PHE:CE1	2.51	0.44
52:S5:57:SER:O	52:S5:58:LEU:HB2	2.17	0.44
59:12:81:ASP:HA	59:12:82:PRO:HD3	1.87	0.44
60:13:79:GLY:C	60:13:80:LEU:HD22	2.42	0.44
60:13:117:LEU:O	60:13:120:SER:HB2	2.17	0.44
63:16:28:LEU:C	63:16:28:LEU:HD12	2.42	0.44
63:16:138:PHE:HB3	63:16:139:GLN:H	1.65	0.44
64:17:21:TYR:N	64:17:22:PRO:CD	2.78	0.44
65:18:49:LYS:HZ3	65:18:81:ILE:HG12	1.82	0.44
70:23:127:VAL:HG22	70:23:132:LEU:HD22	2.00	0.44
72:25:91:PRO:HA	72:25:101:TYR:CD1	2.53	0.44
74:27:35:VAL:CG1	74:27:77:THR:HB	2.47	0.44
75:28:36:THR:HG23	75:28:37:SER:H	1.83	0.44
1:2S:38:U:H5''	30:68:32:ARG:HD2	2.00	0.44
1:2S:269:G:H5'	17:55:14:LYS:HE2	2.00	0.44
1:2S:398:A:C4	19:57:3:ARG:NH2	2.85	0.44
1:2S:586:C:O2'	1:2S:587:U:H5'	2.18	0.44
1:2S:819:U:H2'	1:2S:820:A:C5'	2.47	0.44
1:2S:820:A:H2'	1:2S:821:U:C5	2.51	0.44
1:2S:990:U:O5'	1:2S:990:U:H6	2.00	0.44
1:2S:1404:G:N2	1:2S:1407:A:OP2	2.44	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2316:G:H2'	1:2S:2317:A:C8	2.52	0.44
1:2S:2337:C:O5'	1:2S:2337:C:H6	2.00	0.44
1:2S:2394:G:H5'	6:L3:253:GLY:N	2.32	0.44
1:2S:2994:A:N6	1:2S:2995:A:C2	2.86	0.44
1:2S:3386:G:O2'	1:2S:3387:U:H5'	2.17	0.44
3:5S:118:A:H5''	8:L5:253:PHE:HZ	1.81	0.44
5:L2:248:GLY:CA	46:1S:1012:U:H5''	2.43	0.44
6:L3:5:LYS:HE2	6:L3:6:TYR:CE1	2.48	0.44
7:L4:9:HIS:HA	7:L4:15:ALA:HA	1.99	0.44
7:L4:112:LYS:HD3	17:55:202:TYR:HB3	1.99	0.44
7:L4:181:VAL:HG11	7:L4:223:PRO:O	2.17	0.44
8:L5:153:THR:HG23	8:L5:160:PHE:CZ	2.45	0.44
11:L8:41:GLN:HE21	11:L8:41:GLN:H	1.65	0.44
12:L9:69:ARG:O	12:L9:69:ARG:HD3	2.16	0.44
13:50:48:LEU:HB2	13:50:142:ASP:OD1	2.17	0.44
15:53:59:ARG:NH1	15:53:67:ARG:C	2.76	0.44
19:57:180:LYS:HB3	19:57:180:LYS:HZ3	1.83	0.44
25:63:128:ARG:HH11	25:63:128:ARG:CG	2.30	0.44
31:69:15:LYS:HB2	31:69:15:LYS:HE3	1.68	0.44
32:70:43:ILE:O	32:70:89:VAL:HG23	2.18	0.44
32:70:76:GLU:HA	32:70:79:THR:HB	1.99	0.44
36:74:8:ARG:HB2	36:74:34:HIS:HD2	1.83	0.44
44:82:70:LEU:HD12	44:82:83:LEU:HD22	1.98	0.44
46:1S:52:U:H2'	46:1S:53:G:O4'	2.17	0.44
46:1S:85:A:H2	46:1S:148:A:H1'	1.83	0.44
46:1S:338:C:O5'	46:1S:338:C:H6	2.00	0.44
46:1S:378:A:H3'	46:1S:379:U:C5	2.53	0.44
46:1S:1779:U:H2'	46:1S:1781:A:OP2	2.17	0.44
49:S2:69:ILE:C	49:S2:69:ILE:HD12	2.43	0.44
53:S6:31:ARG:HD2	53:S6:34:GLN:HE22	1.81	0.44
60:13:40:TYR:CE2	60:13:54:LEU:HD21	2.50	0.44
66:19:114:VAL:HG22	66:19:115:GLU:N	2.32	0.44
69:22:30:SER:HA	69:22:34:ILE:CD1	2.32	0.44
70:23:87:VAL:HA	70:23:124:VAL:HG23	2.00	0.44
71:24:114:ARG:HH11	71:24:114:ARG:HG3	1.82	0.44
73:26:48:ALA:C	73:26:50:VAL:H	2.26	0.44
74:27:37:CYS:HA	74:27:38:PRO:HD3	1.76	0.44
75:28:11:LYS:HE2	75:28:11:LYS:HB3	1.86	0.44
1:2S:104:G:H2'	1:2S:105:C:O4'	2.18	0.44
1:2S:711:A:C5	1:2S:712:G:H1'	2.52	0.44
1:2S:1223:A:C5	1:2S:1286:A:C2	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1585:C:H2'	1:2S:1586:G:O4'	2.18	0.44
1:2S:1742:U:H5''	36:74:21:LYS:HZ1	1.82	0.44
1:2S:1795:U:O5'	1:2S:1795:U:H6	2.01	0.44
1:2S:2363:A:H2'	1:2S:2364:G:C8	2.52	0.44
1:2S:2443:A:H5'	1:2S:2444:C:OP2	2.17	0.44
1:2S:2482:U:O5'	1:2S:2482:U:H6	2.00	0.44
1:2S:3086:A:H3'	1:2S:3087:A:C8	2.51	0.44
2:8S:35:C:H2'	2:8S:36:G:C8	2.52	0.44
2:8S:41:A:H3'	2:8S:42:G:H8	1.83	0.44
5:L2:133:TYR:CE1	5:L2:135:ILE:HD11	2.50	0.44
7:L4:119:ARG:HH12	7:L4:274:TYR:HB2	1.82	0.44
12:L9:138:THR:O	12:L9:140:VAL:N	2.32	0.44
13:50:31:ILE:HD11	13:50:33:ILE:O	2.17	0.44
18:56:89:SER:C	18:56:91:LYS:H	2.25	0.44
20:58:176:ARG:HG3	20:58:183:GLY:CA	2.37	0.44
21:59:142:ILE:HG22	21:59:146:LYS:CD	2.48	0.44
23:61:79:MET:HE2	31:69:21:ILE:HD13	2.00	0.44
25:63:89:ASP:OD1	25:63:91:VAL:HG22	2.18	0.44
27:65:115:ARG:C	27:65:117:ASN:H	2.25	0.44
30:68:56:VAL:HG23	30:68:57:GLY:H	1.82	0.44
37:75:101:THR:HG22	37:75:104:GLN:HB2	1.98	0.44
39:77:54:LYS:O	39:77:58:THR:HG23	2.18	0.44
43:81:23:ARG:HG2	43:81:23:ARG:NH2	2.30	0.44
46:1S:66:U:C5	53:S6:173:PRO:HG3	2.52	0.44
46:1S:569:C:OP1	70:23:89:ASN:HA	2.18	0.44
46:1S:639:U:C5'	54:S7:101:LYS:HD2	2.46	0.44
46:1S:1314:U:H4'	46:1S:1315:U:H5	1.81	0.44
46:1S:1405:G:H2'	46:1S:1406:A:H8	1.81	0.44
46:1S:1459:C:OP2	46:1S:1459:C:H6	2.01	0.44
46:1S:1580:C:H2'	46:1S:1581:C:H6	1.82	0.44
48:S1:119:THR:HB	48:S1:143:THR:CG2	2.47	0.44
53:S6:70:PRO:HA	53:S6:98:ARG:HH22	1.82	0.44
53:S6:159:ARG:HG2	53:S6:172:ALA:HB2	1.99	0.44
57:10:49:LEU:O	57:10:53:GLY:O	2.35	0.44
59:12:77:GLY:HA3	78:31:114:VAL:HG21	1.98	0.44
60:13:30:SER:C	60:13:33:VAL:HG22	2.43	0.44
60:13:129:TYR:C	60:13:134:VAL:HG22	2.43	0.44
63:16:54:LEU:HD21	63:16:112:TYR:CE2	2.53	0.44
66:19:30:VAL:HA	66:19:31:PRO:HD3	1.74	0.44
66:19:35:ASP:N	66:19:53:TRP:HZ2	1.98	0.44
69:22:89:TRP:O	69:22:92:ASN:HB2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:RA:127:ARG:C	79:RA:129:LYS:H	2.25	0.44
1:2S:720:A:H5''	20:58:69:ARG:HH22	1.83	0.44
1:2S:990:U:H4'	23:61:100:LYS:HB2	1.99	0.44
1:2S:1651:U:O5'	1:2S:1651:U:H6	2.01	0.44
1:2S:1695:U:H4'	36:74:24:LYS:O	2.18	0.44
1:2S:1705:U:H2'	1:2S:1706:C:O4'	2.17	0.44
1:2S:2837:A:H5''	13:50:154:ARG:HH11	1.83	0.44
1:2S:3086:A:H4'	6:L3:366:GLY:HA2	2.00	0.44
1:2S:3346:U:H2'	1:2S:3347:A:O4'	2.18	0.44
1:2S:3359:A:H3'	1:2S:3360:C:C5	2.53	0.44
3:5S:104:A:C2'	3:5S:105:C:H5'	2.47	0.44
4:L1:105:LYS:HB2	4:L1:105:LYS:HZ2	1.83	0.44
5:L2:169:ILE:HG22	5:L2:170:ALA:N	2.32	0.44
5:L2:183:GLY:O	5:L2:187:HIS:HD2	2.00	0.44
7:L4:65:TRP:CE3	7:L4:69:ARG:HD2	2.52	0.44
9:L6:96:VAL:HG21	9:L6:145:LEU:HD21	2.00	0.44
10:L7:202:LEU:H	10:L7:202:LEU:HG	1.62	0.44
11:L8:53:PRO:O	11:L8:56:VAL:N	2.47	0.44
11:L8:63:LYS:HA	11:L8:63:LYS:HZ1	1.83	0.44
11:L8:160:ILE:O	11:L8:164:VAL:HG13	2.17	0.44
12:L9:45:PHE:CD1	12:L9:55:VAL:HG12	2.48	0.44
15:53:70:ARG:HD2	15:53:71:ALA:N	2.31	0.44
16:54:80:THR:HA	16:54:83:LYS:HB3	2.00	0.44
17:55:191:TRP:CE3	17:55:192:LYS:N	2.86	0.44
19:57:87:SER:O	19:57:91:VAL:HG23	2.17	0.44
20:58:8:LYS:HB2	20:58:8:LYS:HE3	1.77	0.44
27:65:135:ILE:HD11	27:65:138:ARG:NH1	2.33	0.44
28:66:106:ILE:CG2	28:66:109:LEU:HD21	2.47	0.44
33:71:23:VAL:O	33:71:28:ARG:NH1	2.51	0.44
33:71:72:ARG:HG3	33:71:96:VAL:HG22	1.99	0.44
34:72:69:SER:CB	34:72:118:LYS:HE2	2.47	0.44
36:74:67:LYS:O	36:74:71:THR:OG1	2.34	0.44
46:1S:335:U:O5'	46:1S:335:U:H6	2.01	0.44
46:1S:504:U:C2	46:1S:505:A:H1'	2.52	0.44
46:1S:748:U:H4'	69:22:122:SER:C	2.43	0.44
46:1S:1498:G:C2'	46:1S:1499:G:C5'	2.95	0.44
51:S4:211:LYS:HA	51:S4:216:ASN:O	2.18	0.44
51:S4:222:LEU:HD23	51:S4:222:LEU:H	1.81	0.44
52:S5:56:ALA:HB1	75:28:9:LEU:HD11	1.99	0.44
53:S6:64:LYS:O	53:S6:67:VAL:HG22	2.18	0.44
55:S8:42:ARG:HG2	55:S8:58:LEU:HD12	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:10:82:LEU:CD2	57:10:86:ILE:HG21	2.48	0.44
61:14:61:MET:HG2	61:14:104:ALA:HB2	2.00	0.44
63:16:129:PHE:CD1	67:20:78:THR:HA	2.53	0.44
64:17:21:TYR:CE1	64:17:73:LEU:HD13	2.53	0.44
65:18:145:ARG:HB3	65:18:145:ARG:HH21	1.82	0.44
70:23:40:SER:O	70:23:41:SER:O	2.36	0.44
71:24:124:ARG:HG3	71:24:124:ARG:NH1	2.32	0.44
73:26:97:PRO:N	73:26:98:PRO:CD	2.81	0.44
1:2S:555:U:H1'	1:2S:556:U:H5	1.83	0.44
1:2S:917:A:H2'	1:2S:917:A:N3	2.32	0.44
1:2S:968:G:H2'	1:2S:969:C:C6	2.52	0.44
1:2S:979:U:H4'	1:2S:980:A:H5'	2.00	0.44
1:2S:1145:G:O2'	34:72:45:ARG:O	2.35	0.44
1:2S:1722:U:H2'	1:2S:1723:A:O4'	2.17	0.44
1:2S:1978:A:O2'	1:2S:1979:G:H5'	2.17	0.44
1:2S:2174:G:OP1	1:2S:2174:G:C8	2.63	0.44
1:2S:2895:G:H5''	42:80:102:ARG:HH21	1.81	0.44
1:2S:2899:C:N4	12:L9:172:ILE:HD11	2.33	0.44
1:2S:2910:A:OP2	1:2S:2910:A:H8	2.01	0.44
1:2S:2932:U:O5'	1:2S:2932:U:H6	2.01	0.44
3:5S:34:C:N4	3:5S:45:A:H2	2.16	0.44
4:L1:193:LEU:HB3	4:L1:195:LYS:H	1.83	0.44
6:L3:106:TRP:HD1	6:L3:133:TYR:OH	2.01	0.44
8:L5:64:ILE:HD12	8:L5:64:ILE:N	2.32	0.44
10:L7:88:ARG:HA	10:L7:134:VAL:HG12	2.00	0.44
10:L7:96:PRO:O	10:L7:99:PRO:HD2	2.17	0.44
13:50:20:SER:HB2	13:50:22:TYR:HD1	1.82	0.44
19:57:86:LYS:HA	19:57:89:LYS:HD3	2.00	0.44
22:60:78:TRP:HB2	22:60:125:LYS:O	2.18	0.44
22:60:107:TYR:CD1	22:60:121:ILE:HD12	2.53	0.44
22:60:137:ARG:O	22:60:141:LYS:HG3	2.18	0.44
23:61:86:GLU:HG2	23:61:87:LYS:N	2.32	0.44
28:66:35:LEU:HD21	28:66:48:LEU:HB2	2.00	0.44
28:66:58:VAL:HG11	28:66:63:LYS:CB	2.42	0.44
28:66:87:LYS:CB	28:66:97:ILE:HD11	2.42	0.44
29:67:115:LYS:O	29:67:119:GLU:HG3	2.18	0.44
30:68:44:ASN:O	30:68:48:TYR:HB2	2.17	0.44
45:83:80:ARG:HH11	45:83:80:ARG:HG3	1.82	0.44
46:1S:2:A:H2'	49:S2:197:TYR:CD1	2.52	0.44
46:1S:121:U:H1'	51:S4:33:ALA:CB	2.48	0.44
46:1S:740:A:H2'	46:1S:741:C:C5'	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1269:U:H4'	46:1S:1270:G:H5'	2.00	0.44
46:1S:1656:U:O5'	46:1S:1656:U:H6	2.00	0.44
47:S0:155:PHE:HA	68:21:60:ARG:HB3	2.00	0.44
48:S1:86:LEU:HA	48:S1:99:ASN:O	2.18	0.44
49:S2:168:ARG:HG2	49:S2:170:ILE:CD1	2.47	0.44
52:S5:76:ARG:HG2	52:S5:76:ARG:HH21	1.83	0.44
53:S6:175:ILE:CB	53:S6:178:LEU:HD22	2.44	0.44
55:S8:25:ARG:HB2	55:S8:27:PHE:CE1	2.53	0.44
55:S8:153:GLU:HG2	55:S8:155:SER:H	1.82	0.44
58:11:38:ALA:HB3	58:11:42:PHE:O	2.18	0.44
62:15:87:PRO:HA	62:15:90:ILE:CG1	2.48	0.44
62:15:90:ILE:HA	62:15:107:ILE:HB	1.99	0.44
62:15:100:LYS:HB2	62:15:100:LYS:HE3	1.71	0.44
63:16:142:TYR:O	63:16:143:ARG:HB3	2.18	0.44
64:17:72:LYS:HB2	64:17:72:LYS:NZ	2.33	0.44
68:21:6:GLY:O	68:21:7:GLN:O	2.36	0.44
70:23:127:VAL:O	70:23:128:SER:HB2	2.18	0.44
79:RA:253:ALA:HA	79:RA:262:VAL:HA	2.00	0.44
1:2S:297:G:H4'	1:2S:299:G:H4'	1.99	0.44
1:2S:449:U:H3'	1:2S:449:U:H6	1.83	0.44
1:2S:915:A:C2'	1:2S:916:G:H5'	2.46	0.44
1:2S:1489:A:H2'	1:2S:1490:A:H8	1.83	0.44
1:2S:2266:U:H2'	1:2S:2267:C:C6	2.51	0.44
1:2S:2476:C:H2'	1:2S:2477:G:C4'	2.32	0.44
1:2S:2810:C:H4'	1:2S:2810:C:OP1	2.17	0.44
1:2S:2866:U:H4'	1:2S:2867:C:H5'	1.99	0.44
1:2S:2897:A:H4'	42:80:125:LYS:NZ	2.33	0.44
1:2S:2966:G:H8	1:2S:2966:G:O5'	2.00	0.44
2:8S:79:A:H2'	2:8S:80:A:C4'	2.43	0.44
3:5S:4:U:H2'	3:5S:5:G:H8	1.82	0.44
5:L2:28:LYS:HD2	5:L2:123:ARG:NH2	2.33	0.44
5:L2:147:ARG:HA	5:L2:157:VAL:HA	2.00	0.44
6:L3:4:ARG:C	6:L3:6:TYR:H	2.25	0.44
6:L3:229:VAL:HG11	6:L3:249:VAL:HG23	2.00	0.44
6:L3:307:PRO:HB3	6:L3:362:ALA:O	2.18	0.44
8:L5:194:LEU:HD23	8:L5:194:LEU:O	2.18	0.44
11:L8:130:TYR:CG	11:L8:204:ARG:HD2	2.53	0.44
19:57:26:PHE:CE2	19:57:121:GLN:HG3	2.52	0.44
19:57:112:LEU:HD11	19:57:152:GLU:HG2	2.00	0.44
20:58:36:LEU:HD13	20:58:45:ASN:OD1	2.18	0.44
24:62:96:VAL:HB	24:62:104:ARG:HG3	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:63:81:GLN:NE2	25:63:83:LYS:HB3	2.33	0.44
25:63:85:TRP:CE2	25:63:93:LEU:HG	2.53	0.44
30:68:94:ALA:CA	30:68:121:VAL:HG13	2.47	0.44
34:72:61:LYS:HA	34:72:64:LYS:HD2	2.00	0.44
35:73:18:ARG:HB3	35:73:23:ASN:CA	2.48	0.44
45:83:42:CYS:HB2	45:83:44:LYS:HD2	2.00	0.44
46:1S:91:G:H2'	46:1S:92:A:O4'	2.18	0.44
46:1S:698:U:H1'	54:S7:107:ARG:HD3	1.99	0.44
46:1S:845:G:C2'	46:1S:846:G:H5''	2.47	0.44
46:1S:1276:U:H4'	50:S3:147:ALA:HB2	2.00	0.44
46:1S:1362:U:H1'	46:1S:1363:U:O2	2.18	0.44
46:1S:1563:C:O2'	46:1S:1564:U:H5'	2.18	0.44
46:1S:1570:A:H3'	46:1S:1571:C:C6	2.53	0.44
46:1S:1755:A:C5'	70:23:63:GLN:HG3	2.48	0.44
49:S2:229:LEU:HD21	68:21:23:ILE:CD1	2.48	0.44
54:S7:23:ALA:HB1	54:S7:81:LEU:CD2	2.48	0.44
54:S7:46:ILE:HD11	54:S7:60:ILE:HG23	2.00	0.44
54:S7:111:LYS:HG3	54:S7:112:ARG:N	2.33	0.44
56:S9:49:LEU:C	56:S9:49:LEU:HD13	2.43	0.44
56:S9:93:LEU:O	56:S9:97:LEU:HG	2.18	0.44
56:S9:149:ARG:O	56:S9:150:LEU:HB3	2.18	0.44
60:13:70:LYS:H	60:13:73:ARG:HB2	1.82	0.44
62:15:40:ARG:HA	62:15:40:ARG:HE	1.83	0.44
62:15:72:LYS:HD3	62:15:93:VAL:CG2	2.48	0.44
65:18:41:ARG:NH1	66:19:38:LYS:HG3	2.32	0.44
66:19:34:VAL:HG22	66:19:35:ASP:N	2.32	0.44
79:RA:311:ARG:HG3	79:RA:311:ARG:NH1	2.33	0.44
1:2S:230:U:OP1	28:66:4:GLN:HG2	2.18	0.43
1:2S:895:A:H3'	1:2S:895:A:N3	2.33	0.43
1:2S:900:G:H2'	1:2S:901:G:O4'	2.18	0.43
1:2S:1114:U:OP1	30:68:22:ILE:HB	2.18	0.43
1:2S:1556:C:O2	1:2S:1556:C:O4'	2.35	0.43
1:2S:1705:U:C2'	1:2S:1706:C:H5'	2.48	0.43
1:2S:1969:G:H22	1:2S:2051:G:H1'	1.83	0.43
1:2S:2060:A:H2'	1:2S:2061:G:H5'	2.00	0.43
1:2S:2107:A:H2'	1:2S:2107:A:N3	2.33	0.43
1:2S:2272:G:N3	1:2S:2272:G:H5'	2.33	0.43
1:2S:2750:U:H4'	8:L5:35:ARG:NH2	2.33	0.43
1:2S:3239:G:H2'	1:2S:3240:C:O4'	2.18	0.43
1:2S:3281:U:H2'	1:2S:3282:U:O4'	2.17	0.43
2:8S:141:C:H5'	17:55:109:ARG:HD2	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:L4:52:VAL:HG13	7:L4:53:SER:H	1.81	0.43
7:L4:184:SER:HB2	7:L4:202:ARG:HG2	2.00	0.43
9:L6:105:TYR:CE1	9:L6:134:ARG:HD3	2.53	0.43
9:L6:164:SER:HB3	35:73:5:HIS:HA	2.00	0.43
11:L8:44:ARG:HB2	11:L8:46:LEU:HD21	2.00	0.43
11:L8:101:THR:OG1	11:L8:102:ALA:N	2.50	0.43
14:51:117:ASP:HA	14:51:118:PRO:HD2	1.92	0.43
15:53:67:ARG:CZ	15:53:68:LYS:CG	2.95	0.43
15:53:127:PRO:C	15:53:129:ASN:H	2.25	0.43
21:59:62:ARG:O	21:59:66:HIS:HB2	2.18	0.43
25:63:18:PRO:HA	25:63:51:ALA:HA	2.00	0.43
25:63:45:ARG:HG2	25:63:48:ARG:CD	2.47	0.43
35:73:59:VAL:CG2	35:73:60:ARG:H	2.22	0.43
41:79:2:ALA:C	41:79:4:GLN:H	2.26	0.43
46:1S:684:A:C2'	46:1S:685:A:H5'	2.48	0.43
46:1S:698:U:H2'	46:1S:699:U:C6	2.52	0.43
46:1S:934:C:N4	46:1S:1077:C:H4'	2.33	0.43
46:1S:1020:A:C3'	46:1S:1021:C:H5''	2.42	0.43
46:1S:1513:G:H2'	46:1S:1514:U:H5''	2.00	0.43
47:S0:74:VAL:HG23	47:S0:118:PRO:CB	2.47	0.43
48:S1:33:LYS:HE3	48:S1:95:ASN:OD1	2.18	0.43
48:S1:176:VAL:HA	48:S1:184:LEU:HD21	1.99	0.43
49:S2:35:TRP:CZ2	49:S2:67:GLN:HB2	2.52	0.43
50:S3:66:ILE:HD13	50:S3:69:LEU:CD1	2.48	0.43
50:S3:116:ARG:O	50:S3:120:TYR:CD2	2.71	0.43
52:S5:34:GLN:HG2	63:16:57:LEU:CD1	2.48	0.43
55:S8:43:ILE:HG13	55:S8:57:ALA:HA	1.99	0.43
55:S8:123:LYS:HA	55:S8:123:LYS:HD3	1.83	0.43
56:S9:123:HIS:HA	77:30:33:ARG:HD2	2.00	0.43
59:12:58:LEU:N	59:12:58:LEU:HD23	2.33	0.43
60:13:16:ILE:HA	60:13:17:PRO:HD3	1.88	0.43
60:13:23:PRO:O	60:13:24:ALA:CB	2.65	0.43
61:14:135:ARG:HB3	73:26:26:CYS:HB2	2.00	0.43
62:15:86:VAL:HG23	62:15:87:PRO:HD2	2.00	0.43
62:15:97:TYR:HA	62:15:101:ALA:O	2.18	0.43
63:16:137:ARG:HB3	63:16:138:PHE:H	1.42	0.43
64:17:21:TYR:CD1	64:17:73:LEU:HD13	2.53	0.43
67:20:57:ARG:HG3	67:20:89:ARG:CZ	2.47	0.43
69:22:89:TRP:CE3	69:22:92:ASN:ND2	2.86	0.43
70:23:66:SER:O	70:23:67:ALA:HB2	2.18	0.43
70:23:104:LEU:HD22	70:23:124:VAL:HA	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:24:39:GLU:HG2	71:24:43:LYS:HE2	1.99	0.43
75:28:13:ILE:HG13	75:28:14:LYS:N	2.32	0.43
79:RA:205:SER:HB3	79:RA:245:PHE:CD1	2.53	0.43
79:RA:295:SER:HB2	79:RA:300:THR:O	2.18	0.43
1:2S:30:G:OP2	17:55:187:ARG:HB2	2.18	0.43
1:2S:1498:A:H2'	1:2S:1499:C:H6	1.82	0.43
1:2S:1506:A:H1'	1:2S:1848:G:C6	2.53	0.43
1:2S:1790:G:O2'	1:2S:1791:C:H5'	2.18	0.43
1:2S:2356:A:H5'	19:57:138:LYS:NZ	2.33	0.43
1:2S:2844:C:H42	1:2S:2898:G:N2	2.16	0.43
1:2S:2853:A:H5'	13:50:63:GLU:HB2	1.99	0.43
1:2S:2998:U:H2'	1:2S:2999:U:C6	2.52	0.43
1:2S:3307:A:H8	1:2S:3307:A:OP1	2.01	0.43
3:5S:106:U:H2'	3:5S:107:C:C6	2.52	0.43
4:L1:104:SER:O	4:L1:128:LEU:CD2	2.66	0.43
5:L2:202:VAL:O	5:L2:202:VAL:CG1	2.66	0.43
6:L3:161:LEU:HA	6:L3:179:ALA:O	2.18	0.43
8:L5:7:ALA:C	8:L5:8:LYS:HD2	2.43	0.43
11:L8:152:LEU:HB3	11:L8:198:ALA:HB3	2.00	0.43
12:L9:157:ASN:O	12:L9:160:ASP:HB3	2.18	0.43
17:55:67:ARG:HA	17:55:126:THR:O	2.18	0.43
20:58:85:GLY:HA2	20:58:104:LEU:HD12	2.01	0.43
22:60:92:LYS:O	22:60:93:GLU:HG3	2.19	0.43
23:61:66:ASN:C	23:61:67:VAL:HG23	2.43	0.43
23:61:135:PRO:O	23:61:136:ARG:C	2.60	0.43
25:63:55:GLY:H	25:63:78:VAL:HB	1.83	0.43
25:63:75:PRO:HB2	25:63:103:ALA:C	2.43	0.43
30:68:101:VAL:HA	30:68:124:ILE:HB	2.00	0.43
39:77:39:TYR:HD2	39:77:39:TYR:HA	1.69	0.43
46:1S:215:A:H1'	46:1S:242:U:C4	2.54	0.43
46:1S:307:G:C5'	58:11:92:HIS:NE2	2.81	0.43
46:1S:426:G:N2	46:1S:459:G:O2'	2.50	0.43
46:1S:451:A:H3'	46:1S:453:U:H5	1.83	0.43
46:1S:1196:A:H4'	46:1S:1197:C:H5''	2.00	0.43
46:1S:1291:G:H2'	46:1S:1292:G:C8	2.52	0.43
46:1S:1585:U:H3	46:1S:1611:A:H2	1.66	0.43
46:1S:1604:U:H5'	67:20:79:TRP:CD1	2.53	0.43
50:S3:168:ILE:HG22	50:S3:189:MET:CA	2.47	0.43
50:S3:175:VAL:O	50:S3:181:VAL:HA	2.18	0.43
51:S4:122:LYS:HE3	51:S4:122:LYS:HB2	1.84	0.43
53:S6:67:VAL:O	53:S6:68:LEU:HB2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:S7:155:ASP:CG	54:S7:156:SER:H	2.26	0.43
56:S9:43:TYR:O	56:S9:47:PHE:HB2	2.18	0.43
66:19:65:ILE:HG12	66:19:71:VAL:CG2	2.48	0.43
67:20:22:ILE:HG22	67:20:93:LEU:O	2.18	0.43
69:22:125:ILE:HG12	69:22:126:LEU:H	1.83	0.43
73:26:79:ILE:HA	73:26:84:VAL:HG11	2.00	0.43
77:30:39:LEU:HA	77:30:42:ARG:HH12	1.82	0.43
79:RA:23:LEU:HD23	79:RA:35:SER:HB3	2.00	0.43
79:RA:136:ILE:H	79:RA:136:ILE:CD1	2.11	0.43
1:2S:621:A:H8	1:2S:623:U:O4	2.01	0.43
1:2S:671:U:H4'	20:58:20:LYS:CD	2.35	0.43
1:2S:937:G:H4'	1:2S:963:G:H4'	2.01	0.43
1:2S:942:U:C6	30:68:15:VAL:CG1	3.01	0.43
1:2S:1010:G:H4'	13:50:40:LYS:HE2	2.00	0.43
1:2S:1448:U:H2'	1:2S:1449:A:H8	1.83	0.43
1:2S:1605:A:O2'	1:2S:1607:U:C6	2.68	0.43
1:2S:1654:A:H2'	1:2S:1655:G:O4'	2.18	0.43
1:2S:1705:U:H2'	1:2S:1706:C:H5'	2.00	0.43
1:2S:1922:A:H2'	1:2S:1923:C:O4'	2.19	0.43
2:8S:118:C:H2'	2:8S:119:C:C6	2.53	0.43
3:5S:35:C:H2'	3:5S:36:C:O4'	2.19	0.43
4:L1:93:LEU:CD1	4:L1:119:GLN:HE21	2.31	0.43
6:L3:92:TYR:HD2	6:L3:99:LEU:HB3	1.82	0.43
6:L3:161:LEU:C	6:L3:162:VAL:HG13	2.43	0.43
7:L4:239:ALA:HB1	7:L4:243:HIS:O	2.18	0.43
9:L6:54:TYR:CE2	9:L6:63:LEU:HB3	2.54	0.43
12:L9:87:LYS:HG3	12:L9:145:VAL:CG1	2.48	0.43
13:50:18:PRO:HA	13:50:94:PHE:O	2.18	0.43
13:50:48:LEU:HD22	13:50:49:CYS:N	2.34	0.43
15:53:189:GLU:HA	15:53:192:GLU:CD	2.44	0.43
15:53:189:GLU:HG2	15:53:192:GLU:CD	2.43	0.43
17:55:146:ALA:HB2	37:75:99:GLN:O	2.17	0.43
18:56:76:PRO:HD2	18:56:106:GLU:CD	2.41	0.43
19:57:148:LEU:C	19:57:149:VAL:HG23	2.43	0.43
22:60:75:PHE:O	22:60:93:GLU:HA	2.17	0.43
28:66:111:LEU:HD23	28:66:119:ILE:HD11	1.98	0.43
28:66:112:ASP:H	28:66:115:ARG:CB	2.32	0.43
33:71:18:LYS:HG3	33:71:19:ARG:NH1	2.34	0.43
37:75:75:TYR:O	37:75:76:GLN:HB3	2.18	0.43
46:1S:32:U:O2'	46:1S:33:U:H5'	2.18	0.43
46:1S:393:C:H2'	46:1S:394:C:C6	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:487:G:C3'	46:1S:488:G:H5''	2.48	0.43
46:1S:533:U:H4'	71:24:33:ALA:HB2	1.99	0.43
46:1S:886:U:O2'	61:14:122:PRO:HA	2.18	0.43
46:1S:967:A:H2'	46:1S:968:U:C6	2.53	0.43
46:1S:1762:A:H1'	46:1S:1783:C:H5'	2.00	0.43
48:S1:48:VAL:HG12	48:S1:49:ASN:N	2.25	0.43
50:S3:127:MET:HE1	50:S3:131:ALA:O	2.18	0.43
50:S3:202:LEU:HA	50:S3:203:PRO:HD3	1.79	0.43
52:S5:175:LEU:HD22	52:S5:197:GLU:CG	2.43	0.43
60:13:102:LEU:HD21	60:13:111:ALA:CB	2.47	0.43
61:14:39:ILE:O	61:14:40:ALA:CB	2.66	0.43
62:15:126:VAL:CG1	62:15:127:ARG:N	2.81	0.43
72:25:96:SER:O	72:25:97:LYS:CG	2.62	0.43
77:30:30:PRO:HB2	77:30:34:ALA:CB	2.48	0.43
1:2S:98:G:C4'	1:2S:281:G:H5'	2.48	0.43
1:2S:109:A:H4'	1:2S:110:G:H5'	1.99	0.43
1:2S:284:A:H4'	1:2S:285:A:N3	2.33	0.43
1:2S:296:A:H3'	1:2S:297:G:N2	2.28	0.43
1:2S:817:A:C6	39:77:14:LYS:HA	2.54	0.43
1:2S:863:C:H2'	1:2S:864:G:O4'	2.18	0.43
1:2S:1340:G:H2'	1:2S:1341:U:H6	1.78	0.43
1:2S:1430:U:H2'	30:68:9:ARG:NH2	2.31	0.43
1:2S:1479:U:C5	1:2S:1480:G:C6	3.06	0.43
1:2S:1523:U:O2'	1:2S:1524:A:H5'	2.19	0.43
1:2S:2273:G:N2	1:2S:2311:G:H2'	2.32	0.43
1:2S:2291:A:H2'	1:2S:2292:U:O4'	2.18	0.43
1:2S:2660:G:H5'	1:2S:2750:U:O2'	2.18	0.43
1:2S:2939:G:H2'	1:2S:2940:A:O4'	2.18	0.43
4:L1:186:SER:O	4:L1:190:PHE:HB2	2.19	0.43
11:L8:25:PRO:C	11:L8:26:LEU:HD12	2.43	0.43
13:50:185:ARG:HA	13:50:190:VAL:HG21	2.00	0.43
17:55:35:VAL:CG2	17:55:65:ARG:HH21	2.17	0.43
19:57:10:ASN:HA	19:57:11:PRO:HD2	1.85	0.43
19:57:108:ASP:CB	19:57:111:LYS:HE2	2.47	0.43
22:60:38:LYS:HB2	22:60:38:LYS:HE3	1.81	0.43
23:61:43:LYS:HG3	23:61:58:GLN:HE22	1.82	0.43
26:64:45:ASN:CB	26:64:48:ARG:HG3	2.47	0.43
40:78:43:PHE:O	40:78:53:THR:HA	2.19	0.43
41:79:10:LYS:CA	41:79:13:MET:HE3	2.48	0.43
44:82:9:LYS:HA	44:82:21:THR:O	2.19	0.43
46:1S:151:G:H21	53:S6:13:GLN:CD	2.26	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:291:G:H2'	46:1S:292:U:C5	2.52	0.43
46:1S:433:C:H2'	46:1S:434:G:O4'	2.18	0.43
46:1S:449:C:OP1	51:S4:81:THR:HG21	2.18	0.43
46:1S:790:U:H2'	46:1S:791:A:C8	2.54	0.43
46:1S:1524:A:C2	46:1S:1525:A:C5	3.07	0.43
47:S0:143:VAL:HG12	47:S0:144:ILE:N	2.33	0.43
50:S3:94:ARG:HG2	50:S3:94:ARG:HH11	1.83	0.43
60:13:16:ILE:HG13	60:13:17:PRO:HD2	1.98	0.43
60:13:140:LYS:CG	60:13:141:TYR:H	2.24	0.43
63:16:89:LEU:HG	63:16:93:HIS:CD2	2.53	0.43
66:19:106:GLN:O	66:19:110:LYS:HE3	2.19	0.43
73:26:12:LYS:HA	73:26:15:ARG:HH21	1.83	0.43
74:27:36:LYS:HG2	74:27:43:ILE:HG22	2.00	0.43
75:28:33:LEU:HD22	75:28:33:LEU:H	1.83	0.43
1:2S:286:U:H2'	1:2S:287:G:H8	1.83	0.43
1:2S:523:A:H4'	22:60:67:ALA:O	2.18	0.43
1:2S:827:A:H5''	36:74:14:ASN:O	2.18	0.43
1:2S:1788:C:H2'	1:2S:1789:G:C8	2.53	0.43
1:2S:2148:U:O3'	1:2S:2149:A:H8	2.00	0.43
1:2S:2243:A:C2'	5:L2:244:GLY:HA2	2.48	0.43
1:2S:2451:G:H1	1:2S:2495:C:H42	1.66	0.43
1:2S:2471:U:H2'	1:2S:2472:U:H5'	2.01	0.43
1:2S:2587:U:H2'	1:2S:2588:U:C6	2.54	0.43
1:2S:2665:U:O4	1:2S:2703:A:H4'	2.19	0.43
1:2S:3017:A:H2'	1:2S:3018:C:H6	1.81	0.43
2:8S:145:U:H2'	2:8S:146:U:C6	2.53	0.43
5:L2:189:TYR:HA	5:L2:192:LYS:HD2	2.00	0.43
6:L3:373:PRO:O	6:L3:377:HIS:HB2	2.19	0.43
9:L6:11:PRO:HD2	34:72:92:TYR:OH	2.19	0.43
9:L6:60:ASP:O	9:L6:61:ASN:HB2	2.18	0.43
10:L7:157:ASN:O	10:L7:158:LYS:HB3	2.18	0.43
12:L9:67:ALA:HA	12:L9:70:THR:HG22	2.00	0.43
12:L9:88:TYR:OH	12:L9:151:VAL:HG13	2.18	0.43
12:L9:92:TYR:N	12:L9:92:TYR:CD1	2.86	0.43
15:53:57:VAL:CG1	15:53:69:VAL:HG22	2.43	0.43
16:54:53:VAL:HA	16:54:54:PRO:HD3	1.85	0.43
17:55:58:GLY:HA3	17:55:142:ILE:CD1	2.42	0.43
22:60:87:THR:HB	23:61:156:TYR:CD1	2.53	0.43
24:62:20:SER:HB3	24:62:61:THR:HB	2.00	0.43
29:67:33:SER:HB3	29:67:36:HIS:O	2.18	0.43
32:70:84:LEU:N	32:70:84:LEU:HD12	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:74:111:ALA:C	36:74:113:LYS:H	2.27	0.43
38:76:91:ASN:OD1	38:76:94:ILE:HD12	2.18	0.43
39:77:21:ARG:HB2	39:77:39:TYR:CZ	2.53	0.43
40:78:40:GLN:HG2	40:78:41:THR:N	2.33	0.43
46:1S:380:U:C4	56:S9:5:PRO:HA	2.53	0.43
46:1S:460:A:H2'	46:1S:460:A:N3	2.34	0.43
46:1S:460:A:H5'	46:1S:461:G:OP2	2.19	0.43
46:1S:499:U:H3'	46:1S:499:U:H6	1.83	0.43
46:1S:1113:A:H8	46:1S:1113:A:OP1	2.01	0.43
46:1S:1286:U:O5'	46:1S:1286:U:H6	2.00	0.43
46:1S:1760:G:O2'	46:1S:1761:U:H5'	2.19	0.43
47:S0:32:HIS:C	47:S0:34:GLU:H	2.27	0.43
48:S1:85:LYS:C	48:S1:86:LEU:HD22	2.44	0.43
49:S2:154:LEU:N	49:S2:154:LEU:HD12	2.33	0.43
50:S3:94:ARG:HG2	50:S3:94:ARG:NH1	2.34	0.43
51:S4:19:LEU:HD11	51:S4:108:ARG:CD	2.45	0.43
53:S6:162:VAL:HG12	53:S6:169:TYR:O	2.19	0.43
55:S8:68:ALA:C	55:S8:70:GLU:H	2.26	0.43
58:11:2:SER:HB2	58:11:82:ARG:N	2.34	0.43
59:12:71:ILE:HG23	59:12:72:ILE:H	1.83	0.43
60:13:87:ASP:O	60:13:91:LEU:HG	2.18	0.43
64:17:117:LEU:O	64:17:117:LEU:HD13	2.17	0.43
65:18:11:PHE:HE1	72:25:41:ILE:HB	1.83	0.43
65:18:63:GLN:O	65:18:67:GLU:HG3	2.18	0.43
66:19:4:VAL:HG22	66:19:5:SER:N	2.33	0.43
76:29:21:CYS:HB3	76:29:26:SER:H	1.83	0.43
79:RA:135:THR:CG2	79:RA:141:LEU:HD21	2.47	0.43
1:2S:103:G:H4'	15:53:65:TYR:CD2	2.54	0.43
1:2S:107:A:O2'	1:2S:325:A:N3	2.51	0.43
1:2S:169:U:H6	1:2S:169:U:H5''	1.83	0.43
1:2S:214:G:H4'	28:66:10:SER:O	2.19	0.43
1:2S:530:G:O2'	1:2S:531:G:H5'	2.19	0.43
1:2S:603:A:H2'	1:2S:604:G:C4'	2.49	0.43
1:2S:741:U:C2	1:2S:742:G:H1'	2.53	0.43
1:2S:917:A:H3'	1:2S:918:C:C6	2.54	0.43
1:2S:1359:C:O2'	1:2S:1360:C:H5'	2.18	0.43
1:2S:1593:A:H4'	36:74:61:GLN:NE2	2.32	0.43
1:2S:1709:C:H5''	29:67:15:ARG:HH22	1.83	0.43
1:2S:2140:U:C2'	1:2S:2141:U:H5'	2.48	0.43
1:2S:2376:G:H2'	1:2S:2377:G:N7	2.28	0.43
1:2S:2378:C:H2'	1:2S:2379:U:H6	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2378:C:C2	1:2S:2379:U:C5	3.07	0.43
1:2S:2383:C:N4	18:56:91:LYS:HG2	2.33	0.43
1:2S:2491:A:O2'	4:L1:39:LYS:HD3	2.17	0.43
1:2S:2538:U:H3'	1:2S:2539:C:H6	1.83	0.43
1:2S:2584:G:H1'	11:L8:240:ASN:HD21	1.83	0.43
1:2S:3185:U:C5'	12:L9:23:ARG:HH12	2.31	0.43
2:8S:66:A:H2'	2:8S:67:U:C6	2.54	0.43
3:5S:4:U:H2'	3:5S:5:G:C8	2.53	0.43
4:L1:67:ILE:CG1	4:L1:68:PHE:N	2.81	0.43
4:L1:136:THR:H	4:L1:137:PRO:HD2	1.83	0.43
6:L3:93:VAL:HG22	6:L3:94:GLU:N	2.33	0.43
6:L3:164:THR:HG22	6:L3:165:GLN:N	2.34	0.43
7:L4:321:LYS:O	7:L4:325:LEU:HG	2.18	0.43
8:L5:6:ASP:HB3	8:L5:7:ALA:H	1.59	0.43
8:L5:58:LYS:HA	8:L5:58:LYS:HD3	1.71	0.43
10:L7:203:TRP:CG	10:L7:204:PRO:HD2	2.53	0.43
11:L8:24:ASN:HB3	11:L8:25:PRO:CD	2.49	0.43
20:58:147:ARG:HG2	20:58:148:GLU:N	2.34	0.43
22:60:146:LYS:HA	22:60:146:LYS:HD2	1.83	0.43
23:61:108:ARG:HG2	23:61:108:ARG:HH21	1.84	0.43
28:66:45:ILE:CD1	28:66:48:LEU:HD11	2.48	0.43
29:67:123:GLN:O	29:67:124:ALA:CB	2.67	0.43
34:72:21:HIS:HB3	34:72:24:ARG:HB3	2.01	0.43
36:74:58:ARG:HB3	36:74:61:GLN:CG	2.47	0.43
40:78:46:ARG:CD	40:78:51:LEU:HD13	2.35	0.43
46:1S:398:G:H2'	46:1S:399:A:H5''	2.01	0.43
46:1S:528:U:H2'	46:1S:529:A:O4'	2.18	0.43
46:1S:707:A:H3'	46:1S:708:C:H5''	2.00	0.43
46:1S:1095:U:H6	46:1S:1095:U:O5'	2.02	0.43
46:1S:1192:C:H2'	46:1S:1193:A:N7	2.34	0.43
47:S0:111:ILE:O	47:S0:111:ILE:HG13	2.18	0.43
48:S1:61:LEU:HB2	48:S1:62:LYS:H	1.63	0.43
48:S1:146:GLN:HG3	48:S1:147:ALA:N	2.33	0.43
48:S1:146:GLN:HE21	48:S1:146:GLN:HB2	1.58	0.43
50:S3:162:GLN:HA	50:S3:165:ASN:HD22	1.84	0.43
51:S4:53:LYS:C	51:S4:55:ALA:H	2.27	0.43
51:S4:179:LYS:HG2	51:S4:230:GLU:OE2	2.18	0.43
52:S5:41:LYS:HE3	52:S5:67:PRO:HB2	2.00	0.43
52:S5:124:LEU:N	52:S5:124:LEU:HD12	2.34	0.43
55:S8:21:PHE:C	55:S8:22:ARG:HG2	2.44	0.43
56:S9:20:GLU:OE2	56:S9:23:ARG:HB2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:S9:159:ALA:HA	56:S9:160:PRO:HD3	1.85	0.43
58:11:155:LYS:H	58:11:155:LYS:CD	2.24	0.43
61:14:128:LYS:HB2	73:26:22:ARG:CZ	2.49	0.43
63:16:97:VAL:HG12	63:16:98:ASP:N	2.33	0.43
67:20:63:LEU:O	76:29:52:PHE:HE1	2.02	0.43
68:21:9:VAL:HG22	68:21:10:GLU:N	2.34	0.43
1:2S:59:G:H4'	1:2S:60:A:OP1	2.18	0.43
1:2S:174:C:O5'	1:2S:174:C:H6	2.01	0.43
1:2S:660:A:H4'	7:L4:100:PHE:CD2	2.54	0.43
1:2S:1132:C:H2'	1:2S:1133:A:C8	2.52	0.43
1:2S:1306:G:O3'	18:56:60:LYS:HG2	2.18	0.43
1:2S:1312:C:O2'	18:56:83:ALA:O	2.37	0.43
1:2S:1841:A:O2'	1:2S:1842:A:H5''	2.19	0.43
1:2S:1863:G:O5'	1:2S:1863:G:H8	2.02	0.43
1:2S:2538:U:H5''	1:2S:2539:C:C5	2.54	0.43
1:2S:2649:A:O2'	1:2S:2650:U:H5'	2.18	0.43
2:8S:42:G:H5''	39:77:61:THR:OG1	2.19	0.43
2:8S:155:A:H5'	11:L8:185:ARG:NH1	2.34	0.43
3:5S:9:C:H2'	3:5S:10:C:H5'	2.01	0.43
7:L4:106:TRP:CZ3	15:53:22:VAL:HG21	2.53	0.43
8:L5:181:PRO:HG2	8:L5:195:LEU:HD12	2.00	0.43
10:L7:37:ASN:O	10:L7:41:ARG:HG3	2.18	0.43
12:L9:92:TYR:HB3	12:L9:99:ILE:CD1	2.48	0.43
15:53:128:ARG:NH2	37:75:112:PRO:HD2	2.33	0.43
17:55:73:ARG:HB2	17:55:92:LEU:CD2	2.48	0.43
18:56:21:SER:HA	18:56:87:MET:HE1	2.00	0.43
20:58:43:PRO:O	20:58:47:VAL:HG23	2.18	0.43
25:63:33:ASN:H	25:63:33:ASN:ND2	2.14	0.43
35:73:59:VAL:HG21	35:73:65:ARG:HD3	2.00	0.43
45:83:84:ARG:HD2	45:83:87:ARG:HH21	1.83	0.43
46:1S:53:G:H2'	46:1S:54:C:C6	2.54	0.43
46:1S:387:A:H1'	46:1S:425:A:H2	1.84	0.43
46:1S:448:C:H5'	51:S4:29:PRO:CG	2.40	0.43
46:1S:645:C:H2'	46:1S:646:C:C6	2.54	0.43
46:1S:971:A:H3'	46:1S:972:G:H8	1.83	0.43
46:1S:1316:G:C4'	64:17:10:LYS:HE3	2.47	0.43
46:1S:1389:C:H4'	64:17:49:LYS:HA	2.01	0.43
46:1S:1529:C:H2'	46:1S:1530:C:C6	2.54	0.43
51:S4:95:THR:O	51:S4:96:ASN:HB2	2.18	0.43
51:S4:102:VAL:HG22	51:S4:103:TYR:H	1.84	0.43
54:S7:155:ASP:O	54:S7:186:PRO:HD2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:S8:193:LEU:O	55:S8:197:THR:HG23	2.19	0.43
56:S9:53:ARG:HG2	56:S9:53:ARG:NH2	2.33	0.43
60:13:33:VAL:HG21	60:13:66:ILE:HG12	2.00	0.43
60:13:88:LEU:HD13	60:13:88:LEU:C	2.44	0.43
62:15:98:ASN:HB2	62:15:122:THR:HG22	2.01	0.43
62:15:126:VAL:CG1	62:15:127:ARG:H	2.31	0.43
63:16:52:LEU:HD22	63:16:60:PHE:CE2	2.53	0.43
64:17:85:VAL:O	64:17:85:VAL:HG12	2.19	0.43
65:18:94:ASP:HB2	65:18:96:LYS:HE2	2.00	0.43
1:2S:174:C:H2'	1:2S:175:C:C6	2.54	0.43
1:2S:215:G:C4'	28:66:15:ALA:CB	2.97	0.43
1:2S:272:G:H2'	1:2S:273:A:H8	1.84	0.43
1:2S:583:G:H4'	35:73:106:ASN:OD1	2.18	0.43
1:2S:612:U:H2'	1:2S:613:G:C8	2.53	0.43
1:2S:850:U:H2'	1:2S:851:C:C6	2.54	0.43
1:2S:867:G:H2'	1:2S:868:C:C6	2.53	0.43
1:2S:882:A:N3	1:2S:882:A:H2'	2.34	0.43
1:2S:1063:G:H2'	1:2S:1097:G:C2	2.54	0.43
1:2S:1676:A:H5''	24:62:101:ASN:HD21	1.84	0.43
1:2S:1932:A:C2'	1:2S:1933:A:H5'	2.48	0.43
1:2S:2154:U:H4'	5:L2:240:ALA:CB	2.48	0.43
1:2S:2411:U:H2'	1:2S:2412:G:O4'	2.19	0.43
1:2S:3088:G:H5'	6:L3:313:HIS:HE1	1.81	0.43
4:L1:93:LEU:HD21	4:L1:118:LYS:HG3	1.99	0.43
5:L2:250:GLN:O	5:L2:251:LYS:C	2.61	0.43
6:L3:87:VAL:HG22	6:L3:162:VAL:HA	2.01	0.43
6:L3:220:VAL:HG22	6:L3:274:SER:OG	2.19	0.43
7:L4:237:GLN:HA	7:L4:240:PRO:HG3	2.00	0.43
9:L6:78:ARG:O	9:L6:79:VAL:CG2	2.67	0.43
9:L6:175:LYS:HD3	16:54:111:ALA:HA	2.00	0.43
15:53:91:ARG:HG3	15:53:91:ARG:NH1	2.34	0.43
15:53:158:ALA:CA	30:68:97:GLU:HA	2.37	0.43
15:53:180:ARG:HG2	15:53:180:ARG:HH11	1.83	0.43
19:57:14:SER:HB3	19:57:149:VAL:HG11	2.00	0.43
19:57:50:GLN:O	19:57:55:GLN:HB2	2.19	0.43
19:57:57:ALA:CB	19:57:81:ALA:HB1	2.48	0.43
22:60:90:MET:HE1	22:60:114:HIS:CE1	2.53	0.43
24:62:108:TYR:CD1	24:62:108:TYR:C	2.96	0.43
28:66:48:LEU:HA	28:66:49:PRO:HD3	1.81	0.43
28:66:51:ARG:HH21	28:66:53:ASP:H	1.66	0.43
38:76:23:ALA:HB1	38:76:24:PRO:HD2	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:79:47:THR:CG2	41:79:48:LYS:N	2.82	0.43
46:1S:67:A:H2'	46:1S:69:G:O4'	2.19	0.43
46:1S:376:C:C2'	46:1S:377:G:H5'	2.49	0.43
46:1S:398:G:H21	51:S4:5:PRO:HD2	1.84	0.43
46:1S:628:G:H22	46:1S:970:A:H5''	1.84	0.43
46:1S:1161:C:O2'	46:1S:1162:C:H5'	2.18	0.43
46:1S:1185:U:C4	46:1S:1458:G:H1'	2.53	0.43
46:1S:1528:U:H2'	46:1S:1529:C:C6	2.53	0.43
46:1S:1657:U:H4'	46:1S:1658:G:O5'	2.18	0.43
48:S1:171:ILE:O	48:S1:171:ILE:HG22	2.18	0.43
49:S2:159:THR:HG23	49:S2:167:VAL:O	2.18	0.43
50:S3:167:PHE:HE1	50:S3:192:PRO:HA	1.80	0.43
56:S9:34:PHE:CD2	56:S9:105:LEU:HD23	2.54	0.43
65:18:74:GLN:HE21	65:18:74:GLN:HB3	1.52	0.43
71:24:19:ALA:HB1	71:24:77:ASN:HD22	1.82	0.43
73:26:41:ILE:HG22	73:26:68:TYR:HD1	1.84	0.43
73:26:78:ALA:HA	73:26:82:ARG:CB	2.44	0.43
78:31:123:ASN:H	78:31:126:CYS:HB2	1.84	0.43
1:2S:211:A:H3'	7:L4:221:ASN:HD21	1.83	0.43
1:2S:571:U:H2'	1:2S:572:A:H8	1.83	0.43
1:2S:706:A:C2'	1:2S:707:U:H5'	2.49	0.43
1:2S:860:G:H5'	45:83:17:ARG:HH12	1.84	0.43
1:2S:915:A:C5	1:2S:917:A:H1'	2.53	0.43
1:2S:1301:A:H4'	1:2S:1302:A:H5''	2.01	0.43
1:2S:1421:G:H2'	1:2S:1422:G:C8	2.53	0.43
1:2S:1880:U:H2'	1:2S:1881:A:C8	2.54	0.43
1:2S:1977:C:H2'	1:2S:1978:A:C8	2.53	0.43
1:2S:2634:U:H2'	1:2S:2635:A:C8	2.54	0.43
1:2S:2957:G:H2'	1:2S:2958:A:C5'	2.49	0.43
1:2S:3128:G:OP2	1:2S:3128:G:C8	2.67	0.43
2:8S:37:A:H2'	2:8S:37:A:N3	2.33	0.43
4:L1:183:ILE:O	4:L1:183:ILE:HG12	2.19	0.43
5:L2:96:LEU:HD22	45:83:87:ARG:HB2	2.00	0.43
6:L3:232:ARG:HH11	6:L3:268:GLY:CA	2.30	0.43
10:L7:239:LEU:HD23	10:L7:239:LEU:C	2.43	0.43
13:50:79:VAL:HG12	13:50:147:VAL:HG21	2.00	0.43
17:55:162:ARG:HH21	17:55:164:LEU:HD11	1.84	0.43
21:59:67:ALA:O	21:59:71:ARG:HG3	2.19	0.43
32:70:22:LYS:CB	32:70:94:GLU:HB2	2.49	0.43
33:71:12:TYR:HD2	33:71:75:ILE:HD12	1.83	0.43
36:74:24:LYS:HD2	36:74:24:LYS:HA	1.91	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:74:95:ILE:N	36:74:95:ILE:CD1	2.81	0.43
38:76:9:ILE:HB	38:76:10:GLY:H	1.62	0.43
40:78:29:LYS:HE2	40:78:37:PRO:CB	2.49	0.43
44:82:38:GLN:HA	44:82:41:ARG:HE	1.83	0.43
44:82:58:PHE:HE1	44:82:60:LYS:O	2.01	0.43
46:1S:514:G:H1	46:1S:543:C:H41	1.67	0.43
46:1S:882:U:H2'	46:1S:883:C:H6	1.82	0.43
46:1S:1524:A:OP1	66:19:79:LEU:HA	2.18	0.43
50:S3:132:LYS:HA	50:S3:132:LYS:HD2	1.67	0.43
50:S3:217:ILE:HG22	50:S3:218:LEU:H	1.83	0.43
53:S6:77:LEU:CD1	53:S6:95:LYS:HD3	2.49	0.43
53:S6:163:THR:CG2	53:S6:168:THR:HG22	2.22	0.43
54:S7:46:ILE:HD13	54:S7:60:ILE:HA	2.00	0.43
54:S7:56:LYS:HB2	54:S7:88:ARG:CD	2.44	0.43
56:S9:126:ARG:HG3	77:30:33:ARG:HD3	2.00	0.43
56:S9:147:MET:H	56:S9:147:MET:HE2	1.84	0.43
60:13:139:TRP:O	60:13:140:LYS:HE2	2.19	0.43
61:14:105:LEU:HD12	61:14:106:ALA:N	2.34	0.43
63:16:89:LEU:O	63:16:93:HIS:CD2	2.72	0.43
66:19:18:TYR:O	66:19:22:LEU:HD23	2.19	0.43
66:19:83:ALA:HA	66:19:92:LYS:O	2.19	0.43
67:20:67:THR:HG22	67:20:68:ARG:H	1.82	0.43
69:22:41:MET:HA	69:22:46:TYR:HD2	1.83	0.43
69:22:94:LEU:HA	69:22:95:PRO:HD3	1.63	0.43
72:25:41:ILE:HG13	72:25:42:LEU:N	2.34	0.43
73:26:60:PRO:O	73:26:61:GLU:CG	2.51	0.43
79:RA:71:CYS:HA	79:RA:81:LEU:O	2.18	0.43
1:2S:242:C:O2'	1:2S:243:G:H8	2.02	0.43
1:2S:392:G:H2'	1:2S:393:U:H5'	2.01	0.43
1:2S:517:G:O2'	1:2S:518:G:H5'	2.19	0.43
1:2S:677:A:C8	1:2S:785:G:C6	3.07	0.43
1:2S:956:U:H2'	1:2S:957:C:H6	1.83	0.43
1:2S:1541:G:H1'	1:2S:1557:A:C5	2.54	0.43
1:2S:1841:A:C3'	1:2S:1842:A:H5''	2.48	0.43
1:2S:1889:G:OP1	6:L3:245:GLY:HA2	2.19	0.43
1:2S:1935:G:H2'	1:2S:1936:A:H8	1.83	0.43
1:2S:2143:A:O2'	1:2S:2144:A:H2'	2.18	0.43
1:2S:2491:A:O4'	4:L1:207:LYS:HE3	2.18	0.43
1:2S:2991:A:H5''	6:L3:21:ARG:NH2	2.34	0.43
1:2S:3228:C:H4'	1:2S:3229:G:O5'	2.19	0.43
6:L3:84:VAL:HG11	6:L3:162:VAL:HG23	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L3:209:PHE:HE1	6:L3:340:LYS:HG3	1.84	0.43
7:L4:222:VAL:HA	7:L4:223:PRO:HD3	1.73	0.43
9:L6:82:ARG:HD3	9:L6:82:ARG:HA	1.82	0.43
10:L7:63:ILE:CG2	10:L7:67:ARG:NH2	2.82	0.43
10:L7:236:ILE:HD12	10:L7:239:LEU:CD1	2.44	0.43
13:50:139:ARG:HE	13:50:172:GLY:HA3	1.84	0.43
16:54:94:TRP:C	16:54:96:ALA:H	2.27	0.43
17:55:66:VAL:O	17:55:127:TYR:HA	2.18	0.43
18:56:6:VAL:HG22	18:56:32:LYS:HB2	2.01	0.43
18:56:84:LEU:O	18:56:87:MET:HG3	2.18	0.43
19:57:137:ASN:HB3	19:57:138:LYS:H	1.67	0.43
19:57:168:LEU:HD22	19:57:173:ARG:HG2	2.00	0.43
20:58:122:ILE:HD12	20:58:122:ILE:N	2.34	0.43
22:60:5:LYS:CA	22:60:100:VAL:HG21	2.49	0.43
25:63:28:ASN:O	25:63:29:SER:C	2.62	0.43
29:67:4:PHE:CZ	32:70:35:ARG:HG2	2.54	0.43
30:68:149:ALA:HB3	38:76:15:LYS:HD3	2.01	0.43
34:72:103:LYS:O	34:72:107:VAL:HG23	2.18	0.43
35:73:37:THR:HB	35:73:38:PRO:HD2	2.00	0.43
37:75:88:LEU:HA	37:75:91:ALA:CB	2.49	0.43
40:78:64:LYS:HA	40:78:64:LYS:CE	2.39	0.43
46:1S:104:A:OP2	46:1S:308:C:N4	2.52	0.43
46:1S:252:U:H2'	46:1S:253:A:C8	2.52	0.43
46:1S:380:U:H1'	56:S9:3:ARG:H	1.83	0.43
46:1S:611:U:H2'	46:1S:612:U:O4'	2.19	0.43
46:1S:753:A:H2'	46:1S:754:A:C1'	2.49	0.43
50:S3:16:VAL:HG11	76:29:22:ARG:HH11	1.83	0.43
50:S3:70:THR:HA	50:S3:84:ILE:HD12	2.01	0.43
51:S4:9:LEU:HD23	51:S4:10:LYS:O	2.18	0.43
53:S6:161:GLU:HG2	53:S6:170:THR:HB	2.01	0.43
54:S7:102:PRO:HB3	54:S7:106:SER:OG	2.19	0.43
58:11:91:LEU:HB3	58:11:100:TYR:HB3	2.00	0.43
62:15:86:VAL:O	62:15:89:MET:HG2	2.18	0.43
67:20:71:PRO:HB3	76:29:41:GLN:HG2	2.00	0.43
68:21:81:ASN:O	68:21:82:VAL:HB	2.19	0.43
69:22:80:ASN:HA	69:22:123:GLY:O	2.18	0.43
1:2S:422:A:H3'	1:2S:423:A:C8	2.52	0.42
1:2S:533:A:H61	1:2S:559:A:H61	1.67	0.42
1:2S:1362:G:H2'	1:2S:1363:A:H8	1.83	0.42
1:2S:1606:U:C5	36:74:8:ARG:HB3	2.54	0.42
1:2S:1666:G:H2'	1:2S:1667:A:H8	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2612:U:H2'	1:2S:2613:U:O4'	2.19	0.42
1:2S:3297:U:H2'	1:2S:3298:C:H6	1.84	0.42
2:8S:104:A:C8	2:8S:106:C:N4	2.86	0.42
4:L1:206:VAL:O	4:L1:213:ALA:HA	2.19	0.42
7:L4:145:ILE:HB	7:L4:146:PRO:HD2	2.01	0.42
7:L4:328:ASN:HA	7:L4:329:PRO:HD2	1.87	0.42
8:L5:40:HIS:HB3	8:L5:43:LYS:HG3	2.01	0.42
8:L5:192:PRO:O	8:L5:196:ARG:HB2	2.18	0.42
8:L5:229:ASP:CB	8:L5:231:ILE:HG13	2.49	0.42
8:L5:270:LYS:HA	8:L5:273:ARG:HB2	2.01	0.42
10:L7:34:LYS:HA	10:L7:37:ASN:HD22	1.84	0.42
10:L7:53:LYS:O	10:L7:56:GLU:HG2	2.19	0.42
11:L8:195:SER:C	11:L8:197:VAL:H	2.26	0.42
12:L9:14:GLU:N	12:L9:14:GLU:CD	2.77	0.42
12:L9:30:PRO:HG2	12:L9:83:THR:HG22	2.00	0.42
13:50:185:ARG:HD2	13:50:185:ARG:C	2.44	0.42
15:53:103:ASN:CB	38:76:20:MET:HE1	2.48	0.42
17:55:80:THR:HG21	17:55:87:GLN:HG2	2.02	0.42
18:56:186:ALA:O	18:56:187:GLU:HB3	2.18	0.42
20:58:9:GLN:OE1	20:58:9:GLN:HA	2.19	0.42
20:58:170:ARG:O	20:58:171:LYS:CB	2.67	0.42
23:61:40:VAL:CB	23:61:96:ILE:HG23	2.48	0.42
27:65:65:GLN:CG	37:75:32:LYS:HD2	2.49	0.42
27:65:120:LYS:HG2	27:65:121:LYS:N	2.33	0.42
32:70:50:VAL:HA	32:70:53:LYS:CB	2.44	0.42
35:73:37:THR:HB	35:73:38:PRO:CD	2.49	0.42
35:73:90:PRO:O	35:73:91:ALA:HB3	2.19	0.42
36:74:42:PRO:HD3	36:74:56:THR:HG22	1.99	0.42
39:77:52:LYS:O	39:77:55:ARG:HB3	2.19	0.42
42:80:86:ALA:C	42:80:88:LYS:H	2.27	0.42
43:81:16:LYS:NZ	46:1S:1749:A:H4'	2.34	0.42
46:1S:72:A:H8	53:S6:164:LYS:HE2	1.83	0.42
46:1S:115:G:H5'	58:11:129:ARG:HH11	1.83	0.42
46:1S:218:A:N7	46:1S:830:U:H6	2.14	0.42
46:1S:862:A:H4'	46:1S:863:A:O5'	2.18	0.42
46:1S:1074:G:H5'	46:1S:1074:G:C8	2.48	0.42
46:1S:1432:U:H4'	46:1S:1433:G:C5'	2.43	0.42
48:S1:190:PRO:HG2	48:S1:192:VAL:HG23	2.01	0.42
50:S3:219:ALA:CB	50:S3:220:PRO:CD	2.95	0.42
51:S4:194:THR:O	51:S4:195:ILE:CB	2.66	0.42
51:S4:244:ILE:O	51:S4:245:LYS:HB3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:S7:105:THR:HG22	54:S7:105:THR:O	2.19	0.42
60:13:127:ARG:HA	60:13:130:ARG:NH2	2.34	0.42
66:19:63:ARG:O	66:19:67:MET:HB2	2.18	0.42
71:24:35:VAL:HG22	71:24:36:SER:N	2.34	0.42
71:24:89:TYR:O	71:24:93:ARG:HG3	2.18	0.42
76:29:30:LEU:CD2	76:29:32:ARG:HG3	2.49	0.42
79:RA:88:THR:HG22	79:RA:104:VAL:CG2	2.47	0.42
1:2S:44:U:H2'	1:2S:45:A:C5'	2.50	0.42
1:2S:274:G:H2'	1:2S:275:U:O4'	2.19	0.42
1:2S:290:G:OP1	17:55:98:LEU:HD23	2.19	0.42
1:2S:531:G:H2'	1:2S:532:A:C8	2.54	0.42
1:2S:743:C:O2	20:58:141:ARG:HG3	2.20	0.42
1:2S:754:G:H2'	1:2S:755:A:O4'	2.19	0.42
1:2S:945:C:H5''	34:72:34:LYS:HB2	2.01	0.42
1:2S:1019:G:H2'	1:2S:1020:G:C5'	2.39	0.42
1:2S:1408:G:H2'	1:2S:1409:G:O4'	2.17	0.42
1:2S:1460:A:H2'	1:2S:1461:A:H8	1.83	0.42
1:2S:2610:G:C5	1:2S:2611:U:C4	3.07	0.42
1:2S:2663:G:H2'	1:2S:2664:C:O4'	2.19	0.42
1:2S:2941:A:C8	6:L3:255:TRP:CE3	3.07	0.42
1:2S:2949:U:H2'	1:2S:2950:G:H5'	1.99	0.42
1:2S:3008:A:OP1	18:56:72:HIS:ND1	2.52	0.42
3:5S:8:G:H2'	3:5S:9:C:C6	2.54	0.42
5:L2:117:GLU:HB2	5:L2:162:ALA:HB1	2.00	0.42
7:L4:324:LEU:O	7:L4:327:LEU:O	2.37	0.42
8:L5:107:ARG:O	8:L5:111:GLN:HB2	2.18	0.42
9:L6:43:LEU:HD22	35:73:102:LEU:HB2	2.01	0.42
10:L7:69:ALA:CB	10:L7:76:TYR:H	2.32	0.42
10:L7:223:PHE:HE2	10:L7:235:PHE:CD2	2.37	0.42
12:L9:91:ARG:CD	12:L9:143:GLU:HB2	2.48	0.42
12:L9:139:ASN:ND2	12:L9:140:VAL:HG23	2.34	0.42
15:53:189:GLU:HA	15:53:192:GLU:OE1	2.19	0.42
17:55:190:THR:O	17:55:194:GLN:HG2	2.19	0.42
21:59:159:ALA:O	21:59:163:ARG:HB2	2.20	0.42
22:60:31:ALA:HB1	22:60:36:ILE:CB	2.45	0.42
22:60:117:ARG:HA	22:60:117:ARG:HD3	1.85	0.42
23:61:35:LYS:O	23:61:64:VAL:HG11	2.19	0.42
27:65:53:HIS:CE1	27:65:56:ARG:CG	3.01	0.42
29:67:83:THR:HG23	29:67:85:TYR:H	1.84	0.42
35:73:53:TYR:CD1	35:73:53:TYR:N	2.87	0.42
37:75:30:GLU:O	37:75:34:GLN:HG3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:83:10:ILE:CG2	45:83:27:LYS:HG3	2.49	0.42
45:83:53:GLY:HA2	45:83:67:GLY:O	2.18	0.42
46:1S:46:A:C6	46:1S:433:C:H4'	2.53	0.42
46:1S:294:C:H2'	46:1S:295:A:C8	2.55	0.42
46:1S:394:C:H2'	46:1S:395:U:C6	2.54	0.42
46:1S:622:A:H2'	46:1S:1031:U:H5''	2.01	0.42
46:1S:1018:U:H2'	46:1S:1019:A:H8	1.80	0.42
46:1S:1059:U:H3'	46:1S:1059:U:OP2	2.19	0.42
46:1S:1179:G:H2'	46:1S:1180:C:H6	1.84	0.42
46:1S:1404:C:H2'	46:1S:1405:G:H8	1.84	0.42
46:1S:1533:C:H4'	46:1S:1539:G:C2	2.54	0.42
46:1S:1796:C:C6	73:26:7:SER:HB3	2.54	0.42
47:S0:17:LEU:HD13	47:S0:50:VAL:CG1	2.42	0.42
48:S1:51:SER:HA	48:S1:56:SER:HA	2.00	0.42
49:S2:58:LEU:HA	68:21:12:TYR:HE1	1.84	0.42
54:S7:122:HIS:O	54:S7:126:LEU:HD23	2.19	0.42
59:12:97:LEU:HD22	59:12:100:TRP:CE3	2.54	0.42
60:13:53:LEU:O	60:13:57:ALA:CB	2.67	0.42
60:13:106:ARG:HG2	60:13:106:ARG:HH21	1.84	0.42
60:13:140:LYS:HG3	60:13:141:TYR:N	2.25	0.42
64:17:13:SER:HB3	64:17:57:LEU:HD12	2.00	0.42
67:20:23:ARG:HB3	67:20:117:VAL:HG13	2.02	0.42
69:22:36:LYS:CB	69:22:110:ILE:HD12	2.49	0.42
69:22:65:LEU:N	69:22:65:LEU:CD1	2.77	0.42
79:RA:42:LEU:HD21	79:RA:68:VAL:HG11	1.99	0.42
1:2S:106:A:H2'	1:2S:107:A:O4'	2.19	0.42
1:2S:277:G:H5''	44:82:49:GLY:HA2	2.01	0.42
1:2S:869:G:H2'	1:2S:870:G:O4'	2.19	0.42
1:2S:1128:U:H2'	1:2S:1129:A:O4'	2.19	0.42
1:2S:1223:A:N3	1:2S:1287:A:N3	2.66	0.42
1:2S:1696:A:C8	36:74:26:PRO:HG2	2.54	0.42
1:2S:2265:C:H2'	1:2S:2266:U:O4'	2.19	0.42
1:2S:2271:A:O5'	1:2S:2271:A:H8	2.02	0.42
1:2S:2366:C:H2'	1:2S:2367:A:H8	1.85	0.42
1:2S:2434:U:O4	1:2S:2595:A:C2	2.72	0.42
1:2S:2849:C:OP1	1:2S:2906:C:H4'	2.18	0.42
1:2S:3061:G:H2'	1:2S:3062:G:C8	2.55	0.42
1:2S:3072:C:C5	1:2S:3073:A:C5	3.07	0.42
4:L1:195:LYS:HG3	4:L1:195:LYS:O	2.19	0.42
4:L1:207:LYS:HG2	4:L1:208:SER:N	2.34	0.42
5:L2:116:VAL:O	5:L2:125:ALA:HB3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L2:136:ILE:H	5:L2:136:ILE:HD12	1.85	0.42
6:L3:62:ARG:O	6:L3:68:HIS:HB2	2.19	0.42
6:L3:252:ILE:HD12	6:L3:252:ILE:N	2.33	0.42
17:55:70:ASN:HB3	17:55:92:LEU:O	2.19	0.42
19:57:168:LEU:HD23	19:57:172:GLN:HG2	2.01	0.42
23:61:78:LYS:HG3	23:61:79:MET:N	2.34	0.42
23:61:92:ARG:C	23:61:94:GLU:H	2.27	0.42
29:67:13:VAL:HG12	29:67:14:VAL:N	2.33	0.42
29:67:54:THR:H	29:67:57:HIS:HD2	1.66	0.42
32:70:31:VAL:O	32:70:34:LEU:HB3	2.19	0.42
33:71:78:LYS:O	33:71:89:LEU:HB3	2.19	0.42
46:1S:149:C:H5''	71:24:123:LYS:NZ	2.34	0.42
46:1S:453:U:O2	46:1S:453:U:C2'	2.68	0.42
46:1S:732:G:N3	46:1S:732:G:H2'	2.35	0.42
46:1S:884:A:H2'	46:1S:885:G:C8	2.54	0.42
46:1S:904:G:H2'	46:1S:905:A:H5'	2.00	0.42
46:1S:941:A:H8	46:1S:941:A:O5'	2.02	0.42
46:1S:1142:A:H2'	46:1S:1143:A:O4'	2.19	0.42
46:1S:1370:U:O2'	46:1S:1371:A:P	2.77	0.42
46:1S:1471:A:C2	46:1S:1474:G:N3	2.88	0.42
46:1S:1514:U:O2	46:1S:1514:U:H2'	2.17	0.42
46:1S:1553:G:N1	46:1S:1556:A:OP2	2.52	0.42
46:1S:1648:A:H2'	46:1S:1649:G:C8	2.55	0.42
49:S2:196:VAL:HG22	49:S2:197:TYR:N	2.35	0.42
51:S4:156:VAL:O	51:S4:157:ASN:HB2	2.19	0.42
53:S6:74:LYS:HG2	53:S6:96:SER:HB2	2.02	0.42
53:S6:212:LEU:C	53:S6:212:LEU:HD23	2.44	0.42
55:S8:84:HIS:C	55:S8:86:SER:H	2.28	0.42
58:11:99:ARG:HB3	70:23:9:LEU:O	2.19	0.42
62:15:25:LEU:O	62:15:87:PRO:HB2	2.19	0.42
68:21:62:ARG:HB2	68:21:64:GLU:HG2	2.01	0.42
69:22:103:ILE:O	69:22:125:ILE:HG13	2.19	0.42
70:23:76:LEU:HD13	70:23:79:ASN:ND2	2.35	0.42
76:29:31:ILE:O	76:29:36:LEU:CD1	2.67	0.42
1:2S:336:A:H2'	1:2S:337:G:H5'	2.01	0.42
1:2S:790:U:H5''	7:L4:112:LYS:HB2	2.01	0.42
1:2S:993:G:N3	1:2S:2637:A:H2'	2.34	0.42
1:2S:1166:G:H1	1:2S:1333:C:N4	2.17	0.42
1:2S:1438:U:H1'	7:L4:93:MET:O	2.18	0.42
1:2S:1794:G:H4'	5:L2:191:LEU:CD1	2.49	0.42
1:2S:2284:C:H3'	1:2S:2285:C:C6	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2582:C:H2'	1:2S:2583:C:C6	2.54	0.42
1:2S:2656:A:H2'	1:2S:2656:A:N3	2.34	0.42
1:2S:2917:G:C2'	1:2S:2918:G:H5''	2.47	0.42
1:2S:2922:G:H2'	1:2S:2923:U:C4'	2.48	0.42
1:2S:3317:U:H4'	1:2S:3318:G:C5'	2.48	0.42
4:L1:93:LEU:HD13	4:L1:115:VAL:HG12	2.00	0.42
5:L2:88:ILE:HG23	5:L2:99:GLY:O	2.20	0.42
6:L3:45:SER:HA	6:L3:338:LEU:O	2.19	0.42
8:L5:252:ALA:O	8:L5:253:PHE:HB3	2.19	0.42
12:L9:126:VAL:HG13	12:L9:160:ASP:CG	2.45	0.42
13:50:22:TYR:CD1	13:50:22:TYR:N	2.87	0.42
14:51:166:LYS:HD3	14:51:167:TYR:CG	2.55	0.42
17:55:19:LEU:HD12	17:55:19:LEU:N	2.34	0.42
20:58:36:LEU:HB3	20:58:45:ASN:CG	2.43	0.42
21:59:139:VAL:O	21:59:142:ILE:HB	2.19	0.42
23:61:65:TYR:CD1	23:61:66:ASN:N	2.87	0.42
23:61:139:ARG:HD3	23:61:139:ARG:N	2.33	0.42
28:66:80:VAL:HG22	28:66:81:GLN:N	2.33	0.42
33:71:25:PHE:CD2	33:71:28:ARG:HD2	2.54	0.42
36:74:44:CYS:HB3	36:74:48:GLY:H	1.84	0.42
46:1S:1528:U:H2'	46:1S:1529:C:H6	1.84	0.42
47:S0:6:THR:C	47:S0:8:ASP:N	2.77	0.42
47:S0:58:VAL:O	47:S0:62:ARG:HG2	2.20	0.42
49:S2:165:VAL:HG21	49:S2:206:THR:CG2	2.47	0.42
50:S3:208:ILE:CD1	64:17:39:ALA:HB2	2.49	0.42
50:S3:222:VAL:CG1	79:RA:229:LYS:HA	2.31	0.42
51:S4:7:LYS:HD2	51:S4:7:LYS:N	2.35	0.42
56:S9:79:ARG:HG3	56:S9:79:ARG:HH11	1.85	0.42
59:12:68:GLU:O	59:12:69:ALA:CB	2.67	0.42
68:21:65:SER:O	68:21:69:LEU:HB2	2.19	0.42
69:22:23:ARG:HH11	69:22:23:ARG:HG3	1.83	0.42
1:2S:20:A:N6	2:8S:139:U:H3	2.11	0.42
1:2S:24:G:C2'	1:2S:25:U:H5'	2.49	0.42
1:2S:92:G:N7	1:2S:94:G:H1'	2.34	0.42
1:2S:147:U:N3	11:L8:159:PRO:HD2	2.35	0.42
1:2S:172:G:C2	1:2S:173:G:C8	3.08	0.42
1:2S:236:G:H2'	1:2S:237:G:O4'	2.18	0.42
1:2S:380:U:H2'	1:2S:381:U:O4'	2.19	0.42
1:2S:391:A:H2'	1:2S:392:G:O4'	2.19	0.42
1:2S:419:G:N2	2:8S:5:U:C2	2.87	0.42
1:2S:503:C:H2'	1:2S:504:A:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1145:G:O6	1:2S:1158:A:C2	2.73	0.42
1:2S:1548:C:H3'	1:2S:1549:U:O4'	2.20	0.42
1:2S:1571:A:H2'	1:2S:1572:U:C4'	2.50	0.42
1:2S:1579:C:C5	1:2S:1580:A:N7	2.88	0.42
1:2S:1585:C:H2'	1:2S:1586:G:C8	2.54	0.42
1:2S:1598:G:H2'	1:2S:1599:G:C8	2.55	0.42
1:2S:1653:G:H4'	36:74:43:LYS:H	1.84	0.42
1:2S:2426:U:H2'	1:2S:2427:U:C5	2.52	0.42
1:2S:2562:A:H2'	1:2S:2563:G:C8	2.54	0.42
1:2S:2583:C:O5'	1:2S:2583:C:H6	2.02	0.42
1:2S:3047:U:H5''	6:L3:330:GLY:O	2.20	0.42
1:2S:3316:A:C6	6:L3:124:LYS:HD2	2.54	0.42
6:L3:161:LEU:CD2	6:L3:180:GLU:HG2	2.50	0.42
7:L4:130:ALA:O	7:L4:131:VAL:CB	2.68	0.42
9:L6:46:ARG:HB3	9:L6:77:ARG:HH12	1.84	0.42
10:L7:120:THR:OG1	10:L7:123:THR:HG23	2.20	0.42
12:L9:145:VAL:HG12	12:L9:146:LEU:N	2.34	0.42
20:58:34:THR:HG22	20:58:49:LEU:HD11	2.02	0.42
21:59:110:ARG:HA	21:59:115:ILE:HG23	2.01	0.42
21:59:161:ALA:O	21:59:165:LYS:HB2	2.20	0.42
26:64:17:ARG:HG3	26:64:17:ARG:HH11	1.85	0.42
33:71:33:VAL:O	33:71:37:LYS:HG3	2.19	0.42
40:78:8:ILE:O	40:78:12:LEU:HG	2.18	0.42
46:1S:451:A:C2	46:1S:456:A:C2	3.07	0.42
46:1S:958:U:H5''	46:1S:959:U:OP1	2.20	0.42
46:1S:961:U:H5''	60:13:71:ILE:CG1	2.36	0.42
46:1S:1464:G:H4'	63:16:141:SER:CB	2.50	0.42
51:S4:181:VAL:HG11	51:S4:225:VAL:HG13	2.02	0.42
54:S7:117:THR:O	54:S7:121:VAL:HG23	2.20	0.42
54:S7:162:ILE:HB	54:S7:169:PHE:HE2	1.83	0.42
56:S9:132:ARG:CD	56:S9:142:ASN:ND2	2.83	0.42
56:S9:133:HIS:O	56:S9:134:ILE:O	2.37	0.42
56:S9:139:GLN:HE22	71:24:63:GLN:HG3	1.84	0.42
61:14:72:LYS:HD3	61:14:110:LEU:HD23	2.02	0.42
61:14:91:THR:C	61:14:92:LYS:CG	2.88	0.42
63:16:73:GLY:H	63:16:76:SER:HB3	1.84	0.42
66:19:86:ARG:HH11	66:19:86:ARG:HG3	1.83	0.42
68:21:13:VAL:HA	68:21:14:PRO:HD3	1.84	0.42
68:21:69:LEU:O	68:21:69:LEU:HD23	2.20	0.42
69:22:28:ARG:HB2	69:22:60:LYS:HG2	2.01	0.42
71:24:125:LEU:O	71:24:129:VAL:HG23	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:27:55:THR:OG1	74:27:56:CYS:N	2.51	0.42
77:30:49:LEU:H	77:30:49:LEU:HD23	1.84	0.42
78:31:113:LYS:HD2	78:31:113:LYS:N	2.30	0.42
78:31:132:LEU:HD22	78:31:139:LEU:O	2.19	0.42
79:RA:19:TRP:N	79:RA:19:TRP:CD1	2.87	0.42
79:RA:172:ALA:CB	79:RA:202:LEU:HD22	2.49	0.42
1:2S:677:A:H8	1:2S:785:G:C6	2.37	0.42
1:2S:752:C:H2'	1:2S:753:C:H6	1.84	0.42
1:2S:858:A:H2'	1:2S:859:G:O4'	2.20	0.42
1:2S:1042:U:H5'	13:50:196:PHE:CE1	2.55	0.42
1:2S:1851:G:H2'	1:2S:1852:G:C8	2.54	0.42
1:2S:1856:C:H2'	1:2S:1857:C:C6	2.54	0.42
1:2S:1947:G:H5''	21:59:134:HIS:CB	2.47	0.42
1:2S:2457:G:N2	1:2S:2461:A:H61	2.17	0.42
1:2S:2748:A:H1'	8:L5:36:LEU:HD23	2.01	0.42
1:2S:2882:U:H2'	1:2S:2883:U:O4'	2.19	0.42
1:2S:3111:U:O4	1:2S:3121:U:C5	2.71	0.42
1:2S:3355:U:O2'	1:2S:3356:G:H5''	2.20	0.42
3:5S:11:A:H4'	3:5S:13:A:H2'	2.00	0.42
3:5S:88:G:H2'	3:5S:89:G:H8	1.82	0.42
3:5S:119:U:OP1	8:L5:256:THR:HG23	2.20	0.42
7:L4:160:GLN:HB2	7:L4:161:LYS:HD2	2.00	0.42
9:L6:52:VAL:CG2	9:L6:53:VAL:H	2.18	0.42
9:L6:58:LEU:HD22	9:L6:103:VAL:HG22	2.00	0.42
10:L7:151:ARG:HB2	10:L7:205:PHE:CD1	2.54	0.42
13:50:165:ILE:H	13:50:165:ILE:HD13	1.85	0.42
13:50:191:LYS:HG3	13:50:191:LYS:O	2.19	0.42
14:51:52:TYR:N	14:51:52:TYR:HD2	2.17	0.42
17:55:83:LYS:O	17:55:86:ASN:N	2.53	0.42
18:56:76:PRO:O	18:56:79:ILE:HB	2.20	0.42
19:57:102:ALA:O	19:57:107:LEU:HB2	2.19	0.42
23:61:52:MET:HG2	23:61:53:PRO:HD2	2.01	0.42
29:67:51:LEU:CB	29:67:65:ARG:HD2	2.49	0.42
35:73:49:ILE:HG22	35:73:98:VAL:HG22	2.01	0.42
37:75:44:ILE:HA	37:75:47:VAL:HG12	2.02	0.42
46:1S:236:A:OP2	46:1S:236:A:H8	2.03	0.42
46:1S:346:G:H2'	46:1S:347:G:H5'	2.01	0.42
46:1S:412:A:H2'	46:1S:413:U:H6	1.85	0.42
46:1S:602:U:H2'	46:1S:603:U:C6	2.55	0.42
46:1S:1524:A:H2	46:1S:1590:G:H1'	1.84	0.42
46:1S:1615:C:C5	52:S5:81:ARG:HA	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:S0:41:ARG:HH21	47:S0:41:ARG:HG3	1.85	0.42
53:S6:85:ARG:HA	53:S6:86:PRO:HD3	1.84	0.42
55:S8:8:ARG:NH2	55:S8:19:ALA:O	2.52	0.42
55:S8:172:ARG:HB2	55:S8:175:GLN:HB2	2.01	0.42
56:S9:145:SER:HA	56:S9:147:MET:HE3	2.02	0.42
56:S9:146:PHE:CZ	56:S9:149:ARG:CZ	3.03	0.42
56:S9:155:HIS:ND1	56:S9:155:HIS:N	2.66	0.42
57:10:82:LEU:HB2	57:10:86:ILE:CG2	2.49	0.42
66:19:117:SER:HB2	66:19:123:ARG:H	1.85	0.42
69:22:103:ILE:O	69:22:125:ILE:CG1	2.68	0.42
71:24:91:LEU:HB3	71:24:96:LEU:HB2	2.02	0.42
71:24:105:ARG:O	71:24:109:LYS:HG3	2.20	0.42
1:2S:549:U:H2'	1:2S:550:A:H8	1.82	0.42
1:2S:1330:A:N1	1:2S:1332:A:H1'	2.35	0.42
1:2S:1357:G:H2'	1:2S:1358:C:H6	1.81	0.42
1:2S:1436:U:H5''	1:2S:1437:C:H5''	2.01	0.42
1:2S:1464:G:H21	1:2S:1511:U:H3	1.67	0.42
1:2S:2161:G:H2'	1:2S:2162:U:C6	2.55	0.42
1:2S:2409:G:H3'	1:2S:2410:U:H4'	2.01	0.42
1:2S:2505:U:H2'	1:2S:2506:U:C6	2.54	0.42
1:2S:2837:A:H2'	1:2S:2845:A:N1	2.35	0.42
1:2S:3299:A:H4'	19:57:55:GLN:HE21	1.85	0.42
5:L2:45:VAL:CG1	5:L2:85:GLY:H	2.27	0.42
5:L2:247:ARG:HG2	5:L2:247:ARG:NH1	2.31	0.42
6:L3:130:PHE:HD1	6:L3:133:TYR:CB	2.32	0.42
6:L3:312:VAL:C	6:L3:314:TYR:N	2.76	0.42
6:L3:312:VAL:HG12	6:L3:313:HIS:CD2	2.55	0.42
6:L3:338:LEU:HD22	6:L3:338:LEU:H	1.85	0.42
7:L4:175:HIS:O	7:L4:179:LEU:HG	2.19	0.42
7:L4:351:PRO:CB	7:L4:355:PHE:CD2	3.03	0.42
11:L8:44:ARG:O	11:L8:46:LEU:HG	2.19	0.42
12:L9:157:ASN:HD22	12:L9:157:ASN:HA	1.52	0.42
13:50:3:ARG:HE	13:50:3:ARG:HB3	1.56	0.42
15:53:48:PRO:HA	15:53:137:GLN:HB3	2.01	0.42
17:55:124:ASP:CG	17:55:125:SER:N	2.76	0.42
17:55:193:ARG:HD2	17:55:193:ARG:C	2.45	0.42
18:56:47:PHE:O	18:56:51:LYS:HB2	2.20	0.42
23:61:79:MET:HE3	23:61:79:MET:C	2.45	0.42
29:67:40:HIS:HA	29:67:75:VAL:O	2.20	0.42
31:69:10:HIS:O	31:69:11:ASN:CB	2.66	0.42
32:70:86:ARG:HG2	32:70:86:ARG:NH1	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:73:18:ARG:CA	35:73:23:ASN:HA	2.49	0.42
36:74:46:ASP:HB2	36:74:80:ARG:CD	2.48	0.42
37:75:116:TYR:CD1	37:75:117:ALA:N	2.88	0.42
39:77:72:ARG:HG2	39:77:72:ARG:NH1	2.35	0.42
39:77:87:SER:O	39:77:88:ALA:CB	2.68	0.42
46:1S:133:U:H5'	46:1S:133:U:C6	2.50	0.42
46:1S:295:A:H5''	51:S4:128:LYS:NZ	2.35	0.42
46:1S:399:A:H1'	46:1S:401:A:O4'	2.20	0.42
46:1S:555:A:H2'	46:1S:556:A:C8	2.55	0.42
46:1S:962:C:OP1	60:13:71:ILE:HB	2.20	0.42
46:1S:1303:U:H3'	46:1S:1304:G:H8	1.82	0.42
46:1S:1348:A:H2	46:1S:1379:C:N4	2.18	0.42
46:1S:1405:G:H2'	46:1S:1406:A:C8	2.55	0.42
46:1S:1524:A:H2'	46:1S:1525:A:C8	2.54	0.42
48:S1:205:PHE:HD1	48:S1:206:PRO:CD	2.21	0.42
51:S4:11:ARG:NH2	51:S4:11:ARG:CG	2.79	0.42
55:S8:26:LYS:NZ	55:S8:29:LEU:CD1	2.83	0.42
55:S8:178:ARG:HH21	55:S8:178:ARG:HG3	1.83	0.42
56:S9:132:ARG:NE	56:S9:142:ASN:ND2	2.66	0.42
56:S9:146:PHE:HZ	56:S9:149:ARG:CZ	2.33	0.42
60:13:32:SER:O	60:13:35:GLU:HB3	2.19	0.42
61:14:17:ALA:N	61:14:79:VAL:HG21	2.35	0.42
63:16:44:LEU:HB3	63:16:47:LYS:HB3	2.00	0.42
65:18:91:ASP:HB3	65:18:92:ILE:H	1.58	0.42
65:18:102:ALA:O	65:18:105:VAL:HG12	2.19	0.42
67:20:118:VAL:O	67:20:119:ALA:HB3	2.19	0.42
69:22:50:PHE:CB	69:22:63:VAL:HG22	2.50	0.42
70:23:50:LYS:HG2	70:23:103:LEU:HD23	2.01	0.42
73:26:36:ILE:HG23	73:26:36:ILE:O	2.19	0.42
1:2S:184:U:H2'	1:2S:185:C:H6	1.82	0.42
1:2S:373:A:H2'	1:2S:375:A:C8	2.55	0.42
1:2S:720:A:H5'	20:58:69:ARG:HH12	1.84	0.42
1:2S:1316:C:C4	18:56:130:LYS:HA	2.55	0.42
1:2S:1560:G:C2'	1:2S:1561:G:H5'	2.50	0.42
1:2S:2041:U:H2'	1:2S:2042:G:C8	2.55	0.42
1:2S:2530:G:H2'	1:2S:2531:C:C5'	2.35	0.42
1:2S:2683:U:H2'	1:2S:2684:C:C6	2.54	0.42
1:2S:2728:G:O6	23:61:78:LYS:HE3	2.20	0.42
1:2S:3165:A:N1	1:2S:3285:C:N3	2.67	0.42
3:5S:89:G:H5'	22:60:84:ARG:NH2	2.34	0.42
5:L2:22:LEU:HB3	5:L2:52:SER:HB2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L2:71:LEU:HD12	5:L2:71:LEU:N	2.35	0.42
7:L4:181:VAL:C	7:L4:183:LYS:H	2.27	0.42
7:L4:327:LEU:O	7:L4:328:ASN:HB3	2.20	0.42
10:L7:90:LYS:HG3	10:L7:91:GLY:N	2.34	0.42
11:L8:25:PRO:HG2	11:L8:26:LEU:H	1.84	0.42
13:50:193:ASP:CG	13:50:194:GLY:H	2.27	0.42
17:55:47:LYS:HE3	17:55:51:LEU:HD11	2.02	0.42
17:55:100:ALA:O	17:55:104:GLU:HG3	2.20	0.42
21:59:116:ASP:O	21:59:120:TYR:HB2	2.20	0.42
22:60:26:ARG:HG2	22:60:27:MET:N	2.34	0.42
22:60:52:LYS:HG3	22:60:55:SER:H	1.85	0.42
26:64:6:ASP:HB3	26:64:10:GLY:H	1.84	0.42
35:73:16:TYR:HB3	35:73:23:ASN:HB2	2.01	0.42
35:73:51:TYR:CE2	35:73:53:TYR:HB3	2.54	0.42
35:73:55:ALA:HB3	35:73:65:ARG:HH22	1.83	0.42
38:76:76:ARG:HA	38:76:76:ARG:NE	2.35	0.42
46:1S:564:G:H4'	46:1S:566:C:C2	2.54	0.42
46:1S:627:C:H2'	46:1S:628:G:O4'	2.20	0.42
46:1S:771:A:C2	46:1S:772:G:H1'	2.55	0.42
47:S0:83:GLN:O	47:S0:86:VAL:HG22	2.19	0.42
49:S2:47:ALA:HB1	49:S2:49:LYS:HE2	2.01	0.42
49:S2:116:LYS:HD2	49:S2:117:THR:H	1.84	0.42
49:S2:240:LEU:HD12	49:S2:240:LEU:N	2.34	0.42
51:S4:149:TYR:N	51:S4:150:PRO:CD	2.82	0.42
52:S5:62:VAL:HG12	52:S5:64:VAL:CG2	2.50	0.42
55:S8:104:ILE:HB	55:S8:105:ASP:H	1.73	0.42
56:S9:127:VAL:O	56:S9:131:GLN:HG3	2.20	0.42
57:10:54:TYR:HA	57:10:71:GLU:HG3	2.01	0.42
61:14:79:VAL:HG22	61:14:80:HIS:N	2.35	0.42
65:18:41:ARG:HD3	66:19:38:LYS:HD3	2.01	0.42
66:19:63:ARG:HG2	66:19:67:MET:HE1	2.01	0.42
67:20:85:ARG:N	67:20:85:ARG:HD2	2.35	0.42
70:23:86:PHE:O	70:23:124:VAL:HG23	2.20	0.42
71:24:49:LYS:N	71:24:49:LYS:HD2	2.35	0.42
77:30:42:ARG:HB3	77:30:42:ARG:HH11	1.84	0.42
1:2S:162:G:O2'	1:2S:163:C:H5'	2.20	0.42
1:2S:440:A:H3'	1:2S:441:U:H4'	2.02	0.42
1:2S:530:G:H2'	1:2S:531:G:C8	2.55	0.42
1:2S:937:G:OP2	1:2S:938:C:H5	2.02	0.42
1:2S:1841:A:C5	1:2S:1848:G:C2	3.07	0.42
1:2S:1891:A:O2'	1:2S:1892:G:H5'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:3061:G:H2'	1:2S:3062:G:H8	1.85	0.42
1:2S:3114:A:H2'	1:2S:3115:C:C5	2.55	0.42
1:2S:3225:C:C2'	1:2S:3226:A:H5'	2.50	0.42
2:8S:103:G:H2'	2:8S:105:A:N7	2.35	0.42
3:5S:48:U:C2'	3:5S:49:G:H5'	2.50	0.42
7:L4:65:TRP:HE3	7:L4:69:ARG:HD2	1.83	0.42
8:L5:105:ILE:HD13	8:L5:105:ILE:HA	1.75	0.42
12:L9:89:LYS:HB2	12:L9:183:HIS:CB	2.35	0.42
14:51:23:VAL:CG1	14:51:24:GLY:N	2.81	0.42
14:51:36:VAL:O	14:51:40:LEU:HB2	2.20	0.42
16:54:73:PRO:HB2	16:54:76:ALA:HB2	2.01	0.42
20:58:30:VAL:CG2	20:58:52:LEU:HD13	2.50	0.42
27:65:68:THR:HG21	37:75:36:LEU:HD13	2.01	0.42
29:67:46:ILE:HA	29:67:70:PRO:HA	2.01	0.42
30:68:99:ALA:O	30:68:124:ILE:HD12	2.20	0.42
31:69:7:HIS:CG	31:69:8:THR:N	2.88	0.42
32:70:9:SER:O	32:70:12:GLN:HB3	2.19	0.42
33:71:74:ARG:HG2	33:71:75:ILE:N	2.34	0.42
35:73:24:ASN:C	35:73:26:ASN:H	2.27	0.42
36:74:41:ARG:HA	36:74:56:THR:CG2	2.50	0.42
37:75:45:LYS:O	37:75:49:LYS:HB2	2.19	0.42
39:77:31:LYS:O	39:77:32:LYS:HB2	2.19	0.42
41:79:49:MET:O	41:79:50:ASN:HB2	2.20	0.42
46:1S:162:A:H3'	46:1S:163:G:N2	2.31	0.42
46:1S:689:G:O2'	46:1S:690:G:H5'	2.20	0.42
46:1S:760:A:H2'	46:1S:761:G:O4'	2.20	0.42
46:1S:772:G:H5''	51:S4:23:LEU:HD21	2.01	0.42
46:1S:1517:U:H2'	46:1S:1518:C:C5	2.54	0.42
46:1S:1671:A:H2'	46:1S:1672:G:O4'	2.20	0.42
46:1S:1719:A:H2'	46:1S:1720:G:O4'	2.20	0.42
47:S0:26:ALA:HB2	47:S0:149:LEU:HB2	2.02	0.42
48:S1:220:GLN:HB2	48:S1:221:PRO:HD2	2.00	0.42
52:S5:133:VAL:O	52:S5:137:ILE:HG12	2.20	0.42
54:S7:49:ILE:CG2	54:S7:175:LYS:HG2	2.49	0.42
54:S7:143:LEU:H	54:S7:143:LEU:HD22	1.85	0.42
55:S8:58:LEU:O	55:S8:59:ARG:HB2	2.20	0.42
56:S9:161:THR:HA	56:S9:167:ALA:HB3	2.02	0.42
60:13:88:LEU:O	60:13:92:ILE:HG13	2.20	0.42
60:13:100:LYS:HA	60:13:103:GLU:HG3	2.00	0.42
61:14:58:TYR:O	61:14:62:LEU:HG	2.20	0.42
63:16:9:THR:O	63:16:19:VAL:HG13	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:18:40:ARG:HH21	66:19:45:MET:HG2	1.84	0.42
66:19:105:LEU:HD22	66:19:122:ARG:HG2	2.01	0.42
66:19:117:SER:HB2	66:19:123:ARG:CB	2.49	0.42
70:23:76:LEU:HB3	70:23:80:GLY:H	1.84	0.42
71:24:124:ARG:HA	71:24:127:LYS:CD	2.49	0.42
79:RA:81:LEU:HD23	79:RA:91:LEU:HD13	2.00	0.42
79:RA:205:SER:HA	79:RA:206:PRO:HD3	1.85	0.42
1:2S:269:G:C6	17:55:14:LYS:HB2	2.55	0.42
1:2S:287:G:OP1	17:55:179:LYS:HE3	2.20	0.42
1:2S:514:G:H21	7:L4:341:SER:HA	1.84	0.42
1:2S:860:G:H5'	45:83:17:ARG:NH1	2.34	0.42
1:2S:896:A:H4'	5:L2:186:PHE:CD2	2.55	0.42
1:2S:942:U:C6	30:68:15:VAL:HG12	2.55	0.42
1:2S:1324:U:H2'	1:2S:1325:U:O4'	2.19	0.42
1:2S:1888:U:OP1	6:L3:247:ARG:HB3	2.20	0.42
1:2S:2257:C:H2'	1:2S:2258:U:O4'	2.19	0.42
1:2S:2435:G:H2'	1:2S:2436:U:H6	1.80	0.42
1:2S:2736:A:H4'	23:61:71:SER:HG	1.82	0.42
1:2S:3210:A:H8	1:2S:3210:A:O5'	2.02	0.42
1:2S:3346:U:H3	1:2S:3359:A:N6	2.06	0.42
2:8S:78:G:O2'	37:75:42:PRO:HG2	2.20	0.42
4:L1:55:LEU:HD12	4:L1:55:LEU:N	2.35	0.42
5:L2:6:ARG:HH12	5:L2:198:LYS:HA	1.85	0.42
6:L3:262:TRP:CD1	6:L3:262:TRP:H	2.38	0.42
7:L4:316:ASN:HD21	7:L4:318:LEU:HD12	1.84	0.42
9:L6:170:LYS:HB3	9:L6:172:HIS:CE1	2.55	0.42
10:L7:69:ALA:HB2	10:L7:76:TYR:H	1.85	0.42
11:L8:61:GLN:HB3	17:55:28:TRP:HH2	1.84	0.42
11:L8:97:TYR:CE1	11:L8:204:ARG:NH2	2.88	0.42
14:51:49:LYS:HG2	14:51:64:LYS:HG2	2.02	0.42
15:53:50:PRO:HG3	37:75:118:ILE:CG1	2.27	0.42
18:56:57:PHE:HA	18:56:60:LYS:HZ2	1.83	0.42
18:56:117:ARG:N	18:56:117:ARG:CD	2.78	0.42
19:57:2:ALA:O	19:57:3:ARG:HB2	2.20	0.42
23:61:65:TYR:CD1	23:61:65:TYR:C	2.98	0.42
30:68:74:ASN:C	30:68:76:ASP:N	2.77	0.42
33:71:78:LYS:HD2	33:71:90:PHE:CZ	2.55	0.42
35:73:11:GLY:O	35:73:97:SER:HA	2.20	0.42
43:81:1:MET:SD	46:1S:1642:G:H5'	2.60	0.42
45:83:10:ILE:HG22	45:83:27:LYS:HE3	2.01	0.42
46:1S:1340:U:H3'	46:1S:1341:A:C5'	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:S0:189:VAL:CG1	47:S0:193:GLN:HB2	2.49	0.42
48:S1:180:THR:CG2	48:S1:181:LEU:H	2.25	0.42
50:S3:84:ILE:C	50:S3:84:ILE:CD1	2.91	0.42
51:S4:52:LEU:HD13	51:S4:54:TYR:HD2	1.84	0.42
51:S4:63:ALA:O	51:S4:67:GLN:CG	2.55	0.42
54:S7:9:LEU:HD12	54:S7:18:LEU:HD23	2.01	0.42
54:S7:30:SER:CB	54:S7:34:LEU:HD13	2.43	0.42
56:S9:3:ARG:HD3	56:S9:3:ARG:N	2.35	0.42
56:S9:54:ARG:CA	56:S9:57:ARG:HH21	2.33	0.42
57:10:62:GLN:HE21	57:10:62:GLN:HB3	1.56	0.42
65:18:24:GLY:O	65:18:26:ILE:N	2.53	0.42
72:25:92:ILE:HG13	72:25:100:ILE:HG23	2.02	0.42
73:26:12:LYS:HG2	73:26:12:LYS:O	2.20	0.42
1:2S:12:A:N1	2:8S:145:U:O4	2.53	0.41
1:2S:45:A:H1'	1:2S:94:G:O6	2.19	0.41
1:2S:929:A:H2'	1:2S:930:U:H6	1.78	0.41
1:2S:1354:G:H5''	1:2S:1355:A:OP2	2.19	0.41
1:2S:2080:C:H2'	1:2S:2081:U:O4'	2.20	0.41
1:2S:2375:G:C6	1:2S:2378:C:C4	3.08	0.41
1:2S:2446:U:H2'	1:2S:2447:A:C8	2.55	0.41
1:2S:2930:A:H2'	1:2S:2931:C:H6	1.84	0.41
3:5S:13:A:H5'	3:5S:14:U:C5	2.54	0.41
5:L2:147:ARG:CB	5:L2:157:VAL:HB	2.49	0.41
6:L3:17:LEU:HA	6:L3:18:PRO:C	2.44	0.41
6:L3:299:ASP:C	6:L3:301:THR:H	2.28	0.41
7:L4:119:ARG:HH12	7:L4:271:LYS:HB3	1.84	0.41
8:L5:133:GLU:HB3	8:L5:134:ALA:H	1.70	0.41
9:L6:96:VAL:CG1	9:L6:141:VAL:HG13	2.50	0.41
10:L7:47:ARG:O	10:L7:51:TYR:CD2	2.73	0.41
11:L8:214:LEU:O	11:L8:218:ILE:HG13	2.20	0.41
13:50:17:TYR:H	13:50:95:HIS:CE1	2.37	0.41
14:51:88:GLU:HB3	14:51:90:GLN:NE2	2.35	0.41
15:53:117:LYS:HD3	15:53:117:LYS:H	1.83	0.41
21:59:77:GLY:O	21:59:81:ARG:HD3	2.20	0.41
22:60:12:ARG:HD2	22:60:21:GLU:HA	2.02	0.41
22:60:13:ARG:O	22:60:57:GLU:HG3	2.20	0.41
25:63:103:ALA:HA	25:63:108:GLU:O	2.20	0.41
27:65:34:LEU:HA	27:65:35:PRO:HD3	1.90	0.41
31:69:18:ARG:HD2	31:69:18:ARG:HA	1.69	0.41
34:72:82:LEU:HD11	34:72:111:ARG:HG3	2.02	0.41
39:77:47:TYR:HB2	39:77:49:TRP:CE2	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:82:95:GLY:O	44:82:96:GLU:HB2	2.19	0.41
46:1S:130:C:H2'	46:1S:131:C:O4'	2.20	0.41
46:1S:186:C:H2'	46:1S:187:G:O4'	2.20	0.41
46:1S:335:U:H4'	58:11:129:ARG:NH2	2.35	0.41
46:1S:415:C:H2'	46:1S:417:A:N7	2.35	0.41
46:1S:584:C:H2'	46:1S:585:A:O4'	2.20	0.41
46:1S:1370:U:H1'	46:1S:1371:A:OP2	2.20	0.41
46:1S:1481:C:C5'	46:1S:1482:C:OP1	2.64	0.41
46:1S:1632:C:O2'	46:1S:1633:A:H5'	2.20	0.41
46:1S:1685:G:H3'	46:1S:1686:C:H5''	2.01	0.41
47:S0:81:PHE:H	47:S0:81:PHE:HD1	1.69	0.41
49:S2:208:GLU:O	49:S2:212:LYS:HG3	2.19	0.41
51:S4:191:ARG:HD3	51:S4:245:LYS:CD	2.49	0.41
51:S4:201:HIS:CD2	51:S4:207:LEU:HD12	2.55	0.41
52:S5:183:ALA:CB	52:S5:190:ILE:HD13	2.50	0.41
56:S9:49:LEU:HD13	56:S9:49:LEU:O	2.20	0.41
56:S9:125:ALA:O	56:S9:129:ILE:HG13	2.19	0.41
58:11:85:VAL:HG22	58:11:108:PRO:HA	2.01	0.41
58:11:123:VAL:HG23	58:11:141:LYS:O	2.20	0.41
61:14:85:ALA:N	61:14:119:THR:HG22	2.27	0.41
65:18:91:ASP:O	65:18:92:ILE:HB	2.20	0.41
67:20:91:ILE:HG22	67:20:93:LEU:HG	2.01	0.41
69:22:25:VAL:O	69:22:62:VAL:HA	2.20	0.41
79:RA:81:LEU:CD2	79:RA:91:LEU:HD13	2.50	0.41
79:RA:276:PRO:HD3	79:RA:313:TRP:HZ2	1.85	0.41
1:2S:224:C:O2'	1:2S:225:C:H5'	2.20	0.41
1:2S:338:A:C2	1:2S:1381:A:H1'	2.54	0.41
1:2S:566:G:H2'	1:2S:567:G:C8	2.54	0.41
1:2S:822:G:H2'	1:2S:823:C:H6	1.85	0.41
1:2S:1043:C:H4'	13:50:90:ARG:HD2	2.02	0.41
1:2S:1104:G:H2'	1:2S:1105:A:C8	2.55	0.41
1:2S:1261:G:H3'	1:2S:1261:G:N3	2.35	0.41
1:2S:1342:C:O4'	20:58:10:HIS:HB3	2.20	0.41
1:2S:1644:C:H41	36:74:68:THR:CG2	2.33	0.41
1:2S:2338:C:H2'	1:2S:2339:C:C6	2.55	0.41
1:2S:2447:A:C4	1:2S:2502:A:N6	2.88	0.41
1:2S:2940:A:N7	6:L3:2:SER:O	2.53	0.41
1:2S:3051:U:H2'	1:2S:3052:G:O4'	2.20	0.41
3:5S:99:G:H2'	3:5S:100:C:C6	2.55	0.41
4:L1:44:GLN:N	4:L1:161:LYS:HB3	2.19	0.41
4:L1:199:GLN:NE2	4:L1:202:GLY:CA	2.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L2:44:ILE:HD12	5:L2:62:VAL:HG13	2.01	0.41
6:L3:261:MET:HE2	6:L3:263:SER:CB	2.34	0.41
11:L8:108:ARG:HA	11:L8:111:LYS:CD	2.50	0.41
13:50:31:ILE:C	13:50:32:ARG:HD2	2.45	0.41
13:50:98:ARG:HG3	13:50:98:ARG:NH1	2.32	0.41
14:51:12:LEU:HD12	14:51:131:MET:HE3	2.00	0.41
15:53:29:ALA:HB2	17:55:201:ARG:HH12	1.85	0.41
19:57:57:ALA:HB1	19:57:81:ALA:HB1	2.02	0.41
20:58:18:ALA:HB1	20:58:19:PRO:CD	2.47	0.41
20:58:51:ALA:HA	20:58:54:LEU:HG	2.02	0.41
22:60:24:LEU:HD12	23:61:146:ASN:HB2	2.02	0.41
22:60:31:ALA:HB1	22:60:36:ILE:CG2	2.51	0.41
23:61:69:LYS:HE3	23:61:69:LYS:HB2	1.89	0.41
27:65:109:LYS:HB2	27:65:109:LYS:HE3	1.88	0.41
33:71:25:PHE:CA	33:71:28:ARG:HG3	2.48	0.41
39:77:19:CYS:HB3	39:77:22:CYS:SG	2.61	0.41
44:82:12:CYS:C	44:82:14:GLY:H	2.28	0.41
46:1S:570:A:N7	70:23:114:LYS:HE3	2.35	0.41
46:1S:1011:G:H2'	46:1S:1012:U:C5	2.54	0.41
46:1S:1090:C:H1'	46:1S:1093:A:C2	2.55	0.41
46:1S:1382:A:O2'	46:1S:1383:G:H8	2.03	0.41
46:1S:1419:G:O2'	46:1S:1420:C:H5'	2.20	0.41
46:1S:1526:A:C8	46:1S:1527:C:C5	3.07	0.41
46:1S:1582:U:H5''	63:16:135:ARG:HH11	1.85	0.41
46:1S:1641:C:H2'	46:1S:1642:G:C8	2.55	0.41
48:S1:145:LYS:HB3	48:S1:149:GLN:CG	2.50	0.41
50:S3:84:ILE:HD11	50:S3:86:LEU:HD11	2.02	0.41
51:S4:38:LEU:C	51:S4:40:GLU:H	2.28	0.41
51:S4:159:THR:CB	51:S4:227:VAL:HG23	2.50	0.41
52:S5:110:ALA:O	52:S5:114:ILE:HG12	2.20	0.41
52:S5:192:GLU:OE1	72:25:63:SER:HB2	2.21	0.41
55:S8:79:ALA:HB3	55:S8:103:GLN:O	2.20	0.41
60:13:70:LYS:N	60:13:73:ARG:HB2	2.34	0.41
62:15:10:ARG:HH11	62:15:13:LYS:HB2	1.84	0.41
62:15:95:GLY:CA	62:15:104:GLN:HG2	2.50	0.41
67:20:58:LEU:HD12	67:20:88:LYS:HG2	2.02	0.41
1:2S:21:G:C6	2:8S:37:A:N7	2.88	0.41
1:2S:160:G:C2'	1:2S:161:G:H5''	2.50	0.41
1:2S:209:A:H2	7:L4:221:ASN:HB3	1.82	0.41
1:2S:272:G:H2'	1:2S:273:A:C8	2.55	0.41
1:2S:304:G:H2'	1:2S:304:G:N3	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:429:U:H4'	35:73:88:ASN:O	2.19	0.41
1:2S:578:A:H2'	7:L4:334:PHE:CD2	2.55	0.41
1:2S:853:G:N7	45:83:2:ALA:HB2	2.35	0.41
1:2S:1405:U:H2'	1:2S:1406:A:O4'	2.21	0.41
1:2S:1695:U:H5''	36:74:24:LYS:HB3	2.01	0.41
1:2S:2070:U:H2'	1:2S:2071:A:H5'	2.02	0.41
1:2S:2405:C:H2'	1:2S:2406:C:C5	2.50	0.41
1:2S:2828:G:H3'	1:2S:2829:U:C5	2.55	0.41
1:2S:3021:A:C8	1:2S:3033:A:N6	2.86	0.41
1:2S:3215:A:OP1	35:73:2:ALA:HB3	2.20	0.41
2:8S:108:C:C6	2:8S:108:C:O5'	2.73	0.41
5:L2:48:ILE:HA	5:L2:59:ALA:HA	2.02	0.41
5:L2:202:VAL:HG22	5:L2:211:HIS:O	2.20	0.41
7:L4:188:ARG:HB3	7:L4:193:LYS:CB	2.51	0.41
10:L7:143:THR:O	10:L7:147:LEU:HG	2.20	0.41
11:L8:122:LYS:O	11:L8:124:ASP:N	2.53	0.41
14:51:49:LYS:HE3	14:51:64:LYS:HE3	2.02	0.41
16:54:76:ALA:HB1	16:54:80:THR:CG2	2.50	0.41
17:55:14:LYS:HA	17:55:19:LEU:HD22	2.03	0.41
18:56:39:GLU:HG2	18:56:40:GLU:HG2	2.01	0.41
19:57:58:ILE:O	19:57:81:ALA:HA	2.20	0.41
23:61:48:ILE:HG13	23:61:94:GLU:HB3	2.02	0.41
25:63:15:LEU:O	25:63:51:ALA:HB1	2.21	0.41
25:63:77:ILE:HD12	25:63:77:ILE:H	1.79	0.41
28:66:68:GLY:HA2	28:66:84:LYS:HD2	2.02	0.41
30:68:79:TRP:CD1	30:68:79:TRP:H	2.38	0.41
33:71:28:ARG:HD3	33:71:65:LYS:HA	2.01	0.41
36:74:41:ARG:CA	36:74:56:THR:HG21	2.50	0.41
44:82:76:LYS:C	44:82:78:LYS:H	2.27	0.41
45:83:50:GLY:O	45:83:51:ALA:HB3	2.19	0.41
46:1S:115:G:N7	58:11:129:ARG:CB	2.84	0.41
46:1S:374:U:H6	46:1S:374:U:O5'	2.04	0.41
46:1S:729:G:C5	46:1S:730:G:H8	2.38	0.41
46:1S:934:C:H3'	46:1S:934:C:O2	2.20	0.41
46:1S:942:G:H3'	73:26:17:HIS:CE1	2.55	0.41
46:1S:1192:C:H4'	63:16:140:LYS:NZ	2.34	0.41
47:S0:29:VAL:HG13	47:S0:150:ASP:HB3	2.01	0.41
48:S1:143:THR:HG22	48:S1:207:LEU:CD1	2.51	0.41
49:S2:104:VAL:HG22	49:S2:112:GLY:HA3	2.02	0.41
49:S2:184:VAL:HG13	49:S2:187:LEU:HD23	2.02	0.41
54:S7:49:ILE:O	54:S7:57:ALA:HB3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:S8:32:GLN:HA	55:S8:33:PRO:HD3	1.90	0.41
58:11:115:PHE:CD1	58:11:115:PHE:N	2.88	0.41
60:13:136:PRO:C	60:13:138:ASN:H	2.28	0.41
67:20:95:ALA:HB1	67:20:99:ILE:CG2	2.50	0.41
70:23:53:VAL:CG1	70:23:98:GLU:HA	2.50	0.41
71:24:36:SER:O	71:24:40:LEU:HG	2.20	0.41
71:24:88:THR:O	71:24:92:VAL:HG23	2.19	0.41
71:24:124:ARG:C	71:24:127:LYS:HG3	2.45	0.41
1:2S:217:U:O4	1:2S:221:A:H8	2.03	0.41
1:2S:283:G:H21	1:2S:285:A:C5'	2.31	0.41
1:2S:805:G:C4'	7:L4:73:ARG:O	2.67	0.41
1:2S:1037:C:H2'	1:2S:1038:C:C6	2.55	0.41
1:2S:1312:C:H3'	1:2S:1313:G:C8	2.54	0.41
1:2S:2443:A:N6	1:2S:2504:U:N3	2.68	0.41
1:2S:2822:U:H2'	1:2S:2823:G:C8	2.55	0.41
1:2S:2897:A:H4'	42:80:125:LYS:HZ3	1.86	0.41
2:8S:110:C:H4'	2:8S:112:U:C5	2.52	0.41
5:L2:92:LYS:HG3	5:L2:103:PRO:HG2	2.02	0.41
10:L7:67:ARG:HA	10:L7:70:LYS:HE2	2.02	0.41
11:L8:157:VAL:O	11:L8:158:ASP:C	2.64	0.41
12:L9:48:VAL:HG13	12:L9:49:ASN:ND2	2.35	0.41
12:L9:112:ILE:O	12:L9:125:ASN:HA	2.20	0.41
14:51:16:LYS:HB3	14:51:72:ARG:HG2	2.01	0.41
15:53:60:ALA:HA	15:53:61:PRO:HD3	1.72	0.41
16:54:15:VAL:O	22:60:149:LYS:HA	2.20	0.41
17:55:8:GLU:HG3	17:55:50:ARG:NH2	2.25	0.41
18:56:46:GLU:HG3	18:56:49:ARG:N	2.26	0.41
21:59:19:LYS:H	21:59:19:LYS:HG3	1.71	0.41
24:62:70:LYS:C	24:62:70:LYS:CD	2.93	0.41
34:72:19:ARG:HG2	34:72:20:HIS:N	2.32	0.41
39:77:85:LYS:CG	39:77:86:ALA:H	2.33	0.41
42:80:82:LEU:HA	42:80:85:LEU:HB2	2.03	0.41
42:80:94:SER:HB2	42:80:122:ARG:O	2.20	0.41
42:80:96:CYS:HB3	42:80:100:TYR:N	2.35	0.41
45:83:67:GLY:HA3	45:83:70:THR:HG22	2.01	0.41
46:1S:454:U:C5	51:S4:66:MET:HB2	2.55	0.41
46:1S:525:A:H3'	46:1S:526:A:H8	1.86	0.41
46:1S:862:A:H4'	46:1S:863:A:C5'	2.51	0.41
46:1S:1134:C:O2'	46:1S:1135:U:H5'	2.20	0.41
46:1S:1170:G:C2	46:1S:1171:A:C8	3.08	0.41
46:1S:1202:A:H3'	46:1S:1202:A:N3	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1296:A:H2'	46:1S:1297:G:O4'	2.20	0.41
46:1S:1789:G:C8	61:14:132:ARG:NH2	2.61	0.41
50:S3:220:PRO:HB3	79:RA:223:TRP:CZ3	2.54	0.41
52:S5:83:ARG:O	52:S5:83:ARG:CG	2.68	0.41
52:S5:162:VAL:CA	75:28:45:LYS:HB3	2.49	0.41
53:S6:180:THR:HB	53:S6:181:PRO:HD2	2.03	0.41
59:12:31:VAL:HG22	59:12:133:LEU:HD12	2.02	0.41
60:13:106:ARG:HG2	60:13:106:ARG:NH2	2.35	0.41
65:18:118:LYS:HE3	65:18:118:LYS:HB2	1.82	0.41
69:22:29:PRO:HB2	69:22:58:SER:HB3	1.99	0.41
1:2S:122:A:H62	1:2S:148:G:H1'	1.80	0.41
1:2S:1078:U:H2'	1:2S:1080:A:OP2	2.20	0.41
1:2S:1566:A:H3'	1:2S:1567:U:H5''	2.03	0.41
1:2S:1834:U:C5'	41:79:3:ALA:HA	2.45	0.41
1:2S:1878:G:H3'	1:2S:1878:G:N3	2.35	0.41
1:2S:1938:U:C2	1:2S:2115:G:H5'	2.56	0.41
1:2S:2286:U:H4'	1:2S:2287:C:H2'	2.02	0.41
1:2S:2495:C:C5	1:2S:2496:C:C2	3.09	0.41
1:2S:2513:U:C4'	1:2S:2514:U:OP1	2.66	0.41
1:2S:3267:A:H3'	1:2S:3268:A:C8	2.51	0.41
1:2S:3318:G:H1'	1:2S:3320:A:N7	2.36	0.41
1:2S:3393:U:H2'	1:2S:3394:U:H6	1.80	0.41
4:L1:106:LYS:O	4:L1:136:THR:HG22	2.21	0.41
4:L1:125:GLY:N	4:L1:126:PRO:CD	2.83	0.41
4:L1:207:LYS:HB2	4:L1:213:ALA:HB2	2.01	0.41
6:L3:43:LEU:N	6:L3:43:LEU:CD1	2.82	0.41
6:L3:106:TRP:O	6:L3:199:PHE:CE2	2.69	0.41
7:L4:170:LYS:N	7:L4:170:LYS:CD	2.83	0.41
7:L4:188:ARG:HD3	7:L4:189:ALA:H	1.85	0.41
7:L4:191:LYS:C	7:L4:193:LYS:H	2.29	0.41
8:L5:209:GLU:HA	8:L5:209:GLU:OE2	2.20	0.41
10:L7:24:GLU:C	10:L7:26:VAL:N	2.77	0.41
10:L7:219:LYS:C	10:L7:221:LYS:H	2.28	0.41
12:L9:57:VAL:HG23	12:L9:68:LEU:HD23	2.01	0.41
13:50:99:ILE:CG2	13:50:123:HIS:HB2	2.50	0.41
14:51:120:ILE:CG2	14:51:123:PHE:HE2	2.33	0.41
14:51:125:MET:HG2	14:51:126:ASP:N	2.35	0.41
16:54:79:ALA:O	16:54:83:LYS:HB2	2.20	0.41
21:59:164:LEU:C	21:59:166:ASN:H	2.28	0.41
22:60:150:PHE:CD1	22:60:150:PHE:C	2.98	0.41
28:66:39:LEU:HD22	28:66:43:TYR:HE2	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:66:112:ASP:H	28:66:115:ARG:CG	2.34	0.41
35:73:58:GLU:HG3	35:73:62:SER:C	2.46	0.41
36:74:33:GLN:HG2	36:74:34:HIS:N	2.35	0.41
38:76:43:LEU:HD13	38:76:47:ILE:HD11	2.01	0.41
39:77:64:MET:CB	39:77:68:LYS:HG3	2.50	0.41
46:1S:477:A:H5'	77:30:34:ALA:HB2	2.01	0.41
46:1S:818:C:H6	46:1S:818:C:OP2	2.03	0.41
46:1S:1425:A:O2'	46:1S:1426:C:H5'	2.20	0.41
47:S0:197:ILE:N	47:S0:197:ILE:CD1	2.83	0.41
49:S2:238:SER:HA	49:S2:239:PRO:HD3	1.84	0.41
50:S3:212:LYS:NZ	50:S3:212:LYS:HB3	2.36	0.41
51:S4:137:PRO:HG2	51:S4:150:PRO:HD2	2.02	0.41
51:S4:206:ASP:N	51:S4:222:LEU:HD22	2.35	0.41
52:S5:89:ILE:HD12	52:S5:90:ILE:N	2.35	0.41
52:S5:158:GLN:HG3	52:S5:159:ALA:N	2.36	0.41
53:S6:38:GLY:O	53:S6:45:PHE:HB2	2.20	0.41
54:S7:130:VAL:HG12	54:S7:162:ILE:HD12	2.02	0.41
55:S8:136:SER:O	55:S8:140:GLU:HB2	2.19	0.41
55:S8:191:PHE:CE2	58:11:8:GLN:HG3	2.55	0.41
56:S9:24:LEU:HA	56:S9:27:GLU:OE1	2.19	0.41
56:S9:133:HIS:HB3	56:S9:134:ILE:H	1.58	0.41
57:10:21:VAL:HG12	57:10:66:TYR:CD2	2.55	0.41
62:15:86:VAL:CG2	62:15:87:PRO:HD2	2.50	0.41
66:19:37:VAL:HG22	66:19:39:THR:H	1.84	0.41
67:20:49:ASN:O	67:20:50:LEU:HD12	2.20	0.41
67:20:103:ILE:O	67:20:103:ILE:CG2	2.68	0.41
70:23:60:GLU:HA	70:23:68:ILE:HA	2.02	0.41
72:25:103:ARG:O	72:25:105:THR:N	2.54	0.41
73:26:41:ILE:HD13	73:26:41:ILE:N	2.28	0.41
1:2S:58:G:C5'	17:55:154:PRO:HB2	2.50	0.41
1:2S:217:U:H4'	28:66:100:HIS:NE2	2.35	0.41
1:2S:650:C:H6	1:2S:650:C:O5'	2.04	0.41
1:2S:1090:G:O2'	1:2S:1091:A:H5'	2.20	0.41
1:2S:1470:U:H2'	1:2S:1471:U:H6	1.86	0.41
1:2S:1594:A:H1'	1:2S:1615:C:H1'	2.02	0.41
1:2S:1855:U:O2'	1:2S:1856:C:H5'	2.20	0.41
1:2S:2155:G:OP1	5:L2:241:ARG:HG2	2.21	0.41
1:2S:2219:A:H2'	1:2S:2220:A:C8	2.56	0.41
1:2S:2541:U:C1'	1:2S:2542:U:H4'	2.51	0.41
1:2S:2593:A:H4'	1:2S:2594:C:C6	2.56	0.41
1:2S:2948:C:HO2'	1:2S:2949:U:H5'	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2955:U:H2'	1:2S:2956:A:C8	2.55	0.41
1:2S:3099:C:O2	1:2S:3135:U:O2	2.39	0.41
2:8S:33:A:O3'	2:8S:34:U:H2'	2.21	0.41
2:8S:54:A:C8	2:8S:55:U:C5	3.08	0.41
4:L1:183:ILE:O	4:L1:187:VAL:HG23	2.20	0.41
5:L2:69:TYR:O	5:L2:70:ARG:HB3	2.21	0.41
6:L3:116:ARG:HH12	6:L3:174:LYS:HD3	1.85	0.41
6:L3:245:GLY:HA3	6:L3:248:LYS:HD3	2.03	0.41
7:L4:236:LEU:O	7:L4:240:PRO:HG3	2.20	0.41
8:L5:78:ALA:CB	8:L5:105:ILE:HD11	2.50	0.41
10:L7:133:TYR:C	10:L7:134:VAL:HG13	2.45	0.41
11:L8:98:ARG:HD3	11:L8:99:PRO:HD2	2.02	0.41
12:L9:53:ILE:HD13	16:54:7:VAL:HG21	2.03	0.41
12:L9:71:VAL:O	12:L9:71:VAL:HG12	2.20	0.41
13:50:42:THR:HG22	13:50:45:GLU:HB2	2.03	0.41
13:50:77:THR:HG22	13:50:82:ARG:HA	2.02	0.41
14:51:49:LYS:HA	14:51:64:LYS:HA	2.02	0.41
15:53:91:ARG:HD3	15:53:91:ARG:HA	1.86	0.41
17:55:122:ASN:HB2	17:55:129:TYR:CD2	2.56	0.41
19:57:148:LEU:C	19:57:148:LEU:HD12	2.46	0.41
21:59:101:VAL:HG12	21:59:135:LYS:HD3	2.02	0.41
26:64:45:ASN:HA	26:64:46:PRO:HD3	1.79	0.41
29:67:30:ASP:O	29:67:39:GLY:HA2	2.21	0.41
33:71:25:PHE:HA	33:71:28:ARG:CD	2.51	0.41
34:72:85:LEU:HA	34:72:88:HIS:HD2	1.85	0.41
35:73:54:ARG:HB3	35:73:55:ALA:H	1.65	0.41
36:74:20:ILE:CG2	36:74:32:ALA:HB1	2.50	0.41
44:82:67:LYS:N	44:82:87:ARG:HB3	2.35	0.41
45:83:58:SER:O	45:83:61:LYS:HD3	2.21	0.41
46:1S:1006:C:O5'	46:1S:1006:C:H6	2.03	0.41
46:1S:1123:C:N4	46:1S:1124:A:N6	2.68	0.41
46:1S:1418:G:H2'	46:1S:1418:G:N3	2.36	0.41
46:1S:1621:U:H2'	46:1S:1622:G:O4'	2.20	0.41
47:S0:148:ASP:HB3	47:S0:149:LEU:H	1.63	0.41
48:S1:37:THR:CG2	48:S1:231:LEU:HD21	2.43	0.41
48:S1:208:GLN:O	48:S1:209:ASN:HB2	2.21	0.41
49:S2:58:LEU:HG	68:21:13:VAL:O	2.20	0.41
49:S2:90:THR:OG1	49:S2:91:ARG:N	2.54	0.41
51:S4:139:VAL:O	51:S4:146:THR:HA	2.20	0.41
51:S4:176:ASP:HB2	51:S4:179:LYS:HE2	2.03	0.41
53:S6:136:LYS:HD3	53:S6:136:LYS:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:S7:27:LEU:HD11	54:S7:81:LEU:CD1	2.51	0.41
54:S7:114:ARG:HB2	54:S7:114:ARG:HH11	1.85	0.41
58:11:20:PHE:CD2	58:11:21:ASN:N	2.88	0.41
58:11:54:ILE:HG22	58:11:55:ASP:N	2.35	0.41
58:11:89:ALA:HA	58:11:104:HIS:HA	2.02	0.41
60:13:47:PRO:HB3	60:13:71:ILE:HG21	2.03	0.41
63:16:29:ILE:O	63:16:35:PRO:HA	2.20	0.41
66:19:85:SER:C	66:19:87:GLY:H	2.29	0.41
69:22:40:VAL:O	69:22:43:LYS:HB3	2.20	0.41
70:23:17:VAL:HA	70:23:20:ARG:NH2	2.36	0.41
70:23:131:SER:O	70:23:135:LEU:HG	2.20	0.41
71:24:44:LEU:HA	71:24:47:VAL:HG22	2.02	0.41
71:24:102:LYS:HD2	71:24:102:LYS:N	2.31	0.41
79:RA:286:GLU:HA	79:RA:287:PRO:HD3	1.94	0.41
1:2S:316:U:O2	38:76:30:LYS:HD3	2.20	0.41
1:2S:641:C:O2'	1:2S:642:U:H5'	2.20	0.41
1:2S:856:G:H2'	1:2S:857:G:O4'	2.20	0.41
1:2S:1364:C:H2'	1:2S:1365:G:C8	2.56	0.41
1:2S:1401:A:O2'	1:2S:1402:C:H5'	2.21	0.41
1:2S:1888:U:H2'	1:2S:1889:G:O4'	2.20	0.41
1:2S:2148:U:C5'	5:L2:196:TRP:HZ2	2.33	0.41
1:2S:2908:G:H2'	1:2S:2909:U:H6	1.82	0.41
1:2S:2969:A:H2'	1:2S:2970:C:C6	2.55	0.41
1:2S:3024:A:H4'	12:L9:97:PHE:CE2	2.56	0.41
1:2S:3102:G:H2'	1:2S:3103:A:C8	2.56	0.41
1:2S:3237:U:H2'	1:2S:3238:G:O4'	2.20	0.41
1:2S:3379:C:H5''	6:L3:314:TYR:O	2.21	0.41
2:8S:23:U:H5''	28:66:13:ARG:HG2	2.02	0.41
2:8S:83:C:O2	2:8S:83:C:O4'	2.37	0.41
6:L3:186:GLY:O	6:L3:187:SER:O	2.38	0.41
8:L5:140:ARG:CZ	8:L5:140:ARG:CB	2.98	0.41
11:L8:139:VAL:HG13	11:L8:199:ALA:HB2	2.02	0.41
12:L9:126:VAL:HG13	12:L9:160:ASP:OD1	2.21	0.41
17:55:71:ARG:HH22	17:55:74:PRO:HD3	1.86	0.41
26:64:30:ARG:HG2	26:64:30:ARG:HH11	1.85	0.41
29:67:29:HIS:H	29:67:41:ALA:HA	1.84	0.41
36:74:29:ILE:HD13	36:74:29:ILE:N	2.36	0.41
46:1S:564:G:H2'	46:1S:578:U:C5	2.56	0.41
46:1S:642:G:H2'	46:1S:643:G:C8	2.56	0.41
46:1S:762:A:H2'	46:1S:763:G:O4'	2.20	0.41
46:1S:1029:U:O2'	46:1S:1030:A:H5'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1186:U:C2'	46:1S:1187:U:H5'	2.50	0.41
46:1S:1426:C:H3'	46:1S:1427:A:C5'	2.50	0.41
47:S0:26:ALA:H	47:S0:149:LEU:HD12	1.86	0.41
47:S0:62:ARG:HH12	68:21:78:LEU:HB2	1.85	0.41
48:S1:170:GLU:O	48:S1:174:LYS:HG3	2.20	0.41
49:S2:162:CYS:HB3	49:S2:209:ASN:HB3	2.02	0.41
49:S2:172:ALA:HB2	49:S2:197:TYR:CD2	2.56	0.41
50:S3:8:LYS:H	50:S3:8:LYS:HG3	1.60	0.41
52:S5:69:PHE:HD2	63:16:50:GLU:HG2	1.85	0.41
52:S5:124:LEU:C	52:S5:126:ASP:H	2.28	0.41
59:12:24:ILE:C	59:12:26:ASP:N	2.78	0.41
63:16:51:PRO:O	63:16:55:VAL:HG12	2.21	0.41
65:18:82:PRO:O	65:18:83:ALA:HB2	2.20	0.41
70:23:34:LEU:HB3	70:23:39:LYS:NZ	2.36	0.41
70:23:50:LYS:HB3	70:23:77:ILE:HD12	2.03	0.41
70:23:96:VAL:O	70:23:97:ASP:CB	2.68	0.41
1:2S:209:A:O2'	1:2S:211:A:OP2	2.25	0.41
1:2S:212:G:H5'	7:L4:221:ASN:CG	2.46	0.41
1:2S:298:U:C5'	38:76:31:GLY:O	2.69	0.41
1:2S:1130:A:H2'	1:2S:1132:C:C6	2.56	0.41
1:2S:1415:U:H2'	1:2S:1416:C:O4'	2.21	0.41
1:2S:1679:A:O2'	1:2S:1680:G:H5'	2.20	0.41
1:2S:2253:G:H2'	1:2S:2254:U:O4'	2.21	0.41
1:2S:2407:C:H1'	1:2S:2818:U:O2	2.21	0.41
1:2S:2754:G:H3'	1:2S:2755:C:H5''	2.02	0.41
1:2S:2883:U:H2'	1:2S:2884:C:H6	1.84	0.41
1:2S:3334:U:O4'	1:2S:3370:A:C2	2.74	0.41
1:2S:3380:U:C2'	1:2S:3381:U:H5'	2.51	0.41
3:5S:41:G:H5''	3:5S:42:A:C8	2.55	0.41
4:L1:91:LYS:C	4:L1:93:LEU:N	2.76	0.41
6:L3:82:PRO:HA	6:L3:83:PRO:HD3	2.00	0.41
10:L7:94:LYS:N	10:L7:94:LYS:CD	2.84	0.41
12:L9:49:ASN:HD21	12:L9:52:LEU:CB	2.30	0.41
15:53:95:ILE:HG12	15:53:119:TYR:CE2	2.56	0.41
15:53:154:VAL:C	15:53:155:GLU:HG3	2.46	0.41
17:55:14:LYS:HA	17:55:19:LEU:CD2	2.50	0.41
17:55:133:ILE:C	17:55:134:LEU:HD12	2.45	0.41
20:58:102:ALA:HA	20:58:122:ILE:O	2.21	0.41
21:59:23:TRP:CH2	21:59:25:ASP:HB3	2.56	0.41
23:61:158:THR:O	23:61:160:ILE:N	2.54	0.41
26:64:6:ASP:C	26:64:8:PHE:H	2.28	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:65:59:SER:HB3	27:65:102:LEU:HD11	2.02	0.41
34:72:60:ASN:C	34:72:62:LYS:H	2.29	0.41
44:82:68:VAL:HG12	44:82:85:LEU:HD13	2.01	0.41
45:83:28:LYS:HG2	45:83:32:GLN:NE2	2.36	0.41
46:1S:372:G:H21	46:1S:612:U:H3	1.69	0.41
46:1S:774:A:H2'	46:1S:775:G:H5'	2.03	0.41
46:1S:829:A:H4'	46:1S:830:U:C5'	2.51	0.41
46:1S:1366:U:H5''	63:16:33:GLY:CA	2.51	0.41
46:1S:1471:A:H2	46:1S:1474:G:N3	2.19	0.41
46:1S:1601:G:N2	66:19:88:VAL:HG22	2.35	0.41
46:1S:1687:U:H2'	46:1S:1688:U:O4'	2.21	0.41
48:S1:44:GLY:C	48:S1:45:LYS:HD3	2.46	0.41
52:S5:126:ASP:O	52:S5:127:GLN:HB2	2.21	0.41
53:S6:28:PHE:CZ	53:S6:104:PRO:HA	2.55	0.41
53:S6:63:MET:HB3	53:S6:99:GLY:O	2.21	0.41
54:S7:142:TYR:HD2	69:22:50:PHE:O	2.04	0.41
55:S8:23:LYS:HB3	55:S8:24:LYS:H	1.53	0.41
56:S9:41:GLU:HB3	56:S9:44:ARG:NH2	2.36	0.41
57:10:76:LEU:HD12	57:10:76:LEU:N	2.35	0.41
57:10:87:VAL:O	57:10:87:VAL:HG22	2.19	0.41
59:12:71:ILE:HG23	59:12:72:ILE:N	2.35	0.41
60:13:100:LYS:CA	60:13:103:GLU:HG2	2.49	0.41
69:22:36:LYS:HB2	69:22:110:ILE:HD12	2.02	0.41
1:2S:95:A:H8	1:2S:95:A:P	2.44	0.41
1:2S:201:A:H4'	1:2S:220:G:C6	2.56	0.41
1:2S:249:U:O2	1:2S:250:U:C4	2.74	0.41
1:2S:259:C:H2'	1:2S:260:C:C6	2.56	0.41
1:2S:273:A:H2'	1:2S:274:G:C8	2.56	0.41
1:2S:311:C:H2'	1:2S:312:C:H6	1.84	0.41
1:2S:311:C:H2'	1:2S:312:C:C6	2.56	0.41
1:2S:585:A:C5'	35:73:72:THR:HA	2.51	0.41
1:2S:625:G:C2'	1:2S:626:U:H5'	2.51	0.41
1:2S:628:A:H2'	1:2S:629:U:H6	1.79	0.41
1:2S:643:U:H2'	1:2S:644:G:C8	2.56	0.41
1:2S:912:G:H2'	1:2S:914:A:C5	2.55	0.41
1:2S:1152:G:H1'	1:2S:2371:G:H5'	2.01	0.41
1:2S:1212:A:N3	1:2S:1213:G:H1'	2.35	0.41
1:2S:1320:C:H6	1:2S:1320:C:O5'	2.04	0.41
1:2S:1389:G:H2'	1:2S:1390:A:H2	1.86	0.41
1:2S:1892:G:C2'	1:2S:1893:A:H5''	2.49	0.41
1:2S:2101:C:H1'	1:2S:2102:U:O5'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2102:U:H5'	21:59:88:ARG:NH2	2.32	0.41
1:2S:2279:A:H62	1:2S:2286:U:H3	1.69	0.41
1:2S:2393:G:H5''	6:L3:252:ILE:HD11	2.02	0.41
1:2S:2396:G:OP1	1:2S:2397:A:H4'	2.21	0.41
1:2S:2403:G:N7	1:2S:2870:C:H4'	2.36	0.41
1:2S:2468:A:C5	1:2S:2478:C:H4'	2.55	0.41
1:2S:2470:C:H5''	4:L1:30:GLU:HG2	2.02	0.41
1:2S:2604:U:C4	1:2S:2605:G:C6	3.09	0.41
1:2S:2788:C:O2'	1:2S:2789:U:H5'	2.21	0.41
1:2S:2819:A:O2'	1:2S:2820:A:H5'	2.21	0.41
2:8S:103:G:O5'	2:8S:103:G:H8	2.03	0.41
2:8S:109:A:H2'	2:8S:110:C:O4'	2.20	0.41
2:8S:154:C:H2'	2:8S:155:A:H8	1.84	0.41
6:L3:237:LYS:HZ2	6:L3:246:LEU:HD13	1.85	0.41
7:L4:162:THR:O	7:L4:166:VAL:HG23	2.21	0.41
7:L4:361:HIS:CD2	7:L4:362:ASP:N	2.86	0.41
8:L5:183:TRP:HA	8:L5:189:GLU:O	2.21	0.41
10:L7:24:GLU:HB2	10:L7:25:GLN:H	1.57	0.41
12:L9:25:VAL:CG1	12:L9:26:LYS:N	2.83	0.41
12:L9:41:ILE:O	12:L9:41:ILE:HD13	2.21	0.41
12:L9:90:MET:HG2	12:L9:180:TYR:O	2.20	0.41
12:L9:135:GLU:O	12:L9:144:ILE:HG13	2.20	0.41
14:51:13:LYS:HB3	14:51:13:LYS:NZ	2.36	0.41
14:51:166:LYS:O	14:51:167:TYR:HB2	2.21	0.41
16:54:106:ARG:HA	16:54:109:ARG:CD	2.42	0.41
17:55:39:ALA:CB	17:55:131:GLU:OE2	2.68	0.41
17:55:63:ARG:HE	17:55:63:ARG:HB2	1.62	0.41
19:57:58:ILE:HA	19:57:59:PRO:HD3	1.78	0.41
19:57:148:LEU:O	19:57:149:VAL:CG2	2.68	0.41
20:58:23:ASN:ND2	20:58:26:LEU:HB2	2.35	0.41
20:58:124:LEU:HA	20:58:124:LEU:HD23	1.84	0.41
28:66:74:TYR:HD1	28:66:76:LEU:HB3	1.86	0.41
28:66:119:ILE:HD12	28:66:126:LEU:HD23	2.02	0.41
28:66:126:LEU:HD13	28:66:127:GLU:OXT	2.20	0.41
29:67:4:PHE:CE1	32:70:35:ARG:HG2	2.55	0.41
29:67:105:SER:O	29:67:108:GLU:HB2	2.21	0.41
32:70:58:TYR:CE2	32:70:62:LEU:HD11	2.55	0.41
34:72:20:HIS:HB2	34:72:35:GLN:OE1	2.21	0.41
34:72:89:THR:HG22	34:72:117:ILE:HG12	2.03	0.41
36:74:8:ARG:HH11	36:74:8:ARG:CG	2.34	0.41
39:77:35:SER:C	39:77:45:ARG:HH21	2.29	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:78:11:PHE:CG	40:78:54:LEU:HD22	2.56	0.41
40:78:18:ALA:C	40:78:20:VAL:H	2.28	0.41
45:83:20:SER:HA	45:83:23:ARG:NE	2.36	0.41
45:83:39:CYS:CB	45:83:42:CYS:SG	3.09	0.41
46:1S:9:U:H2'	46:1S:11:A:OP2	2.21	0.41
46:1S:497:G:O2'	46:1S:498:G:OP1	2.39	0.41
46:1S:680:U:C3'	46:1S:680:U:C6	3.04	0.41
46:1S:744:U:C4	46:1S:745:U:C5	3.09	0.41
46:1S:831:U:O2'	46:1S:832:U:H5'	2.20	0.41
46:1S:1361:U:H2'	46:1S:1362:U:H5''	2.03	0.41
46:1S:1435:G:C2	57:10:59:PHE:HB2	2.56	0.41
46:1S:1689:A:H2'	46:1S:1690:G:O4'	2.21	0.41
46:1S:1716:C:O2'	46:1S:1717:G:H5''	2.20	0.41
46:1S:1731:A:H2'	46:1S:1732:A:O4'	2.20	0.41
46:1S:1744:A:C5	46:1S:1745:G:C6	3.09	0.41
47:S0:29:VAL:CG1	47:S0:150:ASP:HB3	2.51	0.41
49:S2:37:PRO:HB2	49:S2:65:GLU:OE1	2.20	0.41
49:S2:130:ILE:HA	49:S2:133:LYS:HG2	2.03	0.41
51:S4:92:LEU:HB2	51:S4:97:GLU:O	2.21	0.41
51:S4:113:ARG:HG3	51:S4:113:ARG:NH1	2.36	0.41
51:S4:115:THR:OG1	51:S4:118:GLU:HB2	2.21	0.41
51:S4:252:ARG:CD	51:S4:256:ARG:HD2	2.50	0.41
52:S5:24:VAL:HG21	52:S5:28:PRO:HA	2.02	0.41
52:S5:72:HIS:CG	63:16:44:LEU:HD11	2.56	0.41
53:S6:157:VAL:HG13	53:S6:159:ARG:HG3	2.03	0.41
58:11:10:GLU:C	58:11:12:ALA:H	2.27	0.41
58:11:27:THR:HG23	58:11:30:ARG:N	2.33	0.41
59:12:25:GLU:C	59:12:27:ALA:H	2.29	0.41
60:13:47:PRO:HB3	60:13:71:ILE:CG2	2.51	0.41
62:15:72:LYS:HA	62:15:73:PRO:HD3	1.86	0.41
63:16:114:ARG:H	63:16:116:LEU:CD2	2.34	0.41
64:17:13:SER:HB3	64:17:57:LEU:HD11	2.01	0.41
65:18:110:ARG:HG2	65:18:110:ARG:HH11	1.86	0.41
66:19:9:VAL:HG11	66:19:14:PHE:CD1	2.55	0.41
66:19:40:SER:HB3	66:19:43:ASN:ND2	2.36	0.41
66:19:139:THR:O	66:19:139:THR:HG22	2.21	0.41
67:20:95:ALA:HB1	67:20:96:PRO:CD	2.44	0.41
69:22:16:ASN:O	69:22:20:THR:HG23	2.20	0.41
69:22:27:ILE:HG12	69:22:61:ILE:O	2.21	0.41
69:22:38:LEU:O	69:22:47:ILE:HD11	2.21	0.41
70:23:13:ARG:NH1	70:23:13:ARG:HB2	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:25:50:ILE:HD11	72:25:70:LYS:HG2	2.01	0.41
73:26:82:ARG:HA	73:26:82:ARG:NE	2.32	0.41
74:27:17:ARG:HG3	74:27:18:LYS:N	2.35	0.41
74:27:61:THR:CG2	74:27:62:ILE:N	2.76	0.41
79:RA:170:ILE:HD11	79:RA:204:ALA:HB2	2.02	0.41
1:2S:75:G:C5'	15:53:58:VAL:CG1	2.95	0.41
1:2S:642:U:H5''	1:2S:1116:G:O6	2.21	0.41
1:2S:1565:G:N2	1:2S:1566:A:H1'	2.35	0.41
1:2S:1604:G:H4'	1:2S:1835:A:H4'	2.02	0.41
1:2S:1818:U:H2'	1:2S:1819:U:H5''	2.03	0.41
1:2S:1852:G:H2'	1:2S:1853:U:C6	2.56	0.41
1:2S:2109:U:H6	1:2S:2109:U:O5'	2.03	0.41
1:2S:2172:A:H2'	1:2S:2173:U:C6	2.56	0.41
1:2S:2604:U:O2'	1:2S:2605:G:H5'	2.21	0.41
1:2S:3229:G:H2'	1:2S:3230:G:H8	1.86	0.41
3:5S:70:U:H2'	3:5S:71:G:O4'	2.21	0.41
4:L1:28:PHE:O	4:L1:28:PHE:CD1	2.62	0.41
6:L3:4:ARG:C	6:L3:6:TYR:N	2.79	0.41
6:L3:151:ILE:HG22	6:L3:155:ALA:HB3	2.02	0.41
7:L4:168:ALA:O	7:L4:172:VAL:HG23	2.21	0.41
15:53:95:ILE:HG12	15:53:119:TYR:HE2	1.86	0.41
15:53:135:ALA:O	15:53:136:GLU:HG2	2.20	0.41
16:54:36:VAL:CG1	16:54:55:ARG:NH2	2.84	0.41
16:54:83:LYS:HB2	16:54:83:LYS:HE3	1.96	0.41
17:55:64:VAL:HG11	17:55:102:ALA:HB1	2.02	0.41
17:55:67:ARG:CG	17:55:127:TYR:CE1	3.03	0.41
18:56:54:TYR:O	18:56:58:LEU:HB2	2.20	0.41
18:56:174:PHE:O	18:56:178:VAL:HG23	2.20	0.41
19:57:127:ARG:CG	19:57:128:ARG:H	2.34	0.41
22:60:8:GLN:CB	22:60:64:ILE:HD11	2.45	0.41
25:63:4:ASN:HB3	25:63:106:LYS:HA	2.03	0.41
28:66:13:ARG:O	28:66:17:LYS:HB2	2.21	0.41
28:66:86:THR:HG22	28:66:96:PRO:HA	2.02	0.41
33:71:11:GLU:HG2	33:71:74:ARG:CB	2.51	0.41
38:76:82:ARG:O	38:76:86:LYS:HB3	2.21	0.41
46:1S:532:U:C5	46:1S:533:U:C5	3.09	0.41
46:1S:606:A:H4'	46:1S:607:G:H3'	2.02	0.41
46:1S:680:U:H3'	46:1S:680:U:C6	2.56	0.41
46:1S:1671:A:N6	46:1S:1730:A:O2'	2.51	0.41
46:1S:1719:A:N6	46:1S:1720:G:C2	2.89	0.41
46:1S:1719:A:N7	46:1S:1720:G:C5	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:S1:21:VAL:HG23	48:S1:22:ASP:N	2.36	0.41
48:S1:153:HIS:CG	48:S1:154:SER:H	2.39	0.41
50:S3:72:LEU:HD23	57:10:20:VAL:HG11	2.02	0.41
54:S7:39:ARG:HG3	54:S7:39:ARG:HH21	1.86	0.41
55:S8:122:GLY:HA2	55:S8:157:GLU:OE1	2.21	0.41
58:11:83:THR:C	58:11:84:ILE:HG23	2.46	0.41
62:15:126:VAL:CG2	62:15:128:HIS:CD2	3.04	0.41
63:16:58:ASP:C	63:16:60:PHE:H	2.29	0.41
67:20:95:ALA:HB1	67:20:99:ILE:HG21	2.03	0.41
70:23:126:LYS:HA	70:23:131:SER:HA	2.01	0.41
78:31:136:LYS:HD2	78:31:136:LYS:HA	1.95	0.41
1:2S:201:A:O5'	1:2S:201:A:H8	2.03	0.40
1:2S:449:U:C6	1:2S:449:U:C3'	3.04	0.40
1:2S:517:G:C2'	1:2S:518:G:H5'	2.51	0.40
1:2S:544:C:C6	1:2S:544:C:C3'	3.04	0.40
1:2S:836:A:OP2	45:83:4:ARG:HD3	2.20	0.40
1:2S:1074:U:H1'	31:69:46:ALA:HB2	2.03	0.40
1:2S:1088:U:H2'	1:2S:1089:G:O4'	2.20	0.40
1:2S:1169:A:H4'	10:L7:219:LYS:NZ	2.31	0.40
1:2S:1313:G:H5'	18:56:83:ALA:CB	2.51	0.40
1:2S:1433:A:O4'	34:72:27:ARG:HD2	2.21	0.40
1:2S:2085:U:H3'	1:2S:2085:U:H6	1.87	0.40
1:2S:2140:U:H2'	1:2S:2141:U:H5'	2.03	0.40
1:2S:2188:A:H2'	1:2S:2189:U:O4'	2.22	0.40
1:2S:2490:C:H1'	1:2S:2491:A:C8	2.56	0.40
1:2S:3296:A:O2'	1:2S:3297:U:H5'	2.21	0.40
3:5S:3:U:H2'	3:5S:4:U:H6	1.87	0.40
5:L2:17:THR:HB	5:L2:18:SER:H	1.58	0.40
5:L2:109:GLU:HA	5:L2:136:ILE:HB	2.03	0.40
6:L3:183:LEU:CB	6:L3:191:LYS:HD2	2.50	0.40
7:L4:76:ARG:HA	7:L4:87:GLN:O	2.21	0.40
7:L4:329:PRO:HB3	10:L7:41:ARG:NH1	2.36	0.40
8:L5:280:GLU:CD	8:L5:280:GLU:N	2.79	0.40
9:L6:51:ARG:HD2	9:L6:158:TYR:O	2.21	0.40
10:L7:160:ARG:NH2	10:L7:206:LYS:HD3	2.36	0.40
11:L8:183:LYS:HB2	11:L8:196:ALA:HB2	2.02	0.40
12:L9:3:TYR:HB2	12:L9:65:VAL:HG21	2.02	0.40
13:50:79:VAL:HG11	13:50:147:VAL:CG2	2.52	0.40
17:55:136:ASP:CG	17:55:139:HIS:HB2	2.45	0.40
17:55:187:ARG:O	17:55:190:THR:HG22	2.20	0.40
18:56:121:PRO:HA	18:56:127:LEU:HD12	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:57:24:VAL:HG12	19:57:25:SER:N	2.36	0.40
19:57:86:LYS:O	19:57:90:PHE:HD1	2.04	0.40
23:61:154:VAL:HA	23:61:155:PRO:HD3	1.89	0.40
25:63:39:VAL:CG1	25:63:40:LYS:H	2.23	0.40
26:64:45:ASN:O	26:64:49:ILE:HG12	2.21	0.40
30:68:64:GLN:HB2	30:68:67:HIS:CE1	2.56	0.40
42:80:90:ASN:N	42:80:90:ASN:ND2	2.69	0.40
46:1S:15:U:H2'	46:1S:16:G:O4'	2.21	0.40
46:1S:370:A:N6	49:S2:199:GLN:HE22	2.19	0.40
46:1S:450:U:H2'	46:1S:451:A:H8	1.83	0.40
46:1S:477:A:H2'	46:1S:478:A:C8	2.46	0.40
46:1S:523:G:H8	46:1S:523:G:O5'	2.03	0.40
46:1S:685:A:C2'	46:1S:686:C:H5'	2.52	0.40
46:1S:716:C:H2'	46:1S:717:C:O4'	2.21	0.40
46:1S:803:A:H5'	69:22:107:SER:O	2.21	0.40
47:S0:121:VAL:HB	47:S0:143:VAL:HG13	2.02	0.40
48:S1:138:PHE:CD2	48:S1:214:LYS:HB3	2.55	0.40
48:S1:189:ILE:HB	48:S1:190:PRO:CD	2.51	0.40
49:S2:185:LYS:O	49:S2:189:GLN:HG3	2.20	0.40
50:S3:96:LEU:HD13	50:S3:190:ARG:HB2	2.03	0.40
52:S5:57:SER:C	52:S5:59:VAL:H	2.28	0.40
55:S8:196:LEU:O	55:S8:200:LYS:HD2	2.22	0.40
58:11:124:THR:O	58:11:140:VAL:HG12	2.21	0.40
60:13:55:ARG:O	74:27:32:PHE:HZ	2.03	0.40
60:13:89:TYR:CD1	60:13:89:TYR:C	2.99	0.40
64:17:11:ARG:HH11	64:17:11:ARG:HG3	1.85	0.40
70:23:51:GLY:CA	70:23:77:ILE:HG13	2.50	0.40
73:26:51:ARG:HG2	73:26:51:ARG:HH21	1.86	0.40
1:2S:269:G:H5'	17:55:120:TRP:CE3	2.56	0.40
1:2S:286:U:H2'	1:2S:287:G:O4'	2.21	0.40
1:2S:884:A:H2'	1:2S:2139:A:C8	2.56	0.40
1:2S:1230:G:H1'	1:2S:1260:A:C2	2.57	0.40
1:2S:1631:C:OP2	29:67:48:ARG:NH2	2.54	0.40
1:2S:2542:U:H1'	1:2S:2543:U:C5	2.53	0.40
1:2S:3272:C:C5'	9:L6:77:ARG:HE	2.27	0.40
3:5S:11:A:H5''	3:5S:13:A:C6	2.55	0.40
4:L1:56:PRO:HB2	4:L1:184:LEU:HA	2.03	0.40
5:L2:210:PRO:C	5:L2:211:HIS:HD2	2.29	0.40
6:L3:238:LEU:HD22	6:L3:238:LEU:N	2.36	0.40
7:L4:280:ILE:H	7:L4:280:ILE:HG12	1.62	0.40
11:L8:32:LYS:HE2	11:L8:39:ALA:HB1	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:L8:59:GLN:HG2	11:L8:59:GLN:H	1.62	0.40
11:L8:175:VAL:CG1	11:L8:176:PRO:HD2	2.51	0.40
12:L9:50:ASN:HD22	12:L9:50:ASN:HA	1.68	0.40
15:53:126:PHE:CD1	15:53:126:PHE:N	2.89	0.40
21:59:161:ALA:O	21:59:165:LYS:N	2.50	0.40
27:65:111:ASN:HB2	27:65:123:TYR:CB	2.50	0.40
28:66:33:ALA:HA	28:66:34:PRO:HD2	1.89	0.40
29:67:83:THR:OG1	29:67:85:TYR:HD2	2.04	0.40
39:77:85:LYS:CG	39:77:86:ALA:N	2.82	0.40
46:1S:18:C:H2'	46:1S:19:A:O4'	2.21	0.40
46:1S:367:A:C2'	46:1S:368:U:H5'	2.51	0.40
46:1S:412:A:H2	46:1S:421:A:H61	1.68	0.40
46:1S:657:U:C2'	46:1S:658:C:H5''	2.41	0.40
46:1S:966:A:H2'	46:1S:967:A:C8	2.56	0.40
46:1S:1364:G:H21	66:19:3:GLY:CA	2.34	0.40
46:1S:1391:A:H61	46:1S:1407:U:H3	1.68	0.40
46:1S:1562:G:H2'	46:1S:1563:C:C6	2.56	0.40
46:1S:1604:U:H5'	67:20:79:TRP:CE2	2.55	0.40
47:S0:167:LYS:HB3	47:S0:168:HIS:H	1.47	0.40
48:S1:32:ILE:H	48:S1:32:ILE:HD12	1.86	0.40
48:S1:33:LYS:HB2	48:S1:97:LEU:CD2	2.48	0.40
48:S1:36:SER:HB3	48:S1:231:LEU:CD2	2.51	0.40
49:S2:144:TRP:C	69:22:98:GLN:HE22	2.29	0.40
50:S3:49:ILE:HG23	50:S3:89:GLU:HG3	2.03	0.40
52:S5:29:ILE:N	52:S5:29:ILE:HD12	2.36	0.40
52:S5:161:ASP:O	75:28:44:VAL:HA	2.21	0.40
53:S6:72:ARG:HG3	53:S6:72:ARG:HH11	1.86	0.40
61:14:17:ALA:HB3	61:14:81:VAL:HG12	2.03	0.40
69:22:25:VAL:CG2	69:22:63:VAL:HB	2.51	0.40
69:22:86:ILE:HG13	69:22:87:GLU:H	1.86	0.40
71:24:7:ILE:HD13	71:24:44:LEU:HD21	2.02	0.40
71:24:86:GLU:HA	71:24:87:PRO:HD3	1.90	0.40
79:RA:135:THR:HG23	79:RA:141:LEU:HD21	2.02	0.40
1:2S:16:A:O2'	1:2S:17:G:H5'	2.22	0.40
1:2S:102:C:H6	1:2S:102:C:O5'	2.05	0.40
1:2S:676:G:O6	20:58:86:THR:HG21	2.21	0.40
1:2S:789:A:H2'	1:2S:790:U:C6	2.55	0.40
1:2S:842:G:H2'	1:2S:843:A:H8	1.87	0.40
1:2S:1056:U:H2'	1:2S:1057:A:C8	2.57	0.40
1:2S:1360:C:O2'	1:2S:1361:U:H5'	2.21	0.40
1:2S:1435:A:OP2	1:2S:1437:C:H6	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1479:U:C5	1:2S:1480:G:C5	3.09	0.40
1:2S:1565:G:C2	1:2S:1566:A:H1'	2.56	0.40
1:2S:1706:C:H3'	1:2S:1707:A:H8	1.87	0.40
1:2S:2085:U:O2'	1:2S:2086:A:H5'	2.21	0.40
1:2S:2213:A:H2	1:2S:2601:A:N3	2.19	0.40
1:2S:2397:A:N7	1:2S:2873:U:C6	2.90	0.40
1:2S:3132:C:H6	1:2S:3132:C:O5'	2.03	0.40
1:2S:3151:U:H4'	1:2S:3294:A:C4'	2.51	0.40
2:8S:4:C:C5'	19:57:61:ARG:O	2.69	0.40
2:8S:107:G:H4'	2:8S:138:A:H5'	2.03	0.40
2:8S:146:U:O2'	2:8S:147:U:H5'	2.21	0.40
3:5S:43:U:H2'	3:5S:44:C:O4'	2.21	0.40
4:L1:51:GLY:H	4:L1:193:LEU:HD13	1.85	0.40
5:L2:205:ASN:CB	5:L2:206:PRO:CD	2.94	0.40
6:L3:57:VAL:HG21	6:L3:358:TRP:CE3	2.56	0.40
6:L3:183:LEU:HD12	6:L3:183:LEU:N	2.36	0.40
7:L4:184:SER:CB	7:L4:202:ARG:HG2	2.51	0.40
8:L5:51:LEU:HB2	8:L5:144:VAL:CG2	2.51	0.40
9:L6:54:TYR:CD2	9:L6:55:LEU:N	2.89	0.40
9:L6:79:VAL:CG1	9:L6:80:ASN:N	2.85	0.40
15:53:171:ARG:HA	15:53:171:ARG:HD3	1.88	0.40
18:56:13:GLY:O	18:56:124:LEU:HD12	2.21	0.40
18:56:109:PRO:HA	18:56:110:PRO:HD3	1.92	0.40
21:59:60:LYS:HB3	21:59:64:ARG:CG	2.48	0.40
21:59:106:LEU:N	21:59:106:LEU:HD12	2.37	0.40
26:64:25:ASP:CG	26:64:26:SER:N	2.75	0.40
29:67:10:VAL:HB	29:67:83:THR:CG2	2.51	0.40
30:68:78:LEU:C	30:68:80:THR:H	2.28	0.40
41:79:2:ALA:CA	41:79:5:LYS:HG3	2.52	0.40
42:80:116:GLY:O	42:80:117:HIS:HB2	2.22	0.40
44:82:63:LYS:HD3	44:82:63:LYS:HA	1.80	0.40
46:1S:519:C:H3'	46:1S:520:A:H8	1.86	0.40
46:1S:531:C:C2'	46:1S:532:U:H5''	2.48	0.40
46:1S:567:A:O2'	77:30:14:VAL:HG23	2.21	0.40
46:1S:912:U:H5'	46:1S:913:G:C2'	2.46	0.40
46:1S:1065:A:OP1	48:S1:160:HIS:HE1	2.04	0.40
46:1S:1182:U:H4'	62:15:124:THR:OG1	2.20	0.40
46:1S:1456:C:H3'	46:1S:1457:C:H5'	2.04	0.40
46:1S:1521:G:O2'	46:1S:1522:U:H5'	2.21	0.40
49:S2:57:PHE:CD1	49:S2:138:PRO:HD3	2.56	0.40
50:S3:196:ARG:HG3	50:S3:196:ARG:NH1	2.35	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:S4:70:VAL:HG22	51:S4:71:LYS:N	2.37	0.40
51:S4:103:TYR:CZ	51:S4:189:LEU:HD11	2.56	0.40
52:S5:68:ILE:HD11	52:S5:90:ILE:HG13	2.03	0.40
53:S6:98:ARG:CD	53:S6:99:GLY:N	2.85	0.40
53:S6:136:LYS:CE	53:S6:176:GLN:HB2	2.51	0.40
54:S7:170:GLN:HA	54:S7:181:ILE:HG23	2.03	0.40
55:S8:106:ALA:HB1	55:S8:165:LEU:HG	2.02	0.40
55:S8:193:LEU:HD23	55:S8:193:LEU:HA	1.74	0.40
56:S9:85:VAL:HG12	56:S9:103:ASP:HB3	1.99	0.40
59:12:54:ARG:HH21	78:31:129:GLY:HA3	1.86	0.40
61:14:102:LEU:HD22	61:14:105:LEU:HD11	2.04	0.40
62:15:127:ARG:HG2	62:15:127:ARG:HH21	1.87	0.40
66:19:116:ILE:HG12	66:19:122:ARG:NH1	2.37	0.40
69:22:104:LEU:N	69:22:104:LEU:HD13	2.37	0.40
70:23:76:LEU:HD22	70:23:78:LYS:HG2	2.03	0.40
71:24:66:GLY:C	71:24:68:LYS:H	2.30	0.40
75:28:8:THR:HG22	75:28:9:LEU:N	2.36	0.40
1:2S:393:U:H2'	1:2S:394:G:O4'	2.22	0.40
1:2S:678:G:O2'	1:2S:679:U:H5'	2.20	0.40
1:2S:1189:C:O4'	1:2S:1190:A:N7	2.54	0.40
1:2S:1347:U:H5''	7:L4:302:ALA:HB1	2.04	0.40
1:2S:1500:G:H2'	1:2S:1501:U:H6	1.83	0.40
1:2S:1535:A:N6	1:2S:1586:G:H21	2.08	0.40
1:2S:2175:U:H4'	1:2S:2176:U:OP2	2.21	0.40
1:2S:2178:A:OP2	5:L2:151:PRO:HG2	2.22	0.40
1:2S:2197:C:H5'	1:2S:2198:A:N7	2.37	0.40
1:2S:2234:G:H2'	1:2S:2235:C:O4'	2.22	0.40
1:2S:2271:A:H2'	1:2S:2272:G:C4'	2.51	0.40
1:2S:2832:C:O5'	1:2S:2832:C:H6	2.05	0.40
1:2S:2971:A:N3	1:2S:2971:A:C2'	2.85	0.40
1:2S:3186:A:H2'	12:L9:42:ASP:OD2	2.20	0.40
1:2S:3216:G:O2'	1:2S:3219:G:H1'	2.21	0.40
1:2S:3359:A:H3'	1:2S:3360:C:H6	1.83	0.40
6:L3:312:VAL:O	6:L3:314:TYR:N	2.54	0.40
7:L4:60:THR:HB	7:L4:90:PHE:CZ	2.56	0.40
9:L6:41:ILE:HB	9:L6:85:ILE:HB	2.03	0.40
9:L6:105:TYR:CE1	9:L6:134:ARG:CD	3.04	0.40
12:L9:17:THR:HG21	16:54:3:THR:C	2.46	0.40
14:51:15:GLU:OE2	14:51:130:VAL:HG13	2.21	0.40
19:57:111:LYS:HB3	19:57:111:LYS:NZ	2.36	0.40
25:63:104:ASN:CG	25:63:108:GLU:HB2	2.46	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:72:76:VAL:HG12	34:72:77:ALA:N	2.35	0.40
38:76:95:ALA:O	38:76:97:SER:N	2.54	0.40
46:1S:23:G:OP1	56:S9:14:THR:HG21	2.22	0.40
46:1S:167:U:H4'	53:S6:134:GLY:C	2.46	0.40
46:1S:499:U:C6	46:1S:499:U:C3'	3.04	0.40
46:1S:617:U:H2'	46:1S:618:U:C6	2.57	0.40
46:1S:628:G:O6	46:1S:969:C:H3'	2.21	0.40
46:1S:730:G:N3	46:1S:730:G:C2'	2.85	0.40
46:1S:746:A:C2'	46:1S:747:C:H5'	2.51	0.40
46:1S:862:A:H4'	46:1S:863:A:H5''	2.03	0.40
46:1S:1215:C:O2'	46:1S:1216:C:H5'	2.22	0.40
46:1S:1407:U:H2'	46:1S:1408:G:O4'	2.22	0.40
47:S0:102:PHE:C	47:S0:103:THR:HG22	2.47	0.40
47:S0:139:VAL:O	47:S0:139:VAL:HG22	2.21	0.40
48:S1:62:LYS:HE3	48:S1:91:VAL:HG12	2.04	0.40
51:S4:49:ARG:CB	51:S4:55:ALA:HB3	2.51	0.40
53:S6:132:ARG:C	53:S6:133:LEU:HD12	2.46	0.40
53:S6:133:LEU:HB3	53:S6:134:GLY:H	1.70	0.40
54:S7:143:LEU:HD23	54:S7:147:ASN:HB2	2.02	0.40
54:S7:172:VAL:O	54:S7:176:LEU:HG	2.21	0.40
57:10:53:GLY:O	57:10:54:TYR:HB2	2.21	0.40
57:10:92:ILE:O	57:10:92:ILE:CG2	2.69	0.40
59:12:62:LEU:HD23	59:12:62:LEU:N	2.36	0.40
59:12:98:GLY:HA2	59:12:118:ALA:HB2	2.04	0.40
60:13:72:MET:CE	60:13:75:LEU:HB2	2.52	0.40
69:22:23:ARG:HH11	69:22:66:ASN:HA	1.83	0.40
70:23:29:TYR:CE1	70:23:33:LEU:HG	2.56	0.40
71:24:57:VAL:HA	71:24:72:PHE:O	2.20	0.40
72:25:43:ASP:O	72:25:45:GLU:N	2.55	0.40
73:26:37:LYS:HG2	73:26:72:HIS:CE1	2.56	0.40
1:2S:104:G:OP1	15:53:70:ARG:HG3	2.21	0.40
1:2S:861:C:H2'	1:2S:862:U:C6	2.57	0.40
1:2S:982:C:H2'	1:2S:983:A:C8	2.57	0.40
1:2S:1591:G:C2'	1:2S:1592:G:H5'	2.51	0.40
1:2S:1921:A:H2'	1:2S:1922:A:C8	2.56	0.40
1:2S:1935:G:H2'	1:2S:1936:A:C8	2.57	0.40
1:2S:2101:C:O2'	1:2S:2102:U:C5'	2.67	0.40
1:2S:2277:C:O2'	1:2S:2278:C:H5'	2.21	0.40
1:2S:2680:A:H2	14:51:65:ILE:HD11	1.84	0.40
1:2S:2819:A:C2'	1:2S:2820:A:H5'	2.51	0.40
1:2S:2949:U:H2'	1:2S:2950:G:O4'	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:3309:G:H1'	19:57:69:ARG:HB3	2.04	0.40
1:2S:3366:G:H2'	1:2S:3367:C:C6	2.56	0.40
1:2S:3380:U:O2'	1:2S:3381:U:H5'	2.21	0.40
5:L2:72:ARG:HB2	5:L2:72:ARG:HH11	1.83	0.40
5:L2:226:SER:O	5:L2:228:GLY:N	2.54	0.40
6:L3:245:GLY:HA3	6:L3:248:LYS:CD	2.51	0.40
13:50:38:LYS:CD	13:50:41:ALA:HB2	2.48	0.40
13:50:166:ILE:HG22	13:50:167:LEU:N	2.36	0.40
15:53:16:LYS:HB3	15:53:21:ARG:HH22	1.86	0.40
15:53:105:ASN:CG	15:53:108:ILE:HG12	2.46	0.40
16:54:13:ARG:HB2	16:54:65:LEU:HD13	2.03	0.40
25:63:66:LYS:C	25:63:68:GLU:H	2.29	0.40
26:64:17:ARG:HG3	26:64:17:ARG:NH1	2.37	0.40
28:66:118:LEU:HD12	28:66:121:ARG:HD2	2.02	0.40
29:67:12:VAL:HB	29:67:81:LEU:HD12	2.04	0.40
29:67:12:VAL:CG1	29:67:81:LEU:HD12	2.52	0.40
29:67:54:THR:HG22	29:67:57:HIS:NE2	2.37	0.40
29:67:121:ARG:HH12	29:67:126:LYS:HE3	1.85	0.40
36:74:57:LEU:HB3	36:74:58:ARG:H	1.68	0.40
38:76:54:GLU:HA	38:76:57:LEU:HB2	2.02	0.40
39:77:64:MET:C	39:77:66:TYR:H	2.30	0.40
46:1S:65:A:N1	46:1S:84:A:N7	2.69	0.40
46:1S:279:G:C8	46:1S:279:G:H5''	2.57	0.40
46:1S:710:U:H2'	46:1S:711:U:H5'	2.02	0.40
46:1S:1289:U:O2'	46:1S:1290:U:H5'	2.22	0.40
46:1S:1550:A:O2'	46:1S:1551:U:H5'	2.22	0.40
46:1S:1605:G:OP2	63:16:127:LYS:HG2	2.21	0.40
46:1S:1712:A:H5'	46:1S:1713:G:OP2	2.22	0.40
46:1S:1760:G:C2'	46:1S:1761:U:H5'	2.52	0.40
51:S4:63:ALA:O	51:S4:67:GLN:NE2	2.51	0.40
51:S4:133:LYS:O	51:S4:134:LYS:CB	2.70	0.40
52:S5:29:ILE:HD12	52:S5:29:ILE:H	1.87	0.40
54:S7:99:LEU:HA	54:S7:100:PRO:HD2	1.91	0.40
55:S8:26:LYS:HZ2	55:S8:29:LEU:HD13	1.86	0.40
61:14:50:ALA:C	61:14:52:ARG:N	2.80	0.40
79:RA:59:ARG:HB2	79:RA:59:ARG:CZ	2.47	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	
4	L1	202/217 (93%)	137 (68%)	50 (25%)	15 (7%)	1	10
5	L2	250/254 (98%)	196 (78%)	44 (18%)	10 (4%)	2	18
6	L3	384/387 (99%)	322 (84%)	51 (13%)	11 (3%)	3	23
7	L4	359/362 (99%)	284 (79%)	48 (13%)	27 (8%)	1	10
8	L5	294/297 (99%)	244 (83%)	40 (14%)	10 (3%)	3	21
9	L6	152/176 (86%)	131 (86%)	16 (10%)	5 (3%)	3	21
10	L7	220/244 (90%)	192 (87%)	19 (9%)	9 (4%)	2	17
11	L8	231/256 (90%)	184 (80%)	38 (16%)	9 (4%)	2	18
12	L9	189/191 (99%)	153 (81%)	30 (16%)	6 (3%)	3	21
13	50	207/221 (94%)	166 (80%)	36 (17%)	5 (2%)	4	27
14	51	167/174 (96%)	130 (78%)	29 (17%)	8 (5%)	2	16
15	53	191/199 (96%)	150 (78%)	35 (18%)	6 (3%)	3	22
16	54	134/138 (97%)	114 (85%)	17 (13%)	3 (2%)	5	29
17	55	201/204 (98%)	156 (78%)	36 (18%)	9 (4%)	2	16
18	56	195/199 (98%)	177 (91%)	14 (7%)	4 (2%)	5	29
19	57	181/184 (98%)	143 (79%)	34 (19%)	4 (2%)	5	29
20	58	183/186 (98%)	153 (84%)	23 (13%)	7 (4%)	2	19
21	59	186/189 (98%)	168 (90%)	14 (8%)	4 (2%)	5	29
22	60	170/172 (99%)	140 (82%)	25 (15%)	5 (3%)	3	23
23	61	157/160 (98%)	128 (82%)	19 (12%)	10 (6%)	1	12
24	62	98/121 (81%)	76 (78%)	18 (18%)	4 (4%)	2	17
25	63	134/137 (98%)	105 (78%)	24 (18%)	5 (4%)	2	19
26	64	59/155 (38%)	43 (73%)	13 (22%)	3 (5%)	1	15
27	65	119/142 (84%)	97 (82%)	17 (14%)	5 (4%)	2	17
28	66	124/127 (98%)	104 (84%)	16 (13%)	4 (3%)	3	21

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
29	67	133/136 (98%)	110 (83%)	20 (15%)	3 (2%)	5	28
30	68	146/149 (98%)	117 (80%)	26 (18%)	3 (2%)	5	29
31	69	56/59 (95%)	43 (77%)	11 (20%)	2 (4%)	2	20
32	70	95/105 (90%)	89 (94%)	4 (4%)	2 (2%)	5	29
33	71	107/113 (95%)	91 (85%)	14 (13%)	2 (2%)	6	32
34	72	125/130 (96%)	109 (87%)	15 (12%)	1 (1%)	16	54
35	73	104/107 (97%)	79 (76%)	17 (16%)	8 (8%)	1	9
36	74	110/121 (91%)	88 (80%)	18 (16%)	4 (4%)	2	20
37	75	117/120 (98%)	107 (92%)	6 (5%)	4 (3%)	3	21
38	76	97/100 (97%)	76 (78%)	13 (13%)	8 (8%)	0	9
39	77	85/88 (97%)	67 (79%)	16 (19%)	2 (2%)	4	27
40	78	75/78 (96%)	64 (85%)	7 (9%)	4 (5%)	1	14
41	79	48/51 (94%)	39 (81%)	8 (17%)	1 (2%)	5	29
42	80	50/128 (39%)	42 (84%)	6 (12%)	2 (4%)	2	18
43	81	23/25 (92%)	21 (91%)	1 (4%)	1 (4%)	2	17
44	82	101/106 (95%)	79 (78%)	18 (18%)	4 (4%)	2	18
45	83	89/92 (97%)	75 (84%)	13 (15%)	1 (1%)	11	46
47	S0	204/252 (81%)	163 (80%)	29 (14%)	12 (6%)	1	13
48	S1	212/255 (83%)	154 (73%)	45 (21%)	13 (6%)	1	12
49	S2	215/254 (85%)	177 (82%)	30 (14%)	8 (4%)	2	19
50	S3	221/240 (92%)	184 (83%)	24 (11%)	13 (6%)	1	13
51	S4	258/261 (99%)	203 (79%)	45 (17%)	10 (4%)	2	18
52	S5	204/225 (91%)	165 (81%)	32 (16%)	7 (3%)	3	21
53	S6	224/236 (95%)	192 (86%)	26 (12%)	6 (3%)	4	25
54	S7	182/190 (96%)	137 (75%)	34 (19%)	11 (6%)	1	13
55	S8	184/200 (92%)	147 (80%)	28 (15%)	9 (5%)	1	15
56	S9	183/197 (93%)	153 (84%)	21 (12%)	9 (5%)	1	15
57	10	94/105 (90%)	74 (79%)	13 (14%)	7 (7%)	1	10
58	11	153/156 (98%)	107 (70%)	37 (24%)	9 (6%)	1	13
59	12	122/143 (85%)	76 (62%)	29 (24%)	17 (14%)	0	3
60	13	148/151 (98%)	125 (84%)	20 (14%)	3 (2%)	6	31

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
61	14	125/137 (91%)	96 (77%)	22 (18%)	7 (6%)	1	14
62	15	122/142 (86%)	101 (83%)	16 (13%)	5 (4%)	2	17
63	16	139/143 (97%)	112 (81%)	20 (14%)	7 (5%)	1	15
64	17	116/136 (85%)	92 (79%)	20 (17%)	4 (3%)	3	21
65	18	143/146 (98%)	120 (84%)	16 (11%)	7 (5%)	1	15
66	19	141/144 (98%)	118 (84%)	15 (11%)	8 (6%)	1	14
67	20	105/121 (87%)	85 (81%)	14 (13%)	6 (6%)	1	14
68	21	85/87 (98%)	68 (80%)	13 (15%)	4 (5%)	2	16
69	22	127/130 (98%)	106 (84%)	19 (15%)	2 (2%)	7	37
70	23	142/145 (98%)	108 (76%)	24 (17%)	10 (7%)	1	11
71	24	132/135 (98%)	106 (80%)	20 (15%)	6 (4%)	2	16
72	25	68/108 (63%)	45 (66%)	14 (21%)	9 (13%)	0	4
73	26	95/119 (80%)	64 (67%)	19 (20%)	12 (13%)	0	4
74	27	79/82 (96%)	58 (73%)	15 (19%)	6 (8%)	1	10
75	28	61/67 (91%)	50 (82%)	9 (15%)	2 (3%)	3	21
76	29	51/56 (91%)	44 (86%)	5 (10%)	2 (4%)	2	18
77	30	58/63 (92%)	47 (81%)	8 (14%)	3 (5%)	1	14
78	31	69/152 (45%)	37 (54%)	20 (29%)	12 (17%)	0	2
79	RA	316/319 (99%)	252 (80%)	53 (17%)	11 (4%)	3	20
All	All	11126/12097 (92%)	8955 (80%)	1674 (15%)	497 (4%)	3	16

All (497) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
4	L1	15	GLU
4	L1	20	SER
4	L1	23	THR
4	L1	136	THR
4	L1	199	GLN
5	L2	6	ARG
5	L2	235	ALA
5	L2	251	LYS
6	L3	140	ASP
6	L3	187	SER
7	L4	72	ALA

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Mol	Chain	Res	Type
7	L4	140	HIS
7	L4	268	ALA
7	L4	317	PRO
7	L4	347	THR
9	L6	5	LYS
9	L6	6	ALA
10	L7	92	ILE
11	L8	36	ILE
11	L8	39	ALA
12	L9	14	GLU
13	50	218	ALA
14	51	114	ILE
15	53	154	VAL
17	55	123	GLN
17	55	158	HIS
17	55	187	ARG
18	56	16	VAL
19	57	119	VAL
20	58	98	LYS
21	59	88	ARG
23	61	12	ARG
23	61	124	VAL
23	61	132	PRO
23	61	159	PHE
24	62	90	ARG
25	63	24	ASN
25	63	124	ASP
28	66	52	ARG
28	66	126	LEU
30	68	27	LYS
31	69	25	LYS
35	73	55	ALA
36	74	37	LYS
37	75	82	ALA
37	75	84	LYS
38	76	34	SER
38	76	96	ALA
39	77	84	SER
44	82	100	LYS
47	S0	4	PRO
47	S0	109	ASN
47	S0	158	VAL

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Mol	Chain	Res	Type
49	S2	79	GLU
49	S2	150	GLN
49	S2	151	PRO
50	S3	93	ASP
50	S3	220	PRO
51	S4	194	THR
51	S4	195	ILE
52	S5	100	ASN
54	S7	12	ALA
54	S7	14	THR
54	S7	31	SER
54	S7	64	VAL
54	S7	112	ARG
55	S8	52	ASN
55	S8	186	GLY
56	S9	98	ALA
56	S9	134	ILE
56	S9	138	LYS
56	S9	162	SER
57	10	64	TYR
57	10	81	ASN
58	11	4	GLU
58	11	6	THR
58	11	154	ALA
59	12	39	ASP
59	12	91	VAL
60	13	22	ALA
61	14	42	VAL
62	15	125	PRO
62	15	126	VAL
63	16	41	PRO
65	18	25	ASN
65	18	82	PRO
65	18	83	ALA
65	18	92	ILE
66	19	35	ASP
66	19	53	TRP
67	20	51	VAL
67	20	54	GLY
68	21	7	GLN
70	23	41	SER
71	24	60	PHE

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Mol	Chain	Res	Type
72	25	42	LEU
72	25	43	ASP
72	25	44	GLN
72	25	88	ILE
73	26	63	ALA
73	26	81	ALA
73	26	84	VAL
73	26	86	VAL
74	27	18	LYS
74	27	55	THR
75	28	36	THR
77	30	47	VAL
78	31	85	TYR
78	31	88	PRO
4	L1	74	VAL
4	L1	153	SER
4	L1	159	LEU
4	L1	211	GLY
6	L3	234	GLY
6	L3	351	LEU
7	L4	52	VAL
7	L4	90	PHE
7	L4	245	GLY
7	L4	269	SER
7	L4	270	SER
7	L4	292	SER
7	L4	293	SER
8	L5	21	ARG
8	L5	58	LYS
8	L5	93	THR
8	L5	276	LYS
9	L6	97	ASN
10	L7	159	GLN
11	L8	81	THR
11	L8	101	THR
12	L9	50	ASN
12	L9	59	ASN
14	51	67	VAL
14	51	152	HIS
15	53	47	ALA
15	53	56	PRO
15	53	193	ALA

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Mol	Chain	Res	Type
16	54	47	ASP
19	57	156	ALA
19	57	164	LYS
20	58	99	THR
20	58	162	ALA
21	59	58	HIS
21	59	61	SER
22	60	51	VAL
23	61	17	ARG
23	61	18	ASP
23	61	93	VAL
23	61	136	ARG
25	63	29	SER
27	65	50	ALA
29	67	17	ARG
30	68	29	PRO
32	70	96	GLY
35	73	50	ALA
35	73	76	GLY
35	73	88	ASN
38	76	21	THR
39	77	65	ARG
40	78	33	LYS
47	S0	139	VAL
48	S1	206	PRO
48	S1	221	PRO
49	S2	91	ARG
50	S3	94	ARG
50	S3	114	ALA
50	S3	211	PRO
50	S3	216	PRO
51	S4	150	PRO
52	S5	63	GLN
53	S6	124	LEU
55	S8	152	ILE
57	10	28	ASN
57	10	60	SER
57	10	84	GLU
57	10	93	GLN
58	11	7	VAL
59	12	93	ASP
59	12	106	ILE

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Mol	Chain	Res	Type
59	12	119	SER
59	12	126	TRP
60	13	82	PRO
61	14	125	SER
63	16	15	SER
63	16	113	ASP
64	17	88	VAL
64	17	97	ASN
65	18	14	ILE
66	19	68	ARG
68	21	82	VAL
70	23	112	LYS
71	24	5	VAL
71	24	11	LYS
78	31	84	VAL
78	31	99	LYS
78	31	146	SER
79	RA	119	ALA
79	RA	276	PRO
4	L1	26	ARG
4	L1	142	ASP
5	L2	21	ARG
7	L4	5	GLN
7	L4	131	VAL
7	L4	304	GLN
7	L4	305	ALA
8	L5	38	THR
8	L5	188	GLU
10	L7	26	VAL
10	L7	158	LYS
10	L7	220	PHE
11	L8	54	GLU
11	L8	79	GLN
11	L8	157	VAL
12	L9	139	ASN
14	51	117	ASP
15	53	128	ARG
17	55	186	GLY
18	56	49	ARG
18	56	52	LEU
20	58	13	SER
22	60	133	ALA

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Mol	Chain	Res	Type
22	60	166	LYS
23	61	135	PRO
24	62	91	ASP
25	63	47	ASN
28	66	67	GLU
30	68	56	VAL
33	71	6	ASP
33	71	83	GLU
35	73	94	PHE
38	76	13	LYS
38	76	22	PRO
40	78	18	ALA
40	78	19	ASP
41	79	22	PRO
42	80	91	CYS
44	82	15	LYS
45	83	13	LYS
47	S0	42	PRO
47	S0	164	ASN
48	S1	55	LYS
48	S1	213	ARG
49	S2	39	THR
49	S2	152	HIS
50	S3	6	SER
50	S3	62	ASN
50	S3	143	ARG
50	S3	217	ILE
51	S4	129	VAL
51	S4	226	PHE
52	S5	45	LYS
52	S5	65	ARG
52	S5	161	ASP
53	S6	122	GLU
54	S7	32	PRO
54	S7	103	SER
54	S7	155	ASP
55	S8	12	SER
55	S8	40	ALA
55	S8	43	ILE
55	S8	59	ARG
55	S8	68	ALA
55	S8	69	SER

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Mol	Chain	Res	Type
56	S9	21	SER
56	S9	137	GLY
56	S9	169	PRO
57	10	85	HIS
58	11	79	LYS
59	12	40	GLY
59	12	69	ALA
59	12	85	LYS
59	12	108	ARG
59	12	112	ALA
59	12	115	VAL
61	14	24	ASN
61	14	113	GLY
62	15	12	PHE
62	15	101	ALA
63	16	39	VAL
63	16	42	GLU
65	18	142	GLY
66	19	11	ALA
70	23	67	ALA
70	23	70	LYS
71	24	19	ALA
72	25	104	ALA
73	26	8	ASN
74	27	3	LEU
74	27	26	GLN
78	31	100	LEU
79	RA	98	GLU
4	L1	82	VAL
6	L3	69	LYS
6	L3	313	HIS
6	L3	386	ASP
7	L4	82	THR
7	L4	311	HIS
7	L4	328	ASN
9	L6	75	PRO
10	L7	162	PRO
12	L9	110	LYS
13	50	24	ARG
16	54	30	GLY
17	55	52	GLY
17	55	81	TYR

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Mol	Chain	Res	Type
17	55	93	LYS
17	55	145	ASP
19	57	117	ILE
21	59	17	VAL
22	60	154	HIS
27	65	57	LEU
27	65	80	ASN
29	67	102	GLU
29	67	103	GLN
32	70	32	LYS
35	73	15	SER
36	74	10	ARG
37	75	76	GLN
43	81	23	ARG
44	82	8	ARG
44	82	34	SER
47	S0	167	LYS
47	S0	205	ARG
48	S1	82	ARG
48	S1	207	LEU
48	S1	209	ASN
48	S1	215	VAL
49	S2	148	LEU
50	S3	38	GLU
50	S3	82	GLY
51	S4	54	TYR
52	S5	43	PHE
53	S6	153	VAL
53	S6	154	ARG
56	S9	35	GLY
56	S9	147	MET
58	11	5	LEU
59	12	102	GLY
61	14	124	ASP
61	14	130	GLY
62	15	127	ARG
68	21	44	ARG
68	21	46	ILE
70	23	5	LYS
70	23	29	TYR
70	23	92	CYS
70	23	97	ASP

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Mol	Chain	Res	Type
72	25	85	LYS
72	25	86	GLU
73	26	11	ASN
73	26	12	LYS
73	26	62	TYR
74	27	73	LEU
74	27	75	GLU
75	28	51	ASN
76	29	11	PRO
78	31	87	THR
78	31	89	LYS
78	31	97	LYS
78	31	98	VAL
79	RA	15	GLY
79	RA	51	ASP
79	RA	63	GLY
79	RA	165	ASP
79	RA	237	GLN
4	L1	151	VAL
6	L3	37	ARG
6	L3	127	LYS
6	L3	317	ILE
7	L4	79	GLY
7	L4	348	GLY
9	L6	67	GLY
10	L7	233	GLU
11	L8	136	LEU
12	L9	2	LYS
13	50	25	ALA
14	51	94	ARG
14	51	135	GLY
15	53	62	THR
17	55	84	PRO
20	58	41	ASP
22	60	61	ILE
24	62	11	ILE
26	64	26	SER
26	64	50	ALA
34	72	12	LYS
37	75	117	ALA
38	76	3	VAL
38	76	9	ILE

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Mol	Chain	Res	Type
47	S0	7	PHE
47	S0	39	ASN
47	S0	195	TRP
48	S1	62	LYS
48	S1	154	SER
48	S1	158	SER
48	S1	210	ILE
50	S3	196	ARG
51	S4	180	LEU
54	S7	98	ILE
54	S7	110	GLN
58	11	63	LEU
59	12	87	PRO
59	12	111	ASN
61	14	114	ARG
63	16	137	ARG
64	17	6	THR
64	17	38	ILE
65	18	8	GLN
66	19	3	GLY
67	20	49	ASN
67	20	96	PRO
71	24	6	THR
71	24	50	ALA
72	25	72	GLY
78	31	90	LYS
78	31	102	VAL
79	RA	94	VAL
5	L2	180	LEU
7	L4	23	PRO
7	L4	318	LEU
7	L4	351	PRO
8	L5	125	VAL
8	L5	137	ASP
8	L5	223	PHE
14	51	108	GLU
16	54	6	ILE
20	58	37	ALA
20	58	172	PHE
26	64	25	ASP
27	65	62	VAL
31	69	34	GLY

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Mol	Chain	Res	Type
47	S0	33	GLN
49	S2	145	GLY
51	S4	236	ILE
53	S6	86	PRO
58	11	55	ASP
58	11	148	LYS
60	13	39	LYS
66	19	29	GLU
70	23	131	SER
72	25	38	HIS
73	26	10	ARG
73	26	59	TYR
73	26	83	ILE
76	29	51	GLY
77	30	53	LYS
5	L2	41	ILE
5	L2	53	GLY
7	L4	102	PRO
7	L4	214	GLY
10	L7	191	VAL
13	50	18	PRO
14	51	42	GLY
28	66	80	VAL
36	74	78	GLY
51	S4	114	ILE
53	S6	173	PRO
54	S7	13	PRO
59	12	117	GLY
66	19	90	PRO
67	20	116	VAL
4	L1	43	PRO
4	L1	67	ILE
5	L2	158	ILE
5	L2	210	PRO
7	L4	146	PRO
23	61	148	PRO
25	63	30	GLY
35	73	25	PRO
36	74	45	GLY
51	S4	193	GLY
52	S5	33	VAL
63	16	40	GLU

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Mol	Chain	Res	Type
66	19	120	GLY
70	23	125	VAL
6	L3	170	PRO
10	L7	130	ILE
11	L8	25	PRO
13	50	188	GLY
24	62	96	VAL
27	65	118	GLY
38	76	78	GLY
40	78	37	PRO
42	80	79	GLU
67	20	73	GLY
77	30	50	VAL
5	L2	120	PRO
8	L5	251	PRO
35	73	59	VAL
48	S1	35	PRO
69	22	67	GLY
79	RA	206	PRO
18	56	88	VAL
59	12	82	PRO
69	22	83	ILE
73	26	41	ILE
79	RA	146	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	
4	L1	185/198 (93%)	166 (90%)	19 (10%)	7	23
5	L2	194/196 (99%)	182 (94%)	12 (6%)	16	38
6	L3	322/323 (100%)	291 (90%)	31 (10%)	8	25
7	L4	288/289 (100%)	257 (89%)	31 (11%)	6	21
8	L5	244/245 (100%)	226 (93%)	18 (7%)	13	33

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
9	L6	134/153 (88%)	126 (94%)	8 (6%)	17	39
10	L7	186/205 (91%)	173 (93%)	13 (7%)	14	35
11	L8	191/208 (92%)	178 (93%)	13 (7%)	14	36
12	L9	171/171 (100%)	154 (90%)	17 (10%)	7	24
13	50	180/187 (96%)	167 (93%)	13 (7%)	13	35
14	51	147/150 (98%)	133 (90%)	14 (10%)	8	25
15	53	154/159 (97%)	138 (90%)	16 (10%)	7	22
16	54	107/109 (98%)	104 (97%)	3 (3%)	38	59
17	55	175/176 (99%)	161 (92%)	14 (8%)	11	31
18	56	160/162 (99%)	150 (94%)	10 (6%)	16	37
19	57	145/146 (99%)	133 (92%)	12 (8%)	10	30
20	58	150/151 (99%)	140 (93%)	10 (7%)	15	36
21	59	153/154 (99%)	147 (96%)	6 (4%)	28	49
22	60	156/156 (100%)	143 (92%)	13 (8%)	10	30
23	61	136/137 (99%)	128 (94%)	8 (6%)	18	39
24	62	87/107 (81%)	82 (94%)	5 (6%)	18	40
25	63	104/105 (99%)	93 (89%)	11 (11%)	6	21
26	64	54/129 (42%)	51 (94%)	3 (6%)	19	40
27	65	105/118 (89%)	91 (87%)	14 (13%)	4	14
28	66	109/110 (99%)	101 (93%)	8 (7%)	13	34
29	67	115/116 (99%)	110 (96%)	5 (4%)	26	47
30	68	118/119 (99%)	108 (92%)	10 (8%)	10	29
31	69	46/47 (98%)	41 (89%)	5 (11%)	6	21
32	70	81/88 (92%)	77 (95%)	4 (5%)	22	43
33	71	96/97 (99%)	86 (90%)	10 (10%)	7	22
34	72	109/111 (98%)	102 (94%)	7 (6%)	16	37
35	73	90/91 (99%)	82 (91%)	8 (9%)	9	28
36	74	95/103 (92%)	89 (94%)	6 (6%)	16	37
37	75	104/105 (99%)	99 (95%)	5 (5%)	23	44
38	76	81/82 (99%)	71 (88%)	10 (12%)	4	17
39	77	70/71 (99%)	65 (93%)	5 (7%)	13	35

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
40	78	68/69 (99%)	65 (96%)	3 (4%)	25	47
41	79	45/46 (98%)	41 (91%)	4 (9%)	9	28
42	80	47/116 (40%)	43 (92%)	4 (8%)	10	29
43	81	23/23 (100%)	19 (83%)	4 (17%)	2	9
44	82	88/91 (97%)	80 (91%)	8 (9%)	9	27
45	83	71/72 (99%)	69 (97%)	2 (3%)	38	59
47	S0	173/210 (82%)	159 (92%)	14 (8%)	11	31
48	S1	191/224 (85%)	174 (91%)	17 (9%)	9	28
49	S2	176/205 (86%)	167 (95%)	9 (5%)	21	42
50	S3	182/195 (93%)	173 (95%)	9 (5%)	22	43
51	S4	221/222 (100%)	203 (92%)	18 (8%)	11	31
52	S5	173/191 (91%)	161 (93%)	12 (7%)	14	36
53	S6	193/201 (96%)	180 (93%)	13 (7%)	15	36
54	S7	165/170 (97%)	160 (97%)	5 (3%)	36	57
55	S8	150/161 (93%)	143 (95%)	7 (5%)	23	44
56	S9	158/166 (95%)	145 (92%)	13 (8%)	10	31
57	10	89/98 (91%)	79 (89%)	10 (11%)	6	19
58	11	136/137 (99%)	124 (91%)	12 (9%)	9	28
59	12	100/119 (84%)	86 (86%)	14 (14%)	3	13
60	13	127/128 (99%)	116 (91%)	11 (9%)	9	29
61	14	96/105 (91%)	91 (95%)	5 (5%)	21	42
62	15	104/118 (88%)	101 (97%)	3 (3%)	37	58
63	16	117/119 (98%)	106 (91%)	11 (9%)	8	26
64	17	109/124 (88%)	101 (93%)	8 (7%)	13	34
65	18	128/129 (99%)	113 (88%)	15 (12%)	5	18
66	19	115/116 (99%)	111 (96%)	4 (4%)	32	53
67	20	100/114 (88%)	94 (94%)	6 (6%)	17	39
68	21	74/74 (100%)	66 (89%)	8 (11%)	6	21
69	22	110/111 (99%)	101 (92%)	9 (8%)	10	31
70	23	119/120 (99%)	110 (92%)	9 (8%)	12	33
71	24	112/113 (99%)	104 (93%)	8 (7%)	13	35

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
72	25	61/89 (68%)	54 (88%)	7 (12%)	5	18
73	26	83/101 (82%)	76 (92%)	7 (8%)	10	30
74	27	70/71 (99%)	68 (97%)	2 (3%)	37	58
75	28	56/60 (93%)	50 (89%)	6 (11%)	6	21
76	29	47/49 (96%)	44 (94%)	3 (6%)	16	37
77	30	51/54 (94%)	45 (88%)	6 (12%)	5	18
78	31	43/135 (32%)	39 (91%)	4 (9%)	8	26
79	RA	261/262 (100%)	239 (92%)	22 (8%)	10	30
All	All	9474/10182 (93%)	8745 (92%)	729 (8%)	14	32

All (729) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
4	L1	13	VAL
4	L1	17	LEU
4	L1	28	PHE
4	L1	35	GLN
4	L1	38	LEU
4	L1	41	TYR
4	L1	70	ASP
4	L1	89	ASP
4	L1	101	LYS
4	L1	103	LEU
4	L1	105	LYS
4	L1	136	THR
4	L1	143	ASP
4	L1	150	ASP
4	L1	153	SER
4	L1	185	MET
4	L1	190	PHE
4	L1	205	VAL
4	L1	207	LYS
5	L2	5	ILE
5	L2	44	ILE
5	L2	101	VAL
5	L2	126	LEU
5	L2	144	ASN
5	L2	179	LEU
5	L2	193	ARG

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Mol	Chain	Res	Type
5	L2	204	MET
5	L2	227	ARG
5	L2	241	ARG
5	L2	250	GLN
5	L2	253	GLN
6	L3	25	ILE
6	L3	28	ARG
6	L3	29	VAL
6	L3	30	LYS
6	L3	43	LEU
6	L3	44	THR
6	L3	67	PHE
6	L3	73	VAL
6	L3	78	VAL
6	L3	102	LEU
6	L3	110	LEU
6	L3	114	VAL
6	L3	123	TYR
6	L3	131	THR
6	L3	145	GLU
6	L3	146	ARG
6	L3	164	THR
6	L3	184	ASN
6	L3	199	PHE
6	L3	205	VAL
6	L3	215	ILE
6	L3	243	HIS
6	L3	255	TRP
6	L3	261	MET
6	L3	266	ARG
6	L3	291	GLU
6	L3	299	ASP
6	L3	305	ILE
6	L3	338	LEU
6	L3	344	THR
6	L3	345	ASN
7	L4	12	THR
7	L4	54	GLU
7	L4	60	THR
7	L4	61	SER
7	L4	71	VAL
7	L4	93	MET

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Mol	Chain	Res	Type
7	L4	98	ARG
7	L4	99	MET
7	L4	103	THR
7	L4	112	LYS
7	L4	115	HIS
7	L4	153	SER
7	L4	177	ASP
7	L4	193	LYS
7	L4	200	THR
7	L4	206	LEU
7	L4	220	ARG
7	L4	221	ASN
7	L4	226	GLU
7	L4	227	THR
7	L4	246	ARG
7	L4	250	TRP
7	L4	255	PHE
7	L4	270	SER
7	L4	279	HIS
7	L4	280	ILE
7	L4	291	ASN
7	L4	293	SER
7	L4	319	LYS
7	L4	327	LEU
7	L4	345	GLU
8	L5	6	ASP
8	L5	23	ARG
8	L5	24	ARG
8	L5	30	TYR
8	L5	33	ARG
8	L5	41	LYS
8	L5	75	LEU
8	L5	92	LEU
8	L5	95	TRP
8	L5	105	ILE
8	L5	117	GLU
8	L5	131	LEU
8	L5	140	ARG
8	L5	152	ARG
8	L5	163	LEU
8	L5	176	SER
8	L5	178	ASN

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Mol	Chain	Res	Type
8	L5	184	ASP
9	L6	5	LYS
9	L6	63	LEU
9	L6	65	ILE
9	L6	89	THR
9	L6	103	VAL
9	L6	152	THR
9	L6	155	LEU
9	L6	162	SER
10	L7	24	GLU
10	L7	25	GLN
10	L7	77	VAL
10	L7	78	GLU
10	L7	105	LEU
10	L7	151	ARG
10	L7	157	ASN
10	L7	169	ILE
10	L7	173	LEU
10	L7	179	LEU
10	L7	186	HIS
10	L7	229	PHE
10	L7	234	GLU
11	L8	41	GLN
11	L8	58	VAL
11	L8	63	LYS
11	L8	65	LEU
11	L8	89	GLU
11	L8	92	LYS
11	L8	98	ARG
11	L8	122	LYS
11	L8	134	TYR
11	L8	152	LEU
11	L8	195	SER
11	L8	202	GLU
11	L8	238	LEU
12	L9	6	THR
12	L9	14	GLU
12	L9	41	ILE
12	L9	43	VAL
12	L9	49	ASN
12	L9	58	HIS
12	L9	70	THR

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Mol	Chain	Res	Type
12	L9	90	MET
12	L9	92	TYR
12	L9	121	LYS
12	L9	134	ILE
12	L9	138	THR
12	L9	157	ASN
12	L9	164	ILE
12	L9	170	LYS
12	L9	172	ILE
12	L9	177	ASP
13	50	22	TYR
13	50	30	LYS
13	50	35	ASP
13	50	36	LEU
13	50	48	LEU
13	50	52	LEU
13	50	55	ASN
13	50	63	GLU
13	50	115	MET
13	50	143	SER
13	50	163	GLN
13	50	165	ILE
13	50	169	LYS
14	51	10	ARG
14	51	12	LEU
14	51	13	LYS
14	51	44	THR
14	51	52	TYR
14	51	115	LYS
14	51	128	TYR
14	51	140	ARG
14	51	142	LYS
14	51	151	SER
14	51	154	THR
14	51	158	ASP
14	51	161	SER
14	51	166	LYS
15	53	11	LYS
15	53	23	LYS
15	53	49	ARG
15	53	57	VAL
15	53	58	VAL

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Mol	Chain	Res	Type
15	53	67	ARG
15	53	70	ARG
15	53	86	THR
15	53	117	LYS
15	53	124	ILE
15	53	126	PHE
15	53	131	LYS
15	53	144	THR
15	53	154	VAL
15	53	162	ASN
15	53	164	GLU
16	54	3	THR
16	54	69	THR
16	54	72	LEU
17	55	10	LEU
17	55	11	GLN
17	55	50	ARG
17	55	61	ILE
17	55	62	TYR
17	55	63	ARG
17	55	83	LYS
17	55	85	THR
17	55	123	GLN
17	55	135	VAL
17	55	142	ILE
17	55	174	ILE
17	55	179	LYS
17	55	187	ARG
18	56	29	ASN
18	56	35	VAL
18	56	47	PHE
18	56	48	PHE
18	56	60	LYS
18	56	67	THR
18	56	110	PRO
18	56	117	ARG
18	56	164	SER
18	56	167	TYR
19	57	41	LEU
19	57	52	LEU
19	57	53	ASP
19	57	56	ARG

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Mol	Chain	Res	Type
19	57	64	ASN
19	57	67	ILE
19	57	103	GLU
19	57	111	LYS
19	57	120	ASN
19	57	148	LEU
19	57	159	LYS
19	57	180	LYS
20	58	33	TYR
20	58	41	ASP
20	58	49	LEU
20	58	86	THR
20	58	89	ASP
20	58	96	PHE
20	58	127	LEU
20	58	138	LEU
20	58	155	MET
20	58	170	ARG
21	59	104	ARG
21	59	105	LEU
21	59	108	LYS
21	59	109	TYR
21	59	166	ASN
21	59	171	ASP
22	60	9	VAL
22	60	23	LYS
22	60	45	LEU
22	60	57	GLU
22	60	58	ILE
22	60	62	ASN
22	60	82	ASP
22	60	87	THR
22	60	106	LEU
22	60	107	TYR
22	60	108	GLN
22	60	125	LYS
22	60	137	ARG
23	61	75	ILE
23	61	83	ARG
23	61	90	ASN
23	61	92	ARG
23	61	126	VAL

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Mol	Chain	Res	Type
23	61	127	GLN
23	61	139	ARG
23	61	158	THR
24	62	10	LYS
24	62	88	GLN
24	62	96	VAL
24	62	103	TYR
24	62	108	TYR
25	63	4	ASN
25	63	23	MET
25	63	33	ASN
25	63	54	LEU
25	63	56	ASP
25	63	74	MET
25	63	77	ILE
25	63	89	ASP
25	63	93	LEU
25	63	101	VAL
25	63	104	ASN
26	64	6	ASP
26	64	33	ASN
26	64	45	ASN
27	65	24	LEU
27	65	27	ARG
27	65	38	LEU
27	65	45	LYS
27	65	63	ILE
27	65	71	THR
27	65	73	MET
27	65	78	ASP
27	65	83	VAL
27	65	88	MET
27	65	91	ASN
27	65	131	ASP
27	65	135	ILE
27	65	142	ILE
28	66	17	LYS
28	66	55	GLU
28	66	57	LEU
28	66	58	VAL
28	66	70	ILE
28	66	74	TYR

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Mol	Chain	Res	Type
28	66	86	THR
28	66	108	LYS
29	67	30	ASP
29	67	48	ARG
29	67	90	GLU
29	67	92	PHE
29	67	134	LEU
30	68	6	THR
30	68	24	LYS
30	68	27	LYS
30	68	60	TYR
30	68	85	ASP
30	68	88	ASP
30	68	91	LEU
30	68	97	GLU
30	68	101	VAL
30	68	102	ILE
31	69	8	THR
31	69	14	ARG
31	69	22	LYS
31	69	28	LYS
31	69	59	LYS
32	70	16	LEU
32	70	41	LEU
32	70	42	ILE
32	70	104	LEU
33	71	13	THR
33	71	31	ARG
33	71	47	ASP
33	71	64	VAL
33	71	70	ARG
33	71	79	ARG
33	71	80	ASN
33	71	94	GLU
33	71	111	GLU
33	71	112	ASP
34	72	8	LYS
34	72	23	ASP
34	72	47	ARG
34	72	75	LEU
34	72	82	LEU
34	72	95	GLU

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Mol	Chain	Res	Type
34	72	128	LEU
35	73	5	HIS
35	73	16	TYR
35	73	20	LYS
35	73	49	ILE
35	73	62	SER
35	73	80	VAL
35	73	81	VAL
35	73	106	ASN
36	74	8	ARG
36	74	29	ILE
36	74	51	LEU
36	74	58	ARG
36	74	86	LYS
36	74	95	ILE
37	75	15	GLU
37	75	28	LEU
37	75	71	LYS
37	75	79	ASP
37	75	119	LYS
38	76	12	ASN
38	76	20	MET
38	76	26	ILE
38	76	42	SER
38	76	45	ARG
38	76	57	LEU
38	76	58	ILE
38	76	59	ASP
38	76	68	ARG
38	76	90	MET
39	77	7	SER
39	77	39	TYR
39	77	49	TRP
39	77	59	THR
39	77	69	HIS
40	78	7	ASP
40	78	57	ASN
40	78	64	LYS
41	79	5	LYS
41	79	21	ARG
41	79	23	LEU
41	79	32	ASN

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Mol	Chain	Res	Type
42	80	85	LEU
42	80	91	CYS
42	80	113	ARG
42	80	127	LEU
43	81	2	ARG
43	81	4	LYS
43	81	5	TRP
43	81	8	LYS
44	82	26	THR
44	82	61	LYS
44	82	72	LEU
44	82	83	LEU
44	82	87	ARG
44	82	90	HIS
44	82	92	GLU
44	82	100	LYS
45	83	26	VAL
45	83	45	LYS
47	S0	12	GLU
47	S0	30	GLN
47	S0	45	VAL
47	S0	50	VAL
47	S0	57	LEU
47	S0	110	TYR
47	S0	119	ARG
47	S0	163	ASN
47	S0	164	ASN
47	S0	180	GLU
47	S0	188	LEU
47	S0	189	VAL
47	S0	198	MET
47	S0	205	ARG
48	S1	30	PHE
48	S1	33	LYS
48	S1	61	LEU
48	S1	69	CYS
48	S1	70	LEU
48	S1	77	GLU
48	S1	97	LEU
48	S1	108	ASP
48	S1	146	GLN
48	S1	174	LYS

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Mol	Chain	Res	Type
48	S1	177	GLN
48	S1	181	LEU
48	S1	184	LEU
48	S1	205	PHE
48	S1	217	LEU
48	S1	218	LEU
48	S1	224	ASP
49	S2	41	LEU
49	S2	70	ASP
49	S2	96	THR
49	S2	97	ARG
49	S2	148	LEU
49	S2	162	CYS
49	S2	166	THR
49	S2	194	GLU
49	S2	195	ASP
50	S3	4	LEU
50	S3	7	LYS
50	S3	84	ILE
50	S3	92	GLN
50	S3	105	MET
50	S3	158	ILE
50	S3	169	ASP
50	S3	212	LYS
50	S3	223	LYS
51	S4	11	ARG
51	S4	24	SER
51	S4	26	CYS
51	S4	37	LYS
51	S4	38	LEU
51	S4	44	LEU
51	S4	45	ILE
51	S4	50	ASN
51	S4	66	MET
51	S4	77	ARG
51	S4	90	ILE
51	S4	131	LEU
51	S4	139	VAL
51	S4	187	ARG
51	S4	195	ILE
51	S4	197	HIS
51	S4	227	VAL

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Mol	Chain	Res	Type
51	S4	259	GLN
52	S5	25	LEU
52	S5	59	VAL
52	S5	64	VAL
52	S5	79	ASN
52	S5	84	LYS
52	S5	86	GLN
52	S5	99	MET
52	S5	156	ARG
52	S5	187	ILE
52	S5	203	LYS
52	S5	216	GLU
52	S5	224	ASN
53	S6	17	GLU
53	S6	36	VAL
53	S6	76	LEU
53	S6	109	LEU
53	S6	118	GLU
53	S6	120	GLU
53	S6	132	ARG
53	S6	136	LYS
53	S6	140	ASN
53	S6	171	LYS
53	S6	212	LEU
53	S6	216	LEU
53	S6	223	LYS
54	S7	34	LEU
54	S7	97	ARG
54	S7	114	ARG
54	S7	128	ASP
54	S7	185	ILE
55	S8	5	ARG
55	S8	8	ARG
55	S8	20	GLN
55	S8	77	ARG
55	S8	89	GLU
55	S8	105	ASP
55	S8	140	GLU
56	S9	3	ARG
56	S9	58	ASP
56	S9	60	LEU
56	S9	78	ARG

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Mol	Chain	Res	Type
56	S9	92	LYS
56	S9	122	VAL
56	S9	134	ILE
56	S9	138	LYS
56	S9	149	ARG
56	S9	155	HIS
56	S9	161	THR
56	S9	171	ARG
56	S9	172	VAL
57	10	8	ARG
57	10	9	ASN
57	10	20	VAL
57	10	31	LYS
57	10	33	GLU
57	10	56	LYS
57	10	62	GLN
57	10	63	TYR
57	10	82	LEU
57	10	96	ASN
58	11	7	VAL
58	11	54	ILE
58	11	67	ARG
58	11	70	ILE
58	11	102	LYS
58	11	116	ARG
58	11	121	ASP
58	11	122	ILE
58	11	129	ARG
58	11	134	THR
58	11	153	PHE
58	11	155	LYS
59	12	36	LEU
59	12	38	HIS
59	12	58	LEU
59	12	66	VAL
59	12	67	THR
59	12	71	ILE
59	12	80	ASN
59	12	89	ILE
59	12	97	LEU
59	12	103	LEU
59	12	105	LYS

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Mol	Chain	Res	Type
59	12	108	ARG
59	12	116	VAL
59	12	125	ASN
60	13	3	ARG
60	13	21	ASN
60	13	27	LYS
60	13	39	LYS
60	13	58	HIS
60	13	64	ARG
60	13	71	ILE
60	13	107	LYS
60	13	115	LEU
60	13	121	ARG
60	13	140	LYS
61	14	71	CYS
61	14	89	THR
61	14	92	LYS
61	14	126	THR
61	14	137	LEU
62	15	60	LEU
62	15	69	GLU
62	15	76	VAL
63	16	4	VAL
63	16	26	LYS
63	16	28	LEU
63	16	41	PRO
63	16	69	VAL
63	16	94	GLN
63	16	103	ASN
63	16	106	LYS
63	16	121	SER
63	16	123	ARG
63	16	137	ARG
64	17	32	LYS
64	17	46	LEU
64	17	69	ILE
64	17	72	LYS
64	17	78	ARG
64	17	101	ASN
64	17	115	LEU
64	17	117	LEU
65	18	3	LEU

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Mol	Chain	Res	Type
65	18	5	VAL
65	18	28	ILE
65	18	38	VAL
65	18	60	GLU
65	18	61	LEU
65	18	74	GLN
65	18	82	PRO
65	18	85	PHE
65	18	92	ILE
65	18	112	ASP
65	18	114	GLU
65	18	119	ILE
65	18	138	THR
65	18	145	ARG
66	19	28	LEU
66	19	64	HIS
66	19	110	LYS
66	19	131	ASP
67	20	23	ARG
67	20	33	GLN
67	20	66	SER
67	20	84	MET
67	20	89	ARG
67	20	108	ILE
68	21	5	LYS
68	21	8	LEU
68	21	21	ASN
68	21	27	ASP
68	21	62	ARG
68	21	78	LEU
68	21	79	LEU
68	21	80	LYS
69	22	23	ARG
69	22	49	GLU
69	22	65	LEU
69	22	66	ASN
69	22	80	ASN
69	22	93	LEU
69	22	103	ILE
69	22	104	LEU
69	22	118	ARG
70	23	9	LEU

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Mol	Chain	Res	Type
70	23	19	ARG
70	23	21	ASN
70	23	33	LEU
70	23	66	SER
70	23	76	LEU
70	23	82	LYS
70	23	83	VAL
70	23	144	ARG
71	24	17	LEU
71	24	32	ARG
71	24	46	GLU
71	24	99	LYS
71	24	102	LYS
71	24	123	LYS
71	24	127	LYS
71	24	128	LYS
72	25	40	VAL
72	25	42	LEU
72	25	43	ASP
72	25	57	TYR
72	25	60	VAL
72	25	82	HIS
72	25	100	ILE
73	26	25	ASN
73	26	36	ILE
73	26	37	LYS
73	26	41	ILE
73	26	64	LEU
73	26	71	LEU
73	26	90	GLU
74	27	37	CYS
74	27	78	SER
75	28	19	THR
75	28	25	VAL
75	28	29	ARG
75	28	32	PHE
75	28	34	GLU
75	28	52	ASP
76	29	11	PRO
76	29	14	TYR
76	29	45	GLU
77	30	20	LYS

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Mol	Chain	Res	Type
77	30	26	LYS
77	30	42	ARG
77	30	47	VAL
77	30	48	THR
77	30	56	MET
78	31	123	ASN
78	31	138	ARG
78	31	149	LYS
78	31	151	ASN
79	RA	46	LYS
79	RA	50	ASP
79	RA	59	ARG
79	RA	70	ASP
79	RA	92	TRP
79	RA	109	ASP
79	RA	117	LYS
79	RA	129	LYS
79	RA	136	ILE
79	RA	137	LYS
79	RA	141	LEU
79	RA	161	LYS
79	RA	165	ASP
79	RA	175	ASP
79	RA	182	ASN
79	RA	193	ILE
79	RA	217	ASP
79	RA	222	LEU
79	RA	245	PHE
79	RA	266	ASP
79	RA	272	ASP
79	RA	299	GLN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (352) such sidechains are listed below:

Mol	Chain	Res	Type
4	L1	21	ASN
4	L1	40	ASN
4	L1	44	GLN
4	L1	108	ASN
4	L1	119	GLN
4	L1	141	ASN
4	L1	199	GLN

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Mol	Chain	Res	Type
4	L1	200	ASN
5	L2	7	ASN
5	L2	19	HIS
5	L2	24	GLN
5	L2	38	HIS
5	L2	47	GLN
5	L2	50	HIS
5	L2	86	GLN
5	L2	132	ASN
5	L2	144	ASN
5	L2	211	HIS
5	L2	216	HIS
5	L2	233	GLN
5	L2	253	GLN
6	L3	3	HIS
6	L3	139	GLN
6	L3	165	GLN
6	L3	173	GLN
6	L3	182	GLN
6	L3	184	ASN
6	L3	211	GLN
6	L3	231	HIS
6	L3	256	HIS
6	L3	280	HIS
6	L3	313	HIS
6	L3	345	ASN
6	L3	371	GLN
7	L4	18	ASN
7	L4	45	ASN
7	L4	48	GLN
7	L4	110	ASN
7	L4	116	ASN
7	L4	221	ASN
7	L4	234	ASN
7	L4	237	GLN
7	L4	260	GLN
7	L4	307	GLN
7	L4	316	ASN
7	L4	328	ASN
7	L4	361	HIS
8	L5	17	GLN
8	L5	81	HIS

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Mol	Chain	Res	Type
8	L5	90	HIS
8	L5	111	GLN
8	L5	175	HIS
8	L5	178	ASN
8	L5	264	GLN
9	L6	57	HIS
9	L6	97	ASN
9	L6	102	ASN
9	L6	167	ASN
10	L7	25	GLN
10	L7	37	ASN
10	L7	93	ASN
10	L7	104	GLN
10	L7	172	ASN
10	L7	197	GLN
10	L7	199	ASN
10	L7	200	ASN
10	L7	209	ASN
10	L7	244	ASN
11	L8	24	ASN
11	L8	28	HIS
11	L8	41	GLN
11	L8	59	GLN
11	L8	138	HIS
11	L8	232	HIS
11	L8	243	GLN
12	L9	5	GLN
12	L9	49	ASN
12	L9	50	ASN
12	L9	51	GLN
12	L9	58	HIS
12	L9	64	HIS
12	L9	102	ASN
12	L9	125	ASN
12	L9	156	GLN
13	50	12	GLN
13	50	14	ASN
13	50	23	ASN
13	50	162	GLN
13	50	163	GLN
13	50	209	ASN
13	50	220	GLN

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Mol	Chain	Res	Type
14	51	7	ASN
14	51	43	GLN
14	51	90	GLN
14	51	150	ASN
15	53	28	GLN
15	53	103	ASN
15	53	105	ASN
15	53	112	ASN
15	53	137	GLN
16	54	56	GLN
16	54	119	GLN
17	55	37	HIS
17	55	87	GLN
17	55	139	HIS
17	55	194	GLN
18	56	42	ASN
18	56	50	ASN
18	56	55	HIS
18	56	122	GLN
18	56	182	ASN
18	56	193	GLN
19	57	28	ASN
19	57	55	GLN
19	57	96	GLN
19	57	116	HIS
19	57	120	ASN
20	58	5	HIS
20	58	15	HIS
20	58	23	ASN
20	58	73	GLN
20	58	145	ASN
21	59	34	GLN
21	59	47	ASN
21	59	75	HIS
21	59	141	HIS
21	59	166	ASN
21	59	175	GLN
22	60	3	HIS
22	60	8	GLN
22	60	46	GLN
22	60	88	HIS
22	60	108	GLN

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Mol	Chain	Res	Type
22	60	114	HIS
22	60	122	HIS
22	60	157	GLN
23	61	16	GLN
23	61	45	ASN
23	61	54	HIS
23	61	58	GLN
23	61	95	HIS
23	61	103	GLN
23	61	112	ASN
23	61	146	ASN
24	62	87	ASN
25	63	33	ASN
25	63	47	ASN
25	63	81	GLN
25	63	98	ASN
25	63	132	ASN
26	64	58	HIS
27	65	80	ASN
27	65	94	GLN
29	67	36	HIS
29	67	57	HIS
29	67	106	GLN
30	68	11	HIS
30	68	28	HIS
30	68	38	GLN
30	68	39	HIS
30	68	67	HIS
32	70	74	ASN
33	71	21	HIS
33	71	80	ASN
34	72	35	GLN
34	72	88	HIS
34	72	99	ASN
34	72	104	ASN
35	73	24	ASN
35	73	26	ASN
35	73	39	GLN
35	73	42	GLN
35	73	87	ASN
35	73	88	ASN
36	74	3	GLN

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Mol	Chain	Res	Type
36	74	18	ASN
36	74	34	HIS
36	74	61	GLN
36	74	83	ASN
36	74	98	GLN
37	75	16	GLN
37	75	20	GLN
37	75	59	ASN
37	75	61	GLN
37	75	62	GLN
37	75	68	GLN
39	77	28	HIS
39	77	30	GLN
40	78	40	GLN
40	78	57	ASN
41	79	4	GLN
41	79	32	ASN
42	80	119	ASN
44	82	47	GLN
44	82	59	HIS
44	82	82	GLN
44	82	99	GLN
45	83	32	GLN
47	S0	23	HIS
47	S0	30	GLN
47	S0	163	ASN
48	S1	79	HIS
48	S1	146	GLN
48	S1	149	GLN
48	S1	157	GLN
48	S1	177	GLN
48	S1	183	GLN
48	S1	209	ASN
48	S1	220	GLN
49	S2	59	HIS
49	S2	89	GLN
49	S2	110	HIS
49	S2	199	GLN
49	S2	209	ASN
50	S3	92	GLN
50	S3	165	ASN
51	S4	36	HIS

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Mol	Chain	Res	Type
51	S4	67	GLN
51	S4	69	HIS
51	S4	188	ASN
51	S4	197	HIS
51	S4	201	HIS
51	S4	258	GLN
51	S4	259	GLN
52	S5	34	GLN
52	S5	79	ASN
52	S5	95	ASN
52	S5	103	ASN
52	S5	104	ASN
52	S5	116	HIS
52	S5	122	ASN
52	S5	128	ASN
52	S5	139	ASN
52	S5	200	ASN
52	S5	224	ASN
53	S6	4	ASN
53	S6	10	ASN
53	S6	34	GLN
53	S6	185	GLN
53	S6	199	GLN
53	S6	201	GLN
53	S6	210	GLN
54	S7	108	GLN
54	S7	110	GLN
54	S7	160	GLN
54	S7	180	GLN
55	S8	9	HIS
55	S8	35	ASN
55	S8	87	ASN
55	S8	94	ASN
55	S8	159	GLN
56	S9	38	ASN
56	S9	112	GLN
56	S9	123	HIS
56	S9	124	HIS
56	S9	131	GLN
56	S9	139	GLN
56	S9	142	ASN
57	10	13	GLN

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Mol	Chain	Res	Type
57	10	28	ASN
57	10	29	GLN
57	10	62	GLN
57	10	96	ASN
58	11	14	GLN
58	11	21	ASN
58	11	22	ASN
58	11	37	ASN
58	11	98	ASN
58	11	127	GLN
58	11	150	ASN
59	12	70	ASN
59	12	84	ASN
59	12	125	ASN
60	13	62	GLN
60	13	69	ASN
61	14	12	GLN
61	14	99	GLN
62	15	15	HIS
62	15	79	HIS
62	15	98	ASN
62	15	103	ASN
62	15	104	GLN
63	16	8	GLN
63	16	77	GLN
63	16	93	HIS
63	16	94	GLN
63	16	139	GLN
64	17	29	GLN
64	17	31	ASN
64	17	48	ASN
64	17	62	GLN
64	17	83	GLN
64	17	101	ASN
64	17	105	GLN
65	18	21	ASN
65	18	74	GLN
65	18	75	ASN
65	18	78	HIS
65	18	87	ASN
65	18	104	ASN
65	18	127	HIS

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Mol	Chain	Res	Type
65	18	136	GLN
65	18	137	HIS
66	19	25	GLN
66	19	43	ASN
66	19	93	HIS
66	19	101	ASN
66	19	138	GLN
67	20	18	GLN
67	20	40	ASN
67	20	48	HIS
67	20	87	HIS
67	20	98	GLN
68	21	7	GLN
68	21	21	ASN
68	21	35	ASN
68	21	70	ASN
68	21	74	GLN
68	21	81	ASN
69	22	15	ASN
69	22	16	ASN
69	22	44	HIS
69	22	64	GLN
69	22	70	ASN
69	22	80	ASN
69	22	92	ASN
69	22	98	GLN
69	22	113	HIS
70	23	22	ASN
70	23	75	GLN
70	23	79	ASN
71	24	31	ASN
71	24	63	GLN
71	24	77	ASN
71	24	107	GLN
71	24	133	ASN
72	25	98	GLN
73	26	43	ASN
73	26	72	HIS
74	27	9	HIS
74	27	51	GLN
75	28	51	ASN
76	29	37	ASN

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Mol	Chain	Res	Type
77	30	46	ASN
78	31	123	ASN
78	31	145	HIS
79	RA	106	HIS
79	RA	153	GLN
79	RA	174	ASN
79	RA	182	ASN
79	RA	268	GLN
79	RA	308	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	2S	3304/3395 (97%)	554 (16%)	30 (0%)
2	8S	157/158 (99%)	27 (17%)	1 (0%)
3	5S	120/121 (99%)	12 (10%)	0
46	1S	1779/1798 (98%)	346 (19%)	19 (1%)
80	IR	0/201	-	-
All	All	5360/5673 (94%)	939 (17%)	50 (0%)

All (939) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	2S	13	A
1	2S	14	U
1	2S	26	A
1	2S	40	A
1	2S	43	A
1	2S	49	A
1	2S	60	A
1	2S	65	A
1	2S	66	A
1	2S	73	C
1	2S	92	G
1	2S	103	G
1	2S	108	A
1	2S	109	A
1	2S	116	A
1	2S	121	A
1	2S	122	A
1	2S	123	A

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Mol	Chain	Res	Type
1	2S	133	U
1	2S	135	C
1	2S	136	G
1	2S	156	G
1	2S	157	A
1	2S	161	G
1	2S	169	U
1	2S	170	G
1	2S	187	A
1	2S	190	U
1	2S	191	U
1	2S	210	U
1	2S	212	G
1	2S	218	G
1	2S	219	A
1	2S	222	A
1	2S	237	G
1	2S	240	U
1	2S	241	G
1	2S	243	G
1	2S	248	U
1	2S	249	U
1	2S	251	G
1	2S	252	U
1	2S	253	A
1	2S	266	A
1	2S	269	G
1	2S	283	G
1	2S	286	U
1	2S	295	A
1	2S	298	U
1	2S	305	U
1	2S	315	C
1	2S	323	A
1	2S	329	U
1	2S	338	A
1	2S	350	C
1	2S	352	A
1	2S	370	U
1	2S	375	A
1	2S	376	G
1	2S	388	G

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Mol	Chain	Res	Type
1	2S	397	A
1	2S	398	A
1	2S	401	U
1	2S	402	A
1	2S	403	C
1	2S	421	G
1	2S	422	A
1	2S	439	C
1	2S	441	U
1	2S	442	G
1	2S	443	G
1	2S	488	U
1	2S	494	G
1	2S	495	G
1	2S	503	C
1	2S	517	G
1	2S	520	U
1	2S	521	A
1	2S	534	U
1	2S	535	G
1	2S	546	C
1	2S	547	G
1	2S	548	G
1	2S	552	G
1	2S	555	U
1	2S	557	A
1	2S	559	A
1	2S	578	A
1	2S	579	G
1	2S	588	G
1	2S	589	A
1	2S	594	U
1	2S	604	G
1	2S	607	A
1	2S	609	G
1	2S	610	G
1	2S	611	A
1	2S	620	U
1	2S	621	A
1	2S	637	C
1	2S	638	C
1	2S	646	A

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Mol	Chain	Res	Type
1	2S	648	C
1	2S	649	A
1	2S	667	C
1	2S	677	A
1	2S	681	U
1	2S	691	A
1	2S	705	A
1	2S	708	G
1	2S	712	G
1	2S	719	U
1	2S	726	G
1	2S	760	G
1	2S	763	G
1	2S	765	C
1	2S	766	U
1	2S	767	U
1	2S	770	G
1	2S	771	A
1	2S	776	U
1	2S	777	U
1	2S	781	G
1	2S	784	A
1	2S	785	G
1	2S	786	A
1	2S	798	G
1	2S	799	G
1	2S	801	A
1	2S	802	C
1	2S	806	A
1	2S	808	A
1	2S	817	A
1	2S	830	A
1	2S	849	C
1	2S	851	C
1	2S	858	A
1	2S	861	C
1	2S	874	U
1	2S	875	G
1	2S	879	U
1	2S	880	G
1	2S	884	A
1	2S	885	U

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Mol	Chain	Res	Type
1	2S	896	A
1	2S	897	U
1	2S	907	G
1	2S	908	G
1	2S	914	A
1	2S	916	G
1	2S	921	A
1	2S	924	G
1	2S	932	U
1	2S	933	A
1	2S	937	G
1	2S	938	C
1	2S	944	C
1	2S	959	C
1	2S	960	U
1	2S	980	A
1	2S	981	U
1	2S	982	C
1	2S	984	G
1	2S	991	G
1	2S	1000	C
1	2S	1001	G
1	2S	1002	A
1	2S	1010	G
1	2S	1018	G
1	2S	1020	G
1	2S	1024	G
1	2S	1029	G
1	2S	1047	A
1	2S	1049	C
1	2S	1063	G
1	2S	1064	A
1	2S	1065	A
1	2S	1081	U
1	2S	1093	A
1	2S	1095	U
1	2S	1096	U
1	2S	1097	G
1	2S	1098	A
1	2S	1103	A
1	2S	1104	G
1	2S	1117	G

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Mol	Chain	Res	Type
1	2S	1130	A
1	2S	1131	G
1	2S	1153	A
1	2S	1155	C
1	2S	1159	A
1	2S	1177	G
1	2S	1178	G
1	2S	1179	A
1	2S	1180	A
1	2S	1181	U
1	2S	1186	G
1	2S	1191	U
1	2S	1200	A
1	2S	1201	C
1	2S	1206	G
1	2S	1209	G
1	2S	1213	G
1	2S	1220	U
1	2S	1221	A
1	2S	1222	G
1	2S	1223	A
1	2S	1226	G
1	2S	1236	G
1	2S	1237	G
1	2S	1239	C
1	2S	1241	U
1	2S	1242	G
1	2S	1244	A
1	2S	1245	A
1	2S	1246	G
1	2S	1263	A
1	2S	1264	G
1	2S	1265	U
1	2S	1292	C
1	2S	1294	A
1	2S	1301	A
1	2S	1308	A
1	2S	1309	U
1	2S	1318	A
1	2S	1325	U
1	2S	1330	A
1	2S	1332	A

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Mol	Chain	Res	Type
1	2S	1348	U
1	2S	1349	G
1	2S	1350	A
1	2S	1351	U
1	2S	1352	A
1	2S	1353	U
1	2S	1386	A
1	2S	1391	C
1	2S	1392	G
1	2S	1399	A
1	2S	1400	G
1	2S	1417	G
1	2S	1419	A
1	2S	1434	G
1	2S	1437	C
1	2S	1446	A
1	2S	1454	A
1	2S	1455	U
1	2S	1456	A
1	2S	1470	U
1	2S	1481	A
1	2S	1508	C
1	2S	1511	U
1	2S	1527	C
1	2S	1556	C
1	2S	1557	A
1	2S	1558	A
1	2S	1567	U
1	2S	1568	U
1	2S	1569	U
1	2S	1570	U
1	2S	1576	G
1	2S	1578	C
1	2S	1583	A
1	2S	1587	A
1	2S	1589	A
1	2S	1593	A
1	2S	1607	U
1	2S	1629	U
1	2S	1642	A
1	2S	1643	A
1	2S	1645	U

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Mol	Chain	Res	Type
1	2S	1647	A
1	2S	1655	G
1	2S	1656	A
1	2S	1687	U
1	2S	1688	U
1	2S	1694	U
1	2S	1713	G
1	2S	1715	A
1	2S	1717	U
1	2S	1724	U
1	2S	1725	C
1	2S	1730	G
1	2S	1750	A
1	2S	1751	G
1	2S	1765	U
1	2S	1766	G
1	2S	1773	C
1	2S	1775	G
1	2S	1778	G
1	2S	1780	G
1	2S	1793	C
1	2S	1796	G
1	2S	1797	A
1	2S	1814	A
1	2S	1816	A
1	2S	1817	G
1	2S	1819	U
1	2S	1820	U
1	2S	1821	U
1	2S	1835	A
1	2S	1839	A
1	2S	1841	A
1	2S	1842	A
1	2S	1843	C
1	2S	1845	G
1	2S	1848	G
1	2S	1849	C
1	2S	1850	A
1	2S	1866	C
1	2S	1871	U
1	2S	1886	A
1	2S	1893	A

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Mol	Chain	Res	Type
1	2S	1906	G
1	2S	1926	C
1	2S	1948	G
1	2S	1952	G
1	2S	1953	G
1	2S	1954	G
1	2S	1967	U
1	2S	1980	C
1	2S	2047	A
1	2S	2058	G
1	2S	2059	U
1	2S	2067	U
1	2S	2079	G
1	2S	2085	U
1	2S	2094	C
1	2S	2095	G
1	2S	2101	C
1	2S	2102	U
1	2S	2107	A
1	2S	2111	G
1	2S	2121	G
1	2S	2122	G
1	2S	2131	A
1	2S	2144	A
1	2S	2158	A
1	2S	2169	G
1	2S	2188	A
1	2S	2201	G
1	2S	2205	U
1	2S	2209	U
1	2S	2242	A
1	2S	2244	A
1	2S	2252	A
1	2S	2255	A
1	2S	2256	A
1	2S	2270	A
1	2S	2273	G
1	2S	2281	A
1	2S	2282	U
1	2S	2288	G
1	2S	2294	U
1	2S	2298	U

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Mol	Chain	Res	Type
1	2S	2307	G
1	2S	2308	C
1	2S	2310	U
1	2S	2313	A
1	2S	2314	U
1	2S	2315	G
1	2S	2319	U
1	2S	2335	G
1	2S	2336	U
1	2S	2373	A
1	2S	2374	C
1	2S	2375	G
1	2S	2376	G
1	2S	2383	C
1	2S	2397	A
1	2S	2402	A
1	2S	2403	G
1	2S	2404	A
1	2S	2411	U
1	2S	2412	G
1	2S	2418	G
1	2S	2434	U
1	2S	2435	G
1	2S	2441	A
1	2S	2443	A
1	2S	2452	G
1	2S	2458	A
1	2S	2459	A
1	2S	2461	A
1	2S	2463	G
1	2S	2472	U
1	2S	2474	G
1	2S	2475	G
1	2S	2490	C
1	2S	2494	A
1	2S	2499	U
1	2S	2502	A
1	2S	2503	G
1	2S	2511	A
1	2S	2514	U
1	2S	2515	A
1	2S	2522	G

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Mol	Chain	Res	Type
1	2S	2523	A
1	2S	2524	A
1	2S	2525	G
1	2S	2526	C
1	2S	2531	C
1	2S	2533	G
1	2S	2538	U
1	2S	2540	A
1	2S	2541	U
1	2S	2542	U
1	2S	2543	U
1	2S	2549	G
1	2S	2561	A
1	2S	2562	A
1	2S	2569	A
1	2S	2570	U
1	2S	2571	U
1	2S	2572	C
1	2S	2573	G
1	2S	2585	G
1	2S	2589	G
1	2S	2593	A
1	2S	2606	G
1	2S	2607	G
1	2S	2613	U
1	2S	2614	G
1	2S	2626	A
1	2S	2637	A
1	2S	2645	G
1	2S	2648	G
1	2S	2652	U
1	2S	2655	U
1	2S	2656	A
1	2S	2674	A
1	2S	2677	G
1	2S	2689	A
1	2S	2691	A
1	2S	2694	A
1	2S	2696	A
1	2S	2702	A
1	2S	2720	G
1	2S	2728	G

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Mol	Chain	Res	Type
1	2S	2729	U
1	2S	2737	C
1	2S	2753	G
1	2S	2755	C
1	2S	2758	A
1	2S	2762	A
1	2S	2777	G
1	2S	2779	A
1	2S	2788	C
1	2S	2796	G
1	2S	2800	G
1	2S	2801	A
1	2S	2810	C
1	2S	2816	G
1	2S	2817	A
1	2S	2842	U
1	2S	2844	C
1	2S	2845	A
1	2S	2859	U
1	2S	2867	C
1	2S	2871	G
1	2S	2872	A
1	2S	2873	U
1	2S	2887	A
1	2S	2896	A
1	2S	2897	A
1	2S	2898	G
1	2S	2899	C
1	2S	2910	A
1	2S	2918	G
1	2S	2923	U
1	2S	2928	C
1	2S	2935	U
1	2S	2936	A
1	2S	2942	C
1	2S	2946	A
1	2S	2947	G
1	2S	2951	G
1	2S	2954	U
1	2S	2983	C
1	2S	2990	G
1	2S	2996	U

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Mol	Chain	Res	Type
1	2S	2997	G
1	2S	3011	A
1	2S	3012	A
1	2S	3049	A
1	2S	3059	G
1	2S	3078	U
1	2S	3080	G
1	2S	3086	A
1	2S	3092	C
1	2S	3094	A
1	2S	3115	C
1	2S	3116	G
1	2S	3122	A
1	2S	3130	A
1	2S	3131	U
1	2S	3139	A
1	2S	3142	A
1	2S	3143	C
1	2S	3154	C
1	2S	3155	U
1	2S	3156	U
1	2S	3157	U
1	2S	3164	C
1	2S	3165	A
1	2S	3170	A
1	2S	3173	G
1	2S	3174	A
1	2S	3176	G
1	2S	3179	U
1	2S	3181	C
1	2S	3187	A
1	2S	3198	U
1	2S	3207	U
1	2S	3217	C
1	2S	3218	A
1	2S	3219	G
1	2S	3229	G
1	2S	3243	A
1	2S	3245	A
1	2S	3246	G
1	2S	3253	G
1	2S	3259	U

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Mol	Chain	Res	Type
1	2S	3270	U
1	2S	3273	A
1	2S	3276	G
1	2S	3279	A
1	2S	3281	U
1	2S	3287	U
1	2S	3289	G
1	2S	3294	A
1	2S	3304	U
1	2S	3316	A
1	2S	3318	G
1	2S	3319	U
1	2S	3320	A
1	2S	3331	U
1	2S	3335	A
1	2S	3341	U
1	2S	3342	A
1	2S	3345	G
1	2S	3351	U
1	2S	3352	U
1	2S	3353	G
1	2S	3354	U
1	2S	3355	U
1	2S	3356	G
1	2S	3360	C
1	2S	3369	G
1	2S	3370	A
1	2S	3375	A
1	2S	3378	C
1	2S	3382	U
1	2S	3389	U
1	2S	3390	G
2	8S	17	A
2	8S	22	U
2	8S	23	U
2	8S	34	U
2	8S	35	C
2	8S	59	A
2	8S	62	C
2	8S	63	G
2	8S	70	G
2	8S	72	A

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Mol	Chain	Res	Type
2	8S	80	A
2	8S	82	U
2	8S	86	U
2	8S	87	G
2	8S	90	U
2	8S	94	C
2	8S	95	G
2	8S	102	U
2	8S	105	A
2	8S	106	C
2	8S	111	A
2	8S	113	U
2	8S	125	U
2	8S	126	A
2	8S	129	C
2	8S	151	C
2	8S	152	G
3	5S	13	A
3	5S	22	A
3	5S	26	C
3	5S	41	G
3	5S	54	U
3	5S	55	A
3	5S	65	G
3	5S	73	C
3	5S	76	A
3	5S	102	A
3	5S	112	G
3	5S	121	U
46	1S	2	A
46	1S	4	C
46	1S	25	C
46	1S	26	A
46	1S	34	G
46	1S	42	G
46	1S	43	A
46	1S	45	U
46	1S	47	A
46	1S	68	A
46	1S	69	G
46	1S	72	A
46	1S	73	U

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Mol	Chain	Res	Type
46	1S	76	A
46	1S	77	U
46	1S	104	A
46	1S	114	C
46	1S	116	U
46	1S	128	U
46	1S	132	U
46	1S	133	U
46	1S	134	U
46	1S	135	A
46	1S	136	C
46	1S	137	U
46	1S	140	A
46	1S	141	U
46	1S	145	A
46	1S	159	U
46	1S	161	U
46	1S	166	C
46	1S	170	U
46	1S	178	U
46	1S	184	C
46	1S	185	U
46	1S	186	C
46	1S	191	C
46	1S	192	U
46	1S	195	G
46	1S	197	A
46	1S	200	A
46	1S	215	A
46	1S	218	A
46	1S	219	A
46	1S	228	G
46	1S	231	U
46	1S	233	C
46	1S	236	A
46	1S	240	U
46	1S	241	U
46	1S	250	C
46	1S	257	A
46	1S	259	U
46	1S	261	U
46	1S	265	A

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Mol	Chain	Res	Type
46	1S	271	A
46	1S	272	U
46	1S	278	U
46	1S	279	G
46	1S	280	U
46	1S	288	A
46	1S	308	C
46	1S	309	C
46	1S	314	C
46	1S	316	A
46	1S	320	U
46	1S	321	C
46	1S	322	G
46	1S	337	G
46	1S	352	A
46	1S	359	A
46	1S	360	A
46	1S	361	C
46	1S	369	A
46	1S	390	G
46	1S	400	A
46	1S	402	C
46	1S	404	G
46	1S	416	A
46	1S	417	A
46	1S	418	G
46	1S	423	G
46	1S	424	C
46	1S	425	A
46	1S	426	G
46	1S	434	G
46	1S	439	U
46	1S	444	C
46	1S	456	A
46	1S	469	C
46	1S	475	A
46	1S	477	A
46	1S	484	C
46	1S	488	G
46	1S	493	U
46	1S	495	C
46	1S	496	G

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Mol	Chain	Res	Type
46	1S	498	G
46	1S	499	U
46	1S	502	U
46	1S	504	U
46	1S	505	A
46	1S	506	A
46	1S	513	U
46	1S	515	A
46	1S	532	U
46	1S	538	A
46	1S	539	G
46	1S	541	A
46	1S	542	A
46	1S	545	A
46	1S	555	A
46	1S	556	A
46	1S	557	G
46	1S	558	U
46	1S	559	C
46	1S	565	C
46	1S	579	A
46	1S	580	A
46	1S	582	U
46	1S	594	A
46	1S	606	A
46	1S	611	U
46	1S	612	U
46	1S	619	A
46	1S	620	A
46	1S	622	A
46	1S	623	A
46	1S	624	G
46	1S	639	U
46	1S	650	U
46	1S	655	G
46	1S	656	G
46	1S	657	U
46	1S	658	C
46	1S	678	A
46	1S	679	U
46	1S	680	U
46	1S	683	C

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Mol	Chain	Res	Type
46	1S	685	A
46	1S	687	G
46	1S	694	U
46	1S	696	C
46	1S	697	C
46	1S	700	C
46	1S	703	G
46	1S	704	C
46	1S	705	U
46	1S	707	A
46	1S	709	C
46	1S	710	U
46	1S	711	U
46	1S	712	G
46	1S	716	C
46	1S	718	U
46	1S	723	G
46	1S	728	U
46	1S	731	C
46	1S	733	A
46	1S	734	A
46	1S	736	C
46	1S	737	A
46	1S	738	G
46	1S	742	U
46	1S	745	U
46	1S	755	A
46	1S	765	G
46	1S	766	U
46	1S	774	A
46	1S	778	G
46	1S	781	U
46	1S	783	G
46	1S	784	C
46	1S	789	A
46	1S	794	U
46	1S	795	U
46	1S	806	A
46	1S	811	A
46	1S	812	A
46	1S	813	U
46	1S	815	G

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Mol	Chain	Res	Type
46	1S	818	C
46	1S	820	U
46	1S	821	U
46	1S	823	G
46	1S	830	U
46	1S	831	U
46	1S	840	U
46	1S	841	U
46	1S	846	G
46	1S	852	C
46	1S	855	A
46	1S	856	A
46	1S	860	U
46	1S	863	A
46	1S	876	G
46	1S	898	A
46	1S	912	U
46	1S	913	G
46	1S	914	G
46	1S	915	A
46	1S	933	A
46	1S	935	U
46	1S	966	A
46	1S	982	U
46	1S	988	A
46	1S	992	A
46	1S	993	A
46	1S	1004	U
46	1S	1005	A
46	1S	1016	C
46	1S	1021	C
46	1S	1026	A
46	1S	1028	C
46	1S	1029	U
46	1S	1032	G
46	1S	1052	U
46	1S	1053	G
46	1S	1058	U
46	1S	1059	U
46	1S	1061	A
46	1S	1072	C
46	1S	1074	G

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Mol	Chain	Res	Type
46	1S	1080	U
46	1S	1082	C
46	1S	1091	A
46	1S	1092	A
46	1S	1096	C
46	1S	1097	U
46	1S	1100	G
46	1S	1138	A
46	1S	1150	G
46	1S	1157	A
46	1S	1158	C
46	1S	1159	C
46	1S	1160	A
46	1S	1163	A
46	1S	1167	G
46	1S	1185	U
46	1S	1188	G
46	1S	1194	A
46	1S	1196	A
46	1S	1199	G
46	1S	1200	G
46	1S	1202	A
46	1S	1209	C
46	1S	1217	A
46	1S	1218	G
46	1S	1227	A
46	1S	1228	G
46	1S	1229	G
46	1S	1230	A
46	1S	1244	A
46	1S	1245	G
46	1S	1246	C
46	1S	1274	C
46	1S	1275	A
46	1S	1286	U
46	1S	1305	U
46	1S	1314	U
46	1S	1315	U
46	1S	1316	G
46	1S	1321	A
46	1S	1340	U
46	1S	1344	A

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Mol	Chain	Res	Type
46	1S	1345	A
46	1S	1362	U
46	1S	1363	U
46	1S	1364	G
46	1S	1370	U
46	1S	1371	A
46	1S	1390	U
46	1S	1398	U
46	1S	1399	C
46	1S	1413	U
46	1S	1414	U
46	1S	1415	U
46	1S	1418	G
46	1S	1427	A
46	1S	1428	G
46	1S	1432	U
46	1S	1446	A
46	1S	1447	C
46	1S	1448	G
46	1S	1457	C
46	1S	1459	C
46	1S	1473	U
46	1S	1482	C
46	1S	1486	G
46	1S	1490	C
46	1S	1491	U
46	1S	1492	A
46	1S	1493	A
46	1S	1499	G
46	1S	1510	U
46	1S	1515	A
46	1S	1516	A
46	1S	1518	C
46	1S	1521	G
46	1S	1523	G
46	1S	1535	U
46	1S	1536	G
46	1S	1537	C
46	1S	1538	U
46	1S	1539	G
46	1S	1540	G
46	1S	1557	U

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Mol	Chain	Res	Type
46	1S	1559	A
46	1S	1573	A
46	1S	1574	G
46	1S	1582	U
46	1S	1584	G
46	1S	1585	U
46	1S	1601	G
46	1S	1616	G
46	1S	1631	A
46	1S	1632	C
46	1S	1634	C
46	1S	1657	U
46	1S	1658	G
46	1S	1664	C
46	1S	1680	G
46	1S	1683	C
46	1S	1684	U
46	1S	1686	C
46	1S	1689	A
46	1S	1693	A
46	1S	1696	G
46	1S	1697	G
46	1S	1698	G
46	1S	1700	C
46	1S	1702	A
46	1S	1713	G
46	1S	1715	G
46	1S	1736	G
46	1S	1755	A
46	1S	1758	U
46	1S	1762	A
46	1S	1766	A
46	1S	1780	G
46	1S	1782	A
46	1S	1792	G
46	1S	1794	A
46	1S	1795	U
46	1S	1796	C
46	1S	1798	U

All (50) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	2S	169	U
1	2S	547	G
1	2S	588	G
1	2S	637	C
1	2S	770	G
1	2S	896	A
1	2S	979	U
1	2S	1064	A
1	2S	1103	A
1	2S	1241	U
1	2S	1307	G
1	2S	1329	U
1	2S	1352	A
1	2S	1556	C
1	2S	1815	U
1	2S	1816	A
1	2S	2101	C
1	2S	2501	U
1	2S	2513	U
1	2S	2525	G
1	2S	2541	U
1	2S	2818	U
1	2S	2896	A
1	2S	3121	U
1	2S	3218	A
1	2S	3228	C
1	2S	3269	U
1	2S	3317	U
1	2S	3351	U
1	2S	3353	G
2	8S	85	G
46	1S	103	A
46	1S	139	C
46	1S	240	U
46	1S	417	A
46	1S	497	G
46	1S	498	G
46	1S	501	U
46	1S	503	G
46	1S	512	A
46	1S	555	A
46	1S	704	C
46	1S	829	A

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Mol	Chain	Res	Type
46	1S	1051	G
46	1S	1344	A
46	1S	1370	U
46	1S	1481	C
46	1S	1615	C
46	1S	1696	G
46	1S	1761	U

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](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

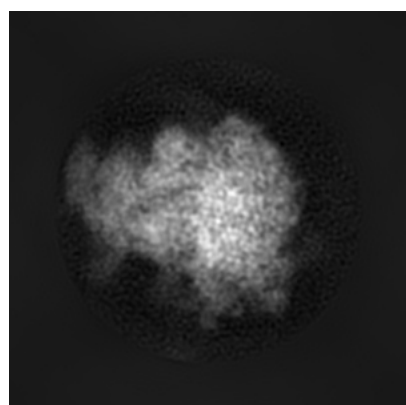
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-5942. These allow visual inspection of the internal detail of the map and identification of artifacts.

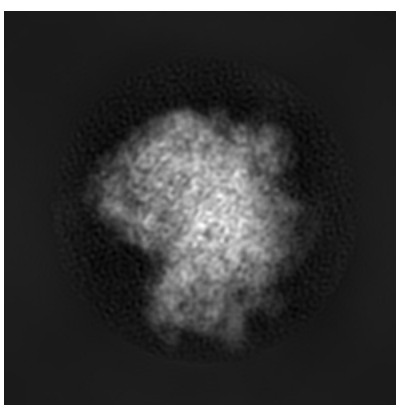
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

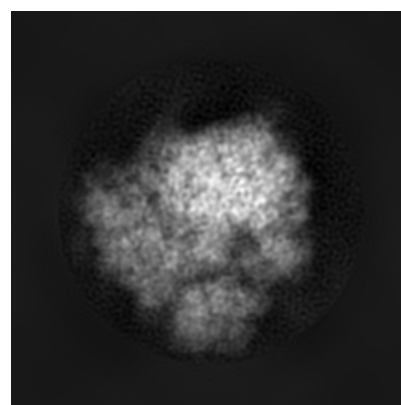
6.1.1 Primary map



X



Y

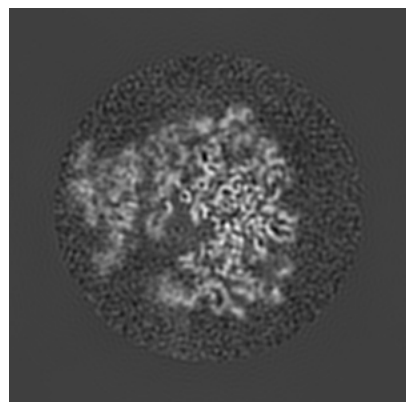


Z

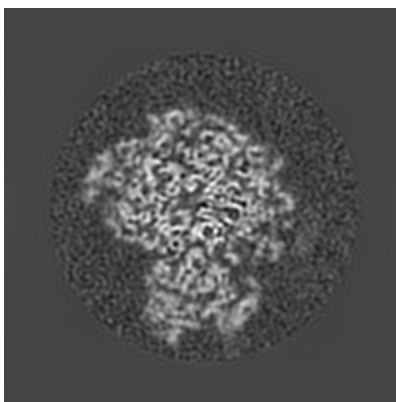
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

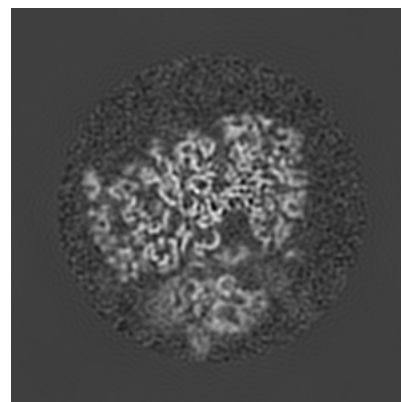
6.2.1 Primary map



X Index: 210



Y Index: 210

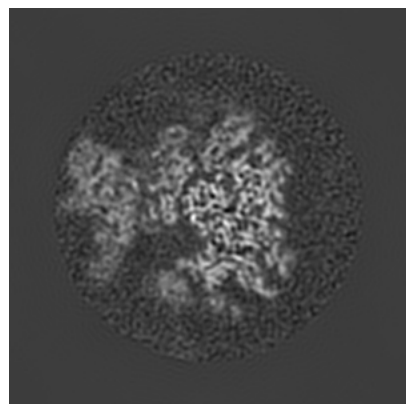


Z Index: 210

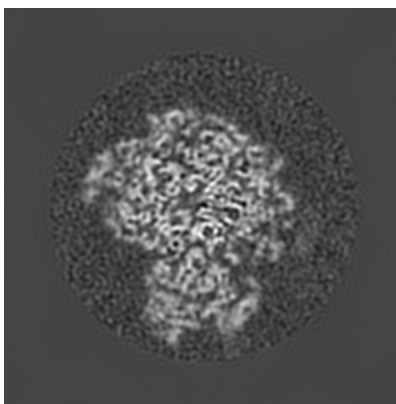
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

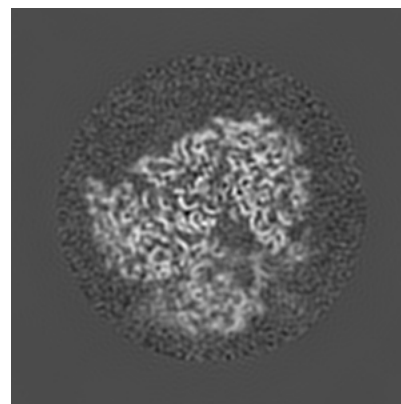
6.3.1 Primary map



X Index: 200



Y Index: 210

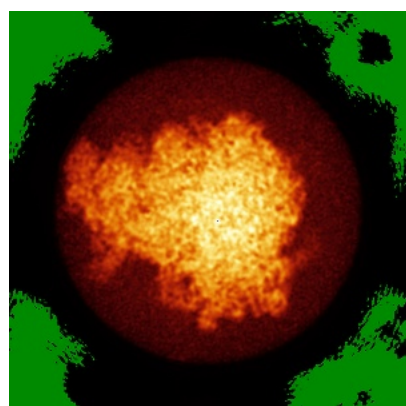


Z Index: 203

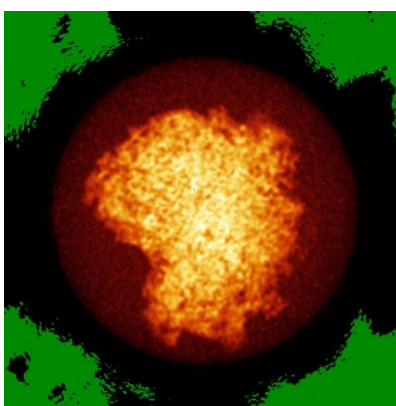
The images above show the largest variance slices of the map in three orthogonal directions.

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

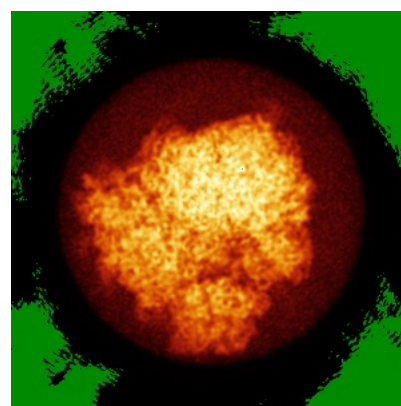
6.4.1 Primary map



X



Y



Z

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 0.815. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

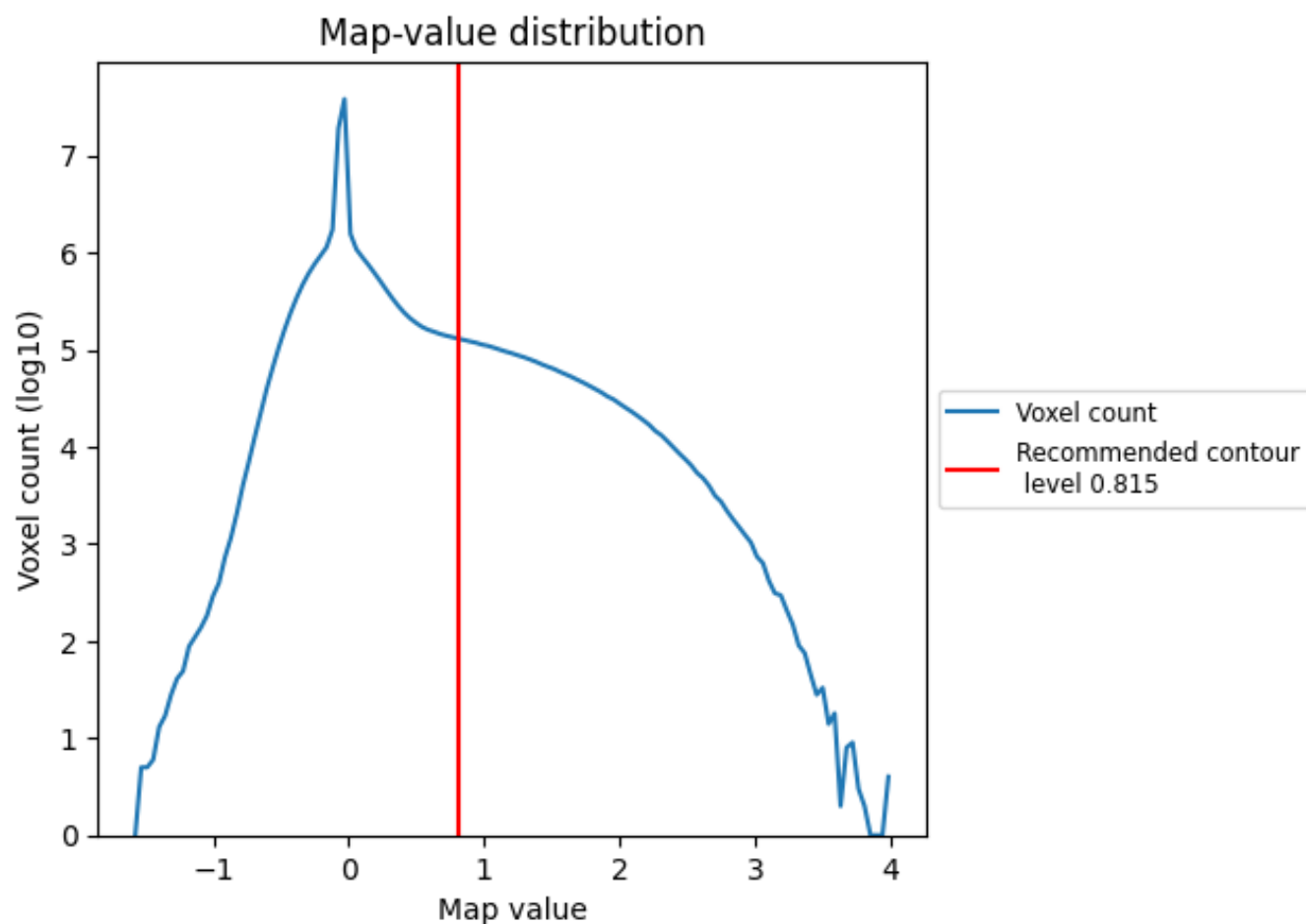
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

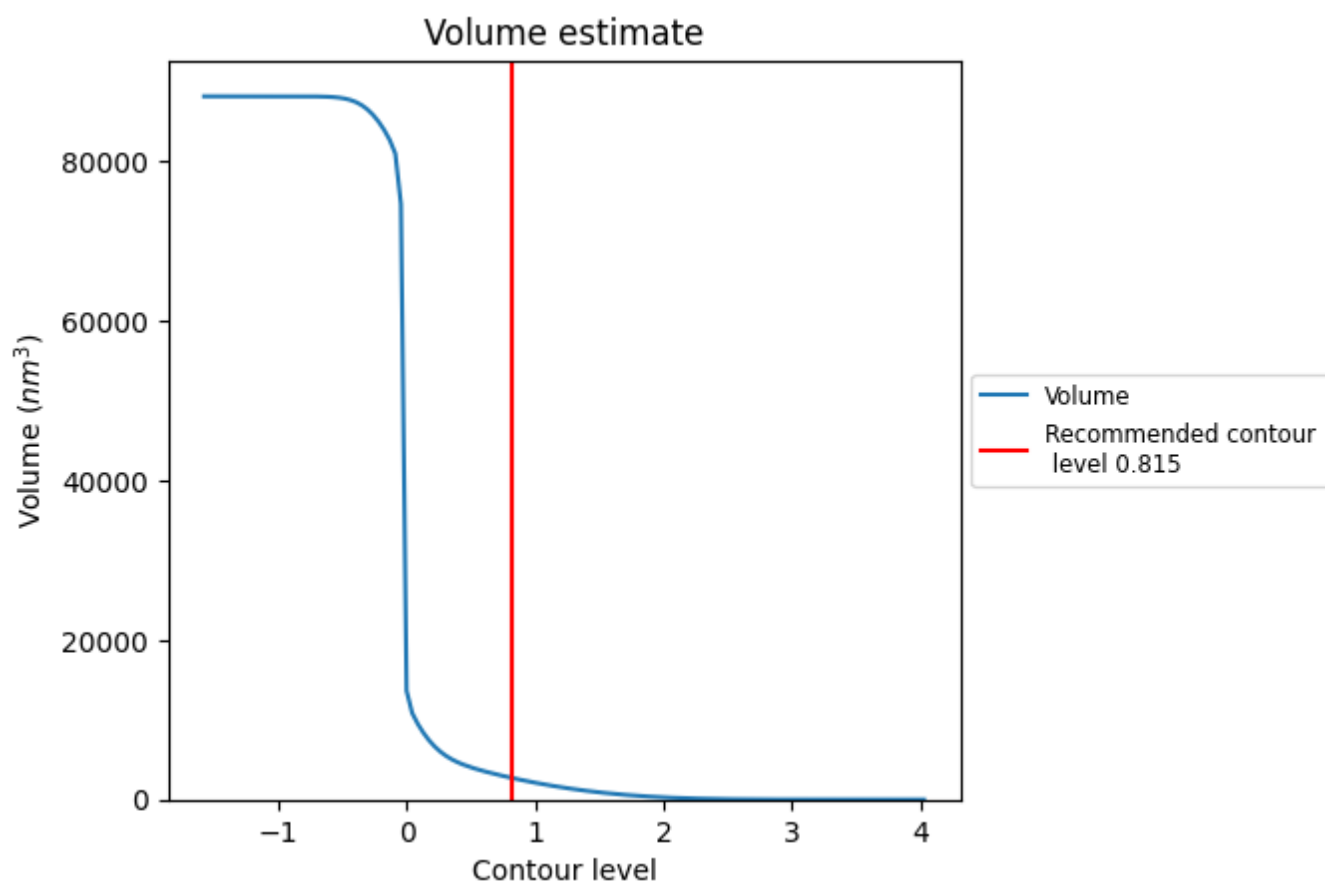
This section contains the results of statistical analysis of the map.

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.

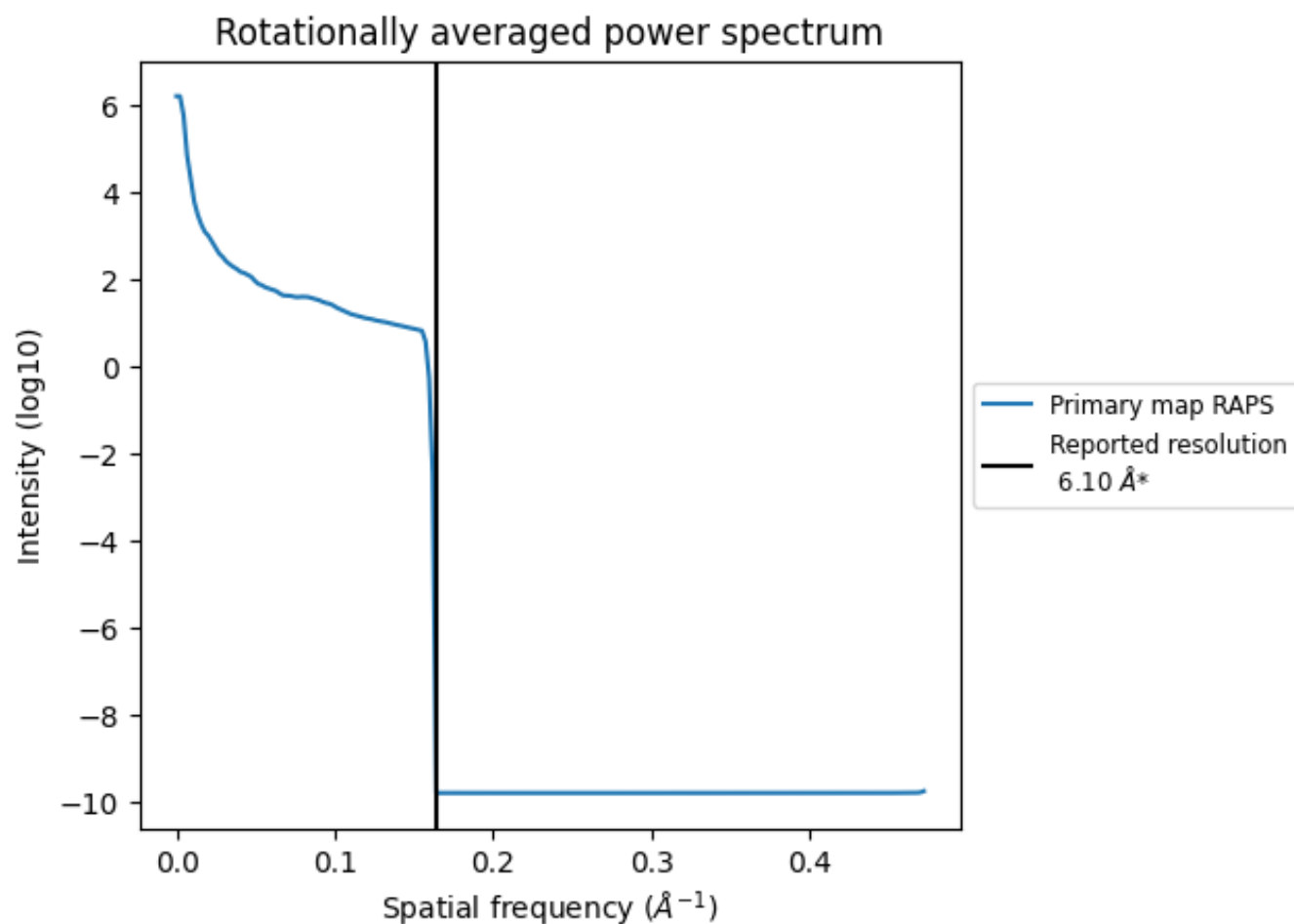
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 2726 nm³; this corresponds to an approximate mass of 2462 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 0.164 $\text{\AA}^{-1}$

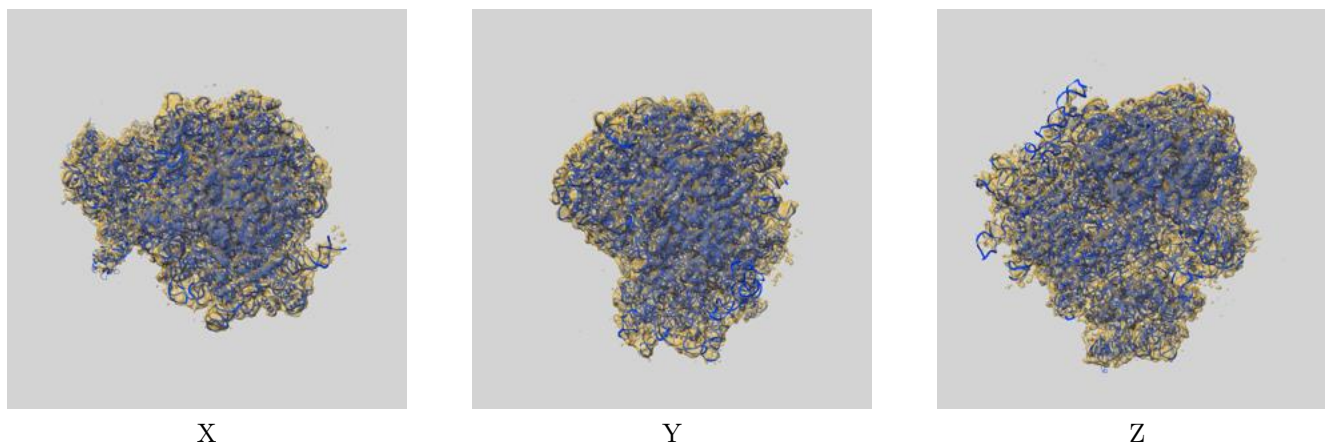
8 Fourier-Shell correlation

This section was not generated. No FSC curve or half-maps provided.

9 Map-model fit [i](#)

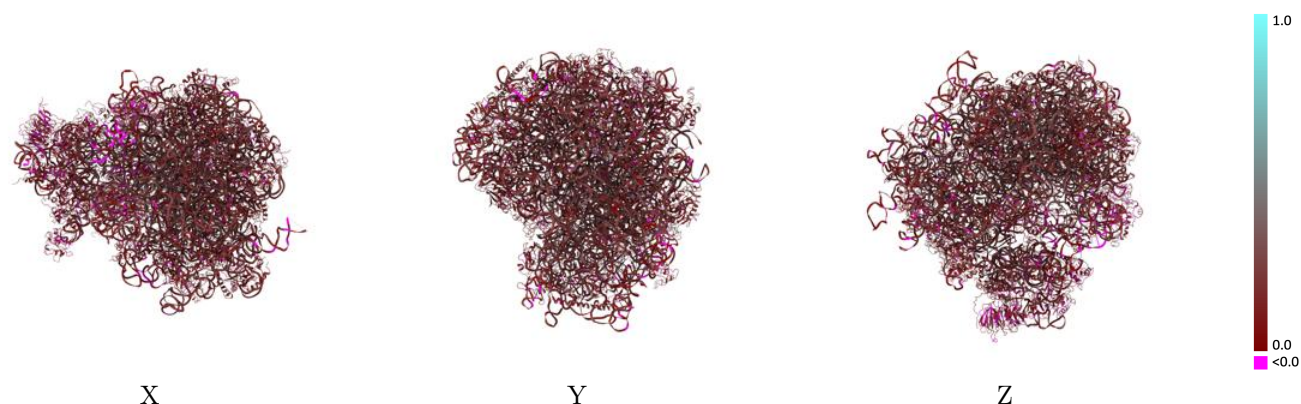
This section contains information regarding the fit between EMDB map EMD-5942 and PDB model 3J6X. Per-residue inclusion information can be found in section 3 on page 19.

9.1 Map-model overlay [i](#)



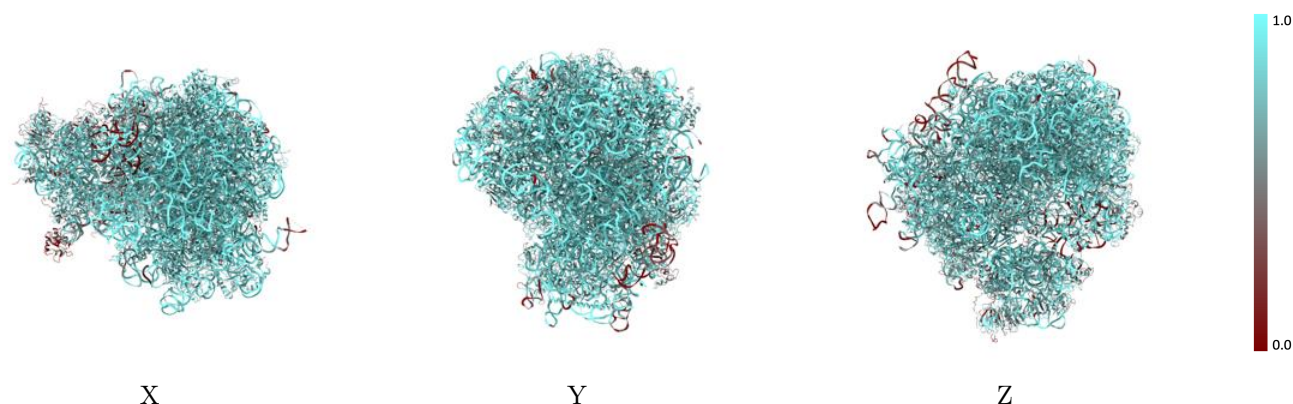
The images above show the 3D surface view of the map at the recommended contour level 0.815 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



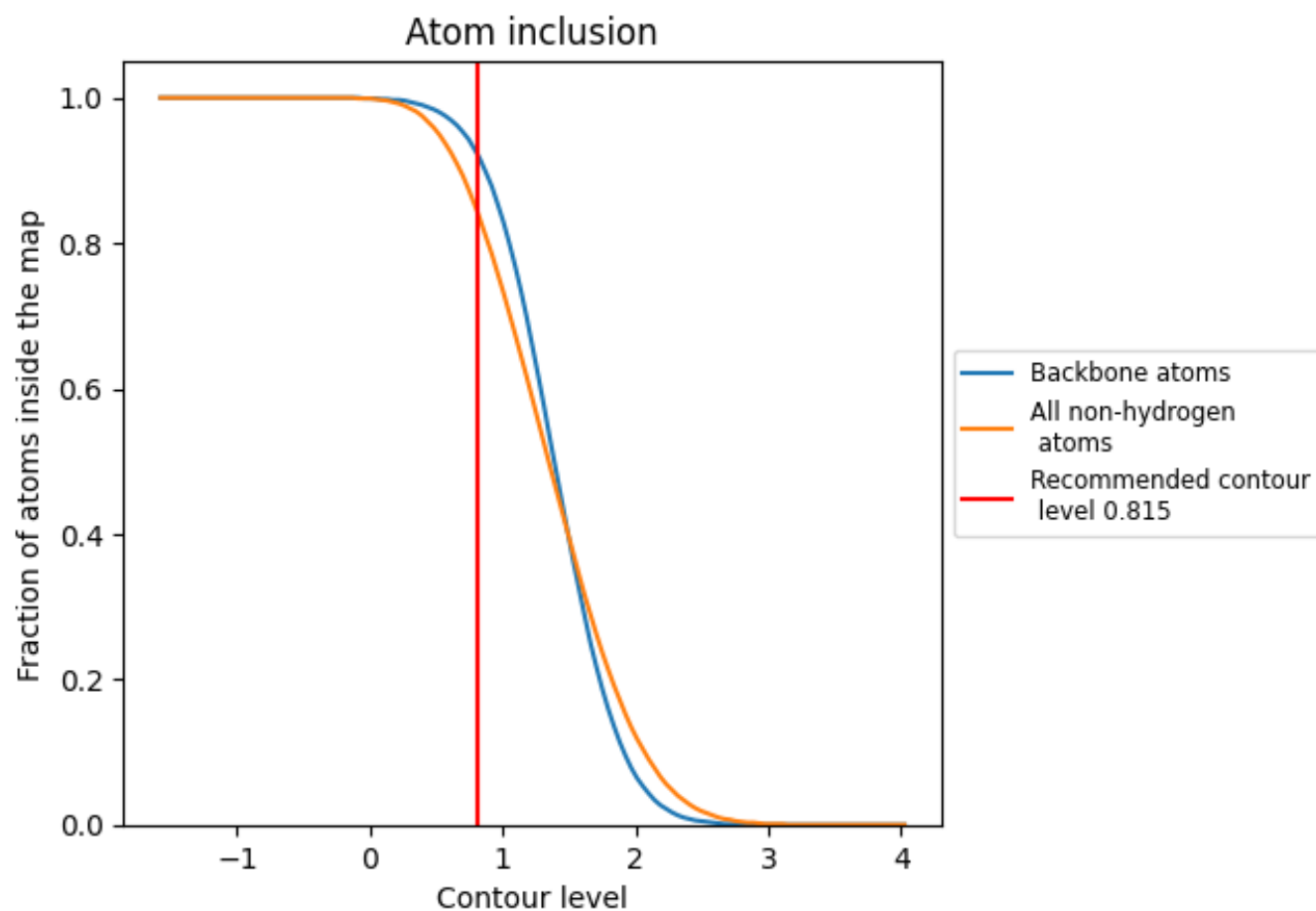
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.815).

9.4 Atom inclusion [i](#)



At the recommended contour level, 92% of all backbone atoms, 84% 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 (0.815) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.8410	 0.2030
10	 0.6850	 0.1560
11	 0.7110	 0.1900
12	 0.1720	 0.1050
13	 0.7290	 0.1890
14	 0.6900	 0.1560
15	 0.5990	 0.1550
16	 0.6800	 0.1420
17	 0.5650	 0.1670
18	 0.6390	 0.1410
19	 0.7190	 0.1420
1S	 0.9170	 0.2170
20	 0.6010	 0.1460
21	 0.6900	 0.1880
22	 0.7490	 0.1760
23	 0.7840	 0.1960
24	 0.7340	 0.1600
25	 0.6910	 0.1490
26	 0.6810	 0.1960
27	 0.6810	 0.1870
28	 0.6530	 0.1710
29	 0.7410	 0.1490
2S	 0.9370	 0.2340
30	 0.7320	 0.1820
31	 0.2360	 0.1600
50	 0.7930	 0.1840
51	 0.7490	 0.1620
53	 0.7740	 0.1760
54	 0.7550	 0.1750
55	 0.7720	 0.1580
56	 0.7810	 0.1680
57	 0.7540	 0.1820
58	 0.7680	 0.1800
59	 0.7280	 0.1860
5S	 0.9820	 0.2240



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Chain	Atom inclusion	Q-score
60	 0.7650	 0.1710
61	 0.7720	 0.1890
62	 0.7560	 0.1790
63	 0.7800	 0.2000
64	 0.7650	 0.1770
65	 0.7330	 0.1950
66	 0.7960	 0.1830
67	 0.7170	 0.1840
68	 0.7920	 0.1820
69	 0.7700	 0.1990
70	 0.7320	 0.1960
71	 0.7710	 0.1830
72	 0.7920	 0.2050
73	 0.8160	 0.1700
74	 0.7410	 0.1700
75	 0.7390	 0.1720
76	 0.7720	 0.1660
77	 0.8190	 0.1610
78	 0.6200	 0.1860
79	 0.7640	 0.2040
80	 0.7300	 0.1800
81	 0.0380	 0.0060
82	 0.7970	 0.1930
83	 0.7790	 0.1850
8S	 0.9670	 0.2440
IR	 0.5200	 0.1120
L1	 0.5570	 0.1210
L2	 0.8000	 0.1880
L3	 0.7920	 0.1880
L4	 0.7900	 0.1810
L5	 0.7180	 0.1590
L6	 0.7630	 0.1810
L7	 0.7870	 0.1770
L8	 0.7360	 0.1740
L9	 0.7310	 0.1850
RA	 0.6280	 0.1270
S0	 0.6600	 0.1790
S1	 0.6160	 0.1710
S2	 0.7750	 0.1930
S3	 0.7050	 0.1740
S4	 0.7650	 0.1820
S5	 0.6720	 0.1530

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Chain	Atom inclusion	Q-score
S6	 0.7480	 0.1610
S7	 0.5990	 0.1640
S8	 0.7810	 0.1670
S9	 0.7430	 0.1740